Installation Manual for D1541/2/3, Multi-Indicator, General Purpose Power Supplies

Installation

To protect the battery on install, mains power is required to start the PSU. Once the mains is connected, the battery will automatically charge and provide stand-by power.

Mount the metal enclosure onto the wall.

Connect the Live, Earth and Neutral terminals to an un-switched fused spur.

Connect the tamper outputs to the control panel as appropriate (see control panel manuals for details).

Connect the 12v power output to the system. <u>NOW</u> fit the battery, <u>NOT</u> before!

Switch on the AC supply and confirm that the green LED marked "230V AC" is lit.

External power supply (AC supply) - The power supply has a three-way terminal block for Live, Earth and Neutral connections, and is protected by a 20mm anti-surge fuse. Mains earth is isolated from the 0V output, although, when supplied boxed, mains earth is connected to the metal enclosure.

Tamper output - This voltage-free output is connected to the tamper switch. These terminals will be shorted when the tamper switch is closed.

12V power output - Terminal blocks are provided to connect to the system. The green 230V AC LED or orange standby LED indicates that the 12V is available from these terminal blocks.

Auxiliary power supply (batteries) - These power supplies are compatible with 7AH or 8AH Sealed Lead Acid or Gel batteries which are connected to the "BATT" terminals. The orange standby LED, marked with a battery symbol, indicates when AC power is off, and power is being supplied by the batteries. If two batteries are used, they must be connected in parallel.

Output protection - The output is protected by resettable fuse. Should the output be overloaded and the fuse trip, the red fuse fault LED, marked with a battery symbol, will be lit. The fault can be reset by removing the short and re-applying power after a minute to allow the fuse to cool.

Battery protection - The batteries and electronic circuitry are protected against reverse polarity connection by a self- resetting electronic fuse.
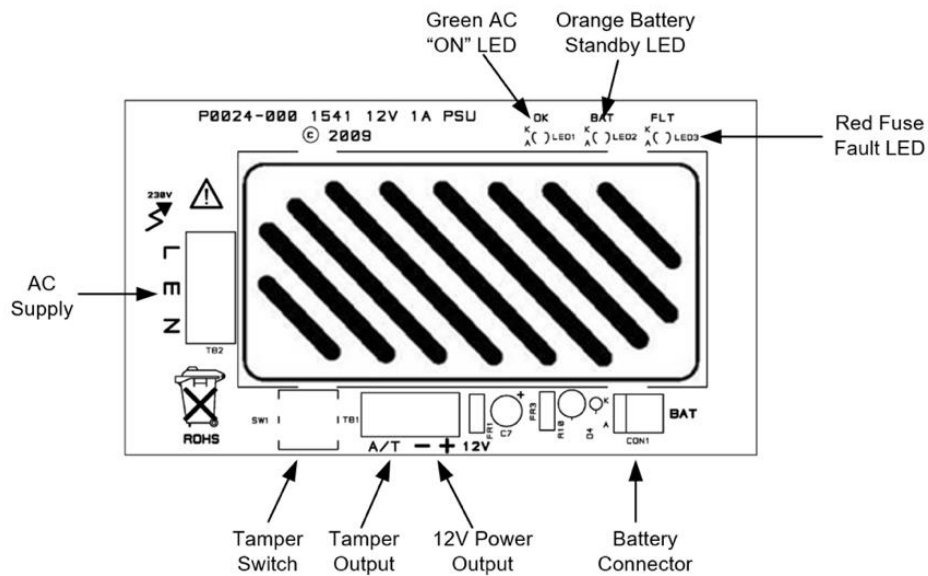
Output splitters - An output splitter can be connected to the 12VDC power output to provide up to 4 or 8 individually fused outputs, *e.g.,* a D1543 could support outputs 1 to 6 = ½ A making 3A in total). A Dycon **D15X8** 8-way splitter is supplied fitted with 8 fuses rated at ½ Amp, plus 2 fuses rated at 1 Amp in a separate spares bag. You may fit any combination of fuses, provided that the overall load does not exceed that provided by the power supply. A red LED is provided for each output, which lights if the relevant fuse ruptures. In addition, a 9th LED is provided which lights when the input voltage is present. A 2-way Molex connector is provided to connect a remote LED to indicate if ANY fuse fails. A Dycon **DFSX4-0** 4-way splitter is protected by self-resetting, electronic fuses, each with a maximum rated output of 1.5A. These units have green LEDs to indicated when an output is powering normally.

