

# Installation Instructions

Control element

UniControl



English

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# 1 About this document

## 1.1 Purpose of the document

These installation instructions are part of the device and contain all the information required to ensure correct and safe installation.

## 1.2 Enclosed documents

All documents are provided on the enclosed DVD and are available from <http://dealers.webasto.com>.


Printed copies of the following documents are enclosed with this unit:

- Quick Start Guide
- Information Sheet for Initial Start-up



## 1.3 Using this document

- ▶ Print out these Installation Instructions as required.
- ▶ Read these Installation Instructions before installing the unit.
- ▶ Read the operating instructions before operating the unit.

## 1.4 Use of symbols and highlighting

Texts with the symbol  refer to separate documents which are enclosed or can be requested from Webasto.

Texts with the symbol  refer to technical features.

Texts with the symbol  or  refer to possible material damage, risk of accident or injury.

Highlight	Explanation
✓	Requirements for the following necessary action
▶	Necessary action

# 2 Safety

## 2.1 Qualifications of installation personnel

The installation personnel must have the following qualifications:

- Successful completion of Webasto training
- Corresponding qualification for working on technical systems

## 2.2 Regulations and legal requirements

- ▶ Read and follow the operating instructions before starting up the heater.

### Directives

EMC Directive

### Type-approval numbers for UniControl

ECE R10  05 8205 UniControl

The regulations of these guidelines are binding in the scope of the Directive 70/156/EEC and/or 2007/46/EC (for new vehicle models from 29/04/2009) and should also be observed in countries in which there are no special regulations. Failure to follow the installation instructions will result in the invalidation of the type approval for the heater and therefore invalidation of the general homologation of the vehicle. For vehicles with an EU type approval, an entry is not required in accordance with § 19 section 4 of appendix VIII b of StVZO. Country-specific registration regulations must be complied with.

### Intended use

The control element UniControl is used to operate the Webasto water or air heaters for cabin and engine preheating.

The control element UniControl is currently approved for connection to certain Webasto water or air heaters.



### DANGER

- Do not operate the heater in closed rooms due to the danger of poisoning and suffocation.
- Always switch off the heater before refuelling.
- The improper operation, installation or repair of Webasto heaters and control elements can cause fire or the leakage of deadly carbon monoxide. This can lead to serious injury or death.
- Webasto shall not assume liability for defects or damage that are the result that the installation and operating instructions as well as the instructions contained therein 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-genuine parts
  - Conversion of the heater without permission from Webasto
- If faulty always replace the complete control element.

## 2.3 Safety precautions

### Safety information on installation



#### ATTENTION

##### Danger of electrical short circuit caused by live parts

- ▶ Disconnect the vehicle on-board power supply from the battery before installation.



#### ATTENTION

##### Danger of lacerations on sharp edges

- ▶ Fit protectors on sharp edges.

### Safety information on operation



#### WARNING

##### Risk of explosion in environments with combustible vapours, flammable dust and hazardous goods (e.g., petrol stations, tank facilities, fuel store, coal bunkers, timber yard or grain warehouses)

- ▶ Do not switch on or operate the heater.



#### WARNING

##### Risk of intoxication and suffocation from exhaust fumes in closed rooms without exhaust gas extraction

- ▶ Do not switch on or operate the heater.

## 3 Unit description

### 3.1 Scope of Delivery

- UniControl
- Quick Start Guide
- DVD (documentation)
- Adapter cable
- Information Sheet for Initial Start-up

### 3.2 Type label

The type label is affixed to the rear of the control element.

### 3.3 Functional description

#### Control Element

The control element UniControl is used to operate the Webasto water or air heaters for cabin and engine preheating.

