

# CARBURETORS



Customer will need to provide core for overhaul in the event that our supplier does not have cores available to overhaul

## REPLACEMENT CARBURETORS FROM MARVEL-SCHEBLER

Carburetor exchange program covers all popular Marvel Schebler/Facet general aviation carburetors. The carburetors are overhauled to the strictest industry standards and carry a full 6 month warranty (from date of installation). Most carburetors are available from stock or within a week and are furnished complete with gaskets.

Due to the various configurations of carburetor installations, we suggest you retain your carburetor core until receiving the exchange unit. This will enable you to transfer all external fittings and installation hardware to the new exchange unit. All cores being returned for credit shall be, as removed from the engine, complete and not disassembled. A reduction in core credit is charged for missing or damaged parts.

- Precision Carburetors
- TCM Fuel Systems
- Flow Dividers
- Fast Turn Time on Overhauls
- Unmatched Quality
- 100% calibration of fuel pumps and servos.
- Precision Fuel Servos
- Romec Fuel Pumps
- FAA/PMA Approved Replacement Parts
- Carburetor Overhaul Quick Kits
- Highly skilled/trained technicians

## LYCOMING CARBURETORS

Carb. Model	Lycoming P/N	Vendor P/N	Our P/N	Price
MA-3A	61547	10-3103-1	10-03103-1	---
MA-4SPA	69250	10-3678-12	08-06325	---
MA-4SPA	72394	10-3678-32	08-06326	---
MA-4-5	71098	10-3878	08-06372	---
MA-4-5	71710	10-4164-1	08-06373	---
MA-4-5	66458	10-2827	07-01405	---
MA-4-5	66869	10-3323	07-01411	---
MA-3SPA	62830	10-3565-1	07-01413	---
MA-4-5	69540	10-3634	07-01415	---
MA-4-5	71546	10-3856-1	07-01417	---
MA-4-5	71685	10-3856-12	07-01418	---
MA-4-5AA	71684	10-4025-12	07-01421	---
MA-6AA	72407	10-4218-1	07-01424	---
MA-4-5	72386	10-4329	07-01426	---
MA-4-5	74121	10-4404-1	08-06376	---
MA-6AA	73899	10-4438-1	07-01428	---
MA-4-5AA	73257	10-4495	07-01429	---
MA-5	20671	10-4865	07-01430	---
HA-6	LW-15957	10-5219	08-06394	---
MA-3PA	LW-16073	10-5220	08-06395	---
MA-3PA	---	10-5220-E	07-01464	---
HA-6	LW-16066	10-5221	07-01465	---
HA-6	LW-15958	10-5224	08-06396	---
MA-4SPA	77279	10-4910	08-06381	---

Carb. Model	Lycoming P/N	Vendor P/N	Our P/N	Price
MA-4SPA	LW-16559	10-4910-1	08-06382	---
MA-3A	77585	10-4953	08-06383	---
MA-6AA	77888	10-4975	07-01434	---
MA-3PA	77939	10-4978-1	07-01435	---
MA-4-5	LW-10064	10-5034	08-06385	---
MA-4-5	LW-10196	10-5042	07-01438	---
MA-3PA	LW-10619	10-5050	08-06386	---
MA-4-5	LW-10540	10-5054	08-06387	---
MA-3PA	LW-13133	10-5126	08-06388	---
HA-6	LW-13757	10-5189	07-01447	---
MA-4-5	LW-15380	10-5193	08-06390	---
HA-6	LW-15504	10-5200	07-01450	---
HA-6	LW-15626	10-5206	07-01453	---
HA-6	LW-15674	10-5211	07-01460	---
HA-6	LW-15985	10-5211-1	07-01461	---
MA-4-5	72740	10-4404	08-06375	---
MA-4SPA	78728	10-5009	08-06384	---
MA-4SPA	13659	10-5135	08-13873	---
MA-3A	15496	10-5199	08-06391	---
MA-4SPA	15986	10-5217	08-06392	---
MA-3SAP	0-290-D	10-3346-1	07-00870	---
\$600.00	LW-16206	10-5227	07-01467	---
\$699.00	LW-15959	10-5230	08-06397	---
HA-6	LW-15960	10-5235	08-06398	---

\*\*\*NOTE\*\*\*

Customer will need to provide core for overhaul in the event our supplier does not have cores available to overhaul.

If you do not see your model # here please contact Aircraft Spruce Sales Department for pricing and availability .

\*All prices shown are with factory acceptable exchange carburetor.

Send exchange carburetor core to Aircraft Spruce. Upon factory approval of core, you will be refunded the core charge.

**BE CERTAIN ALL FUEL IS REMOVED FROM THE CORE.**

If Carburetor is not in stock we can have yours overhauled in 5-7 working days. Please call or email for more information.

## CONTINENTAL CARBURETORS

Part No.	Carb. Model	O.E.M. P/N	Our Part No.	Our Price
10-3168	MA-4-5	520120	07-01369	---
4895-T	MA-3SPA	530490	08-06380	---
10-3649-1	MA-4-5	535207	07-01370	---
10-3859-1	MA-4-5	538872	08-06371	---
10-3965-12	MA-4-5	539883	10-03965-12	---
10-4171	MA-4-5	626789	07-01351	---
10-4191	MA-4-5	626859	07-01375	---
10-4233	MA-3SPA	627365	08-06374	---
10-4240	MA-3SPA	627637	07-01377	---
10-4457	MA-3SPA	629175	07-01378	---
10-4893-1	MA-4-5	641139	08-06378	---
10-4894	MA-3SPA	633028	08-06379	---
10-5067	MA-3SPA	-	07-01381	---
10-5082	MA-3SPA	637035	07-01382	---
10-5128	MA-3SPA	640416	07-01385	---
10-5192	MA-3SPA	641860	07-01386	---
10-5284	MA-4-5	646232	08-06404	---

\*All prices shown are with factory acceptable exchange carburetor. Add core charge on all models to each price shown. Send exchange carburetor core to Aircraft Spruce. Upon factory approval of core, you will be refunded the core charge.

**BE CERTAIN ALL FUEL IS REMOVED FROM THE CORE.**

FRANKLIN ENGINE CARBURETORS ALSO AVAILABLE. ADVISE EXACT ENGINE AND CARBURETORS ALSO AVAILABLE. ADVISE ENGINE AND CARBURETOR MODEL NUMBERS AND REQUEST QUOTATION

# MARVEL-SCHEBLER CARBURETORS

## MARVEL-SCHEBLER NEW CARBURETORS



Note: Customer will need to provide core for overhaul in the event our supplier does not have cores available to overhaul.

Note: All Rebuilt & Overhauled Carb Purchases will be Charged an Additional Fee for Core.

**PLEASE CHECK WITH AIRCRAFT SPRUCE ON AVAILABILITY OF CORES AT MARVEL-SCHEBLER.**

Carb. Model No.	OEM Part No.	Our Part No.	Our Price	Tempest Carb. Model No.	OEM Part No.	Our Part No.	Our Price
MA-4SPA™	10-3678-12--F	08-06304	---	MA-4SPA™	10-3678-32--F	08-06305	---
MA-4-5™	10-3859-1--F	08-06327	---	MA-4-5™	10-3878--F	08-06306	---
MA-4-5™	10-4164-1--F	08-06307	---	MA-3PA™	10-4233--F	08-06328	---
MA-3SPA™	10-4240-1--F	08-06329	---	MA-4-5™	10-4404-1--F	08-06308	---
MA-4-5™	10-4893-1--F	08-06309	---	MA-3SPA™	10-4894-1--F	08-06311	---
MA-3SPA™	10-4895-1--F	08-06312	---	MA-4SPA™	10-4910-1--F	08-06332	---
MA-4SPA™	10-5009--F	08-06315	---	MA-4-5™	10-5034--F	08-06335	---
MA-4SPA™	10-6110-F	07-26829	---				
MA-3PA™	10-5050--F	08-06336	---	MA-4-5™	10-5054--F	08-06337	---
MA-3SPA™	10-5082--F	08-06338	---	MA-3PA™	10-5126--F	08-06339	---
MA-3PA™	10-5142--F	08-06340	---	MA-4-5™	10-5193--F	08-06341	---
MA-3A™	10-5199--F	08-06316	---	MA-4SPA™	10-5217--F	08-06317	---
HA-6™	10-5219--F	08-06342	---	MA-3PA™	10-5220--F	08-06343	---
HA-6™	10-5224--F	08-06344	---	HA-6™	10-5230--F	08-06345	---
HA-6™	10-5235--F	08-06346	---	HA-6™	10-5253--F	08-06347	---
HA-6™	10-5255--F	08-06348	---	MA-3PA™	10-5257--F	08-06349	---
MA-3PA™	10-5267--F	08-06353	---	HA-6™	10-5283--F	08-06354	---
MA-4-5™	10-5284--F	08-06356	---	MA-4-5™	10-5288--F	08-06357	---
HA-6™	10-6001--F	08-06358	---	HA-6™	10-6019--F	08-06359	---
MA-4-5	10-6035-11-F	07-26832	---				
MA-4-5™	10-6045--F	08-06366	---	MA-4-5™	10-6050--F	08-06368	---
MA-4-5™	10-6054--F	08-06369	---	MA-4-5™	10-6102--F	08-06370	---

## MARVEL-SCHEBLER REBUILT & OVERHAULED CARBURETORS

Model Number	OEM Part No.	Rebuilt Part No.	Rebuilt Price	Overhaul Part No.	Overhaul Price
MA-4SPA™	10-3678-12	08-06325-1	---	08-06325	---
MA-4SPA™	10-3678-32	08-06326-1	---	08-06326	---
MA-4-5™	10-3859-1	08-06371-1	---	08-06371	---
MA-4-5™	10-3878	08-06372-1	---	08-06372	---
MA-4-5™	10-4164-1	08-06373-1	---	08-06373	---
MA-3PA™	10-4233	08-06374-1	---	08-06374	---
MA-4-5™	10-4404-1	08-06376-1	---	08-06376	---
MA-4-5™	10-4404	08-06375-1	---	08-06375	---
MA-4-5™	10-4893-1	08-06378-1	---	08-06378	---
MA-3SPA™	10-4894-1	08-06379-1	---	08-06379	---
MA-3SPA™	10-4895-1	08-06380-1	---	08-06380	---
MA-4SPA™	10-4910-1	08-06382-1	---	08-06382	---
MA-4SPA™	10-4910	08-06381-1	---	08-06381	---
MA-4SPA™	10-6110	07-26830	---	07-26831	---
MA-3A™	10-4953	08-06383-1	---	08-06383	---
MA-4SPA™	10-5009	08-06384-1	---	08-06384	---
MA-4-5™	10-5034	08-06385-1	---	08-06385	---
MA-3PA™	10-5050	08-06386-1	---	08-06386	---
MA-4-5™	10-5054	08-06387-1	---	08-06387	---
MA-3PA™	10-5126	08-06388-1	---	08-06388	---
MA-4-5™	10-5193	08-06390-1	---	08-06390	---
MA-3A™	10-5199	08-06391-1	---	08-06391	---
MA-4SPA™	10-5217	08-06392-1	---	08-06392	---
HA-6™	10-5219	08-06394-1	---	08-06394	---
MA-3PA™	10-5220	08-06395-1	---	08-06395	---
HA-6™	10-5224	08-06396-1	---	08-06396	---
HA-6™	10-5230	08-06397-1	---	08-06397	---
HA-6™	10-5235	08-06398-1	---	08-06398	---
HA-6™	10-5253	08-06399-1	---	08-06399	---
HA-6™	10-5255	08-06400-1	---	08-06400	---
MA-3PA™	10-5257	08-06401-1	---	08-06401	---
MA-3PA™	10-5267	08-06402-1	---	08-06402	---
HA-6™	10-5283	08-06403-1	---	08-06403	---
MA-4-5™	10-5284	08-06404-1	---	08-06404	---
MA-4-5™	10-5288	08-06405-1	---	08-06405	---
HA-6™	10-6001	08-06406-1	---	08-06406	---
HA-6™	10-6019	08-06407-1	---	08-06407	---
HA-6™	10-6030-1	08-06408-1	---	08-06408	---
MA-4-5™	10-6035-11	08-06409-1	---	08-06409	---
MA-4-5™	10-6054	08-06410-1	---	08-06410	---



**MARVEL-SCHEBLER FLOAT KIT**  
A new float has been developed for the small MA series carburetors. The new floats are a solid blue epoxy material with a smooth skin.  
Small ..... P/N 08-06508  
Large ..... P/N 08-06510



## THROTTLE SHAFT MINOR REPAIR KIT 778-1007-F

Tempest MSA throttle minor repair kit (778-1007--F).  
All parts contained in this kit are covered under FAA/  
PMA PQ0111NM and/or PQ1296CE.  
P/N 08-06539

# CARBURETOR PARTS

## REPLACEMENT PARTS FOR MARVEL-SCHEBLER CARBURETORS

Mfg. Ref.	Description	Part No.	Price	Mfg. Ref.	Description	Part No.	Price	Mfg. Ref.	Description	Part No.	Price
16-A39	Gasket	08-06627	---	60-260	Bushing	08-06821	---	82-14	Cotter Pin	08-06881	---
16-A42		08-06628	---	60-A160		08-06824	---	99-44	Plug	08-06896	---
16-A48		08-06629	---	778-1003	Throttle	08-06535	---	47-852	Nozzle	08-06771	---
16-A56		08-06630	---	778-1004		08-06536	---	778-1005	Throttle Shaft	08-06537	---
16-B44		08-06635	---	15-483	Screw	08-06590	---	778-1006		08-06538	---
16-B45	Rod	08-06636	---	15-58		08-06585	---	778-1007		08-06539	---
16-B85		08-06641	---	15-A23		08-06598	---	778-1008		08-06540	---
17-372		08-06649	---	15-B108		08-06609	---	78-121		08-06842	---
17-383		08-06650	---	15-B109		08-06610	---	78-388	Washer	08-06847	---
194-580	Pump Plunger	08-06938	---	15-B98	Gasket	08-06607	---	78-A109		08-06853	---
194-591		08-06939	---	16-222		08-06617	---	78-A110		08-06854	---
194-593		08-06940	---	16-224		08-06619	---	78-A111		08-06855	---
194-605		08-06941	---	16-625		08-06413	---	78-A40		08-06851	---
233-614	Valve & Seat	08-06971	---	16-646		08-06415	---	78-A97	Nut	08-06852	---
233-615	Float Valve	08-06972	---	16-653		08-06416	---	81-311		08-06877	---
24-262	Spring	08-06651	---	16-676		08-06417	---	13-1519	Throttle Shaft	08-06568	---
24-A10		08-06655	---	16-696		08-06419	---	13-1520		08-06569	---
24-A115		08-06656	---	16-713		08-06422	---	13-1521		08-06570	---
24-A30		08-06659	---	16-735		08-06425	---	13-1522		08-06571	---
24-A33		08-06660	---	16-A107	Cotter Pin	08-06631	---	13-1523	Lever	08-06572	---
29-182	Clip	08-06669	---	16-A108		08-06632	---	13-1531		08-06575	---
32-32	Shaft	08-06675	---	16-A16		08-06621	---	13-1533		08-06576	---
32-35		08-06676	---	16-A28		08-06622	---	155-226	Screw	08-06912	---
34-72	Valve	08-06679	---	16-A30		08-06623	---	155-307		08-06914	---
34-91		08-06680	---	16-A31	Needle	08-06624	---	15-126	Needle	08-06587	---
44-220	Packing O-Ring	08-06696	---	16-A32		08-06625	---	43-648		08-06691	---
44-223		08-06699	---	16-A36		08-06626	---	43-564		08-06690	---
44-224		08-06701	---	82-1		08-06878	---				
44-49		08-06695	---	82-11		08-06880	---				

SEE [WWW.AIRCRAFTSPRUCE.CA](http://WWW.AIRCRAFTSPRUCE.CA) FOR COMPLETE PARTS LIST.

### REPLACEMENT CARBURETOR VENTURI'S (ONE PIECE)

These one piece Venturis replace old type primary and main Venturis in Marvel-Schebler carburetors. Order by new Venturi part number.

Old Main Venturi	New 1-Piece Venturi	Our Price
46-462	46-F7	---
46-A2	46-F10	---
46-A70	46-F12	---



### FLOAT NEEDLE SEAT DRIVER

This Float Needle Seat Driver is applicable to Marvel-Schebler MA3 and MA4 carburetors and is quality made of alloy steel. It facilitates the easy removal of needle valve seats, prevents damage to the main casting and the new seat during installation, and insures proper torque application. Features 7/16" hex drive fitting. P/N 12-30190

### BENDIX/PRECISION RSA

### FUEL SERVOS & FLOW DIVIDERS

• (RSA-5, RSA-7da1, RSA-10 Overhaul/Exchange) • (Flow Dividers Overhaul / Exchange) • TMC Complete Fuel Injection Systems (IO-360, IO-550, L/TSIO-360, TSIO-520, GTSIO-520, TSI Overhaul Exchange) • TCM Individual Fuel Injection Components Throttle Assemblies, Control Assemblies (without throttle Pumps, Manifold Valves, Pressure Regulators, No Assemblies (cleaning, rejetting, calibrating) • FAA/PMA Replacement Parts.

Call or visit our website at: [www.aircraftspruce.ca](http://www.aircraftspruce.ca) for more info.



### REPLACEMENT CARBURETORS PARTS BY MARVEL-SCHEBLER

Needle and Seats.  
MA3-4 #233-615.....P/N 08-06972  
MA4-5 #233-614.....P/N 08-06717

### REPAIR KITS & PARTS FOR COMMON MARVEL-SCHEBLER CARBURETORS

NOTE: Many Marvel-Schebler replacement parts are no longer available from Facet. These are manufactured by Powerup.

Lycoming No.	Marvel-Schebler Kit Part No.	Carb Part No.	Major Repair Kit Price
62830	286-1630	10-3565-1	---
LW-11222	286-1622	10-5062	---
LA-16907	286-1783	10-5267	---
71098	666-660	10-3878	---
LW-15380	286-1719	08-06466	---



### MARVEL-SCHEBLER MS80-430 FLOAT KIT FOR BING CARBURETOR

Rotax® Engine Bing Carburetor Upgraded Replacement Float Set of Two - MS80-430. These solid, one-piece blue epoxy floats will not leak, absorb fuel or break apart like the micro-bubble foam float competitors. These floats can withstand extreme temperature changes and are truly unsinkable when exposed to the elements! The Marvel Schebler MS80-430 blue floats are direct replacements for the existing Bing floats. P/N 861-184 .....P/N 07-25509



### CARBURETOR HEAT BOX PARTS

#### Unique Elastomer Bearing Replaces Needle Bearing

McFarlane's elastomer bearing is assembled with tension between the mating surfaces. This tension prevents micro-movement and its related metal erosion. The bearing contact area that transfers vibration motion from the heat box to the butterfly shaft is hundreds of times greater than that of the original needle bearing. This large surface effectively prevents localized metal erosion. • Absorbs shaft and butterfly vibration • Eliminates needle bearing failures • Increases service life of all components • Direct replacement for original parts.

**Proven Design:** • Tested to over 700,000 cycles while exposed to avgas, heat and vibration without any change in performance • Extremely rugged and wear resistant in high temperature and fuel environments. **Convenient:** • Discontinued part numbers through the factory are now manufactured by McFarlane • Also available in kits containing the shaft, arm, bearing housings, monel rivets, and roll pin. **Shafts and bearings sold separately.**

CESSNA SHAFT			
Description	Part No.	Price	
Cessna Shaft MC0450068-2 Model: FA152 Serial No: FA1520337 thru FA1520425	05-04430	---	
Cessna Shaft MC0550180-16 Model: 172B,C Serial No: 17247747 thru 17249544	05-04431	---	
Cessna Shaft MC0550180-28 Model: F172D,E,F, G Serial No: F172-0001 thru F172-0319	05-04432	---	
Cessna Shaft MC0509068-6 Model: 172Q Serial No: 17275869 thru 17276516	05-04433	---	
Cessna Shaft MC1752078-4 Model: 177A,B Serial No: 17701165 thru 17702752	05-04434	---	
Cessna Shaft MC0750112 Model: 180* Serial No: 30000 thru 32150	05-04435	---	
Cessna Shaft MC0750126-19 Model: 180*, 180A,B Serial No: 32151 thru 50661	05-04436	---	
Cessna Shaft MC0750133-8 Model: 175, 175A Serial No: 55001 thru 56777	05-04437	---	
Cessna Shaft MC0750173-3 Model: 185, 185A,B, C,D,E/A185E* Serial No: 185-0001 thru 185-1300	05-04438	---	
Cessna Shaft MC0750173-4 Model: A185E* Serial No: 185-1301 thru 18501832	05-04439	---	

\*Partial model eligibility.

CESSNA ARM			
Description	Part No.	Price	
Cessna Arm MCS2280-8-00 Model: 152, A152, F152, FA152 Serial No: 15279406 thru 15286033 A152 A1520735 thru A1521049 F152 F15201429 thru F1520198 FA152 FA1520337 thru FA1520425	05-04440	---	
Cessna Arm MC0750111-19	05-04441	---	
Cessna Arm MCS2280-3-157	05-04442	---	

CESSNA BEARING			
Description	Part No.	Price	
Cessna Bearing HSG MC0750113-1 Model: 152 Serial No: MC0750113-1	05-04443	---	
Cessna Bearing HSG MC0750113-3 Model: 172Q Serial No: MC0750113-3	05-04444	---	

# CARBURETORS

## CARBURETOR OVERHAUL QUICK KITS



This image is for reference only:  
Kit contents may differ per kit

Marvel-Schebler "Quick Kits" are easy to use, and are designed to save you time and money. Quick Kits include not only the recommended replacement parts used in every overhaul, but the additional parts used by all fuel professionals to insure the job is done right.

Kits include (where applicable): Throttle shaft lever, throttle shaft, throttle adjusting screw, throttle valve screws, inlet strainer screws, throttle body screws, mixture control lever screw, gasket kit, pump connection rod, throttle adjustment spring, throttle opening spring, idle adjustment spring, float lever shaft, pump stem, throttle shaft bushings, inlet strainer washer, pump stem retainer washer, mixture control lever washer, throttle body washers, throttle lever lock nut, float shaft cotter pin, throttle nut cotter pin, pump lever, pump plunger assembly and float valve seat assembly.

Kit Part Number	Price
286-00	---
286-01	---
286-02	---
286-03	---

Kit Part Number	Price
286-04	---
286-05	---
286-06	---

Kit Part Number	Price
286-07	---
286-08	---
286-09	---

Kit Part Number	Price
286-10	---
286-11	---
286-12	---

### SEE WHICH PART NO. IS FOR YOUR APPLICATION BELOW.

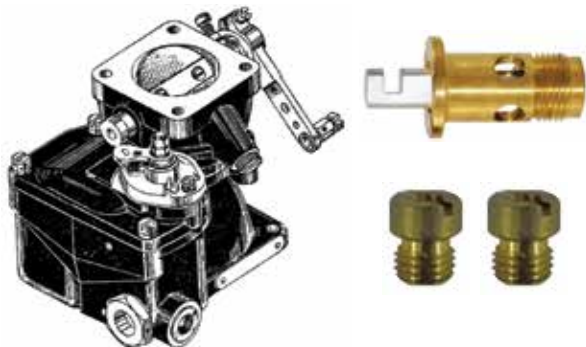
Franklin Carburetors	
Part No.	"Quick Kit" P/N
10-2971-P	286-02
10-3007	286-06
10-3063-2	286-06
10-3148-1	286-06
10-3479	286-06
10-5069	286-02
10-5093	286-00
Continental Carburetors	
Part No.	"Quick Kit" P/N
10-2848	286-02
10-2948	286-02
10-3168	286-05
10-3237	286-03
10-3649-1	286-05
10-3759	286-05
10-3859	286-05
10-3859-1	286-05
10-3965	286-05
10-3965-1	286-05
10-4171	286-05
10-4191	286-05
10-4233	286-02
10-4240	286-02
10-4240-1	286-02
10-4252	286-02
10-4439	286-03

Continental Carburetors	
Part No.	"Quick Kit" P/N
10-4457	286-02
10-4893	286-05
10-4893-1	286-05
10-4894	286-02
10-4894-1	286-02
10-4895	286-03
10-4895-1	286-03
10-5067	286-02
10-5082	286-02
10-5128	286-02
10-5192	286-05
10-5284	286-05
Lycoming Carburetors	
Part No.	"Quick Kit" P/N
10-2827	286-07
10-2983	286-00
10-3103-1	286-00
10-3323	286-07
10-3346-1	286-02
10-3391-1	286-06
10-3565-1	286-02
10-3634	286-06
10-3678-12	286-04
10-3678-32	286-04
10-3729	286-02
10-3856	286-06

Lycoming Carburetors	
Part No.	"Quick Kit" P/N
10-3856-1	286-06
10-3856-11	286-06
10-3856-12	286-06
10-3878	286-08
10-4057	286-09
10-4057-1	286-09
10-4164	286-08
10-4164-1	286-07
10-4404	286-09
10-4404-1	286-09
10-4910	286-04
10-4910-1	286-04
10-4953	286-00
10-4978-1	286-01
10-5009	286-04
10-5009N	286-04
10-5034	286-07
10-5042	286-00
10-5045	286-10
10-5045-1	286-10
10-5050	286-01
10-5054	286-09
10-5062	286-04
10-5092	286-10
10-5126	286-01
10-5135	286-04

Lycoming Carburetors	
Part No.	"Quick Kit" P/N
10-5142	286-01
10-5180	286-10
10-5189	286-10
10-5193	286-08
10-5199	286-00
10-5206	286-10
10-5206-1	286-10
10-5206-11	286-10
10-5210	286-10
10-5217	286-04
10-5219	286-11
10-5220-E	286-01
10-5220	286-01
10-5221	286-12
10-5224	286-11
10-5227	286-12
10-5230	286-11
10-5235	286-11
10-5253	286-11
10-5255	286-11
10-5257	286-01
10-5267	286-01
10-5282	286-11
10-5283	286-11
10-5288	286-08
10-6014	286-11

## BENDIX STROMBERG NA-S3A1 CARBURETOR OVERHAUL PARTS FOR NA-S3A1 CARBURETOR



The NA-S3A1 carburetor is no longer in production. Only the parts listed are carried in stock. Others may be special ordered. Originally used on Cont. A-65, A-75, A-80, C-75, C-85 and C-90 engines.

Gasket & Ring Set

(Incl. gaskets for under seat).....P/N 07-02200

Metering Jet (C-85) .....P/N 07-00684

Metering Jet (A-65).....P/N 07-00685

Throttle Shaft (Ref. #34 in Manual) not available.

## MARVEL-SCHLEBLER CARB GASKETS

### MC16-A36 GASKET FUEL INLET FAA-PMA



Marvel-Schebler Fuel Inlet Screen Gaskets for many Carbureted Aircraft The copper gaskets should be changed when finger screens are inspected at each annual inspection. P/N 07-01387

Marvel-Schebler / Facet Carburetor Models Eligible for Installation	Eligible Engine Model Series	
	Continental Model Series	Lycoming Model Series
MA-3, MA-3PA, MA-3A, MA-3SPA, MA-4SPA	A-65, A-75, C-85, C-90, O-200, C-125, C-145, O-300	O-235, O-290, O-320

### MC16-A108 GASKET FUEL INLET FAA-PMA



Marvel-Schebler Fuel Inlet Screen Gaskets for many Carbureted Aircraft The copper gaskets should be changed when finger screens are inspected at each annual inspection. P/N 07-01389

Marvel-Schebler / Facet Carburetor Models Eligible for Installation	Eligible Engine Model Series	
	Continental Model Series	Lycoming Model Series
MA-4-5, MA-4-5AA, MA-5, MA-6AA, HA-6	GO-300, O-470	O-340, O-360, O-435, O-540

### MC16-A48 GASKET FUEL INLET FAA-PMA



Marvel-Schebler Fuel Inlet Screen Gaskets for many Carbureted Aircraft The copper gaskets should be changed when finger screens are inspected at each annual inspection. Sold as a 5 pack.....P/N 07-01388-5

Marvel-Schebler / Facet Carburetor Models Eligible for Installation	Eligible Engine Model Series	
	Continental Model Series	Lycoming Model Series
MA-4-5, MA-5AA, MA-4-5AA, MA-5, MA-6, MA-6AA, HA-6	GO-300, O-470	O-340, O-360, O-435, O-540

# AVSTAR CARBURETORS



AvStar Overhaul Exchange for Fuel Servo.

AvStar is a proud supplier to Lycoming Engines for both their NEW, REMANUFACTURED & OVERHAULED Factory Engines. The engines are built to the latest Lycoming flow curves. AvStar's expertise of 50 years experience in fuel control technology. The best quality and price in the industry.

Avstar Part Number	Our Part Number	Description	Price
2576630-4 RSA-10AD1	07-20717	Avstar Avstar O/H Exchange Fuel Servo	---
2576536-2 RSA-5AD1	07-21053	Avstar O/H Exchange Fuel Servo	---
10-6035-11 MA-4-5	10-06698	Avstar O/H Exchange Carburetor	---
10-6019 HA-6	07-21036	Avstar O/H Exchange Carburetor	---
10-5235 HA-6	10-06691	Avstar O/H Exchange Carburetor	---
10-6102 MA-4-5	07-21038	Avstar O/H Exchange Carburetor	---
10-6054 MA-4-5	07-21037	Avstar O/H Exchange Carburetor	---
10-4404 MA-4-5	10-06676	Avstar O/H Exchange Carburetor	---
10-4164-1 MA-4-5	10-06673	Avstar O/H Exchange Carburetor	---
10-3878 MA-4-5	10-06672	Avstar O/H Exchange Carburetor	---
10-5193 MA-4-5	10-06685	Avstar O/H Exchange Carburetor	---
10-5217 MA-4SPA	10-06688	Avstar O/H Exchange Carburetor	---
10-4894-1MA-3SPA	07-21012	Avstar O/H Exchange Carburetor	---
10-5054 MA-4-5	10-06683	Avstar O/H Exchange Carburetor	---
10-3678-32 MA-4SPA	10-06671	Avstar O/H Exchange Carburetor	---
10-5267 MA-3PA	10-06695	Avstar O/H Exchange Carburetor	---
10-5009MA-4SPA	10-06680	Avstar O/H Exchange Carburetor	---
10-3678-12 MA-4SPA	10-06670	Avstar O/H Exchange Carburetor	---
10-5199 MA-3A	10-06686	Avstar O/H Exchange Carburetor	---
2576526-1	07-21068	Avstar O/H Exchange Flow Divider	---
AV666-915	07-21486	Avstar Float Kit For Carburetor MA3 & MA4	---
AV2522004	07-21284	Avstar Lever-Mixture	---
AV30-764	07-20776	Avstar Float-Assembly	---
AV194-605	07-20773	Avstar Accelerator Pump	---
AV194-800	07-21135	Avstar Accelerator Pump	---
AV2521196	07-21274	Avstar Lever-Throttle	---
AV2526388	07-21323	Avstar Diaphragm	---
AV2524864-2	07-21003	Avstar Nozzle Assembly New Outright	---
AV12-B57	07-21078	Avstar Lever-Throttle, Carburetor	---
AV367547	07-21424	Avstar Screw-Assembly	---
AV132906	07-21259	Avstar Plug-Threaded	---
AV951437	07-20782	Avstar Packing	---
AV951790	07-20783	Avstar Packing	---
AV16-B75	07-20771	Avstar Gasket	---
AV16-A36	07-17832	Avstar Gasket	---
AV951787	07-21459	Avstar Packing	---
AV78-A122	07-20780	Avstar Locktab	---
AV16-A48	07-20770	Avstar Gasket	---
AV16-A108	07-21117	Avstar Gasket-Fitting, Fuel Inlet	---
AV951789	07-21460	Avstar Packing	---
AV951391	07-21454	Avstar Packing-Preformed	---
AV82-11	07-20781	Avstar Pin, Cotter	---
AV953541-10	07-21462	Avstar Packing	---
AV901200	07-21448	Avstar Pin	---

EP

**NOTE: CORE CHARGES APPLY TO ALL EXCHANGE UNITS.  
SEE OUR WEBSITE FOR COMPLETE LIST OF AVSTAR PRODUCTS!**

# BING CARBURETORS



## COMPLETE CARBURETORS – TYPE 54

### To Order, Specify:

1. Model indicated by engine number 277, 377, 447, 503, or 532.
2. With intake silencer or Without intake silencer.
3. Single Carb or Dual Carb.
4. Hand Choke or Remote Choke.

Model # 54/36/2040

P/N 07-00303

## TYPE 54 REBUILD KIT

- #7 Air Screw O Ring • #10 Sieve Sleeve (Screen) • #17 Top O Ring • #21 Cable Grommet • #25 Hinge Pin • #26 Float Needle • #29 Bowl Gasket • #56 Jet Needle Ring

P/N 07-00304

## TYPE 54 FIX-IT KIT

- #11 Clip • #12 New Spring Cup • #56 Jet Needle O Ring

P/N 07-00305



## COMPLETE CARBURETORS – TYPE 84

### To Order, Specify:

1. Model indicated by engine number 277, 377, 447, 503, or 532.
2. With intake silencer or Without intake silencer.
3. Single Carb or Dual Carb.
4. Hand Choke or Remote Choke.

Model # 84/32/3437 P/N 07-00306

## TYPE 84 REBUILD KIT

- #7 Air Screw O Ring • #10 Sieve Sleeve (Screen) • #17 Top O Ring • #21 Cable Grommet • #25 Hinge Pin • #26 Float Needle • #29 Bowl Gasket..... P/N 07-00307

P/N 07-00307

EP



## ROTAX FLOAT CHAMBER 261-010

This Float Chamber replaces a single float bowl. For dual carb applications, order two.

P/N 261-010

## BING CARBURETOR ACCESSORIES

Remote Choke Kit (w/8' cable)..... P/N 07-00308

Remote Choke Kit (w/o cable)..... P/N 07-00309

Aircraft Parts manual..... P/N 07-00310

## BING JUNCTION BLOCKS



Bing junction block for dual Carb linkage on any Rotax engine. Three gang outlet can be used dual Carbs or with three way oil

injection and dual Carbs. Converts a single throttle line into as many as three lines.

3" Junction Block..... P/N 15-05033

## CARBURETOR SYNCHRONIZATION



**CARBMate** - Quick & easy synchronizing by direct comparison of a set of carbs / Fuel Injector throttle bodies. Range adjustable from 2 to 0,05cmHg per LED. Hook up 2 or 5 cylinder with the optional adapter kit.

CarbMate..... P/N 07-19346

With Rotax 912/914 Accessory Kit.

P/N 07-01891



## 4-CHANNEL ADAPTER KIT

Converts the SynchroMate or CarbMate into a 4 carb/throttle valve synchronizer. This easy-to-mount & easy-to-use kit allows connection of SynchroMate's or CarbMate 2 channels (tubes) to 4 carbs / throttle valves at once.

P/N 07-01267

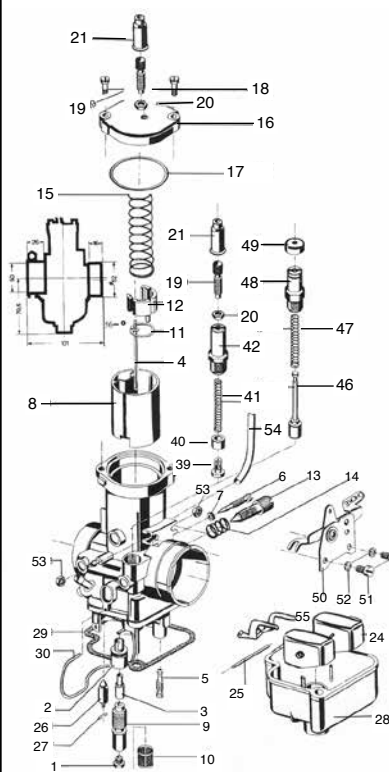
Accessories	Part No.	Price
4-channel adapter kit TS-220	07-01267	---
Rotax adapter w/ 2X6 ft hose TS-400	07-01889	---
Rotax accessory kit TS-400 KIT	07-01890	---
Rotax black nylon storage case TS-222	07-01893	---
Rotax rubber black holster TS-223	07-01894	---
Rotax replacement 6 ft rubber hose	07-01895	---



## ROTAX THROTTLE SPRING

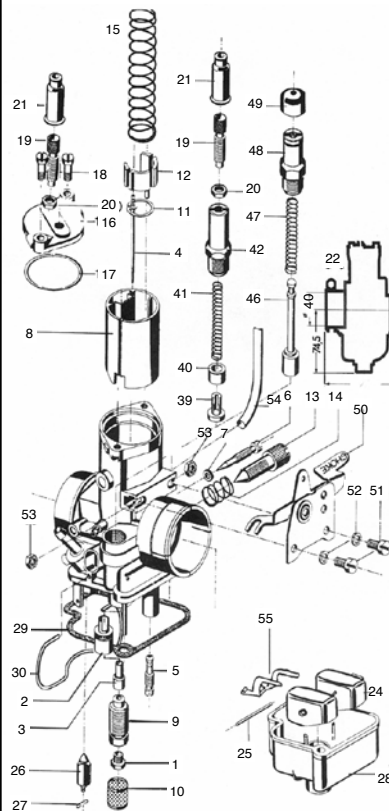
Alternate throttle return spring for Rotax 912/914 series engines ... P/N 08-06858

## REPLACEMENT PARTS – TYPE 54



No.	Part No.	Description	Price
1	268-978-998	Main Jet	---
2	251-554	Atomizer	---
3	963-691-699	Needle Jet	---
4	963-711-719	Jet Needle	---
5	963-140-147	Idler Jet	---
6	963-155	Air Screw	---
7	831-710	O Ring	---
8	963-679	Piston	---
9	963-700	Mixing Tube	---
10	261-625	Sieve Sleeve	---
11	963-500	Clip	---
12	827-347	New Style Spring Cup	---
13	963-160	Mix Screw	---
14	938-640	Spring	---
15	938-655	Slide Spring	---
16	963-720	Cover Plate	---
17	831-450	O Ring	---
18	241-430	Screw	---
19	241-440	Adjuster	---
20	942-541	Nut	---
21	260-370	Grommet	---
24	861-181	Indep. Float	---
26	261-705	Float Needle	---
27	261-710	Clip	---
28	261-010	Bowl Kit (bowl, 24-27, 55) *Float Needle Valve not incl.	---
29	830-720	Gasket	---
30	963-180	Bowl Clip	---
39	963-740	Piston	---
40	268-850	Sleeve	---
41	661-050	Spring	---
42	963-750	Housing	---
46	268-847	Piston	---
47	239-730	Spring	---
48	261-770	Housing	---
49	260-490	Rubber Cap	---
50	261-755	Choke Lever	---
51	240-791	Screw (51) & Washer (52)	---
52	945-750	Washer (52)	---
53	261-200	Nut	---
54	256-035	Vent Tube	---
55	861-190	Float Arm	---
56	831-715	Jet Needle O Ring	---

## REPLACEMENT PARTS – TYPE 84



No.	Part No.	Description	Price
1	268-980	Main Jet 135	---
2	261-692	Atomizer	---
3	261-606	Needle Jet 262	---
4	261-643	Jet Needle 8H1	---
5	963-140	Idler Jet 50	---
6	963-155	Air Screw	---
7	831-710	O Ring	---
8	261-635	Piston	---
9	963-130	Jet Stock	---
10	261-625	Screen	---
11	261-650	Holding Plate	---
12	227-635	Spring Cup	---
13	963-160	Mix Screw	---
14	938-640	Spring	---
15	239-700	Slide Spring	---
16	261-660	Cover	---
17	261-670	O Ring	---
18	241-430	Screw	---
19	241-440	Adjust. Screw	---
20	942-541	Nut	---
21	260-370	Grommet	---
26	261-705	Float Needle	---
27	261-710	Clip	---
28	963-170	Bowl	---
29	830-720	Gasket	---
30	963-180	Bowl Clip	---
39	963-740	Piston	---
40	268-850	Sleeve	---
41	661-050	Spring	---
42	963-750	Housing	---
46	268-847	Piston	---
47	239-730	Spring	---
48	261-770	Housing	---
49	260-490	Rubber Cap	---
50	261-750	Lever	---
51	240-791	Screw (51) & Washer (52)	---
52	945-750	Washer (52)	---
53	261-200	Nut	---
54	256-033	Vent Tube	---

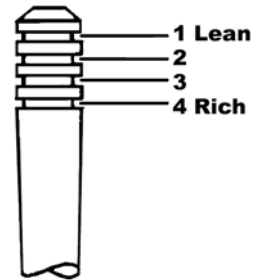
# CARBURETOR PARTS



## CARBURETOR JETTING CHART FOR ROTAX® UL ENGINES

Use this chart to identify part number you need, then use bottom chart to select correct part number to order.

ROTAX® ENGINE	MAIN JET	IDLER JET	NEEDLE JET	JET NEEDLE	CLIP POSITION	AIR SCREW
2771	148	45	2.72	8L2	2	1
2772	140	45	2.72	8L2	2	1
3771	165	45	2.70	8O2	2	.5
3772	155	45	2.70	8O2	2	.5
4471	165	45	2.70	15K2	2	.5
4472	155	45	2.70	15K2	2	.5
447DC1	135	50	2.70	6G1	3	1
447DC3	128	50	2.68	15K2	2	1
503SC1 Up to #3785371	180	45	2.74	8G2	3	.5
503SC2 Up to #3785371	158	45	2.74	6H2	3	.5
503SC1 From #3785372 Up	185	45	2.72	15K2	3	.5
503SC2 From #3785372 Up	165	45	2.70	15K2	3	.5
503DC1	158	45	2.74	8L2	1	.5
503DC3	148	45	2.68	11K2	2	1
532SC1	195	55	2.74	15K2	3	1
532SC3	170	55	2.74	15K2	3	1
532DC1	165	55	2.72	11G2	3	1
532DC3	145	55	2.68	15K2	3	1
5821	165	55	2.72	11G2	3	1
5823	145	55	2.68	15K2	3	1



1 = Without Rotax® intake silencer kit, with K&N RC1200 air filter, with or without Rotax® after muffler kit.

2 = With Rotax® intake silencer kit, with K&N CM0300 air filter, with or without Rotax® after muffler kit.

3 = With Rotax® dual intake silencer kit, with K&N RC1200 air filters, with or without Rotax® after muffler kit.



### MAIN JET

125 = Part No. R268-978  
128 = Part No. R261-085  
130 = Part No. R268-979  
135 = Part No. R268-980  
138 = Part No. R268-998  
140 = Part No. R268-981  
145 = Part No. R268-982  
148 = Part No. R268-995  
150 = Part No. R268-983  
155 = Part No. R268-984  
158 = Part No. R268-996  
160 = Part No. R268-985  
162 = Part No. R268-990  
165 = Part No. R268-986  
170 = Part No. R268-987  
175 = Part No. R268-988  
180 = Part No. R268-989  
185 = Part No. R261-080  
190 = Part No. R261-084  
195 = Part No. R268-992  
200 = Part No. R261-082  
205 = Part No. R261-087  
220 = Part No. R261-081



### IDLER JET

30 = Part No. R963-141  
35 = Part No. R963-143  
40 = Part No. R963-142  
45 = Part No. R963-144  
50 = Part No. R963-140  
55 = Part No. R963-147  
60 = Part No. R963-145  
65 = Part No. R963-146



### NEEDLE JET

2.62 = Part No. R261-606  
2.68 = Part No. R963-691  
2.70 = Part No. R963-698  
2.72 = Part No. R963-697  
2.74 = Part No. R963-699  
2.76 = Part No. R963-693  
2.78 = Part No. R963-696  
2.80 = Part No. R963-695  
2.82 = Part No. R963-694  
2.94 = Part No. R961-022



### JET NEEDLE

2H2 = Part No. R963-717  
4E2 = Part No. R963-716  
6G1 = Part No. R261-642  
6H2 = Part No. R963-719  
6P2 = Part No. 15-05029  
8G2 = Part No. R963-712  
8H1 = Part No. R261-643  
8L2 = Part No. R963-714  
8O2 = Part No. R963-711  
1O = Part No. R961-045  
11G2 = Part No. R961-043  
11K2 = Part No. R961-044  
15K2 = Part No. R963-718




### NEEDLE CLIP

P/N 07-00693  
Lower numbers indicate smaller jet size or opening.  
Low numbers = lean.  
High numbers = rich.  
First needle number denotes mixture above half-throttle.  
Needle letter denotes mixture below half-throttle.

### UNIVERSAL FUEL PRESSURE REGULATOR


If the fuel pump is putting out more than 8 psi, this regulator can be used to keep the fuel pressure within safe limits and avoid the possibility of flooding.

- Pressure Range (psi): 4.5-9 • Regulator Style: Non-return • Regulator Location: Inline • Boost/Vacuum Reference Port: No **Gauge Port**: No • Mounting Bracket Included: Yes • Fittings Included: No • Rebuildable: Yes • Inlet Quantity: One • Inlet Attachment: Female threads • Inlet Size: 3/8 in. NPT • Outlet Quantity: Two • Outlet Attachment: Female threads • Outlet Size: 3/8 in. NPT • Regulator Material: Aluminum • Regulator Finish: Chrome plated. • Universal: Yes • Fuel Type: Gasoline • Regulator Usage: Carburetor.....P/N 15-08385




### BING DUAL CARB GASKET KIT ROTAX

Quantity: 2 Carbs. "O" Rings: Biggest - Jet Stock, Next Down - Throttle Shaft, Green - Choke Disk, 4 small - Idle Jet & Idle Air Screw, and Smallest - Jet Needle.  
For 912.....P/N 15-09421  
For 914.....P/N 15-09422




### KWIK TUNE FOR ROTAX ENGINES

The handy Kwik Tune, a timesaving tool launched at Sun 'n Fun. Kwik Tune helps remove and reinstall the aircraft throttle cable, cover, spring, and slide in a Bing carburetor.  
P/N 08-05206




### CARB CLEANING BRUSH

3/16" Tube, .005 Nylon, 2" BP, 6" OAL Can be used in the cleaning of internal bores and cylindrical cavities. Good for light duty jobs applying either wet or dry ingredients or cleansers. Sturdy twisted wire handles feature loop for easy grip.....P/N 15-08286



### MIKUNI FUEL PUMP

Genuine Mikuni fuel pumps. Replace original parts on Rotax®, Hirth, & many other engines.  
Single Pump.....P/N 07-00777  
Dual Pump.....P/N 07-00778




### MIKUNI REBUILT KIT FOR SINGLE/DUAL FUEL PUMPS

Single Pump .....P/N 07-01011  
Dual Pump .....P/N 07-01010




### MIKUNI FLOAT CHAMBER PLUG

Mikuni Float Chamber Plug.  
P/N 15-05548



### ROTAX THROTTLE SPRINGS 6822

A common complaint about the Rotax 912/914 engines is that the throttle return springs are too strong. McFarlane stocks a variety of springs so you can choose the one that best fits your application. All McFarlane throttle controls for Rotax engines include P/N 6822 spring. Less than half the strength of the original stock Rotax springs. Prevents throttle "creep" due to excessive return spring force. Requires 1 per carburetor (2 per engine) **Note:** Installer is responsible for determining whether this spring is an appropriate substitution for their application. For use on non-certified aircraft.  
P/N 05-12477 ea.



### NYLON STARTER ROPE

The perfect replacement rope for worn-out manual starters .....P/N 13-03922 per ft.

# FUEL INJECTION SERVOS – FLOW DIVIDERS



## PRECISION AIRMOTIVE

Precision Airmotive now feature's competitively priced OEM factory overhauled RSA Fuel Injection Servo's & Flow Dividers. As the OEM manufacturer, they ensure 'out of the box' performance of these overhaul units by completing both full flow dynamic and static analysis, verifying fuel delivery performance from idle to full throttle. Since 1988, Precision Airmotive has set the industry standard for fuel injection systems by supporting the general aviation industry with time tested quality products that meet the highest standards.

Note: Aircraft Spruce carries Precision Airmotive replacement parts and accessories, contact us for pricing and availability.

## FUEL INJECTION SERVOS

Model No.	Part No.	Engine	Airframe	New Exchange		Rebuilt Exchange		Overhaul Exchange	
RSA-5AD1	2576536-2	IO-360-L2A	Cessna 172	07-02770	---	07-02772	---	07-02773	---
	2524054-11	IO-360/540 & various	Mooney 201& others	07-02775	---	07-02776	---	07-02777	---
	2576544-3	IO-540-AB1A5	Cessna 182	07-02778	---	07-02779	---	07-02780	---
	2524450-9	IO-360-AB1/C1C/C1C6	Piper, Arrow, Cherokee, Lake Buccaneer	07-02781	---	07-02782	---	07-02783	---
RSA-10ED1	2524500-9	LTIO-540-F2BD/J2B/J2BD TIO-540-F2BD/J2B/J2BD	Piper Navajo PA-31-325 Chieftain PA-31-350	07-02784	---	07-02785	---	07-02786	---
	2524273-12	IO-540-K1A5/K1A5D/K1G5	Piper Saratoga/Lance	07-02787	---	07-02788	---	07-02789	---
	2576562-4	TIO-540-AJ1A	Cessna T206	07-02791	---	07-02792	---	07-02793	---
	2576630-4	IO-540-AE1A5	Robinson R44	07-02794	---	07-02795	---	07-02796	---



## FLOW DIVIDERS

Precision Airmotive stands proudly as a world leader in the manufacturing of fuel controls for general aviation. By providing fuel injection systems for certified aircraft and electronic engine management systems for experimental aircraft, Precision Airmotive is leading the way in general aviation.

EP

Part No.	Engine	Configuration	New Exchange		Rebuilt Exchange		Overhaul Exchange	
2524232-2	IO-320, IO-360, IO-540	2 PSI spring, no vent tube	07-02799	---	07-02801	---	07-02983	---
2576526-1	IO-540	4 PSI spring, no vent tube	07-02802	---	07-02981	---	07-02803	---
2576564-1-F	IO-320, IO-360, IO-540		07-02797	---	07-02798	---	07-24458	---

**FOR TURBO APPLICATIONS, UNLISTED SERVOS, & FLOW DIVIDERS CALL OR EMAIL AIRCRAFT SPRUCE FOR PRICING.**



## PRECISION CF631282 PLUNGER

The Precision CF631282 Plunger is for Continental Motor's Fuel Manifold. ....P/N 07-21651

## PRECISION AIRMOTIVE SEALS

Precision Airmotive Seal CFLR47101 .....P/N 07-27022  
Precision Airmotive Seal CFLR47108 .....P/N 07-27023

## PRECISION AIRMOTIVE BUSHING, THROTTLE BODY

Bushing, Throttle Body CF630455 .....P/N 07-27010  
Bushing, Throttle Body CF630455-2 .....P/N 07-27011  
Bushing, Throttle Body CF630455-3 .....P/N 07-27012  
Bushing, Throttle Body CF630455-4 .....P/N 07-27013  
Bushing, Throttle Body CF631183-2 .....P/N 07-27014  
Bushing, Throttle Body CF631183-3 .....P/N 07-27015

## PRECISION AIRMOTIVE VALVE, NEEDLE AUTO 2537860-F

Valve, Needle Auto 2537860-F .....P/N 07-27004



## PRECISION AIRMOTIVE GASKET CF649983

Precision Airmotive Gasket CF649983  
P/N 07-25725

## PRECISION AIRMOTIVE THROTTLE STOP PIN

Throttle Stop PIN CF626812 .....P/N 07-27009  
Throttle Stop PIN CF655791 .....P/N 07-27021

## PRECISION AIRMOTIVE VALVE & HOUSING ASSY

Precision Airmotive Seal CFLR47101 .....P/N 07-27024  
Precision Airmotive Seal CFLR47108 .....P/N 07-27025

## PRECISION AIRMOTIVE LEVER ASSEMBLY, IDLE 2537857B-F

Lever Assy, Idle 2537857B-F .....P/N 07-27003

## TEMPEST REBUILT FUEL SERVOS/EXCHANGE



Available only from the factory. These units are also built to factory new specifications and bench checked on an air-box flow bench to OEM original specifications and drawings. **Note:** A body or a center body may be used in a rebuilt servo; however, these components must meet factory new specifications and drawings.

CF P/N	Model No.	Part Number	Price
2524145-12RSA	-5AD1	07-00403	<b>\$1466.00</b>
2524147-13RSA	-5AD1	07-00404	<b>\$1234.00</b>
2524189-11RSA	-5AD1	07-00407	<b>\$1234.00</b>
2524213-11RSA	-5AD1	07-00408	<b>\$1428.00</b>
2524307-10RSA	-5AD1	07-00458	<b>\$1521.00</b>
2524335-10RSA	-5AD1	07-00460	<b>\$1415.00</b>
2524592-B	RSA-5AD1	07-00470	<b>\$1428.00</b>

## TEMPEST FUEL SERVO QUICK KITS

The next time you rebuild your fuel components, don't spend time on the phone chasing parts, just order a "Quick Kit" and take the hassle out of your rebuild. Quick Kits include the mandatory replacement parts, plus the parts used by fuel professionals to insure the job is done right!

Fuel Servo #	Model No.	Our Part No.	QuickKit#	Price
RSA-5AD1	All Models	07-00563	CFK-5AD1	---

## TEMPEST A76284 FLUID TICKER PUMP

Fluid Ticker Pump.....P/N 05-27357



## FUEL PUMP BLADE

Fuel Pump Blade 2617-1 .P/N 07-24459

# FUEL PUMPS

## LYCOMING & CONTINENTAL FUEL PUMPS



Proven to be a trouble-free mechanical pressure pump. Original equipment on numerous airframe installations and adaptable to most applications with one of 3 dual diaphragm types. Overboard vent of this design provides operating assurance throughout all flights.

Engine Type	Engine Model No.	Our P/N	Lycoming Part No.	Our Price
Lycoming	O-235, O-290, O-320, O-340, O-360, HO-360, GO-480, O-540, VO-540	07-00704	LW15472 41271 4-6 PSI	---
	IO-320, IO-360, AIO-360, HIO-360, IVO-360, IO-540, IGO-540, IO-720	07-00705	LW15473 41234 (old 40296) 25-30 PSI	---
Continental	Can be used on A/C who formerly used medium pressure 15 PSI (PS5)	41272 (old 40595) 25-30 PSI	LW15473	---
	C-90 (-16F), O-200	05-19050	AF631391	---

Lycoming Fuel Pump Gasket For LW15473 ..... P/N 60096

Adapter pump thread to AN fittings using AC Fuel pump adapters:  
Fitting...P/N 75505 Fitting & O-Ring .....P/N 75505-1

## LYCOMING/AC FUEL PUMP FITTINGS



07-00783      07-00782      07-00780      07-00781

These fittings are designed to fit mechanical fuel pumps used on Lycoming engines. These fittings feature 3/8" AN flare outlets for connection to aircraft hoses, and are available in straight, 45° and 90° angle versions. **Note:** These fittings are not certified.

Straight fitting .....P/N 07-00780  
45° fitting .....P/N 07-00781  
90° fitting .....P/N 07-00782  
Tee fitting w/1/8" pipe thread tapping for fuel pressure.....P/N 07-00783



## LYCOMING FUEL PUMP GASKET FOR LW15473

Gasket for Lycoming Gasket LW15473.  
P/N 60096



## LYCOMING FUEL PUMP ADAPTER GASKET

Lycoming fuel pump adapter gasket. 69164.  
Dimensions (w x l x h): 2.75 in. X 3.19 in. X 0.07 in.  
Lycoming.....P/N 07-03552  
Superior.....P/N 08-11839



## ACS FUEL PUMP COOLING SHROUD

Designed to keep the fuel pump cooler in the hot engine compartments, and reduce the risk of fuel vapor lock. The cooling shroud will fit carbureted or fuel injector Lycoming engines using a diaphragm style pump. Made in the U.S.A. ....P/N 08-06097



## AEROTAR LEFT LYCOMING FUEL MANIFOLD BRACKET

Aerotar Left Lycoming Fuel Manifold Bracket (07A22996) .....P/N 08-15786

## TEMPEST LYCOMING & TCM FUEL PUMPS



### OVERHAULED LYCOMING FUEL PUMPS

All internal parts are replaced with new certified parts. The actuating arms are magnetic particle test inspected; cast parts are inspected for wear, corrosion and cracks. Both the older laminated and newer channel style fuel pumps are overhauled for normally aspirated, pressure carburetor, and fuel injected systems.

**Note: Customer will need to provide core for overhaul in the event our supplier does not have cores available to overhaul.**

MMO	Description	Part No.	Price
<b>Overhauled Lycoming &amp; TCM Diaphragm Fuel Pumps</b>			
40174	Fuel Pump - Overhauled	05-02530	---
40296	Fuel Pump - Overhauled	05-02531	---
40595	Fuel Pump - Overhauled	05-19015	---
41234	Fuel Pump - Overhauled	05-02532	---
41270	Fuel Pump - Overhauled	05-02533	---
41271	Fuel Pump - Overhauled	05-02534	---
41272	Fuel Pump - Overhauled	05-02536	---
41452	Fuel Pump - Overhauled	05-02537	---
41812	Fuel Pump - Overhauled	05-02539	---
75246	Fuel Pump - Overhauled	05-02540	---
75247	Fuel Pump - Overhauled	05-02541	---
103396-01	Fuel Pump - Overhauled	05-02542	---
103586-01	Fuel Pump - Overhauled	05-02543	---
LW14282	Fuel Pump - Overhauled	05-02544	---
LW15399	Fuel Pump - Overhauled	08-15399	---
LW15472	Fuel Pump - Overhauled	05-19000	---
LW15473	Fuel Pump - Overhauled	05-19010	---
LW16335	Fuel Pump - Overhauled	05-02545	---
LW16775	Fuel Pump - Overhauled	05-02546	---
LW16947	Fuel Pump - Overhauled	05-02547	---
R00253-1	Fuel Pump - Overhauled	05-02549	---
R00253-2	Fuel Pump - Overhauled	05-02551	---
R00253-501	Fuel Pump - Overhauled	05-02552	---
R00253-502	Fuel Pump - Overhauled	05-02554	---
AF1572	Fuel Pump - Overhauled	05-19000	---
AF15473	Fuel Pump - Overhauled	05-02556-1	---
<b>New Lycoming Diaphragm Fuel Pumps</b>			
AF15472	Fuel Pump - New	05-02555	---
AF15473	Fuel Pump - New	05-02556	---
<b>Overhauled TCM Centurion Fuel Pumps</b>			
4036/9076	Fuel Pump - Overhauled	05-19030	---
6861	Fuel Pump - Overhauled	05-19035	---
9051	Fuel Pump - Overhauled	05-19025	---
9867	Fuel Pump - Overhauled	05-21694	---
40585	Fuel Pump - Overhauled	05-02557	---
40695	Fuel Pump - Overhauled	05-02558	---
AF40585	Fuel Pump - Overhauled	05-02557	---
AF631391	Fuel Pump - Overhauled	05-19050	---
<b>New TCM Centurion Fuel Pumps</b>			
AF6561	Screen Kit	05-02560	---
AF16335	Fuel Pump - New	05-02561	---
AF40585	Fuel Pump - New	05-02564	---
AF40695	Fuel Pump - New	05-02565	---
AF631391	Fuel Pump - New	05-19050	---

**CORE CHARGE ON TEMPEST OVERHAULED FUEL PUMPS.**

# FUEL PUMPS



## TEMPEST PLATINUM ELECTRONIC FLUID PUMPS

Tempest Platinum Electronic Fluid Pumps - from the brand you trust for quality and innovation. These new pumps have been designed from the ground up and will replace many of the Facet Gold-Flo fluid pumps that are no longer available to the aviation market. The Tempest Platinum electronic fluid pumps are FAA/PMA certified and designed with the modern 14 to 28 volt system in mind. These pumps use an internal high-flow filter element that can be easily replaced when specified by aircraft maintenance manuals.

Tempest® Part No	Facet Part No	OEM Part Number	Pump Description	Volts	PSI	Airframe Eligibility	Part No.	Price
Beechcraft								
A76284	476284	476439 or 58-920054-11	Fuel Pump, Heater	28	6-8	95-55, 95-A55, 95-B55, 95-C55, D55, E55, B95, B95A, D95A, E95, E55, 56TC, A56TC, 58, 58P, 58TC, G58, 60, A60, B60	05-27357	---
A76284	476284	476439 or 58-920054-11	Pump, Alcohol/Anti-Ice	28	6-8	95, B95, B95A, 95-55, 95-A55, 95-B55, 95-B55A, D95A, E95, D55, D55A, E55, 58, G58, A65, 65-B80 and 70	05-27357	---
A76284	476284	476439 or 58-920054-11	Pump, Fuel Return	28	6-8	99, 99A, A99A, B99, 100, A100, 200, 200C and 200T	05-27357	---
A76284	476284	476439 or 58-920054-11	Fuel Pump, Aux Engine	28	6-8	C90, C90A, C90GT, E90, F90, and C99	05-27357	---
A76411	476411	58-920054-9	Fuel Pump, Aux Engine	28	4-5	95, B95, B95A and D95A	05-27358	---
A80591	480591	477983 and 58-920054-3	Fuel Pump, Aux Engine	14	5-6	B19	05-27503	---
Cessna								
A76284	476284	C291506-0101, 9910088-3 or 9910004-3, -12	Fuel Pump, Heater	28	6-8	310P, 310Q, 320, 340, 414, 421 and 421B	05-27357	---
A76284	476284	C291506-0101, 9910088-3 or 9910004-3, -12	Fuel Pump, Tip Tank	28	6-8	401, 402 and 414	05-27357	---
A76411	476411	5118721-1, 6508091-1 or 6508092-1, -4	Fuel Pump, Heater	28	4-5	335	05-27358	---
A76411	476411	5118721-1, 6508091-1 or 6508092-1, -4	Fuel Pump, Tip Tank	28	4-5	310Q, 310R, 340, 401, 402, 402B and 414	05-27358	---
A76411	476411	5118721-1, 6508091-1 or 6508092-1, -4	Pump, Alcohol/Anti-Ice	28	4-5	335, 402, 404, 421, 425, 441, 500, 501, 525, 550, 560 and 650	05-27358	---
A80564*	480564	480563	Fuel Pump, Aux Engine	28	4-5	152, A152, F152, FA152, 172N, 172P, 172Q, 310K, 310L, 310N, 310P, 310Q, 310R, T310P, T310Q, T310R, 320D, 320E, 320F, 340, 340A, 401, 401A, 401B, 402, 402A, 402B, 411, 411A, 414, 421, 421A, 421B or 421C	05-27502	---
*All A80564 Pumps Must Use The Appropriate Griggs Stc. They Can Be Found On Pma #Pq1206ce.*								
American General (Grumman)								
A76411	476411	n/a	Fuel Pump, Aux Engine	28	4-5	AG-5B	05-27358	---
A78360	478360	TAES2100-3	Fuel Pump, Aux Engine	14	4-5.5	AA-1, AA-1A, AA-1B and AA-1C	05-27500	---
Piper Aircraft								
A76088	476088	62220-004, 481-678	Fuel Pump, Aux Engine	28	4- 5.5	PA-23, PA23-160, PA-23-235, PA-E23-250, PA-23-250 (Navy UO-1)	05-27499	---
A76088	476088	461-740, 622204-004	Fuel Pump, Aux Engine	28	4- 5.5	PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28R-180, PA-28-181, PA-28-235	05-27499	---
A78360	478360	35328-800, 481-666	Fuel Pump, Aux Engine	14	4- 5.5	PA-23, PA-23-160, PA-23-235, PA-E23-250, PA-23-250 (Navy UO-1)	05-27500	---
A78360	478360	481-666	Fuel Pump, Aux Engine	14	4- 5.5	PA-24-250	05-27500	---
A78360	478360	481-666	Fuel Pump, Aux Engine	14	4- 5.5	PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28R-180, PA-28-181, PA-28-235	05-27500	---
A78360	478360	481-666	Fuel Pump, Aux Engine	14	4- 5.5	PA-38-112	05-27500	---
A80543	480543	481-701	Fuel Pump, Aux Engine	14	6.5-8	PA-28-236	05-27501	---
A80543	480543	481-701	Fuel Pump, Aux Engine	14	6.5-8	PA-32-260 and PA-44-180	05-27501	---
A80543	480543	481-842	Fuel Pump, Heater	14	6.5-8	PA-44-180	05-27501	---
A80564*	480564	---	Fuel Pump, Aux Engine	28	4-5	PA-31, PA-31-325, PA-31-350 and PA-34-220T	05-27502	---

EP

# FACET FUEL PUMPS

**IMPORTANT: FACET FUEL PUMPS ARE NOT FAA APPROVED AND ARE NOT INTENDED FOR AIRCRAFT USE.**



## FACET SOLID STATE ELECTRIC FUEL PUMPS

These pumps measure less than 3" in any direction and weigh only 18 oz. Fuel is supplied as soon as the ignition is turned on so the engine will start faster at colder temps. Built-in pressure relief prevents flooding and assures fast re-starts on hottest days. The all-steel plated case is water tight. Mounts with two bolts. For best results, mount the pump close to the fuel tank and below the liquid level.

The tank is self-priming to 12" to 36" Lift min dry. Standard 12 V models require only 1 amp at max. delivery.

Facet No.	Volts	PSI Max-Min	GPH	Fitting Size	Lift Min. Dry	Check Valve	Positive Shut Off Valve	Description	Part No.	Price
40100N	12	7.0-4.0	32	1/8 - 27 INT	36"	N	N	40106 Kit - Nuts, Washers, Bolts, Fittings	05-10771	---
40102N	12	4.0-1.5	25	1/8 - 27 INT	12"	N	N	Kit - Nuts, Washers, Bolts, Fittings	05-10773	---
40104	12	4.0-1.5	25	1/8 - 27 INT	12"	N	N	Facet Solid State	05-00799	---
40105	12	4.5-3.0	30	1/8 - 27 INT	12"	N	N	Facet Solid State	40105	---
40106	12	7.0-4.0	32	1/8 - 27 INT	36"	N	N	Facet Solid State	40106	---
40163	12	2.5-1.5	17	1/8 - 27 INT	24"	Y	N	Facet Solid State	40163	---
40164	24	6.0-4.5	32	1/8 - 27 INT	12"	N	N	Facet Solid State	40164	---
40171	12	3.5-2.0	15	1/8 - 27 INT	12"	Y	Y	Facet Solid State	05-40171	---
40178	12	3.5-2.0	15	1/8 - 27 INT	36"	Y	Y	Facet Solid State	05-10781	---
40185	12	11.5-9.0	32	1/8 - 27 INT	36"	Y	N	Facet Solid State	05-10782	---
40288	12	4.5-3.0	30	1/8 - 27 INT	36"	Y	N	Facet Solid State	05-06860	---
40289	12	7.0 - 4.0	30	1/8 - 27 INT	36"	Y	N	Facet Solid State	05-06861	---
FEP-42SV	12	4.0-1.5	25	1/8 - 27 INT	12"	N	N	40104 Kit-Fuel Filter, Fuel Fitting, 2 Bolts & 2 Nuts	05-00809	---
FEP-42SV	12	4.0-1.5	25	1/8 - 27 INT	12"	N	N	40104 Kit-Fuel Filter, Fuel Fitting, 2 Bolts & 2 Nuts	05-00809	---



## FACET GOLD-FLO INTERRUPTER TYPE PUMPS

Fuel Compatibility: All models of the Facet High Performance Gold-Flo Solid State Fuel Pumps are compatible with gasoline, diesel, biodiesel, blended alcohol fuels and fuel additives.

Reliability: The new Gold-Flo Solid State Fuel Pump is an enhanced version of our Interrupter model. It has Solid State circuitry and will meet or exceed all performance specifications and is totally interchangeable. (These pumps have demonstrated an endurance life almost double that of the nearest competitor, according to our test data).

Easy to Install-Easy to Service: Two bolt mounting makes installations easy. Nothing to adjust. For best results, mount the pump close to the fuel tank and below the fuel level. The pump is self-priming to 24 inches vertical fuel lift. Vertical mounting is preferred to assure maintenance of rated pressures. An installation kit is available for replacement applications. The only service normally required is a simple cleaning of the filter and fuel inlet cavity.

Eliminates Vapor Lock: When properly installed on most vehicles a constant, smooth, dependable supply of fuel under pressure is assured in the hottest weather or in high altitudes.

Facet No.	Volts	PSI Max-Min	GPH	Fitting Size	Lift Min. Dry	Check Valve	Part No.	Price
40007E	12	5.5-4.0	36	1/4"-18 Int.	24"	N	05-10842	---
40131E	12	5.5-4.0	34	1/8"-27 Int.	24"	N	480545	---
476088	24	5.0-4.0	32	1/8"-27 Int.	24"	N	476088	---
476087E	12	5.5-4.0	36	1/8"-27 Int.	24"	N	05-10832	---
476459E	12	8.0-6.5	32	1/8"-27 Int.	24"	N	05-10833	---
477060E	12	4.0-2.75	34	1/8"-27 Int.	24"	N	05-10835	---
480534E	12	8.0-6.0	45	1/4"-18 Int.	24"	N	05-00802	---



## AEROQUIP FITTING FOR FACET PUMPS

On the recommendation of Rutan Aircraft Factory, we now stock Aeroquip #2071-6-6S fitting which is a steel elbow with a swivel nut which fits the 37 flares on the Facet 40108 and 40154 fuel pumps. This Aeroquip fitting makes installation of the pumps easy & economical.

P/N 04-05800

## FACET POSI-FLO SOLID STATE FUEL PUMPS



- Fuel Compatibility: All models of the Facet Posi-Flo Pumps are compatible with gasoline, diesel, biodiesel, blended alcohol fuels and fuel additives.
- Reliability: Proven on thousands of original equipment applications. No bearings, electrical contacts, or diaphragms to wear out or fatigue. Lasts four to five times longer than many other electric pumps.
- Easy to Install-Easy to Service: Two bolt installation plus the small size makes installation easy. For best results, mount the pump close to the fluid or fuel tank and below the liquid level.

Eliminates Vapor Lock: When properly installed on most vehicles a constant, smooth, dependable supply of fuel under pressure is assured in the hottest weather or in high altitudes.

Facet No.	Volts	PSI Max-Min	GPH	Fitting Size	Lift Min. Dry	Check Valve	Part No.	Price
60106	12	7.0-4.0	32	1/8 - 27 INT	12"	N	05-10856	---
60245	12	4.0-1.5	23	1/8 - 27 INT	12"	N	05-10880	---
60300	12	4.0-2.5	20	1/8 - 27 INT	50"	Y	05-06862	---
60301	12	5.0-3.5	30	1/8 - 27 INT	50"	Y	05-06863	---
60302	12	7.0-5.0	32	1/8 - 27 INT	50"	Y	05-06864	---
60303	12	10.0-7.0	34	1/8 - 27 INT	50"	Y	05-10881	---
60304	12	2.0-1.0	15	1/8 - 27 INT	24"	Y	05-10882	---



## FACET DURA-LIFT FUEL PUMPS

- Application: Refrigeration trucks, marine generator sets, diesel filtration systems, industrial applications, and other diesel lift applications. These pumps are rated for diesel fuel, gasoline, blended alcohol fuels, and fuel additives.
- Solid State Reliability: Proven on many original equipment applications No electrical contacts. No bearings or diaphragms to wear out or fatigue. Endurance life almost doubles that of our nearest competitor.
- Easy to Install-Easy to Service: Two bolt mounting makes installations easy. Nothing to adjust. The pump is self-priming to 120 inches (3.0 m). Vertical mounting is preferred to assure maintenance of rated pressures. The transparent housing allows for visual capability to monitor the cleanliness of the stainless steel filter.

Eliminates Vapor Lock: When properly installed on most vehicles a constant, smooth, dependable supply of fuel under pressure is assured in the hottest weather or in high altitudes.

Facet No.	Volts	PSI Max-Min	GPH	Fitting Size	Lift Min. Dry	Check Valve	Part No.	Price
40222	12	11.5-9.0	33	1/8-27 Int.	120"	Y	05-10884	---
40285	12	7.0-4.0	33	1/8-27 Int.	120"	Y	05-10886	---

# WELDON FUEL PUMPS



## WELDON NEW FUEL PUMPS

Over eighty years of reliable pump design, manufacturing, and support for aviation and military communities; we stand by the history of our quality and the quality of our history. Our AS9100 Registered and FAA PAH approved systems ensures quality and provides superior performance - making Weldon the choice of manufacturers and pilots.

Aircraft Make	Applicable Model	Weldon PMA Part No.	OEM Part No.	PMA Replaces Part No.	Part No.	Price
Casa	C212-CB, C212-CC, C212-CD, C212-CE, C212-CF, C212-DE, C212-DF	C4033-E	AC520068	N/A	08-10718	---
	C212-CB, C212-CC, C212-CD, C212-CE, C212-CF, C212-DE, C212-DF	4049-A	AC520068A	N/A	08-10717	---
Cessna	Numerous Single Engine - Visit our website for all parts.	18000-A	C291504-0101	4140-00-17	08-07082	---
Cessna	Numerous Single Engine - Visit our website for all parts.	18000-B	C291504-0201	4140-00-15	08-07083	---
Cessna	Most All Eligibilities As 18000-B Plus the T182 (S/N 18267716 and Up)	XC18000-B	C291504-0201, C291504-0202	4140-00-15, 1515-00-1NV	08-16345	---
Cessna	172R, 172S, 182S/T, T182T	18002-B8	5100-00-4	5100-00-1,-3,-4	08-10719	---
Cessna	172Q (S/N 17275869 thru 17276516), 172RG (S/N 172RG0891 and up), R182 (S/N R18201629 and up)	XC18025-B	C291504-0203, C291504-0204	1500-00-31, 1500-00-35	08-16346	---
Cessna	182	A8160-D	A8160-D	N/A	08-10720	---
Cessna	T182	A8185-B	A8185-B	N/A	08-10725	---
Cessna	206H	A10056-B	A10056-B	N/A	08-10721	---
Cessna	T206H	A10055-B	A10055-B	N/A	08-10726	---
Cessna	210N, T210N, 210R, T210R, P210N (S/N P21000761 thru P21000834), P210R	18000-B8	C291504-0205	1500-00-38	08-16347	---
Cessna	310, 320, 340 & 400 Series	18013-B	4140-00-153	4140-00-153	08-10722	---
Cessna	340A, 414, 421B	8150-B	8150-B	N/A	08-10723	---
Cessna	Cessna/Columbia LC40, LC-41, LC42 (14 VDC Only)	18055-2A8	5173-00-3	5173-00-3	08-17190	---
Cessna	Cessna/Columbia T240, LC41, LC42 (28 VDC Only)	18055-2B8	5544-00-1	5544-00-1	08-17191	---
Cirrus	SR20, SR22, SR22T	18050-2B8	11839-004	5217-00-3, 5217-00-9	08-16348	---
Commander	CPAC (Commander) 112, 112B	A8120-C	A8120-C	N/A	08-10727	---
Beechcraft (Textron Av.)	A23-24 (S/N MA-1 through MA-363), A24 (S/N MA-364 through MA-368), A24R (S/N MC-2 through MC-150), B24R (S/N MC-152 through MC-448, MC-450, MC-451), C24R (S/N MC-449, MC-452 through MC-673)	18035-A	1816-00-1, 1816-00-1NV, 1171-00-1	1816-00-1, 1816-00-1NV, 1171-00-1	---	---
Beechcraft (Textron Av.)	C24R (S/N MC-674 through MC-795)	18035-B	1817-00-1, 1817-00-1NV, 1420-00-1	1817-00-1, 1817-00-1NV, 1420-00-1	---	---
Beechcraft (Textron Av.)	A36 (S/N E-1946, E-2104, E-2111 thru E-3629, E-3631 thru E-3635, G36 (S/N E-3630, E-3636 and after)	18053-2B	"4613-00-5, 4613-00-3NV, 4613-00-3"	"4613-00-5, 4613-00-3NV, 4613-00-3"	08-17081	---
Beechcraft (Textron Av.)	J35 (S/N D-5062, D-5331 through D-5725), K35 (S/N D-5726 through D-6161), M35 (S/N D-6162 through D-6561), N35 (S/N D-6562 through D-6841), P35 (D-6842 through D-7309 - except D-7140), 35-33 (S/N CD-1 through CD-224, CD-233, CD-234, CD-236, CD-241, CD-246 through CD-250), 35-A33 (S/N CD-225 through CD-232, CD-235, CD-237 through CD-240, CD-242 through CD-245, CD-251 through CD-387) 35-B33 (S/N CD-388 through CD-813) 35-C33 (S/N CD-814 through CD-1118, except CD-982), E33 (S/N CD-1119 through CD-1234), F35 (S/N CD-1235 through CD-1254)	18026-A	4140-00-1, 4140-00-1NV, 4140-00-7, 4140-00-7NV	4140-00-1, 4140-00-1NV, 4140-00-7, 4140-00-7NV	08-16170	---
Beechcraft (Textron Av.)	S35 (S/N D-7310 through D-7976), V35 (S/N D-7977 through D-8598), V35A (S/N D-8599 through D-9068), V35B (S/N D-9069 through D-10119 except D-10097), 35-C33A (S/N CE-1 through CE-179), E33A (S/N CE-180 thru CE-289), E33C (S/N CJ-1 thru CJ-25), 36 (S/N E-1 through E-184), A36 (S/N E-185 through E-1240 except E-1111), F33A (S/N CE-290 through CE-771 except CE-748), F33C (S/N CJ-26 through CJ-148), and G33 (S/N CD-1255 through CD-1304)	18021-A	4140-00-39, 4140-00-39NV	4140-00-39, 4140-00-39NV	08-14014	---
Beechcraft (Textron Av.)	V35B (S/N D-10097, D-10120 and after), A36 (S/N E-1111, E-1241 through E-2110 except E-1946 and E-2104), F33A (S/N CE-748, CE-772 and after), and F33C (S/N CJ-149 and after)	18021-B	1296-00-1, 1296-00-1NV	1296-00-1, 1296-00-1NV	08-14015	---
Beechcraft (Textron Av.)	36 (S/N E-1 through E-184), A36 (S/N E-185 through E-1240, except E-1111)	18021-A8	4258-00-15, 4258-00-15NV	4258-00-15, 4258-00-15NV	---	---
Beechcraft (Textron Av.)	B55 (S/N TC-1608 and after), E55 (S/N TE-938, TE-943 and after), 58 (S/N TH-1 through TH-2124), G58 (S/N TH-2125 and after)	XC18054-2B8	4404-00-7NV	4404-00-7NV	08-17082	---
Beechcraft (Textron Av.)	95-B55 & 95-B55A (S/N TC-955 thru TC-1607, except TC-1393 thru TC-1396 & TC-1402), 95-C55 & 95-C55A (S/N TC-350, TE-1 thru TE-451, except TE-50), D55 & D55A (S/N TE-452 thru TE-767), E55 & E55A (S/N TE-768 thru TE-942, except TE-938)	XC18054-2B8	4404-00-1, 96-380020-1	4404-00-1	08-17082	---

CORE CHARGES APPLY. SEE OUR WEBSITE FOR APPLICATION CHART.

# WELDON OVERHAULED FUEL PUMPS

Aircraft Make	Applicable Model (cont'd)	Weldon PMA Part No.	OEM Part No.	PMA Replaces Part No.	Part No.	Price
Beechcraft (Textron Av.)	95-B55 & 95-B55A (S/N TC-1608 thru TC-1969, TC-1971 thru TC-2002), E55 & E55A (S/N TE-938, TE-943 thru TE-1080, TE-1082 thru TE-1083), 58 & 58A (S/N TH-1 thru TH-2124), G58 (S/N TH-2125 and after)	XC18054-2B8	4404-00-7NV, 4404-00-1	4404-00-7NV, 4404-00-1	08-17082	---
Beechcraft (Textron Av.)	95-B55 & 95-B55A (S/N TC-1970, TC-2003 and after), E55 & E55A (S/N TE-1081, S/N TE-1084 and after), 58 & 58A (S/N TH-766, TH-773 thru TH-1535)	XC18054-2B8	4404-00-7NV, 4404-00-7	4404-00-7NV, 4404-00-7	08-17082	---
Beechcraft (Textron Av.)	95-A55, 95-B55, 95-B55A	XC18054-2B	96-380020	4613-00-1, 4613-00-1NV	08-17082	---
Beechcraft (Textron Av.)	D95A, E95, 95-55, 95-A55	18026-B	"4140-00, 4140-00NV"	"4140-00, 4140-00NV"	08-17188	---
Daher	TBM 700	2022-B	6097727225	N/A	08-10728	---
Diamond	DA20-C1 (S/N 0002 and up)	18052-2A	18052-2A	5367-00-1	08-16349	---
Diamond	DA-40, DA-42	18002-B	18002-B	5100-00-9	08-10729	---
Enstrom	F28-A, 280	A8110-G	A8110-G	N/A	08-10730	---
Enstrom	F-28C, 280C, F-28F, 280F, 280FX	A10019-D	A10019-D	N/A		
Enstrom	F-28A, 280C, F-28F, 280F, 280FX	A10019-E	A10019-E	N/A	08-10732	---
Gippsland	GA8 AirVan S/N: GA8-00-004 through GA8-06-107 Service Bulletin SB-GA8-2005-30 Issue 3	8172-A	8172-A	4140 Series	08-10733	---
Gippsland	GA8 AirVan S/N GA8-00-004 through GA8-06-107 Service Bulletin SB-GA8-2005-30 Issue 3	A8172-A	A8172-A	4140 Series	08-10734	---
Found	FBA-2C1, FBA 2C2	A8120-D	A8120-D	N/A	---	---
Fuji	Fuji Heavy Industries FA-200-180 (14 vdc only)	18026-A	4140-00-1, 4140-00-1NV, 4140-00-7, 4140-00-7NV	4140-00-1, 4140-00-1NV, 4140-00-7, 4140-00-7NV	08-16170	---
Fuji	Fuji Heavy Industries FA-200-180 (28 vdc only)	18026-B	4140-00, 4140-00NV	4140-00, 4140-00NV	08-17188	---
Lake	Lake LA-4-200 (Revo, Inc)	18020-A	18020-A	18020-A	05-11890	---
Maule	(With Lycoming IO-540 engines and 14 VDC only) M-5-235C, M-6-235, M-7-235, MT-7-235, M-8-235, M-7-235A, M-7-235B, M-7-235C, MX-7-235, M-7-260, MT-7-260, M-7-260C, M-9-235	18021-A	1471-00-1, 1471-00-3, 1471-00-3CJ	1471-00-1, 1471-00-3, 1471-00-3CJ	08-14014	---
Maule	(with Lycoming O-320/360/540 engines and 14 VDC only) M-5-235C, M-5-180C, M-6-235, M-6-180, M-7-235, MX-7-235, MX-7-180, MXT-7-180, M-8-235, MX-7-160, MXT-7-160, MX-7-180A, MXT-7-180A, MX-7-180B, M-7-235B, M-7-235A, M-7-235C, MX-7-180C, MX-7-160C, MX-7-180AC, M-4-180V	18036-A	1184-00-1, 1184-00-3, 1184-00-3CJ	1184-00-1, 1184-00-3, 1184-00-3CJ	---	---
Mooney	M20C, M20D, M20G	8164-A	8164-A	N/A	08-14018	---
Mooney	M20C, M20D, M20G	18024-A	4140-00-21A	4140-00-21A	08-16169	---
Mooney	M20J (SN 24-0001 thru 24-2999)	A8163-A	A8163-A	N/A	07-00785	---
Mooney	M20J S/N thru 24-2999, M20K S/N thru 25-0999	18020-A	4140-00-19A	4140-00-19A	05-11890	---
Mooney	M20J (SN 24-3000 and up)	A8163-B	A8163-B	N/A	08-10735	---
Mooney	M20K Serial #25-001 to 25-0999	10054-A	10054-A	N/A	08-10736	---
Mooney	M20K Serial #25-1000 & up	10054-B	10054-B	N/A	08-10737	---
Mooney	M20M	A10051-D	A10051-D	N/A	08-10738	---
Mooney	M20R, M20S	A8152-B	A8152-B	N/A	08-10739	---
Mooney	M20R, M20TN, M20U, M20V	18057-2B8	5791-00-1	5791-00-1	08-17192	---
Moravan/ Zlin	Moravan (Zin Z-143L)	A8150-B1	A8150-B1	N/A	08-10740	---
Moravan/ Zlin	Moravan (Zin Z-242L)	D8100-F	D8100-F	N/A	08-10741	---
Piper	Piper PA-23-160, PA-23-235, PA-23-250 Aztec	B8001-H	33959-2	N/A	08-10743	---
Piper	Piper PA23-235 Apache, PA-23-250 Aztec	B8001-G	33959-3	N/A	08-10742	---
Piper	Piper PA-24-250 Comanche (with IO-540-C1B5 only), PA 24-260 (with IO-540-D4A5 Only), PA-24-260 (with IO-540-N1A5 only)	18023-A	481-740	4140-00-218	08-14016	---
Piper	Piper PA-28R-180 PA28R-200 PA-28R-201, PA-28R-201T PA-28RT-201, PA-28RT-201T Arrow & Turbo	8120-G	481-780	N/A	08-08120	---
Piper	Piper PA-28R-201 Arrow	B8120-G	461-758	N/A	08-10744	---
Piper	Piper PA-30, PA-39 Twin Comanche	C8100-J	763-518	N/A	08-10745	---
Piper	Piper PA-31-P Pressurized Navajo	B10007-D	48885-2	N/A	08-10749	---
Piper	Piper PA-31-325, PA-31-300 Navajo	A10014-D44	42113-6	N/A	08-10746	---
Piper	Piper PA31-325, PA31-300, PA-31-350, PA31-350 (T-1020) Navajo	A10014-D40	42113-5	N/A	08-10748	---
Piper	Piper PA31-325, PA-31-350, PA31-350 (T-1020) Navajo	2B6-63WP	481-802	2B6-63	---	---
Piper	Piper PA31-325, PA-31-350, PA31-350 (T-1020) Navajo	2B6-64WP	481-801	2B6-64	---	---
Piper	Piper PA-31-350 Chieftain	A10014-D	53050-2	N/A	08-10747	---
Piper	Piper PA-32-301T PA-32R-301T PA-32RT-300T	10080-B	481-807	N/A	08-10750	---
Piper	Piper PA-32R-301T Saratoga Serial #'s 3257001 & up	10080-D	461-750	N/A	08-10751	---
Piper	Piper PA-42 1000 Cheyenne 400LS	4049-A	4049-A	N/A	08-10717	---
Pilatus	Pilatus B/N BN2A-2, 2A-3, BN2A-20, 21, BN2B-20, 21	A10050-D	354301024	N/A	08-10752	---
Robinson	Robinson R44	19001-B	D-743-3	N/A	08-10753	---

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# WELDON OVERHAULED FUEL PUMPS



## WELDON FACTORY OVERHAULED FUEL PUMPS

Weldon offers our pumps as a factory overhaul. With a weldon factory overhaul, we ensure proper technique and approved parts are utilized to return the pump to service.

Most popular factory overhauled pumps. All weldon pumps available as overhauled - see spruce website.

Description	Part Number	Price
2003-B OH Pump	08-14396	---
4049-A OH Unfeathering Pump	08-14229	---
8120-G/OH MAIN Aux Boost Pump	08-14248	---
81250-H OH Pump	08-14249	---
8150-B OH AUX Transfer Pump	08-14296	---
8163-A OH Pump	08-14306	---
8163-B OH Pump	08-14307	---
8172-A OH Pump	08-14313	---
10080-B OH Pump	08-14386	---
10080-D OH Pump	08-14387	---
18000-A OH MAIN Aux Boost Pump	08-14202	---
18000-B OH MAIN Aux Boost Pump	08-14203	---
18002-B OH MAIN Aux Boost Pump	08-14204	---
18002-B8 OH MAIN Aux Boost Pump	08-14205	---
18013-B OH FUEL Transfer Pump	08-14214	---
18020-A OH MAIN Aux Boost Pump	08-14217	---
18021-A OH MAIN Aux Boost Pump	08-14218	---
18021-A8 OH Pump	08-16168-1	---
18021-B OH MAIN Aux Boost Pump	08-14219	---
18022-B8 OH Pump	08-14220	---
18023-A OH MAIN Aux Boost Pump	08-14221	---
18028-B8 OH Pump	08-14222	---
19001-B OH Pump	08-14397	---
A8122-A OH Pump	08-14295	---
A8123-H/OH Pump	08-14264	---
A8150-B OH Pump	08-14326	---

Description	Part Number	Price
A8150-B1 OH Pump	08-14327	---
A8160-D OH Pump	08-14333	---
A8172-A OH Pump	08-14341	---
A8185-B OH Pump	08-14350	---
A10014-D OH Pump	08-14375	---
A10014-D40 OH Pump	08-14376	---
A10014-D42 OH Pump	08-14377	---
A10014-D44 OH Pump	08-14378	---
A10050-D OH Pump	08-14360	---
A10051-D OH Pump	08-14361	---
A10055-B OH Pump	08-14364	---
A10056-B OH Pump	08-14365	---
A10063-A OH Pump	08-14366	---
B8001-G OH AUX Pump	08-14272	---
B8001-H OH AUX Pump	08-14273	---
B8110-F OH Pump	08-14276	---
B8110-G OH Pump	08-14277	---
B8120-G OH MAIN AUX Pump	08-14278	---
B8120-H OH Pump	08-14279	---
B10000-F OH Pump	08-14382	---
B10010-F OH Pump	08-14384	---
C8100-E OH Pump	08-14285	---
C8100-F OH Pump	08-14286	---
D8100-E OH Pump	08-14289	---
D8100-F OH MAIN AUX Pump	08-14290	---
T18009-B8 OH Pump	08-14223	---

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## WELDON FACTORY DUKES PUMP REPLACEMENT GUIDE

The preferred replacement by OEMs and Pilots alike. Made for continuous duty. The Choice for Performance, Safety, Durability – and we back it up!

PMA Replaces Part No.	Weldon PMA Part No.	Spruce Part No.	Spruce OH Part No.	Price
1184-00-3, 1184-00-3CJ	18036-A			
1171-00-1	18035-A			
1184-00-1	18036-A			
1296-00-1, 1296-00-1NV	18021-B	08-14015	08-14219	---
1420-00-1	18035-B			
1471-00-1	18021-A	08-14014	08-14218	---
1471-00-3, 1471-00-3CJ	18021-A	08-14014	08-14218	---
1500-00-31	XC18025-B	08-16346		
1500-00-35	XC18025-B	08-16346		
1500-00-38	18000-B8	08-16347		
1515-00-1NV	XC18000-B	08-16345		
18020-A	18020-A	05-11890	08-14217	---
1816-00-1, 1816-00-1NV	18035-A			
1817-00-1, 1817-00-1NV	18035-B			
4140-00, 4140-00NV	18026-B	08-17188		
4140-00-1, 4140-00-1NV	18026-A			
4140-00-15	18000-B	08-07083	08-14203	---
4140-00-153	18013-B	08-10722	08-14214	---
4140-00-17	18000-A	08-07082	08-14202	---
4140-00-19A	18020-A		08-14217	08-14217
4140-00-218	18023-A	08-14016	08-14221	---
4140-00-21A	18024-A			
4140-00-39, 4140-00-39NV	18021-A	08-14014	08-14218	---
4140-00-7, 4140-00-7NV	18026-A			
4258-00-15, 4258-00-15NV	18021-A8		08-16168-1	
4404-00-1	XC18054-2B8	08-17082		---
4404-00-7, 4404-00-7NV	XC18054-2B8	08-17082		---
4613-00-1, 4613-00-1NV	XC18054-2B	08-17082		---
4613-00-3, 4613-00-3NV	18053-2B	08-17081		---
4613-00-5	18053-2B	08-17081		---
5100-00-1	18002-B8	08-10719	08-14205	---
5100-00-3	18002-B8	08-10719	08-14205	---
5100-00-4	18002-B8	08-10719	08-14205	---
5100-00-9	18002-B	08-10729	08-14204	---
5173-00-3	18055-2A8	08-17190		---
5217-00-3	18050-2B8	08-16348		---
5217-00-9	18050-2B8	08-16348		---
5367-00-1	18052-2A	08-16349		---
5544-00-1	18055-2B8	08-17191		---
5791-00-1	18057-2B8	08-17192		---

**CORE CHARGES APPLY.**  
**SEE OUR WEBSITE FOR APPLICATION CHART.**



## TEMPEST REBUILT FUELPUMP RG-9080J4A/M

Tempest rebuilt fuel pump RG-9080J4A/M for engine model TIO-360-A3B6 .....P/N 05-15063

## TEMPEST ROMEC / CRANE FUEL PUMP REBUILT QUICK KITS

The next time you rebuilt your fuel components, don't spend time on the phone chasing parts, just order a "Quick Kit" and take the hassle out of your rebuild. Quick Kits include the mandatory replacement parts, plus the parts used by fuel professionals to insure the job is done right!

Fuel Servo No.	Model Number	Our Part No.	Quick Kit No.	Price
RG-9080	2, F1, F2, G1, G2, J1, J2, J3, J4, J5, J7A, J4A	07-09080-0	CFK-9080-0	---
RG-15980	A, B, B1, C, D, E, F, G, N, N1, P, P1, R, R1, S, S1	07-15980	CFK-15980	---

## SAFE-T SYPHON

The Safe-T Syphon works with a 1/2 inch hose and the "pump" is made from copper tubing with a glass marble. This makes it ideal for high capacity siphoning of almost any liquid, including fresh and salt water, gasoline, diesel fuel, oil, etc.  
P/N 05-22001



## ROTARY FUEL PUMP

Industry Standard for Rotary pumps; these are by far the heaviest duty, for severe outdoor use in extreme weather conditions. Deliver media with a head / lift up to 20' solid cast iron construction, fully CNC machined to close tolerances. Pump handle rotates a high quality sintered powder metal 3 vane rotor inside a highly finished pumping chamber. The graphite veins are self lubricating & non wearing with high quality graphite seal that allows the pump to be used with a wide variety of fluids including diesel with up to 15% ethanol blend. This pump has self priming operation with discharge up to 38 LPM (10 GPM). Also supplied complete with 2" Bung, Telescopic Suction Tube with Strainer for use with 15 gallons (50 litre) – 55 gallons (205 litre) barrels. DO NOT USE With Water Based Media.  
P/N 08-07611



## 7GPM SIPHON PUMP FOR DRUMS

7 gpm bellow action siphon pump includes 4ft. discharge hose and 2" bung, fits 15-30-55 gallon barrels. Pump, Siphon, 7 GPM Drum Pump, Siphon, 500 SSU, Outlet Size 1 Inch Outside Diameter, Suction Design Tube, Suction Pipe Size Outside Diameter 1 In, Adapter Type 2 Inch NPT Bung, Fits 15, 30 and 55 Gallon Drums, Piston Polyethylene, Pump Body Material Polyethylene, Max Temp 140 Degree F, Includes Discharge Tubing, Discharge Tubing Material Corrugated Flexible Polyethylene, Internal Parts Material Polyethylene, Overall Length 45 3/4 In, Self Priming, Suction Tube 34 Inches Long .....P/N 08-07616

# FUEL PUMPS



## CJ AVIATION NEW AND NEW EXCHANGE FUEL PUMPS

New FAA-PMA Direct Replacement Fuel Boost Pumps for Cessna, Beech, Diamond, Navion, Maule, Mooney, Lake and Diamond Aircraft. These certified drop in replacement pumps have a new improved check valve and more efficient motor. There are no Service Bulletins which eliminates the 10 year overhaul requirements. Pumps are warranted for two years or 300 hours. Exchange pumps are in stock and CJ Aviation, Inc. is willing to drop ship on behalf of Aircraft Spruce for quicker delivery. All pumps come with 8130's and technical support from the manufacturer.

### NEW OUTRIGHT FUEL PUMPS

Model No.	OEM No.	Description	Part No.	Price
4140-00-15CJ	4140-00-15	CJ Fuel Pump New	05-07962	---
4140-00-17CJ	4140-00-17	CJ Fuel Pump New	05-07974	---
5100-00-9CJ	5100-00-9	CJ Fuel Pump New	05-10550	---

### NEW EXCHANGE FUEL PUMPS

Model No.	OEM No.	Description	Part No.	Price
1184-00-3CJ	1184-00-3	CJ Fuel Pump New Exchange	05-07965	---
1296-00-1NVCJ	1296-00-1NV	CJ Fuel Pump New Exchange	05-07966	---
1471-00-3CJ	1471-00-3	CJ Fuel Pump New Exchange	05-07967	---
4140-00-153CJ	4140-00-153	CJ Fuel Pump New Exchange	05-07983	---
4140-00-15CJ	4140-00-15	CJ Fuel Pump New Exchange	05-07969	---
4140-00-17CJ	4140-00-17	CJ Fuel Pump New Exchange	05-07976	---
4140-00-17NCJ	4140-00-17N	CJ Fuel Pump New Exchange	05-07977	---
4140-00-19ACJ	4140-00-19A	CJ Fuel Pump New Exchange	05-07978	---
4140-00-21ACJ	4140-00-21A	CJ Fuel Pump New Exchange	05-07979	---
4140-00-39NVCJ	4140-00-39NV	CJ Fuel Pump New Exchange	05-07981	---
4140-00-400CJ	4140-00-400	CJ Fuel Pump New Exchange	05-07986	---
4140-00-401CJ	4140-00-401	CJ Fuel Pump New Exchange	05-07987	---
4140-00-57CJ	4140-00-57	CJ Fuel Pump New Exchange	05-07982	---
4140-00-7NVCJ	4140-00-7NV	CJ Fuel Pump New Exchange	05-07968	---
4258-00-15NVCJ	4258-00-15NV	CJ Fuel Pump New Exchange	05-07988	---
4404-00-7NVCJ	4404-00-7NV	CJ Fuel Pump New Exchange	05-07989	---
4613-00-3NVCJ	4613-00-3NV	CJ Fuel Pump New Exchange	05-07991	---
4613-00-5NVCJ	4613-00-5NV	CJ Fuel Pump New Exchange	05-07992	---
5100-00-4CJ	5100-00-4	CJ Fuel Pump New Exchange	05-07993	---
5100-00-9CJ	5100-00-9	CJ Fuel Pump New Exchange	05-07994	---

**NOTE: A CORE CHARGE APPLIES TO ALL EXCHANGE FUEL PUMPS. REFER TO OUR WEBSITE FOR DETAILS ON THE CJ AVIATION CORE POLICY.**

### OVERHAULED EXCHANGE FUEL PUMPS

Model No.	Description	Part No.	Price
1184-00-3	Fuel Pump O/H Exchange	05-07997	---
1296-00-1NV	Fuel Pump O/H Exchange	05-07999	---
1500-00-31	Fuel Pump O/H Exchange	05-08003	---
4140-00-11NV	Fuel Pump O/H Exchange	05-08007	---
4140-00-135	Fuel Pump O/H Exchange	05-08018	---
4140-00-184	Fuel Pump O/H Exchange	05-08019	---
4140-00-19B	Fuel Pump O/H Exchange	05-08012	---
4140-00-1NV	Fuel Pump O/H Exchange	05-08006	---
4140-00-21A	Fuel Pump O/H Exchange	05-08013	---
4140-00-218	Fuel Pump O/H Exchange	05-08021	---
4140-00-400	Fuel Pump O/H Exchange	05-08022	---
4140-00-47	Fuel Pump O/H Exchange	05-08016	---
4140-00-57	Fuel Pump O/H Exchange	05-08017	---
4404-00-7NV	Fuel Pump O/H Exchange	05-08023	---
4613-00-3NV	Fuel Pump O/H Exchange	05-08024	---
4140-00-39NV	Fuel Pump O/H Exchange	05-08014	---
4140-00-7NV	CJ O/H Dukes Pump Exchange	05-12622	---

### WELDON PUMP OVERHAUL/EXCHANGES

JC LIP SEAL					
Model	Part No.	Price	Model	Part No.	Price
8150-B	08-14296	---	8163-A	08-14306	---
8159-A	08-14304	---	8163-B	08-14307	---
JC FACE SEAL					
Model	Part No.	Price	Model	Part No.	Price
A8150-B	08-14326	---	A8163-B	08-14366	---
A8150-B1	08-14327	---	A8164-A	08-14337	---
A8163-A	07-00785	---			
J LIP SEAL					
Model	Part No.	Price	Model	Part No.	Price
33959-2	08-14233	---	A8110-G	08-14263	---
33959-3	08-14234	---	B8001-G	08-14272	---
8120-H	08-14249	---	B8001-H	08-14273	---
			C8100-E	08-14285	---
			C8100-F	08-14286	---
J FACE SEAL					
Model	Part No.	Price	Model	Part No.	Price
B8110-G	08-14277	---	B8120-G	08-14278	---
			B8120-H	08-14278	---
JA SERIES					
Model	Part No.	Price			
A8120-C	A8120-C	Call For Quote			

# REFUELING PUMPS – HARTZELL FUEL PUMPS

## PUMPS



These aviation pumps are only intended to be groundbased or vehicle mounted. Do not use or mount in or on the aircraft. For use with aviation gasoline (AVGAS 100LL) and kerosene grade (JET A). User should consult NFPA 407 Standard for aircraft fuel servicing for safety requirements during ground fuel servicing of aircraft using liquid petroleum fuels. This product has no actual or implied compliance with this standard. Manufacturer warranty is 2 years.

**PUMP MODELS THAT MAY BE USED IN AVIATION REFUELING (PO/PX MODELS) ARE NOT SUPPLIED WITH APPROPRIATE HOSE, NOZZLE, AND SUCTION PIPE. THESE ITEMS MUST MEET NFPA 407 GUIDELINES.** For ground-based refueling only. Do not use in or on the aircraft. For use with aviation gasoline (AVGAS 100LL) and kerosene grade (Jet A). User should consult NFPA 407 Standard for Aircraft Fuel Servicing for safety requirements during ground fuel servicing of aircraft using liquid petroleum fuels. This product has no actual or implied compliance with this standard.



M-150S-PO



V25-012PO



PRO20-115PO



PRO35-115PO

## PUMPS

Model No.	Volt	Flow Range	Description	Part No.	Price
M-150S-PO	12-Volt	15 GPM / 57 LPM	GPI Aviation Refueling Pump	08-07463	---
V25-012PO	12-Volt	25 GPM / 95 LPM	GPI Aviation Refueling Pump	08-07464	---
PRO20-115PO	115-Volt	20 GPM / 76 LPM	GPI Aviation Refueling Pump	08-07434	---
PRO35-115PO	115-Volt	35 GPM / 132 LPM	GPI Aviation Refueling Pump	08-07466	---
Use With	For use with gasoline blends (up to E15), diesel fuel blends (up to B20), kerosene. Aviation gasoline (AVGAS 100LL) and kerosene grade (Jet A).				



## METERS

Model No.	Flow Range	Description	Part No.	Price
QM40-G8N	2-40 GPM (Gallon)	GPI Aviation Refueling Meter	08-17435	---
QM40-L8N	8-150 LPM (Liters)	GPI Aviation Refueling Meter	08-07468	---
Use With	For use with gasoline blends (up to E15), diesel fuel blends (up to B20), kerosene. Aviation gasoline (AVGAS 100LL) and kerosene grade (Jet A).			



## COMBOS

Model No.	Description	Part No.	Price
PRO20-115PO/QM40G8N	Combo Pump / Meter - Calibrated in Gallons	08-07436	---
PRO35-115PO/QM40G8N	Combo Pump / Meter - Calibrated in Gallons	08-07471	---
PRO20-115PO/ QM40LBN	Combo Pump / Meter - Calibrated in Liters	08-07437	---
PRO35-115PO/ QM40LBN	Combo Pump / Meter - Calibrated in Liters	08-07438	---

## HARTZELL FUEL PUMPS

FAA/PMA Approved **202F** series Fuel Pumps for Lycoming Engines from Hartzell Engine Technologies. HET **202F** series are a direct replacement for the Crane/Lear/Romec RG9570 series engine driven fuel pumps. Applicable for use on a wide variety of Lycoming engines. The 202F series fuel pumps include two part numbers covering specific installations:

Description	Lear/romec Replacement	Lycoming Replacement	Beech Replacement	Part No.	Price
202F-1001	RG9570k1, RG9570k1/M	62E22586	Beech 50-389141-1	07-03534	\$2975.00
202F-1002	RG9570p1, RG9570p1/M	62E22585, LW-19012	--	07-03537	\$2975.00

## HARTZELL ENGINE TECH NEW FUEL PUMP 201F

The OEM pump on fuel injected Lycoming engines with high flow and pressure requirements. The **201F** series are also available as FAA-PMA approved replacements for the Lear/Romec RG17980 series of fuel pumps. Medium capacity engine driven positive displacement fuel pump Carbon vanes for improved wear characteristics. Tightly toleranced for improved pump performance and low pressure fluctuation.

Description	Lear/romec Replacement	Lycoming Replacement	Part No.	Price
201F-5001	RG17980F/M	62D22565	07-01751	---
201F-5003	RG17980D/M	62D22567	07-01753	---
201F-5005	RG17980J/M	62D22569	07-01755	---
201F-5006	RG17980K/M	62D22570	07-01756	---
201F-5007	RG17980P/M	62D22572	07-01757	---
201F-5008	RG17980U/M	62D22573	07-01758	---

## HARTZELL ENGINE TECH NEW FUEL PUMP 200F

The OEM pump on fuel injected Lycoming engines with high flow and pressure requirements. The **200F** series are also available as FAA-PMA approved replacements for the Lear/Romec RG9080 series of fuel pumps. High capacity engine driven positive displacement fuel pump Carbon vanes for improved wear characteristics. Tightly toleranced for improved pump performance and low pressure fluctuation.

Description	Lear/romec Replacement	Lycoming Replacement	Part No.	Price
200F-5001	RG9080F2/M	62E22580	07-01746	---
200F-5002	RG9080J4A/M	62E22581	07-01747	---
200F-5003	RG9080J6A/M	62E22582	07-01748	---
200F-5004	RG9080J7A/M	62E22583	07-01749	---
200F-5005	RG9080J8A/M	62E22584	07-01750	---



# FUEL PUMPS

## ANDAIR FUEL BOOST PUMPS



**PX375-TC** Boost Pump for 3/8" Fuel Lines: • Integral bypass and pressure relief valve • 11-14V DC, 6 amps max • Weight: 460g (16.23 oz) • Fittings: 1/4 NPT input, AN-6 male output • 1/4 NPT to AN-6 adapter included • Suitable for injection engines such as Lycoming IO320, IO360, IO540 etc. It is strongly recommended that a filter is fitted upstream of the pump. The output of this FX375-MK filter can be fitted directly to the input of this pump.

**PX500-TC** Boost Pump for 1/2" Fuel Lines: • Integral bypass and pressure relief valve • 11-14V DC, 6 amps max • Weight: 470g (16.23 oz) • Fittings: 3/8 NPT input, AN-8 male output • 3/8 NPT to AN-8 adapter included • Suitable for injection engines such as Lycoming IO540 etc. It is strongly recommended that a filter is fitted upstream of the pump. The output of this FX500-MK filter can be fitted directly to the input of this pump.

PX375-TC Pump for 3/8" Fuel Lines .....P/N 05-12559  
PX500-TC Pump for 1/2" Fuel Lines .....P/N 07-01334

### ANDAIR FILTERS

FX375-MK for 3/8" Lines .....P/N 05-12560  
FX500-MK for 1/2" Lines .....P/N 05-12561

## ANDAIR FUEL PUMP KITS



These systems have a PX375-TC Fuel Boost Pump either for 3/8" or 1/2" fuel lines and GAS375 Gascolator. Some kits may have two Gascolators: one with the standard flow direction (Right to Left) and one with the reverse flow (Left to Right), mounted in the wing roots. Fitting a Gascolators in each wing root, rather than one in the centre console, allows for easier maintenance, and keeps any fuel odours from spills that may occur during maintenance outside of the cabin. Filtering fuel for the Fuel Boost Pump is a must, and the Gascolators perform dual roles of trapping any water and filtering the fuel for the Fuel Pump.

Engine Size	Description	Andair Part No.	Contents	Part No.	Price
IO320 - IO360	Filter Pump Kit	FPK-360	Boost Pump 3/8", Fuel Filter	07-01352	---
IO320 - IO360	Fuel System Deluxe	FS-DE-LUXE-360	Boost Pump 3/8", Fuel Filter, Type 7 Valve, Gascolator, Bulkhead Fitting	07-01354	---
IO320 - IO360	Fuel System Super Deluxe	FS-S/DE-LUXE-360	Boost Pump 3/8", Fuel Filter, Type 7 Valve, 2-Gascolators, Bulkhead Fitting	07-01355	---
IO540 - IO580	Filter Pump Kit	FPK-540	Boost Pump 1/2", Fuel Filter	07-01357	---



## DUKES OVERHAULED FUEL PUMPS

Dukes Aerospace Fuel Pumps are available on an overhaul exchange basis. All fuel pumps are overhauled in accordance with factory specifications and contain 100% OEM parts.

Attention: There will be an additional Core Charge per order.

