

**Installation & Connection
manual
N°1030**

10/19

**MURAX P110 SHUTTERS
DENTEL GRILLE**

AXIAL MOTOR 2 and 3



(Document reserved for installers)

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Material needed

- | | |
|---------------------|---------------------------------------|
| - Lifting equipment | - Flat wrenches : 8, 10, 15 and 17 mm |
| - Clamps | - Hexagon keys : 5 mm |
| - Spirit level | - Socket wrenches : 10, 15 and 17 mm |
| - Plumb bob | - Screwdriver |
| - Tape measure (5m) | - Grease and brush |
| - Hammer drill | - Multi-grip pliers |

Installation instructions



CAUTION !

**To ensure that this product is assembled,
 used and maintained in complete safety, it is important
 to follow the instructions provided in this document.
 For everyone's safety,
 please observe the precautionary measures below.**



- * Before beginning the assembly, read this manual carefully.
- * This closure must be installed by a properly trained, professional technician.
- * All the parts delivered are specifically sized for this product.
Adding and/or using other parts may be detrimental to safety and may affect the product's warranty.
- * Any modification or improvement of this closure must be compliant with the standard EN 13241 + A2.
In this case, a "modification/transformation" file must be created by the installer as per the standard EN 12635 annex C.
- * Considerable force is exerted by the torsions springs or spring boxes, in the case of compensated shutters or grilles.
This work must therefore be carried out in accordance with the safety instructions.
Use the appropriate tools to install these products.
Ensure that the work is carried out on a stable floor.
- * Ensure that the assembly area is adequately lit, clear, clean and clearly marked out.
- * Ensure that no other people are present at the assembly site apart from the installers.
Non-authorized persons (children for example !) who are present at the site risk injury during assembly.
- * All the components of this closure must be installed in compliance with the installation instructions provided in this manual.
- * All the requirements of the standards EN 13241 + A2 must be met and verified if necessary.

Max. locking torque :


- Assembly screw : **10 Nm**
- Apron clip screw : **12 Nm**

Min. working load per attachment point :

- Plates : **300 daN**
- Guiding rails : **40 daN**

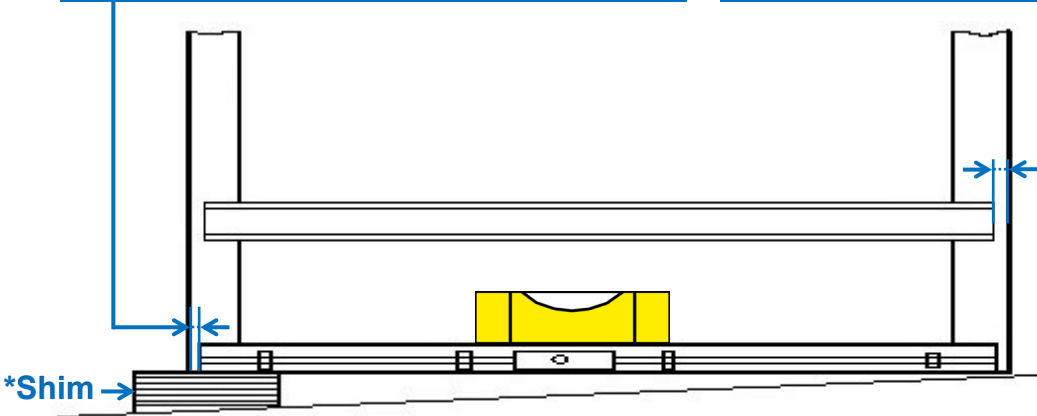
Please note : If installing on an iron structure, the guiding rails and plates can be welded to the building. In this case, a cord of approximately 50 mm must be attached to each side, roughly 800 mm apart.

Installing the guiding rails and the axle

 For the hurricane slides and the noise reduction clips :
Different clearances (refer to the corresponding enclosed manual).

End-slat	
The inner clearance on each side of the end-slat must be observed in accordance with the depth of the guiding rail	
Bottom clearance of guiding rail	Depth of guiding rail
8 mm	40 / 60 mm
8 mm	80 / 100 mm

intermediate slats or Corrugated tubes	
The inner clearance on each side of the intermediate slats and the corrugated tubes must be observed in accordance with the depth of the guiding rail	
Bottom clearance of guiding rail	Depth of guiding rail
8 mm	40 / 60 mm
12 mm	80 / 100 mm



- 1- Firmly attach the guiding rails, ensuring that they are plumb. To do so, use the end-slat, maintaining the required clearance*.
 - Ensure that this slat is horizontal.
 - Firmly attach the winding plates to the wall using the support brackets because they will bear the entire weight of the shutter.



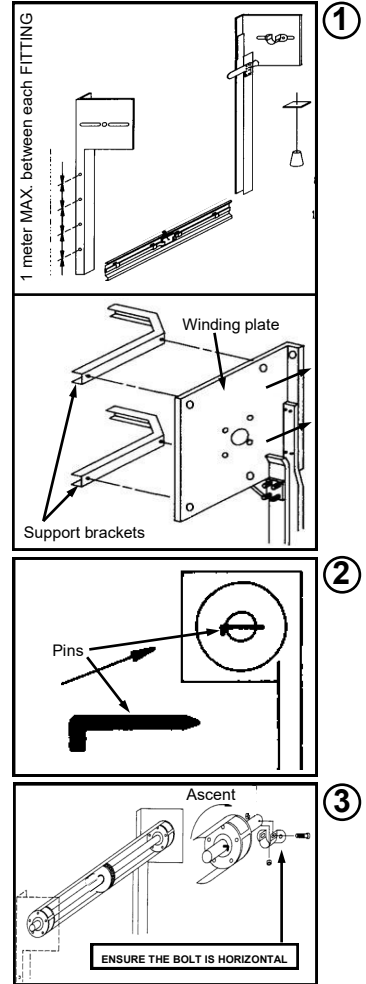
Tip : If installation of a box.
Draw and drill cheek mounting holes and possible consoles before mounting the axle.
(See the installation manual of Box 3K).

- 2- Insert the axle into the bushings.

Before positioning the spring-loaded shaft, check that :

- The pins are horizontal (obligatory).
- The dowel must be pointing downwards and the spikes toward the guiding rail. ②

- 3- Firmly tighten the bolts H M10x80 + nuts.

