

BEDIENUNG UND INSTALLATION OPERATING AND INSTALLATION OPERACIÓN E INSTALACIÓN

FUNK-FERNBEDIENUNG FÜR DURCHLAUFERHITZER
RADIO REMOTE CONTROL FOR INSTANTANEOUS WATER HEATER
MANDO A DISTANCIA PARA EL CALENTADOR INSTANTÁNEO

- » FFB 1
- » FFB 2

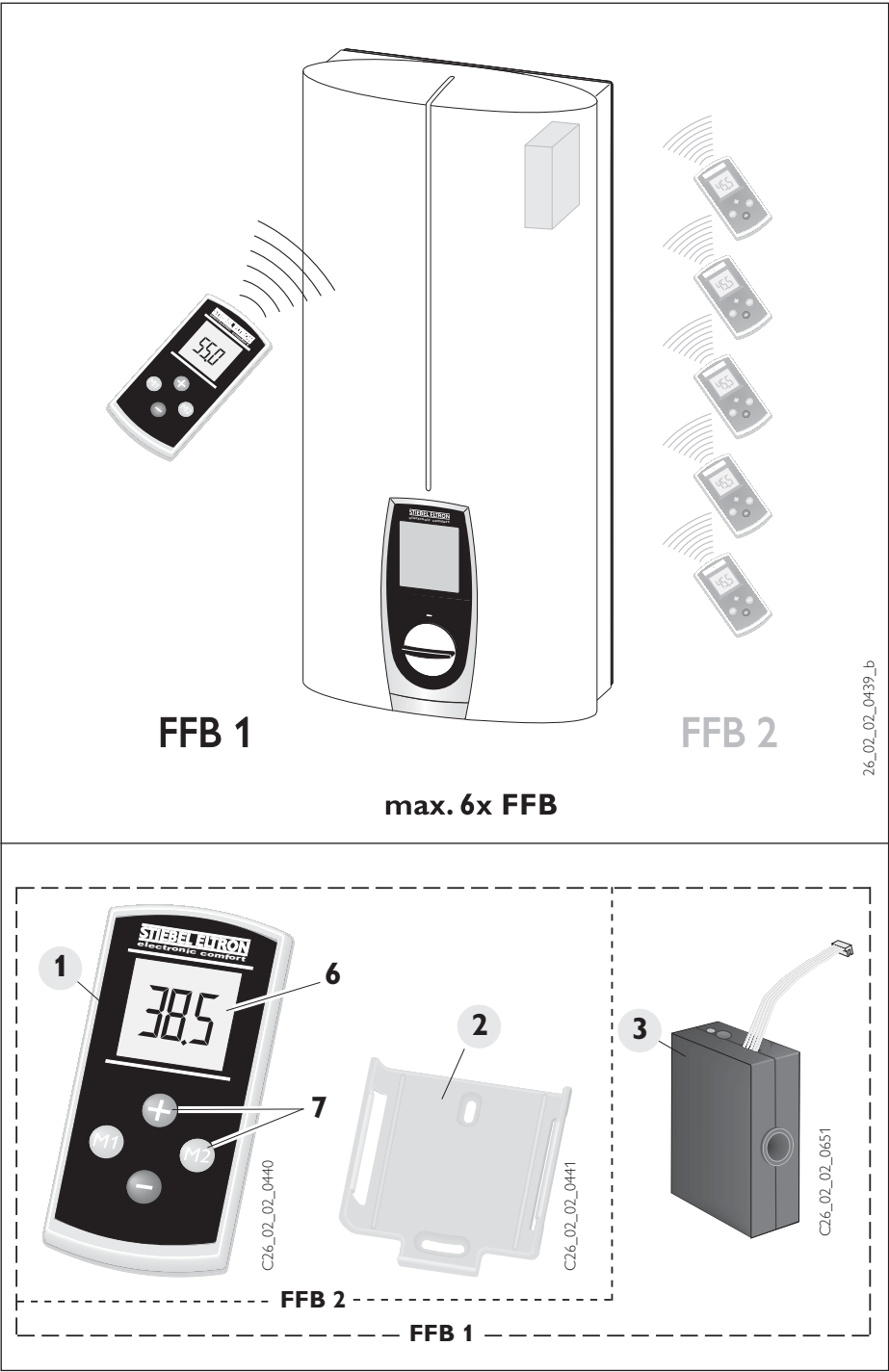


STIEBEL ELTRON

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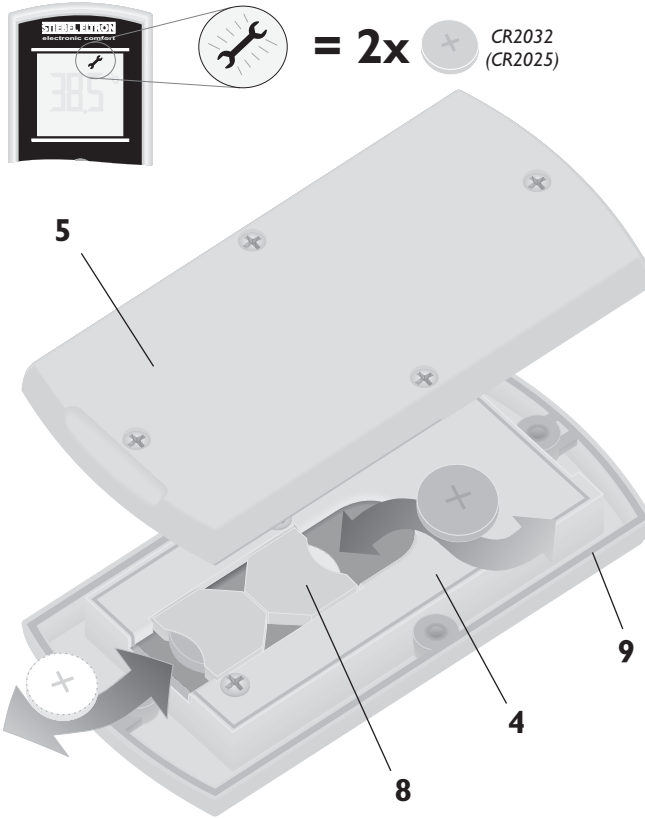
