

ThermoConnect



Control element for air - and water heaters

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1 Introduction

1.1 Use of symbols

| | Explanation |
|--|--|
| ▶ | Action to be taken |
| ✓ | Requirement for the following action |
|  | A note on a special technical feature |
|  | Separate information is available |
|  | A possibility on property damage |
|  | A possibility on a severe or mortal injury |

1.2 Warranty and liability

Webasto shall not assume liability for defects or damage that are the result of the installation and operating instructions being disregarded.

This liability exclusion particularly applies for:

- installation by untrained personnel
- improper use
- repairs not carried out by a Webasto service workshop
- use of non-original spare parts
- conversion of the unit without permission from Webasto

Parts of this manual might differ from the supplied product and/or services and is subject to change without further notice. Webasto reserves the right to modify, add or remove parts of this manual without further notice.

1.3 Safety



WARNING

Improper operation, installation or repair of Webasto heating and cooling systems can cause fire or the leakage of deadly carbon monoxide leading to serious injury or death.



WARNING

Risk of explosion, intoxication and suffocation, fires or other injuries while operating the heater.

- ▶ Follow the Air- or water heater related operating instructions.



In case of failure, replace the ThermoConnect as a whole.

1.4 Intended use

The ThermoConnect system is designed for controlling Webasto air - and water heaters with any compatible mobile phone or web app. The ThermoConnect is connected electrically to the air- or water heater and gets its commands using a 2G network connection. Commands are sent by a mobile phone with the ThermoConnect app or a web browser (My WebastoConnect).

 For more information, please contact the Webasto Service Centre.

2 Operating ThermoConnect

You can operate the air - or water heater in 3 ways:

- With the Push button.
- With the ThermoConnect app on a mobile phone.
- With the "My WebastoConnect" web page.

3 Push button

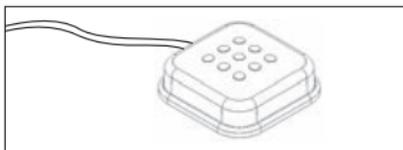


Fig.1 Push button

The Push button is located within the driver's reach. The Push button switches the air- or water heater on or off with a default duration (60 min).

- ▶ Press the Push button to start the air- or water heater.

If necessary, the default duration can be changed. See "5 My WebastoConnect web service" on page 3.

The backlight of the push button is also a status indicator:

- Off - Heater off
- Red (blinking) - The ThermoConnect is not connected, is searching for a network or is restarting
- Red (bright) - Heater on

Use of the Push button to restart and reset settings of the ThermoConnect.

- Restart See 6.2.1 on page 4
- Reset See 6.2.2 on page 4

4 Mobile phone app

- ✓ Make sure that the ThermoConnect app is installed on the mobile phone.

 To install the app: See "12 Initial start-up" on page 9.

The ThermoConnect is operated using any network-connected compatible mobile phone with the Webasto ThermoConnect app.

 Not all settings can be controlled by using the app. More settings are available in the web service. See "5 My WebastoConnect web service" on page 3.

5 My WebastoConnect web service

ThermoConnect settings can be controlled using the My WebastoConnect web service.

- ▶ Go to "my.webastoconnect.com".
- ▶ Enter the temporary identification number shown in mobile app under the My WebastoConnect item of the app or use the ThermoConnect account credentials.

 All app settings are also available in My WebastoConnect and will be synchronised automatically. Context-specific help for each setting is available in My WebastoConnect service.

6 Status light and reset button

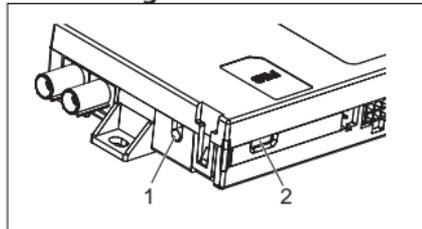


Fig.2 ThermoConnect status light

1. Reset button

2. Status light

6.1 Status light

Green (continuous): OK

Green (blinking): searching for network

☞ If there is a fault condition, please contact the Webasto Service Centre.

