CAME

CAME.COM

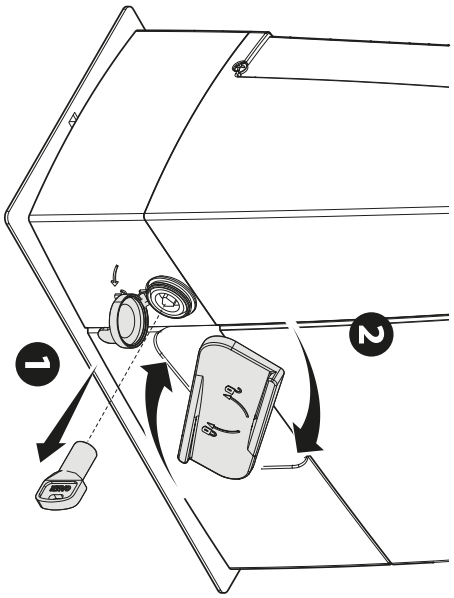
FA02227-EN

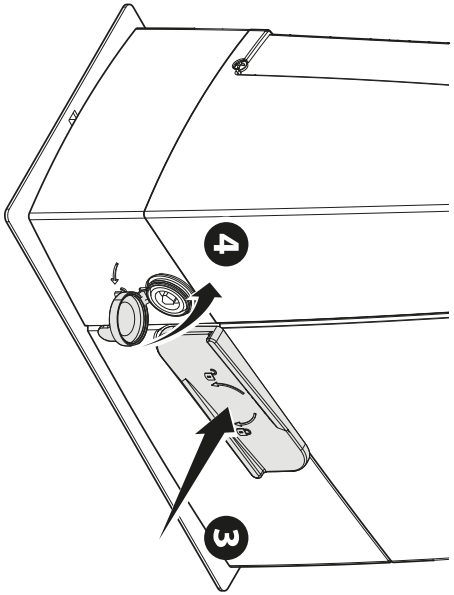
Sliding-gate operators

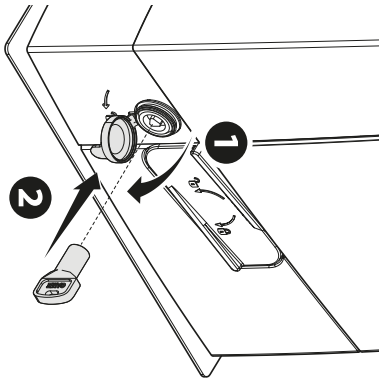
BXV04AGF BXV06AGF BXV10AGF BXV06RGF BXV10RGF

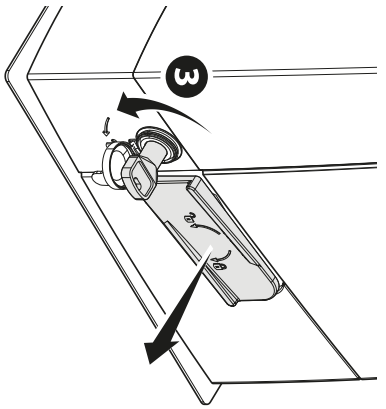
INSTALLATION MANUAL

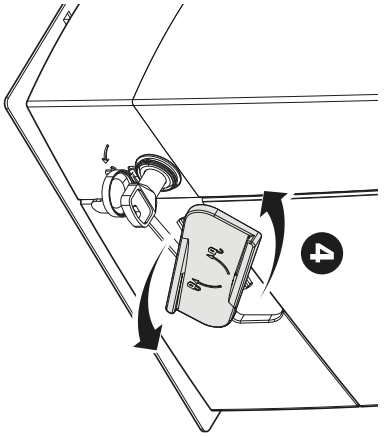
EN English











GENERAL PRECAUTIONS FOR INSTALLERS

⚠ Important safety instructions.

⚠ Please follow all of these instructions. Improper installation may cause serious bodily harm.

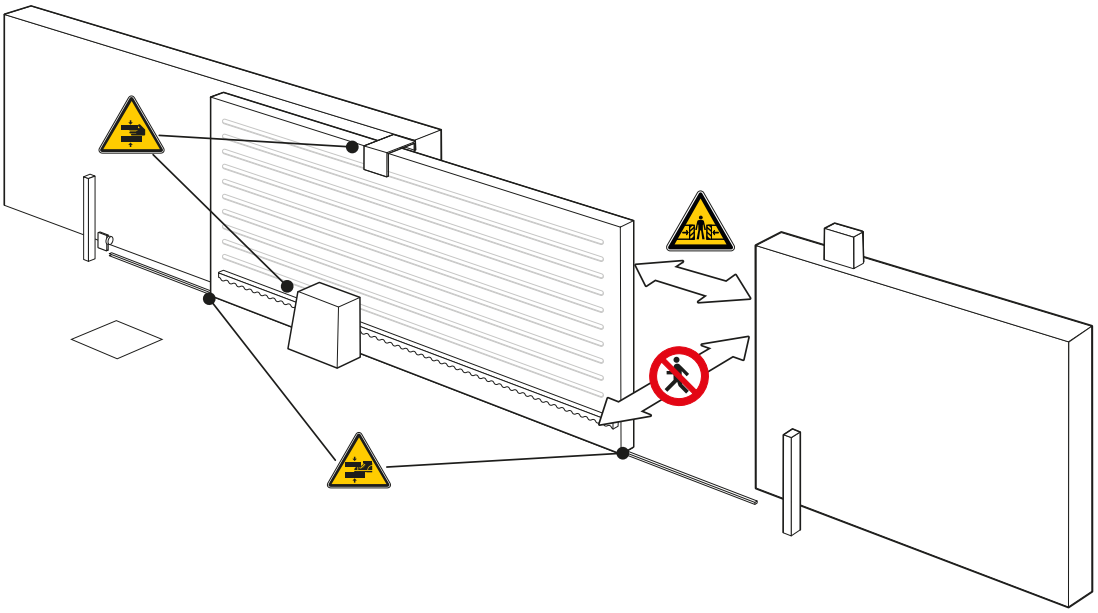
⚠ Before continuing, please also read the general precautions for users.

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 https://www.came.com/global/en/contact-us 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

PRODUCT DATA AND INFORMATION

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-0160
Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstruction detecting device for sliding gates weighing up to 400 kg that are up to 14 m long. Grey cover RAL7024. Quick version up to 22 m/min.

801MS-0190
Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstruction detecting device for sliding gates weighing up to 600 kg that are up to 18 m long. Grey cover RAL7024. Quick version up to 20 m/min.

801MS-0250
Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstruction detecting device for sliding gates weighing up to 1000 kg that are up to 20 m long. Grey cover RAL7024. Quick version up to 20 m/min.

801MS-0550
Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstruction detecting device for sliding gates weighing up to 600 kg that are up to 18 m long. Grey cover RAL7024. Quick version up to 20 m/min.

801MS-0560
Operator with 24 V motor, featuring a control board with display, on-board radio decoding, movement and obstruction detecting device for sliding gates weighing up to 1000 kg that are up to 20 m long. Grey cover RAL7024. Quick version up to 20 m/min.

Intended use

The BXV series is a 24 V high-tech solution for sliding gates at private properties and residential complexes. Equipped with a precision-control encoder, the BXV guarantees efficient, reliable performance. Installation of magnetic limit switches and a heater is supported making it more adaptable. The built-in control board includes terminal boards, a seven-segment display and space to store up to 250 users. Equipped with CAMEConnect technology, it offers remote digital control via a gateway, or local control using the CAME KEY. Quick versions with a maximum speed of up to 22 m/min are also available.

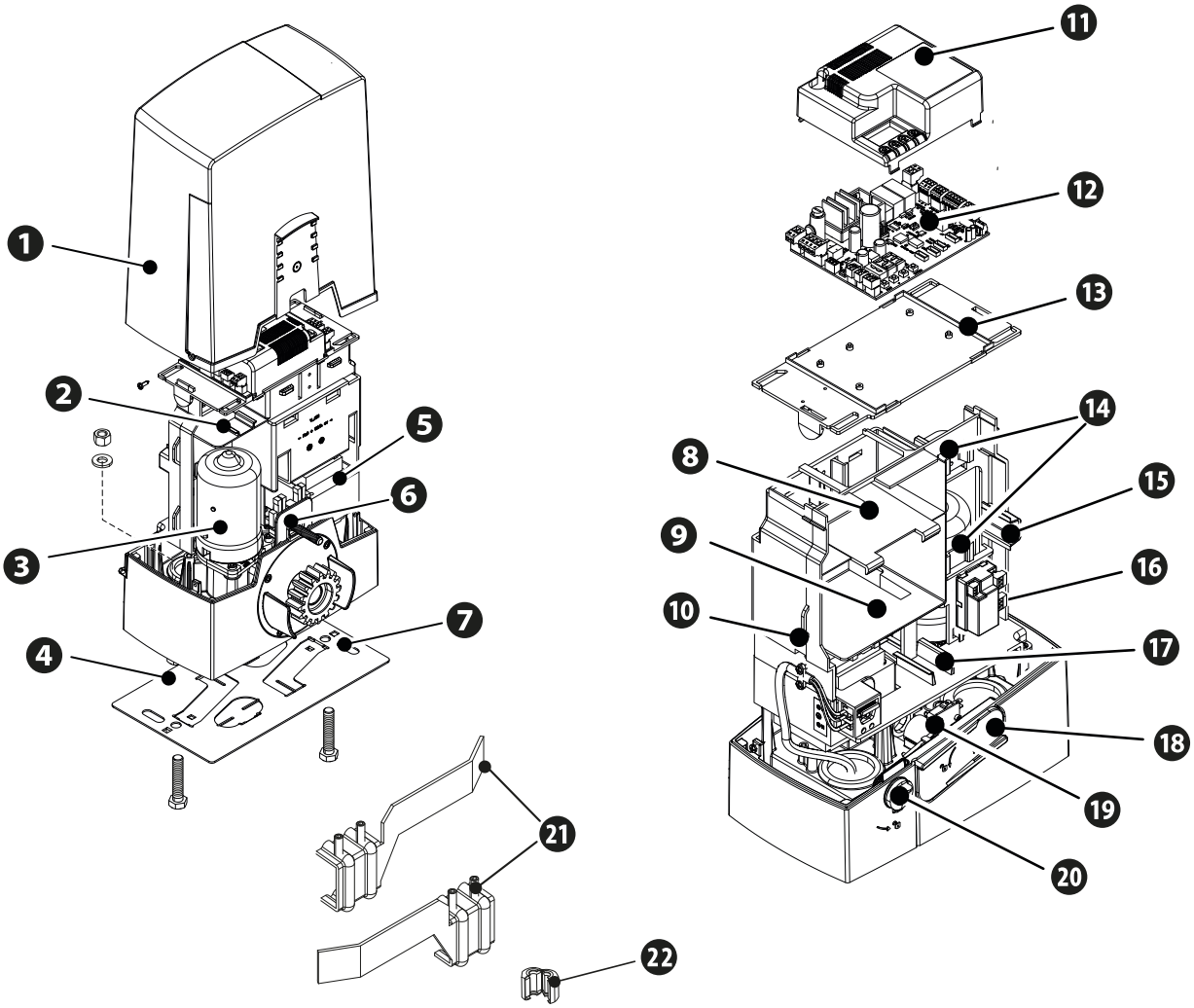
📖 Any installation and/or use other than that specified in this manual is forbidden.

📖 With the Green Power module connected to the operator, the end installations fall within the scope of Regulation (EU) 2023/826; “Household and Office” spaces.

