

**Automatic barriers
- GARD 8 series**

FA01036-EN



EN English

G2080Z / G2080IZ
INSTALLATION AND OPERATION



WARNING!
important safety instructions for people:
READ CAREFULLY!



PREMISE

• **THIS PRODUCT SHOULD ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS EXPLICITLY DESIGNED. ANY OTHER USE IS DANGEROUS. CAME S.p.A. IS NOT LIABLE FOR ANY DAMAGE CAUSED BY IMPROPER, WRONGFUL AND UNREASONABLE USE.** • THE SAFETY OF THIS PRODUCT AND ITS PROPER FITTING DEPENDS, THEREFORE, ON RESPECTING ITS TECHNICAL CHARACTERISTICS AND PROPER FITTING, TO BE DONE IN STATE-OF-THE-ART FASHION, AND UNDER SAFE CONDITIONS AS EXPRESSLY EXPLAINED IN THE LITERATURE THAT COMES WITH THE PRODUCT. • **KEEP THESE WARNINGS TOGETHER WITH THE INSTALLATION AND OPERATION MANUALS THAT COME WITH THE OPERATOR.**

BEFORE INSTALLING

(CHECKING WHAT'S THERE: IF SOMETHING IS MISSING, DO NOT CONTINUE UNTIL YOU HAVE COMPLIED WITH ALL SAFETY PROVISIONS)

• **FITTING AND TESTING MUST BE ONLY PERFORMED BY QUALIFIED TECHNICIANS** • **LAYING THE CABLES, INSTALLATION AND TESTING MUST FOLLOW STATE-OF-THE-ART PROCEDURES AS DICTATED BY REGULATIONS** • **BEFORE BEGINNING ANY OPERATION IT IS MANDATORY TO CAREFULLY READ ALL INSTRUCTIONS; IMPROPER INSTALLATION MAY RESULT IN SERIOUS HARM TO PEOPLE AND THINGS.** • **MAKE SURE THE BOOM IS IN GOOD MECHANICAL STATE, BALANCED AND ALIGNED, AND THAT IT OPENS AND CLOSES PROPERLY. ALSO, IF NEEDED, FIT SUITABLE PROTECTIONS OR USE PROPER SAFETY SENSORS** • **IF THE OPERATOR IS TO BE INSTALLED AT A HEIGHT OF LESS THAN 2.5 M FROM THE GROUND OR OTHER ACCESS LEVEL, MAKE SURE YOU HAVE ANY NECESSARY PROTECTIONS AND/OR WARNINGS IN PLACE** • **MAKE SURE THAT THE OPENING AUTOMATIC BARRIER DOES NOT CONSTITUTE A HAZARD** • **DO NOT FIT UPSIDE DOWN OR ONTO ELEMENTS THAT COULD BEND. IF NECESSARY, ADD SUITABLE REINFORCEMENTS TO THE ANCHORING POINTS** • **MAKE SURE THE TEMPERATURE RANGE SHOWN ON THE PRODUCT LITERATURE IS SUITABLE TO THE CLIMATE WHERE IT WILL BE INSTALLED** • **DO NOT INSTALL ON TILTED, SLOPED OR UNEVEN SURFACES** • **MAKE SURE ANY SPRINKLER SYSTEMS CANNOT WET THE OPERATOR FROM THE GROUND UP.**

INSTALLING

• **SUITABLY SECTION OFF AND DEMARCATÉ THE ENTIRE INSTALLATION SITE TO PREVENT UNAUTHORIZED PERSONS FROM ENTERING THE AREA, ESPECIALLY MINORS AND CHILDREN** • **BE CAREFUL WHEN HANDLING OPERATORS THAT WEIGH OVER 20 KG. IF NEED BE, USE PROPER SAFETY HOISTING EQUIPMENT** • **THE CE-MARKED SAFETY DEVICES (PHOTOCELLS, STEPPING PLATES, SENSITIVE SAFETY-EDGES, EMERGENCY BUTTONS, AND SO ON), MUST BE FITTED IN COMPLIANCE WITH THE REGULATIONS IN EFFECT AND ACCORDING TO STATE-OF-THE-ART CRITERIA, TAKING INTO ACCOUNT THE ENVIRONMENT, THE TYPE OF REQUIRED SERVICE AND OF THE WORKING FORCES APPLIED TO MOVING BARRIERS. ANY SHEARING OR CONVEYING POINTS MUST BE SENSOR-PROTECTED** • **ANY RESIDUAL RISKS MUST BE CLEARLY SHOWN** • **ALL OPENING COMMANDS (THAT IS, BUTTONS, KEY SWITCHES, MAGNETIC READERS, AND SO ON) MUST BE INSTALLED AT LEAST 1.85 M FROM THE PERIMETER OF THE BARRIER'S WORKING AREA, OR WHERE THEY CANNOT BE REACHED FROM OUTSIDE THE BARRIER. ALSO, ANY DIRECT COMMANDS (BUTTONS, TOUCH PANELS, AND SO ON) MUST BE INSTALLED AT LEAST 1.5 M FROM THE GROUND AND MUST NOT BE REACHABLE BY UNAUTHORIZED PERSONS** • **THE AUTOMATIC BARRIER MUST VISIBLY SHOW ITS IDENTIFICATION DATA.** • **BEFORE CONNECTING THE MAINS POWER SUPPLY MAKE SURE THAT THE IDENTIFICATION DATA CORRESPOND TO THE THOSE OF THE NETWORK** • **THE AUTOMATIC BARRIER MUST BE CONNECTED TO AN EFFECTIVE REGULATION GROUNDING SYSTEM.**

• **THE MANUFACTURER DECLINES ANY LIABILITY FOR USING NON-ORIGINAL PRODUCTS; WHICH WOULD RESULT IN WARRANTY LOSS** • **ALL MAINTAINED ACTION COMMANDS, MUST BE FITTED IN PLACES FROM WHICH THE MOVING BARRIER AND TRANSIT AND DRIVING AREAS ARE VISIBLE** • **APPLY, IF MISSING, A PERMANENT SIGN SHOWING THE POSITION OF THE RELEASE DEVICE** • **BEFORE DELIVERING TO THE USERS, MAKE SURE THE SYSTEM IS EN 12453 AND EN 12445 STANDARD COMPLIANT (REGARDING IMPACT FORCES), AND ALSO MAKE SURE THE SYSTEM HAS BEEN PROPERLY ADJUSTED AND THAT ANY SAFETY, PROTECTION AND MANUAL RELEASE DEVICES ARE WORKING PROPERLY** • **APPLY WARNING SIGNS WHERE NECESSARY AND IN A VISIBLE PLACE, (SUCH AS THE GATE'S LICENSE PLATE)**

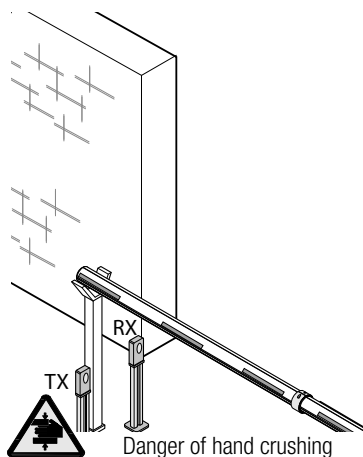
SPECIAL USER-INSTRUCTIONS AND RECOMMENDATIONS

• **KEEP BARRIER OPERATION AREAS CLEAN AND FREE OF ANY OBSTRUCTIONS. MAKE SURE THE PHOTOCELL'S OPERATING FIELD IS CLEAR OF ANY OBSTRUCTIONS** • **DO NOT ALLOW CHILDREN TO PLAY WITH FIXED COMMANDS, OR TO LOITER IN THE BARRIER'S MANEUVERING AREA. KEEP ANY REMOTE CONTROL TRANSMITTERS OR ANY OTHER COMMAND DEVICE AWAY FROM CHILDREN, TO PREVENT THE OPERATOR FROM BEING ACCIDENTALLY ACTIVATED** • **THE APPARATUS MAY BE USED BY CHILDREN OF EIGHT**

YEARS AND ABOVE AND BY PHYSICALLY, MENTALLY AND SENSORY-CHALLENGED PEOPLE, OR EVEN ONES WITHOUT ANY EXPERIENCE, PROVIDED THIS HAPPENS UNDER CLOSE SUPERVISION OR ONCE THEY HAVE BEEN PROPERLY INSTRUCTED TO USE THE APPARATUS SAFELY AND TO THE POTENTIAL HAZARDS INVOLVED. CHILDREN MUST NOT PLAY WITH THE APPARATUS. CLEANING AND MAINTENANCE BY USERS MUST NOT BE DONE BY CHILDREN, UNLESS PROPERLY SUPERVISED • **FREQUENTLY CHECK THE SYSTEM FOR ANY MALFUNCTIONS OR SIGNS OF WEAR AND TEAR OR DAMAGE TO THE MOVING STRUCTURES, TO THE COMPONENT PARTS, ALL ANCHORING POINTS, INCLUDING CABLES AND ANY ACCESSIBLE CONNECTIONS. KEEP ANY HINGES, MOVING JOINTS AND BOOM FLANGE CLEAN, FRICTION FREE AND PROPERLY LUBRICATED. PERFORM FUNCTIONAL CHECKS ON THE PHOTOCELLS AND EVERY SIX MONTHS. CONSTANTLY CLEAN THE PHOTOCELLS' GLASS COVERS USING A SLIGHTLY WATER-MOISTENED CLOTH; DO NOT USE SOLVENTS OR CHEMICALS THAT COULD DAMAGE THE DEVICES** • **IF REPAIRS OR MODIFICATIONS ARE REQUIRED TO THE SYSTEM, RELEASE THE OPERATOR AND DO NOT USE IT UNTIL SAFETY CONDITIONS HAVE BEEN RESTORED** • **CUT OFF THE POWER SUPPLY BEFORE RELEASING THE OPERATOR FOR MANUAL OPENINGS. READ THE INSTRUCTIONS** **IF THE POWER SUPPLY CABLE IS DAMAGED, IT MUST BE REPLACED BY THE MANUFACTURER OR AUTHORIZED TECHNICAL ASSISTANCE SERVICE, OR IN ANY CASE, BY SIMILARLY QUALIFIED PERSONS, TO PREVENT ANY RISK IT IS FORBIDDEN FOR USERS TO PERFORM ANY OPERATIONS THAT ARE NOT EXPRESSLY REQUIRED OF THEM AND WHICH ARE NOT LISTED IN THE MANUALS.** **FOR ANY REPAIRS, MODIFICATIONS AND ADJUSTMENTS AND FOR EXTRA-ORDINARY MAINTENANCE, CALL TECHNICAL ASSISTANCE** • **LOG THE JOB AND CHECKS INTO THE PERIODIC MAINTENANCE LOG.**

FURTHER RECOMMENDATIONS FOR ALL

• **KEEP AWAY FROM AND DO NOT LOITER NEAR THE BARRIER AND MECHANICAL MOVING PARTS** • **DO NOT ENTER THE BARRIER'S AREA OF OPERATION WHEN IT IS MOVING** • **DO NOT COUNTER THE OPERATOR'S MOVEMENT AS THIS COULD RESULT IN DANGEROUS SITUATIONS** • **ALWAYS PAY SPECIAL ATTENTION TO ANY DANGEROUS POINTS, WHICH HAVE TO BE LABELED WITH SPECIFIC PICTOGRAMS AND/OR BLACK AND YELLOW STRIPES** • **WHEN USING A SELECTOR SWITCH OR A COMMAND IN MAINTAINED ACTIONS, KEEP CHECKING THAT THERE ARE NO PERSONS WITHIN THE OPERATING RANGE OF ANY MOVING PARTS, UNTIL THE COMMAND IS RELEASED** • **THE BARRIER MAY MOVE AT ANY TIME AND WITHOUT WARNING** • **ALWAYS CUT OFF THE MAINS POWER SUPPLY BEFORE PERFORMING ANY MAINTENANCE OR CLEANING.**



Danger of hand crushing






Danger! High voltage.



No transiting while the barrier is moving

LEGEND

-  This symbol shows which parts to read carefully.
-  This symbol shows which parts describe safety issues.
-  This symbol shows which parts to tell users about.

DESCRIPTION

Barrier made of varnished galvanized steel or AISI 304 satin finished stainless steel, set up for accessories.

Intended use

The automatic barrier is designed for private and public parking facilities.

-  Any installation and/or use other than that specified in this manual is forbidden.

