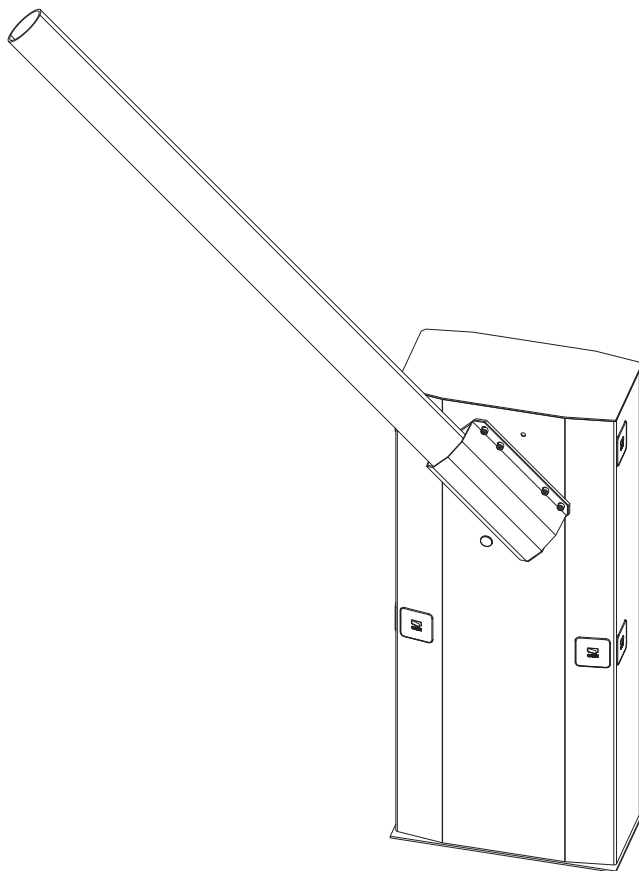


Automatic barrier - GARD series

FA00571-EN



G5000

INSTALLATION OPERATION AND MAINTENANCE MANUAL

EN English

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

Came S.p.a.

indirizzo / address / adresse / adresse / direcció / endereço / adres / adres

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



DICHIARA CHE LA BARRIERA STRADALE / DECLARES THAT THE AUTOMATIC BARRIERS /
ERKLÄRT DASS DIE AUTOMATISCHE SCHRANKENSYSTEME / DECLARE QUE LA BARRIÈRE AUTOMATIQUE
/ DECLARA QUE LA BARRERAS AUTOMÁTICAS / DECLARA QUE A BARREIRA AUTOMÁTICA
/ OSWIADCZA ZE SZLABANY AUTOMATYCZNA / VERKLAART DAT DE AUTOMATISCHE SLAGBOOM

G5000

E' CONFORME ALLE DISPOSIZIONI DELLE SEGUENTI DIRETTIVE / IT COMPLIES WITH THE PROVISIONS OF THE FOLLOWING
DIRECTIVES / DEN VORGABEN DER FOLGENDEN RICHTLINNIEN ENTSPRECHEN / IL EST CONFORMES AUX DISPOSITIONS
DES DIRECTIVES SUIVANTES / CUMPLEN CON LAS DISPOSICIONES DE LAS SIGUIENTES DIRECTIVAS / ESTÁO DE ACORDO
COM AS DISPOSIÇÕES DAS SEGUINTES DIRECTIVAS / SA ZGODNE 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 ELETTROMAGNÉTICA / 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

RISPETTA I REQUISITI ESSENZIALI APPLICATI: / MEET THE APPLICABLE ESSENTIAL REQUIREMENTS: / DEN WESENTLIJEN
ANGEWANDTEN ANFORDERUNGEN ENTSPRECHEN: / RESPECTENT LES CONDITIONS REQUISES NECESSAIRES APPLIQUEES:
/ CUMPLEN CON LOS REQUISITOS ESENCIALES APLICADOS: / RESPETAM O REQUISITOS ESSENCIAIS APLICADOS: /
SPEŁNIAJA PODSTAWOWE WYMAGANIA 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; 1.5.11; 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 UPOWAŻNIIONA 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 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 voltooidde 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. / Uruchomienia urządzenia do czasu, kiedy maszyna, do której ma być wbudowana, nie zostanie oceniona jako zgodna z wymogami dyrektywy 2006/42/WE, jeśli taka
procedura była konieczna. / de ze in werking te stellen zolang de eindmachine waarin de niet voltooidde machine moet worden ingebouwd in overeenstemming is verklaard, indien toepasselijk
met de richtlijn 2006/42/EG.

Dosson di Casier (TV)
30 Luglio / July / Juli / Juillet /
Julio / Julho / Lipiec / Juli 2017

Administratore Delegato / Managing Director /
General Direktor / Directeur Général / Director General /
Administrador Delegado / Dyrektor Zarządzający /
Algemeen Directeur

Andrea Menozzo

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: 001G5000

Came S.p.a.

Via Martiri della Libertà, 15 - 31030 Dosson di Casier - Treviso - Italy - Tel. (+39) 0422 4940 - Fax (+39) 0422 4941
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

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



GENERAL PRECAUTIONS FOR INSTALLERS

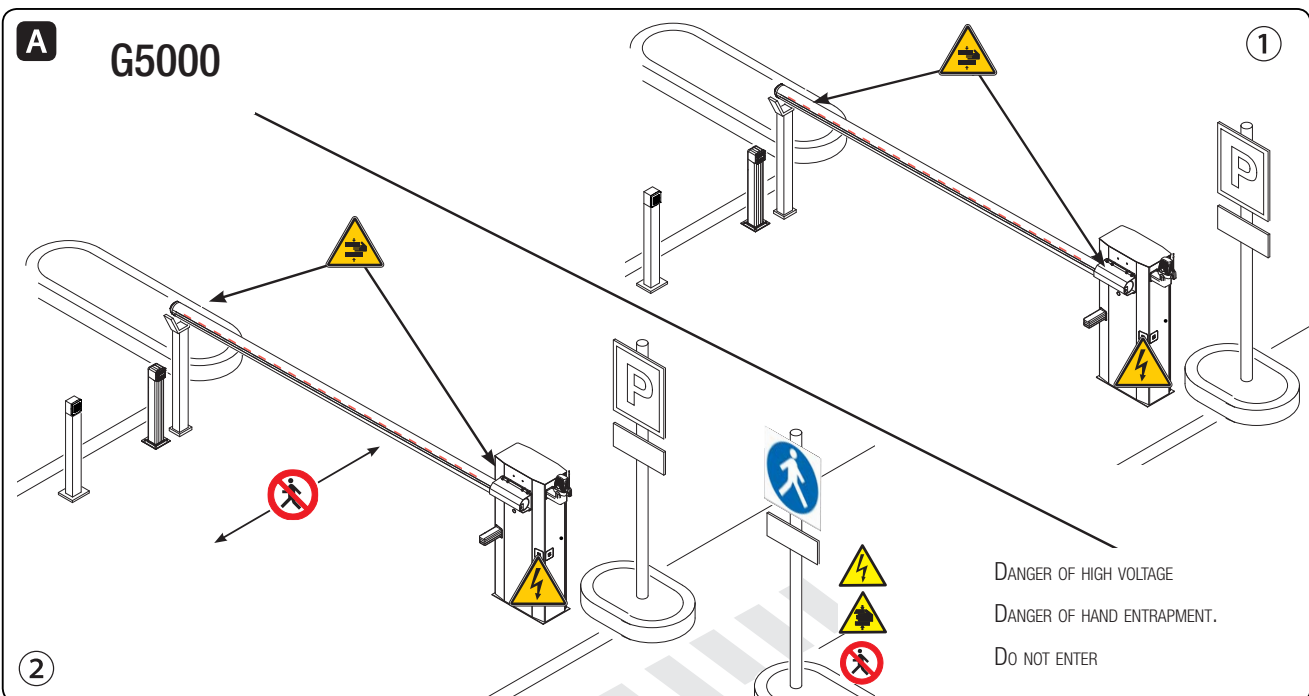
⚠ CAUTION! Important safety instructions.
Carefully follow these instructions for the safety of people.
Keep these instructions.

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 CAME S.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 MACHINES OR APPARATUSES TO BUILD A MACHINE 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 • IF THE BARRIER IS ONLY FOR REGULATING VEHICLE PASSAGES YOU MUST INSTALL A PEDESTRIAN PASSAGEWAY NEAR THE OPERATOR ITSELF. SUITABLE SIGNS MUST BE AFFIXED AND CLEARLY VISIBLE TO WARN PEDESTRIANS IT IS FORBIDDEN TO TRANSIT THROUGH THE DRIVEWAY. IF THE BARRIER IS FOR BOTH VEHICLES AND PEDESTRIANS, CARE MUST STILL BE EXERCISED WHEN TRANSITING THROUGH THE APERTURE. DRIVE OR WALK THROUGH THE OPENING WHEN THE BARRIER IS STOPPED AND ENTIRELY RAISED AND AS FAR AS POSSIBLE FROM THE ROTATING FULCRUM OF THE BOOM • 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 OPERATED 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 NO 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 • KEEP AWAY FROM AND DO NOT LOITER NEAR THE BARRIER AND MECHANICAL MOVING PARTS • DO NOT ENTER THE BARRIER'S AREA OF OPERATION WHEN IT IS MOVING • DO NOT COUNTER THE OPERATOR'S MOVEMENT AS THIS COULD RESULT IN DANGEROUS SITUATIONS • 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 • THE BARRIER MAY MOVE AT ANY TIME AND WITHOUT WARNING IF REMOTE CONTROLS ARE BEING USED OR THE AUTOMATIC CLOSING IS ACTIVATED • 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 TWO STANDARD INSTALLATIONS: ① VEHICLES AND PEDESTRIANS AND ② VEHICLES ONLY. THE MAIN HAZARD POINTS FOR PEOPLE ARE SHOWN.

p. 3 - Manual FA00571-EN v. 1 - 08/2017- © CAME S.p.A. - The contents of this manual may be changed, at any time, and without notice.





MANUAL RELEASE

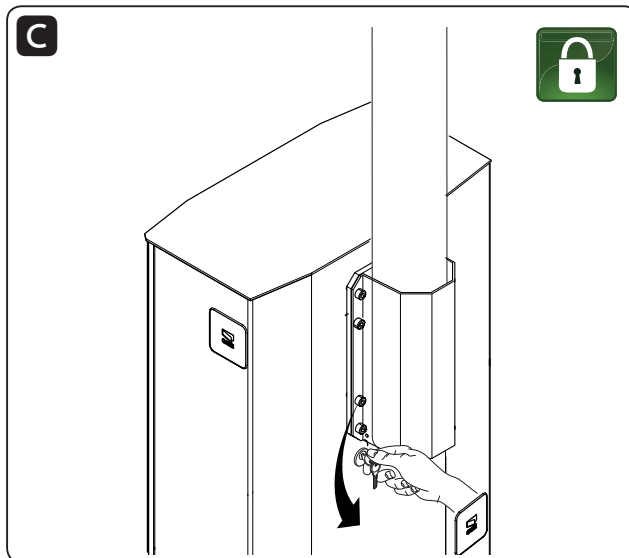
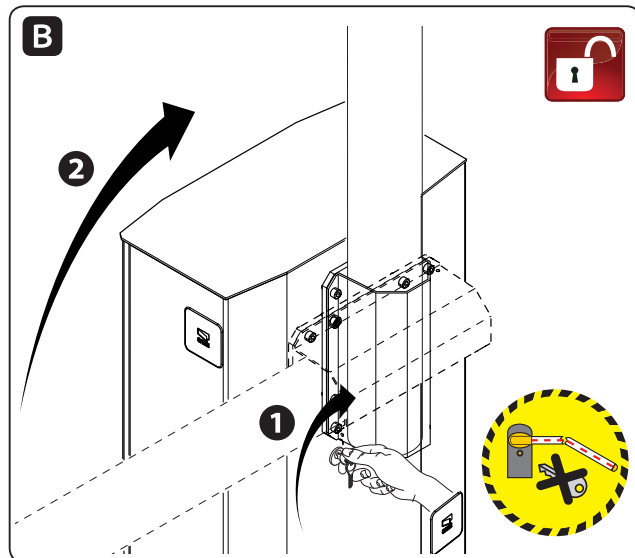
Warning! This operation is potentially hazardous for user, when for whatever reason, such as the boom being badly fastened, ripped out or broken during an accident, and so on, the loosened springs no longer provide the proper balancing action. This could lead to a sudden rotation of the boom attachment and/or of the boom itself.

RELEASING (figure B)

Fit the key into the lock, turn it clockwise and manually raise the boom.

LOCKING (figure C)

To lock the boom back into place, turn the key counter-clockwise.



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 boom is moving: if the boom 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 barrier'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 |
|--------------------------------------|---|---|
| The barrier neither opens nor closes | <ul style="list-style-type: none"> • Power supply is missing • The gearmotor is stuck • The transmitter emits a weak or inexistent signal • Inspection hatch is open • Button/s and/or selectors stuck | <ul style="list-style-type: none"> • Check main power supply • Lock the gearmotor • Replace the batteries • Check that the inspection hatch is closed and locked • Check that the devices and the electric cables are in proper working conditions |
| The barrier 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 range of operation of the photocells |

⚠ 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.




⚠ CAUTION! 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". 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 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. • LAYING THE CABLES, INSTALLATION AND TESTING MUST FOLLOW STATE-OF-THE-ART PROCEDURES AS DICTATED BY REGULATIONS • MAKE SURE THAT THE OPENING OF THE AUTOMATIC BARRIER DOES NOT CONSTITUTE A HAZARD • DO NOT INSTALL THE OPERATOR ONTO SURFACES THAT COULD YIELD AND BEND. IF NECESSARY, ADD SUITABLE REINFORCEMENTS TO THE ANCHORING POINTS • CHECK THAT THE TEMPERATURE RANGE APPEARING ON THE OPERATOR IS SUITED TO THE PLACE OF INSTALLATION • DO NOT INSTALL ON SLOPES (ONLY ON LEVEL SURFACES) • CHECK THAT OPERATOR IS NOT SPRAYED FROM BELOW BY ANY SPRINKLERS • SUITABLY SECTION OFF AND DEMARCATÉ THE ENTIRE INSTALLATION SITE TO PREVENT UNAUTHORIZED PERSONS FROM ENTERING THE AREA, ESPECIALLY MINORS AND CHILDREN. • BE CAREFUL WHEN HANDLING OPERATORS THAT WEIGH OVER 20 KG. IF NEED BE, USE PROPER SAFETY HOISTING EQUIPMENT • PLEASE USE SUITABLE PROTECTIONS TO PREVENT ANY MECHANICAL HAZARDS WHEN PEOPLE ARE MOVING AROUND THE MACHINERY. • ANY RESIDUAL RISKS MUST BE NOTIFIED BY PROPER, CLEARLY VISIBLE PICTOGRAMS, WHICH MUST BE EXPLAINED TO END USERS • FIT, IN PLAIN SIGHT, THE MACHINE'S ID PLATE WHEN THE INSTALLATION IS COMPLETE • ALL COMMAND AND CONTROL DEVICES MUST BE INSTALLED AT LEAST 1.85 M FROM THE BOOM'S OPERATING PERIMETER, OR, WHERE THEY ARE OUT OF REACH FROM OUTSIDE THE BARRIER • UNLESS THE KEY-OPERATION IS FUNCTIONING (FOR E.G. KEYPAD SELECTOR, KEY-SWITCH SELECTOR, TRANSPONDER SELECTOR, AND SO ON), ANY MAINTAINED-ACTION CONTROL DEVICES MUST BE INSTALLED AT LEAST 1.5 M FROM THE GROUND AND OUT OF REACH FROM UNAUTHORIZED USERS. • THE MANUFACTURER DECLINES ANY LIABILITY FOR USING NON-ORIGINAL PRODUCTS; WHICH WOULD RESULT IN WARRANTY LOSS • ALL MAINTAINED-ACTION SWITCHES MUST BE FITTED SO AS TO BE CLEARLY VISIBLE FROM THE BOOM'S MANEUVERING AREA, AND YET WELL AWAY FROM ANY MOVING PARTS • AFFIX A PERMANENT TAG, THAT DESCRIBES HOW TO USE THE MANUAL RELEASE MECHANISM, CLOSE TO THE MECHANISM. • 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. • 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 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. • WHEN THE PASSAGE WIDTH CLEARANCE IS GREATER THAN 3 M, YOU MUST USE A FIXED REST FOR THE BOOM TO SUPPORT IT • IF THE BARRIER IS FOR BOTH PEDESTRIANS AND VEHICLES, YOU MUST CHECK THAT IT IS COLLISION FORCE COMPLIANT PURSUANT TO STANDARDS EN12453 AND EN12445 • IF THE BARRIER IS ONLY FOR VEHICLES, YOU MUST SET UP A SUITABLE PEDESTRIAN PASSAGE NEAR THE VEHICLE ENTRY, AND POST SUITABLE SIGNAGE THAT PROHIBIT TRANSIT OF PEDESTRIANS AND BICYCLES THROUGH THE OPENING • KEEP THE SECTION OF THIS MANUAL INSIDE THE TECHNICAL FOLDER ALONG WITH THE MANUALS OF ALL THE OTHER DEVICES USED FOR YOUR AUTOMATION SYSTEM. REMEMBER TO HAND OVER TO THE END USERS ALL THE OPERATING MANUALS OF THE PRODUCTS THAT MAKE UP THE FINAL MACHINERY.

