

# INSTALLATION INSTRUCTIONS

## EASYSTART REMOTE TP7



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.

### 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 EasyStart Remote radio remote control is used to select the operating mode, to set the operating time and to switch On / Off the heater installed in the vehicle.

### PLEASE NOTE!

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

The EasyStart Remote can be used with the following heaters:

- for water heaters
  - Hydronic II Comfort
  - Hydronic II
  - Hydronic II C
  - Hydronic\*
  - Hydronic M II
  - Hydronic S3
- The following air heaters require an additional control unit for setting the setpoint value, see “Special Functions and Diagnosis” in the installation instructions.
  - Airtronic\*
  - Airtronic M\*
  - Airtronic L\*
  - Airtronic 2

\* only newer models that are suitable for operation at high altitudes

## GENERAL INFORMATION

### VENTILATION OPERATING MODE

In water heater VENTILATION mode, the vehicle's blower is actuated directly by bypassing the heating mode.

### INSTALLATION INSTRUCTIONS FOR SPECIAL FUNCTIONS

These installation instructions describe the standard configuration. For details of enhanced configuration of the Remote and for special functions such as combinations with various EasyStart control units, the “Special Functions and Diagnosis” installation instructions are available to view and to download from [www.eberspaecher-standheizung.com/download](http://www.eberspaecher-standheizung.com/download).

# 1 INTRODUCTION

## TECHNICAL DATA

### MOBIL UNIT

Frequency	434.6 MHz
Operating voltage	3 V (battery) CR2032
Dimensions	34 x 54 x 13 mm
Operating temperature	-20 °C to +60 °C
Storage temperature	-40 °C to +85 °C

### STATIONARY UNIT

Frequency	434.6 MHz
Operating voltage	12 volt / 24 volt
Dimensions	76 x 76 x 29 mm
Operating temperature	-40 °C to +85 °C
Storage temperature	-40 °C to +85 °C
Antenna connection	Via coded SMB connector.

### ORDER NO.

EasyStart Remote 12 / 24 volt	22.1000.34.8100
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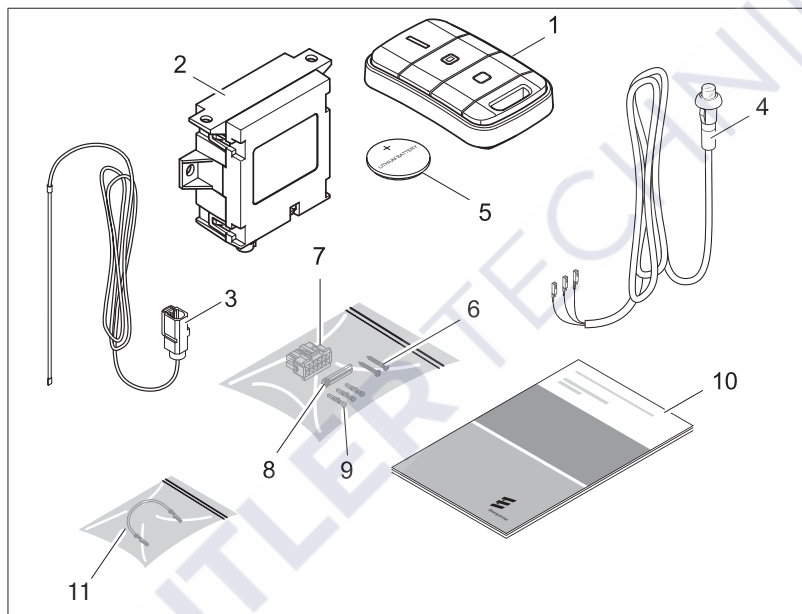
## SCOPE OF SUPPLY

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	Battery CR2032
6	2	Self-tapping screws B3.9 x 19 for stationary unit
7	1	Bush housing 12 pin
8	3	Contacts (in the bag)
9	1	Contact locking device for bush housing (in the bag)
10	1	Operating instructions
11	1	Cable bridge (in the bag)

## 1 INTRODUCTION

### SKETCH OF EASYSTART REMOTE SCOPE OF SUPPLY



Key [see page 6](#)

## 1 INTRODUCTION

### BEFORE INSTALLING

- Disconnect the battery
- Remove 5A fuse, if inserted in the fuse holder of the heater cable harness, and do not re-insert until directly before the initial startup.

