12 volt to 24 volt dc
10 Amp Split Charger
part 0-852-51

Overview

The split charger is a 12 volt dc to 24 volt dc 10 amp unit designed to charge and maintain a 24 volt auxiliary battery bank from a 12 volt dc system. It has a three stage micro processor controlled charging system (constant current, constant voltage and float mode, see diagram overleaf) and uses voltage sensing for automatic cut in and drop out of charge from the 12 volt system, so will not charge the 24 volt auxiliary battery bank until the 12 volt main battery is charged or being charged.

Installation Instructions

Read all installation instructions before attempting to install the split charger. An installation wiring diagram is shown on the reverse of this leaflet. Any suitable dc source can be used to provide the input voltage for the charge splitter such as an 12 volt alternator, battery charger,wind generator.

1.Disconnect all battery leads, -ve leads first.

2.Locate a suitable position for the split charger and fit securely. Choose a position near to the charging source that affords protection from extreme heat and ingress of oil and water, the unit is not sealed and must be protected from the external environment. Ensure there is a free flow of air around and under the unit.

3.Connect the 'Output 24v' leads to the 24 volt auxiliary battery bank, red wire to the +ve terminal and black wire to the -ve terminal of the battery.

4.Connect the 'Input 12v' leads to the 12 volt dc source, red wire to the +ve terminal and black wire to the -ve terminal of the batteries or dc supply.

Operating Instructions

5. The split charger can be left permanently attached and will switch on and off automatically to ensure the 24 volt auxiliary battery bank is kept charged. The unit will switch on whenever the dc supply voltage exceeds 13.7 volts nominal and off when the voltage falls below 12.6 volts nominal after a delay of 15 minutes.

6. Two LED indicators indicate the unit status:

Red LED ..... Main Charge (constant current)
Flashing Red LED ..... Final Charge (constant voltage)
Green LED ..... Float Charge
No LED ..... Split charger off

7. If the input voltage rises above 13.0V during the 15 minute delay the timer will stop and normal charging is resumed.
8. If the voltage falls below 10.5V the charger will switch off.

Notes:
The constant voltage charge period is automatically limited to prevent overcharge and the unit will automatically shut down if the charge cycle time from main to float exceeds 18 hours.
Only one charging source may be connected to this unit at any one time.
No liability can be accepted by the company for damage caused by incorrect installation.