THE FIGURE SHOWS **A** (PAGE 3) SHOWS TWO STANDARD INSTALLATIONS: ① FOR PEDESTRIANS AND VEHICLES AND ② ONLY FOR VEHICLES. THE MAIN HAZARD POINTS FOR PEOPLE ARE SHOWN.

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

Barrier made of varnished galvanized steel set up to fit accessories.

 REQUEST EITHER LEFT OR RIGHT-HAND BARRIERS WHEN ORDERING. THE ILLUSTRATIONS IN THIS MANUAL ARE ALL FOR LEFT-HAND BARRIERS!

INTENDED USE

The automatic barrier is designed for private and public parking facilities.

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

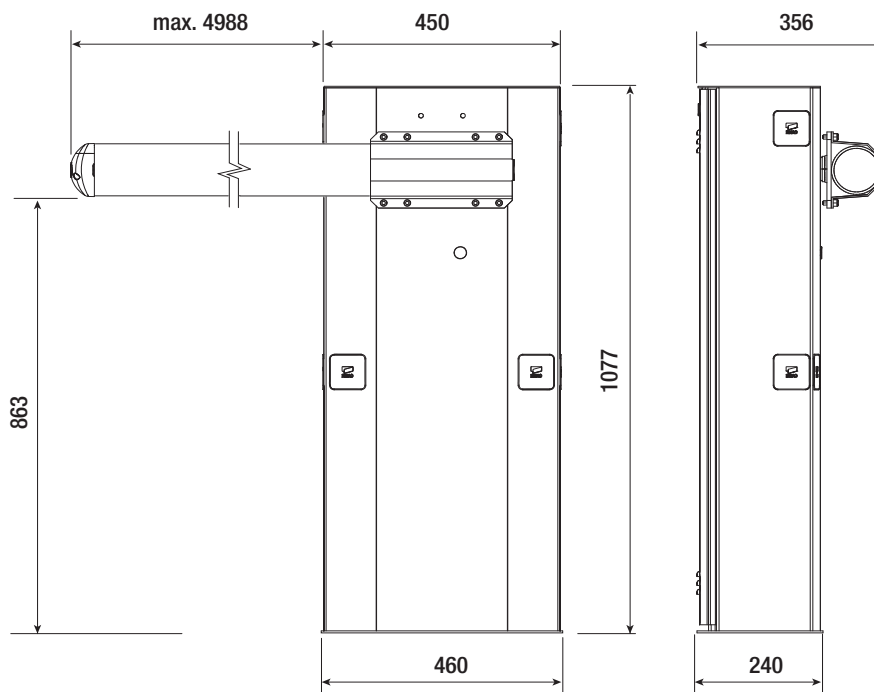
OPERATING LIMITS

| Model | G5000 |
|--|-------|
| Maximum clearance width of the passage (m) | 5000 |

TECHNICAL DATA

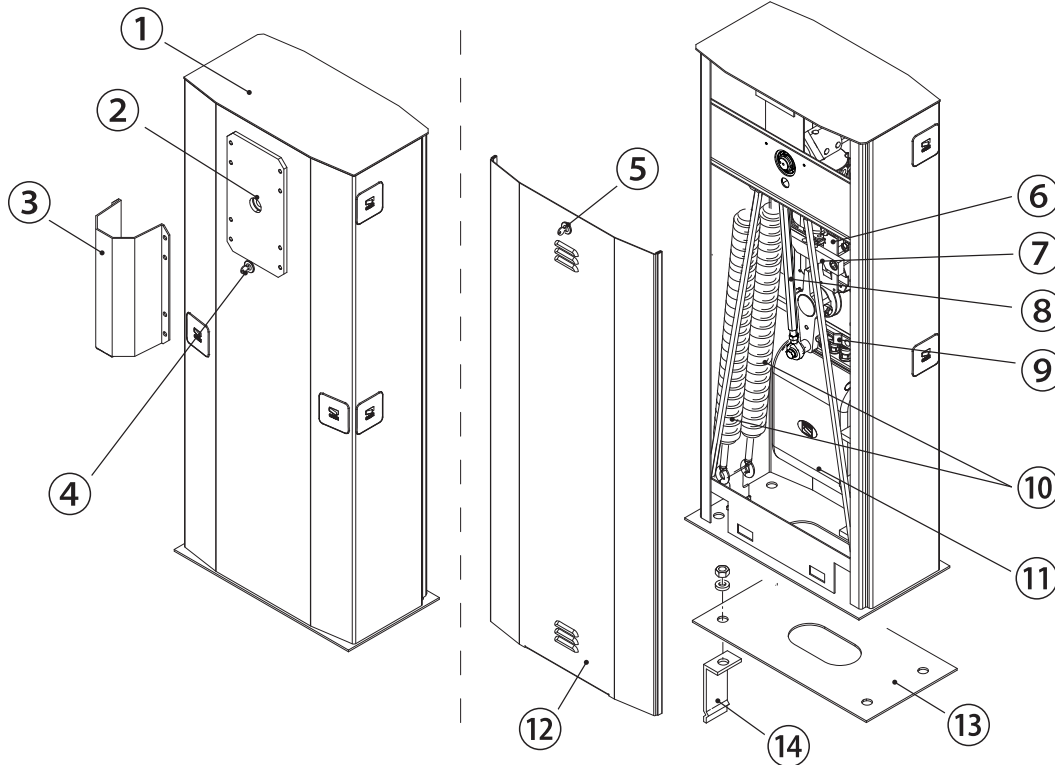
| Model | G5000 |
|-----------------------------|---------------|
| Protection rating (IP) | 54 |
| Power supply (V - 50/60 Hz) | 230 AC |
| Input voltage motor (V) | 24 DC |
| Max draw (A) | 15 |
| Power rating (W) | 200 |
| Torque (Nm) | 600 |
| Opening time (s) | 4 ÷ 8 |
| Cycles/hour | INTENSIVE USE |
| Operating temperature (°C) | -20 to +55 |
| Reduction ratio (i) | 1/202 |
| Apparatus class | I |
| Weight (Kg) | 78.5 |

DIMENSIONS



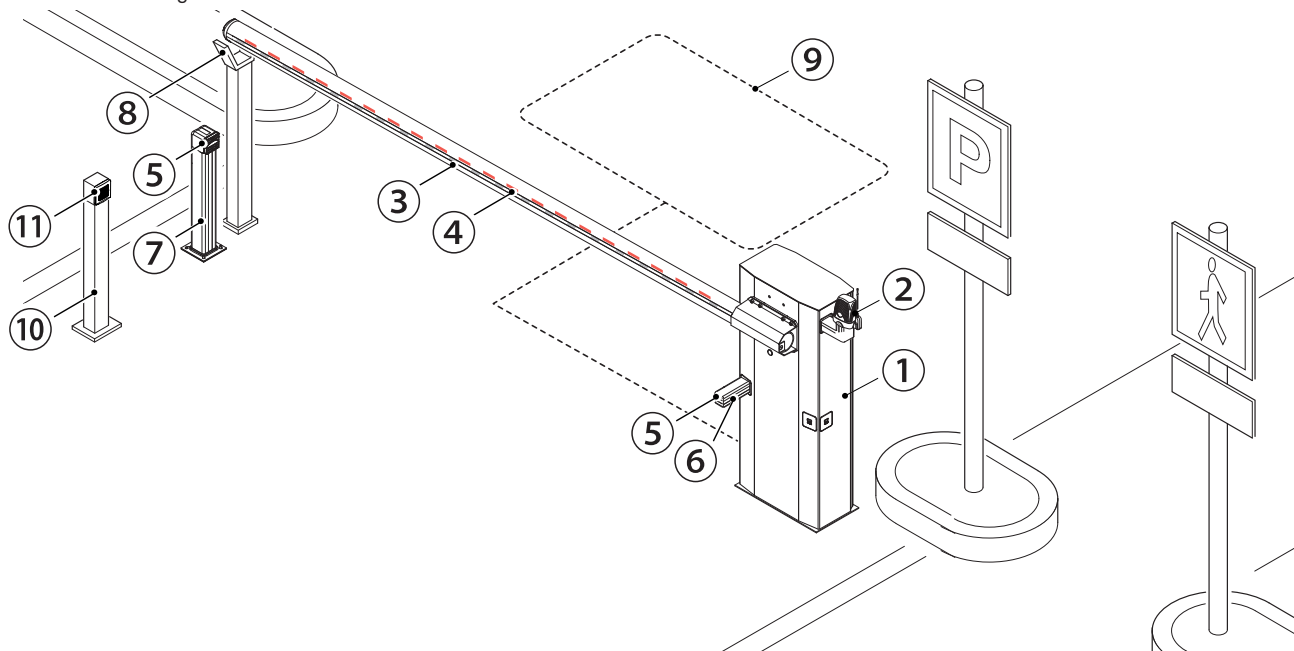
DESCRIPTION OF PARTS

- | | |
|----------------------------|----------------------------|
| 1. Cabinet | 8. Transmission lever |
| 2. Drive-shaft plate | 9. Mechanical opening stop |
| 3. Boom attachment-cover | 10. Balancing springs |
| 4. Gearmotor release lock | 11. Control panel |
| 5. Inspection-hatch lock | 12. Inspection hatch |
| 6. Gearmotor | 13. Anchoring plate |
| 7. Mechanical closing stop | 14. Anchoring bracket |



STANDARD INSTALLATION

- | | |
|----------------------|--|
| 1. Barrier with boom | 7. Small photocell post |
| 2. Flashing light | 8. Fixed rest |
| 3. Luminous cord | 9. Coil |
| 4. Reflective strips | 10. Control device post |
| 5. Photocells | 11. Control device (keypad selector, transponder sensor) |
| 6. Photocell casing | |



GENERAL INSTRUCTIONS FOR INSTALLING

△ Only skilled, qualified staff must install this product.

PRELIMINARY CHECKS

△ Before beginning, do the following:

- make sure the plate is anchored to a solid spot;
- check that there are no obstruction or impediments near the cabinet;
- set up suitable tubes and conduits for the electric cables to pass through, making sure they are protected from any mechanical damage.

CABLE TYPES AND MINIMUM THICKNESSES

| 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 |
| Command and control devices | 2 x 0.5 mm ² | 2 x 0.5 mm ² |
| Signaling devices | 2 x 0.5 mm ² | 2 x 0.5 mm ² |
| TX Photocells | 2 x 0.5 mm ² | 2 x 0.5 mm ² |
| RX photocells | 4 x 0.5 mm ² | 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).

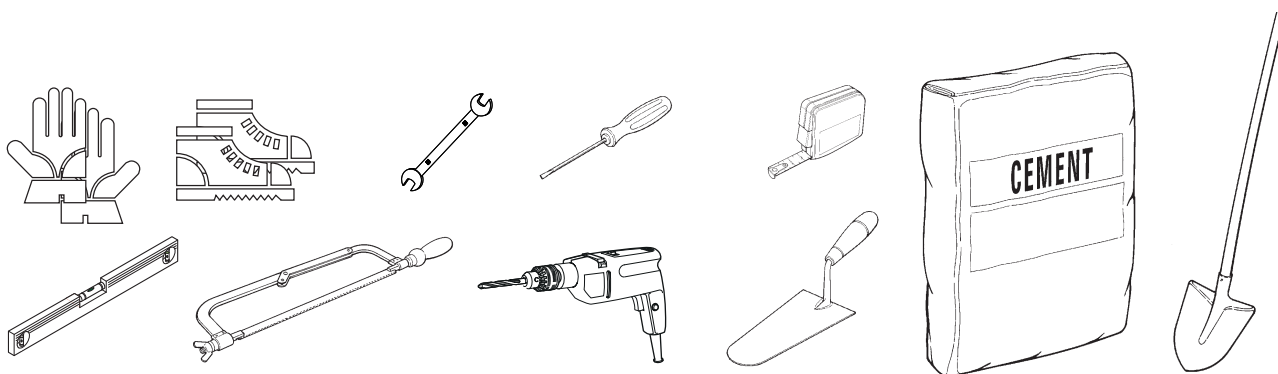
📖 For paired, alternating or CRP connections, use a UTP CAT5 cable (up to 1,000 m long).

📖 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

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. The figure shows some of the equipment installers will need.



INSTALLING

△ The following illustrations are mere examples. Consider that the space available where to fit the barrier and accessories will vary depending on the area where it is installed. It is up to the installer to find the most suitable solution.

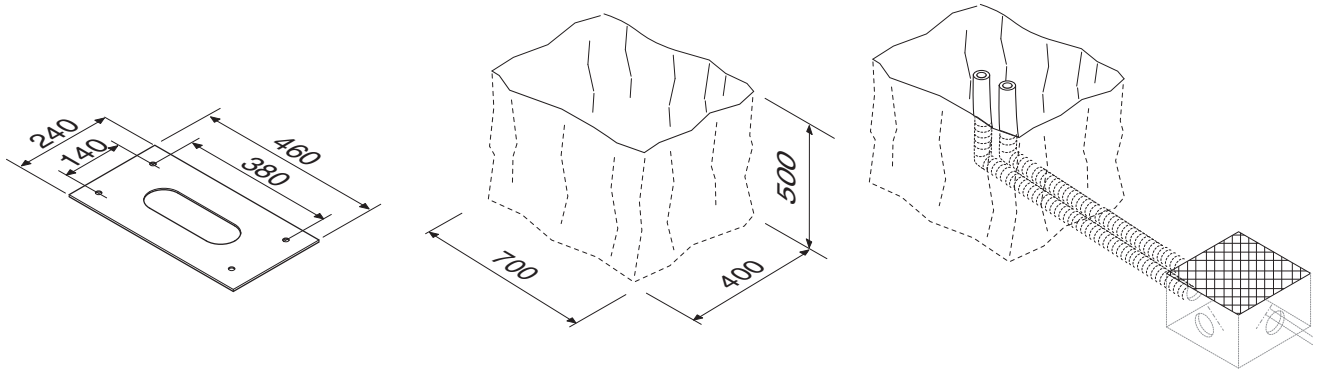
SETTING UP THE ANCHORING PLATE

△ If the flooring does not allow for a sturdy fastening of the entry unit, you will have to set up a cement slab.

Dig a hole for the foundation frame.

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

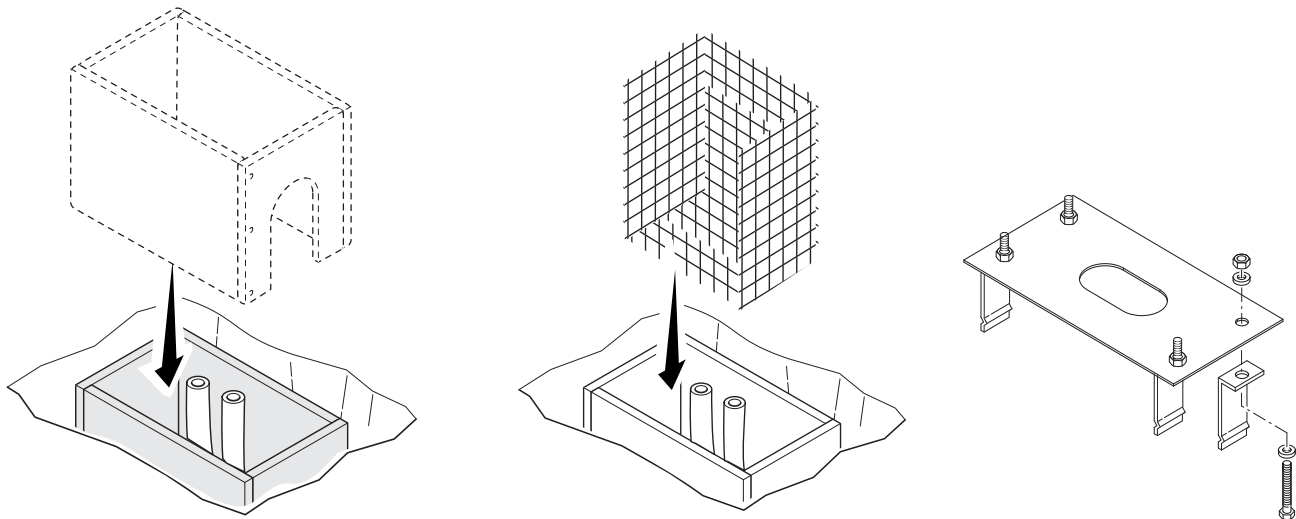
📖 The number of tubes depends on the type of system and the accessories you are going to fit. Set up a 230 V power-supply cable.



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

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

Assemble the four anchoring braces to the anchoring plate.

