

2 ZONE WALL MOUNTING RADIO RECEIVER
RECEPTEUR RADIO 2 ZONES POUR MONTAGE EN SAILLIE
FUNKEMPFÄNGER 2 ZONEN WANDMONTAGE
RICEVITORE RADIO 2 ZONE DA PARETE
RECEPTOR RADIO DE 2 ZONAS DE PARED



PE - DERXNN003 07/17

With 2 solenoid valves controls and pump or burner in wireless temperature control systems.

Modèle avec commande pour 2 électrovannes et commande pour pompe ou chaudière en systèmes de réglage thermique sans fils.

Modell mit Steuerung für zwei Elektroventile und Steuerung für Pumpen oder Heizkessel in Anlagen mit drahtloser Temperaturregelung.

Modello con comando per 2 elettrovalvole e comando per pompa o caldaia in impianti con sistema di termoregolazione senza fili.

Modelo para controlar 2 electroválvulas y bomba o caldera en instalaciones de termorregulación sin cables.

EN - English

**TECHNICAL SPECIFICATIONS - INSTRUCTIONS FOR
THE INSTALLER - PUTTING INTO OPERATION AND USE**

Page 3

FR - Français

**DONNÉES TECHNIQUES - INSTRUCTIONS POUR
L'INSTALLATEUR - MISE EN MARCHÉ ET UTILISATION**

Page 15

DE - Deutsch

**TECHNISCHE DATEN - NORMEN FÜR DIE INSTALLATION
- INBETRIEBNAHME UND GEBRAUCH**

Seite 27

IT - Italiano

**DATI TECNICI - ISTRUZIONI PER L'INSTALLATORE
MESSA IN FUNZIONE E IMPIEGO**

Pagina 39

ES - Español

**DATOS TÉCNICOS - INSTRUCCIONES PARA EL
INSTALADOR - PUESTA EN FUNCIONAMIENTO Y USO**

Página 51

TECHNICAL SPECIFICATIONS

Supply voltage: _____	230 V~ 50 ÷ 60 Hz
Device Absorption: _____	2.5 VA max
Type of action, disconnection and device: _____	1/B/Electronic
Type of output: for solenoid valves _____	2 relays single-pole changeover contact NO/NC/COM, voltage-free - 5(2) A / 250 V~
for pump or burner _____	1 relay single-pole contact NO/COM, voltage-free 5(2) A / 250V~
Wire section at terminals: _____	min. 1 mm ² ÷ max. 2.5 mm ²
Reception frequency band: _____	"868-868.6" MHz
Maxi signal capacity in free air: _____	120 m
Maximum signal capacity in the presence of walls: _____	30 m (according to the chap. 1.1 and to the chap. 1.4)
Signal reception mode: _____	antenna internal to the receiver
Type of insulation: _____	Class II ☒
Protection degree: _____	IP30/wall-mounted
Pollution: _____	normal
Operating temperature limits: _____	-20 °C ÷ + 70 °C
Storage temperature limits: _____	-25 °C ÷ + 85 °C

PERFORMANCE DATA

- Possibility of **system operation with master chronothermostat** (see chronothermostat instructions - model with Master).
- **Pump** (or burner) **activation** in concomitance with the command for opening one or both solenoid valves.
- Coupling transmitters in self-learning mode, facilitated by luminous and audio signals.
- It is possible to erase a transmitter coupling to the zone even in the event of transmitter failure.
- Manually forcing the state of the output to test the system (5 minutes, resettable).
- "RESET" command to erase temporary data in memory and deactivate commands.
- Permanent, modifiable memory, for coupling the transmitter and assigning the Master.
- Luminous signals indicating malfunctions due to the absence of transmission or an almost dead battery.
- Highly reliable communications thanks to the **double transmission of data**.
- Lighted and/or audio signal, on 3 levels, of the TEST signal to verify the presence and capacity of the signal (VMETER)

1 - INSTRUCTIONS FOR THE INSTALLER

1.1 - INSTRUCTIONS AND REQUIREMENTS FOR INSTALLING THE RECEIVER

Install the receiver at a height that allows the antenna to stick up above any nearby metal container (boiler, expansion tanks, metal cabinets); avoid positioning the antenna near cables and electrical panels (fig. 1.i - fig. 2.i)



Cabinets, walls and slabs containing metal can limit the operation of the product.

