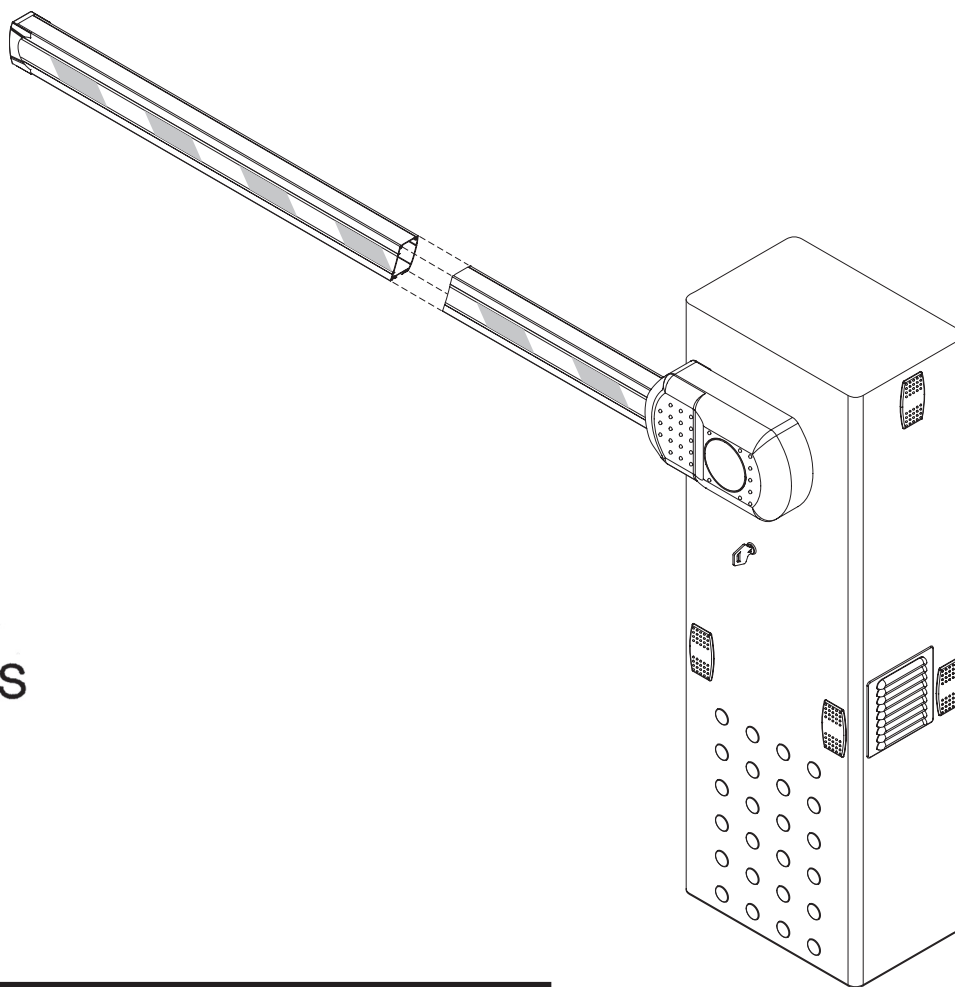


- I** AUTOMATISMO ELETTROMECCANICO PER BARRIERA VEICOLARE
- GB** ELECTROMECHANICAL CONTROL DEVICE FOR VEHICULAR BARRIERS
- F** AUTOMATISME ELECTROMECHANIQUE POUR BARRIERE POUR VÉHICULES
- E** AUTOMATISMOS ELECTROMECHANICOS PARA BARRÉRAS VEHICULAR

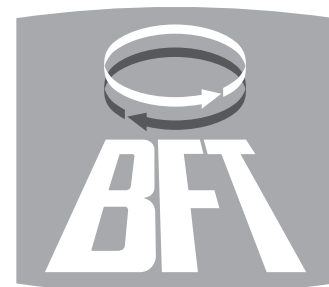


MOOVI 30-50 UL CSA



ISTRUZIONI D'USO E DI INSTALLAZIONE
INSTALLATION AND USER'S MANUAL
INSTRUCTIONS D'UTILISATION ET D'INSTALLATION
INSTALLATIONS-UND GEBRAUCHSANLEITUNG
INSTRUCCIONES DE USO Y DE INSTALACION
INSTRUÇÕES DE USO E DE INSTALAÇÃO

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N.1 in Quality & Innovation

Thank you for buying this product. Our company is sure that you will be more than satisfied with the performance of the product. This product is supplied with a "WARNINGS" leaflet and an "INSTRUCTION MANUAL". These should both be read carefully as they provide important information about safety, installation, operation and maintenance. This product complies with recognised technical standards and safety regulations. We declare that this product is in conformity with the following directives: CAN/CSA-C22.2 No. 247-92 UL Std. No. 325 (Certificate: 1002906, LR100400 Date Issued: August 24, 2005).

1) GENERAL OUTLINE

Compact electromechanical barrier suitable for limiting private areas, parkings, access areas for vehicles only. Available for passageways from 3 to 5 metres. Adjustable electromechanical limit devices ensuring a correct stop position for the boom. In case of intensive use, a thermal sensor activates the cooling fan.

The emergency release device for manual manoeuvre is controlled by a personalised key lock.

The actuator is always supplied for left-hand side fitting. However, when necessary, the opening direction can be reversed by means of simple operations.

The CBO mod. foundation base (on request) makes barrier installation easier.

Appropriate fittings make it easy to install accessories without needing to drill any holes.

WARNING! The barrier must be exclusively used for vehicles to drive through. Pedestrians must not walk within the operator manoeuvring area. An appropriate pedestrian passageway must be provided for.

2) EMERGENCY RELEASE (Fig.1)

The emergency release allows the bar to be manoeuvred manually. It is activated from the outside of the box by inserting the personalised key into the lock placed under the bar and rotating it anticlockwise by 180°.

WARNING! When an actuator without bar needs to be released, ensure that the balancing spring is not compressed (bar in the opening position).

3) USE OF AUTOMATION

As automation can be remotely controlled and therefore not within sight, it is essential to frequently check that all safety devices are perfectly efficient.

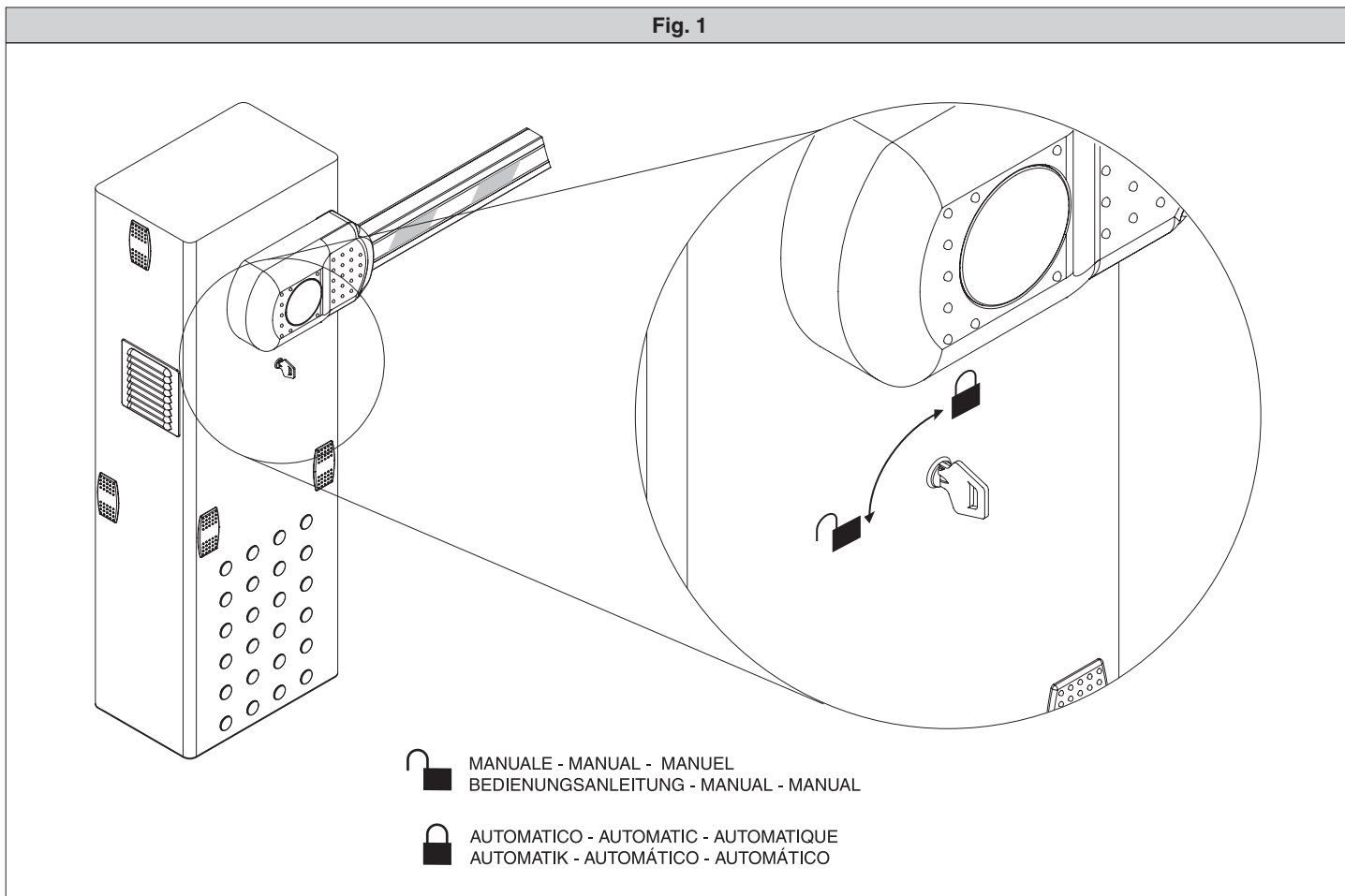
WARNING! In case of any malfunction in the safety devices, take immediate action and require the assistance of a specialised technician.

It is recommended to keep children at a safe distance from the automation field of action.

4) SCRAPPING

Materials must be disposed of in conformity with the current regulations. In case of scrapping, the automation devices do not entail any particular risks or danger. In case of recovered materials, these should be sorted out by type (electrical components, copper, aluminium, plastic etc.).

Fig. 1



Thank you for buying this product. Our company is sure that you will be more than satisfied with the performance of the product. This product is supplied with a "WARNINGS" leaflet and an "INSTRUCTION MANUAL". These should both be read carefully as they provide important information about safety, installation, operation and maintenance. This product complies with recognised technical standards and safety regulations. We declare that this product is in conformity with the following directives: CAN/CSA-C22.2 No. 247-92 UL Std. No. 325 (Certificate: 1002906, LR100400 Date Issued: August 24, 2005).

