

Water Heater

Thermo Top Evo Parking Heater



Short Installation Documentation

Ford Mondeo

"Standard" Fan Controller

Validity

Manufacturer	Model	Type	EG-BE-No. / ABE
Ford	Mondeo	CD 4 / BA7	e13 * 2001 / 116 * 0249 * ...

Motorisation	Fuel	Transmission type	Output in kW	Displacement in cm ³	Engine code
2.0 TDCi	Diesel	AG	110	1997	T7CE
2.0 TDCi	Diesel	AG	132	1997	T8CC
1.5 EcoBoost	Petrol	AG	118	1499	UNCA/ UNCB/ UNCE/ UNCF
2.0 EcoBoost	Petrol	AG	176	1997	R9CB/ R9CF/ R9CH

AG = automatic transmission

From model year 2015

Left-hand drive vehicle

Verified equipment variants: Automatic air-conditioning

Not verified: Passenger compartment monitoring

Ford Mondeo

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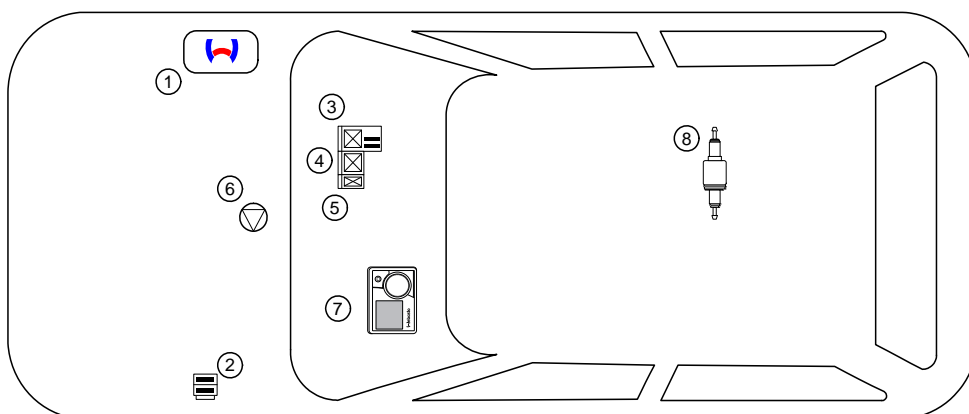
Necessary Components

- Additional kit for Fan Controller Ford Mondeo PWM GW: **1324011A**

Installation Overview

Legend:

1. Heater
2. Engine compartment fuse holder
3. Passenger compartment relay and fuse holder
4. PWM GW
5. K2 relay
6. Circulating pump
7. MultiControl CAR
8. Metering pump



Information on Validity

This installation documentation applies to:

- Ford Mondeo Petrol and diesel vehicles with installation kit **1323974A** and installation documentation **1323975A**

For the validity, see page 1 - from model year 2015 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to this installation documentation.

Technical Information

Special Tools

- Automatic wire stripper 0.2 - 6mm²
- Crimping pliers for cable lug / tab connector 0.5 - 6mm²
- Torque wrench for 2.0 - 10 Nm
- Webasto Thermo Test diagnosis with current software

Dimensions

- All dimensions are in mm

Tightening torque values

Tighten bolt connections in accordance with manufacturer's instructions or in accordance with state-of-the-art- technology.

Ford Mondeo

Explanatory Notes on Document

You will find an identification mark on the outside top right corner of the page in question to provide you with a quick overview of the individual working steps.

Special features are highlighted using the following symbols:

Electrical System



Specific risk of damage to components.



Specific risk of injury or fatal accidents.



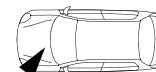
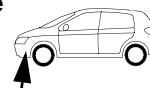
Reference to general installation instructions of the Webasto components or to the manufacturer's vehicle-specific documents.



Reference to a special technical feature.



The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.



Tightening torque according to the manufacturer's vehicle-specific documents.



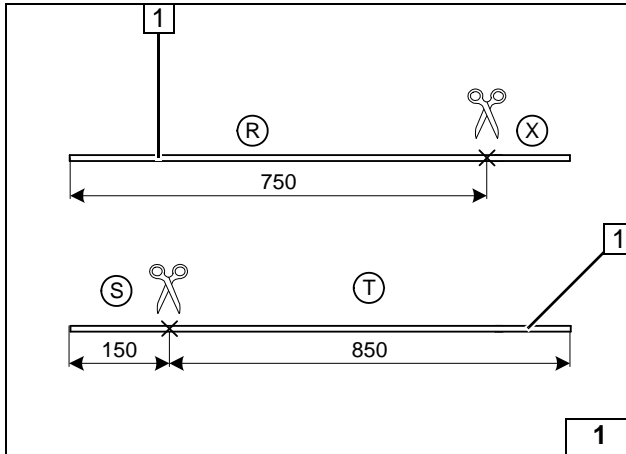
Preliminary Work

Vehicle



- Disconnect the battery.
- Remove the lower footwell trim on the front passenger's side.
- Remove the trim strip and air outlet trim over the glove compartment.
- Remove the glove compartment.
- Remove the lever trim (see installation instructions).
- Remove the A/C control panel trim (see installation instructions).
- Remove the A/C control panel (see installation instructions).
- Remove the centre tunnel trim on the right, loosen on the left side in the footwell.
- Loosen the storage compartment under the A/C control panel.





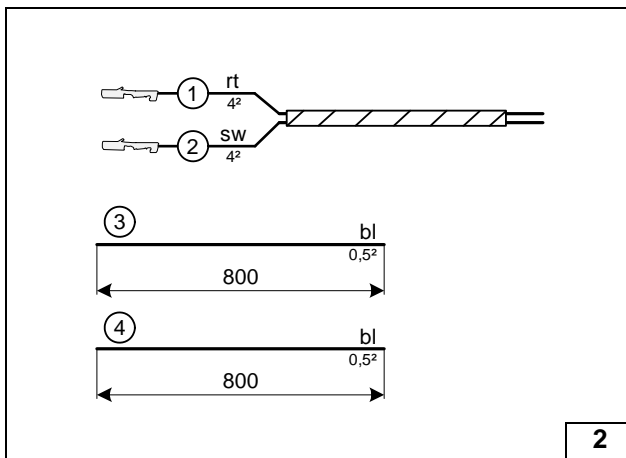
Preparing Electrical System

Discard section **X**.