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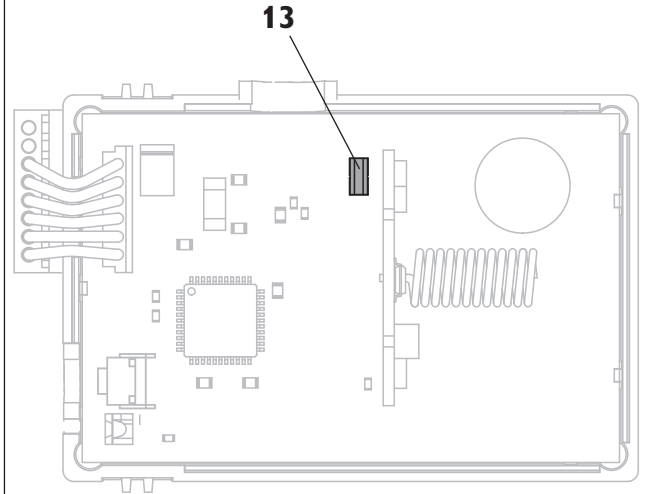
Technical data

Radio control unit		FFB
Dimensions (H / W / D)	mm	130 / 65 / 17
Gewicht / Weight / Peso	kg	0,12
Radio frequency	MHz	433
Temperature adjustment range	°C	30 - 60
Protection mode		IPX7

⚠ These radio remote controls are registered in Germany, England, Spain and Austria.