6.2 Restart and reset

Restart and settings reset can be performed both with the push button and with the reset button on the side of the ThermoConnect. See Fig.2

6.2.1 ThermoConnect restart

- ▶ Press and hold the push button for 10 s.
- ▶ Release the button.
 - The ThermoConnect restarts.
 - The status light blinks while the ThermoConnect restarts.

6.2.2 ThermoConnect settings reset

Reset to default settings.

- ▶ Press and hold the button for 10 s.
- ▶ Release the button.
- ▶ Press the button 3 times while the status light blinks.

☞ Settings reset performs the following functions:

- Connection settings revert back to default.
- Removes paired mobile users and user phone numbers.
- Removes all timers and location-based events.

7 Mobile network connection

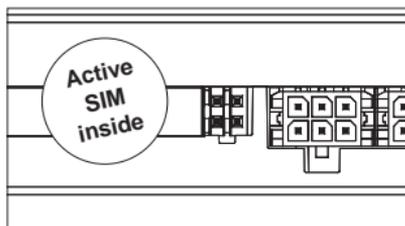


Fig.3 SIM card location inside device

A mobile phone with the ThermoConnect app is necessary to use the ThermoConnect. For more information see "12.1 Install the app on mobile phone" on page 9.

The ThermoConnect contains a pre-installed SIM card which is covered by the ThermoConnect subscription. An active ThermoConnect subscription is required to be able to use this device. A subscription fee is necessary.

7.1 Subscription

When subscription period nears expiration a reminder will be sent to the ThermoConnect mobile app and to user E-mail (if given in My WebastoConnect service).

7.2 Subscription renewal

Check and renew the current subscription in My WebastoConnect web service.

☞ If service subscription is not renewed before expiration then service will be suspended. To resume suspended service, a reactivation fee is applied. Replacement of pre-installed ThermoConnect SIM card with another operator's SIM card is not allowed.

7.3 List of supported countries

ThermoConnect will work in the following countries providing a 2G network is available:

| | |
|----------------|-------------------------------|
| Austria | Latvia |
| Belgium | Lithuania |
| Bulgaria | Luxembourg |
| Croatia | Malta |
| Cyprus | Netherlands |
| Czech Republic | Norway |
| Denmark | Poland |
| Estonia | Portugal |
| Finland | Romania |
| France | Slovakia (Slovak Republic) |
| Germany | Slovenia |
| Greece | Spain |
| Hungary | Sweden |
| Ireland | Switzerland |
| Italy | United Kingdom |

8 ThermoConnect installation

8.1 Scope of delivery

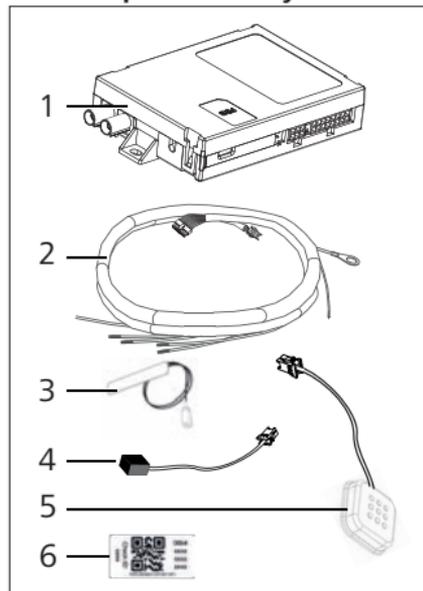


Fig.4 ThermoConnect and accessories

1. ThermoConnect
2. Wiring harness
3. External GSM antenna (purple connector)
4. External GPS antenna (blue connector)
5. Push button (with illumination and

temperature sensor)

6. QR-code labels (2x)

Not illustrated:

