

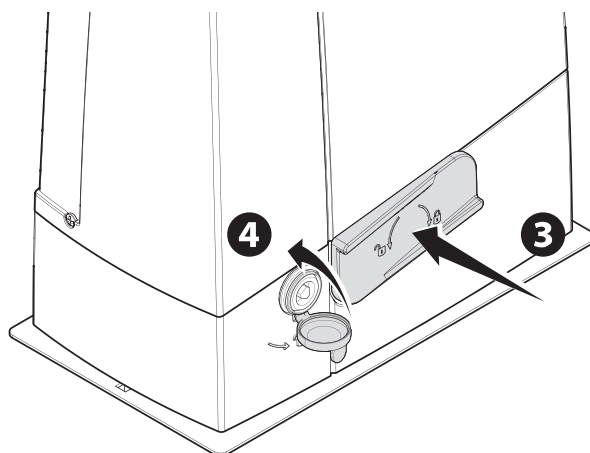
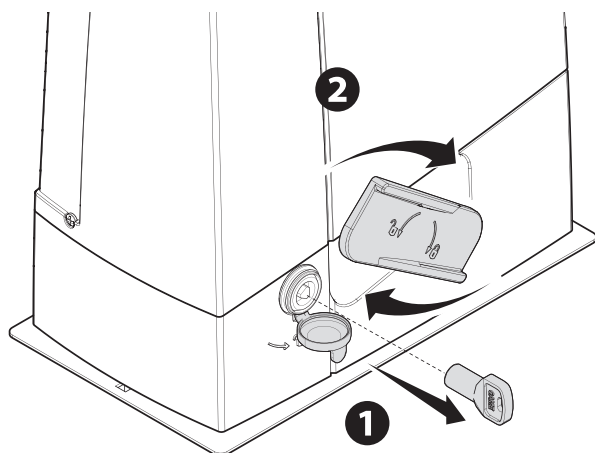
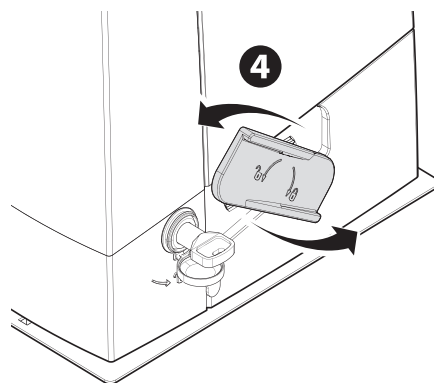
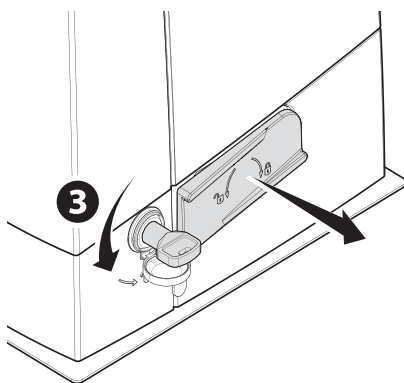
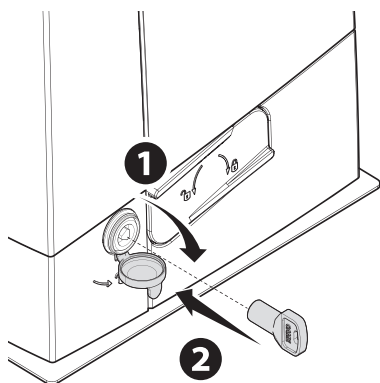
Sliding-gate operators

FA01718-EN



| | | |
|-----------------|-----------------|-----------------|
| BXV04AGS | BXV06AGS | BXV08AGS |
| BXV10AGS | BXV04RGS | BXV06RGS |
| BXV08RGS | BXV10RGS | BXV06AGM |
| BXV10AGM | BXV04ALS | BXV06ALS |
| BXV08ALS | BXV10ALS | |

INSTALLATION MANUAL



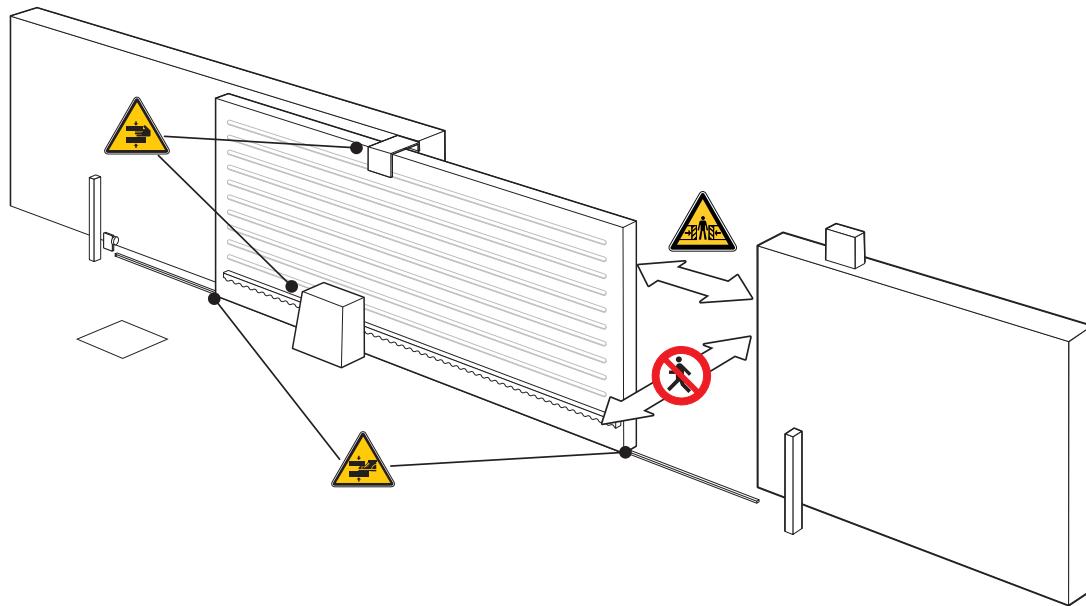
△ Important safety instructions.**△ Please follow all of these instructions. Improper installation may cause serious bodily harm.****△ Before continuing, please also read the general precautions for users.**

Only use this product for its intended purpose. Any other use is hazardous. • The manufacturer cannot be held liable for any damage caused by improper, unreasonable or erroneous use. • This product is defined by the Machinery Directive (2006/42/EC) as partly completed machinery. • Partly completed machinery means an assembly which is almost machinery but which cannot in itself perform a specific application. • Partly completed machinery is only intended to be incorporated into or assembled with other machinery or other partly completed machinery or equipment thereby forming machinery to which the Machinery Directive (2006/42/EC) applies. • The final installation must comply with the Machinery Directive (2006/42/EC) and the European reference standards in force. • The manufacturer declines any liability for using non-original products, which would also void the warranty. • All operations indicated in this manual must be carried out exclusively by skilled and qualified personnel and in full compliance with the regulations in force. • The device must be installed, wired, connected and tested according to good professional practice, in compliance with the standards and laws in force. • Make sure the mains power supply is disconnected during all installation procedures. • Check that the temperature ranges given are suitable for the installation site. • Do not install on slopes i.e. any surfaces that are not perfectly level. • Do not install the operator on surfaces that could yield and bend. If necessary, add suitable reinforcements to the anchoring points. • Make sure that no direct jets of water can wet the product at the installation site (sprinklers, water cleaners, etc.). • 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. • Demarcate the entire site properly to prevent unauthorised personnel from entering, especially minors. • In case of manual handling, have one person for every 20 kg that needs hoisting; for non-manual handling, use proper hoisting equipment in safe conditions. • Use suitable protection to prevent any mechanical hazards due to persons loitering within the operating range of the operator. • The electrical cables must pass through special pipes, ducts and cable glands in order to guarantee adequate protection against mechanical damage. • The electrical cables must not touch any parts that may overheat during use (such as the motor and transformer). • Before installation, check that the guided part is in good mechanical condition, and that it opens and closes correctly. • The product cannot be used to automate any guided part that includes a pedestrian gate, unless it can only be enabled when the pedestrian gate is secured. • Make sure that nobody can become trapped between the guided and fixed parts, when the guided part is set in motion. • Use additional protection to prevent your fingers from being crushed between the pinion and rack. • All fixed controls must be clearly visible after installation, in a position that allows the guided part to be directly visible, but far away from moving parts. In the case of a hold-to-run control, this must be installed at a minimum height of 1.5 m from the ground and must not be accessible to the public. • Where operated with a hold-to-run control, install a STOP button to disconnect the main power supply to the operator, to block movement of the guided part. • If not already present, apply a permanent tag that describes how to use the manual release mechanism close to it. • Make sure that the operator has been properly adjusted and that the safety and protection devices and the manual release are working properly. • Before handing over to the final user, check that the system complies with the harmonised standards and the essential requirements of the Machinery Directive (2006/42/EC). • Any residual risks must be indicated clearly with proper signage affixed in visible areas, and explained to end users. • Put the machine's ID plate in a visible place when the installation is complete. • If the power supply cable is damaged, it must be immediately replaced by the manufacturer or by an authorised technical assistance centre, or in any case, by qualified staff, to prevent any risk. • Keep this manual inside the technical folder along with the manuals of all the other devices used for your automation system. • Make sure to hand over to the end user all the operating manuals of the products that make up the final machinery. • The product, in its original packaging supplied by the manufacturer, must only be transported in a closed environment (railway carriage, containers, closed vehicles). • If the product malfunctions, stop using it and contact customer services at serviceinternational@came.com or via the telephone number on the website.

 The manufacture date is provided in the production batch printed on the product label. If necessary, contact us at <https://www.came.com/global/en/contact-us>.

 The general conditions of sale are given in the official CAME price lists.

Main points of danger for people



No transiting while the barrier is moving.



Risk of entrapment.




Risk of trapping hands.



Risk of trapping feet.

DISMANTLING AND DISPOSAL

 CAME S.p.A. employs an Environmental Management System at its premises. This system is certified and compliant with the UNI EN ISO 14001 standard to ensure that the environment is respected and 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, etc.) can be disposed of easily as solid urban waste, separated for recycling.

Before dismantling and disposing of the product, please always check the local laws in force.

DISPOSE OF THE PRODUCT RESPONSIBLY.

DISPOSING OF THE PRODUCT

Our products are made of various materials. Most of these materials (aluminium, plastic, iron and electrical cables) are classified as solid urban waste. They can be separated for recycling and disposed of at authorised waste treatment plants.





Other components (electronic boards, transmitter batteries, etc.) may contain pollutants.

These must be removed and disposed of by an authorised waste disposal and recycling firm.

It is always advisable to check the specific laws that apply in your area.

DISPOSE OF THE PRODUCT RESPONSIBLY.

Key

-  This symbol shows which parts to read carefully.
-  This symbol shows which parts describe safety issues.
-  This symbol shows what to tell users.
-  The measurements, unless otherwise stated, are in millimetres.

Description

801MS-0150

BXV04AGS - Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstruction detecting device for gates weighing up to 400 kg that are up to 14 m long. RAL7024 grey cover.

801MS-0180

BXV06AGS - Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstruction detecting device for gates weighing up to 600 kg that are up to 18 m long. RAL7024 grey cover.

801MS-0210

BXV08AGS - Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstruction detecting device for gates weighing up to 800 kg that are up to 20 m long. RAL7024 grey cover.

801MS-0230

BXV10AGS - Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstruction detecting device for gates weighing up to 1000 kg that are up to 20 m long. RAL7024 grey cover.

801MS-0260

BXV04RGS - Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstacle detecting device for gates weighing up to 400 kg that are up to 14-m long. RAL7024-grey cover.

801MS-0270

BXV06RGS - Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstruction detecting device for gates weighing up to 600 kg that are up to 18 m long. RAL7024 grey cover.

801MS-0280

BXV08RGS - Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstacle detecting device for gates weighing up to 800 kg that are up to 20-m long. RAL7024-grey cover.

801MS-0290

BXV10RGS - Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstruction detecting device for gates weighing up to 1000 kg that are up to 20 m long. RAL7024 grey cover.

801MS-0380

BXV06AGM - Operator with 24 V motor, featuring a control board with display, equipped with magnetic limit switches, on-board radio decoding, movement and obstacle detecting device for gates weighing up to 600 kg that are up to 18-m long. RAL7024-grey cover.

801MS-0390

BXV10AGM - Operator with 24 V motor, featuring a control board with display, equipped with magnetic limit switches, on-board radio decoding, movement and obstacle detecting device for gates weighing up to 1,000 kg that are up to 20-m long. RAL7024-grey cover.

801MS-0151

BXV04ALS - Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstacle detecting device for gates weighing up to 400 kg that are up to 14-m long. RAL 7040 grey cover.

801MS-0181

BXV06ALS - Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstacle detecting device for gates weighing up to 600 kg that are up to 18-m long. RAL7040-grey cover.

801MS-0211


BXV08ALS - Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstruction detecting device for gates weighing up to 800 kg that are up to 20 m long. RAL7040 grey cover.

801MS-0231

BXV10ALS - Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstacle detecting device for gates weighing up to 1000 kg that are up to 20-m long. RAL7040-grey cover.

