TOUCH AND KEY PANEL CONTROLLERS. RADIO RELAY
INSTALLATION AND OPERATION MANUAL. DATA SHEET

CONTENTS

TOUCH AND KEY PANEL CONTROLLERS

Touch and key panel controllers are designed for remote radio control of lighting systems, blinds and gate drives, and other electrical devices. To control lighting, the panel is used in conjunction with a remote radio relay.

Supply voltage	3 V
Batteries	CR2450 — 1 pc. / CR2032 — 2 pcs. (supplied with the controller)
Transmitting frequency	868 MHz
Operating temperature range	from 0°C to +50°C
Dimensions	80x80x11 mm
Front panel material	Lacobel glass with SAFETY protection element, glass color options as per RAL catalog

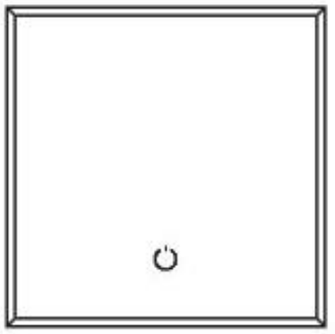
RADIO RELAY

Remote radio relays are designed for remote radio control of lighting systems, blinds and gate drives, and other electrical devices.
For control, the radio relay is used in conjunction with the corresponding RF controller.

Supply voltage (for different modifications)	220 V 50 Hz or +12÷24 V
Maximum load current — radio relay	≤ 10 A (220 V, cosφ=1)
— radio relay to control blinds or gates drives	≤ 5 A (220 V, cosφ=1)
— RGB radio dimmer and W radio dimmer	≤ 4 A
Transmitting frequency	868 MHz
Operating temperature range	from 0°C to +50°C
Dimensions	48x48x17 mm

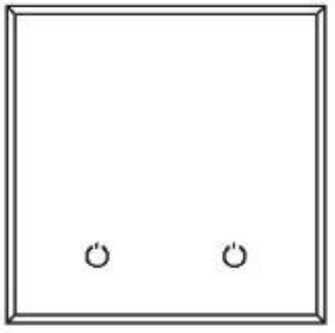
TOUCH PANEL CONTROLLER MODIFICATIONS

- single-, two-, three-channel devices for lighting control;
- single-channel devices for lighting brightness control;
- single-channel devices for control of blinds and gates drives.



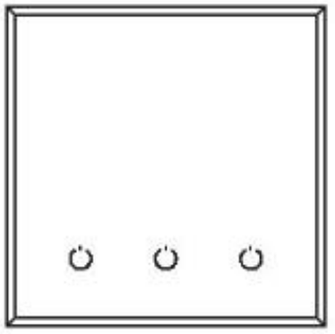
SENSO series **single-channel touch panel controllers** are designed for controlling a single lighting zone (in conjunction with one radio relay).

SENSO and **SENSO Backlight** series



SENSO series **two-channel touch panel controllers** are designed for controlling two lighting zones (in conjunction with two radio relays).

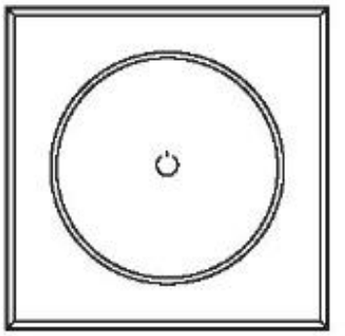
SENSO and **SENSO Backlight** series



SENSO series **three-channel touch panel controllers** are designed for controlling three lighting zones (in conjunction with three radio relays).

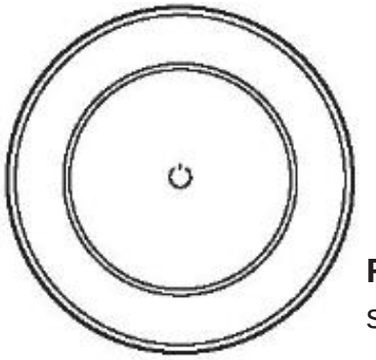
SENSO and **SENSO Backlight** series

SENSO series **single-channel touch panel controllers** are designed for controlling the brightness of lighting, as well as blinds and gates (in conjunction with one radio relay of the corresponding modification).



TAKTO series

TAKTO series single-channel touch panel controllers are designed for controlling the brightness of a single lighting zone or RGB lighting (in conjunction with one radio relay of the corresponding modification).



RONDA series

RONDA series single-channel touch panel controllers are designed for controlling the brightness of a single lighting zone or RGB lighting (in conjunction with one radio relay of the corresponding modification).

KEY PANEL CONTROLLER MODIFICATIONS

- single-key single-channel devices;
- two-key single-channel devices;
- two-key two-channel devices.

Single-key single-channel touch panel controllers

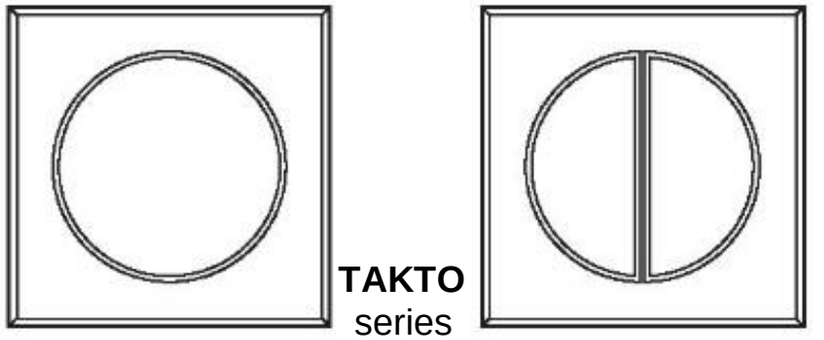
are designed for controlling a single lighting zone (in conjunction with one radio relay).

Two-key single-channel touch panel controllers

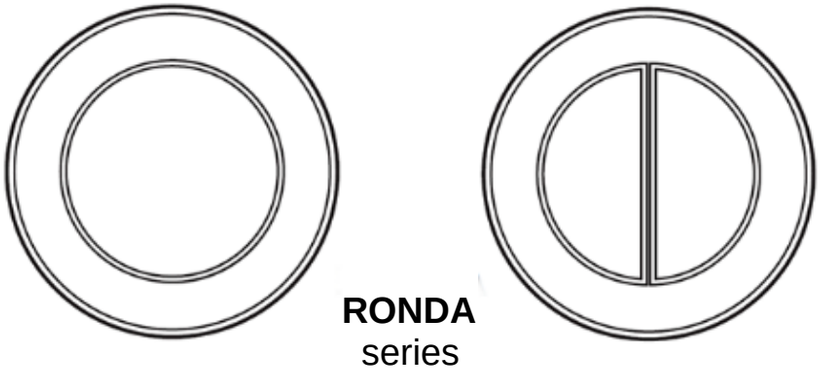
are designed for controlling the brightness of a single lighting zone, RGB lighting, W (LED) lighting, and drives of blinds or gates (in conjunction with one radio relay of the corresponding modification).

Two-key two-channel touch panel controllers

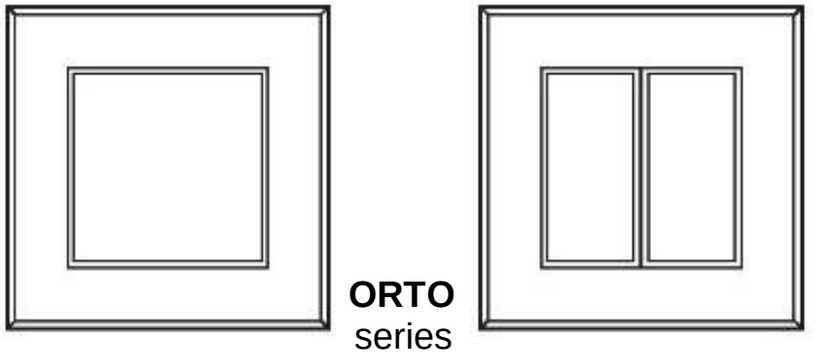
are designed for controlling two lighting zones (in conjunction with two radio relays).



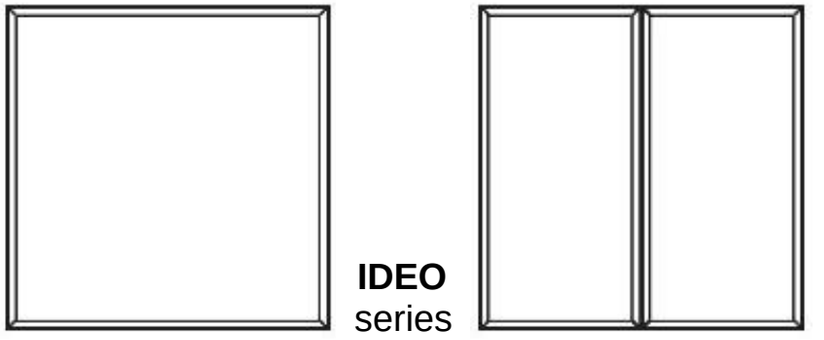
TAKTO series



RONDA series



ORTO series



IDEO series

RADIO RELAY MODIFICATIONS

- **Single-channel remote radio relay**

Single-channel remote radio relays are designed to turn the lighting on and off remotely.

