

**zero**  
HOME AUTOMATION

# Z12 - PARKING BARRIER

SUPPLY 230-24V



IT | EN | FR

Z12.REV01.2018

USER MANUAL AND CONFIGURATION

zero  
HOME AUTOMATION

## INDEX

- 01. SAFETY INSTRUCTIONS
- 02. OPERATOR  
TECHNICAL SPECIFICATIONS  
DIMENSIONS
- 03. INSTALLATION  
DIMENSIONS  
INSTALLATION STEPS  
MECHANICH END POSITION ADJUSTMANT  
LIMIT SWITCH POSITION ADJUSTMANT
- 04. MAINTENANCE  
MANUEL RELEASE
- 05. TROUBLESHOOTING

## 01. SAFETY INSTRUCTIONS

## 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.
- ZERO SRLS. is not responsible for the improper use of the product, or other use than that for which it was designed.
- ZERO SRLS. is not responsible if safety standards were not taken into account when installing the equipment, or for any deformation that may occur to it.
- ZERO SRLS. 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.
- Before 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.
- Operator for outdoor and indoor use.

## 02. OPERATOR

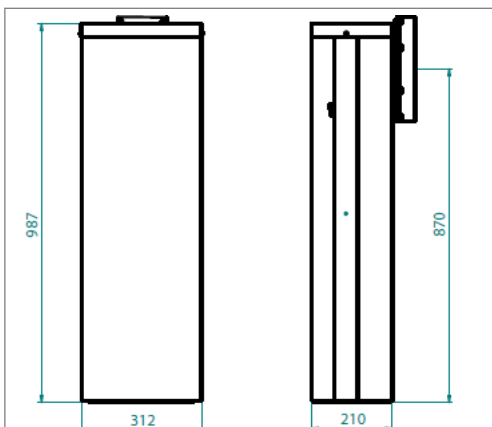
## TECHNICAL SPECIFICATIONS

Z02 specifications are as follow:

	Z12.4.24	Z12.6.24
Power Supply	24Vdc	24Vdc
Power	60W	60W
Current	1- 4.5 A	1-4.5 A
Maximum passage	4 m	6 m
RPM	1600	
Noise level	LpA <= 50 dB (A)	
Force	2300 N	
Operating temperatures	-25°C to 65°C	
Protection class	IP55	
Working frequency	INTENSIVE	
Opening time	5 sec	10 sec

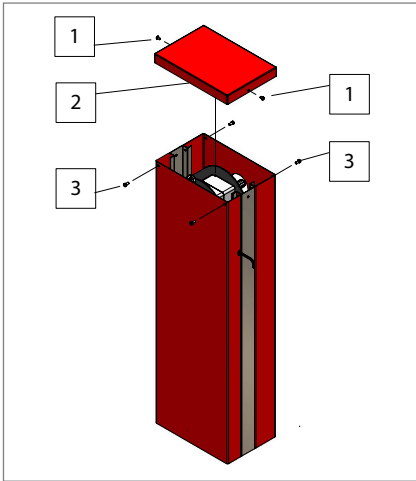
## DIMENSIONS

Z10 dimensions are the following:

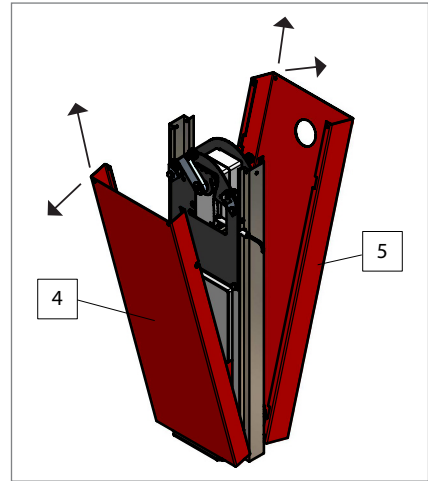


## 03. INSTALLATION

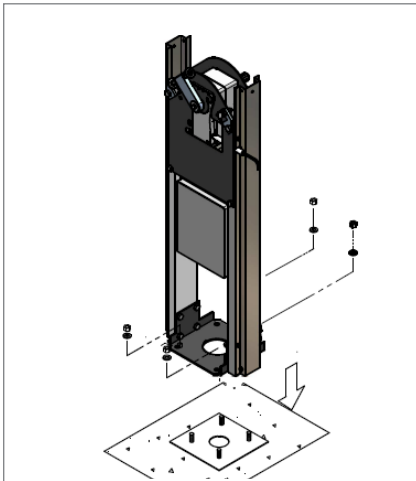
On the Illustrated diagrams below and are the dimensions for the installation of the automated system.



