CAME

FA01123-EN

Sliding gate operator
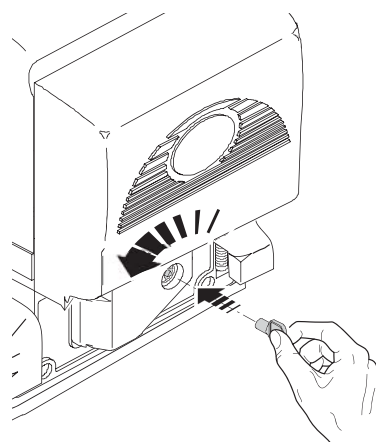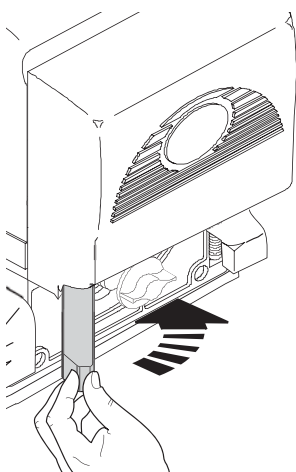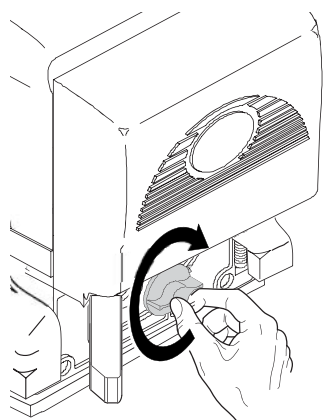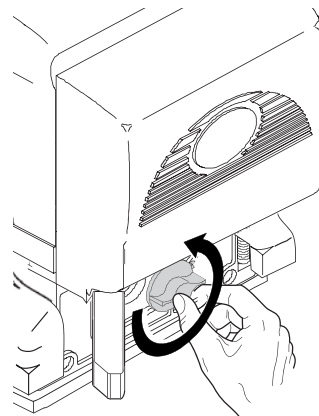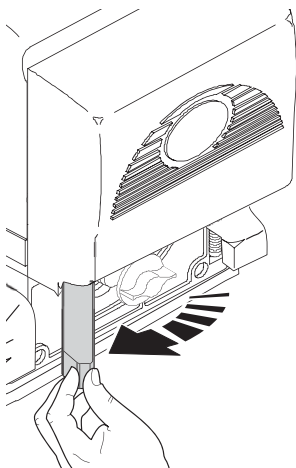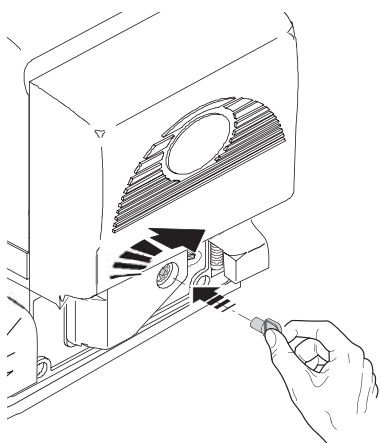# BX series

BX-74 / BX-78

INSTALLATION MANUAL

EN | English

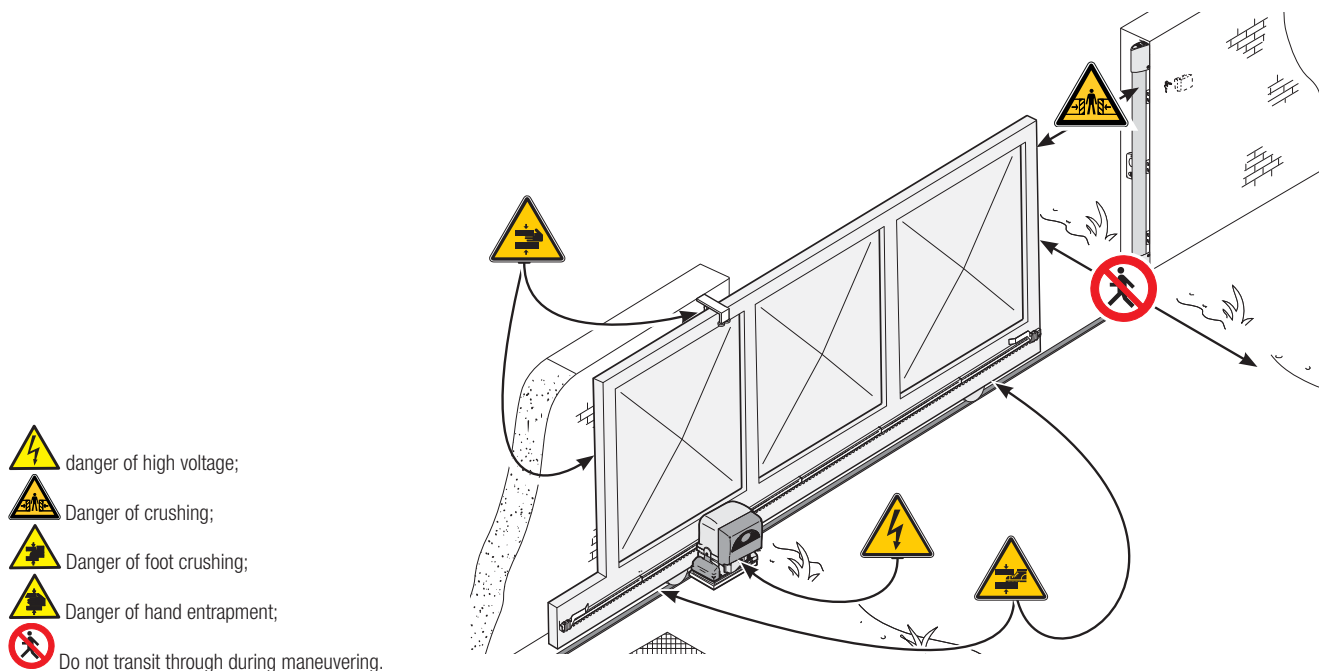## GENERAL PRECAUTIONS FOR INSTALLERS

⚠ *WARNING! Important safety instructions.*
Follow all of these instructions. Improper installation can cause serious bodily harm.
Before continuing, also read the general precautions for users.

THIS PRODUCT MUST ONLY BE USED FOR ITS SPECIFICALLY INTENDED PURPOSE. ANY OTHER USE MAY BE HAZARDOUS. CAMES S.P.A. IS NOT LIABLE FOR ANY DAMAGE CAUSED BY IMPROPER, WRONGFUL AND UNREASONABLE USE. • THIS MANUAL'S PRODUCT IS DEFINED BY MACHINERY DIRECTIVE 2006/42/CE AS "PARTLY-COMPLETED MACHINERY". PARTLY-COMPLETED MACHINERY IS A SET THAT ALMOST CONSTITUTES A MACHINE, BUT WHICH, ALONE, CANNOT ENSURE A CLEARLY DEFINED APPLICATION. PARTLY-COMPLETED MACHINERY IS ONLY DESTINED TO BE INCORPORATED OR ASSEMBLED TO OTHER MACHINERY OR OTHER PARTLY-COMPLETED MACHINERY OR APPARATUSES TO BUILD MACHINERY THAT IS REGULATED BY DIRECTIVE 2006/42/CE. THE FINAL INSTALLATION MUST COMPLY WITH EUROPEAN DIRECTIVE 2006/42/CE AND EUROPEAN REFERENCE STANDARDS: EN 13241-1, EN 12453, EN 12445 AND EN 12635 • GIVEN THESE CONSIDERATIONS, ALL PROCEDURES STATED IN THIS MANUAL MUST BE EXCLUSIVELY PERFORMED BY EXPERT, QUALIFIED STAFF • THE MANUFACTURER DECLINES ANY LIABILITY FOR USING NON-ORIGINAL PRODUCTS; WHICH WOULD RESULT IN WARRANTY LOSS • KEEP THIS MANUAL INSIDE THE TECHNICAL FOLDER ALONG WITH THE MANUALS OF ALL THE OTHER DEVICES USED FOR YOUR AUTOMATION SYSTEM • CHECK THAT THE OPERATOR'S SPECIFIED TEMPERATURE RANGE SUITS THE LOCATIONS WHERE IT WILL BE INSTALLED • LAYING THE CABLES, INSTALLATION AND TESTING MUST FOLLOW STATE-OF-THE-ART PROCEDURES AS DICTATED BY REGULATIONS • IF THE POWER-SUPPLY CABLE IS DAMAGED, REPLACE IT IMMEDIATELY THROUGH THE MANUFACTURER OR AN AUTHORIZED TECHNICAL ASSISTANCE CENTER, OR QUALIFIED STAFF, TO PREVENT ANY RISK • MAKE SURE THE MAINS POWER SUPPLY IS DISCONNECTED DURING ALL INSTALLATION PROCEDURES • THE OPERATOR CANNOT BE USED WITH GATES FITTED WITH PEDESTRIAN DOORS, UNLESS ITS OPERATION CAN BE ACTIVATED ONLY WHEN THE PEDESTRIAN DOOR IS IN SAFETY POSITION • MAKE SURE THAT PEOPLE ARE NOT ENTRAPPED BETWEEN THE GATE'S MOVING AND FIXED PARTS DUE TO THE GATE'S MOVEMENT • BEFORE INSTALLING THE OPERATOR, CHECK THAT THE GATE IS IN PROPER MECHANICAL CONDITION, THAT IT IS PROPERLY BALANCED AND THAT IT PROPERLY CLOSES: IF ANY OF THESE CONDITIONS ARE NOT MET, DO NOT CONTINUE BEFORE HAVING MET ALL SAFETY REQUIREMENTS • MAKE SURE THE GATE IS STABLE AND THE CARRIAGE FUNCTION PROPERLY AND ARE WELL-GREASED, AND THAT IT OPENS AND CLOSES SMOOTHLY • THE GUIDE RAIL MUST BE WELL-FASTENED TO THE GROUND, ENTIRELY ABOVE THE SURFACE AND FREE OF ANY IMPEDIMENTS TO THE GATE'S MOVEMENT. • THE RAILS OF THE UPPER GUIDE MUST NOT CAUSE ANY FRICTION • MAKE SURE THAT OPENING AND CLOSING LIMITERS ARE FITTED • MAKE SURE THE OPERATOR IS INSTALLED ONTO A STURDY SURFACE THAT IS PROTECTED FROM ANY COLLISIONS • MAKE SURE THAT MECHANICAL STOPS ARE ALREADY INSTALLED. • IF THE OPERATOR IS INSTALLED LOWER THAN 2.5 FROM THE GROUND OR FROM ANY OTHER ACCESS LEVEL, FIT PROTECTIONS AND SIGNS TO PREVENT HAZARDOUS SITUATIONS • DO NOT FIT THE OPERATOR UPSIDE DOWN OR ONTO ELEMENTS THAT COULD YIELD UNDER ITS WEIGHT IF NECESSARY, ADD REINFORCEMENTS TO THE FASTENING POINTS • DO NOT INSTALL DOOR OR GATE LEAVES ON TILTED SURFACES • CHECK THAT NO LAWN WATERING DEVICES SPRAY THE OPERATOR WITH WATER FROM THE BOTTOM UP • ANY RESIDUAL RISKS MUST BE INDICATED CLEARLY WITH PROPER SIGNAGE AFFIXED IN VISIBLE AREAS. ALL OF WHICH MUST BE EXPLAINED TO END USERS. • SUITABLY SECTION OFF AND DEMARCATE THE ENTIRE INSTALLATION SITE TO PREVENT UNAUTHORIZED PERSONS FROM ENTERING THE AREA, ESPECIALLY MINORS AND CHILDREN • FIT CAUTIONARY SIGNS, SUCH AS THE GATE PLATE, WHEREVER NEEDED AND IN PLAIN SIGHT • USE PROPER PROTECTIONS TO PREVENT MECHANICAL HAZARDS WHEN PEOPLE ARE LOITERING AROUND THE MACHINERY'S RANGE OF ACTION, FOR EXAMPLE, TO PREVENT FINGER CRUSHING BETWEEN THE RACK AND PINION) • THE ELECTRICAL CABLES MUST RUN THROUGH THE CABLE GLANDS AND MUST NOT TOUCH ANY HEATED PARTS, SUCH AS THE MOTOR, TRANSFORMER, AND SO ON) • 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 • ALL OPENING CONTROLS MUST BE INSTALLED AT LEAST 1.85 M FROM THE PERIMETER OF THE GATE'S WORKING AREA, OR WHERE THEY CANNOT BE REACHED FROM OUTSIDE THE GATE • ALL SWITCHES IN MAINTAINED-ACTION MODE MUST BE POSITIONED SO THAT THE MOVING GATES LEAVES, THE TRANSIT AREAS AND VEHICLE THRU-WAYS ARE COMPLETELY VISIBLE, AND YET THE SWITCHES MUST BE ALSO AWAY FROM ANY MOVING PARTS. • UNLESS THE ACTION IS KEY OPERATED, THE CONTROL DEVICES MUST BE FITTED AT, AT LEAST, 1.5 M FROM THE GROUND AND UNREACHABLE BY ANY UNAUTHORIZED PERSONS. • TO PASS THE COLLISION FORCE TEST USE A SUITABLE SENSITIVE SAFETY-EDGE. INSTALL IT PROPERLY AND ADJUST AS NEEDED. • BEFORE HANDING OVER TO USERS, CHECK THAT THE SYSTEM IS COMPLIANT WITH THE 2006/42/CE UNIFORMED MACHINERY DIRECTIVE. • MAKE SURE THE SETTINGS ON THE OPERATOR ARE ALL SUITABLE AND THAT ANY SAFETY AND PROTECTION DEVICES, AND ALSO THE MANUAL RELEASE, WORK PROPERLY. • AFFIX A PERMANENT TAG, THAT DESCRIBES HOW TO USE THE MANUAL RELEASE MECHANISM, CLOSE TO THE MECHANISM. • MAKE SURE TO HAND OVER TO THE END USER, ALL OPERATING MANUALS FOR THE PRODUCTS THAT MAKE UP THE FINAL MACHINERY.

- THE NEXT FIGURE SHOWS THE MAIN HAZARD POINTS FOR PEOPLE -

⚡ danger of high voltage;

Danger of crushing;

Danger of foot crushing;

Danger of hand entrapment;

🚫 Do not transit through during maneuvering.

This symbol shows which parts to read carefully.

⚠ This symbol shows which parts describe safety issues

☞ This symbol shows which parts to tell users about.

The measurements, unless otherwise stated, are in millimeters.

DESCRIPTION

BX-74 Operator complete with control board, movement control and obstruction detecting device plus mechanical endstops for sliding gates that weigh up to 400 kg.

BX-78 Operator complete with control board, movement control and obstruction detecting device plus mechanical endstops for sliding gates that weigh up to 800 kg.

INTENDED USE

The BX-74 operator is designed to power sliding gates in single homes; whereas the BX-78 is also suitable for apartment blocks.