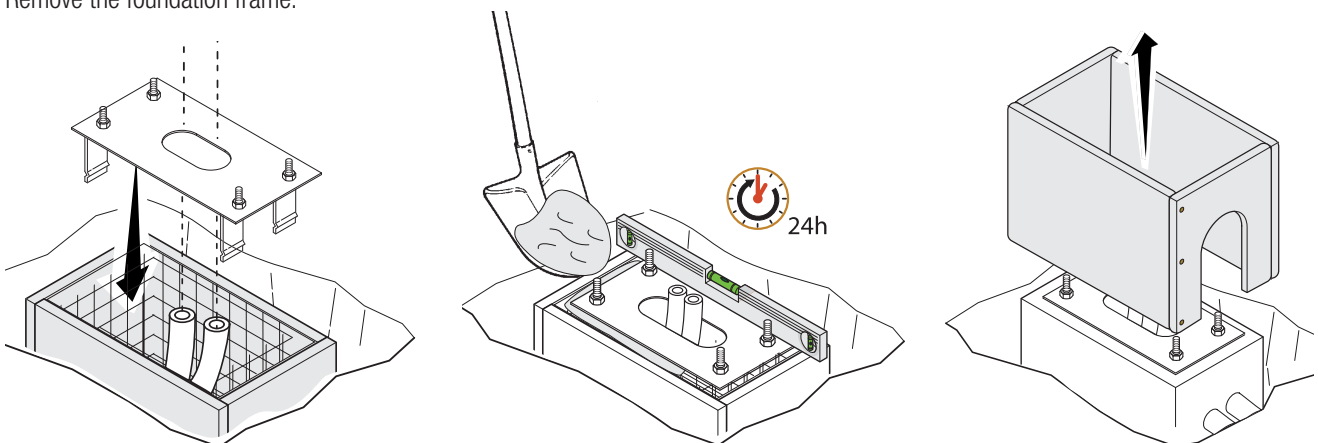


Place the plate over the iron cage.

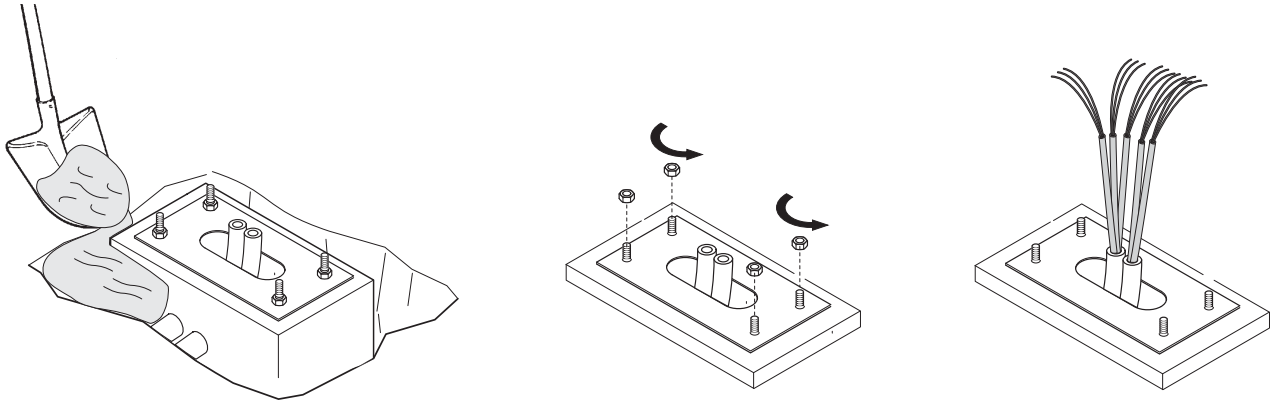
Fill the foundation frame with concrete. The base must be perfectly level with the bolts which are entirely above surface.

Wait at least 24 hrs for the concrete to solidify.

Remove the foundation frame.



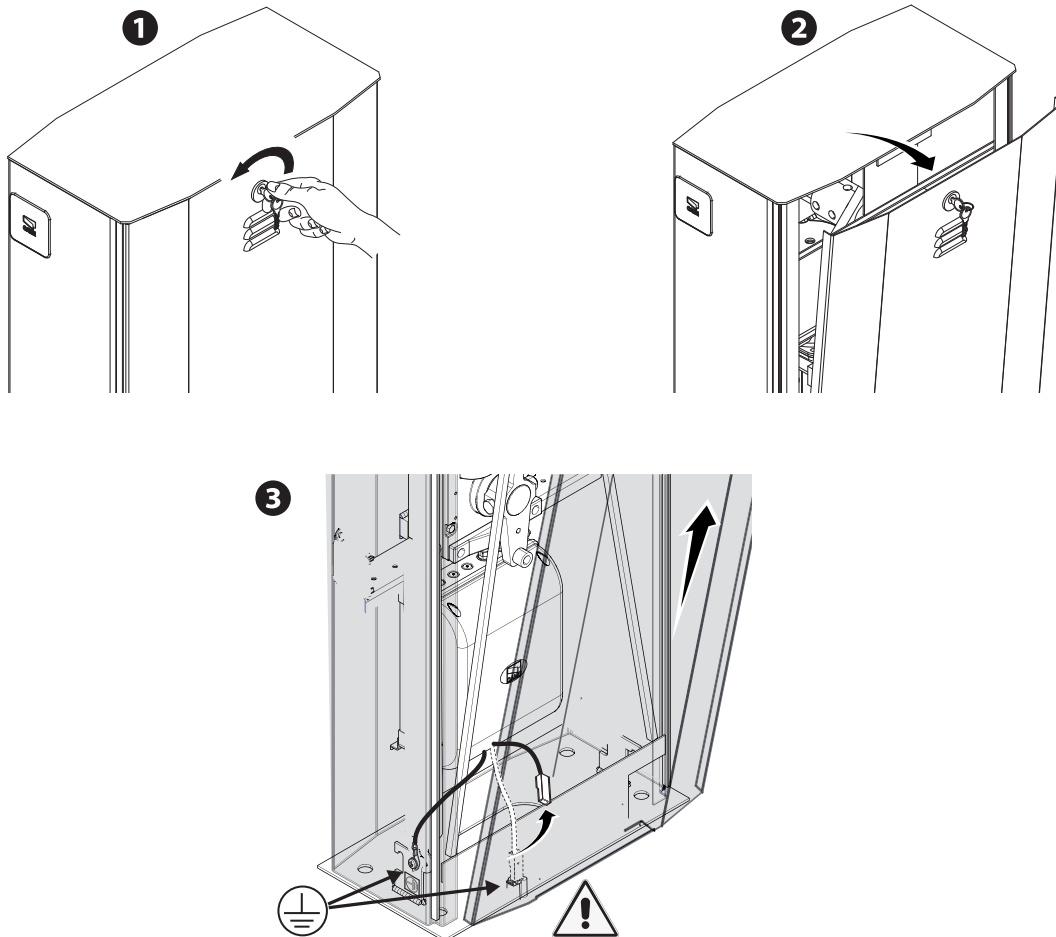
Fill the hole with earth around the concrete block.
Remove the nut and washer from the bolts
Fit the electric cables into the tubes so that they come out about 600 mm.



SETTING UP THE BARRIER

⚠ Warning! Use hoisting equipment to transport and position the barrier. The mounting must be done by at least two people. During the initial mounting and fastening, the barrier may be unstable and could tip over. Then be careful to no rest against it until it is completely and securely fastened.

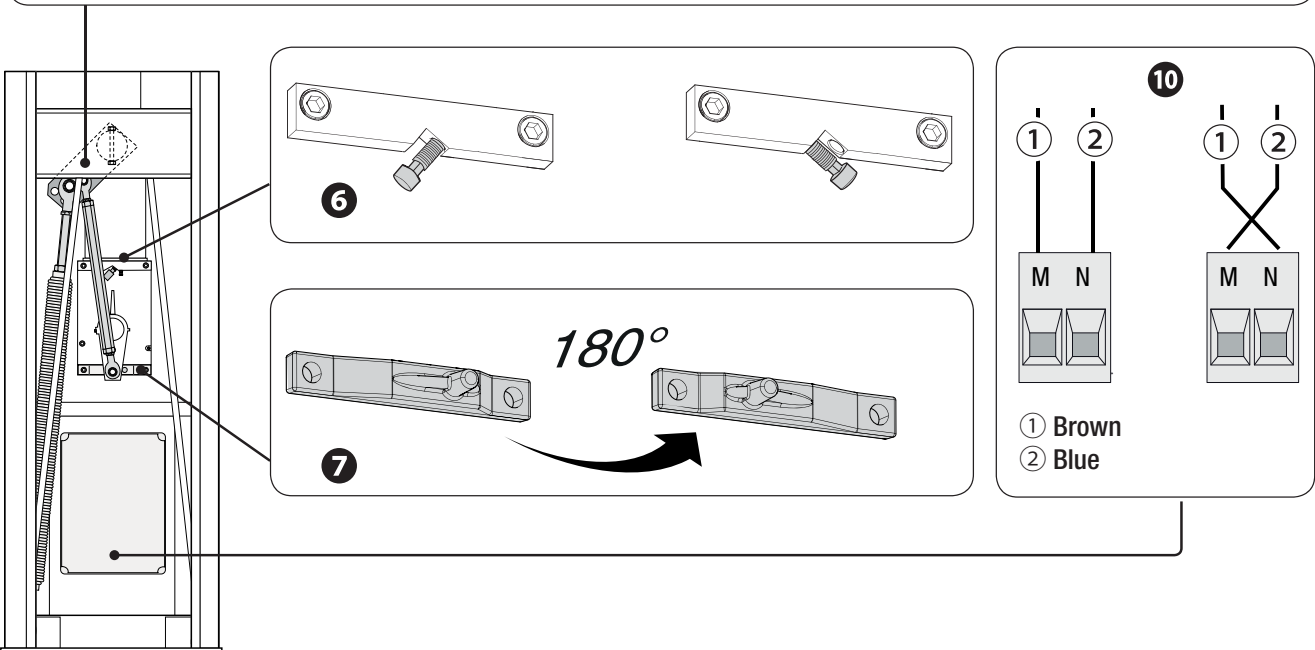
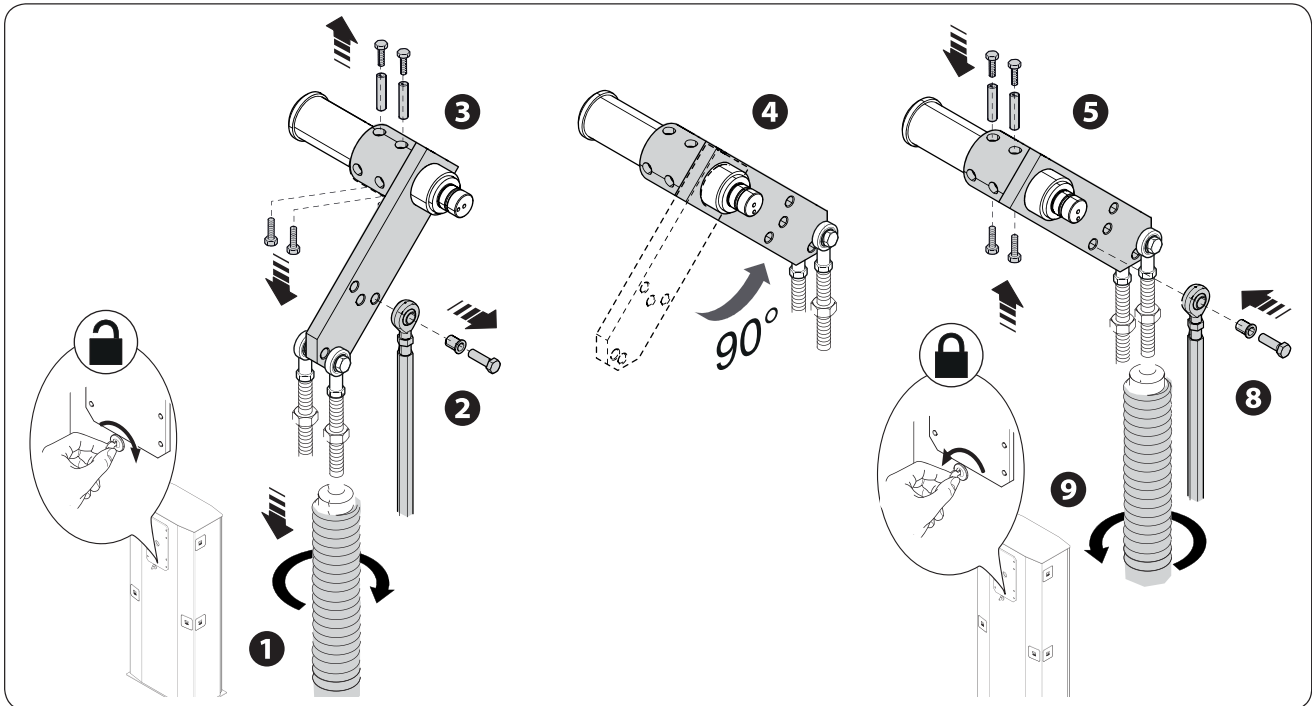
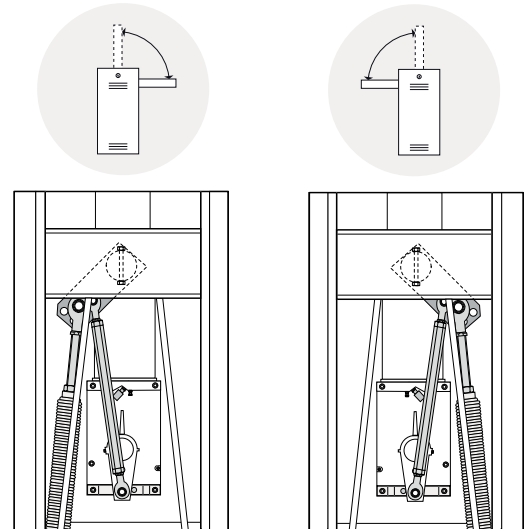
Fit the customized key into lock on the inspection hatch and turn it counterclockwise.
Before removing the cabinet hatch, make sure you have disconnected the earthing cable which is connected to the door.



- △ The barrier is set up for installing on the left.
- If installing on the right side, invert the opening direction, in the following way:
- release the gearmotor, loosen the screws from the rods **1**;
 - remove the transmission lever from the lever arm **2**;
 - free up the lever arm from the drive shaft by removing the screws and elastic dowels **3**;
 - turn the lever arm 90° counter clockwise **4**;
 - fasten the lever arm to the drive shaft by refitting the screws and dowels **5**;
 - remove the mechanical closing stop and fit it into the opposite side **6**;
 - remove the opening mechanical stop, turn it 180° and fasten it (locking torque of 77.5 Nm) **7**;
 - refit the transmission lever to the lever arm (locking torque of 77.5 Nm) **8**;
 - lock the gearmotor and turn the screws onto the rods **9**;
 - from the control panel, invert gearmotor phase M to N **10**.

