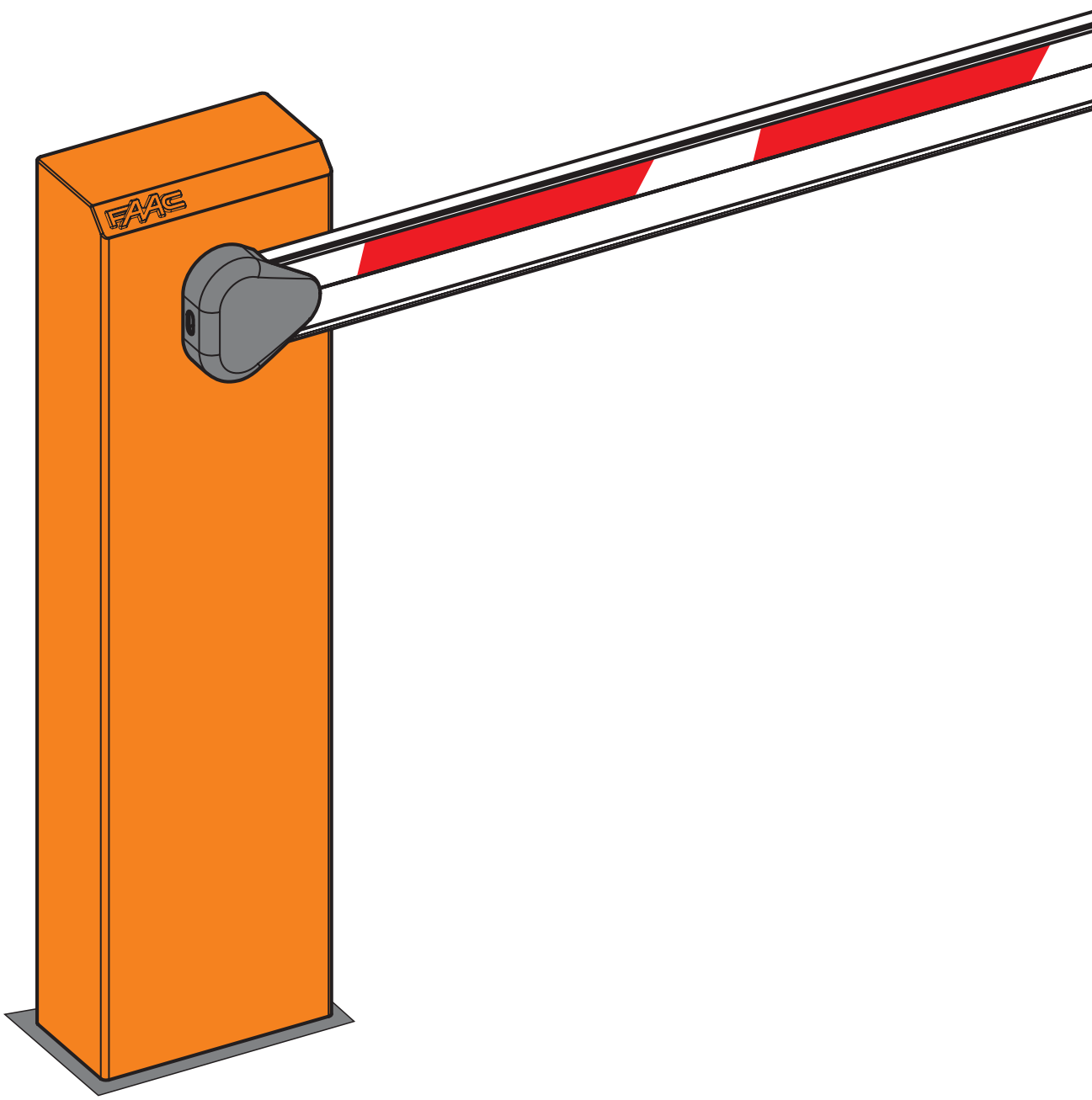
615



Leggere completamente questo manuale di istruzioni prima di iniziare l'installazione del prodotto.

Il simbolo evidenzia le note importanti per la sicurezza delle persone e l'integrità dell'automazione.

Il simbolo richiama l'attenzione sulle note riguardanti le caratteristiche od il funzionamento del prodotto.

Read this instruction manual to the letter before you begin to install the product.

Symbol highlights notes that are important for people's safety and for the good condition of the automated sys

Symbol draws your attention to the notes about the product's characteristics or operation.

Lire ce manuel d'instructions dans son entier avant de commencer l'installation du produit.

Le symbole met en évidence les remarques pour la sécurité des personnes et le parfait état de l'automatisme.

Le symbole attire l'attention sur les remarques concernant les caractéristiques ou le fonctionnement du produit

Vor der Installation des Produkts sind die Anweisungen vollständig zu lesen.

Mit dem Symbol sind wichtige Anmerkungen für die Sicherheit der Personen und den störungsfreien Betrieb Automation gekennzeichnet.

Mit dem Symbol wird auf Anmerkungen zu den Eigenschaften oder dem Betrieb des Produkts verwiesen.

Lean completamente este manual de instrucciones antes de empezar la instalación del producto.

El símbolo identifica notas importantes para la seguridad de las personas y para la integridad de la automaci

El símbolo llama la atención sobre las notas relativas a las características o al funcionamiento del producto.

Lees deze instructiehandleiding helemaal door alvorens het product te installeren.

Het symbool is een aanduiding van opmerkingen die belangrijk zijn voor de veiligheid van personen en voor een g automatische werking.

Het symbool vestigt de aandacht op opmerkingen over de eigenschappen of de werking van het product.

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ENGLISH

CE DECLARATION OF CONFORMITY FOR MACHINES

(DIRECTIVE 2006/42/EC)

Manufacturer: FAAC S.p.A.

Address: Via Calari, 10 - 40069 Zola Predosa BOLOGNA - ITALY

Declares that: Barrier mod. 615BPR,

- is built to be integrated into a machine or to be assembled with other machinery to create a machine u the provisions of Directive 2006/42/EC;
- conforms to the essential safety requirements of the other following EEC directives:

  2006/95/EC Low Voltage Directive
  2004/108/EEC Electromagnetic Compatibility Directive

  Furthermore, the manufacturer declares that the machinery must not be put into service until the machine which it will be integrated or of which it will become a component has been identified and its conformity t conditions of Directive 2006/42/EEC and subsequent modifications assimilated in Italian National legislation u DLgs No. 17 of 27-01-2010 has been declared.

Bologna, 01-02-2010

The Managing Director
A. Marcellan

WARNINGS FOR THE INSTALLER

GENERAL SAFETY OBLIGATIONS

1) **ATTENTION! To ensure the safety of people, it is important that you read all the following instructions. Incorrect installation or incorrect use of the product could cause serious harm to people.**
2) Carefully read the instructions before beginning to install the product.
3) Do not leave packing materials (plastic, polystyrene, etc.) within reach of children as such materials are potential sources of danger.
4) Store these instructions for future reference.
5) This product was designed and built strictly for the use indicated in this documentation. Any other use, not expressly indicated here, could compromise the good condition/operation of the product and/or be a source of danger.
6) FAAC declines all liability caused by improper use or use other than that for which the automated system was intended.
7) Do not install the equipment in an explosive atmosphere: the presence of inflammable gas or fumes is a serious danger to safety.
8) The mechanical parts must conform to the provisions of Standards EN 12604 and EN 12605.

