



Rollerdor

THE ROLLER GARAGE DOOR SPECIALISTS

RD20X2ELL Control Box

Installation Guide for Roller Garage Doors

Edition 2022/1



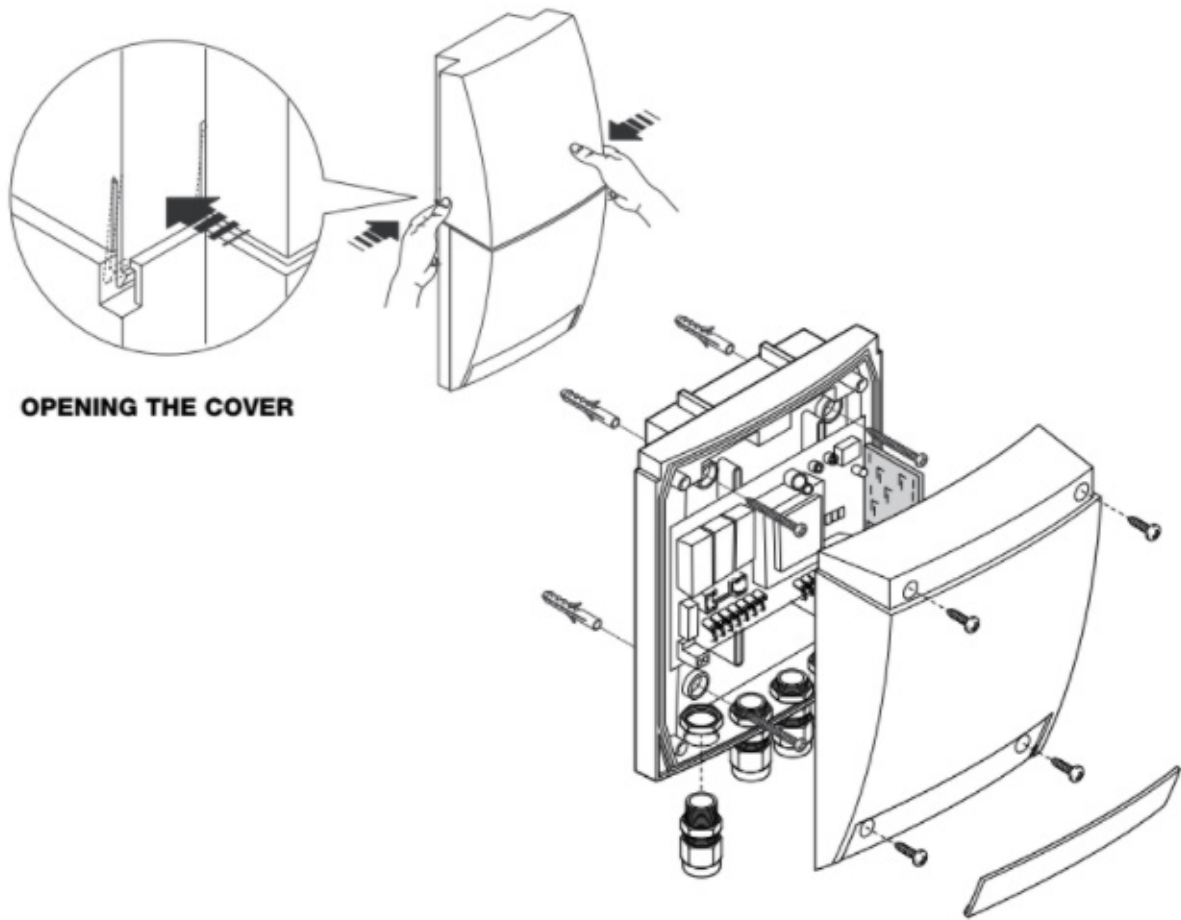


fig.1

BOX DIMENSIONS

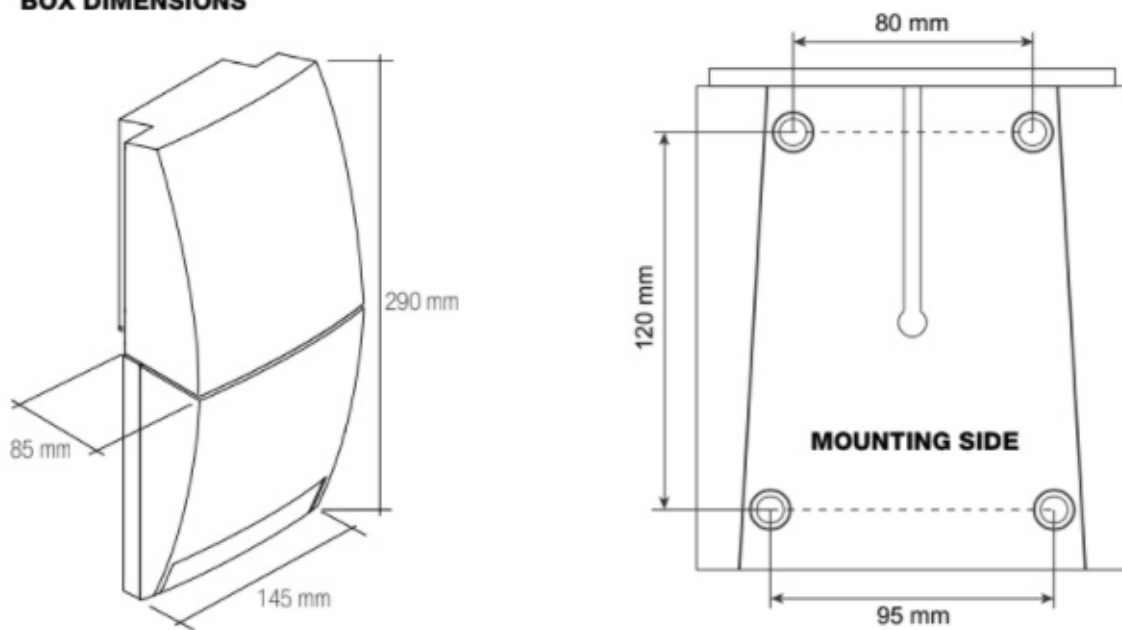


fig.2

1. INSTALLING RECEIVER BOX

(SAFETY EDGE)

- 1** Remove white plastic light cover by squeezing in each side and lifting away (**fig.1**).
- 2** Remove small plastic cover at the bottom of the unit to reveal screws and then remove all 4 screws from cover to reveal control board inside (**fig.1**) Warning: Take care when removing front cover as there is a membrane ribbon that connects it to the main circuit board.
- 3** Place the Receiver box on the wall with the cable pointing downwards at a comfortable height to operate the push buttons, but out of the easy reach of children. Between 1500mm up from the floor and 300mm down from the roof/ceiling is recommended, mark the 4 fixings, drill and secure the unit to the wall (**fig.2**).
- 4** If you have a safety brake with a cable then run the two core cable from the safety brake end across to the same end as the receiver box, making sure to securely fix the cable out of the way of the working mechanism.
- 5** The Glands at the bottom are for the cables to be inserted, (1) motor wire (2) power wire (3) safety brake if supplied.
- 6** Wiring as follows (**fig.3 & 4**):

- Terminal 1** – Earth Motor Wire
- Terminal 2** – Earth Power Wire
- Terminal 3** – Power Brown Live Wire
- Terminal 4** – Power Blue Neutral Wire
- Terminal 5** – Motor Open Wire (left hand motor Black / right hand motor Brown)
- Terminal 6** – Motor Blue Neutral Wire
- Terminal 7** – Motor Close wire (left hand motor Brown / right hand motor Black)

Safety Brake (**fig.5 & 6**):

Terminal 21 - Safety Brake = Blue Safety Brake Wire / No safety Brake = Link cable to Terminal 22.

Terminal 22 - Safety Brake = Brown Safety Brake Wire / No Safety Brake = Link wire to Terminal 21.