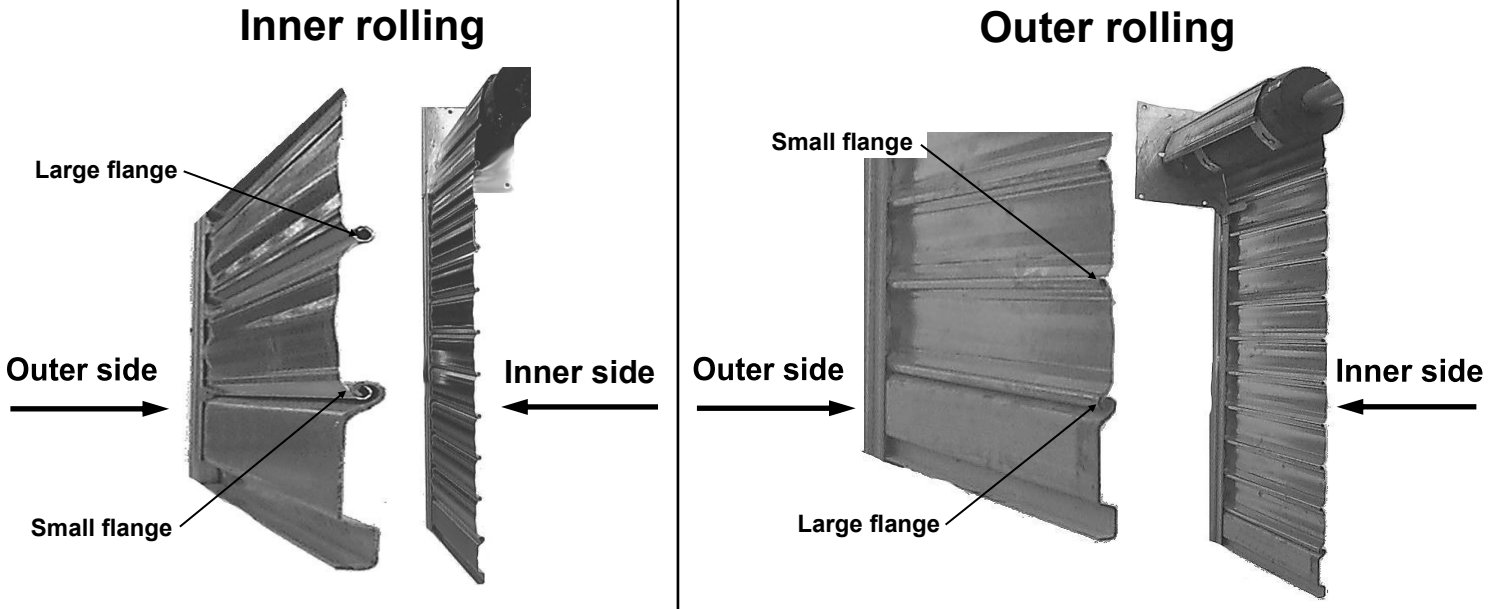


Shutter installation principle

Rolling direction

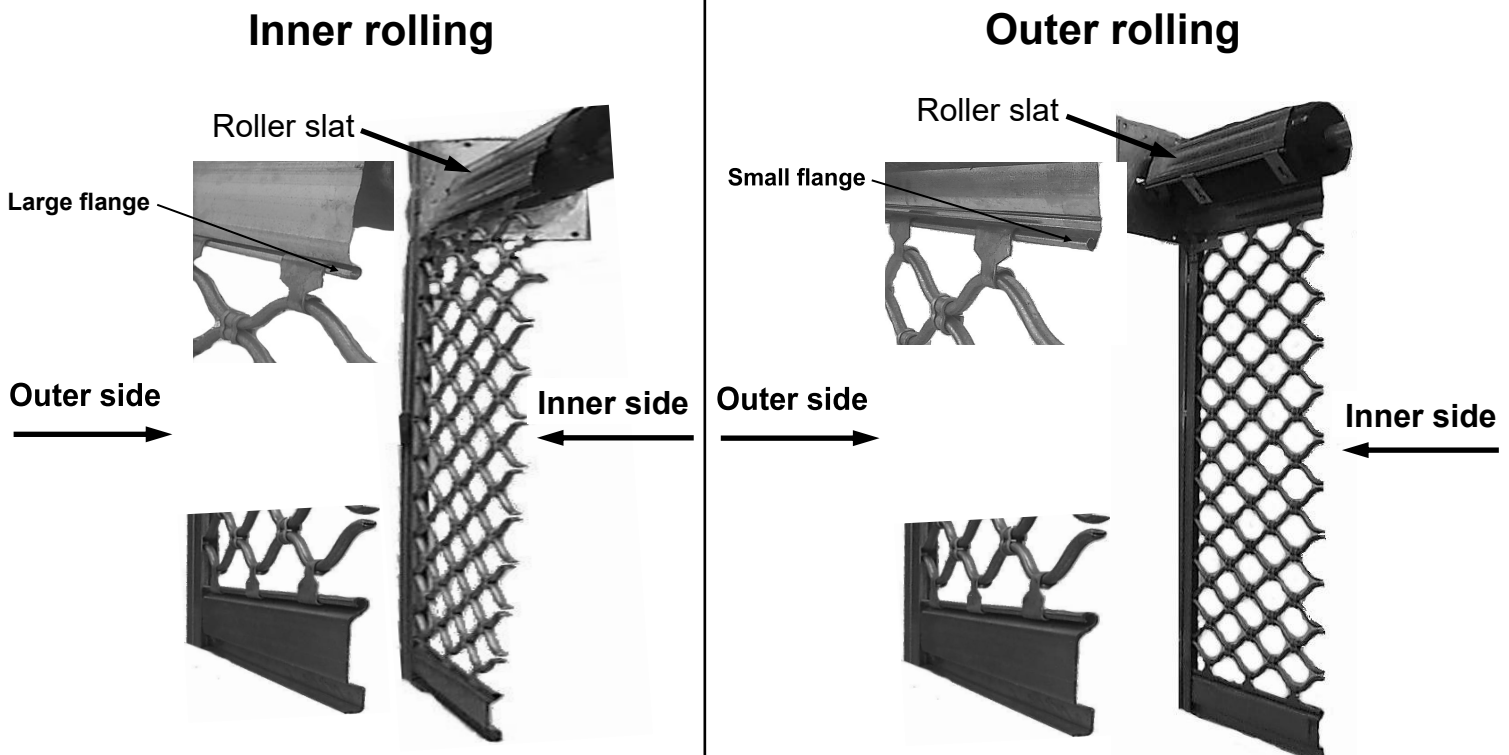
SOLID or MICROPERFORATED MURAX SHUTTER

A Microperforated shutter always requires 3 full roller slats in the upper section



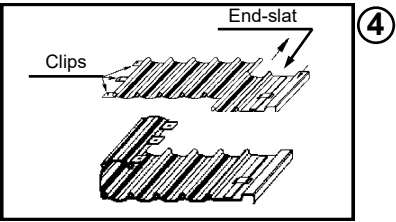
DENTEL SHUTTER

A Dentel shutter always requires 3 full roller slats in the upper section



! The height and the rolling of the shutter are calculated with a precise number of slats. All the slats provided must be installed.

