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English

English

SAFETY STANDARDS AND INSTALLER OBLIGATIONS

An electromechanical barrier is a machine and as such must be installed in accordance with current health and safety standards and regulations.
Before installing the barrier, an on-site risk analysis must be performed by skilled personnel, in accordance with current legislation for motorised gates. Installation must be performed in accordance with EN 12453 and EN 12445 safety standards. In countries outside the EEC, refer to national regulations and legislation as well as the standards specified.
Installation must be performed only by professionally qualified personnel.
Installation, electrical connections and adjustments must be carried out in a professional manner, in compliance with the Good Manufacturing and Workmanship regulations in force in the country where the equipment is installed.
The manufacturer of the drive unit is not liable for incompliance of the structure to be motorized with respect of the Good Manufacturing and Workmanship regulations, nor for any deformation which may result from its use.
The manufacturer of the drive unit declines any responsibility for the use of components which are not intended for safe and proper use.
CAREFULLY READ THE INSTRUCTION MANUAL BEFORE INSTALLATION and follow the instructions as specified by the manufacturer.
BAD INSTALLATION MAY RESULT IN POTENTIALLY HAZARDOUS SITUATIONS..
Do not use the product for purposes other than the manufacturer's intended ones or for any improper use.
Do not alter or modify the product.
Packing materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within the reach of children, as these are a potential source of hazard. Packaging must be disposed of in accordance with current legislation.
It is recommended to work in compliance with the safety regulations and in a well-lightened and healthy environment.
Always wear safety equipment which is compliant with the law (safety shoes, eye protectors, gloves and helmet) and avoid wearing accessories which can be trapped, like ties, bracelets, necklaces and alike.
Take adequate safety measures to prevent the risk of injury caused by sharp splinters and the possible risks of crushing, collision and shearing.
Set limits to the working area to keep out non-authorized persons and not to leave the working area unattended.
It is recommended that national regulations for safety in work sites be complied with. (In Italy, Legislative Decree 528/99 coordinated with Italian Legislative Decree 494/96 “Transposition of Directive 92/57/EEC on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents, and to be fulfilled when working on temporary or mobile work sites”).
Check that the product and packaging are undamaged before starting installation.
Do not install the product in an explosive environment. Gas, powders and inflammable fumes are a serious hazard risk.
Check that all safety measures are taken and that all the areas posing a risk of crushing, shearing or trapping, or anyway dangerous areas, are protected in accordance with the current legislation for motorised barriers.
Before connection to the power supply, check that the power corresponds to the data on the identification plate.
A suitable differential overload switch must be installed upstream of the installation.
Once the installation is completed, the installer must verify and test correct installation and performance of the automated equipment.
Do not test or operate the automation until the existing structure has been tested as complying with MACHINERY DIRECTIVE 98/37/EEC standards, which regards the complete, fitted and installed barrier.
The installer must have and keep the TECHNICAL DOSSIER of the automatic barrier and must comply with all the norms provided.
The installer must perform the risk analysis and check that there are no crushing or shearing points. If necessary special preventive measures must be taken and all of the signs required by the regulations in force to warn of any dangerous zones must be attached.
Protection devices must be installed after performing an on-site risk analysis, by also checking that those are marked and work in accordance with current legislation.
On every installation the identification plate of the motorised system must be clearly visible .
The installer must provide the user with all the necessary information on the use of the motorised barrier, with particular regard to the procedures relating the manual emergency procedure and any other residual risks. He must deliver the corresponding instructions to the system user.
All repairs and maintenance must be recorded on the maintenance record and then be available to the user.
Use only original spare parts for any repair or replacement.
The warranty is void if this product is used in combination with components of other brands.

USER MANUAL INTRODUCTION

Caution

These instructions only refer to the mechanical installation of the barriers.
For the electrical installation and the operation of the control system, see the instructions provided:PTR24.

Warning

All the instructions provided are integral part of the product and must be kept for future reference until the product will be scrapped.
During the assembly and installation of the automation and the test of the system, hazardous situations may occur if safety warnings included in this manual are not complied with.

THE INSTRUCTIONS MUST BE AVAILABLE ON THE SYSTEM FOR ANY USE OR MAINTENANCE.
All the data included must be considered purely as an indication.
The manufacturer declines any responsibility for possible inaccuracies included in this manual due to misprints or typing errors.
The company reserves the right to modify the product and make any improvements without prior notice.

1. DESCRIPTION OF THE ACTUATOR

1.1 Intended use and limits of use

This electromechanical barrier is intended for the handling (opening/closing) of a lifting beam.
Use is limited to vehicle traffic with intensive flow control (80% frequency).

It is not recommended for high frequency car parks, such as parking systems or large blocks.

