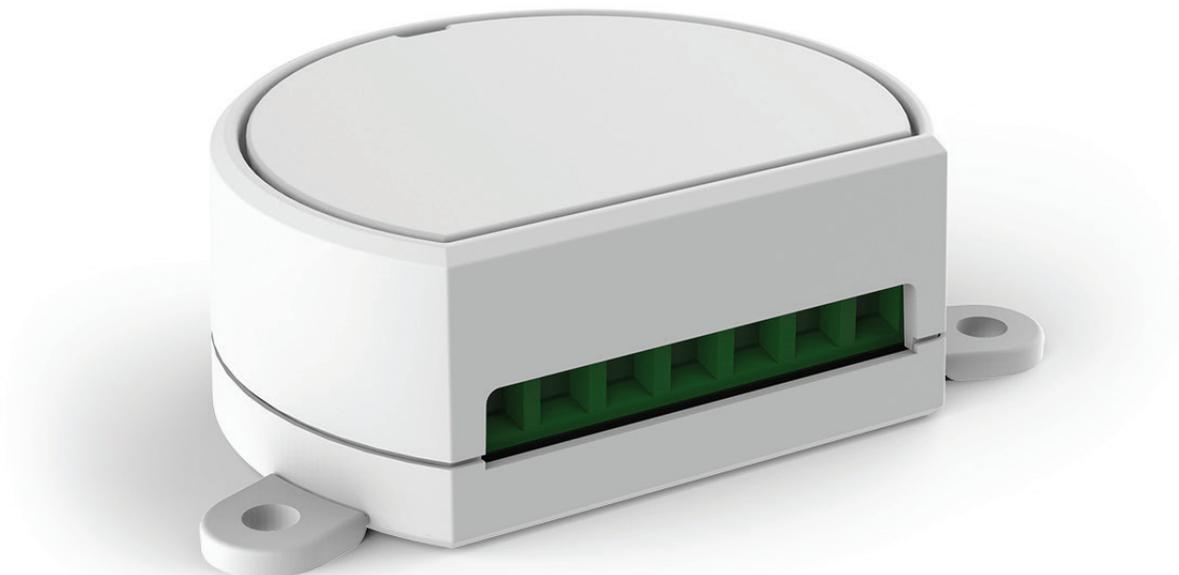


# MCU-V3/RGB

Control unit for constant voltage RGB LEDs  
12-24Vdc, Max 2,5A per uscita, RX 433,92MHz

NEXTA  
T E C H



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## INDEX

### 1 - PRODUCT FEATURES

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- 4.4 - TIMED ON
- 4.5 - LOAD STATE WHEN THE CONTROL UNIT IS SWITCHED ON
- 4.6 - FACTORY SETTING

### 5 - RADIO PROGRAMMING

### 6 - DELETION OF TRANSMITTERS

### 7 - FURTHER DETAILS

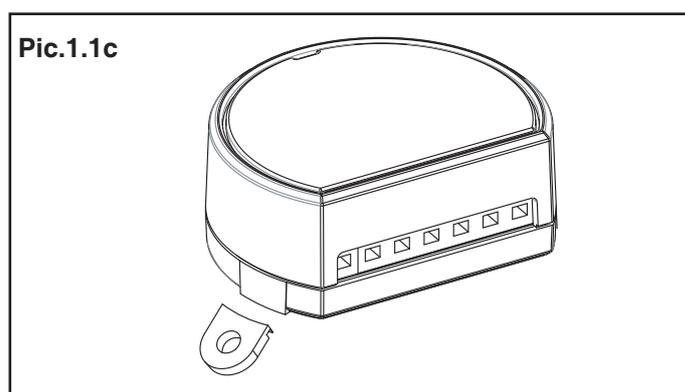
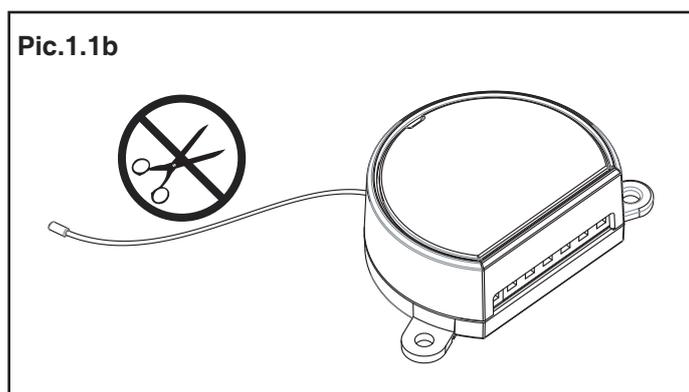
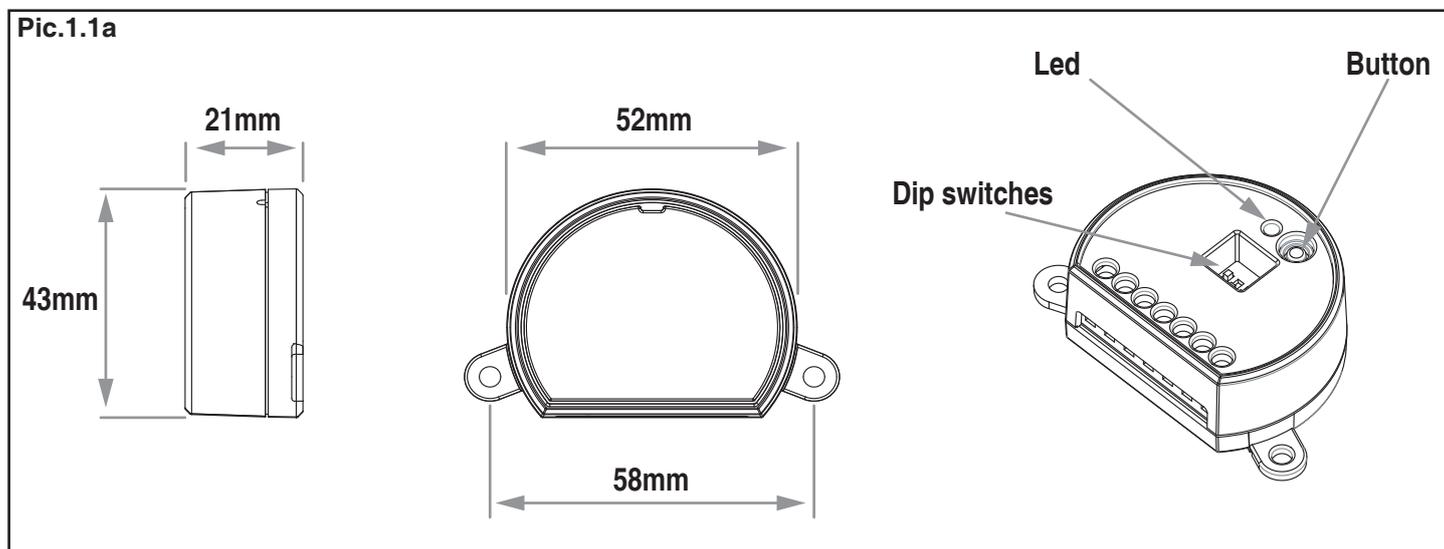
# WARNINGS

