

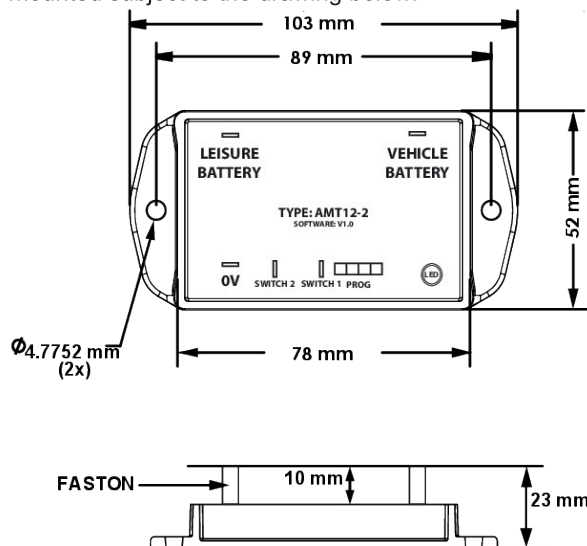


AMT12-2PRO Installation Instructions

The AMT12-2PRO is a 2A Trickle Charger / Battery Maintainer for maintaining a Vehicle Battery at full charge when a Solar or Mains Charger is used to charge a Leisure / Auxiliary Battery. The Trickle Charger charges the Vehicle Battery if the Leisure Battery is at more than the Leisure Battery threshold and the Vehicle Battery is less than the Vehicle Battery threshold. The unit charges for 3s and then switches off for 15s. The current is limited to a maximum of 3A. It also charges if the Leisure Battery is 0.3V (1.0V Lithium) higher than the Vehicle Battery and the Vehicle Battery is less than 12.1V. This is to pool charge and optimise the retention of charge across both Batteries to maintain Battery life. There is no charging if the Vehicle Battery is flat (ie less than 11.5V).

The unit is shipped configured for a Smart Alternator Vehicle & Regenerative Braking ie SETTING 4 in the table below but it is easily reprogrammed using a mobile phone, an ios or android phone and the Ablemail Device Manager App. The customer can configure for use with Lithium Batteries. The unit is also configured to automatically detect Battery Voltage & so will work with 24V Batteries.

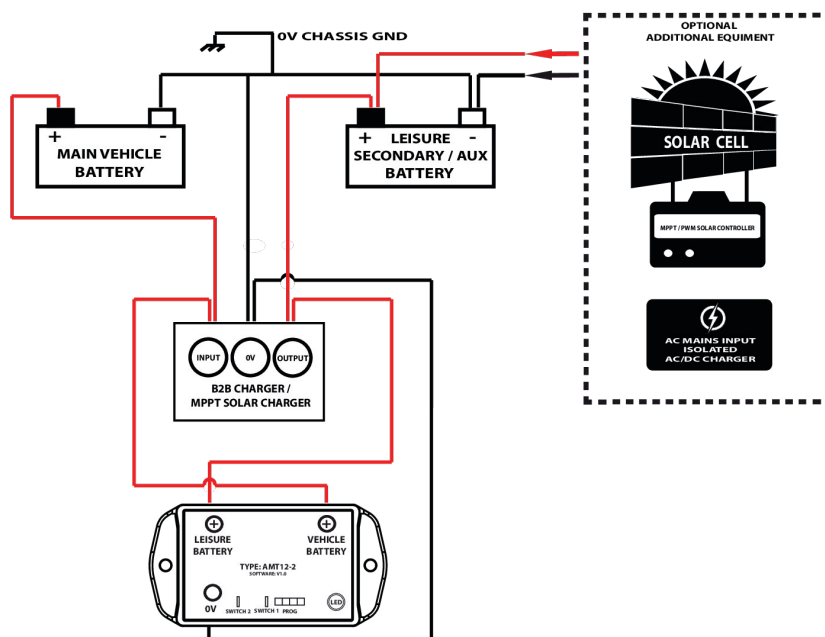
Mechanical: This unit should be mounted subject to the drawing below.



