

INSTALLATION INSTRUCTIONS

Easystart Remote+ - 22.1000.34.1700



CONTROL UNIT FOR
EBERSPÄCHER PARKING HEATERS



A WORLD OF COMFORT



Eberspächer

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1 INTRODUCTION

PLEASE READ FIRST

Before you start to install the radio remote control, please ensure you read through these installation instructions carefully.

These installation instructions contain important information, which you need to install the radio remote control.

GENERAL INFORMATION / SAFETY INSTRUCTIONS

The pulses of the mobile unit have a range of up to 1000 metres outdoors (direct visual contact). External interference, local conditions and high building density in the surrounding area shorten the range.

The choice and positioning of the antenna have a decisive effect on the range.

The room temperature sensor must be connected to use the full functional scope of the radio remote control.

The room temperature sensor supplied must be connected, otherwise the temperature cannot be displayed in the mobile unit's display and automatic operating time calculation is not possible.

DANGER!

- Only the battery cover of the mobile unit may be opened.
- The battery and battery cover must be kept out of reach of children – swallowed small parts.
- Before washing clothing, remove the mobile unit from pocket.
- Protect the mobile unit from adverse effects (impacts, extreme temperatures, moisture, rain, liquids).
- The mobile unit and heater must be switched off when refuelling.
- Dispose of the battery and mobile unit according to the statutory regulations.
- Only use the recommended battery and original spare parts.
- All information and notes, in particular the safety instructions in the heater's technical description and in the EasyStart Remote+ operating instructions must be observed at all times!

1 INTRODUCTION

INTENDED USE


The bidirectional EasyStart Remote+ radio remote control (mobile unit in conjunction with stationary unit) is used for remote controlled switching on / off and presetting the switching on time, operating time and mode of the heater and / or add-on unit installed in the vehicle.



PLEASE NOTE!

Improper use and use outside the specified area of use cancels all liability and warranty.

VENTILATION OPERATING MODE

If the  symbol is not displayed in the Menu bar, VENTILATION mode is not possible for the heater used.

In VENTILATION mode the vehicle fan in the case of water heaters, and the heater's fan in the case of air heaters, is actuated directly by bypassing the heating mode.

1 INTRODUCTION

TECHNICAL DATA

Mobil unit:

Frequency	434.6 MHz
Transmit Power	10 mW
Operating voltage	3 V (battery) CR 2430
Dimensions	66 x 41 x 15.7 mm
Operating temperature	-20 °C to +60 °C
Storage temperature	-40 °C to +85 °C
LCD ambient temperature	The display becomes sluggish in temperatures below -10 °C, i.e. the flashing sequence of the symbols is somewhat slower, the contrast becomes weaker above +70 °C.

Stationary unit

Frequency	434.6 MHz
Transmit Power	10 mW
Operating voltage	12 V / 24 V
Dimensions	76 x 76 x 29 mm
Operating temperature / storage temperature	-40 °C to +85 °C
Antenna connection	Via coded SMB connector.

