



# CHAINLIFT

## USER/INSTALLER MANUAL



# 00. CONTENT

## INDEX

### 01. SAFETY INSTRUCTIONS

STANDARDS TO FOLLOW 1B

### 02. OPERATOR

TECHNICAL SPECIFICATIONS 4A

DIMENSIONS 4A

INSIDE THE PACKAGE 4B

### 03. INSTALLATION

OPERATOR INSTALLATION 5A

INSTALLATION OF THE CHAIN 6A

ADJUST STOPS 6A

INSTALLATIONS OF THE GUTTER 6B

### 04. COMPONENTS TEST

CHAIN RESISTANCE AND WEIGHT 7A

SCHEMES FOR TESTS 7B

### 05. TROUBLESHOOTING

FINAL CONSUMERS AND SPECIALIZED TECHNICIANS INSTRUCTIONS 8

# 01. SAFETY INSTRUCTIONS

	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 and with Delegated Directive (EU) 2015/863 from Commission.
	(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 batteries should not be discarded like other household waste at the end of their useful life. Batteries must be delivered to selective collection points for recycling.
	The different types of packaging (cardboard, plastic, etc.) must be subject to selective collection for recycling. Separate packaging and recycle it responsibly.
	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

## **GENERAL WARNINGS**

- This manual contains very important safety and usage information. Read all instructions carefully before beginning the installation/usage procedures and keep this manual in a safe place that it can be consulted whenever necessary.
- This product is intended for use only as described in this manual. Any other enforcement or operation that is not mentioned is expressly prohibited, as it may damage the product and put people at risk causing serious injuries.
- This manual is intended firstly for specialized technicians, and does not invalidate the user's responsibility to read the "User Norms" section in order to ensure the correct functioning of the product.
- The installation and repair of this product may be done by qualified and specialized technicians, to assure every procedure are carried out in accordance with applicable rules and norms. Nonprofessional and inexperienced users are expressly prohibited of taking any action, unless explicitly requested by specialized technicians to do so.
- Installations must be frequently inspected for unbalance and the wear signals of the cables, springs, hinges, wheels, supports and other mechanical assembly parts.
- Do not use the product if it is necessary repair or adjustment is required.
- When performing maintenance, cleaning and replacement of parts, the product must be disconnected from power supply. Also including any operation that requires opening the product cover.
- The use, cleaning and maintenance of this product may be carried out by any persons aged eight years old and over and persons whose physical, sensorial or mental capacities are lower, or by persons without any knowledge of the product, provided that these are supervision and instructions given by persons with experienced in terms of usage of the product in a safe manner and who understands the risks and dangers involved.

- Children shouldn't play with the product or opening devices to avoid the motorized door or gate from being triggered involuntarily.
- If the power cable is damaged, it must be replaced by the manufacturer, after-sales service or similarly qualified personnel to avoid danger.
- The device must be disconnected from the electrical network when removing the battery.
- Ensure that blocking is avoided between the actuated part and its fixed parts due to the opening movement of the actuated part.

## **WARNINGS FOR TECHNICIANS**

- Before beginning the installation procedures, make sure that you have all the devices and materials necessary to complete the installation of the product.
- You should note your Protection Index (IP) and operating temperature to ensure that is suitable for the installation site.
- Provide the manual of the product to the user and let them know how to handle it in an emergency.
- If the automatism is installed on a gate with a pedestrian door, a door locking mechanism must be installed while the gate is in motion.
- Do not install the product "upside down" or supported by elements do not support its weight. If necessary, add brackets at strategic points to ensure the safety of the automatism.
- Do not install the product in explosive site.
- Safety devices must protect the possible crushing, cutting, transport and danger areas of the motorized door or gate.
- Verify that the elements to be automated (gates, door, windows, blinds, etc.) are in perfect function, aligned and level. Also verify if the necessary mechanical stops are in the appropriate places.
- The control board must be installed on a safe place of any fluid (rain, moisture, etc.), dust and pests.
- You must route the various electrical cables through protective tubes, to protect them against mechanical exertions, essentially on

# 01. SAFETY INSTRUCTIONS

the power supply cable. Please note that all the cables must enter the control board from the bottom.