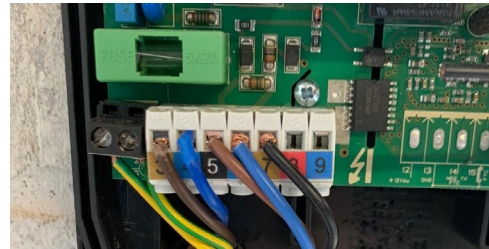


fig.3 - Right Hand Motor

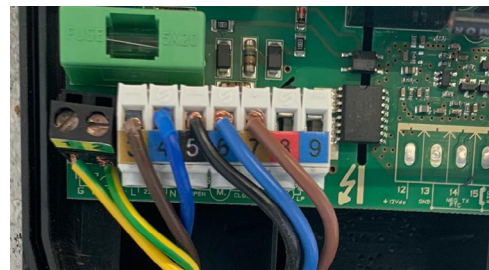


fig.4 - Left Hand Motor

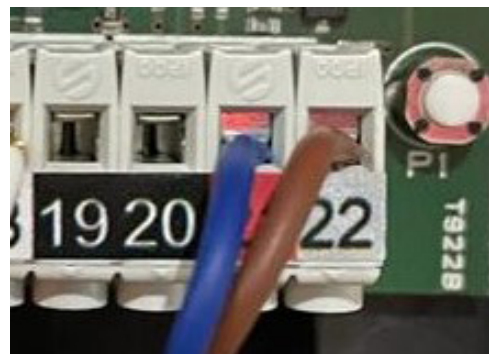


fig.5 - Safety Brake

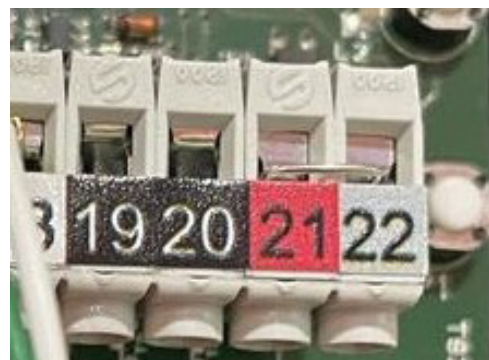
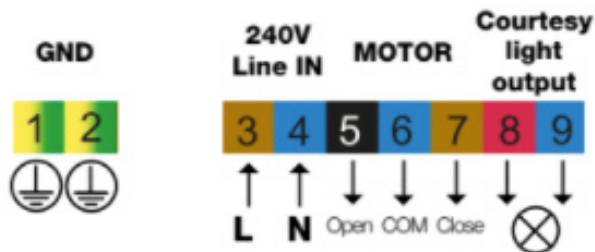


fig.6 - No Safety Brake



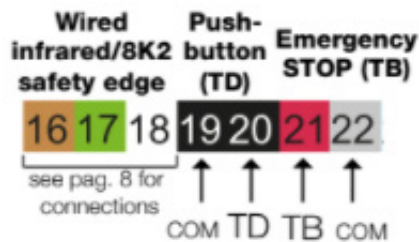
2. ELECTRICAL CONNECTIONS

High voltage terminals



| | |
|---|---------------------------------|
| 1 | Motor Ground |
| 2 | 240V- Power supply - Ground |
| 3 | 240V- Power supply IN - LIVE |
| 4 | 240V- Power supply IN - NEUTRAL |
| 5 | Motor - OPEN |
| 6 | Motor - COMMON |
| 7 | Motor - CLOSE |
| 8 | 240V- COURTESY LIGHT |
| 9 | (300W max. lamp) |

Low voltage terminals



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

3. SETTING UP WIRELESS SAFETY EDGE KIT

(OPTICAL EDGE)

The control box is supplied in Hold to Run operation for open and close, if the limits of the motor have not been set then please set them now using the PROG (P1/UP) & DEL (P2/Down) buttons, if when you press and hold either of the buttons the unit just beeps then you will need to put the unit into Hold to Run by pressing and holding both PROG (P1) & DEL (P2) buttons at the same time until you hear a single beep (**fig.7**). Once you have finished setting limits once again press and hold both PROG (P1) & DEL (P2) buttons at the same time until you hear a single beep to return to single press operation.

