VELA

VELA-RX 220V 1000W

Control unit for 1 device with max power 1000W.
110/240 VAC power supply, integrated RX 433.92 MHZ ISM,
2 wired inputs settable with button or switch.
Presence simulation function.

VENITEM

INDEX

WARNINGS

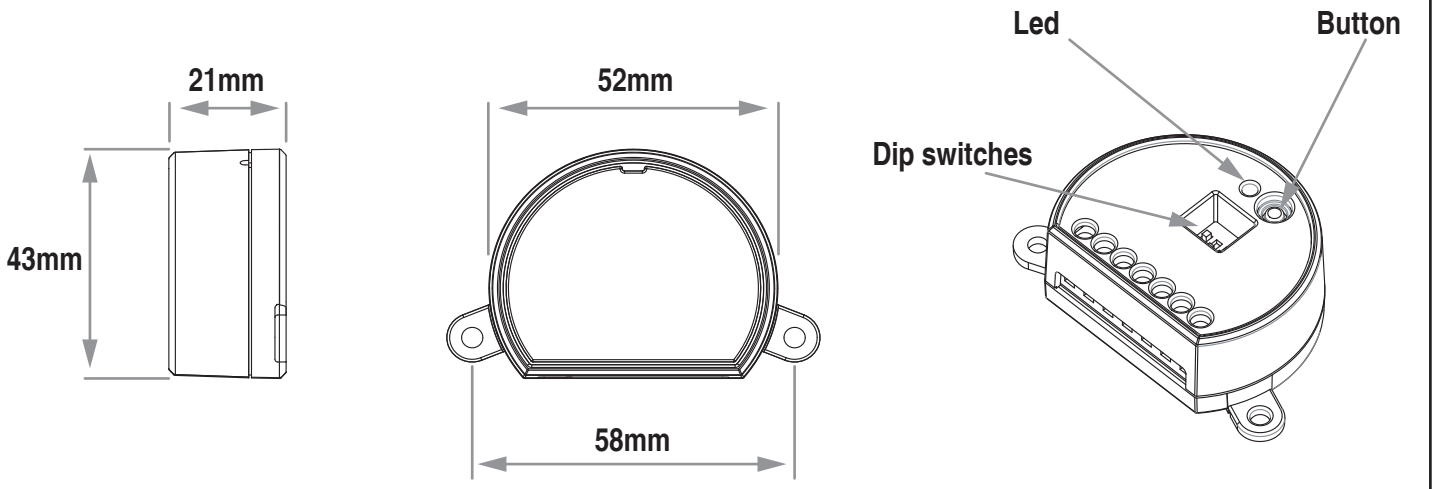
- Installation must be carried out only by qualified technicians in compliance with the electrical and safety standards in force.
- All connections must be made with the power turned off.
- Use suitable cables.
- Do not cut through the aerial (see picture 1.1b)
- A suitably sized disconnection device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

1 PRODUCT FEATURES

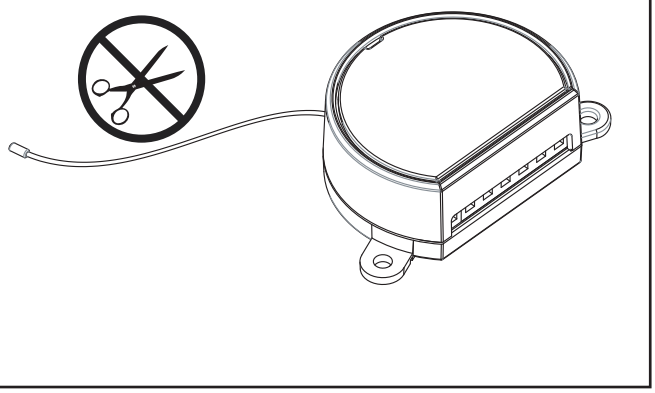
1.1 TECHNICAL DATA

Power supply	Mains 120-240 VAC
Outputs	1 contact: 230 V max 1000 W, 110 V max 500 W
Number of programmable transmitters	100
Radio frequency	433.920MHz ISM
Protection rating	IP20
Operating temperature	-20 +55 °C
Dimensions	52x43x21 mm

