

USER GUIDE – REF. PSF-249

POWER SUPPLY/CHARGER – 24V DC 10 AMP UNIT

General

This power supply unit is for powering a 24V DC 10 Amp load and also incorporates a 27.6V DC charger for use with Sealed Lead Acid Batteries up to 24Ah*. Batteries should be 2 x 12v, wired in series and of equal type and state of charge. The total load should not exceed 10 Amps. The unit should be fitted in an upright position on a solid surface using the fixing holes provided and the vent slots should not be blocked.

* Note: The charger circuit incorporates 'real' battery monitoring in accordance with EN 54 – 4. There will be charging voltage present at the battery terminals only when a battery is connected (this is pre-set at the factory to approx. 27.6V), otherwise the measured voltage will be approx. 2.0V. In the absence of mains the power supply will change over to battery back up which will continue to supply the load until the battery voltage drops to approx. 19V.

Supply

Supply to the unit should be 240V ac 50Hz and an earth should be fed to the unit via a 5 amp -fused outlet, fitted adjacent to the unit. The mains supply in the enclosure should be wired into the fused terminal block next to the PCB. The unit should be earthed.

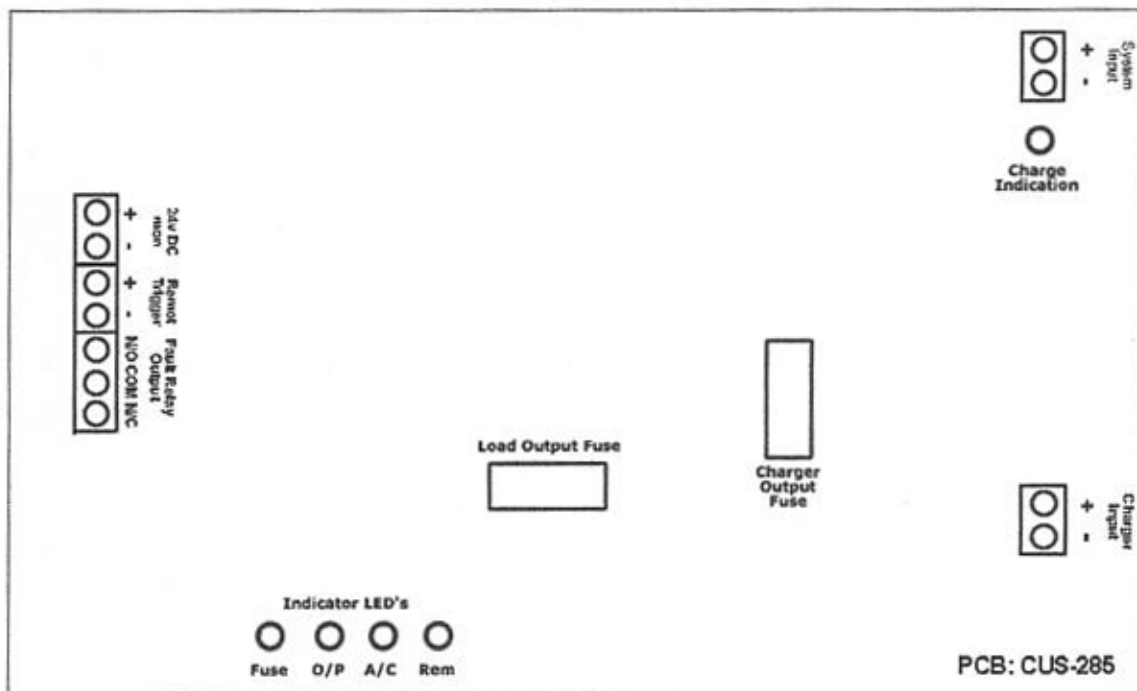
Operation

This unit as supplied will give out voltage continuously at the terminals, which are marked 'LOAD'. Polarity is marked and must be observed.

Remote Trigger Input – An input of 5 to 24VDC applied to "REM" (J2) will switch off the 24V load output (the Red LED will illuminate). When the trigger input is removed the 24V output will be re-instated.

Connections

User connections on the PCB are as shown:



Lid Indicators

Green = Supply Healthy

Amber = Fault

When the Green light only is illuminated, the unit is operating normally with supply to the load and the batteries (when fitted) are receiving charge current. When the Amber light is illuminated at the same time as the Green light there is a fault on either or both of the output supply and the charge supply. If the Green light is NOT illuminated, the mains supply is not present.

PCB Fuse

FS.2. = 2 Amp (20mm x 5mm)

Output Fuse

Standard automotive = 10Amp

PCB Indicators

Amber LED 5 = when lit indicates blown battery fuse or mains fail

Green LED 6 = when lit indicates 'real' battery charging in progress

Green LED 2 = when lit indicates the output is present.

Green LED 3 = when lit indicates the mains supply is present.

Amber LED 1 = when lit indicates there is an output fault/blown fuse.

Red LED 4 = when lit indicates there is a trigger input.