Description of parts

Operator

❶ Cover
❷ Housing for the RLB card
❸ Gearmotor
❹ Anchoring plate
❺ Transformer
❻ Mechanical limit switch
❼ Release cord hole
❽ Housing for SMA sensor
❾ Housing for two emergency batteries
❿ Board-holder support
⓫ Board protection cover
⓬ Control board
⓭ Control board holder
⓮ Housing for UR042 module
⓯ Housing for the RGSM001 module
⓰ Module housing
⓱ Housing for thermostat with cartridge
⓲ Release lever
⓳ Released gearmotor safety microswitch
⓴ Lock
㉑ Magnetic limit-switch tabs
㉒ Ferrite



Control board

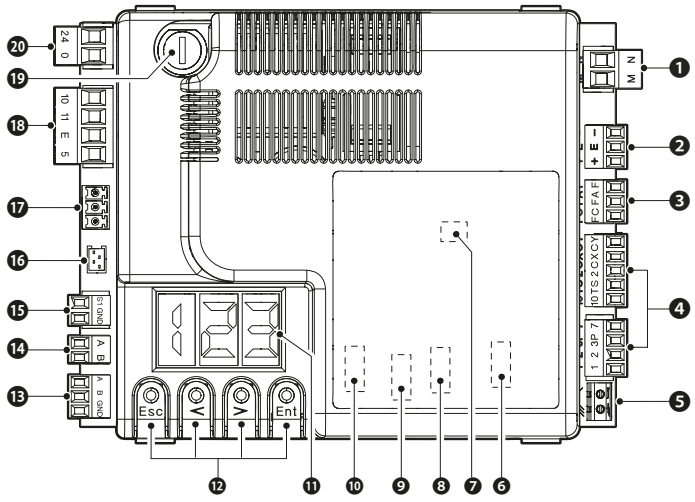
📖 The functions on the input and output contacts, the time settings and user management are set and viewed on the display.

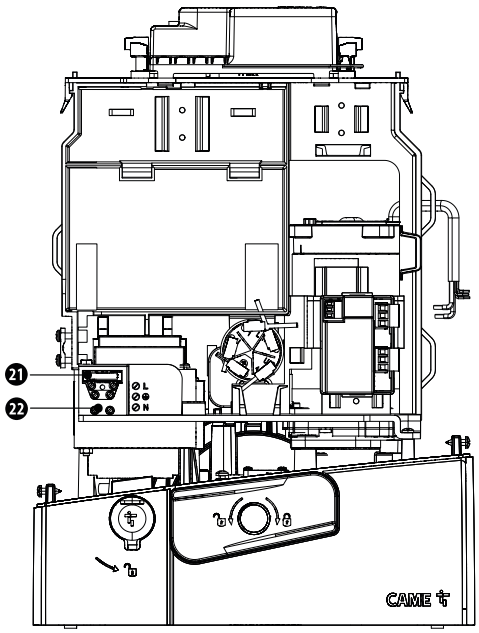
📖 All connections are protected by quick fuses.

⚠ For the system to work properly, before fitting any plug-in card, DISCONNECT THE MAIN POWER SUPPLY and remove any batteries.

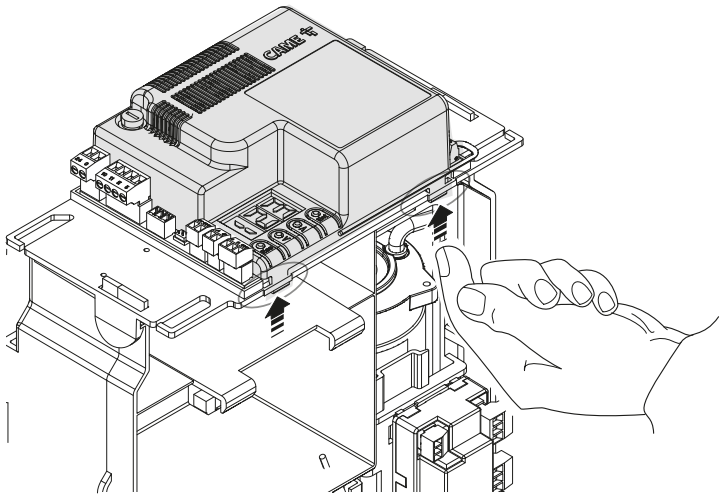
⚠ Before working on the control panel, disconnect the mains power supply and remove the batteries, if any.

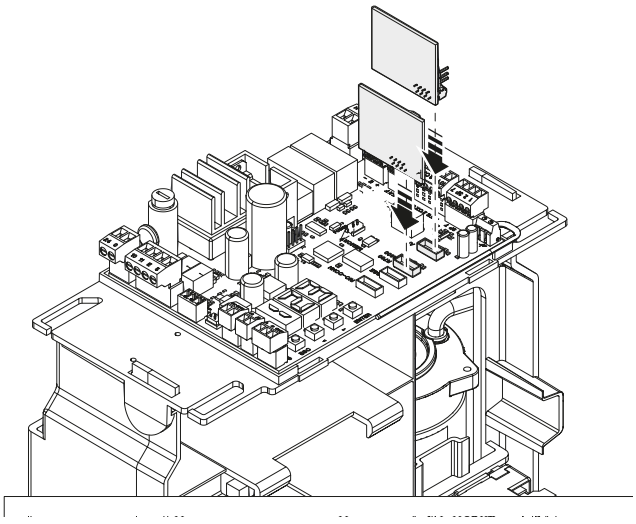
❶ Terminal board for connecting the gearmotor
❷ Terminal board for connecting the encoder
❸ Terminal board for connecting the limit switches
❹ Terminal board for connecting control and safety devices
❺ Terminal board for connecting the antenna
❻ Connector for plug-in radio frequency card (AF)
❼ Memory Roll card connector
❽ Connector for the R700 or R800 decoding card
❾ RSE card connector
❿ Connector for the RIOCN8WS module
⓫ Display
⓬ Programming buttons
⓭ Terminal board for connecting the paired function or the CRP
⓮ Terminal board for connecting the keypad selector
⓯ Terminal board for connecting the transponder selector switch
⓰ Connector for the GSM module
⓱ Terminal board for connecting the RGP1 module
⓲ Terminal board for connecting the signalling devices
⓳ Accessories fuse
⓴ Terminal board for power supply to the control board
㉑ Line fuse
㉒ Power supply terminal board



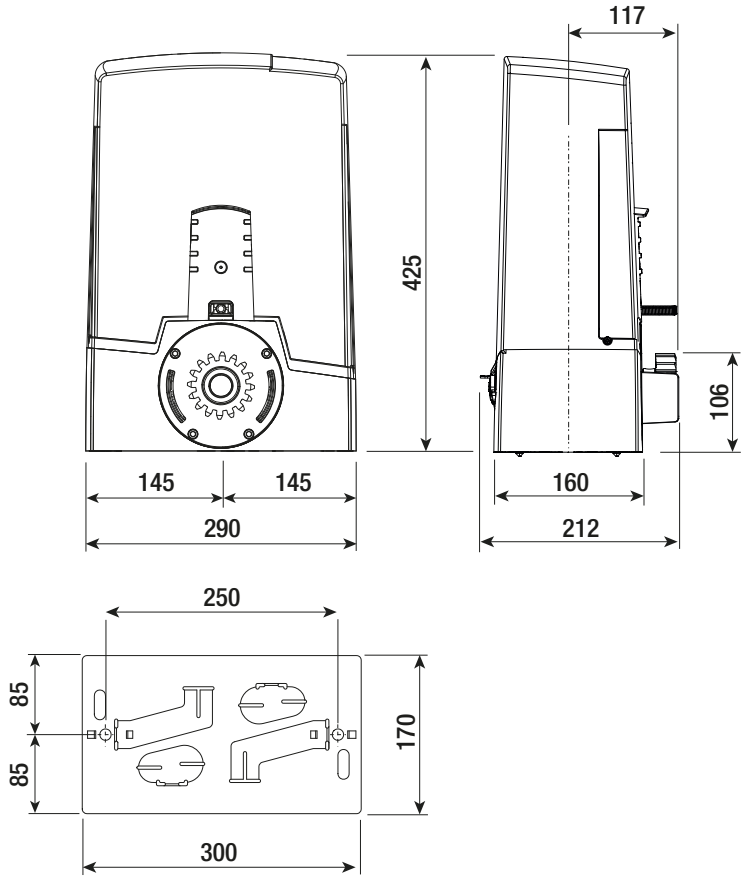


📖 Remove the card cover before inserting the cards into the connectors.





Size



Usage limitations

MODELS	BXV04AGF	BXV06AGF	BXV10AGF	BXV06RGF	BXV10RGF
Maximum gate-leaf length (m)	14	18	20	18	20
Maximum gate-leaf weight (kg)	400	600	1000	600	1000

Fuse table

MODELS	BXV04AGF	BXV06AGF	BXV10AGF	BXV06RGF	BXV10RGF
Line fuse	1.6 A-F	1.6 A-F	1.6 A-F	3.15 A-F	3.15 A-F
Accessories fuse	2 A-F	2 A-F	2 A-F	2 A-F	2 A-F

Technical data

MODELS	BXV04AGF	BXV06AGF	BXV10AGF	BXV06RGF	BXV10RGF
Power supply (V - 50/60 Hz)	230 AC	230 AC	230 AC	120 AC	120 AC
Motor power supply (V)	24 DC	24 DC	24 DC	24 DC	24 DC
Power (W)	240	240	360	240	360
Maximum current draw (A)	10	10	16	10	16
Operating temperature (°C)	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55
Storage temperature (°C)*	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70
Thrust (N)	250	330	450	330	450
Maximum operating speed (m/min)	22	20	20	20	20
Operating time (s)	180	180	180	180	180
Cycles/hour	HEAVY-DUTY SERVICE	HEAVY-DUTY SERVICE	HEAVY-DUTY SERVICE	HEAVY-DUTY SERVICE	HEAVY-DUTY SERVICE
Sound pressure level (dB A)	≤70	≤70	≤70	≤70	≤70
Control board	ZN7V	ZN7V	ZN7V	ZN7V	ZN7V
Pinion module	4	4	4	4	4
Reduction ratio	50	40	40	40	40
Limit-switch type	MECHANICAL	MECHANICAL	MECHANICAL	MECHANICAL	MECHANICAL
Protection rating (IP)	54	54	54	54	54
Insulation class	I	I	I	I	I
Colour	RAL 7024	RAL 7024	RAL 7024	RAL 7024	RAL 7024
Weight (kg)	11,6	13,5	14	13,6	14
Average life (cycles)**	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 (where present, see the MCBF table). 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 mm2	3G x 2.5 mm2
24 V AC/DC flashing beacon	2 x 1 mm2	2 x 1 mm2
TX Photocells	2 x 0.5 mm2	2 x 0.5 mm2
RX photocells	4 x 0.5 mm2	4 x 0.5 mm2
Command and control devices	* no. x 0.5 mm2	* no. x 0.5 mm2

* 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.

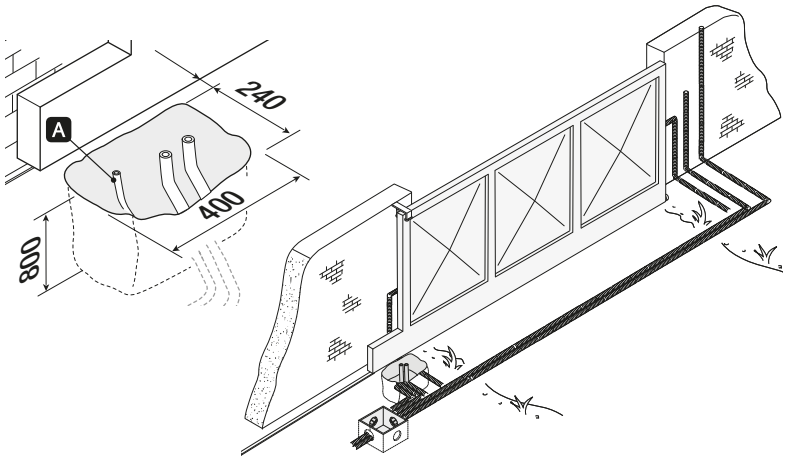
Preliminary operations

Dig a hole for the foundation frame.
Set up the corrugated tubes needed for the wiring coming out of the junction pit.

Use Ø 40 mm corrugated tubes to connect the gearmotor to the accessories.

Prepare a Ø 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.

