

# WARNING SYSTEMS

## VOLT AND VAC ALERT

• Provides an instantly recognizable voice warning directly in your headset if low vacuum (or pressure) or low voltage develops • Includes a red warning light mounted close to the gyro instruments. Many aircraft are equipped with backup vacuum systems, however you must first know that your instrument power system has failed before any of these backup systems are engaged. You must "know you have a problem before you have a problem". Volt & Vac Alert consists of a small electronic unit that can be mounted anywhere in the aircraft. It connects to aircraft voltage, instrument power (vacuum or pressure), and the aircraft audio system. If the voltage falls below 12v or 24v the voice message "CHECK VOLTAGE CHECK VOLTAGE" will be heard. Should the gyro power fail, the pilot will hear the voice message "CHECK GYRO, CHECK GYRO" directly in his headset. The voice message will sound once, and then the red warning light will illuminate until the problem is fixed. The unit can be used in 12v or 24v aircraft with either vacuum or pressure gyro power systems. It can be installed in pressurized or un-pressurized aircraft. Sold as a complete assembly with everything necessary for the installation except a 1 amp fuse or circuit breaker. STC'd for most general aviation aircraft P/N 10-00393..... ---



## VOICE ALERT

Whenever the existing stall horn sounds, the pilot will hear the instantly recognizable voice message "STALL, STALL" from the built in speaker, and directly in his headset. If the gear warning horn sounds, the pilot will hear the voice message "CHECK LANDING GEAR, CHECK LANDING GEAR" alerting of the problem. No more confusion over which horn is sounding. These voice messages are in addition to the original horn sounds. The Voice Alert consists of a small electronic unit about 2-1/2" by 3-1/2" in size that can be mounted almost anywhere in the cockpit. Installed weight is less than 1 lb. Supplied as a complete kit consisting of the electronic unit, a pre-wired cable assembly, and all the connectors and mounting hardware. Requires a 1 amp fuse or circuit breaker. Installation can be performed by an A&P mechanic or an avionics shop. The system is approved for both fixed and retractable gear aircraft.

Description	Part No.	Price
VOICE ALERT 2040-1-1 produces voice messages for gear and stall warnings, and can be programmed with up to 8 additional warning voices such as altitude, vacuum, fuel, pressures, etc. Supplemental system only.	10-03713	---
VOICE ALERT 2040-1-2 produces stall and gear voice messages in the pilot's headset. Supplemental system only.	10-00394	---
VOICE ALERT 2040-1-1P similar to the 2040-1-1 except approved for installation as primary replacement for existing warning units like Cessna Electronic Dual Warning units	10-03714	---
VOICE ALERT 2040-1-2P similar to the 2040-1-2 except approved for installation as primary replacement for existing warning units like Cessna Electronic Dual Warning units	10-03715	---
VOICE ALERT 2040-1-1 Custom Voice settings produces voice messages for gear and stall warnings, and can be programmed with up to 8 additional warning voices such as altitude, vacuum, fuel pressures, etc. Supplemental system only.	10-04964	---

## GEAR WARNING SYSTEM (2048)



• Provides both voice and visual warning if the landing gear is not in the correct position for either a runway landing or a water landing • Airspeed activated, activation speed is easily set from 45 to 90 mph • Works with aircraft having 2, 4, or 8 gear indicating lights. Consists of a small electronic module (2.5 inch by 3.25 inch weighing less than 1 lb), and a panel mounted switch with light. Activation speed can be easily set using a screwdriver. Time delay is built in to prevent false triggering due to speed fluctuations. Pilot can perform a self test of the system. Can place in a disengage mode which temporarily disengages the system for slow flight. If the aircraft has flaps, a flap switch can be added to cause the landing sequence to be initiated whenever the flaps are fully extended. The unit also includes an airspeed activated switch which closes whenever the airspeed is above 45 mph. This can be used to activate a transponder, Hobbs meter etc. Experimental aircraft. P/N 11-02258..... ---

