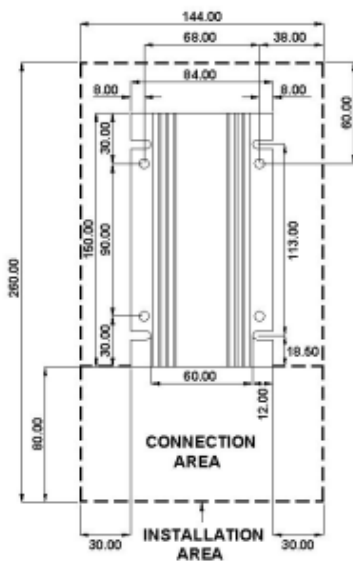




15A Chargers Range : Installation Instructions

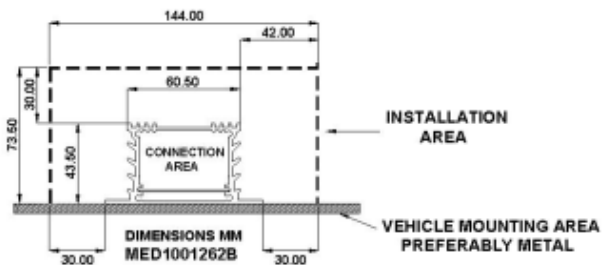
- This Battery Charger allows you to charge an Auxiliary Battery from a Vehicle Starting Battery Charger System.
- This unit is suited to Ignition control, Constant Voltage Alternators, Euro 5 & Euro 6 engines, STOP/START, Smart Alternators & Vehicles with Regenerative Braking. (Mercedes Blue Efficiency Vehicles, VW Blue Motion Vehicles, Ford ECOnetic Vehicles, Vauxhall ecoFlex vehicles to name a few).
- The unit is shipped configured for optimum operation with any lead acid battery & engine run detection or Ignition control. The Serial Interface in conjunction with the Ablemail Software Interface allows the unit to be configured to meet specific battery / customer requirements.
- Two or more Battery Chargers can be used in parallel to allow more current flow to the recipient battery.

Mechanical: This unit should be mounted as / the drawing subject to guidelines below .



NOTES:

1. 4off fixing holes 6.50mm Ø.
2. 4off slots 6mm x 10mm.
3. Recommended air space around heatsink:- top, sides and non connector end 30mm (as dashed lines).
4. Connector end space 80mm absolute min (as dashed lines).
5. Recommended mounting:- metal base.
6. Orientate Led for visibility.
7. Do not fit near heat sensitive material or components as case may reach temperatures up to 75 deg C.
8. Do not fit near heat sources such as exhaust or heater pipes.



Electrical:

The converter should be mounted as close to the battery being charged as possible & connected as below. The Ignition feed should be connected to the vehicle battery. This is suited to most Euro 5 & Euro 6 vehicles. If the user wishes to connect to the ignition the charger must be configured to operate on an ignition signal .

IMAGE No : 511009B

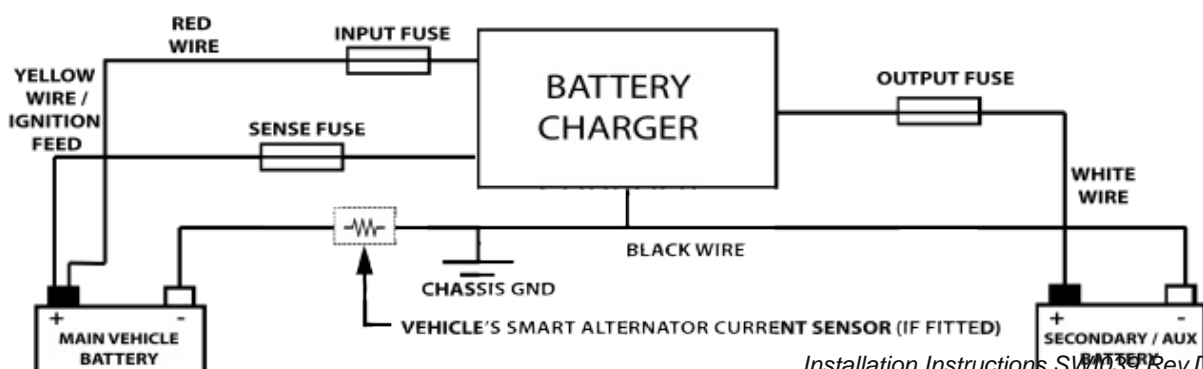
WE RECOMMEND FITTING:

- 20A INPUT POWER FUSE & 20A OUTPUT POWER FUSE TO PROTECT THE VEHICLE WIRING SYSTEM.
- 1A FUSE IN V-REMOTE TO PROTECT VEHICLE WIRING.