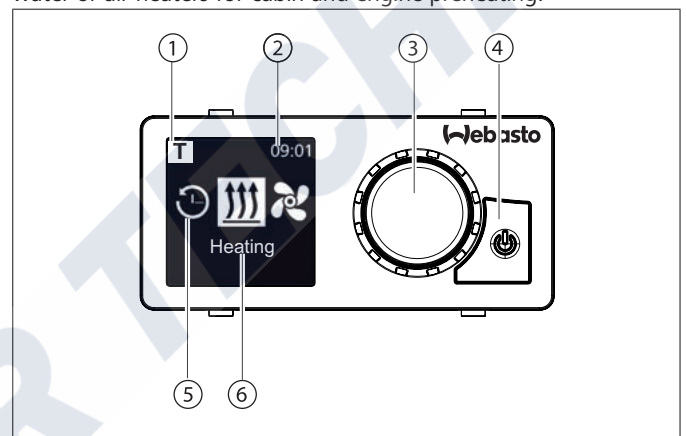


Fig. 01: Control element UniControl

Activated time settings, ADR display (dependent on version)

- 1 Timer (time setting)
- 2 Time
- 3 Control knob
- 4 Quick start button with status display
- 5 Symbol menu selection
- 6 Menu name

## 4 Installing the control element

### 4.1 Notes on installation



#### CAUTION

**Danger of fire due to drilling into electrical cables**

Burn injuries

- ▶ Arrange electrical cables behind the installation area outside the drilling points.



#### CAUTION

**Injuries by touching sharp edges**

Grazing of the skin, cuts

- ▶ When installing use protective gloves.

### 4.2 Installation location requirements:



Comply with legal requirements.

The installation location must satisfy the following requirements:

- ✓ Vehicle interior
- ✓ Ease of access
- ✓ Clear visibility
- ✓ Clean, dry and free of grease
- ✓ Protected from moisture
- ✓ Protected from heat, not in direct hot air flow
- ✓ Sufficient clearance behind installation location

### 4.3 Installing the control element

#### Installation

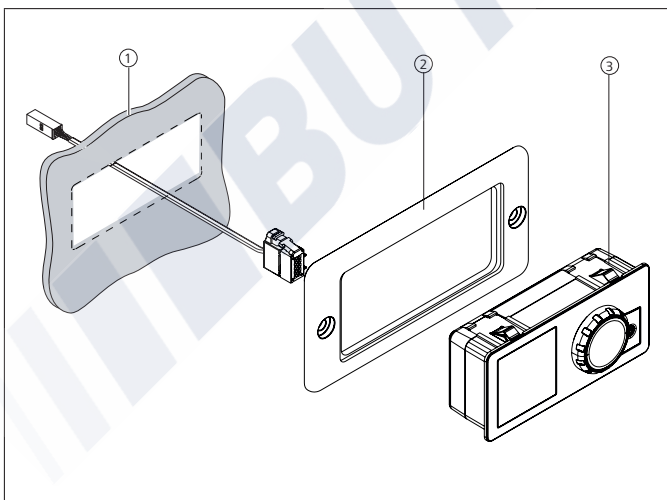


Fig. 02: Installing the control element

- 1 Installation location
- 2 Optional: installation frame
- 3 Control Element

- ▶ Determine the installation location.
- ▶ Cut out the installation opening.

- ▶ Locate bushing for control element wiring harness.
- ▶ Rotate control element wiring harness through installation opening.
- ▶ Attach connector.
- ▶ Carefully latch control element into position.