LEFT

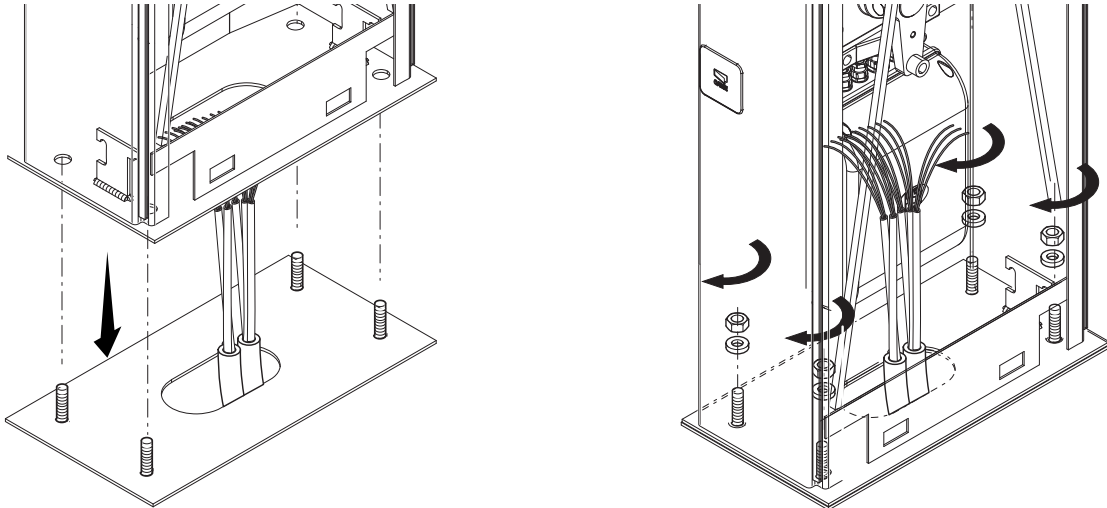
RIGHT



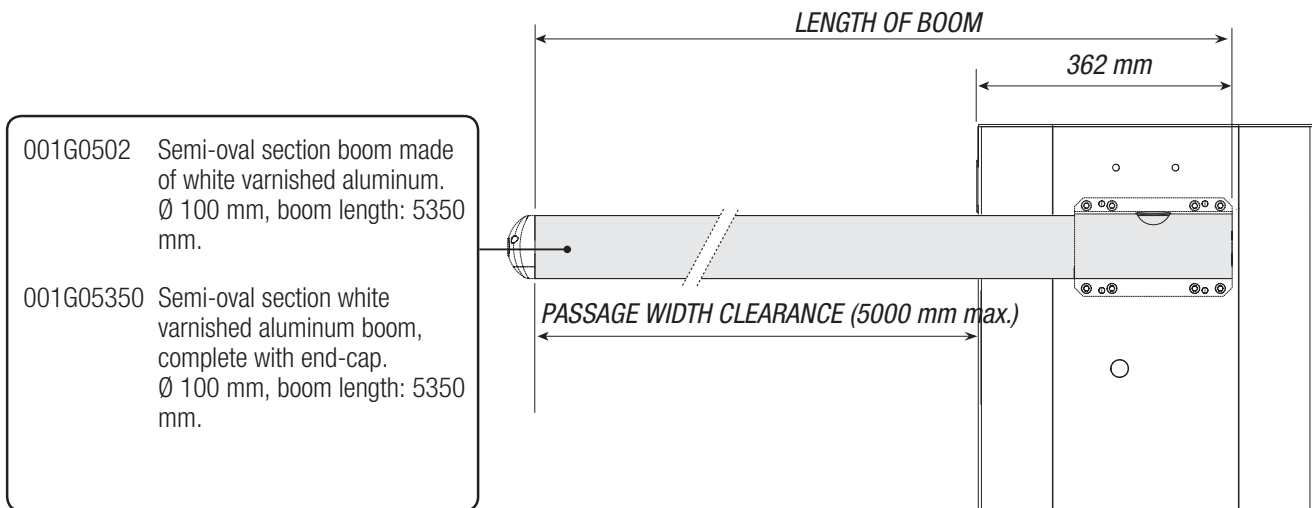
① Brown
② Blue

FASTENING THE BARRIER

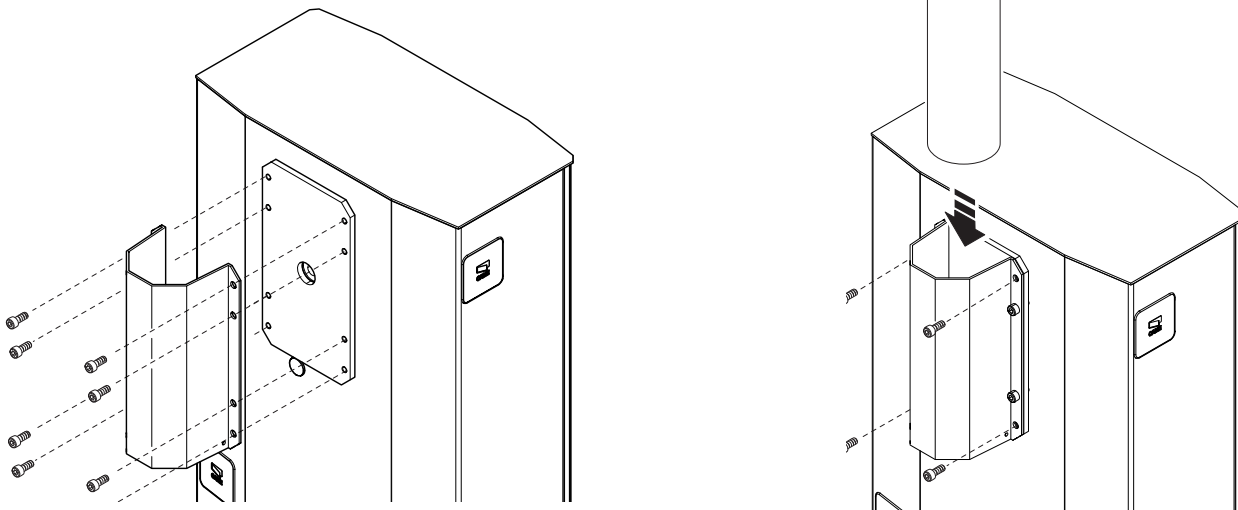
Place the cabinet onto the anchoring plate and fasten it using nuts and washers.



Calculate the boom length by taking into account the passage width clearance. Cut off any excess.



Fit the boom attachment-cover to the drive shaft plate. Keep the bolts loose. Fit the boom into the boom attaching cover and fasten it using the screws.

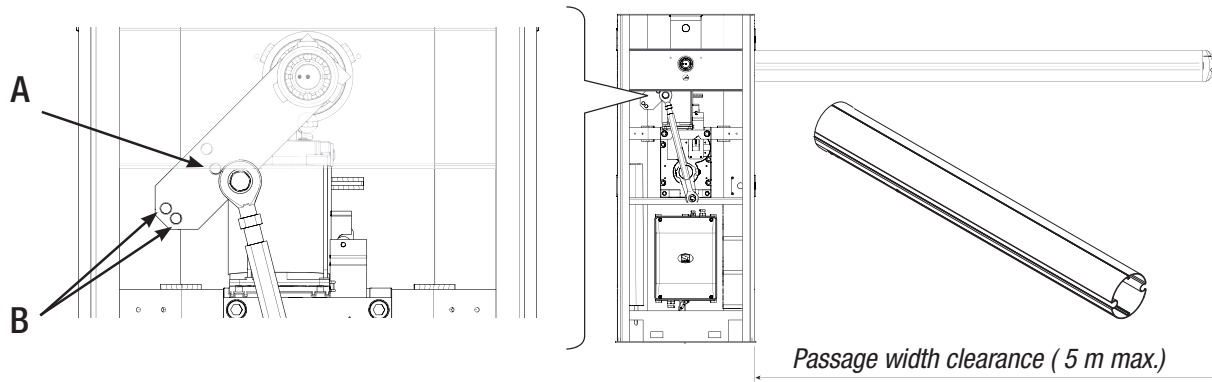


BALANCING THE BOOM

The barrier is supplied with two $\varnothing 50$ mm springs (001G04060). The springs are fitted to the level arm (in holes B). Depending on the final configuration of the barrier, you may have to exclude one of the springs or change the fastening position (see the tables below).

⚠ When configuring the barrier, make sure the gearmotor is locked!

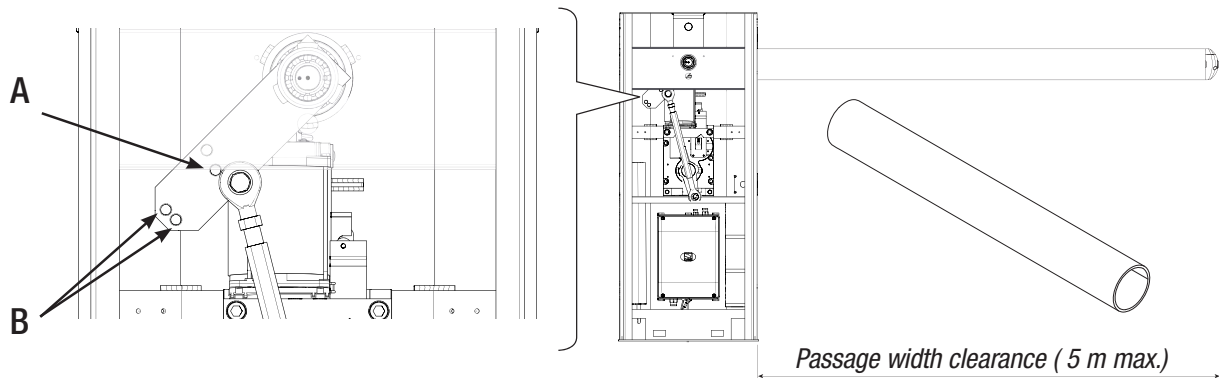
001G05350



| PASSAGE WIDTH CLEARANCE (m) | 3 ÷ 3.5 | 3.5 ÷ 4 | 4 ÷ 4.5 | 4.5 ÷ 5 |
|--|---------|---------|---------|---------|
| Boom | A | A | B | B |
| Boom with swing-leg 001G02808 | A | B | B | A + B |
| Boom with luminous cord 001G28401 | A | B | B | A + B |
| Boom with 001G02808 swing rest and 001G28401 luminous cord | B | B | A + B | A + B |
| Boom with skirt 001G0465 | A | B | A + B | A + B |
| Boom with 001G0465 skirt and 001G028401 luminous cord | B | B | A + B | A + B |

The boom includes the transparent groove cover and end cap.

001G0502



| PASSAGE WIDTH CLEARANCE (m) | 3 ÷ 4 | 4 ÷ 5 |
|---|-------|-------|
| Boom | A | B |
| Boom with 001G0465 skirt or 001G028401 swing-rest | B | A + B |

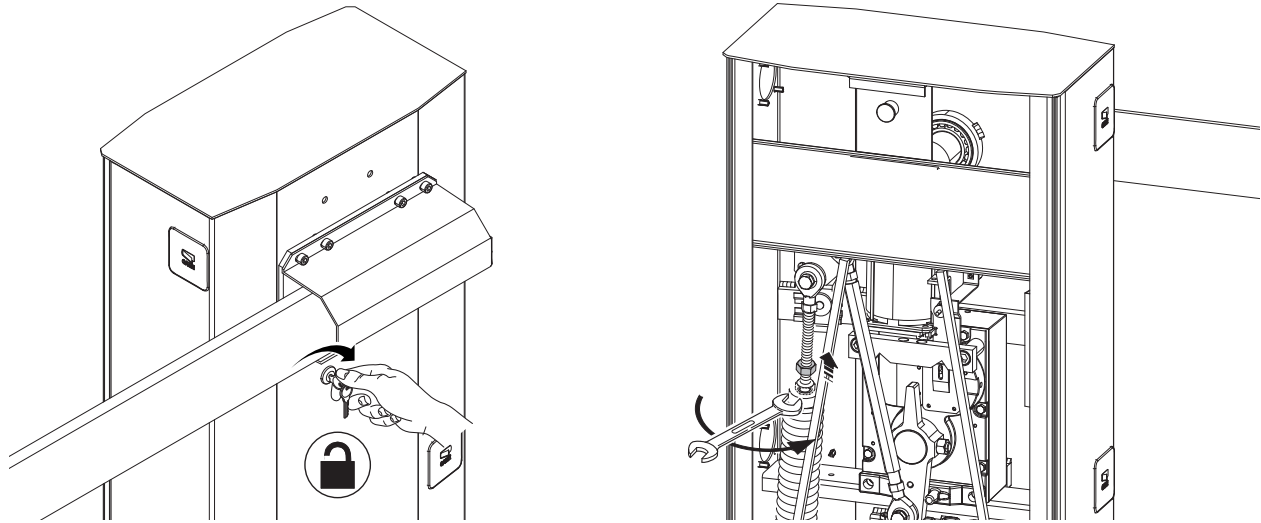
⚠ WARNINGS!

001G02802 Cannot be used on barriers fitted with the 001G0465 skirt or 001G02808 swing rest

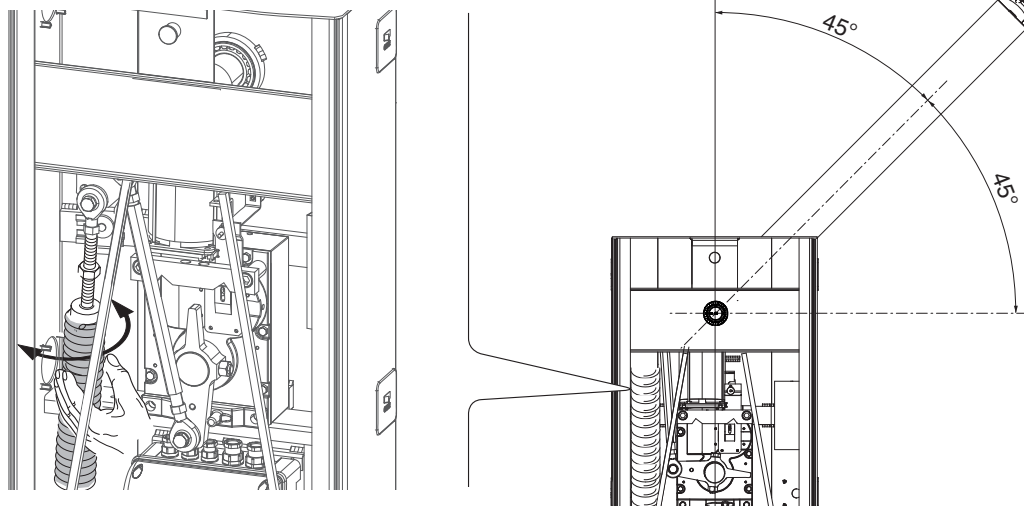
001G02807 MUST be used with passage widths exceeding 3 m.

001G0465 - 001G02808 Cannot be used together.


Release the gearmotor and loosen the rod nut.



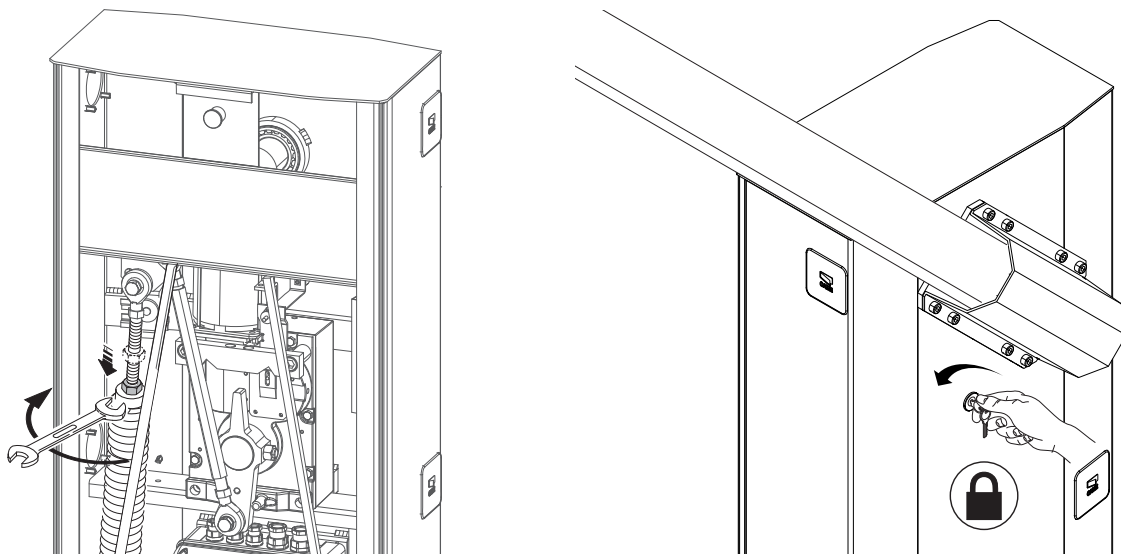
Manually turn the spring to increase or reduce the traction. The boom should stabilize at 45°.



Fit the nut to fasten the rod to the spring and tighten it. Lock the gearmotor once again.

 Check the proper working state of the spring.
With the boom raised vertically the spring is not taut.
With the boom lowered horizontally the spring is taut.

Warning! After performing balancing procedures, LUBRICATE THE SPRINGS WITH SPRAY GREASE!



CONTROL PANEL

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

Power supply to the control panel and control devices: 24 V AC/DC.

Functions on input and output contacts and time and user management details, are set up and viewable on the control panel's display.

All wiring connections are quick-fuse protected.