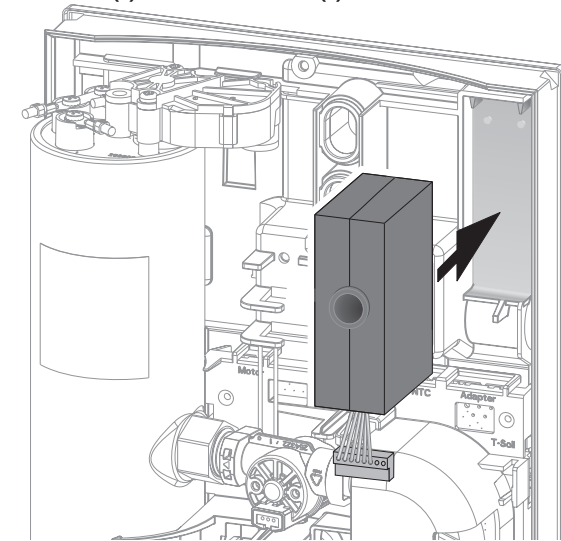


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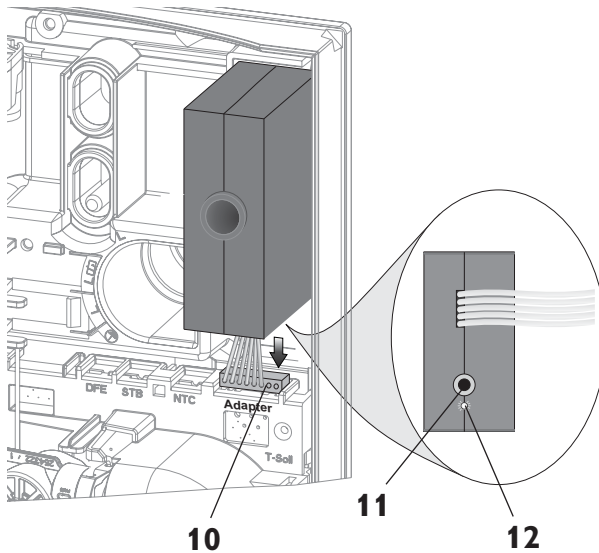


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DHE .. SL(i), DEL .. SL(i), CDE, FDE

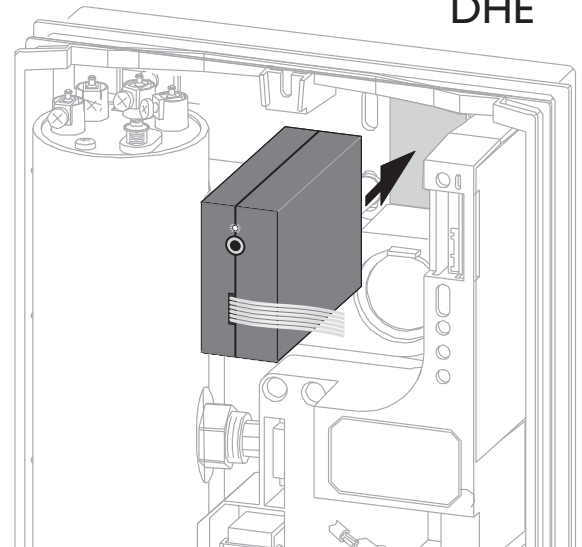


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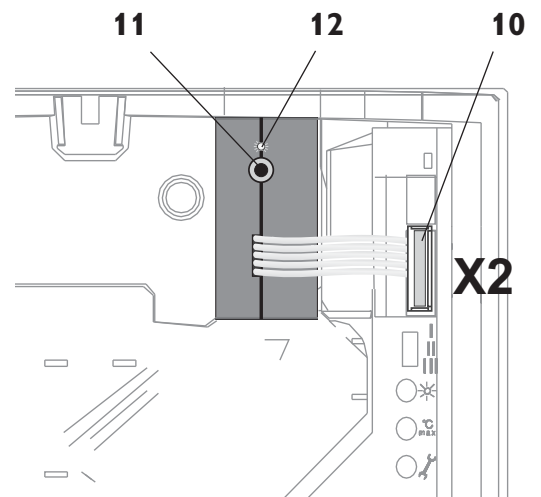


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DHE



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1. Operating instructions for the user and the professional

1.1 Description

FFB 1 and FFB 2 enable the radio remote control (433 Mhz) of the **DHE ..SL(i) electronic comfort**, **DEL ..SL(i)**, **DHE electronic comfort**, **CDE** and **FDE** instantaneous water heaters.