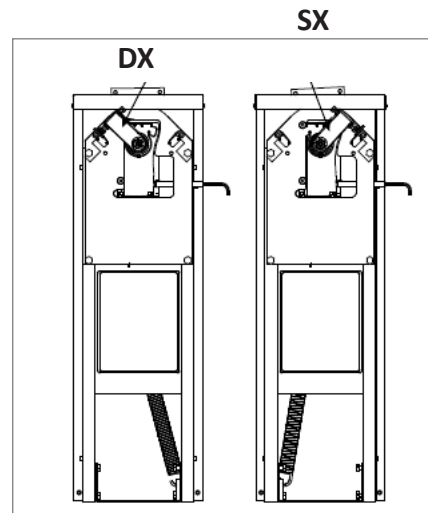
01. Unscrew the screws [1] then remove the the cap [2] and unscrew the bolts [3].



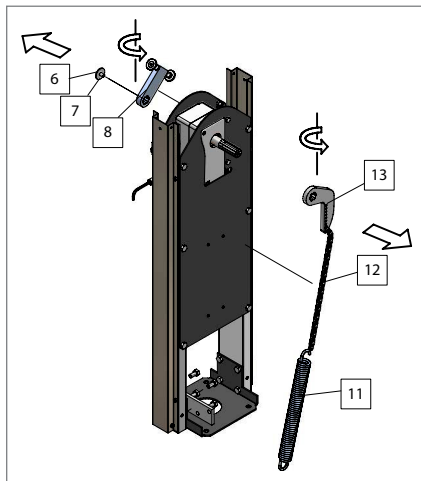
02. Pull the sheets [4] and [5] to open the get free frame.



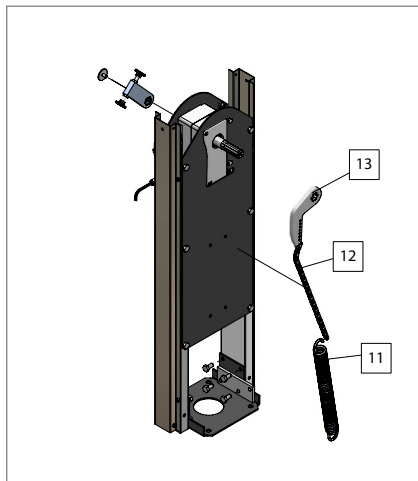
03. With the bolts already fixed on the cement foundation, place the barrier on top of the foundation in a way that the screws stay inside and centered with the barrier.



04. Check the direction of opening RIGT (DX) or LEFT (SX) and if already configured goo trough the next steps



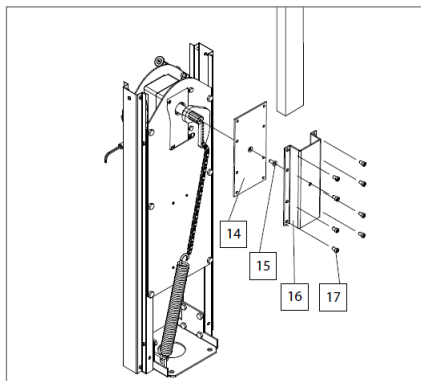
05. Unscrew the screw [6] then remove the the plate [7] with lever [8]. Take out the spring [11] and remove it from the chain [12] and lever [13].