- **Single-channel remote radio dimmer** Single-channel remote radio dimmers are designed for turning the lighting on and off as well as smoothly adjusting the illumination level.
- **Single-channel remote radio relay for RGB lighting control**

Single-channel remote radio relays for RGB lighting control are designed to turn the RGB lighting on and off remotely, as well as to select its color.

- **Single-channel remote radio relay for W (LED) lighting control (W radio dimmer)**

Single-channel remote radio relays for W (LED) lighting control are designed to turn the lighting on and off remotely as well as smoothly adjust the illumination level.

- **Single-channel remote radio relay for blinds or gates drive control**

Single-channel remote radio relays are designed for remote opening and closing of blinds or gates.

- **Single-channel remote radio relay with "dry contact" output**
- **Single-channel remote radio relay with "0...10V"/"1...10V" output galvanically isolated from AC220V**

Any radio relay can be controlled via the Internet, from a computer, smartphone, or tablet.

Examples of remote radio relay placement are shown in images on the right.

INSTALLATION AND DISMANTLING OF SENSO, TAKTO, AND ORTO SERIES TOUCH PANEL CONTROLLERS

• Attach the special square plastic frame to the wall with two self-tapping screws inserted in the holes (A) as shown in Fig. 1 or stick it to any flat surface using double-sided tape (Fig. 1). For the SENSO, TAKTO and ORTO series, the frame shall be mounted to the wall in such a way that the slots (B) on the frame point downwards.

• Insert the panel body into the special plastic frame (2). Press the panel until it clicks (3) as shown in Fig. 1.

• To detach the panel from the plastic frame, insert the special U-shaped bracket (1) (supplied with the set) into the special holes (B) on the underside of the panel body. Gently pulling the bracket towards yourself (4), unfasten (depress) the plastic latches and remove the panel.

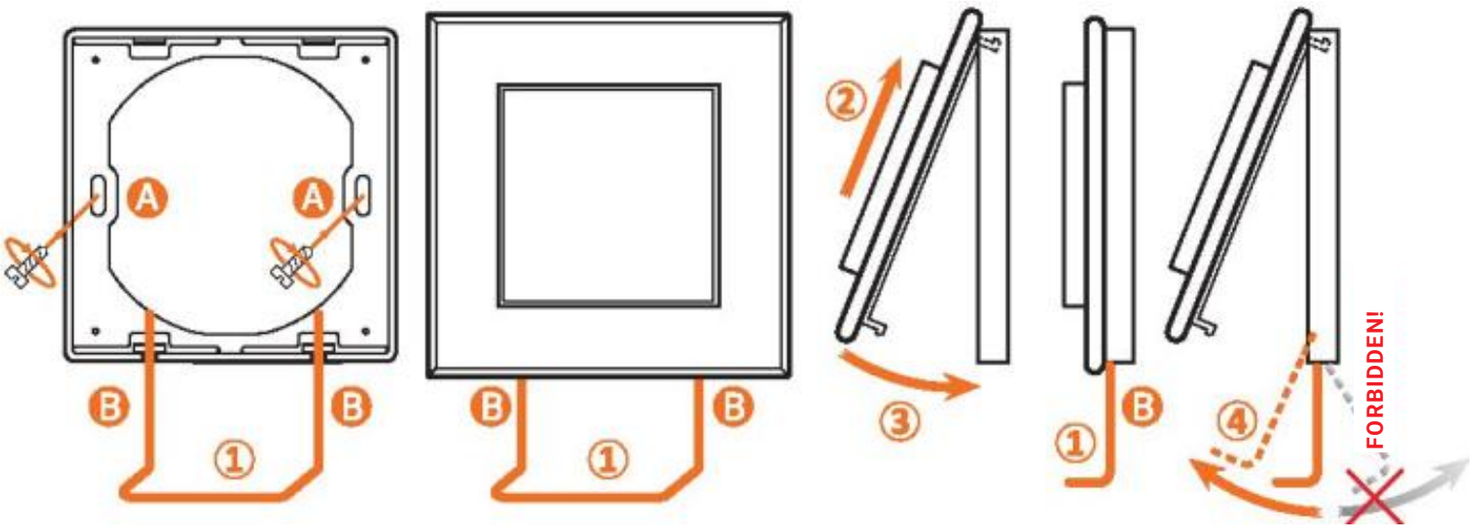


Fig. 1. Installation and dismantling of SENSO, TAKTO, and ORTO series touch controller panels

INSTALLATION AND DISMANTLING OF RONDA SERIES TOUCH PANEL CONTROLLERS

• Attach the special round plastic frame to the wall with two self-tapping screws inserted in the holes (A) as shown in Fig. 1 or stick it to a flat surface using double-sided tape (Fig. 2).

• First, rotate the panel 30 degrees counterclockwise and insert it into the special plastic frame.

• Rotate the panel clockwise until it clicks (6).

• To remove the panel from the plastic frame, rotate it counterclockwise until it stops (5) (Fig. 2).

• Detach the panel.

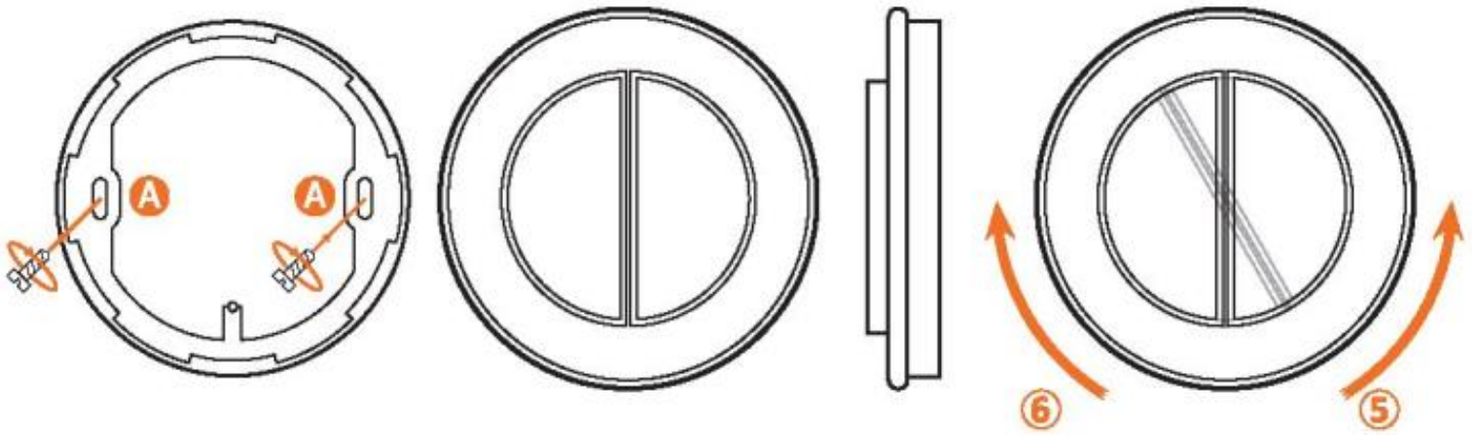


Fig. 2. Installation of the RONDA series touch panel controller

INSTALLATION AND DISMANTLING OF IDEO SERIES TOUCH PANEL CONTROLLERS

- Detach the keys from the panel body by gently pulling the edge of the glass key (C).
- Attach the RF controller body to the wall (Fig. 3) with two screws by inserting them in the holes in the printed circuit board (D). As an alternative, place the touch panel controller on any flat surface using double-sided tape.
- Reinstall the keys.