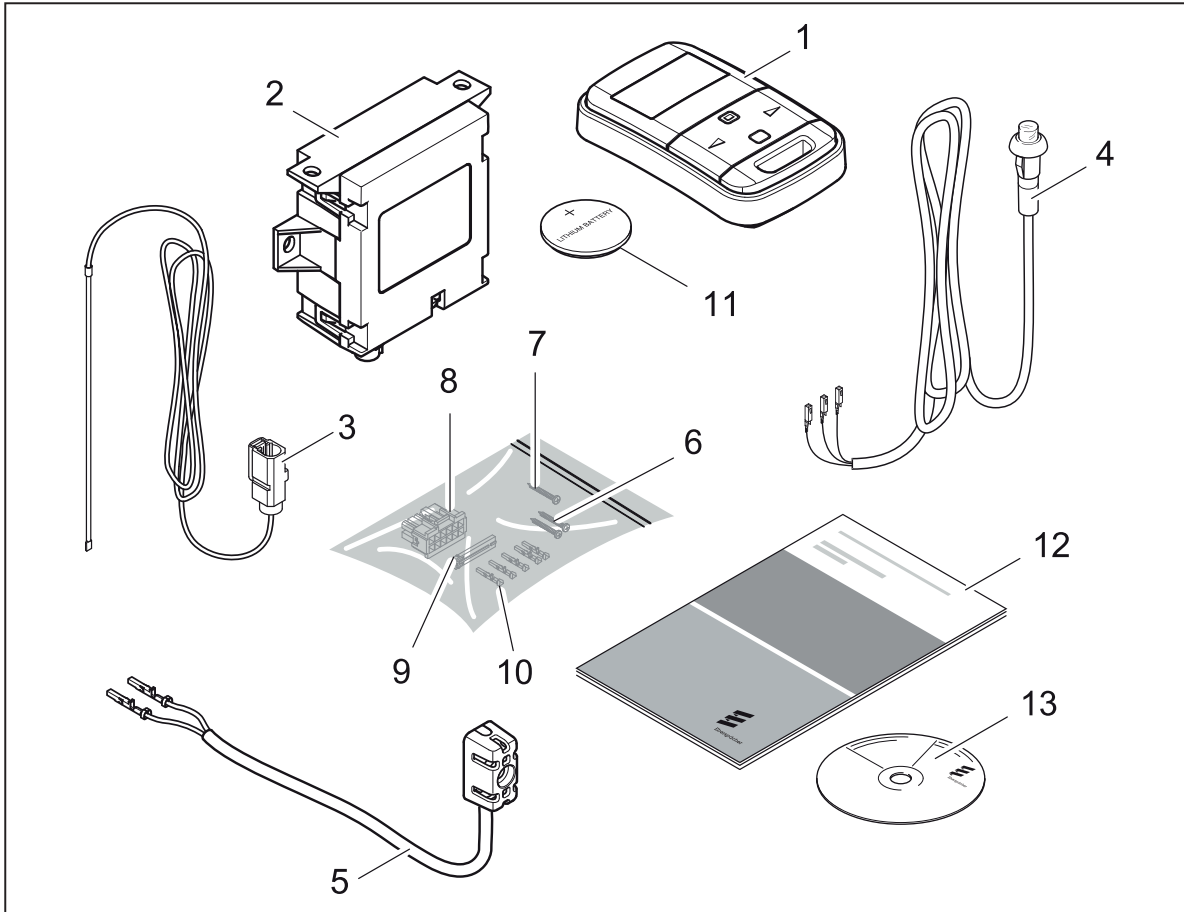
SCOPE OF SUPPLY

Order No. 22 1000 34 17 00 (Sketch [see page 7](#)).

No. in sketch	Quantity	Designation
1	1	Mobile unit
2	1	Stationary unit
3	1	Antenna
4	1	Button
5	1	Room temperature sensor
6	2	Self-tapping screws B3.9 x 19 for stationary unit
7	1	Self-tapping screws B2.9 x 19 for temperature sensor
8	1	Bush housing
9	1	Contact locking device
10	5	Contacts
11	1	Battery
12	1	Quick start guide
13	1	CD-ROM

1 INTRODUCTION

SKETCH OF EASYSTART REMOTE+ SCOPE OF SUPPLY



Key [see page 6](#)

2 INSTALLATION

INSTALLATION

The stationary unit is installed inside the vehicle together with the button, the room temperature sensor and the antenna.

INSTALL STATIONARY UNIT

Use the screws supplied to install the stationary unit in a dry place inside the vehicle, but not near ventilation air outlets or directly next to the fan motor.

INSTALL BUTTON

Install the button within the driver's view; the preferred place for installation is the dashboard.

Drill a hole \varnothing 10 mm e.g. in the dashboard, then clip in the button.

PLEASE NOTE!

Always install the button. The button LED is used as the operating display.

INSTALLING THE ROOM TEMPERATURE SENSOR

Use the screw provided to fasten the supplied room temperature sensor inside the vehicle so that it measures the representative interior temperature.

Do not position the room temperature sensor in an area in which is exposed to direct sunlight, near the outlet vents of the vehicle or in the footwell.

Recommendation:

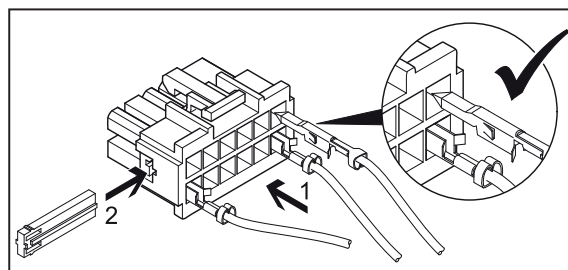
The room temperature sensor should be installed in the centre console at seat height.

PLEASE NOTE!

When installing the components ensure that they are sufficiently clear of the airbags, so that even if an airbag is triggered it cannot come into contact with the components.

CONNECTING THE CONNECTOR HOUSING TO THE STATIONARY UNIT

- Attach the tab connector to the control unit lead harness.
- Clip the control unit lead harness, the room temperature sensor lead harness and the button lead harness into the 12-pin connector housing (connector housing pin assignment [see page 9](#)).
- Push the contact locking device into the connector housing.
- Connect the 12-pin connector housing to the stationary unit.



PLEASE NOTE!

When installing the connector, ensure that the locking tangs always face the middle of the connector. Only in this position to the tangs latch into the housing (see sketch).