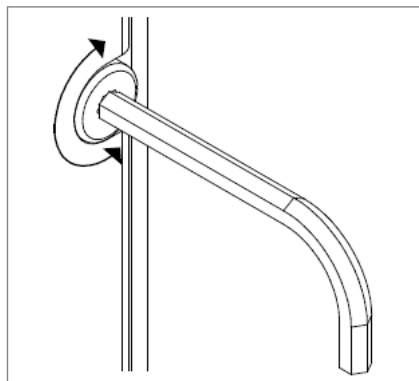
06. To have oposit opening direction rotate the levers [8] and [13] then screw back previously removed bolts.

#### SPRING ADJUSTMANT

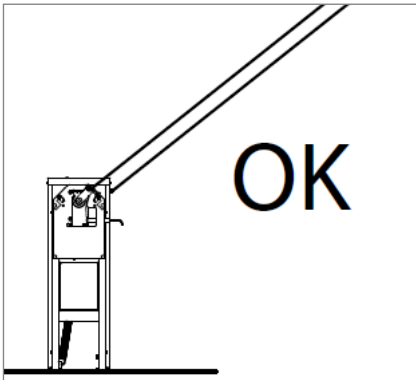
To adjust the springs, follow the next steps. By giving tension to the springs causing the boom to rise up.



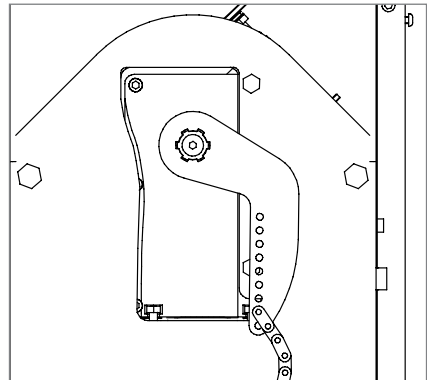
01. To assemble the boom, place the boom on the barrier fixing plate and alignthe holes on each piece. Then to place the boom fastening metal plate and use the screws to fasten the parts together.



02. Unlock the barrier by key and check the right boom balanc.



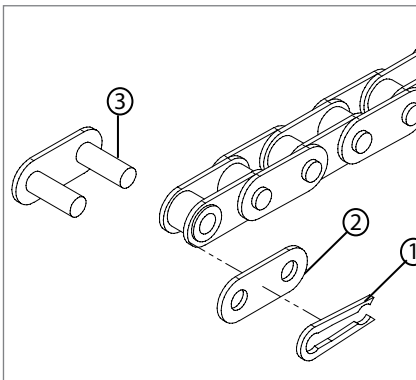
03. The boom has to be stopped at 45° opening position and balanced by spring. if the spring is not setted follow the next steps to balance the boom.



04. Check the right chain connection and move the fixing position with installed boom lenght.

#### CHAIN ADJUSTMANT

To adjust the springs tension change the chain position, by deassembling the chain, follow the next steps



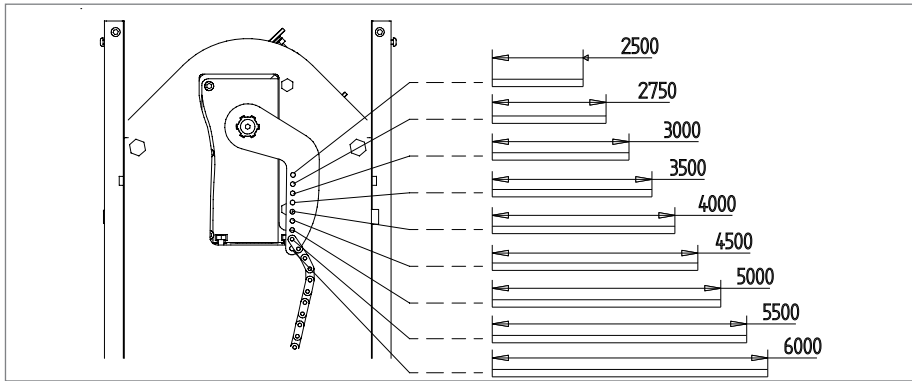
01. Remove the clip [1] remove the washer [2] and pull out the holder [3].