Intended use

Sliding gate solution for residential buildings and apartment blocks

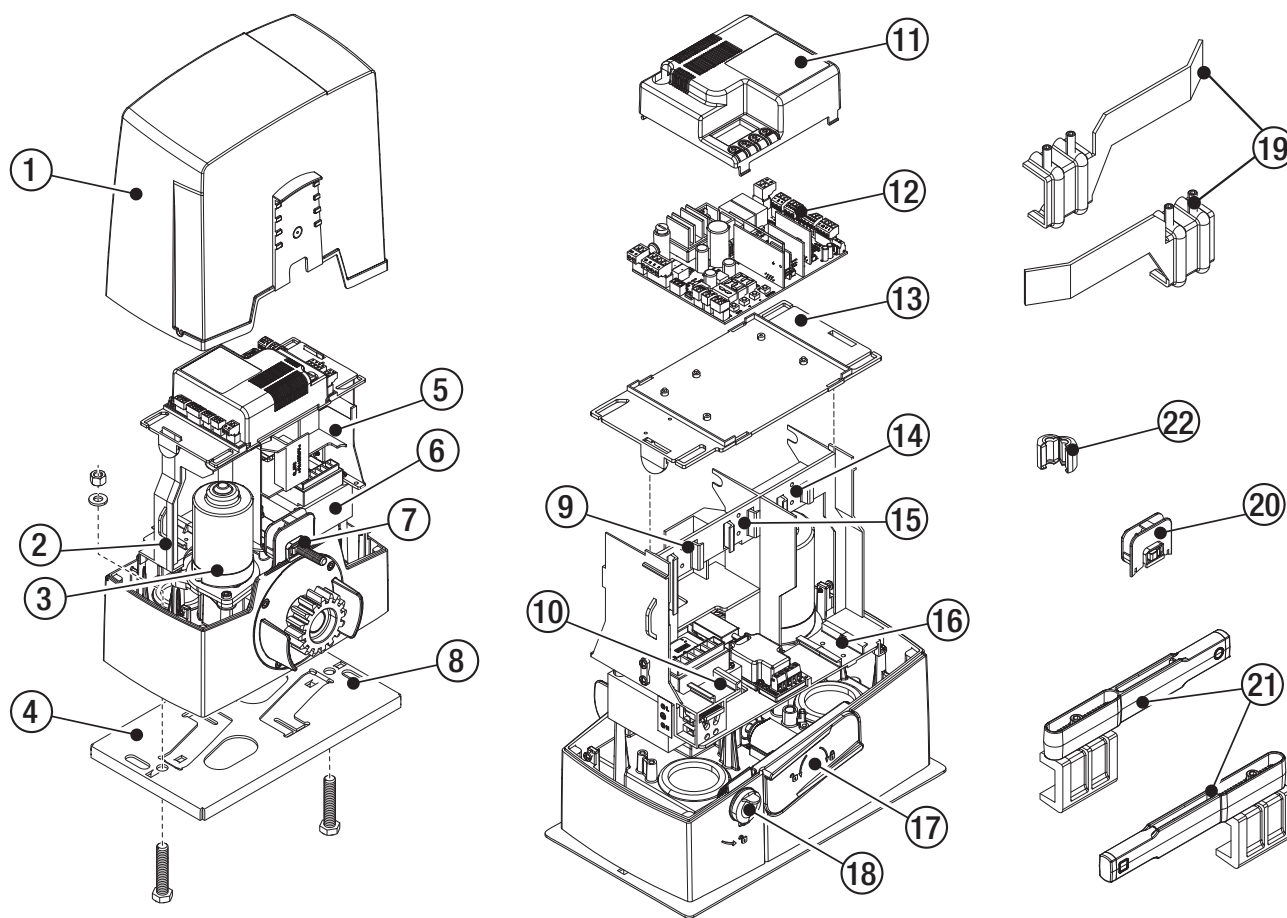
-  Any installation and/or use other than that specified in this manual is forbidden.

Description of parts

Operator

- | | |
|--|--------------------------------------|
| 1 Cover | 12 Control board |
| 2 Board-holder support | 13 Control board holder |
| 3 Gearmotor | 14 Housing for the RLB card |
| 4 Anchoring plate | 15 Housing for UR042 module |
| 5 Housing for two emergency batteries | 16 Housing for SMA or RGSM001 sensor |
| 6 Transformer | 17 Release lever |
| 7 Mechanical limit switch | 18 Lock |
| 8 Release cord hole | 19 Mechanical limit-switch tabs |
| 9 Housing for the RGP1 module | 20 Magnetic limit switch |
| 10 Housing for thermostat with cartridge | 21 Magnetic limit-switch tabs |
| 11 Board protection cover | 22 Ferrite |

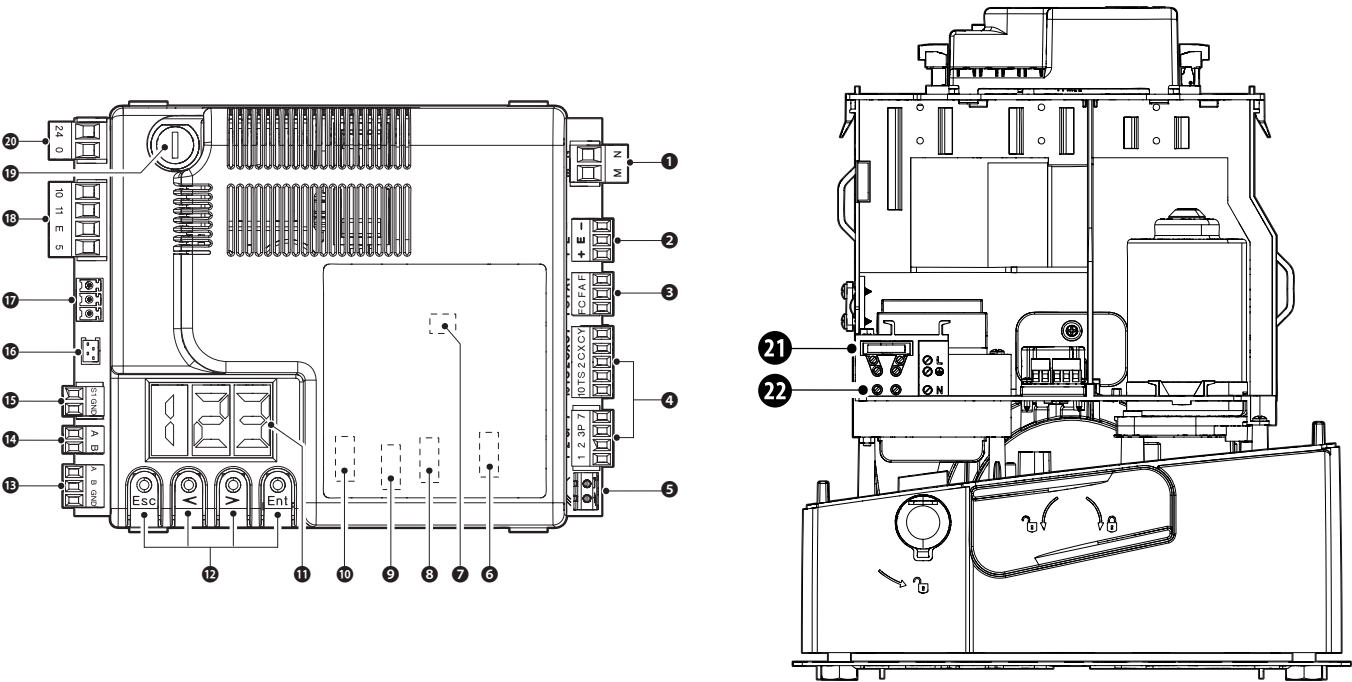
*Only for BXV06AGM and BXV10AGM



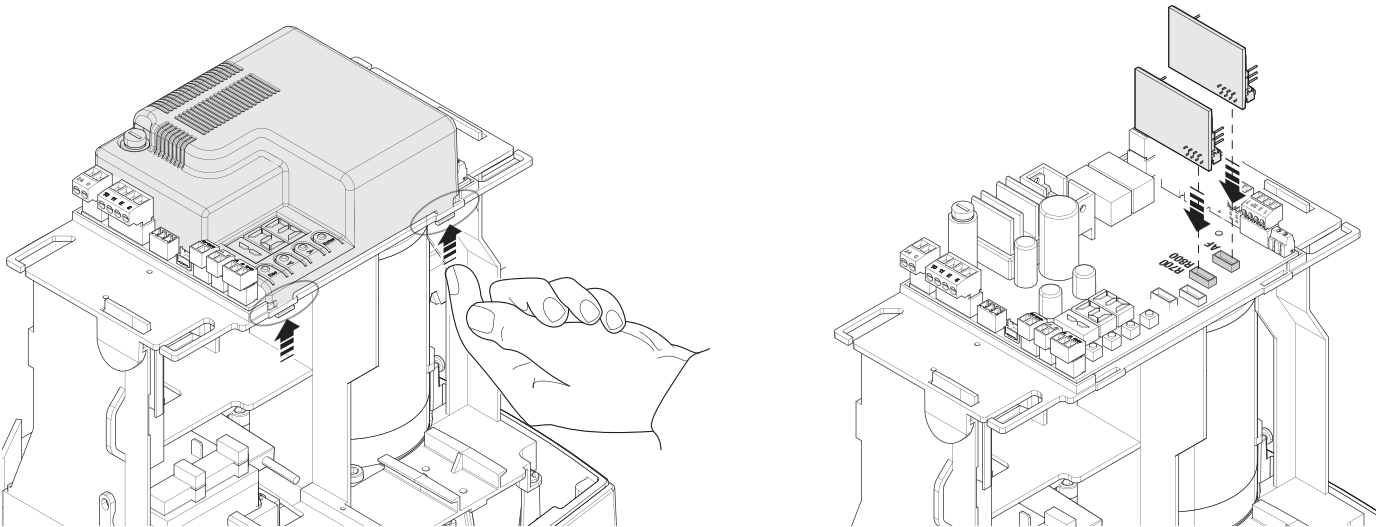
Control board

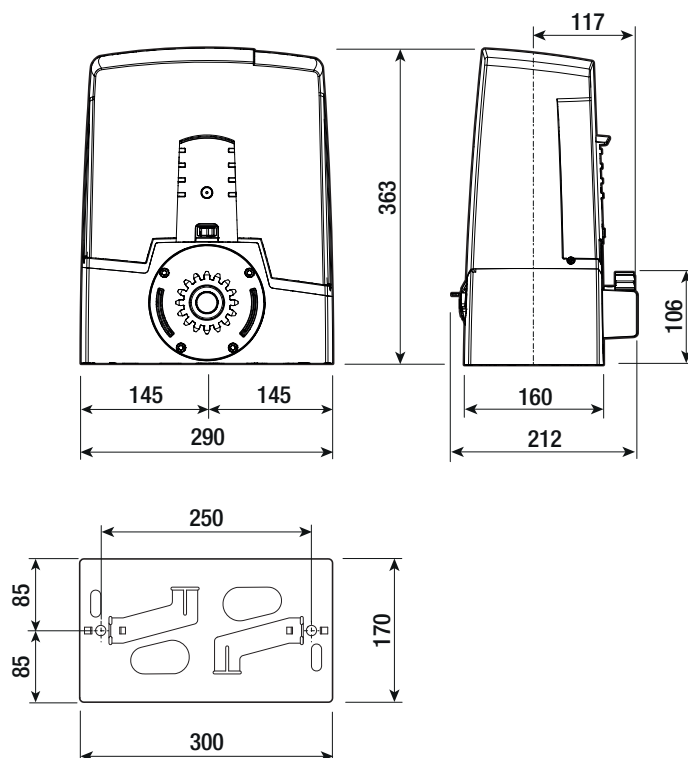
- The functions on the input and output contacts, the time settings and user management are set and viewed on the display.
- All connections are protected by quick fuses.
- For the system to work properly, before fitting any plug-in card, DISCONNECT THE MAIN POWER SUPPLY and remove any batteries.
- Before working on the control panel, disconnect the mains power supply and remove the batteries, if any.

- 1 Terminal board for connecting the gearmotor
 - 2 Terminal board for connecting the encoder
 - 3 Terminal board for connecting the limit switches
 - 4 Terminal board for connecting control and safety devices
 - 5 Terminal board for connecting the antenna
 - 6 Connector for plug-in radio frequency card (AF)
 - 7 Memory Roll card connector
 - 8 Connector for the R700 or R800 decoding card
 - 9 RSE card connector
 - 10 Connector for the RIOCN8WS module
 - 11 Display
- 12 Programming buttons
 - 13 Terminal board for connecting the paired function or the CRP
 - 14 Terminal board for connecting the keypad selector
 - 15 Terminal board for connecting the transponder selector switch
 - 16 Connector for the GSM module
 - 17 Terminal board for connecting the RGP1 module
 - 18 Terminal board for connecting the signalling devices
 - 19 Accessories fuse
 - 20 Terminal board for power supply to the control board
 - 21 Line fuse
 - 22 Power supply terminal block



- Remove the card cover before inserting the cards into the connectors.