- Velcro stickers (2x)
- Operating- and Installation Instructions

8.2 Connectors and install location

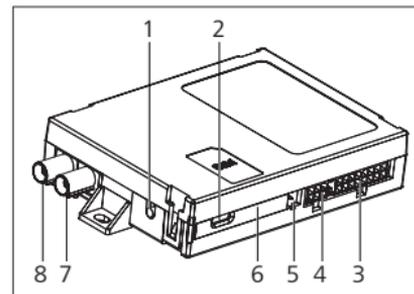


Fig.5 ThermoConnect connections

1. Reset button, see page 4
 2. Status light, see page 4
 3. 16-pin: ThermoConnect connector
 4. Not used
 5. 4-pin: Webasto heater connector
 6. SIM card (inside)
 7. GPS antenna connector (blue)
 8. GSM antenna connector (purple)
- Select an installation place for the ThermoConnect:

- Install the ThermoConnect only on flat surfaces to avoid bending of the casing.
 - The ThermoConnect must be installed inside the car, in a dry and protected place.
 - Below dashboard on driver side is recommended.
 - Make sure the status light is visible during operation.
- ▶ Mark the location of the ThermoConnect in the drawing in Fig.21

8.3 Push button installation

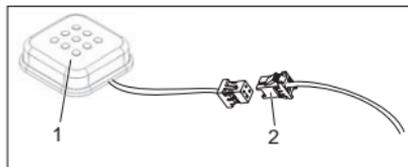


Fig.6 Push button

1. Push button
2. Plug on the ThermoConnect wiring harness

⚠ Do not disconnect the connector from the cable.

- ▶ Install the Push button at an accessible location, a protected area.

⚠ The Push button includes a temperature sensor. Make sure that the air can flow around the Push button, but it must be shielded from direct air flow from ventilation ducts.

⚠ The Push button must be installed. The Push button has four functions:

1. Switch the heater on/off.
2. Acknowledge new users.
3. Measure the temperature.
4. Reset or restart ThermoConnect, see page 4.

8.4 Antenna installation (GSM and GPS)

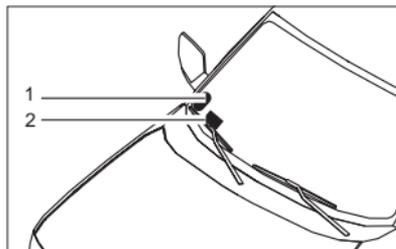


Fig.7 Antenna installation example

1. GPS antenna
2. GSM antenna

⚠ Do not disconnect the plugs from the cables.

⚠ Installation:

- GPS antenna:
 - The text 'GPS' is facing up.
 - GPS needs a clear view of the sky.
- GSM antenna:
 - Not close or next to metal surfaces.
 - For the best signal reception: Preferably, install the GSM antenna (2) as high as possible. Generally, higher antenna position means better signal reception.

- ▶ Select an installation area for the antennas, for example, at the bottom edge of the windshield.
- ▶ Clean the installation spot of any dirt, grease or stains
- ▶ Attach / install the antennas with adhesive tape.
- ▶ Feed the wires from GPS antenna and GSM to the ThermoConnect.
- ▶ Press the plugs on to the ThermoConnect.
- Purple = GSM antenna
 - Blue = GPS antenna

9 Wiring harness installation

The ThermoConnect can be integrated in the car system in two ways.

1. Using the control element plug from the heater wiring harness and the Push button part of the ThermoConnect wiring harness, see § 9.1
2. Using only the ThermoConnect wiring harness, see § 9.2

Use option 2 only if the heaterplug is not available and/or you require extra inputs/outputs.

9.1 Using heater wiring harness

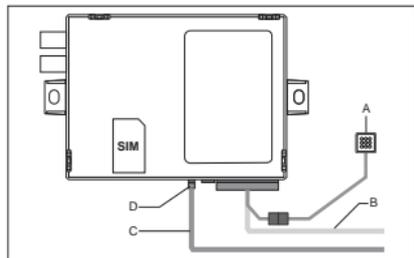


Fig.8 Control element plug from the heater.

 See heater wiring harness.

- ▶ Connect the ThermoConnect wiring harness (B) to the 16-pin connector.
- ▶ Connect the Push button (A) to the plug on the ThermoConnect wiring har-

ness, see Fig.6.