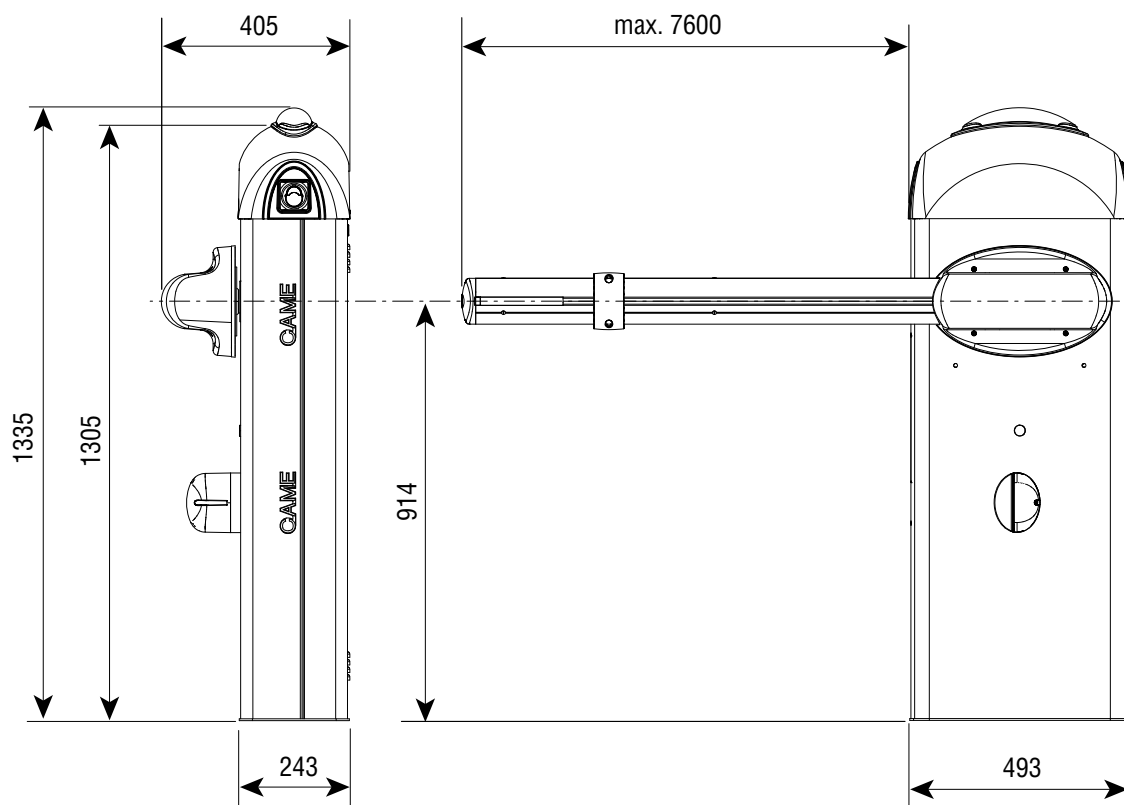
Limits to use

Type	G2080Z - G2080IZ
Maximum clearance width of the passage (m)	7.60

Technical data

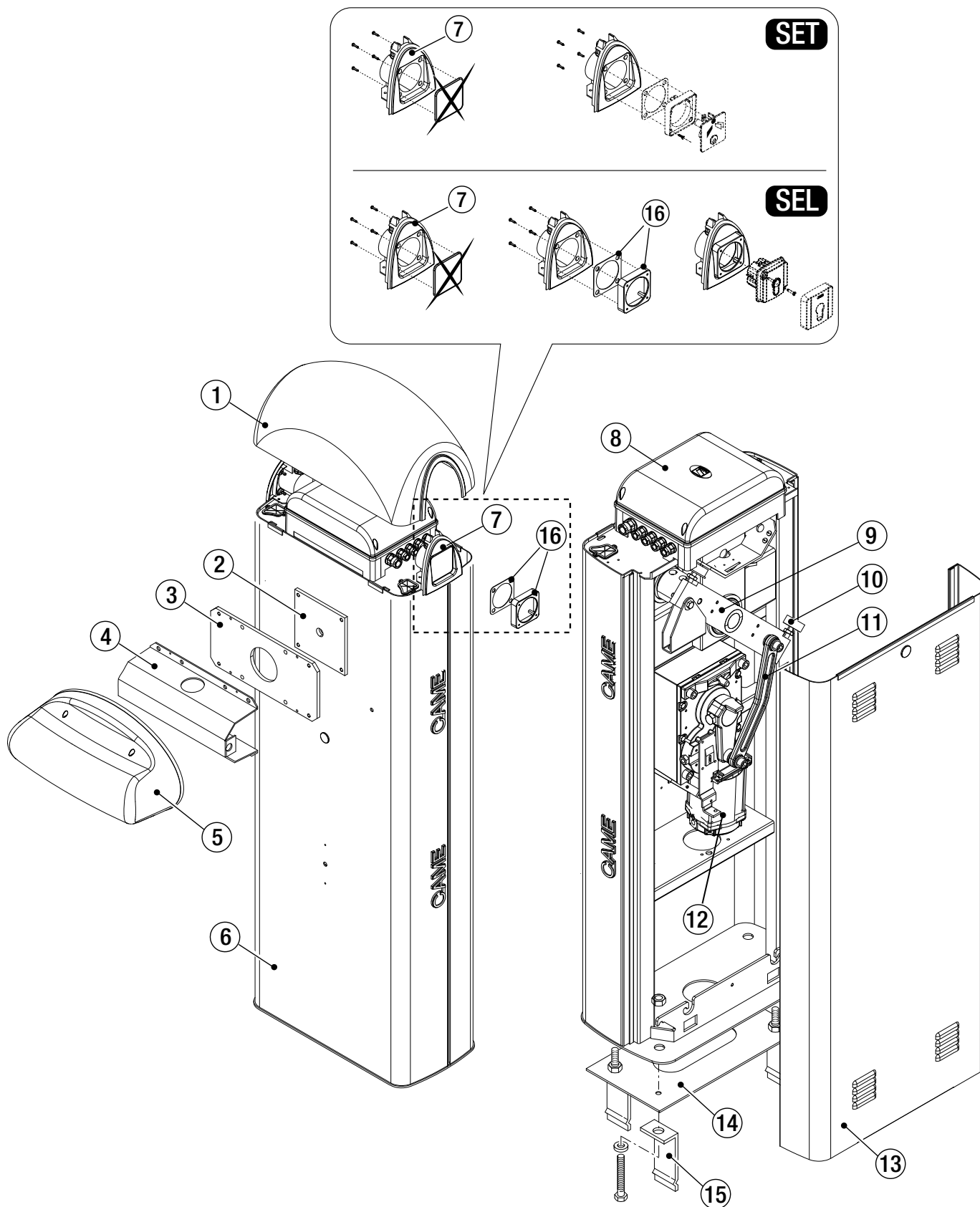
Type	G2080Z - G2080IZ
Protection rating (IP)	54
Power supply (V - 50/60 Hz)	230 AC
Power supply motor (V)	24 DC
Max draw (A)	15
Power rating (W)	300
Torque (Nm)	600
Opening time at 90° (s)	4 ÷ 8
Duty cycle	INTENSIVE USE
Operating temperature (°C)	-20 ÷ +55
Reduction ratio (i)	1/202
Insulation class	I
Weight (kg)	91

Dimensions (mm)



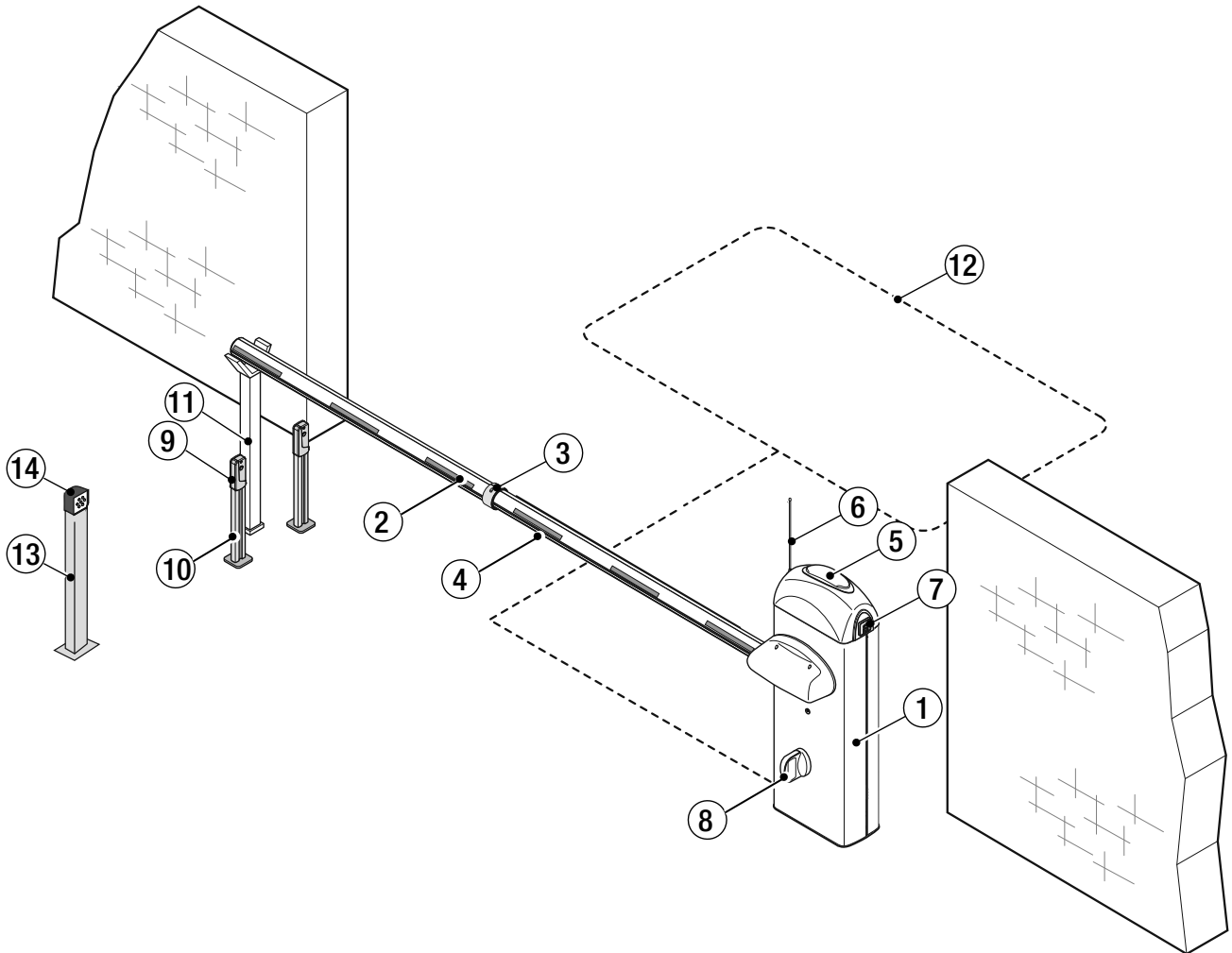
Description of parts

1. Dome
2. Motor-shaft plate
3. Mid plate
4. Boom-attachment cover
5. Protective casing shear proof
6. Cabinet
7. Casing for key-switch and digital selectors
8. Control panel
9. Lever arm
10. Boom adjustment buffer
11. Transmission rod
12. Gearmotor with encoder
13. Inspection hatch
14. Anchoring plate
15. Anchoring bracket
16. Adapter with gasket for SEL-series selectors



Standard installation

1. Barrier with boom
2. Reflective strips
3. Boom joint
4. Luminous cord
5. Flashing light
6. Antenna
7. Key-switch selector
8. Photocell casing
9. Photocell
10. Small photocell post
11. Fixed rest
12. Metal mass detector
13. Post for control devices
14. Control device (keypad selector, transponder sensor)



GENERAL INSTRUCTIONS FOR INSTALLING

△ Only skilled, qualified staff must install this product.

Important! Using original CAME control and safety devices and accessories ensures easy installation and system maintenance.

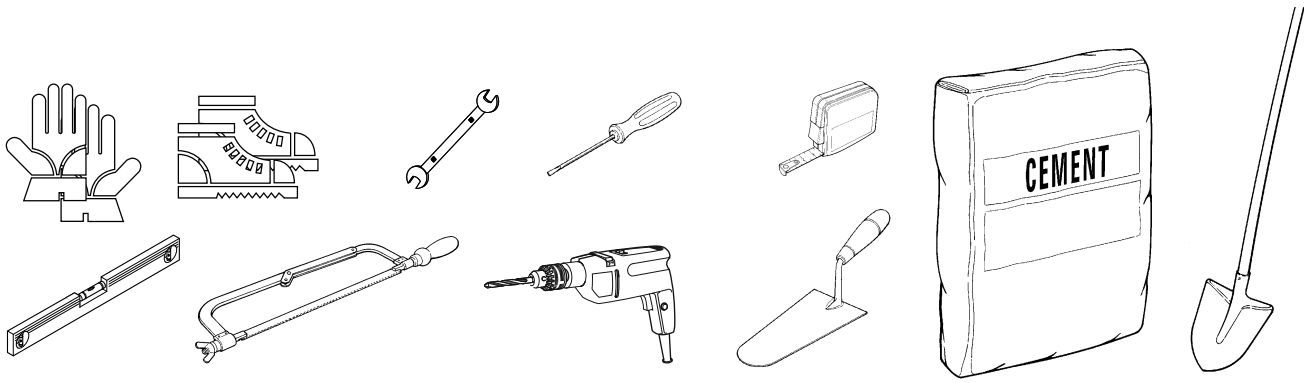
Preliminary checks

△ Before beginning, do the following:

- make sure the plate is anchored to a solid spot;
- make sure you have set up a suitable dual pole cut off device along the power supply that is compliant with the installation rules. It should completely cut off the power supply according to category III surcharge conditions (that is, with minimum contact openings of 3 mm);
- ⊕ Make sure that any connections inside the casing (ones that ensure continuity to the protection circuit) are fitted with additional insulation with respect to those of other electrical parts inside;
- set up suitable tubes and conduits for the electric cables to pass through, making sure they are protected from any mechanical damage.

Tools and materials

Make sure you have all the tools and materials you will need for installing in total safety and in compliance with applicable regulations. The figure shows some of the equipment installers will need.



Cable types and minimum thicknesses

Connection	Cable type	Cable length 1 < 10 m	Cable length 10 < 20 m	Cable length 20 < 30 m
Power supply 230 V AC		3G x 1.5 mm ²	3G x 2.5 mm ²	3G x 4 mm ²
Flashing light	FROR CEI 20-22	2 x 0.5 mm ²	-	-
Photocell transmitters			2 x 0.5 mm ²	
Photocell receivers	CEI EN 50267-2-1		4 x 0.5 mm ²	
Command and safety device			2 x 0.5 mm ²	
Antenna	RG58		max 10 m	
Metal mass detector			(see product literature)	

📖 If cable lengths differ from those specified in the table, establish the cable sections depending on the actual power draw of the connected devices and according to the provisions of regulation CEI EN 60204-1.

For multiple, sequential loads along the same line, the dimensions on the table need to be recalculated according to the actual power draw and distances. If connecting products that are not contemplated in this manual, see the literature accompanying said products

INSTALLATION

⚠ The following illustrations are mere examples. Consider that the space available where to fit the barrier and accessories will vary depending on the area where it is installed. It is up to each installer to select the most suitable solution.

⚠ Warning! Use hoisting equipment to transport and position the barrier.

During the set up and installing stages the barrier could be unstable and tip over. So, be careful to not lean on it until it is completely fastened.

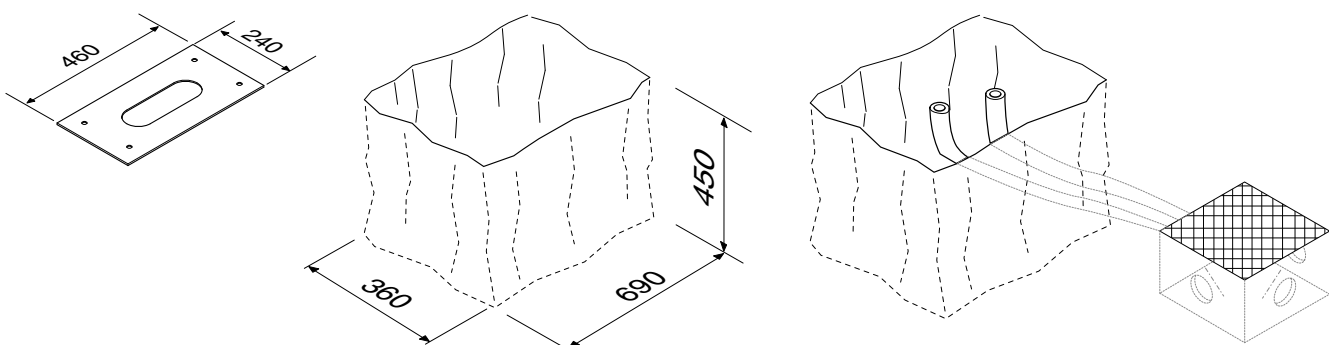
Preparing the fastening plate.