2 INSTALLATION

PIN ASSIGNMENT AT THE STATIONARY UNIT: WATER HEATERS WITH S+ SWITCH INPUT

Pin	Signal	Cable colour
1	Terminal 30 (+)	RD
2	–	
3	Terminal 31 (–)	BN
4	–	
5	DAT cable	VT
6	Button LED (+)	RD/YE
7	Button (+)	BN/YE
8	Button (–)	BN
9	Temp (–)	BN / WH
10	Temp (+)	GY
11	S+	YE

PIN ASSIGNMENT AT THE STATIONARY UNIT: WATER HEATERS WITH LIN INTERFACE

Pin	Signal	Cable colour
1	Terminal 30 (+)	RD
2	–	
3	Terminal 31 (–)	BN
4	JE diagnostics	BU/WH
5	DAT cable	VT
6	Button LED (+)	RD/YE
7	Button (+)	BN/YE
8	Button (–)	BN
9	Temp (–)	BN / WH
10	Temp (+)	GY
11	–	

CABLE COLOURS

RD	red	GY	grey	BK	black
BU	blue	YE	yellow	GN	green
WH	white	VT	violet	BN	brown

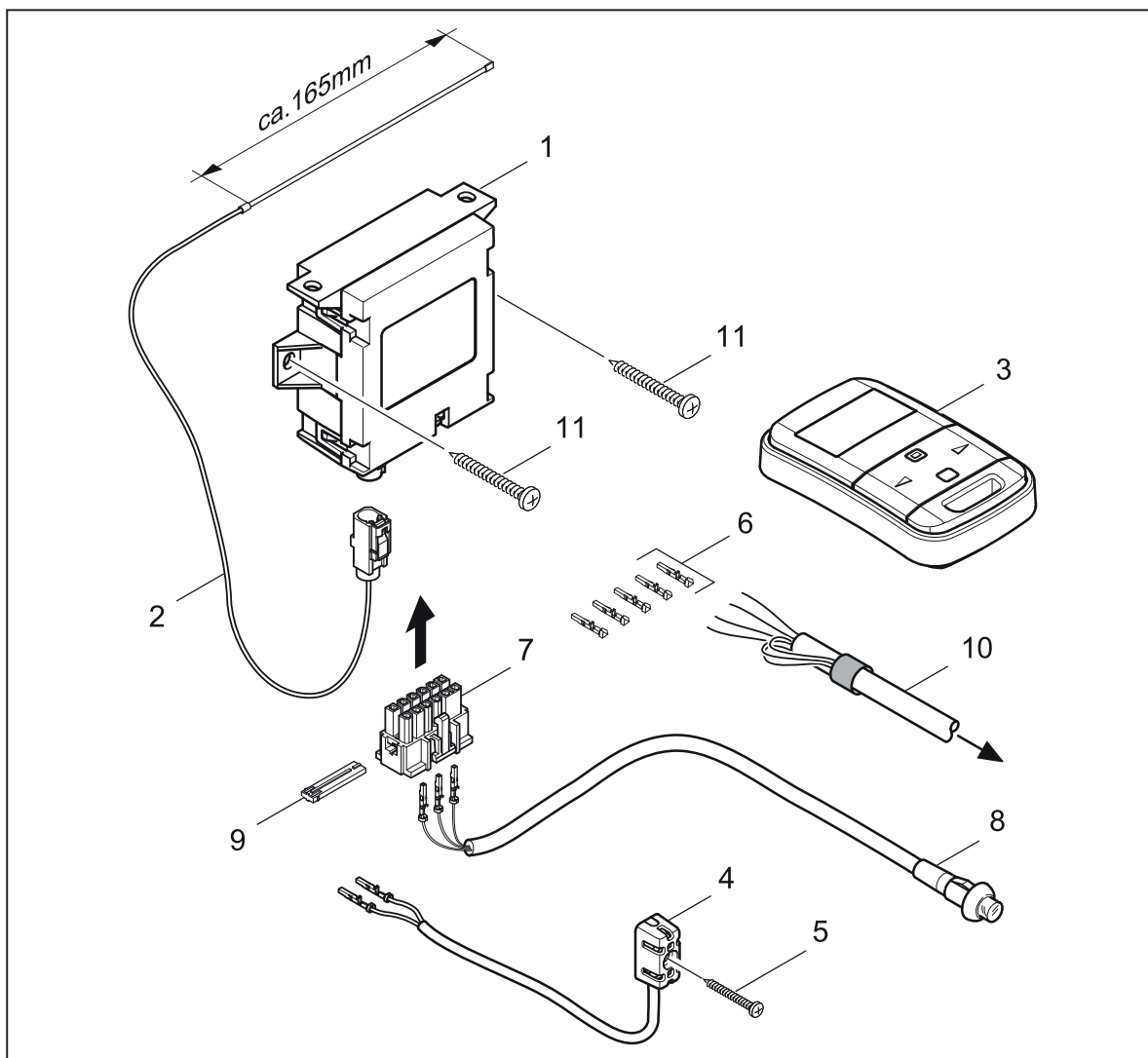
Connector housing chamber assignment -XB12 (assignment seen from the cable inlet side) [see page 16](#).