02. Check the right chain and spring tension , has to be tighten.



**It is important to respect this installation order!**  
**Otherwise, it is not possible to ensure correct installation and operators may not work properly!**



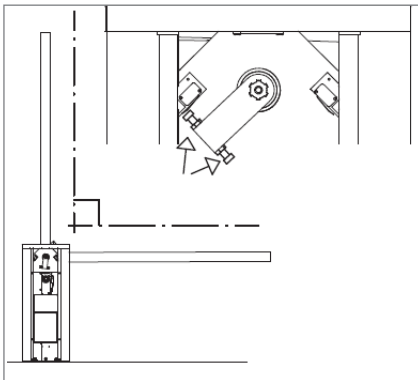
03. Boom length settings, place the chain on right position.



**It is very important that these dimensions are respected! Only this way can be assured the correct functioning and durability of the operators!**  
**It is also very important to have a levelled ground/terrain!**

#### MECHANICH END POSITION ADJUSTMANT

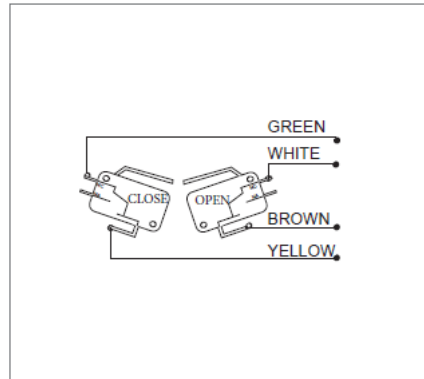
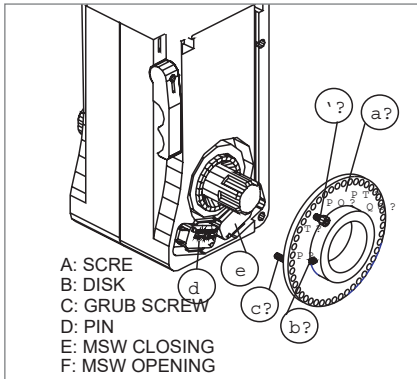
To make sure that the BOOM stops in place perfectly horizontal in closing and in a perfectly vertical position in opening the mechanical limit switches must be adjusted.





## LIMIT SWITCH POSITION ADJUSTMANT

To make sure that the BOOM stops in place perfectly horizontal in closing and in a perfectly vertical position in opening the mechanical limit switches must be adjusted.



Remove disk B from the shaft, send a command to opening to the control unit, wait 2-3 seconds, give a closing command to the control unit. Wait for the motor to sufficiently tighten the boom and then give a STOP command to the control unit. Insert the disk on the shaft making sure that the pin D does not get caught in the small area between the 2 MSWs. Turn the disc B by hand counterclockwise until it is not felt that the pin acts on the microswitch of closing E. Screw the C-grub in order to tighten the disc on the shaft of exit. Tighten screw A to 18 holes in a clockwise direction from the position where the pin D is located send an opening command to the control unit. The boom should stop in the full position opening.

If the boom opens too little or the microswitch it does not acts any command to close the control unit and close the boom move the screw A to the next hole in the direction to activate the microswic. Move the screw A to the previous hole, in the direction counterclockwise, if the boom does not open completely.

#### 04. MAINTENANCE

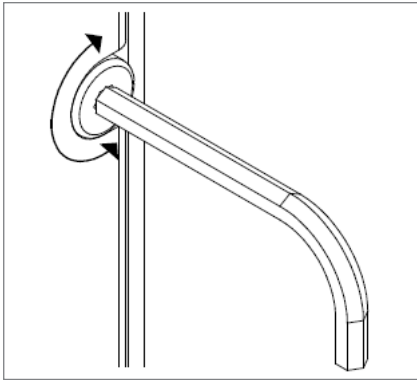
Check tightness of the screws that fix the boom to the barrier's body.  
Check if the fastening metal plates didn't suffer any modification with the consistent utilization to assure the proper functioning of the barrier.