CHECKING BASE RAIL UNIT

- 1 Your base rail unit is already installed on one side of the last slat of your curtain (usually nearest the motor) it is a small black unit, there are 2 screws one each end, undo screws and remove the lid (**fig.8**).
- 2 Check the wiring inside the base rail unit and dip switch position (**fig.9**) Terminal 4: Green wire [signal] Terminal 5: Brown wire [power supply +] Terminal 6: White wire [power supply -] dipswitch 1 should be on and dip switch 2 off.
- 3 Batteries: The unit comes with Qty 2 AA size 3.6V lithium batteries but will work with Qty 2 AA 1.5v batteries, there is a sliding switch to change the voltage from 3.6v to 1.5v depending on which is used and must be in the correct position to work. **Please pay attention to the polarity!**
- 4 Test safety edge connection: the RED LED on the base rail should be out, slide dip switch 2 into the ON position, you now have 30 seconds to test the connection by squeezing the base rail rubber, when you squeeze the rubber the RED LED should light up, this will confirm a good circuit, return dip switch 2 to off. If the RED LED doesn't light up check the wires to make sure all connections are good and then retest, if the red light is constantly on as soon as you slide the switch please contact your provider as there may be a fault with the Optics.



fig.7

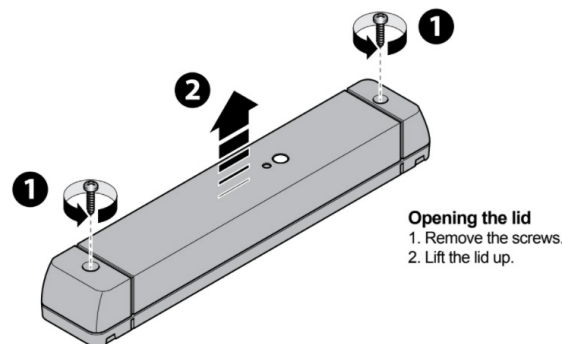


fig.8

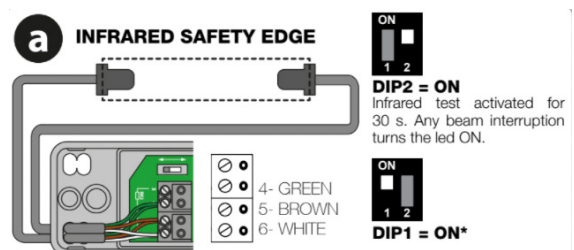


fig.9

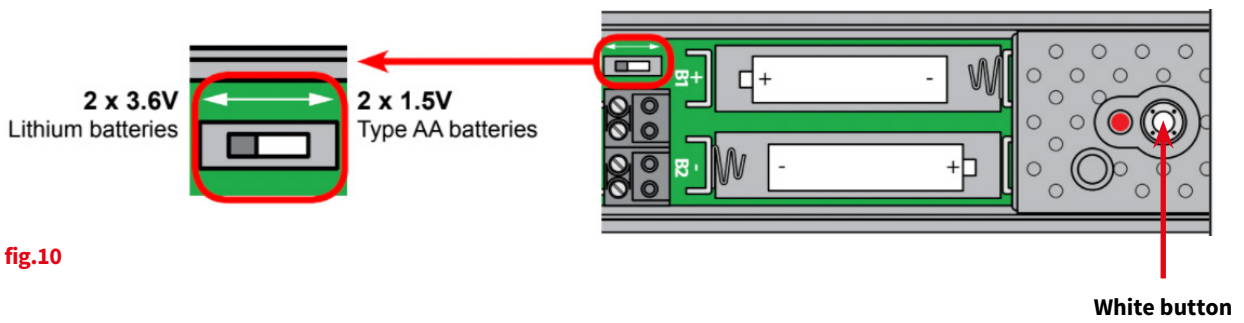


fig.10

CHECKING CONTROL BOX

- 1 Control box Dip Switches: check dip switches on main board (**fig.11**) dip switch number 1 & 2 should be on and number 3 off.
- 2 Inside the control box is a separate circuit board which is plugged into the main circuit board (**fig.12**) check the RED LED L3 if this is intermittently flashing then the base rail unit has been paired, move onto Programming Transmitter's section, if LED 3 is flashing then continue to Programming Base Rail section.



fig.11

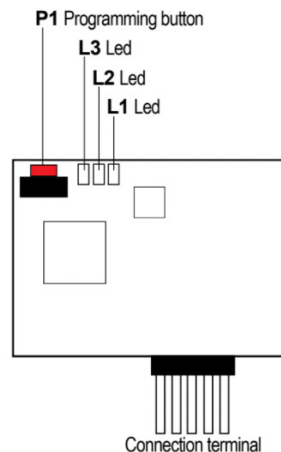


fig.12

PROGRAMMING BASE RAIL UNIT

- 1 Push and hold the red P1 programming button on the plug in circuit board (**fig.12**) for roughly 2 seconds until L1 and L2 LED's flash.
- 2 Go to the base rail unit on the curtain, press and hold the white button (**fig.10**) of the unit for 2 seconds. The RED LED on the unit will flash.
- 3 Return to the control box and check that the LED L3 is intermittently flashing this will signify programming is complete, if LED 3 is still solid then repeat the process.