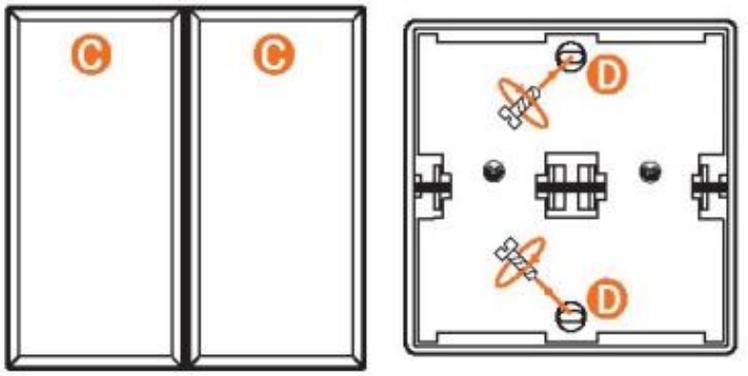


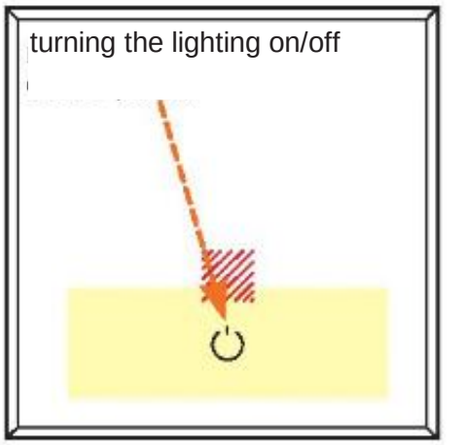
Fig. 3. Installation of the IDEO series touch panel controller

FUNCTIONS OF TOUCH CONTROL ZONES OF SENSO AND SENSO BACKLIGHT SERIES TOUCH PANEL CONTROLLERS

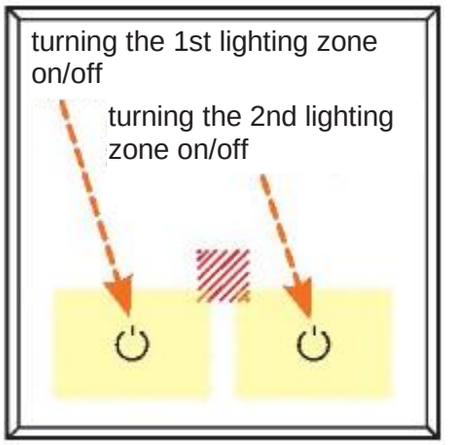
— backlight zone (red LED)
(for SENSO Backlight series)

— touch control zone

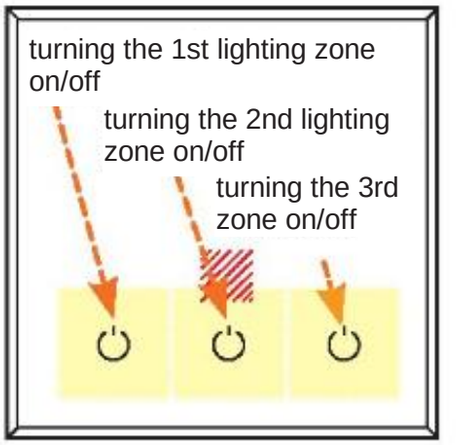
Functions of the touch control button of the SENSO series single-channel touch panel controller
for a single lighting zone



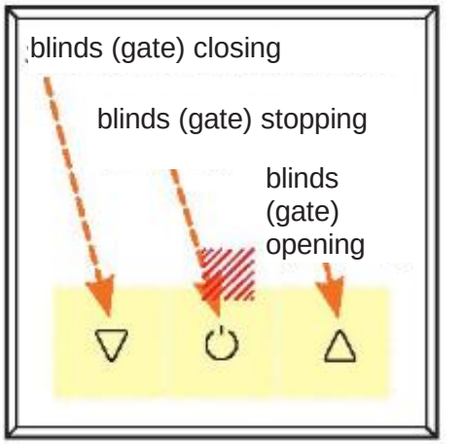
Functions of touch control buttons of the SENSO series two-channel touch panel controllers
for two lighting zones



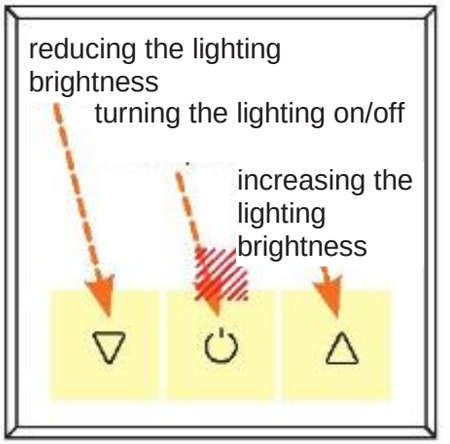
Functions of touch control buttons of the SENSO series three-channel touch panel controllers
for three lighting zones



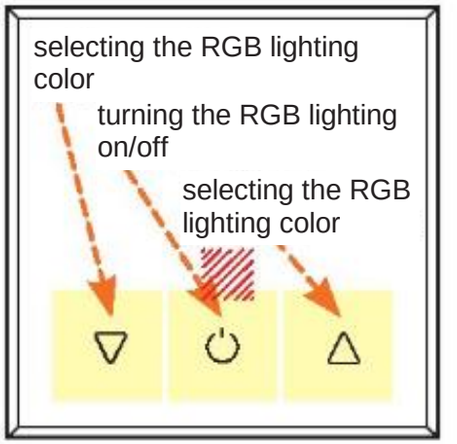
Functions of touch control buttons of the SENSO series single-channel three-button touch panel controller
for drives of blinds or gates



Functions of touch control buttons of the SENSO series single-channel three-button touch panel controller
for controlling the brightness of a single lighting zone

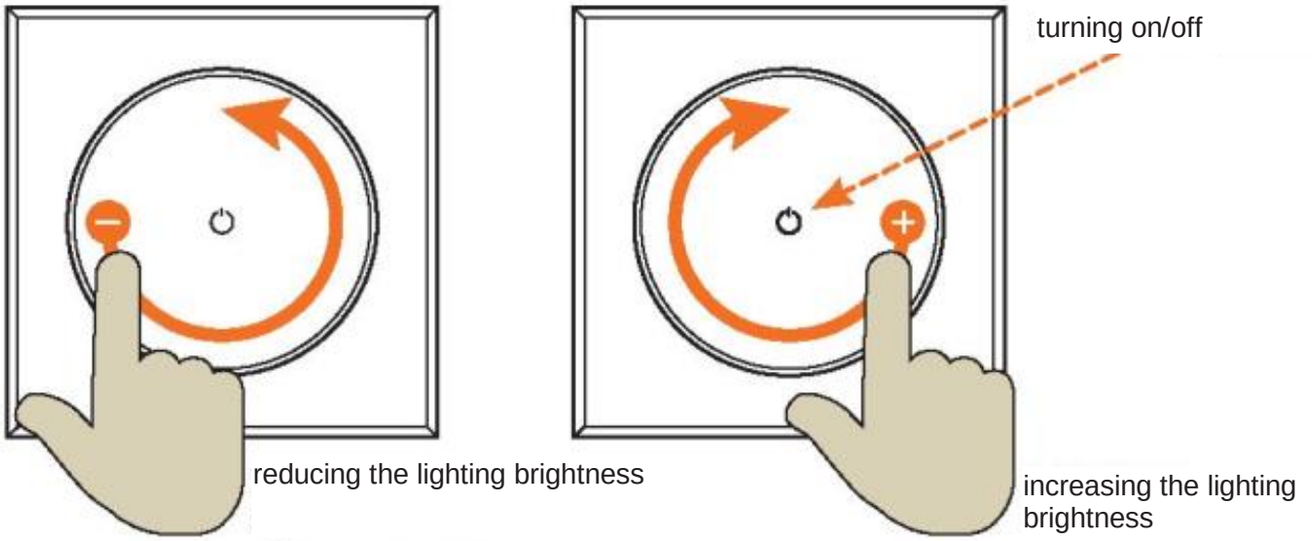


Functions of touch control buttons of the SENSO series single-channel three-button touch panel controller
for RGB lighting



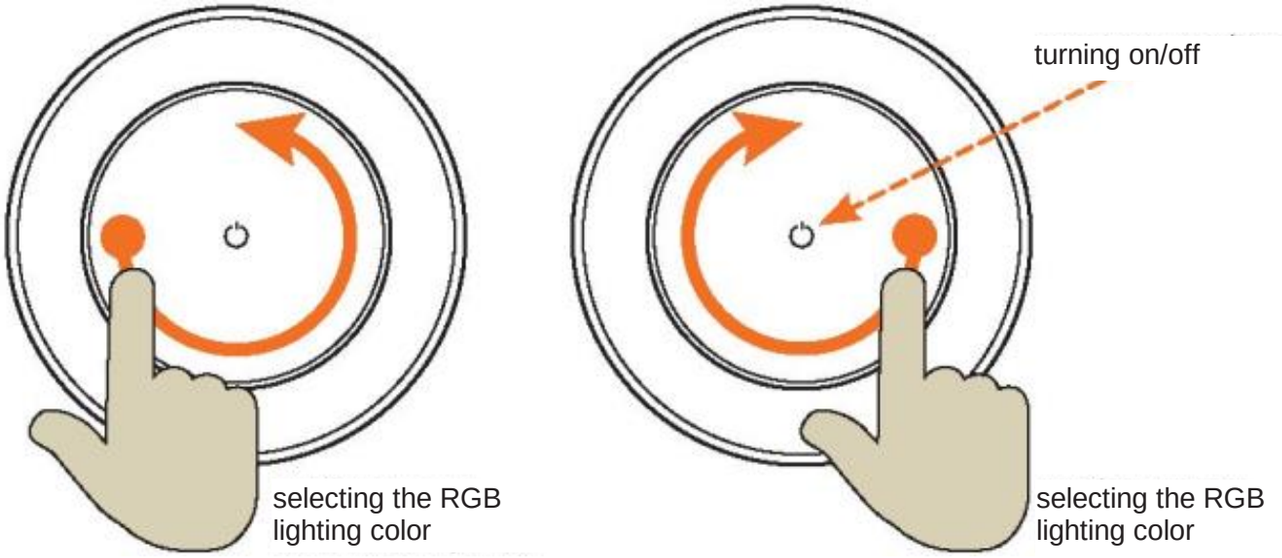
LIGHTING BRIGHTNESS CONTROL WITH THE TAKTO AND RONDA SERIES SINGLE-CHANNEL TOUCH PANEL CONTROLLERS