Model No.	Part No.	Price
1184-00-1	08-07563	---
1296-00-1	08-07565	---
1458-00-1	08-07567	---
1471-00-3	08-07568	---
1499-00-21NV	08-07569	---
1500-00-35	08-07571	---
1500-00-38	08-07572	---
1515-00-1	08-07573	---
1521-00-1	08-07574	---
1816-00-1NV	08-07575	---
4140-00-153	08-07576	---
4140-00-19A	08-07578	---
4140-00-1	08-07579	---
4140-0-218	08-07580	---
4140-00-21A	08-07581	---
4140-00-39	08-07582	---
4140-00-57	08-07583	---
4150-00-1	08-07584	---
4258-00-15	08-07585	---
4404-00-404	08-07586	---
4613-00-5NV	08-07589	---
5100-00-19	08-07590	---
5217-00-3	08-07592	---
1499-00-19	08-07593	---
1500-00-42	08-07594	---
4140-00-7	08-07595	---
4140-00-11	08-07596	---
4140-00-17	08-07597	---
4140-00-67	08-07598	---
4140-00-198	08-07599	---
4140-00-311	08-07600	---
4258-00-21	08-07601	---
4634-00	08-07602	---
5100-00-9	08-07603	---
5288-00-1	08-07604	---
5367-00-1	08-07605	---
5596-00-1	08-07606	---

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## RAPCO DUKES OVERHAULED FUEL PUMPS

Model No.	Part No.	Price
4140-00	08-13508	---
4140-00-103	08-13509	---
4140-00-153	08-13510	---
4140-00-17	08-13511	---
4140-00-191	08-13512	---
4140-00-19A	08-13513	---
4140-00-1	08-13514	---
4140-00-11	08-13515	---
4140-00-218	08-13516	---
4140-00-21A	08-13517	---
4140-00-220	08-13518	---
4140-00-301	08-13519	---
4140-00-311	08-13520	---

Model No.	Part No.	Price
4140-00-39	08-13521	---
4140-00-47	08-13522	---
4140-00-57	08-13523	---
4140-00-7	08-13524	---
4258-00-15	08-13525	---
4404-00-7	08-13526	---
4404-00-8	08-13527	---
4613-00-1	08-13528	---
4613-00-3	08-13529	---
4613-00-5	08-13530	---
1171-00-1	08-13531	---
1184-00-3	08-13533	---

Model No.	Part No.	Price
1420-00-1	08-13535	---
1429-00-1	08-13536	---
1458-00-1	08-13537	---
1471-00-3	08-13538	---
1499-00-19	08-13539	---
1499-00-21	08-13540	---
1500-00-22	08-13541	---
1500-00-35	08-13542	---
1500-00-38	08-13543	---
1500-00-65	08-13544	---
1500-00-67	08-13545	---
1515-00-1	08-13546	---

# POWERUP BENDIX MAGNETOS



## POWERUP OVERHAULED BENDIX MAGNETOS

Overhauled Bendix Magnetos By Powerup.

**Note:** Accessories include the TCM/Bendix IMPULSE Couplings (core charge applies) and the TCM/Bendix CAM Couplings (core charge applies).

**Note:** Please verify P Lead end before ordering. Contact sales for more information.

Core charges apply to all Overhauled Magnetos.

Model	Part Number	Price	Model	Part Number	Price	Model	Part Number	Price
10-51360-29	10-51360-29	---	10-349350-6R	07-01593	---	10-500516-4R	07-18140	---
10-51360-37R	10-51360-37R	---	10-349350-7R	07-01594	---	10-500556-101R	07-02546	---
10-349370-4R	10-349370-4R	---	10-349365-1R	07-01596	---	10-600606-1R	07-02587	---
10-349310-1R	10-349310-1R	---	10-349365-3R	07-01597	---	10-600616-3R	07-02590	---
10-51360-27	10-51360-27R	---	10-349365-6R	07-01598	---	10-600616-7R	07-02591	---
10-163050-9R	10-16305-9	---	10-349365-9R	07-02512	---	10-600644-201R	10-06225	---
10-51365-47R	10-51365-47R	---	10-349365-10R	07-01595	---	10-600646-2R	07-02597	---
10-163005-11R	07-01523	---	10-349370-1R	07-01602	---	10-600646-201R	07-02594	---
10-163005-3R	07-01524	---	10-349370-2R	07-01603	---	10-682555-13R DU	07-01667	---
10-163010-15R	07-01526	---	10-349370-4DR	07-02974	---	10-682555-16R DU	07-02607	---
10-163010-2R	07-01527	---	10-349370-5R	07-01606	---	10-682555-141R DU	07-02601	---
10-163010-6R	07-01529	---	10-349370-6R	07-01607	---	10-682555-151R DU	07-02605	---
10-163015-3R	07-01531	---	10-349420-1R	07-02516	---	10-682560-13R DU	07-01671	---
10-163020-4R	07-01534	---	10-349420-2R	07-02517	---	10-682605-13R DU	07-01672	---
10-163045-1R	07-01536	---	10-349460-1DR	07-01609	---	10-682610-13R DU	07-01673	---
10-163045-2R	07-01537	---	10-349460-1R	07-02518	---	10-682620-11R	07-01674	---
10-163045-3R	07-01538	---	10-349460-2R	07-02519	---	10-682910-13R DU	07-01675	---
10-163045-6R	07-01539	---	10-349490-1DR	07-01610	---	10-682910-18R DU	07-01676	---
10-163045-8R	07-01540	---	10-349490-1R	07-02520	---	10-79020-10R	10-79020-10	---
10-163050-1R	07-01541	---	10-349490-3R	07-01612	---	10-79020-118R	07-01677	---
10-163050-2R	07-01542	---	10-349500-1R	07-01613	---	10-79020-119R	07-01678	---
10-163050-6R	07-01543	---	10-349510-1DR	07-01614	---	10-79020-17R	07-01681	---
10-163050-7R	07-01544	---	10-349510-3R	07-01616	---	10-79020-18R	07-01682	---
10-163055-1R	07-01546	---	10-349520-1DR	07-01617	---	10-79020-19R	07-01683	---
10-163060-2R	07-01548	---	10-349520-1R	07-01618	---	10-163020-2R	08-15795	---
10-349220-4R	07-01549	---	10-382555-11R DU	07-01620	---	10-163030-1R	08-15796	---
10-349235-3R	07-01551	---	10-382555-12R DU	07-01621	---	10-500514-2R	08-15799	---
10-349260-3R	07-01553	---	10-382555-151R D	07-01624	---	10-500514-3R	08-15800	---
10-349260-4R	07-01554	---	10-382555-15R DU	07-01625	---	10-500514-4R	08-15801	---
10-349260-6R	07-01556	---	10-382555-16R DU	07-01626	---	10-500514-5R	08-15802	---
10-349260-7R	07-01557	---	10-382560-11R DU	07-01627	---	10-500514-8R	08-15803	---
10-349270-7R	07-01558	---	10-382605-10R DU	07-01630	---	10-500514-201R	08-15804	---
10-349285-1R	07-01559	---	10-382605-13R DU	07-01631	---	10-500516-2R	08-15805	---
10-349285-5R	07-01560	---	10-382610-11R DU	07-01632	---	10-500516-3R	08-15806	---
10-349285-7R	07-01561	---	10-382610-13R DU	07-01633	---	10-500516-5R	08-15807	---
10-349290-17R	07-01562	---	10-382610-14R DU	07-01634	---	10-500516-6R	08-15808	---
10-349290-1DR	07-01563	---	10-382610-221R DU	07-01635	---	10-500516-7R	08-15809	---
10-349290-2DR	07-01565	---	10-382620-11R DU	07-01636	---	10-500516-9R	08-15810	---
10-349290-2R	07-01566	---	10-382910-13R DU	07-01637	---	10-500516-10R	08-15811	---
10-349290-3DR	07-01567	---	10-382910-18R DU	07-01638	---	10-500556-901R	08-15816	---
10-3492920-3R	07-01568	---	10-382920-11R DU	07-01639	---	10-52350-20R	08-15818	---
10-349290-4R	07-01569	---	10-51360-41R	07-01640	---	10-52350-23R	08-15819	---
10-349290-9R	07-01570	---	10-51360-45R	07-01642	---	10-600604-1R	08-15820	---
10-349300-4DR	07-01571	---	10-51360-46R	07-01643	---	10-600606-3R	08-15821	---
10-349300-4R	07-01572	---	10-51360-47R	07-01644	---	10-600614-2R	08-15822	---
10-349305-1DR	07-01573	---	10-51360-54R	07-01646	---	10-600614-3R	08-15823	---
10-349305-2R	07-01575	---	10-500556-203R	07-19311	---	10-600616-4R	08-15824	---
10-349305-3R	07-01576	---	10-51360-58R	07-01648	---	10-600616-5R	08-15825	---
10-349305-4R	07-01577	---	10-51365-32R	07-01650	---	10-600616-6R	08-15826	---
10-349310-10R	07-01578	---	10-51365-33R	07-01651	---	10-600616-101R	08-15827	---
10-349310-11R	07-01579	---	10-51365-34R	07-01652	---	10-600644-3R	08-15829	---
10-349310-14R	07-01580	---	10-51365-35R	07-01653	---	10-600644-4R	08-15830	---
10-349310-2R	07-01582	---	10-51365-40R	07-01654	---	10-600644-5R	08-15831	---
10-349310-3R	07-01583	---	10-51365-43R	07-01655	---	10-600644-202R	08-15832	---
10-349310-4DR	07-01584	---	10-51365-44R	07-01656	---	10-600646-101R	08-15833	---
10-349310-5R	07-01586	---	10-51365-45R	07-01657	---	10-600646-3R	08-15834	---
10-349310-8DR	07-01587	---	10-51365-48R	07-01659	---	10-600646-4R	08-15835	---
10-349310-8R	07-01588	---	10-51365-57R	07-01660	---	10-600654-1R	08-15836	---
10-349320-4DR	07-01589	---	10-51365-9R	07-01661	---	10-600656-3R	08-15837	---
10-349320-4R	07-01590	---	10-52350-22R	07-01664	---	10-79020-16R	08-15838	---

EP

# BENDIX MAGNETOS



## OVERHAULED BENDIX MAGNETOS

A Bendix magneto is a specific type of aircraft magneto manufactured by Teledyne Continental Motors. There are multiple models of Bendix magnetos, and they can be infinitely overhauled. As a result, the Bendix magneto is more often overhauled than bought new, allowing for efficient, cost-effective use.

Core charges apply to all Overhauled Magnetos.

Description	Part No.	Price
10-163010-10 O/H Bendix Mag	07-01949	---
10-163020-4 O/H Bendix Mag	07-01950	---
10-163060-1R O/H Bendix Mag	07-02392	---
10-349290-9 O/H Bendix Mag	07-01955	---
10-349220-4 O/H Bendix Mag	07-01939	---
10-349220-5 O/H Bendix Mag	07-01935	---
10-349260-6 O/H Bendix Mag	07-01936	---
10-349260-7 O/H Bendix Mag	07-01938	---
10-349285-1 O/H Bendix Mag	07-01975	---
10-349290-17 O/H Bendix Mag	07-01952	---
10-349290-1 O/H Bendix Mag	07-01933	---
10-349290-2 O/H Bendix Mag	07-01953	---
10-349290-3 O/H Bendix Mag	07-01976	---
10-349290-4 O/H Bendix Mag	07-01954	---
10-349293-1 O/H Bendix Mag	07-01977	---
10-349300-4 O/H Bendix Mag	07-01946	---
10-349305-1 O/H Bendix Mag	07-01941	---
10-349305-3 O/H Bendix Mag	07-01978	---
10-349310-14 O/H Bendix Mag	07-01979	---
10-349310-1 O/H Bendix Mag	07-01932	---
10-349310-1r O/H Bendix Mag	07-01932	---
10-349310-2 O/H Bendix Mag	07-01980	---
10-349310-4R O/H Bendix Mag	07-02402	---
10-349310-8 O/H Bendix Mag	07-01981	---
10-349320-4 O/H Bendix Mag	07-01982	---
10-349350-4 O/H Bendix Mag	07-01931	---
10-349350-5 O/H Bendix Mag	07-01930	---
10-349350-7 O/H Bendix Mag	07-01989	---
10-349365-10 O/H Bendix Mag	07-01957	---
10-349365-1 O/H Bendix Mag	07-01990	---
10-349365-3 O/H Bendix Mag	07-01942	---
10-349365-6 O/H Bendix Mag	07-01958	---
10-349370-1 O/H Bendix Mag	07-01960	---
10-349370-4 O/H Bendix Mag	07-01934	---
10-349420-1 O/H Bendix Mag	07-01961	---
10-349420-2 O/H Bendix Mag	07-01962	---
10-349460-1 O/H Bendix Mag	07-01963	---
10-349460-2 O/H Bendix Mag	07-01991	---
10-349490-2 O/H Bendix Mag	07-01964	---
10-349520-1 O/H Bendix Mag	07-01992	---
10-382555-14 O/H Bendix Mag	07-01947	---
10-500514-1 O/H Bendix Mag	07-01973	---
10-500516-2 O/H Bendix Mag	07-01974	---
10-500516-3R O/H Bendix Mag	07-02418	---
10-500556-101 O/H Bendix Mag	07-01993	---
10-500556-103 O/H Bendix Mag	07-01927	---
10-500556-1 O/H Bendix Mag	07-01929	---
10-500556-203 O/H Bendix Mag	07-01983	---
10-500556-3 O/H Bendix Mag	07-01924	---
10-500556-901R O/H Bendix Mag	07-02424	---
10-51360-27R O/H Bendix Mag	07-02549	---
10-51360-28R O/H Bendix Mag	07-02550	---
10-51360-29R O/H Bendix Mag	07-02551	---
10-51360-37 O/H Bendix Mag	07-01943	---
10-51360-41R O/H Bendix Mag	07-02553	---
10-51360-45R O/H Bendix Mag	07-02556	---
10-51360-47R O/H Bendix Mag	07-02557	---
10-51360-48R O/H Bendix Mag	07-02560	---
10-51360-54R O/H Bendix Mag	07-02561	---
10-51360-55R O/H Bendix Mag	07-02562	---

Description	Part No.	Price
10-51360-58R O/H Bendix Mag	07-02563	---
10-51365-32 O/H Bendix Mag	07-01965	---
10-51365-33 O/H Bendix Mag	07-01966	---
10-51365-34 O/H Bendix Mag	07-01967	---
10-51365-43 O/H Bendix Mag	07-01968	---
10-51365-46 O/H Bendix Mag	07-01969	---
10-51365-47 O/H Bendix Mag	07-01944	---
10-51365-57 O/H Bendix Mag	07-01970	---
10-51365-9R O/H Bendix Mag	07-02581	---
10-51365-35R O/H Bendix Mag	07-02567	---
10-51365-39R O/H Bendix Mag	07-02569	---
10-51365-40R O/H Bendix Mag	07-02570	---
10-51365-44R O/H Bendix Mag	07-02573	---
10-51365-45R O/H Bendix Mag	07-02574	---
10-51365-48R O/H Bendix Mag	07-02579	---
10-52350-20R O/H Bendix Mag	07-02583	---
10-52350-22R O/H Bendix Mag	07-02584	---
10-52350-23R O/H Bendix Mag	07-02586	---
10-600606-1 O/H Bendix Mag	07-01971	---
10-600614-1R O/H Bendix Mag	07-02425	---
10-600616-3R O/H Bendix Mag	07-02589	---
10-600616-7R O/H Bendix Mag	07-02592	---
10-600646-1 O/H Bendix Mag	07-01985	---
10-600646-201 O/H Bendix Mag	07-01925	---
10-600646-2 O/H Bendix Mag	07-01972	---
10-600656-1 O/H Bendix Mag	07-01945	---
10-682610-221R O/H Bendix Mag	07-02439	---
10-79020-10 O/H Bendix Mag	07-01940	---
10-79020-16 O/H Bendix Mag	07-01986	---
10-79020-6 O/H Bendix Mag	07-01987	---
10-349350-6 O/H Bendix Mag	07-01988	---

## OVERHAULED BENDIX DUAL MAGNETOS

Description	Part No.	Price
10-382555-11R O/H Bendix Dual Mag	07-02405	---
10-382555-141R O/H Bendix Dual Mag	07-02407	---
10-382555-151R O/H Bendix Dual Mag	07-02409	---
10-382555-15R O/H Bendix Dual Mag	07-02408	---
10-682555-15R O/H Bendix Dual Mag	07-02429	---
10-382555-16R O/H Bendix Dual Mag	07-02411	---
10-382560-11R O/H Bendix Dual Mag	07-02412	---
10-382560-13R O/H Bendix Dual Mag	07-02413	---
10-382610-13R O/H Bendix Dual Mag	07-02414	---
10-382610-221R O/H Bendix Dual Mag	07-02415	---
10-382910-13R O/H Bendix Dual Mag	07-02416	---
10-382910-18R O/H Bendix Dual Mag	07-02417	---
10-682555-11R O/H Bendix Dual Mag	07-02426	---
10-682555-13R O/H Bendix Dual Mag	07-02427	---
10-682555-151R O/H Bendix Dual Mag	07-02430	---
10-682555-16R O/H Bendix Dual Mag	07-02431	---
10-682560-11R O/H Bendix Dual Mag	07-02432	---
10-682560-13R O/H Bendix Dual Mag	07-02433	---
10-682605-13R O/H Bendix Dual Mag	07-02434	---
10-682610-11R O/H Bendix Dual Mag	07-02435	---
10-682610-131R O/H Bendix Dual Mag	07-02438	---
10-682610-13R O/H Bendix Dual Mag	07-02437	---
10-682620-11R 8 cyl O/H Bendix Dual Mag	07-02440	---
10-682910-18R O/H Bendix Dual Mag	07-02442	---
10-682920-11R 8 cyl O/H Bendix Dual Mag	07-02443	---

# BENDIX-SCINTILLA MAGNETOS

## BENDIX MAGNETO ENGINE APPLICATIONS

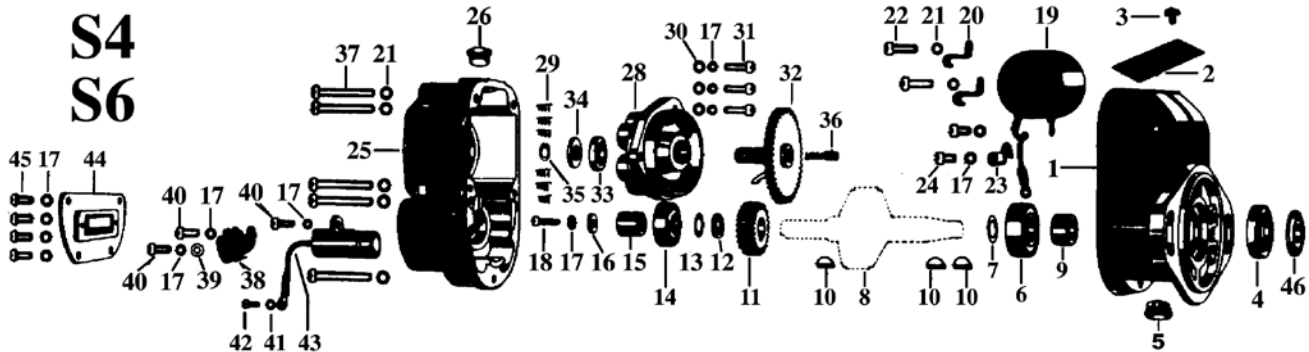
Make	Engine Model	Magneto Type	Magneto Replacement	Units per Engine
Continental	A-65-8, A-75-8,	S4RN-20	10-51360-27 (Rt. Side)	1
	C-75-8, C-85-8 with original crankcase	S4RN-21	10-51360-28 (S.Lt. Side)	1
	A65-8, A-75-8, C-75-8, C-85-8 with current crankcase castings No. 6794 & No. 6795	S4RN-21	10-51360-28	2
	C-75-12F, C-85-8F, C-85-12F, C-90-12,	S4LN-21	10-51360-26	2
	C-115, C-125-2, C-145-2, C-145-4	S6LN-21	10-51365-39	2
	E-165-2, E-185-2 (above S/N 10111) E-185-3, E-185-9 (above S/N 5937) (above S/N 20922), E-225-4, E-225-8 (all), O-470- (above S/N 5937)	S6LN-20	10-51365-43	2
	GO-300A, GO-300B	S6RN-21	10-51365-35	2
	O-470-2, -4, -13, -A, -B, -E, -G, -J, -K, -L, -M, BGSO-526-A	S6RN-25	10-79020-8	2
	O-470-13A	S6LN-23	10-52350-20	2
	PE-150-2, -6 Packette	S6LN-23	10-52350-20	1
Franklin	FSO-526-A	S6RN-26	10-85290-2	2
	6A4-150-B3, 6A4-165-B3	S6RN-21		2
	6V4-178-B3, -B33, O-335-2, -3	S6RN-21	10-51365-48	2

Make	Engine Model	Magneto Type	Magneto Replacement	Units per Engine
Franklin	6V4-200-C32, -C33, O-335-2, -3, -5, -6	S6RN-23	10-52350-19	2
	6A4-200-C6	S6RN-23	10-52350-21	2
Lycoming	††O-145-B2, -B3, -C2, -C3, ††O-235-C,	S4LN-20	10-51360-29	1
	O-235-C1, -C1A,	S4LN-21	10-51360-30	1
	O-320-A1A, -A2A, -B1A, -B2A, O-340-A, -A1A,	S4LN-21	10-51360-30 (25° Lag) or	2
	-A2A, -B1A, B2A, O-360-A, -A1A, -A1B, -B1A, -B2A	S4LN-21	10-51360-25 (35° Lag)	2
	O-290-G (single ignition)	S4LN-21	10-51360-25	1
	GO-435-C2, -C2A, -C2B, -C2B2, -C2C, -C2E, GO-480, -B, -B1A6, -B1C,	S6LN-20	10-51365-31	1
	-B1D, -C1A, -C1D6, -C2E6, -F1A6, -F2A6, -F3A6, -F4A6	S6LN-21	10-51360-32	1
	O-435-19, -20, VO-435A, -A1A, -A1B, -A1C, -A1D, GO-480-C1B6, -D1A,	S6LN-20	10-51365-33	1
	-G1B6, GSO-480-A1A6, -A1C6, -B 1A6, -B1B6, -B1C6	S6LN-21	10-51365-34	1
	O-435-6, -6A, -23, -23A,	S6LN-22	10-52350-22	1
	-23B, -A1C (optional), O-480-1	S6LN-23	10-52350-23	1
	O-435-17, GO-435-C2, -C2A, -C2B, -C2D,	S6LN-20	10-51365-44	1
	GO-480-B1, -B1B, -C2C6, -F3B6, -F4B6	S6LN-21	10-51365-45	1
	O-540	S6LN-20	10-51365-46	1
		S6LN-21	10-51365-47	1

\*See Listing Below.

\*\*New P/N 10-357584. \*\*\*New P/N 10-357586.

## PARTS COMMON TO S4N & S6N MAGNETOS



Ref. No.	Part No.	Description	Price Ea.
1	10-50727Y	Housing - Magneto	---
2	10-400012	Plate - Mag Ident	---
3	10-22067	Drive Screw - Ident Plate	---
4	10-357592	Oil Seal - Drive Shaft	---
5	10-157134	Vent - Mag Housing	---
6	10-81806	Bearing - Mag, Drive End	---
7	2-161-1	Shim Washer - .0025"	---
	2-161-2	Shim Washer - .004"	---
	2-161-3	Shim Washer - .005"	---
	2-161-4	Shim Washer - .008"	---
	2-161-5	Shim Washer - .010"	---
	2-161-6	Shim Washer - .012"	---
	---	(Drive End Bearing)	---
8	---	Magnet - Rotating	---
9	10-25788	Bushing - Drive Shaft	---
10	10-90788-5	Key - Woodruff	---
11	10-157123Y	Gear-Distrib., Small (S4)	---
11A	10-157120Y	Gear-Distrib., Small (S6)	---
12	10-3503	Spacer-Brkr End Bearing	---
13	2-199-1	Shim Washer - .002"	---
	2-199-2	Shim Washer - .004"	---

Ref. No.	Part No.	Description	Price Ea.
13	2-199-3	Shim Washer - .005"	---
	2-199-4	Shim Washer - .008"	---
	2-199-5	Shim Washer - .010"	---
	2-199-6	Shim Washer - .012"	---
	---	(Breaker End Bearing)	---
14	2-202	Bearing-Magnet, Brkr End	---
15	10-88543-1	Cam - Breaker	---
16	10-51354	Washer-Plain (Cam Screw)	---
18	10-35936-10	Screw - Cam	---
19	10-357164	Coil	---
20	10-50765	Clamp - Coil Core	---
21	---	Washer - Lock	---
22	10-35937-8	Screw - Coil Core Clamp	---
23	10-5752	Clip - Primary Lead	---
24	10-16479	Screw	---
25	---	Housing - Distributor	---
26	10-157135	Plug - Distributor Housing	---
27	---	Bushing - Ground Terminal	---
28	10-52949	Block - Distributor (S4)	---
28A	10-52958	Block - Distributor (S6)	---
29	10-50737	Spring-H.T. Cable Contact	---

Ref. No.	Part No.	Description	Price Ea.
30	---	Washer - Plain	---
31	---	Screw - Distributor Block	---
32	10-357584	Gear-Distributor, Large (S4)**	---
32A	10-357586	Gear-Distributor, Large (S6)***	---
33	10-50752	Washer - Felt	---
35	10-92815-37	Ring-Retain. (Distributor, Gear)	---
36	10-9595	Brush - Carbon	---
37	10-157158	Screw	---
38	---	Breaker Assembly*	---
39	10-14268	Washer - Plain	---
40	10-157161	Screw	---
41	---	Washer - Lock	---
42	---	Screw - Lead to Breaker	---
43	10-51676	Condenser	---
44	---	Cover - Breaker	---
45	10-157161	Screw - Breaker Cover	---
46	10-51678	Oil Slinger - Drive Shaft	---

# IGNITION ACCESSORIES

## BENDIX BREAKER ASSEMBLIES



**Early S4, S6 Mags**  
P/N 07-06305 (10-357173) with spring  
(current production) **Ea.**  
P/N 07-06306 (10-357174) without spring  
(current production) **Ea.**

All above breaker assemblies used on either Right or Left Magnetos.  
Late S4/S6 Mags, S200 Mags\*



## BENDIX MAGNETO GREASE

#10-27165 - Factory recommended lubricant for bearings in Bendix magnetos.  
1 Lb. Can .....P/N 10-27165  
#10-391200 - For use on distributor block bushing.  
Provides proper shaft lubrication.  
8 oz. can .....P/N 10-391200

## REPLACEMENT COILS FOR CONTINENTAL ENGINES PER SERVICE BULLETIN NO. 637

TCM Ignition Systems has issued Service Bulletin No. 637 to retire from service certain older coils and rotating magnets. The Bulletin applies to many S-20, S-200, S-600, and S-1200 series magnetos as identified in this chart. Compliance with this Bulletin is required at the next 100 inspection, annual inspection, or progressive maintenance inspection, whichever comes first. Order by new coil part number.

Magneto Series	Old Coil P/N	Color	New Coil P/N	Color	Our Price
S-20	10-163172	Opaque Amber to Dark Purple	10-357165-1	Bright Red to Dark Red	---
S-200	10-163209				
	10-160887				
S-1200	10-349271	Opaque Amber	10-391088-1	Blue to Olive Green to Black	---

## ALTERNATOR FILTER



Replacement part for existing alternator filters. Wire won't break at the case and its clamp is made from heavy gauge steel. Double the capacitance compared to OEM alternator filters. For stubborn alternator noise, this Alternator filter combined with the Eliminator (P/N 11-08055) can trap a wide frequency range of electronic noise. Both of these filters have been thoroughly tested under a DO 160D and are FAA/PMA approved.  
P/N 11-08060



## MAGNETO FILTER FAA APPROVED

Lone Star Aviation's Magneto filter (FEED THRU) (Fail Safe Design) attenuates both low and high frequencies of noise generated from bendix magneto ignition systems. The firing of the aircraft spark plugs through the ignition systems harness can cause noise problems and interference to aircraft electronics such as audio panels, radio equipment, navigation equipment, instrumentation, and autopilot systems on board an aircraft. This filter has been used by avionics shops, OEM aircraft manufacturers, and FBO's, to attenuate and suppress pulsating noise generated by their aircraft's magneto systems. The magneto filter is FAA-PMA approved and is compatible with the bendix series S20, S21, S200, D3000, D4000 magneto.

**Features:** • 1000 VDC working voltage, 5000VDC break down voltage  
• Capacitance: .05 uf-self healing technology • Braided cable is shielded, silver plate over copper, supplied in 8 inch lengths • Heavy duty mounting clamp • Advanced feed through design • Temp. range: -35°C to +80°C • Max. current: 20 amps.....P/N 07-00713

## GROUND TERMINAL KITS



For S-20 series mags. Kit No. 10-52306 (AN3105)

Reg. No.	Part No.	No. Req.	Description
1	10-30299	1	NUT - Coupling (Ground Terminal)
2	10-56507	1	CROMMET Assy.(Ground Terminal)
3	10-3383	1	FERRULE - Inner (Ground Wire)
4	10-25725	1	SLEEVE - Insulating (Ground Wire)



For 20 series mags. Kit No .....P/N 10-52305

Reg. No.	Part No.	No. Req.	Description
1	10-37669	1	NUT - Coupling (Ground Terminal)
2	10-7030	1	FERRULE - Outer (Ground Wire)
3	10-7029	1	FERRULE - Inner (Ground Wire)
4	10-37668	1	SLEEVE - Insulating (Ground Wire)
5	2-155	1	WASHER - Ground Wire Contact

## BOGERT AVIATION GROMMET STRETCHER TOOL



Using the Grommet Stretcher is 2-3x's faster when stretching grommets over fittings and plugs. Improves safety because grommets are continuous. Operating Instructions: 4 Simple Steps Saves time and frustration. Insert grommet over end of Grommet Stretching Tool. Squeeze handle to spread the grommet. Insert cable through grommet and release the squeeze from tool handle. Remove the grommet from tool by sliding grommet off the ends..... P/N 11-06946

## TCM/BENDIX IMPULSE COUPLINGS

**Part No.**  
10-40307  
10-40309  
10-40314  
10-40315

**Price**

Core charge applies

## TCM/BENDIX CAM ASSEMBLIES

**Part No.**  
10-40166-6  
10-40167-4  
10-40167-6

**Price**

Core charge applies

SEE WEBSITE FOR MORE TCM PARTS!

# BOGERT AVIATION P-LEADS

## BOGERT AVIATION SLICK STYLE P-LEADS



21M-PL-SS

P-Leads are a critical part of the ignition system and their good condition is vital to safety and airworthiness. P-leads are often overlooked and seldom replaced because replacement p-leads are not available from the aircraft manufacturer and materials to fabricate new p-leads are not commonly available. Because

most leads are shielded, mechanics do not have the materials, tooling or the experience to fabricate p-leads.

These p-leads are fabricated using proper materials, genuine terminal kits and additional strain reliefs. Each lead is inspected and tested. It is the responsibility of the installing agency to certify that the p-lead is airworthy and matches the requirements of the aircraft.

Bogert P/N	Length	Description	Part No.	Price
21M-PL030-SS	30	P-lead 30" Slick Style	11-06869	---
21M-PL036-SS	36	P-lead 36" Slick Style	11-06870	---
21M-PL042-SS	42	P-lead 42" Slick Style	11-06871	---
21M-PL048-SS	48	P-lead 48" Slick Style	11-06872	---
21M-PL054-SS	54	P-lead 54" Slick Style	11-06873	---
21M-PL060-SS	60	P-lead 60" Slick Style	11-06874	---
21M-PL066-SS	66	P-lead 66" Slick Style	11-06875	---
21M-PL072-SS	72	P-lead 72" Slick Style	11-06876	---
21M-PL084-SS	84	P-lead 84" Slick Style	11-06877	---
21M-PL096-SS	96	P-lead 96" Slick Style	11-06878	---
21M-PL108-SS	108	P-lead 108" Slick Style	11-06879	---
21M-PL120-SS	120	P-lead 120" Slick Style	11-06880	---
21M-PL132-SS	132	P-lead 132" Slick Style	11-06881	---
21M-PL144-SS	144	P-lead 144" Slick Style	11-06882	---
21M-PL156-SS	156	P-lead 156" Slick Style	11-06883	---
21M-PL168-SS	168	P-lead 168" Slick Style	11-06884	---

## BOGERT AVIATION BENDIX ROUND NUT P-LEADS



21M-PL-BR

P-Leads are a critical part of the ignition system and their good condition is vital to safety and airworthiness. P-leads are often overlooked and seldom replaced because replacement p-leads are not available from the aircraft manufacturer and materials to fabricate new p-leads are not commonly available. Because

most leads are shielded, mechanics do not have the materials, tooling or the experience to fabricate p-leads.

These p-leads are fabricated using proper materials, genuine terminal kits and additional strain reliefs. Each lead is inspected and tested. It is the responsibility of the installing agency to certify that the p-lead is airworthy and matches the requirements of the aircraft.

Bogert P/N	Length	Description	Part No.	Price
21M-PL030-BR	30	P-lead 30" Round Nut	11-06891	---
21M-PL036-BR	36	P-lead 36" Round Nut	11-06892	---
21M-PL042-BR	42	P-lead 42" Round Nut	11-06893	---
21M-PL048-BR	48	P-lead 48" Round Nut	11-06894	---
21M-PL054-BR	54	P-lead 54" Round Nut	11-06895	---
21M-PL060-BR	60	P-lead 60" Round Nut	11-06896	---
21M-PL066-BR	66	P-lead 66" Round Nut	11-06897	---
21M-PL072-BR	72	P-lead 72" Round Nut	11-06898	---
21M-PL084-BR	84	P-lead 84" Round Nut	11-06899	---
21M-PL096-BR	96	P-lead 96" Round Nut	11-06901	---
21M-PL108-BR	108	P-lead 108" Round Nut	11-06902	---
21M-PL120-BR	120	P-lead 120" Round Nut	11-06903	---
21M-PL132-BR	132	P-lead 132" Round Nut	11-06904	---
21M-PL144-BR	144	P-lead 144" Round Nut	11-06905	---
21M-PL156-BR	156	P-lead 156" Round Nut	11-06906	---
21M-PL168-BR	168	P-lead 168" Round Nut	11-06907	---

## BOGERT AVIATION BENDIX HEX NUT P-LEADS



P-Leads are a critical part of the ignition system and their good condition is vital to safety and airworthiness. P-leads are often overlooked and seldom replaced because replacement p-leads are not available from the aircraft manufacturer and materials to fabricate new p-leads are not commonly available. Because most leads are shielded, mechanics do not

have the materials, tooling or the experience to fabricate p-leads.

These p-leads are fabricated using proper materials, genuine terminal kits and additional strain reliefs. Each lead is inspected and tested. It is the responsibility of the installing agency to certify that the p-lead is airworthy and matches the requirements of the aircraft.

Bogert P/N	Length	Description	Part No.	Price
21M-PL030-BH	30	P-lead 30" Hex Nut	11-06914	---
21M-PL036-BH	36	P-lead 36" Hex Nut	11-06915	---
21M-PL042-BH	42	P-lead 42" Hex Nut	11-06916	---
21M-PL048-BH	48	P-lead 48" Hex Nut	11-06917	---
21M-PL054-BH	54	P-lead 54" Hex Nut	11-06918	---
21M-PL060-BH	60	P-lead 60" Hex Nut	11-06919	---
21M-PL066-BH	66	P-lead 66" Hex Nut	11-06920	---
21M-PL072-BH	72	P-lead 72" Hex Nut	11-06921	---
21M-PL084-BH	84	P-lead 84" Hex Nut	11-06922	---
21M-PL096-BH	96	P-lead 96" Hex Nut	11-06923	---
21M-PL108-BH	108	P-lead 108" Hex Nut	11-06924	---
21M-PL120-BH	120	P-lead 120" Hex Nut	11-06925	---
21M-PL132-BH	132	P-lead 132" Hex Nut	11-06926	---
21M-PL144-BH	144	P-lead 144" Hex Nut	11-06927	---
21M-PL156-BH	156	P-lead 156" Hex Nut	11-06928	---
21M-PL168-BH	168	P-lead 168" Hex Nut	11-06929	---

## BOGERT AVIATION D2000 & D3000 P-LEADS BENDIX ROUND NUT



21M-PL-DBR

P-Leads are a critical part of the ignition system and their good condition is vital to safety and airworthiness. P-leads are often overlooked and seldom replaced because replacement p-leads are not available from the aircraft manufacturer and materials to fabricate new p-leads are not commonly available. Because most leads are shielded,

mechanics do not have the materials, tooling or the experience to fabricate p-leads.

These p-leads are fabricated using proper materials, genuine terminal kits and additional strain reliefs. Each lead is inspected and tested. It is the responsibility of the installing agency to certify that the p-lead is airworthy and matches the requirements of the aircraft.

Bogert P/N	Description	Part No.	Price
21M-PL030-DBR	30" Round Nut Short Style	11-13539	---
21M-PL036-DBR	36" Round Nut Short Style	11-13540	---
21M-PL042-DBR	42" Round Nut Short Style	11-13541	---
21M-PL048-DBR	48" Round Nut Short Style	11-13542	---
21M-PL054-DBR	54" Round Nut Short Style	11-13543	---
21M-PL060-DBR	60" Round Nut Short Style	11-13544	---
21M-PL66-DBR	66" Round Nut Short Style	11-13545	---
21M-PL072-DBR	72" Round Nut Short Style	11-13546	---
21M-PL084-DBR	84" Round Nut Short Style	11-13547	---
21M-PL096-DBR	96" Round Nut Short Style	11-13548	---
21M-PL108-DBR	108" Round Nut Short Style	11-13549	---
21M-PL120-DBR	120" Round Nut Short Style	11-13550	---
21M-PL132-DBR	132" Round Nut Short Style	11-13551	---
21M-PL144-DBR	144" Round Nut Short Style	11-13552	---
21M-PL156-DBR	156" Round Nut Short Style	11-13553	---
21M-PL168-DBR	168" Round Nut Short Style	11-13554	---
21M-PL180-DBR	180" Round Nut Short Style	11-13555	---
21M-PL192-DBR	192" Round Nut Short Style	11-13556	---
21M-PL204-DBR	204" Round Nut Short Style	11-13557	---
21M-PL216-DBR	216" Round Nut Short Style	11-13558	---
21M-PL228-DBR	228" Round Nut Short Style	11-13559	---
21M-PL240-DBR	240" Round Nut Short Style	11-13560	---

# POWERUP BENDIX MAGNETO REPAIR KITS

These magneto repair kits are designed to simplify the Bendix magneto overhaul process by providing all of the commonly needed overhaul parts in one convenient kit. The Repair Kits contain the parts needed for minor repair such as a 500 hour inspection, and the Deluxe Repair Kits contain the parts needed for major repair such as a magneto overhaul. These parts are highest quality direct replacement parts and are approved for installation and use on certificated aircraft. The Repair Kit and Deluxe Repair Kit for the Bendix -200, -201, and -202 series magnetos contain two sets of contact assembly kits. Some parts that may be need replacing during magneto overhaul are not included in these kits.

## REPAIR KIT

1 - Contact Assy. Kit (3) • 1 - Capacitor • 2 - Bearings • 1 - Oil Seal • 1 - Oil Slinger • 3 - Woodruff Keys • 1 - Cotter Pin • 1 - Cam Screw • 1 - Felt Washer • 1 - Felt Strip • 1 - Snap Ring • 1 - Carbon Brush

## DELUXE REPAIR KIT

1 - Contact Assy. Kit (3) • 1 - Coil Kit • 1 - dist. Block Kit • 1 - Gear Kit • 1 - Capacitor • 2 - Bearings • 1 - Oil Seal • 1 - Oil Slinger • 3 - Woodruff Keys • 1 - Cotter Pin • 1 - Cam Screw

## BENDIX SERIES S-20 & S21

Magneto Part No.	Magneto Type	Repair Kit P/N	Kit Price	Deluxe Repair Kit P/N	Kit Price
10-51360-1	S4R(L)N -20,21	07-00855	---	07-00854	---
10-51360-3					
10-51360-4					
10-51360-6					
10-51360-8					
10-51360-10	S4R(L)N -20,21	07-00825	---	07-00856	---
10-51360-11					
10-51360-12					
10-51360-25					
10-51360-26					
10-51360-27	S4R(L)N -20,21	07-00855	---	07-00854	---
10-51360-28					
10-51360-29	S4R(L)N -20,21	07-00825	---	07-00856	---
10-51360-30					
10-51360-31	S4R(L)N -20,21	07-00855	---	07-00854	---
10-51360-33	S4R(L)N -20,21	07-00825	---	07-00856	---
10-51360-37					
10-51360-40					
10-51360-41					
10-51360-45	S4RN-21	07-00860	---	07-00859	---
10-51360-46	S4R(L)N -20,21	07-00825	---	07-00856	---
10-51360-47	S4RN-21	07-00860	---	07-00859	---
10-51360-48	S4RN-21	07-00858	---	07-00857	---
10-51360-54	S4R(L)N -20,21	07-00825	---	07-00856	---
10-51360-55	S4R(L)N-20, 21	07-00860	---	07-00859	---
10-51360-58					
10-51360-1 up to S.N.238468	S6R(L)N-20, -21	07-00862	---	07-00861	---
10-51365-1 up to S.N.238469	S6R(L)N	07-00864	---	07-00863	---
10-51365-2	S6R(L)N -20,21	07-00862	---	07-00861	---
10-51365-5					
10-51365-7					
10-51365-7					

Magneto Part No.	Magneto Type	Repair Kit P/N	Kit Price	Deluxe Repair Kit P/N	Kit Price
10-51365-9	S6R(L)N -20,21	07-00864	---	07-00863	---
10-51365-13	S6R(L)N -20,21	07-00862	---	07-00861	---
10-51365-14	S6R(L)N -20,21	07-00864	---	07-00863	---
10-51365-15					
10-51365-16					
10-51365-17					
10-51365-20					
10-51365-25					
10-51365-26					
10-51365-27					
10-51365-28					
10-51365-29					
10-51365-30					
10-51365-31					
10-51365-32					
10-51365-33					
10-51365-34					
10-51365-35					
10-51365-39					
10-51365-40	S6R(L)N -20,21	07-00862	---	07-00861	---
10-51365-41					
10-51365-42	S6R(L)N -20,21	07-00864	---	07-00863	---
10-51365-43					
10-51365-44					
10-51365-45					
10-51365-46					
10-51365-47					
10-51365-48	S6R(L)N -20,21	07-00862	---	07-00861	---
10-51365-53	S6R(L)N -20,21	07-00864	---	07-00863	---
10-51365-54					
10-51365-57	S6LN -20,21	07-00868	---	07-00867	---

EP

## MAGNETO P-LEAD ADAPTER



This unique design of the P-lead adapter ensures proper spring pressure against the internal contact. It provides secure and stable alignment, and includes a post that prevents the timer leads from falling off. This adapter allows you to connect to the timer leads of all Bendix magnetos with an immediate and positive connection. One pair per package. 1 lbs (0.5Kg) shipping weight.

Magneto P-lead Adapter (Early S2, S4, S20)..... P/N 12-03522  
 Magneto P-lead Adapter (S200, S600, later S2, S4, S20) ..... P/N 12-03523  
 Magneto P-lead Adapter (D2000, D3000 Series)..... P/N 12-03524  
 Magneto P-lead Adapter (Complete Set)..... P/N 12-03525

# POWERUP BENDIX MAGNETO REPAIR KITS

## BENDIX SERIES S-24 & S25

Magneto P/N	Magneto Type	Repair Kit P/N	Kit Price	Deluxe Repair Kit P/N	Kit Price
10-79020-5	S6R(L)N -24,25	07-00864	---	07-00863	---
10-79020-6					
10-79020-8					
10-79020-10					
10-79020-11	S6LN -25	07-00868	---	07-00867	---
10-79020-13	S6R(L)N -24, -25	07-00864	---	07-00863	---
10-79020-14					
10-79020-16					

Magneto P/N	Magneto Type	Repair Kit P/N	Kit Price	Deluxe Repair Kit P/N	Kit Price
10-79020-17	S6LN -25	07-00868	---	07-00867	---
10-79020-18					
10-79020-118					
10-79020-19					
10-79020-119	S6RN-25	07-00866	---	07-00865	---

## BENDIX SERIES S-200

Magneto P/N	Magneto Type	Repair Kit P/N	Kit Price	Deluxe Repair Kit P/N	Kit Price
10-163005-1	S4R(L)N-200*	07-00844	---	07-00843	---
10-163005-2					
10-163005-3					
10-163005-4					
10-163005-5					
10-163005-7					
10-163005-10					
10-163005-11					
10-163015-1	S4R(L)N-201*	07-00844	---	07-00843	---
10-163015-2					
10-163015-3					
10-163015-4					
10-163045-1	S4LN -204	07-00757	---	07-00847	---
10-163045-2	S4RN -204	07-00846	---	07-00845	---
10-163045-3	S4LN -204	07-00757	---	07-00847	---
10-163045-4	S4RN -204	07-00846	---	07-00845	---
10-163045-6	S4LN -204	07-00757	---	07-00847	---
10-163045-7	S4RN -204	07-00846	---	07-00845	---
10-163055-1	S4RN -205	07-00846	---	07-00845	---
10-163055-2	S4LN -205	07-00757	---	07-00847	---
10-163010-1	S6R(L)N -200*	07-00849	---	07-00848	---
10-163010-2					
10-163010-3					
10-163010-4					
10-163010-5					

Magneto P/N	Magneto Type	Repair Kit P/N	Kit Price	Deluxe Repair Kit P/N	Kit Price
10-163010-6	S6R(L)N -200*	07-00849	---	07-00848	---
10-163010-7					
10-163010-8					
10-163010-9					
10-163010-10					
10-163010-11					
10-163010-15	S6R(L)N-201*	07-00849	---	07-00848	---
10-163020-2					
10-163020-3					
10-163020-4					
10-163030-1	S6R(L)N-204	07-00849	---	07-00848	---
10-163030-4					
10-163050-1	S6LN-204	07-00853	---	07-00852	---
10-163050-2					
10-163050-3					
10-163050-5					
10-163050-6	S6RN -204	07-00851	---	07-00850	---
10-163050-7					
10-163050-8	S6LN -204	07-00853	---	07-00852	---
10-163050-9					
10-163060-1					
10-163060-2	S6RN -205	07-00851	---	07-00850	---
10-163070-1	S6RN -205	07-00853	---	07-00852	---
10-163070-3					

\*The Repair Kit and Deluxe Repair Kit for the Bendix -200, -201, and -202 Series Magnetos contain two sets of Contact Assembly Kits.

## REPLACEMENT PARTS FOR BENDIX MAGNETOS FROM POWERUP

Part No.	Description	Price	Part No.	Description	Price	Part No.	Description	Price	Part No.	Description	Price
07-06301	Bearing	---	07-06326	Distributor Block	---	08-14664	ES10-382618 Nut	---	08-15862	ES10-382785 Connector Strip	---
10-357078	Bushing	---	07-06327	Vent	---	08-14665	ES10-17050 Washer	---	08-15863	ES10-382787 Bearing Retainer Plate	---
10-357164	Coil	---	10-50737	Spring	---	08-14666	ES10-35937 Screw	---	08-15864	ES10-382931 Coil Retention Spring	---
10-357165-1	Coil	---	07-06329	Felt Washer	---	08-14667	KA10-682024 Screw	---	08-15907	ES10-4093 Washer	---
10-35717-3	Breaker Points	---	07-06330	Plug	---	08-14668	ES10-400166-4	---	08-15910	ES10-682014 Gear Assy	---
10-35717-4	Breaker Points	---	10-51676	Capacitor	---	08-14669	ES10-400166-5	---	08-15911	ES10-682016 Gear Assy	---
07-06308	Capacitor	---	07-06332	Washer	---	08-14670	ES10-400167-8	---	08-15912	ES10-685548 Washer	---
10-52949	Distributor Block	---	07-06333	Washer	---	08-15840	AM-3015 Screw	---	08-15915	KA10-16092 Washer	---
07-06311	Breaker Points	---	07-06334	Distributor Block	---	08-15841	AM-3020 Screw	---	08-15916	KA10-35937-12 Screw	---
10-382584	Breaker Points	---	07-06335	Distributor Block	---	08-15842	AM-3183-1 Nut	---	08-15917	KA10-361639 Bushing	---
07-06313	Coil	---	07-06336	Bearing	---	08-15843	AM-3183-2 Washer	---	08-15918	KA10-382568 Strip	---
07-06314	Breaker Points	---	07-06325	Ring	---	08-15845	ES10-163048 Bushing	---	08-15919	109-2 3/4 Nut	---
07-06315	Breaker Points	---	07-06338	Ring	---	08-15846	ES10-349219 Wedge	---	08-15920	113-2 5/8 Nut	---
07-06316	Capacitor	---	07-06339	Bearing	---	08-15847	ES10-349248 Slinger, Oil	---	08-15921	148A Insulator	---
07-06317	Washer	---	07-06341	Bushing	---	08-15848	ES10-349392-1 Flange	---	08-15922	148B Brass Retainer	---
07-02453	Washer for Slick Mag	---	10-160844	Brush	---	08-15849	ES10-349392-2 Flange	---	08-15923	2391 Insulator & Retainer Assembly	---
07-06318	Coil	---	07-06344	Bushing	---	08-15850	ES10-349392-3 Flange	---	08-15924	2392 Insulator	---
07-06319	Capacitor	---	07-06345	Felt Strip	---	08-15851	ES10-349392-4 Flange	---	08-15925	2446-2 3/4 Elbow Assembly	---
07-06320	Gasket	---	07-06346	Packing	---	08-15852	ES10-349392-5 Flange	---	08-15926	2463-2 5/8 Elbow Assembly	---
07-06321	Bushing	---	07-06347	Capacitor	---	08-15853	ES10-349392-6 Flange	---	08-15927	70043 Ferrule	---
10-391088-1	Coil	---	07-06348	Washer	---	08-15854	ES10-349970 Breaker Points	---	08-15928	70044 Ferrule	---
07-06323	Gasket	---	07-06350	Breaker Points	---	08-15855	ES10-349971 Breaker Points	---	08-15929	70046 Ferrule	---
07-06324	Gasket	---	07-06351	Bearing	---	08-15856	ES10-35935-5 Screw	---			
07-06325	Distributor Block	---	08-12204	MF3A Ignition Filter Cap	---	08-15857	ES10-3793 Washer	---			

# SLICK MAGNETOS



## NEW 4300 AND 6300 SERIES SLICK MAGNETOS

These new lightweight aircraft magnetos are being used by many new equipment manufacturers. Weigh only 3-3/4 lbs. compared to 6-1/4 lbs. for typical old style magnetos. All units carry a One Year warranty after delivery to the user. These new model magnetos are completely rebuildable. The old 4000/4100 magnetos may not be returned as an exchange unit for a new magneto of the same model. Most other Magnetos may be returned for core credit. Drive gears are not included. \*When purchasing slick magnetos separately gaskets are not included.

**IF NO CORE IS RETURNED, ADD \$150 TO THE PRICE OF A NEW MAGNETO.**

### 4300 SERIES

Magneto	ROT.	LAG	Weight	Type	Part No.	Price	Application
4309	LEFT	0	4	DD	08-01338	---	Cont. IO-240-B
4310	LEFT	30	4	RB	08-01339	---	Cont. IO-240-B
4333	RIGHT	25	4.8	IC	08-04333	---	Cont. A-65-1, A-65-3, A-65-6, A-65-6J, A-65-7 A-65-8, A-65-8F, A-65-8FJ A-75-3, A-75-6, A-75-6J, A-75-8, A-75-8F, A-75-8FJ, A-75-8J, C-75-8, C-75-8F, C-75-8FH C-75-8FHJ, C-75-8FJ, C-75-8J, C-85-8, C-85-8F C-85-8FHJ, C-85-8FJ, C-85-8J, C-90-8F, C-90-8FJ
4345	LEFT	15	4	RB	08-01345	---	Lyc. AEIO-360-A1A, AEIO-360-A1A, HIO-360-D1A, IO-360-A1A IO-360-A1C, IO-360-A2A, IO-360-A2C, IO-360-C1A IO-360-C1B, IO-360-D1A
4347	LEFT	25	4	RB	08-04347	---	Lyc. AEIO-360-A1A, AEIO-360-A1A, AEIO-360-B1B, HO-360-C1A IO-320-B1D, IO-360-B1B, IO-360-B1D, IO-360-E1A O-235-C1B, O-235-F1B, O-320-A2C, O-320-A3C O-320-B1A, O-320-B1B, O-320-B2C, O-320-B2D O-320-B3C, O-320-D2B, O-320-D2B, O-320-E2B O-360-A1D, O-360-A2D, O-360-C1C, O-360-C2C
4372	LEFT	15	4.8	IC	08-43720	---	Lyc. AEIO-360-A1B, AEIO-360-A1B6, AEIO-360-A1D, AEIO-360-A1D AEIO-360-A1E, AIO-360-A1A, AIO-360-A1B, AIO-360-B1B IO-360-A1B, IO-360-A1B6, IO-360-A1D, IO-360-A1D6 IO-360-A2B, IO-360-C1C, IO-360-C1C6, IO-360-C1D6 IO-360-C1E6, IO-360-C1F, IO-360-K2A, O-235-K2A, O-235-K2B, O-235-K2C, O-235-L2A, O-235-M1, O-235-M2C O-235-N2A, O-235-N2C, O-235-P1, O-235-P2A, O-290-D2
Abbreviations: DD (Direct Drive), IC (Impulse Coupled), RB (Retard Breaker), TD (Tachometer Drive), P (Pressurized) Weight does not include harness cap or magneto drive gear, and are provided for reference only.							

### 4300 SERIES

Model No.	Part No.	Price
4302	08-01337	---
4309	08-01338	---
4310	08-01339	---
4316	08-04316	---
4330	07-26967	---
4333	08-04333	---
4342	08-01343	---
4344	08-01344	---
4345	08-01345	---
4347	08-04347	---
4348	08-01346	---
4353	08-01347	---
4354	08-01348	---
4370	08-04370	---
4371	07-26966	---
4372	08-43720	---
4373	07-26965	---
4374	08-01349	---
4381	08-14585	---
4392	08-01350	---

### 6300 SERIES

Model No.	Part No.	Price
6309	6309	---
6310	6310	---
6313	6313	---
6314	6314	---
6320	6320	---
6324	6324	---
6350	6350	---
6351	6351	---
6355	6355	---
6360	6360	---
6361	6361	---
6364	6364	---
6367	6367	---
6371	6371	---
6377	6377	---
6379	6379	---
6380	6380	---
6393	6393	---
6399	6399	---



## CONTINENTAL MAGNETO DRIVE GEARS

Used on Continental Engines.

Engine Eligibility	Magneto Gear No.	Part No.	Price
O-200; C90-12, 14, 16; C85-12, 14, 15; C75-12, 15; IO-240-A, B	SA36066	07-18019	---
C-125, C-145, O-300	530603	07-02003	---
O/O-470, 520 Sancast	641728	07-02005	---
520-550 Permold	641742	07-02006	---
GTSIO-520	632797	07-02007	---
GTSIO-520	632799	07-02008	---



## LYCOMING MAGNETO DRIVE GEARS

Used on Lycoming Engines.

Engine Eligibility	Magneto Gear No.	Part No.	Price
O-235, 320, 360 Impulse Magneto	61665	07-02010	---
O-235,320, 360 Impulse Magneto	SL61665	07-02010	---
O-235,320, 360 Direct Drive Magneto	68C19622	07-02011	---
320, 360, "76"Series	LW-15659	07-02012	---
O/O-360 Dual Magneto	LW-13643	07-02013	---
O/O/LTIO/TIO-540	LW-19096	07-02014	---
O/O/LTIO/TIO-540 Dual Magneto	LW-13899	07-02016	---

# SLICK MAGNETOS

## NEW 6300 SERIES MAGNETOS

Magneto	ROT.	LAG	Weight	Type	Part No.	Price	Application
6310	RIGHT	30	4.9	IC	08-06310	---	Cont. IO-470-A, IO-470-C, IO-470-D, IO-470-E, IO-470-F, IO-470-G, IO-470-H, IO-470-J, IO-470-K, IO-470-L, IO-470-LO, IO-470-M, IO-470-N, IO-470-P, IO-470-R, IO-470-S, IO-470-T, IO-470-U, IO-470-V, IO-470-VO, IO-520-A, IO-520-B, IO-520-BA, IO-520-BB, IO-520-C, IO-520-CB, IO-520-D, IO-520-E, IO-520-F, IO-520-J, IO-520-K, IO-520-L, IO-520-M, IO-520-MB, IO-520-N, IO-520-NB, IO-550-A, IO-550-B, IO-550-C, IO-550-D, IO-550-F, IO-550-L, O-470-A, O-470-B, O-470-B-C1, O-470-E, O-470-G, O-470-G-C1, O-470-H, O-470-J, O-470-K, O-470-K-C1, O-470-L, O-470-L-C1, O-470-M, O-470-M-C1, O-470-N, O-470-P, O-470-R, O-470-S, O-470-T, O-470-U, TSIO-520-A, TSIO-520-B, TSIO-520-BB, TSIO-520-C, TSIO-520-D, TSIO-520-DB, TSIO-520-E, TSIO-520-EB, TSIO-520-G, TSIO-520-H, TSIO-520-J, TSIO-520-JB, TSIO-520-K, TSIO-520-KB, TSIO-520-L, TSIO-520-LB, TSIO-520-M, TSIO-520-N, TSIO-520-NB, TSIO-520-P, TSIO-520-R, TSIO-520-T, TSIO-520-U, TSIO-520-UB, TSIO-520-VB, TSIO-520-WB
6320	RIGHT	30	4.9	ICP	08-01353	---	Cont. LTSIO-360-E, LTSIO-360-EB, LTSIO-360-KB, LTSIO-360-RB, TSIO-520-A, TSIO-520-AE, TSIO-520-AF, TSIO-520-B, TSIO-520-BB, TSIO-520-C, TSIO-520-CE, TSIO-520-D, TSIO-520-DB, TSIO-520-E, TSIO-520-EB, TSIO-520-G, TSIO-520-H, TSIO-520-J, TSIO-520-JB, TSIO-520-K, TSIO-520-KB, TSIO-520-L, TSIO-520-LB, TSIO-520-M, TSIO-520-N, TSIO-520-NB, TSIO-520-P, TSIO-520-R, TSIO-520-T, TSIO-520-U, TSIO-520-UB, TSIO-520-VB, TSIO-520-WB, TSIO-550-A, TSIO-550-B, TSIO-550-C, TSIO-550-E, TSIO-520-BE,
6350	LEFT	0	4	DD	08-06350	---	Lyc. AEIO-540-D4A5, AEIO-540-D4B5, AEIO-540-L1B5, IO-540-A1A5, IO-540-B1A5, IO-540-B1C5, IO-540-C1B5, IO-540-C1C5, IO-540-C2C, IO-540-C4B5, IO-540-C4C5, IO-540-D4A5, IO-540-D4C5, IO-540-E1A5, IO-540-E1B5, IO-540-G1A5, IO-540-G1B5, IO-540-G1C5, IO-540-G1E5, IO-540-J4A5, IO-540-K1A5, IO-540-K1B5, IO-540-K1D5, IO-540-K1F5, IO-540-K1G5, IO-540-K1H5, IO-540-K1J5, IO-540-K1K5, IO-540-L1A5, IO-540-L1C5, IO-540-M1A5, IO-540-N1A5, IO-540-P1A5, IO-540-R1A5, IO-540-S1A5, O-540-A1A, O-540-A1B5, O-540-A1C5, O-540-A1D, O-540-A1D5, O-540-A2B, O-540-A3D5, O-540-A4A5, O-540-A4B5, O-540-A4D5, O-540-B1A5, O-540-B2A5, O-540-D1A5, O-540-E4A5, O-540-E4B5, O-540-E4B5-wd, O-540-G1A5, O-540-G1A5-wd, O-540-G2A5, O-540-G2A5-wd, O-540-J3A5, IO-540-AA1A5
6351	LEFT	35	4.8	IC	08-06351	---	Lyc. AEIO-540-D4B5, AEIO-540-L1B5, IO-540-AB1A5, IO-540-AC1A5, IO-540-G1C5, IO-540-G1D5, IO-540-G1F5, IO-540-K1A5, IO-540-K1B5, IO-540-K1C5, IO-540-K1E5, IO-540-K1G5, IO-540-K1H5, IO-540-K1K5, IO-540-L1A5, IO-540-L1C5, O-540-B2C5, O-540-E4C5, O-540-G1A5, O-540-G1A5-wd, O-540-G2A5, O-540-G2A5-wd, O-540-J3A5, IO-540-D4B5
6355	LEFT	45	4.8	IC	08-06355	---	Lyc. IO-540-C2C, O-540-A1A, O-540-A1A5, O-540-A1B5, O-540-A1C5, O-540-A1D5, O-540-A2B, O-540-A4A5, O-540-A4B5, O-540-B2B5, O-540-B2B5-wd, O-540-B2C5-wd, O-540-B4B5, O-540-B4B5-wd, O-540-E4B5-wd, O-540-H2A5, O-540-E4B5
6371	LEFT	0	4	TD	08-01358	---	Lyc. AEIO-540-D4B5, IO-540-G1D5, IO-540-G1E5, IO-540-K1B5, O-540-E4C5, IO-540-S1A5
6393	LEFT	37	4	RBP	08-06393	---	Lyc. AEIO-540-D4A5, AEIO-540-D4B5, AEIO-540-L1B5, IO-540-A1A5, IO-540-B1A5, IO-540-B1C5, IO-540-C1B5, IO-540-C1C5, IO-540-C4B5, IO-540-C4C5, IO-540-D4A5, IO-540-D4C5, IO-540-E1A5, IO-540-E1B5, IO-540-G1A5, IO-540-G1B5, IO-540-J4A5, IO-540-K1C5, IO-540-K1D5, IO-540-K1F5, IO-540-K1J5, IO-540-M1A5, IO-540-N1A5, IO-540-P1A5, IO-540-R1A5, IO-540-S1A5, O-540-A1B5, O-540-A1D, O-540-A1D5, O-540-A3D5, O-540-A4D5, O-540-B1A5, O-540-B2A5, O-540-D1A5, O-540-E4A5, O-540-E4C5, IO-540-AA1A5
6399	RIGHT	35	4.9	IC	08-01366	---	Franklin 6A-350-C1, 6A-350-C1A, 6A-350-C2, 6A-350-C2A, 6A-350-D1, 6A-350-D1A, 6A-350-D1B, 6A4-150-B3, 6A4-150-B31, 6A4-150-B4, 6A4-165-B3, 6A4-165-B4, 6A4-165-B6
<b>Abbreviations: DD (Direct Drive), IC (Impulse Coupled), RB (Retard Breaker), TD (Tachometer Drive), P (Pressurized)</b> <b>Weight does not include harness cap or magneto drive gear, and are provided for reference only.</b>							

EP

# SLICK MAGNETOS



## OVERHAULED SLICK MAGNETOS

**Note: Please remove drive gears before returning Magneto cores for "Core Credit."**

These lightweight aircraft magnetos are being used by many new equipment manufacturers. Weigh only 3-3/4 lbs. compared to 6-1/4 lbs. for typical old style magnetos.

In early 1988, Slick discontinued the sale of re-manufactured magnetos to offer new units only.

All units carry a six-month warranty after delivery to the user. 4000/4100/6200 series magnetos may not be returned as exchange units for a new magneto of the same model. Only 4300 and 6300 series Slick Magnetos may be returned for core credit.

Drive gears are not included.

4300 series is a direct replacement for previous 4200 series Magnetos.

### 4300 SERIES

Model No.	Part No.	Price
4301R	08-13699	---
4302R	08-13700	---
4309R	08-13701	---
4310R	08-13702	---
4316R	08-13703	---
4330R	08-13704	---
4333R	08-13705	---
4342R	08-13706	---
4344R	08-13707	---
4345R	08-13708	---
4347R	08-13709	---
4348R	08-13710	---
4353R	08-13711	---
4354R	08-13712	---
4370R	08-13713	---
4371R	08-13714	---
4372R	08-13715	---
4373R	08-13716	---
4374R	05-15839	---
4381R	08-13718	---
4392R	08-13719	---

### 6300 SERIES

Model No.	Part No.	Price
6309R	08-13720	---
6310R	08-13721	---
6313R	08-13722	---
6320R	08-13724	---
6324R	08-13725	---
6331R	08-13726	---
6340R	08-13727	---
6350R	08-13728	---
6351R	08-13729	---
6355R	08-13730	---
6360R	08-13731	---
6361R	08-13732	---
6362R	08-13733	---
6363R	08-13734	---
6364R	08-13735	---
6365R	08-13736	---
6367R	08-13737	---
6377R	08-13739	---
6380R	08-13743	---
6382R	08-13744	---
6390R	08-13745	---
6391R	08-13746	---
6393R	08-13747	---
6394R	08-13748	---
6399R	08-13749	---

## CHAMPION SLICK MAGNETO 500 HOUR INSPECTION KITS

Model #	Mag Models Used	Part No.	Price
MK431	4301, 4302, 4303, 4309, 4316, 4330, 4331, 4333, 4370, 4371, 4372, 4373, 4374, 4381, 4392	08-15951	---
MK432	4310, 4345, 4347, 4348, 4353, 4354	08-15952	---
MK433	4342, 4344	08-15953	---
MK631	6310, 6313, 6314, 6320, 6324, 6362, 6364, 6367, 6377, 6379, 6380, 6382, 6399	08-15954	---
MK632	6309, 6363, 6365, 6371, 6391, 6393, 6394	08-15955	---
MK633	6390	08-15956	---



## CHAMPION OVERHAULED SLICK MAGNETO

**Note 1:** Magnetos are overhauled by Quality Aircraft Accessories. Quality Aircraft Accessories is the Champion Authorized Repair Station for Slick Magnetos.

**Note 2:** Please remove drive gears before returning Magneto cores for "Core Credit."

These lightweight aircraft magnetos are being used by many new equipment manufacturers. Weigh only 3-3/4 lbs. compared to 6-1/4 lbs. for typical old style magnetos.

In early 1988, Slick discontinued the sale of re-manufactured magnetos to offer new units only.

All units carry a 12-month warranty after delivery to the user. These model magnetos are completely rebuild-able. The old 4000/4100 series magnetos and the 600 series magnetos may not be returned as an exchange unit for a new magneto of the same model. Most other Magnetos may be returned for core credit.

### 4300 SERIES

Description	Part No.	Price
4301R Champion OH Slick Mag Imp Coupled	08-13927	---
4309R Champion OH Slick Mag Non/Imp	08-13930	---
4310R Champion OH Slick Mag Non/Imp	08-13931	---
4370R Champion OH Slick Mag Non Impulsed	08-13916	---
4371R Champion OH Slick Mag Impulsed	08-13915	---
4372R Champion OH Slick Mag Impulsed	08-13928	---
4373R Champion OH Slick Mag Impulsed	08-13921	---
4381R Champion OH Slick Mag Impulsed	08-13918	---

### 6300 SERIES

Description	Part No.	Price
6310R Champion OH Slick Mag Impulsed	08-13917	---
6351R Champion OH Slick Mag Impulsed	08-13919	---
6320R Champion OH Slick Mag Impulsed	08-13920	---
6324R Champion OH Slick Mag Impulsed	08-13922	---
6361R Champion OH Slick Mag Impulsed	08-13925	---
6350R Champion OH Slick Mag Non/imp	08-13923	---
6393R Champion OH Slick Mag Non/imp	08-13926	---
6360R Champion OH Slick Mag Non/imp	08-13929	---

## CHAMPION SLICK MAGNETO MAINTENANCE KITS

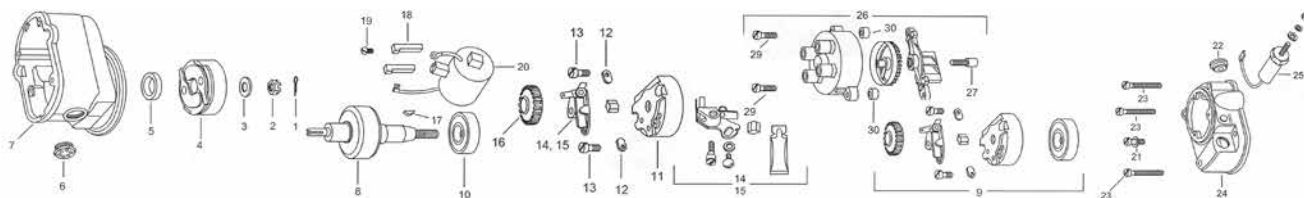


Inspection and maintenance are simpler and more convenient than ever before. Champion also incorporated mechanic-endorsed features to improve performance and service life. Lift-off housing –Internal timing is not disturbed during inspections. Simplified internal timing –Improved

internal markings and unique Slick T-150 E-gap tool make timing easier and more accurate. Fully sealed bearings –Keeps contaminants out and grease in for smoother operation and less maintenance. Lower EMI Levels –Housing improves sealing and results in less radio noise. OEM Approved –Models are available for more than 225,000 engines –all compatible with existing Slick Ignition Harnesses.

Kit No.	Where Kit Used	Mag Models Used	Part No.	Price
MK401	All IC or DD 4cyl. Magnetos	4301, 4302, 4303, 4309, 4316, 4330, 4331, 4333, 4370, 4371, 4372, 4373, 4374, 4381, 4392	08-14592	---
MK402	All IC RB or TD 4cyl. Magnetos Excluding 4342 & 4344	4310, 4345, 4347, 4348, 4353, 4354	08-14593	---
MK403	4342 & 4344 TD 4cyl. Magnetos	4342, 4344	08-14594	---
MK601	All 6cyl. IC & DD Magnetos with small shaft	6310, 6313, 6314, 6320, 6324, 6362, 6364, 6367, 6377, 6379, 6380, 6382, 6399	08-14595	---
MK602	All 6cyl. RB Magnetos with small shaft	6309	08-14596	---
MK603	6390	6390	08-14597	---
MK604	All 6cyl. IC & DD Magnetos with large shaft	6331, 6340, 6350, 6351, 6355, 6360, 6361	08-14632	---
MK605	All 6cyl. RB & TD Magnetos with large shaft except 6390	6363, 6365, 6371, 6391, 6393, 6394	08-14633	---

# SLICK MAGNETO PARTS



4300 SERVICE PARTS LIST

No.	Description	4301	4302	4303	4316	4330	4331	4342	4344	4345	Qty	Price/ea.
1	Cotter pin	M2556	M2556	M2556	M2556	M2556	M2556	M2556	M2556	M2556	1	---
2	Nut	M3019	M3019	M3019	M3019	M3019	M3019	M3019	M3019	M3019	1	---
3	Washer	M3172	M3172	M3172	M3172	M3172	M3172	M3172	M3172	M3172	1	---
4	Impulse Coupling Assy.	M3007	-	-	M3076	M3068	-	-	-	-	1	---
5	Oil Seal	M3062	M3062	M3062	M3062	M3062	M3062	M3062	M3062	M3062	1	---
6	Air Vent	M1077	M1077	M1077	M1077	M1077	M1077	M1077	M1077	M1077	1	---
7	Frame	M3859	M3900	M3859	M3888	M3888	M3900	M3900	M3900	M3900	1	---
8	Rotor	M3073	M3518	M3338	M3047	M3065	M3065	M3548	M3513	M3548	1	---
9	Bearing Kit	K3318-4	K3318-4	K3318-4	K3318-4	K3318-4	K3318-4	K3301	K3301	K3301	1	---
10	Ball Bearing	M3006	M3006	M3006	M3006	M3006	M3006	M3006	M3006	M3006	1	---
12	Bearing Cap Clamp	M3018	M3018	M3018	M3018	M3018	M3018	M3018	M3018	M3018	2	---
13	Screw	M3221	M3221	M3221	M3221	M3221	M3221	M3221	M3221	M3221	2	---
14	Contact Point Kit-Primary	M3081	M3081	M3081	M3081	M3081	M3081	M3637	M3637	M3637	1	---
15	Contact Point Kit-Secondary	-	-	-	-	-	-	M3740	M3740	M3637	1	---
16	Rotor Gear	M3827	M3827	M3827	M3827	M3827	M3827	M3827	M3827	M3827	1	---
17	Woodruff Key	M2536	M2536	M2536	M2536	M2536	M2536	M2536	M2536	M2536	1	---
18	Coil Wedge	M3040	M3040	M3040	M3040	M3040	M3040	M3040	M3040	M3040	2	---
19	Screw	M3020	M3020	M3020	M3020	M3020	M3020	M3020	M3020	M3020	1	---
20	Coil*(see below)	K3975	K3975	K3975	K3975	K3975	K3975	K3975	K3975	K3975	1	---
21	Screw	M2555	M2555	M2555	M2555	M2555	M2555	M2555	M2555	M2555	1	---
22	Air Vent w/Hood	M3084	M3084	M3084	M3084	M3084	M3084	M3084	M3084	M3084	1	---
23	Screw	M3015	M3015	M3015	M3015	M3015	M3015	M3015	M3015	M3015	3	---
24	Housing, Dist.	M3902	M3902	M3902	M3902	M3902	M3902	M3874	M3874	M3832	1	---
25	Capacitor	K3984	K3984	K3984	K3984	K3984	K3984	K3984	K3984	K3984	1	---
27	Carbon Brush	M3215	M3215	M3215	M3215	M3215	M3215	M3215	M3215	M3215	1	---
--	Washer	M2532	M2532	M2532	M2532	M2532	M2532	M2532	M2532	M2532	1	---
29	Screw	M3021	M3021	M3021	M3021	M3021	M3021	M3021	M3021	M3021	2	---
30	Spacer	M3826	M3826	M3826	M3826	M3826	M3826	M3826	M3826	M3826	2	---

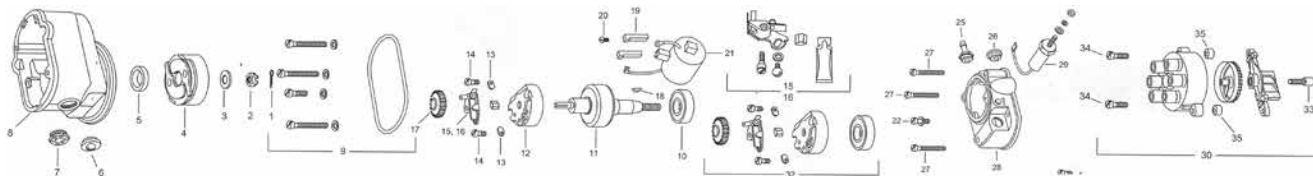
No.	Description	4347	4348	4353	4354	4370	4371	4372	4373	4374	4381	Qty	Price/ea.
1	Cotter pin	M2556	M2556	M2556	M2556	M2556	M2556	M2556	M2556	M2556	M2556	1	---
2	Nut	M3019	M3019	M3019	M3019	M3019	M3019	M3019	M3019	M3019	M3019	1	---
3	Washer	M3172	M3172	M3172	M3172	M3172	M3172	M3172	M3172	M3172	M3172	1	---
4	Impulse Coupling Assy.	-	-	-	M3529	-	M3163	M3100	M3529	M3689	M3007	1	---
5	Oil Seal	M3062	M3062	M3062	M3062	M3062	M3062	M3062	M3062	M3062	M3062	1	---
6	Air Vent	M1077	M1077	M1077	M1077	M1077	M1077	M1077	M1077	M1077	M1077	1	---
7	Frame	M3900	M3900	M3900	M3859	M3900	M3859	M3859	M3859	M3888	M3859	1	---
8	Rotor	M3548	M3513	M3548	M3158	M3548	M3158	M3158	M3158	M3065	M3158	1	---
9	Bearing Kit	K3301	K3301	K3301	K3301	K3318-4	K3318-4	K3318-4	K3318-4	K3318-4	K3318-4	1	---
10	Ball Bearing	M3006	M3006	M3006	M3006	M3006	M3006	M3006	M3006	M3006	M3006	1	---
12	Bearing Cap Clamp	M3018	M3018	M3018	M3018	M3018	M3018	M3018	M3018	M3018	M3018	2	---
13	Screw	M3221	M3221	M3221	M3221	M3221	M3221	M3221	M3221	M3221	M3221	2	---
14	Contact Point Kit-Primary	M3637	M3637	M3637	M3637	M3081	M3081	M3081	M3081	M3081	M3081	1	---
15	Contact Point Kit-Secondary	M3637	M3637	M3637	M3637	-	-	-	-	-	-	1	---
16	Rotor Gear	M3827	M3827	M3827	M3827	M3827	M3827	M3827	M3827	M3827	M3827	1	---
17	Woodruff Key	M2536	M2536	M2536	M2536	M2536	M2536	M2536	M2536	M2536	M2536	1	---
18	Coil Wedge	M3040	M3040	M3040	M3040	M3040	M3040	M3040	M3040	M3040	M3040	2	---
19	Screw	M3020	M3020	M3020	M3020	M3020	M3020	M3020	M3020	M3020	M3020	1	---
20	Coil*(see below)	K3975	K3975	K3975	K3975	K3975	K3975	K3975	K3975	K3975	K3975	1	---
21	Screw	M2555	M2555	M2555	M2555	M2555	M2555	M2555	M2555	M2555	M2555	1	---
22	Air Vent w/Hood	M3084	M3084	M3084	M3084	M3084	M3084	M3084	M3084	M3084	M3084	1	---
23	Screw	M3015	M3015	M3015	M3015	M3015	M3015	M3015	M3015	M3015	M3015	3	---
24	Housing, Dist.	M3832	M3832	M3832	M3832	M3902	M3902	M3902	M3902	M3902	M3902	1	---
25	Capacitor	K3984	K3984	K3984	K3984	K3984	K3984	K3984	K3984	K3984	K3984	1	---
27	Carbon Brush	M3215	M3215	M3215	M3215	M3215	M3215	M3215	M3215	M3215	M3215	1	---
--	Washer	M2532	M2532	M2532	M2532	M2532	M2532	M2532	M2532	M2532	M2532	1	---
29	Screw	M3021	M3021	M3021	M3021	M3021	M3021	M3021	M3021	M3021	M3021	2	---
30	Spacer	M3826	M3826	M3826	M3826	M3826	M3826	M3826	M3826	M3826	M3826	2	---

\*Replaces M3525 Coil

Slick Gasket M3426 .....P/N 08-05247

Slick T153 Cam And Rotor Set .....P/N 12-01449

# SLICK MAGNETO PARTS



## 6300 SERVICE PARTS LIST

No.	Description	6310	6314	6320	6324	6331	6340	6350	6351	6355	6360	Qty.	Price ea
1	Cotter pin	M2556	M2556	M2556	M2556	M2556	M2556	M2556	M2556	M2556	M2556	1	---
2	Nut, Impulse Coupling	M3019	M3019	M3019	M3019	M3019	M3019	M3019	M3019	M3019	M3019	1	---
3	Washer	M3172	M3172	M3172	M3172	-	-	-	-	-	-	1	---
4	Impulse Coupling Ass.	M3050	M3089	M3050	M3089	M3800	-	-	M3333	M3635	-	1	---
5	Oil Seal	M3062	M3062	M3062	M3062	M3331	M3331	M3331	M3331	M3331	M3331	1	---
6	Pressure Vent Plug	-	-	M3179	M3179	M3179	M3179	-	-	-	M3179	1	---
7	Air Vent	M1077	M1077	-	-	-	-	M1077	M1077	M1077	-	1	---
8	Frame	M3837	M3847	M3837	M3847	M3888	M3900	M3900	M3859	M3859	M3900	1	---
9	Gasket Pressure Kit	-	-	K3307	K3307	K3307	K3307	-	-	-	K3307	1	---
10	Ball Bearing	M3006	M3006	M3006	M3006	M3006	M3006	M3006	M3006	M3006	M3006	1	---
11	Rotor	M3047	M3093	M3047	M3093	M3792	M3801	M3117	M3327	M3416	M3117	1	---
13	Bearing Cap Clamp	M3018	M3018	M3018	M3018	M3018	M3018	M3018	M3018	M3018	M3018	2	---
14	Screw	M3221	M3221	M3221	M3221	M3221	M3221	M3221	M3221	M3221	M3221	2	---
15	Contact Pt. Kit-Primary	M3081	M3081	M3081	M3081	M3081	M3081	M3081	M3081	M3081	M3081	1	---
16	Contact Pt. Kit-Secondary	-	-	-	-	-	-	-	-	-	-	1	---
17	Rotor Gear	M3828	M3828	M3828	M3828	M3828	M3828	M3828	M3828	M3828	M3828	1	---
18	Woodruff Key	M2536	M2536	M2536	M2536	M2536	M2536	M2536	M2536	M2536	M2536	1	---
19	Coil Wedge	M3040	M3040	M3040	M3040	M3040	M3040	M3040	M3040	M3040	M3040	2	---
20	Screw	M3020	M3020	M3020	M3020	M3020	M3020	M3020	M3020	M3020	M3020	1	---
21	Coil	M3975	M3975	M3975	M3975	M3975	M3975	M3975	M3975	M3975	M3975	1	---
22	Screw	M2555	M2555	-	-	-	-	M2555	M2555	M2555	-	1	---
24	Screw	-	-	-	-	-	-	-	-	-	-	3	---
25	Pressure Tube Fitting	-	-	M3180	M3180	M1280	M1280	-	-	-	M1280	1	---
26	Air Vent with Hood	M3084	M3084	-	-	-	-	M3084	M3084	M3084	-	1	---
27	Screw	M3015	M3015	-	-	-	-	M3015	M3015	M3015	-	3	---
28	Housing, Distributor	M3902	M3902	M3902	M3902	M3902	M3902	M3902	M3902	M3902	M3902	1	---
29	Capacitor	K3984	K3984	K3984	K3984	K3984	K3984	K3984	K3984	K3984	K3984	1	---
31	Washer	M2532	M2532	-	-	-	-	M2532	M2532	M2532	-	1	---
32	Bearing Kit	K3320	K3320	K3320	K3320	K3319	K3319	K3319	K3319	K3319	K3319	1	---
33	Carbon Brush	M3215	M3215	M3215	M3215	M3215	M3215	M3215	M3215	M3215	M3215	1	---
34	Screw	M3021	M3021	M3021	M3021	M3021	M3021	M3021	M3021	M3021	M3021	2	---
35--	Spacer	M3826	M3826	M3826	M3826	M3826	M3826	M3826	M3826	M3826	M3826	2	---

No.	Description	6361	6362	6363	6364	6365	6367	6371	6380	6382	6390	Qty.	Price ea
1	Cotter pin	M2556	M2556	M2556	M2556	M2556	M2556	M2556	M2556	M2556	M2556	1	---
2	Nut, Impulse Coupling	M3019	M3019	M3019	M3492	M3019	M3492	M3019	M3019	M3019	M3019	1	---
3	Washer	-	M3172	-	-	-	-	-	M3172	M3172	-	1	---
4	Impulse Coupling Ass.	M3333	M3050	-	M3590	-	M3524	-	M3050	M3050	-	1	---
5	Oil Seal	M3331	M3062	M3331	M3062	M3331	M3062	M3331	M3062	M3062	M3331	1	---
6	Pressure Vent Plug	M3179	-	M3179	-	M3179	-	-	-	-	-	1	---
7	Air Vent	-	M1077	-	M1077	-	M1077	M1077	M1968	M1968	M1077	1	---
8	Frame	M3859	M3837	M3900	M3853	M3900	M3856	M3900	M3850	M3850	M3900	1	---
9	Gasket Pressure Kit	K3307	-	K3307	-	K3307	-	-	-	-	-	1	---
10	Ball Bearing	M3006	M3006	M3006	M3006	M3006	M3006	M3006	M3006	M3006	M3006	1	---
11	Rotor	M3327	M3047	M3117	M3496	M3117	M3499	M3117	M3047	M3047	M3117	1	---
13	Bearing Cap Clamp	M3018	M3018	M3018	M3018	M3018	M3018	M3018	M3018	M3018	M3018	2	---
14	Screw	M3221	M3221	M3221	M3221	M3221	M3221	M3221	M3221	M3221	M3221	2	---
15	Contact Pt. Kit-Primary	M3081	M3081	M3637	M3081	M3637	M3081	M3637	M3081	M3081	M3637	1	---
16	Contact Pt. Kit-Secondary	-	-	M3637	-	M3637	-	M3637	-	-	M3740	1	---
17	Rotor Gear	M3828	M3828	M3828	M3828	M3828	M3828	M3828	M3828	M3828	M3828	1	---
18	Woodruff Key	M2536	M2536	M2536	M2536	M2536	M2536	M2536	M2536	M2536	M2536	1	---
19	Coil Wedge	M3040	M3040	M3040	M3040	M3040	M3040	M3040	M3040	M3040	M3040	2	---
20	Screw	M3020	M3020	M3020	M3020	M3020	M3020	M3020	M3020	M3020	M3020	1	---
21	Coil	M3975	M3975	M3975	M3975	M3975	M3975	M3975	M3975	M3975	M3975	1	---
22	Screw	-	M2555	-	M2555	-	M2555	M2555	M2555	M2555	M2555	1	---
24	Screw	-	M3125	-	-	-	-	-	-	M3125	-	3	---
25	Pressure Tube Fitting	M1280	-	M1280	-	M1280	-	-	-	-	-	1	---
26	Air Vent with Hood	-	M3084	-	M3084	-	M3084	M3084	M3084	M3084	M3084	1	---
27	Screw	-	M3015	-	M3015	-	M3015	M3015	M3015	M3015	M3015	3	---
28	Housing, Distributor	M3902	M3902	M3832	M3902	M3832	M3902	M3832	M3902	M3902	M3874	1	---
29	Capacitor	K3984	K3984	K3984	K3984	K3984	K3984	K3984	K3984	K3984	K3984	1	---
31	Washer	-	M2532	-	M2532	-	M2532	M2532	M2532	M2532	M2532	1	---
32	Bearing Kit	K3319	K3320	K3302	K3320	K3302	K3320	K3302	K3320	K3320	K3302	1	---
33	Carbon Brush	M3215	M3215	M3215	M3215	M3215	M3215	M3215	M3215	M3215	M3215	1	---
34	Screw	M3021	M3021	M3021	M3021	M3021	M3021	M3021	M3021	M3021	M3021	2	---
35--	Spacer	M3826	M3826	M3826	M3826	M3826	M3826	M3826	M3826	M3826	M3826	2	---

# SLICK IGNITION HARNESSES BY CHAMPION

## AIRCRAFT ENGINE APPLICATION CHART

Engine	Engine Models	Magneto	5/8" x 24 Spark Plug Termination	3/4" x 20 Spark Plug Termination
	<b>Textron Lycoming</b>			
0-235	C	S4-1200	M2365	M2235
0-235	C	S4-20, S4-200	M2364	M2360
0-235	C1,C1B,C2A,C2C,E1,H2C,J2A,J2B,K2C,L2A,L2C,M1,N2A,N2C,P1,P2A	S4-1200	M2365	M2235
0-235	C1,C1B,C2A,C2C,E1,H2C,J2A,J2B,K2C,L2A,L2C,M1,N2A,N2C,P1,P2A	S4-20, S4-200	M2364	M2360
0-235	C1,C1B,C2A,J2A,L2A,M1,N2A,P1,P2A	4200,4300	M4004	M2508
0-235	C2C,E1,H2C,J28,K2C,L2C,N2C	4200,4300	M4001	M2508
0-290	D,D2	4200,4300	M4004	M2508
0-290	D,D2,D2A,D2C	S4-20, S4-200	M2364	M2360
AEIO-320	D1B,D2B	4200,4300	M4005	M2508
AEIO-320	D1B,D2B,E1A,E2B	S4-1200	M2365	M2235
AEIO-320	D1B,D2B,E1A,E2B	S4-20, S4-200	M2364	M2360
AEIO-320	E1A	4200,4300	M4004	M2508
AEIO-320	E2B	4200,4300	M4001	M2508
AIO-320	B1B	4200,4300	M4005	M2508
AIO-320	B1B	S4-1200	M2365	M2235
AIO-320	B1B	S4-20, S4-200	M2364	M2360
IO-320	B1A,B1C,B1D,B2A,B2B,C1A,C1C,D1A,D1B,E1A,E2A,E2B,F1A	S4-1200	M2365	M2235
IO-320	B1A,B1C,B1D,B2A,B2B,C1A,D1A,D1B,E1A,E2A,E2B,F1A	S4-20, S4-200	M2364	M2360
IO-320	B1A,C1A,F1A	4200,4300	M4000	M2508
IO-320	B1C,B2A,E1A,E2A	4200,4300	M4004	M2508
IO-320	B1D	4200,4300	M4007	M2508
IO-320	C1C	S4-20, S4-200	M2112	M2360
IO-320	D1A,D18	4200,4300	M4005	M2508
IO-320	E2B	4200,4300	M4001	M2508
LI0-320	B1A,C1A	4200,4300	M4000	M2508
LI0-320	B1A,C1A	S4-1200	M2365	M2235
LI0-320	B1A,C1A	S4-20, S4-200	M2112	M2360
0-320	A1A,A1B,A2A,A2C,A2D,A3A,A3B,B1A,B2A,B2B,B2D,83A,B3B,83C,C1A,C1B,C3A,C38,D1A,D1B,D1F,D2A,D2B,D2J,D3G,E1A,E1B,E1C,E1F,E2A,E2C,E2D,E2E,E2F,E2G,E2H,E3D,E3H	S4-1200	M2365	M2235
0-320	A1A,A1B,A2A,A2D,A3A,A3B,B1A,B1B,B2A,B2B,B3A,B38,C1A,C1B,C3A,C3B,D1A,D1B,D2A,D2B,D2J,D3G,E1A,E1B,E1C,E1F,E2A,E2C,E2D,E2E,E2F,E2G,E2H,E3D,E3H	S4-20, S4-200	M2364	M2360
0-320	A1A,A2D,C1A,C3A,D3G,E2D,E2E,E2G,E3D	4200,4300	M4001	M2508
0-320	A1B,A2A,A2B,A2C,A3A,A3B,B1A,B1B,B2A,B2B,B2C,B2D,B3A,B3B,B3C,C1B,C3B,D1A,D28,E1A,E2A,E2H	4200,4300	M4004	M2508
0-320	A2B,A2C,B2C,82D,83C	S4-20, S4-200	M2402	M2360
0-320	D1F	S4-20, S4-200	M2363	M2360
0-320	D1F,D2A,E1C,E1F,E2F,E3H	4200, 4300	M4005	M2508
0-320	D2J	4200, 4300	M4002	M2508
0-320	E2C	4200, 4300	M4007	M2508
0-320	H2AD	DUAL		M2917
0-340	A1A	S4-20, S4-200	M2364	M2360
AEIO-360	A1A,A1B,A1B6,A1D,B1F,B1G6,B2F,B2F6,B4A,H1A	S4-1200	M2365	M2235
AEIO-360	A1A,A1B,A1B6,A1D,B1F,B1G6,B2F,B2F6,B4A,H1A	S4-20, S4-200	M2364	M2360
AEIO-360	A1A,A1D,B4A	4200, 4300	M4004	M4029
AEIO-360	A1B,A1B6	4200, 4300	M4012	M4029
AEIO-360	B1F,B2F	4200, 4300	M4005	M2508
AEIO-360	B1G6,B2F6,H1A	4200, 4300	M4001	M2508
AIO-360	A1A,A1B	4200, 4300		M4029
AIO-360	A1A,A1B	S4-20, S4-200	M2364	M2360
AIO-360	A1A,A1B,B1B	S4-1200	M2365	M2235
AIO-360	A1B,B1B	4200,4300	M4001	M4029
AIO-360	B1B	S4-1200		M2492
HIO-360	A1A	S4-20, S4-200	M2817	M2859
HIO-360	B1A,C1A	S4-20, S4-200	M2795	M2856
HIO-360	D1A	4200,4300	M4007	
HIO-360	D1A	S4-1200	M2655	
HIO-360	E1AD,E1BD,F1AD	DUAL		M2944
HO-360	A1A,B1A,B1BB	S4-20, S4-200	M2364	M2360
IO-360	A1A,A1B,A1B6,A1C,A1D6,A2A,A2B,B1A,B1B,B1D,B1E,81F,B1F6,B2End,82Ewd,82F6,C1A,C1C6,C1D6,D1A,K2A	S4-20, S4-200	M2364	M2360
IO-360	A1A,A1B,A1C,A2A,A2B,B1A,B1B,B1D,B1F,B1F6,B2End,B2Ewd,B2F6,C1A,C1D6,K2A	S4-1200	M2365	M2235
IO-360	A1A,A2A,B1B,B1D,C1A,K2A	4200,4300	M4004	M2508
IO-360	A1B,A1B6,A1C,A1D6,C1B,C1D6	4200,4300	M4012	M2508
IO-360	A1B6	S4-1200	M2420	M2641
IO-360	A1B6D,J1A6D	DUAL		M2915
IO-360	A1D6	S4-1200	M2420	M2235
IO-360	A2B,B1E,B2End	4200,4300	M4006	M2508
IO-360	A3B6D	DUAL		M2916
IO-360	B1E	S4-1200	M2423	M2235
IO-360	B1F,B2Ewd,B2F6	4200,4300	M4005	M2508
IO-360	B1F6	4200,4300	M4001	M2508
IO-360	C1B,D1A	S4-1200	M2365	M2616
IO-360	C1C,C1C6,C1E6	4200,4300	M4027	M2508
IO-360	C1C,C1E6,C1F	S4-1200	M2423	M2616
IO-360	C1C,C1E6,C1F	S4-20, S4-200	M2658	M2661
IO-360	C1C6	S4-1200	M2423	
IO-360	C1F,D1A	4200,4300	M4007	M2508
IVO-360	A1A	S4-20, S4-200	M2364	M4033
LI0-360	B1A,C1A	S4-20, S4-200	M2364	M2360
LI0-360	C1E6	4200,4300	M4027	

FOR A COMPLETE APPLICATION GUIDE AND PART NUMBERS PLEASE VISIT [WWW.AIRCRAFTSPRUCE.CA](http://WWW.AIRCRAFTSPRUCE.CA)

# POWERUP – SLICK START – BENDIX KITS



## SLICKSTART

Improve your engine starting hot or cold Slick Start™ unleashes a firestorm of ignition energy to get your engine started and get you off the ground. SlickSTART is so effective, even sub-optimal fuel mixtures and seriously fouled plugs won't stop the capacitive discharge output from providing the ignition boost your engine needs for reliable starts every time. SlickSTART's sure starting power...

Delivers up to 340% more spark energy to your plugs. Overcomes poor engine priming. Reduces costly electrical stress to your battery and starter. Requires no maintenance. Is approved for use with Slick magnetos. Plus, it's inexpensive and easy to install. Just add SlickSTART to your impulse coupled magnetos or replace your antiquated starting. The FAA-PMA approved SlickSTART™ magneto booster system integrates solid state electronics with conventional ignition hardware to deliver optimum spark energy for improved engine starting under all operating conditions.

SS1001 SlickStart for Slick ..... P/N 08-01000  
SS1002 SlickStart for Bendix ..... P/N 08-01005



## SLICK MAGNETO ASSEMBLY & TIMING KIT

T-100 Assembly and Timing Kit for field-repairable Slick 4300/6300 Series Magnetos.

P/N 07-00788



## CHAMPION SLICK MAGNETO ADAPTER M2638-74 (.810)

P/N M2638-4



## T118 SLICK MAGNETO LOCKING PIN

Use this pin to lock the gears of Slick® magnetos and maintain the correct timing position prior to removal or installation of the magneto. .... P/N 12-01441

## T-200 SLICK® IGNITION HARNESS TOOL KIT



The Slick® Assembly Tool Kit is required to install all Slick Ignition Harness Leads on all magneto harness caps and spark plug termination ends. The complete kit includes: Pressing Tool, #72 Drill Bit, Pin Vise, Stripping Tool, Spring Assembly Tool, and Shield Stripper. Complete instructions for the use of this kit can be found in the Unison Industries L-1178 Service Manual.

P/N 12-00720



## SLICK IMPULSE COUPLING INSPECTION GAUGE

T-155 Impulse Coupling Inspection Gauge for Slick. P/N 12-01450



## CHAMPION MAGNETO OIL

Champion Magneto Oil R5008 - 32 Fluid Ounces. P/N 08-07199

## POWERUP REPLACEMENT PARTS FOR SLICK TYPE MAGNETOS

Magneto replacement parts manufactured by Aero Accessories Inc. are made to specifications dictated by Federal Aviation Administration parts manufacturing approvals. They are highest quality, direct replacement parts, approved for installation and use on certified aircraft.

Note: Always refer to the parts and service manual of the original equipment manufacturer or to Aircraft Type Certificate Data Sheets or other FAA-approved data to determine eligibility of a part or component for use in any application.

\*Kit Includes: A13081, A13081-1, -2, & AM3611

\*\*Includes: AM3183, AM3182-1, & -2

Model No.	Description	Champion Part No.	Part No.	Price
A-13081-8	Contact Lube	---	07-01081	---
AM-3183-1	Nut	---	07-02452	---
AM-3183-2	Washer	---	07-02453	---
AM3611	Cam	---	07-02456	---
ES3307	Pressure Gasket Kit	K3307	07-19939	---
ES1077	Air Vent	M1077	07-19931	---
AM-2536	Woodruff Key	M2536	07-02446	---
AM-2540	Cotter Pin	M2540	07-02447	---
AM-3006	Ball Bearing	M3006	07-02448	---
AM-3015	Screw	M3015	08-15840	---
ES3018	Bearing Cap Clamp	M3018	07-19932	---
ES3019	Nut	M3019	07-19933	---
AM-3020	Screw	M3020	08-15841	---
AM-3021	Screw	M3021	07-02449	---
ES3040	Coil Wedge	M3040	07-19934	---
AM-3062	Oil Seal	M3062	07-01089	---
A-13081	Contact Assembly Kit*	M3081	07-02445	---
ES3084	Air Vent w/ Hood	M3084	07-19935	---

Model No.	Description	Champion Part No.	Part No.	Price
ES3172	Washer	M3172	07-19936	---
ES3179	Vent Plug	M3179	07-19937	---
ES3180	Tube Fitting	M3180	07-19938	---
AM-3183	Capacitor Assembly**	M3183	07-02451	---
AM-3215	Brush & Spring	M3215	07-02454	---
ES3331	Oil Seal	M3331	07-19940	---
AM-3485	Bearing & Cap Assembly	M3485	07-02455	---
ES3637	Contact Point	M3637	07-19941	---
ES3740	Contact Point	M3740	07-19942	---
ES3826	Spacer	M3826	07-19943	---
ES3827	Rotor Gear	M3827	07-19945	---
ES3828	Rotor Gear	M3828	07-19946	---
A-13009	Coil	M3975	07-02444	---
ES917	Impulse Spring	M917	07-19944	---
ES3822	Distributor Block Assembly 4 Cylinder	K3822	08-16227	---
ES510406	Gear Assembly 4 Cylinder	K3008	08-16232	---

## POWERUP BENDIX SERIES MAGNETO REPAIR KITS

These magneto repair kits and deluxe repair kits are designed to simplify the Bendix magneto overhaul process by providing all of the commonly needed overhaul parts in one convenient kit. The Repair Kits contain the parts needed for minor repair such as a 500 hour inspection, and the Deluxe Repair Kits contain the parts needed for major repair such as a magneto overhaul. These parts are highest quality direct replacement parts and are approved for installation and use on certificated aircraft. AB-200445SC-D and AB-200445SC-R kits contain two sets of contact assembly kits. Some parts that may be needed replacing during magneto overhaul are not included in these kits.

### 4 CYLINDER KITS

Repair Kit Type	Tempest Kit P/N	Part No.	Price
Minor	AB-484SC-R	10-04844	---
Minor	AB-485SC-R	10-04845	---
Minor	AB-200445SC-R	10-04849	---
Deluxe	AB-484SC-D	10-04851	---
Deluxe	AB-485SC-D	10-04852	---
Deluxe	AB-200445SC-D	10-04855	---

### 6 CYLINDER KITS

Repair Kit Type	Tempest Kit P/N	Part No.	Price
Minor	AB-684SC-R	10-04847	---
Minor	AB-685SC-R	10-04848	---
Minor	AB-200645SC-R	10-04850	---
Deluxe	AB-684SC-D	10-04853	---

SEE [WWW.AIRCRAFTSPRUCE.CA](http://WWW.AIRCRAFTSPRUCE.CA) FOR MAGNETO KIT ELIGIBILITY AND CONTENTS.

# POWERUP MAGNETOS



## POWERUP MAGNETOS

Utilizing over 35 years of manufacturing FAA/PMA replacement magneto parts, Powerup is proud to introduce an ALL NEW direct magneto replacement for general aviation. Performance improvements including coil, capacitor, breaker points and impulse coupling make the Powerup Mag the superior quality option for General Aviation.

**Note:** Core charge added to cart once magneto is added to cart. Please remove drive gears before returning Magneto cores for "Core Credit."

## POWERUP 4300 SERIES MAGNETOS

Model Number	Part No.	Price
Powerup Factory New ES4301 Magneto	07-25726	---
Powerup Factory New ES4302 Magneto	07-25727	---
Powerup Factory New ES4309 Magneto	07-25728	---
Powerup Factory New ES4310 Magneto	07-25729	---
Powerup Factory New ES4330 Magneto	07-25730	---
Powerup Factory New ES4333 Magneto	07-25731	---
Powerup Factory New ES4342 Magneto	07-25732	---
Powerup Factory New ES4345 Magneto	07-25733	---
Powerup Factory New ES4347 Magneto	07-25734	---
Powerup Factory New ES4348 Magneto	07-25735	---
Powerup Factory New ES4353 Magneto	07-25736	---
Powerup Factory New ES4354 Magneto	07-25737	---
Powerup Factory New ES4370 Magneto	07-25738	---
Powerup Factory New ES4371 Magneto	07-25739	---
Powerup Factory New ES4372 Magneto	07-25740	---
Powerup Factory New ES4373 Magneto	07-25741	---
Powerup Factory New ES4374 Magneto	07-25742	---
Powerup Factory New ES4381 Magneto	07-25743	---
Powerup Factory New ES4392 Magneto	07-25744	---

## POWERUP SLICK MAGNETO 500 HOUR REPAIR KITS

### In The Box:

• Contact Point Kits • Carbon Brush • Capacitor Kit • Impulse Coupling Spring • Rotor Gear • Cotter Pin

Description	Mag Models Used	Part No.	Price
ES431	4301, 4302, 4303, 4309, 4316, 4330, 4331, 4333, 4370, 4371, 4372, 4373, 4374, 4381, 4392	07-26904	---
ES432	4310, 4345, 4347, 4348, 4353, 4354	07-26905	---
ES433	4342, 4344	07-26906	---
ES631	6310, 6313, 6314, 6320, 6324, 6362, 6364, 6367, 6377, 6379, 6380, 6382, 6399	07-26907	---
ES632	6309, 6363, 6365, 6371, 6391, 6393, 6394	07-26908	---
ES633	6390	07-26909	---

## POWERUP MASTER OVERHAUL KITS FOR SLICK MAGNETOS

### In The Box:

• Contact Point Kits • Double Sealed Bearing • Bearing Cap Assembly • Condenser • Rotor Gear • Cotter Pin • Coil • Distributer Block and Gear • Woodruff Key • Oil Seal • Washer • Impulse Coupler

Description	Where Kit Used	Mag Models Used	Part No.	Price
ES401 Kit	All IC or DD 4 cylinders Magnetos	4301, 4302, 4303, 4309, 4316, 4330, 4331, 4333, 4370, 4371, 4372, 4373, 4374, 4381, 4392	07-26896	---
ES402 Kit	All IC RB or TD 4 cylinders Magnetos Excluding 4342 & 4344	4310, 4345, 4347, 4348, 4353, 4354	07-26897	---
ES403 Kit	4342 & 4344 TD 4 cylinders Magnetos	4342, 4344	07-26898	---
ES601 Kit	All 6 cylinders IC & DD Magnetos with small shaft	6310, 6313, 6314, 6320, 6324, 6362, 6364, 6367, 6377, 6379, 6380, 6382, 6399	07-26899	---
ES602 Kit	All 6 cylinders RB Magnetos with small shaft	6309	07-26900	---
ES603 Kit		6390	07-26901	---
ES604 Kit	All 6 cylinders IC & DD Magnetos with large shaft	6331, 6340, 6350, 6351, 6355, 6360, 6361	07-26902	---
ES605 Kit	All 6 cylinders RB & TD Magnetos with large shaft except 6390	6363, 6365, 6371, 6391, 6393, 6394	07-26903	---

## POWERUP 6300 SERIES MAGNETOS

Model Number	Part No.	Price
Powerup Factory New ES6309 Magneto	07-25745	---
Powerup Factory New ES6313 Magneto	07-25747	---
Powerup Factory New ES6314 Magneto	07-25748	---
Powerup Factory New ES6320 Magneto	07-25749	---
Powerup Factory New ES6324 Magneto	07-25750	---
Powerup Factory New ES6340 Magneto	07-25751	---
Powerup Factory New ES6350 Magneto	07-25752	---
Powerup Factory New ES6351 Magneto	07-25753	---
Powerup Factory New ES6355 Magneto	07-25754	---
Powerup Factory New ES6360 Magneto	07-25755	---
Powerup Factory New ES6361 Magneto	07-25756	---
Powerup Factory New ES6362 Magneto	07-25757	---
Powerup Factory New ES6363 Magneto	07-25758	---
Powerup Factory New ES6364 Magneto	07-25759	---
Powerup Factory New ES6365 Magneto	07-25760	---
Powerup Factory New ES6367 Magneto	07-25761	---
Powerup Factory New ES6371 Magneto	07-25762	---
Powerup Factory New ES6377 Magneto	07-25763	---
Powerup Factory New ES6379 Magneto	07-25764	---
Powerup Factory New ES6380 Magneto	07-25765	---
Powerup Factory New ES6382 Magneto	07-25766	---
Powerup Factory New ES6390 Magneto	07-25767	---
Powerup Factory New ES6391 Magneto	07-25768	---
Powerup Factory New ES6393 Magneto	07-25769	---
Powerup Factory New ES6394 Magneto	07-25770	---

# POWERUP IGNITION HARNESSSES



Powerup ignition harness incorporate a negative-pitch spring design (the tip of the coil spring extends inward) allowing the coil spring tip to lie flat against the spark plug electrode, providing 360 degree contact. Powerup ignition harnesses are FAA/ PMA approved for Lycoming, Continental and Franklin engines. Should your preferred Harness not be in stock, please see Powerup Blue Ignition Harnesses

**NOTE: PART NUMBERING SYSTEM and CROSS REFERENCE:** The part numbering system is "user Friendly" for quickly cross-referencing to both Champion and Unison Harnesses. The "KA1" prefix is equivalent to the Champion "CH1" or the Unison "M" with the balance of the part number remaining the same. Add the suffix "E" to the part number to designate the 90 degree steel elbow terminations whenever ordering an "Elbow" harness. (EXAMPLE: KA12121E).

