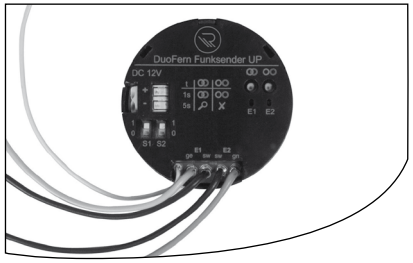
RADEMACHER

DuoFern Radio Transmitter 9497, Flush-mounted

Installation and Operating Manual



Item no.: 3200 00 62

VBD 597-02-R1 (09.23)

1. This manual...

describes how to install and commission the flush-mounted DuoFern Radio Transmitter 9497. Please read this manual through completely and follow all the safety instructions. This manual is part of the product. Please store it in an easily accessible place. When passing the flush-mounted DuoFern Radio Transmitter on to a third party, this manual must be passed on as well.

1.1 Symbols used

Danger of fatal electric shock

Danger area / dangerous situation

Other useful information

2. Safety instructions

There is a risk of fatal electric shock when touching live electrical components.

- The electrical connection and all work on electrical systems must only be carried out by a qualified electrician in accordance with the connection instructions in these operating instructions.
- Carry out all installation and connection work only in an isolated, zero-volts state.
- Do not use the flush-mounted DuoFern Radio Transmitter 9497 should you discover damage to the device. Contact our Customer Service department in this event.

Improper use can lead to personal injury or property damage.

Never use the DuoFern Radio System and its components for the remote control of devices and systems with safety-relevant requirements or where there is an increased accident risk. Applications of this kind require additional safety equipment.

3. Intended use

Only use the flush-mounted DuoFern Radio Transmitter for the remote control of DuoFern devices.

Operating conditions

- Only use the flush-mounted DuoFern Radio Transmitter in dry rooms.

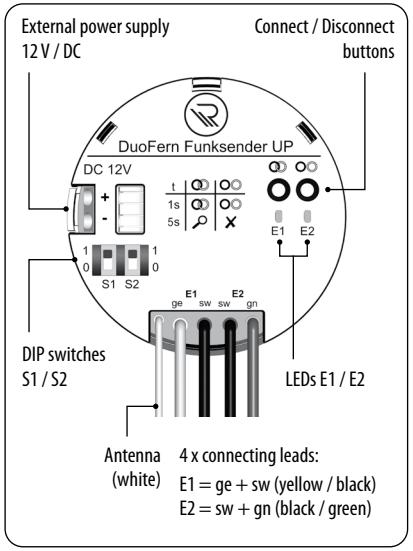
Radio systems that transmit on the same frequency can cause interference.

4. Improper use

Using the flush-mounted DuoFern Radio Transmitter for any other purpose than previously mentioned is not permissible.

- Do not install the flush-mounted DuoFern Radio Transmitter outdoors.

5. General view



6. Functional description

The flush-mounted DuoFern Radio Transmitter enables existing commercially available switch or button systems to be upgraded with DuoFern radio technology.

Multiple DuoFern actuators or other DuoFern devices can be remotely controlled with the help of the connected buttons and switches once the flush-mounted DuoFern Radio Transmitter has been logged on to the DuoFern network. In addition, control signals from potential-free contacts, such as window/door contacts, can be used for control purposes.

The mode setting and input configuration is realised with the help of the two DIP switches **S1/S2**.

6.1 Configuration of the flush-mounted DuoFern Radio Transmitter and assignment of the control commands

Connected control elements		2 x single button or 1 x button in series	2 x single switch or 1 x switch in series	1 x Venetian blind button		1 x Venetian blind switch	Potential-free contacts * (e.g. ext. window / door contact)
Applications		**Switch positions - S1 / S2**					
Switch light on / off		Push function On / Off / On Max. 1 actuator per button	On / Off Max. 16 actuators				
Dim light **	100% 0%			1 x On Intermediate position 2 x On 100 % on 1 x Off Intermediate position 2 x Off 0 % off Press + hold = dim Max. 16 actuators / 2 recommended			
Control roller shutter / awning		Push function Up / Stop / Down Max. 1 actuator per button		Up / Stop / Down Max. 16 actuators		Up / Stop / Down Max. 16 actuators	
Control external Venetian blinds / Venetian blind				Jog mode: Step Up / Step Down > 1 sec. Up / Down / Stop Max. 16 actuators			
SmartHome Box		Push Transmitter	On / Off Transmitter	Up / Stop / Down Transmitter	Jog mode: Step Up / Step Down > 1 sec. Up / Down / Stop Transmitter	Up / Stop / Down Transmitter	Closed / Open Sensor

