



DYCON
power solutions

Installation Manual for D154X Series Multi-Indicator, General Purpose 12VDC -13.6VDC Power Supplies

D154X Series	
D1541	12Vdc-13.6VDC 1Ampere
D1542	12Vdc-13.6VDC 2Ampere
D1543	12Vdc-13.6VDC 3Ampere
D1545	12Vdc-13.6VDC 5Ampere

Installation

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

- Mount the metal enclosure onto the wall.
- Connect the tamper outputs to the control panel as appropriate (see control panel manuals for details).
- Connect the 12v power output to the system.

External Power Supply (AC Supply)

The power supply has a three-way terminal block for 230VAC power supply connections.

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

The connector is protected by a non-replaceable, 20mm anti-surge fuse.

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

Mains earth is isolated from the 0V output, although, when supplied boxed, mains earth is connected to the metal enclosure and lid.

- **NOW fit the battery!**

Tamper Output

This voltage-free output is connected to the tamper switch. These terminals will be closed/shorted when the tamper switch is closed (pressed in).

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 (13.6 volt due to battery charging) is available from these terminal blocks.

Auxiliary Power Supply (batteries)

These power supplies are compatible with 2.2AH, 7AH/8AH and 17AH 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 electronic 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. The PSU has deep discharge protection set at 10 volts.

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.

Specifications

Power supply	Type A, ungraded, Environmental Class 2
AC input voltage	230 Volt +10% -15%, 50Hz ± 15%
Output voltage	13.6 VDC nominal
Output ripple PP	Less than 100mV (less than 0.7% @ 13.7V)
Battery recharge time (1 x 7Ahr batt)	Less than 36 hours (250mA)
Operating temperature range	-10°C to +40°C

All units are fused in the 230V AC supply. The D154X Series power supply fuses require no user intervention.

Product Part Numbers

	PCB-only	"A" box	"B" box	"C" box	"E" box	"G"
1 Amp	D1541-P	D1541-A	D1541-B	D1541-C	D1541-E	D1541-G
2 Amp	D1542-P	D1542-A	D1542-B	D1542-C	D1542-E	D1542-G
3 Amp	D1543-P	D1543-A	D1543-B	D1543-C	D1543-E	D1543-G
5 Amp	D1545-P	D1545-A	D1545-B	D1545-C	D1545-E	D1545-G

See separate data sheet and manual for details of suitable output splitters.

Sizes and Weights (standard size housings)

	"A" size housing	"B" size housing	"C" size housing
Size (h x w x d) mm	235 x 170 x 85	260 x 320 x 90	345 x 430 x 90
Weight (kg)	2.0kg (empty)	3.2kg (empty)	4.5kg (empty)

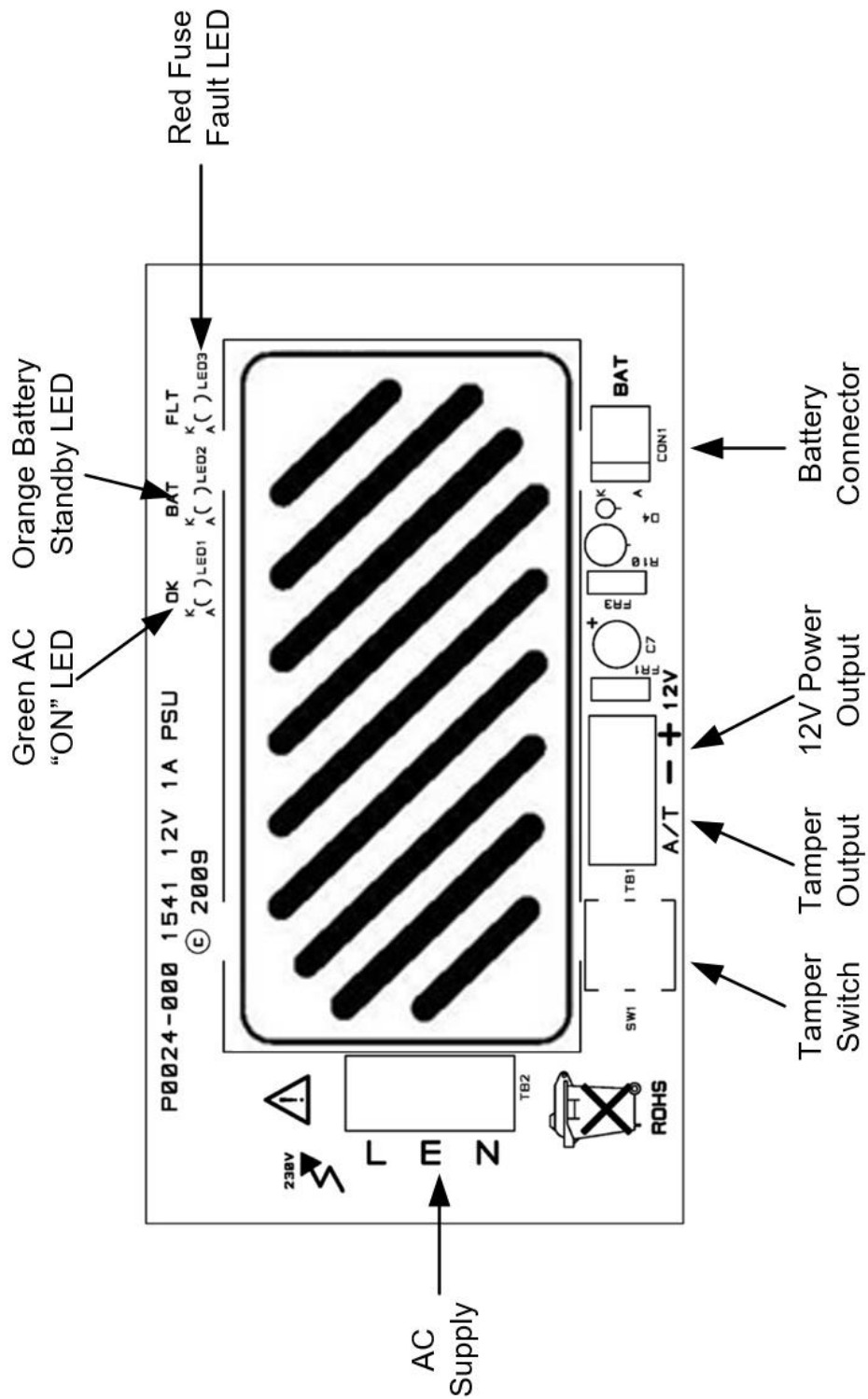
The following, larger housings are available for use when you need to fit bigger batteries or other secondary system equipment, in addition to the supplied D154X-series power supply unit.