- If the automatism is to be installed at a height of more than 2,5m from the ground or other level of access, the minimum safety and health requirements for the use of work equipment workers at the work of Directive 2009/104/CE of European Parliament and of the Council of 16 September 2009.
- Attach the permanent label for the manual release as close as possible to the release mechanism.
- Disconnect means, such as a switch or circuit breaker on the electrical panel, must be provided on the product's fixed power supply leads in accordance with the installation rules.
- If the product to be installed requires power supply of 230Vac or 110Vac, ensure that connection is to an electrical panel with ground connection.
- The product is only powered by low voltage safety with control board (only at 24V motors).
- Parts/products weighing more than 20 kg must be handled with special care due to the risk of injury. It is recommended to use suitable auxiliary systems for moving or lifting heavy objects.
- Pay special attention to the danger of falling objects or uncontrolled movement of doors/gates during the installation or operation of this product.

## WARNINGS FOR USERS

- Keep this manual in a safe place to be consulted whenever necessary.
- If the product has contact with fluids without being prepared, it must immediately disconnect from the power supply to avoid short circuits, and consult a specialized technician.
- Ensure that technician has provided you the product manual and informed you how to handle the product in an emergency.
- If the system requires any repair or modification, unlock the automatism, turn off the power and do not use it until all safety

conditions have been met.

- In the event of tripping of circuits breakers or fuse failure, locate the malfunction and solve it before resetting the circuit breaker or replacing the fuse. If the malfunction is not repairable by consult this manual, contact a technician.
- Keep the operation area of the motorized gate free while the gate in in motion, and do not create strength to the gate movement.
- Do not perform any operation on mechanical elements or hinges if the product is in motion.

## RESPONSABILITY

- Supplier disclaims any liability if:
  - Product failure or deformation result from improper installation use or maintenance!
  - Safety norms are not followed in the installation, use and maintenance of the product.
  - Instructions in this manual are not followed.
  - Damaged is caused by unauthorized modifications
  - In these cases, the warranty is voided.

## **MOTORLINE ELECTROCELOS SA.**

Travessa do Sobreiro, nº29  
4755-474 Rio Côvo (Santa Eugénia)  
Barcelos, Portugal

## SYMBOLS LEGEND:



• Important safety notices



• Useful information



• Programming information



• Potentiometer information



• Connectors information



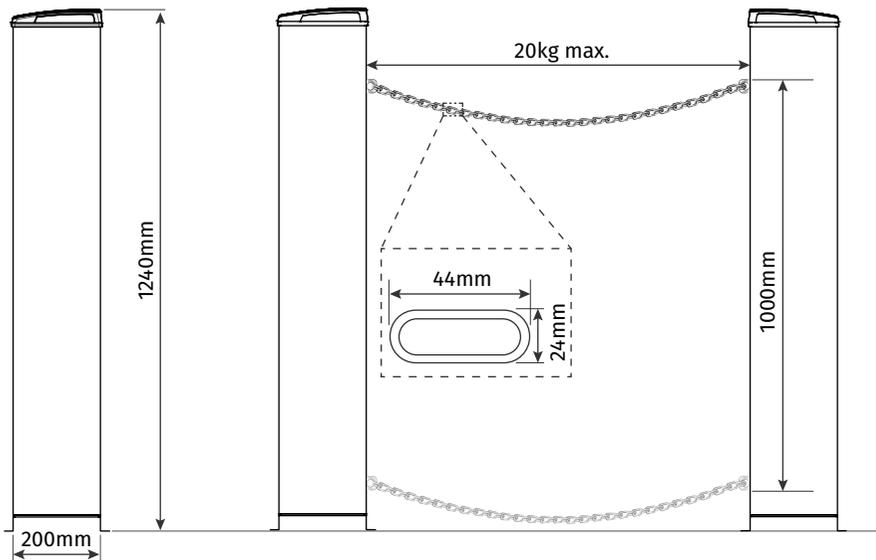
• Buttons information

## 02. OPERATOR

### TECHNICAL SPECIFICATIONS

	CHAINLIFT
• Product power supply	230V 50/60Hz
• Motor voltage	24Vdc
• Power	100W
• Absorbed current	4 A
• RPM	60 RPM
• Noise	LpA <= 50dB (A)
• Operating temperature	-25°C ~ 55°C
• IP	IP65
• Working Frequency	80%
• Maximum chain weight	20kg (+/- 20 mt iron chain)

