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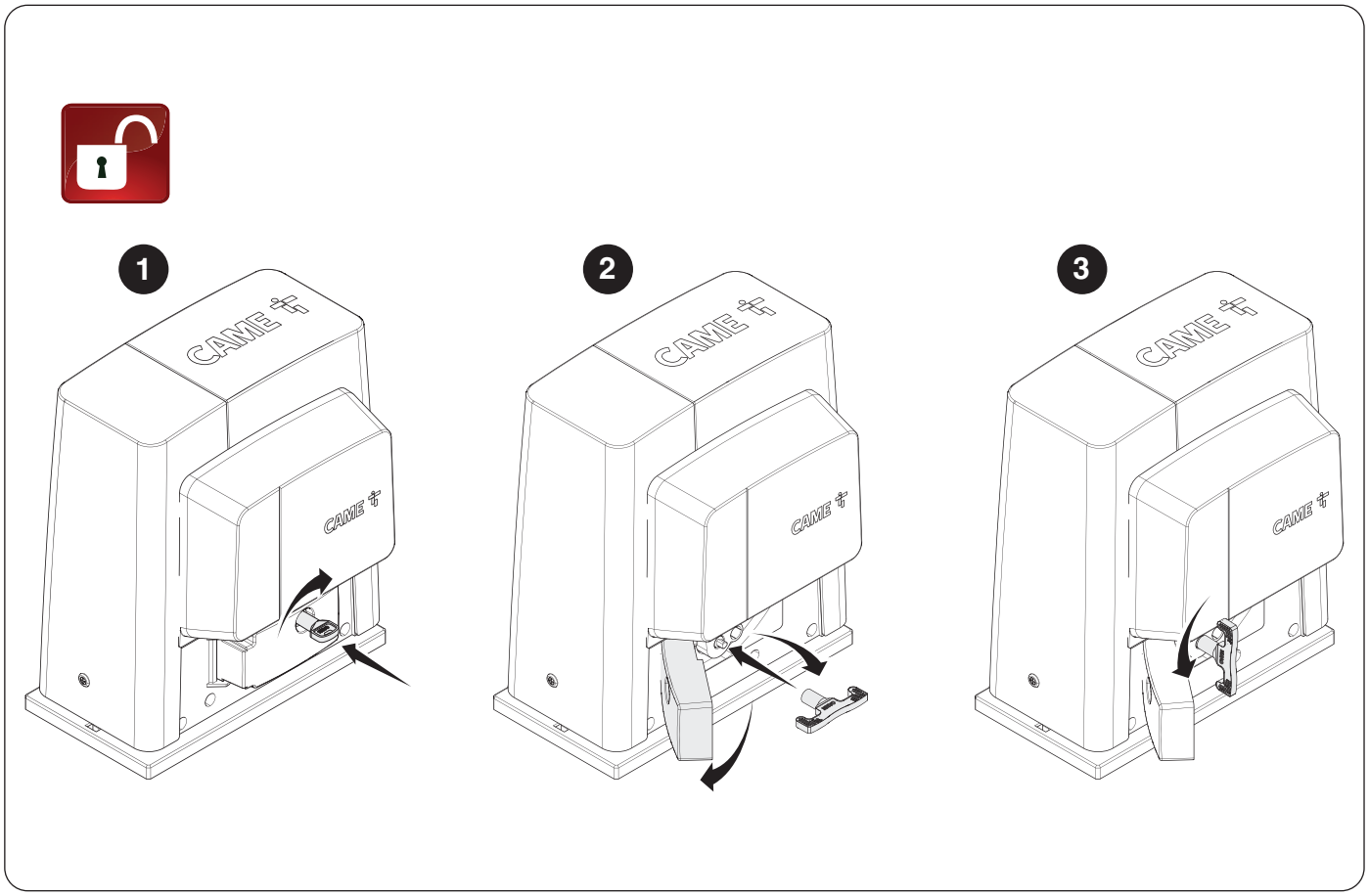
FA01295-EN

Sliding-gate operators

BKS08AGS BKS12AGS BKS18AGS BKS22AGS BKS18RGS BKS08ALS BKS12ALS BKS18ALS BKS22ALS

INSTALLATION MANUAL

EN | Italiano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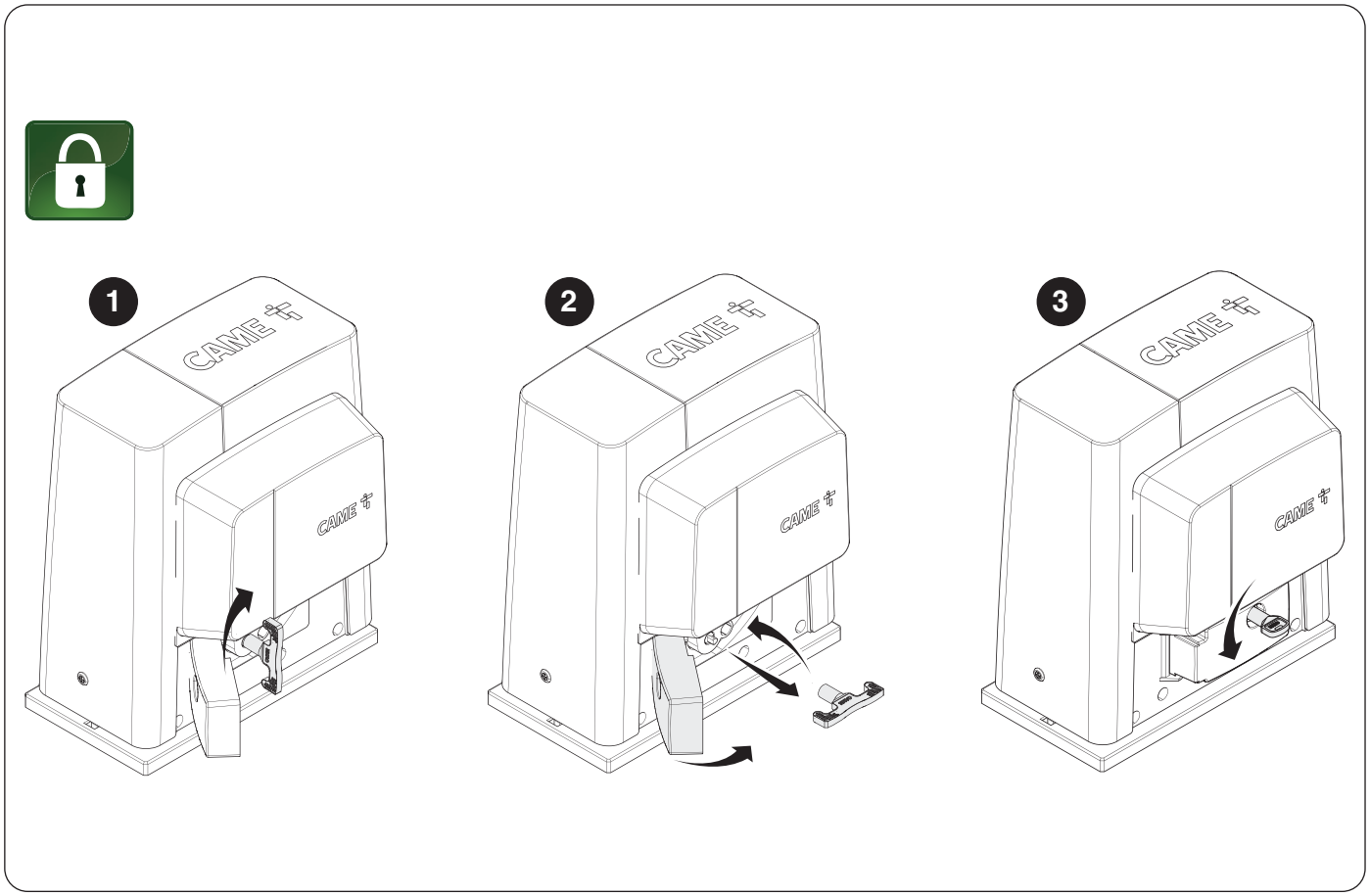
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GENERAL PRECAUTIONS FOR INSTALLERS

⚠ Important safety instructions.

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

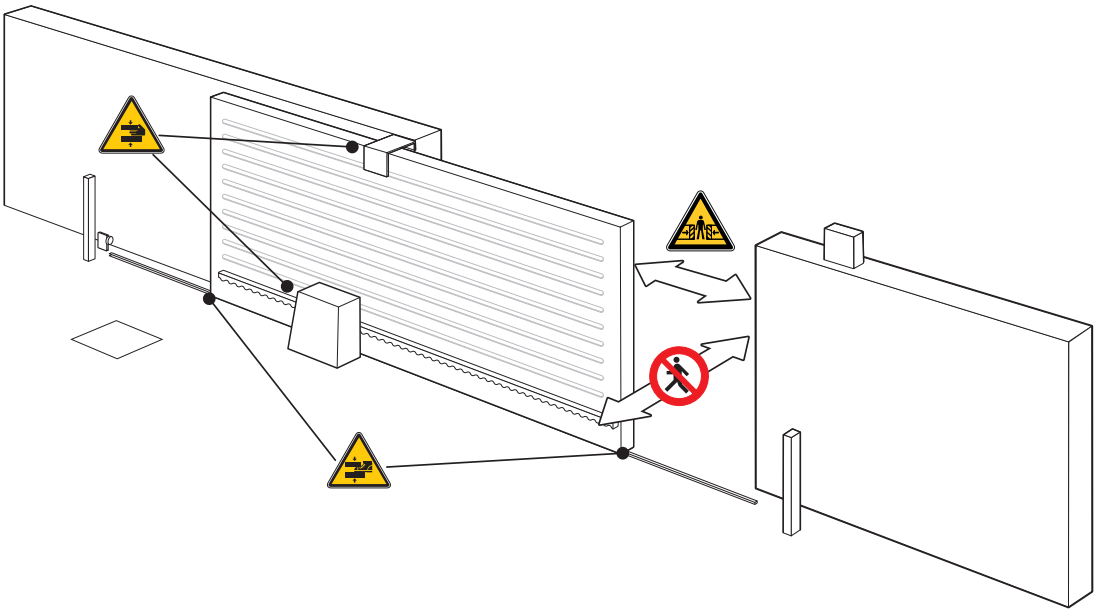
⚠ Before continuing, please also read the general precautions for users.

