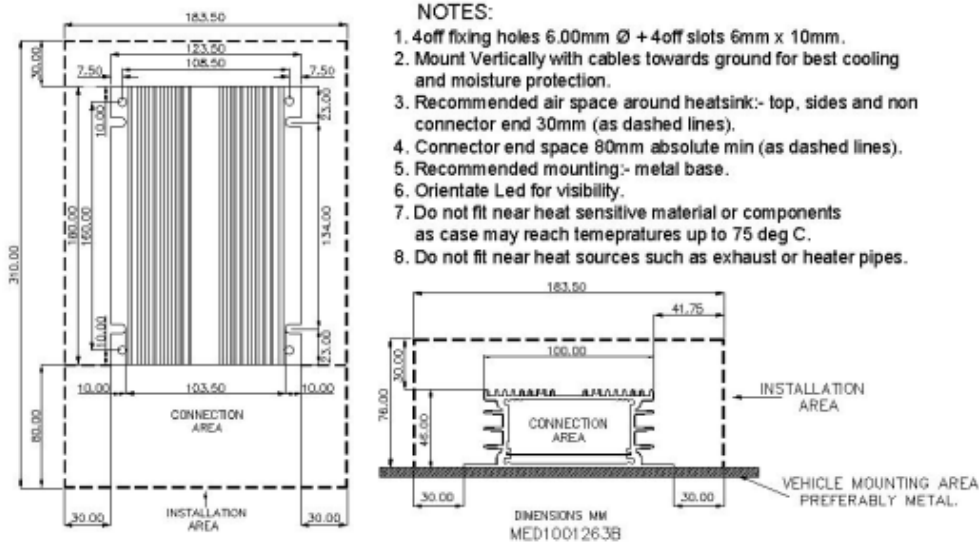




## 30A Chargers Range : Installation Instructions

- 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 .



## Electrical:

The converter should be mounted as close to the battery being charged as possible & connected as below. The Remote Input wire 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 .

**WE RECOMMEND FITTING:**

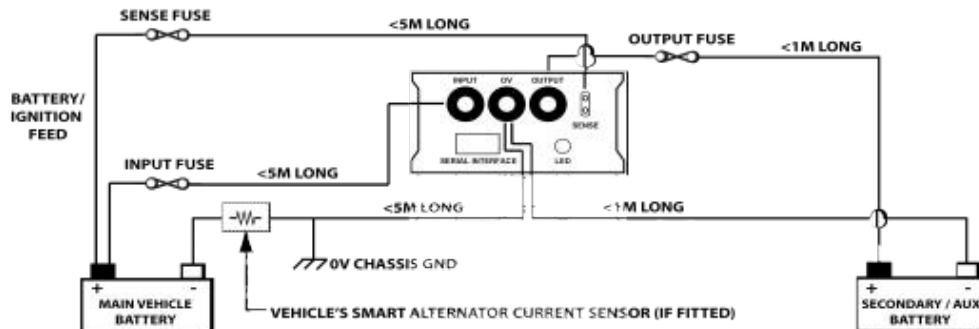
- 50A INPUT POWER FUSE & 50A OUTPUT POWER FUSE TO PROTECT THE VEHICLE WIRING SYSTEM.
- 1A FUSE IN V-REMOTE TO PROTECT VEHICLE WIRING.

IMAGE No : 5I1003C

**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 CABLE SIZE: 6MM SQ FOR UP TO 1.5M.
- MINIMUM CABLE SIZE: 10MM 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 30A 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: S11003A

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
<b>CHARGE CONTROLLER POWER DEVICES TEMPERATURE</b>		
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.**

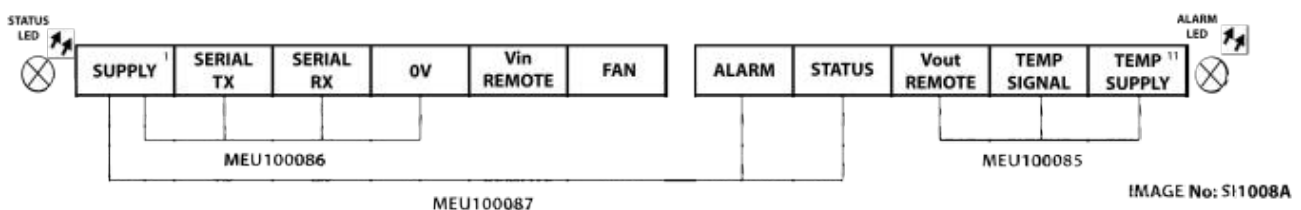
### Optional Extras:

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 board is fitted with additional wiring, more advanced operational & control functions are available:**

- The serial communication cable 'MEU100086' allows monitoring & re-configuring of the DC DC Converter of the output voltage.
- The remote temperature/output cable 'MEU100085' allows more accurate control of the output voltage & temperature control of an enclosure fan.
- The external status/alarm unit 'MEU100087' allows external monitoring of the converter 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.**



**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 SWI040 Rev.D 2/2*