Usage limitations

| MODELS | BXV04AGS | BXV06AGS | BXV08AGS | BXV10AGS | BXV04RGS | BXV06RGS | BXV08RGS | BXV10RGS |
|-------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Pinion module | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Maximum gate-leaf length (m) | 14 | 18 | 20 | 20 | 14 | 18 | 20 | 20 |
| Maximum gate-leaf weight (kg) | 400 | 600 | 800 | 1000 | 400 | 600 | 800 | 1000 |

| MODELS | BXV06AGM | BXV10AGM | BXV04ALS | BXV06ALS | BXV08ALS | BXV10ALS |
|-------------------------------|----------|----------|----------|----------|----------|----------|
| Pinion module | 4 | 4 | 4 | 4 | 4 | 4 |
| Maximum gate-leaf length (m) | 18 | 20 | 14 | 18 | 20 | 20 |
| Maximum gate-leaf weight (kg) | 600 | 1000 | 400 | 600 | 800 | 1000 |

Fuse table

| MODELS | BXV04AGS | BXV06AGS | BXV08AGS | BXV10AGS | BXV04RGS | BXV06RGS | BXV08RGS | BXV10RGS |
|----------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Line fuse | 1.6 A-F | 1.6 A-F | 1.6 A-F | 1.6 A-F | 3.15 A-F | 3.15 A-F | 3.15 A-F | 3.15 A-F |
| Accessory fuse | 2 A-F | 2 A-F | 2 A-F | 2 A-F | 2 A-F | 2 A-F | 2 A-F | 2 A-F |

| MODELS | BXV06AGM | BXV10AGM | BXV04ALS | BXV06ALS | BXV08ALS | BXV10ALS |
|----------------|----------|----------|----------|----------|----------|----------|
| Line fuse | 1.6 A-F | 1.6 A-F | 1.6 A-F | 1.6 A-F | 1.6 A-F | 1.6 A-F |
| Accessory fuse | 2 A-F | 2 A-F | 2 A-F | 2 A-F | 2 A-F | 2 A-F |

Technical data

| MODELS | BXV04AGS | BXV06AGS | BXV08AGS | BXV10AGS | BXV04RGS | BXV06RGS | BXV08RGS | BXV10RGS |
|---------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Power supply (V - 50/60 Hz) | 230 AC | 230 AC | 230 AC | 230 AC | 110 AC | 110 AC | 110 AC | 110 AC |
| Motor power supply (V) | 24 DC | 24 DC | 24 DC | 24 DC | 24 DC | 24 DC | 24 DC | 24 DC |
| Standby consumption (W) | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 |
| Power (W) | 170 | 270 | 400 | 400 | 170 | 270 | 400 | 400 |
| Maximum current draw (mA) | 7 | 11 | 16 | 16 | 7 | 11 | 16 | 16 |
| Colour | RAL 7024 | RAL 7024 | RAL 7024 | RAL 7024 | RAL 7024 | RAL 7024 | RAL 7024 | RAL 7024 |
| Operating temperature (°C) | -20 ÷ +55 | -20 ÷ +55 | -20 ÷ +55 | -20 ÷ +55 | -20 ÷ +55 | -20 ÷ +55 | -20 ÷ +55 | -20 ÷ +55 |
| Thrust (N) | 350 | 600 | 800 | 1000 | 350 | 600 | 800 | 1000 |
| Maximum operating speed (m/min) | 12 | 12 | 11 | 11 | 12 | 12 | 11 | 11 |
| Operating time (s) | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 |
| Duty cycle | HEAVY-DUTY SERVICE | HEAVY-DUTY SERVICE | HEAVY-DUTY SERVICE | HEAVY-DUTY SERVICE | HEAVY-DUTY SERVICE | HEAVY-DUTY SERVICE | HEAVY-DUTY SERVICE | HEAVY-DUTY SERVICE |
| Protection rating (IP) | 54 | 54 | 54 | 54 | 44 | 44 | 44 | 44 |
| Insulation class | I | I | I | I | I | I | I | I |
| Storage temperature (°C)* | -20 ÷ +70 | -20 ÷ +70 | -20 ÷ +70 | -20 ÷ +70 | -20 ÷ +70 | -20 ÷ +70 | -20 ÷ +70 | -20 ÷ +70 |
| Average life (cycles)** | 150000 | 150000 | 150000 | 150000 | 150000 | 150000 | 150000 | 150000 |

| MODELS | BXV06AGM | BXV10AGM | BXV04ALS | BXV06ALS | BXV08ALS | BXV10ALS |
|---------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Power supply (V - 50/60 Hz) | 230 AC | 230 AC | 230 AC | 230 AC | 230 AC | 230 AC |
| Motor power supply (V) | 24 DC | 24 DC | 24 DC | 24 DC | 24 DC | 24 DC |
| Standby consumption (W) | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 |
| Power (W) | 270 | 400 | 170 | 270 | 400 | 400 |
| Maximum current draw (mA) | 11 | 16 | 7 | 11 | 16 | 16 |
| Colour | RAL 7024 | RAL 7024 | RAL 7040 | RAL 7040 | RAL 7040 | RAL 7040 |
| Operating temperature (°C) | -20 ÷ +55 | -20 ÷ +55 | -20 ÷ +55 | -20 ÷ +55 | -20 ÷ +55 | -20 ÷ +55 |
| Thrust (N) | 600 | 1000 | 350 | 600 | 800 | 1000 |
| Maximum operating speed (m/min) | 12 | 11 | 12 | 12 | 11 | 11 |
| Operating time (s) | 180 | 180 | 180 | 180 | 180 | 180 |
| Duty cycle | HEAVY-DUTY SERVICE | HEAVY-DUTY SERVICE | HEAVY-DUTY SERVICE | HEAVY-DUTY SERVICE | HEAVY-DUTY SERVICE | HEAVY-DUTY SERVICE |
| Protection rating (IP) | 54 | 54 | 54 | 54 | 54 | 54 |
| Insulation class | I | I | I | I | I | I |
| Storage temperature (°C)* | -20 ÷ +70 | -20 ÷ +70 | -20 ÷ +70 | -20 ÷ +70 | -20 ÷ +70 | -20 ÷ +70 |
| Average life (cycles)** | 150000 | 150000 | 150000 | 150000 | 150000 | 150000 |

(*) Before installing the product, keep it at room temperature where it has previously been stored or transported at a very high or very low temperature.


(**) The average product life specified should be understood purely as an indicative estimate. It applies to normal usage conditions and where the product has been installed and maintained in compliance with the instructions provided in the CAME technical manual. The average product life is also affected, including significantly, by other variables such as, but not limited to, climatic and environmental conditions. The average product life should not be confused with the product warranty.

Cable types and minimum thicknesses


| Cable length (m) | up to 20 | from 20 to 30 |
|-----------------------------|-----------------------------|-----------------------------|
| Power supply 230 V AC | 3G x 1.5 mm ² | 3G x 2.5 mm ² |
| 24 V AC/DC flashing beacon | 2 x 1 mm ² | 2 x 1 mm ² |
| TX Photocells | 2 x 0.5 mm ² | 2 x 0.5 mm ² |
| RX photocells | 4 x 0.5 mm ² | 4 x 0.5 mm ² |
| Command and control devices | * no. x 0.5 mm ² | * no. x 0.5 mm ² |


* no. = see product assembly instructions - Warning: the cable cross-section is indicative and varies according to the motor power and cable length.

 When operating at 230 V and outdoors, use H05RN-F cables compliant with 60245 IEC 57 (IEC); when operating indoors, use H05VV-F cables compliant with 60227 IEC 53 (IEC). For power supplies up to 48 V, you can use FROR 20-22 II cables compliant with EN 50267-2-1 (CEI).


 To connect the antenna, use RG58 cable (up to 5 m).

 For paired connection and CRP, use UTP CAT5 cable (up to 1,000 m).

 If the cable lengths differ from those specified in the table, define the cable cross-sections according to the actual power draw of the connected devices and in line with regulation CEI EN 60204-1.

 For multiple, sequential loads along the same line, recalculate the values in the table according to the actual power draw and distances. For information on connecting products not covered in this manual, please see the documentation accompanying the products themselves.

INSTALLATION

 The following illustrations are examples only. The space available for fitting the operator and accessories varies depending on the area where it is installed. It is up to the installer to find the most suitable solution.

 The drawings show an operator fitted on the left.

Preliminary operations

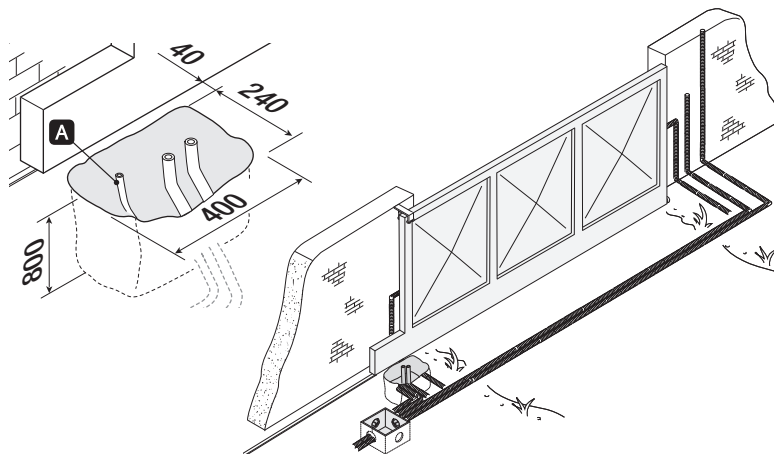
Dig a hole for the foundation frame.

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

 Use \varnothing 40 mm corrugated tubes to connect the gearmotor to the accessories.

 Prepare a \varnothing 20 mm tube to run the release cord through. **A**

 The number of tubes depends on the type of system and the accessories that are going to be fitted.



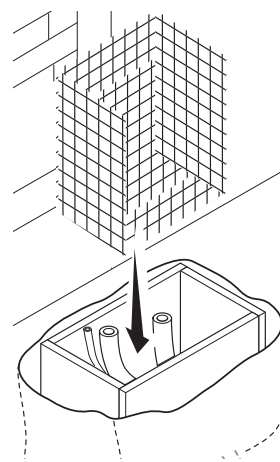
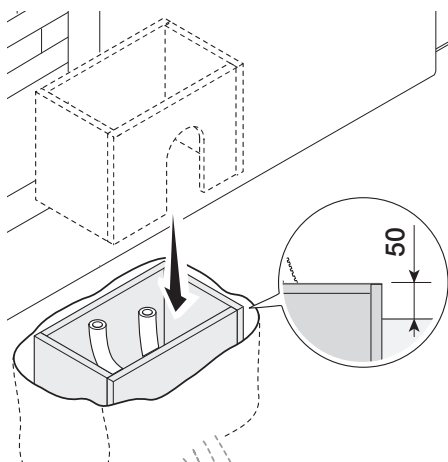
Laying the anchoring plate

Set up a foundation frame that is larger than the anchoring plate.

Insert the foundation frame into the dug hole.

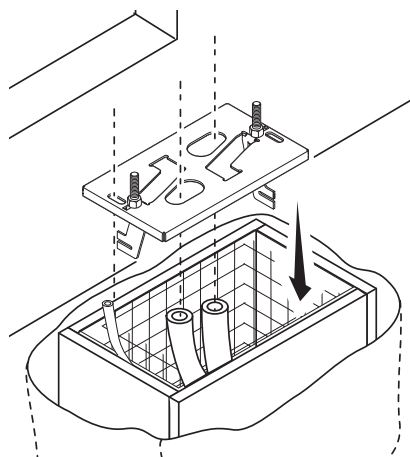
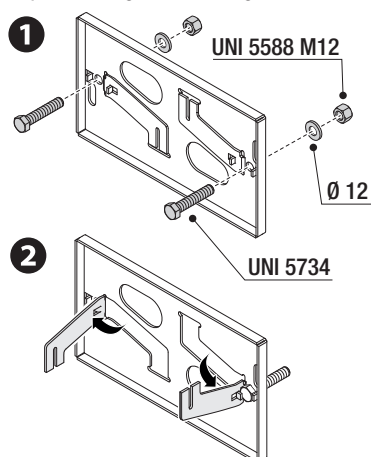
 The foundation frame must protrude by 50 mm, above ground level.

Fit an iron cage in the foundation frame to reinforce the concrete.



Insert the screws supplied in the anchoring plate.
Lock the screws in place with the nuts supplied.
Remove the pre-shaped clamps using a screwdriver.
Fit the anchoring plate in the iron cage.

The tubes must pass through the existing holes.



Position the anchoring plate, taking note of the measurements shown in the drawing.

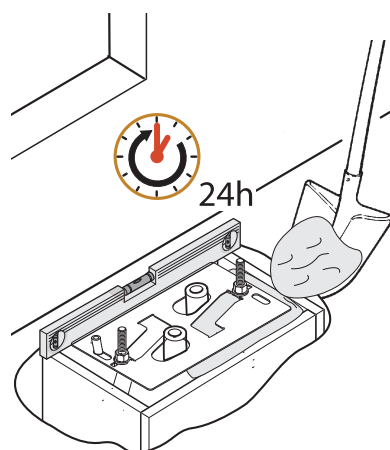
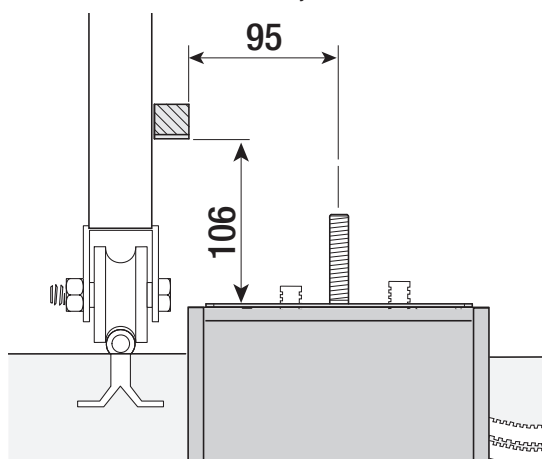
If the gate does not have a rack, proceed with the installation.

See the section "FASTENING THE RACK".

Cast cement into the foundation frame.

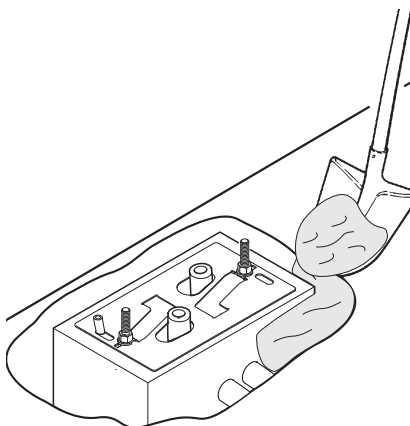
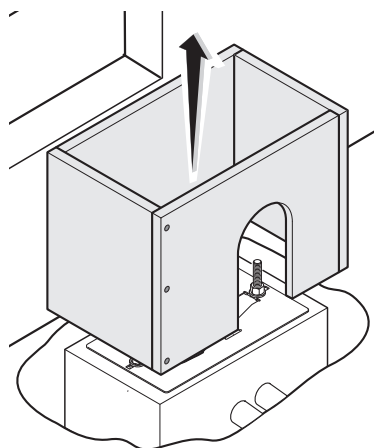
The plate must be perfectly level and the screw threads completely above surface.