### DIMENSIONS

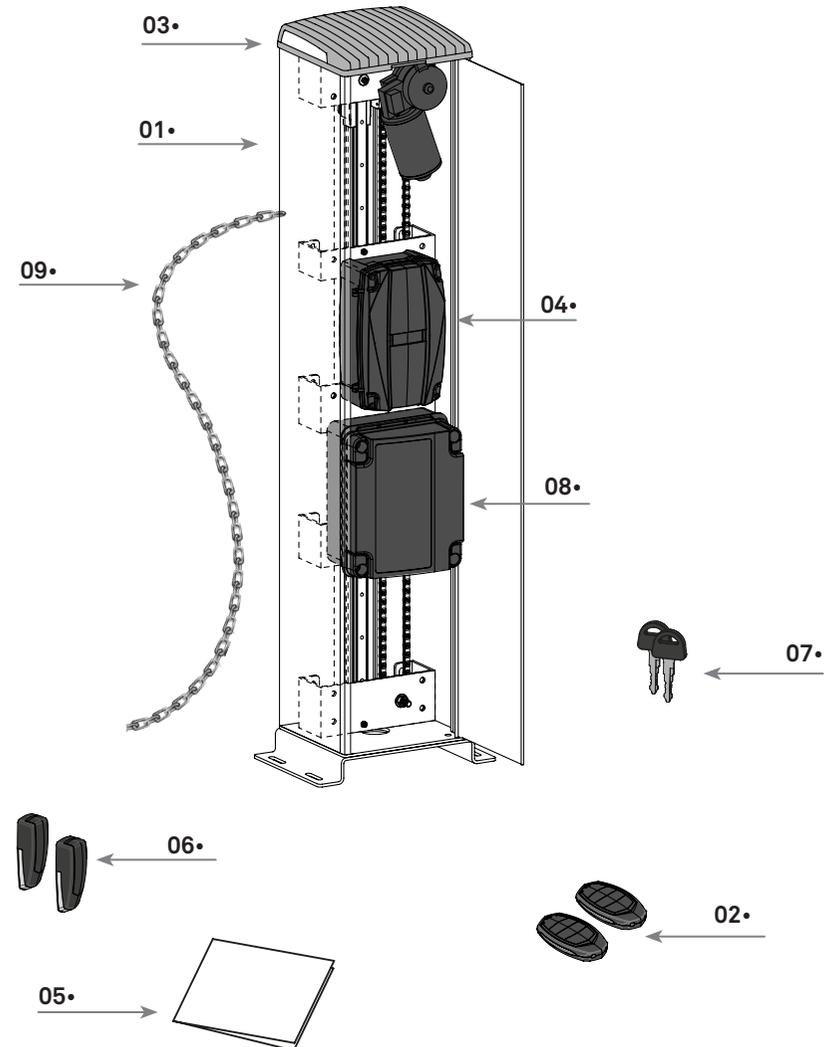


## 02. OPERATOR

### INSIDE THE PACKAGE

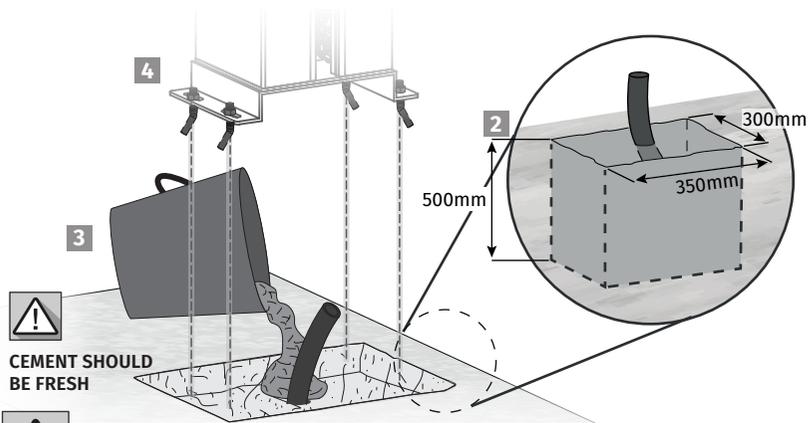
On the package you will find the following kit components:

- 01 • 01 Chainlift
- 02 • 02 FALK remote control
- 03 • 01 flashing lamp
- 04 • 02 batteries and 01 transformer
- 05 • 01 user manual
- 06 • 01 Photocell MF30
- 07 • 02 key unlock
- 08 • 01 control board
- 09 • 01 8m plastic chain