- Installation must be carried out only by qualified technicians in compliance with the electrical and safety standards in force.
- All connections must be made with the power turned off.
- Use suitable cables.
- Do not cut through the aerial (see picture 1.1b)
- A suitably sized disconnection device must be set up on the electric power line that supplies the product.
- Disposal of waste materials must fully respect local standards.rico e protetti.

## 1 - PRODUCT FEATURES

### 1.1 TECHNICAL DATA

Power supply	12-24 Vdc
Output	Max load 2,5A: 30 W (with 12Vdc) per output 60 W (with 24Vdc) per output
Type of load	LED with constant voltage: RGB
N° programmable transmitters	30
Radio frequency	433.920mhz ISM
Protection rating	IP20
Operating temperature	-20 +55 °C
Dimensions	52x43x21 mm

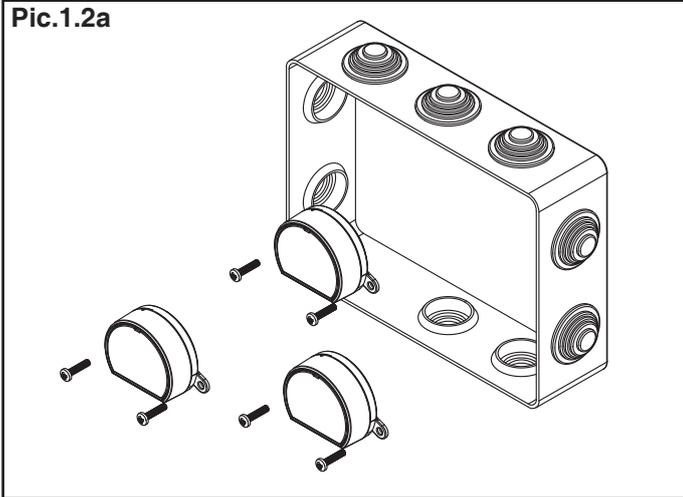


## 1.2 DESCRIPTION

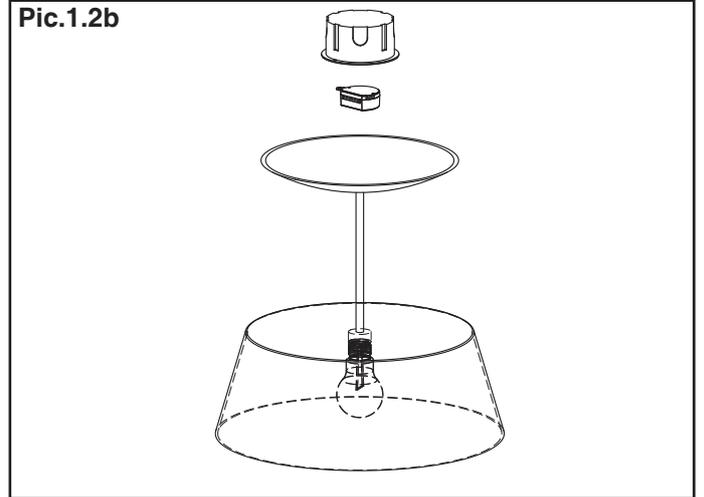
Electronic control unit for wireless control of RGB LEDs with constant voltage 12-24 Vdc with maximum output consumption of 2,5 A. Light scenarios of great effect can be achieved thanks to being able to set the fade on and off, the accurate dimming of the brightness and the chromatic effects achieved with the adjustable speed animation cycle. The ISM (industrial, scientific and medical) radio frequency band guarantees a long range, even through walls and ceilings.

Simple programming with dip-switch, reduced dimensions with breakable tabs for fixing with screws or for insertion into interconnection boxes with 55 mm diameter.