Wait at least 24 hours for the cement to dry.

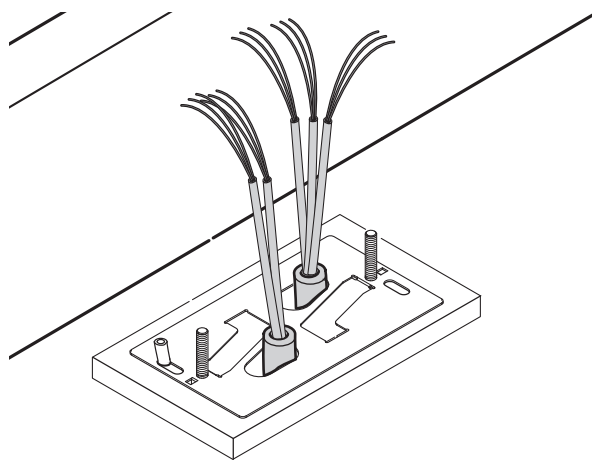
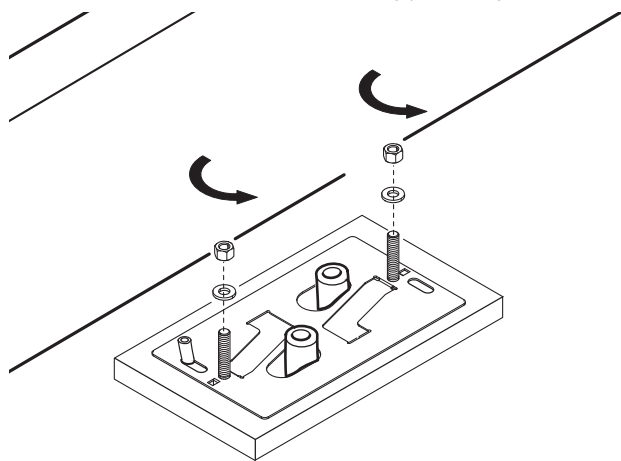


Remove the foundation frame.

Fill the hole with soil around the concrete block.




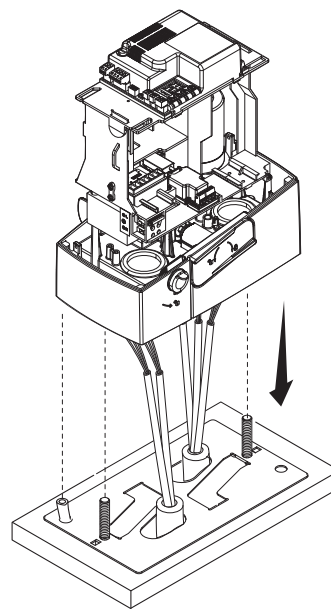
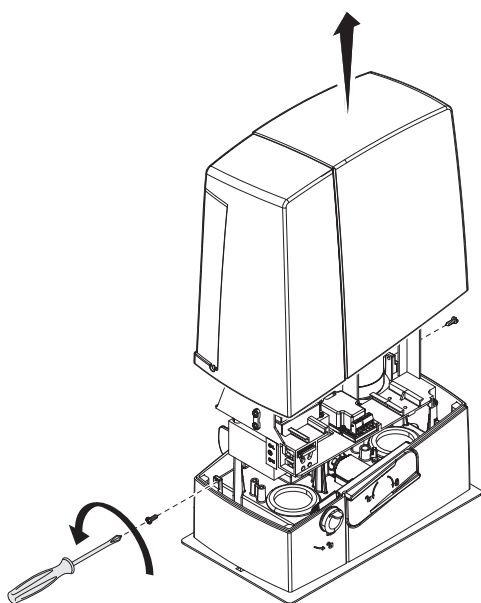
Remove the nuts from the screws.
Insert the electrical cables into the tubes until they protrude by about 600 mm.



Setting up the operator

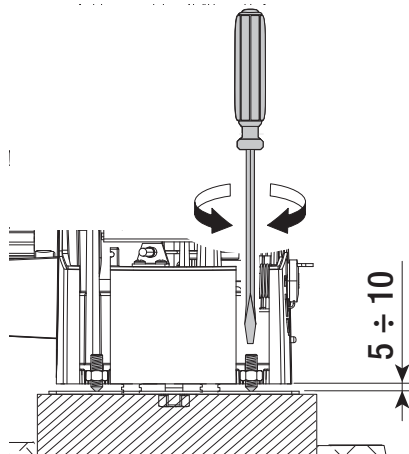
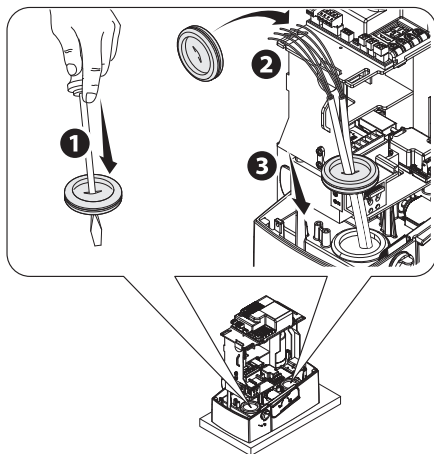
Remove the operator cover.
Place the operator on top of the anchoring plate.

 The electrical cables must pass under the operator foundation frame



Make a hole in the cable gland.
Thread the cables through the cable gland.

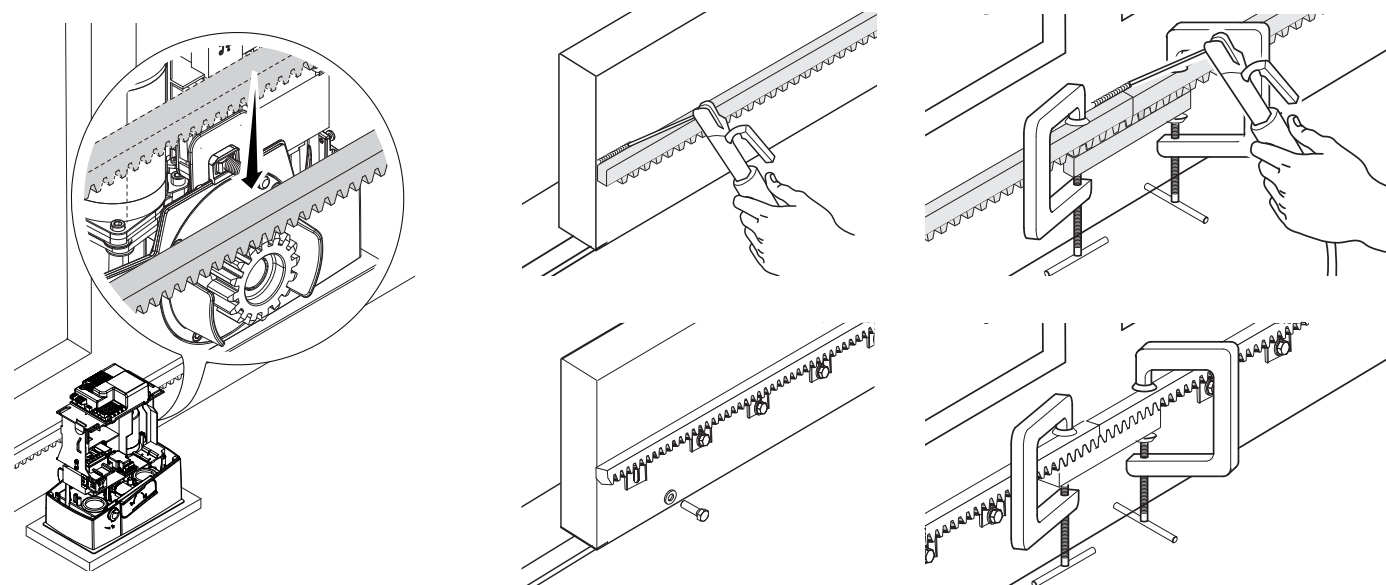
Lift the operator by 5-10 mm from the plate by adjusting the threaded feet, to allow for any adjustments that may need to be made between the rack and pinion.



Fastening the rack

- 1 Release the operator.
- 2 Rest the rack on the pinion.
- 3 Weld or fasten the rack to the gate along its entire length.

 To assemble the rack modules, use an extra piece and rest it under the joint, then fasten it in place using two clamps.

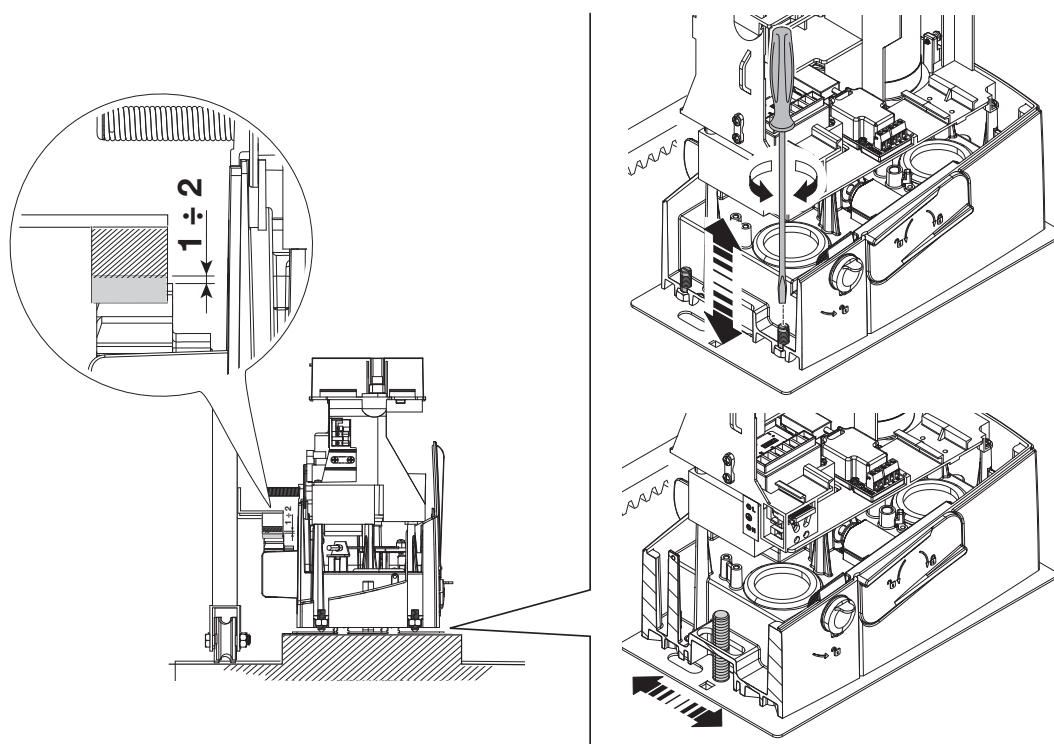


Adjusting the pinion-rack coupling

Open and close the gate manually.

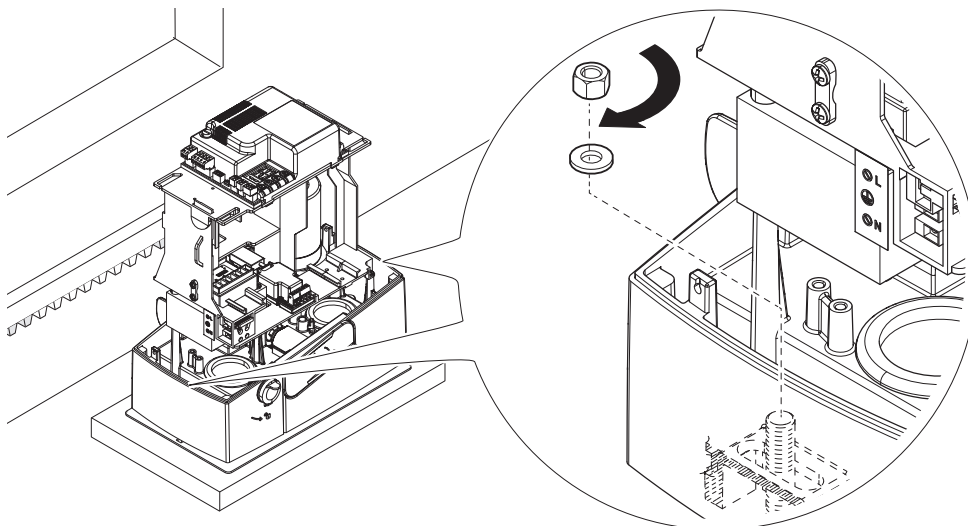
Adjust the pinion-rack coupling distance using the threaded feet (vertical adjustment) and the holes (horizontal adjustment).

 The weight of the gate must not bear down upon the operator.