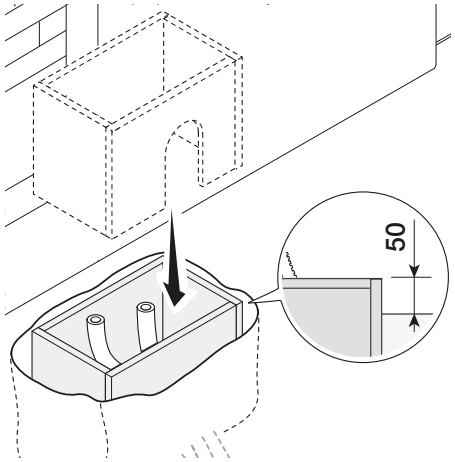


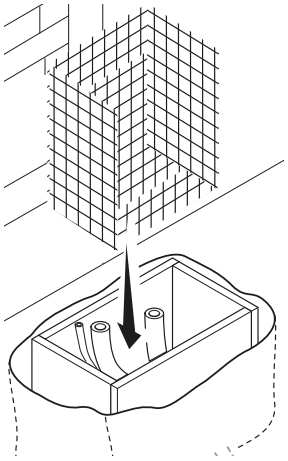
Laying the anchoring plate

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.

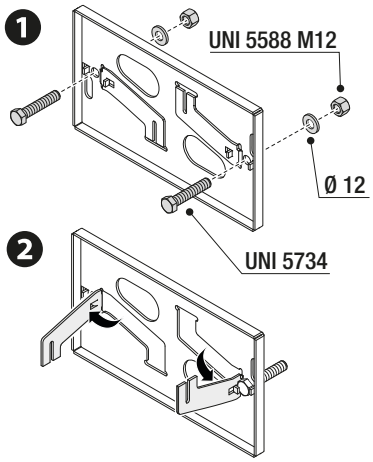
Fit an iron cage in the foundation frame to reinforce the concrete.

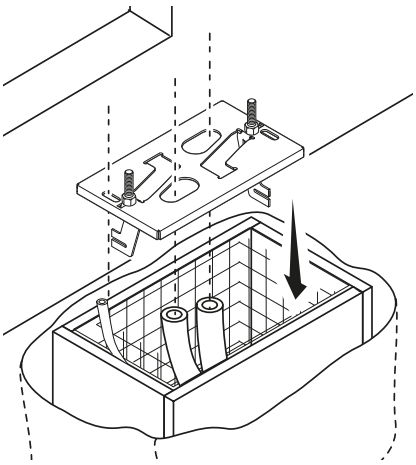




Insert the screws supplied in the anchoring plate.
Lock the screws in place with the nuts supplied.
Remove the pre-shaped clamps using a screwdriver.
Fit the anchoring plate in the iron cage.

📖 The tubes must pass through the existing holes.





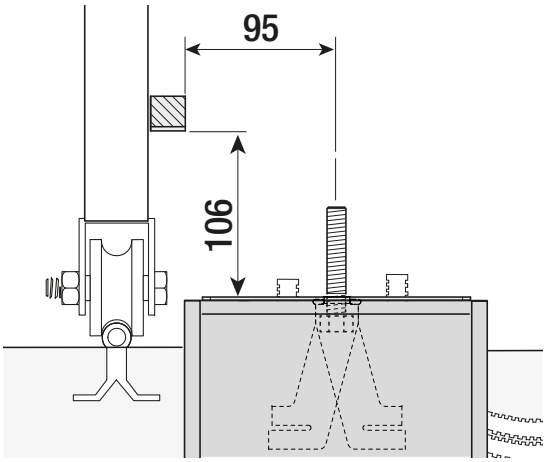
Position the anchoring plate, taking note of the measurements shown in the drawing.

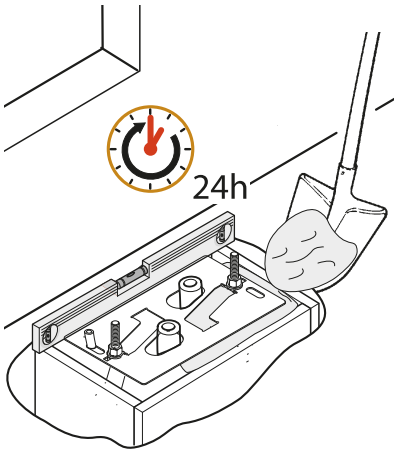
📖 If the gate does not have a rack, proceed with the installation. See the section FASTENING THE RACK.

📖 See the section “FASTENING THE RACK”.
Cast cement into the foundation frame.

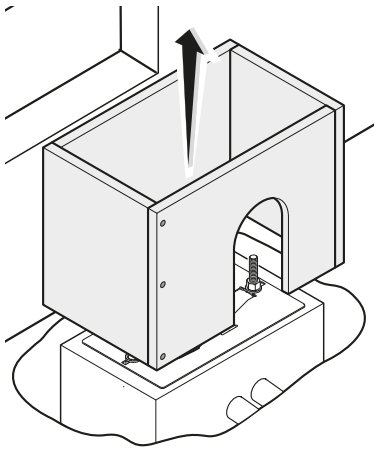
📖 The plate must be perfectly level and the screw threads completely above surface.

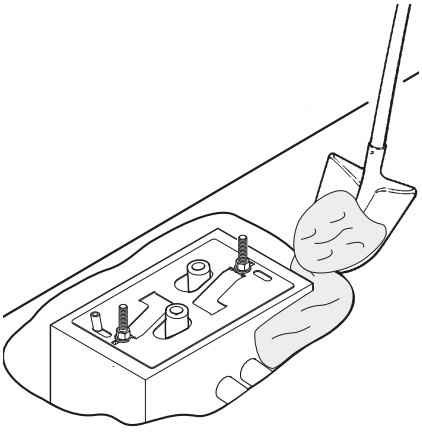
Wait at least 24 hours for the cement to dry.



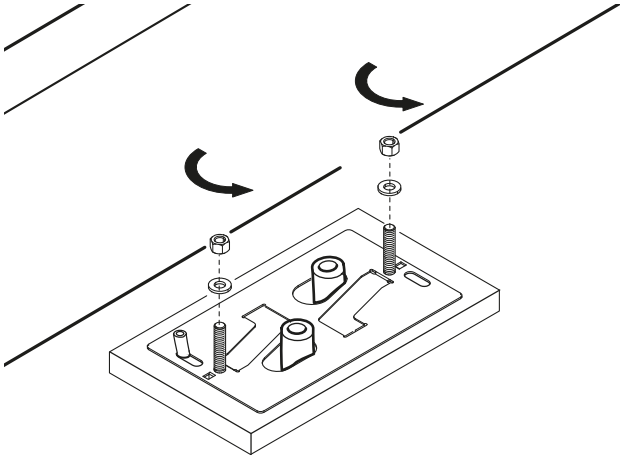


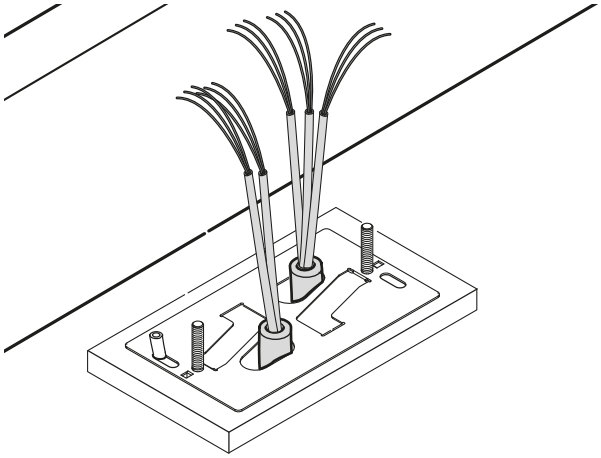
Remove the foundation frame.
Fill the hole with soil around the concrete block.





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

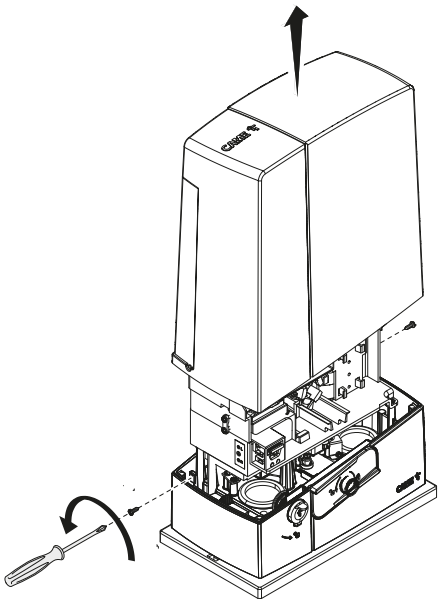


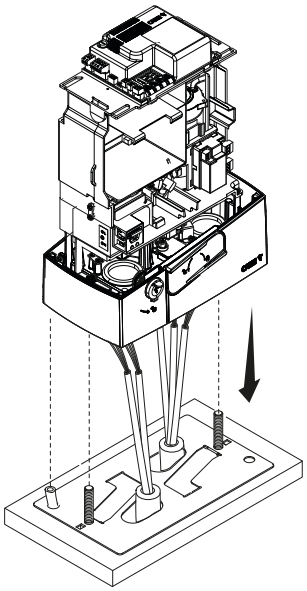


Setting up the operator

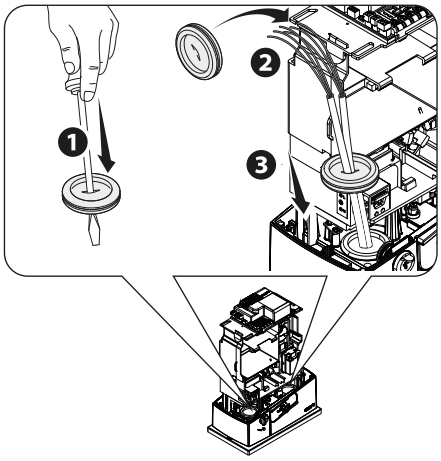
Remove the operator cover.
Place the operator on top of the anchoring plate.

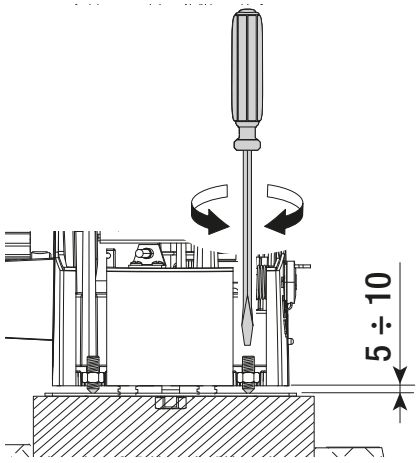
📖 The electrical cables must pass under the operator foundation frame





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.

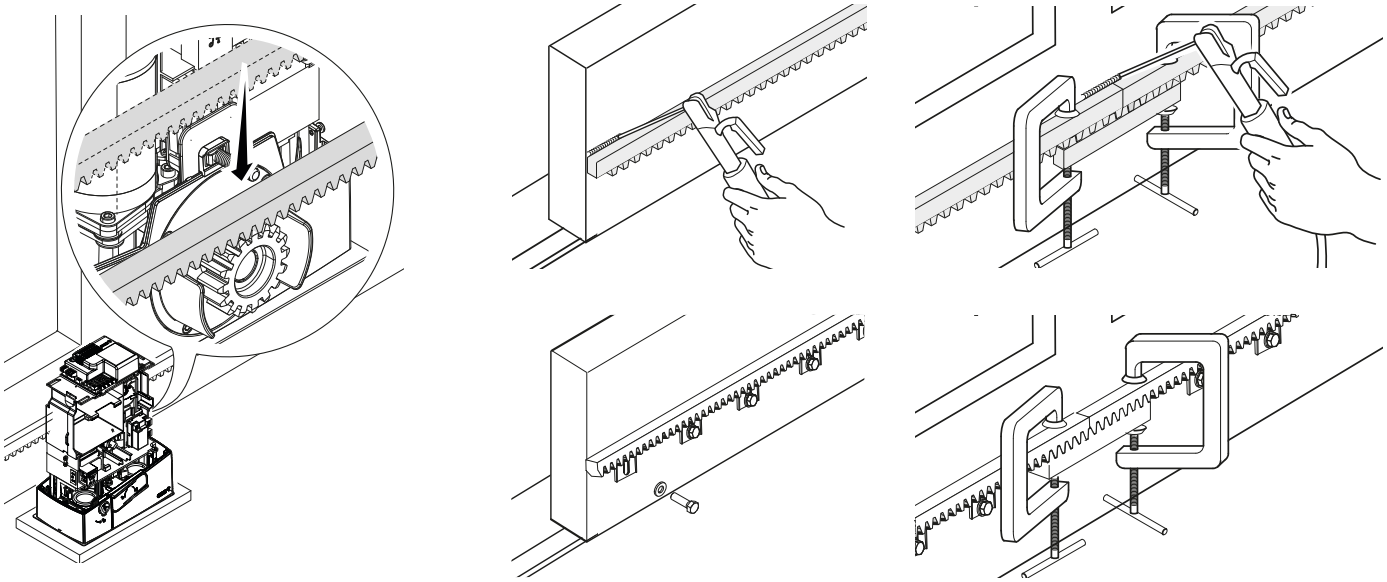




Fastening the rack

❶ Release the operator.
❷ Rest the rack on the pinion.
❸ Weld or fasten the rack to the gate along its entire length.

