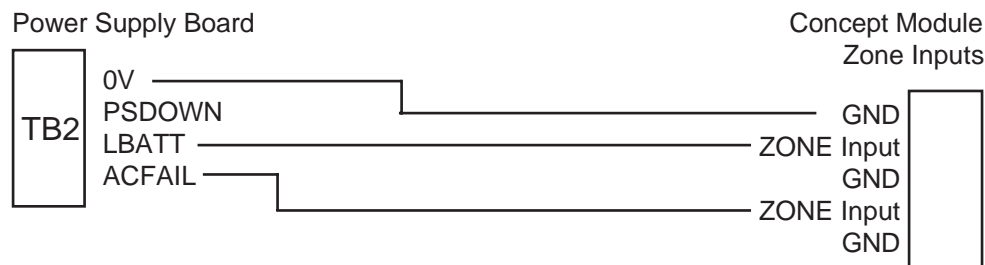


## Alarm Output Wiring

### LOW BATTERY & AC FAIL ALARMS.

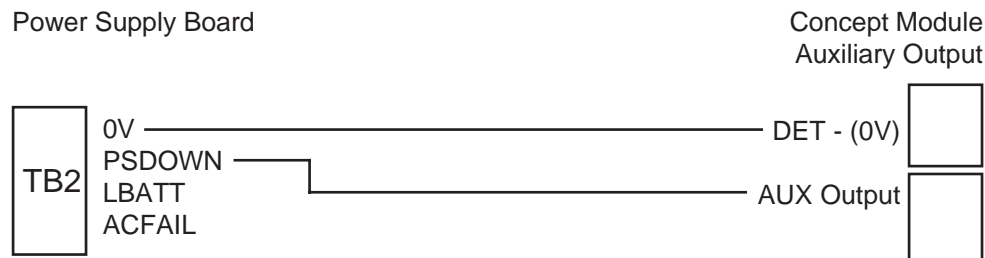
Outputs are provided on the Power Supply for indication of Low Battery and AC Fail conditions. End-of-Line Resistors are already fitted on the Power Supply PCB, so the alarm outputs are wired directly to Zone Inputs on Concept Modules as shown below, and programmed appropriately.



### Power Supply Control Wiring

The Power Supply can be configured to allow external control facilities. With Link "JP2" fitted, a LOW state on the "PSDOWN" input will enable the Power Supply. When the LOW state is removed, the Power Supply Regulator will be disabled.

NOTE: If a battery is connected, battery power will still be present at the output. This allows a Concept Auxiliary output to be wired directly to the "PSDOWN" input on the Power Supply as shown below. If the Auxiliary is On, the Power Supply is enabled. When the Auxiliary is turned Off, the Power Supply is disabled. (For battery testing, etc.)



**Concept products are designed & manufactured in Australia by Inner Range.**

Phone: 61-3 9753 3488 FAX: 61-3 9753 3499

Due to on-going product development this manual is subject to change without notice.

© 1998. Inner Range Pty. Ltd.

Part No: 634050

# CONCEPT

## 2A Power Supply. P/N: 994055

(Also included in 994050 / 994051)

# INSTALLATION MANUAL

### Overview

The 2A Power Supply can be used wherever battery backed 12V supplies are required to power Concept Modules, Detectors, Readers and Auxiliary Devices such as Strobes, Sounders, Locks, etc.

The unit features a high reliability design that offers unconditional stability, and has been specifically designed and tested for compatibility with Proximity type reader heads. To allow for redundancy requirements, the outputs of two of these modules can be connected in parallel to provide uninterrupted backup. (Alternatively, this configuration can provide a 4 Amp supply source if used with two of the 2.5A In-line Plug packs.) The Power Supply is factory fitted in several Concept ancillary enclosures, or supplied as a PCB module.

### Electrical Specifications

Input:	16V AC @ 2.5A. (From AC Adapter P/No: 560004)
Output Voltage:	13.8V DC +/-2%, up to 2A.
Maximum Output Current:	1 or 2 Amps selectable. (Unit may be set for 1 Amp current limit if used with 16V, 1.5A Plug Pack P/No: 560001)
Output Ripple:	100mV RMS max. @ Iout = 2A.
Switching Frequency:	50 kHz. approx.
Load Regulation:	+/- 100mV @ Iout = 0.1A to 2.0A.
Conversion Efficiency:	80%. approx.
Battery capacity:	12V 6.5 AH Sealed Lead Acid Battery.
PCB Module dimensions:	95mm X 80mm X 50mm high.
Operating Temperature:	0° to 40° Celsius (Ambient)
Humidity:	15% to 85% Relative humidity (non-condensing)

**ir inner range Pty. Ltd.** ACN 007 103 933

## Installing the 2A Power Supply.

### 2A Power Supply Parts List

- 2A Power Supply PCB assembly.
- Installation Kit containing:
  - 2 x 2 Way Plug on Screw Terminals & 1 x 8 Way Plug on Screw Terminal.
  - 1 x Jumper Link.
  - 8 x Nylon insulating bushes & 4 x Self-adhesive insulating standoffs.
- Installation Manual. (This document)
- Mounting hardware specific to enclosure that the unit is mounted in.