1) GENERAL OUTLINE

Compact electromechanical barrier suitable for limiting private areas, parking, access areas for vehicles only. Available for passageways from 3 to 5 metres. Adjustable electromechanical limit devices ensuring a correct stop position for the boom. In case of intensive use, a thermal sensor activates the cooling fan.

The emergency release device for manual manoeuvre is controlled by a personalised key lock.

The actuator is always supplied for left-hand side fitting. However, when necessary, the opening direction can be reversed by means of simple operations. The CBO mod. foundation base (on request) makes barrier installation easier.

Appropriate fittings make it easy to install accessories without needing to drill any holes.

2) GENERAL SAFETY

WARNING! An incorrect installation or improper use of the product can cause damage to persons, animals or things.

- The "Warnings" leaflet and "Instruction booklet" supplied with this product should be read carefully as they provide important information about safety, installation, use and maintenance.
- Scrap packing materials (plastic, cardboard, polystyrene etc) according to the provisions set out by current standards. Keep nylon or polystyrene bags out of children's reach.
- Keep the instructions together with the technical brochure for future reference.
- This product was exclusively designed and manufactured for the use specified in the present documentation. Any other use not specified in this documentation could damage the product and be dangerous.
- The Company declines all responsibility for any consequences resulting from improper use of the product, or use which is different from that expected and specified in the present documentation.
- Do not install the product in explosive atmosphere.
- The construction components of this product must comply with the following European Directives: 89/336/CEE, 73/23/EEC, 98/37/EEC and subsequent amendments. As for all non-EEC countries, the above-mentioned standards as well as the current national standards should be respected in order to achieve a good safety level.
- The Company declines all responsibility for any consequences resulting from failure to observe Good Technical Practice when constructing closing structures (door, gates etc.), as well as from any deformation which might occur during use.
- The installation must comply with the provisions set out by the following European Directives: 89/336/CEE, 73/23/EEC, 98/37/EEC and subsequent amendments.
- Disconnect the electrical power supply before carrying out any work on the installation. Also disconnect any buffer batteries, if fitted.
- Fit an omnipolar or magnetothermal switch on the mains power supply, having a contact opening distance equal to or greater than 3,5 mm.
- Check that a differential switch with a 0.03A threshold is fitted just before the power supply mains.
- Check that earthing is carried out correctly: connect all metal parts for closure (doors, gates etc.) and all system components provided with an earth terminal.
- Fit all the safety devices (photocells, electric edges etc.) which are needed to protect the area from any danger caused by squashing, conveying and shearing, according to and in compliance with the applicable directives and technical standards.
- Position at least one luminous signal indication device (blinker) where it can be easily seen, and fix a Warning sign to the structure.
- The Company declines all responsibility with respect to the automation safety and correct operation when other manufacturers' components are used.
- Only use original parts for any maintenance or repair operation.
- Do not modify the automation components, unless explicitly authorised by the company.
- Instruct the product user about the control systems provided and the manual opening operation in case of emergency.
- Do not allow persons or children to remain in the automation operation area.

- Keep radio control or other control devices out of children's reach, in order to avoid unintentional automation activation.
- The user must avoid any attempt to carry out work or repair on the automation system, and always request the assistance of qualified personnel.
- Anything which is not expressly provided for in the present instructions, is not allowed.
- Installation must be carried out using the safety devices and controls prescribed by the EN 12978 Standard.



INSTALL THE BARRIER ONLY WHEN:

- The operator is appropriate for the construction of the barrier and the usage Class of the barrier;
- All exposed pinch points are eliminated or guarded
- The barrier is intended for installation only on gates used for vehicles. Pedestrians must be supplied with a separate access opening,
- The barrier must be installed in a location so that enough clearance is supplied between the gate and adjacent structures when opening and closing to reduce the risk of entrapment.

FOR GATE OPENERS WITH HOLD-TO-RUN CONTROL:

- The barrier controls must be placed so that the user has full view of the area when the barrier is moving.
- A sign with the message "WARNING" must be positioned near the controls. The characters for the writing should be at least 1/4 inch (6.4 mm) high. The following statement should also be indicated: "Moving Barrier Has the Potential of Inflicting Injury or Death - Do Not Start Barrier Unless Path is Clear".
- An automatic closing device (such as a timer, loop sensor, or similare device) shall not be employed.
- No other activation device shall be connected.
- Controls must be far enough from the barrier so that the user is prevented from coming in contact with the bar while operating the controls. controls intended to be used to reset an operator after 2 sequential activations of the entrapment protection device or devices must be located in the line-of-sight of the bar. Outdoor or easily accesible controls shall have a security feature to prevent unauthorized use.
- All warnings signs and placards must be installed where visible in the area of the barrier.

FOR ACTUATORS PROVIDED WITH SENSOR FOR CONTACT-FREE DETECTION:

- See instructions on the placement of non contact sensor for each type of application,
- Care shall be exercised to reduce the risk of nuisance tripping, such as when a vehicle, trips the sensor while the bar is still moving
- One or more non-contact sensor shall be located where the risk of entrapment or obstruction exist, such as the perimeter reachable by a barrier.

FOR ACTUATORS PROVIDED WITH CONTACT DETECTION (RUBBER SKIRT OR SIMILAR):

- A hardwired contact sensor shall be located and its wiring arranged so that the communication between the sensor and the barrier is not subjected to mechanical damage.
- A wireless contact sensor such as one that transmits radio frequency (RF) signals the barrier for entrapment protection functions shall be located where the transmission of the signals are not obstructed or impeded by building structure, natural landscaping or similar obstruction. A wireless contact sensor shall function under the intended end-use conditions.



IMPORTANT SAFETY INSTRUCTIONS:

WARNINGS: to reduce the risk of injury or death:

- **Read and follow all instructions.**
- Never let children operate or play with barrier control. Keep the remote control away from children.
- Always keep people and objects away from the barrier. **NO ONE SHOULD CROSS THE PATH OF THE MOVING BARRIER.**
- Test the barrier montly. The gate **MUST** reverse on contact with a rigid object activates the non-contact sensor. After adjusting the force or the limit of travel, reset the barrier. Failure to adjust and retest the barrier properly can increase the risk of injury or death.
- Use the emergency release only when the gate is not moving.
- **KEEP GATES PROPERLY MAINTAINED.** Read the owners manual. Have a qualified service person make repairs to gate hardware.
- The entrance is for vehicles only. Pedestrians must use separate entrance.
- Save these instructions.

3) TECHNICAL SPECIFICATIONS

Power supply:	120Va.c.±10% 60Hz (*)
Absorbed power:	300W
Motor:	1400 min ⁻¹ , 4 poles
Capacitor:	8µF 450V (230V) :32µF 250V (120V)
Absorption:	1.4 A: 2.8 A
Insulation class:	F
Ventilation intervention temperature:	110°C (winding)
Circuit-breaker intervention temperature:	130°C (self-resetting)
Reduction gear lubrication:	Permanent grease
Max torque:	MOOVI-30 85Nm: MOOVI-50 250Nm
Opening time:	MOOVI-30 4s : MOOVI-50 8s
(Aluminium) bar length:	MOOVI-30 3m max : MOOVI-50 5m max.
Impact reaction (electric edge):	Stop or stop and reverse
Limiting devices:	Electric, incorporated and adjustable
Manual manoeuvre:	Quick key release
No. manoeuvres in 24 hour:	1200 (MOOVI-30) :600 (MOOVI-50)
Working temperature:	-10°C ÷ +55°C
Degree of protection:	IP24
Actuator weight (without bar):	356N (~35.6 kg)
Dimensions:	See fig.1
Control unit on request:	Mod. RIGEL 4

(*) Special power voltages available on request.


4) OPTIONAL ACCESSORIES (Fig.16)

- **CBO.** Foundation base
 - **MOOVI PRM.** Antishearing Kit
 - **MOOVI 130.** Kit for Cellula 130 fixing post
 - **FAF.** Fixed fork for boom rest
 - **MOOVI GA.** Movable rod for boom rest (Only for MOOVI 50)
 - **MOOVI GAMA.** Movable cushioned rod for boom rest
 - **SB.** Skirt already assembled to the boom
 - **Safety edge BIR**
 - **MOOVI LIGHT.** Light kit for booms from 3m to 4.5m
 - **MOOVI LIGHT 1.** Light kit for booms from 5m to 6m
 - **MOOVI PCA.** Lower or upper boom covering contour
- For further information about installation and use of the accessories, make reference to their respective instruction manuals.

5) FOUNDATION PLATE (Fig.2)

- Prepare a foundation hole suitable for the particular kind of ground.
- Layout several raceways for the electric cables to pass through.
- Position the screws supplied with the CBO mod. base into the 4 fixing holes with the thread facing upwards. Weld the 4 screw heads to the base and protect the welds with rust preventer. Position the base so that it protrudes about 20mm from the floor (fig.2).
- Fill the hole with concrete, checking the position of the base in both directions by means of a level, and let the cement harden.

6) FITTING OF THE ACTUATOR

 **WARNING! The barrier must be exclusively used for vehicles to drive through. Pedestrians must not walk within the operator manoeuvring area. An appropriate pedestrian passageway must be provided for. The passageway must be suitably indicated by means of the warning signs illustrated in Fig.10.**

WARNING: before opening the door, make sure that the spring has been unloaded (rod at 43°). The door of the box must face the inside of the property. When standing in the middle of the passageway, if the box is on the left the barrier opens to the left, and if the box is on the right the barrier opens to the right.

The barrier is available with the operator fitted either to the left (looking from the door side) or to the right.

The actuator is always supplied for left-hand side fitting.

6.1) Left-hand fitting

- Fix the operator to the foundation base and secure it by means of nuts M12 (fig.4 ref.1). The door of the box must face towards the inside of the property
- The upper surface of the operator is slightly tilted so as to prevent any rain water from being trapped there. Therefore use a side surface to check correct positioning by means of a level (fig.2).
- The installation of the MOOVI PRM antishearing Kit (optional) is easier when carried out before fitting the boom to the operator. Make reference to Fig.17 and paragraph 6.3 for correct fitting of the MOOVI PRM Kit, then proceed to fit the boom.
- Fit the boom in its opening position (vertical) as indicated in fig.3, ref.7. The operator balancing is pre-calibrated for the nominal boom in the opening position (balancing spring stretched).

- Position the cover closing element (fig.3 ref.10) on the boom, as indicated in fig. 3. After positioning, drill part 10 and boom using a 2 mm bit. Insert the screw supplied.
- Fix the boom using the bracket (fig.3 ref.4) and the screws and washers supplied as standard, then fix the protection cover (fig.3 ref.8) and finally the screw cover (fig.3 ref.9). Close the protection cover by making the closing element slide over the boom (fig.3 ref.10). **WARNING!** The boom must be positioned so as to have the double contour facing down (fig.3 ref.11).
- Balance the boom as described in relevant paragraph 7.

