Digi-Controller

Espar

A world of comfort

WEB Edition Nov. 2010

Digi-Controller
Installation Instructions

Part Number

20 2800 70 10 00	AIRTRONIC Espar.

Installing the Digi-Controller

- Cut out the template and position it.
- Drill the three 7.5mm dia. holes.
- Route cable loom of Digi-Controller through cable entry hole.
- Fit the Digi-Controller by gently pushing into mounting holes.

Connecting the Digi-Controller

Part Number
20 2800 70 10 00

Connect the cables to the 6-way housing supplied with the Digi-Controller as follows:

Digi-Controller wire	Connector pin	Heater's Harness wire:
Red	Connect to pin 1	Red, + Power
Yellow	Connect to pin 2	Yellow, ON/OFF
Brown	Connect to pin 3	Brown/White ! Ground reference
Grey/Red	Connect to pin 4	Grey/Red Temperature set
Grey *	Connect to pin 5	Grey Temperature sens
Blue/White	Connect to pin 6	Blue/White Diagnostic

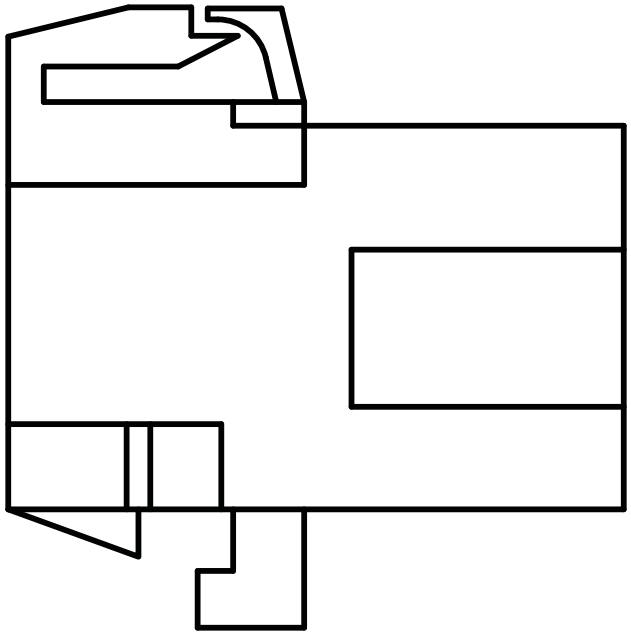
* The grey cable is an optional connection for external heater air sensing, see heater technical description manual.

Mounting Position

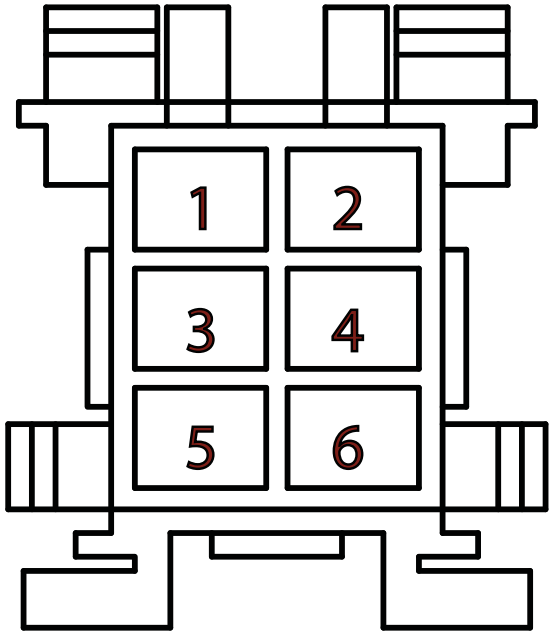
Ensure the Digi-Controller is not installed in a position which could effect the sensor reading i.e. In direct sunlight, draughts, etc.

