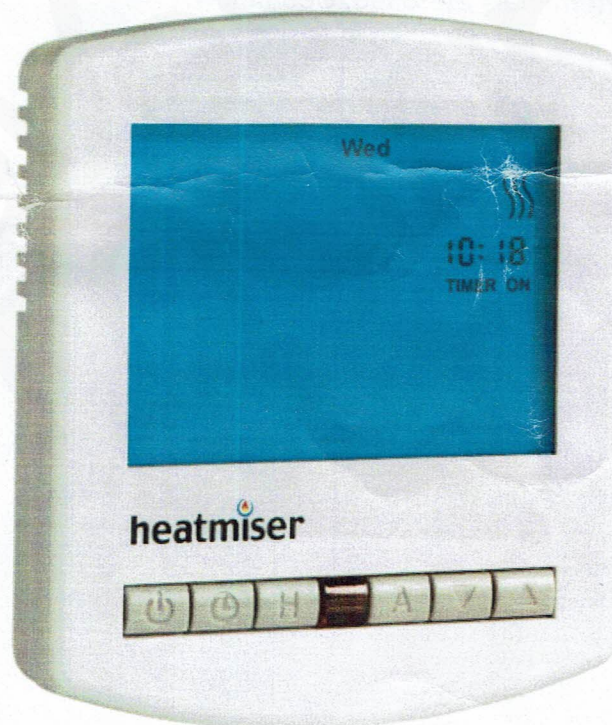


*Universal Marine 12v
Programmer / Timer Upgrade Kit*

*Airtop 2000 S
Airtop 2000 ST
Airtop 3900 EVO
Airtop 5500 EVO
Thermo Top C
Thermo Top E
Thermo 90 ST*



***** READ ME 1ST *****

Please read these instructions BEFORE beginning the installation!

Please ensure you have the correct upgrade kit for your particular heater!
Universal Marine 12v Programmer / Timer Upgrade Kit - Part Numbers:-

Airtop 2000 S & 2000 ST	4110556A
Airtop 3900 & 5500 EVO	4110555A
Thermo Top C & E	4110551A
Thermo 90 ST**	4110557A

* Contents of Upgrade Kit:-

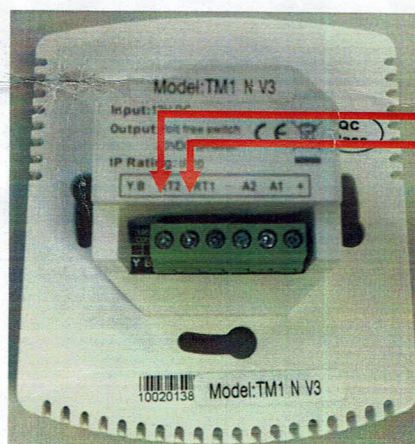
- 1x Timer (including operation guide)
- 1x Adapter Harness**
- 1x Installation Manual

* This installation manual is standardised and contains wiring schematics and detailed instructions for all the above supported heaters. The timer module, TM1-N is the same unit used in all the 3 upgrade kits. The only difference in the 3 kits is the type of wiring harness adapter supplied.

** The Thermo 90 ST kit does not include an adapter harness.

***** These mounting instructions apply to all models *****

Only 4 of the screw terminals are used, See below:



*Unused Connections
RT2 & RT1

Rear view of timer showing the 2 unused wires

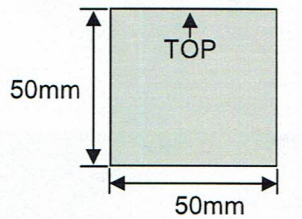
Detailed schematics are provided in this document for each of the supported Webasto heaters.

***** These mounting instructions apply to all models *****

In order to install the new TM1-N Timer Programmer follow the instructions below.

- 1 Turn off the heater and allow it to shut down in the correct manner and then isolate the power supply to the heater.
- 2 Decide upon the mounting position taking into account the location of the heaters existing wiring harness connection.