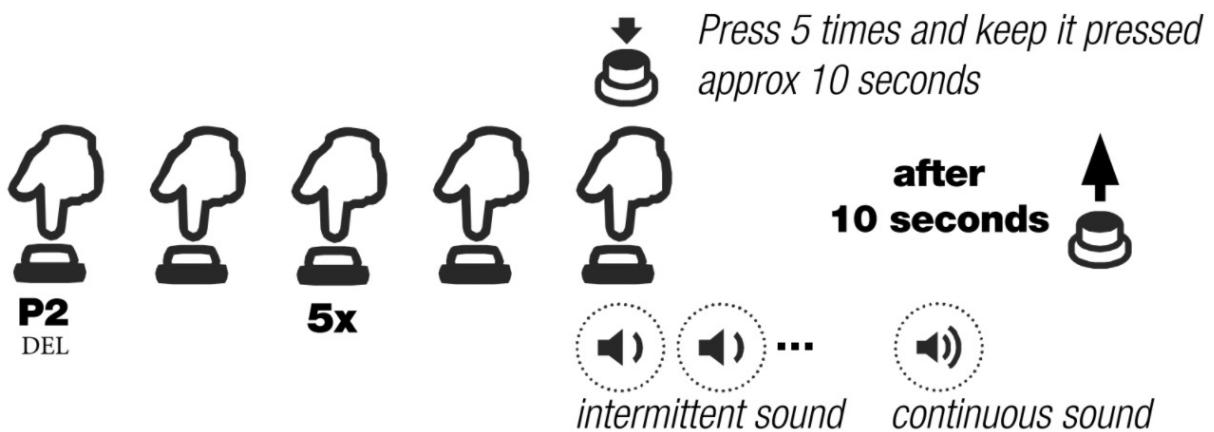
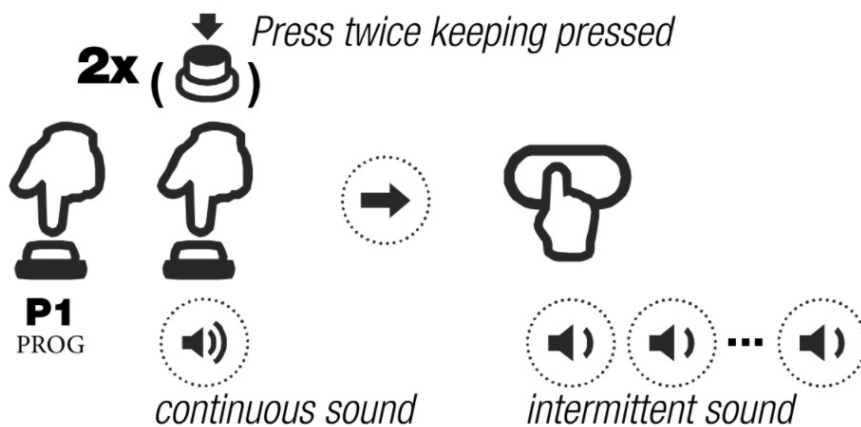
PROGRAMMING TRANSMITTER'S

Programming Transmitters 2 Channel:

- 1 Press P1 (PROG) button two times, on last press HOLD causing the buzzer to emit a continuous sound.
- 2 Whilst P1 (PROG) is still pressed, press the top button on the transmitter, you will hear a faster beeping sound.

Deleting ALL transmitters:

- 1 Press P2 (DEL) 5 times and on last press HOLD for at least 10 seconds, buzzer emits a rapid beeping sound.
- 2 Once the sound becomes continuous release the P2 button.