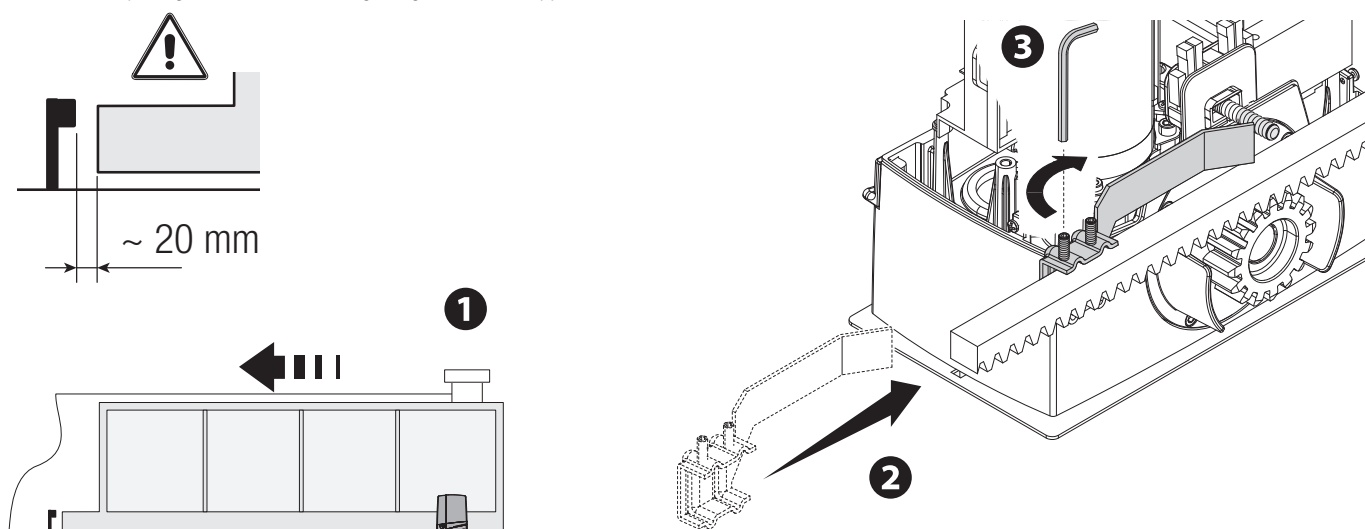
Fastening the operator in place

 Only fasten the operator after adjusting the pinion-rack coupling.
Fasten the operator to the anchoring plate using stoppers and nuts.

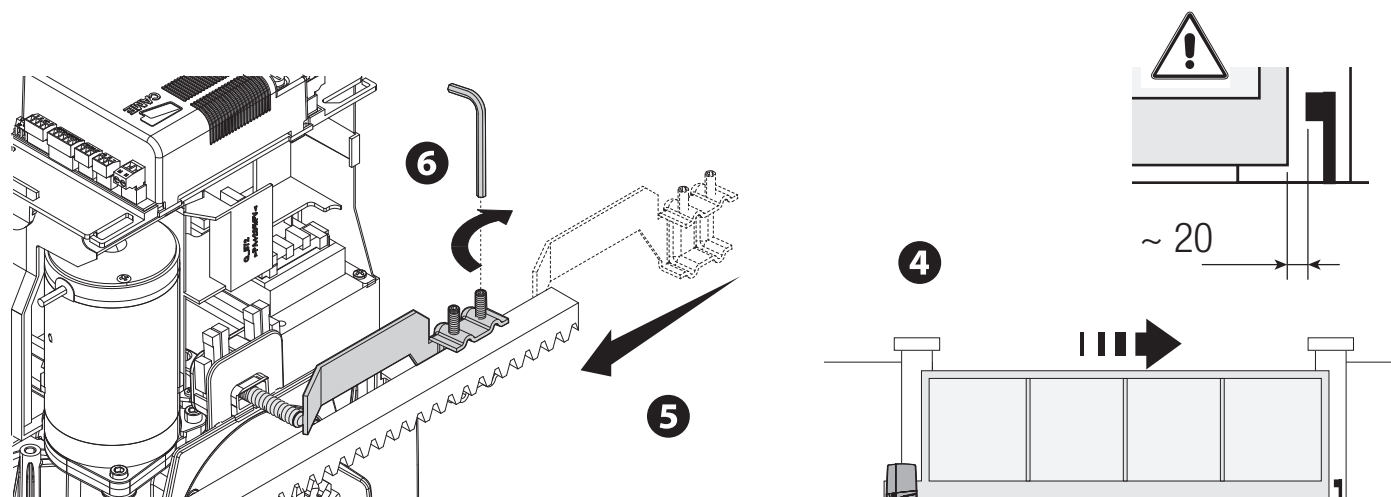


Determining the travel end points with mechanical limit switches

- ❶ Open the gate.
 - ❷ Insert the opening limit-switch tab in the rack.
 - ❸ Fasten the opening limit-switch tab using the grub screws supplied.
- The spring must trigger the microswitch.



- 4 Close the gate.
- 5 Insert the closing limit-switch tab in the rack.
The spring must trigger the microswitch.
- 6 Fasten the closing limit-switch tab using the grub screws supplied.



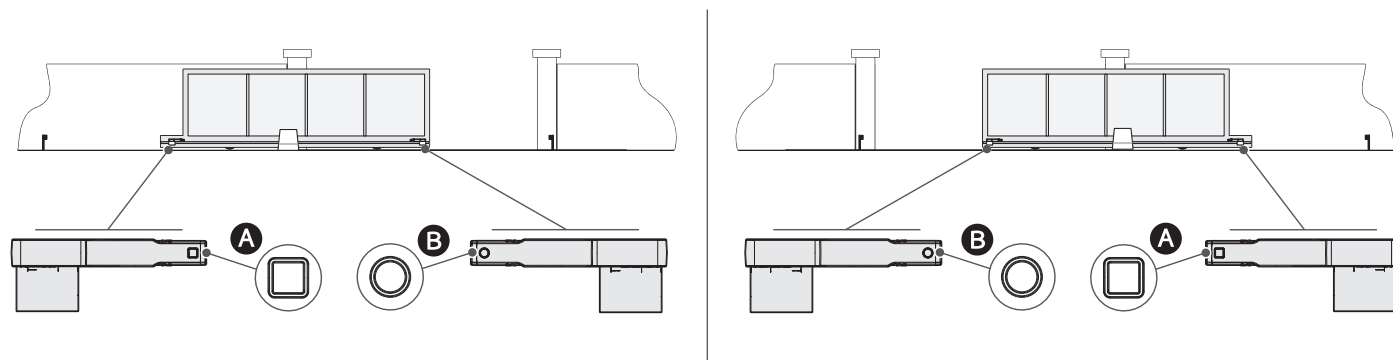
Establishing the travel end points with magnetic limit switches

* Only for BXV06AGM and BXV10AGM

- A Magnetic limit-switch tabs during closing
- B Magnetic limit-switch tabs during opening

Operator fitted on the left

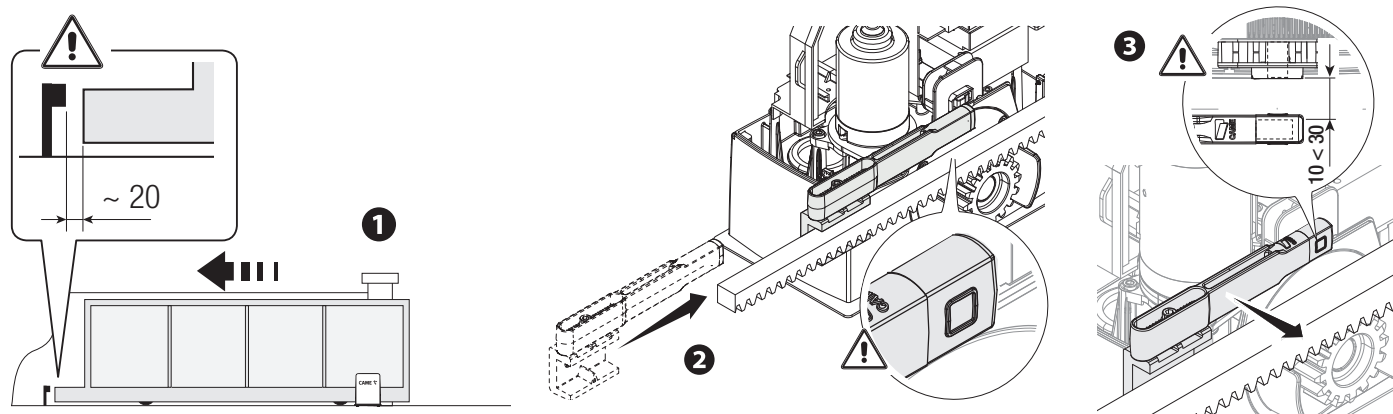
Operator fitted on the right.




The figures below show the limit switch installed with the operator on the left. Installation of the limit switch on the right is symmetrical.
Open the gate.

Insert the magnetic opening limit-switch tab on the rack.

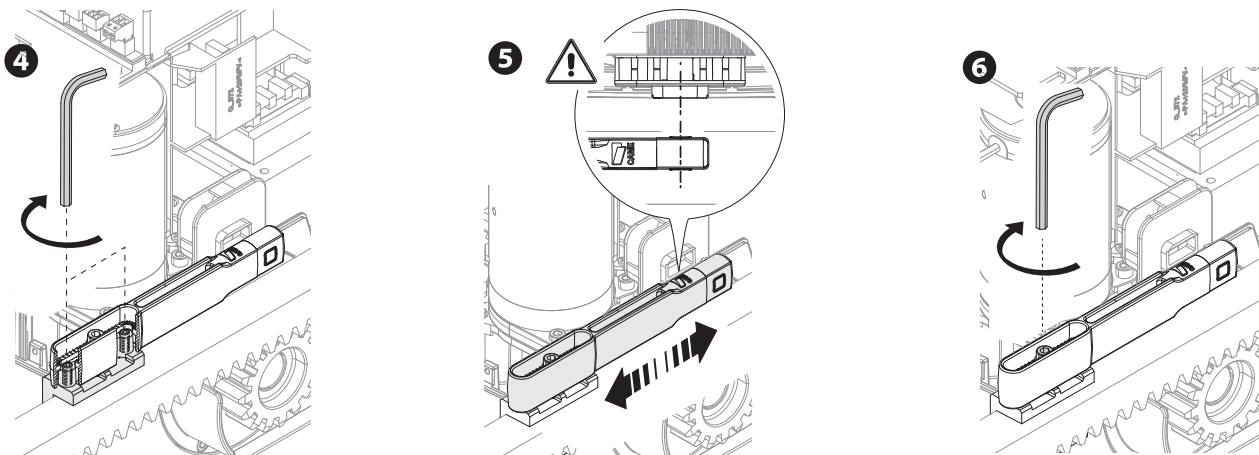
The tab magnet must be between 10 and 30 mm from the magnetic sensor.



Fasten the support to the rack using the grub screws supplied.

 The limit-switch tab magnet must be perpendicular to the magnetic sensor.

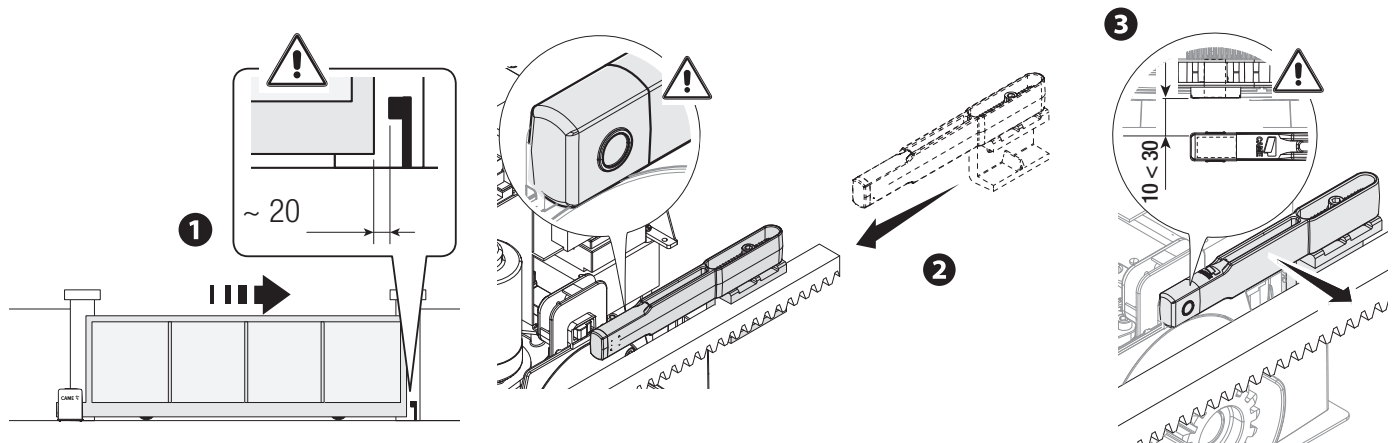
Fasten the limit-switch tab using the screw (supplied).




Close the gate.

Insert the magnetic closing limit-switch tab on the rack.

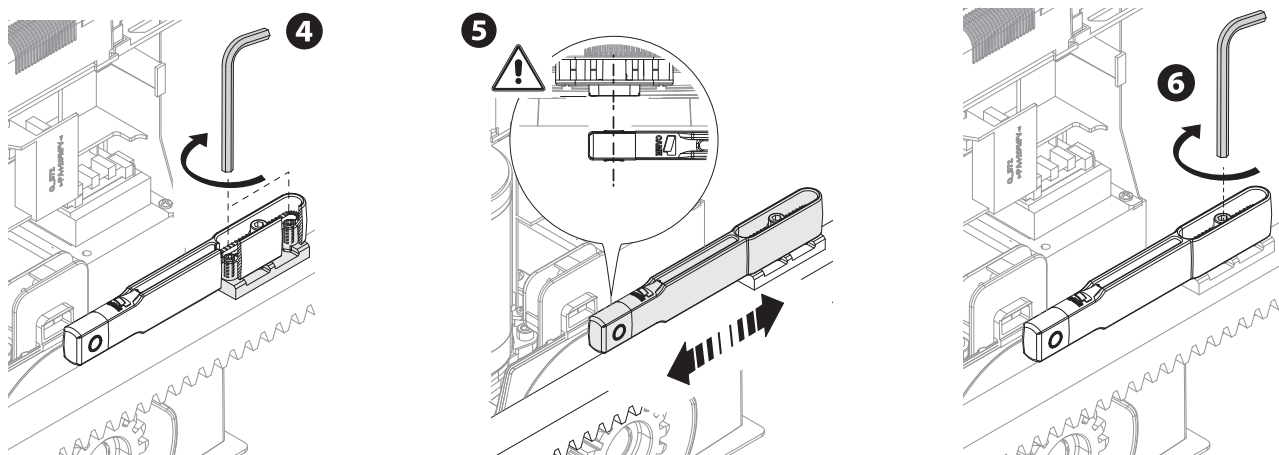
 The tab magnet must be between 10 and 30 mm from the magnetic sensor.



