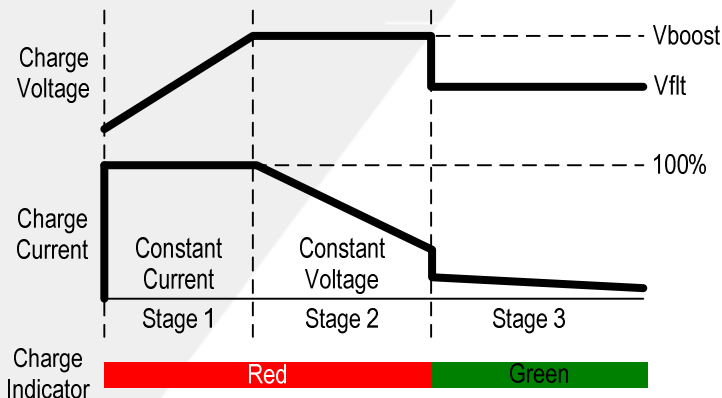


PX300 Charger – Operation and Testing

EC400\450 and EC500 installations incorporate the PX300 Intelligent Battery Charger. The unit can also be installed as a stand alone battery charger.



This charger operates using 3 stages during the charge process (See graph opposite)

During stage 1 the battery voltage is increased gradually while the current is limited to start the charging process and protect the battery.

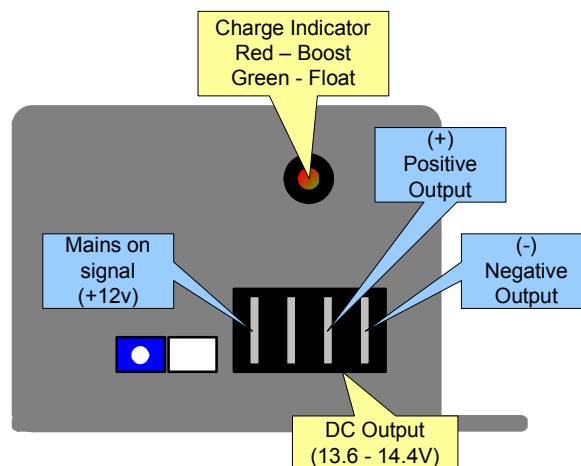
At stage 2 the voltage rises to 14.4V(V_{boost}) to deliver the bulk charge. When the battery is fully charged, the voltage is decreased at stage 3 to 13.6V(V_{flt}) to deliver a float charge to maintain the battery in the fully charged state.

Charger Testing:

1. Locate the leisure battery(s) and temporarily disconnect. *Removing the 20A leisure battery fuse located in the PSU or locally to the battery is the easiest way to achieve this (NB: Check this fuse has not blown).*
2. With the 12V power turned off at the control panel over the door, and the charger turned on, Observe\Measure the charger output voltage.

This can be viewed on LCD screens (where fitted to the PSU or the LCD Control Panel is fitted) or via the Level Indicators on LED control panels.

This should be 13.6V (+/- 0.1V). Also observe the Charge Indicator LED on the charger. This should show green.



3. Now turn the power on at the control panel and turn all the lighting (Or similar load) on within the van to place a load over 1.5A on the system.

Observe\Measure the charger output voltage. This should be 14.4V (+/- 0.1V). Also note the Charge Indicator LED on the charger should now show red.

4. Remove the load and ensure the voltage drops back to 13.6V and the Charge Indicator goes green.

Faults:

EC400\450 and EC500 PSU's have a 25A charger fuse located on the circuit board at the rear of the unit, If no 12V power is present with the leisure battery removed check this fuse first before proceeding to check the charger.

Where voltages lower than 13.6V are present, the charger may be at fault or could have reduced its output due to a fault condition within the installation. In this instance the output voltage should be measured "Open Circuit" to confirm the fault.

To do this remove the DC Output Connector from the charger and measure the voltage with a Volt Meter directly at the charger +/- output terminals, this should be 13.6V (+/- 0.1V).

If the open circuit measurement is 13.6V this proves the charger is operating correctly and points towards a fault within the electrical installation which should be investigated further. A significantly lower voltage would indicate a fault with the charger and the unit will require replacement.