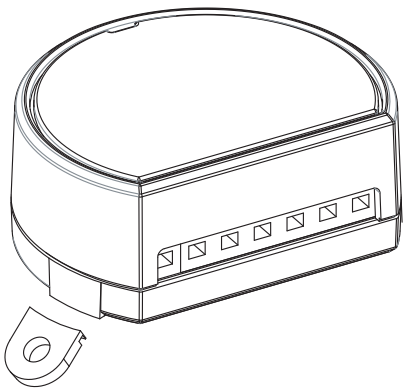
Pic.1.1a



Pic.1.1b



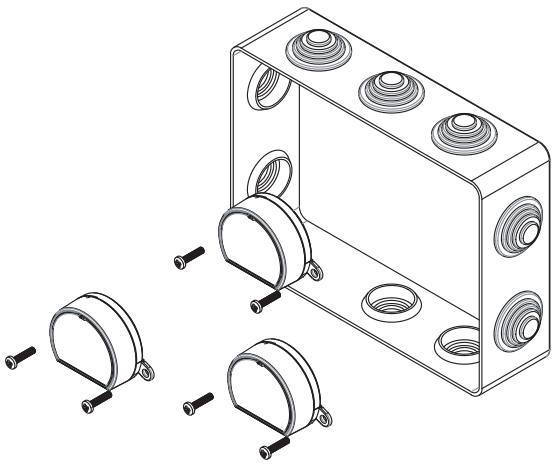
Pic.1.1c



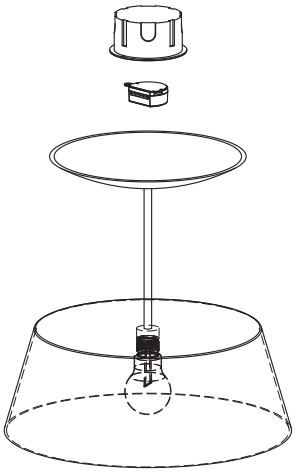
1.2 DESCRIPTION

Miniaturised electronic control unit for managing a device via radio and wire, with a button or switch. Flexible applications thanks to the fact that the load can be controlled in monostable, bistable or timer (from 1 second to 60 hours) mode.
The presence simulation function consists in a random activation of the lights that can be activated with a wired button or a dedicated radio command, ideal for discouraging intruders while away from home.
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.