Output relays - Dycon has a DFR-1-12, a 12VDC output relay module. This will switch the output power if the input is closed or opened. Just like a fire-relay, the input can be triggered from a switch, using the internal power or by applying 12VDC, and has the ability to control up to 5 Ampere loads. The relay is switched through an opto-coupled input that provides full isolation and uses very low power to switch the relay. Normally-open and normal-closed contacts enable operation in power-fail mode. The unit has two outputs, one switched and one pass through, both of which are individually fused. The integral jumper enables the relay to be set to volt free operation. 4 LED's provide easy feedback of the status of the inputs and outputs.

Fuses - These PSU's are fused in the 230V AC power supply and the fuse requires no user intervention.

Maintenance - They are only to fitted by qualified service personnel; there are no user serviceable parts. No maintenance is required other than routine periodic testing and replacement of the standby batteries. For further information on routine battery replacement, please contact your battery supplier or manufacturer.

Layout –

Product Part Numbers -

Housing Type	1A versions	2A versions	3A versions	Suitable Batteries	Dimensions H x W x D (mm)	Weight
Steel, small-size, A-box	D1541-A	D1542-A	D1543-A	1 x 7/8Ah	235 x 170 x 85	1.46 kg
Steel, medium-size, B-box §	D1541-B	D1542-B	D1543-B	2 x 7/8Ah or 1 x 17Ah	260 x 320 x 90	2.30kg
Steel, clam-shell lid, XB-box §	D1541-XLB	D1542-XB	D1543-XB	2 x 7/8Ah or 1 x 17Ah	260 x 320 x 90	3.25kg
Steel, standard-size, XLB-box §	D1541-XLB	D1542-XLB	D1543-XLB	2 x 7/8Ah or 1 x 17Ah	295 x 425 x 90	3.25kg
Steel, extra-deep, XLBD-box. §	D1541-XLBD	D1542-XLBD	D1543-XLBD	Up to 4 x 17Ah	295 x 490 x 165	5.20kg
Steel, large-size, C-box §	D1541-C	D1542-C	D1543-C	2 x 7/8Ah or 2 x 17Ah	345 x 430 x 90	3.40kg
Steel, extra large-size, E-box §	D1541-E	D1542-E	D1543-E	2 x 7/8Ah or 2 x 17Ah	405 x 500 x 90	4.65klg
Steel, very large-size, G-box §	D1541-G	D1542-G	D1543-G	2 x 24Ah or 1 x 7/8Ah	690 x 455 x 165	8.75kg
IP65, ABS plastic, W-box	D1541-W	D1542-W	D1543-W	1 x 2.1Ah or 1 x 7/8Ah	245 x 195 x 90	1.45kg
PCB-only version	D1541-P	D1542-P	D1543-P	Depends on housing	140 x 94 x 47	0.26kg

Note: § To order a black painted version of these, please add a - BK suffix to the part number, e.g. D1545-XLB-BK

Dycon Accessories for use with these PSUs, they can be supplied factory-fitted into any specific housing

Part no.	Description	Dimensions	Weight
D15X8-500mA	8-way output splitter (8 x 500mA glass fuses)	49 x 108 x 16mm	0.70 kg
D15X8-1A	8-way output splitter (8 x 1A glass fuses)	49 x 108 x 16mm	0.70 kg
DFX4-0P	4-way output splitter with 4 x self-resetting PET fuses	60 x 40 x 16mm	0.20kg
DFR-1-12	12VDC universal output relay module	61 x 40 x 19mm	0.26kg

Data sheet

In case of problems, telephone Dycon Technical Support on +44 (0)1443 471 900,
or email: sales@dyconpower.com website: - http://www.dyconpower.