

XL246-S

Securaplane's XL246-S is an Emergency Battery System providing 6 amps of power at 19.4 to 24VDC. The XL246-S is standard on all Gulfstream IVSP production installations since aircraft serial number 1278. The unit was first introduced to Gulfstream operators in 1994.

No need to remove from aircraft for capacity check

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
- **No Need to Remove for Capacity Check**

Applications

- IRS/INS Back-up Power
- Avionics Back-up Power
- Emergency Lighting
- Communications Back-up Power

Batteries

Sealed Lead Acid batteries (Dry Cells). 24V 6AH at the one hour discharge rate. Provides long life, six month storage capability, and requires no scheduled maintenance.

Battery Charger

Precision charges battery from aircraft 28 VDC power bus. Unit has the capability to operate in bulk or temperature compensated constant voltage charge modes. Contains overheat protection, built-in test and overload protection. Battery will reach 80-90% full charge from a fully discharged state in one hour.

Battery Test

Battery test function, places a known load on the battery and measures the terminal voltage on load over 60°F. Indicates low, mid or full battery level. **No need to remove batteries to perform capacity check.**

Diagnostics

Continuous BIT monitors charger/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 optimize battery performance.

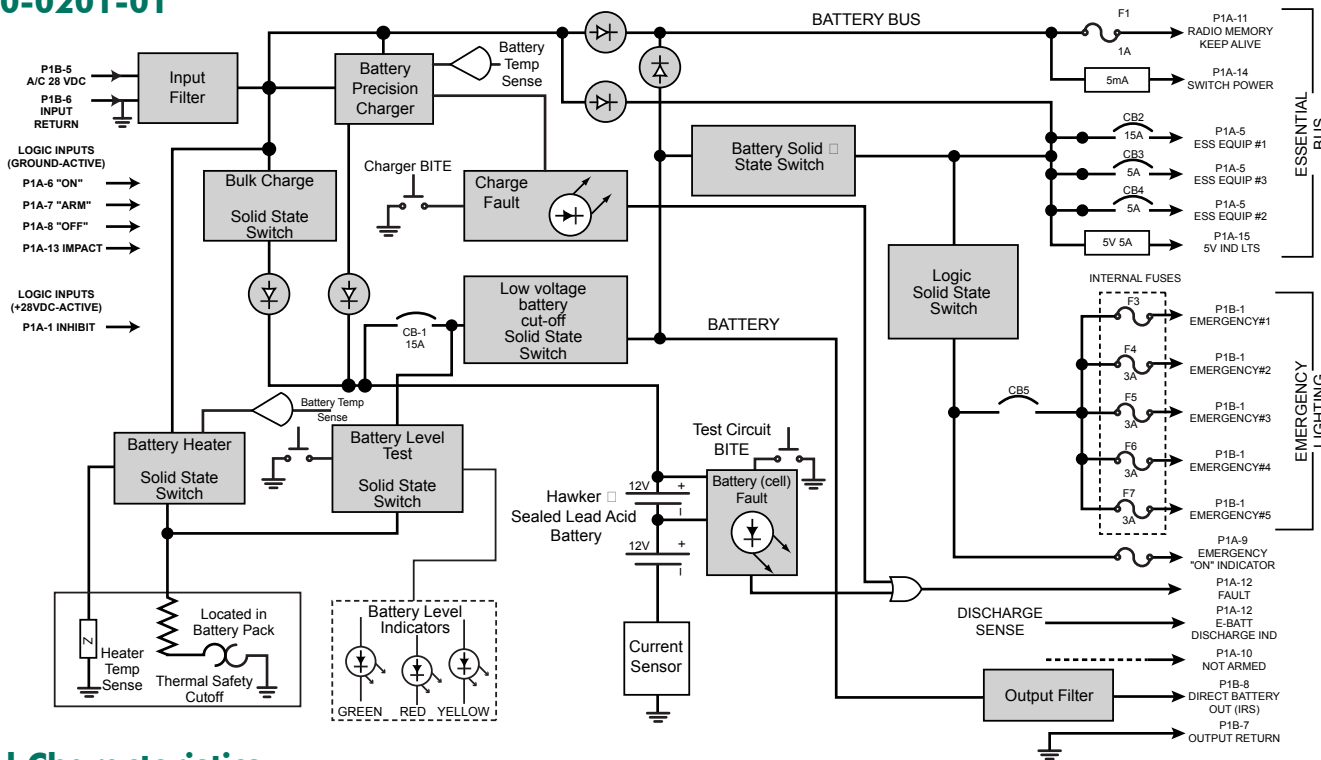
Solid State Switching

All switching is performed through low loss solid state circuitry.



Emergency Battery System XL246-S

XL246-S Emergency Battery System - Block Diagram P/N 100-0201-01



Physical Characteristics

Size: ARINC 404, 1/2 ATR short.
(7.7 x 4.855 x 12.82 inches) max

Box Connector:
ARINC 404 DPXBMA-D8P-34B Cannon or equivalent

Qual: DO-160 -55 to + 71° C (55,000 ft)

Weight: 18.6 lbs. (max)

Mounting: 1/2 ATR short tray

Cooling: Convection (No forced air)

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

Functional Characteristics

Signal Outputs		Power	
Fault	Occurs as a result of failures in charger, heater, or battery.	Input Power	20-35 VDC (28 VDC nominal) 25 Amps max. (Short term 2-3 minutes)
Not armed/off	Indicates system is not armed.	Output Power	(at 60° F or above) 19.5-24 VDC 200W for 45 minutes (2.9 ohm load) 6A for one hour (min) 20A (max)
Emergency Lights on	Activated by ON switch or Impact switch.	Essential Bus	1A fused o/p 15A circuit breaker o/p 5A circuit breaker o/p 5A circuit breaker o/p 5 volt, 5 mA o/p 5 volt, 5A o/p
Batt on output(sources 160mA max)	Indicates that the battery is feeding the external loads.	Emergency Lighting	(5) 3A internal fused/resettable outputs with a common 10A circuit breaker
Command off (grnd)	Battery outputs off line. Charger continues to function.	Direct battery output	15A circuit breaker o/p
Signal Inputs		The XL246-S automatically switches from the A/C 28 VDC Bus to the 24 VDC battery when the A/C Bus drops below 20 VDC. The XL246-S may be used to provide Emergency Lighting or to drive Essential Equipment outputs. Application is determined by which outputs are engaged at a particular station. Battery Pack. 24 VDC, 6AH (at 1 hour rate) Sealed Lead Acid (Dry).	
Command ON	Delivers A/C 28 VDC to emergency lights and essential loads if on, otherwise battery drives loads.		
Command ARM	Activates battery system when A/C power is lost.		
Command OFF	Turns battery outputs off line. A/C 28 VDC still passed through to essential loads. Charger remains on.		
Impact	Battery system activated regardless of other commands.		
Charger inhibit (+28 VDC)	Inhibits charge and heater functions. Enables A/C systems to check battery voltage.		