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. • 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 support service, 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. Please 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-0070
BKS08AGS - Operator with 230 V motor, complete with electronic board with programming display, built-in radio decoder and mechanical limit switches for sliding gates up to 800 kg in weight and 20 m in length. RAL7024 grey cover.
801MS-0080
BKS12AGS - Operator with 230 V motor, complete with electronic board with programming display, built-in radio decoder and mechanical limit switches for sliding gates up to 1200 kg in weight and 20 m in length. RAL7024 grey cover.
801MS-0090
BKS18AGS - Operator with 230 V motor, complete with electronic board with programming display, built-in radio decoder and mechanical limit switches for sliding gates up to 1800 kg in weight and 20 m in length. RAL7024 grey cover.
801MS-0100
BKS22AGS - Operator with 230 V motor, complete with electronic board with programming display, built-in radio decoder and mechanical limit switches for sliding gates up to 2200 kg in weight and 20 m in length. RAL7024 grey cover.
801MS-0110
BKS18RGS - 120 V AC operator complete with electronic board with programming display, built-in radio decoder and mechanical limit switches for sliding gates up to 1800 kg in weight and 20 m in length.
801MS-0071
BKS08ALS - Operator with 230 V motor, complete with electronic board with programming display, built-in radio decoder and mechanical limit switches for sliding gates up to 800 kg in weight and 20 m in length. Window grey cover RAL7040.
801MS-0081
BKS12ALS - Operator with 230 V motor, complete with electronic board with programming display, built-in radio decoder and mechanical limit switches for sliding gates up to 1200 kg in weight and 20 m in length. Window grey cover RAL 7040.
801MS-0091
BKS18ALS - Operator with 230 V motor, complete with electronic board with programming display, built-in radio decoder and mechanical limit switches for sliding gates up to 1800 kg in weight and 20 m in length. Window grey cover RAL 7040.
801MS-0101
BKS22ALS - Operator with 230 V motor, complete with electronic board with programming display, built-in radio decoder and mechanical limit switches for sliding gates up to 2200 kg in weight and 20 m in length. Window grey cover RAL 7040.

Intended use

Solution for large sliding gates.

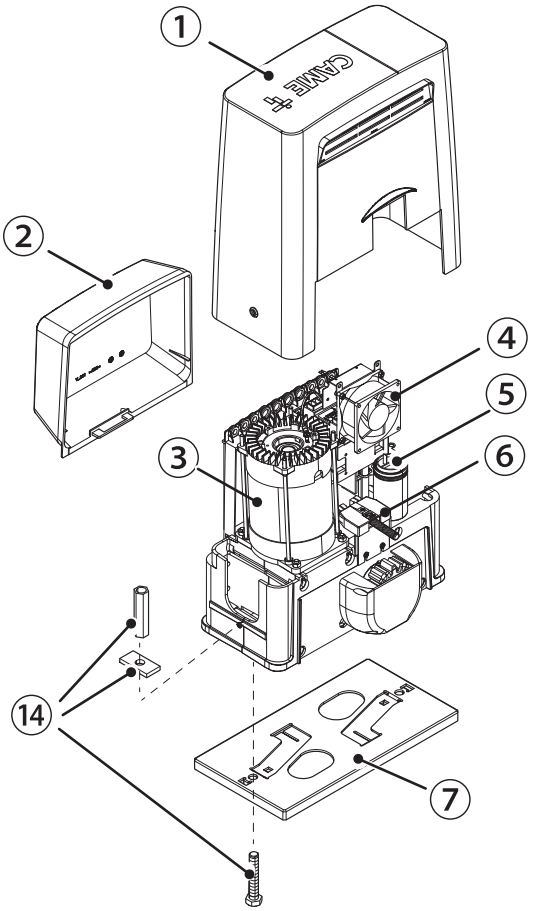
📖 Any installation and/or use other than that specified in this manual is forbidden.

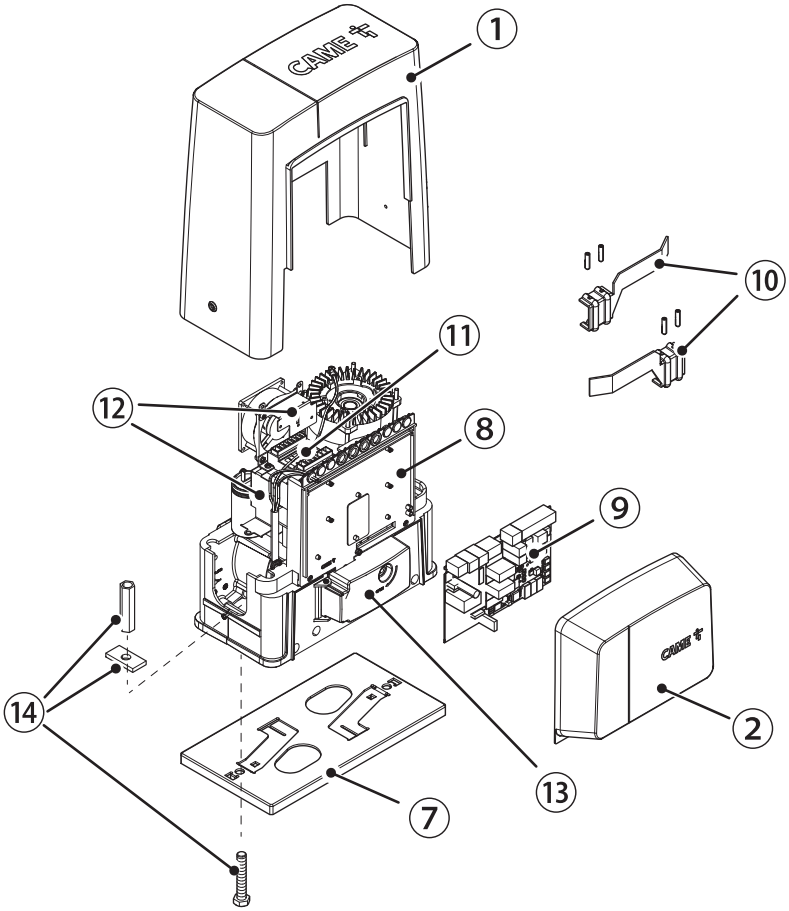
Description of parts

Operator

❶ Cover
❷ Front cover
❸ Gearmotor
❹ Fan*
❺ Capacitor
❻ Mechanical limit switch
❼ Anchoring plate
❽ Control board holder
❾ Control board
❿ Limit-switch tabs
⓫ Transformer
⓬ Assembly brackets for housing accessories (optional)
⓭ Release hatch
⓮ Fixtures and fittings

* Only for BKS08AGS





Control board

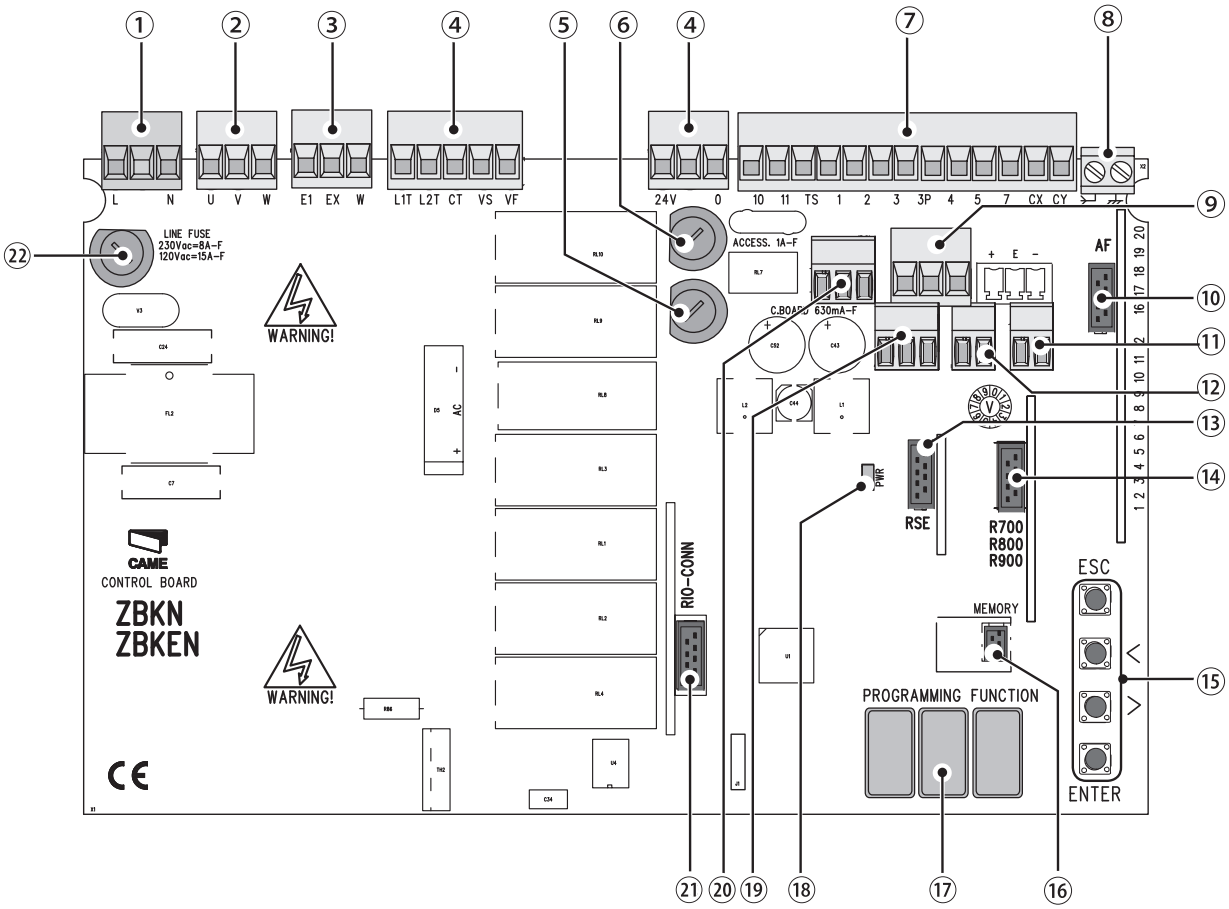
📖 The functions on the input and output contacts, the time settings and user management are set and viewed on the display.

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



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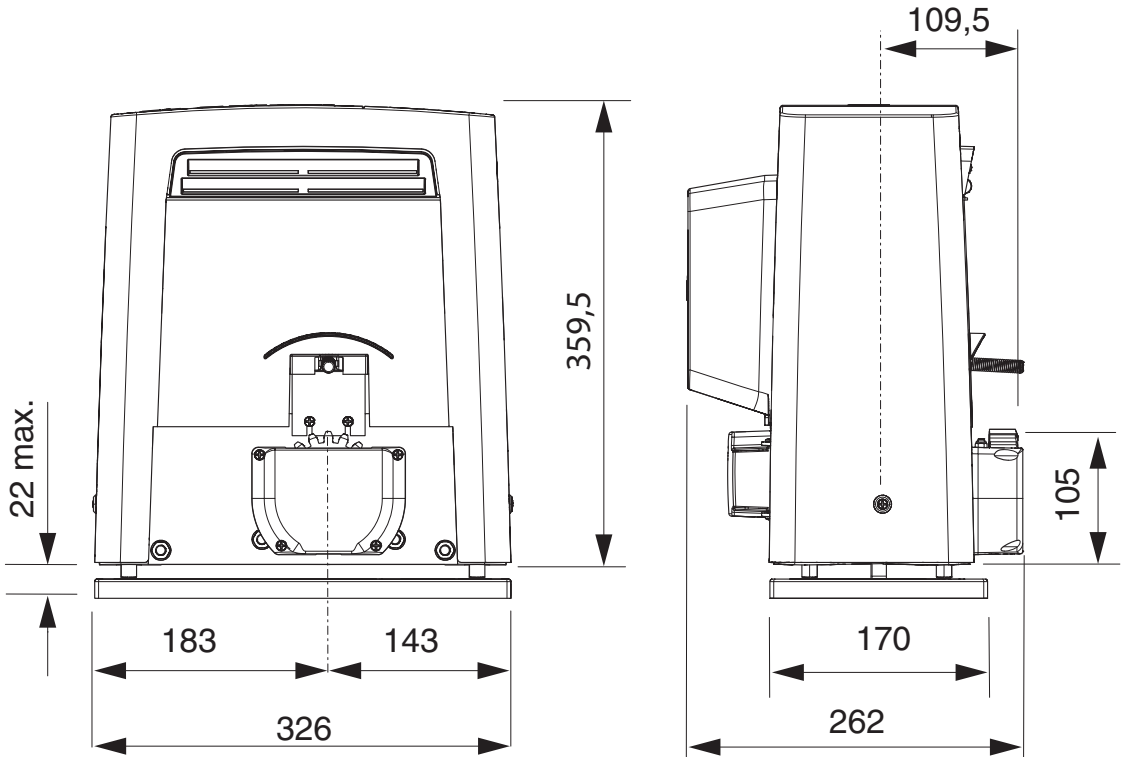