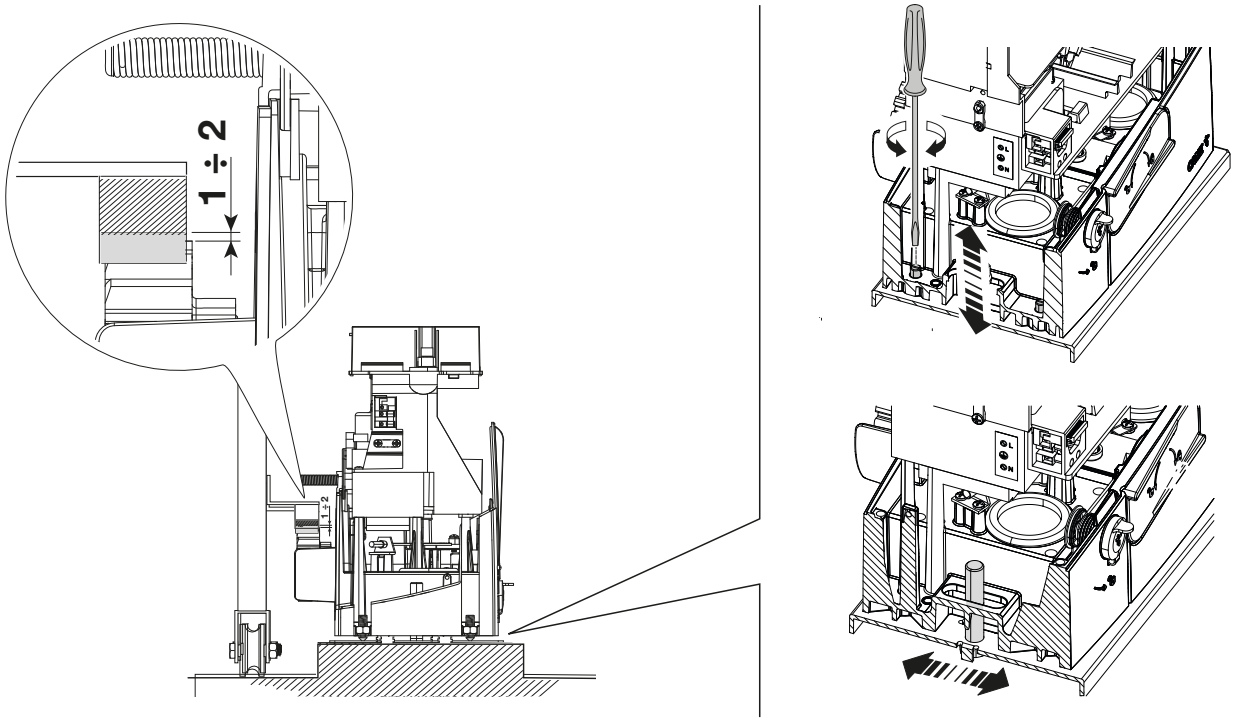
📖 To assemble the rack modules, use an extra piece and rest it under the joint, then fasten it in place using two clamps.



Adjusting the pinion-rack coupling

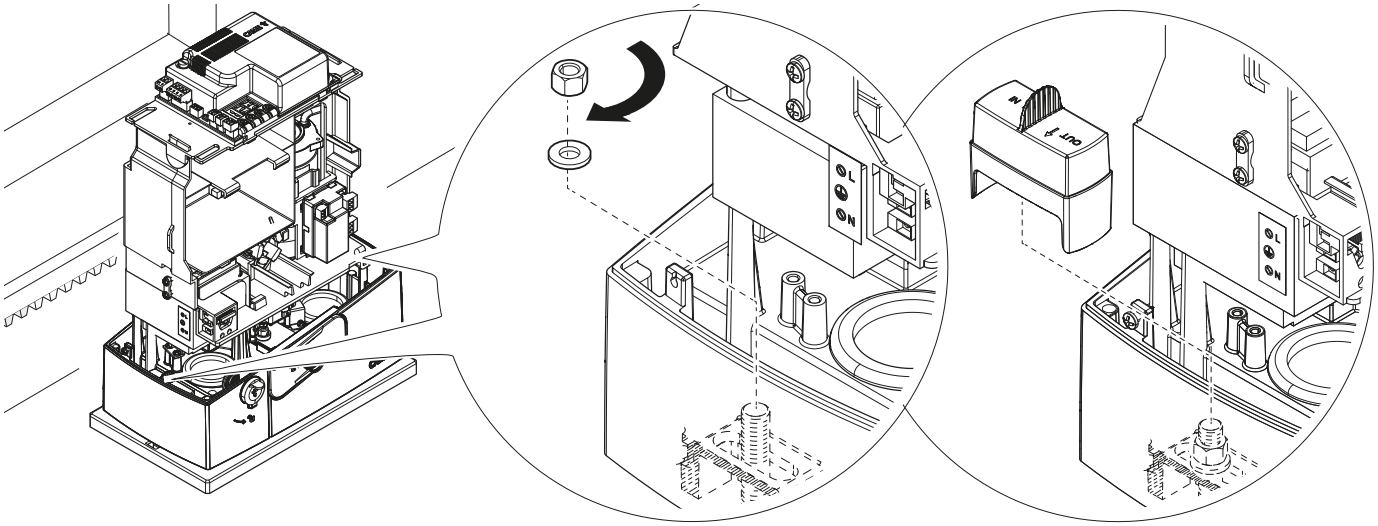
Open and close the gate manually.
Adjust the pinion-rack coupling distance using the threaded feet (vertical adjustment) and the holes (horizontal adjustment).

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



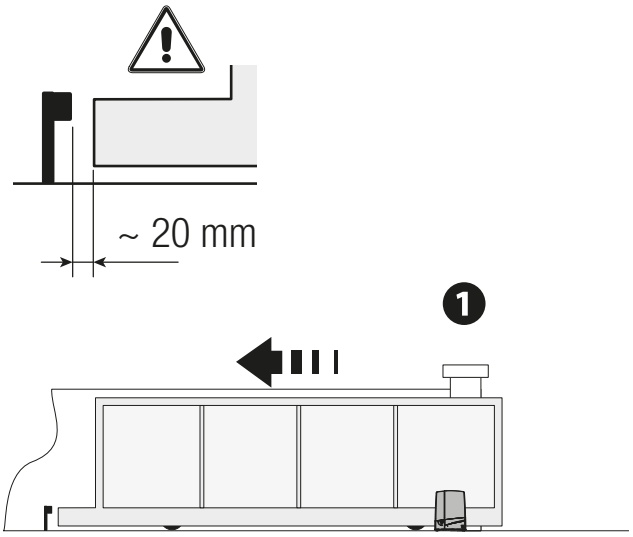
Fastening the operator in place

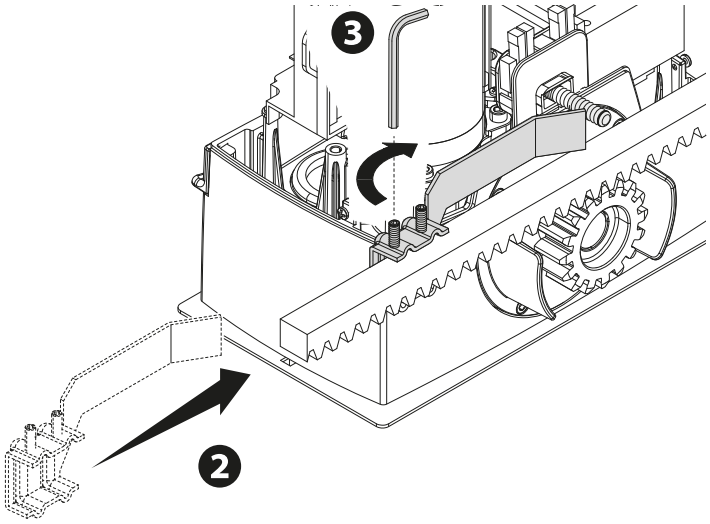
📖 Only fasten the operator after adjusting the pinion-rack coupling.
Fasten the operator to the anchoring plate using stoppers and nuts.



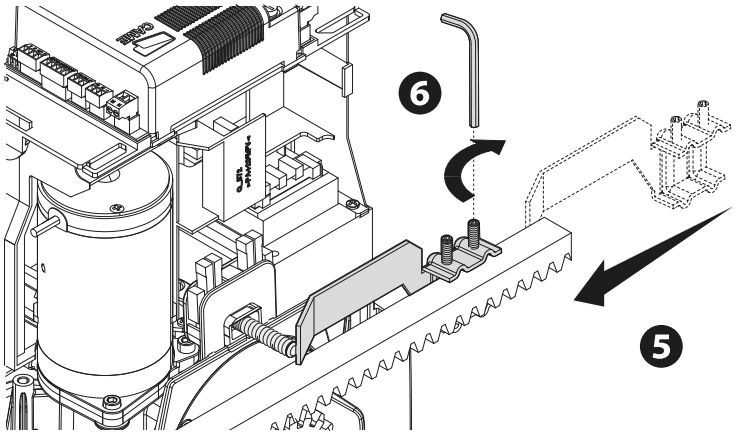
Determining the travel end points with mechanical limit switches

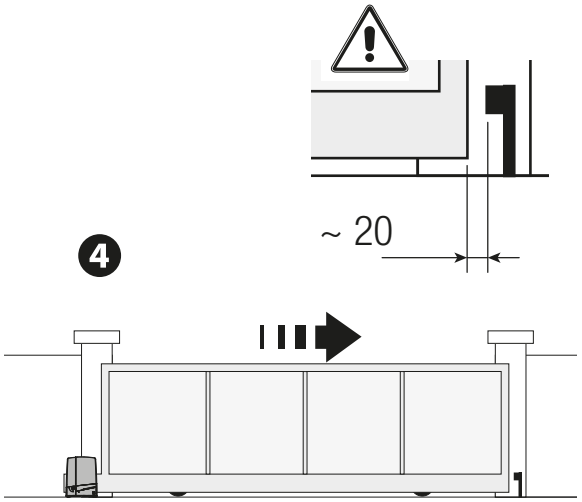
❶ Open the gate.
❷ Insert the opening limit-switch tab in the rack.
The spring must trigger the microswitch.
❸ Fasten the opening limit-switch tab using the grub screws supplied.





❹ Close the gate.
❺ Insert the closing limit-switch tab in the rack.
The spring must trigger the microswitch.
❻ Fasten the closing limit-switch tab using the grub screws supplied.