   For non-EU countries, to obtain an adequate level of safety, the Standards mentioned above must be observed, in addition to national legal regulations.
9) FAAC is not responsible for failure to observe Good Technique in the construction of the closing elements to be motorised, or for any deformation that may occur during use.
10) The installation must conform to Standards EN 12453 and EN 12445.

    For non-EU countries, to obtain an adequate level of safety, the Standards mentioned above must be observed, in addition to national legal regulations.
11) Before attempting any job on the system, cut out electrical power.
12) The mains power supply of the automated system must be fitted with an all-pole switch with contact opening distance of 3 mm or greater. Use of a 6A thermal breaker with all-pole circuit break is recommended.
14) Make sure that the earthing system is perfectly constructed a nect metal parts of the closure to it.
15) The automated system is supplied with an intrinsic anti-crushin device consisting of a torque control. Nevertheless, its tripping old must be checked as specified in the Standards indicated 10.
16) The safety devices (EN 12978 standard) protect any dange against **mechanical movement Risks**, such as crushing, dragg shearing.
17) Use of at least one indicator-light (e.g. FAACLIGHT) is recomm for every system, as well as a warning sign adequately secure frame structure, in addition to the devices mentioned at poin
18) FAAC declines all liability as concerns safety and efficient ope the automated system, if system components not produced b are used.
19) For maintenance, strictly use original parts by FAAC.
20) Do not in any way modify the components of the automa tem.
21) The installer shall supply all information concerning manual op of the system in case of an emergency and shall hand over to the warnings handbook supplied with the product.
22) Do not allow children or adults to stay near the product w operating.
23) Keep remote controls or other pulse generators away from c to prevent the automated system from being activated invol
24) Transit is permitted only when the automated system is idle.
25) The user must not attempt any kind of repair or direct action w and contact qualified personnel only.
26) Check at least every 6 months the efficiency of the system, par the efficiency of the safety devices (including, where forese operator thrust force) and of the release devices.

AUTOMATED SYSTEM 615BPR

The 615BPR automated system consists of an aluminium beam with reflex reflectors, and a steel upright subjected to cataphoresis treatment and painted with polyester paint. The upright houses the hydraulic operator and the electronic control unit.

The operator, which moves the beam, consists of a hydraulic power pack and a double-acting cylinder.

The system is supplied with an adjustable torque limitation system. It also includes a device stopping the beam in any position, and a handy manual release command for use in case of power cuts or faults.

The beam and the relevant balancing spring must be ordered by referring to the sales price list.

The 615BPR automated system was designed and built for controlling vehicle access. Do not use for any other purpose.

1 DESCRIPTION AND TECHNICAL SPECIFICATIONS

Fig. 1

① foundation plate
② barrier upright
③ control board
④ emergency release
⑤ torque adjustment screws
⑥ double acting piston
⑦ travel limit screw
⑧ M12 nut blocking the tie rod
⑨ rocker
⑩ oil filling plug
⑪ breather screw
⑫ balancing spring
⑬ spring adjustment tie-rod
⑭ hydraulic power pack
⑮ travel limit sensors
⑯ travel limit magnets

1.1 MAXIMUM USE CURVE

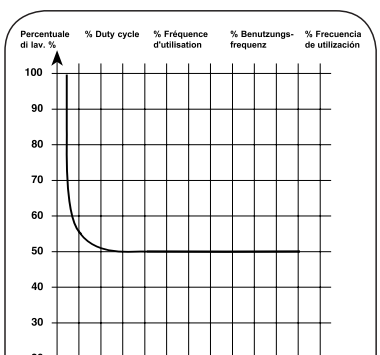
The curve makes it possible to establish maximum work time (T) according to use frequency (F).
E.g. The 615 BPR automated system can operate non-stop at a use frequency of 50%.
To ensure efficient operation, operate in the work range under the curve.
Important: The curve is obtained at a temperature of 20 °C. Exposure to the direct sun rays can reduce use frequency down to 20%.

Calculation of use frequency

The percentage of effective work time (opening + closing) compared to total time of cycle (opening + closing + pause times).
Calculation formula:

$$\%F = \frac{Ta + Tc}{Ta + Tc + Tp + Ti} \times 100$$

where:
Ta = opening time
Tc = closing time
Tp = pause time
Ti = interval time between one complete cycle and another.



Tab. 1 - Technical specifications "Barrier 615BPR"

BARRIER MODEL	615BPR STD	615BPR
Beam max. length (m)	5	2,5
Max. opening time (sec)	5,7	2,9
Angular speed (rad/sec)	0.28	0,5
Pump flow-rate (l/min)	1.5	3
Max. torque (Nm)	400	30
Types of beam	Rectangular / Rectar skirt articulated / Ro	
Use frequency (at 20°C)	50%	40%
Max. consecutive cycles (at 20°C)	220	34
Power supply	230V~ (+6 -10 %) 50	
Absorbed power (W)	220	
Type of oil	FAAC HP OIL	
Oil quantity (Kg)	0,9	
Thermal protection for winding	120° C	
Torque adjustment system	standard by-pass va	
Operating ambient temperature	-40 ÷ +55 °C	
Hood protective treatment	cataphoresis	
Hood paint	Polyester RAL 200	
Protection class	IP 44	
Weight (Kg)	34	
Upright dimensions LxHxP(mm)	270 x 1015 x 140	
Electric motor technical specifications		
RPM	1400	280
Power (W)	220	
Absorbed current (A)	1	
Power supply	230V~ (+6 -10 %) 50	

2. ELECTRIC PREPARATIONS (standard system)

Fig. 2

① Operator 615BPR
② Photocells
③ Key-operated push-button
④ Flashing lamp
⑤ Receiver
⑥ Loop Detector

1) To lay cables, use adequate rigid and/or fl tubes
2) Always separate connection cables of low vol accessories from those operating at 230v~. To pr any interference whatever, use separate shea

3 DIMENSIONS

Fig. 3

Dimensions are in mm.

ENGLISH

4 INSTALLING THE AUTOMATED SYSTEM

4.1 PRELIMINARY CHECKS

To ensure safety and an efficiently operating automated system, make sure the following conditions are observed:

- When moving, the beam must not, on any account, meet any obstacles or overhead power cables.
- The soil must permit sufficient stability for the foundation plinth.
- There must be no pipes or electrical cables in the plinth excavation area.
- If the barrier body is exposed to passing vehicles, install, if possible, adequate means of protection against accidental impact.

