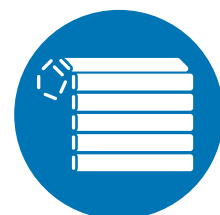




Control system for garage doors

Installer's instruction manual



Product:
TVRSP868E02
Doc:
T899.01
Date:
19/03/2021

1. Product description-----	page 3	5. Transmitters deletion-----	pages 12 - 13
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4.4 Remote memorization of the first transmitter			
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WARNINGS

The above mentioned product must be installed only by qualified technical personnel in compliance with the standards of automatic openings. All connections must be rated for a single-phase power supply of 240Vac. For the disconnection from the power line, use an all-pole switch with contact with an opening of at least 3.5 mm. Only suitable materials for the connections must be used to guarantee insulation that complies with current standards on the subject of electrical safety. All the necessary safety devices are to be seen separately. Incorrect wiring will cause incorrect functioning impairing the safety purpose for which the product has been designed so that people injuries could occur; failure to follow instructions can cause personal injury and/or property damage. The correct functioning of the product must be checked once a year. Keep the 240Vac wires separately from the low voltage safety wires. The earth-wires must be fixed with an additional fastening on the terminals; this fastening has to be done by qualified technical personnel during the installation phase. The appliance has been tested with a power supply wire type H05VV-F; the power supply wires for outdoor use have not to be lighter than the ordinary wires type H05RN-F. The safety devices have to be in conformity with EN12978. The installation of the control unit has to be done by fixing the box vertically with the cable glands downwards. The product is in conformity with the RAEE and RoHS directive.

The earth wire must be longer than the other wires because it must be the last to break off if the cable clamps are slack. Remember that there are specific standards that must be complied with both as regarding the safety of the electrical systems and as regarding the remote control of tubular motors for roller blind.

In the view of a constant development of their products, the manufacturer reserves the right for changing technical data and features without prior notice.



The connection between the control unit and the auxiliary device must be done using double insulated cables. The auxiliary device connected must be a Class II device. In case of an external aerial is connected the connections must be done using double insulated cables.



TVRSP868E02

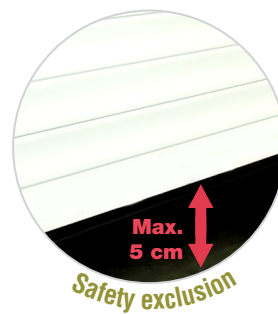
Control unit with integrated radio receiver for the remote control of tubular motors up to 700W, with built-in limit switch, for rolling shutters and rolling doors.

