ECO FAST DOOR

USER'S AND INSTALLER'S MANUAL

Motorline® PROFESSIONAL

V1.0
REV. 05/2014

00. CONTENT

▷ INDEX

01. SAFETY INSTRUCTIONS

STANDARDS TO FOLLOW ◁

ATTENTION:

▷ To ensure the safety of people, it is important that you read all the following instructions.Incorrect installation or incorrect use of the product can cause physical injury and material damage.

▷ Keep these instructions in a safe place for future reference.

▷ This product was designed and produced strictly for the use indicated in this manual. Any other use, not expressly indicated here, could compromise the good condition/operation of the product and/or be a source of danger.

▷ **ELECTROCELOS SA** is not responsible for the improper use of the product, or other use than that for which it was designed.

▷ **ELECTROCELOS SA** is not responsible if safety standards were not taken into account when installing the equipment, or for any deformation that may occur to it.

▷ **ELECTROCELOS SA** is not responsible for the safety and proper operation when using components not sold by them.

▷ Do not make any modifications to the operator components and / or their accessories.

▷ Beffore installation unplug the automatism from the source of power.

▷ The installer must inform the client how to handle the product in case of emergency and provide this manual to user.

▷ Keep remote controls away from children, to prevent the automated system from being activated involuntarily.

▷ The customer shall not, under any circumstances, attempt to repair or tune the operator .Must call qualified technician only.

▷ Connect the automatism to a 230V plug with ground wire.

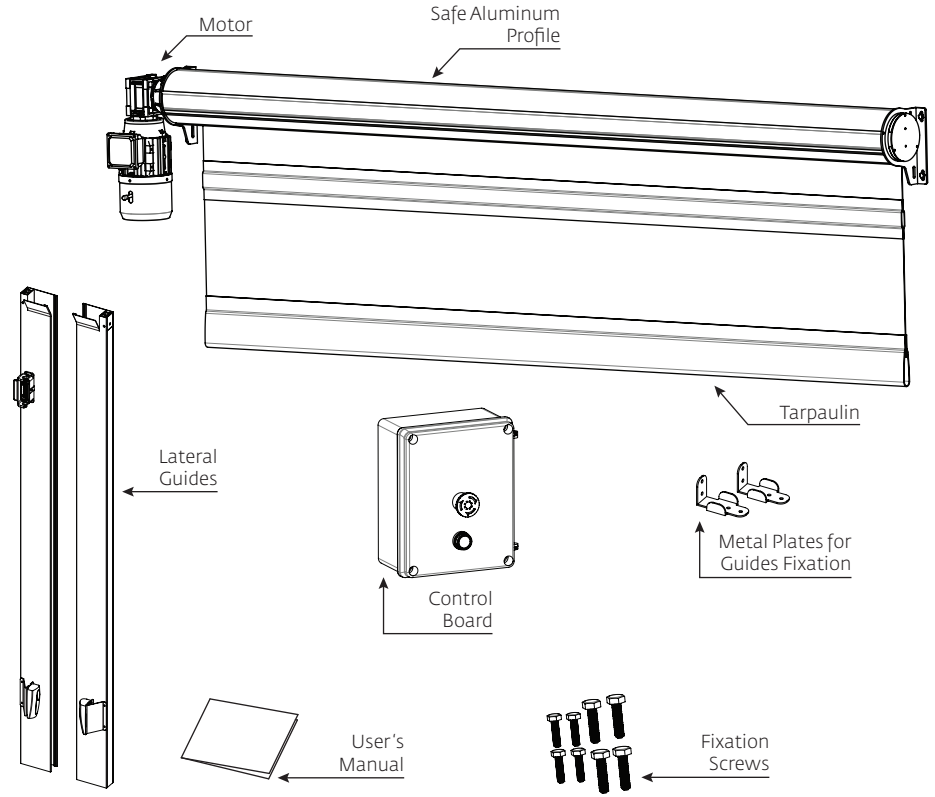
▷ Automatism for indoor use only.

02. PACKAGE

▷ INSIDE PACKAGE

Inside the package you will find the following components:

▷ **01** Motor
▷ **02** Lateral Guides
▷ **01** Safe aluminum profile
▷ **01** Tarpaulin
▷ **01** Control board
▷ **01** Photocells Set MF101
▷ **01** Exterior Push Button
▷ **01** Metal Plates for Guides FIxation
▷ **01** User's Manual