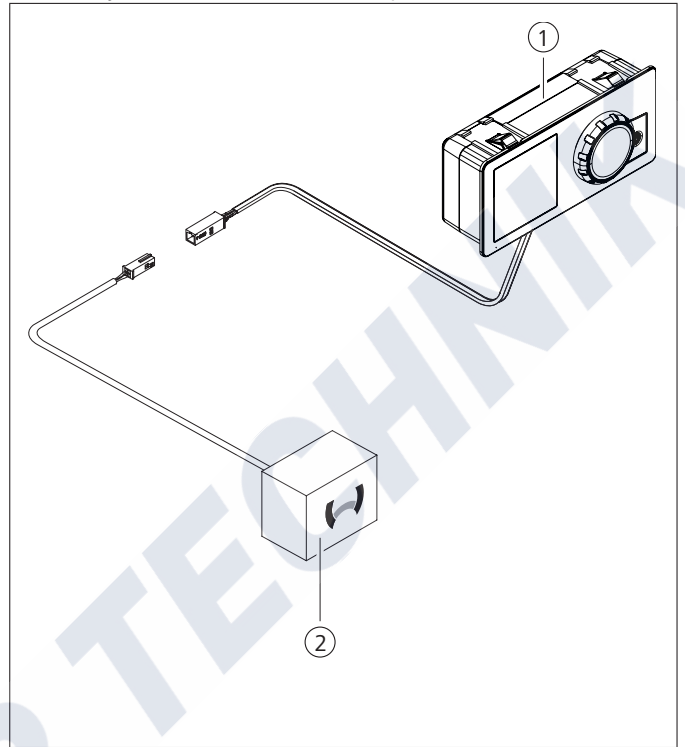


Fig. 03: Example of connecting control element (1) to heater (2)

# 5 Initial start-up

## 5.1 Information on initial operation



**WARNING**

**Inhaling poisonous gases in the enclosed rooms**

Danger of poisoning and suffocation

- ▶ Never operate the heater (also not with programmed heating start) in closed rooms such as garages or workshops that do not have an exhaust extraction unit.
- ▶ In workshops with exhaust extraction facilities, make sure that the exhaust extractor is fully operational.



**WARNING**

**Hazardous substance transportation (ADR): programmed heating start not permitted**

- ▶ Select and confirm ADR function in the menu. See „6.3 Select ADR function“ on page 7.
- ▶ Observe additional provisions for the installation of the control element in vehicles for hazardous substances.

- ✓ Heater is correctly installed.
- ✓ Control element is correctly installed.
- ✓ Vehicle on-board power supply is connected to the battery voltage.

**Select heater**



Is omitted if the heater is automatically detected

Rotate the control knob and select the installed heater.

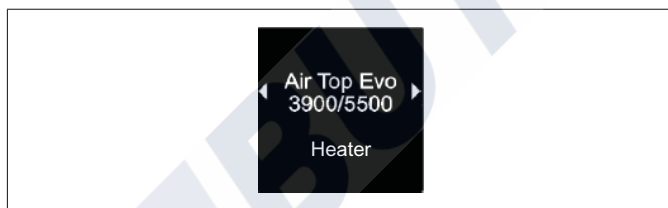


Fig. 04: "Heater" menu element

- ▶ Press the control knob.

**Setting the day of the week:**

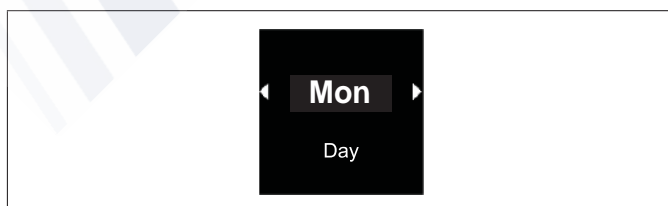


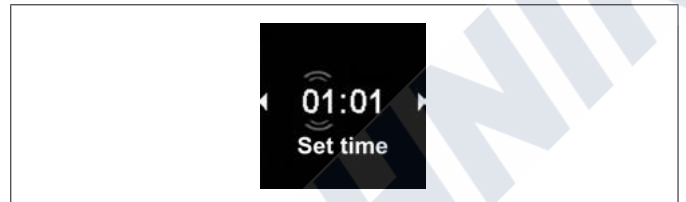
Fig. 05: Day of the week

- ▶ Rotate the control knob, select weekday.



Fig. 06: Setting the time

**Setting the time:**



- ▶ Rotate the control knob, set the hour.
- ▶ Press the control knob.
- ▶ Rotate the control knob, set the minutes.
- ▶ Press the control knob.