Fasten the support to the rack using the grub screws supplied.

 The limit-switch tab magnet must be perpendicular to the magnetic sensor.

Fasten the limit-switch tab using the screw (supplied).

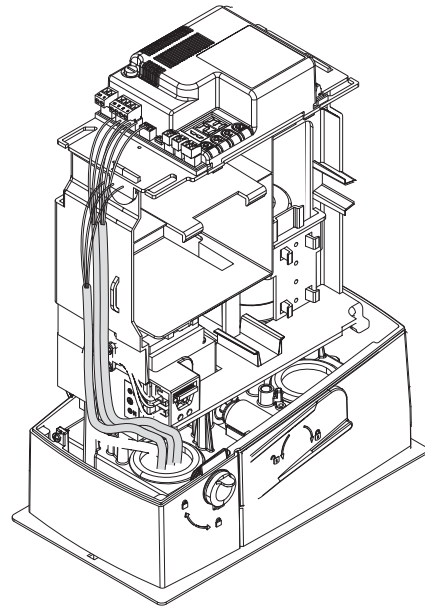
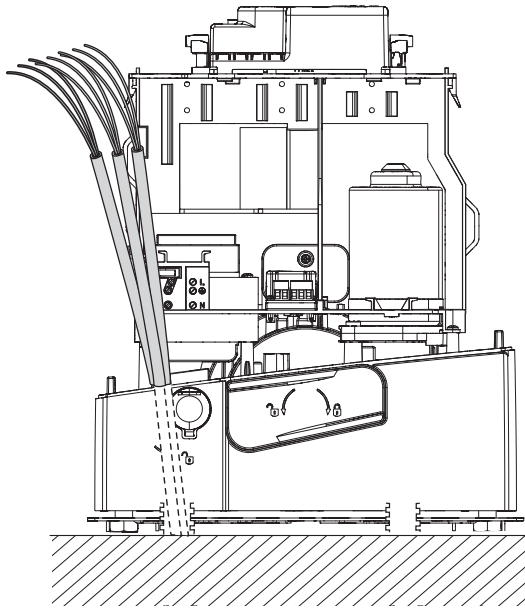


Passing the electrical cables

Connect all wires and cables in compliance with the law.

The electrical cables must not touch any parts that may overheat during use (such as the motor and transformer).

Use cable glands to connect the devices to the control panel. One of these must be used exclusively for the power supply cable.



Power supply

Make sure the mains power supply is disconnected during all installation procedures.

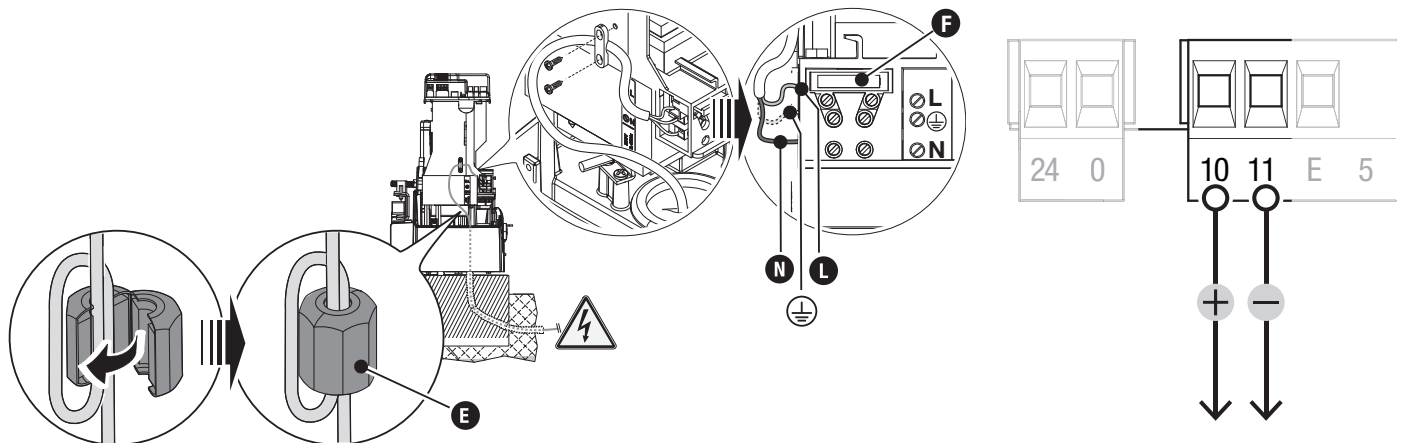
Before working on the control panel, disconnect the mains power supply and remove the batteries, if any.

Connecting to the mains (230/120 V AC - 50/60 Hz)

- F** Line fuse
- L** Phase
- N** Neutral
- E** Ferrite
- Earth

Power supply output for accessories

The output normally delivers 26 V AC.



Maximum capacity of contacts

The total power of the outputs listed below must not exceed the maximum output power [Accessories]

| Device | Output | Power supply (V) | Power (W) |
|-------------------------------|---------|------------------|-----------|
| Accessories | 10 - 11 | 24 AC | 40 |
| Additional light | 10 - E | 24 AC | 25 |
| Flashing beacon | 10 - E | 24 AC | 25 |
| Operator status warning light | 10 - 5 | 24 AC | 3 |

The outputs deliver 24 V DC when the batteries start operating, if they are installed.

Command and control devices

1 Antenna with RG58 cable

Insert the AF card into the corresponding connector for remote control with transmitter.

2 STOP button (NC contact)

Stop the gate and exclude automatic closing. Use a control device to resume movement.

If the contact is not used, it must be deactivated during programming.

3 Control device (NO contact)

OPEN ONLY or PARTIAL OPENING function
Fully or partially open the gate.

When the [HOLD-TO-RUN] function is active, the control device must be connected during OPENING.

4 Control device (NO contact)

OPEN-CLOSE (step-by-step) or OPEN-STOP-CLOSE-STOP (sequential) function

When the [HOLD-TO-RUN] function is active, the control device must be connected during CLOSING.

5 Card reader

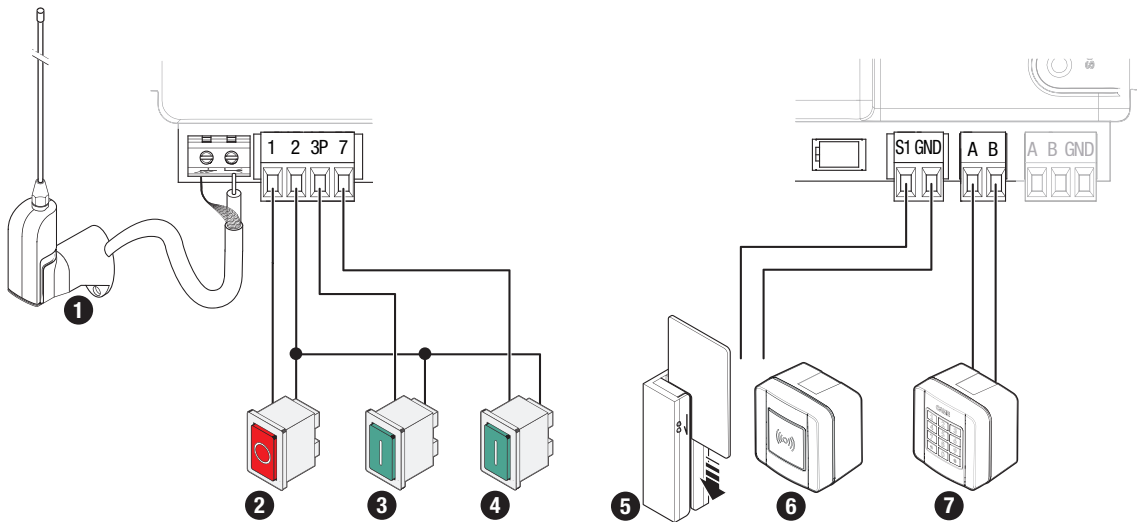
Insert the R700 card into the corresponding connector.

6 Transponder selector switch

Insert the R700 card into the corresponding connector.

7 Keypad selector

Insert the R800 card into the corresponding connector.



Signalling devices

1 Additional light

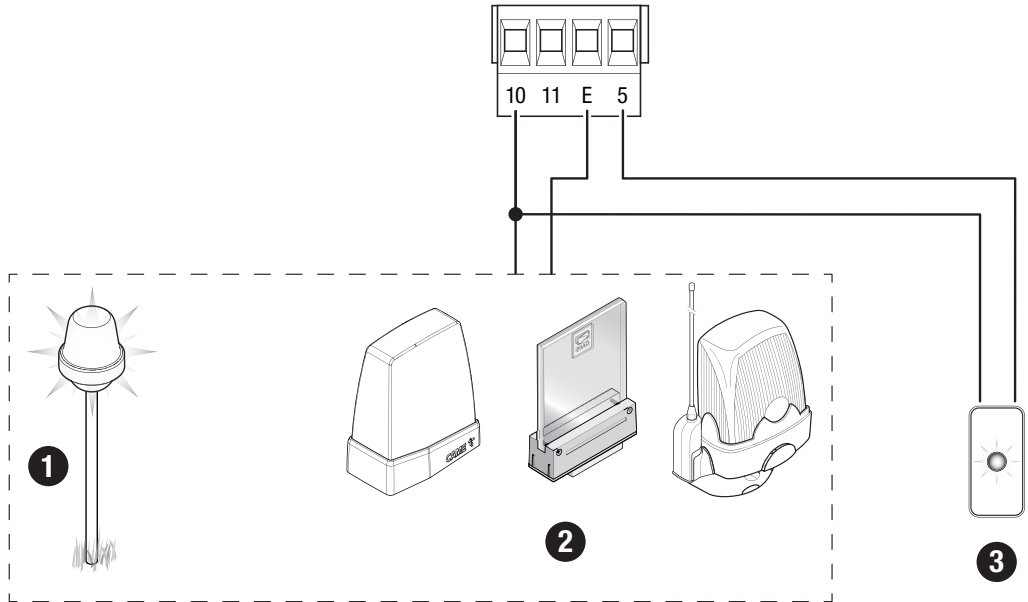
It increases the light in the manoeuvring area.

2 Flashing beacon

It flashes when the operator opens and closes.

3 Operator status warning light

It notifies the user of the operator status.



Safety devices

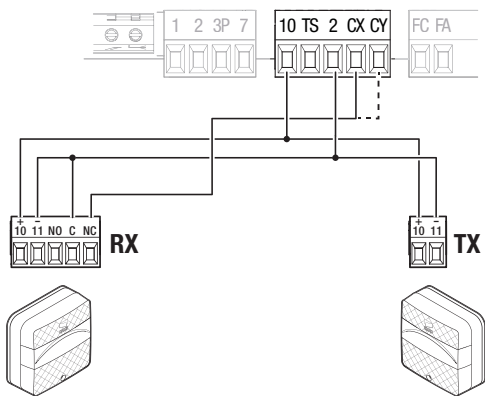
Connect the safety devices to the CX, CY and/or CZ inputs (NC contacts).

During programming, configure the type of action that must be performed by the device connected to the input.

If contacts CX and/or CY are not used, they must be deactivated during programming.

DELTA photocells

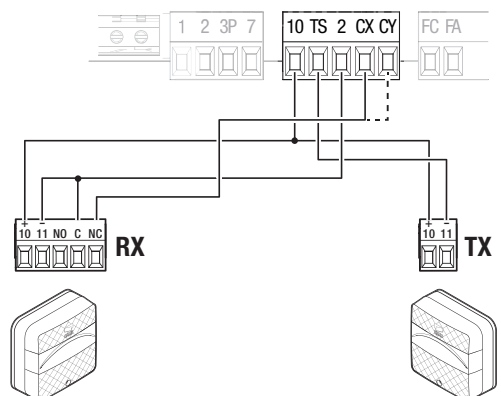
Standard connection



DELTA photocells

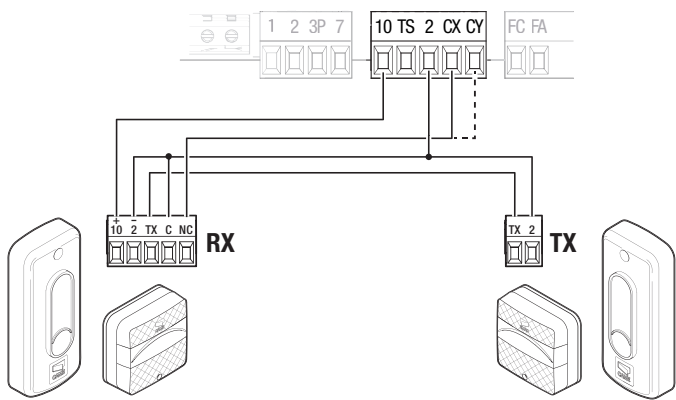
Connection with safety test

See function [F5] Safety devices test.