PLEASE NOTE!

- The radio remote control must be connected as shown in the circuit diagram at the end of the installation instructions.
- Insulate unused cable ends.
- Connectors and bush housings are shown from the cable inlet side.

2 INSTALLATION

SKETCH OF EASYSTART REMOTE+ INSTALLATION



Key [see page 10](#)

INSTALLATION SKETCH KEY

- | | |
|---------------------------------|--------------------------------------|
| 1 Stationary unit | 7 Bush housing 12 pin |
| 2 Antenna cable | 8 Button lead harness |
| 3 Mobile unit | 9 Contact locking device |
| 4 Room temperature sensor | 10 Lead harness to the heater |
| 5 Self-tapping screws B3.9 x 19 | 11 Self-tapping screw B3.9 x 19 (2x) |
| 6 Contacts (5x) | |

2 INSTALLATION

PLEASE NOTE!

- The radio remote control must be connected as shown in the circuit diagram at the end of the installation instructions.
- Insulate unused cable ends.
- Connectors and bush housings are shown from the cable inlet side.

CONNECTING THE ANTENNA

Taking into account the minimum installation height, lay the antenna cable as high as possible, pointing upwards. After laying the antenna cable, connect it to the stationary unit.

Recommendation:

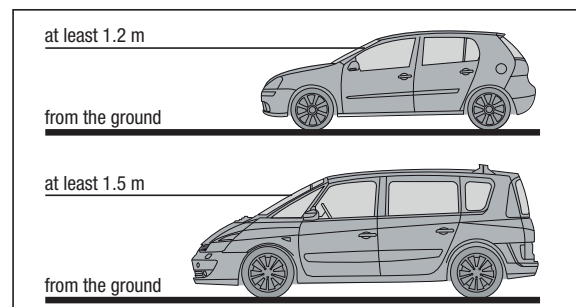
The antenna cable should be laid behind the rubber cover in the A-pillar, in the middle above the front vehicle door. In most cases, this enables an optimum range to be achieved.

Installation example

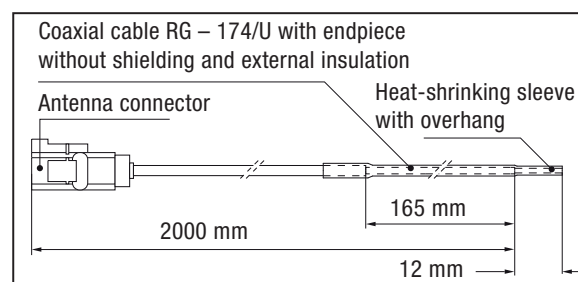
Laying the cable in the A-pillar under the rubber cover.



MINIMUM HEIGHT OF THE ANTENNA



ANTENNA DIMENSIONS



PLEASE NOTE!

- Do not change the length of the antenna cable!
- The end of the antenna cable must not come into contact with metal and must not be completely surrounded by metal or parts containing metal.

3 INITIAL STARTUP

CARRY OUT THE INITIAL STARTUP

For the initial startup, the following steps must be carried out one after the other.

- **Insert the battery into the mobile unit.**
Insert the battery supplied in the mobile unit, as described in the EasyStart Remote+ operating instructions, in the “Maintenance / Replacing the Battery” chapter. Do not activate the mobile unit yet.
- **Applying the operating voltage**
The operating voltage is applied by inserting the fuse into the fuse holder.
Automatic detection
Five seconds after applying the operating voltage the button's LED starts to light up. The radio remote control now checks which heater is connected and configures the Menu bar of the mobile unit.
- **Teaching the mobile unit**
If the button's LED starts to flash, the mobile unit can be “taught” (programmed).

Note on the Add display

The **Add** function can be used to teach up to 4 mobile units to one stationary unit; but only one mobile unit can make contact with the stationary unit.

Notes on the AddE display

The **AddE** function is used to only teach the current mobile unit. All previously “taught” mobile units are deleted.


PLEASE NOTE!

If the mobile unit is not taught within 30 seconds, the button's LED indicator goes out. Press the button until the LED starts to flash. Then teach the mobile unit.

TEACH MOBILE UNIT – Add TEACH MODE

Press the  or  button, **Add** is displayed.


Pair mode
Add

Confirm Add teach mode by pressing the  button.

TEACH MOBILE UNIT – AddE TEACH MODE

Use the  or  button to select **AddE**.

Pair mode
AddE

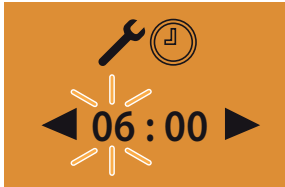
Confirm AddE teach mode with the  button.


