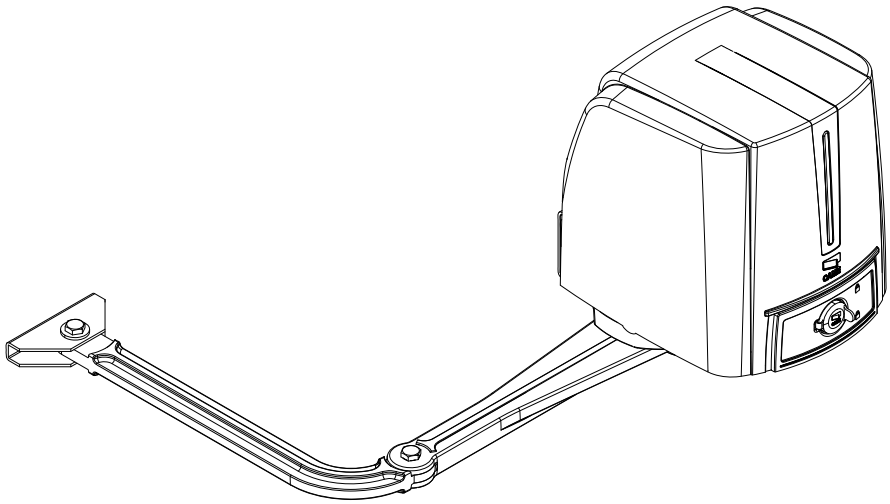
CAME

119DW01EN

OPERATOR
FOR SWING GATES



Installation manual

FA4024CB

English EN

CAUTION!
important personal safety instructions:
READ CAREFULLY!

Foreword

• This product should only be used for the purpose for which it was explicitly designed. Any other use is considered dangerous. CAME Cancelli Automatici S.p.A. is not liable for any damage resulting from improper, wrongful or unreasonable use • Keep these warnings with the installation and use manuals issued with the automation system.

Before installing

(preliminary check: in case of a negative outcome, do not proceed until you have complied with the safety requirements)

• Check that the part you intend to automate is in good mechanical condition, balanced and aligned, and that it opens and closes properly. Make sure that proper mechanical stops are already in place • If the operator will be installed at a height of less than 2.5 m from the ground or other access level, check whether you will need any protections and/or warnings • Any gate leaves fitted with pedestrian entrances onto which you will install an operator must have a blocking mechanism when the gate is in motion • Make sure that the opening of the automated gate is not an entrapment hazard as regards any surrounding fixed parts • Do not mount the operator upside down or onto any elements that may fold under its weight. If needed, add suitable reinforcements at the points where it is secured • Do not install onto gates not on level ground • Check that any lawn watering devices will not wet the operator from the bottom up.

Installation

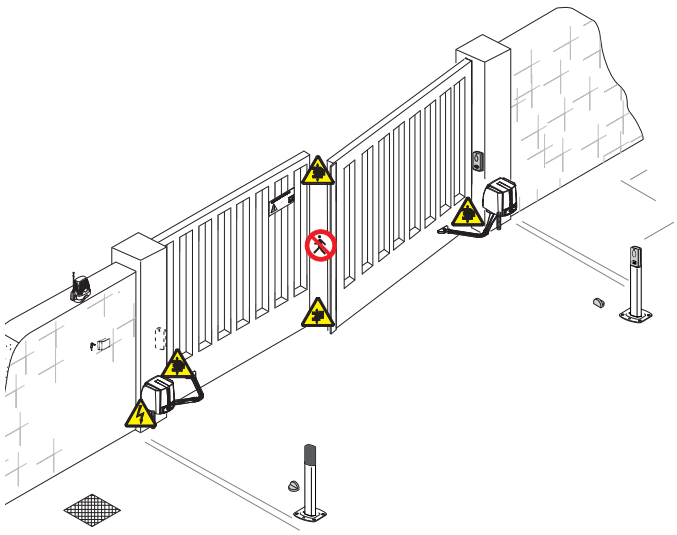
• Carefully section off the entire site to prevent unauthorised access, especially by minors and children • Be careful when handling operators that weigh more than 20 kg. In such cases, use proper weight handling safety equipment • All opening commands (e.g. buttons, key selector switches, magnetic detectors etc.) must be installed at least 1.85 m from the gate's area of operation perimeter - or where they cannot be reached from the outside of the gate. Also, the direct commands (buttons, touch commands etc.) must be installed at a height of at least 1.5 m and must not be accessible to the public • All 'hold-to-run' commands must be placed where the moving gate leaves, transit areas and driveways are completely visible • If missing, apply a permanent label that shows the position of the release mechanism • Before delivering to the user, check that the system is EN 12453 (impact test) standard compliant. Make sure that the operator has been properly adjusted and that the safety and protection devices as well as the manual release are working properly • Where necessary and in plain sight, apply the Warning Signs (e.g. gate plate)

Special instructions and advice for users

• Keep the gate's area of operation clean and clear of any obstacles. Check that there is no vegetation in the area of operation of the photocells and that there are no obstacles in the area of operation of the operator • Do not allow children to play with the fixed command devices, or in the gate's area of operation. Keep any remote control devices (i.e. transmitters) or any control devices away from children as well, to prevent the operator from being activated accidentally •The operator is not designed to be used by persons (including children) whose physical, sensorial or mental capacities are limited, or who are lacking in experience or knowledge, unless said persons can be supervised or given instructions regarding using the operator by a person responsible for their safety • Frequently check the system, to see whether any anomalies or signs of wear and tear appear on the moving parts, on the component parts, on the securing points, on the cables and any accessible connections. Keep any joints (i.e. hinges) lubricated and clean, and do the same where friction may occur (i.e. slide rails) • Perform functional tests on photocells and sensitive edges every six months. To check that the photocells work, pass an object in front of them during closing. If the operator reverses the direction of movement or comes to a halt, the photocells work correctly. This is the only maintenance operation that must be carried out while the operator is live. Ensure that the glass on the photocells is kept clean (use a cloth slightly moistened with water; do not use solvents or any other chemicals as these could damage the devices) • If the system requires repairs or modifications, release the operator and do not use it until safety conditions have been restored • Cut off the power supply before releasing the operator for manual openings and before any other operation, to prevent dangerous situations. Read the instructions • If the power cable is damaged, it must be replaced by the manufacturer or the technical assistance service or by a person with a similar qualification so as to prevent any risks • It is STRICTLY FORBIDDEN for users to perform OPERATIONS THEY ARE NOT EXPLICITLY REQUIRED AND ASKED to do in the manuals. For repairs, adjustments and extraordinary maintenance, CONTACT THE SPECIALIST TECHNICAL SERVICE CENTRE • On the periodic maintenance log, note down the checks you have done.

Special instructions and advice for all

• Avoid working near the hinges or moving mechanical parts • Stay clear of the gate's area of operation when in motion • Do not resist the direction of movement of the gate; this may present a safety hazard • At all times be extremely careful about dangerous points that must be indicated by proper pictograms and/or black and yellow stripes • When using a selector or command in 'hold-to-run' mode, keep checking that there are no people in the area of operation of the moving parts. Do this until you release the command • The gate may move at any time without warning • Always cut the power when cleaning or performing maintenance.



Danger of hand crushing

Danger - live parts

No transit during the manoeuvre

KEY

🕮 This symbol indicates parts to read carefully.
⚠ This symbol indicates parts about safety.
☞ This symbol tells you what to say to the end users.

REGULATORY REFERENCES

Came Cancelli Automatici is a company with an ISO 9001-certified company quality management system and an ISO 14001-certified environmental management system.
The product in question complies with the regulations referred to in the declaration of conformity.

DESCRIPTION

The operator consists of die cast aluminium casing with an irreversible worm screw inside and a plastic ABS cover which houses the control board. With arms, brackets and mechanical end stops.

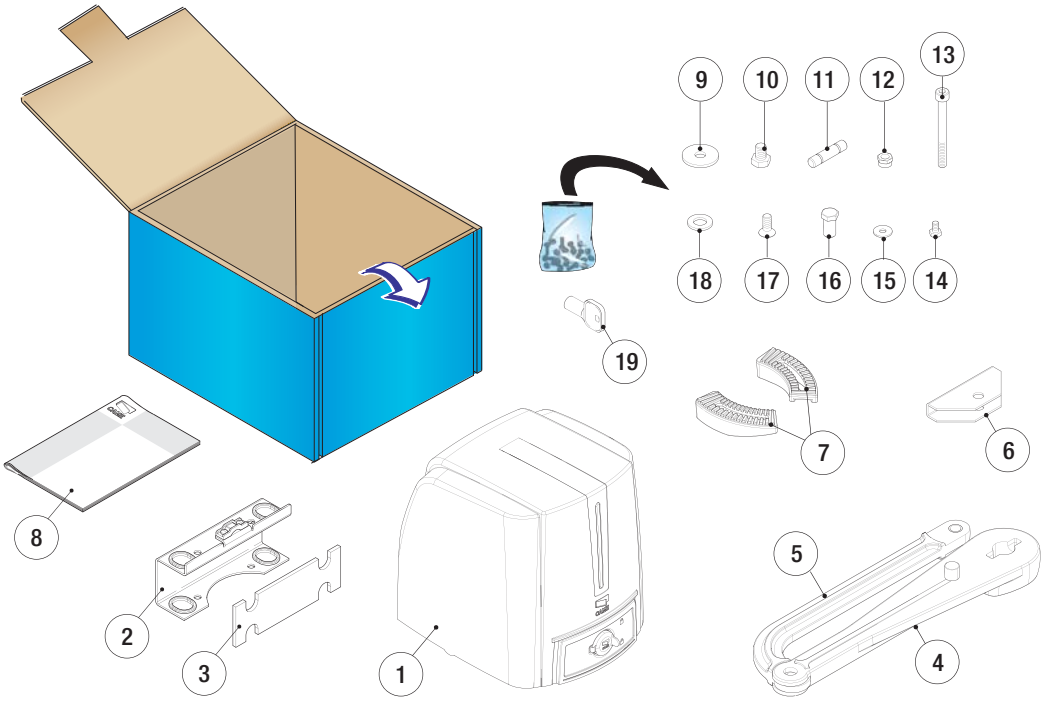
Intended use

The operator has been designed and built by CAME Cancelli Automatici S.p.A. in compliance with current safety standards to motorise swing gates for residential or condominium use.

🕮 Any installation and operation that differs from what is set out in this manual is prohibited.

Packing list

1. 1 x operator
2. 1 x pillar bracket
3. 1 x rubber shim
4. 1 x transmission arm
5. 1 x driven arm
6. 1 x gate bracket
7. 2 x mechanical end runs
8. 1 x installation manual
9. 1 x washer for slow shaft
10. 1 x UNI5739 M10x14 screw
11. 1 x Ø10 plug
12. 2 x UNI7474 M8 nuts
13. 2 x UNI5739 M6x10 screws
14. 2 x UNI6957 2.9x19 screws
15. 2 x UNI6593 Ø6 washers
16. 2 x pins for arms
17. 2 x UNI5933 M8x20 screws
18. 1 x UNI6592 Ø12 washer
19. 2 x release keys



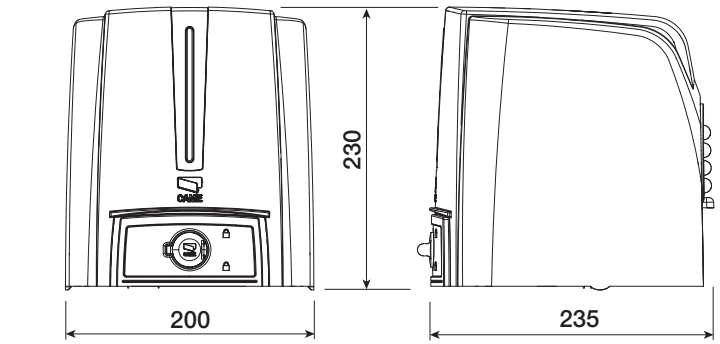
Limits of use

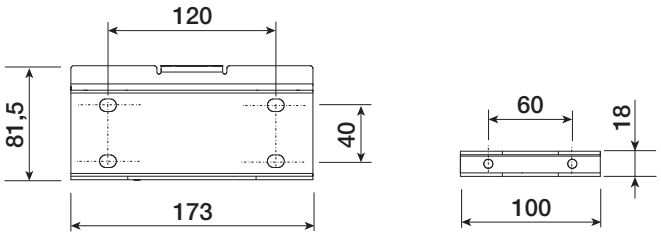
Type	FA4024CB			
Max. leaf length (m)	2,3	2	1,5	1
Max. leaf weight (kg)	200	215	250	300

Technical data

Type	FA4024CB
Protection rating (IP)	54
Power supply (V - 50/60 Hz)	230 AC
Motor power supply (V - 50/60 Hz)	24 DC
Power draw (A)	11 max.
Power (W)	140
Torque (Nm)	180 max.
Opening time to 90° (sec)	ADJUSTABLE
Duty cycle	INTENSIVE USE
Operating temperature (°C)	-20 - +55
Insulation class	I
Weight (kg)	13,5

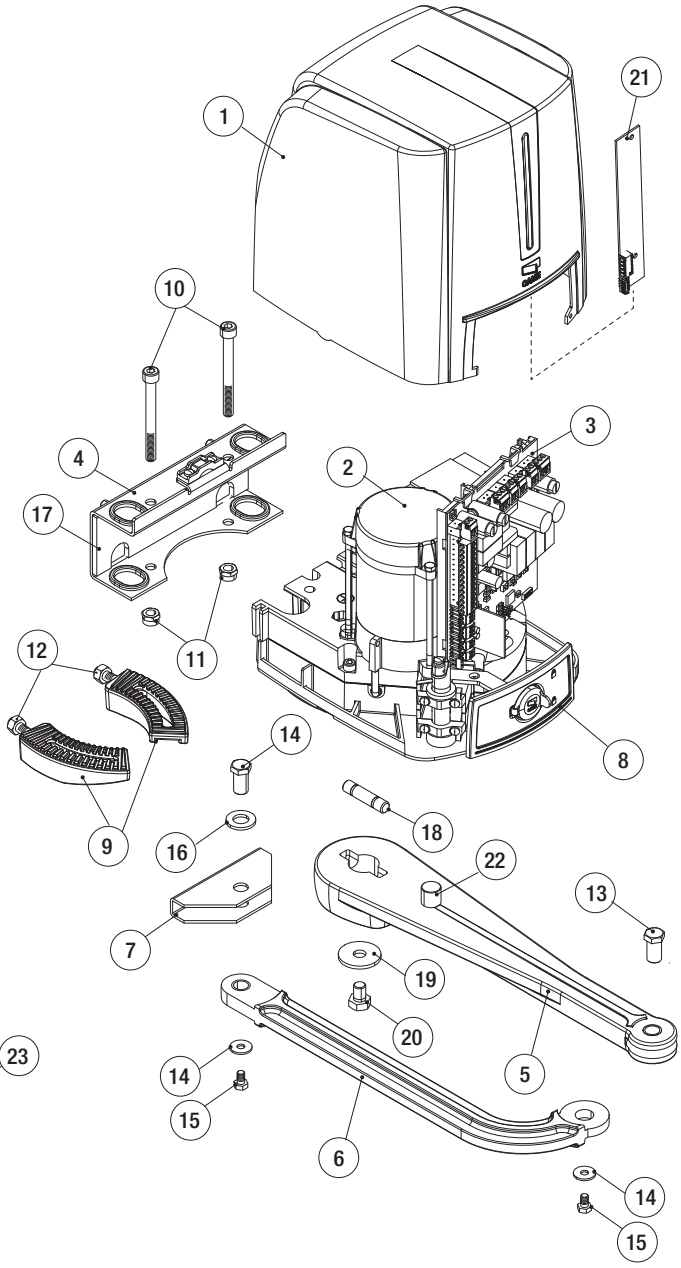
Dimensions (mm)

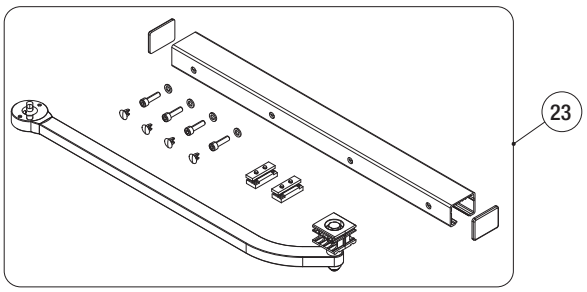




Description of the components

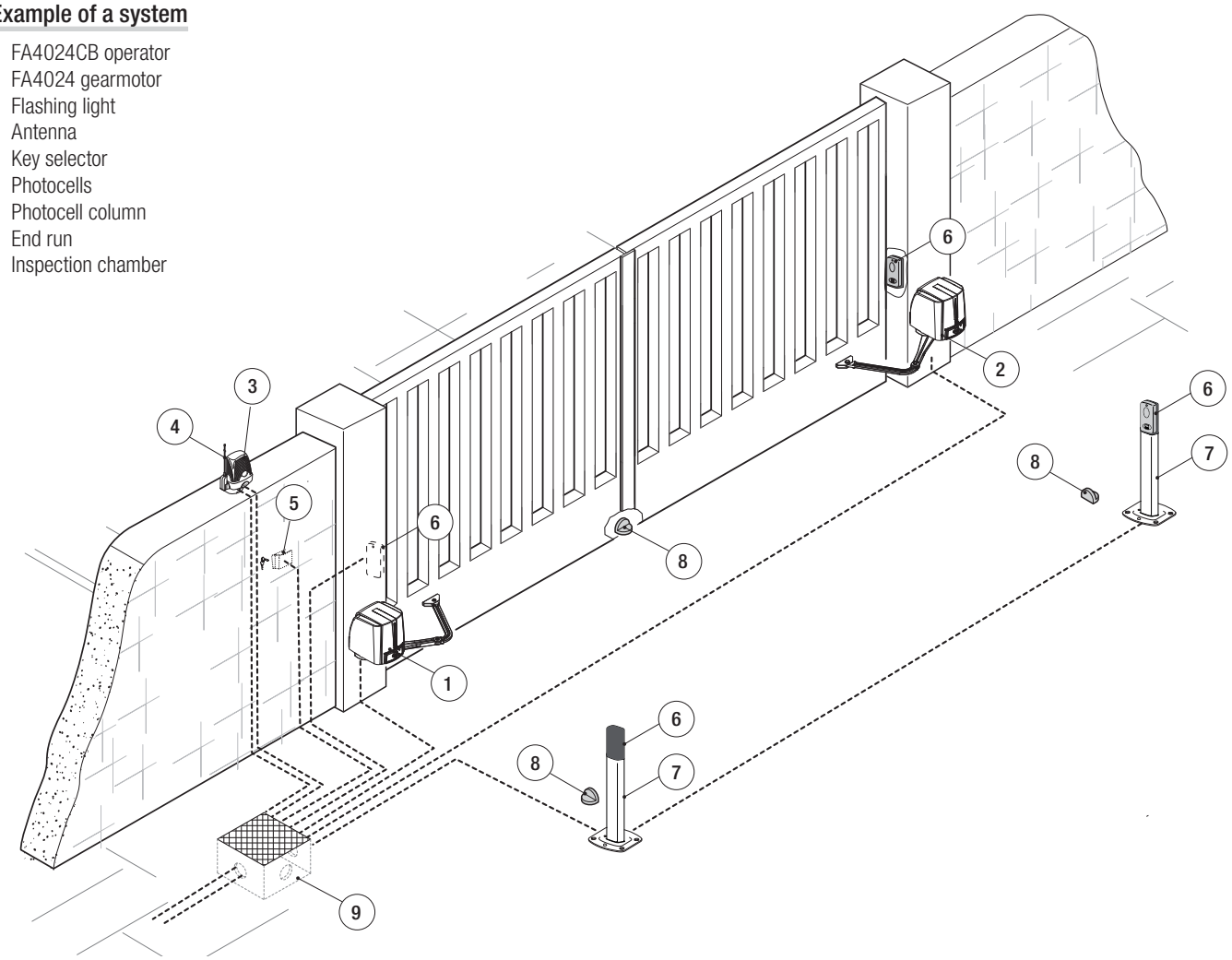
1. Cover
2. Gearmotor
3. Control board
4. Pillar bracket
5. Transmission arm
6. Driven arm
7. Gate bracket
8. Unlocking hatch
9. Mechanical end stops
10. UNI5931 M8x80 screws
11. UNI7474 M8 nuts
12. Adjusting screws for end run
13. Pin for arms
14. UNI6593 Ø6 washer
15. UNI5739 M6x10 screw
16. UNI6592 Ø12 washer
17. Rubber shim
18. Ø10 plug
19. Washer for slow shaft
20. UNI5739 M10x14 screw
21. LED control board
22. Transmission arm pin
23. Straight arm with 001STYLO-BD slide rail (optional accessory)