Any other use has to be considered as improper and, for this reason, dangerous thus not authorized by the manufacturer.

Caution

Do not use the product for improper purposes or any other than the manufacturer's intended ones.
Do not alter or modify the product.
The barrier must be installed only with APRIMATIC devices.

1.2 Technical features

- Low tension electromechanical barrier.
- Metal structure with bearing frame and removable back door with key opening
- Compression spring balance system.
- Personal key release for manual operation.
- Onboard control system with transformer and built-in receiver.
- Built-in flashing light.
- Beams available in different shapes and lengths (beam length can be customised).
- Essential installation accessories (see catalogue): base plate, beam and mounting flange, balancing spring.

WARNING: barrier is supplied with the barrier fitted in the right-hand position, this means that it moves clockwise if seen on the beam side. To fit the barrier in the left-hand position see "Arrangement change".

1.3 Technical data

Technical data	
Single phase power supply	230 V - 50 Hz
Motor power supply	24 V DC
MAX absorbed power	150 W
MAX absorbed current	5 A
Shaft rotation speed	90° / 5 secs.
Nominal torque	500 Nm
Opening time	5 secs.
Adjustable slowing time	yes
Operating temperature	-20º +70º C
Protection degree	IP44
Beam length	from 2.0 to 4.5 m MAX
Type of use	Intensive-service in common properties

For the control devices data, see the instructions provided: PTR24.

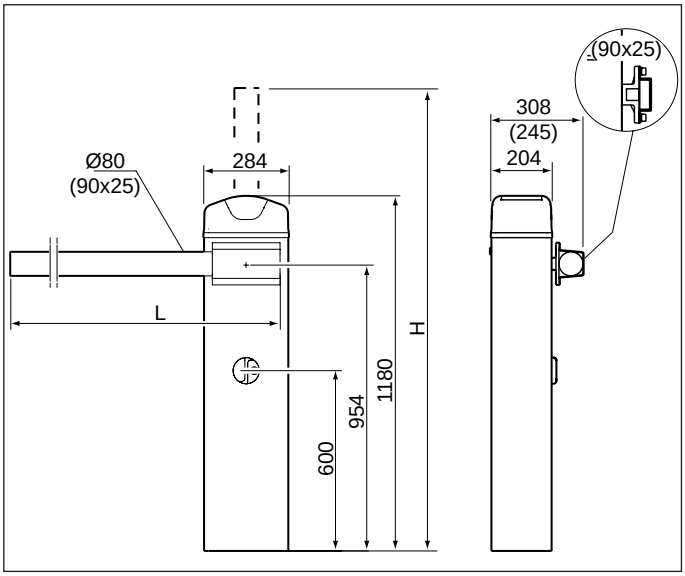
1.4 Overall dimensions

Considering the length of the beam **(A)**, the length necessary to close the passage is equal to **L**.

L (mm) = A (mm) - 256.

In case the barrier is installed indoor, please consider that, when the beam is totally opened and in vertical position, it reaches the value **H**.

H (mm) = A (mm) - 142 + 954.



Picture 1 - Overall dimensions

2. PRELIMINARY INSTALLATION STEPS

2.1 Preliminary checks and precautions

Before installing
- Check data on the identification plate.
- Check that the installation area is suitable and large enough to fit the beam in the open and close position *(see Overall dimensions)*. Ground must be solid and even, in particular where the supporting components are installed.

Consider to install an OPTIONAL end support fork** (see catalogue)**, which is recommended for long beams. CAUTION: end support fork is not intended to stop the beam.

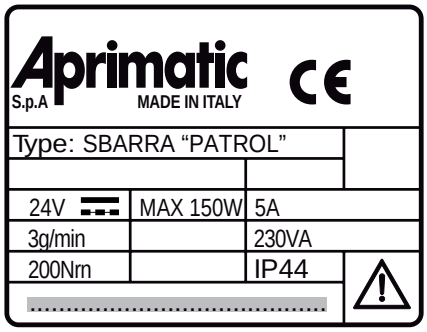
- Check the presence and integrity of all installation components purchased.

Warning

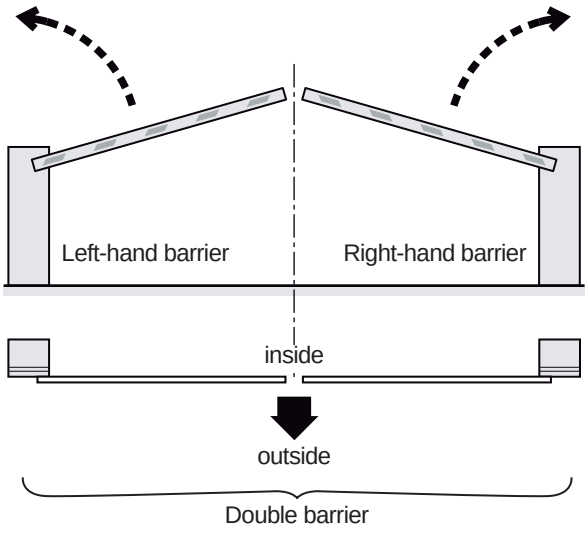
Working on the barrier body is only allowed when power is off.
It is forbidden to leave the barrier unattended and with the door open.