3 INITIAL STARTUP

AFTER CONFIRMING Add OR AddE

▪ Setting the time

Use the ◀ or ▶ button to set the hours.



Press the  button to confirm the setting.

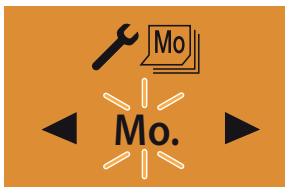
Use the ◀ or ▶ button to set the minutes.




Press the  button to confirm the setting.



▪ Setting the weekday

Use the ◀ or ▶ button to set the weekdays.



Press the  button to confirm the setting.
Then configure the EasyStart Remote+.

TEACH AN ADDITIONAL MOBILE UNIT

Press the button installed in the vehicle until the button's LED starts to flash. Press the  or  button on the mobile unit; **Add** is displayed.

Confirm Teach mode with the  button.

Pair mode
Add

The additional mobile unit is taught.

CONFIGURING EASYSTART REMOTE+

The system must be configured according to its use.



PLEASE NOTE!

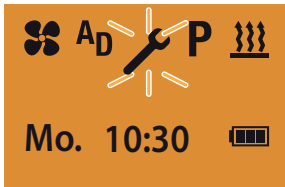
These installation instructions describe the standard configuration. For details of enhanced configuration of the EasyStart Remote+ and special functions, you can view and download the “Special Functions and Diagnosis” installation instructions from www.eberspaecher-standheizung.com.

3 INITIAL STARTUP

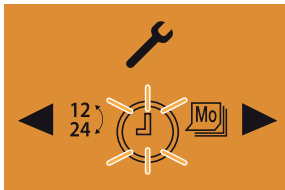
OPENING THE VEHICLE WORKSHOP MENU


Display ON, the Start display appears.


Use the  or  button to select the  symbol in the Menu bar.



Confirm the SETTINGS menu item by pressing the  button.




The SET THE TIME symbol  is displayed flashing.

Press the  LONGPRESS button for longer than 5 sec.; the Workshop menu is displayed.

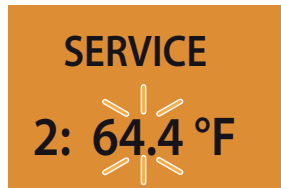
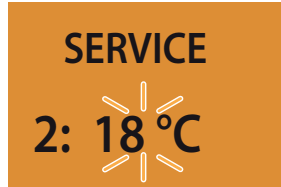
SELECTING THE SETTINGS FOR THE STANDARD CONFIGURATION

SELECTING THE TEMPERATURE UNITS – ITEM 2:

Default: °C


Use the  or  button to select Item 2: and confirm by pressing the  button.

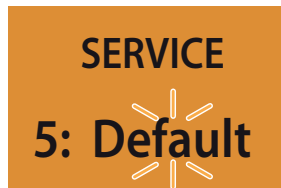
Use the  or  button to select the temperature units °C or °F.




Press the  button to confirm the selection.

RESETTING TO AS-DELIVERED CONDITION – ITEM 5:

Use the  or  button to select Item 5: and confirm by pressing the  button.



Press the  button to confirm the selection.



Following the automatic detection the current time and the current weekday must be entered, then the Start display appears. ([see page 13](#)).

3 INITIAL STARTUP



RANGE MEASUREMENT ITEM 7:

Range check measurement

The expected range can be checked.

Take a check measurement

Set up the mobile unit at a distance of 1 m in front of the vehicle and operate the mobile unit as follows:

Use the  or  buttons in the Workshop menu to select Item 7.




If a value between 75 and 100 is displayed for R and S the measurement is ok.

Note on the check measurement:

With an optimum installation the transmission power can reach a maximum value of 100.




If the maximum value is not reached, change the location of the antenna so that a value for R and S is reached between the minimum value 75 and the maximum value 100.

If necessary, the measurement can be taken at the same distance from the rear and side of the vehicle. The transmission power should be identical for all measurements.

Press the  button to repeat the check measurement several times.

SETTING THE LANGUAGE – ITEM 8:

Default: DE

Use the  or  button to select Item 8: and confirm by pressing the  button.

Use the  or  button to select the language DE or EN.



Press the  button to confirm the selection.

3 INITIAL STARTUP

SELECT DEPARTURE TIME OR START TIME – ITEM 10:

Default: “Off” for departure time

Use the ◀ or ▶ button to select Item 10: and confirm by pressing the ◻ button.

Use the ◀ or ▶ “Off” button for the departure time or “On” to select the start time.



Press the ◻ button to confirm the selection.

PLEASE NOTE!

The start time can only be activated if the operating time calculation Item 11.1: is set to “Off”.

After confirming you must reset the system by removing the 5A fuse.