⚠ If the flooring does not allow for a sturdy fastening of the entry unit, you will have to set up a cement slab.

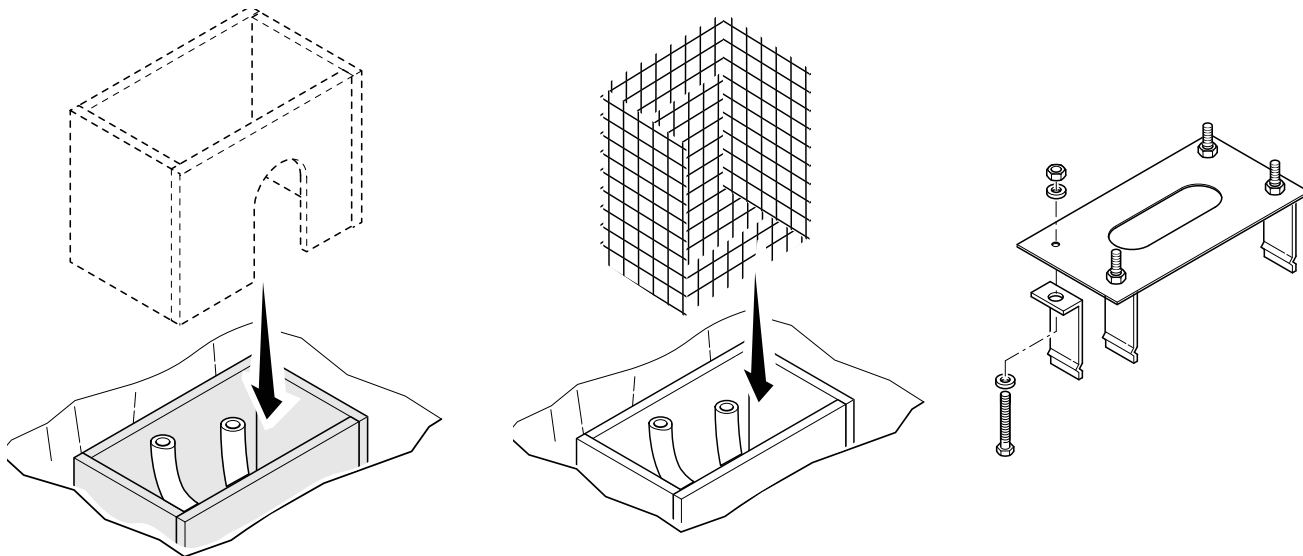
Dig a hole for the foundation frame.

Set up the corrugated tubes needed for making the connections coming out of the junction pit.

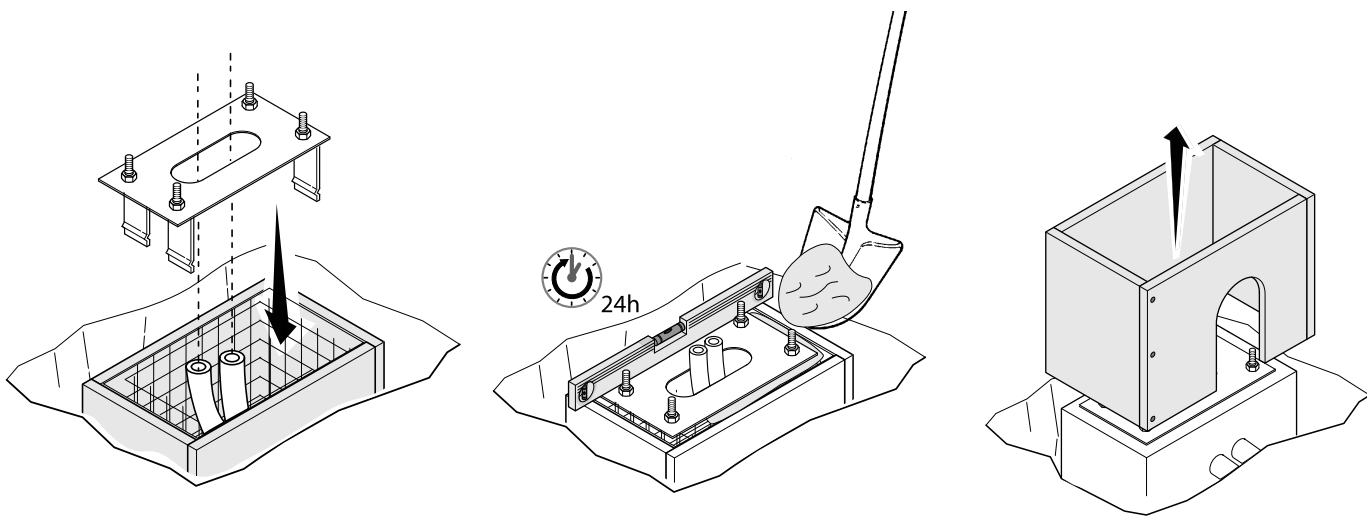
📖 The number of tubes depends on the type of system and the accessories you are going to fit.



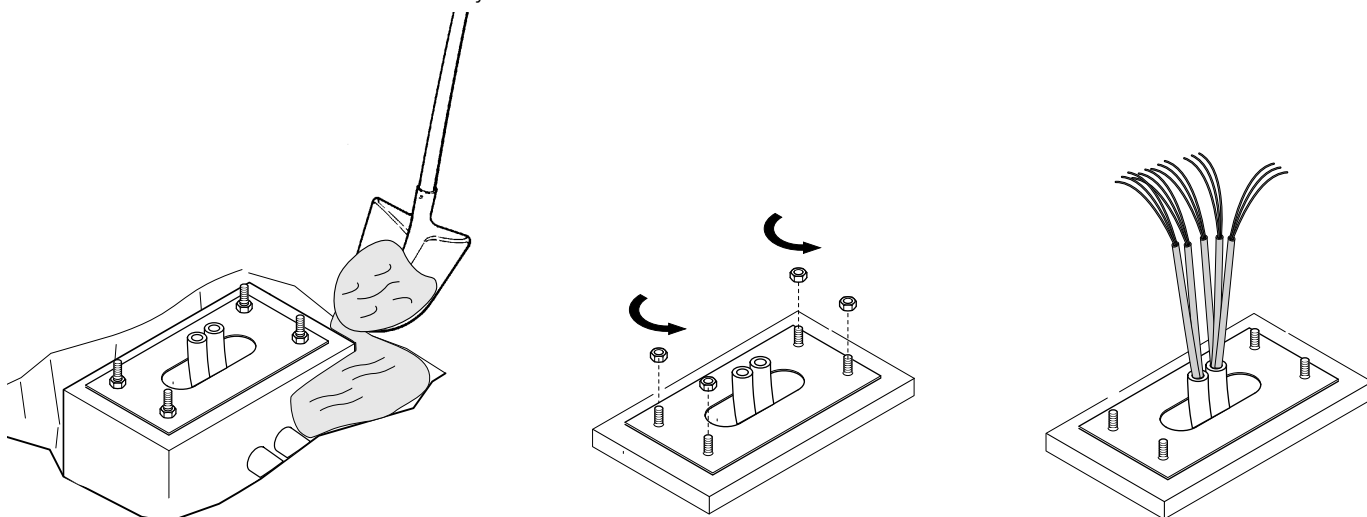
Set up a foundation frame that is larger than the anchoring plate and sink it into the dug hole.
 Fit an iron cage into the foundation frame to reinforce the concrete.
 Assemble the four anchoring brackets to the anchoring plate.



Place the plate over the iron cage.
 Fill the foundation frame with concrete. The base must be perfectly level with the bolts which are entirely above surface.
 Wait at least 24 hrs for the concrete to solidify.
 Remove the foundation frame.

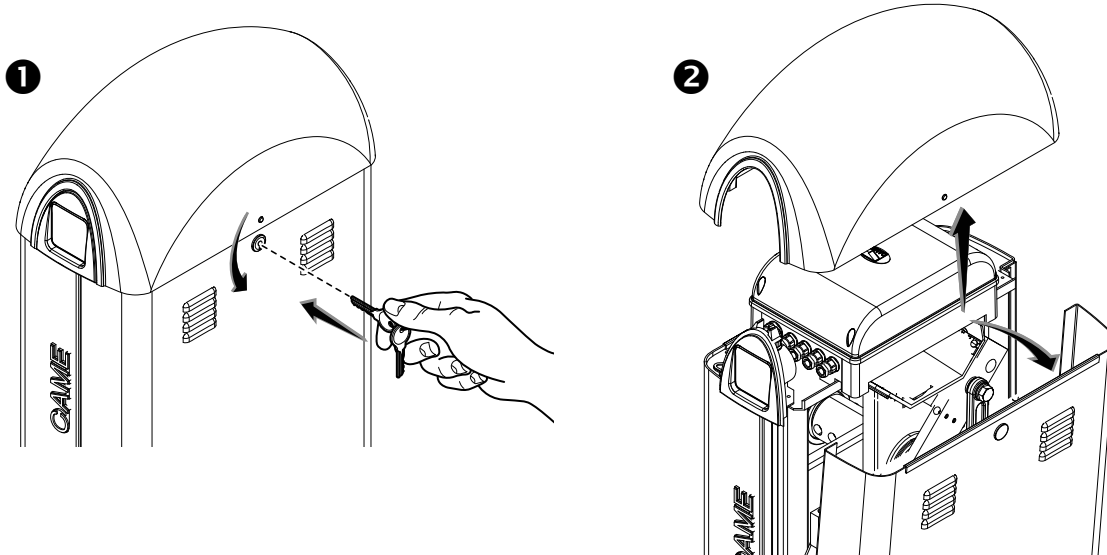


Fill the hole with earth around the concrete block.
 Remove the nut and washer from the bolts
 Fit the electric cables into the tubes so that they come out about 600 mm.



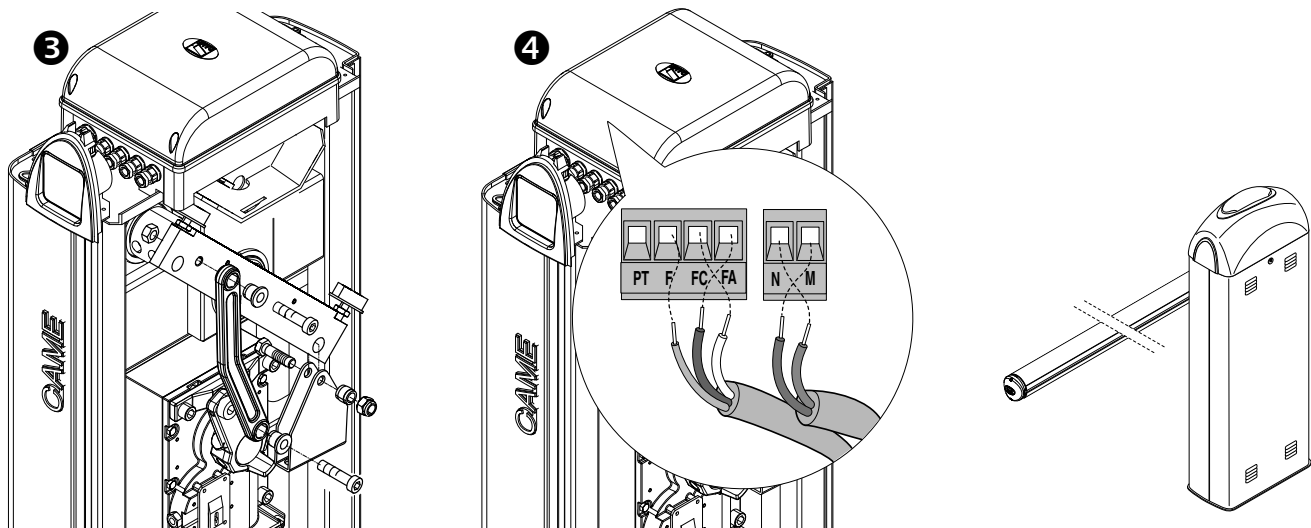
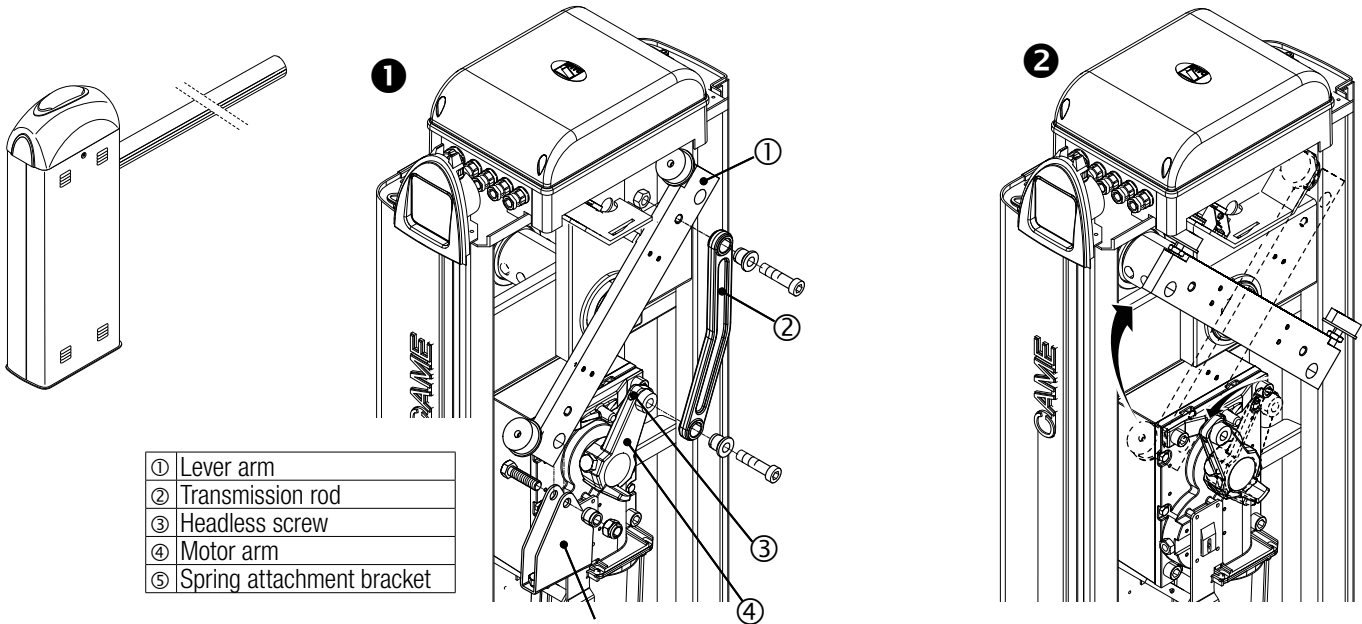
Preparing the barrier

Fit the key into the lock and turn it counter clockwise ❶, lift the dome and remove the inspection hatch ❷.