### INSTALLATION

The stationary unit is installed inside the vehicle together with the button 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.

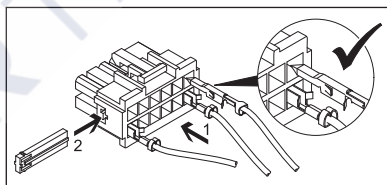
Drill a hole  $\varnothing$  10 mm e.g. in the dashboard, then clip in the button.

#### PLEASE NOTE!

- The button must be installed. The button LED is used as the operating display.
- 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 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!

- If using water heaters with LIN interface, use cable bridge as shown in connector assignment on p. 9.
- 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 (plus)	RD
2	–	
3	Terminal 31 (plus)	BN
4	JE diagnostics / DAT cable	BU/WH/VT
5	–	
6	Button LED (+)	RD/YE
7	Button (+)	BN/YE
8	Button (–)	BN
9	–	
10	–	
11	S+	YE

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

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

### CABLE COLOURS

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

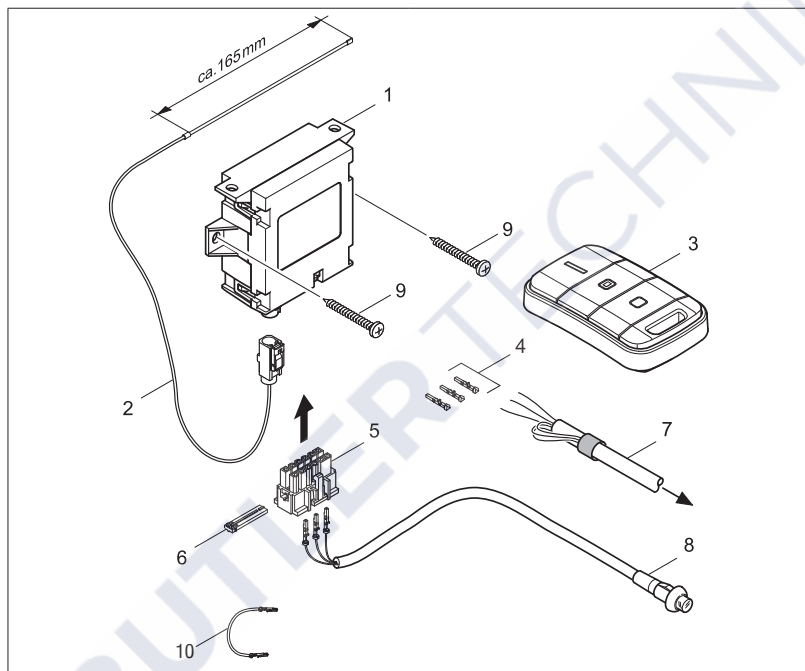
Connector housing chamber assignment -XB12 (assignment seen from the cable inlet side) [see page 16](#).

### 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



- |                                |                                     |
|--------------------------------|-------------------------------------|
| 1 Stationary unit              | 6 Contact locking device            |
| 2 Antenna cable                | 7 Lead harness to the heater        |
| 3 EasyStart Remote mobile unit | 8 Button with LED                   |
| 4 Contacts (3x)                | 9 Self-tapping screw B3.9 x 19 (2x) |
| 5 Bush housing, 12 pin         | 10 Cable bridge with contacts (2x)  |

#### PLEASE NOTE!

- If using water heaters with LIN interface, use cable bridge (10) as shown in connector assignment on p. 9.

## 2 INSTALLATION

### 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:

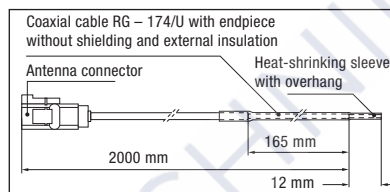
The antenna cable should be laid behind the rubber cover in the A-pillar, in the middle above the front vehicle door. In most cases, this enables an optimum range to be achieved.