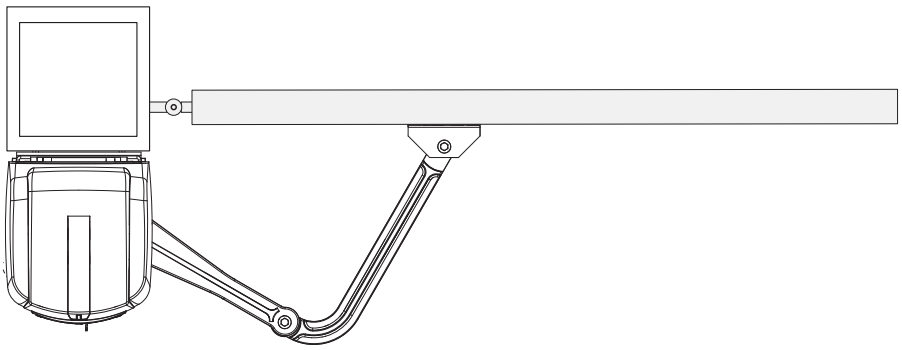


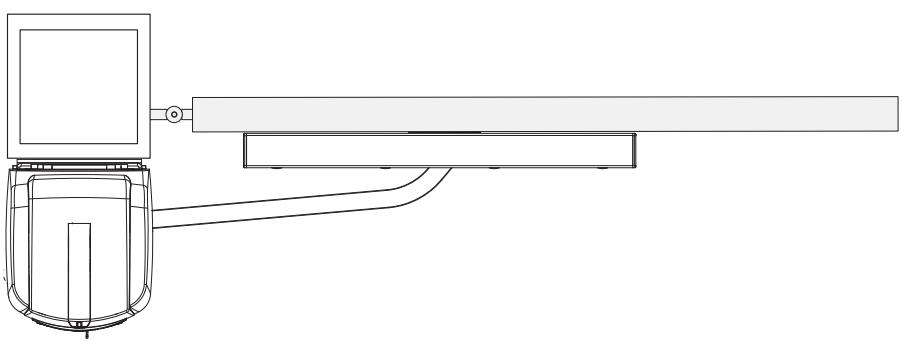
Example of a system

1. FA4024CB operator
2. FA4024 gearmotor
3. Flashing light
4. Antenna
5. Key selector
6. Photocells
7. Photocell column
8. End run
9. Inspection chamber



Examples of use





GENERAL INSTALLATION INSTRUCTIONS

⚠ Installation must be carried out by qualified and experienced personnel in compliance with applicable regulations.

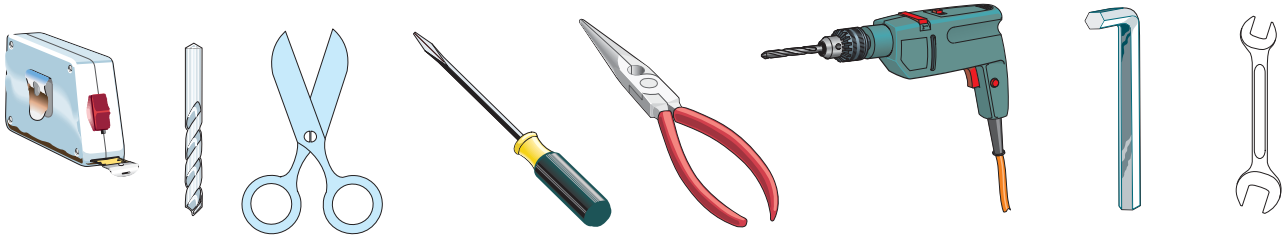
Preliminary checks

⚠ Before starting installation:

- Provide a suitable single-pole disconnection device, with a maximum of 3 mm between the contacts, to disconnect the power supply;
- Prepare suitable piping and ducts for routing the electrical cables, ensuring protection against mechanical damage;
- Prepare a drain pipe to prevent stagnation that may cause oxidation;
- ⏚ Make sure that any connections within the container (made to ensure the continuity of the protection circuit) are fitted with additional insulation compared to the other internal conductor parts;
- Make sure the gate structure is sturdy enough, that the hinges are in proper working order and that there is no friction between the moving and fixed parts;
- Make sure there are opening and closing mechanical stops.

Tools and materials

Make sure you have all the tools and materials you will need for the installation at hand to work in total safety and compliance with current standards and regulations. The figure shows some examples of installer's tools.



Types of cables and minimum thicknesses

Connection	Cable type	Cable length 1 < 10 m	Cable length 10 < 20 m	Cable length 20 < 30 m
230 VAC board power supply	FROR CEI 20-22 IEC EN 50267-2-1	3G x 1.5 mm^2	3G x 2.5 mm^2	3G x 4 mm^2
24 VDC motor power supply		2 x 1 mm^2	2 x 1.5 mm^2	2 x 2.5 mm^2
Flashing light		2 x 0.5 mm^2	2 x 1 mm^2	2 x 1.5 mm^2
Photocell transmitters		2 x 0.5 mm^2	2 x 0.5 mm^2	2 x 0.5 mm^2
Photocell receivers		4 x 0.5 mm^2	4 x 0.5 mm^2	4 x 0.5 mm^2
Control and safety devices		2 x 0.5 mm^2	2 x 0.5 mm^2	2 x 0.5 mm^2
Antenna	RG58	max. 10 m		
Encoder	TWISTED	max. 30 m		

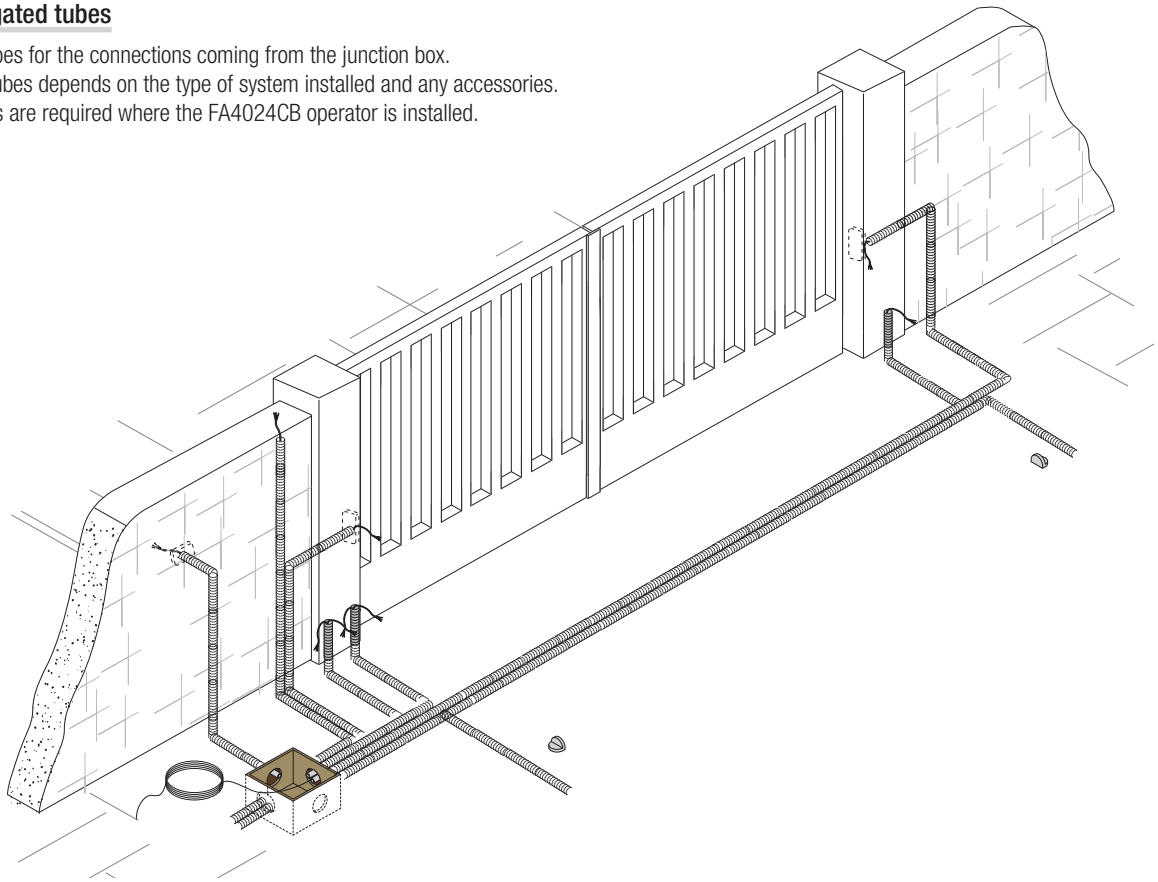
N.B.: If the cables differ in length compared to what is shown in the table, the cable cross-section is determined according to the actual current draw of the devices connected and according to the provisions of the IEC EN 60204-1 standard.
For connections that require several, sequential loads, the sizes given on the table must be re-evaluated based on actual power draw and distances. When connecting products that are not specified in this manual, please refer to the documentation provided with said products.

INSTALLATION

⚠ The following illustrations are only examples, given that the space for securing the operator and accessories varies depending on the overall dimensions. The installation technician is responsible for choosing the most suitable solution.

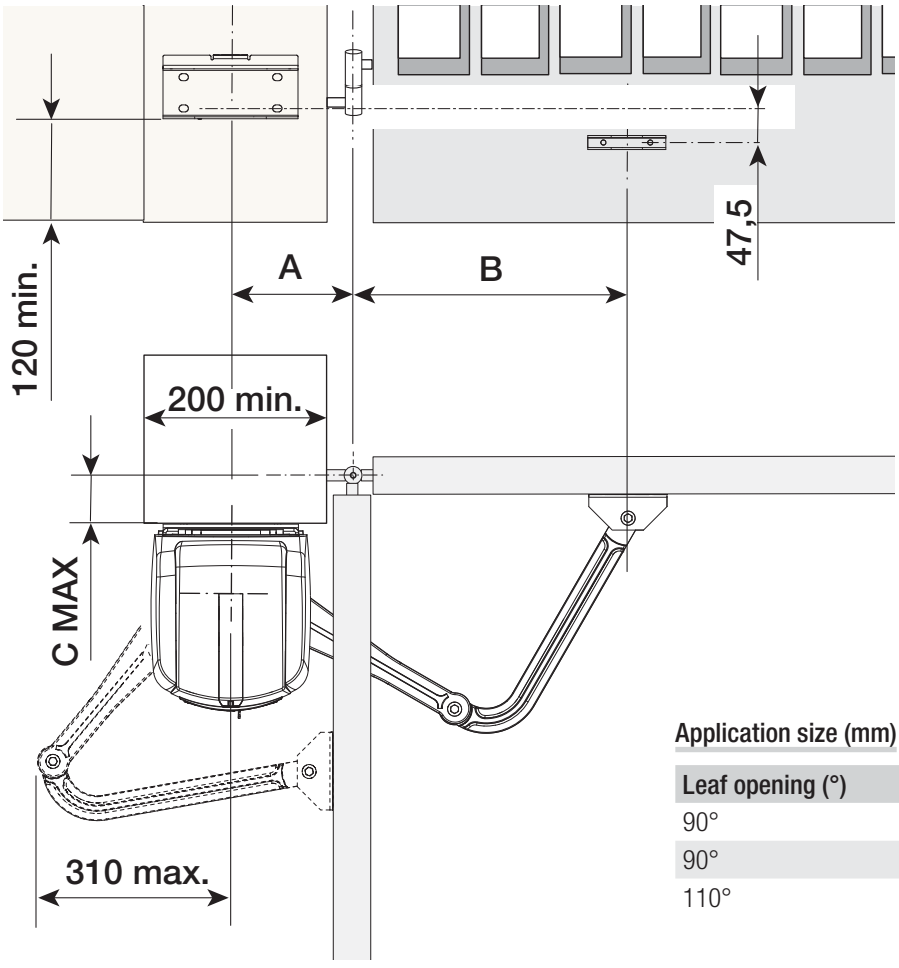
Installing corrugated tubes

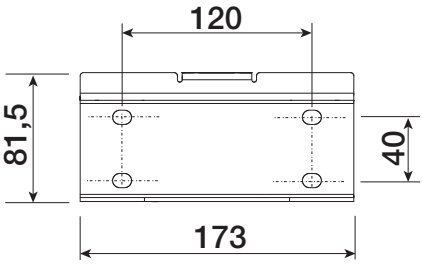
Set up corrugated tubes for the connections coming from the junction box.
N.B. the number of tubes depends on the type of system installed and any accessories.
Two corrugated tubes are required where the FA4024CB operator is installed.

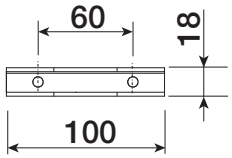


Securing the brackets

N.B. the drawings refer to installation of the left-hand gearmotor. The installation of the right-hand gearmotor is symmetrical.
Determine the fixing point for the gate bracket and calculate the fixing point of the pillar bracket, respecting the values shown in the drawings and table.



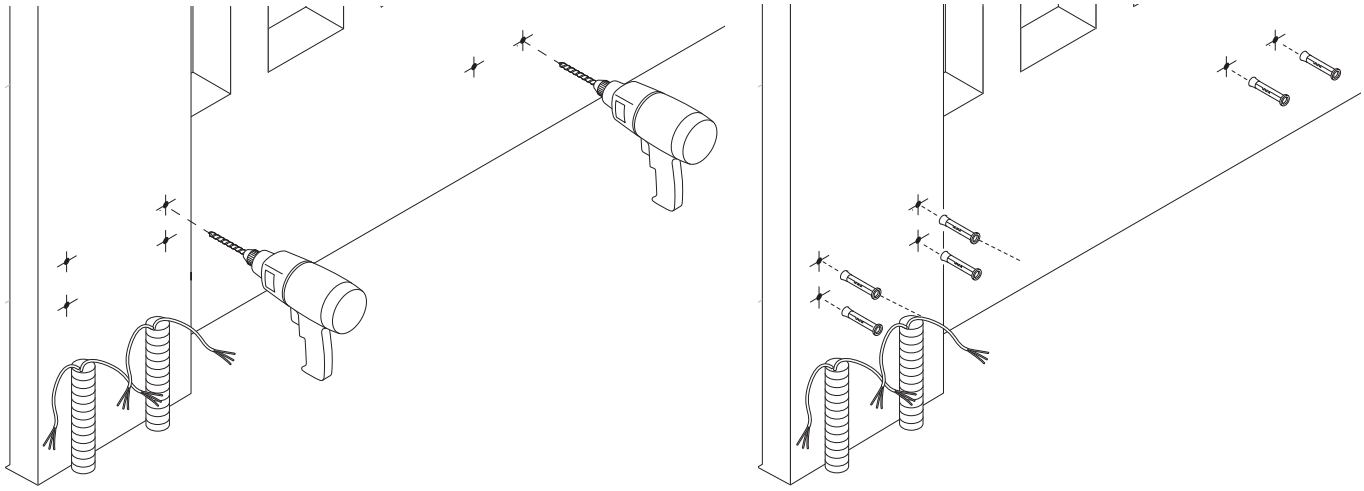




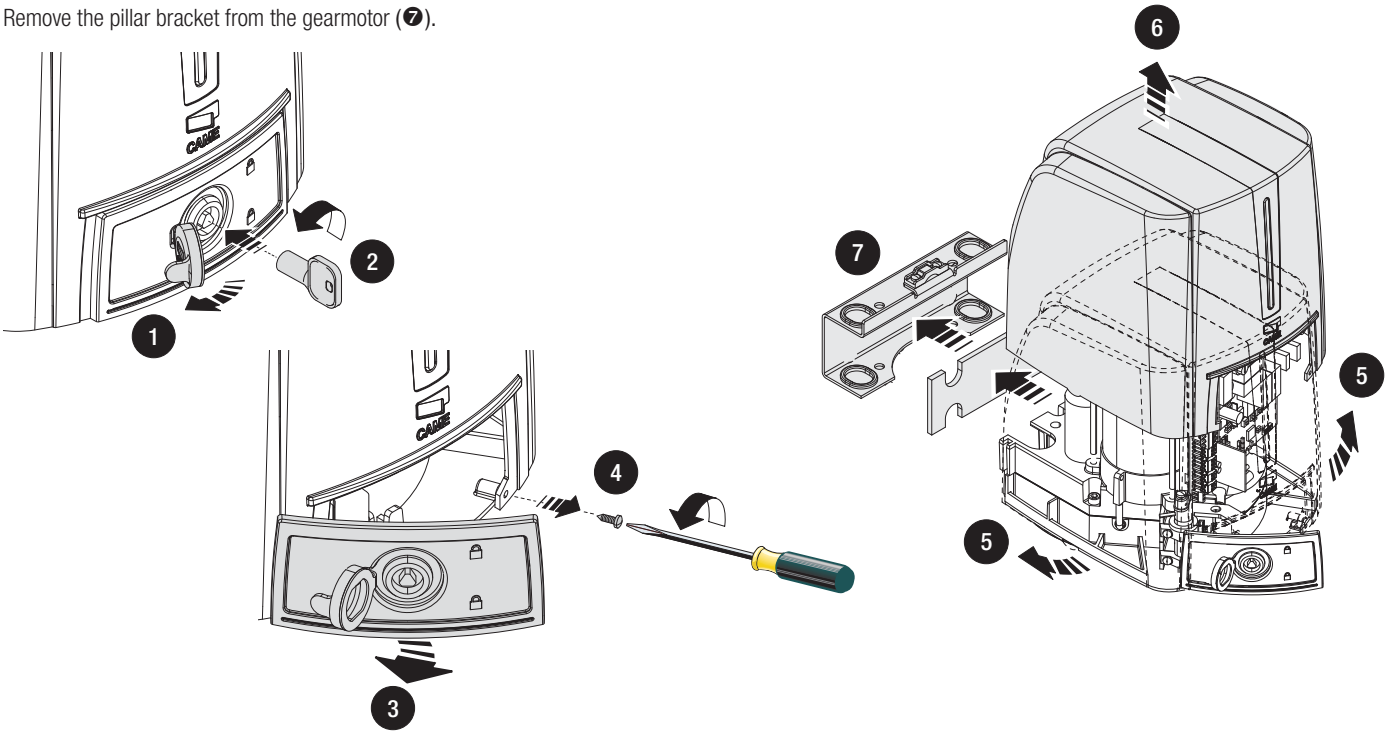
Application size (mm)

