



## PART NUMBER : AHC12-600W BLUETOOTH ELECTRIC AIR HEATER KIT

### DESCRIPTION :

The 600W Ablemail Vehicle Heater utilises 3 PTC (Positive Temperature Coefficient) heaters and a fan to rapidly heat the vehicle ambient air.

The Ablemail controller maintains the ambient vehicle air temperature at a level determined by the temperature sensor while ensuring the supply battery is never over discharged. The AHC12-600W Air heater is controlled by a fascia mounted potentiometer with an led indicator, a bluetooth IOS / Android App and 3 control inputs on the rear panel. The bluetooth app allows control of the temperature from the comfort of your chair, configuration of the 7 day timer and configuring of the many software functions built into the heater.

The AHC12-600W has 3 heater elements and the controller uses all 3 to get the passenger/working area to temperature as quickly as possible. The unit then maintains the target temperature using single element heating as much as possible. The unit maximises usable battery capacity by stepping the current loads and reducing the fan current as much as possible. There is a night mode / maintaining mode which allows running current to be matched to the mains charger capacity and reduces the fan noise during heating.

The 3 external control inputs of the AHC12-600W can be configured to heat automatically when driving (ignition controlled) or when connected to a mains supply(External switch input) or in Night mode to ensure the maximum battery capacity is available for off grid heating. The external switch can also be used for vehicle Scheduled Pre-Conditioning to remotely optimise the cabin and battery temperature while still on Shore charge to maximise vehicle range. These switched inputs also provide an easy way for other vehicle electrical systems to control heating.

Installation is incredibly quick and easy as there is no fuel tank, exhaust system and associated piping to install. The Electric Air Heater is provided with a set of vents, hot air ducts and electrical terminations to make installation as easy and stress free as possible.

The EV Heater uses considerable energy and we would recommend a minimum of 100Ahr usable auxiliary battery capacity to ensure adequate heating.



EV heating has many advantages when compared to diesel heating; there is no flammable diesel or refuelling to worry about. There is also no need to worry about carbon monoxide, carbon dioxide or diesel fumes and the electric heater does not have any issue when the vehicle is moving. This makes the Ablemail Air Heater ECO Friendly.

The PTC heating elements inherently limit to their design temperature and so require no overheat protection but for additional safety, the PTC heaters are all mounted within a non-conductive & temperature resistant isolated housing within the heater chassis. In the event of an 'overheat' situation, there are 2 additional designed safety systems built into the EV Heater.

1. The control system will shut the heater down when the input temperature reaches 52°C & will not switch back on until the internal temperature is below 30°C. The fan will keep running to cool the heater as quickly as possible once the heater elements are switched off.
2. In the very unlikely event of a total fan failure, or control system failure we have included a single use non-resettable thermal fuse. If the internal core temperature of the heater element exceeds 110°C the fuse will break shutting off the power to all the PTC heating elements .



# Ablemail Electronics

A Division of Merlyn Electronics

Merlyn House,  
Merlyn Rd,  
Salford, M6 6EL  
Tel: +44(0)161 745 7697

info@ablemail.co.uk  
www.ablemail.co.uk

## PART NUMBER : AHC12-600W BLUETOOTH ELECTRIC AIR HEATER KIT

### Technical specification:

Specification.

Cool/Recirculate Fan	24W Max inrush
Heat Output	600W Max
Heat Output Night Mode	200W
Air Nozzle Size	2x Ø 60 mm
Airflow	187 m <sup>3</sup> /hr
Airflow in night mode	112.2 m <sup>3</sup> /hr
Timed Operation	7 Day timer allows heater to be turned on and off at different times to 3 separate programmes
Frost Protection	<3 °C (Configurable)
Ignition Input (Configurable)	>9V
Ext Switch Control (Configurable)	>9V
Night Mode Enable	>9V
Nominal heat Output Temperature	45 °C
Max Output operating Temperature	50 °C
Controlled safety cutoff	52 °C Off reset On below 30 °C
Mechanical safety cutoff	110 °C
Dimensions (LWH)	155 x 150 x 200 mm
Weight	1.3 kg
Fan Life	70,000 Hrs @ 40°C
Noise	55 dB(A)
Noise in Night Mode	50 dB(A)
Voltage	10.5V – 15.5V 12V DC Nominal
Nominal Battery Guard default setting (internal)	10.5V
Max Current Draw	52A Continuous, ~70A Inrush
Current (In sleep mode)	< 6mA
External Fusing (Internal Fan) + Aux Fan	5 Amp Resettable Fuse
External Fusing	100A required

### Accessories -

- AHB600 - Additional 600W booster heater
- Fan booster AHC Fan Kit a fan booster kit for remote heating
- AHC Wiring Kit - wiring kit to auxiliary battery
- AHC Piping Kit (x) metre piping
- AXI240 Mains Interface for bringing to temperature while connected to the mains and so maximising vehicle range
- AES001 - Mains charging detector for bringing to temperature while connected to the mains and so maximising vehicle range
- AMC12-12-60 Fans charger for constant running of the heater

### Other Products In the Range -

- AHB600 600W Booster heater - Adds 600W extra heating capacity within 5 meters of AHC600
- AHC1200 - 1200W heater
- AHC1800 - 1800W heater

The full range of AHC products are available for operation from a 24V DC supply, a 48V DC supply and a 72V DC supply

### Technical Support -

#### Bespoke Capabilities :

The unit has many capabilities which can be set by the user using the Ablemail Device Manager app, a mobile phone and the ABB-007 bluetooth dongle. There are certain inbuilt capabilities which can only be set with technical support so if you have a particular requirement please contact us to see if it is already available .

**This product has been Developed and Manufactured by Ablemail in the UK so if you want a bespoke variant please contact our Technical Department who will be pleased to offer support .**



## PART NUMBER : CONTROLLER ACCESSORIES FOR AHC12-600W

### DESCRIPTION :

The AHC12-600W Air heater can be controlled by two options a Fascia Mounted Potentiometer with an led indicator or Fascia Mounted Smart Digital Controller both will allow you to control of the temperature from the comfort of your vehicle.

#### Features: Standards Temperature Controller

- \* Plug & Play / ON / OFF
- \* Temperature Setting
- \* Led Temperature Indicator

#### Features: Smart Digital Temperature Controller

- \* Plug & Play
- \* Oled Display
- \* Actual Temperature Setting
- \* Vehicle Temperature Indicator
- \* Programable Timer
- \* Day / Night Mode with optoints for Quiet Operations
- \* Fan Cooling Mode

Standards Temperature Controller



Smart Digital Temperature Controller