4.2 MASONRY FOR FOUNDATION PLATE

Fig. 4

1) Make a foundation plate as shown in fig.4 (referred to clayey soil)
2) Wall the foundation plate as shown in fig.4, supplying one or more sheaths for routing electrical cables. Using a spirit level, check if the plate is perfectly level. Wait for the cement to set.

4.3 INSTALLING THE UPRIGHT

Fig. 5

1) Remove the cover, unscrewing the screws securing it to the upright.
2) Using the four nuts and washers supplied, secure the upright on the foundation plate as shown in fig.5
Remember that the hatch of the upright should normally face the building.

4.4 INSTALLING THE BEAM

Fig. 6 **Fig. 7a** **Fig. 7b**

The 615BPR automated system is always supplied in the right-hand version – for left-hand installation, see chapter 5.5.

1) Make sure that the rod of the piston secured to the rocker is completely extended (corresponding to the beam's vertical position).
2) Remove and store the breather screw as shown in fig.6

IMPORTANT: moderately tighten the pocket securing screw (max 30Nm)

4.5 INSTALLING AND ADJUSTING THE BALANC SPRING

Fig. 8

1) Check if the balancing spring matches the type of installed: see chapter 5.
2) While keeping the beam in vertical position, asse the tie rod and spring as shown in fig.8
3) Release the operator (see chapter 7) and positio beam at 45°, then adjust the tie-rod and set the sprin the weight of the beam is balanced in that posit
4) Restore normal operation as described in chapte

5 BALANCING SPRINGS

The 615 BPR automated system requires a balancing for the beam, which must be ordered separately. The varies according to length and type of beam (rigid, articulated).

Consult the tables below to see if the spring matches

5.1 SPRINGS FOR RECTANGULAR BEAMS WITH SKI

BALANCING SPRING			
Ø	rectangular beam	beam with skirt	co
5,5	1315 – 2315	1315 - 2315	72
6,0	2316 – 2815	2316 – 2815	72
7,0	2816 – 3815		72
7,5		2816 – 3815	72
8,0	3816 – 4815		72

5.2 SPRINGS FOR RECTANGULAR BEAMS WITH F AND WITH SKIRT AND FOOT

BALANCING SPRING			
Ø	beam with foot	beam with skirt and foot	co
5,5	1315 – 1815	1315 - 1815	72
6,0	1816 – 2315	1816 – 2315	72
7,0	2316 – 2815		72
7,5		2316 – 3315	72
8,0	2816 – 3815		72

5.3 FOR 615BPR RAPID

BALANCING SPRING			
Ø	rectangular beam	round beam	co
5,5	1315 – 2315	1315 - 2315	72

5.4 SPRINGS FOR ROUND BARS

BALANCING SPRING		
Ø	round beam	code
5,5	1500 –3000	721008
6	3001 – 4000	721005
7,5	4001 – 5000	721006

5.5 TRANSFORMATION FROM RIGHT TO LEFT VERSION

Fig. 9

Procedure for converting a right-hand version to left-hand:

Release the operator.

Loosen the connection (fig.9 ref.A).

Provisionally remove the piston securing screw (fig.9 ref.B) and the seeger ring (fig.9 ref.C).

Rotate the rocker.

Position the piston from the left side and secure it with the screw (fig.9 ref.D) and the seeger (fig.9 rif.E) you had removed.

Tighten the connection (fig.9 ref.F).

Re-lock the operator.

Dismantle the container of the control unit and re-install it on the left of the hood, using the existing holes.

Change over the connectors of the travel-limit sensors (J6 and J9 on the 596/615BPR board).

6 START-UP

6.1 ADJUSTING THE TRANSMITTED TORQUE

Fig. 10

To set the hydraulic system controlling transmitted power, turn the two by-pass screws (fig.10).

The red screw controls closing movement torque.

The green screw controls opening movement torque.

To increase torque, turn the screws clockwise.

To reduce torque, turn the screws anti-clockwise.

6.2 ADJUSTING THE MECHANICAL TRAVEL LIMITS

Fig. 11

Adjust the position of the beam to maximum closing and opening positions, using the travel limit mechanical stops as shown in fig.11.ref.1.

6.3 ADJUSTING THE MAGNETIC TRAVEL LIMITS

The point where the automated system begins to make the slow-down movement can be modified, by moving the magnetic cylinder inside the seat located on the two arms of the rocker in the motion unit (fig.11 - ref.2).

6.4 AUTOMATED SYSTEM TEST

Fig. 12

After installation, apply the danger warning sticker on the top of the upright (Fig. 12).
Check operating efficiency of the automated system and all accessories connected to it.
Hand the "User's Manual" to the Client, explain correct operation and use of the barrier, and indicate the potentially dangerous areas of the automated system.

7 MANUAL MODE OPERATION

Fig. 13

If the barrier has to be moved manually due to a pow
or fault of the automated system, use the release c
as follows.
- Fit the standard triangular key (Fig.13) in the lock an
  it **anti-clockwise** through 1 turn.
- Open and close the barrier manually.

8 RESTORING NORMAL OPERATION MODE

To prevent an involuntary impulse from activating the
during the manoeuvre, before restoring normal ope
switch off power to the system, and turn the triangul
clockwise until it stops, and then remove it.

9 AVAILABLE ACCESSORIES

SKIRT KIT **Fig**

The skirt kit increases visibility of the beam.
It is available in lengths from 2 m to 3 m.

⚠ **If a skirt kit is installed, the balancing spring m
adapted.**

FORK SUPPORT **Fig**

The fork has two functions:
- it prevents the beam, when closed, from bending or sp
  if its end is stressed by extraneous forces.
- it allows the beam to rest when closed and thus pre
  the profile bending downward.

POSITIONING THE FORK SUPPORT FOUNDATION PLAT RECTANGULAR BEAM

Fig. 16 ⚠ Dimensions are in mm.

To position the foundation plate of the fork support, r
fig.16 where:

P1 = barrier foundation plate
P2 = fork support foundation plate
L = beam length (in mm)
A = L - 195 (in mm)

POSITIONING THE FORK SUPPORT FOUNDATION PLAT ROUND BEAM

Fig. 16A ⚠ Dimensions are in mm.

To position the foundation plate of the fork support, r
fig.16A where:

P1 = barrier foundation plate
P2 = fork support foundation plate
L = beam length (in mm)
A = L - 375 (in mm)

ARTICULATION KIT **Fig**

The articulation kit makes it possible to articulate
beam to a maximum ceiling height of 3 m. (see sp
instructions).

END FOOT

Fig. 18

The end foot allows the beam to rest when closed and thus prevents the profile bending downward.

If a foot is installed, the balancing spring must be readjusted.

10 MAINTENANCE

Whenever doing maintenance, always check correct settings of the by-pass screws, system balancing, and efficiency of safety devices. The automated system does not require any type of oil topping-up.

11 REPAIRS

For any repairs, contact FAAC's authorised Repair Centres.