6.2) Right-hand fitting

Some internal members need to be moved, with reference to fig. 4 and the following procedure:

- A) Fix the box to the foundation base and lock it in position using M12 nuts.
- B) Ensure that the balancing spring is in the opening position (stretched spring - fig.5).
- C) Completely slacken the spring stretcher (fig.4/ref. 2) until the screw (fig. 4/ref.3) anchoring it to the bottom of the box can be removed.
- D) Remove the bar locking bracket (fig.4/ref.4) and slacken the screw (fig. 4/ref.5) by means of a CH19 socket spanner until the lever can be rotated (fig.4/ref.6).
- E) Rotate the lever (fig.4/ref.6) by 180° and fasten it into the correct position.
- F) Tighten the tie rod (fig. 4/ref.5) blocking the lever (fig.4/ref.6) by means of a torque wrench set at about 80 N/m.
- G) Bring the release key (fig.6) to the manual operation position and manually rotate the lever (fig.4/ref.6) downwards by 90° (fig.7) so as to bring the barrier to the right-hand opening position.
- H) Lock the spring stretcher (fig.4/ref.2) into position (fig.4/ref.Dx) with the screw and self-locking nut.
- I) Adjust the spring stretcher (fig.4/ref.2) until the spring comes under tension.
- L) Refit and partially fix the U bolt (fig.4/ref.4) holding the bar to the actuator in the opening position.
- M) The installation of the MOOVI PRM antishearing Kit (optional) is easier when carried out before fitting the boom to the operator. Make reference to Fig.17 and paragraph 6.3 for correct fitting of the MOOVI PRM Kit, then proceed to fit the boom. Fit the boom in its opening position (vertical) as indicated in fig.3, ref.7. The operator balancing is pre-calibrated for the nominal boom in the opening position (balancing spring stretched). Position the cover closing element (fig.3 ref.10) on the boom, as indicated in fig. 3. After positioning, drill part 10 and boom using a 2 mm bit. Insert the screw supplied. Fix the boom using the bracket (fig.3 ref.4) and the screws and washers supplied as standard, then fix the protection cover (fig.3 ref.8) and finally the screw cover (fig.3 ref.9). Close the protection cover by making the closing element slide over the boom (fig.3 ref.10). **WARNING!** The boom must be positioned so as to have the double contour facing down (fig.3 ref.11).
- N) Carry out bar balancing as described in paragraph 7.
- O) Invert the limit switch connections and the motor drive connections inside the control unit (fig.15), with reference to the instructions regarding the existing control unit. Fig.8 shows a diagram highlighting the connections to be inverted.

6.3) Fitting of MOOVI PRM antishearing Kit (Fig.17)

- 1) Remove the rubber plugs.
- 2) Join two pivots "P" to antishearing plate "L" so as to obtain a single body.
- 3) Fix the plate to the box by putting screw M6x20 through the central threaded hole in the box.
- 4) Fix rotation lock screw M6x10 through the side threaded hole in the box.
- 5) The antishearing plate is to be positioned on the boom opening, the lock screw through the remaining hole.
- 6) During subsequent fitting of the cover, the plate must be inserted between two guide pivots "D" fixed by means of screws C. Having completed the fitting procedure, check that the antishearing plate operates correctly. When the barrier is lifted, it must be in the position indicated in Fig.17, ref.7; when the barrier is being closed, the plate must follow the boom movement until it reaches the position indicated in Fig.17, ref.8.

6.4) LAMPO/LAMPO-PA blinker fitting (Fig. 18)

Blinker installation is carried using one of the two upper fittings on the MOOVI barrier. It is indispensable to use the **SLM2** fixing bracket. It is also recommended to install the blinker on the side of the barrier opposite to the boom opening direction.

Making reference to Fig. 18, proceed as follows:

- 1) Remove protection cover "C" positioned on the barrier.
- 2) Remove cover "D" from the SLM" bracket.
- 3) Having laid the connection cables to the blinker, fix the SLM2 bracket to the barrier by means of the appropriate screws (supplied).
- 4) Spacer "E" is only necessary for the "PA" series blinkers (suitable for the receiver antenna). For blinkers without antennas, the base is to be directly fixed to the SLM2 bracket.
- 5) Reposition cover "D".
- 6) Complete fitting and wiring as specified in the instructions for LAMPO/LAMPO-PA.

6.5) Photocell fitting (Fig. 19)

The photocell can be installed on the MOOVI barrier as follows:

- 1- By directly fixing the **CELLULA 130** photocell to the side of the barrier (Fig. 19 "A")
- 2- By fastening the **MOOVI 130** photocell post to one of the front fittings (Fig. 19 "B")

A) Cellula 130 fitting

- 1) Remove the protection cover positioned on the barrier.
- 2) Lay the wiring needed for photocell connection.
- 3) Fit the photocell as shown in Fig. 19 A by means of the appropriate screws.

Refer to the instruction sheet for Cellula 130 for further information.

B) MOOVI 130 post fitting

- 1) Remove the protection cover positioned on the barrier.
- 2) Lay the wiring needed for photocell connection.
- 3) Fit post "F" and protection frame "G" as shown in Fig. 19B.
The post is fastened from inside the barrier by means of 3 screws (supplied).
- 4) Fit the photocell to the post, as shown in the instruction sheet for Cellula 130.

Refer to the instruction sheet for Cellula 130 for further information.

6.6) Moovi accessories: boom length limits and balancing (Fig.20)

All barriers belonging to the MOOVI series are equipped with a hooking bracket with 3 securing points located on the device for boom balancing (Fig. 20 - ref. A points A-B-C).

The ideal securing point for correct balancing of the boom must be chosen according to the barrier type and to the length of the boom and accessories installed.

Tab.1 of Fig.20 shows the weight expressed in kgs by linear meter (kg/m) for each accessory.

When the supporting leg Moovi GA/GAMA is used, it is necessary to calculate the arbitrary weight in Kg/m, using the following formula:

$$\text{Kg/m} = 1,2/L$$

where L stands for the length of the boom.

Then proceed as follows:

- 1) Sum up the total linear weight of the accessories installed (including boom weight).
- 2) Find the crossing point between the length of the boom and the total weight of the accessories on the diagram, making reference to the MOOVI model.
- 3) The point found in this way will indicate the correct hooking point (A-B-C).

Example

MOOVI 50 with:

(boom measuring 4,0m + BIR + GAMA +1PCA).

$$(1,028+0,510+(1,2/4,0)+0,160)= 1,97$$

The crossing point between value 1,97 and boom length equal to 4,0 is within the "A" area of MOOVI 50 graph. "A" hooking point will therefore be suitable for correct boom balancing.

Calibrate the spring as described in paragraph 7.

WARNING!:

The securing points marked with A and B can be used with MOOVI 50 only.

The securing point marked with C can be used with MOOVI 30MM only.

If the point found is within the crossed area that means that installation is not possible and it is necessary to shorten the boom or reduce the number of accessories.

If no accessory is used, only use the weight of the "PA" boom to find the securing point.

7) BAR BALANCING (Fig.9)

- Activate the emergency release (fig.14).
- Position the bar at about 45° (fig.9). The bar must remain still.
- If the bar tends to open, unload the spring by operating on the "T" tie rod.
- If the bar tends to close, load the spring by operating on the "T" tie rod.

- In both cases, load or unload the spring until the bar remains still at about 45°.
- Reset the motorised operation by rotating the release key to the opposite direction (fig.14).

WARNING! During the closing operation, the balancing spring must never be reduced to a pack (be totally compressed). Fig.9 indicates the position where the minimum value of the compressed spring is measured with the rod in the opening (vertical bar) position.

8) ELECTRICAL INSTALLATION SET-UP

WARNING: before opening the door, make sure that the spring has been unloaded (rod at 43°). Set up the electrical installation (fig. 10) with reference to the current regulations for electrical installations. Keep the mains power supply connections definitely separate from the service connections (photocells, electric edges, control devices etc.).

Warning! For connection to the mains, use a multipolar cable having minimum 3x1.5mm² cross section and complying with the previously mentioned regulations (for example, if the cable is not protected, it must be at least equal to H07 RN-F, whereas if it is protected it must be at least equal to H07 VV-F with a 3x1.5 sq mm² cross section).

Connect the control and safety devices in conformity with the previously mentioned installation standards. Fig.10 shows the number of connections and section for a 100m length of power supply cables; for greater lengths, calculate the section for the true automation load. When the auxiliary connections exceed 50-metre lengths or go through critical disturbance areas, it is recommended to decouple the control and safety devices by means of suitable relays.

The main automation components are (fig.10):

- I) Type-approved adequately rated omnipolar circuit-breaker with at least 3,5 mm contact opening, provided with protection against overloads and short circuits, suitable for cutting out automation from the mains. Place, if not already installed, a type-approved differential switch with a 0.03A threshold just before the automation system.
- QR) Control panel and incorporated receiver.
- S) Key selector.
- AL) Blinker with tuned antenna.
- M) Actuators.
- A) Bar.
- F) Rest fork.
- CS) Electric edge.
- CC) Edge control.
- Ft,Fr) Pair of photocells.
- CF) Photocell post.
- T) 1-2-4 channel transmitter.

9) TERMINAL BOARD CONNECTIONS

WARNING: before opening the door, make sure that the spring has been unloaded (rod at 43°). First pass the appropriate electric cables through the raceways and fix the various automation components to the chosen points, then connect them following the directions (Fig.15) and diagrams contained in the control unit instruction manual. Carry out phase, neutral and (compulsory) earth connections. The protection wire (earth) with yellow/green insulating sheath must be connected to the appropriate terminals marked by their symbol. It is absolutely necessary to avoid operating the automation system without adequate protection. This can jeopardise personal and product safety. In no circumstances must the automation system be activated before carrying out all connections and checking the efficiency of all safety devices.

Keep the low voltage connections definitely separated from the power supply connections.

10) LIMIT SWITCH SETTING

WARNING: before opening the door, make sure that the spring has been unloaded (rod at 43°). The barrier is provided with electrical limit switches and end-of-stroke mechanical stop devices. There must be a rotation margin (about 1°) on closing and opening between the electrical limit switches and mechanical stop devices (fig.11).

The adjustment is carried out as follows:

- Activate the manual release, bring the bar to its completely open position (perfectly vertical).
- Manually advance the bar by about 2° with respect to the vertical position.
- Set the opening microswitch (fig.12 ref. SWO) by loosening the dowel (fig. 13 ref. G) and moving the cam (fig.13 ref. C) until the microswitch trip is heard (or checking that the respective control unit LED switches off).
- Manually bring the bar to its completely closed position resting onto the fork (fig.11 ref. F). Check that the bar is perfectly horizontal using a level (fig.11 ref. L).