FFB 1

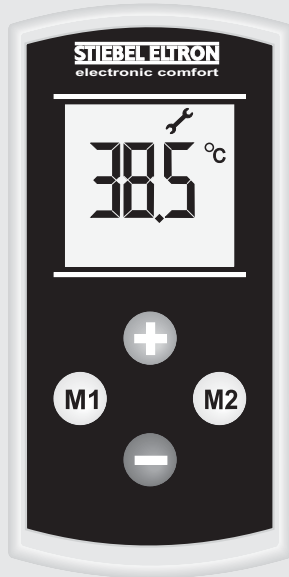
- Radio control unit (**1**)
- Wall bracket with fixings (**2**)
- Receiving module (**3**)

FFB 2

- Radio control unit (**1**)
 - Wall bracket with fixings (**2**)
- The **FFB 2** operates only in combination with the receiving module of the **FFB 1**.

Following installation of the **FFB 1**, the instantaneous water heater can be adjusted using the radio remote control or it can be adjusted directly at the control section of the unit. The radio control unit is waterproof (IPX7) and therefore can also be used when taking a shower or bath. The operating range of the radio control unit is approximately 25 m within a building. In addition to the **FFB 1** radio control unit, up to 5 further **FFB 2** radio control units can communicate with the receiving module in the instantaneous water heater.

The most important points in brief



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- +** Temperature selection – adjustable between 30 °C and 60 °C in 0.5 °C steps

- M1** Memory push buttons – Storage and recall of 2 setpoint temperatures by the user

- Wrench icon** Changing the batteries

In the case of the **FFB 1**, the sender code of the radio control unit is pre-registered at the factory.

1.2 Operation

The radio control unit is normally in energy saving mode (display switched off). The control unit is activated by briefly pressing any push-button (**7**). If a push-button is not operated within 20 seconds in the activated mode, the control unit automatically switches back to energy saving mode.

If the control unit is activated using the **+** or **-** push-button, the setpoint which was last set is indicated and transmitted to the instantaneous water heater. A change to the setpoint temperature can subsequently be made by single presses on the **+** **-** push-buttons in 0.5 °C steps, or by holding the push-buttons down for rapid forward or reverse mode (scrolling).

Activation by pressing the **M1** **M2** memory push-buttons causes the corresponding stored value to be displayed and transmitted. This enables the simple and rapid selection of a frequently used setpoint temperature.

Each operation of a push-button is confirmed on release of the push-button by an acoustic signal (bleep) from the receiving module built into the instantaneous water heater. This signal can be deactivated by a qualified installer if the customer so wishes.

1.2.1 Memory push-button settings

M1 **M2**

To change the settings of the memory push-buttons, the desired setpoint should be adjusted in the display (**6**), and the corresponding memory push-button should then be pressed for approximately 3 seconds. A short fade-out of the display confirms that the temperature has been stored.

Where several radio control units are used, each radio control unit has two storage locations of its own. This means that the **M1** **M2** push-buttons can be adjusted totally individually on each radio control unit and in the instantaneous water heater.

1.2.2 Anti-scald protection

When using more than one radio-remote control unit the priority of temperature selection is given to the unit that first sends the signal. This priority lasts during the water flow and for 2 minutes after the water outlet has been switched off. The priority is de-activated automatically.

During the time in which the priority setting is activated it is only possible to reduce the water temperature setting. If the set temperature is at 43 °C or less the Anti-scald protection is activated; this means that it is impossible for any radio-remote control unit to increase the temperature above 43 °C during the duration of water flow.

Although the display on the control unit and the instantaneous water heater will show the selected higher temperature, the water temperature will be limited to maximum of 43 °C.



Simultaneous use of the different radio-remote controls can mean that the actual temperature shown on the displays is different to the actual water temperature. Only the priority unit will show the actual temperature.