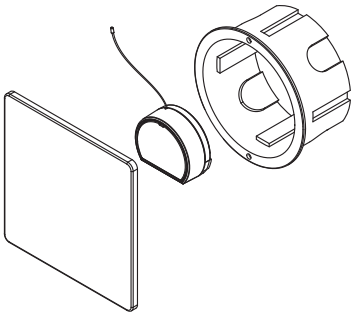
Pic.1.2a



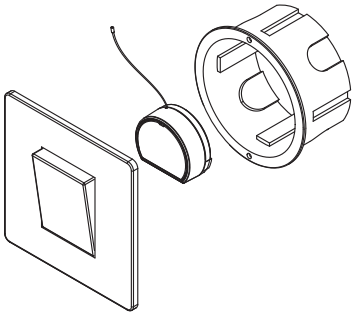
Pic.1.2b



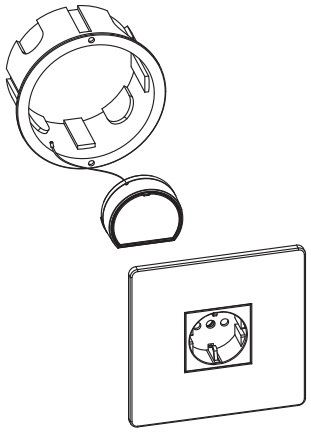
Pic.1.2c



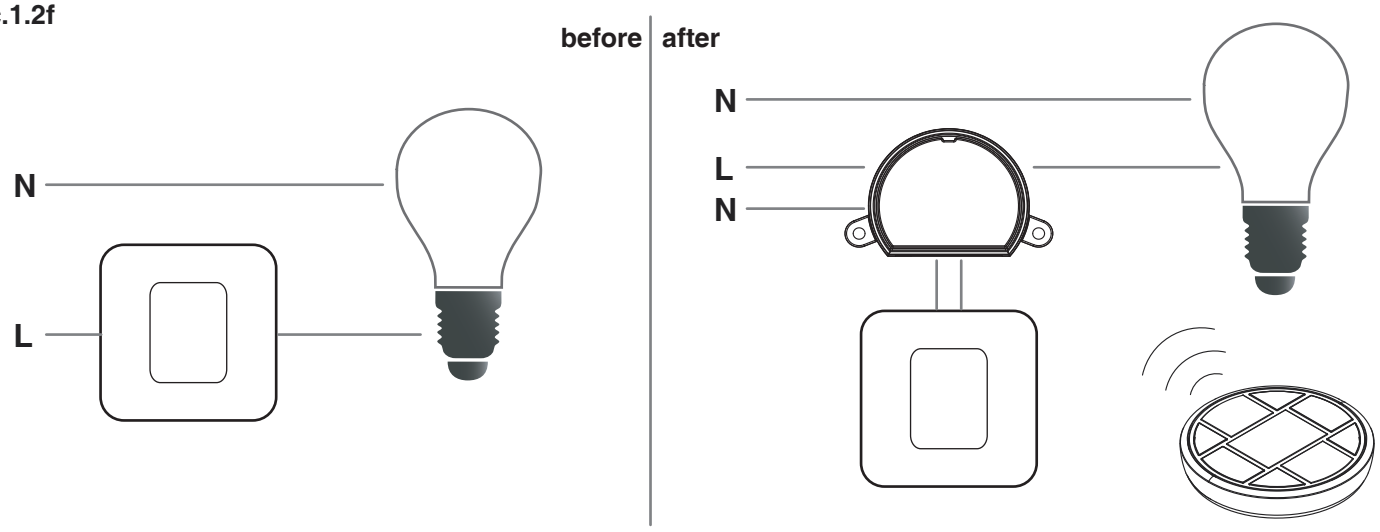
Pic.1.2d



Pic.1.2e



Pic.1.2f



2 ELECTRICAL CONNECTIONS

This control unit comes set up for different types of connection that allow greater flexibility regarding the behaviour of the outputs and the types of inputs to adapt to various system configurations.

BEHAVIOUR OF OUTPUTS

Depending on the type of load that you want to control, connections can be made that let you
- control a load powered by grid voltage (230 V max 1000 W, 110 V max 500 W per output), paragraph 2.1.
- have two potential-free output contacts; paragraph 2.2.

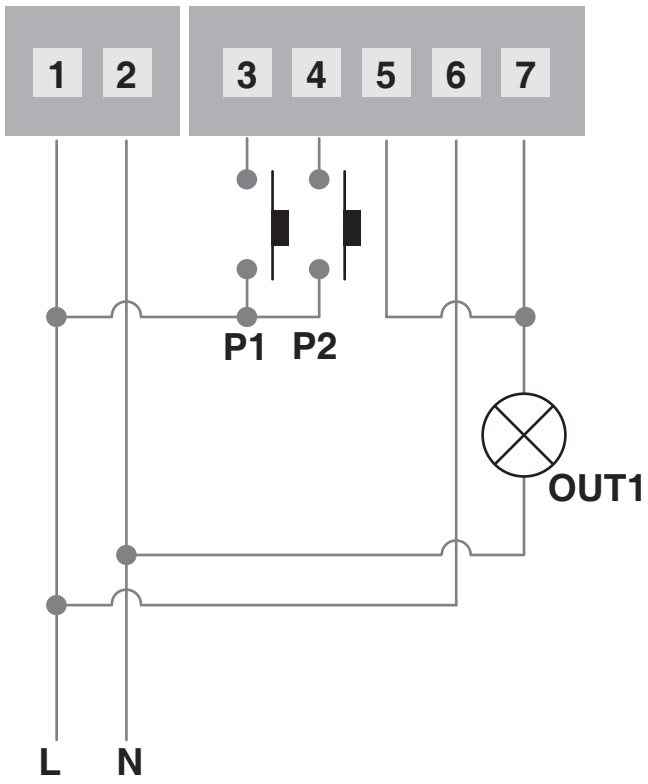
INPUT TYPE

Thanks to the programming described in paragraph 4.3, you can select whether the wired command is given by a button or a switch.

2.1 CONNECTIONS FOR LOADS POWERED BY THE GRID (230 V MAX 500 W, 110V MAX 250 W PER OUTPUT)

The following connection lets you control the loads, powered by grid voltage, via radio and/or wire.

Pic.2.1



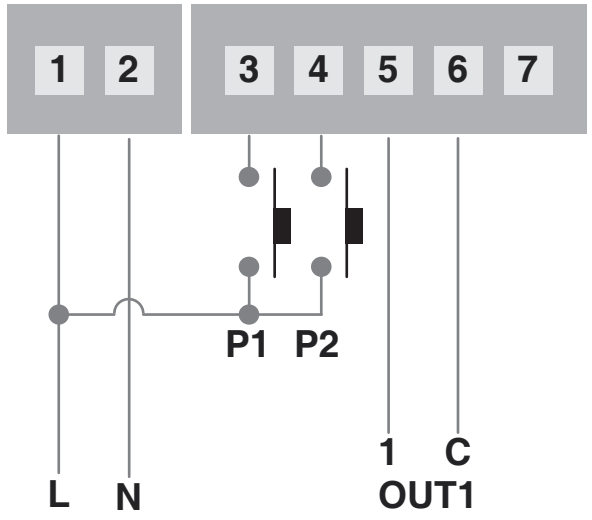
P1: Command of load
P2: Presence simulator activation

WARNING: More loads can be connected by using parallel cabling.
Multiple buttons can be connected to the same input by using parallel cabling

2.2 DRY CONTACT OUTPUT CONNECTION

The following connection lets you control a potential-free contact via radio and/or wire.