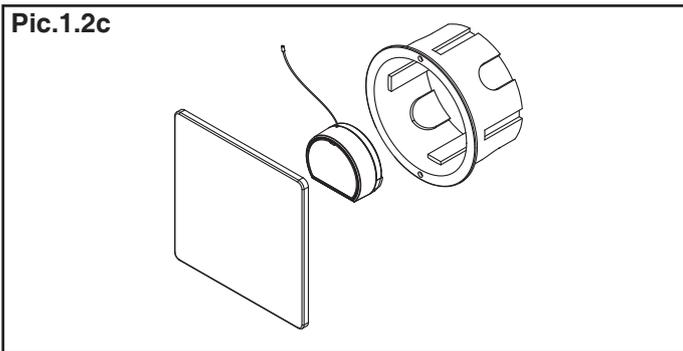
Pic.1.2a



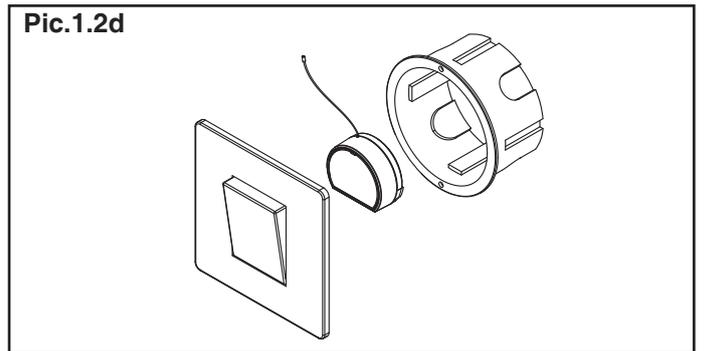
Pic.1.2b



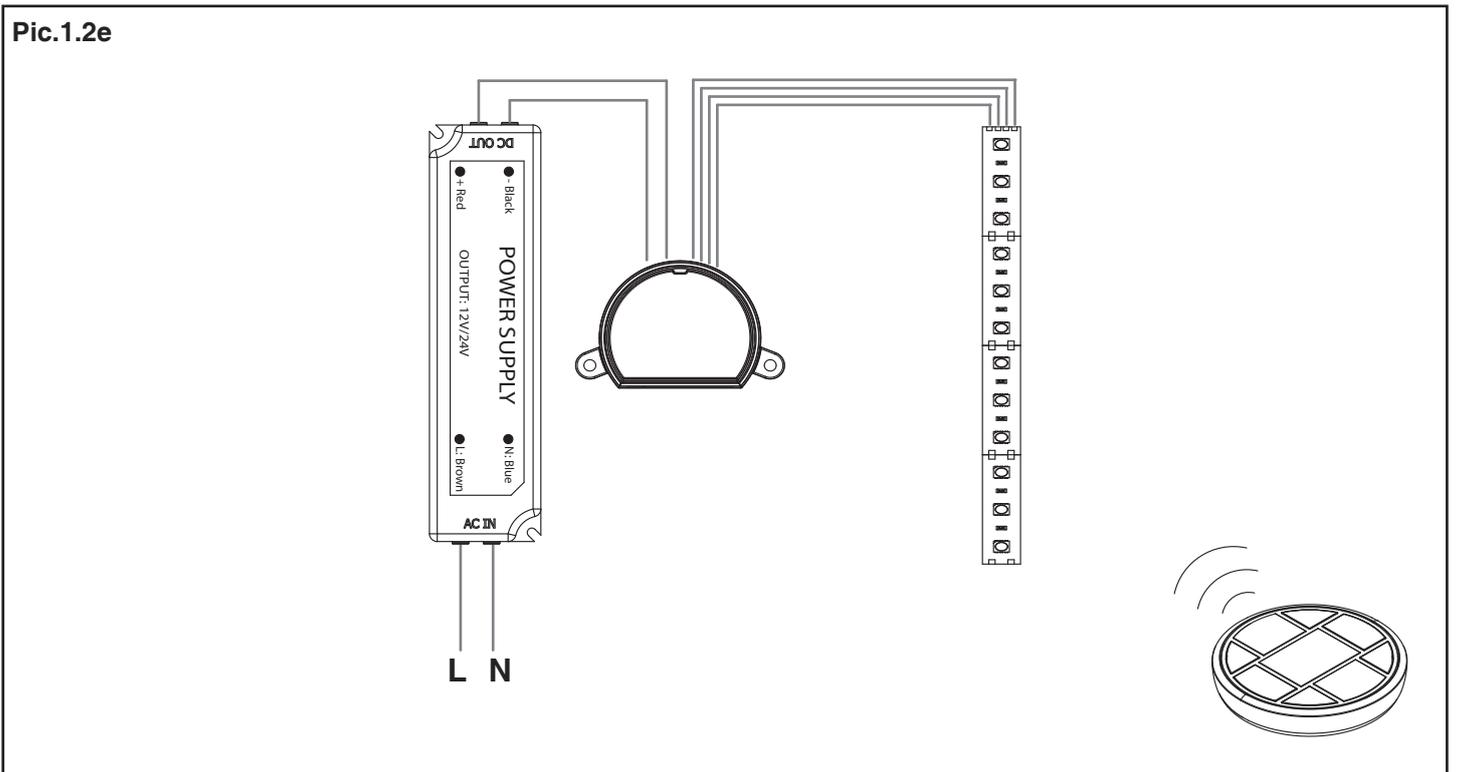
Pic.1.2c



Pic.1.2d



Pic.1.2e





## 2.2 DESCRIPTION OF CONNECTIONS

- Use wires with a suitable cross-section for the load connected.
- Multiple buttons can be connected by using parallel cabling.
- Multiple buttons or loads can be connected by using parallel cabling.