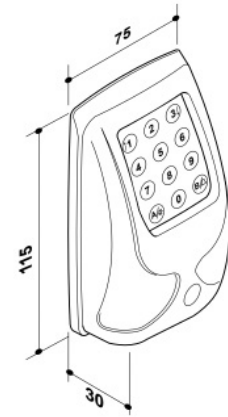




WIRELESS KEY PAD

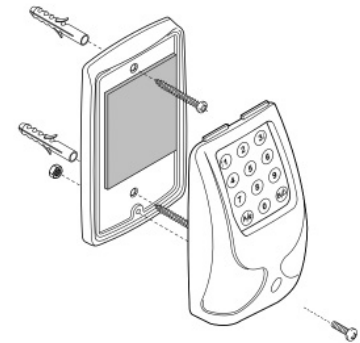
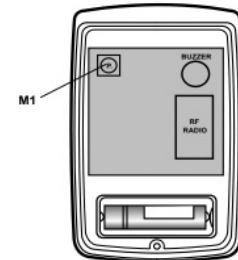
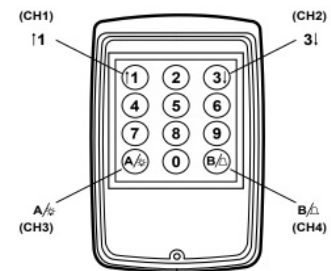
INSTALLATION

- 1 Undo and remove the small screw at the bottom and lift off the front cover.
- 2 Using the back-plate as a template, mark the positions of two suitable fixing holes onto the wall then secure the back-plate to the wall using the plugs and fixing screws provided.
- 3 Install the 9v alkaline battery that has been supplied then once set up and programming is completed push the keypad onto the back-plate and secure in place with the screw.



PAIRING USING ACCESS CODE

- 1 The keypad is supplied with a factory access code number "12345".
- 2 To pair keypad to receiver box, enter the Access code "12345", within 5 seconds press and release PROG (P1) button, then press and hold PROG (P1) button. You will hear a continuous beep from the control box, whilst holding the button press and hold Number 1 on the keypad, the continuous beep will change to faster beep on hearing this release all buttons and the keypad is now programmed.



CHANGING ACCESS CODE

For security reasons it is essential that the access code number is changed to another 5 digit number these numbers can be in any combination of numbers 0-9, excluding A and B.

To change access code follow this sequence: Enter access code "12345", press M1 button (white button on the back of the keypad) a beep will be emitted, enter your new 5 digit code, within 1 second enter this same code again, when you hear a continuous beep for approx. 2 seconds this confirms the code has been changed.

OPERATION

Enter your individual 5 digit code each number will emit a short beep to signify it has been registered and the final number will give a longer beep to say full code has been entered, Press either number 1 to open or number 3 to close.



SAFETY EDGE EXCLUSION ZONE

- The curtain is supplied with stops at each end to stop an uneven floor having an effect (fig.13) but if the curtain reopens having hit the floor the safety edge exclusion should be set to 'turn off' the edge 50mm before it hits the floor. Please be aware the safety edge will have to return to the top limit before closing and the alarm will be disabled.