Leaf opening (°)	A	C MAX	B
90°	140	0 - 200	420
90°	160 - 180	200	380
110°	200 - 220	0 - 50	400

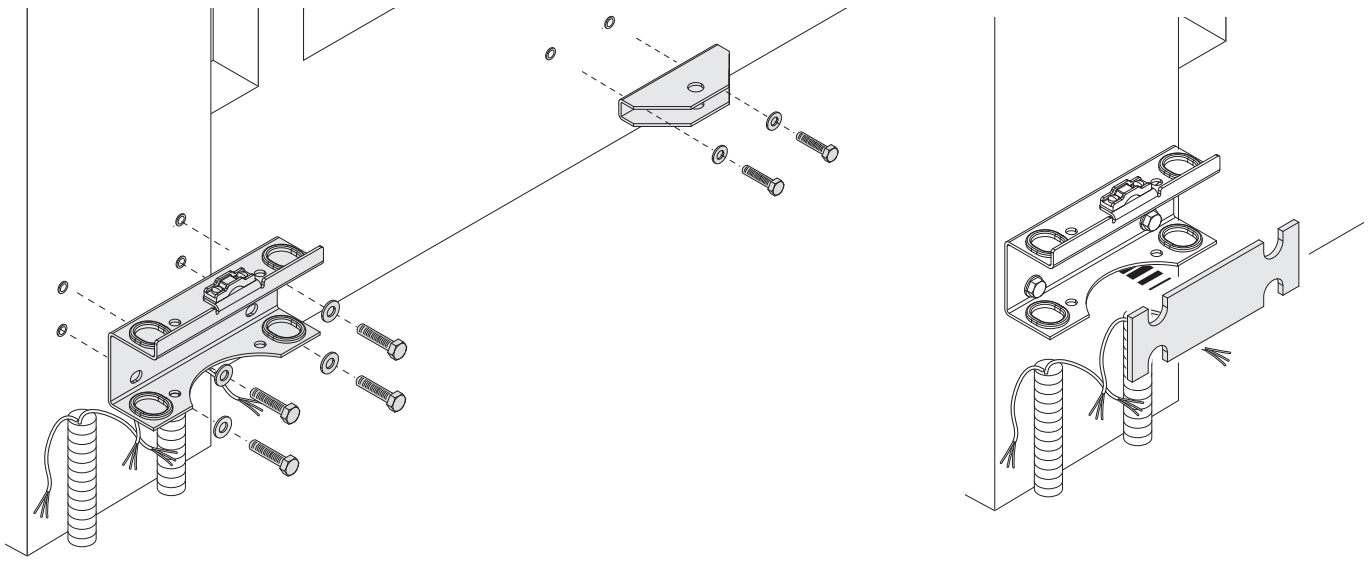
Mark the fixing points on the pillar bracket and gate bracket. The measurements of the distance between the holes in the brackets are indicated in the dimensions paragraph.
Drill the fixing points, insert the anchors or use suitable inserts to secure the brackets.
N.B. the drawings are mere examples. It is up to the installer to choose the most suitable solution depending on leaf type and thickness.



Before installing the operator, remove the cover from the gearmotor. Remove the protective lock cap from the release hatch, insert the key in the lock and turn it (❶❷).
Open the hatch and unscrew the screw securing the cover to the gearmotor (❸❹).
Lift the cover by pulling gently on the side (❺❻).
Remove the pillar bracket from the gearmotor (❼).

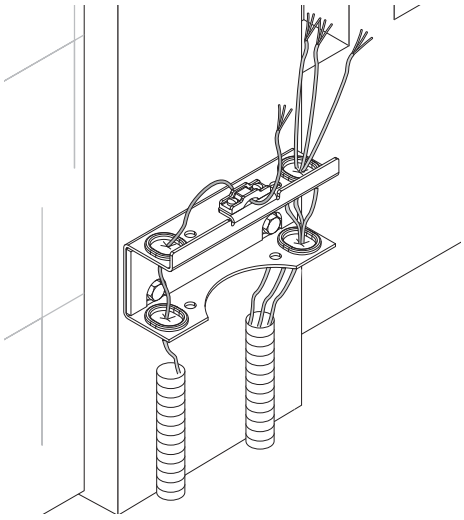


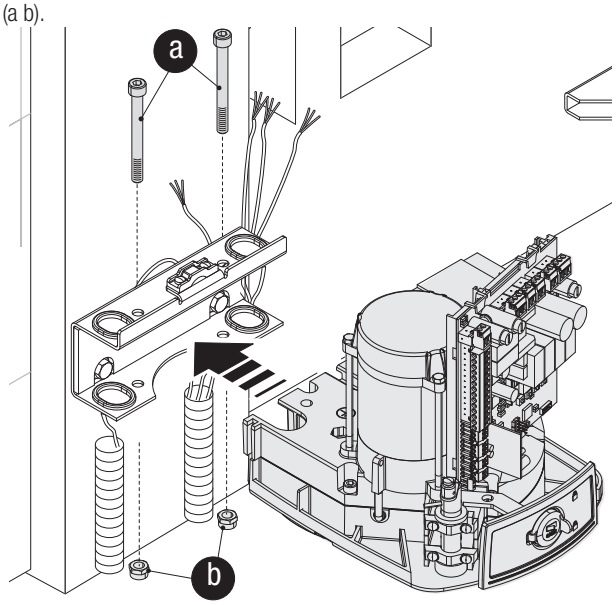
Secure the brackets with suitable screws. Insert the rubber shim into the pillar bracket.



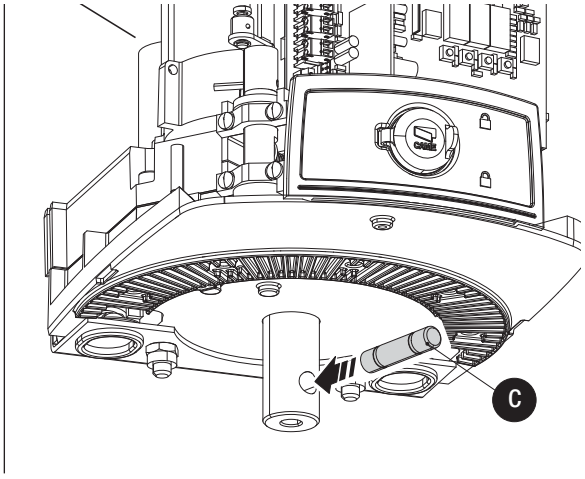
Securing the gearmotor

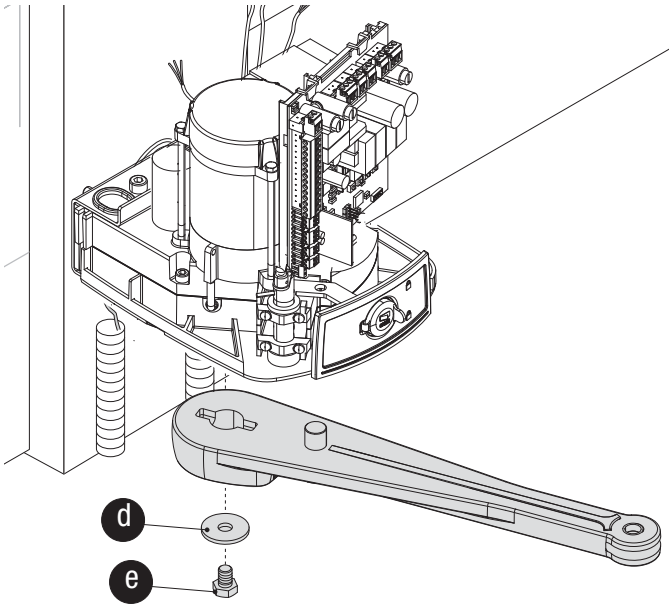
Prepare the electrical cables needed for the connections, passing them through the cable glands and securing them to the U-bolt on the pillar mounting bracket. Insert the gearmotor into the pillar bracket and secure it with screws and nuts (a b).



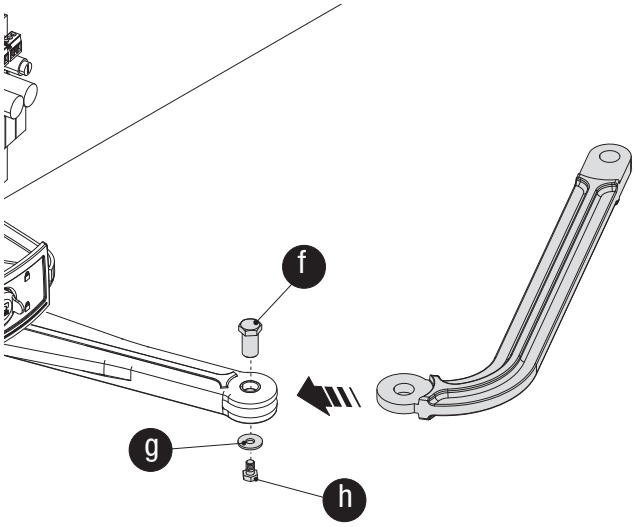


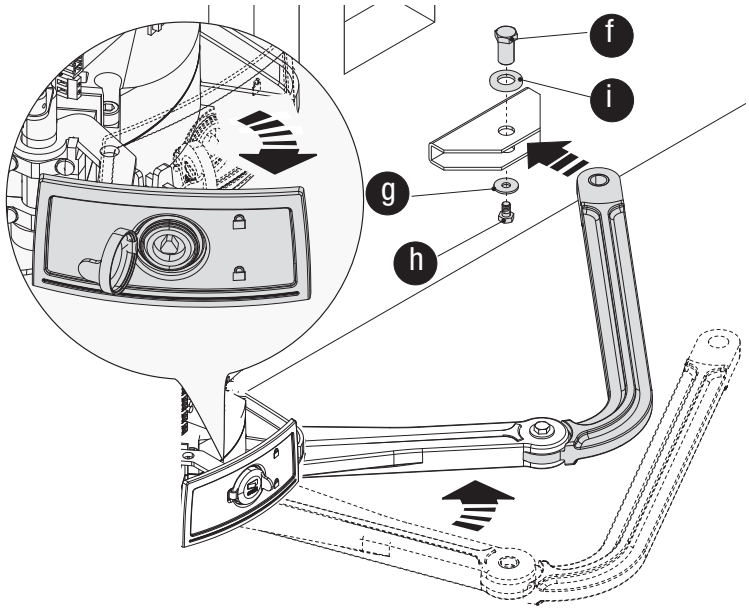
Insert the plug (c) into the hole in the gearmotor shaft. Secure the transmission arm to the shaft with the slow shaft washer (d) and the screw (e).





Secure the drive arm to the transmission arm using the pin, the screw and the washer (fgh).
Release the gearmotor, secure the drive arm to the gate bracket as shown in the drawing (figh).

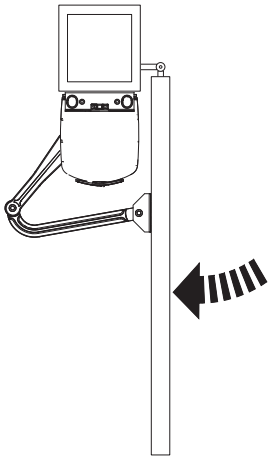


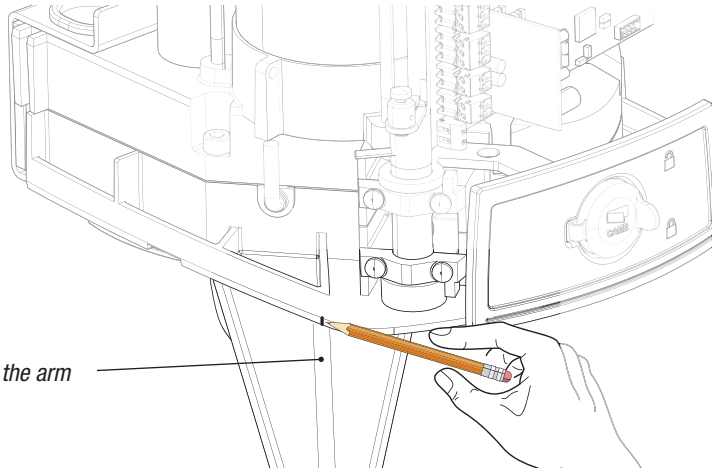


⚠ Caution: if there are no end stops, end runs must be fitted.

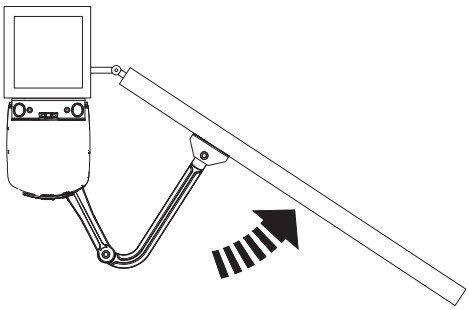
Securing mechanical stops

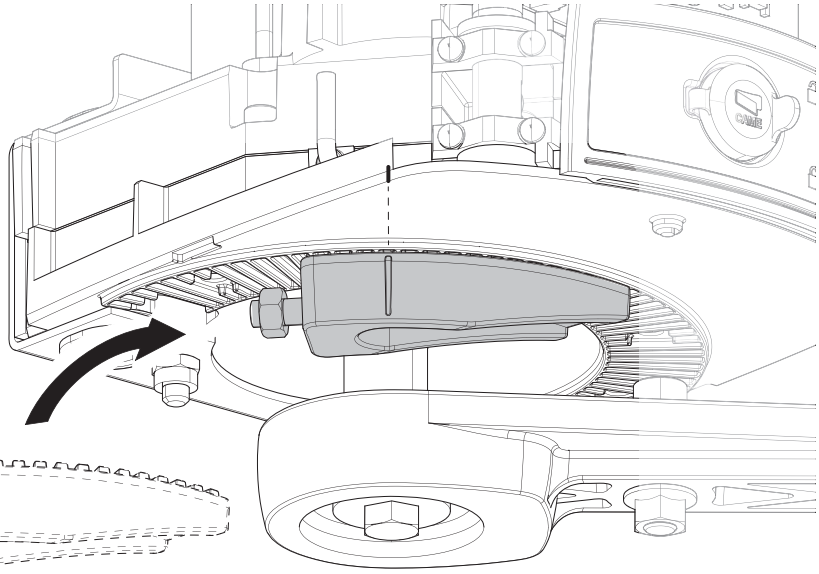
Unlock the gearmotor.
During opening.
Open the leaf completely. Mark the casing by the centre of the arm.



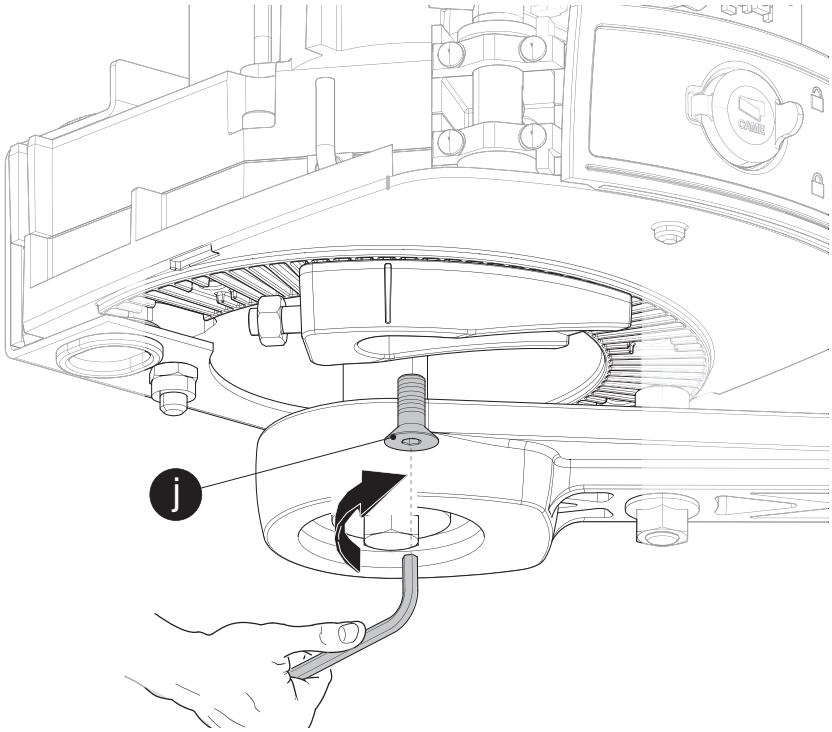


Close the leaf manually Insert the mechanical stop as shown. The mark on the casing must match the groove on the end run.