- 1 Protective sleeving [2x]



Cutting to length / assigning wires



Wire sections retain their numbering in the entire document.

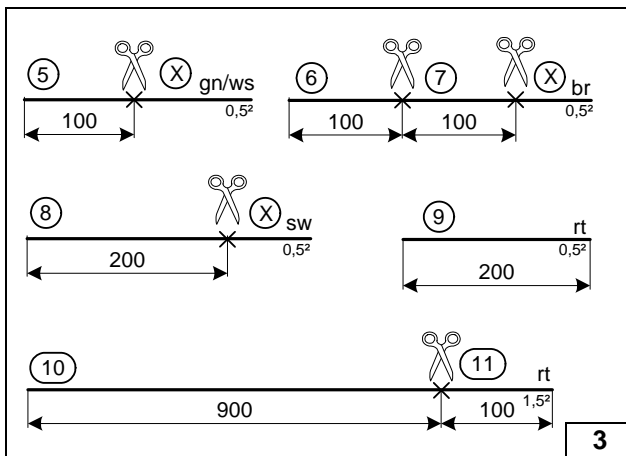
Produce all following electrical connections as shown in wiring diagram.

Pull wires ③ and ④ into protective sleeving **R**.

- ① Red (rt) wire of fan wiring harness
- ② Black (sw) wire of fan wiring harness



Assigning wires

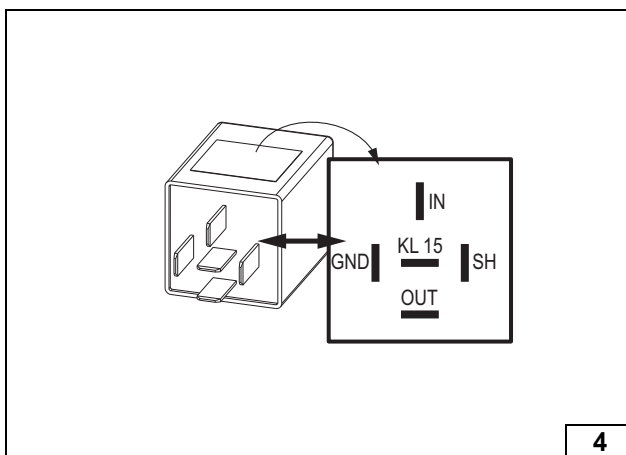


Discard section **X**.

Pull wires ⑧ and ⑨ into protective sleeving **S** and wire ⑩ into protective sleeving **T**.



Cutting to length / preparing wires



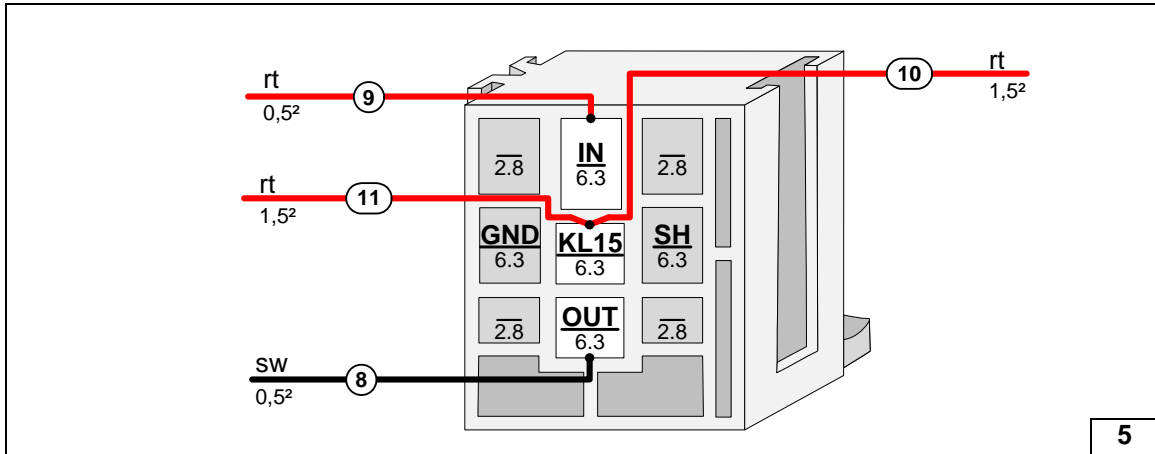
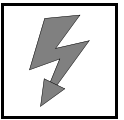
Check the PWM Gateway settings when starting up the heater and adjust if necessary.

Settings:

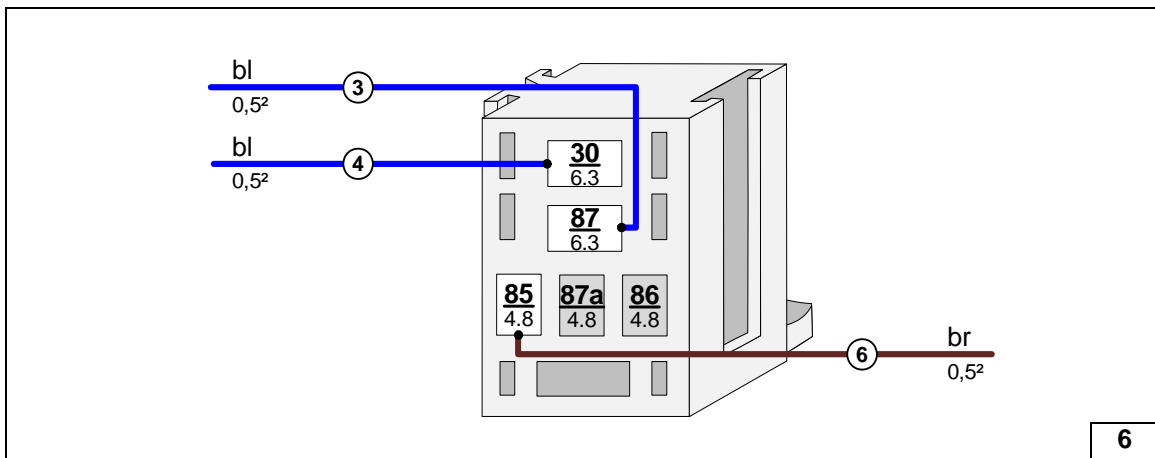
- Duty cycle: 70%
- Frequency: 100Hz
- Voltage: not relevant
- Function: Low-side



