



Sliding gate operator BK series

FA01161-EN



BK-800 / 1200 / 1800 / 2200
1210 / 1810 / 2210

INSTALLATION OPERATION AND MAINTENANCE MANUAL

EN English

Fabbricante / Manufacturer / Hersteller / Fabricant / Fabricante / Fabricante
/ Wytwórca / Fabrikant

Came S.p.a.

indirizzo / address / adresse / adresse / dirección / endereço / adres / adres

Via Martiri della Libertà 15 - 31030 Dosson di Casier, Treviso - Italy



DICHIARAZIONE DI INCORPORAZIONE allegato / DECLARATION OF INCORPORATION annex / ERKLÄRUNG FÜR DEN
EINBAU anhang / DECLARATION D'INCORPORATION annexe / DECLARACION DE INCORPORACION anexo / DECLARAÇÃO
DE INCORPORAÇÃO anexo / DEKLARACJA WBUDOWANIA załącznik / INBOUWERKLARING bijlage IIB - 2006/42/CE

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 COUISSANTS / 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

BK-1200 ; BK-1200-ELTRON
BK-1201 ; BK-1800 ; BK-1801
BK-2200 ; BK-2200A ; BK-800

SONO CONFORMI ALLE DISPOSIZIONI DELLE SEGUENTI DIRETTIVE / THEY COMPLY WITH THE PROVISIONS OF THE FOLLOW-
ING 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 ZGDONE Z POSTANOWIENIAMI NASTĘPUJĄCYCH DYREKTYW
EUROPEJSKICH / VOLDOEN AAN DE VOORSCHRIFTEN VAN DE VOLGENDE RICHTLIJNEN:

- COMPATIBILITA' ELETTROMAGNETICA / ELECTROMAGNETIC COMPATIBILITY / ELEKTROMAGNETISCHE
VERTRÄGLICHKEIT / COMPATIBILITÉ ÉLECTROMAGNÉTIQUE / COMPATIBILIDAD ELECTROMAGNÉTICA / COMPATIBILI-
DADE ELETROMAGNÉTICA / KOMPATYBILNOŚCI ELEKTROMAGNETYCZNEJ / ELEKTROMAGNETISCHE COMPATIBI-
LITEIT : 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 harmoniza-
das e outras normas técnicas / Odnosne normy ujednoczone 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: / RESPECTER LES CONDITIONS REQUISES NECESSAIRES APPLIQUEES:
/ CUMPLEN CON LOS REQUISITOS ESENCIALES APLICADOS: / RESPETAM 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
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SAMEN TE STELLEN.

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La documentazione tecnica pertinente è stata compilata in conformità all'allegato VII B. / The pertinent technical documentation has been drawn up in compliance with attached
document VII B. / Die relevante technische Dokumentation wurde entsprechend der Anlage VII B 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 VII B. / A documentação técnica pertinente foi preenchida de acordo com o anexo
VII B. / Odnosna dokumentacja techniczna została zredagowana zgodnie z załącznikiem VII B. / De technische documentatie terzake is opgesteld in overeenstemming met de bijlage VII B.

CAME S.p.a. si impegna a trasmettere, in risposta a una richiesta adeguatamente motivata delle 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 compoñam máquinas / Came S.p.a. zobowiązuje się do udzielenia informacji dotyczących maszyn
nieukonczonych na odpowiednio umotywowana prośbę, złożoną przez kompetentne organy państwowe / Came S.p.a. verbindt zich ertoe om op met redenen omkleed verzoek van de
nationale autoriteiten de relevante informatie voor de niet voltooid machine te verstrekken,

VIETA / FORBIDS / VERBIETET / INTERDIT / PROHIBE / PROIBE / ZABRANIA SIE / VERBIEDT

la messa in servizio finché 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. / Uruchomienie urządzenia do czasu, kiedy maszyna, do której ma być wbudowany, nie zostanie oceniona jako zgodna z wymogami dyrektywy 2006/42/WE, jeśli taka
procedura była konieczna. / deze in werking te stellen zolang de eindmachine waarin de niet voltooid 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 / soutien dossier technique / apoyo expediente
técnico / apoiar dossier técnico / wspieranie dokumentacji technicznej / ondersteunende technische dossier: 001BK-1200

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info@came.it - www.came.com

Cap. Soc. 1.610.000,00 € - C.F. e P.I. 03481280265 - VAT IT 03481280265 - REA TV 275359 - Reg Imp. TV 03481280265

GENERAL PRECAUTIONS FOR USERS

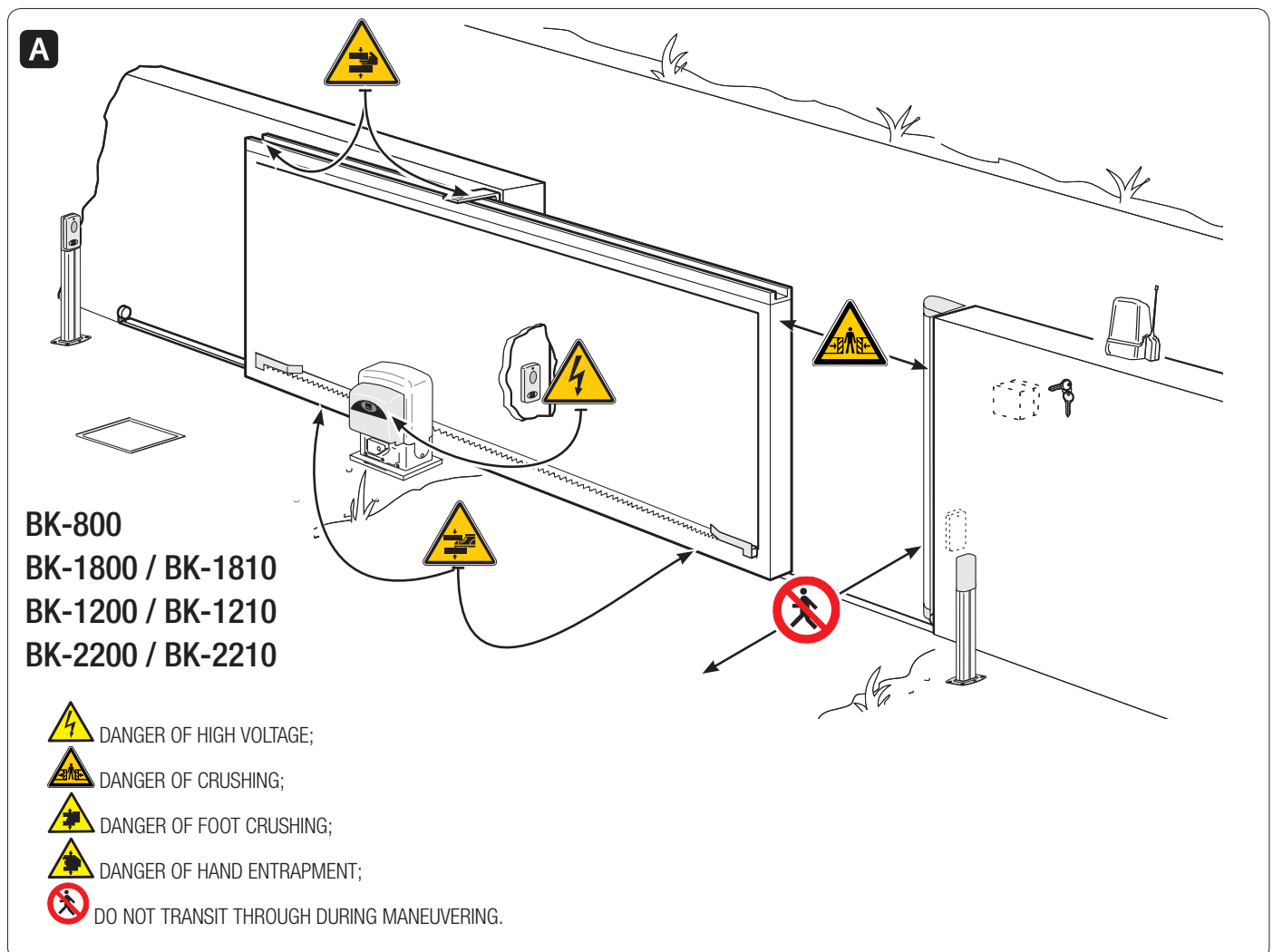
⚠ WARNING! Important safety instructions.

Carefully follow these instructions for the safety of people.

Keep these instructions.

• BEFORE USING THIS PRODUCT, READ ALL ITS SAFETY PRECAUTIONS • THIS PRODUCT SHOULD ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS EXPLICITLY DESIGNED. ANY OTHER USE IS DANGEROUS. CAME S.P.A. IS NOT LIABLE FOR ANY DAMAGE CAUSED BY IMPROPER, WRONGFUL AND UNREASONABLE USE. • THIS PRODUCT SUPPLIED BY CAMES.P.A. IS CONSIDERED TO BE "PARTLY-COMPLETED MACHINERY", PURSUANT TO MACHINERY DIRECTIVE 2006/42/CE. PARTLY-COMPLETED MACHINERY IS AN ASSEMBLY 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 APPARATUS TO BUILD MACHINERY THAT IS REGULATED BY DIRECTIVE 2006/42/CE. THE FINAL INSTALLATION MUST BE COMPLIANT WITH EUROPEAN DIRECTIVE 2006/42/CE AND EUROPEAN REFERENCE STANDARDS: EN 13241-1, EN 12453, EN 12445 AND EN 12635. • ALL SYSTEM SETTING UP AND OPERATOR INSTALLATION TASKS MUST BE CONDUCTED EXCLUSIVELY BY QUALIFIED, EXPERT STAFF • AN IN-DEPTH REPORT ON ANY RESIDUAL RISKS ASSOCIATED WITH THE INSTALLATION CAN BE REQUESTED FROM THE QUALIFIED, EXPERT STAFF, ALONG WITH INSTRUCTIONS ON HOW TO OPERATE THE CONTROL DEVICES • MAKE SURE YOU ARE GIVEN AND THAT YOU STORE ALL OPERATING MANUALS RELATED TO THE PRODUCTS THAT MAKE UP THE FINAL MACHINERY • IT IS FORBIDDEN FOR USERS TO PERFORM ANY OPERATIONS WHICH ARE NOT EXPRESSLY MENTIONED OR REQUIRED OF THEM IN THE MANUALS FOR REPAIRS, SETTINGS AND EXTRAORDINARY MAINTENANCE, PLEASE CONTACT THE TECHNICAL ASSISTANCE CENTER. • THIS APPARATUS MAY BE USED BY CHILDREN OF OVER EIGHT YEARS OF AGE AND BY PERSONS THAT ARE PHYSICALLY, MENTALLY AND SENSORIALLY CHALLENGED, OR THAT HAVE NO EXPERIENCE OR KNOWLEDGE OF IT, PROVIDED THAT IT HAPPENS UNDER SUPERVISION, OR AFTER BEING TRAINED ON HOW TO SAFELY OPERATE IT AND OF THE RISKS INVOLVED. • CHILDREN MUST NOT PLAY WITH THE DEVICE OR ITS CONTROLS, INCLUDING ANY TRANSMITTERS. • CHAPERON CHILDREN TO PREVENT CHILDREN FROM PLAYING WITH THE APPARATUS AND ITS CONTROLS • CLEANING AND MAINTENANCE BY USERS MUST NOT BE PERFORMED BY UNSUPERVISED CHILDREN. • FREQUENTLY INSPECT THE INSTALLATIONS TO CHECK FOR SIGNS OF UNBALANCES OR WEAR-AND-TEAR. • DO NOT USE IF REPAIRS OR SETTINGS ARE REQUIRED. • IF ANY REPAIRS OR CHANGES NEED TO BE MADE TO THE SYSTEM, RELEASE THE OPERATOR AND DO NOT USE IT UNTIL SAFETY CONDITIONS ARE RESTORED BY QUALIFIED, EXPERT STAFF. • CUT OFF THE ELECTRIC POWER BEFORE RELEASING THE OPERATOR FOR MANUALLY OPENING THE GATE, AND BEFORE ANY PROCEDURE, TO PREVENT ANY HAZARDOUS SITUATIONS. READ THE INSTRUCTIONS • IF THE POWER-SUPPLY CABLE IS DAMAGED, IT MUST BE IMMEDIATELY REPLACED BY THE MANUFACTURER OR BY AN AUTHORIZED TECHNICAL ASSISTANCE CENTER, OR IN ANY CASE, BY QUALIFIED STAFF, TO PREVENT ANY RISK • ALWAYS PAY SPECIAL ATTENTION TO ANY DANGEROUS POINTS, WHICH HAVE TO BE LABELED WITH SPECIFIC PICTOGRAMS AND/OR BLACK AND YELLOW STRIPES • WHEN USING A SELECTOR OR CONTROL IN MAINTAINED-ACTION MODE, ALWAYS CHECK THAT THERE ARE NO PEOPLE LOITERING IN THE AREA OF OPERATION OF THE MOVING PARTS, UNTIL THE CONTROL IS RELEASED • IT IS FORBIDDEN TO ACCESS ANY PROTECTED INTERNAL PARTS. • THE DEVICE EMITS A LEVEL OF ACOUSTIC PRESSURE EQUAL OR INFERIOR TO 70 dB (A). • IN CASE OF ANY MALFUNCTION OR STRUCTURAL DAMAGE, IMMEDIATELY STOP OPERATION AND CALL FOR QUALIFIED TECHNICAL ASSISTANCE. • DO NOT ACTIVATE THE OPERATOR IF PEOPLE, PETS OR OBJECTS ARE OBSTRUCTING THE PASSAGE.

THE FIGURE SHOWS **A** SHOWS THE MAIN POINTS OF DANGER FOR PEOPLE.