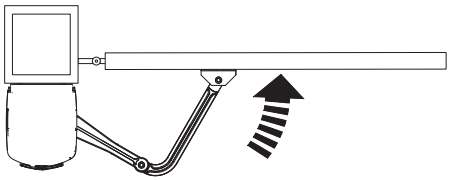


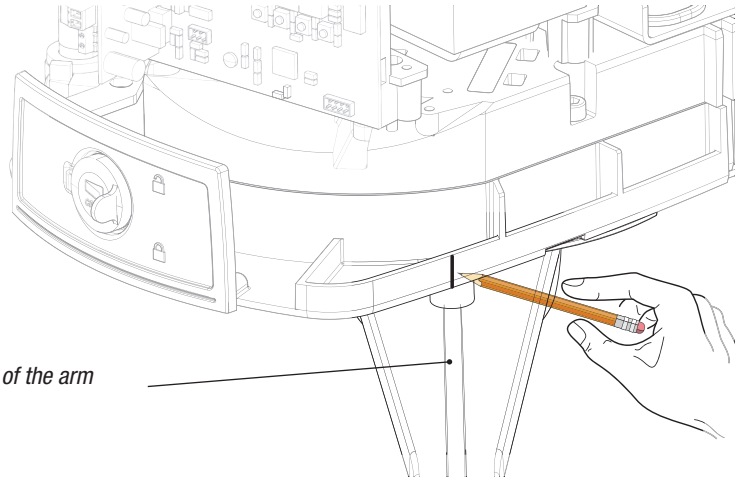


Secure the stop using the screw (j).

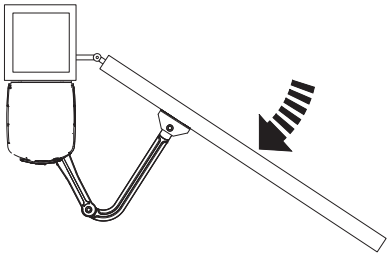


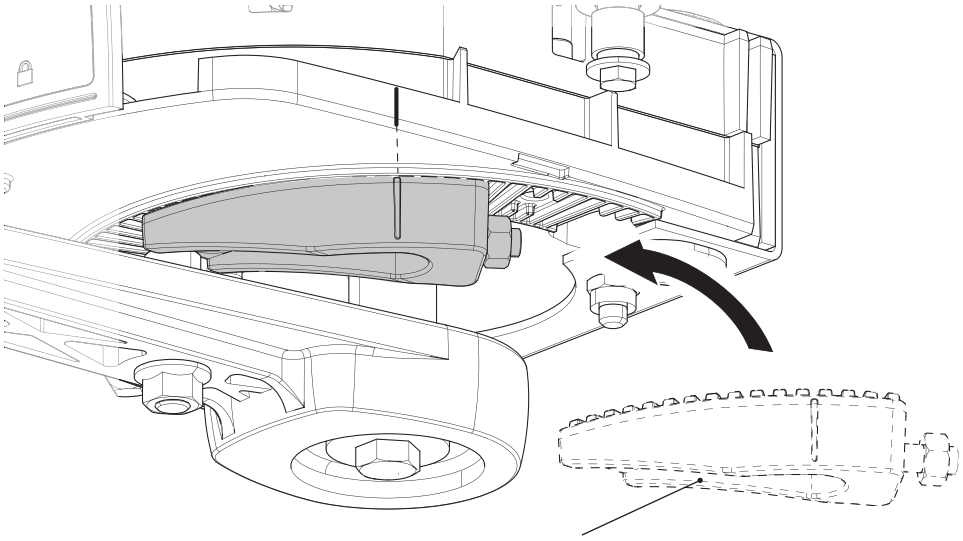
During closing.
Mark the casing by the centre of the arm.



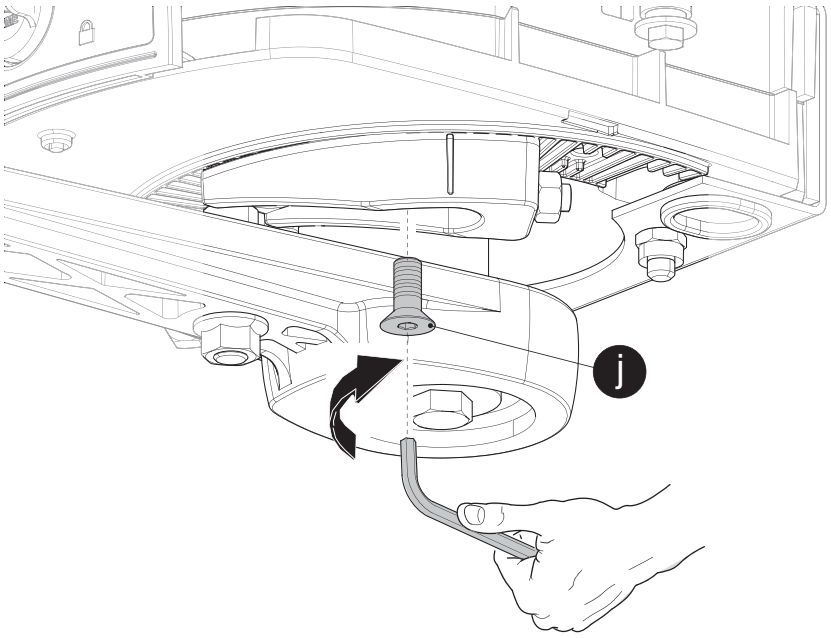


Open the leaf manually. Insert the mechanical stop as shown.



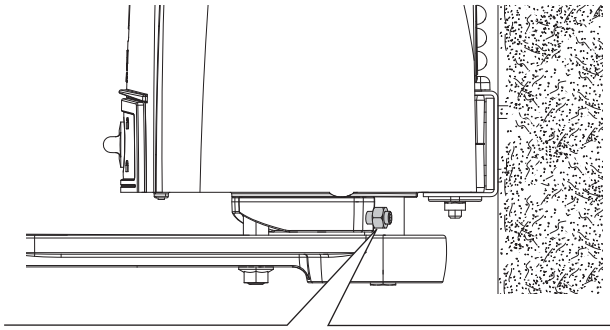


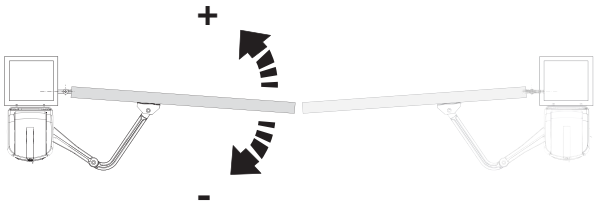
Secure the stop using the screw (j).

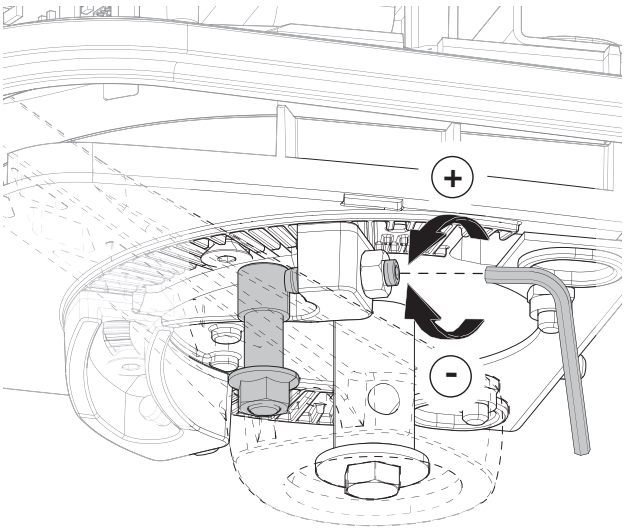


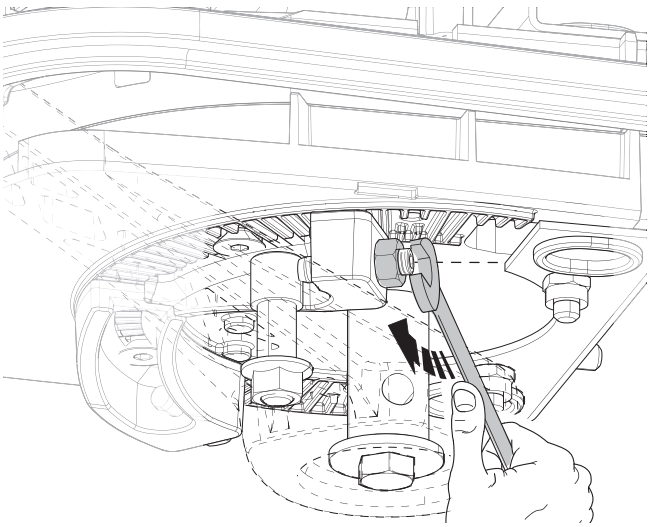
Determining the end run points

For left-hand gearmotor (internal view).
With the gearmotor released and the leaf closed, adjust the closing end run anchor, turning it clockwise and anti-clockwise. Secure the anchor with the nut (see drawing).

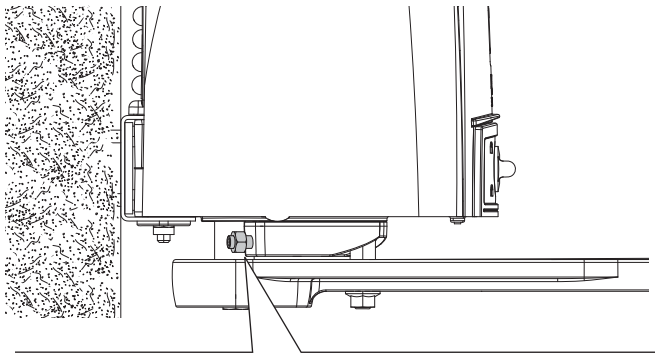


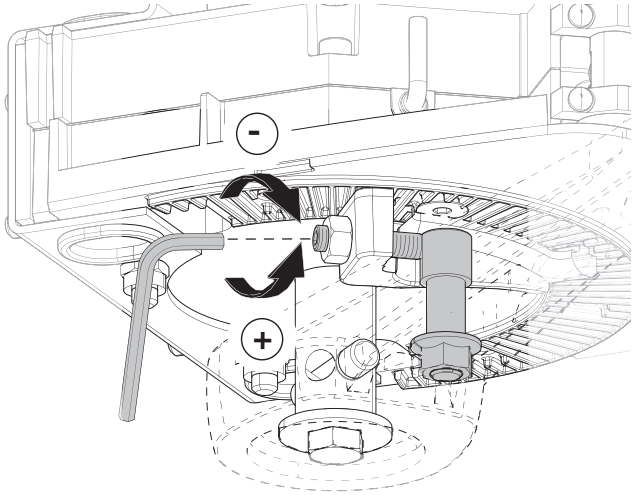


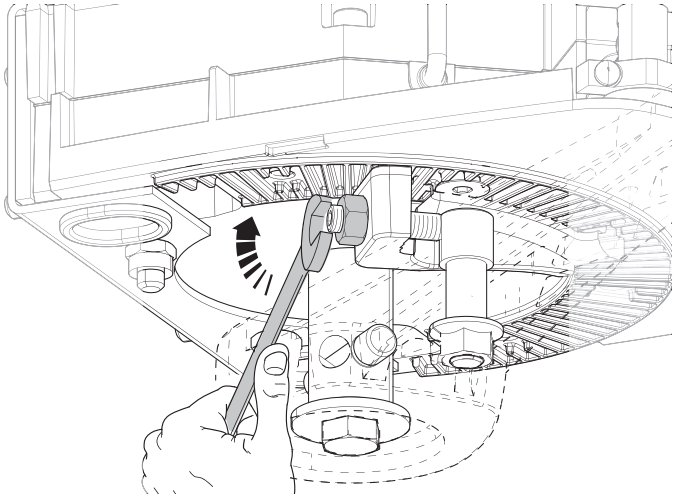




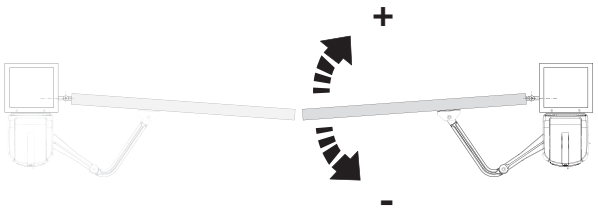
Similarly, adjust the opening end run using the anchor on the other stop (see drawing).

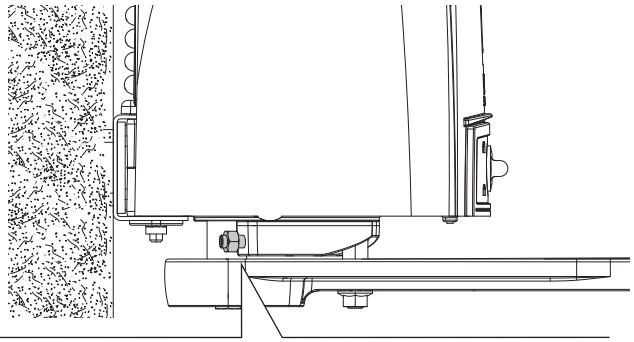


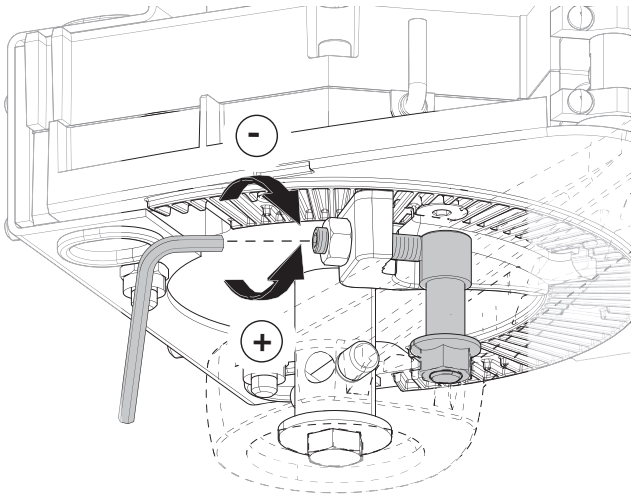


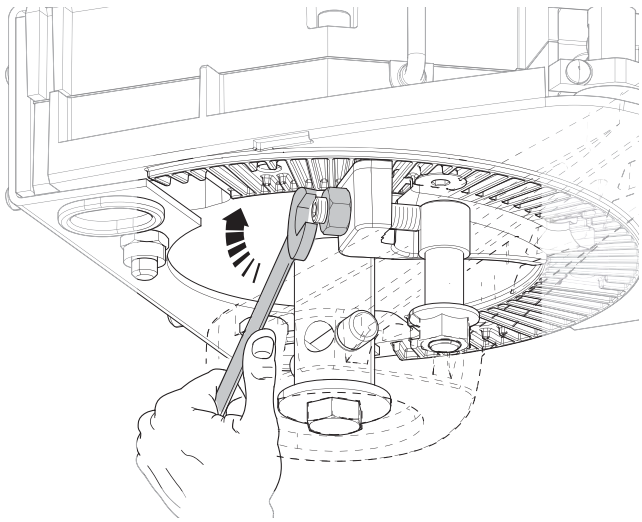


For right-hand gearmotor (internal view).
With the gearmotor released and the leaf closed, adjust the closing end run anchor, turning it clockwise and anti-clockwise. Secure the anchor with the nut (see drawing).

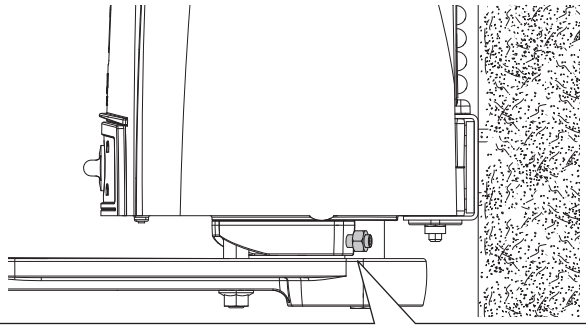


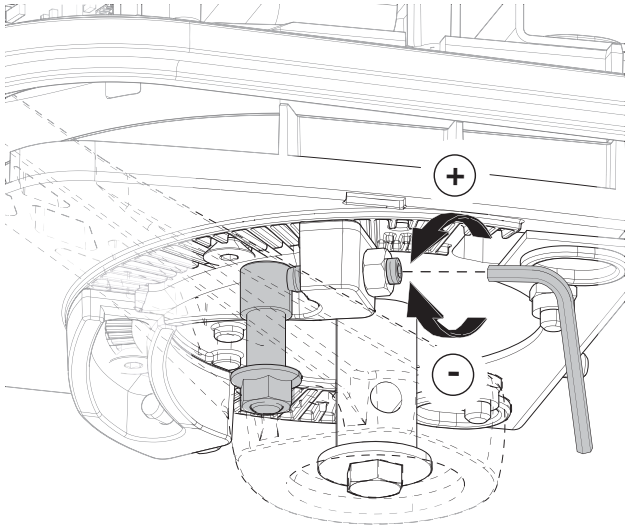


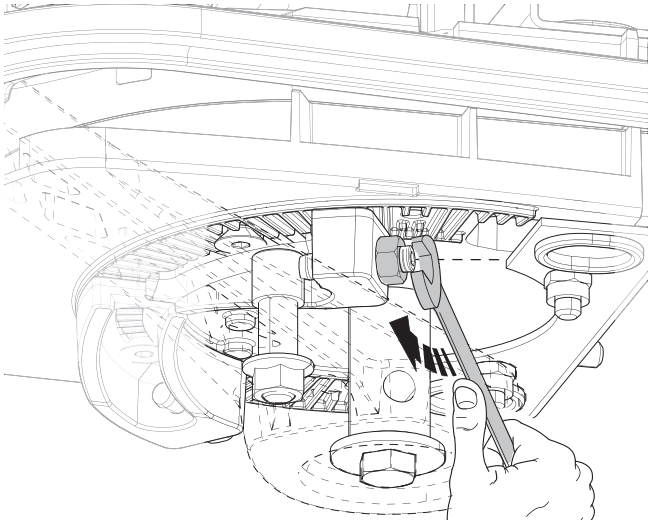




Similarly, adjust the opening end run using the anchor on the other stop (see drawing).