* Select this setting to use the flush-mounted DuoFern Radio Transmitter as a sensor for the "open / closed contact" in the SmartHome Box.

** A dimmer must always be logged on as the first device! If in doubt, perform a reset before logging on to the device.

7. Electrical connection

Connection of the mains voltage to inputs E1 and E2 will create a short-circuit and cause the flush-mounted DuoFern Radio Transmitter to be damaged.

Never simultaneously connect / insert a battery and external power supply. Doing so will damage the battery and may cause it to leak.

Connection conditions:

The flush-mounted DuoFern Radio Transmitter is designed solely for flush-mounting. We recommend using a 58 mm deep box.

Inputs E1 / E2

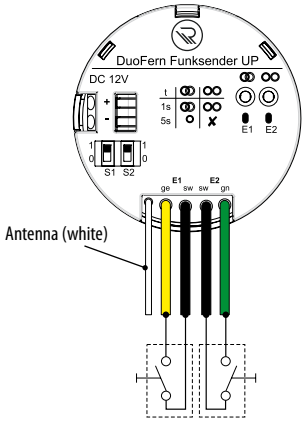
- Only potential-free contacts (buttons or switches) may be connected to inputs E1 / E2.
- The connecting leads may be extended up to a maximum of 15 m with an individually routed lead.

Input 12 V DC

Supply voltage:	12 V DC
Power:	min. 0.5 W

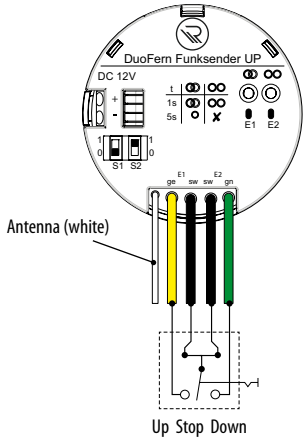
1. If there is an additional mains installation at the installation location, disconnect the mains supply lead.
2. Connect the flush-mounted DuoFern Radio Transmitter in accordance with the connection diagrams.

Connection of two buttons or switches



Colour coding E1 = ge + sw (yellow / black)
E2 = sw + gn (black / green)

Connection of a Venetian blind button / switch



3. Log the flush-mounted DuoFern Radio Transmitter on to the DuoFern radio network, see chapter 8.
4. Insert the flush-mounted DuoFern Radio Transmitter in the flush-mounted box.

Fit the antenna cable as straight as possible to ensure the best possible reception.

5. Install the button or switch.
6. Switch the mains power back on again, if necessary.

8. Logging on DuoFern end units

You must log the DuoFern Radio Transmitter on to the desired DuoFern device so that the DuoFern devices can be controlled. In addition, you can log the flush-mounted radio transmitter on to a SmartHome Box to use the signals of the transmitter in the SmartHome Box. In order to log on and log off, you must press the corresponding button with a pointed (but not sharp) object (e.g. with a pen):

= Connect button (log on)

= Disconnect button (log off)

The log-on and log-off mode respectively remain active for approx. 120 seconds.

8.1 Log on when S1 = 1

1. Switch the respective DuoFern end unit to log-on mode (please refer to the respective operating manual).
2. Briefly press the Connect button.
   E1 flashes green.
3. When the log-on has been successfully completed, E1 and E2 light up green.
4. In order to assign the desired input to the logged-on DuoFern device, press the respective button / switch on input E1 or E2. The corresponding LED signals the selection.

4.1 In the case of multi-channel DuoFern end units (e.g. DuoFern Universal Actuator), repeat point 4 for the second channel.