4- Create the shutter by threading the slats together, without forgetting the clips. Start with the end slat.

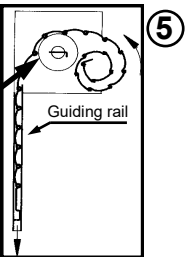


! **New and obligatory :**
 If straight guiding rail machined interior view, mount the magnet holder HOMIRIS "kit AGR-039", on the 3rd slat from the bottom (right side). The kit and the manual are provided in the package of accessories.

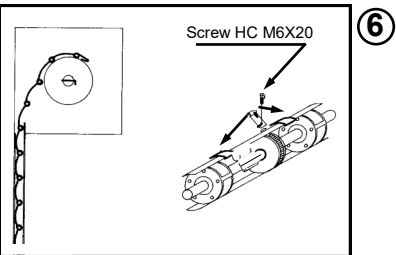
Roll the assembled shutter starting from the clips and moving towards the end-slat.

! To avoid scratching the slats while unrolling them, ensure that the axle is protected (e.g. with a box, etc.).

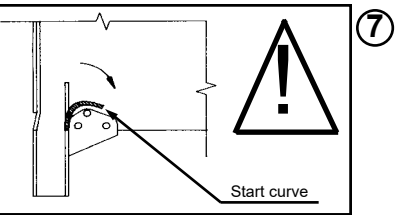
5- Unroll the shutter in the guiding rails starting from the end-slat.



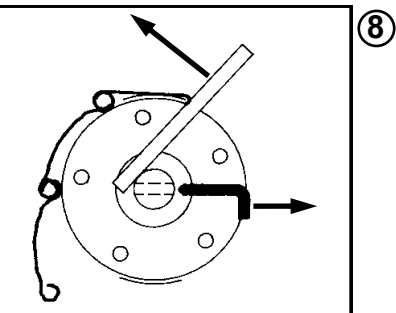
6- Attach the clips to the rounded plates in the captive nuts using the round head screws HC M6x20.



7- Adjust the starting curves.

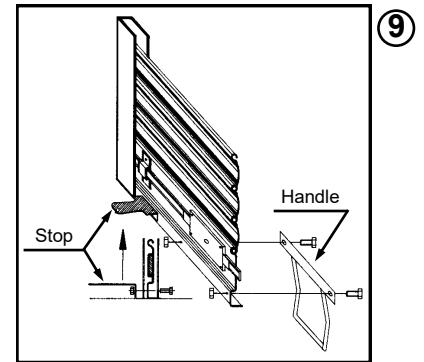


8- Remove the pins by pushing the shutter forward using a bar, while checking that the shutter clips stay attached to the rounded plates.

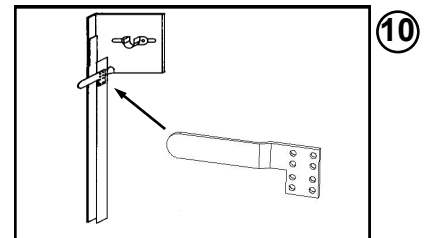


! Never unpin the spring-loaded shaft when the shutter is not properly attached.

9- Attach the 2 stops on the ends of the end slat and the handle to the center (screw TC M6x16 + nuts M6).
Between the walls, drill a passage for the lock rod behind the guiding rail.



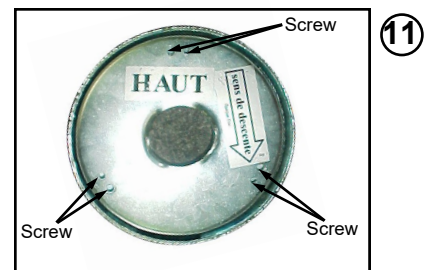
10- Mount the stops onto the guiding rails (nuts M5).
- Ensure that they stop the shutter at its highest position.



11- If the shutter is equipped with an anti-fall guard :



Ensure that the 6 screws were removed at the factory.



Please note : Shutters with a weight \leq to 120 Kg ; Are not equipped with an anti-fall guard.

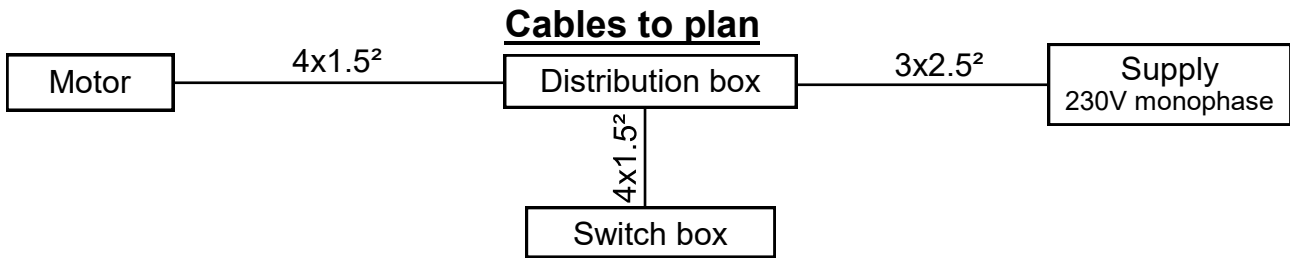
Motor connection

- The fixed controls must be installed within sight of the door but away from any moving parts and at a height of at least 1,5 m from the floor.



- Use one switch for a single motor. It is completely prohibited to order several motors with a single monopolar switch.

- In "sustained pressure" mode, only the control requiring sustained action should be installed and used.

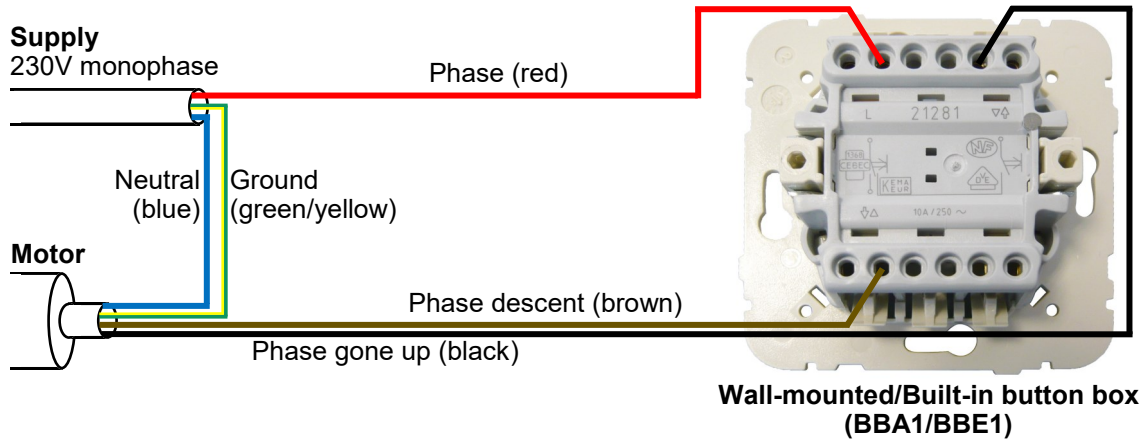


Provide protection of the supply line by a differential circuit breaker located upstream.