ELECTRICAL CONNECTIONS AND PROGRAMMING

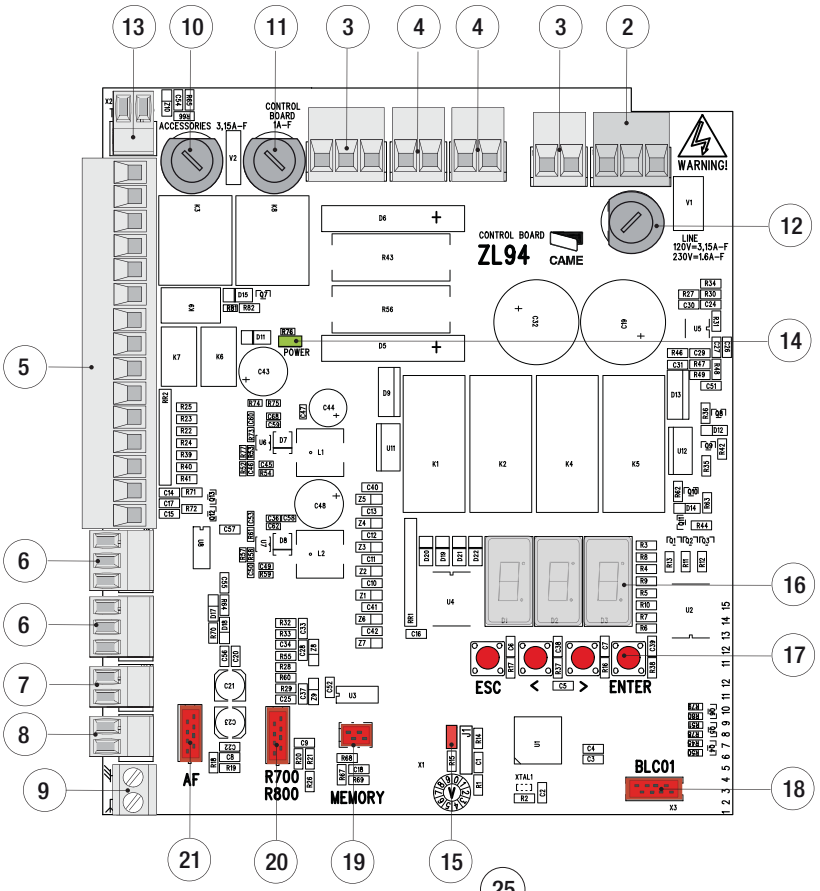
⚠ **Caution! Before intervening on the control panel, disconnect mains power and remove the batteries if inserted.**

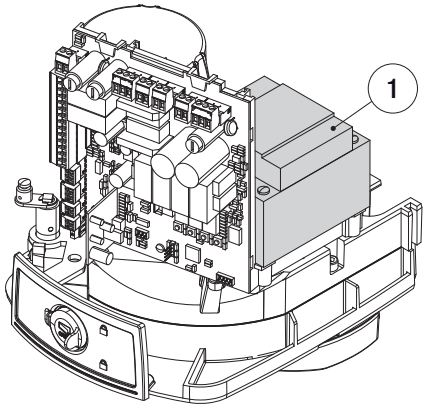
The control board is powered at 230 VAC with a frequency of 50-60 Hz.
The control devices and accessories are powered at 24 VAC.
⚠ The total power of the accessories should not exceed 40 W.
The functions on the input and output contacts and the adjustments of the times and management of the users are set and viewed on the display managed by a software program.
All the connections are protected by quick fuses.

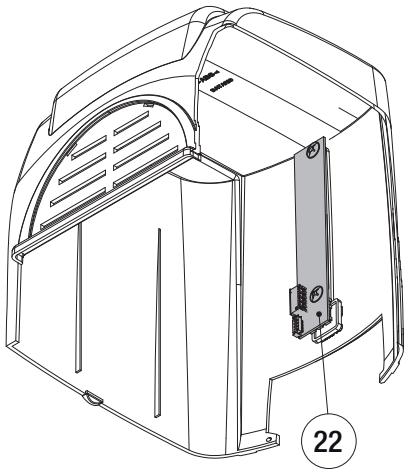
FUSE TABLE	
Line fuse	1.6 A-F
Panel fuse	1 A-F
Accessory fuse	3.15 A-F

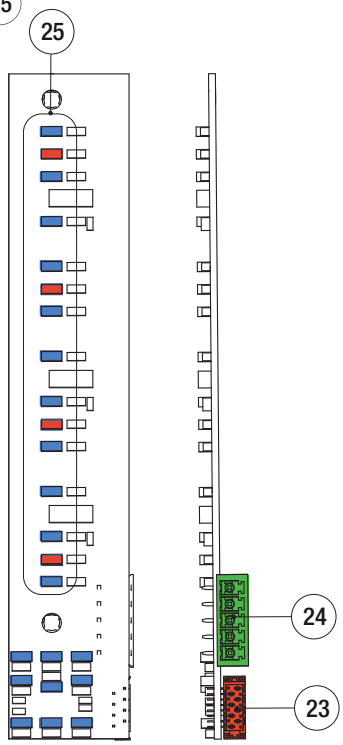
Description of the components

1. Transformer
2. 230 V power supply terminal block
3. Transformer terminal block
4. Gearmotor terminal block
5. Control and safety device terminal block
6. Encoder terminal block
7. Transponder device terminal block
8. Keypad selector terminal block
9. Antenna terminal block
10. Accessory fuse
11. Panel fuse
12. Line fuse
13. Transformer thermal protection terminal block
14. Power indicator LED
15. Programming indicator LED
16. Display
17. Programming buttons
18. FA001 board connection connector
19. Memory roll card connector
20. R700 or R800 board connector
21. AF board connector
22. LED control board
23. Connector for connection to the ZL94 panel
24. Terminal block for connection to the second LED control board
25. Gate status indicator LED

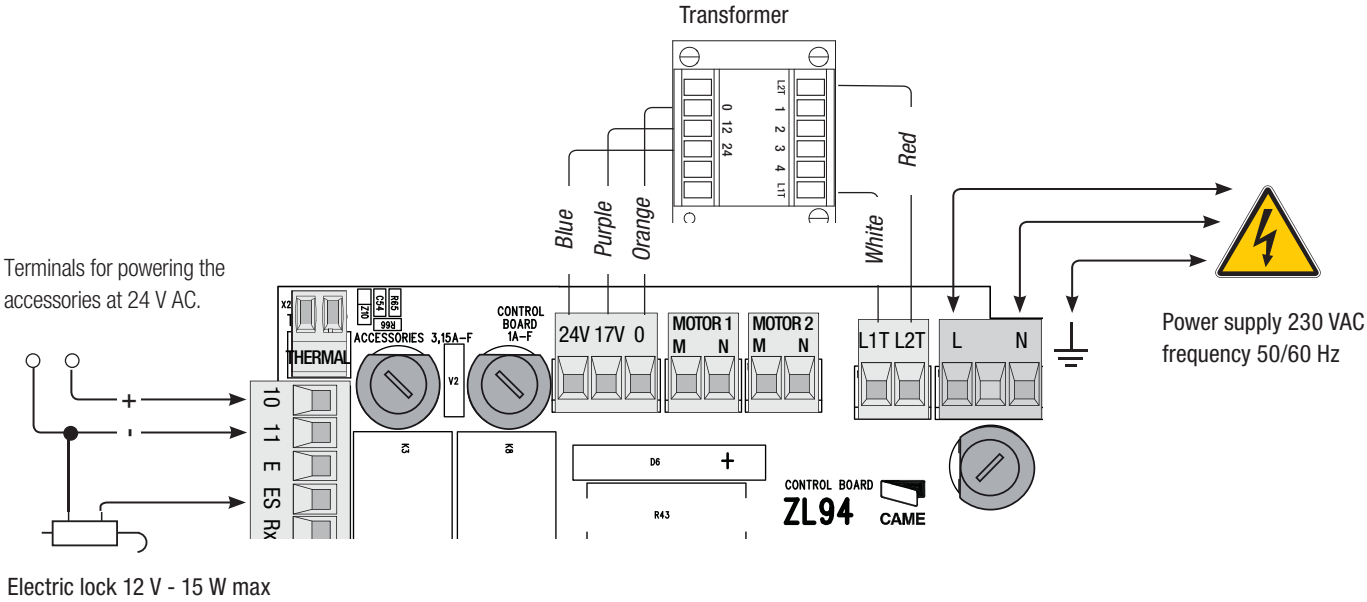








Power supply

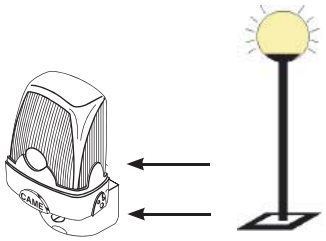


Electric lock 12 V - 15 W max

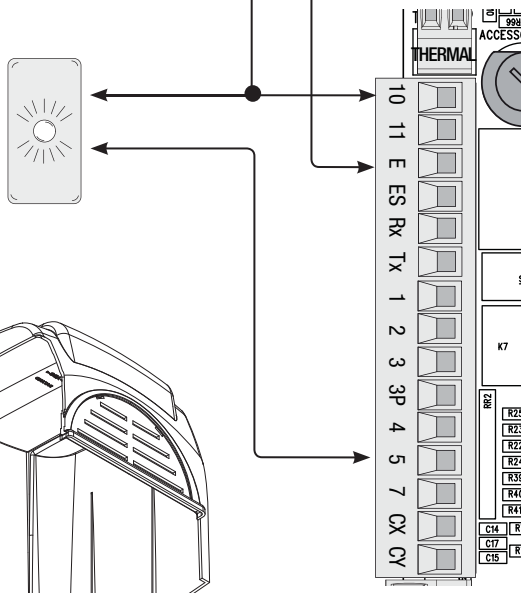
Warning devices

Cycle lamp (contact capacity: 24 V - 25 W max.). Lights the area of operation. It remains on from the start of leaf opening to complete closing (including the automatic closing time).

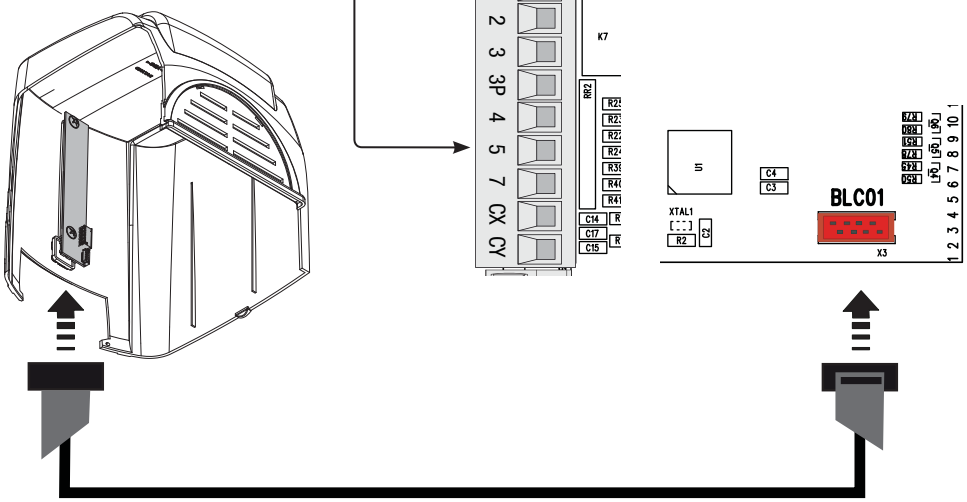
Flashing light (contact capacity: 24 V - 25 W max.). Flashes during gate opening and closing.



Gate open indicator light (contact capacity: 24 V - 3 W max.). Indicates the status of the gate, see F 10 function.



FA001 - LED control board. Indicates the stages of movement of the gate and anomalies.



Control devices

Stop button (NC contact) Stops the gate with the exclusion of automatic closing. To resume movement, press the control button or other control device.

N.B. if not in use, select 0 (Disabled) from the F 1 function.

OPEN ONLY function from the control device (NO contact)

PARTIAL OPENING/PEDESTRIAN function from the control device (NO contact)

CLOSE ONLY function from the control device (NO contact)

OPEN-STOP-CLOSE-STOP (sequential) function / OPEN-CLOSE-REVERSE (step-by-step) from the control device (NO contact)
See F7 function

Contact (NO) for transponder or card reader with R700 card).

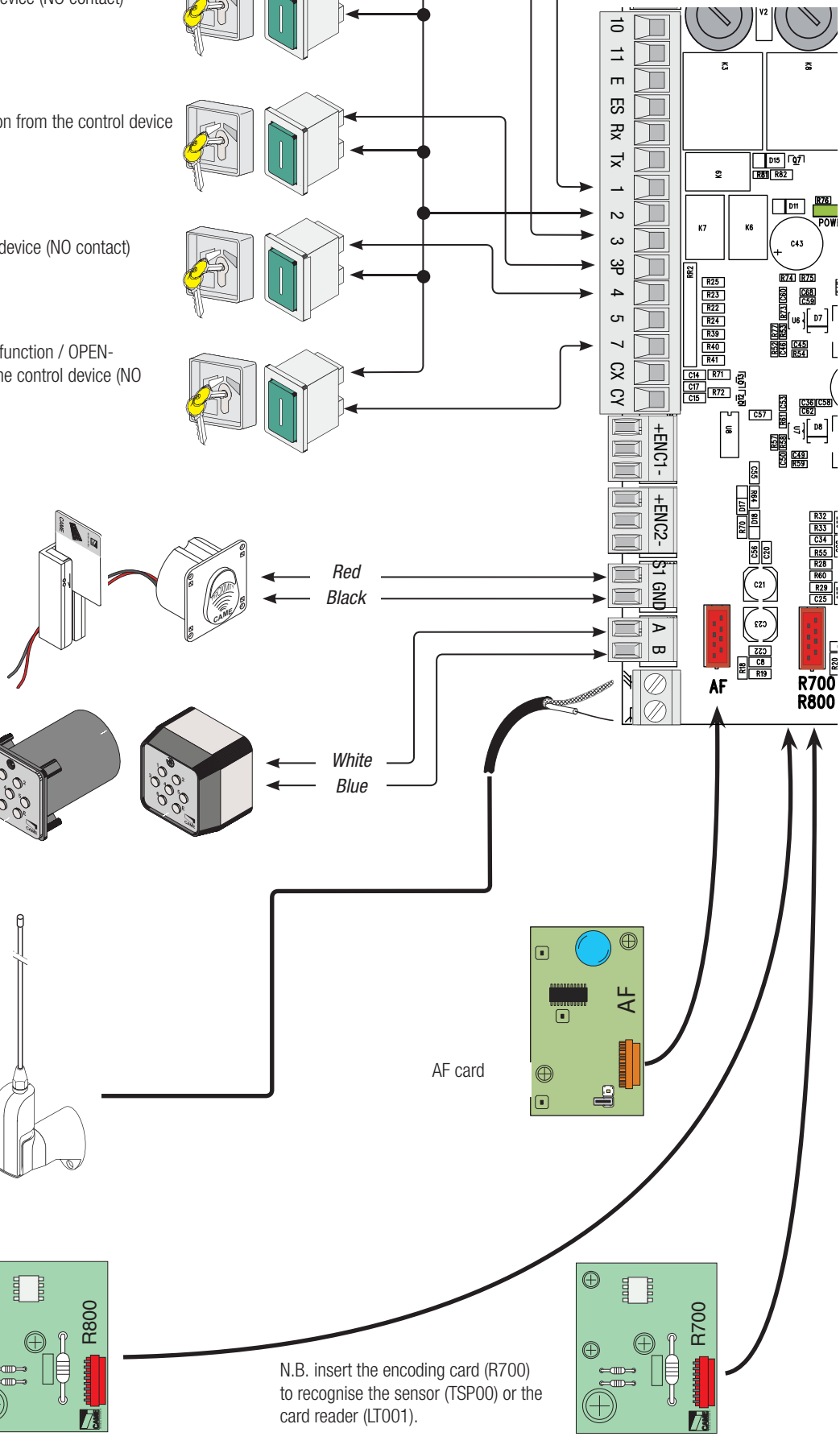
Contact (NO) for keypad with R800 card).

Antenna with RG58 cable.

AF card

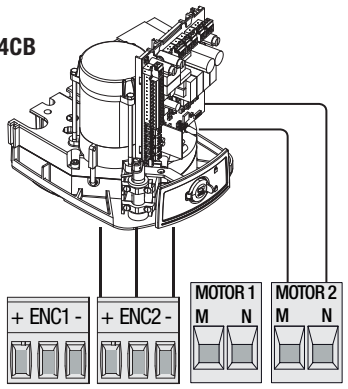
N.B. insert the encoding card (R800) to recognise the keypad (S6000/S7000).

N.B. insert the encoding card (R700) to recognise the sensor (TSP00) or the card reader (LT001).

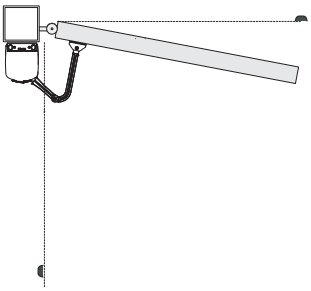


Connecting the gearmotor with encoder

FA4024CB

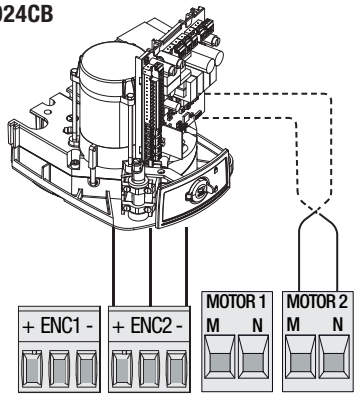


Electrical connections:
operator installed on the left (internal view).
(Default configuration)

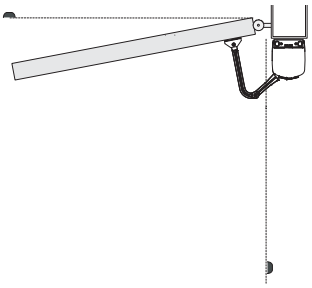


Encoder wire colour:
\+ = White
ENC = Brown
\- = Green

FA4024CB



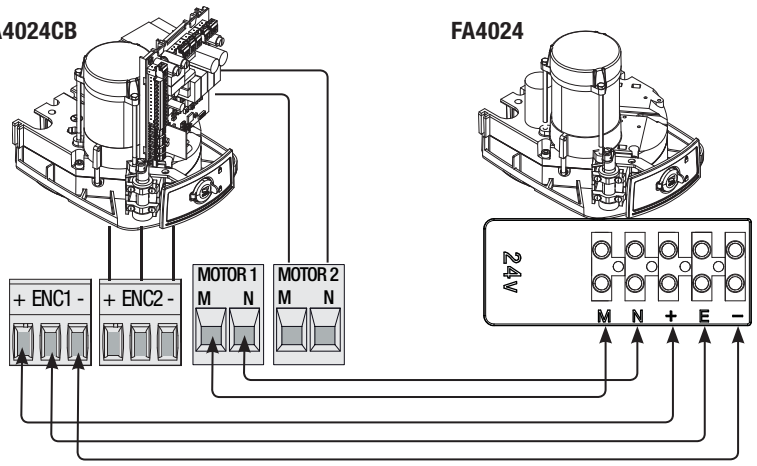
Electrical connections:
operator installed on the right (internal view).