Water temperatures above 43 °C can cause scalding.

1.2.3 Operation of the appliance DHE ..SL electronic comfort

Operation of the instantaneous water heater is also possible in the usual way; the internal control-part is completely integrated into the dynamic scald-protection.

DHE electronic comfort

Operation of the instantaneous water heater is also possible in the usual way. Operation via the radio link does however always have priority.

If a setpoint adjustment is made by radio control, the internal operating device is blocked during the current drawing off of water. Two minutes after drawing off has finished, the DHE operating device is automatically released once again.

If a temperature is set at the DHE operating device for drawing off water and an adjustment by the radio link is to be prevented, the temperature adjustment knob on the DHE should be pressed before drawing off. Five minutes after drawing off has been completed, this block is automatically lifted (by pressing the adjustment knob again the block can also be lifted at an earlier point in time).

DEL ..SL(i) electronic LCD

The display of the internal operating device shows the temperature-setting of the remote control. The internal control-knob is out of order.

CDE/FDE ..

The internal operating device is out of order.

1.2.4 Changing the batteries

The radio control unit is supplied by 2 lithium cells (construction type CR2032 or CR2025). If a change of batteries is required, the symbol appears in the display.



Used batteries must be removed. We cannot be made responsible for damages caused by leaked batteries!

To change the batteries, the lower section of the casing (**5**) should be unscrewed and both batteries in the battery holders (**8**) replaced. Pay attention to the correct polarity of the batteries (**+** towards the top). Always use the same type of batteries and change in pairs. During changing of the batteries, the stored values for the **M1** **M2** push-buttons are maintained.

Because each radio control unit has an individual sender code, an **FFB 2** must first be registered with the receiving module (see "First start-up - FFB 2").



Batteries should be recycled!

When fitting the lower section of the casing, care should be taken to ensure that the seal (9) is correctly seated in the upper section of the casing (4), so that the water-tightness of the control unit remains guaranteed.

1.2.5 Guidance on the radio link



Special conditions in buildings can lead to a reduction in the signal strength of radio waves. The operational range of the remote control can be reduced in such cases.

Since the employed frequency range of 433 MHz is also freely available for other applications (radio controlled thermostats, weather stations with radio links, radio controlled headphones etc.), a disturbance in the radio link to

the instantaneous water heater may occur in the event of simultaneous transmission. This does not involve any risk, i.e. it cannot lead to an unwanted change in the setpoint temperature, but a transmitted temperature setpoint may not be recognised by the receiver in these circumstances. In cases such as these it is necessary to repeat the adjustment.

1.3 Wall holder

The wall holder, which is included in the delivery, can if required be fitted by the user in any preferred location, to accommodate the radio control unit.

1.4 Care

A moist cloth is sufficient to care for the parts. Do not use any abrasive or solvent-based cleaning agents.

1.5 Important note

The CE marking of our FFB radio remote controls shows their conformity with the standard requirements

- in accordance with the Law on Radio Installation Telecommunications Transmitter Devices (FTEG) and Directive 1999/5/EG (R&TTE);
- in accordance with the Low Voltage Directive 73/23/EG;
- in accordance with the Electromagnetic Compatibility Directive (EMV) 89/336/EG.



Keep these instructions carefully and pass them on to your successor in the event of a change of ownership. In the event of any repair work, these instructions should be passed to the qualified installer for his attention.



2. Installation instructions for the professional

Before operating the instantaneous water heater with a radio remote control, the receiving module **3** must be fitted.

The instantaneous water heater can be controlled by up to 5 additional FFB 2 radio control units.

Fitting of the receiving module and/or first start-up of the **FFB 2** must be carried out by a qualified installer, under observance of these installation instructions.