**ALL PART NUMBERS LISTED ARE FOR RED IGNITION HARNESSSES. BLUE AND YELLOW ARE ALSO AVAILABLE.  
FOR A COMPLETE SELECTION, PLEASE VISIT [WWW.AIRCRAFTSPRUCE.CA](http://WWW.AIRCRAFTSPRUCE.CA)**

Engine	Continental Engine Model	Magneto	5/8" x 24 Spark Plug Term.	Spruce P/N	Price	3/4" x 20 Spark Plug Term.	Spruce P/N	Price
A-50		Slick 400 Series	KA17005	08-01206	---	---	---	---
A-65		Slick 400 Series	KA17005	08-01206	---	---	---	---
A-75		Slick 400 Series	KA17005	08-01206	---	---	---	---
A-80		Slick 400 Series	KA17005	08-01206	---	---	---	---
C-75	12, 15	Eisemann LA-4	KA17008	08-01212	---	KA17007	08-01210	---
C-75		Slick 400 Series	KA17005	08-01206	---	---	---	---
C-75	8	Slick 400 Series	KA17005	08-01206	---	---	---	---
C-75	12, 15	S4-20, S4-200	KA12007	08-01113	---	KA17006	08-01208	---
C-75	12, 15	4200, 4300	KA11780	08-01103	---	KA17011	08-01214	---
C-85	12, 12FJ, 14, 15	Eisemann LA-4	KA17008	08-01212	---	KA17007	08-01210	---
C-85	12, 12FJ, 14, 15	S4-20, S4-200	KA12007	08-01113	---	KA17006	08-01208	---
C-85	12, 12FJ, 14, 15	4200, 4300	KA11780	08-01103	---	KA17011	08-01214	---
C-90	12, 14, 16, 16F	Eisemann LA-4	KA17007	08-01210	---	KA17008	08-01212	---
C-90	12, 14, 16, 16F	S4-20, S4-200	KA12007	08-01113	---	KA17006	08-01208	---
C-90	12, 14, 16, 16F	4200, 4300	KA11780	08-01103	---	KA17011	08-01214	---
C-125	2	S6-20, S6-200	KA12130	08-01125	---	---	---	---
C-125	ALL	6200, 6300	KA12932	08-01147	---	---	---	---
C-145	2, 2H	S6-20, S6-200	KA12130	08-01125	---	---	---	---
C-145	ALL	6200, 6300	KA12932	08-01147	---	---	---	---
E-165	2, 3, 4	S6-20, S6-200	KA12176	08-01131	---	KA12339	08-01163	---
E-185	1, 2, 3, 5, 8, 9, 10, 11	S6-20, S6-200	KA12176	08-01131	---	KA12339	08-01163	---
O-200	A, B, C	Eisemann LA-4	KA17008	08-01212	---	KA17007	08-01210	---
O-200	A, B, C	S4-20, S4-200	KA12007	08-01113	---	KA17006	08-01208	---
O-200	A, B, C	4200, 4300	KA11780	08-01103	---	KA17011	08-01214	---
E-225	2, 4, 8, 9	S6-20, S6-200	KA12176	08-01131	---	KA12339	08-01163	---
O-300	A, B, C, D, E	Slick 600 Series	KA11884	08-01107	---	KA12318	08-01161	---
O-300	A, B, C, D, E	S6-20, S6-200	KA12130	08-01125	---	---	---	---
O-300	A, B, C, D, E	6200, 6300	KA12932	08-01147	---	---	---	---
IO-360	A, C, CB, D, DB, G, GB, H, HB, J, JB, K, KB	S6-20, S6-200	---	---	---	KA12015	08-01115	---
IO-360	C, D, G	6200, 6300	---	---	---	KA12778	08-01146	---
LTSIO-360	E, EB, KB	S6-20, S6-200	---	---	---	KA12015	08-01115	---
TSIO-360	A, AB, B, C, CB, D, DB, E, EB, F, FB, GB, H, HB, JB, KB, LB, MB	S6-20, S6-200	---	---	---	KA12015	08-01115	---
TSIO-360	A, B	6200, 6300	---	---	---	KA12778	08-01146	---
GIO-470	A	S6-20, S6-200	KA11978	08-01111	---	KA11730	08-01098	---
IO-470	A, C, D, E, F, G, H, J, K, L, LO, M, N, P, R, S, T, U, V, VO	Slick 600 Series	KA11878	08-01105	---	KA11480	08-01095	---
IO-470	C, D, E, F, G, H, L, M, N, P, R, S, U, V	S6-20, S6-200	KA11978	08-01111	---	KA11730	08-01098	---
IO-470	F, J, K, N, S	S6-1200	---	---	---	KA12216	08-01133	---
IO-470	F, J, K, N, S	S6-1200	---	---	---	KA11740	08-01101	---
IO-470	A, C, D, E, F, H, J, K, L, LO, M, N, P, R, S, T, U, V, VO	6200, 6300	KA12828	08-01185	---	KA12381	08-01142	---
O-470	A, B, BC1, E, G, GC1, H, J, K, KC1, L, LC1, M, MC1, N, P, R, S, U	Slick 600 Series	KA11878	08-01105	---	KA11480	08-01095	---
O-470	A, B, BC1, E, G, GC1, H, J, K, KC1, L, LC1, M, MC1, N, P, R, S, U	6200, 6300	KA12828	08-01185	---	KA12381	08-01142	---
O-470	A, B, E, M, P, R	S6-20, S6-200	KA11978	08-01111	---	KA11730	08-01098	---
O-470	R, S, U	S6-1200	---	---	---	KA11740	08-01101	---
O-470	R, S, U	S6-1200	---	---	---	KA12216	08-01133	---
TSIO-470	B, C, D	S6-20, S6-200	KA11978	08-01111	---	KA11730	08-01098	---
GTSIO-520	C, D, F, H, K, L, M, N	S6-1200	---	---	---	KA11950	08-01109	---
IO-520	A, B, BA, BB, C, CB, D, E, J, K, L, M, MB, N, NB	Slick 600 Series	KA11878	08-01105	---	KA11480	08-01095	---
IO-520	B, BB, E	S6-20, S6-200	KA11978	08-01111	---	KA11730	08-01098	---
IO-520	A, BA, BB, C, CB, D, F, J, K, L,	S6-1200	---	---	---	KA12216	08-01133	---
IO-520	A, B, BA, BB, C, CB, D, F, J, K, L,	S6-1200	---	---	---	KA11740	08-01101	---
IO-520	A, B, BA, BB, C, CB, D, E, J, K, L, M, MB, N, NB	6200, 6300	KA12828	08-01185	---	KA12381	08-01142	---
LTSIO-520	AE	S6-1200	---	---	---	KA11740	08-01101	---
LTSIO-520	AE	S6-1200	---	---	---	KA12216	08-01133	---
TSIO-520	AE, AF, C, D, DB, G, H, J, JB, K, KB, L, LB, M, N, NB, P, R, T, UB, WB	S6-1200	---	---	---	KA11740	08-01101	---
TSIO-520	AE, AF, C, DB, G, H, J, JB, K, KB, L, LB, M, N, NB, P, R, T, UB, WB	S6-1200	---	---	---	KA12216	08-01133	---
TSIO-520	A, B, BB, BE, C, CE, D, DB, E, EB, G, H, J, JB, K, KB, L, LB, M, N, NB, P, R, T, U, UB, VB, WB	Slick 600 Series	KA11878	08-01105	---	KA11480	08-01095	---
TSIO-520	A, B, BB, C, CE, D, DB, E, EB, G, H, J, JB, K, KB, L, LB, M, N, NB, P, R, T, U, UB, VB, WB	6200, 6300	KA12828	08-01185	---	KA12381	08-01142	---

# POWERUP IGNITION HARNESSSES

Engine	Lycoming Engine Model	Magneto	5/8" x 24 Spark Plug Term.	Spruce Part No.	Price	3/4" x 20 Spark Plug Term.	Spruce Part No.	Price
O-235	C1, C1A, C1B, C1C, C2A, C2C, E1, E1B, E2A, F1, F1B, F2A, G1, G1B, G2A, H2C, J2A, K2A, K2C, L2A, L2C, M1, M2C, M3C, N2A, N2C, P1, P2A, P2C, P3C	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
O-235	C2B, E2B, F2B, G2B, J2B, K2B	S4-1200	KA12365	08-01082	---	KA12235	08-01134	---
O-235	C2B, E2B, F2B, G2B, J2B, K2B	4200, 4300	KA14001	08-01148	---	KA12508	08-01145	---
O-290	D, D2, D2A, D2B, D2C	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
O-290	D2, D2B	4200, 4300	KA14001	08-01148	---	KA12508	08-01145	---
O-290	D, D2, D2B, D2C	4200, 4300	KA14004	08-01152	---			
AEIO-320	E1A, E1B, E2A, E2B	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
AEIO-320	E1A, E1B, E2A, E2B	4200, 4300				KA12508	08-01145	---
AIO-320	A1A, A1B, A2A, A2B, B1B, C1B	S4-1200	KA12365	08-01082	---	KA12235	08-01134	---
AIO-320	A1A, A1B, A2A, A2B, B1B, C1B	4200, 4300	KA14001	08-01148	---	KA12508	08-01145	---
IO-320	A1A, A2A, B1A, B1B, B1C, B2A, C1A, C1B, E1A, E1B, E2A, E2B, F1A	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
IO-320	B1A, B2A, C1A	S4-20, S4-200	KA12112	08-01119	---	KA12360	08-01136	---
IO-320	B1D, B1E, D1A, D1B, D1C	S4-1200	KA12365	08-01082	---	KA12235	08-01134	---
IO-320	B1D, B1E, D1A, D1B, D1C	4200, 4300	KA14001	08-01148	---	KA12508	08-01145	---
IO-320	E2A	4200, 4300	KA14004	08-01152	---	KA12508	08-01145	---
LIO-320	B1A, C1A	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
LIO-320	B1A, C1A	S4-1200	KA12365	08-01082	---	KA12235	08-01134	---
O-320	A1A, A1B, A2A, A2B, A2C, A2D, A3A, A3B, A3C, B1A, B1B, B2A, B2B, B2C, B3A, B3B, B3C, C1A, C1B, C2A, C2B, C2C, C3A, C3B, C3C, D1A, D1B, D1D, D2A, D2B, D2G, D2H, D2J, D3G, E1A, E1B, E2A, E2B, E2D, E2G, E2H, E3H	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
O-320	B1A, B1B, B2B, B3A, B3B	S4-20, S4-200	KA12112	08-01119	---	KA12360	08-01136	---
O-320	D1C, D1F, D2C, D2F, E1C, E1F, E1J, E2C, E2F	S4-1200	KA12365	08-01082	---	KA12235	08-01134	---
O-320	A2A, A2B, A2C, A3A, A3B, A3C, B3C, D1A, D2A, D2B, E2B	4200, 4300	KA14004	08-01152	---			
O-320	D1C, D1F, D2C, D2F, E1C, E1F, E1J, E2C, E2F	4200, 4300	KA14001	08-01148	---	KA12508	08-01145	---
O-340	A1A, A2A, B1A	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
O-340	A1A, A2A	4200, 4300	KA14004	08-01152	---			
AEIO-360	A1A, A1D, A1E, A2A, B1B, B4A, H1A	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
AEIO-360	A1B, A1B6, A2B, B1F, B1F6, B1G6, B2F	S4-1200	KA12365	08-01082	---	KA12235	08-01134	---
AEIO-360	A1B, A1B6, A2B, B1F, B1F6, B1G6, B2F	4200, 4300	KA14001	08-01148	---	KA12508	08-01145	---
AIO-360	A1A, A1B, A2A, A2B, B1B	S4-1200	KA12365	08-01082	---	KA12235	08-01134	---
AIO-360	A1A, A1B, A2A, A2B, B1B	4200, 4300	KA14001	08-01148	---	KA12508	08-01145	---
HIO-360	A1A, B1A, B1B, C1A	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
HIO-360	C1B, D1A	S4-1200	KA12365	08-01082	---	KA12235	08-01134	---
HIO-360	C1B, D1A	4200, 4300	KA14001	08-01148	---	KA12508	08-01145	---
HIO-360	B1A	4200, 4300	KA14004	08-01152	---			
HO-360	A1A, B1A, B1B	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
HO-360	A1A	4200, 4300	KA14004	08-01152	---			
IO-360	A1A, A1D, A2A, B1A, B1B, B1C, B1D, B4A, C1A, K1A	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
IO-360	A1B, A1B6, A1C, A1D6, A2B, A2C, B1E, B1F, B2E, B2F, B2F6, C1B, C1C, C1C6, D1A, E1A, F1A	S4-1200	KA12365	08-01082	---	KA12235	08-01134	---
IO-360	C1E6	S4-1200	KA12423	08-01144	---	KA12616	08-01170	---
IO-360	A1B, A1B6, A1C, A1D6, A2B, A2C, B1E, B1F, B2E, B1F, B2E, B2F, B2F6, C1B, C1C, C1C6, E1A, F1A	4200, 4300	KA14001	08-01148	---	KA12508	08-01145	---
IO-360	A1C, A2B, A2C, B2E, C1B, C1C, D1A	4200, 4300	KA14002	08-01150	---	KA12508	08-01145	---
IO-360	B1A, B1B, B1D,	4200, 4300	KA14004	08-01152	---			
IVO-360	A1A	S4-20, S4-200	KA12364	08-01138	---	KA14033	08-01198	---
IVO-360	A1A	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
LIO-360	C1E6	S4-1200	KA12365	08-01082	---	KA12235	08-01134	---
LIO-360	C1E6	S4-1200	KA12423	08-01144	---	KA12616	08-01170	---
LIO-360	C1E6	4200, 4300	KA14001	08-01148	---	KA12508	08-01145	---
O-360	A1A, A1C, A1D, A1H, A2A, A2D, A2E, A2H, A3A, A3D, A4A, A4D, A4J, A4K, A4M, A4N, B1A, B1B, B2A, B2B, C1A, C1C, C2E, D1A, D2A, D2B, F1A6, G1A6,	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
O-360	A1F, A1F6, A1G, A1G6, A2F, A2G, A4G, C1F	S4-1200	KA12365	08-01082	---	KA12235	08-01134	---
O-360	A1F, A1F6, A2G, A1G6, A2F, A2G, A4G, C1F	4200, 4300	KA14001	08-01148	---	KA12508	08-01145	---
O-360	A1A, A1D, A2A, A2D, D2A, D2B	4200, 4300	KA14004	08-01152	---			
VO-360	A1A, A1B, B1A	S4-20, S4-200	KA12364	08-01138	---	KA12360	08-01136	---
VO-360	A1A, A1B, B1A	S4-20, S4-200				KA14033	08-01198	---
GO-435	C2A2, C2B2, C2B2-6	S6-20, S6-200	KA12474	08-01167	---			
TVO-435	F1A	S6-20, S6-200	KA12712	08-01176	---	KA12865	08-01192	---
TVO-435	A1A, B1A, D1B, G1B	S6-1200	KA12709	08-01174	---	KA12447	08-01165	---
VO-435	A1D, A1E, A1F	S6-20, S6-200	KA12709	08-01174	---	KA12447	08-01165	---

EP

# POWERUP IGNITION HARNESSES

Engine	Lycoming Engine Model Cont'd	Magneto	5/8" X 24 Spark Plug Term.	Spruce Part No.	Price	3/4" X 20 Spark Plug Term.	Spruce Part No.	Price
VO-435	B1A	S6-20, S6-200	KA12712	08-01176	---	KA12865	08-01192	---
GO-480	G1J6	S6-1200	KA12742	08-01178	---			
GSO-480	B1J6	S6-1200	KA12745	08-01180	---			
GSO-480	B1A6, B1B6, B1C6, B1E6, B1F6, B1G6, B2C6, B2D6, B2G6, B2H6	S6-20, S6-200	KA12854	08-01190	---			
IGSO-480	A1D6, A1E6	S6-1200	KA12854	08-01190	---			
IGSO-480	A1A6	S6-20, S6-200	KA12244	08-01155	---	KA12247	08-01157	---
AEIO-540	D4A5	S6-1200	KA12154	08-01127	---	KA12157	08-01129	---
AEIO-540	D4A5	S6-20, S6-200	KA12121	08-01123	---	KA12120	08-01121	---
IGSO-540	A1D, A1E, A1F, B1C	S6-1200	KA12259	08-01159	---			
IO-540	A1A5, B1A5, B1B5, B1C5, C1B5, C1C5, C2C, C4B5, D4A5, E1A5, G1A5, K1C5, K1D5, N1A5, P1A5, R1A5, S1A5	S6-20, S6-200	KA12121	08-01123	---	KA12120	08-01121	---
IO-540	A1A5, B1A5, B1B5, B1C5, C1B5, C1C5, C2C, C4B5, D4A5, E1A5, G1A5, K1C5, K1D5, N1A5, P1A5, R1A5, S1A5	S6-1200	KA12154	08-01127	---	KA12157	08-01129	---
O-540	A1A, A1A5, A1B5, A1C5, A1D, A1D5, A2B, A3D5, A4A5, A4B5, A4C5, A4D5, B1A5, B1B5, B2A5, B2B5, B4A5, B4B5, D1A5, E4A5, E4B5, F1A5, F1B5, H1A5, H2A5	S6-20, S6-200	KA12121	08-01123	---	KA12120	08-01121	---
O-540	A1A, A1A5, A1B5, A1C5, A1D, A1D5, A2B, A3D5, A4A5, A4B5, A4C5, A4D5, B1A5, B1B5, B2A5, B2B5, B4A5, B4B5, D1A5, E4A5, E4B5, F1A5, F1B5, H1A5, H2A5	S6-1200	KA12154	08-01127	---	KA12157	08-01129	---
TIO-540	A1A, A1B, A2A, A2B	S6-1200				KA12037	08-01117	---
TIO-540	C1A	S6-1200	KA12790	08-01183	---	KA12851	08-01188	---
TIO-540	C1A	S6-1200	KA12154	08-01127	---	KA12157	08-01129	---
TIO-540	C1A	S6-20, S6-200	KA12121	08-01123	---	KA12120	08-01121	---
TIVO-540	A2A	S6-1200	KA12709	08-01174	---	KA12447	08-01165	---
VO-540	A1A, B1A, B1B, B1D, B2D, C1C3	S6-1200	KA12709	08-01174	---	KA12447	08-01165	---
TIGO-541	E1A	S6-1200				KA12890	08-01194	---
TIO-541	E1A4, E1B4, E1C4, E1D4, E1E4	S6-1200				KA12628	08-01172	---

FOR A COMPLETE APPLICATION CHART PLEASE VISIT [WWW.AIRCRAFTSPRUCE.CA](http://WWW.AIRCRAFTSPRUCE.CA)

## POWERUP INDIVIDUAL HARNESS LEADS



The leads are made with our industry leading Powerup red ignition harness wire cut 72 inches in length with available 5/8 or 3/4 spark plug termination. Also shipping with the leads is an attachment kit with magneto attachment hardware for both Slick and Bendix/CMI magnetos. Trim to fit.

Powerup E100-72 Trim To Fit Lead 72" 3/4 Lead Assy W/ Elbow ..... P/N 08-13222  
 Powerup E200-72 Trim To Fit 72" 5/8 Lead Assy W/ Elbow ..... P/N 08-13223  
 Powerup S100-72 72" 3/4 Lead Assy Straight ..... P/N 08-13224  
 Powerup S200-72 72" 5/8 Lead Assy Straight ..... P/N 08-13225

## POWERUP DUAL IGNITION HARNESSSES - OVERHAULED



Dual Ignition Harness - If you demand quality and a quick turn-around, then Powerup overhauled Bendix/TCM Magnetos and FAA/PMA approved replacement parts are your answer. From the in-house manufacturing of FAA/PMA replacement parts, to the final assembly and testing of the magneto, the the job is done right. The claims of superior service and reliability are backed by a six month warranty.

Model No.	Description	Part No.	Price
10-821414-18R	Dual Ignition Harness	08-15934	---
10-821615-4R	Dual Ignition Harness	08-15939	---
10-821635-4R	Dual Ignition Harness	08-15944	---
10-821644-6R	Dual Ignition Harness	08-15945	---
10-821625-6	Yellow Dual Ignition Harness	08-16440	---
10-821625-2YR	Yellow Dual Ignition Harness	08-17042	---

## POWERUP DUAL IGNITION HARNESSSES - NEW

Powerup ignition harness incorporate a negative-pitch spring design (the tip of the coil spring extends inward) allowing the coil spring tip to lie flat against the spark plug electrode, providing 360 degree contact. Powerup ignition harnesses are FAA/PMA approved for Lycoming, Continental and Franklin engines.

Model No.	Description	Part No.	Price
KA12915	Dual Ignition Harness	08-17697	---
KA12916	Dual Ignition Harness	08-17698	---
KA12917	Dual Ignition Harness	08-17699	---
KA12918	Dual Ignition Harness	08-17700	---
KA12919	Dual Ignition Harness	08-17701	---
KA12942	Dual Ignition Harness	08-17702	---
KA12944	Dual Ignition Harness	08-17703	---
KA12949	Dual Ignition Harness	08-17704	---

Model No.	Description	Part No.	Price
KA12995	Dual Ignition Harness	08-17705	---
KA12997	Dual Ignition Harness	08-17706	---
KA1415-12	Dual Ignition Harness	08-17707	---
KA1444-6	Dual Ignition Harness	08-17708	---
KA1614-36	Dual Ignition Harness	08-17709	---
KA1624-6	Dual Ignition Harness	08-17710	---
KA1825-2	Dual Ignition Harness	08-17711	---

# IGNITION HARNESSSES – IGNITERS – EXCITERS

## LIGHTWEIGHT HIGH TEMPERATURE SHIELDED IGNITION HARNESSSES

MFG. BY ACS PRODUCTS CO.



New production ignition harnesses for Experimental Aircraft at remarkably low prices. Late type 5MM wire constructed of 16 strands of tightly braided copper wire impregnated with scuff resistant white silicone. All strands must fracture before a complete open circuit type failure occurs thus extending lead life. Lead flexibility is retained from -65° to 400° F. Moisture and cleaning solvent penetration is eliminated by the impregnated silicone coating. This extremely flexible wire lends itself to sharp bends thereby eliminating the need for old style harness elbows. No soldered joints in the grounding circuit. Custom made for most 4 cylinder and 6 cylinder engines using Bendix or Eiseemann magnetos and 4 cylinder engines using Slick magnetos. Cable outlet plates are not furnished for Bendix and Eiseemann mags as these are already installed on the magnetos in service. They must be purchased separately for new magneto installations. Harnesses for Slick magnetos are furnished with the backplates installed. Standard harnesses for the Bendix S4/S6 mags are fitted with a male nut which screws into the threaded outlet plate on the back of the mag.

### HARNESSSES FOR BENDIX AND EISEMANN MAGNETOS

All 4-Cylinder Harnesses (8 wires)  
All 6-Cylinder Harnesses (12 wires)  
(Not Available for Bendix S1200 Magnetos)  
Replacement Leads to 48" (Specify Length).....**Call For Quote**  
(Bendix & Eiseemann only)

### HARNESSSES FOR SLICK MAGNETOS

For 4000, 4200 & 4300 Series Mags (4 Cyl.) Only.....**\$187.75**  
All Harnesses Furnished with Cable Ties and Clamps  
For plugs with 5/8-24 barrel size only.

#### BENDIX MAGNETOS

Engine/Magneto	Part No.
Cont. A-65/S4	12301-02
C-85/S4	12301-05
C-90/S4	12301-06
0-200/S4	12301-05
LYC. 0-100/S4	12301-21
0-235/S4	12301-21
0-290/S4	12301-21
0-320/S4	12301-22
0-360/S4	12301-22
Cont. A-65/SF4	12302-02
A-75/SF4	12302-03
Lyc. 0-100/SF4	12302-20
0-235/SF4	12302-20
0-290/SF4	12302-20
Cont. E-185/S6	12305-10
E-225/S6	12305-11
O-470/S6	12305-13
C-145/S6	12305-09
O-300/S6	12305-09
Lyc. 0-540/S6	12305-22
IO-540/S6	12305-22
Franklin 165/S6	12305-41
Cont.C-125-SF6	12307-08
Lyc.0-435/SF6	12307-23

#### SLICK MAGNETOS

Engine/Magneto	Part No.
VW (M2266) *	12304-32
Lyc 0-235 (M2363)	12304-33
0-290 (M2363)	12304-33
0-320,0-360 (M2363)	12304-33
Cont. 0-200 (1780)	12304-31
C-75 (1780)	12304-31
C-85 (1780)	12304-31
C-90 (1780)	12304-31
Lyc 0-540	12304-34

#### EISEMANN MAGNETOS

Engine/Magneto	Part No.
Cont A65/LA-4	12303-04
A75/LA-4	12303-04
C-85/LA-4	12303-07
E-185/LA-6	12306-12
Franklin 150/LA-6	12306-40
Continental C90/LA4	12303-08
Continental E-185/LA6	12306-12
Franklin 150/LA6	12306-40

**\*This harness only comes with 4-leads.**

## ENGINE BAFFLE IGNITION WIRE SEALS



P/N 376



P/N M2376



P/N M2375



P/N M2755

Seal Type	Part No.	Each
5mm Wire Seal Three-Wire	376	---
5mm Wire Seal Slick 3-Wire	07-26962	---
5mm Wire Seal Slick 2-Wire	M2375	---
5mm Wire clamp Slick 2-Wire	M2755	---

## HIGH TENSION CABLE

Unshielded 7MM ignition cable consists of tinned conductor, rubber insulation, reinforced glass braid and Hypalon jacket that resists sun, weather, heat, chemicals and oxidation by ozone. Temperature range -65° to 250°F  
P/N 07-03700 Ft.

## CHAMPION IGNITERS



The research and development team at Champion Aerospace has pioneered the use of exotic materials to extend the life and enhance performance of turbine Igniters. The patented Champion Series 21™ Igniter and lead incorporate numerous design benefits that improve performance, installation, and maintenance. Variable immersion depth allows it to be used in multiple engine platforms. The self-centering conical contact virtually eliminates flashover and arcing.

Description	Part No.	Price
CH31547C Champion Igniter	07-03236	---
CH31621A Champion Igniter	07-03237	---
CH31815-2 Champion Igniter	07-03239	---
CH34055 Champion Igniter	07-03241	---
CH34269 Champion Igniter	07-03243	---
CH34419 Champion Igniter	07-19263	---
CH34659-3 Champion Igniter	07-03244	---
CH34682 Champion Igniter	07-03245	---
CH34745 Champion Igniter	07-03246	---
CH34804-3 Champion Igniter	07-03247	---
CH34817 Champion Igniter	07-19370	---
FHE146-7A Champion Igniter	07-03287	---
FHE164E Champion Igniter	07-03288	---
FHE246-4 Champion Igniter	07-03289	---
CH31487A Champion Igniter	07-03492	---
Y183-5 Champion Igniter	07-03548	---
CH53399-06 Turbine Ignition Lead	07-03250	---
CH3442-3 Turbine Ignition Lead	07-18032	---
CH34758-3 Champion Igniter	08-17134	---

## CHAMPION EXCITERS



Champion Aerospace manufactures a broad range of high performance ignition exciters. From pioneering designs in solid-state technology, to the new, patented PPT exciter, the first true high-tension solid-state exciter, Champion combines the reliability and performance critical to aviation applications. The Champion solid state ignition exciters are significantly lighter and more compact than any existing product on the market. PPT combines the technologies of both solid-state and spark-gap technology, but suffers none of the drawbacks.

Part No.	Description	Price
08-13063	CH92106-5 Champion Exchange Exciter Box	---
07-03549	Champion 305012-2 Exciter Box Exchange	---

## CHAMPION IGNITION LEADS



Champion Aerospace designs and manufactures a full range of aerospace ignition leads for turbine engine applications. New ignition leads from Champion Aerospace are available for a wide range of turbine engines, from small turbine APU applications to the large GE and PW turbofan engines, including the new Rolls Royce Trent 900 engines for A380 aircraft.

53067-21 Ignition Lead JT15D.....	P/N 07-03542
53067-38.5 Ignition Lead JT15D.....	P/N 07-03543
53399-09 Ignition Lead.....	P/N 07-03546
53399-06 Ignition Lead.....	P/N 07-03250
53442-3 Ignition Lead.....	P/N 07-18032
53247 Ignition Lead.....	P/N 07-18000
CH53399-02 Ignition Lead .....	P/N 07-03248
CH53490 Lead Ignition Cable .....	P/N 08-17135

## L2E LIGHT SPEED TO EFIS ADAPTER



The L2e allows you to display the parameters of your Light Speed ignition module directly on your EFIS during flight. Your EFIS can record these parameters for download and diagnosis ..P/N 10-06222

## WIRE TERMINAL CLIP



For 7 MM unshielded harnesses.  
P/N 07-03500

## CT-496 IGNITER LEAD CONNECTOR WEAR GAUGE



Igniter lead connector wear gauge for ARP670 type 2M fittings common to PT6 leads and others. Features a calibrated pin to measure connector wear. Opposite end sized to measure neoprene grommet expansion.

**Note: Many leads incorporate type 2M and 3M connectors at opposite ends.**.....P/N 12-04959

# IGNITION SYSTEMS

## SUREFLY ELECTRICAL IGNITION

SureFly is an FAA certified electronic (solid state) magneto replacement. The SureFly Ignition Module replaces one magneto - generally the left or impulse-coupled/starting magneto on most aircraft. 4 and 6-Cylinder models are available for Lycoming and Continental engines.

Replacing just one magneto eliminates magneto maintenance and cuts associated costs in half! Zero maintenance. Zero rebuilds. Zero overhauls. Cessna 172s, 470-powered Bonanzas and AA5 Grumman owners can utilize the advanced timing feature for improved efficiency. Other single-engine fixed-wing aircraft will be able to enable the timing advance feature as the FAA extends the Airframe STC AML.

### Features:

**Reliability** - For SureFly customers, 500 hours simply isn't good enough. When their airplanes stop flying to service low time parts, they stop making money. SureFly Electronic Ignition Modules provide customers with a service life of up to 2,400 hours. Simply install a new SIM at every engine overhaul.

**Safety** - The magneto itself isn't inherently unsafe. What makes an externally powered electronic ignition more safe than a mag is a fact that it is simply never opened-up, inspected and potentially rebuilt/overhauled like a magneto is every 500 hours. No mechanical parts to wear = Zero maintenance = a 0% chance of introducing a maintenance-related ignition failure.

**Performance** - Longer spark dwell and RPM/manifold pressure-moderated timing advance, up to engine manufacturers' prescribed maximum, provide SureFly customers real fuel savings. Low power consumption and lightweight (up to 2 lbs. lighter than a Bendix magneto) make SureFly Ignition Modules light on fuel and light on the wallet too.

**Better Starts** - SureFly perfectly controls timing at TDC below 400 rpm which combined with longer spark dwell and the option to use wider gapped spark plugs, makes starting a breeze, greatly minimizing wear and tear on high-performance starters and electrical systems.

**Trusted** - SureFly Ignition Modules are hand built in Granbury, Texas almost entirely from components manufactured in Texas and Michigan. Designed, engineered, created and supported by the same team that brought you Sky-Tec starters and Plane-Power alternators, our approach to SureFly shares the same commitment, experience and passion for creating and bringing sensible, affordable solutions to the piston engine aviation market.

**FAA approves SureFly dual electronic ignitions.**



### SIM4P 4 CYLINDER IMPULSE COUPLED MAGNETO REPLACEMENT

The vast majority of 4-Cylinder applications will replace the impulse coupled magneto. 4.4 lbs. **Now approved for the replacement of both mechanical magnetos on most certified four- and six-cylinder Lycoming and**

Continental powered aircraft with dual SureFly Electronic Ignitions. Please review the Engine and Airframe STC's and installation instructions for further application information.... P/N 08-17074

### SIM4N 4 CYLINDER NON-IMPULSE MAGNETO REPLACEMENT

Replaces 4-cylinder non-impulse coupled magnetos on Lycoming & Continental engines. 4.0 lbs.  
P/N 08-17075



### SIM6L 6 CYLINDER LYCOMING MAGNETO REPLACEMENT

Replaces 6-cylinder magnetos on Lycoming engines. 5.2 lbs.....P/N 08-17076

### SIM6C 6 CYLINDER CONTINENTAL MAGNETO REPLACEMENT

Replaces 6-cylinder magnetos on Continental engines. 5.0 lbs.....P/N 08-17077



## SUREFLY TACH2 TACHOMETER SIGNAL CONVERTER



The Tach Signal Converter (Tach2) converts SIM P-Lead signals to negative-going signals compatible with the Horizon P-1000 digital tachometer input and to a positive-going 0-5V square wave signal compatible with electronic tachometers that rely on a signal from a magnetic

pickup inserted into a magneto. Tach 2 can accept one or two SIM P-Leads as input, converts and conditions the signals and outputs them to corresponding output terminals. The Tach2 must be installed in the aircraft cabin and secured to the airframe with screws and nuts. The Tach2 power input from the aircraft bus may range from 8.5VDC to +30VDC without damage. The Tach2 consumes less than 0.25A of power. 0.2 lbs.....P/N 08-17284

## E-MAG ELECTRONIC IGNITION

**Note: New installation requires a harness, and possibly a gear, depending on the application (See Accessories). Verify requirements before ordering.**



Of all the E-MAG innovations, the self-powering capability of the "P" Model is the most significant. It solves the largest single issue faced by all electronic ignitions - their need for an uninterruptible power supply. Power back-up strategies that a) compromise ignition effectiveness, b) solve only half the problem, or c) require additional maintenance are less than ideal. Next-Generation ignitions need a better solution. So what does a next-generation electrical back-up need to do?

Above all, it has to be reliable. When it's needed, it has to work - period. It should operate for as long as needed. Whether it's the last 10 minutes of

a Sunday pleasure flight, or you're crossing the Atlantic. It should be maintenance-free. Benign neglect should not prevent it from working. On the rare occasion it's needed, it should automatically engage without operator intervention. A simple and convenient pre-flight check should confirm it's working properly. This P model ignition has an internal three phase brushless alternator that produce enough power to sustain the ignition when the engine is turning 800 rpm, or more. If the aircraft buss voltage goes off-line, the ignition has an internal alternator. With this arrangement, dual electronic ignitions can be run "clean". No back-up batteries and no back-up magnetos.

The P Model Built-In Alternator adds no (zero) mechanical contact/wear parts to the system. Adds only a few ounces of weight. Requires no additional hardware to install. Will operate as long as the engine is turning.

Description	Part No.	Price
"P" Model (P-MAG) Ignition - Lycoming (and like) engines.	07-01292	---
E-Mag P Model Ignition with Alternator 4C Continental - Ignition compatible with 4 cylinder Continental O-200 Engines.	07-01311	---
E-Mag Gear Adapter Kit C 200	07-01805	---
E-Mag Spark Plug Adapters w/o Gaskets (4 pk) Short Reach	08-06753	---
E-Mag Spark Plug Adapters w/ Gaskets (4 pk) Short Reach	08-06753-1	---
E-Mag Spark Plug Adapters w/ Gaskets (4 pk) Long Reach	08-07608	---
E-Mag Spark Plug Adapters w/o Gaskets (4 pk) Long Reach	08-07608-1	---

## E-MAG 200 SERIES IGNITION FOR 6 CYL EXPERIMENTAL AIRCRAFT



E-Mag is a next-generation electronic ignition, designed to serve as an upgrade or replacement for traditional aircraft engine magnetos.

**Built-in back-up operating power** - The importance of power supply for any electronic ignition cannot be overstated. E-MAG's internal alternator (redundant back-up power) provides automatic switching between aircraft (14v to 28v) and internal operating power.

**High energy spark** - A standard feature for any modern electronic ignition. But to avoid too much of a good thing E-MAGs uses a closed-loop energy management system (not too much - not too little) to reduce operating stresses.

**Variable spark firing** - Another standard feature for electronic ignitions. Tuning the advance range is key. Series 200 has simple built-in tools for adjusting the variable boundaries. **Note:** An optional cockpit switch lets the pilot choose fixed or variable mode firing [required for boosted engines].

**Simplified mechanical section** - All moving mechanical elements are housed in the nose (engine oil/wet) section with a solid barrier separating the electronics/dry section - i.e. no oil seal to wear out.

Multi-strike firing and boosted energy at start-up. Starts more like a car.  
Lycoming .....P/N 07-26839 .....Continental (TCM) .....P/N 07-26840



## IGNITION KITS

Auto style custom fit kits. Include low-resistance spiral wound lead wire, end fittings, and tool. Auto style harness with terminals and boots installed on both ends. Same wire used in their custom trim-to-fit kit.

Description	Part No.	Price
Auto Harness - 4 Lead Kit without adapter	07-02716	---
Spark plug adapters - 4 pack	08-06753	---

## IGNITION DRIVE GEARS



Description	Part No.	Price
Lycoming 68C19622	07-02011	---
Superior SL68C19622	08-11837	---

# ELECTROAIR – IGNITION HARNESSSES

## ELECTROAIR 4 CYLINDER ELECTRONIC IGNITION KITS



The EIS-41000 Series Electronic Ignition Kit is a fully STC'd kit for most Lycoming 4cyl engines. Replacing one magneto with the EIS-41000 will typically improve fuel economy on average by 10-15% (many operators have reported consistent fuel savings of 1gph or greater). Additionally, there will be an improvement in horsepower, smoother engine operation, and improved high altitude performance. Used on either 12V or 24V systems. Kit includes: all the required parts to replace the direct drive magneto (typically, the right hand mag), or the Impulse Coupled Magneto (typically left handed) in most 4cyl Lycoming engines. (Please refer to the FAA approved model list to verify the system can be installed on your engine - Note: engines are being added regularly).

Description	Part No.	Price
EIS-41000 Direct Drive (non-impulse coupled)	08-07272	---
EIS-41000IC Impulse Coupled	08-07505	---
EIS-41000T Twin Engine Aircraft; Lycoming 4cyl Engines. Standard Rotation, Direct Drive (non-impulse coupled) Magneto Replacement	08-07667	---
EIS-41000TIC Twin Engine Aircraft; Lycoming 4cyl Engines. Standard Rotation Impulse Coupled Magneto Replacement	08-07668	---
EIS-41000TLH Twin Engine Aircraft; Lycoming 4cyl Engines. Counter-Rotating, Direct Drive (non-impulse coupled) Magneto Replacement	08-07669	---
EIS-41000TLHIC Twin Engine Aircraft; Lycoming 4cyl Engines. Counter Rotating, Impulse Coupled Magneto Replacement	08-07670	---
EIS-61000-T5M 6 Cylinder EIS Lycoming Normal ASP MAG Timing Housing	08-16206	---
The EIS-42000D Electronic Ignition Kit is a fully STC'd kit to replace the Bendix single drive, dual magneto with a complete, Dual Electronic ignition.	08-17417	---

**PLEASE VISIT [WWW.AIRCRAFTSPRUCE.CA](http://WWW.AIRCRAFTSPRUCE.CA)  
FOR ADDITIONAL IGNITION KITS.**

## ELECTROAIR SPARK PLUGS



Electroair partnered with Tempest to produce its new HE spark plug line. The HE plugs are STC'd and PMA'd for use with the Electroair electronic ignition systems. The plugs are approved for all aircraft, and installations approved for use with the Electroair electronic ignition systems. Electroair's "HE" plug line include a massive electrode with extended reach outer electrodes has a gap of 0.032. This optimal gap accommodates the high energy output of 70,000 volts delivered by the Electroair system.

EAREM37HE.....P/N 08-07714  
EAREM38HE.....P/N 08-07715  
EARHB32E.....P/N 08-16212

## ELECTROAIR SPARK PLUG WIRE ASSEMBLY

Electroair Spark Plug Wire Assy. 8 Ft .....P/N 08-17585  
Electroair Spark Plug Wire Assy. 10 Ft .....P/N 08-17586  
Electroair Spark Plug Wire Assy. 12 Ft. for 6 Cylinder Twin  
P/N 08-17587



## ELECTROAIR CERTIFIED SPARK PLUG WIRE ASSEMBLY KIT

EA-4000 Spark Plug Wire Assembly Kit  
The EA-4000 spark plug wire kit comes complete with enough wire and spark plug hardware to replace any lead in the system. This easy to assemble spark plug lead allows the maintainer to quickly and neatly install a spark plug lead. Routing leads individually allows for a cleaner and easier installation.....P/N 08-07678



## ELECTROAIR 6 CYLINDER ELECTRONIC IGNITION KITS

The EIS-61000 Electronic Ignition Kit is a fully STC'd kit for Continental 470 & 520, non-turbo'd, series engines, installed on single engine aircraft. Replacing one magneto with the EIS-61000 will typically improve fuel economy. This kit can be used on either 12V or 24V systems. Kit includes: all the required parts to replace one magneto.

Description	Part No.	Price
EIS 61000-1C Electroair Cont. 6 Cyl.	08-12237	---
EIS 6100-T1C Electroair Cont. 6 Cyl.	08-13155	---
EIS-61000-1M for Continental 360, 470, 520, &550 non turbo series engines on single engine aircraft.	08-13696	---
EIS-61000-T1M for Continental 360, 470, 520, &550 non turbo series engines on twin engine aircraft.	08-13759	---
EIS-61000-5C for Lycoming 540 non turbo series engines on single engine aircraft.	08-13760	---
EIS-61000-T5C for Lycoming 540 non turbo series engines on twin engine aircraft.	08-13761	---

**Note: The following are replacement units for the EIS systems.**

EA-6000/EA-6000TP the brains of the Electroair Electronic Ignition System. This replacement unit if for 6cyl engines. This unit can be used in either a 12V or 24V application.	08-13157	---
EA-11000 Crank Shaft Trigger Wheel kit mounts on the bare spot of the crank shaft just behind the propeller flange. <b>NOTE:</b> Minimum clearance of 0.650" between the front of the engine case and propeller studs is REQUIRED. Please check this dimension before starting installation ordering the kit.	08-13158	---
EA-8000 is the 6cyl Coil Pack used in the EIS-61000 Electronic Ignition System. This unit can be used in either a 12V or 24V application.	08-13159	---
The EA-3000 replaces the direct drive magneto found on most 4cyl Lycoming engines. This unit provides the EA-1000 Controller with the engine position and RPM information needed to drive the electronic ignition system.	08-07671	---



## ELECTROAIR IGNITION SWITCH PANELS

The EA-13000 is approved ignition switch panel with STC to control both the Electroair electronic ignition system (EIS) and the magneto.

Horizontal .....P/N 08-14693  
Vertical.....P/N 08-14694



## EA-15000 IGNITION SWITCH PANELS

The EA-15000 is an approved ignition switch panel to control two magnetos and a starter in a conventional ignition configuration (magneto to magneto). The panel comes in two versions, a horizontal one and a vertical one. This set of ignition switches is approved to replace the outdated and venerable rotary key-switch.

Horizontal .....P/N 08-17141  
Vertical.....P/N 08-17142

## SMOOTH POWER BACKUP BATTERY SYSTEM CONTROL PANEL

Smooth Power Backup Battery System Control Panel.  
12V Backup Battery System Control Panel ...P/N 08-17592  
24V Backup Battery System Control Panel ...P/N 08-17593

EP

# LIGHTSPEED IGNITION

## PLASMA II PLUS CDI



The Plasma II is Light Speed Engineering's basic electronic ignition system for aircraft. It is a lightweight, high-energy capacitor discharge system containing all of the essential Plasma CDI features. Its smaller size and lighter weight sets it apart from any other ignition source.

## PLASMA III CDI

The Plasma III Capacitor Discharge System is high performance ignition for all 4-cyl and 6-cyl aircraft engines. Its long duration spark and optimized timing curve makes more horsepower and improves fuel efficiency- at all altitudes. Other benefits include quick starts, reduced maintenance, light weight, lower EGT's and up to 20% more range. As with all LSE ignitions, RPM and manifold pressure inputs are used for our proprietary timing curves. The Plasma III is also capable of displaying the current timing advance, manifold pressure and rpm on an optional lightweight LCD display. The Plasma III can easily replace one or both magnetos, making your engine run better under all conditions.

## PLASMA CAPACITIVE DISCHARGE IGNITION SYSTEMS

All Plasma CDI systems include: high tension leads, harness, spark plugs, spark plug adapters, ignition coils with mounting bracket, and Hall Effect Sensor module OR Direct Crank Sensor assembly.		
Description	Part No.	Price
Plasma II Plus: 4 Cylinder Hall Effect Module	08-06295	---
Plasma III: 4 Cylinder Hall Effect Module	08-00676	---
Plasma III: 6 Cylinder Direct Crank Sensor	08-00677	---
Plasma III: 4 Cylinder with Mini DC Sensor	08-12136	---
Plasma III: 6 Cylinder with Mini DC Sensor	08-12137	---
<b>Dual Plasma CDI Systems</b>		
Dual Plasma II Plus: 4 Cylinder Direct Crank Sensor	08-06296	---
Dual Plasma II Plus: 4 Cylinder with Mini DC Sensor	08-12138	---
Dual Plasma III: 4 Cylinder Direct Crank Sensor	08-06298	---
Dual Plasma III: 4 Cylinder Hall Effect Module	08-06299	---
Dual Plasma III: 6 Cylinder Direct Crank Sensor	08-06300	---
Dual Plasma III: 4 Cylinder with Mini DC Sensor	08-12139	---
Dual Plasma III: 6 Cylinder with Mini DC Sensor	08-12140	---
<b>Options</b>		
LSE Plasma Super-C Turbo	08-06301	---
LSE Franklin and Continental engine ignition systems	08-06302	---

## LSE ALUMINUM BRONZE REACH SPARK PLUG ADAPTERS



Light Speed Engineering's standard issue spark plugs are pictured to the left. Single ground electrode with a short body make these a durable option for most applications. W27EMR-C: Used on standard and high compression engines. The standard reach (1/2") spark plug adaptor is also pictured here (08-14009). This adaptor is used when converting aircraft engines using 1/2" reach aircraft spark plugs to 14mm plugs. Light Speed Engineering's spark plug adaptors are made of high strength aluminum bronze. \*These plugs and adaptors are included with ignition kit purchase for those with 1/2" reach.

1/2" Reach Spark Plug Adapter .....P/N 08-14009  
3/4" Reach Spark Plug Adapter .....P/N 08-14010  
HHP Long Reach Spark Plug Adapter .....P/N 08-14011

## NGK SPARK PLUGS



- 98% pure copper core increases heat dissipation for more reliable starts and prevents spark plug from overheating
- High-grade alumina silicate ceramic insulator for superior strength and heat transfer
- Cold-rolled threads to prevent cross-threading and damage to cylinder heads
- Trivalent plating eliminates need for anti-seize and corrugated ribs prevent flashover

**Note:** The spark plugs listed are not for aircraft application

Size	Description	Part No.	Price
10mm	CR5HSB	08-06263	---
12 mm	DCPR7E	08-00504	---
12 mm	DCPR8E (Removable Terminal Nut)	08-01228	---
12 mm	DCPR8E (Solid Terminal Nut)	08-07044	---
12 mm	DR8EA	08-00693	---
14 mm	BR8EIX	08-00650	---
14 mm	BR8ES	08-00736	---
14 mm	BR8ES (Removable Terminal Nut)	08-00736-1	---
14 mm	BR7ES	08-07041	---
14 mm	BR9ES	08-07042	---
14 mm	BR7EIX	08-07045	---
14 mm	BR9EIX	08-07046	---
12mm	DP9EA-9	15-05219	---
14mm	IK24	15-05204	---

## SPARK PLUG HOLE PROTECTIVE CAPS



#9721 Spark Plug Hole Caps. Seal your Spark plug hole openings with these inexpensive tapered fit plastic caps. Prevent debris from accidentally entering ports and creating damage or mischief. Ideal for sealing for winter storage, preventing moisture from corroding internal engine parts. Also can be used to seal ports for leak testing, an important procedure that locates potential air leaks before they cause costly engine damage. Tapered fit provides positive seal for either vacuum or pressure testing. Tapers from 0.482" to 0.526" .....P/N 15-06003

## LSE BLACK TWIN TOWER IGNITION COIL



Ignition coils are typically mounted on the top center of the engine. They can also be mounted on the motor mount tubes using Adel clamps or on the firewall to a piece of angle aluminum. Ignition coils should be mounted so that spark plug lead length will be kept to a minimum for maximum spark energy and minimum noise. It is important that each coil connects to opposing cylinders, i.e. one coil fires cylinders 1 and 2 and the other coil fires 3 and 4 .....P/N 08-17193

## AN4062-1 DEHYDRATOR PLUGS 18MM



These plugs are used to prevent rust and corrosion in engines while in storage. Contain silica gel which turns from blue to pink when moisture is absorbed. Reusable & refillable. The pink silica gel may be reactivated (after removing from reservoir) by heating for 16 hours at 250°F.  
18MM .....P/N AN4062-1 ea

**SILICA GEL. Indicating type, for refilling plugs.**

1/4 Lb. Bag .....P/N 07-00731  
1 Lb. Can .....P/N 07-03400

## DEHYDRATOR PLUG 18MM MS2721501 NON-REFILLABLE

Dehydrator Plug 18mm MS2721501 Non-Refillable - Single Unit.  
Single Unit .....P/N 08-17377-1  
Can of 20 .....P/N 08-17377

# SPARK PLUG PARTS



## TEMPEST AVIATION SPARK PLUGS

**Made in USA.** Copper, co-extruded inside a nickel alloy sleeve ensures outstanding heat and electrical conductivity while the nickel sleeve offers high resistance to corrosive combustion gases. High Alumina Ceramic Insulator. "V" tip focuses heat to reduce fouling and enhance heat range control. Proprietary Glass Center Seal, and resistor design, eliminating resistor degradation causing misfire. Environmentally preferable electrolytic nickel provides outstanding durable finish, superior corrosion protection, and extreme wear resistance. Aviation grade nickel electrode design focuses on minimizing sparking voltage requirements. Harness Wire Contact is a smooth, uninterrupted, oxide treated spring contact surface.

### MASSIVE ELECTRODE

Model	Part No.	Price
UREM38E	08-00046	---
URHM38E	08-00047	---
UREM40E	08-00048	---
URHM40E	08-00049	---
URHB32E	08-00245	---
UREB37E	08-00246	---
URHB37E	08-00247	---
UREM37BY	08-00248	---

### FINE WIRE

Model	Part No.	Price
URHB32S	08-07213	---
URHB36S	08-01230	---
URHM38S	08-01232	---
UREB36S	07-26932	---
UREM38S	08-01234	---

**BOXES OF 12 SPARK PLUGS ARE AVAILABLE FOR EACH MODEL. CALL OR VISIT OUR WEBSITE FOR PRICING.**

EP



## CHAMPION SPARK PLUG ANTI-SEIZE

Apply sparingly to second and third threads. Do not contact electrodes as it could short out the plug. Do not apply to shielding barrel threads. Unbreakable 4oz. bottle with applicator brush top.....P/N 2612

## TEMPEST SPARK PLUG THREAD LUBRICANT & ANTI-SEIZE COMPOUND

Comes packaged with a brush that applies the lubricant to the threads with a smooth even flow, doesn't drip, and more importantly, won't inadvertently run down on the firing end of the spark plug potentially causing an environment conducive to fouling or even pre-ignition. It stays where you put it and covers like a blanket on the first pass!... P/N 12-00709



## ATS2612 SPARK PLUG THREAD LUBRICANT

A high-temperature, graphite lubricant that is applied to spark plug threads prior to installation to prevent galling and seizure. Non-hazardous compound.....P/N 12-02946



## TEMPEST COPPER SPARK PLUG GASKET

AN4027-1, 18MM P/N M673. These are the AN4027-1 18mm copper spark plug gaskets. Model U674. Made of solid copper to current aircraft standards. Box of 100.....P/N 07-01798



## COPPER SPARK PLUG GASKETS

Made of solid copper to current aircraft standards. Available in 14 MM and 18 MM sizes. AN4027-2, 14MM .....P/N 07-01261 ea  
AN4027-1, 18MM .....P/N 07-00877 ea



## CHAMPION M674 SPARK PLUG GASKET

M674 - Gasket: Spark Plug, 18mm. Made of solid copper to current aircraft standards. Box of 100. 1 in. X 1 in. X 0.063 in. ....P/N 07-03425



## SURPLUS SPARK PLUG BARGAINS

New surplus 18MM longreach, shielded, 3/4-20 barrel. FAA approved for Continental IO-470, GIO-470, TSIO-470, IO-520 & GTSIO-520. Not for O-470, which uses short reach plugs. P/N 08-03699 ea



**SEE TOOL SECTION FOR FULL LINE OF CHAMPION SPARK PLUG TOOLS**

## SPARK PLUG TYPE DESIGNATION SYSTEM



In the early 1900s, small planes flew with single ignition systems powered by adapted automobile engines using Champion-brand automotive spark plugs. By the 1920s, the company had developed innovative spark plugs designed specifically for the aviation industry. Champion Aerospace designs and manufactures Champion-brand piston-engine ignition components for both OEM and aftermarket for general aviation aircraft applications. Every spark plug manufactured has built-in design advantages that assure longer life and greater reliability. A typical spark plug number with symbol explanation.

### A TYPICAL SPARK PLUG NUMBER WITH SYMBOL EXPLANATION

R — Push-wire—90°  
to Center  
R H B 37 E  
① ② ③ ④ ⑤

1. Resistor	None—No Resistor	R—Mil-Spec. Resistor-Erosion protection
2. Barrel Style	None -- Unshielded	E -- Shielded 5/8"-24 Thread
3. Mounting Thread	Reach	Hex Size
B - 18 mm	13/16" (2.06 cm)	7/8" (2.22 cm)
M - 18 mm	1/2" (1.27 cm)	7/8" (2.22 cm)
J - 14 mm	3/8" (.95 cm)	13/16" (2.06 cm)
L - 14 mm	1/2" (1.27 cm)	13/16" (2.06 cm)
U - 18 mm	1-1/8" (2.85 cm)	7/8" (2.22 cm)
N - 14 mm	3/4" (1.90 cm)	13/16" (2.06 cm)
4. Heat Rating Position	High number--Hot (50)	Low number--cold (26)
5. Electrode Design	E - Two Electrode Massive S - Single Electrode (Iridium) R - Push-wire - 90° to Center Single	N - Four Electrode Massive B - Twin Electrodes(Nickel) Y - Projected Core Nose W - Two Electrode (Iridium)

## CHAMPION SPARK PLUGS

SHIELDED – MASSIVE ELECTRODES			
5/8-24*	Price	3/4-20*	Price
REJ38 (14MM)	---	RHM38E	---
REL37B (14MM)	---	RHM40E	---
REB37E	---	RHU27E	---
REM37BY	---	RHB32E	---
REM38E	---		
REM40E	---		
REB32E	---		
SHIELDED – Iridium Electrodes**			
5/8-24*	Price	3/4-20*	Price
REM38S	---	RHB32S	---
REB-36S	---	RHB36S	---
		RHM38S	---
UNSHIELDED			
5/8-24*	Price	3/4-20*	Price
M41E (18MM)	---		

\* Shielded barrel thread size. Check barrel size - 5/8x24 or 3/4x20 threads before ordering and select proper plug number.

**SEE PAGE ON THE RIGHT FOR SPARKPLUG APPLICATION TABLE.**

\*\*The "Iridium S" sparkplugs replace the Platinum and "W" Iridium types. Increased bore diameter improves scavenging action. Greater clearance volume can accept more combustion deposits. Single Iridium electrode offers greater resistance to lead attack. Easy to clean Easy to gap

## CHAMPION RVL38S SPARK PLUGS



Used on M14 YAK.P/N 08-06280

**NOTE:** Spark plugs are shipped in factory sealed plastic cases. Opened spark plug cases make the spark plugs non-returnable. Please do not open any spark plug until you are sure you have received the correct spark plugs for your application.



## HELI-COIL INSERTS

18mm long Heli-Coil aviation grade spark plug inserts.  
Heli-coil Insert 18mm X 13/16 " ..... P/N 08-13858  
Heli-coil Insert 18mm X 1/2 " ..... P/N 08-13859

## SILICONE HEAT TRANSFER COMPOUND

A thermally conductive grease based on zinc oxide and silicone oil that provides good thermal conductivity across a wide operating temperature range. Non-conductive, non-capacitive, and non-corrosive, it is used to improve the thermal conductivity between irregular metal surfaces. It is widely used to improve heat flow between heat sinks and heat generating electronic components such as CPU's, GPU's, and power components. Silicone thermal greases are preferred in high operating temperature applications where silicone migration is not a concern. 4 Gram / 1.7 mL Pouch.....P/N 09-05316



EP

Not a complete list. To find the right Tempest Aviation Spark Plugs for your engine, see our complete application guide & engine cross reference at <http://tempestplus.com>

Prices Subject to Change without Notice - Valid as of June 1, 2024.  
Please view our website for current prices.

# SPARK PLUG TOOLS

## AVIATION SPARK PLUG SERVICE UNIT



For Cleaning: Two flexible rubber adapters handle 14 and 18mm plug types. For Testing: Steel adapters of 14 and 18 mm are standard equipment and conveniently stored on the top of the cleaner for ready availability. Molded of rugged A.B.S. plastic which is durable, oil resistant and easy to clean. An aluminum-base frame is included, which permits easy mounting to a work bench and quick removal. The solid state ignition system produces a stable

ignition test voltage providing greater accuracy and reliability. Its lack of moving parts eliminates the major cause of tester failures. Cleaning is by a dry-abrasive air blast, which quickly and effectively removes conductive deposits. All compressed air for both cleaning and testing passes through a "built-in" automatic water trap to stop harmful air line moisture.

110V ..... P/N 12-00794  
220V ..... P/N 12-00902  
110V Replacement Coil..... P/N 12-03773

## MODEL 2600A VIBRATOR/CLEANER



Champion now makes it easier than ever to clean heavily lead-fouled spark plugs with this new, improved Vibrator/Cleaner. Each unit is shipped with all accessories required for cleaning fine-wire and 2-prong massive electrode aviation spark plugs. This unit features quick-change cleaning head assemblies, easy and inexpensive replacement of single cutter blades, improved heavy duty top-mounted switch and improved vibrator

motor for faster cleaning and maximum durability.

Model 2600A ..... P/N 12-15600  
Full Cutter Single Blade (CT-435F)..... P/N 12-01147  
Damper For Vibrator Cleaner..... P/N 12-04953

## CT-415AV GAP SETTING TOOL



A low-cost efficient gap setting tool for closing gaps on massive electrode type aviation spark plugs. May be used as a hand tool, mounted on a bench or held in a vise. Furnished with one adapter for 18mm spark

plugs. (P/N GT-204) and one CT-450 gap gauge. Wt. 1-1/2 lbs., 7-1/2" high..... P/N 12-00796

## CT-450 RETRACTABLE GAP GAUGE



High-impact red plastic case contains four sets of accurate, retractable "go" and "no go" wire gauges: 2 sets .015-.019 (.016 Nom.) 2 sets .018-.022 (.019 Nom.) Length: 3-1/2". Wt. 1-1/4 oz ..... P/N 12-00797

## CT-446 SPARK PLUG TRAY



Steel tray holds up to 12 plugs. Speeds handling of used or new plugs. Holes numbered to correspond with engine cylinders. Protects against shielding barrel contamination. Dims: 5"H x 8"L x 3.5"W. Wt. 1 lb. (12 plug tray)...P/N 12-00795  
(18 plug tray)...P/N 12-00162

## NO. 91893 ABRASIVE COMPOUND



For use in CT-475AV Dry Abrasive Cleaner/Tester. Contains 1 full charge (15oz.). Note: This main item no longer ships with a tip unless it is ordered separately. P/N 91893.

## 622 CHAMPION RUBBER TIP

P/N 12-94023



## LEAD-MASTER WRENCH SETS



Reduce time to remove and install spark-plug ignition leads. Permit shortarc turning due to 12-point grip head.

CT911 3/4" "T" Handle Box Wrench ..... P/N 12-00799  
CT912 7/8" "T" Handle Box Wrench ..... P/N 12-00801  
3/4" & 7/8" Open End Box ..... P/N 12-00802

## CT906 CHAMPION PLU MASTER RATCHET WRENCH



CT-906 Plug Master Ratchet Wrench.

Designed especially to make spark plug removal and installation easier and faster. Flex-handle allows 30-degree angle travel in either direction. Extra fine reversible ratchet action requires only 6-degree travel for next bit. Popular 3/8 in./0.95cm square drive fits Model CT-907 and other standard sockets. Knurled handle, rust-resistant chrome finish. .... P/N 12-04957

## CT492 CHAMPION IGNITER EROSION GAUGE



A special tool designed specifically to measure the erosion-wear of Champion AA series igniters. Calibrated in colored scale segments to determine the extent of erosion of the undercut area of the steel shell, not easily visible to the eye. Measuring tips shaped to reach into the undercut, true-wear area. Instructions for use included in special plastic box.

P/N 12-04954

## CT-494 CHAMPION EROSION GAUGE



CT-494 Igniter Erosion Gauge. The CT-494 accurately determines wear on 10 different Champion surface gap igniters, insuring maximum igniter life without exceeding safe wear limitations.

P/N 12-04929

## CHAMPION CT-482 SPARK PLUG EROSION GAUGE



Champion CT-482 spark plug erosion gauge provides an easy, accurate method of determining whether your plugs have reached their maximum wear limit. Calibrated to reject plugs after their electrodes have eroded to at least one-half their original thickness..... P/N 12-00791

## CT449 CHAMPION THREAD CLEAN OUT TOOL



CT-449 Thread Clean-Out Tool. For cleaning aircraft engine spark plug 18mm bushings to assure correct installation of new or overhauled spark plugs. Regular 7/8"/2.22cm hex fits spark plug sockets. Precision ground threads, three deep flutes retain carbon debris. Packed individually with instructions for use ..... P/N 12-04950

## 52243 CHAMPION CRIMP TOOL

A special tool used to crimp turbine ignition lead contacts to the unshielded center wire ..... P/N 12-04951

## MODEL 2500A GAP SETTING TOOL



A precision gap-setting tool for all massive-electrode Champion spark plugs. Permits simultaneous adjustment of two opposite prongs without removing the spacing gauge. Designed for permanent installation on bench or heavy wooden board. P/N 12-15500

## CT-457 FINE WIRE GAP SETTING TOOL



Designed exclusively for adjusting fine wire electrode spark plug gaps. Slot fits iridium ground electrodes for quick, safe adjustment. Size: 2-1/4" x 2" x 1/4" (5.7 x 5.0 x 0.63 cm) Weight: 1/2 oz. (14 g). Packed individually..... P/N 12-00798

## CHAMPION 52241 HOOK

Champion 52241 Hook..... P/N 12-04925

## CHAMPION CT466 GAUGE

Champion CT466 Gage. .... P/N 12-04924

SEE OUR WEBSITE FOR REPLACEMENT PARTS.

EP

# SPARK PLUG TOOLS



## TEMPEST AA446 SPARK PLUG TRAY

Constructed of high quality metal protecting the spark plugs from damage. Tray design is sturdy and balanced. Rubber feet on the bottom of the tray help keep the tray in place. Numbered spark plug slots.  
P/N 07-02510



## TEMPEST SPARK PLUG RESISTANCE TESTER

Tempest has developed an easy-to-use tester that makes it very efficient for IA/AP's to test the resistance in all aviation spark plugs. The IA/AP simply places the spark plug, barrel side down over the contact post and touches the other lead end to the firing end of the center electrode. If the light is green, the spark plug resistance is below 4kΩ (thousand ohms). If both the green and red lights are on, then the plug is between 4 - 5kΩ. This is acceptable for serviceable plugs. If the red light is on alone, this indicates a resistance value in excess of 5kΩ and the plug must be discarded and replaced.....P/N 08-07462



## ATS DELUXE SPARK PLUG KIT

Kit Includes: • SPCT100A Spark Plug Cleaner Tester Unit (120V/240V) • ATS415 Bench Gapping Tool with Gap Gauge • #12 Spark Plug Cleaner • PA01 Spark Plug Vibrator Cleaner to remove lead deposits • Spark Plug Tray • 10X Inspection Magnifier • A 4oz Bottle of ATS Anti-Seize Lubricant • 100ea Copper Gaskets • Spark Plug Thread Chaser • ATS950 Magnetic Spark Plug Socket.....P/N 12-02410



## ATS VIBRATOR CLEANER PA01

It will clean heavy deposits in and around the electrodes with absolutely no risk of damage to the plug. 1 lbs (0.5Kg) shipping weight.  
P/N 12-00714



## SPARK PLUG EROSION GAUGE

Makes it easy to determine if you plugs have reached the end of their useful life. Simply gap your plug per manufacturer's recommendation and then check to see if the electrodes fit through the hole of the gauge. If they enter the hole, then your plug is too worn and must be replaced.  
P/N 12-03392



## ATS SPARK PLUG GAPPER

Sure-Gap is designed for use on all massive electrode aircraft spark plugs. Saves time and money, eliminates guessing of plug gap, prolongs plug life and ensures peak performance. 18mm. 1lbs shipping weight.  
P/N 12-01682



## ATS SPARK PLUG GAP GAUGE

Convenient Gap Gauge for all Champion and Tempest massive electrode spark plugs. Slider design keep gauge wires stowed away when not in use. • Retractable slider design

• Includes wires for .015", .019", .018", and .022"  
• Works with all Champion and Tempest Massive Electrode Spark Plugs  
• Replacement Wire Gauges are available.  
1lbs shipping weight.....P/N 12-01692

## ATS SPARK PLUG GAPPER & GAUGE 415K



A low-cost efficient gap setting tool for closing gaps on massive-electrode Aviation Spark Plugs. Great design allows it to clamp on to your workbench for easy gapping.  
**Features:** • Manufactured from 4160 Tool Grade Steel • CNC Machined surfaces for exact alignment • Includes ATS450 Feeler Gauge • Clamps to workbench for easy one-handed operation • Compatible with all Champion, and AutoLite Massive Electrode Spark Plugs • 2lbs shipping weight.....P/N 12-01691



## ATS SPARK PLUG THREAD CHASER

Chaser cleans threads in spark plug hole of dirt, carbon build-up, and metal particles. Double ended for both 14mm and 18mm threads. Neoprene band on hex drive holds tool securely in any 13/16" deep-well spark plug socket. 1lbs shipping weight.....P/N 12-01683



## ATS MAGNETIC SPARK PLUG SOCKET

The new Spark Plug Socket features a thin-walled design to get into the tightest confines. Magnetic interior guarantees that you won't accidentally drop the plug during installation or removal. Works with all Champion and Tempest Aviation Spark Plugs. Works with all Champion and Tempest Aviation massive electrode Spark Plugs. Thin-Walled design to get to the tightly spaced plugs. Magnetic interior holds spark plugs and keeps them from falling out. 7/8" Socket. 3/8" Drive. 3-1/2" Overall Length. Made of Chrome Vanadium Steel. 1lbs shipping weight.....P/N 12-01693



## AVIATION SPARK PLUG SOCKET

Aviation spark plugs have special needs; using a non-standard 7/8" hex, and exhaust manifolds can get in the way of wrench access. A thin-wall socket is necessary for many applications. To ensure compatibility with all makes of plugs including Champion and Tempest, a deep well is called for. Developed specifically for general aviation aircraft. Compatible with Tempest and Champion Spark Plugs. Thin wall for fit into narrow cavities. Combined built-in 1" hex and 3/8" drive permits added flexibility in manifold access. Lifetime guaranteed and professional quality .....P/N 12-03771



## ATS SPARK PLUG CLEANER

Cleans any size plug without changing grommet. Has 2-way valve (blast or air) and comes complete with abrasive powder. Ready to use.  
P/N 12-01684  
Replacement Abrasive X-Fine 600 Grit  
P/N 12-04897

## AUTOLITE SPARK PLUG TOOLS



## SPARK PLUG DEEP SOCKETS

T-558 1/2" drive w/o magnet  
P/N 12-00712



## HEAVY DUTY SPARK PLUG GAPPER KIT

A complete spark plug gapping solution for field or bench use includes the Heavy Duty Spark Plug Gapping Tool to accurately set your spark plug gaps to within 0.001". You also get a set of wire feeler gauges to verify gap size. If you should happen to accidentally over-gap the plug, then the included Gap Expansion Tool will get you back on track. And finally, included in the Kit is an Electrode Erosion Gauge to make sure that your gapped plugs are still in serviceable condition.....P/N 12-03359



## HEAVY DUTY SPARK PLUG GAPPER

This professional heavy-duty spark plug gap setting tool is completely portable for field use, yet precise enough to set gaps to within 0.001". The precision screw drive with its comfortable knurled knob gaps any type of Massive Electrode Aviation Spark Plug reliably and without any danger of damaging the spark plug. Simply screw the spark plug into the base of the tool and turn the knob to the required gap width. Very easy to use. Sets gaps to within 0.001". Precision CNC Machined from 4160 Tool Grade Steel. Attractive Nickel-Cadmium finish resists rusting. Knurled palm grip keep the tool from slipping in hands. Compatible with all Champion, and AutoLite Massive Electrode Spark Plugs.

Gapper.....P/N 12-03389  
Gapper with Gauge.....P/N 12-03390

# SPARK PLUG TOOLS



## SPARK PLUG GAP EXPANSION TOOL

Expands the spark gap of any massive electrode aviation plug safely and efficiently.  
P/N 12-03391



## UNIVERSAL SPARK PLUG GAP GAUGE

This gap gauge provides easy accurate spark plug adjustment. Features flanged edge for electrode bending and beveled round hole for opening gap. 1-1/2" diameter. Wt.: 0.8 oz. Scaled from .020" to .100". Pewter plating makes the inches more legible for user to read. Also available in metric scale (0.5 mm to 2.4 mm). Gap gauge (inches).....P/N 12-21375



## SPARK PLUG VIBRATOR CLEANER

Anyone that cleans a lot of spark plugs knows that a spark plug vibrator cleaner is the only way to go to break up and clean out stubborn lead deposits. A spark plug abrasive cleaner is great for the finish cleaning, but it just won't take care of the lead deposits found down around the plug porcelain. Aircraft Spruce now

offers an inexpensive way to professionally clean spark plugs. This 115V vibrator cleaner is small, light weight, easy to use. It is great for the pilot or mechanic that wants to carry one along — just in case. 90 day guarantee.

Cleaner.....P/N 12-21355/ea.  
Extra Cutter Blades .....P/N 12-01147/ea.



## SPARK PLUG CLEANER TESTER DUAL VOLTAGE

Works with both 120V and 220V sources, and has advanced circuitry to prevent thermal overload during heavy use. Uses a powerful blast of air and abrasive to thoroughly remove carbon deposits from plugs. Manufactured to the rigorous ISO 9002 standard and carries a full one-year warranty. **Specifications:** • Operating voltage: 115V or 220V AC Single-phase

50/60Hz • Dimensions: 19.3" (49cm) x 11" (28cm) x 10.4" (26cm) • Weight: 22.5 lbs (10.2kg) • Accessories included: 12mm, 14mm and 18mm spark plug adapters (2pcs each); 12mm, 14mm and 18mm cleaner gaskets (1 each); Adapter case (1pcs); Aviation Massive Electrode adapter plug (1pcs); Abrasive 1 lbs (900g). P/N 12-03184  
Replacement Abrasive Bag.....P/N 12-03329

## SCREEN CLEAN SPARK PLUG CLEANER



The Screen Clean tool works great for field cleaning of spark plugs. It is non-abrasive and can be used for several cleanings. Simple to use—just work the bi-fold edge through the

gap with several strokes before setting the gap. Actually removes deposits blasting cannot reach .....P/N 12-15610



## SPARK PLUG CADDY

Handy case holds (2) 14mm spark plugs. Small enough to fit into your pocket.  
P/N 13-03869



## SPARK PLUG WRENCH

Loosen or tighten your spark plugs with this handy tool.....P/N 13-03921



## THREAD CLEANOUT TOOL

In servicing spark plugs, a common problem is carbon accumulation in the jug threads. Cleaning these threads regularly can save big money by preventing thread damage and the need to pull the jug and install thread inserts. This specially designed tool works very well to limit this problem. It provides maximum depth penetration and its unique spring action assures that there will be no enlargement of the existing thread pitch diameter.....P/N 12-17200



## AIRCRAFT SPRUCE PLUG MAINTENANCE KIT

The Aircraft Spark Plug Maintenance Kit includes an aircraft spark plug tray, air-powered spark plug cleaner, feeler gauge, spark plug gap setting tool, aircraft spark plug socket, a set of 8 spark plug gaskets and a bottle of spark plug thread lubricant and anti-seize compound.  
P/N 12-02250



## PRECISE-GAP SPARK PLUG GAPPING TOOL

Precise Gap is a simple tool to gap two-, three- or four electrode 18 mm spark-plugs. Only 2" overall - comfortably hand-held. Precision made of stainless steel. "T" handle adjusters move the ground electrodes closer to the center electrode until wire feeler identifies proper gap. Adjusters have fine thread with ball tips for precise movement. Don't buy an inferior imitation at a higher price!  
P/N 12-11600



## SPARK PLUG TRAY

This unique spark plug tray is quality made of PVC plastic. Each holding position has 18 mm thread so that plugs screw in for positive holding. This tray permits simultaneous inspection of either the electrode or barrel end of plugs, protects plugs from damage, and can be stored in any position. Optional carrying strap attaches to ends.  
P/N 12-30185



## PLUG-A-LONG SPARK PLUG TRAY

Holds 12 spark plugs each hole stamped with cylinder number also marked top and bottom so each plug can be identified easily, no mix-ups. Plugs can be serviced and returned back to where they were removed. A must for aircraft mechanics. Made from 18 gauge steel. Blue powder coat finish. Dimensions: W=4.0", L=8.0", H=2.6.  
P/N 12-00974



## RADIAL ENGINE SPARK PLUG HOLDER

18 plug holder is made out of steel. Powder coated federal yellow.  
P/N 13-11617



## FAP 18 HOLE SPARK PLUG TRAY

FAP-18 Aircraft Spark Plug Tray holds 18 plugs. Made from 18 gauge steel.  
P/N 12-03809



## SPARK PLUG WIRE

High-quality multi-strand copper core unshielded wire. 7mm diameter. For all Rotax® and most other engines. Replaces Rotax® Part No. 965-158.....P/N 11-04105 per ft.

EP

# ELECTRONIC IGNITION SYSTEMS

## FLYEFII DUAL SYSTEM32 ENGINE MANAGEMENT SYSTEM



The FlyEFII System32 Engine Management System Hardware is the first electronic engine management system ever designed specifically for the needs of experimental aviation. System32 is a state of the art, high speed, fully redundant system that represents the fulfillment of a ten year wish list of functionality. Dual 32 bit high speed ECUs and a sunlight readable graphical LCD Cockpit Controller combine for seamless power and efficiency in managing your engine's

electronic fuel injection and electronic ignition functions. System32 will be offered in ignition only and full ignition + injection versions.

### Specifications:

**Engine Computer:** • Advanced 32-bit microprocessor • EMI Filtering on all inputs • Operates down to 3.5 volts • Live Telemetry Interface • Integrated ADI Control • Up to 12 individually trimmable injector outputs • Onboard SD Card enables easy field updates, loading and saving map files, and data logging • Supports up to three O2 sensors • Integrated Boost Control • Lightning strike protection • Full 3D mapping of your ignition timing and fuel delivery • Compatible with standard left-right-both ignition switch.

**Cockpit Controller:** • Color LCD 1000-NIT sunlight readable display • Integral rolling tape Air Fuel Ratio display • Convenient full size SD card enables easy field updates, loading and saving map files, and data logging • Seamlessly interfaces with two ECUs • Effortless tuning – enter your engine size and compression ratio to instantly set fuel and ignition base maps • Fits in standard 3-1/8" aircraft instrument hole • Annunciator display for ECU power, fuel pump power, and two battery voltages • Multi-function knob and buttons provide intuitive access to functions.

Description	Part No.	Price
4 Cylinder Ignition Only	07-19978	---
4 Cylinder Ignition & Injection	07-19980	---
6 Cylinder Ignition Only	07-19979	---
6 Cylinder Ignition & Injection	07-19981	---

## EFII THROTTLE BODY FLANGE ADAPTER KIT



The EFII Throttle Body Flange Adapter kit provides a convenient method to join a Van's Filtered Air Box or other flat surface interface to the EFII throttle body which is included in all EFII electronic fuel injection kits.

The EFII throttle body has a 3 1/4" rounded snout at its inlet. the TBFA kit includes a high quality silicone hose coupler which fits onto the EFII throttle body snout. The other end of the silicone coupler has a 3" ID which fits the included 3" aluminum flange adapter. Stainless steel hose clamps are included to complete the assembly of the TBFA.

The aluminum flange adapter can be riveted, bolted, welded or bonded to your air filter box or air inlet .....P/N 07-19987

## EFII FUEL FLOW INTERFACE



Required when Dynon or Garmin engine monitors are used with the EFII electronic fuel injection system. The EFII electronic fuel injection system does not require a mechanical fuel flow sensor to display fuel flow on your engine monitor. However, you will need our Fuel Flow Interface to translate the EFII Fuel Flow signal to the FloScan type signal required by Dynon and Garmin engine monitors. Grand Rapids and MGL engine monitors do not require this interface. The Fuel Flow Interface enclosure measures approx. 2" x 1.37" x 0.75".

P/N 07-19988

## EFII GROUND BUS



The EFII Ground Bus, part number GB-1, is a great addition to a well designed wiring system. The GB-1 is a nicely designed "forest of tabs" type grounding junction that can clean up and organize all your avionics and system ground wires. Many people use two of these devices to lay out their grounding scheme. One for avionics or small signal grounds, and one for higher current grounds, such as lighting, strobes, pitot heat, etc. .P/N 07-19993

## EFIS SPARK PLUG ADAPTERS



If you are going to run an electronic ignition on your aircraft engine, you will need a set of these to adapt the 18mm spark plug threads in your aircraft cylinder head to 14mm threads for use of automotive spark plug. These are the highest quality adapters you will find. 18mm to 14mm Long Reach 4 Pack .....P/N 07-19992

## E-MAG SPARK PLUG ADAPTER FOR 14MM SPARK PLUGS



08-06753-1

08-07608

Auto plug adapters allow for an easy conversion of 18mm (standard engine plug thread) to 14mm (common auto plug thread). Both short reach and long reach adapters are available. The Spark Plug Adapter allows you to use: High performance 14mm automotive plugs, that offer an almost unlimited variety of heat ranges, & electrode styles, designed specifically to take advantage of electronic ignitions - see ignition manufacturer documentation for recommendations (note: not all plugs are equally suited). Shorter plugs with 90° silicon boots provides greater clearance for sleeker cowls and less drag. Some kits include 4 adapter gaskets.

Set of 4 without gaskets - Short Reach .....P/N 08-06753  
Set of 4 with gaskets - Short Reach .....P/N 08-06753-1  
Set of 4 without gaskets - Long Reach .....P/N 08-07608  
Set of 4 with gaskets - Long Reach .....P/N 08-07608-1

## BUS MANAGER



This Bus Manager is an important safety device for aircraft that have critical electronics that require a protected essential bus.

This would include aircraft that are running electronic fuel injection, electronic ignition, electric fuel pumps, or critical instrumentation. Provides a triple redundant essential bus for all critical electronic equipment. This redundancy is crucial for engines that rely on uninterrupted +12V power to critical items. The end user no longer has to attempt to come up with a home brew bus system for their plane. The Bus Manager has been professionally designed and over-built to faithfully provide extreme reliability..... P/N 07-01852

## BUS MANAGER ACCESSORY KIT



The Accessory Kit for the Bus Manager consists of all the parts necessary to setup a Bus Manager based electrical distribution system for experimental aircraft.

P/N 07-01853

## ELECTRIC BOOST PUMP MODULE



The EFII Boost Pump Module (BPM) brings a new level of installation simplicity and functionality to the fuel system of your aircraft equipped with Bendix, AFP or Precision

Airmotive type mechanical fuel injection. The BPM reduces a time consuming and frustrating plumbing job to a simple and clean, easy to set up installation. It is used to supply a steady source of 30PSI fuel to your engine during take-off, landing, priming, or emergency situations. The BPM has integral back flow prevention and pressure regulation valving.

Standard ..... P/N 07-01854  
w/ 90° fitting ..... P/N 07-02461

# REGULATORS - ALTERNATORS

## LAMAR (ELECTRODELTA) VOLTAGE REGULATORS

Mfg Part No.	Description	Replacement for	Part No.	Price
VR500-0101	27.7V Voltage Regulator	Cessna	07-00912	---
VR500-0102	28.8V Voltage Regulator	Cessna	07-00913	---
VR515F	28V Voltage Regulator	Cessna	07-00914	---
VR515GA	28V Voltage Regulator	Cessna	07-00915	---
VR580	28V Voltage Regulator	Cessna	07-00916	---
VR801	28V Alternator Control	Cessna	07-00919	---
VR415F	14V Voltage Regulator	Mooney	07-00910	---
VSF7203A	12V Voltage Regulator	Cessna, Pitts, Bellanca, Aeronca	07-00921	---
VR2000-14-2	14V Voltage Regulator	---	07-24344	---
VR2000-28-2	28V Voltage Regulator	Diamond	07-00895	---
VSF7403A	24V Voltage Regulator	Cessna, Beechcraft, Aero Commander, TCM	07-00922	---
B-00371-1	14V Alternator Control	Piper Aircraft	07-01167	---
VR300-14-50	14V Voltage Regulator	Cessna, Beechcraft	07-00902	---
VR300-28-25	28V Voltage Regulator	Beechcraft	07-00905	---
VR300-28-40	28V Voltage Regulator	Beechcraft	07-00906	---
<b>Hartzell (Electrodelta) Voltage Regulators (Factory Overhauled)</b>				
Mfg. P/N	Description	Replacement for	Part No.	Price
VR515G-2	28V Voltage Regulator	Cessna	07-01108	---
<b>Hartzell (Electrodelta) Voltage Sensors &amp; Monitors (Factory New)</b>				
Mfg Part No.	Description	Replacement for	Part No.	Price
GPM-001	28V Ground Power Motor	Cessna	07-01275	---
OS60	14V Overvoltage Sensor	Cessna	07-00890	---
OS100-0101	28V Overvoltage Sensor	Cessna	07-00887	---
OS75-14	14V Overvoltage Sensor	Piper	07-00891	---
OS75-28	28V Overvoltage Sensor	Britten Norman	07-00892	---

\* For complete application chart please visit our website at [www.aircraftspruce.ca](http://www.aircraftspruce.ca)

## OVERHAULED COMPONENTS

Alternators, generators, and starters which are remanufactured for installation in general aviation aircraft. Fully FAA approved.

EXPERIMENTAL ALTERNATORS			DELCO- GENERATORS			Part No.	Volt/Amp	Price
Part No.	Volt/Amp	Price	Part No.	Volt/Amp	Price	1109511R	12V	CALL
ES-6012	14V60A	CALL	DEL1101898	12V35A	CALL	1109514R	12V	CALL
ES-6024	28V60A	CALL	DEL1101908	12V50A	CALL	1109651R	12V	CALL
ES-6212	13.8V60A	CALL	DEL1101914	12V35A	CALL	1109656R	12V	CALL
ES-6224	28V60A	CALL	DEL1105052	24V40A	CALL	1109657R	12V	CALL
ES-7024	28V70A	CALL	DEL1105053	24V40A	CALL	1109660R	12V	CALL
ES-10024	28V100A	CALL	DEL1105052	24V/50A	CALL	1109662R	24V	CALL
1100715R	12V70A	CALL	DEL1105056	24V40A	CALL	1109678R	12V	CALL
1100716R	12V52A	CALL	DELCO STARTERS			1109689R	12V	CALL
1100717R	12V70A	CALL	DEL1108234	24V	---	1109687R	24V	CALL
1100718R	24V50A	CALL	1108249R	12V	CALL	1109677R	12V	CALL
1100723R	24V50A	CALL	1109511R	12V	CALL	1109678R	12V	CALL
1100747R	24V50A	CALL	1109517R	24V	CALL	1109519R	12V	CALL
1100753R	24V65A	CALL	1109511R	12V	CALL	1109518R	24V	CALL
1100792R	24V65A	CALL	1109518R	24V	CALL	1109678R	12V	CALL
			1109511R	12V	CALL	1109681	12V	CALL
						*Drive not included (DEL 1971890). For price see listing for drives. **Drive not included (DEL 1940969). For price see listing for drives.		

### LAMAR 14V VOLTAGE REGULATOR



Lamar Voltage Regulator DGR6-1 fits Cessna 150 thru Cessna 210 series aircraft. DGR6-1 is the PMA replacement for DGR6, C611001-0101, C611001-0102, C611001-0201, and VR600. Manufactured in the USA. P/N 07-01897

### LAMAR 28V ALTERNATOR CONTROL



Lamar Alternator Control DGR3-1 fits Cessna 150 thru Cessna 210 series aircraft. DGR3-1 is the PMA replacement for DGR3, C611005-0103, C611501-0102, and VR15F. Manufactured in the USA. P/N 07-01896

# HARTZELL ENGINE TECH. ALTERNATORS

## HARTZELL ENGINE TECHNOLOGIES ALTERNATORS



The most popular alternators in use on Cessna and Beech aircraft are of Ford manufacture. Chrysler alternators are usually found on Piper aircraft. These units are manufactured to aircraft specifications and are not available through automotive parts stores. **Note:** Core charge is billed on all exchange units & credited upon receipt of acceptable core.

### ALTERNATOR PRODUCT INFORMATION

#### CHRYSLER ALTERNATORS - FACTORY OVERHAULED

Model No.	Description	Part No.	Price
4111810R	12V/60A BD	07-06402	---

#### FORD ALTERNATORS - FACTORY OVERHAULED

Model No.	Description	Part No.	Price
DOFF10300BR	28V/60A BD	07-06413	---
DOFF10300DR	28V/60A GD	07-06418	---
DOFF10300ER	28V/38A GD	07-06414	---
DOFF10300FR	15V/60A GD	07-06415	---
DOFF10300JR	15V/60A BD	07-06416	---
E3FF10300AAR	28V/95A BD	07-06417	---
ES4019RS	28V/130A BD	08-07118	---
EOFF10300BAR	28V/60A BD	07-06419	---

## HARTZELL ENGINE TECHNOLOGIES OVERHAULED AL SERIES ALTERNATORS



Aircraft Spruce carries the full line of alternators, and starters which are remanufactured by Hartzell for installation in general aviation aircraft. Fully FAA approved. All prices shown are exchange prices. Core charges are billed when unit is shipped. Core credit is issued upon return of acceptable like model core to Aircraft Spruce West in Corona, CA. **Note:** If core is not in stock at factory, customer must send core to Aircraft Spruce at time of order to have the core overhauled.

Hartzell Part No.	Volt/ Amp	Drive	Replaces	Part No.	Price
ALE-6520R	12V/40A	Belt	ALE-6420, Lyc LW-14302	08-07005	---
ALE-8520R	12V/40A	Belt	ALE-8420, Lyc LW-14300	08-07006	---
ALT-8520R	24V/50A	Belt	ALT-8420, CMI 652486	07-06404	---
ALT-8521R	24V/50A	Belt	ALT-8421	08-07008	---
ALT-9522R	24V/50A	Direct	ALT-9422, CMI 641668	07-06405	---
ALU-6521RS	24V/70A	No Pulley/Belt	ALU-6421LS, Lyc LW-14329	08-07009	---
ALU-8521R	24V/70A	Belt	ALU-8421	07-06406	---
ALU-8521RS	24V/70A	No Pulley/Belt	ALU-8421LS, Lyc LW-14326	07-06407	---
ALU-8532RLS	8V/75A	--	--	08-15661	---
ALU-9522R	24V/70A	Direct	--	08-07010	---
ALX-8521R	12V/70A	Belt	--	07-06421	---
ALX-8521RS	12V/70A	No Pulley/Belt	--	08-07014	---
ALX-9524R	12V/70A	Direct	CMI 641670	08-07016	---
ALX-9525BR	12V/70A	Direct	CMI 643008	07-06410	---
ALY-6520R	12V/60A	Belt	Lyc LW-14333	08-07017	---
ALY-6520RLS	12V/60A	--	--	08-15662	---
ALY-6521R	12V/60A	Belt	--	07-06411	---
ALY-6522R	12V/60A	Belt	--	08-07018	---
ALY-6527R	12V/60A	Belt	Lyc LW-14315	08-07019	---
ALY-8520R	12V/60A	Belt	--	07-06412	---
ALY-8520RS	12V/60A	No Pulley/Belt	Lyc LW-14313	08-07020	---
ALY-8524R	12V/60A	Belt	--	08-07021	---

## HARTZELL ENGINE TECHNOLOGIES NEW ALTERNATORS



AL Series



ES4000 Series



ES4020 Series

As the OEM, Hartzell offers factory new alternators engineered specifically to meet the challenges and increased demands of today's aircraft electrical systems. Each unit is aviation designed & developed, no automotive parts used. For decades our alternators have been powering Lycoming/Continental engines with unmatched performance and reliability.

### AL SERIES ALTERNATOR - Prestolite Style - FAA/PMA Approved.

Model No.	Volts/Amps	Description	Part No.	Price
ALT8520	24V/50A	Belt Driven	08-07122	---
ALT8521	24V/50A	Belt Driven	08-07123	---
ALT8521LS	24V/50A	No Pulley/Belt	08-07124	---
ALT9522	24V/50A	Gear Driven	08-07125	---
ALU-6526	24V/60A	Belt Driven	07-19276	---
ALX-6526	12V/70A	Belt Driven	07-19277	---
ALU6521 LS	24V/70A	Belt Driven	08-07126	---
ALU8521	24V/70A	Belt Driven	08-07127	---
ALU8521 LS	24V/70A	No Pulley/Belt	08-07128	---
ALU8532 LS	24V/70A	No Pulley/Belt	08-07129	---
ALX8521	12V/70A	Belt Driven	08-07130	---
ALX8521LS	12V/70A	No Pulley/Belt	08-07131	---
ALX8523	12V/70A	Belt Driven	08-07132	---
ALU-6539-4	25V/175A	--	08-15650	---
ALX9524	12V/70A	Gear Driven	08-07133	---
ALX9525B	12V/70A	Gear Driven	08-07134	---
ALY9524	12V/60A	Belt Driven	08-07135	---
ALY6527	12V/60A	Belt Driven	08-07136	---
ALU-6526	24V/60A	Belt Driven	07-19276	---
ALX-6526	12V/70A	Belt Driven	07-19277	---
ALY8520	12V/60A	Belt Driven	08-07137	---
ALY8520LS	12V/60A	Belt Driven	08-07138	---

### ES4000 SERIES ALTERNATOR - Ford Style - FAA/PMA Approved

Model No.	Volts/Amps	Description	Part No.	Price
ES4000	15V/60A	Belt Driven	08-07139	---
ES4001	15V/60A	Gear Driven	08-07141	---
ES4002	15V/80A	Gear Driven	08-07142	---
ES4003	15V/95A	Belt Driven	08-07143	---
ES4004	28V/38A	Gear Driven	08-07144	---
ES4006	28V/60A	Gear Driven	08-07145	---
ES4008	28V/70A	Gear Driven	08-07146	---
ES4009	28V/70A	Belt Driven	08-07147	---
ES4011	28V/95A	Belt Driven	08-07148	---
ES4019LS	28V/130A	Belt Driven	08-07149	---
ES4017	28V/90A	Belt Driven	08-15654	---
ES4011LS	15V/80A	Belt Driven	08-15653	---
ES4019LS	28V/130A	Belt Driven	08-15655	---

### ES4020 SERIES ALTERNATOR - Chrysler Style - FAA/PMA Approved

Model No.	Volts/Amps	Description	Part No.	Price
ES4020	14V/90A	Belt Driven	08-07150	---
ES4029	28V/70A	Gear Driven	08-07151	---

# HARTZELL ENGINE TECH. ALTERNATORS

## HARTZELL ENGINE TECHNOLOGIES ES4020 SERIES ALTERNATORS - FACTORY NEW



Chrysler Style - FAA/PMA Approved Proven, Tested, & Trusted. As the OEM, Hartzell Engine Technologies offers factory new alternators engineered specifically to meet the challenges and increased demands of today's aircraft electrical systems. Each unit is aviation designed & developed, no automotive parts used. For decades these alternators have been powering Lycoming/ Continental engines with unmatched performance and reliability.

Volts/Amps	Description	Model No.	Part No.	Price
24V/85A	Belt Driven	ES-4024LP	08-15656	---
24V/85A	Belt Driven	ES-4024LP-2	08-15657	---
24V/85A	Belt Driven	ES-4024LP-3	08-15658	---

## HARTZELL ENGINE TECHNOLOGIES ES-10024 AIRCRAFT ALTERNATOR - FACTORY NEW



Introducing the brand new ES-10024 28volt / 100amp aircraft alternator. The ES-10024 alternator is a direct replacement for TCM part number 656802. The ES-10024 is a field proven design that has been in use for over 5 years with thousands of alternators operating on the world's top selling aircraft. Prestolite Style - FAA/PMA Approved. Lightweight, cost effective, 2 yr. warranty.

Model No.	Volt/Amp	Drive	Replaces	Part No.	Price
ES-10024V-2	24V/100A	--	--	08-15651	---
ES-10024B-6	24V/100A	Belt	Piper 651-756	08-15652	---

## HARTZELL ES7024-14 ALTERNATOR



Hartzell Lightweight Alternator ES7024-14. 28 Volt, 70 Amps. Weight: 7 lbs. Replaces TCM part number 657199.

**Features:** • All aircraft quality parts, no automotive parts • High altitude brushes • High speed bearings • High temperature varnish on rotor and stator • No modifications necessary for Retro-fit into any existing Ford style applications • Two year warranty .....P/N 08-07444

## HARTZELL ES10024 ALTERNATOR



Introducing the brand new ES-10024 28 volt / 100amp aircraft alternator. The ES-10024 alternator is a direct replacement for TCM part number 656802. The ES-10024 is a field proven design that has been in use for over 5 years with thousands of alternators operating on the world's top selling aircraft. Prestolite Style - FAA/PMA Approved. Lightweight, cost effective, 2 yr. warranty.

**Features:** • Up to 9.6 lbs. weight savings (per engine) • OEM Direct Replacement • More power at engine cruise • Built in noise cancellation • Rugged design for extreme conditions • More economical than overhauled units • Two year warranty. **Specifications:** • 28 Volt / 100 Amp Prestolite Style • Replaces TCM part number 656802 P/N 08-07443

## HARTZELL ENGINE TECHNOLOGIES ES-6024D ALTERNATOR



This unit is based on the highly reliable, field proven 100A ES-10024 and extensive certification testing has demonstrated a marked increase in efficiency and performance compared to the legacy Continental Crittenden unit it replaces. Aside from the improvement in reliability, two additional advantages offered by this alternator is that owner/pilots will really appreciate are improvements both in cut-in and idle speed performance – with over double the power output at idle!

Benefits of the new HET ES-6024D alternator include:  
• Dramatically increased reliability and estimated MTBF compared to legacy Crittenden alternators • Overall efficiency increased by six to 10% over the entire operating range, resulting in lower operating temperatures • Output at engine idle speed more than doubled to ~23A.

The ES-6024D alternator has been FAA PMA certified as a direct replacement for the 60A Continental Crittenden alternator on Continental -520 and -550 series engines. It replaces Continental alternator models 646843, 646490 and 642055 found on various twin Cessnas, Beechcraft Bonanzas and Barons, early pre-glass panel Cirrus SR-22s, and the Cessna TTx-series aircraft including early Corvairs and Columbia models .....P/N 07-18097

## HARTZELL ALV-9610 ALTERNATOR



Lighter, Tougher, and Proven! Introducing the brand new ALV-9610. The ALV-9610 alternator is a direct replacement for gear driven heavyweight alternators on the Continental 520 & 550 engines. Weighing under 13 lbs., the ALV-9610 is up to 9 lbs. lighter than current heavyweight options. The ALV-9610 is a field proven design that has been in use for over 5 years with thousands of alternators operating on the world's top selling aircraft. FAA/PMA Approved.

See Service Bulletin Document on our website regarding coupling SB11-3

**Features:** • Up to 9.6 lbs. weight savings (per engine) • OEM Direct Replacement • More power at engine cruise • Built in noise cancellation • Rugged design for extreme conditions • More economical than overhauled units • Two year warranty. **Specifications:** • 28 Volt / 100 Amp Prestolite Style • Max Continuous Oper. Speed: 10000 rpm • Type Drive: Gear • Min. Speed for Regulation: 2400 rpm • Max. Operating Altitude: 35000 rpm • Weight: 12 lbs • Rotation: Bi-Directional • Replaces TCM part numbers: 642056, 646491, 646842, 649304, as well as ALV-9510 .....P/N 08-07442

## HARTZELL ENGINE TECHNOLOGIES ES-6012-6 ALTERNATOR - FACTORY NEW



ES-6012-6 - 12V/60A Belt Driven alternator created for six-cylinder Continental engines. This unit is based on the highly reliable, field proven 100A ES-10024 and extensive certification testing has demonstrated a marked increase in efficiency and performance compared to the legacy Continental Crittenden unit it replaces. Aside from the improvement in reliability,

two additional advantages offered by this alternator is that owner/pilots will really appreciate are improvements both in cut-in and idle speed performance – with over double the power output at idle!

Benefits of the new HET ES-6012-6 alternator include:  
• Dramatically increased reliability and estimated MTBF compared to legacy Crittenden alternators • Overall efficiency increased by six to 10% over the entire operating range, resulting in lower operating temperatures .....P/N 08-15659

## ALTERNATOR DRIVE COUPLINGS



ator drive couplings for the gear driven TCM alternator charge added to purchase at time of checkout

line models: IO-520, TS10-520, 10-550, GTS10-520

## Applicable to engine models:

C-75, C-85, C-90, C-115, C-125, C-145, E-165, E-185, E-225, O-200, O-300, GO-300, GIO-300, IO-240, IO-360, TS10-360, & LTS10-360 P/N 07-00642

## HARTZELL FAA/PMA BRUSH SETS

Mfr. Part No.	Description	Part No.	Price
ALE-1013AS	Hartzell Brush Set	07-00963	---
10-1020	Hartzell Carbon Brush Set	07-02713	---
ALV-1012S	Brush Set Package	07-03225	---
MBG-2012CS	Hartzell Brush Set	07-03369	---
MHD-2012S	Hartzell Brush Set	07-03376	---
ALE-2013AS	Carbon Brush Set	07-18138	---
90-2526	Hartzell Brush Set	07-18766	---
AMA-19S	Prestolite Brush Set	07-20460	---
ALV-1015S	Hartzell Brush Holder	07-24501	---
10-9000S	Hartzell Brushes	07-19977	---
15-5005S	Hartzell Brush Holder Assy	07-19976	---
11-1013S	Hartzell Brush Holder, 14v	07-24519	---
ES646348	Hartzell Brush, Str Positive	07-24694	---
40D1542S	Hartzell Brush	07-24725	---
90E53-1S	Hartzell Brush	07-24808	---
7025480001S	Hartzell Brush Assembly	07-24812	---
7024512001S	Hartzell Brush Piece Pt Pkg	07-24830	---
ALU-3045BS	Hartzell Brush Assembly	08-13833	---

CORE CHARGES APPLY TO ALL NEW AND OVERHAULED HARTZELL UNITS.

# HARTZELL ENGINE TECH. ASG ALTERNATORS



## NEW HARTZELL ASG SERIES ALTERNATOR

ASG Series alternators were originally developed by Aero Electric and are OEM on several Cessna applications and PMA replacements for out-of-production 24V Ford alternators. The ASG aircraft alternator designs incorporated several improvements over the Ford alternators they replaced.

Model Number	Product & Application Information	Part Number	Price
ASG10001-13-PMA	60A/28V, Small Frame Ford mount eligible to replace Cessna/Ford alternators used on several legacy 28V single engine Cessnas, including 152, 172, 177, 180, 128, 206 and 207. Replaces Ford DOFF10300B (Cessna P/N C611503-0101 and -0102).	07-18003	---
ASG10001-17-PMA	60A/28V, Small Frame Ford mount used on Cessna 172R, 172S, 182S and 182T, as well as being eligible to replace Cessna/Ford alternators on legacy 28V, 188 and 207 model Cessnas. Replaces Ford DOFF10300B (Cessna P/N 1570213-7) and Cessna P/N 9910591-5 and -11	07-18004	---
ASG10001-18-PMA	60A/28V, Small Frame Ford mount used on Cessna 206H, T206H. Replaces Cessna P/N 9910591-6 and -12	07-18005	---
ASG12000-1-PMA	95A/28V, Large Frame Ford mount is eligible on many 28V legacy piston engine Cessnas, including: 182, R182, T182, TR182, A188, T188, U206, TU206, 207, T207, 210, T210, P210, and T303. Replaces Ford E3FF10300AA (Cessna P/N C611505-0102) and Cessna P/N 9910592-1.	07-18006	---
ASG12000-2-PMA	95A/28V, Large Frame Ford mount used on all Cessna 208s. Replaces Cessna P/N C611505-0201 and 9910592-2.	07-18007	---
ASG12000-3-PMA	95A/28V, Large Frame Ford mount used on Cessna 182S, 182T, T182T, 206H, T206H with 95A option. Replaces Cessna P/N 9910592-3.	07-18008	---



## OVERHAULED HARTZELL ASG SERIES ALTERNATOR

ASG Series alternators were originally developed by Aero Electric and are OEM on several Cessna applications and PMA replacements for out-of-production 24V Ford alternators. The ASG aircraft alternator designs incorporated several improvements over the Ford alternators they replaced.

**Additional core charge added to purchase at time of purchase.**

Model Number	Product & Application Information	Acceptable Cores	Part Number	Price
ASG10001-13R	60A/28V, Small Frame Ford mount eligible to replace Cessna/Ford alternators used on several legacy 28V single engine Cessnas, including 152, 172, 177, 180, 128, 206 and 207. Replaces Ford DOFF10300B (Cessna P/N C611503-0101 and -0102).	C611503-0101 & -0102	07-18003-1	---
ASG10001-17R	60A/28V, Small Frame Ford mount used on Cessna 172R, 172S, 182S and 182T, as well as being eligible to replace Cessna/Ford alternators on legacy 28V, 188 and 207 model Cessnas. Replaces Ford DOFF10300B (Cessna P/N 1570213-7) and Cessna P/N 9910591-5 and -11	1570213-7, 9910591-5 & -11	07-18004-1	---
ASG10001-18R	60A/28V, Small Frame Ford mount used on Cessna 206H, T206H. Replaces Cessna P/N 9910591-6 and -12	99105916 & -12	07-18005-1	---
ASG12000-1R-PMA	95A/28V, Large Frame Ford mount is eligible on many 28V legacy piston engine Cessnas, including: 182, R182, T182, TR182, A188, T188, U206, TU206, 207, T207, 210, T210, P210, and T303. Replaces Ford E3FF10300AA (Cessna P/N C611505-0102) and Cessna P/N 9910592-1.	C611505-0102 & 9910592-1	07-18006-1	---
ASG12000-2R-PMA	95A/28V, Large Frame Ford mount used on all Cessna 208s. Replaces Cessna P/N C611505-0201 and 9910592-2.	C611505-0201 & 9910592-2	07-18007-1	---
ASG12000-3R-PMA	95A/28V, Large Frame Ford mount used on Cessna 182S, 182T, T182T, 206H, T206H with 95A option. Replaces Cessna P/N 9910592-3.	9910592-3	07-18008-1	---

## HARTZELL REPLACEMENT PARTS

For a complete listing of Hartzell Starters, Alternators, Turbochargers, Brush Sets, Bolts, Rotors, O-Rings, Bearings, Housings, Screws, Washers, Nuts, Seals, and other replacement parts, please see our website at

[WWW.AIRCRAFTSPRUCE.CA](http://WWW.AIRCRAFTSPRUCE.CA)

**CORE CHARGES APPLY TO ALL NEW AND OVERHAULED HARTZELL UNITS.**

# SKY-TEC STARTER ADAPTERS FOR CONTINENTALS



## SKY-TEC STARTER ADAPTERS FOR CONTINENTAL ENGINES

Sky-Tec factory new starter adapters for Continental engines. The starter motor bolts to the adapter and connects to an input shaft. This shaft has a worm gear attached that turns a larger brass gear. The brass gear has a large spring attached that compresses on the aircraft starter drive shaft turning it to start the aircraft engine. When the engine starts, the starter is released and the spring opens allowing the shaft to turn freely within the spring.

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Hartzell Part No.	CMI OEM	Part Number	Price
55260	654223	07-25410	---
55261	655034	07-25418	---
55262	655035	07-25419	---
55263	642083-1A2	07-25382	---
55264	642083A12	07-25380	---
55267	642087A68	07-25407	---
55268	642087A69	07-25405	---
55269	642087A70	07-25402	---
55270	642087A72	07-25397	---
55271	643259A18	07-25383	---
55272	643259A39	07-25404	---
55273	643259A43	07-25408	---
55274	646220-1A1	07-25409	---
55275	646220-1A3	07-25411	---
55276	646220A37	07-25379	---
55277	646220A43	07-25393	---
55278	646220A45	07-25394	---
55279	646220A50	07-25395	---
55280	646220A51	07-25403	---
55281	646220A53	07-25378	---
55282	646220A54	07-25400	---
55283	646220A56	07-25401	---
55284	646757A15	07-25406	---
55285	646757A16	07-25391	---
55287	653074A39	07-25412	---
55288	653074A45	07-25413	---
55289	653074A47	07-25398	---
55290	653074A51	07-25399	---
55291	653074A52	07-25414	---
55292	653074A53	07-25421	---
55293	653074A55	07-25415	---
55294	653074A56	07-25416	---
55297	658440A1	07-25387	---
55298	658440A2	07-25384	---
55299	658440A3	07-25388	---
55300	658440A4	07-25396	---
55301	658440A5	07-25392	---
55302	658440A7	07-25389	---
55303	658440A8	07-25390	---
55304	653074A40	07-25417	---
55305	653074A54	07-25420	---

# HARTZELL QUALITY OVERHAULED TURBOCHARGERS



## TURBOCHARGERS

All Turbo-system components (turbocharger, wastegate, controller, and pressure relief valves) overhauled by Quality Aircraft Accessories (QAA) are overhauled in accordance with Hartzell Engine Technologies Recommended Service Facility (RSF) requirements.

Specifically, these RSF requirements are:

- All turbo-system components are overhauled in accordance with the most recent component maintenance manual revision
- Only original Hartzell Engine Technology manufactured components are utilized during the overhaul process
- Product liability insurance applies to all turbo-system components overhauled
- Overhauled turbochargers include the 100% replacement of the turbine wheel and center housing.

**Note: Core Charges vary and apply to all Turbochargers.**

OEM Part No.	Replaces	Description	Part Number	Price
406610-9019	CMI 632729-10	406610-9019 Quality OH Hartzell Turbocharger	07-24350	---
406610-9025	CMI 632729-11	406610-9025 Quality OH Hartzell Turbocharger	07-24353	---
406610-9026	Lycoming LW-15749	406610-9026 Quality OH Hartzell Turbocharger	07-24354	---
406610-9028	CMI 632729-12	406610-9028 Quality OH Hartzell Turbocharger	07-24355	---
406610-9029	CMI 632729-13	406610-9029 Quality OH Hartzell Turbocharger	07-24356	---
406610-9030	Cessna C295001-0501	406610-9030 Quality OH Hartzell Turbocharger	07-24357	---
406610-9031	Lycoming LW-19330	406610-9031 Quality OH Hartzell Turbocharger	07-24358	---
407540-9003	Lycoming LW-13310	407540-9003 Quality OH Hartzell Turbocharger	07-24360	---
407810-9001	CMI 635630	407810-9001 Quality OH Hartzell Turbocharger	07-24361	---
408610-9001	CMI 637374-1	408610-9001 Quality OH Hartzell Turbocharger	07-24362	---
409170-9001	Lycoming LW-12463	409170-9001 Quality OH Hartzell Turbocharger	07-24363	---
409680-9011	CMI 640327-11	409680-9011 Quality OH Hartzell Turbocharger	07-24364	---
465292-9002	CMI 642518-4	465292-9002 Quality OH Hartzell Turbocharger	07-24365	---
465292-9004	CMI 642518-4	465292-9004 Quality OH Hartzell Turbocharger	07-24366	---
465680-9004	Cessna C295001-0202	465680-9004 Quality OH Hartzell Turbocharger	07-24368	---
465930-9002	CMI 641672-2	465930-9002 Quality OH Hartzell Turbocharger	07-24370	---
465930-9003	CMI 641672-3	465930-9003 Quality OH Hartzell Turbocharger	07-24371	---
466011-9002	Lycoming 46C19836	466011-9002 Quality OH Hartzell Turbocharger	07-24372	---
466304-9003	CMI 646677	466304-9003 Quality OH Hartzell Turbocharger	07-24373	---
466642-9001	CMI 649151-1	466642-9001 Quality OH Hartzell Turbocharger	07-24374	---
466642-9002	CMI 649151-2	466642-9002 Quality OH Hartzell Turbocharger	07-24375	---
466642-9005	Lycoming 46C19839	466642-9005 Quality OH Hartzell Turbocharger	07-24376	---
466642-9006	Lycoming 46C22924	466642-9006 Quality OH Hartzell Turbocharger	07-24377	---
466881-9001	Lycoming 46P22250	466881-9001 Quality OH Hartzell Turbocharger	07-24378	---

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## CONTROLLERS

All Turbo-system components (turbocharger, wastegate, controller, and pressure relief valves) overhauled by Quality Aircraft Accessories (QAA) are overhauled in accordance with Hartzell Engine Technologies Recommended Service Facility (RSF) requirements.

Specifically, these RSF requirements are:

- All turbo-system components are overhauled in accordance with the most recent component maintenance manual revision
- Only original Hartzell Engine Technology manufactured components are utilized during the overhaul process
- Product liability insurance applies to all turbo-system components overhauled
- Overhauled turbochargers include the 100% replacement of the turbine wheel and center housing.

**Note: Core Charges vary and apply to all Turbochargers Components.**

OEM Part No.	Replaces	Description	Part Number	Price
470688-9005	Cessna C165004-0501(R)	470688-9005 Quality OH Hartzell Controller	07-24404	---
470688-9007	Cessna C165004-0502(R)	470688-9007 Quality Factory Rebuilt Controller	07-24405	---
470836-9003	CMI 633388-9, 641434-2	470836-9003 Quality OH Hartzell Variable Absolute Pressure Controller	07-24407	---
470836-9019	CMI 633388-11, 641434-6	470836-9019 Quality OH Hartzell Variable Absolute Pressure Controller	07-24409	---
470836-9020	CMI 642247, 642271	470836-9020 Quality OH Hartzell Variable Absolute Pressure Controller	07-24410	---

**CORE CHARGES APPLY TO ALL NEW AND OVERHAULED HARTZELL UNITS.**

# HARTZELL QUALITY OVERHAULED CONTROLLERS/WASTEGATES

## CONTROLLERS CONT'D

OEM Part No.	Replaces	Description	Part No.	Price
470836-9021	CMI 633388-9, 641434-2	470836-9021 Quality OH Hartzell Variable Absolute Pressure Controller	07-24411	---
470884-9004	Lycoming LW-10682	470884-9004 Quality OH Hartzell Density Controller	07-24412	---
470884-9010	Lycoming LW-16840	470884-9010 Quality OH Hartzell Density Controller	07-24413	---
470886-9002	Lycoming LW-10098	470886-9002 Quality OH Hartzell Differential Controller	07-24414	---
470948-9001	Cessna C165004-0102	470948-9001 Quality OH Hartzell Differential Dual Absolute Pressure Ratio Controller	07-24416	---
481008-9008	Lycoming LW-14297	481008-9008 Quality OH Hartzell Variable Absolute Pressure Controller	07-24418	---
481008-9022	CMI 640655-22, 643138-1	481008-9022 Quality OH Hartzell Variable Absolute Pressure Controller	07-24419	---
481008-9025	Lycoming LW-18518	481008-9025 Quality OH Hartzell Variable Absolute Pressure Controller	07-24420	---
481008-9028	CMI 640655-28, 649362-1	481008-9028 Quality OH Hartzell Variable Absolute Pressure Controller	07-24421	---
481058-9001	Cessna C165004-0701	481058-9001 Quality OH Hartzell Sloped Controller	07-24423	---
481058-9007	Lycoming 48B22488	481058-9007 Quality OH Hartzell Sloped Controller	07-24425	---
481058-9013	CMI 646318-13	481058-9013 Quality OH Hartzell Sloped Controller	07-24428	---

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## WASTEGATES

All Turbo-system components (turbocharger, wastegate, controller, and pressure relief valves) overhauled by Quality Aircraft Accessories (QAA) are overhauled in accordance with Hartzell Engine Technologies Recommended Service Facility (RSF) requirements.

Specifically, these RSF requirements are:

- All turbo-system components are overhauled in accordance with the most recent component maintenance manual revision
- Only original Hartzell Engine Technology manufactured components are utilized during the overhaul process
- Product liability insurance applies to all turbo-system components overhauled

All overhauled turbo-system components have a two-year, 1000-hour warranty against material and workmanship defects."

OEM P/N	Replaces	Description	Part Number	Price
470780-9015	Cessna 5050154-15	470780-9015 Quality Oh Hartzell Wastegate	07-24381	---
470818-9003	Lyc LW-12778	470818-9003 Quality Oh Hartzell Wastegate	07-24383	---
470842-9003	Cessna C165006-0303	470842-9003 Quality Oh Hartzell Wastegate	07-24386	---
470842-9004	Cessna C165006-0304	470842-9004 Quality Oh Hartzell Wastegate	07-24387	---
470842-9009	CMI 649006-9	470842-9009 Quality Oh Hartzell Wastegate	07-24389	---
470892-9002	CMI 635381-2	470892-9002 Quality Oh Hartzell Wastegate	07-24390	---
470908-9012	Cessna C165006-0106	470908-9012 Quality Oh Hartzell Wastegate	07-24392	---
470908-9013	Cessna C165006-0107	470908-9013 Quality Oh Hartzell Wastegate	07-24393	---
470908-9015	Cessna C165006-0109	470908-9015 Quality Oh Hartzell Wastegate	07-24394	---
470908-9017	CMI 636188-17	470908-9017 Quality Oh Hartzell Wastegate	07-24395	---
470908-9020	Cessna C165006-0114	470908-9020 Quality Oh Hartzell Wastegate	07-24396	---
470954-9001	Lyc LW-12960	470954-9001 Quality Oh Hartzell Wastegate	07-24397	---
470954-9003	Cessna C165006-0601	470954-9003 Quality Oh Hartzell Wastegate	07-24398	---
481064-9001	Cessna C165006-00113	481064-9001 Quality Oh Hartzell Wastegate	07-24402	---
481064-9002	CMI 646317	481064-9002 Quality Oh Hartzell Wastegate	07-24403	---

**CORE CHARGES APPLY TO ALL NEW AND OVERHAULED HARTZELL UNITS.**

# HARTZELL TURBOCHARGERS/ALTERNATOR KITS



All Turbo-system components (turbocharger, wastegate, controller, and pressure relief valves) overhauled by Quality Aircraft Accessories (QAA) are overhauled in accordance with Hartzell Engine Technologies Recommended Service Facility (RSF) requirements.