English

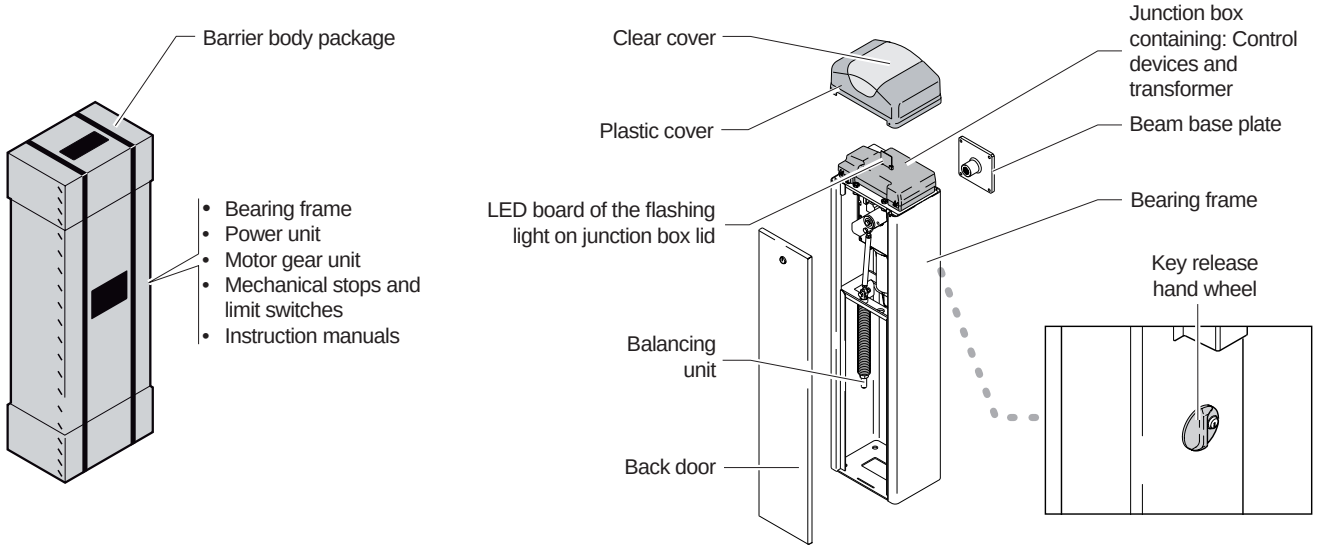
English



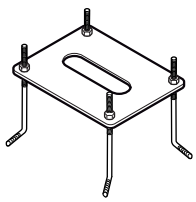
Picture 2 - Identification plate



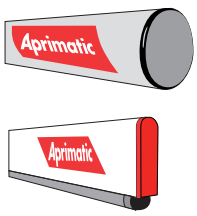
Picture 3 - Installations available



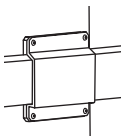
Picture 4 - Components provided with the barrier body