Connection between the gearmotor with encoder and the second gearmotor

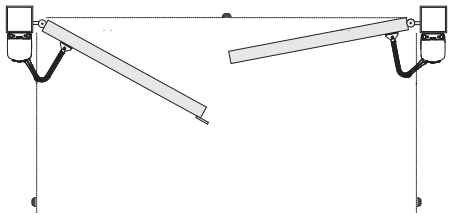
FA4024CB

FA4024



Electrical connections:
operator installed on the left and gearmotor installed on the right (internal view) with operator with delayed closing.
(Default configuration)

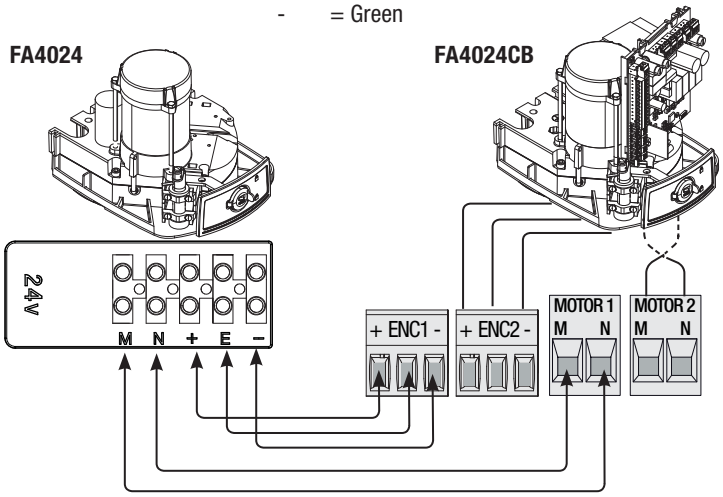
FA4024CB **FA4024**



Encoder wire colour:
\+ = White
ENC = Brown
\- = Green

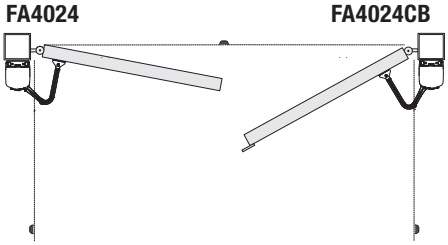
FA4024

FA4024CB



Electrical connections:
gearmotor installed on the left and operator installed on the right (internal view) with operator with delayed closing.

FA4024 **FA4024CB**



Safety devices

Photocells

Configure the CX or CY (NC) contact, input for safety devices such as photocells, compliant with the EN 12978 standard.
See CX (F2 function) or CY (F3 function) input functions in:

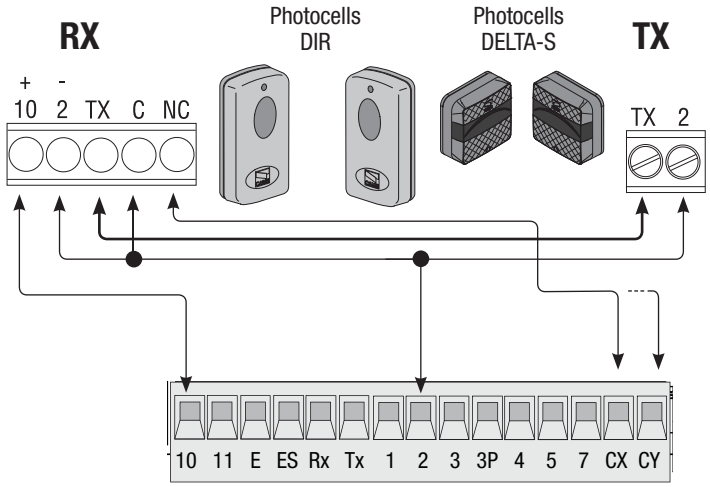
- C1 reopening during closing. While the leaves are closing, the opening of the contact causes the reversal of the direction of movement until completely open;

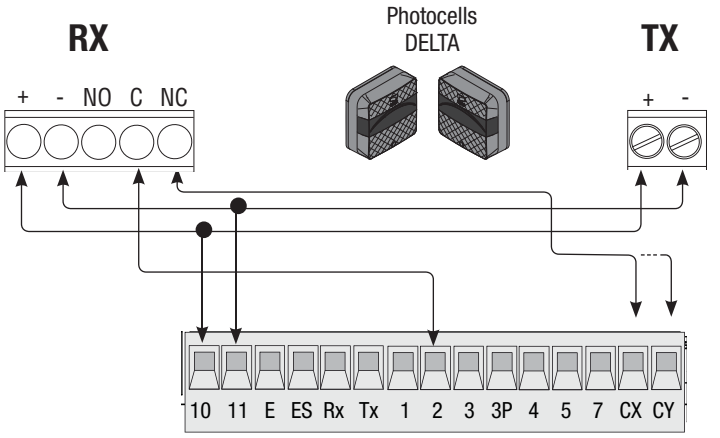
- C2 reclosing during opening. While the leaves are opening, the opening of the contact causes the reversal of the direction of movement until completely closed;

- C3 partial stop. The leaves stop, if moving, with consequent preparation for automatic closing (if the automatic closing function has been enabled);

- C4 waiting for obstacle. The leaves stop, if in movement, with consequent resumption of movement after the obstacle has been removed.

N.B. if the CX and CY contacts are not used, they must be disabled in programming.





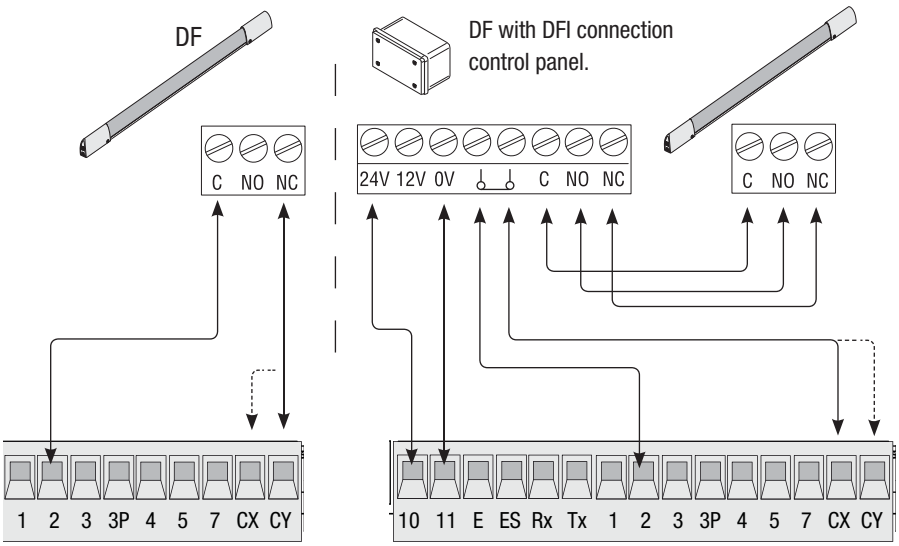
Sensitive edges

Configure the CX or CY (NC) contact, input for safety devices such as sensitive edges, compliant with the EN 12978 standard. See CX (F2 function) or CY (F3 function) input functions in:

- C7 reopening during closing. While the gate is closing, the opening of the contact causes the reversal of the direction of movement until completely open;

- C8 reclosing during opening. While the gate is opening, the opening of the contact causes the reversal of the direction of movement until completely closed.

N.B. if the CX and CY contacts are not used, they must be disabled in programming.

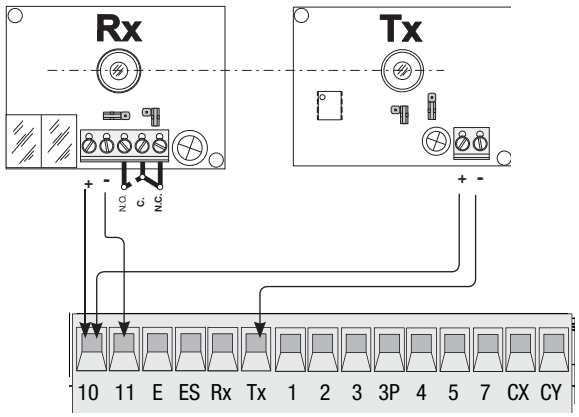


Photocell safety connection

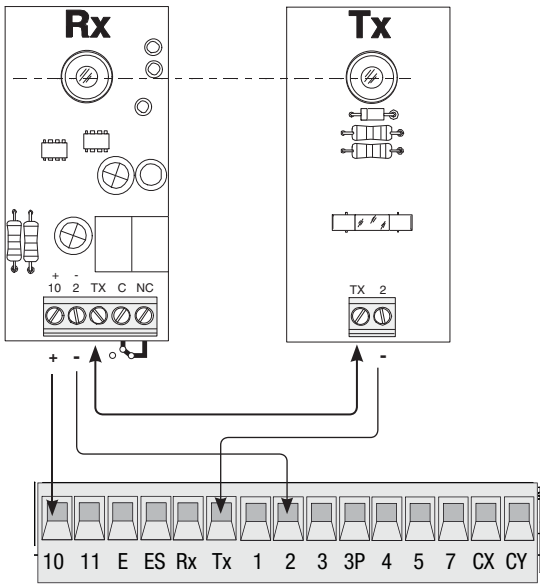
With each opening or closing command, the panel checks that the photocells work. Any anomaly inhibits any command.

Use the F 5 function to select on which inputs to activate the link.

DELTA



DIR / DELTA S

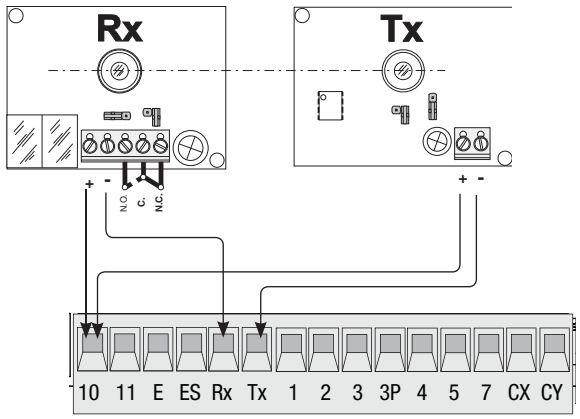


Sleep Mode

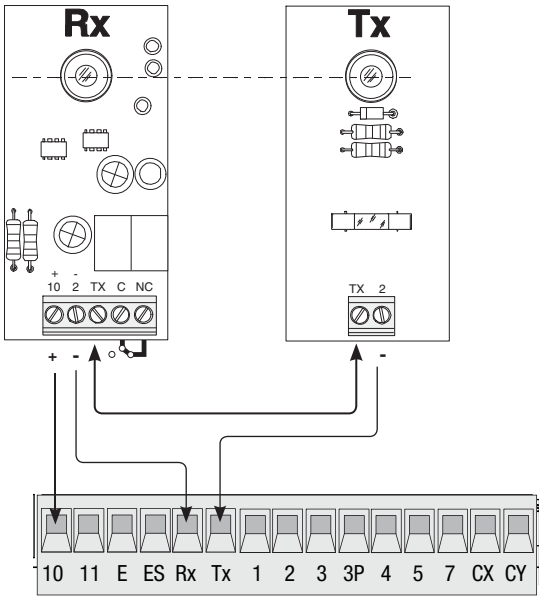
The Sleep Mode function enables a reduction in photocell power in standby.

Select 1 using function F 60.

DELTA

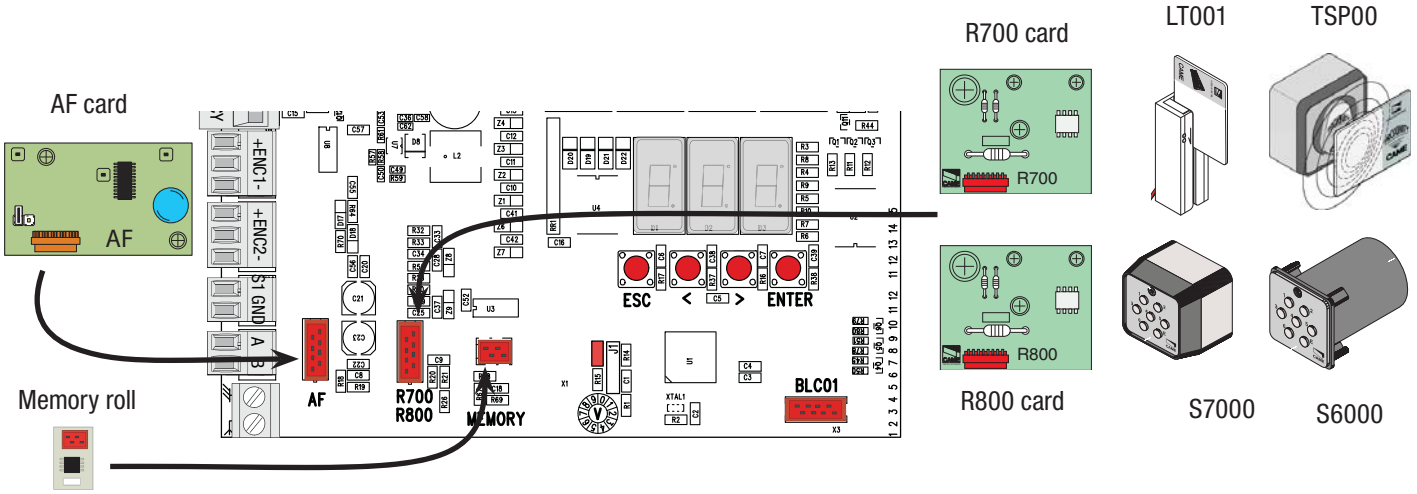


DIR / DELTA S

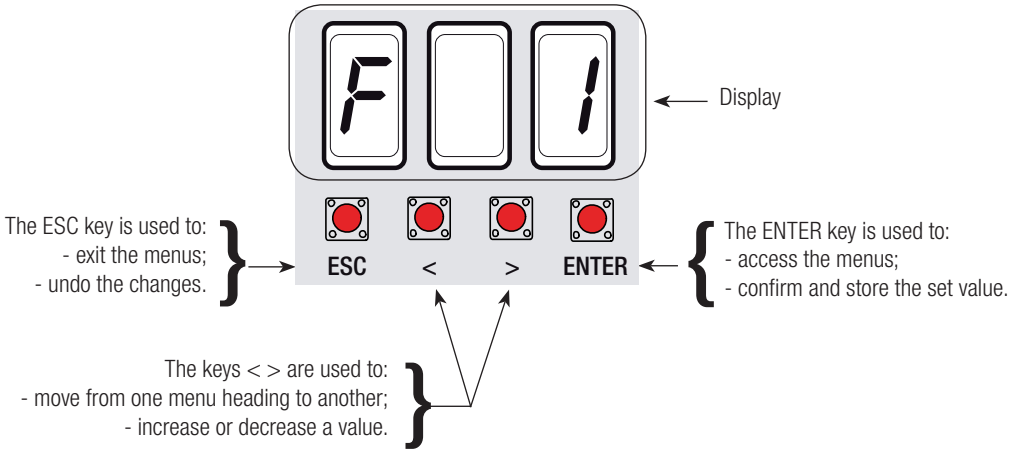


Memorising data

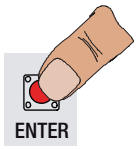
To enter, modify, and remove users or control the operator via radio, insert the AF card.
If using the transponder or the card reader, insert the R700 card. If using the keypad, on the other hand, insert the R800 card.
The memory roll is used to memorise user data and system configuration, which can then be used in another control board.



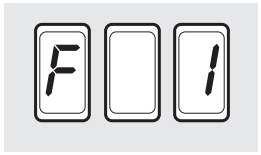
Description of programming commands

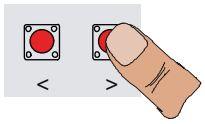


Menu navigation

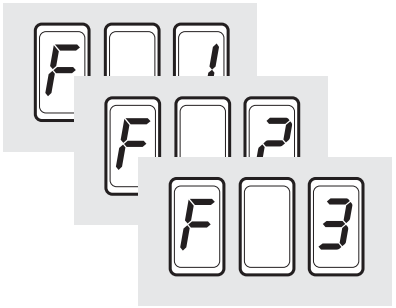


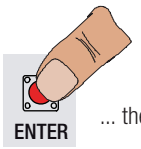
To access the menu, hold down the ENTER button for at least one second.



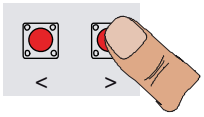


To choose the menu heading, move using the arrows...

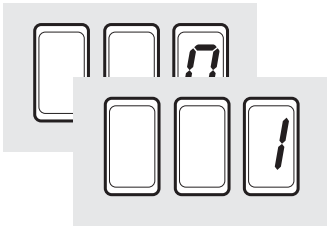


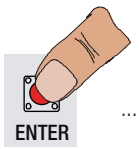


... then press ENTER

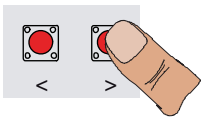


navigate the “sub-menus” using the arrows as well...

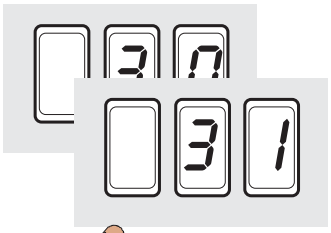


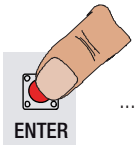


... then press ENTER

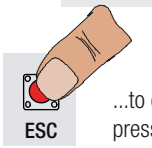


To increase or decrease the value, use the arrows...





... then press ENTER to confirm...



...to exit the menu, wait 10 seconds or press ESC.

☞ N.B. when the menu is active, the system cannot be used.