(using the TAKTO series as an example)



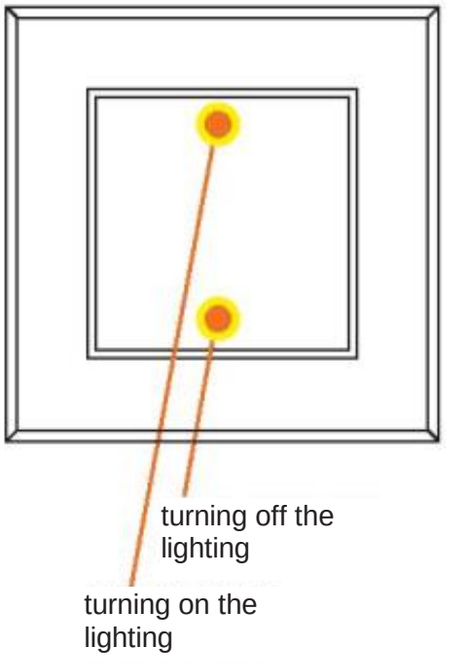
RGB LIGHTING CONTROL WITH THE TAKTO AND RONDA SERIES SINGLE-CHANNEL TOUCH PANEL CONTROLLERS

(using the RONDA series as an example)

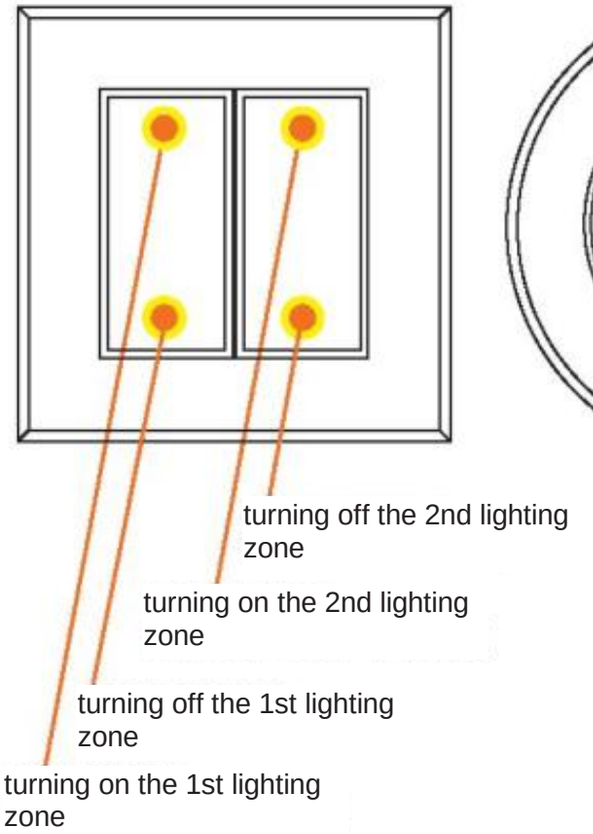


FUNCTIONS OF CONTROL KEYS OF THE TAKTO, RONDA, ORTO AND IDEO SERIES TOUCH PANEL CONTROLLERS

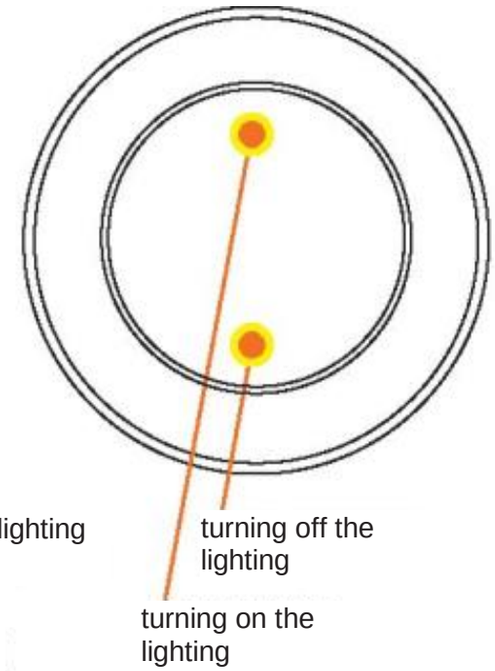
Functions of keys of the TAKTO, RONDA, ORTO, and IDEO series single-channel single-key touch panel controllers
for a single lighting zone
(using the ORTO series as an example)



Functions of keys of the TAKTO, RONDA, ORTO, and IDEO series two-channel two-key touch panel controllers
for two lighting zones
(using the ORTO series as an example)

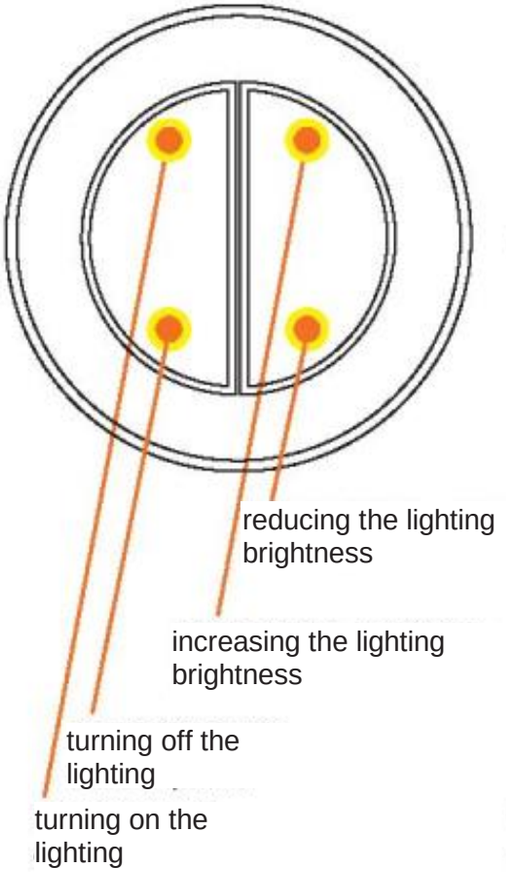


Functions of keys of the TAKTO, RONDA, ORTO, and IDEO series single-channel single-key touch panel controllers
for a single lighting zone
(using the RONDA series as an example)