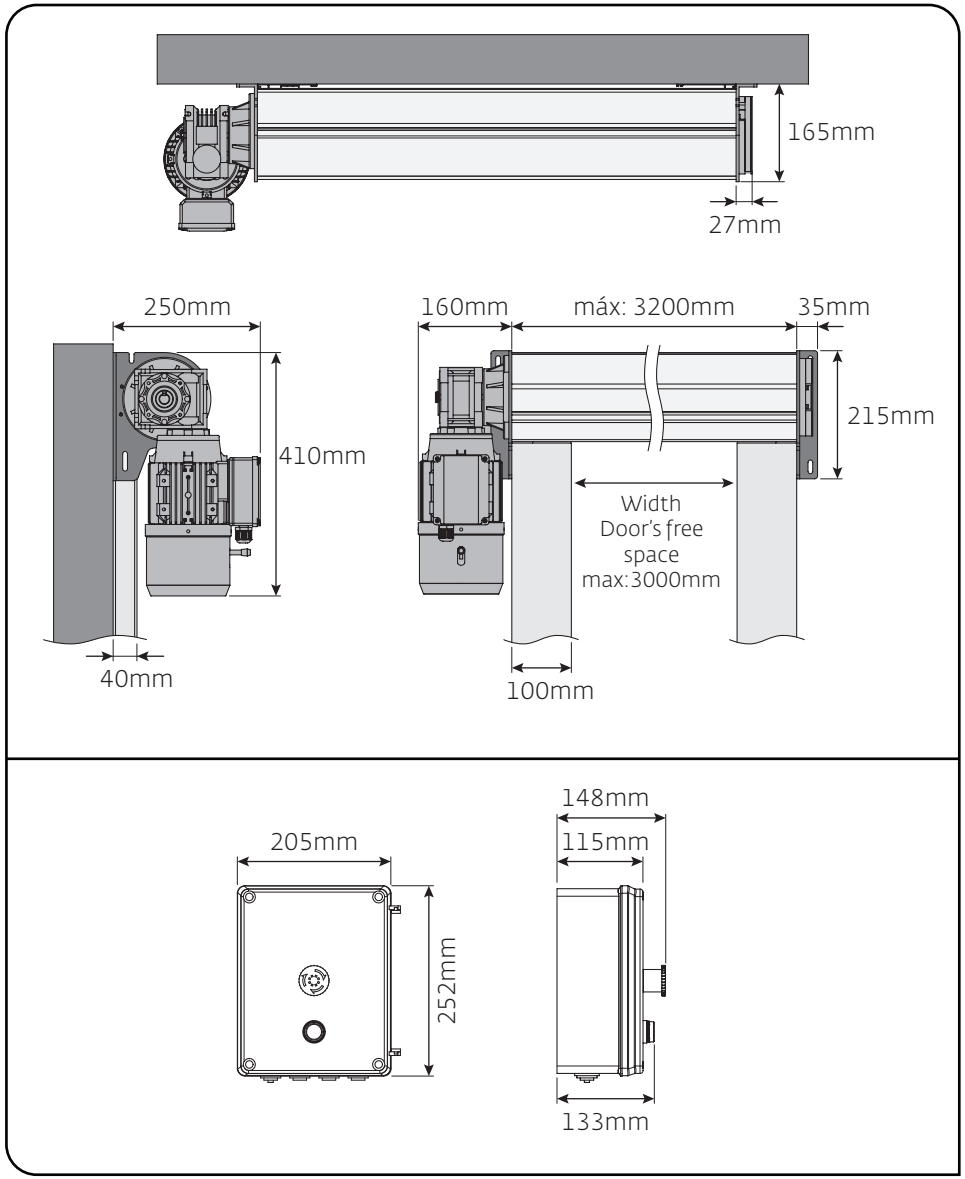
03. AUTOMATISM

TECHNICAL SPECIFICATIONS ◁

MOTOR	▷ Power supply	230V 50/60Hz
	▷ Power	250W
	▷ Current	1,92A
	▷ RPM	132RPM
	▷ Noise level	<60dB
	▷ Torque	18,1Nm
	▷ Working temperature	-30°C to 70°C
	▷ Protection level	IP55
	▷ Working frequency	Intensive
	▷ Isolation class	Class F
	▷ Working capacitator	16µ
	▷ Starting up capacitator	20µ
CONTROL BOARD MC115	▷ Power supply	230V 50/60Hz
	▷ Working temperature	-40°C to 65°C
	▷ Protection level	IP55
	▷ Working frequency	Intensive
	▷ Courtesy light output	230V100W
	▷ RGB LEDs output	24V100mA
	▷ Maximum power output for motor	750W
	▷ Acessory power supply output	24V 6W
	▷ Dimensions	108x138mm
TARPAULIN	▷ Wire	1100 dtex PES HT
	▷ Weight	670g/m²
	▷ Tensile strength	2800N/5cm
	▷ Tear strength	300N
	▷ Adhesion	90N/5cm
	▷ Finish	Varnished both sides
	▷ Working temperatures	-30°C to 70°C

03. AUTOMATISM

▷ TECHNICAL SPECIFICATIONS



04. AUTOMATISM

PRE-INSTALLATION INFO ◁

For a proper **ECO FAST DOOR** function, check the following parameters before installing the automatismo:

▷ Read all steps at least once in order to get familiar with the installation and configuration process.

▷ Check the horizontal alignment of the ground so that the door can be correctly assembled.

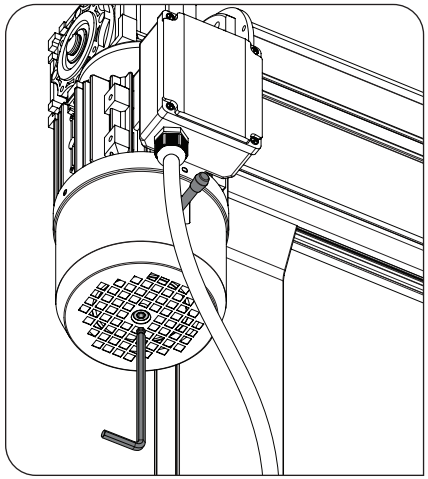
▷ Make sure there is an adequate protection against electrical shorts / current peaks and ground wire connection in Electrical Box.

▷ Be careful handling directly the control board. Improper handling can damage some electrical components and even cause damage to the user.

▷ Make sure you have all the necessary materials prepared for installation.

▷ Evaluate the safety devices to be installed. This will ensure that unexpected accidents do not happen.

MANUAL OPENING/CLOSING ◁



To open or close the door manually, simply pull and hold down the unlock lever in the shaded image and use a 6mm hexagon wrench to rotate the screw installed in the bottom of the engine, as shown on the image.

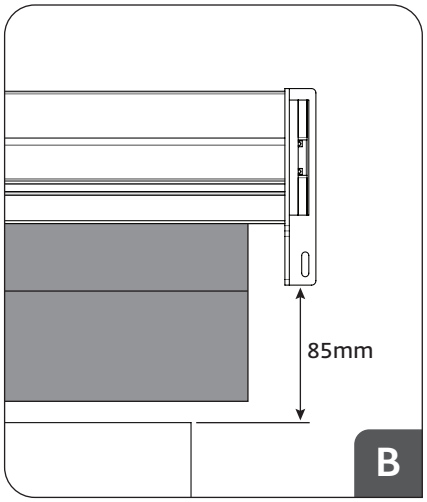
▷ Rotating to the right will open the door and Rotating to the left will close it.