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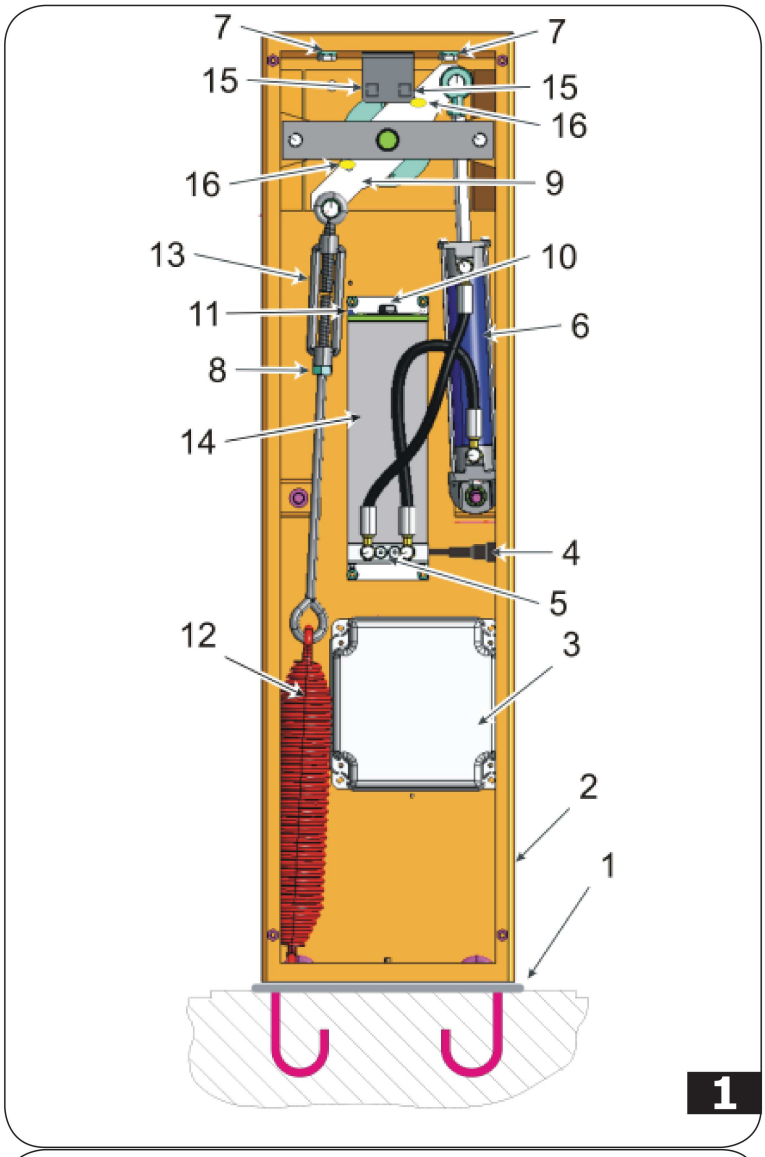

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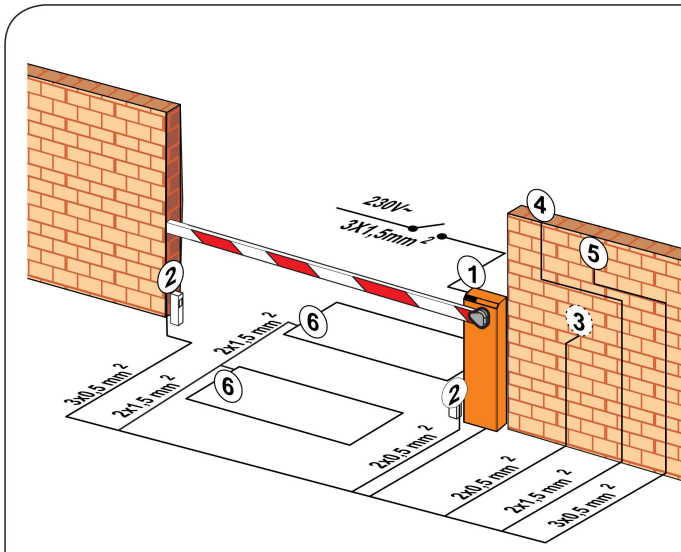