# 03. INSTALLATION

## OPERATOR INSTALLATION



**CEMENT SHOULD BE FRESH**

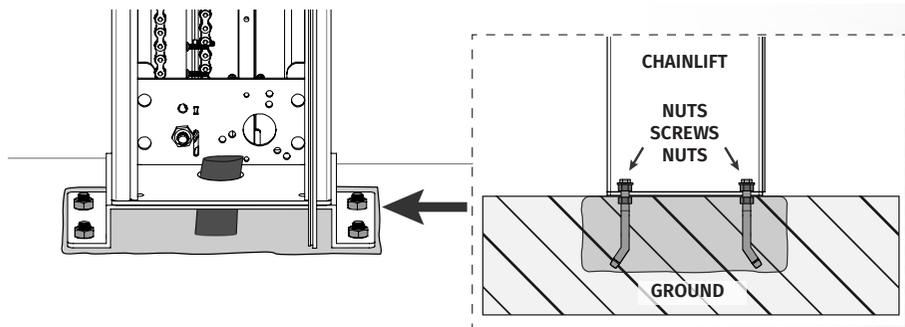
**!** For the correct functioning of the automatism, it is necessary to take into the dimensions mentioned in the image. Leave a 200mm free space on the door side of each automatism, so you can open the automatism door whenever necessary.

**01** • Measure the desired distance from one column to another automatism column (chain length) before installation.

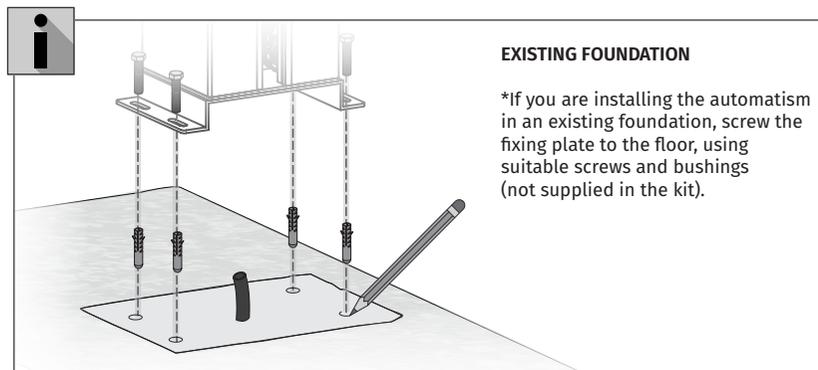
**02** • Drill a hole in the ground to create a concrete foundation. The dimensions presented are recommended in foundation creation. You should leave tubes in the middle for the passage cables for power and accessories.

