

XL2410 Series

Securaplane's® XL2410 Emergency Battery System is designed to provide emergency power for: Lighting, 28VDC Bus Backup, and flight instrumentation. The XL2410 provides 10.5 amp hours of power at 18 to 24VDC measured at the one hour discharge rate. The XL2410 is designed to provide up to 40A output.

3/8 ATR • The Smallest Dry Cell 10 Amp Hour Output Battery Available

Advantages:

- **NO NEED TO REMOVE FROM AIRCRAFT FOR CAPACITY CHECK.**
- Built-in Test Equipment
- No Deep Cycling
- No "Memory" Characteristics
- Low Cost Battery Replacement
- Warranty:
3 years on batteries
5 years on electronics
- **Batteries:** Hawker "pure lead" Sealed Lead Acid Batteries (Dry Cells) provide excellent performance in extreme conditions. Battery compartment is designed for easy battery change by maintenance shops. Six month storage capability and no scheduled maintenance.
- **Battery Charger:** Charges Battery from aircraft 28 VDC power bus. Unit automatically switches between bulk and temperature compensated constant voltage charge mode. Contains overheat protection, built-in test and overload protection. Battery will reach 80-90% full charge from a fully discharged state in 2.5 hours.
- **Battery Test:** Battery test function places a known load on the battery and measures the terminal voltage. Indicates low, mid or full battery level.
- **Diagnostics:** Continuous bit monitors charge/control logic, battery cell voltage and battery heater circuit. Front panel mounted BITE software exercises BITE circuits. Works in conjunction with battery level test to validate capacity check.
- **Environmental Control:** Thermal blanket automatically controls battery ambient below 60° F to maximize battery performance.

No need to remove batteries to perform capacity check.

Applications:

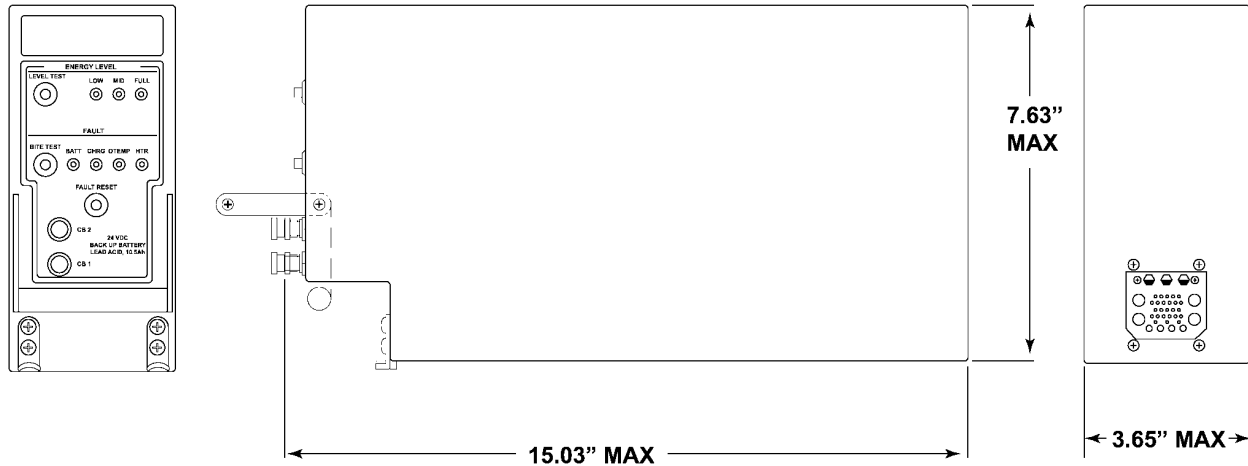
IRS/INS Backup Power, Avionics Backup Power, Emergency Lighting, Emergency Bus Backup.

Installations:

- Citation Sovereign
- Citation Excel, XLS, XLS+
- Citation Encore, Encore+
- Challenger 300
- Learjet 60XR
- ARJ-21



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Physical Characteristics:

Part Numbers:

Model Number	Part Number
XL2410-02	100-2410-02
XL2410-04	100-2410-04
XL2410-05	100-2410-05
XL2410-06	100-2410-06

Size: 3/8 ATR Short (3.59" x 15.12" x 7.82" max.)

Weight: 28.4 lbs. max.

Connector:

- P/N DSNX1RS33C4P0101
- Mating Connector P/N DSNX1PS33C4S0301

Qual:

- DO160-C (XL2410-02 model)
- DO160-D (XL2410-04 & -05 model)
- DO160-D/E (XL2410-06 model)

Pin Assignments:

J1 Pins	Description
A1	OUTPUT POWER #1
A2	INPUT POWER
A3	SPARE
A4	POWER GROUND
1-9	SPARE
10	INTERNAL FUNCTION FAILURE (FAULT)
11-13	SPARE
14	ENERGY LEVEL TEST REPLY
15-17	SPARE
18	REMOTE LEVEL TEST STIMULATION
10-20	SPARE
21	5V CONVERTER INPUT (-04, -05, -06)
22	HEATER/CHARGER INHIBIT CONTROL
23	5V CONVERTER OUTPUT (-04, -05, -06)
24	OUTPUT POWER #2
25	REMOTE BITE TEST INPUT (-02 ONLY)
26	BATTERY CHARGER INHIBIT CONTROL (-02 ONLY)
27-29	SPARE

Information subject to change. Please contact Securaplane for current data.

Power Characteristics:

Input Power:

- 28.5 VDC, 17A (with heaters and charger running)

Outputs:

- #1) 24VDC, 0-35A continuous (100A peak). Solid State output controls, overload protected when running off of internal batteries.
- #2) 24VDC, 0-3A (XL2410-02), 0-7.5A (XL2410-04, -05, -06). Protected by front panel mounted breaker.
- #3) 5VDC, 0-5A (XL2410-04, -05, -06). Overload and short circuit protected.

Capacity:

- 10.5 Ah at 1 hour rate.

Charge Time:

- 2.5 hours from full discharge to full charge.

Battery Heaters:

- 4-40 watt heaters (2 per battery), electronically regulated.

Battery Cutoff:

- Removes battery from load when battery voltage is less than 18V for more than 60 seconds. Prevents deep discharge.

Diagnostics:

- Battery level test (Full-Mid-Low) via front panel switch.
- Digital control input/output allows remote testing from cockpit.

Manual Fault Simulation (BITE) Test:

- Verifies correct operation of fault monitor circuits. Front panel LED's light, as well as digital monitor output signal.
- Remote BITE test on XL2410-02 model.

Diagnostics:

- Continuously monitor battery temperature (OTEMP), Battery cell reversal (BATT), Charger Status (CHRG), and Heater Status (HTR). Fault data is stored, and will log an intermittent fault.

Fault Reset:

- Clears the stored fault data.

Other:

- Digital signal inhibits internal charger and heater (all models)
- Digital signal inhibits internal charger and battery (XL2410-02 model only)