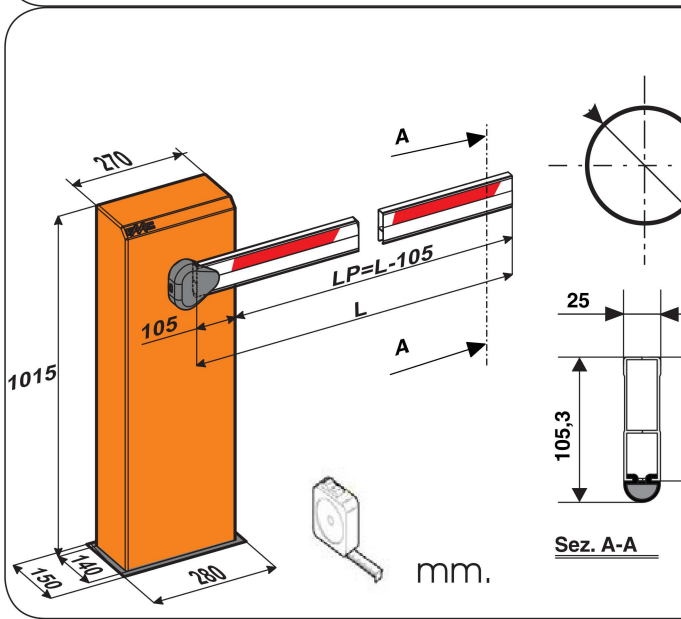

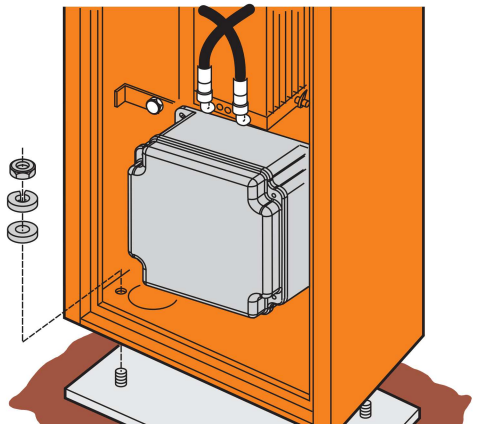

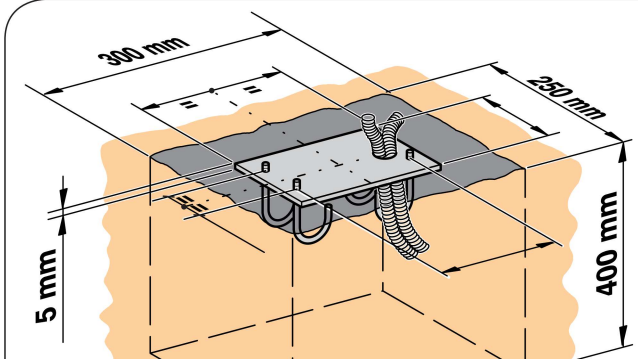

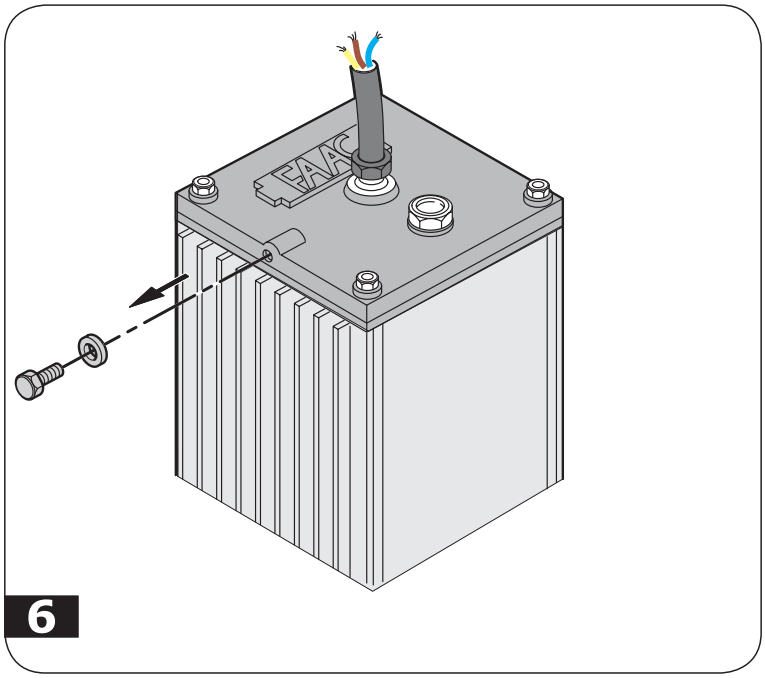
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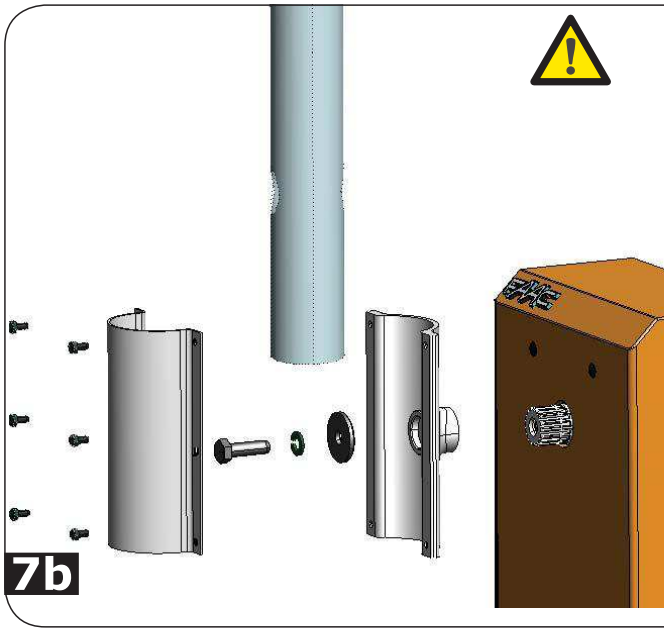
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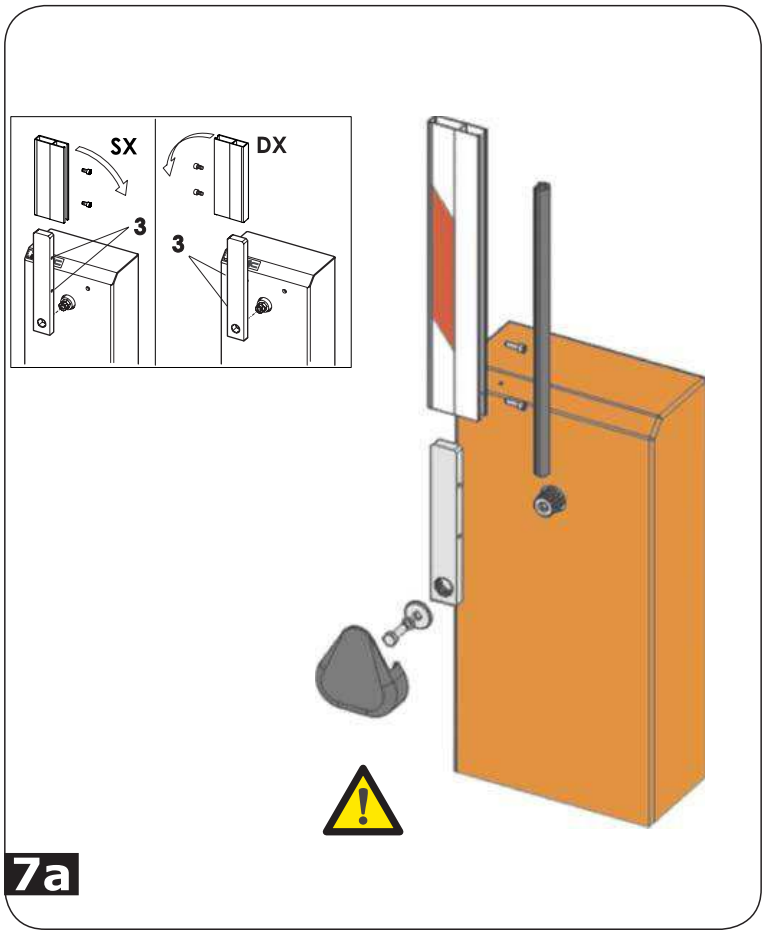
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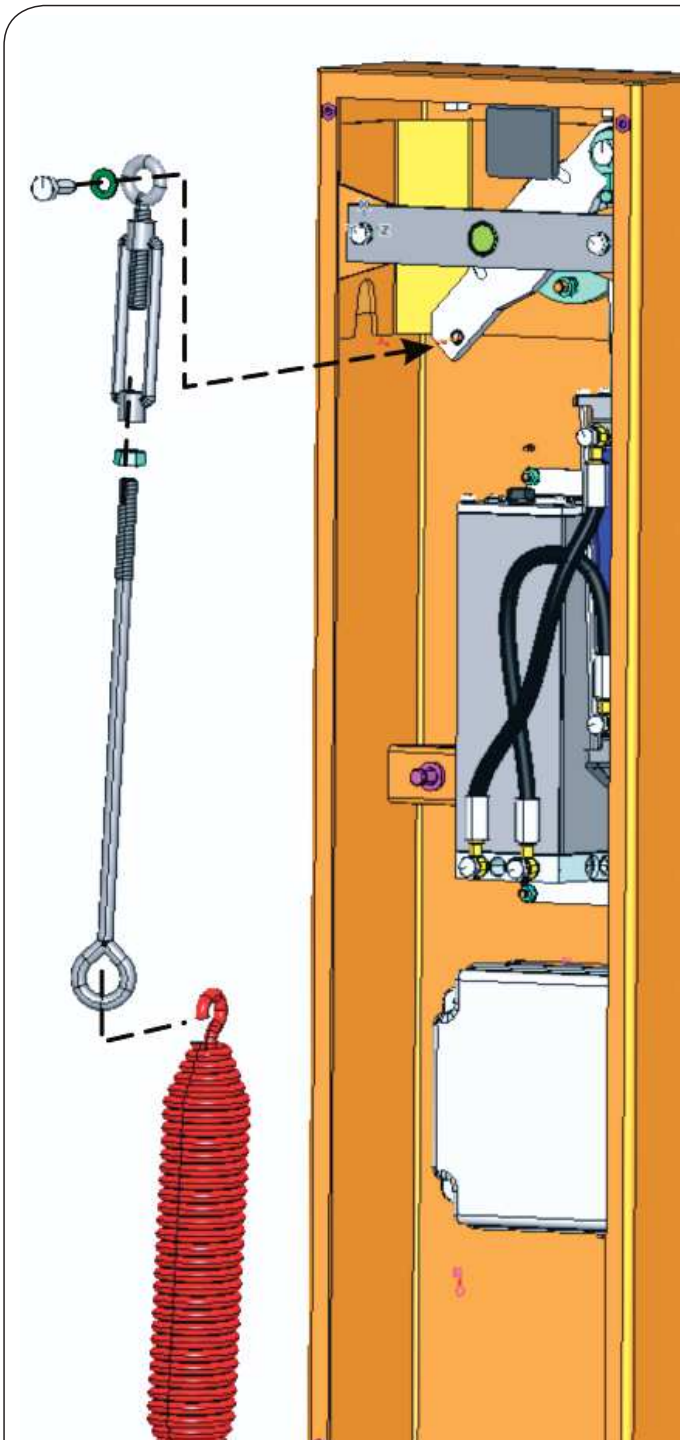