ACTIVATING OR DEACTIVATING AUTOMATIC OPERATING TIME CALCULATION FOR WATER HEATERS – ITEM 11.1:

Default: “Off”

Use the ◀ or ▶ button to select Item 11.1: and confirm by pressing the ◻ button.

Use the ◀ or ▶ button to select “Off” or “On”.

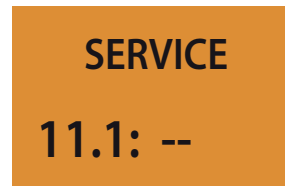


Press the ◻ button to confirm the selection.

PLEASE NOTE!

On activating the operating time calculation the departure time is activated automatically in Item 10.

Automatic operating time calculation is not possible for air heaters; if Item 11.1: is selected the following appears in the display:





After confirming you must reset the system by removing the 5A fuse.

3 INITIAL STARTUP

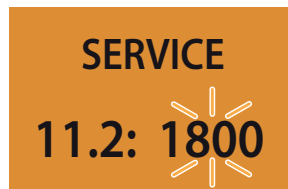
FOR AUTOMATIC OPERATING TIME CALCULATION, COPY THE VEHICLE'S ENGINE SIZE (CUBIC CAPACITY) – ITEM 11.2:

Default: 1800 cm³

Use the  or  button to select Item 11.2: and confirm by pressing the  button.

Use the  or  button to enter the engine size in 100 cm³ increments.




Setting range: 1000 cm³ to 4000 cm³.



Press the  button to confirm the setting.

FOR AUTOMATIC OPERATING TIME CALCULATION, ENTER THE OPERATING TIME – ITEM 11.3:

Default: 60 minutes

Use the  or  button to select Item 11.3: and confirm by pressing the  button.


Use the  or  button to set the operating time.

Setting range: 10 – 60 minutes.





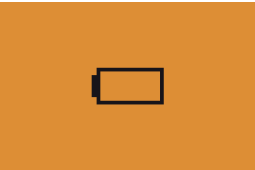



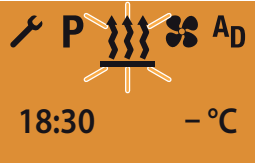
Press the  button to confirm the setting.

PLEASE NOTE!


- Press the  button to exit the Workshop menu.
- Carry out a function test after configuration. If an error or fault occurs, refer to the chapter “What to do if ...?” [from page 18](#)

4 WHAT TO DO IF ... ?

In the event of a fault the following displays are possible:

DISPLAY	DESCRIPTION	REMEDY / WORKSHOP
	<ul style="list-style-type: none"> Automatic detection is active. The EasyStart Remote+ has been disconnected from the power supply and then reconnected. 	<p>Wait until the automatic detection has finished, then set the time and weekday, see page 13.</p>
		
	<ul style="list-style-type: none"> Battery dead. 	<p>Replace the battery immediately!</p>
	<ul style="list-style-type: none"> No communication. 	<ul style="list-style-type: none"> Check and if necessary renew the heater fuse. Check the voltage supply. Check the wiring.
	<ul style="list-style-type: none"> 1st heater fault. 	<p>Perform the heater diagnosis.</p>
	<ul style="list-style-type: none"> 2nd heater fault. 	<p>Perform the heater diagnosis.</p>
	<ul style="list-style-type: none"> Temperature sensor defective. 	<p>Check and if necessary renew the temperature sensor.</p>

4 WHAT TO DO IF ...?

DISPLAY	DESCRIPTION	REMEDY
	<ul style="list-style-type: none"> Distance between the mobile unit and vehicle too large or at the range limit. 	<p>Change the position relative to the vehicle e.g. hold mobile unit higher or move it to the side. Reduce distance from vehicle.</p>
	<ul style="list-style-type: none"> Dense buildings between the mobile unit and vehicle. 	<p>Reduce distance. If possible, reinstate visual contact with the vehicle.</p>
	<ul style="list-style-type: none"> Mobile unit has not been taught. 	<p>Teach mobile unit as described in the installation instruction.</p>
	<ul style="list-style-type: none"> Several EasyStart Remote+ radio remote controls are operated simultaneously. 	<p>Reactivate the mobile unit after a pause.</p>
DESCRIPTION	POSSIBLE CAUSE	REMEDY
The mobile unit cannot be activated	<ul style="list-style-type: none"> Battery dead. 	<ul style="list-style-type: none"> Replace battery.
	<ul style="list-style-type: none"> No battery inserted. 	<ul style="list-style-type: none"> Insert battery.
	<ul style="list-style-type: none"> Battery inserted incorrectly. 	<ul style="list-style-type: none"> Insert battery correctly.
LED indicator of the button is flashing	Stationary unit is in teach mode.	<ul style="list-style-type: none"> The indicator goes out automatically after 30 seconds. Teach mobile unit as described in the installation instructions.