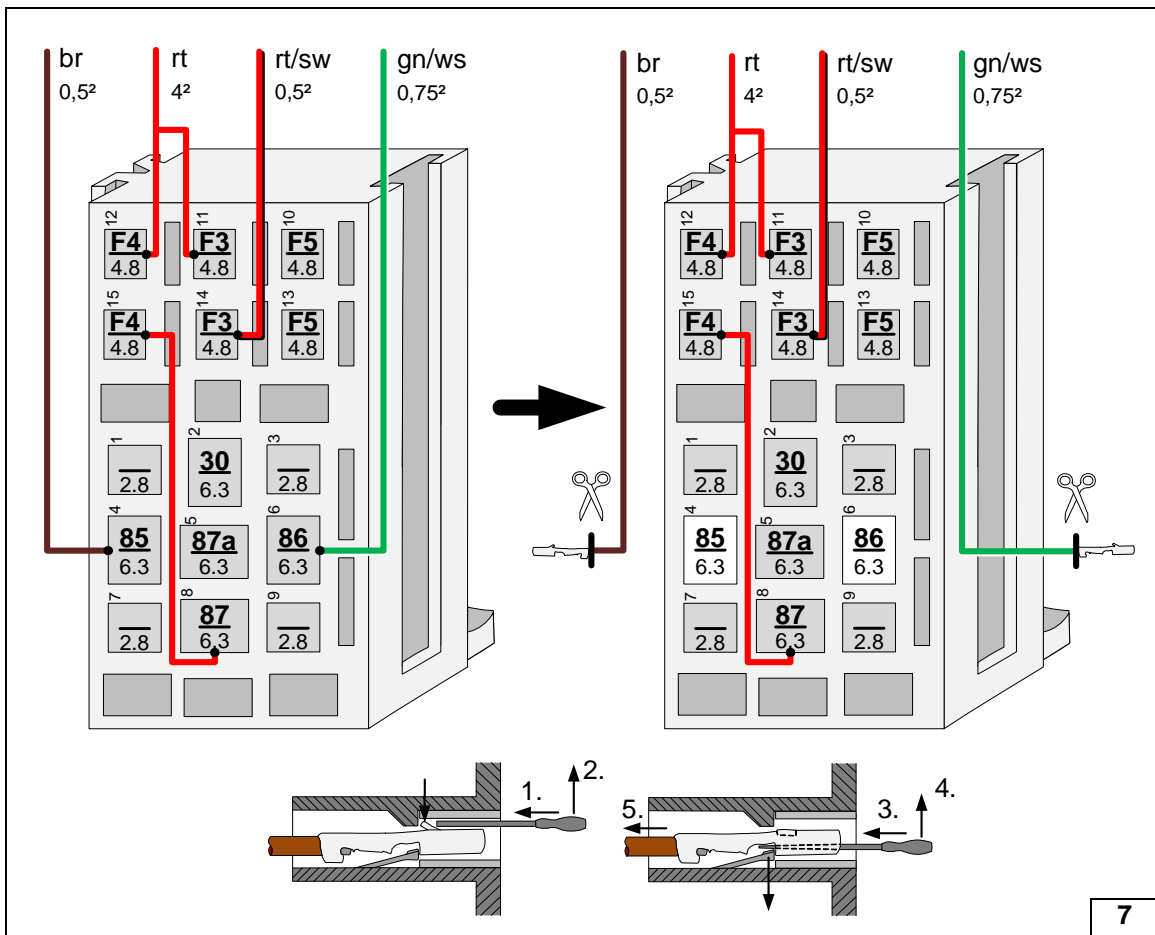
View of PWM GW



Connecting wires to PWM GW socket

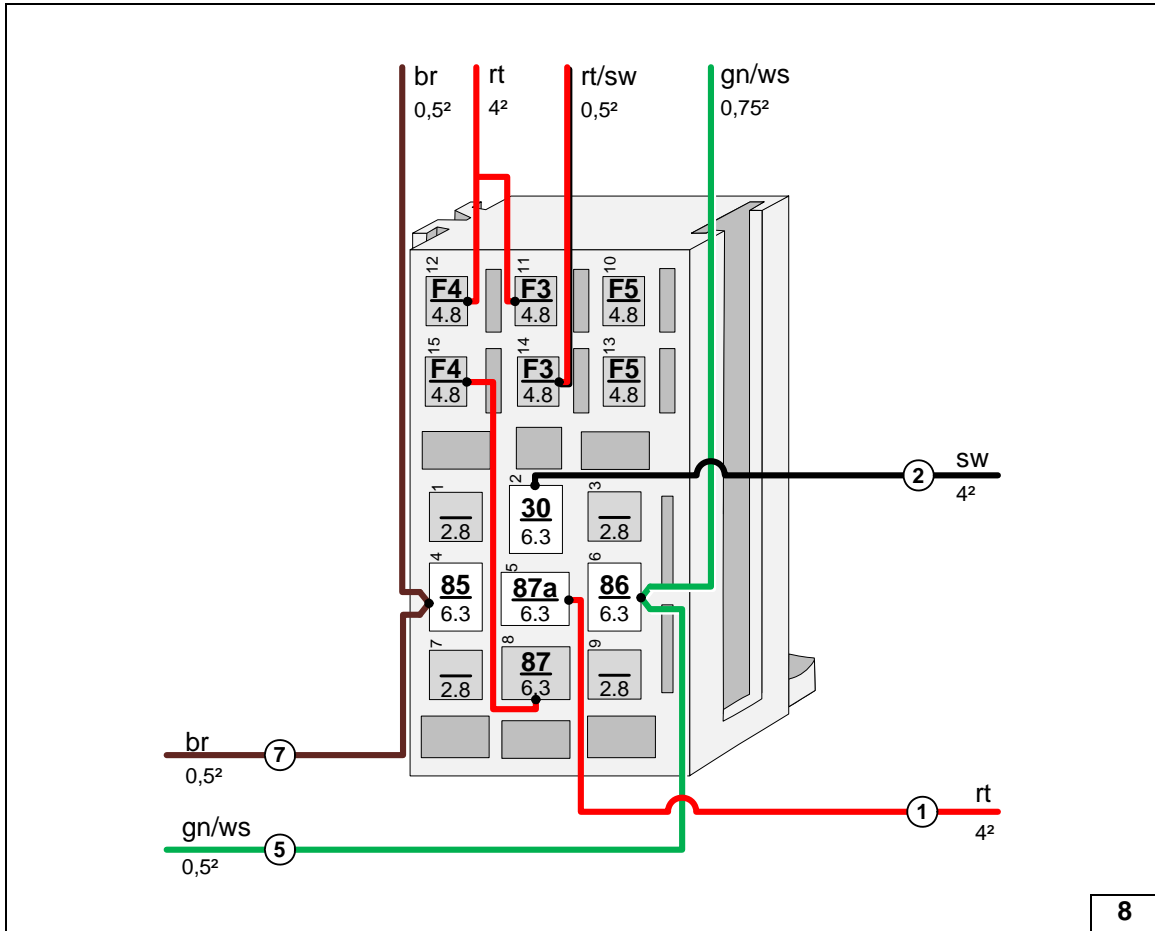


Connecting wires to socket of K2 relay