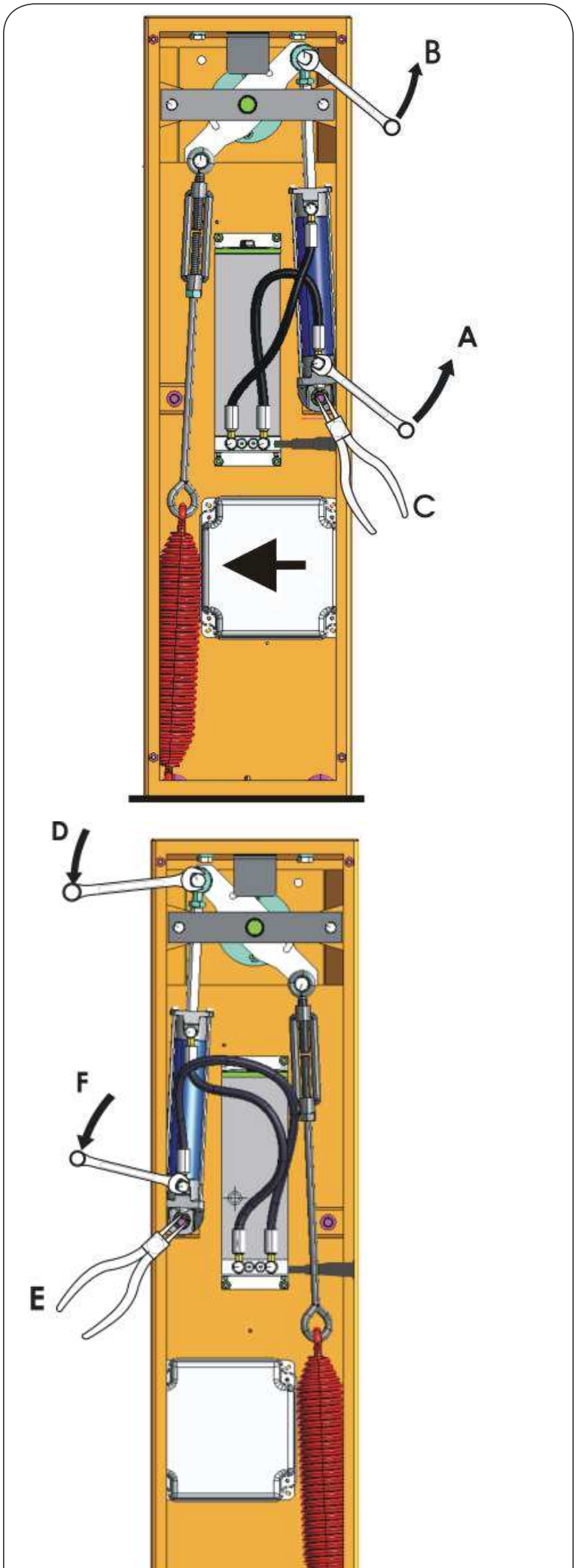
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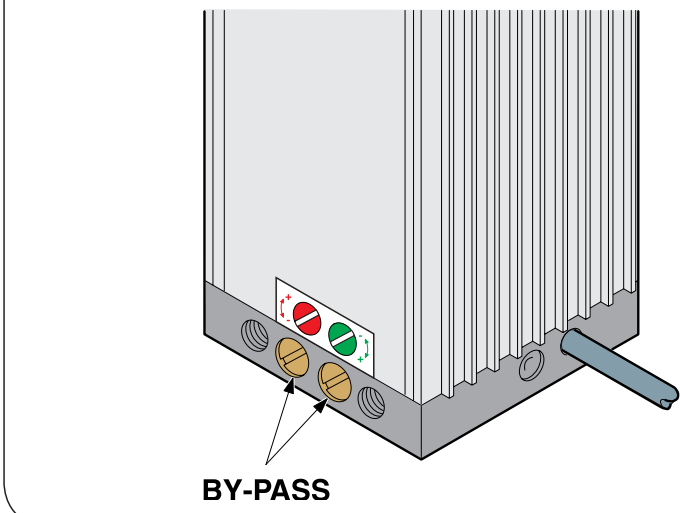
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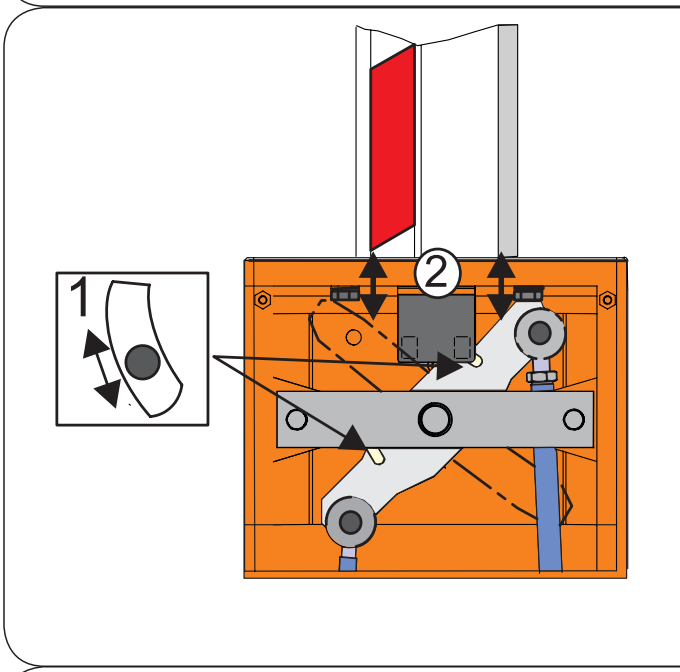
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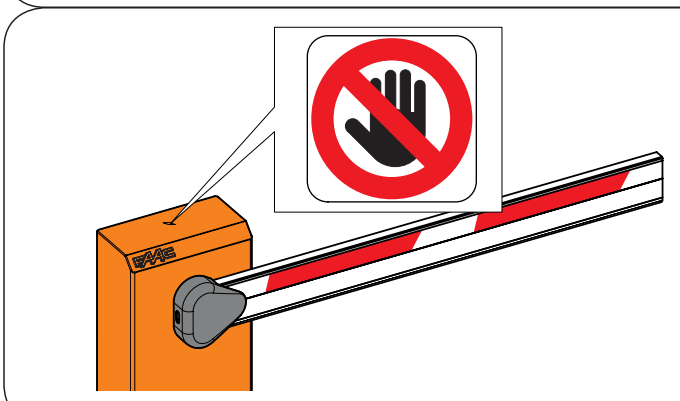