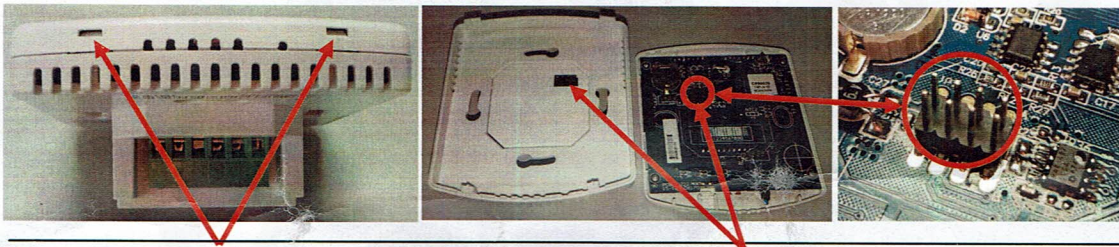
* In order to mount the new TM1-N timer you will need to cut out a square hole in the wall 50mm wide 50mm tall. See below:-



Size of cut-out for TM1-N Timer

Mounting the timer in the hole cut out as above

- 3 On the lower edge of the timer there are two small lugs that secure the display to the rear of the timer. Using a small flat screwdriver *Carefully* depress the lugs and gently lift away the display from the timer body as shown.



Depress the 2 lugs to release the display...
...and separate the two halves

Take care not to damage the 8 pin connector when re-assembling
the two halves!

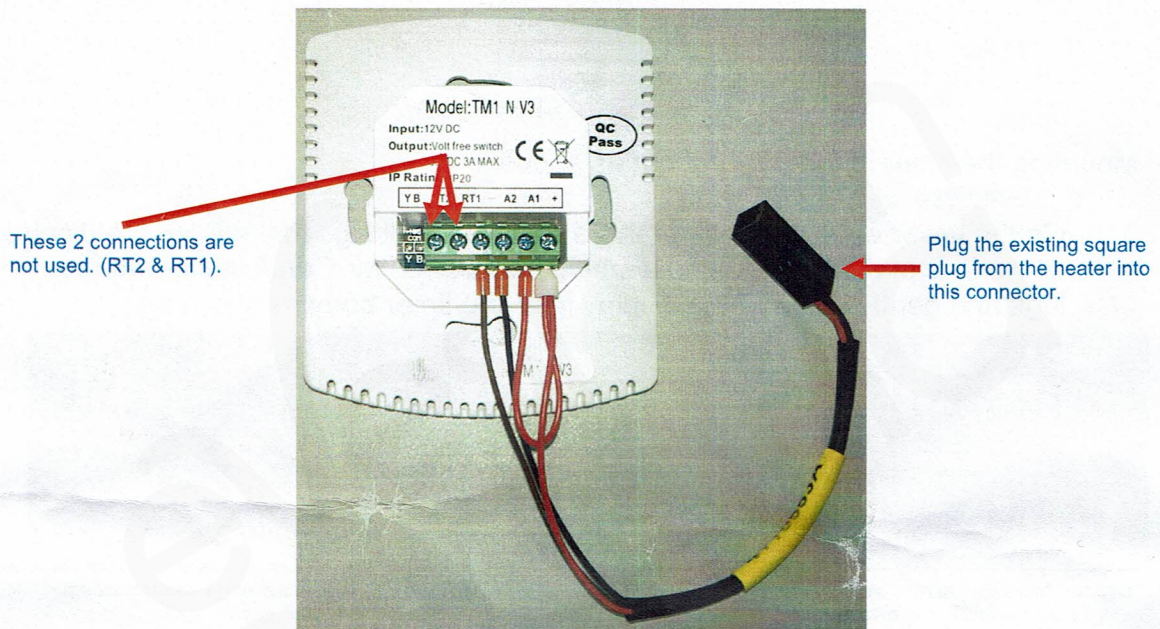
- 4 Insert the timer back body into the previously cut out hole and screw to the wall using the mounting holes provided.
- 5 *Carefully* refit the front display to the timer rear body making sure not to damage the internal 8 pin connector as shown above.
- 6 Make the electrical connections by referring to the specific heater instructions on the next few pages.

Webasto Thermo Top C & E Installation Kit 4110551A

Electrical Connections

- 1 The adapter harness has on one end fitted a square black socket and on the other end 4 wires.
- 2 The 4 wires connect to the rear of the TM1-N timer as shown below.