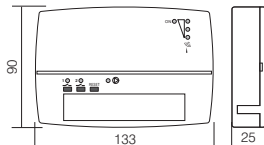
This system is incompatible with radio products working on the same frequency using a permanent emission mode.



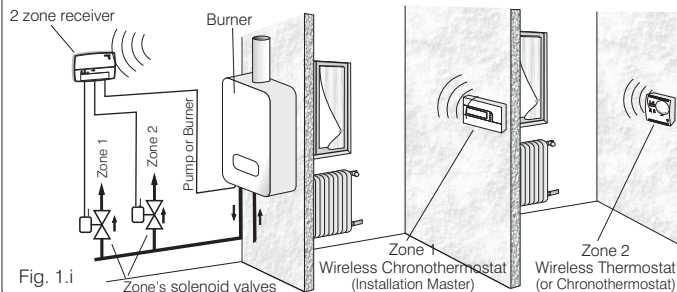
Important: installation and electrical connections of devices and appliances must be carried out by skilled people and in compliance with current regulations. The manufacturer declines any liability in connection with the use of products subject to special environmental and/or installation standards. Examples given in the manual are purely indicative.

Instructions relative to the structure of realizable systems and the assignment of areas to individual chronothermostats or thermostats are shown in the technical documentation for the transmitter devices (chronothermostats and/or thermostats).

Dimensions



Example of installation with 2 zones



1.2 - INSTALLING THE BASE ON THE WALL

Installing the device: INDEPENDENT - FIXED

ATTENTION: INSTALLATION MUST BE PERFORMED AFTER SECTIONING THE MAINS SUPPLY - 230 V~.

For installation, it is necessary to separate the front part, complete with electronic card, from the base.

- First on one side and then on the other, insert a screwdriver in the slots located on the sides of the product, exerting light pressure on the locking catch, then, with a small forward rotation of the screwdriver (as shown in figure 3.i), lift the front.
- Remove the front from the base (the resistance to removal is due to the coupling pin on the terminal strip) (fig. 4.i).

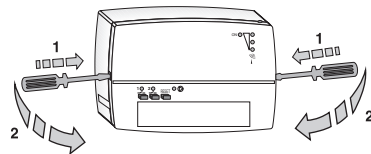


Fig. 3.i

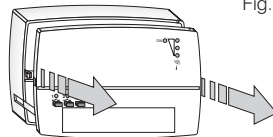


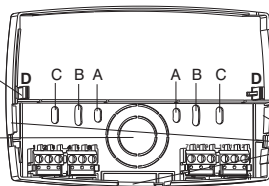
Fig. 4.i

From the base, remove the parts prepared for the passage of the connection wires shown in fig. 5.i.

- Pass the connection wires through the opening you have made.
- Attach the base to the wall (or built-in box), with 2 screws using the pairs of holes (A-A, B-B, -C-C) provided (fig. 5.i).
- Make the electrical connections to the terminals located on the base as shown in the next chapter.

D = Catches for locking the front to the base

Removable area for the passage of wires
(Installation with built-in box)



Removable areas for installation with trunking system.

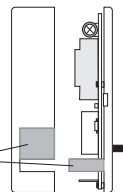


Fig. 5.i

1.3 - ELECTRICAL CONNECTIONS

With reference to figures 6.i, 7.i and 8.i:

⚠ SWITCH MAINS SUPPLY 230 V~ OFF

Make the connection to the mains supply

terminal **1** = NEUTRAL

terminal **2** = LINE

Make the connections to devices to be controlled

ATTENTION: terminal **3** (L2) = phase available for possible internal connection; max. total current 5 A

CONNECTIONS TO SOLENOID VALVE 1 (zone 1).

terminal **4** = contact normally closed

terminal **5** = contact normally open

terminal **6** = common

CONNECTIONS TO SOLENOID VALVE 2 (zone 2).

terminal **7** = contact normally closed

terminal **8** = contact normally open

terminal **9** = common

CONNECTIONS TO PUMP (or burner)

terminal **11** = common

terminal **12** = contact normally open

Fig. 6.i Example of connection to 2 solenoid valves (2 wires) and to pump.

Fig. 7.i Example of connection to 2 solenoid valves (2 wires) and to burner.