FUSE TABLE

ZL39

LINE - Line

3.15 A-F = 120 V

1.6 A-F = 230 V

C.BOARD - Card

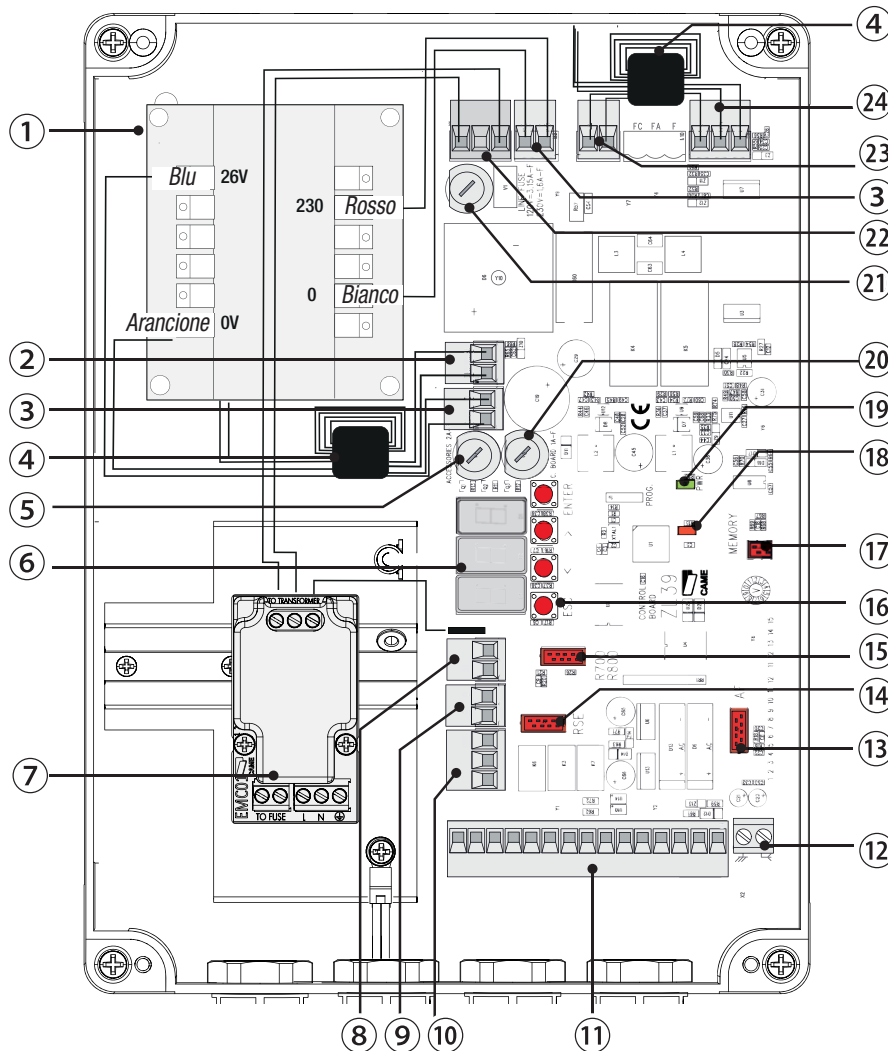
1 A-F

ACCESSORIES - Accessories

2 A-F

DESCRIPTION OF PARTS

- | | |
|--|--|
| 1. Transformer | 13. AF card connector |
| 2. Overheating protection terminals | 14. RSE board connector |
| 3. Transformer terminals | 15. Connector for the R700 / R800 card |
| 4. Ferrite | 16. Programming buttons |
| 5. Accessories fuse | 17. Memory roll board connector |
| 6. Display | 18. Programming warning LED |
| 7. EMC01 filter | 19. Power supply on warning LED |
| 8. Terminals for transponder devices | 20. Control-board fuse |
| 9. Keypad selector terminal | 21. Line fuse |
| 10. Terminals for paired / alternate / CRP connections | 22. Power supply terminals |
| 11. Terminals for control and safety devices | 23. Terminals for gearmotor |
| 12. Antenna terminal | 24. Terminals for encoder |

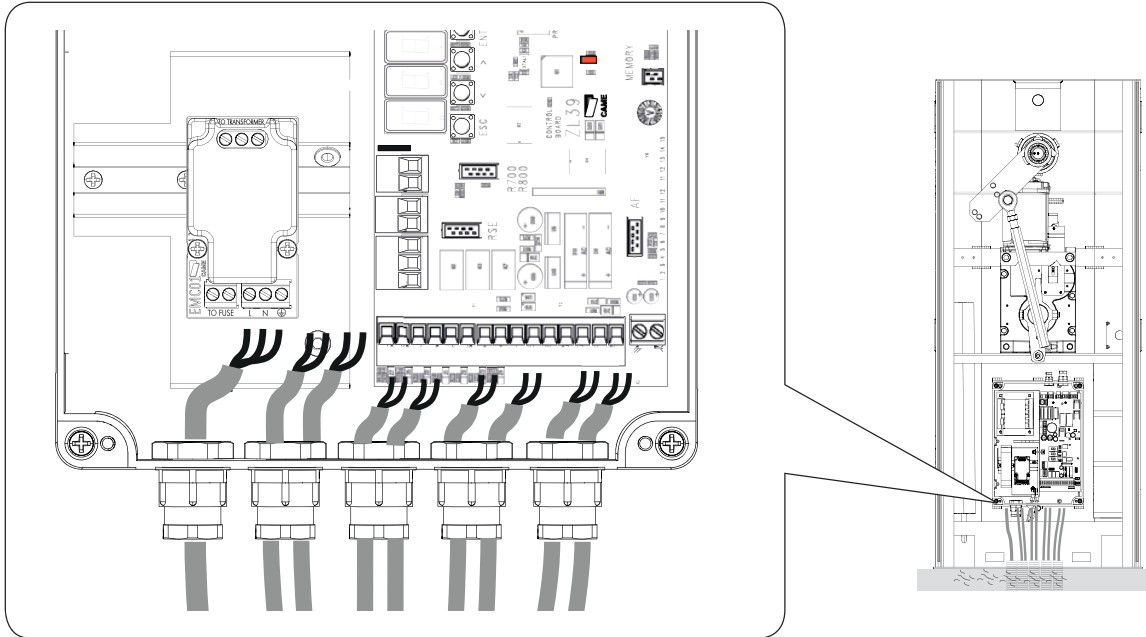


ELECTRICAL CONNECTIONS

Connect all wires and cables in compliance with the law while using suitable cable glands, as shown in the drawing.

⚠ Use a cable gland only for the 230 V AC power supply cable.

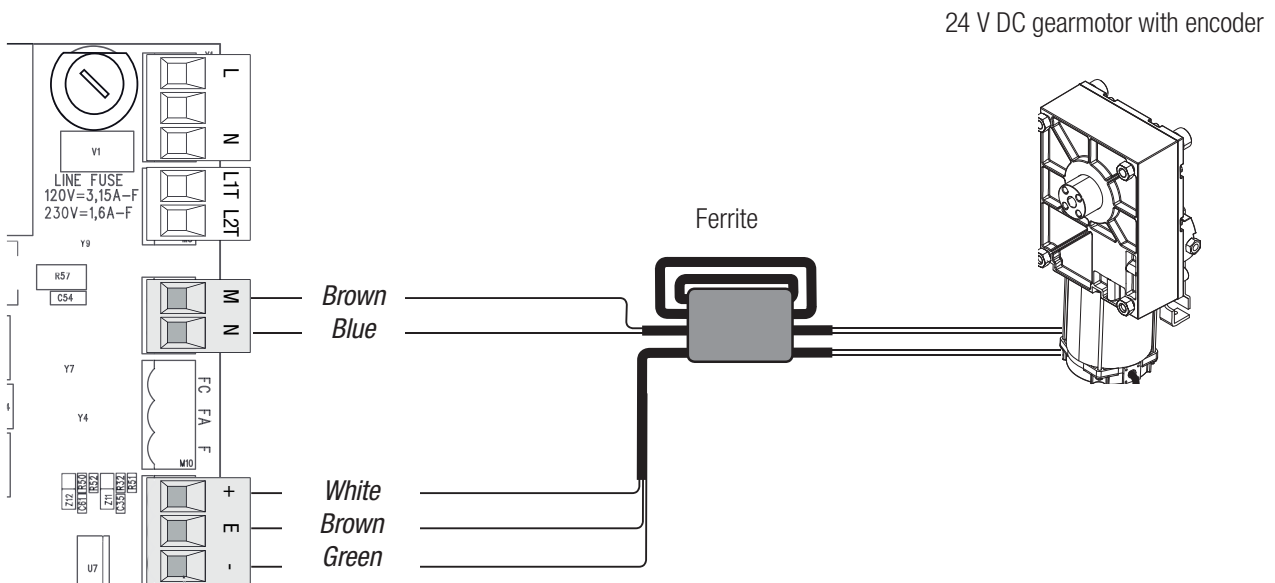
⚠ The electrical cables must not touch any heated parts such as the motor, transformer, and so on.



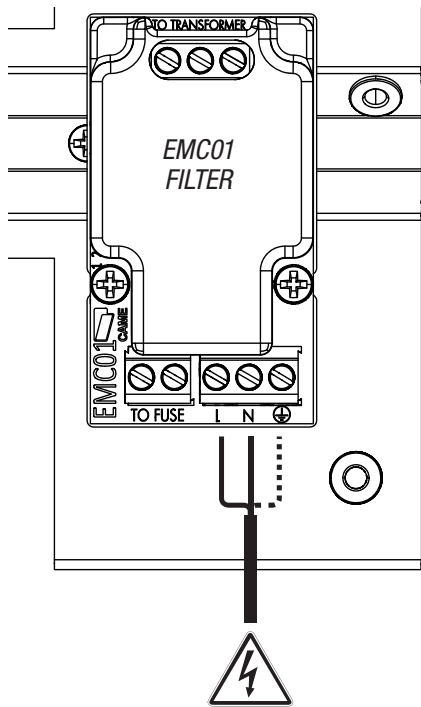
FACTORY WIRING

The gearmotor is already connected.

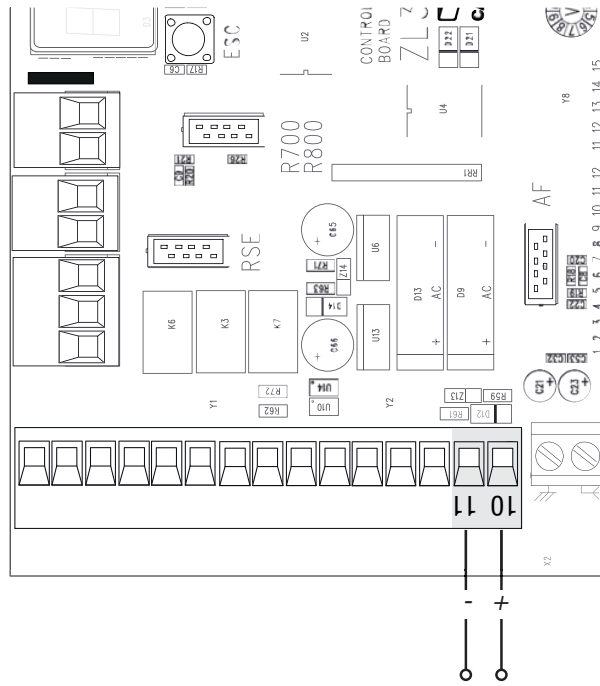
To install the barrier on the right, follow the instructions in the PREPARING THE BARRIER.



POWER SUPPLY



230 V AC - 50/60 Hz



Output to power 24 V AC accessories (normally) - max. 40 W.

📖 If the power is out, you can power up the 24 V DC accessories by using buffer batteries.

SIGNALING DEVICES

Output to notify the state of the barrier (Contact rated for: 24 V AC - 3 W max.). It flags the state of the barrier, see function F10.

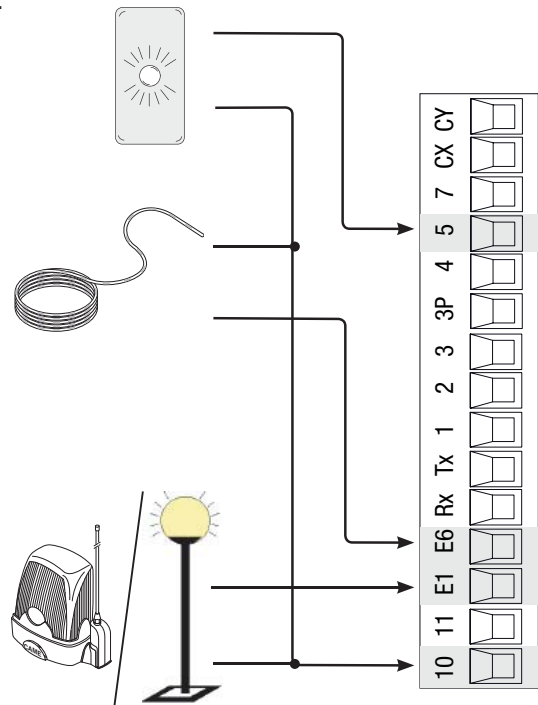
Output for connecting the luminous cord (Contact rated for: 24 V AC - 32 W max.). It flags the state of the barrier, with intermittent lights, see function F15.

Additional light connection output (Contact rated for: 24 V AC - 25 W max):

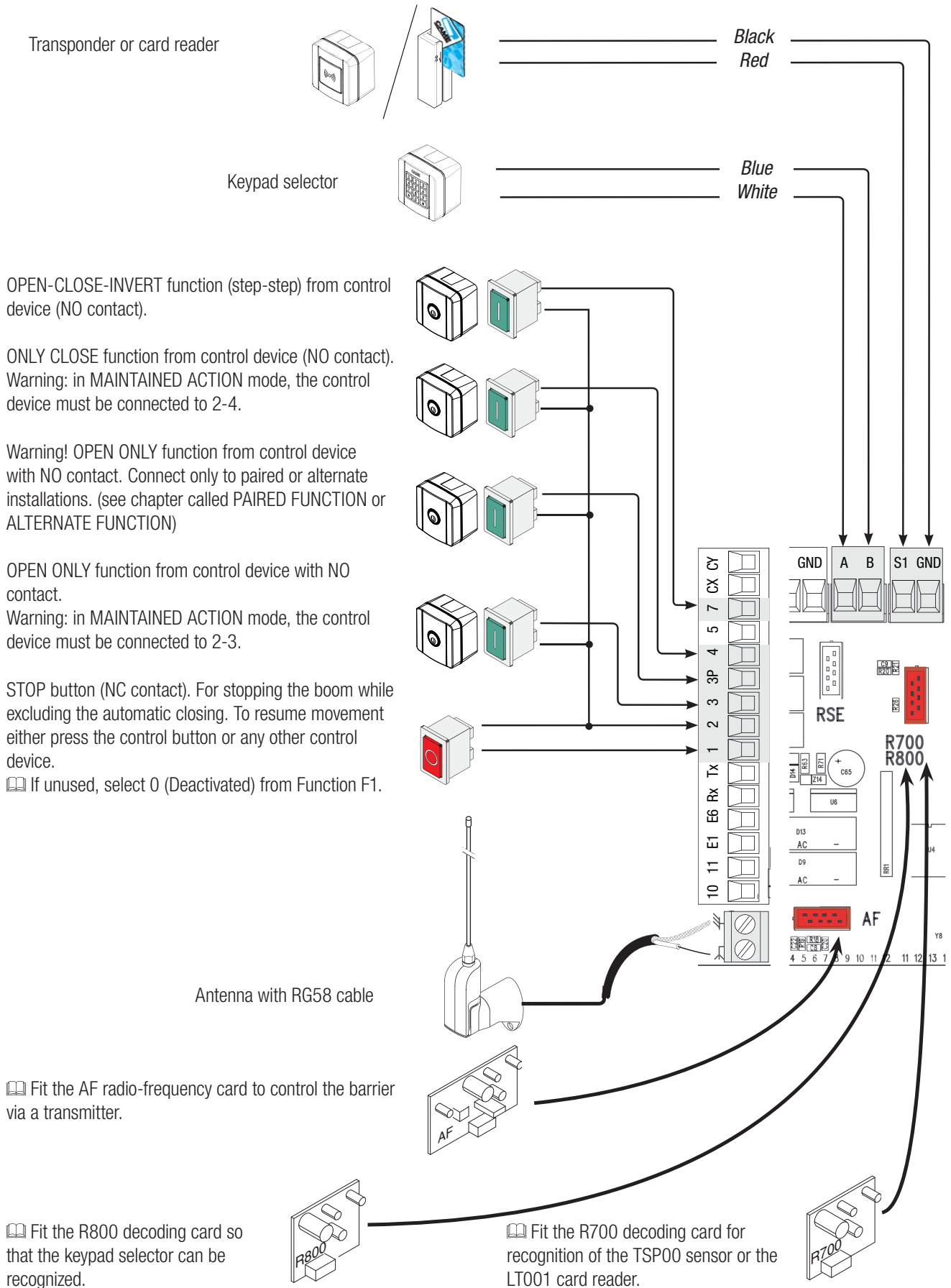
- flashing light, that flashes when the barrier is opening and closing.
- cycle or courtesy light, which is a freely positionable outdoor light for enhanced lighting in the driveway.

Cycle, stays on from the moment in which the barrier starts opening until it closes completely (including the automatic closing time).

Courtesy, stays on a settable time of between 60 and 1180 seconds, see function F18.



CONTROL DEVICES



WARNING! Before fitting any plug-in card, such as the AF or R800 one, YOU MUST CUT OFF THE MAINS POWER SUPPLY and, if present, disconnect any batteries.

