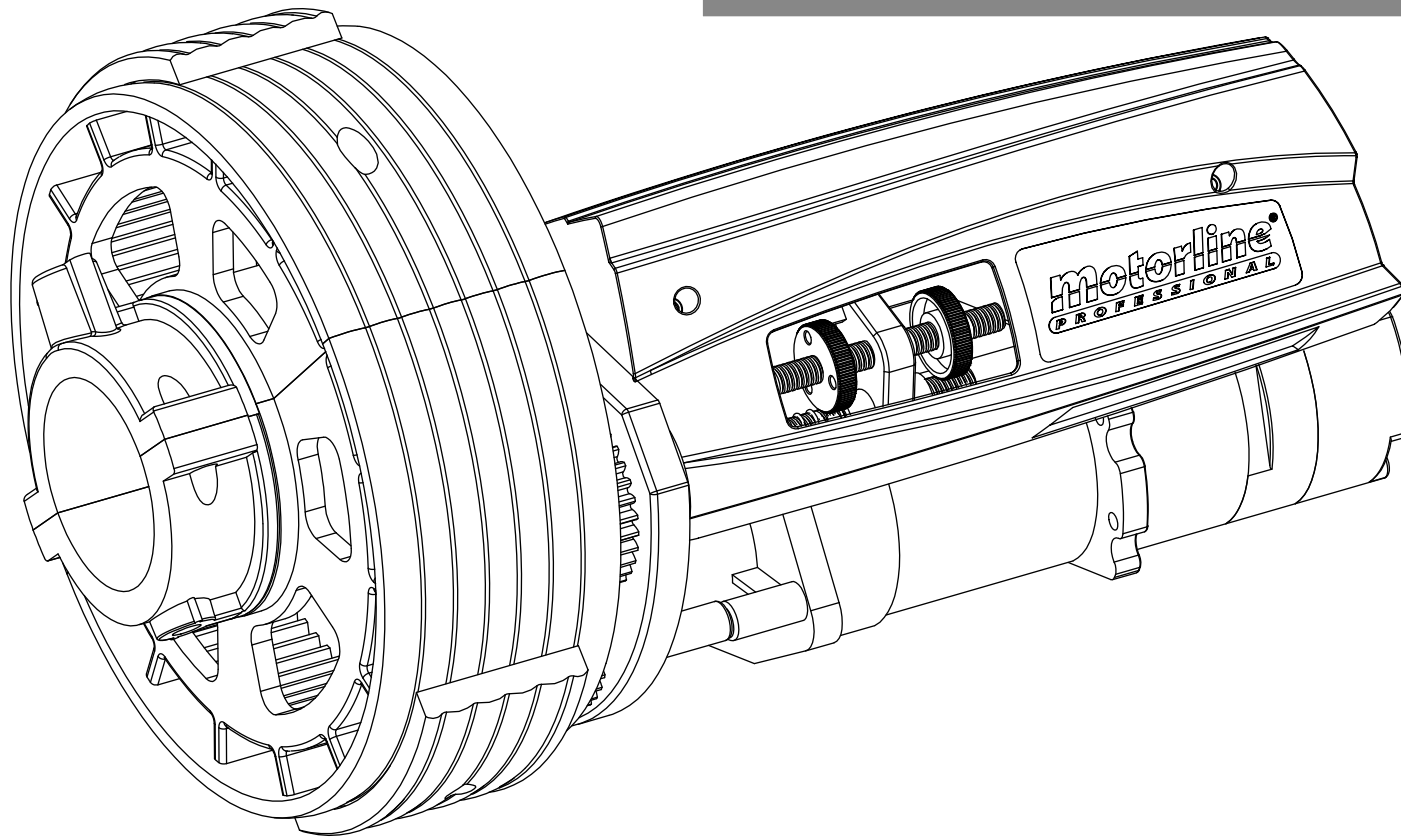




USER'S AND INSTALLER'S MANUAL



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01. SAFETY INSTRUCTIONS

STANDARDS TO FOLLOW

ATTENTION:

	This product is certified in accordance with European Community (EC) safety standards.
	This product complies with Directive 2011/65/EU of the European Parliament and of the Council, of 8 June 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
 	(Applicable in countries with recycling systems). This marking on the product or literature indicates that the product and electronic accessories (eg. Charger, USB cable, electronic material, controls, etc.) should not be disposed of as other household waste at the end of its useful life. To avoid possible harm to the environment or human health resulting from the uncontrolled disposal of waste, separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources. Home users should contact the dealer where they purchased this product or the National Environment Agency for details on where and how they can take these items for environmentally safe recycling. Business users should contact their vendor and check the terms and conditions of the purchase agreement. This product and its electronic accessories should not be mixed with other commercial waste.
	This marking indicates that the product and electronic accessories (eg. charger, USB cable, electronic material, controls, etc.) are susceptible to electric shock by direct or indirect contact with electricity. Be cautious when handling the product and observe all safety procedures in this manual.

01. SAFETY INSTRUCTIONS

STANDARDS TO FOLLOW

- It is important for your safety that these instructions are followed.
- Keep these instructions in a safe place for future reference.
- The **ELECTROCELOS S.A.** is not responsible for the improper use of the product, or other use than that for which it was designed.
- The **ELECTROCELOS S.A.** is not responsible if safety standards were not taken into account when installing the equipment, or for any deformation that may occur.
- The **ELECTROCELOS S.A.** is not responsible for insecurity and malfunction of the product when used with components that were not sold by the them.
- This product was designed and manufactured strictly for the use indicated in this manual.
- This automatism is not appropriate for inflammable or explosive environments.
- Any other use not expressly indicated may damage the product and/or can cause physical and property damages, and will void the warranty.
- Do not make any changes to the automation components and/or their accessories.
- Automatism for indoor use with 230V connection.
- 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 automatism. Must call qualified technician only.
- The installer must have certified professional knowledge at the level of mechanical assemblies in doors and gates and control board programming. He should also be able to perform electrical connections in compliance with all applicable regulations.
- The installer should inform the customer how to handle the product in an emergency and provide him the manual.
- This device can be used by children 8 year old or older and persons whose physical, sensory or mental capacities are reduced, or by persons without experience or knowledge if they have received supervision or instructions on the use of the device in a safe manner and understood the hazards involved. Children should not play with the device. Cleaning and maintenance by the user must not be carried out by unsupervised children.

01. SAFETY INSTRUCTIONS

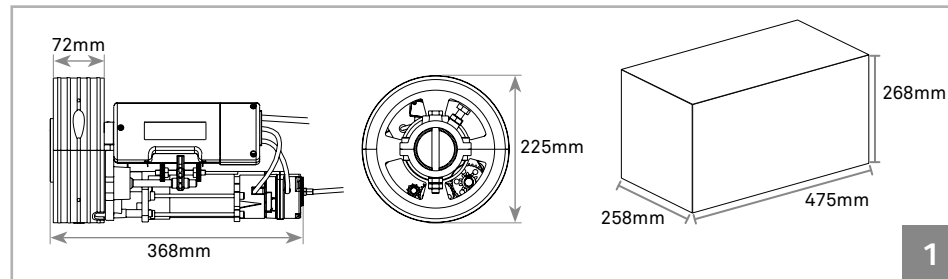
STANDARDS TO FOLLOW

- Before installing, the installer must verify that the temperature range indicated on the automatism is appropriate to the location of the installation.
- Before installing, the installer must verify that the equipment to be automated is in good mechanical condition, correctly balanced and opens and closes properly.
- If the automation is to be installed at a level higher than 2,5 m above ground level or other level of access, , should be followed the minimum safety and health requirements for the use of work equipment workers at work in Directive 2009/104/EC of the European Parliament and of the Council of 16th September of 2009.
- In the case of the equipment where the automation will be installed, have a pedestrian door, be aware that it must be closed when the automation is activated.
- After installation, make sure that the mechanism is properly adjusted and that the protection system and any manual unlocker works correctly.
- In order to protect the electrical cables against mechanical stress, you should use conduit for the electrical wires, essentially on the power cable.
- When programming the control unit, pay particular attention to touching only the location intended for that purpose. Failure to do so may result in electric shock.

