



**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  $\geq 12.0V$ , 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  $\geq 48$  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  $\geq 48$  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  $\geq 48$  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  $\geq 12.0V$  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  $\geq 10.0V$  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  $\geq 10.0V$ : 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  $\geq 12.75V$ .
- 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.

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