Menu mapping

F1	Total stop function (1-2)
F2	Function associated with the 2-CX input
F3	Function associated with the 2-CY input
F5	Safety test function
F6	Hold-to-run function
F7	Command mode on 2-7
F8	Command mode on 2-3p
F9	Obstacle detection with motor at standstill function
F10	Indicator lamp function
F11	Encoder disabled
F14	Sensor type selection function
F16	Water hammer function
F18	Additional lamp function
F19	Automatic closing time
F20	Automatic closing time after partial opening
F21	Pre-flashing time
F22	Working time
F23	Delayed opening time
F24	Delayed closing time
F28	Motor speed adjustment
F30	Motor slowdown speed adjustment
F34	Sensitivity during movement
F35	Sensitivity during slowdown
F36	Partial opening adjustment
F37	Initial slowdown point adjustment during motor opening
F38	Initial slowdown point adjustment during motor closing
F39	Initial approach point adjustment during motor opening
F40	Initial approach point adjustment during motor closing
F46	Setting number of motors
F50	Saving data in the memory roll
F51	Reading data from the memory roll
F59	Enabling CAME logo function
F60	Sleep Mode function
U1	Adding a new user with associated command
U2	Deleting a single user
U3	Deleting all users
A2	Motor test
A3	Run calibration
A4	Reset parameters
H1	Software version

Motor test and calibration menu

Important! Start programming, performing these operations first:
1 Motor test;
2 Run calibration.

A2	**Motor test**	0 = Disabled / 1 = Enabled
Check the operation of the gearmotor and the correct direction of rotation(see motor test paragraph)		
A3	**Run calibration**	0 = Disabled / 1 = Enabled
Automatic gate run calibration (see run calibration paragraph).		
A4	**Reset parameters**	0 = Disabled / 1 = Enabled
Caution! If necessary, you can restore the default parameters with the following function: Default settings reset operation and run calibration deletion.		

F1	**Total stop [1-2]**0 = Disabled (default) / 1 = Enabled
NC input - The gate is stopped and any automatic closing is disabled. To resume movement, use the control device. The safety device must be inserted on [1-2].	
F2	**Input [2-CX]**0 = Disabled (default) / 1 = C1 / 2 = C2 / 3 = C3 / 4 = C4 / 7 = C7 / 8 = C8
NC input - Possibility of associating: C1 = reopening during closing for photocells, C2 = reclosing during opening for photocells, C3 = partial stop, C4 = waiting for obstacle, C7 = reopening during closing for sensitive edges, C8 = reclosing during opening for sensitive edges.	
F3	**Input [2-CY]**0 = Disabled (default) / 1 = C1 / 2 = C2 / 3 = C3 / 4 = C4 / 7 = C7 / 8 = C8
NC input - Possibility of associating: C1 = reopening during closing for photocells, C2 = reclosing during opening for photocells, C3 = partial stop, C4 = waiting for obstacle, C7 = reopening during closing for sensitive edges, C8 = reclosing during opening for sensitive edges.	
F5	**Safety test**0 = Disabled (default) / 1 = CX / 2 = CY / 3 = CX+CY
After each opening or closing command, the panel checks that the photocells work correctly.	
F6	**Hold-to-run**0 = Disabled (default) / 1 = Enabled
The gate opens and closes when a button is pressed. Button to open the contact [2-3] and button to close the contact [2-4]. All other control devices, also radio, are disabled.	
F7	**Command [2-7]**0 = step-by-step (default) / 1 = sequential
Step-by-step = open-close, sequential = open-stop-close-stop.	
F8	**Command [2-3P]**0 = pedestrian opening (default) / 1 = partial opening
Pedestrian opening (complete opening of the second leaf) or partial opening (partial opening of the second leaf: the degree of opening depends on the percentage of run adjustment set with F36).	
F9	**Obstacle detection with the motor at a standstill**0 = Disabled (default) / 1 = Enabled
With the gate closed, open or after a total stop, the gearmotor remains at a standstill if the safety devices (photocells or sensitive edges) detect an obstacle.	
F10	**Indicator light** 0 = on when the gate is open and moving (default) / 1 = flashes intermittently every half second during opening flashes intermittently every second during closing on steady when the gate is open off when the gate is closed
Indicates the status of the gate. The bulb is inserted on the 10-5 contact.	
F11	**Encoder disabling**0 = encoder enabled (default) / 1 = encoder disabled
Excludes management of slowdowns, obstacle detection and sensitivity.	
F14	**Sensor type selection**0 = command with transponder sensor or magnetic card reader 1 = command with keypad (default)
Setting the type of sensor for controlling the operator.	
F16	**Water hammer**0 = Disabled (default) / 1 = Enabled
Before each opening and closing manoeuvre, the leaves push to the end of their run to facilitate the release of the electric lock. The thrust time is set using F26.	
F18	**Additional lamp** 0 = Flashing light (default) / 1 = Cycle
Exit on the contact [10-E]. The flashing light works during opening and closing. The cycle lamp remains on from the start of opening to complete closing, including the wait time before automatic closing.	
F19	**Automatic closing time**0 = Disabled (default) / 1 = 1 s / 2 = 2 s / … / 180 = 180 s
The wait before automatic closing starts from reaching the end run point for a time that can be set between 1 and 180 seconds. Automatic closing is not activated in the event that the safety devices intervene after detecting an obstacle, after a total stop or in the event of a power failure.	
F20	**Automatic closing time after partial opening**5 = 5 s (default) / 1 = 1 s / 2 = 2 s / … / 180 = 180 s
The wait before automatic closing starts from a partial opening or pedestrian command for a time that can be set between 1 and 180 seconds. Automatic closing is not activated in the event that the safety devices intervene after detecting an obstacle, after a total stop or in the event of a power failure. **F19 does not have to be disabled.**	
F21	**Pre-flashing time**0 = Disabled (default) / 1 = 1 s / 2 = 2 s / … / 5 = 5 s
When an opening or closing command is sent, the flashing light on [10-E] flashes before starting the manoeuvre. The flashing time can be set between 1 s and 5 s.	
F22	**Working time** 5 = 5 s / 6 = 6 s / … / 120 = 120 s (default)
Gearmotor operating time, during opening and closing. This can be set between 5 and 120 seconds.	

F23	**Opening delayed time**0 = Disabled (default) / 1 = 1 s / 2 = 2 s / … / 10 = 10 s
After an opening command, the M1 gearmotor starts with a delay. The delay time can be set between 1 s and 10 s.	
F24	**Closing delay time**0 = Disabled (default) / 1 = 1 s / 2 = 2 s / … / 25 = 25 s
After a closing command or after automatic closing, the M2 gearmotor starts with a delay. The delay time can be set between 1 s and 25 s.	
F28	**Manoeuvre speed**40 = Minimum speed (default) /… / 100 = Maximum speed
Setting the gearmotor speed during the manoeuvres.	
F30	**Slowdown speed 20 = Minimum speed (default) /... / 50 = Speed (default) /... / 60 = Maximum speed**
Setting the gearmotor speed during slowdown.	
F33	**Calibration speed**30 = Minimum speed / … / 50 = Speed (default) / … / 60 = Maximum speed
Setting the speed of the run during calibration.	
F34	**Run sensitivity** 10 = maximum sensitivity / … / 100 = minimum sensitivity (default)
Adjusting the sensitivity of obstacle detection during the run.	
F35	**Slowdown sensitivity** 10 = maximum sensitivity / … / 100 = minimum sensitivity (default)
Adjusting the sensitivity of obstacle detection during slowdown.	
F36	**Partial opening adjustment** 10 = 10% of the run (default) / … / 80 = 80% of the run
Adjustment in percentage of the total run, from leaf opening of the M2 gearmotor.	
F37	**Opening slowdown point** 10 = 10% of the run / … / 25 = 25% of the run (default) / … / 60 = 60% of the run
Adjustment in percentage of the total run, from the starting point of slowdown during opening.	
F38	**Closing slowdown point** 10 = 10% of the run / … / 25 = 25% of the run (default) / … / 60 = 60% of the run
Adjustment in percentage of the total run, from the starting point of slowdown during closing.	
F39	**Opening approach point**1 = 1% of the run / … / 5 = 5% of the run (default) / … / 10 = 10% of the run
Adjustment in percentage of the total run, from the starting point of approach during opening.	
F40	**Closing approach point**1 = 1% of the run / … / 5 = 5% of the run (default) / … / 10 = 10% of the run
Adjustment in percentage of the total run, from the starting point of approach during closing.	
F46	**Number of motors**0 = M1 and M2 / 1 = M1 (default)
Setting the number of gearmotors connected to the control panel.	
F50	**Data saving**0 = Disabled (default) / 1 = Activated
Saving the users and memorised settings in the memory roll. N.B. this function appears only if a memory roll has been inserted in the control board.	
F51	**Data reading**0 = Disabled (default) / 1 = Enabled
Loading the data saved into the memory roll. N.B. this function appears only if a memory roll has been inserted in the control board.	
F59	**Enabling CAME logo**0 = Disabled / 1 = Enabled (default) / 10 = 10 s / … / 180 = 180 s
The CAME can remain always on (default), always off, or can come on after the gate has closed for a time that can be set between 10 s and 180 s.	
F60	**Sleep Mode**0 = Disabled (default) / 1 = Enabled
Enables a reduction in photocell energy consumption in standby.	

User menu

U1	**Adding a user**1 = Step-by-step command (open-close) / 2 = Sequential command (open-stop-close-stop) / 3 = Open only command / 4 = Pedestrian/partial command / 5 = B1-B2 contact output
Entry of up to 25 users and association of each with a function chosen from those available. Entry must be done with the transmitter or other command device (see user paragraph with associated command).	
U2	**Deleting a user**
Deleting a single user.	
U3	**Deleting a user**0 = Disabled / 1 = Deleting all users
Deleting all users.	

Info menu

H 1	Version
Shows the software version.	

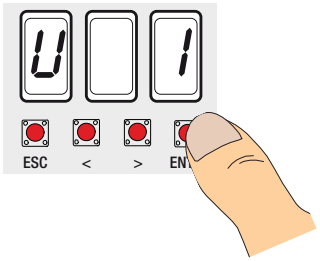
Adding a user with associated command

N.B. when adding/deleting users, the numbers displayed flashing are numbers that are available and can be used for users to be added (max. 25 users).

Caution! Before adding users, remove the memory roll board if present.

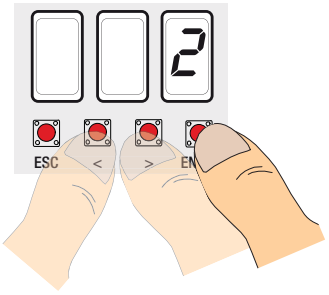
User	Associated command
1 - Mario Rossi	open-close
2 - Paolo Verdi	open
3 -	
4 -	
5 -	
6 -	
7 -	
8 -	
9 -	
10 -	
11 -	
12 -	
13 -	
14 -	
15 -	
16 -	
17 -	
18 -	
19 -	
20 -	
21 -	
22 -	
23 -	
24 -	
25 -	

Select U 1.
Press ENTER to confirm.

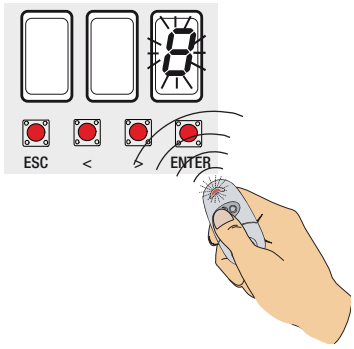


Select a command to associate with the user.
The commands are:
- step-by-step (open-close) = 1;
- sequential (open-stop-close-stop) = 2;
- open =3;
- partial/pedestrian opening = 4.

Press ENTER to confirm...

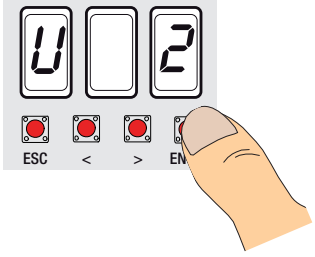


... a number from 1 to 25 flashes for a few seconds.
Send the code from the transmitter or other command device (e.g. keypad selector).
Assign the number to the user entered.

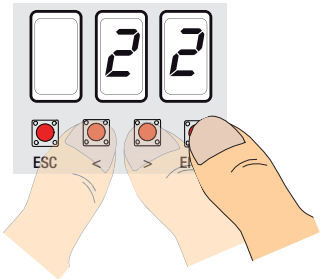


Deleting a single user

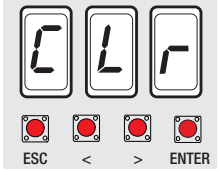
Select U 2.
Press ENTER to confirm.



Choose the number of the user to delete using the keys marked with arrows.
Press ENTER to confirm...

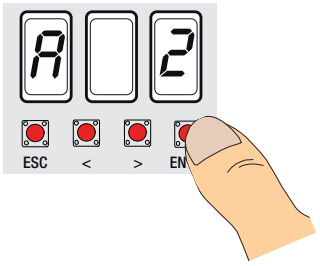


... CLr appears to confirm the deletion.

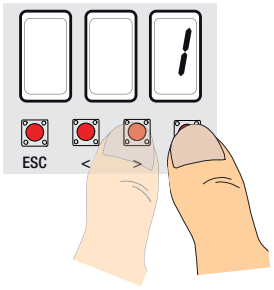


Motor test

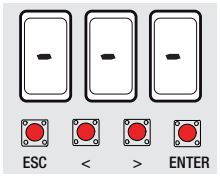
Select A 2.
Press ENTER to confirm.



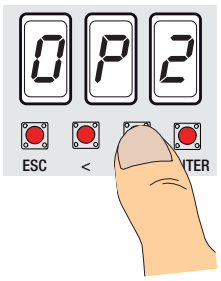
Select 1 to activate the test.
Press ENTER to confirm...

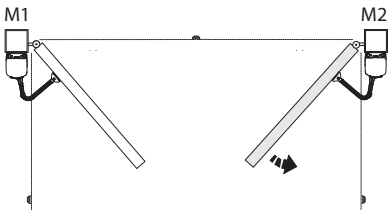


..."---" appears while waiting for the command.

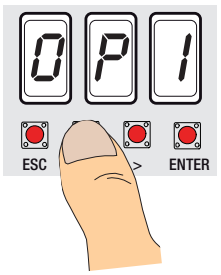


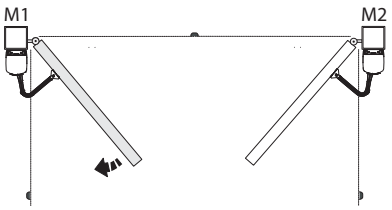
Hold down the key marked with the arrow > and check that the second gearmotor leaf (M2) performs an opening manoeuvre.
N.B. if the leaf performs a closing manoeuvre, reverse the motor phases.





Perform the same procedure with the key marked with the arrow< to check the leaf on the first gearmotor (M1).
N.B. if the leaf performs a closing manoeuvre, reverse the motor phases.

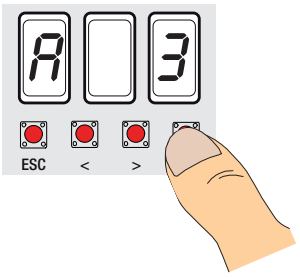




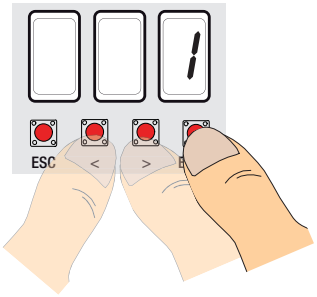
Run calibration

N.B. before calibrating the run, check that the manoeuvre area is free from any obstacle and check for the presence of one mechanical end stop for opening and one for closing.
Important! During calibration, all safety devices will be disabled except for the TOTAL STOP device.

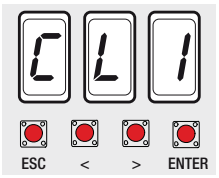
Select A 3.
Press ENTER to confirm.

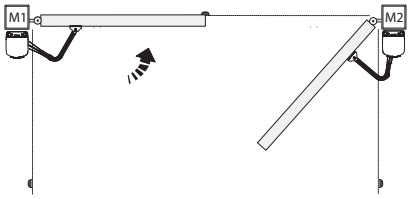


Select 1 and press ENTER to confirm the automation run calibration operation.

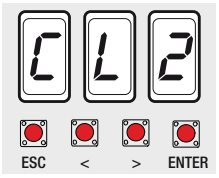


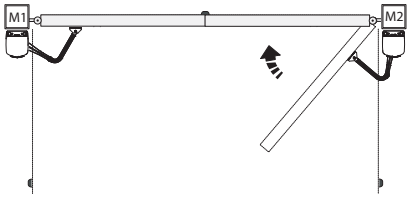
The leaf of the first gearmotor will perform a closing manoeuvre to the end run...



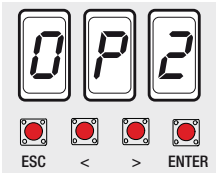


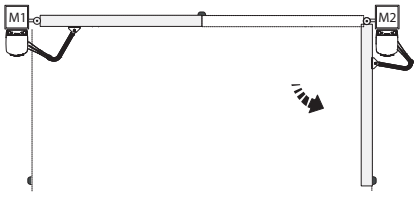
...the leaf of the second gearmotor will then perform the manoeuvre...



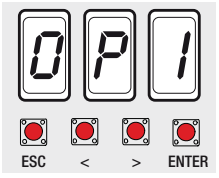


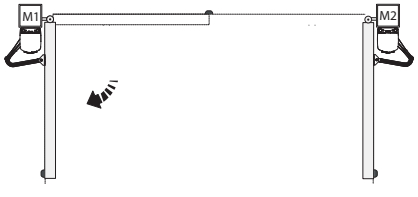
...the leaf of the second gearmotor will then perform an opening manoeuvre to the end run...





...the leaf of the first gearmotor will then perform the same manoeuvre.