TERMINAL	DESCRIPTION
1	Power supply -
2	Power supply + (12-24V)
3	Output +24V
4	Output "R"
5	Output "G"
6	Output "B"

---

## 3 USE OF THE CONTROL UNIT

### 3.1 USE VIA RADIO

To control the loads via radio you must have compatible transmitters and therefore must carry out the association procedure, see paragraph 5.

The transmitter's control modes depend on the transmitter model used.

If the transmitter is of a generic type, its operation depends on the way it is programmed (see paragraph 5, table 5.2a).

If the transmitter is multifunctional, refer to the transmitter manual, to the paragraph entitled "commands sent by the transmitter", bearing in mind that it is a "dimmer" device.

# 4 - CONTROL UNIT SETTINGS

## 4.1 FADE SETTING: GRADUAL SWITCH ON

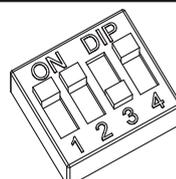
Default: 0,5s

This procedure means you can set the duration of the switch-on time.

### PROCEDURE:

#### STEP 1

Position DIPs 1, 2, 3 and 4 to ON-ON-OFF-ON.

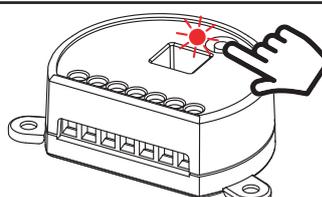


DIP 1, 2, 3, 4=  
ON ON OFF ON

#### STEP 2

Press the button on the receiver for a short time.

The LED comes on and stays on.

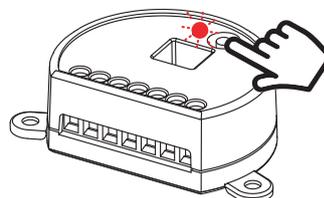


SHORT  
PRESSURE

#### STEP 3

Press the button on the receiver for a short time count the number of flashes emitted by the LED:

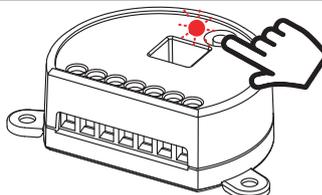
FLASHES	SWITCH-ON TIME
1 flash	immediate ON
2 flashes	ON ~ 0,5s
3 flashes	ON ~ 2s
4 flashes	ON ~ 4s
5 flashes	ON ~ 10s



SHORT  
PRESSURE

#### STEP 4

Press the button for a short time during the flash that corresponds to the function desired to end the count



SHORT PRESSURE  
DURING THE FLASH

## 4.2 FADE SETTING: GRADUAL SWITCH OFF

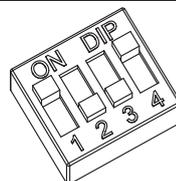
Default: 0,5s

This procedure means you can set the duration of the switch-off time.

### PROCEDURE:

#### STEP 1

Position DIPs 1, 2, 3 and 4 to ON-OFF-OFF-ON.

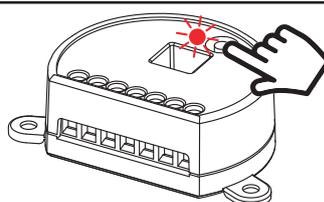


DIP 1, 2, 3, 4=  
ON OFF OFF ON

#### STEP 2

Press the button on the receiver for a short time.

The LED comes on and stays on.

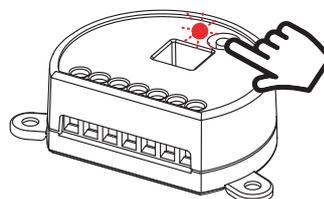


SHORT  
PRESSURE

#### STEP 3

Press the button on the receiver for a short time count the number of flashes emitted by the LED:

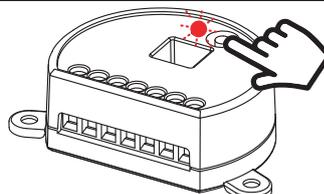
FLASHES	SWITCH-OFF TIME
1 flash	immediate OFF
2 flashes	OFF ~ 0,5s
3 flashes	OFF ~ 2s
4 flashes	OFF ~ 4s
5 flashes	OFF ~ 10s



SHORT  
PRESSURE

#### STEP 4

Press the button for a short time during the flash that corresponds to the function desired to end the count



SHORT PRESSURE  
DURING THE FLASH

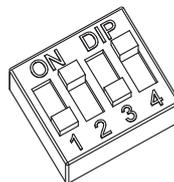
## 4.3 "SAVE" FUNCTION (BRIGHTNESS LEVEL AT SWITCH-ON)

Default: save not on

### PROCEDURE:

#### STEP 1

Position DIPs 1, 2, 3 and 4 to OFF-ON-OFF-ON.

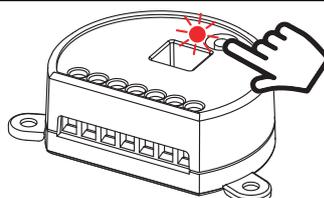


DIP 1, 2, 3, 4=  
OFF ON OFF ON

#### STEP 2

Press the button on the receiver for a short time.

The LED comes on and stays on.