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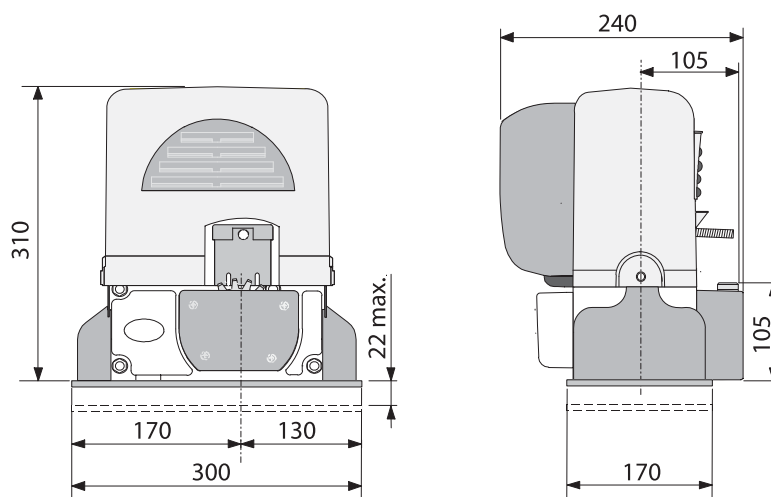
INTENDED USE

Model	BX-74	BX-78
Standard reference* length of the sliding part (m)	4	
Maximum weight of the sliding part (kg)	400	800
Pinion module	4	

* For other-than-standard measurements, see the following graphs.

TECHNICAL DATA

Datum	BX-74	BX-78
Protection rating (IP)	44	
Power supply (V - 50/60 Hz)	230 AC	
Input voltage to motor (V - 50/60 Hz)	230 AC	
Stand-by consumption (W)	4.5	
Consumption with Green Power (W)	0.8	
Power (W)	520	560
Thrust (N)	300	800
Opening speed (m/min)	10.5	
Operating temperature (°C)	-20 to +55	
Condenser (µF)	12	20
Apparatus class	I	
Motor's heat protection (°C)	150	
Weight (Kg)	15	

DIMENSIONS

DUTY CYCLES

| Datum	BX-74 / BX-78
Cycles/hour (no.)	17
Consecutive cycles (no.)	6

The cycles calculation is for standard-length gates (see the intended **use), that are professionally** installed, free of any mechanical issues and/or accidental friction points, and measured at 20° C, as stated in EN Standard 60335-2-103.
When using other-than-standard measurements, see the graphs below.

- Cycles/hour graph
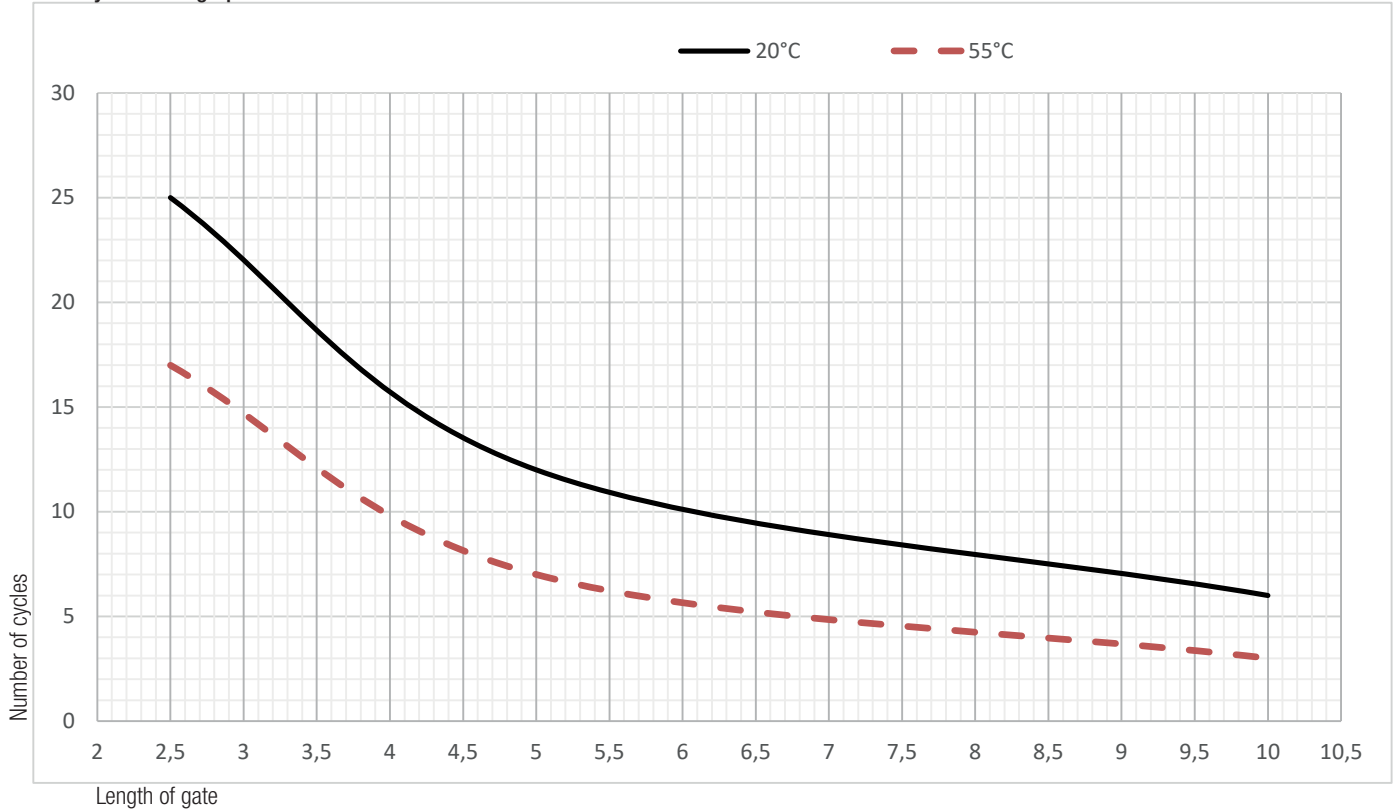
- Consecutive cycles graph
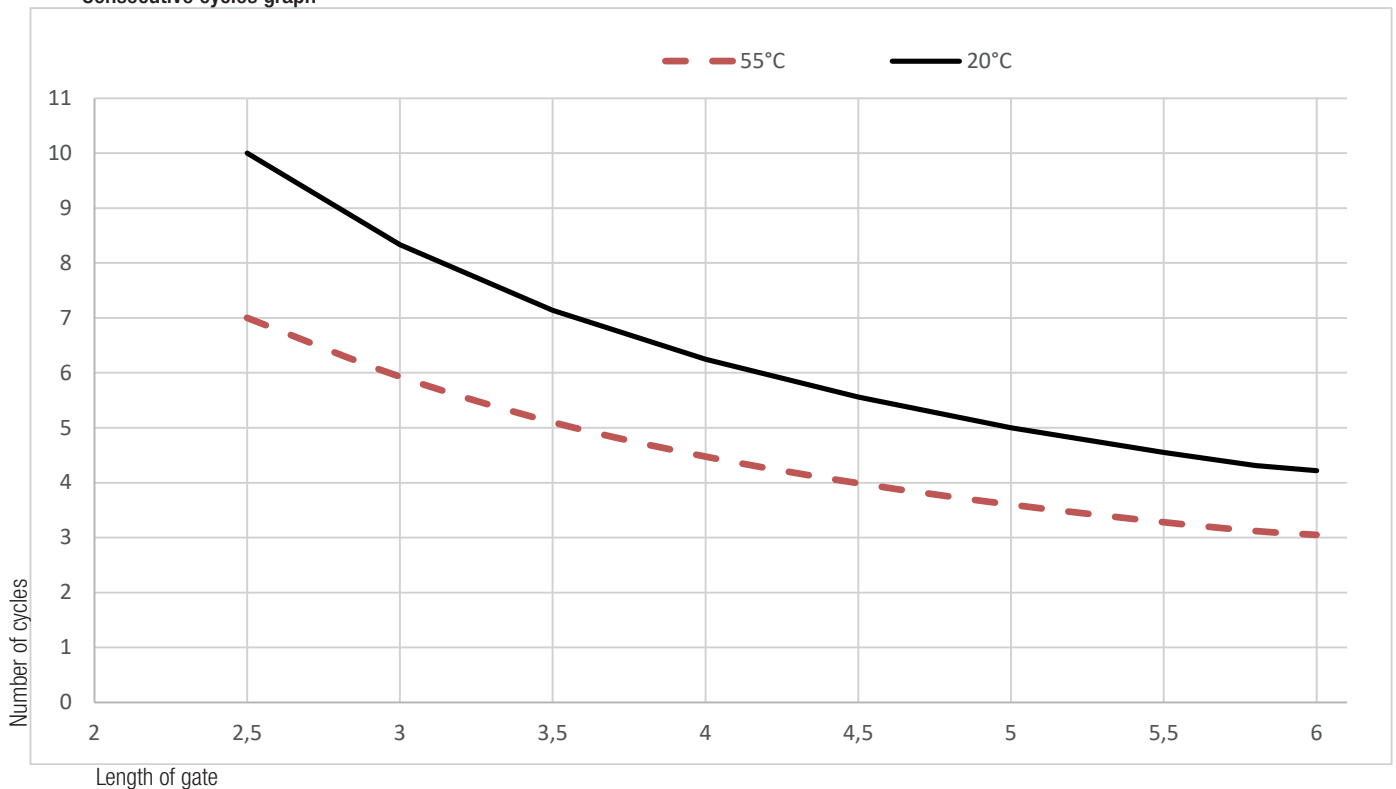
DESCRIPTION OF PARTS

1. Upper cover
2. Protective case for setting controls
3. Control board rack
4. Limit-switch tabs
5. ZBX7N control board
6. Electric panel's front cover
7. Access panel for releasing the gearmotor
8. Anchoring plate
9. Fastening screws
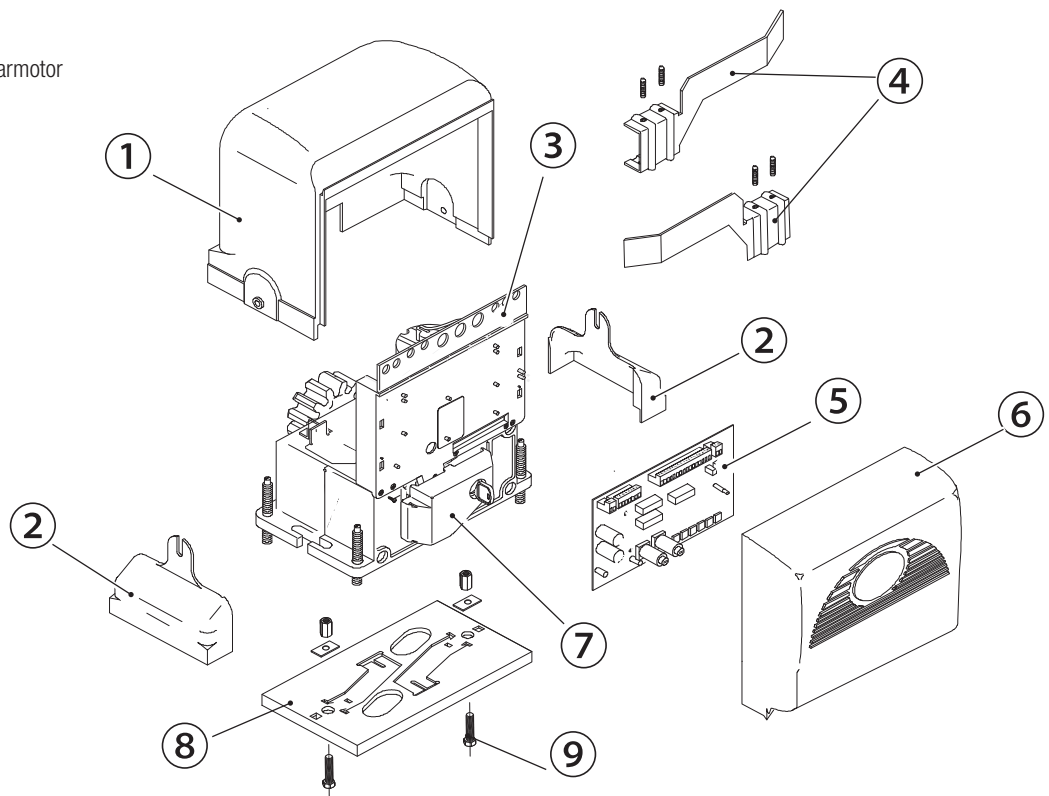
STANDARD INSTALLATION

1. Operator
2. Limit-switch fins
3. Rack
4. Key-switch selector
5. Antenna
6. Flashing light
7. Photocells
8. Mechanical gate stop
9. Sensitive safety-edge
10. Junction pit
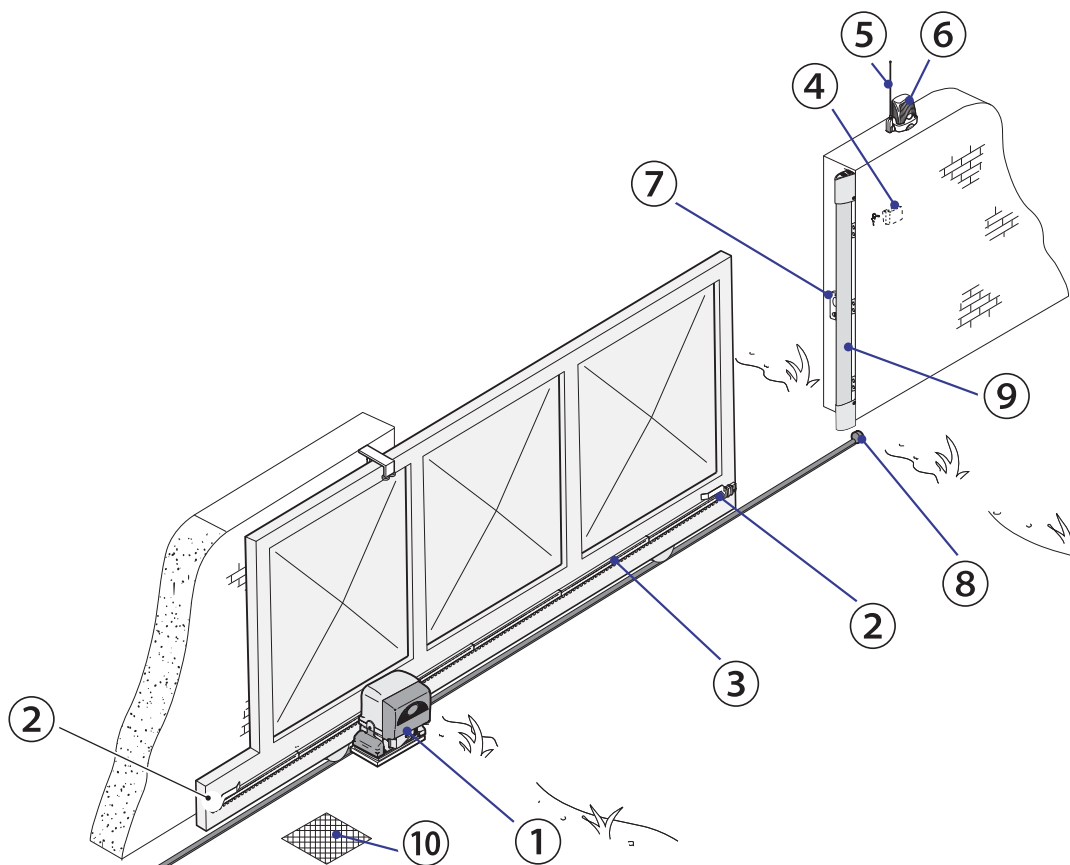
GENERAL INSTALLATION INDICATIONS

⚠ Only skilled, qualified staff must install this product.