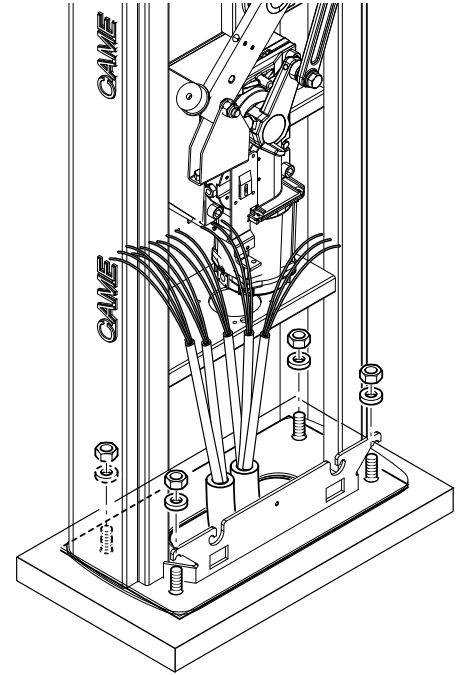
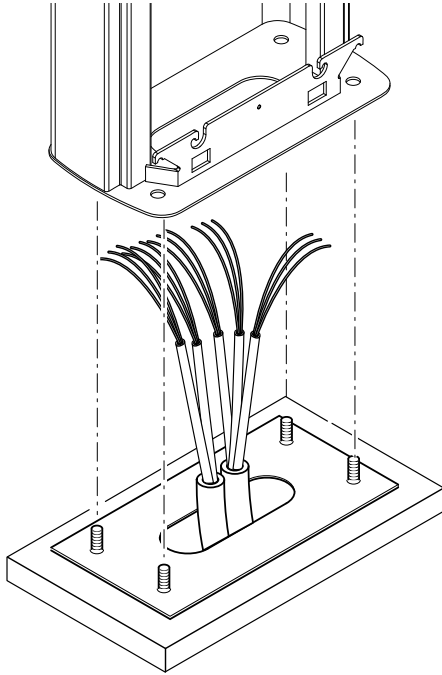
⚠ Warning! The barrier is set up for installing on the left.
When installing on the right, invert the boom's opening direction, as follows:

- loosen the motor arm headless screw, remove the spring attaching bracket and the lever arm transmission rod ❶;
- turn the lever arm by 90° ❷;
- fasten the spring attaching bracket to the transmission rod on the part opposite the lever arm and tighten the headless screw ❸;
- invert the motor phases (M with N) and limit switches (FA with FC) ❹.

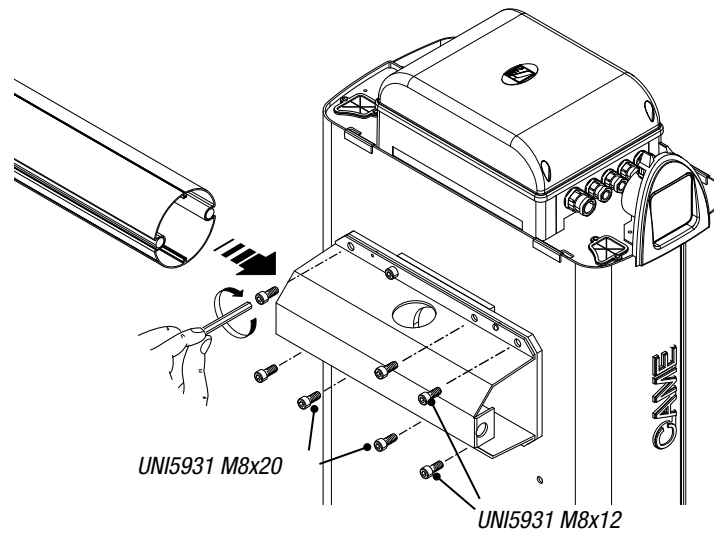
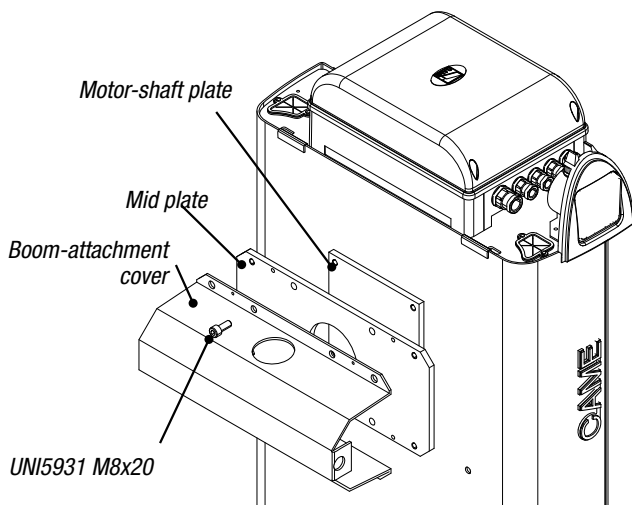


Installing the barrier

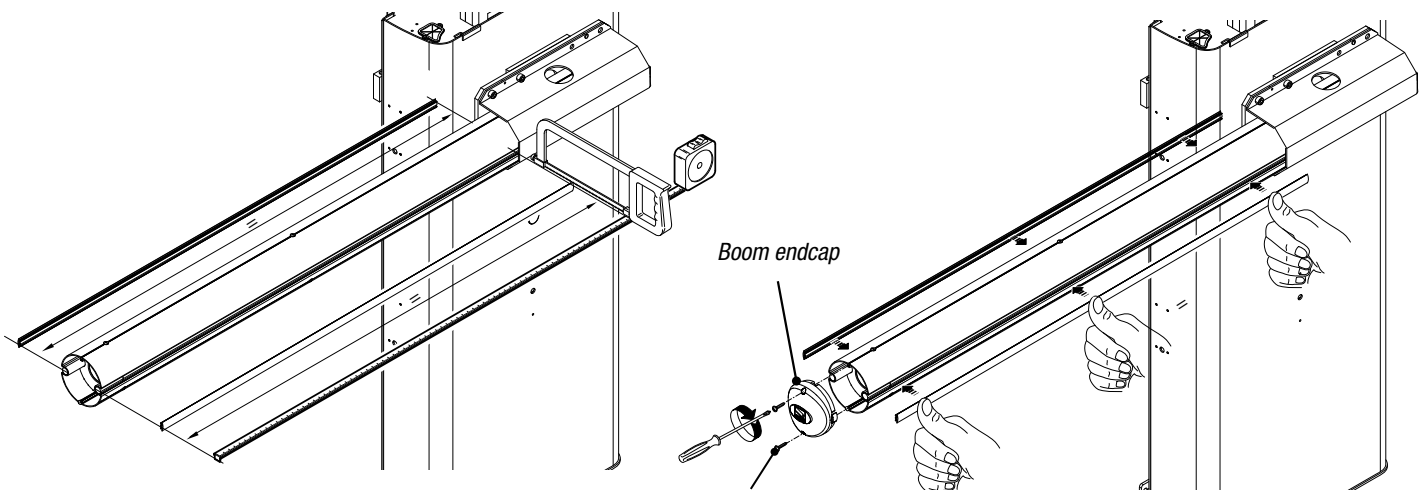
 The cabinet should be installed with the inspection hatch on the most accessible side to make any adjusting easier. Place the cabinet onto the anchoring plate and fasten it using nuts and washers.



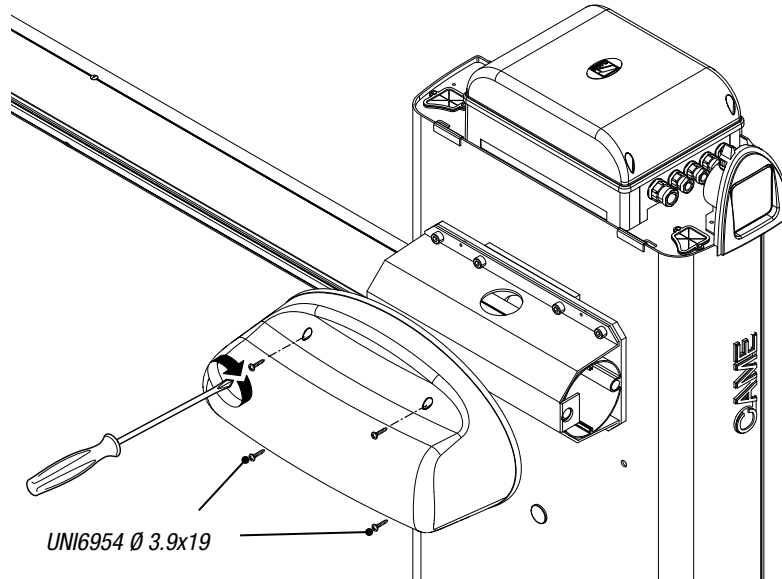
Assemble the boom-attaching cover, the mid plate and motor-shaft plate with a screw. Leave the screw loose to then facilitate fitting the boom. Fit the boom into the boom attaching cover and fasten it using the screws.



Cut the groove covering profiles to measure and fit them into either side. Use the screws to fasten the boom endcap.

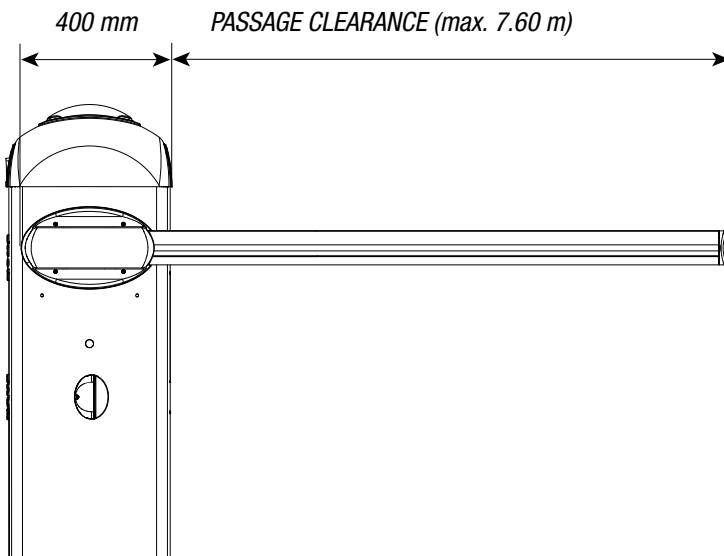


Fit the anti-shearing protective cover onto the boom-attachment cover and fasten it with screws.



Balancing the boom

Before balancing the boom, check on the table below for congruences between the chosen spring, accessories and passage clearance.



	A Spring 001G02040 Ø 40 mm		B Spring 001G04060 Ø 50 mm		C Spring 001G06080 Ø 55 mm						
BOOM LENGTH (m)	2 ÷ 2.5	2.5 ÷ 3	3 ÷ 3.5	3.5 ÷ 4	4 ÷ 4.5	4.5 ÷ 5	5 ÷ 5.5	5.5 ÷ 6	6 ÷ 6.5	6.5 ÷ 7	7 ÷ 7.6
Boom	A	A	A	A A	B	A B	A B	B B	B B	B C	C C
Boom with swing-leg 001G02808	A	A	A A	A A	A B	A B	B B	B B	B C	C C	
Boom with luminous cord 001G28401	A	A	A A	A A	A B	A B	B B	B B	B C	B C	C C
Boom with 001G02808 swing rest and 001G28401 luminous cord	A	A A	A A	B	A B	B B	B B	B C	C C	C C	
Boom with skirt 001G0465	A	A	A A	B	A B	B B	B B	B C	B C	C C	
Boom with 001G0465 skirt and 001G028401 luminous cord	A	A A	A A	A B	A B	B B	B B	B C	C C	C C	

The boom includes the transparent groove cover and end cap.

⚠ WARNINGS!

- 001G02802 Cannot be used on barriers fitted with the 001G0465 skirt or 001G02808 swing rest
- 001G02808 For passage width clearances of up to max. 7 m.
- 001G02807 MUST be used with passage width clearances of over 7 m.
- 001G0465 - 001G02808 Cannot be used together.

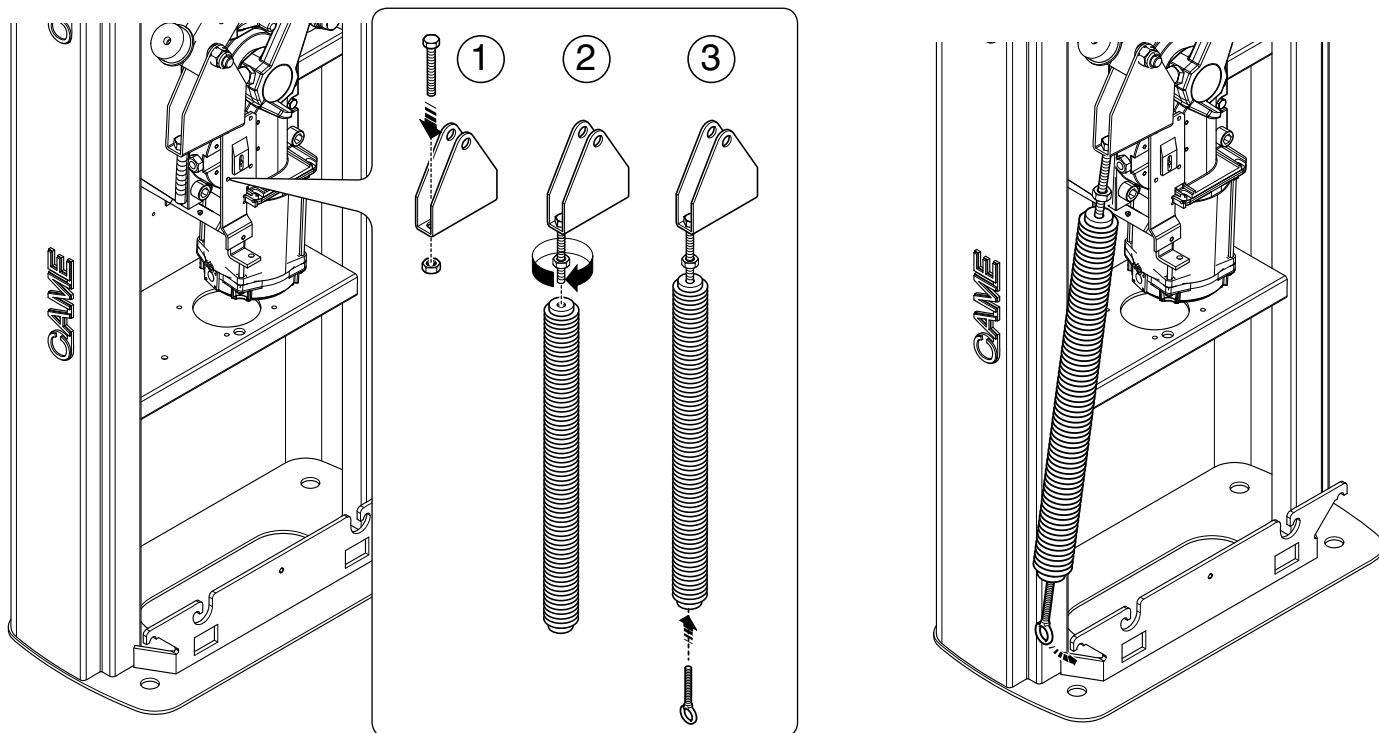
Release the gearmotor and position the boom vertically. Lock the gearmotor again.