SAFETY DEVICES

Photocells

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

See function of Input CX (function F2) or CY (function F3) in:

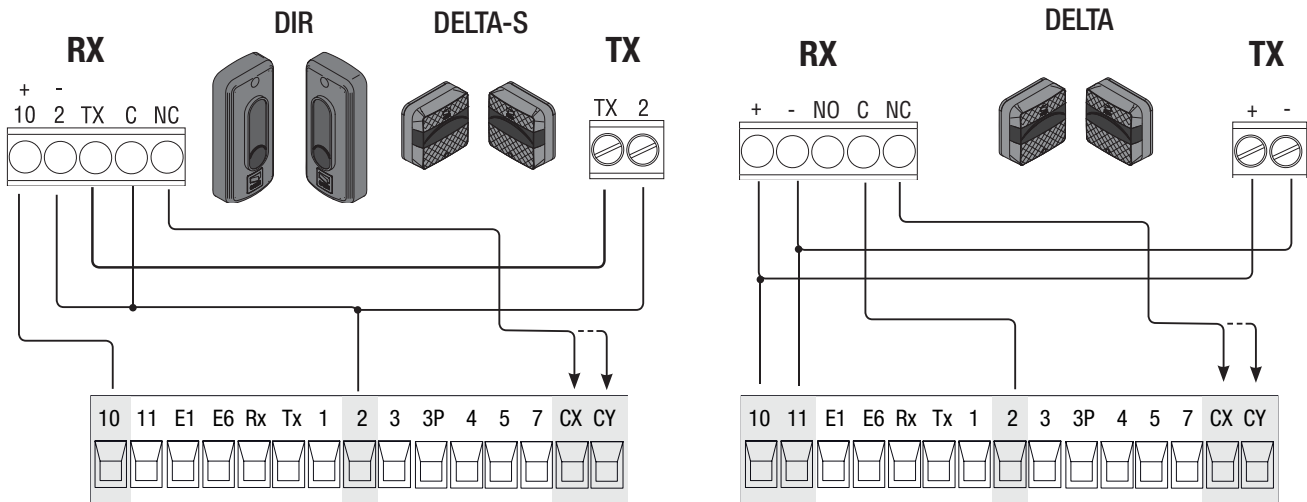
C1 reopening while closing. When the barrier is closing, opening the contact causes its movement to invert until fully opened;

C4 obstruction wait. The leaf stops if moving and starts moving again once the obstruction is removed;

C5 immediate closing. Closing the barrier after a vehicle has passed through the operating area of the safety devices; C9 immediate closing with obstruction wait when closing. Closing the barrier after a vehicle has passed through the operating area of the safety devices;

C9 immediate closing with obstruction wait when closing. Closing the boom after a vehicle has passed through the operating area of the safety devices.

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

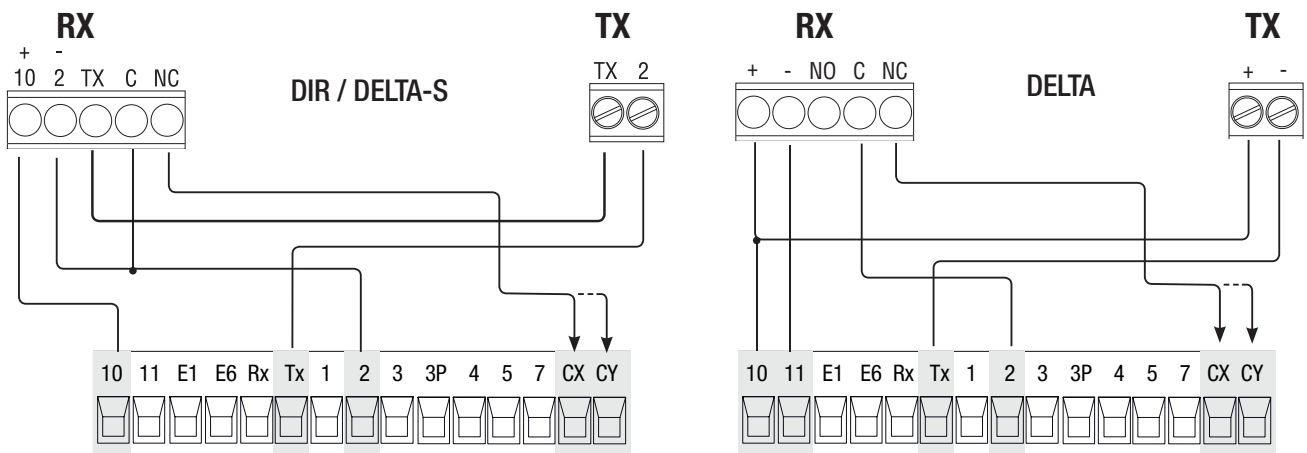


Photocells (safety test)

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

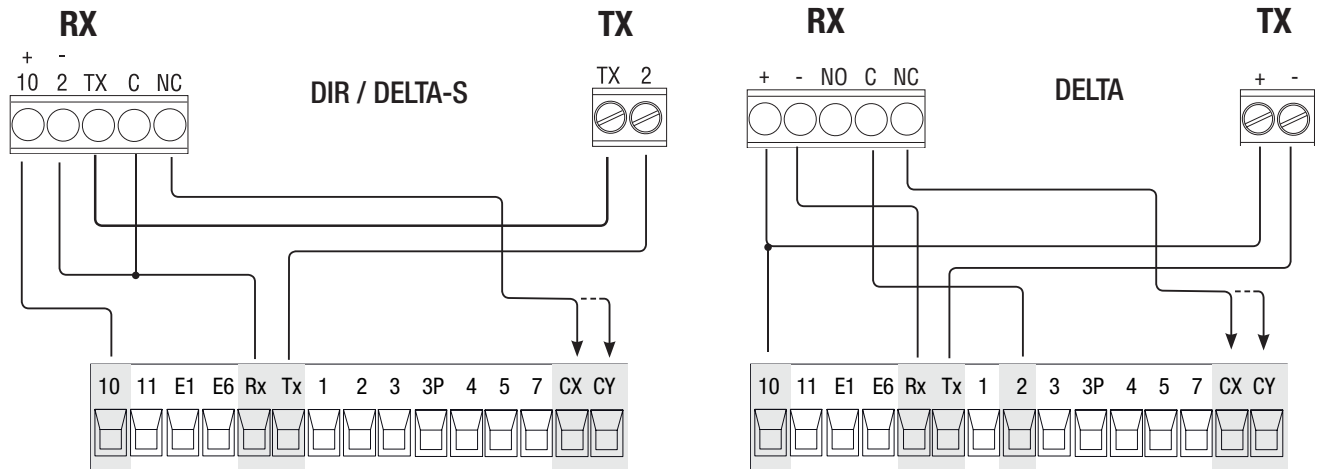
Any malfunction inhibits any command and the display will show the Er4 wording.

Enable function F5 in programming.

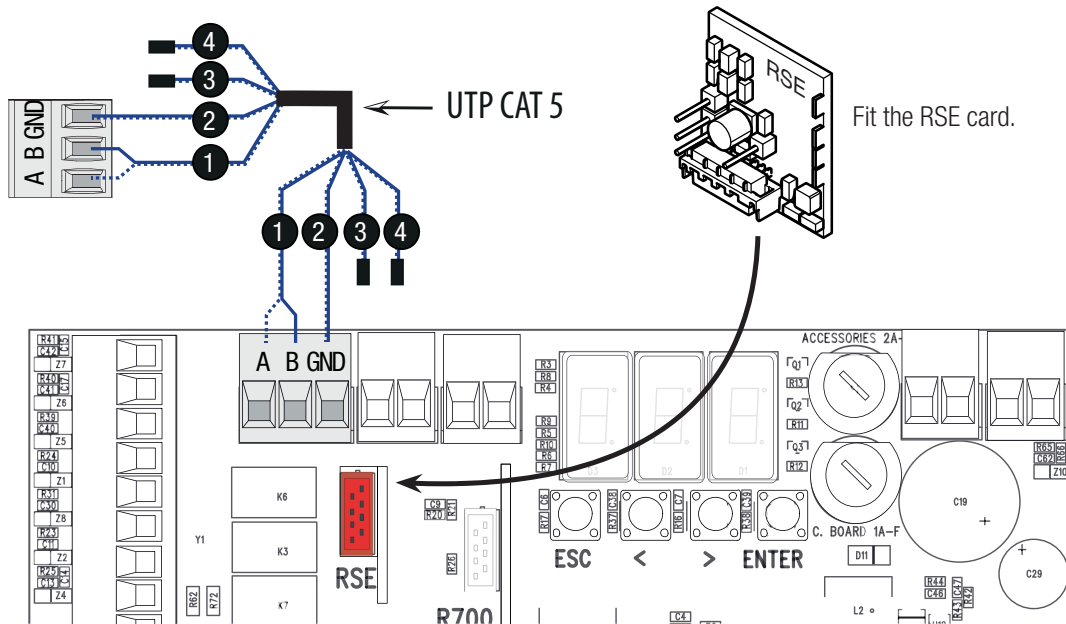


Photocells (sleep mode)

The Sleep Mode function cuts down on energy consumption when in stand-by.
Select 1 from function F 60.



CONNECTION FOR PAIRED OR ALTERNATE OPERATION OR FOR CAME REMOTE PROTOCOL (CRP)



ESTABLISHING THE LIMIT-SWITCH POINTS

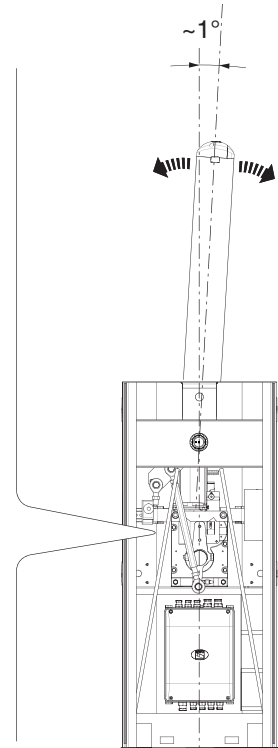
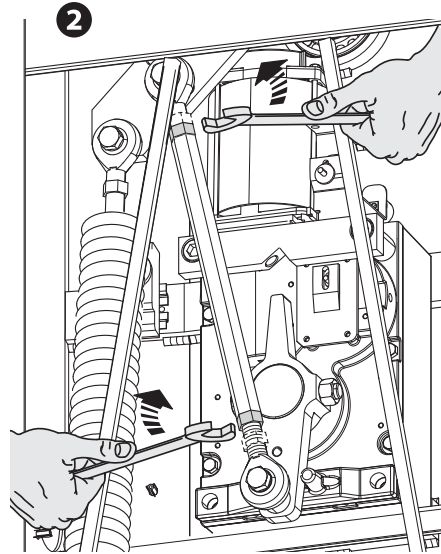
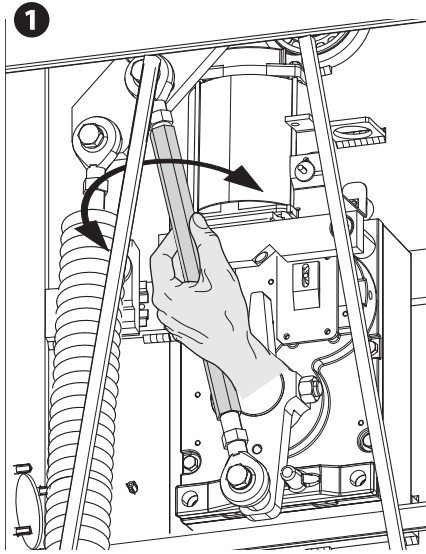
Close the inspection hatch and power up the system. Move the boom to check that it is parallel to the road surface when closed and at about 89° when open.

△ **The barrier's opening and closing maneuvers must be performed with the inspection hatch closed.**

To correct the boom's vertical position:

- lower the boom;
- open the inspection hatch;
- turn the jointed arm clockwise or counter-clockwise to increase or decrease the boom travel ❶.

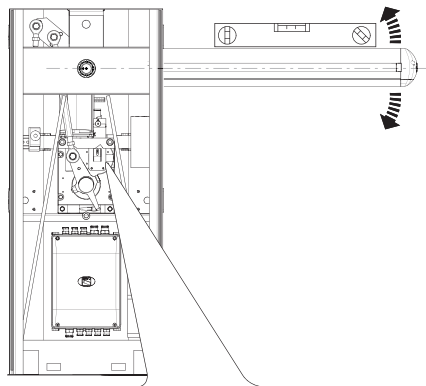
Fasten the boom using the counter nuts, above and below ❷.



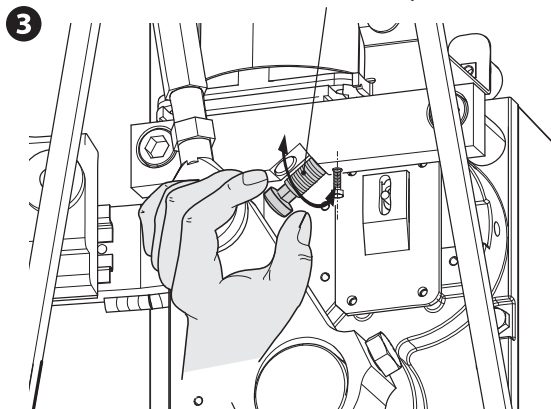
To correct the horizontal position:

- raise the boom;
- turn the mechanical limit-switch stop clockwise to increase the boom travel or counter clockwise to decrease it ❸.

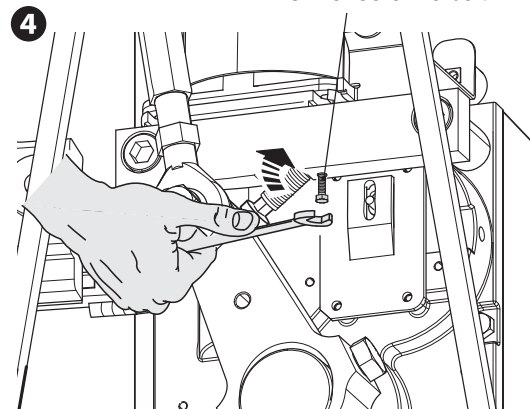
Fasten the stop using the screw ❹.

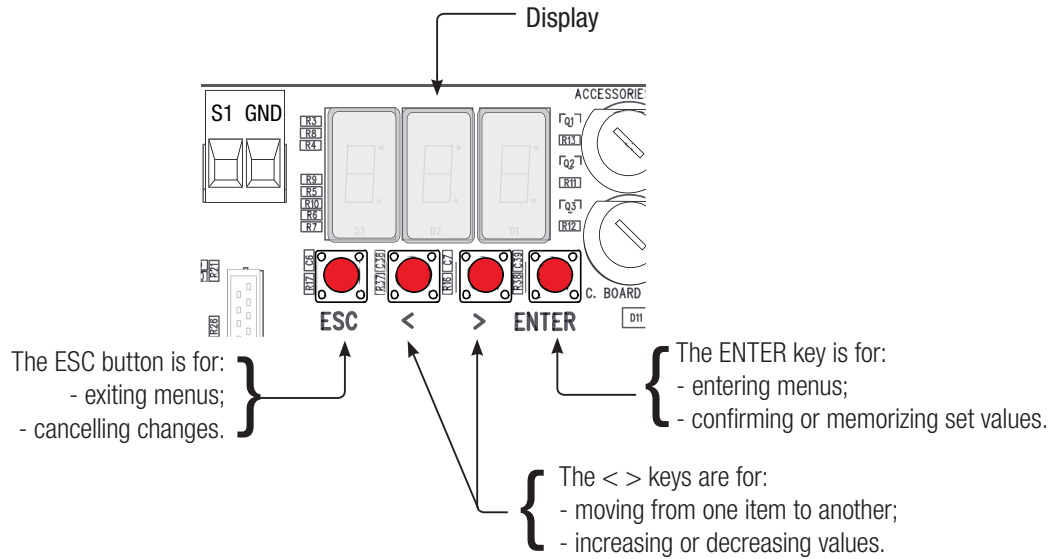


Mechanical stop

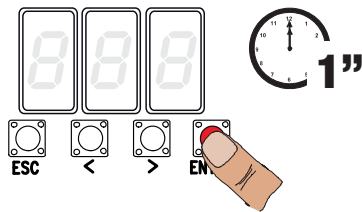


UNI 5739 6X20 bolt

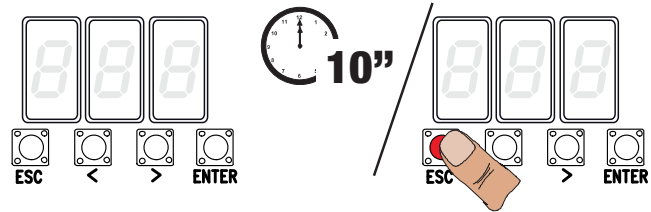




To enter the menu, keep the ENTER button pressed for at least one second.