MANUALLY RELEASING THE GEARMOTOR

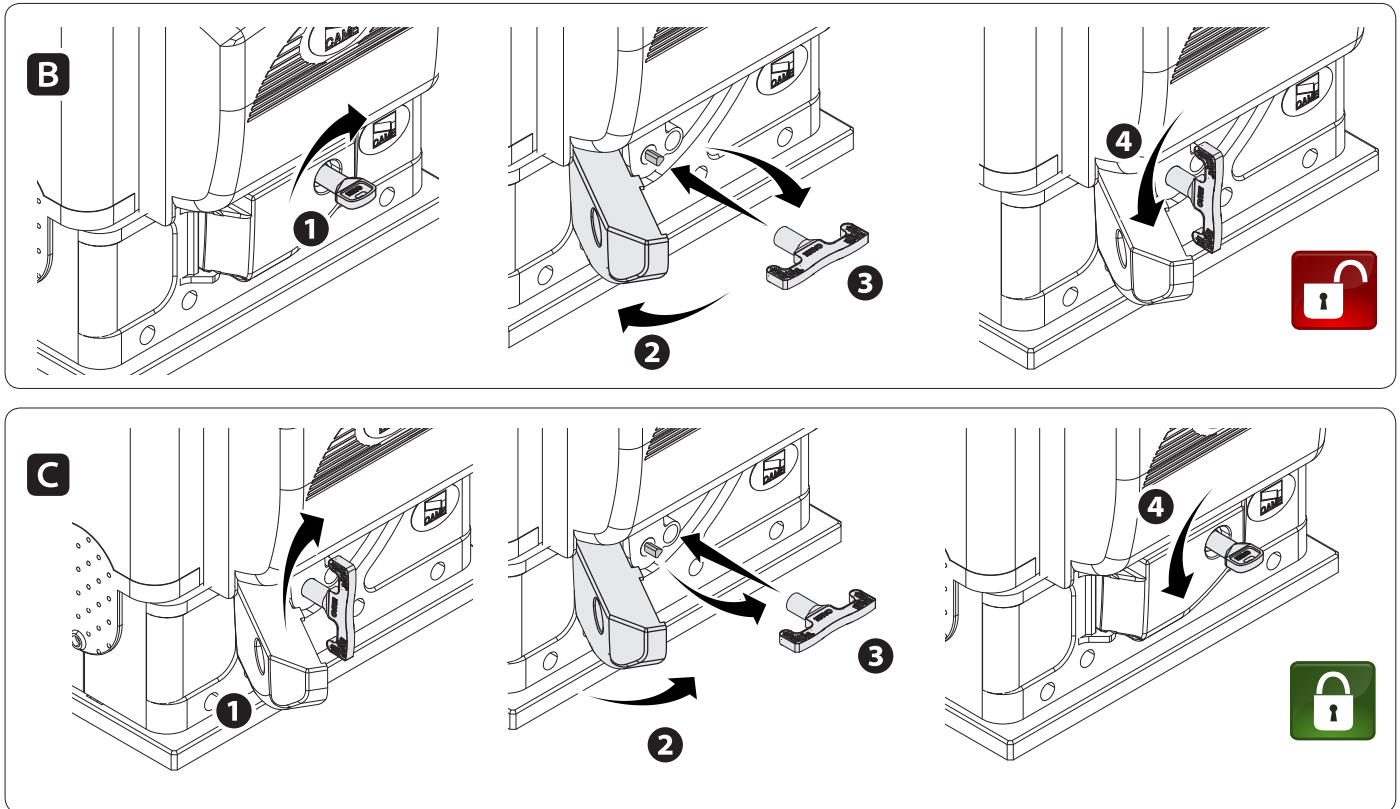
⚠ **Manually releasing the gate may cause an uncontrolled movement of the gate due to possible mechanical anomalies or unbalancing.**

RELEASING (figure B)

- Refit the trilobe key and turn it clockwise.
- Open the hatch and turn the supplied release handle counterclockwise.

LOCKING (figure C)

To lock the operator back into place, turn the handle clockwise and close the hatch, then turn the key counterclockwise.



MAINTENANCE

⚠ **WHEN CLEANING, MAINTAINING AND REPLACING PARTS, DISCONNECT THE OPERATOR FROM THE MAINS POWER SUPPLY (EXCLUDING POINT B)**

At least every six months, perform ordinary maintenance jobs.

⚠ **When performing this procedure, keep clear of the movement of the boom.**

A - Wipe clean the photocells' glass with a soft, slightly water-dampened cloth. Do not use any solvents or other chemicals.

B - Check that the photocells are working properly by waving an object between them when the gate is moving: is the gate inverts its direction or the maneuver is stopped, the photocells are working properly.

C - Check that there are no impediments to the proper operation of the operator, such as any overgrown vegetation that could block the photocells or any changes or yielding to the gate's structure.

Any repairs, or changes to the installation must be performed by qualified staff and all jobs logged carefully.

WHAT TO DO IF ...

ISSUES	POSSIBLE CAUSES	POSSIBLE FIXES
It neither opens nor closes	<ul style="list-style-type: none"> • Power supply is missing • The gearmotor is stuck • The transmitter is emitting a weak signal or no signal at all • Control buttons or selectors stuck 	<ul style="list-style-type: none"> • Check main power supply • Lock the gearmotor • Replace the batteries • Check the state of all devices
The gate opens but does not close	<ul style="list-style-type: none"> • The photocells are working 	<ul style="list-style-type: none"> • 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.**

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 IS DANGEROUS. CAME 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". QUASI-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 BE COMPLIANT WITH EUROPEAN DIRECTIVE 2006/42/CE AND EUROPEAN REFERENCE STANDARDS: EN 13241-1, EN 12453, EN 12445 ED 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 TEMPERATURE RANGE SHOWN ON THE OPERATOR IS SUITABLE TO 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, IT MUST BE IMMEDIATELY REPLACED BY THE MANUFACTURER OR BY AN AUTHORIZED TECHNICAL ASSISTANCE CENTER, OR IN ANY CASE, BY QUALIFIED STAFF, TO PREVENT ANY RISK
- DURING ALL PHASES OF THE INSTALLATION MAKE SURE YOU HAVE CUT OFF THE MAINS POWER SOURCE.
- 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 CASTORS 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 ANY PROTECTIONS AND SIGNS TO PREVENT HAZARDOUS SITUATIONS.
- DO NOT FIT THE OPERATOR UPSIDE DOWN OR ONTO ELEMENTS THAT COULD YIELD TO 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 DEMARCATATE 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, AVOID CRUSHING HAZARDS 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 MUST NOT BE ACCESSIBLE TO THE PUBLIC.
- 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
- TO LIFT MANUALLY, ADD ONE PERSON FOR EVERY 20 KG TO BE LIFTED. OTHERWISE USE SUITABLE HOISTING EQUIPMENT.

FIGURE  (PAGE 3) SHOWS THE MAIN DANGER POINTS FOR PEOPLE.

KEY

-  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

Operator complete with control board and mechanical end stops for sliding gates up to 2.200 kg in weight.

INTENDED USE

The operator is designed to power sliding gates used in apartment blocks and industrial plants.

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

INTENDED USE

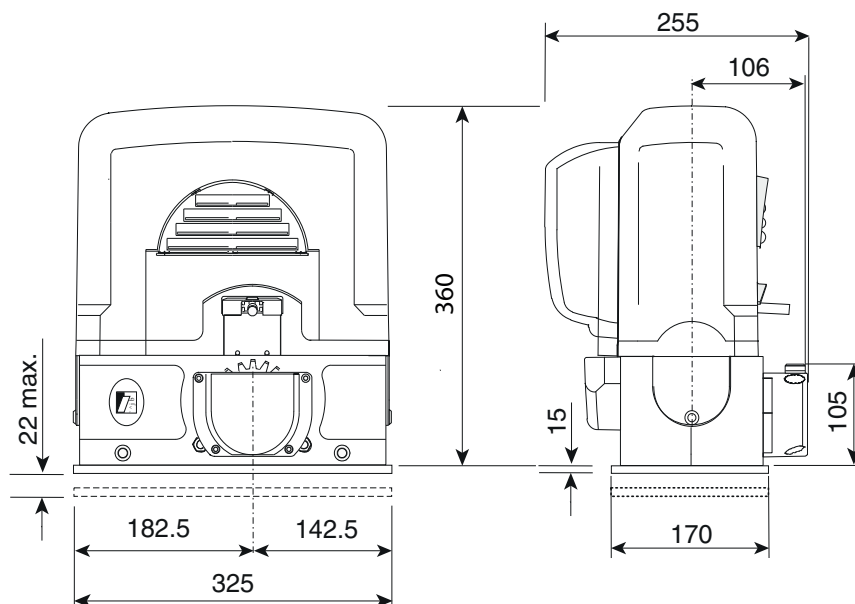
Model	BK-800	BK-1200 / 1210	BK-1800 / 1810	BK-2200 / 2210
Standard reference* length of the sliding part (m)	10			
Maximum weight of the sliding part (kg)	800	1.200	1.800	2.200
Pinion module	4	4	4	6

* When applied to other than standard measurements, see the following paragraphs.

TECHNICAL DATA

Model	BK-800	BK-1200	BK-1800	BK-2200	BK-1210	BK-1810	BK-2210
Protection rating (IP)	44						
Power supply (V - 50/60 Hz)	230 AC					120 AC	
Input voltage to motor (V - 50/60 Hz)	230 AC					120 AC	
Stand-by consumption (W)	5						
Stand-by consumption with the RGP1 (W) module	0,5					-	
Power (W)	520	380	480	580	310	440	500
Thrust (N)	800	850	1150	1500	850	1100	1400
Opening speed (m/min)	10,5						
Operating temperature (°C)	-20 ÷ +55						
Condenser (µF)	22	25	31,5	35	100	140	160
Apparatus class	I						
Motor's heat protection (°C)	150						
Acoustic pressure dB (A)	≤70						
Weight (Kg)	21	18	19,5	21	18	19,5	21

DIMENSIONS



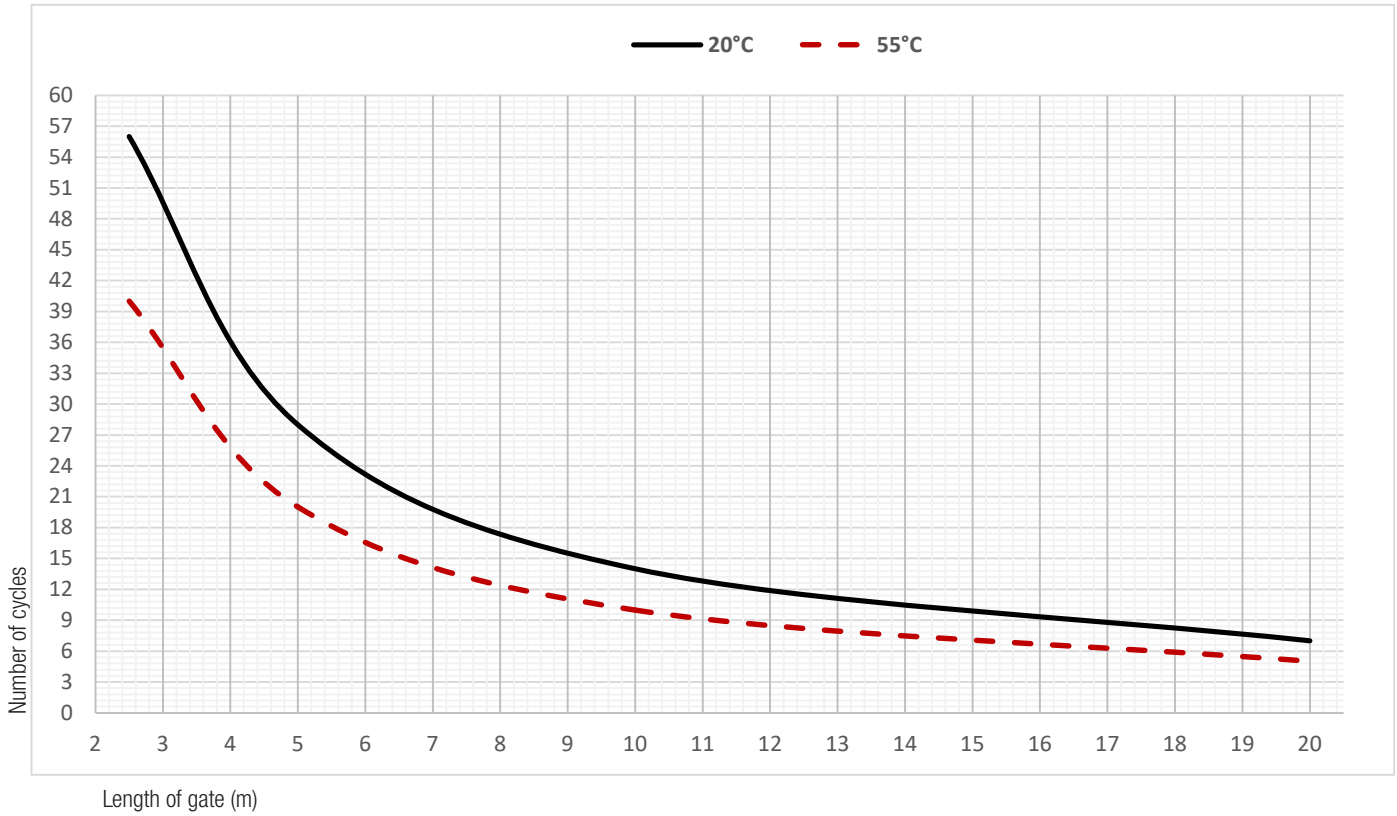
DUTY CYCLES

Datum	BK-800 / 1200 / 1210 / 1800 / 1810 / 2200 / 2210
Cycles/hour (no.)	14
Consecutive cycles (no.)	13