Install the spring into the barrier in the following way:

- fit a UNI5739 M12x70 screw into the attachment bracket and tighten the UNI5588 M12 nut to the screw ❶.
- tighten the screw into the spring ❷;
- tighten the eyelet tie rod below the spring ❸.

Hook the tie rod to the anchoring bracket.

Perform the same procedure for a possible second spring.



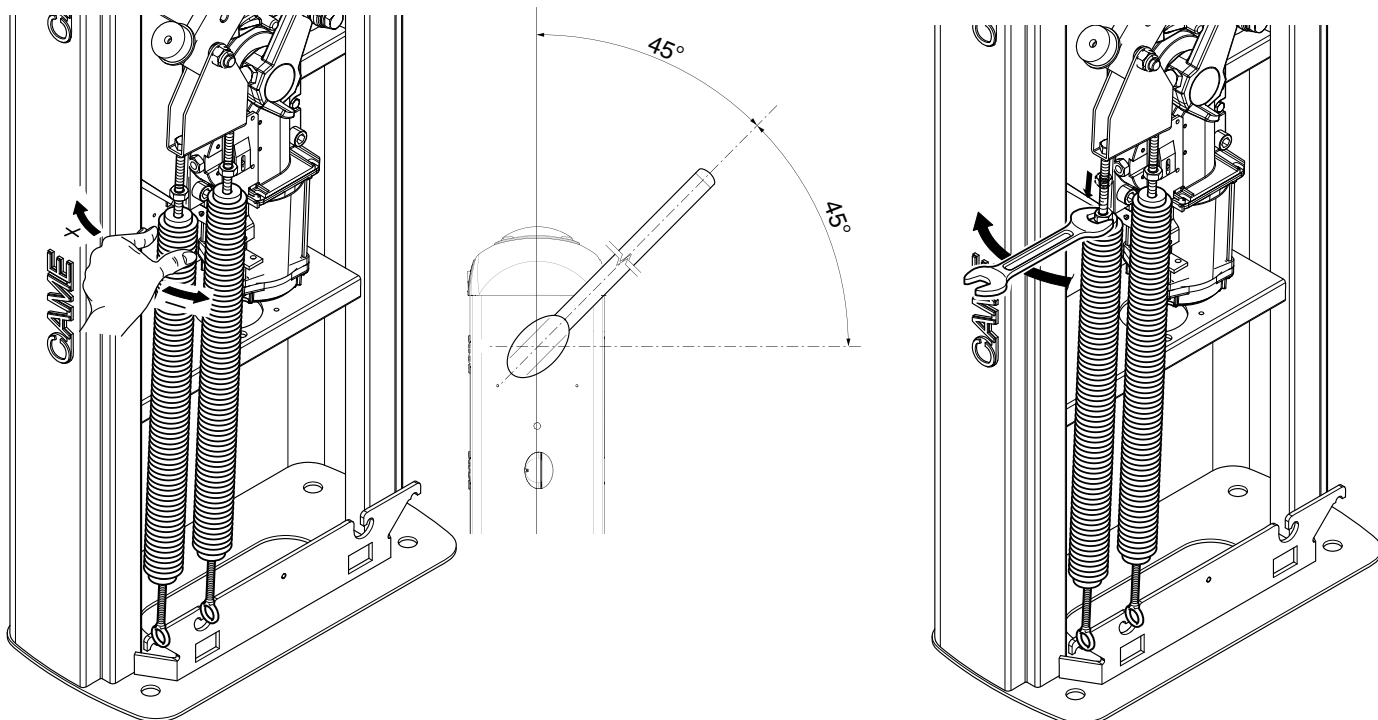
Release the gearmotor and manually turn the spring to increase or decrease tautness. The spring should stabilize at 45°.

Fasten the counter nut and lock the gearmotor again.

📖 Check the proper working state of the spring.

With the boom raised vertically the spring is not taut.

With the boom lowered horizontally the spring is taut.



ELECTRICAL CONNECTIONS AND PROGRAMMING

⚠ Warning! Before working on the control panel, cut off the main current supply and, if present, remove any batteries.

Power supply to control panel and control devices: 24 V AC/DC.

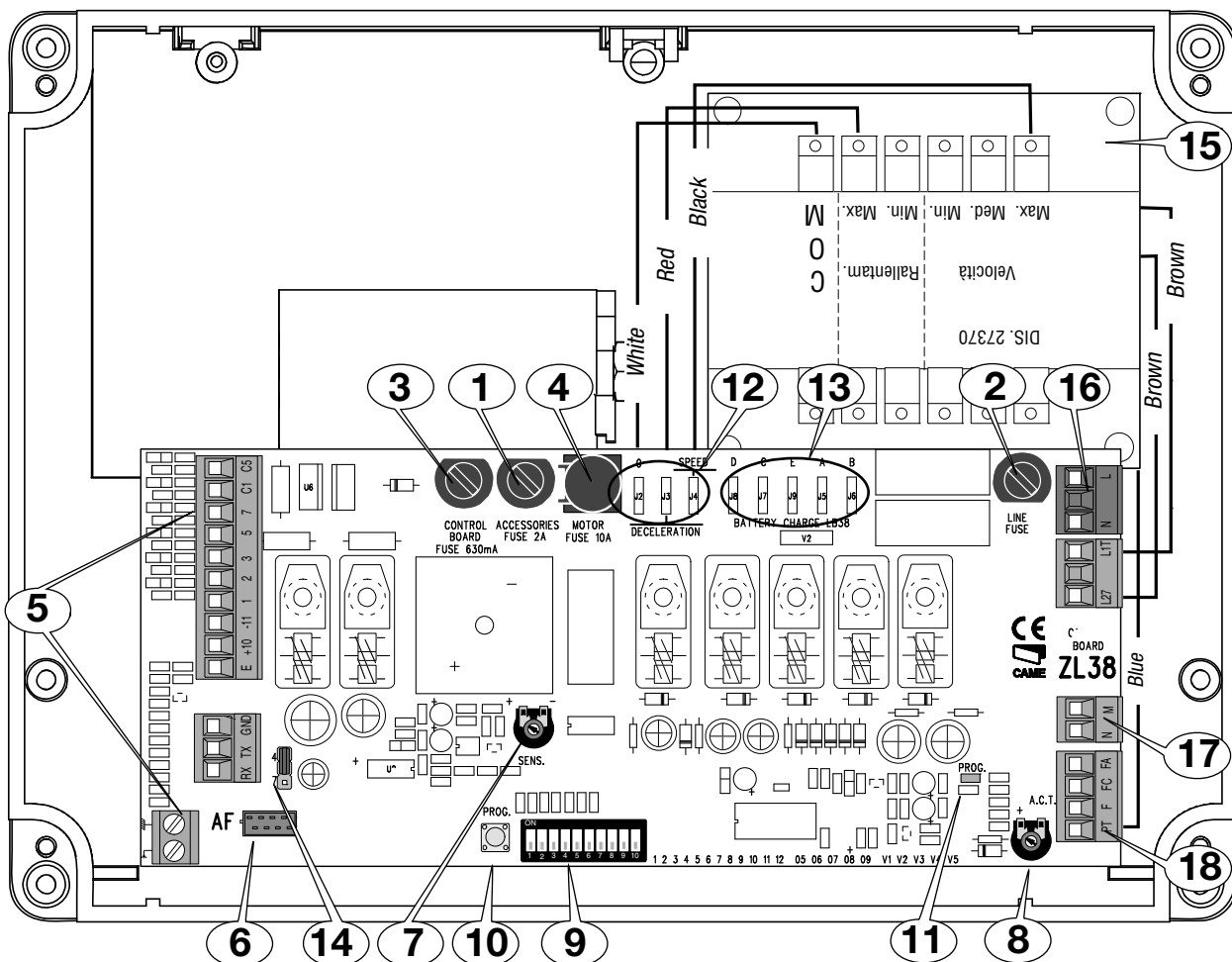
The features are set using the DIP switches, the adjustments using the trimmer.

All connections are quick-fuse protected.

FUSE TABLE	ZL38
LINE - Line	3,15 A-F
C.BOARD - Card	630 mA-F
MOTOR - Gearmotor	10 A-F
ACCESSORIES - Accessories	2 A-F

Description of parts

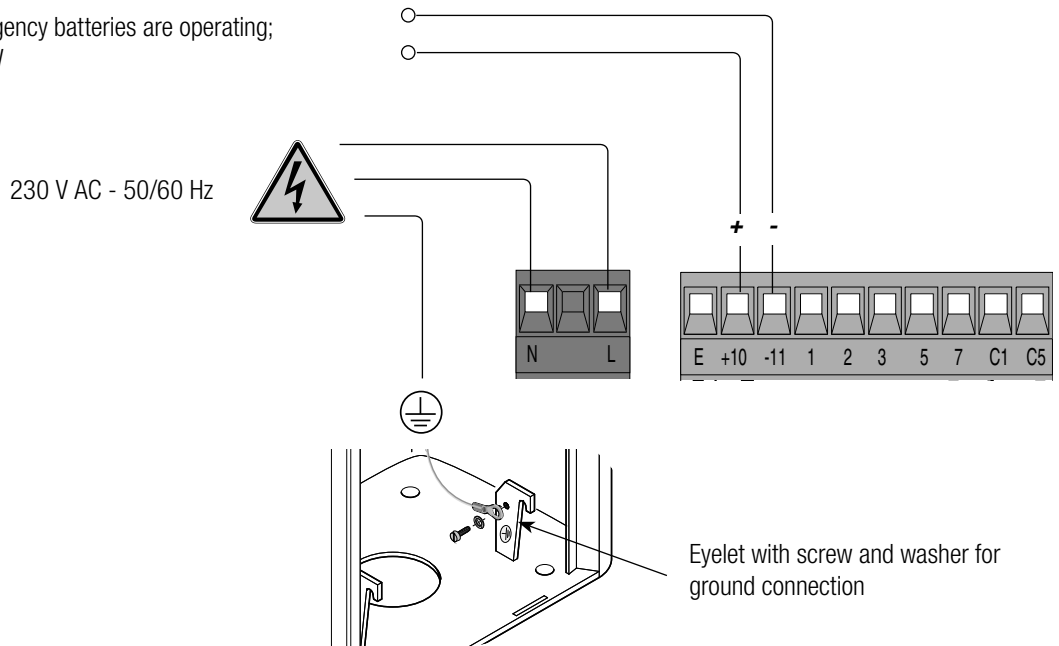
- | | |
|---|--|
| 1. Accessories fuse | 10. Programming button |
| 2. Line fuse | 11. Programming warning LED |
| 3. Control board fuse | 12. Speed and slow-down adjusting connectors |
| 4. Motor fuse | 13. Battery charger (LB38) connectors |
| 5. Terminals for control and safety devices | 14. Command type selection jumper |
| 6. AF card connector | 15. Transformer |
| 7. SENS trimmer | 16. Power supply terminals |
| 8. ACT Trimmer | 17. Gearmotor terminal |
| 9. DIP-SWITCH | 18. Limit switch terminals |



Power supply

Terminals for powering up accessories:

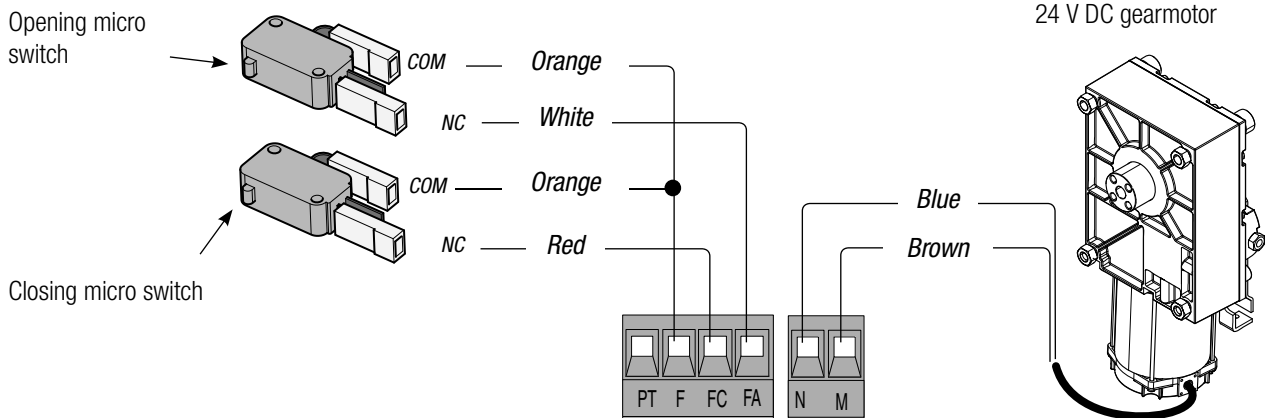
- a 24 V AC normally;
 - a 24 V DC when the emergency batteries are operating;
- Overall allowed power: 40 W



Factory wiring

The gearmotor is already connected.