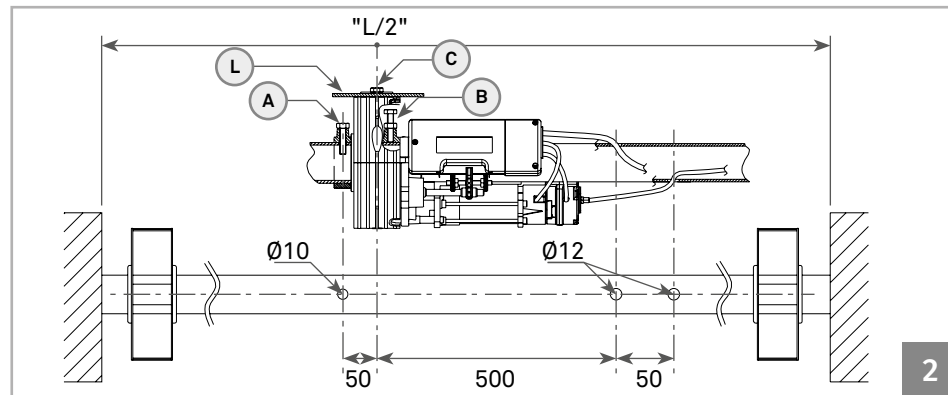
02. THE AUTOMATISM

TECHNICAL SPECIFICATIONS

	ROLLING 160SP	ROLLING 360SP		ROLLING 160SP	ROLLING 360SP
Power supply	230V 50/60Hz	230V 50/60Hz	Torque	150Nm	420Nm
Consumption	2,3A	4,5A	Lifts	160Kg	360Kg
Power	520W	1000W	Maximum height	6m	6m
Thermal protection	4min	4min	RPM	10	8
Weight	8 kg	16 kg	Capacitor	18µF	18µF (x2)
Noise level	LpA <= 70 dB (A)				



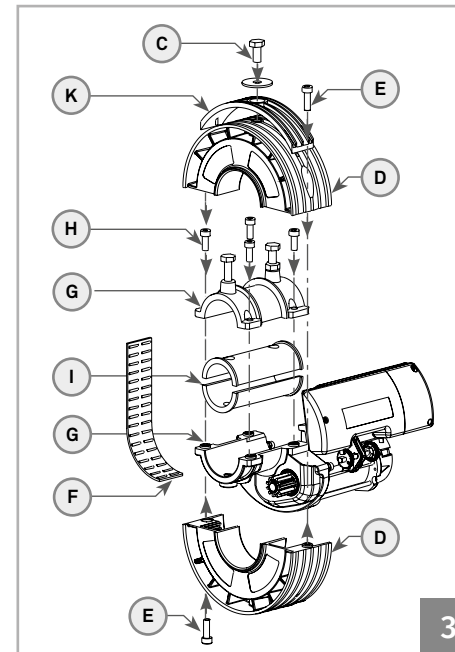
INSTALLATION INSTRUCTIONS



- 01 • Close the rolling shutter.
- 02 • Make 3 holes in the shutter's tube as shown in image 2.
- 03 • Remove the M10 screw (C) from the crown of the gearmotor (figure 3).