PRELIMINARY CHECKS

⚠ Before beginning the installation, do the following:
• check that the upper slide-guides are friction-free;
• set up suitable tubes and conduits for the electric cables to pass through, making sure they are protected from any mechanical damage.

TOOLS AND MATERIALS

Make sure you have all the tools and materials you will need for installing in total safety and in compliance with applicable regulations.

CABLE TYPES AND MINIMUM SECTIONS

Connection									Cable length	
									< 20 m	20 < 30 m
Input voltage for 230 V AC control board (1P+N+PE)									3G x 1.5 mm^2	3G x 2.5 mm^2
Signaling devices									2 x 0.5 mm^2	
Command and control devices									2 x 0.5 mm^2	
Safety devices (photocells)									(TX = 2 x 0.5 mm^2)	
									(RX = 4 x 0.5 mm^2)	

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

📔 To connect the antenna, use the RG58 (we suggest up to 5 m).

📔 For paired connection and CRP, use a UTP CAT5-type cable (up to 1,000 m long).

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

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

INSTALLATION

⚠ The following illustrations are mere examples in that the space for fastening the operator and accessories varies depending on the installation area. It is up to the installer to find the most suitable solution.

📔 The drawing show an operator fitted on the left.
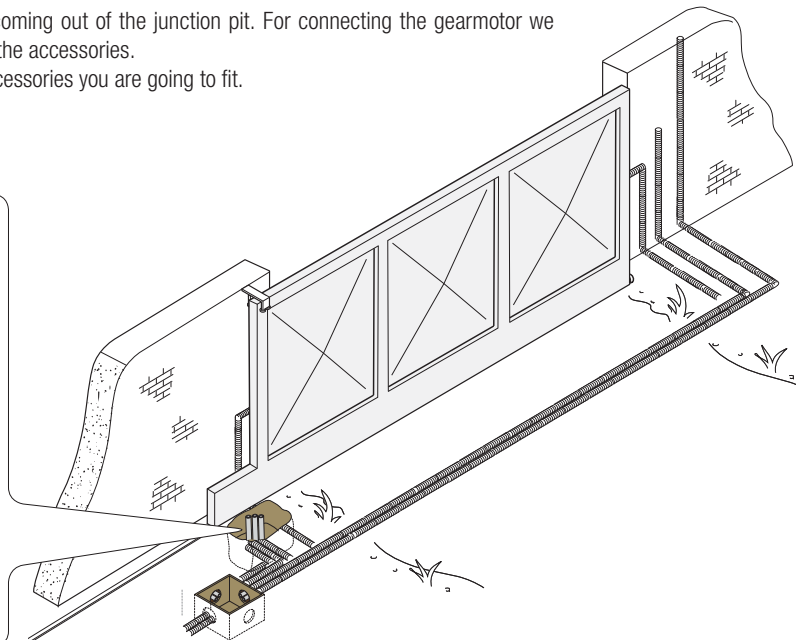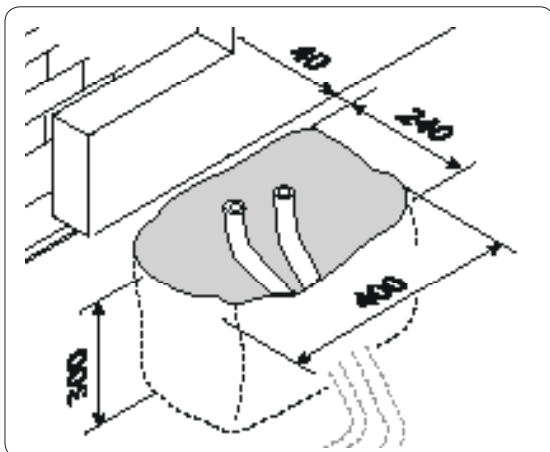
### CORRUGATED TUBE LAYING

Dig a hole for the foundation frame.
Set up the corrugated tubes needed for making the connections coming out of the junction pit. For connecting the gearmotor we suggest using a Ø 40 mm corrugated tube and Ø 25 mm tubes for the accessories.

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

FITTING THE ANCHORING PLATE

Set up a foundation frame that is larger than the anchoring plate and sink it into the dug hole. The foundation frame must jut out by 50 mm above ground level.
Fit an iron cage into the foundation frame to reinforce the concrete.
Fit the bolts into the fastening plate and tighten them using the nuts. Remove the pre-shaped clamps using a screw driver or pliers.
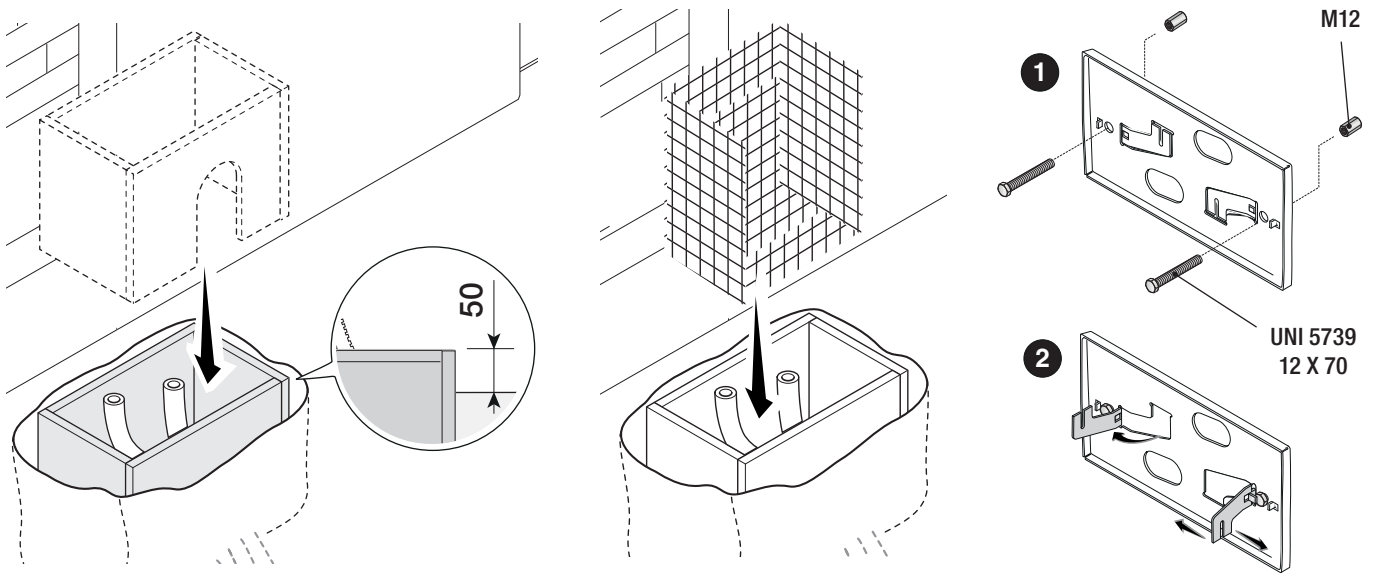
If the rack is already there, place the anchoring plate, being careful to respect the measurements shown in the drawing.
Careful! The tubes must pass through their corresponding holes.
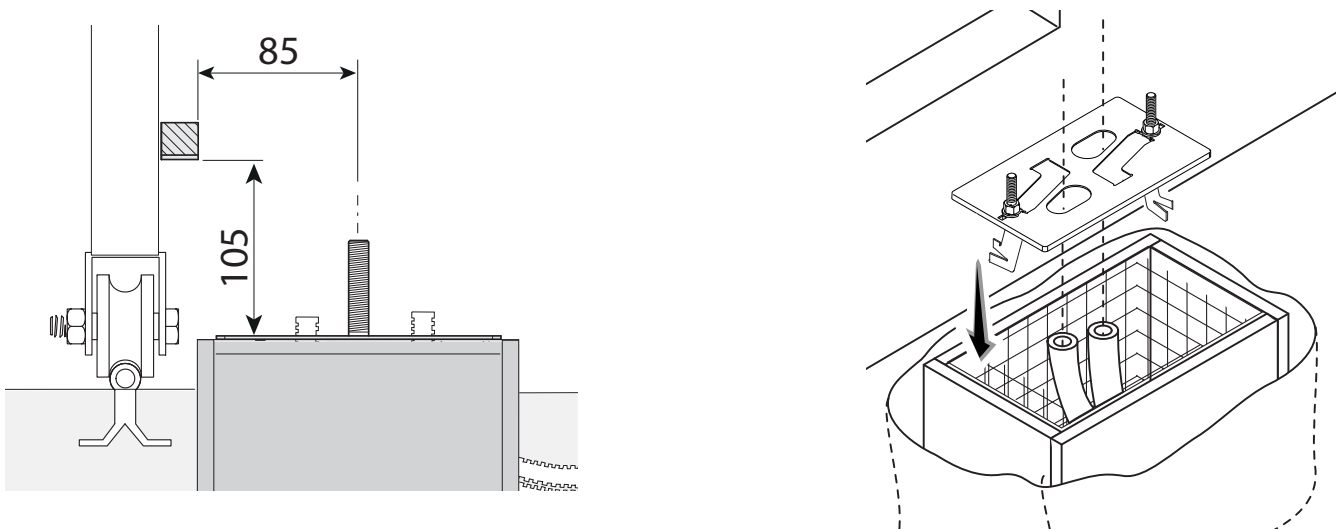
Fill the foundation frame with concrete. The plate must be perfectly level with the bolts which are entirely above surface.
Wait at least 24 hrs for the concrete to solidify.
Remove the foundation frame and fill the hole with earth around the concrete block.
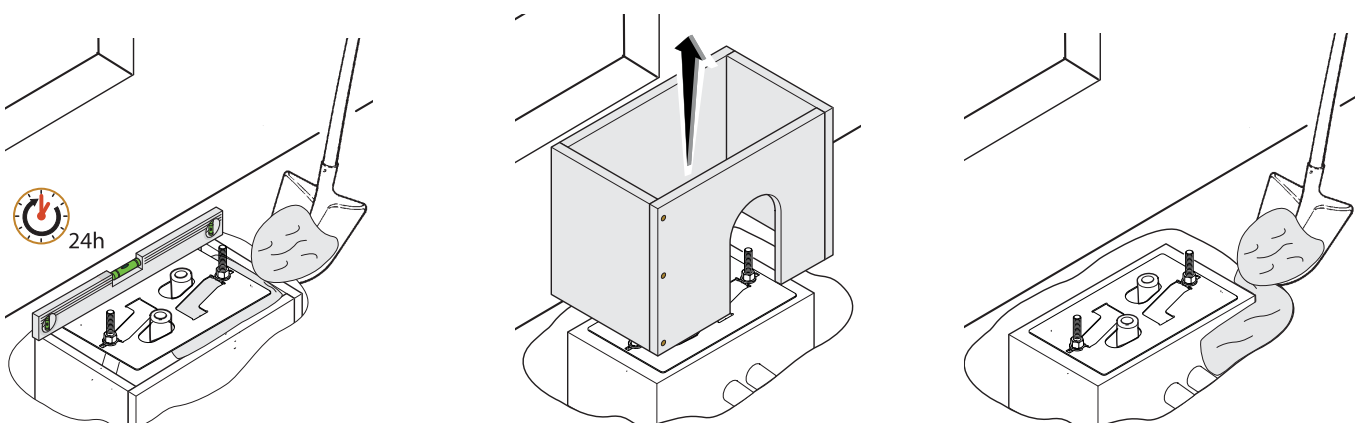
Remove the nuts from the bolts.
Fit the electric cables into the tubes so that they come out about 600 mm.
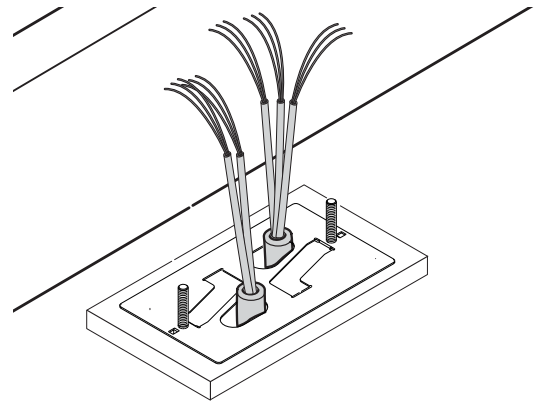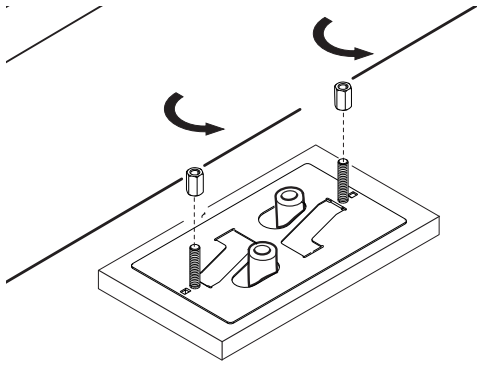
SETTING UP THE GEARMOTOR