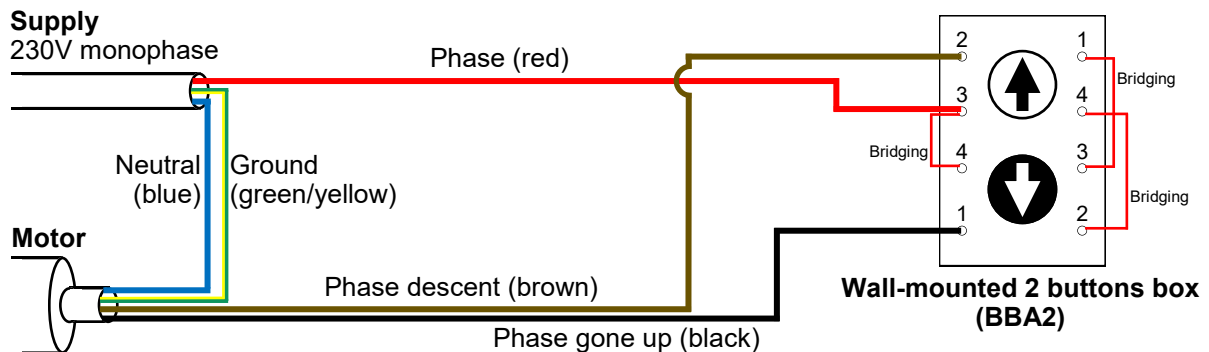
Also plan in the immediate vicinity of the motor :

- A thermal protection of the motor.
- A breaker, accessible to the user.

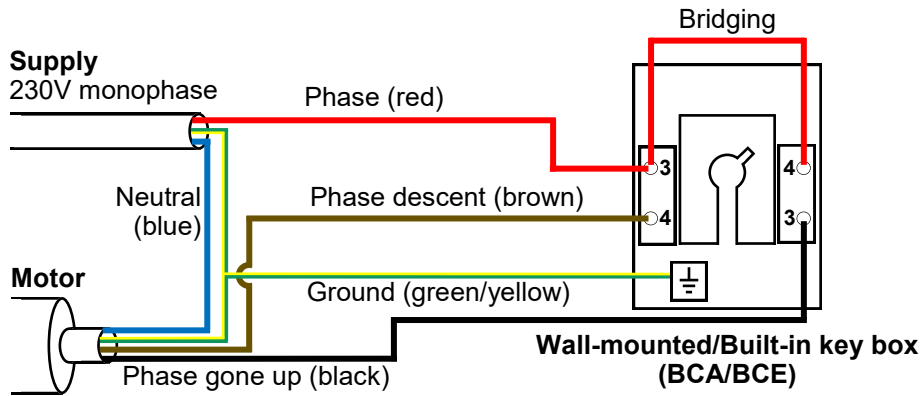
Button box



2 buttons box



Key box

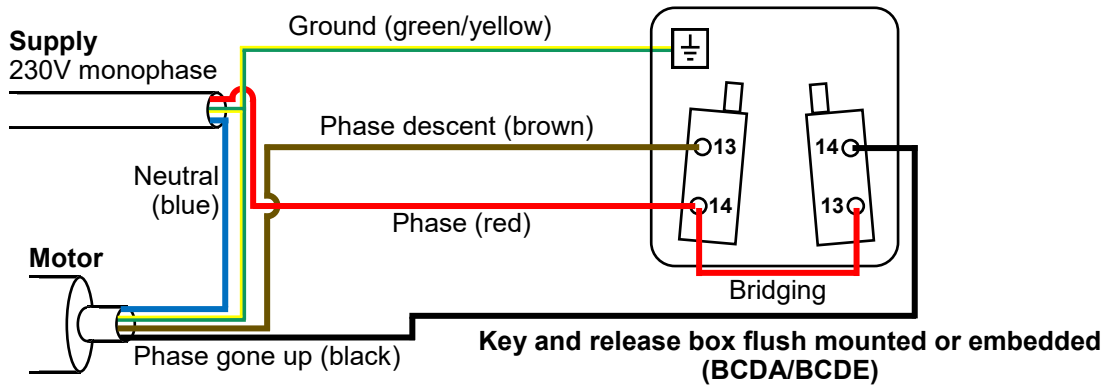


Note : To install the lid of the key box, it is necessary to present the lug of the cylinder in front of the lid of the box.

Important :

- The ground wire must be connected to the ground connector of the key box using a screw.
- Completely seal the housing with a soft sealant to the wall bracket.

Key and release box

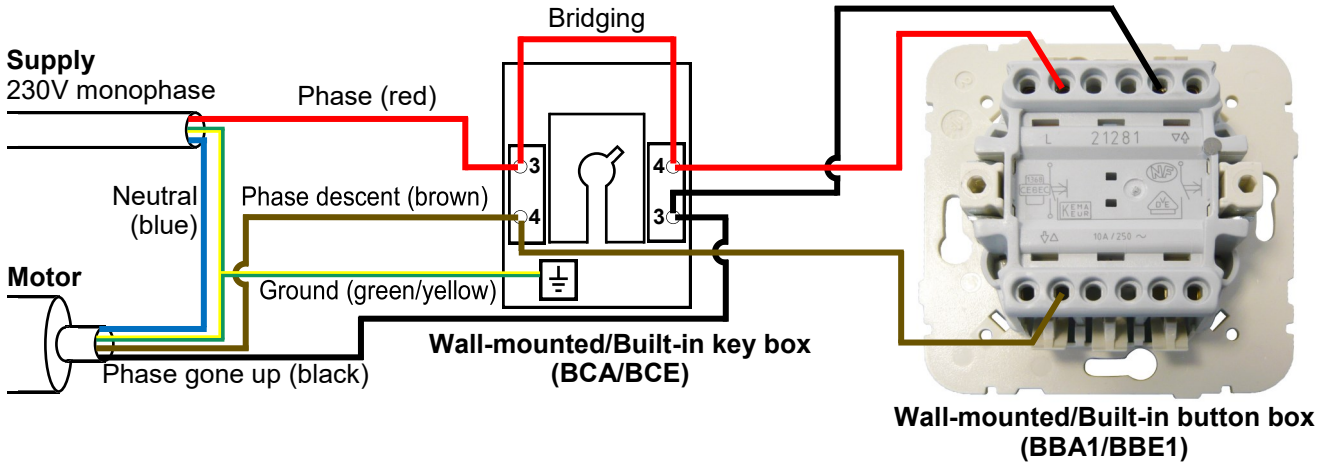


Note : To install the cable of the release system, refer to manual.