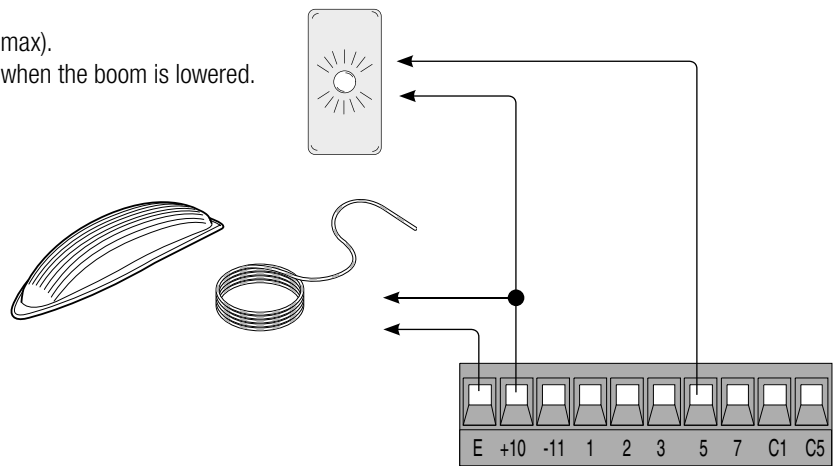
To install the barrier on the right, follow the instructions in the PREPARING THE BARRIER.



Warning devices

Barrier indicator light (contact rated for: 24 V AC - 3 W max).
it warns of the booms raised position, and switches off when the boom is lowered.

Dome flashing light and/or luminous cord (Contact rated for: 24 V - 32 W max.)
It flashes during the boom's opening and closing phases.



Command and control devices

STOP button (NC contact). It is for stopping the barrier while excluding automatic closing. To resume movement, press the control button or one on another control device.

 **If unused, set DIP switch 9 to ON.**

Warning: in MAINTAINED ACTION mode, the control device must be connected to 2-3

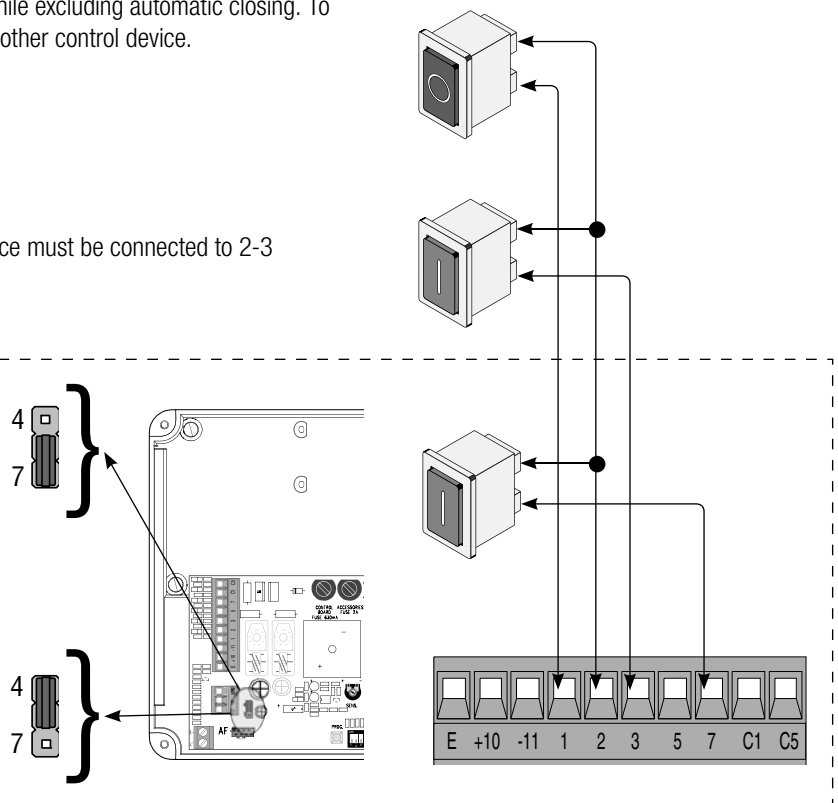
ONLY OPEN or OPEN-CLOSED-INVERT (step-step) function from control device (NO contact, see DIP switch 2).

Set the jumper as shown in the figure.

ONLY CLOSE function from control device (NO contact).

Warning: in MAINTAINED ACTION mode, the control device must be connected to 2-4.

Set the jumper as shown in the figure.



Safety devices

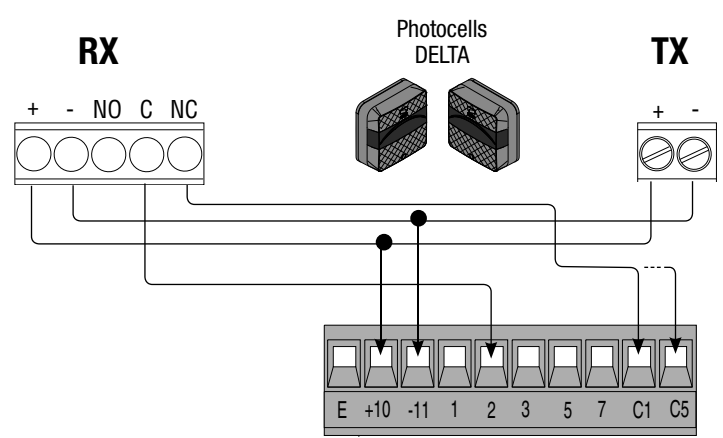
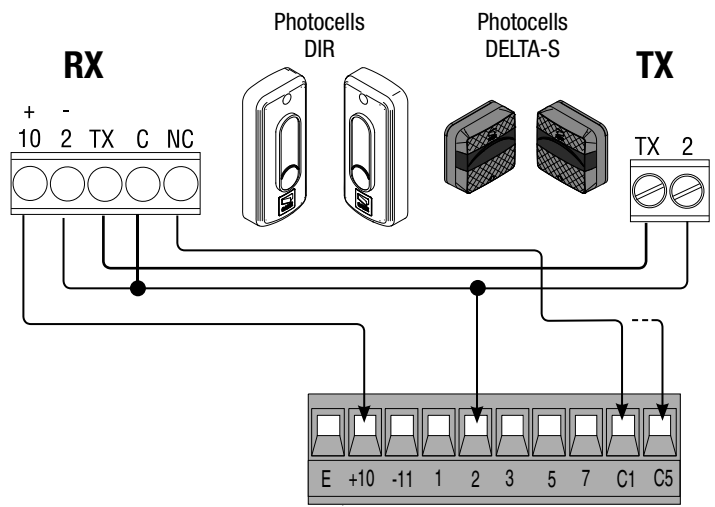
Configure contact C1 and/or C5 (NC), input for safety devices such as photocells.

C1 reopening while closing. When the boom is closing, opening the contact causes its movement to invert until fully opened;

 **If unused, shortcircuit contact 2-C1.**

C5 immediate closing. Closing the boom after a vehicle has passed through the operating area of the safety devices.

 **If unused, set DIP switch 8 to ON.**



Establishing the endstop points

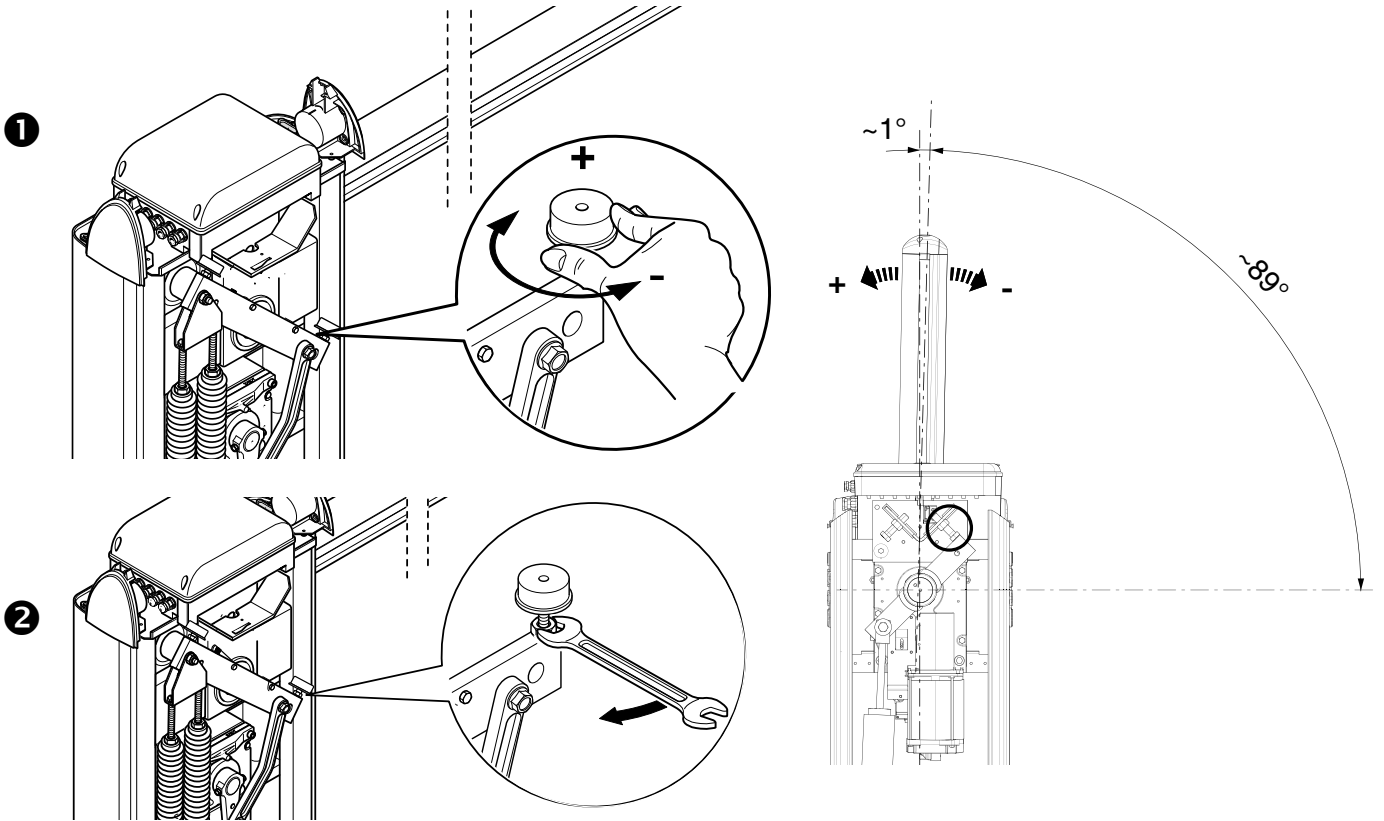
Close the inspection hatch and power up the system. Activate the barrier to check whether the boom is parallel to the road surface when close and at about 89° when open.

△ The boom's opening and closing maneuvers must be performed with the inspection hatch closed.

To correct the boom's vertical position:

- lower the boom;
- open the inspection hatch;
- turn the opening mechanical stop clockwise to increase the boom's travel or counter clockwise to reduce it ❶.

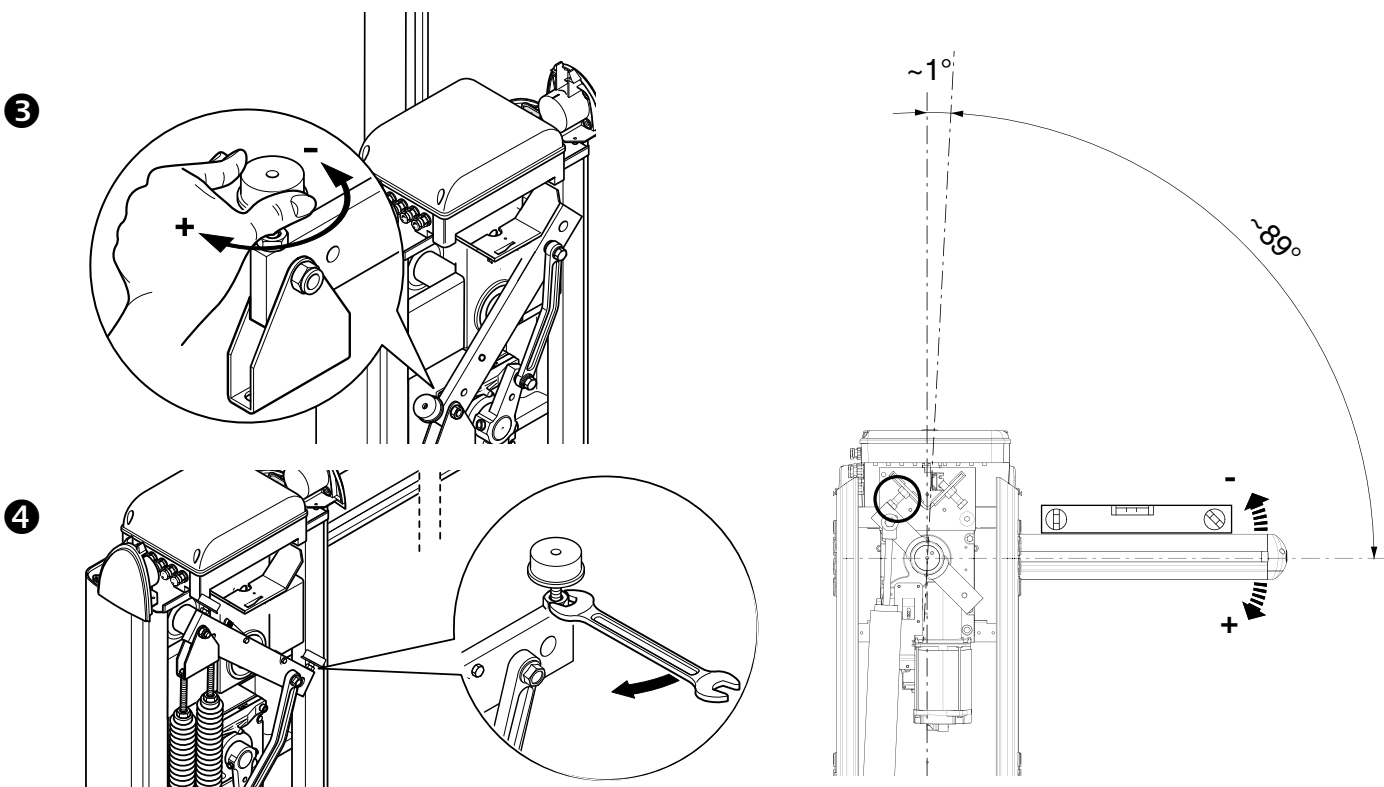
Fasten the stop with a counter nut ❷.



To correct the horizontal position:

- raise the boom;
- turn the mechanical closing stop clockwise to increase the boom travel or counter clockwise to reduce it ❸.

Fasten the stop with a counter nut ❹.