- Set the closing microswitch (fig.12 ref. SWC) by loosening the dowel (fig.13 ref. G) and moving the cam (fig.13 ref. C) until the microswitch trip is heard (or check that the respective control unit LED switches off).
- Set the closing microswitch (fig.12 ref. SWC) so that the bar stops a few millimeters before hitting the fork (fig.11 ref. F).
- Activate the motorised operation and run a few cycles.
- Check that the electrical limit switch stops the bar before it reaches its vertical open position.
- Check that the electrical limit switch stops the bar before it reaches its horizontal closed position on the "F" fork.
- If necessary, adjust the position of the "C" cams (fig.13) which control the end-of-stroke devices.

11) EMERGENCY RELEASE (Fig.14)

The emergency release allows the bar to be manoeuvred manually. It is activated from the outside of the box by inserting the personalised key into the lock placed under the bar and rotating it anticlockwise by 180°.

WARNING! When an actuator without bar needs to be released, ensure that the balancing spring is not compressed (bar in the opening position).

12) USE OF AUTOMATION

As automation can be remotely controlled and therefore not within sight, it is essential to frequently check that all safety devices are perfectly efficient.

WARNING! In case of any malfunction in the safety devices, take immediate action and require the assistance of a specialised technician.

It is recommended to keep children at a safe distance from the automation field of action.

13) CONTROL

The automation system is used to obtain motorised access control. There are different types of control (manual, remote, magnetic badge, mass detector etc.) depending on the installation requirements and characteristics. For the various control systems, see the relevant instructions.

14) MAINTENANCE

WARNING: before opening the door, make sure that the spring has been unloaded (rod at 43°). **WARNING:** Before carrying out any maintenance to the installation, disconnect the mains power supply. The following points need checking and maintenance:

- Photocell optics. Clean occasionally.
- Electric edge. Carry out a periodical manual check to ensure that the edge stops the bar in case of obstacles.
- Dismantle the gearmotor and replace the lubricating grease every two years.
- When any operational malfunction is found, and not resolved, disconnect the mains power supply and require the assistance of a specialised technician (installer). When automation is out of order, activate the emergency release (see paragraph "11") so as to release the manual bar opening and closing operations.

15) SCRAPPING

Materials must be disposed of in conformity with the current regulations.

In case of scrapping, the automation devices do not entail any particular risks or danger. In case of recovered materials, these should be sorted out by type (electrical components, copper, aluminium, plastic etc.).

16) DISMANTLING

WARNING: before opening the door, make sure that the spring has been unloaded (rod at 43°). When the automation system is disassembled to be reassembled on another site, proceed as follows:

- Disconnect the power supply and the entire electrical installation.
- Remove the actuator from its fixing base.
- Disassemble all the installation components.
- In the case where some of the components cannot be removed or are damaged, they must be replaced.

17) MALFUNCTION: CAUSES and REMEDIES

17.1) The bar does not open. The motor does not turn.

WARNING: before opening the door, make sure that the spring has been unloaded (rod at 43°).

- 1) Check that the photocells are not dirty, or engaged, or not aligned. Proceed accordingly. Check the electric edge.
- 2) If the engine is overheated, the thermal protection might have been activated. Wait for it to be reset.
- 3) Check the correct connection of the drive motor and capacitor.
- 4) Check that the electronic appliance is correctly supplied. Check the integrity of the fuses.

5) Check that the functions are correct by means of the control unit diagnosing LEDs (see relevant instructions). Identify causes for faults, if any. If the LEDs show persisting start control, check that no radio controls, start buttons or other control devices keep the start contact activated (closed).

6) If the control unit does not work, it must be replaced.

7) Check the movement of the cam-holder bars (fig. 13), if it is not smooth, the bars must be lubricated.

17.2) The bar does not open. The motor turns but there is no movement.

- 1) The manual release was left engaged. Reset the motorised operation.
- 2) If the release is in the motorised operation position, check the gearmotor for integrity.

WARNINGS

Correct controller operation is only ensured when the data contained in the present manual are observed. The company is not to be held responsible for any damage resulting from failure to observe the installation standards and the instructions contained in the present manual.

The descriptions and illustrations contained in the present manual are not binding. The Company reserves the right to make any alterations deemed appropriate for the technical, manufacturing and commercial improvement of the product, while leaving the essential product features unchanged, at any time and without undertaking to update the present publication.

Fig. 1

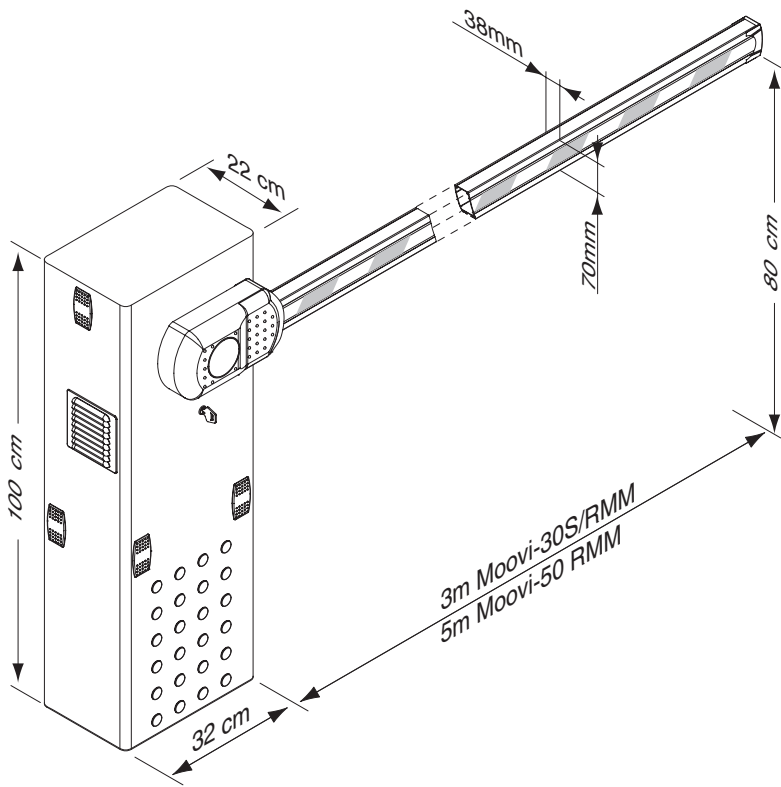
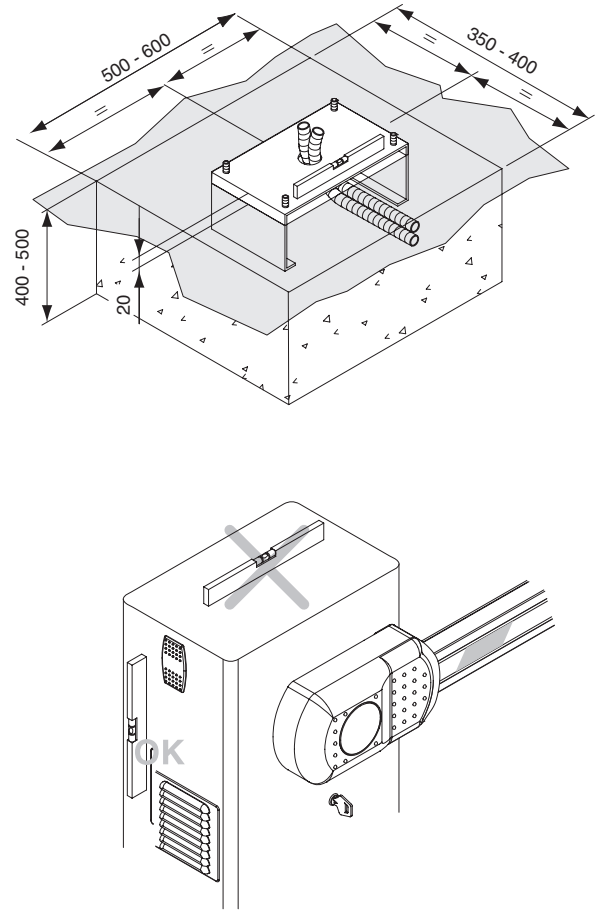