Usage limitations

MODELS	BKS08AGS	BKS12AGS	BKS18AGS	BKS22AGS	BKS18RGS	BKS08ALS	BKS12ALS	BKS18ALS	BKS22ALS
Maximum gate-leaf length (m)	20	20	20	20	20	20	20	20	20
Maximum gate-leaf weight (kg)	800	1200	1800	2200	1800	800	1200	1800	2200

Technical data

MODELS	BKS08AGS	BKS12AGS	BKS18AGS	BKS22AGS	BKS18RGS
Power supply (V - 50/60 Hz)	230 AC	230 AC	230 AC	230 AC	120 AC
Motor power supply (V)	230 AC	230 AC	230 AC	230 AC	120 AC
Standby consumption (W)	4,5	4,5	4,5	4,5	4,5
Power (W)	520	380	480	580	580
Capacitor (µF)	25	25	31,5	35	60
Current draw (A)	4,5	3,3	4,2	5,1	4,2
Colour	RAL 7024	RAL 7024	RAL 7024	RAL 7024	RAL 7024
Operating temperature (°C)	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55
Thrust (N)	800	850	1150	1500	1100
Maximum operating speed (m/min)	10,5	10,5	10,5	10,5	10,5
Pinion module	4	4	4	6	4
Reduction ratio	31	31	31	31	31
Protection rating (IP)	44	44	44	44	44
Insulation class	I	I	I	I	I
Weight (kg)	21	18	19,5	21	19,5
Storage temperature (°C)*	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70	-
Average life (cycles)**	250000	250000	250000	250000	-

MODELS	BKS08ALS	BKS12ALS	BKS18ALS	BKS22ALS
Power supply (V - 50/60 Hz)	230 AC	230 AC	230 AC	230 AC
Motor power supply (V)	230 AC	230 AC	230 AC	230 AC
Standby consumption (W)	4,5	4,5	4,5	4,5
Power (W)	520	380	480	580
Capacitor (µF)	25	25	31,5	35
Current draw (A)	4,5	3,3	4,2	5,1
Colour	RAL 7040	RAL 7040	RAL 7040	RAL 7040
Operating temperature (°C)	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55
Thrust (N)	800	850	1150	1500
Maximum operating speed (m/min)	10,5	10,5	10,5	10,5
Pinion module	4	4	4	6
Reduction ratio	31	31	31	31
Protection rating (IP)	44	44	44	44
Insulation class	I	I	I	I
Weight (kg)	21	18	19,5	21
Storage temperature (°C)*	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70
Average life (cycles)**	250000	250000	250000	250000

(*) 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 is a purely indicative estimate. It applies to compliant usage, installation and maintenance conditions. It is also influenced by other factors, such as climatic and environmental conditions.

Fuse table

MODELS	BKS08AGS	BKS12AGS	BKS18AGS	BKS22AGS	BKS18RGS
Line fuse	8 A-F	8 A-F	8 A-F	8 A-F	15 A-F
Control-board fuse	630 mA-F	630 mA-F	630 mA-F	630 mA-F	630 mA-F
Accessory fuse	1 A-F	1 A-F	1 A-F	1 A-F	1 A-F

MODELS	BKS08ALS	BKS12ALS	BKS18ALS	BKS22ALS
Line fuse	8 A-F	8 A-F	8 A-F	8 A-F
Control-board fuse	630 mA-F	630 mA-F	630 mA-F	630 mA-F
Accessory fuse	1 A-F	1 A-F	1 A-F	1 A-F

Operating cycles

The operating cycle calculation considers a gate that is of standard length (the sliding part), professionally installed, free of any mechanical issues and/or accidental friction points, and measured at an ambient temperature of 20°C, as stated in EN standard 60335-2-103.

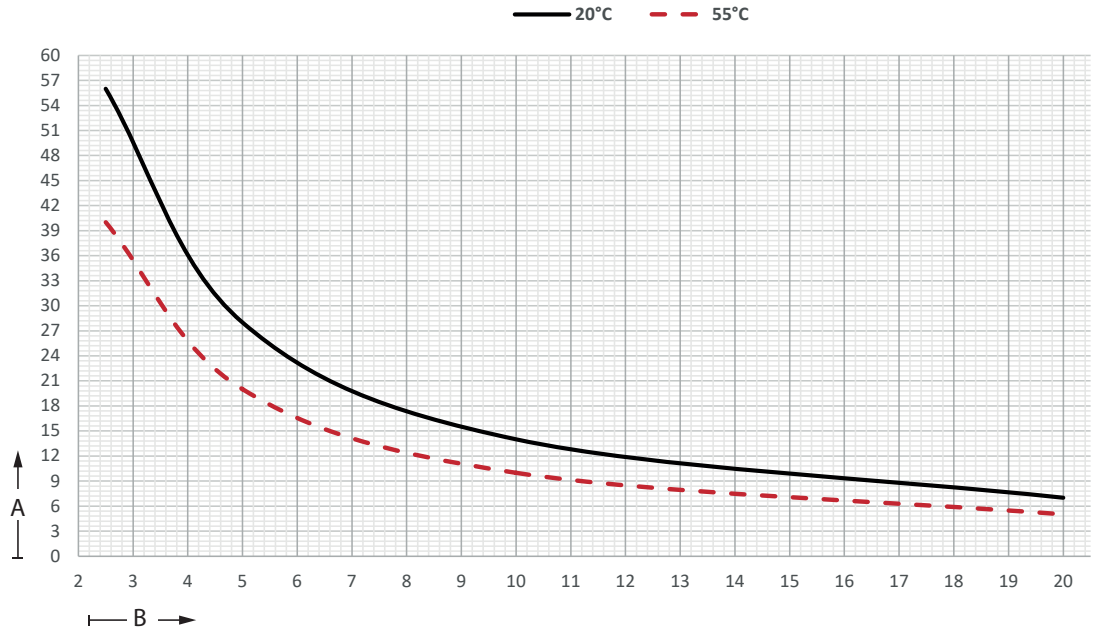
MODELS	BKS08AGS	BKS12AGS	BKS18AGS	BKS22AGS	BKS18RGS
Cycles/hour (no.)	14	14	14	14	14
Consecutive cycles (no.)	13	13	13	13	13

MODELS	BKS08ALS	BKS12ALS	BKS18ALS	BKS22ALS
Cycles/hour (no.)	14	14	14	14
Consecutive cycles (no.)	13	13	13	13

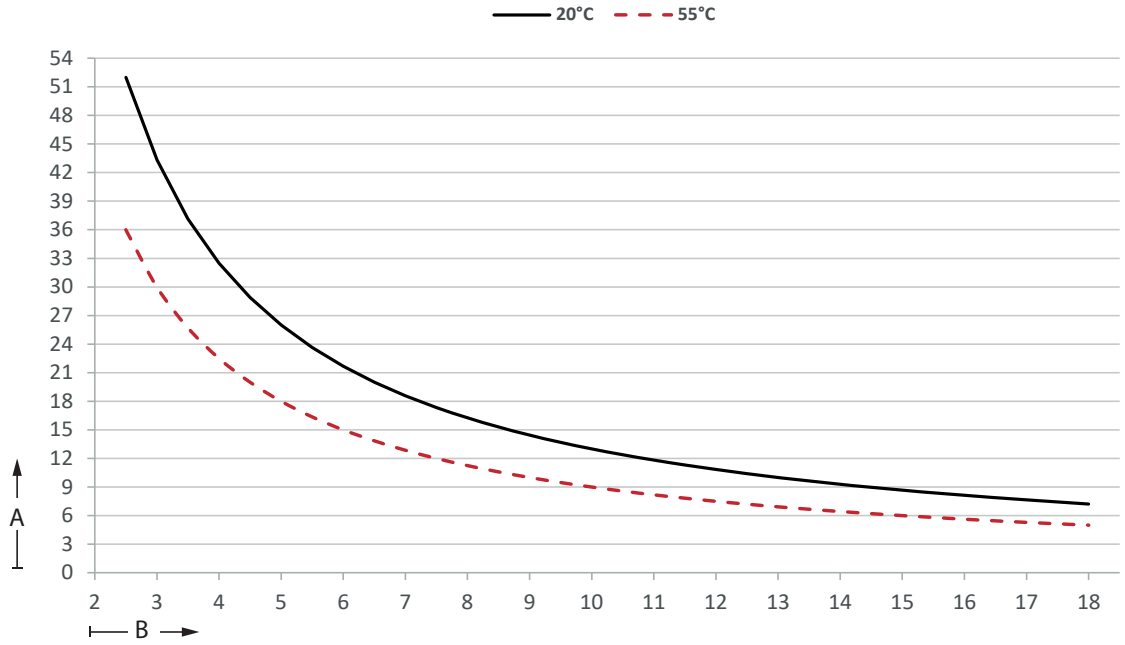
📖 For gates where the sliding part is of a different length to the standard measurement, please see the graphs.

Cycles/hour graph

Ⓐ Number of cycles
Ⓑ Gate length



Consecutive cycles graph



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
Motor power supply 230 V AC	3G x 1.5 mm2	3G x 2.5 mm2
Micro limit switches	* no. x 0.5 mm2	* no. x 0.5 mm2
Flashing beacon 230 V AC	2 x 1.5 mm2	2 x 1.5 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 indoors, use H05VV-F cables compliant with 60227 IEC 53 (IEC). For power supplies up to 48 V, use FROR 20-22 II cables compliant with standard 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.

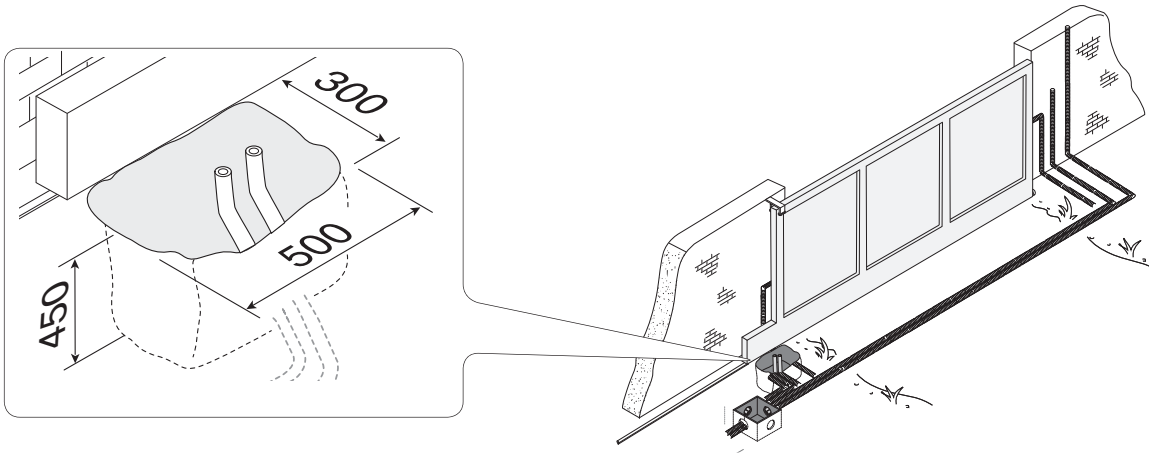
The drawings show an operator fitted on the left.

