

Rapidlogger Systems

DC-UPS Power Supply

This tech note describes how to trouble shoot issues with power input and output connections on a Rapidlogger System's DC-UPS power supply.



The Rapidlogger System DC-UPS power supply accepts power input from 9 to 36 Volts DC. This make it is possible to connect it directly to both 12 and 24 Volt battery type truck electrical systems.



Rapidlogger Systems

The DC-UPS contains a DC-DC power converter board, battery charging circuitry and a failover circuit to switch to backup battery power. The DC-UPS takes in dirty 9-36V DC and outputs a clean regulated constant 24VDC. Even if the input power is interrupted the output remain on until the battery drains.

Power Supply Trouble shooting

- 1) When power is supplied to the DC-UPS the input power LED comes on. If this LED is not lit then input power is not being supplied to the DC-UPS.

Check input power and polarity



- 2) When the switch is turned on then the output power LED comes on. If input power LED is on but output power LED does not come on then check for input power voltage level.

Check input power Voltage value

- 3) If both LEDs are on but the DC-UPS does not power up the Rapidlogger System then the fuses need to be checked.

Open the DC-UPS lid, check fuses

- 4) If reverse polarity is provided to the DC-UPS input the F1 fuse will blow. The red input wire is +V DC and the black input wire is -V DC

Correct input power reverse polarity, replace the fuse

Rapidlogger Systems

- 5) If higher than 40VDC is provided to the DC-UPS then the fuse F1 will blow
Correct input voltage level, replace the fuse
- 6) If output power is shorted then Fuse F3 will blow
Clear the short and replace the fuse
- 7) If DC-UPS internal battery connections are shorted out or the battery is damaged then the Fuse F2 will blow
Correct the battery or battery terminals short and replace the fuse