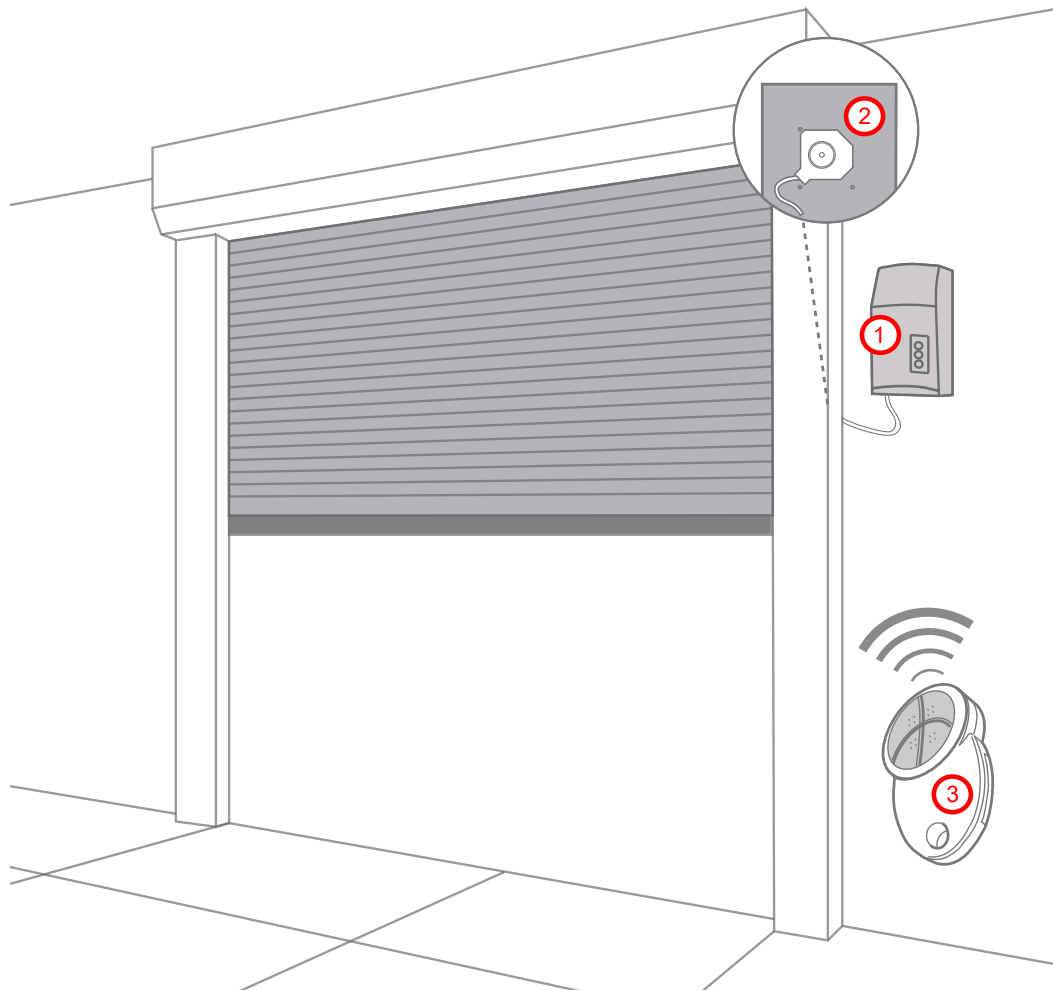
FEATURES

- Compact plastic case with easy fixing
- Front cover with buttons for programming and up/stop/down commands
- Wireless control via radio transmitters
- Bidirectional communication: door status is shown by the transmitter LED with different colour