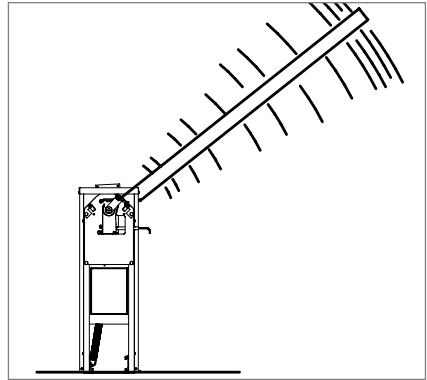
**These maintenance measures must be applied every year in order to insure proper functioning of the automated system.**

#### MANUAL RELEASE

To open manually the gate in case of electric power failure or in case of damage, follow the below steps:



01. Unlock the barrier by key.



02. Move the boom to the opening position and lock the barrier.

**NOTE :** To lock operator so it can work automatically, must do it by turning the key anticlockwise.

The logo consists of a solid green square. Inside the square, the word "zero" is written in a large, white, lowercase, sans-serif font. Below "zero", the words "HOME AUTOMATION" are written in a smaller, white, uppercase, sans-serif font.

zero  
HOME AUTOMATION

05. TROUBLESHOOTING

Problem	Procedure	Behavior	Procedure II
Door doesn't work	Make sure you have 230V power supply connected to control board and if it is working properly.	Still not working.	Consult a qualified ZERO technician.
Motor doesn't move but makes noise	Unlock motor and move the gate by hand to check for mechanical problems on the movement	Encountered problems?	Consult an experienced gate expert.
		The gate moves easily?	Consult a qualified ZERO technician.
Motor opens but doesn't close	Unlock motor and move the gate by hand to closed position. Lock motor again and turn off power supply for 5 seconds. Reconnect it and send start signal using transmitter.	Gate opened but didn't close again.	Check if there is any obstacle in front of the photo-cells;
			Check if any of the control-devices (key selector, push button, video intercom, etc.) of the gate are jammed and sending permanent signal to control unit;
			Consult a qualified ZERO technician.
Gate doesn't make complete route	Unlock motor and move gate by hand to check for mechanical problems on the gate	Encountered problems?	Consult an experienced gate expert.
		The gate moves easily?	Consult a qualified ZERO technician.

Discovering the origin of the problem				
1. Open control board and check if it has 24V power supply	2. Check input fuses	3. Measure the 24V transformer's output to detect the location of the malfunction	4. If the motor works, the problem is on the control board. Pull it out and send it to our ZERO technical services for diagnosis.	5. If the motor doesn't work, remove them from installation site and send to our ZERO technical services for diagnosis.
Check all motion axis and associated motion systems related with the motor and the gate to find out what is the problem.				
1. Turn off the central's motor and test it directly connected to a 24V battery to find the malfunction.	2. If the engine operate, the problem is in the central. Pull it out and send it to the ZERO technical services for diagnosis	3. If the motors don't work, remove them from installation site and send to our ZERO technical services for diagnosis		
<p>All ZERO control boards have LEDs that indicate the functioning of connections to allow easy diagnosis of faults. All safety devices LEDs (DS) in normal situations remain On. All "START" circuits LEDs in normal situations remain Off.</p> <p>If LEDs devices are not all On, there is some security systems malfunction (photocells, safety edges), etc.</p> <p>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.</p> <p>2 • Remove one shunt at a time until you find the malfunction device .</p> <p>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.</p>				
1. Turn off the central's motor and test it directly connected to a 24V battery to find the malfunction.	2. If the engine operate, the problem is in the central. Pull it out and send it to the ZERO technical services for diagnosis	53 If this doesn't work, remove control unit and send it to ZERO technical services services.		
Check all motion axis and associated motion systems related with the motor and the gate to find out what is the problem.				
<p>NOTE: Setting force of the controller should be sufficient to make the gate open and close without stopping, but should stop and invert with a little effort from a person. In case of safety systems failure, the gate shall never cause physical damaged to obstacles (vehicles, people, etc.).</p>				

**NOTE:**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

zero  
HOME AUTOMATION

zero  
HOME AUTOMATION

ZERO SRLS  
Via ROMA 25/A ALTAVILLA VIC.  
ITALIA  
[info@miozero.it](mailto:info@miozero.it) - [www.miozero.it](http://www.miozero.it)