Installation Manual for a D1545 5A, Multi-Indicator, General Purpose Power Supply

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. NOW fit the battery, not 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 a D1545's 12VDC power output to provide up to 4 or 8 individually fused outputs, *e.g.,* a D1545 could support outputs 1 to 6 = ½ A and outputs 7 and 8 = 1A (5A 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 two output relay module versions, DFR-1-12 a 12VDC unit and DFR-1-24, a 24VDC equivalent. These 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 12 or 24 Volts DC depending on the version, and both have 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

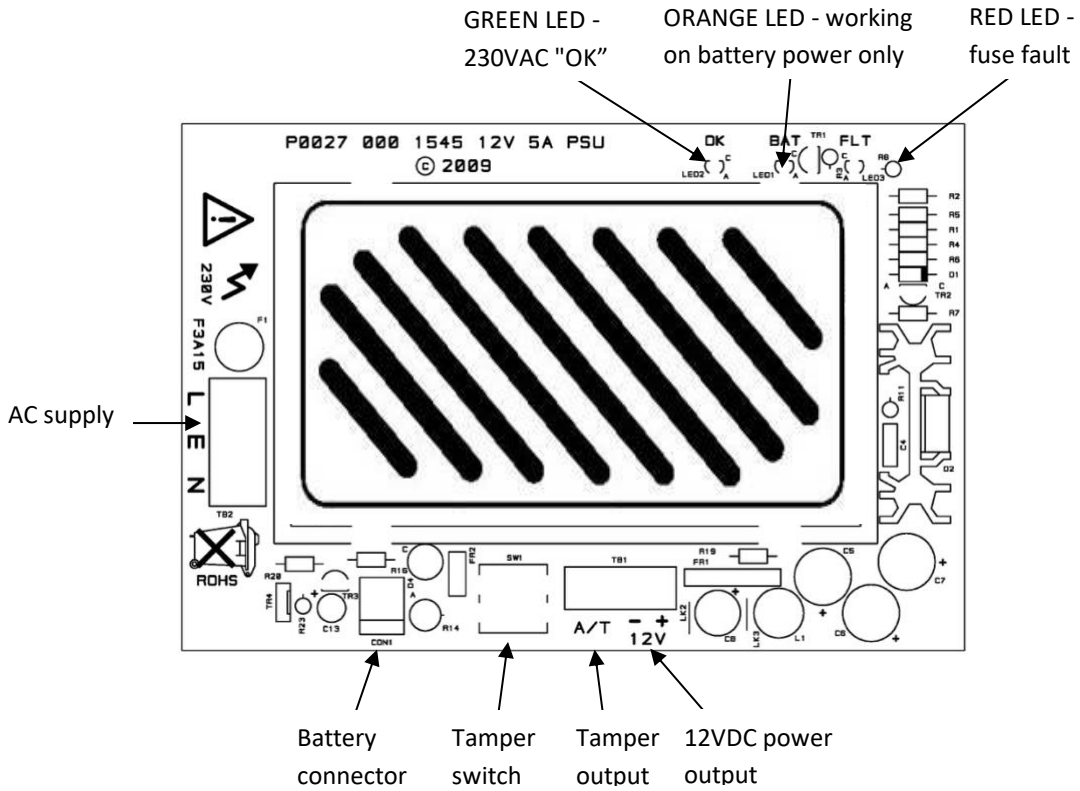
The D1545 is fused in the 230V AC power supply and the fuse requires no user intervention.

Maintenance

This unit is only to be used 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

Part No.	Description	Suitable Batteries	Dimensions H x W x D (mm)	Weight including packaging
D1545-A	Steel, small-size A housing	1 x 7/8Ah	235 x 170 x 85	1.46kg
D1545-B *	Steel, medium-size B housing	2 x 7/8Ah or 1 x 17Ah	260 x 320 x 90	2.30kg
D1545-LB *	Steel, clam-shell lid, LB housing	2 x 7/8Ah or 2 x 17Ah	260 x 320 x 90	3.10kg
D1545-XLB *	Steel, standard-size XLB housing	2 x 7/8Ah or 2 x 17Ah	295 x 425 x 90	3.25kg
D1545-XLBD *	Steel, extra-deep XLBD housing	Up to 4 x 17Ah	295 x 490 x 165	5.20kg
D1545-C *	Steel, large C-size housing	2 x 7/8Ah or 2 x 17Ah	345 x 430 x 90	3.40kg
D1545-E *	Steel, extra-large E-size housing	2 x 7/8Ah or 2 x 17Ah	405 x 500 x 90	4.65kg
D1545-G*	Steel, extra-large G-size housing	2 x 24Ah or up to 4 x 17Ah	690 x 455 x 165	8.75lg
D1545-W	Plastic IP65, W-size housing	1 x 2.1Ah or 1 x 7/8Ah	245 x 195 x 90	1.45kg
D1545-P	PCB-only version	Depends on housing	140 x 94 x 47	0.26kg

Notes: * To order a black version, please add a -BK product code suffix to the part number, e.g. D1545-XLB-BK

Dycon Accessories for use with D1541, D1542 & D1543, these can be specified to be factory-fitted into a specific PSU housing			
D15X8-500mA	8-way output splitter (8 x 500mA glass fuses)	49 x 108 x 17	0.70
D15X8-1A	8-way output splitter (8 x 1A glass fuses)	49 x 108 x 17	0.70
D15X4-BNP	4-way output splitter with 4 x BNC sockets & video loop-through	71 x 128 x 15	0.80
DFX4-0P	4-way output splitter with 4 x self-resetting PET fuses	40 x 60 x 19	0.20
DFR-1-12	12VDC universal output relay module	40 x 16 x 19	0.26

Specification

Power Supply	Type A, Ungraded, Environmental Class 2
Voltage Input	230VAC +10% -15%; 50Hz ± 15%
AC Input Current	600mA
AC Input Fuse	3A
Output Voltage with AC Power	Maximum 13.7VDC nominal
Output Ripple	25mV peak-to-peak at full rated output
Maximum Output Current @ Full Load	5A
Battery Charging Current and Voltage	300mA at 13.7VDC float charge voltage
Maximum Over-Voltage Cut-Out	14.4VDC ±3%
Low Battery Fault	11VDC ±3%
Low-Voltage Power Output Fault	12.3VDC ±3%
Battery Deep Discharge Voltage Limit	10VDC ±3%
Automatic Reset Time	10ms to 18s (Depending on type of duration of fault)
LED Indicators	GREEN - 230VAC is present ORANGE - Working on internal batteries as 230VAC is missing RED - No 12VDC output power, electronic output fuse tripped
Operating Temperature	-10˚C to +40˚C
Humidity	95% non-condensing

In case of problems, telephone Dycon Technical Support on +44 (0)1443 471 900

or email: - sales@dyconpower.com website: - http://www.dyconpower.com