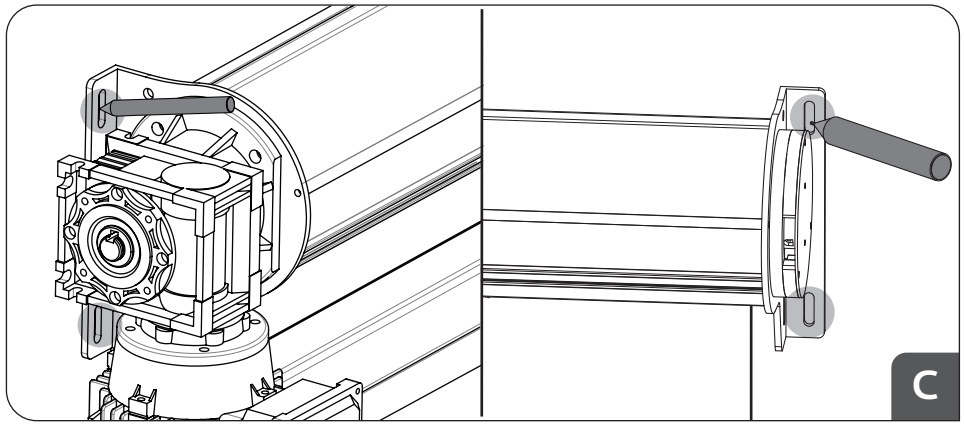
To facilitate the task use an automatic screw machine, in order to rapidly rotate the screw.

- For every 10 turns, the door will go up / down about 250mm.

It is very important that all precautions are respected!
Only in this way the correct functioning and durability of automatism can be achieved!

▷ SAFE PROFILE FIXATION



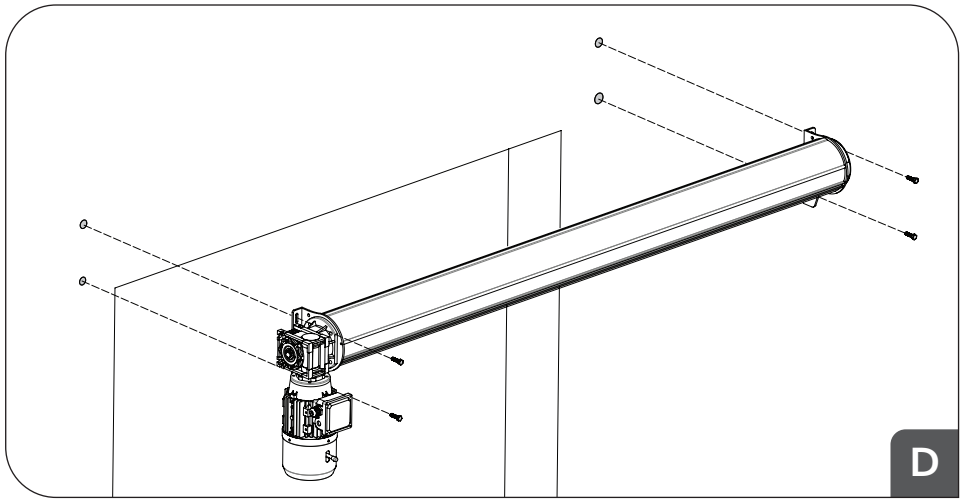


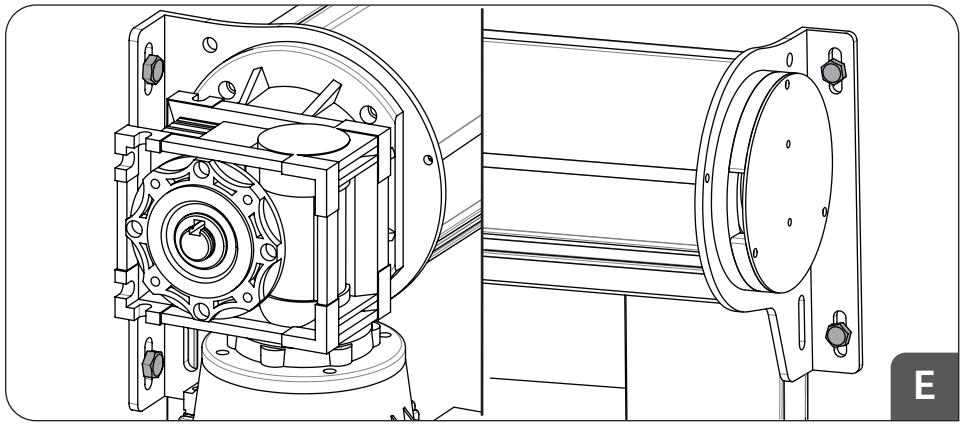
1▷ Apply the safe aluminum profile in the wall's installation location as shown in (**A**), taking into account the horizontal position and the measures indicated in (**B**).
The safe should also be centered with the door's free space.

Based on existing holes in the support plates, mark the locations for drilling - scheme (**C**).

04. INSTALLATION

SAFE PROFILE FIXATION ◁

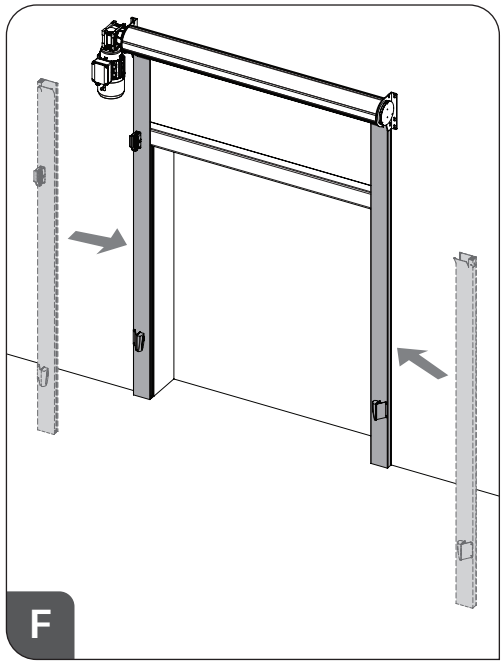


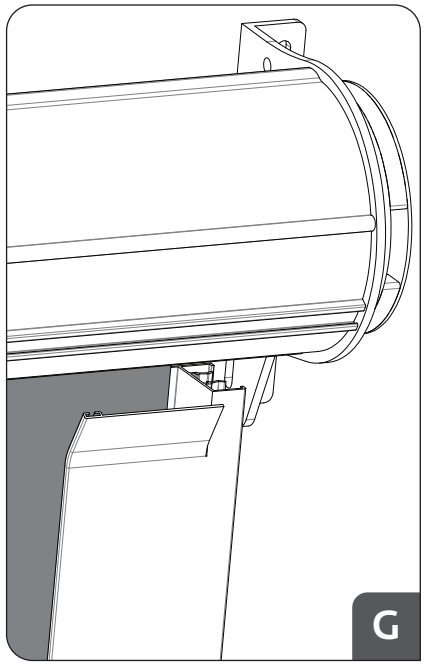


2▷ Make holes at the marked locations, and then apply the safe profile on the wall and secure with expansion bolts and screws - scheme (**D**).
The safe must be firmly fixed so that accidents do not occur.