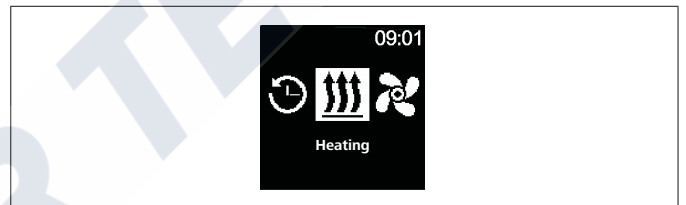


Fig. 07: Main menu

When the main menu is displayed, initial start-up is completed.



The selected heater can be changed at a later date using the Service menu. See „6.2 Manual heater selection“ on page 7.


## 6 Service menu

### 6.1 Bringing up the Service menu

#### On initial start-up



As for reset option, all settings are restored to factory settings (standard settings are configured by a service technician) except a day of a week and an hour.

- ▶ Select the "Settings" symbol  from the main menu.

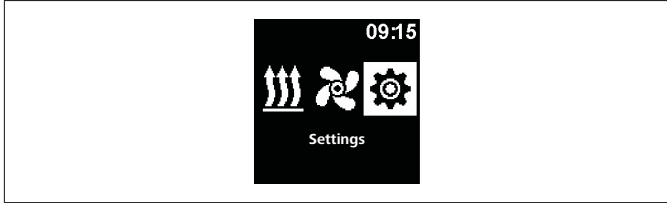


Fig. 08: "Settings" menu element

- ▶ Press the control knob.
- ▶ Select the "Reset" menu element.

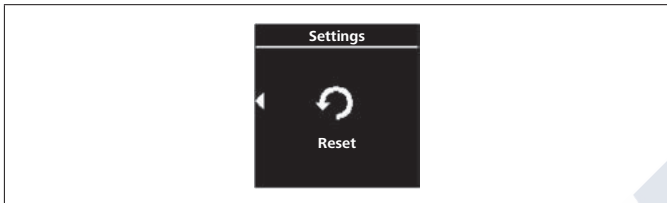


Fig. 09: "Reset" menu element

- ▶ Press the control knob.

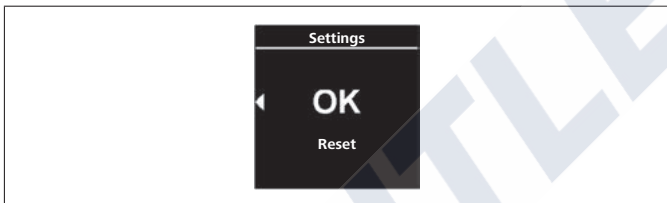


Fig. 10: "Confirm reset" menu element

- ▶ Press the control knob again to confirm the menu selection.
- ▶ **Immediately press the control knob and quick start button simultaneously for 3 seconds.**
- ▶ The Service menu is shown.

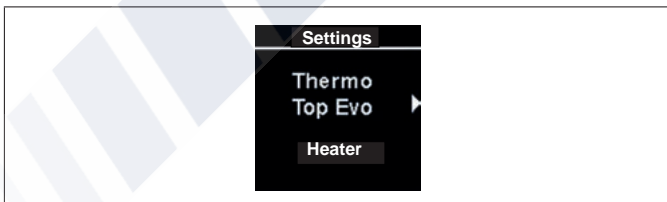


Fig. 11: "Heater" menu element

Rotate the control knob clockwise to select the menu elements.

### 6.2 Manual heater selection

- ▶ Bring up the Service menu.

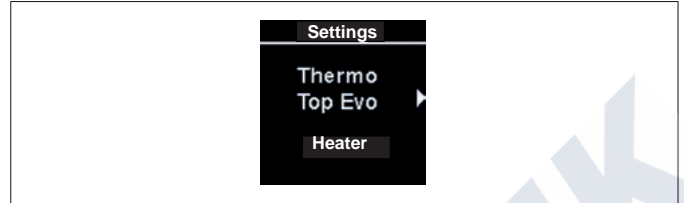


Fig. 12: "Heater" menu element

- ▶ Press the control knob.