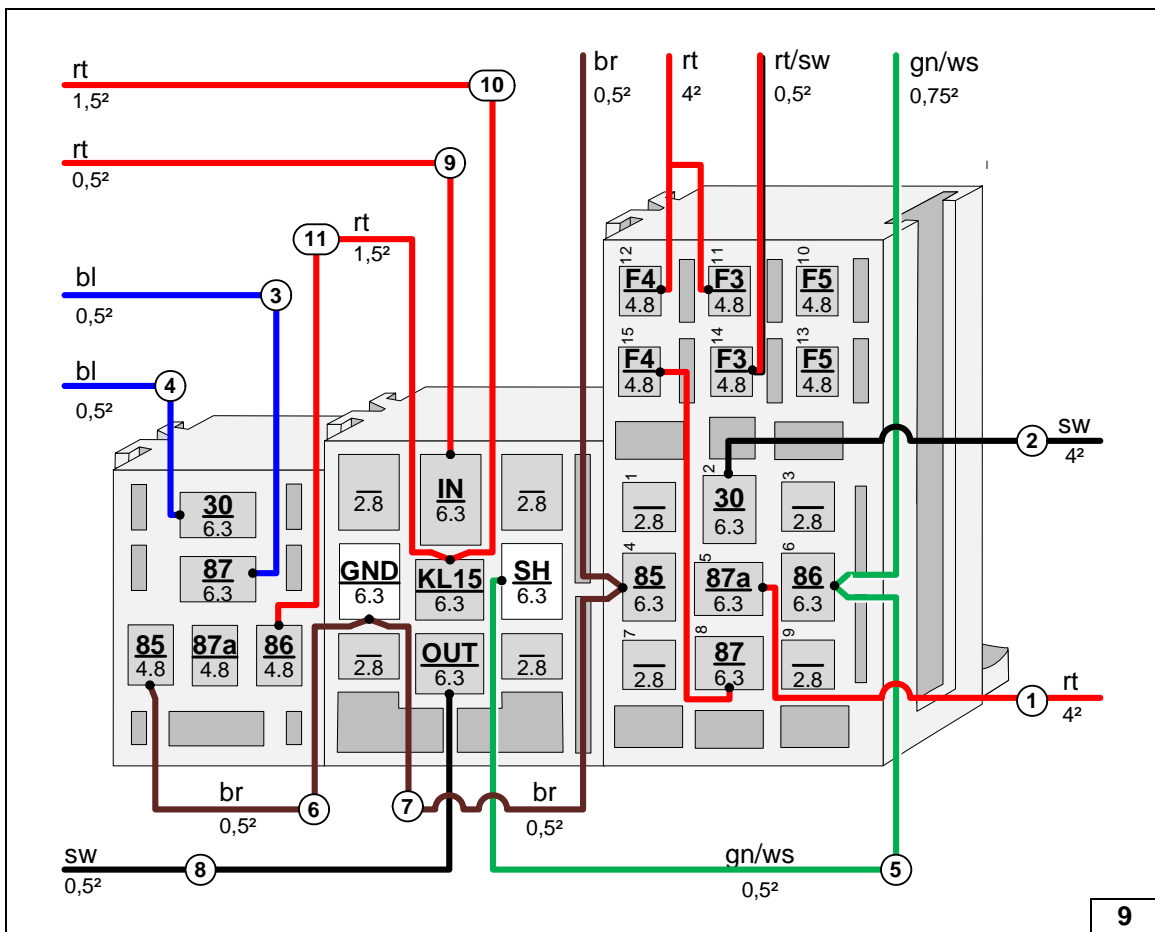


Preparing passenger compartment relay and fuse holder

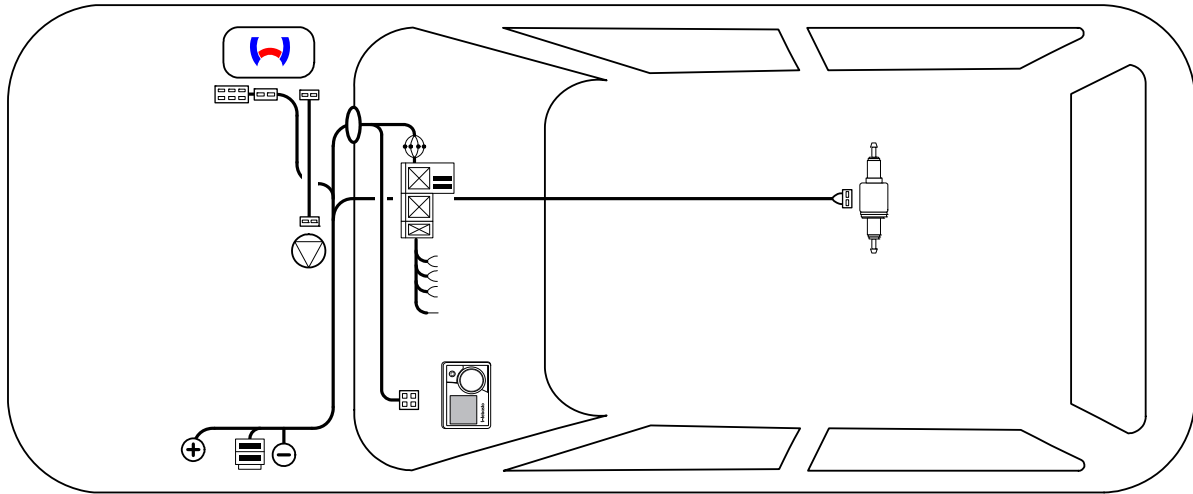




Connecting wires to passenger