SHORT  
PRESSURE

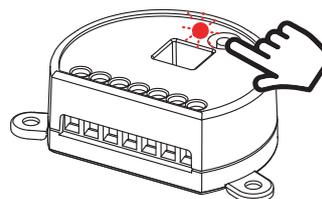
#### STEP 3

Press the button on the receiver for a short time.

Count the number of flashes emitted by the LED:

3 flashes= Last value set

6 flashes= Maximum brightness



SHORT  
PRESSURE

NUMBER OF FLASH	INTENSITY AT SWITCH-ON
3	Last value set
6	Maximum brightness

#### STEP 4

To change the setting, repeat the procedure from point 1; the control unit will alternate between 3 and 6 flashes.

## 4.4 TIMED ON

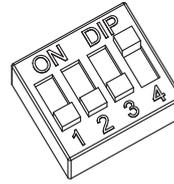
Default: No timing

This process is used to set the time for which the Leds stays on before an automatic switch off.

### PROCEDURE:

#### STEP 1

Position DIPs 1, 2, 3 and 4 to OFF-OFF-OFF-ON.

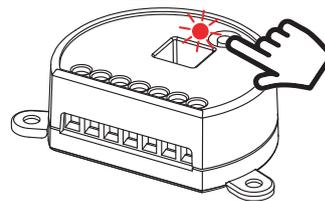


DIP 1, 2, 3, 4=  
OFF OFF OFF ON

#### STEP 2

Press the button on the receiver for a short time.

The LED comes on and stays on.

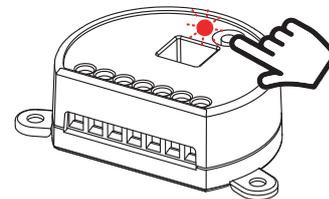


SHORT  
PRESSURE

#### STEP 3

Press the button on the receiver for a short time count the number of flashes emitted by the LED:

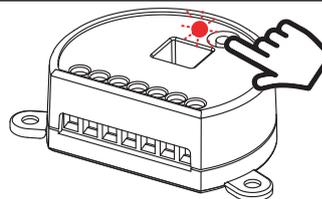
FLASHES	TIMED ON
1 flash	No timing
2 flashes	1 minute
3 flashes	5 minute
4 flashes	15 minute
5 flashes	40 minute
6 flashes	1 hour
7 flashes	2 hours
8 flashes	3 hours
9 flashes	8 hours



SHORT  
PRESSURE

#### STEP 4

Press the button for a short time during the flash that corresponds to the function desired to end the count



SHORT PRESSURE  
DURING THE FLASH

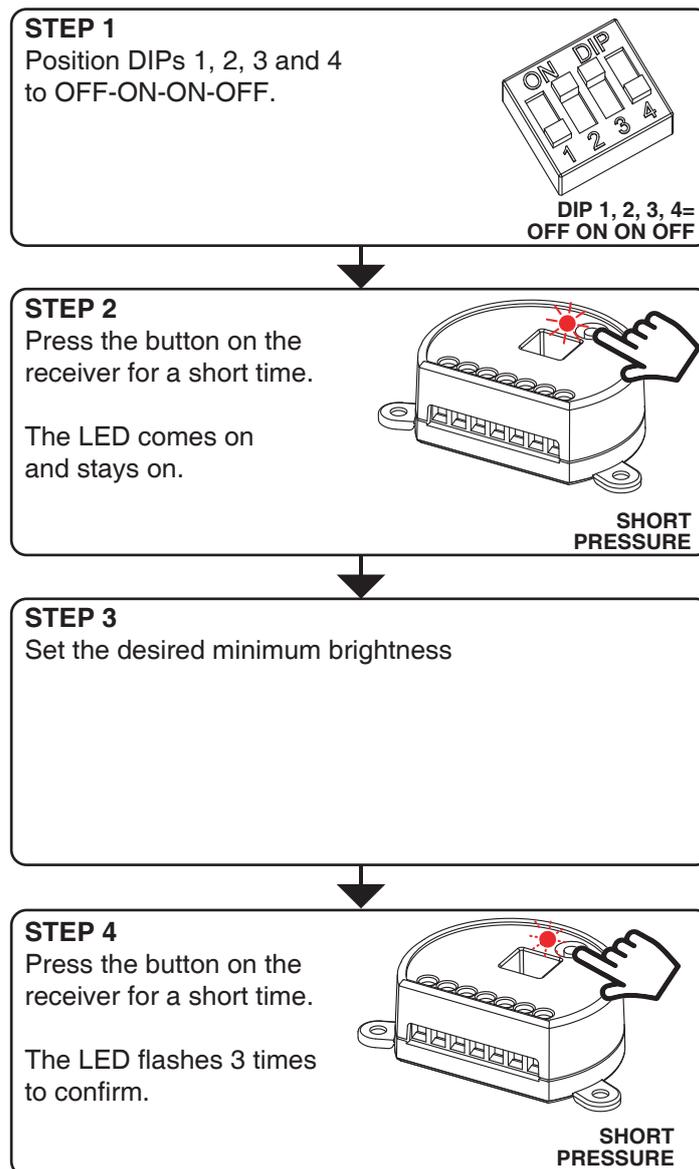
## 4.5 LOAD STATE WHEN THE CONTROL UNIT IS SWITCHED ON

Default: Light Off

This process is used to set the state of Leds when the control unit is switched on (for example when the power supply is provided by a general switch or timer).

WARNING: the setting value can be "light off" in order to set the default.