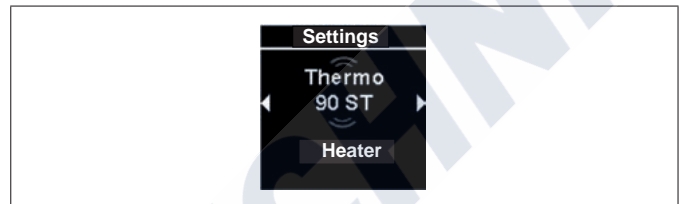


Fig. 13: "Heater" menu element, example Thermo 90 ST



Information on selecting the appropriate heater can be founded in the table in the supplementary sheet.

- ▶ Rotate the control knob and select the installed heater.
- ▶ Press the control knob; the heater has been selected.
- ▶ Rotate the control knob counterclockwise and select "Back".
- ▶ Press the control knob.

### 6.3 Select ADR function

- ▶ Bring up the Service menu.
- ▶ Rotate the control knob clockwise.
- ▶ Select the "ADR" menu element.

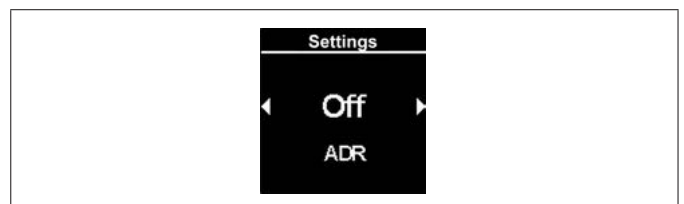


Fig. 14: "ADR" menu element

- ▶ Press the control knob (select ADR "On" or "Off")

Rotate the control knob counterclockwise and select "Back".



"Off": UniControl with timer function (factory setting)

"On": UniControl has no timer function.

## 6.4 Unlock heater



### CAUTION

#### Possible risk of fire

Burn injuries

- ▶ Rectify cause of error.
- ▶ The heater may only be unlocked by trained technicians.



### ATTENTION

#### Risk of damage to the heater

- ▶ Rectify cause of error.
- ▶ The heater may only be unlocked by trained technicians.

- ▶ Bring up the Service menu.
- ▶ Rotate the control knob clockwise.
- ▶ Select the "Unlock heater" menu element.

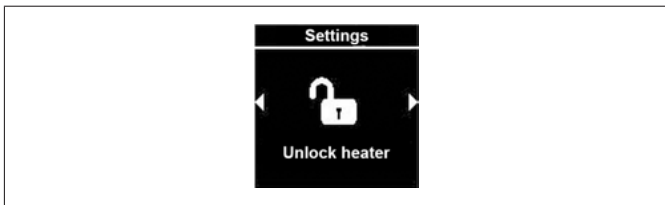


Fig. 15: "Unlock heater" menu element

- ▶ Press the control knob on "Unlock heater".
- ▶ Rotate the control knob and select "Delete fault code OK" or "Back" (cancel).
- ▶ Press control knob. error codes in the heater will be deleted.

## 6.5 Reset to factory settings



Selecting "Reset to factory settings" returns the control element to the delivered state. All presettings are lost.

- ▶ Bring up the Service menu.
- ▶ Rotate the control knob clockwise.
- ▶ Select the "Factory reset" menu element.

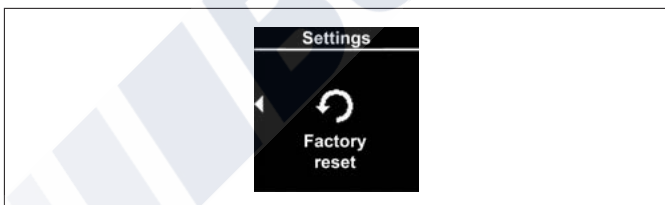


Fig. 16: "Factory reset" menu element

- ▶ Press the control knob.
- ▶ Rotate the control knob and select "Reset OK" or "Back" (cancel).
- ▶ Press the control knob.  
The control element returns to the delivered state.