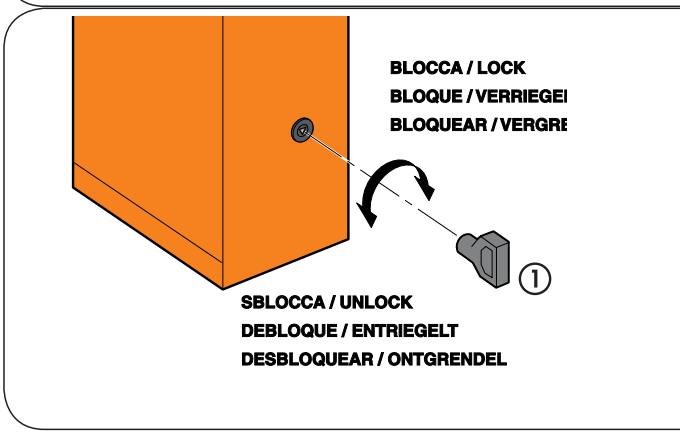
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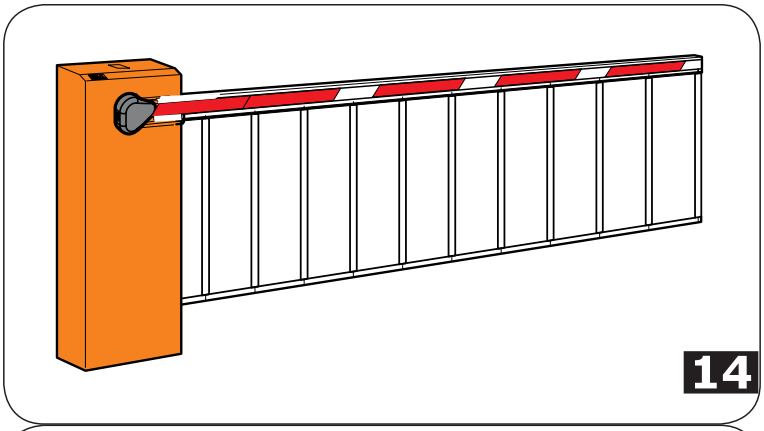

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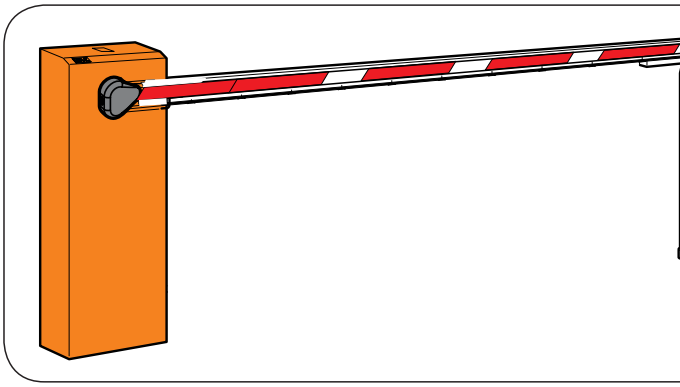

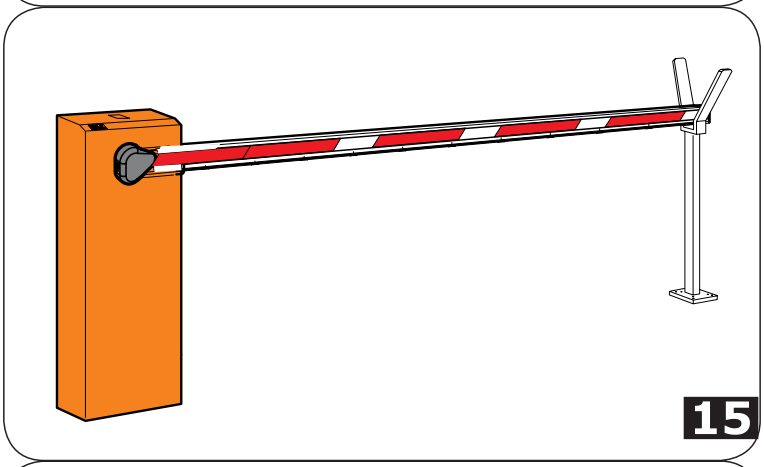

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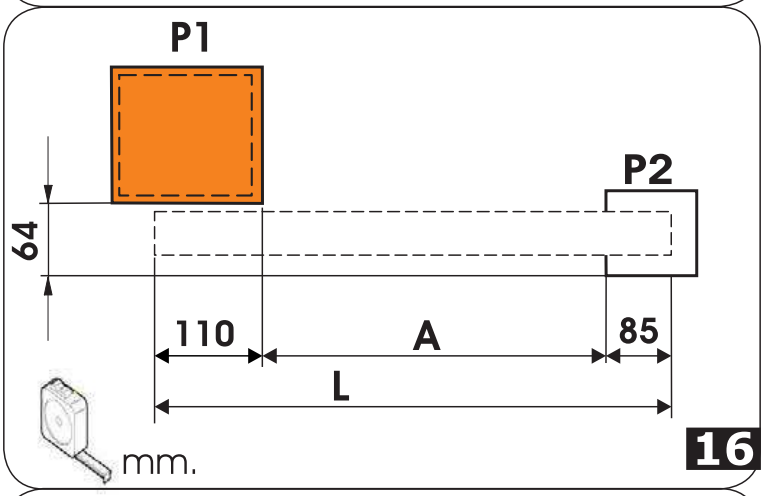