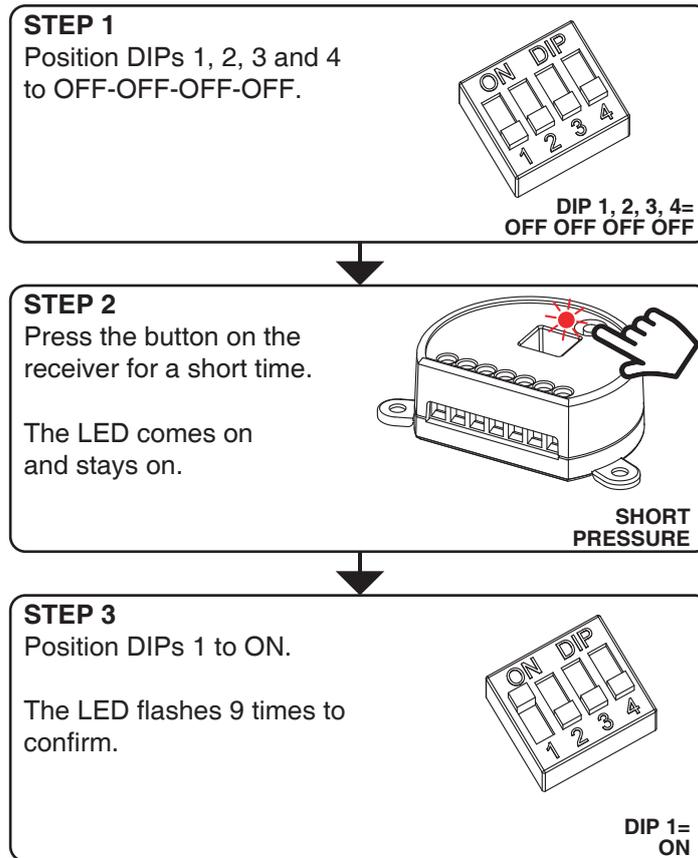
### PROCEDURE:



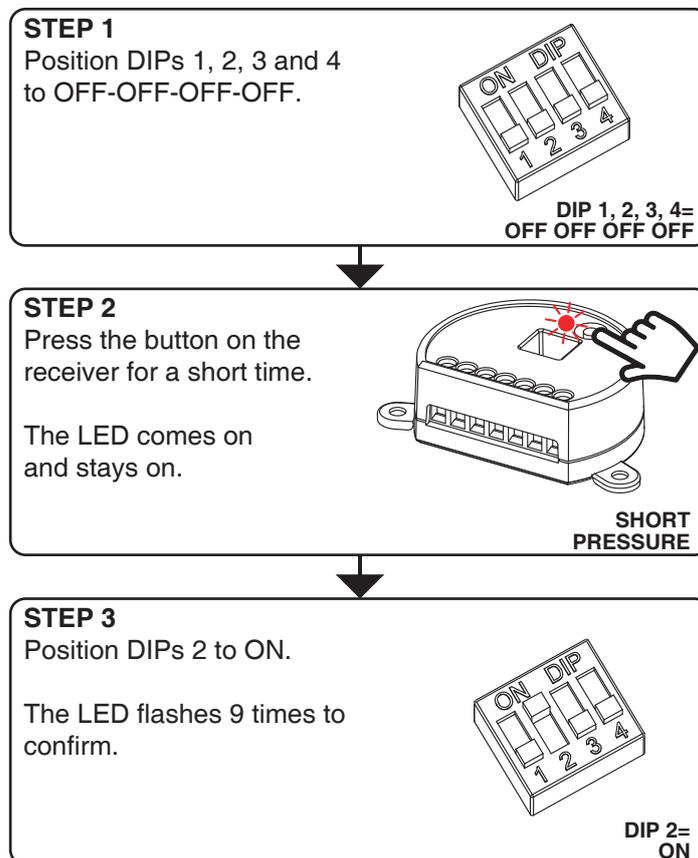
## 4.6 FACTORY SETTING

This procedure let you take the control unit back to factory settings.

### FULL RESET OF THE CONTROL UNIT:



### RESET PARAMETERS (NO DELETION OF RADIO MEMORY):



# 5 - RADIO PROGRAMMING

This procedure lets you programme compatible multifunctional or generic transmitters.

## WHICH REMOTE CONTROL DO YOU WANT TO ASSOCIATE WITH THE CONTROL UNIT?

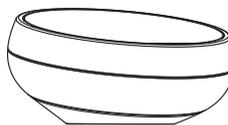
### MULTIFUNCTIONAL TRANSMITTERS - MODELS AND CODES



**CODE:**  
HB70-1L



**CODE:**  
HB80-30D,  
HB80-2L,  
HB80-4L,  
HB80-4RGBW,  
HB80-30RGBW



**CODE:**  
HB90-6LT  
HB90-6DM  
HB90-8P



**CODE:**  
TOUCH-1L  
TOUCH-1DIM  
TOUCH-1RGBW  
TOUCH-1CCT

With multifunctional transmitters the transmitter control modes depend on the model used. Refer to the transmitter manual, to the paragraph entitled "commands sent by the transmitter", bearing in mind that it is an "rgbw" device.

