801 Series
Digital Modulator

Installation Instructions

Eberspächer Airtronic Heater

Eberspächer
A world of comfort

801 Series Digital Modulator Installation Instructions

Part Number

801 10 001	AIRTRONIC D2 / D4 / D5 heaters only. 1 hour run time.
801 10 003	AIRTRONIC D2 / D4 / D5 heaters only.

NOTE - see page 10 - controller parameter adjustment for removal of auto 1 hr run time

Installing the Digital Modulator

- Cut out the template and position it.

- Drill the three 7.5mm dia. holes.

- Route cable loom of Modulator through cable entry hole.

- Fit the Digital Modulator by gently pushing into mounting holes.

Connecting the Digital Modulator

Part Number
801 10 001 / 801 10 003

Connect the cables to the 6-way housing supplied with the Digital Modulator as follows:

Red cable	Connect to pin 1	BAT +
Yellow cable	Connect to pin 2	ON +
Brown/White cable **	Connect to pin 3	** ECU -
Grey/Red cable	Connect to pin 4	MOD Ω
Grey cable *	Connect to pin 5	* Ω
Blue/White cable	Connect to pin 6	DIAG

* The grey cable is an optional connection for external heater air sensing, see heater technical description manual.
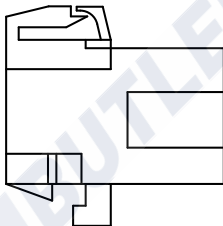
** The brown/white Digital Modulator cable must be connected to the heater brown/white (ECU-) cable.
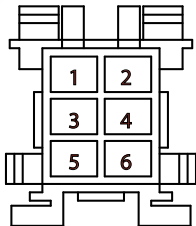
Mounting Position

Ensure the Modulator is not installed in a position which could effect the sensor reading i.e. In direct sunlight, draughts, etc.

6-way Junior Power Timer Tab Housing

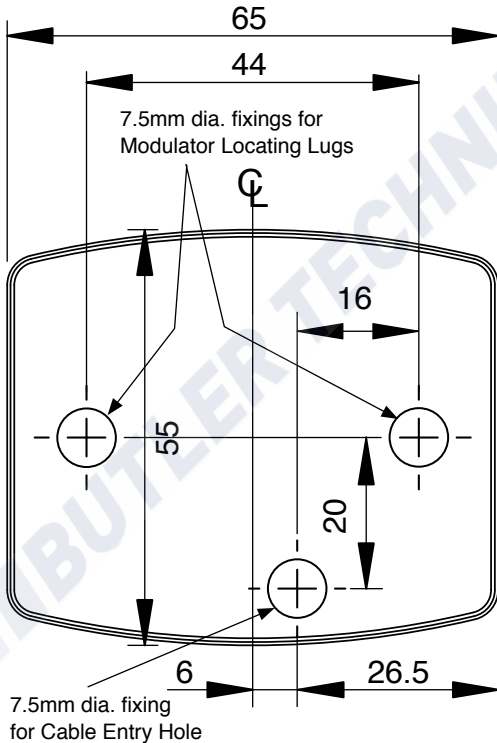Tab terminals 2.8mm

Side View   Cable Entry View

Full Size Drilling Template (see next page)

Up to 8mm thickness (Over 8mm thickness use **optional** mounting plate part number 190489).

Viewed from the front of the Modulator.

65

44

7.5mm dia. fixings for
Modulator Locating Lugs

C_L

16

55

20

6

26.5

7.5mm dia. fixing
for Cable Entry Hole

801 Series Digital Modulator Installation Instructions

Part Number

801 10 101	AIRTRONIC D2 / D4 / D5 heaters only + housing. 1 hour run time.
801 10 103	AIRTRONIC D2 / D4 / D5 heaters only + housing.

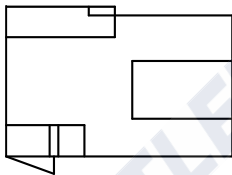**Installing the Digital Modulator**

- Cut out the template and position it.

- Drill two 7.5mm dia. holes.

- Drill 26mm dia. hole for cable / connector housing.

- Route cable loom of Modulator through cable entry hole.

- Fit the Digital Modulator by gently pushing into mounting holes.
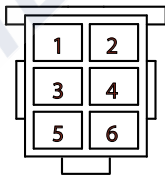
Mounting Position

Ensure the Modulator is not installed in a position which could effect the sensor reading i.e. In direct sunlight, draughts, etc.

