

# SEA<sup>®</sup>

Sistemi Elettronici  
di Apertura Porte e Cancelli  
International registered trademark n. 804888

# CE

**English**

## **SPRINT**

### **Hydraulic barrier**



**SEA S.p.A.**

**Zona Ind.le S. Atto - 64020 S. Nicolò a Tordino (TE)**

**Tel. 0861.588341 - Fax 0861.588344**

**Numero Verde: 800.979.732**

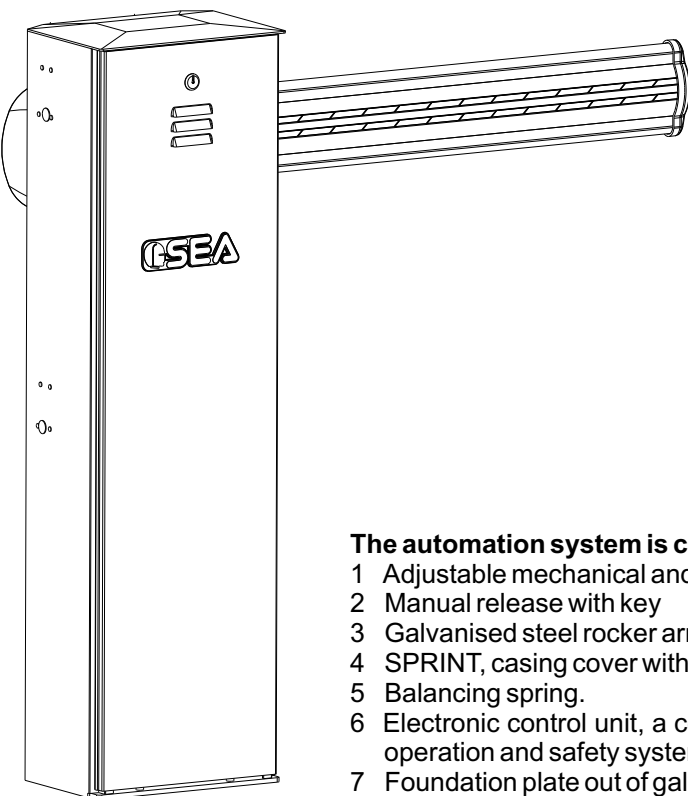
**[www.seateam.com](http://www.seateam.com)**

**e-mail: [seacom@seateam.com](mailto:seacom@seateam.com)**



# SPRINT BARRIER

## INSTALLATION MANUAL



Thank you for choosing a **SEA** product. This choice will give you the opportunity to understand that our company aims at combining high-tech and remarkable reliability and safety, thanks to studies, research and the accurate analysis of our customers' needs, without undermining the simple use and installation of our products.

### General features

SPRINT is a hydraulic barrier (2, 3, 4, 5 m) recommended for the automation of access points which require a high opening/closing speed (parking lots, motorways, airports, etc.) and frequent use features. The automation includes an anti-crush security system with adjustable sensitivity, which guarantees a barrier force value not exceeding 15 kg, thus protecting people and objects from any accidents. A highly reliable slowdown device guarantees the total control of the forces of inertia.

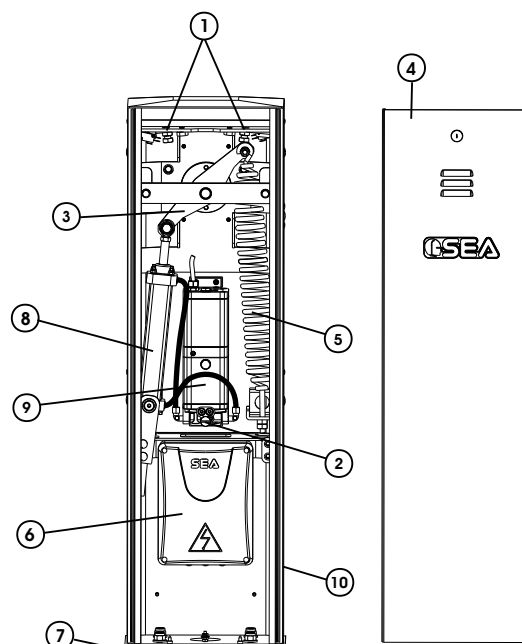
The emergency batteries guaranty at least 15 opening cycles (depending on the installed accessories) in case of power failure and a release system allows the manual opening in case of emergency.