Preliminary operations

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

For connecting the gearmotor we suggest using a Ø 40 mm corrugated tube, whereas for the accessories we suggest Ø 25 mm tubes.

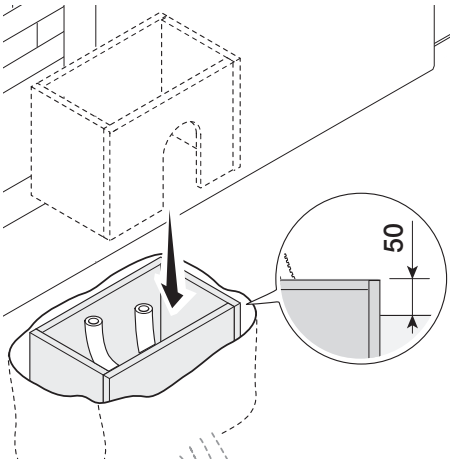
The number of tubes depends on the type of system and the accessories that are going to be fitted.

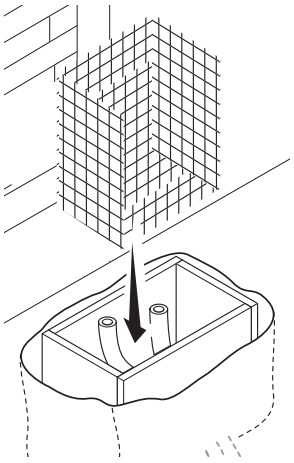


Laying the anchoring plate

Set up a foundation frame that is larger than the anchoring plate.
Insert the foundation frame into the dug hole.

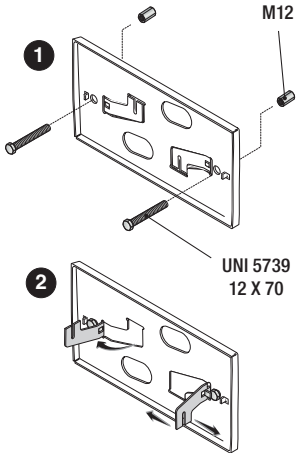
The foundation frame must protrude by 50 mm, above ground level.
Fit an iron cage in the foundation frame to reinforce the concrete.

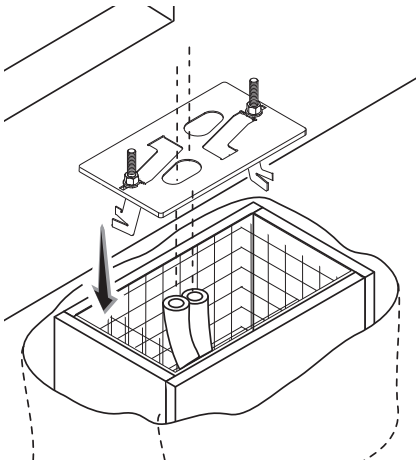




Insert the screws supplied in the anchoring plate.
Lock the screws in place with the nuts supplied.
Remove the pre-shaped clamps using a screwdriver.
Fit the anchoring plate in the iron cage.

The tubes must pass through the existing holes.





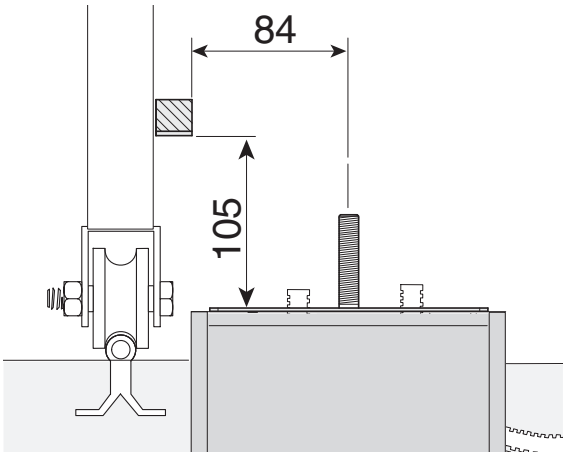
Position the anchoring plate, taking note of the measurements shown in the drawing.

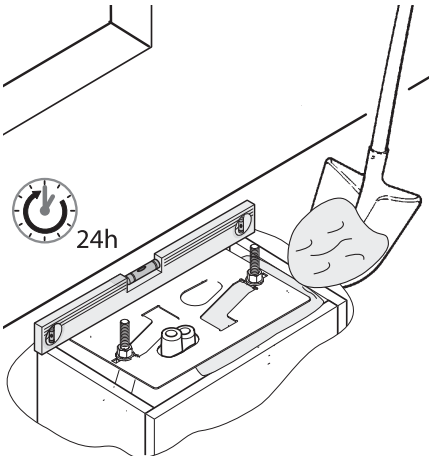
If the gate does not have a rack, proceed with the installation.

See the section "FASTENING THE RACK".

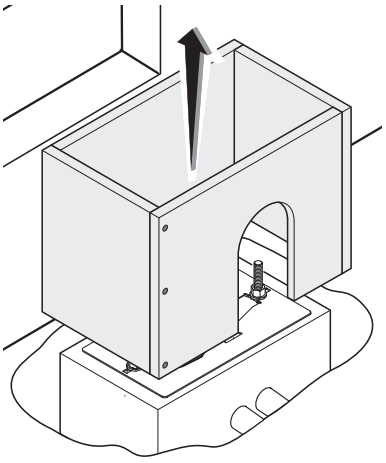
Cast cement into the foundation frame.

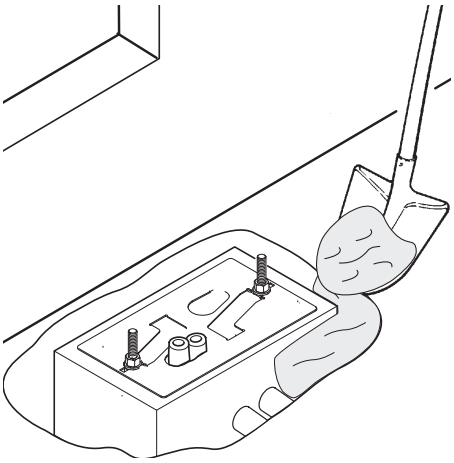
The plate must be perfectly level and the screw threads completely above surface.
Wait at least 24 hours for the cement to dry.



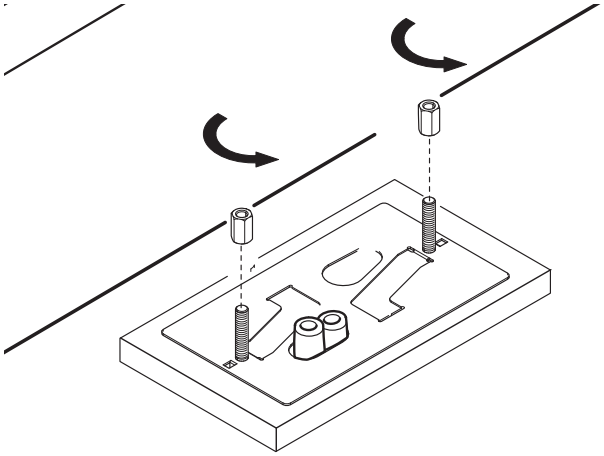


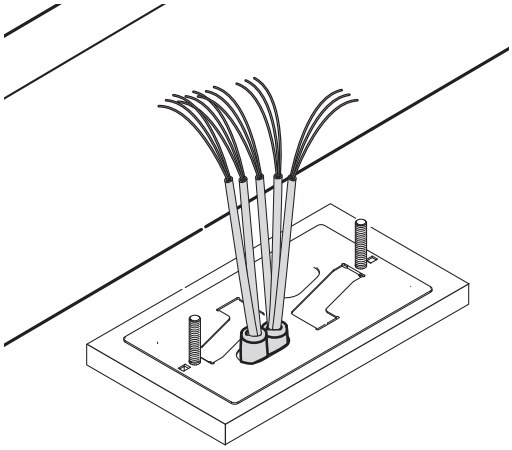
Remove the foundation frame.
Fill the hole with soil around the concrete block.





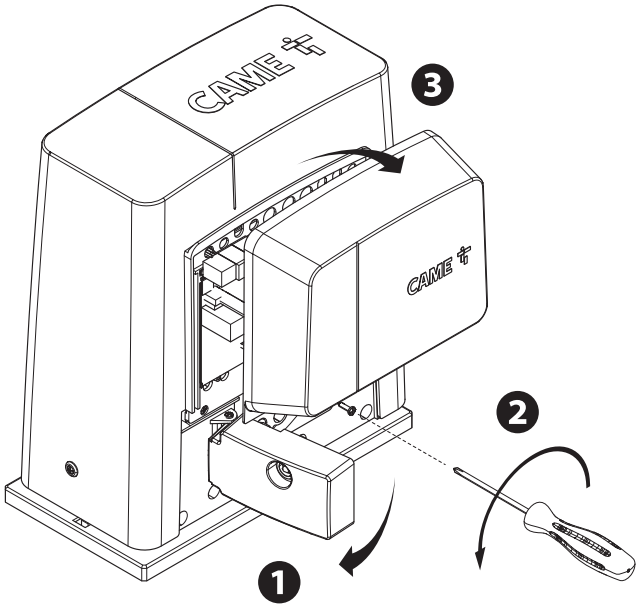
Remove the nuts from the screws.
Insert the electrical cables into the tubes until they protrude by about 600 mm.