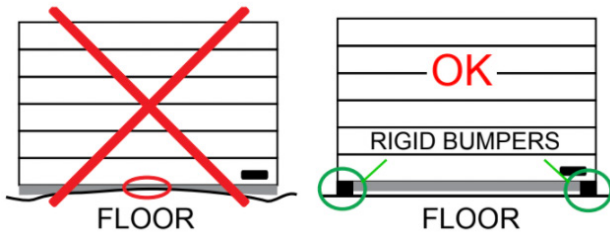
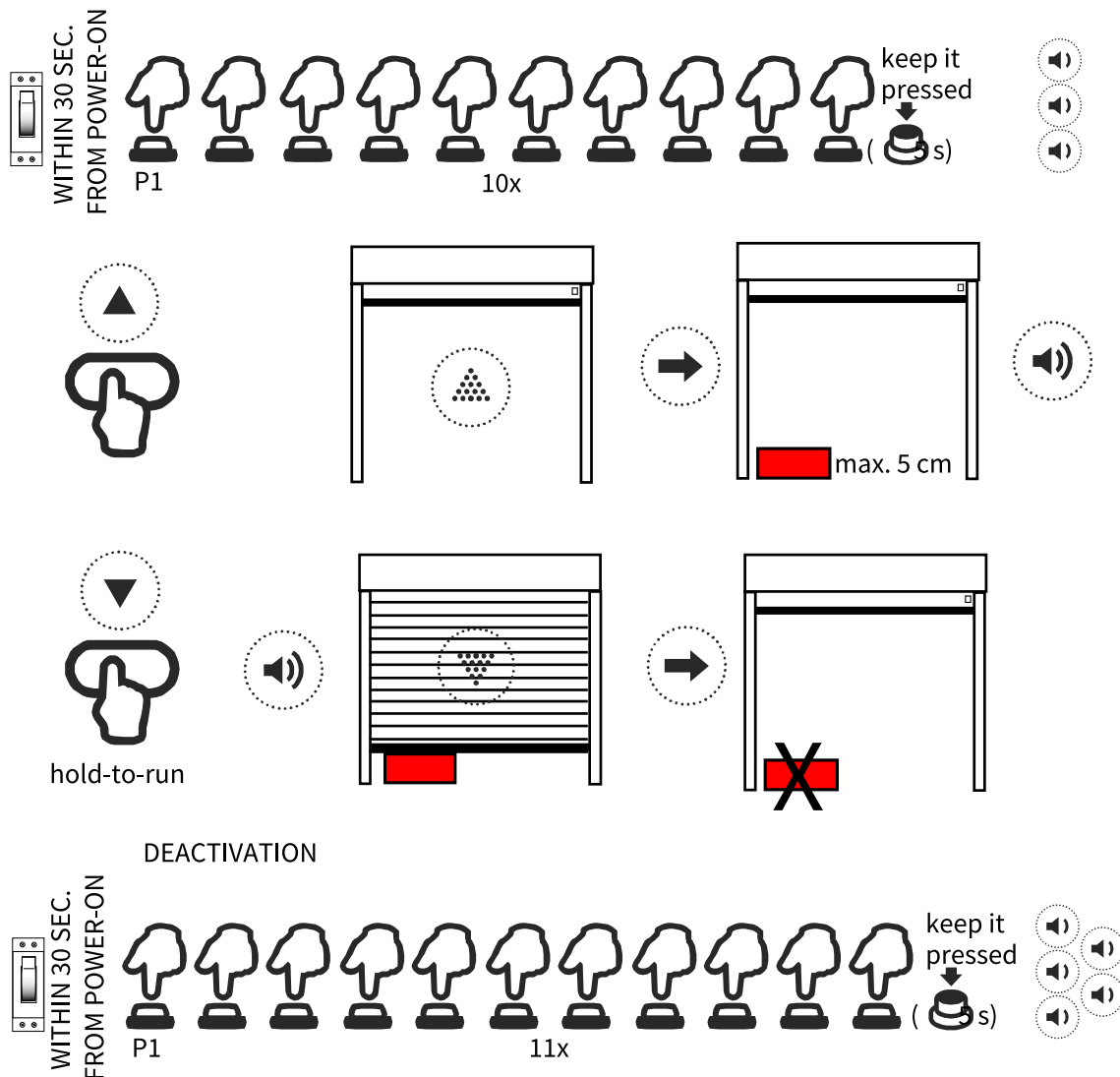


fig.13





HOLIDAY MODE

The “Holiday mode” allows the user to temporarily lock the front cover buttons.

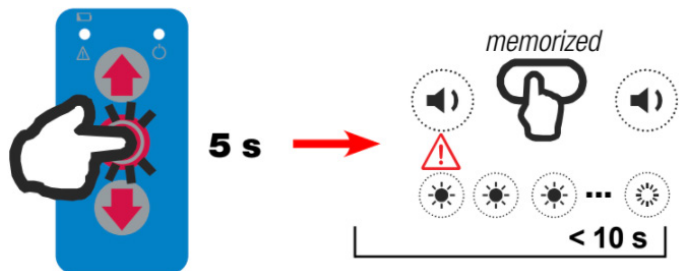
Note: when the mode is activated, wireless and wired input commands are still enabled.



ACTIVATION


Press the **STOP** button in the front cover and keep it pressed for 5 seconds.