Specifically, these RSF requirements are:

- All turbo-system components are overhauled in accordance with the most recent component maintenance manual revision
  - Only original Hartzell Engine Technology manufactured components are utilized during the overhaul process
  - Product liability insurance applies to all turbo-system components overhauled
- All overhauled turbo-system components have a two-year, 1000-hour warranty against material and workmanship defects."

**Note: Core Charges vary and apply to all Turbochargers Components.**

## PRESSURE RELIEF VALVES

OEM P/N	Replaces	Description	Part Number	Price
470930-9001	C482002-0101	470930-9001 Quality OH Hartzell Pressure Relief Valve	07-24429	---
470930-9002	C482002-0102	470930-9002 Quality OH Hartzell Pressure Relief Valve	07-24430	---
470930-9004	C482002-0103	470930-9004 Quality OH Hartzell Pressure Relief Valve	07-24431	---
470930-9005	C482002-0104	470930-9005 Quality OH Hartzell Pressure Relief Valve	07-24432	---
470930-9006	C482002-0105	470930-9006 Quality OH Hartzell Pressure Relief Valve	07-24433	---
470930-90016	7110067	470930-90016 Quality OH Hartzell Pressure Relief Valve	07-24434	---
470930-9017	637583-17	470930-9017 Quality OH Hartzell Pressure Relief Valve	07-24435	---
470930-9018	637583-18	470930-9018 Quality OH Hartzell Pressure Relief Valve	07-24436	---
470930-9019	637583-19	470930-9019 Quality OH Hartzell Pressure Relief Valve	07-24437	---
470944-9007	Lyc LW-14445-2	470944-9007 Quality OH Hartzell Pressure Relief Valve	07-24438	---
470944-9009	CMI 63319-9	470944-9009 Quality OH Hartzell Pressure Relief Valve	07-24439	---
470944-9010	Lyc LW-14445-4	470944-9010 Quality OH Hartzell Pressure Relief Valve	07-24440	---
470944-9011	Lyc LW-14445-3	470944-9011 Quality OH Hartzell Pressure Relief Valve	07-24441	---
470944-9015	Cessna C402002-0110	470944-9015 Quality OH Hartzell Pressure Relief Valve	07-24442	---
470944-9012	Cessna C482002-0108	470944-9012 Quality OH Hartzell Pressure Relief Valve	07-24443	---
470944-9020	Cessna C482002-0113	470944-9020 Quality OH Hartzell Pressure Relief Valve	07-24444	---
470944-9022	Lyc LW-14445-6	470944-9022 Quality OH Hartzell Pressure Relief Valve	07-24445	---
470944-9024	Lyc CMI 63931-24	470944-9024 Quality OH Hartzell Pressure Relief Valve	07-24446	---
470944-9026	CMI 636319-26	470944-9026 Quality OH Hartzell Pressure Relief Valve	07-24447	---
470944-9029	Lyc LW-14445-10	470944-9029 Quality OH Hartzell Pressure Relief Valve	07-24448	---
470944-9030	Lyc LW-14445-11	470944-9030 Quality OH Hartzell Pressure Relief Valve	07-24449	---
470944-9034	CMI 636319-34	470944-9034 Quality OH Hartzell Pressure Relief Valve	07-24450	---
481028-9001	CMI 641404-1	481028-9001 Quality OH Hartzell Pressure Relief Valve	07-24451	---
481066-9001	CMI 643511-1	481066-9001 Quality OH Hartzell Pressure Relief Valve	07-24452	---
481066-9003	CMI 643511-3	481066-9003 Quality OH Hartzell Pressure Relief Valve	07-24453	---

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## HARTZELL OVERHAULED ALTERNATOR KITS

Model No.	Description	Part No.	Price
90-3032	For ALE-6406,G; ALE-6420,G; ALE-6520; ALE-8105A; ALE-8406,G; ALE-8408; ALE-8420,G; ALE-8421; ALE-8520; ALE-8521	07-01684	---
90-3035	For ALT-8403; ALT-8404; ALT-8404LS; ALT-8407; ALT-8420; ALT-8421; ALT-8421LS; ALT-8520; ALT-8521; ALT-8521LS	07-01687	---
90-3036	For ALT-9405; ALT-9422; ALT-9522	07-01688	---
90-3037	For ALU-6421LS; ALU-6521LS; ALU-8403; ALU-8403LS; ALU-8421LS; ALU-8521; ALU-8521LS	07-01689	---
90-3040	For ALV-9401; ALV-9401L; ALV-9405L; ALV-9407, S	07-01692	---
90-3042	For ALV-9510	07-01694	---
90-3044	For ALX-8403,G,R,RG; ALX-8403LS,RS,LSG,RSG; ALX-8421,G,R,RG; ALX-8421LS,RS,LSG,RSG; ALX-8521; ALX-8521LS	07-01696	---
90-3045	For ALX-9402	07-01697	---
90-3046	For ALX-9404L,LG,R,RG; ALX-9422L,LG,R,RG; ALX-9424; ALX-9522; ALX-9524	07-01493	---
90-3048	For ALY-6403,G; ALY-6406,G; ALY-6420,G; ALY-6427,G; ALY-6520,G; ALY-6520LS; ALY-6527,G; ALY-8403,G; ALY-8403LS,G; ALY-8410; ALY-8420,G; ALY-8420LS, G; ALY-8423; ALY-8520; ALY-8520LS	07-01495	---
90-3052	For ES4020	07-01498	---
90-3053	For ES4000; ES4000LS; ES4005; ES4005-2; ES4007; ES4009; ES4009LS; ES4013; ES4013LS; ES4017; ES4018; ES4018LS; ES4023; ES4024; ES4030; ES4031; ES4040	07-01499	---
90-3054	For ES4021; ES4024L; ES4024LP	07-01501	---
90-3055	ES4003; ES4003LS; ES4011; ES4011LS; ES4011-1; ES4011-1LS; ES4014; ES4016; ES4019; ES4019LS; ES4019-2LS; ES4022	07-01502	---
90-3056	For ES4001; ES4002; ES4004; ES4006; ES4008; ES4028; ES4029	07-01503	---
90-3057	For 4111810R	07-01504	---
90-3058	For DOFF10300B; DOFF10300J; EOFF10300BA; E3FF10300BA	07-01505	---
90-3059	For DOFF1030D; DOFF10300E; DOFF10300F	07-01506	---

# HARTZELL STARTER OVERHAUL KITS

## HARTZELL STARTER OVERHAUL KITS



Major overhaul kits for its line of lightweight Lycoming and Continental starters.

After consulting with industry operators, owners and flight schools, it was recognized that downtime is critical in this economy and there is a need to minimize downtime and costs when repairing or replacing starters.

The overhaul kits include all parts necessary for a normal major overhaul, as well as any special tools, lubricants, and thread compounds.

The overhaul manual has been rewritten to highlight tear down and assembly with detailed drawings and instructions. The manual covers all aspects of the rebuild in easily understood steps with tech support just a call or email away. (See Documents Tab)

Average time to do a complete overhaul can be accomplished in less than an hour reducing downtime and increase revenue, as well as maintain the quality standards of the maintenance organization.

- PM1201-OHK - Fits all PM1201/1202 starters
- PM1203-OHK - Fits all PM1203 starters
- PM1204-OHK - Fits all PM1204 starters
- PM2401-OHK - Fits all PM2401/2402 starters
- PM2403-OHK - Fits all PM2403 starters
- PM2404-OHK - Fits all PM2404 starters

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Description	Part No.	Price
PM1203-OHK - Fits all PM1203 starters	07-01270-1	---
PM1204-OHK - Fits all PM1204 starters	08-06007-1	---
PM2403-OHK - Fits all PM2403 starters	07-01273-1	---
LT-EBB-142A Starter Drive Kit, Lycoming 149T, left hand Rotation fits all 04 starters	07-01899	---
OHK-0001 Kit , Tools, OHK, Lycoming fits all OH kits	07-01901	---
OHK-0002 Kit, Planetary Gears, 3 ea. Fits all Lycoming starters	07-01902	---
OHK-003 Kit, Thru Bolt and Anchor Ring #10 fits all Lycoming starters	07-01903	---
OHK-0004 Kit, Brush Assembly, 12V pos. fits all 12 volt starters	07-01904	---
OHK-0005 Kit, Brush Assembly, 12V neg fits all 12 volt starters	07-01905	---
OHK-0006 Kit, Brush Assembly, 24V pos. fits all 24 volt starters	07-01906	---
OHK-0007 Kit, Brush Assembly, 24V neg fits all 24 volt starters	07-01907	---
OHK-0008 Kit, Brush Bracket & Spring fits all starters	07-01908	---
OHK-0009 Kit, Hardware, Starter, Lycoming	07-01909	---
<b>ACCESSORIES</b>		
Description	Part No.	Price
2305002 Armature, 12V, Lycoming	07-01911	---
9301004-F 12/24V Starter Bearing OH Kit	07-01183	---
5301001 End Bell	07-01917	---
5401001 Shield Grease	07-01918	---
7801008 Washer, Wave	07-01920	---
9005001 Assembly, Flux Ring, Lycoming, Complete	07-01921	---

# PLANE POWER LIGHTWEIGHT ALTERNATORS

## PMA APPROVED ALTERNATOR REPLACEMENTS

Plane-Power Certified Alternators are PMA certified to replace any existing alternator in the aircraft and engine applications listed below. No STC paperwork required. All Plane-Power PMA alternators produce up to 70 amps. Your airframe/application may use only a portion of the available output as limited by the aircraft electrical system components and design. Every Plane-Power alternator is tested to exceed all quality and performance specifications. Plane-Power PowerFlex Voltage Regulators are also available separately.

**Plane-Power**



Volts/Amps	Model	Brackets included	Part No.	Price
12/60	AL12-C60	Yes	07-00997	<b>\$1283.00</b>
24/70	AL24-F60	No	07-00999	<b>\$1279.00</b>
12/70	AL12-F60	No	07-00998	<b>\$1304.00</b>
12/70	AL12-P70	No	07-01001	<b>\$1347.00</b>
24/70	AL24-P70	No	07-01002	<b>\$1480.00</b>
12/70	AL12-F60C	No	07-01256	<b>\$1237.00</b>
24/70	AL24-F60C	No	07-01257	<b>\$1254.00</b>
12/70	AL12-70	Yes	07-01258	<b>\$1449.00</b>
24/28Volt, 70 Amp	AL24-FS60	No	07-01491	<b>\$1358.00</b>
24/70	AL24-70	Yes	07-01259	<b>\$1536.00</b>
28V/150A	C28-150	N/A	07-01838	<b>\$3709.00</b>

American Champion	OEM P/N	Model #
7ECA, 7GCAA, 7GCBC, 7KCAB, 8GCBC, 8KCAB	ALY-8420	AL12-P70
Beechcraft	OEM Part #	Model #
19A, B19, M19A, 23, A23-19, A23-24, B23, C23, A24, A24R, B24R, C24R	33-380009-1	AL12-F60
19A, B19, M19A, 23, A23-19, A23-24, B23, C23, A24, A24R, B24R, C24R	ALE-8105A / ALE-8406	AL12-P70
76 Duchess, 77 Skipper	ALY-8420	AL12-P70
76 Duchess	ALU-8421	AL24-P70
B19, C19, C24R	ALU-8421R	AL24-P70
Cessna	OEM P/N	Model #
177, 177A, 177B	C611501-0101	AL12-F60
172L, K, L, M, N, P, 177, 177A, 177B, 177RG	C611501-0102	AL12-F60
P206A, P206B, P206C, P206D, P206E, U206, U206A, U206B, U206C, U206D, U206E, TP206A, TP206B, TP206C, TP206D, TP206E, TU206B, TU206C, TU206E, 207, T207, 210B, 210C, 210D, 210E, 210F, T210F, T210G, T210H, T210J	C611501-0101	AL12-F60C
180H, 180J, 180K, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, 182R, 185E, A185E, A185F, 188, P206C, U206C, U206D, U206E, U206F, U206G, TP206C, TU206B, TU206C, TU206E, TU206F, TU206G, 207, T207	C611501-0102	AL12-F60C
180H, 182G, 182H, 185D, 210E	0750217-1	AL12-F60C
188, A188, A188A, A188B, 210K, T210K, 210G, 210H	1570213-6	AL12-F60C
152, A152, 172M, 172N, 172P, 172Q, 172RG, 177B, 177RG, R182, TR182	C611503-0102	AL24-F60
180J, 180K, 182P, 182Q, 182R, T182, U206E, U206F, U206G, TU206E, TU206F, TU206G, 207, T207, 210K, 210L, 210M, 210N, 210R, P210N, P210R, T210K, T210L, T210M, T210N, T210R, A185F, 207A, T207A	C611503-0102	AL24-F60C
188, 188A, 188B, A188, A188A, A188B, T188C, 207, T207	1570213-7	AL24-F60C
172R, 172S, 182S*, 182T*, T182T*	9910591-5	AL24-FS60
*S/N182001(1997) through 18281197(2004)	9910591-11	----

Commander	OEM P/N	Model #
112, 112B, 112TC, 112TCA, 114, 114A, 114B, 114TC	LW14316	AL12-P70
Twin Commander Aircraft Corporation	OEM P/N	Model #
500-S	78314	AL24-P70
Diamond Aircraft Industries GmbH	OEM P/N	Model #
DA-40	ALU-8421LS	AL24-70*
Grumman (Gulfstream, Tiger)	OEM P/N	Model #
AA-1, AA-1A, AA-1B, AA-1C	ALE-6420 / ALY-6420 LW-14310	AL12-P70
AA-5, AA-5A, AA-5B, AG-5B, GA-7	DOFF-10300J	AL12-F60
AG-5B	ALU8421LS	AL24-P70
Mooney	OEM P/N	Model #
M20C, M20E, M20F, M20G, M20J	ALY-8420 / ALX-8403	AL12-P70
M20J	ALU6421LS	AL24-P70
M20M (Single alternator installations only)	ES-4009LS	AL24-P70
Piper (Without Airconditioning)	OEM P/N	Model #
PA-44-180, PA-44-180T	751 346	AL12-P70
PA-28-151, PA-32R-301 (SP), PA-32-301T, PA-32R, 301(HP), PA-32R-301T (SP), PA-32-301, PA-34-200, PA-38-112	551-984	AL12-P70
PA-24-260	ALX8403	AL12-70
PA-23-235, PA-23-250	ALX8403	AL12-P70
PA-23-235, PA-23-250	ALU-8403	AL24-P70
PA-44-180, PA-44-180T	ALX8421LS	AL12-P70
PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-180, PA-28-235, PA-28R-180, PA-28R-200, PA-32-260, PA-32-300, PA-32R-300	69670-00	----
(60 amp)	AL12-C60	----
PA-28-140, PA-28-151, PA-28-161, PA-28-180, PA-28-235, PA-28R-200, PA-32-300, PA-32R-300	69670-03	----
(60 amp)	AL12-C60	----
PA-28-151, PA-28-161, PA-28-181, PA-28-236, PA-28R-201, PA-28RT-201, PA-32-300, PA-32R-300, PA-32RT-300, PA-32RT-300T	69670-04	----
(60 amp)	AL12-C60	----
Vulcanair, S.P.A	OEM P/N	Model #
P68, P68B, P68C, P68C-TC, P68 "Observer", P68TC "Observer", P68 "Observer 2"	ALU-8421LS	AL24-P70

For Lycoming engines 235, 320, 360, 540, 720 and Superior engines O-360, IO-360, Plane-Power alternators AL12-P70, AL12-70\*, and AL24-70\* replace Lycoming and Superior certified 70amp alternators: LW14300, LW14302, LW14308, LW14310, LW14316, LW14319, LW14322, LW14324. \*Comes with all new Plane-Power mounting brackets and hardware.

# PLANE POWER LIGHTWEIGHT ALTERNATORS



## PLANE POWER LIGHTWEIGHT C14-100 ALTERNATOR

The Plane Power alternator can produce all 100 amps if proper size wiring, ammeter and circuit breaker are installed and approved. PMA replacement, requires only a log book entry. Aircraft electrical system will be limited by existing wiring and output circuit breaker. Warranty: 2-Year Limited

**Specifications:** • 14 volt, 100 amp alternator. Replaces Hartzell/Pow-erup, Crittenden, TCM 50 – 100amp alternators on TCM 520 and 550 Series engines. • Weight: 13 Pounds .....P/N 07-01948



## PMA CONTINENTAL ALTERNATOR REPLACEMENT

These alternator kits are FAA PMA Certified to replace the vast majority of popular general aviation alternators. They include everything you need to replace your current alternator using the existing belt and brackets. Where required, the kit will also include brackets, spacers and hardware.

An alternative to high-priced, marginally-performing, rebuilt used replacement aircraft alternators. These Plane-Power alternators are the product of years of research, development and intensive testing. Each component has been engineered, developed, tested and re-tested exclusively for use in general aviation aircraft.....P/N 07-01838

## PLANE POWER LIGHTWEIGHT ALTERNATOR KITS FOR EXPERIMENTAL AIRCRAFT



### Note: Core charge now applies on Plane Power Alternator kits

The AL12-EI60 kit comes with an ultra compact lightweight AIRCRAFT alternator with an exclusive internal crowbar overvoltage protection circuit. The alternator is fully pilot controllable through unique internal wiring. The dual internal fans are designed for aircraft engine rotation for maximum cooling. The AL12-EI60 kit includes the tension arm, mounting brackets, and all required AN hardware.

Also available 70 amp version only 2 additional pounds.

### Boss Mount

Attaches to a bracket mounted to the side of the engine

### Case Mount

Mounts to 3 bolts that hold case halves together.

Description	Part No.	Price
AL12-EI60/B (Boss Mount)	07-01313	---
AL12-EI60/C (Case Mount)	07-01313-1	---
AL12-EI60/L - 60A LSA  *Must be installed in combination with the Sky-Tec LSA Starter, provides the industry's lightest charging / starting package at 13.2 lbs. for Lycoming's O-233, O-235, O-290 and O320 engines. Fits engines with 122 tooth ring gear and case mount engines.  Belt Not Included.	07-01839	---

## AL12-EI70/B HARTZELL PLANE POWER ALTERNATOR



The AL12-EI70 kit includes a high output AIRCRAFT alternator with an exclusive internal crowbar over-voltage protection circuit. The alternator is fully pilot controllable through unique internal wiring. The dual internal fans are designed for aircraft engine rotation for maximum cooling. The AL12-EI70 kit includes the tension arm, mounting brackets, all required AN hardware, and V-Belt for Superior and most Lycoming engines with a 9-3/4 engine pulley.

Description	Part No.	Price
AL12-EI70/B (Boss Mount)	07-01414	---
AL12-EI70/C (Case Mount)	07-01414-1	---

## AL12-EE70/B HARTZELL PLANE POWER ALTERNATOR



AL12-EE70/B Hartzell Plane Power Alternator.

**Note:** Regulators are not included with the alternators. They must be purchased separately. Please see the "Accessories" tab for the associated regulators.

These are complete kits which include everything you need to add an alternator to your experimental aircraft engine including not only the alternator, but also all new brackets, spacers, mounting hardware and belt.

Volts/Amps	Model	Replaces	Part No.	Price
12/14 volt 70 amp	AL12-EE70/b	(BOSS MOUNT) externally regulated alternator. Kit includes pulley, brackets, mounting hardware & belt for EXPERIMENTAL aircraft applications (Regulator not Included)	07-01005	---
12/28 volt 70 amp	AL24-EE70/b		07-01006	---
12/14 volt 70 amp	AL12-EE70/c	(CASE MOUNT) externally regulated alt aernator Kit includes pulley, brackets, mounting hardware & belt for EXPERIMENTAL aircraft applications (Regulator not Included)	07-01005-1	---
24/28 volt 70 amp	AL24-EE70/c		07-01006-1	---
14.2 volt 30 amp	FS1-14B	Primary alternator for aircraft not requiring more than 30 amps at cruise RPM and little or no output below approx. 1200 RPM. It mounts on an unused AND 20000 pad (vacuum pad) on both Lycoming and Continental engines (Internal Regulator)	07-01883	---

## PLANE POWER EXPERIMENTAL 50 AMP (12/14V) GEAR DRIVEN ALTERNATOR EX14-50



12/14 volt, 50 amp, internally regulated alternator with built-in Over-Voltage protection for use in EXPERIMENTAL Aircraft with small block Continental Engines. Includes Pre-Wired Enable Plug and Gaskets.

**Features:** • For small block Continental engines • Internal voltage regulator • Exclusive built-in crowbar over-voltage protection • Fully pilot controllable through internal wiring • Dual internal fans designed for aircraft engine rotation for maximum cooling • Fits\*\* C75, C85, C90, C125, C145, E165, E185, E225, IO-240, O-200, and O-300 applications (\*\*with accessory case drive gear) • Pre-wired enable/field plug included. **Note:** • Overall Diameter: 4.4" • Overall Length: 6" .....P/N 07-01268

CORE CHARGES APPLY TO ALL NEW AND OVERHAULED HARTZELL UNITS.

# PLANE POWER CONVERSION KITS

## BELT DRIVEN GENERATOR CONVERSIONS

Aircraft Parts & Development	Plane-Power
Intermountain (Callair) A, A-2, A-4, A-5, A-5T, A-9, A-9B	SAL12-70
<b>Alexandria Aircraft, L.L.C.</b>	
Bellanca 14-19-2, 14-19-3, 14-19-3A	SAL12-70C
<b>Cessna Aircraft Co.</b>	
180, 180A, 180B, 180C, 180D, 180E, 180F, 180G,	SAL12-70C
182, 182A, 182B, 182C, 182D, 182E, 182F, 182G, 182H,	SAL12-70C
185, 185A, 185B, 185C, 185D	SAL12-70C
210, 210A, 210-5 (205), 210-5A (205A)	SAL12-70C
206, P206	SAL12-70C
Cessna 310, 310A, 310B, 310C*, 310D*, 310E*, 310F*, 310G, 310H, 310I, 310J, 310K *10-9006 kit may be required for installation. View installation instructions online for further information	TAL24-70C
<b>Fred Garcia</b>	
Camair 480	TAL24-70C
FS 2003 Corporation (Piper)	
Piper PA-12, PA-12S	SAL12-70
<b>Hawker Beechcraft Co.</b>	
Beech H35, J35, K35, M35, N35, P35, 35-33, 35-A33, 35-B33, 35-C33	SAL12-70C
23	SAL12-70
Beech Baron 95-55, 95-A55, 95-B55, 95-B55A	TAL24-70C
Beech Travelair 95, B95, B95A, D95A, E95	TAL24-70
<b>Helio Aircraft, LLC</b>	
Helio H-250	SAL12-70
Helio 500	TAL12-70
<b>KWAD Co.</b>	
Super-V	TAL12-70
<b>Latinoamerican De Aviacion</b>	
Piper PA-25, PA-25-235, PA-35-260	SAL12-70
<b>Lockheed Aircraft Corp.</b>	
402-2	SAL12-70C
<b>Mooney Airplane Company</b>	
M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G	SAL12-70
<b>Piper Aircraft, Inc.</b>	
Piper PA-16, PA-16S	SAL12-70
Piper PA-18, PA-18S, PA-18 "105" (SPECIAL), PA-19S	SAL12-70
Piper PA-18A, PA-18 "125" (Army L-21A), PA18S "125", PA-18AS "125", PA-18 "135" (Army L-21B), PA18A "135", PA-18S "135", PA-18AS "135", PA-18 "150", PA-18A "150", PA18S "150", PA-18AS "150", PA-19 (Army L-18C), PA-20, PA-20S, PA-20 "135", PA-22, PA-22-135, PA-22S-135, PA-22-150, PA-22S-150, PA-22-160, PA-22S-160 (When modified with FAA Approved rear mounted oil cooler)	SAL12-70
Piper PA-20-"115", PA-20S-"115"	SAL12-70
Piper PA-22-108	SAL12-70
Piper PA-24, PA-24-250, PA-24-260, PA-24-400	SAL12-70
Piper PA-28-140, PA-28-150, PA-28-160, PA-28-180, PA-28-235, PA-28S-160, PA-28S-180	SAL12-70
Piper PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250	TAL12-70
Piper PA -30	TAL12-70
<b>Prop-Jets Inc.</b>	
Meyers 200, 200A, 200B, 200C, 200D	SAL12-70C
Raytheon Aircraft Co.	
35, A35, B35, C35, D35, E35, F35, G35, 35R, modified by STC conversion to O-470 or IO-470 engine.	SAL12-70C
<b>Revo, Inc.</b>	
Colonial C1, Colonial C2, Lake LA-4, LA-4A, LA-4P	SAL12-70
<b>Sierra Hotel Aero, Inc.</b>	
Navion D, E, F, G, H, and Navion (L-17A), Navion A (L-17-B & L-17C), B modified by STC conversion to O-470 or IO-470	SAL12-70C
<b>Twin Commander Aircraft Corporation</b>	
500A	TAL24-70C
500, 500-B, 500-U	TAL24-70

## GEAR DRIVEN GENERATOR CONVERSIONS

Ad Aerospace	Plane-Power
T-211	ER14-50
<b>Aerodifusion</b>	
D-1190S	ER14-50
<b>Aeromca (Burl A. Rogers)</b>	
15AC, S15AC	ER14-50
<b>Aircraft Parts &amp; Development</b>	
A-3	ER14-50
<b>All American</b>	
10A	ER14-50
<b>American Champion</b>	
402, 7EC, 7ECA, 7FC, 7JC, S7EC	ER14-50
<b>Hawker Beechcraft</b>	
35, 35R, 45 (YT-34), A35, B35, C35*, D35*, E35*, F35*, G35*, (*When equipped with E225-8 Engine)	ER14-50
<b>Cessna</b>	
120, 140, 140A, 150, 150A, 150B, 150C, 150D, 150E, 150F, 150G, 150H, 150J, 150K, 150L, 150M, A150M, 170, 170A, 170B, 172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, 172H	ER14-50
<b>Commonwealth Aircraft</b>	
185	ER14-50
<b>Edward Scott Kerns</b>	
Trojan A-2	ER14-50
<b>FA 2001</b>	
J5A ( Army L-4F) ( when equipped with C75-12 Engine)	ER14-50
<b>Swift Museum Foundation</b>	
GC-1A, GC-1B	ER14-50
<b>Goodyear</b>	
GA-22A	ER14-50
<b>Helio Aircraft</b>	
15A (when equipped with C145-2 Engine)	ER14-50
<b>Avion Jodel</b>	
150, D-1190, DR-1050	ER14-50
<b>The Don Luscombe Aviation History Foundation</b>	
8E, 8F, T-8F	ER14-50
<b>Maule Aircraft Company</b>	
BEE DEE M-4, M-4, M-4C, M-14S, M4T, M-4-210, C, S, T, M-5-210C	ER14-50
<b>Thomas H. McClish</b>	
B85C	ER14-50
<b>Micco Aircraft Company</b>	
MAC-125C. MC-145	ER14-50
<b>S.O.C.A.T.A</b>	
(Ralley) Series 100S, Rallye Series MS 880B, Rallye Series	ER14-50
<b>Navion</b>	
(Army L-4),(Army L-17B and L-17C)	ER14-50
<b>Piper</b>	
J3C-35* (Army L-4), L-4A*, L-4B ( Navy NE-1*), L-4H*, L-4J*( Navy NE-2*), J3C-65S*, -4A**, J4E* (Army L-4E), PA-18, PA-19, PA-18S***, PA-19S*** (When equipped with (*C75-12) (**C85-12) (**C90-12F) Engine) PA-28-201T, PA-28R-201T, PA-28RT-201T, PA-34-200T, PA-34-220T	ER14-50
<b>Quartz Mountain Aerospace</b>	
11A	ER14-50
<b>Superior</b>	
(Culver) V, (Culver) V-2	ER14-50
<b>Taylorcraft Aviation</b>	
BC-12D-4-85, BCS12D-4-85	ER14-50
<b>Univair Aircraft</b>	
(Alon) A-2, (Alon) A-2A, (Forney) F-1, (Forney) F-1A, (Mooney) M10, ERCo 415-C*, ERCo 415-CD*, ERCo 415-D, ERCo E, ERCo G, (*When equipped with C75-12, C75-12F, C85-12 or C85-12F Engine)	ER14-50

CORE CHARGES APPLY TO ALL NEW AND OVERHAULED HARTZELL UNITS.

# PLANE POWER CONVERSIONS & REGULATORS

## PLANE-POWER LIGHTWEIGHT STC GENERATOR TO ALTERNATOR CONVERSIONS



**BELT DRIVEN** - Include hardware and brackets to replace your existing generator and regulator. Plane-Power STC Belt Driven Generator Conversions allow for increasing the size of the output wire and circuit breaker to allow for a maximum of 70 amps of output. All Plane-Power alternators feature dual internal fans specially designed for aircraft engine rotation to maximize cooling. Models available for both 12 and 24 volt as well as for both Lycoming and Continental installations.

Model	Output	Voltage	Part No.	Price
SAL12-70	70 (max)	12	07-01301	---
SAL12-70C	70 (max)	12	07-01299	---
TAL12-70	70 (max)	12	07-01302	---

Model	Output	Voltage	Part No.	Price
TAL24-70	70 (max)	24	07-01304	---
TAL24-70C	70 (max)	24	07-01303	---

**GEAR DRIVEN** - Plane-Power Gear Driven Generator to Alternator Conversion Kits replace your existing generator with an alternator which will provide higher output at lower rpm and allow for increasing the size of the output wire and circuit breaker to allow for a maximum of 50 amps of output. The ER14-50 uses your existing gear assembly. The entire gear assembly (ER14-GR) may be purchased separately. Some older generators have larger diameter (5/8") shafts and require the gear support kit (G-Pack). Please call for details. The ER14-50 weighs 6.9 lbs and comes with a pre-wired enable plug, 50 amp gear driven alternator, alternator inoperative lamp, Seals and R1224B Power-Flex voltage regulator. Output: 50 (max) 12V..... P/N 07-01321

**Accessories:** Gear Drive designed for use with the ER14-50..... P/N 07-01348



R1224

## PLANE-POWER ALTERNATOR VOLTAGE REGULATORS

Plane-Power Power-Flex Voltage Regulators are FAA-PMA Approved. Available for most certified aircraft. Solid-state voltage regulators with over-voltage protection, field short (over current) protection, and reverse battery protection. Plane-Power Power-Flex voltage regulators also support precision load sharing for twin applications and an alternator inoperative lamp. Power-Flex voltage regulators are designed to be setup in the field for 14 or 24 volt operation by a simple placement of the two internal jumpers. For smaller mounting placement on the R1224, installation aid 12-1021 may be used.



R1224B

Model	Description	Voltage	Part No.	Price
R1224	Replaces many Ford, Electrodelta, Prestolite, Interav, Wico, and FVR voltage regulators.	14V	07-01305	---
R1224S-28	Replaces many Ford, Electrodelta, Prestolite, Interav, Wico, and FVR voltage regulators.	28V	07-20521	---
R1224B	Replaces voltage regulators on twin Cessnas, Beechcraft, and Vulcanair.	14V	07-01306	---
12-1021	Adapter Plate - Visit our website for a list of common aircraft in need of this adapter.	---	07-03532	---

EP

## AMBER LIGHT INDICATORS FOR THE HARTZELL ER14-50



14V ..... P/N 08-14616  
28V ..... P/N 08-14617

## GEAR ADAPTER KIT G-PACK



Required for use with the existing drive gear when the generator shaft is over 0.5" in diameter. Uses existing gear from replaced generator. .... P/N 07-01348

## PLANE POWER ALTERNATORS ONLY - WITHOUT MOUNTING KIT



Plane-Power alternators are FAA PMA certified to replace the vast majority of popular general aviation alternators. Plane-Power also manufactures an alternator kit for experimental aircraft applications that comes complete with required brackets, spacers, internal cooling, voltage regulation (choice of internal or external), and over-voltage protection. Plane-Power alternators are warranted for 2-years against component failures.

Volts/Amps	Model	Part No.	Price
12/70	AL12-C60, SAL12-70, TAL12-70	07-17756	---
12/70	AL12-F60	07-17757	---
12/70	AL12-F60C, SAL12-70C	07-17758	---
12/70	AL12-EI60-L, AL12-EI60/B, AL12-EI60/C	07-18016	---
24/70	AL24-F60	07-17760	---
24/70	AL24-FS60	07-17761	---
24/70	AL24-F60C, TAL24-70C	07-17762	---
24/70	AL12-70, AL12-P70	07-18054	---
12/50	ER14-50	07-19404	---

## PLANE POWER C28-150 ALTERNATORS



- Dual cooling fans ensure effective cooling and unmatched durability even in low engine RPM/high output installations.
- Compact size simplifies installation and ongoing inspections.
- FAA-PMA approved, no STC required for installation.

Plane-Power C28-150 line of FAA-PMA certified, 28V/150 Amp high output, gear-driven alternators.

These factory-rebuilt units will carry the same two-year warranty offered on every new Plane-Power alternator. The Plane-Power C28-150 gear-driven alternators deliver more continuous power at lower engine RPMs than any other aircraft alternator. Aircraft owners with high electrical demand during ground operations; such as those with sophisticated avionics suites or electrically-driven air conditioning systems, will appreciate the abundant electrical power they will get at idle with these Plane-Power alternators. C28-150S-FR without Debris Shield..... P/N 07-18128

## PLANE POWER C14-100 ALTERNATORS



- Dual cooling fans ensure effective cooling and unmatched durability even in low engine RPM/high output installations.
- Compact size simplifies installation and ongoing inspections.
- FAA-PMA approved, no STC required for installation.

Plane-Power C14-100 line of FAA-PMA certified, 24V/150 Amp high output, gear-driven alternators. These factory-rebuilt units will carry the same two-year warranty offered on every new Plane-Power alternator. The Plane-Power C14-100 gear-driven alternators deliver more continuous power at lower engine RPMs than any other aircraft alternator. Aircraft owners with high electrical demand during ground operations; such as those with sophisticated avionics suites or electrically-driven air conditioning systems, will appreciate the abundant electrical power they will get at idle with these Plane-Power alternators. C14-100S-FR without Debris Shield..... P/N 07-18126

## PLANE POWER REBUILT FLX ALTERNATOR



Description	Part Number	Price
ALT-FLX-1	07-21649	---
ALT-FLX-2	07-19188	---
ALT-FLX-3	07-19189	---
ALT-FLX-4	07-19190	---
ALT-FLX-5	07-19191	---
ALT-FLX-6	07-21650	---
ALT-FLX-7	07-19193	---
ALT-FLX-8	07-19194	---
ALT-FLX-9	07-19195	---

CORE CHARGES APPLY TO ALL NEW AND OVERHAULED HARTZELL UNITS.

# AEROTECH OVERHAULED ALTERNATORS



Aerotech of Louisville specializes in the overhaul, repair and distribution of general, corporate and military aviation charging and starting system accessories.

## AEROTECH CESSNA OVERHAULED ALTERNATORS

Mfr. P/N	Volts	Amps	Drive	Part No.	Price
9910591-1	28V	60A	Belt	08-14718	---
9910591-7	28V	60A	Belt	08-14719	---
9910591-11	28V	60A	Belt	08-14720	---
9910591-12	28V	60A	Belt	08-14721	---
9910592-1	28V	95A	Belt	08-14723	---
9910592-2	28V	95A	Belt	08-14725	---

## AEROTECH TCM OVERHAULED ALTERNATORS

Mfr. P/N	Volts	Amps	Drive	Part No.	Price
642055	24V	60A	Gear	08-14726	---
646491	24V	100A	Gear	08-14729	---
646842	24V	100A	Gear	08-14730	---
649283	24V	70A	Belt	08-14731	---
649304	24V	100A	Gear	08-14732	---
653344	24V	70A	Gear	08-14733	---

## AEROTECH CHRYSLER OVERHAULED ALTERNATORS

Mfr. P/N	Volts	Amps	Drive	Part No.	Price
2098615	12V	37A	Belt	08-14734	---
2098640	12V	37A	Belt	08-14735	---
2642197	12V	60A	Belt	08-14738	---
2642210	12V	60A	Belt	08-14739	---
2642995	12V	37A	Belt	08-14740	---
2642996	12V	37A	Belt	08-14741	---
3656623	12V	40A	Belt	08-14742	---
2642997	12V	60A	Belt	08-07034	---

## AEROTECH DELCO REMY OVERHAULED ALTERNATORS

Mfr. P/N	Volts	Amps	Drive	Part No.	Price
1100652	12V	52A	Gear	08-14743	---
1100660	12V	70A	Belt	08-14744	---
1100667	12V	70A	Gear	08-14745	---
1100715	12V	70A	Gear	08-14746	---
1100716	12V	52A	Gear	08-14747	---
1100717	12V	70A	Belt	08-14748	---
1100718	24V	50A	Belt	08-14749	---
1100723	24V	50A	Gear	08-14751	---
1100747	24V	50A	Belt	08-14752	---
1100753	24V	65A	Gear	08-14753	---
1100792	24V	65A	Belt	08-14754	---

## AEROTECH ELECTROSYSTEMS OVERHAULED ALTERNATORS

Mfr. P/N	Volts	Amps	Drive	Part No.	Price
ALU-8539LS	28V	75A	Belt	08-14756	---
ALY-8523R	12V	60A	Belt	08-14757	---
ALZ-8523R	12V	50A	Belt	08-14761	---

## AEROTECH FORD OVERHAULED ALTERNATORS

Mfr. P/N	Volts	Amps	Drive	Part No.	Price
C6115030103	28V	60A	Belt	08-14763	---
D7FF10300AA	28V	95A	Belt	08-14764	---
DOFF10300A	28V	60A	Belt	08-14765	---
DOFF10300C	28V	60A	Gear	07-19036	---
DOFF10300F	14V	60A	Gear	08-14768	---
DOFF10300B	28V	60A	Belt	08-16402	---
DOFF10300J	14V	60A	Belt	08-14769	---

## AEROTECH PRESTOLITE OVERHAULED ALTERNATORS

Mfr. P/N	Volts	Amps	Drive	Part No.	Price
ALV-6403	24V	100A	Belt	08-14770	---
ALV-8402	24V	100A	Belt	08-14771	---
ALV-9401	24V	100A	Gear	08-14773	---
ALV-9405	24V	100A	Gear	08-14775	---
ALV-9406	24V	100A	Gear	08-14776	---
ALV-9510	24V	100A	Gear	08-14779	---

### NOTE:

Exchange prices are shown.  
Core charges apply to all units.

## POWERFLITE STARTERS



The Tempest PowerFlite series of aviation engine starters represents a new state-of-the-art energy efficient design providing reduced current draw and long life. The PowerFlite starter mounts directly to existing TCM engines and is available in both 12 and 24 volt configurations. Tempest starter part numbers PL13459 (12v) and PL13484 (24v) are eligible on TCM engine models O-300-D, GO-300-D, IO-346, IO-360, L/TSIO-360, O-470, IO-470, TSIO-470, IO-520, TSIO-520, GTSIO-520, IO-550, TSIO-550 and TSIOL-550.

Powerflite Starter 12V New .....P/N 08-07284

Powerflite Starter 24V New .....P/N 08-07283

See [www.aircraftspruce.ca](http://www.aircraftspruce.ca) for parts and accessories.

# AEROTECH OVERHAULED GENERATORS/STARTERS



Delco Generators are overhauled using only FAA approved components. In stock or have the capability to overhaul almost every 12 or 24 volt Delco-Remy Aircraft Generator. Each unit is tested to manufacturer's original operating specs before it leaves our facility.

Shipments will include domestic 8130 form.

Attention: Should a core unit not be available in stock with factory; at time of order customer must ship in core to be overhauled.

Ship to: 225 Airport Circle, Corona Ca. 92880

## AEROTECH DELCO OVERHAULED GENERATORS

Model No.	Volts	Amps	Drive	Part No.	Price
1101881	12V	13A	Gear	08-14780	---
1101884	24V	15A	Belt	08-14781	---
1101885	12V	36A	Gear	08-14782	---
1101886	12V	26A	Gear	08-14783	---
1101887	12V	35A	Gear	08-14784	---
1101889	24V	15A	Belt	08-14785	---
1101890	12V	20A	Gear	08-14786	---
1101893	24V	15A	Belt	08-14787	---
1101895	12V	50A	Belt	08-14788	---
1101896	12V	20A	Belt	08-14789	---
1101903	24V	15A	Belt	08-14790	---
1101907	24V	25A	Belt	08-14791	---
1101908	12V	50A	Gear	08-14792	---
1101909	12V	50A	Belt	08-14793	---
1101916	24V	15A	Belt	08-14794	---
1101919	12V	20A	Gear	08-14795	---
1101920	24V	25A	Belt	08-14796	---
1101921	24V	15A	Belt	08-14797	---
1101923	15V	50A	Belt	08-14798	---
1105052	24V	40A	Belt	08-14799	---

## AEROTECH PRESTOLITE OVERHAULED STARTERS

Model No.	Voltage	Part No.	Price
MCL-6502	12	08-14838	---
MCL-6503	12	08-14839	---
MHB-4001	24	08-14841	---
MHB-4002	24	08-14842	---
MHB-4003	24	08-14843	---
MHB-4015	24	08-14844	---
MHB-4016	24	08-16404	---
MHB-4019A	24	08-14845	---
MHB-4019R	24	08-14846	---
MHJ-4002	24	08-14848	---
MZ-4203	12	08-14849	---
MZ-4205	12	08-14851	---
MZ-4206/4222	12	08-14852	---
MZ-4207	12	08-14853	---
MZ-4214	12	08-16431	---
MZ-4216	12	08-14854	---
MZ-4217	12	08-14855	---
MZ-4218	12	08-14856	---
MZ-4223	12	08-14858	---

## DELCO OVERHAULED STARTERS

Delco ID	Voltage	Part No.	Price
1108234	24	07-00131	---
1108249	12	07-00132	---
1109514	12	07-00142	---
1109519	12	07-00145	---
1109681	12	07-03115	---
1108234	24	08-14802	---
1109504	12	08-14803	---
1109505	24	08-14804	---
1109506	12	08-14805	---
1109509	24	08-14806	---
1109511	12	08-14807	---
1109512	12	08-14808	---
1109517	24	08-14809	---
1109518	24	08-14810	---
1109651	12	08-14811	---
1109657	12	08-14812	---
1109658	12	08-14813	---
1109660	12	08-14814	---
1109665	24	08-14816	---
1109668	12	08-14817	---
1109669	24	08-14818	---
1109673	12	08-14819	---
1109675	24	08-14820	---
1109677	12	08-14821	---
1109678	12	08-14822	---
1109679	12	08-14823	---
1109680	24	08-14824	---
1109684	12	08-14826	---
1109687	24	08-14827	---
1109688	12	08-14828	---
1109689	12	08-14829	---
1109690	24	08-14830	---
1109694	12	08-14831	---
1109694	12	07-24481	---
1109695	12	08-14832	---
1109696	24	08-14833	---
1109768	12	08-14834	---
1109909	24	08-14835	---
1109926	12	08-14836	---
1113471	12	08-14837	---

### NOTE:

Exchange prices are shown. Core charges apply to all units.

# FALCON OVERHAULED ALTERNATORS

## FALCON ES4000 SERIES OVERHAULED ALTERNATORS



Factory Overhauled ES4000 Series Alternators.

Model Number	Volts/Amps	Description	Part No.	Price
ES4000	15V/60A	Belt Driven	07-19049	---
ES4000LS	15V/60A	Belt Driven	07-19050	---
ES4005	28V/60A	Belt Driven	07-19051	---
ES4005-2	28V/60A	Belt Driven	07-19052	---
ES4007	28V/60A	Belt Driven	07-19053	---
ES4009	28V/70A	Belt Driven	07-19054	---
ES4009LS	28V/70A	Belt Driven	07-19055	---
ES4013	28V/80A	Belt Driven	07-19056	---
ES4013LS	28V/80A	Belt Driven	07-19057	---
ES4017	15V/80A	Belt Driven	07-19058	---
ES4018	28V/70A	Belt Driven	07-19059	---
ES4018LS	28V/70A	Belt Driven	07-19060	---
ES4021	28V/70A	Belt Driven	07-19061	---
ES4023	28V/80A	Belt Driven	07-19062	---
ES4024L	28V/85A	Belt Driven	07-19064	---
ES4024LP	28V/85A	Belt Driven	07-19065	---
ES4030	28V/70A	Belt Driven	07-19066	---
ES4031	28V/85A	Belt Driven	07-19067	---
ES4040	15V/85A	Belt Driven	07-19068	---
ES4003	15V/95A	Belt Driven	07-19069	---
ES4003LS	15V/95A	Belt Driven	07-19070	---
ES4011	28V/95A	Belt Driven	07-19071	---
ES4011LS	28V/95A	Belt Driven	07-19072	---
ES4011-1	28V/95A	Belt Driven	07-19073	---
ES4011-1LS	28V/95A	Belt Driven	07-19074	---
ES4014	28V/90A	Belt Driven	07-19075	---
ES4016	12V/90A	Belt Driven	07-19076	---
ES4019	28V/130A	Belt Driven	07-19077	---
ES4019LS	28V/130A	Belt Driven	07-19078	---
ES4019-2LS	28V/130A	Belt Driven	07-19079	---
ES4022	12V/130A	Belt Driven	07-19080	---
ES4001	15V/60A	Gear Driven	07-19081	---
ES4002	15V/80A	Gear Driven	07-19082	---
ES4004	28V/38A	Gear Driven	07-19083	---
ES4006	28V/60A	Gear Driven	07-19084	---
ES4008	28V/70A	Gear Driven	07-19085	---
ES4028	15V/85A	Gear Driven	07-19086	---
ES4029	28V/70A	Gear Driven	07-19087	---

## FALCON OVERHAULED STARTERS



Falcon Overhauled Starters.

Model Number	Description	Part No.	Price
ES646238-1	12V	07-19095	---
ES646238-3	12V	07-19097	---
MCL-6502	12V	07-19101	---
MCL-6503	12V	07-19102	---
MZ-4203	12V	07-19127	---
MZ-4204	12V	07-19128	---
MZ-4205	12V	07-19129	---
MZ-4206	12V	07-19130	---
MZ-4207	12V	07-19131	---
MZ-4208	12V	07-19132	---
MZ-4214	12V	07-19133	---
MZ-4216	12V	07-19134	---
MZ-4217	12V	07-19135	---
MZ-4218	12V	07-19136	---
MZ-4219	12V	07-19137	---
MZ-4220	12V	07-19138	---
MZ-4221	12V	07-19139	---
MZ-4222	12V	07-19140	---
MZ-4223	12V	07-19141	---
MZ-4224	12V	07-19142	---
MZ-4225	12V	07-19143	---
MZ-4226	12V	07-19144	---
ES646275	24V	07-19098	---
MHB-4001	24V	07-19103	---
MHB-4002	24V	07-19104	---
MHB-4003	24V	07-19105	---
MHB-4006	24V	07-19108	---
MHB-4008	24V	07-19109	---
MHB-4009	24V	07-19110	---
MHB-4010	24V	07-19111	---
MHB-4011	24V	07-19112	---
MHB-4012	24V	07-19113	---
MHB-4013	24V	07-19114	---
MHB-4014	24V	07-19115	---
MHB-4016	24V	07-19116	---
MHB-4018	24V	07-19118	---
MHB-4019	24V	07-19119	---
MHB-4019A	24V	07-19120	---
MHJ-4002	24V	07-19122	---
MHJ-4005	24V	07-19125	---
MMU-4001	24V	07-19126	---

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### NOTE:

Core charges apply to all overhauled units.

# FALCON OVERHAULED ALTERNATORS

## FORD OVERHAULED ALTERNATORS



Factory Overhauled Ford Alternators.

Model Number	Description	Part No.	Price
DOFF10300M	15V/60A	07-19042	---
DOFF10300G	28V/38A	07-19039	---
C6115050102	28V/95A	07-19028	---
D7FF10300AA	28V/95A	07-19029	---
DOFF10300A	28V/95A	07-19033	---
DOFF10300C	28V/95A	07-19035	---
DOFF10300D	28V/95A	07-19036	---

## FALCON OVERHAULED ALTERNATORS



Falcon Overhauled Alternators.

Model Number	Volts/Amps	Description	Part No.	Price
ALY-6520	12V/60A	--	07-19171	---
ALY-8523	12V/60A	--	07-19177	---
ALX-6523	12V/70A	--	07-19165	---
ALX-8523	12V/70A	--	07-19167	---
ALU-9522	24V/70A	--	07-19153	---

## FALCON TCM OVERHAULED ALTERNATORS



Factory Overhauled TCM Alternators.

Model Number	Description	Part No.	Price
642055	24V/60A	07-19043	---
646843	24V/60A	07-19047	---
646491	24V/100A	07-19046	---

## FALCON OVERHAUL CHRYSLER ALTERNATORS



Overhaul Chrysler alternator Pulley Driven.

Model Number	Description	Part No.	Price
3656624R	12V/60A	07-06401	---
2642996R	12V/37A BD	08-07033	---
3656623R	12V/41A BD	08-07035	---

## FALCON TCM OVERHAULED GENERATORS



Falcon TCM Overhauled Starters.

Model Number	Description	Part No.	Price
646238	12V	07-19088	---

### NOTE:

Core charges apply to all overhauled units.

## FALCON CHRYSLER ALTERNATORS

Chrysler series 12 volt alternators are available in 37, 40 and 60 amp versions. Common part numbers are 2642996, 2642997, 3656623, 3656624, and 4111810.



Model No.	Description	Part Number	Price
2098615	12V/37A B	08-10682	---
2098640	12V/37A B	08-10683	---
2642210	12V/60A B	08-10685	---
2642995	12V/37A B	08-10686	---
2642997	12V/60A B	08-10687	---
4111810	12V/60A B	08-10689	---

# B & C ALTERNATORS

## B & C LIGHTWEIGHT ALTERNATORS

### L-40 ALTERNATOR



The L-40 is a high-performance belt-driven 40 amp alternator for Lycoming engines. Designed to meet the rigorous demands of weight-sensitive homebuilt designs, without sacrificing reliability, the L-40 alternator features a precision-balanced rotor, sealed heavy-duty ball-bearings and 2 internal cooling fans. Weighs 6.1 lbs. and measures 3.9" (diameter) x 5.6" (length). Also

includes mounting hardware, belt tension arm, and belt. Applicable to Lycoming O-235 through IO-720 engines.

L-40 Boss Mount (Wide Deck engine) ..... P/N 07-06815

L-40 Case Mount (Narrow Deck engine), w/ B&C Starter  
P/N 07-06810

**L-40 requires an external voltage regulator – see BELOW**

**L-40 alternators require external regulators – use:  
P/N 07-06742 (LR3C) for 14V, P/N 07-06786 (LS1A) for 28V**

### B & C BC462-H ALTERNATOR



The high-performance spline-driven alternator from the company that pioneered the spline-driven alternator over 20 years ago! The BC462-H mounts on a standard AND20000-spec accessory pad, and offers robust performance with a rated output of 35 to 45 amps @ cruise RPM. Every BC462-H features

a CNC machined billet aluminum mounting flange for superior durability, heavy-duty sealed ball bearings, two internal cooling fans, a precision dynamically-balanced rotor (a B&C quality essential), and a special "shear section" drive coupling. Suitable for 14 volt or 28 volt applications, the BC462-H is designed for aircraft-style external control, and may be used as either a Primary or a Standby Alternator, depending on the electrical system configuration (see note below). Includes mounting gasket and pre-wired field connector assembly. Weight: 6.75 lbs.  
P/N 07-17985

**Note:** L-40, BC460-H, BC410-H, and BC462-H alternators require external regulators - use: P/N 07-06742 (LR3C) for 14V Primary, P/N 07-06786 (LS-1A) for 28V Primary, P/N 07-03461 (SB1B-14) for 14V Standby, and P/N 07-03462 (SB1B-28) for 28V Standby.

### BC410-H ALTERNATOR



The BC410-H is the original high-performance spline-driven alternator that mounts on a standard vacuum pump accessory pad. It may be used either as a primary or a stand-by alternator for a nominal output of 20 to 30 amps, depending on engine RPM. Designed for many hours durable service, the BC410-H features a dynamically balanced rotor,

heavy-duty sealed ball-bearings, 2 internal cooling fans, and a special "shear section" designed into the drive coupling. The BC410-H is externally-regulated, and may be used in either 14 and 28 volt homebuilt aircraft using our LR3C-14 (14V), LS-1A (28V), or SB1B (14V or 28V) Controllers. Measures 4.6" (diameter) and 6.0" (length), and weighs 5.75lbs. The BC410-H will clear a stock tachometer cable on Lycoming engines, as well as B&C Oil Filter Adapters ... P/N 07-06771

### LR3C AND LS-1A LINEAR CONTROLLERS (REGULATORS)



P/N 07-06742

The LR3C and LS-1A are more than your typical regulators; more accurately, they are alternator controllers. Each device combines 3 essential functions in one physical container—linear ("quiet") regulation, solid-state over-voltage protection, and low-voltage monitoring and warning. This makes possible sophisticated, space-saving, and cost-effective alternator control for homebuilt aircraft, while also improving safety of flight. The LR3C-14 may be used with 14 volt externally regulated alternators, while the LR3C-28 may be used with OEM-type, 28 volt externally regulated alternators. The LS-1A permits the use of B&C alternators in a 28 volt electrical system. The LR3C and the LS-1A weigh approximately 9 ounces each, and are intended for circuit type "B" (one field lead grounded directly) alternator systems.

LR3C-14 Regulator/Controller (14V) ..... P/N 07-06742

LS-1A Regulator Controller (28V, B&C alternator)

P/N 07-06786

### BC460-H ALTERNATORS



Introducing the "Next Generation" 60 amp Alternator that saves both weight AND money – without sacrificing performance or reliability. The BC460-H features heavy-duty sealed ball bearings, two internal cooling fans, and a precision dynamically-balanced rotor (rare in the industry, but standard on every B&C!). Additionally, it has three attachment points for stable mounting, and we uniquely modify the BC460-H for use with a more sophisticated, aircraft style, external voltage regulator with over-voltage protection. The BC460-H may be used in either a 14 volt or 28 volt electrical system, and includes your choice of Boss (Wide Deck) or Case (Narrow Deck) mounting brackets, attachment hardware, belt tension arm, high-performance belt, and pre-wired field connector assembly. Weight: 7.1 lbs.

Alternator Boss Mount ..... P/N 07-17981

BC460-H Alt. Case Mount For B&C Starter ..... P/N 07-17982

BC460-H Alt. Case Mount For Non B&C Starter .... P/N 07-17983

### BC433-H GEAR DRIVEN ALTERNATOR WITH PMR3A



The BC433-H is a 30 amp 14V gear-drive alternator for Continental engines (C-75 through O-300). Featuring a unique brushless design, with a billet aluminum mounting flange and heavy-duty ball bearings, the BC433-H is an ideal choice for a variety of homebuilt designs. Weighs 4.4 lbs. and measures 4.1" (diameter) x 3.75" (length). Also includes a matching PMR3A Regulator and 505-1 Over-Voltage Protection kit. Sold without the Continental drive gear assembly (customer supplied), and requires the latest revision of the Hub (P/N 07-01327) and Retainer (P/N 07-01328). B&C has a limited supply of used drive gear assemblies, available at additional cost.

BC433-H Alternator ..... P/N 07-00771

#### ACCESSORIES

Generator Coupling (Cont. P/N: 653983) ..... P/N 07-01327

Generator Retainer (Cont. P/N: 653982) ... P/N 07-01328

### SD-8 ALTERNATOR & REGULATOR



The SD-8 is a lightweight, spline-driven 14V alternator system for aircraft with an available vacuum pump drive pad. Features an ultra-reliable, brushless design, with a billet aluminum mounting flange and sealed heavy-duty ball bearings. With a nominal output of 8 amps, the SD-8 alternator is adequate for many day-VFR applications, and may be used as a backup power source on a variety of homebuilt aircraft. The SD-8 is a long-time favorite of top aerobatic pilots around the world. Weighs 2.9 lbs. and measures 3.5" (diameter) x 4.6" (length)..... P/N 07-06770

### 200G ALTERNATOR & REGULATOR



The 200G is a 12 amp 14V gear-drive alternator for Continental engines (C-75 through O-300). Features a ultra-reliable, brushless design, with a billet aluminum mounting flange and heavy-duty ball-bearings. Used in the prototype Vari-Eze, as well as many Cassuts, Q-200s, and other homebuilt aircraft, the 200G has been in production for over 30 years, with many systems still in service. With a nominal output of 12 amps, the 200G will support a modest night-VFR-night system. Measures 4.4" (diameter) and 3.8" (length), and weighs 3.4 lbs. Also includes a matching PMR1C Regulator and 504-1 Over-Voltage Protection kit. Sold without the Continental drive gear assembly (customer supplied; or purchased at additional cost). Gear assembly must be installed by B&C – send to Aircraft Spruce for installation.

200G Alternator ..... P/N 07-06575

New Drive Gear ..... P/N 07-06500

### B&C PERMANENT MAGNET ALTERNATOR OVER-VOLTAGE (PM/OV) KITS



The PM/OV Kit is designed to provide over-voltage protection to homebuilt aircraft electrical systems using a permanent magnet alternator. Features a solid-state "crowbar" over-voltage protection module, relay, filter capacitor, panel-mount warning lamp, and wire terminals. Included with all new B&C Permanent Magnet Alternator systems.

504-1 20A PM/OV Kit (14 Volt)..... P/N 08-00658

504-2 20A PM/OV Kit (28 Volt)..... P/N 07-00708

# STARTERS – ALTERNATORS



## & C LIGHTWEIGHT STARTERS FOR LYCOMINGS

Light Starter for Lycoming engines. Weighing only 10.3 lbs., this starter was designed to meet rigorous demands of aircraft designs, without sacrificing reliability or performance. 25 years ago, this same design has provided dependable service for thousands of satisfied customers. Every B&C Starter features heavy-duty sealed ball-bearings, all metal gears, electro-mechanical pinion engagement (no Bendix drive), and an efficient series-wound motor. Cantilevered pinion gear mounting requires no forward shaft support bearing, thus eliminating cowl interference or on-going maintenance. If battery failure precedes engine starting, a positive spring retraction system insures pinion gear disengagement. Both STC/ PMA and Homebuilt versions are available in 14 volt and 28 volt configurations.

FAA-approved for any of the following series of Lycoming engines:  
• O-235 • O-290-D • O-320 • IO-320 • AIO-320 • AEIO-320 • LIO-320 • O-360 • HO-360 • LO-360 • IO-360 • HIO-360 • AIO-360 • AEIO-360 • TIO-360 • LTIO-360 • O-540 • IO-540 • HIO-540 • AEIO-540 • TIO-540 • LTIO-540 • IO-720

### FOR CERTIFICATED AIRCRAFT APPLICATIONS

Part No.	Model No.	Pinion Gear Pitch	Teeth on Ring Gear	Battery Voltage	Price
07-06700	BC315-100-1	10/12	122	12	---
07-06705	BC315-100-2	12/14	149	12	---
07-06710	BC315-100-3	10/12	122	24	---
07-06715	BC315-100-4	12/14	149	24	---

### FOR EXPERIMENTAL AIRCRAFT APPLICATIONS

Part No.	Model No.	Pinion Gear Pitch	Teeth on Ring Gear	Battery Voltage	Price
07-06720	BCS206-122-12	10/12	122	12	---
07-06725	BCS206-149-12	12/14	149	12	---
07-06730	BCS206-122-24	10/12	122	24	---
07-06735	BCS206-149-24	12/14	149	24	---

## B & C LIGHTWEIGHT STARTERS FOR CONTINENTALS



With an innovative, patented design, the BC320 Starter for Continental engines solves all the problems that other starter designs have had—from worn-out clutches and broken pinions, to nagging oil leaks and catastrophic failure modes. Weighing only 10.3 lbs., it is also 4.3 to 5.2 lbs. lighter depending on your current starter configuration. Built for reliable service, the BC320 features a billet aluminum end bell, heavy-duty sealed ball-bearings, all metal gears, electro-mechanical pinion engagement, and an efficient series-wound motor. Cantilevered pinion gear mounting requires no forward shaft support bearing. The BC320 is a complete starter, ready to install, and includes an installation kit to convert from an existing pull-type starter, or an existing key-type starter. Both STC/ PMA and Homebuilt versions are available. FAA-approved for the following Continental engines: • C-75 • C-85 • C-90 • O-200 • C-145-2 • IO-240 • O-300 • GO-300-A/B/C

### FOR CERTIFICATED AIRCRAFT APPLICATIONS

Part No.	Model No.	Installation Kit	Battery Voltage	Price
07-06716-1	BC320-1	Existing Key-Type (501-1)	12	---
07-06716-3	BC320-1	Existing Pull-Type (501-3)	12	---

BC320-1 Starter Only ..... P/N 07-06716

### ACCESSORIES

501-1 Installation Kit (key type) ..... P/N 07-06752  
If you are replacing an existing key-type starter, a needle bearing will need to be removed from your engine before installing the BC320. A special tool kit is available to aid in removing this needle bearing. If you do not care to keep this kit, you may return it and be refunded \$80.00.  
501-3 Installation Kit (pull cable) ..... P/N 07-06754



## JASCO GEAR DRIVEN ALTERNATOR KITS

The Jasco alternator is STC'd for many aircraft including the early Cessna 150, 172, and 175 series as well as Beech Model 35's with early E series Continental engines. Applicable to Continental C-90, O-200 and O-300 engines. Well-proven over many years of use in a variety of aircraft. Kit variants include alternator, voltage regulator, and over-voltage control.

Volts	Amps	Drive	Alt. P/N	Kit P/N	Price
<b>New Alternators Only</b>					
24	50	4 Stud, 6 Spline, Square Pad	7555T	07-00735	---
24	70	4 Stud, 6 Spline, Square Pad	7655T	07-00703	---
<b>Alternator Kits</b>					
12	50	4 Stud, 6 Spline, Square Pad	6555-1	6555-1	---
12	50	Round Pad, Like Delco	6560-1	07-06900	---
12	50	6 Stud, 16 Spline, Round Pad	6565-1	6565-1	---
24	50	4 Stud, 6 Spline, Square Pad	7555-1	7555-1	---
24	50	6 Stud, 16 Spline, Round Pad	7565-1	07-75651	---
24	70	4 Stud, 6 Spline, Square Pad	7655-1	07-20060	---
<b>Accessories</b>					
24		150 Ohm Resistor	17-10	07-01710	---

## PLANE POWER POWERFLEX VOLTAGE REGULATORS



### REGULATOR - R1224

14V / 28V, replaces Ford, Electrodelta, Prestolite, Interav, Wico, FVR, and more voltage regulators. (Refer to Model Eligibility for your more information and additional models). The Plane Power R1224 Voltage Regulator is a solid-state voltage regulator with over-voltage protection, field short (over current) protection, and reverse battery protection. The Plane Power R1224 Voltage Regulator also supports precision load sharing for twin applications, and an alternator inoperative lamp.

14V ..... P/N 07-01305  
28V ..... P/N 07-20521

### REGULATOR - R1224J

Plane-Power recently earned a PMA for its R1224J voltage regulator for use in Jasco alternator conversion kits. "There are thousands of Jasco alternators currently in the field on all types of engines from legacy radials to newergeneration Continental and Lycoming engines," said Keith Bagley, president of Hartzell Engine Technologies. "Unfortunately, as those original components age, their reliability goes down and cost of ownership goes up. By offering a voltage regulator with improved technologies, we are providing Jasco STC holders with a cost-effective path to upgrade to a solid-state voltage regulator that features integrated over-voltage, field short, and reverse-polarity protection."

14V ..... P/N 07-26836  
28V ..... P/N 07-26835



## POWERUP AERO ALTERNATOR KIT FOR CESSNA 206

Powerup B/U Alternator Kit for Cessna 206. MFR Model# KATS-15-002 ..P/N 07-25508



## POWERUP AEROSPACE DUAL ALTERNATOR KIT

The kit includes a duplicate 95 amp alternator to the original equipment, along with all the pulleys, belts, brackets and hardware for installation on the Lycoming IO-540 series engines. All system controls are panel mounted and the backup system is activated with a flip of a switch. STC Approved for Cessna 182, 182T, 182S. Alternator Kit Cessna 182/182T ..... P/N 07-01490  
Dual Alternator Kit Cessna 182S ..... P/N 07-01804



## LS-1A VOLTAGE REGULATOR

The LS-1A Controller offers linear voltage regulation, integral over-voltage protection, and low-voltage monitoring and warning. It has been specially designed, however, to permit the use L-40 & L-60 alternators in a 28v electrical system. The LS-1A weighs approximately 9 ounces, may be mounted on the cockpit side of the firewall, and is available with an optional battery temperature sensor for colder climates. Select a location for mounting that will protect unit from heat, vibration, and water. The pilot side of the firewall, or inside the cabin near the instrument panel, is recommended. For Experimental Aircraft ONLY ..... P/N 07-06786

### ALTERNATOR & GENERATOR BELTS

CONTINENTAL ..... 539547-31.19

EP

# HARTZELL ENGINE TECHNOLOGIES STARTERS

## HARTZELL ENGINE TECHNOLOGIES E-DRIVE STARTERS



- Lightweight neodymium permanent magnet motor • In line design • Self-resetting torque limiter for kickback protection
- Internal solenoid engagement • Drive pinion supported by bearings on both ends

E-Drive aircraft starters offer industry-leading, robust, high duty cycle starters in a lightweight package. By utilizing a powerful neodymium permanent motor driven through a self-resetting negative torque-sensing device, the E-Drives provides unparalleled kickback protection, preventing hours of down time and replacement costs. The E-Drive aircraft starter is solenoid engaged, eliminating the need for a Bendix drive. Its low current draw helps maintain good battery life.



- High Performance Armature • Robust spring design • Increased commutator bar length • High performance field housing • Thin laminations
- Rare earth neodymium magnets • High quality magnetic alloy • Small package • 12 & 24 volt winding configuration • Stronger flux field • Redesigned Brush Holder
- Improved temperature stability • Metal construction for heat sinking • 9.5 lbs. • Offset brush position for increased brush contact area

### APPLICATION CHART

E-Drive Number - Approved Alternative for the following:

ERB-8011	ERB-8012	ERZ-8011	ERZ-8012
MHB-4001	MHB-4015	MZ-4205	MZ-4204
MHB-4002	MHB-4002	MZ-4206	MZ-6204
MHB-4003	MHB-6001	MZ-4207	
MHB-4005		MZ-4217	
MHB-4007		MZ-4218	
MHB-4010		MZ-4219	
MHB-4012		MZ-4221	
MHB-4013		MZ-4224	
MHB-4014		MZ-4222	
MHB-4016		MZ-4223	
MHB-4017		MZ-4225	
MHB-4019		MZ-6222	
MHB-4020		MZ-6224	



- Starter system designed for maximum performance • Drive assembly integrates proprietary pinion gear, clutch, torque limiter, and actuator in one complete module • Available for coarse and fine pitch ring gears, clockwise and counterclockwise rotation • No periodic service or recurring maintenance required • 9.5 lbs.

Model	Description	Lycoming Engine	Replaces	Part No.	Price
ERZ-8011	Clockwise rotation, 12 Volt, 149 tooth - 12/14 Pitch Gear	235, 290, 320, 340, 360, 540	31A21198, Sky-Tec 149-NL, 149-12PM, LS, Lamar PM1201, PM1204, MZ-4205 thru -4207, -4217 thru -4219, -4221 thru -4226, -6222, -6224	07-01102	---
ERZ-8012	Clockwise rotation, 12 Volt, 122 tooth - 12/12 Pitch Gear	235, 290, 320, 360, 540	31A21210, Sky-Tec 122-NL, 122-12PM, LS, Lamar PM1203, MZ-4204, -6204	07-01103	---
ERB-8011	Clockwise rotation, 24 Volt, 149 tooth - 12/14 Pitch Gear	235, 320, 340, 360, 540	31B21064, Sky-Tec 149-NL, 149-NL/ec, 149-24, Lamar PM2401, MHB-4010, -4016 thru -4020, -6014, -6016, -6018	07-01099	---
ERB-8012	Clockwise rotation, 24 Volt, 122 tooth - 10/12 Pitch Gear	235, 290, 320, 340, 360, 540	31B21211, Sky-Tec 122-NL/ec, 122-24PM, LS, Lamar PM2403, MHB-4015, -6001, MMU-4001, -6001, Delco 1109669	07-01101	---
ELB-8011*	Reverse/Counter rotation, 24 Volt, 12/14 Pitch Gear	LTIO-540, LTIGO-540	14214, Sky-Tec 149-NLR/ec*, Lamar PM2404, MHB-4014, MHB-6014	07-02665	---
ELZ-8021*	Reverse/Counter rotation, 12 Volt, 12/14 Pitch Gear	LIO-320, LO-360, LTO-360, LIO-360	14215, Sky-Tec 149-NLR, Lamar PM1204, MZ-4220, MZ-6220	07-02666	---

## HARTZELL ENGINE TECHNOLOGIES FACTORY OVERHAUL STARTERS

If No Cores are Available at factory, we will require your core for overhaul.



Mfg. Ref.	Part Number	Price
MC-6501	07-06503	---
MHB-4020R	CALL	CALL
MZ-4204R	CALL	CALL
MZ-4219R	CALL	CALL
MZ-4224R	CALL	CALL
646238-2R	07-02650	---

## HARTZELL STARTER OVERHAUL KITS



Lamar Technologies overhaul kits include all parts necessary for a normal major overhaul, as well as any special tools, lubricants, and thread compounds. The model specific kits cover all starters manufactured by Lamar Technologies in eight different kits. The overhaul manual has been rewritten to highlight tear down and assembly with detailed drawings and instructions. The manual covers all aspects of the rebuild in easily understood steps with tech support just a call or email away. (See Documents Tab). Average time to do a complete overhaul can be accomplished in less than an hour reducing downtime and increase revenue, as well as maintain the quality standards of the maintenance organization.

Description	Part No.	Price
PM1203-OHK - Fits all PM1203 starters	07-01270-1	---
PM1204-OHK - Fits all PM1204 starters	08-06007-1	---
PM2403-OHK - Fits all PM2403 starters	07-01273-1	---



07-19956



07-19962

## QUALITY AIRCRAFT OVERHAUL STARTER ADAPTERS

Description	Part No.	Price
642083A12	07-19956	---
642087A68	07-19960	---
642087A69	07-19962	---
642087A70	07-19963	---
643259A18	07-19968	---
643259A39	07-19969	---
658440A1	07-19970	---

## HARTZELL STARTERS FOR CONTINENTAL



Hartzell Permanent Magnet Starters represent the next generation in starter technology, setting new standards in performance and reliability. These lightweight starters deliver exceptional torque to start virtually any general aviation piston engine in nearly any environment, yet weigh about 40% less than conventional starters. The key is patented permanent magnet motor design. It replaces the bulky windings of a conventional starter motor with lightweight permanent magnets. These TBO starters are built to go the distance between engine overhauls. Conventional starters generally don't last, they usually have to be pulled off for repair or replacement at least once during the life of the engine. 24V unit is the new OEM part for Cirrus aircraft..P/N 07-01274

## CONVERSION CHART

The Magnaflite lightweight starter listed in the table below will be superseded by the E-Drive and/or X-Drive starter listed therein. All Magnaflite P/N's listed below that are currently installed, being installed or in inventory are in no way affected. Standard Limited Warranty, is in effect and returns for reason of supersedure will not be accepted.

KAPS Part Number	X-Drive Left Hand Solenoid	X-Drive Right Hand Solenoid	E-Drive
MHB-6016	SRB-9021	SRB-9031	ERB-8011
MHB-6018	SRB-9021	SRB-9031	ERB-8011
MMU-6001	SRB-9022	SRB-9032	ERB-8012
MZ-6204	SRZ-9022	SRZ-9032	ERZ-8012
MZ-6222	SRZ-9021	SRZ-9031	ERZ-8011
MZ-6224	SRZ-9021	SRZ-9031	ERZ-8011
MZ-6226	SRZ-9021	N/A	ERZ-8011

## TCM ENERGIZER STARTERS

FACTORY NEW			
Model	Volt/Amp	Part No.	Price
ES646238-2	12V	07-01333	---
ES646275-1	24V	07-02652	---

FACTORY OVERHAUL			
Model	Volt/Amp	Part No.	Price
646238-2R	12V	07-02650	---
646275-1R	24V	07-06502	---

# SKY-TEC STARTERS

## SKY-TEC ST2 & KCST2 MODEL STARTERS FOR SMALL CONTINENTAL ENGINES

### SKY-TEC PULL START CONVERSION C12ST2 - FOR FACTORY KEYSTART STARTER FOR A65-12 THROUGH O-300C ENGINES



9.2 lbs., Bolt-off / Bolt-on, High Torque, Low-Current, Gasket Included, Replaces TCM starter & continuous running sprag clutch in TCM factory keystart engines. Now featuring internal, self-resetting Kickback Protection System - zero maintenance - no pin to shear.

### SKY-TEC KCST2 - STC-CERTIFIED CONVERSION KIT FOR FACTORY PULL-START ENGINES

STC Modification of Engine Required (removal of OEM starter pinion shaft in rear of engine). STC Modification of Airframe Required (replacement of pull-start T-handle with Sky-Tec-supplied push button & wiring) High Torque, Low-Current, 9.2 lbs. Now featuring internal, self-resetting Kickback Protection System - zero maintenance - no pin to shear. **Complete Conversion Kit includes:** C12ST2/S Starter, Push Button Switch, Wiring Harness, Gasket, Instructions, STC for Airframe Modification, STC for Engine Modification

### SKY-TEC KEY-START C12ST2/SR

REVERSE TURNING for Continental GO-300 Engines ONLY - Internal, self-resetting Kickback Protection System - zero maintenance - no pin to shear. 6-8 lbs. lighter and significantly more reliable than the original, heavyweight factory starter. **Also sold in a Kit (KCST2/SR)** STC Certified conversion kit includes C12ST2/SR REVERSE TURNING starter for GO-300 engines (only), push-button switch, push-to-start placard, wiring harness, two STC's (one for airframe modification, one for engine modification) and instructions. 2-year factory warranty.

Model C12ST2 (Starter only) ..... P/N 07-00614  
Model C12ST2/S (Starter only) ..... P/N 07-00719  
Model KCST2 conversion kit ..... P/N 07-00721  
KCSW Switch and harness only ..... P/N 07-00722

## SKY-TEC ST5 SERIES STARTERS



The ST5 starter couples a high power 2.2 kW motor with an innovative solenoid-engaged (and disengaged) drive system completely disengages the powerful permanent magnet motor while the starter is unpowered eliminating possible TCM starter adapter wear while providing authoritative, high-torque starting. Positive solenoid enabled engagement and disengagement allows the

TCM starter adapter to fully unwrap under all normal operating conditions thus greatly prolonging starter adapter life. Weight: 9.1 lbs.

C12ST5 ..... P/N 07-01341  
C24ST5 ..... P/N 07-01342

### SKY-TEC BCE-6 EXTENSION CABLE KIT

6" Battery Cable Extension kit aids the installation of starters in aircraft that have limited slack available in the aircraft's starter power cable. Generally not required for TCM starter installations. May be needed in some PM, and NL model Lycoming installations.

P/N 07-00923

## SKY-TEC XLT STARTERS

The world's lightest starter ever certified for Lycoming engines. Only 6.5lbs! Only 8 inches total length and 3.5 inches tall! Left-side mounted solenoid. High torque and fast spin. FAA PMA certified for most Lycoming 4-cylinder engines from O-235 to IO-390. Low current draw. Highly durable, fortified aluminum mount/housing. No Bendix to lubricate. Nothing to maintain. 2-Year factory warranty.

Volts	Model	Recommended for	Part No.	Price
12V	122-12XLT	Engine Powered Aircraft with 10/12 pitch, 122-tooth ring gears	07-02419	---
12V	149-12XLT	engine powered aircraft with 12/14 pitch, 149-tooth ring gears	07-02420	---
24V	122-24XLT	engine powered aircraft with 10/12 pitch, 122-tooth ring gears	07-02421	---
24V	149-24XLT	engine powered aircraft with 12/14 pitch, 149-tooth ring gears	07-02422	---

## SKY-TEC STARTERS HIGH-TORQUE INLINE STARTERS FOR LYCOMING ENGINES



Featuring Sky-Tec's Exclusive KPS® Kickback Protection System, Sky-Tec's NL-series of starters fit all Lycoming powered aircraft. All NL-series starters are FAA-PMA certified as replacement parts for all non-gear, flat Lycoming engines. Sky-Tec NL-series starters fit without modification or 337 paperwork. At only 9.3 lbs., the NL-series is the lightest Bendix-free inline available. Two-year warranty.

Model No.	Voltage/Description	Pitch	FAA-PMA Eligible	Part No.	Price
122-NL	12 Volt	10/12 (for 122-Tooth Ring Gears)	Lyc 235, 290, 320, 360, 540 & 720	07-00761	---
149-NL	12 Volt	12/14 (for 149-Tooth Ring Gears)	Lyc. 235, 290, 320, 340, 360, 540	07-00762	---
149-NLR	12 Volt	12/14 (for 149-Tooth Ring Gears)	Lyc. LIO-320, LO-360, LTO-360, LIO-360, LHIO-360, & LTIO-540	07-00763	---
122-NL/ec	24 Volt Super Duty	10/12 (for 122-Tooth Ring Gears)	Lyc. 235, 290, 320, 360, 540 & 720	08-07061	---
149-NL/ec	24 Volt Super Duty	12/14 (for 149-Tooth Ring Gears)	Lyc. 235, 290, 320, 340, 360, 540	08-07059	---
149-NLR/ec	24 Volt Super Duty	12/14 (for 149-Tooth Ring Gears)	Lyc. LTIO-540	08-07060	---

## SKY-TEC HIGH-TORQUE STARTER



One of the lightest Lycoming starters available at only 8.9 lbs. Spins twice as fast as most heavyweight OEM starters. Zero maintenance - no pins to replace in the event of a kickback. FAA-PMA approved for most Lycoming engines. Some airframe applications may require minor modification for best fit. Confirm aircraft fit, ring gear tooth count and voltage before ordering. 2-Year factory warranty.

Model	Voltage	Description	Part No.	Price
122-12HT	12V	10/12 Pitch (122 Tooth)	07-06250	---
122-24HT	24V	10/12 Pitch (122 Tooth)	07-06251	---
149-12HT	12V	12/14 Pitch (149 Tooth)	07-01840	---
149-24HT	24V	12/14 Pitch (149 Tooth)	07-01841	---
149-24HT/EC	24V	Sky-Tec Starter (149 Tooth)- SuperDuty/EC	07-06255	---

## SKY-TEC FLYWEIGHT™ STARTERS FOR LYCOMING ENGINES



FAA-PMA approved for most Lycoming engines. Some airframe applications may require modification for best fit. LS model has the solenoid offset to the left side and PM model is offset to the right. Confirm aircraft fit, ring gear tooth count and voltage before ordering. Generous 2-Year factory warranty. **Note:** The LS Solenoid is at the 2:30 position and the PM Solenoid is at the 7:30 position when viewed from the front. 8.1 lbs.

Model	Part No.	Price	Model	Part No.	Price
122-12LS	07-06245	---	149-12PM	07-06253	---
149-12LS	07-06246	---	122-24PM	07-06249	---
122-12PM	07-06252	---	149-24PM	07-06257	---

### RECOMMENDED STARTER BY AIRCRAFT

For complete listing of recommended Sky-Tec™ Starters by Aircraft make & model, please see the Aircraft Spruce website for a link to the Sky-Tec™ website at [www.aircraftspruce.ca](http://www.aircraftspruce.ca)

EP

# SOLENOIDS – GPL STARTERS

## LAMAR STARTER SOLENOIDS

Silver contacts provide 300A in-rush capability. Much higher than the original units. Strong spring and high-current coil for quick contact opening - minimizing arcing. Single coil terminal (other end connected to case).

FAA-PMA APPROVED for Certified Aircraft



Model No.	Volts	Description	Part Number	Price
STS-12S	12	Starter Solenoid	07-03562	---
STS-24S	24	Starter Solenoid	07-03563	---
STS-12M	12	Battery/Master Solenoid	07-03564	---
STS-24M	24	Battery/Master Solenoid	07-03565	---
STS-12A	12	Continuous Duty (Aux) Solenoid	07-03566	---
STS-24A	24	Continuous Duty (Aux) Solenoid	07-03567	---

## GPL ELECTRIC STARTERS

GPL Electric offers an electric starter kit for several rotax engines. This unique system not only allows you to retain pull start, but also allows you to keep oil injection (if present) otherwise, a cover plate can be used (if space constrained). This system safely engages the ring gear at a 90 degree angle, then fully disengages from the crankshaft. The GPL Electric starter kit will not disable the engine due to malfunction, so it is the safest designed after market starter kit available for rotax engines and is made in the U.S.. GPL Electric also provides excellent warranty, comprehensive technical support and maintains a full replacement of parts inventory.

## GPL STARTER KITS FOR ROTAX ENGINES



**GPL Electric Starter Kit Includes:**

(M8) Hi Collar Split Washer, (M6 X 90) Socket Head Cap Screw, (M6) Hi Collar Split Lock Washer, (M6 X 18) Socket Head Cap Screw, (M6) Split Lock Washer, (M8 X 25) Socket Head Cap Screw, (M8 X 22) Low Profile Socket Head Cap Screw, Main Casting (D3) Sits In The 10:00 Pos or Main Casting (D4) Sits In The 11:00 Pos, Ring Gear, Inner Spacer, Starter Motor (Heavy Duty), Loctite 242 Threadlocker, Installations Instructions, and Coverplate (If Not Retaining Pull Start)

**If Retaining Pull Start The Following Is Also Required**

Outer Spacer (1), (M8 X 12) Hex Head Cap Screw (3), (M8) Split Lock Washer (3), and (M6 X 22) Socket Head Cap Screw (4)

Application	Model Number	Part Number	Price
Rotax Engines (377,447,503)	03-001	15-06473	---
Rotax Engines (462,582,618,670)	03-004	15-06472	---
Rotax Engines (532 CDI)	03-005	15-08364	---
Rotax Engines (532 POINT)	03-006	15-08365	---

## GPL RETAIN PULL START KITS



Retain Pull Start Kit: Engine Specific Outer Spacer And Required Hardware (nuts/bolts). Model No. 02-29 RO  
Rotax Engines (462,582,618,670)..... P/N 15-05373

## GPL ELECTRIC REPLACEMENT STARTER MOTORS



This motor fits all GPL Starter Kits and the Hirth F23 Engine as well.  
Heavy Duty Starter Motor Model 02-70HD..P/N 15-05371

## GPL DELUXE STARTER KITS



The Deluxe Starter Kit Includes: Rubber Insulating Boots, Push Button Switch, Solenoid, Regulator/rectifier, 20 Amps Fuse / Fuse Holder, Cables & Wiring (aircraft Specific), Hardware (nuts/bolts).  
Deluxe Add On Kits. Weighs 3 Lb

Application	Model No.	Part Number	Price
Challenger Air Crafts (11 ft Cable)	03-009-11	15-08341	---
Other Air Crafts (5 ft Cable)	03-009-05	15-08340	---

## GPL PULL START RETENTION KIT



GPL pull start retention kit for Rotax 462, 582, 618, 670.  
P/N 15-07970







SEE [WWW.AIRCRAFTSPRUCE.CA](http://WWW.AIRCRAFTSPRUCE.CA) FOR A COMPLETE LIST OF REPLACEMENT PARTS.

# ZEFTRONICS VOLTAGE REGULATORS

Photo	Description	Part No.	Approval	Price	Replacement For
	R15100 Rev A VR:14.2V. • Ground-Fault-Protection (GFP) • Trouble-Shooting Light (TSL) • Use R15V00 Rev A for built-in OV Protection.	07-00622	FAA-STC	---	Cessna: C611001-0101, -0102, -0201. Beech: 33-380010 Electrodelta: VR600 Lamar: DGR6 FORD: D4FF-10316-BA, D4FF-10316-CA
	R15V00 Rev A VR:14.2V; OV 16V Same as R15100 Rev A plus OV Protection	07-00628	FAA-STC	---	Zeftronics: R15100 Rev A (ACU), Plus V11100 (OVS)
	R1510N Voltage Regulation: 14.2V • Use R15V0N for built-in OV Protection • Single or Dual Alternator Application • Externally Adjustable	07-00624	FAA-STC FAA-PMA	---	Prestolite: VSF7201, 2, 2S, 3, 3A, 3S, 4 Electrodelta: VSF7203A TCM: 649684-1 Piper: 550-383
	R15V0N VR: 14.2V ; OV 16.0V • Low/OV Light, OV Protection	07-00630	FAA-STC FAA-PMA	---	Zeftronics: R1510N (ACU), Plus V1510A (OVR)
	R1510L Voltage Regulation: 14.2V. • Ground-Fault-Protection (GFP) • Trouble-Shooting Light • Reduced panel lights fli • Use R15V0L for built-in OV Protection	07-00623	FAA-PMA	---	Piper: 450-392, 484-121, 66804-03, 756-055, 484-088 Beech: 169-380063 Wico: X16300B, X17990. Lamar: B00267-1, 2, B00331-1, 2. Delco Remy: 9000590, 1116393, 1116398 Electrodelta: VR200, A Commander: 1816110 Prestolite: FVR4004, 4224, 4011 RBM: 87-87102-21 Lycoming: LA-11357, 12747
	R15V0L VR: 14.2V ; OV: 16V • Ground-Fault-Protection (GFP) • Trouble-Shooting Light (TSL) • OV Protection built-in	07-00629	FAA-PMA	---	Piper: 557-337 Lamar: B00371-1,-8,-14 Electrodelta: VR371 Zeftronics: R1510L (ACU), Plus V1510A (OVR)
	R15300 VR: 14.2V. OV: 16V • Ground-Fault-Protection (GFP) • OV Protection built-in, T/s Light	07-00625	FAA-PMA	---	Mooney: 800270-505, 880016-503 Electrodelta: VR415F Lamar: DGR1-1
	R1530B VR: 14.2V. OV: 16V • Ground-Fault-Protection (GFP) • OV Protection built-in • Trouble-Shooting Light	07-00626	FAA-PMA	---	Mooney: 880016-501 Beech: 35-380093-1,2,3 Electrodelta: VR414, B00403-1; EM2073-1, 2 Oeco: 20053, 20065, 20137, 20437, 20082
	R25101 Rev A VR: 27.7 • GFP & Trouble-Shooting Light • Use R25400 (require mod to ALT wiring & connector) for built-in OV Protection.	07-00631	FAA-PMA	---	Cessna: C611004-0101, C611002-0102, -0105 Ford: C8FF/ C6FF-10316-A TCM: 636147 Electrodelta: VR500-0101
	R25102 Rev A Voltage Regulation: 28.7V Same features as R25101 Rev A	07-00632	FAA-PMA	---	Cessna: C611004-0102 Electrodelta: VR500-0102
	R251DR VR: 27.7V •BEST VALUE• •Trouble-Shooting Light & GFP •Externally Adjustable	07-00634	FAA-PMA	---	Delco Remy: 9000591 Lycoming: 74292 TMC: 631656
	R25400 VR: 28.7V •OV Protection built-in & GFP •Trouble-Shooting Light	07-00635	FAA-STC	---	Cessna: C611005-0103, -0101, -0102 Electrodelta: VR515F, G, GA Lamar: DGR3

FOR A COMPLETE LISTING OF ALL PRODUCTS AND AIRCRAFT ELIGIBILITY LIST, VISIT [WWW.AIRCRAFTSPRUCE.CA](http://WWW.AIRCRAFTSPRUCE.CA).

# ZEFTRONICS VOLTAGE REGULATORS – CONTROLLERS

Photo	Description	Part No.	Approval	Price	Replacement For
	R2510N VR: 28.4V • Use R25V0N for built-in OV Protection. • Single or Dual Alternator Application • Externally Adjustable	07-00633	FAA-STC	---	Prestolite: VSF7403A, 3S, 4Piper: 550-381 Lycoming: LW10179, 77347
	R25V0N VR: 28.4V ; OV 32V R2510N plus OV Relay, Low/Over-Voltage Indicator	07-00636	FAA-STC	---	Prestolite: VSF7403A,3S,4. Piper: 550-381. Lyc: LW10179, 77347 Zeftronics: R2510N + V2510A
	V11100 Over-Voltage Trip: 16.0V • Use w/ R15100 Rev A, VR600 or DGR6 • More Precise OV Protection	07-00637	FAA-STC	---	Cessna: C593001-0101 Lamar: DG01 Electrodelta: OS60. Electromech: EM235
	V1510A Over-Voltage Trip: 16.0V • Use with R1510N or VSF72XX Series for OV Protection. • Use with R1510L for OV Protection • More Precise OV Protection	07-00638	FAA-STC FAA-PMA	---	Piper: 450-397, 484-183, 550-380, 450-393 Beech: 138-1 Wico: X-17621 Lamar: B00289-2, B00339-1 Electrodelta: OS75-14 Delco-Remy: 1115831 Prestolite: FOC-4002B
	V25101 Over-Voltage Trip: 32V • Use with R25101(2) Rev A or VR500- 0101,0102 for OV Protection	07-00639	FAA-STC FAA-PMA	---	Cessna: C593003-0101, -0102 Electrodelta: OS100-0101 Electromech: EM233 Lamar: DG02-28 Other P/n: 138-3
	V2510A Over-Voltage Trip: 32.0V • More Precise OV Protection • Use with R2510N or VSF74XX	07-00640	FAA-STC	---	Piper: 484-182, 550-382, 584-043 Prestolite: FOC4003A, B. Lycoming: 74804, 78060 Wico: X17634, X17620 Delco Remy: 1115832
	G1200N VR:14.2V. Current Limit (CL): 20A Trouble-shooting Lights, Electronic GCU	07-00617	FAA-PMA	---	Delco: 1118736, 1118904, 1119226. VR300-14- 20. Cessna: 0413025-4, 5, 12
	G1350N • VR 14.2V: Current Limit (CL): 35A trouble shooting Lights, Electronic GCU	07-00618	FAA-PMA	---	Delco: 1118704, 1119220, 1118-704, 1118892. VR300-14-35, 450-390. Cessna: 0413025-6, 8, 10
	G1500N VR:14.2V: Current Limit (CL): 50A Trouble-shooting Lights, Electronic GCU	07-00619	FAA-PMA	---	Delco: 1118884, 1118713, 1119224, Electrodelta: VR300-14-50. Cessna: 0413025-7, 9, 11
	G250KN VR: 28.4V.CL: 50A, EQR Built-in	07-01367	FAA-STC	---	1119656 ,VR300-28-50. Cessna: 0850460-9

## FOR EXPERIMENTAL AIRCRAFT

### ZEFTRONICS B SINGLE ENGINE GENERATOR CONTROLLERS GCU



14V or 28V Type B Single Engine Generator Controller (GCU) available for 10 - 50A with built-in Reverse Current Protection, Field Ground Fault Protection (GFP), and Troubleshooting Lights. Replaces carbon pile Voltage Regulators.

14V B Single.....P/N 07-17986  
28V B Single.....P/N 07-17987

### ZEFTRONICS 28V A SINGLE ENGINE GENERATOR CONTROLLER GCU



28V Type A Single Engine (SE) Generator Controller Unit (GCU) available for 10- 50A with built-in Reverse Current Protection, and Color-Coded Diagnostic Troubleshooting Lights.

**Used on Ground Power Units.**

14V A Single.....P/N 07-17990

### ZEFTRONICS ALTERNATOR CONTROLLERS WITH OV PROTECTION



14V or 28V Alternator Controller Unit (ACU) with built-in OV Protection (OVP), Field-to-Ground Short Protection (GFP), and Troubleshooting Lights that separately indicate OVP, GFP, and Power-On.

14V .....P/N 07-17991  
28V .....P/N 07-17992

### ZEFTRONICS 28V ALTERNATOR CONTROLLER WITH LOW AND OV INDICATION



28V Alternator Controller (ACU) with built-in Low and OV Indication, OV Protection, Field-to-Ground Short Protection, and Color-Coded Diagnostic Lights.

28V .....P/N 07-17993

### ZEFTRONICS 28V B ALTERNATOR CONTROLLER WITH LOW AND OV PROTECTION



28V Type B Alternator Controller Unit (ACU) with built-in OV Protection, OV Indication pin. Field-to-Ground Short Protection and Color-Coded Diagnostic Lights.

28V .....P/N 07-17994

# LAMAR ELECTRICAL COMPONENTS

## LAMAR ELECTRICAL COMPONENTS

Lamar Number	Description	Applications	Our Number	Price
A-00258-1	Switch, Alternator INOP	Piper, Hawker Beechcraft, Maule	07-01146	---
A-00258-2	Switch, Alternator INOP	Piper, Hawker Beechcraft, Maule, Twin Commander	07-01147	---
B-00266-2	Overvoltage Relay, 28V, Piper	Piper, Twin Commander, Agusta-Bell	07-01148	---
B-00286-1	Regulator, 28V, Parallel OP (twin)	Cessna & Piper	07-01449	---
B-00288-1	Regulator, 14V, Parallel OP (twin)	Piper, Hawker Beechcraft, True Flight Holdings	07-01150	---
B-00289-2	Overvoltage Relay, 14V	Piper, Hawker Beechcraft, Cessna, Maule, American Champion, True Flight Holdings, Varga, General Avia	07-01151	---
B-00306-3	Regulator, 28V, Parallel OP (twin)	Hawker Beechcraft	07-01153	---
B-00325-1	Timer, Pneumatic, 28V	Piper	07-01455	---
B-00331-2	Voltage Regulator, Type 1, 14V	Piper, Hawker Beechcraft, Enstrom, American Champion, True Flight Holdings, CPAC	11-04130	---
B-00341-1	Time Delay Switch	Piper	07-01158	---
B-00368-2	Alternator Control, 28V Load	---	07-01803	---
B-00371-1	Alternator Control, 14V	Piper, Maule, Robinson, Zenair, American Champion, Taylorcraft 2000, Enstrom, Brantly, Vulcanair, Socata	07-01167	---
B-00372-1	Alternator Control, Load Balancing	Hawker Beechcraft	07-01168	---
B-00375-2	Monitor Low Voltage	Piper	07-01170	---
B-00380-2	Sensor-Alt Out, 28V Pulsed	Hawker Beechcraft	07-01171	---
B-00382-1	Alternator Control, 28V Load	Piper	07-01172	---
B-00387-1	Voltage Regulator with Overvoltage Protection, 28V	Hawker Beechcraft	07-01173	---
B-00392-1	Alternator Control, 14V, Piper	Piper	07-01174	---
B-00403-1	Voltage Regulator with Overvoltage Protection, 14V	Hawker Beechcraft, Mooney	07-01176	---

EP

### LAMAR SOLENOIDS



Aviation grade, non FAA-PMA approved, solenoid for continuous duty 12 volt applications. Fits current GA production aircraft as well as legacy aircraft. Replaces both single terminal switched units, as well as the current double terminal switched units in production today. All units have multiple quality and functional tests prior to certification and delivery.

**Features:** • Replaces most contactors in general aviation • 12 Volt Unit or 24 Volt Unit • Continuous Duty or Intermittent • All units inspected and tested to performance standards

Description	Part Number	Price
X61-0028 12V Continuous	07-01875	---
X61-0029 24V Continuous	07-01876	---
X61-0030 12V Intermittent	07-01877	---
X61-0031 24V Intermittent	07-01878	---

### RPX TECHNOLOGIES DRYBOT AUTOMATED ENGINE DEHYDRATOR KIT



Cheaper than an overhaul! The DryBot engine dehydrator is totally automated and can be left unattended. It's designed to maintain internal engine humidity below the critical relative humidity at which corrosion occurs on steel surfaces such as cams and lifters. Armed with 12 sensors, the DryBot continually monitors for system and setup faults to ensure system performance. "Green light, you're good!"

**Features:** • Totally Automated: The DryBot is totally automated and can be left unattended. • Helps Prevent Engine Corrosion: The DryBot is designed to maintain internal engine humidity below the critical relative humidity at which corrosion occurs on steel surfaces such as cams and lifters. • Self Monitoring: Armed with 12 sensors, the DryBot Continually monitors for system and setup faults to ensure system performance. "Green light, you're good!"

Description	Part Number	Price
North America	08-19048	---
UK	08-19051	---
<b>ACCESSORIES</b>		
Adaptor A	08-19049	---
Adaptor B	08-19050	---

# SUPERIOR GASKETS – CYLINDERS

## SUPERIOR LYCOMING ENGINES - MAJOR OVERHAUL GASKET SETS



Lycoming engines are built with the best components in the industry. The only parts we paint are the steel

barrels to resist corrosion. All aluminum parts; crankcase, assembly case, sump cylinder heads and assy drives are alodined only for corrosion protection. This leaves an engine that is easy to inspect, provides better cooling, and is lighter weight. FAA-PMA Approved

**Note:** Intake hoses and oil drain-back hoses must be ordered separately.

\* Contains Exhaust Gaskets

\*\* Contains Spiratallic "NO BLO" Exhaust Gaskets

\*\*\* Exhaust Gaskets, Not Included

Superior Part No.	Engine Model	Cylinder Head Type	Part No.	Price
SL61499-1**	O-235 Series	Parallel	08-11792	---
SL69371-1**	O-290 Series	Parallel	08-11840	---
SL12636*	AIO, AEIO-320 Wide Deck	Parallel	08-11572	---
SL14815*	O-320-H Series ('76' Series)	Parallel	08-11627	---
SL75439-1**	IO, HIO-360 Conventional IO-360-A, C, D, K; HIO-360-A, C; LIO, LHIO-C Wide Deck	Parallel	08-11966	---
SL75441-1**	IO, HIO-360 Conventional IO-360-A, C, D, K; HIO-360-A, C; LIO, LHIO-C Wide Deck	Angle	08-11967	---
SL12937***	HIO-360-D1A, D1AD Wide Deck	Angle	08-11580	---
SL12945*	O, LO-360 Wide Deck (Dual Magneto)	Parallel	08-11582	---
SL12944**	IO-360 Wide Deck (Dual Magneto)	Angle	08-11581	---
SL14845***	HIO-360-E, F, Wide Deck (Dual Magneto) LHIO-360-F Wide Deck (Dual Magneto)	Angle	08-11628	---
SL71900-1***	VO-435-A Series	Angle	08-11869	---
SL71181-1***	GSO, IGSO-480 Series	Angle	08-11857	---
SL71569-1***	O-540-A, B, E, F, G, H; IO-540-C, D, J, N, R Conventional and Wide Deck (Parallel Valve Head)	Parallel	08-11861	---
SL73185-1***	IO-540-A, B, E, G, H, K, L, M, P, S Conventional and Wide Deck (Angle Valve Head)	Angle	08-11908	---
SL13378*	O-540, B, E, G, H, Wide Deck (Dual Magneto)	Parallel	08-11594	---
SL13367*	IO-540-K, L, M, U Wide Deck (Dual Magneto) AEIO-540-LT1B5D Wide Deck (Dual Magneto)	Angle	08-11592	---
SL13377*	IO-540-C, N, T, V, W; O-540-J, L Wide Deck (Dual Magneto)	Parallel	08-11593	---
SL77175-1*	TIO-540-A Series Conventional; TIO-540-A2C Wide Deck	Angle	08-11995	---
SL15903*	TIO-540-S1AD Wide Deck	Angle	08-11642	---
SL12956*	TIO, LTIO-540-F, J, N, R (Dual Magneto)	Angle	08-11583	---
SL75181-1*	IO-720-A, B, C, D Series Conventional	Angle	08-11959	---
SL15423*	IO-720-A1B, B1B, B1BD, D1B, D1C, D1CD Wide Deck	Angle	08-11638	---

## SUPERIOR LYCOMING ENGINES - SINGLE CYLINDER GASKET SETS



Lycoming engines are built with the best components in the industry. The only parts we paint

are the steel barrels to resist corrosion. All aluminum parts; crankcase, assembly case, sump cylinder heads and assy drives are alodined only for corrosion protection. This leaves an engine that is easy to inspect, provides better cooling, and is lighter weight. FAA-PMA Approved

**Note:** Exhaust Gaskets Must be Purchased Separately

Superior Part No.	Engine Model	Set No.	Part No.	Price
SL12040-SC	O-235 SERIES	SL12040-SC Parallel Valve Head	08-11559	---
SL12032-SC	O-290; O, IO, LIO-320; AIO, AEIO-320; O-340; O-360-A, B, C, D, F; IO-360-B, E, F; AEIO-360-B, H; HO-360-A, B; HIO-360-B; VO, IVO-360 O-540-A, B, E, F, G, H, J, L; IO-540-C, D, J, N, R, T, V, W; TIO-540-C, E, G, H, K; LTIO-540-K; AEIO-540-D	SL12032-SC Parallel Valve Head	08-11545	---
SL12039-SC	IO-360-A, C, D, J; AIO-360-A, B; AEIO-360-A; HIO-360-A, C, D, E, F; LIO-360-C; LHIO-360-C, F; TO-LTO-360-A; TIO-360-A	SL12039-SC Parallel Valve Head	08-11557	---
SL16916-SC	O-320-H; O, LO, TO, LTO-360-E "76" SERIES	SL16916-SC Parallel Valve Head	08-11679	---
SL12036-SC	O-435-A	SL12036-SC Parallel Valve Head	08-11552	---
SL12034-SC	GO, VO, TVO-435; GO, GSO, IGSO-480; IO-540-A, G, K, L, P, S, AA; AEIO-540-L; TIO, LTIO-540-U; VO, TVO, TIVO-540; IGO, IGSO-540-A	SL12034-SC Angle Valve Head	08-11549	---
SL12033-SC	IO-540-B, E, M, U; TIO-540-A, S, T; TIO-LTIO-540-F, J, N, R; TIO-541-A; IGO-IGSO-540-B	SL12033-SC Angle Valve Head	08-11547	---
SL12037-SC	IO-720-A, D	SL12037-SC Angle Valve Head	08-11554	---

EP



## SUPERIOR MILLENNIUM CYLINDERS

Uniform hardness all the way through the steel barrel walls which allows the barrel to provide even wear while withstanding extreme cylinder temperatures and pressures. Exhaust and intake ports are volumetrically matched to maximum output and performance. Increased port wall thickness - eliminates problems with warping and cracking. Computer-generated head fin configuration - deliver more uniform heat transfer and fewer "hot" spots. Manufactured from the most advanced alloys available - exceed industry standard for strength and porosity.

Millennium Cylinders For Continental Engines			
Model No.	Application	Part No.	Price
SA65000S0	A-65 (Sold in Kit of 4 - STC)	08-11477	---
SA10200-A20P	O-200-A, B; C-125-2, C-145-2, -2H; O-300A, B, C, D	08-10908	---
SA10200-A21P	C-75, 85	08-10909	---
SA10200-A22P	C-90	08-10910	---
SA47006L-A20P	O-470-U; IO-470-D, E, F, H, L, M, N, S, U, V	08-11060	---
SA47006S-A20P	O-470-G, M, P; IO-470-C, G, P, R	08-11061	---
SA47006S-A21P	O-470-K, L, R, S	08-11062	---
SA52006-A20P	IO-520-A, B, BA, BB, C, CB, D, E, F, J, K, L, M, MB	08-11098	---
SA52006-A22P	TSIO-520-AF, B, BB, C, CE, D, DB, E, EB, G, H, J, JB, K, KB, L, LB, M, N, NB, P, R, T, UB, VB, WB	08-11099	---
SA52006-A23P	IO-550-A, B, C	08-11100	---
SA55006-A20P	IO-550-D, E, F, L (Taper Finned Barrel)	08-11208	---

Millennium Cylinders For Lycoming Engines			
Model No.	Application	Part No.	Price
SL 10302-A20P	O-235-F, J (High Compression)	08-11510	---
SL 10302-A21P	O-235-K, L, M (Medium Compression)	08-11511	---
SL 32006N-A20P	O-320-B, D; IO-320-B (Narrow Deck)	08-11732	---
SL 32006W-A20P	O320-B, D; IO-320-B, D; AIO-320-B, C; AEIO-320-D; LIO-320-B (Wide Deck)	08-16434	---
SL 32006W-A21P	O-320-A, C, E; IO-320-A, E; AEIO-320-E; (Wide Deck)	08-16432	---
SL32006N-A21P	O-320: -A1A, -A1B, -A2C, -A2D, -A3A, -E1A, -E1B, -E1C, -E1F, -E1J, -E2A, -E2B, -E2C, -E2D, -E2F, -E2G, -E2H, -E3D, -E3H (Narrow Deck)	08-16433	---
SL 36006N-A20P	O-360-A, C; IO-360-B; HO-360-B; HIO-360-B; O-540-A, D, E, G; IO-540-C, D, N; TIO-540-G (Narrow Deck)	08-11745	---
SL 36006N-A21P	O-360-B, D; O-540-B (Narrow Deck)	08-11746	---
SL 36006W-A20P	O-360-A, C, F, G; IO-360-B, E, M; HO-360-C; HIO-360-B; LO-360-A; AEIO-360-B, H; O-540-A, E, G, H; IO-540-C, D, N, T; AEIO-540-D (Wide Deck)	08-11749	---
SL 36006W-A21P	O-360-B, D; O-540-B	08-11750	---

## SUPERIOR SL75089A PISTON

Superior SL75089A Piston. ....P/N 08-17025

See website for Engine Applications.