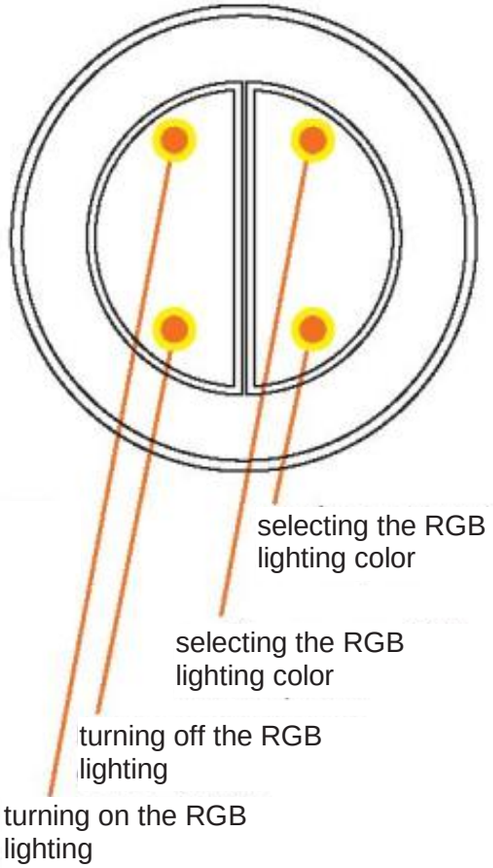


FUNCTIONS OF CONTROL KEYS OF THE TAKTO, RONDA, ORTO AND IDEO SERIES TOUCH PANEL CONTROLLERS

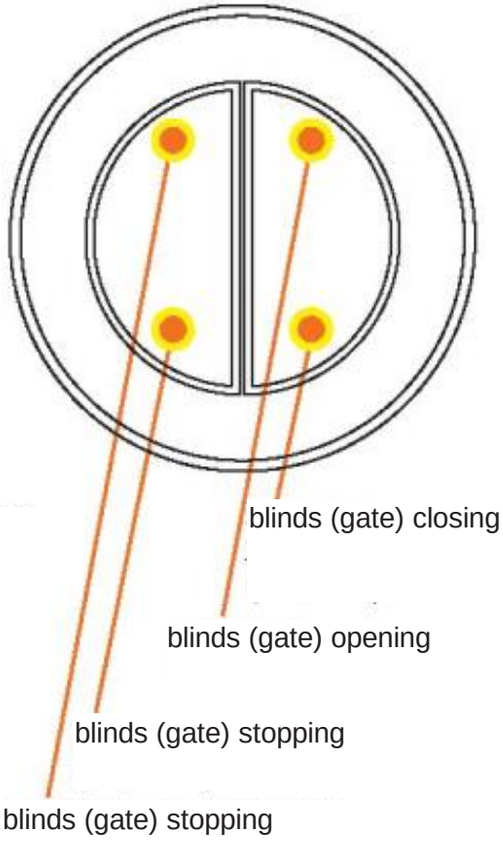
Functions of keys of the TAKTO, RONDA, ORTO, and IDEO series single-channel two-key touch panel controllers **for controlling the brightness of a single lighting zone** (using the RONDA series as an example)



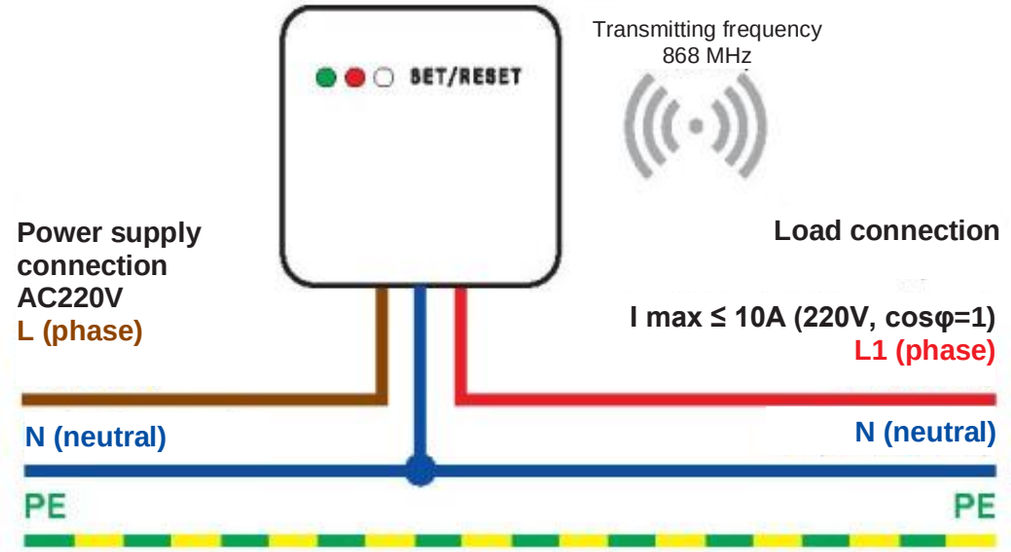
Functions of keys of the TAKTO, RONDA, ORTO, and IDEO series single-channel two-key touch panel controllers **for RGB lighting** (using the RONDA series as an example)



Functions of keys of the TAKTO, RONDA, ORTO, and IDEO series single-channel two-key touch panel controllers **for drives of blinds or gates** (using the RONDA series as an example)



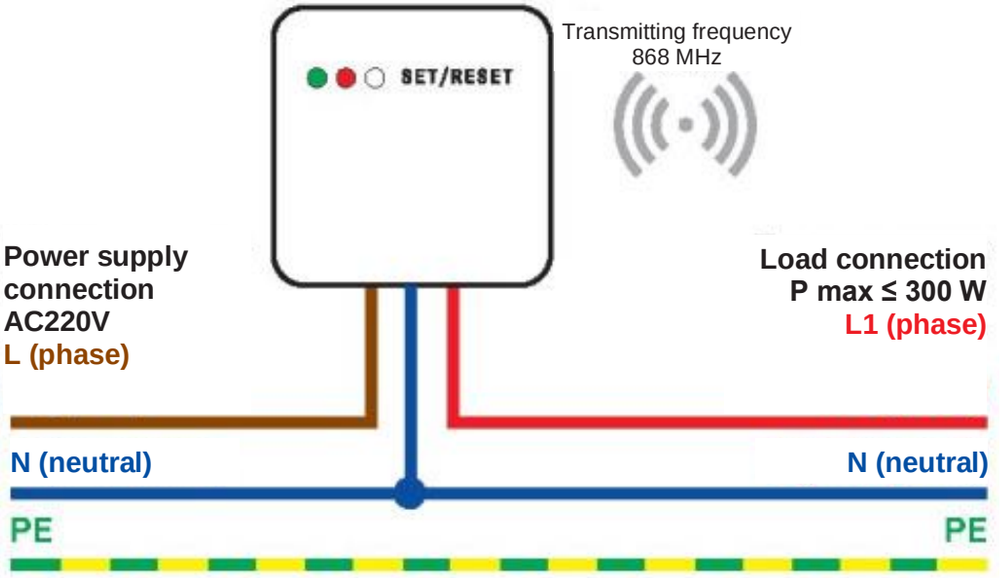
RADIO RELAY CONNECTION



A single radio relay can be controlled from 32 different devices (touch panel controllers).

Built-in function that automatically deactivates the load after 24 hours since the last activation.

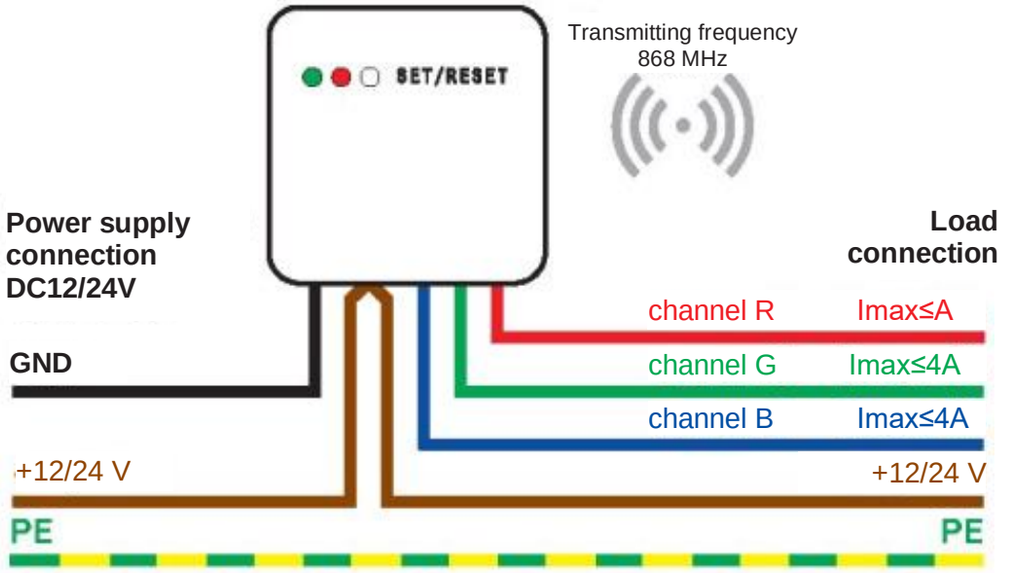
RADIO DIMMER CONNECTION



A single radio relay can be controlled from 32 different devices (touch panel controllers).