Fig. 2



D811489_01

Fig. 3

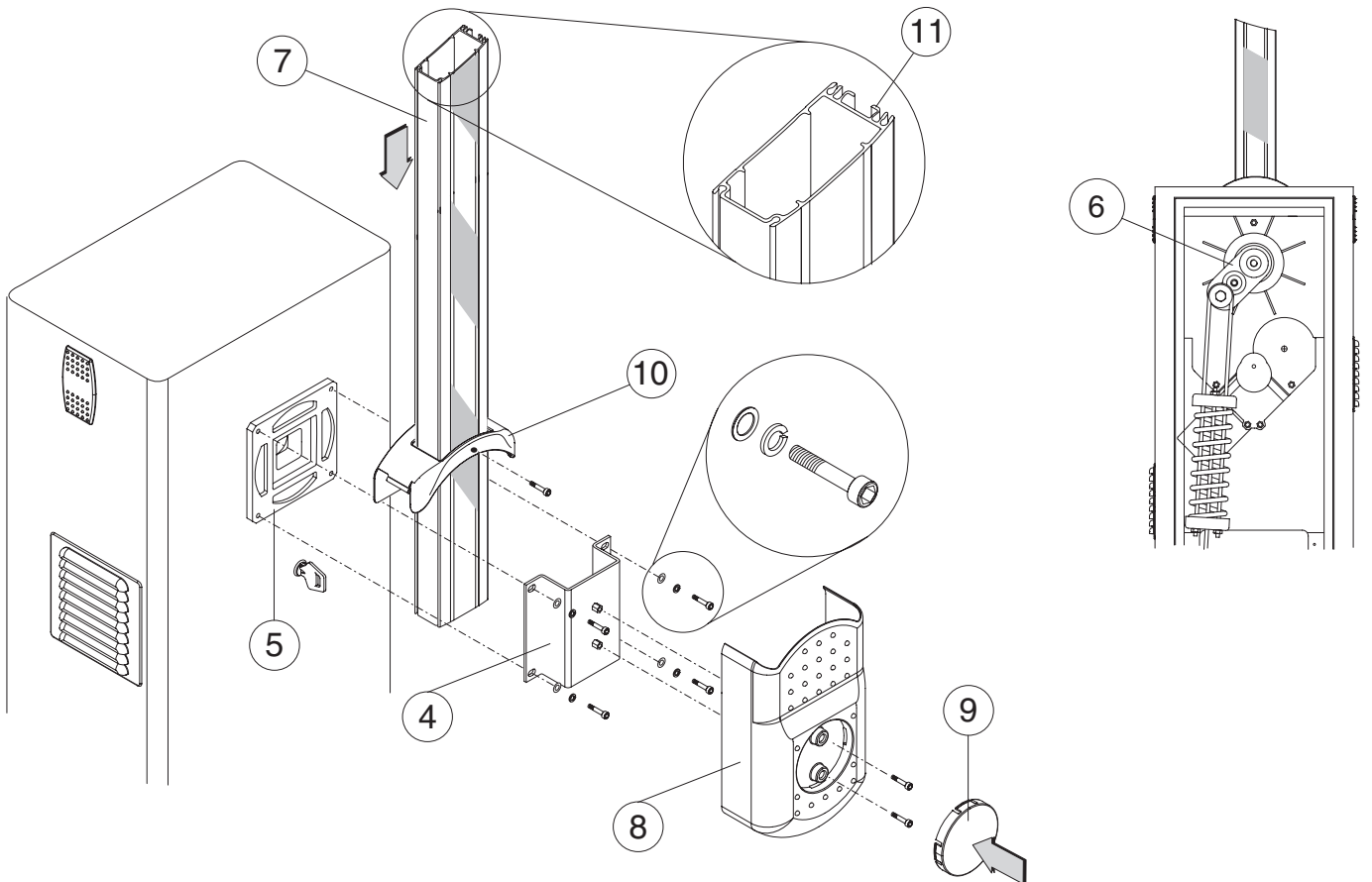


Fig. 4

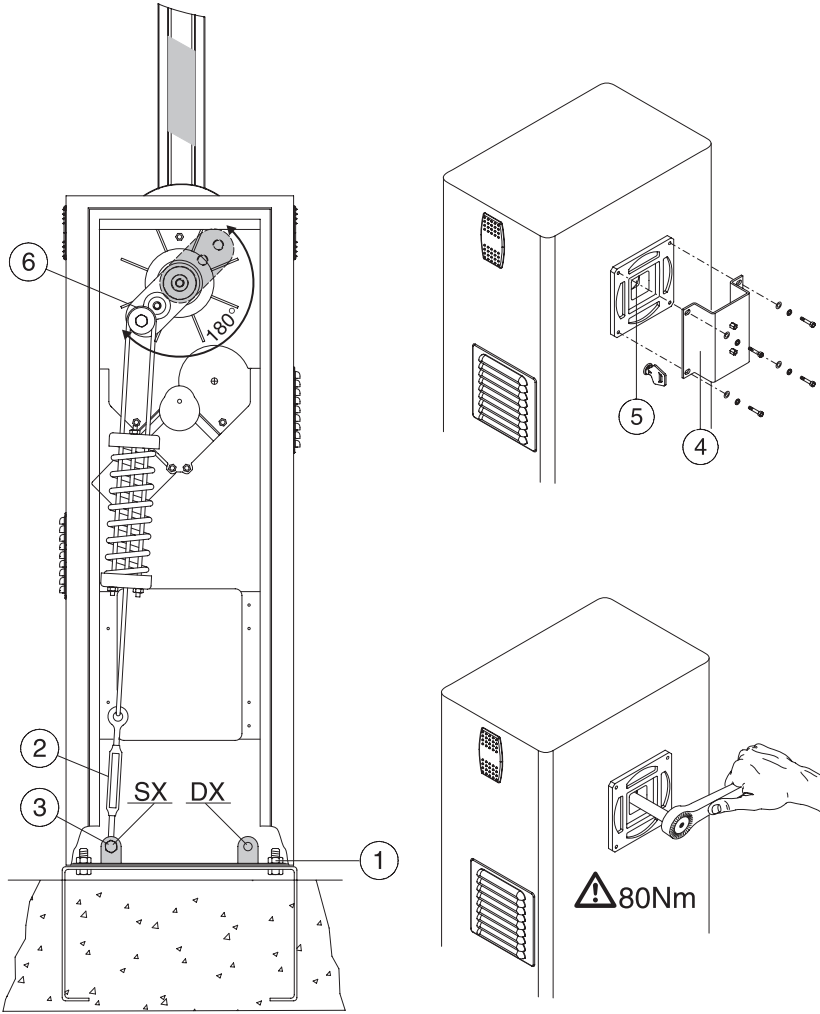


Fig. 5

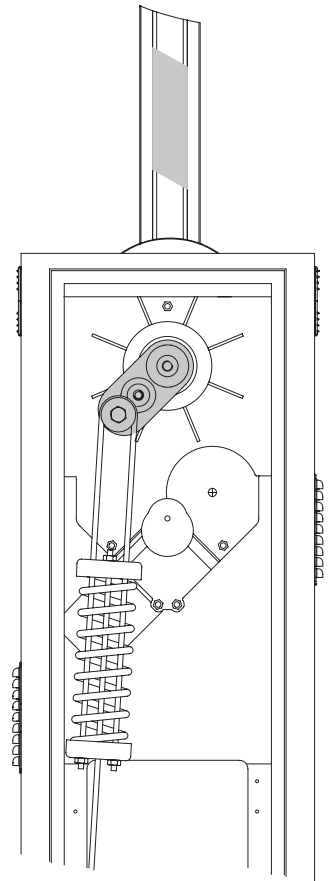
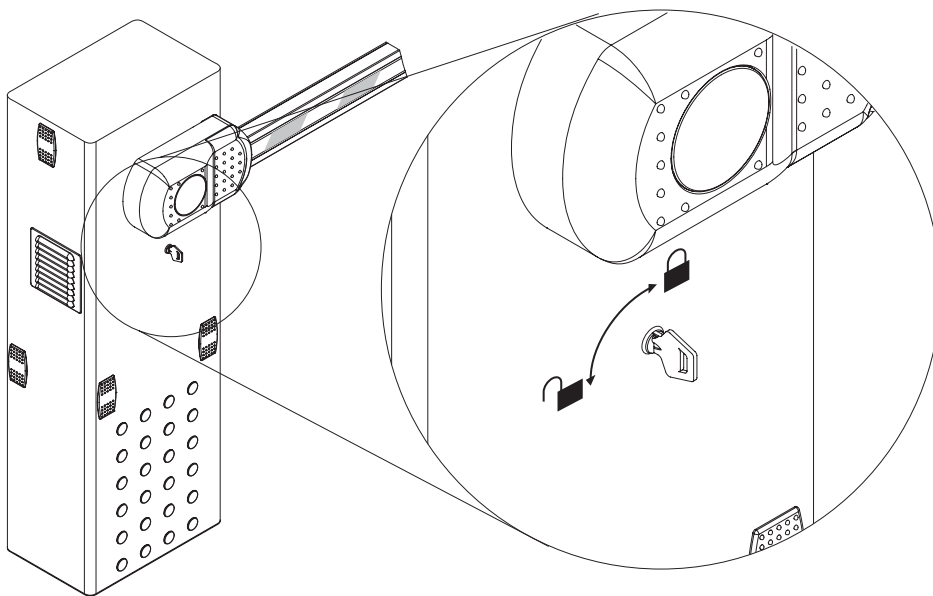




Fig. 6



- 

 MANUALE - MANUAL - MANUEL
 BEDIENUNGSANLEITUNG - MANUAL - MANUAL
- 

 AUTOMATICO - AUTOMATIC - AUTOMATIQUE
 AUTOMATIK - AUTOMÁTICO - AUTOMÁTICO

Fig. 7

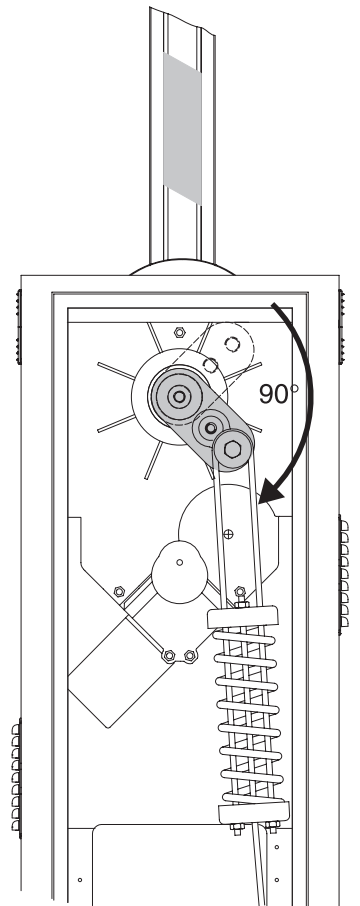
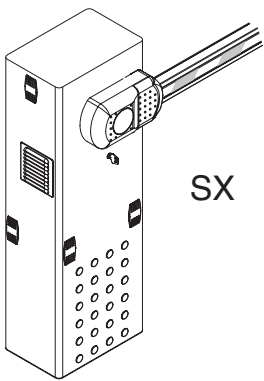
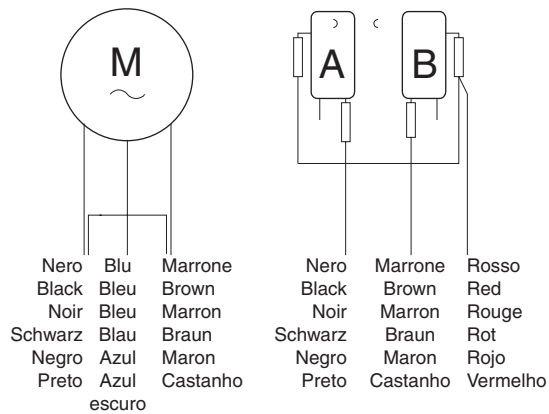
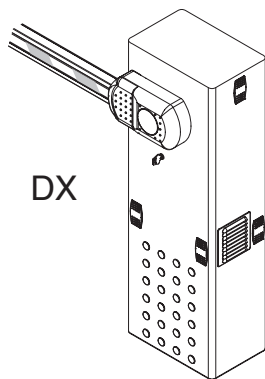
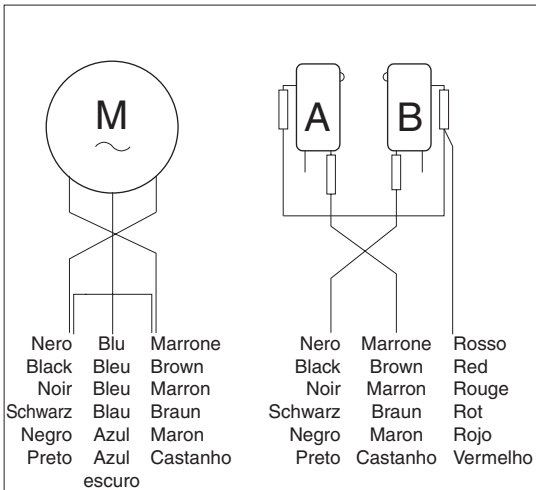