Pic.2.2



P1: Command of load
P2: Presence simulator activation

WARNING: Multiple buttons can be connected to the same input by using parallel cabling.
When using loads that are supplied by a power network higher than 500W, connect terminal 5 with terminal 7 as shown in Pic. 2.1

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 command modes depend on the output setting (see paragraph 4.1) and the model of transmitter used.
If the transmitter is of a generic type, its operation depends on the way it is programmed (see paragraph 5, table 5.2b).
If the transmitter is multifunctional, refer to the transmitter manual, to the paragraph entitled "commands sent by the transmitter", bearing in mind that:
Output set as monostable (see paragraph 4.1) = monostable device
Output set as bistable (see paragraph 4.1) = on/off device
Output set as timer (see paragraph 4.1) = timer device

3.2 USE VIA WIRE

The device is set up to accept commands via wire from the button in terminals 3 and 4.
Should you want to control the load only via radio, it is not necessary to connect these devices for the control unit to work properly.
The behaviour of the inputs depends on the output setting (see paragraph 4.1).
The following table shows the behaviours of the various keys:

	MONOSTABLE RELAY	BISTABLE RELAY	TIMER RELAY	DEACTIVATED RELAY
Input P1	Close and reopen contact 1	Change status of contact 1 (closed, open...)	Close contact 1 for the time set (see paragraph 4.2)	No action
Input P2	Presence simulator activation (see paragraph 7)*	Presence simulator activation (see paragraph 7)*	Presence simulator activation (see paragraph 7)*	No action

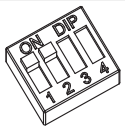
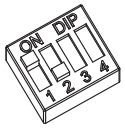
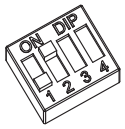
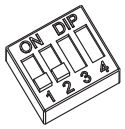
* irrespective of the output setting (see paragraph 4.1), if the presence simulator function is activated (see paragraph 7), the control unit will control the connected load according to a random sequence of activations and deactivations.

4 CONTROL UNIT SETTINGS

4.1 SETTING "OUT1" OUTPUT

This process is used to configure the behaviour of the OUT1

Tab. 4.1

CONFIGURATION OF OUTPUT 1	
DIP 1 - 2	**MODE**
ON - ON 	Monostable (pulse)
ON - OFF 	Bistable (On/Off)
OFF - ON 	Timer (see par. 4.2)
OFF - OFF 	Disabled

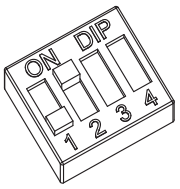
4.2 SETTING "OUT1" TIMING

Default: 3 minutes

This process is used to set the time for which the "OUT1" contact stays closed if it is set on a timer.

PROCEDURE:

STEP 1
Position DIPs 1 and 2
to OFF-ON



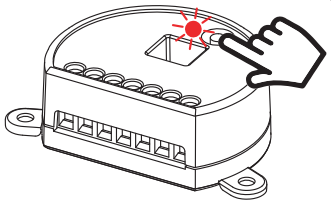
**DIP 1 and 2 =
OFF ON**

STEP 2
Position DIPs 3 and 4 according to the unit of measurement
desired for the count, see table at the side

DIP 3 -4		UNIT OF TIME
ON - ON		1 second
ON - OFF		30 seconds
OFF - ON		15 minutes
OFF - OFF		1 hour

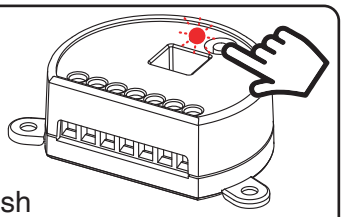
STEP 3
Press the button on the receiver for a short time.

The LED comes on
and stays on.