- ▶ Check the wiring of the Control element plug from the heater (Fig.9). Correct if necessary.
- ▶ Connect the Control element plug from the heater wiring harness (C) to the 4-pin W-bus or analogue connector on the ThermoConnect (D). Pay attention to the connector orientation!
- ▶ Tie up the loose part of the ThermoConnect wiring harness (B).

4-pin plug

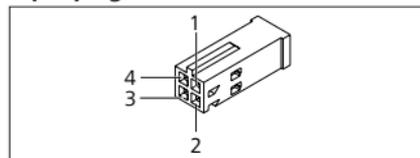


Fig.9 4-pin plug from heater wiring

| Pin | Colour | Description |
|-----|--------|----------------|
| 1 | Yellow | W-bus |
| 2 | -- | -- |
| 3 | Red | Pin 30, supply |
| 4 | Brown | Pin 31, ground |

 **Do not** connect the ThermoConnect wiring harness supply voltage and ground when using heater wiring harness! The ThermoConnect receives supply voltage and ground from the heater via the 4-pin plug.

9.2 Using ThermoConnect wiring harness

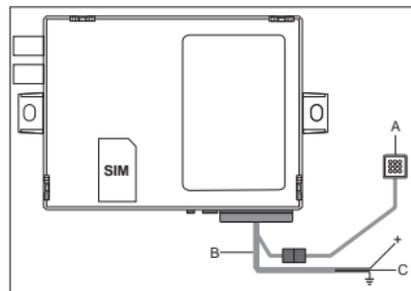


Fig.10 ThermoConnect with supplied wiring harness

- ▶ Connect the Push button (A) to the plug on the ThermoConnect wiring harness, see Fig.6.
- ▶ Connect the **orange** W-bus wire (pin 2) of the ThermoConnect wiring harness (C) to the **yellow** W-bus wire from the heater or connect output 1 (pin 10) or 2 (pin 11) to the black (control) wire on the heater wiring harness.

 See heater wiring harness.

- ▶ Check if the power supply is fused with a 5 A fuse.
- ▶ Connect the red wire (pin 9, +) to the power supply.

 In multi-battery systems connect the wiring harness to the battery that is connected with the air- or water heater.

- ▶ Connect the brown wire (pin 1) of the ThermoConnect wiring harness (⚡) to ground.
- ▶ Connect the plug of the ThermoConnect wiring harness (B) to the 16-pin connector on the ThermoConnect.
- ▶ Tie up the loose part of the ThermoConnect wiring harness.

 If necessary then update wiring harness of the heater.

- ▶  Always check the wiring diagram of the heater.
- When connecting more than one control element to a heater: Make sure that the heater and the control devices are connected via WBus (Pin2 / yellow wire) .

16-pin plug

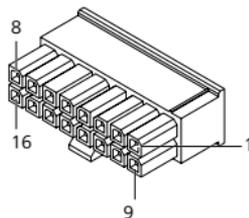


Fig.11 ThermoConnect 16-pin plug

See also Fig.22

| Pin | Colour | Description |
|-----|--------|--|
| 1 | Brown | Pin 31, ground |
| 2 | Orange | W-bus |
| 3 | | Not connected |
| 4 | | Not connected |
| 5 | | Not connected |
| 6 | Brown | Push button |
| 7 | Grey | Input 1, (+ 0 V...+32 V, min. Impedance 10 kΩ, state up >5 V, state down < 0.5 V) |
| 8 | Violet | Input 2, (+ 0 V...+32 V, min. impedance 10 kΩ, state up > 5 V, state down < 0.5 V) |

| Pin | Colour | Description |
|-----|--------|---|
| 9 | Red | Pin 30, supply, (+9 V...+32 V, 5 A fuse required) |
| 10 | Yellow | Output 1, (0.5 A, same as supply voltage when controlled)  This is not the W-bus signal. |
| 11 | White | Output 2, (0.5 A, same as supply voltage when controlled) |
| 12 | Green | Push button |
| 13 | Grey | Push button |
| 14 | Blue | Push button |
| 15 | | Not connected |
| 16 | | Not connected |

9.3 Heater wiring harness

(Ref. Fig.9)

- W-bus: connect yellow wire.
- Analogue heater: connect black wire.

