

LED Details. Note: SLOW Flash = 1 pulse/sec. FAST Flash = 4 pulses/sec.

PSU Conn Fault ON: An output on the PSU connection (P2) is turned off.
RED (L3) This will possibly be due to excessive load or a short circuit.
When excess load is removed, O/P will reset after a short delay.

Batt Chrg OFF: No Battery is connected. ON: Battery fully charged.
GREEN (L4) SLOW Flash: Charging. FAST Flash: Battery discharging.

Batt Fault OFF: Battery OK. No Battery Test running.
RED (L2) ON: Battery Missing, Low Voltage or Failed Test.
SLOW Flash: Battery Test in progress.
FAST Flash: Battery Test Failed.
(See "T4" details on p2)

AC OK ON: AC Mains Input is present.
GREEN (L1) OFF: Mains input is absent. Running from battery only.

V+ Fault ON: V+ output and the PSU connection (P2) outputs are turned off.
RED (L5) This will possibly be due to excessive load or a short circuit.
When excessive load is removed, O/P will reset after a short delay.

Fuses:

NOTE: V+ (T3) and the three 13.75V outputs provided on the "PSU" connector (P2) are individually protected by electronic fuses. If activated, removing the excess load or short circuit from the relevant output will restore the O/P to normal operation.

F1 Mains Input Fuse. See note below.

F2 Battery Safety Fuse. See note below.

NOTE: F1 & F2 are NOT User Servicable. If blown, return unit to supplier for repair.

Integriti Smart Power Supply Monitoring and Reporting:

Integriti Modules that support the 10-way "External Power" connector, also provide System Inputs for monitoring and/or reporting any Smart Power Supply problems. The following

System Inputs are provided:

- AC fail
- Low Volts
- PS Fail
- Low Battery/No Battery
- Battery Test Fail
- Detector Fuse
- LAN Fuse

See the *Integriti Programming Reference manual* for details.

Disclaimer: While every effort has been made to ensure the accuracy of this manual, the manufacturer and/or its agents assume no responsibility or liability for any errors or omissions. Due to ongoing development, this manual is subject to change without notice.

Inner Range

8A Smart Power Supply. P/N: 996092

INSTALLATION MANUAL

Overview

The 8A Smart PS is designed primarily as a battery-backed supply for Integriti LAN Modules supporting the 10-way 'External Power' bus connection. (IAC, ILAM, SLAM, 8-Z Exp, etc.) One Module can be connected via the 10-way bus allowing status & faults to be monitored/reported via the host Module. See p4. An additional Module can be connected to V+/V- using the Ancillary PS Cable P/N: 996794. The PSU is also a general purpose, battery-backed, 13.75V supply to power legacy or 3rd party equipment via the plug-on screw terminals with AC Fail & Low Battery states monitored via low-level outputs. The product is supplied as an assembled, enclosed unit for use in larger Integriti enclosures and does not require installers to be specially certified. It features a high reliability design offering exceptional stability when used with recommended battery types and is also compatible with RF readers.

Specifications

Input:	230V AC +10%/-11% / 50Hz +/-5% / 0.7 Amps.
Output Voltage:	13.75V DC up to 8A. (Battery fully charged)
Maximum O/P Current:	V+: 6.5A nominal. 8.0A continuous max. Batt Charger: 1.5A nominal. 2.0A maximum.

NOTE: When running from the AC Supply, the total of all long-term loads must not exceed 8.0 Amps. Short-term loads of up to 10A total are supported by drawing current from the Battery for a period limited by Battery capacity and charge state.

Output Ripple:	50mV RMS max. @ Iout = 6.5A.
Load Regulation:	+0.75% (100mV) / -1.5% (200mV) @ Iout = 0.1A to 6.5A
Battery Type & Capacity:	12V Sealed Lead Acid Battery. 6.5 to 22 AH
Low Battery Alarm*:	Normal = 11.7V. During Battery Testing = 11.1V
Low Battery Restore:	When Battery is fully re-charged. i.e. >13.3V terminal voltage & <150mA charge current. Note that any new Battery/s installed must reach full charge before the Alarm will be restored.

