

XL244D

Securaplane's Sealed Lead Acid XL244D emergency battery system has been designed as a direct replacement for the JET Electronics PS-835 Series Emergency Batteries. Featuring field-proven sealed lead acid batteries, battery level test, and built-in precision charging system, the XL244D is the answer for aircraft operators demanding battery maintenance reduction. Sealed Lead Acid (SLA) Batteries provide longer life and better reliability than Ni-Cads in emergency backup (float) power applications, especially in an elevated temperature ambient.

Replacement for PS-835 Series without AC output

Advantages

- Built-In Test Equipment
- No Deep Cycling
- No "Memory" Characteristics
- Inexpensive Battery Replacement
- Full 3 Year Warranty on Batteries
- Full 5 Year Warranty on Electronics
- **On-Aircraft level check**

Applications

- IRS/INS/2" & 3" Standby Attitude Reference System Back-up Power
- Emergency Lighting
- Bus "hold-up" during engine start
- Comm operation

Batteries

Sealed Lead Acid Hawker "Cyclon" Batteries (Dry Cells); 18-24 VDC Output, 3.7 amps at 1 hour discharge rate; 4.5 amps at 40 minute discharge rate.

Built-in Battery Charger

Precision charges battery from aircraft 28 VDC power bus. Operates in conditioning, bulk, topping, and trickle modes. Battery will reach 80-90% energy capacity in one hour. Contains overheat protection, charge monitoring (at unit front panel), and overload protection.

Battery Test

Battery test function places a known load on the battery and measures battery temperature. A BIT output and the front panel LEDs indicate "Batt Low" at energy levels at or below approximately 70%, and "Batt OK" above 70%. The battery test function can be initiated via cockpit mounted test switch or the XL244 front panel switch.

Fully Qualified

DO160E qualified.

Environmental Control

In cold ambients, a thermal blanket automatically activates to heat the battery to 30°C for guaranteed maximum energy. The XL244D has temperature-compensated charge voltage and heater control for long battery life.

Instrument Lighting Output

The XL244D incorporates a separate, externally adjustable converter output (2.0 to 7.0 VDC, 10 Watt) suitable for cockpit lighting applications.



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Applications

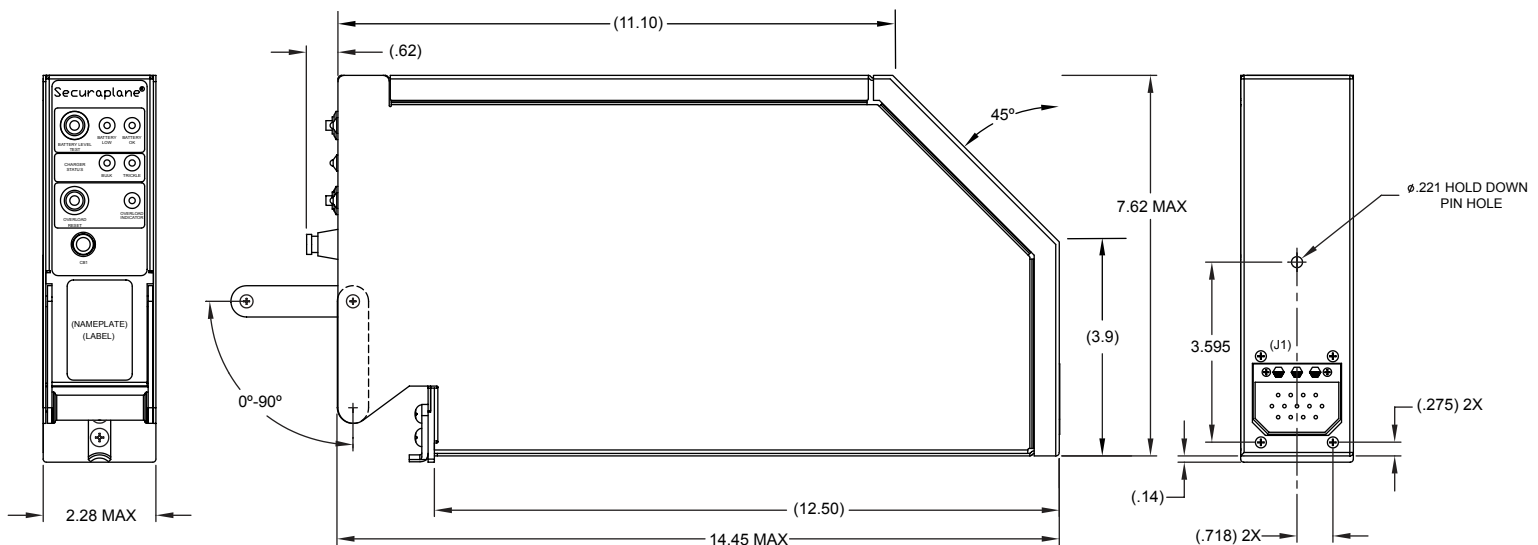
The XL244D is designed to replace all JET Electronics PS-835 Series Emergency Battery models which do not include AC output.

Electrical Compatibility

The XL244's electrical interface to the aircraft's existing wiring is identical to the interface presented by the J.E.T. PS-835 Emergency Battery Packs, using the same qualified electrical connector (ARINC 404 DPXB-13-34P-0101), and identical connector pin functions

Pin #	Function	Pin #	Function
1	NO CONNECTION	8	E-BATT DISC O/P
2	REMOTE TEST	9	NO CONNECTION
3	NO CONNECTION	10	+28 VDC INPUT
4	NO CONNECTION	11	28V/24V OUTPUT
5	5V LIGHTING O/P	12	POWER GROUND
6	TEST LAMP	13	CONV / INV INPUT
7	GROUND (GND)		

Outline Drawing



Physical Characteristics

Size: ARINC 404, ¼ ATR — 7.62 x 2.3 x 14.45 inches (max)

Connector: ARINC 404 DPXB-13-34P-0101

Mating Connector: DPXB MA-13-33S-0001 (or equiv.)

Qual: (DO-I6OE) 4(F2), 5(B), 6(A), 7(B), 8(H, curves C and R), 9(E-II), 10(W), 11(F), 12(D), 13(F), 14(X), 15(Z), 16(Z), 17(A), 18(Z), 19(Z), 20(R), 21(M), 22(A3C3), 23(X), 24(X), 25(A), 26(C)

Weight: 11 lbs.

Transportation: Dry cell classification by DOT.

Functional Characteristics

Input Power: 18-32 VDC (28 VDC nominal), 10A max.
(Charger + Lighting + Heaters)

Battery Output at 18-24 VDC: 3.8 amps at 1 hour discharge rate;
4.5 amps at 45 minute discharge rate.

Lighting Converter Output: Externally adjustable 2.0 to 7.0 VDC, 2A max.

Signal Input: Cockpit test switch initiates battery capacity test from cockpit.

BIT Output: Indicates battery energy level above approximately 70%.