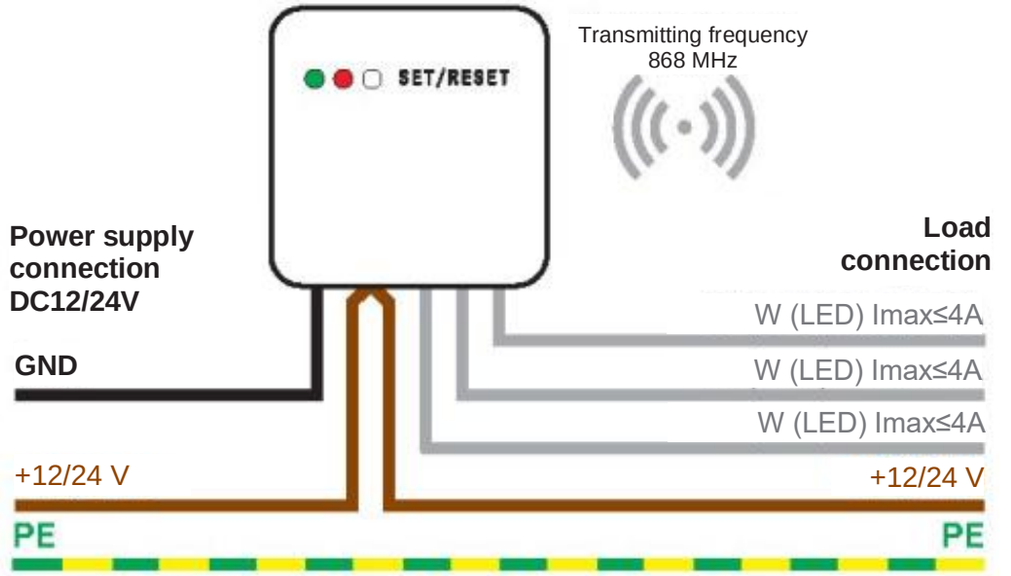
Built-in function that automatically deactivates the load after 24 hours since the last activation.

CONNECTION OF RADIO RELAY
FOR CONTROLLING RGB LIGHTING (RGB RADIO DIMMER)



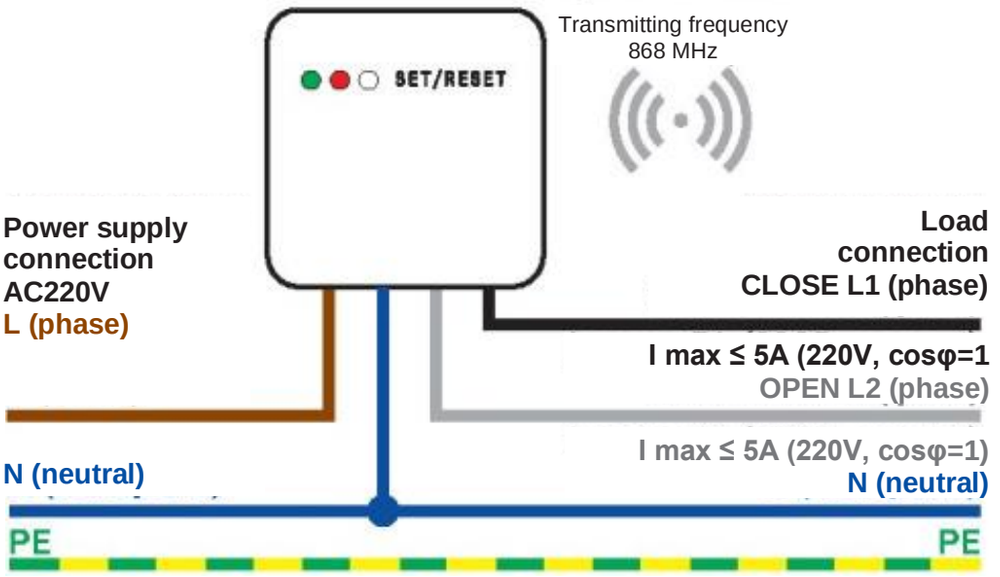
A single radio relay can be controlled from 32 different devices (touch panel controllers).

CONNECTION OF RADIO RELAY
FOR CONTROLLING W (LED) LIGHTING (W RADIO DIMMER)



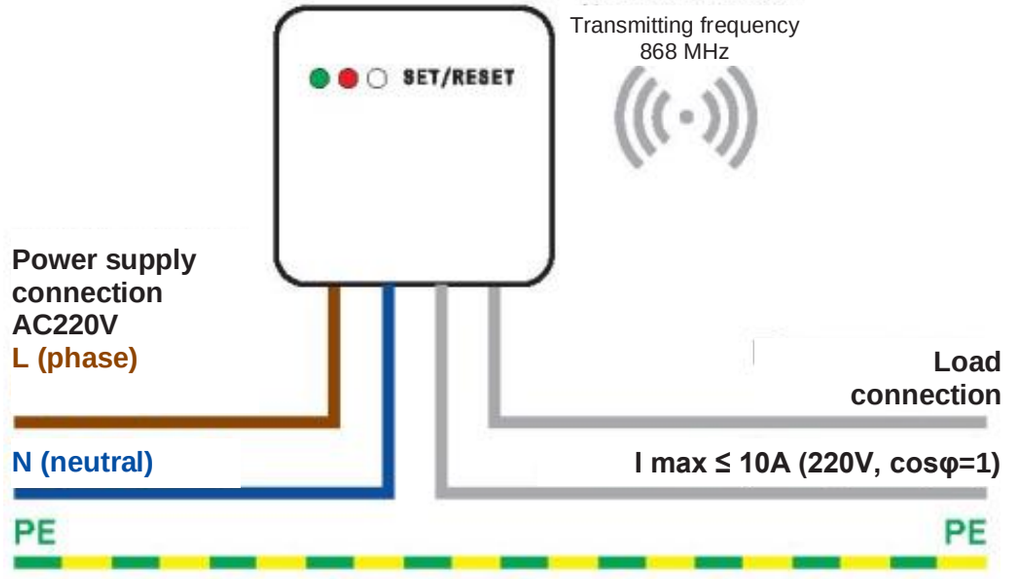
A single radio relay can be controlled from 32 different devices (touch panel controllers).

CONNECTION OF RADIO RELAY
FOR CONTROLLING DRIVES OF BLINDS OR GATES



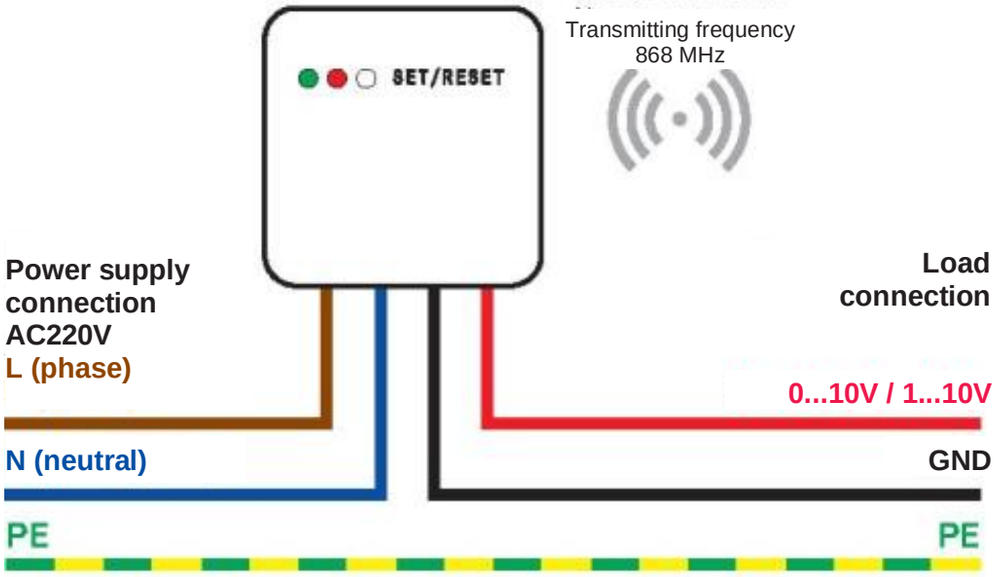
A single radio relay can be controlled from 32 different devices (touch panel controllers).

CONNECTION OF RADIO RELAY
WITH "DRY CONTACT" OUTPUT



A single radio relay can be controlled from 32 different devices (touch panel controllers).

CONNECTION OF RADIO RELAY WITH "0...10V"/"1...10V" OUTPUT GALVANICALLY ISOLATED FROM AC220V



A single radio relay can be controlled from 32 different devices (touch panel controllers).

The output is switched from "0...10V" to "1...10V" by a jumper installed inside the relay. Jumper placed on – "1...10V" type output

WARNING! Electrical connections with these VAGO terminals may be made only with copper conductors. Do not use wires with aluminum conductors!

RADIO RELAY OPERATION MODES

(radio relay / radio dimmer / radio relay with a "dry contact" output / radio relay for controlling RGB and W (LED) lighting / radio relay for controlling drives of blinds or gates / radio relay with "0...10V"/"1...10V" output galvanically isolated from AC220V, all hereinafter referred to as **radio relay**)

- **Standby mode.**

The radio relay has identified one or more touch panel controllers and is ready to execute a command transmitted from them via the radio channel. The standby mode is indicated by a **continuously glowing green LED**.