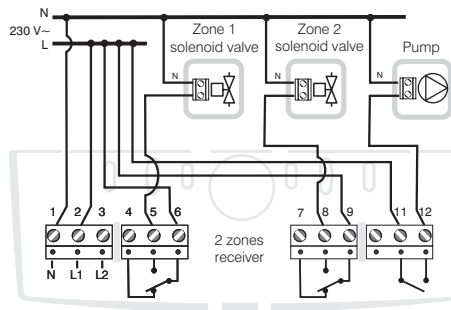


Fig. 6.i

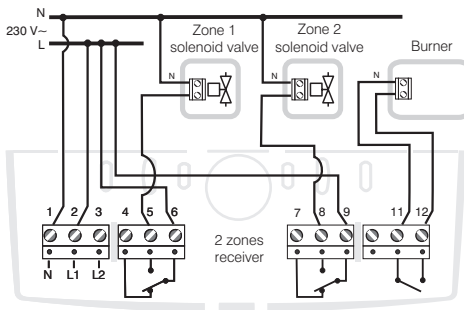
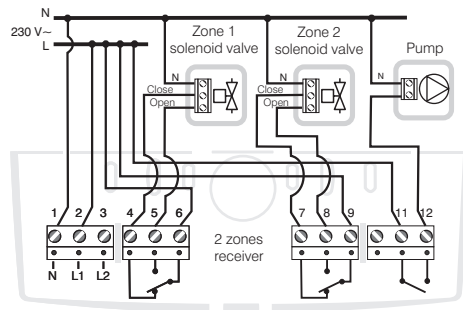


Fig. 7.i

Fig. 8.i Example of connection to 2 motor-operated solenoid valves (3 wires) and to pump.



NOTES AND INSTRUCTIONS FOR THE INSTALLER

- Also pay careful attention to the instructions for the device being controlled.
- In the presence of loads with absorption higher than the data on the product rating plate, interpose a power relay or a suitably dimensioned contactor. In the presence of highly inductive loads we recommend connecting an RC filter in parallel with the load.
- When making the electrical connections, in the case of a wall installation without built-in box, pay particular attention that the cabling is properly placed and does not interfere with the correct closing of the front on the base.
- In the case of installing the receiver on a metal wall, use double insulated cables for the electrical connections.

EXAMPLE OF CONTROL OPERATION - Installation with 2 zones (fig. 1.i) - consisting of:

- 1 wireless chronothermostat (zone 1 - day)
- 1 wireless thermostat (or chronothermostat) (zone 2 - night)
- 1 2-zone wall-mounted receiver that controls the 2 zone solenoid valves and pump (or burner)

SV 1 (zone 1)	Closed	Open	Closed	Open
SV 2 (zone 2)	Closed	Closed	Open	Open
PUMP	Deactivated	Activated	Activated	Activated

Operation

The pump control is activated (pump working) only when one or both solenoid valve controls are activated (solenoid valve open); with both solenoid valve controls deactivated (solenoid valves closed) the pump control is also deactivated (pump stopped).

1.4 - ATTACHING THE FRONT WITH CARD TO THE BASE

- Reinsert the front part with card on the base being careful to correctly insert the pins connecting the card to the terminals.
- Push the front on to the base using both hands as shown in figure 9.i, until the catches click and lock the front to the base.

Power the receiver and attempt to operate it and couple the transmitter, as shown in chapter 2 "PUTTING INTO OPERATION AND USE."

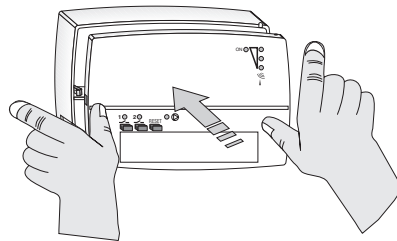


Fig. 9.i

ATTENTION: IN THE EVENT THAT, DUE TO ENVIRONMENTAL CONDITIONS, YOU DETECT AN EXCESSIVELY LOW RADIO SIGNAL, WE RECOMMEND MOVING THE ANTENNA OUTSIDE THE RECEIVER AND POSITION IT VERTICALLY.