The buzzer makes one beep.




DEACTIVATION

Press **STOP** button in the front cover and keep it pressed for 5 seconds.

The buzzer makes one beep and LED  starts to flash faster.

Press any button of any memorized transmitter within 10 seconds.

The buzzer makes one beep and LED  turns off.

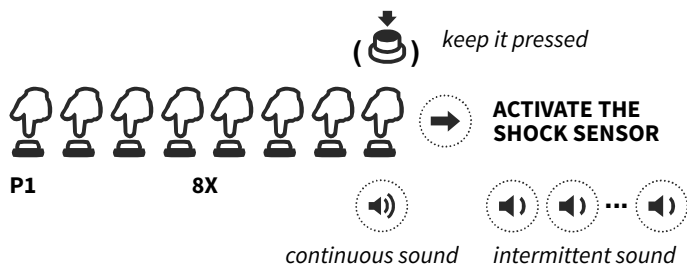
ALARM FUNCTION

For the alarm function you must install the speaker that has been supplied, this should be screwed in to replace one of the glands at the bottom of the box and the cable will be plugged into the board at the bottom right corner next to terminal 22 (**fig.14**).

To test your alarm function, once the door is closed and the courtesy light has gone out, use the manual crank to wind the door open a little, you may need to lift and shake the base rail to activate as the smooth motion of winding may not trigger the alarm.



fig.14




Press **P1 eight times** and keep it pressed.

The buzzer emits a continuous sound.
Activate the shock sensor.

Once the memorisation is successfully completed, the buzzer emits a fast intermittent sound.

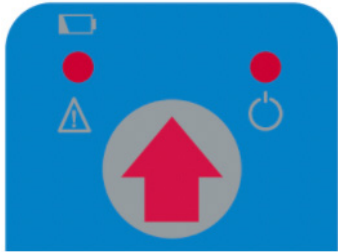
TROUBLESHOOTING (WHAT TO DO IF...)

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 transmitters exceeded |
| 5 beeps (L2 = ON) | Safety test failure: wired safety edge | <ul style="list-style-type: none"> - Check the rubber profile general condition - Check photocells alignment and the connections |
| 5 beeps (see also the  led on the front cover) | Safety test failure: wireless safety edge system | <p>Control unit checks</p> <ul style="list-style-type: none"> - The radio card (master) must be correctly inserted in the plug: check all the pins - The radio card (master) must be paired with the bottom slat transmitter (slave) <p>Bottom slat transmitter checks</p> <ul style="list-style-type: none"> - Check type, polarity and charge level of the batteries - Check functionality by pressing the button - Check the DIP1 position (at par. 2.2) - Check wiring between bottom slat transmitter and sensitive edge (terminals and wire colour) <p>Sensitive edge checks</p> <ul style="list-style-type: none"> - Check the rubber profile general condition - Check the functionality by means of the testing procedure with DIP2 (at par. 2.2) |
| 5 quick beeps every 5 seconds | Low batteries in the bottom slat transmitter | Replace the batteries as soon as possible. Pay attention to the polarity. |
| 6 beeps (L3 = 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 the diagram at page 7) | Replace the control unit |




LED IN THE FRONT COVER



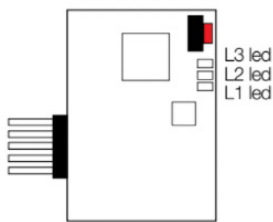
Led 

ON: safety alarm activate (see the specific alarm).
OFF: normal functioning.
1 flash - pause: keypad locked (holiday mode).
Flashing slowly: low batteries in the bottom slat transmitter (TCSP)

Led 

Led ON: The control unit is powered.

RADIO CARD (MASTER)



L1 led

Flashing: normal functioning.
ON: transmission error or drained batteries.


L2 led

ON: activated safety alarm, transmission error or drained batteries.
OFF: normal functioning.

L3 led

Not used.

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 | - The bottom limit could be too low, adjust it upwards - In case of uneven floor use the procedure 3.2 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 | - Check if the connection flat cable is correctly inserted in the board plug - If the  led is flashing once per second, the "holiday mode" is activated (see page 15) |
| The fuse blows while operating the door | Check again the wirings |

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