02. THE AUTOMATISM

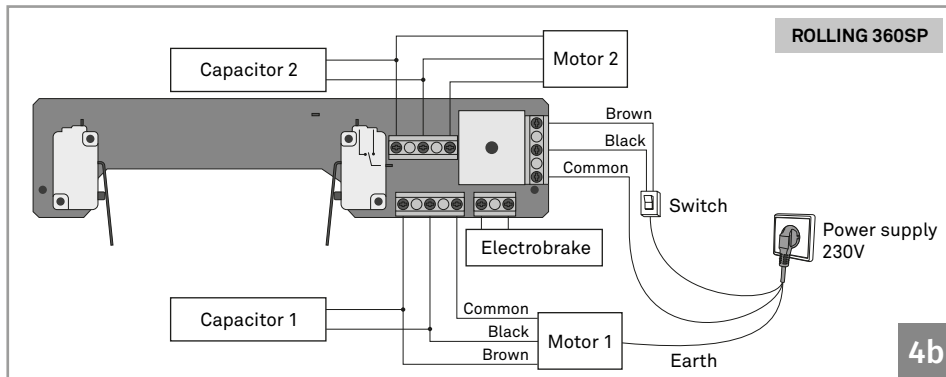
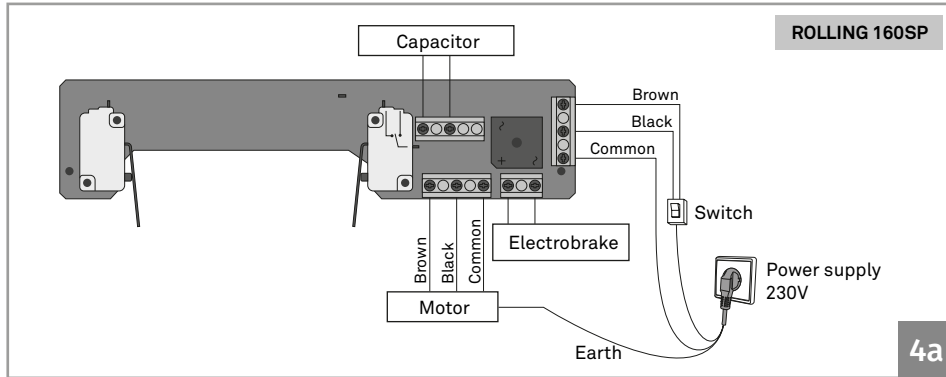
INSTALLATION INSTRUCTIONS



- 04 • Remove the two semi-crown (D) unscrewing the two M8 screws (E) as shown in figure 3.
- 05 • Carefully remove the plastic band with rolls (F) avoiding heavy folds that would cause the spillage of the rolls.
- 06 • Separate the two elements of the gearmotor (G) unscrewing the four M8 screws (H).
- 07 • In case the diameter of the tube is inferior to 60mm, use the reductions Ø33 / Ø42 / Ø48 (I) positioning them on the 10mm hole drilled previously (figure 2).
- 08 • Assemble on the tube of the shutter the two elements of the gearmotor (G) using the four M8 screws (H) removed before.
- 09 • Fasten the M10 screw (A) without hexagon nut, screwing it inside the hole 10mm (figure 2).
- 10 • Tighten the M10 screw with nut (B) in order to block the gearmotor on the shaft.
- 11 • Install the plastic band with rolls (F) in its appropriate place.
- 12 • Install the two semi-crown (D) fixing them with the two M8 screws (E). In presence of spring boxes diameter 220 mms use the adapter (K) (figure 3).
- 13 • Make 12 mm hole in the last element of the shutter (L), aligned with the M10 hole existing on the crown motor.
- 14 • Place the last element of the shutter on the motor and secure it through the screw M10 (C) with washer (figure 3).

02. THE AUTOMATISM

INSTALLATION INSTRUCTIONS

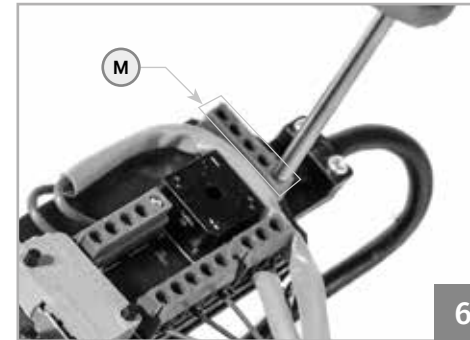


15 • Remove the limit-switch board's cover.