### GENERIC TRANSMITTERS - MODELS AND CODES



**CODE:**  
HB70-5G



**CODE:**  
HB80-6G



**CODE:**  
MCU-TX4



**CODE:**  
TOUCH-1G  
TOUCH-2G  
TOUCH-4G

With generic transmitters, the transmitter's control modes depend on the function associated with the key during the association procedure. The available function for the key are:

TABLE 5.1 KEY FUNCTIONS OF THE GENERIC TRANSMITTER

POSITION OF DIP IN "STEP 1b" OF THE PROCEDURE	KEY FUNCTION	POSITION OF DIP IN "STEP 1b" OF THE PROCEDURE	KEY FUNCTION
 DIP: OFF ON ON ON	Short pressure= ON / OFF Long pressure= DIMMER UP / DIMMER DOWN	 DIP: ON ON OFF OFF	dimmer colour up / dimmer colour down
 DIP: ON OFF ON ON	ON	 DIP: OFF OFF ON OFF	Play / Stop "ciclo colore" (see paragraph 6.4)
 DIP: OFF OFF ON ON	OFF	 DIP: ON OFF ON OFF	Change duration of "colour cycle" (see paragraph 6.4)
 DIP: ON ON ON OFF	Short pressure= changes colour Long pressure, load off= dimmer colour Long pressure, load on= save colour (see paragraph 6.1)	 DIP: ON OFF OFF OFF	Change effect of "colour cycle" (see paragraph 6.4)
		 DIP: ON OFF OFF OFF	Soft Off 1h: fade off in 1h. (see paragraph 6.2)

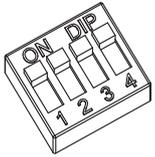
# PROCEDURE

**WHICH TRANSMITTER DO YOU WANT TO PROGRAMME?**

**MULTIFUNCTION TRANSMITTER**  
(see models and codes on previous page)

**GENERIC TRANSMITTER**  
(see models and codes on previous page)

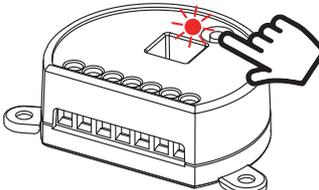
**STEP 1a**  
Position DIPs 1, 2, 3 and 4 to ON-ON-ON-ON



**DIP 1, 2, 3 e 4= ON ON ON ON**

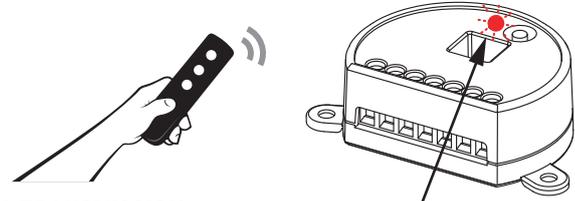
**STEP 1b**  
Positions DIPs 1, 2, 3 and 4 according to the function you want to associate with the remote control key.  
See table 5.1 on the previous page.

**STEP 2**  
Press the button on the receiver for a short time.  
The LED comes on and stays on.



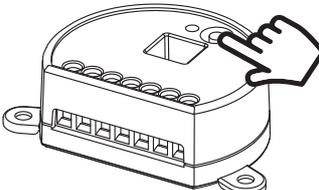
**SHORT PRESSURE**

**STEP 3**  
Make a transmission with the transmitter to be saved (see transmitter manual, paragraph entitled "transmitter programming").  
The LED on the receiver flashes 3 times to signal that it has been received.



**MAKE A TRANSMISSION WITH THE TRANSMITTER**      **THE LED FLASHES 3 TIMES**

**STEP 4**  
The control unit listens for 30 seconds in case you want to add other transmitters.  
To immediately exit the procedure give a short pressure on the button on the receiver.  
The LED turns off



**SHORT PRESSURE**

## 6 - DELETION OF TRANSMITTERS

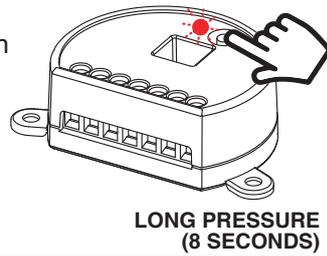
These procedures let you delete from the memory transmitters that have already been programmed.

### 6.1 DELETION OF SINGLE TRANSMITTER

#### STEP 1

Hold the receiver button down for 8 seconds.

The LED begins to flash



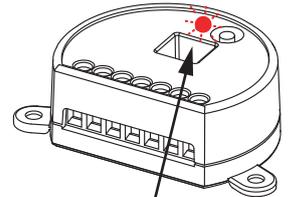
#### STEP 2

Make a transmission with the transmitter that you want to delete.

The LED flashes quickly and turns off.



MAKE A TRANSMISSION  
WITH THE TRANSMITTER



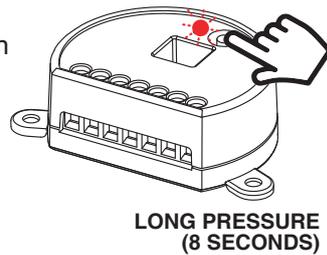
LED FLASHES QUICKLY

### 6.2 DELETION OF ALL THE SAVED TRANSMITTERS

#### STEP 1

Hold the receiver button down for 8 seconds.

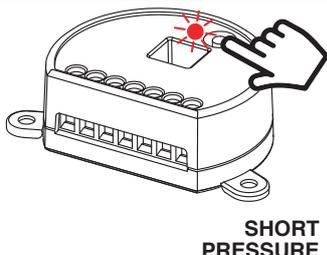
The LED begins to flash



#### STEP 2

Press the button on the receiver for a short time.

The LED starts flashing quickly and turns off.





## 7 FURTHER DETAILS

The following paragraphs describe the ways the lights connected are commanded and controlled.

---

### 7.1 "SAVE COLOR" FUNCTION

The "save color" function enables a colour and intensity for the connected load to be saved, which can then be used every time it is switched on.