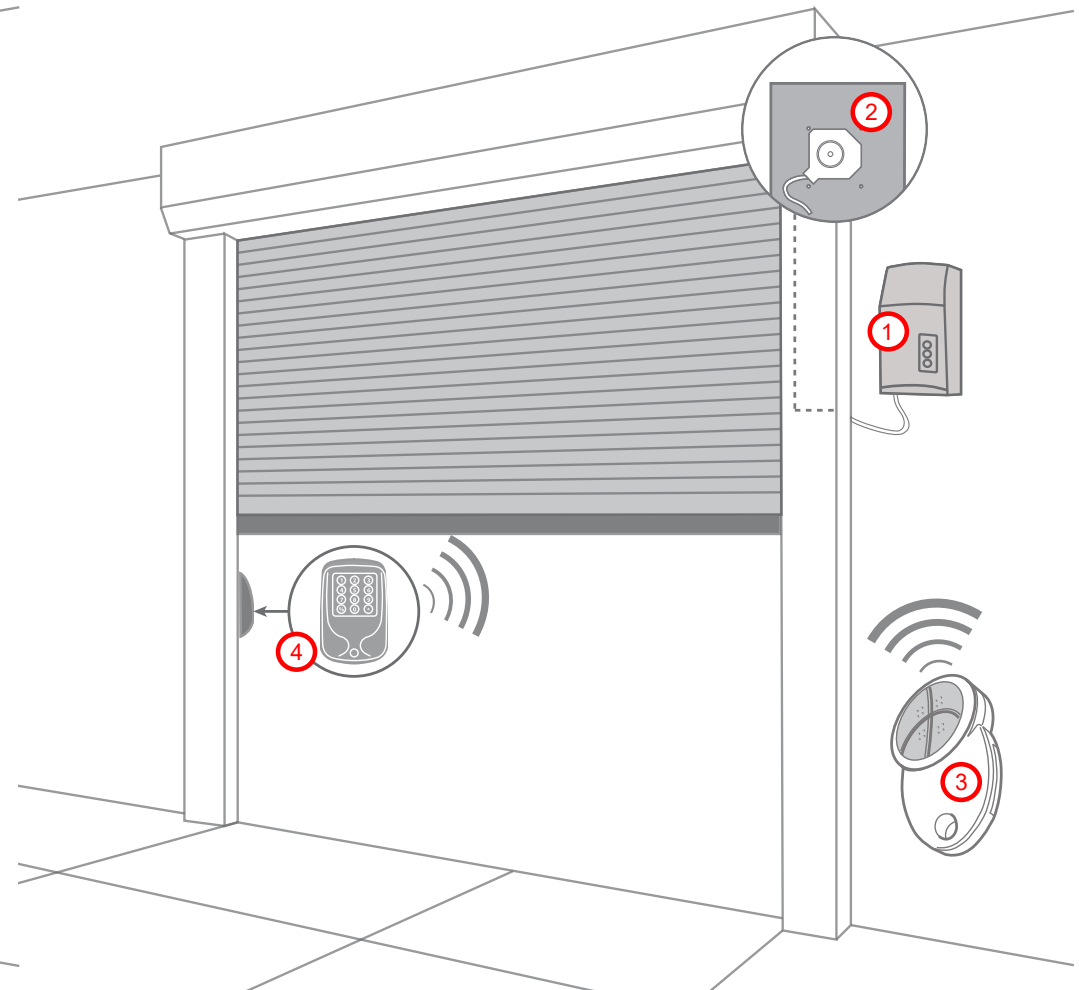
CONNECTIONS & FUNCTIONING

- Wired inputs for safety edge (both resistive 8K2 and infrared)
- Wired inputs for command push-button and emergency STOP push-button
- 2 Functioning modes: semi-automatic (automatic opening + hold-to-run closing) and automatic
- Automatic closing with programmable pause time
- Exclusion of the safety edge in the last part of the closure, in case of bumpy floor



**Basic installation**

- 1 - RSP control unit
- 2 - Tubular motor (240Vac)
- 3 - Hand transmitter

Complete installation

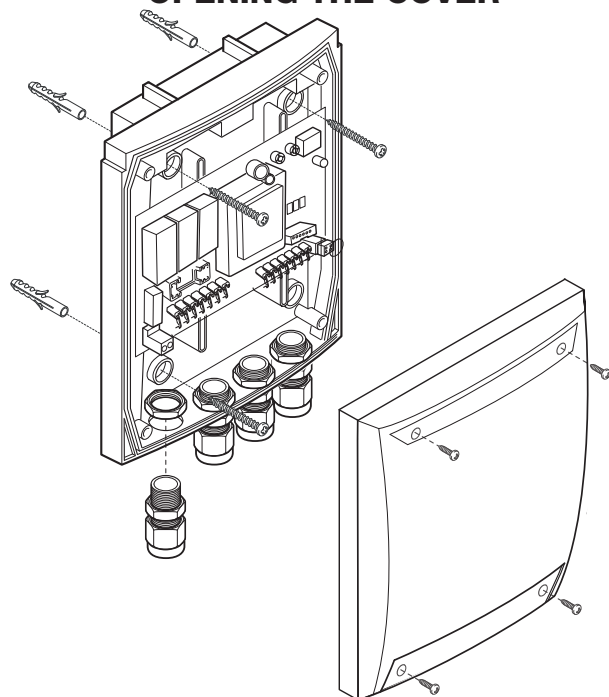
- 1 - RSP control unit
- 2 - Tubular motor (240Vac)
- 3 - Hand transmitter
- 4 - Wireless security keypad