#### Installation example

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



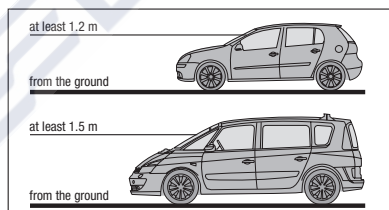
### ANTENNA DIMENSIONS



#### 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.

### MINIMUM HEIGHT OF THE ANTENNA



### 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 user prompting 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 teaching mode

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 teaching mode

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 teached within 30 seconds, the button's LED indicator goes out. Press the button until the LED starts to flash. Then teach the mobile unit.

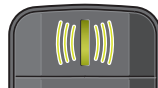
#### TEACH MOBILE UNIT – ADD TEACH MODE

Press the  button or .


If the connection has been set up between the mobile unit and the stationary unit the LED indicator of the mobile unit begins to flicker. The mobile unit is in **Add** teach mode.

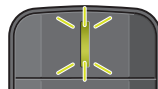


Data transmission  
LED: lights up green



LED: flickers green

Confirm **Add** teach mode by pressing the  button while the LED indicator is flickering green.



LED: flashes 2x green  
The mobile unit is  
taached.

### 3 INITIAL STARTUP

#### TEACH MOBILE UNIT – ADDE TEACH MODE

Press the  button or .

If the connection has been set up between the mobile unit and the stationary unit the LED indicator of the mobile unit begins to flicker.


The mobile unit is in **AddE** teach mode.



Data transmission  
LED: lights up green




LED: flickers green

Press the  button while the green LED is flickering.



LED: flickers red

Confirm **AddE** teach mode by pressing the  button while the LED indicator flickers red.



LED: flashes 2x green  
The mobile unit is  
taught.

#### TEACH AN ADDITIONAL MOBILE UNIT





- Press the button installed in the vehicle until the button's LED starts to flash.
- While the button's LED is flashing, activate the mobile unit as described under “Teaching the mobile unit”.

#### FUNCTIONAL CHECK

Switch heater on and off. If an error or fault occurs, refer to the chapter “What to do if ...?” [page 14](#).

## 4 WHAT TO DO IF ...?

IN THE EVENT OF A FAULT THE FOLLOWING FLASHING SIGNALS ARE POSSIBLE:

LED INDICATOR	POSSIBLE CAUSES	REMEDY / WORKSHOP
On pressing the  or  button, slow red-flashing 5x	<ul style="list-style-type: none"> <li>▪ Heater fault.</li> <li>▪ The EasyStart Remote has been disconnected from the power supply and then reconnected.</li> </ul>	<p>Perform the heater diagnosis.</p> <p>Teach mobile unit as described in the installation instruction. Wait until the automatic detection has finished.</p>
After pressing the  or  button, fast red-green flashing 12x (Communication is not possible between the mobile unit and stationary unit.)	<ul style="list-style-type: none"> <li>▪ Distance between mobile unit and vehicle too large.</li> <li>▪ Dense buildings between the mobile unit and vehicle.</li> <li>▪ Several radio remote controls are being used simultaneously.</li> <li>▪ Mobile unit has not been taught.</li> <li>▪ Antenna is not connected properly.</li> <li>▪ Antenna is not in its original condition.</li> <li>▪ Stationary unit is not wired correctly.</li> <li>▪ Heater does not start.</li> </ul>	<p>Reduce distance.</p> <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> <p>Reactivate the mobile unit after a pause.</p> <p>Teach mobile unit as described in the installation instruction.</p> <p>Check the antenna installation.</p> <p>Check stationary unit installation.</p> <p>Use the button to switch on the heater. Check and if necessary renew the fuse. Check the heater's power supply.</p>

## 4 WHAT TO DO IF ...?

### PLEASE NOTE!

The unit cannot be used during the “red-green-flashing” signal. A switched on heater can only be switched off using the button in the vehicle.