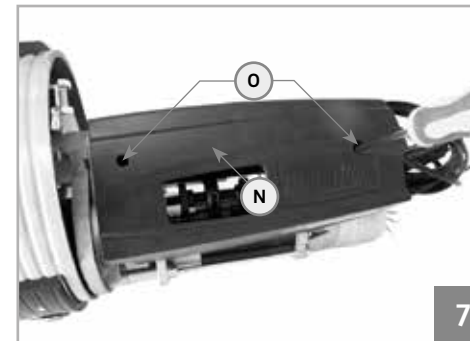
16 • Make the electrical connections as shown in figure 4 passing the 4x1 mm cable supplied, inside the shutter shaft avoiding any contact with the rotating parts (figure 2). In presence of motor with electrobrake, insert the sheath of the brake inside the other hole $\varnothing 12$.

02. THE AUTOMATISM

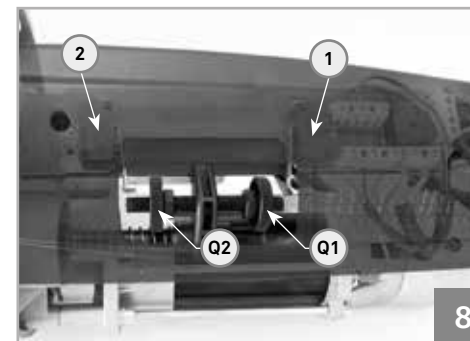
INSTALLATION INSTRUCTIONS



17 • Connect the terminal block (M) of the power wire to the limit switch respecting the right direction (figure 6). Fasten the terminal block through the four screws.



18 • Close the limit switch through the plastic cover (N) and then fasten with the two screws (O), checking the correct disposition of the cables (figure 7).



19 • After having installed the mechanical parts and electrical connections, proceed to the regulation of the limit-switches as shown in figure 8.

02. THE AUTOMATISM

INSTALLATION INSTRUCTIONS

20 • Rotate the plastic washer (Q1) by hand until you hear the click of the microswitch 1 (down regulation completed).

21 • Rotate the other plastic washer (Q2) towards the microswitch 2 (up). Give tension to the motor through an electric command and verify if the shutter, climbing, stops in desired point. Adjustments of the position can be effected acting always on the same plastic washer and operating through electric command.

22 • Should the shutter need to be installed contrary to the description in figure 2, the steps described above should be carried out to the contrary as microswitch 2 will stop the closing and microswitch 1 will stop the opening.

23 • Fasten the counternuts after adjusting the limit-switch washers.

INSTALLATION OF THE ELECTROBRAKE

01 • Insert the brake on the back of the electrical motor.

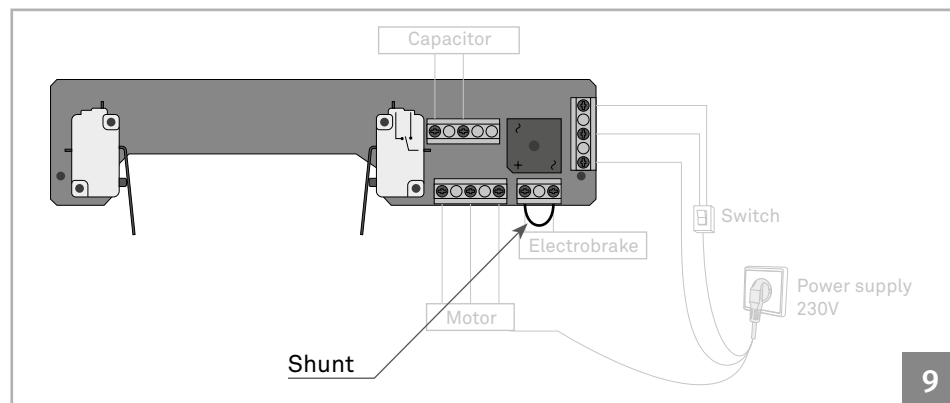
02 • Fixing the electrobrake to the motor using the screws M5x50.