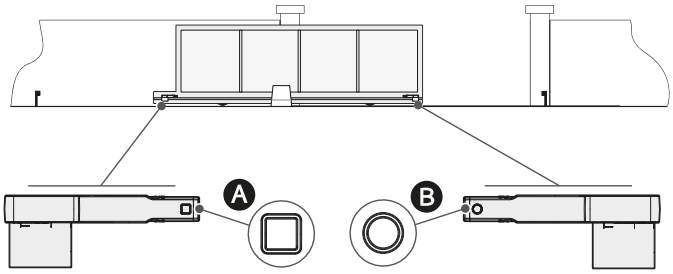


Establishing the travel end points with magnetic limit switches*

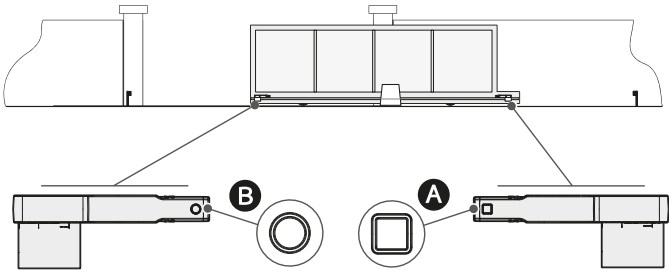
* Only for BXV06AGL and BXV10AGL

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

Operator fitted on the left



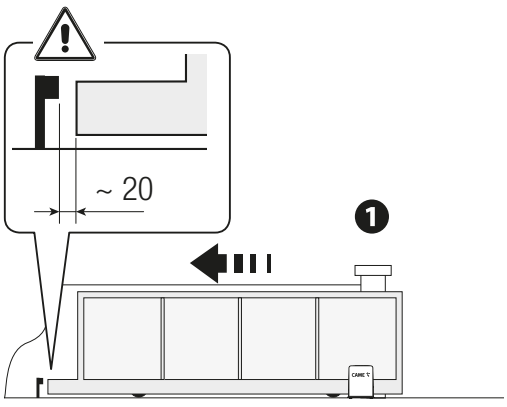
Operator fitted on the right.

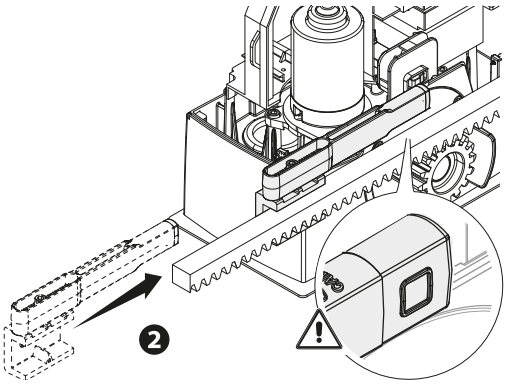


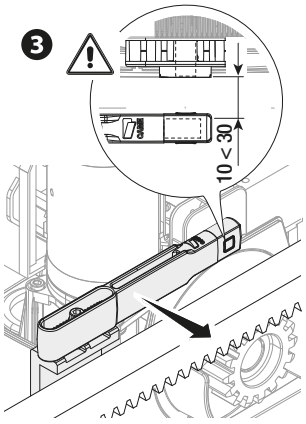
📖 The figures below show the limit switch installed with the operator on the left.Installation of the limit switch on the right is symmetrical.

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.



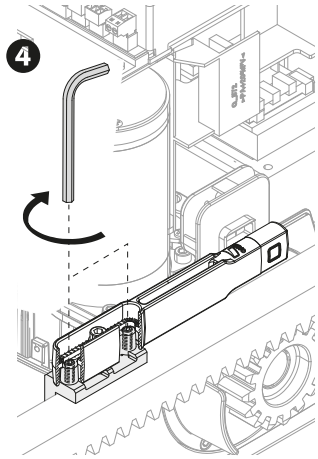


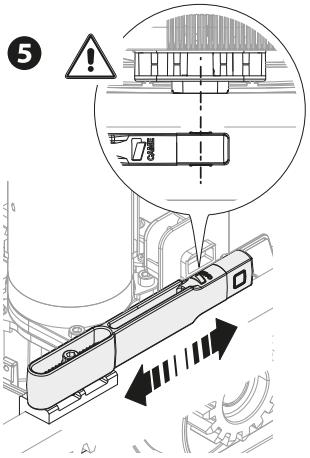


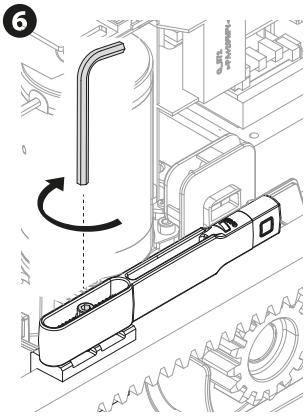
Fasten the support to the rack using the grub screws supplied.

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

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



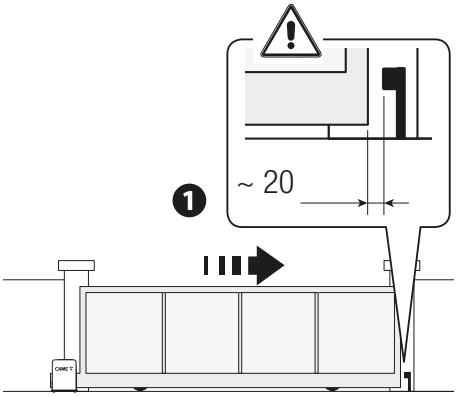


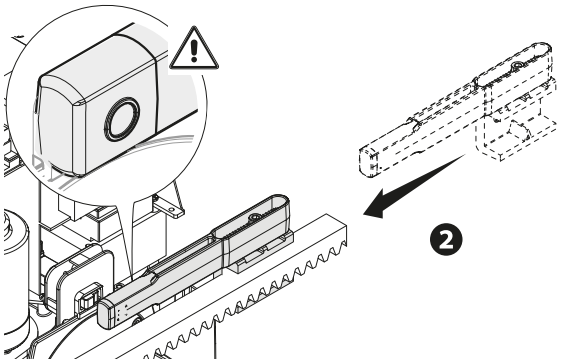


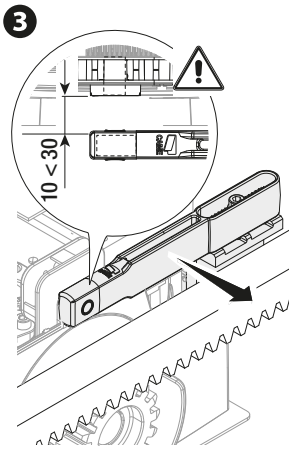
Close the gate.

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

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



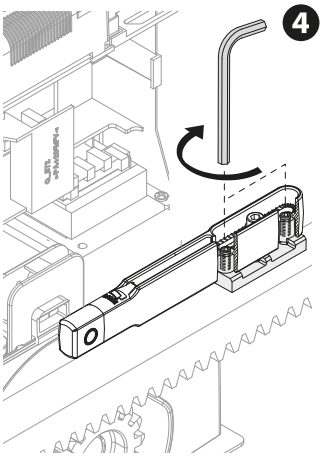


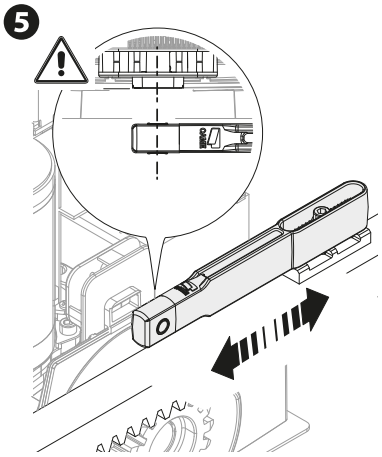


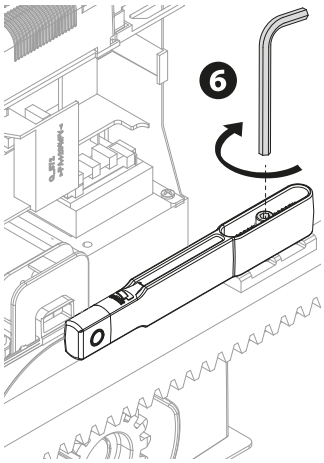
Fasten the support to the rack using the grub screws supplied.

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

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







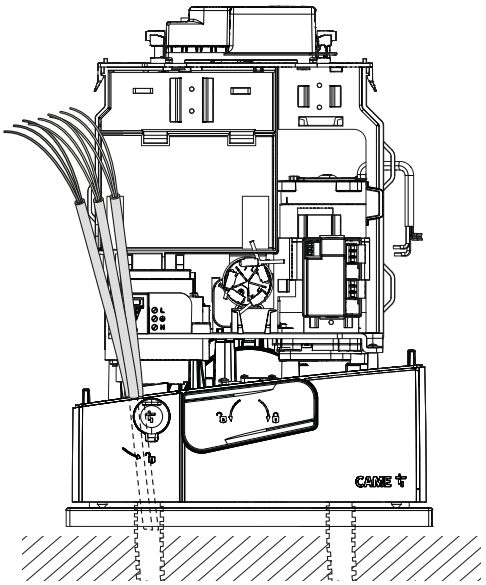
ELECTRICAL CONNECTIONS

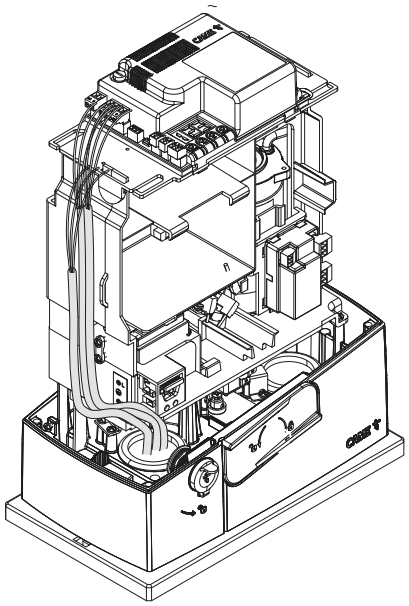
Passing the electrical cables

📖 Connect all wires and cables in compliance with the law.

📖 Use cable glands with corrugated tubing to connect the devices to the control panel. One of these must be for the power cable only.

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





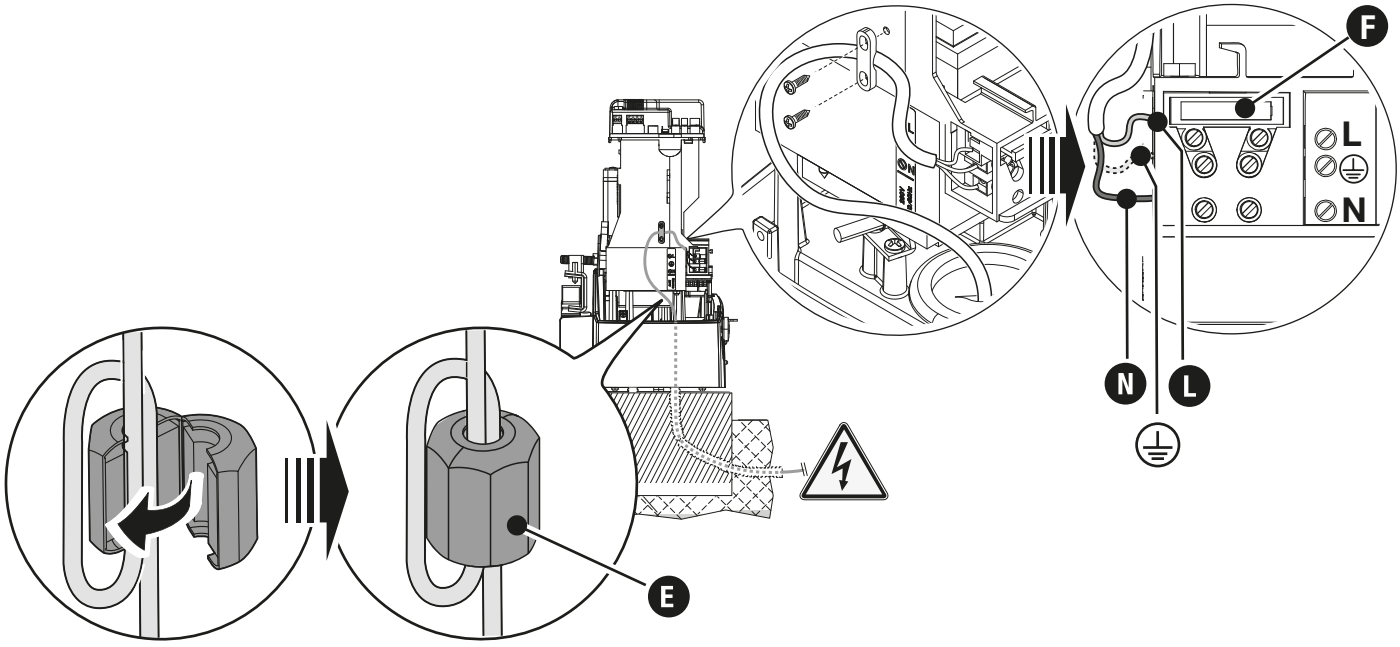
Connecting to the electrical network

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

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

Power supply 230/120 V AC - 50/60 Hz

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



Connecting accessories

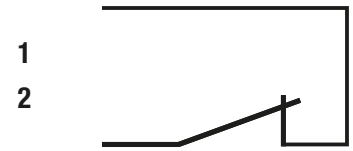
Power supply output for accessories 24 V