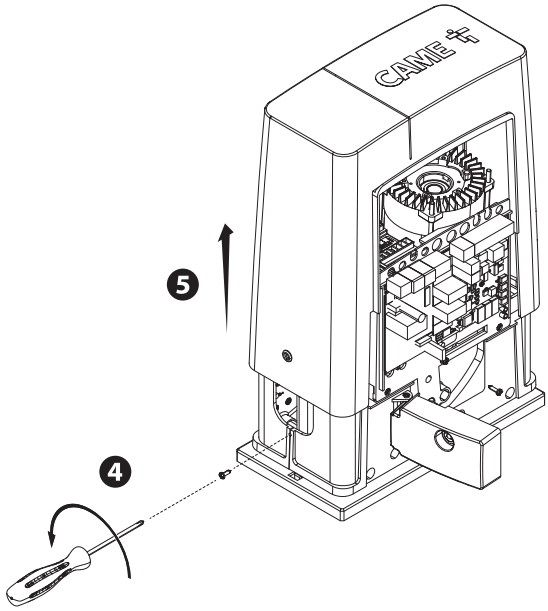




Setting up the operator

Remove the front cover. ❶ ❷ ❸
Remove the operator cover. ❹ ❺

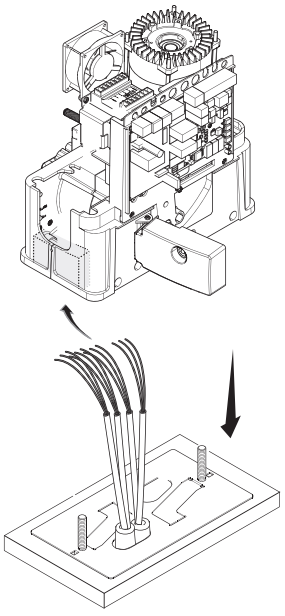


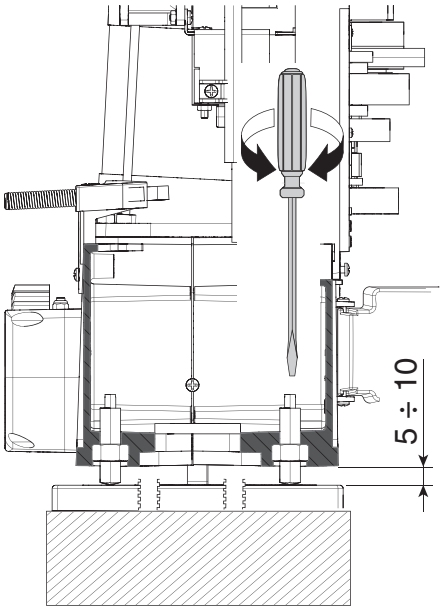


Place the operator on top of the anchoring plate.

📖 The electrical cables must pass under the operator foundation frame

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.

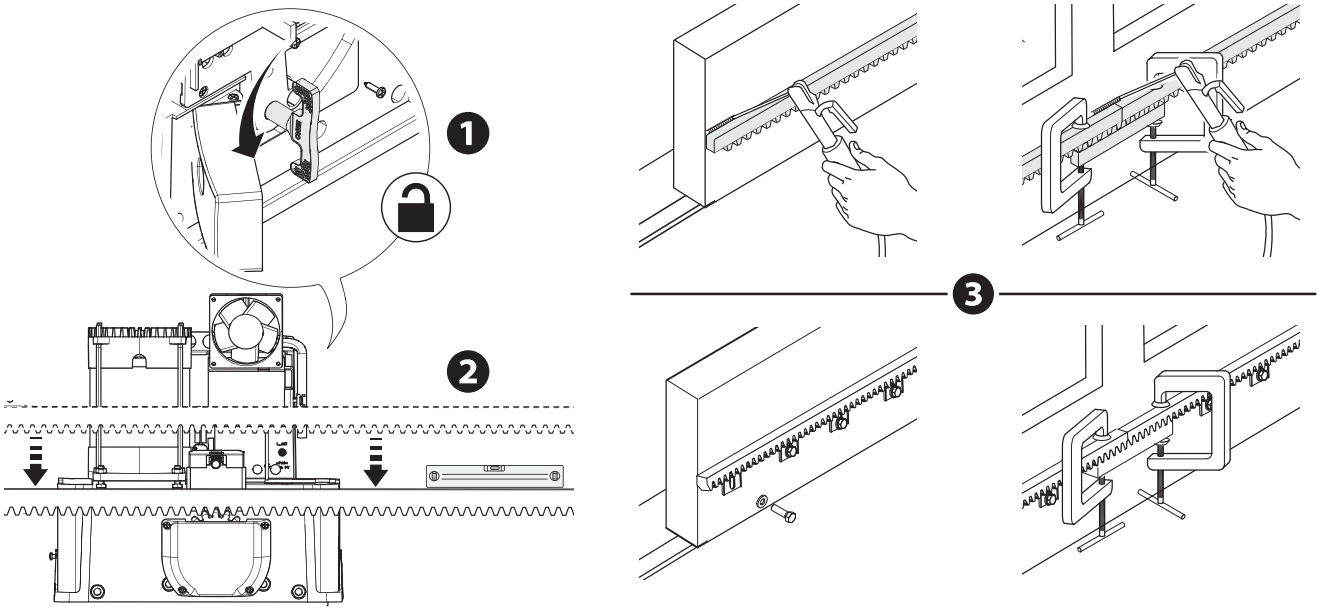




Fastening the rack

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

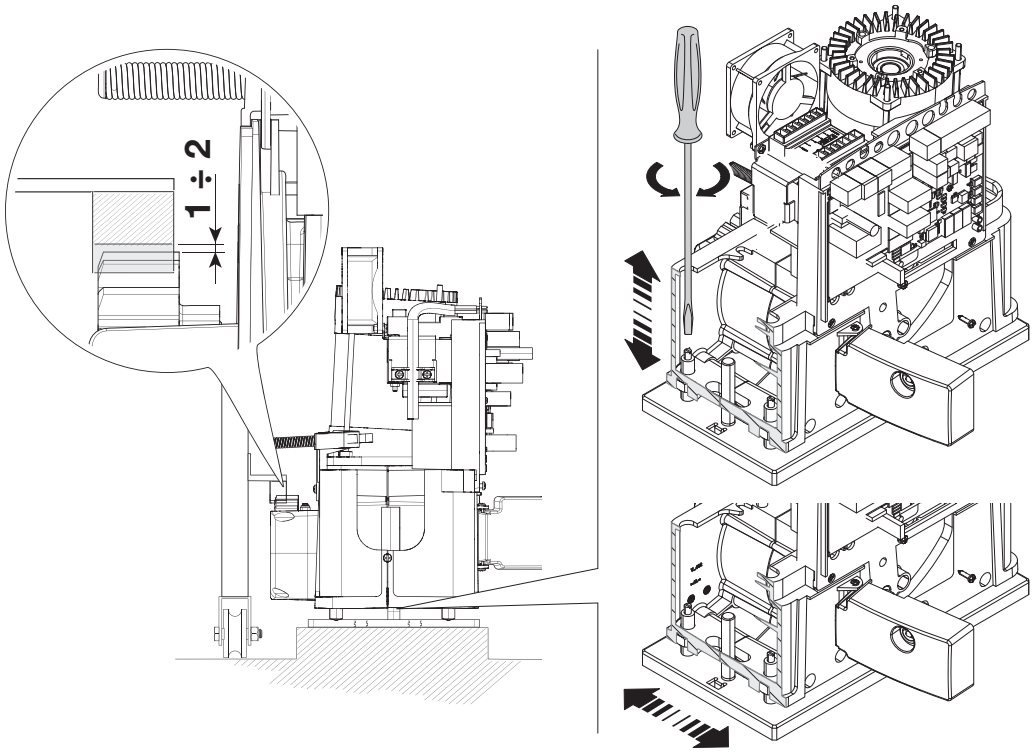
📖 To assemble the rack modules, use an extra piece and rest it under the joint, then fasten it in place using two clamps.



Adjusting the pinion-rack coupling

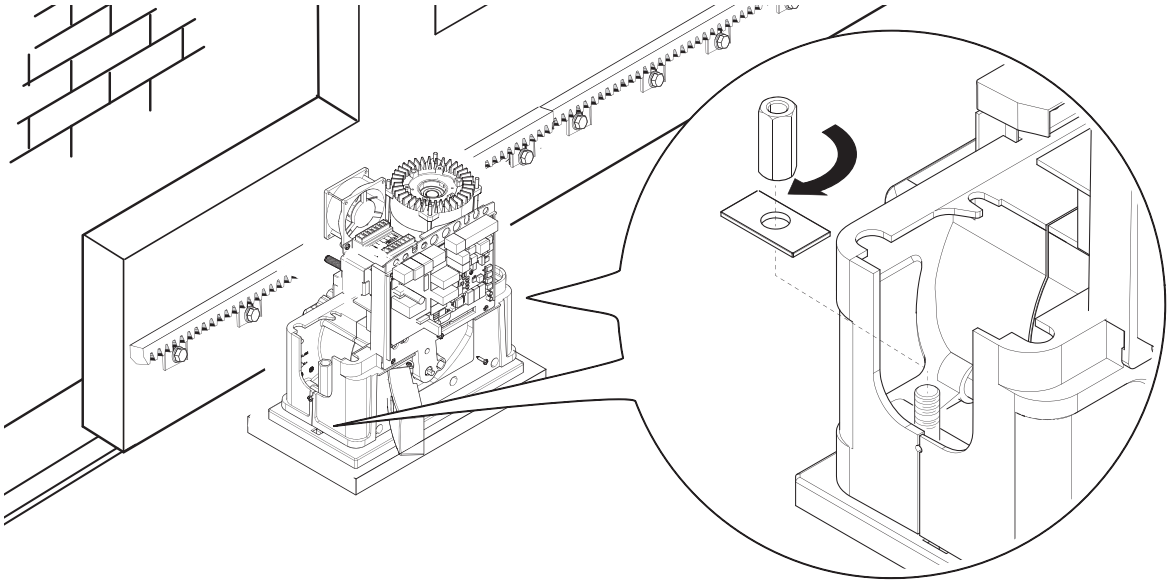
Open and close the gate manually.
Adjust the pinion-rack coupling distance using the threaded feet (vertical adjustment) and the holes (horizontal adjustment).

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



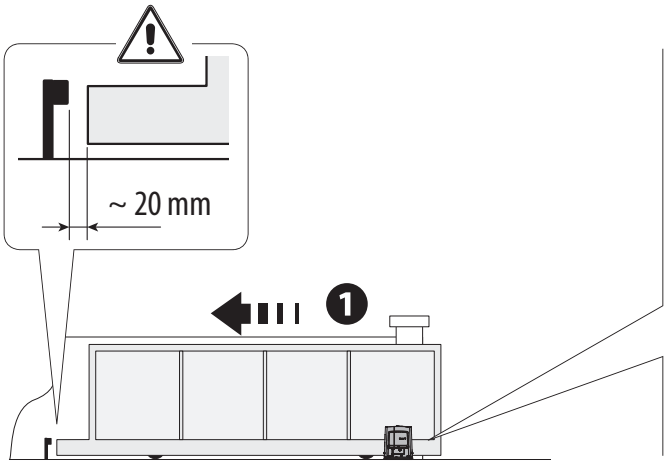
Fastening the operator in place

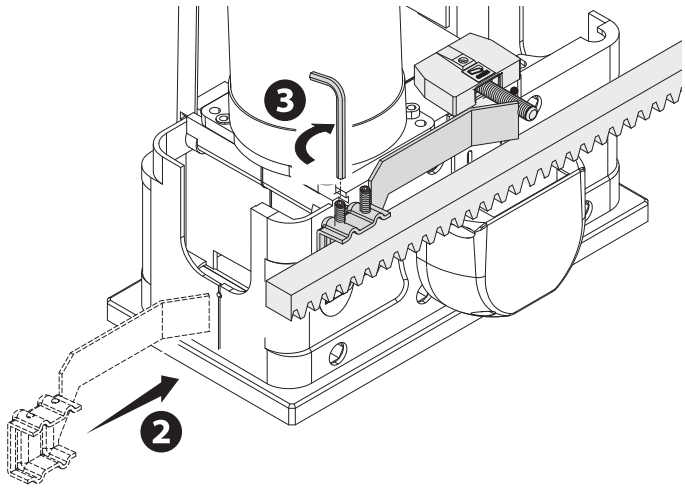
📖 Only fasten the operator after adjusting the pinion-rack coupling.
Fasten the operator to the anchoring plate using stoppers and nuts.