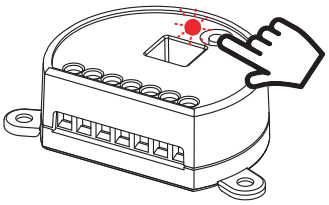
**SHORT
PRESSURE**

STEP 4
Press the button on the receiver for a short time.
The LED on the receiver starts to flash
(max. 60 flashes): each flash corresponds to a unit of time



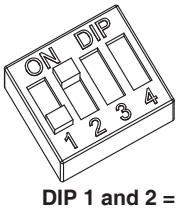
**SHORT
PRESSURE**

STEP 5
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**

STEP 6
To set output 1 as timed position DIPs 1 and 2
to OFF-ON



**DIP 1 and 2 =
OFF ON**

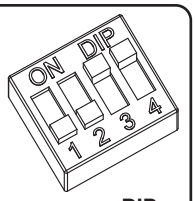
4.3 SETTING TYPE OF INPUTS VIA WIRE "P1"

Default: Button

This procedure lets you choose the type of wired devices to command load 1 (connected on terminal 3, input P1). The devices can be set as buttons or switches.

PROCEDURE:

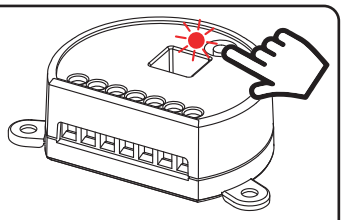
STEP 1
Position DIPs 1, 2, 3 and 4 to OFF-OFF-ON-ON



DIP =
OFF OFF ON ON

STEP 2
Press the button on the receiver for a short time.

The LED comes on and stays on.

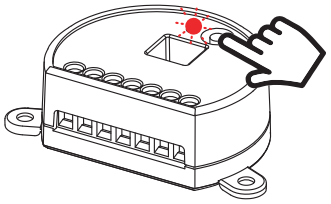


SHORT PRESSURE

STEP 3
Press the button on the receiver for a short time

count the number of flashes emitted by the LED:
3 flashes = control with buttons
6 flashes = control with switches

NUMBER OF FLASH	TYPE OF INPUT
3	button
6	switch



SHORT PRESSURE

STEP 4
To change the setting, repeat the procedure from point 1;
the control unit will alternate between 3 and 6 flashes.

STEP 5
After programming, reposition the dip switches to the desired operation of the contacts
(see paragraph 4.1)

5 - RADIO PROGRAMMING

This procedure lets you programme multifunctional or generic compatible transmitters.

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

MULTIFUNCTIONAL TRANSMITTERS - MODELS AND CODES

CODE:
BLACK VELA TONDO
30

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 "On/Off" device.

GENERIC TRANSMITTERS - MODELS AND CODES

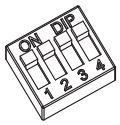
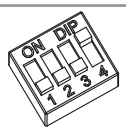
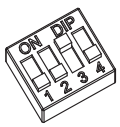
CODE:
VELA TX 220V-3V

CODE:
WHITE VELA TONDO 6,
BLACK VELA TONDO 6

With generic transmitters, the transmitter's control modes depend on the function associated with the key during the association procedure (see the following page).

The available function for the key are:

TABLE 5.1
KEY FUNCTIONS OF THE GENERIC TRANSMITTER
FOR THE OUT 1

POSITION OF DIP IN "STEP 1b" OF THE PROCEDURE	KEY FUNCTION
 DIP : ON ON ON ON	ON/OFF OUT1
 DIP : OFF OFF OFF ON	ON OUT1
 DIP : OFF OFF ON OFF	OFF OUT1

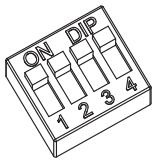
PROCEDURE

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

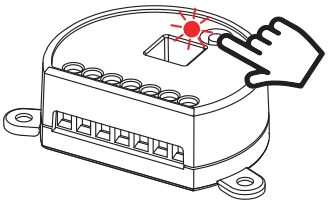


DIP =
ON ON ON ON

STEP 1b
Positions DIPs 1, 2, 3 and 4 according to the function you want to associate with the remote control key.
Vedi tabella 5.1 sulla pagina precedente.

STEP 2
Press the button on the receiver for a short time.

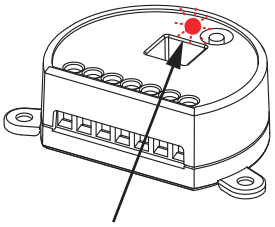
The LED comes on and stays on.



STEP 3
Make a transmission with the transmitter to be saved (see transmitter manual, paragraph entitled "transmitter programming").

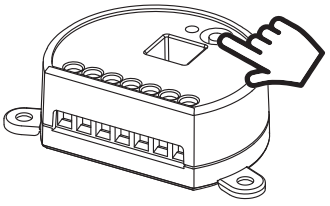
The LED on the receiver flashes 3 times to signal that it has been received.