6-way Junior Power Timer Tab Housing

Tab terminals 2.8mm

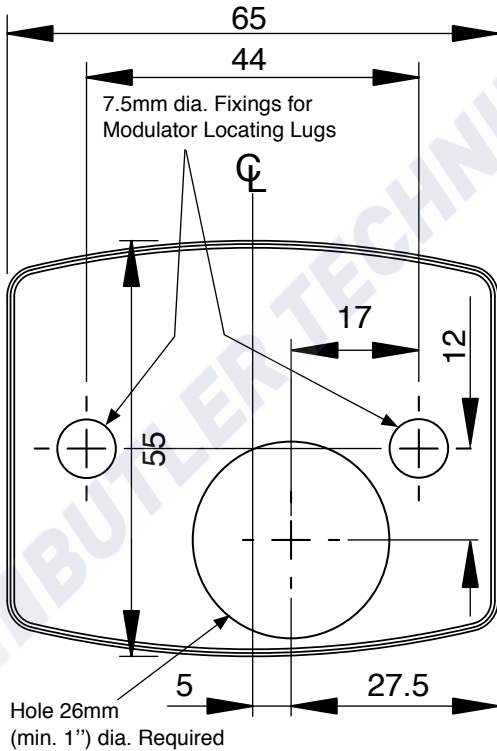Side View   Cable Entry View

Full Size Drilling Template (see next page)

Up to 8mm thickness (Over 8mm thickness use **optional** mounting plate part number 190489).

Viewed from the front of the Modulator.

65

44

7.5mm dia. Fixings for
Modulator Locating Lugs

C̷L

17

12

55

5

27.5

Hole 26mm
(min. 1'') dia. Required

Digital Controller 80 series set up procedure

The latest version of the 801 series Digiital Controller (serial numbered above 5000) can be pre-programmed
with three modes of heating duration.
These are

1) Continuous heater run until the heater is switched off manually
2) 1 hour run duration then the heater switches off automatically
3) 10 hour run duration after which time the heater switches off automatically.

Each of these three settings is available in either °C or °F readout.

Whichever duration is set for heating the same duration applies to ventilation mode.

To change the duration setting
Disconnect the Digi-controller from power
Press and hold down the "UP" and "DOWN" keys
Re-apply power to the unit.

The display will read n0, n1, n2, n3, n4 or n5, release both keys.
Repeatedly press the "UP" or "DOWN" button until the display reads the required setting as follows:

Modes for controller with 6 presets:

n0   deg C, continuous run
n1   deg F, continuous run
n2   deg C, 1 hour duration
n3   deg F, 1 hour duration
n4   deg C, 10 hour duration
n5   deg F, 10 hour duration (Factory preset)

Modes for controller with 8 presets:

n0 degC, continuous run time
n1 degC, 1 hour run time
n2 degC, 4 hour run time
n3 degC, 10 hour run time
n4 degF, continuous run time
n5 degF, 1 hour run time
n6 degF, 4 hour run time
n7 degF, 10 hour run time (Factory preset)

To store the new setting press the "Heat" key and the display will return to ambient temperature.

Low Voltage Disconnect *(Applicable only to P/N: 20 2800 70 11 00)*

Setup

There are 4 levels of low voltage sensing:

	OFF	11.5V	11.8V	12.0V
Each voltage level has a code associated:

	0	1	2	3

To view low voltage code

1) Hold down the 'VENT' key during power up.

2) Release 'VENT' key.

3) The set low voltage code, 0>>3, will be displayed.

4) The code may be changed, if required, by pressing and releasing the " " key.

5) Press and release the 'VENT' key to revert to normal operation and store the code in memory.

To test low voltage level

1) Hold down the 'VENT' key during power up.

2) Release 'VENT' key.

3) The set low voltage code, 0>>3, will be displayed.

4) The code may be changed, if required, by pressing and releasing the " " key.

5) Press and release the 'HEAT' key.

6) Adjust the power suppy voltage until the blue LED just illuminates and a (-) negative sign displayed, this is the low voltage level.

7) Press and release the 'VENT' key to revert to normal operation and store the code in memory.

Operation – Heat

1) The voltage supply is monitored 10 minutes after the 'HEAT' key is pressed to start the heater.

2) If the voltage is found to be below the set threshold, the heater will be switched off and 'LU' displayed.

3) This voltage monitoring will occur at 10 minute intervals until the heater is switched off.

4) This process will be repeated every time the heater is switched on.

Operation – vent

1) The voltage supply is monitored 10 minutes after the 'VENT' key is pressed to start the heater fan motor.

2) If the voltage is found to be below the set threshold, the heater fan will be switched off and 'LU' displayed.

3) This voltage monitoring will occur at 10 minute intervals until the heater fan is switched off.

4) This process will be repeated every time the heater fan is switched on.