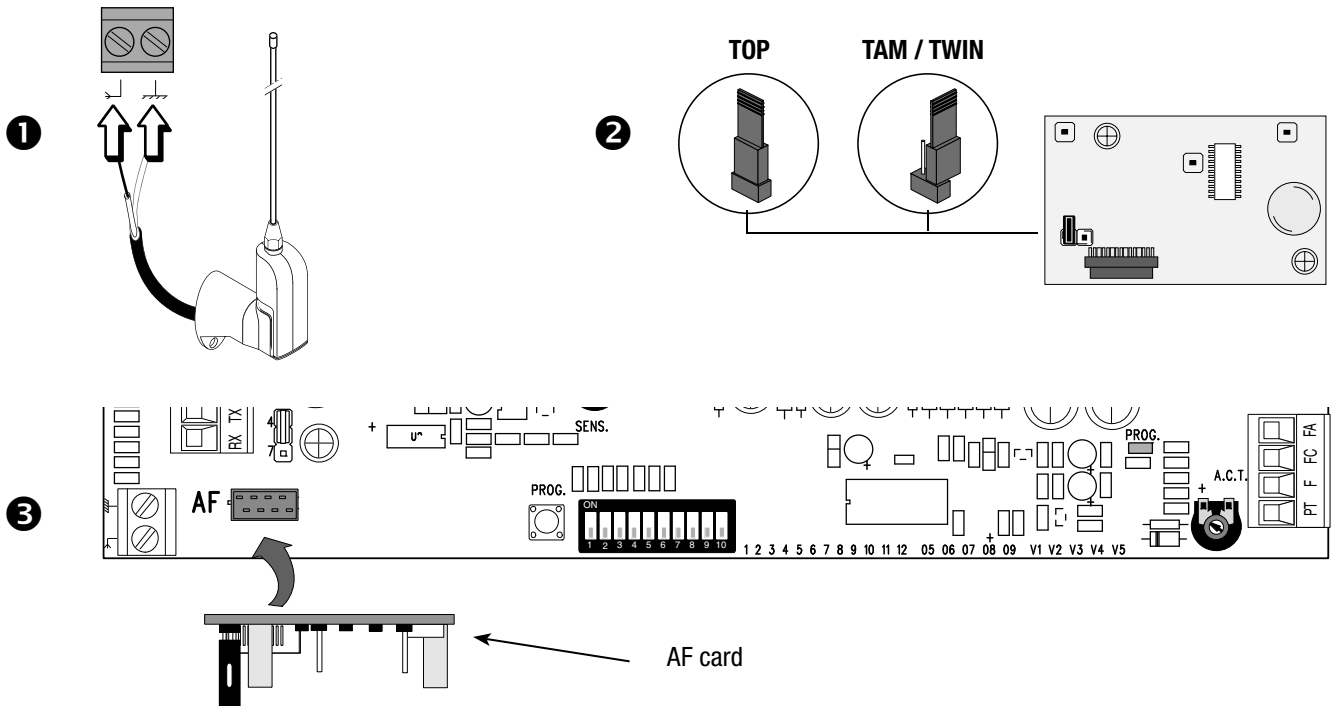
Activating the radio control

Connect the RG58 cable antenna cable to the corresponding terminals **1**.

For TOP, TAM and TWIN series transmitters with 433.92 MHz frequency, set the AF card jumper as shown in the figure **2**.

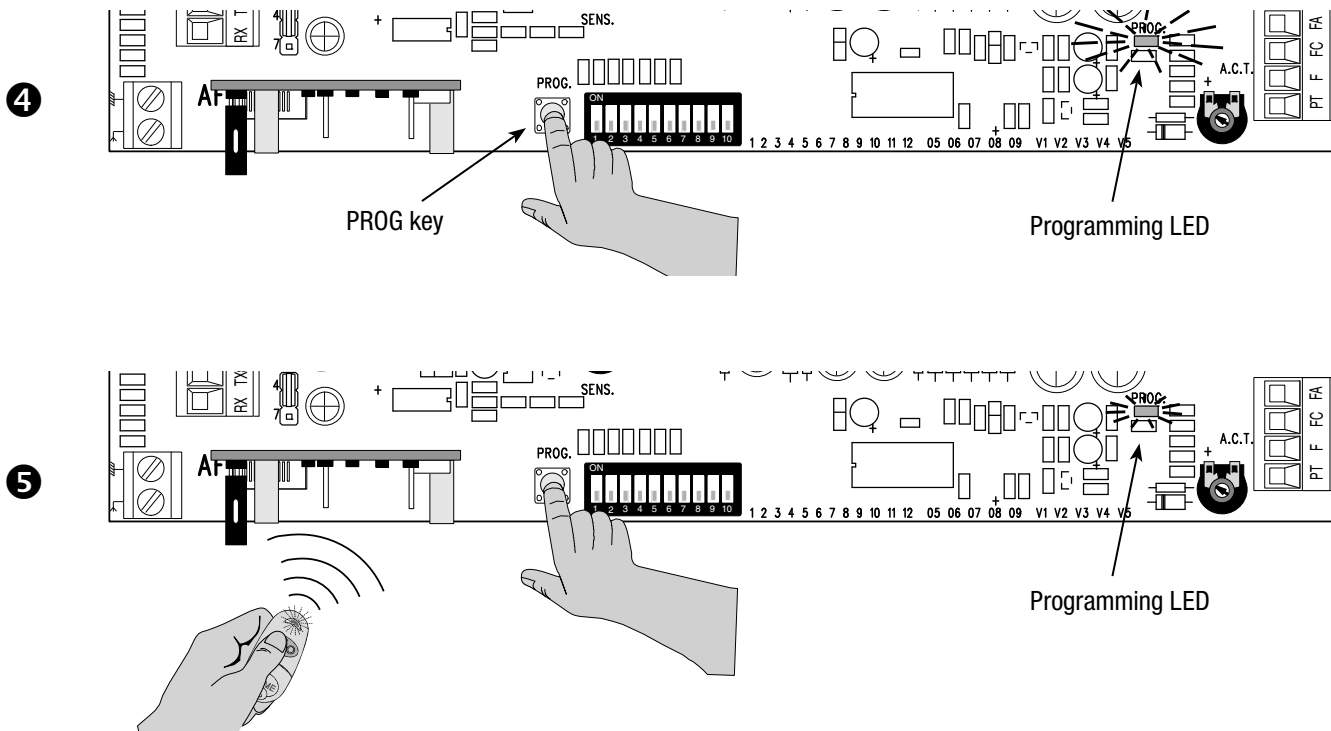
Fit the AF card into the control board connector **3**.

⚠ Before fitting the AF card, you MUST CUT OFF THE MAIN POWER SUPPLY and, remove any emergency batteries.

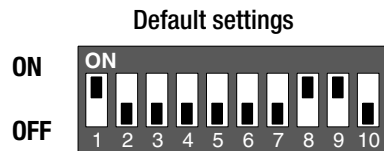
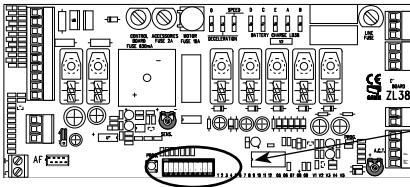


Keep the PROG programming button pressed on the control board. The programming LED will flash **4**.

Press a button on the transmitter you wish to memorize. The LED stays lit to confirm that the transmitter is now memorized. **5**.



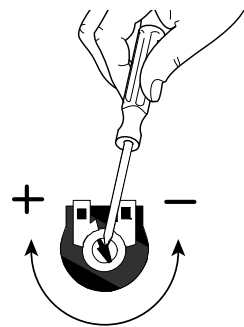
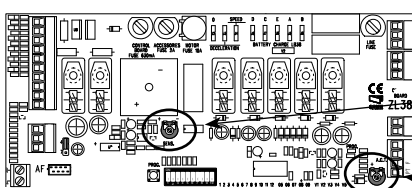
Programming the features



DIP-SWITCH Description of functions

1 ON	AUTOMATIC CLOSING (1 OFF - deactivated)
2 ON	ONLY OPEN from button 2-7 and/or from transmitter (with AF card fitted)
2 OFF	OPEN-CLOSE-INVERT from the button on 2-7 and/or from a transmitter (with AF card fitted)
3 ON	24 V output on 10-E during the boom's movement phases and when it is in closed position
3 OFF	24 V output on 10-E during the boom's movement phases
4 ON	MAINTAINED ACTION (4 OFF - deactivated)
5 ON	PRE-FLASHING when opening and closing (pre-flashing duration: 5 seconds) (5 OFF - deactivated)
6 ON	OBSTRUCTION DETECTION with motor stopped (6 OFF - deactivated)
7 ON	SLAVE piloted motor (7 OFF - deactivated)
8 OFF	IMMEDIATE CLOSURE of the boom (8 ON - deactivated)
9 OFF	TOTAL STOP (9 ON - deactivated)
10 ON	BRAKING ACTION of the boom when closing (10 OFF - deactivated)

Trimmer adjustments

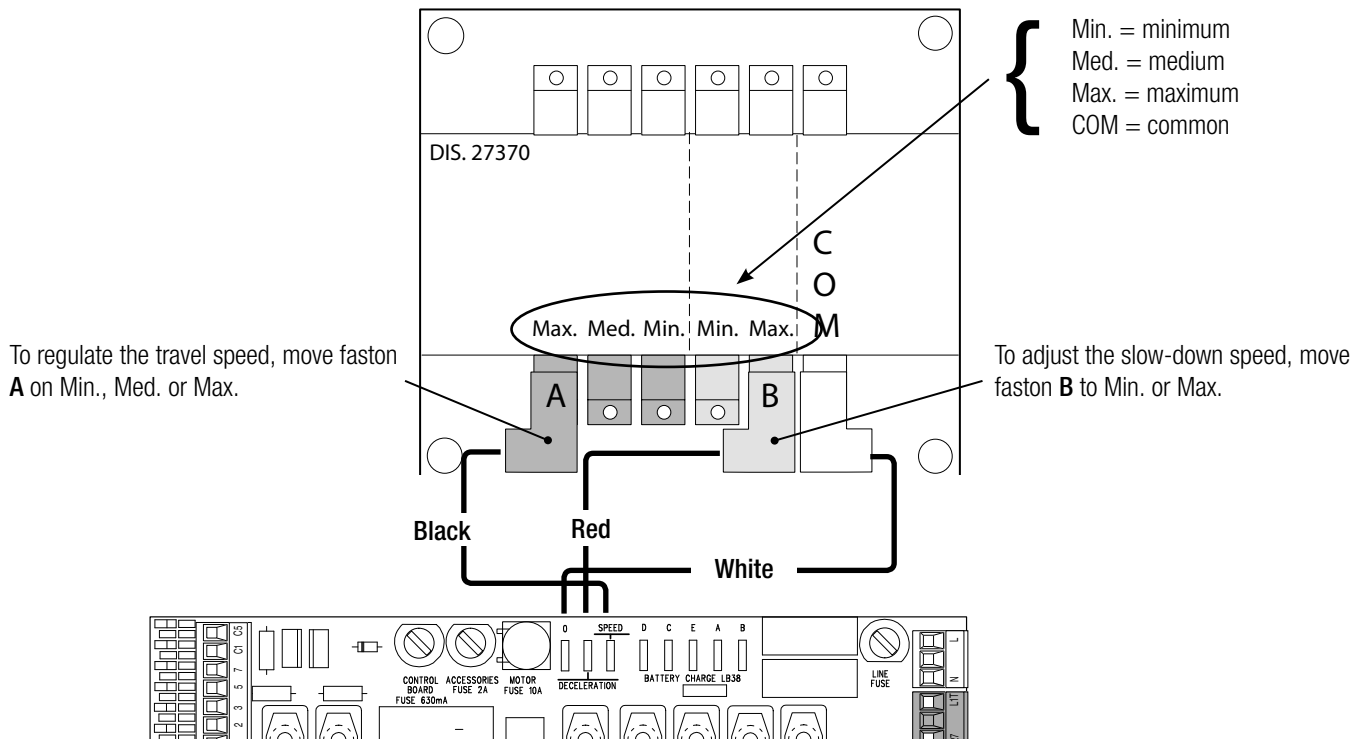


Trimmer Description of functions

SENS **Sensitivity**
It adjusts the obstruction detection sensitivity during gate movement. Minimum sensitivity (-) or maximum sensitivity (+).

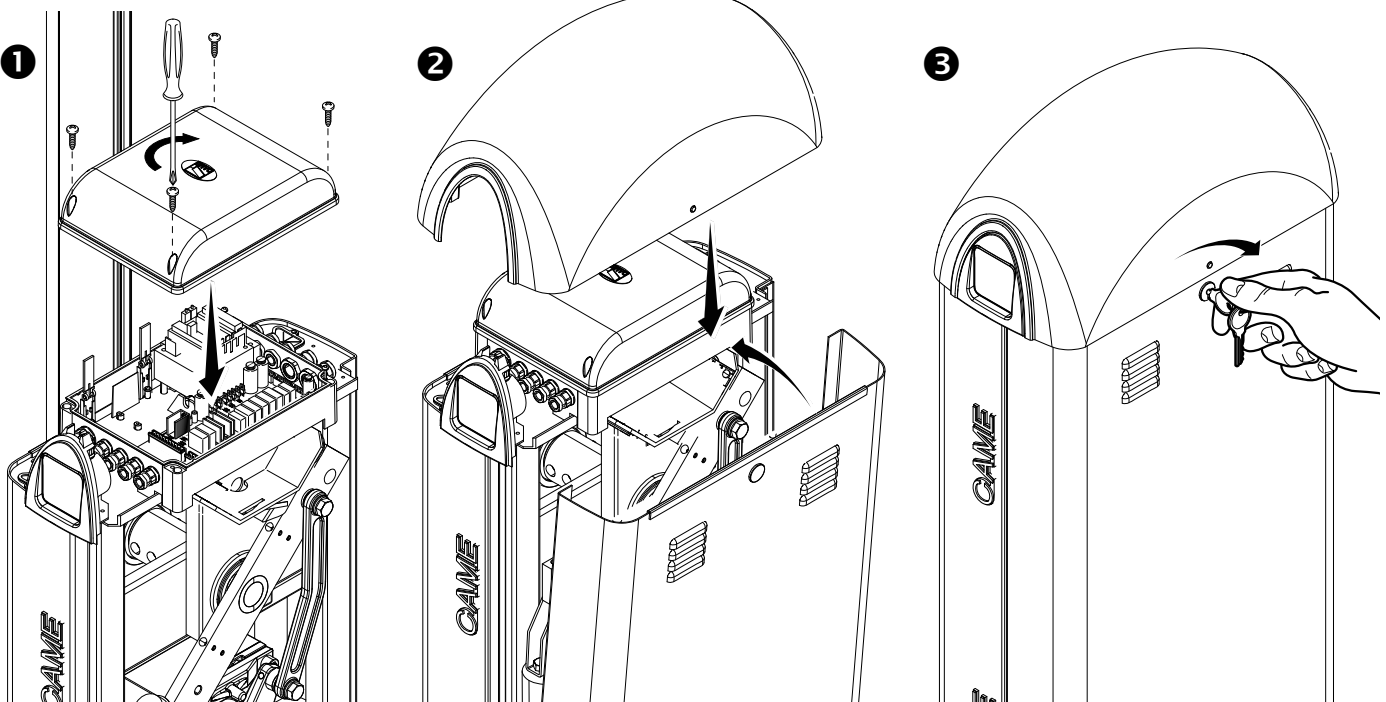
A.C.T. **Automatic Closing Time**
It regulates the open barrier's waiting time. Once this time elapses, a closing maneuver automatically takes place. The waiting time may be adjusted to between 1 and 120 seconds