Electrical:

INSTALLATION WIRING GUIDE:

ENSURE MAIN VEHICLE INPUT SUPPLY & BATTERY OUTPUT CABLES CONNECT TO THE B2B CHARGER **NOT** AMT12-2 UNIT.
* MINIMUM CABLE SIZE: 1.5MM SQ * BETWEEN AMT12-2 & B2B CHARGER / MPPT SOLAR CHARGER.



Connection Procedure:

Connect The +ve inputs and -ve inputs from the Leisure Battery and the Vehicle Battery as per the drawing above .

Download the Ablemail Device Maanger App from the Apple Store or Google PlayStore .

Open the App and follow the instructions to connect

Choose the profile you want to suit your application . If you feel the standard settings do not meet your system requirements change the settings and upload your bespoke settings to the AMT12-2PRO .

Operations: The Trickle Charger / Battery Maintainer programmed profiles in the Ablemail Device Manager App are :

	Charger Type	Leisure Battery Threshold	Vehicle Battery Threshold	Battery Type
Setting 1 / 5	Standard Alternator / Ignition	Leisure Battery >13.0V	Vehicle Battery >12.8V	All types of Lead Battery
Setting 2 / 6	Standard Alternator / Ignition	Leisure Battery >13.5V	Vehicle Battery >12.8V	Lithium Battery
Setting 3 / 7	Smart Alternator	Leisure Battery >13.5V	Vehicle Battery >12.4V	Lithium Battery
Setting 4 / 8	Smart Alternator	Leisure Battery >13.0V	Vehicle Battery >12.4V	All types of Lead Battery

Settings 5-8 are high power versions of settings and are used to cater for high parasitic drain applications while settings 1- 4 are suitable for most applications. Setting 4 is the factory default setting.

All settings switch off when Vehicle Battery is below 11.5V. The charge cycle is 6 or 10s on 15s off, When the voltage on the Auxiliary / Leisure Battery exceeds the switch on voltage and the Vehicle Battery is between 11.5V and the Vehicle Battery threshold the Trickle Charger will feed upto 3A into the Vehicle Battery in 3s bursts, The led will illuminate GREEN when this current is flowing.

When the voltage on the Auxiliary/Leisure Battery exceeds the Leisure Battery threshold and the Vehicle Battery Voltage is above the Vehicle Battery, Threshold the led will flash AMBER once every 10s to indicate the charging circuit is enabled and the Vehicle Battery is charged. If the Leisure Battery is above the Leisure Battery threshold and the Vehicle Battery is below 11.5V, AMT12-2 will flash RED.

It is possible to activate the AMT12-2PRO to charge the vehicle battery whatever the voltage levels of the batteries are using the OVERRIDE button on the Home screen of the Ablemail Device Manager App . This mode operate for a specified time period so there is no risk of completely flattening the leisure battery

Trouble Shooting:

- Check Voltage at Vehicle and Leisure Battery input pin +ve's are sufficient to trigger according to the mode selected and polarity is correct using the Ablemail Device Maanger App.
 - 1) Is Leisure Battery greater than Leisure Battery Threshold ? This should cause the AMBER led to flash for 1s every 10s.
 - 2) Is Vehicle Battery less than 11.5V and Leisure Battery greater than Leisure Battery Threshold ?The Led will flash RED 1s every 10s.
 - 3) Are Vehicle Battery between 11.5V, the Vehicle Battery Threshold and Leisure Battery greater than the Leisure Battery Threshold ?, The led will flash GREEN for 3s every 15s.
- Check fuses OK.
- Check Led flashes correct program mode as power is applied between Leisure Battery Input and Ground with terminal switch SW1 connected

Optional Extras available with all units :

There is a full range of AMT trickle chargers for 12V to 12V; 12V to 24V; 24V to 24V and 24V to 12V systems so if this unit does not fit your requirements please look at the other products in the range or ring our office. Of particular interest where very high parasitic loads exist is the AMT12-12-5 which delivers over 5A continuously .



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 SWI049