In the scheme (**E**) is visible the safe already properly tightened.

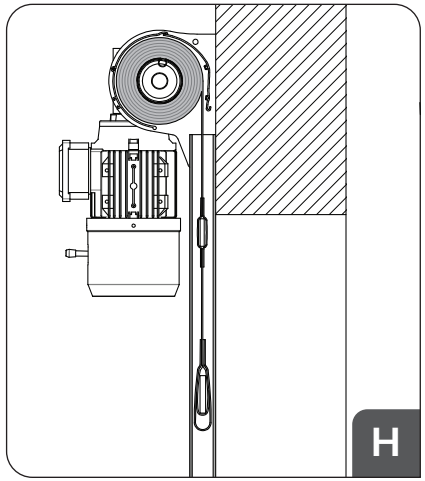
▷ LATERAL GUIDES FIXATION



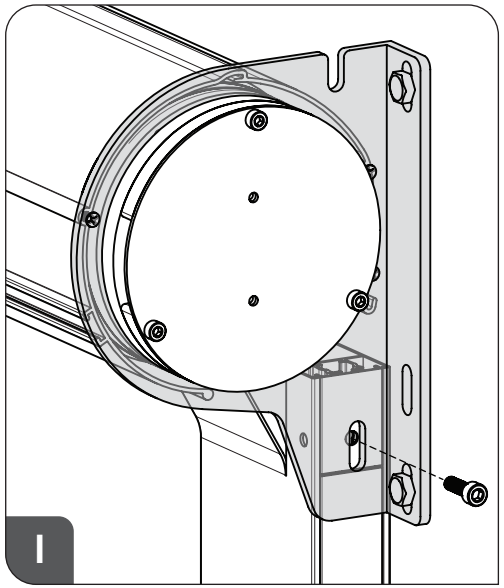


3▷ Unlock the motor pulling the lever down (see page 06.A 05) and manually pull the tarpaulin down for about 500mm as visible in (**F**).

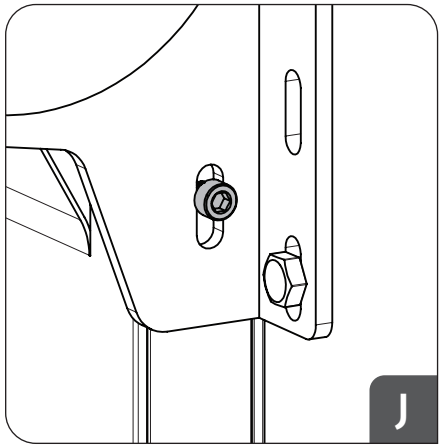
Now apply the lateral guides, by placing them at the inner side of the support plates and against the wall (**G**).
The tarpaulin should be inside the guides (**H**), so that it can move up and down always within guides.

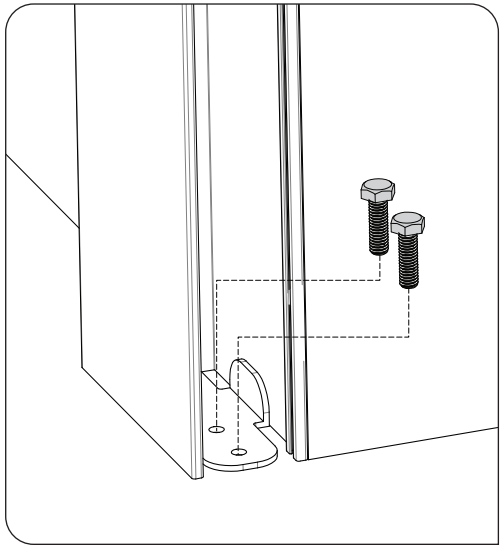


LATERAL GUIDES FIXATION ◁



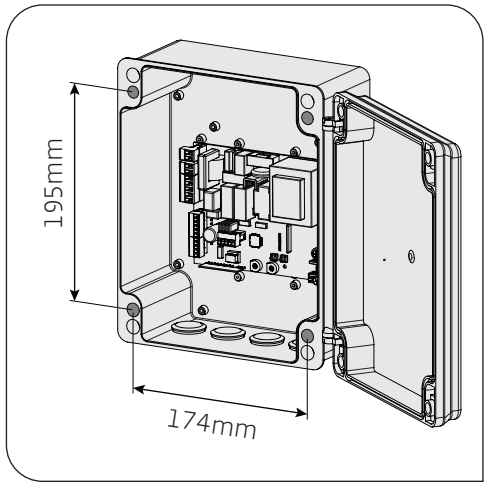
4▷ Attach the lateral guides on the support plates with screw, tightening them in the nuts located on the guides.