With reference to the installation procedure (chapter 1.2):

⚠ SWITCH MAINS SUPPLY 230 V~ OFF

- Open the receiver
- Move the antenna wire from its seat (upper inside part of the front) and rotate it vertically
- Pass the wire through the small semi-hole provided for the purpose (fig. 10.I)
- Carefully reclose the receiver (fig. 9.I - fig. 10.I).
- Switch on power 230V~

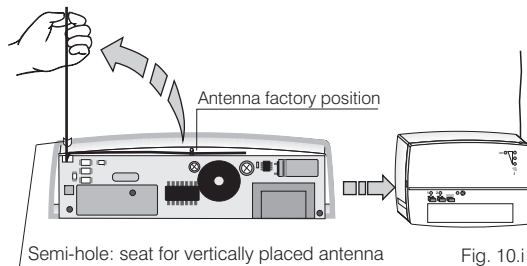
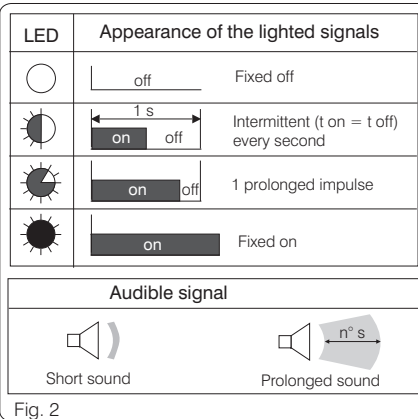
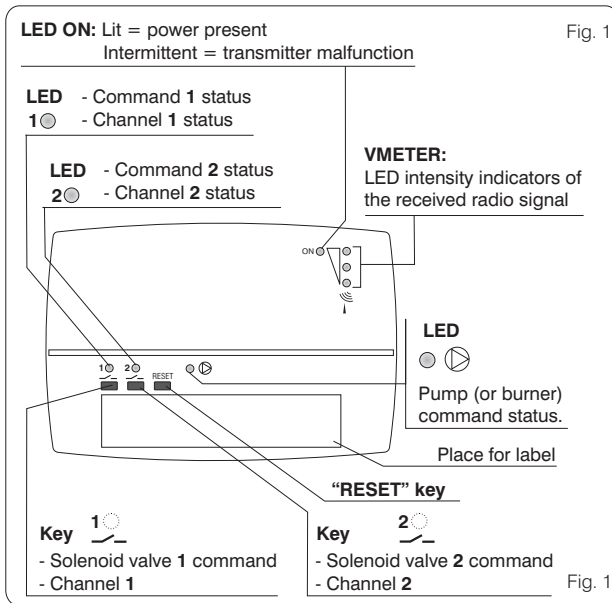


Fig. 10.i

2 - PUTTING INTO OPERATION AND USE

2.1 - SIGNAL AND COMMAND LEGEND



Label with assigning of zones

At the end of the installation, indicate the assigning of zones (ex.: Rooms - Dining-room, Day - Night) on the label supplied and fix it in the proper place.



2.2 - NEW DEVICE

When turned on, the receiver has only the **ON LED** lit (fig. 3).

N.B.: there may be a weak lighted signal on the **lower LED** of the **VMETER**, due to the presence of radio interference.

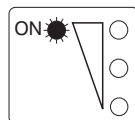


Fig. 3

2.3 - TEMPORARILY FORCING THE STATE OF THE CONTROL OUTPUT (ex.: to test the system)

A) TRANSMITTER NOT YET COUPLED OR NOT ACTIVE

- Hold down the **1/—** (ou **2/—**) **key** until there is a brief audible signal, then let go: the control is activated and the corresponding **LED** is steady on (fig.4). Also the pump (or burner) command is activated.

The control will remain activated for 5 minutes, at the end of which, an audible signal will continue for **5 seconds** to alert the operator of its imminent deactivation (fig.5). If you wish to keep it active, press the **1/—** (or **2/—**) **key** again while the audible signal is sounding; otherwise, when the signal ceases, the control will be deactivated.

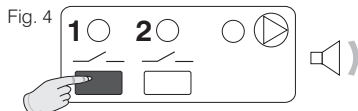


Fig. 4

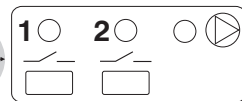
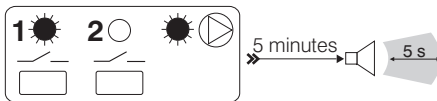


Fig. 5

Canceling the temporary forcing of the control

- Briefly press the **“RESET” key**; when released the temporary forced control is cancelled (fig.6).

N.B.: Before performing this operation, consult paragraph 3.0 **“RESET”**.

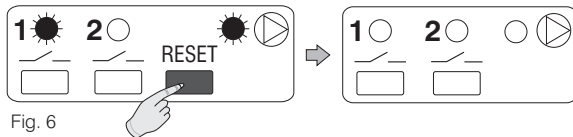


Fig. 6

B) TRANSMITTER COUPLED AND HEAT REGULATION ACTIVE

The above-indicated operations can also be performed, using the same methods, during normal heat regulation operation; in this case, the temporary forced control will cause the transmitter to be excluded and the reversal of the command status: if active, it will be deactivated and vice versa. During the forced state, the corresponding **key (1/— or 2/—)** is not functional.