NOTE: THE PERFORMANCE OF ANY PRODUCT CAN BE IMPROVED BY USING THICKER SUPPLY CABLE, INCLUDING THE GROUND CONNECTION & CONNECTING REMOTE INPUT POWER CABLE TO THE INPUT BATTERY.

IF THE INPUT / OUTPUT POWER CABLES NEEDS LENGTHENING:

- MINIMUM SIZE: 3MM SQ FOR UP TO 1.5M.
- MINIMUM SIZE: 6MM SQ FOR LONGER RUNS.



Connection Procedure / Power up Sequence:

To ensure normal operation:

1. The secondary battery must be connected first to the charger output & common ground. If this is not done the unit flashes amber for up to 10 minutes.
2. Then the charger input & remote input (if fitted) can be connected to the primary battery.

Operation:

Each charger operates as described below:

- The charger operates with an input voltage between 9V & 32V.
- The Remote Input wire controls the charger turn on/off according to the configuration.
- The output current is limited at 15A for each charger.
- In case of a low input voltage (<9V), the output voltage is reduced to prevent damage to the charger.
- The charger is protected against overheating & resets when it cools down.

NOTE: The LED shows the charger state:

- Flashing Red - In fault mode (see codes below of number of short flashes followed by number of long flashes).
- Flashing Amber - Battery flat ;constant current/bulk charging at 14.1V(12V secondary battery)28.2(24V secondary battery).
- Flashing Green - Battery charged; float charging at 13.8V (12V secondary battery) 27.6V (24V secondary battery).

Due to the nature of blue motion vehicles when load is being drawn for airconditioning / window heating...etc... Stop/Start may not function as you would expect. This is not a fault of the vehicle or a result of the battery charger.

Trouble Shooting:

- Check voltage at output pins is the same as the batteries & polarity is correct.
- Check fuses OK.
- Check Led flashes status as power is applied to Ignition feed (Yellow wire).

If unit flashes AMBER but battery voltage is not increasing wait 10 minutes and recheck.

IMAGE No : SI1003A

FAULT MODE	FAULT CODE RED LED	
	SHORT FLASHES	LONG FLASHES
ENGINEER MODE	3	0
LOCAL INPUT VOLTAGE BELOW 9V	3	1
LOCAL INPUT VOLTAGE OVER 36V	3	2
LOCAL INPUT VOLTAGE OVER 33V	3	3
CHARGE CONTROLLER POWER DEVICES TEMPERATURE		
MICRO TEMPERATURE OVER 70°C	3	4
FET TEMPERATURE OVER 115°C	3	5
THERMISTOR DISCONNECTED	3	7
DAMAGED BATTERY DETECTED	3	8

If the unit is still not working satisfactorily Please contact Ablemail Technical on 0161 745 7697.

Optional Extras:

The Ablemail Software Interface , a windows pc & the serial communication cable MEU100086 allows many of the settings to be changed to meet a specific customer requirement.

If the external interface uses 2 x 5 way terminal block organized as shown below: If this is fitted more advanced operational control functions are available:

- The serial communication cable 'MEU100086' allows monitoring, re-configuring of the charger .
- The remote temperature/output cable 'MEU100085' allows more accurate secondary battery voltage control & temperature compensation of the charging regime.
- The external status/alarm unit 'MEU100087' allows external monitoring of the charger status.
- These additional features need the interface board.

This interface uses terminal block organized as shown below, If this is fitted more advanced operational & control functions are available.

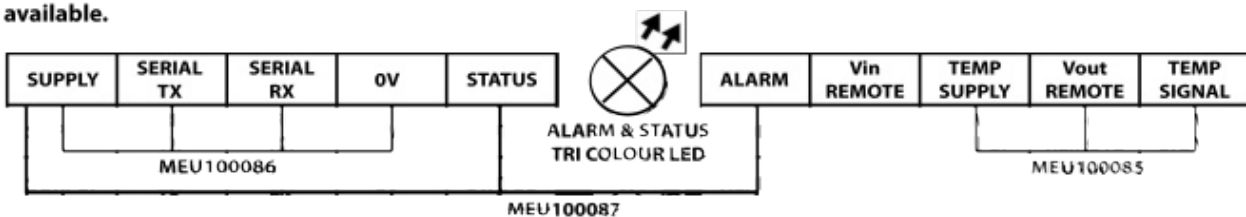


IMAGE No : SI1007A

If you require any assistance or advice on this product & or its safe integration with other electrical equipment, Please contact Ablemail Technical on +44(0)161 745 7697 *Installation Instructions SWI039 Rev.D 2/2*