Batt. Deep Discharge Protect:	10.4V when running. 11V at power-up.
Deep Discharge Recovery*:	12.5V
Dimensions/Weight:	L: 274mm. W: 100mm. H: 64mm. Weight: 1.1 kg
Operating Temperature:	0° to 50° Celsius (Ambient)
Humidity:	15% to 85% Relative humidity (non-condensing)

*Values below are for units produced prior to May 2016 with S/N: 003773 or earlier:

Low Battery Alarm: 11V	Deep Discharge Recovery: 12.2V
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IMPORTANT NOTES:

1) BATTFAIL & ACFAIL. Open Collector outputs that can switch up to 100mA. Both outputs are ON (switched to 0V) for OK, and OFF (open circuit) to indicate a fault. This allows connection to Zone Inputs using EOL Resistors. See diagram on p3. It also allows provision of 'AC Mains Present' indication by connecting a 12V LED between V+ (Anode) and ACFAIL (Kathode).

2) Following a 'Low Battery' event, the BATTFAIL O/P restores only when the Battery, or replacement Battery, is fully charged. i.e. When L4 is On. See above & 'LED Details' on p4.

Parts List

- Integrity 8A Smart PS.
- Installation Guide. (This document)
- Installation Kit containing:
 - 1 x IEC Mains Cable*
 - 4 x M4 x 5mm screws*
 - 5 x M4 Shakeproof Washers*
 - 1 x Integrity 10-way Bus Cable. 430mm. P/N:996792
 - 1 x M4 Hex Nut*
 - 1 x Integrity Heavy Duty (18AH) Battery Cable
 - 1 x M4 Bolt*
 - 1 x Integrity Standard (7AH) Battery Cable

* If this product is supplied in an enclosure, these items will be pre-installed.

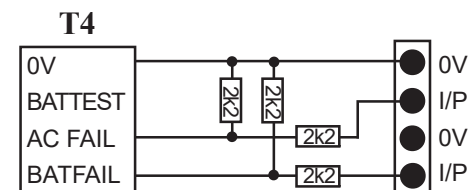
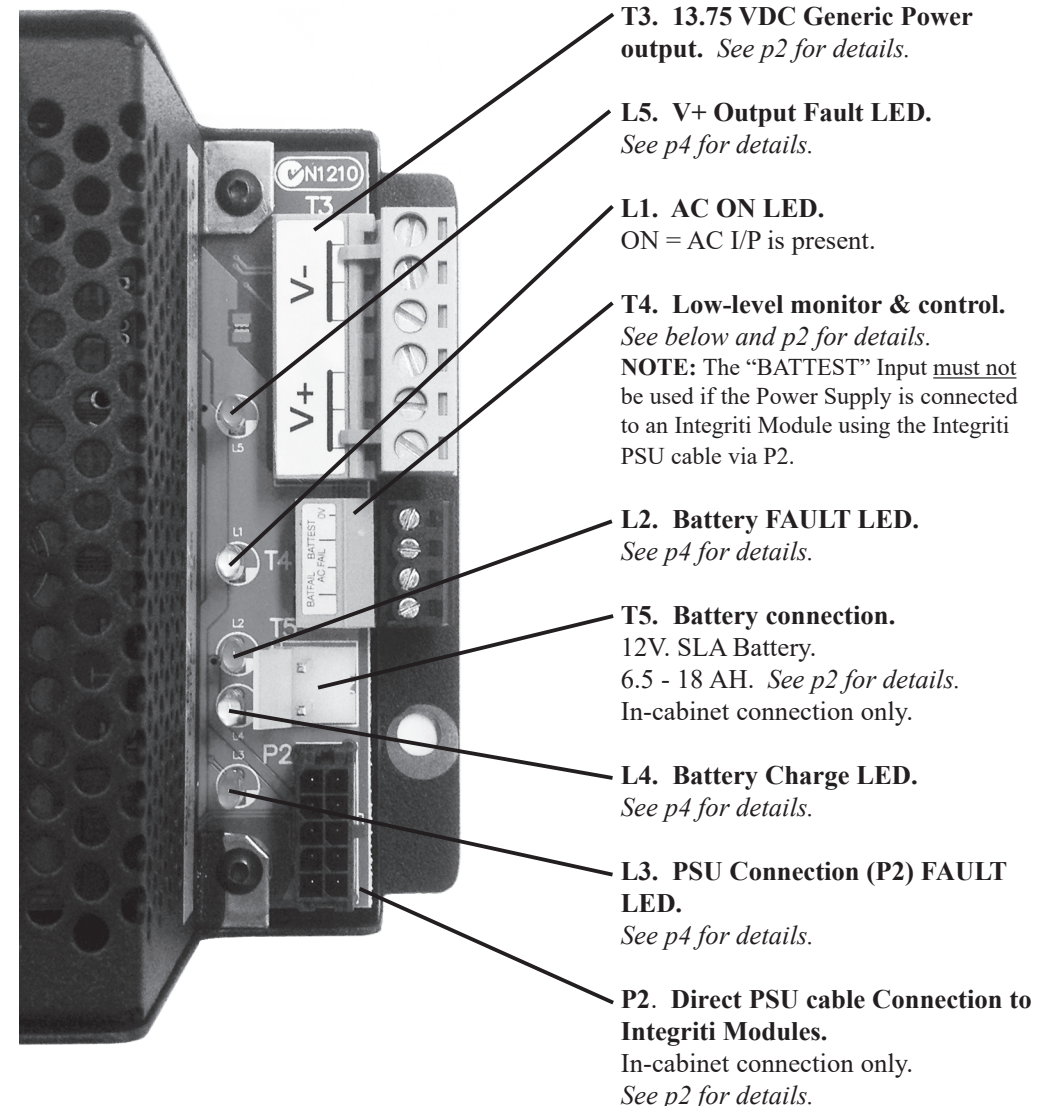
Mounting the Unit