	"E" size housing	"G" size housing
Size (h x w x d) mm	500 x 405 x 90	456 x 687 x 116
Weight (kg)	5.2kg (empty)	8.9kg (empty)

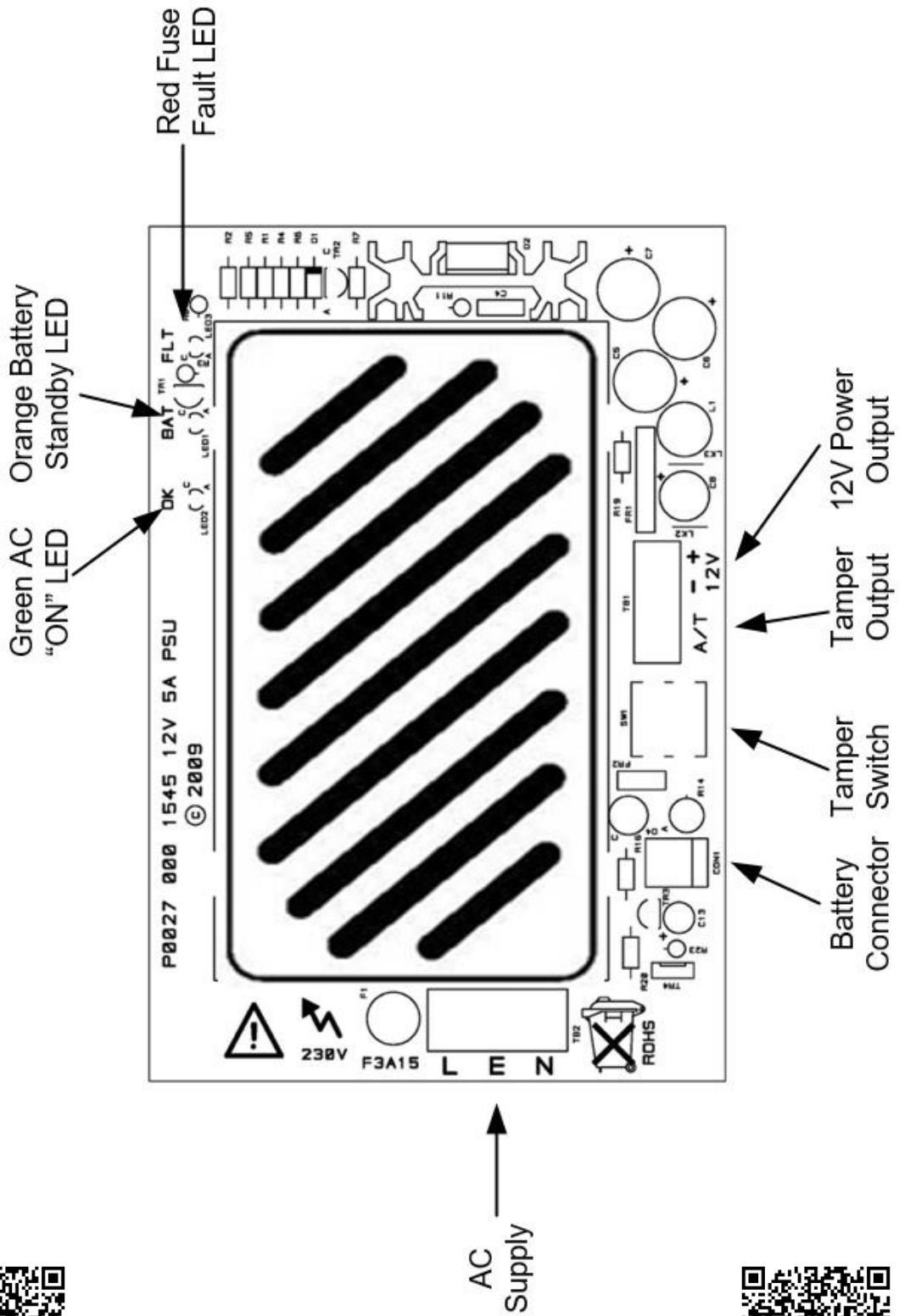
PCB sizes

	D1541-P / D1542-P / D1543-P	D1545-P
Size (h x w x d) mm	130 x 100 x 38mm	140 x 95 x 56mm
Weight (kg)	0.19kg	0.24kg

Layout – D1541 / D1542 / D1543



Layout – D1545



Datasheet



Manual