2.1

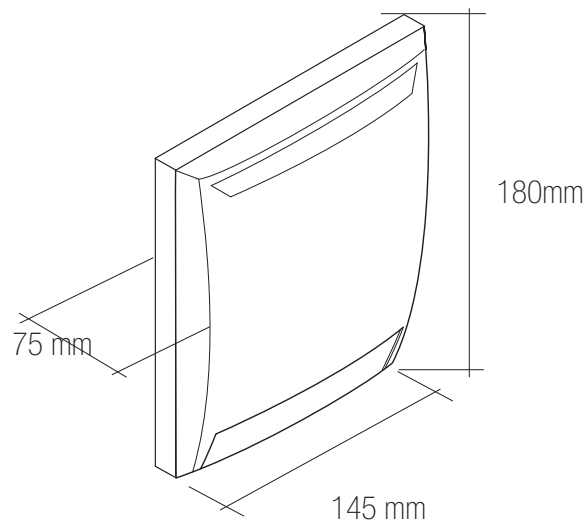
MOUNTING THE PRODUCT



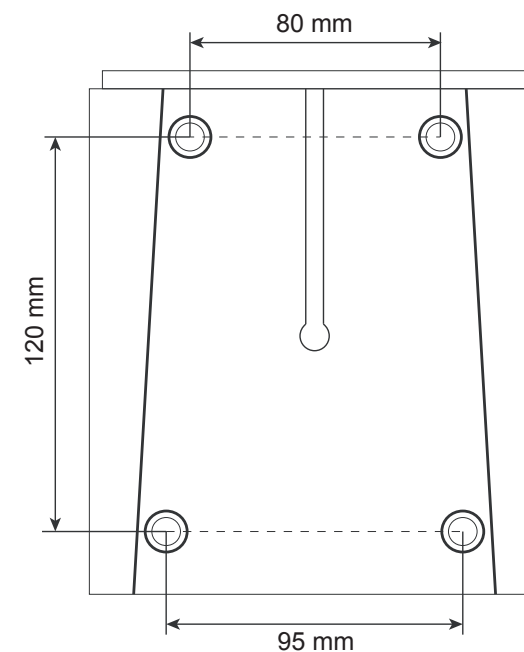
OPENING THE COVER



BOX DIMENSIONS

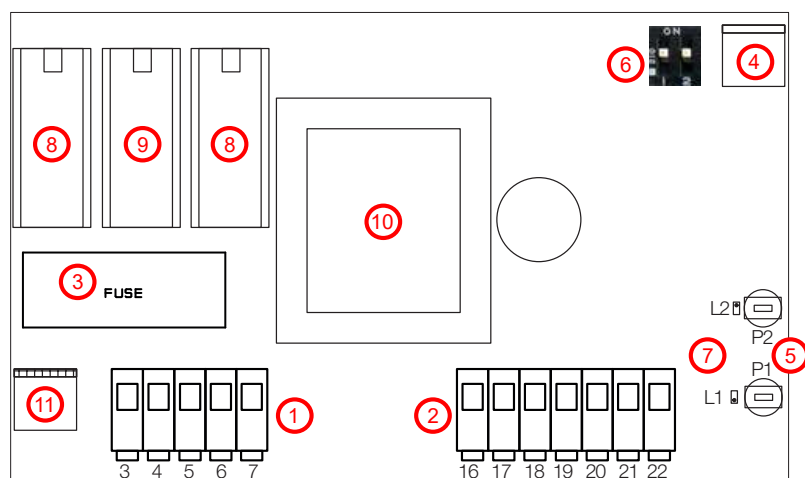


MOUNTING SIDE



2.2

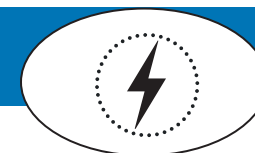
CONTROL UNIT DIAGRAM



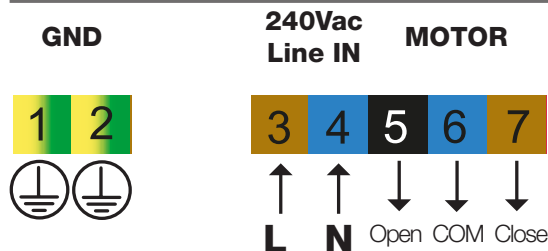
- 1 - High voltage terminals
- 2 - Low voltage terminals
- 3 - 5A fuse
- 4 - Aerial connection
- 5 - Programming/command buttons
- 6 - Dip switches
- 7 - Status/alarm LED
- 8 - Manoeuvre relays
- 9 - Common relay
- 10 - Transformer
- 11 - Earth terminal

2.3

ELECTRICAL CONNECTIONS



High voltage terminals

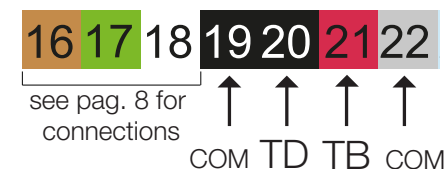


#	CONNECTION
1	Motor Earth
2	240Vac Power supply - Earth
3	240Vac Power supply IN - LIVE
4	240Vac Power supply IN - NEUTRAL

#	CONNECTION
5	Motor - OPEN
6	Motor - COMMON
7	Motor - CLOSE

Low voltage terminals

Wired infrared/ 8K2safety edge button (TD) Push- Emergency STOP (TB)

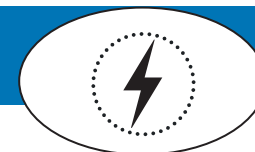


#	CONNECTION
16	Infrared/8K2 safety edge input (brown)
17	Infrared/8K2 safety edge input (green)
18	Infrared/8K2 safety edge input (white)
19	Push-button common (COM)

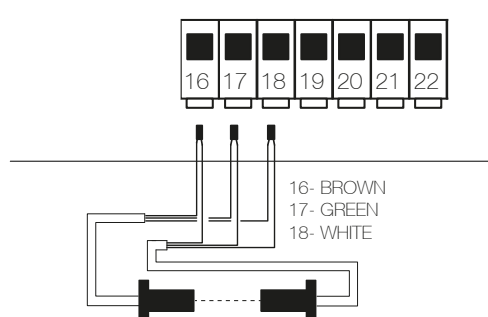
#	CONNECTION
20	Push-button (step-by-step, N.O.)
21	Emergency STOP push-button (N.C.)
22	Emergency STOP push-button common