RED	+
RED	A1
BLACK	A2
BROWN	-

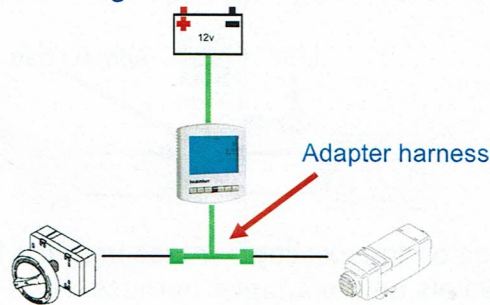


- 3 The square black socket on the other end of the adapter harness should now be connected to the existing heater square black plug. Note the square plug and socket are polarised and will only fit one way!

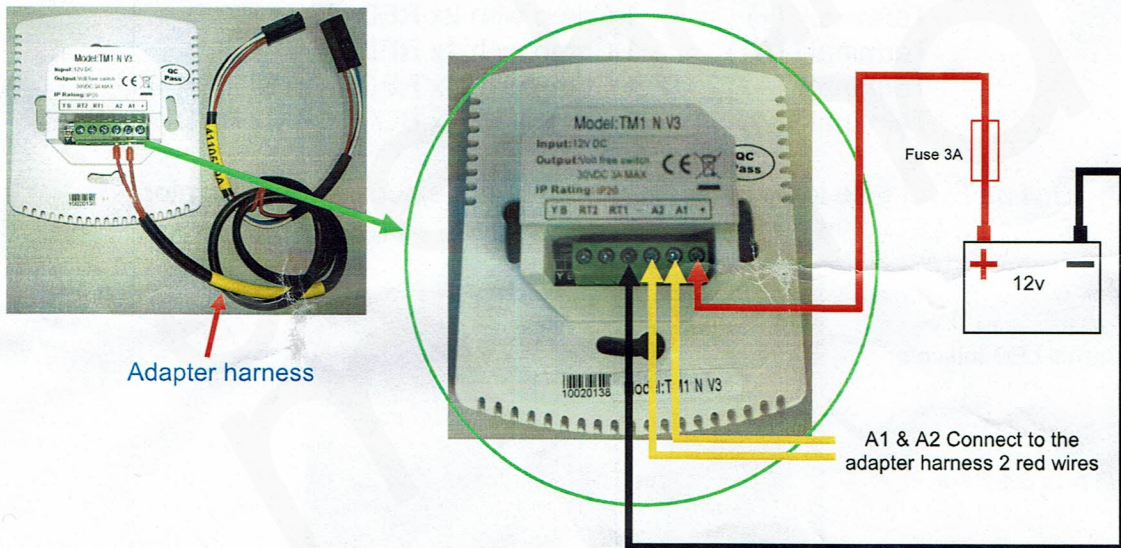
The installation is now complete and all that remains is to set the clock on the new timer and enter the desired on / off periods you require. Information on setting the time and programming can be found in the supplied Operating Instructions.

Webasto Airtop 2000S Installation Kit 4110556A

- 1 To connect the TM1-N timer to the Airtop 2000S heater, the adapter harness is plugged in between the existing heater control, (rheostat) and the heaters harness as shown below. Also a battery + & - connection is required to drive the timer electronics. See diagram below.



- 2 Disconnect the plug from the rheostat control and plug into the socket on the adapter harness.
- 3 Push the plug on the adapter harness in to the rheostat.
- 4 The 2 red wires on the adapter harness connect to the rear of the TM1-N timer as shown below to the terminals A1 & A2. They can fit either way around.



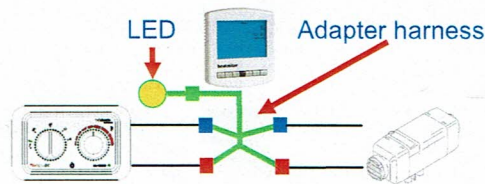
- 5 As mentioned above the timer needs power for its own internal electronics to operate. Connect 12v+ positive to the terminal marked (+)* and 0v- negative to the terminal marked (-).

* Ensure that the (+) 12v supply is fitted with a 3A fuse.