2.1 Unit set-up

- | | | |
|---|---|-------------------|
| <ol style="list-style-type: none"> 1 Radio control unit 2 Wall holder 3 Receiving module 4 Upper section of casing 5 Lower section of casing 6 Display 7 Push-buttons 8 Battery holder 9 Seal 10 Receiving module connector 11 Receiving module push-button 12 Receiving module LED 13 Acoustic receiving signal connector | } | Scope of delivery |
|---|---|-------------------|

2.2 Provisions and regulations

- The operating and installation instructions for the instantaneous water heater are to be observed during installation and operation.
- All electrical connection and installation work must be carried out in accordance with I.E.E Regulations, the provisions of the electricity supply companies, and the appropriate national and regional provisions.

2.3 Unit installation

Observe the operating and installation instructions for the instantaneous water heater.

2.3.1 FFB1

The receiving module must be installed into the instantaneous water heater before the first operation of the FFB 1. As soon as this is done the remote control can be used.

To fit the receiving module (**3**) into the instantaneous water heater, work should proceed as follows:

- ⇒ Switch off the power to the instantaneous water heater
- ⇒ Remove the cover of the instantaneous water heater as described in the installation instructions for the appliance;
- ⇒ Fit the receiving module into the top right hand section of the back panel.
DHE-SL(i), DEL, CDE, FDE: Insert plug (**10**) of the receiver module into the assigned space „Adapter“.
DHE: Insert plug (**10**) of the receiver module into the assigned space „X2“. Please note that when fitting, the receiver cable (**10**) must be positioned above the existing cable (X1, position 7 on the DHE installation manual);

⇒ **CDE/FDE only:** Remove the plug of the internal operating device and fix the cable in the cover;

⇒ Refit the cover of the instantaneous water heater and connect the instantaneous water heater to the power supply (observe the installation instructions for the instantaneous water heater).

No measures are necessary for first start-up of the FFB 1, this radio remote control functions immediately after installing the receiving module.

2.3.2 FFB 2

To activate the sender code of an **FFB 2**, this must be transmitted once to the receiving module when first start-up takes place.



On first start-up of FFB 2-control units, the instantaneous water heater must be ready for service. The following actions must be carried out with the power switched on. After opening the cover, pay careful attention to live parts.

First start-up

- ⇒ Remove the cover of the instantaneous water heater as described in the installation instructions for the instantaneous water heater;
- ⇒ Activate the learning mode by pressing push-button (**11**) in the receiving module (**3**). Therefore the module FFB of the DHE ..SL has to be taken out of the plug-in position. The activated learning mode is indicated by the illuminated LED (**12**) in the receiving module;
- ⇒ After 30 seconds have passed without a transmission being received, the receiving module automatically quits the learning mode and the LED goes out;
- ⇒ Press any push-button on the new radio control unit while the learning mode is activated. The LED blinks several times to confirm the learning process, then goes out;
- ⇒ Checking option: a setpoint adjustment using the radio control unit is confirmed by two blinks of the LED, thus if the LED blinks only once, the learning process must be repeated;
- ⇒ Refit the cover of the instantaneous water heater and in case the receiving module (observe the installation instructions for the instantaneous water heater).

Further radio control units are brought into operation in the same way.

If several radio control units are registered one after the other, push-button (**11**) for activation of the learning mode should be pressed anew for each radio control unit.

2.4 Deactivating a radio remote control

If a radio remote control unit is to be taken out of service from one instantaneous water heater, the following steps should be taken to ensure safety in use.

- ⇒ The registration procedure on one of the remaining remote controls must be repeated 6 times as described in section 2.3.2 - 'First start up'. By so doing the specific registration of the individual sender code of the removed control will be over written.
- ⇒ If more than one radio remote control unit remains, each of them must be re-registered again as shown in 2.3.2

2.5 Deactivation of the acoustic receiving signal

If the customer wishes to deactivate the acoustic signal, the receiving module should be opened and connector (**13**) pulled out. If the signal later needs to be reactivated, it is merely necessary to plug in the connector once again.

2.6 Handover

Explain the functions of the unit to the user. Make him or her aware of the safety instructions, in particular. Hand over the operating and installations instructions to the user.

For notes on

“Environment, recycling, customer service and guarantee” see operating and installation instructions for DHE electronic comfort.



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