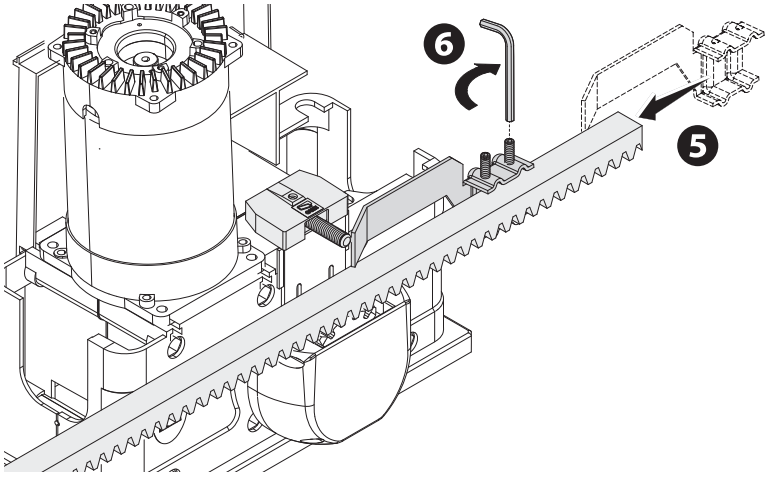
Establishing the limit-switch points

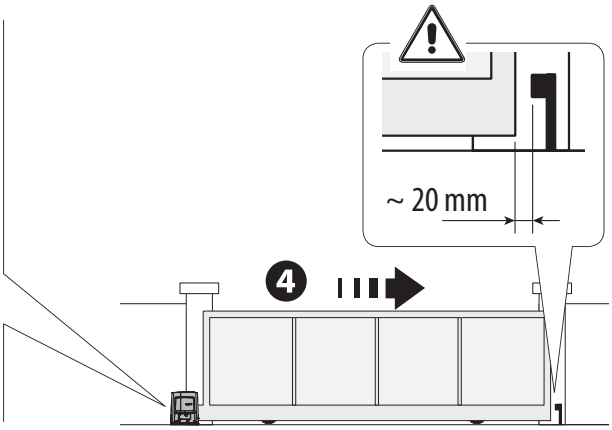
❶ Open the gate.
❷ Insert the opening limit-switch tab in the rack.
The spring must trigger the microswitch.
❸ Fasten the opening limit-switch tab using the grub screws supplied.





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.





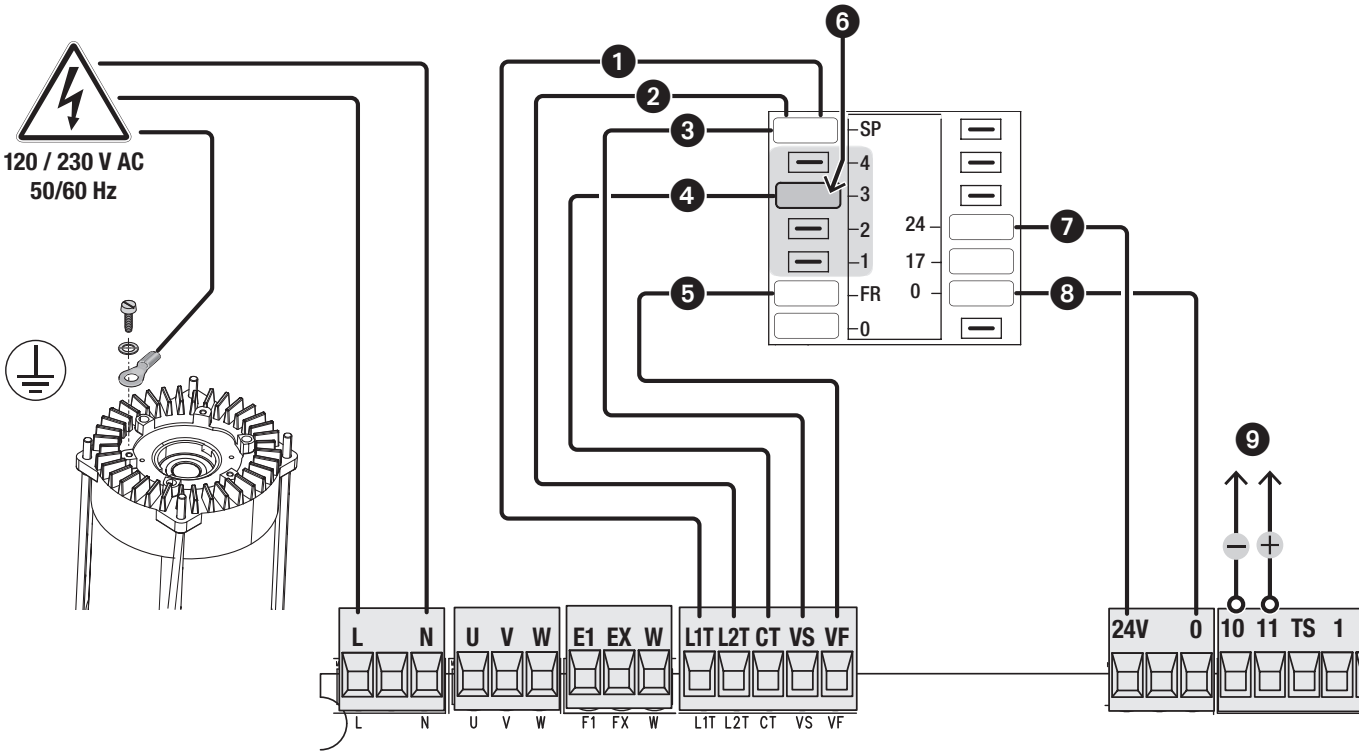
ELECTRICAL CONNECTIONS

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).

❶ Cable glands on the board holder

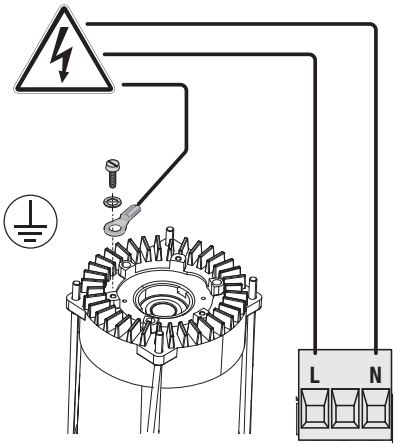


Power supply

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.

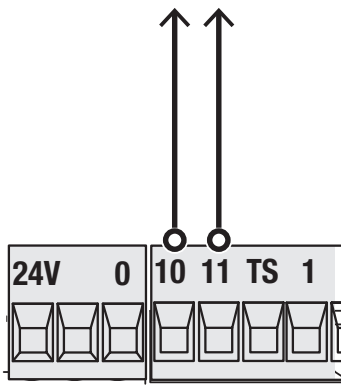
Connecting to the mains (230/120 V AC - 50/60 Hz)



Maximum capacity of contacts

Device	Output	Power supply (V)	Power (W)
Accessories	10 - 11	24 AC	-
Additional light	W - EX	230	60
Flashing beacon	W - E1	230 AC	-
Operator status warning light	10 - 5	24 AC	-

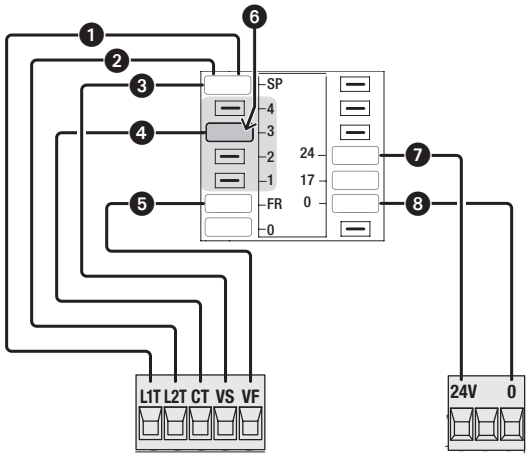
Power supply output for accessories



The output normally delivers 24 V AC.

📖 The sum of the power draw for the connected accessories must not exceed 20 W.

Torque limiter



1. Grey cable
2. Brown cable
3. Red cable
4. Black cable
5. White cable
6. 📖 To vary the motor torque, move the corresponding Faston terminal to one of the four positions; from 1 (minimum) to 4 (maximum).
7. Blue cable
8. Orange cable

Signalling devices

1 Flashing beacon

It flashes when the operator opens and closes.

2 Additional light

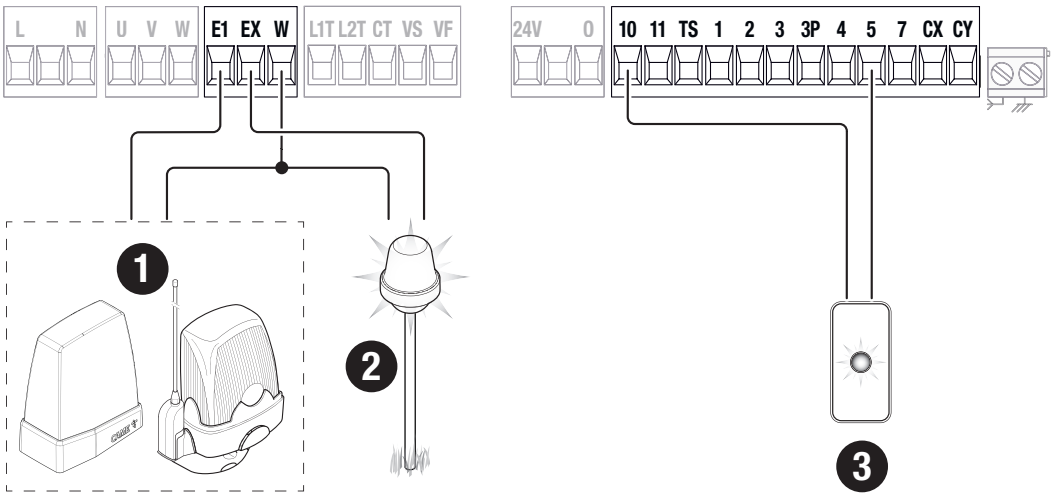
It increases the light in the manoeuvring area.

📖 See function [F18].

3 Passage-open warning light

It notifies the user of the operator status.

📖 See function [F10].



Command and control devices

❶ Keypad selector

❷ Card reader

❸ Transponder selector switch

❹ 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.

❺ Control device (NO contact)

Open command

📖 When the [F6 – Hold-to-run] function is active, a control device must be set to OPEN.