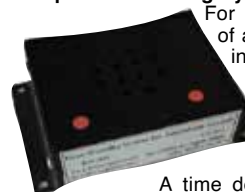
## AMPHIBIAN GEAR WARNING SYSTEM



Designed to provide an additional margin of safety for amphibian pilots by providing a backup electronic means of verifying landing gear position for both water and runway landings. Consists of a small electronic box (about 2.5 inch by 3.25 inch weighing less than 1 lb) that can be mounted anywhere in the aircraft, and 2 panel mounted switches with lights. The system is activated by airspeed. The activation speed can be set by a simple screwdriver adjustment. On takeoff, as the airspeed exceeds the activation speed, the system becomes active. There is a time delay built in to prevent false triggering. When the system becomes active, the lights in the panel switches will illuminate for 6 sec, to alert the pilot that the system is active. The pilot can perform a self test. Can be temporarily disengaged for slow flight. As the aircraft slows below the activation speed for a landing, the landing sequence is initiated. Panel switches are marked "L" for land, and "W" for water. If the gear is in the correct position, the voice message "GEAR O.K." will be heard. If the gear is not in the proper position, the voice message "CHECK LANDING GEAR, CHECK LANDING GEAR" will be heard. This message will continue until the speed is increased above the activation speed, or the gear is placed in the proper position. When installed in aircraft having multiple gear indicating lights, the system will respond with the "CHECK LANDING GEAR" voice warning if it determines that any of the wheels are in the wrong position. Also responds with the warning if the gear indicating lights loose power. Also incorporates an airspeed activated electronic switch which closes whenever the airspeed is above 45 mph. This can be used to activate a transponder, Hobbs meter etc. Supplied as a complete kit consisting of the electronic module, a pre-wired, color coded cable, switches, connectors, mounting hardware etc. The only other item required is a 1 amp fuse or breaker. STC'd for many amphibian aircraft and aircraft on amphibian floats .....P/N 11-07537 ..... ---

## GEAR ALERT SYSTEM 2050

**Note: This system is not FAA approved. It is intended for installation in Experimental category aircraft only.**



For Experimental amphibian aircraft consists of a small electronic module (2.5 inch by 3.25 inch weighing less than 1 lb), and a panel mounted switch with light. The system is airspeed activated. The activation speed can be easily set using a screwdriver. On takeoff, once the speed has exceeded the activation speed, the system activates. A time delay is built in to prevent false triggering due to speed fluctuations. The light in the switch illuminates when the system is activated. The pilot can perform a self test of the system. Disengage mode which temporarily disengages the system for slow flight. During this period, the light in the switch flashes indicating the system is disengaged. Pushing the switch again re-engages the system. As the aircraft slows for landing, the system enters the landing mode. The light turns off, and the electronics then checks the gear position lights to determine the gear position. If the aircraft has flaps, a flap switch can be added to cause the landing sequence to be initiated whenever the flaps are fully extended. A switch can be added to the throttle so that closing the throttle with the gear up will cause the warning voice message to be heard. The unit also includes an airspeed activated switch which closes whenever the airspeed is above 45 mph. This can be used to activate a transponder, Hobbs meter etc. The unit is sold as a complete system including the electronic unit, a pre-made cable assembly, a pre-wired switch, connectors, mounting hardware etc. ....P/N 11-07538..... ---

## POWER GUARD BUS MANAGEMENT SYSTEM



An essential bus management circuit designed to protect power sensitive and critical electronics. Starting currents are usually high enough to cause battery voltage to drop below tolerable limits for many electronics systems. The result could leave you without engine instrumentation until EFIS "reboots" (up to 30 seconds). Protection includes low voltage drop out and essential backup in the event of primary power loss. Filtration on the secondary supply and secondary battery charging are also an integral parts of the circuit. A secondary battery is required for the Power Guage we recommend a 5-12 Amp battery for emergency supply. Several control modes are possible with the system allowing for installation and operational flexibility. Load Ratings: 7A continuous, 10A 10% duty. Dims: 4.75" x 2.75" w x 1.2" h .....P/N 11-02044 ..... ---