compartment relay and fuse holder



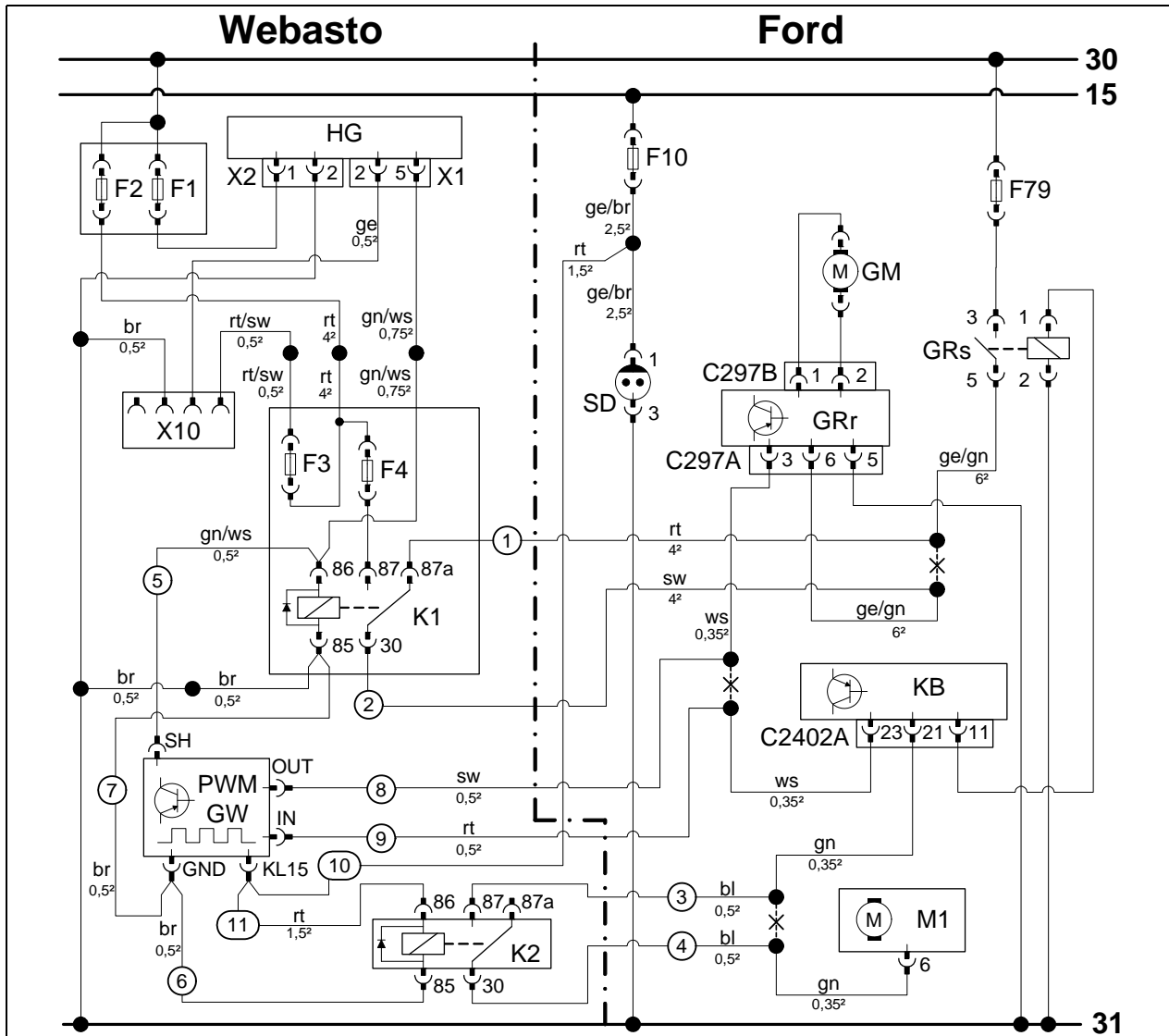
Interlocking PWM GW socket, K2 relay and passenger compartment relay and fuse holder, connecting wires



