LED Details:

L5 AC ON	AC Input present.
L2 DET+ FAULT	If ON, DET+ is not currently being powered. This will possibly be due to excessive load or a short circuit on DET+. When excessive load is removed, O/P will reset after a short delay.
L4 LAN+ FAULT	If ON, LAN+ is not currently being powered. This will possibly be due to excessive load or a short circuit on LAN+. When excessive load is removed, O/P will reset after a short delay.
L3 BATT FAULT	During Normal Operation. ON: Low Battery or Battery Missing. During a Battery Test performed by using the "BTEST" Input. *(See "T6" details on p2)* SLOW Flash: Battery Test in progress. FAST Flash: Battery Test Failed.
L6 BATT ON	Battery is present. Indicates that a battery is connected, and the battery voltage is 5V or greater.

Fuses:

F1 Battery Safety Fuse. Not User Serviceable. If blown, unit must be returned to supplier for repair.

NOTE: DET+ and LAN+ outputs, and the Battery input, are individually protected by electronic fuses. If activated, removing the additional load or short circuit from the relevant output will restore the output to normal operation.

Integriti Smart Power Supply Monitoring and Reporting:

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

- External PS AC fail
- External PS Low Battery
- External PS LAN Fuse
- External PS Detector Fuse
- External PS Low Volts
- External PS PS Fail
- External PS Battery Test Fail

See the Integriti Programming manual for details.

 Part No: 636091

Integriti

3A Smart Power Supply.

PCB Rev. D & Rev. E

P/N: 996091PCB&K

INSTALLATION MANUAL

Overview

The Integriti 3A Smart Power Supply is designed primarily for use as a battery-backed supply for Integriti Modules that support the 10-way "External Power" bus connection. e.g. Integriti SLAM, ILAM, 8 Zone Expander Module, etc.
When used with these Modules, connection is made via the 10-way cable provided. Power supply and Battery status may be monitored and/or reported via the dedicated "External PS" System Inputs of the host Module. *See p4 for details.*
It can also be used as general purpose, battery-backed, 13.75V supply to power legacy or 3rd party equipment via the plug-on screw terminals.

The product is supplied in an enclosure or as a PCB kit.
It features a high reliability design that offers exceptional stability when used with the recommended battery type. It has also been designed for compatibility with Proximity type reader heads.

Electrical Specifications

Input Voltage:	16V AC
Input Current. 3A O/P:	4A. Transformer P/N: 560005. LK1 FITTED.
1A O/P:	1.5A. Plug-pack P/N: 999004. LK1 MUST BE REMOVED.
Output Voltage:	13.75V DC +/-5%, up to 3A. (Battery fully charged)
Maximum O/P Current:	3 Amps or 1 Amp selectable via Link LK1.
Output Ripple:	100mV RMS max. @ Iout = 3A.
Switching Frequency:	370 kHz. approx.
Load Regulation:	+0 / -500mV @ Iout = 0.1A to 3.0A.
Conversion Efficiency:	85%. approx.
Battery type & capacity:	12V Sealed Lead Acid Battery. 6.5 to 18 AH
PCB dimensions:	95mm X 95mm X 45mm high.
Operating Temperature:	0º to 40º Celsius (Ambient)
Humidity:	15% to 85% Relative humidity (non-condensing)

Parts List

- Integriti 3A Smart Power Supply PCB assembly.
- Installation Guide. (This document)
- Installation Kit containing:
  - 1 x Integriti 10-Way PSU Cable. 430mm.
  - 1 x Integriti Battery Cable. 60cm.
  - 1 x 0.1" Jumper Link. (Fit to LK1 for 3Amp)
  - 4 x Metal M3 Mounting Clips.
  - 3 x 2-Way Plug on Screw Terminals.
  - 4 x M3 screws.
  - 1 x 4-Way Plug on Screw Terminal.
  - 1 x 6.3mm QC crimp terminal. (Earth)

Mounting the Board

The 3A Smart Power Supply is supplied as a PCB kit for use in a variety of Integriti enclosures using the Mounting Clips and M3 screws provided.
Use of the Inner Range 3-wire Plug-pack (P/N: 999004) for AC input does not require installers to be specially certified, but if used, the Current Limit must be set to 1A.
For 3A operation (Link 1 Fitted), a 4 Amp Transformer is required, and if not already fitted in the enclosure, must be installed by a suitably qualified person.

Installation Details

Links:

LK1 Input (16V AC) Current Limit.
- Fitted: Current Limit = 3A. Transformer must be 4 Amps minimum.
- Removed: Current Limit = 1A. Transformer must be 1.5A minimum.