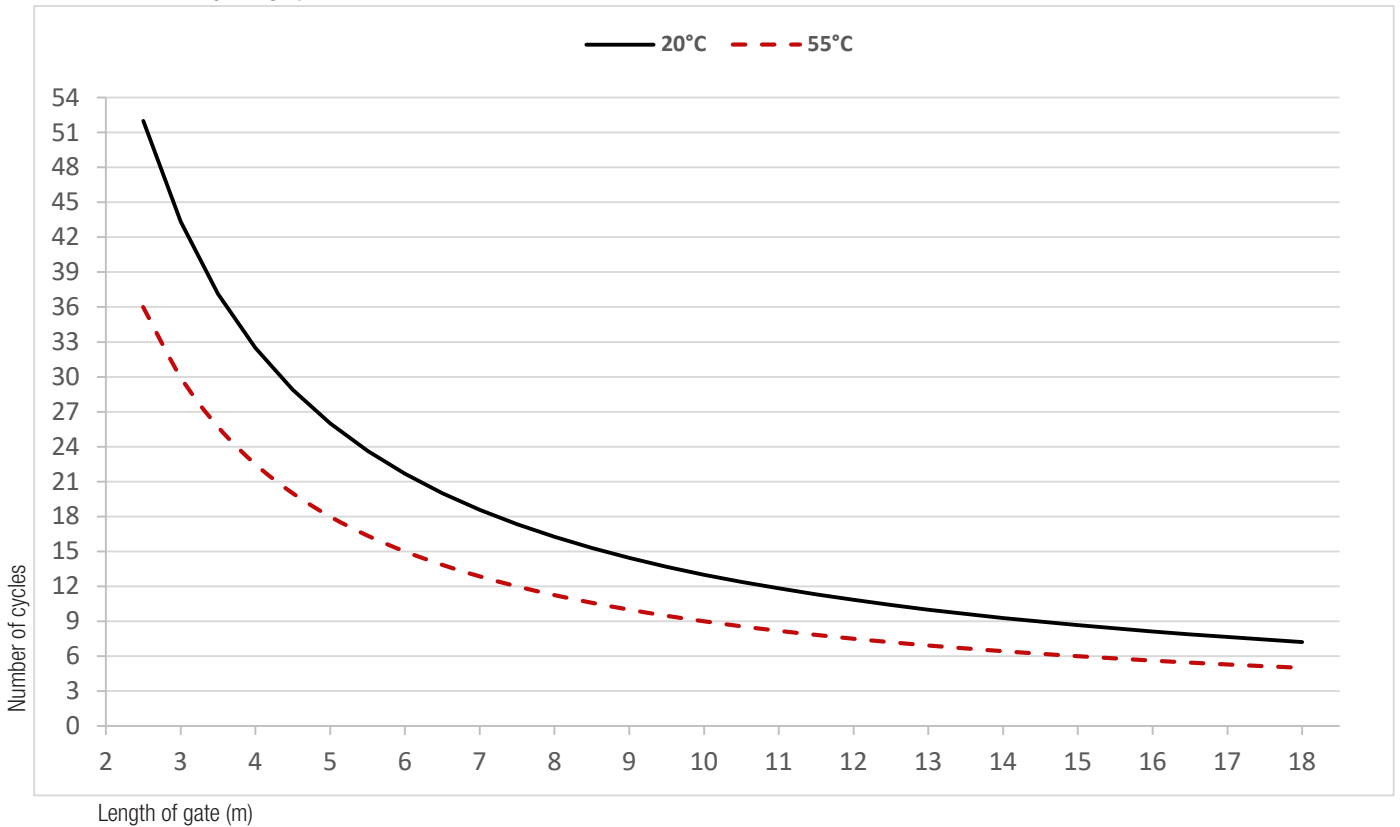
The cycles calculation refers to a gate that has a standard reference length (see Intended Use), that is properly installed, without any mechanical and/or accidental conflicts, measured at an ambient temperature of 20° C, as defined in EN Standard 60335-2-103.

When applying measurements other than standard, see the following graphs.

- Cycles/hour graph**

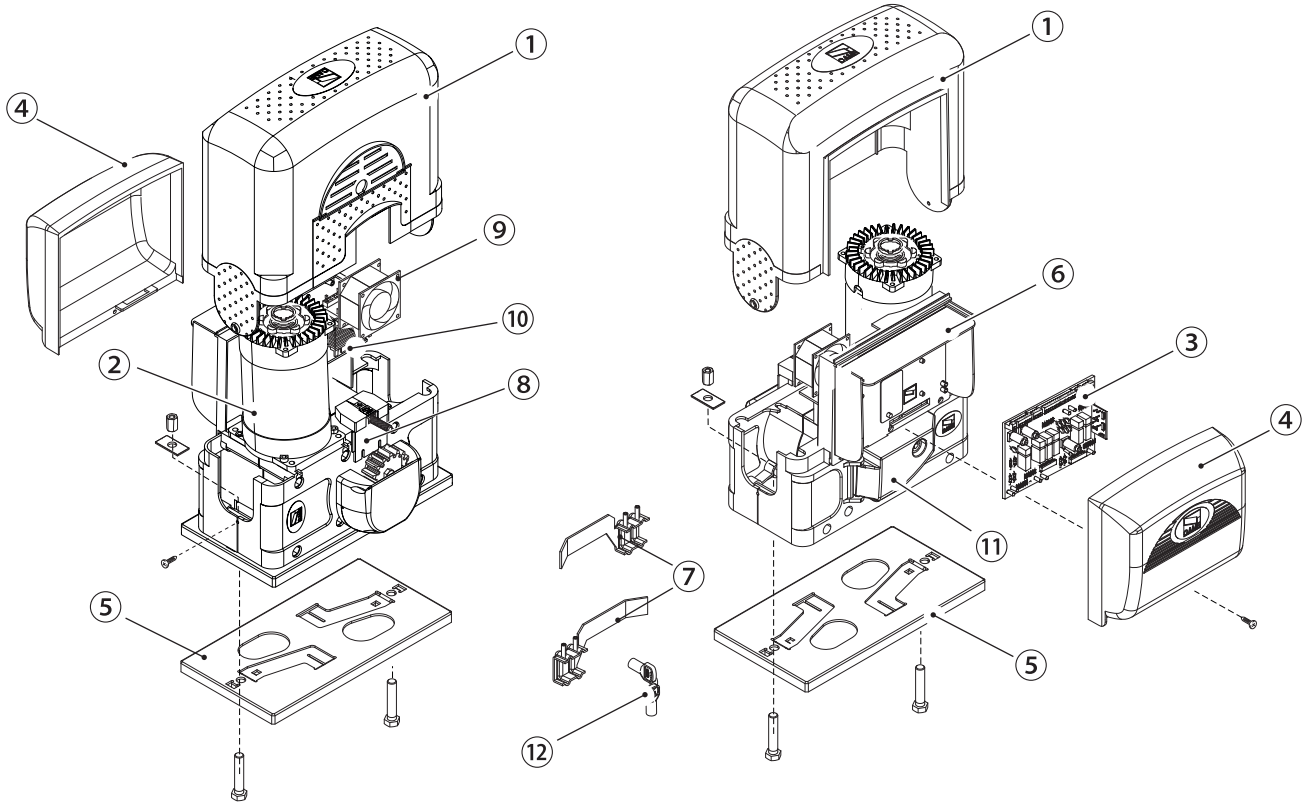


- Consecutive cycles graph**



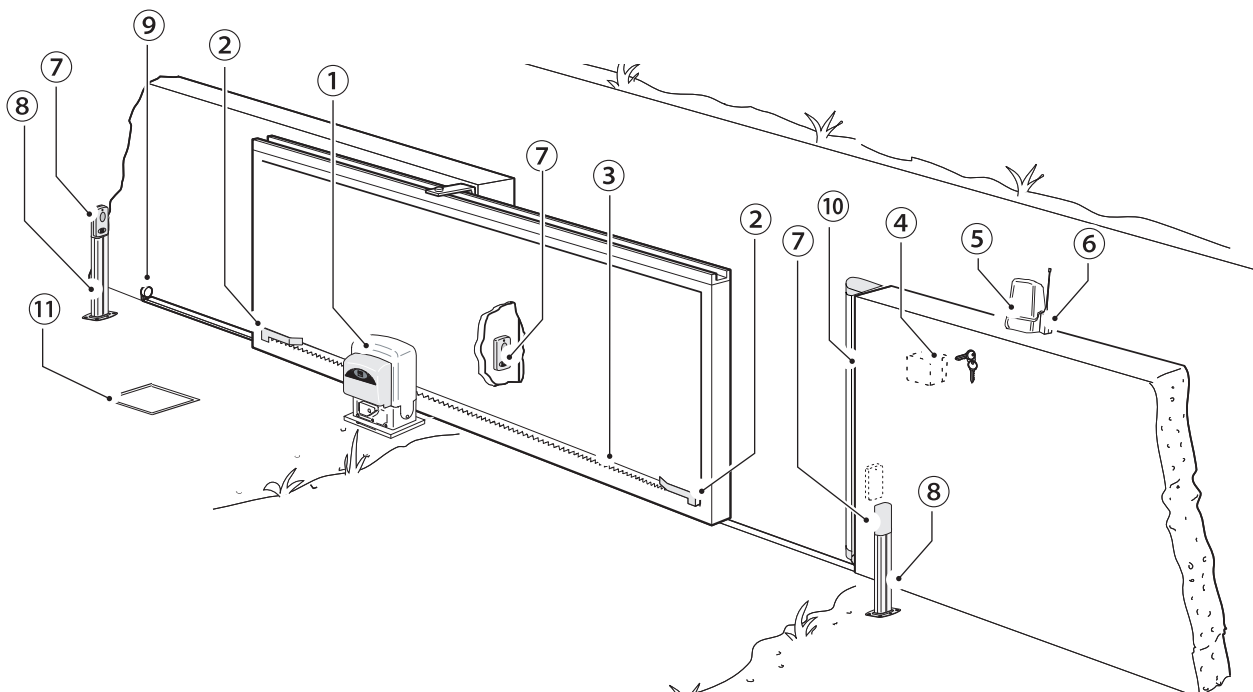
DESCRIPTION OF PARTS

- | | |
|-------------------------|----------------------------|
| 1. Cover | 7. Limit-switch fins |
| 2. Gearmotor | 8. Mechanical limit switch |
| 3. Control board | 9. Fan (BK-800 series) |
| 4. Front cover | 10. Transformer |
| 5. Anchoring plate | 11. Release hatch |
| 6. Control-board holder | 12. Release key |



STANDARD INSTALLATION

- | | |
|------------------------|---------------------------|
| 1. Operator | 7. Photocells |
| 2. Limit-switch fins | 8. Photocells post |
| 3. Rack | 9. Mechanical gate stop |
| 4. Key-switch selector | 10. Sensitive safety-edge |
| 5. Flashing light | 11. Junction pit |
| 6. Antenna | |



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;
- make sure you have fitted opening and closing mechanical gate stops;
- make sure that the point where the operator is fastened is protected from any impacts and that the surface is solid enough;
- 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;
- 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.

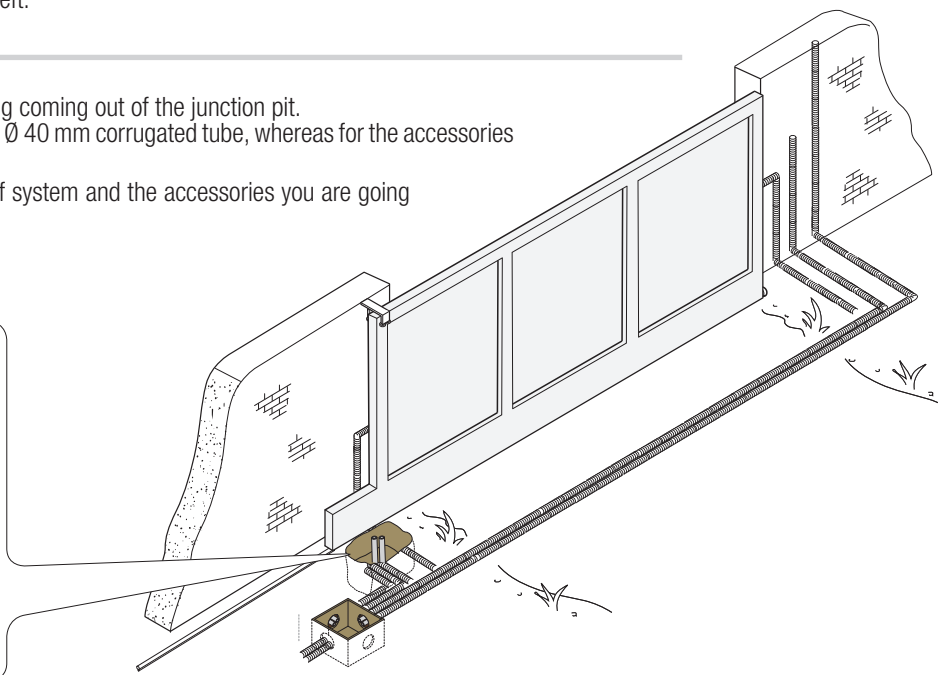
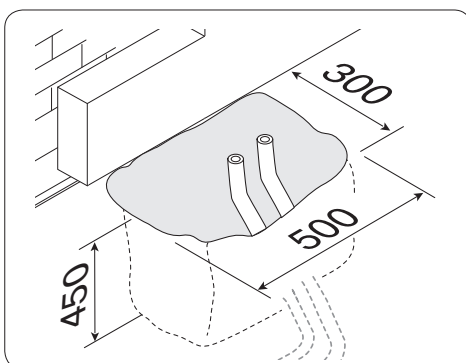
LAYING THE CORRUGATED TUBES

Dig a hole for the foundation frame.