2.4 - COUPLING TO TRANSMITTERS (Wireless chronothermostat and/or thermostat)

Coupling of a channel to a transmitter (Ex.: zone 1 chronothermostat to channel 1)

ON THE TRANSMITTER TO BE COUPLED activate the "Test" mode, as described in the chapter "Coupling to receiver" in the transmitter manual.

ON THE RECEIVER LED 1 indicates the status of channel 1.

Execute coupling according to the indication of the LED (A, B or C), as described below.

A - LED 1 off = channel not coupled

- Hold down **1/—** key until a single acoustic signal sounds; then release it: **LED 1** is flashing. The transmitter is coupled to the receiver (fig. 7).

On the TRANSMITTER: deactivate "Test" mode.

B - LED 1 flashing = channel already coupled to the transmitter

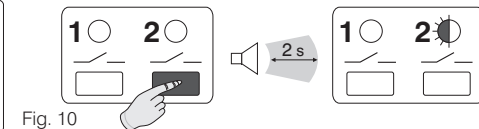
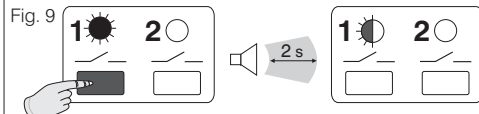
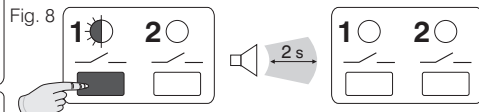
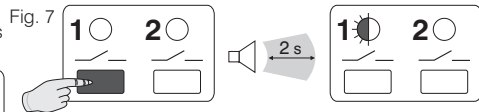
- To confirm coupling: deactivate "Test" mode on the transmitter
- To cancel coupling: hold down **1/—** key until a single acoustic signal sounds; then release it: **LED 1** is off (fig. 8).

On the TRANSMITTER: deactivate "Test" mode.

C - LED 1 always on = channel coupled to another transmitter

- Hold down **1/—** key until a single acoustic signal sounds; then release it: **LED 1** is flashing (fig.9). The new transmitter is coupled to the receiver.

On the TRANSMITTER: deactivate "Test" mode.



N.B.: to replace a transmitter coupled to a channel, proceed as described in "C".

Coupling the second transmitter to channel 2

Repeat all the operations described above, but using **2/—** key with relevant **LED 2** (fig. 10).

ATTENTION: the coupling to channels and assigning the master are not cancelled by the **RESET** control or by a power failure.

N.B.: test mode on the transmitter automatically terminates 3 minutes from activation.

2.5 - RECEIVER SETTING FOR OPERATION WITH “MASTER” (if required)

NB: for the “**Master**” function a chronothermostat model with “**Master**” must be used, whereas the second transmitter can also be a chronothermostat without “**Master**” or a thermostat.

Example with “**Master**” function carried out by the chronothermostat coupled to channel 1

ON THE MASTER CHRONOTHERMOSTAT activate the “**Master Test**” mode:

- Press the “**Master**” key until the wording “**MASTER**” appears on the display, then release it (see chapter “**Assigning Master**” in the chronothermostat manual).

ON THE RECEIVER:

LED 1 is flashing (channel 1 controlled by the “**Master**”)

LED 2 is off (channel 2 independent of the “**Master**”)

- Hold down **2/—** key until a single acoustic signal sounds, then release it.
Both **LED** are flashing. **Channel 2** is arranged for interlocking to the “**Master**” chronothermostat (fig. 11).

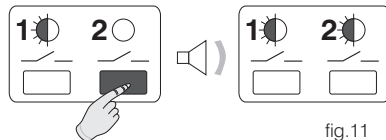


fig.11

ON THE MASTER CHRONOTHERMOSTAT deactivate the “**Master Test**” mode:

- Press the “**Master**” key for 2 seconds, then release it.

CANCELLING SETTING FOR “MASTER” FUNCTIONING

ON THE MASTER CHRONOTHERMOSTAT activate the “**Master Test**” mode:

ON THE RECEIVER

LED 1 and **LED 2** are flashing

- Hold down **2/—** key until a single acoustic signal sounds, then release it. **LED 2** is off and **channel 2** is independent of the “**Master**” chronothermostat (fig. 12).