Connectors:

P2 Direct connection to compatible Integriti Modules using the supplied Integriti PSU cable. Provides all power, high-level monitoring and control connections required.

T1 16V AC Transformer or Plug-pack input connections.

T2 Keyed 12V terminals for SLA Battery. 6.5 - 18 AH. Use Battery cable supplied.

T3 13.75V DC Output for LAN Power if required.

T4 13.75V DC Output for Detector Power if required.

T5 Earth. Connect to suitable earth point. e.g. Metal chassis, plugpack earth wire, etc.

T6 I/O for low-level monitoring and control in legacy or 3rd party systems.
- BATTFAIL: Low Battery indicator Open Collector Output. *See Note 2 below.*
- ACFAIL: AC Fail indicator Open Collector Output. *See Note 2 below.*
- BTEST: Battery Charger control input. *See Note 1 below.* Switch to 0V to perform Battery Testing.
- 0V: Common 0V connection for "BTEST" input.

IMPORTANT NOTES:

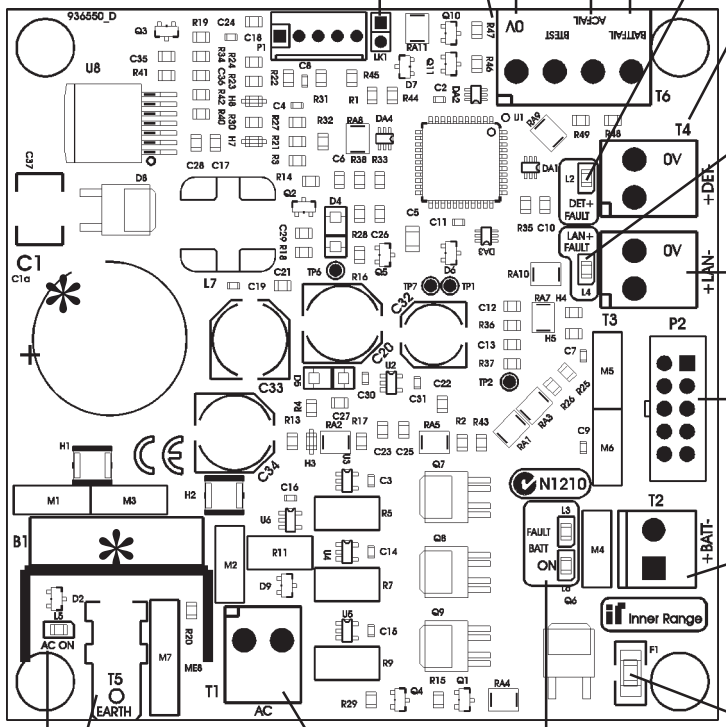
1) T6 "BTEST" Input must not be used if the Power Supply is connected to an Integriti Module using the Integriti PSU cable via P2.

2) BATTFAIL and ACFAIL outputs are ON (short circuit to 0V) for OK, and OFF (open circuit) to indicate a fault condition. This allows connection to Zone Inputs using EOL Resistors. *See drawing on p3.*

T6. Low-level monitoring & control.
See Page 2 for details.

0V I/P 0V I/P Zone Inputs. Inner Range EOL values shown. *See p2*

LK1. Current Limit select.
Fitted: Current Limit = 3A.
Removed: Current Limit = 1A.
See details on pages 1 and 2.



L2. Detector Power Fault LED.
See p4 for details.

T4. Detector Power output.
See p2 for details.

L4. LAN Power Fault LED.
See p4 for details.

T3. LAN Power output.
See p2 for details.

P2 Direct PSU cable Connection to Integriti Modules.
See p2 for details.

T2. Battery
12V. SLA Battery.
6.5 - 18 AH.
See p2 for details.

F1. *See details on p4.*

T5. Earth.
See p2 for details.

T1. 16 VAC Input.
See p2 for details.

L3. Battery FAULT LED.
ON = Battery Low or Missing.
SLOW Flash = Batt Test in progress.
FAST Flash = Batt Test Fail.

L5. AC ON LED.
16VAC I/P is present.

L6. Battery ON LED.
Battery present. *See p4 for details.*

*** Note.**
This 3A Smart PS & the legacy 2A Smart PS (no longer available) appear very similar but can be identified as follows: (The current Integriti 2A Standard Power Supply does not support the Smart PS features such as high-level status monitoring)

3A:	S/N IP3Annnn	Heatsink is fitted to B1.	C1 is 6800uF.
2A:	S/N IPSnnnn	NO Heatsink.	C1 is 4700uF.