2.4

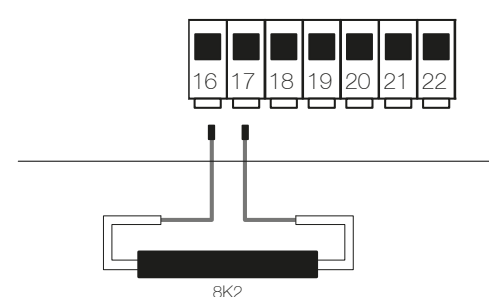
WIRED SAFETY DEVICE CONNECTIONS



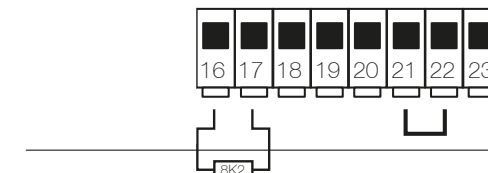
Infrared (IR) safety edge



8.2 Kohm resistive safety edge



No wired safety device connected



Connect a 8K2 resistor between terminals 16 and 17. Terminals 21 and 22 must be closed by a jumper.



If no wired safety edge is used, connect a 8K2 resistor between terminals 16 and 17.

3

PRELIMINARY CHECK AND INITIAL START-UP



A proper connection box should be used to set the limit switch before wiring the motor in the control unit or follow the procedure described on par. 3.1.

Start the system up, the buzzer emits 3 quick sounds if the memory is empty or 1 long sound if the memory has radio codes in. After the power-on, the control unit executes **only opening commands** until the door is fully opened. Check the direction of the door. In case of any problem, refer to the paragraph "Troubleshooting" (par. 9).

WARNING: the control unit executes an inversion of the movement until a complete opening if any error occurs. In case that the safety devices (except for TB input) are defective or they have been activated, it is possible to operate the door anyway, keeping pressed the command button for more than 5 seconds. The control unit will automatically switch to hold-to-run mode.

3.1 LIMIT SWITCHES CONFIGURATION AND DIRECTION CHECK



Procedure only with hold to run commands. **Warning:** The safety devices are excluded!

ACTIVATION				
5 SECONDS TIMEOUT				
ON L1 L2	x3 + ... + keep it pressed for 1s		L1 L2	L1 + L2
Within 5s from power ON (L1 and L2 are ON)	Press together P1 and P2 for 3 times and keep them pressed for 1s	The buzzer makes a long beep	L1 and L2 turn OFF after 5s	L1 and L2 flashes slowly

hold-to-run				Open the door (in hold-to-run mode) in order to set up the upper limit switch.	If the door is moving in the wrong direction: 1- STOP the manoeuvre 2- Switch the control unit off 3- Swap BLACK and BROWN motor wires over - terminals 5 & 7 4- Power the board up again
hold-to-run				Close the door (in hold-to-run mode) in order to set up the down limit switch.	

DEACTIVATION		
x3 + ... + keep it pressed for 1s		L1 L2
Press together P1 and P2 for 3 times and keep them pressed for 1s.	The buzzer makes a long beep	L1 and L2 turn OFF after 5s

3.2 FUNCTIONING MODE



ON 1 2	DIP1 OFF: SEMI-AUTOMATIC mode. Automatic opening and hold-to-run closing. The automatic closure function is deactivated.	ON 1 2	DIP1 ON: AUTOMATIC mode.
ON 1 2	DIP1 + DIP2 ON: Automatic closure function activated (only if DIP1=ON). Default time is 30 sec. This function has effect only when the door is totally open	ON 1 2	DIP2 OFF: Automatic closure function deactivated (default setting)

3.3

EXCLUSION OF SAFETY EDGE IN THE LAST 5 CM OF THE CLOSURE



In case of uneven floors, it could be necessary deactivating the safety edge in the last part of the closure (not more than 5 cm to comply with the standards) in order to avoid any accidental activation of the safety edge.

This procedure must be performed by qualified installer only, who will take charge of its correct application.

WARNING: this procedure can be used only for doors which require more than 10 seconds each manoeuvre. The exclusion of the safety edge is applied only if the closure starts from the upper limit switch and it is not stopped.