Fig. 8



SX



DX

Fig. 9

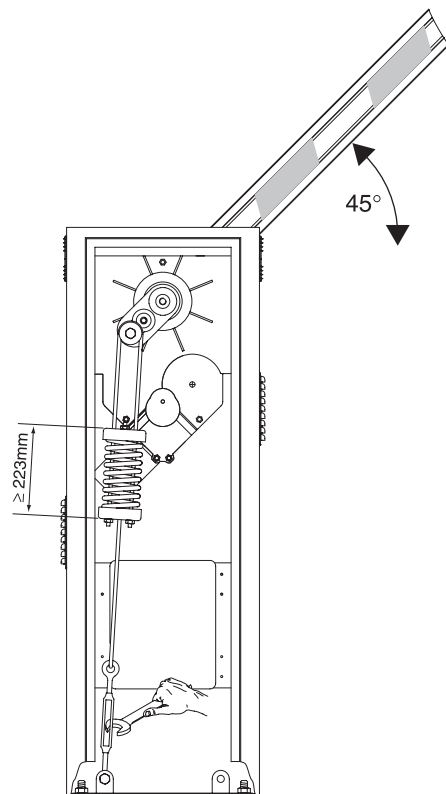


Fig. 10

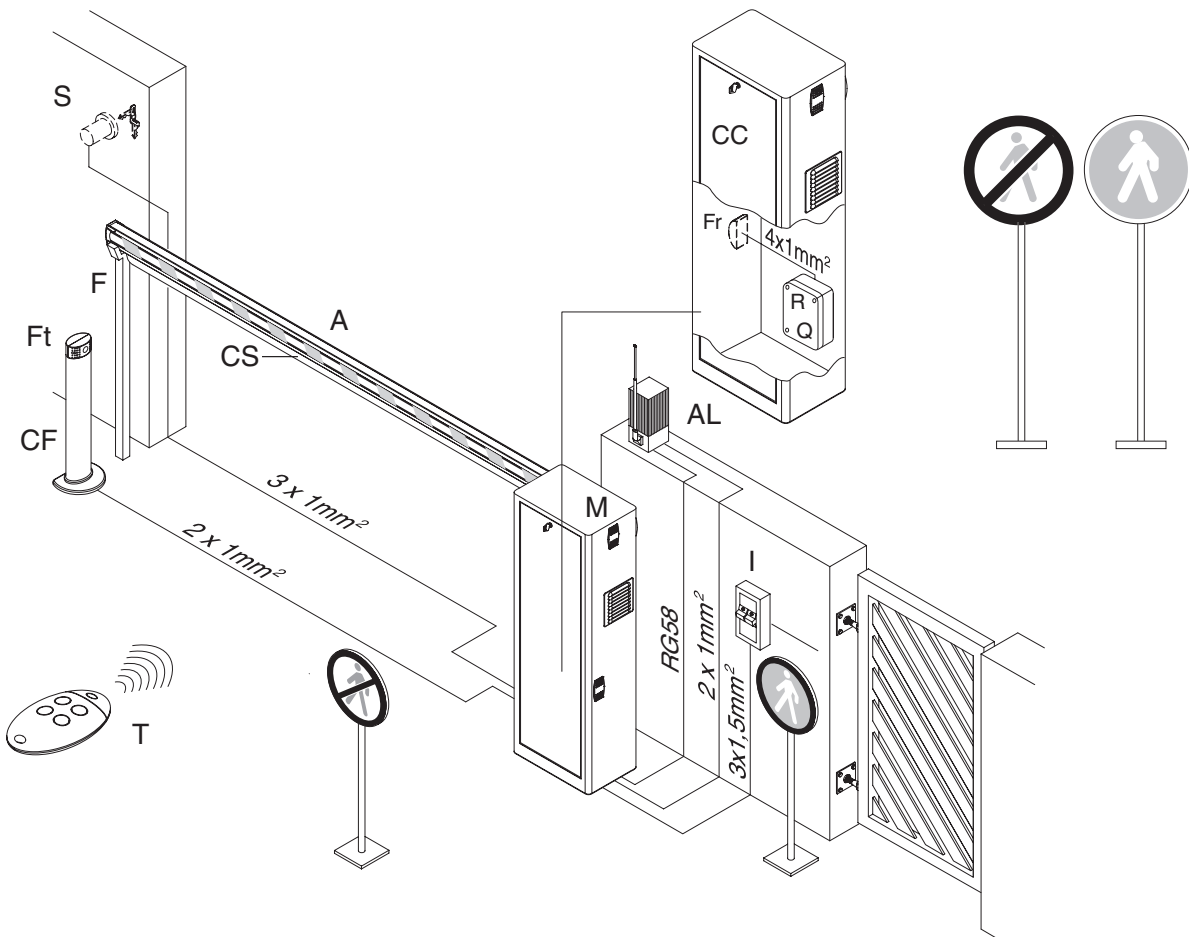


Fig. 11

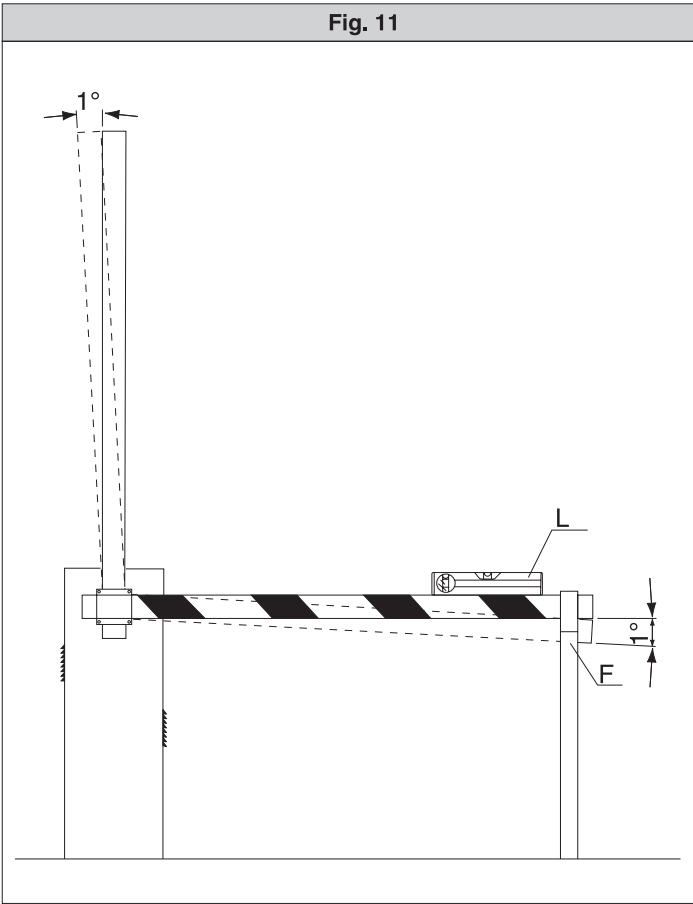


Fig. 12

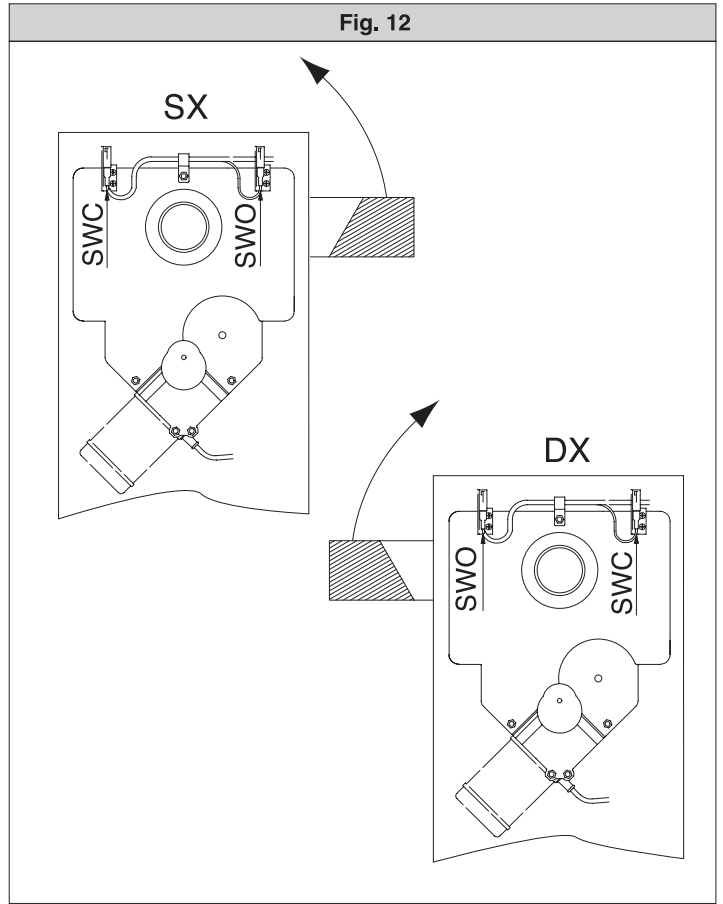


Fig. 13

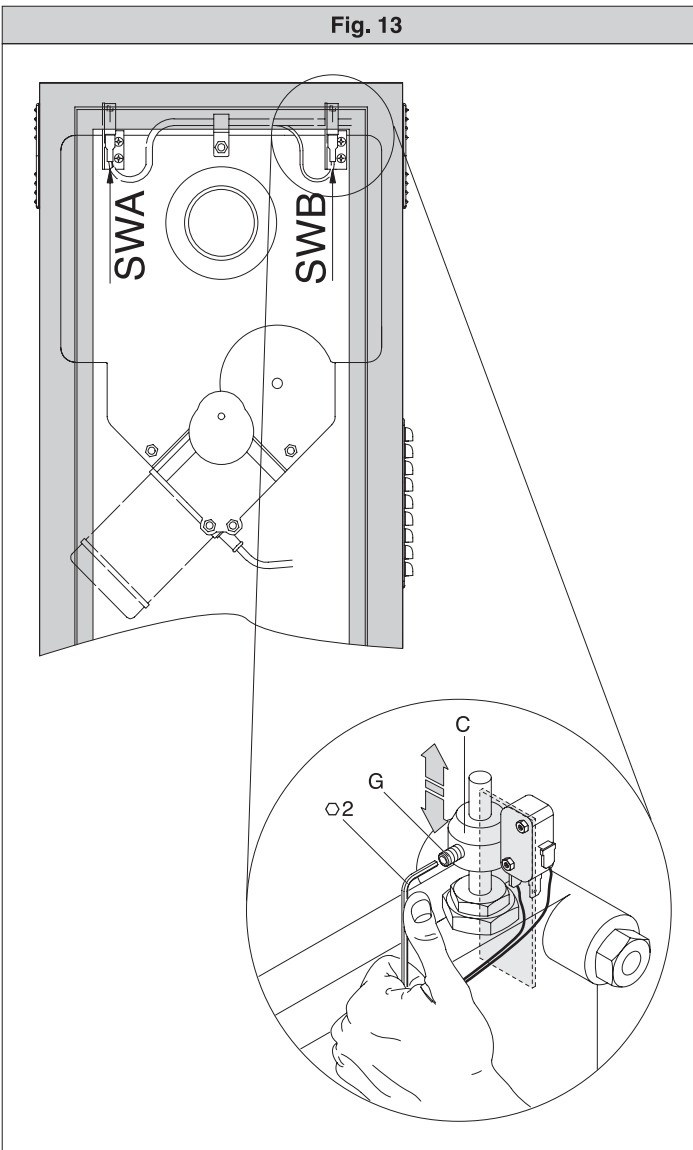


Fig. 14

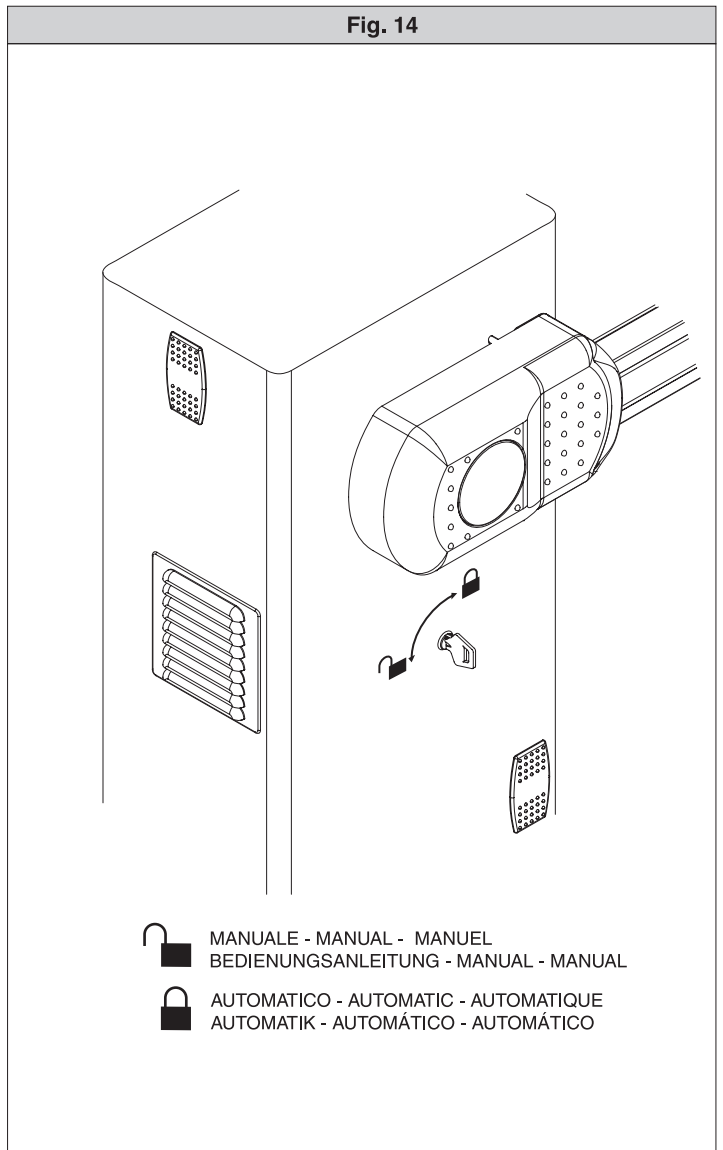


Fig. 15

Schema di cablaggio MOOVI 30-50, MOOVI 30-50 Wiring diagram, Schéma de câblage MOOVI 30-50, Schaltplan MOOVI 30-50, esquema del cableaje, Esquema de ligação MOOVI 30-50.