Removethe front cover and the gearmotor cover.
Place the gearmotor above the anchoring plate.
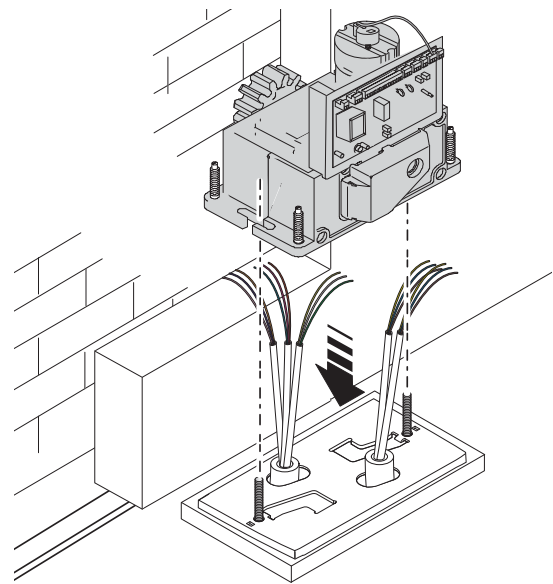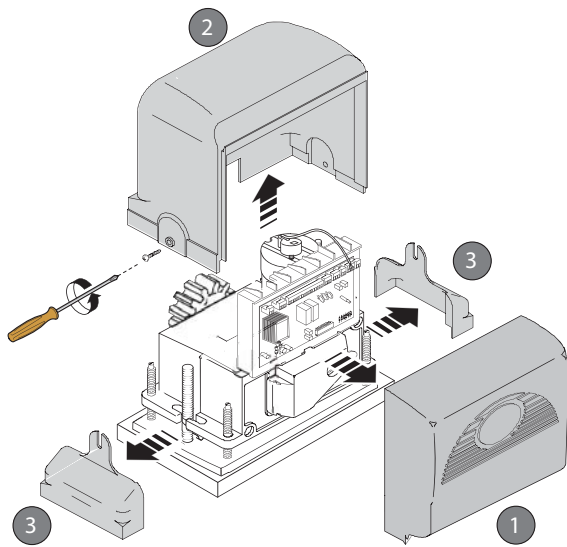
Raise the gearmotor by 5 to 10 mm from the plate by turning the threaded feet, to make room for further pinion and rack adjustments.
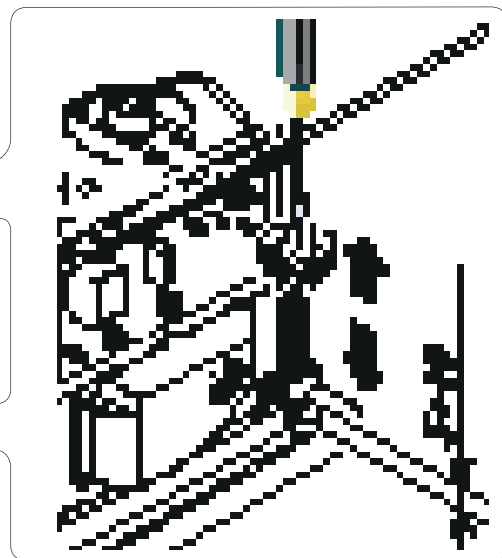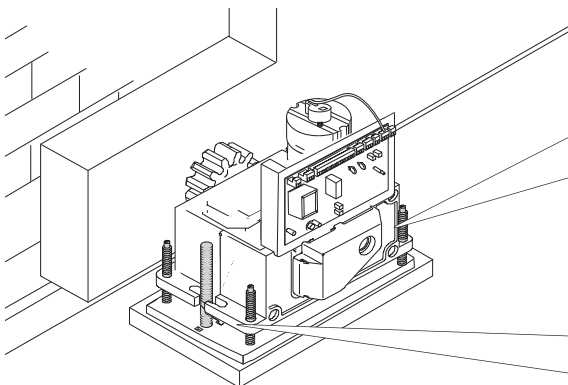
FASTENING THE RACK

📖 If the rack is already set up, the next step should be to adjust the rack-and-pinion coupling distance, otherwise, fasten it:
- release the gearmotor (see RELEASING THE GEARMOTOR paragraph);
- rest the rack above the gearmotor pinion;
- 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 using two clamps.
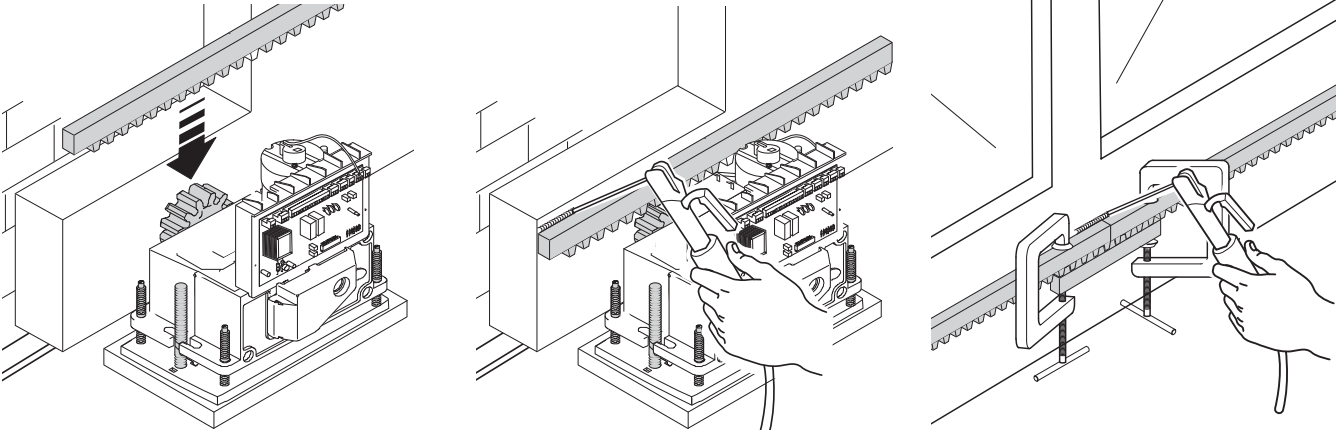
ADJUSTING THE PINION-RACK COUPLING

Manually open and close the gate and adjust the pinion-rack coupling distance using the threaded feet (vertical adjustment) and the holes (horizontal adjustment). This prevents the gate's weight from bearing down on the operator.

Rack

Pinion

Rack

Pinion

Rests

Vertical setting

Slot

Horizontal setting
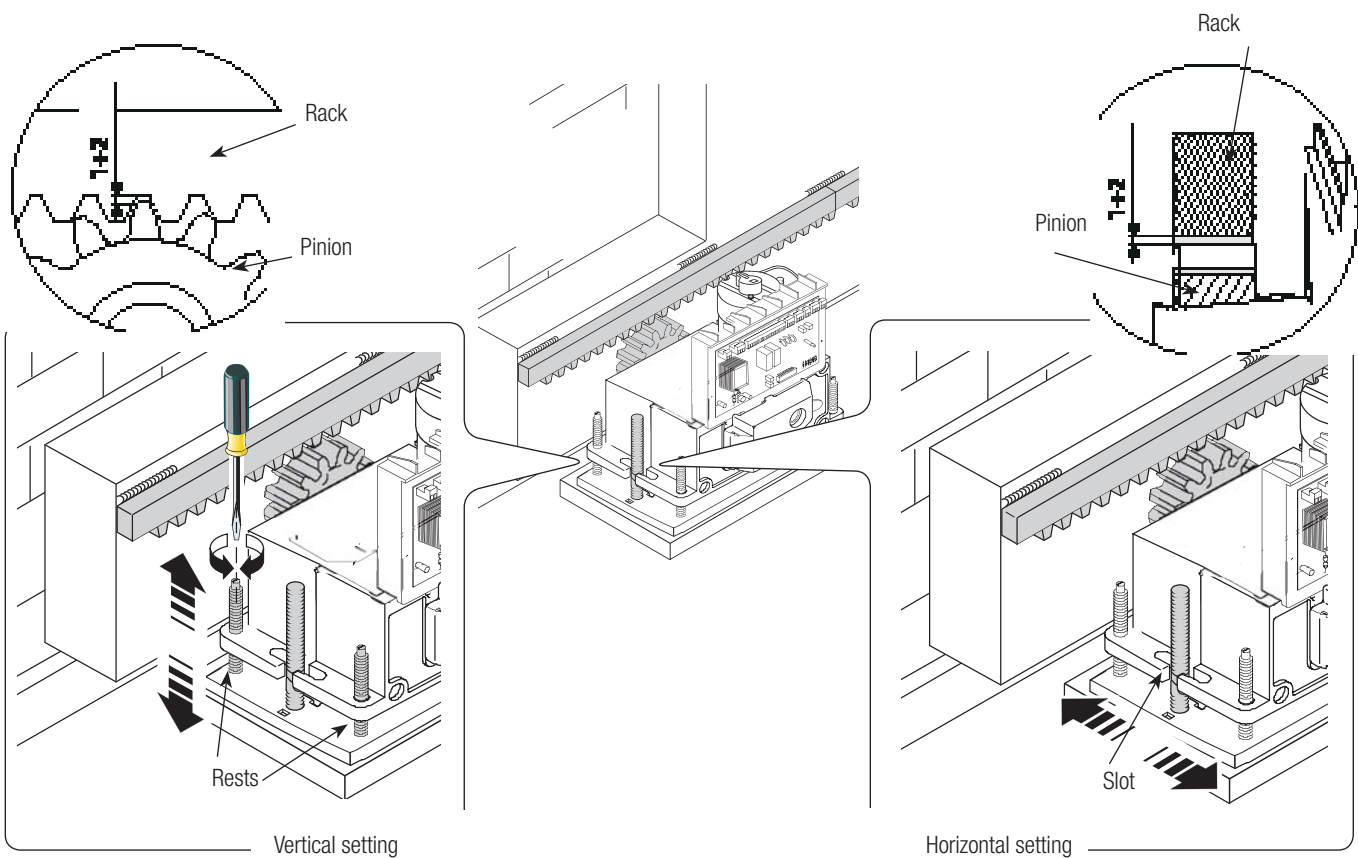
FASTENING THE GEARMOTOR

Once adjusting is complete, fasten the gearmotor to the plate using the plates and nuts.
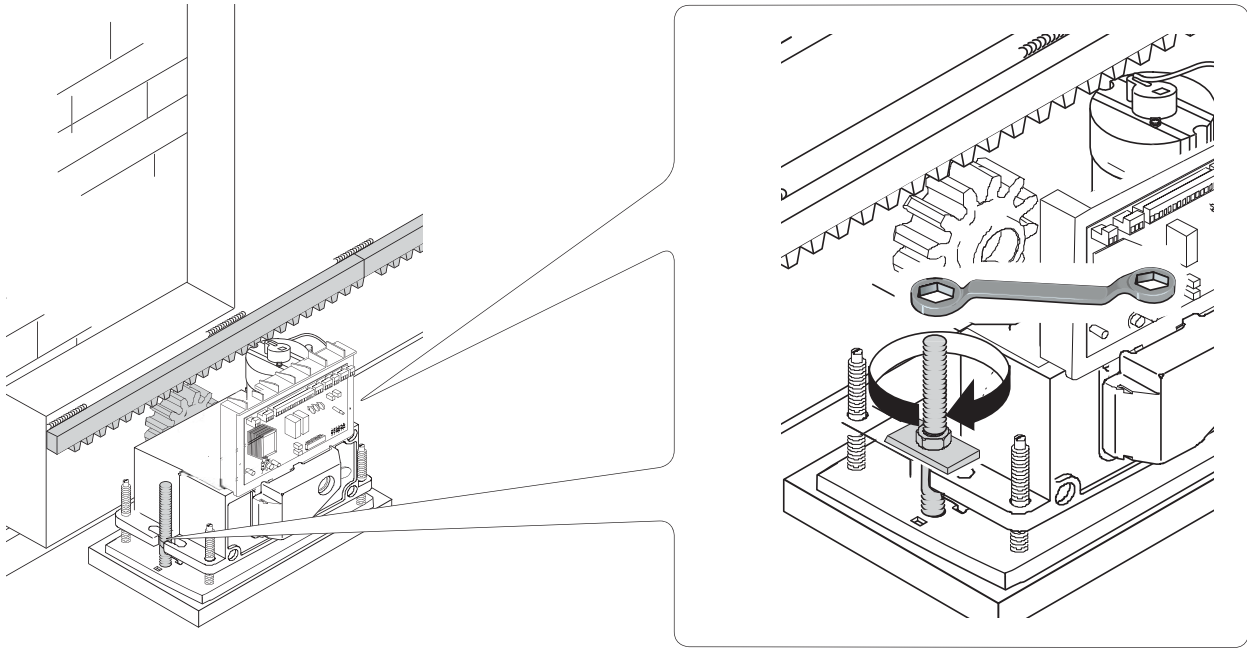
ESTABLISHING THE LIMIT-SWITCH POINTS

For opening:
- open the gate ❶;
- fit the opening limit-switch tab onto the rack until the micro switch activates (spring) and fasten it using the grub screws ❷ ❸.

Spring

~ 20
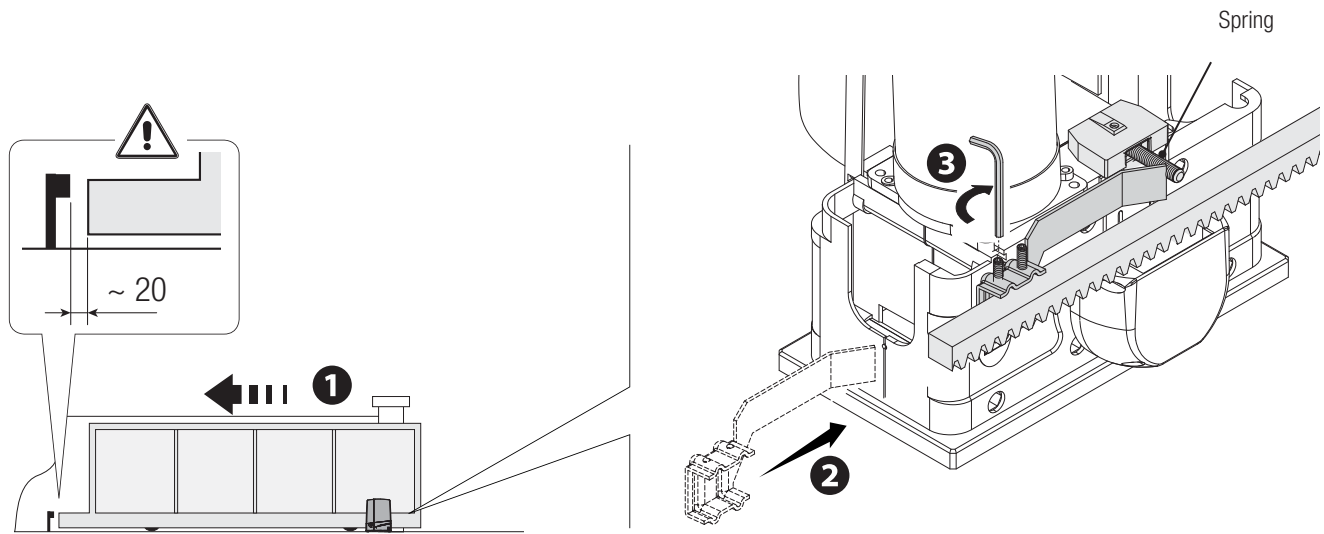
For closing:
- close the gate ❹;
- fit the closing limit-switch fin into the rack until the micro-switch is activated (spring) and fasten it using the grub screws ❺ ❻.