### Mounting the Unit

The 2A Pwr Supply is used in several different enclosures, or if purchased as a PCB unit, can be mounted in another enclosure. Mount the rectifier against a heatsink wherever possible. (see notes on page 3) **Use the nylon bushes or insulating standoffs to ensure the PCB is isolated from any metalwork.**

The use of In-line transformer (P/N: 560004) or Plug-pack (P/N: 560001) for AC power input does not require installers to be specially certified.

### Installation Details

#### Links:

JP2 “PSDOWN” function. This Link is only fitted if Power Supply is to be externally controlled. *See page 4 for more details.*

R20 R20 can be cut out of the PCB to reduce the current limit to 1.0 Amp.

#### Connectors:

TB1 16V 2.5A AC Plug pack input connections.

TB2 13.8V DC Output, alarm outputs and control input. *See page 4 for details..*

TB3 12V 6.5AH Battery connection.

X3 Direct ribbon cable Connection to Concept Modules. (e.g. Mini Expander)  
-Duplicates all connections on TB2.

#### Fuses:

F1 AC Input Protection Fuse (4 Amp Fast Blow)

F4 Battery Protection Fuse (4 Amp Fast Blow)

Note: Blown Fuses must always be replaced with a fuse of the same type and rating.

#### LEDs:

ACFAIL Indicates AC Fail condition.

ON Indicates Power Supply output is present.

REV BATT Indicates Connections to Battery are wrong polarity and Fuse F4 is blown.

## THE 2A POWER SUPPLY PCB

### R20 Current Limit select.

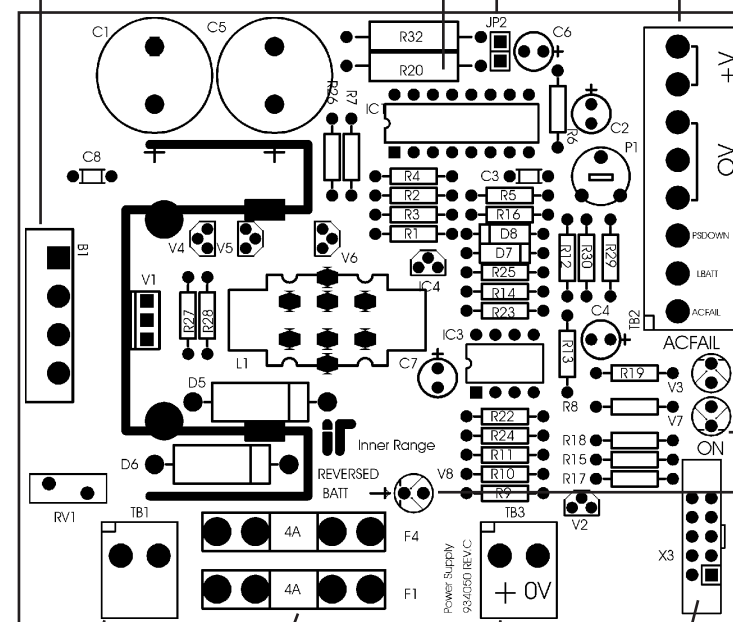
Cut R20 out to reduce current limit to 1.0 Amp. e.g. If using 16V 1.5A Plug pack. (P/N:560001)

**B1 Rectifier.** Recommend mounting on any convenient heat-sink to increase reliability and reduce temperature rise at max. output. (Already done if factory fitted)

### JP2 “PSDOWN” function.

To be fitted only if external control of Power Supply is required. *See page 4 for details.*

**TB2.**  
**Power Supply output, Alarm outputs and Control input.**  
*See page 4 for details.*



**TB1. AC Input.**  
16V AC. 2.5A.

**TB3. Battery**  
12V. 6.5A. SLA  
Battery connection.

#### Fuses.

F1 AC Input Protection. 4A.

F4 Battery Protection. 4A.

### INDICATOR LEDS.

Provide visual indication of:

- AC Fail
- Output Present
- Reverse Batt. connection. (Fuse 4 Blown)

**X3** Direct ribbon cable Connection to Concept Modules where facility exists. e.g. Mini Expanders.