Important :

- Cable sheath must be free (unclamped, nor stuck).
- The ground wire must be connected to the ground connector of the key box using a screw.
- Completely seal the housing with a soft sealant to the wall bracket.

Key box with button box

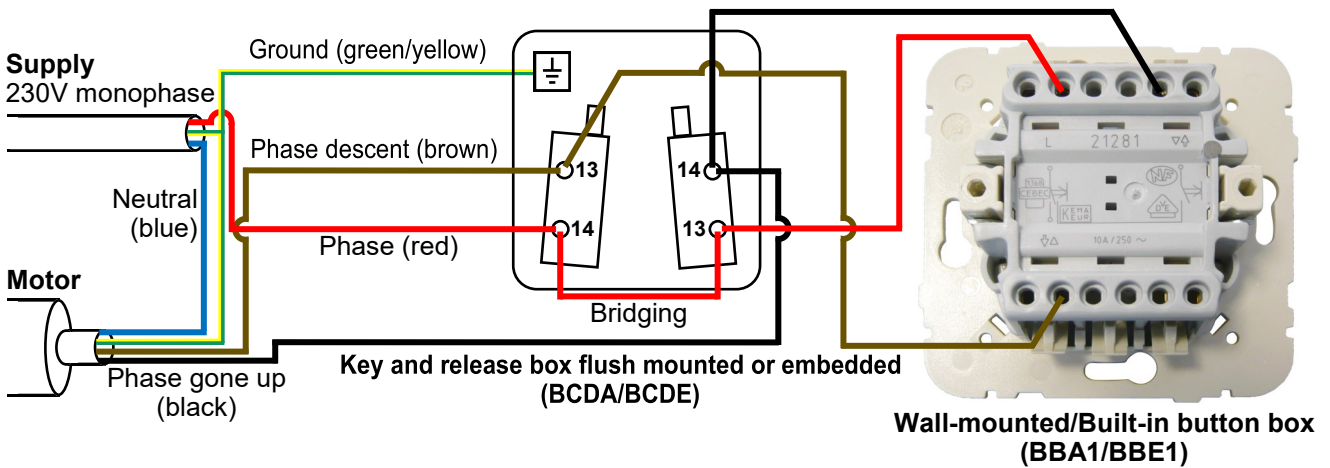


Note : To install the lid of the key box, it is necessary to present the lug of the cylinder in front of the lid of the box.

Important :

- The ground wire must be connected to the ground connector of the key box using a screw.
- Completely seal the housing with a soft sealant to the wall bracket.

Key and release box with button box

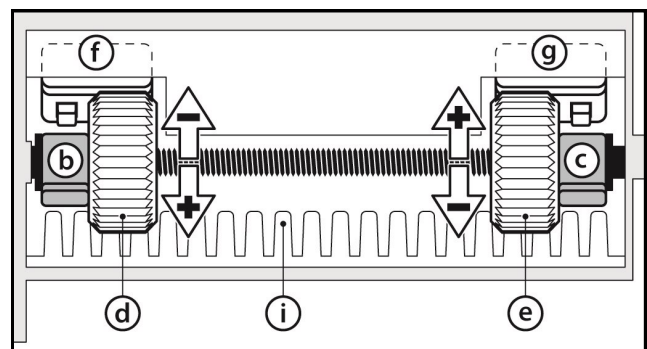
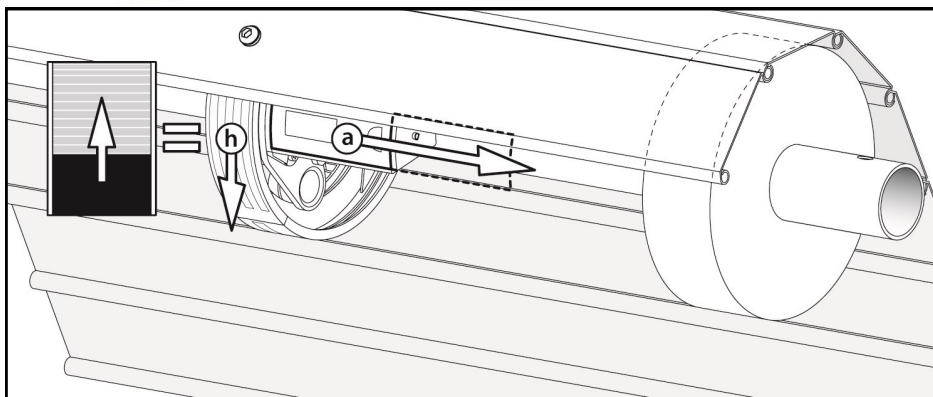
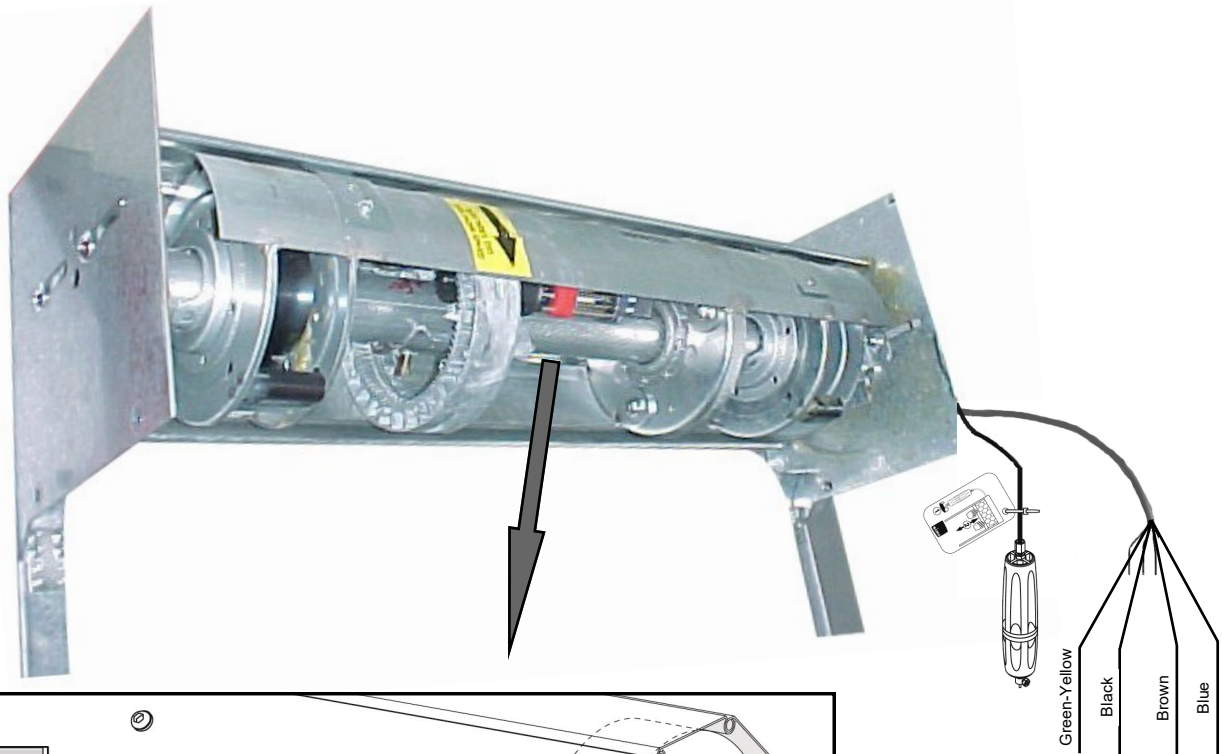