CALL OF EMAIL FOR QUOTE ON SUPERIOR XP & VANTAGE ENGINES

# SUPERIOR AIR PARTS

EP

Superior P/N#	Description	Part No.	Price
STD-1410	Exhaust Nut	08-03639	---
STD-1925	Rocker Box Cover Screw	08-03697	---
SA22022	Continental Brass Exhaust Nut	07-03554	---
SA22387	Engine Mount	22387	---
SA630979-9	O-Ring	08-11295	---
SA531001	Cylinder Hold Down Nut	08-11148	---
SA640612	Washer	08-11389	---
SL-STD-1411	Nut	08-12024	---
SL71973	Gasket	08-11872	---
SA21247	Exhaust Nut	07-03570	---
SA21185	Continental Inner Intake Hose	07-03477	---
SA534610	Push Rod Packing	08-03679	---
SL12681	Gasket	08-11573	---
SL-STD-2180	Hose	08-00311	---
SL-STD-1821	Hose	08-12031	---
SL72059	Lycoming Oil Dipstick Gasket	08-00305	---
SA22250	Continental Intake Gasket	07-03559	---
SA536413	Intake Gasket	08-03684	---
SA629925	Intake Gasket	08-11260	---
SA539840	Continental Connector Push Rod	07-03556	---
SA531003	Nut	08-11149	---
M83248/1-00	O-Ring	08-10891	---
SA633958-3	Seal	08-11349	---
SLR75906	Gasket	08-12021	---
SA21323	Carb Gasket - Bottom	21323	---
SL12186	Nut-Hex	08-11567	---
SA632837	Continental Stainless Steel Gasket	08-13232	---
SL66224	Gasket	08-11813	---
MS9134-01	Gasket	08-10885	---
SL70310	O-Ring	08-11848	---
SL62224	Gasket	08-11808	---
SL12892	Thrust Button	08-11579	---
SA642917-1	Induction Air Hose	08-11414	---
SL69603	Hose	08-11844	---
SL8313	Gasket	08-12019	---
SA534750	Gasket	08-11164	---
SL75906	Gasket	08-11983	---
SL66732	Gasket	08-11821	---
AN500-416-1	Screw	08-11173	---
SL-STD-1215	Bolt	07-00001	---
SL60430	Cover	08-11778	---
SA402151	Continental Exhaust Manifold Stud	05-03634	---
SL12272	Lock Plate	08-11568	---
AN500-416-1	Screw	08-11172	---
SL61173	Gasket	08-11785	---
SA630286	Packing	08-11275	---
SA534857	Gasket	08-11165	---
SA628556	Washer	08-11244	---
SA634505	Nut 6 Point	08-11353	---
SA22800	Intake Hose	08-10953	---
SA632248	Seal	08-11320	---
SA534857-S	Gasket	08-11166	---
SL67193-S	Gasket	08-11823	---
SA632310	Gasket Rocker Cover	08-11322	---
SA10200-A20	Millennium Cylinder	08-10908	---
SL12032-SC	Gasket Set	08-11545	---
STD-1196	Lycoming 1-1/2 Inch Intake Hose	08-00580	---
AS3578-038	O-Ring	08-10767	---
SL-STD-2090	Nut, Hex	08-12034	---
SA638172	Continental Bushing	08-00321	---
MS29512-8	O-Ring	08-10835	---
SA628488	Hydraulic Valve Lifter	08-11241	---
SL71481	Lycoming Cylinder Base Seal	08-03637	---
SA629436	Gasket Alternator Crankcase	08-11257	---
SL3601-SC	Ring Set Single Cylinder	08-11751	---
SA641250	Crankshaft Seal	08-03675	---
SA630824	Gasket, Intake Manifold	08-11288	---

Superior P/N#	Description	Part No.	Price
MS13997-3	Key	08-10802	---
SA200-T1	Gasket Set	08-10931	---
SA24804	Nut	08-10972	---
SA646277	Hydraulic Valve Lifter Exhaust	08-11432	---
SA401893	Continental Exhaust Stud	08-03682	---
SL383-B	Hexagon Nut	08-11768	---
SL72075	Seal, Ring, O	08-11877	---
MS21333-75	Clamp	08-10823	---
SA530019	Continental Crank Oil Seal	07-12765	---
SL31C-12	Lycoming Exhaust Stud	08-03636	---
SA628109	Connecting Rod Nuts	08-11239	---
SA630046	Piston Pins	08-11261	---
SA520-T1	Gasket Set	08-11117	---
SL13792	Lycoming Crankshaft Seal	08-00292	---
SA633958-5	Seal	08-11350	---
SA536379	Screw	08-11182	---
SL3601-SC P	Ring Set Single Cylinder	08-11752	---
SA652541	Nut 12 Point	08-11486	---
SA530928	Continental Push Rod Gasket	08-00317	---
SA641607	Seal, Push Rod Housing	08-11392	---
SL68972	Gasket	08-11835	---
SL13444-1	Piston Pin	08-11595	---
SA536740	Seal, Intake	08-11184	---
SA2437	Nut	08-10966	---
SL-STD-208	Seal, Oil	08-12033	---
SA470-T2	Gasket Set	08-11083	---
SA24759	Gasket	08-10968	---
MS29512-10	O-Ring	08-10832	---
SA630365	Gasket	08-11277	---
SL60592	Gasket	08-11779	---
SA652947	Washer	08-11487	---
SA629104	Counterweight Snap Ring	08-11249	---
SA2000-SC	Continental Single Cylinder Ring Set	649632-A1	---
AN737TW74	Clamp	08-10760	---
SA643629	Plate, Crank	08-11424	---
SA626140	Nut	08-11220	---
SA530162	Gasket	08-11130	---
MS21333-65	Clamp	08-10822	---
SA626983	Gasket	08-11223	---
MS90725-12	Bolt	08-10874	---
SA646234	Gasket	08-11429	---
SL15619	Gasket	08-11639	---
SA630892	Gasket Neck	08-11292	---
SL72711	O-Ring	08-11897	---
SL14995	Spring	08-11629	---
SL72091	Packing Resistant Oil Seal Ring	08-11880	---
MS49005-6Z	Pipe Plug	08-12047	---
SA530830	Piston Pin	08-11143	---
SL13790A	Shaft, Rocker	08-11603	---
SL-STD-425	Washer #10	08-12041	---
SA626342	Gasket, Oil Cooler-To-Plate	08-11222	---
SA22350	Gasket	08-10944	---
SL13641	Magneto Drive Cushions	08-11602	---
SA501867	Rocker Shaft Retaining Bolt Washer	08-11096	---
SA22532	Crankshaft Bolts	08-10949	---
SL71032	Bushing, Engine Support	08-11854	---
SA646985	Seal	08-11474	---
SA638125	Exhaust Stud - Rosan	08-03688	---
SA625303	Gasket	08-11212	---
SA652984	Shaft, Rocker	08-11488	---
SL12795	Gasket	08-11578	---
SL36006W-A2	Millennium Cylinder	08-11749	---
SA642917-2	Intake Hose	08-11415	---
SA5000-SC5	Piston Rings (For Steel Barrel)	08-11084	---
SA535057	Gasket	08-11171	---

SEE OUR WEBSITE FOR COMPLETE SELECTION OF SUPERIOR PARTS

# SUPERIOR AIR PARTS

Superior P/N#	Description	Part No.	Price
SA52006-A22	Millennium Cylinder	08-11099	---
SL-STD-2213	Crew	08-12039	---
SA21361	Lock	08-10940	---
SA539467	Piston Pin	08-11203	---
SA537019	Screw	08-11186	---
MS35756-8	Key	08-10859	---
SA52006-A20	Millennium Cylinder	08-11098	---
SA24122	Bushing	08-10964	---
MS27769-01	Plug	08-10827	---
SA3577	Gasket	08-10999	---
SL12136	Bushing, Rubber	08-11566	---
SL53E19600	Valve, Oil	08-11771	---
SL68763A	Bearing, Crankshaft	08-11831	---
SL11997	Lycoming Crankshaft Seal	08-03671	---
SA626341	Gasket	08-11221	---
SL11020	Bearing	08-11521	---
SA1000-SC	Single Cylinder Ring Set	653394	---
SL11485	Shroud, Push	08-11525	---
SA22344	Gasket	08-10943	---
MS20823-6D	Elbow	08-10813	---
SL61183	Gasket	08-11787	---
MS29513-018	O-Ring	08-10836	---
SL78290	Plunger Assembly	08-12007	---
SL73857A	Lycoming Ring Oil	08-03694	---
SL18101	Hose	08-11682	---
MS9549-17	Washer	05-11791	---
SA534743	Gasket	08-11163	---
SA532200	Continental Cylinder Base Seal	08-03683	---
SA537745	Gasket	08-11195	---
SL68761	Tube Assembly	08-11830	---
SA632372	Gasket, Cooler To Plate	08-11324	---
SL74389	Bushing, Valve Rocker	08-11942	---
MS29561-010	O-Ring	08-10842	---
SA520129	Rocker Arm Bushing	08-11102	---
SL68315	Gasket	08-11824	---
MS29561-012	O-Ring	08-10843	---
SL14260	Oil Seal	08-11625	---
MS29561-237	O-Ring	08-10851	---
MS90725-14	Bolt	08-10876	---
SA25135	Gasket	08-10980	---
SA530162-S	Gasket, Rocker Cover	08-11131	---
SL11625	Piston Pin Plugs	08-11530	---
SA10200-A21	Millennium Cylinder	08-10909	---
SA646605	Nut	08-11470	---
SA5484	Gasket	08-11207	---
SA40762	Cover, Valve	08-11056	---
SA352058	Gasket	08-10988	---
MS16625-208	Retaining Rings Camshaft	08-10806	---
SA21477	Packing, Cylinder Base	08-10941	---
SA641066	Continental Cylinder Base Seal	08-03689	---
SA5000-SC5	P10 Ring Set Single Cylinder	08-11086	---
SA530658	Bushing	08-11142	---
SA636465	Gasket	08-11359	---
SL72566	Gear, Starter	08-11894	---
SL31H-0.88	Bolt	08-11731	---
SA539058	Washer	08-11202	---
SA25102	Seal	08-10977	---
SA530642	Gasket	08-11141	---
SL77569	O-Ring	08-11996	---
SA47006L-A2	Millennium Cylinder	08-11060	---
SA530340	Gasket	08-11134	---
AN932-2	Plug	08-10762	---
MS122121	Helicoil	08-10799	---
SA646846	Plunger Unit	08-11473	---
SL72877	Body, Hydraulic	08-11902	---
SA3610-SC	Piston Rings (For Steel Barrel)	08-11013	---
SA530917	Crankcase Nose Seal	08-11146	---
SA533355	Gasket	08-11159	---
SL16711A	Crankshaft Bearing	08-11673	---
SA643873	Exhaust Valve	08-03680	---
SA21007	Screw	08-10934	---
SA530386	Bearing	08-17196	---

Superior P/N#	Description	Part No.	Price
SA36170-A1	Continental Bearing	08-17194	---
SA352066	Gasket	08-10994	---
SA550-T1	Gasket Set	08-11209	---
SA5201-SC2	Ring Set	08-11103	---
SL15F19957-	Push Rod Assembly	08-11651	---
H28SS	Clamp	08-10777	---
MS9135-01	Gasket	08-10886	---
MS9136-01	Gasket	08-10887	---
SA360-T1	Gasket Set	08-11011	---
SL12040-SC	Gasket Set	08-11559	---
SL1691-C	Gasket	08-11680	---
SL62869	Lycoming Cylinder Base Seal	08-03687	---
SA35019	Gasket	08-10985	---
SL5401-SC	Ring Set Single Cylinder	08-11772	---
SL72312	Packing	08-11890	---
MS90725-13	Bolt	08-10875	---
SA24802	Key, Valve Spring Outer Retainer	08-10971	---
SA537282	Gasket	08-11187	---
SL2351-SC	Ring Set-Si	08-11705	---
AS3578-011	O-Ring	08-10764	---
SA24890-A5	Gasket Set	08-10974	---
SL32006W-A2	Millennium Cylinder	08-16434	---
SA352179	Gasket, Star	08-10998	---
MM5SS	Drain Back Clam	08-10797	---
SA5000-SC5	Ring S	08-11085	---
SA641931-10	Thrubolt	08-11398	---
SL32006W-A21P	Millennium Cylinder	08-16432	---
SL18109A-S	Impeller Kit	08-11683	---
SL74241A	Ring, Piston	08-11934	---
SL31C-12 P0	Stud	08-11722	---
SA35985	Gasket	08-11006	---
SA47006S-A2	Millennium Cylinder	08-11062	---
SA625958	Spring	08-11216	---
SL1028-B	Ball	08-11509	---
SL12034-SC	Gasket Set	08-11549	---
SL12039-SC	Gasket Set	08-11557	---
SL18639	Lockplate	08-11684	---
SL75439-1	Gasket Set	08-11966	---
SA536410	Seal	08-11183	---
SL19001A	Valve, Exhaust	08-11697	---
SA537749	Gasket	08-11196	---
SL73998A	Piston Ring	08-11923	---
AS3578-210	O-Ring	08-10769	---
SL74673A	Ring	08-11946	---
SA10200-A22	Millennium Cylinder	08-10910	---
SL61084	Spring	08-11783	---
SL69371-1	Gasket Set	08-11840	---
SA21284	Housing, Push Rod	08-10938	---
SA530192	Bushing	08-11132	---
SA629117-1	Rotocoil	08-11251	---
SA631088-.4	Bolt	08-11299	---
SA637837	Spring	08-11363	---
SA649205	Screw	08-11475	---
SL14815	Gasket Set	08-11627	---
SL61499-1	Gasket Set	08-11792	---
MS29512-12	O-Ring	08-10833	---
MS29561-111	O-Ring	08-10845	---
SA24764	Screw, Drive	08-10969	---
SA52006-A23	Millennium Cylinder	08-11100	---
SL73032	Gasket	08-11905	---
SL74065	Packing Resis	08-11926	---
M83248/1-14	O - Ring	08-10789	---
SA4000-SC2	Ring Set	08-11018	---
SL60096	Gasket	08-11774	---
MS13998-3	Cap	08-10803	---
MS21318-14	Drive Scre	08-10819	---
SA642238	Gasket - Fuel Pump Adapter	08-11400	---
SL-STD-1211	Expansion	08-12023	---
M83248/1-12	O-Ring	08-10787	---
SA535666	Screw	08-11175	---
SA538185	Gasket	08-11198	---
SA538304 P3	Push Rod	08-11199	---

EP

SEE OUR WEBSITE FOR COMPLETE SELECTION OF SUPERIOR PARTS

Prices Subject to Change without Notice - Valid as of June 1, 2024.  
Please view our website for current prices.

[WWW.AIRCRAFTSPRUCE.CA](http://WWW.AIRCRAFTSPRUCE.CA)

# ENGINE PARTS



## INTAKE HOSES

Lycoming 1-3/4" Intake Hose  
P/N 69603  
Cont. #22800 Outer & Cont. #21185  
Inner Hose (8 sets required for A-65 thru  
0-300)..... P/N 08-03700  
Cont. #22800 Outer Intake Hose  
P/N 22800  
Cont. #21185 Inner Intake Hose  
P/N 07-03477



## INTAKE GASKETS

Cont. #21327 (4) for A-65 only. **Ea.**  
Cont. #22250 (4) for C-85 - 0-300 **Ea.**



## EXHAUST GASKETS

Cont. #21493 (08-05237) for A-65  
thru 0-300 SS **Ea.**  
Cont. #632837 SS..... **Ea.**  
#77611 for 0-320 - not for H series SS **Ea.**

## EXHAUST NUTS

Cont. #22022 (5/16-24) for A-65 thru  
0-300 (8)..... **Ea.**  
Cont. #MS20500-428  
(1/4-28) for 0-470 (12) **Ea.**  
Lyc. #STD1410 (5/16-18) **Ea.**



## ROCKER BOX GASKETS

Cont. #530162 for A-65 thru 0-300  
(4 required) .. **Ea.**



## ROCKER BOX COVER SCREWS

Cont. #535091 (24) **Ea.**  
Lyc. #STD1925 (24) **Ea.**



## CYLINDER BASE SEALS

Cont. #21477 for A-65 thru 0-200  
(4) **Ea.**



## MAGNETO FLANGE GASKET

Cont. #535324 **Ea.**  
Lycoming #62224 **Ea.**



## TACH OIL SEAL

Cont. #642714 (was #640087)  
for A-65 thru 0-300  
Lyc. #LW14260 for 0-235, 0-290



## OIL PRESSURE HOUSING GASKETS

Lyc. #61173 for 0-235, 0-290 (1) (2  
with oil cooler) **Ea.**



## CARBURETOR GASKETS

For A-65 thru 0-200  
Cont. #21051 (Top) **Ea.**  
Cont. #21323 (Bottom) **Ea.**



## GENERATOR DRIVE BELT

For Lycoming 0-235, 0-290.  
P/N 60886



## "O" SERIES LYCOMING VALVE COVER GASKETS

Replace the original cork gaskets which come  
standard on Lycoming 0-235, 0-320 and 0-360  
engines. NOT FAA approved. For experimental  
aircraft only..... P/N 08-01187



## TCM GASKET

TCM Gasket for Magneto & Access  
Drive..... P/N 08-07531



## ANGLED VALVE "IO" SERIES LYCOMING VALVE COVER GASKETS

These gaskets are for the fuel injected  
"IO" series, sometimes referred to  
as the Angle Valve cylinder Lycoming  
They are not FAA approved and are  
not manufactured under a PMA. These are  
used on Angled valve Lycoming engines IO-360,  
IO-540, IO-720..... P/N 08-05882



## 652072 ALTERNATOR GASKET

TCM Alternator Gasket, Gear driven  
alternator mounting gasket (gasket  
for engine that has been converted  
from generator to alternator).  
P/N 07-01492



## 649984 ALTERNATOR GASKET

TCM Alternator Gasket replaces  
Continental Motors: 352066,  
632560..... P/N 07-00768



## PUSH ROD SEALS

Continental #539840 for A-65 thru  
0-200 (8)..... **Ea.**



## TCM OIL SUMP PLUG 532432

Cont. #532432 Oil Sump Plug



## CRANKSHAFT OIL SEALS

Cont. #530019 for A-65 thru 0-200,  
Flanged Shaft  
Cont. #24321 for A-65 and C-85,  
Taper Shaft.....  
Lyc. #76940 for 0-235, 0-290



## AN900 COPPER GASKETS

Cont. Engine Applications, A-65 thru 0-200 (1)  
each:

- 10: Oil sump drain plug thermometer hole in oil  
screen, suction tube ass'y **Ea.**
- 14: Oil relief valve..... **Ea.**
- 22: Tach drive housing.. **Ea.**
- 28: Oil pressure screen. **Ea.**



## AERO-SEAL HOSE CLAMPS

Aero-Seal Clamps for Cont.  
Intake Hoses.  
P/N QS100-M32W **Ea.**



## PROP GOVERNOR GASKET

P/N 07-00878



## RING HOSE CLAMPS

Cont. #536388 (16) Required  
**Ea.**



## ENGINE MOUNT BUSHINGS

Cont. #22387 for A-65, C-85, C-90  
except C-90-14F (8) Req'd. **Ea.**  
Lyc. #60883 for 0-235 and 0-290, 7/8" hole (8)  
Req'd..... P/N 60883 **Ea.**  
Lyc. #71032 for 0-320 with 1" hole (8) Req'd  
..... P/N 71032 **Ea.**  
Lycoming, FAA Approved. Replaces #71032.  
Set of 8..... P/N 71032



## ENGINE MOUNT WASHERS

Cont. #21530 for A-65, C-85, C-90  
except C-90-14F (8) Req'd **Ea.**  
Lyc #STD619 for 0-235 thru 0-320  
(8) Req'd.... **Ea.**



## CRANKSHAFT SEAL LW11997

LW11997 Crankshaft Seal. Spring is  
impregnated in the gasket 4-04.  
P/N 08-11997

## LYCOMING PARTS TO CONVERT 0-235 WITH SPIN ON OIL FILTER TO OIL SCREEN

Oil Pressure Screen Housing  
P/N 68974  
Oil Screen..... P/N 62817  
Oil Screen Housing Gasket  
P/N 61173

FOR OIL COOLER INSTALLATION ADD:

Spring..... P/N 69436  
Plunger..... P/N 62415  
Gasket..... P/N AN900-10

Cont. Oil Screen... P/N 08-01544

## OIL COOLER PARTS SHOWN ABOVE NOT USED WITH THERMAL VALVE ASS'Y

## GENERATOR ATTACHING PARTS FOR CONT. C85, C90 & 0-200



Price	Ref.	P/N	Item	Each
	#2...	352068	Oil Seal	
	#4...	07-01328	Attaching 653982 Retainer	
	#6...	530407	Sleeve	
	#7...	531325	Gear	
	#8...	530412	Slotted Nut	
	#10...	35019	Generator Gasket	

**Note:** 626543 is sold as a pair. If only one  
bushing is needed, order P/N 08-06218

## ENGINE MOUNTING PARTS FOR CONT. C-90-14F & 0-200 ONLY



Ref.	P/N	Item	Qty.	Price Each
#1	628555-16	Hose	(4)	
#2	530627	Spacer	(4)	
#3	530626	Seat	(8)	
#4	530740	Bushing	(8)	
#5	530741	Washer	(8)	
	AN6-55	Bolt	(4)	
	AN310-6	Nut	(4)	
	MS24665-283	Pin	(4)	

Lycoming.....37A19773-376 (Alt.)  
Lycoming.....37B19774-374 (Gen.)  
Continental.....539547-31.19  
Piper PA28/PA32  
P/N 05-06877



## ALTERNATOR & GENERATOR BELTS

Lycoming.....37A19773-376 (Alt.)  
Lycoming.....37B19774-374 (Gen.)  
Continental.....539547-31.19  
Piper PA28/PA32  
P/N 05-06877



## 24031 VALVE SPRING

Continental Inner Valve Spring  
Used on C90 & O-200 Engines  
P/N 07-24031

# ENGINE PARTS

## CONTINENTAL ENGINE PARTS

C-85	Price Each		Price Each
639640 Bearing set, rod (2 req.)		539467 Piston pin	
21477 Cyl base seal		SA534610 Push rod packing	
530917 Crankshaft seal taper		649226 Ring set, steel barrel	
SA402151 Ex. stud		649226CP Ring set, chrm barrel	
22022 Ex. nut		SSR539740 Rocker shaft	
646612 Exhaust Valve		637837 Spring, valve, outer	
653728 Gasket, rocker		631521 Springs, valve, inner	
632837 Gasket, no-blow		SA539740 Rocker Shaft	
22250 Gasket, intake		<b>IO-470 ANGLE HEAD</b>	
646539-A1 Gasket set, moh		SSR532200 Cyl base seal	
21185 Intake hose		PA641250 Crankshaft seal	
641792 Intake Valve (30 degree)		SA402151 Ex. stud	
530019 Nose seal, flange sft		Ex. nut MS20500-428	
530830 Piston pin		643967 Ex. nut	
539840 Push rod packing		SA643873 Exhaust Valve	
649632-A1 Single Cylinder Ring Set		653191 Gasket, rocker, angle head	
<b>O-200</b>		628260 Gasket, no-blow	
627246-A1 Bearing set, main		SSR536413 Gasket, intake	
639640 Bearing set, rod (2 req.)		642917-1 Intake hose	
21477 Cyl base seal		646283 Intake Valve	
530019 Crankshaft seal		539467 Piston pin	
SA402151 Ex. stud		SA534610 Push rod packing	
22022 Ex. nut		SSR539740 Rocker shaft	
646612 Exhaust Valve		SA539740 Rocker Shaft	
530162 Gasket, rocker		<b>IO-520 TSIO-520</b>	
627429 Gasket, no-blow		630826 Bearing set, rod	
22250 Gasket, intake		653888 Camshaft follower tappet	
646539-A1 Gasket set, moh		SSR641066 Cyl base seal	
22800 Intake hose		PA641250 Crankshaft seal	
641792 Intake Valve (30°)		SSR401893 Ex. stud	
646255 Piston		SSR638125 Ex. stud, rosan	
530830 Piston pin		Ex. nut MS20500-428	
539840 Push rod packing		643967 Ex. nut	
649632-A1 Single Cylinder Ring Set		SA643873 Exhaust Valve	
653394 Single Cylinder ring set		653191 Gasket, rocker	
<b>O-300</b>		SSR536413 Gasket, intake	
639640 Bearing set, rod (2 req.)		642917-1 Intake hose	
21477 Cyl base seal		646283 Intake Valve	
530917 Crankshaft seal		654850 Piston IO-520	
SA402151 Ex. stud		630046 Piston pin	
22022 Ex. nut		SA534610 Push rod packing	
646612 Exhaust Valve		652148 Ring set, steel cyl IO-520	
530162 Gasket, rocker		SA539740 Rocker Shaft	
627429 Gasket, no-blow		<b>CONTINENTAL ENGINE BELTS</b>	
22250 Gasket, intake		539547-30.00	
6465417-A1 Gasket set, moh		539547-31.19	
21185 Intake hose		539547-32.00	
641792 Intake Valve (30°)		539547-35.00	
646255 Piston		642759	
530830 Piston pin		37A19773-376 (76026)	
539840 Push rod packing		37A19773-382 (74519)	
649632-A1 Single Cylinder Ring Set---		37B19774-325 (60886)	
625958 Springs outer		37B19774-341 (71579)	
<b>O-470 ANGLE HEAD</b>			
653888 Camshaft follower tappet			
SSR532200 Cyl base seal			
PA641250 Crankshaft seal			
SSR401893 Ex. stud			
Ex. nut MS20500-428			
643967 Ex. nut			
SA643873 Exhaust Valve			
653191 Gasket, rocker, angle			
SSR536413 Gasket, intake			
642917-1 Intake hose			
646263 Piston			

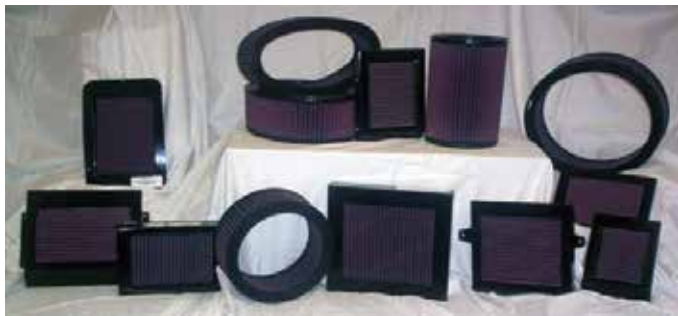
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COMPLETE CONTINENTAL MOTORS  
PRODUCT LINE. SEE OUR WEBSITE FOR  
PART NUMBERS AND PRICING.**

## LYCOMING ENGINE PARTS

O-235 L,N SERIES	Price Each		Price Each
69373 Bearing, rod, 8 req.		69603 Intake hose 1-3/4	
71105 Camshaft follower tappet		73938 Intake Valve	
SSR62869 Cyl base seal		75089	
STD-2180 Cyl drain hose		Piston, high compression	
LW-11997 Crankshaft seal		75413	
SSR31C-12 Ex. stud		Piston, low compression	
STD-1410 Ex. nut		SSRLW-13444 Piston pin	
41271		SSRLW-18661	
Fuel pump, mechanical		Push rod packing	
77611 Gasket, no-blow		74241 Ring, compression	
71973 Gasket, intake		steel cylinder	
SSR61499-1		SSR73857	
Gasket set, moh		Ring, oil ctl steel cylinder	
SSRSTD-1196		SL11997 Crankshaft Seal	
Intake hose 1-1/2"		SL66224 Carb. Gasket	
SSRLW-13445 Piston pin		66224 Lyc. Carb. Gasket	
68028 Piston pin plug		RG-72059 Dipstick Tube Base Gasket	
SSRLW-18661			
Push rod packing		<b>O.IO-360</b>	
SL60592 Carb. Gaslet		SSA72877 Camshaft follower	
<b>O-290</b>		SSR71481 Cyl base seal	
69373 Bearing, Rod		LW-11997 Crankshaft seal	
SSR71481 Cyl base seal		SSR31C-12 Ex. stud	
SSR31C-12 Ex. stud		STD-1410 Ex. nut	
STD-1410 Ex. nut		LW-19001 Exhaust Valve	
41271		62B26931 Fuel pump, mech.	
Fuel pump, mechanical		77611 Gasket, no-blow	
77611 Gasket, no-blow		71973 Gasket, intake	
71973 Gasket, intake		SSR75439-1	
SSR69371-1		Gasket set, moh	
Gasket set, moh		69603 Intake hose 1-3/4"	
SSRSTD-1196		75089	
Intake hose 1-1/2"		Piston, high compression	
Intake Valve 73938		SSRLW-18661	
SSRLW-18661		Push rod packing	
Push rod packing		74241 Ring, comp steel cyl	
62916 Ring,		SSR73857	
compression steel cylinder		Ring, oil ctk steel cyl	
69401 Ring,		SL66224 Carb. Gasket	
oil control steel cyl		<b>O.IO-540</b>	
69373 Bearing, rod		SSR71481 Cyl base seal	
SSR71481 Cyl base seal		13792 Crankshaft seal	
LW-11997 Crankshaft seal		SSR31C-12 Ex. stud	
SSR31C-12 Ex. stud		STD-1410 Ex. nut	
STD-1410 Ex. nut		LW15473 Fuel pump, mech.	
LW-19001 Exhaust Valve		77611 Gasket, no-blow	
SL60592 Carb. Gasket		71973 Gasket, intake	
		SSR71569-1 Gasket set, moh	
<b>LYCOMING CYLINDERS</b>		69603 Intake hose 1-3/4"	
LW15318 O320H new ass'y		73938 Intake Valve	
LW12988 O540/HIO360		75089 Piston	
new ass'y		60828 Piston pin plugs	
		74241 Ring, comp steel cyl	
<b>O-320</b>		SSR73857	
71973 Gasket, intake		Ring, oil ctl, steel cyl	
SSRSTD-1196		SL66224 Carb. Gasket	
Intake hose 1-1/2			

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COMPLETE LYCOMING  
PRODUCT LINE. SEE OUR WEBSITE FOR  
PART NUMBERS AND PRICING.**

# CHALLENGER AIR FILTERS



## CHALLENGER AVIATION HIGH-FLOW AIR FILTER W/ K&N FILTER MEDIA

Features & Benefits of Prime air filters: • 40% - 50% better airflow • Can be washed and serviced up to 25 times • Increase horse power 2%-4% • Save money and improve engine efficiency • FAA-PMA approved • Properly serviced, can be used to TBO of an engine • Ecologically sound • Better takeoff and climb-out performance • Fire retardant • Faster airspeed and/or better fuel consumption • Have been used on high performance vehicles for 40yrs • Accordion fold design provides up to 5 times the filtering surface of non-pleated designs.

**PART NUMBERS WITH A -1 INCLUDE GREASE.**

Model	Application	Installation	Part No.	Price
CPE-1957	Aero Commander - A-9, A9A, A9B	Brackett BA-104 Fram CA-161PL	08-00721-1	---
CP-1150	Aeronca - S65, S65CA, 7AC, 7ACA, 7 BCM(L-16A) ARMY, 7CCM(6-16B) ARMY, 7DC, 7EC, 7FC, 7JC, 7ECA, 7GCAA, 7GCBC, 7KC, 7KCAB, S7AC, S7CCM, S7DC, S7EC P/N CP-3274 is the installation kit. Use P/N CP-2402 to replace gasket at annual.	Brackett BA-4106	08-00843	---
CPE-1957	Aeronca - 7GC, 7GCA, 7HC, 7GCB, 7GCB, 7KCB	Donaldson P10-4145, Fram CA-161-PL, Air Maze 13203	08-00721-1	---
CP-2004	Beech Baron - 95-C55 S/N TE-1 thru TE-451 except TE-50, 95-C55A S/N TE-1 Thru TE-451 Except TE-50, D55 S/N TE-452 Thru TE-492, D55A S/N TE-452 Thru TE-492, E55 S/N TE-768 Thru TE-1079, E55A S/N TE-768 Thru TE-1079, 58 S/N TH1-TH740 No sealing grease or gasket required for this application.	Donaldson P12-7996, Air Maze 121128-2, Brackett BA-6210-1	08-01024	---
CPE-1957	Beech Musketeer - A23A, A23, A23-24, B23, 23	Brackett BA-104, Beech 169-3	08-07101	---
CP-1182	Bellanca - 14-19-3-A, 17-30 P/N CP-3276 Is the install kit. Use P/N CP-2602 To replace gasket at annual.	Brackett BA-8110	08-00870	---
CPE-1957	Bellanca - 17-30A	Brackett BA-104	08-00721-1	---
CPE-1957	Brantly B2B	Fram CA161PL	08-00721-1	---
CP-1150	Cessna - 120, 140, 150, 150A-M, A150K, A150L, A150M, 152, A152 P/N CP-3274 Is the install kit. Use P/N CP-2402 to replace gasket at annual.	Brackett BA-4106, Donaldson P10-7150, Cessna C294510-0201	08-00843	---
CP-1172	Cessna - 170, 170A, 170B, 172, 172A-G, H, I, K, L, M, N, P, Q P/N CP-3274 Is the install kit. Use P/N CP-2302 To replace gasket at annual.	Cessna C294510-0301, Donaldson P10-7172, Brackett BA-5110	08-00902	---
CPE-1173	Cessna - 172R, S	Donaldson P198281, Fram 3559	08-00894-1	---
CP-1182	Cessna - 180, (exception 1953-1955 models), 180A-H, 180J-K, 182, 182A-H, 182J-R, T182T S/N T18208001 AND ON, 182T S/N 18280945 AND ON, 185, 185A-E, A185E, A185F P/N CP-3276 Is the install kit. Use P/N CP-2602 To replace gasket at annual.	Cessna 0750038-1-4, Donaldson P10-6150, Brackett BA-8110	08-00870	---
CPE-1202	Cessna - 182S, S/N >s 18280001 thru 18280944	Donaldson P19-8290, Fram CA3717	08-00903-1	---
CPE-1178	Cirrus - SR-20, SR-22 No sealing grease required for this application.	Brackett BA-111	08-01221	---
CPE-2175	Cirrus - SR-22 with STC SA10925SC	BA-111	08-07404	---
CP-2175	Great Lakes - 2T1A-1, 2T1A-2	12009, P57A, AC-6486197 BA-101	08-06282	---
CP-4423	Enstrom Helicopter - F-28A	CA151PL, A86A, AFP5	08-07388-1	---
CPE-1040	Grumman - AG CAT G164B	Brackett BA-105	08-00717-1	---
CPE-1957	Lavia S.A. - PA25, PA25-235, PA25-260(PRIOR TO S/N 1477)	Fram CA-161PL, Brackett BA-104	08-00721-1	---
CP-1150	Luscombe - 8, 8A, 8B, 8C, 8D, 8E, 8F, T-8F P/N CP-3274 Is the install kit. Use P/N CP-2402 to replace gasket at annual.	Brackett BA-4106	08-00843	---
CP-1172	Maule - M-4, M-4T, M-4C, M-4S, M-4-180C, M-4-180S, M-180T, M-4-220, M-4-220C, M-4-220S, M-4-220T, M-5-180C, MX-7-160, MX-7-180, M-5-210C, M-5-235C, M-5-210TC, M-5-220C, M-6-180, M-6-235, M-7-235 P/N CP-3274 Is the install kit. Use P/N CP-2302 To replace gasket at annual.	Brackett BA-6110, Donaldson P12-6491	08-00902	---
CPE-1178	Maule - M-4-210, M-4-210C, M-4-210S, M-4-210T, M-5-210C No sealing grease required for this application.	Brackett BA-111	08-01221	---
CP-1150	Mooney - M10 P/N CP-3274 Is the install kit. Use P/N CP-2402 to replace gasket at annual.	Brackett BA-4106, Donaldson P12-0494	08-00843	---
CP-1172	Mooney - M20, M20A, M20B, M20C, M20D, M20G P/N CP-3274 Is the install kit. Use P/N CP-2302 To replace gasket at annual.	Fram 13219, Brackett BA-6110, Donaldson P12-6491	08-00902	---
CP-1176	Mooney - M20 E, F Replacement Gasket P/N-CP-2802	Donaldson P10-4065 Brackett BA-6310	08-01031	---
CP-1174	Mooney - M20J (201)	Brackett BA-6210	08-00896	---
CP-1175	Mooney - M20K S/N 25-1000 & UP	Donaldson P13-6287	08-01020-1	---
CPE-1179	Mooney - M20M, M20R, M20S	Mooney 600417-503, AM EDD4028, Donaldson P524257	08-01263-1	---
CPE-1151	Piper - PA-18 S/N 18-6964 and up O-320	Piper 454-118, Fram CA-122PL, Brackett BA-112	08-01032-1	---
CPE-1040	Piper - PA28R-180, PA28R-200, PA28R-200T, PA28R-201, PA28RT-201, PA28R-201T, PA30, PA-34-200, PA39, PA44-180, PA44-180T	Piper 460-630 Brackett BA-105	08-00717-1	---

# CHALLENGER AIR FILTERS

## CHALLENGER AVIATION HIGH-FLOW AIR FILTER W/ K&N FILTER MEDIA

(CONTINUED FROM PREVIOUS PAGE)

Model	Application	Installation	Part No.	Price
CPE-1957	Piper - PA23-235A, PA23-235B, PA23-250B, PA-24 S/N 1479 and up, PA24-180 S/N 1477 and up, PA24-250 S/N 1477 and up, PA24-260, PA25-150, PA25-235, PA25-260 PRIOR TO S/N1477, PA28-140, PA28-150, PA28-160, PA28-180, PA28-181, PA28RT-201T, PA28-235, *PA32-260, *PA32-300 S/N 32-7640001 & UP, *PA32R-300, *PA32RT-300, *PA32RT-300T, *PA32R-301 (SP), *PA34-200T, *PA34-220T, *PA36 W/ Cont. *Cover plate cpe-0528 may be required when replacing brackett filter.	Fram CA-161PL, Piper 460-632, Brackett BA-104, PURO AFP-2, AC-6485710	08-00721-1	---
CP-1150	Piper - J3, J3C-65, J3C-65S, J5A, J5A-80, PA-11, PA-11S, PA-12, PA-12S, PA-16, PA-17, PA-18, PA-18A, PA-18S, PA-18-105, PA-20-115 PA-20-135, PA-22-108, PA-22-135, PA-22-150, PA-22-160, PA-38-112 P/N CP-3274 Is the install kit. Use P/N CP-2402 to replace gasket at annual.	Brackett BA-4106, Piper 460-638	08-00843	---
CPE-1956	Piper - PA28-151, 161 REPLACEMENT GASKET P/N CP-2604.	Brackett BA-16, Piper 560-679	08-01033	---
CP-3202	Piper - PA-31-300, PA31-310, PA-31-325, PA-31-350, PA-32RT-300T	460-817 560-747 P10-6590	08-07405	---
CP-1150	Reims/(Cessna) F150G, F150H, F150J, F150K, F150L, F150M, FA150K, FA150L, F152, FA152 P/N CP-3274 Is the install kit. Use P/N CP-2402 to replace gasket at annual.	Cessna C294510-0201 Brackett BA-4106 Donaldson P10-7150	08-00843	---
CP-1172	Reims/(Cessna) - F172D, F172E, F172G, F172H, F172K, F172L, F172M P/N CP-3274 Is the install kit. Use P/N CP-2302 To replace gasket at annual.	Cessna C294510-0301 Brackett BA-5110 Donaldson P10-7172	08-00902	---
CPE-1220	Robinson - R-44	Robinson C771-1	08-00720-1	---
CP-4422	Robinson - R44 II	C-771-2	08-07380-1	---
CPE-1104	Robinson - R-22	Robinson A771-1 Brackett BA-110	08-01021-1	---
CP-2100	Rockwell Commander - 100-180, 112, 112b	124748-019 Brackett BA-3910	08-05915	---
CP-1172	Socata - TB9, TB10 P/N CP-3274 Is the install kit. Use P/N CP-2302 To replace gasket at annual.	Brackett BA-5110	08-00902	---
CP-1150	Taylorcraft - BF65, BF12-65, BFS65 P/N CP-3274 Is the install kit. Use P/N CP-2402 to replace gasket at annual.	Brackett BA-4106	08-00843	---
CP-1150	Tiger Aircraft/Lic/Gulfstream American - AA-1, AA-1A, AA-1B, AA-1C, AA-5 P/N CP-3274 Is the install kit. Use P/N CP-2402 to replace gasket at annual.	Brackett BA-4210 AMS13202	08-00843	---
CP-1960	Tiger Aircraft / Gulfstream American - AA5A	Brackett BA-19	08-07307	---
CP-1958	Tiger Aircraft/Gulfstream American - Tiger Aa-5b	Brackett BA-4106	08-01022-1	---
CP-1150	Univair - A-2, A2A (FORNEY) F-1, F-1A - P/N CP-3274 Is the install kit. Use P/N CP-2402 to replace gasket at annual.	Brackett BA-4106	08-00843	---
CP-1150	Globe/Swift - Swift GC-1A, GC-1B P/N CP-3274 Is the install kit. Use P/N CP-2402 to replace gasket at annual.	Brackett BA-4106	08-00843	---
CP-2010	Waco Aircraft - UPF-7	22756-B	08-07389-1	---

## CHALLENGER AIR FILTER ACCESSORIES

Aircraft	Type	Challenger Part No.	Part No.	Price
CP-2003 Beech Bonanza	Gasket	CP-2502	08-01041	---
CP-2055 Beech Baron 55, A55, B55	Gasket	CP-1505	08-07357	---
CP-2175 Cessna 175, 175A-C	Gasket	CP-2775	08-07358	---
CP-2182 Cessna R182, TR182, T182	Gasket	CP-2782	08-07360	---
CP-1150 Cessna 140, 150, 152	Gasket	CP-2402	08-01043	---
CP-1172 Cessna 170, 172	Gasket	CP-2302	08-01044	---
CP-1182 Cessna 180, 182, 185	Gasket	CP-2602	08-01045	---
CP-1177 Cessna Cardinal 177	Gasket	CP-1504	08-01264	---
CP-1178 Cirrus SR-20, SR22	Gasket	CP-2902	08-07364	---
CP-1176 Mooney 20E, F	Gasket	CP-2802	08-01047	---
CP-1174 Mooney M20J	Gasket	CP-2202	08-01048	---
CP-5502A Air Tractor AT-502A / AT-602	Gasket	CP-2705	08-07361	---
CP-5502 Air Tractor AT-402/502/502B/503A	Gasket	CP-2704	08-07359	---
CPE-1956 Piper PA-28-151, 161	Gasket	CP-2604	08-01046	---
CPE-1957 Piper Oval Cover	Gasket	CP-2102	08-01049	---
CPE-1040 Piper Round	Gasket	CP-2702	08-01050	---
All Models	Re-Charger Kit	CP-99-5050	08-05884	---
* Various Models	Sealing Grease	CP-99-0704	08-04954	---



### CHALLENGER RE-CHARGING KIT

Challenger's recharger kit includes non-aerosol bottles of air filter cleaner and air filter oil for recharging air filters. Restores airflow efficiency.

P/N 08-05884



### CHALLENGER SEALING GREASE

K&N Sealing Grease provides an airtight fit around sealing surfaces on all types of air filter elements. It resists heat and will not melt or run off. K&N sealing grease is not to be used on clamp-on filter elements. 6 oz. Squeeze Tube. ....P/N 08-04954

If you do not see your application here, or for more CHALLENGER AIR FILTER ACCESSORIES, please call or VISIT OUR WEBSITE AT [www.aircraftspruce.ca](http://www.aircraftspruce.ca)

# BRACKETT AIR FILTERS



The specially treated polyurethane element in the Brackett filter assures near total protection from any foreign material entering the system. Repels water, fire retardant and has good air flow for proper fuel/air ratio. Has no pleats to collect dirt. Low-cost maintenance with increased engine life. FAA approved. Replace original air filter unit with a Brackett assembly. Thereafter, throw away element and replace with new one at minimal cost.

Aircraft Model Assembly	Air Filter P/N	Assy Price	Element P/N	Element Price
<b>Aero Commander:</b> A9, A9A, A9B	BA104	---	BA3	---
100-100A	BA8910	---	BA8905	--
100-180,112,112A,112B	BA3910	--	BA3905	---
112TC,112TC-A,114,114A	BA4010	---	BA4005	--
500A-B,560F,680F,FL,FLP,500U	BA151	--	BA151E	--
560, 560A, 560E, 680 - L	BA2610L	---	BA2605L	---
560, 560A, 560E, 680 - R	BA2610R	---	BA2605R	---
<b>Aircoupe:</b> 415C, CD, D, E, G	BA8810	---	BA8805	---
F-1, A-1, A2-2	BA4106	--	BA4108	--
<b>Beech:</b> 23, A23, A23A, A23-19	BA104	---	BA3	---
A23-19A, A-23-24, B23	BA104	---	BA3	---
C-23, C24R, A24R, B24R, B19	BA7510	---	BA7305	--
33, A33, B33, C33, E33, F33	BA7110	--	BA7112	--
C33A,E33A,E33,F33A,F33C,G33	BA7210	--	BA7112	--
35, A35, B35 thru S/N2605	BA7310	--	BA7305	--
B35,C35,D35,E35,F35,G35,H35,J35	BA7110	--	BA7112	--
K35, M35, N35, P35, 35R	BA7110	--	BA7112	--
S35 thru S/N D7671	BA7410	--	BA7112	--
S35, V35, V35A, V35B,36,A36	BA7210	--	BA7112	--
A36TC, B36TC, A45(T-34)	BA7210	--	BA7112	--
B45((T-34A), D45(T-34B)	BA7210	--	BA7112	--
W/STC SA1450 SW Cont.IO-52O	BA7210	--	BA7112	--
E50 (L-23D, RL-23D),F50	BA100	---	BA7	---
55, A55, B55	BA7610	---	BA7605	---
G50, H50, J50	BA100	---	BA7	---
C55, D55, E55, 355	BA6210-1	--	BA6205	---
S/N TE768-1078 58 thru S/N TH 740	BA6210-1	--	BA6205	---
E55, 355A, SN TE-1079 & up	BA7710	---	BA7705	---
58, 58A, SN TH741 & up	BA7710	---	BA7705	---
A65, 70, 65-B80, B88	BA100	---	BA7	---
76	BA7010	--	BA7005	--
77	BA2010	--	BA6108	---
95, B95, B95A, D95A	BA7810	---	BA7805	---
<b>Bell:</b>				
47G-2, 47G2A, 47G2A-1, 47G-3, 47G-3B	BA102	---	BA2	--
47G-3B-1, 47G-3B-2, 47G-3B 2A, 47J, 47J-2	BA102	---	BA2	--
47J-2A,47G-3B,47G-3B,47G-3B-1	BA102	---	BA2	--
47G-3B-2,47G-4,47G-4A,47G-5,47J-2,47J-2A	BA103	---	BA9	--
<b>Bellanca:</b> 14-19-3A, 17-30	BA8110	---	BA8103-1	---
17-30A	BA104	---	BA3	---
<b>Brantly:</b> B-2, B-2B	BA104	---	BA3	---
<b>Cessna:</b> 340,340A,402C,414,414A	BA109	---	BA22	---
402B,SN0801 & after,421,T310R	BA108	---	BA13	---
421A, 421B, 421C, T310R	BA108	---	BA13	---
337, 337A-H, R172K, F337E-336,T41B-D	BA111	---	BA24	---
P337, T337 Rear Engine,172RG	BA5810	--	BA5805	---
R182, TR182, T-182, FR182	BA2510	---	BA2505	---
190, 195, 195A, 195B	BA8410	---	BA8405	---
120,140,140A,150,150A-M,152,152A	BA4106	---	BA4108	---
170, 170A-M,172, 172A-M	BA5110	---	BA6108	---
172N, 172P, F172N, F172P	BA5110A	---	BA6108	---
175, 175A-C, L-19	BA101	---	BA8	---
177, 177A, B, RG, F177RG	BA5710	---	BA5705	---
180 ('53-'55)	BA8010	---	BA8005	---
180A-K, 182, 182A-R, F182P, F182Q	BA8110	---	BA8103-1	---
185,185A-E,A185E,A185F	BA8110	---	BA8103-1	---
188, 188A	N/A	--	BA14	---
205,205A,210,210A,B,C,310A,B,C,D	BA2110	---	BA2305	---
P206A-E, U206A-G, 207, 207A	BA2210L	---	BA2205-L	--
210D-N (to SN 64535 w/o air)	BA2210L	---	BA2205-L	--
210D-N (to SN 64535 w/o air)	BA2210R	---	BA2205-R	---
210N (SN645436 & up w/air), 210R, T210F-N	BA2410	---	BA2405	---
P210 All	BA8710	--	BA8705	---
310F thru L	BA2310	---	BA2305	---
310N-Q, T310P, T310Q, 401 S/N 145-401B S/N 221, 402 S/N 145-402B S/N 800	BA107	--	BA12	--
310R	--	--	BA117	---
F150GthruM,FA150K-L,F152,FA152	BA4106	---	BA4108	---
R172K, FR172E-K	BA111	---	BA24	---
TP206,TP206A-E,TU206A-G, T207, T207A	BA2410	---	BA2405	---
411, 411A	BA-3810	--	BA3805	--
Bobcat T-50, AT-17, UC-78, JRC-1	N/A	---	BA2705	---

# BRACKETT AIR FILTERS

Aircraft Model Assembly	Air Filter P/N	Assembly Price	Element P/N	Element Price
<b>Champion:</b> 7GC,7GCA,7GCBC,7HC	BA104	---	BA3	---
8KCAB, 8GCBC, 7KCAB, 7GCBC, 7GCAA	BA8110	---	BA8103-1	---
7GCAA, 7GCBC, 7KCAB, 8KCAB, 7ECA	BA106	---	BA11	---
7ECAw/Cont.0-200-, 7ACA, 7ECA, 7FC, 65CA	BA4106	---	BA4108	---
<b>Cirrus:</b> SR20 & SR22 Non-Turbo	BA111	---	BA24	---
<b>DeHavilland:</b> DHC-2 (L-20)	BA8210-1	---	BA8205	---
<b>Great Lakes:</b> 2TIA-2	BA101	---	BA8	---
<b>Helio:</b> H295	N/A	---	BA21	---
<b>Hiller:</b> UH-12, UH-12-E	BA102	---	BA2	---
<b>Grumman American</b>				
AA-1,AA-1A,AA-1B,AA-5,AA- 1C,AA-5	BA4210	---	BA4108	---
AA-5B-Tiger, GA-7, G164B	N/A	---	BA20	---
AgCat, G164, G164A	BA8210	---	BA8205	---
AA5A	N/A	---	BA19	---
<b>Hughes:</b> 269A,269A-1,269B-C	BA102	---	BA2	---
<b>Lake:</b> LA4, LA4-200	BA3110	---	BA7305	---
<b>Luscombe:</b> 8, 8A thru 8F, T8F	BA4106	---	BA4108	---
<b>Maule:</b> M-4-210T, M-5-210C	BA111	---	BA24	---
M-4-210,M-4-210C,M-4-210-S	BA111	---	BA24	---
MA-4, M-4C, M-4S, M-4T	BA6110	---	BA6108	---
M-4-220, M-4-220C, M-4-220S	BA6110	---	BA6108	---
M-4-220T, M-4-180C, M-4-180S	BA6110	---	BA6108	---
M-4-180T, M-5-220C, M-5-235C	BA6110	---	BA6108	---
M-5-180C, M-5-210C, M-6-180	BA6110	---	BA6108	---
M-6-235, MX7-180, M-7-235	BA6110	---	BA6108	---
<b>Mooney:</b> M-10	BA4106	---	BA4108	---
M-18C	BA5110	---	BA4108	---
M20, M20A, B, C, D, G	BA6110	---	BA6108	---
M20E, F	BA6310	---	BA6305	---
M20J	BA6210	---	BA6205	---
<b>Navion:</b> A with (E) Series Engines	BA113	---	BA25	---
B: G, H, or with 10-470	BA4310	---	BA4305	---
<b>North American:</b> AT6 (SNJ)	N/A	---	BA8305	---
<b>Partenavia:</b> P68, P68B, P68C	N/A	---	BA162E	---
<b>Piper:</b> 600, 601	N/A	---	BA4	---
J-3,J-4,J5,PA-11,11S,12,12S,16,17	BA4106	---	BA4108	---
PA-18,19,20,115,135,PA-22-ALL	BA4106	---	BA4108	---
PA-18-"150",18A-"150",18S - "150",18S-"150"	BA112	---	BA13	---
SN18-6964 & up w/TCDS Item 110 Installed	BA112	---	BA13	---
PA-23,160,24-180 up to SN1476	BA3110A	---	BA7305	---
PA-24-250 up to SN 1476	BA3210	---	BA3205	---
PA-23-235, 250, PA-25-235, 260	BA104	---	BA3	---
PA-28-140, 150, 160, 180, 235	BA104	---	BA3	---
PA-28-181, 201T, PA-28R-201T	BA104	---	BA3	---
PA-28RT-201T, PA-32-260,	BA104	---	BA3	---
PA-23-250,E23-250,SN27 2505 & up	BA115	---	BA15	---
PA-23-250, E23-250, w/Turbo Lyc.	N/A	---	BA3505	---
PA-23-250 w/Air Research Turbo	N/A	---	BA8605	---
PA-24-180 & PA-24-250 SN1477 & up	BA104	---	BA3	---
PA-24-25 SN103-1476 w/Piper Kit 754-285 Install	BA104	---	BA3	---
PA-24-260 SN4000-4802 except 24-4783	BA104	---	BA3	---
PA-32-300 SN76-40001&up	BA104	---	BA3	---
PA-32R-300,PA-32RT-300,PA-32R-301	BA104	---	BA3	---
PA-34-200T, 220T	BA104	---	BA3	---
PA-28R-201,PA-28RT-201,PA-28R-180, PA-28R-200	BA105	---	BA10	---
PA-28-236 S/N 28-7911283 & Up	BA2910	---	BA2905	---
PA-30-160	BA105	---	BA10	---
PA-31P, 31P-350	N/A	N/A	BA3305	---
PA-38	BA4106	---	BA4108	---
PA-28-151,161	N/A	N/A	BA16	---
PA-28-236 SN 28-7911283 & up	BA2910	---	BA2905	---
PA30, with Ray Jay Turbo	BA121	---	BA27	---
PA31, PA-31-300, -310, -325,-350	BA100	---	BA7	---
PA-31P, 31P-350	N/A	N/A	BA3305	---
PA-32-300 w/I0-540-K1A5	BA115	---	BA15	---
PA-32RT-300T	BA100	---	BA7	---
PA-32-301T, 32R-301T	BA100	---	BA7	---
PA-34-200w/LYCI0360C01ES or LI0-360-C1E6	BA105	---	BA10	---
PA-44-180T	N/A	N/A	BA3505	---
<b>Robinson:</b> R22	BA110	---	BA23	---
<b>Stearman:</b> All Series 75	BA118	---	BA18	---
<b>Stinson:</b> 108, 108-1, -2, -3	BA9110	---	BA9105	---
<b>Swift:</b> GC-1A, GC-1B	BA4106	---	BA4108	---
<b>Taylorcraft</b>	BA4106	---	BA4108	---
<b>Varga:</b> 2150A	BA4106	---	BA4108	---
<b>Vultee:</b> BT-13	RA2810	---	BA2805	---

SEE WWW.AIRCRAFTSPRUCE.CA FOR REPLACEMENT BRACKETT AIRFILTER GRILLS & GASKETS

Prices Subject to Change without Notice - Valid as of June 1, 2024.  
Please view our website for current prices.

**WWW.AIRCRAFTSPRUCE.CA**

# DONALDSON AIR FILTERS



Donaldson has been the OEM source for Cessna, Piper, Beechcraft, and Maule & Mooney since the 1960's. They currently supply Cessna all of their SE Piston aircraft filters, Beech Bonanza & Baron filters, Mooney & Maul with their filters. For Piper they currently supply all of their Turbo charge aircraft with filters. Aircraft Spruce is a factory authorized distributor for Donaldson filters.

**Features:** • High Performance Engine Intake Filters • Synthetic media: offers improved air flow and better dust capturing efficiency • Engineered to last 500 Flight Hours • Washable filter element, use compressed air/warm soapy water • Clean installation: dry media, no sticky/messy oil to trap dirt • OEM choice for GA aircraft for over 30 years • Meets All Flammability requirements per FAR 23.853 • Solid Construction with no removable parts-no loose screens, elements or screws • Exceptional wet weather performance, no oil to wash away in wet weather • Moisture passes thru the filter, doesn't build up an oiled surfaces (no oil present) • All filters starting with "P" feature our Premium Synthetic filter media • No Airworthiness Directives against Synthetic media filters • Cost efficient over the life of the filter, 3 years, 500 FH 5 cleanings

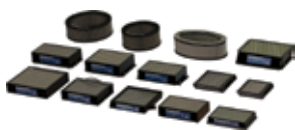
Only filters with \* after part number have cellulous media

Donaldson	OEM	Description	Part No.	Price
P107150	C-294510-0201, 13203	C-150/152 & Various others Engine Intake air filter	08-06027	---
P107172	C-294510-0301, 13219	C-170/172 Engine Intake air filter	08-06024	---
P15-1936	PS600073 / 561-020	Piper PA-32R *(Engine Intake air filter)	08-06029	---
P107336	C-294510-0401	C-172XP/ 337 Engine Intake air filter	08-06038	---
AM102035FP	C-294510-0501	Engine Intake air filter	08-06052	---
P106150	0750038-4	C-180/182/185 Engine Intake air filter	08-06023	---
P131367	C-294510-0901	TR182/182R Engine Intake air filter	08-06042	---
AM102135FP	1250704-3	C-206/207/210 Engine Intake air filter	08-06033	---
AM102235FP	1250704-4	C-210 Engine Intake air filter	08-06046	---
P107210	1250846-1	T206/T207/T210 Engine Intake air filter	08-06047	---
P131364	C-294510-0801	T210N/P Engine Intake air filter	08-06049	---
P108421	99100181	T310/320/335/401/402/421 Engine Intake air filter	08-06056	---
P109337	C-294510-0701	337/T337 Engine Intake air filter	08-06051	---
AM102035FP	C-294510-0501	Engine Intake air filter	08-06052	---
AM102735EA	9910018-2	310/401/402 Engine Intake air filter	08-06054	---
AM102935EA	9910200-1	310R Engine Intake air filter	08-06055	---
P128156	9913001-1	340/414 Engine Intake air filter	08-06028	---
P128157	9910141-1	404 Engine Intake air filter	08-06057	---
EBG03-0001	C-294501-0101	Instrument Air Filter Assembly, Cover & Filter element	08-06059	---
P105290	C-294501-0203	Replaceable instrument Instrument air filter only, part of EBG03-0002 assy	08-06060	---
AM103435IA	C-294501-0301	Instrument Air Filter	08-06035	---
AM103535IA	C-294501-0302	Instrument Air Filter	08-06036	---
P130374	45-91210, 13917	Debonair & Early Bonanza Engine Intake air filter	08-06062	---
P105304	35-380035-5, -1	Bonanza Engine Intake air filter	08-06032	---
P137627	35-380035-7	Bonanza Engine Intake air filter	08-06026	---
P136680	105-389000-3	B76 Engine Intake air filter	08-06063	---
P133881	P13-3881	B77 Engine Intake air filter	08-06064	---
P128219	P12-8219, 122601, AM101020FP	95-55, A55, B55 Baron Engine Intake air filter	08-06065	---
P127996	P12-7996, 121128-2, AM101120FP	C55, D55, E55 & 58 Baron Engine Intake air filter	08-06066	---
P12-8167	96-389005-1	E55 & 58 Baron Engine Intake air filter	08-06025	---
P108700	50-389070-15	Duke Engine Intake air filter	08-06067	---
P124439	50-389070-23	58P Baron Engine Intake air filter	08-06069	---
P105798	50-389070-11	A65, 70, B80 Engine Intake air filter	08-06070	---
EBG03-0003	205538-089	Instrument air filter	08-06072	---
EBG03-0018	101-380039-1	King Air Instrument air filter	08-06034	---
P136602	560-584	PA-28-236 Engine Intake air filter	08-06074	---
P138683	560-904	PA-28-236 Engine Intake air filter	08-06075	---
P106590	560-747	PA-31 Engine Intake air filter	08-06076	---
	460-609	PA-31P Engine Intake air filter	08-06077	---
P136739	560-947	PA-32 Engine Intake air filter	08-06078	---
P138580	86881-2, 560-953	PA-44T Engine Intake air filter	08-06080	---
AM108365FP	P13-6287	M20K Engine Intake air filter	08-06081	---
204418-156	77852	Lycoming Engine Spin on oil Filter adapter	08-06037	---
P11-0172	C-294510-0601	Engine Intake air filter	08-06228	---
P198281	P198281, CA3559	172R & 172S Engine Intake Filter	08-07051	---
P198290	P198290, CA3717	182S Engine Intake Filter	08-07052	---
P197268	P197268	T206H Engine Intake Filter	08-07053	---
P13-0234	125997-010, BA6210	M20J Engine Intake Filter	08-07054	---
ED04011	600417-501	M20K (s/n 25-1000 and up) engine intake Filter	08-07055	---
ED04028	600417-503	M20M/R/S Engine Intake Filter	08-07056	---
P10-5225	C-294501-0103	Various Instrument Air Filter	08-07057	---
P617058	460-632	Oval Piper Filter PA28/PA34	08-07276	---
P617053	460-630	Round Piper Filter PA28/PA44	08-07277	---
P617774	460-629	Round Piper Filter PA23/32	08-07278	---
--	9546982 HBC, 6260A77 M0	Mooney M20J & M20K Air Filter Assembly Cover & Filter	08-15994	---
3034292WFC	3034292, 3034293, Alternate P-1010	Pratt & Whitney (Various Aircraft)	08-15978	---
WF334552	3029268 Alternate 3028856, 3029267 P-1018	Pratt & Whitney Canada (Various Aircraft)	08-15979	---
WF336238	3038142 P-1139	3038142 P-1139	08-15983	---

VISIT OUR WEBSITE FOR COMPLETE AIRCRAFT APPLICATION INFORMATION.

# TEMPEST AIR FILTERS

## TEMPEST AEROGUARD™ INDUCTION AIR FILTERS FAA-PMA



Tempest AeroGuard™ induction air filters are approved on a variety of Cessna, Piper, Beechcraft and Mooney aircraft. They are manufactured using a black anodized aluminum housing and screen to prevent corrosion and fragmented media from being ingested. Designed to keep your induction system clean in the dirtiest environments, the synthetic media offers maximum airflow while still filtering out 99% of contaminants larger than 5 microns. These induction air filters will provide you with the high quality and durability you've come to expect with Tempest products.

**Features:**

- No minimum purchase order • Black Anodized Aluminum Housing • Greater media surface area provides maximum airflow for longer service intervals.
- Greater than 99% of contaminants larger than 5 microns are filtered out.
- Reusable and washable synthetic media maximizes airflow and filters contaminants more effectively.
- Screen design prevents fragmented media from being ingested, improving safety, complying with FAR23.1107 (b).

Description	Donaldson	Brackett	Application	Part No.	Price
AA10-6150	P10-6150	BA-8110	<b>Alexandria Aircraft Bellanca:</b> 14-19-3A, 17-30 <b>American Champion:</b> 7GCAA, 7GCBC, 7KCAB, 8KCAB, 8GCBC <b>Textron Aviation (Cessna):</b> 180A/B/C/D/E/F/G/H/J/K, 182, 182A/B/C/D/E/F/G/H/J/K/L/M /N/P/Q/R/S/T, T182T, 185, 185A/B/C/D/E, A185E, A185F, F182P/Q	08-17231	---
AA617058	P617058		<b>Alexandria Aircraft Bellanca:</b> 17-30A <b>Beechcraft:</b> 19A, 23, A23, A23A, A23-19/24, B23 <b>B-N Group:</b> BN-2, BN-2A, BN-2A-2/3/6/8/9/20/21/27, BN-2B-20/21/26/27 <b>Piper Aircraft:</b> PA-23-235/250, PA-24, PA-24-250/260, PA-28-140/150/160/180/181/ 201T/235, PA-28R-201T, PA-28RT-201T, PA-32-260/300/301/ 301FT, PA-32R-300, PA-32RT-300, PA-32R-301 (SP), PA-32R-301 (HP), PA-34-200T/220T, PA-36-285/300/375	08-17232	---
AA10-7172	P10-7172	BA-5110	<b>Textron Aviation (Cessna):</b> 170, 170A/B, 172, 172A/B/C/D/E/G/H/K/L/M/N/P /Q, 172F (USAF T-41A), 172H (USAF T-41A), F172D/E/F/G/H/K/L/M/N/P <b>Diamond:</b> DA 40 F <b>Maule:</b> M-4, M-4C/S/T, M-4-180C/S/T, M-4-220, M-4-220C/S/T, M-5-180C, M-5-210C/TC, M-5-220C, M-5-253C, M-6-180, M-6-235, M-7-235, MX-7-180, MX-7-160 <b>Mooney:</b> M-18C, M20, M20A/B/C/D/G	08-17233	---
AA1034351A	---	---	---	08-17234	---
AA12-8167	P12-8167		<b>Textron Aviation Beech:</b> E55, E55A, 58	08-17235	---
AA1035351A	---	---	---	08-17236	---
AA10-7150	P10-7150	BA-4106	<b>Aeronca:</b> (Army L-3F) 65-CA, S-65-CA <b>American Champion:</b> 7AC, 7ACA, S7AC, (Army L-16A) 7BCM, (Army L-16B) 7CCM, S7CCM, 7DC, S7DC, 7EC, S7EC, 7ECA, 7FC, 7GCAA, 7GCBC, 7JC, 7KC, 7KCAB <b>American General:</b> AA-1, AA-1A/B/C, AA-5 <b>Augustair:</b> 2150A <b>Aviat Aircraft:</b> A-1 <b>Textron Aviation (Cessna):</b> 120, 140, 140A, 150, 150A/B/C/D/E/F/G/H/J/K/L/M, A150K/L/M, 152, A152, F150G/H/J/K/L/M, F152, FA150K/L, FA152 <b>Swift:</b> GC-1A/B <b>Luscombe:</b> 8, 8A/B/C/D/E/F, T-8F <b>Mooney:</b> M10 <b>Piper Aircraft:</b> J-3, J3C-65, J3C-65S, J4A, J4A-S, J4E (Army L-4E), J5A (Army L-4F), J5A-80, PA-11, PA-11S, PA-12, PA-12S, PA-16, PA-17, PA-18, PA-18A/S, PA-18 "125" (Army L-21A), PA-18S "125", PA-18AS "125", PA-18 "135" (Army L-21B), PA-18S "135", PA-18AS "135", PA-18 "150", PA-18A "150", PA-18S "150", PA-19 (Army L-18C), PA-18A (Restricted), PA-18A "135" (Restricted), PA-18A "150" (Restricted), PA-20, PA-20 "115", PA-20 "135", PA-22, PA-38-112 <b>Taylorcraft:</b> BC-65, BCS-65, BC12-65 (Army L-2H), BCS12-65, BC12-D1, BCS12-D1, BC12D-85, BCS12D-85, BC12D-4-85, BC-S12D-4-85, BF-65, BFS-65, (Army L-2K) BF12-65, 19, F19, F21, F22, F22A/B/C, (Army L-2, L-2C) DC-65, (Army L-2A, -2B, -2M) DCO-65 <b>Univair:</b> F-1, F-1A, A-2, A2-A	08-17237	---
AA198290	---	---	<b>Cessna Aircraft:</b> 182S <b>Cirrus Aircraft:</b> SR20	08-17390	---
AA12-4439	P12-4439	---	<b>Textron Aviation (Beech):</b> 58P/TC	08-17238	---
AA617053	P617053		<b>Piper Aircraft:</b> PA-28R-180/200/201, PA-28RT-201/201T, PA-30, PA-34-200, PA-39, PA-44-180	08-17239	---
AA10-5304	P10-5304	---	<b>Textron Aviation (Beech):</b> 35-C33A, E33A, F33A, F33C, G33, S35, V35, V35A, V35B, 36, A36, V35TC	08-17240	---
AA12-7996	P12-7996	BA-6210-1	<b>Textron Aviation (Beech):</b> 95-C55, 95-C55A, D55, D55A, E55, E55A, 58	08-17241	---
AA617774	P617774		<b>Piper Aircraft:</b> PA-23-250, PA-E23-250, PA-32-300	08-17242	---
AA13-1367	P13-1367	BA-2510	<b>Textron Aviation (Cessna):</b> R/T/TR182	08-17243	---
AA13-0374	P13-0374	BA-7110	<b>Textron Aviation (Beech):</b> 35-33, 35-B33, 35-C33, E/F33, B/C/D/E/F/G/H/J/K/M/N/P35	08-17244	---
AA11-0172	P11-0172	BA-5710	<b>Textron Aviation (Cessna):</b> 177, 177A/B/RG	08-17245	---
AA8994656	---	---	<b>American Champion / Grumman:</b> AA-5B and GA-7	08-17578	---
AA10-3260	---	---	<b>Van's Airbox:</b> FAB-320-1 and FAB-360/540	08-17579	---
AA10-3450	---	---	<b>Van's Airbox:</b> FAB-320-1 and FAB-360/540	08-17580	---

# AIR FILTERS

## PLEATED PAPER AIR FILTERS



These pleated paper aircraft induction air filters are manufactured in South Africa and are fully approved by the South African Dept. of Transport, Division of Civil Aviation. Strict quality control standards are enforced at all stages of manufacture. The filters feature aluminum frames and cured EA131 pleated elements with 96% micron rating. Rubber gaskets are waterproof, oil solvent, and chemical resistant. Mesh overlays are of stainless steel for enhanced strength, durability, and appearance. Not FAA approved at this time.

Part No.	AC Equivalent P/N	Aircraft Type	Price
08-14639	124748-019 (No Gasket)	Aero Commander 100-180, 112, 112A, 112B	---
08-14638	124748-019 (121262-7)	Aero Commander 100, 100A	---
08-14640	124748-036 (615045-1)	Aero Commander 112TC, 112TCA, 114, 114A	---
08-14641	361-200 (126053-002)	Aero Commander 500	---
08-00018	P10-5304	Beech 36	---
08-00020	P12-8219 (122601)	Beech 55	---
08-00019	P12-7996 (121128-2) TE946 thru TE1078 TH1 thru TH740	Beech 58	---
08-14646	P13-6680 (105-389000-3)	Beech 76	---
08-14647	P13-3881	Beech 77	---
08-00023	P12-8167 (96-389005-1) TE1079 & after TE741 & after	Beech E55 & 58 Late Model	---
08-14644	P10-2646 (35-0035-3) Maze 122943-1	Beech S35	---
08-00000	C294510-0201	Cessna 150	---
08-00001	C294510-0301	Cessna 172	---
08-00002	C294510-0401	Cessna 172	---
08-00003	C294510-0501	Cessna 172 RG Cutlass	---
08-14649	P57A (AC-6486197) Maze 12009	Cessna 175, 175 A, B, C	---
08-00004	C294510-0601	Cessna 177	---
08-00007	0750038-4	Cessna 182	---
08-00006	C294510-0901	Cessna 182RG	---
08-00008	1250704-3 (Port)	Cessna 206	---
08-00009	1250704-4 (Stb)	Cessna 207	---

Part No.	AC Equivalent P/N	Aircraft Type	Price
08-00013	9910018-2	Cessna 310N, P, Q, T310P, T310Q	---
08-00014	9910200-1	Cessna 310R	---
08-00011	C294510-0501	Cessna 337	---
08-00016	9913001-1 (108)	Cessna 402 Late Model	---
08-00015	9910141-1	Cessna 414 Series	---
08-00005	C294510-0801	Cessna P210	---
08-00010	1250846-1	Cessna T206 & T210	---
08-00012	9910018-1	Cessna T310R	---
08-00021	P10-8700	Duke B60	---
08-14652	13219 (CESS-3)	Mooney M20-C, M20A, B, C, D, G	---
08-00026	125685-004	Mooney M20K	---
08-14651	004028	Mooney M20R	---
08-00022	P12-4439 (50-389070-23)	P Baron (58P)	---
08-14653	120120 (17775-00)	Piper Aztec PA-23-160	---
08-14656	460-630 (FRAM CA144PL) 638876	Piper Cherokee PA28R-201, PA28RT-201 PA28R-180, PA28R-200	---
08-00029	124997-005	Piper Navajo/ Chieftain (PA31)	---
08-14655	17775-02	Piper PA24-250 Up to S/N 1476	---
08-14657	26874-00 P11-4419	Piper PA24-260C	---
08-00033	CA161	Piper PA28 & 32 Series (PA 36 Pawnee) (PA 34 Seneca)	---
08-00035	35477-00	Piper PA28-161	---
08-14658	PA-560-904 (D-P12-8683)	Piper PA28-236 S/N 28-7911283 & up	---
08-00034	CA162	Piper PA32 & PA23	---
08-00031	560-947	Piper Saratoga (PA32-301T)	---
08-00036	CA122	Piper Super Cub (PA18)	---
08-00028	560-772	Piper Tomahawk	---
08-00030	13681-02	Piper Tri-Pacer (PA22)	---
08-00032	125196	Piper Turbo Aztec (PA23)	---

### AIR-MAZE AIR FILTERS



Filter for Continental for A-65 thru C-125\*.

P/N A40599

Filter for Lycoming O-235, O-290, some O-320 (advise aircraft application).....P/N A40599

Aeronca 7AC, 11AC.....P/N 2-849

**\*FOR NEW INSTALLATION - P/N 24306 & P/N 24308 ARE REQUIRED**

### VARI-EZE / LONG

### EZ AIR INTAKE FILTER



NAPA #2904 air intake filter (equivalent to Purolator #AFP-177 & AC #44-8C) .P/N 2904

### OVAL AIR FILTER FOR DUAL BING 54 CARBURETOR



Oil impregnated, pleated, washable, polyester air filter. Can be washed and re-oiled for years. Traps dirt and other foreign particles to keep engine clean.

Filter for Rotax 532 582 and 618 .....P/N 15-08370

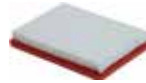
Filter for Rotax 503.....P/N 15-08343

### NAPA AIR FILTER



Air Filter for 7GCA, 7GCB, 7GC, 7HC Models. Experimental Only. Direct replacement of FRAM made by NAPA.....P/N 05-06388

### NAPA 6153 GOLD AIR FILTER



These Filters Contain 30% More Media Than OES Filters And Use A Phenolic Resin Treated Enhanced Cellulose Media Which Provides Excellent Durability Against Moisture Ingestion. When Applicable, The High-Tear Strength Polyurethane Seal Survives Extreme Hot And Cold Temperature Conditions. Air Filter Laboratory Tests Per ISO 5011 At Least 99.5% Efficiency (Based On NAPA # 2389) NAPA Gold Filters Are Recommended For OEM Air Filter Change Intervals.

**Specifications:** • Height (Inches): 1.62 in • Length: 10.68 in • Width: 7.95 in  
P/N 08-17162

### NAPA 7243 OIL FILTER



HD Oil Filters Feature a Cellulose/Poly Media w/ Contaminant Holding Capacity

**Specifications:** • Filter O.D. (Inches): 3.778 in. • Flow Rate: 28 To 30 gpm • Height (Inches): 5.962 in. • Micron Rating: 21 • Style: Spin-On Oil Filter • Thread Size: 1-1/2 in-16.

P/N 08-17161

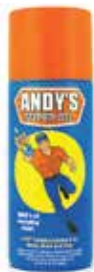
### GPL WASHABLE RE-USEABLE AIR FILTER FOR BING 54



Oil Impregnated, Pleated, Washable, Polyester Air Filter. Can be washed and re-oiled for years. Fits Bing 54 Carburetor. GPL Part # 3920 For Bing 54. 3.5" D x 4" L x 2 1/16" ID.....P/N 08-07665

EP

# LUBRICANTS – GASKETS – DEGREASERS



## ANDY'S SUPER OIL LUBRICANT

Powerful Lubrication - A 21st Century Formula. Andy's Super Oil takes advantage of the latest advances in tribology (the science of lubrication) by combining a high-quality petroleum base with the finest additives, including PTFE (commonly known by the trademarked name Teflon). PTFE is one of the most lubricious materials known and is a key element in making Andy's Super Oil the finest spray lubricant available today.

11 oz .....P/N 09-04441



## MOLYKOTE 33 BEARING GREASE

Dow Corning 33 Extreme Low Temperature Bearing Grease is a thickened silicone oil; resistant to oxidation, moisture and corrosive atmospheres, inert, good shear stability and wide service temperature range.

### Specifications:

- 5.3oz (150g) Tube.
- Base Chemistry: Silicone
- Flash Point: >101.1°C
- Service Temperature: -73 to 204°C
- Specific Gravity: 1.1 @ 25°C
- Viscosity Cp: 100 @ 25 °C

P/N 06-02342



## LOCTITE® HIGH TEMPERATURE GASKET SEALANT

LOCTITE® High Temperature Gasket Sealant is a slow drying viscous paste. It remains pliable and flexible and is designed to seal flanges, threaded connections and fasteners at temperatures from -45° C to +315 °C. It can be effectively applied to cork, paper, plastic and metal surfaces. Typical applications include sealing gaskets, flanges and threaded connections, aircraft heating systems, manifolds, pipe fittings, steam lines, gear boxes and cover plates.

P/N 09-28425



## PERMATEX FORM-A-GASKET NO. 1

Seals and repairs a wide range of gaskets. Fills in uneven flanges surfaces. Seals pipe fittings, air ducts, boilers, plumbing connections and threaded assemblies. Dries fast, sets hard for sealing permanent or rigid assemblies. Easy to apply. Improves gasket sealing power, adds reliability to rigid or permanent assemblies. Eliminates delays.

3 oz., Tube, #1B.....P/N 09-28415

11 oz, Tube, #1C .....P/N 09-28430



## PERMATEX FORM-A-GASKET NO. 2

A non-hardening, heavy-bodied, pliable sealant for semi-permanent assemblies. Use on threaded assemblies, over plates and hose connections, metal-to-metal applications. Temperature range -65° to 400° F., pressures up to 5000 PSI. Apply with putty knife or stiff bristle brush. Conforms to MIL-S-45180B Type II.

3 Oz. Tube #2B.....P/N 09-28420

11Oz. Tube #2C.....P/N 09-28400



## ANDEROL ROYCO 782 HYDRAULIC FLUID

Synthetic fire resistant "Super Clean" hydraulic fluid ROYCO 782 is a red - colored synthetic hydraulic fluid developed to meet the severe duty demands of today's military and industrial equipment. Modern additive technology is employed for oxidative stability, corrosion inhibition, and anti-wear protection. ROYCO 782 is compatible with petroleum based fluids and all components used in mineral oil type hydraulic systems. Mil-Spec: MIL-PRF-83282.

Quart .....P/N 08-07539-1

Case (24 Quarts) .....P/N 08-07539



## AVIATION FORM-A-GASKET NO. 3

Slow-drying, non-hardening brush-top sealant approved for use in aviation as well as automotive applications. Temperature range -65°F to 400°F (-54°C to 204°C); resists gasoline, oil and grease.

**Application:** Close-fitting machined surfaces, sealing hoses, solid gaskets.

Conforms to MIL-S-45180B, Type III.

4 Oz. Can #3H.....P/N 09-28500

1 Pint Can #3D.....P/N 09-28600



FLAMMABLE

## MARVEL MYSTERY OIL

Standard for break-in on new or overhauled engines and for carbon removal from cylinder heads, piston rings, valves, etc. Mix with regular oil for perfect engine operation to -20°F. Lubricates tight nuts, control hinges and landing gear. Dust repellent.

Quart.....P/N 09-27500

Pint.....P/N 09-27505

Gallon .....P/N 09-27600



FLAMMABLE

## MOUSE MILK OIL

For speedy help in removal of rusted or frozen studs, nut and bolts; frees up cables, slides and linkage; unequalled wherever a lubricant and penetrant are required. Lasting lubricating qualities.

**Attention: Volatile Organic Compounds (VOCs) Government Regulations. Product cannot be purchased, sold, or used in California.**

8 Oz .....P/N 09-39608

32 Oz .....P/N 09-39632



FLAMMABLE

## MOUSE MILK OIL PURPLE - VOC COMPLIANT

Mouse Milk Purple is a vegetable oil based VOC-compliant alternative to the traditional Mouse Milk. The Greener Alternative. For speedy help in removal of rusted or frozen studs, nut and bolts; frees up cables, slides and linkage; unequalled wherever a lubricant and penetrant are required. Lasting lubricating qualities.

8 Oz .....P/N 09-05784



## BENDIX MAGNETO GREASE

#10-27165 - Factory recommended lubricant for bearings in Bendix magnetos.

1 Lb. Can .....P/N 10-27165

#10-391200 - For use on distributor block bushing. Provides proper shaft lubrication.

8 oz. can .....P/N 10-391200

#10-86527 - High temperature breaker/cam lubricant  
P/N 10-86527



## AIM-A-SQUIRT

Aim-A-Squirt was developed out of the need to apply lubricants, corrosion inhibitors and solvents in those hard to reach areas with out getting the products all over everything. Aim-A-Squirt has been tested with hundreds of different products which have had no affect on the special plastics the straw is made of. The straw is flexible enough that it will not kink when it is twisted in a small circle.

**Features:** • Reach difficult areas with ease • Allows can to remain upright  
• Two sizes to fit most cans • 32" length .....P/N 09-02325

# CYLINDERS – PISTONS – ENGINE PREHEATERS

## CONTINENTAL CYLINDER KITS



CMI Through Hardened Steel Barrel Cylinder Kits. The genuine, through-hardened steel barrel cylinders offer you peace-of-mind with OEM quality and product support at an aftermarket price. Most kits do not include piston pins, rocker arms, valve covers, and attaching hardware.

Model No.	Engines	Part No.	Price
658175A2	TSIO520	07-20387	---
658552A2	TSIO520	07-20388	---
658552A3	IO550 A, B, C	07-20389	---
658552A4	IO520 - all	07-20390	---
658603A4	TSIO550 A, B, C, E	07-20399	---
658603A8	TSIO520BE	07-20402	---

## COMBUSTION TECH PISTONS FOR LYCOMING



All pistons manufactured by Combustion Technologies are made in the USA from high quality aluminum forgings. Their pistons are not made from castings and are designed to utilize Lycoming ring sets and piston pins so you do not need any special rings or pins.

Model Number	Description	Part No.	Price
ASC10207	Combustion Technology Piston	07-20408	---
ASC10207-P10	Combustion Technology Piston	07-20409	---
ASC10545	Combustion Technology Piston	07-20410	---
ASC10545-P10	Combustion Technology Piston	07-20411	---
ASC75413F	Combustion Technology Piston (Not FAA-Approved)	07-21501	---
ASC75413F-P10	Combustion Technology Piston (Not FAA-Approved)	07-21503	---
ASC75413F	Combustion Technology Piston (Not FAA-Approved)	07-20412	---
ASC11487-P10	Combustion Technology Piston (Not FAA-Approved)	07-21497	---
ASC11487-P10	Combustion Technology Piston (Not FAA-Approved)	07-20413	---
ASC15357-P10	Combustion Technology Piston (Not FAA-Approved)	07-21498	---
ASC9521FL	Combustion Technology Piston (Not FAA-Approved)	07-24484	---
ASC9521-FL-P10	Combustion Technology Piston (Not FAA-Approved)	07-21499	---
ASC1021-FL-P10	Combustion Technology Piston (Not FAA-Approved)	07-21500	---
ASC10007	Combustion Technology Piston (Not FAA-Approved)	07-24485	---
ASC10007 P10	Combustion Technology Piston (Not FAA-Approved)	07-24486	---
ASC15157	Combustion Technology Piston (Not FAA-Approved)	07-24487	---
ASC15157 P10	Combustion Technology Piston (Not FAA-Approved)	07-24488	---
ASC653009 P10	Combustion Technology Piston (Not FAA-Approved)	07-24489	---
ASC653009 P15	Combustion Technology Piston (Not FAA-Approved)	07-24490	---
ASC653010 P10	Combustion Technology Piston (Not FAA-Approved)	07-24491	---
ASC653010 P15	Combustion Technology Piston (Not FAA-Approved)	07-24492	---

## E-Z HEAT AIRCRAFT ENGINE PREHEATERS

Preheating engines for winter operations is at best a miserable chore and at worst can be a disaster for the plane, the pilot & flight operations - until the development of the E-Z Heat Aircraft Engine Heater. The E-Z Heat was designed to provide very efficient engine heating for virtually all propeller driven aircraft. The heaters consist of a flexible synthetic pad that easily conforms to the contours of the oil pan. This pad will heat 12 qts of oil from -40° to +60°F in an hour while using approximately 300 watts of electricity. The heater is 1/32" thick, which enables the immediate heat transfer from heater to engine.

The heaters are thermostatically controlled, so leaving them plugged in overnight means the plane will be ready to go in the morning. Normally, complete pre-heating takes only 3-5 hours for the entire engine to be nice and warm. With this new lighted plug, the owner simply needs to look out the window or peek in the hangar to see if they remembered to plug in their E-Z Heat engine pre-heater. Molded into the male plug end is a newly designed light emitting diode (LED). This LED allows the operator to visually recognize if there is electrical power to the preheat system even from a distance. FAA approved for certificated aircraft.

End your cold weather starting problems and reduce premature engine wear with the installation of our proven

### Specifications:

Power Consumption: 300 watts or less / Thermostatically Controlled  
Power Requirement: 110/120 volts (models 441 and 540 are available in 220 volts).

Installation: The adhesive is already on the pad. All you need to do is peel and stick it on! (excluding model 470)

Preheat Time: 3 to 5 hours on cold soaked engine, although, since unit is thermostatically controlled, it may be left on overnight, or all the time. Cowl covers and prop covers are recommended for extreme cold weather, they also reduce preheat time.

Lite Brite Plug: With this new lighted plug, the owner simply has to look out the window or peek in the hangar to see if they remembered to plug in their E-Z Heat engine pre-heater! (excluding model 470)

Weight: Only 9 ounces!

Heat Transfer: Convection/conduction, the safest way of heat transfer available. No flames or glowing elements are potential fire hazards.



Application	Heater #	Part No.	Price
Continental A-65 to O-200 (round). Use on round kidney shaped oil sumps	360	07-00756	---
Continental A-65 to O-200 (rectangle) Use on flat oil sump surface	270	07-05315	---
Continental C-125 to O-300, E-165 to E-225, IO-360 to TIO-360 Lycoming O-235, O-290, O-320*	440	07-05100	---
Continental O-470, IO-470, O-520, IO-520 Lycoming O-320*, O-360, IO-360, O-540, IO-540C, D, TIO-540C	441	07-05200	---
Continental O-470, IO-470, O-520, IO-520	470	07-01320	---
Lycoming IO-360A & C Series	442	07-05210	---
Continental O-470, IO-470, O-520, IO-520, IO-550 Lycoming O-540, TIO-540 (except C), IO-720	411, 440 or 540 220V	07-05345 07-05345-2	---
Model 441 - 220 Volt	441-2	07-05200-2	---

\* Except H and Rear Carbs

## E-Z HEAT 912 ENGINE PREHEATER



The E-Z Heat Engine Preheater system fits the Rotax motors and many other light sport aircraft on the market today. The system consists of two heater pads connected with a common "Light Bright" power cord. Installation is easy by peeling and sticking a pad on both the sump and on the oil tank to assure the engine gets the proper amount of heat.

P/N 07-01860

EP

# TANIS PREHEAT SYSTEMS

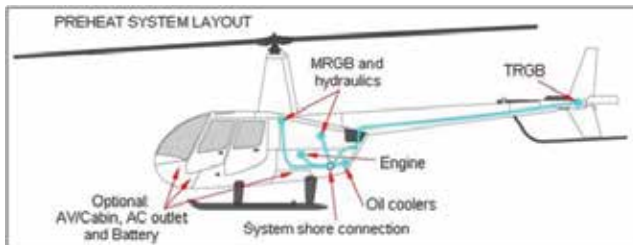
## TANIS CONTINENTAL / LYCOMING PREHEAT KITS



Engine Preheat Kit for 4 / 6 / 8 Cylinder Continental and Lycoming engines. This preheat kit contains threaded heat elements located in each cylinder assembly and one pad heat element on the engine crankcase/oil sump/tank. This multi-point configuration fully preheats the engine and attached accessories. Power is routed to the elements through a dedicated wiring assembly with LED system power indication and circuit overload protection standard. The system is self-regulating through design. Heated components reach an average state of thermal equilibrium in approximately six hours. This preheat kit is compatible with all engine monitor systems as the threaded heat elements can replace either a rocker cover screw or intake bolt fasteners. Not eligible for rotorwing aircraft (helicopters)

STC / PMA	Description	Part No.	Price
FAA-STC: # SE03232CH TCCA acceptance of FAA-STC on file. EASA-STC: # 10054417	Tanis STC Engine Preheat Kit - 4 Cylinder Continental And Lycoming - 115 Volt #SE03232CH..also TCCA & Easa Approved TSP-4CYL-2925-115	05-14825-1	---
FAA-STC: # SE03232CH TCCA acceptance of FAA-STC on file. EASA-STC: # 10054417	Tanis STC Engine Preheat Kit - 4 Cylinder Continental and Lycoming - 230 Volt #SE03232CH..also TCCA & Easa Approved TSP-4CYL-2925-230	05-14826-1	---
FAA-STC: # SE03309CH TCCA acceptance of FAA-STC on file EASA-STC: # 10054433	Tanis STC Engine Preheat Kit - 6 Cylinder Continental, Lycoming and Franklin - 115 Volt #SE03309CH..also TCCA & Easa Approved TSP-6CYL-2927-115	05-14829-1	---
PMA ONLY	Tanis Engine Preheat Kit - 8 Cylinder Io-720 - 115 Volt TSP8CYL-1045-115	05-14833	---
PMA ONLY	Tanis Engine Preheat Kit - 8 Cylinder Io-720 - 230 Volt TSP8CYL-1045-230	05-14834	---

## TANIS ROBINSON HELI-PREHEATER KITS



Preheating is accomplished using electrical resistance heat in the form of thin pads sized and shaped to fit various parts. The pads are surface mounted with a bonding adhesive. This includes engine, accessory and propeller reduction gearboxes, attached accessories, and engine oil tank. Power is routed to the heating elements through a dedicated shore power plug, circuit protection, and wiring assembly. System is self-regulating, heated components reach an average state of thermal equilibrium in approximately six hours.

Description	Part No.	Price
Tanis Heli-preheat Kit - Robinson R44 - 115 Volt Tshr44-2778-115	05-14813-1	---
Tanis Heli-preheat Kit - Robinson R44 - 230 Volt Tshr44-2778-230	05-14814-1	---
Tanis Heli-preheat Kit - Robinson R66 - Rr250-c300/a1 - 115 Volt Tshr66-3078-115	05-14815	---
Tanis Heli-preheat Kit - Robinson R66 - Rr250-c300/a1 - 230 Volt Tshr66-3078-230	05-14816	---

## TANIS PREHEAT SYSTEM FOR ROTAX 912/914 SERIES ENGINES



Engine Preheat Kit for 4 cylinder Rotax 912/914 (all models).

This preheat kit contains electrical elements located in each cylinder assembly, one threaded heat element on the engine crankcase (oil pump) and a pad heat element bonded on the oil tank. This multipoint configuration fully preheats the engine and attached accessories. Power is routed to the elements through a dedicated wiring assembly with system power indication and

circuit overload protection. System is self-regulating through design. Heated components reach an average state of thermal equilibrium in approximately six hours.

This preheat kit when installed will supply 230 watts with a 2.0 amp draw at 115/230 volts.

Standard.....P/N 08-07395-1

Europe.....P/N 08-07395-230-1

## TANIS JABIRU PREHEAT KITS



Preheating is accomplished using electrical resistance heat in the form of thin pads sized and shaped to fit various parts. The pads are surface mounted with a bonding adhesive. This includes engine, accessory and propeller reduction gearboxes, attached accessories, and engine oil tank. Power is routed to the heating elements through a dedicated shore power plug, circuit protection, and wiring assembly. System is self-regulating, heated components reach an average state of thermal equilibrium in approximately six hours.

Description	Part No.	Price
Tanis Engine Preheat Kit -Jabiru 2200 - 115 Volt TSP4CYL-2513-115	05-14821	---
Tanis Engine Preheat Kit -Jabiru 2200 - 230 Volt TSP4CYL-2513-230	05-14822	---

## TANIS AVIONICS / CABIN HEATER



Includes 6 foot long cable for easy use on floor of aircraft. Note: Extension cord to get to your aircraft or inlet/outlets not included. Output: 500 watts  $\pm$  10%. Required power: AC 100-240 Volt - 50/60 Hz. Dimensions: 6 x 5.75 x 2 inches (150 x 145 x 45 mm) Approximate. Heater Lead length: 6 inches (150 mm) Approximate.

P/N 05-14755

## TANIS 4 / 6 CYLINDER ENGINE PRESERVATION KIT



Engine Preservation Kit: recommended by engine manufacturers for storage of an engine longer than 90 days. Everything you need for long-term protection of your Lycoming & Continental engine.

4 Cylinder.....P/N 08-07085

6 Cylinder.....P/N 08-07086

## TANIS BONDING SEALANT



Conforms to MIL-A-46106. Clear must be used as the coloring dies and other added materials reduce the materials thermal transfer rates. Bonding sealant - 1 ounce tube.

P/N 08-13884

# TANIS PREHEAT SYSTEMS

Engine preheating is accomplished through electrical resistance heat in the form of thin pads sized and shaped to fit various parts. The pads are surface mounted with a bonding sealant/adhesive. Heated items include, engine accessory/reduction gearboxes, fluids, batteries and attached accessories. Power is routed to the heat elements through a dedicated wiring assembly with power indication and circuit overload protection. System is self-regulating through design. Heated components reach an average state of thermal equilibrium in approximately six hours.

Description	Part No.	Price
Cessna 208B - PT6A-140A - 115 Volt - When installed will supply 555 watts with a 4.8 amp draw at 115 volts.	05-14769-1	---
Cessna 208B - PT6A-140A - 230 Volt - When installed will supply 555 watts with a 2.4 amp draw at 230 volts.	05-14770-1	---
Twin Otter DHC-6 400 PT6A-34 - 115 Volt	05-14771	---
Twin Otter DHC-6 400 PT6A-34 - 230 Volt	05-14772	---
Gippsaero Airvan GA8 Series - W/battery & Avionics/cabin Heat - 115 Volt TSF-GA8-3120-115	05-14773	---
Gippsaero Airvan GA8 Series -W/battery & Avionics/cabin Heat - 230 Volt TSF-GA8-3120-230	05-14774	---
Quest Kodiak 100 - W/battery & Avionics/ cabin Heat - 115 Volt TSFKODIAK-3123-115	05-14775-1	---
Quest Kodiak 100 - W/battery & Avionics/ cabin Heat -230 Volt TSFKODIAK-3123-230	05-14776-1	---
Pilatus PC-12, PC-12/45, PC-12/47, Serial number (S/N): 101 thru 999 Engine: PT6A-67B. When installed will supply 703 watts with a 6.1 amp draw at 115 volts	05-14777	---
Pilatus PC-12, PC-12/45, PC-12/47, Serial number (S/N): 101 thru 999 Engine: PT6A-67B. When installed will supply 703 watts with a 3.1 amp draw at 230 volts	05-14778	---
Pilatus PC-12/47E, Serial number (S/N): 1001 - UP Engine: PT6A-67P. When installed will supply 703 watts with a 6.1 amp draw at 115 volts	05-14779	---
Pilatus PC-12/47E, Serial number (S/N): 1001 - UP Engine: PT6A-67P. When installed will supply 703 watts with a 3.1 amp draw at 230 volts	05-14780	---
P&W - R1340 - 115 Volt TSP9CYL-2904-115	05-14835	---
P&W - R1340 - 230 Volt TSP9CYL-2904-230	05-14836	---
Pratt & Whitney DHC-8 (Q400). Supplies 2838 watts with a 24.6 amp draw at 115 volts. Each engine is supplied with 1315 watts with a 11.4 amp draw at 115 volts. The 3 batteries are supplied with 208 watts with a 1.8 amp draw at 115 volts.	05-14781	---
Pratt & Whitney DHC-8 (Q400). Supplies 2838 watts with a 12.3 amp draw at 230 volts. Each engine is supplied with 1315 watts with a 5.7 amp draw at 230 volts. The 3 batteries are supplied with 208 watts with a 0.9 amp draw at 230 volts.	05-14782	---
Pratt & Whitney PT6A Small And Medium Engines (Short PRGB) - 115 Volt	05-14841	---
Pratt & Whitney PT6A Small And Medium Engines (Short PRGB) - 230 Volt	05-14842	---
Pratt & Whitney PT6A Large Engines (Long PRGB) - 115 Volt	05-14843-1	---
Pratt & Whitney PT6A Large Engines (Long PRGB) - 230 Volt	05-14844	---
Pratt & Whitney 118, 120, 121, 123 - 115 Volt	05-14845	---
Pratt & Whitney 118, 120, 121, 123 - 230 Volt	05-14846	---
Pratt & Whitney 124, 125, 126, 127 - 115 Volt	05-14847	---
Pratt & Whitney 124, 125, 126, 127 - 230 Volt	05-14848	---
Pratt And Whitney PW545A (Cessna Citation Excel) - 115 Volt	05-14849	---
Pratt And Whitney PW545A (Cessna Citation Excel) - 230 Volt	05-14850	---
Pratt & Whitney PWJT15D Series Turbofan Engines - 115 Volt	05-14851	---
Pratt & Whitney PWJT15D Series Turbofan Engines - 230 Volt	05-14852	---
Garrett TPE 331u & TPE 331 Series - 115 Volt	05-14839-1	---
Garrett TPE 331 Series - 230 Volt	05-14840-1	---
AgustaWestland A109C, A109E, A109S, AW109SP WITH PW206C/PW207C - 115 VOLT TSHAW109-2219-115	05-14787	---
AgustaWestland A109C, A109E, A109S, AW109SP WITH PW206C/PW207C - 230 VOLT TSHAW109-2219-230	05-14788	---
Rolls Royce RR250 Series Turboprop - 115 Volt	05-14853	---
Rolls Royce RR250 Series Turboprop - 230 Volt	05-14854	---

Description	Part No.	Price
Airbus TSHAS350-318 - RTB0001 Required. This Kit Is Not Eligible For An 8130-3	05-14783	---
Airbus TSHAS350-3184-230 - RTB0001 Required. This Kit Is Not Eligible For An 8130-3	05-14784	---
Airbus TSHAS350-3185-115	05-14785	---
Airbus TSHAS350-3185-230	05-14786	---
Airbus TSHEC130-3186-115 RTB0001 Required. This Kit Is Not Eligible For An 8130-3	05-14803	---
Airbus TSHEC130-3186-230 RTB0001 Required. This Kit Is Not Eligible For An 8130-3	05-14804	---
Airbus (Eurocopter) Ec 135 P1 & P2 With PW206B - 115 Volt TSHEC135-2230-115 RTB0001 Required. This Kit Is Not Eligible For An 8130-3	05-14805	---
Airbus (Eurocopter) Ec 135 P1 & P2 With PW206B - 230 Volt TSHEC135-2230-230 RTB0001 Required. This Kit Is Not Eligible For An 8130-3	05-14806	---
Airbus (Eurocopter) EC135T1/T2 With Arrius 2b/2b1/2b2 - 115 Volt TSHEC135-2765-115 RTB0001 Required. This Kit Is Not Eligible For An 8130-3	05-14807	---
Airbus (Eurocopter) EC135T1/T2 With Arrius 2B/2B1/2B2 - 230 Volt TSHEC135-2765-230 RTB0001 Required. This Kit Is Not Eligible For An 8130-3	05-14808	---
Austro AE300 - 115 Volt #SE03232CH..ALSO TCCA & EASA Approved TSP4CYL-3001-115	05-14827	---
Austro AE300 - 230 Volt #SE03232CH..ALSO TCCA & EASA Approved TSP4CYL-3001-230	05-14828	---
Jacobs (L-4) R-755 - 115 Volt TSP-7CYL-3002-115	05-14831	---
Jacobs (L-4) R-755 - 230 Volt TSP-7CYL-3002-230	05-14832	---
Bell 407 With RR250-C47B - 115 Volt #SR03474CH TSHB407-3083-115	05-14795	---
Bell 407 With RR250-C47B - 230 Volt #SR03474CH TSHB407-3083-230	05-14796	---
Bell 212, 412, 412cf, 412EP - 115 Volt #SR04132CH TSHB412-3132-115	05-14799	---
Bell 212, 412, 412CF, 412EP - 230 Volt #SR04132CH TSHB412-3132-230	05-14800	---
AgustaWestland AW119 (Koala) with PT6B-37A. 802 watts with a 7.0 amp draw at 115 volts	05-14789	---
AgustaWestland AW119 (Koala) with PT6B-37A. 802 watts with a 3.5 amp draw at 230 volts	05-14790	---
Enstrom Helicopter F-28/280 W/ Hio-360 - Standard (CHT Not Wells Required) - 115 Volt TSHEN280-2780-115	05-14809	---
Enstrom Helicopter F-28/280 W/ Hio-360 - Standard (CHT Not Wells Required) - 230 Volt TSHEN280-2780-230	05-14810	---
Enstrom 480 - 115 Volt TSHEN480-2504-115	05-14811	---
Enstrom 480 - 230 Volt TSHEN480-2504-230	05-14812	---
Schweizer/Sikorsky 269/300 - Standard (CHT Wells Not Required) - 115 Volt TSHS269-2508-771-dt-115	05-14817	---
Schweizer/Sikorsky 269/300 - Standard (CHT Wells Not Required) - 230 Volt TSHS269-2508-771-dt-230	05-14818	---
Airbus (Eurocopter) AS350D with Lycoming LTS101 - When installed will supply 587 watts with a 5.1 amp draw at 115 volts.	05-14729	---
Airbus (Eurocopter) AS350D with Lycoming LTS101 - When installed will supply 587 watts with a 2.6 amp draw at 230 volts.	05-14730	---
Oil Tank Heater Kit - 115 Volt TSP1051-115	05-14819-1	---
Oil Tank Heater Kit - 230 Volt TSP1051-230	05-14820-1	---

EP

# TANIS PREHEAT ACCESSORIES

## TANIS PAD HEAT ELEMENTS

Dims	Volt/Watts	Description	Part No.	Price
1.75"x7"	115/120	Shape: Rectangular Connector: Pin	05-14748	---
1.75"x7"	230/120	Shape: Rectangular Connector: Pin	05-14749	---
2"x3"	115/40	Shape: Rectangular Connector: Pin	05-14750	---
2"x3"	230/40	Shape: Rectangular Connector: Pin	05-14751	---
2"x4.5"	115/80	Shape: Rectangular Connector: Pin Usage: 6 cylinder piston engine sump and case	05-14752	---
2"x4.5"	230/80	Shape: Rectangular Connector: Pin Usage: 6 cylinder piston engine sump and case	05-14753	---
1.75"x7"	115/120	Shape: Rectangular Connector: Pin Usage: 6 cylinder piston engine sump and case	05-21977	---
3"x3"	115/70	Shape: Square Connector: Socket Usage: 6 cylinder piston engine sump and case	05-21978	---
4"x3.1"	115/70	Shape: Irregular Connector: Socket Usage: 6 cylinder piston engine sump and case	05-21980	---
3"x3.5"	115/80	Shape: Rectangular Connector: Pin Usage: 6 cylinder piston engine sump and case	05-21981	---
Shape Varies	115/240	Shape: Irregular Connector: Pin Usage: 6 cylinder piston engine sump and case	05-21982	---
0.9"x1.5"	115/13	Shape: Rectangular Connector: Socket Usage: 6 cylinder piston engine sump and case	05-21984	---
--	--	Cable Assembly Kit, Thermostat - 1 lead. For single battery systems.	05-21985	---
--	--	Threaded Heat Element 1-20 Socket Only 50 Watt - 115 Volt	05-22003	---
1.5" X 2"	115/28	Shape: Rectangular Connector: Pin	05-22391	---
3" X 7"	115/200	Shape: Rectangular Connector: Pin	05-22392	---

## TANIS BATTERY HEAT ELEMENTS

Dims	Volt/Watts	Connector	Part No.	Price
31.5"x4"	115/60	with socket connector	05-14731	---
31.5"x4"	230/60	with socket connector	05-14732	---
31.5"x3.5"	115/60	with socket connector	05-14733	---
31.5"x3.5"	230/60	with socket connector	05-14734	---
38.5"x4"	115/74	with socket connector	05-14735	---
38.5"x4"	230/74	with socket connector	05-14736	---
31.5"x4"	115/60	with pin connector	05-14737	---
31.5"x4"	230/60	with pin connector	05-14738	---
31.5"x3.5"	115/60	with pin connector	05-14739	---
31.5"x3.5"	230/60	with pin connector	05-14740	---
38.5"x4"	115/74	with pin connector	05-14741	---
18"x2.37"	115/20	with pin connector	05-14742	---

## TANIS THREADED HEAT ELEMENTS

Description	Part No.	Price
3/8-24 CHT (TAS100) with Socket Connector 50 Watt - 115 Volt	05-14855	---
3/8-24 CHT (TAS100) with Socket Connector 50 Watt - 230 Volt	05-14856	---
3/8-24 CHT (TAS100) with Pin Connector 50 Watt - 115 Volt	05-14859	---
3/8-24 CHT (TAS100) with Pin Connector 50 Watt - 230 Volt	05-14860	---
3/8-24 CHT Dual Probe - J Type Grounded - Red/White or Black/Yellow (TAS100T-J) with Pin Connector	05-14861	---
3/8-24 CHT Dual Probe - K Type Grounded - Red/Yellow (Tas100t-K) with Pin Connector	05-14863	---
1.0-20 Lyc. Sump Screen Bolt (Tas101) w/Pin Connector - 50 Watt - 115 Volt	05-14865	---
1.0-20 Lyc. Sump Screen Bolt (Tas101) w/Pin Connector - 50 Watt - 230 Volt	05-14866	---
1/4-20X1.00		
50 Watt - 115 Volt	05-14857	---
1/4-20		
50 Watt - 230 Volt	05-14858	---
1/4-20 with Pin Connector 50 Watt - 115 Volt	05-14868	---
1/4-20 with Pin Connector 50 Watt - 230 Volt	05-14870	---

## TANIS LED INDICATOR LIGHTS

Description	Part No.	Price
6 inch lead, Pin connector - 115V	05-14756	---
6 inch lead, Pin connector - 230V	05-14757	---
6 inch lead, socket connector - 115V	05-14758	---
6 inch lead, socket connector - 230V	05-14759	---
6 inch lead, no connector - 115V	05-22393	---

## TANIS PREHEAT PARTS

Description	Part No.	Price
Connector kit comes with all the items necessary to install one 2 contact socket connector.	05-14745	---
Connector kit comes with all the items necessary to install one 3 contact socket connector.	05-14746	---
Solid Pin Contact - For single 18 or 20 gauge wire connection 0460-202-16141	05-14701	---
Solid Pin Contact - Nickel w/green stripe - For single 18 gauge wire connection or two 20 gauge wires 0460-215-16141	05-14702	---
Solid Socket Contact - For single 18 or 20 gauge wire connection 0462-201-16141	05-14703	---
Solid Socket Contact - Nickel w/ green stripe. For single 18 gauge wire connection or two 20 gauge wires 0462-209-16141	05-14704	---
Solvent Wipe CB911	05-14711	---
4 Way Indent Crimp Tool for 16-22 AWG Wire TU02793	05-14876	---
Aluminum Spacer - 1/4" I.D. TU02846	05-14877	---
Aluminum Spacer - 5/16" I.D. TU02846-5	05-14878	---
Anti-Seize 2 Gram Pillow Pack	05-14881	---
Flush Mount Plug - Metal - 115V	05-14760	---
Flush Mount Plug - Tethered Cap	05-14762	---
Fuse, 12AMP TU02848	05-14880	---
Harness Connector (Blade Contact) CNA	05-14713	---
Battery Heat Installation Kit..- Battery Heat Element Sold Separately TSB2800	05-14766	---
Bonding Sealant 1oz. AC-1230	08-13884	---
Slotted Socket - 11mm Deep 6 Sided 1/4 Drive TU03032	05-14884	---
Bracket, Shore Plug (Continental Sandcast, AE300) TU03016	05-14883	---
Cable Tie - 8" Long, 40 lb, Black, Heat Stabilized	05-14879	---
Low Profile Cable Mount, Click Bond adhesive.	05-14874	---
18 gauge, 2 conductor - Black/Grey (BLK) and White (WHT) paired nickel coated copper wires with Red jacket.	05-14706	---
Circular Plug Bracket (Lycoming)	05-14871	---
Click Bond Installation Kit	05-14712	---
Contact Removal Tool	05-14715	---
Element Connector "Spade style" (receptacle contact)	05-14714	---
Washer Kit for LED Light TU03065	05-14885	---
Washer Thermocouple, J Type Grounded Kit.	05-14724	---
Washer Thermocouple, K Type Grounded Kit	05-14725	---
Panel Mount Fuse Holder for 1/4" x 1 1/4" Fuses.	05-14723	---
Install one 2 contact pin connector.	05-14743	---
Install one 3 contact pin connector.	05-14744	---
Placard for Tanis 115 Volt Systems	05-14872	---
Placard for Tanis 230 Volt Systems	05-14873	---
Power Door Kit (2.4) TD02840	05-14747	---
Power Plug, Free Hanging 115V TP02770-115	05-14763	---
Sealing Cap for 2 Pin Connector DT06-2S-C017	05-14716	---
Sleeving - 0.249"/0.229", Non-Fray HO #3 Red - /FT 3120003-Red	05-14707	---
Sleeving - 0.198"/0.182", Non-Fray HO #5 Red - /FT 3120005-Red	05-14708	---
Sleeving - 0.178"/0.162", Non-Fray HO #6 Red - /FT 3120006-Red	05-14709	---
Slotted Socket - 1/2" Deep 6 Sided 1/4 Drive TU02905-05	05-14882	---
Sealing Plug For 2 Pin Connector DT06-2S-C017	05-14719	---
Triangular Sealing Plug For 3 Pin Connector DT06-3S-C017	05-14721	---
6 Contact Plug Wedge	05-22396	---
Fireproof Grommet TG01056	05-14754	---
Fuse - 5 AMP	05-22395	---
Tethered Cap with Snap Ring	05-22394	---
Junction 6 Lead Kit	05-22390	---

# AIRCRAFT HEATERS – ENGINE PREHEATERS

## C & D AIRCRAFT HEATERS



Designed for upgrading obsolete aircraft heating systems or first time installation in your aircraft, C&D Installation kits include a complete group of materials necessary to replace the obsolete system or to install for the first time. Commonly used C&D heater components are shown below. For replacement heaters, request a quote by phone or email and provide aircraft make, model, and serial number.

### HEATER COMPONENTS

C & D Part No.	Description	Part No.	Price
CD12065-1	Cabin Heater	05-12002	---
CD12064-1	Cabin Heater	05-12003	---
CD14072-1	Cabin Heater	05-12004	---
CD14073-1	Cabin Heater	05-12005	---
CD14075-1	Cabin Heater	05-12006	---
CD14077-1	Cabin Heater	05-12007	---
CD14078-1	Cabin Heater	05-12010	---
CD21253	Electronic Thermostat	08-14605	---
CD21255	Rotary Thermostat	08-14606	---
CD21402	24V Motor	08-14607	---
CD21401	12V Motor	08-14608	---
CD22050	Spark Plug	08-14609	---
CD21381	24V Ignition Unit	08-14610	---
CD20800	12VDC Fuel Regulator	08-04612	---
CD20801	24VDC Fuel Regulator	08-04613	---

\*Additional Core charge

## SAFE-HEET ENGINE HEATERS



SAFE-HEET is a thin flexible pad that is bonded to the engine oil sump. The kit is complete with materials and step-by-step instructions. A log book entry is all that is required for permanent installation; No S.T.C. or 337 form required. There are no airframe modifications required. SAFE-

HEET can be used with a timer or the 707 temperature controller, and uses standard 110 A.C. voltage. We recommend using the SAFE-HEET 707 Temperature Controller to cure the adhesive for faster installation.

### ECONOMICAL AND EFFICIENT

SAFE-HEET puts the heat where it is needed with very little loss to the surrounding atmosphere. The air inside the engine is heated by the warm oil sump. The warm air goes up and the cold air goes down, your engine is heated from the inside out. It uses about 300 Watts which costs about 3 cents per hour to operate. Less than 1 hour will generally warm the engine oil from subzero to safe easy starting temperature. The entire engine will be warm in 2 to 3 hours. The adhesive is thermo-conductive, and the metal foil heatsink is vulcanized to the pad for even heat transfer. SAFE-HEET reduces costly starter and engine abuse during cold weather starts.

Model 700 Dimension: 4" x 4".....P/N 05-04420

Model 720 Dimension: 4" x 7".....P/N 05-04421

## RIEFF HOTSTRIP OIL SUMP HEATERS



HotStrip is thin and lightweight like a silicone pad, but made of aluminum for maximum durability. Works either as a stand-alone sump heater or integrated with the Hot Band Cylinder Heating Systems in the Standard, Turbo, and Turbo XP Systems. Bonds to the bottom or side of oil

sump and electrically heats the oil. Features dual heating elements for redundancy. System includes two 100W elements thermostat, and power cord.

FAA Approved for:

Lycoming O-235; All 290, 320, 360 series; All 435, 480, 540, 541 series; Continental IO-346; All 300, 600 series; E-165, E-185, E-225, All 470, 520, 550 series.

HotStrip Oil Sump Heater System: All engines above (Except Continental A-65, A-75, A-80, C-85, C-90, O-200, IO-240. These engines with oval oil sump use HotPad flexible silicone heating elements) Franklin 165, 220 .....P/N 08-00688

## VARIABLE TEMPERATURE CONTROLLER



The SAFE-HEET Variable Temperature Controller can be used with any 700 Series SAFE-HEET Engine Pre-heater as an installation aid, or for providing temperature control for continuous pre-heat without promoting internal engine corrosion.....P/N 05-04423

FOR APPLICATION INFORMATION PLEASE CALL OR VISIT OUR WEBSITE AT [WWW.AIRCRAFTSPRUCE.CA](http://WWW.AIRCRAFTSPRUCE.CA)

## RIEFF PREHEATER FOR ROTAX 912/914



The Rieff preheat system for Rotax 912 and Rotax 914 aircraft engines is an engine-mounted electric preheat system designed for easier cold-weather starts. The preheat system consists of a 100-watt metal "hot strip" element, which is epoxied to the bottom of the crankcase, and a 50-watt band heater that is clamped to the oil tank.

