

Parts List

- Switched DC Power Hub PCB sub-assy.
- 2 x 0.1" Jumper Link.
- 1 x 4 Way Plug-on screw terminal
- 5 x 3 Way Plug-on screw terminals.
- 1 x 2 Way Plug-on screw terminals.
- 4 x 2A Fast Blow Fuse (Spare)
- Installation manual. (This document)

- 4 x Metal M3 PCB Mounting Clips.
- 4 x M3 screws.

Optional parts and Spare Parts

- 999000 - Assorted Fuse Pack.
- 999003 - Metal 16mm PCB Standoff kit*
- * Alternative PCB mounting option.

“Control” Link (LK2) setting options

<u>Link Setting</u>	<u>Control mode</u>
Contact	Control is provided by Voltage-free Dry Contacts.
12V-24V	Control is provided by DC control voltage present/absent.

“Output ON” Link (LK1) setting options

Control Panel Contacts or Voltage	"Output ON" Link (LK1) setting	
	Short / 0V	Open / 12V-24V
Open or 12-24V DC	Output OFF	Output ON
Closed or 0V	Output ON	Output OFF

LEDs

LED	Label	State	Description
L1	Output ON	ON	Switched outputs are ON.
L2	F1	ON	F1 fuse is blown. <i>See Note below.</i>
L3	F2	ON	F1 fuse is blown. <i>See Note below.</i>
L4	F3	ON	F1 fuse is blown. <i>See Note below.</i>
L5	F4	ON	F1 fuse is blown. <i>See Note below.</i>

NOTE: Fuse blown indication is only visible if a load is present on the unswitched (“OUT”) output, or on the switched (“OUTSW”) output when it is ON.

While every effort has been made to ensure the accuracy of this manual, the manufacturer assumes no responsibility or liability for any errors or omissions.

Due to ongoing development, this manual is subject to change without notice.

Switched DC Power Hub

P/N: 995916

INSTALLATION MANUAL

For Revision B PCB.

(Note: For Revision A PCB, see Revision 1.0 of this manual)

Introduction

The Switched DC Power Hub is a power hub providing four separately fused power outputs. Each output is equipped with:

- a) A switched DC power connection that can be used to power electric locks and any other devices that require power to be removed under certain conditions.
- b) An unswitched DC power connection.

A single Control Input is provided that is connected to Dry contacts or a DC voltage from a control system. This allows the control system to disconnect power to locks, etc. under certain conditions to provide free access at access controlled Doors. Link options allow the Control Input to be configured for Dry Contact or Voltage control and to nominate which Contact state or Voltage state will turn the outputs On. A Relay output is also available to provide feedback to a monitoring system to indicate the current state of the outputs.

NOTE: Voltage control and Relay feedback are not available on the Revision A PCB.

Specifications

Power Supply Input/Output:	11V to 14V DC
Current Consumption:	95mA when output is “On” and NO load on any output.
Control Voltage*.	Recommended: 12V to 24V DC.
*LK2 = “12V-24V”	Switching threshold: 2V
Output Current:	Less than 2A per output.
	NOTE: Total current draw from all outputs must not exceed current available from the host power supply.
Fuse Protection:	2A Fast Blow Fuse for each output.
Feedback Relay Contacts:	Max 2A. 30VDC
Physical dimensions (PCB):	Length: 94mm Width: 94mm
Installation environment:	0° to 50° Celsius
	15% to 85% Relative humidity (non-condensing)

Designed & manufactured in Australia.

© 2014. Inner Range Pty. Ltd.

Part No: 635916

Installation

NOTES:

- i) Minimum cable type for Power Supply wiring on T1, T3, T4, T5 and T6 is 14/0.20 cable (21AWG). Heavier guage cable may be required depending on load requirements.
- ii) Outputs are not isolated and ALL 0V connections are common including the 0V connection on the "Control" Input.