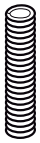
Column base plate



Beam

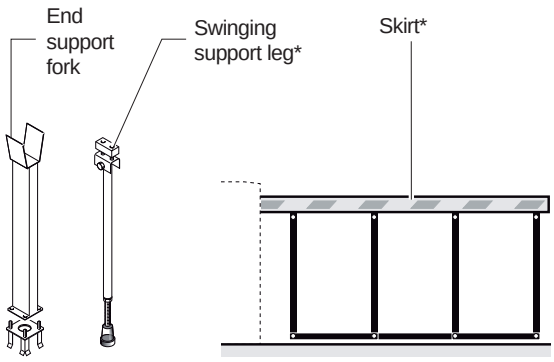


Beam mounting flange



Balancing spring

Picture 5 - Components to buy separately



*available only with the 90x25 rectangular beam

Picture 6 - OPTIONAL components

2.2 Electrical system setup:

Warning

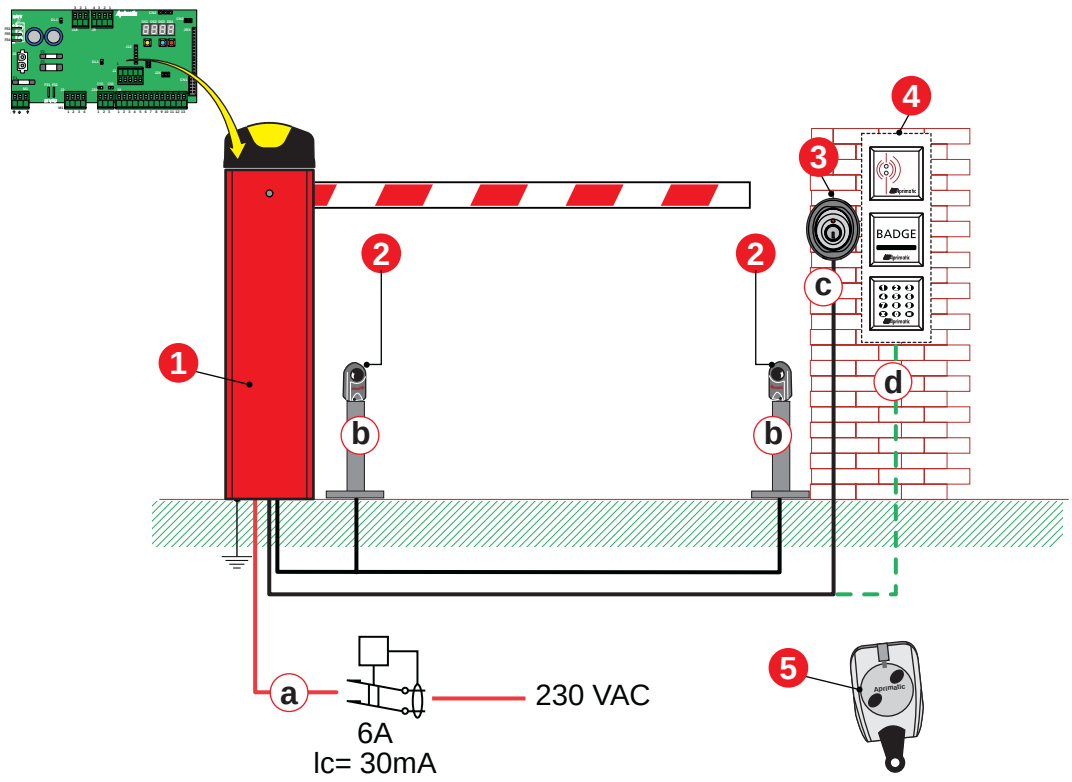
The whole system must be assembled by qualified personnel and fully compliant with the current laws in the Country where the barrier is installed (IEC 64 - 8 / EN 60335-1 standards and alike)
Earthing of metal parts of the structure (barrier body) is compulsory.

- Setup the electrical connections of the control and safety devices of the system according to the diagram, following the warnings included in this manual and the attached instructions regarding the components installed. Make suitable cableways (external or chased) up to the device installation position.
- The **box** containing the electronic elements is watertight and must be placed at least 30 cm over the ground, cable exits must be turned downwards. The connections of the cable protections to the box must be properly sealed in order to prevent the entry of humidity, bugs or small animals.
- **POWER SUPPLY: 230VAC** - Cable 3x1.5mm² (minimum section); measure the section of the cable according to the length of the line.
- In case it is necessary to use a cover for the power supply cable of the automation, perform the operation before connecting the cable to the junction box.

IMPORTANT! Always install, upstream the line, a general switch which guarantees an omnipolar disconnection with a minimum opening of the contact of 3 mm (connect a differential overload switch of 6 A - 30 mA sensibility).

- Control accessory devices and emergency button must be placed within the visual field of the automation, away from the moving parts and at a minimum height of 1.5 m from the ground.

English



1 actuator ..... **a** 2 x 1,5 mm² + earth
2 pair of photocells ..... **b** emitter 2 x 0,75 mm² ; receiver 4 x 0,75 mm²
3 key selector ..... **c** 3 x 0,75 mm²
4 OPTIONAL control devices ..... **d** 3 x 0,75 mm²
Proximity reader , Card reader* , Combination pad**
5 remote control

** optional accessory (see retail catalogue)*

Picture 7 - Cableways

3. INSTALLATION

3.1 Laying of the base plate

The barrier must be firmly anchored to the ground, which must be solid and flat, and for this reason it is necessary to make a concrete base.

Warning

The manufacturer forbids any other type of assembly on a non-horizontal alignment.