ACTIVATION

30 SECONDS TIMEOUT

ON	L1 L2	L1 L2	x1 P1 P2 keep it pressed for 1s	L1 + L2	x10 P2 keep it pressed for 5s	
Within 30s from power ON	L1 and L2 are ON for 5s	L1 and L2 turn OFF	Press P1 and P2 1 time and keep it pressed for 1s	L1 and L2 flash quickly	Press P2 buttons 10 times and keep it pressed for 5s	The buzzer emits 3 beeps

1. 			2. 	1. Open the door completely by means of a memorized transmitter. The buzzer emits a long beep when the upper limit switch is reached. 2. Put on the floor, exactly under the door, a sturdy object not more than 5 cm high. 3. Close the door (in hold-to-run mode), with no interruption . The door will stop at the obstacle and the control unit will make a long beep. 4. Open the door completely and remove the object. Close the door to verify the correct application of the procedure.
3. <i>hold-to-run</i>			4. 	

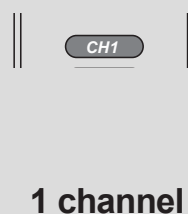
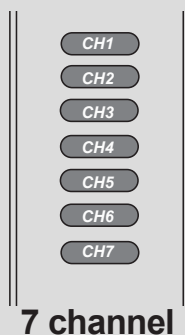
DEACTIVATION

30 SECONDS TIMEOUT

ON	L1 L2	L1 L2	X1 P1 P2 keep it pressed for 1s	L1 + L2	X11 P2 keep it pressed for 5s	
Within 30s from power ON	L1 and L2 are ON for 5s	L1 and L2 turn OFF	Press P1 and P2 1 time and keep it pressed for 1s	L1 and L2 flash quickly	Press P2 buttons 11 times and keep it pressed for 5s	The buzzer emits 5 beeps

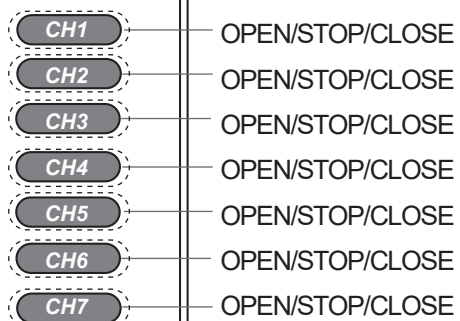


TRANSMITTERS

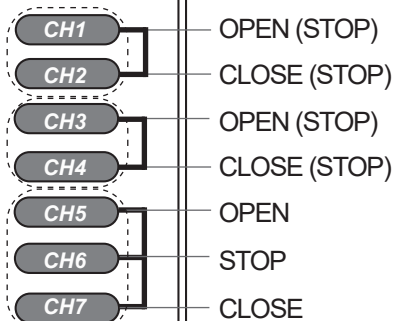


MEMORIZATION

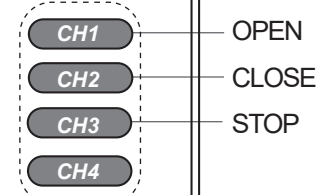
TYPE "A"



TYPE "B"



TYPE "C"



Only for a 7-CH and 4-CH transmitter

4.1

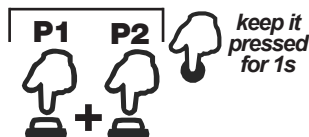
MEMORIZATION PROGRAMMING MODE



This operation should be done using the button P1+P2. Please refer to the schematic diagram on chapter 2.2 in order to localize the position on the board. In order to carry the transmitter memorization it is necessary use the **P1+P2** buttons of the front cover, entering the "programming mode" first.

ENTERING THE PROGRAMMING MODE

X1

















Press P1 and P2 1 time and keep it pressed for 1s

L1 and L2 flashes quickly

WARNING: always check that L1 and L2 are flashing before carry the following memorizations out!
If no further button is pressed within 10 seconds the control unit exits automatically the programming mode.

4.2 RADIO CODES MEMORIZATION



TYPE OF MEMORIZATION		P2	 keep it pressed	 continuous sound	 intermittent sound
A	Open-Stop-Close	* x1	 → 	Press the button of the transmitter relative to the code to memorize.	
B	Open (Stop)/Close (Stop)	* x2	 → 		
C	Open/Close/Stop/	* x6	      → 		

4.3 SINGLE CHANNEL: DOOR STATUS REQUEST (ASK)

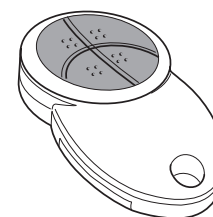


In case of using **bidirectional transmitters** it's possible to receive a feedback about the door status, shown by means of the transmitter's LED:

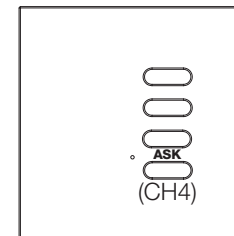
- Red led: **open door**
- Blue led: **closed door**
- Flashing led: **missing feedback**

Warning: the remaining free buttons of the transmitter should be memorized using the procedure **4.2**.












