Hawker® SBS J-16 Aviation Battery
Periodic Maintenance Test and Commissioning Procedure

Part Number 0769-4005

INITIAL OCV TEST AND CHARGING:

1. Prior to testing, measure "as received" battery Open Circuit Voltage (OCV).
2. For any battery that has been stored for an extended period (typically > 12 months):
   a. If OCV is ≥ 12.0V, either the Capacity Test OR the Load Test may be used after steps 3-5 are complete. (See below.)
   b. If OCV is < 12.0V, only the Capacity Test should be used following steps 3-5*.
3. Charge with constant voltage between 14.4V and 15.0V for 6 hours with at least 5A available, at temperatures between +20°C and +30°C.
4. Rest 4 hours at open circuit.
5. Assure OCV is > 12.9V then proceed to either step 6a to conduct Capacity Test or (if allowable per step 2 above) to step 6b to conduct Load Test.

CAPACITY TEST (preferred test for all batteries):

After performing steps 3-5 as shown above:

6a. Discharge 12.3A constant current to 9.0V cutoff.
7a. If step 6a runs ≥ 48 minutes: repeat steps 3-5 and install in field.
8a. If step 6a runs < 48 minutes: repeat step 3 using 12-hour charge time, then repeat steps 4, 5, and 6a.
9a. If repeat of step 6a runs ≥ 48 minutes: repeat steps 3-5 and install in field.
10a. If repeat of step 6a still runs < 48 minutes: repeat step 3 using 24-hour charge time, then repeat steps 4, 5, and 6a.
11a. If repeat of step 6a runs ≥ 48 minutes: repeat steps 3-5 and install in field.
12a. If repeat of step 6a still runs < 48 minutes: battery cannot be recovered, must be scrapped/replaced.

OR

LOAD TEST (battery must have OCV ≥ 12.0V prior to step #1):

After performing steps 3-5 as shown above:

6b. Load battery with 100A constant current for 15 seconds.
7b. If voltage remains ≥ 10.0V throughout entire duration of step 6b, proceed to step 9b.
8b. If loaded voltage falls below 10.0V** at any point during step 7b, repeat steps 3, 4, 5 and 6b.
   8b.i. If minimum voltage is now ≥ 10.0V: proceed to step 9b.
   8b.ii. If minimum voltage is still < 10.0V: battery cannot be recovered, must be scrapped/replaced.
9b. Rest at least 15 minutes and assure battery OCV is ≥ 12.75V.
10b. No need to recharge battery after load test. Battery is ready to install.

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*Load Testing is not as effective for recovering battery health as Capacity Testing, and is therefore not sufficient for batteries with OCV < 12.0V.

**A minimum loaded voltage of 10.0V indicates battery is still healthy enough to start engines. A loaded voltage of 10.8V signifies 80% battery health, and a loaded voltage of 11.2V signifies 100% battery health.

www.enersys.com

EnerSys World Headquarters
2366 Bernville Road
Reading, PA 19605, USA
Tel: +1-610-208-1991 /
+1-800-538-3627

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