This function can be used after adjusting the colour and intensity as desired.

- VIA RADIO WITH GENERIC TRANSMITTER: with a prolonged press on a generic transmitter programmed with the "change color/save color" function

- VIA RADIO WITH MULTIFUNCTIONAL TRANSMITTER: with a compatible multifunctional transmitter (see table 7.1a). The way the command is sent depends on the transmitter model used, see the transmitter manual.

Tab. 7.1a

<b>TRASMETTITORI DI TIPO MULTIFUNZIONE COMPATIBILI</b>
<b><i>HB80-30RGBW, HB80-4LRGBW, HB90-6LT</i></b>

After sending a "save color" command, the load will always switch on with the colour and intensity saved.

To change the switch-on value:

- another "save color" value must be sent (if you want the default value, just send the command with the load switched on with a white light and maximum intensity).

- a generic transmitter must be used, programmed with the "deactivate save color" function (see table 4.1c).

---

### 7.2 "SOFT OFF 1 HR" FUNCTION: FADE OFF

The "Soft off 1 hr" function is a gradual fading off in one hour starting from the colour and intensity set at the time the command was sent.

This function can be activated after adjusting the colour and intensity as desired

- VIA RADIO WITH GENERIC TRANSMITTER: with a generic transmitter programmed with the "soft off 1 hr" function

This gradual switch-off can be interrupted at any time by the sending of another command via radio or via wire.

---

### 7.3 "ADJUST WHITE LIGHT TEMPERATURE" FUNCTION

"ADJUST WHITE LIGHT TEMPERATURE" FUNCTION È possibile utilizzare questa funzione dopo aver regolato il colore e l'intensità desiderati (via radio o via filo):

- VIA RADIO WITH MULTIFUNCTIONAL TRANSMITTER: with a compatible multifunctional transmitter (see table 7.3a). The way the command is sent depends on the transmitter model used, see the transmitter manual.

Tab. 7.3a

<b>COMPATIBLE MULTIFUNCTIONAL TRANSMITTERS</b>
<b><i>HB80-30RGBW, HB80-4LRGBW, HB90-6LT</i></b>

## 7.4 BEHAVIOUR OF THE "COLOR CYCLE"

The "color cycle" is an automatic and gradual changing of the colours to create an effect.

The cycle can be played/stopped by sending commands

- VIA RADIO WITH GENERIC TRANSMITTER: with a generic transmitter programmed with the "play/stop color cycle" function.

- VIA RADIO WITH MULTIFUNCTIONAL TRANSMITTER: with a compatible multifunctional transmitter (see table 7.4a).

The way the command is sent depends on the transmitter model used, see the transmitter manual.

With each press on one of these commands the load will:

flash once= play "color cycle"

flash twice= stop "color cycle"

### CHANGE "COLOR CYCLE" DURATION

This function is used to adjust the duration of the colour cycle. At the end of the cycle with the time set it will start again from the beginning.

The duration of the cycle can be changed by sending commands:

- VIA RADIO WITH GENERIC TRANSMITTER: with a generic transmitter programmed with the "change color cycle duration" function

With each press on one of these commands the load will:

flash once= short 90 second "color cycle" Default value

flash twice= long 15 minute "color cycle"

- VIA RADIO WITH MULTIFUNCTIONAL TRANSMITTER: with a compatible multifunctional transmitter (see table 7.4b).

The way the command is sent depends on the transmitter model used, see the transmitter manual.

With multifunctional transmitters other cycle duration values can be set.

After sending a "change color cycle duration" command, the cycle will always be executed with the duration set.

To change the duration of the cycle again, reset it as desired.

### CHANGE "COLOR CYCLE" EFFECT

This function is used to change the shades of colour that are displayed during the cycle.

The shades that can be set are:

Effect1 (default value): the colour cycle displays all the shades

Effect2: colour cycle with green and blue tones

Effect3: colour cycle with blue and violet tones

Effect4: colour cycle with blue, violet and pink tones

Effect5: colour cycle with red and orange tones

Effect6: colour cycle with orange and yellow tones

The effect of the cycle can be changed by sending commands:

- VIA RADIO WITH GENERIC TRANSMITTER: with a generic transmitter programmed with the "change color cycle effect" function

- VIA RADIO WITH MULTIFUNCTIONAL TRANSMITTER: with a compatible multifunctional transmitter (see table 7.4c).

The way the command is sent depends on the transmitter model used, see the transmitter manual.

After sending a "change color cycle effect" command, the cycle will always be executed with the effect set. To change the effect of the cycle again, reset it as desired.

Tab. 7.4a

COMPATIBLE MULTIFUNCTIONAL TRANSMITTERS
<i>HB80-30RGBW, HB80-4LRGBW, HB90-6LT</i>

Tab. 7.4b

COMPATIBLE MULTIFUNCTIONAL TRANSMITTERS
<i>HB80-30RGBW, HB80-4LRGBW, HB90-6LT</i>

Tab. 7.4c

COMPATIBLE MULTIFUNCTIONAL TRANSMITTERS
<i>HB80-30RGBW, HB80-4LRGBW, HB90-6LT</i>







MNLMCU-V3/RGBWVEN1.0

**Nexta Tech**

company brand of Team srl  
via G.Oberdan 90, 33074  
Fontanafredda (PN) - Italy  
Ph. +39 0434 998682  
Email: [info@nexta-tech.com](mailto:info@nexta-tech.com)  
Web: [www.nexta-tech.com](http://www.nexta-tech.com)