- **SET mode: the radio relay identifies (registers) a new touch panel controller.**

The registration is necessary for adding the address of the new touch panel controller to the list of devices that are allowed to control this radio relay. One radio relay may identify thirty-two touch panel controllers.

This mode is enabled by pressing the SET/RESET button for about 1–2 seconds until the red LED indicator lights up. The mode is indicated by a **continuously glowing red LED**.

No control commands are executed during the registration. When the registration process is completed, the red LED indicator on the radio relay blinks several times. The number of LED blinks corresponds to the sequence number of the touch panel controller stored in the memory of the radio relay.

No identification actions are performed if a previously registered touch panel controller issues a command in the identification mode. The green LED indicator will indicate its sequence number. Then the standby mode will be automatically enabled.

- **RESET mode: resetting all previous settings.**

This mode is used to completely clear the list of touch panel controllers registered in the radio relay memory. This mode is enabled by pressing the SET/RESET button for about 5 seconds until the red and green LED indicators light up. Clearing the information from the memory takes 1–2 seconds.

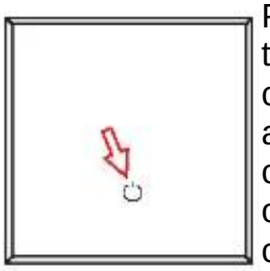
The alternating lighting up of the red and green LEDs indicates that the the radio relay memory contains no registered touch panel controllers.

After the reset is completed in the RESET mode, the SET mode is automatically enabled and the radio relay identifies the new touch panel controller.

WARNING! Follow safety precautions during the registration of touch panel controllers in the radio relay memory. Press the SET/RESET button on the radio relay using a non-metallic object.
WARNING! To avoid electric shock, the radio relay shall only be installed when disconnected from the mains voltage.

Single-channel touch panel controller identification (registration) mode

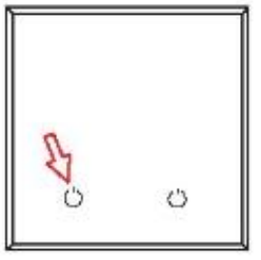
Press and hold the SET/RESET button for 1–2 seconds until the red LED indicator lights up. The radio relay is ready to receive a command from the touch panel controller.



Press the touch button on the touch panel controller. When a command is received, the address of this touch panel controller will be added to the list of devices that are allowed to control this radio relay.

Two-channel touch panel controller identification (registration) mode. 1st lighting zone

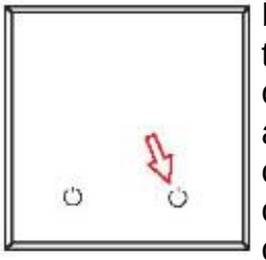
Press and hold the SET/RESET button for 1–2 seconds until the red LED indicator lights up. The radio relay is ready to receive a command from the touch panel controller.



Press the touch button on the touch panel controller. When a command is received, the address of this touch panel controller will be added to the list of devices that are allowed to control this radio relay.

Two-channel touch panel controller identification (registration) mode. 2nd lighting zone

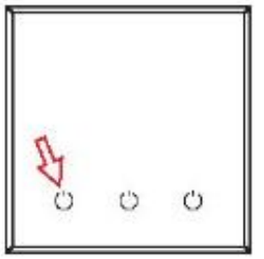
Press and hold the SET/RESET button for 1–2 seconds until the red LED indicator lights up. The radio relay is ready to receive a command from the touch panel controller.



Press the touch button on the touch panel controller. When a command is received, the address of this touch panel controller will be added to the list of devices that are allowed to control this radio relay.

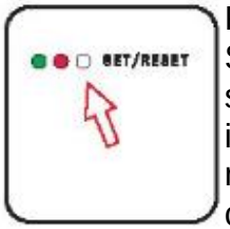
Three-channel touch panel controller identification (registration) mode. 1st lighting zone

Press and hold the SET/RESET button for 1–2 seconds until the red LED indicator lights up. The radio relay is ready to receive a command from the touch panel controller.

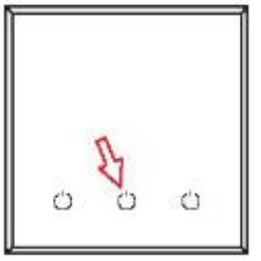


Press the touch button on the touch panel controller. When a command is received, the address of this touch panel controller will be added to the list of devices that are allowed to control this radio relay.

Three-channel touch panel controller identification (registration) mode. 2nd lighting zone



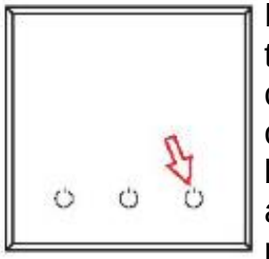
Press and hold the SET/RESET button for 1–2 seconds until the red LED indicator lights up. The radio relay is ready to receive a command from the touch panel controller.



Press the touch button on the touch panel controller. When a command is received, the address of this touch panel controller will be added to the list of devices that are allowed to control this radio relay.

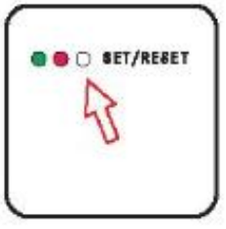
Three-channel touch panel controller identification (registration) mode. 3rd lighting zone

Press and hold the SET/RESET button for 1–2 seconds until the red LED indicator lights up. The radio relay is ready to receive a command from the touch panel controller.

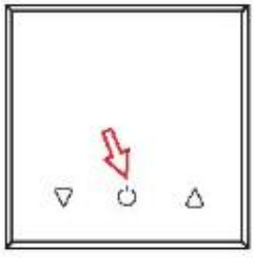


Press the touch button on the touch panel controller. When a command is received, the address of this touch panel controller will be added to the list of devices that are allowed to control this radio relay.

Single-channel three-key touch panel controller identification (registration) mode



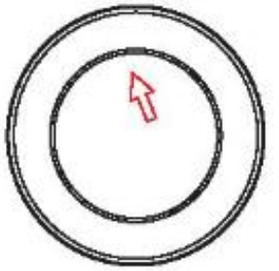
Press and hold the SET/RESET button for 1–2 seconds until the red LED indicator lights up. The radio relay is ready to receive a command from the touch panel controller.



Press the touch button on the touch panel controller. When a command is received, the address of this touch panel controller will be added to the list of devices that are allowed to control this radio relay.

Single-channel single-key touch panel controller identification (registration) mode

Press and hold the SET/RESET button for 1–2 seconds until the red LED indicator lights up. The radio relay is ready to receive a command from the touch panel controller.



Press the key on the touch panel controller. When a command is received, the address of this touch panel controller will be added to the list of devices that are allowed to control this radio relay.

Two-channel two-key touch panel controller identification (registration) mode. 1st lighting zone

Press and hold the SET/RESET button for 1–2 seconds until the red LED indicator lights up. The radio relay is ready to receive a command from the touch panel controller.

Press the key on the touch panel controller. When a command is received, the address of this touch panel controller will be added to the list of devices that are allowed to control this radio relay.

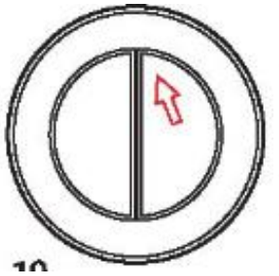
Two-channel two-key touch panel controller identification (registration) mode. 2nd lighting zone

Press and hold the SET/RESET button for 1–2 seconds until the red LED indicator lights up. The radio relay is ready to receive a command from the touch panel controller.

Press the key on the touch panel controller. When a command is received, the address of this touch panel controller will be added to the list of devices that are allowed to control this radio relay.

Single-channel two-key touch panel controller identification (registration) mode

Press and hold the SET/RESET button for 1–2 seconds until the red LED indicator lights up. The radio relay is ready to receive a command from the touch panel controller.



Press the key on the touch panel controller. When a command is received, the address of this touch panel controller will be added to the list of devices that are allowed to control this radio relay.

REPLACEMENT OF BATTERIES IN TOUCH PANEL CONTROLLERS

Batteries are supplied with touch panel controllers. The TAKTO, ORTO, RONDA and SENSO series touch panel controllers use a single CR2450 battery (Image 1), while the IDEO and SENSO Backlight series touch panel controllers have two CR2032 batteries (Image 2 and 4).

WARNING! When replacing batteries, observe the proper "+" and "-" polarities. Avoid short circuit of the connection terminals.

The replacement sequence for two batteries in the SENSO Backlight series touch panel controllers:

- remove battery 1 first, then remove battery 2 (Image 2);
- install new batteries in the reverse order.

The replacement sequence for two batteries in the IDEO series touch panel controllers:

- remove two self-tapping screws (indicated by red arrows in Fig. 3);
- remove battery 1 first, then remove battery 2 (Fig. 4);
- install new batteries in the reverse order.