The installation is now complete and all that remains is to set the clock on the new timer and enter the desired on / off periods you require. Information on setting the time and programming can be found in the supplied Operating Instructions.

Webasto Airtop EVO 3900 & 5500 Installation Kit 411055A

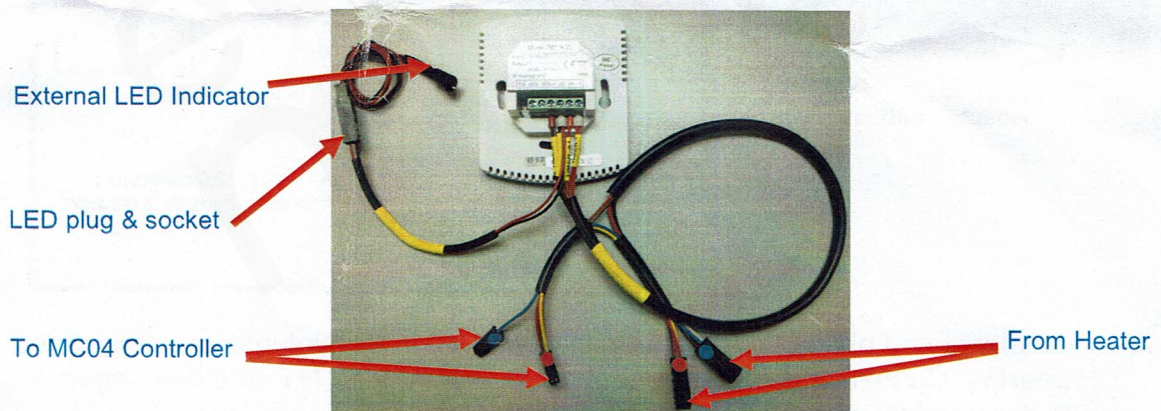
- 1 To connect the TM1-N timer to the Airtop EVO series of heaters, the adapter harness is plugged in between the existing heater control, (MC04) and the heaters harness as shown below. Also an additional LED is also supplied for status indication and fault diagnosis.



- 2 Remove the plugs on the existing harness from the MC04 controller and plug them into the sockets on the adapter harness. Note the colour coding, *Red >< Red and Blue >< Blue!*
- 3 Push the plugs on the adapter harness in to the MC04 controller noting the colour coding as above!
- 4 Now connect the 4 marked up terminals to rear of the TM1-N timer. Each wire has the terminal number marked!

Terminal (+)	1 Crimp with 2x RED Wires
Terminal (A1)	1 Crimp with 1x RED Wire
Terminal (A2)	1 Crimp with 1x RED & 1x BLACK Wire
Terminal (-)	1 Crimp with 1x BLACK & 2x BROWN Wires

- 5 Drill an 8mm hole in a suitable location for the external LED indicator.
- 6 Feed the LED plug through the drilled hole and plug it in to its socket.



The external LED indicator replaces the one on the MC04 controller when using the TM1-N timer module. Also the I/O button on the MC04 controller is no longer used. The remainder of controls and features on the MC04 remain in operation.

The installation is now complete and all that remains is to set the clock on the new timer and enter the desired on / off periods you require. Information on setting the time and programming can be found in the supplied Operating Instructions.

Webasto Thermo 90 ST Installation Kit 4110557A

- 1 The Thermo 90 ST kit does not include an adapter wiring harness as one is not required with this type of heater.
- 2 The Thermo 90 ST timer kit consists of a Timer, LED & Butt Splice.
- 3 Drill an 8mm hole and mount the LED adjacent to the proposed timer location.
- 4 The original operating switch if fitted needs to be disconnected and removed and the four coloured wires from the old switch connected as follows:

Red	to	Timer '+'
Black	to	Timer 'A2'
Brown	to	Timer '-'
White	to	LED Red Wire
- 5 The other wire from the LED, (Black Wire) connects also to the Timer '-' terminal.
- 6 A link wire is needed to connect from the Timer '+' terminal to the adjacent 'A1' terminal as shown below.
- 7 Crimp the supplied butt splice between the White wire and the LED Red wire. Heat up the terminal using a gas lighter to seal the joint.