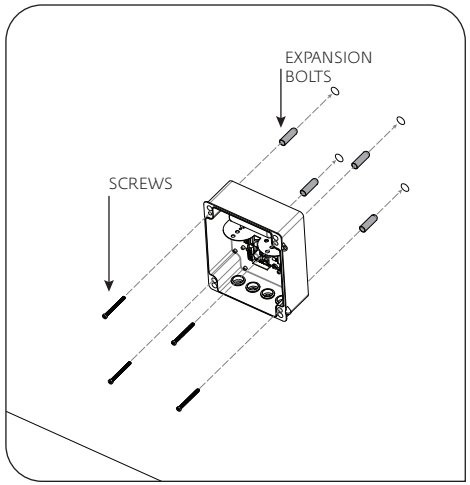


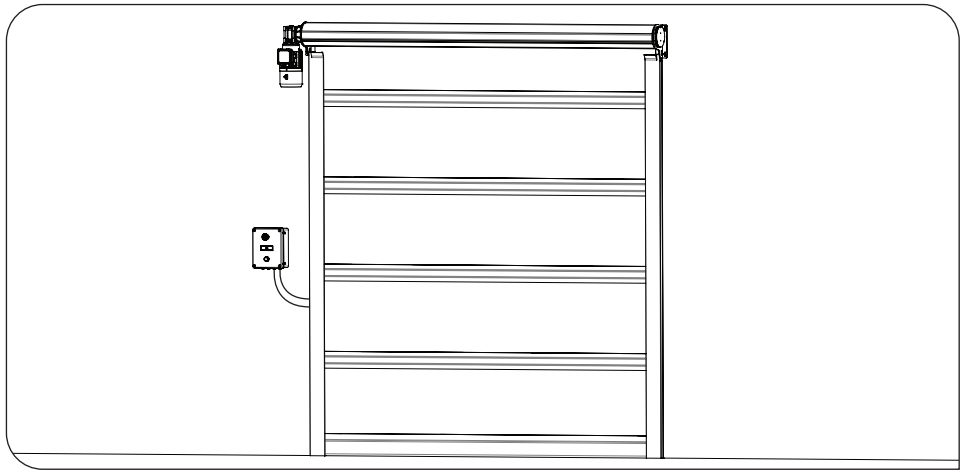


5▷ Fix the lateral guides to the ground using the existing plates. Start by making the holes in the ground using the existing holes on plates for the application of screws. Finally, fasten the screws until the guide is properly secure.

▷ CONTROL BOARD FIXATION



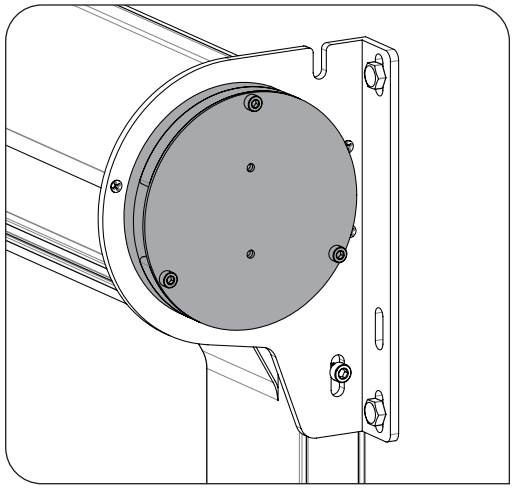


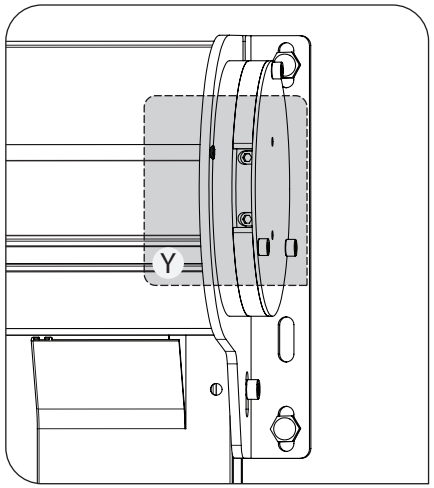


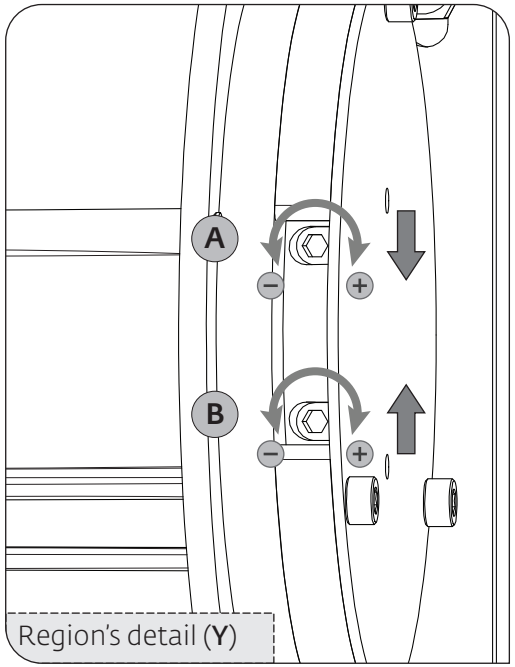
1▷ Taking into account the indicated measures, determine the drilling location.
2▷ Make the drilling in the wall.
3▷ Fix the control board case on the wall. Must use screws with expansion bolts (screws and expansion bolts not provided in this kit).