**03** • Fill the hole with concrete and smooth the top where you will fix the column.

**04** • Apply the column with the screws to the concrete base. You must ensure that the column is level (use a level).

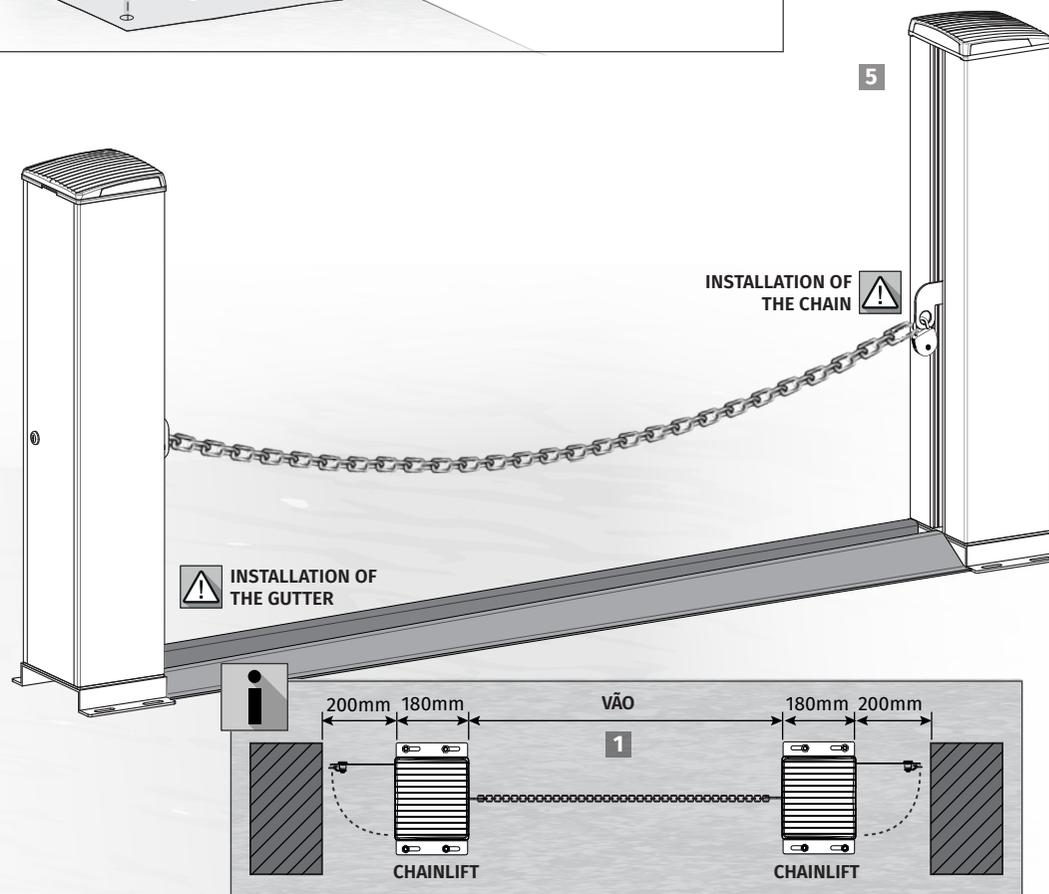


**05** • Proceed in the same way to install the second column of the automatism.



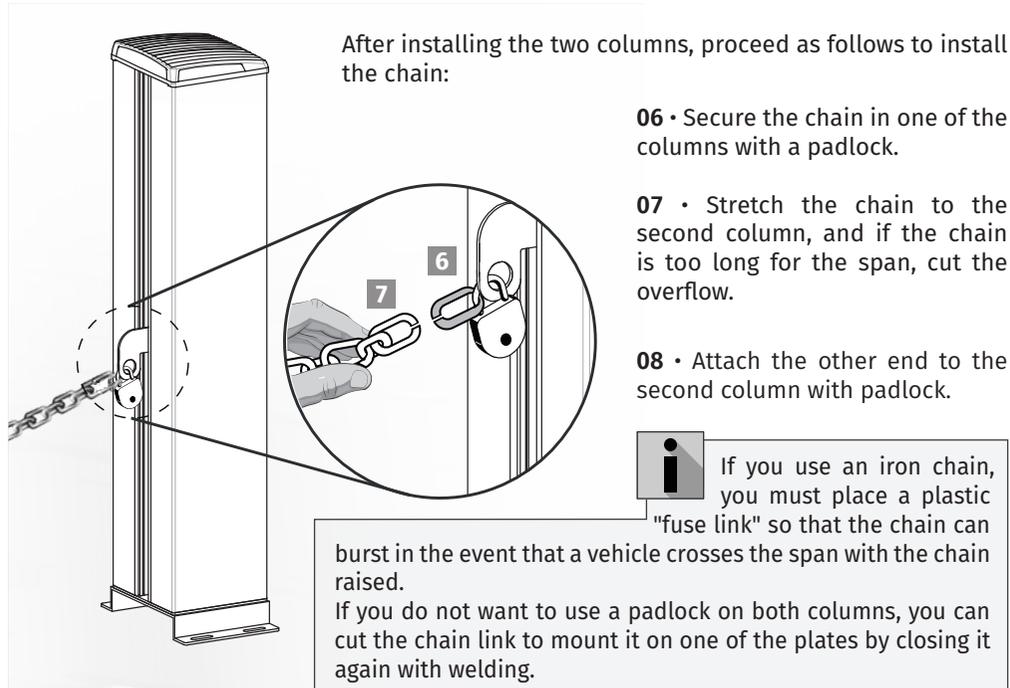
### EXISTING FOUNDATION

\*If you are installing the automatism in an existing foundation, screw the fixing plate to the floor, using suitable screws and bushings (not supplied in the kit).



## 03. INSTALLATION

### INSTALLATION OF THE CHAIN

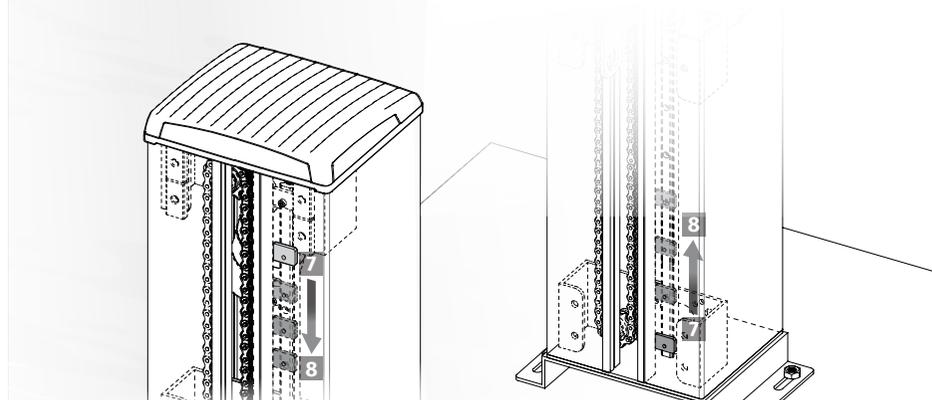


### ADJUST STOPPERS

Adjust the stoppers according to the height you want the chain to go up and down.