- 1) **Caution:** This product must be installed into a suitable non-flammable equipment enclosure ensuring that the enclosure has been installed onto a non-flammable surface and away from all flammable materials. Any Conduit entry points that have had the knockout removed but are not used, must also be resealed using Conduit Plugs.
- 2) Refer to the Integrity Product Catalogue for details of compatible enclosures.
- 3) If not already mounted in an Integrity enclosure, position the unit to align with the matching set of mounting holes in the base, ensuring that there is adequate space for the Mains Lead to be fitted. Secure the unit to the base using the four M4 Screws and Shakeproof Washers supplied.
- 4) Fit the Chassis Earth Cable, Bus Cable (if used) & any other wiring on T3 or T4 as required. Check all wiring, then fit the Mains Lead & Battery cable.

Connections

- IEC 230V AC Mains power socket. Do not connect until all other wiring is complete.
- Earth. If the Chassis Earth Cable is not already installed, connect the QC spade to the QC lug on the Power Supply, then secure the eyelet to the threaded stud provided on the chassis using a Shakeproof Washer and M4 Nut. If the chassis does not have a threaded stud, fix the eyelet to the chassis using the M4 Bolt, Shakeproof Washer and M4 Nut provided to ensure a reliable electrical connection.
- P2 Direct connection to compatible Integrity Modules using the supplied Integrity PSU cable. Provides all power, monitoring and control connections required.
- T3 13.75V Generic DC Power Supply Output. Can be used simultaneously with P2, providing the combined nominal current does not exceed 6.5A.
- T4 I/O for low-level monitoring and control in legacy or 3rd party systems.
 BATTFAIL: Low Battery indicator Open Collector Output.*
 ACFAIL: 'AC Fail' / 'AC Mains Present' indicator Open Collector Output.*
 * See Note 1 on p1 and diagram on p3.
- BTEST: Battery Charger control input. See Note 2 on p1.
 Switch to 0V to perform Battery Testing.
- 0V: Common 0V connection for FAIL outputs and "BATTEST" input.
- T5 Keyed 12V terminals for SLA Battery. 6.5 - 18 AH. Use Battery cable supplied.

INTEGRITY 8A POWER SUPPLY CONNECTIONS.



Zone Inputs.
 Standard Integrity/Inception EOL values shown as example. See details on p2.