### The automation system is composed of the following elements:

- 1 Adjustable mechanical and electronic stop with microswitch
  - 2 Manual release with key
  - 3 Galvanised steel rocker arm.
  - 4 SPRINT, casing cover with lock and DIN key
  - 5 Balancing spring.
  - 6 Electronic control unit, a complex device which can be used to program and manage all the operation and safety systems.
  - 7 Foundation plate out of galvanized steel
  - 8 Emergency batteries 2x12V 2Ah.
  - 9 24V --- - 1400 rpm electric motor
  - 10 Cataphoresis-treated and polyester painted SPRINT casing, for outside, protects all included mechanical and electronic devices from fire, flood, lightning, etc.
- Predisposed for the application of photocells, key switch, proximity reader.  
Stainless steel casing available on request.

### Main components:

- 1) Adjustable mechanical and electronic stops
- 2) Release screw
- 3) Rocker arm
- 4) SPRINT casing cover
- 5) Balancing spring
- 6) Electronic control unit
- 7) SPRINT anchoring plate (optional)
- 8) Piston
- 9) Hydraulic unit
- 10) SPRINT casing

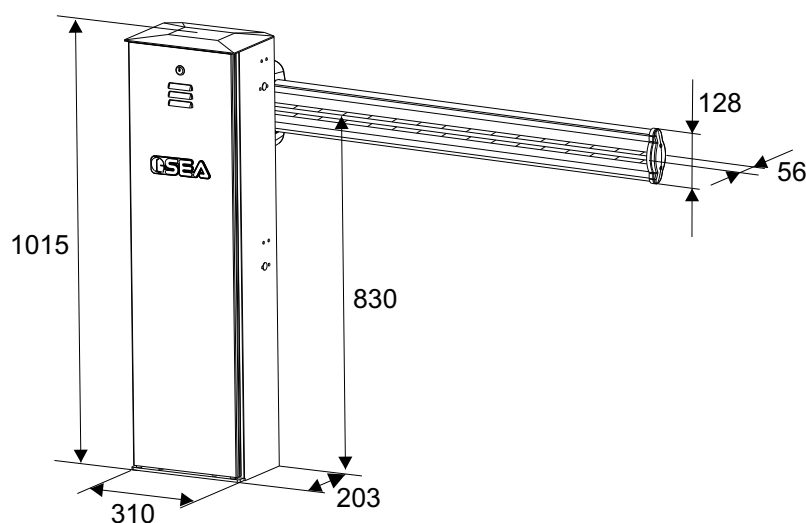




Technical features	24V Version	24V Version	230V Version	Fast Version
Supply voltage	230 V~ ± 5% - 50/60 Hz	115 V~ ± 5% - 50/60 Hz	230 V~ ± 5% - 50/60 Hz	
Hydraulic unit supply voltage	24V		230V	
Absorbed power	10 A		1,1 A	1,2 A
Motor power	45 W		220W	250W
Motor speed	1400 rpm		1430 rpm	2800 rpm
Working temperature	-20°C } + 55°C }			
Opening/closing time	Adjustable		10"	3"
Protection class			IP55	
Manual release system			si	
Usage frequency	90%		75%	
Anti-crushing device	Ammeter		By pass valve	
Holding block			si	
Slowdown	Electronic		Standard version not present	Electronic
Barrier body treatment	Cataphoresis treated and polyester painted			
Max. Length	5 m			3 m
Thermal protection intervention	-		130°	
Starting capacitor	-		6,3 µF	12,5 µF
Pump capacity	2 L		1 L	3 L
Weight	51 kg			
Electronic equipment	User 1 24V DG R1		Gate 1 DG R1	

**Note:** The frequency of use is valid only for the first hour at 20°C room temperature.

#### Overall dimensions:

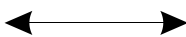


Light beam		
Barrier Length	D. Spring	Cod. kit beam
2	5,5	16400005
2,5	6	16400008
3	6	16400008
3,5	7	16400015
4	7	16400015
4,5	8	16400026
5	8	16400026

#### 1) Spring position

## INSTALLATION INSTRUCTIONS

Opening on the left



Opening on the right

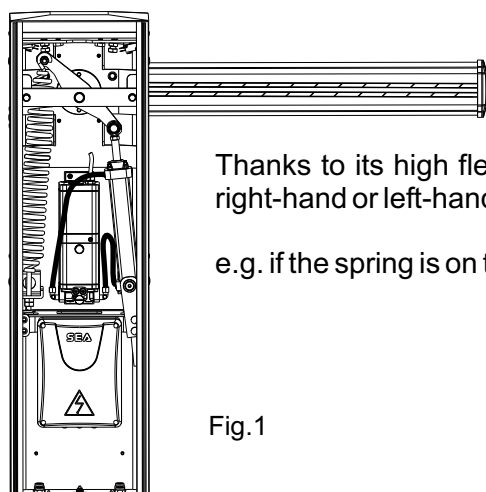


Fig.1

Thanks to its high flexibility, the barrier you are installing can be closed on the right-hand or left-hand side of the post, according to your needs.

e.g. if the spring is on the right-hand side, the guard closes on the left (see Fig. 2).