04. INSTALLATION

LIMIT-SWICHES ADJUSTMENT ◁







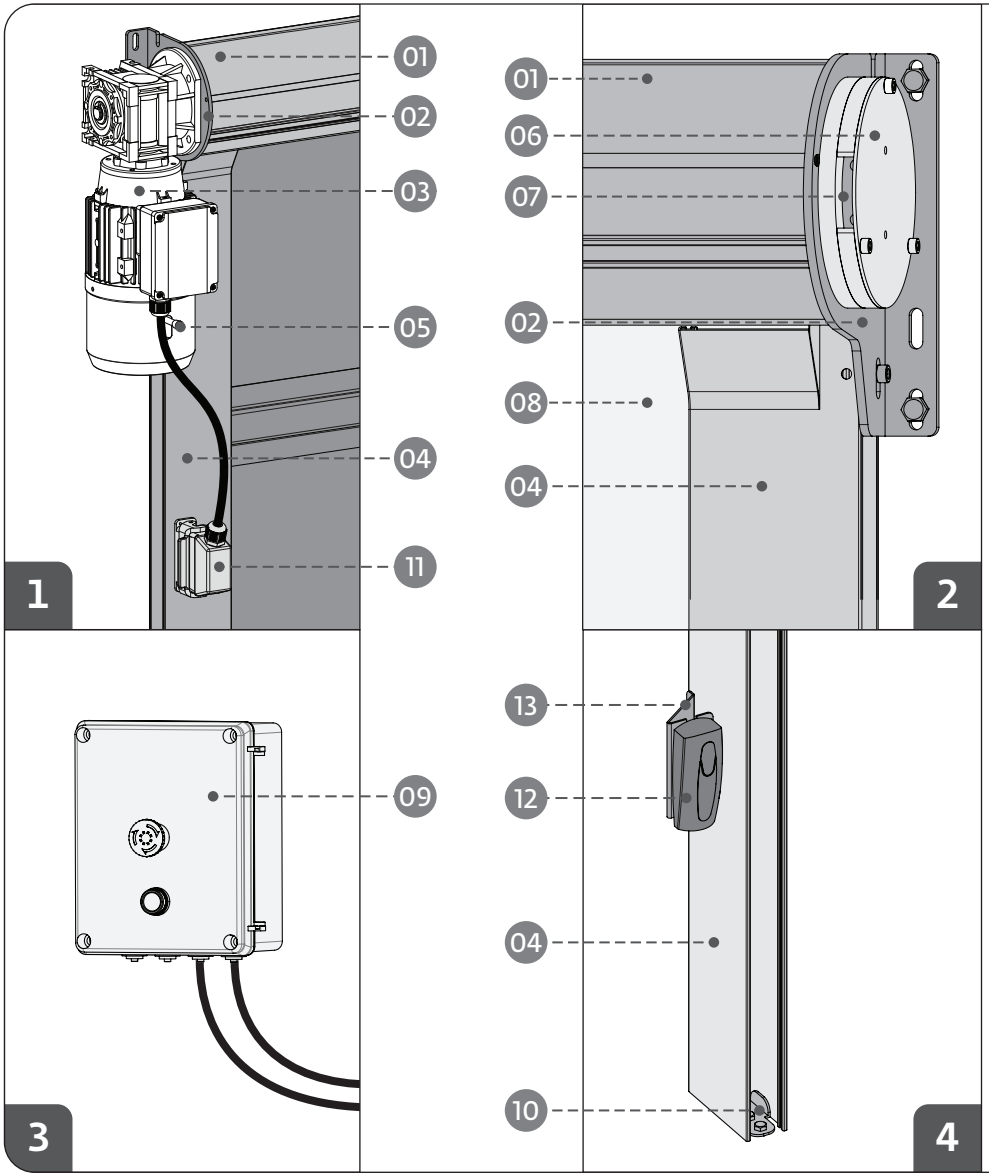
A ▷ Closing limit-switch
▷ Turn clockwise to increase course
▷ Rotate counterclockwise to decrease course

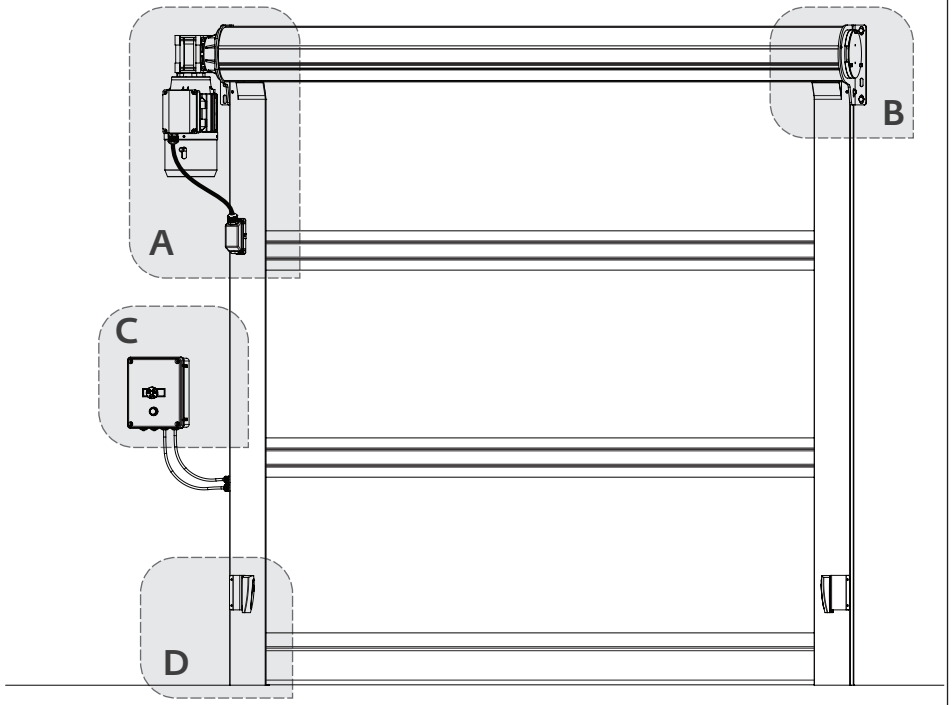
B ▷ Opening limit-switch
▷ Turn clockwise to increase course
▷ Rotate counterclockwise to decrease course

NOTE ▷ The limit-switches will already be adjusted from factory to the door dimensions.

04. INSTALLATION

▷ INSTALLATION MAP





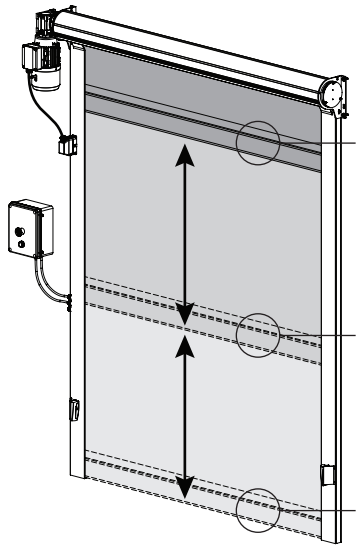
LEGEND:

01 ▷ Aluminum safe profile
02 ▷ Safe profile's support plate
03 ▷ Motor
04 ▷ Lateral guides
05 ▷ Motor unlock lever
06 ▷ Limit-switches support
07 ▷ Limit-switches
08 ▷ Tarpaulin
09 ▷ Control board
10 ▷ Guides fixing metal plates to ground
11 ▷ Conection Plug
12 ▷ Photocells
13 ▷ Photocells support plate

05. MC15 CONTROL BOARD CONFIG

▷ LIMIT-SWITCHES VERIFICATION

The first step in programming the control board is to check all the connections from the multiple devices to the control board. Check the wiring (pag.11 A).