03 • Remove the bridge from the limit switch (fig. 9).

Do not damage the bridge pulling on the wire and keep it for future use.

04 • Connect the electric cables of the brake to the terminal of the limit switch, figure 4.

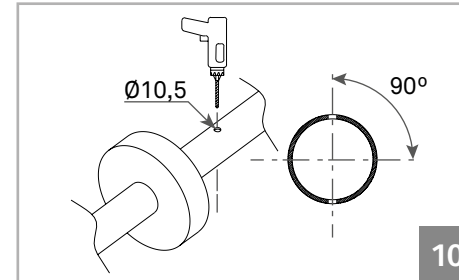
05 • Close the limit switch using the plastic cover.



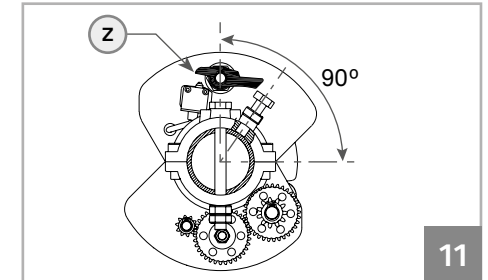
02. THE AUTOMATISM

GEAR MOTOR WITH SAFETY DEVICE

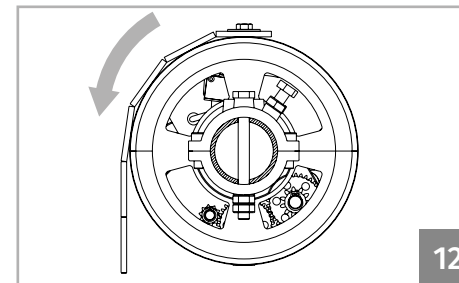
Gear motor with safety device carried out to the stop the free fall of roller shutters and at the same time, in microswitch versions, to interrupt the motoreductor's feeding.



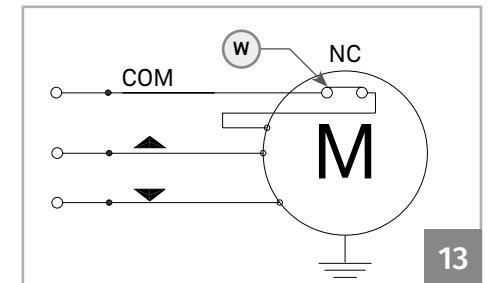
01 • Effect on the tube of the shutter a passing perforation Ø10 perpendicular to the axis.



02 • After assembled the two elements of the gearmotor (G), check that the pawl (Z) is in the highest position perpendicular to the rolling shutter axis.



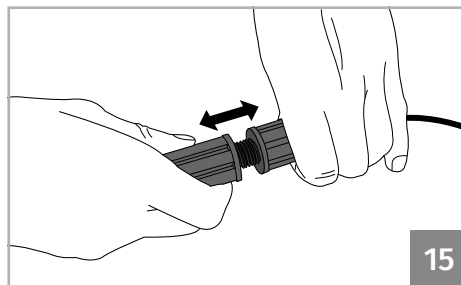
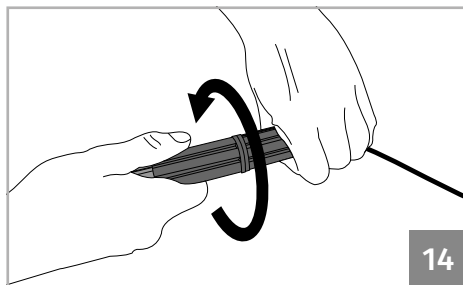
03 • The downward run of the roller shutter shall be consistent with the downward run of the safety brake.



04 • For microswitch versions, connect the micro switch's cable (W) in series to the feeding cable (common) of the gearmotor as shown.

02. THE AUTOMATISM

MOTOR UNLOCKING



To unlock the motor simply unscrew the unlocking piece at the end of the steel cable by turning it to the left. To lock the engine again, tighten the same piece.