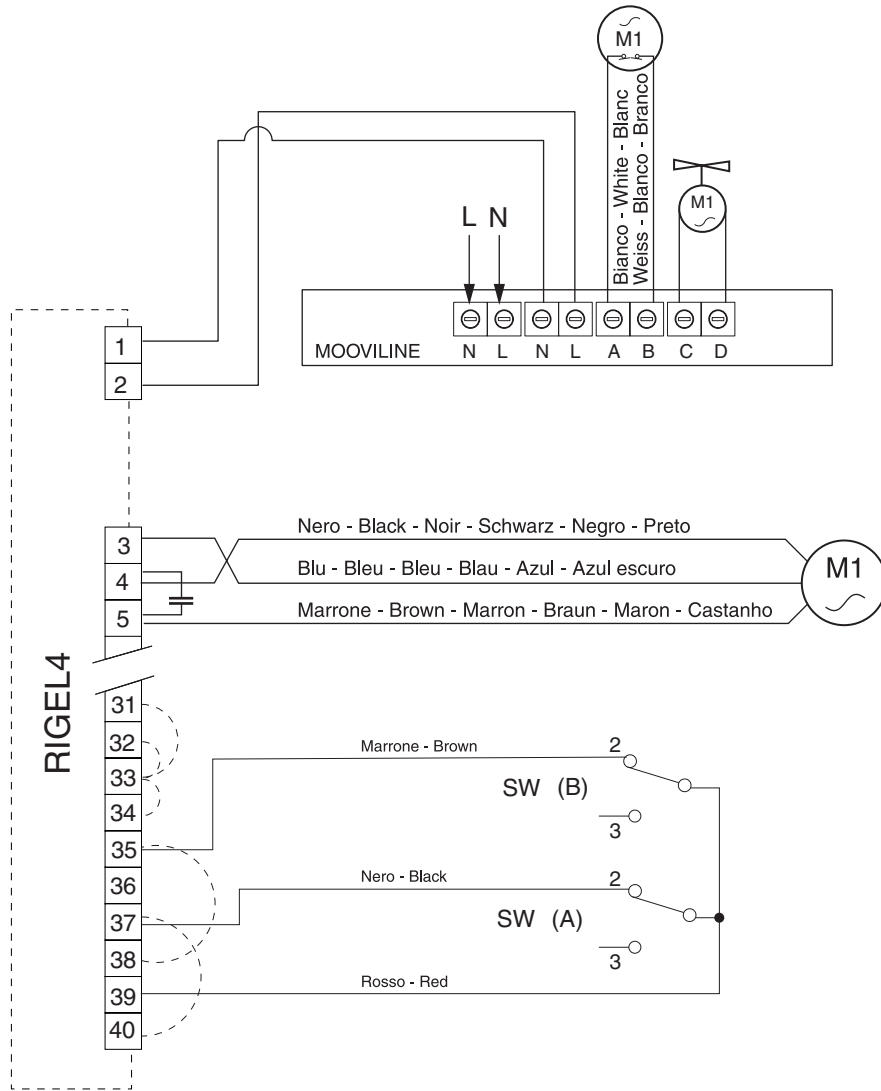


Fig. 16

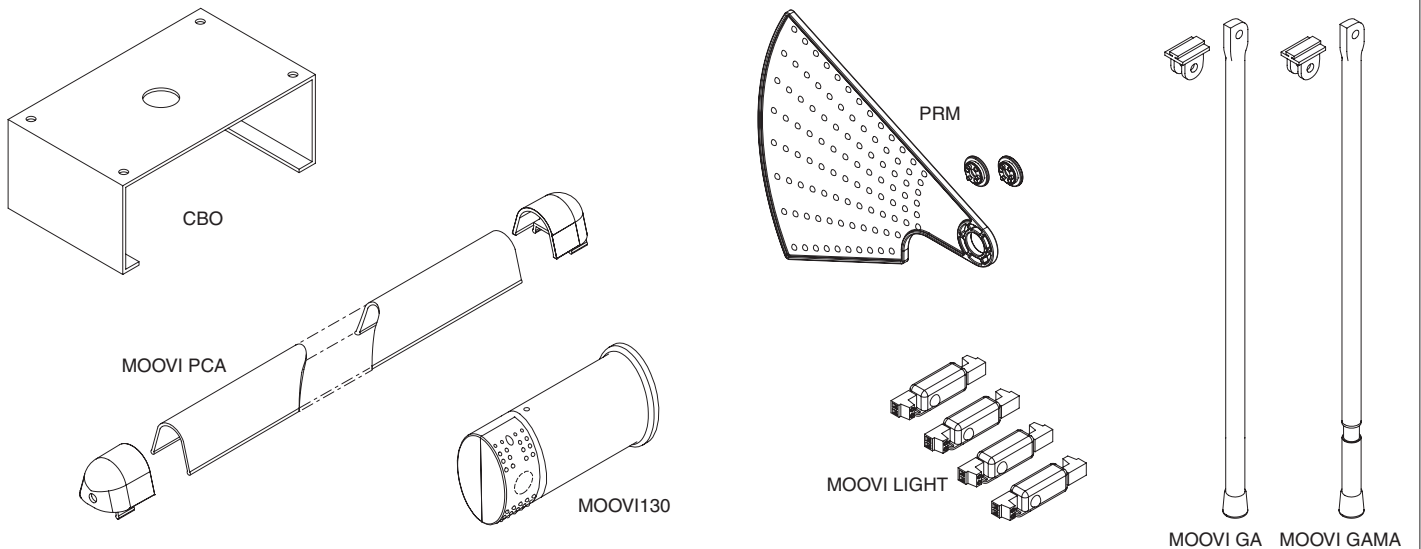


Fig. 17

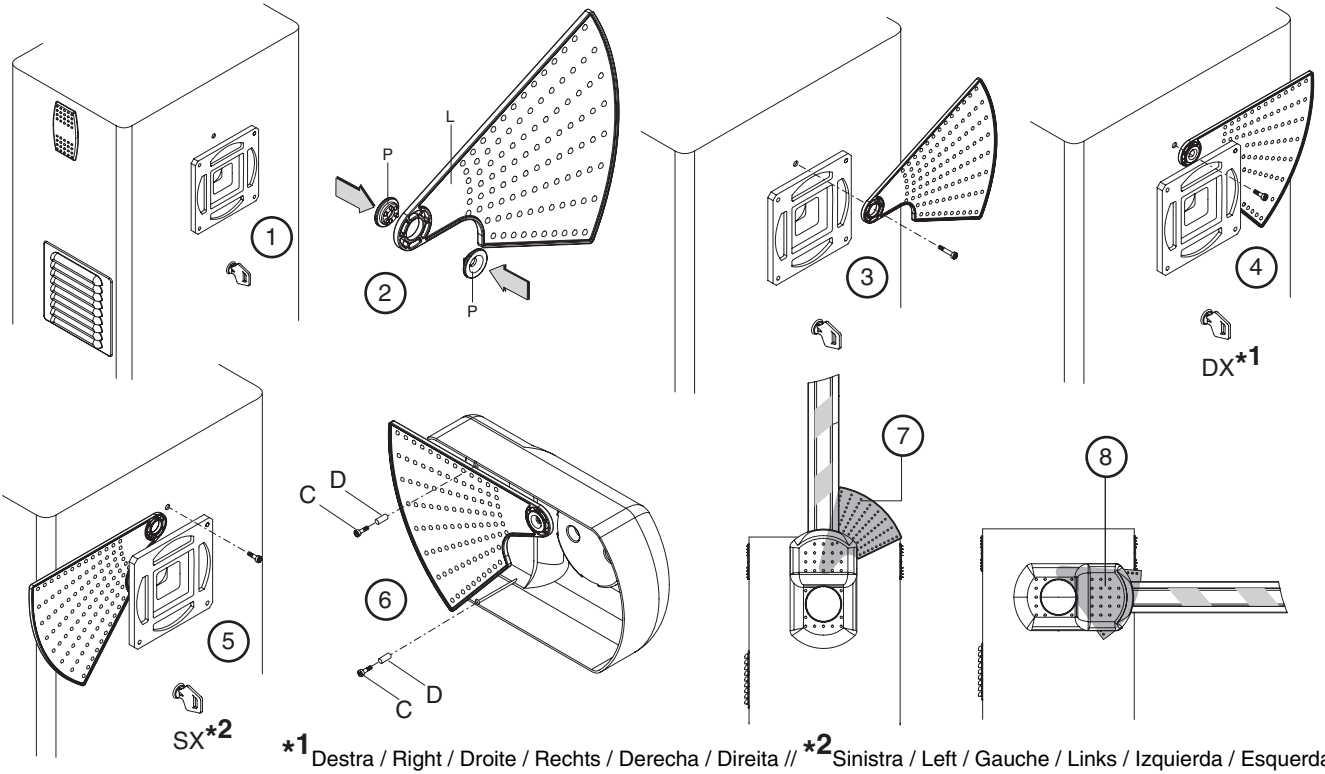


Fig. 18

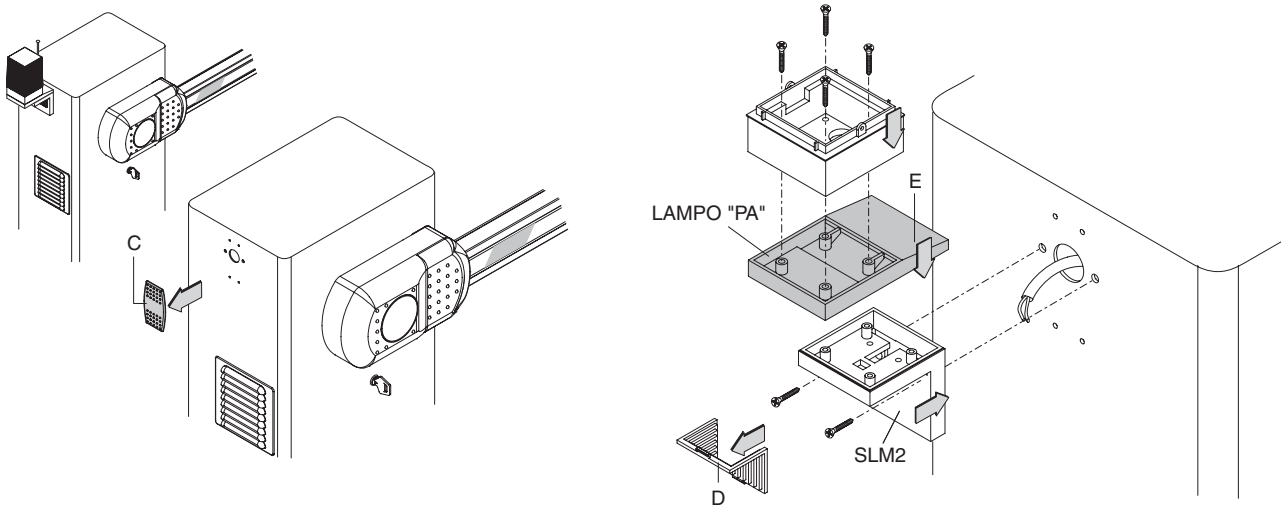


Fig. 19

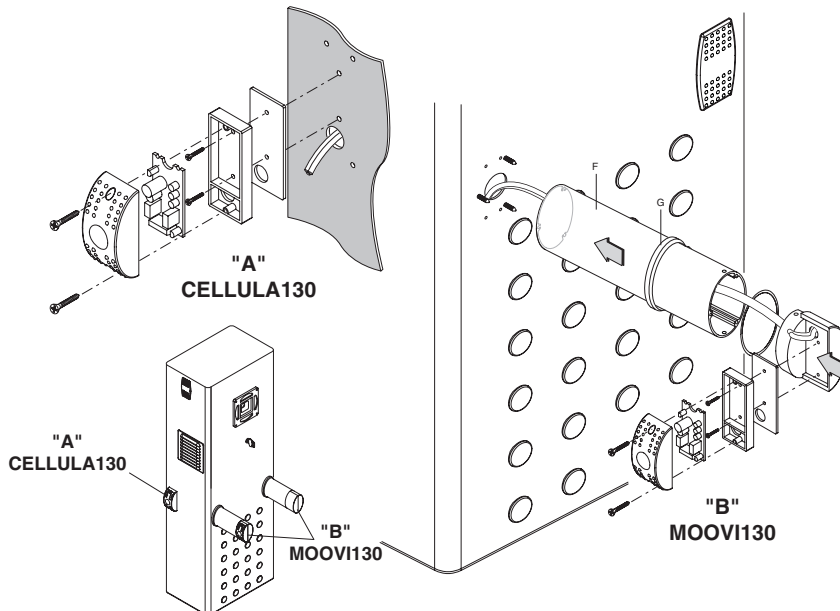


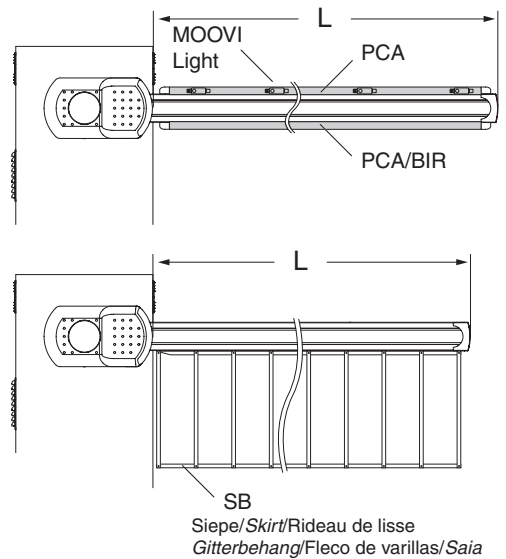
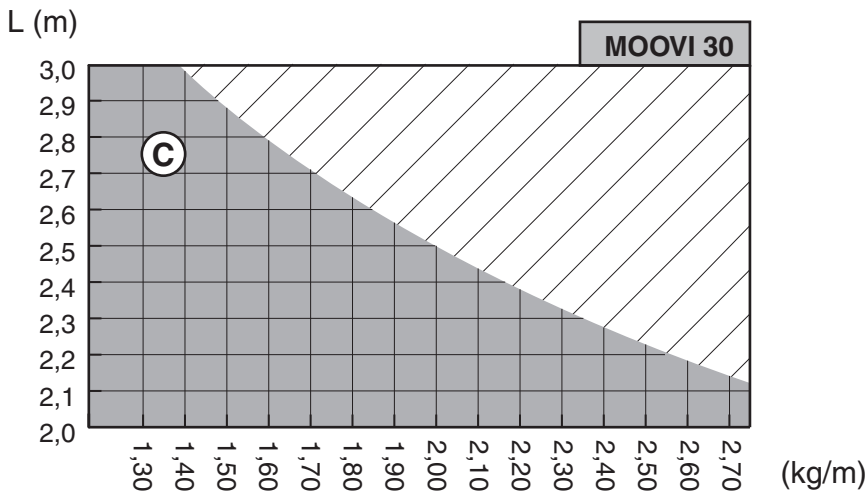
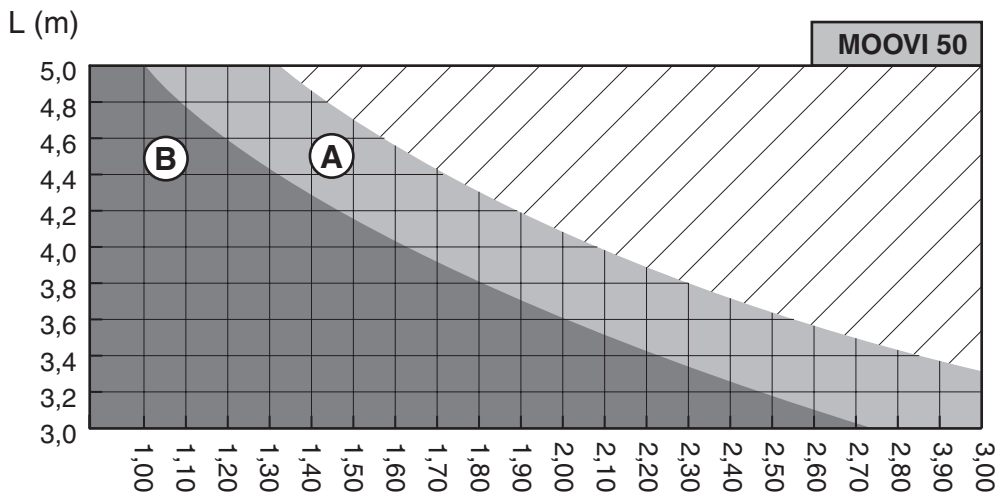
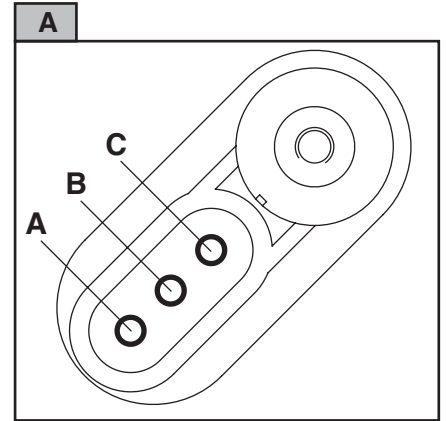
Fig.20

TAB.1

ACCESSORI - ACCESSORIES - ACCESSOIRES ZUBEHÖR - ACCESORIOS - ACESSÓRIOS	Peso - Weight - Poids Gewicht - Peso
PA*	Kg/m 1,028
SB	Kg/m 1,250
BIR**	Kg/m 0,510
1PCA	Kg/m 0,160
2PCA	Kg/m 0,320
MOOVI Light + 1PCA	Kg/m 0,230

PA* Peso asta senza accessori/Boom weight without accessories
Poids de la lisse sans accessoires/Schrankenbaumgewicht ohne Zubehör
Peso del asta sin accesorios/Peso haste sem acessórios

BIR** Costa Sensibile/Safety edge/Barre palpeuse
Sicherheitsleiste/Barra sensible



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BFT S.p.a.

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N.1 in Quality & Innovation

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