DIR / DELTA-S photocells

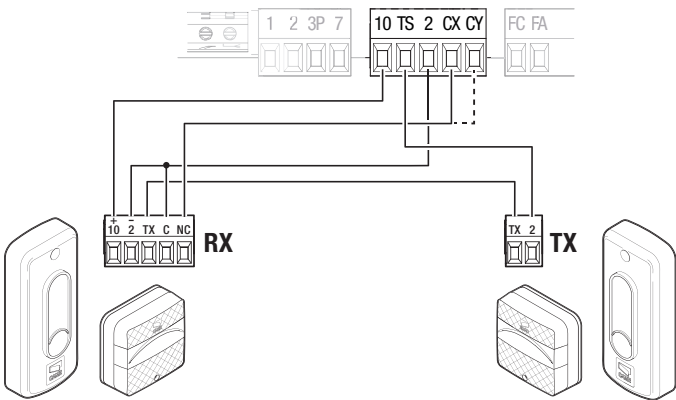
Standard connection



DIR / DELTA-S photocells

Connection with safety test

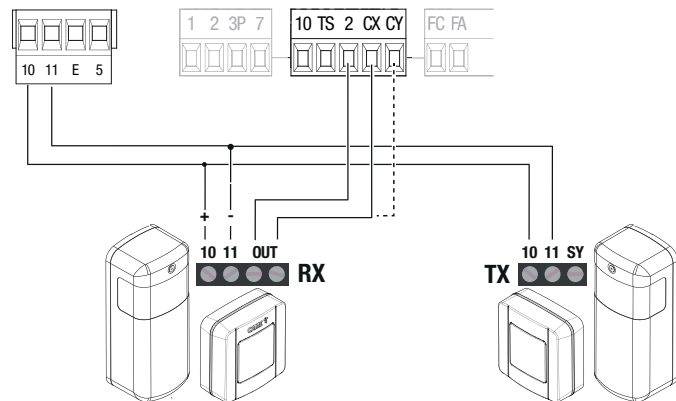
See function [F5] Safety devices test.



DXR/DLX photocells

Standard connection

Multiple photocell pairs can be connected.

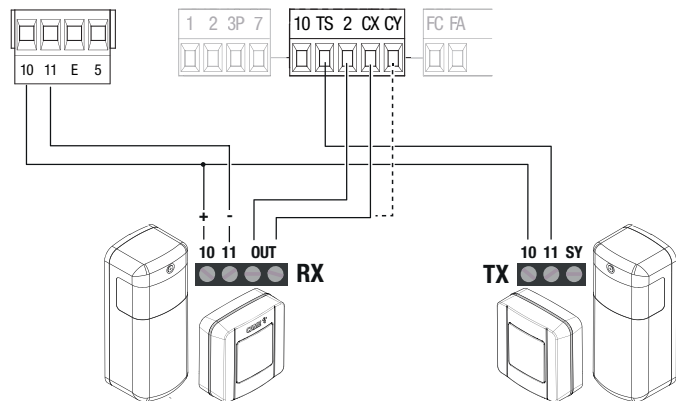


DXR/DLX photocells

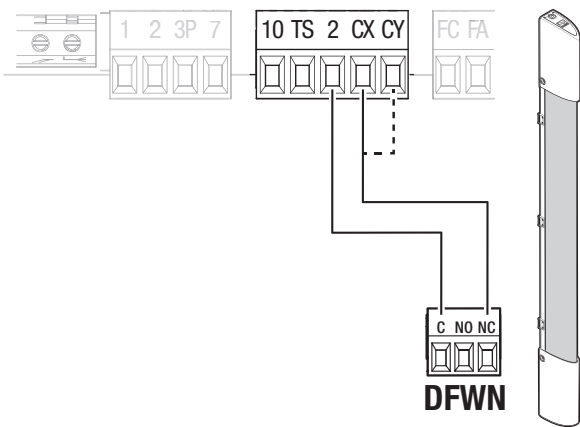
Connection with safety test

Multiple photocell pairs can be connected.

See function [F5] Safety devices test.

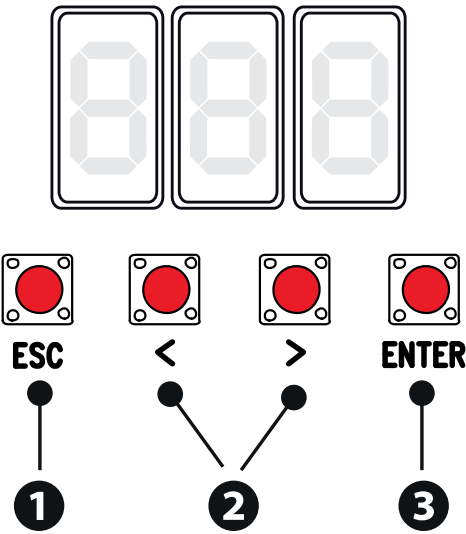


DFWN sensitive edge



PROGRAMMING

Programming button functions



1 ESC button

The ESC button is used to perform the operations described below.
Exit the menu
Delete the changes
Go back to the previous screen
Stop the operator

2 < > buttons

The < > buttons are used to perform the operations described below.
Navigate the menu
Increase or decrease values
Open or close the operator

3 ENTER button

The ENTER button is used to perform the operations described below.
Access menus
Confirm choice

Getting started

- Once the electrical connections have been made, proceed with commissioning. Only skilled and qualified staff may perform this operation.
Make sure that there are no obstacles in the way.
Power up the device and begin programming.
Start programming with the F54 function (opening direction).
- After powering up the system, the first manoeuvre is always to open the gate. Wait for the manoeuvre to be completed.
- Press the ESC button or STOP button immediately in the event of any faults, malfunctions, strange noises or vibrations, or unexpected behaviour in the system.
- If the three display segments are flashing, calibrate the travel.

Functions menu

Total stop

Stop the gate and exclude automatic closing. Use a control device to resume movement.

| | |
|----|---------------------|
| F1 | OFF (Default) ON |
|----|---------------------|

CX input

Associate a function with the CX input.

| | |
|----|--|
| F2 | OFF (Default) C1 = Reopen while closing (photocells) C2 = Reclose while opening (photocells) C3 = Partial stop Only with [F19 - Automatic close] activated. C4 = Obstacle standby (photocells) C7 = Reopening during closure (sensitive edges) C8 = Reclose while opening (sensitive edges) |
|----|--|

CY input

Associate a function with the CY input.

| | |
|-----------|---|
| F3 | OFF (Default) C1 = Reopen while closing (photocells) C2 = Reclose while opening (photocells) C3 = Partial stop Only with [Automatic close] activated. C4 = Obstacle standby (photocells) C7 = Reopening during closure (sensitive edges) C8 = Reclose while opening (sensitive edges) |
|-----------|---|


Safety devices test

Check that the photocells connected to the inputs are operating correctly, after each opening and closing command.

| | |
|-----------|---|
| F5 | 0 =Deactivated (Default) 1 = CX 2 = CY 4 = CX+CY |
|-----------|---|

Hold-to-run

With the function active, the operator stops moving (opening or closing) when the control device is released.

 When the function is active, it excludes all other control devices.

| | |
|-----------|---|
| F6 | 0 =Deactivated (Default) 1 = Activated |
|-----------|---|


Command 2-7

Associate a command with the device connected to 2-7.

| | |
|-----------|---|
| F7 | 0 = Step-by-step (default) 1 = Sequential 2 = Open 3 = Close |
|-----------|---|

Command 2-3P

Associate a command to the connected device on 2-3P.

| | |
|-----------|--|
| F8 | 1 = Partial opening  The partial opening time is set from the function [Partial opening time]. 2 = Open |
|-----------|--|

Obstacle with motor stopped

With the function active, the gate remains idle if the safety devices detect an obstacle. The function is active when the gate is closed, open or after a complete stop.

| | |
|-----------|---------------------|
| F9 | OFF (Default) ON |
|-----------|---------------------|

Gate-open warning light

It signals the gate status.

| | |
|------------|---|
| F10 | 0 = Warning light on (default) - The warning light stays on when the gate is moving or open. 1 = Warning light flashing - The warning light flashes every half second when the gate is opening and stays on when the gate is open. The light flashes every second when the gate is closing, and remains off when the gate is closed. |
|------------|---|

Encoder

Manage operator slowdowns, obstacle detection and sensitivity.

| | |
|-----|---------------------|
| F11 | OFF ON (Default) |
|-----|---------------------|

Soft start

Set a slowdown of a few seconds after each opening and closing command.

| | |
|-----|---------------------|
| F12 | OFF (Default) ON |
|-----|---------------------|


Sensor type

Set the type of control device.

| | |
|-----|--|
| F14 | 0 = Transponder selector switch 1 = Keypad selector (default) |
|-----|--|


Additional light

Choose the operating mode of the lighting device connected to the output.

| | |
|-----|--|
| F18 | 0 =Flashing beacon (Default) 1 = Cycle light.  The light remains off if an automatic closing time is not set. |
|-----|--|

Automatic closure


Set the time before automatic closure is activated, once the opening travel end point has been reached.

 The function does not work if any of the safety devices are triggered when an obstacle is detected, after a complete stop, during a power outage or if there is an error.

| | |
|-----|--|
| F19 | OFF (Default) From 1 to 180 seconds |
|-----|--|

Automatic closing after partial opening

Set the time before automatic closure is activated, after a partial opening command has been performed.

 The function does not work if any of the safety devices are triggered when an obstacle is detected, after a complete stop, during a power outage or if there is an error.

 Do not deactivate the function [Automatic close].

| | |
|-----|--|
| F20 | OFF 1 to 180 seconds (Default 10 seconds) |
|-----|--|

Pre-flashing time

Set the time for which the beacon is activated before each manoeuvre.

| | |
|-----|----------------------------------|
| F21 | OFF (Default) 1 to 10 seconds |
|-----|----------------------------------|

Gate travel speed

Set the travel speed (percentage of maximum speed).

| | |
|-----|----------------------------|
| F28 | 50% to 100% (Default 100%) |
|-----|----------------------------|

Slowdown speed

Opening and closing slowdown speed

 This function appears only if the [Encoder] function is active.

| | |
|-----|--------------------------|
| F30 | 10% to 50% (Default 50%) |
|-----|--------------------------|

Travel sensitivity

Adjust the obstruction detection sensitivity during boom travel.

| | |
|-----|----------------------------|
| F34 | 10% to 100% (Default 100%) |
|-----|----------------------------|

Slowdown sensitivity

Adjust the obstruction detection sensitivity during slowdown.

 This function appears only if the [Encoder] function is active.

| | |
|-----|---|
| F35 | 10% to 100% (Default 100%) - 10% = maximum sensitivity - 100% = minimum sensitivity |
|-----|---|

Partial opening point

Determine the gate partial opening point, as a percentage of total travel.

 This function appears only if the [Encoder] function is active.

| | |
|-----|--------------------------|
| F36 | 10% to 80% (Default 10%) |
|-----|--------------------------|

Opening slowdown point

Set the opening slowdown start point, as a percentage of total travel.

 This function appears only if the [Encoder] function is active.

| | |
|-----|--------------------------|
| F37 | 10% to 60% (Default 25%) |
|-----|--------------------------|

Closing slowdown point

Set the closing slowdown start point, as a percentage of total travel.

 This function appears only if the [Encoder] function is active.

| | |
|-----|--------------------------|
| F38 | 10% to 60% (Default 25%) |
|-----|--------------------------|

RSE

Configure the function to be performed by the card inserted in the RSE connector.

| | |
|-----|---|
| F49 | 0 =Deactivated (Default) 1 = Paired 3 = CRP |
|-----|---|

Save data

Save user data, timings and configurations to the memory device (memory roll).

 The function is displayed only when a USB stick is inserted into the USB port or when a memory roll card is inserted into the control board.

| | |
|-----|---|
| F50 | 0 =Deactivated (Default) 1 = Activated |
|-----|---|

Read data

Upload user data, timings and configurations to the memory device (memory roll).

 The function is displayed only when a USB stick is inserted into the USB port or when a memory roll card is inserted into the control board.

F51

0 = Deactivated (Default)
1 = Activated

Transferring MASTER-SLAVE parameters

Enable sharing for the parameters programmed on the master gate with the slave gate.

 This function appears only if the [RSE] function is active.

F52

OFF (Default)
ON

Opening direction

Set the gate opening direction.

F54

0 = To the left (default)
1 = To the right

CRP address

Assign a unique identification code (CRP address) to the control board. It is used where there are multiple operators connected via CRP.

F56

from 1 to 255

RSE speed

Set the remote connection system communication speed on the RSE port.

F63

0 = 1200 bps
1 = 2400 bps
2 = 4800 bps
3 = 9600 bps
4 = 14400 bps
5 = 19200 bps
6 = 38400 bps (default)
7 = 57600 bps
8 = 115200 bps

RIO ED T1

Associate one of the available functions with a wireless safety device.

F65

OFF (Default)
P0 = It stops the gate and excludes automatic closing. Use a control device to resume movement.
P7 = Reopen while closing.
P8 = Reclose while opening.

RIO ED T2

Associate one of the available functions with a wireless safety device.

F66

OFF (Default)
P0 = It stops the gate and excludes automatic closing. Use a control device to resume movement.
P7 = Reopen while closing.
P8 = Reclose while opening.

RIO PH T1

Associate one of the available functions with a wireless safety device.

F67

OFF (Default)
P1 = Reopen while closing.
P2 = Reclose while opening.
P3 = Partial stop.
P4 = Obstacle standby.

RIO PH T2

Associate one of the available functions with a wireless safety device.

F68

OFF (Default)
P1 = Reopen while closing.
P2 = Reclose while opening.
P3 = Partial stop.
P4 = Obstacle standby.