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

Device	Output	Power supply (V)	Maximum power (W)
Accessories	10 - 11	24 AC	40
Flashing beacon	10 - E	24 AC	25
Additional light	10 - E	24 AC	25
Passage-open warning light	10 - 5	24 AC	3

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

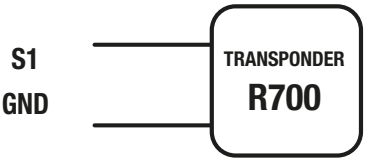
Command and control devices



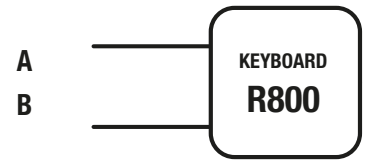
STOP button (NC contact)
This stops the operator and excludes automatic closing. Use a control device to resume movement.
📖 When the contact is being used, it must be activated during programming.
📖 See the [F1 – Total stop] function.

Control device (NO contact)
Open command
Partial Opening command
📖 When the [F6 – Hold-to-run] function is active, a control device must be set to OPEN.

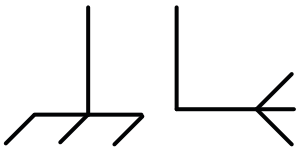
Control device (NO contact)
Step-by-step command
Sequential command
📖 When the function [F6 - Hold-to-run] is active, a control device must be set to CLOSE.



Transponder selector switch or card reader
📖 Insert the R700 card into the corresponding connector.
📖 See function [F14 Sensor type].

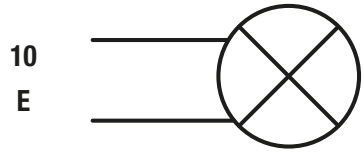


Keypad selector
📖 Insert the R800 card into the corresponding connector.
📖 See function [F14 Sensor type].



Antenna with RG58 cable
Use this terminal to connect the antenna.

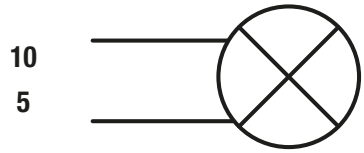
Signalling devices



Flashing beacon or additional light

Depending on configuration, it flashes when the operator opens and closes, or increases lighting in the manoeuvre area.

See function [F18 - Additional light].



Operator status warning light (Passage-open warning light)

See function [F10 - Passage-open warning light].

Photocells and sensitive edges

Connect the devices to the CX and/or CY inputs.
During programming, configure the type of action that must be performed by the device connected to the input.

If contacts CX and CY are used, they must be configured during programming.

Photocells and sensitive edges

Connect the devices to the CX and/or CY inputs.
During programming, configure the type of action that must be performed by the device connected to the input.

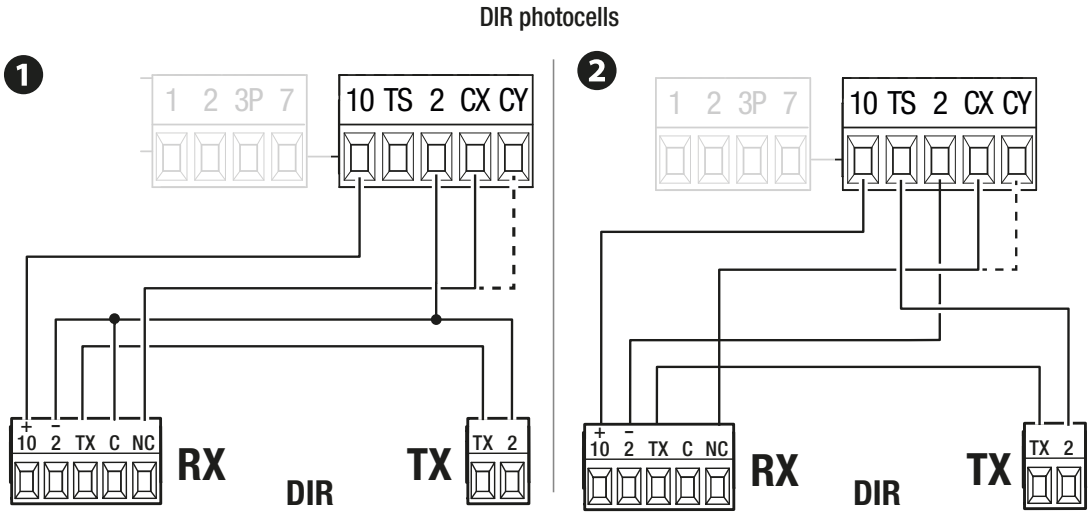
If contacts CX and CY are used, they must be configured during programming.

For systems with multiple pairs of photocells, please see the manual for the relevant accessory.

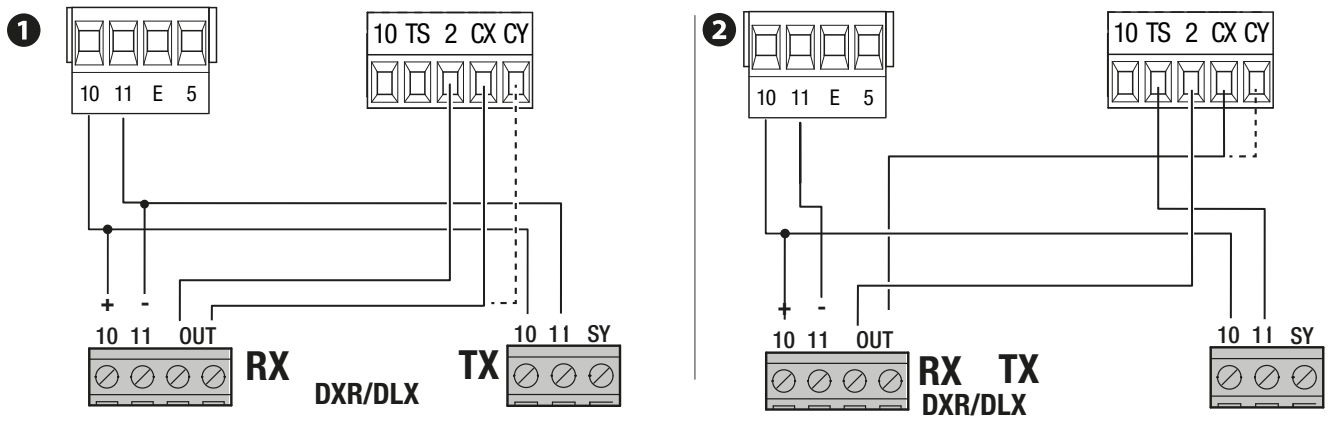
❶ **Standard connection**

❷ **Connection with safety test**

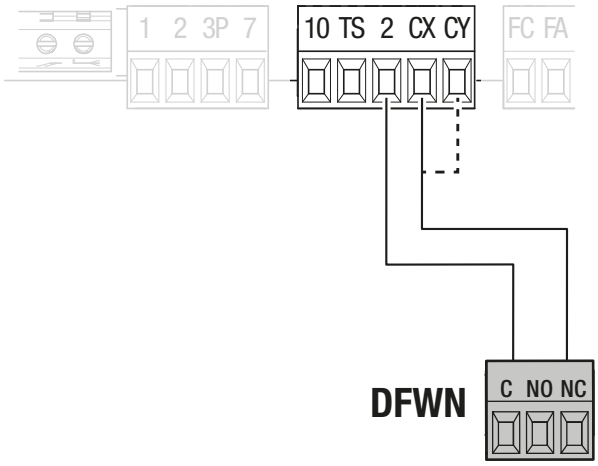
See function [F5 – Safety devices test].



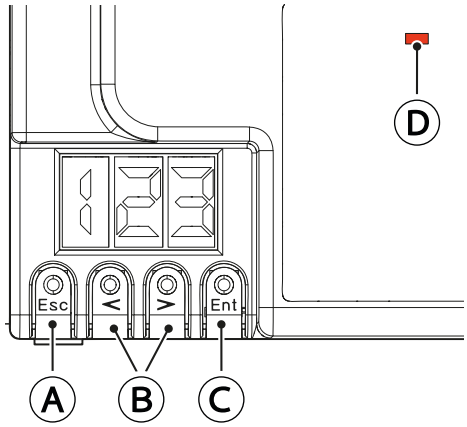
DXR / DLX photocells



DFWN sensitive edge



Programming button functions and warning LEDs



Ⓐ 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 (outside the programming menu)

Ⓑ < > buttons

The <> buttons are used to perform the operations described below.
Navigate the menu
Increase or decrease values
Operator opening and closing (outside the programming menu)
< Close command (outside the programming menu)
> Open command (outside the programming menu)

Ⓒ ENTER button

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

Ⓓ Power LED

If the LED is on and steady, the operator is powered up.

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

Function		Parameters	Function description
F1	**Total stop**	OFF (Default) ON	The function is used to manage operator stops and exclusion of all other commands.When the function is activated, the 2-1 input is used as a normally closed contact. 📖 **Use a control device to resume movement.**
F2 **F3**	**CX input** **CY input**	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 = Reopen while closing (sensitive edges) C8 = Reclose while opening (sensitive edges)	The function is used to configure the CX (F2) and CY (F3) input.
F5	**Safety devices test**	OFF (Default) 1 = CX 2 = CY 4 = CX+CY	The function is used to check that the photocells connected to the selected inputs are operating correctly, after each opening and closing command. 📖 **Run the test by connecting the photocells to the TS terminal [see paragraph on Safety devices].**
F6	**Hold-to-run**	OFF (Default) ON	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.**
F7	**Command 2-7**	0 = Step-by-step (default) - The first command is to open and the second to close. 1 = Sequential - The first command is to open, the second to STOP, the third to close and the fourth to STOP. 2 = Open 3 = Close	The function associates a command to the device connected on 2-7.
F8	**Command 2-3P**	1 = Partial opening (Default) 2 = Open	Associate a command to the connected device on 2-3P. With the encoder active: the partial opening time is set from the function [F36 – Partial opening time]. Without an encoder: the partial opening time is set from the function [F71 – Partial opening time].