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









FUNCTIONS MENU

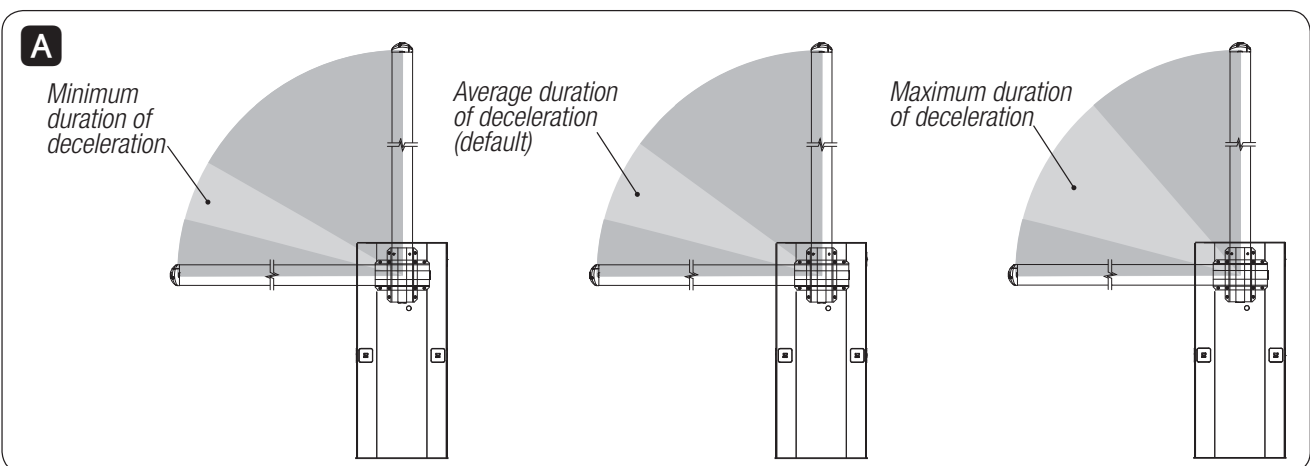
⚠ When programming, the operator needs to be in stop mode.

| | | |
|-----------|--------------------------|--|
| F1 | Total stop [1-2] | NC input - Barrier stops while excluding any automatic closing; to resume movement, use the control device. Fit the safety device onto (1-2), if unused, select 0. <i>0= Deactivated (default) / 1= Activated</i> |
| F2 | Input [2-CX] | NC Input - For associating: C1 = reopening during closing for photocells, C4 = obstruction wait, C5 = immediate closing, C9 = immediate closing with obstruction wait when closing. <i>0= Deactivated (default) / 1=C1 / 4=C4 / 5=C5 / 9=C9</i> |
| F3 | Input [2-CY] | NC Input - For associating: C1 = reopening during closing for photocells, C4 = obstruction wait, C5 = immediate closing, C9 = immediate closing with obstruction wait when closing. <i>0= Deactivated (default) / 1=C1 / 4=C4 / 5=C5 / 9=C9</i> |
| F5 | Safety test | After every opening or closing command, the board will check whether the photocells are working properly. <i>0= Deactivated (default) / 1=CX / 2=CY / 4=CX+CY</i> |
| F6 | Maintained action | The barrier opens and closes by keeping a 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. <i>0= Deactivated (default) / 1= Activated</i> |

| | | |
|-----|---|---|
| F9 | Obstruction detection with motor stopped | With the barrier closed, open, or after a total stop, the gearmotor stays idle if the safety devices, that is, the photocells, detect an obstruction. <i>0 = Deactivated (default) / 1 = Activated</i> |
| F10 | State of barrier notification output | It signals the barrier's state The signal device is connected to contact 10-5. <i>0 = on with boom raised and moving (default) / 1 = it flashes intermittently each half second when the boom is opening, and flashes intermittently each second when the boom is closing, and stays on when the boom is raised, and stays off when the boom is lowered.</i> |
| F11 | Encoder | Managing slow-downs, obstruction detections and sensitivity. <i>0 = Activated (default) / 1 = Deactivated</i> |
| F14 | Sensor type | Setting the type of accessory for controlling the operator. <i>0 = command with transponder sensor or magnetic card reader / 1 = command with keypad selector (default)</i> |
| F15 | Luminous cord | It signals the state of the barrier by using intermittent lights. Luminous cord connected onto 10-E6. <i>0 = Boom is moving (default) / 1 = Boom is moving and lowered.</i> |
| F18 | Additional light | Output for connecting the additional light onto 10-E1: - flashing light, which flashes when the barrier is opening and closing; - cycle, stays on from the moment the barrier starts opening until it is fully closed, including the waiting time before the automatic closing. - courtesy, stays on for a settable time of between 60 and 180 seconds. To set the time, see function F25. <i>0 = Flashing light (default) / 1 = Cycle / 2 = Courtesy</i> |
| F19 | Automatic Closing Time | 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. <i>0 = Deactivated (default) / 1 = 1 second /... / 180 = 180 seconds</i> |
| F21 | Pre-flashing time | Adjusting the pre-flashing time of the flashing light connected to 10-E1 before each maneuver. The flashing time is adjustable from one to ten seconds. <i>0 = Deactivated (default) / 1 = 1 second /... / 10 = 10 seconds</i> |
| F22 | Operating time | Motor's operating time, when opening and closing. It can be set to between 5 and 120 seconds. <i>5 = 5 seconds /... / 120 = 120 seconds (default)</i> |
| F25 | Courtesy light time | Additional light (courtesy), stays lit for the necessary time while the barrier is opening and closing. It can be set to between 60 and 180 seconds. <i>60 = 60 seconds /... / 180 = 180 seconds (default)</i> |
| F28 | Speed of opening maneuver | Setting the barrier's opening speed, calculated as a percentage. Warning! The speed parameter fields vary depending on the type of boom: - for booms of 2 m to 4 m with jointed boom, set the speed percentage to between 70 and 100; - for booms of 6 m and 8 m, set the speed percentage to between 80 and 100. <i>70 = 70% of the maximum speed /... / 100 = 100% of the maximum speed</i> |
| F29 | Speed of closing maneuver | Setting the barrier's closing speed, calculated as a percentage. Warning! The speed parameter fields vary depending on the type of boom: - for jointed booms of 2 m to 4 m, set the speed percentage to between 70 and 100; - for booms of 6 m and 8 m, set the speed percentage to between 80 and 100. <i>70 = 70% of the maximum speed /... / 100 = 100% of the maximum speed</i> |
| F30 | Opening slow-down speed | Setting the barrier's opening slow-down speed, calculated as a percentage. Warning! The speed parameter fields vary depending on the type of boom: - for jointed booms of 2 m, set the slow-down speed percentage to between 20 and 40; - for booms of 4 m, set the slow-down speed percentage to between 20 and 35. - for booms of 6 m and 8 m, set the slow-down speed percentage to between 15 and 40. <i>15 = 15% of the maximum speed /... / 40= 40% of the maximum speed</i> |

| | | |
|-----|--|--|
| F31 | Closing slow-down speed | Setting the barrier's closing slow-down speed, calculated, calculated as a percentage. Warning! The speed parameter fields vary depending on the type of boom: - for jointed booms of 2 m, set the slow-down speed percentage to between 20 and 40; - for booms of 4 m, set the slow-down speed percentage to between 20 and 25. - for booms of 6 m and 8 m, set the slow-down speed percentage to between 15 and 20. 15 = 15% of the maximum speed /... / 40= 40% of the maximum speed |
| F33 | Calibration speed | Setting the boom's travel automatic calibration, calculated as a percentage. 20 = 20% of the maximum speed /... / 40= 40% of the maximum speed (default) |
| F34 | Travel sensitivity | Adjusting obstruction detection sensitivity during gate travel. 10 = Maximum sensitivity /... / 100= Minimum sensitivity (default) |
| F35 | Slow-down sensitivity | Adjusting obstruction detection sensitivity during slow-down. 10 = Maximum sensitivity /... / 100= Minimum sensitivity (default) |
| F37 | Opening slow-down point | Percentage adjustment of the boom's total travel, from the beginning of the opening slow-down point. Warning! The percentage varies depending on the boom type: - for jointed 2 m and 4 m booms, set the percentage to between 40 and 60; - for 6 m and 8 m booms, set the percentage to between 60 and 70. 40 = 40% of the total travel /... / 60 = 60% of the total travel |
| F38 | Closing slow-down point | Percentage adjustment of the boom's total travel, from the beginning of the opening slow-down point. Warning! The percentage varies depending on the boom type: - for jointed, 2 m booms, set the speed percentage to between 20 and 40; - for 4 m booms, set the percentage to between 50 and 60; - for 6 m booms, set the percentage to between 60 and 70; - for 8 m booms, set the percentage to between 65 and 75; 20 = 20% of the total travel /... / 75 = 75% of the total travel |
| F40 | Closing approach point | Adjusting, as a percentage of the boom's total travel, the closing approach starting point.  This function only appears if the Encoder function is activated. 1 = 1% of the total travel /... / 20 = 20% of the total travel |
| F49 | Managing the serial connection | To enable operation in paired, alternate or CRP (Came Remote Protocol) modes. 0 = Deactivated (default) / 1 = Paired / 2 = Alternate / 3 = CRP |
| F50 | Saving data | Saving memorized users and settings in the memory roll.  This feature only appears if a memory roll has been fitted into the control board. 0 = Deactivated (default) / 1 = Activated |
| F51 | Reading of data | Uploading data saved in memory roll.  This feature only appears if a memory roll has been fitted into the control board. 0 = Deactivated (default) / 1 = Activated |
| F52 | Transferring parameters in paired/alternate mode | Uploading settings from Master to Slave.  This only appears if the F49 function is set to PAIRED or ALTERNATE. 0 = Deactivated (default) / 1 = Activated |
| F56 | Peripheral number | To set the peripheral number from 1 to 255 for each control board when a system is fitted with several operators and features the CRP (Came Remote Protocol) connection system. 1 ----> 255 |
| F60 | Sleep mode | For reducing energy consumption by the stand-by photocells. 0 = Deactivated (default) / 1 = Activated |
| F61 | Pre-flashing | After an opening or closing command, the flashing light connected to 10-E1m flashes before starting the maneuver. For setting the time, see function F 21. 0 = when opening and closing (default) / 1 = only when closing / 2 = only when opening |

| | | |
|------------|--|--|
| F63 | COM speed | For setting the communication speed used in the CRP (Came Remote Protocol) connection system. <i>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</i> |
| U1 | Entering users | Entering up to 250 users and associating to each one a function of choice among those included. Use a transmitter or other control device to enter the data (see paragraph called ENTERING A USER WITH AN ASSOCIATED COMMAND). <i>1 = Step-step command (open-close) / 3 = Open only command / 4 = Partial opening/pedestrian command (only for paired or alternate mode systems)</i> |
| U2 | Deleting users | Deleting single users (see paragraph called DELETING SINGLE USERS) |
| U3 | Deleting users | Deleting all users. <i>0 = Deactivated (default) / 1 = Delete</i> |
| A1 | Boom type | To establish the boom type. Warning! The choice of boom type limits certain speed, slow-down and calibration limits. This is to ensure proper operation of the barrier. <i>0 = do not use / 2 = do not use / 4 = 4 6 = 6 8 = do not use</i> |
| A2 | Motor test | Test to check the right direction of travel of the boom (see paragraph called MOTOR TEST). |
| A3 | Travel calibration | Automatic calibration of the boom travel (see paragraph called TRAVEL CALIBRATION).  This function appears only if the Encoder function is activated. |
| A4 | Resetting parameters | Attention! The default settings will be restored. <i>0 = Deactivated (default) / 1 = Activated</i> |
| A5 | Maneuver count | For viewing the number of maneuvers done by the boom (1 = 1,000 maneuvers; 100 = 100,000 maneuvers; 999 = 999,000 maneuvers) |
| A7 | Duration of boom slow-down during closing | This sets the duration of the boom's slow down between the maneuvering and slow-down speeds when closing (see figure A).  This function appears only if the Encoder function is activated. <i>1 = Minimum / 2 = Medium (default) / 3 = Maximum</i> |
| H1 | Version | View the firmware version. |



SETTING UP


Once the connections are all set, have skilled, qualified staff commission the barrier into service.

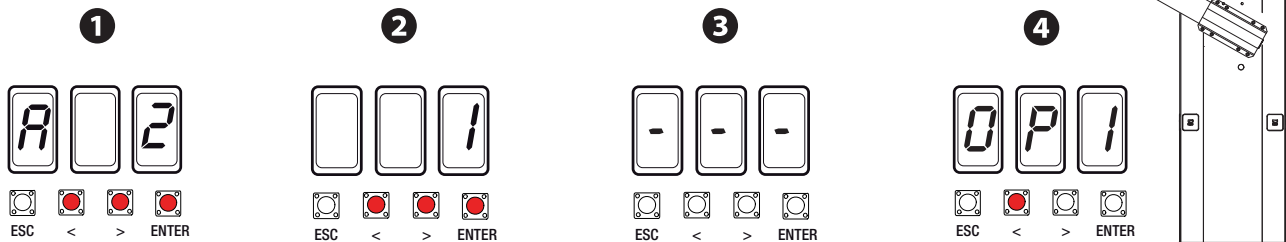
Before continuing, make sure that the way is clear from any obstruction.

Power up and begin configuring the system. **Important!** Start programming by first doing the following functions:

- type of boom (see function A1);
- motor test (see paragraph called MOTOR TEST);
- total stop (see function F1);
- calibrating travel (see paragraph called CALIBRATING TRAVEL).

MOTOR TEST

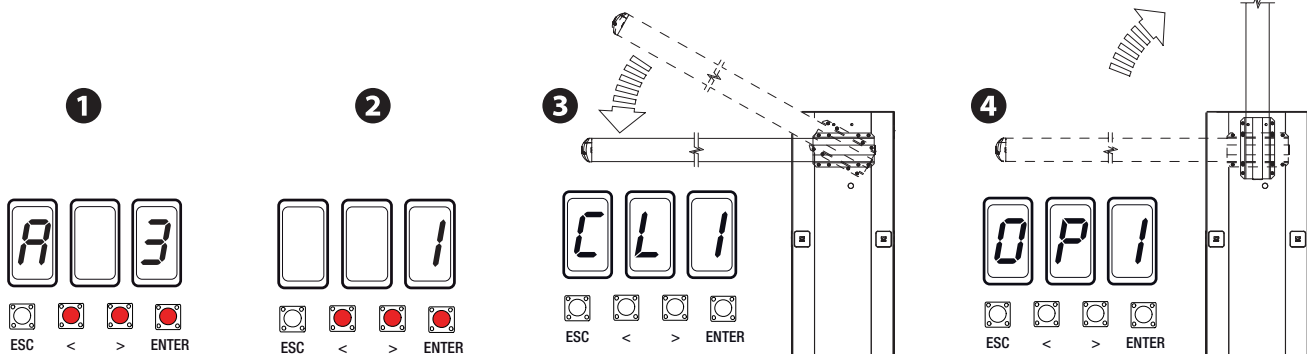
- 1 Select **A2**. Press ENTER to confirm
 - 2 Select 1 to activate the test. Press ENTER to confirm ...
 - 3... the following characters will appear (---), while standing by for a command.
 - 4 Keep pressed the button with the arrow < and check whether the operator performs an opening maneuver.
-  If the operator performs a closing maneuver, invert the motor's phases (M with N).



TRAVEL CALIBRATION

△ During the calibration, all safety devices will be disabled except for the PARTIAL STOP one.

- 1 Select **A3** and press ENTER to confirm.
- 2 Select 1 and press ENTER to confirm the travel calibration operation.
- 3 The operator will perform a closing maneuver until the limit-switch point ...
- 4 then, the barrier will perform an opening maneuver until the endstop point.



When the programming is done, check that the barrier and all devices connected to it are operating properly. Use the (<, >) programming buttons to open and close the barrier and the ESC button to stop it.

△ After powering up the system, the first maneuver is always the opening. In this phase, the barrier will not close, you need to wait for a complete opening maneuver.

△ Immediately press the STOP button if the system manifests any anomalies, malfunctions, noises, strange vibrations or unexpected behavior.

MANAGING USERS

When adding/deleting users, the flashing numbers that appear, are numbers that can be used for other users you may wish to add (maximum 25 users).

Before registering the users, make sure the AF radio-frequency card is fitted into the connector (see paragraph called CONTROL DEVICES).

ENTERING A USER WITH AN ASSOCIATED COMMAND

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

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

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

- open = 3;

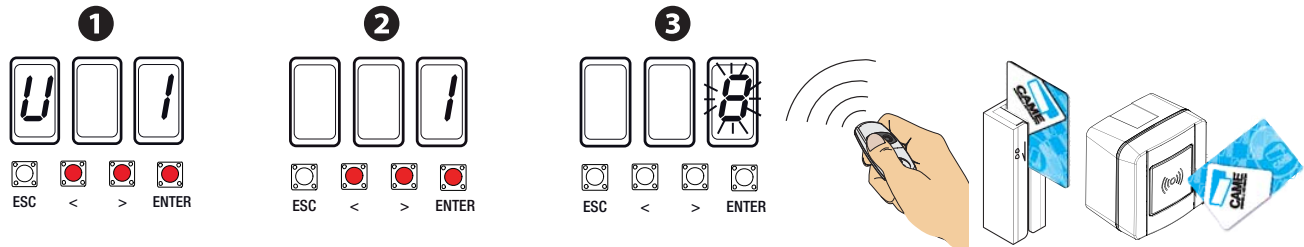
- partial opening/pedestrian = 4.

The partial/pedestrian opening command only appears if the F49 function is activated.

Press ENTER to confirm...

3 a number between 1 and 25 will flash for some seconds. Send the code from the transmitter or other control device such as a sensor, card reader or keypad selector.

If you want to add another command on the same transmitter, repeat the procedure and associated it on another button.



Note down all registered users in the table below.

