



Ablemail Electronics

A Division of Merlyn Electronics

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PART NUMBER : AEC12-12-30 - UNIT ONLY

ELECTRIC VEHICLE / ELECTRIC HYBRID VEHICLE – EV AUXILIARY BATTERY TO BATTERY CHARGING SYSTEMS.

Ablemail Electronics working closely with electric vehicle manufacturers and specialist vehicle converters has produced a advanced 30A automotive 12 Volt DC Battery to Battery charging systems designed specifically for full electric & electric hybrid vehicles . The system has been designed using advanced but proven state of the art electronic technology . The system and its component parts are manufactured and tested in our ISO9000 VCA approved factory in Manchester .

The AEC12-12-30 can use EV ECU signals ,EV chassis battery voltage levels, an Ablemail AES-001 Advanced AC/DC charging detector, a CAN interface signal or any available mains charging indicator signals to ensure the auxiliary battery which is needed for customer loads such as inverters , beacons and scene lighting is fully charged while the charging of the traction batteries is completed by an Electric Vehicle (EV) charging point .

The AEC12-12-30 then only charges the auxiliary battery in an emergency situation or to a specific state of charge percentage (usually 20%) when driving or parked (without mains charging) in order to have no / minimal impact on range. The programmeability of the AEC12-12-30 means it can be optimised to solve the issues of auxiliary 12 Volt DC battery charging on full electric & electric hybrid vehicles in most installations. This unit works with rapid vehicle AC chargers & rapid vehicle DC chargers but for combined detection 2 non invasive AES001 sensors are usually required.

AUTOMOTIVE AUXILIARY BATTERY COMPATIBILITY.

The EV Auxiliary Battery Charger (AEC12-12-30) is fully compatible with all the most readily available +12 Volt DC auxiliary battery types including AGM, GEL, Flooded and sealed lead acid battery variants and Lithium batteries up to a Maximum of 250Ah total capacity . The AEC12-12-60 is recommended for larger capacity battery packs .

The AEC12-12-30 can be programmed to any of these battery types on shipping or it can be programmed on site using the in built bluetooth and the Ablemail Device Manager phone App for IOS and google devices.

ELECTRIC VEHICLE JUMP START FEATURE. (WHERE FITTED)

The AEC12-12-30 is programmed to never reduce the +12V chassis battery below 12.2V but the unit can be equipped with a timed jump start (AEP12-200A or AER12-30A) which allows th EV to be powered up and driven even if the electric vehicle +12-volt DC chassis battery has become depleted or flat while the electric vehicle has an adequately charged high voltage drive train battery .



The Jump start feature can be triggered when entering drive mode or through a manual button.

ISOLATION	Non-Isolated
INPUT VOLTAGE	12 Volt nominal vehicle supply (9-32V).
OUTPUT VOLTAGE	12 Volt Varied as required for battery charging programme
OUTPUT LOAD CURRENT	30A max. See AMNperformance for more detail
NO LOAD INPUT CURRENT	Max 2mA @ 12V input.
PROTECTION	Output overload & over temperature protection with fully automatic reset.
OPERATING TEMPERATURE	Maximum 70°C. Minimum -30°C
STANDARDS	E11 Approval-Immunity requirements UNECE regulation 10 issue 4 Which covers all aspects of EN50489:2010 & CE Approval-Immunity to requirements of EN61204-3
SIZE AND WEIGHT	Length: 200mm, Height: 46mm, Width: 124mm, 700g



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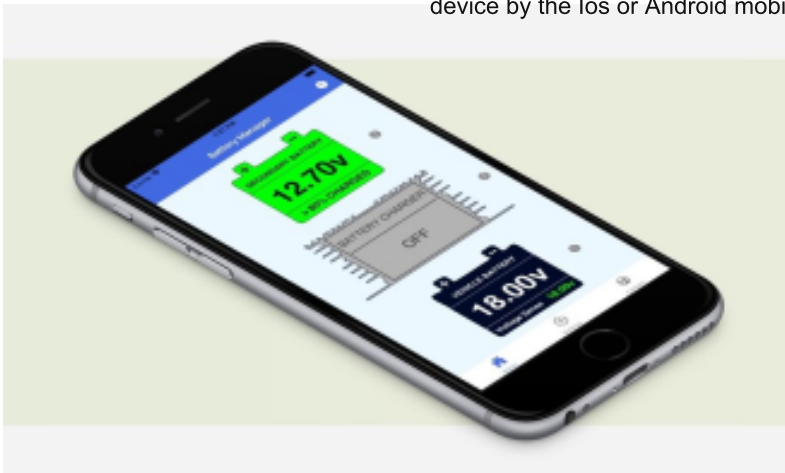
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Ablemail Device Manager