~ 20
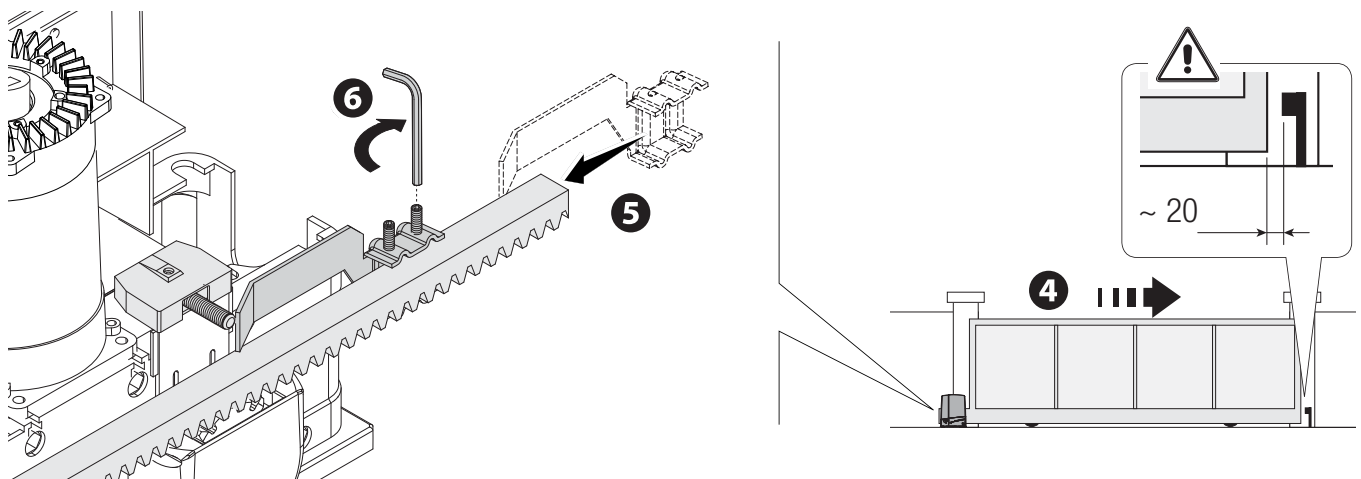
⚠ Warning! Before working on the control panel, cut off the main power supply and, if present, remove any batteries.

Functions on the input and output contacts, time adjustments and user-management settings are set and viewed on the control board's display.
All wiring connections are quick-fuse protected.

FUSE TABLE	ZBX7N
LINE - Line	5 A-F (230 V) 8 A-F (120 V)
C.BOARD - Card	630 mA-F
ACCESSORIES - Accessories	1 A-F

DESCRIPTION OF PARTS

1. Power supply terminals
2. Terminal for gearmotors
3. Transformer terminals
4. Fuse accessories
5. Terminals for control and safety devices
6. Fuse control board
7. Terminals for the RGP1 module
8. Encoder terminals
9. Keypad selector terminal
10. Terminals for limit-switch micro-switches
11. Antenna terminal
12. AF card connector
13. Terminals for transponder selector
14. Terminals for paired of CRP connection
15. Connector for the R700/R800/900 cards
16. Connector for the RIOCN8WS card
17. RSE board connector
18. Programming buttons
19. Memory roll board connector
20. Display
21. Power supply on warning LED
22. Line fuse
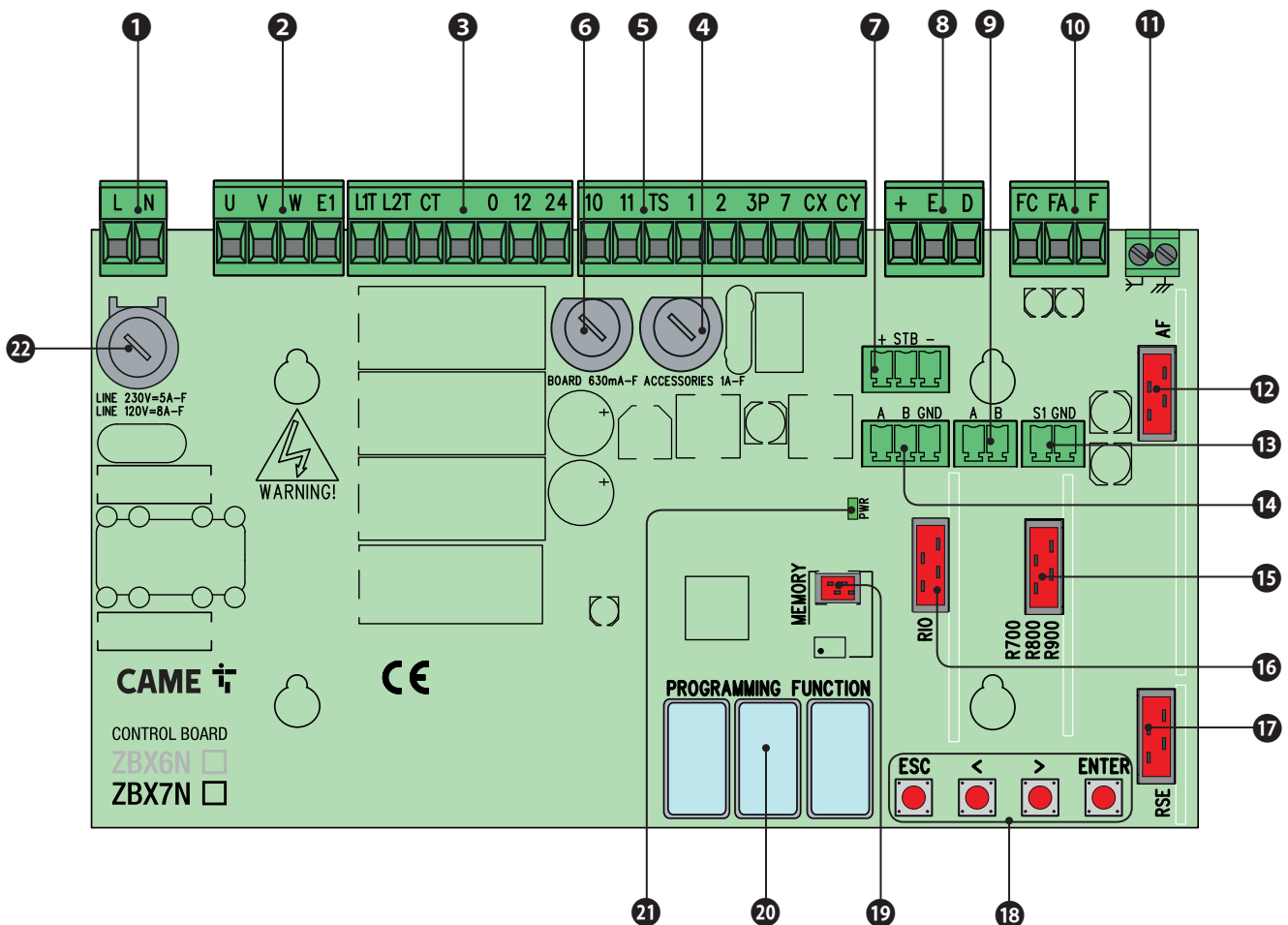
Gearmotor, limit-switch and encoder

Description of the electrical connections is the same as that for installing on the left

230V (AC) motor with encoder

COM — Orange
Red

NC —

COM — Orange

NC — White

Opening micro switch   Closing micro switch

Black
Red

COM

FC FA F   + E D   U V W E1

Condenser
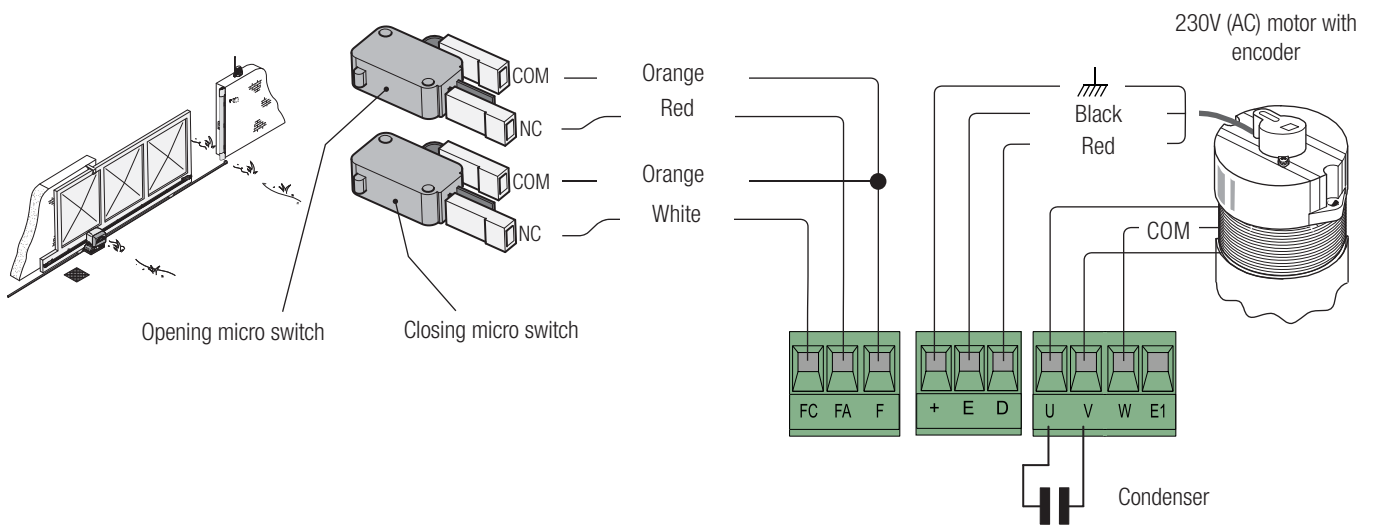
POWER SUPPLY AND ACCESSORIES

To vary the motor torque, move the shown faston (the one with the black wire) to one of the 4 positions: 1 min – 4 max.

230V (AC) Power supply, 50/60 Hz frequency

White
Black
Red

L1T
4
3
2
1
L2T

24
12
0

Blue
Violet
Orange

Terminals for powering up accessories:
- rated at 24V AC Allowed overall power:
- 20W

L N   U V W E1   L1T L2T CT   0 12 24   10 11 TS 1 2 3P 7 CX CY   + E D   FC FA F
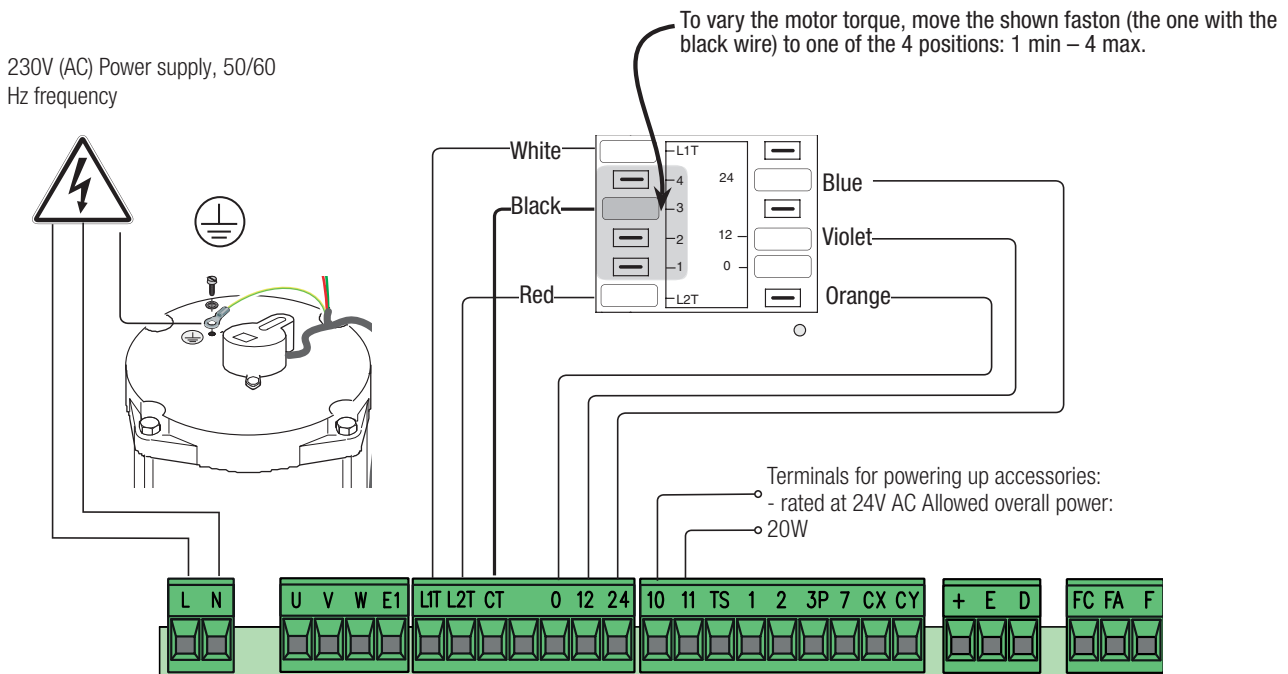
SIGNALING DEVICES

Movement flashing light (Contact rated for: 230V - 25W max.). Flashes when the gate is opening and closing.

Cycle light (Contact rated for: 230V - 60W max.). It illuminates the driveway and stays lit from when the gate starts opening until the gate closes completely (including the automatic closing time). See Function F18

Gate closed warning light (Contact rated for: 24V - 3W max.). It indicates that the gate is closed. It indicates that the gate is open.

Gate-open warning light (Contact rated for: 24V - 3W max.). To signal that the gate is open. It switches off when the gate is closed.

U V W E1   10 11 TS 1 2 3P 7 CX CY   FC FA F

STOP button (NC contact). For stopping the gate while excluding automatic closing. To resume movement either press the control button or any other control device.

📖 **Activate the F1 programming function. If the button is no used, leave this function deactivated.**

PARTIAL OPENING function from control device (NO contact)
See function **F8**.

OPEN-CLOSE-INVERT function (step-step) from control device (NO contact). Alternatively, from the functions programming you can activate the single command OPEN-STOP-CLOSE-STOP (sequential).
See function **F7**.

Antenna with RG58 cable for remote control.

📖 Fit an AF card (AF26, AF30, AF43S or AF868) to control the gate via a transmitter.

| 10 | 11 | TS | 1 | 2 | 3P | 7 | CX | CY |

+ STB −

A B GND   A B   S1 GND

AF

BLACK
RED

Transponder or card reader.

MEMORY

PWR

RIO   R700 R800 R900

IG FUNCTION

📖 Fit the R700 coding card to recognized the transponder or the card reader.

📖 Fit the R800 decoding card so that the keypad selector can be recognized.

Keypad selector.

WARNING! For the system to work properly, before fitting any snap-in card (e.g. the AF R800), you MUST CUT OFF THE MAIN POWER SUPPLY and remove any batteries.

Photocells

Configure contact CX or CY (NC), safety input for photocells.

See functions **F2** (input CY) in:

- C1 reopening during closing. When the gate is closing, opening the contact triggers the inversion of movement until the gate is fully open again;
- C2 closing during opening. When the gate is opening, opening the contact triggers the inversion of movement until the gate is completely closed.
- C3 partial stop. Stopping of the gate, if it is moving, with consequent automatic closing (if the automatic closing function has been entered);
- C4 obstruction wait. Stopping of the gate, if it is moving, which resumes movement once the obstruction is removed.