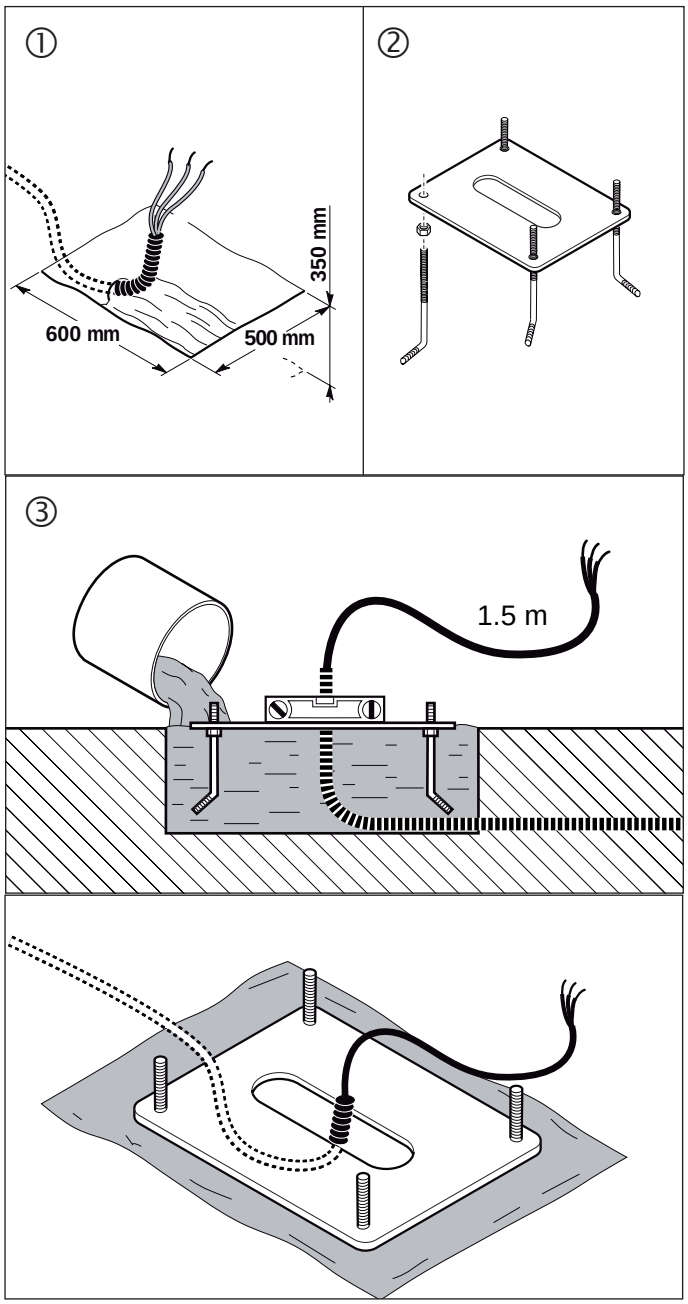
1 - Dig a hole on the ground for the column base plate and make a cableway for the power supply cables.
2 - Assemble the base plate with the tie bolts, after placing the lower nuts.
3 - Fill the hole with good quality concrete and place the plate, burying the tie bolts with the concrete. The plate must be over the level of the surrounding ground.

Warning

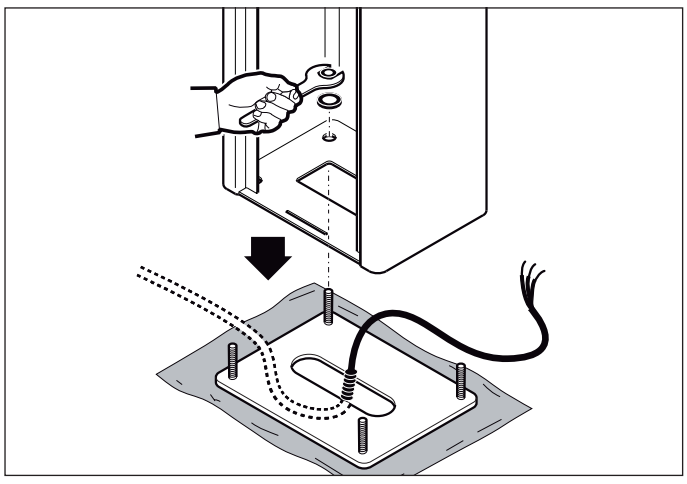
Check that the base plate is perfectly horizontal.

3.2 Anchoring the barrier body

1 - Place the barrier body with the back side towards the inside of the entrance and introduce the tie bolts in the holes of the base plate.
2 - Firmly tighten the barrier structure with the 4 nuts with washers.



Picture 8 - Laying of the base plate



Picture 9 - Anchoring the barrier body

3.3 Arrangement change

As standard the system is supplied in right-hand configuration. To fit the barrier in the left-hand position, follow the instructions below.

Warning

It is recommended that the arrangement be changed before installing the spring. When working on the spring on assembled beam, the beam must be in open position (vertical beam) and locked.

Open and remove the back door before working on the barrier.