DOOR STATUS REQUEST ("ASK")



TRTXP868x04



TRTXI868xx04

TYPE OF MEMORIZATION		P2	 keep it pressed	 continuous sound	 intermittent sound
ASK function		* x7	       → 	Press any button of TRTXP or CH4 of TRTXI transmitter to memorize.	

* The buzzer will make a beep each time the button is pressed. No more than a second should pass between one press to another one.


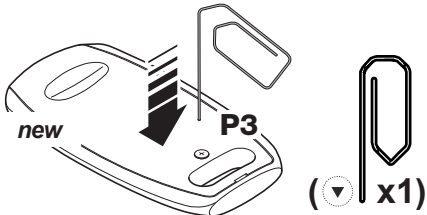


4.4

REMOTE MEMORIZATION OF THE FIRST TRANSMITTER



Warning: The memory must be empty in order to perform this procedure.

The added transmitter will have the double-channel function (TYPE B).

30 SECONDS TIMEOUT		5 SECONDS TIMEOUT		
				
	Press 1 time P3 button for 2s	The buzzer emits a continuous sound.	Press any button of the pair to memorize	The buzzer emits a fast intermittent sound

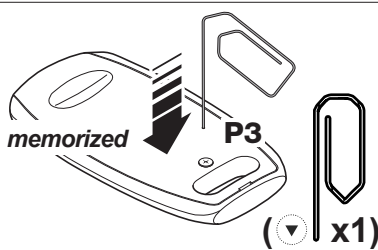






4.5

REMOTE MEMORIZATION OF FURTHER TRANSMITTERS



The added transmitter will have the same functions of the transmitter used for the memorization.

This procedure is compatible with any type of transmitter.

5 SECONDS TIMEOUT			5 SECONDS TIMEOUT			
			 1 s			
Press 1 time P3 button (twice if within 30 seconds from power on) of a memorized transmitter for 2 sec.	The buzzer emits a continuous sound.	Press the button of a transmitter already memorized.	The buzzer stops for 1s	The buzzer emits a continuous sound.	Press the button of a new transmitter to memorize with the same functions.	The buzzer emits a fast intermittent sound

* P3 button is located inside the transmitter. Every time P3 is pressed the lights switch ON.



This operation should be done using the button P1+P2. Please refer to the schematic diagram on chapter 3 in order to localize the position on the board. In order to carry the transmitter memorization it is necessary use the **P1+P2** buttons of the front cover, entering the “programming mode” first.

ENTERING THE PROGRAMMING MODE

X1	
Press P1 and P2 1 time and keep it pressed for 1s	L1 and L2 flashes quickly

WARNING: always check that L1 and L2 are flashing before carry the following memorizations out!
If no further button is pressed within 10 seconds the control unit exits automatically the programming mode.

Press **4 times P1 button** and hold it. The buzzer emits an intermittent sound. Press **the button** of the transmitter to delete. Once the deletion is successfully completed, the buzzer emits a continuous sound.

TYPE OF DELETION	P1		
SINGLE RADIO CODE	* x4	Press the button of the transmitter relative to the code to memorize.	

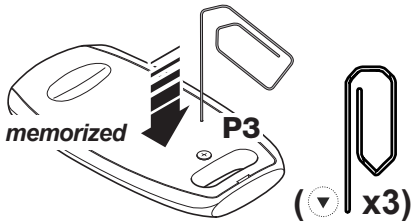



Press **5 times P1 button** and hold it for at least **10 seconds**. The buzzer emits an intermittent sound. Release the button once the sound becomes continuous.

TYPE OF DELETION	P1	
ALL THE RADIO CODES	* x5	

* The buzzer will make a beep each time the button is pressed. No more than a second should pass between one press to another one.