6-way Junior Power Timer Tab Housing

Tab terminals 2.8mm



Side View

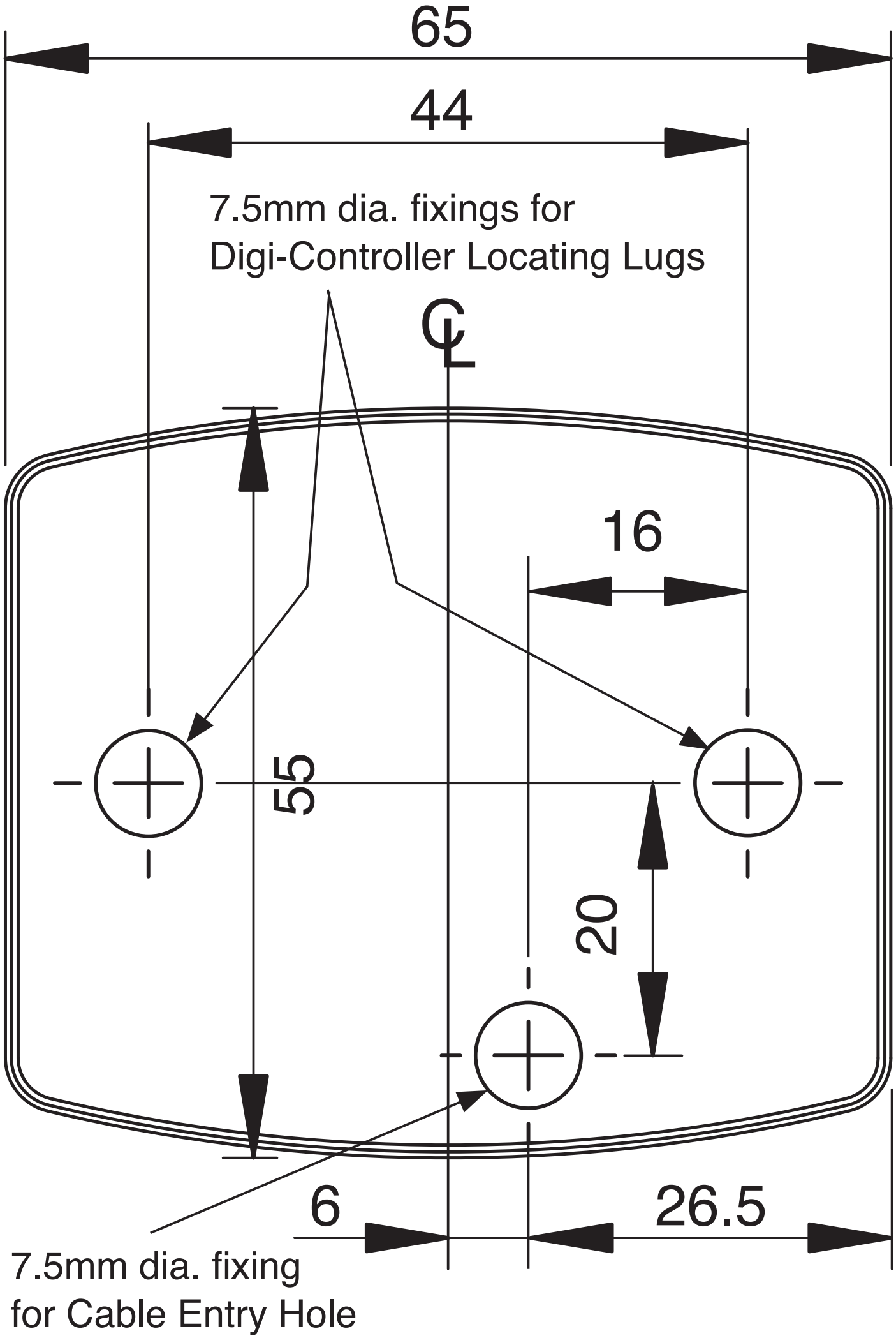


Cable Entry View

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 Digi-Controller.


65
44
7.5mm dia. fixings for
Digi-Controller Locating Lugs
CL
16
55
20
6
26.5
7.5mm dia. fixing
for Cable Entry Hole

Digi-Controller

Operating Instructions

Eberspächer Airtronic Heater

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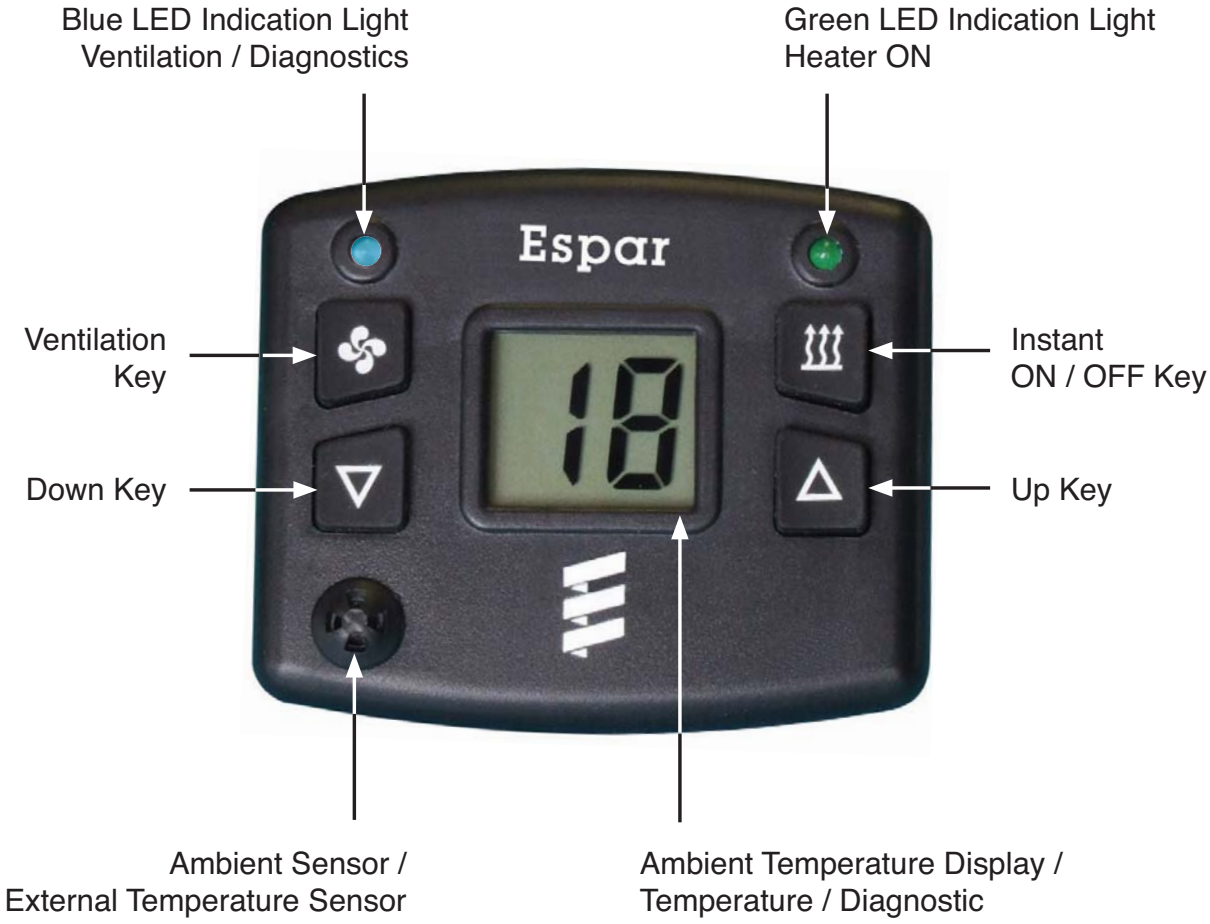
How to Operate the Heater and Digi-Controller