Wiring harness routing diagram



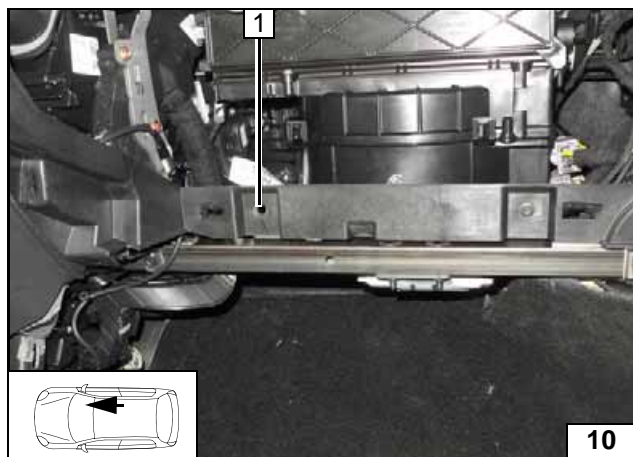
Fan Controller Wiring Diagram



Wiring diagram

Webasto components		Vehicle components		Colours and symbols	
HG	TT-Evo heater	F10	20A fuse	rt	red
X1	6-pin heater connector	F79	40A fuse	sw	black
X2	2-pin heater connector	GM	Fan motor	ge	yellow
F1	20A fuse	GRs	Fan relay	gn	green
F2	30A fuse	SD	12 V socket outlet	br	brown
X10	4-pin connector of heater control	GRr	Fan controller	ws	white
F3	1A fuse	C297B	Connector of GRr	bl	blue
F4	25A fuse	C297A	Connector of GRr		
K1	Fan relay	KB	A/C control panel		
PWM GW	Pulse width modulator	C2402A	Connector of KB		
K2	Isolating relay	M1	Air distribution flap positioning motor		
PWM GW settings:					
Duty cycle: 70%					
Frequency: 100Hz					
Voltage: not relevant				X	Cutting point
Function: Low-side					Wiring colours may vary.

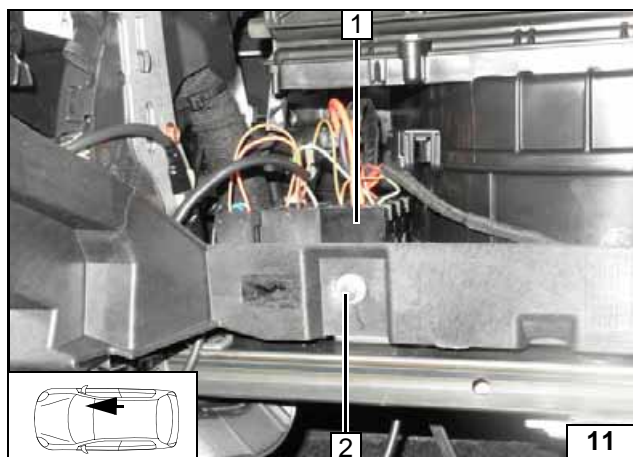
Legend



Fan Controller

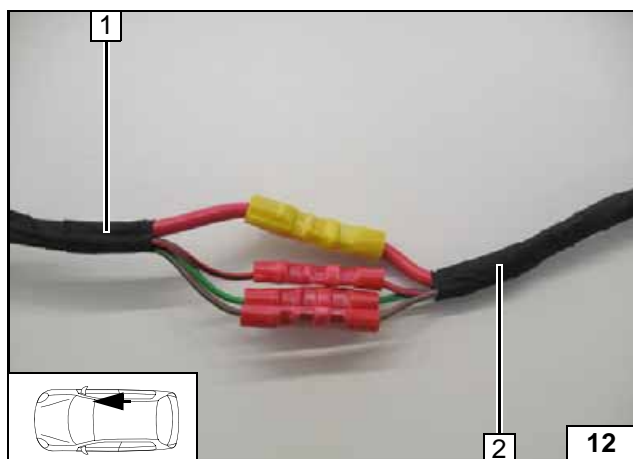
- 1 Remove and discard original vehicle bolt

Removing original vehicle bolt



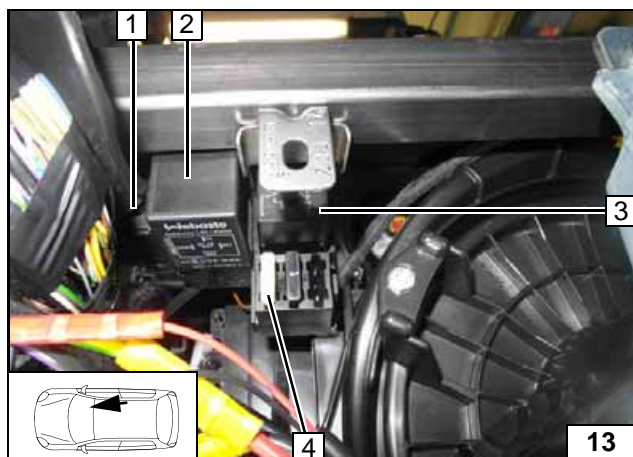
- 1 Passenger compartment relay and fuse holder
- 2 M5x16 bolt, large diameter washer [2x], nut

Mounting passenger compartment relay and fuse holder, socket PWM GW and K2 relay



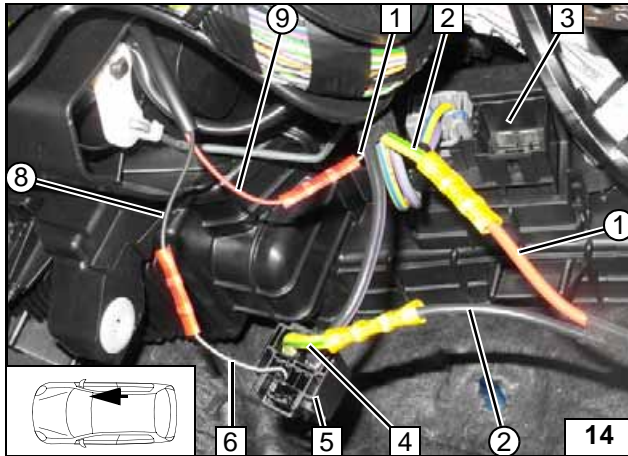
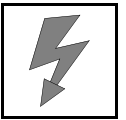
- 1 Wiring harness of passenger compartment relay and fuse holder
- 2 Wiring harness of heater