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

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

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

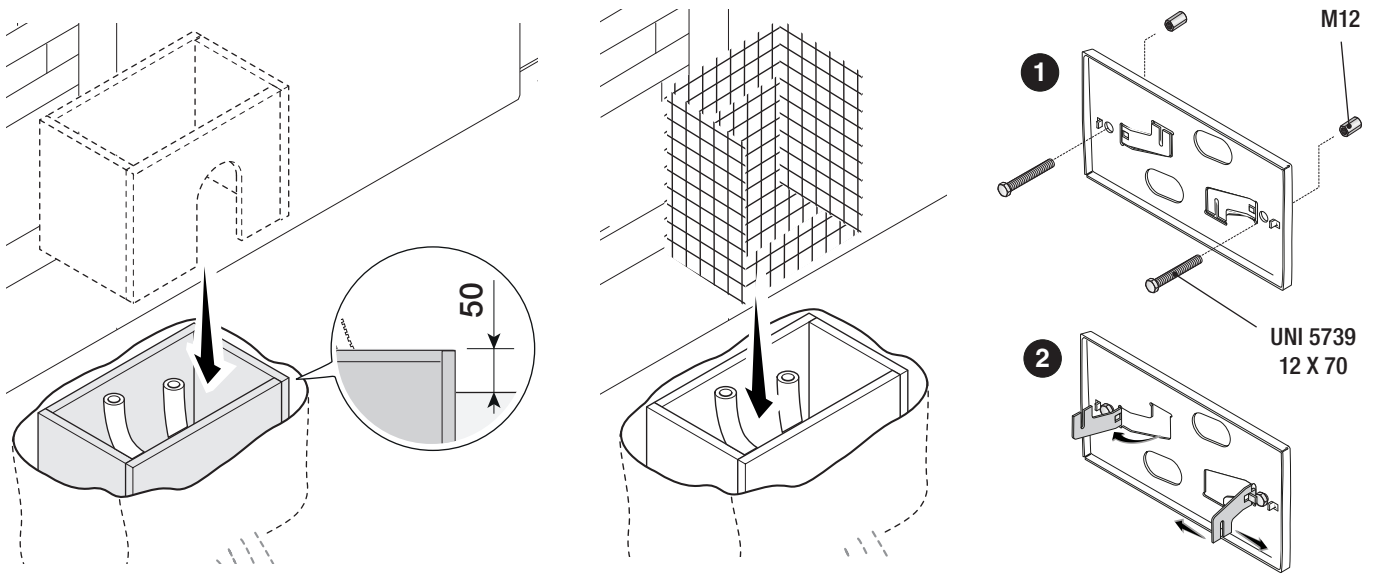


FITTING THE ANCHORING PLATE

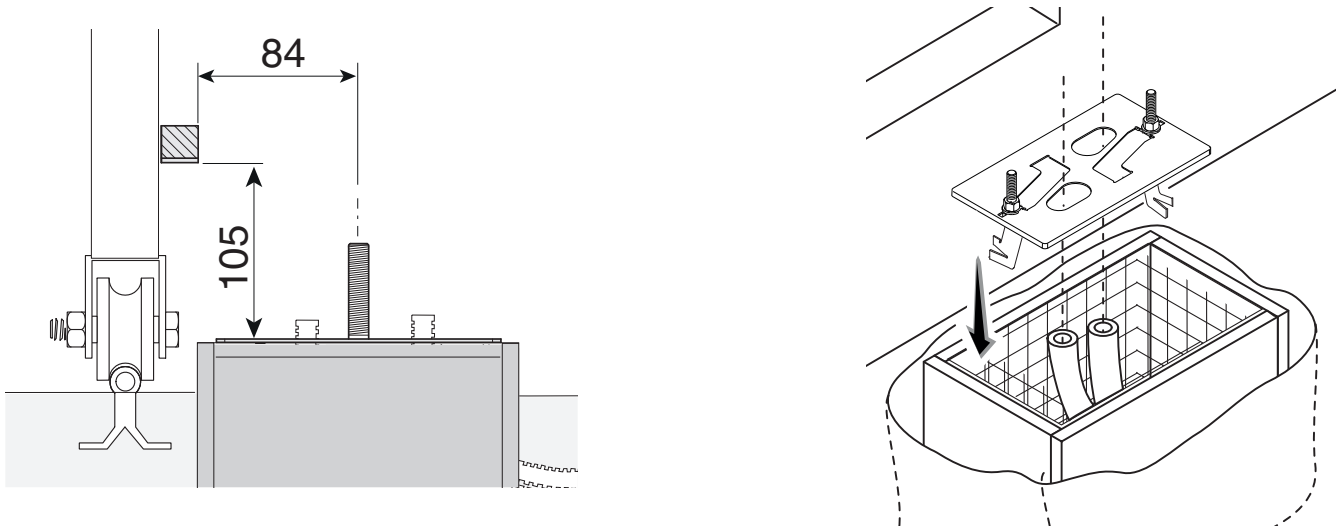
Set up a foundation frame that is larger than the anchoring plate and sink it into the dug hole. The foundation frame must jut out by 50 mm above ground level.

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.



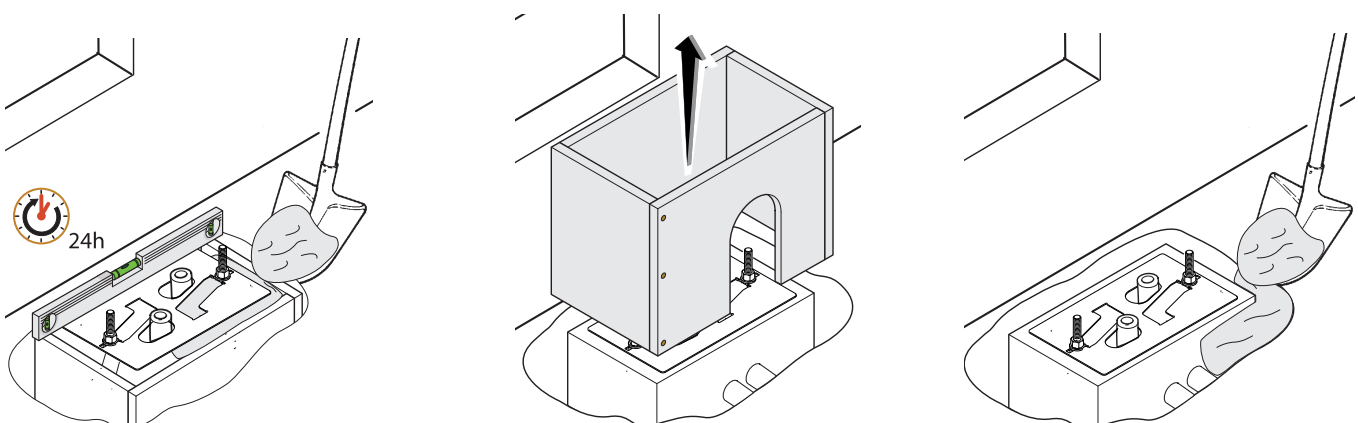
If the rack is already there, place the anchoring plate, being careful to respect the measurements shown in the drawing. Careful! The tubes must pass through their corresponding holes.



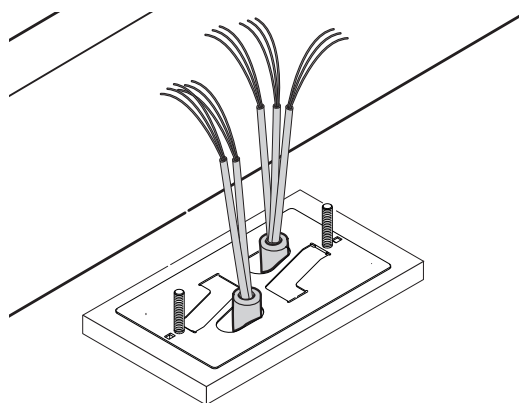
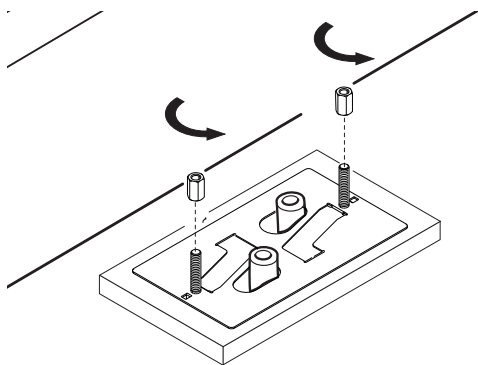
Fill the foundation frame with concrete. The plate must be perfectly level with the bolts which are entirely above surface.

Wait at least 24 hrs for the concrete to solidify.

Remove the foundation frame and fill the hole with earth around the concrete block.

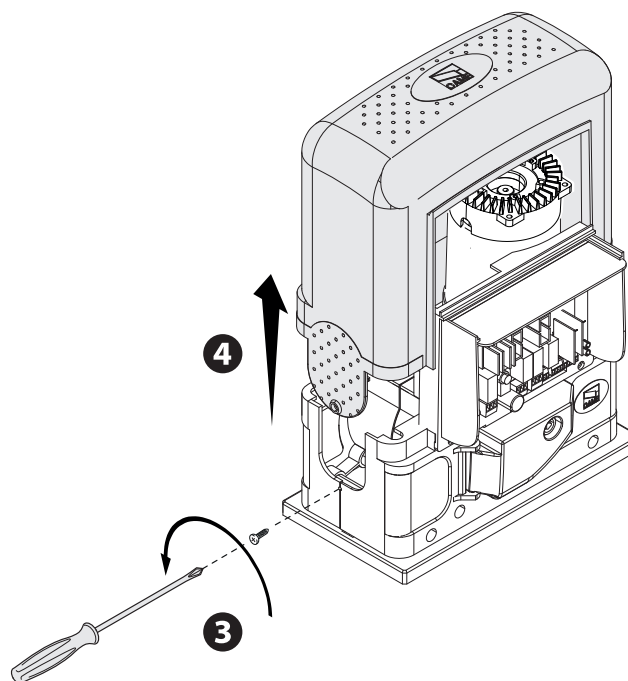
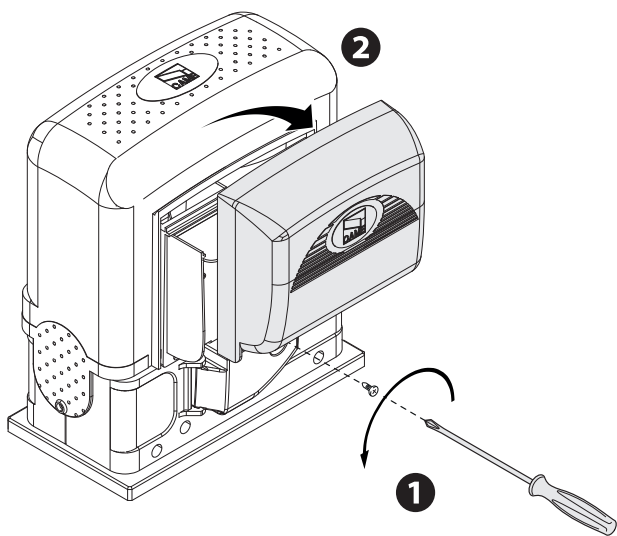


Remove the nuts from the bolts.
Fit the electric cables into the tubes so that they come out about 600 mm.



PREPARING THE GEARMOTOR

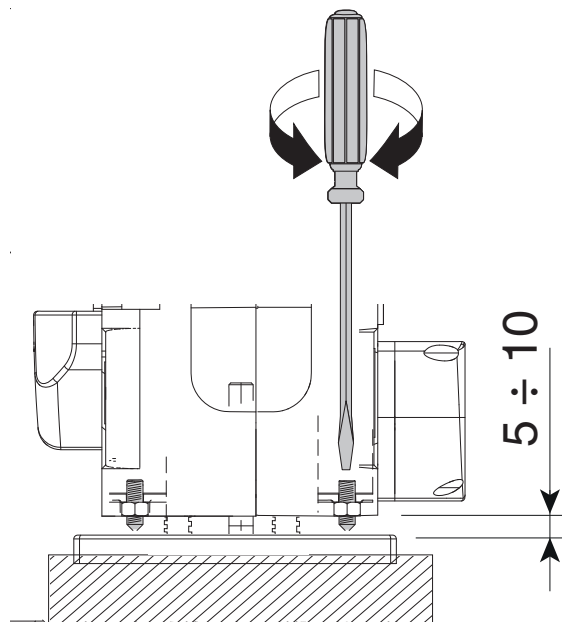
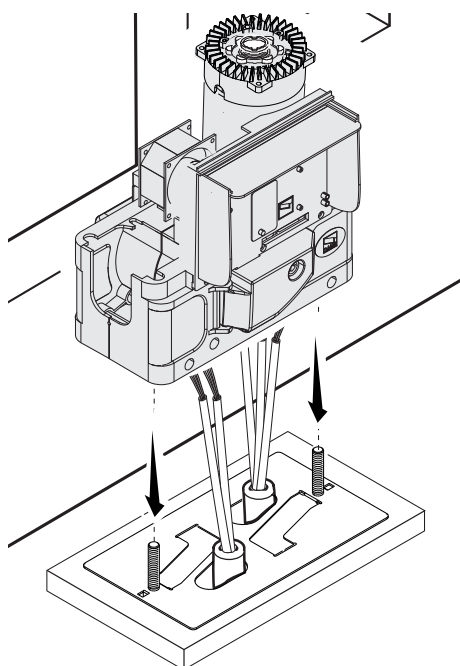
Remove the front cover and gearmotor cover.



Place the gearmotor above the anchoring plate.

Warning! The electrical cables must run under the gearmotor casing and must not touch any parts, such as the motor, transformer, and so on - that heat up during operation.

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.