📖 If contacts CX and CY are not used they should be deactivated during programming.
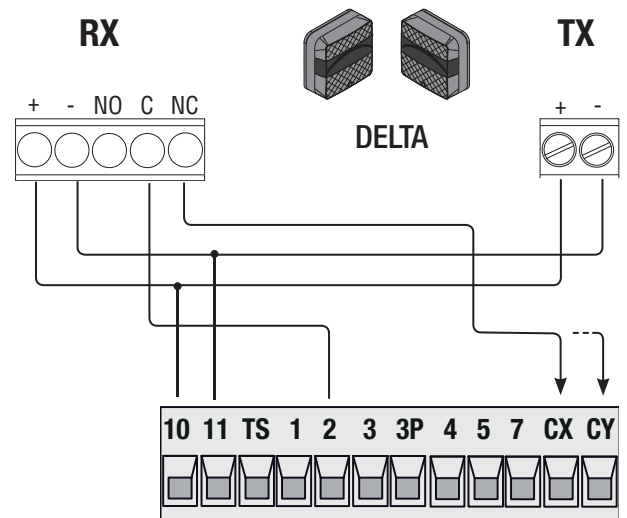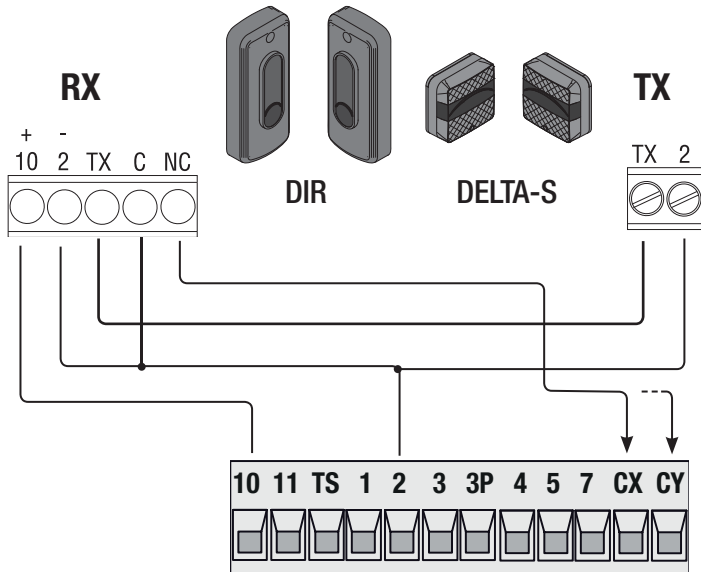
Photocells (safety test)

At each opening and closing command, the control board checks the efficacy of the safety devices (such as, photocells).

Any malfunction inhibits any command and the display will show the Er4 wording.

Enable function F5 in programming.
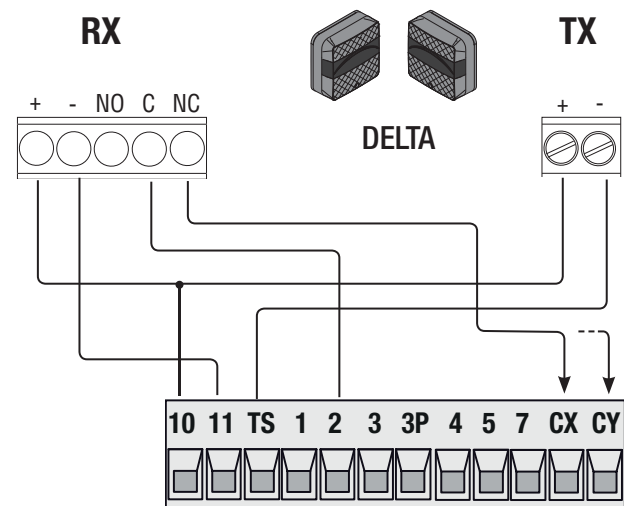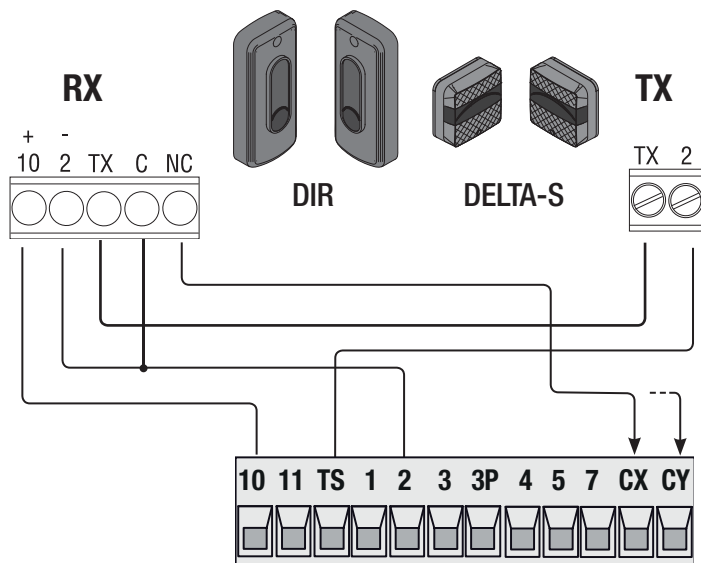
Sensitive Safety Edges

Configure contact CX or CY (NC), safety input for sensitive safety-edges.

See **F2** (input CX) or **F3** (input CY) in:

- C7 (sensitive-safety edges with mechanical contact) or r7 (sensitive-safety edges with 8K2 resistor), reopening during closing phase. When the gate is closing, opening the contact triggers the inversion of movement until the gate is fully open again;

- C8 (sensitive safety-edges with mechanical contact) or r8 (sensitive safety edge with 8K2 resistance), reclosing during opening. When the gate is opening, opening the contact triggers the inversion of movement until the gate is completely closed.

📖 If unused, contacts CX and CY should be deactivated during programming.

DFWN

DFWN with DFI card for controlling the connnections
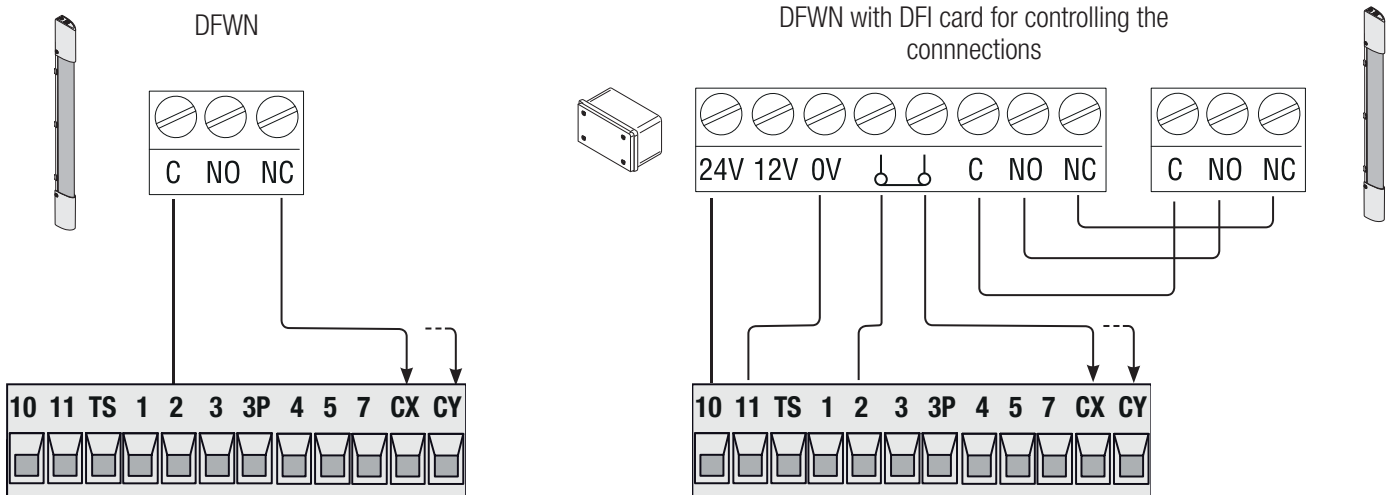
RIO WIRELESS DEVICES

Fit the RIOCN8WS card into the corresponding connector on the control board.

Set the function to associate to the wireless device (**F65**, **F66**, **F67** and **F68**).

Configure the RIOED8WS, RIOPH8WS and RIOLX8WS wireless devices by following the indications shown in the folder enclosed with each accessory.

📖 If the devices are not configured with the RIOCN8WS card, the E18 error message **appears on the display**.

⚠ If there are any radio-frequency disturbances to the system, the wireless system will inhibit the normal operation of the **operator, and this error will show up on the display as E17**.

RIOCN8WS   RIOED8WS   RIOPH8WS   RIOLX8WS
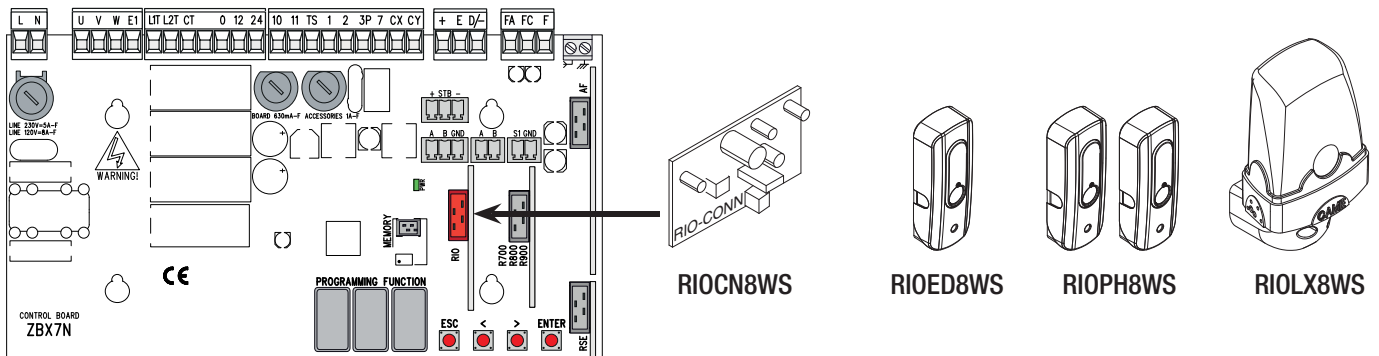
PAIRED OPERATION OR CRP (CAME REMOTE PROTOCOL)

UTP CAT 5 →

Serial RS485 connection via CRP (Came Remote Protocol) or for paired operation (see chapter called PAIRED CONNECTIONS AND OPERATION).
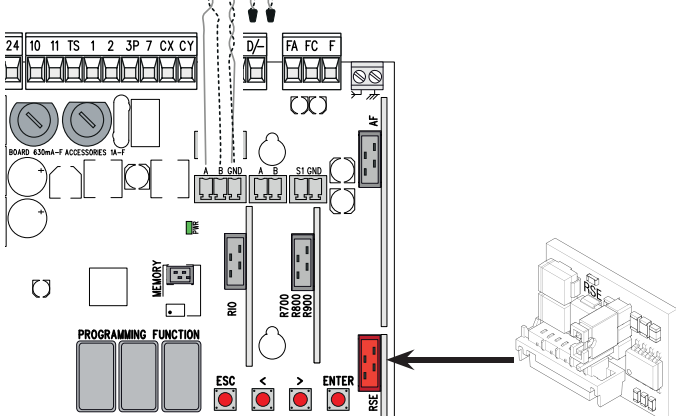
📖 Fit the RSE card.
WARNING! For the system to work properly, before fitting the control board, you MUST CUT OFF THE POWER MAINS and remove any emergency batteries.

DESCRIPTION OF THE COMMANDS
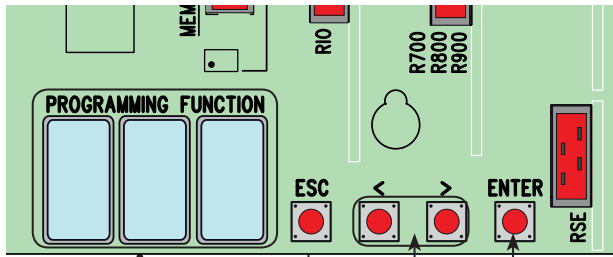


Display

The ENTER key is for:
- entering menus;
- confirming or memorizing set values.

The < > keys are for:
- moving from one item to another;
- increasing or decreasing a value;
- opening and closing the gate (only when testing).

The ESC button is for:
- exiting menus;
- cancelling changes;
- stopping the gate (only when testing).

📖 To enter the menu, keep the ENTER button pressed for at least one second.

📖 To exit the menu, wait 10 seconds or press ESC.
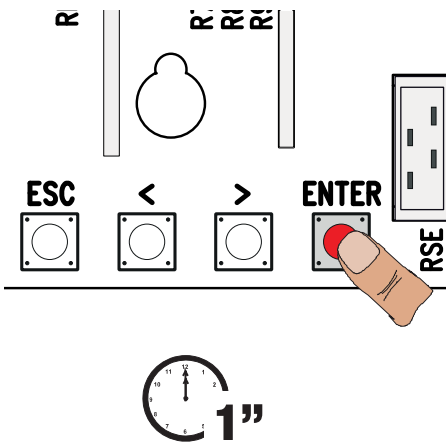
FUNCTIONS MENU

Warning! When programming, the gate must not be operating.