**09** • Unscrew the stopper screw, remove it and place it in the desired hole.

**10** • Retighten the stopper screw at the chosen place.



## 03. INSTALLATION

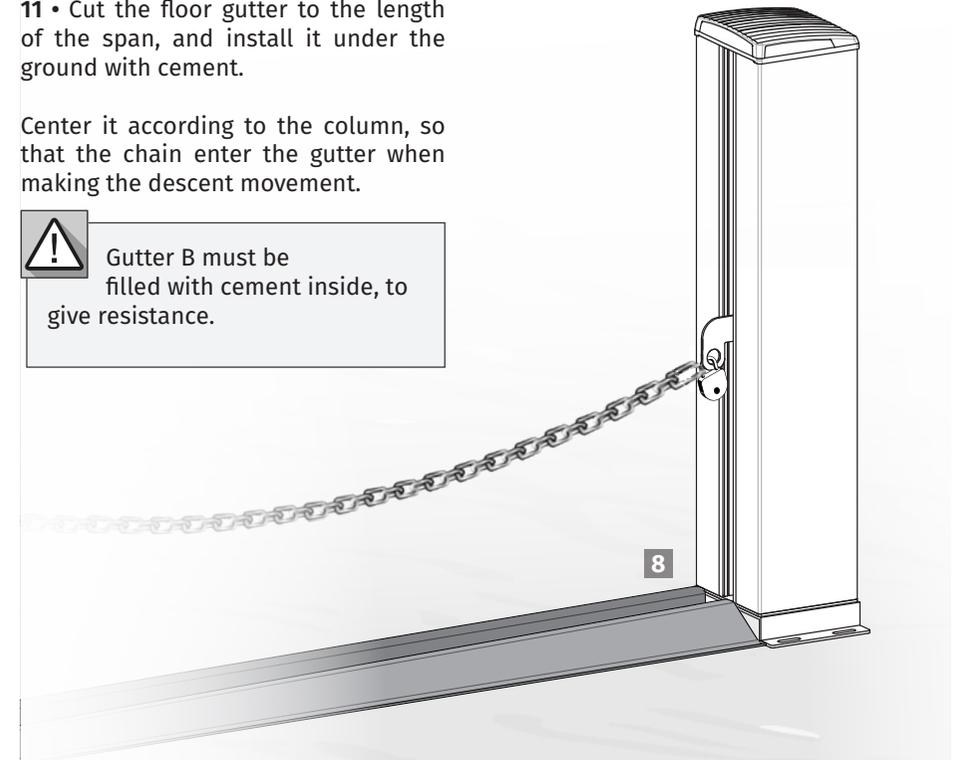
### INSTALLATION OF THE GUTTER TO THE GROUND

**11** • Cut the floor gutter to the length of the span, and install it under the ground with cement.

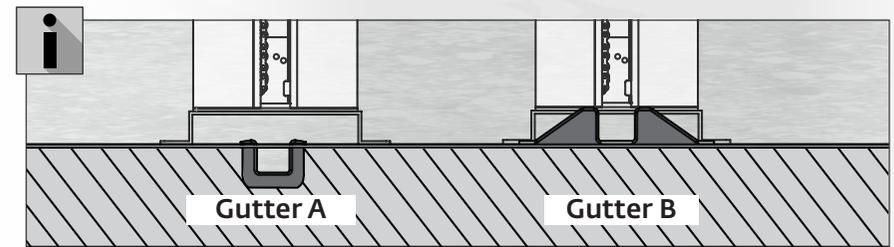
Center it according to the column, so that the chain enter the gutter when making the descent movement.



Gutter B must be filled with cement inside, to give resistance.

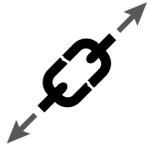


If you choose another type of gutter (gutter A), you will need to make a foundation to fix it on the ground.