Connecting same colour wires of wiring harnesses



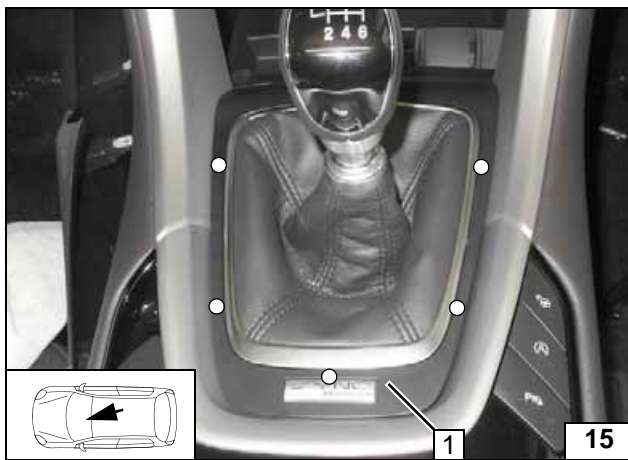
- 1 K2 relay
- 2 PWM GW
- 3 K1 relay
- 4 25A fuse F4

Mounting K1 / K2 relay, PWM GW and fuse F4



- 1 White (ws) wire of connector C2402A KB/ pin 23
- 2 Yellow/green (ge/gn) wire of GRs, pin 5
- 3 Fan controller GRr
- 4 Yellow/green (ge/gn) wire of connector C297A GRr/ pin 6
- 5 Connector C297A GRr
- 6 White (ws) wire of connector C297A GRr/ pin 3
- ① Red (rt) wire of K1/87a, fan wiring harness
- ② Black (sw) wire of K1/30, fan wiring harness
- ⑧ Black (sw) wire of PWM GW/OUT
- ⑨ Red (rt) wire of PWM GW/IN

**Connect-
ing fan con-
troller**



A/C Control Panel Installation Instructions

- 1 Shift lever trim
- Fastening points, clipped on (one covered behind shift lever)



**Removing
shift lever
trim**



- 1 A/C control panel trim/ display
- Fastening points, clipped on

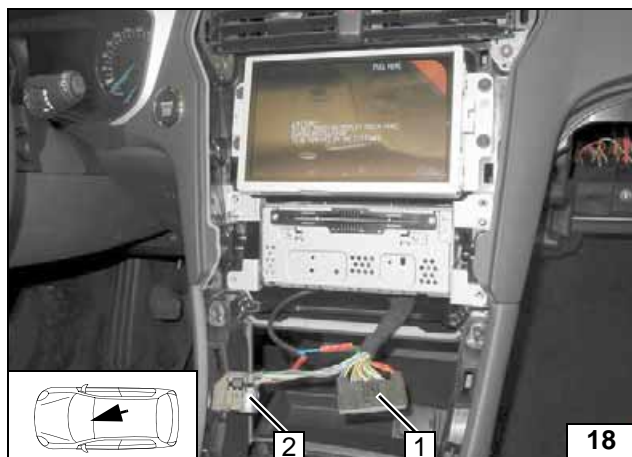


**Removing
A/C control
panel trim /
display**



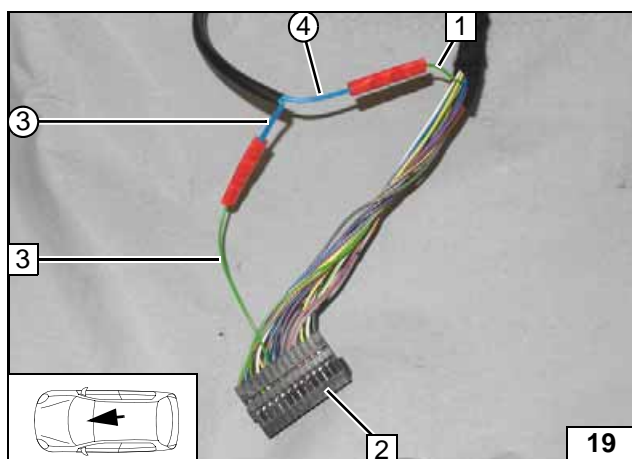
- 1 A/C control panel
- 2 Remove original vehicle bolts [4x]

**Removing
A/C control
panel and
pulling off
connector
[2x]**



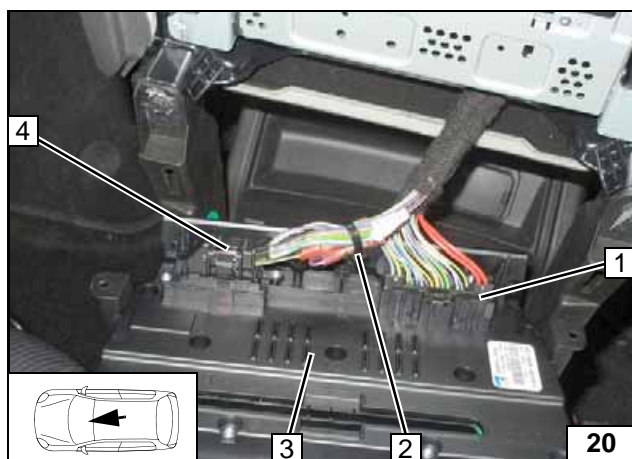
- 1 Connector C2402B of A/C control panel
- 2 Connector C2402A of A/C control panel

View of A/C control panel connector



- 1 Green (gn) wire from air distribution flap positioning motor
- 2 Connector C2402A of A/C control panel
- 3 Green (gn) wire of connector C2402A KB/ pin 21
- ③ Blue (bl) wire from K2/87
- ④ Blue (bl) wire from K2/30

Connecting A/C control panel

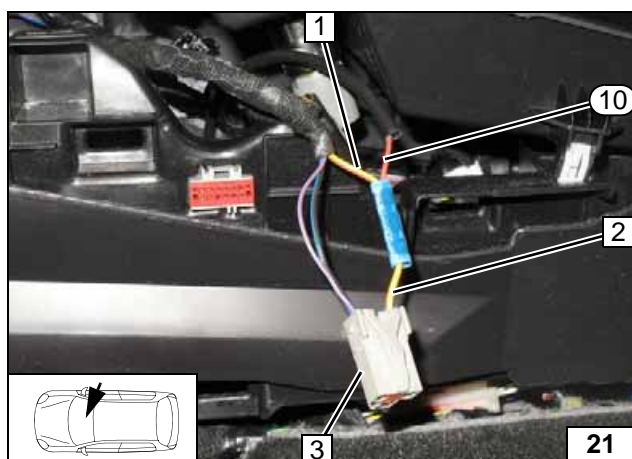


Secure wires using cable tie 2.