 Always check the wiring diagram of the heater.

10 Vehicle ventilation control

The ThermoConnect can be configured to control the vehicle ventilation separately.

- ▶ Connect either Output 1 (Pin 10) or

Output 2 (Pin 11) to the car ventilation control.

Add another control button in the mobile app via the "My WebastoConnect" service. The button will then appear in the mobile app automatically.

Heating still controls ventilation automatically: the user must not use both heating and ventilation controls simultaneously.

11 ThermoConnect identification label



Fig.12 Example: label with QR code

The ThermoConnect identification label is needed to pair the mobile app with the ThermoConnect device.

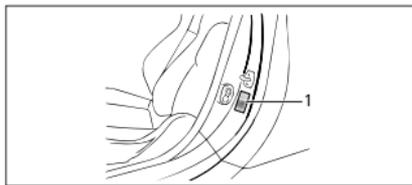


Fig.13 Example: location doorpillar

- ▶ Attach one label to a place where it can be scanned using the phone camera. For example to the vehicle A- or B-pillar, the side of the dashboard or on the fuse compartment lid.
- ▶ Attach the other label on Fig.23.

12 Initial start-up

12.1 Install the app on mobile phone



Fig.14 ThermoConnect app

Example of the app on a mobile phone

- ▶ On mobile phone, check if the mobile phone is connected to a network (an internet connection must be available).
- ▶ Go to the relevant app store. **Search**

for 'ThermoConnect'. Apple App Store and Google Play have the app available. This step can also be performed by using the QR code.

- Apple App Store see Fig.15
- Google Play see Fig.16
- ▶ Install the ThermoConnect mobile app on the phone.
- ▶ Connect the phone with the ThermoConnect following the instructions on the mobile phone app. During this step the QR code on the vehicle or on the back of this manual needs to be scanned. The ThermoConnect app will ask for this step.



Fig.15 Apple iOS



Fig.16 Android OS

12.2 Connect the mobile phone

- ✓ Make sure that you have the ThermoConnect app installed.

Step 1 of 4

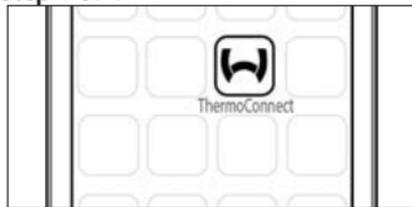


Fig.17 ThermoConnect App

- ▶ Launch the mobile app by clicking the Webasto icon.

Step 2 of 4

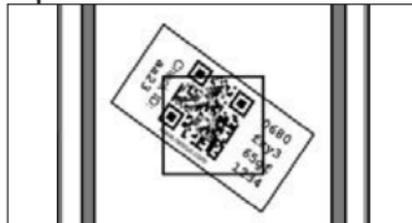


Fig.18 Scanning Label

- ▶ After clicking "Add device", enter name.

- ▶ Scan the QR code using the phone camera. Location: on vehicle or at the back of this operating- and installation instructions (see chapter 11).

Step 3 of 4



Fig.19 Add device, example view of the app

- ▶ Confirm the new ThermoConnect information by clicking "OK" or "Create".

Step 4 of 4

- ▶ ThermoConnect is connected and ready for use. For more information see "<https://www.webasto-comfort.com>". Select the "ThermoConnect".

12.3 User management

More than one user may use the ThermoConnect. When adding new users (see „12.2 Connect the mobile phone“), an identification message is required from the new user. Existing users receive this message as a notification in their app. Existing users must confirm or deny a new user.

If user gets a new phone and tries to pair the mobile phone without access to the previously paired phone, the confirmation can be done with push button: Press and hold push button for 10 seconds to approve new user.