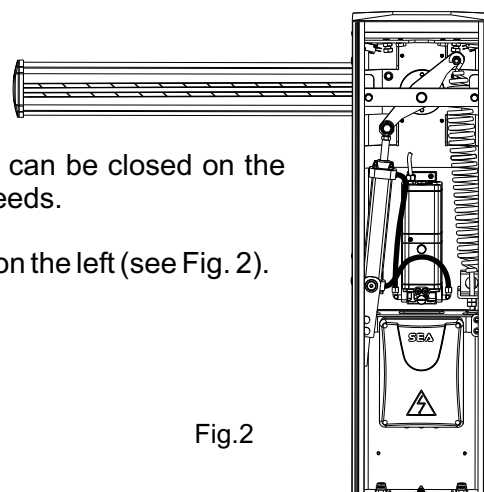


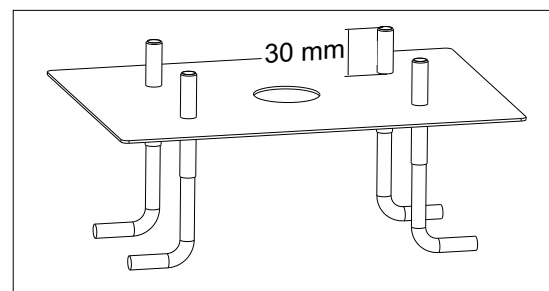
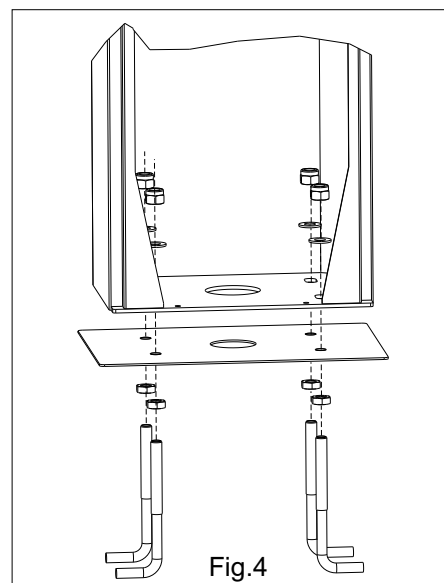
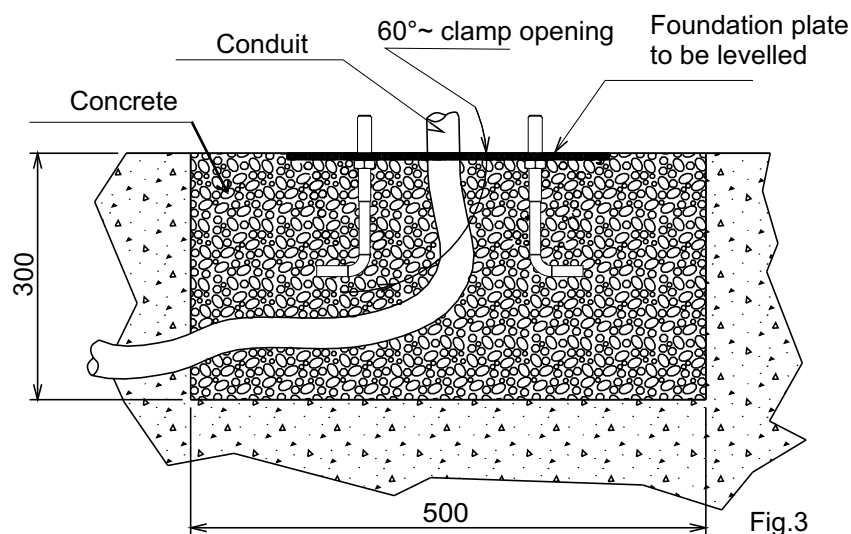
Fig.2



## 2) Foundation plate anchoring

- Make a 500 x 500 x 300 mm (depth) hole in the ground.
- Widen the foundation plate clamps till they reach approx. 60° (Fig. 3).
- Fill the hole with R425 concrete and place the foundation plate as shown in Fig. 3.
- Accurately level the plate.

\* The middle hole of the plate must be used for cable routing. Therefore, make sure that the conduit connected to the hole complies with current regulations, before filling the hole with concrete.