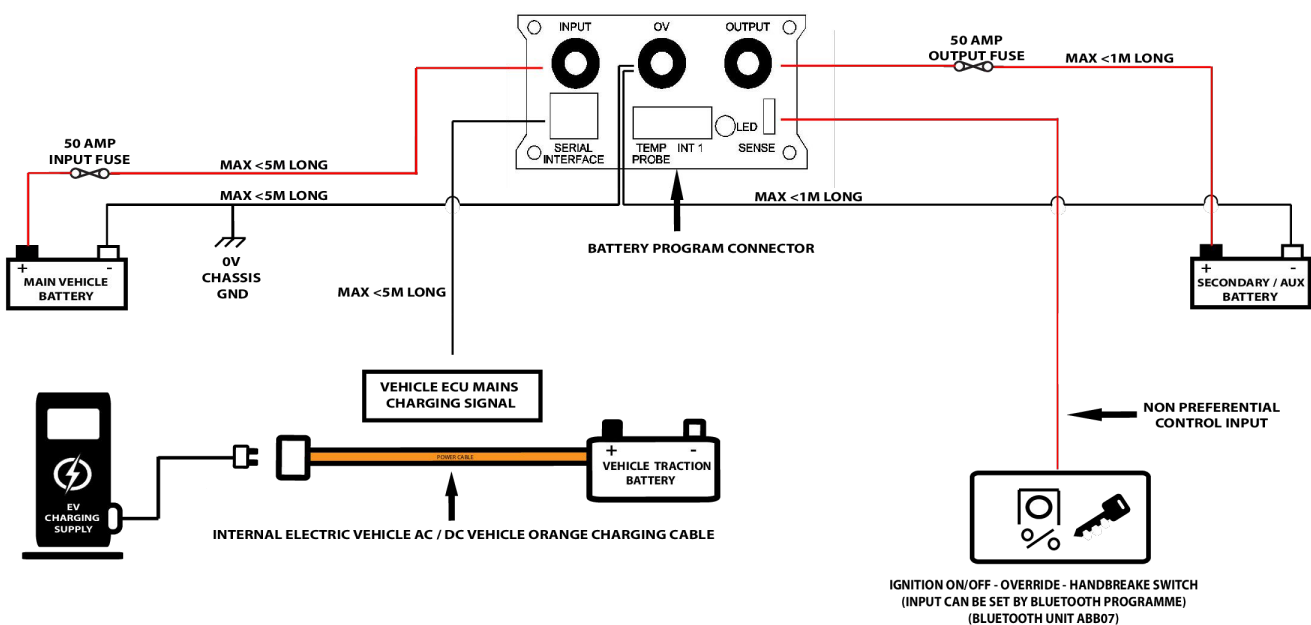
This is an app which allows an Android device to communicate through bluetooth with the AEC12-12-30 and any connected Ablemail peripherals .

The AEC12-12-30 uses an inbuilt ABB007 bluetooth adaptor to allow interrogation of the host device by the ios or Android mobile phone app.



The app can display vehicle battery and auxiliary battery voltages and current being delivered by the AEC12-12-30 . The Battery Manager App can make changes to the configuration settings of the AEC12-12-30 and any connected AES001 or AES002 mains sensors .

IMAGE No : SI*****5



IGNITION ON/OFF - OVERRIDE - HANDBRAKE SWITCH
(INPUT CAN BE SET BY BLUETOOTH PROGRAMME)
(BLUETOOTH UNIT ABB07)

Accessories The AEC12-12-30 can be upgraded to an AEC12-12-60 for applications requiring quicker charging or larger battery pack charging . An additional AES001 can be used for charging from an AC or a DC charger and if the mains sensor needs to be placed in a damp environment an AES002 can be used . Extension cables allow the AES001 to be placed up to 5m from the AEC12-12-30 . The AEP12-200A and AER12-30A can be used to allow emergency jump starting of the vehicle or to allow high current loads to be run from the vehicle traction battery to 12V dc converter if desired .