F9	**Obstacle with motor stopped**	OFF (Default) ON	With the function active and the operator stopped, an open or close command is not performed if the safety devices detect an obstacle. The function is active when the passage is closed or open, or after a complete stop.
F10	**Passage-open warning light**	0 = Warning light on (default) - The light stays on when the operator is moving or the passage is open. 1 = Warning light flashing - The warning light flashes every half a second when the passage is opening and stays on when the passage is open. The light flashes every second when the passage is closing, and remains off when the passage is closed.	The function is used to set the type of warning for the open passage light.
F11	**Encoder**	OFF ON (Default)	The function activates or deactivates the encoder.
F12	**Soft start**	OFF (Default) ON	The function is used to set a slowdown of a few seconds after each opening and closing command.
F14	**Sensor type**	0 = Transponder selector switch 1 = Keypad selector (default)	Use the function to choose the connected control device.
F18	**Additional light**	0 =Flashing beacon (Default) 1 = Cycle light - The lamp stays on during the manoeuvre. 📖 **An automatic closing time must be set under [F19 – Automatic closing] to ensure correct operation.**	This function allows you to choose the operating mode of the lighting device connected to the output 10-E.
F19	**Automatic closure**	OFF (Default) From 1 to 180 seconds	The function is used to set the time before automatic closure, once the opening travel end point has been reached or once the photocells have caused a partial stop [C3]. 📖 **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.**
F20	**Automatic closing after partial opening**	OFF 1 to 180 seconds (Default 10)	The function is used to set the time before automatic closure after a partial opening command has been performed or after the photocells have caused a partial stop [C3]. 📖 **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.**
F21	**Pre-flashing time**	OFF (Default) 1 to 10 seconds	The function adjusts the time for which the beacon is activated before each manoeuvre.
F28	**Gate travel speed**	50% to 100% (Default 100%)	The function is used to set the operator opening and closing speed. The percentage is calculated on the maximum travel speed.
F30	**Slowdown speed**	From 10% to 30% (Default 30%)	The function is used to set the slowdown speed. The percentage is calculated on the maximum travel speed.
F34	**Travel sensitivity**	10% to 100% (Default 100%) **10% = minimum thrust and high obstruction sensitivity** **100 % =maximum thrust and low obstruction sensitivity**	The function adjusts the obstacle detection sensitivity during the gate travel in percentage terms.

F35	**Slowdown sensitivity**	10% to 100% (Default 100%) 10% = minimum thrust and high obstruction sensitivity 100 % =maximum thrust and low obstruction sensitivity	The function adjusts the obstacle detection sensitivity during slowdown in percentage terms.
F36	**Adjusting the partial opening**	10% to 100% (Default 20%)	The function is used to set the partial opening percentage for the gate. 📖 This function appears only if the [F11 – Encoder] function is active.
F37	**Opening slowdown space**	5% to 45% (Default 25%)	The function is used to set the percentage of the total travel to be used for slowdown during gate opening. 📖 This function appears only if the [F11 – Encoder] function is active. ⚠ For sliding gate leaves with high inertia and fast speeds, bring the slowdown starting point forward to ensure the limit-switch position is reached at the desired speed during opening and closing.
F38	**Closing slowdown space**	5% to 45% (Default 25%)	The function is used to set the percentage of the total travel to be used for slowdown during gate closing. 📖 This function appears only if the [F11 – Encoder] function is active. ⚠ For sliding gate leaves with high inertia and fast speeds, bring the slowdown starting point forward to ensure the limit-switch position is reached at the desired speed during opening and closing.
F49	**RSE communication**	OFF (Default) 1 = Paired 3 = CRP/CAME KEY	The function is used to configure the card inserted in the RSE connector.
F50	**Save data**	OFF (Default) ON (Run operation)	The function activates saving user data, timings and configurations to the memory device (memory roll). 📖 The function is displayed only when a memory roll card is inserted into the control board.
F51	**Read data**	OFF (Default) ON (Run operation)	The function activates uploading user data, timings and configurations on the memory device (memory roll). Any configurations already on the electronic board are overwritten. 📖 The function is displayed only when a memory roll card is inserted into the control board.
F52	**Transferring MASTER-SLAVE parameters**	OFF (Default) ON	The function is used to share the parameters programmed on the master gate with the slave gate. 📖 This function appears only if the [F49 – RSE communication] function is active.
F54	**Opening direction**	0 = To the left (default) 1 = To the right	The function is used to set the gate opening direction.
F56	**CRP address**	from 1 to 255 (Default 1)	The function assigns a unique identification code (CRP address) to the control board. 📖 The function is used where there are multiple operators connected to the same communication BUS using the CRP protocol.

F63	**RSE speed**	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	The function is used to set the remote connection system communication speed on the RSE port.
F65 **F66**	**RIO ED T1** **RIO ED T2**	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.	The function is used to configure a wireless safety device. 📖 **The function only appears if the RIO CONN interface board is present.**
F67 **F68**	**RIO PH T1** **RIO PH T2**	OFF (Default) P1 = Reopen while closing. P2 = Reclose while opening. P3 = Partial stop. Only with [Automatic close] activated. P4 = Obstacle standby.	The function is used to configure a wireless safety device. 📖 **The function only appears if the RIO CONN interface board is present.**
F71	**Partial opening time**	5 to 40 seconds (Default 5)	The function is used to adjust the gate opening time. 📖 **This function appears only if the [F11 – Encoder] function is deactivated.**
U1	**New user**	The function is used to 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.** 📖 **See the [Saving a new user] section for information on the save procedure.**	
U2	**Remove user**	The function is used to remove one of the registered users. 📖 **See the [Remove registered users] section for information on how to remove them.**	
U3	**Remove all**	OFF (Cancel operation) ON (Run operation)	The function is used to remove all registered users. 📖 **"CLr" will appear to confirm deletion.**
U4	**Radio decoding**	1 = All decoding (default) 2 = Rolling code 3 = TW key block	The function is used to choose the type of radio coding for the transmitters enabled to control the operator. 📖 **If you choose [Rolling code] or [TW key block], any transmitters with a different type of radio coding saved previously will be deleted.**
U8	**Self-Learning Rolling**	OFF (Default) ON	The function is used to save a new rolling code transmitter by activating acquisition from a rolling code transmitter that has already been stored. The saving and acquisition procedures are explained in the transmitter manual.
A1	**Motor type**	1 = 400 kg 2 = 600 kg 3 = 800 kg 4 = 1000 kg	The function is used to set the type of gearmotor installed.
A3	**Travel calibration**	OFF (Cancel operation) ON (Run operation)	The function is used to start travel self-learning. ⚠ **During calibration, all safety devices are disabled, except for the STOP button [F1 – Total stop].** 📖 **This function appears only if the [F11 - Encoder] function is active.**

A4	**Parameter reset**	OFF (Cancel operation) ON (Run operation)	The function restores the factory configurations except for:[motor type], [Radio decoding], and the travel calibration settings.
A5	**Manoeuvre counter**	001 = 100 manoeuvres 010 = 1000 manoeuvres 100 = 10000 manoeuvres 999 = 99900 manoeuvres 100. = 100000 manoeuvres 999 = 999000 manoeuvres or more CSI = Maintenance work	The function is used to view the number of operator manoeuvres. 📖 The number of manoeuvres is the number shown multiplied by 100. 📖 The control panel regularly saves the number of manoeuvres automatically. In the event of an unexpected power outage, the number of manoeuvres last saved is restored.
A6	**Adjusting the motor torque**	From 1 (minimum) to 5 (maximum)	The function is used to adjust the motor torque.
H1	**FW version**	The function is used to display the firmware version.	

Saving a new user

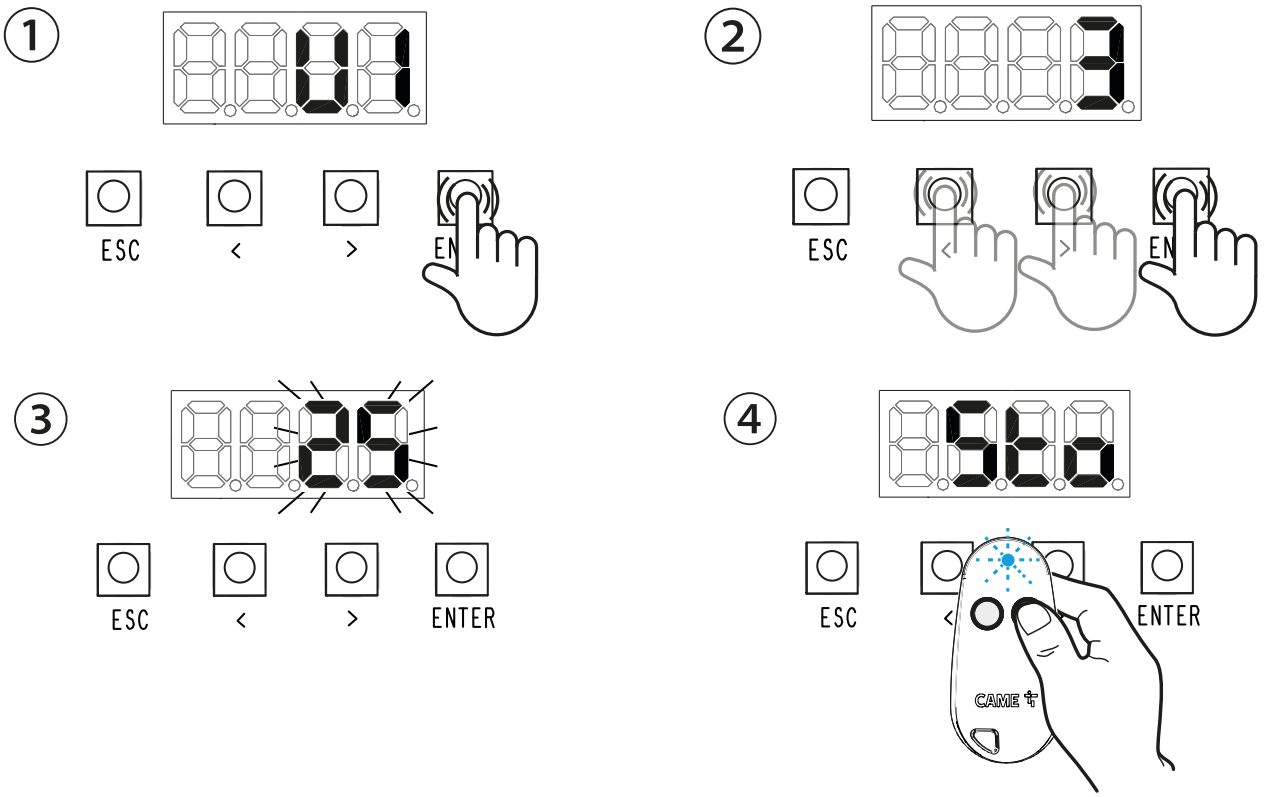
Press **ENTER** to enter programming.
① Access: **U1** - New user. Press **ENTER** to confirm.
② Choose the function to be assigned to the user:
1 = Step-by-step - The first command is to open and the second to close.
2 = Sequential - The first command is to open, the second to STOP, the third to close and the fourth to STOP.
3 = Open
4 = Pedestrian/partial opening
Press ENTER to confirm.
③ The first available position for storing will appear on the screen.

📖 The available positions are the ones with flashing numbers.

④ Within 10 seconds, send the code from the selector (transponder or keypad) or the transmitter key. [Sto] will appear to show acquisition has been successful.

📖 The board that manages the control devices (AF) must be inserted into the connector.

Repeat the procedure to add other users.