Open:
- The **LED FAP** must turn off and the **LED FCH** must remain on.

Middle Course:
- The **LEDs FAP and FCH** must remain on.

Closed:
- The **LED FCH** must turn off the **LED FAP** must remain on.

After checking the connections, make sure the limit switches are working properly.

▶ Check the Limit-Switches:

1▷Unlock the motor pulling the unlock lever (pag 07.A 05) and manually pull the door to the middle course (pag 03.B).
2▷ Check if the **LEDs FCH** and **FAP** are on. If not, check if the connections are properly made.
3▷ Manually close the door and **FCH LED** must turn off.
4▷ Manually open the door and **FAP LED** must turn on.

If LEDs do not go off as explained, it means that the limit switches cables are not well connected. Switch the wires from terminals 7 and 9 of CN3 connector.

⚠ The whole process of programming the limit-switches must be performed with the control board connected to a 230V power source.

05. MC15 CONTROL BOARD CONFIG

DOOR'S COURSE PROGRAMMING ◁

⚠ The **LEDs BL e DS** must be both **ON** so that the door can work properly. If they are not, check the connections of the security devices. In case you don't use any security device, please close all circuits with shunts.

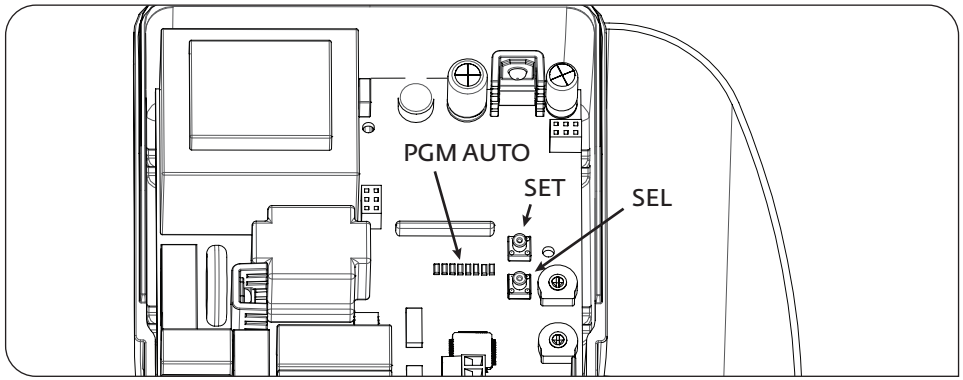
You must start the configuration with both potentiometers at middle adjustment. The final adjustment will be made after programming the door's course.

▶ Programming the door's course:

1▷ Unlock the motor pulling the lever down (pag. 07.A 05).
2▷ Push the tarpaulin manually untill middle course and release the lever to lock the motor.
3▷ Press the **SEL** key and the **LED CODE** will start to blink. Press again the **SEL** key as many times as you need until the **LED PGM AUTO** starts blinking.
4▷ Press and hold **SET** key and the door **must start to close**!

⚠ **WARNING: If the door starts opening, release the SET key,** switch the cables of the terminals 5 and 7 of CN2 connector and restart this programming.

5▷ Let the door **close, open and close once again automatically**, always keeping the **SET** key pressed.
6▷ Once the door finishes closing for the second time, the **LED PGM AUTO** will stay **ON** permanently and the **LED T.MOTOR** will start to blink. Release **SET** key and wait 10seconds until the **LED T.MOTOR** stops from blinking.
7▷ The programming is now complete and you can use the door normally.



05. MC15 CONTROL BOARD CONFIG

▷ PAUSE TIME CONFIGURATION

The **pause time** is the time that the door stays paused since it completes the opening maneuver until it starts to close automatically.

▶ Programming the pause time in automatic mode:

1▷ Press the **SEL** key one time and the **LED CODE** will start blinking. Press again the **SEL** key as many times as you need until the **LED T.PAUSA** starts blinking.
2▷ Press **SET** one time and wait as much time as you want for pause time.
3▷ Press **SET** one time after waiting the desired time and the pause time is defined.

▷ POTENTIOMETERS

▶ Adjust sensibility and force potentiometers:

The force potentiometer controls the force of the motor when opening and closing.
The sensibility potentiometer controls the sensibility of the control board when detecting obstacles. The more sensitive it is the quicker it will detect any obstacle during it's course and invert the orientation of working of the motor.

1▷ To adjust potentiometers, run them with a small screwdriver. Turning to the right side, will increase and turn to the left will decrease.

⚠ **NOTE:** Everytime you make an adjustment to the force potentiometer, you must perform a new door's course configuration (see page 08.B).

05. MC15 CONTROL BOARD CONFIG

TRANSMITTERS CONFIGURATION ◁

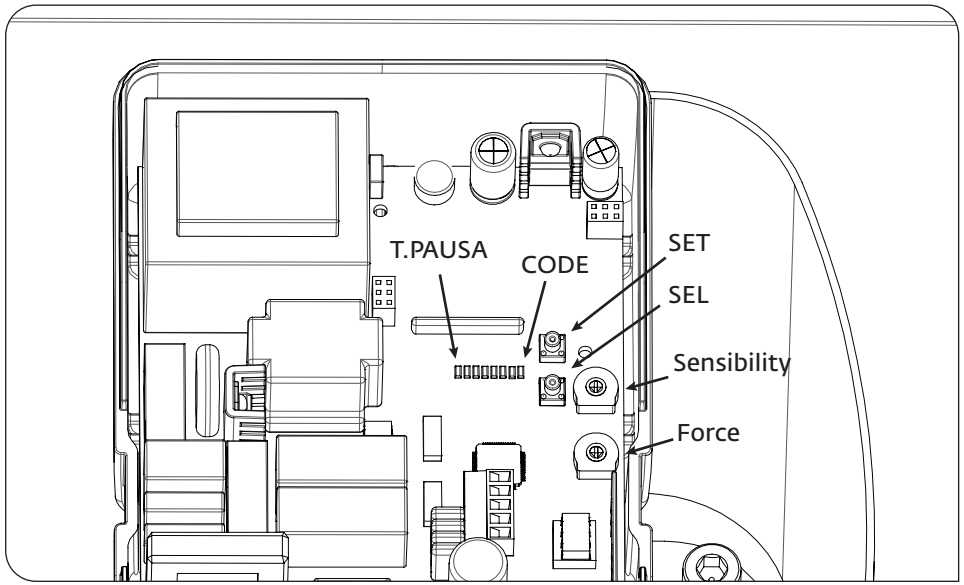
▶ Programming transmitters:

1▷ Press one time the **SEL** key and the **LED CODE** will start blinking.
2▷ Press one time the transmitter key you want to operate the door.
3▷ When pressing the transmitter key, the **LED CODE** must turn and stay **ON** signaling the success of the configuration.
If the LED CODE doesn't stay ON, the transmitter was not programmed. Please repeat the same steps to try once again.

NOTE: To program several transmitters, repeat the same steps above for each one of the transmitters.

▶ Erase transmitters:

1▷ Press one time the **SEL** key and the **LED CODE** will start blinking.
2▷ Press and hold the **SEL** key for about 5 seconds until the **CODE LED** turns off, indicating the memory's reset success.



06. TROUBLESHOOTING

▷ INSTRUCTIONS FOR FINAL USERS | INSTRUCTIONS FOR INSTALLERS ◁

Anomaly	Procedure	Behavior	Procedure II	Discovering the origin of the problem
▷ Door doesn't work	▷ Make sure you have 230V power supply connected to operator and if it is working properly.	▷ Still not working	▷ Consult a qualified MOTORLINE technician.	1 ▷ Open control box and check if it has 230V power supply; 2 ▷ Check input fuses; 3 ▷ Disconnect door from control board and test them by connecting directly to power supply in order to find out if they have problems (see page 11.A). 4 ▷ If the door works, the problem is on the control board. Pull it out and send it to our MOTORLINE technical services for diagnosis; 5▷ If the door doesn't work, remove them from installation site and send to our MOTORLINE technical services for diagnosis.
▷ Door doesn't move but makes noise	▷ Unlock door and move the tarpaulin by hand to check for mechanical problems on the movement	▷ Encountered problems?	▷ Consult a qualified MOTORLINE technician.	1 ▷ Check all motion axis and associated motion systems related with the door to find out what is the problem.
		▷ The tarpaulin moves easily?	▷ Consult a qualified MOTORLINE technician.	1 ▷ Check capacitors, testing operator with new capacitor; 2 ▷ If capacitors are not the problem, disconnect motor from control board and it them by connecting directly to power supply in order to find out if it has problems (see page 11.A). 3 ▷ If the motor works, the problem is from control board. Pull it out and send it to our MOTORLINE technical services for diagnosis; 4 ▷ If the motor doesn't work, remove them from installation site and send to our MOTORLINE technical services for diagnosis.
▷ Door opens but doesn't close	▷ Unlock motor and move tarpaulin by hand to closed position. Lock motor again and turn off power supply for 5 seconds. Reconnect it and send order to open door using transmitter.	▷ Door opened but didn't close again	1 ▷ Check if there is any obstacle in front of the photocells; 2 ▷ Check if any of the control devices (key selector, push button, video intercom, etc.) of the door are jammed and sending permanent signal to control unit; 3 ▷ Consult a qualified MOTORLINE technician.	All **MOTORLINE** control boards have LEDs that easily allow to conclude which devices are with anomalies. All safety devices LEDs (DS) in normal situations remain On. All "START" circuits LEDs in normal situations remain Off. If LEDs devices are not all On, there is some security systems malfunction (photocells, safety edges), etc. If "START" circuits LEDs are turn On, there is a control device sending permanent signal. **A) SECURITY SYSTEMS:** 1 ▷ Close with a shunt all safety systems on the control board (check manual of the control board in question). If the automated system starts working normally check for the problematic device. 2 ▷ Remove one shunt at a time until you find the malfunction device . 3 ▷ Replace it for a functional device and check if the motor works correctly with all the other devices. If you find another one defective, follow the same steps until you find all the problems. **B) START SYSTEMS:** 1 ▷ Disconnect all wires from START terminal input (terminal 3 of CN3 connector). 2 ▷ If the LED turned Off, try reconnecting one device at a time until you find the defective device. **NOTE:** In case procedures described in sections **A)** and **B)** don't result, remove control board and send to our technical services for diagnosis.
▷ Door doesn't make complete route	▷ Unlock door and move boom by hand to check for mechanical problems on the door.	▷ Encountered problems?	▷ Consult a qualified MOTORLINE technician.	1 ▷ Check all motion axis and associated motion systems related with the door to find out what is the problem.
		▷ Tarpaulin moves easily?	▷ Consult a qualified MOTORLINE technician.	1 ▷ Check capacitors, testing with new capacitors; 2 ▷ If capacitors are not the problem, disconnect motor from control board and test it by connecting directly to power supply in order to find out if it is broken; 3 ▷ If the motor doesn't work, remove it from installation site and send to our MOTORLINE technical services for diagnosis. 4 ▷ If motor work well and move door at full force during the entire course, the problem is from controller. Set force using trimmer on the board. Make a new working time programming , giving suffient time for opening and closing with appropriate force (page 08.B). 5 ▷ If this doesn't work, remove control unit and send it to MOTORLINE technical services services. **NOTE**: Setting force of the controller should be sufficient to make the door open and close without stopping, but should stop and invert with a little effort from a person. In case of safety systems failure, the door shall never cause physical damaged to obstacles (vehicles, people, etc.).

07. CONTROL BOARD CONNECTIONS

▷ CENTRAL MC15 MOTORLINE