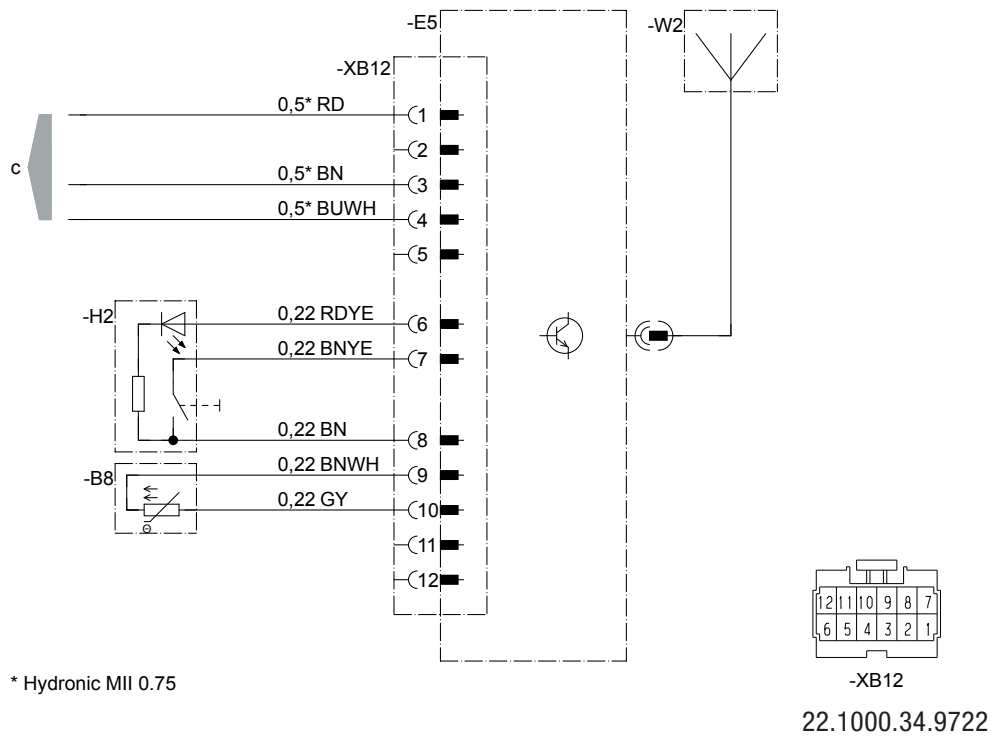
5 CIRCUIT DIAGRAM

CIRCUIT DIAGRAM

EasyStart Remote⁺ connection to water heaters with LIN interface: Hydronic, Hydronic II, Hydronic II C, Hydronic II Comfort, Hydronic M II, Hydronic S3 CL

X:15 ○ Ign (+)

X:58 ○ Light (+)



- B8 Room temperature sensor
- E5 EasyStart Remote⁺ radio remote control
- H2 Button
- W2 Antenna
- c to the heater

CABLE COLOURS

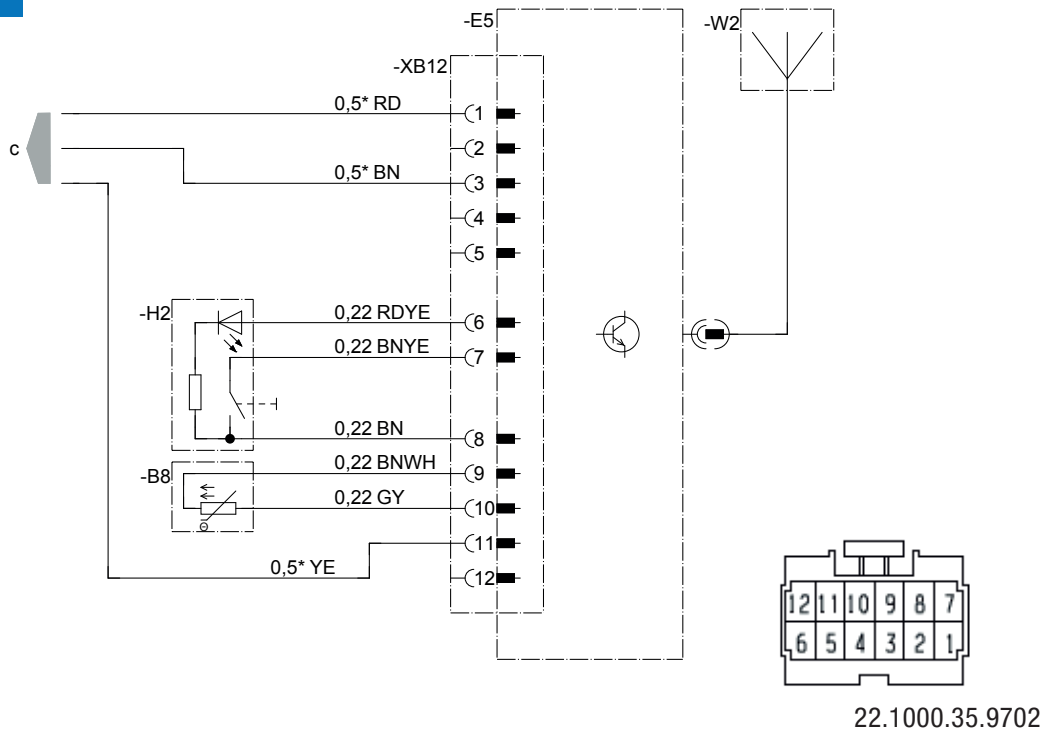
RD	red	GY	grey	BK	black
BU	blue	YE	yellow	GN	green
WH	white	VT	violet	BN	brown