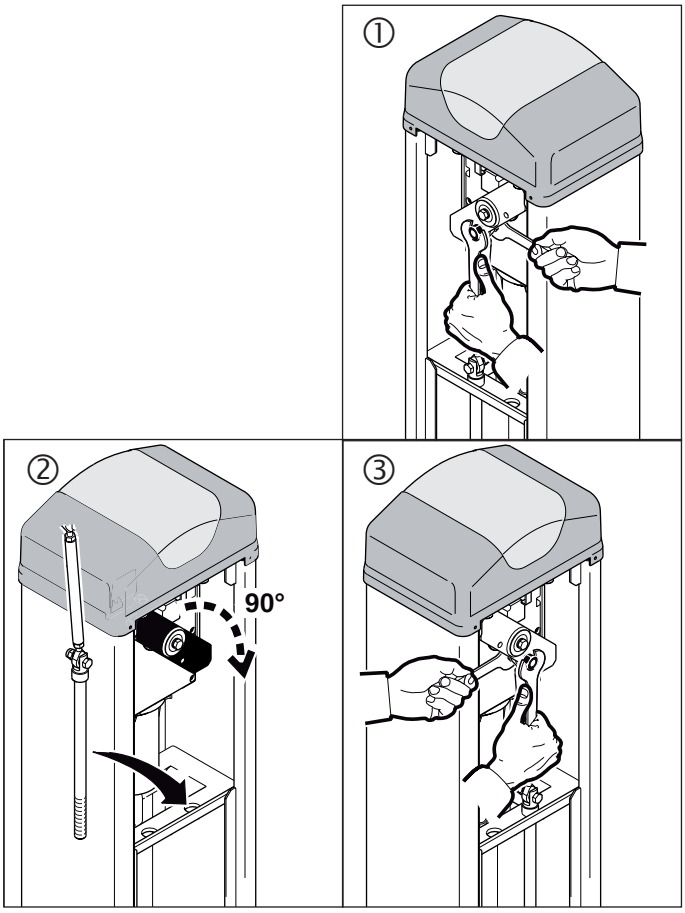
Warning

Whenever the arrangement is made, the barrier must be disconnected. Connect it again only after closing the door.

1 - Unscrew the nut and disconnect the spring guide rod of the balancing spring, then remove it form its seat.
2 - Turn the spring of 90° and place the spring guide rod in the other hole.
3 - Reconnect it to the balancing spring by using the nut.

Caution

Check that control device settings corresponds to the type of installation performed (see the instructions provided: PTR24).



Picture 10 - Arrangement change

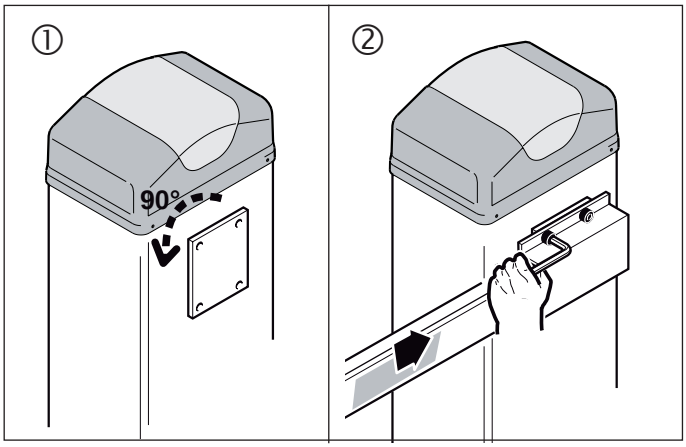
3.4 Beam installation

3.4.1 Beam installation for right-hand barrier

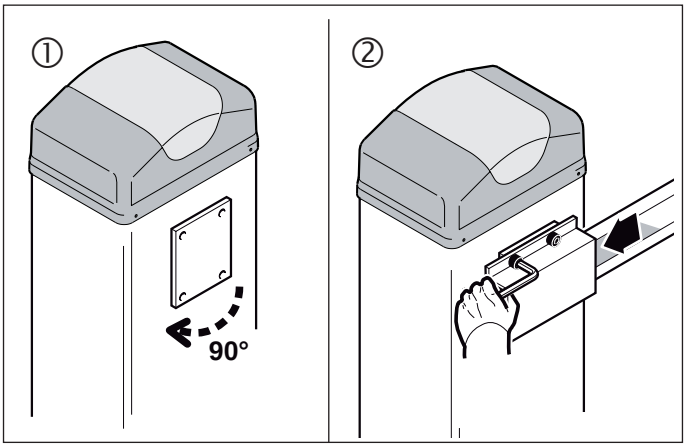
1 - Release the automation (*see Manual release*). Turn the beam supporting plate 90° counterclockwise to bring it to the closed position, then relock the automation.
2 - Place the mounting flange, paying attention to the stop limit of the beam, and secure it by using the 4 provided screws, without tighten completely. Introduce the beam horizontally in the flange until the stop limit. After checking the length, tighten the flange screws completely.