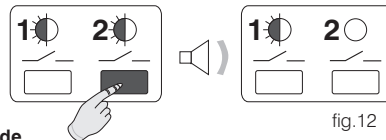


fig.12

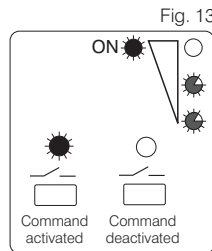
ON THE MASTER CHRONOTHERMOSTAT deactivate the “**Master Test**” mode.

2.6 - OPERATION

The transmitters control heat regulation and send commands and control signals to the receiver, which makes them operational. The operational security of the control is assured by the double sending of commands, a short time apart, and by an effective self-diagnostic system.

Signals during normal operation:

- **ON LED:** lit
- **LED 1 and/or LED 2:** on with control activated, off with control deactivated
- **PUMP LED:** on only in concomitance with **LED 1** and/or **LED 2**
- **LED VMETER:** 1, 2 or all the **LEDs** light up briefly with each radio signal received



2.7 - CHECKING THE INTENSITY OF THE RECEIVED SIGNAL - VMETER

ON THE TRANSMITTER

- Activate the “**check the intensity of the radio signal mode**”, as explained in the specific chapter of the transmitter manual.

ON THE RECEIVER

- The **intermittent LED 1 or LED 2** indicates the coupling condition of the transmitter.
- The **3 LEDs on the VMETER**, together with the audible signal, indicate the intensity of the radio signal received, as illustrated in the figures to the side.

N.B.: Verification mode on the transmitter automatically terminates 3 minutes after activation.

If you wish to interrupt the verification, deactivate “**Verify**” mode on the transmitter, as explained in the instruction manual.

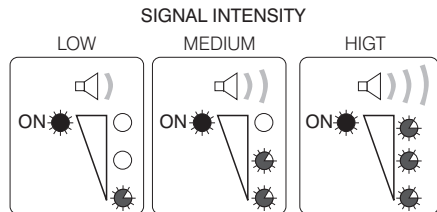


Fig. 14

ATTENTION: even in “normal operation” it is possible to check the intensity of the last radio signal received (the last signal is always stored):

- Press the **1/_** (or **2/_**) **key** for about 2 seconds, then let go: the **LEDs on the VMETER** will show the intensity of the last signal received for 5 seconds.

2.8 - SIGNALING A TRANSMITTER MALFUNCTION

The receiver reports two types of transmitter anomalies:

- **Failure to receive a radio signal for more than 30 minutes**
- **Transmitter battery almost dead.**

In both cases, the signal is given by the intermittent, **simultaneous lighting of the ON and malfunctioning channel LEDs** (ex.: fig. 15 - channel 1 fault).

ATTENTION: in the case of the lack of a radio signal, the control of the corresponding solenoid valve is also deactivated.

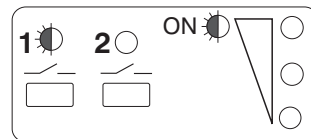


Fig. 15

2.9 - DELETING A TRANSMITTER COUPLING (even in a state of malfunction) FROM THE RECEIVER

It is possible to delete a transmitter coupling even if it is not able to transmit the **Test** signal (ex.: channel 1).

- Press and hold the **1/_** key until the end of the sequence of beeps shown in the figure 16; then let go. The transmitter coupling is erased from the memory of the receiver and **channel 1** is free.

ATTENTION: in the event the key is released before the beginning of the long beep, the operation is automatically cancelled and the command output is set to "Temporary Forced" (see paragraph 2.3). Press **"RESET" Key** to return to normal operation

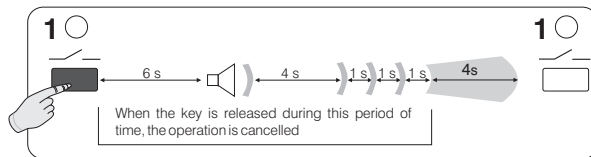


Fig. 16

Fig. 17

3.0 - RESET

The **RESET** command on the receiver cancels all the data stored in the device except the coupling to the transmitter and the setting for **"Master"** functioning.

- Briefly press the **"RESET"** key: when it is released, **all the LEDs** will light together with a **beep** and the **ON LED** will be steady lit (fig. 17).