Note : To install the cable of the release system, refer to manual.

Important :

- Cable sheath must be free (unclamped, nor stuck).
- The ground wire must be connected to the ground connector of the key box using a screw.
- Completely seal the housing with a soft sealant to the wall bracket.

Limit switches settings



Mark	DESIGNATION
a	Sliding cover
b and c	Removable memories
d and e	Rotating wheel
f and g	Electrical connections
h	Ring gear motor
i	Guiding slips

Top position limit switch

1- Lift the shutter electrically to the desired top position (noise of the slats i).



**The shutter does not stop automatically ;
The limit switches are not yet active.**

2- Lower the shutter electrically and stop in the desired low position
(if necessary, tamp down the slats in order to reach the limit switch).



**The shutter does not stop automatically ;
The limit switches are not yet active.**

3- Open the sliding hood (a).

4- Remove the memory ring (b).

IMPORTANT : Make a pencil marker on the rotating wheel (d).

5- Turn the rotating wheel (d) of **2 turns** in the direction marked (-).

6- Carry out a test (**Up**) and refine the settings of the **FDC top**, by turning the wheel (d) in the direction (+) to increase the run or in the direction (-) to decrease the run.

7- The shutter must not be in constraint on the stops located on the rails.

Bottom position limit switch

1- Lower the shutter electrically and stop in the desired low position
(if necessary, tamp down the slats in order to reach the limit switch).



**The shutter does not stop automatically ;
The limit switches are not yet active.**

2- Remove the memory ring (c).

3- Turn the rotating wheel (e) in the direction marked (-), until the electrical contact (g) is activated.

4- Carry out a test (**Down**) and refine the settings of the **FDC low**, by turning the wheel (e) in the direction (+) to increase the run or in the direction (-) to decrease the run.

5- The shutter must not be in constraint on the ground.



Take the red memory rings out in order to activate the limit switches.

6- Close the sliding cover (a).

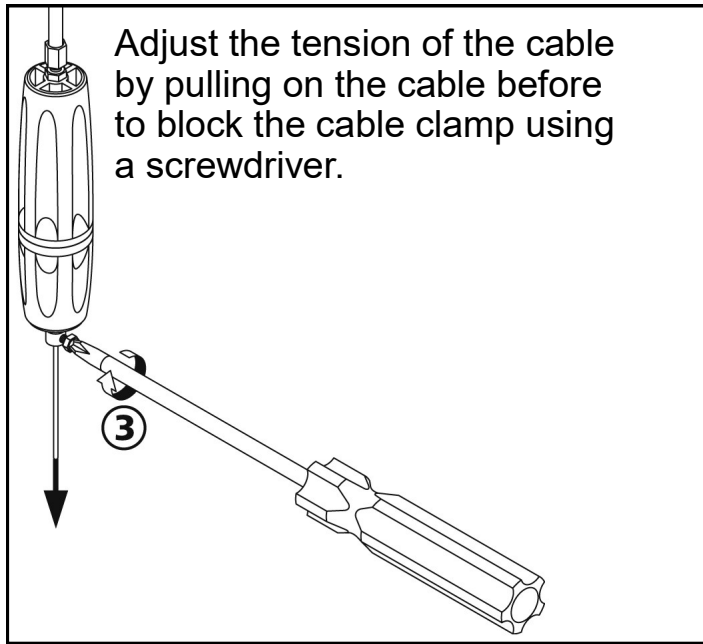
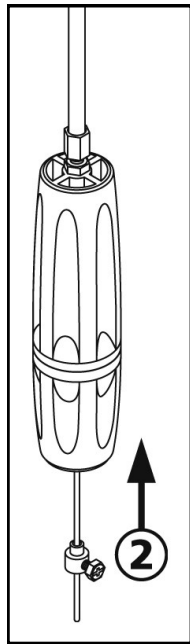
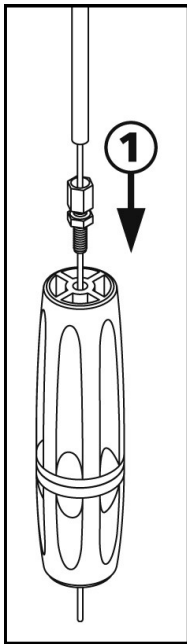
Installation of the handle of the release system



- Do not use the release system, as long as the stops on the final slat and those on the rails are not installed.
- Do not use the release handle, as long as the shutter is not fixed on the winding shaft.
- Never operate the release handle when the motor is running.