❻ Control device (NO contact)

PARTIAL OPENING command

❼ Control device (NO contact)

CLOSE command

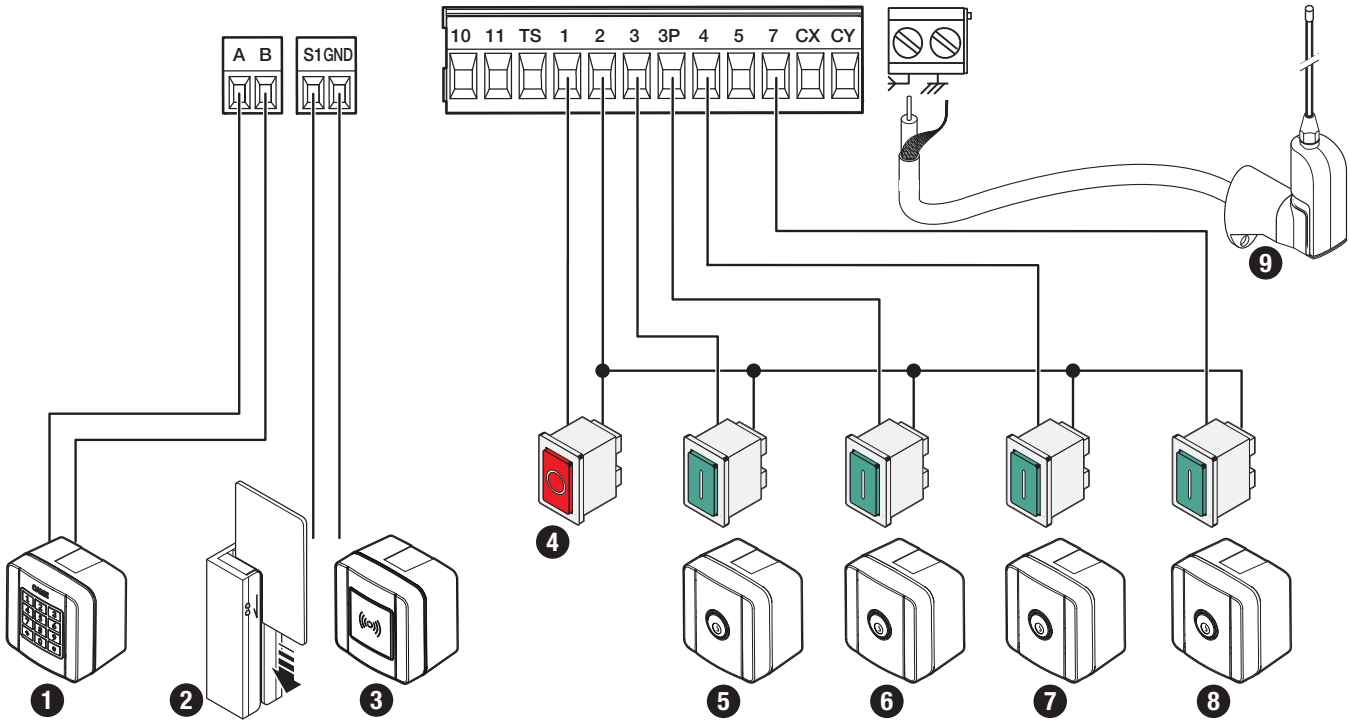
❽ Control device (NO contact)

Step-by-step command
Sequential command

📖 See function [F7 - 2-7 command].

❾ Antenna with RG58 cable

📖 If the chosen signalling device can be fitted with an antenna, use the terminal shown to connect it.



Safety devices

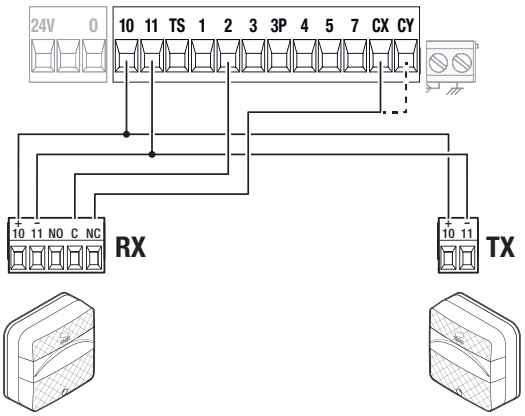
During programming, configure the type of action that must be performed by the device connected to the input.
Connect the safety devices to the CX and/or CY inputs.

If used, the CX and/or CY contacts must be activated during programming.

See function [F2] and/or [F3].

DELTA photocells

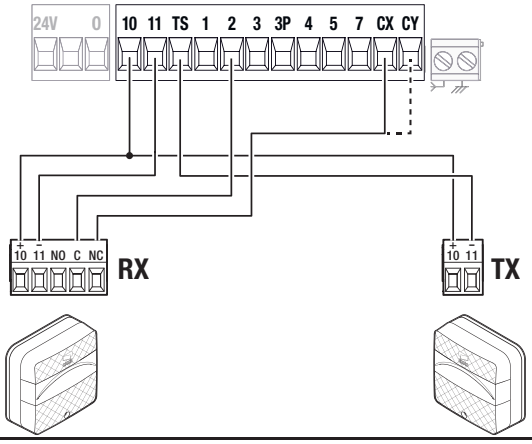
Standard connection



DELTA photocells

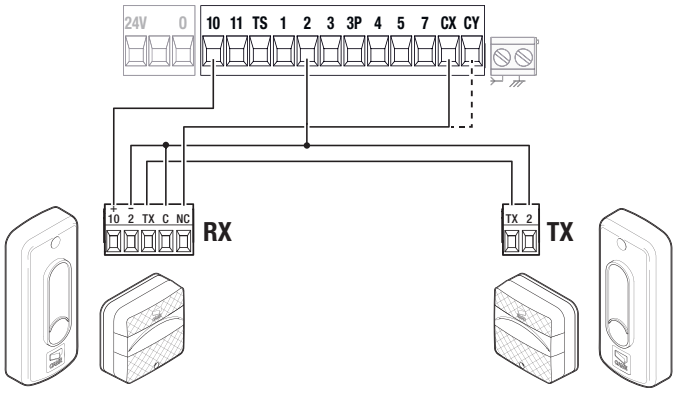
Connection with safety test

See function [F5] Safety devices test.



DIR / DELTA-S photocells

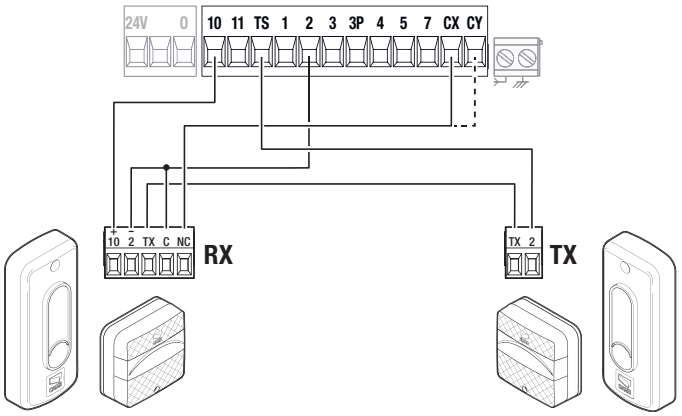
Standard connection



DIR / DELTA-S photocells

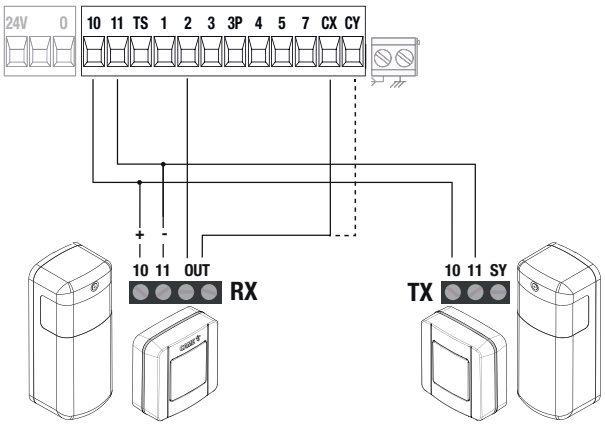
Connection with safety test

See function [F5] Safety devices test.



DXR - DLX photocells

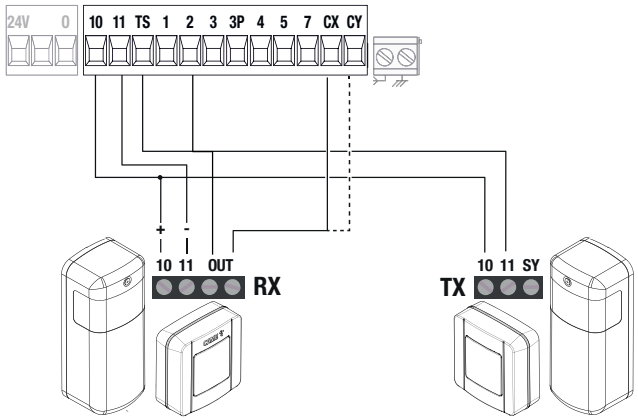
Standard connection



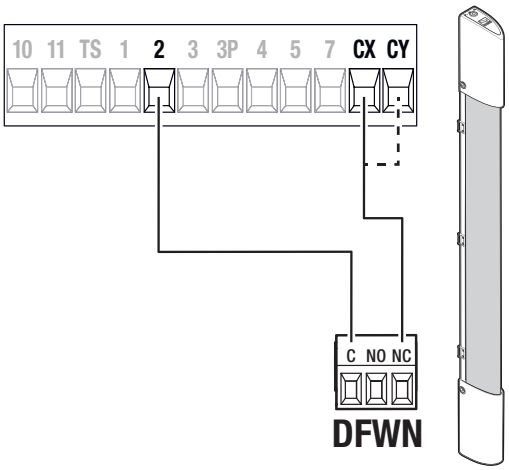
DXR - DLX photocells

Connection with safety test

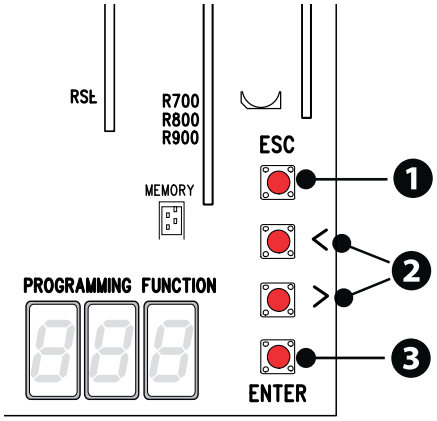
See [Safety devices test] function.



DFWN sensitive edge



Programming button functions



❶ 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

❷ < > buttons

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

❸ ENTER button

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

List of functions

Total stop
This stops the operator and excludes automatic closing. Use a control device to resume movement.

F1	Total stop	ON OFF (Default)

CX input
Associate a function with the CX input.

F2	CX input	OFF (Default) C1 = Reopen while closing (photocells) C2 = Reclose while opening (photocells) C3 = Partial stop Only with [Automatic close] activated (Photocells) C4 = Obstacle standby (photocells) C7 = Reopen while closing (sensitive edges) C8 = Reclose while opening (sensitive edges) r7 = Reopen while closing (sensitive edges with 8K2 resistor) r8 = Reclose while opening (sensitive edges with 8K2 resistor)

CY input
Associate a function with the CY input.

F3	CY input	OFF (Default) C1 = Reopen while closing (photocells) C2 = Reclose while opening (photocells) C3 = Partial stop Only with [Automatic close] activated (Photocells) C4 = Obstacle standby (photocells) C7 = Reopen while closing (sensitive edges) C8 = Reclose while opening (sensitive edges) r7 = Reopen while closing (sensitive edges with 8K2 resistor) r8 = Reclose while opening (sensitive edges with 8K2 resistor)

Safety devices test
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].