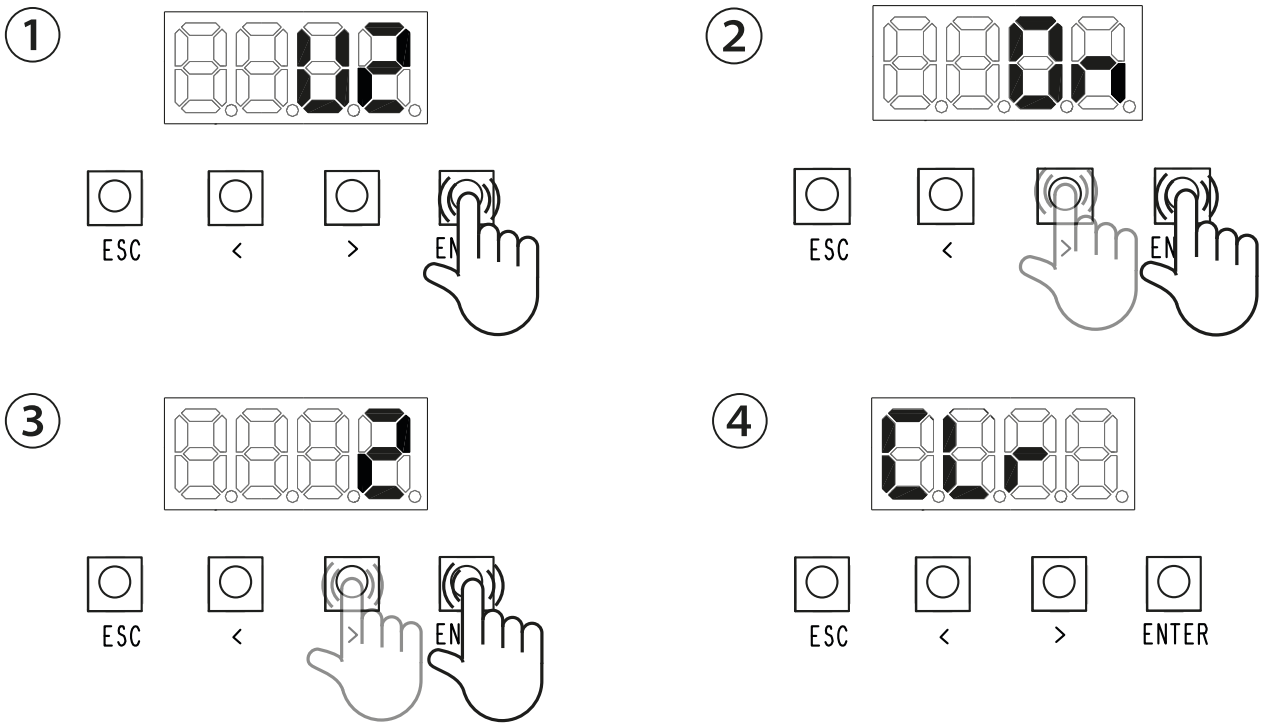


Removing registered users

Press **ENTER** to enter programming.
① Select: **U2** - Remove single user. Press **ENTER** to confirm.
② Use the arrows to select **ON** and press **ENTER** to start the remove user procedure.
③ Use the arrows to choose the number associated with the user you want to remove and press **ENTER** to confirm.

📖 Alternatively, the control device associated with the user you want to remove can be activated.

④ "CLr" will appear to confirm deletion.
Repeat the procedure to remove other users.



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 of the same type to carry across the same configuration.

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

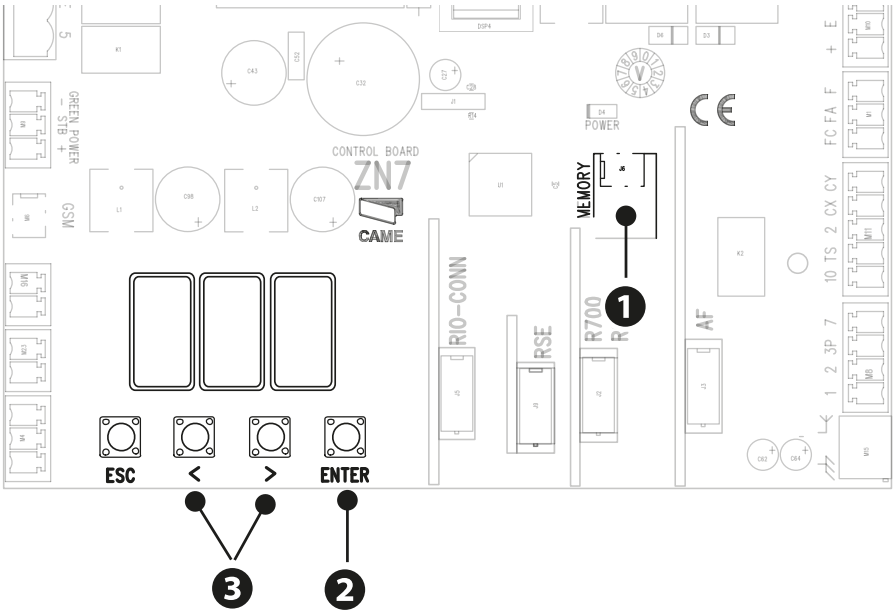
❶ Insert the MEMORY ROLL card into the corresponding connector on the control board.
❷ Press the "Enter" button to access programming.
❸ Use the arrows to choose the desired function.

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

F50 Save data
Save user data, timings and configurations to the memory device (memory roll).

F51 Read data
Upload user data, timings and configurations to the memory device (memory roll).

📖 Once the data have been saved and loaded, the MEMORY ROLL can be removed.



Factory reset

To restore the electronic board data to factory settings:
Disconnect the control board from the power supply and wait for it to switch off.
Press and hold the < and > buttons, then reconnect the control board to the power supply.
Continue to press and hold the < > buttons until [ON/OFF] is displayed.
Select [ON].
Press ENTER to confirm.

📖 When you reset the control board, all saved users and calibration operations are deleted.

PAIRED OPERATION

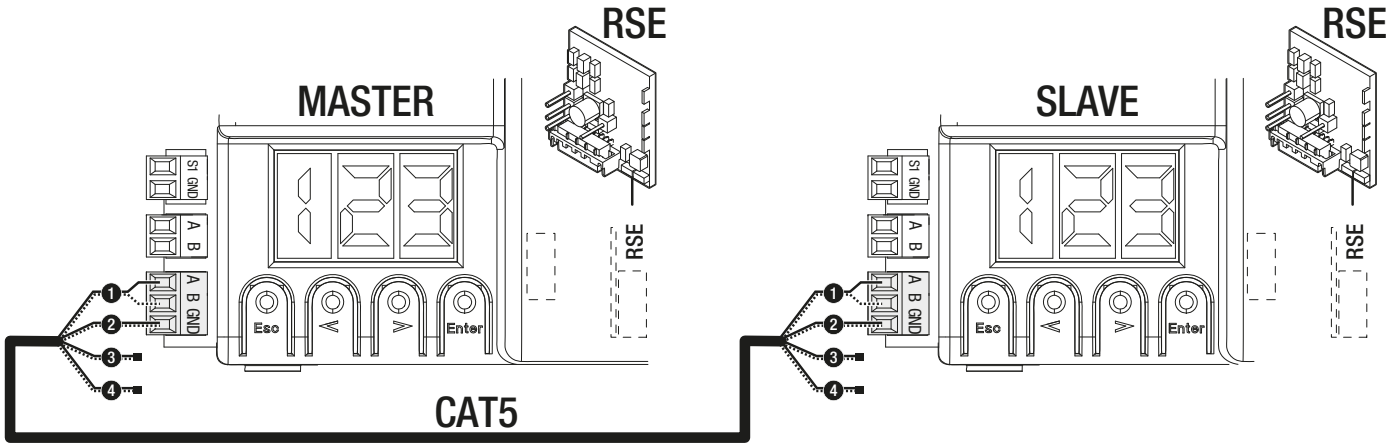
Two connected operators are controlled with one command.

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

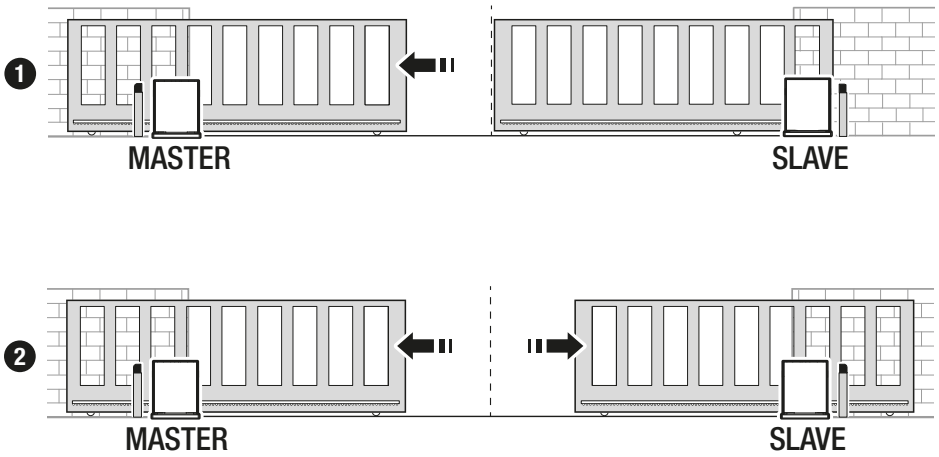
F52 Transferring MASTER-SLAVE parameters

Saving users

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

Operating modes

❶ PARTIAL OPENING command
❷ STEP-BY-STEP command



ERROR AND WARNING MESSAGES

E1	The travel calibration was interrupted to activate the STOP button.
E2	Adjustment error
E3	Motor control 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

Troubleshooting

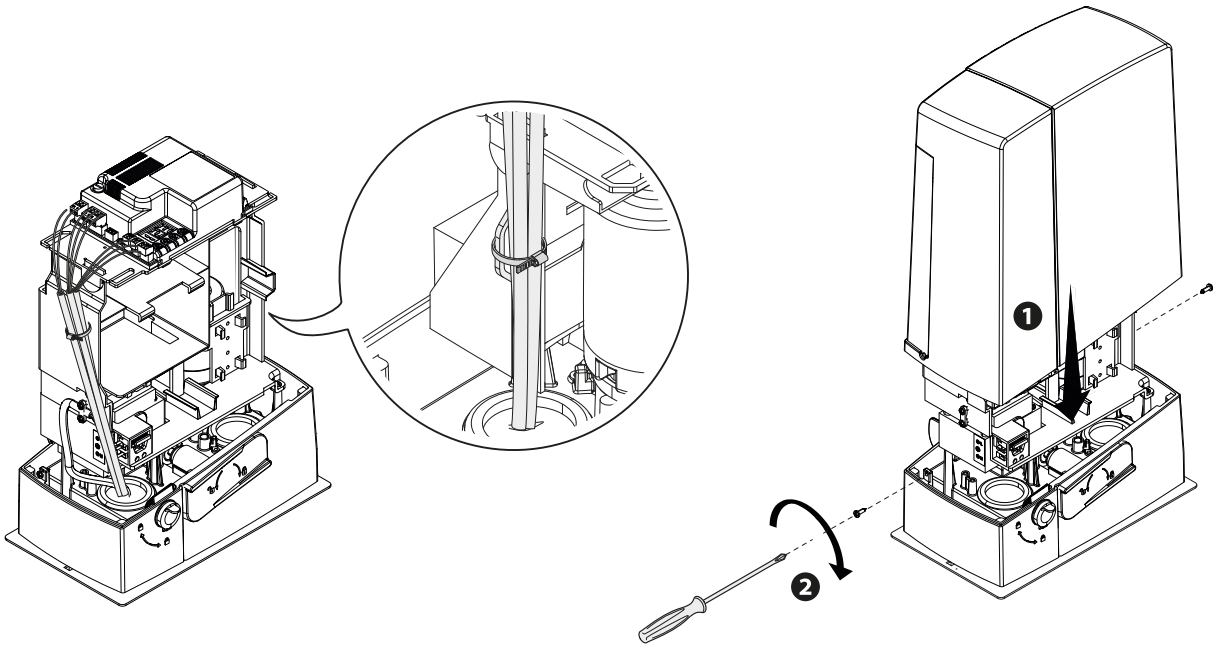
📖 With the [F11 – Encoder] function deactivated, some problems are not flagged by warnings E3 and E6.

Error shown	Possible causes*	Action
E3	Cabling	Check the +E- cables coming from the motor are connected to the board
	Fault on motor encoder sensor	

Error shown	Possible causes*	Action
E6	Cabling	Check the MN cables coming from the motor are connected to the board
	Fault on board	Check whether there is voltage on MN after a movement command
	Fault on motor	Disconnect MN from the board, measure the resistance between the M and N cables. Check the resistance is not greater than 1 MOhm.

FINAL OPERATIONS

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



MCBF

Models	BXV04AGF	BXV06AGF	BXV10AGF	BXV06RGF	BXV10RGF
Length - Weight	14 m - 400 kg	18 m - 600 kg	20 m - 1000 kg	18 m - 600 kg	20 m - 1000 kg
Cycles	150000	150000	150000	150000	150000
Installation in windy area (%)	-15	-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 track guide and rack.

⚠

AFFIX THE PRODUCT LABEL FROM THE BOX HERE

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