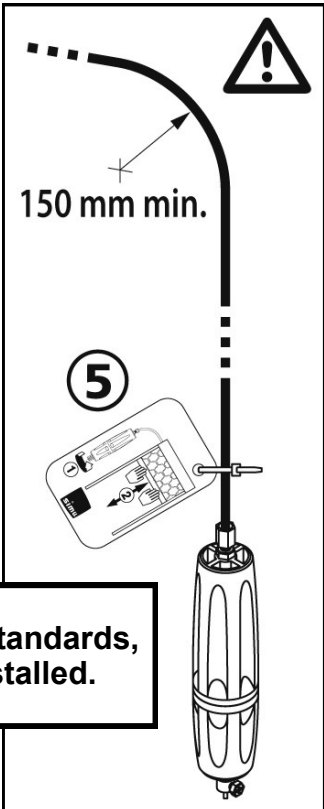
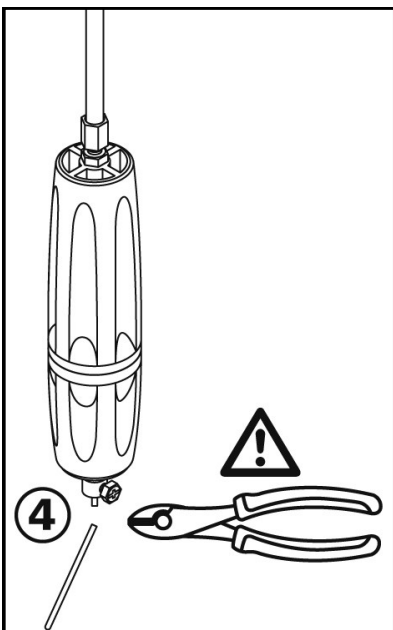
Check that cable and sheath at the exit of the motor are well into their housing.



Adjust the tension of the cable by pulling on the cable before to block the cable clamp using a screwdriver.

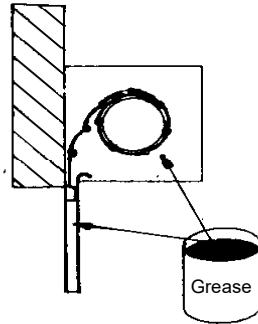


Check the operation of the release system :
Unscrew the handle until the shutter is released and manually lift the shutter.
If necessary, resume adjusting the cable tension.



To comply with the standards, this label must be installed.

Finishes

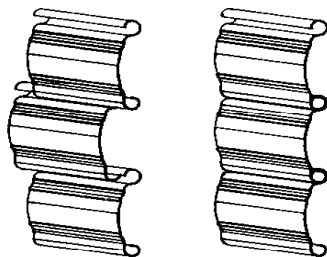


IMPORTANT !
Carefully grease the inside of the guiding rails and the winding plates

In case of problems maneuvering the shutter

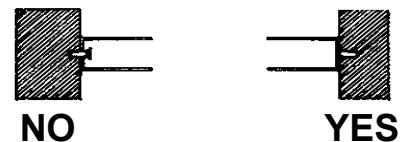
If the shutter is crooked when moving up and down

(Gap larger than 4 cm on the end-slat)

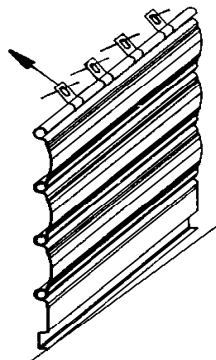


NO **YES**

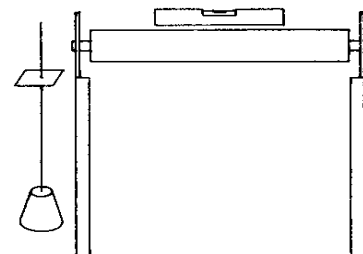
Check that the slats are correctly aligned



NO **YES**
Remove any blockages from inside the guiding rails

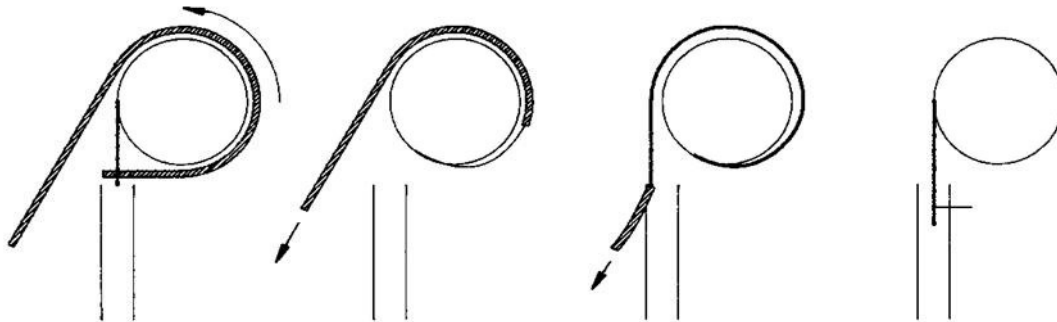


Raise the shutter from the lowest side using the clip apertures provided for this purpose



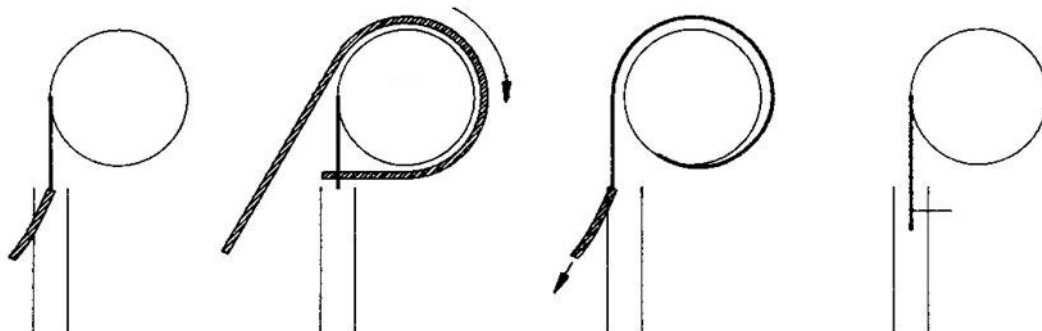
Check that the guiding rails are correctly aligned and that the axle is perfectly horizontal

If the shutter is difficult to raise and descends too quickly, tighten the springs by one rotation, in the direction of the descent.



- 1 - Reset the bottom end position by extending the trajectory and put the shutter in the high position.
- 2 - Attach a cord to the shutter, pass it around the axle and remove the stops.
- 3 - Take the shutter out of the guiding rails and rotate it once in the direction of the descent by pulling the cord.
- 4 - Reposition the shutter in the guiding rails.
- 5 - Put back the stops, remove the cord and set the end positions.

If the shutter is difficult to lower and ascends too quickly, untighten the springs by one rotation, in the direction of the ascent.