## 3) Post anchoring on the foundation plate

- Place the casing so that the holes on the base match the screws located on the foundation plate.
- Make sure that the conduit for the cables goes through the large hole of the casing base.
- Fix the casing on the foundation plate, screwing the supplied nuts and washers carefully.

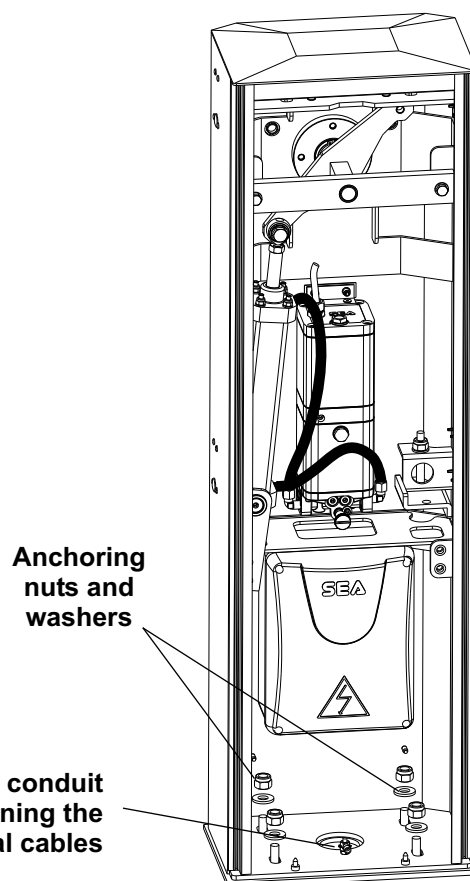


Fig.6



#### 4) Mounting of the spring

**N.B.:** The operator comes as shown in Fig.1 (opening on the left).

Example:

Barrier with opening on the left (Fig.1)

Barrier with opening on the right (Fig. 2)

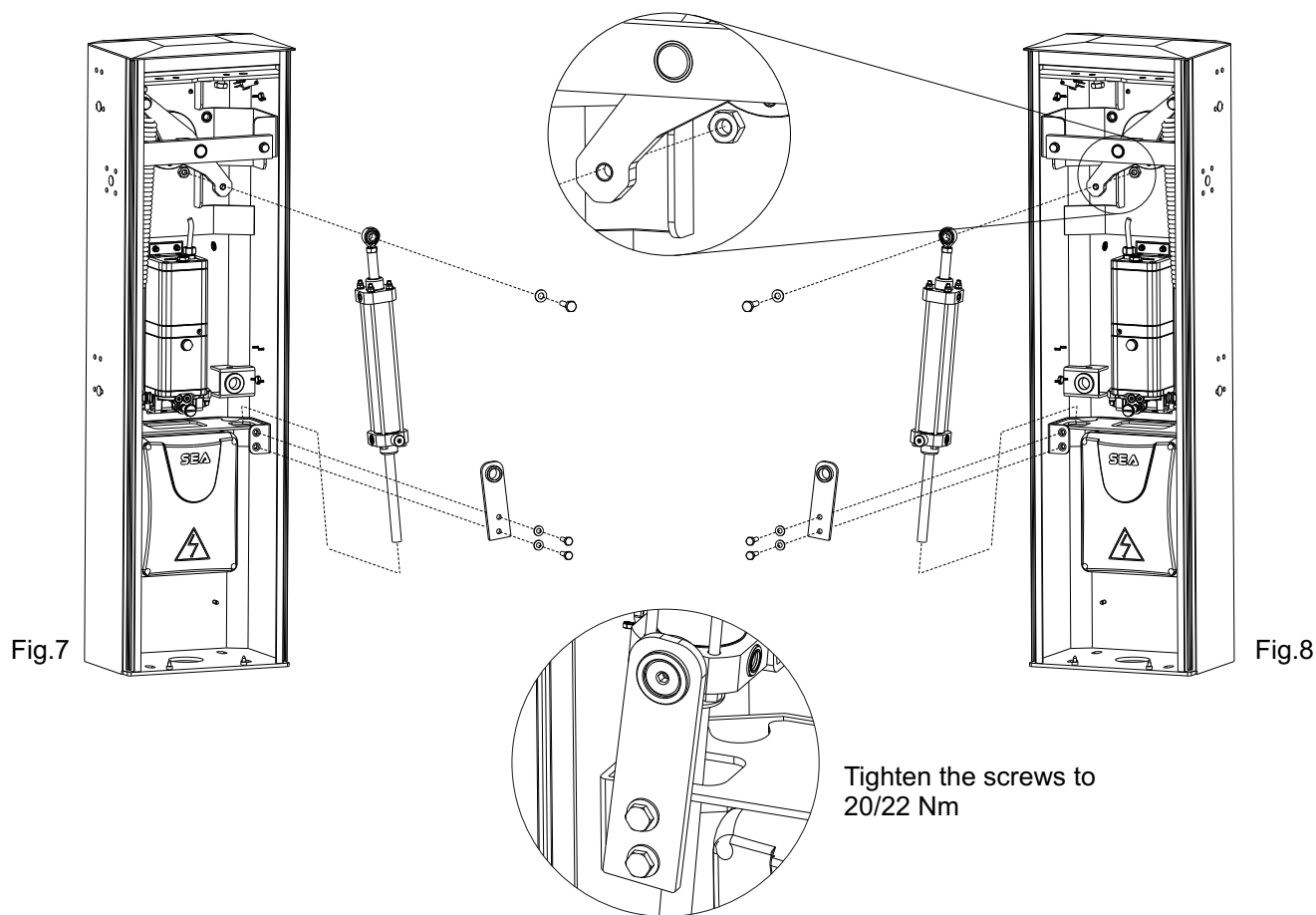
Before installing the spring check the choice of the barrier, if right or left hand side.