Regolazione della velocità



FINAL OPERATIONS

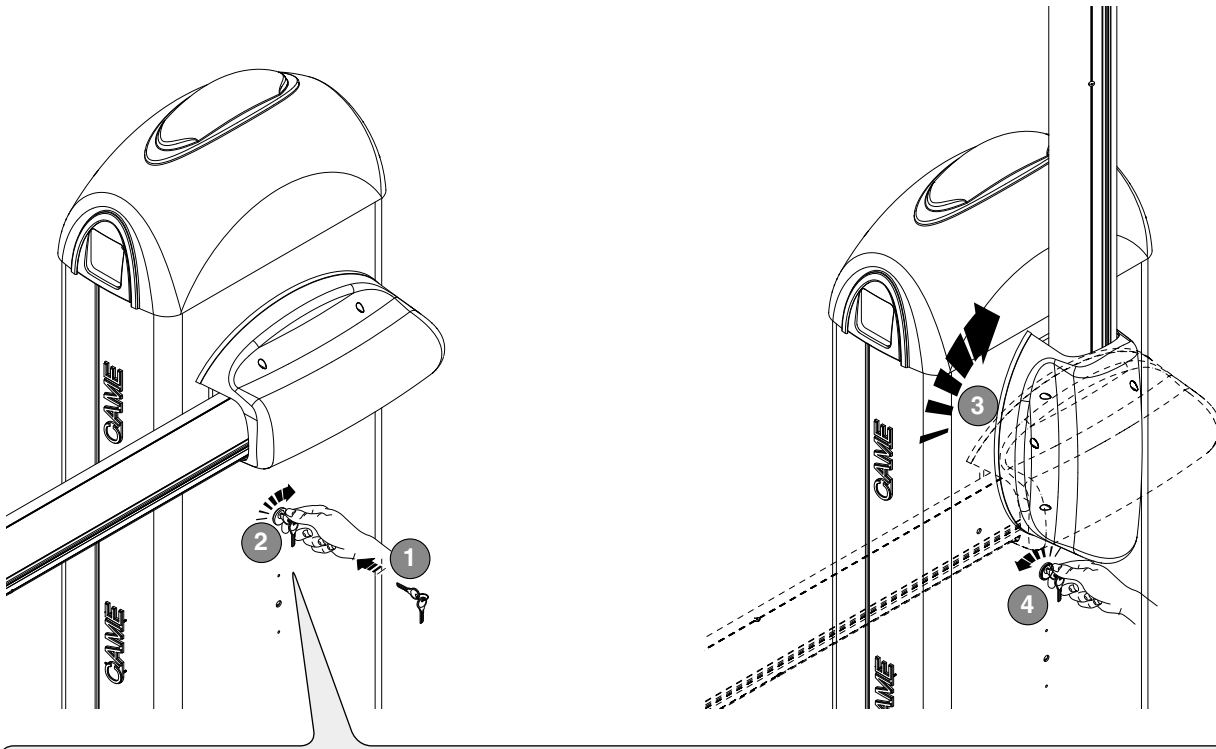
When you done with the electrical connections and setting up, fit the control panel cover and fasten it with the screws **1**.
Replace the inspection hatch and upper dome **2**. Lock the hatch with the key **3**.



RELEASING THE BOOM

⚠ This procedure must be done with the main power cut off.

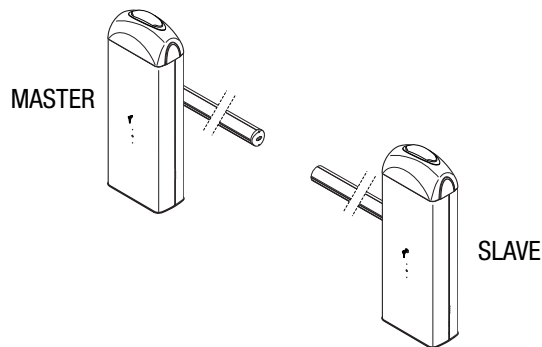
Fit the key into the lock and turn it clockwise. Manually lift the boom and lock it again by turning the key counter clockwise.



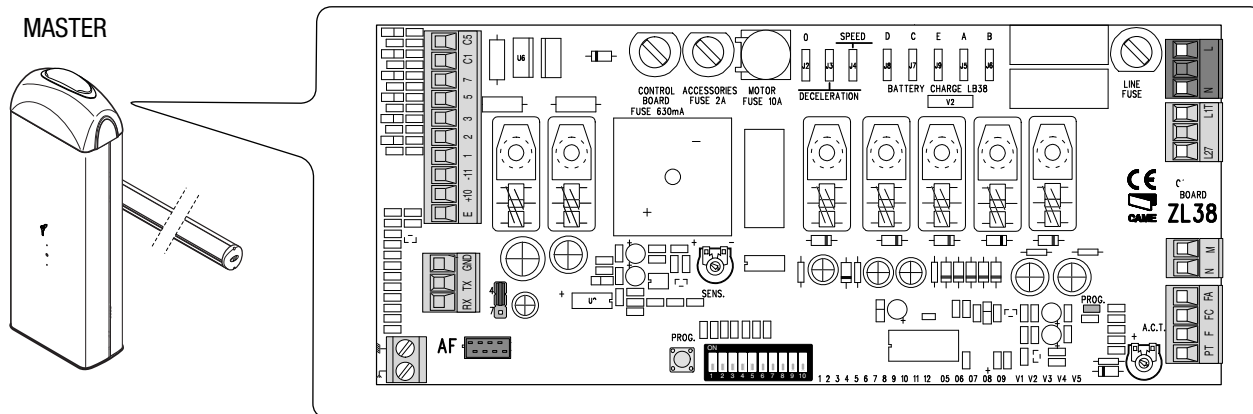
⚠ **WARNING!** This operation is potentially hazardous for user, when for whatever reason, such as the boom being badly fastened, ripped out or broken during an accident, and so on, the loosened springs no longer provide the proper balancing action. This could lead to a sudden rotation of the boom attachment and/or of the boom itself.

PAIRED CONNECTION WITH A SINGLE COMMAND

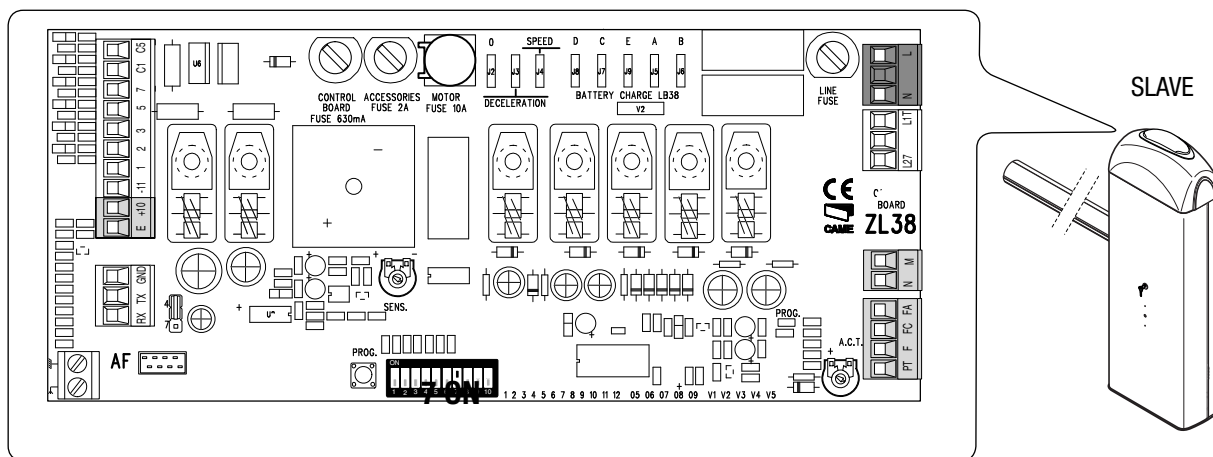
Establish which will be the Master barrier and which the Slave barrier.



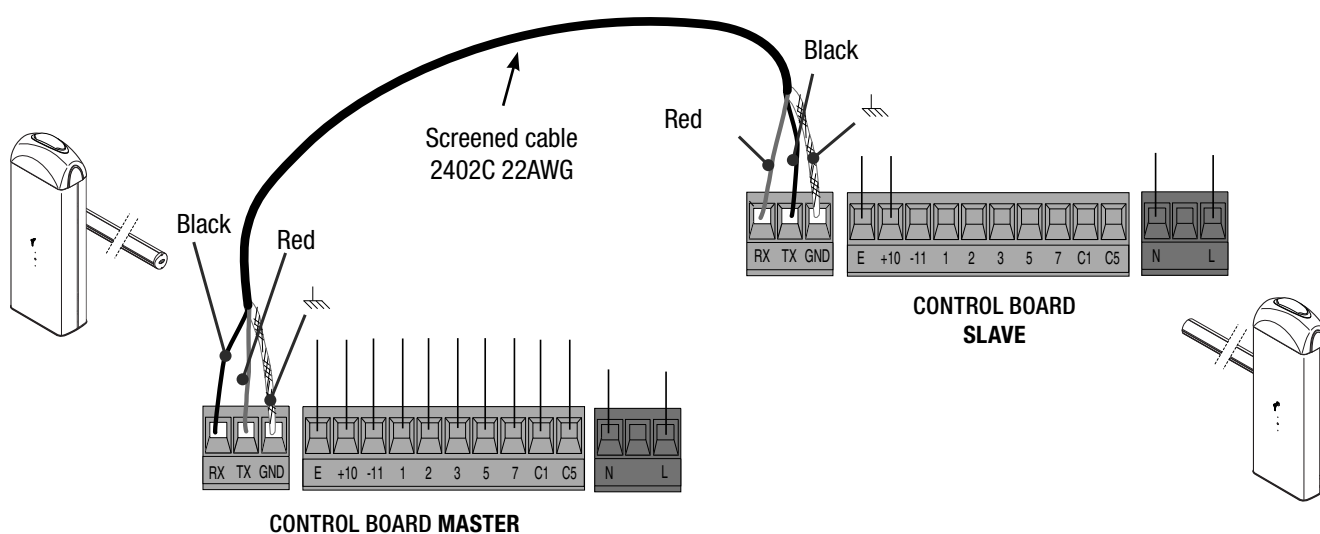
On the MASTER barrier's electronic board, make the necessary electrical connections, activate the radio control, program the functions and settings.



On the SLAVE barrier's control board, connect the power supply to L-N, the flashing light on 10-E, set DIP switch 7 to ON and adjust the travel and slow-down speeds just like on the MASTER barrier.



Connect the two control boards using terminals RX-TX-GND as shown in the figure.



TROUBLESHOOTING

PROBLEM	REFERENCE	CHECK
The barrier neither opens nor closes	1-2-3-4-6-8-18	1 - Lock the inspection hatch with the key
The boom opens but does not close	4-7-10	2 - Deactivate the MAINTAINED ACTION function
The boom closes but does not open	4-7-9	3 - Check the power supply and fuses
The barrier does not automatically close	11-12-13	4 - The NC contacts are open
The barrier does not work with the transmitter	2-14-16	6 - Deactivate the MASTER-SLAVE function
The boom's direction of travel is inverted	7-18	7 - Check the boom's balancing and spring tautness
Only one transmitter works	22	8 - Deactivate the OBSTRUCTION DETECTION function
The photocells do not work	12-23-24	9 - Check the opening endstop
The warning LED flashes quickly	4	10 - Check the closing endstop
The warning LED stays lit	13	11 - Activate the AUTOMATIC CLOSING function
The boom does not reach the endstop	7	12 - Check the proper direction of travel
The boom cannot be balanced	7-15	13 - Check the control devices
The barrier does not slow down	7-15	14 - Replace the AF card
The barrier does not work with emergency batteries	8-25-26	15 - Check the length ration between boom and applied accessories
The boom starts slow	7	16 - Memorize the radio code again
		18 - Adjust the sensitivity
		22 - Enter or duplicate the same code on all transmitters
		23 - Activate the photocells
		24 - Connect the photocells serially instead of in parallel fashion
		25 - Check the batteries
		26 - Respect the photocell's power supply polarities

Extraordinary maintenance

△ The following table is for logging any extraordinary maintenance jobs, repairs and improvements performed by specialized contractors.

📖 Any extraordinary maintenance jobs must be done only by specialized technicians.

Extraordinary maintenance log

Fitter's stamp	Name of operator
	Job performed on (date)
	Technician's signature
	Requester's signature
Job performed _____ _____	

Fitter's stamp	Name of operator
	Job performed on (date)
	Technician's signature
	Requester's signature
Job performed _____ _____	

Fitter's stamp	Name of operator
	Job performed on (date)
	Technician's signature
	Requester's signature
Job performed _____ _____	

DISMANTLING AND DISPOSAL

👉 CAME S.p.A. applies a certified Environmental Management System at its premises, which is compliant with the UNI EN ISO 14001 standard to ensure the environment is safeguarded.

Please continue safeguarding the environment. At CAME we consider it one of the fundamentals of our operating and market strategies. Simply follow these brief disposal guidelines:

♻️ DISPOSING OF THE PACKAGING

The packaging materials (cardboard, plastic, and so on) should be disposed of as solid household waste, and simply separated from other waste for recycling.

Always make sure you comply with local laws before dismantling and disposing of the product.

DO NOT DISPOSE OF IN NATURE!

♻️ DISMANTLING AND DISPOSAL

Our products are made of various materials. Most of these (aluminum, plastic, iron, electrical cables) is classified as solid household waste. They can be recycled by separating them before dumping at authorized city plants.

Whereas other components (control boards, batteries, transmitters, and so on) may contain hazardous pollutants.

These must therefore be disposed of by authorized, certified professional services.

Before disposing, it is always advisable to check with the specific laws that apply in your area.

DO NOT DISPOSE OF IN NATURE!

Reference regulations

The product complies to the reference regulations in effect.



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