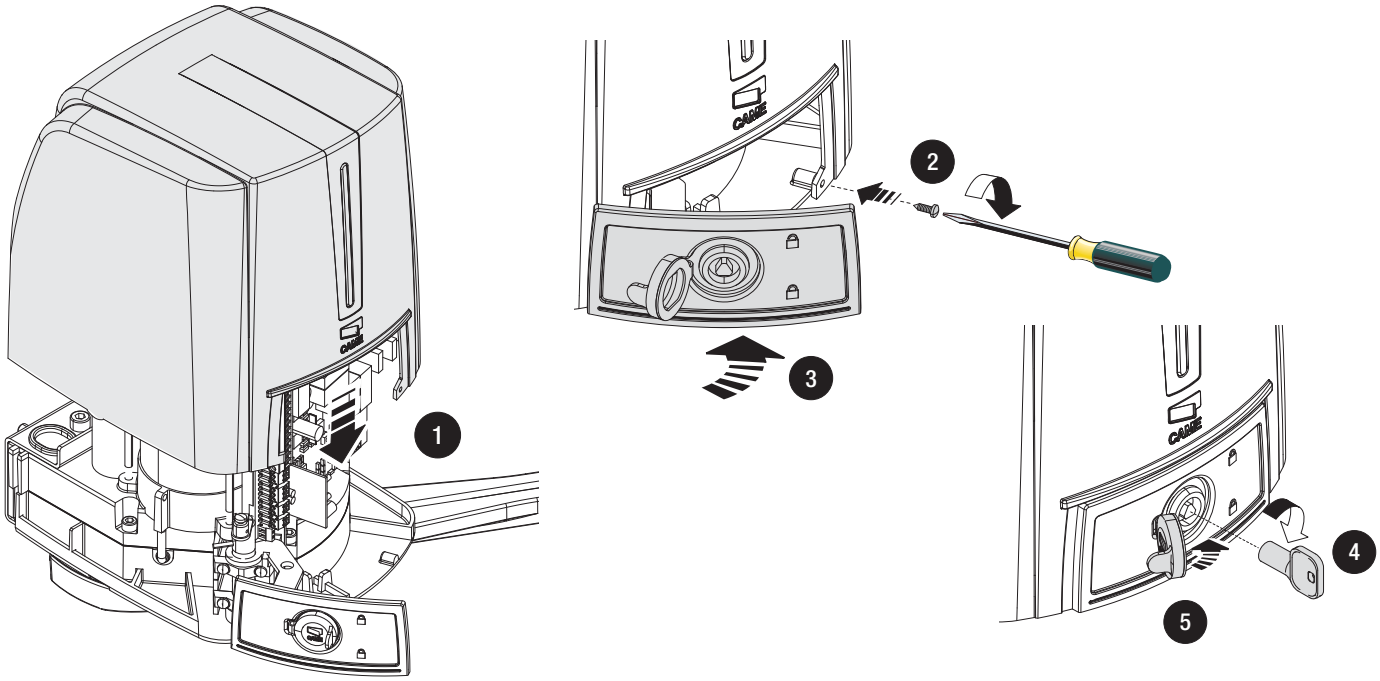


FINAL OPERATIONS

Securing the cover

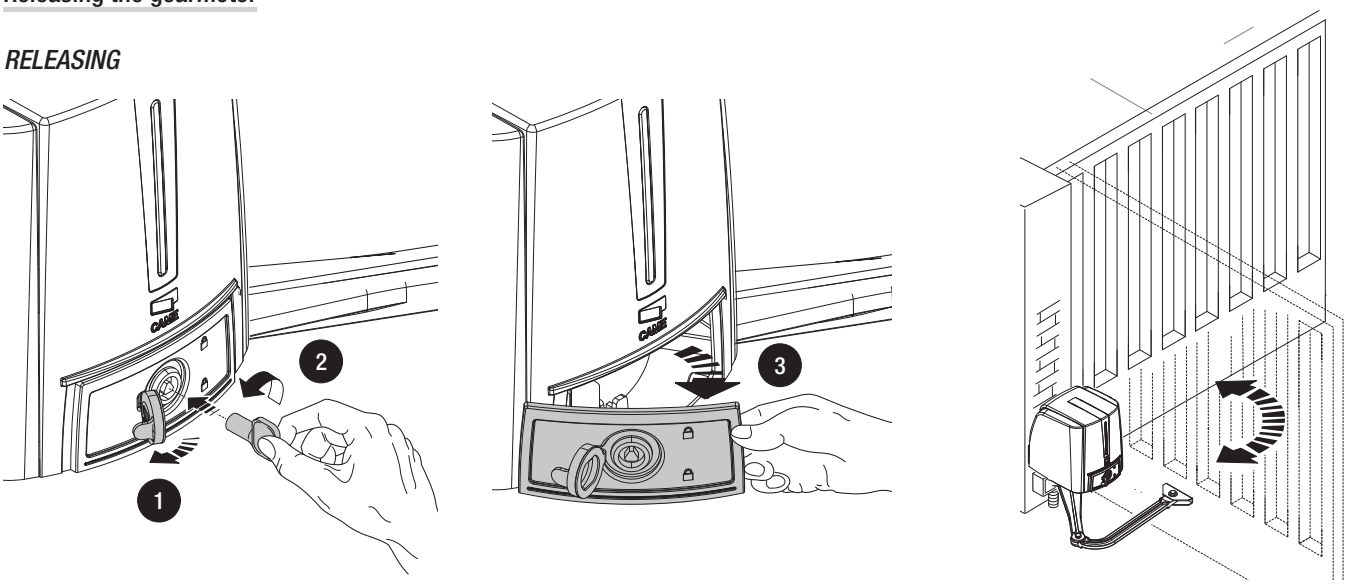
After making the electrical connections and completing programming, insert the cover on the gearmotor and secure it ❶❷.
Close the hatch ❸, lock the gearmotor with the key and insert the protective cap ❹❺.

N.B. when inserting the cover, pay attention to the cable connecting the FA001 card to the control board.

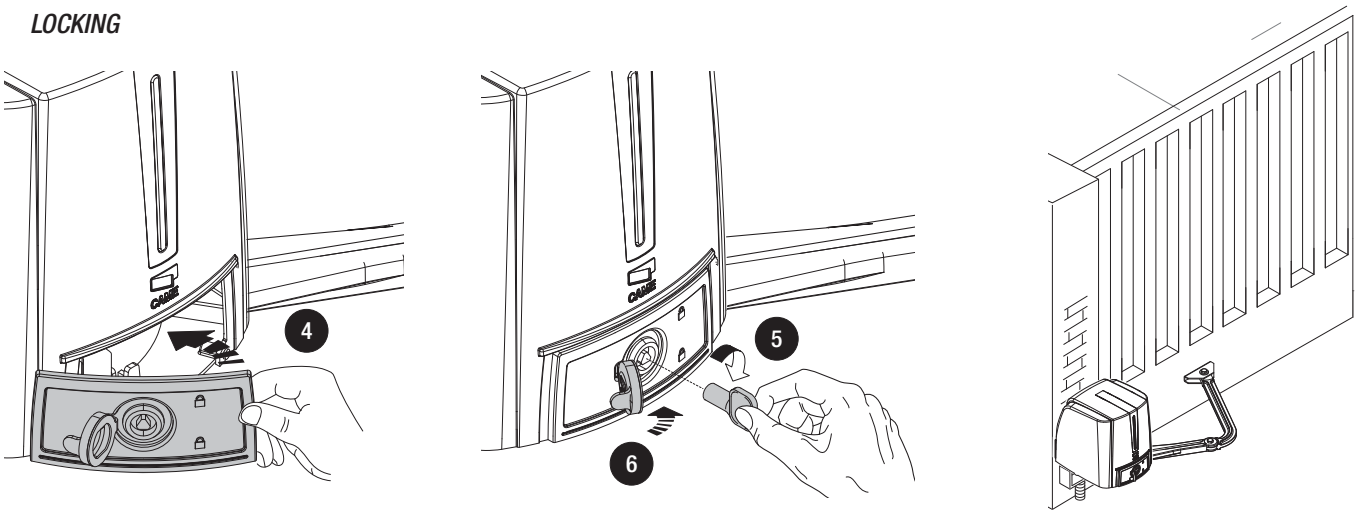


Releasing the gearmotor

RELEASING



LOCKING



Periodic maintenance

☞ Before any maintenance, disconnect power to prevent any possible dangerous situations that can be caused by accidental movement of the device.

Periodic maintenance log to be completed by the user (every six months)

Date	Notes	Signature

Extraordinary maintenance

⚠The table below is used to note any extraordinary maintenance, repairs or improvements carried out by specialist companies.
N.B.: Extraordinary maintenance must be carried out by specialist technicians.

Extraordinary maintenance log

Installation technician stamp	Operator name
	Date of intervention
	Technician signature
	Customer signature
Intervention carried out ____	

Installation technician stamp	Operator name
	Date of intervention
	Technician signature
	Customer signature
Intervention carried out ____	

Installation technician stamp	Operator name
	Date of intervention
	Technician signature
	Customer signature
Intervention carried out ____	

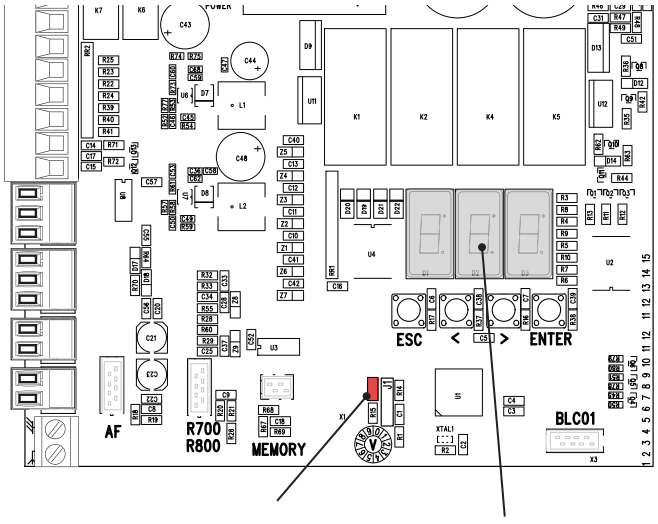
Installation technician stamp	Operator name
	Date of intervention
	Technician signature
	Customer signature
Intervention carried out ____	

Installation technician stamp	Operator name
	Date of intervention
	Technician signature
	Customer signature
Intervention carried out ____	

Installation technician stamp	Operator name
	Date of intervention
	Technician signature
	Customer signature
Intervention carried out ____	

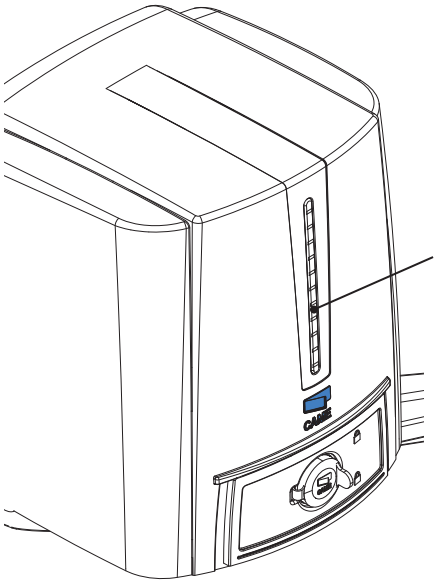
ERROR MESSAGES AND WARNINGS

- Er1: motor calibration interrupted; check correct motor connection and operation of the M1 gearmotor.
- Er2: motor calibration interrupted; check correct motor connection and operation of the M2 gearmotor.
- Er3: encoder broken; contact service.
- Er4: service test error; check the correct connection and operation of the safety devices.
- Er5: insufficient work time; check the set time. This may be insufficient to complete the working cycle.
- Er6: maximum number of obstacles detected.
- Er7: overheating of the transformer. At the first opening command, the operator will perform an opening manoeuvre and the leaf will remain open until the next reset.
- C0: contact 1-2 (stop) check connection of the connected device or associated function.
- C1, C2, C3, C4, C7 e C8: contacts CX and/or CY check connection of the connected device or associated function.
- LED flashing red programming indicator: control board not yet calibrated for the run.
- When LEDs 1 and 2 on the control board (FA001) flash red, this indicates encoder malfunctioning. Contact service.
- When LEDs 1, 2, 3 and 4 on the control board (FA001) flash red, this indicates that the normally closed (NC) contacts (e.g. photocells, stop button) are open.



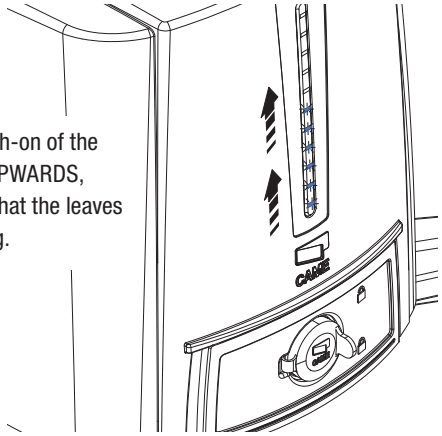
Programming indicator LED

Display

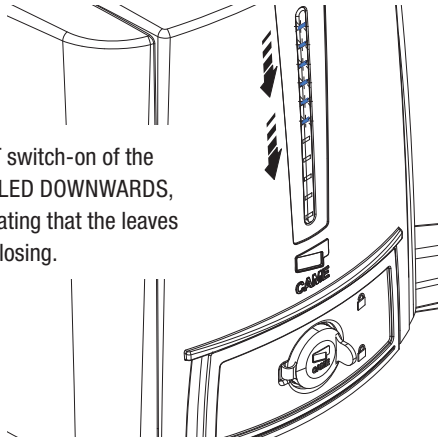


LED control board (FA001)

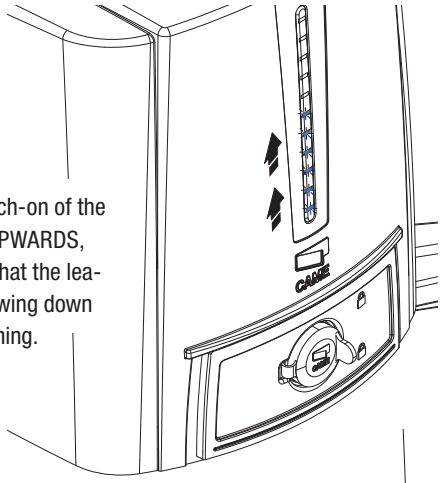
LED CONTROL BOARD (FA001) INDICATIONS



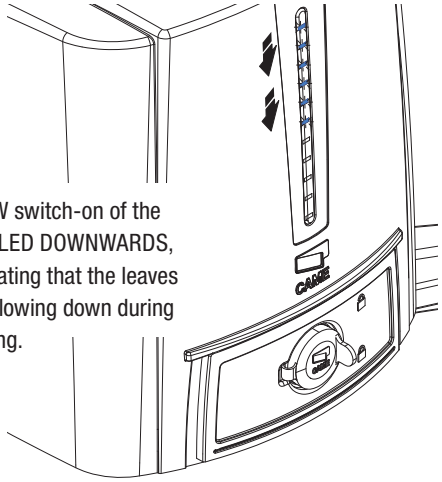
FAST switch-on of the blue LED UPWARDS, indicating that the leaves are opening.



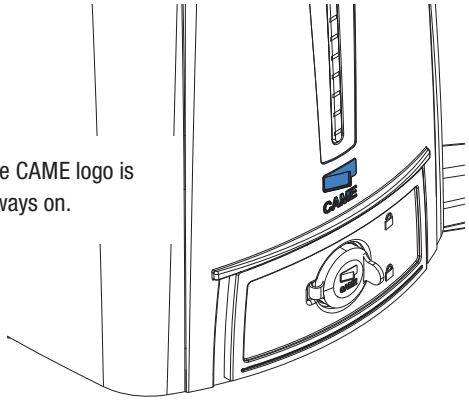
FAST switch-on of the blue LED DOWNWARDS, indicating that the leaves are closing.



SLOW switch-on of the blue LED UPWARDS, indicating that the leaves are slowing down during opening.



SLOW switch-on of the blue LED DOWNWARDS, indicating that the leaves are slowing down during closing.



The CAME logo is always on.

DISMANTLING AND DISPOSAL

☞CAME CANCELLI AUTOMATICI S.p.A. implements an EN ISO 14001-certified and compliant Environmental Management System at its plants, to ensure environmental protection.
Please continue our efforts to protect the environment, something that CAME considers to be one of the foundations in developing its business and market strategies, simply by observing brief recommendations as regards disposal:

♻ DISPOSAL OF PACKAGING

Packaging components (cardboard, plastic etc.) can be disposed of together with normal household waste without any difficulty, by simply separating the different types of waste and recycling them.
Before proceeding, it is always advisable to check specific regulations in force in the place of installation.
DISPOSE OF PROPERLY!

♻ DISPOSAL OF THE PRODUCT

Our products are made with different materials. Most of them (aluminium, plastic, iron, electrical cables) can be disposed of together with normal household waste. They can be recycled if collected, sorted and sent to authorised centres.
Other components (circuit boards, transmitter batteries etc.), on the other hand, may contain pollutants.
They should therefore be removed and handed over to companies authorised to recover and recycle them.
Before proceeding, it is always advisable to check specific regulations in force in the place of disposal.
DISPOSE OF PROPERLY!

DECLARATION OF CONFORMITY

Declaration CE - Came Cancelli Automatici S.p.A. declares that this device complies with the essential requirements and other relevant provisions established in Directives 2006/42/EC and 2004/108/EC.

Reference code for requesting a true copy: DDI B IT A001b

IT • Per ogni ulteriore informazione su azienda, prodotti e assistenza nella vostra lingua:

EN • For any further information on company, products and assistance in your language:

FR • Pour toute autre information sur la société, les produits et l'assistance dans votre langue :

DE • Weitere Infos über Unternehmen, Produkte und Kundendienst bei:

ES • Por cualquier información sobre la empresa, los productos y asistencia en su idioma:

NL • Voor meer informatie over het bedrijf, de producten en hulp in uw eigen taal:

PT • Para toda e qualquer informação acerca da empresa, de produtos e assistência técnica, em sua língua:

PL • Wszystkie inne informacje dotyczące firmy, produktów oraz usług i pomocy technicznej w Waszym języku znajdują się na stronie:

RU • Для получения дополнительной информации о компании, продукции и сервисной поддержке на вашем языке:

HU • A vállalatra, termékeire és a műszaki szervizre vonatkozó minden további információért az Ön nyelvén:

HR • Za sve dodatne informacije o poduzeću, proizvodima i tehničkoj podršci:

UK • Для отримання будь-якої іншої інформації про компанію, продукцію та технічну підтримку:

www. came.com

English *- Manual code:* ***119DW01EN*** *vers.* ***3*** *04/2013*

CAME

CAMEGROUP

CAME Cancelli Automatici S.p.a.
Via Martiri Della Libertà, 15
31030 **Dosson Di Casier** (Tv)
(+39) 0422 4940
(+39) 0422 4941
Assistenza Tecnica/Numero Verde 800 295830