The Rieff is FAA approved, and includes a thermostat to keep the oil from exceeding 150° F.

Description	Part No.	Price
150 Watts 110V	08-06219	---
250 Watts 110V	08-07620	---
250 Watts 220V	08-07620-1	---
350 Watts 110V	08-07621	---

## THE SWITCHBOX REMOTE CONTROL APP



The easiest, cheapest and safest way to remote control any electrical device.

For Pilots: No more driving to the airport hours before a flight. Turn on your Engine Heater from your cellphone, and simplify your cold flying routine! TIP: Activate a 2nd device like a Cabin Heater for your sensitive avionics, or a Coffee Maker before you arrive!

For General Use: Your new 'Smart Home' with the easy automation from SwitchBox. Remote control your heating, lighting and air conditioning, from anywhere in the world. TIP: Turn On the A/C before you get home, or check to see if you left the lights On and turn them Off. Save Money! SwitchBox App for iPhone/iPad/Android - Free. Visit our website to download your copy.

The Switchbox 4G Full System.....P/N 08-17037  
Cell Service Sim Card .....P/N 08-13550  
Wired Antenna.....P/N 08-13551  
Backup Battery .....P/N 08-17035

## BRUSHLESS CABIN HEATERS



These heaters are available from 12-48 volts, and different wattages as well. The Stealth heater is simple to install and can be operational in minutes. Measuring only 6" long and 5" tall, our Stealth heater will fit in virtually any small space. RuCar

elements allow the heaters to be mounted vertically OR horizontally which allows even a tighter mounting space. The Stealth heaters feature RuCar elements which have been tested to have a life expectancy of 10,000 hours, are vacuum sealed, and are exclusive to DC Thermal. RuCar elements operate at temperatures in excess of 650 degrees, are up to 300% more efficient than standard alloy heater elements.

**Specifications:** Heater Dimensions: 6"x 5" X 4". Brushless 50,000 Hour Ball Bearing Fan. 10,000 Hour DC Thermal ©RuCar Vacuum Sealed Elements. Case Construction: Riveted T5052 Aircraft Aluminum. Wired Entirely with GXL Wire. Thermally Protected. HIGH and LOW HEAT Settings. Comes complete with mounting hardware, mounting bracket, fuse, fuse holder, electrical connector ends, and detailed instruction. TWO YEAR Parts AND Labor Warranty.

Model	Volts/Watts	BTUS	Part No.	Price
SA12-3000	12V / 360W	6012	05-02121	---
SA12-4000	12V / 480W	8016	05-01966	---
SA12-5000	12V / 600W	10,020	05-03869	---
SA24-2500	24V / 600W	10,020	05-04855	---
SA24-3500	24V / 840W	14,028	05-03870	---
SA24-4500	24V / 1080W	18,036	05-02123	---

## RANS AIRCRAFT CABIN HEATER



The RANS aircraft heater is the answer to the winter flying "chills". It is very lightweight, inexpensive and installs easily in just two hours. This heater utilizes ram air and the heat off the engine muffler. Operation is simple. Slipstream air is forced through the heater inlet, passing over the muffler, picking up the heat and deliver-

ing it to the cabin or pod via an Aeroduct hose. Contains no moving parts. Fits Rotax mufflers and adaptable to other engines. Only fits Rotax 503 and 582.

Will not fit 618.....P/N 05-17400

# OIL FILTERS – OIL SYSTEMS



## CHAMPION SPIN-ON OIL FILTERS

Spin-On Oil Filter CH48109-1 by Champion. Replaces oil filter element. Easy to install. Saves time and clean-up. FAA Approved.

**Features:** • Replacement elements service engine-mounted or line-installed filter systems incorporating a permanent housing assembly.

- All sizes of replacement elements are packed 12 per case of a single part number in heavy, re-shippable corrugated-board cartons
- Modern spin-on oil filters contain the element, incorporating the anti-drain back valve mechanism (and internal bypass valve 48108-1/48109-1), and are sealed in a disposable housing.
- All sizes of spin-on filters are packed 12 per case of a single part number in heavy, re-shippable corrugated-board cartons.
- Silicone impregnated filter gasket aids in future removal.
- Shorter stud length on CH 48110-1 for tight clearance applications.
- Heavy, corrugated steel center tube supports each convoluted pleat of the filter element and produces a substantially higher collapse-pressure rating, twice that of other similar filters.
- Maximum full-flow design, without interference from center-bolt oil filter assemblies, provides increased oil filtration each engine-operating hour.

Aircraft	Aircraft Model	Filter Part No.
Beech	E33, F33, A35 thru S35	CH48109-1
Cessna	120, 140, 170, 172, 180, 182, 185, 205, 210, 310 C thru Q, 310R	CH48110-1
Mooney	M20, M22	CH48110-1
Piper	PA-18, PA-22, PA-23, PA-24, PA-25, PA-28, PA-30, PA-31, PA-34, PA-60	CH48110-1
LSA	Lycoming 233	CH48114-1

Filter Part No.	Price	12 Pack	Price
CH48103-1	---	08-00905-12	---
CH48104-1	---	08-00906-12	---
CH48108-1	---	08-00907-12	---
CH48109-1	---	08-00908-12	---
CH48110-1	---	08-00909-12	---
CH48111-1	---	08-00910-12	---



## AIRWOLF REMOTE MOUNTED OIL FILTER KITS

The remote mount oil filter kit by Airwolf Filter Corp. replaces the Lycoming oil screen and housing allowing every aircraft to have an oil filter and to locate it on the firewall where it's easy to get to. The adapter takes up no more space on the engine than the original part, so even the tightest installations can benefit from it. Your Vernatherm and oil temp bulb are reused and transferred directly to our adapter, everything else is included. Universal STC'd kit fits any Lycoming powered Single/Multi engine airplane less than 450hp. All other STC'd for specific aircraft. **Hoses not included unless where indicated. Perfect for Tight Installations in:** \* Avion \* Aeronca \* Bellanca

\* Beech \* Cessna \* Cozy MK-IV \* Glasair \* Grumman \* Lancair \* Long EZ \* Maule \* Mooney \* Piper \* Pitts \* RV \* Skybolt \* T-18 \* Vari-EZ \* Velocity **Fits Lycoming Series Engines: 0-235, 290, 320, 340, 360, & 540**

CONTINENTAL			
Description	Part No.	Price	
Universal Continental kit. Fits: A50/65/75/80, C75/C85/C90 C125, O200, & IO240 Engines	08-05675	---	
Universal Continental Kit. Fits: C145, O300, GO300, & IO360	08-05680	---	
Universal Continental kit. Fits: O470, IO470, IO520, TSIO520, GTSIO520, & IO550 Engines (Except Below) This kit screws into the existing oil pump and replaces the original oil screen.	08-05685	---	
Universal Continental Kit. Fits: O470 Military Engines used on T34 Mentor & L-19 Birdogs.	08-05690	---	
Universal Continental kit. Fits E-165/185/205/225 engines	08-05700	---	
Continental Filter Relocation Kit. Fits: IO520BA, C, M, TSIO520 B,D,E,J,K,L,N,U,BE,VB,WB & IO550B & C engines and all engines with new style TCM Oil Pumps w/ integral oil filter mounting pad that is part of the oil pump.	08-05800	---	
Stearman Kit, [Continental W670 Radial with 1" Lines]	08-05805	---	
Waco Kit, [Continental W670 Radial with 3/4" Lines]	08-05810	---	



## TEMPEST SPIN-EZ OIL FILTERS

Tempest Oil Filters feature a MAGNETIC secondary filtration system that attracts steel particles too small to be caught in the filter media. • Base Plate Thickness: .187" • Burst Pressure: 700 PSI • Media Size: 311 sq. in. • AA48108 & AA48109: • Bypass Relief Valve TCM specs: 12-14 psi • Patented PC Housing.

Filter No.	Our Part No.	Price
AA48103-2	08-01266	---
AA48104	08-01267	---
AA48162 Cessna 162 LSA	08-48162	---

Filter No.	Our Part No.	Price
AA48108-2	08-01268	---
AA48109	08-01269	---
AA48110-2	08-01270	---
AA48111	08-01271	---

## SPIN-ON OIL FILTER - SIX PACK

Part No.	Tempest	Price	Part No.	Tempest	Price
08-04969	AA48103-2-6PK	---	08-04972	AA48109-6PK	---
08-04970	AA48104-6PK	---	08-04973	AA48110-2-6PK	---
08-04971	AA48108-26PK	---	08-04974	AA48111-6PK	---



## TEMPEST ROTAX OIL FILTERS

The new filter has all the features which have made the Tempest oil filter so popular, including the magnetic secondary filtration system, and higher burst pressure. Full Can Thickness: .019". Base Plate Thickness: .100" Burst Pressure: 275-325. Media Size: 118 sq. in. .... P/N 08-07226

## FOR TEMPEST OIL FILTER TOOLS SEE PAGE 800.

## AEROMAG



**Note:** Sold as a single unit, however to gain maximum results purchase as a set of two (one on each side). Within the tight clearances of today's aircraft engines, normal wear generates tiny steel particles that are carried away in your oil. These particles are so small they will pass right through a normal oil filter. When the oil circulates back into the engine, these same particles are carried into every lubricated space where they can cause three body abrasive wear. AeroMag® extracts normal, wear-causing steel particles from your oil with its powerful, focused, magnetic field technology. These particles are permanently trapped on the inside wall of the filter and are thrown away when the filter is changed. Slide the AeroMag® off the old filter, snap it onto a new one and it goes right back to work protecting your engine. AM360 3.6" (Lyc & Cont with at least a 3.625 in. diameter oil filter)

P/N 08-01088  
AM300 2.9" (Tall Rotax) ..... P/N 08-01235  
AM150 2.5" (Short Rotax) ..... P/N 08-07058

## LYCOMING

Description	Part No.	Price
Lycoming Homebuilt Kit	08-05605	---
STCD Husky Kit AFC-K005 Includes Hoses & Clamps	08-05635	---
STCD Super Cub Kit AFC-K006 Includes Hoses & Clamps	08-05630	---
STCD Universal Lycoming Kit	08-05660	---
All American Champion Aircraft with Lycoming engine. Includes Lifetime Teflon Firesleeved Hoses	08-15995	---
STCD Lycoming Kit-Fits all with Single Drive, Dual Magneto Engines.	08-05665	---
Lycoming Filter Relocation Kit - Requires existing Lycoming 77852 Spin-on adapter. Application does not include helicopters.	08-00038	---
K007-G Stearman Kit [Lycoming R680 Radial] Includes Hoses	08-13248	---
STCD Franklin Oil Filter Kit Includes Hoses & Clamps	08-05815	---

## RADIAL

Description	Part No.	Price
P&W R985 Kit, Stearman	08-00995	---
AFC-K015-D P&W R1830 Kit, DC-3/C-47	08-00997	---
AFC-K015-E R985 Kit, Beach-18, Staggerwing, DGA-15	08-00998	---
P&W R1340 Kit, Otter	08-00999	---
AFC-K015-G P&W R985/1340 Kit, AG-Cat	08-01001	---
AFC-K015-H P&W R1340 Kit, AT301/401/501	08-01002	---
R1340 Kit, Thrush/S2D (Snow)	08-01003	---
AFC-K015-L P&W R985 Kit,	08-01004	---
FC-K015-K P&W R985 Kit, Weatherly; Gorilla Pump for radial engines.	08-07297	---

# OIL FILTER TOOLS – OIL CAN CUTTERS



## TEMPEST AA472 OIL FILTER TORQUE WRENCH

The Tempest AA472 oil filter torque wrench is a great addition to any toolbox. Its 1" hex allows easy installation of all oil filters. The torque wrench also comes preset to 17 foot pounds and is easily recalibrated.  
P/N 08-07023



## TEMPEST AA473 OIL DRAIN TOOL

Tired of messy oil filter changes? Tempest oil drain tool with a twist of the knob drills a hole in the filter and allows the oil to drain out of the filter into your container. No mess, easy to do and inexpensive. Tempest improved the popular AA473 Oil Filter Drain Tool by redesigning the swivel fitting to a smaller, more compact design. The new fitting also allows for easier use of the tool because of its "true" swivel characteristics. If you want to upgrade your previously purchased AA473 Oil Filter Drain Tool you can purchase the fitting individually.

**Can only be used on Tempest Oil Filters.**

Oil Drain Tool .....P/N 12-02248



## TEMPEST AA474 OIL FILTER WRENCH EXTENSION

Some aircraft applications create an environment that does not allow adequate clearance to get a torque wrench or even an open-end wrench around the install nut on oil filters. Even though Tempest has recently introduced the Dash II filter, which is the shortest oil filter on the market, the clearance is still not enough on some applications, such as Beech Barons and Bonanzas. To eliminate this problem Tempest produces the AA474 oil filter wrench extension. **Features:** Chrome-plated steel provides a high quality tool. Easy to use torque conversation label on back of tool.

P/N 10-03929

## SLICK T150 GAP GAUGE



Tool Gauge Gap. Will work on Lycoming and Continental engines.

P/N 12-00302

## CHALLENGER OIL FILTER TORQUE WRENCH



Challenger CP102 Oil Filter Wrench Torque Wrench Adapter 1" L  
P/N 12-01674

Challenger CP103 Oil Filter Wrench Torque Wrench Adapter 30 MMS  
P/N 12-01675

Challenger CP102 Oil Filter Wrench Torque Wrench Adapter 1" ST  
P/N 12-01676



## ACS OIL CAN CUTTER

This unit has the capacity of both P/N AFC-470 & 12-21395. It also uses the same replacement blade as the 12-21395. Anodized "Red" for corrosion resistance. Base can be clamped in a bench vise if desired. Made in USA  
P/N 12-01048



## CT-709 OIL FILTER ADAPTER WRENCH

The CT-709 tool, designed by a professional aircraft mechanic makes the job easier. Manufactured from tool quality steel, the wrench features both 3/8" and 1/2" drives, as well as "flip over" reversibility. For Cessna adapter for 150 Series through 300 Series Aircraft.

P/N 12-00792



## TEMPEST OIL FILTER CAN CUTTER

This universal cutter from Tempest is easy to use and is a great addition to any toolbox. It's made from high quality aircraft aluminum, making it lightweight and very durable. Works on all aircraft spin-on oil filters. Adapter pin easily removed for 'male' filters.

P/N 12-01392

Tempest Oil Can Cutter Blades.  
P/N 12-01393

## AIRWOLF AFC-470 OIL CAN CUTTER



Every A&P knows the importance of cutting every single oil filter open after an oil change. The problem up to now was oil filters were difficult to open and the tools to open them were expensive. This is no longer the case with the Airwolf AFC-470 oil filter cutter. The AFC-470 is the easiest and quickest way to determine the current health of your engine. The Airwolf

AFC-470 oil filter cutter is constructed out of a solid 6" billet of super strong 6061-T6 aluminum, hard anodized to resist scratches and wear. Stainless steel rollers allow the oil filter to spin effortlessly during cutting. And finally, our specially designed razor sharp cutter wheel hardened to 60 Rockwell, will make quick work of opening any oil filter. This filter is designed to last a lifetime. Fits new style oil filters.

Champion/Tempest/Kelly Filters from 3.75" - 3.00" Dia

Opens oil filters from 3.75" - 3.00" Dia .....P/N 12-00789-1

Rotax Filters From 3.25" - 2.375" Dia .....P/N 12-02295

Large Fram Filters (Radial) .....P/N 08-07191 .Replacement

Cutting Wheel.....P/N 08-13957

## HAND CRANK OIL FILTER CUTTING TOOL



This tool was designed to eliminate much of the mess that occurs with small hand-held oil filter cutting tools. Very simple to operate, it is excellent for individual aircraft owners as well as FBO's and maintenance shops where a lot of filters need to be cut. Simply clamp in a vise, screw on the filter, turn the cutter into the filter and hand crank to open the filter. The rugged construction enables this tool to operate trouble free for years.

P/N 12-00122

Replacement Cutting Wheel.....P/N 12-01685

EP

# OIL FILTER TOOLS – GARDSERT REPAIR KITS

## AVIATION OIL FILTER CUTTER



This aviation oil filter cutter will open any size oil filter canisters for your inspection. To use the tool, place the filter in a vice, attach the tool to the top of the filter, and rotate 4 to 6 turns to open the canister. The cutting wheel will stay sharp for about 50 uses, and is easily replaced when dull. The tool is made from 6061 aluminum with a purple anodized finish. The tool is ready to use on any oil filter with a male or female thread.

Oil filter cutter .....P/N 12-21395  
Replacement cutting wheel .....P/N 12-21396

## TEMPEST AA471 OIL FILTER MEDIA CUTTER



Tempest's new AA471 provides a low cost, efficient and safe tool that every mechanic will want to put in their tool box. Strong guard and non-retractable blade to secure the media and ensure an accurate cut.

P/N 12-01854

## FC-2000 OIL FILTER CAN CUTTER



**Features:**

- Cuts all Champion, Hartzell, and Tempest 3.7" Dia. oil filters
- Rugged 6061-T6 aluminum construction
- Roller bearings provide smooth rolling action
- Hardened hardware throughout • No parts to change • Can cut in either direction • Made in USA Lifetime Warranty.

P/N 12-00923-1  
Replacement Cutter Wheel .....P/N 12-01689

## FC-3000 OIL FILTER CAN CUTTER



This an cutter incorporates a longer plate that allows cutting filters from 3.7 to 4.7 inches in diameter. Roller bearings provide smooth cutting action. Ideal for cutting racing filters too! Black anodized finish.

P/N 12-02628

## CHAMPION OIL CAN CUTTER



The Champion CT923 Cutter allows for oil filters to be cut in either direction. This is a complete tool with no parts or adapters to change. It is very easy to use, and will provide a simple effective means of cutting open oil filters. This also cuts the Champion filters used on the Rotax 912 and 914 engines.

CT923 .....P/N 12-04948

## OIL FILTER WRENCH



This very versatile, revolutionary oil filter wrench is for the aviation community and aircraft enthusiasts. This wrench was created specifically for you and your airplane. This tool is small, light-weight and easy to use making your filter servicing and installations fast and easy. With very little effort your oil filter can be removed or run in and torqued. This super wrench is constructed with materials that are very strong, (4130 heat treated steel) then electroplated to meet our standards and will provide you with years of service.

P/N 05-12376

## FMC-2000 OIL FILTER MEDIA CUTTER



This patented tool is designed to hold Champion Aerospace brand Aviation oil filter spools, and to allow cutting the paper filter media at each end of the spool without holding the filter spool by hand. Using this tool reduces the risk of cutting one's hands while cutting the filter media as well as reducing the time necessary to accomplish this task. The filter media is rotated in a special holder that is supported by roller bearings. A knife, with a retractable safety cover is brought into position to make a clean cut of the filter media at each end. The filter media can then be removed for inspection. Patented.

FMC-2000BL Media Cutter Blades (3 pack) .....P/N 12-01688  
FMC-2000K Kelly Filter Cutter Adapter .....P/N 12-01686  
FMC-2000T Tempest Filter Cutter Adapter .....P/N 12-01687 .Replacement Cutting Wheels .....P/N 12-00183

## TOMS OIL FILTER CUTTING TOOL



Tom's oil filter cutting tool will allow you to inspect your aircraft's oil filtering material for trapped debris in a quick and easy manner. Oil filter inspection is a critical measure of your engine's health and should always be a part of your aircraft's regular maintenance program. Most filter cutters work like a pipe or tubing cutter in that you have to go around and around the filter, adjusting cutter depth with each pass. Although you could do that with this tool, the real beauty of this new product is that the cut can be easily made in one pass. The tool is designed primarily for Lycoming oil filters that have a threaded insert protruding from the end of the filter. A few Lycoming oil filters and most Continental oil filters do not have this insert. For these filters, an adapter insert is supplied with the tool. Tom's oil filter cutter may also be used on smaller filters such as found on Rotax or automotive engines. Simply remove the cutter handle and reposition the pivot bolt to the inner hold on the base handle. The adapter insert may be needed on these filters as well. Made in USA.

P/N 12-01697

## TALON OIL FILTER REMOVAL TOOL



The Talon Oil Filter Tool was created to remove stubbornly stuck oil filters. It is 50% stronger than the standard 10M-OFT type. The tool is safe in tight quarters and unable to slip, attempting to minimize damage to nearby components. This is still a messy process but this tool is your best chance of removing stuck filters with- out damaging anything else.

**Features:**

- Three pin (TALON) engagement in oil filter plate for stability and strength
- Good for up to 1500 in. lbs. of torque
- Works in tight spaces!
- Works on Aircraft, Automotive, Marine, and Recreational Vehicle applications
- Made in the USA

P/N 11-11556

## GARDSERT STUD REPAIR KITS

GARDsert® FAA DER approved repair kits contain special high-strength threaded inserts to repair piston, turbine engine cases, airframe and instrument components that have stripped threads.

Repair kits contain Stud, Tool Assembly Gauge Pin, MTS Drill Bit, Deluxe Tapping Fluid .5oz, Small Plastic Tray.



Description	Part No.	Price
1/2-13 Gardsert Stud Repair Kit	08-17552	---
1/4-20 Gardsert Repair Kit	08-17536	---
1/4-20 Gardsert Stud Repair Kit	08-17546	---
1/4-20 Thinwall Gardsert Repair Kit	08-17538	---
1/4-28 Gardsert Repair Kit	08-17537	---
3/8-16 Gardsert Repair Kit	08-17547	---

Description	Part No.	Price
3/8-16 Thinwall Gardsert Repair Kit	08-17545	---
3/8-24 Gardsert Repair Kit	08-17548	---
5/16-18 Gardsert Repair Kit	08-17540	---
5/16-18 Thinwall Gardsert Repair Kit	08-17542	---
5/16-24 Gardsert Repair Kit	08-17541	---
7/16-14 Gardsert Stud Repair Kit	08-17551	---

# OIL FILTERS ADAPTERS — OIL DRAIN VALVES

## OIL FUEL FLOW RESTRICTOR FITTING



An oil/fuel flow restrictor fitting designed to fit the Lycoming engine oil pressure port as well as the fuel pressure port on the KB-090-T. This fitting is a modified AN823-4 and the restriction is a .040" hole. Threaded end is 1/8" NPT .....P/N 05-11908

## CONTINENTAL REMOTE OIL FILTER ADAPTER



Replaces the oil screen and will fit C65 thru O-200 engines. 3 ports In and out. Note: This Continental Remote Oil Filter Adaptor will go nicely with the Remote Oil Filter Bracket 08-01057. For Experimental use only. Does not include fittings or copper gasket as shown in image. IN & OUT pipe threads in the continental oil filter adapter are: 3/8-18 npt (female). The third hole is a 5/8-18 straight thread with a 45 degree chamfer at the bottom of the thread for a temperature probe to seat against.

P/N 08-13154

**Note:** The Oil Temp Probe Delete Plug is an Optional plug for a builder that doesn't need to use an oil temperature gauge and chooses to plug the 5/8-18 port on the Continental remote oil filter adapter. No Crush gasket needed as the sealing surface (or seat) is the 45-degree chamfer at the bottom of the thread in the temp probe port. Remember to be sure these chamfers are clean and scratch free when installing. There are safety wire holes provided.....P/N 08-17065

## B&C BC700 LYCOMING OIL FILTER ADAPTER



The original 90-degree oil filter adapter for Lycoming engines, precision CNC machined from billet aluminum. Designed to provide a high-quality replacement for the stock Lycoming oil screen or horizontal spin-on filter adapter, the BC700 mounts directly on the engine accessory case without interference with the magnetos, vacuum pump, or standard mechanical tach drive. STC/PMA on Lycoming 0-235; O, IO, LIO, AIO, AEIO-320; O, IO, LIO, HO, HIO, TIO, AEIO-360; O, IO, HIO, TIO, LTI, AEIO-540 & IO-720 series engines. Adapter kit also includes a new gasket, crush washers, mounting bolts, and CH48108-1 filter. Weight: 1 lbs. (with filter: 2.30 lbs). BC700-1 Oil Filter Adapter, STC/PMA.....P/N 08-00195 BC700-H Oil Filter Adapter, Homebuilt .....P/N 08-00196

### ACCESSORIES:

B&C Oil Temperature Probe Adapter.....P/N 08-07092

B&C Vern-a-therm Opening Plug.....P/N 08-07093

## CESSNA / CONTINENTAL OIL FILTER ADAPTER KITS

Part No.	Aircraft Application	Price
0450404-3	C150, A150, F150, FA150, FRA150	---
0556010-200	C172, F172	---
1250922-201	C180, C185, C188, T188	---
1250922-200	C205, C206, U206, P206, 207, 210	---

All the Continental spin on adapter kits above require the following items in addition to the adapter: Oil Filter.....P/N CH48110

Nut.....P/N 1250405-1

AN123883 O-Ring.....P/N 08-04930

## LYCOMING SPIN-ON FILTER ADAPTER KITS

Part No.	Aircraft Application	Price
LW-13743	All Applicable Engines Except Models Shown In Table Below	---
LW-13744	0-235 Series	---
LW-13745	IO-720 with 1200 Series Series Magnetos	---
08-00513	0-320-H (LW-14969)	---
LW-13904	All Engines with Dual Magnetos. Includes Converter Plate Assembly and Does Not Include Filter	---

All Lycoming spin on oil filter adapter kits above include adapter, oil filter assembly, adapter plate, gaskets, & attaching hardware. LW-14969 kit also contains oil cooler bypass valve assembly, 2 elbows, & 2 oil seals for oil cooler installations.

## CASPER LABS NO SPILL OIL FILTER HOUSING



The Casper Labs "full flow" vertical oil filter kit is designed to provide Lycoming Engine owners several improvements over the standard Lycoming oil screen or filter hardware. This device locates the filter in the vertical plane.

The unit has no moving parts and requires no maintenance. Standard aviation filters are compatible. Temperature probe hardware transfers directly from the present screen housing or OEM filter adapter. **Note:** Verify the adapter and filter fit in the engine compartment before bolting the unit on to the case. **Kits Include:**

- Filter (some kits do NOT include a filter: see descriptions for details)
- Housing • O-Ring and Washers, seal rings, gasket & installation manual

Description	Part No.	Price
CL1000A-STC Kit with CH48109-1 Filter	08-01237	---
CL1000A-STC Kit with CH48108-1 Filter	08-01236	---
CL1000A-STC Adapter ONLY for Retrofit Lycoming Engine (see web for models)with 2/MAG & 2 Drive ONLY	08-01094	---
CL1000A-EXP (EXPERIMENTAL) Kit with CH48109-1 Filter	08-00977	---
CL1000A-EXP (EXPERIMENTAL) Kit with CH48108-1 Filter	08-00976	---
CL1000A-EXP (EXPERIMENTAL) Adapter ONLY (no filter)	08-00975	---



## AEROQUIP E-Z OIL DRAIN SUMP VALVES

Makes aircraft oil changes easy. The hand actuated valve when attached to the oil drain port permits engine oil changes from the ground without removing the engine cowl. The spring loaded E-Z Drain valve cannot be accidentally opened. Actuation of the valve requires a combination push/twist motion. It also contains a dual seal arrangement which combines both an O-ring & metal-to-metal seal to prevent accidental leakage of oil through the valve. FAA Approved for use on the engines listed. Incorporates fine Aeroquip quality hose. Installation eligibility listing furnished with each unit.

Part No.	Engine Application	Thread	Price
AE99950G	Cont. C-90, O-200, GO-300, IO-360 TSIO-360, O-470, IO-470 TSIO-470, IO-520, TSIO-520, GTSIO-520	5/8-18	---
AE80666H	Cont. O-300, late C-145	1-18	---

Valve O-Ring, All Models.....MS28775-011 Ea.

Interface O-Ring.....AE99950G MS28775-113 Ea.

AE805555H MS28775-118 Ea.

Not to be used on Piper Models PA-28R-200, PA-28R-201, PA-28RT-200.



## SAF-AIR OIL DRAIN SUMP VALVES

Changing hot engine oil has never been easier! With the SAF-AIR oil drain valve, no wrench is needed to remove the drain plug. A simple push and turn of the SAF-AIR valve locks it in the open position. The valve is made completely from anodized aluminum and stainless steel components. These materials are used throughout the aircraft industry due to their strength and durability. FAA & PMA APPROVED.

Part No.	Engine Application	Thread	Price
S6250	Cont. (same as Aeroquip AE99950G)	5/8-18	---
S1000	Cont. (same as Aeroquip AE80666H)	1-18	---
P5000	LYC (same as Aeroquip AE80664H)	1/2NPT	---
M12175	ROTAX 912, 914	12mm x 1.75	---
S7516	Cont IO-520-E	3/4"-16	---
P7500	Franklin Engines	3/4" NPT	---
S5020J	Jabiru 2200 / 3300	1/2"-20	---
M20150	Subaru 2.2L / 2.5L	20-1.50mm	---
F62	Continental	5/8-18	---

F62



## SAF-AIR LOW PROFILE 2-PIECE OIL DRAIN SUMP VALVES

Perfect for a close clearance engine oil drain application such as on the Piper Arrow. These low profile oil drain valves are designed to clear retractable landing gears & other restrictions. The valve is very affordable and can be rebuilt. It is a simple procedure to sample or drain hot oil. The valve is made from 360 brass & 302 stainless steel. FAA & PMA APPROVED. All valves come with a F50-180 opener.

Mfg. No.	Engine Application	Thread	Part No.	Price
F62	Continental	5/8-18	05-00981	---
F10	Pratt & Whitney	1-18	05-00982	---
F50	Lycoming	1/2-18 NPT	05-00983	---
F50-90 - Bent	Lycoming, Continental, Pratt & Whitney, Franklin	--	05-06924	---
F50-180 - Straight	Lycoming, Continental, Pratt & Whitney, Franklin	--	05-15064	---



## CURTIS OIL DRAIN VALVES

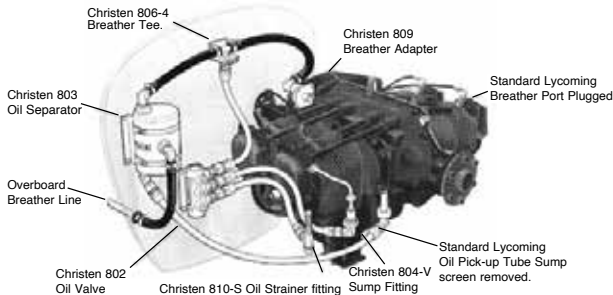
Quick opening drain valves for aircraft oil or fuel systems. A slight twist opens valve. No safety wire needed in closed position. Designed for installation in a standard NPT port for NPT threaded valves or an AND-10050 style port for UNF threaded valves. Use a sealant on NPT threaded valves or a fuel resistant o-ring of the proper size for UNF threaded valves.

Mfg. No.	Application	Thread	Part No.	Price
CCB-5000	Lycoming	1/2 NPT	05-22973	---
CCB-38000* (Low Profile)	Lycoming	1/2 NPT	05-15400	---
CCA-1400	Lycoming	1/2" NPT	05-03060	---
CCA-1700	Lycoming	1/2" NPT	05-01872	---
CCB-37000*	Lycoming	1/2" NPT	05-03061	---
CCB-36000H*	Lycoming	1/2" NPT	05-15399	---
CCB-6250	Continental	5/8-18 UNF	05-22974	---
CCB-33000*	Continental	5/8-18 UNF	05-15398	---
CCA-39560	Continental	5/8-18 UNF	05-03656	---
CCA-39550	Continental	5/8-18 UNF	05-01873	---

\*FAA-PMA Approved

# OIL SYSTEMS

## CHRISTEN 801 INVERTED OIL SYSTEM



This accessory kit for Lycoming engines provides normal engine lubrication with minimal oil loss during aerobatic flight. It functions as a self-contained extension of the normal engine oil and breather systems. Can be installed in a few hours without engine disassembly.

Part No.	Description	Price
801-4	For four-cylinder engines. Includes 802 Oil Valve (with plug wrench and plugs for unused ports), 803 Oil Separator, 806-4 Breather Tee, and product manual which provides detailed instructions for application. Weight: 4.75 lb. installed.	---
801-6	For six-cylinder engines. Same as 801-4 Kit, but is supplied with 806-6 Breather Tee. Weight: 4.75 lb. installed.	---
811-V	For vertical-screen sump engines. Includes 810-S Oil Strainer Fitting, 810-R Oil Return Fitting, 804-V Sump Fitting (vertical type) with crush gasket and MS20822-10D elbow. Weight: 0.50 lb. installed.	---
811-A	For horizontal-screen sump engines. Includes 810-S Oil Strainer Fitting, 810-R Oil Return Fitting, 805 Sump Plug with insertion tool, 804-A Sump Fitting (angular 360° swivel-type) with crush gasket and wrench for swivel clamping screw. Weight: 0.36 lb. installed.	---
811-S	For horizontal-screen sump engines. Includes 810-S Oil Strainer Fitting, 810-R Oil Return Fitting, 805 Sump Plug with insertion tool, 804-S Sump Fitting (straight-type) with crush gasket. Weight: 0.33 lb. installed.	---
809-K	For engines with forward breather ports such as the O-235 and O-290 models. Includes 809 Breather Adapter with gasket, AN842-12D hose elbow, and MS20913-6D plug for forward breather port. Weight: 0.53 lb. installed.	---
812-2	For addition of oil ports to engine sumps. Includes two 812 Weld Bosses and quantity of 5% silicon-aluminum welding rod (type 4043) Weight: 0.12 lb. installed.	---
812-1	Same as 812-2 Kit, except with only one 812 Weld Boss for addition of single sump port. Weight: 0.06 lb. installed.	---
813-4	Stainless steel spring wire. Installed inside breather hose to permit relatively sharp bends without collapsing or kinking. 10 x 47/64". Weight: 0.12 lb. installed.	---
813-6	Stainless steel spring wire. Installed inside breather hose to permit relatively sharp bends without collapsing or kinking. 10 x 63/64". Weight: 0.12 lb. installed.	---
807-4	All hoses and fittings required for deluxe show-plane quality installation on four-cylinder engines. Includes Aeroquip braided stainless steel hose for oil lines, MIL-H-6000 rubber-fabric hose for breather lines, thin abrasive cut-off wheel for professional-quality hose cuts, AN and MS fittings (blue anodized), Aeroquip hose end fittings (blue and red anodized), and miniature stainless steel hose clamps. All materials are factory new; no surplus. Weight Excluding Hose: 1.53 lb. installed.	---
807-4 Economy Hose & Fitting Kit	These kits include same items as Aviat Factory Kits but are packaged by Aircraft Spruce.	---
807-6 Economy Hose & Fitting Kit		---

10-page detailed manual - describes system operation & procedure for selecting proper components for each engine model.

P/N 05-20600 ea.

## CHRISTEN OIL VALVE



Multiple port gravity operated ball valve. It is cast aluminum with textured white epoxy enamel finish and all internal steel parts are cadmium plated. Normally installed on firewall or on engine mount. Designed for fittings to be installed either at side or front or both. Requires 3 AN816-10D nipples for hose connection. Wt. 1.75 lbs. installed. ....P/N 08-06745

## CHRISTEN OIL SEPARATOR



Features welded aluminum construction with a textured white epoxy enamel finish. All internal parts are cadmium plated, and unit includes stainless steel positioning clamps. Normally installed on fire wall or on engine mount. Requires 2 AN842-12D or -16D hose elbows and one AN823-10D hose fitting. Wt. 2.8 lbs. installed. Applicable to all Lycoming engine applications. Used to replace a worn out or broken oil separator on Christen 801-4 systems only .....P/N 08-06740

## BOGERT AVIATION 180 DEGREE OIL QUICK DRAIN PROBE



Drain probe not only gives you an alternative to the high priced AVI probe but it includes some major improvements. Probe is leak proof! The AVI design could leak where it mates to the valve plunger making a mess. This design incorporates an O-ring seal around the valve body preventing leaks. The O-ring also locks the probe to the valve body. Also note the larger drain tube to speed up the oil flow and prevent restrictions. Valve NOT included, this is Probe ONLY..... P/N 12-03289

## BOGERT AVIATION 90 DEGREE OIL QUICK DRAIN PROBE



This drain probe not only gives you an alternative to the high priced AVI probe but it includes some major improvements. The first big improvement is that the probe is leak proof. The AVI design could leak where it mates to the valve plunger making a mess. Incorporates an O-ring seal around the valve body preventing leaks. The O-ring also locks the probe to the valve body. The compactness of the probe, is actually shorter than the BJ 107B making it easier to install. 09M-PRB90

**Replaces:** • Piper part number 481-359 • Beechcraft part number 107-B • Auto Valve Inc. AVI-BJ-107B ..... P/N 12-03237

## BOGERT AVIATION ENGINE CESSNA OIL QUICK DRAIN STC



Drain oil in wind or shop with little clean up. Saves money on clean up, solvent, labor and parts. Oil goes into bucket without splashing or spilling. Made in the USA. Approved for:

Cessna 210J through 210 R, T210J through T210R, P210H through P210R, 337 through 337H, T337B through T337H, and P337H, 310 through 310R, T310P through T310R, 320 through 320F, 340, and 340A, 401 through 401B, 402 through 402C, 404, 411, 411A, 414, 414A, and 421 through 421Cnd 421 through 421C

Description	Part No.	Price
Single Engine Kit Includes: 1 ea. 09-OQD STC Paper work 1 ea. 09-Probe 1 ea. 09-BJ107 Valve w/o-ring 1 ea. 09-AN900-10 Gasket	12-02101	---
Twin Engine Kit Includes: 1 ea. 09-OQD STC Paper work 1 ea. 09-Probe 2 ea. 09-BJ107 Valve w/o-ring 2 ea. 09-AN900-10 Gasket	12-02102	---

## RAVEN INVERTED OIL SYSTEMS



The Raven Full Oil System includes a CNC machined adjustable valve. There are no extra holes to plug, you simply rotate it to where you want it. The system includes the valve, mount and clamps, as well as the air/oil separator, mount and clamps. Both the valve and separator use stainless steel internal parts and are powder coated for durability. The weight of all components is 4 1/2 lbs. The Raven Half System is the breather portion of the full inverted system, it is used to perform basic positive G aerobatics where a full inverted system is not required, it will catch and return approx 95% of the oil that would normally end up overboard when performing basic maneuvers.

Description	Kit Contents	Color	Part No.	Price
Half Inverted Oil System 4"	Air/Oil Separator & Mount with Clamps & Sump Return Fitting	Black	08-15637	---
Half Inverted Oil System 4"		White	08-15638	---
Full Inverted Oil System 5"	Valve & Mount with Clamps, Air/Oil Separator & Mount with Clamps	Black	08-00796	---
Full Inverted Oil System 5"		White	08-00800	---
Full Inverted Oil System 4"		Black	08-00797	---
Full Inverted Oil System 4"		White	08-00801	---

## RAVEN INVERTED SYSTEM VAC ADAPTERS



These vac adapters are machined from solid aluminum with anodized finish. Furnished with a seal installed, and complete with AN fitting and gaskets. Non-Acc'y Vac Pad Oil P/U .....P/N 08-00786

## RAVEN SUMP FITTING KITS



These sump fitting kits come with specialized fittings, washers, O rings needed to install the kit.

Sump kit for Horizontal screen 4 or 6 cyl. Lyc. With

Straight Fitting ..... P/N 08-00787

With 45° Swivel ..... P/N 08-15780

# AIRWOLF AIR/OIL SEPARATORS



The Airwolf Air/Oil Separator will improve the efficiency of your aircraft dramatically whether it is a single engine fun craft or a twin powered corporate plane. Designed to separate air and oil in the crankcase breather & wet vacuum pump systems on conventional aircraft engines, Airwolf recovers oil from the crankcase, thus eliminating the oily overboard discharge and the ever present "oily belly" syndrome. Oil loss is greatly reduced - tests have indicated a recovery of up to 80% of crankcase oil previously wasted, depending on the type and condition of the engine.

The Airwolf oil recovery system is only slightly larger than an oil filter cartridge (4" dia. x 7.5") and it is available for all conventional engines regardless of displacement. It can be easily removed and disassembled for inspection and cleaning. With no moving parts, the Airwolf is designed to last the life of your engine. Available for planes with either wet or dry vacuum pump. Now STC'd for most aircraft. Available in black epoxy finish only. Specify aircraft model no., serial no., and engine model.

EP

Airwolf Part No.	Part No.	Price
AFC-302-A	08-03806	---
AFC-304-H	08-13269	---
AFC-314-B	08-13288	---
AFC-314-C	08-13289	---
AFC-314-D	08-13290	---
AFC-315-B	08-13292	---
AFC-335-C	08-13604	---
AFC-5006	08-05630	---
AFC-700	08-07390	---
AFC-K001	08-05605	---
AFC-K005	08-05635	---
AFC-K007-A	08-05660	---
AFC-K007-B	08-05665	---
AFC-K007-F	08-00038	---
AFC-K007-G	08-13248	---
AFC-K008-A	08-05675	---
AFC-K008-B	08-05680	---
AFC-K008-C	08-05685	---
AFC-K008-D	08-05690	---
AFC-K008-E	08-05700	---
AFC-K008-F	08-05800	---
AFC-K008-G	08-05805	---
AFC-K008-H	08-05810	---
AFC-K009	08-05815	---
AFC-K015-A	08-00995	---
AFC-K015-B	08-00039	---
AFC-K015-CA	08-00996	---
AFC-K015-D	08-00997	---
AFC-K015-E	08-00998	---
AFC-K015-F	08-00999	---
AFC-K015-G	08-01001	---
AFC-K015-H	08-01002	---
AFC-K015-J	08-01003	---
AFC-K015-K	08-07297	---
AFC-K015-L	08-01004	---
AFC-K017-B	08-13612	---
AFC-W300-A	08-00645	---
AFC-W300-B	08-13253	---
AFC-W300-C	08-13254	---
AFC-W301-A	08-13256	---
AFC-W301-B	08-13257	---
AFC-W301-C	08-13258	---
AFC-W301-D	08-13259	---
AFC-W302-B	08-13260	---
AFC-W303-A	08-13261	---
AFC-W303-B	08-13262	---
AFC-W304-A	08-01299	---
AFC-W304-B	08-13263	---
AFC-W304-C	08-13264	---
AFC-W304-D	08-13265	---
AFC-W304-E	08-13266	---
AFC-W304-F	08-13267	---
AFC-W304-G	08-13268	---
AFC-W305	08-13270	---
AFC-W306-A	08-07398	---
AFC-W306-B	08-13271	---
AFC-W306-C	08-13236	---
AFC-W306-D	08-13273	---
AFC-W307-A	08-01301	---
AFC-W307-B	08-13274	---

Airwolf Part No.	Part No.	Price
AFC-W309-A	08-01302	---
AFC-W309-B	08-13276	---
AFC-W309-C	08-13278	---
AFC-W309-D	08-13279	---
AFC-W309-E	08-13280	---
AFC-W310	08-13281	---
AFC-W311-A	08-01303	---
AFC-W311-B	08-13282	---
AFC-W311-D	08-13283	---
AFC-W311-E	08-13284	---
AFC-W311-F	08-13285	---
AFC-W312-A	08-13286	---
AFC-W314-A	08-03834	---
AFC-W315-A	08-13291	---
AFC-W315-C	08-13293	---
AFC-W316-A	08-00652	---
AFC-W316-C	08-13297	---
AFC-W316-D	08-13295	---
AFC-W316-E	08-13298	---
AFC-W316-F	08-13299	---
AFC-W317	08-13300	---
AFC-W318-A	08-01297	---
AFC-W318-B	08-13571	---
AFC-W318-D	08-13572	---
AFC-W319	08-13573	---
AFC-W320	08-13574	---
AFC-W321-A	08-00655	---
AFC-W321-B	08-13575	---
AFC-W321-C	08-13576	---
AFC-W321-D	08-13577	---
AFC-W322	08-01304	---
AFC-W323-A	08-01306	---
AFC-W323-B	08-13578	---
AFC-W323-C	08-13579	---
AFC-W323-D	08-13580	---
AFC-W324	08-13582	---
AFC-W327-A	08-13584	---
AFC-W327-B	08-13585	---
AFC-W328	08-13249	---
AFC-W329-A	08-13588	---
AFC-W329-B	08-13589	---
AFC-W329-C	08-13590	---
AFC-W330	08-13591	---
AFC-W331-A	08-13592	---
AFC-W331-B	08-13593	---
AFC-W331-C	08-13594	---
AFC-W331-D	08-13595	---
AFC-W332-A	08-13596	---
AFC-W332-B	08-13597	---
AFC-W332-C	08-13598	---
AFC-W333-A	08-13599	---
AFC-W333-B	08-13600	---
AFC-W334	08-13601	---
AFC-W335-A	08-13602	---
AFC-W335-B	08-13603	---
AFC-W335-D	08-13605	---
AFC-W336-A	08-13606	---
AFC-W336-B	08-13622	---
AFC-W337-A	08-13623	---
AFC-W337-B	08-13625	---

Airwolf Part No.	Part No.	Price
AFC-W338-A	08-13626	---
AFC-W338-B	08-13627	---
AFC-W339-A	08-13628	---
AFC-W339-B	08-13629	---
AFC-W340-A	08-13630	---
AFC-W340-B	08-13631	---
AFC-W341-A	08-13632	---
AFC-W341-B	08-13633	---
AFC-W341-C	08-13634	---
AFC-W341-D	08-13635	---
AFC-W342	08-13636	---
AFC-W343-B	08-13638	---
AFC-W344-A	08-13639	---
AFC-W345-A	08-13640	---
AFC-W345-B	08-13641	---
AFC-W346	08-13642	---
AFC-W347-A	08-13643	---
AFC-W347-B	08-13644	---
AFC-W347-C	08-13645	---
AFC-W348-A	08-13646	---
AFC-W348-B	08-13647	---
AFC-W348-C	08-13648	---
AFC-W349-A	08-13649	---
AFC-W349-B	08-13650	---
AFC-W349-C	08-13651	---
AFC-W350	08-13652	---
AFC-W351	08-13653	---
AFC-W352-A	08-13655	---
AFC-W352-B	08-13656	---
AFC-W352-C	08-13657	---
AFC-W352-D	08-13658	---
AFC-W353-A	08-13659	---
AFC-W354-A	08-13660	---
AFC-W355-A	08-13661	---
AFC-W355-B	08-13662	---
AFC-W357-A	08-13663	---
AFC-W357-B	08-13664	---
AFC-W358-A	08-13665	---
AFC-W359-A	08-13666	---
AFC-W361-A	08-13667	---
AFC-W362	08-13668	---
AFC-W363	08-13669	---
AFC-W364	08-13670	---
AFC-W365	08-13672	---
AFC-W367-A	08-13674	---
AFC-W367-B	08-13675	---
AFC-W368-A	08-13676	---
AFC-W368-B	08-13677	---
AFC-W368-C	08-13678	---
AFC-W369	08-13679	---
AFC-W400	08-07189	---
AFC-W410	08-05887	---
AFC-W420	08-07188	---
AFC-W440	08-07190	---
AFC-W699-B	08-13673	---
AFC-W70	08-13681	---

**VERIFY AIRCRAFT APPLICATION  
BEFORE ORDERING.  
VISIT [WWW.AIRCRAFTSPRUCE.CA](http://WWW.AIRCRAFTSPRUCE.CA)  
FOR AIRCRAFT APPLICATION CHART.**

Airwolf W-2300 Air/Oil Separator gasket..... P/N 08-13956

# OIL FILTER SYSTEMS/ADAPTERS/SEPARATORS



08-00631

## TEMPEST ENGINE MOUNTED OIL FILTER ADAPTER

Tempest engine mounted oil filter adapters eliminate the need for oil screens and provide increased filtering capabilities for longer engine life. Being engine mounted with no external lines, they reduce mess during oil changes and increase the time between oil changes. STC APPROVED. **Note:** Tempest filters are included with adapters. Price listed is for one adapter each.

FM Model	Aircraft Application	Engine Application	Part No.	Price
T.A.F.-L	Cont. C-75-12 C-85-12 O-200 O-200A	Cessna 120, Cessna 140, Cessna 150, Luscombes, Taylorcrafts, Cubs <b>Note:</b> Will only for Cubs with pressure cowls (totally encloses the engine). Will not work on Cubs that cylinders stick out through the cowlings.	08-00631	---
CO-300	Cont. C-125, C-145, CO-300	Cessna 170, 172, Globe Swift, Maule	08-00632	---
C6LC-S	Cont. O-470, IO-470, IO-520	Bellanca Viking, Cessna 182, 55 series Beech Baron	08-00633*	---
C6LC-L	Cont. O-470 IO-470, IO-520	Cessna 205, 206, 207, 210, 310, Beech Bonanza & Debonair, Navion, Meyers, Twin Commander, Widgeon	08-00634	---
C6LC-11/15	Cessna L-19 "Bird Dog"	Continental Motors 0-470-11 and 0-470-15	08-01037	---
C6SC	Cessna 175, Cessna 172 Hawk XP, Maules, Cessna 337, Cessna 336, Cessna 0-2, Mooney M20-K, Piper Turbo Arrow III & IV, Piper Seneca II PA-34-200T	Continental GO-300 Series & IO-360 Series	08-01038	---

\* WILL NOT FIT AIRCRAFT WITH FLOATS

## TEMPEST OIL FILTER ADAPTER GASKETS

These Gaskets work with the Tempest Oil Filter Adapters, see your manual to ensure proper selection.

Tempest Gasket FM-02.....P/N 08-13896

Tempest Gasket FM-29.....P/N 08-15639

## TEMPEST GASKET KIT ST07



Stratus Tool Technologies ST07 is a multi-layer gasket designed to combine the enhanced anti-leak characteristics of the FM07 fiber gasket with the resiliency and resistance to sudden rupture of the AN900-28 copper crush washer. The outer facings of this new gasket are comprised of an expanded PTFE matrix that provides better conformance to sealing surface imperfections. The perforated stainless steel core is embedded within the ePTFE to enhance stability and increase blowout resistance .....P/N 08-17584



## AIRWOLF MINI AIR/OIL SEPARATOR

Reduce oil consumption and remove harmful water vapor with Airwolf's Walker Air/Oil Separator. The AirSep distills and recirculates crankcase oil vapor generated by normal operation, extending engine life.

The Airwolf Walker AirSeps uses a tiny amount of vacuum pump discharge air, to help condense the oil inside the AirSep, and to overcome crankcase pressure to return collected oil to the engine while the engine is running. The competitive systems are only gravity flow

so no oil returns into the engine until the engine is completely shut off. Thus, one system is large enough to clean both the engine breather oil and wet vacuum pumps discharge. It comes with a lifetime warranty on workmanship and material of all new AirSeps produced. STC'd  
MiniSep, 3/4" Inlet .....P/N 08-05887  
MiniSep, 1" Inlet .....P/N 08-07188  
MiniSep, 5/8" Inlet .....P/N 08-07189  
Wet Vacuum Pump MiniSep, 5/8" Inlet .....P/N 08-07190



## CHALLENGER FAA/PMA LIFETIME OIL FILTER SYSTEM

The filter element is made from medical grade, type 304 stainless steel micronic filter cloth providing unmatched protection against oil contamination and resultant engine damage. A rare earth magnet is installed in the top of the element for magnetic pre-filtering of the oil. The unique twist lock design allows for easy disassembly, inspection and cleaning. The quad-ring gasket doubles the seal between the filter and the engine. The filter housing is carved out of a solid piece of 6061 T6 billet aluminum with cooling fins, which not only looks good but aids in dissipating heat.

**Features:** • Cleanable and Reusable • High Flow Rate • Unique Twist Lock Design • Exteriors Fins • Unaffected by Water, Heat, or Pressure • Safety Wire Attachments 360 degrees • Environmentally Friendly.

Challenger	Replaces	Our P/N	Engine Model	Price
CP-48103C 13/16-16 Thread w/o Relief Valve	CH48103-1	08-06017	Lycoming O-320, IO320, O360, IO-360, LO-360, TO-360, HIO-360, LTO-360, LHIO-360 SERIES	---
CP-48108C 3/4-16 Thread w/o Relief Valve	CH48108-1	08-06019	Continental 6-285, IO-346, IO-360, TSIO-360, O-470, IO- 470, LIO-470, TSIO-470, IO-520, TSIO-520, GTSIO-520, LTSIO-520, IO-550 SERIES	---
CP-48109C 3/4-16 Thread w/ relief valve	CH48109-1	08-06020	Lycoming O-235, IO-320 SERIES LIO-320, AIO-3230, AEIO-320, O360, IO360, AIO-360, HIO- 360, LIO-360, TIO-360, LHIO-360, AEIO-360, O-540, IO-540, HIO-540, TIO-540, AEIO-540, LTIO-540, TIO-541, IO- 580, IO-720 SERIES	---
CP-48110C 3/4-16 Thread w/ Nipple w/o Relief Valve	CP48110-1	08-06021		---
CP-48111C 3/4-16 Thread w/ Nipple w/o Relief Valve	CH48111-1	08-06022		---
CP-9124C w/ Relief Valve	8245-706	08-07174	Bombardier-Rotax 912 F2, 912 F3, 912 F4, 912 S2, 912 S3, 912 S4, 914 F2, 914 F3, 914 F4	---



## CHALLENGER OIL FILTER ELEMENT REPLACEMENTS

The filter element is made from medical grade, type 304 stainless steel micronic filter cloth providing unmatched protection against oil contamination and resultant engine damage. A rare earth magnet is installed in the top of the element for magnetic pre-filtering of the oil. The unique twist lock design allows for easy disassembly, inspection and cleaning. The quad-ring gasket doubles the seal between the filter and the engine. The filter housing is carved out of a solid piece of 6061 T6 billet aluminum with cooling fins, which not only looks good but aids in dissipating heat.

Challenger	Application	Part No.	Price
CP-621	Challenger 48103, 48104	08-07370	---
CP-620	Challenger 48108, 48109	08-07369	---
CP-619	Challenger 48110, 48111	08-07366	---
CP-720	Challenger 9124C	08-07371	---

## CHALLENGER ACCESSORIES

Description	Part No.	Price
CP-621 48103, 48104 Element	08-07370	---
CP-620 48108, 48109 Element	08-07369	---
CP-619 48110, 48111 Element	08-07366	---
CP-720 9124C Element	08-07371	---
CP-623 Oil Filter Quad Seal Gasket	08-07186	---

## CHALLENGER STAINLESS STEEL MICRONIC OIL FILTER FOR ROTAX 912/914 ENGINES



The filter element is made from medical grade, type 304 stainless steel micronic filter cloth providing unmatched protection against oil contamination and resultant engine damage. A rare earth magnet is installed in the top of the element for magnetic pre-filtering of the oil. The unique twist lock design allows for easy disassembly, inspection and cleaning. The quad-ring gasket doubles the seal between the filter and the engine. The filter housing is carved out of a solid piece of 6061 T6 billet aluminum with cooling fins, which not only looks good but aids in dissipating heat. **Features:** • Cleanable and Reusable • High Flow Rate • Unique Twist Lock Design • Exteriors Fins • Unaffected by Water, Heat, or Pressure • Safety Wire Attachments 360 degrees • Environmentally Friendly .....P/N 08-07174

# AIR OIL SEPARATORS – OIL ANALYSIS



## OIL FILTER BIB

For horizontal or angle-mounted filters. No more messy oil changes! Catches the Oil & the Filter. No Dripping. No Spillage. No Messy Clean-Ups. Easy To Use. Slide Bib Around the Oil Filter, pull up on Tabs and Tilt to Form a Seal, and unscrew the Oil Filter. Withstands High Temperature. Will not melt, weaken or leak from Hot Engine Oil and

Filter. Great for filters in tight places. Fits any sized filter. Disposable.  
3 pack ..... P/N 12-04883  
10 pack ..... P/N 12-04884



## SUPER SLIME FIGHTER®

Following in the success of the Slime Fighter® series of air separators, Aircraft Spruce now offers the Super Slime Fighter with the same ease of installation for large Lycoming engines found in aircraft such as the RV-10, Glassair III and the F1 Rocket. Installs in 20 minutes with no additional drain line required. Includes instructions. Clamps and hoses are only included in the RV-10 kit. RV-10 kit includes custom hose shape. Not FAA approved.

Standard (80HP-160HP) ..... P/N 08-13971  
Mid-Size (160HP-220HP) ..... P/N 08-13972  
Large (220HP-320HP) ..... P/N 08-13973  
RV10 Experimental ..... P/N 08-06152

## HOMEBUILDER'S OIL BREATHER/SEPARATOR



These 4 inch diameter reservoirs have beaded outlets for 5/8" I.D. hoses and a mounting flange for easy firewall attachment. These units are of a new, improved design and the reservoir body is now a spun aluminum bowl for optimum performance. The oil separators minimize oil loss and allow free breathing of the engine. They are recommended for experimental aircraft use only and are not STC'd for any certificated aircraft. Size: 4" dia. x 3-3/8" h. .... P/N 10570

## RMJ-AERO OIL SEPARATOR



Designed to remove oil from the engine crankcase breather line providing the builder with a cleaner plane, less oil consumption, and prolonged engine life from maximum cooking, cleaning, & lubrication. Fashioned after Tony Bingelis' proven design, these separators incorporate several enhancements, including O-ring seals for the lid. Fabricated from aircraft quality materials, TIG welded, and anodized for corrosion control. They can be firewall or cooling baffle mounted with the cushion clamp provided. The design allows for easy installation in the breather line by the use of hose clamps. Oil from the separator is returned thru tubing to a port in your engine's housing. Should your engine not have an available oil return port, RMJ-Aero can provide a Self Sealing Clamp-On Adapter utilizing your engine's oil filler neck. Installation of this adapter is easy for both flying and aircraft under construction. When clamped in place around the filler neck, the adapter provides a return port for separated oil and an integral seal, which prevents leakage. Installation & maintenance guidelines are included.

Description	Part No.	Price
Oil Separator for Lycoming (3/4" inlet/outlet)	08-00571	---
Oil Separator for Cont. (5/8" inlet/outlet)	08-00572	---
Adapter for Lycomings	08-00577	---
Adapter for Continentals	08-00578	---

## ANDAIR OIL/AIR SEPARATOR



The OS8850 has been designed to remove the oil from the crankcase breather on Lycoming and Continental Engines. This gives reduced oil consumption, cleaner aircraft, and environment. • Upper outlet can rotate through 360° allowing easy installation. • The unit can be dismantled for inspection/cleaning. • Vortex swirl separation. O-Ring seals • Light weight: 6.4 oz. • 4 off 10-32 mounting lugs on the base of the separator for easy fire wall mounting.

P/N 08-01034

## ANDAIR CONDENSATION TRAP



This new device is a small and very light weight condensation trap. It is used to extract the water from the oil when used in conjunction with the Andair Oil / Air Separator. Water can build up in the engine due to water in the air condensing during a cold night. Overnight this water sinks to the bottom of the sump settling at the lowest point. This is generally where

the oil pump pick up is. Therefore there is a real potential that if one of these devices is not used water can build up in the engine. Flight test have shown that the worst possible condition for water in the oil is on humid days, cold nights and where short flights are undertaken.

P/N 08-01035

## METAL CHECK ENGINE OIL ANALYSIS KIT



This oil analysis kit is used for determination of the condition of oil wetted engine parts, even on the first sample. This laboratory analysis consists of ICP (Inductively Coupled Plasma Spectroscopy) quantitation of 12 wear metal elements for piston and turbine engines. The analysis is completed in 24 hours - abnormal results are communicated immediately. Available in two versions: with return postage included and without return postage included to fit your needs! AV Lab is recommended or authorized by most engine manufacturers. The kit is excellent for pre-purchase inspection.

**Not applicable for hydraulic fluid.**

**OIL ANALYSIS RESULTS - INCLUDING INTERPRETATION AND STATISTICAL ANALYSIS, ARE AVAILABLE ONLINE.**

Return Postage Included ..... P/N 08-00931

Return Postage Not Included ..... P/N 08-10691

## METAL CHECK AIRCRAFT ENGINE OIL FILTER ANALYSIS KIT



Includes oil and oil filter analysis. Oil filter debris analysis should be part of all preventative maintenance programs. Filter analysis is critical for turbine

engines because they generate predominately larger wear particles that are trapped by small micron filtration. The oil filter is rinsed and the exact alloys presents in the debris are determined by SEM/EDXRF. The AMS number, amount, type, form, and condition of the particles are reported.

**Features:** • Largest Oil Analysis Results Database • The Most Accurate Interpretive Results Guidelines • The Most Experienced staff. • Recommended, Approved, or Authorized by Engine Manufacturers. • 24 Hour a Day Service Available 7 Days a Week. Large Oil Analysis Kit.

P/N 08-06270

## CHAMPION OIL FILTER ANALYSIS KIT



Champion Oil Filter Analysis Kit can help you detect abnormal engine wear and even predict impending engine trouble, because it provides a comprehensive analysis of both the larger wear particles in the oil filter and the finer wear particles in the engines oil.

P/N 08-01051

## OIL DIPSTICKS



New manufacture oil tank dipsticks stamped with proper calibration markings.

Dipstick Short Neck 9-1/2" ..... P/N 08-04612

Dipstick 6 Qt. Short Neck 11-3/4" for O-200, C-90

P/N 08-04613

**VERNI-THERM VALVE** - Lycoming thermostatic oil cooler bypass valve wt. 4 oz. .... P/N 08-12154



## THIXO # 2 AVIATION GREASE - 425 GRAM TUBE

ThixO #2 Aviation Grease: A high performance water resistant grease using advanced thickening agents and superior lubricant chemistry. ThixO #2 Aviation Grease is a specialty lubricant designed for specific aviation applications primarily to prevent rust, corrosion, and seizing of critical components in drives, hub sets and splines. ThixO#2 Aviation Grease demonstrates outstanding shear stability and exhibits a broad temperature range (-35C to >250C) dependent on application requirements.

P/N 08-13829



## THIXO SYNTHETIC AVIATION GREASE - 400 GRAM TUBE

ThixO SYN Aviation Grease: A high performance synthetic extreme temperature grease using overbased calcium sulphonate thickener and advanced lubricant chemistry. Specifically designed for aviation applications. ThixO SYN Aviation Grease is a specialty lubricant designed for specific aviation applications including helicopter rotor shafts, splines and hub assemblies for the Bell 206A, 206B and 206 L Models ..... P/N 08-13830

## DOW CORNING 55 MOLYKOTE O-RING GREASE



Molykote 55 is a strong, silicone-based substance that will swell natural rubber and other materials to make a more powerful seal. Typical Use: Used for dynamic lubrication and sealing between rubber and metal parts in pneumatic valves. Typical applications are found within the aircraft, automotive and other industries.

5.3 oz. Tube ..... P/N 08-13684

8 Lb. Can ..... P/N 08-13685

EP

# OIL COOLERS

## OIL COOLER APPLICATION CHART

Aircraft Model	Aero Classic Part No.	Positech Part No.	Stewart Warner Part No.
Beech 10, C23, A24R, C24R	8000075	4211	8406R
Cessna 150, 152, A152, 170, 170, 172, 175, 177	8000075	4211	8406R
Experimental	8000081	4215	10599
Piper PA23-150, PA28-140, PA23-160 (SN 23-163 up), PA28-150, -151, PA28-160, -161, PA28-180, -181	8000075	4211	8406R
PA18, PA18A, PA22-135, -150, -160	8000328		
Pitts S2B	8000215	4219	10611
Stinson 108, 108-1, -2, -3	8000075	4211	8406R
Taylorcraft F22B, F22C, F22R	8000075	4211	8406R

## MEGGITT TROY OIL COOLERS

### MEGGITT TROY 8406R



MEGGITT TROY South Wind 8406R (formerly Harrison P/N 8526250). Applicable to all Lycoming installations from 4-cylinder 0-235 through 6-cylinder IO-540 engines. Inlet & outlet ports accept 3/8" pipe fittings. Fits Beech B-19 Sport (0-320-E2C), C-23 Sundowner (0-360-A4G), Muskateer (0-360-A2G), Cessna 172 Skyhawk (0-320-E2D), 177 Cardinal (IO-360-AF6D), 177 Cardinal (0-360-A1FG), 177 Cardinal RG (0-360-AFGD),

Mooney Ranger (0-360-A2D). Size: 7.75"l x 3.5"d x 4.75"h. Wt.: 4 lbs.  
**Model 8406R** ..... P/N 8406R  
**Model 8432R** - Fits Beech A24R Sierra (IO-360-A2B), Mooney Chaparral (IO-360-A1A), Mooney Mark 22 (TIO-541-A1A). Weight 4 lbs. size: 5-3/4"Hx8"Wx3-5/8"L ..... P/N 8432R  
**Model 10611R** - Fits Piper Single Engines..... P/N 10611R  
**Model 10599R** - Fits Cessna and Stoddard ..... P/N 10599R  
**Model 10578R** - Fits Gulfstream AA-1 ..... P/N 10578R  
**Model 10610R** - Fits Cessnas ..... P/N 10610R  
**Model 10568R** - Fits Gulfstream AA5B, GA-7 ..... P/N 10568R  
**Note:** The oil coolers manufactured by MEGGITT TROY formerly Stewart Warner will fit the aircraft listed but in most cases are not furnished with the FAA/PMA certification for those aircraft. The exceptions are P/N 8406R and P/N 8432R are furnished with FAA/PMA approval for certain Mooney aircraft. For all other applications, Form 337 field approvals are required for installation on certificated aircraft. Call for further information.

## HOMEBUILDER'S ENGINE CRANK CASE OIL BREATHER



This is a 3-1/4" dia. can reservoir with a 3/4" or 5/8" od hose barb outlet, 1/8npt curtis drain valve on bottom of can, and a fire wall mounting bracket. Item also available with a 5/8 od hose barb outlet, please call or email for price & availability. It keeps oil in can and off belly of airplane then can be drained later with petcock. Helps to keep crank case condensation to a minimum. Recommended for experimental aircraft use only not STC'd for certified aircraft.

3/4" od hose barb outlet ..... P/N 08-00765  
 5/8" od hose barb outlet ..... P/N 08-07219

## OIL COOLER AIR SHUTTER



This product will add full control of air entering the oil cooler, thus giving the pilot some degree of control over the oil temperature. This basic product was offered for several years by another manufacturer, who ceased production. At this point we tooled up, made a few improvements to the rigidity, air flow, materials, and ease of operation. No restriction, when fully open these will flow 35% more air than the oil cooler will pass. The weight is only 5.5 oz. (a small price to pay for full control). The dimensions are 3.5" X 5.5" (against cooler opening), 4.5" X 6.5" (mounting flange), 7.75" to top of control arm. The thickness is .187". This can put to rest, fears of flying with your oil temperatures too low for efficient engine operation in cold climates, and greatly cut warm-up time for take-offs in any climate.  
 P/N 05-21817

## AERO CLASSICS REMOTE MOUNT OIL COOLERS



### 8000357 Bar & Plate

Aero Classics offers the General Aviation community the largest number of FAA-PMA. (Federal Aviation Administration - Parts Manufacturing Authority) approved oil coolers in the world. Remote-mount oil coolers mount to the airframe or engine baffle instead of directly to the engine. Hoses are used to connect the oil cooler to the engine. This type of oil cooler is used with most non-Continental engines including all Lycoming engines. All FAA-PMA approved with supporting FAA 8130-3 documentation unless otherwise noted. All models have 3/8 NPT inlets and outlets. All Aero-Classic coolers come with a full two year warranty. Note: Models 8000081, 8000706 & 8000942 are for experimental aircraft only. Not FAA-PMA Approved. \*\*\*May not work with all applications\*\*\*

Model No.	Description	FAA/PMA Approved	Part No.	Price
8000075	7 Row Drawn Cup	YES	08-00640	---
8000074	9 Row Drawn Cup	YES	08-00641	---
8000081*	10 Row Drawn Cup	NO	08-00642	---
8000215	13 Row Drawn Cup	YES	08-00643	---
8000216	17 Row Drawn Cup	YES	08-00644	---
8000353	18 Row Drawn Cup	YES	08-00808	---
8000328	Bar & Plate	YES	08-00809	---
8000343	9 Row 2 Pass Drawn Cup	YES	08-00810	---
8000356	Bar & Plate	YES	08-00811	---
8000357	Bar & Plate	YES	08-00812	---
8000590	Bar & Plate with Valve	YES	08-07408	---
8000661	13 Row Drawn Cup	YES	08-07409	---
8000618	Bar & Plate with Valve	YES	08-07410	---
8000706	Bar & Plate	NO	08-07411	---
8000942	Bar & Plate	NO	08-07412	---
8000950	Bar & Plate with Valve	YES	08-07413	---
8000997	Bar & Plate with Valve	YES	08-07414	---
8001201	7 Row Bar & Plate	YES	08-07415	---
8001241	3 Hole 7" Oil Cooler	Yes	08-16189	---
8001467	Bar & Plate With Valve	Yes	08-16190	---
8001628	3 Hole 7" Oil Cooler	Yes	08-16191	---
8001819	2 Hole 8" Oil Cooler	Yes	08-16192	---
8002015	Remote Mount Oil Cooler	Yes	08-16193	---
8002038	Remote Mount Oil Cooler	Yes	08-16194	---
8002319	Remote Mount Oil Cooler	Yes	08-16195	---
8002320	Remote Mount Oil Cooler	Yes	08-16196	---
8002437	Remote Mount Oil Cooler	Yes	08-16197	---

## AERO CLASSICS "HE SERIES" AVIATION OIL COOLERS



Aero's HE Series (High Efficiency) FAA-PMA oil coolers are designed to be direct replacements for Stewart Warner (today known as Meggitt) oil coolers - most of which do not have FAA-PMA. Aero-Classics HE

Series oil coolers are intended to be a competitively priced option for those whose aircraft came with a Stewart Warner oil cooler. The HE Series come with full FAA-PMA documentation, an industry leading 2YR/2,000HR warranty, and heat rejection capabilities that match or exceed the competition.

Aero's HE Series oil coolers are approved for use on many Beech, Cessna, Grumman, Mooney, Robinson Helicopter, and other popular aircraft makes. Listed below is the SW part number and the corresponding Aero-Classics HE Series replacement part number.

SW Part No.	Aero Part No.	Description	Part No.	Price
10578R	8001535	4 Row 6" Long Core	08-07425	---
10877A	8001588	6 Row 7" Long Core	08-07426	---
10599R	8001599	8 Row 6" Long Core	08-07427	---
8406R	8001602	6 Row 6" Long Core	08-07428	---
10568R	8001640	5 Row 6" Long Core	08-07429	---
10614R	8001643	14 Row 6" Long Core	08-07430	---
10610R	8001646	10 Row 6" Long Core	08-07431	---
10611R	8001649	11 Row 6" Long Core	08-07432	---
10634R	8001652	12 Row 6" Long Core	08-07433	---
8432R	8001689	8 Row Dual Pass 6" Long Core	08-07434	---
8432S	8001694	8 Dual Pass 6" Long Core	08-07435	---
10865B	8001701	16 Row 7" Long Core	08-07436	---
10880A	8001713	16 Row Dual Pass 7" Long Core	08-07437	---
10891A	8001718	14 Row Dual Pass 6" Long Core	08-07438	---
10886A	8001723	16 Row 7" Long Core	08-07439	---
8406R	8001733	6 Row Bar & Plate 8" Long Core	08-07440	---

# OIL COOLERS

## AERO CLASSIC CONTINENTAL OIL COOLERS



**8000545 10" Non-Congeaing  
Universal 7th Stud**

require hoses. All FAA-PMA approved with supporting FAA 8130-3 documentation, and full two year warranty.

Aero-Classic's engine mounted oil coolers for Continental powered aircraft offer high quality features such as a CNC machined base for reliable, leak-proof mounting. Aero's line of Continental front mounted oil coolers feature a hassle free design that accommodates both 7th stud and non-7th stud engine cases - eliminating the chance of getting the "wrong" oil cooler. The oil coolers on Continental engines often mount directly to the engine and do not

Model No.	TCM Part No.	Description	Spruce Part No.	Price
8000545	639171	10" Non-congealing Universal 7th Stud Front Mount	08-04961	---
8000319	639151	11" Non-congealing Universal 7th Stud Front Mount	08-04963	---
8000531	639152	11.5" Non-congealing Universal 7th Stud Front Mount	08-04965	---
8000683	626189	12 Bolt Congeaing Non 7th Stud Front Mount	08-04967	---
8000687	652671	12 Bolt Congeaing 7th Stud Front Mount	08-04968	---
8000925	627392	8 Bolt Front Mount	08-07418	---
8000440	654580	Rear Mount	08-07419	---
8000464	646685	Rear Mount	08-07420	---
8000934	646880	8 Bolt Rear Mount	08-07421	---
8000953	654585	Rear Mount	08-07422	---
8000960	654572	Rear Mount	08-07423	---
8001213	655090	Rear Mount	08-07424	---

Note: Some part numbers have been superseded

8000677 (our part # 08-04962) superseded by 8000545 (our part # 08-04961)  
8000307 (our part # 08-04964) superseded by 8000319 (our part # 08-04963)  
8000127 (our part # 08-04966) superseded by 8000531 (our part # 08-04965)

## NDM OIL COOLERS



NDM is one of the world's largest volume manufacturers of FAA approved oil coolers. An approved supplier to both Lycoming and Continental, as well as many airframe manufacturers, NDM holds FAA/PMA's for most of these oil coolers. NDM oil coolers are manufactured utilizing the vacuum oven brazing process rather than the less costly Controlled Atmosphere

Brazing (CAB) method used by others to save costs. Utilizing the vacuum oven process guarantees a high quality product and lower warranty returns. If you are not sure which NDM oil cooler is FAA Approved for your aircraft, please provide the aircraft model & serial number and we will determine the correct oil cooler for your application.

Part No.	NDM Part No.	Stewart Warner Part No.	Price
08-00740	20002A	8406R	---
08-00741	20003A	N/A	---
08-00742	20004A	10599R	---
08-00743	20005A	N/A	---
08-00744	20006A	10611R	---
08-00746	20008A	10614R	---

## OIL THERMOSTAT SYSTEM



Designed to regulate the oil temperature on engines like the Rotax and Jabiru. If you are flying time and time again and the engine temperature is only getting to say 85°C the water will remain in your oil as a contaminant and can go on to destroy your engine with corrosion problems. Additionally, warmup is achieved very quickly on even the coldest of days because the thermostat diverts the oil flow from the oil cooler. Made in the USA these special oil thermostat units are designed to quickly allow your engine to reach and maintain its optimum operating temperature even on the coldest of days. CNC machined from 6061-T6 the unit is anodized with the type 2 surface finish to protect the thermostat long-term against corrosion. There are a number of benefits in using an oil thermostat in your aircraft which include fuel savings resulting from quick warmup times and engine operation at optimum oil temperature which also increases engine life because the engine is being operated at the correct oil temperature. Does not include Hardware.

P/N 08-07212



## ROTAX 912 12.5MM OIL COOLER HOSE

912 Oil Cooler Hose 12.5mm high heat hose for 912-914 oil coolers. Sold by the foot .....P/N 15-06907

## OIL COOLER DUCT SYSTEM



This economical duct system provides the aircraft builder with a simple way to route cooling air to Stewart Warner style oil coolers. Manufactured from .040 aluminum, this kit was designed for use on RV series aircraft but is ideal for virtually any homebuilt using a firewall mounted oil cooler. Kit includes baffle duct, oil cooler duct, hardware, & installation instructions.....P/N 08-05000 ea

## ALUMINUM SIDE LOUVERS



These side louvers let hot air out of your engine compartment - or, if they are installed with the louvered openings facing forward, to bring cool air into the engine compartment, enhancing performance and service life of the engine and under-hood components. Helicopter owners often mount these over their oil cooler to let cool air in and help reduce operating temperatures. Complete with do-it-yourself instructions and hardware. Rest a set on your plane, hood or fender- see just how good they look! (2) 2-11/16" x 12-1/4" Semi-Gloss Black .....P/N 05-04969  
Aluminum.....P/N 05-04968

## ALUMINUM COOLING LOUVERS



These aluminum cooling louvers are custom made and designed to improve the cooling of your engine compartment on your experimental aircraft. They are simple to install, and will dramatically lower your CHT temps, as well as your oil temperature. The standard size of the aluminum plate is 12" long and 5" wide, and the outside flange can be trimmed to fit your application. There are a total of 9 louver slots which aid in cooling.....P/N 08-07625

## OIL DOOR HINGE



The hidden hinge has a uniquely shaped arm that allows the hinge to be mounted completely out of view to the underside of the cowl. The center hinge eye is removed for the custom made spring that loads the hinge to be full open when unlatched. If your oil door unlatched it will be full open, eliminating accidentally taking off with the oil door unlatched. The hinge is aircraft quality extruded MS20001-4 hinge with a 3/32" steel hinge pin. One end of the hinge pin is flattened. When installed and closed the hinge pin is gripped tightly by the force of the spring. Oil Door Hinge .....P/N 12-04708  
Replacement Spring ....P/N 12-04709

# OIL COOLERS – OIL SEPARATORS



## X-SERIES OIL COOLERS BY AIRFLOW SYSTEM

The first aircraft oil cooler design in 50 years. Computer modeling and flight testing have been used to develop coolers that deliver significantly lower oil temps with no increase in oil cooler size or oil pressure drop. Designed as a direct replacement for popular oil coolers used in experimental aircraft, the X-SERIES oil coolers are built to Airflow Systems specifications and certified aircraft oil cooler standards. Flight testing on the popular RV series of aircraft has shown oil temperature drops of 10 -15 degrees F for coolers of the same size in the same location. Not FAA approved.

Model	Size	Engine Application	Notes	Part No.	Price
2002X	7 Rows	Continental O-200, Lycoming O-235, Lycoming O-320, Lycoming O-360, Lycoming IO-360, Corvair, Subaru, VW	Max 180 HP. No piston squirters or cold air induction	08-06153	---
2004X	10 Rows			08-13963	---
2006X	13 Rows			08-06154	---
2007X	15 Rows	Lycoming O-360K, Lycoming IO-360, Lycoming IO-540	Go up one size for piston squirters, cold air induction, aerobatic and/or float plane applications	08-13964	---
2008X	17 Rows			08-06155	---

## AIRFLOW SYSTEMS ASOCD-45-13BV OIL COOLER DUCT BUTTERFLY VALVE



Airflow System 4 inch butterfly valve for modulating airflow to oil coolers installed on 45 degree duct. It's Welded in metal shaft bushings, not plastic. The CNC machined lever arm with pinch bolt allows for various positions on shaft. Has proper swiveling cable attachment with set screw. May be mounted in multiple orientations. It is anodized for corrosion resistance and appearance .....P/N 08-17116



## AIRFLOW SYSTEMS ASOCD-45-13 OIL COOLER DUCT

Airflow System 45 degree metal duct for 13 row oil coolers. Has a 4" diameter hose connector. May be mounted in multiple orientations. Is also anodized for corrosion resistance and appearance.

P/N 08-17115

## AIRFLOW SYSTEMS ASOCD-4-BV BUTTERFLY VALVE



Airflow System 4 inch butterfly valve for modulating airflow to oil coolers. Welded in metal shaft bushings, not plastic. CNC machined lever arm with pinch bolt allows for various arm positions on shaft. Proper swiveling cable attachment with set screw. Mounting ears allow easy attachment to rear baffles or air box (holes on 4.95 diameter centers). Anodized for corrosion resistance and appearance .....P/N 08-17117

## AIRFLOW SYSTEMS OIL COOLER INSTALLATION KITS



Airflow Systems oil cooler brackets and mounting hardware kits offer the homebuilder a quick and easy solution for firewall mounted oil cooler installations. A variety of mounting angles cover most applications at a cost that is often little more than the cost of material for a builder made bracket. The generous radiuses resist cracking. Delivered without holes but including an oil cooler mounting hole template the brackets may be tailored to individual installations.

Description	Part No	Price
Asik-01 Oil Cooler Installation Kit Bolts & Spacers	08-13968	---
Asik-02 Oil Cooler Install Kit 45° Bracket	08-13969	---
Asik-03 Oil Cooler Install Kit 90° Bracket	08-13970	---



## OIL SEPARATOR INSTALL KITS

Included are three feet of high quality silicone hose, four quality hose clamps, one steel braid -4 AN Teflon oil return hose, one -4 AN X 1/8" NPT 90 Deg. Fitting and one 1/8" X 3/8" NPT reducer bushing that fits the oil return in the accessory case on most Lycoming engines. Also included is a new accessory case breather fitting that is more IO-540 friendly when installing on the six cyl engines. Full installation and maintenance instructions will be included as well.

Description	Part No	Price
4 Cylinder Install Kit	05-12370	---
6 Cylinder Install Kit	05-12482	---



## E-Z COOL FLAP

This revolutionary product, the "EZ Cool Flap" is a long awaited solution to this sometimes challenging task of climbing out without high CHTs. This revolutionary, retrofit electric cowl flap product will definitely help calm the fears of many RV owners and builders of these great aircraft. Our effort turned out to be far greater in monetary and time investment than we initially planned but, all good things take time. After a considerable investment in design, engineering and testing many different configurations, learning and improving along the way. We now offer our product as the most logical, simple and easily installed device to address these temperature concerns. This product is constructed of the finest aircraft alloys and workmanship available and is far superior to any and all other solutions available at any price. This product only weighs a few ounces, is extremely easy to use, and offers unparalleled protection for your aircraft engine.....P/N 05-12374



## CRANKCASE VACUUM KIT

Included are the 321 stainless steel saddle mount fitting, mounting clamps, vacuum valve assembly and a complete safety by-pass with a .25 psi internal pop-off valve. This will put the finishing touch on your oil separator installation or breather system. Your engine will virtually stop all leaks and seeping when in service, due to the vacuum inside. This system stops any possibility of freezing up the breather tube in cold climates, as no moisture laden air is present in the engine and none can be inhaled through the overboard draft tube. The rarefied air and low pressure in the crankcase has a very dramatic effect on windage and oil in suspension, thus freeing up a little power and adding some efficiency. This will also greatly lower the boiling point of any moisture that finds its way into the engine. Any oil temperature over 160 degrees will get rid of all the moisture in turn the acids. Any lowering of pressure on the underside of the pistons is exactly the same as adding cylinder pressure on top. This results in a very noticeable power increase (on the average 180 HP engine, 3 to 5 HP). We hear this over and over with reports of higher static RPM, better climb and acceleration, lower fuel burn etc. The belly of your airplane will stay immaculately clean as anything that exits the separator or breather line will be consumed in the exhaust stream.....P/N 05-12429



## MAGNETIC SUPER PLUG

This is the most powerful plug available and was designed specifically for GA aircraft use. This is about the least expensive thing you can add to your aircraft that will extend engine life and prevent damage to your engine. The plug end is very high quality with a special rolled thread to prevent leaks, is cad plated to prevent corrosion and drilled for safety wire. The rolled thread size is 1/2" npt and this fits all Lycoming, Continental, Franklin and many other aircraft engines. The extremely powerful high temperature, Alnico magnet is pressed and locked into the plug permanently and will outlast your engine. This powerful device extends into the oil and removes all ferrous material that is suspended in and circulating with your oil causing wear.....P/N 05-12373



## THE A.S.A. OIL SEPARATORS

"THE ASA OIL SEPARATOR" is a solution to the oil consumption and collection of oil on the belly of your aircraft. The breathers kick out oil mist that collects on the belly that in turn grabs all the dust and dirt. For years we have been making this type of product used in automotive racing engines so the leap to a light weight aircraft unit was a small one. After many hours on the dynamometer many changes and hours of flight testing the effort was well worth it. "ASA Oil Separator" that in our tests out performs most of the competition at a fraction of the price.

Description	Part No	Price
4 Cylinder Polished Mirror	05-12369	---
4 Cylinder White Powder	05-12472	---
6 Cylinder Polished Mirror	05-12473	---
6 Cylinder White Powder	05-12474	---

# OIL ANALYSIS KITS - ENGINE TREATMENT

## AVIATION OIL ANALYSIS (AOA) KIT



08-00436

A cost-effective service to enhance your aviation maintenance practices and provide confidence in the health of your engine. Aviation Oil Analysis (AOA) by ALS Tribology Division brings you a state-of-the-art oil analysis program designed specifically for aircraft owners. Oil analysis is an early warning system that reduces downtime, lowers maintenance costs, and helps you spot troubling issues before they become serious problems. AOA 'basic' kits can be ordered with or without return postage and include standard elemental analysis to detect evidence of engine component wear. A small vial, mailing bag, and information form are furnished with the order. Upon receipt at the laboratory in Phoenix, AZ, the oil sample is analyzed and a full report, including statistical analysis and interpretation, is forwarded within 24 hours and posted for viewing online. Note: insufficient postage will cause a delay in receipt of your sample, please consult your local post office or contact the laboratory (1-800-445-7930) regarding current postage rates.

Description	Part No.	Price
Basic Kit for Piston Engines (with return postage)	08-16223	---
Advanced Kit for all Engines (with return postage)	08-16225	---
Comprehensive Kit for all Engines (with return postage)	08-16226	---

## LAB ONE AVIATION LOA-101 OIL ANALYSIS KIT WITH PREPAID POSTAGE



This kit includes a sample bottle, shipping container and the paperwork. Upon receipt, your sample will be processed within 24 hours with the results emailed or mailed from Lab One in Phoenix, AZ. Can be used on any reciprocating or turbine engine and helicopter transmissions and tail rotors.  
P/N 08-17164

## AVIATION LABS OIL FILTER ANALYSIS



Analysis of the oil filter only. The oil filter is rinsed and the debris removed is analyzed. The exact alloys present are determined by Scanning Electron Microscopy and EDXRF. The alloys are reported by AMS number. Amount, type, form and condition of particles are reported. Alloy spectra and metal maps for most aircraft engines. Filter analysis is a critical part of all preventative maintenance programs. Aviation Laboratories has been a leader in the development of filter analysis programs for aircraft engines since 1985. Analysis completed in 24 hours. pre-purchase inspection ..... P/N 08-10692

## OTHER OIL ANALYSIS KITS

Description	Part No.	Price
Aviation Labs APU Oil Analysis	08-10693	---
Aviation Labs CF34 Oil Filter Analysis	08-10694	---
PW-MOP-NO PW100 Oil Filter Analysis	08-10695	---
PW-RGB-NO PW100 Oil Filter Analysis	08-10696	---
Aviation Labs PW305 Oil Filter Analysis	08-10697	---
Aviation Labs FJ44-33 Oil Filter Analysis	08-10698	---
Aviation Labs Chip Flakes Analysis	08-10699	---
Aviation Labs AE3007 Oil Filter Analysis	08-10700	---
Aviation Labs GA001-OF-PTG Oil Filter Analysis	08-13834	---

## AVIATION LABS OIL FILTER RINSING AND CHIP KIT



Aviation Laboratories Oil Filter Rinsing Kit allows you to rinse your filter, collect and send in the debris/chips to the lab for analysis, while allowing you to still use your filter. You have the option to send in your filter as well ..... P/N 08-16388

## AVLABS 100 HOUR INSPECTION KIT



AvLabs 100hr Inspection Kit for JT15D engine.  
P/N 08-17183

## LYCOMING OIL ADDITIVE



Approved oil additive LW-16702 that contains an anti-scuffing agent and can dramatically reduce engine wear. Applicable to all Avco Lycoming piston aircraft engines, and factory recommends use at every oil change or every 50 hours, whichever occurs first. For 6-8 qt. sump, use one 6 oz. can, for 12-15 qt. sump, use (2) 6 oz. cans, for 17-19 qt. sump, use (3) 6 oz. cans, for 23 qt. sump, use (4) 6 oz. cans.  
P/N 08-05600

## CAMGUARD OIL ADDITIVE



Designed to dramatically improve the performance of all mineral based, semi-synthetic and fully synthetic motor oils in the areas of corrosion protection, wear reduction, and seal protection. Designed to make regular engine oil what it needs to protect and lubricate any engine. A synergistic blend of advanced oil additives from all over the world, designed to reduce wear, curb deposit formation and more importantly protect engines against rust and corrosion. It contains multiple corrosion inhibitors for both ferrous and non-ferrous metals. A combination of ashless anti-wear compounds, anti-oxidants designed to reduce carbon deposits and special seal conditioners

to prevent oil weeping. Camguard is FAA accepted and approved for use in piston engine aircraft oils meeting SAE-1899 standards.

1 pint.....	P/N 08-07096
4 pints.....	P/N 08-07097
Case of 12 pints.....	P/N 08-07097-1
Gallon.....	P/N 08-14636
Auto oil additive 8 oz.bottles.....	P/N 08-12126
Auto oil additive Case of 4.....	P/N 08-12126-1
Combo Pkg. - 4 Bottles Aviation & 1 Bottle Auto	P/N 08-07096-C
Marine oil additive 8 oz.....	P/N 08-01217-1
Marine oil additive Case of 4.....	P/N 08-12127
Camguard Small Engine Supplement (pint) ....	P/N 08-07402

## AVBLEND LUBRICANT



An oil supplement for all piston engine-powered aircraft owners and operators worldwide. Providing critical lubrication at start-up, AvBlend helps prevent accumulation of combustion chamber areas. Wear is reduced, engines stay cleaner and combustion chambers stay properly sealed. FAA approved. 4-cylinder engines require 1 can at each oil change, and 6 cylinder engines require 2 cans.  
12oz. can ..... P/N 08-05470  
1 Case (24 cans) ..... P/N 08-05470-1

## MOBIL AGL SYNTHETIC AVIATION GEAR LUBRICANT



Mobil AGL Synthetic Aviation Gear Lubricant offers measurably better wear protection for transmissions operating at high temperatures than Type I (MIL-L-7808) and Type II (MIL-L-23699) turbine oils, as well as wear resistance that is especially beneficial to military and other helicopters operating under unusual stresses. Mobil

AGL is formulated with synthesized hydrocarbon-based fluids. The combination of a naturally high viscosity index and a unique proprietary additive system help enable the gear lubricant to provide outstanding performance in extreme service applications at high temperatures, well beyond the capabilities of mineral oils. Note: ExxonMobil recommends Mobil AGL for use in helicopter transmissions only. Before using Mobil AGL, operators should confirm the OEM's approved transmission lubricants. Size: 5 Gallon ..... P/N 08-07406



## MICROLON AIRCRAFT ENGINE TREATMENT

One-time metal treatment that virtually eliminates friction in all internal combustion engines which improves performance (horsepower), reduces wear, and extends engine life. Also decreases fuel consumption, reduces oil consumption, and lowers operating temperatures. Impregnates the engines bearing surfaces, forming a dry film lubricant that lasts no matter how many times the oil is changed. Continental A-65, C-85, and C-90 engines take the Half Kit. Most Lycoming and Continental engines used in light aircraft take the Single Kit. Turbocharged and Radial engines take from 2 to 6 Single Kits. Call for details if you have any questions on the quantity of Microlon needed for your application.

Microlon CL-100 Aircraft Kit (Single).....	P/N 09-35805
Microlon CL-100 Aircraft Kit (Half) .....	P/N 09-35810

## SHELL WATER DETECTOR



Water can occur in jet fuel in three forms, dissolved (chemically in solution in the jet fuel), settled (as in free water at the bottom of the tank), or as finely dispersed undissolved water held in suspension. The Shell Water Detector is designed to detect undissolved water; it has been proven reliably for 30 years. This is water that a filter separator can remove, and is usually invisible to the eye in quantities below 40-60 ppm.

Tube of 10 Kits.....	P/N 08-13897-1
Box of 80 Kits.....	P/N 08-13897

# AEROSHELL AVIATION OILS



## AEROSHELL AVIATION OIL 15W-50 MULTIGRADE

AeroShell Oil W 15 W 50 is a premium semi-synthetic multigrade ashless dispersant oil specifically developed for aviation piston engines. AeroShell Oil W 15 W 50 is a special blend of a high quality mineral oil and synthetic hydrocarbons with an advanced additive package..

Single Quart.....P/N 08-05450  
Case of 6 .....P/N 08-05451-6  
55 Gallon Drum.....P/N 08-15636

## AEROSHELL AVIATION OIL W100 SAE50



AeroShell W100 is an ashless, SAE 50 dispersant oil that provides excellent service in all four cycle aircraft piston engines. AeroShell Oils W80, W100 and W120 are produced to meet fully the SAE specification J-1899 (Grades SAE 30, 40, 50 and 60 respectively). Furthermore, they all have military qualification approval and are listed on the Qualified Products List (QPL) issued by the US Navy.

Single Quart.....P/N 08-05400  
Case of 6 .....P/N 08-05401-6  
55 Gallon Drum.....P/N 08-15645

## AEROSHELL AVIATION OIL W100 PLUS



Single Grade Ashless Dispersant Engine Oils: AeroShell Oil W100 Plus and W 80 Plus are new single grade oils that combine proven AeroShell ashless dispersant technology with advanced antiwear additives. They are the oils for pilots who want a single grade that delivers extra protection and performance. AeroShell Oil W 100 Plus and W 80 Plus brings together the best qualities of two of the world's best-selling four cycle aviation oils.

Single Quart.....P/N 08-05485  
Case of 6 .....P/N 08-05486-6  
55 Gallon Drum.....P/N 08-15647

## AEROSHELL AVIATION OIL 100 SAE 50 MINERAL OIL



AeroShell Oil 100 is a straight mineral oil blended from selected high viscosity index base oil. This oil does not contain any additives except for very small amounts of pour point depressant (which aids to improve fluidity at very low temperatures) and an anti-oxidant. AeroShell Oil 100 is approved for all aviation piston engines of civil aircraft when the use of an oil not containing a dispersant additive is required; however, it should also be used during the break-in of a new aviation piston engine or those recently overhauled.

Single Quart.....P/N 08-05410  
Case of 6 .....P/N 08-05411-6  
55 Gallon Drum.....P/N 08-15642

## AEROSHELL AVIATION OIL W80 PLUS



Shell Oil W80 Plus introduces the anti-wear and anti-corrosion additives of AeroShell W100 Plus engine oil into a lighter, single-grade oil for use in colder climates. The anti-wear additive reduces wear on start-up by forming a microscopic layer on the engine's moving parts to prevent metal-to-metal contact when there is little oil present. Combined with a corrosion inhibitor, it is designed for pilots who fly either in cooler weather or less frequently.

Single Quart.....P/N 08-05920  
Case of 6 .....P/N 08-05919-6  
55 Gallon Drum.....P/N 08-15646

## AEROSHELL AVIATION OIL 80 SAE 40 MINERAL OIL



AeroShell Oil 80 straight mineral oils blended from selected high viscosity index base oils. These oils do not contain any additives except for very small amounts of pour point depressant (which aids to improve fluidity at very low temperatures) and an anti-oxidant. AeroShell Oil 80 approved for all aviation piston engines of civil aircraft when the use of an oil not containing a dispersant additive is required; should also be used during the break-in of a new aviation piston engine.

Single Quart.....P/N 08-07507-1  
Case of 6 .....P/N 08-07507-6  
55 Gallon Drum.....P/N 08-15641

## AEROSHELL AVIATION OIL W80



An ashless dispersant oil specifically developed for aviation piston engines. No general rule exists for every engine type when choosing the correct grade of oil; however, based on the average ambient outside temperature at engine start-up the most common grades are SAE 40, SAE 50 and SAE 60, which equates to AeroShell Oil W80, W100 and W120 respectively.

Single Quart.....P/N 08-00884  
Case of 6 .....P/N 08-01223-6  
55 Gallon Drum.....P/N 08-15644



## AEROSHELL AVIATION OIL W120 SAE 60

AeroShell Oil W120 is an ashless dispersant oil specifically developed for aviation piston engines. It combines non-metallic additives with selected high viscosity index base oils to give exceptional stability, dispersancy and anti-foaming performance. No general rule exists for every engine type when choosing the correct grade of oil; however, based on the average ambient outside temperature at engine start-up the most common grades are SAE 40, SAE 50 and SAE 60, which equates to AeroShell Oil W80, W100 and W120 respectively.

Single Quart.....P/N 08-19069  
Case of 6 Quarts .....P/N 08-19069-1  
5 Litre Container(1.32 gallons) .....P/N 08-00344-1  
Case of 3 .....P/N 08-00344  
55 Gallon Drum .....P/N 08-00344-55

## AEROSHELL TURBINE 500



A 5 centistoke synthetic hindered ester oil incorporating additives to improve thermal and oxidation stability and also metal passivation. AeroShell Turbine Oil 500 was developed essentially to meet the requirements of Pratt & Whitney 521 B Type II and MIL-L-23699 specifications and is entirely suitable for all civil and military engines requiring this class of lubricant. The outstanding high temperature and oxidation stability of AeroShell Turbine Oil 500 is due to the natural properties of the synthetic hindered ester base fluids used. These fluids are clean running in that they tend to dissolve varnish and sludge rather than leave deposits on working surfaces. Research and Development has enabled the most suitable selection of additive to be used in order to provide the excellent oxidation stability, superior load carrying and exceptional protection against high temperature corrosion of metals. AeroShell Turbine Oil 500 is also approved for use in the industrial and marine versions of certain aero-engines listed.

Single Quart.....P/N 08-00581  
Case of 24 .....P/N 08-00582

## AEROSHELL TURBINE OIL 555



An advanced 5 mm2/s synthetic hindered ester oil incorporating a finely balanced blend of additives to improve thermal and oxidation stability. Specifically developed to meet the high temperatures and load carrying requirements of SST engines and the DEF STAN 91-100 (formerly DERD 2497) and XAS-2354 specifications. AeroShell Turbine Oil 555 was also designed to give enhanced performance in current engines. More recently with the need to transmit more power and higher loads through helicopter transmission and gearbox systems (many helicopters use a synthetic turbine engine oil in the transmission/gearbox system) it has become apparent that the use of a very good load carrying oil, such as AeroShell Turbine Oil 555 is necessary.

Single Quart.....P/N 08-00757  
Case of 24 .....P/N 08-00758

## AEROSHELL TURBINE OIL 560



A third generation 'low coking' 5 centistoke synthetic hindered ester lubricating oil. It incorporates advanced additive technology and a fine balance of additives to resist the high temperatures generated by turbine engines. Also improves the thermal and oxidation stability. The outstanding high temperature and oxidation stability of AeroShell Turbine Oil 560 is due to the natural properties of the synthetic hindered ester base fluid used.

These fluids are clean running in that they tend to dissolve varnish and sludge rather than leave deposits on working surfaces. AeroShell Turbine Oil 560 was developed essentially to meet the high temperature requirements of both modern engines and future models.

Single Quart.....P/N 08-00759  
Case of 24 .....P/N 08-00760  
55 Gallon Drum .....P/N 08-15791

## AEROSHELL TURBINE OIL 308



AeroShell Turbine Oil 308 is a 3 mm2 /s synthetic ester oil incorporating additives to improve resistance to oxidation and corrosion and to minimize wear. AeroShell Turbine Oil 308 was developed specifically for use in particular models of aircraft turbo-prop and turbo-jet engines for which a MIL-PRF-7808 (formerly MIL-L-7808) oil is required. AeroShell Turbine Oil 308 contains a synthetic ester oil and should not be used in contact with incompatible seal materials and it also affects some paints and plastics.

Quart.....P/N 08-14702  
Case of 24 .....P/N 08-14702-1

# AVIATION OILS



## AEROSHELL TURBINE OIL 390

Helps to improve auxiliary power unit (APU) starting reliability, particularly coldsoak starting. Products such as ASTO 390 are commonly used in the APUs of four-engine intercontinental aircraft, but are now being considered for use in twin-engine aircraft.  
 Quart .....P/N 08-14703  
 Case of 24 .....P/N 08-14703-1



## AEROSHELL COMPOUND 7

AeroShell Compound 07 is a de-icing fluid composed of ethylene glycol, isopropyl alcohol and distilled water. AeroShell Compound 07 is also recommended for removing hoar frost and light snow/ice from parked aircraft. AeroShell Compound 07 can be sprayed undiluted or mixed with up to 50% volume of water, depending upon the severity of the icing conditions, the efficiency of the spraying technique and whether it is applied hot or cold.  
 5 Gallon .....P/N 08-14712



## AEROSHELL 2XN PRESERVATIVE FLUID

AeroShell Fluid 2XN is a corrosion preservative concentrate for protecting infrequently used engines. It uses an ashless anti-corrosion additive package and highly refined mineral base oils to protect internal engine surfaces from the Effects of humidity. It is also designed to neutralize the acidic by-products of oil oxidation and combustion. AeroShell Fluid 2XN can be used neat to long-term storage, but it is typically mixed with one part AeroShell Fluid 2XN to three parts fresh AeroShell Oil 100 to create an inhibited oil. It can also be sprayed undiluted on piston-engine exhaust ports, Rocker arms and accessories to provide additional protection.  
 5 Gallon .....P/N 08-14701



## AEROSHELL DIESEL ULTRA

AeroShell Oil Diesel Ultra is a fully synthetic, multigrade engine oil designed for use in the new generation of compression ignition (Diesel) Aviation Piston Engines. The formulation has been selected to be suitable in piston engines fueled by Jet A or Jet A-1 and is designed for use in the latest highly rated turbocharged diesel engines under all operation conditions. AeroShell Oil Diesel Ultra MUST NOT be used in spark ignition, or Avgas powered aircraft engines.  
 5W-30 Liter .....P/N 08-10754  
 5W-30 Case of 12 .....P/N 08-10754-1



## AEROSHELL OIL SPORT PLUS 4

AeroShell Oil Sport Plus 4 is ideal; as it is extremely resistant to the immense sheer forces that occur in areas of high-pressure contact such as high-speed gearboxes, valve trains, bearings, pistons and liners. This is where the blend of base oil and additives is most crucial. AeroShell Oil Sport Plus 4 is made up of a blend incorporating synthetic technology and high performance additives to provide long lasting protection. So when you change your oil to new AeroShell Oil Sport Plus 4, you are not only removing dirt from your engine, you are also replenishing the additives used to protect your engine during normal operation.

**DO NOT use AeroShell Oil Sport Plus 4 in engines that are designed to use Ashless Dispersant aviation piston engine oils such as AeroShell W Oils. This includes air cooled Teledyne Continental Motors, Textron Lycoming and Jabiru engines.**  
 4 Cycle Sport Plus 4 Oil (Case of 12) .....P/N 08-07047



## AEROSHELL TURBINE OIL 750

AeroShell Turbine Oil 750 is a 7½ mm2/s synthetic mixed ester oil containing a thickener and additives which provide excellent load carrying, thermal and oxidation stability.  
 Quart .....P/N 08-15765  
 Case of 24 .....P/N 08-15765-1



## MOBIL JET OIL II (AVIATION)

Mobil Jet Oil II helps keep oil systems clean. That can mean less maintenance more flying and greater revenue. Mobil Jet Oil II has a history of helping to keep aircraft where they belong - in the air generating revenue. Today, about 160 major airline use Mobil Jet Oil II in more than 11,000 gas turbine engines.  
 Quart .....P/N 08-00763  
 Mobil Jet II Case .....P/N 08-00764  
 55 Gallon Drum .....P/N 08-15960



## MOBIL JET OIL 254

Mobil Jet Oil 254 is a third-generation synthetic lubricant made from a specially prepared hindered-ester base stock fortified with a special chemical additive package. The result is a product having superior thermal and oxidation stability that resists deterioration and deposit formation, while maintaining the physical characteristics required by builder and military specifications.  
 QT. ....P/N 08-07374-1  
 Case .....P/N 08-07374



## EXXON MOBIL HYJET IV-A PLUS

Exxon HyJet IV-A plus is a fire-resistant phosphate ester hydraulic fluid designed for use in commercial aircraft. It is the best-performing Type IV fluid and approaches to a great extent many of the performance capabilities of Type V fluids, including high temperature stability, long fluid life, low density, and rust protection. It is superior to all other Type IV fluids in these respects. Exxon HyJet IV-A plus meets the specifications of all major aircraft manufacturers and SAE AS1241.

1 Quart .....P/N 08-15974-1  
 Case of 24 Quarts .....P/N 08-15974  
 1 Gallon .....P/N 08-15957-1  
 Case of 6 Gallons .....P/N 08-15957  
 55 Gallon Drum .....P/N 08-15974-55



## EXXON MOBIL HYJET V

Mobil HyJet V is a Type V fire-resistant phosphate ester hydraulic fluid, which is superior in thermal and hydrolytic stability to commercially available Type IV hydraulic fluids. Better stability means the extent of fluid degradation in aircraft systems will be less than Type IV fluids, in-service fluid life will be longer, and consequently aircraft operator maintenance costs may be lower. HyJet V provides excellent high and low temperature flow properties (kinematic viscosities) and rust protection. HyJet V has also demonstrated an improvement over the erosion protection performance afforded by Type IV fluids.

Quart .....P/N 08-19053  
 Case of 24 Quarts .....P/N 08-19053-1



## MOBIL JET OIL 387

Proactively developed to respond to the evolving needs of customers and the industry, Mobil Jet Oil 387 is the most advanced Mobil turbine oil ever developed. Specifically formulated to deliver unsurpassed engine performance, it strikes the perfect balance, providing optimal engine performance and advanced protection for engines and components. It will meet the performance requirements of both current and future, advanced gas turbine engines used in commercial and military service. Mobil Jet Oil 387 is approved for use in

an array of engine models and components.  
 Quart .....P/N 08-16230-1  
 Case of 24 Qt. ....P/N 08-16230  
 55 Gal. Drum .....P/N 08-16231

EP

# EASTMAN OILS – SKYDROL

## EASTMAN TURBO OIL 2380



Turbo Oil 2380 is recommended for the lubrication of most aircraft gas turbines and accessories. It is also recommended for the lubrication of aero-derived gas turbines in industrial power generation, offshore and marine applications.

Single Quart.....P/N 08-00761  
Case of 24.....P/N 08-00762  
5 Gallons.....P/N 08-13061  
55 Gallon Drum.....P/N 08-13753

## EASTMAN TURBINE OIL 2389



Turbo Oil 2389 is a 3 cSt synthetic lubricant. Turbo Oil 2389 is approved against US military specification MIL-PRF-7808L grade 3 and incorporates a level of technology from Type II (5 cSt) commercial turbine lubricants.

Single Quart.....P/N 08-13757-1  
Case of 12.....P/N 08-13757  
55 Gallon Drum.....P/N 08-13757-55

## EASTMAN TURBINE OIL 25



Turbo Oil 25 is a 5 cSt high load carrying synthetic lubricant which was developed to meet the requirements of supersonic aircraft engines. Approved against US military specification DOD-L-85734(AS), and UK military specification DEF STAN 91-100/1 (DERD 2497). Designed to meet the severe requirements of helicopters.

Single Quart.....P/N 08-13758-1  
Case of 12.....P/N 08-13758  
55 Gallon Drum.....P/N 08-13758-55

## EASTMAN TURBINE OIL 2197



Eastman Turbo Oil 2197 is a latest generation 5 cSt High Thermal Stability (HTS) synthetic lubricant that is approved against US military specification MIL-PRF-23699 HTS. It is formulated to provide exceptional high temperature cleanliness in vapor mist and liquid film areas, as well as outstanding oxidative, thermal and hydrolytic stability. It provides exceptional performance in the most demanding existing turbines as well as new generation turbines just entering service.

Single Quart.....P/N 08-12341  
Case of 12.....P/N 08-12341-1  
5 Gallon Pail.....P/N 08-13959

## EASTMAN TURBINE OIL 157 55 GALLON DRUM

Eastman™ HALO 157 is a clear amber colored fluid with a faintly aromatic odor reminiscent of turbine engine oils. It is based on selected polyol esters, the inherent characteristics of which are enhanced by additives, also fully compatible and miscible with other oils approved to specifications, MIL-PRF-23699 and MIL-PRF-7808. Multiple testing has been completed in bearing and gearbox rigs and flight evaluations culminating in the NATO standard (AIR STANDARD ACS 4035) for a 9 cSt advanced Helicopter Gear Box Lubricant.

P/N 08-13960

## ROYCO 363 LUBRICANT OIL



A general-purpose lubricant for instrument and wide range of airframe components for both military and civilian aircraft. It is suitable for use over a wide temperature range. • Specification: MIL - PRF - 7870 • NATO Specification: O-142 • Joint Service Designation: OM-12 • MIL-SPEC Scope: This specification covers one grade of general purpose, low temperature lubricating oil.

1 Gallon.....P/N 08-16236-1  
5 Gallon Pail.....P/N 08-16234  
55 Gallon Drum.....P/N 08-16235  
Gallon Case.....P/N 08-16236

## ROYCO 560 TURBINE OIL



A synthetic ester-based, broad application, 5 cSt turbine engine oil that is blended with corrosion inhibition in mind and for strong oxidative and thermal stability performance. These ester lubricants include hydraulic and aviation fluids, preservatives, turbine oils, drivetrain oils, performance greases and specialty products. They are engineered to meet or exceed the most rigorous application requirements including military specifications, Boeing approvals, and public transportation constraints.

Quart.....P/N 08-13989-1  
Case of 24 Quarts.....P/N 08-13989

## ROYCO 586M LUBRICANT OIL

A blend of highly refined mineral oils and additives that achieve excellent load carrying capacity and corrosion/oxidation inhibition. A higher viscosity and load carrying capacity than Royco® 586L Lubricating Oil. Designed for application in gear boxes and specified helicopter transmissions. High temperature load carrying lube which meets MIL - PRF - 6086 specifications. 5 Gallon.....P/N 08-16222

## ROYCO 555 TURBINE ENGINE OIL



Royco 555 is an advanced 5 centistoke synthetic lubricating oil for gas turbine engines and helicopter transmissions. The product is a blend of "hindered" polyol esters and a finely balanced modern technology additive package.

Quart.....P/N 08-17641  
Case (24 Quarts).....P/N 08-17641-24  
5 Gallon Pail.....P/N 08-17642



## SKYDROL LD-4 HYDRAULIC FLUID

Skydrol LD-4 was also introduced in 1978, and is today the largest selling aviation phosphate ester fluid in the world. At the time of its introduction it was a breakthrough product, solving problems of valve erosion and thermal stability common in earlier fluids. Its excellent thermal stability under real world conditions has given it a reputation as the gold standard among Type IV fluids. In recent years it has received an additional qualification of 5000 psi approval under Boeing BMS 3-11 (Type V, Grade B and Grade C). Skydrol LD-4 features low density, excellent thermal stability, valve erosion prevention, and deposit control.