LIST OF REGISTERED USERS

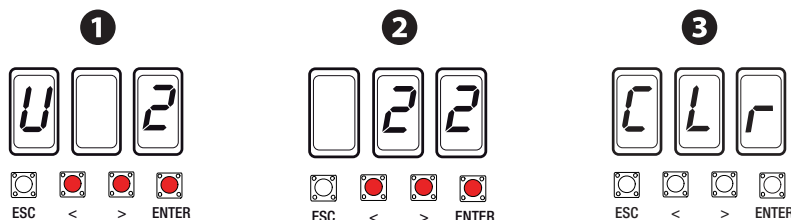
| | | | | | |
|---|--|----|--|----|--|
| 1 | | 10 | | 19 | |
| 2 | | 11 | | 20 | |
| 3 | | 12 | | 21 | |
| 4 | | 13 | | 22 | |
| 5 | | 14 | | 23 | |
| 6 | | 15 | | 24 | |
| 7 | | 16 | | 25 | |
| 8 | | 17 | | | |
| 9 | | 18 | | | |

DELETING SINGLE USERS

1 Select **U2** and press ENTER to confirm.

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

3 ... Clr will appear on the screen to confirm deletion.



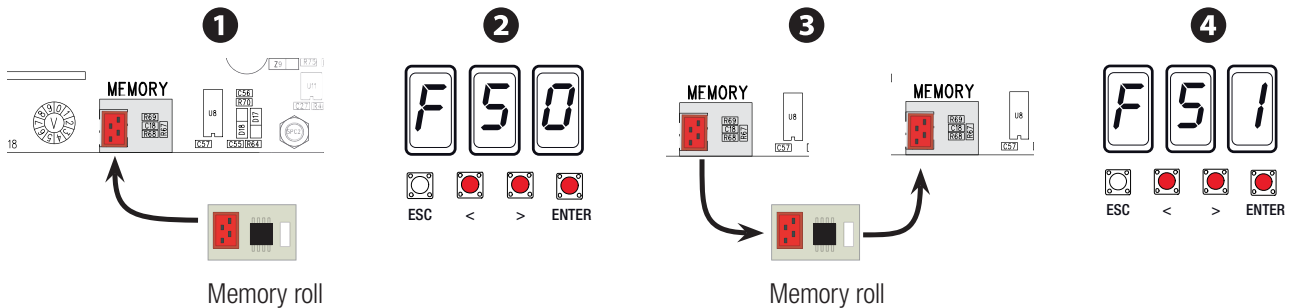
SAVING AND UPLOADING ALL DATA (USERS AND CONFIGURATION) WITH THE MEMORY ROLL

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.

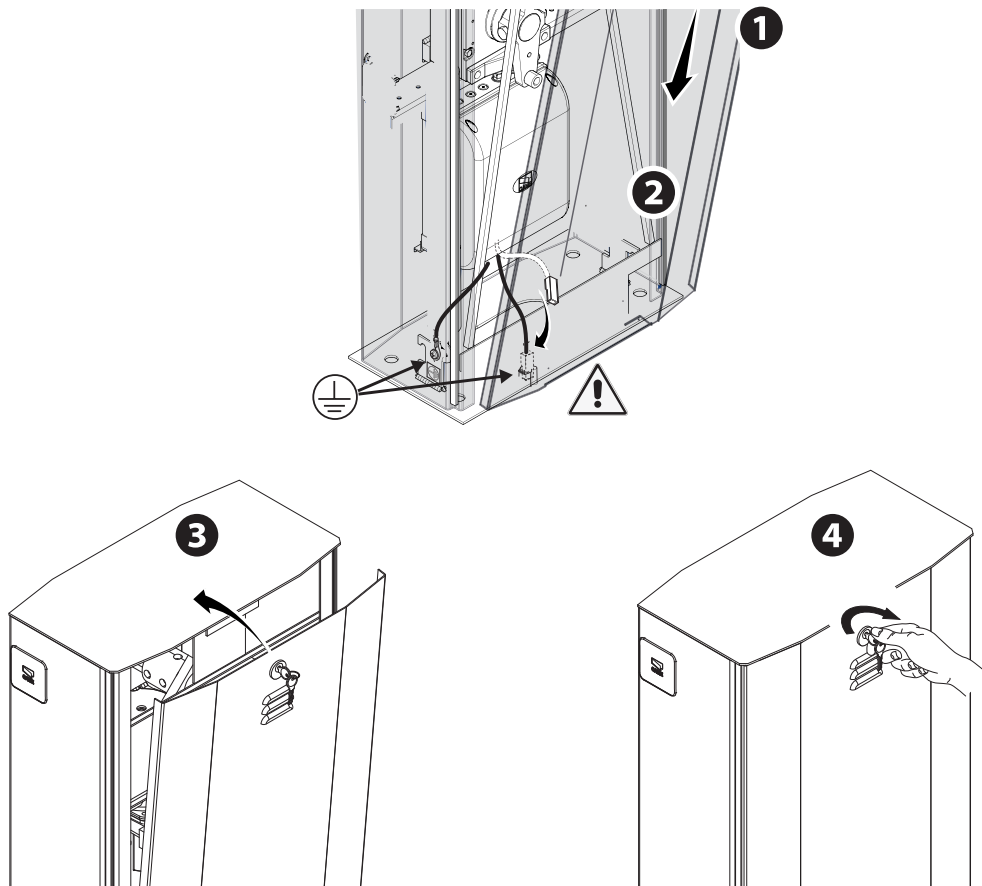
- 1 Fit the Memory Roll into the its corresponding connector on the control board.
- 2 Select **F50** and press ENTER to confirm the saving of data in the Memory Roll.
- 3 Extract the Memory roll and fit it into the connector of another control board.
- 4 Select **F51** and press ENTER to confirm the uploading of data into the Memory Roll.

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



FINAL OPERATIONS

Once the barrier is commissioned, check that there are no obstructions to the mechanical moving parts. Before replacing and closing the inspection hatch, reconnect the earthing cable.



ERROR MESSAGE

 The error messages appear on display or are notified by the LEDs.

| | |
|-------------------------|---|
| Er1 | The boom travel calibration was interrupted by the activation of the STOP button. |
| Er3 | Encoder is broken. |
| Er4 | Services test error. |
| Er5 | Insufficient working time. |
| Er6 | Maximum number of obstructions detected. |
| Er7 | Transformer overheated / inspection hatch open / boom detached from gearmotor. |
| Er8 | Encoder excluded. |
| C0 | Contact 1-2 (NC) is open. |
| C1, C4, C5 or C9 | The (NC) contacts are open. |
| The warning LED flashes | The control board is not yet calibrated for the boom travel. |

TROUBLESHOOTING

| PROBLEM | REFERENCE | CHECK |
|--|-------------------|---|
| The barrier neither opens nor closes | 1-2-3-4-6-8-13-18 | 1 - Lock the inspection hatch with the key |
| The barrier opens but does not close | 4-7 | 2 - Deactivate the MAINTAINED ACTION function |
| The barrier closes but does not open | 4-7-12-13 | 3 - Check the power supply and fuses |
| The barrier does not automatically close | 11-12-13 | 4 - The NC contacts are open |
| The barrier does not work with the transmitter | 2-14-16 | 6 - Deactivate the MASTER-SLAVE function |
| The boom's direction of travel is inverted | 7-18 | 7 - Check the boom's balancing and spring tautness |
| Only one transmitter works | 22 | 8 - Deactivate the OBSTRUCTION DETECTION function |
| The photocells do not work | 12-23-24 | 11 - Activate the AUTOMATIC CLOSING function |
| The warning LED flashes quickly | 4 | 12 - Check the proper direction of travel |
| The warning LED stays lit | 13 | 13 - Check the control devices |
| The boom does not reach the limit-switch | 7 | 14 - Replace the AF card |
| The boom cannot be balanced | 7-15 | 15 - Check the length ration between boom and applied accessories |
| The barrier does not slow down | 7-15 | 16 - Memorize the radio code again |
| The barrier does not work with emergency batteries | 8-25-26 | 18 - Adjust the sensitivity |
| The boom starts slow | 7 | 22 - Enter or duplicate the same code on all transmitters |
| | | 23 - Activate the photocells |
| | | 24 - Connect the photocells serially instead of in parallel fashion |
| | | 25 - Check the batteries |
| | | 26 - Respect the photocell's input voltage polarities |

ALTERNATE FUNCTION

Important! Start by doing the following on both barriers:

- Fit the RSE card into the connector on the control panel of both operators.
- connect the two control panels via a CAT 5 type-cable (max 1,000 m) to terminals A-A / B-B / GND-GND, see paragraph on CONNECTING FOR PAIRED OR ALTERNATE OPERATING MODE.

Connect the safety and control device with ONLY OPEN function (contact 2-3) and STEP-STEP function (contact 2-7) on the MASTER control panel.

Connect the safety and control devices with PARTIAL / PEDESTRIAN OPENING function (contact 2-3P) only on the SLAVE control panel.

Important! Activate function F 19 (automatic closing time) on the control panel of both operators.

Memorizing

Perform the enter-user procedure with the ONLY OPEN, and STEP-STEP command on the MASTER control panel while the PARTIAL / PEDESTRIAN OPENING function is to be performed on the SLAVE control board.

Configuring the MASTER operator

Select function F 49. Press ENTER to confirm.

Select 2 (alternate) and press ENTER.

Transferring parameters from MASTER to SLAVE

Select function F 52 on the MASTER control panel.

Select 1 and press ENTER.

Programming

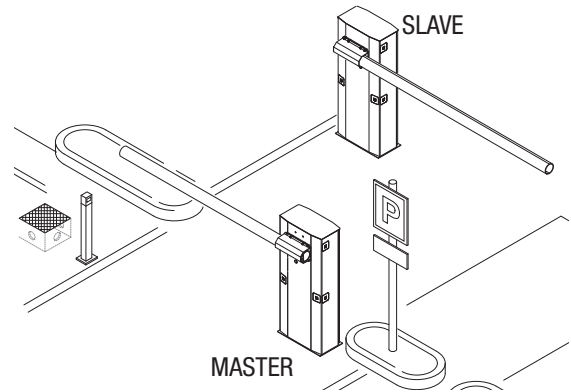
On both barriers, set the following functions:

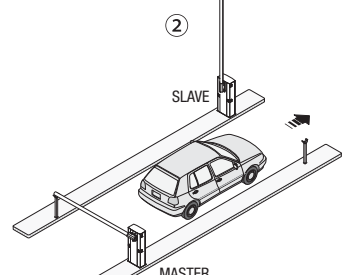
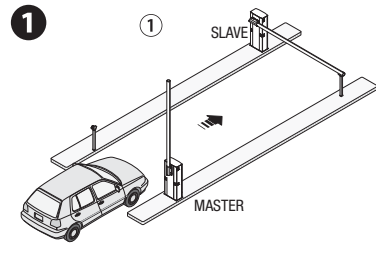
- setting the boom type (A1);
- motor test (A2)
- total stop (F1);
- travel calibration (A3).

Carry out any settings and adjustments on the MASTER control panel.

Operating modes

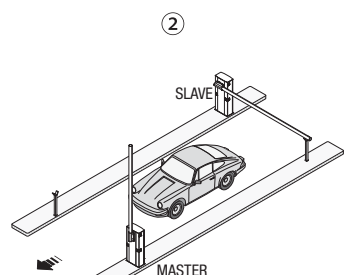
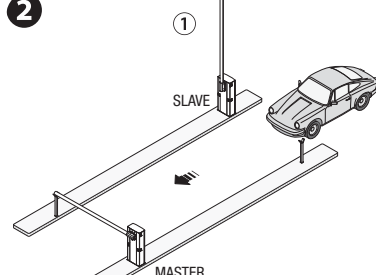
- 1 ONLY OPEN (contact 2-3) command. For opening MASTER barrier boom.
 - 2 PARTIAL/PEDESTRIAN OPENING (contact 2-3P) command. For opening the SLAVE barrier boom.
 - 3 STEP-STEP (contact 2-7) command. Both booms open. This is an emergency opening command, to free the passage.
- For the types of command that can be selected and paired to users, see the ENTERING USERS WITH ASSOCIATED COMMANDS





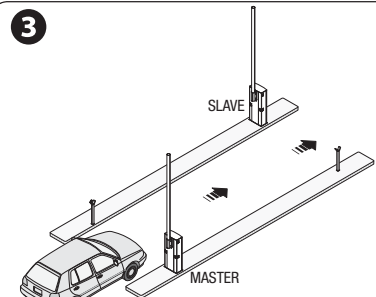
Send the ONLY OPEN command (contact 2-3) from a transmitter or other control device, to open the boom of the MASTER barrier. ①.

Approach the SLAVE barrier. It will automatically open only after the MASTER barrier automatically closes. ②.



Send the PARTIAL/PEDESTRIAN OPENING command (contact 2-3P) from a transmitter or other control device, to open the boom on the SLAVE barrier. ①.

Approach the MASTER barrier, which will automatically open only after the SLAVE barrier automatically closes ②.



Send the STEP-STEP (contact 2-7) command from a transmitter or other control device, to simultaneously open the booms of the MASTER and SLAVE barrier.

PAIRED OPERATION

 Important! Start by doing the following on both barriers:

- Fit the RSE card into the connector on the control panel of both operators.
- connect the two control panels via a CAT 5 type-cable (max 1,000 m) to terminals A-A / B-B / GND-GND, see paragraph on CONNECTING FOR PAIRED OR ALTERNATE OPERATING MODE.
- connect all of the control and safety devices to the MASTER control panel.

 Important! Deactivate function F 19 (automatic closing time) on the SLAVE barrier's control panel.

Memorizing

Run the user entering procedure with the OPEN ONLY and PEDESTRIAN / PARTIAL OPENING command on the MASTER 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

On both barriers, set the following functions:

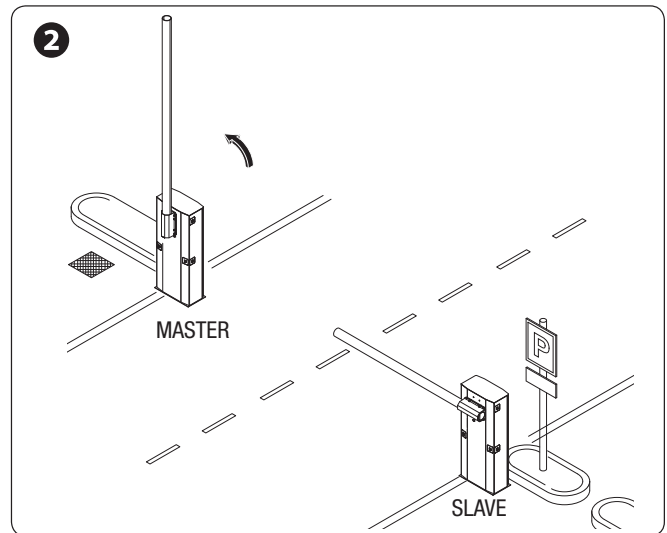
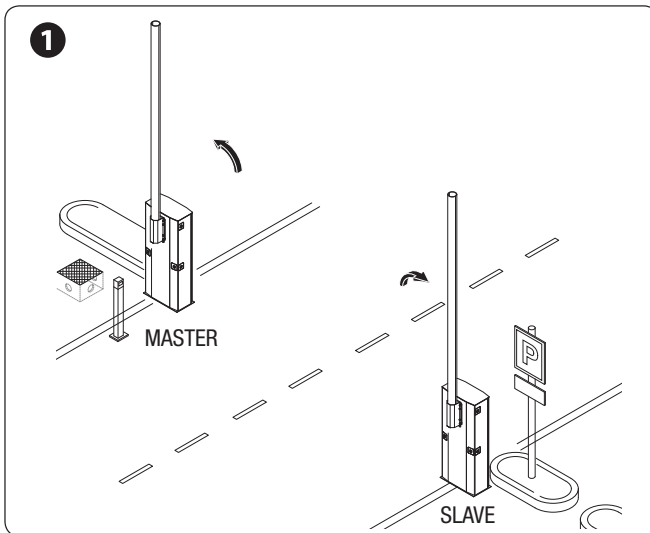
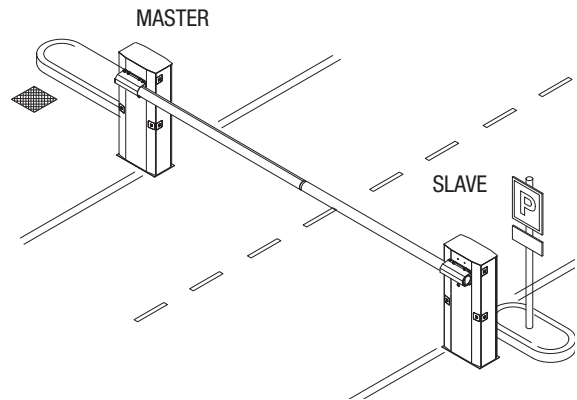
- setting the boom type (A1);
- the motor test (A2);
- total stop (F1);
- travel calibration (A3).

Carry out any settings and adjustments on the MASTER control panel.

Operating modes

- 1 STEP-STEP or OPEN ONLY command. Both booms open.
- 2 PARTIAL OPENING/PEDESTRIAN command. Only the MASTER barrier 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 CANCELLI AUTOMATICI 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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