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



STEP 5
After programming, reposition the dip switches to the desired operation of the contacts. (see paragraph 4.1)

FURTHER DETAILS

BEHAVIOUR OF OUTPUTS BASED ON THE FUNCTION ASSOCIATED WITH THE KEY

The column on the left shows the commands that can be programmed on the generic transmitter (see table 5.1), and the top row the output setting (see paragraph 4.1).

	OUTPUT SETTING		
FUNCTION OF KEY	**MONOSTABLE**	**BISTABLE**	**TIMER**
ON / OFF	Pulse	Change of status of load	Close contact for the time set (see paragraph 4.2)
ON	Pulse	Close contact	Close contact for the time set (see paragraph 4.2)
OFF	Pulse	Open contact	Open contact

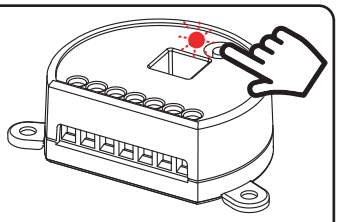
6 - DELETION OF TRANSMITTERS

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

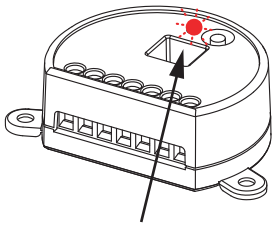


LONG PRESSURE (8 SECONDS)

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

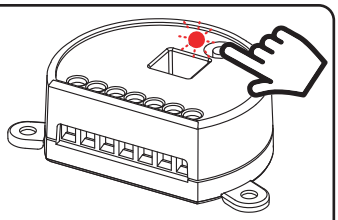


LED FLASHES QUICKLY

6.2 DELETION OF ALL THE SAVED TRANSMITTERS

STEP 1
Hold the receiver button down for 8 seconds.

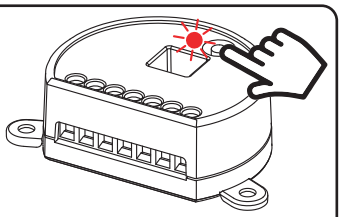
The LED begins to flash.



LONG PRESSURE (8 SECONDS)

STEP 2
Press the button on the receiver for a short time.

The LED starts flashing quickly and turns off



SHORT PRESSURE

7 PRESENCE SIMULATOR

This function makes it possible to activate the load (usually a light) in order to simulate the presence of people in the house.

The number of switch-ons and how long they last in the hour can be set following the procedure in paragraph 7.2.
The number and duration of the presence simulator cycle can be set following the procedure in paragraph 7.3.
Transmitters programming for remote activation of the "presence simulator" function and for creation of systems
can be set following the procedure in paragraph 7.4 (see picture 7.1).

WARNING: the presence simulator function is repeated every day at the same time until it is deactivated with a command by radio or wire. See paragraph 7.1 "use of presence simulator".

7.1 USE OF PRESENCE SIMULATOR

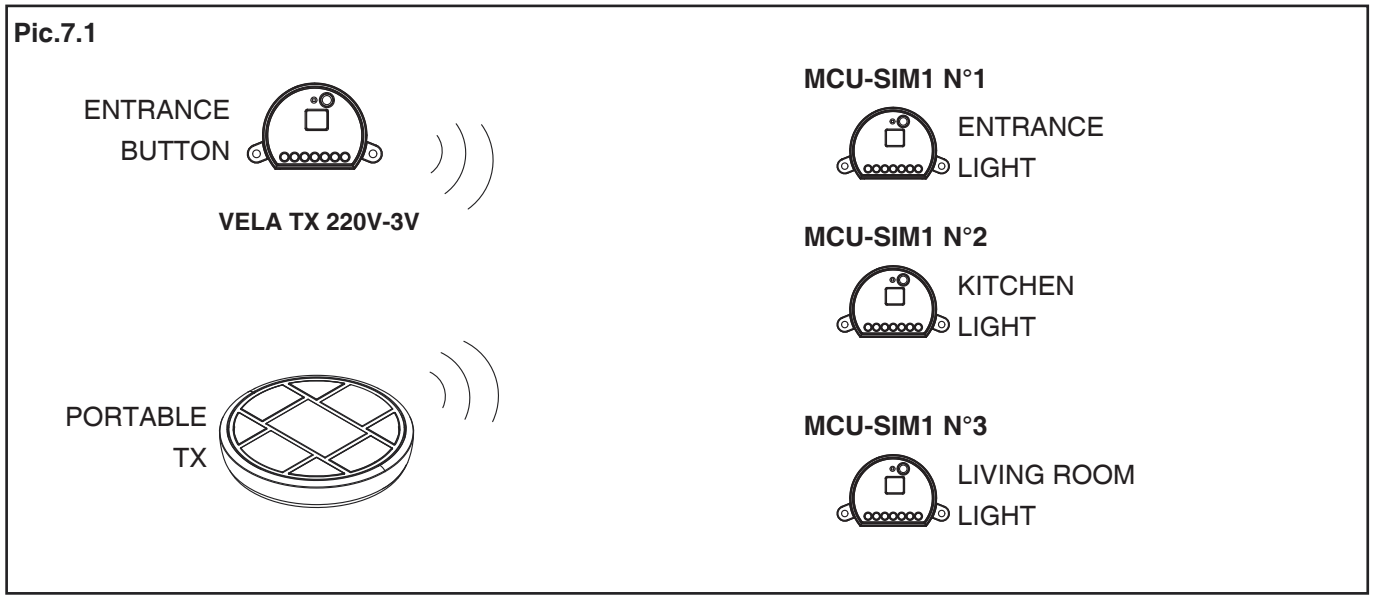
ACTIVATION:
The presence simulator cycle is activated by pressing wired key P2 or by sending a radio command with a transmitter programmed according to the procedure in paragraph 7.4.
When the cycle is activated, all the lights involved give two rapid flashes and come on for 2 minutes (to signal activation and to make leaving the house easier). Thereafter they will switch off and a series of random switch-ons will begin, based on the settings in paragraph 7.2.
This cycle will last for the number of hours set in paragraph 7.3.
At the end of the cycle set, this will pause to then start up again the following day at the same time.