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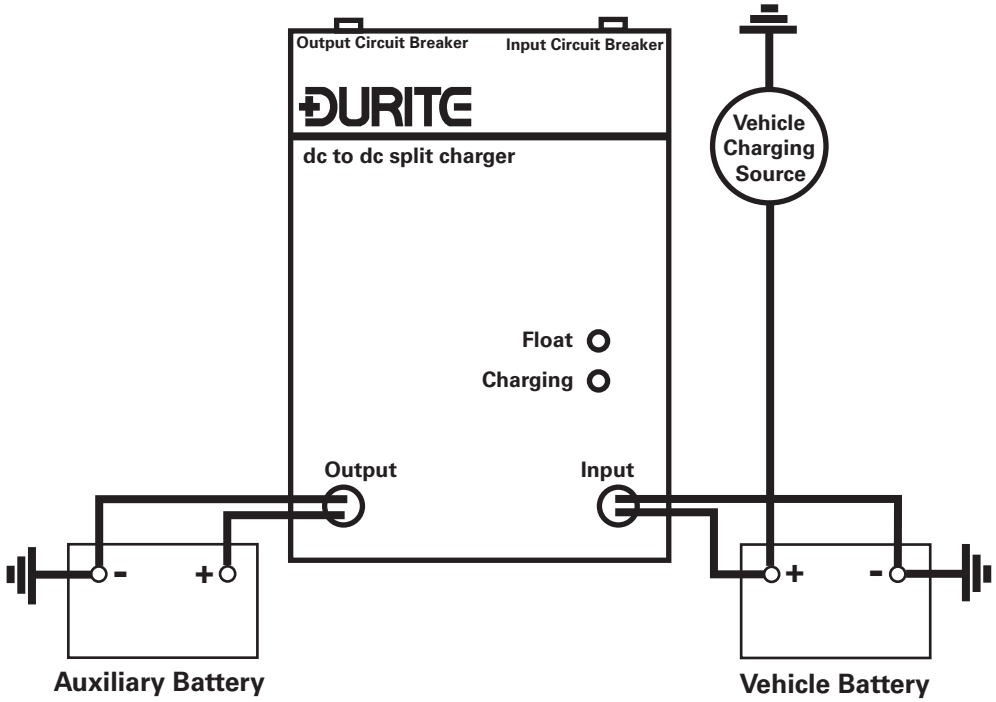
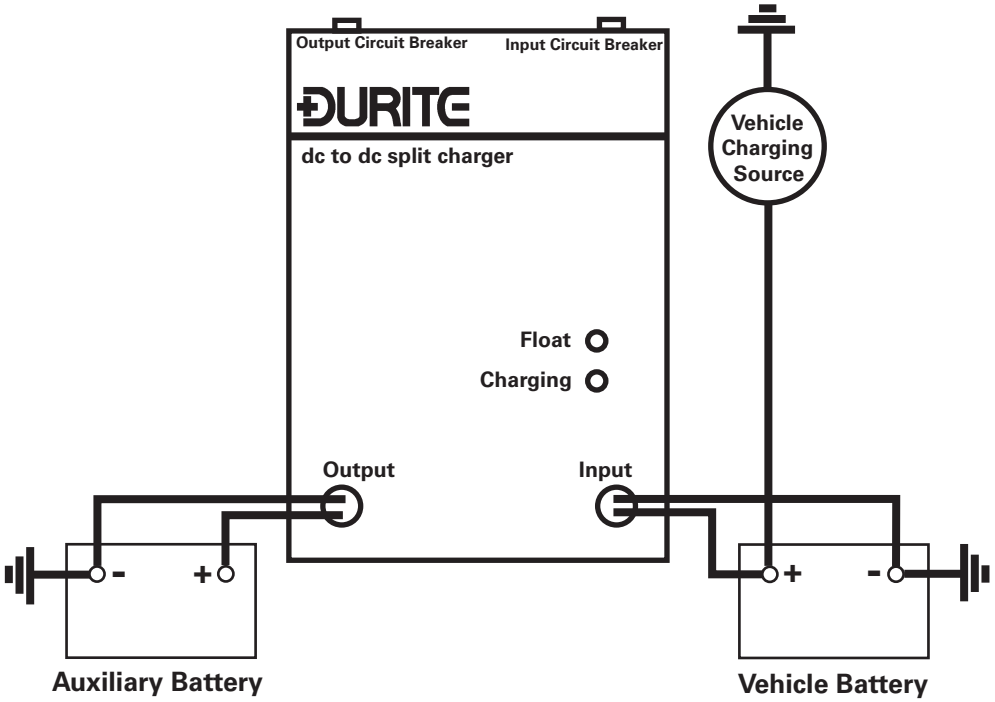
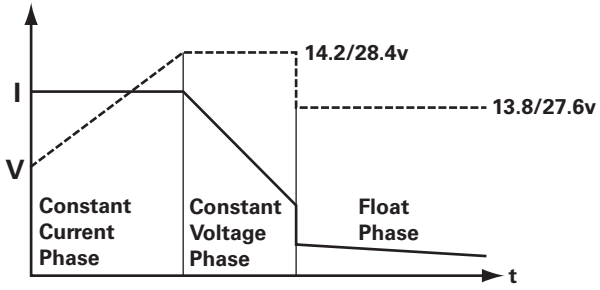


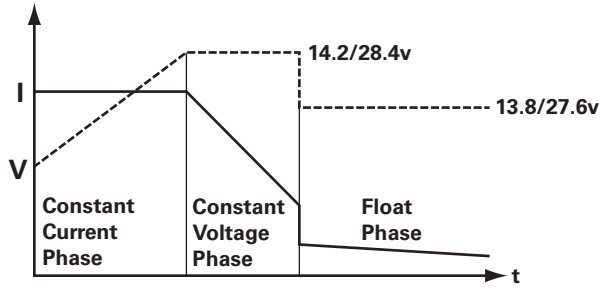
Circuit connection diagram, red +ve, black -ve.



Circuit connection diagram, red +ve, black -ve.



Three stage charging cycle.



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