5.1 REMOTE DELETION OF A TRANSMITTER


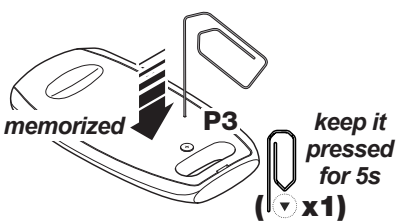

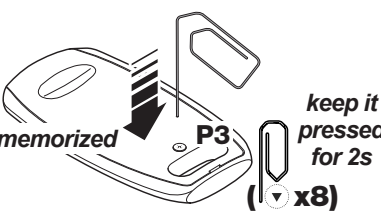





5 SECONDS TIMEOUT			
			
Press 3 time P3 button of a memorized transmitter and hold it for 2s	The buzzer emits an intermittent sound	Press the button of the transmitter to delete within 5 sec.	The buzzer emits a continuous sound

6.1 AUTO - CLOSE TIME SETTING



This procedure configures the time lapse between complete opening and the automatic closure (if enabled). The default time is **30 seconds**. It is possible to set the time from 5 seconds to 180 seconds.

30 seconds timeout		5 seconds timeout					
							
<p>ON</p>				<p>START</p>		<p>STOP</p>	
<p>memorized</p> <p>P3</p> <p>keep it pressed for 5s</p> <p>(x1)</p>		<p>memorized</p> <p>P3</p> <p>keep it pressed for 2s</p> <p>(x8)</p>		<p>memorized</p> <p>P3</p>		<p>memorized</p> <p>P3</p>	
<p>Press P3 button of a memorized transmitter and hold it for 5s, the buzzer sounds 1 beep</p>		<p>Release and press it again 8 times within 5 seconds and hold it for 2s, the buzzer sounds 2 beeps</p>		<p>Press once P3 to start the counting of time. The buzzer sounds 1 beep.</p>		<p>Press again P3 to stop the counting after the desired lapse. The value will be memorized by the control unit</p>	
<p>In case of time-out, the control unit will sound four beeps and exit the procedure automatically.</p>							

* P3 button is located inside the transmitter. Every time P3 is pressed the lights switch ON.

7.1 CONTROL UNIT RESET



The following procedure configure all the parameters back to the factory settings. The reset doesn't include the radio code deletion.

Switch the control unit off.	Press together P1 and P2, keep them pressed and switch the unit ON		The buzzer makes one beep after 10s.		Release P1 and P2.

8 TECHNICAL SPECIFICATIONS

Power supply	240Vac ÷ 50Hz
Operating temperature range	-20°C ÷ +50°C
IP rating	IP20
Reception frequency	868.3MHz
Radio memory capatibility (transmitters)	32

Motor characteristics:

Voltage	240Vac
Maximum power	700W

Acoustic signals from the control unit

Sequence	Meaning	Solution
1 constant beep (continuous or intermittent)	Faulty control unit	Replace the control unit
2 beeps	Motor problem	<ul style="list-style-type: none"> - Set the limit switches - The thermal protection could be activated. Wait while the motor cools down. - Check the motor connection - Test the motor separately by means of a proper tool
3 beeps at startup	Radio receiver is empty	Memorize at least one transmitter
4 beeps	Radio receiver is full	Max. number of transmitter exceeded
5 beeps (L1 = ON)	Safety test failure: wireless safety edge system	<ul style="list-style-type: none"> - Check the rubber profile general condition - Check photocells alignment and the connections
6 beeps (L2 = ON)	Safety test failure: emergency STOP (TB)	Check the safety device connected and the connections
8 beeps	Limit switch error: the manoeuvre exceeded the working time.	Check the limit switches and, in case, set them again
9/10 beeps	One of the relay is defective (see par. 2.2)	Replace the control unit

Other possible issues

Problem	Solution
None of the previous signals, but the door doesn't move downward	Command an opening manoeuvre until the top limit has reached.
In the closure, the door hits the floor and opens again	<ul style="list-style-type: none"> - The bottom limit could be too low, adjust it upwards - In case of uneven floor use the procedure 3.3 to deactivate the safety edge in the last part of the closure. It is necessary to command the closure starting from the upper limit switch in order to be effective.
The door can be operated but the safety systems don't activate	Check the motor direction. If wrong, swap brown and black motor wires over (terminals 5 & 7)
The control units responds to the commands sent by transmitters, but the front cover is not functioning	If L5 led flashes, the "holiday mode" is activated
The fuse blows while operating the door	Check again the wirings

WARNING: in case that the safety devices (except for TB input) are defective or they have been activated, it is possible to operate the door anyway, keeping pressed the command button for more than 5 seconds. The control unit will automatically switch to hold-to-run mode.