3.4.2 Beam installation for left-hand barrier

1 - Release the automation (*see Manual release*). Turn the beam supporting plate 90° clockwise to bring it to the open position, then relock the automation.
2 - Place the mounting flange, paying attention to the stop limit of the beam, and secure it by using the 4 provided screws, without tighten completely. Introduce the beam horizontally in the flange until the stop limit. After checking the length, tighten the flange screws completely.



Picture 11 - Beam installation for right-hand barrier



Picture 12 - Beam installation for left-hand barrier

3.5 Balancing spring installation

The balancing spring is not included in the barrier provided.
Choose the spring suitable to the installation provided (see the table) and install it as follows:

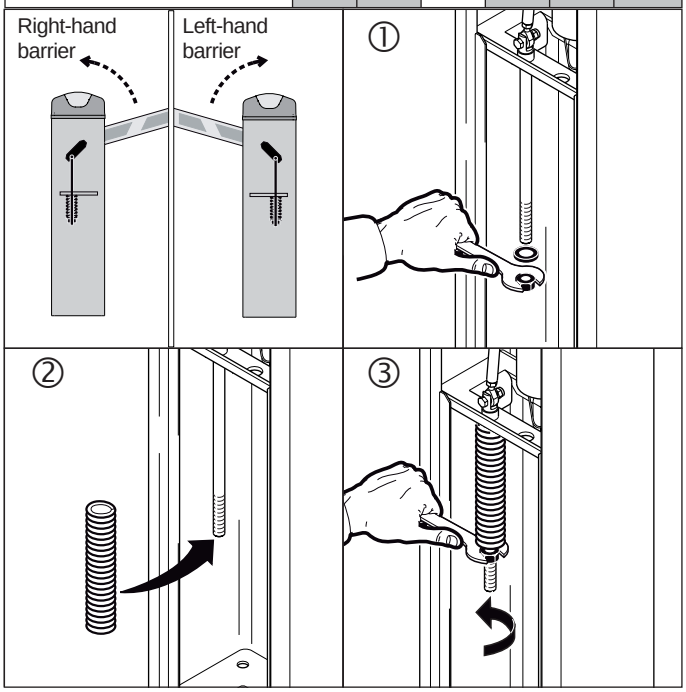
Warning

When working on the spring on assembled beam, the beam must be in open position (vertical beam) and locked.

1 - Unscrew and remove the nut and the washer which fix and regulate the spring.
2 - Introduce the spring along the spring guide rod in the proper position according if it is for a left-hand or right-hand barrier.
3 - Reintroduce and tighten the nut and the washer which fix and regulate the spring.

Once completed, adjust the balancing of the barrier (*see paragraph*).

TYPE OF BEAM AND ACCESSORIES	BEAM LENGTH (in metres)					
	2	2,5	3	3,5	4,0	4,5
90 x 25	green	green	blue	blue	blue	yellow
90 x 25 with swinging support leg	green	green	blue	blue	blue	yellow
90 x 25 with skirt		green	blue	red		
Ø 80			blue			



Picture 13 - Balancing spring installation

3.6 Balancing the barrier

Warning

Whenever the balancing is made, the barrier must be disconnected. Connect it again only after closing the back door.

Warning

When working on the spring on assembled beam, the beam must be in open position (vertical beam) and locked.

- Open the back door and remove it.
- Release the actuator *(see relevant paragraph)* and manually lift the vertical beam - pay **ATTENTION** during this operation, because the beam could fall.
- Adjust the winding of the balancing spring by adjusting the nut.

IMPORTANT: To check if the balancing is correct, while the actuator is unlocked, manually place the beam at 45°. Paying attention not to make the beam to fall, release the beam which MUST remain at 45° without rising or falling.

- Once completed, unlock the actuator and manually lower the beam - pay **ATTENTION** during this operation, because the beam could fall.
- Relock the actuator, replace and close the back door.

4. MAINTENANCE

For a proper maintenance, periodically perform the following operations, as described in the maintenance book provided by the installer. The average period of maintenance for this product is: 6 months.

Operation	Intervals
Check the general conditions of the system	6 months
Check and firmly tighten all the anchor screws and nuts of the group and of supports	6 months
Check the efficiency of the emergency manual release	6 months
Check the correct balancing of the barrier	6 months

Warning

Before performing maintenance operations, disconnect the system from the power supply with the differential switch of the electrical system. If installed, also the emergency batteries must be disconnected!
Maintenance must be performed only by qualified personnel or by an authorized technical assistance centre.
It is forbidden to leave the barrier unattended and with the door open.