## 04. COMPONENTS TEST

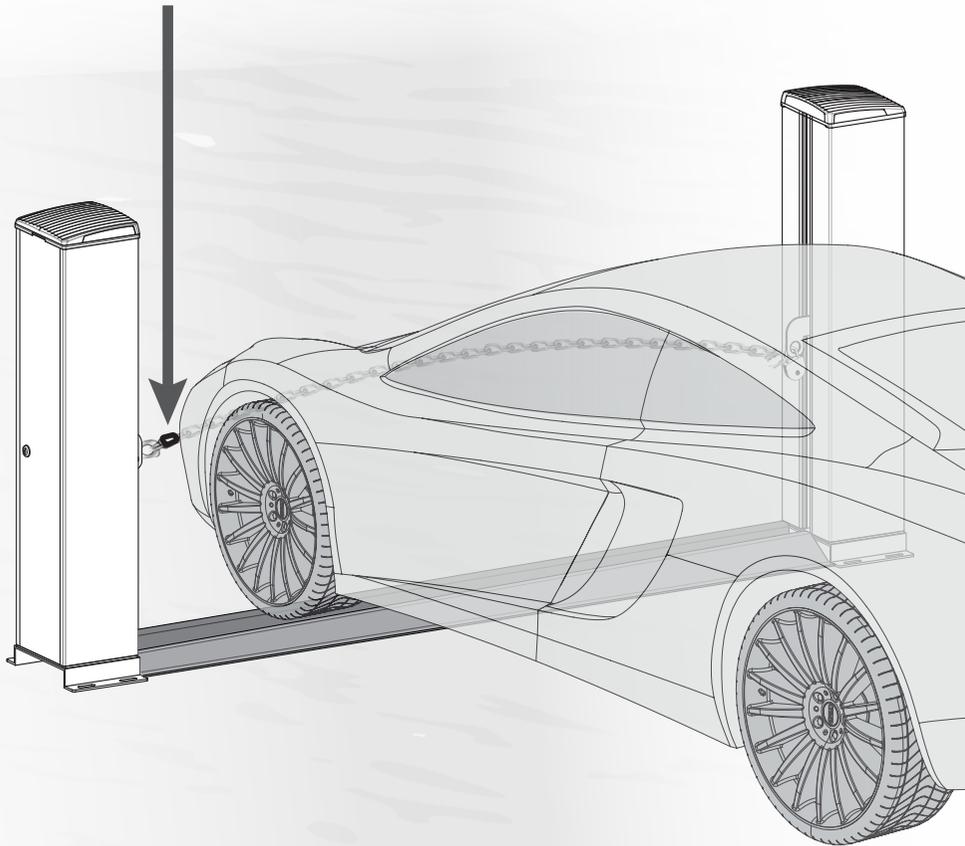
### CHAIN RESISTANCE AND WEIGHT



The chain must be installed with an interleaved plastic fuse link, with maximum tensile strength of **70Kg**



The maximum weight allowed for the chain is **20Kg**



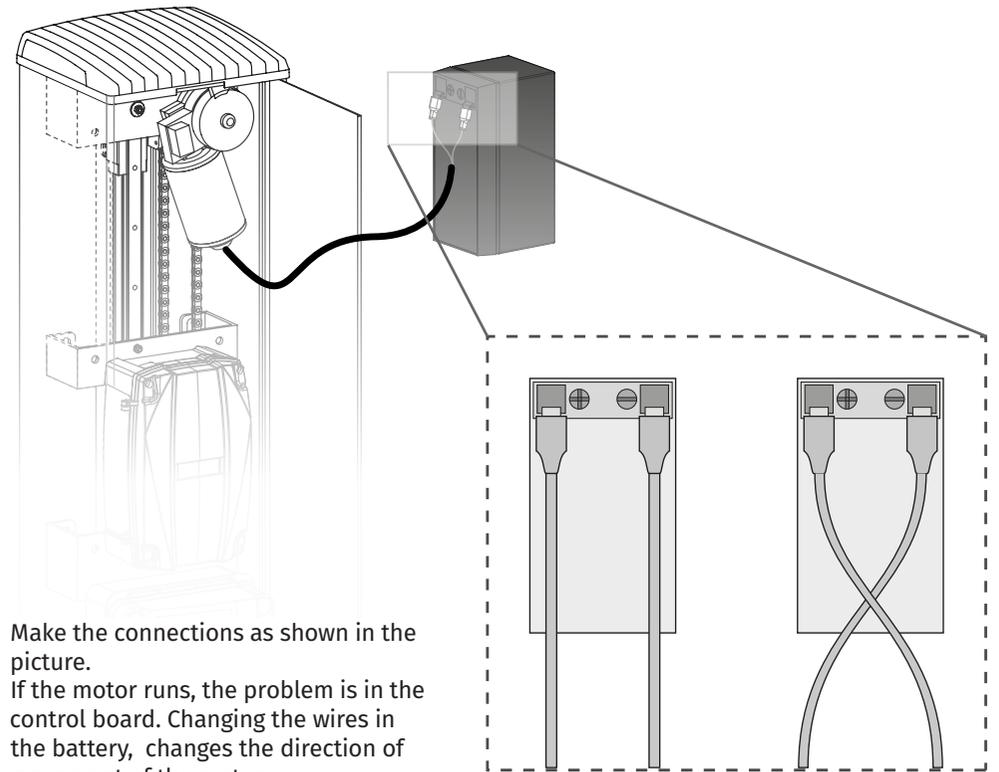
## 04. COMPONENTS TEST

### SCHEMES FOR TESTS

To detect whether the fault is in the control board or in the motor, it is necessary to carry out tests with a direct connection to a 12/24 Vdc power supply. In the diagrams below, it is shown how this connection should be made and how to interleave the different components wires.