### **IN THE EVENT OF A FAULT THE FOLLOWING FLASHING SIGNALS ARE POSSIBLE:**

LED INDICATOR	POSSIBLE CAUSES	REMEDY / WORKSHOP
LED flashes quickly (flickers) green (6 seconds)	Stationary unit is in learn mode.	Teach mobile unit as described in the installation instruction. Wait until the automatic detection has finished.
LED lights up red following activation (4 seconds)	The mobile unit's battery is too weak. Data transmission is not possible.	Replace battery

### THE FOLLOWING FAULTS ARE POSSIBLE

FAULT	POSSIBLE CAUSES	REMEDY
The mobile unit cannot be activated	Battery dead.	Replace battery
	No battery inserted.	Insert battery
	Battery inserted wrong way around.	Insert battery correctly.
LED at the button flashes	Stationary unit is in learn mode.	The indicator switches itself off after 30 seconds or teach the mobile unit as described in the installation instruction.

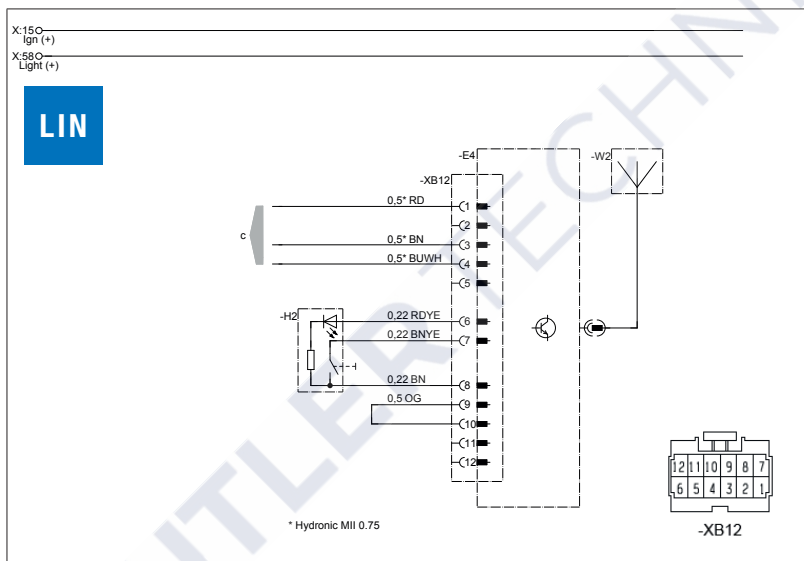
### PLEASE NOTE!

If you are unable to remedy the error or fault, please contact an authorised JE workshop.

## 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



22.1000.35.9700

- E4 EasyStart Remote radio remote control
- H2 Button
- W2 EasyStart Remote antenna
- c to the heater

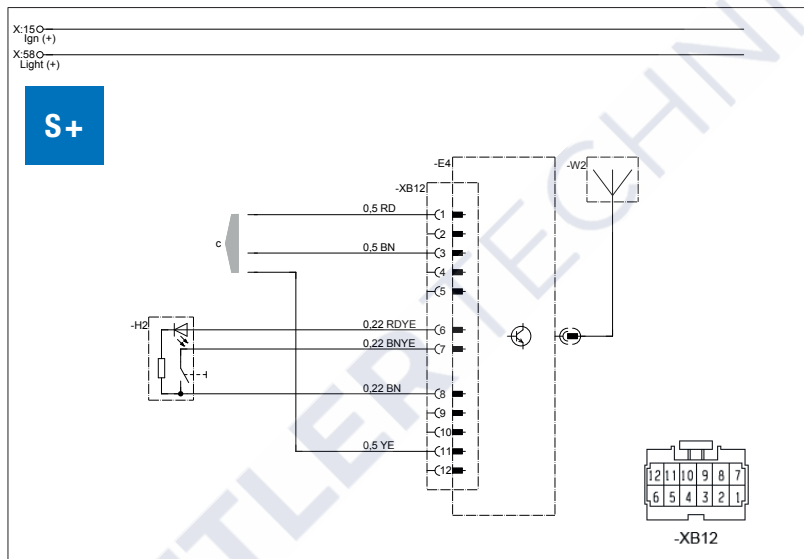
### CABLE COLOURS

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



### CIRCUIT DIAGRAM

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



22.1000.35.9701

- E4 EasyStart Remote radio remote control
- H2 Button
- W2 EasyStart Remote 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

## 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

In Canada please contact:

support-CA@eberspaecher.com

In the United States of America please contact:

support-US@eberspaecher.com

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