5. WARNINGS FOR THE USER

Instructions provided are integral and fundamental part of the product. The user must be provided with the instructions, and must read them carefully since they contain important warnings for use and maintenance. These instructions must be preserved and transferred to possible future users.
This barrier must be used only for the Manufacturer's intended purpose. Any other use is improper and dangerous.
Do not tamper with or modify the product.
For a proper maintenance, periodically perform the following operations, as described in the maintenance book provided by the installer.
Do not stand near the moving mechanical parts or near the beam of the barrier. Do not enter in the working range of the moving barrier. Do not try to stop or obstruct the movement of the beam because it can be source of danger.
Do not allow children to play or stand in the working range of the barrier.
Check the radio controls or other devices which operate the barrier in order to avoid involuntary activation by children or strangers.

Connection, test and starting, as well as the periodical checks and the maintenance operations, including cleaning , can be performed only by specialized and trained technicians.

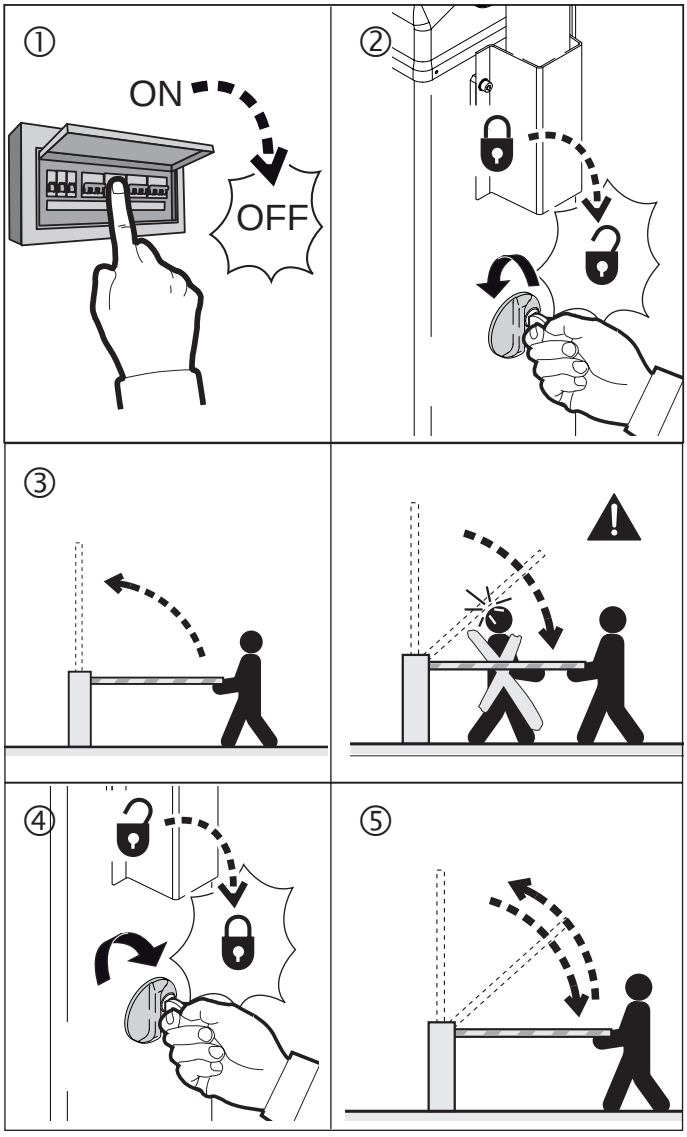
In case of failure or non regular functioning, disconnect the barrier by sing the main switch. Do not attempt to intervene or repair the main unit and contact the person who installed the barrier or another specialized installer. If this instructions are not followed, this may result in hazardous situations.
In order to guarantee a correct and effective functioning, follow the manufacturer's instructions and in particular perform a periodical maintenance by employing specialized personnel who check especially the regular functioning of the safety devices.

5.1 Manual release

In case of failure or power cut it is possible to manually open the barrier, doing as follows:
1 - Disconnect the barrier by using the main switch.
2 - Release the release hand wheel by using the key provided, then turn it clockwise until the actuator is unlocked.
3 - Manually move the beam - pay ATTENTION during this operation, because the beam could fall.
4 - Relock the beam by turning the hand wheel clockwise and remove the key.
5 - Manually move the beam in open or close position until the mechanical lock is on.

Warning

The user cannot work on the barrier body.



Picture 14 - Manual release

SPACE RESERVED FOR INSTALLER

PLEASE GIVE A COPY OF THIS PAGE TO THE USER

English