# 7 Troubleshooting

## 7.1 Fault code output



The heater will output a fault code on the control element if a fault occurs during heating mode.  
 ► Pressing the quick start button confirms the error display.



An error that has occurred is shown on the control element display as Txx, Fxx or Hxx and the quick start button flashes red. The error information is stored in the error memory. Stored errors can be shown in the menu under "Settings".



You will find further information in the operating instructions.

**Table of internal control element errors "Txx"**

Fault code	Faults	Fault description	Troubleshooting
<b>Ted</b>	Supply voltage too high	Supply voltage exceeds 36V.	Check car electrical installation.
<b>Te3</b>	Display background illumination faulty	-	Contact Webasto service workshop
<b>Te4</b>	Defective LED status	-	
<b>T12</b>	Communication error on the W-bus	-	Check installation.
<b>Te7/Te8</b>	-	-	Contact Webasto service workshop
<b>Tea</b>	Faulty feedback signal from heater (ST)	-	Check installation.
<b>Tec</b>	Control knob sticking	Control knob pressed for longer than 10 seconds.	Contact Webasto service workshop
<b>T46</b>	Excess current/short circuit at switch output	Current exceeds 500mA.	Check installation. Ensure that the consumer at the switch output is not drawing more than 500mA.
<b>Te0</b>	Reduced voltage	Supply voltage is below value set by technician.	
<b>T84</b>	Operating voltage too low	Supply voltage is less than 8V.	Charge the battery and check car electrical installation.
<b>Te1</b>	Ambient temperature too low or too high	Ambient temperature is outside the operating range of -20°C to +70°C.	The error disappears automatically when the ambient temperature is once more within the range of -20°C to +70°C.
<b>Teb</b>	RTC fault	-	In case of voltage interruption lasting more than 8 minutes: Enter day/time again. If this error appears without voltage interruption: Contact Webasto service workshop
<b>Tee</b>	-	-	Contact Webasto service workshop

### Errors relating to a connected heater

Fault code	Faults	Fault description	Troubleshooting
<b>F01 to F15</b> <b>F01 to F99</b>	Heater error (analogue)	See workshop manual for heater	Contact Webasto service workshop
<b>H01 to Hxx</b>	Heater error (W-bus)		

## 8 Technical data

Parameters	Values
Rated voltage [V]	12 or 24
Maximum current consumption (during operation without external relay, depending on display brightness) [mA]	20 to 40
Maximum current consumption (in standby) [mA]	0.8
Permissible operating temperature [°C]	-40 to +70
Permissible storage temperature [°C]	-40 to +90
Control element dimensions [mm] (length x depth x height)	30.6x88.6x41.6
Weight [g]	55

## 9 Electrical Connections

### Connector designation

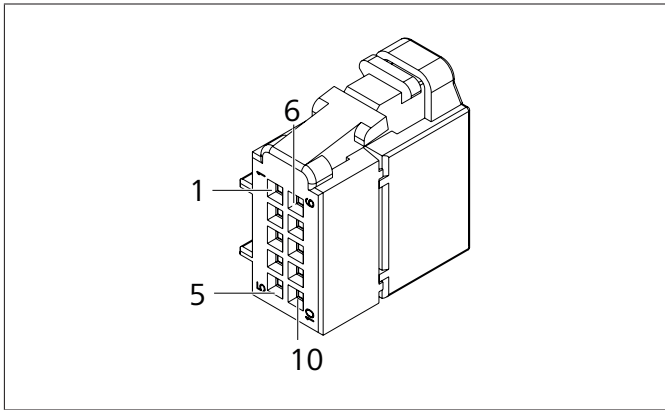


Fig. 17: UniControl wiring harness connector

Terminal	Description	Remarks
1	Connector 31 (Vehicle)	Battery -
2	W-bus	Data link for heater
3	Switch output	Analog switch-on signal for the heater
4	Switch input	Button, analog Switches on by a temporary chassis ground (terminal 31).
5	Connector 30 (Vehicle)	Battery +
6	Setpoint sensor -	Temperature set point (only for analog air heaters)
7	Setpoint sensor +	
8	-	-
9	Connector 58 (Vehicle)	Illumination (dashboard illumination)
10	Connector 15 (Vehicle)	Ignition positive