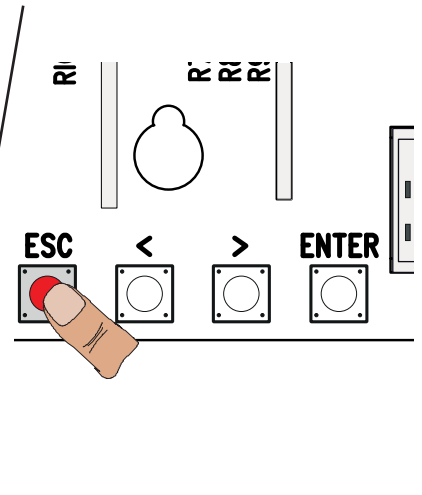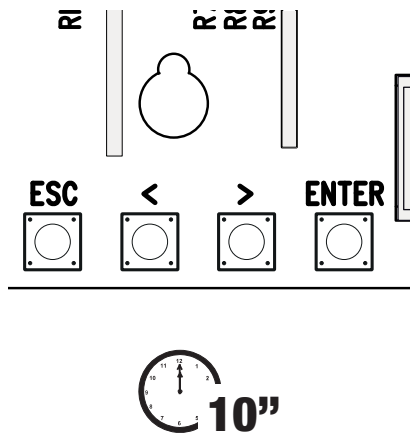| F1	Total stop (1-2)	OFF (default) / ON
NC input – Gate stop that excludes any automatic closing; to resume movement, use the control device. The safety device is inserted into (1-2).		
F2	Input (2-CX)	OFF (default) / **1** = C1 / **2** = C2 / **3** = C3 / **4** = C4 / **7** = C7 / **8** = C8 / **r7** = r7 / **r8** = r8
NC input – Can associate: C1 = reopening during closing by photocells, C2 = reclosing during opening by photocells, C3 = partial stop, C4 = obstruction wait, C7 = reopening during closing by sensitive safety-edges (with clean contact), C8 = reclosing during opening by sensitive safety-edges (DF-series), r7 = opening again during closing for sensitive safety edges (DFWN-series), - r8 = closing again during opening for sensitive safety edges (DFWN-series). 📖 The C3 Partial stop function only appears if the F 19 Automatic closing time function is activated.		
F3	Input (2-CY)	OFF (default) / **1** = C1 / **2** = C2 / **3** = C3 / **4** = C4 / **7** = C7 / **8** = C8 / **r7** = r7 / **r8** = r8
NC input – Can associate: C1 = reopening during closing by photocells, C2 = reclosing during opening by photocells, C3 = partial stop, C4 = obstruction wait, C7 = reopening during closing by sensitive safety-edges (with clean contact), C8 = reclosing during opening by sensitive safety-edges (DF-series), r7 = opening again during closing for sensitive safety edges (DFWN-series), - r8 = closing again during opening for sensitive safety edges (DFWN-series). 📖 The C3 Partial stop function only appears if the F 19 Automatic closing time function is activated.		
F5	Safety test	OFF (default) / **1** = CX / **2** = CY / **4** = CX+CY
After every opening or closing command, the board will check whether the photocells are working properly. 📖 The safety test is always active for wireless devices. 📖 This function only appears if the photocells are enables.		
F6	Maintained action	OFF (default) / ON

The gate opens and closes by keeping the button pressed. Opening button on contact 2-3P and closing button on contact 2-7. All other control devices, even radio-based ones, are excluded.		
F7	**Command (2-7)**	**0** = Step-step (**default**) / **1** = Sequential / **2** = Open / **3** = Close
From the control device connected to 2-7 it performs the step-step (open-close-invert) or sequential (open-stop-close-stop) command.		
F8	**Command (2-3P)**	**1** = Partial opening / 2 = **Open**
From the control device connected to 2-3P it performs either the partial opening or only open command		
F9	**Obstruction detection with motor idle**	**OFF** (**default**) / **ON**
With the gate closed, opened or totally stopped, the gearmotor stays idle if the safety devices, that is, photocells or sensitive safety-edges detect an obstruction.		
F11	**Encoder**	OFF / **ON** (**default**)
Managing slow-downs, obstruction detections and sensitivity.		
F14	**Sensor type selection**	**0** = control with transponder sensor or magnetic card reader. **1** = command with keypad selector (**default**).
Setting the type of accessory for controlling the operator.		
F18	**Additional light**	**OFF** (**default**) = flashing / **1** = Cycle light
Additional light connection input on W-E1. Outdoor light for additional visibility in the drive way. Cycle: it stays lit from the moment the gate starts opening until it completely closes, including the automatic closing waiting time.		
F19	**Automatic closing time**	**OFF** (**default**) / **1** = 1 second /… / **180** = 180 seconds
The automatic-closing wait starts when the opening limit switch point is reached and can be set to between 1 and 180 seconds. The automatic closing does not activate if any of the safety devices trigger when an obstruction is detected, or after a total stop, or during a power outage.		
F20	**Automatic closing time after a partial opening**	**OFF** / **1** = 1 second /…/ **10** = 10 seconds (**default**) /…/ **180** = 180 seconds
The wait before the automatic closing starts after a partial opening command for an adjustable time of between 1 s and 180 s. The automatic closing does not activate if any of the safety devices trigger when an obstruction is detected, or after a total stop, or during a power outage.		
F21	**Preflashing time**	**OFF** (**default**) / **1** = 1 second /… / **10** = 10 seconds
Adjusting the pre-flashing time for the flashing light connected to E1-W, before each maneuver. The flashing time is adjustable from one to ten seconds.		
F30	**Slow down while opening and closing**	**OFF** (**default**) = deactivated / **1** = High / **2** = Medium / **3** = Low
Slowing-down phases of the gate before the limit-switch while either opening or closing. 📖 This function only appears if the Encoder function is activated.		
F34	**Travel sensitivity**	**10** = sensitivity /… / **100** = minimum sensitivity (**default**)
Adjusting obstruction detection sensitivity during gate travel. 📖 This function only appears if the Encoder function is activated.		
F35	**Slow-down sensitivity**	**10** = sensitivity /… / **100** = minimum sensitivity (**default**)
Adjusting obstruction detection sensitivity during slow-down. 📖 This function only appear if the Encoder and the opening and closing slow-down functions are activated.		
F36	**Adjusting partial opening**	**10** = 10% of gate travel /… / **80** = 80% of gate**travel** (default)
Adjustment as a percentage of total travel, during gate opening. 📖 This function only appears if the Encoder function is activated.		
F37	**Opening slow-down point**	**5** = 5% of gate travel /… / **15** = 15% of gate travel (**default**) /… / **30** = 30% of gate travel
Percentage adjustment of the total gate travel, of the opening slow-down starting point. 📖 This function only appear if the Encoder and the opening and closing slow-down functions are activated.		
F38	**Closing slow-down point**	**5** = 5% of gate travel /… / **15** = 15% of gate travel (**default**) /… / **30** = 30% of gate travel
Percentage adjustment of the total gate travel, from the closing slow-down starting point. 📖 This function only appear if the Encoder and the opening and closing slow-down functions are activated.		
F48	**Manuevre starting torque**	**OFF** (**default**) / ON = active
Greater pushing torque that activates during the operator's beginning opening and closing phases.		
F49	**Managing serial connection**	**OFF** (**default**) / **1** = Paired / **3** = CRP
To enable the paired operating mode or the CRP (Came Remote Protocol).		
F50	**Save data**	**OFF** (**default**) / **ON**
Saving users and saved settings in memory roll. 📖 This function only appears if a memory roll has been fitted into the control board.		
F51	**Read data**	**OFF** (**default**) / **ON**
Uploading data saved in memory roll. 📖 This function only appears if a memory roll has been fitted into the control board.		
F52	**Passing parameter in paired mode**	**OFF** (**default**) / **ON**
Uploading settings from Master to Slave. 📖 It appears only if function [**F49**] is set to Paired.		

F54 Opening direction	**0** = Opening left (**default**) / **1** = Opening right
For setting the gate opening direction.	

F56 Peripheral number	1 ----> 255
To set the peripheral's number from 1 to 255 for each control board when you have a system with several operators.	

F63 Change COM speed	**0** = 1200 Baud / **1** = 2400 Baud / **2** = 4800 Baud / **3** = 9600 Baud / **4** = 14400 Baud / **5** = 19200 Baud / **6** = 38400 Baud (**default**) / **7** = 57600 Baud / **8** = 115200 Baud
For setting the communication speed used in the CRP (Came Remote Protocol) connection system.	

F65 Wireless input RIOED8WS [T1]	**OFF** (**default**) / **P0** = P0 / **P7** = P7 / **P8** = P8
RIOED8WS wireless safety device associated to a function of choice among those available: P0= stop gate and exclude any automatic closing; to resume movement, use the control device, P7 = reopening during closing, P8 = reclosing during opening. For programming, see the instructions that come with the accessory. 📖 This function only appears is the control board has been fitted with a RIOCN8WS card.	

F66 Wireless input RIOED8WS [T2]	**OFF** (**default**) / **P0** = P0 / **P7** = P7 / **P8** = P8
RIOED8WS wireless safety device associated to a function of choice among those available: P0= stop gate and exclude any automatic closing; to resume movement, use the control device, P7 = reopening during closing, P8 = reclosing during opening. For programming, see the instructions that come with the accessory. 📖 This function only appears is the control board has been fitted with a RIOCN8WS card.	

F67 Wireless input RIOPH8WS [T1]	**OFF** (**default**) / **P1** = P1 / **P2 marked areas** = P2 / **P3** = P3 / **P4** = P4
RIOPH8WS is associated to any function chosen among those available: P1 = reopening during closing; P2 = reclosing during opening; P3 = partial stop; P4 = obstruction wait. For programming, see the instructions that come with the accessory. 📖 This function only appears is the control board has been fitted with a RIOCN8WS card. 📖 The P3 function appears only if the F19 function is activated.	

F68 Wireless input RIOPH8WS [T2]	**OFF** (**default**) / **P1** = P1 / **P2 marked areas** = P2 / **P3** = P3 / **P4** = P4
RIOPH8WS is associated to any function chosen among those available: P1 = reopening during closing; P2 = reclosing during opening; P3 = partial stop; P4 = obstruction wait. For programming, see the instructions that come with the accessory. 📖 This function only appears is the control board has been fitted with a RIOCN8WS card. 📖 The P3 function appears only if the F19 function is activated.	

F71 Partial opening time	**5** = 5 seconds (**default**) /....... / **40** = 40 seconds
After an opening command from the button connected to 2-3P, the gate opens for an adjustable time of between five seconds and 40 seconds. 📖 This function only appears is the Encoder function is deactivated.	

U 1 Entering a user	**1** = Step-step command (open-close) / **2** = Sequential command (open-stop-close-stop) / **3** = Open only command / **4** = Partial opening command
Entering up to 250 users and associating to each one a function of choice among those included. This must be done via transmitter or other control device (see "ENTERING USERS WITH ASSOCIATED COMMAND paragraph).	

U 2 Deleting a user	
Deleting a single user	

U 3 Deleting users	**OFF** (**default**) / **ON** = Delete all users
Deleting all users.	

U4 Code decoding	1 (default) / 2 / 3
For choosing the type of receiving control code: 1= all series/ 2 = only Rolling Code series / 3 = only TWIN series ⚠ When you select a radio code, all saved transmitters will automatically be deleted. 📖 The TWIN code lets you save multiple users with the same key, that is, key block.	

A1 Type of motor	**1** = BX-74 (**default**) / **2** = BX-78
Selecting the gearmotor to use for the system.	

A3 Calibrating gate-travel	**OFF** (**default**) / **ON**
Automatic calibration of the gate-leaf run (see the TRAVEL CALIBRATION paragraph). 📖 This function appears only is the Encoder function is activated. ⚠ If the operator has not been calibrated, all commands are excluded.	

A 4 Resetting parameters	**OFF** (**default**) / **ON**
Attention! The default settings will be restored.	

A 5 Counting maneuvers	**OFF** (**default**) / **ON** = Number of maneuvers done
It is for viewing the number of maneuvers done.	

H1 Version	
View the firmware version.	

📖 Once you have complete the electric connections, have qualified staff commission the operator into service, by doing the following functions first:
- opening direction (see function F54);
- total stop (see function F1);
- calibrating travel (see paragraph called CALIBRATING TRAVEL).

TRAVEL CALIBRATION

⚠ Before calibrating the gate travel, position the gate half-way, check that the maneuvering area is clear of any obstruction and check that there are mechanical opening and closing stops.
⚠ The mechanical end-stops are obligatory.
Important! During calibration, all safety devices will be disabled.
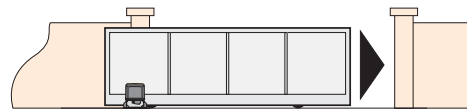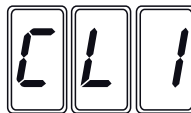
Select [**A3**].
Press ENTER to confirm.

```
R 3    ESC  <  >  ENTER
       ●   ●  ●   ●
```

Select [**ON**] and press ENTER to confirm the automatic travel-calibration operation.

```
 On    ESC  <  >  ENTER
       ●   ●  ●   ●
```

The gate will perform a closing maneuver until it reaches a final stop...

```
CL1    
```

...then the gate will perform an opening maneuver until it reaches a final stop.

```
OP1    
```
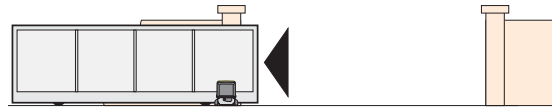
📖 When adding and deleting users, the flashing numbers appearing are those numbers that are available and usable to assign to a new user (max. 250 users).
📖 Before registering the users, make sure the AF radio card is plugged into the connector (see the paragraph called CONTROL DEVICES).

ENTERING USERS WITH AN ASSOCIATED COMMAND

Select **U1**.
Press ENTER to confirm.

```
U 1    ESC  <  >  ENTER
       ●   ●  ●   ●
```

Selezionare un comando da associare all'utente:
- **1** = step-step (open-close);
- **2** = - sequential (open-stop-close-stop);
- **3** = only open;
- **4** = partial opening/pedestrian.
Press ENTER to confirm...

```
  2    ESC  <  >  ENTER
       ●   ●  ●   ●
```

... a number between 1 and 250 will start flashing for a few seconds.
Send the code from the transmitter or other control device, such as, a keypad selector or a transponder.
Associate the number to the added user.

```
  5    ESC  <  >  ENTER
       ●   ●  ●   ●
```

DELETING SINGLE USERS

Select **U2**.
Press ENTER to confirm.

Use the arrow keys select the number of the user
you wish to delete.
Press ENTER to confirm...
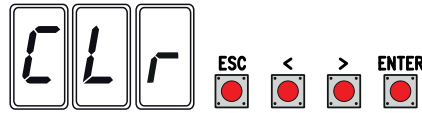

... CLr will appear on **the** screen to confirm deletion.


SAVING AND UPLOADING ALL DATA (USERS AND CONFIGURATION) WITH THE MEMORY ROLL

Procedure for memorizing all of the system's user and configuration data by using the Memory Roll, so they can be used with another control board, even on another system.

Warning! Fitting and extracting the Memory Roll must be done with the mains power disconnected.

❶ Fit the Memory Roll into the its corresponding connector on the control board.

❷ Select **F50** and press ENTER to confirm the saving of data in the Memory Roll.

❸ Extract the Memory roll and fit it into the connector of another control board.

❹ Select **F51** and press ENTER to confirm the uploading of data into the Memory Roll.

📖 After memorizing the data, it is best to remove the Memory roll.

Memory roll   Memory roll
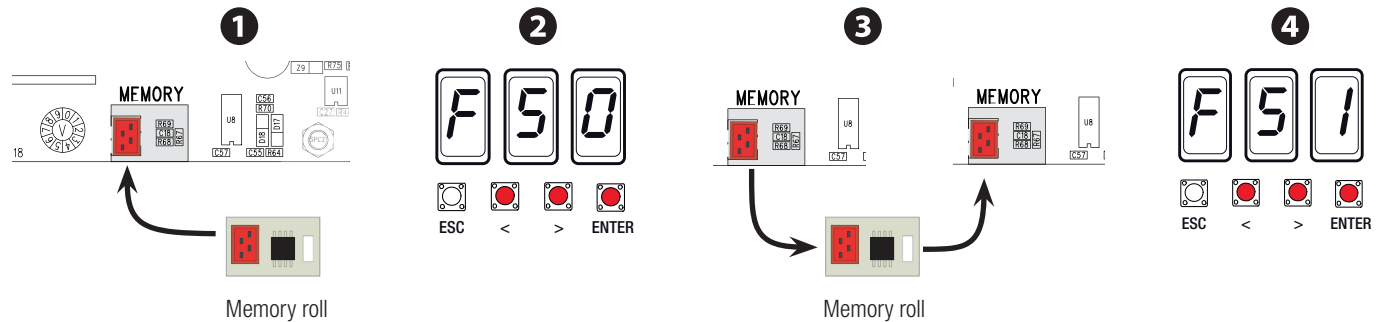
PAIRED FUNCTION

Electrical wiring
Fit the RSE card into the connector on the control panel of both operators.
Connect the two control paels to a CAT 5-type (max. 1,000 m) cable onto terminals A-A / B-B / GND-GND.
Connect all of the control and safety devices on the MASTER operator's control panel.
📖Important! Deactivate function F 19 (automatic closing time) on the SLAVE barrier's control panel.