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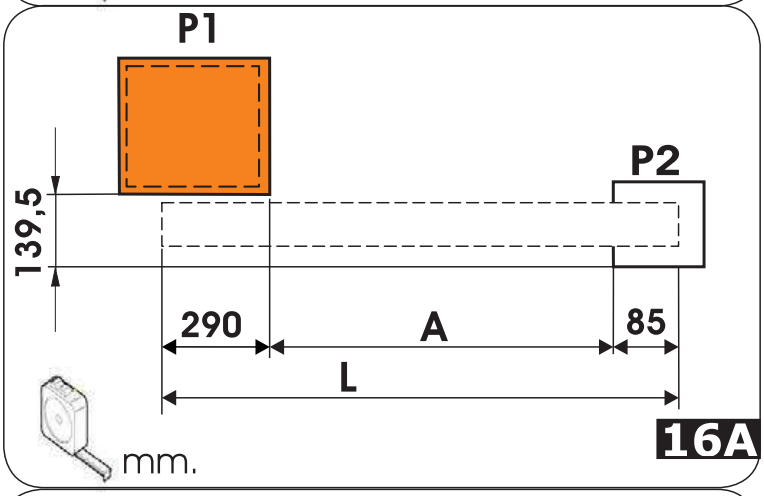

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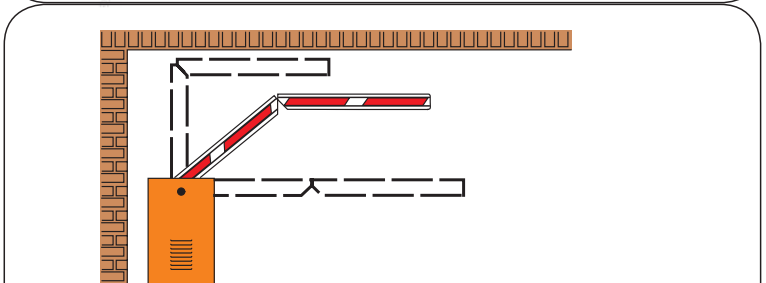


USER'S OPERATING MANUAL

615BPR AUTOMATED SYSTEM

GENERAL SAFETY REGULATIONS

If correctly installed and used, the 615BPR automatic system ensures a high degree of safety.
Some simple rules on behaviour can prevent accidental trouble:

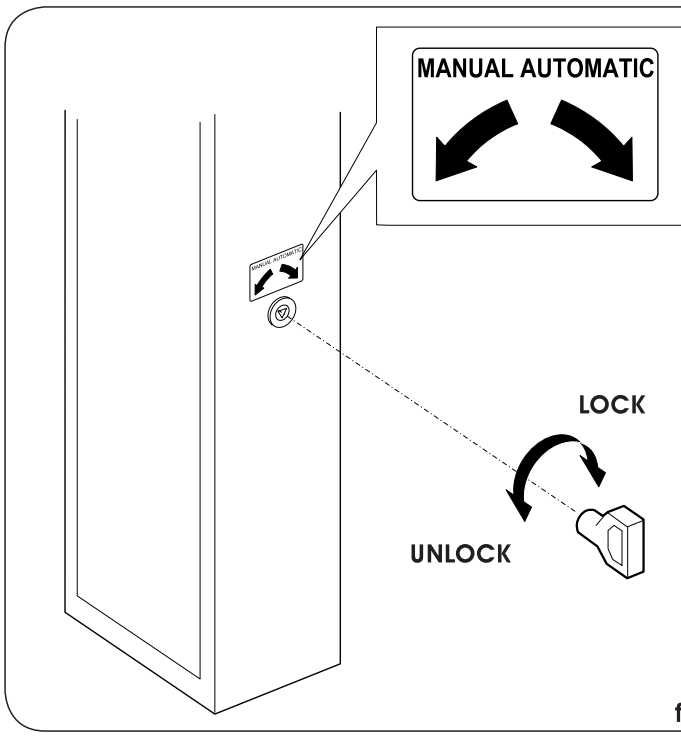
- Do not pass under the beam when it is moving. Wait for the beam to open fully before passing under it.
- Do not, on any account, stay under the beam.
- Do not stay near the automatic system, and do not allow children, persons or things to do so, especially when it is operating.
- Keep radio controls or other pulse generators away from children, to prevent the automatic system from being activated involuntarily.
- Do not allow children to play with the automatic system.
- Do not willingly obstruct beam movement.
- Prevent any branches or shrubs from interfering with beam movement.
- Keep indicator-lights efficient and easy to see.
- Do not attempt to activate the beam by hand unless you have released it.
- In the event of malfunctions, release the beam to allow access and wait for qualified technical personnel to do the necessary work.
- When you have set manual operation mode, cut power to the system before restoring normal operation.
- Do not in any way modify the components of the automation system.
- Do not attempt any kind of repair of direct action whatever and contact qualified personnel only.
- At least every six months: arrange for qualified personnel to check the automatic system, safety devices and earth connection.

DESCRIPTION

The 615BPR automatic system is an ideal barrier for controlling vehicle access areas up to 5 m in width and of medium transit frequency.
The hood contains a hydraulic pump unit, a double-acting cylinder, and the beam balancing spring.
The beam consists of an aluminium profile with red reflex reflectors so it can easily be seen even in the dark.
Barrier operation is controlled by a electronic control unit housed in an enclosure with adequate degree of protection against atmospheric agents, and which can be housed inside the hood.
The beam is normally closed in horizontal position.
When the electronic control unit receives an opening command via the radio control or any other pulse generator, it activates the hydraulic equipment which rotates the beam through 90° until it reaches the vertical position allowing access. If automatic mode was set, the beam closes
movement.
A stop pulse (if supplied) always stops movement.
For details on barrier behaviour in different function consult the installation Technician.
The automatic systems include safety devices (phot that prevent the beam from re-closing when there obstacle in the area they protect.
The 615BPR automatic system is supplied (as a standard with an anti-crushing protection safety devices whic the torque transmitted to the beam.
The hydraulic system guarantees the beam is stopp any position.
Manual opening is, therefore, only possible by usin release system.
The (flashing) indicator-light indicates that the be moving.

MANUAL OPERATION

If the barrier has to be moved manually due to a pow or fault of the automatic system, use the release dev follows:
The supplied key is triangular.



- Fit the triangular key (Fig.1) in the lock and **anti-clockwise** through 1 turn.
- Open and close the barrier manually.

RESTORING NORMAL OPERATION MODE

To prevent an involuntary pulse from activating the during the manoeuvre, before restoring normal ope switch off power to the system, and turn the triangul

MAINTENANCE REGISTER

System data

aller	
omer	
f system	
al No.	
tion date	
rt-up	

System configuration

PART	MODEL	SERIAL NUMBER
Operator		
fety device 1		
fety device 2		
of photocells 1		
of photocells 2		
ntrol device 1		
ntrol device 2		
adio control		
ashing lamp		

n of residual risks and of foreseeable improper use

No.	Date	Job description	Signatures
1			Technician Customer
2			Technician Customer
3			Technician Customer
4			Technician Customer
5			Technician Customer
6			Technician Customer
7			Technician Customer
8			Technician Customer
9			Technician Customer
10			Technician

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