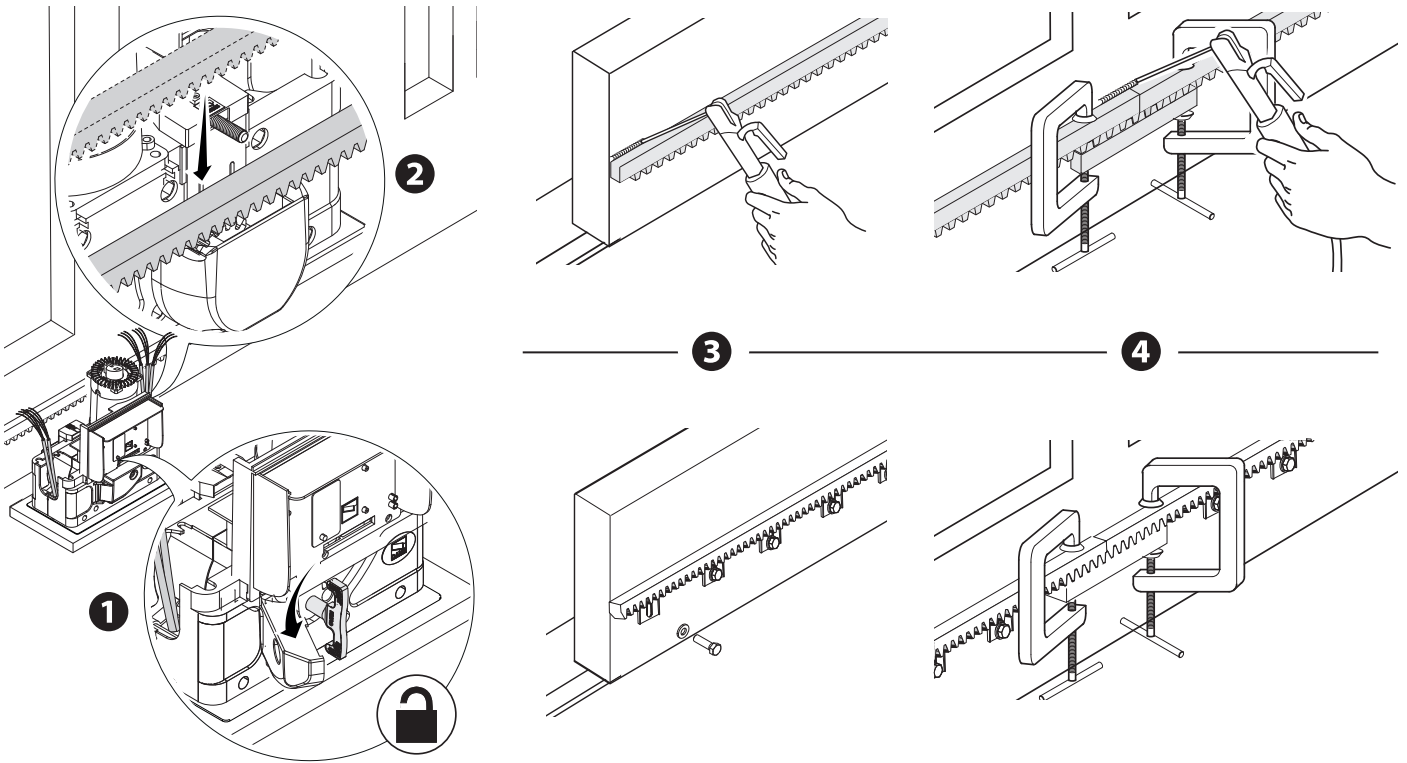


FASTENING THE RACK

If the rack is already set up, the next step should be to adjust the rack-and-pinion coupling distance, otherwise, fasten it:

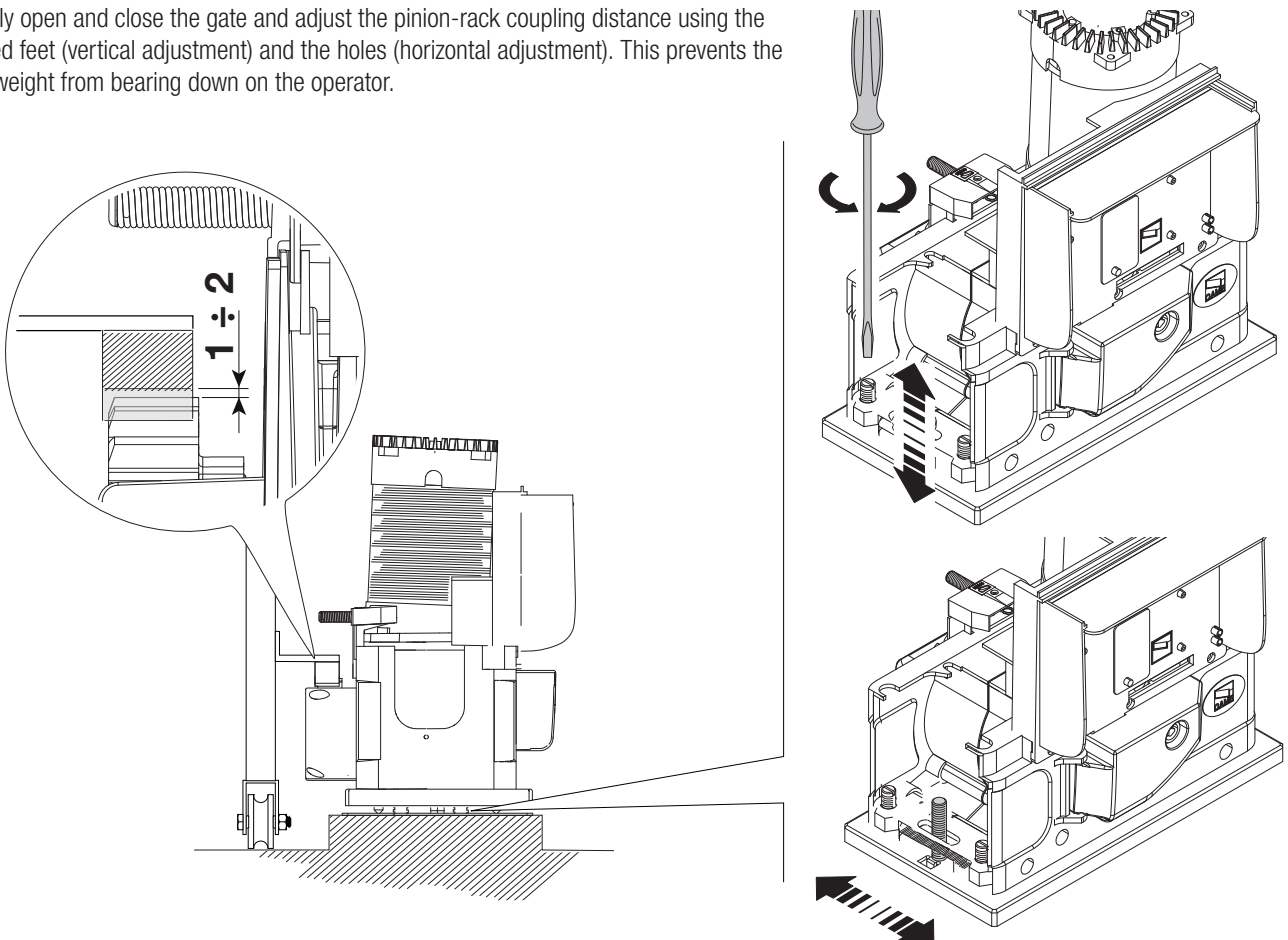
- release the gearmotor (see chapter called **RELEASING THE GEARMOTOR**) ❶;
- rest the rack onto the gearmotor pinion ❷;
- either weld or fasten the rack along the entire length of the gate ❸.

To assemble the rack modules, use an extra piece; rest it under the joining point and lock it into place with two clamps ❹.



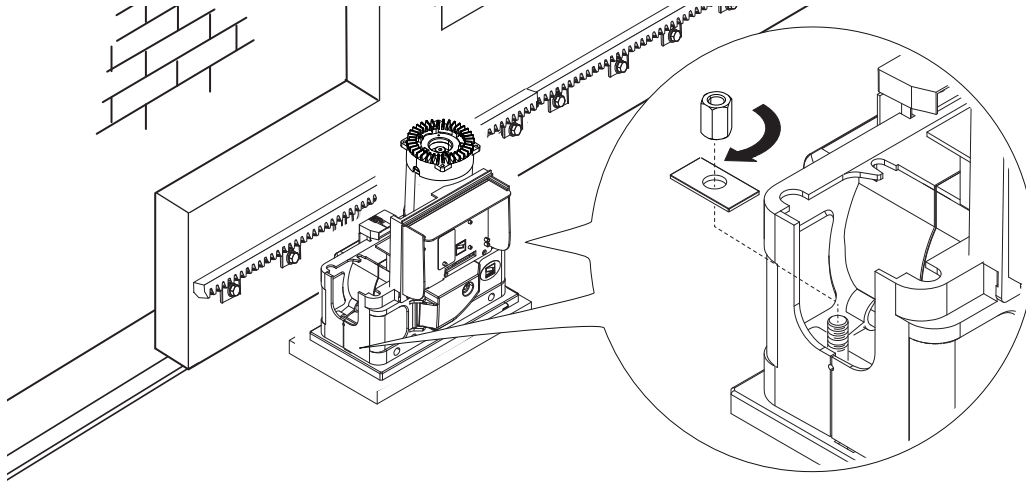
ADJUSTING THE PINION-RACK PAIRING

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.



FASTENING THE GEARMOTOR

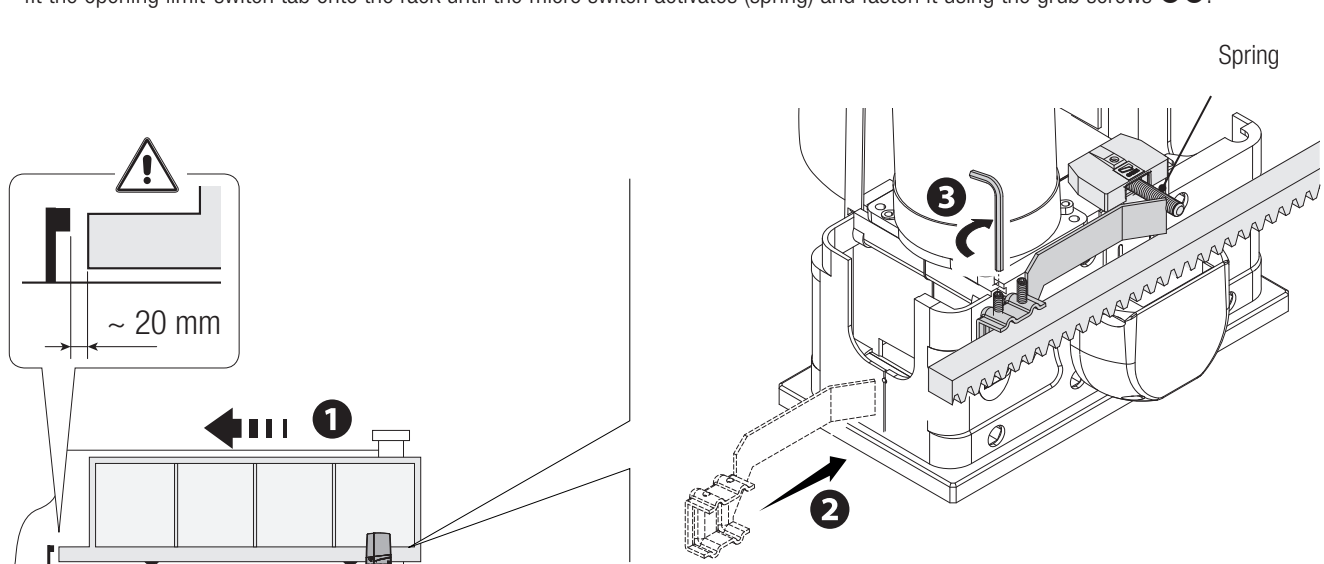
Once adjusting is complete, fasten the gearmotor to the plate using the plates and nuts.



ESTABLISHING THE LIMIT-SWITCH POINTS

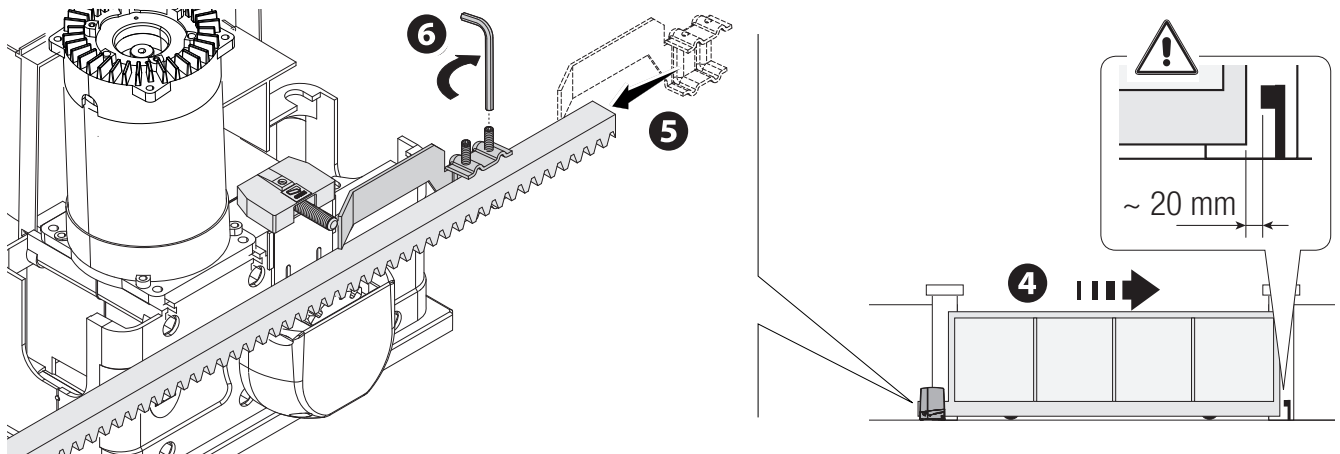
For opening:

- open the gate **1**;
- fit the opening limit-switch tab onto the rack until the micro switch activates (spring) and fasten it using the grub screws **2 3**.



For closing:

- close the gate **4**;
- fit the closing limit-switch fin into the rack until the micro-switch is activated (spring) and fasten it using the grub screws **5 6**.