13 Legal requirements

| Regulation | Typ approval number |
|------------|---------------------|
|------------|---------------------|

ECE R10  10R - 04 0110

The stipulations of these regulations are binding in the area covered by EU Directive 70/156/EEC and/or 2007/46/EC (for new vehicle models from 29/04/2009) and should also be observed in countries where there are no specific regulations. Failure to follow the installation instructions and the notes contained therein will lead to all liability being refused by Webasto.



WEEE directive

This symbol indicates that this product is not to be disposed of among regular household waste, according to WEEE directive 2012/19/EC and your national law. This product must be handed over to a designated collection point or to an authorized collection site for recycling waste electrical and electronic equipment.

13.1 CE-Declaration of Conformity

Hereby, Webasto declares that the radio equipment type ThermoConnect is in compliance with the Directive 2014/53/EU. The full text of the EU declaration of conformity is available at "[Webasto technical services](#)". Select product type "Control Units" and product "ThermoConnect".

14 Technical data

| | ThermoConnect |
|-------------------------------------|---------------|
| Supply voltage | +9 V...+32 V |
| Operating temperature | -40...+80 °C |
| Typical current consumption in idle | <60 mA (12 V) |

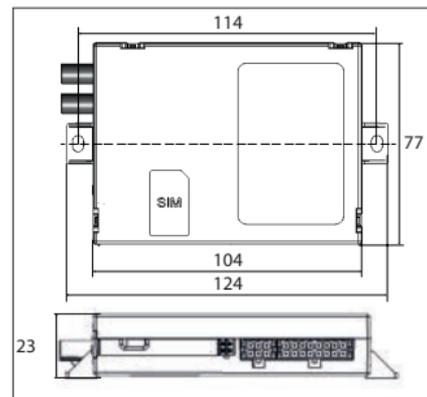


Fig.20 ThermoConnect dimensions
Dimensions in mm.

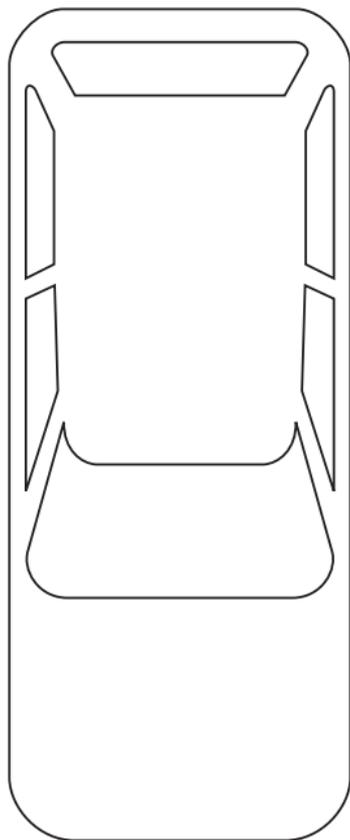


Fig.21

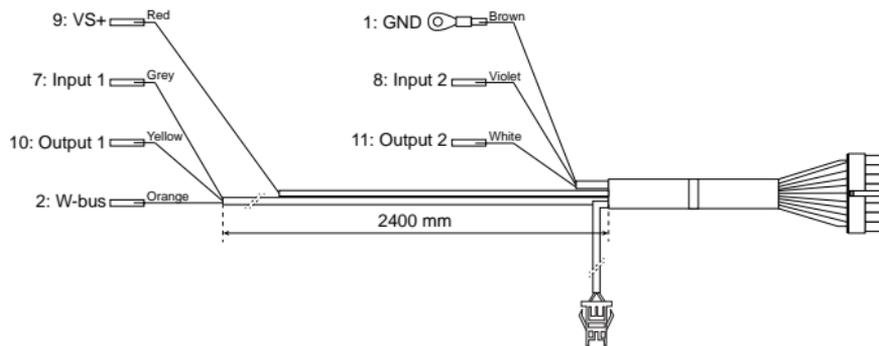


Fig.22



Fig.23

These are the original instructions. The English language is binding. You can request your language if it is missing. The telephone number of each country can be found in the Webasto service centre leaflet or the website of the respective Webasto representative of your country.

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