Partial opening time

Adjust the gate opening time.

F71

From 5 to 40 seconds (default: 5 seconds)

New user

Register up to a maximum of 250 users and assign a function to each one.

 The operation can be carried out by using a transmitter or another control device. The boards that manage the control devices (AF - R700 - R800) must be inserted into the connectors.

 Download the LIST OF REGISTERED USERS form from the docs.came.com portal by typing in L20180423.

U1

1 = Step-by-step
2 = Sequential
3 = Open
4 = Partial opening

Choose the function to be assigned to the user.
Press ENTER to confirm.
Send the code from the control device.
Repeat the procedure to add other users.

Remove user

Remove one of the registered users.

U2

OFF
ON

Use the arrows to choose the number associated with the user you want to remove.
No. 1 > 250
Alternatively, the control device associated with the user you want to remove can be activated.
Press ENTER to confirm.
“CLr” will appear to confirm deletion.

Remove all


Remove all registered users.

U3

OFF (Default)
ON

Radio decoding

Choose the type of radio coding for the transmitters enabled to control the operator.

 If you choose the type of radio coding for the transmitters [Rolling code] or [TW key block], any transmitters with a different type of radio coding saved previously will be deleted.

| | |
|----|--|
| U4 | 1 = All decoding (default) 2 = Rolling code 3 = TW key block |
|----|--|

Self-Learning Rolling

Save a new rolling code transmitter by activating acquisition from a rolling code transmitter that has already been saved. The saving and acquisition procedures are explained in the transmitter manual.

| | |
|----|---------------------|
| U8 | OFF (Default) ON |
|----|---------------------|


Motor type

Set the type of gearmotor installed.

| | |
|----|---|
| A1 | 1 = 400 kg 2 = 600 kg 3 = 800 kg 4 = 1000 kg |
|----|---|

Travel calibration

Start the travel self-learning.

 This function appears only if the [Encoder] function is active.

| | |
|----|---------------------|
| A3 | OFF (Default) ON |
|----|---------------------|

Parameter reset

Restore factory settings except for the functions: [Radio decoding], [Motor type] and the settings related to travel calibration.

| | |
|----|---------------------|
| A4 | OFF (Default) ON |
|----|---------------------|

Manoeuvre counter

View the number of operator manoeuvres.

| | |
|----|---|
| A5 | 001 = 100 manoeuvres 010 = 1000 manoeuvres 100 = 10000 manoeuvres 999 = 99900 manoeuvres CSI = Maintenance work |
|----|---|

Adjusting the motor torque

Adjust the motor torque.

| | |
|----|---------------------------------|
| A6 | From 1 (minimum) to 5 (maximum) |
|----|---------------------------------|

FW version

Display the firmware version number and the GUI installed.

H1

Import/export data

Save user data and system configuration data on a MEMORY ROLL card.

The stored data can be reused for another control board to configure another system in the same way.

⚠ Before inserting and removing the MEMORY ROLL card, DISCONNECT THE MAINS POWER SUPPLY TO THE LINE.

1 Insert the MEMORY ROLL card into the corresponding connector on the control board.

2 Press the "Enter" button to access programming.

3 Use the arrows to choose the desired function.

📖 The functions are displayed only when a MEMORY ROLL card is inserted.

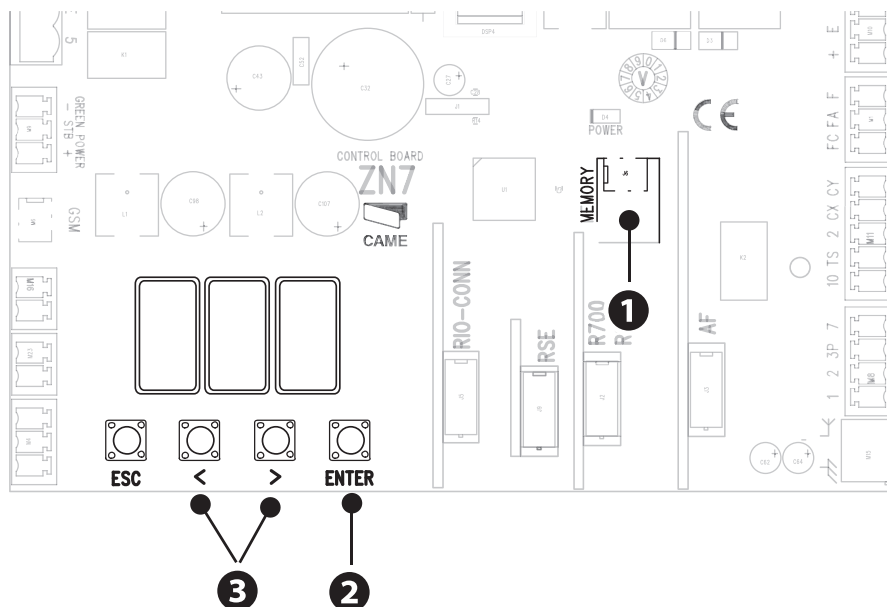
- Save data

Save user data, timings and configurations to the memory device (memory roll or USB key).

- Read data

Upload user data, timings and configurations from the memory device (memory roll or USB key).

📖 Once the data have been saved and loaded, remove the MEMORY ROLL card.

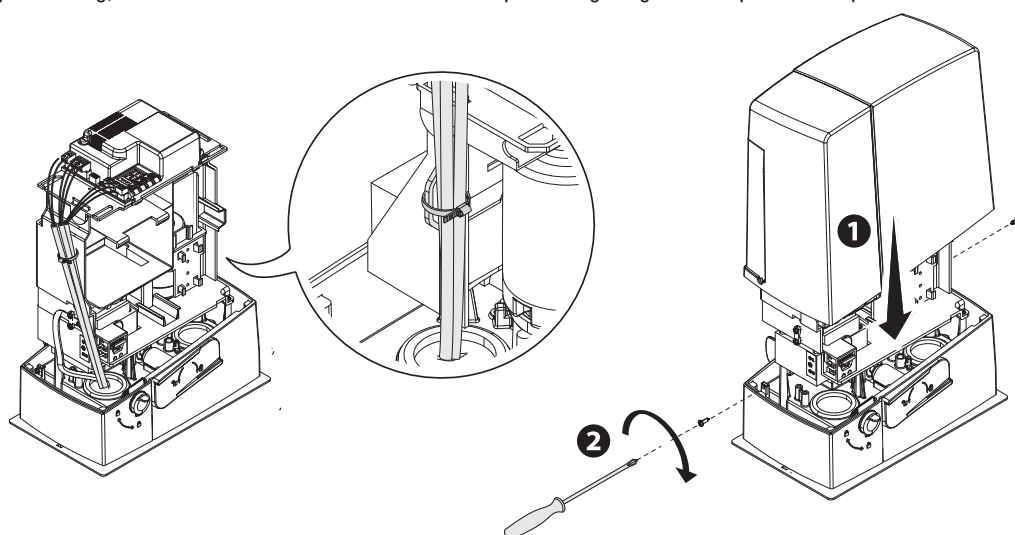


ERROR AND WARNING MESSAGES

| | |
|-----------------------|--|
| E1 | The travel calibration was interrupted to activate the STOP button. |
| E2 | Adjustment error |
| E3 | Encoder failure error |
| E4 | Service test failure error |
| E7 | Operating time error |
| E9 | Obstacle detected during closing |
| E10 | Obstacle detected during opening |
| E11 | The maximum number of obstacles detected consecutively has been exceeded |
| E13 | The limit switches are both open |
| E14 | Serial communication error |
| E15 | Incompatible transmitter error |
| E17 | Wireless system communication error |
| E18 | Wireless system not configured error |
| C0 | Wire contact 1-2 (NC) is open. |
| C1, C2, C3, C4 | The photocell wire contact (NC) is open. |
| C7, C8 | The sensitive edge wire contact (NC) is open. |
| P0 | The wireless radio contact 1-2 (NC) is open. |
| P1, P2, P3, P4 | The photocell wireless radio contact (NC) is open. |
| --- | Control board has no travel auto-learning |

FINAL OPERATIONS

 Before closing up the casing, check that the cable inlets are sealed to stop insects getting in and to prevent damp.



PAIRED OPERATION

Two connected operators are controlled with one command.

Electrical connections

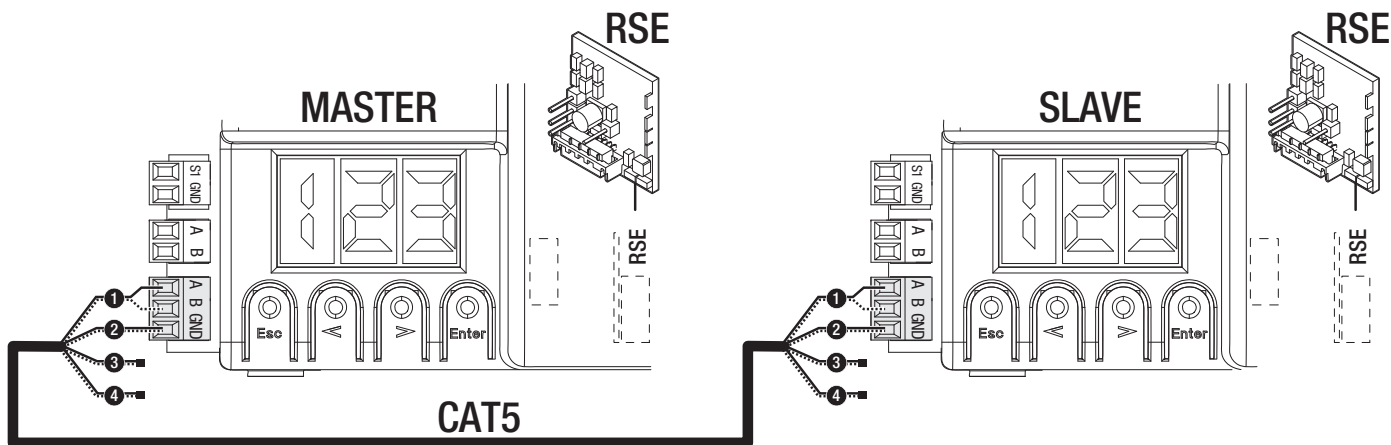
Connect the two electronic boards with a UTP CAT 5 cable.

Insert an RSE card into both control boards.


Connect up the electrics for the devices and accessories.

 The devices and accessories must be connected to the control board which will be set as the MASTER.

 For information on connecting the electrics for the devices and accessories, please see the “ELECTRICAL CONNECTIONS” section.



Programming

 All programming operations described below must be performed only on the control board set as the MASTER.


Start programming with the functions indicated below.

F49 RSE

F54 Opening direction

F52 Transferring MASTER-SLAVE parameters

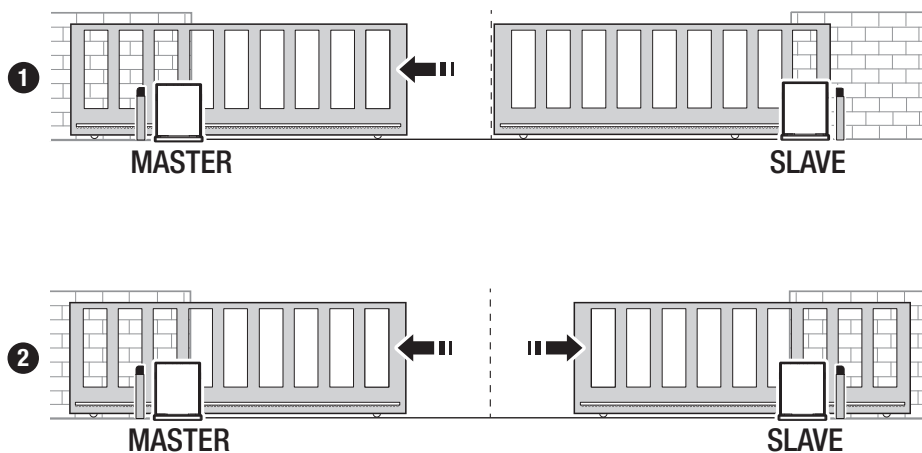
Saving users

 All save user operations must be performed only on the control board set as the MASTER.

Operating modes

① PARTIAL OPENING command

② STEP-BY-STEP command




| MCBF | | | | |
|----------------------------|--------|--------|--------|--------|
| Models | BXV04 | BXV06 | BXV08 | BXV10 |
| 14 m - 400 kg | 150000 | - | - | - |
| 18 m - 600 kg | - | 150000 | - | - |
| 20 m - 800 kg | - | - | 150000 | - |
| 20 m - 1000 kg | - | - | - | 150000 |
| Installation in windy area | -15% | -15% | -15% | -15% |

 The percentages indicate how much the number of cycles should be reduced in relation to the type and number of accessories installed.

 Before carrying out any cleaning or maintenance, or replacing any parts, disconnect the device from the power supply.

 This document informs the installer of the checks that must be carried out during maintenance.

 If the system is not used for long periods of time, e.g. for installations at sites with seasonal closures, disconnect the power supply. When the power supply is reconnected, check the system is working correctly.

 For information on correct installation and adjustments, please see the product installation manual.

 For information on choosing products and accessories, please see our product catalogue.

 Every 10,000 cycles and, in any case, every 6 months of operation, you must perform the maintenance work indicated below.

Perform a general and complete check of the tightness of the nuts and bolts.

Grease all of the moving mechanical parts.

Check the warning and safety devices are working properly.

Check for any wear on the moving mechanical parts and check that they are working properly.

Check the release mechanism is working efficiently by performing a manoeuvre with the leaf free. The gate leaf must not be obstructed.

Check the cables are intact and connected correctly.

Check and clean the slide guide and rack.



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