ELECTRICAL CONNECTIONS

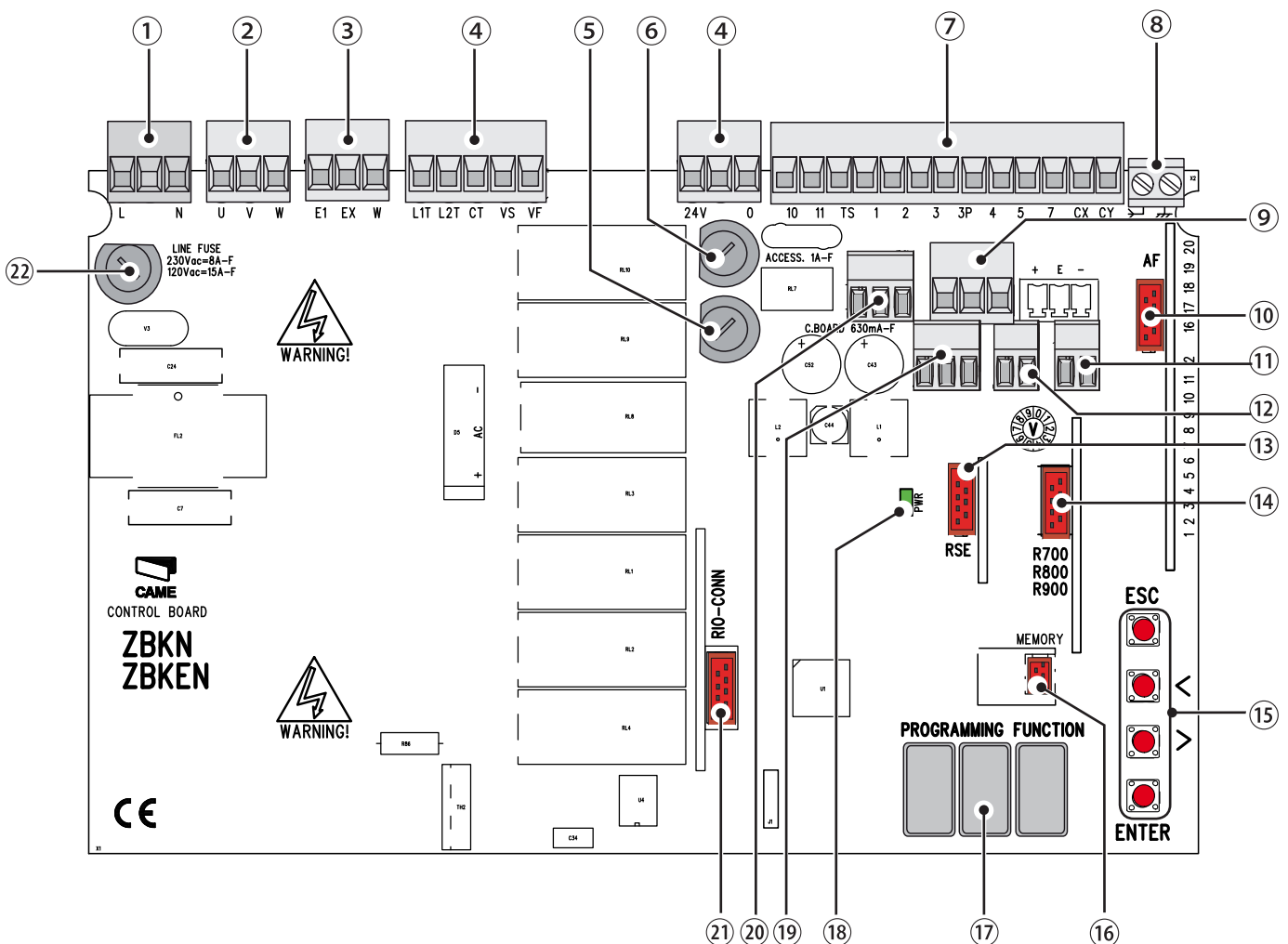
⚠ Warning! Before doing any work on the control board, cut off the mains power supply, and disconnect any batteries.

The functions on the input and output contacts, the time settings and user management, are set and viewed on the graphic display. All wiring connections are quick-fuse protected.

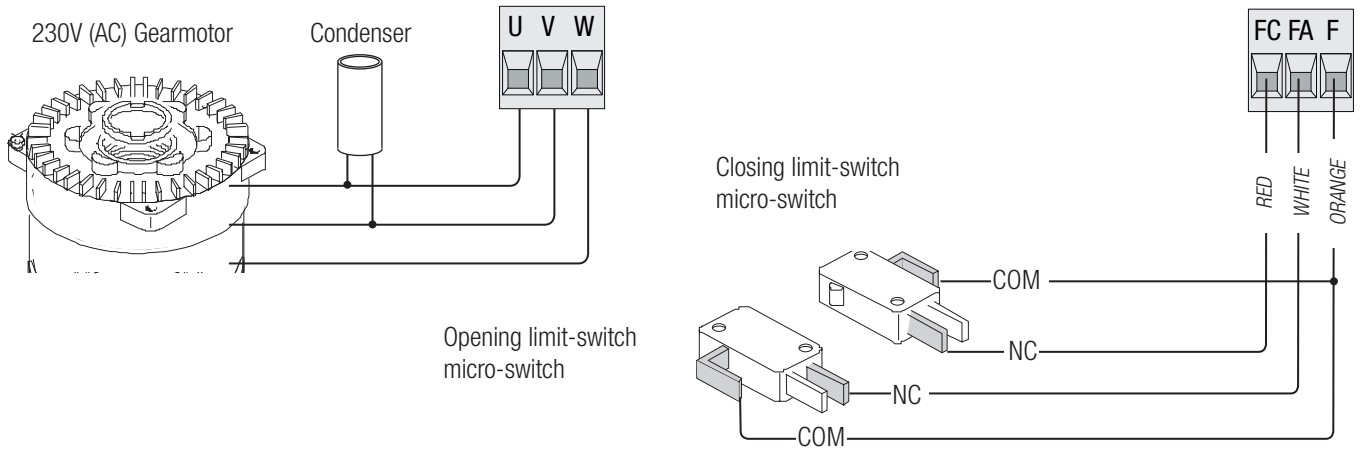
Fuses	ZBKN - ZBKEN
LINE - Line	8 A-F (230 V AC) 15 A-F (120 V AC)
C.BOARD - Card	630 mA-F
ACCESSORIES - Accessories	1 A-F

DESCRIPTION OF PARTS

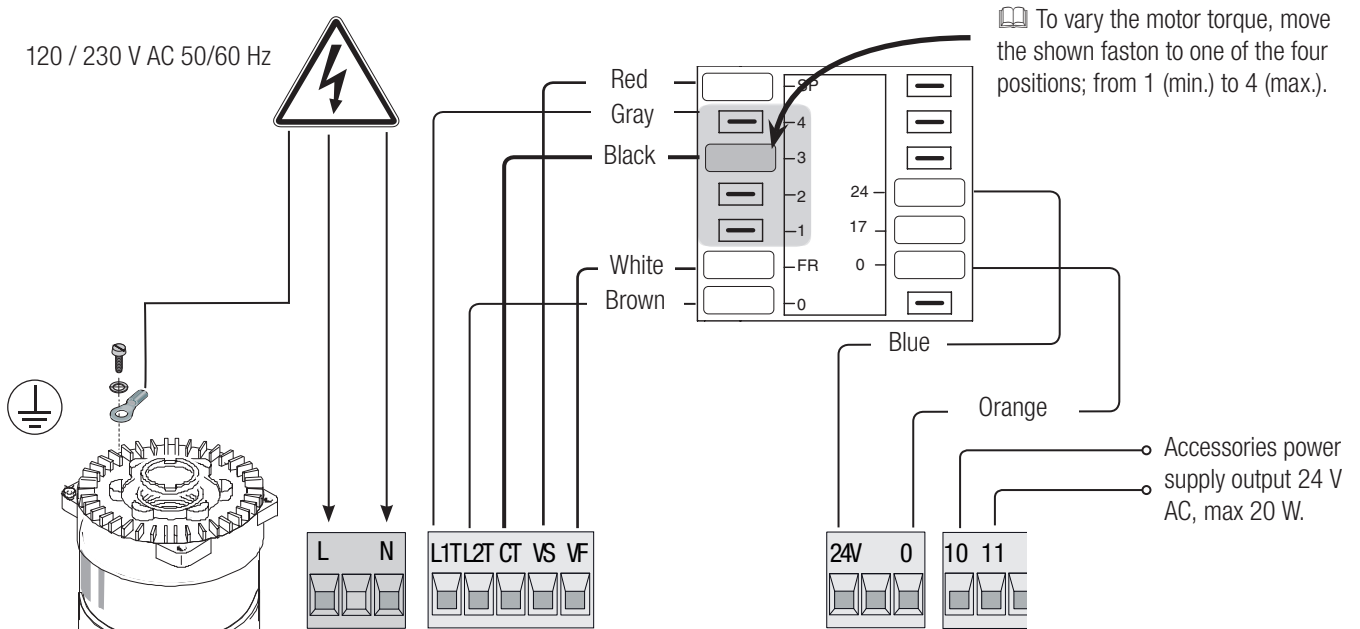
- Power supply terminals
- Terminal for gearmotors
- Terminals for signaling devices
- Transformer terminals
- Control-board fuse
- Accessories fuse
- Terminals for control and safety devices
- Antenna terminal
- Terminals for limit-switch micro-switches
- AF card connector
- Terminals for transponder selector
- Keypad selector terminal
- RSE board connector
- Connector for the R700/R800/900 cards
- Programming buttons
- Memory roll board connector
- Display
- Power supply on warning LED
- Terminals for paired of CRP connection
- Terminals for the RGP1 module
- Connector for the RIO-CONN card
- Line fuse



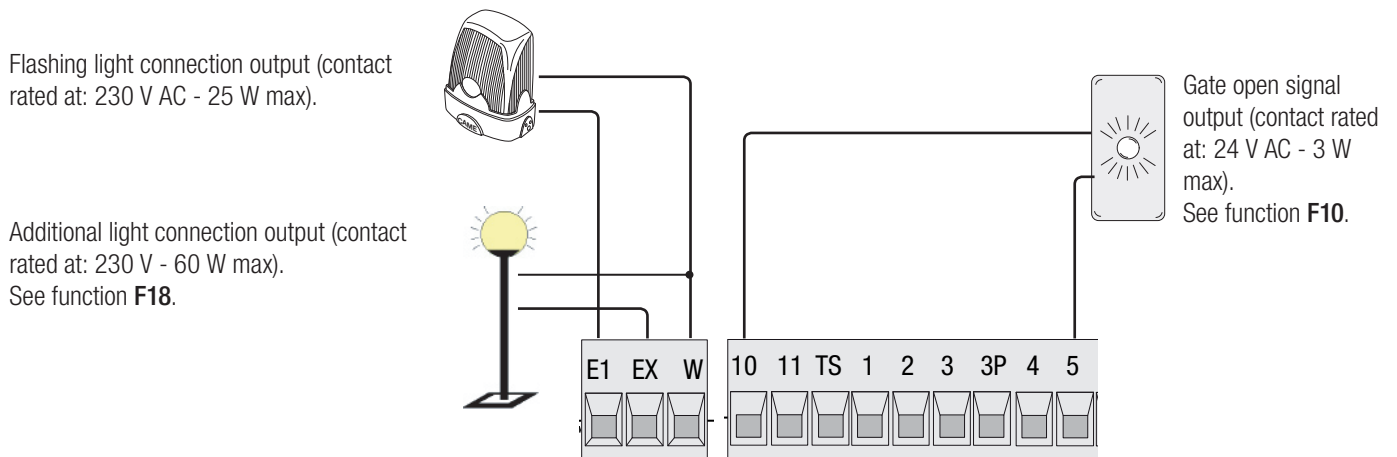
FACTORY WIRING



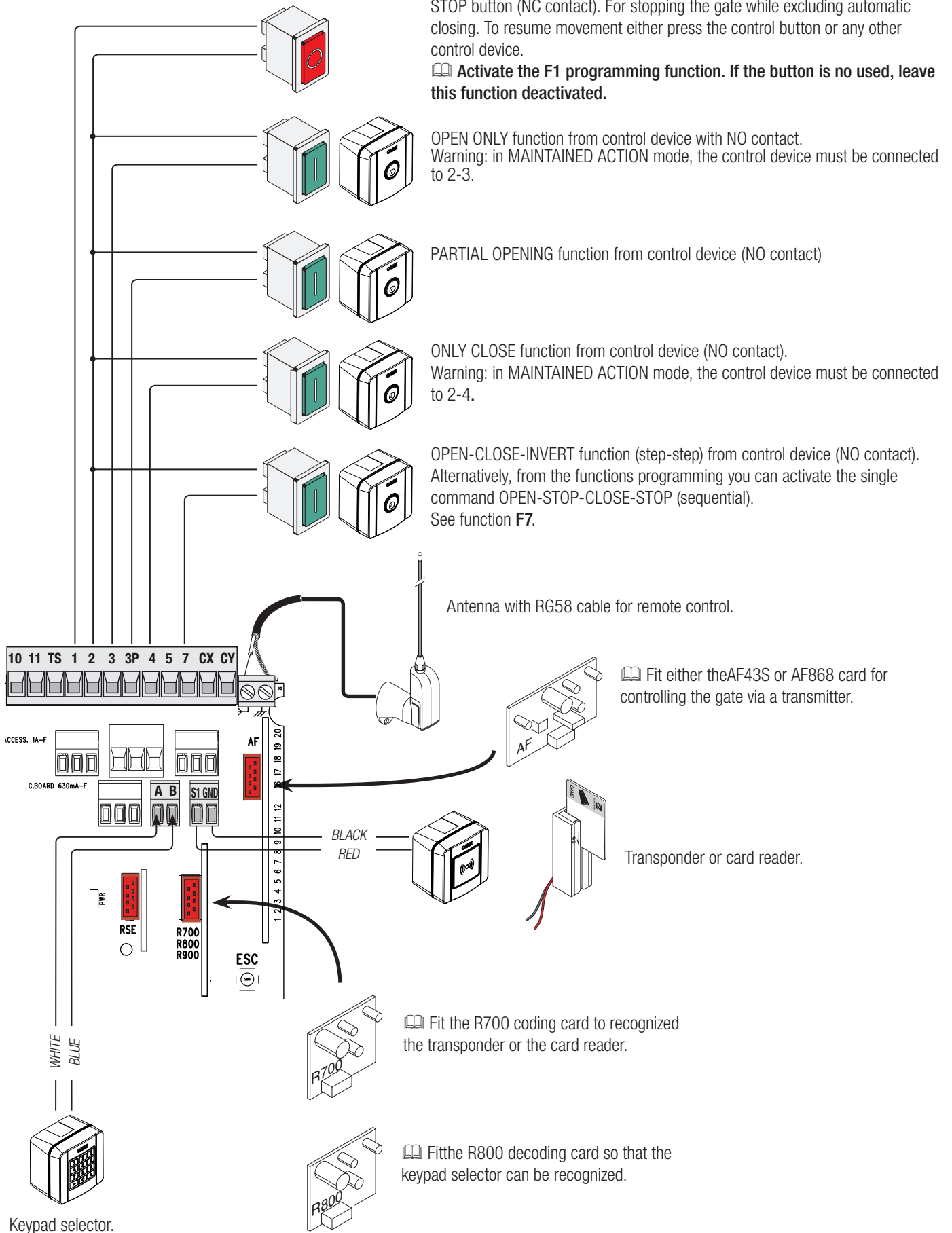
POWER SUPPLY



SIGNALING DEVICES



CONTROL DEVICES



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.