- 1 Connector C2402B of A/C control panel
- 3 A/C control panel
- 4 Connector C2402A of A/C control panel



Installing connector [2x]



- 1 Yellow/brown (ge/br) wire of fuse F10
- 2 Yellow/brown (ge/br) wire of connector SD/ pin 1
- 3 Connector 12V-socket outlet
- ⑩ Red (rt) wire of PWM GW/ KL 15

Connection of socket outlet 12V

Webasto Thermo & Comfort SE
Postfach 1410
82199 Gilching
Germany
Internet: www.webasto.com
Technical Extranet:
<http://dealers.webasto.com>

"Standard" Automatic A/C Operating Instructions

Please remove page and add to the vehicle operating instructions.

Note:

We recommend matching the heating time to the driving time.
 Heating time = driving time

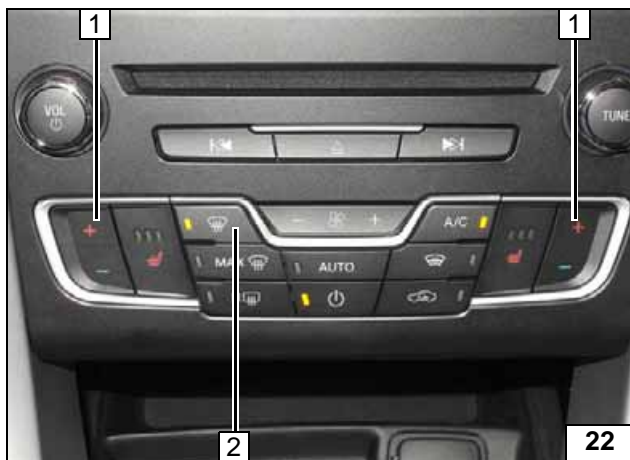
Example:

For a driving time of approx. 20 min. (in one direction), we recommend not exceeding a switch-on time of 20 min.

Passenger compartment monitoring , if installed, must be deactivated in addition to the vehicle settings for the heating operation.

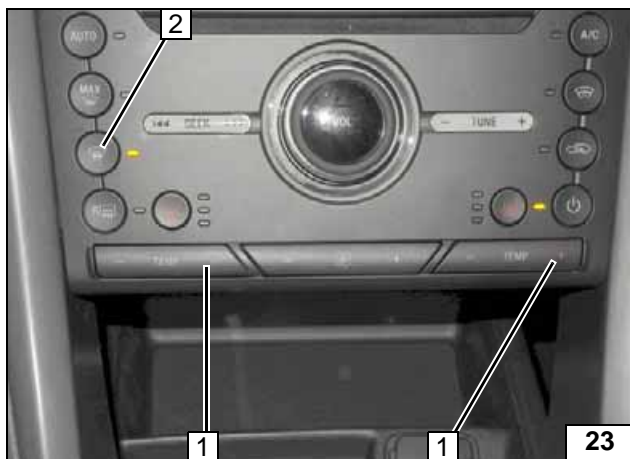
Instructions for deactivation can be taken from the operating instructions manual of the vehicle.

Before parking the vehicle, make the following settings:



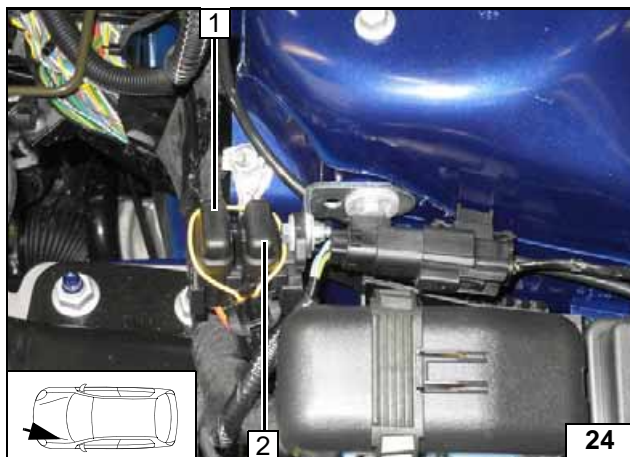
Fan speed need not be pre-set.

- 1 Set temperature to "HI" on both sides
- 2 Air outlet to windscreen



Fan speed need not be pre-set.

- 1 Set temperature to "HI" on both sides
- 2 Air outlet to windscreen



- 1 20A heater fuse F1
- 2 30A main fuse F2 of passenger compartment



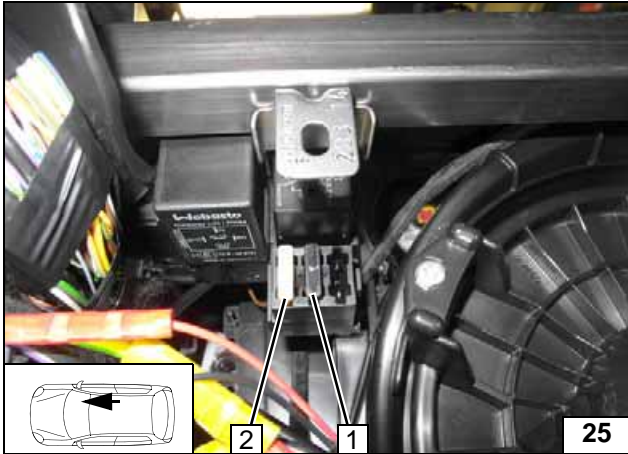
A/C control panel Version 1



A/C control panel Version 2

Engine compartment fuses

Ford Mondeo



- 1 1A heater control fuse F3
- 2 25A fan fuse F4

Passenger
compartment
fuses