5 CIRCUIT DIAGRAM

CIRCUIT DIAGRAM

EasyStart Remote⁺ connection to water heaters with S+ switch input: Hydronic S3 CS

X:15 Ign (+)
X:58 Light (+)



- B8 Room temperature sensor
- E5 EasyStart Remote⁺ radio remote control
- H2 Button
- W2 Antenna
- c to the heater

CABLE COLOURS

RD	red	GY	grey	BK	black
BU	blue	YE	yellow	GN	green
WH	white	VT	violet	BN	brown

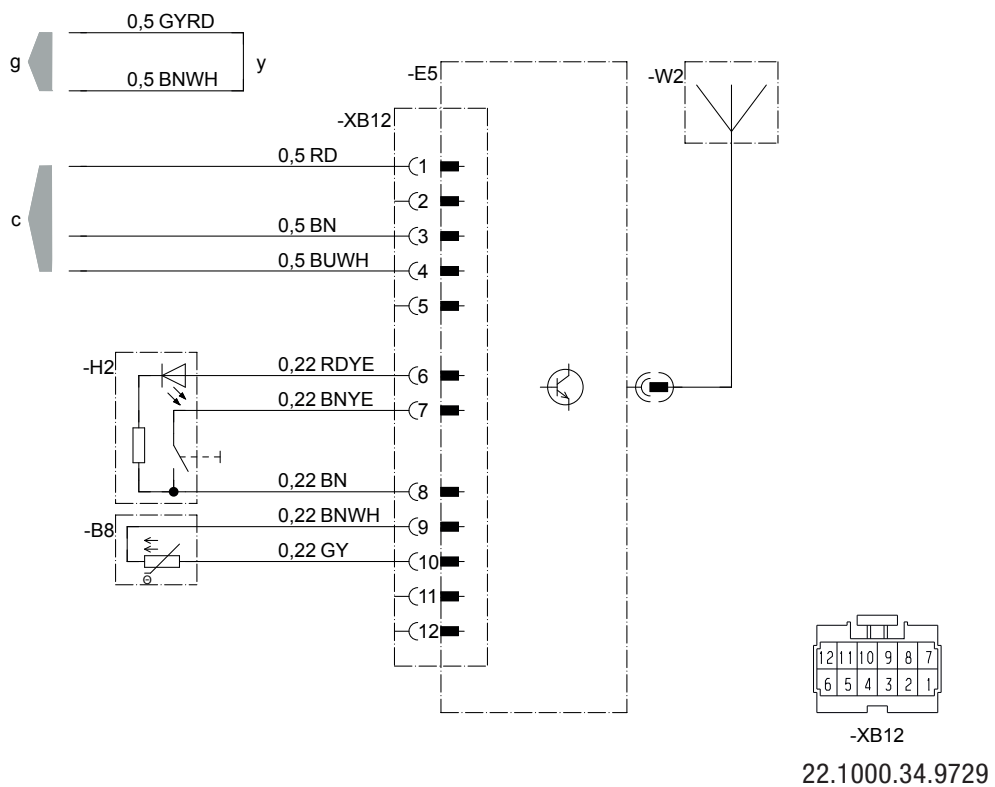
5 CIRCUIT DIAGRAM

CIRCUIT DIAGRAM

EasyStart Remote⁺ connection to Airtronic, Airtronic M, Airtronic L

X:15 ○
Ign (+)

X:58 ○
Light (+)



- B8 Room temperature sensor
- E5 EasyStart Remote⁺ radio remote control
- H2 Button
- W2 Antenna
- c to the heater
- g to the heater
- y Connect cables and insulate

CABLE COLOURS

RD	red	GY	grey	BK	black
BU	blue	YE	yellow	GN	green
WH	white	VT	violet	BN	brown

6 SERVICE

TECHNICAL SUPPORT

If you have any technical questions or problems with the heater, the control unit or the operating software, please contact the following service address:

support-UK@eberspaecher.com



www.krueger.co.uk

Eberspächer dealer



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