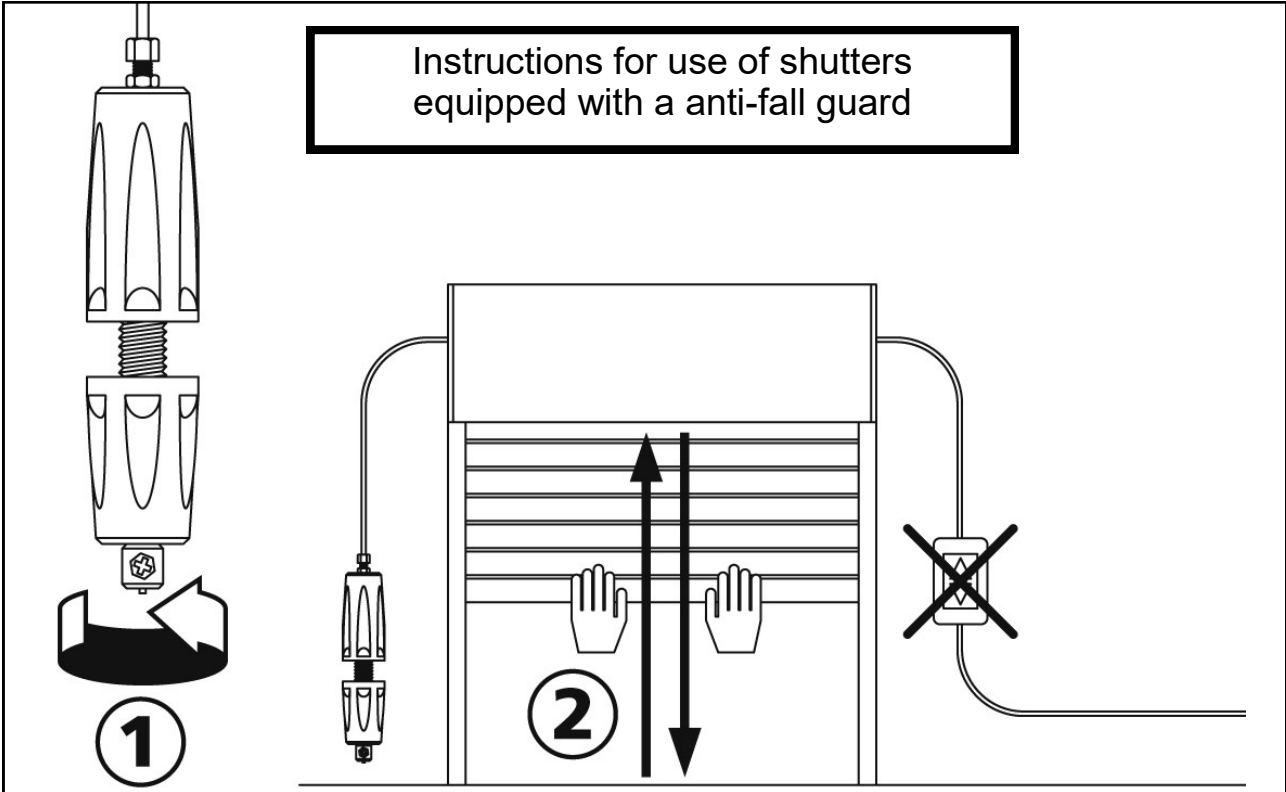


- 1 - Reset the end positions by extending the trajectory.
- 2 - Attach a cord to the shutter, and remove the stops.
- 3 - Let the shutter unroll by one full rotation carefully controlling it with the cord.
- 4 - Reposition the shutter in the guiding rails.
- 5 - Put back the stops, remove the cord and set the end positions.

Please note : The shutter must remain balanced and stable at mid-height.

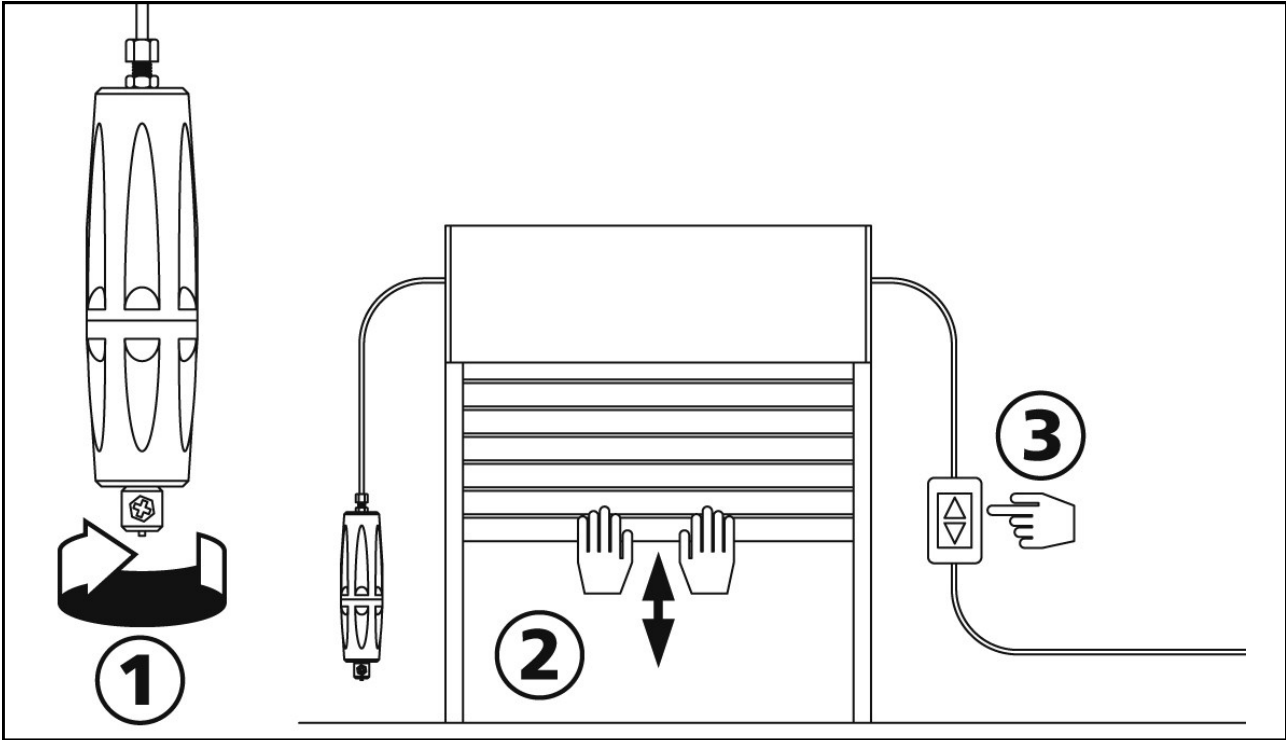
Emergency maneuver

Instructions for use of shutters equipped with a anti-fall guard



⚠ If the anti-fall guard is activated while lowering the shutter :

- Raise the shutter by 10 cm (the anti-fall guard will be released).
- Then lower the shutter again smoothly and slowly.



(Installer's stamp)