Configuring the MASTER operator
Select function F 49. Press ENTER to confirm.
Select 1 (paired) and press ENTER.

Transferring parameters from MASTER to SLAVE
Select function F 52 on the MASTER control panel.
Select 1 and press ENTER.

Programming
Set the following functions on the MASTER board:
- the opening direction (F54);
- parameter exchange in paired mode (F52);
- travel calibration (A3).
📖 If you change the opening and closing slow-down
percentage, repeat procedure F52.

Saving
Perform the add-user procedure with the ONLY OPEN, STEP-STEP and PARTIAL / PEDESTRIAN OPENING command on the MASTER control panel.
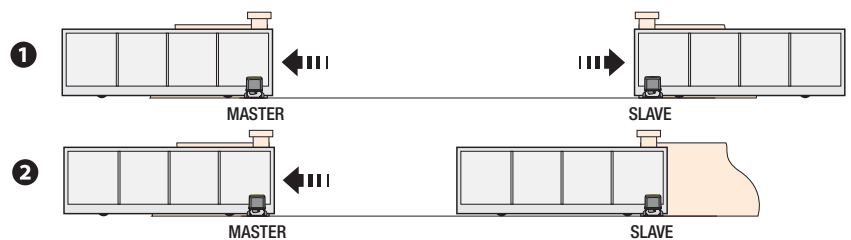
Operating modes
❶ Either STEP-STEP or ONLY OPEN command.
Both leaves open.
❷PARTIAL OPENING command. Only the MASTER operator's leaf opens.
For the types of command that can be selected and paired to users, see the ENTERING USERS WITH ASSOCIATED COMMANDS.
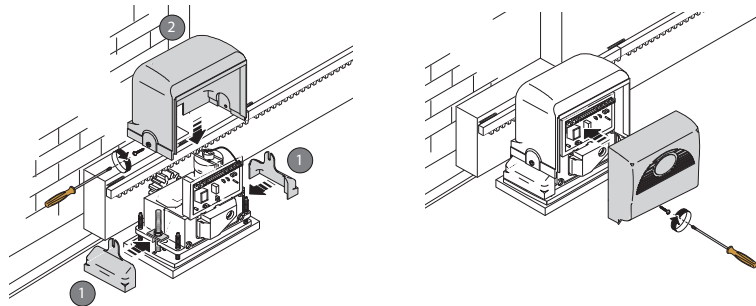
ERROR MESSAGES

📖 The error messages are shown on the display.

E 1	Calibration error.
E 2	Adjustment error.
E 3	Encoder is broken.
E 4	Safety test error.
E 7	Insufficient working time.
E 8	Release hatch open.
E 9	Closing obstruction.
E 10	Opening obstruction.
E 11	Maximum number of obstructions detected.
E 14	Serial communication error
E 15	Incompatible transmitter error.
E 17	Wireless system error.
E 18	Missing wireless system configuration

FINAL OPERATIONS

Once the electrical connections are done and the operator has been commissioned, fit the covers while being careful to not damage the cables. Fasten them with screws.

WHAT TO DO IF ...

ISSUES	POSSIBLE CAUSES	POSSIBLE FIXES
It neither opens nor closes	• Power supply is missing • The gearmotor is stuck • The transmitter emits a weak signal or no signal • Control buttons or selectors stuck	• Check main power supply • Lock the gearmotor • Replace the batteries • Check the state of all devices
The gate opens but does not close	• The photocells are working	• Check that there are no obstructions in the photocells' area of operation

⚠ *If the problem cannot be solved by following the fixes in the table or if any malfunctions, anomalies, noises, vibrations or suspicious and unexpected behavior is experienced on the system, call for qualified assistance.*

DISMANTLING AND DISPOSAL

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

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

♻ DISPOSING OF THE PACKAGING

The packaging materials (cardboard, plastic, and so on) should be disposed of as solid household waste, and simply separated from other waste for recycling.
Always make sure you comply with local laws before dismantling and disposing of the product.
DISPOSE OF RESPONSIBLY!

♻ DISMANTLING AND DISPOSAL

Our products are made of various materials. Most of these (aluminum, plastic, iron, electrical cables) are classified as solid household waste. They can be recycled by separating them before dumping at authorized city plants.
Whereas other components (control boards, batteries, transmitters, and so on) may contain hazardous pollutants.
These must therefore be disposed of by authorized, certified professional services.
Before disposing, it is always advisable to check with the specific laws that apply in your area.
DISPOSE OF RESPONSIBLY!

LIST OF REGISTERED USERS

You may photocopy this page: you can register up to 250 users.

#		#		#	
1		46		91	
2		47		92	
3		48		93	
4		49		94	
5		50		95	
6		51		96	
7		52		97	
8		53		98	
9		54		99	
10		55		100	
11		56		101	
12		57		102	
13		58		103	
14		59		104	
15		60		105	
16		61		106	
17		62		107	
18		63		108	
19		64		109	
20		65		110	
21		66		111	
22		67		112	
23		68		113	
24		69		114	
25		70		115	
26		71		116	
27		72		117	
28		73		118	
29		74		119	
30		75		120	
31		76		121	
32		77		122	
33		78		123	
34		79		124	
35		80		125	
36		81		126	
37		82		127	
38		83		128	
39		84		129	
40		85		...	
41		86		…	
42		87		...	
43		88		...	
44		89			
45		90		250	

CAME ᵀᵀ

DICHIARA CHE LE AUTOMAZIONI PER CANCELLI SCORREVOLI / DECLARES THAT THE DRIVES FOR SLIDING GATES / ERKLÄRT DASS DIE AUTOMATISIERUNGEN FÜR SCHIEBETORE / DECLARE QUE LES AUTOMATISATIONS POUR PORTAILS COULISSANTS / DECLARA QUE LAS AUTOMATIZACIONES PARA PUERTAS CORREDERAS / DECLARA QUE AS AUTOMATIZAÇÕES PARA PORTÕES DE CORRER / OSWIADCZA ZE AUTOMATYKA DO BRAM PRZESUWNYCH / VERKLAART DAT DE AUTOMATISERING VOOR SCHUIFHEKKEN

BX-74 ; BX-74A
BX-78 ; BX-78A ; BX-78CSI

SONO CONFORMI ALLE DISPOSIZIONI DELLE SEGUENTI DIRETTIVE / THEY COMPLY WITH THE PROVISIONS OF THE FOLLOWING DIRECTIVES / DEN VORGABEN DER FOLGENDEN RICHTLINIEN ENTSPRECHEN / SONT CONFORMES AUX DISPOSITIONS DES DIRECTIVES SUIVANTES / CUMPLEN CON LAS DISPOSICIONES DE LAS SIGUIENTES DIRECTIVAS / ESTÃO DE ACORDO COM AS DISPOSIÇÕES DAS SEGUINTES DIRECTIVAS / SA ZGODNE Z POSTANOWIENIAMI NASTEPUJACYCH DYREKTYW EUROPEJSKICH / VOLDOEN AAN DE VOORSCHRIFTEN VAN DE VOLGENDE RICHTLIJNEN:

- COMPATIBILITA' ELETTROMAGNETICA / ELECTROMAGNETIC COMPATIBILITY / ELEKTROMAGNETISCHE VERTRÄGLICHKEIT / COMPATIBILITÉ ÉLECTROMAGNÉTIQUE / COMPATIBILIDAD ELECTROMAGNÉTICA / COMPATIBILIDADE ELETROMAGNÉTICA / KOMPATYBILNOŚCI ELEKTROMAGNETYCZNEJ / ELEKTROMAGNETISCHE COMPATIBILITEIT : 2014/30/UE.

Riferimento norme armonizzate ed altre norme tecniche / Refer to European regulations and other technical regulations / Harmonisierte Bezugsnormen und andere technische Vorgaben / Référence aux normes harmonisées et aux autres normes techniques / Referencia normas armonizadas y otras normas técnicas / Referência de normas harmonizadas e outras normas técnicas / Odnosne normy ujednolicone i inne normy techniczne / Geharmoniseerde en andere technische normen waarnaar is verwezen

EN 61000-6-2:2005
EN 61000-6-3:2007+A1:2011
EN 62233:2008
EN 60335-1:2012+A11:2014
EN 60335-2-103:2015

RISPETTANO I REQUISITI ESSENZIALI APPLICATI: / MEET THE APPLICABLE ESSENTIAL REQUIREMENTS: / DEN WESENTLICHEN ANGEWANDTEN ANFORDERUNGEN ENTSPRECHEN: / RESPECTENT LES CONDITIONS REQUISES NECESSAIRES APPLIQUEES: / CUMPLEN CON LOS REQUISITOS ESENCIALES APLICADOS: / RESPEITAM O REQUISITOS ESSENCIAIS APLICADOS: / SPEŁNIAJA PODSTAWOWE WYMAGANE WYRUNKI: / VOLDOEN AAN DE TOEPASBARE MINIMUM EISEN:

1.1.3; 1.1.5; 1.2.1; 1.2.2; 1.3.2; 1.3.7; 1.3.8.1; 1.4.1; 1.4.2; 1.5.1; 1.5.6; 1.5.8; 1.5.9; 1.5.9; 1.5.13; 1.6.1; 1.6.3; 1.6.4; 1.7.1; 1.7.2; 1.7.4

PERSONA AUTORIZZATA A COSTITUIRE LA DOCUMENTAZIONE TECNICA PERTINENTE / PERSON AUTHORISED TO COMPILE THE RELEVANT TECHNICAL DOCUMENTATION / PERSON DIE BEVOLLMÄCHTIGT IST, DIE RELEVANTEN TECHNISCHEN UNTERLAGEN ZUSAMMENZUSTELLEN / DOCUMENTATION TECHNIQUE SPECIFIQUE D'AUTORISATION A CONSTRUIRE DE / PERSONA FACULTADA PARA ELABORAR LA DOCUMENTACIÓN TÉCNICA PERTINENTE / PESSOA AUTORIZADA A CONSTITUIR A DOCUMENTAÇÃO TÉCNICA PERTINENTE / OSOBA UPOWAZNIONA DO ZREDAGOWANIA DOKUMENTACJI TECHNICZNEJ / DEGENE DIE GEMACHTIGD IS DE RELEVANTE TECHNISCHE DOCUMENTEN SAMEN TE STELLEN.

CAME S.p.a.

La documentazione tecnica pertinente è stata compilata in conformità all'allegato VIIB. /. The pertinent technical documentation has been drawn up in compliance with attached document VIIB. / Die relevante technische Dokumentation wurde entsprechend der Anlage VIIB ausgestellt. / La documentation technique spécifique a été remplie conformément à l'annexe IIB. / La documentación técnica pertinente ha sido rellenada en cumplimiento con el anexo VIIB. / A documentação técnica pertinente foi preenchida de acordo com o anexo VIIB. / Odnosna dokumentacja techniczna została zredagowana zgodnie z załacznikiem VIIB. / De technische documentatie terzake is opgesteld in overeenstemming met de bijlage VIIB.

CAME S.p.a. si impegna a trasmettere, in risposta a una richiesta adeguatamente motivata dalle autorità nazionali, informazioni pertinenti sulle quasi macchine, e / Came S.p.a, following a duly motivated request from the national authorities, undertakes to provide information related to the quasi machines, and / Die Firma Came S.p.a. verpflichtet sich auf eine angemessen motivierte Anfrage der staatlichen Behörden Informationen über die unvollständigen Maschinen, zu übermitteln, und / Came S.p.A. s'engage à transmettre, en réponse à une demande bien fondée de la part des autorités nationales, les renseignements relatifs aux quasi machines / Came S.p.A. se compromete a transmitir, como respuesta a una solicitud adecuadamente fundada por parte de las autoridades nacionales, informaciones relacionadas con las cuasimáquinas / Came S.p.A. compromete-se em transmitir, em resposta a uma solicitação motivada apropriadamente pelas autoridades nacionais, informações pertinentes às partes que componham máquinas / Came S.p.A. zobowiazuje sie do udzielenia informacji dotyczacych maszyn nieukonczonych na odpowiednio umotywowana prosbe, złozona przez kompetentne organy panstwowe / Came S.p.A. verbindt zich ertoe om op met redenen omkleed verzoek van de nationale autoriteiten de relevante informatie voor de niet voltooide machine te verstrekken.

VIETA / FORBIDS / VERBIETET / INTERDIT / PROHIBE / PROIBE / ZABRANIA SIE / VERBIEDT
la messa in servizio finchè la macchina finale in cui deve essere incorporata non è stata dichiarata conforme, se del caso alla 2006/42/CE. / commissioning of the above mentioned until such moment when the final machine into which they must be incorporated, has been declared compliant, if pertinent, to 2006/42/CE / die Inbetriebnahme bevor die „Endmaschine" in die die unvollständige Maschine eingebaut wird, als konform erklärt wurde, gegebenenfalls gemäß der Richtlinie 2006/42/EU. / la mise en service tant que la machine finale dans laquelle elle doit être incorporée n'a pas été déclarée conforme, le cas échéant, à la norme 2006/42/CE. / la puesta en servicio hasta que la máquina final en la que será incorporada no haya sido declarada de conformidad de acuerdo a la 2006/42/CE / a colocação em funcionamento, até que a máquina final, onde devem ser incorporadas, não for declarada em conformidade, se de acordo com a 2006/42/CE. / Uruchomienia urzadzenia do czasu, kiedy maszyna, do której ma byc wbudowany, nie zostanie oceniona jako zgodna z wymogami dyrektywy 2006/42/WE, jesli taka procedura była konieczna. / deze in werking te stellen zolang de eindmachine waarin de niet voltooide machine moet worden ingebouwd in overeenstemming is verklaard, indien toepasselijk met de richtlijn 2006/42/EG.

Dosson di Casier (TV)
29 Novembre / November / November /
Novembre / Noviembre / Novembro /
Listopad / November 2017

Legale Rappresentante / Legal Representative /Gesetzlicher Vertreter / Representant Legal / Representante Legal / Representante Legal / Prawny Przedstawiciel / Juridische Vertegenwoordiger

Paolo Menuzzo

Fascicolo tecnico a supporto / Supporting technical dossier / Unterstützung technische Dossier / soutenir dossier technique / apoyo expediente técnico / apoiar dossier técnico / wspieranie dokumentacji technicznej / ondersteunende technische dossier: 001BX74

Left margin: DICHIARAZIONE DI INCORPORAZIONE allegato /DECLARATION OF INCORPORATION annex / ERKLÄRUNG FÜR DEN EINBAU anhang / DÉCLARATION D'INCORPORATION annexe / DECLARACIÓN DE INCORPORACIÓN annexo / DECLARAÇÃO DE INCORPORAÇÃO anexo / DEKLARACJA WBUDOWANIA załączniku / INBOUWVERKLARING bijlage IIB - 2006/42/CE

CAME ᵀᵀ