If the current channel of a DuoFern actuator should not be assigned, press the Disconnect button briefly. LEDs E1 / E2 briefly light up red.

8.2 Log on when S1 = 0

1. Switch the respective DuoFern end unit to log-on mode (please refer to the respective operating manual).
2. Briefly press the Connect button.
   E1 flashes green.
3. Observe LED E1 / E2:
   Green: Log-on was successful.
   Red: Log-on failed.

8.3 Logging off DuoFern end units

1. Switch the respective DuoFern end unit to log-off mode (please refer to the respective operating manual).
2. Briefly press the Disconnect button.
   E2 flashes red.
3. Observe LED E1 / E2:
   Green: Log-off was successful.
   Red: Log-off failed.

All channels of a DuoFern actuator are logged off simultaneously.

9. Clearing

This function logs off all of the logged-on DuoFern end units that no longer react. This could be necessary with a faulty unit, for instance that can no longer be logged off as described previously in chapter 8.3.

Battery-operated DuoFern units cannot be logged off in this way. They must be logged off by means of a reset, see chapter 10.

1. Press and hold the Connect button for approx. 5 seconds until E1 and E2 flash green.
2. The flush-mounted DuoFern Radio Transmitter transmits a control signal to all logged-on DuoFern end units.
   Unavailable DuoFern end units are automatically deleted.
3. Clearing is complete as soon as E1 and E2 light up continuously green.

10. Deleting all settings (reset)

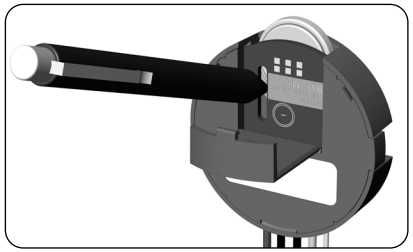
1. Press and hold the Disconnect button until E1 and E2 light up red.
2. All connections are deleted. The flush-mounted DuoFern Radio Transmitter is now returned to the default setting on delivery.

11. Battery replacement

Risk of fire and explosion

- There is a risk of fire or explosion if the battery is replaced with an incorrect type. In addition, replacing a battery with an incorrect type can override a safety device.
- Throwing a battery into a fire or hot oven or mechanically crushing or cutting a battery can lead to an explosion.
- If the battery is placed in an environment with extremely high temperatures, this can lead to an explosion or a spill of flammable liquid or flammable gas.
- A battery exposed to extremely low air pressure can cause an explosion or the release of flammable liquids or gases.

1. Open the battery compartment on the rear side and slide the battery out of its compartment, for example, using a thin pen.



2. Replace the battery with a new one of the same type (CR 2032).
   When inserting the battery, pay attention to the correct polarity. The position of the negative terminal (-) is labelled on the battery compartment.
3. Close the battery compartment again until it clicks into place.

12. Simplified EU declaration of conformity

DELTA DORE RADEMACHER GmbH hereby declares that the flush-mounted DuoFern Radio Transmitter 9497 complies with the Directive **2014/53/EU (Radio Equipment Directive)**. The full text of the EU declaration of conformity is available at the following website.

www.rademacher.de/ce

13. Technical specifications

Supply voltage	
- with internal battery:	3 V DC
- with external connection:	12 V DC
Battery type:	3 V / CR 2032
Battery life:	
- in normal operation	approx. 12,000 control commands
- in standby:	approx. 5 years
Transmission power:	max. 10 mW
Range:	
- in a building:	approx. 30 m (depending on the building structure)
- outdoors:	approx. 100 m
Transmission frequency:	434.5 MHz
Max. number of DuoFern end units:	16
Permissible ambient temperature:	+ 5 °C to + 40 °C
Dimensions (diameter x D):	50 x 11 mm

Warranty terms and conditions

Information on our warranty conditions is enclosed separately with this product.

This labelling indicates that this product must not be disposed of along with other household waste throughout the EU. To avoid potential damage to the environment or human health through uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your old device, please use the return and collection systems or contact the retailer where the product was purchased. They can recycle the product in an environmentally friendly manner.

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