SAFETY DEVICES

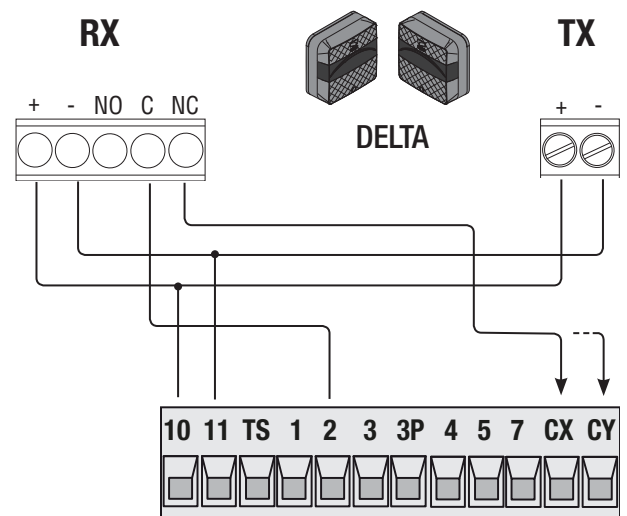
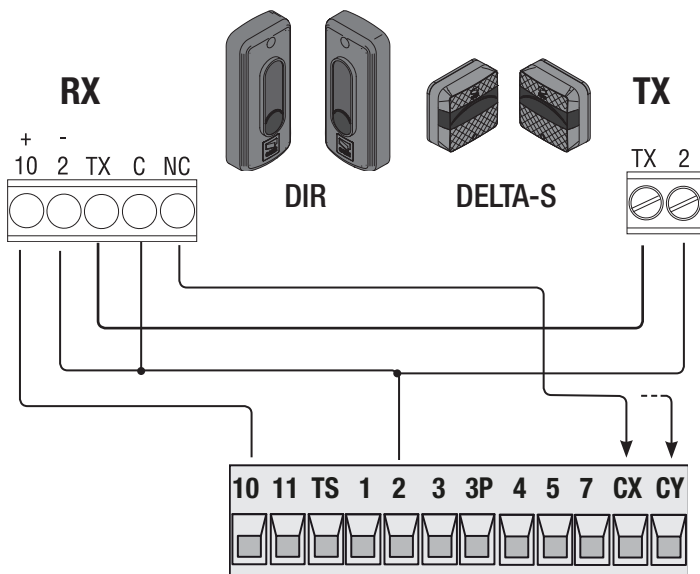
Photocells

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

See **F2** (CXinput) or **F3** (**CY** input) set to:

- 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.

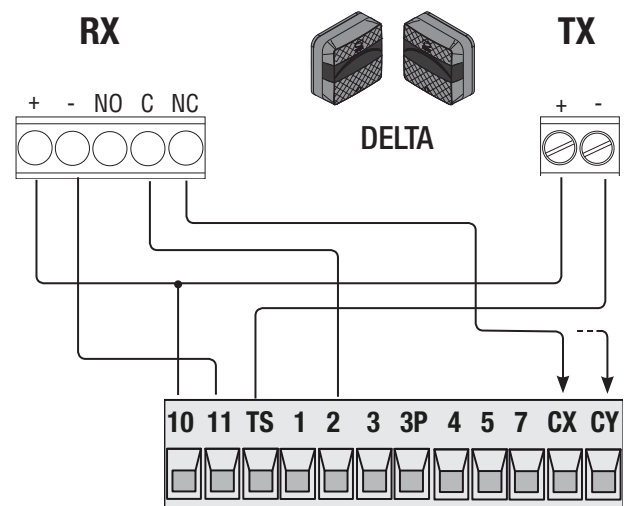
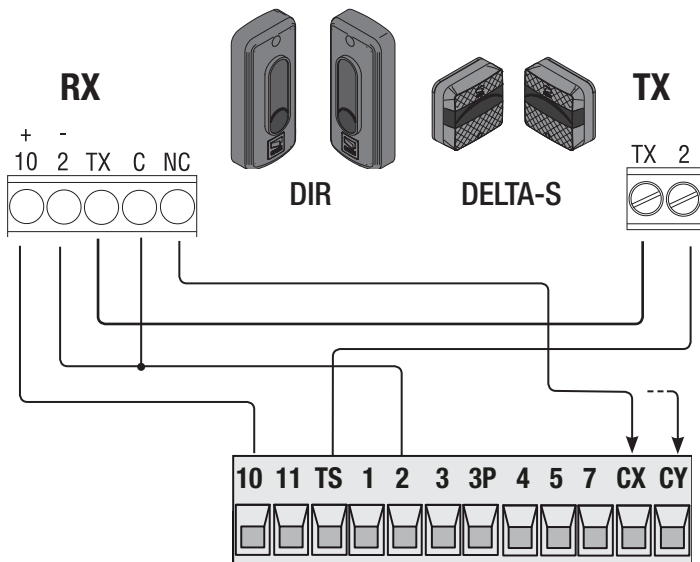


Photocells (safety test)

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.



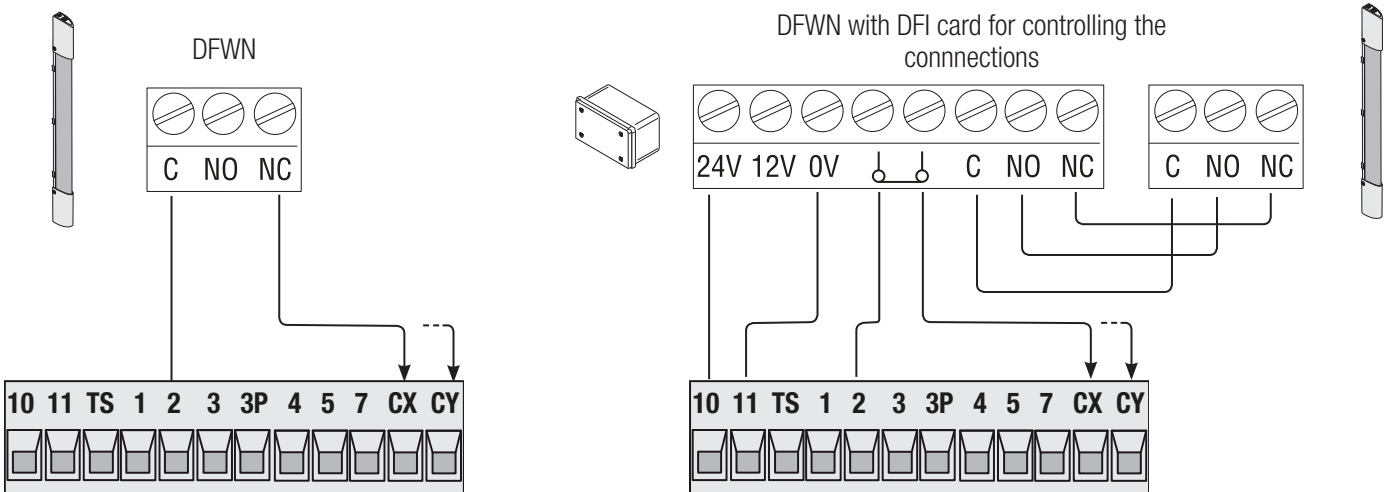
Sensitive Safety Edges

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

See **F2** (CXinput) or **F3** (**CY** input) set to:

- C7 (sensitive safety edges with clean contact) or r7 (sensitive safety edges with 8K2 resistance), reopening during closing. When the gate is closing, opening the contact triggers the inversion of movement until the gate is fully open again;
- edges with clean contact) or r8 (sensitive safety-edges with (8K2 resistive inputs), 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.



RIO WIRELESS DEVICES

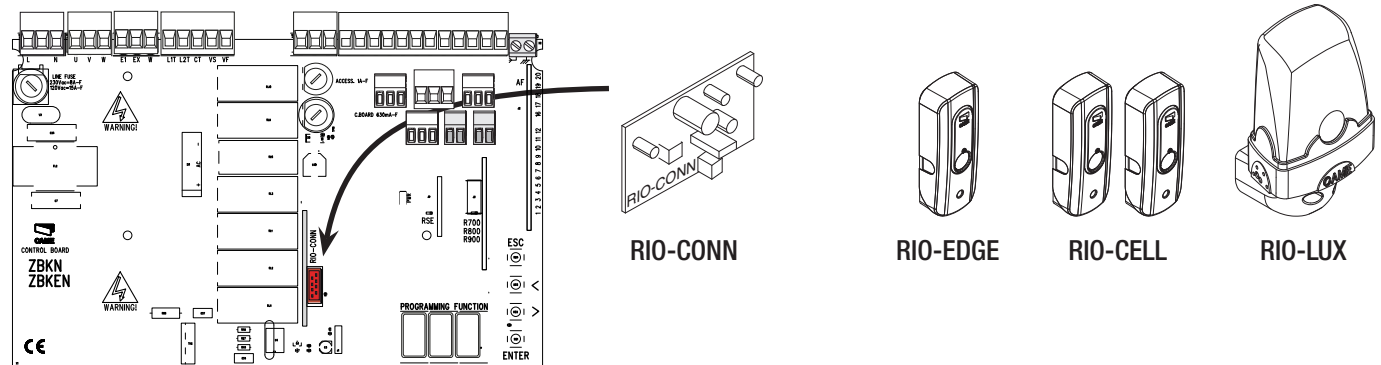
Fit the RIO-CONN card into the corresponding connector on the control board.

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

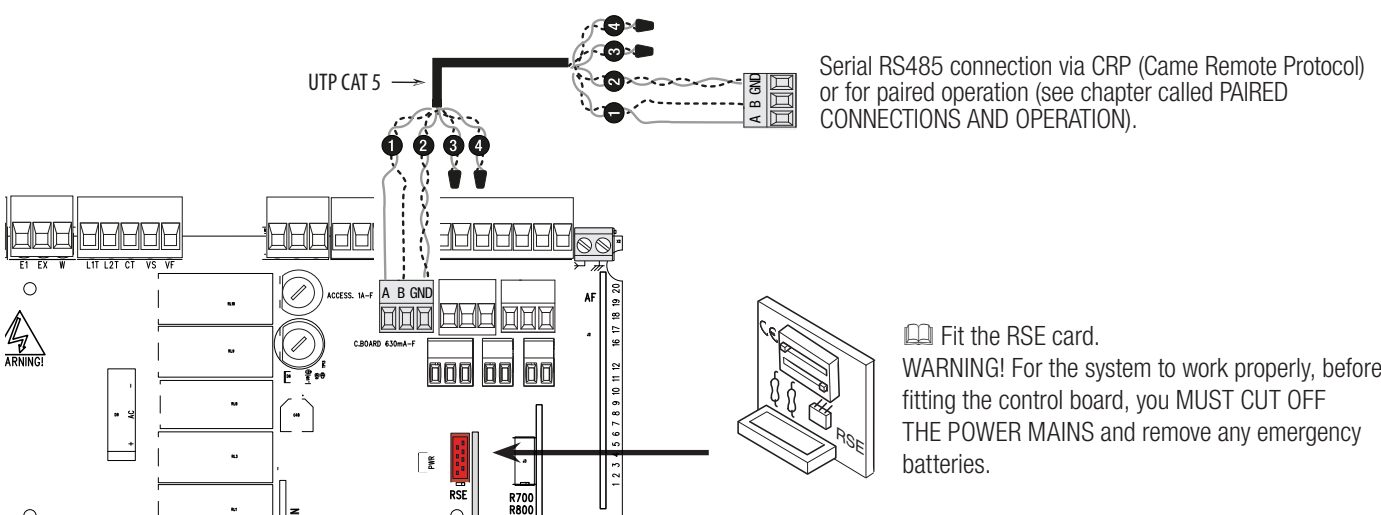
Configure the RIO-EDGE, RIO-CELL and RIO-LUX wireless devices by following the indications shown in the folder enclosed with each accessory.

If the devices are not configured with the RIO-CONN 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.

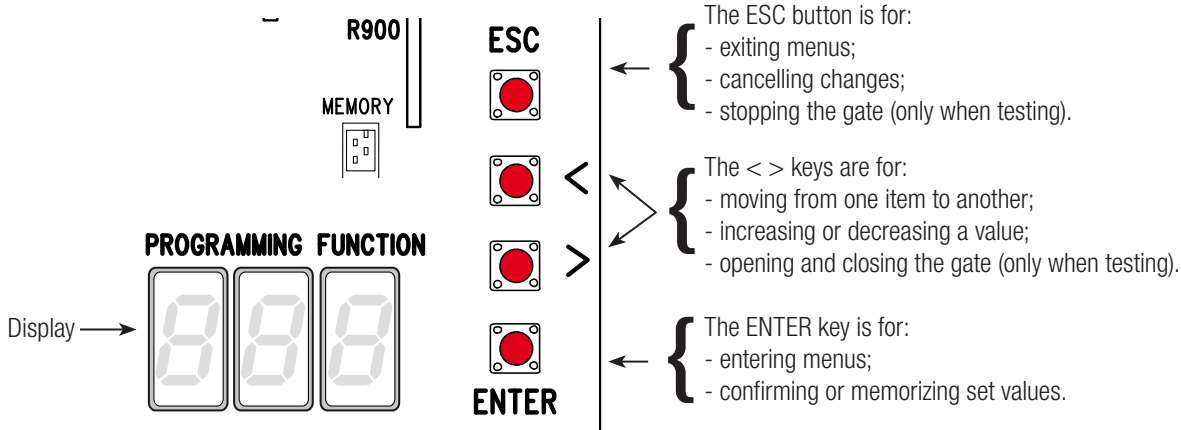


PAIRED OPERATION OR CRP (CAME REMOTE PROTOCOL)



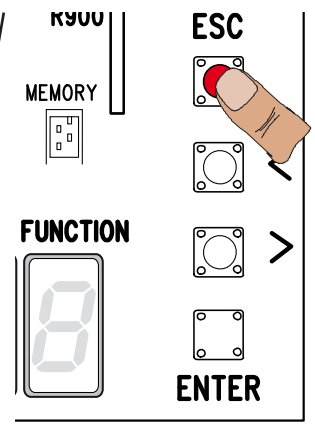
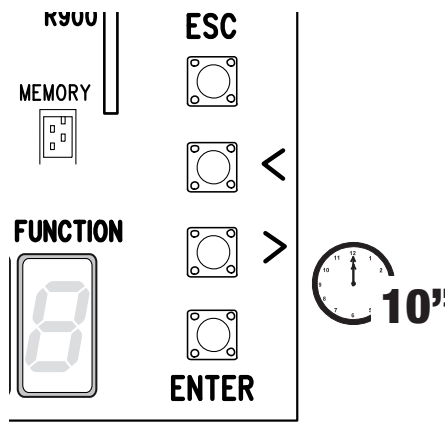
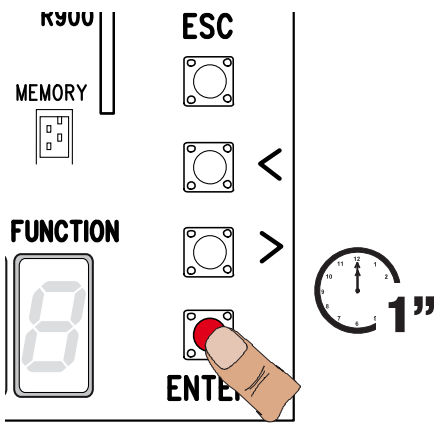
PROGRAMMING

DESCRIPTION OF THE COMMANDS



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 (with clean contact), r7 = reopening during closing for sensitive safety edges (8K2 resistive input), - r8 = reclosing during opening for sensitive safety edges (8K2 resistive input).	
📖 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 (with clean contact), r7 = reopening during closing for sensitive safety edges (8K2 resistive input), - r8 = reclosing during opening for sensitive safety edges (8K2 resistive input).	
📖 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.	