DELAY:
Activation of the cycle can be delayed (from 1 to 24 hours) with the following procedure:
1- hold down wired key P2 for 5 seconds
2- the load will flash. Each flash corresponds to one hour's delay of the activation
3- release the key during the flash that corresponds to the desired delay
EXAMPLE: I want to delay activation by 10 hours. I hold down key P2 until the light concerned makes 10 flashes (so on the tenth flash I release the key).

DEACTIVATION:
To interrupt the cycle it is necessary to give a command to the control unit by radio or wire (not necessarily the command to start presence simulation cycle). The interruption of the cycle will be signalled by two slow flashes of all the loads concerned.

SIMULATION SYSTEM:
Thanks to radio activation (if the same transmitter is programmed on multiple controllers with this function), it will be possible to create a system in which the lights in multiple rooms come on in a random sequence.

Pic.7.1



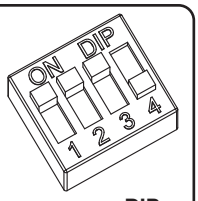
7.2 SETTING RANDOM SWITCH-ONS

Default: 3 x 2-minute switch-ons in an hour

This procedure is used to set the number of switch-ons and how long they last for in an hour.
The control unit will then change the time of the switch-ons every hour to create random events.

PROCEDURE:

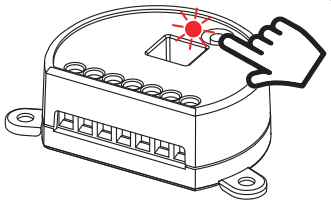
STEP 1
Position DIPs 1, 2, 3 and 4 to ON-ON-ON-OFF



DIP =
ON ON ON OFF

STEP 2
Press the button on the receiver for a short time.

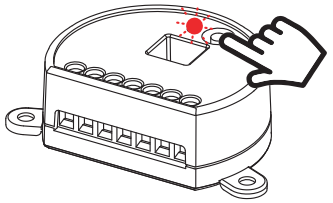
The LED comes on and stays on.



SHORT PRESSURE

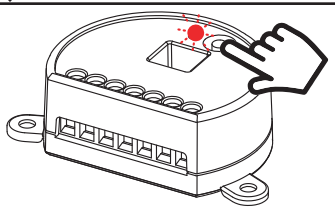
STEP 3
Press the button on the receiver for a short time and count the number of flashes emitted by the LED:

FLASHES	TYPE OF SWITCH-ON PROGRAMMED
1 flash	1 x 5-minute switch-on every hour
2 flashes	1 x 20-minute switch-on every hour
3 flashes	2 x 5-minute switch-ons every hour
4 flashes	2 x 10-minute switch-ons every hour
5 flashes	3 x 2-minutes switch-ons every hour
6 flashes	3 x 10-minute switch-ons every hour
7 flashes	5 x 30-second switch-ons every hour
8 flashes	5 x 2-minute switch-ons every hour



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

STEP 5
After programming, reposition the dip switches to the desired operation of the contacts (see paragraph 4.1)

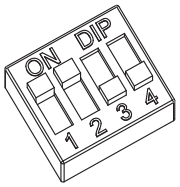
7.3 SETTING THE DURATION OF THE PRESENCE SIMULATOR

Default: duration 4 hours, pause 20 hours

This procedure is used to set the duration of the presence simulator.
WARNING: the presence simulator function is repeated every day at the same time until it is deactivated with a command by radio or wire (see paragraph 7.1).