F5	Safety devices test	OFF (Default) 1 = CX 2 = CY 4 = CX+CY

Hold-to-run

With the function active, the operator stops moving (opening contact 2-3 or closing contact 2-4) when the control device is released.

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

F6	**Hold-to-run**	OFF (Default) ON

Command 2-7

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

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.

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	**Obstacle with motor stopped**	OFF (Default) ON

Passage-open warning light

It notifies the user of the operator status.

F10	**Passage-open warning light**	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.

Sensor type

Choose the type of control device.

F14	**Sensor type**	1 = Keypad selector (default) 0 = Transponder selector or magnetic card reader

Additional light

Choose the operating mode of the lighting device connected to the output W-EX.

F18	**Additional light**	OFF (Default) 1 = Cycle light - The lamp stays on during the manoeuvre. 📖 The light remains off if an automatic closing time is not set. 📖 This parameter does not appear if the [F19 - Automatic Close] function is deactivated. 2 = Courtesy lamp - The light switches on when a manoeuvre starts and remains on once the manoeuvre has finished, for the time set under the function [F25 Courtesy time].

Automatic closure

Set the time before automatic closure, 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, or after a complete stop, or during a power outage.

F19	**Automatic closure**	OFF (Default) 1 to 180 seconds 1 to 180 seconds 180 = 180 seconds

Automatic closing after partial opening

Set the time before automatic closure after a partial opening command.

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

F20	**Automatic closing after partial opening**	OFF 1 to 180 seconds (Default 10)

Pre-flashing time

Adjust the time for which the beacon connected to E1-W is activated before each manoeuvre.

F21	**Pre-flashing time**	OFF (Default) 1 to 10 seconds

Courtesy light time

Define how many seconds the additional light (set up as courtesy light) stays on after an opening or closing manoeuvre.

F25	**Courtesy light time**	60 to 180 seconds (Default 60)

RSE communication

Configure the function performed by the board connected to the RSE connector.

F49	**RSE communication**	OFF (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 memory roll card is inserted into the control board.

F50	**Save data**	OFF (Default) ON (Run operation)

Read data

Upload 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)

Transferring MASTER-SLAVE parameters

Share the parameters programmed on the master gate with the slave gate.

📖 This function appears only if the [F49 – RSE communication] function is set to 1.

F52	**Transferring MASTER-SLAVE parameters**	OFF (Default) ON

Opening direction

Set the gate opening direction.

F54	**Opening direction**	0 = To the left (default) 1 = To the right

CRP address

Assign 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.

F56	**CRP address**	from 1 to 255

RSE speed

Set the communication speed of the remote connection system.

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

RIO ED T1

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

📖 The function only appears if the RIO CONN interface board is present.

F65	RIO ED T1	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.

📖 The function only appears if the RIO CONN interface board is present.

F66	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.

RIO PH T1

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

📖 The function only appears if the RIO CONN interface board is present.

F67	RIO PH T1	OFF (Default) P1 = Reopen while closing. P2 = Reclose while opening. P3 = Partial stop. Only with [Automatic close] activated. P4 = Obstacle standby.

RIO PH T2

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

📖 The function only appears if the RIO CONN interface board is present.

F68	RIO PH T2	OFF (Default) P1 = Reopen while closing. P2 = Reclose while opening. P3 = Partial stop. Only with [Automatic close] activated. P4 = Obstacle standby.

Partial opening time

Adjust the gate opening time.

F71	Partial opening time	5 to 40 seconds (Default 5)

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.

U1	New 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 = Partial opening **When the operator is in [Paired] mode, the [Partial Opening] command opens the Master operator.** Choose the function to be assigned to the user. Press ENTER to confirm. The free position in the memory is shown intermittently for a maximum of 10 seconds. During this phase, send the code from the control device. Repeat the procedure to add other users.

Remove user
Remove one of the registered users.

U2	**Remove user**	Use the arrows to choose the number associated with the user you want to remove. 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	**Remove all**	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 stored previously will be deleted.

U4	**Radio decoding**	1 = All decoding (default) 2 = Rolling code 3 = TW key block

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

A4	**Parameter reset**	OFF (Default) ON

Manoeuvre counter
View the number of operator manoeuvres.
📖 The number of manoeuvres is the number shown.

A5	**Manoeuvre counter**	

FW version
Display the firmware version.

H1	**FW version**	

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, running function F54 first (opening direction).
At the end of commissioning, check the correct operation of the device using the buttons near the display. Check that the accessories also work correctly.
Use the < > buttons to open and close the gate and ESC to stop it.

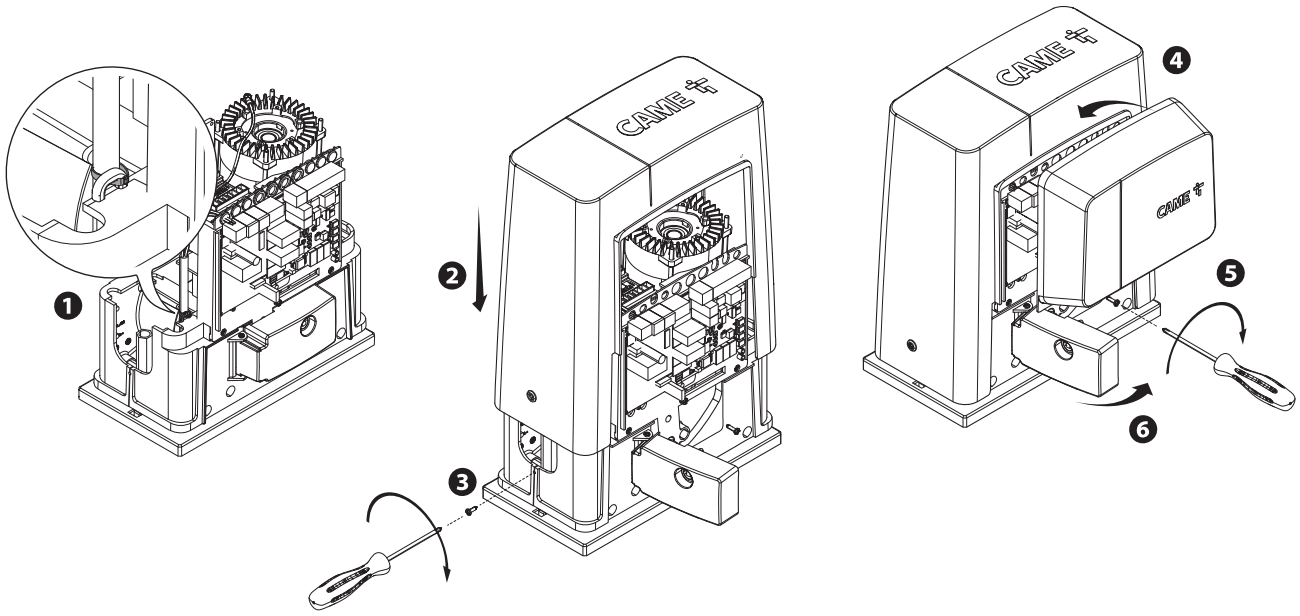
📖 After powering up the system, the first manoeuvre is always to open the gate Wait for the manoeuvre to be completed.

📖 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.

ERROR MESSAGES

E4	Service test failure error
E7	Operating time error
E8	Open release-hatch error
E9	Obstacle detected during closing
E10	Obstacle detected during opening
E11	The maximum number of obstacles detected consecutively has been exceeded
E15	Incompatible transmitter error
E17	Wireless system communication error
E18	Wireless system not configured error

FINAL OPERATIONS



PAIRED OPERATION

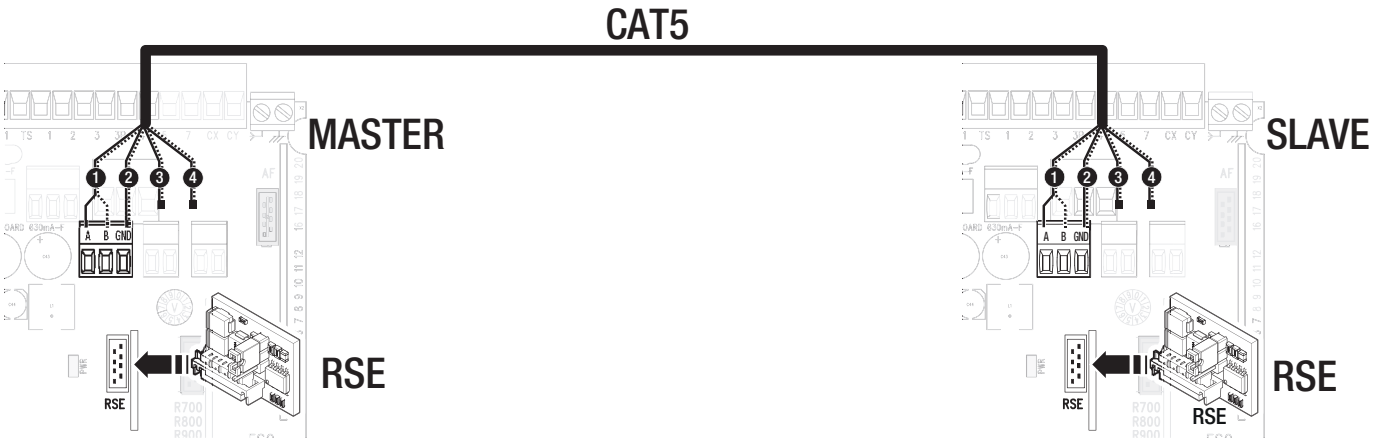
Two connected operators are controlled with one command.

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.

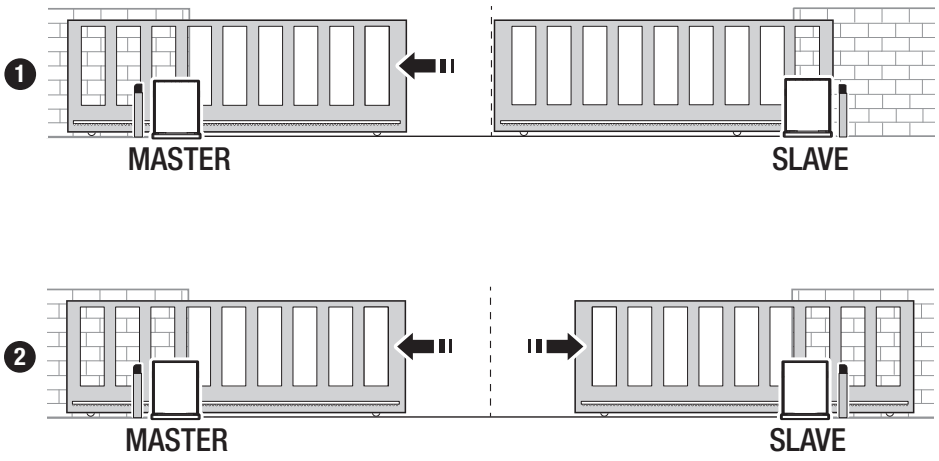
F49	**RSE**	Configure the function to be performed by the card inserted in the RSE connector. 1 = Paired
F54	**Opening direction**	Set the gate opening direction. 0 = To the left (default) 1 = To the right
F52	**Transferring MASTER-SLAVE parameters**	Enable sharing for the parameters programmed on the master gate with the slave gate.

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 or OPEN ONLY command



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