Single Quart.....P/N 08-12239  
Case of 24 Quarts.....P/N 08-12239-1  
Gallon.....P/N 08-12241  
Case of 6 Gallons.....P/N 08-12241-1  
5 Gallons.....P/N 08-12240  
55 Gallons.....P/N 08-13994



## SKYDROL 500-B4 HYDRAULIC FLUID

The Skydrol 500 series of fluids has the longest service history among phosphate ester products. The first version, Skydrol 500, was introduced in 1952. Steady improvements to the formulation led in 1978 to the current version, Skydrol 500B-4 which contains the same breakthrough anti erosion additive and acid scavenger found in Skydrol LD-4. Skydrol 500B-4 is the most worker friendly of the aviation phosphate esters; it is least irritating to skin and less prone to form mists which can be irritating to the respiratory tract. This has given the product enormous popularity for use in workshops and indoor test stands.

Single Quart.....P/N 08-12463  
Case of 24 Quarts.....P/N 08-12463-1  
Gallon.....P/N 08-12462  
Case of 6 Gallons.....P/N 08-12462-1  
55 Gallons.....P/N 08-13995



## SKYDROL HYDRAULIC FLUID SKY-5

Introduced in 1996, Skydrol 5 was the first Type V fluid qualified under the Boeing BMS 3-11 specification. Skydrol 5 offers higher temperature capability than Type IV fluids, the lowest density, and better paint compatibility. Skydrol 5 does not have universal air frame manufacturer approval, so please consult Solutia's Skydrol Technical Service (800-260-4150) for specific approval and application information.

Single Quart.....P/N 08-12242  
Case of 24 Quarts.....P/N 08-12242-1  
1 Gallon.....P/N 08-13996  
Case of 6 Gallons.....P/N 08-13996-1  
5 Gallons.....P/N 08-13997



## SKYDROL PE-5 HYDRAULIC FLUID

Skydrol PE-5 was developed to meet and exceed the more demanding Type V fluid requirements. It features the longest fluid life of any commercially available fluid, low density and low viscosity at low temperature; an unbeatable combination of the best features for optimum fluid performance. Thermal Stability according to Airbus test method, Fluid life test with 0.5% moisture level.

Single Quart.....P/N 08-14001  
Case of 24 Quarts.....P/N 08-14001-1  
Gallon.....P/N 08-14003  
Case of 6 Gallons.....P/N 08-14003-1  
5 Gallons.....P/N 08-14005  
55 Gallons.....P/N 08-14006

## SKYKLEEN® 1000 AVIATION SOLVENT

A generation aviation solvent that combines excellent cleaning performance with environmentally friendly characteristics. **Cleaning Applications:** • Skydrol® removal • Polysulfide sealant removal (cured/uncured) • RTV removal Degreasing • Carbon removal (brake and piston housings) • Engine cleaning • Final cleaning prior to painting and bonding • General surface cleaning • Carbon epoxy composite surface cleaning • Fiberglass resin removal • Adhesive/epoxy removal.

16 oz.....P/N 08-13911  
Case of 16 oz.....P/N 08-13911-1  
5 Gallons.....P/N 08-13909  
54 Gallons.....P/N 08-13910



## SKYKLEEN® 2000 AVIATION SOLVENT

Combines excellent cleaning performance with environmentally friendly characteristics.

**Cleaning Applications:** • Adhesive/Epoxy Removal • Carbon Epoxy Composite Surface Cleaning • Carbon Removal (Brake and Piston Housings) • Degreasing • Engine Cleaning • Fiberglass Resin Removal • Final Cleaning prior to Painting and Bonding • General Surface Cleaning • Polysulfide Sealant Removal (Cured/Uncured) • RTV Removal • Skydrol Removal  
Single Quart.....P/N 08-13912  
Case of 8 Quarts.....P/N 08-13912-1

# AVIATION OILS & GREASES

## PHILLIPS OIL

### PHILLIPS 66 X/C AVIATION OIL 20W50



X/C oils provide easy starting and quick lubrication under low temperature conditions. Provides film strength and low wear under high temperature conditions. Provides excellent protection against engine deposits, ring groove carbon, piston lacquer, crankcase sludge and oil oxidation. Contains ashless dispersant which keeps engine clean. With more than 10 years of outstanding field performance, X/C oil meets Avco-Lycoming & Teledyne Continental engine specifications.

Single Quart.....P/N 08-05300  
Case of 12 Quarts.....P/N 08-05301  
Gallon.....P/N 08-13854-1  
Case of 4 Gallons.....P/N 08-13854  
55 Gal. Drum.....P/N 08-07506

### PHILLIPS 25W-60 ENGINE OIL



X/C 25W-60 is the first and only multiviscosity aviation oil designed and approved for radial engines originally designed to run on 120 grade. Pilots and mechanics will notice immediate benefits with X/C 25W-60 over single grade oils. Benefits such as improved oil flow at startup, quicker warm-up time, cooler operating temperatures and a cleaner operating engine.

X/C 25W-60 also has proven corrosion protection in extreme conditions. X/C 25W-60 can be used year-round, during break-in and on to TBO.

Quart.....P/N 08-13856-1  
Case of 12 Quarts.....P/N 08-13856  
Gallon.....P/N 08-00885  
Case of 4 Gallons.....P/N 08-00886  
2.5 Gallon.....P/N 08-13023  
2.5 Gallon Container (Case of 2).....P/N 08-13857  
55 Gallon Drum.....P/N 08-13855

### PHILLIPS 66 VICTORY AVIATION OIL 20W-50



Phillips 66® Victory AW 20W-50 Oil is an ashless dispersant, multi-grade engine oil specially formulated for year-round use in aircraft piston engines. Victory AW 20W-50 Aviation Oil is recommended for use in opposed piston engines. It can replace Commercial Grade 65, 80 or 100 single-grade engine oils with no sacrifice in performance.

Quart.....P/N 08-17114-1  
Case of 12 Quarts.....P/N 08-17114  
55 Gallon Drum.....P/N 08-17114-55

### PHILLIPS 66® AVIATION OIL VICTORY 100AW



Phillips 66® Victory Aviation Oil 100AW is an ashless dispersant, single-grade engine oil pre-blended with the proper concentration of antiscuff/antiwear additive (LW-16702) as mandated by Lycoming Service Bulletins 446E and 471B and Service Instruction 1409C. It is recommended for use in opposed piston and radial piston aircraft engines where cam lifter wear is a concern.

Quart.....P/N 08-13850-1  
Case of 12 Quarts.....P/N 08-13850  
55 Gallon Drum.....P/N 08-14860

### PHILLIPS 20W-50 MINERAL OIL



Type M is generally recommended and used as a break-in oil for newly overhauled aircraft engines. Type M is generally used by engine overhaul and repair shops for the initial run-in of aircraft piston engines. Type M 20W-50 is designed for owners and pilots who want the performance of a multi-viscosity, mineral based piston engine aviation oil without dispersant additives.

Single Quart.....P/N 08-07197  
Case of 12.....P/N 08-07198  
55 Gallon Drum.....P/N 08-13846

### PHILLIPS 66 TYPE A 100AD OIL



Phillips 66 Type A 100AD is a premium, single grade oil designed for opposed piston aircraft engines that call for SAE 50 or Commercial Grade 100 oils.

Single Quart.....P/N 08-00882  
Case of 12.....P/N 08-05321  
55 Gallon Drum.....P/N 08-13847

### PHILLIPS 66® AVIATION ANTI-RUST OIL



Helps preserve aircraft piston engines during periods of inactivity. For planes that are infrequently flown, we recommend replacing up to 10% of the crankcase volume with Aviation Anti-Rust Oil 20W-50 protects against corrosion.

Gallon.....P/N 08-07401-1  
Case (46 Gal).....P/N 08-07401

### PHILLIPS 66 XC AERO OIL SAE



X/C Aviation Oil was the first FAA-approved mineral oil-based, ashless dispersant, multiviscosity aviation engine oil. Recommended for use in radial piston engines and in other aviation piston engines originally designed to run on heavier-grade oils, such as Commercial Grade 120.

P/N 08-13023



## AEROSHELL GREASES

Shell Aviation offers a range of aviation greases designed to fill almost every lubrication need of the aviation community.

Aeroshell greases are now slightly darker in color than before due to new factory formulation.

Description	14 oz Tube Part No.	Price 14 oz Tube	6.6 lb Can Part No.	Price 6.6 lb Can
Aeroshell Grease # 5	08-05455	---	---	---
Aeroshell Grease # 6	08-05460	---	08-13568	---
Aeroshell Grease # 7	08-05475	---	08-12238	---
Aeroshell Grease # 14	08-05480	---	08-13151	---
Aeroshell Grease # 22	08-05490	---	08-12236	---
Aeroshell Grease # 33	08-00825	---	08-13462	---
Aeroshell Grease # 58	08-17410	---	---	---
Aeroshell Grease # 64	08-00824	---	08-13962	---

Description	Size	Part No.	Price
Aeroshell Grease # 22	5 Gallon	08-15792	---
Aeroshell Grease # 14	5 Gallon	08-15766	---
Aeroshell Grease # 33	5 Gallon	08-15769	---
Aeroshell Grease # 64	5 Gallon	08-15771	---
Aeroshell Grease # 5	5 Gallon	08-15772	---
Aeroshell Grease # 6	5 Gallon	08-15773	---
Aeroshell Grease # 7	5 Gallon	08-14586	---

## QUAKER STATE 2 CYCLE AIR COOLED OIL



Two-cycle oil for air-cooled engines. Recommended by engine manufacturers for air- and water-cooled engines.

8 oz. Single Bottle.....P/N 08-06261  
Case of 8 oz. Bottles.....P/N 08-06260

## MOBIL GREASE 28

Mobilgrease 28 meets the quality level of U.S. Military under Specification MIL-PRF-81322, General-Purpose, Aircraft, and Specification DOD-G-24508A (Navy) for shipboard auxiliary machinery. It is a U.S. Military Symbol WTR and NATO Code Number G-395 grease. It meets the quality level of DOD-G-24508A, Amendment 4.

Grease 28 (13.4oz Tube).....P/N 08-06157  
Case of 4 - 4.4 lb Cans.....P/N 08-12407-4  
Case of 40 Tubes.....P/N 08-07400  
5 Gallon.....P/N 08-14587



## EXXON MOBIL GREASE 33



Mobilgrease33 is a true multipurpose aviation grease intended for use in highly loaded anti-friction bearings, gears, and actuators as well as instruments, high speed bearings (though not recommended for wheel bearings), and general airframe lubrication, over operating temperatures from 100° F to 250° F.

Cartridge.....P/N 08-07407-1  
Case.....P/N 08-07407

## GREASE SHC-100



Mobilith SHC™ Series greases are superior performance products designed for a wide variety of applications at extremes of temperature. They combine the unique features of synthetic base fluids with those of a high-quality lithium complex thickener. The wax-free nature of synthetic fluids and the low coefficient of traction (compared with mineral oils), provide excellent low-temperature pumpability and very low starting and running torque.

4.4 lb. Can.....P/N 08-13740  
Case of 4 Cans.....P/N 08-13742  
35 lb. Pail.....P/N 08-17064

## LEVER ACTION GREASE GUN



Multipurpose grease gun. Uses 14 ounce cartridges, bulk loaded, or loaded through a dispenser. Comes with 6" nozzle and 9" flex hose

P/N 08-07180

## VALVOLINE VV825 HIGH PERFORMANCE GEAR OIL



Valvoline® High Performance Gear Oil is a thermally stable, extreme-pressure gear lubricant that withstands severe temperatures and shock loading while providing excellent anti-wear, anti-scuffing, rust and corrosion protection. Reduced chattering in limited-slip differentials. Gear teeth wear protection from pitting and scouring. All hypoid differentials (conventional and limited slip) and manual transmissions in passenger cars, light trucks, sport utility vehicles, vans and heavy-duty trucks where an API-GL5 or MT-1 fluid is specified.....P/N 15-05963

# AVIATION OILS—OIL DRAIN SYSTEMS



**NYCO TURBONYCOIL 600 TURBINE OIL**  
TURBONYCOIL 600 is a standard lubricating oil with a viscosity of 5 cSt at 100°C based on high thermal stable polyol esters, and fortified with carefully selected antioxidant, antiwear and anti-corrosion additives.

**Applications:** • Turbine oil for military and civil aircraft and helicopters • Accessories (APUs, starters, IDGs, THS, propellers) • Stationary industrial applications (aero-derivative gas turbines)  
Quart ..... P/N 08-17328  
Case of 24 ..... P/N 08-17332

## NYCO GREASE GN 22

NYCO GREASE GN 22 is a NLGI 2, clay-thickened grease, based on a synthetic hydrocarbon oil with a viscosity of 7 cSt at 100°C. It is resistant to corrosion, oxidation and contains anti wear/extreme pressure additives. It can be used from -65°C to +177°C.

**Applications:** • Multipurpose airframes (doors, flaps, slats, THS, bearings, etc.) • Landing gears • Wheels ..... P/N 08-17292

## NYCO GREASE GN 148

NYCO GREASE GN 148 is a NLGI 2 Grade, multipurpose aircraft grease, based on a blend of synthetic diester oils and synthetic hydrocarbon base stock and thickened with a complex lithium soap. It is fortified with anticorrosion, antioxidant and strong extreme pressure and anti-wear additives.

**Applications:** • Multipurpose airframes (doors, flaps, slats, THS, bearings, etc.) • Landing gears • Wheels ..... P/N 08-17293



## NYCO GREASE GN06

**Applications:**

• Low speed and sliding motion parts • Airframe multipurpose grease (doors, slaps, flaps, landing gear, etc.)  
400G Cartridge ..... P/N 08-17625



## NYCO GREASE GN 15

**Applications:**

• Airframe multipurpose grease (doors, flaps, slaps, landing gear, etc.) • Anti-friction bearings, plain bearings & gearboxes • Can be technically replaced by the synthetic grease Nyco Grease GN 148  
400G Cartridge ..... P/N 08-17588



## NYCO LUBE 3525

Mineral lubricating oil for helicopter gear and transmission boxes – Extreme Pressure

Quart ..... P/N 08-17623  
20L Pail ..... P/N 08-17626  
Case of 24 Quarts ..... P/N 08-17622



## NYCO GN 3058 GREASE

NYCO GREASE GN 3058 The high-temperature range grease for longer wheel bearing life, is a white lithium complex thickened synthetic grease designed to operate in salty and humid environment in a very wide temperature range going from -54°C to +175°C.

**Applications:** • Wheels • Landing gears • Heavy loaded systems

400G Cartridge ..... P/N 08-17290  
1 kg Can ..... P/N 08-17289  
35lb Pail ..... P/N 08-17291



## DISPOSABLE FOLDING OIL FUNNELS

These disposable funnels are very popular among aircraft owners and pilots for adding engine oil. They store flat, clean and dry in a reclosable bag, and eliminate the messy cleaning when using a regular funnel. Also ideal for brake fluid, resins, and paints. Furnished in pack of 10 funnels.

Pack of 10 ..... P/N 08-00040



## DRIP TRAP - OIL ABSORBENT

Drip Trap is a mat made of corn stalks which captures oil, coolant, and other aviation fluids that can drip from the aircraft. Drip Trap measures 20" x 20" and can absorb up to 6 quarts of oil. It won't blow away, can be driven on, won't tip over like a drip pan, and can be walked on without tracking the fluids on the hangar floor. Excellent for use with aircraft, cars, SUV's, trucks, motorcycles and in shops. When Drip Trap is fully saturated just dispose of it and replace. Drip Trap is the environmentally friendly and economical way to capture and contain drips and spills.

P/N 13-04950



## SUPER FLEXI-SPOUT

Works great for hard to reach areas. Dual threading fits most sized containers. Perfect for adding motor oil, anti-freeze, transmission and windshield washer fluid ..... P/N 14-00707



## OIL SAVER FUNNEL

The OIL-SAVER is simple in appearance, but a great deal of research has gone into its design. It consists of a basic rectangular funnel that's molded to hold six inverted oil bottles, the contents of which gradually drain out and into the depository of choice -- usually another oil bottle, leaving the plastic bottles clean enough for recycling. And with thousands of funnels already in use, they have proven to be versatile, practical tools that allow you to save money and recycle.

Color	Part No.	Price	Color	Part No.	Price
Red	08-07391	---	Green	08-07535	---
Orange	08-07533	---	Blue	08-07536	---
Yellow	08-07534	---	White	08-07537	---

## NYCO 65 VASELINE

NYCO 65 Vaseline is a stiff, rather tacky petrolatum (heavy mineral paraffin wax), with a melting point in the range 45 to 60°C. It is not aggressive to any metal or alloy.

1 Kg Can Single ..... P/N 08-17661  
1 Kg Case of 24 ..... P/N 08-17660  
100g Tube Single ..... P/N 08-17663  
100g Tube Case of 12 ..... P/N 08-17662

## NYCO 83483 FLUID

NYCO 83483 is an homogenous mixture of pure petrolatum Vaseline and 50% of fine molybdenum disulphide powder. Molybdenum disulfide is a solid lubricant especially suitable for use at high temperature (up to 430°C) or under high load.

1 Kg Can Single ..... P/N 08-17667  
1 Kg Case of 24 ..... P/N 08-17666

## NYCO GREASE GN GA 47

NYCO Grease GN GA 47 is a homogenous mixture of pure petrolatum and 50 % of micronized graphite. It is a fairly good electrical conductor.

1 Kg Can Single ..... P/N 08-17665  
1 Kg Case of 24 ..... P/N 08-17664

## HYDRAUNYCOIL 42

Hydrauncoil FH 42 is a synthetic hydraulic fluid based on PAO and esters with a viscosity of 7 cSt at 40°C. It is designed to operate in the temperature range -54°C to +200°C without air intake for a long period of time without significant evaporation or change in viscosity.

1 Qt Can Single ..... P/N 08-17677  
1 Qt Case of 24 ..... P/N 08-17676

## NYCO HYDRAUNYCOIL FH 51

NYCO Hydrauncoil FH 51 Petroleum Hydraulic Fluid is a petroleum-based hydraulic fluid with a viscosity of 14 cSt at 40°C. It contains antioxidant, anti-corrosion and anti-wear additives. Hydrauncoil FH 51 has an extremely wide operating temperature range (from -54°C to +135°C in air-tight circuits and -54°C to 90°C in open circuits) with a viscosity index exceeding 300. It is micro-filtered and is supplied with a controlled level of contaminant.

1 Qt Can Single ..... P/N 08-17679  
1 Qt Case of 24 ..... P/N 08-17678

## NYCO HYDRAUNYCOIL FH 2

NYCO Hydrauncoil FH 2 is a synthetic hydraulic fluid based on a blend of PAO and diesters, with a viscosity of 15 cSt at 40°C and a viscosity index of 125.

1 Qt Can Single ..... P/N 08-17675  
1 Qt Case of 24 ..... P/N 08-17674

## NYCO 7870

NYCO 7870 is a mineral lubricating oil with a viscosity of 10 cSt at 40°C. It is inhibited against oxidation and corrosion.

20L Pail ..... P/N 08-17668

## TURBONYCOIL 3516

NYCO Turbonycoil 3516 is a mineral turbine oil blended from mineral naphthenic base stocks and anti-oxidant additives, with a viscosity of 3 cSt at 100°C. It retains a low viscosity at very low temperature, down to -60°C.

1 Qt Can Single ..... P/N 08-17673  
1 Qt Case of 24 ..... P/N 08-17672

## NYCO 11B SYNTHETIC LUBRICATING OIL

Nycolube 11B is a synthetic lubricating oil with a viscosity of 13 cSt at 40°C, based on neopolyolesters. It is inhibited against oxidation and corrosion.

1L Can Single ..... P/N 08-17670  
1L Case of 24 ..... P/N 08-17669



## TURBINE OIL / HYDRAULIC FLUID CAN DUST CAP

Turbine oil / hydraulic fluid can dust cap.  
P/N 08-13837

## NO SPILL OIL SPOUT™ WITH ON-OFF VALVE

Patented On/Off valve. Adjustable flow. No-mess...  
No-spill. Rev. B 3-1 ..... P/N 14-00024



# OIL ACCESSORIES – OIL



## OIL DRIP PAN

The drip pan is 54-1/2" x 32-1/2" x 2" and is manufactured out of an extremely durable and chemical resistant plastic (high density polyethylene). White in color, our drip pan is neat and clean in appearance and allows for easy visual inspection and monitoring of any engine leaks. The size and design of the drip pan will collect virtually any leaking fluids and eliminate the need for five quart pails and other messy collection containers. It is also a convenient place to pour fuel samples. Specifically designed for general aviation...P/N 08-06700



## OIL DRIP PANS

These developed oil Drip Pans are designed to protect floors from those irritating drips of oil, fuel and hydraulic fluid. They are overlapping to prevent drips from getting between the pans. Their interlocking feature allows various pan sizes to be joined, protecting floors from all shapes and sizes of aircraft. Their lightweight and durable plastic design makes for easy set-up and clean-up. The interlocking feature allows various pan sizes to be joined, protecting floors from all shapes and sizes of aircraft, cars, buses, trucks and more! Includes: (1) DripPansUSA Oil Absorbent Pad, made of a minimum of 40% recycled polypropylene.

18" X 48" Interlocking .....P/N 08-07508  
24" X 30" Interlocking .....P/N 08-07378

## DRIP PAN OIL ABSORBENT PADS



DripPansUSA Oil Absorbent Pads Absorb: oil, coolants, transmission fluids, other hydroid fluids, and water. Can also be used under and around machinery, as shelf liners, and for other clean-up applications. Made of durable blown polypropylene

and have many other uses around the home and shop. DripPansUSA Oil Absorbent Pads are made of a minimum of 40% recycled polypropylene. Made in the USA.

6 Pack.....P/N 08-07510  
12 Pack.....P/N 08-07512

## SPOUT DUST COVERS

Spout Covers for OPW 295 Series. D Spout Cover/Dust Cover.



Round			
Size	Color	Part No.	Price
1"	Red	08-13555	---
1"	Black	08-13556	---
1"	Blue	08-13557	---
1.5"	Red	08-13558	---
1.5"	Black	08-13559	---
1.5"	Blue	08-13560	---
Rectangular			
Size	Color	Part No.	Price
1.5"	Black	08-13553	---

## CANKEY TURBINE OIL CAN OPENER



The CanKey turbine oil can opener is a simple and inexpensive tool that will open turbine oil cans without the risk of debris entering the can. Using other tools to open the oil cans can lead to metal shavings and other FOD being left in the can which can lead to damage to engine parts. Eliminate this issue by using the CanKey.....P/N 08-13836

## FUNNELCAP OIL / FLUID DISPENSING CAPS



The FunnelCap makes it safe and easy to service aircraft oil and hydraulic systems without spilling of oil and without getting FOD in the oil, oil can or bottle.

Open half-used oil bottles and cans can be stored in the storage room or aircraft without risk of oil leaking out. The flex hose clip ensures a tight seal of the flex hose to the cap stud, and also secures the flex hose to the bottle or can to minimize storage space when not in use. The red cap seals the flex hose and ensures a tight seal of the flex hose end.

More flex hoses can be connected to increase the reach.  
Bottle .....P/N 08-17713  
Quart.....P/N 08-17714  
Gallon .....P/N 08-17715



## FORM-A-FUNNEL®

Aviation Funnel, go with the flow. When you need to get into a tight, hard to reach place or require extra length, the Aviation model (29" x 5") is the tool for the job. Thick, pliable nitrile rubber coating completely encases a thin, bendable layer of aluminum alloy that resists wear. Reshape and reuse it over and over. Edges can be molded around filters or drains to create a leak-proof seal. Keeps oil off of engines, frames and surrounding parts. Highly compatible with common automotive fluids. Works in temperatures from -30F° to 425F°. Cleans easily with cleaners and degreasers. Aviation Funnel (29" x 5").....P/N 12-03148  
General Purpose Funnel (14.5" x 6.5") .....P/N 12-03147  
General Purpose Kit (14.5" x 6.5" & 9" x 4.75").P/N 12-04819



## OIL INJECTION / WATER OVERFLOW RESERVOIRS

Constructed of high density polyethylene, these blow molded multi-purpose tanks offer excellent durability and resistance to most chemical and fluids. Express service tanks come with a cap and straight fittings. All tanks come with a 2-1/4" buttress thread cap and a straight fitting which fits a 1/4" hose. All sizes nominal. Height includes neck & fittings. Width includes mounting tabs. Max working temperature is 180-deg F and max working pressure is 5 PSI. 1 Quart 6.21" x 7.74" x 3.62" \*\*Includes 1/4" barb spigot molded on bottom\*\* .....P/N 15-06828  
1.5 Quart 7.71" x 7.74" x 3.62".....P/N 15-06830  
2 Quart 7.04" x 8.632" x 4.173".....P/N 15-06936  
4 Quart 11.652" x 8.632" x 4.173" .....P/N 15-04841

### Accessories

Reservoir Tank Cap with Seal - 2-1/4".....P/N 15-05092  
Nylon Vented Cap - 2-1/4" .....P/N 15-06936-1  
Oil Water Reservoir Only .....P/N 15-06936-2

## SHELL DEXCOOL® ANTIFREEZE / COOLANT



Single-phase, ethylene glycol based, extended life, universal automotive engine coolant. Suitable for a five year or 150,000 mile service life in automotive applications. It meets GM6277M-General Motor's Extended Life Coolant specification and will provide effective, long term corrosion protection for critical engine metals..... P/N 15-05767

## ROTELLA OIL 15W-40



Shell ROTELLA® T SAE 15W- 40 is a leader in meeting leading OEM specifications, as well as the enhanced oil performance requirements for API CI - 4 PLUS, Caterpillar ECF-1, Mercedes-Benz 228.3, Cummins CES 20078, Detroit Diesel 93K214, Mack EO-N Premium Plus 03, Mercedes-Benz 228.3, and Volvo VDS-3, and meets the warranty requirement of all major diesel engine manufacturers .....P/N 08-07038

## MOBIL 1 RACING 4T FULL SYNTHETIC MOTOR OIL



Mobil 1 Racing 4T oil meets all the requirements for Rotax 4 stroke aircraft engines. This is a full synthetic oil designed for motorcycles, however is an excellent choice for Rotax 4 stroke aircraft engines because of the gearbox and close internal tolerances. Mobil 1 Racing 4T has been fully tested, both on laboratory dynamometers and in the field, to help provide optimum horsepower and acceleration.  
P/N 08-13892

## SEAFOAM MOTOR TREATMENT SF-16



Sea Foam 16 oz. motor treatment for gas and diesel engines. For use in gas, ethanol, diesel or biodiesel engines. Internal engine use only. Can be used in 2-cycle and 4-cycle engines. •100% pure petroleum product. Works instantly to clean deposits from internal engine parts and remove moisture from oil crankcases and fuel tanks. As a fuel system additive, and an oil system additive ..... P/N 09-04615

## NEXT AIRCRAFT SERVICE DUE - STICKERS



Service reminder decal "NEXT AIRCRAFT SERVICE DUE" decal is black text on white semigloss background with "FILL IN" blanks. Removable decal is designed to adhere to any surface and not leave residue behind, perfect for aircraft rentals, owners, CFI's, trainers, service/repair stations, POH, log books, instrument panels, windows. Decal measures 3" x 3".....P/N 09-02137

## EVANS HIGH PERFORMANCE WATERLESS COOLANT - GALLON



Evans High Performance (HP) Waterless Coolant is a revolutionary coolant providing dramatic improvements in heat transfer without requiring changes to cooling system components. Conversion to Evans HP waterless coolant from the use of conventional antifreeze is simple to accomplish, and offers performance advantages over water-based coolants. Evans HP Waterless Coolant is a long life coolant and is recommended for street use and racing where ethylene glycol use is permitted. 300 or more HP recommend use: aluminum radiator and 7 psi cap. Specified coolant for Rotax Aircraft Engines, Type 912 and 914 (series)..... P/N 08-04535

## EVANS PREP FLUID



Evans Prep Fluid is a waterless cooling system flush engineered specifically to purge the cooling system of water-based antifreeze after draining and before installing new waterless coolant. Prep Fluid should be used when block drains are unavailable or cannot be removed. It is not a substitute for thoroughly draining the cooling system and related components. Prep Fluid is NOT intended to be a stand-alone operating coolant, but as a flush only. ....P/N 08-04534

# PIG® OIL – FIREWALL SHIELDS

## PIG® LIGHT WEIGHT OIL ONLY ABSORBENTS



Hangs anywhere, goes anywhere! Grab one Pad or the whole tablet to clean up an oil-based spill or splatter in any corner of the shop. Durable PIG® Oil-Only Mat quickly soaks up gas and oil but won't waste absorbency on water like rags or floor sweep! Self-extinguishing material helps eliminate fire hazards; melts instead of burning if contacted by direct flame.

100 each 15"x20" Pads .....P/N 08-07317  
15"x50 ft. Roll .....P/N 08-07320



## PIG® MEDIUM WEIGHT OIL ONLY ABSORBENTS

Clean up oil-based spills without wasting absorbency on water. Unlike rags or floor sweep, PIG® Water-Repellent Oil-Absorbent Mat quickly soaks up gas and oil but repels water from rain, slush, washdowns, ponds and sumps and more!

100 each 15"x20" Pads ....P/N 08-07318  
30"x150 ft. Roll .....P/N 08-07321



## PIG® UNIVERSAL LIGHTWEIGHT ABSORBENTS

This Tablet goes anywhere to clean up drips, spills or splatters throughout the shop. Easier to use than floor sweep, so it reduces cleanup time. And with no damaging dust and grit to track around, the shop stays cleaner! Convenient pop-up tabs let you hang the Tablet anywhere you need it.

15 each 14"x14.25" Pads .....P/N 08-07314  
100 each 15"x20" Pads .....P/N 08-07312  
15"x50 ft. Roll .....P/N 08-07315



## PIG® MEDIUM WEIGHT UNIVERSAL ABSORBENTS

Genuine PIG® Mat is the better way to soak up drips, spills and splatters, and spend more time repairing vehicles. Easier to use than floor sweep so it reduces cleanup time. And with no damaging dust and grit to track around, the shop stays cleaner! • Safely absorbs and retains oil, coolants,

water, grease, gasoline, solvents, auto fluids, paint overspray, battery acid and most other liquids

\*3 each 15"x20" Pads .....P/N 08-07353  
100 each 15"x20" Pads .....P/N 08-07313  
30"x150 ft. Roll .....P/N 08-07316



## PIG® UNIVERSAL ABSORBENT SOCKS

Wrap flexible, self-contained PIG® Socks around tanks, drum areas and puddles to halt the spread of liquid while the Socks' thirsty absorbent filler absorbs it. Easier to use and clean up than messy floor sweep! • Moldable Socks surround equipment, drums or tanks and contain spills to keep them from spreading into walkways; also great for catching liquid that seeps under overhead doors Safely absorbs and retains oil, coolants, water, grease, gasoline, solvents, auto fluids, paint overspray, battery acid and most other liquids.

\*2 Universal Socks .....P/N 08-07324  
12 Universal Socks .....P/N 08-07327  
12 Water Repelling Socks (oil only) .....P/N 08-07325

\* Designates item pictured.



## PIG® UNIVERSAL SPILL KIT

Respond to spills fast so you can get back to work. Our hi-viz Kit has the supplies you need for quick cleanups, and it's so affordable you can stock every spill-prone spot in your shop or stash one in each fleet vehicle for better liability protection! • Moldable Socks • Mat Pads • Bright nylon Bag stands out, so you can find it when you need it.

Universal Spill Kit.

**Specifications:** • Includes: 2 PIG® Universal Socks • 20 PIG® Universal Med. Weight Absorbent Mat Pads • 2 Disposal Bags & Ties.  
P/N 08-07326



## PIG® TRAFFIC MAT® RUG

Help keep extreme-traffic walkways dry and safe with this highly durable, absorbent Rug. Heat-fused TRAFFIC MAT® Rug won't rip or fray, even under wheeled traffic, so it's perfect for ensuring heavy-use, splash-prone areas stay clean and injury free.

• Incredible durability; won't ball or fray, even under wheeled traffic • Roll out to add traction and absorbency near parts washers, paint areas, work benches, doorways, service bays and other high-wear areas • Self-extinguishing material helps eliminate fire

hazards; melts instead of burning if contacted by direct flame.

**Specifications:** • Color: Black • Style: Heavy-Duty  
\*36"x150 Ft. Standard Mat .....P/N 08-07322  
36"x100 Ft. Polybacked Mat .....P/N 08-07323

EP

## STAINLESS STEEL FIREWALL SHIELDS

Two piece shields for use over cables or wires with large end-fittings or existing installations. Single piece for use where the cable or wire may pass through the hole. Flat shields designed for use on wooden or composite firewalls using a fire resistant sealant to prevent leaks. Both types of shield available in flat or with dimple to accommodate rubber grommets up to outside diameter.

Actual hole size in 2 piece shields is slightly larger than indicated to prevent chafing cable. Ream pilot hole in single piece shields oversize for the size grommet used. Use grommets that fit tightly around the cable or wire to insure a good seal.

Shields may be installed with screws, bolts and plate nuts or rivnuts. Install cable and grommet in firewall. Locate the shield to insure that it is centered on the cable - then drill attach holes in firewall. Shields predrilled with 5/32" mounting holes. If more than one cable passes through grommet fire resistant sealant must be applied to grommet.

Caution: Any holes drilled in the firewall are potential source of carbon monoxide in the cockpit. Extreme caution must be exercised when installing firewall shields in your aircraft. They do not provide the necessary seal around cables or wires to prevent carbon monoxide, smoke or fire from entering the cockpit. The shields are designed only to protect the sealing material (grommets/gaskets) from excessive heat.



Two piece firewall shield, 5/32-Inch hole with 3/4-Inch dimple for grommet..... P/N 08-13832



Two Piece 3/8" Hole 1" Dimple For Grommet.  
P/N 61-375



Two Piece 3/8" Hole 1-1/4" Dimple For Grommet.  
P/N 61-475



Two Piece 1/2" Hole 3/4" Dimple For Grommet.  
P/N 61-300



Two Piece 1/4" Hole 3/4" Dimple For Grommet.  
P/N 61-250



Two Piece 3/8" Hole 3/4" Dimple For Grommet.  
P/N 61-275

# LORD ENGINE MOUNTS



## LORD ELASTOMERIC ENGINE MOUNTS

These compression type couplings consist of bonded rubber joints pressed into the sockets of metal hubs. These dynafocal engine suspensions provide proper flexible support to isolate engine vibrations and reduce noise transmission to airframe structure in all aircraft applications. Careful design assures maximum strength to hold the engine under ultimate load and emergency conditions. Suspensions also distribute loads in most desirable patterns, control engine motions, accommodate thermal expansion and manufacturers' tolerances.

**Warranty:** All Parker Lord general aviation engine mounts come with a 5-year limited warranty, which is retroactive. Included in the prorated warranty are engine mounts for Cessna, Cirrus, Mooney, Piper and all other general aviation models serviced through official Parker Lord distributors. Experimental or acrobatic aircraft are not covered under this warranty. Normal wear and tear expected to occur with regular use and maintenance is also excluded. All warranty claims are pending evaluation by Parker Lord. Please contact customer service for assistance with any warranty claim.

Life of the Part since Purchased:	0-36 Months	37-42 Months	43-48 Months	49 - 54 Months	55 - 60 Months	61 Months and more
Amount Reimbursed:	100%	50%	40%	25%	10%	0%

**PROMPT SHIPPING GUARANTEED! IF YOU REQUIRE UNLISTED LORD MOUNTS, PLEASE CALL US FOR YOUR BEST PRICE. WE BEAT ALL COMPETITOR'S PRICES! LET US KNOW OF ANY LOWER PRICE AND WE WILL BEAT IT!**

Aircraft Model	Application/Engine	No. per A/C	Part No.	Price Each
<b>AVIAT</b>				
A-1	Lyc. O-360-C1G/A1P	8	J-1552	---
S-1	Lyc. O-320	8	J-7401-2	---
S-1S, -2A	Lyc. O-360-B4A, A1P	8	J-7401-2	---
<b>BEECHCRAFT</b>				
19	Lyc. O-320-E2C	4	J-7402-16	---
B19, M19A	Lyc. O-320-E2D	4	J-7402-16	---
23	Lyc. O-360-A4G	4	J-7402-16	---
23	Cont. IO-346-A	4	J-10778-4	---
A23-24	Lyc. IO-360-A2B	4	J-10778-4	---
C-23	Lyc. O-360-A4K	4	J-7402-16	---
24,A24,A24R,B24R	Lyc. IO-360-A2B	2 ea*	J-10778-14	---
C-24R	Lyc. IO-360-A1B6	2 ea*	J-10778-16	---
B33, C33	Cont. IO-470-K	4	J-7518-2	---
C33A	Cont. IO-520-B	4	J-10520-1	---
E33, F33	Cont. IO-470-K	4	J-7518-2	---
E33A/C, F33A/C	Cont. IO-520-BB	4	J-10520-1	---
G33	Cont. IO-470-N	4	J-10520-1	---
35, A35, B35	Cont. E185-8	8	J-2245-1	---
C35, D35, E35, F35	Cont. E185-11	4	J-3804-26	---
E35, F35, G35	Cont. E225-8	4	J-3804-26	---
H35	Cont. O-470-G	4	J-7518-2	---
J35, K35, M35	Cont. IO470-C	4	J-7518-2	---
N35, P35	Cont. IO-470-N or-C	4	J-7518-2	---
S35,T35,V35,V35A,B	Cont. IO-520-BB	4	J-10520-1	---
36, A-36	Cont. IO-520-BB	4	J-10520-1	---
A36TC	Cont. TSIO-520-UB	4	J-10520-1	---
V35A-TC	Cont. TSIO-520-D	4	J-10520-1	---
B50	Lyc. GO-435-C2/C2E	8	J-3804-10	---
C50	Lyc. GO-480-F1A6	8	J-3804-10	---
D50, D50B/C/E	Lyc. GO-480-G2F6	4	J-3804-10	---
E50, F50, G50, H50, G50, G50, J50	Lyc. GSO-480-B1B6 Lyc. IGSO-480-A1B6	4 4	J-6545-1	---
55, A55, B55	Cont. IO-470-L	8	J-7518-2	---
55, A55, B55, B55A	Cont. IO-470-L	8	J-9613-5	---
C55(1967), D55,				
D55A,E55,E55A	Cont. IO-520-CB	8	J-10778-16	---
56TC, A56TC	Lyc. TIO-541-E1B4	8	J-9613-9	---
58	Cont. IO-520-CB	8	J-10778-16	---
58 (1984-on)	Cont. IO-550-C	8	J-10778-16	---
58P	Cont. TSIO-520-L/LB	8	J-12453-12	---
58P	Cont. TSIO-520-WB	8	J-12453-12	---
58TC	Cont. TSIO-520-L/LB	8	J-12453-12	---
58TC	Cont. TSIO-520-WB	8	J-12453-12	---
60, B60	Lyc. TIO-541-E1C4	8	J-9613-9	---
65, A65, 70	Lyc. IGSO-480-A1E6	4	J-6545-1	---
		4	J-6545-1	---
76TC	Lyc. TO-360-C1A6D	2 ea*	J-9613-49	---
76	Lyc. O-360-A1G6D	2 ea*	J-9613-50	---
77	Lyc. O-235-L2C	4	J-7402-1	---
80, A80, B80, 88	Lyc. IGSO-540-A1D	4	J-6545-1	---
		4	J-6545-1	---
C90, C90A	PWC PT6A-21	6	LM427SA7	---
E90, F90	PWC PT6A-28,-135,-135A	6	LM427SA7	---
H90	PWC PT6A-34B	6	LM427SA7	---
95, 95A, 95B	Lyc. IO-360-B1B	8	J-7402-1	---
D95A, E95	Lyc. IO-360-B1B	8	J-7402-1	---
A100	PWC PT6A-28	6	LM427SA7	---
B100	GA TPE331-6-252B	4&2*	LM821SA49	---
			LM821SA50	---
200, 200C, 200CT	PWC PT6A-41	8	LM427SA7	---
A200/C/CT	PWC PT6A-41	8	LM427SA7	---
B200	PWC PT6A-42	8	LM427SA7	---

Aircraft Model	Application/Engine	No. per A/C	Part No.	Price Each
C90, E90, C99, 200/C/CT, A200/C/CT, B200/C/CT/T	Overhaul kit for Barry Controls P/N 5906-2SA5	8	LM427SA12	---
<b>BELLANCA</b>				
17-31, 17-31A	Lyc. IO-540-K	4	J-9868-5	---
17-31A	Lyc. IO-540-K1E5	4	J-9868-5	---
17-31TC,17-31ATC	Lyc. IO540-G, K	4	J-9868-5	---
7ACA	Franklin 2A-120A, B	8	J-3608-1	---
7ECA	Cont. O-200-A	8	J-3608-1	---
7ECA	Lyc. O-235-C1	4	J-6230-1	---
7GCAA, 7GCBC	Lyc. O-320-A2B	4	J-6230-1	---
7GCAA, 7GCBC	Lyc. O-320-A2D	4	J-6230-1	---
7KCAB	Lyc. O-320-E2A	4	J-6230-1	---
7KCA	Franklin 2A-120A, B	8	J-3608-1	---
8GCBC-CS	Lyc. O-360-C1E	4	J-6230-1	---
8GCBC-FP	Lyc. O-360-C2E	4	J-6230-1	---
8GCBC	Lyc. O-360-C2E	4	J-6230-1	---
8KCAB	Lyc. IO-320-E1A	4	J-6230-1	---
8KCAB-CS	Lyc. AEIO-320-E1B	4	J-6230-1	---
8KCAB-FP	Lyc. AEIO-320-E2B	4	J-6230-1	---
8KCAB-180	Lyc. AEIO-360-H1A	4	J-6230-1	---
<b>CESSNA</b>				
120-140	Cont. C-85	8	J-3608-1	---
140A	Cont. C-90	8	J-3608-1	---
150, 150A-L	Cont. O-200-A	8	J-3608-1	---
152, 152 Aerobat	Lyc. O-235-L2C	4	J-7402-1	---
172 I-P	Lyc. O-320-E2D	4	J-9613-49	---
172P	Cowl Mount	--	J-7444-14	---
F172P	Cowl Mount	--	J-7444-14	---
F172P	Cowl Mount	--	J-7444-24	---
F172	Cowl Mount	--	J-7444-36	---
172	Lyc. O-320-D2J	4	J-9613-49	---
172N	Lyc. O-320-H2AD	4	J-9613-49	---
172	Cont. IO-360-K	4	J-9613-42	---
172RG	Lyc. O-360-A1F6	2 ea*	J-9613-49	---
			J-9613-72	---
172Q	Lyc. O-360-AL/N	2 ea*	J-9613-49	---
			J-9613-72	---
172P,Q	Cowl Mount	--	J-7444-24	---
172	Cowl Mount	--	J-7444-36	---
P172	Cont. GO-300-E	4	J-6545-1	---
R172E,K	Cont. IO-360-D	4	J-9613-42	---
175	Cont. GO-300-A	4	J-6545-1	---
175A, B	Cont. GO-300-C, D	4	J-6545-1	---
175C	Cont. GO-300-E	4	J-6545-1	---
177	Lyc. O-320-E2D	4	J-9613-49	---
177A	Lyc. O-360-A2F	4	J-9613-49	---
177B	Lyc. O-360-A1F6D	4	J-9613-49	---
177RG	Lyc. IO-360-A1B6	4	J-9613-59	---
180	Cont. O-470-A, J	2 ea*	J-3804-14	---
			J-3804-15	---
180	Cont. O-470-K	4	J-6545-1	---
180A-H	Cont. O-470-K, R	4	J-6545-1	---
180H, J	Cont. O-470-R, U	4	J-6545-1	---
182, 182A-R	Cont. O-470-R, U	4	J-6545-1	---
182, 182A-N	Accessory Mount	--	J-14290-4	---
182H-N	Panel Mount	--	J-6984-64	---
T182	Lyc. O-540-L3C5D	4	J-9613-12	---
TR182	Lyc. O-540-L3C5D	4	J-9613-12	---
185, 185A-E	Cont. IO-470-F	4	J-6545-1	---
185	Cont. IO-520-D	4	J-6545-1	---
A185F	Cont. IO-520-D	4	J-6545-1	---
188	Cont. O-470-R	4	J-6545-1	---

**NOTE: \* indicates more than one Lord Part No. needed**

# LORD ENGINE MOUNTS

Aircraft Model	Application / Engine	No. per A/C	Part No.	Price Ea.
<b>CESSNA cont.</b>				
188	Cont. IO-520-D	4	J-6545-1	---
188	Cont. IO-520-D	2 ea*	J15198-1	---
188A, 188B	Cont. IO-520-D	2 ea*	J15198-2	---
T188	TSIO-520T		J-6545-6	---
205, 205A	Cont. O-360-B4A	4	J-6545-1	---
206, 206A	Cont. IO-520A	2 ea*		---
206B	Cont. IO-520F	2 ea*	J12453-1	---
U206T	Cont. TSIO-520C	2 ea*	J12453-2	---
U206	Cont. IO-520F	2 ea*		---
U206A,E	Panel Mount	--	J-6984-64	---
U206G	Cont. IO-520-F	2 ea*		---
TU206A-F	Cont. TSIO-520-C	2 ea*		---
T206G	Cont. TSIO-520-M	2 ea*		---
P206, P206A-E	Cont. IO-520-A	2 ea*		---
P206T, P206T A-E	Cont. TSIO-520-C	2 ea*	J12453-1	---
207, 207A	Cont. IO-520-F	2 ea*	J12453-2	---
207A II	Cont. IO-520-F	2 ea*		---
207T	Cont. TSIO-520-G	2 ea*		---
T207A, T20A II	Cont. TSIO-520-M	2 ea*		---
210, 210A-C	Cont. IO-470-E, S	4	J-6545-1	---
210 D-J	Cont. IO-520-A, J	2 ea*	J-12453-1	---
210 K-R	Cont. IO-520-L	2 ea*	J-12453-2	---
210 K, L	Panel Mount	--	J-6984-64	---
T210M, N	Cont. TSIO-520-R	2/1/1*		---
T210 F-L	Cont. TSIO-520-C, H	2 ea*		---
P210M, N	Cont. TSIO-520-AF, P	2/1/1*	J-12453-1	---
P210N, R		4/2	J-12453-2	---
T210R (1985-86)	Cont. TSIO-520-CE	4/2*	J-12453-6	---
P210 R (1985-86)	Cont. TSIO-520-CE	4/2*		---
310B	Cont. O-470-M	8	J-6545-1	---
310C-H	Cont. IO-470-D	8	J-12390-1	---
310JQ	Cont. IO-470-U, V, VO	8	J-12390-1	---
310R	Cont. IO-520-M, MB	8	J-9613-58	---
T310 P, Q, R	Cont. TSIO-520-B, BB	8	J-9613-58	---
320 D-F	Cont. TSIO-520-B, BB	8	J-9613-58	---
337, 337A-H	Cont. IO-360-C, D, G	8	J-9613-31	---
T337B-G	Cont. TSIO-360-A, H	8	J-9613-31	---
P337H	Cont. TSIO-360-C, CB	8	J-9613-31	---
340	Cont. TSIO-520-K, KB	8	J-9613-58	---
340A	Cont. TSIO-520-NB	8	J-9613-58	---
401, 401A,B	Cont. TSIO-520-E, EB	8	J-9613-58	---
402, 402A,B	Cont. TSIO-520-E, EB	8	J-9613-58	---
402C	Cont. TSIO-520-VB	8	J-9613-58	---
404	Cont. GTSIO-520-M	8	J-9613-54	---
411, 411A	Cont. GTSIO-520-C	8	J-9613-54	---
414, 414A	Cont. TSIO-520-J, NB	8	J-9613-58	---
421, A, B	Cont. GTSIO-520-D, H	8	J-9613-54	---
421C	Cont. GTSIO-520-L, N	8	J-9613-54	---
<b>COMMANDER AIRCRAFT CO.</b>				
112, 112B	Lyc. O-360-C1D6	2 ea*	J-9613-40	---
112T, TCA	Lyc. IO-360-C1A6D	2 ea*	J-9613-53	---
114	Lyc. IO-540-T4A5D	4	J-3804-28	---
<b>GRUMMAN AMERICAN</b>				
AA-1	Lyc. O-235-C2C	8	J-6113-5	---
AA-1A, B	Lyc. O-235-C2C	8	J-6113-5	---
AA-1C (Tomcat)	Lyc. O-235-L2C	4	J-7402-24	---
AA-1C (Lynx)	Lyc. O-235-L2C	4	J-7402-24	---
AA-5	Lyc. O-320-32G	4	J-7402-24	---
AA-5A	Lyc. O-320-32G	4	J-7402-24	---
AA-5B (S/N 1-399)	Lyc. O-360-A4K	4	J-9613-49	---
AA-5B, AG-5B	Lyc. O-360-A4K	4	J-9613-59	---
<b>MOONEY AIRCRAFT</b>				
M20	Lyc. O-320	4	J-6230-1	---
M20A (1958-1960)	Lyc. O-360	4	J-7402-16	---
M20B (S/N1701-1939)	Lyc. O-360-A1D	4	J-7402-1	---
M20C (S/N1940-20-1258)	Lyc. O-360-A1D	4	J-7402-1	---
M20D (S/N101-260)	Lyc. O-360-A2D	4	J-7402-1	---
M20E (S/N101-470)	Lyc. O-360-A1A	4	J-7402-16	---
M20E (1969-75)	Lyc. O-360-A1A	4	J-9613-12	---
M20F (1966-77)	Lyc. O-360-A1A	4	J-9613-12	---
M20G (1968-70)	Lyc. O-360-A1D	4	J-7402-1	---
M22 (1966-70)	Lyc. TIO-541-A1A	4	J-10520-1	---
M20J (1976-up)	Lyc. IO-360-A3B6D	4	J-9613-40	---
M20K (1979-85)	Cont. TSIO-360-GB1	4	J-9613-58	---
M20K (1979-85)	Cont. TSIO-360-GB3	1/3*	J-9613-75	---
M20K (1979-85)	Cont. TSIO-360-GB4	1/3*	and	---
M20K (1979-85)	Cont. TSIO-360-LB1B	1/3*	J-9613-76	---
M20K (1986-up)	Cont. TSIO-360-MB1	1/3*		---
<b>NAVION AIRCRAFT</b>				
G, H	Cont. IO-470-H or IO-520-B	4	J-7518-4	---

NOTE: \* indicates more than one Lord Part No. needed

Aircraft Model	Application / Engine	No. per A/C	Part No.	Price Ea.
<b>PIPER</b>				
PA-23	Lyc. O-320-D2	8	J-6230-1	---
PA-23-160	Lyc. O-320-B	8	J-6230-1	---
PA-23-235	Lyc. OI-540-B1A5	8	J-3804-20	---
PA-23-250	Lyc. O-540-A1B5, A1D5	8	J-3804-20	---
PA-23-250 (6)	Lyc. IO-540-C1B5, A1D5	8	J-3804-20	---
PA-23-250 (6)	Lyc. IO-540-C4B5	8	J-9613-12	---
PA-23-250 (6)	Lyc. IO-540-J4A5	8	J-9613-12	---
PA-23-250	Lyc. IO-540-C4B5	8	J-9613-12	---
PA-23-250T	Lyc. TIO-540-C1A	8	J-9613-12	---
PA-24-250	Lyc. O-540-C1B5, A1A	4	J-3804-20	---
PA-24-260	Lyc. IO-540-E4A5, D4A5	4	J-3804-20	---
PA-24-400	Lyc. IO-720-A1A, A1B	2 ea.	J-9613-9	---
PA-25-235	Lyc. O-540-B2C5, B2B5	4	J-3804-20	---
PA-25-260	Lyc. O-540-E4	4	J-3804-20	---
PA-28-140	Lyc. O-320-E2A	4	J-7402-16	---
PA-28-140	Lyc. O-320-E2A	2	J-9613-40	---
PA-28-140	Lyc. O-320-E3D	2 ea.*	J-9613-40	---
PA-28-150	Lyc. O-320-A2B	4	J-7402-16	---
PA-28-150	Lyc. O-320-A2B*	4	J-7402-24	---
PA-28-150	Lyc. O-320-E2A	4	J-7402-16	---
PA-28-151	Lyc. O-320-E3D	2 ea.*	J-9613-40	---
PA-28-160	Lyc. O-320-B2B	4	J-7402-16	---
PA-28-160	Lyc. O-320-D2A**	4	J-7402-16	---
PA-28-160	Lyc. O-320-D2A	4	J-7402-24	---
PA-28-161	Lyc. O-320-D3G	2 ea.*	J-9613-40	---
PA-28-180	Lyc. O-360-A3A	4	J-7402-24	---
PA-28-180	Lyc. O-360-A4A	4	J-7402-24	---
PA-28-180	Lyc. O-360-A4A, M***	4	J-9613-40	---
PA-28R-180	Lyc. O-360-B1E	4	J-9613-40	---
PA-28-181	Lyc. O-360-A4M	4	J-9613-40	---
PA-28R-200	Lyc. IO-360-C1C	4	J-9613-40	---
PA-28R-201	Lyc. IO-360-C1C, C1C6	4	J-9613-40	---
PA-28R-201T	Cont. TSIO-360-F, FB	4	J-9613-58	---
PA-28-235	Lyc. O-540-B2B5	4	J-3804-20	---
PA-28-235	Lyc. O-540-B1B5	4	J-7402-20	---
PA-28-235	Lyc. O-540-B4B5	4	J-7402-20	---
PA-28-235	Lyc. O-540-B4B5****	4	J-3804-27	---
PA-28-236	Lyc. O-540-J3A5D	4	J-9613-12	---
PA-30	Lyc. IO-320-B1A1C1A	8	J-9613-19	---
PA-31	Lyc. TIO-540-A1A, or A1B, A2C, A2B	8	J-9613-12	---
PA-31-310	Lyc. TIO-540-A2C	8	J-9613-12	---
PA-31-325	Lyc. L/ TIO-540-F2BD	8	J-9613-12	---
PA-31-350	Lyc. L/ TIO-540-J2BD	8	J-9613-29	---
PA-31P-350	Lyc. TIO-540-V2AD	--	J-9613-53	---
PA-32-260	Lyc. O-540-E4B5	4	J-7402-20	---
PA-32-260 (s/n 570-up)	Lyc. O-540-E4B5	4	J-3804-27	---
PA-32-300	Lyc. IO-540-K1A5	4	J-3804-27	---
PA-32-300	Lyc. IO-540-K1G5, K1A5	4	J-3804-40	---
PA-32R-300	Lyc. IO-540-K1G5D	4	J-3804-31	---
PA-32R-300 (s/n 141-up)	Lyc. IO-540-K1G5D	4	J-3804-40	---
PA-32RT-300	Lyc. IO-540-K1G5	2 ea.	J-3804-40	---
PA-32RT-300T	Lyc. TIO-540-51AD	2 ea.	J-3804-37&	---
PA-32-301	Lyc. IO-540-K1G5D	2 ea.	J-9613-19 &	---
PA-32R-301	Lyc. IO-540-K1G5D	2 ea.	J-9613-12	---
PA-32-301T	Lyc. TIO-540-S1AD	2 ea.	J-9613-19 &	---
PA-32R-301T	Lyc. TIO-540-S1AD	2 ea.	J-9613-55	---
PA-34-200	Lyc. L/ IO-360-C1E6	8	J-9613-40	---
PA-34-200, 200T	Cont. TSIO-360-E, EB	8	J-9613-58	---
PA-34-220T	Cont. L/ TSIO-360-KB	4	J-9613-58	---
PA-36-300	Lyc. IO-540-K1G5	4	J-3804-31	---
PA-38-112	Lyc. O-235L2C	4	J-7402-16	---
PA39	Lyc. IO-320-B1AC1A	8	J-9613-19	---
PA-44-180	Lyc. O-360-E1A6D	8	J-9613-40	---
PA-44-180T	Lyc. TIO-360-E1A6D	8	J-9613-40	---
PA-46-310P	Cont. TSIO-520-BE	4	J-9613-55	---
PA-46-350P	Lyc. TIO-540-AE2A	8	J-9613-55	---
PA-60-360	Lyc. IO-360-E1A	8	J-9613-12	---
PA-60-600A	Lyc. IO-540-K1F5	8	J-9613-9	---
PA-60-600B	Lyc. IO-540S1A5	8	J-9613-9	---
PA-60-601P	Lyc. IO-540S1A5	8	J-9613-9	---

**LOCKING TAB WASHER** - Used to lock mounting bolts to Lord Mounts. This Continental P/N 501867 is similar to Cessna P/N 08-51559-1. P/N 08-50186-7 ea.

## COWL MOUNTS

Cessna 172P and F172P Per supp 86 & 13.3...P/N J-7444-14  
Cessna 172P, F172P, and 172Q Per supp 86 & 13.3  
P/N J-7444-24  
Cessna 172 Per supp 13.3.....P/N J-7444-36

# BARRY ENGINE MOUNTS



Barry Controls has actively supported the general aviation market since 1981 and holds PMA approvals on a wide range of engine mounts. Barry mounts are warranted for 500 hours or 12 months and feature outstanding quality & value. Call for unlisted part numbers.

## BEECHCRAFT

Aircraft		Part No.	Engine	Price
Common Name	Model			
Skipper	77	94150-40	All	---
Sport	B19, M19A	94150-01	All	---
Sundowner	C23	94150-01	All	---
Bonanza	S-35-V35, A, B, C33A, E33A, C, F33A, C, 36	7351231-3	All	---
Bonanza	A36	7351231-3	All	---
Sport (Musketeer)	19A	94150-01	All	---
Twin Bonanza	E50, G50, H50, F50, J50	94110-40	All	---
Turbo Baron	56TC, A56TC	94011-04	All	---
Baron	58P	94031-03	All	---
Baron	58TC	94031-03	All	---
Baron	A24, A24R, B24R, C24R, D55, D55A, E55, E55A, 58, 95-C55, 95-C55A	96068-01	All	---
Baron	99-55, 95-A55, 95-B55, 95-B55A	96071-01	All	---
Bonanza	C35-G35	96115-01	All	---
Duke	60, A60, B60	94011-04	All	---
Queen Air	65, A65, 65/80, 65/88, 65-A80, 65-B80, 70	94110-40	All	---
Duchess	76	94011-02(2)	All	---
Travel Air	95, B95, A, D95A, E95	94150-40	All	---

Note: (1) Denotes 1ea. per engine. (2) Denotes 2 ea. per engine. All others require 4 engine

## GULFSTREAM

Aircraft		Part No.	Engine	Price
Common Name	Model			
	111	94011-02 (02)	All	---
		94011-20 (02)	All	---
	112, B, T, TC, TCA	94011-02 (02)	All	---
		94011-20 (02)	All	---
Twin Commanders	500	94110-01	All	---
	500A	94110-40	All	---
	560A, E, F	94110-40	All	---
	680, E, F, FL, FLP	94110-40	All	---
	685	94001-01	All	---
	720	94110-40	All	---
Cougar	GA-7	94011-20	All	---
Tiger	AA5B	94011-20	All	---

Note: (1) Denotes 1ea. per engine. (2) Denotes 2 ea. per engine. All others require 4 engine \* AIRCRAFT SERIAL NUMBERS

## VANS

Aircraft		Part No.	Engine	Price
Common Name	Model			
Vans	RV-3	94011-20	All	---
	RV-4	94011-20	All	---
	RV-6	94011-20	All	---

## CIRRUS DESIGN

Aircraft		P/N	Engine	Price
Common Name	Model			
Cirrus	SR20 - PMA Approved	96355-01	All	---
Cirrus	SR22- PMA Approved	96301-01	All	---

## CESSNA

Aircraft		Part No.	Engine	Price
Common Name	Model			
	152, 152A	94150-40	All	---
Skyhawk	172I, J, K, L, M, N, P	94011-20	All	---
Skyhawk / Cutlass	172RG, Q, R, S	J-9613-72HA	All	---
	P172D	94110-40	All	---
	R172E	94017-01	All	---
Skylark	175, A, B, C	94110-40	All	---
Cardinal	177, A, B	94011-20	All	---
	180, A thru H	94110-40	All	---
Skylane	182, A thru R	94110-40	All	---
	R182, TR182, T182	94011-02	All	---
Skylane	182S, T	J-9613-82HA	All	---
Skywagon	185, A thru F, A185F	94110-40	All	---
	188	94110-40	All	---
Stationair	206, U206, A thru G, P206, A thru E	94030-01	All	---
Stationair	206H, T206H	J-15195-4HA	All	---
	TP206, A thru E, TU206, A thru G	94030-01	All	---
		94031-01	All	---
	207, A, T207, T207A	94030-01	All	---
		94031-01	All	---
Yates Aircraft Conversion	A188B	94007-01	All	---
Centurion	210, A thru C 210, D thru H, J	94110-40	All	---
		94030-01 (2)	All	---
		94031-01 (2)	All	---
		94030-01 (2)	All	---
Centurion	210K thru N	94031-01 (1)	All	---
		94031-02 (1)	All	---
Turbo Centurion	T210F thru H	94030-01 (2)	All	---
		94031-01 (1)	All	---
		94031-02 (1)	All	---
Turbo Centurion	T210J thru N	94030-01 (2)	All	---
		94031-01 (1)	All	---
		94031-02 (1)	All	---
Pressurized Centurion	P210N, R	94030-01 (2)	All	---
		94021-01 (1)	All	---
		94021-02 (1)	All	---

## CESSNA TWIN ENGINE

Aircraft		Part No.	Engine	Price
Common Name	Model			
	310B, C	94110-40	All	---
Skynight	320, A thru C	94016-03	All	---
	320D, E, F	94006-01	All	---
	ALT.	94017-01	All	---
Skymaster	336	94016-01	All	---
	337, A thru F	94017-01	All	---
	P337H	94017-01	All	---
	T337, B thru F	94017-01	All	---
	340, A	94006-01	All	---
	401, A, B	94006-01	All	---
Business Liner	402, A thru C	94006-01	All	---
Titan	404	94001-01	All	---
	411, A	94001-01	All	---
Chancellor	414, A	94006-01	All	---
Golden Eagle	421, A thru, C	94001-01	All	---

Note: (1) Denotes 1ea. per engine. (2) Denotes 2 ea. per engine. All others require 4 engine

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# BARRY ENGINE MOUNTS

## PIPER

Aircraft		Part No.	Engine	Price
Common Name	Model			
Cherokee 140	PA28-140	94150-01	*20002-24999	---
	PA28-140	94011-02 (2)	*25000-7125641	---
		94011-20 (2)	*25000-7125641	---
	PA28-140	94011-02 (2)	*7225001 & UP	---
		94011-20 (2)	*7225001 & UP	---
Cherokee 150	PA28-150	94150-01	All	---
Cherokee 160	PA28-160	94150-01	All	---
Warrior	PA28-151	94011-02 (2)	0-320-E3-D	---
		94011-20 (2)	All	---
Warrior	PA28-161	94011-02 (2)	All	---
		94011-20 (2)	All	---
Cherokee 180	PA28-180	94150-01	*1761-4377	---
	PA28-180	94150-01	*4378-5149	---
Cherokee Six	PA32-300	94110-02	*32-7240056 & UP	---
Archer	PA28-180	94011-20	*5151 & UP	---
Archer II	PA28-181	94011-20	All	---
Arrow	PA28R-180	94011-20	*3000 & UP	---
	PA28R-200	94011-20	*35001-7135329 IO-360-C1C	---
Arrow II	PA28R-200	94011-20	*7235001 & UP	---
Turbo Arrow II	PA28R-201T	94006-01	TSIO-360-F, FB	---
Arrow III	PA28R-201	94011-20	*7737002 & UP	---
Turbo Arrow III	PA28R-201T	94006-01	All	---
Dakota	PA28-236	94011-02	*0-540-J3A5D	---
Comanche 250	PA25-250	94110-01	0-540-A1A	---
Comanche 260	PA24-260	94110-01	IO-540-E or D4A5	---
Comanche 400	PA24-400	94011-04	IO-720	---
Cherokee Lance	PA32R-300	94110-02	IO-540-K1G5D	---
Lance II	PA32RT-300	94110-02	IO-540-K1G5	---
Saratoga	PA32-301	94011-02 (2)	All	---
		94011-03 (2)	All	---
Saratoga S.P	PA32R-301	94011-02 (2)	All	---
		94011-03 (2)	All	---
Tomahawk	PA38-112	94150-01	0-235	---
Brave	PA36-300	94110-02	All	---
Pawnee 235	PA25-235	94110-01	All	---
Pawnee 260	PA25-260	94110-01	All	---

## PIPER TWIN ENGINE

Aircraft		Part No.	Engine	Price
Common Name	Model			
Apache 235	PA23-235	94110-01	0-540-B1A5	---
Aztec	PA23-250	94110-01	0-540, IO-540	---
Aztec C, F	PA23-250	94011-02	IO-540-C4B5, CIB5	---
Twin Comanche	PA30	94011-03	All	---
	PA39	94011-03	All	---
Turbo Navajo	PA31	94011-02	All	---
Navajo C/R	PA31-325	94011-02	TIO-540-F2BD(L)	---
Navajo Chieftain	PA31-350	94011-02	TIO-540-J2BD(L)	---
Seneca	PA34-200	94011-20	All	---
Seneca II	PA34-200T	94006-01	All	---
Seneca III	PA34-220T	94006-01	All	---
Seminole	PA44-180	94011-20	All	---
Turbo Seminole	PA44-180T	94011-20	All	---
Aerostar	PA60-700P	94011-40	All	---
	PA60-600, 601	94011-01	All	---
	PA60-601P, 602P	94011-01	All	---

Note: (1) Denotes 1 ea. per engine. (2) Denotes 2 ea. per engine.  
All others require 4 engine \* AIRCRAFT SERIAL NUMBERS

## PILATUS PC-12

Compatible Aircraft: PC-12. PC-12/45. PC-12/47. PC-12/47E

Description	Model	Part No.	Price
New	93880-23	08-15950	---
Rebuilt	93880-23R	08-15950-1	---

## MAULE

Aircraft		P/N	Engine	Price
Common Name	Model			
Rocket	M-4-210, C, S, T	94016-01	All	---
	M-5-210C	94016-01	All	---
	M-5-235, C	94016-02	O-540-J/ IO-540-J	---
	M-6-235	94016-02	O-540-J/ IO-540-J	---
Orion/Super Rocket	M-7-235/260, M-8-235	94016-02	O-540-J/ IO-540-J	---

## MOONEY

Aircraft		Part No.	Engine	Price
Common Name	Model			
Chaparral	M20E 1964 Only	94150-01	0-360-A1A	---
Chaparral (Super 21)	M20E 1965 & Newer	94011-02	IO-360-A1A	---
Executive	M20F	94011-02	IO-360-A1A	---
201	M20J	94011-20		---
231	M20K	94006-01	TSIO-360	---
	CAP231	94016-44	ALL	---
	M20A	94150-40	0-360-A1A, D	---
	M20A	94150-01	0-360-A1A	---
Master	M20D	94150-40	0-360-A1D, A2D	---
Ranger	M20B	94150-40	0-360-A1A, D	---
Ranger Mark 21	M20C	94150-40	0-360-A1A, D	---
Statesmen	M20G	94150-40	IO-360-A1D	---

## LANCAIR

Aircraft		Part No.	Engine	Price
Common Name	Model			
Lancair	235	94150-41	0-235	---
Lancair	320	94150-41	0-320	---
Lancair	360	94150-41	0-320, 0-360	---
Lancair	4	94001-01, (2)	TIO-550, TIO-520	---
		94011-20, (2)	TIO-550, TIO-520	---
Lancair	ES	94017-01	All	---
Columbia	300	94001-01	IO-550	---

Note: (1) Denotes 1 ea. per engine. (2) Denotes 2 ea. per engine.  
All others require 4 engine

## SIAI MARCHETTI

Aircraft Model	Part No.	Engine	Price
F260	94110-01	All	---
S208	94110-01	All	---

## SOCATA

Aircraft		Part No.	Engine	Price
Common Name	Model			
Rallye	235C, E	94011-20	0-540-B4B5	---

## PRATT & WHITNEY TURBO PROPS

Aircraft		Part No.	Engine	Price
Common Name	Model			
P&W Turbo Prop	5906-25A5	08-10679	PT-6	---

## REBUILT ENGINE MOUNT FOR PT-6

This engine vibration isolator assembly(engine mount) is for a variety of PT6 turbo-prop powered aircraft. Rebuilt...P/N 08-10679

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# ENGINE MOUNTS



## DYNAFOVAL ENGINE MOUNT RINGS & KITS

Standard rings furnished with 2-3/4" I.D. retainers, completely welded, ready for mount assembly. The Dynafoval ring kits contain all tubing cut and bent, with 2-3/4" I.D. retainers, ready to weld.

Dynafoval Ring for Lyc. 0-235 to 10-360 (200 HP).....P/N 33521  
Dynafoval Ring for Lycoming 0-320B..... P/N 33521-B  
Dynafoval Ring Kit for Lyc. 0-235 to 10-360 (200 HP)  
(Pre-Welded) ..... P/N 33522  
Retainer Cups & Rings Kit ..... P/N 33253  
(includes 8 cups & 4 rings - everything in #33522 kit above except the tubing)



## BARRY MOUNT FOR VANS AEROBATIC AIRCRAFT

Barry Controls is a manufacturer of many aircraft engine mounts of both experimental and certified types. They also manufacture engine mounts for experimental and kit airplanes of various makes and models. Please call or visit our website for application information.

P/N 94016-08

## HOMEBUILDERS CONICAL LYCOMING ENGINE MOUNT BUSHINGS



These new bushings offer superior damping qualities and do not harden over time as original mounts can do. They are molded from hi-tech silicone rubber which offering a much lower compression set which reduces engine sagging over time. Silicone also withstands a very wide temperature range and is compatible with grease and oil. These mounts are not PMA'd or FAA approved and are for use on experimental aircraft only. Not an approved replacement for Lycoming 71032 bushings. Sold in set of 8 bushings.

P/N 08-00662 /Set

## ENGINE MOUNTS FOR PIPERS



Description	Part No.	Price
J-3 Continental Engine Mount - Piper (J-3 (Continental 65 hp), L-4)	05-00873	---
PA-11 Engine Mount - Piper PA-11 with Continental C90 engine)	05-00874	---
C-90 Continental Engine Mount - Piper PA-18 (Continental C-90)	05-22398	---
PA-16 Engine Mount U11786-000 - Piper PA-16, PA-20 (Lycoming, 115-125hp, 1950-51)	05-21966	---
PA-15/17 Engine Mount L11824-000 - Piper PA-15, PA-17 with Lycoming engine	05-21967	---
PA-18 Lycoming Eng Mount 125hp - Piper PA-18 125hp Lycoming engine	05-22399	---

EP

## LORD RUBBER ENGINE MOUNT



LORD Flex-Bolt™ Sandwich Mounts are designed to protect equipment and machinery against damaging vibration. These mounts provide high load-carrying capacity and assure long life.

Provide lowcost mounting systems which are compact, lightweight, easy to install and maintenance-free.

Model	A	C	D	Thread	Part No.	Price
J-4624-45	1.00	.75	.75	5/16-18	10-01557	---
J-4624-57	1.00	.75	.62	5/16-18	08-07196	---

## URETHANE CONE STYLE ENGINE MOUNT BUSHINGS



These engine mount bushings are made of a special urethane formula which outlasts most other mounts. They have been in use on smaller 4 cylinder Lycoming engines from the 0-235 series to the GO-480 series for years, and are now available to the experimental aircraft market.

Specifications: These cone type mounts are applicable to the following engine models: 0-235-C1, -C1B, -C2A, -C2C, -F, -F1B, -G2A, O-290-D, -D2, -D2B, -D2C, O-340-A, O-340-B, O-320-A2A, -A2B, -A2C, -A3A, -A3B, -A3C, -B2A, -B3A, -B3B, -B3C, -E1A, -E2A, IO-320-E2A, O-435-A, -A2 GO-480-B, -B1A6, -B1B, -B1C, -B1D, -C1B6, -D1A, -F6, -F1A6, -F2A6, -F4A6, -G1A6, -G1D6, -G2D6, -G2F6, -G1H6, -G1J6.

P/N 08-07392



## LORD ENGINE MOUNTS FOR ULTRALIGHTS

All altitude mounts for vibration isolation and shock prevention in all directions. Available in soft, medium, or hard rubber.

Soft .....P/N 08-07049  
Medium .....P/N 08-01013  
Hard .....P/N 08-07050  
Snubbing Washer .....P/N 9810145-01804



## LORD MOUNTS FOR COZY ENGINE MOUNT

These Lord J-7402-24 mounts fit the engine mount for Lyc. 0-360 manufactured by CG Parts.

P/N 07-01115



## SKYBOLT PLATEMOUNTS

The SK2003A Series Mounts were specifically designed around the latest generation Cessna/Lord J7444-42 Series Mount. The SK2003-14A, -24A, and -42A all have the same flex feature as the J7444-42. They look and install exactly the same as the Cessna/Lord part it replaces using the same fastener length. The SK2003-14A, -24A, and -42A are fixed depth, Non-Adjustable Platemounts. The 50ADJ is adjustable and can be adjusted without removing the cowl for an exact fit.

Model	Application	Part No.	Price
SK2003-14A	Cessna P/N J7444-14. Used On - 67-On C150 (10ea), 67-86 C172 (11ea), C172XP (13ea) 68-78 C177 (14ea)	08-07222	---
SK2003-24A	Cessna P/N J7444-24. Used On - 73-86 C182 (14ea)	08-07223	---
SK2003-42A	Cessna P/N J7444-36 and -42. Used on -97, C172 R & S (14ea)	08-07208	---

# EXHAUST COMPONENTS

## STAINLESS STEEL FIREWALL PENETRATION KIT 3/4



The kit comes complete with stainless steel fabricated fitting, fire sleeve tubing, two ALL stainless steel hose clamps and a tube of fire block sealant to seal the ends from moisture and gasses. Includes installation instructions.

- Fireproof seal of the firewall for penetration of wires and cables.
- Seals out moisture and gasses.
- Easy replacement of wires and cables if necessary.
- Very clean looking installation.
- Available in three sizes.

They are so effective that they received an STC under Advisory Circular AC 20-135 Power plant Installation and Propulsion Systems Component Fire Protection Test Methods, Standards and Criteria.

Firewall Penetration Kit 3/4" .....P/N 09-00978

Firewall Penetration Kit 1/2" .....P/N 09-02601

Firewall Penetration Kit 1" .....P/N 09-00979

## AEROTAR PRIMER LINE ASSEMBLIES



Model No.	Aircraft	Description	Part No.	Price
0400106-83	Cessna 152	Primer Firewall to Strainer	05-21778	---
0400343-18	Cessna 152	Primer Firewall to Tee	05-21779	---
0400343-20	Cessna 152	Primer RH - Tee to #1 Cylinder	05-21780	---
0400343-24	Cessna 152	Primer RH - Tee to #1 Cylinder	05-21781	---
0400343-25	Cessna 152	Primer RH - Tee to #3 Cylinder	05-21782	---
0400343-23	Cessna 152	Primer RH - Tee to Tee	05-21783	---
0400343-19	Cessna 152	Primer LH - Tee to Tee	05-21784	---
0400343-21	Cessna 152	Primer LH - Tee to #4 Cylinder	05-21785	---
0400343-22	Cessna 152	Primer LH - Tee to #2 Cylinder	05-21786	---
1700121-112	Cessna 172	Cylinder #2 to Tee	05-21787	---
1700121-111	Cessna 172	Cylinder #4 to Tee	05-21788	---
2400010-31	Cessna 172	Tee to Tee	05-21789	---
2400010-11	Cessna 172	Cylinder #3 to Tee	05-21790	---
2400010-10	Cessna 172	Tee to Firewall	05-21791	---

## EXHAUST SHIELDS



Over the years we have seen failure of the rivets that hold the exhaust heat shield to the mounting bracket. The solution was to spot weld the stainless steel mounting bracket to the stainless steel heat shield thus eliminating the possibility of rivet failure. Adding additional spot welds insures reliability. They are offered in two sizes, 2

inch and 4 inch to cover most applications.  
Exhaust Shield 2" .....P/N 08-07351  
Exhaust Shield 4" .....P/N 08-07352



## T TUBE CONNECTOR

Expanded on short leg to slip over a 2" O.D. tube to divert air in two directions. Especially handy for close to the firewall applications. Weight is 1.7 ounces.  
P/N 08-07304



## 2-1/2 INCH Y TUBE CONNECTOR

With 2" offshoot. If you are running 2.5" tubing in one area and 2" to another, this is your part. Weight is 1.8 ounces.  
P/N 08-07303



## 2 INCH DIAMETER Y TUBE WITH SHUT-OFF VALVE

This is a DL-010 "Y" Tube, modified with a shut-off valve in the straight run tube. The shut-off valve enables the builder to divert the flow of air from the straight tube and direct all or part of the air flow to the angled tube. Furnished with one stainless steel hose clamp. Weight is 2.9 ounces.  
P/N 08-07296



## MODIFIED VA175 TUBE CONNECTOR

This is a direct replacement for the VA175 (Van's part number). The VA175 directs warm air in the RV-10 tunnel to both sides equally. With the Modified VA175, air can be directed all to one side, partially to one side, or both sides, through the controllable (cable actuated) flapper on the inside of the unit.  
P/N 08-07306



## SHUT OFF VALVE TUBE CONNECTOR

Expanded on one end to 2" I.D. to slip over a 2" O.D. tube to regulate or shut off air. Also available non-expanded for in-line applications. Weight is 2 ounces.....P/N 08-07305



## GPL STAINLESS STEEL EXHAUST SPRING

Winding Length: 26mm • Overall Length: 60mm • Hook Distance: 66mm(2.60") • Wire Diameter: 2mm • O.D.: 13mm • Material: 304SS may be slightly magnetic • Number of Rolls: 12.5 • GPL Part Number: EXH-2S • Replaces Rotax Part Number 938-795  
P/N 08-07632

# EXHAUST COMPONENTS

## HEATER BYPASS VALVES

Three models of the all stainless steel heater bypass boxes are offered. The engine side control lever comes with a backing plate that attaches to the cabin side of the firewall and has a 2 inch scat tube outlet so a tube can be attached in the cabin that directs air where wanted. All stainless steel construction offers a fireproof closure in case of an engine fire. New flapper design offers better seal to keep out hot air when closed.



**HEATER BYPASS VALVE FOR RV-10**  
P/N 08-06230



**HEATER BYPASS VALVE WITH CABIN SIDE CONTROL LEVER FOR RV-7, RV-8 AND RV-9** .....P/N 08-01311



**HEATER BYPASS VALVE WITH ENGINE SIDE CONTROL LEVER**  
P/N 08-01311-1

## ALL STAINLESS STEEL TRI-BOX



These boxes were developed for builders who want a simple, light, all stainless box that will fit in tight places, as it does not extend forward of the firewall as far as a standard box. Shown in the photo is a left unit. The box is available in both left and right units. The hole spacing is correct for the pre-punched holes in the RV-10 firewall, but they can be mounted on any firewall. For ease in cable routing, the arm on the box is adjustable using the provided lock nuts.

Everything in the unit is stainless steel, including bushings and rivets. It is furnished with a closed-cell silicone gasket. Weight is 9.8 ounces and has a 2" inlet/outlet port. Please note that these boxes are a direct replacement for the aluminum box available from Vans. The RV-10 uses both a left and a right unit, and they also can be ordered separately. If you are not sure which one(s) you need, refer to your firewall plans drawings. Right .....P/N 08-04958

Left unit is a special order part. Please contact us to order.



## 2 1/2" INLET & 2" OUTLET HOME-BUILDERS CABIN HEAT BOX

This box is identical to the deluxe stainless steel cabin heat box, except that the inlet is 2 1/2" OD so that it can be used on larger heat muff applications where the builder is using 2 1/2" scat tubing. This box is currently being used on the MICCO certified aircraft. Weight is 7.2 ounces.  
P/N 08-04013

## SIDE INTAKE HOMEBUILDERS CABIN HEAT BOX



P/N DL-015 - This box is identical to the standard cabin heat box, P/N DL-001, except that the air intake is parallel to the firewall rather than coming straight in from the heat muff. This gives the builder the option of running scat tube parallel to the firewall. Total weight is 5.2 ounces and has a 2" inlet/outlet port. Furnished with a flange gasket and four mounting rivets. Can also be bolted to firewall.  
P/N 08-04957

## GPL STAINLESS STEEL EXHAUST SPRING FOR 2 STROKES



Winding Length: 32mm • Overall Length: 64mm • Hook Distance: 75mm (2.95") • Wire Diameter: 2mm • O.D.: 16mm • Material: 304SS may be slightly magnetic • Number of Rolls: 9.5 • GPL Part Number: EXH-4S • Replaces Rotax Part Number 938-790  
P/N 08-12235



## CESSNA RISER HALF CLAMP 0750161-25

Cessna Riser Half Clamp 0750161-25, for Cessna 172R and 172S .....P/N 05-04890



## AERONCA HEAT MUFF

Aluminum muffs for models 7AC and 11AC exhaust stacks. Fit either left or right side.  
P/N 05-08715



## 2" DIAMETER 90° TUBE

This unit is designed to slide over the end of the 2" O.D. tube protruding from a cabin heat box that extends through the firewall. The short end of this unit is expanded to 2" I.D. Two stainless steel clamps are furnished with the unit. If you use scat tube, the 90° angle allows you to run the scat tube parallel to the firewall and away from undesirable areas (brake pedals, etc.) Constructed of seamless 6061T4 .028 wall tube.  
Weight: 1.4 oz. ....P/N 08-00863



## 2" DIAMETER "Y" TUBE

"Y" tube is designed to be used with the Homebuilders cabin heat box to make warm air available to 2 or more locations in the aircraft. Constructed of seamless 2024T6 tube, it weighs only 2 oz. These tubes are expanded to 2" I.D. on the inlet end to slip over and clamp to the 2" O.D. tube of the cabin heat box. Due to the very light weight, "Y" tubes can be installed in scat tubing as well as attaching directly to cabin heat boxes. One stainless steel clamp is included with "Y" tube. Due to the light weight of only 1.7 oz., the non-expanded Y-tube can be placed anywhere in a run of tubing to give more options for heating additional areas of the aircraft. Furnished w/2 stainless steel hose clamps.

Standard "Y" tube .....P/N 08-04100  
Non-expanded "Y" tube .....P/N 08-04130



## IN-LINE HEATER/DEFROSTER VALVE

This in-line valve connects to 2" SCAT ducting. It comes complete with cable end and can be hooked up in any combination to direct air to either heater outlets or defrost outlets. Actuating lever is adjustable to any position. Very popular on RV's & other homebuilt aircraft .....P/N 08-00053



## CESSNA TYPE HEAT MUFF

Heli-arc welded aluminum muff with rust-proof stainless steel fins for clamping to stack. Similar in design to the new Cessna type. Furnished with attaching clamps.  
w/2" Outlet .....P/N 08-02400  
w/2.5" Outlet ...P/N 08-02500

## THERMO-TEC STAINLESS STEEL CLAMP-ON HEAT SHIELDS



Stainless Steel Clamp-On Heat Shield incorporates Thermo-Tec proprietary coating technology. The new and improved flexible Stainless Steel Clamp-On Heat Shield blocks over 95% of the damaging radiant heat of the exhaust. The Stainless Steel construction of this heat shield provides the ultimate in protection.

Comes complete with all clamps and new stainless stand offs. Easily installs in minutes.

1 ft. x 6 in. ....P/N 08-13904  
2 ft. x 6 in. ....P/N 08-13905

# HEAT BOXES – EXHAUST COMPONENTS



## DELUXE HOMEBUILDER'S CABIN HEAT BOX

P/N DL-002 - This cabin box is our first modification to our standard heat box. The only difference between this and the standard is that the deluxe cabin heat box has one inlet and two outlets; the second outlet must be used to dump and route, via 2" scat tube, the warm air away from the low plenum area when heat is not being used in the cabin. (It is very important not to run the dump tube to another box on the other side of the firewall, because a constant flow of air is necessary to ensure that the heat muff does not overheat.) The weight on this unit is 5.5 ounces.....P/N 08-04005

## 2-1/2" OD INLET AND 2-1/2" OD OUTLET HOMEBUILDERS CABIN HEAT BOX



P/N DL-005 - This box is identical to the deluxe stainless steel cabin heat box, except that the inlet and outlet are 2 1/2" OD so that this box can be used when the builder wants to use 2 1/2" scat tubing throughout the project. (This box was used on the Cirrus SR20 certified aircraft. The SR20 now uses the DL-008 box listed below.) Weight is 6.3 ounces.....P/N 08-04015

## DELUXE HOMEBUILDERS CABIN HEAT BOX, ALL STAINLESS STEEL



P/N DL-006 - This box was recently developed in response to customer requests. With the exception of brass shaft bushings, this box is constructed entirely of stainless steel, including all SS blind rivets. Like the deluxe boxes, this unit has a 2" inlet and 2" outlets. For the added durability of all stainless steel, the box still only weighs 10 ounces. P/N 08-04025 ea.

## ENGINE SAVER



Every aircraft owner knows that his engine is subject to moisture build up and internal rust formation when not flown regularly. Oil companies spend millions developing special additives to minimize rust. Now there is a better way to fight this rust! The Engine saver produces a continuous supply of very low humidity air that is introduced into the engine through the breather. Low humidity air prevents water formation in the engine. The slight pressure built up keeps the moist outside air from entering, allowing the dry air to flow past the piston rings into the upper cylinder area protecting it as well. The Engine Saver is 110vac powered, requires no installation or FAA approval, and works with all piston engines.....P/N 08-00724

## TOPCAP ENGINE PROTECTOR



Install TopCap in place of a removed cylinder to protect the engine from dirt, debris, and stray parts. Made from fuel and solvent resistant polymer, TopCap allows for full crankshaft rotation. One size fits Lycoming 470, 520, and 550.....P/N 08-00373 ..... /pr.

## MCFARLANE D A M EXHAUST LUBE



**Note:** Do not use an anti-seize that contains graphite on your exhaust systems. Graphite corrodes and destroys the grain structure of stainless steel. D A M™ Exhaust Lube does not contain graphite. D A M Exhaust Lube is designed specifically for aircraft exhaust ball joints, clamps, slip joints, and hardware. A low viscosity liquid is blended with molybdenum-disulfide and other special micro-lubricants to produce a protective dry lubricant film. This film embeds into the stainless steel and keeps your joints lubricated for years!

Single (4 oz) .....P/N 05-27306  
Case of 12 .....P/N 05-27307



## 2" ALUMINUM FLANGE

Accepts 2" scat tube. Flange allows riveting to firewall, baffles, etc. Wt: 0.2 oz.  
P/N 08-04135



## CARB HEAT CONNECTOR

Mounts on FAB airbox or similar airbox. Flange accepts 2" scat tube from muff. Standoff design allows hot air to escape when carb heat is not selected. Weight: 0.9 oz.

P/N 08-04145



## FLANGED DUCT

Accepts 2" ducting on both ends. Helps route ducting through bulkheads, firewalls, etc. Especially useful for getting heat to the back seat of the aircraft. 3" square plate with 2" tubing projecting 1" from each side. Wt:0.7 oz.

P/N 08-04140



## CABIN HEAT BOX

Custom built aluminum box mounts to firewall. Lever on butterfly may be attached to push-pull control for close adjustment of cabin air flow. Two 2" intake ports, one 2" outlet. Wt. 1 lb. 7-1/2" long. Fine quality construction.

P/N 08-01500

## HOMEBUILDERS CABIN HEAT SHUTTLE KIT



Easily assembled and designed so that it can be modified for custom applications. Kit includes construction plans and directions along with installation hints for the popular Vans RV series of homebuilt aircraft. Controlled by ratchet type control cable such as ACS model A740 (P/N 05-12500). Order control cable separately.....P/N 08-04460



## TURBO HEAT CABIN HEAT MUFF

The Turbo Heat is an improved version of the standard Experimental Cabin Heat Muff. Each canister is made from industrial grade .063 aluminum tubes with .125 6061T-6 aluminum end caps laser cut, welded and then machined to exact tolerance for ease of installation and a vibration free fit. Internally, each canister is fitted with 10 aluminum rods surrounded by copper windings for superior heat transfer. **Dimensions:** The standard model is 8 in. in length with 2 in. intake and exhaust tubes. The end caps are machined specifically for the diameter of your engine's exhaust manifold. Please select your port exhaust diameter at checkout of 1.250 in, 1.375 in, 1.5 in, 1.75 in, or 2.0 in. Standard.....P/N 05-15249  
Custom Configuration.....P/N 05-27123



## STANDARD HOMEBUILDERS CABIN HEAT BOX

P/N DL-001 - This cabin heat box has been engineered to be the smoothest, most efficient and lightest heat box built. Fabricated from aircraft-grade aluminum with stainless steel shaft, arm and flapper. Originally designed for use on the popular RV-4 homebuilt, but is applicable to most other designs.

Total weight is only 5.2 ounces. Furnished with a gasket flange for the forward side of the firewall for leak-free ducting of warm air to anywhere the builder wants it. Inlet and outlet are 2 inch OD 6061-T4 seamless alum. The body of the box is constructed of 5052-032 alum. The outlet tube extends through the firewall so that scat tubing can be attached to route the warm air. Superior craftsmanship and quality. Over 4,000 sold to date .....P/N 08-04000 ea.

## EXHAUST HEAT SHIELD SYSTEMS



Heat Shield system is very easy to install and can be tailored to your specific needs and application, to control reflected heat in your engine compartment. These block, and control unwanted radiated heat from hot exhaust tubing, thus protecting your cowl and engine accessories from destructive high temperatures. They are held fast in place, approximately 1/4" off the hot surfaces with hose clamps around the pipes, or to the specific accessories, hose, line, tubes or item you wish to protect. Unlike most products in this category, they will not shake off or crack in a few hours. The attach brackets are made from .062" 14 ga. 301 stainless steel and will outlast your aircraft. The aluminum heat shields are 6061-T6 .032" pre-punched with properly spaced mounting and ventilation holes every one inch. This makes custom trimming and fitting to your needs very simple. The attach brackets can be fitted to the shields with .125" squeeze rivets, or you can use .125" stainless pop rivets with steel pull pins via the pre-punched holes. These heat shields are available in 4"/6"/12" lengths, and you can specify the tubing size you are going to mount to for proper clamp sizing.

Length	Diameter	Part No.	Price
4"	.5 - 1.25"	05-21805	---
4"	1.5 - 2"	05-21806	---
4"	2.25 - 2.5"	05-21807	---

Length	Diameter	Part No.	Price
6"	.5 - 1.25"	05-21808	---
6"	1.5 - 2"	05-21809	---
6"	2.25 - 2.5"	05-21811	---

Length	Diameter	Part No.	Price
12"	.5 - 1.25"	05-21812	---
12"	1.5 - 2"	05-21813	---
12"	2.25 - 2.5"	05-21814	---

# AWI EXHAUST SYSTEMS



## EXHAUST SYSTEMS BY AEROSPACE WELDING MINNEAPOLIS, INC.

Aerospace Welding, Inc. has earned a reputation for its uncompromising commitment to quality exhaust systems and components. Aircraft Spruce is an authorized distributor of AWI products, and as such can assure our customers of minimal down time and fast shipment through the Priority Service Program at AWI. All exhaust systems are built in fixtures for precise fit and are FAA approved for the listed aircraft. Available in factory new (N) and overhauled (OH) condition as noted.

\* **NOTE:** \* 0550157-7 has been consolidated under PMA part number A0450338-14



Aerospace Welding Minneapolis, Inc.

Aircraft	OEM Part No.	Description	Part No.	Price
C-150	0450400-3	LH Muffler (N)	08-00061	---
	0450400-26	RH Muffler (N)	08-00062	---
	0450338-70	RH Riser (N)	08-00063	---
	0450338-69	LH Riser (N)	08-00064	---
	0450338-66	RH Tailpipe (N)	08-00065	---
	0450338-67	LH Tailpipe (N)	08-00066	---
	0450400-201	Shroud	08-14679	---
	0450400-6	Shroud	08-14680	---
	A0450338-10	Tailpipe Clamp without Pin	08-16025	---
	A0450338-9	Tailpipe Clamp with Pin	08-16028	---
	A0450400-200	LH Shroud	08-15997	---
	0454009-5	Muffler (OH)	08-00067	---
	0454009-6	Muffler (OH)	08-00068	---
	A0454002-10	LR Riser	08-15998	---
C-152	A0454002-2	RR Riser	08-16001	---
	A0454002-4	RF Riser	08-16002	---
	A0454023-1	LR Riser	08-16003	---
	A0454023-2	LF Riser	08-16004	---
	A0454023-3	RR Riser	08-16005	---
	A0454023-4	RF Riser	08-16006	---
	A0454009-5	Muffler Assembly	08-18950	---
	0550157-9	LH Muffler (OH)	08-00070	---
	A0450338-14*	RH Muffler (OH)	08-00071	---
	0550157-7	Riser (N)	08-00072	---
	0550157-8	Curved Riser (OH)	08-00073	---
	A9954100-9	Muffler (N)	08-07517	---
	A99541005	Riser (N) LR	08-07520	---
	A99541005	Riser (N) LF	08-07521	---
C-170B/ 172	A0550176-54	Tailpipe	08-14681	---
	A0550176-57	4.5" Curved Riser	08-16010	---
	A10172-013-2	Extended Tailpipe	08-16047	---
	A1455009-3	Muffler Assembly	08-16054	---
	A1455009-3FP	Float Plane Muffler Assembly	08-16055	---
	A1754001-23	Muffler	08-16058	---
	A9954100-3	Shroud	08-16087	---
	0550176-59	Muffler (N)	08-00074	---
	1754001-25	Muffler (N)	08-00077	---
	1754007-1	Riser (OH) RR	08-00079	---
	1754008-1	Riser (OH) LR	08-00080	---
	1754009-1	Riser (OH) LF	08-00081	---
	1754010-1	Riser (OH) RF	08-00082	---
	A9954100-9	Muffler (N)	08-07517	---
C-172	1754001-9	Muffler with flame tubes	08-00084	---
	0550176-54	Tailpipe	08-14681	---
	2454000-15	Tailpipe	08-14682	---
	2054000-42	LH Muffler (OH)	08-00085	---
C-177RG	2054000-40	LH Muffler (OH)	08-00086	---
	2054000-31	LH Muffler (OH)	08-00087	---
	0750290-3	Muffler OH Dual Exchange	08-00089	---
C-180	0750130-6	Stack Assembly	08-14683	---
	0750130-9	Muffler (OH)	08-00090	---
C-180/182	0750130-12	Muffler (OH)	08-00091	---
	A0750130-44	EXHAUST SYSTEMS	08-18955	---
	9954200-11	Tailpipe	08-14684	---
C-182S	9954200-12	Tailpipe	08-14685	---
	A0750161-28	Muffler (N)	08-07514	---
	A0750238-47	Exhaust Stack	08-16046	---
C-180 / 182 / 185	A0750161-87	Shroud	08-16247	---
	A1254017-19	Muffler Assembly	08-16053	---
	A0750161-40	Shroud	08-16008	---
	A0750161-87	Cessna Shroud	08-16247	---
C-180G / 182G	A1250860-122-1M	Standard Turbo Inlet	08-17062	---
	A1250860-122	Standard Turbo Inlet	08-17063	---
C-206 / 207 / 210	0750161-89	Muffler (N)	08-00094	---
C-182/185				

### SEE WEBSITE FOR AIRCRAFT MODEL ELGIBILITY

Note: (N) or (OH) after description indicates New (N) or Overhauled (OH) condition. All overhauled parts carry a core charge. Please Order according to "Our Part No."



### AWI ANTI-SEIZE COMPOUND 7550

AWI Exhaust Lube is designed specifically for aircraft exhaust ball joints, clamps, slip joints and hardware. A low viscosity liquid is blended with molybdenum-disulfide and other micro-lubricants to produce a protective dry lubricant film. This film imbeds into the stainless steel and keeps your joints lubricated for years.

**Features:** • Protects up to 2400° F • No Stainless Corroding Graphite • Prevents Heat Corrosion and Joint Lockup • Joints stay free to move with thermal expansion • No greasy powdered metal paste that locks up • Low Viscosity- A little goes a long way  
Loosens assembled joints ..... P/N 08-17620

# AWI EXHAUST SYSTEMS

Aircraft (cont'd)	OEM Part No.	Description	Part No.	Price
	0750238-20	15 inch Stack (N)	08-00095	---
C-182R	2254003-17	Tailpipe	08-14686	---
	2254003-18	Tailpipe	08-14687	---
C-182RG	1250251-12	Muffler (OH) w/ ring	08-00107	---
C-206/210	1250263-2A	LH Collector	08-00103	---
	1250264-2A	RH Collector	08-00104	---
	650-43	LH Muffler (OH)	08-00106	---
	1250251-13	RH Muffler (OH) w/ rings	08-00107	---
	1250251-16	RH Muffler (OH)	08-00108	---
	1250256-7	LH Tailpipe (N)	08-00109	---
	12502646-6	RH Tailpipe (N)	08-00111	---
	1250860-203	Heat Exchanger (OH)	08-00115	---
	1250860-90	Crossover (OH)	08-00116	---
	12502860-164	New Tailpipe	08-15666	---
	1250860-168	Tailpipe Adapter	08-15667	---
C-206/210	1250860-1057M	LH Exhaust Modified	08-15669	---
	1250860-100	Riser	08-15670	---
	1250860M-122	Turbo Inlet Assembly Modified	08-15671	---
	1250263-2	LH Stack Assembly	08-16048	---
	1250264-2	RH Stack Assembly	08-16049	---
	1250860-117	Riser	08-16051	---
	120860-29	Clamp	08-16052	---
	1555001-1	Muffler (OH)	08-00121	---
	9910296-7	Slip Joint SS	08-16069	---
	9910299-15	LH Elbow Sealess	08-16071	---
	9910299-16	RH Elbow Sealess	08-16074	---
	9910299-15L	LH Inconel Elbow Sealess	08-16072	---
	9910299-16L	RH Inconel Elbow Sealess	08-16075	---
	9910299-3	LH Elbow Seal	08-16076	---
	9910299-4	RH Elbow Seal	08-16078	---
	9910299-3L	LH Inconel Elbow Sealess	08-16077	---
	9910299-4L	RH Inconel Elbow Sealess	08-16079	---
	9910299-13	Left Westgate Overboard	08-16015	---
	9910299-14	Right Westgate Overboard	08-16016	---
	9910299-5	Elbow	08-16080	---
	9910299-6	Westgate Overboard	08-16081	---
	9910299-10	Bypass Elbow	08-16014	---
	A075161-22	Clamp	08-16044	---
	A0750161-24	Clamp	08-16045	---
C-340 /340A/ 414/414A	A9910299-1	TailPipe Assembly Non-extended LH	08-18733	---
	A9910299-2	TailPipe Assembly Non-extended RH	08-18737	---
	A9910299-1X	TailPipe Assembly Extended LH	08-18736	---
	A9910299-2X	TailPipe Assembly Extended RH	08-18738	---
C-300/400	A9910295-13I	Stack Assembly- C-300/400 Inconel LH	08-18727	---
C-300/400	A9910295-14I	Stack Assembly- C-300/400 Inconel RH	08-18728	---
C-421C	A9910300-15	TailPipe Assembly LH	08-18743	---
	A9910300-16	TailPipe Assembly RH	08-18744	---
C-421, 421A, 421B	A5155156-47	TailPipe LH	08-18716	---
	A5155156-48	TailPipe RH	08-18717	---
Piper	A63243-002	1.75" Exhaust PIn Clamp	08-16275	---
Piper J-3	71053-02	Muffler (OH)	08-00122	---
	A14235-00	2" Clamp with Pin	08-16245	---
PA12/14/ 16/20/22	A11417-004	TailPipe	08-16274	---
PA18	12433-014	Muffler (OH)	08-00123	---
PA24-180/250	A26385-00	Muffler Assembly	08-18714	---
PA28-140	A66704-02	Shroud	08-16251	---
PA28-140/ 150/160/180	A99044-03	Left Rear Exhaust Stack	08-16252	---
	A63726-04	Right Front Exhaust Stack	08-16250	---
PA-28-150/ 160/180/ 151/161/181	A62230-00	Right Front Exhaust Stack	08-16260	---
PA28-151 / 161/181	A35300-00	Left Front Exhaust Stack	08-16261	---
PA28-150/PA28-160/PA28-180	A35655-02	Carb Heat Clamp	08-17040	---
PA28-140/160/180	A62208-02	Shroud	08-16248	---
PA28-140/180	99482-00	Muffler (OH)	08-00129	---
	A99482-02	Muffler (N)	08-13105	---
	99044-02	Stack (OH)	08-00131	---
	99044-04	Stack (OH)	08-00132	---
	99044-05	Stack (OH)	08-00133	---
PA28-10/180/ 151/494/191	AWI 63666-002	Tailpipe (N)	08-07515	---
	AWI 63723-001	Carb. Heat Shroud	08-14861	---
PA-28-40/160	A63723-002	Shroud Bottom	08-14862	---
	A63726-02	Left Front Stack 8" Drop	08-15764	---
PA-28-150/160/180	A62981-006	Carb Heat Shroud LH	08-17690	---
	A62981-007	Carb Heat Shroud RH	08-17689	---
PA28-151/161	A35656-02	Carb Heat Link	08-16255	---
	A35301-01	Left Rear Exhaust Stack	08-16256	---
	A62232-004	Right Rear Exhaust Stack	08-17039	---
PA28-151/ 161/180/191	66894-03	Muffler (N)	08-00135	---
PA28-180	A62231-00	Left Rear Exhaust Stack w/Tab	08-16253	---
PA28R-180/200	67517-00	Muffler (N)	08-00136	---

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# AWI EXHAUST SYSTEMS

Aircraft (cont'd)	OEM Part No.	Description	Part No.	Price
PA-28-181	A85477-02	Front Muffler	08-16258	---
	A85477-05	Rear Muffler	08-16259	---
	A690-091	Bolt Flange	08-17692	---
PA28-200/201	A67809-00	Right Front Exhaust Stack	08-16263	---
	A67810-00	Left Front Exhaust Stack	08-17055	---
	A67811-00	Left Rear Exhaust Stack	08-17056	---
PA28-200/201	A67812-00	Right Rear Exhaust Stack	08-16264	---
PA28-235	65012-00	Muffler (OH)	08-00137	---
	65813-00	Muffler (OH)	08-00138	---
	68718-03	Muffler (OH)	08-00139	---
	65038-00	LH Stack (OH)	08-00140	---
	65039-00	RH Stack (OH)	08-00141	---
PA28-236	67517-00	Muffler (N)	08-00136	---
PA31	A16696	LH Center Tube	08-14621	---
	A16697	LH Aft Elbow	08-14622	---
	A16826	LH Manifold Assembly	08-14623	---
	A16621	RH Center Tube	08-14624	---
	A16620	RH AFT Tube	08-14625	---
	A16825	RH Manifold Assembly	08-14626	---
	A15849	Short Fwd Tube	08-14629	---
PA31-350	A40310-10	Upper Tailpipe Assembly	08-14627	---
PA31-310/ 325/350	A40310-9	Lower Tailpipe Assembly	08-14628	---
PA32-260	68718-00	Muffler (OH)	08-00150	---
PA32-300	68796-00	Muffler (OH)	08-00153	---
	68793-00	Stack (OH)	08-00154	---
PA-32-300/ 32R-300 / 32RT-300 / 32R-301	A38137-02	Left Rear Exhaust Stack	08-16265	---
	A38137-03	Left Center Exhaust Stack	08-16266	---
	A38137-04	Left Front Exhaust Stack	08-16267	---
	A38137-05	Right Front Exhaust Stack	08-16268	---
	A38137-06	Right Center Exhaust Stack	08-16269	---
	A38137-07	Right Rear Exhaust Stack	08-16270	---
PA34-200-I	78463-10	LH Tailpipe (OH)	08-00158	---
	78463-10	RH Tailpipe (OH)	08-00159	---
PA38-112	77669-02	Muffler (OH)	08-00160	---
PA-44-180	86299-07	Muffler (OH)	08-00161	---
	A89366-005	Seminole Right Rear Exhaust Stack	08-17686	---
	A86202-004	Right Front Exhaust Stack	08-17685	---
	A89366-011	Seminole Left Rear Exhaust Stack	08-17691	---
	A89364-005	Seminole Cover Carb Heat Shroud	08-17687	---
Beechcraft	A35-950004-7	Beechcraft Left Hand Tailpipe	08-16271	---
	A35-950004-17	Exhaust Clamp Set With Hardware	08-16272	---
	A35-950004-9	Right Hand Tailpipe	08-16273	---
B-V35/A36	35-950005-1	LH Stack (OH)	08-00164	---
	35-950005-3	RH Stack (OH)	08-00165	---
	701-4	LH Muffler (N)	08-00166	---
B-V35/A36	701-20	LH Muffler (N)	08-00167	---
	701-5	RH Muffler (OH)	08-00168	---
	701-19	RH Muffler (OH)	08-00169	---
	35-950004-9	RH Tailpipe (OH)	08-00171	---
	35-950005-61	LH Tailpipe (N)	08-00172	---
	35-950005-57	RH Tailpipe (N)	08-00173	---
	35-950004-7	LH Tailpipe (N)	08-00176	---
	A189	RH Muffler	08-16041	---
	A492-43	LH Muffler	08-16042	---
	A35-950004-7	LH Tailpipe	08-16271	---
	A35-950004-17	Exhaust Clamp Set	08-16272	---
	A35-950004-9	RH Tailpipe	08-16273	---
B-35H-P	492-27	RH Muffler (OH)	08-00174	---
	96-950002-7	Riser Cyl. #4 (OH)	08-00203	---
B-Sundowner	099001-127	Muffler (OH)	08-00206	---
B-Sport	099001-126	Muffler (OH)	08-00207	---
Bellanca Citabria	3-1493R	Muffler (OH)	08-00209	---
	3-1493L	Muffler (OH)	08-00210	---
Bellanca 8KCAB	099001-046	Muffler (OH)	08-00213	---
Bellanca 8GCBC	099001-046	Muffler (N)	08-13106	---
Bellanca: Scout & Decathlon 8GCBC, 8KCAB, 7ECA	A099001-703	Shroud Assembly -7ECA /8 GCBC	08-18765	---
Grumman AA1 Yankee	099001-113	Muffler (OH)	08-00218	---
Grumman AA1 A&B	099001-137	Muffler (OH)	08-00219	---
Grumman AA1/ AA5/ AA5A/ AA5B	AWI099001-102	Straight Riser (N)	08-07523	---
Grumman AA5B Tiger	A099005-184	Riser	08-16040	---
Grumman AA5A Cheetah	099005-195	Muffler (OH)	08-00221	---
Grumman AA5B Tiger	099001-191	Muffler (OH)	08-00222	---
Grumman AA5/AA5A	099005-195	Muffler (OH)	08-00221-1	---
Mooney M20	630060-503	200 Muffler (OH)	08-00224	---
Mooney M-20	A630053-013	Upper Riser	08-16030	---
Mooney M20J	A630119-501	Tailpipe	08-16039	---
Musketeer	AWI099001-120	Straight Riser (N)	08-13107	---
	A35-950005-39	Hi Perf RH Collector	08-15989	---
	A35-950005-37	Hi Perf LH Collector	08-15990	---

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## KNISLEY WELDING INC. PIPER AIRCRAFT EXHAUST PARTS

Knisley Welding Inc. has been a family owned and operated business serving the aviation community since 1974. Glenn Knisley, who was working at Mather Air Force Base at the time as a supervisor in the welding department, began the company with the idea of filling a need for aircraft exhaust systems that were difficult to find. Glenn was retired from the military where he had received training in welding. The idea for the company began when an aircraft owner brought a muffler to Glenn for repairs because there was no one in the area repairing exhaust systems. Glenn then approached his brother Floyd Knisley as a partner for the start up company that was first located in Rancho Cordova as a repair station. In addition to recreational flying, at that time there were many small planes flying as crop dusters in the Sacramento Valley.