- 1) The Switched DC Power Hub Board can be mounted in a suitable location, where the PCB mounting holes align with the holes in the chassis, by one of the following methods:
 - a) In a suitable Inner Range Concept Low Profile enclosure or Integrity enclosure using the 4 Metal Mounting Clips provided.
 - b) In an Inner Range Concept enclosure where provision is available for use of Hex metal spacers purchased separately. Inner Range P/N: 999003.
- 2) Locate the host Power Supply that will be used with the Switched DC Power Hub. Disconnect the Battery from this Power Supply, then turn the Power Supply off.
- 3) a) Connect the output of the host Power Supply to T1 "+12V" and "0V". Extra terminals allow additional conductors to be used to increase current capability and reduce voltage drop.
 b) Connect the required switched ("OUTSW") and/or unswitched ("OUT") 12V outputs to lock circuits and any other devices according to your system configuration.
- 4) a) Set LK2 ("Control") to the required option depending on the type of output from the Control system. i.e. "Contact" for Dry contacts. "12V-24V" for DC Voltage.
 b) Connect the Control System's control output to T2 "=>" and "0V". If Voltage control is used, check for correct polarity.
 c) Set LK1 ("Output ON") to "Short/0V" or "Open/12V-24V" according to the table on page 4. The Link nominates which Control Input (T2) state will cause the switched outputs to be ON.
- 5) If the state of the switched output is required to be monitored, connect the required terminals of the T7 "Feedback" connector to an Input on the monitoring equipment. Terminal labels refer to the contact states when outputs are On. i.e. COM & NC are shorted when O/P is ON. *Refer to the Input wiring instructions for the monitoring equipment for specific wiring details.*

T3 - 0V / OUT / OUTSW.
Output 1.

F1 / L2
Fuse and fuse fail indication for O/P 1.

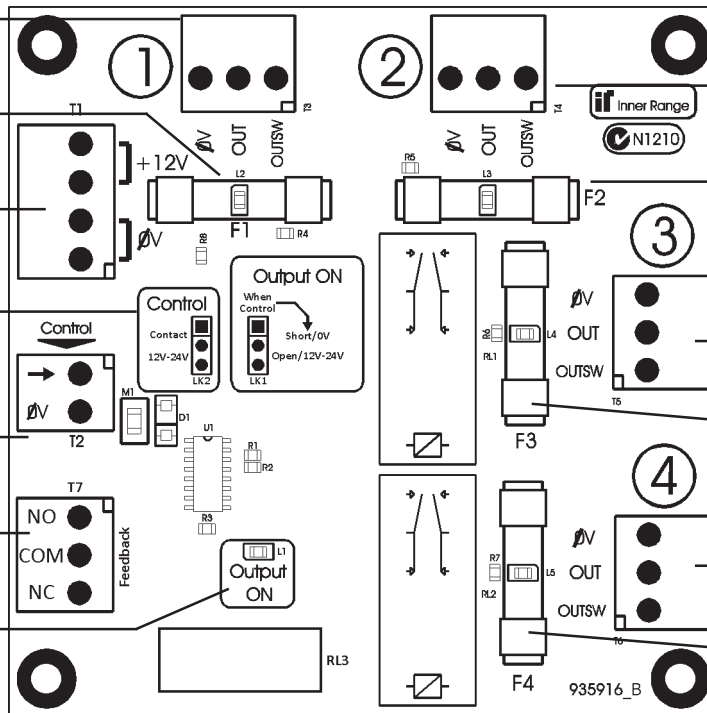
T1 - +12V / 0V
Input from host Power Supply.

LK2 - Control. Control Input mode setting.
LK1 - Output ON. Input State setting.
See step 4 above and the table on page 4.

T2 - Control. => / 0V
Control Input from Control System.

T7 - Feedback. Indicates On/Off state.
See step 5 above.

L1 - Output ON.
ON indication for switched outputs.



T4 - 0V / OUT / OUTSW. Output 2.

F2 / L3
Fuse and fuse fail indication for Output 2.

T5 - 0V / OUT / OUTSW. Output 3.

F3 / L4
Fuse and fuse fail indication for Output 3.

T6 - 0V / OUT / OUTSW. Output 4.

F4 / L5
Fuse and fuse fail indication for Output 4.