Dimensions (mm)

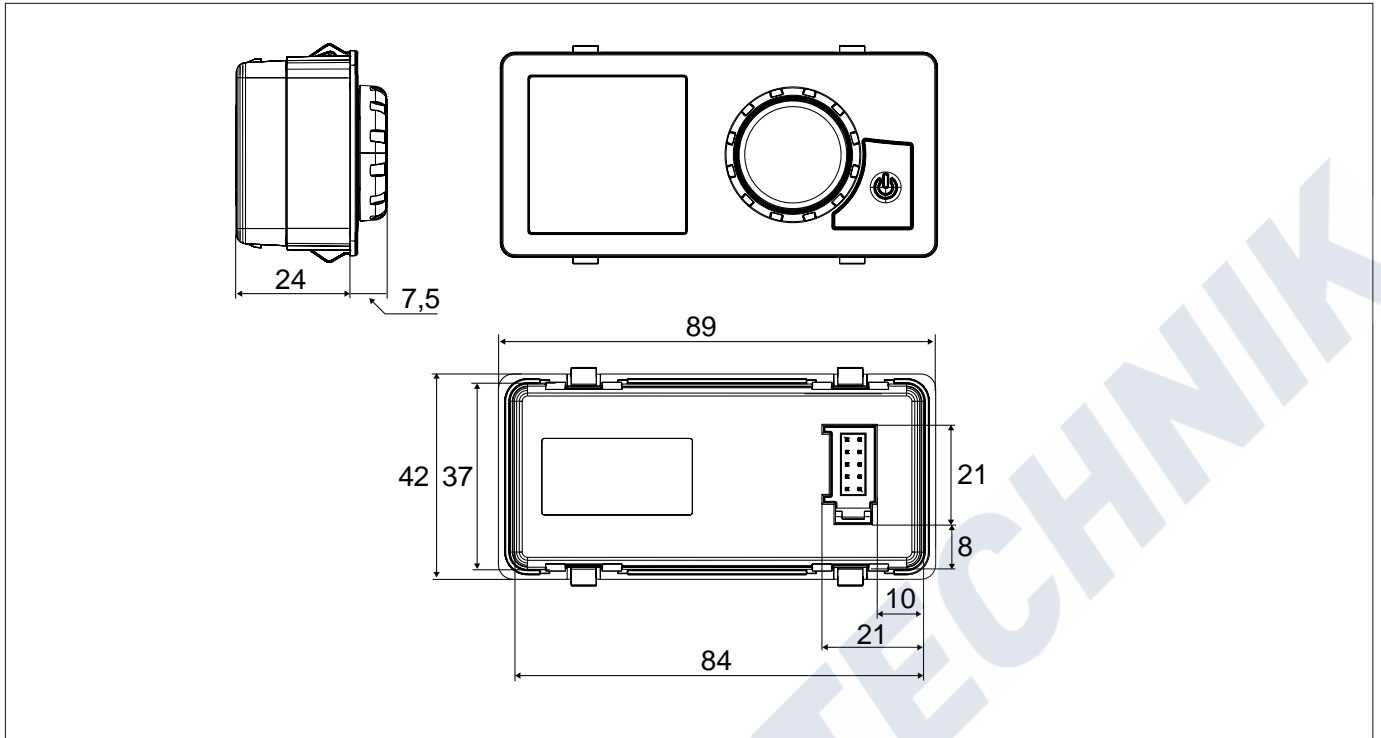


Fig. 18: DimensionsUniControl

UniControl drilling template

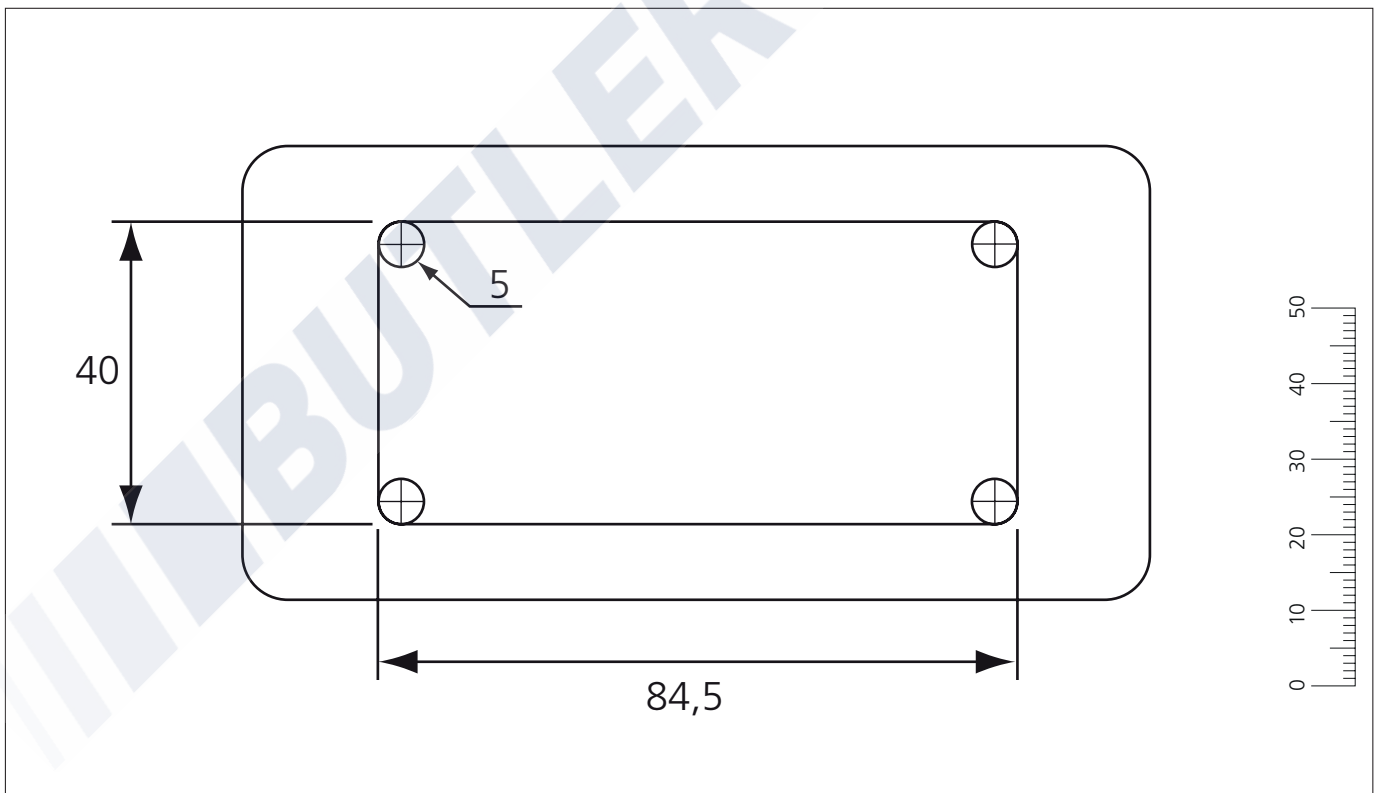


Fig. 19: Drilling template

In multilingual versions the German language is binding. You can request your language if it is missing.

The telephone number of the respective country can be obtained from the Webasto service point flyer or the homepage of your respective Webasto country representative.

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