Part Number: 20 2800 70 10 00

Espar Digi-Controller with Diagnostic Readout Instructions

Introduction

The Digi-Controller offers manual control and digital temperature adjustment of your Airtronic heater.

Switching on the Heater (Manually)

Press the key and **'ON'** will briefly appear on the display. The heater will commence its start up cycle.

Also, the green LED 'Heater ON' indication light will illuminate and the display will now revert to show ambient temperature (°F).

The ambient display temperature range is from 16°F to 99°F.

Switching off the Heater (Manually)

The heater may be switched off at any time by pressing the key.

The heater cooling down cycle of 3 minutes will then be initiated. Wait for blower fan to stop before isolating batteries (if isolator is fitted).

Adjusting the Temperature

Pressing the or keys will alter the desired temperature shown on the display. This level may be adjusted at any time and will remain in the Digi-Controller memory when the heater is not in operation.

When the or keys are released the display will revert back to show ambient temperature.

The Digi-Controller temperature adjustment range is from 40°F to 90°F.

Diagnostic Readout

With the heater switched on, press and hold key until the display shows **'dA'**. The blue LED will briefly illuminate. Release the key. After a short time the LED flickers momentarily during diagnostic data transfer then goes off. The display shows FO followed by its fault code then automatically scrolls through any previously stored fault codes, up to a maximum of 5.

Typical fault codes:

10 = Over voltage - Check battery charging system.
11 = Under voltage - Check battery voltage.
12 = Overheating - Check air ducts for obstruction.
52 = Safety time exceeded - Check fuel supply.

For other fault codes consult your local Espar dealer.

Press and keys together to erase stored fault codes and display shows **'EE'**. To exit diagnostic mode, press and release the key.

If stored fault codes cannot be erased consult your local Espar dealer.

Ventilation

To activate Ventilation Mode, press and hold the key until the blue LED illuminates and display shows active rotating two digits.

To stop ventilation, press key briefly. Blue LED switches off and display shows ambient temperature.

Technical Specification

Dimensions (mm)	65(w) x 55(h) x 17(d)
Weight	60 grams
Temperature Range	40°F to 90°F
Heater Switched Output	1 amp
Voltage	12 / 24 volt D.C.
Ambient Temperature Range (Operating)	-22°F to +185°F
Cable Lead	1000mm long with pre-crimped Amp Junior Tabs. Mating terminals / housings supplied loose.

Important Information

- Always switch off the heater when the fuel tank is being filled.
- Never operate the heater in confined spaces, i.e. garages.
- The maintenance flap must not be opened during operation.
- Failure to comply with the instruction or operation of the heater in confined spaces (i.e. garages) harbours the risk of poisoning.
- The heater may only be used for the purpose specified by the manufacturer and in compliance with the operating instructions supplied with every heater.
- Switch off heater and wait for blower fan to stop before isolating batteries.
- When the heater or the heating system is damaged, an authorised Espar workshop must be called in to repair the damage using genuine spare parts.
- When carrying out electric welding work on the vehicle, disconnect the positive post cable at the battery terminals on the battery and ground to negative.
- Do not place aerosol cans, alcohol, inflammable liquids or inflammable materials near the heater exhaust or hot air outlet.
- Defect fuses must only be replaced by fuses with the prescribed rating.
- Switch on the heater briefly (about 10 minutes) every month. This prevents the fuel pump and burner motor from seizing up.

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Digi-Controller set up procedure

The latest version of the Digi-Controller (has serial numbers above 5000) can be pre-programmed with three modes of heating duration. These are continuous heater run until the heater is switched off manually, 1 hour run duration then the heater switches off automatically and 10 hour run duration after which time the heater again 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 and reapply 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.

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