Description	A/C Model	FAA/ PMA	STC	OEM P/N	Part No.	Price
Knisley Piper PA-18 Exhaust Stack Front K12457-12	18	N	Y	K12457-12	05-07569	---
Knisley Piper PA-18 Exhaust Stack Rear K12457-13	18	N	Y	K12457-13	05-07571	---
Front Stack K12093-23	22	N	Y	K12093-23	05-07888	---
Knisley Piper PA22 Rear Stack W/Shroud K13238-05	22	N	Y	K13238-05	05-07889	---
Knisley Piper 28-140 150 160 180 Right Front Stack K63726-04	28-140/150/160/180	N	Y	K63726-04	05-07892	---
Knisley Piper 28-140 150 160 180 Left Rear Stack K63726-05	28-140/150/160/180	N	Y	K63726-05	05-07893	---
Knisley Piper 28-140 150 160 180 Left Front Stack K63726-02	28-140/150/160/180	N	Y	K63726-02	05-07894	---
Knisley Piper PA28 151 161 180 Muffler K66894-00	28-150/151/160/161/180/181	N	Y	K66894-00	05-07897	---
Knisley Piper PA28 151 161 180 Right Front Stack K62230-00	28-150/151/160/161/180/181	N	Y	K62230-00	05-07898	---
Knisley Piper PA28 151 161 180 Right Rear Stack K62232-00	28-150/151/160/161/180/181	N	Y	K62232-00	05-07899	---
Knisley Piper PA28 151 161 180 Left Front Riser K35300-00	28-150/151/160/161/180/181	N	Y	K35300-00	05-07901	---
Knisley Piper PA28 140 150 160 180 Muffler K99482-00	28-150/151/160/161/180/181	N	Y	K99482-00	05-07904	---
Knisley Piper PA28 140 150 160 180 Muffler K99482-02	28-150/151/160/161/180/181	N	Y	K99482-02	05-07906	---
Knisley Piper PA32 260 Left Hand Stack K65038-00	28-235	N	Y	K65038-00	05-07907	---
Knisley Piper PA32 260 Right Hand Stack K65039-00	28-235	N	Y	K65039-00	05-07908	---
Knisley Piper PA28 235 Muffler K65012-00	28-235	N	Y	K65012-00	05-07909	---
Knisley Piper PA28 235 Muffler K68718-03	28-235	N	Y	K68718-03	05-07911	---
Knisley Piper PA28 235 Muffler K65813-00	28-235	N	Y	K65813-00	05-07912	---
Knisley Piper PA28R 180 Left Front Riser K67617-00	28R-180	N	Y	K67617-00	05-07913	---
Knisley Piper PA28R 180 Left Rear Riser K67618-00	28R-180	N	Y	K67618-00	05-07914	---
Knisley Piper PA28R 180 Right Rear Riser K67620-00	28R-180	N	Y	K67620-00	05-07917	---
Luscombe Rh Upper Arm	28R-180	N	Y	K67619-00	05-07915	---
Knisley Piper PA28R 180 Right Front Riser K67619-00	28R-180	N	Y	K67620-00	05-07916	---
Knisley Piper PA28R 180 Muffler K67517-00	28R-180/32-300	N	Y	K67517-00	05-07918	---
Knisley Piper PA31 300 310 325 Left Hand Assembly K16826a	31-300/310/325	N	Y	K16826A	05-07919	---
Knisley Piper PA31 300 310 325 Right Hand Assembly K16825a	31-300/310/325	N	Y	K16825A	05-07921	---
Knisley Piper PA31 300 310 325 Left Hand Tube K16000-3	31-300/310/325	N	Y	K16000-3	05-07922	---
Knisley Piper PA31 300 310 325 Left Rear Elbow K16000-13	31-300/310/325	N	Y	K16000-13	05-07924	---
Knisley Piper PA31 300 310 325 Left Hand Elbow K16000-11	31-350	N	Y	K16000-11	05-07923	---
Knisley Piper PA31 300 310 325 Right Rear Elbow K16000-17	31-300/310/325	N	Y	K16000-17	05-07925	---
Knisley Piper PA31 300 310 325 Right Hand Elbow K16000-15	31-300/310/325	N	Y	K16000-11	05-07926	---
Knisley Piper PA31 300 310 325 Right Hand Tube K16000-5	31-300/310/325	N	Y	K16000-5	05-07927	---
Knisley Piper PA31 300 310 325 Upper Tailpipe K40310-08	31-300/310/325	N	Y	K40310-08	05-07928	---
Knisley Piper PA31 300 310 325 Lower Tailpipe K40310-09	31-300/310/325/350	N	Y	K40310-09	05-07929	---
Knisley Piper PA31 350 Upper Tailpipe K40310-10	31-350	N	Y	K40310-30	05-07933	---
Knisley Piper PA31 350 Right Hand Elbow K16000-9	31-350	N	Y	K16000-9	05-07931	---
Knisley Piper PA31 350 Right Rear Elbow K16000-7	31-350	N	Y	K16000-7	05-07932	---
Knisley Piper PA32 300 Left Front Stack K38137-04	32-300	N	Y	K38137-04	05-07937	---
Knisley Piper PA32 300 Left Center Stack K38137-03	32-300	N	Y	K38137-03	05-07938	---
Knisley Piper PA32 300 Left Rear Stack K38137-02	32-300	N	Y	K38137-02	05-07939	---
Knisley Piper PA32 300 Right Front Stack K38137-05	32-300	N	Y	K38137-05	05-07941	---
Right Center Stack K38137-06	32-300	N	Y	K38137-06	05-07942	---
Kn isley Piper PA32 300 Right Rear Stack K38137-07	32-300	N	Y	K38137-07	05-07943	---
Knisley Piper PA32 300 Muffler K68796-00	32-300	N	Y	K68796-00	05-07944	---
Knisley Piper PA32 300 Stack K68793-00	32-300	N	Y	K68793-00	05-07946	---
Knisley Piper J3 Right Stack K70671-00	J3	N	Y	K70671-00	05-07879	---
Muffler K71053-02	J3	N	Y	K71053-02	05-07881	---
Knisley Piper J3 Left Stack K71082-00	J3	N	Y	K71082-00	05-07882	---

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# NICROCRAFT EXHAUST PARTS



Cessna 150

## NICROCRAFT EXHAUST PARTS BUILT TO TAKE THE HEAT

Aircraft Spruce & Specialty Co. offers fully overhauled and factory new exhaust components for use in most general aviation aircraft. Manufactured by Wall Colmonoy Corp. Nicrocraft exhaust parts are built to the latest original equipment specifications. Heat-resistant 321 stainless steel is used in the construction of all new parts. Bellows are made of Inconel alloy for superior heat resistance. Individual exhaust components and complete systems are available for virtually all single and twin engine Cessna, Piper, Beech, Bellanca, Grumman, Mooney, and Rockwell aircraft. (Please provide your complete aircraft and engine model and serial numbers, year of aircraft, and exact components required.) Most components are available for immediate shipment.

## CESSNA EXHAUST PARTS

Application	Description	OEM	Part No.	Price
Cessna 180 S/N 30000 thru 32150 w/ Continental Engine O-470-A or O-470-J	Clamp Assembly	186-8	08-16093	---
Cessna 180, S/N 30000 thru 32150 w/ Continental Engine O-470-A or O-470-J	Clamp Assembly	192-001	08-16094	---
Cessna 170B, 172, 172A	Clamp Assy.	221-5	08-16101	---
Cessna 150G thru 150M; A150K, L, M; F150G thru M; FA150K, L	Clamp Assembly	568-06	08-16120	---
Cessna 172B thru 172H; F172F thru F172K; P172D; 175B, C	Clamp Assembly	568-31	08-16121	---
Cessna : 205; 206; U206; U206A, B, C, D, F; P206, P206A, B, C, D, E	Clamp Assembly	596-0005	08-16122	---
Cessna 210B, C, D, E, F, G, H, J, K, L, M, N	Clamp Assembly	596-02	08-16123	---
Cessna 205, 206, U206A, thru, F, P206, P206A thru E, 210B thru N	Collector LH	1250263-2, 1250256-3	08-00850	---
Cessna 205, 206, U206A, thru, F, P206, P206A thru E, 210B thru N	Collector RH	1250264-2, 1250257-3	08-00851	---
Cessna T310P, Q, R, 320D, E, F; 401, A, B; 402, A, B	Header, LH	8026-36	08-16139	---
Cessna T310P, Q, R, 320D, E, F; 401, A, B; 402, A, B	Header, RH	8026-25	08-16138	---
180B, C, D, E, F	Heat Muffler	0750130-44	08-00556	---
182B, C, D, E, F	Heat Muffler	0750130-9	08-00554	---
Cessna 205, 206, U206A, thru, F, P206, P206A thru E, 210B thru N	Heat Muffler LH	1250250-5	650-43	---
Cessna 180 S/N 30000 thru 32150 w/ Continental Engine O-470-A or O-470-J	Heat Muffler	225-5	08-16108	---
Cessna 150G thru 150M; A150K, L, M; F150G thru M; FA150K, L	Heat Muffler	CEM0007	08-16154	---
Cessna 150G thru 150M; A150K, L, M; F150G thru M; FA150K, L	Heat Muffler	CEM0008	08-16155	---
Cessna 210B	Heat Muffler RH	650-99	08-16134	---
Cessna 152	Muffler	0454009-5	08-03629	---
& A152 (S/N 978 & up)	Muffler	0454009-6	08-03628	---
Cessna R172	Muffler	1455009-3	08-00341	---
Cessna 180, 182	Muffler	0750161-28, 0750161-89	08-01313	---
Cessna 172 I thru Q, 177	Muffler	1754001-15, 1754001-9, 1754001-22	08-03635	---
Cessna 310R	Muffler	8282-1	08-16140	---
Cessna 172R; 172S	Muffler	WCC9954100-9	08-16165	---
Cessna 150G, H, J, K, L, M A150K, L, M, F150G, H, J, K, L, M, FA150K, L	Muffler LH	0450400-3	8300-3	---
C170, 172, A, Cont 0-300/ C145	Muffler LH	0550157-9	221-9	---
Cessna 172B thru H, F172F thru K, P172D, 175B, C	Muffler LH & RH	0550176-59	568-110	---
Cessna 150G, H, J, K, L, M, A150K, L, M, F150G, H, J, K, L, M, FA150K, L	Muffler RH	0450400-26	8300-4	---

Application	Description	OEM	Part No.	Price
C170, 172, A, Cont 0-300/ C145	Muffler RH	0550157-32	08-00551	---
C210B	Muffler RH	1250251-16	08-00849	---
Cessna 205; 206; U206; U206A, B, C, D, F; P206, P206A, B, C, D, E	Muffler w/ Heat Shield	650-95	08-16132	---
Cessna 337 (Rear Engine)	Muffler, Rear	CEM0022	08-16157	---
Cessna 170B, 172, 172A	Riser	221-7	08-16102	---
Cessna 170B, 172, 172A	Riser	221-8	08-16103	---
Cessna 180 S/N 30000 thru 32150 w/ Continental Engine O-470-A or O-470-J	Riser	223-01	08-16105	---
Cessna 180 S/N 30000 thru 32150 w/ Continental Engine O-470-A or O-470-J	Riser	223-02	08-16106	---
Cessna 180 S/N 30000 thru 32150 w/ Continental Engine O-470-A or O-470-J	Riser	223-03	08-16107	---
Cessna 205; 206; U206; U206A, B, C, D, F; P206, P206A, B, C, D, E	Riser	596-30	08-16124	---
Cessna 210B, C, D, E, F, G, H, J, K, L, M, N	Riser	650-18	08-16127	---
Cessna 150G thru 150M; A150K, L, M; F150G thru M; FA150K, L	Riser	8300-13	08-16146	---
Cessna 170B, 172, 172A	Shroud Assy., LH	221-15	08-16104	---
Cessna 205; 206; U206; U206A, B, C, D, F; P206, P206A, B, C, D, E	Shroud Assy., LH	650-47	08-16129	---
Cessna 210B	Shroud Assy., RH	650-46	08-16128	---
Cessna	Spring	186-218	08-16091	---
C172 O-320	Stack	1754007-1	08-00844	---
C172 O-320	Stack	1754008-1	08-00846	---
C172 O-320	Stack	1754009-1	08-00847	---
C172 O-320	Stack	1754010-1	08-00848	---
Cessna 180, 182, 185	Stack	CES0002	08-16158	---
Cessna 180, 182, 185	Stack	CES0003	08-16159	---
Cessna 150G thru 150M; A150K, L, M; F150G thru M; FA150K, L	Stack Assy., LH Engine Inbound	BES0007	08-16152	---
Cessna 150G thru 150M; A150K, L, M; F150G thru M; FA150K, L	Stack Assy., LH Engine Outbound	BES0005	08-16150	---
Cessna 150G thru 150M; A150K, L, M; F150G thru M; FA150K, L	Stack Assy., RH Engine Inbound	BES0006	08-16151	---
Cessna 150G thru 150M; A150K, L, M; F150G thru M; FA150K, L	Stack Assy., RH Engine Outbound	BES0008	08-16153	---
Cessna 150G thru 150M; A150K, L, M; F150G thru M; FA150K, L	Stack, LH	BES0002	08-16149	---
Cessna 170B, 172, 172A	Tailpipe	221-33	08-16099	---
Cessna 170B, 172, 172A	Tailpipe	221-4	08-16100	---
Cessna 205; 206; U206; U206A, B, C, D, F; P206, P206A, B, C, D, E	Tailpipe	650-67	08-16131	---
Cessna 150G thru 150M; A150K, L, M; F150G thru M; FA150K, L	Tailpipe	8300-7	08-16147	---
Cessna 150G thru 150M; A150K, L, M; F150G thru M; FA150K, L	Tailpipe	8300-8	08-16148	---
Cessna	Tension Spring	186-225	08-16092	---

EP

# NICROCRAFT EXHAUST PARTS

## NICROCRAFT EXHAUST PARTS - PIPER



Wall Colmonoy Corp. Microcraft exhaust components fully overhauled and factory new for use in most general aviation aircraft.

- Built to the latest original equipment specifications.
- Heat-resistant 321 stainless steel construction of all factory new parts.
- Bellows are made of Inconel alloy for superior heat resistance.

Application	Description	OEM	Part No.	Price
Piper PA-18	Muffler	12433-15	08-00242	---
Piper PA-12, PA-14, PA-16, PA-20, PA-22, PA-25	Muffler	10308-03	08-03631	---
Piper PA-38-112	Muffler	77669-02	08-12411	---
Piper PA-44-180	Muffler	PIM0010	08-16163	---
Piper PA-28-180, S/N 28-1 thru 28- 1760	Muffler	PIM0002	08-16160	---
Piper PA-28-151, PA-161, PA-180, PA-181	Muffler (2 req.)	66894-03	08-03633	---
Piper PA-28R-180, PA-28-R200, PA-28RT-201, PA-28-236, PA-32-300, PA-32-301, PA-32R-300, PA-32R-301	Muffler (2 req.) / (3 req.) for 236	67517-00	08-03632	---
Piper PA-28-140, PA-28-150, PA-28-160	Muffler w/o Shroud	99482-00	08-03630	---
Piper PA-28-150, -160, -180	Muffler, Front (Shroud not included)	PIM0008	08-16161	---
Piper PA-28-150, -160, -180	Muffler, Rear (Shroud not included)	PIM0009	08-16162	---
Piper PA-28-181, S/N 2843001 & ON	Muffler, Forward	85477-02	08-17166	---
Piper PA-28-181, S/N 2843001 & ON	Muffler, Rear	85477-05	08-17167	---



## SR-22 CIRRUS EXHAUST PARTS

Nicrocraft SR-22 Cirrus mufflers and heat exchangers are FAA/PMA approved. The mufflers and heat exchangers are built out of 321 stainless steel with inconel baffles, and carries a one year, unlimited hour warranty.

Model #	Description	Installation Eligibility Make	Installation Eligibility Model	Part Number	Price
WCC 14836-002	Muffler	Cirrus Design Corporation	SR22 S/N 0320 and up	08-17057	---
WCC 14837-001	Heat Exchanger	Cirrus Design Corporation	SR22 S/N 0320 thru 2437	08-17059	---



## EXHAUST MUFFLER FOR CESSNA 180/182/185

Exhaust Muffler with Cones for the Cessna 180/182/185 aircraft.

P/N 05-26652

## BEECHCRAFT EXHAUST PARTS

Application	Description	OEM	Part No.	Price
Beech FEEA,F33C, S/N CJ-26 & UP / C33A,E33A S/N CE-290 & UP	Collector LH	35-9016-1S, 35-9016-1SR	08-00853	---
Beech FEEA,F33C, S/N CJ-26 & UP / C33A,E33A S/N CE-290 & UP	Collector RH	35-9016-1S, 35-9016-1SR	08-00854	---
Beechcraft B33, S/N CD-736 THRU CD-813	Heat Muffler LH w/o Shroud	186-30	186-30	---
Beechcraft H35, J, K, M, N, P35	Heat Muffler LH	492-43	08-00555	---
Beechcraft 36,A36 S/N E-1 And Up / S35,V35,V35A,V35B, S/N D-7310 AND UP	Heat Muffler RH	701-19	701-19	---
Beechcraft Model 76 Duchess	Muffler	8295-205	08-16145	---
Beechcraft H35; J35; K35; M35; N35; P35	Muffler RH	492-27	08-16115	---
Beechcraft C33A; E33A, C; F33A, C; G33; S35; V35, A, B; 36; A36	Muffler and Shroud Assembly, RH	701-21	08-16135	---
Beechcraft H35; J35; K35; M35; N35; P36	Shroud Assembly	492-42	08-16116	---
Beechcraft C33, E32	Shroud Assembly RH	701-50	08-16136	---
Beechcraft B33 Thru E33 S/N CD-1 Thru CD-1254	Stack Assembly LH	35-950118	08-03627	---
Beechcraft B33 Thru E33 S/N CD-1 Thru CD-1254	Stack Assembly RH	35-950116	08-03626	---
Beechcraft Model 76 Duchess	Stack, Cylinder #1	8295-101	08-16141	---
Beechcraft Model 76 Duchess	Stack, Cylinder #2	8295-102	08-16142	---
Beechcraft Model 76 Duchess	Stack, Cylinder #3	8295-103	08-16143	---
Beechcraft Model 76 Duchess	Stack, Cylinder #4	8295-104	08-16144	---

## OVERHAULED EXHAUST PARTS



Beechcraft

Wall Colmonoy Corp. Microcraft exhaust components fully overhauled and factory new for use in most general aviation aircraft.

- Built to the latest original equipment specifications.
- Heat-resistant 321 stainless steel construction of all factory new parts.
- Bellows are made of Inconel alloy for superior heat resistance.

Aircraft	Description / OEM#	Part No.	Price
Beechcraft C33A, E33A, F33A, C, S35, 36, A36	Heater Muffler RH w/o shroud / #701-19	701-19R	---
Cessna 210B	Heater Muffler LH / #1250250-15	1250250-5R	---
Piper PA-18	Muffler / #12433-15	12433-15R	---

# AEROTAR EXHAUST SYSTEMS

## CESSNA 152



Model Number/ Exhaust Assembly	Description	Part No.	Price
0454023-3 / 0454021-1	Riser Assembly RH AFT	08-15736	---
0454023-4 / 0454021-1	Riser Assembly RH FWD	08-15737	---
0454009-6 / 0454021-1	Muffler Assembly	08-15738	---
0454010-9 / 0454021-1	Shroud Assembly (2 Piece)	08-15739	---
0454023-2 / 0454021-1	Riser Assembly LH FWD	08-15740	---
0454023-1 / 0454021-1	Riser Assembly LH AFT	08-15741	---
0454010-1 / 0454011-200	Shroud Assembly (2 Piece)	08-15743	---
0454002-4 / 0454011-200	Riser Assembly RH FWD	08-15745	---
0454002-2 / 0454011-200	Riser Assembly RH AFT	08-15746	---
0454002-11 / 0454011-200	Riser Assembly LH FWD	08-15747	---
0454002-10 / 0454011-200	Riser Assembly LH AFT	08-15748	---

## CESSNA 172



Model No.	Description	Part No.	Price
9954100-3	Shroud Assembly	08-15751	---
9954100-9	Muffler Assembly	08-15752	---
9954100-7	Riser RF (1754010-1)	08-15753	---
9954100-4	Riser RR (1754007-1)	08-15754	---
9954100-6	Riser LF (1754009-3)	08-15755	---
9954100-5	Riser LR (1754008-3)	08-15756	---
1555014-2	Clamp	08-15757	---
0454013-1	Carb Heat Shroud	08-15758	---
1750011-4	Carb Heat Box	08-16323	---



## AEROTAR CESSNA C152 ENGINE MOUNT

Aerotar Engine Mount Exchange for Cessna C152 (+\$650 Core Exchange Charge)  
P/N 08-16335  
Aerotar Engine Mount Outright for Cessna C152.  
P/N 08-19062  
(This part is considered oversize.)

## CESSNA 180 / 182 / 185



Model No.	Description	Part No.	Price
0750238-210	Stack - RH OR LH	08-16326	---
0750161-22	2 -5/8" Clamp without PIN	08-16329	---
0750161-24	2 -5/8" Clamp with PIN	08-16330	---
0750161-40	Shroud Assembly	08-16331	---

## CESSNA 310 / 414



Model No.	Description	Part No.	Price
0851053-1	Heat Shield Shroud Half IB - LH or RH	08-16332	---
0851053-5	Heat Shield Shroud Half OB - LH or RH	08-16333	---

## PIPER PA-28R (180I200I201) ARROW I / II / III / IV

Model No.	Description	Part No.	Price
67517-000	Muffler	08-15759	---
67651-000	Shroud Assembly - 2	08-15760	---
104628-002	PA-28-181 Muffler	08-15784	---
99600-000	Shroud Assembly - 3	08-15761	---
67808-000	Shroud Bottom	08-21797	---
63243-002	Clamp	08-15762	---

## PIPER PA-23-250T

Aerotar Piper with Lycoming T10-540 Engine PA-23-250T.

Model No.	Description	Part No.	Price
77981	Strut Turbo Left Hand	05-21792	---
77983	Turbo Support	05-21793	---
LW-10119	Support Turbo Top Right Engine	05-21794	---
LW-10985	Heat Shield Manifold	05-21795	---
77982	Strut Turbo Right Hand	05-21796	---

## PIPER PA-34-200 SENECA

Aerotar Exhaust Systems for Piper PA-34-200 Seneca w/Lycoming IO/LIO 360 Engine.

Model No.	Description	Part No.	Price
78463-017	Tail Pipe Shroud - Right Engine	08-16341	---
78463-009	Tail Pipe Shroud - Left Engine	08-16342	---

# FAA/PMA EXHAUST COMPONENTS

## CESSNA & BEECH FAA / PMA REPLACEMENT MUFFLERS & EXHAUST COMPONENTS



FAA/PMA approved equivalents.

Cessna 120, 140, 150 Exhaust Systems: Include one left and one right muffler, shroud, tailpipe and clamps.

Cessna 120, 140, 150, 150A thru H, J, K, A150K, L & M Muffler Systems: Muffler with attached stacks. Original Cessna 120 & 140 shrouds will not fit the mufflers below.

Cessna 152 & 152A STC'D Exhaust System: For Cessna 152 S/N 15279406-15283591; F15201429-F15201673; A1520735-1520878; FA1520337-FA1520357. Ideal for homebuilts using O-235, L2C, N2C and O-320 Lycoming Engines.

Cessna Tailpipe Extensions: Cessna 150, 170 and early model 172 replaces original exhaust pipe Cessna P/N 0450338-66, 0550157-3 and 055015733. Extends 2" past original tailpipe, 2" OD stainless steel, Bolt-on, End cowlings smudges and Reduces cabin noise.

Description	Part No.	Price
Cessna 120/140 Exhaust System	05-05279	---
Cessna 120, 140, 150 LH Shroud	05-05281	---
Cessna 120, 140, 150 RH Shroud	05-05282	---
Cessna 150 Tailpipe, LH	05-05273	---
Cessna 150 Tailpipe RH	05-05274	---
Muffler To Tailpipe Clamp	05-05275	---
Cessna 120, 140 Tailpipe, LH	05-05276	---
Cessna 120, 140 Tailpipe, RH	05-05277	---
Cessna 150 Exhaust System	05-05278	---
S/s Lycoming Flange	05-05292	---
Riser, #4 Cylinder	05-05294	---
Riser, #1 Cylinder	05-05295	---
Riser, #3 Cylinder	05-05296	---
Muffler Shroud	05-05298	---
Cessna 180 Muffler	05-05262	---
Cessna Extension Tailpipe	05-05269	---
Cessna 180 Tailpipe Extension	05-05270	---

## AERONCA FAA/PMA STACKS & HEAT MUFFS



Aeronca 7AC & 11AC stacks, fits Continental 65 thru O-200 engines.

Description	Part No.	Price
Aeronca Heat Muff Aluminum (Complete Set for One Stack)	05-05247	---

## PIPER FAA / PMA REPLACEMENT MUFFLERS & EXHAUST COMPONENTS



Replacement mufflers & exhaust components for Piper Aircraft, all are FAA/PMA approved equivalents.

**Note:** Bale Assembly, complies with Service Bulletin No. 759 and is manufactured in accordance with FAA specifications. Wire bale is installed into tailpipe to avoid blockage of the tailpipe, should a baffle failure occur. **\*Requires Welding\***

Description	Part No.	Price
Piper Tailpipe Clamp	05-05253	---
Piper Muffler Clamp With Pin 2-1/8 Id	05-04985	---
Piper PA-22 Tri-pacer / Colt Tailpipe	05-05255	---
Piper Muffler Clamp 2-1/2 Id	05-05305	---
Piper PA-28 140 Cherokee Muffler Shroud	05-05258	---
Piper PA-28 140 Cherokee Tailpipe With Bale Assembly	05-05259	---
Bale Assembly For Piper Exhaust Systems	05-05300	---

## LUSCOMBE & ERCOUCPE FAA / PMA REPLACEMENT MUFFLERS & EXHAUST COMPONENTS



Replacement mufflers & exhaust components for Luscombe/Ercoupe Aircraft, all are FAA/PMA approved equivalents.

**Note:** Luscombe 8A, 8C, 8E & 8F:

Replaces early style crossover.

Luscombe 8A, 8C, 8E & 8F, Crossover 65 HP & Ercoupe stacks Model 415C series all have the extended-life hot aluminized mild-steel.

Description	Part No.	Price
Luscombe LH Stack 65 HP	05-05240	---
Luscombe Cabin Heat Muff	05-05248	---
Luscombe Crossover System	05-05268	---
Luscombe Crossover Rear	05-05265	---
Luscombe Crossover Stack, LH	05-05267	---
Continental 200 J-3 Exhaust Stacks	05-05283	---
Continental 200 J-3 Exhaust Stack - LH	05-05284	---
Continental 200 J-3 Exhaust Stack - RH	05-05285	---
C85/C90 - 12 Exhaust Stacks	05-05286	---
C85/C90 Exhaust Stack LH	05-05287	---
C85/C90 Exhaust Stack, RH	05-05288	---

# POWER FLOW SYSTEMS INC. EXHAUST SYSTEMS



Power Flow Systems, Inc., the world leader in designing, manufacturing, and retailing of FAA Certified High Performance aircraft tuned exhaust systems. Their Tuned Exhaust System is totally different. When you break down their exhaust system, you have two "sets" of pipes; the primary (header/collector combination) and the secondary (pipe after the collector). The primary contains four independent tubes that all join at the "4-1 Collector". As each "exhaust puff" of spent fuel travels through the primaries, it leaves a vacuum behind. In their tuned exhaust system, they have adjusted the length of each tube so that the vacuum reaches the collector just in time to "suck out" the exhaust from the next cylinder. The exhaust gases are not only being pushed out by the cylinder, but "extracted" by the vacuum, so a bigger, fresher charge will enter the cylinder during the next cycle. A tuned exhaust system really promotes a smoother, cooler, and finally more powerful running engine.

## Benefits with Power Flow Systems:

- Shorter Take Off Roll
- Greatly Improves Rates of Climb
- More Usable Power
- Fuel Savings at Current Speeds
- Smoother Running Engine
- Runs cooler at Current Speeds
- Go up to 8 knots faster
- Mandrel Bent Tubes to maintain consistent interior dimension

## Kit Contents:

- Kit includes everything to "bolt on" a Complete Replacement Exhaust System
- New Headers, Heater, & Muffler
- No blow gaskets, Nuts, Lock washers, Flat washers, Cotter pins etc.
- Stainless Steel Construction
- Up to 40% thicker than stock
- New Improved Heating System

EP

Airplane	Type of System	Power Flow P/N	Our P/N	Price
Aviat Husky A1B, A1C-180 with Lyc. O-360	Classic Polished	PFS-18101	08-07279	---
	Ceramic Upgrade	PFS-18101 Upgrade	08-15959	---
Cessna 172 C-172 w/ O-320	Classic Polished	PFS-13204	08-00358	---
	Classic Ceramic	PFS-13204-Ceramic	08-05957	---
	Short Stack Polished	PFS-13204-InternalC	08-05958	---
	Short Stack Ceramic	PFS-13204-InternalCCER	08-05959	---
Cessna 172 or 175 C-172 w/ O-360	Classic Polished	PFS-13204-O360	08-00359	---
	Classic Ceramic	PFS-13204-O360-Ceramic	08-05960	---
	Short Stack Polished	PFS-13204-O360-InternalC	08-05961	---
	Short Stack Ceramic	PFS-13204-InternalCCER	08-05962	---
Cessna 177 C-177 w/ O-320	Classic Polished	PFS-13704	08-00360	---
	Classic Ceramic	PFS-13704-Ceramic	08-05963	---
	Short Stack Polished	PFS-13704-InternalC	08-05964	---
	Short Stack Ceramic	PFS-13704-InternalCCER	08-05965	---
Cessna 177A C-177 w/ O-360	Classic Polished	PFS-13704-O360	08-00361	---
	Classic Ceramic	PFS-13704-O360-Ceramic	08-05966	---
	Short Stack Polished	PFS-13704-O360-InternalC	08-05967	---
	Short Stack Ceramic	PFS-13704-O360-InternalCCER	08-05968	---
Cessna 177B (O-360)	Classic Polished	PFS-13705	08-00880	---
	Classic Ceramic	PFS-13705-Ceramic	08-05969	---
	Short Stack Polished	PFS-13704-InternalC	08-05970	---
	Short Stack Ceramic	PFS-13705-InternalCCER	08-05971	---
C-177RG w/ IO-360/390 **Revised Application	Classic Ceramic	PFS-15102-Ceramic	08-07165	---
	Short Stack Polished	PFS-13706	08-07163	---
	Short Stack Ceramic	PFS-13706-Ceramic	08-07164	---
Cessna 180 / 182 / 185	Polished Finish	PFLOWPMCF-180	08-19086	---
Cessna 205 / 210	Polished Finish	PFLOW205210	08-19087	---
Lyc. O-360	Short Stack Polished	PFS-16104	08-15968	---
Lyc. O-360	Short Stack Ceramic	PFS-16104-Ceramic	08-15969	---
Grumman AA-5 (below serial #640)	Short Stack Polished	PFS-13801-InternalC	08-05973	---
	Short Stack Ceramic	PFS-13801-InternalCCER	08-05974	---

Airplane	Type of System	Power Flow P/N	Our P/N	Price
Grumman AA-5 (above Serial #640) & Grumman AA-5A	Short Stack Polished	PFS-13802-InternalC	08-05976	---
	Short Stack Ceramic	PFS-13802-InternalCCER	08-05977	---
Grumman AA-5B & AA-5B	Classic Polished	PFS-13803	08-00637	---
	Classic Ceramic	PFS-13803-Ceramic	08-05978	---
	Short Stack Polished	PFS-13803-InternalC	08-05979	---
	Short Stack Ceramic	PFS-13803-InternalCCER	08-05980	---
Glastar & Sportsman 2+2 Experimental/ Homebuilt	Polished	PFS-16104	08-04986	---
	Ceramic	PFS-16104-Ceramic	08-05981	---
PA28-140 (O-320 / O-360)	Classic Polished	PFS-14150	08-05924	---
	Short Stack Ceramic	PFS-14150-InternalCCER	08-05984	---
	Short Stack Polished	PFS-14150-Internal-InternalP	08-05987	---
Piper PA-28-150, 160 w/ Conical Mounts (Below Serial #1761)	Short Stack Ceramic	PFS14151-InternalPCER	08-05991	---
PA28-140 (O-320 / O-360)	Short Stack Polished	PFS-14150-InternalP	08-05994	---
	Short Stack Ceramic	PFS-14150-InternalPCER	08-05995	---
Mooney M20 (B,C,D,G) w/ O-360	Ceramic	PFS-16101-Ceramic	08-05996	---
Mooney M20 (E,F,J) w/ IO-360	Ceramic	PFS-16201-Ceramic	08-05997	---
Raytheon Beechcraft 23 (O-360)	Ceramic	PFS14152-Ceramic	08-05998	---
	Ceramic	PFS-13804-Ceramic	08-06000	---
	Polished	PFS-113804	08-05999	---

**CERAMIC UPGRADE** - Hides discoloration that occurs when the stainless steel is heated. Retains silver finish and requires no maintenance or polishing .....P/N 08-05945

## POWER FLOW EXHAUST SYSTEM FOR ROBINSON R22



R22 Tuned Exhaust Kit for R22, R22 Alpha, R22 Mariner, R22 Beta with 320-B2C engine and large oil cooler. FAA approved by STC. Installing a Power Flow tuned exhaust provides the same performance benefits as upgrading to a Beta II, at a fraction of the cost. It is true bolt-on horsepower for your O-320 powered Robinson R22 Alpha or Beta.....P/N 08-15965

# EXHAUST SYSTEMS

All exhaust stacks are heli-arc welded using Type 321 stainless steel tubing for light weight and long service life. Stainless steel stacks weight 50% less than a set in mild steel. All stacks are custom made and the workmanship is consistently of exceptional quality.

**WHEN ORDERING, SPECIFY COMPLETE MODEL NUMBER AND HP OF ENGINE AND AIRCRAFT TYPE.**

## STRAIGHT STAINLESS STEEL EXHAUST STACKS



Basic exhaust pipes for Pitts Special, Smith Miniplane, Acro Sport, Starduster and many other homebuilts with Lycoming engines O-235 through O-360. This exhaust system fits under the intake tubes, starting at the rear cylinders, around the front intake tube, then points aft. Two mufflers (P/N 33205) or two tail pipes (P/N 33204) can be used with this system. With stainless swivel joints for vibration dampening and for positioning of tail pipes through 25° range. Wt. 7-1/4 lbs.

### SYSTEM FOR LYCOMING ENGINES THRU 180 HP

**Set of two basic stacks only, consisting of:**

Right Hand, P/N 33202 & Left Hand, P/N 33203  
Set of Two.....P/N 33202/33203  
(Tail Pipes not included.)



System for Lyc. O-320B (Fuel-Injected)  
Tightest system for this engine.  
P/N 33270-1  
(Tail Pipes not included.)

### ADD OPTIONS: STRAIGHT TAILPIPES



P/N 33204 (14") **Pr.** P/N 33204-24 (24") **Pr.**  
P/N 33204-18 (18") **Pr.** P/N 33204-28 (28") **Pr.**  
P/N 33204-20 (20") **Pr.** P/N 33204-36 (36") **Pr.**

### MUFFLER WITH 8" TAILPIPE (NO HEAT EXCHANGER)



P/N 33205 **Ea.**

### MUFFLER WITH 8" TAILPIPE & HEAT EXCHANGER



2" Dia. Inlet & Outlet.....P/N 33206-1 **Ea.**  
2-1/2" Dia. Inlet & Outlet.....P/N 33206-2 **Ea.**  
**When ordering muffler with heat exchanger, advise if inlet & outlet pipe diameter other than 2" or 2-1/2" is preferred.**  
**When ordering muffler with heat exchanger, advise diameter of inlet and outlet pipe preferred (2", 2-1/2" or other).**



## HOMEBUILDERS SPECIAL STACKS

Designed to fit Lycoming engines O-235 to O-360. Mild steel. These stacks do not fit Pitts Special. Applicable to many home builts. Wt. 7.25 lbs .....P/N 08-01900

## STAINLESS STEEL CROSSOVER EXHAUST SYSTEMS



A exhaust system allows your engine to breathe properly by reducing back pressure and by picking up the correct firing order of the cylinders. This results in increased HP compared to an untuned exhaust. The added HP will be evident as higher takeoff RPM, higher cruise speed and lower fuel consumption.

This crossover system fits all Lycoming engines from O-235 to IO-360 (180 HP) with bottom or aft mounted carburetors or fuel injection controllers. It is designed for tight cowling and in most cases no cowling modification will be necessary. If fit is the problem, custom tighter crossover systems are available by special order (Additional charges may apply). The system has slip joints between cylinders and ball joints where tail pipes or mufflers connect to collector tubes to prevent cracking due to expansion and vibration and to allow for positioning of the tail pipes. The exhaust system can be ordered in the following combinations:

1. With straight tail pipes
2. With two mufflers (no heat exchangers)
3. With two mufflers (one heat exchanger)
4. With two mufflers, both with heat exchangers.

All mufflers include removable 8" tail pipes. Heat shrouds have one inlet and one outlet for 2" or 2-1/2" flex tubing

### STANDARD CROSSOVER SYSTEM

Basic system with all Collector Tubes (Without Tail Pipes)  
P/N 33251

#### ADD OPTIONS:

Straight Tailpipes (14").....P/N 33204 **Pr.**  
Muffler w/8" Tailpipe (No Heat Exchanger) ..P/N 33205 **ea**  
Muffler w/8" Tailpipe & Heat Exchanger .....P/N 33206-1 **ea**

### COMPLETE STANDARD CROSSOVER SYSTEM PRICES

Basic System Assembly with Two Straight 14" Tailpipes.  
P/N 33270

Basic System Assembly for O-320B w/o Tailpipes  
P/N 33270-1

System with 2 Mufflers Assembly, Removable 8" Tailpipes & No Heat Shrouds .....P/N 33272  
System with 2 Mufflers Assembly, 1 Heat Shroud for either Cabin heat or Carb. heat .....P/N 33274  
System with 2 Mufflers Assembly, Both w/ Heat Shrouds for Cabin heat & Carb. heat .....P/N 33276  
Stainless Crossover Systems for O-360 (200 HP) Available for Front, Bottom or Rear Injector.....P/N 08-05740  
**(Does not include tailpipes or heat muffs)**

### SPECIAL CROSSOVER SYSTEM FOR VERY TIGHTLY COWLED AIRCRAFT

**Designed for the Thorpe T-18, RV-6, 7 7 8, Mustang II, and others using Lyc O-320 to O-360 engines**

Basic System with all Collector Tubes — Please furnish exact engine designation to insure proper fit.....P/N 33250

Special Mufflers for the T-18 with Heat Shrouds for Cabin Heat and Carb. Heat. ....P/N 33250-1 **Ea.**

Special Tailpipes for the T-18 (to be used when mufflers are not used). Comes with same ball joint as the mufflers and an attaching bracket.  
P/N 33250-2 **Pr.**

**Compression Springs** - used on Exhaust System Ball Joints. 6 required per system.....P/N 33703

**NOTE: PRODUCTS ON THIS PAGE ARE FOR EXPERIMENTAL AIRCRAFT AND ARE NOT FAA APPROVED.  
ALL EXHAUST SYSTEMS ARE SPECIAL ORDER AND ARE NON RETURNABLE**

# EXHAUST SYSTEMS



## EXHAUST SYSTEM FOR OSPREY AIRCRAFT

This stainless steel exhaust system is specifically designed for the Osprey Aircraft. Ideal for amphibians as the tailpipe exits vertically upward. Fits aircraft using the following engines: O-235 thru O-360.  
RH & LH Stacks Only  
P/N 33420

### ADD OPTIONS:

Muffler Only ..... P/N 33422  
Muffler with Heat Exchanger ..... P/N 33424 ----



## EXHAUST SYSTEM FOR CONTINENTAL O-200

This universal stainless steel exhaust system is designed for experimental aircraft using Continental A65 thru O-200 engines. Consists of 2 manifolds, left hand manifold has heat shroud with 2-1/2" connection for carb heat. Muffler outlet are 3" long. Tailpipe extensions may be required, sold separately  
Mufflers ..... P/N 33401  
8" Tailpipe Extensions. Furnished with slip joint and pin clamp.  
P/N 33402

THIS SYSTEM IS PATTERNED AFTER A CESSNA 150 SYSTEM, BUT WILL NOT FIT A CESSNA 150 OR 152.



## EXPRESS AIRCRAFT EXHAUST MANIFOLDS Y-STYLE

Fits Lycoming IO-540 (Angle Valve Engine) (Includes Custom 2-1/4" Tailpipes With Cabin heat shroud) (Optional studding to increase cabin heat available)  
P/N 08-02105

WHEN ORDERING EXHAUST SYSTEMS, PLEASE SPECIFY COMPLETE MODEL NUMBER & HP OF ENGINE AND AIRCRAFT TYPE

## STAINLESS STEEL STACKS FOR PUSHER TYPE AIRCRAFT



P/N 33601 - Designed specifically for "Pusher Style Aircraft". Exhaust fits inside of intake tubes.  
For Continental C-85 thru O-200  
P/N 33601  
For Lycoming O-235 thru O-360  
P/N 33602

## COZY MARK IV PUSHER EXHAUST SYSTEM



This custom stainless exhaust system was designed specifically for the Cozy Mark IV aircraft.  
For Lycoming O-235 to O-360 (180 HP or less)  
P/N 33702  
For Lycoming IO-360 (200 HP) Angle Valve Engine  
P/N 33702-1  
Cozy Inside Cowl Exhaust ..... P/N 08-07342



Replacement Cozy Extension Spring  
P/N 33704 ea

NOTE: PRODUCTS ON THIS PAGE ARE FOR EXPERIMENTAL AIRCRAFT AND ARE NOT FAA APPROVED. ALL EXHAUST SYSTEMS ARE SPECIAL ORDER AND ARE NON RETURNABLE

## EXHAUST SYSTEM COMPONENTS

Fabricate your own exhaust system with these precision-formed type 321 stainless steel components.

### STAINLESS STEEL 45° & 90° BENDS

Tubing Size	Part No.	Radius	Angle	Price
1-1/2" X .035	33241	2-1/2"	90°	---
1-1/2" X .035	33241-4	4-12"	90°	---
1-1/2" X .035	33242	2-1/2"	45°	---
1-3/4" X .049	33236	1-3/4"	90°	---
1-3/4" X .035	33243	2-7/8"	90°	---
1-3/4" X .049	33243	2-1/2-12"	90°	---
1-3/4" X .035	33245	4"	90°	---
1-3/4" X .049	33245	4-12"	90°	---
1-3/4" X .035	33237	5-1/2"	90°	---
1-3/4" X .035	33244	2-7/8"	45°	---
2" X .049	33238	2-1/2"	90°	---
2" X .035	33246	4"	90°	---
2" X .049	33246	4-12"	90°	---
2-1/4" X .049	33240	2-3/4"	90°	---
2-1/2" X .049	33247	4"	90°	---
3 X .049	33248	4-1/2"	90°	---



### STAINLESS STEEL 180° "U" BENDS

Tubing Size	P/N	Radius	Angle	Leg Length	Price Each
1-1/2" X .035	33260	2-1/2"	180	6"6"	---
1-1/2" X .035	33262	2-1/2"	180	10"10"	---
1-3/4" X .035	33264	2-7/8"	180	10"10"	---
1-3/4" X .049	33264	2-7/8"	180	10"10"	---
1-3/4" X .035	33263	2-7/8"	180	11"14"	---



180° "U" Bends w/ odd or even leg lengths.

### STAINLESS SWIVEL BALL JOINTS - CLAMP TYPE

Tubing I.D.	P/N	Male Sz	Female Sz	Price
1-3/4"X 1-3/4"	33231	1-3/4"	1-3/4"	---
1-3/4"X 2"	33232	1-3/4"	2"	---
2"X 2"	33233	2"	2"	---
2-1/2"X 2-1/2"	33234	2-1/2"	2-1/2"	---
2-3/4"X 2-3/4"	33235	2-3/4"	2-3/4"	---



### CUSTOM AIRCRAFT HARDWARE KIT

Ball Joint Hardware Kit. Kit Includes: (3) Nuts (3) Bolts (3) Washers (3) springs Fits 33231 thru 33234..... P/N 08-07168



### HYDRO-FORMED SLIP JOINTS - TWO PIECE UNIT 4" LONG

Slip Joint Size	Part No.	Expanded Length	Price
1-1/2"	33221	2-3/4"	---
1-5/8"	33226	2-5/8"	---
1-3/4"	33222	2-5/8"	---
2"	33223	2"	---
2-1/4"	33227	2"	---
2-1/2"	33224	2-3/8"	---
3"	33225	2-1/4"	---



### STUB EXHAUST STACKS

Stainless tubing 6"L welded onto stainless exhaust flange.

1-1/2"x .035 for Continental (doesn't fit O-240)  
P/N 13352  
1-3/4"x .035 for Lyc ..... P/N 13354



### STAINLESS TUBING FOR EXHAUST STACKS

Stainless type 321 welded tubing for exhaust stacks.

Tubing Size (O.D. x Wall)	Part No.	Price per Ft.	Tubing Size (O.D. x Wall)	P/N	Price per Ft.
1-1/2" x .035	03-16300	---	2" x .035	03-16500	---
1-3/4" x .035	03-16400	---			

# EXHAUST SYSTEMS



## LONG-EZ EXHAUST SYSTEM

Long-EZ exhaust system fits all Lycoming 4 cylinder engines..P/N 08-00832

## LONG-EZ EXHAUST SYSTEM INSIDE THE COWL



With this configuration the exhaust tips are located where the cooling air exits. This design eliminates cutting the cowl for exhaust exit and improves propeller efficiency by moving the exhaust pulses inboard, closer to the center of the prop hub. Fits Lycoming O-320 & O-360 parallel valve engines.

P/N 08-00833



## BERKUT 4 PIPE EXHAUST SYSTEM

Fits all Lycoming 4 cylinder engines. P/N 08-00834

## BERKUT 6 PIPE EXHAUST SYSTEM



Fits 6 cylinder Berkut only.....P/N 08-00835



## VELOCITY EXHAUST SYSTEM

Velocity exhaust system fits 6 cylinder Lycoming parallel valve and angle valve engines.

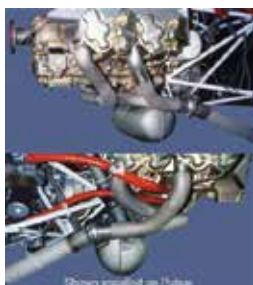
Parallel.....P/N 08-00836

Angled.....P/N 08-00837



## MUSTANG II CROSSOVER EXHAUST SYSTEM

Mustang II Crossover Exhaust System Lycoming O-235 through O-360 (Comes with Custom Tailpipes) (Vertical Induction Intake).....P/N 08-07337



## CONTINENTAL IO-240 CROSSOVER SYSTEM

Crossover exhaust system Continental IO-240 (Tailpipe Not included)

P/N 08-07338

## STAINLESS STEEL EXHAUST STACKS

Manufactured from aircraft quality 321 stainless steel tubing. Set of two stacks or purchase each side individually. Patterned after Aeronca style exhaust. Fits Continental C90 Thru O-200. Not FAA approved. Wt. 3-1/4 lbs.

Set of two.....P/N 08-02001

Right side.....P/N 08-02101

Left side.....P/N 08-02201

## LANCAIR LEGACY EXHAUST SYSTEM



Left Side Heat Shroud Removed

Lancair legacy exhaust system, left & right hand manifolds with tailpipes and cabin heat shroud. Fits IO-550 Continental.

Exh. Sys. 33805-1

P/N 08-00838

Exh. Sys. 470-550

P/N 08-02103

Legacy Exhaust

P/N 08-02104

6 Cylinder Continental O-470 to IO-520 Stacks-Exhaust Manifolds Y-Style L/H & R/H Continental O-470 through IO-550.

P/N 08-07344

## GLASAIR I & II CROSSOVER EXHAUST SYSTEMS



Description	Part No.	Price
Fits Lycoming O-320 to O-360 with Vertical Induction	08-00839	---
Fits Lycoming engines w/ Horizontal Induction up to 180HP	08-00840	---
Fits Lycoming IO-360 with Horizontal Induction - 200HP	08-00841	---

## GLASTAR CROSSOVER EXHAUST SYSTEM

Includes exhaust system with (1) heater muffler, (1) non-heater muffler and tailpipes. Fits Lycoming O-235 and O-360 with vertical induction .... P/N 08-00842



## EXPERIMENTAL SUPER CUB CROSSOVER EXHAUST SYSTEM



P/N 08-02100-Fits Lycoming O-320 (Vertical Induction Intake) (Must use "short" miniature light weight Sky Tec starter for clearance) (Optional studding to increase cabin heat available)

P/N 08-02102-Fits Lycoming O-360 (Vertical Induction Intake) (Must use "short" miniature light weight Sky Tec starter for clearance) (Optional studding to increase cabin heat available).

O320.....P/N 08-02100

O360.....P/N 08-02102

## 4 CYL LYCOMING CROSSOVER EXHAUST 200HP



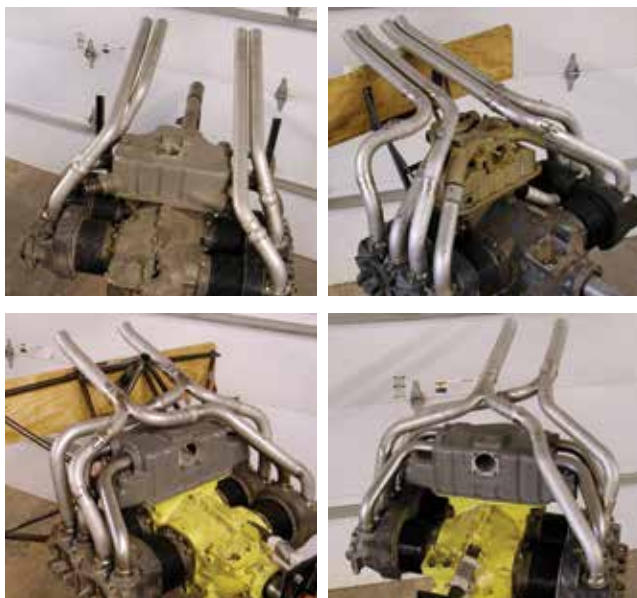
Crossover Exhaust System Lycoming IO-360 200 HP & IO-390 210 HP Angle valve engine.

NOTE: Photo shows optional tailpipes,P/N 33204-18 (08-00827) tailpipes are not included, but can be purchased seperately.

4 Cyl. Lyc. Croosover Exhaust 200HP.....P/N 08-07341 .18" Tailpipes 33204-18.....P/N 08-00827

# EXHAUST SYSTEMS

## VETTERMAN RV EXHAUST SYSTEM



Vetterman Exhaust has been manufacturing exhaust systems for the Van's Aircraft RV series since 1990. Exhaust systems for all RV models & Van's approved engine models are available. All systems are manufactured from MIL Spec 321 stainless steel, which is mandrel bent, trimmed to length and tack welded on a Lycoming engine. This method assures the best fit possible. All systems incorporate ample slip & ball joints which greatly reduces breaking potential. All systems include blow proof gaskets, stainless exhaust nuts & washers for installation. Also include tail pipe mounting kits or pipe support brackets. Some systems also include a cabin heat muff.

EP

Aircraft	Description	Part Number	Price
RV-3	O-320 Conical Mount 4 Pipe Systems	08-00583	---
RV-3	O-320 Dynofocal Mount 4 Pipe Systems	08-00584	---
RV-3	O-360 Dynofocal Mount 4 Pipe Systems	08-00585	---
RV-4	O-320 Conical Mount 4 Pipe Systems	08-00586	---
RV-4	O-320 Dynofocal Mount 4 Pipe Systems	08-00587	---
RV-4	O-360 Dynofocal Mount 4 Pipe Systems	08-00588	---
7-7A,8-8A, (O-360/320)	*Includes tail pipe mounting kit	08-00591	---
RV-6,7,8,9A (O-320-H2AD)	*Includes tail pipe mounting kit	08-00592	---
RV 7-7A (IO- 360 AIA 200)	*Includes tail pipe mounting kit	08-00593	---
RV8 (IO-360)	*Includes tail pipe mounting kit	08-00594	---
RV 8A (IO-360)	*Includes tail pipe mounting kit	08-00595	---

**NOTE: EACH OF THESE SYSTEMS WILL NOT INTERCHANGE BETWEEN AIRCRAFT AND ENGINE MODELS. THESE SYSTEMS ARE DESIGNED AND INTENDED FOR USE ON RV AIRCRAFT ONLY. PRICES DO NOT INCLUDE SHIPPING CHARGES.**

## PA-11 STYLE EXHAUST STACKS



Piper PA-11 Style Exhaust Stack with Starter (Left). Experimental Use Only. Longer down pipes to clear starter, Left Hand. Can be used on Piper J-3, but some modifications of cowling may be necessary.

Starter Left.....P/N 05-12465

Starter Right.....P/N 05-12466

## SNOWLINE RV-6 & RV-6A CROSSOVER EXHAUST SYSTEM



The material used on these systems is 1-3/4" O.D. x .035 wall 321 stainless steel tubing. 2 models are available; one for Lycoming engines up to 180 H.P. and the other for the Lycoming IO-360 (200 H.P. engine). Bending is performed using an inside mandrel which the tube is drawn over during bending to maintain the inside diameter. Flanges are made from 1/4" stainless steel. This heavy material greatly reduces warping & cracking. Tail pipes are attached to the header with a slip joint. Simply slide the tail pipes onto the header, position the end of the pipe as desired in the bottom opening, and attach with the stainless steel retaining clamp. One heat muff has been provided on the front cross-tube. This muff is intended for carburetor heat. If an injection system is being used, this muff can be used for cabin heat. An optional cabin heat muff can be ordered when carburetor heat requires the use of the standard heat muff. All hardware is provided to install the system. Stainless Steel nuts, bolts, washers, blow-proof gaskets, 2 stainless clamps for attaching tail pipes to the firewall or engine mount. U-type clamp attaches the cable housing securely in place.

RV-6/RV-6A Crossover Exhaust System (To 180 H.P.)

P/N 08-05790

Optional Cabin Heat Muff.....P/N 08-00679

**\*Will not work with front mounted injectors**

**THE RV-6/RV-6A EXHAUST SYSTEMS ARE RECOMMENDED FOR THESE AIRCRAFT ONLY. FOR OTHER EXPERIMENTALS, THE RV-4 SYSTEM MAY FIT BETTER UNDER COWLS AS IT IS BUILT TIGHTER TO THE ENGINE.**

# HEAT SHIELDS – HEAT BOXES



## VHT FLAMEPROOF COATINGS

Originally designed for NASA's reentry spacecraft. Designed to withstand temps. up to 1500°F (816°C) VHT FlameProof coatings are capable of withstanding extreme environments of spacecraft, satellites, military aircraft, and motor sports. It survives where other paints can't, shields & protects, maintains the finish, prevents rust & corrosion, and resists oils & solvents. For aircraft applications the typical use is on high temperature steel components such as exhaust & turbo-charging systems. Excellent for use as a heat resistant and

anti-corrosion coating on exhaust manifolds and turbine casings. Both the Flat Aluminum and Flat Black are non-facing colors.

Flat Aluminum 16 oz. aerosol spray.....P/N 08-00713

Flat Black 16 oz. aerosol spray.....P/N 08-00714



## THERMO-TEC HEAVY-DUTY SPRAY ADHESIVE

Thermo-Tec's Heavy-Duty Spray Adhesive is a fast-drying, quick-bonding, high temperature contact adhesive. Use it wherever you need a secure, long-lasting, easy-to-apply bond. It is available in a generous 16.75 oz. can.

P/N 08-01026

## HI-HEAT COATING



Finish off a clean and well-protected Exhaust Insulating Wrap application. Will protect the wrap from abrasion and harmful liquid spills. Extra resins and binders toughen the surface, extend the life of wrap by protecting it from friction, and seal the pores to minimize the penetration of harmful liquids. The 11 oz. coating comes in black and aluminum colors.

Black.....P/N 08-06725

Aluminum.....P/N 08-06730

## EXHAUST HEAT SHIELD



This heat shield is placed on exhaust where fuel lines, cable, etc. are close to exhaust and where heat may be a problem. Mounts with stainless radiator type clamp (not included). Fits exhaust pipes up to 2.5" diameter. Very popular on RV's and other homebuilt aircraft.

Single Unit.....P/N 08-00050

Double Unit.....P/N 08-00051

## ENGINE MOUNT HEAT SHIELDS



Heat damaged O-470 & O-520 engine mounts are a definite problem area. You can easily protect these engine mounts from further damage with these heat shields. The aircraft manufacturers overlook providing heat protection in these areas when they designed and produced the aircraft. INSPECT ENGINE MOUNTS. Flaking paint, deterioration or pitting leads to cracking, and breakage – in other words, an UNSAFE CONDITION. If you want long-lasting protection from corrosion damage, the solution is install custom engine mount heat shields that are FAA & STC/PMA approved.

Avoid downtime and save money on airplane maintenance with this practical new device. The heat shields are built from an extremely durable 6061-T6 aluminum alloy and install in minutes. The complete kit includes installation hardware, instructions & copy of the Supplemental Type Certificate.

For Cessnas: Heat shield kit for 180, 180A-H, 180J, 180K, 182, 182A-R.....P/N 08-01660

Heat shield kit 185A-E, A185F. Fits Standard and 3 bladed mounts.

P/N 08-00767

Replace. Intake Shields (heavy duty) PMA'd..P/N 08-00769

## CESSNA C-180/182 HEAT SHIELD KIT



Heat related corrosion caused by the exhaust system in the bed tubes and diagonal tubes of Cessna 180/182 engine mounts has been discovered on most models. Loree Air, Inc. designed and built the first set of heat shields in 1987. They were flight tested for three years and found to stop all damage from that heat source. The heat shield kit is now FAA approved and ready for installation on your aircraft. The kit, includes all the hardware, instructions and documentation.....P/N 05-12279



## CARBURETOR INTAKE ASSEMBLIES (HEAT BOXES)

P/N A40599 for Continental A-65 through C-125.

Also fits Lyc. 0-235, 0-290, 0-320 engines with MA3SPA, MA4SPA carburetors.

Complete assembly includes heat box, filter, gaskets, studs and pins. **Not for Certified Aircraft, Homebuilts Only.**

50256

Component	Part No.	Price
Heat Box	50256	---
Filter	A40599	---
Gasket	35923	---
Studs (4 required)	24306	---
Pins (4 required)	24308	---
Bottom Carb. Gasket	21323	---
A40522 Assembly	08-01300	---

## CESSNA 150 STYLE HEAT BOX

Used on Cessna 150. Also fits Cessna 120, 140, and PA-22 Tripacer. Order filter, gaskets, studs & pins separately. Not FAA/PMA Approved.

P/N 641534

Cable 'B' Nut.....P/N 05-16245

Heat Box for Cessna 170 - Similar to P/N 641534 above, but larger

P/N 08-01625



Similar to Cessna 170 box. Fits Lyc. 0-360, 0-470, etc. Uses bracket BA-5110 filter.

P/N 08-01630

## CARBURETOR INTAKE BOX BRACKET FOR CESSNAS

This carburetor intake box bracket mounts on top of the heat box and attaches to the engine to provide support for the heat box. Fits Cessna 150.

P/N 08-01305



## CARBURETOR HEAT BOX REPAIR KITS



Prevent carburetor heat box cracking - a common problem on Cessna 150 aircraft and Cont. O-200 engine. Kit consists of actuating shaft, 2 bearing assemblies and arm. Kit no. FG100 fits Cont. 0-200-A, B, C Engines. Kit no. FG105 fits Cont. 0-300-A, B, C, D, E engines.

Model FG100.....Kit No. 08-01309

Model FG105.....Kit No. 08-01310

## ECONOMY CARB HEAT BOX REPAIR KITS



These kits include new shaft & bearings.

Kit for Cont. C-85, C-90, 0-200 Engine

P/N 07-00110

Kit for Cont. C-145, 0-300 Engine

P/N 07-00120

**Requires FAA form 337 for installation on certified aircraft**

## CARB HEAT BOX ARM HOLE REPAIR KIT

Use this kit to repair an elongated hole in the carburetor heat box actuating arm. Kit comes complete with new bolt and attaching hardware made of stainless steel.....P/N 07-00130



## CARBURETOR INDUCTION MANIFOLD (INTAKE SPIDER)

For O-200 engine.....P/N 35145A-1

For A-65, C-75, C-85 & C-90 engines.

P/N 35145

# GASKETS





## RAPCO REPLACEMENT EXHAUST GASKETS

High quality, economical stainless and copper beaded gaskets. Extra thick spiral wound style available "Blow Proof"

Style	RAPCO P/N	Use As Replacement For:			Use on These Engine Models	Part No.	Price Each
		OEM P/N	Airborne P/N	Superior P/N			
Solid 	RA630365	630365	N/A	SA630365	IO-360-A, C, D, G, H, J, K	08-05215	---
Spiral Wound 	RA970	N/A	970	N/A	IO-360-A, C, D, G, H, J, K TSIO-360-A, B	08-05270	---
Solid 	RA632837	632837 21493	157	SA 632837	A-65, A-75, C-85-12F, C-90-8F, 12F, 14F, -16F, E-165, E-185, E-225, O-200-A, B, O-300-A, C, D, O-470-A, E, J	08-05237	---
Spiral Wound 	RA627429	627429	999	SA 627429	E-165, E-185, E-225O-200-A, B, O-300-A, C, DO-470-A, E, J	08-05229	---
Solid 	RA631544	631544 537379	158	SA631544	O-470-B, G, K, L, M, P, R, S, U	08-05244	---
Spiral Wound 	RA628260	628260	972	SA628260	O-470-B, G, K, L, M, P, R, S, U, IO-470-D, U, V, TSIO-470-B TSIO-520-B, C, D GTSIO-520-C, D	08-05260	---
Solid 	RA75118	75118 73720 67196 77611	160	N/A	0-290, 0-320, IO-320, 0-340, 0-360, HO-260-B, IO-360-A, -B, -C, HIO-360-A, -B, -C, VO-435, TVO-435, GO-480, GSO-480, ISGO-480, O-540-A, -B, -E, -G, IO-540-A, -C, -D, -G, -J, -K, IG0-540-A, IGS0-540-A, 10-720-A	08-05218	---
Spiral Wound 	RA77611	77611	1000	SL77611		08-05211	---
Solid 	RALW15619	LW15619 74756	161	SL15619	TIO-541	08-05219	---
Spiral Wound 	RALW15486	LW15486	971	N/A		08-05286	---
Solid 	RA985	3503			R-985-AN-1, -3, -4, -6, -6B, -10, 12, -12B, -14B	08-64452	---

## REPLACEMENT GASKET FOR WOODWARD GOVERNORS

Part Name	Approved Replacement for Part No.	Model Eligibility	Part No.	Price
 Engine Accessory Drive Gasket	Woodward Gov. 206684 Pratt & Whitney 3039526	PT6A-20/20A/-20B/-21/-25C/-27/-28/-34/-34AG/-34B/-36/-38/-41/-42/-42A/-60A/-60AG/-61/-67A/-67AF/-67AG/-67B/-67D/-67R/-67T/PT6A-45A/-45B/-45R/-65B/-65AG/-65AR/-65R/-114/-114A/-135/-135A	08-06264	---
 Governor Gasket	Woodward Gov. 206685 Pratt & Whitney 3118953-01	PT6A-6/-6A/-6B/-11/-11AG/-15AG/-20/-20A/-20B/-34/-34AG/-34B/-36/-38/-41/-42/-42A/-45/-45A/-45B/-45R/-60A/-60AG/-61/-65B/-65R/-65AG/-65AR/-67/-67A/-67AF/-67AG/-67B/-67D/-67R/-67T/-110/-112/-121	08-07154	---

### 2577256 PRECISION AIRMOTIVE GASKET PEX-1

Gasket part number 365533 is no longer available from Precision Airmotive. The new gasket, part number 2577258 is available and should be used in place of 365533.

P/N 07-01312

### TCM VACUUM PUMP GASKET 653487

TCM vacuum pump gasket 653487. This is for the Continental 0200 and the 0470.

P/N 08-00297

### SILICONE VALVE COVER GASKETS

These reinforced silicone with fiberglass valve cover gaskets are (.093) 3/32. The torque needed is 25/27 inch pounds. Won't sponge or tear & come with a lifetime warranty from the manufacturer.....P/N 05-11931

THESE GASKETS ARE NOT FAA APPROVED.

### LYCOMING ASSEMBLY DRIVE GASKET SL73818

Lycoming Assembly Drive Gasket SL73818. Replacement for Textron Lycoming P/N 73818.  
P/N 08-00306

# REAL GASKETS

## REAL PREMIUM SILICONE VALVE COVER GASKETS

REAL are twice as thick as typical gaskets and have been hot oil and dry heat tested at 300°F. Only REAL gaskets seal uneven surfaces, eliminate corrosion, and reduce maintenance costs. They may be reused, are installed dry, and maintain screw torque. Indefinite shelf life. Highly recommended by Rutan Aircraft Factory.



Part No.	Model No.	Product	Description	Price
08-13810	RG-08527-10	Valve Cover Gaskets	Package of 10 - PMA Approved. Fits Models: Ken Royce 90-5G, 110-7F, 110-7G. Le Blond Engine 85-5F, 90-5F.	---
08-13876	RG-117236-18	Valve Cover Gaskets	Package of 18 - PMA Approved. Fits Models: Wright Early R-1820-40, R-1820-60, R-1820-70, R-1820-87, R-1820-95, R-1820-97 (4 Holes), R-2600-20, R-2600-22, R-2600-29A, R-2600-35, R-3350-23, R-3350-23A, R-3350-57, R-3350-59	---
08-13801	RG-1302-42-4	Valve Cover Gaskets	Set of 4 - de Havilland Gipsy	---
08-13879	RG-138861-18	Valve Cover Gaskets	Package of 18 - Fits Models: Wright Late R-1300, R-1820-55, R-1820-66, R-1829-56, R-1829-71, R-1829-72W, R-1829-76, R-1829-80, R-1829-86 (6 Holes).	---
08-13864	RG-139203-36	Valve Cover Gaskets	Package of 36 - PMA Approved. Fits Models: Pratt & Whitney R-2800-CB Series.	---
08-13814	RG-1843-18	Valve Cover Gaskets	Package of 18 - PMA Approved. Fits Models: Lycoming R-680 Series.	---
08-13872	RG-2677-18	Valve Cover Gaskets	Package of 18 - PMA Approved. Fits Models: 975-11, Whirlwind (4 Holes).	---
08-13874	RG-2767-18	Valve Cover Gaskets	Package of 18 - Fits Models: Wright J6-5, J6-7, J6-9 (2 Holes).	---
08-13806	RG-30106-14	Valve Cover Gaskets	Package of 14 - PMA Approved. Fits Models: Jacobs L-6.	---
08-13808	RG-4331-14	Valve Cover Gaskets	Package of 14 - PMA Approved. Fits Models: JACOBS R-755 Series.	---
08-13804	RG-5171-18	Valve Cover Gaskets	Package of 18 - Fits Models: Huoasi Model 6, Nanchang CJ6A, Yak Model 18.	---
08-13869	RG-7926-14	Valve Cover Gaskets	Package of 14 - Fits Models: Warner 165-185 For 4 cylinders.	---
08-13862	RG-88962-18	Valve Cover Gaskets	Package of 18 - PMA Approved. Fits Models: Pratt & Whitney R-1340, R-1830, R-200 to R-2000, R-2800 (3 Holes).	---
08-13822	RG-90560-18	Valve Cover Gaskets	Package of 18 - PMA Approved. Fits Models: Pratt & Whitney R-985 Series, Wasp Jr. (4 Holes).	---
08-13811	RG-08527	Valve Cover Gaskets	1 each - PMA Approved. Fits Models: Ken Royce 90-5G, 110-7F, 110-7G. Le Blond Engine 85-5F, 90-5F.	---
08-13877	RG-117236	Valve Cover Gaskets	1 each - PMA Approved. Fits Models: Wright Early R-1820-40, R-1820-60, R-1820-70, R-1820-87, R-1820-95, R-1820-97 (4 Holes), R-2600-20, R-2600-22, R-2600-29A, R-2600-35, R-3350-23, R-3350-23A, R-3350-57, R-3350-59.	---
08-13802	RG-1302-42	Valve Cover Gaskets	1 each - de Havilland Gipsy	---
08-13880	RG-138861	Valve Cover Gaskets	1 each - Fits Models: Wright Late R-1300, R-1820-55, R-1820-66, R-1829-56, R-1829-71, R-1829-72W, R-1829-76, R-1829-80, R-1829-86 (6 Holes).	---
08-13865	RG-139203	Valve Cover Gaskets	1 each - PMA Approved. Fits Models: Pratt & Whitney R-2800-CB Series.	---
08-00782	RG-14724	Valve Cover Gaskets	1 each - PMA Approved. Fits Models: Franklin 6A8-215, B8F, B9F.	---
08-01322	RG-17727	Valve Cover Gaskets	1 each - PMA Approved. Fits Models: Franklin 6A-350; 4A-235; 6A4-150-B3, -B4, -B5, -B6; 6A4-165-B3, B4, B6; 6A4-200-C6; 6AS-350; 6AS-335.	---
08-13816	RG-1843	Valve Cover Gaskets	1 each - PMA Approved. Fits Models: Lycoming R-680 Series.	---
08-13796	RG-20254	Valve Cover Gaskets	1 each - PMA Approved. Fits Models: Continental W-670 Series.	---
08-13795	RG-20254-14	Valve Cover Gaskets	1 package of 14 - PMA Approved Fits Models: Continental W-670 Series.	---
08-13875	RG-2676	Valve Cover Gaskets	1 each - Fits Models: Wright J6-5, J6-7, J6-9 (2 Holes).	---
08-13871	RG-2677	Valve Cover Gaskets	1 each - PMA Approved. Fits Models: Wright 975-11, Whirlwind (4 Holes).	---
08-13807	RG-30106	Valve Cover Gaskets	1 each - PMA Approved. Fits Models: Jacobs L-6.	---
08-13809	RG-4331	Valve Cover Gaskets	1 each - PMA Approved. Fits Models: JACOBS R-755 Series.	---
08-13784	RG-45483	Valve Cover Gaskets	1 each - Fits Models: Lycoming O-145 Series.	---
08-13805	RG-5171	Valve Cover Gaskets	1 each - Fits Models: Huoasi Model 6, Nanchang CJ6A, Yak Model 18.	---
08-13870	RG-7926	Valve Cover Gaskets	1 each - Fits Models: Warner 165-185.	---
08-13863	RG-88962	Valve Cover Gaskets	1 each - PMA Approved. Fits Models: Pratt & Whitney R-1340, R-1830, R-200 to R-2000, R-2800 (3 Holes).	---
08-13823	RG-90560	Valve Cover Gaskets	1 each - PMA Approved. Fits Models: Pratt & Whitney R-985 Series, Wasp Jr. (4 Holes).	---
08-13815	RG-942	Valve Cover Gaskets	1 each - Fits Models: R-56 (4 Holes). Variants: KINNER R-5, R-53, R-55, R-56.	---
08-01321	RG-71450	Valve Cover Gasket (9 holes)	1 each - PMA Approved. Fits Models: Lycoming IO-540-B, E, M Series; TIO/LTIO-540-A.	---
08-01317	RG-534857	Valve Cover Gasket (8 holes)	1 each - PMA Approved. Fits Models: Continental IO-346, O-470, IO-470, IO-520, IO-550, TSIO-520-Series.	---
08-01316	RG-67193-SP	Valve Cover Gasket (8 holes)	1 each - PMA Approved. Fits Models: Lycoming IO-360, IO-540, IO-720, GO-480, TIVO-540, VO/GO-435, VO-540.	---
08-07384	RG-76036	Valve Cover Gasket (8 holes)	1 each - PMA Approved. Fits Models: Lycoming TO-360-C, TO-360-F, TIO/TIGO-541.	---
08-01320	RG-532451	Valve Cover Gasket (7 holes)	1 each - PMA Approved. Fits Models: Continental E-165-2, E-185, E-225, O-470-A, O-470-E, O-470-J, IO-470-J, IO-470-K.	---
08-01315	RG-530162	Valve Cover Gasket (6 holes)	1 each - PMA Approved. Fits Models: Continental A-65, C-75, C-85, C-90, C-125, C-145, O-200, O-300, GO-300.	---
08-17184	RG-530928-NI	Lifter Cover Gasket	Continental: A-65, C-75, C-85, C-90, C-125, C-145, O-200, O-300, GO-300	---
08-01314	RG-75906-SP	Valve Cover Gasket (6 holes)	1 each - PMA Approved. Fits Models: Lycoming O-235, O-290, O-320, IO-320, O-360, IO-360, HIO-360, O-540, IO-540, TIO-540-CIA.	---
08-01319	RG-632459	Valve Cover Gasket (5 holes)	1 each - PMA Approved. Fits engines: Continental TSIO-520-Series; GTSIO-520-C,D,F,H,K,L,M,N; IO-550-G	---
08-01318	RG-632310	Valve Cover Gasket (4 holes)	1 each - PMA Approved. Fits Models: Continental IO-360, TSIO-360, LTSIO-360.	---

# REAL GASKETS

Part No.	Model No.	Product	Description	Price
08-13765	G-IV-A2	Valve Cover Gasket - Spanish Model	Set of 4. Bucker Tigre	---
08-13769	RG-533355	Oil Filler Cap Gasket	1 each - PMA Approved. Size: 1/8 x 2 5/16 x 1 1/2 Fits Models: Continental A-65, C-75, C-85, C-90, C-125, C-145, E-185, E-225, GO-300, IO-346, IO-360, IO-470, IO-470-J, IO-470-K, IO-520, IO-550, O-200, O-300, O-470, O-470-A, O-470-E, O-470-J, LTSIO-3	---
08-13777	RG-535823	Oil Filler Cap Gasket	1 each - PMA Approved. Size: ID 1 1/8 x OD 1 3/4 Thickness 1/8 Fits Models: Continental IO-346, O-470, IO-470, IO-520, IO-550, TSIO-520-Series.	---
08-13773	RG-633240	Oil Filler Cap Gasket	1 each - PMA Approved. Size: ID 1 1/2 x OD 2 5/16 Thickness 1/16 Fits Models: Continental E-185, E-225, IO-470-J, IO-470-K, IO-346, IO-360, IO-520, IO-550, O-470, IO-470, O-470-A, O-470-E, O-470-J, LTSIO-360, TSIO-360, TSIO-520-Series.	---
08-13778	RG-642892	Oil Filler Cap Gasket	1 each - PMA Approved. Size: 1/8" X 1-1/2" X 2-5/16"	---
08-13786	RG-225	Fuel Cap Gasket	1 each - Size: 2 1/4 OD x 1 3/8 ID 1/8 thickness for Cessna.	---
08-13787	RG-250	Fuel Cap Gasket	1 each - Size: 2 1/16 OD X 1 1/2 ID X 1/8 thickness for Piper.	---
08-13766	RG-2551	Fuel Cap Gasket	1 each - Made of nitrile. For Cessna 170. Size: 4 1/4 OD X 3 1/4 ID X 3/16 thickness.	---
08-13790	RG-5172	Fuel Cap Gasket	1 each - Fits Models: Yak.	---
08-13763	RG-G0001	Rocker Cover Gasket E-113C	Set of 2 - Aeronca	---
08-13867	RG-7601	Rocker Cover Gasket	1 each - Fits Models: Warner 145.	---
08-13799	RG-24335	Pushrod Tube Gasket	1 each - PMA Approved. Fits Models: Continental W-670 Series.	---
08-13818	RG-690-D	Pushrod Tube Gasket	1 each - PMA Approved. Fits Models: Lycoming R-680 Series.	---
08-13781	RG-18532-H	Top Cover Gasket - Helicopter	1 each - PMA Approved Size: 1/16 thick Fits Models: Franklin 4A-235, 6A4-150, 6A4-165, 6A4-200, 6AS-350, 6AS-335.	---
08-00783	RG-18532-A	Top Cover Gasket - Airplane	1 each - PMA Approved Size: 1/8 thick Fits Models: Franklin 6A4-145-A3, 6A4-150, 6A4-150-B3, 6A4-165-B3, 6A-350-C1/C2, 6V4-200 SERIES, 6V-335 SERIES, 6V-350-A/B, 6VS-335-A/B, 6VS-335-A1A/A1B, YO-335-5, O-335-5/5A/5B/6/6B.	---
08-13788	RG-300	Fuel Tank Cap Gasket	1 each - Size: 3 OD X 2 ID by 1/16 thickness for Piper.	---
08-13791	RG-753121	75 Fuel Tank Gasket	1 each - Fits Models: Stearman.	---
08-13768	RG-3577	Oil Sump Gasket	1 each - PMA Approved Fits Models: Continental A-65, C-75, C-85, C-90, C-125, C-145, O-200.	---
08-00781	RG-10366	Oil Pan Gasket	1 each PMA Approved. Size: 1/16 thick. Fits Models: Franklin 6A4-145-A3, 6A4-150-B3, 6A4-165-B3, 6V4-178-B33, 6V4-200-C32/C33, 6V-335-A/B, 6A-350-C1/C2, 6A-335-B/B1, 6VS-335-A/B, 6VS-335-A1A/A1B.	---
08-13764	RG-G0014	Tappet Cover Gasket for E-113C	1 each - Aeronca	---
08-13800	RG-20268	Lifter Body Gasket	1 each - PMA Approved. Fits Models: Continental W-670 Series.	---
08-13803	RG-71294	Gipsy Rocker Cover Gasket	1 each - de Havilland Gipsy or Alpha Romeo radial engine	---
08-13621	RG-72059	Dipstick Tube Base Gasket	1 each - PMA Approved. Fits Models: Lycoming IO-320, IO-360, IO-540, IO-540-B, E, M Series, HIO-360, O-235, O-290, O-320, O-360, O-480, O-540, TIO/LTIO-540-A.	---
08-13820	RG-1111-C	Pushrod Tube Seal	1 each - FMA-PMA Approved. Fits Models: Lycoming R-680 Series.	---
08-13819	RG-1111-C-18	Pushrod Tube Seal	Package of 18 FMA-PMA Approved. Fits Models: Lycoming R-680 Series.	---
08-13798	RG-20266	Pushrod Tube Nut Seal	1 each - PMA Approved. Fits Models: Continental W-670 Series.	---
08-13797	RG-20266-14	Pushrod Tube Nut Seal	1 package of 14 - PMA Approved. Fits Models: Continental W-670 Series.	---
08-13783	RG-17864-1	Push Rod Tube Seal	1 each - PMA Approved. Takes 4 seals per cylinder. Fits Models: Franklin 4A-235, 6A4-150, 6A4-165, 6A4-200, 6AS-350, 6AS-335, 6A4-150.	---
08-13776	RG-534610-4	Push Rod Tube Seal	Set of 4 - PMA Approved. Fits Models: Continental IO-346, O-470, IO-470, IO-520, IO-550, TSIO-520-Series.	---
08-00779	RG-17794	Pushrod Tube Seal Lower	1 each - PMA Approved. Takes 2 per cylinder. Fits Models: Franklin 4A-235, 6A4-165, 6A4-200, 6AS-350, 6AS-335.	---
08-01327	RG-360PRT-6	Pushrod Tube Seal Kit - Six Complete Cylinders	6 Cylinders - PMA Approved. Real Gasket Corporation has received FAA-PMA approval for improved design pushrod tube seals for continental engines. The seals are designed to provide 37% more sealing area at the point of contact with the pushrod tube, and vector spring pressure by its beveled top and companion washer.	---
08-01323	RG-520PRT-6			---
08-01328	RG-360PRT-1	Pushrod Tube Seal Kit - One Complete Cylinder		---
08-01326	RG-520PRT-1			---
08-13779	RG-550GPR-1	Pushrod Tube Seal Kit - One Complete Cylinder	Real pushrod tube seal. RG-550GPR-1. PMA Approved.	---
08-13772	RG-200-D	Pushrod Tube Seal Kit - 1 Cyl for New Continental Cylinder	1 each - Fits Models: Continental A-65, C-75, C-85, C-90, C-125, C-145, O-200, O-300, GO-300.	---
08-13774	VSC-2	TCM 6-Cylinder 470/520/550 Spring Compressor Tool	1 each - Fits Models: Continental E-185, E-225, IO-346, IO-470, IO-470-J, IO-470-K, IO-520, IO-550, IO-550G, O-470, O-470-A, O-470-E, O-470-J, TSIO-520-Series, TSIO-520-BE.	---
08-13770	RG-200-RSW	Replacement Seal & Washer Kit for RG-200PR	1 Cylinder - FAA-PMA approved. Fits Models: Continental A-65, C-75, C-85, C-90, C-125, C-145, O-200, O-300, GO-300.	---
08-13771	101BR	Ultra Copper Silicon	1 each - Fits Models: Continental A-65, C-75, C-85, C-90, C-125, C-145, O-200, O-300, GO-300.	---
08-13793	RG-8-32-BPS-20	Baffle Seal Fastener - Aluminum Binding Post & Screw Kit	1 package of 20 pieces - A package of 10 pair (post and screw) = 20 pieces.	---
08-19047	RG-72812	Real Gasket Oil Sump Gasket or Oil Pan Gasket	Gasket is made of Interface Material-NI-2085 and is 1/16" (0.062) thick. Fits: Lycoming Engines O, IO, TIO, LTIO, AEIO-540, TEO-540, IO-580, AEIO-580 Series FAA-PMA approved for the above engines	---

EP

# GASKETS



## TCM MAGNETO GASKET 649954

P/N 05-11920

## TCM 649989 OIL COOLER GASKET

P/N 08-13252



## FUEL PUMP GASKET - 649962

P/N 08-13567

## PT-6 NOZZLE GASKET

PT-6 Nozzle Gasket. Replacement part for Pratt & Whitney 3029566.

P/N 05-15099



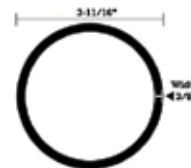
## LYCOMING PROP GOVERNOR GASKET

Propeller governor gasket for Lycoming O-320 A & E Series engines ..... P/N 72053

## LW12681 LYCOMING MAGNETO GASKET

Lycoming Magneto Gasket model # LW12681. For Lycoming 0320 all letter designations EXCEPT the "H" series.

P/N 08-00285



## TCM OIL GASKETS

TCM 654555 Oil Cooler Gasket for Continental Engines ..... P/N 06-02162

## 1/8 INCH SILICONE VALVE COVER GASKETS

Valve cover gaskets are manufactured from a silicone rubber compounded especially for lubricating oil resistance and low compression set. It has a recommended temp. operating range of -67 to 446 F and will remain flexible while operating in the noted temp. range. One of the biggest benefits of replacing the factory cork gaskets with the Silicone rubber gaskets is that they are reusable and are easy to work with and are 1/8" thick silicone rubber.

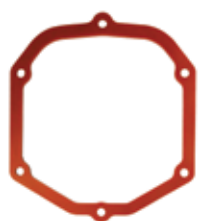
Image	OEM Part No.	Application	Part Number	Price
	75906-SP	Lycoming O-235, O-290, O-320, IO320, O-360, IO-360, HIO-360, O-480, O-540, IO-540	05-11181	---
	71450	Lycoming IO-540-B, E, M series, TIO/LTIO-540-A	05-11182	---
	67193	Lycoming IO-360, VO/GO-435, GO-480, IO-540, VO-540, TIVO-540, IO-720	05-11183	---
	632310	Continental IO-360, TSIO-360, LTSIO-360	05-11184	---
	632459	Continental GTSIO-520 series, IO-550-G, TSIO-520-BE	05-11185	---
	530162	Continental A-65, C-75, C-85, C-90, C-125, C-145, O-200, O-300, GO-300	05-11186	---

## "O" SERIES LYCOMING VALVE COVER GASKETS

Note: 08-05882 is similar to 67193 and RG-67193 but not FAA Approved for Certified Aircraft. 08-01187 is similar to 75906 and RG-75906 but not FAA Approved for Certified Aircraft.

These homebuilder's Lycoming valve cover gaskets replace the original cork gaskets which come standard on Lycoming O-235, O-320 and O-360 engines. These new gaskets are molded from high temperature silicone rubber and do not harden over time so they can be re-used again and again. This hi-tech silicone rubber offers a much lower compression set, so it is superior at maintaining an oil-tight seal for the life of the engine. NOT FAA approved. For experimental aircraft only.

P/N 08-01187



## ANGLED VALVE "IO" SERIES LYCOMING VALVE COVER GASKETS



These gaskets are for the fuel injected "IO" series, sometimes referred to as the Angle Valve cylinder Lycoming, as well. these gaskets are molded from the same high-temperature silicone rubber as the "O" series gaskets above, and do not harden over time, so they can be reused again and again. This hi-tech silicone rubber offers a much lower compression set, so it is superior at maintaining an oil-tight seal for the life of the engine. They are not FAA approved and are not manufactured under a PMA. These are similar to Lycoming part number 67193 used on Angled valve Lycoming engines IO-360, IO-540, IO-720..... P/N 08-05882

# GASKETS – STUDS

## EXHAUST MANIFOLD NUTS



Part No.	Thread Size	Type	Engine Application	Price
21247	1/4-28	Brass	Cont., E185, IO470, IO520, GTSIO520, LTSIO520, TSIO520, IO550, IOF5550, TSIO550, TSIOF550, TSIO550	---
22022	5/16-24	Brass	Continental: A-65, C-75 thru C-90, O-200, O-300	---
STD1410	5/16-18	Steel	Lycoming	---



## GASCOLATOR GASKETS

Gascolator Gasket, Manufactured from fuel resistant "Buna Rubber" material.

Description	Part No.	Price
2-1/4" OD. x 1-3/4" ID x 1/16" Buna and Cork material	05-11188	---
2" OD. x 1-3/8" ID x 1/8" Buna Rubber material	05-11190	---
2-1/8" OD. x 1-1/2" ID x 1/8" Buna Rubber material	05-11189	---
2-1/4" OD. x 1-3/8" ID x 1/8" Buna Rubber material	05-11187	---
2-1/4" OD. x 1-3/8" ID x 3/16" Buna Rubber material	05-11191	---

## OIL COOLER GASKET SETS

Our Part No.	Continental Part No.	Price ea.
08-76510	76510	---

## BLO-PROOF EXHAUST GASKETS



These gaskets are manufactured in a 1-piece design in 7/64" thick steel. They have a split metal inner ring which provides an absolute seal and they are guaranteed not to blow off. Engine manufacturer's parts. Continental P/N 627429 for all A, C and E Series **Ea.**  
Continental ..... P/N 628260 for O-470-R **Ea.**  
Lycoming P/N 77611 for 4 & 6 Cylinder Engines..... **--- Ea.**



## EXHAUST GASKETS

Continental P/N 21493 (now P/N 632837 stainless steel)

Cont.#21493 for A-65 to O-300.....P/N 08-05237 **Ea.**  
Cont. #632837 Stainless Steel.....P/N 08-13232 **Ea.**  
Lycoming O-320 except h series .....P/N 77611 **Ea.**



## AIRBORNE BLO-PROOF GASKETS

2 gaskets used per cylinder, with raised beads interlocked facing the exhaust stack flange. Eight required for 4 cyl. engine, 12 for 6 cyl. engine.

Side view  
Cross Section

Engine Model Number	Airborne P/N (Use 2/Cyl.)	Price
A-65 Series, C-85 Series, C-90 Series, O-200 Series, O-300 Series, GO-300 Series, E-185 Series, E-225 Series, O-470-A, -E, -J, IO-470-J, -K	06-02098	---



## STEEL EXHAUST STACK FLANGES

Lycoming O-235 to O-540 P/N 33021 **Ea.**

### STAINLESS STEEL

Continental A & C Series P/N 33101 **Ea.**  
Continental IO-470 thru IO-520.....P/N 33103 **Ea.**  
Lycoming O-235 thru IO-360 .....P/N 33102 **Ea.**  
Lycoming IO-540 .....P/N 33104 **Ea.**

## LYCOMING STUDS

Description	Part No.	Price
25-22 Lycoming Stud-.250-20 X 2.75 LONG	07-18027	---
25-8 Lycoming Stud-.250-20 X 1.00 LONG	07-14785	---
25-8-P03 Lycoming Stud-.250-20 X 1.00 LONG	07-14786	---
25C-10 Lycoming Stud-.250-20 X 1.25 LONG	07-14787	---
25C-10-P03 Lycoming Stud-.250-20 X 1.25 LONG	07-14788	---
25C-10-P07 Lycoming Stud-.250-20 X 1.25 LONG	07-14789	---
25C-11 Lycoming Stud-.250-20 X 1.38 LONG	07-14790	---
25C-11-P03 Lycoming Stud-.250-20 X 1.38 LONG	07-14791	---
25C-11-P07 Lycoming Stud-.250-20 X 1.38 LONG	07-14792	---
25C-12 Lycoming Stud-.250-20 X 1.50 LONG	07-14793	---
25C-12-P03 Lycoming Stud-.250-20 X 1.50 LONG	07-14794	---
25C-14 Lycoming Stud-.250-20 X 1.75 LONG	07-14795	---
25C-14-P03 Lycoming Stud-.250-20 X 1.75 LONG	07-14796	---
25C-14-P12 Lycoming Stud-.250-20 X 1.75 LONG	07-14797	---
25C-16 Lycoming Stud-.250-20 X 2.00 LONG	07-14798	---
25C-18 Lycoming Stud-.250-20 X 2.25 LONG	07-14799	---
25C-19 Lycoming Stud-.250-20 X 2.38 LONG	07-14800	---
25C-19-P03 Lycoming Stud-.250-20 X 2.38 LONG	07-14801	---
25C-20 Lycoming Stud-.250-20 X 2.50 LONG	07-14802	---
25C-21 Lycoming Stud-.250-20 X 2.63 LONG	07-14803	---
25C-21-P03 Lycoming Stud-.250-20 X 2.63 LONG	07-14804	---
25C-22 Lycoming Stud-.250-20 X 2.75 LONG	07-14805	---
25C-22-P03 Lycoming Stud-.250-20 X 2.75 LONG	07-14806	---
25C-22-P07 Lycoming Stud-.250-20 X 2.78 LONG	07-14807	---
25C-29 Lycoming Stud-.250-20 X 3.63 LONG	07-14809	---
25C-31 Lycoming Stud-.250-20 X 3.88 LONG	07-14810	---

## EXHAUST STUDS FOR CONTINENTAL ENGINES



These high quality exhaust/engine studs produced from corrosion resistant 321 stainless steel in 5/16-18" or 5/16-24" standard thread size with a length of 1.5" are a direct replacement for the TCM Continental part number 402-151 stud. FAA/PMA approved for the Continental engines C-75, C-85, C-90, O-200 series engines, and o-300 (early) series engines .....P/N 08-07282  
Stud for Continental Engines O-470, IO-470 ( 1/4"x20-1/4"x28) P/N 08-07281

## STAINLESS STEEL EXHAUST STUDS FOR LYCOMING ENGINES



Produced from corrosion resistant 321 in 5/16 x 18 standard thread size and are a direct replacement for the Lycoming part number 31C12 stud. Stop stud corrosion and rust out problems, stop expensive cylinder repair costs cause by broken studs, allow easy removal of exhaust systems for gasket replacement or inspection, but does not feature a safety wire hole (refer to p/n 08-06780 for safety wire hole feature). FAA approved for all Lycoming engines from O-235 through O-540.  
CAD Plated Steel with out Safety Wire Hole ..... P/N 08-06279  
Stainless Steel With safety wire hole feature ..... P/N 08-06780



## STA-FLATZ INTAKE CLAMP

Machined from billet 6061 aluminum and finished with gold anodize. This will reduce your chance of induction leaks, especially turbo charged engines! Experimental only. Not FAA approved.. P/N 08-13906

# EXHAUST INSULATING PRODUCTS

## HIGH VELOCITY EXHAUST JACKET



An innovative way to insulate and block radiant heat. Cover the tubes vertically allowing for a consistent fit. The fit allows the exhaust system to expand as it comes up to operating temperatures without restrictions and provides air space for added insulation. Uses Thermal Conduction Technology (TCT), developed by Thermo-Tec, and can be applied with the headers in the vehicle.

4-6 cyl. kit ..... P/N 08-00597  
8 cyl. kit ..... P/N 08-00598

## SPARK PLUG WIRE HEAT SHIELD



The ultimate protection for spark plug wires and boots from conductive and radiant heat. The dual-purpose sleeve has a surface that reflects over 90% of radiant heat, while the inside silica-based fabric prevents conductive heat from penetrating. P/N 08-00612

## TURBO KIT



Designed to protect, improve performance, and eliminate turbo lag of a turbo charger. Fits a wide variety of turbines. The custom cut-to-fit kit comes with an excessive amount of material to cover turbos from the smallest automotive application to heavy-duty truck applications.

4 cylinder kit ..... P/N 08-00613  
6-8 cylinder kit ..... P/N 08-00614

## MUFFLER/CAT HEAT SHIELD KIT



The 40"x 24" mylar Heat Shield is made up of woven silica with a flexible mylar finish. Can be installed between the catalytic converter, muffler, or any other component to reflect radiant heat away from the undercarriage of the car. The kit includes all necessary fasteners.

P/N 08-00616

## HEAT TERMINATOR ULTRA-LITE



Made of the highest-quality insulating materials available today. The material is made of a highly-textured aluminum composite surface on one side, with a high-temperature silica felt center and a durable mylar composite facing. Uses Thermal Conduction Technology (TCT), developed by Thermo-Tec.

8"x 12" ..... P/N 08-00617. 10"x 18" P/N 08-00618  
18"x 18" ..... P/N 08-00619. 18"x 24" P/N 08-00620  
24"x 24" ..... P/N 08-00621. 24"x 36" P/N 08-00622

## STARTER HEAT SHIELD



Starters take in a lot of damaging heat that destroys the windings of the starter & solenoid. The Starter Heat Shield will reflect over 90% of radiant heat, adding life to the starter and assuring reliable starts. The Starter Heat Shield is a universal kit that fits all starters.

P/N 08-00611

## THERMO SHIELD



Thermo-Shield protects hoses & wires from radiant heat. Used in applications where it is difficult or not practical to disconnect one end of the hose or wire. The adhesive-backed composite construction tape can easily be wrapped around the hose or wire to make a clean, professional appearance. 15"x 1.5" roll.

P/N 08-00602

## THERMO-FLEX



Thermo-Flex Aluminum is a composite heat shield material with unlimited uses. The material is manufactured with a combination of materials to provide abrasion-resistance, thermal insulation, and physical containment of hoses and wiring. The combination of aluminum, silica, and stainless steel is combined to produce a sleeving that is flexible, lightweight, and strong. The aluminum-silica combination can be slit for applications such as wire looms or hose covering without disconnecting the ends of the wire or hoses. Thermo-Flex Aluminum can withstand extreme temperatures of up to 750°F. Packaged in 10 ft. lengths.

5/8" ..... P/N 08-00623 ..... 1.25" P/N 08-00626  
0.75" ..... P/N 08-00624 ..... 1.5" P/N 08-00627  
1" ..... P/N 08-00625 ..... 3" P/N 08-00628

## COOL-IT PLUG WIRE SLEEVES



This unique spark plug & ignition wire protector comes in five sporty colors; red, orange, blue, black & natural. These dual-purpose sleeves enhance performance, reduce misfires, extend plug wire life and will not react with petroleum products. The double-wall construction keeps the wire and boot cooler in a high-temperature engine. Its universal size fits most boots, is easy to install & non-flammable.

6-Pack ..... P/N 08-01030

## COOL-IT MAT



Use the Cool-It Mat to battle excessive heat and noise that penetrate the driver compartment through the firewalls and floorboards. It is also perfect in doors, under hoods, and above transmission housings. The highly-reflective mylar reflects heat away from surfaces, while the foil side is orientated away from the heat source to conduct any penetrating heat across its surface thus providing the ultimate in heat protection. The silica blanketing is a dual-density composite and is the main sound insulator. It is easy to trim and can be applied with the push-in fasteners provided or any weather strip adhesive. P/N 08-00610

## THERMO-SLEEVE



Lamination of a high-temperature fabric to a highly-reflective foil is the makeup of Thermo-Sleeve, which provides protection from radiant heat for hoses and wires. Thermo-Sleeve's ultra light-weight construction provides more insulating than traditional bulky rubber-coated fiberglass. The aluminized sleeving reflects over 90% of radiant heat, and is fire-proof & oil resistant. Comes packaged in 12-ft lengths, and sold in 5 different inside diameter sizes.

12" 1/2" ID ..... P/N 08-00605  
12" 1" ID ..... P/N 08-00606  
12" 1-1/2" ID ..... P/N 08-00607  
12" 2" ID ..... P/N 08-00608  
12" 2-1/2" ID ..... P/N 08-00609

## HEAT BARRIER - ADHESIVE BACKED



Aluminized Heat Barrier is made up of woven silica with a flexible aluminized finish. The highly reflective surface of the material is capable of withstanding radiant temperatures in excess of 2000°F. The adhesive backed composite construction material can easily be applied to any surface or wrapped around a hose or wire to make a clean professional appearance. Note:

Clean surface before applying. Adhesive is rated up to 300° F. Don't apply to any parts of exhaust system. This product is designed to block radiant heat only!

12" x 12" ..... P/N 08-00630  
12" x 24" ..... P/N 08-00600  
24" x 50 foot Roll ..... P/N 08-07660

## HEADER MANIFOLD BLANKET



The Header Manifold Blanket provides excellent heat-retention for exhaust headers and manifolds. This flexible heat shield simply clips into place on the upper portion of the header. The fabric side of the material should be facing the heat source, and the aluminized side facing away, offering protection from abrasion and harmful liquid spills. Available in two sizes: (2) 20" by 24" blankets for V6 & V8 applications, and (1) 36" x 40" blanket for straight 6 & 4 cylinder engines.

20"x24" ..... P/N 08-00603  
36"x40" ..... P/N 08-00604

## GRAPHITE BLACK WRAP



Traditionally, high-heat coating spray had to be applied to the exhaust wrap to color it black. Now new Graphite Black Wrap eliminates the process of coating the wrap with its patented Thermal Conduction Technology (TCT) high-heat color pigment. Graphite Black Wrap is available in 2" widths, in 50-ft rolls.

Size	Part No.	Price
1" x 15	08-11153	---
1" x 50	08-11021	---
2" x 15	08-11154	---

Size	Part No.	Price
2" x 25	09-05231	---
2" x 50	08-00596	---
2" x 100	08-11023	---

## GENERATION II COPPER HEADER WRAP



Generation II Copper Header Wrap uses a proprietary coating developed by Thermo-Tec; improved Thermal-Conduction-Technology (T-C-T). Creates more horsepower & reduces underhood temps, increases exhaust scavenging, withstands continuous heat up to 2000°F, contains no asbestos. Sold in 1" or 2" wide, 50 ft rolls

with low profile 1/16" thickness.  
1"X50 ..... P/N 08-11031  
2"X50 ..... P/N 08-11032

## THERMO-TEC CARBON FIBER EXHAUST INSULATING WRAP



Produced utilizing pulverized Lava rock called basalt. It is extremely pliable, resistant to discoloration and can withstand 2000 degrees Fahrenheit in direct continuous contact.

1"X50 ..... P/N 08-13902  
2"X50 ..... P/N 08-13903

# EXHAUST PRODUCTS



## EXHAUST INSULATING WRAP

The original Exhaust Insulating Wrap was developed over 14 years ago by Thermo-Tec. Exhaust Insulating Wrap is an innovative way to create more horsepower and reduce under-hood temperatures. Wrapping headers maintains hotter exhaust gases that exit the system faster through decreased density. Increased exhaust scavenging is produced, along with lower intake temperatures. Exhaust Insulating Wrap withstands continuous heat up to 2000°F, and contains no asbestos. Thermo-Tec exhaust wrap will not over-insulate a system when properly installed due to a proprietary coating developed by Thermo-Tec -- Thermal Conduction Technology (TCT) -- that conducts heat across the wrap's surface. This coating controls heat build-up and dissipation. The Header Wrap is sold in 2" wide, 50' rolls with a low profile 1/6" thickness.

Size	Part No.	Price	Size	Part No.	Price
1" x 15	08-11151	---	2" x 25	09-05230	---
1" x 50	08-11001	---	2" x 50	09-41600	---
2" x 15	08-11152	---	2" x 100	08-11003	---



## EXHAUST WRAP KITS

Now you can get everything you need for a complete, professional installation of our Exhaust Insulating Wrap, all in one package. Kits include Exhaust Insulating Wrap, Hi-Heat Coating and Snap Strap; available in Black and Original.

2" Original, 1 Roll.....	P/N 08-07204
2" Original, 2 Rolls.....	P/N 08-07205
2" Black, 1 Roll.....	P/N 08-07206
2" Black, 2 Rolls.....	P/N 08-07207



## CLAMP ON HEAT SHIELDS

Flexible clamp on pipe heat shield blocks over 95% of the damaging radiant heat of the exhaust. Provides the ultimate in protection. The kits come complete with all clamps and new stainless steel stand offs. Installs in minutes. Incorporate Thermo-Tec's proprietary coating technology developed by Thermo-Tec, Thermal Conduction Technology.

6" X 1'.....	P/N 08-07073
6" X 2'.....	P/N 08-07074



## SNAP STRAPS

The multi-purpose stainless steel Snap Straps are used to secure the Exhaust Insulating Wrap -- and more. The high-temperature stainless steel straps have a narrow profile to fit tight spots, and can be cut to the exact length needed. Snap Straps secure with easy-to-use slide-through fasteners.

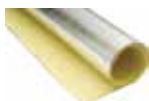
9" 12 pack.....	P/N 08-13150
18" 6 pack.....	P/N 08-13160
9" 4 pack, 18" 2 pack.....	P/N 09-05232

## ALUMINIZED HEAT BARRIER STOPS UNWANTED HEAT TRANSFER



Keep heat where you want it with this hi-tech aluminized heat blanket. Thickness, 0.060". Furnished in 3 sizes.

18" x 20".....	P/N 09-05234
36" x 20".....	P/N 09-05233
36" x 40".....	P/N 08-06735



## KEVLAR HEAT SHIELD

Can be used for various uses: As a header blanket, Improve driver comfort, Protect engines components, Continuous heat up to 1100 degrees F, and Reflects 90% of radiant heat up to 3000 degrees F.

\* Size: 26" x 40" x .062"(thick) Sheet.....P/N 08-07162



## KEVLAR MUFFLER COVER

Handles continuous temperatures up to 1100deg F. Reduces radiant heat inside vehicle. Dampens muffler noise and vibration. Includes stainless steel straps for installation. Neat attractive appearance and is abrasion resistant.....P/N 08-07201



## PT-6 INSULATION BLANKET

PT-6 Insulation Blanket Pratt TSO 3011755. Replacement part for Pratt & Whitney 3011755. P/N 05-15101



## ZIRCOFLEX™ FLEXIBLE CERAMIC HEATSHIELD

A flexible ceramic heat shield material that offers superb thermal barrier performance at minimal weight and minimal thickness. A thin aluminum backed foil, it is lightweight at only 460g/m(2) and only 0.25mm thick. It is however, robust and easy to handle. It can be cut and installed by hand or machine, and is easily fixed in place using mechanical fasteners or high temperature adhesives. Each piece is 35.4" X 21.5" (900mm x 550mm.)

Ceramic Heatshield.....	P/N 08-07214
Double sided adhesive tape attachment kit.....	P/N 08-07215
Stainless Steel Strapping kit.....	P/N 08-07216

## ZIRCOFLEX I (SINGLE THICKNESS)

This is Zircoflex® I in its single thickness (original) format. The material offers superb thermal barrier performance at minimal weight and minimal thickness. It is produced as a thin aluminum backed foil.

Description	Size	Part No.	Price
Zircoflex I Mini Roll	400mm x 100mm (Approx. 16" x 4")	08-07635	---
Zircoflex I Small Sheet	297mm x 210mm (Approx. 12" x 8")	08-07636	---
Zircoflex I Medium Sheet	550mm x 450mm (Approx. 22" x 18")	08-07637	---
Zircoflex I Small Sheet with Adhesive	297mm x 210mm (Approx. 12" x 8")	08-07646	---
Zircoflex I Medium Sheet with Adhesive	550mm x 450mm (Approx. 22" x 18")	08-07647	---
Zircoflex I Large Sheet with Adhesive	900mm x 550mm (Approx. 35" x 22")	08-07648	---

## ZIRCOFLEX III (TRIPLE THICKNESS)

This is an engineered triple thickness Zircoflex® format that offers yet more thermal performance coupled with significant rigidity when compared to the original Zircoflex I® material. It is produced as an aluminum backed matrix.

Description	Size	Part No.	Price
Zircoflex III Large Sheet	900mm x 550mm (Approx. 35" x 22")	08-07645	---
Zircoflex III Small Sheet with Adhesive	297mm x 210mm (Approx. 12" x 8")	08-07653	---
Zircoflex III Medium Sheet with Adhesive	550mm x 450mm (Approx. 22" x 18")	08-07654	---
Zircoflex III Large Sheet with Adhesive	900mm x 550mm (Approx. 35" x 22")	08-07655	---

## ZIRCOFLEX ACCESSORIES

Double Sided Adhesive Tape.....	P/N 08-07215
Stainless Steel Attachment Kit.....	P/N 08-07216



## THERMO-GUARD FR

Thermo-Guard FR offers the best in heat and sound insulation. This lightweight, durable shield does everything: reduces sound, absorbs vibration, protects from radiant heat and provides an extra layer of insulating padding. The product features 100% synthetic fiber felt that provides sound and comfort control and high-tech foil heat barrier that blocks more than 90% of radiant heat.

48"x72" 1-Sided.....	P/N 08-01028
48"x72" 2-Sided.....	P/N 08-01029



## EXPRESS SLEEVES

Express Sleeves are just the thing that our customers have been looking for. An new easy to use sleeving which is a combination of a high temperature insulation material to a highly reflective mylar foil with a Velcro closure. The sleeving is designed to provide maximum protection for wires, hoses, and cables from the very damaging effect of radiant heat with an easy application. Simply pull apart the material, wrap around the wire, and re-close the sleeving. Express Sleeves reflect over 90% of radiant heat, is fireproof and fire resistant, and just looks good. Express Sleeves come in 1 1/2" diameter in 3', & 12' lengths.

Size	Part No.	Price	Size	Part No.	Price
1-1/2" X 3"	09-02060	---	1/2" x 3	08-07202	---
1-1/2" X 12"	09-02061	---	1/2" x 12	08-07203	---

# APS PRODUCTS



## APS SILICONE VALVE COVER GASKETS

APS FAA/PMA Approved silicone rocker gaskets are reusable and remain flexible from -85 to +401° F. They are resistant to leaking, deterioration by weathering, and petroleum-base lubricating oil.

CMI Engines Eligibility	Model No.	Part No.	Price
A40, A50, A65, A70, A75, A80, C75, C85, C90, C125, C145, O-200, O-300, GO-300 Series	APS-655706-S	07-20087	---
E165, E185, E225 Series	APS-653193-S	07-20083	---
IO-240, IO/TSIO-360 Series	APS-655704-S	07-20085	---
O-470-G,K,L,R,S,U; IO-470-D-F, H, L-N, S, U, V; TSIO-470-B, C, E	APS-655528-S	07-20084	---
IO-520 (All Models), TSIO-520 - Some Models	APS-655528-S	07-20084	---
TSIO-520-AE	APS-653193-S	07-20083	---
TSIO-520-BE, GTSIO-520-C,D,F,H,K,L-N	APS-655705-S	07-20086	---
IO-550-A-F,L	APS-655528-S	07-20084	---
IO-550-G,N,P,R; TSIO-550-A-C,E,K	APS-655705-S	07-20086	---

Lycoming Engines	Model No.	Part No.	Price
O-235, O-290, O-320, O-340 Series	APS-75906-S	07-20098	---
IO360, AEIO-360, AIO-360, LIO-360, TO-360	APS-67193-S	07-20088	---
IO-360, AEIO-360, HIO-360, HO-360, LO-360	APS-75906-S	07-20098	---
IO-360-F1A, TO-360-C1A6D	APS-76036-S	07-20099	---
GO-435, TVO-435, VO-435	APS-67193-S	07-20088	---
O-470-A,E,J; IO-470-J,K,L	APS-653193-S	07-20083	---
IO-540, AEIO-540, HIO-540, IGSO-540, IVO-540, LTIO-540, TIO-540, TIVO-540, TVO-540, VO-540	APS-67193-S	07-20088	---
IO-540, IGO-540, IGSO-540, LTIO-540, TIO-540	APS-71450-S	07-20092	---
O-540, IO-540, AEIO-540, TIO-540	APS-75906-S	07-20098	---
TIO-541-E1A4-C4, EAD4; TIGO-541-E1A, IO-540-J4A5, LTIO/TIO-540-V2AD	APS-76036-S	07-20099	---
TIO-541-E1A4, E1B4, E1C4, EAD4; TIGO-541-E1A, IO-720-A1A, A1B, D1B, D1C, D1CD	APS-67193-S	07-20088	---
IO-720-B1B,B1BD,C1B	APS-71450-S	07-20092	---

Sample Engine Series Eligibility only. Not all models of each series are eligible.

**SEE WEBSITE FOR AIRCRAFT MODEL ELIGIBILITY**



## APS PLENUM & PIPES FOR CONTINENTAL ENGINES

APS® FAA/PMA-approved 550 crossflow style CMI plenum and intake pipes are manufactured using the latest casting and CNC machining technology. They are a direct replacement for their CMI counterparts.

APS Part No.	Description	Part No.	Price
APS-633730	PMA'd Intake Flange	07-20217	---
APS-646206	#5 Cylinder PMA'd Intake Tube	07-20220	---
APS-646207	#6 Cylinder PMA'd Intake Tube	07-20221	---

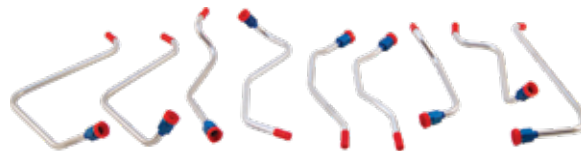


## APS ENGINE MOUNT LEGS FOR LYCOMING ENGINES

APS® engine mounts are billet machined from A7075-T6 aircraft structural aluminum, their tensile strength is 70% higher than original cast mounts, and they have a black anodized finish.

Most 540 w/30° Small Engine Mounts.....P/N 07-20214

## APS DRAIN TUBES



APS® Oil Drain Back Tubes for Lycoming Engines  
APS® FAA/PMA-approved oil drain back tubes are a direct replacement for Lycoming tubes. These tubes are intended for certified and experimental applications.

Description	Part Number	Price
APS-11935 Drain Tube	07-20066	---
APS-68759 Drain Tube	07-20089	---
APS-68760 Drain Tube	07-20090	---
APS-68761 Drain Tube	07-20091	---
APS-71737 Drain Tube	07-20093	---
APS-72702 Drain Tube	07-20094	---
APS-72703 Drain Tube	07-20095	---
APS-73027 Drain Tube	07-20096	---
APS-74808 Drain Tube	07-20097	---

## APS FUEL INJECTION LINES FOR LYCOMING ENGINES



APS® offers stainless steel fuel injection lines for use with many of the popular Lycoming RSA style fuel injection assemblies. APS® stainless steel fuel injection line assemblies are manufactured to extreme standards and are 100% pressure tested at 80 psi for leaks.

Description	Part Number	Price
APS12098-110 Tube Assembly	07-20067	---
APS12098-120 Tube Assembly	07-20068	---
APS12098-150 Tube Assembly	07-20071	---
APS12098-200 Tube Assembly	07-20075	---
APS12098-230 Tube Assembly	07-20078	---
APS12098-250 Tube Assembly	07-20080	---
APS12098-260 Tube Assembly	07-20081	---