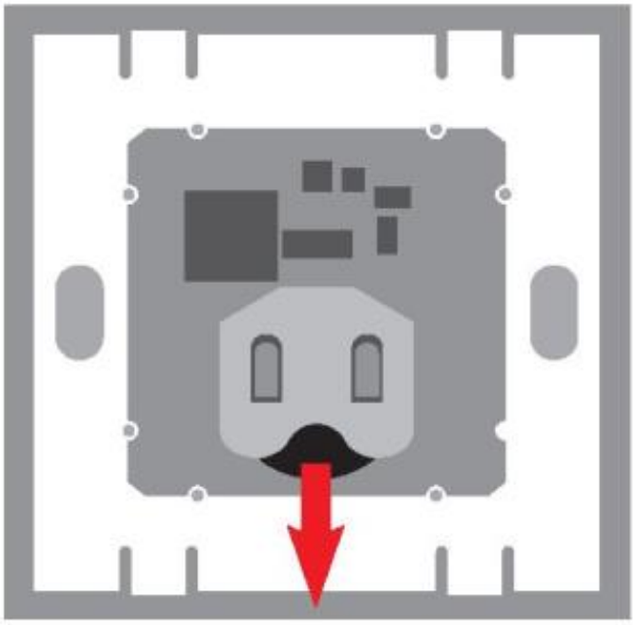


Image 1. Replacement of batteries in the TAKTO, ORTO, RONDA and SENSO series touch panel controllers

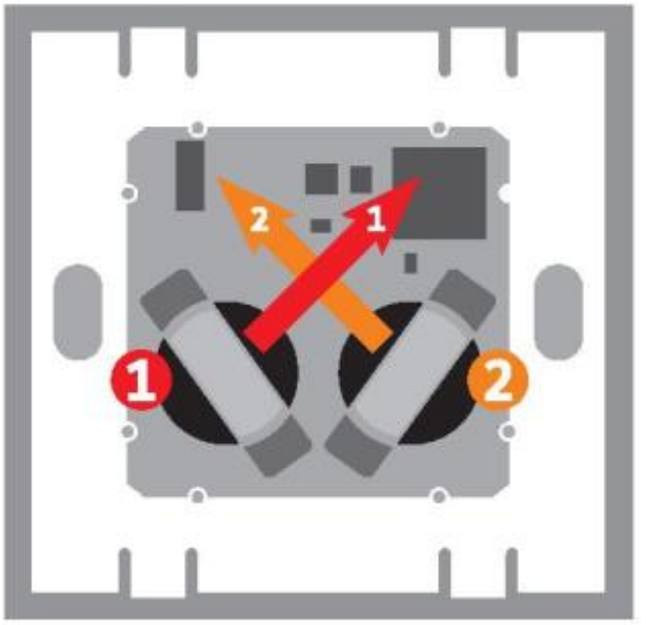


Image 2. Replacement of batteries in the SENSO Backlight series touch panel controllers

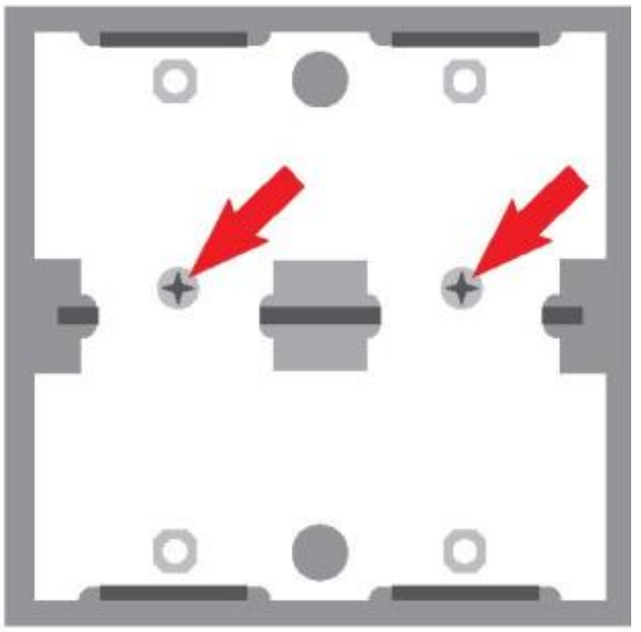


Image 3. Disconnection of the printed circuit board from the body of the IDEO series touch panel controllers

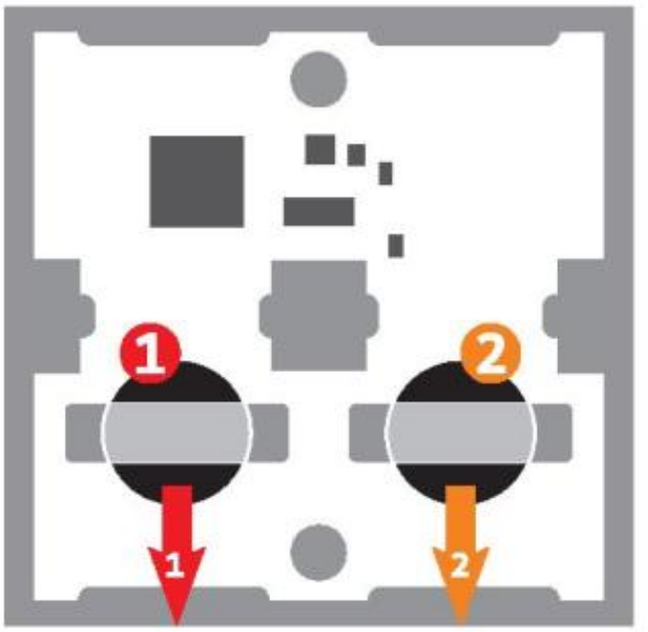


Image 4. Replacement of batteries in the IDEO series touch panel controllers

WARNING! The information contained in the Installation and Operation Manual is valid as of its publication time. The manufacturer reserves the right to make changes to the design that do not worsen the technical characteristics of the equipment without prior notice.

CERTIFICATION DETAILS

Declarations of conformity:
TR CU 020/2011 "Electromagnetic Compatibility of Technical Equipment";
TR CU 004/2011 "On Safety of Low-Voltage Equipment"

TRANSPORTATION AND STORAGE

The equipment may be transported by all transport means following the rules applicable to a particular type of transport, subject to the transportation conditions of group C in accordance with GOST 23216-78.
The equipment shall be stored under storage conditions 2 (C) in accordance with GOST 15150-69.

WARRANTY OBLIGATIONS OF THE MANUFACTURER

The manufacturer guarantees the proper quality of the equipment operation, provided that all transportation conditions and instructions for installation and operation are observed.
The warranty period for the equipment is 24 months from the date of sale.

The manufacturer shall perform free repairs of the equipment within the warranty period, provided that the user complies with the rules of transportation, storage, installation, and operation.
Conditions for performance of the warranty obligations:

1. Filled-in Warranty Certificate for the equipment.
2. Proper fulfillment of all equipment installation and operation conditions in accordance with the Installation and Operation Manual for the equipment.

The buyer shall have no right to get warranty service if the equipment defects are caused by direct or indirect action of mechanical forces, chemical, thermal or physical factors, radiation, aggressive liquids, gases or other media, toxic and biological media, as well as any other destructive factors of artificial or natural origin, including incorrect connection of system elements and non-compliance with the Installation and Operation Manual.
WARNING! The manufacturer reserves the right to make changes to the design that do not worsen the technical characteristics without prior notice.

The warranty workshop is located at the following address**:**
141004, Moscow Region, Mytischi, 1 Silikatny Pereulok, 6, letter O

8 (962) 918-00-57

Tech support email: **support@gidrolock.ru**

WARRANTY CERTIFICATE

Item type _____

Dear Customer! Thank you for your purchase.
The warranty period for the equipment is 24 months from the date of sale.
The warranty period is not applicable to the battery.
Conditions for performance of the warranty obligations:

1. Filled-in Warranty Certificate for the equipment.
2. Proper fulfillment of all equipment installation and operation requirements in accordance with the Installation and Operation Manual for the equipment.

Warranty obligations do not apply to products with defects resulting from mechanical damage, improper connection of equipment elements, and non-compliance with the Installation and Operation Manual.

Date of manufacture _____
Date of sale _____ / _____ 202 __ Seller's signature _____

place of seal

I hereby acknowledge that I have no complaints about the product's appearance and configuration.
I agree with the warranty terms.

Customer's signature _____

Manufacturer:

GIDROLOCK LLC
141004, Moscow Region, Mytischi, 1 Silikatny Pereulok, 6, letter O

www.gidrolock.ru
Phone: 8 (495) 585-12-59
8 (498) 720-52-28
8 (495) 120-50-02
8 (800) 707-51-58
(free in Russia)