PROCEDURE:

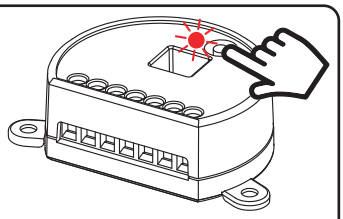
STEP 1
Position DIPs 1, 2, 3 and 4 to ON-ON-OFF-OFF



DIP = ON ON ON OFF

STEP 2
Press the button on the receiver for a short time.

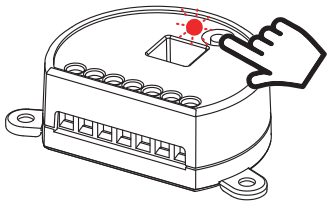
The LED comes on and stays on



SHORT PRESSURE

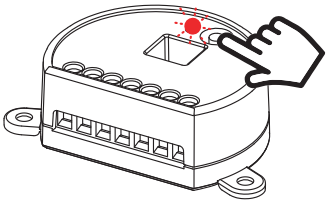
STEP 3
Press the button on the receiver for a short time count the number of flashes emitted by the LED:

FLASHES	TYPE OF SWITCH-ON PROGRAMMED
1 flash	Duration of 4 hours, followed by 20 hour pause
2 flashes	Duration of 8 hours, followed by 16 hour pause
3 flashes	Duration of 12 hours, followed by 12 hour pause
4 flashes	Continuous presence simulator cycle



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

STEP 5
After programming, reposition the dip switches to the desired operation of the contacts (see paragraph 4.1)

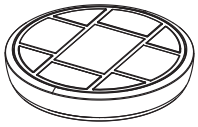
7.4 RADIO PROGRAMMING OF TRANSMITTERS MATCHED TO THE ACTIVATION OF THE PRESENCE SIMULATOR CYCLE

This process makes it possible to programme only compatible transmitters; see table 7.4A and 7.4B.
It will be possible to activate and deactivate the presence simulator cycle with a transmission from the programmed transmitter. By programming the same channel of a transmitter on multiple receivers with this function, it will be possible to create a system in which the lights in multiple rooms will turn on in a random sequence (see paragraph 7.1).

Tab. 7.4A

MULTIFUNCTIONAL TRANSMITTERS

MODELS AND CODES



CODE: BLACK VELA TONDO 30

The key dedicated to activation will be the "square" one.

Tab. 7.4B

GENERIC TRANSMITTERS

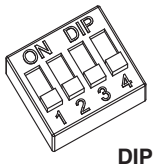
MODELS AND CODES

CODE: VELA TX 220V-3V

CODE: WHITE VELA TONDO 6, BLACK VELA TONDO 6

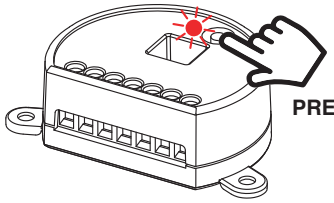
PROCEDURE:

STEP 1
Position DIPs 1, 2, 3 and 4 to OFF-OFF-OFF-OFF



DIP = OFF OFF OFF OFF

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

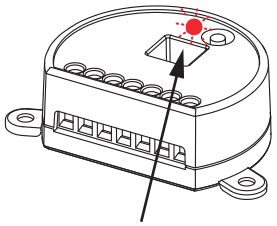


SHORT PRESSURE

STEP 3
Make a transmission with the transmitter to be saved (see transmitter manual, paragraph entitled "transmitter programming").

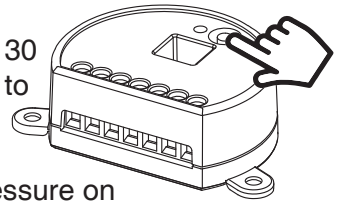
The LED on the receiver flashes 3 times to signal that it has been received.

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 key "b". The LED on the display turns off



SHORT PRESSURE

STEP 5
After programming, reposition the dip switches to the desired operation of the contacts (see paragraph 4.1)

ATTENTION: To delete programmed transmitters from the memory, see paragraph 6.

VENITEM

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