F6 Maintained action	OFF (default) / ON
The gate opens and closes by keeping the button pressed. Opening button on contact 2-3 and closing button on contact 2-4. All other control devices, even radio-based ones, are excluded.	
F7 Command (2-7)	0 = Step-step (default) / 1 = Sequential
From the control device connected to 2-7 it performs the step-step (open-close-invert) or sequential (open-stop-close-stop) 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.	
F10 Gate-open signal output	0 = On when the barrier is open and moving (default) / 1 = during openings it flashes intermittently each half second , and during closings it flashes intermittently each second. It stays on steadily when the barrier is open, off or when it s closed.
It signals the gate status. The signal device is connected to contact 10-5.	
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) / 1 = Cycle / 2 = Courtesy
Extra light connection input on EX-W. 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. Courtesy: it stays on for an adjustable time of between 60 and 180 seconds. For adjusting the time, see function [F25].	
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.	
F25 Courtesy light time	60 = 60 seconds (default)/ 180 = 180 seconds
Additional light that stays on for the required time during the when the gate is opening or closing. EX-W contact output. It is adjustable between 60 seconds and 180 seconds.	
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	OFF = Opening left (default) / ON = 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 RIO-EDGE [T1]	OFF (default) / P0 = P0 / P7 = P7 / P8 = P8
RIO-EDGE 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 RIO-CONN card.	
F66 Wireless input RIO-EDGE [T2]	OFF (default) / P0 = P0 / P7 = P7 / P8 = P8
RIO-EDGE 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 RIO-CONN card.	
F67 Wireless input RIO-CELL [T1]	OFF (default) / P1 = P1 / P2 marked areas = P2 / P3 = P3 / P4 = P4
RIO-CELL 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 RIO-CONN card.	
F68 Wireless input RIO-CELL [T2]	OFF (default) / P1 = P1 / P2 marked areas = P2 / P3 = P3 / P4 = P4
RIO-CELL 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 RIO-CONN card.	
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.	
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.	
A 4 Resetting parameters	OFF (default) / ON
Attention! The default settings will be restored.	
A 5 Counting maneuvers	Number of maneuvers done
For viewing the number of maneuvers completed or for deleting them (001 = 100 maneuvers; 010 = 1,000 maneuvers; 100 = 10,000 maneuvers; 999 = 99,900 maneuvers; CSI = maintenance job)	
H1 Version	
View the firmware version.	

COMMISSIONING

Once the electrical connections are done, have only skilled, qualified staff commission the operator into service.

Before continuing, make sure the area is free of any obstructions, and that there are mechanical, opening and closing gate stops in place.

Power up and begin configuring the system. **Important!** Start programming by first doing the following functions: OPENING DIRECTIONS (F54) and TOTAL STOP (F1). Once the programming is done, verify that the operator and all the accessories are working properly. Use the < > keys to open and close the gate and ESC to stop it.

△ After powering up the system, the first maneuver is always the opening. In this phase, the gate cannot be closed. You will need to wait for the gate to completely open.

△ Immediately press the STOP button if any suspicious malfunctions, noises or vibrations occur in the system.

MANAGING USERS

📖 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

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

❷ Select a command to associate to the user: The commands are:

- 1 = step-step (open-close);

- 2 = - sequential (open-stop-close-stop);

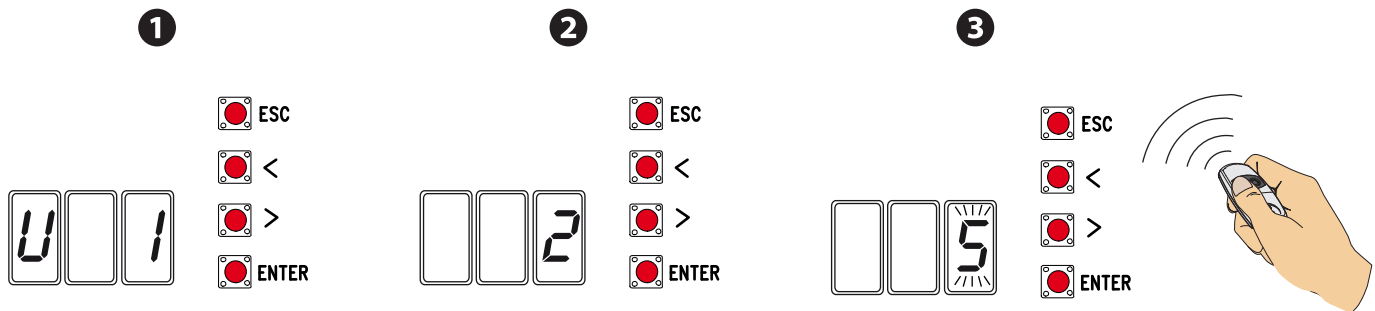
- 3 = only open;

- 4 = partial opening/pedestrian.

Press ENTER to confirm...

❸ ... 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.

📖 It flags the entered user associated to the number in the table **LIST OF REGISTERED USERS**.

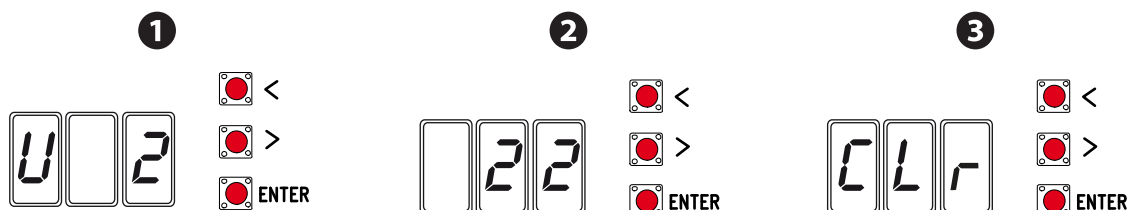


DELETING SINGLE USERS

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

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

❸ ... CLR will appear on the screen to confirm deletion.



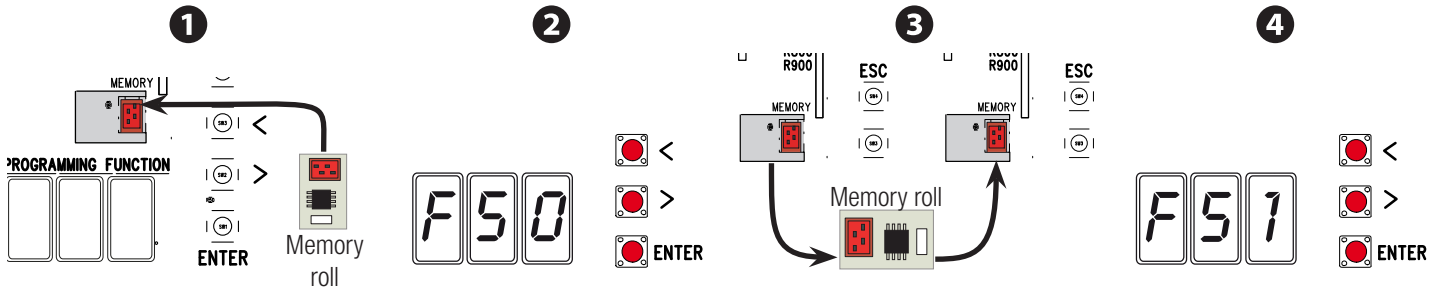
SAVING AND UPLOADING ALL DATA (USERS AND CONFIGURATION) WITH THE MEMORY ROLL

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.

- 1 Fit the Memory Roll into the its corresponding connector on the control board.
- 2 Select **F50** and press ENTER to confirm the saving of data in the Memory Roll.
- 3 Extract the Memory roll and fit it into the connector of another control board.
- 4 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.



LIST OF REGISTERED USERS

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2		28	
3		29	
4		30	
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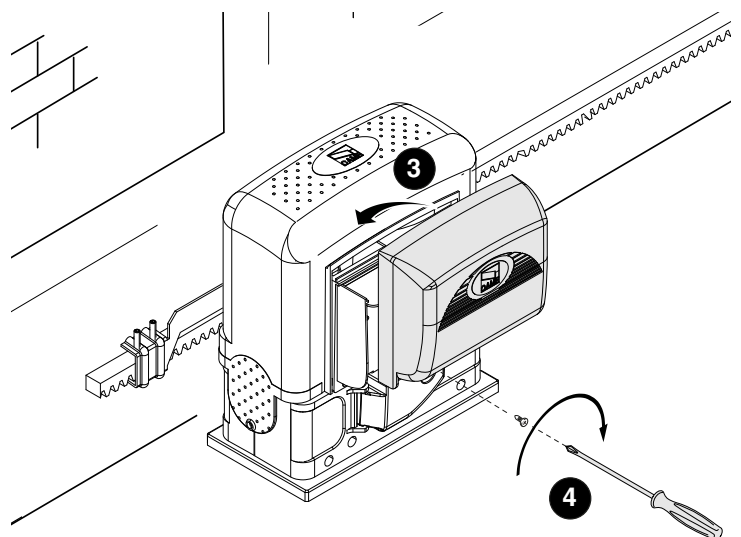
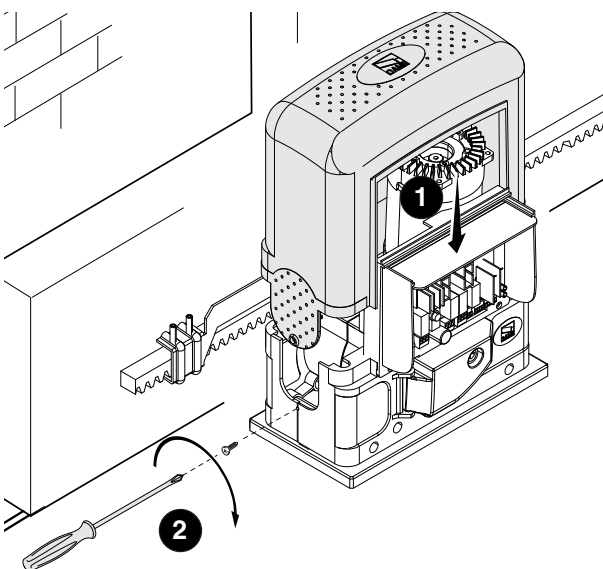
ERROR MESSAGES

 The error messages are shown on the display.

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 17	Wireless system error.
E 18	Missing wireless system configuration

FINAL OPERATIONS

Once the operator is up and running and the users are registered, refit the covers without pinching any wires. Fasten them with screws.



PAIRED CONNECTION AND OPERATION

Electrical wiring

Fit the RSE card (with the DIP-switches set to OFF) to the connector on the control panels of both operators.

Connect the two panels by using a CAT 5 (max 1,000 m type cable to terminals A-A / B-B / GND-GND, see paragraph called PAIRED OPERATION).

Connect all of the control and safety devices on the MASTER operator's control panel.

Programming

Continue making the settings and adjustments only on the MASTER panel.

Start programming by first running the following functions:

- managing serial connection (F49);
- opening direction (F54);
- parameter exchange in paired mode (F52).

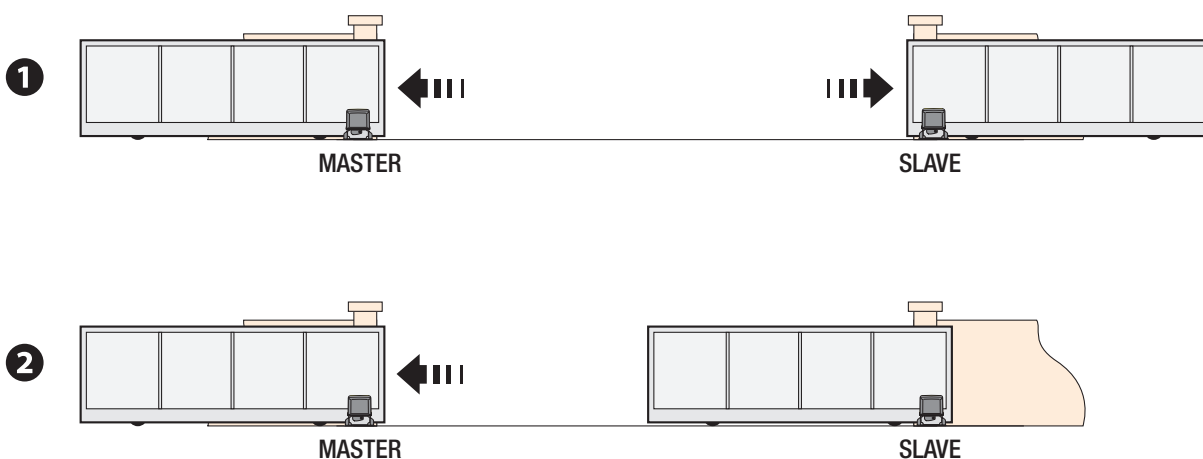
Saving

Execute the procedure, to add a user with an associated command, on the MASTER panel.

Operating modes

- 1 Either STEP-STEP or ONLY OPEN command. Both leaves open.
- 2 PARTIAL/PEDESTRIAN 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.



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!



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