To perform the tests, you do not need to remove the automation from where it is installed. This way you can see if the automation directly connected to the current can work properly.



Make the connections as shown in the picture.  
If the motor runs, the problem is in the control board. Changing the wires in the battery, changes the direction of movement of the motor.



The test must be carried out by specialized technicians due to the serious danger related to the misuse of electrical systems !!

# 05. TROUBLESHOOTING

## FINAL CONSUMERS AND SPECIALIZED TECHNICIANS INSTRUCTIONS

Problem	Procedure	Behavior	Behavior II	Discovering the origin of the problem			
• Motor doesn't work	• Make sure you have power supply connected to control board and if it is working properly.	• Still not working	• Consult a qualified technician.	<b>1</b> • Open control board and check if it has power supply; <b>2</b> • Check input fuses of the control board;	<b>3</b> • Turn off the motor form the control board and test it connected directly to a 12/24 Vdc power supply to find out if it is faulty (see page 7B).;	<b>4</b> • If the motor works, problem is on the control board. Pull it out and send it to our <b>MOTORLINE</b> technical services for diagnosis;	<b>5</b> • If the motor doesn't work, remove it from installation site and send to our <b>MOTORLINE</b> technical services for diagnosis.
• Motor doesn't move but makes noise	• Test the motor on a 12/24 Vdc power supply to verify that it moves in both directions.	• Motor moves in both directions	• The problem may be in the control board. • Consult a qualified technician.	<b>1</b> • Check motion axis and associated motion systems related with the mechanism (skids, guides, etc.) to find out what is the problem.			
		• Motor doesn't move	• The problem is with the motor. • Consult a qualified MOTORLINE technician.	<b>1</b> • If the motor works, the problem is from control board. Pull it out and send it to our <b>MOTORLINE</b> technical services for diagnosis;	<b>2</b> • If the motor doesn't work, remove it from installation site and send to our <b>MOTORLINE</b> technical services for diagnosis.		
• Motor opens but doesn't close	• Turn off the main board for 5 seconds and turn it ON again. Give opening order with remote control.	• Motor opens but doesn't close.	<b>1</b> • Check if there is any obstacle in front of the photocells; <b>2</b> • Check if any of the control devices (key selector, push button, video intercom, etc.) are jammed and sending permanent signal to control unit; <b>3</b> • Consult a qualified MOTORLINE technician.	All <b>MOTORLINE</b> 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), etc. If "START" circuits LEDs are turn On, there is a control device sending permanent signal	<b>1</b> • 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. <b>2</b> • Remove one shunt at a time until you find the malfunction device. <b>3</b> • 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>1</b> • Disconnect all wires from START terminal input. <b>2</b> • If the LED turned Off, try reconnecting one device at a time until you find the defective device. <b>NOTE:</b> In case procedures described in sections A) and B) don't result, remove control board and send to the MOTORLINE technical services for diagnosis;	
• Motor doesn't make full course	• Make a review on the guides to check if there are any mechanical problems.	• Found problems?	• Consult a qualified technician.	<b>1</b> • Check motion axis and associated motion systems related with the mechanism (skids, guides, etc.) to find out what is the problem.			
		• There are no problems.	• Adjust the strength and sensitivity and reprogram the course on the control board.	<b>1</b> • Turn off the motor form the control board and test it connected directly to a 12/24 Vdc power supply to find out if it is faulty; <b>2</b> • If the motor doesn't work, remove it and send it to MOTORLINE technical services for diagnosis.	<b>3</b> • If the motor doesn't work, remove it from installation site and send to our <b>MOTORLINE</b> technical services for diagnosis. <b>4</b> • If this does not work, you must remove the control unit and send it to MOTORLINE services for diagnosis.	<b>NOTE:</b> The control board's force adjustment must be enough to open and close without stopping, but with a little effort from a person it can be stopped. In case of failure of the security systems, can never cause physical damage to obstacles (vehicles, people, etc).	