If the barrier is with opening on the right, move the piston from the right to the left hand side as shown in Fig.7 and 8.

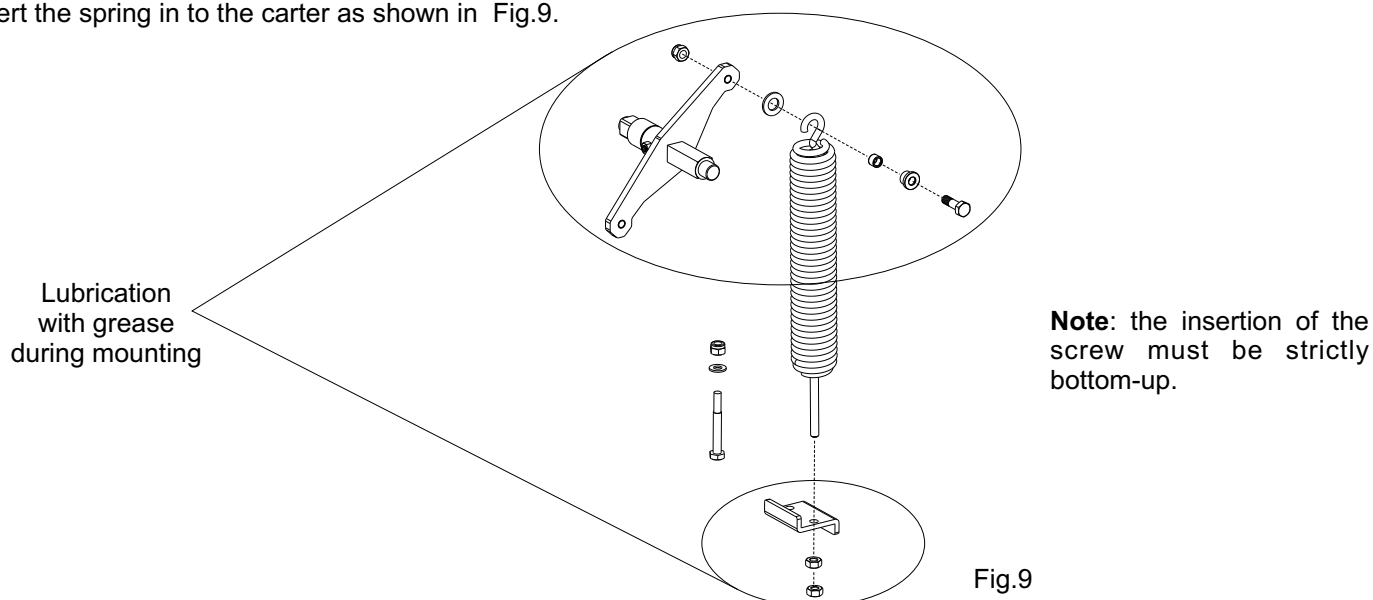
**N.B.:** Before executing this operation release the motor-reducer as shown in Fig.20.

**Note:** Before reversing the piston, release about a half turn, the two fittings of the connection pipes between the hydraulic unit and the hydraulic piston to facilitate the inversion (only on the unit) as shown in Fig.7.

Once exchanged the piston tighten its fixation screw and lubricate with grease (Use DIN 51502 KP 2 N-20 - K 2 K-20 grease).



Insert the spring in to the carter as shown in Fig.9.





## 5) Mounting of the Light beam

**Note:** For 4 and 5 m beams it is recommended to use the fork support or the flexible support.

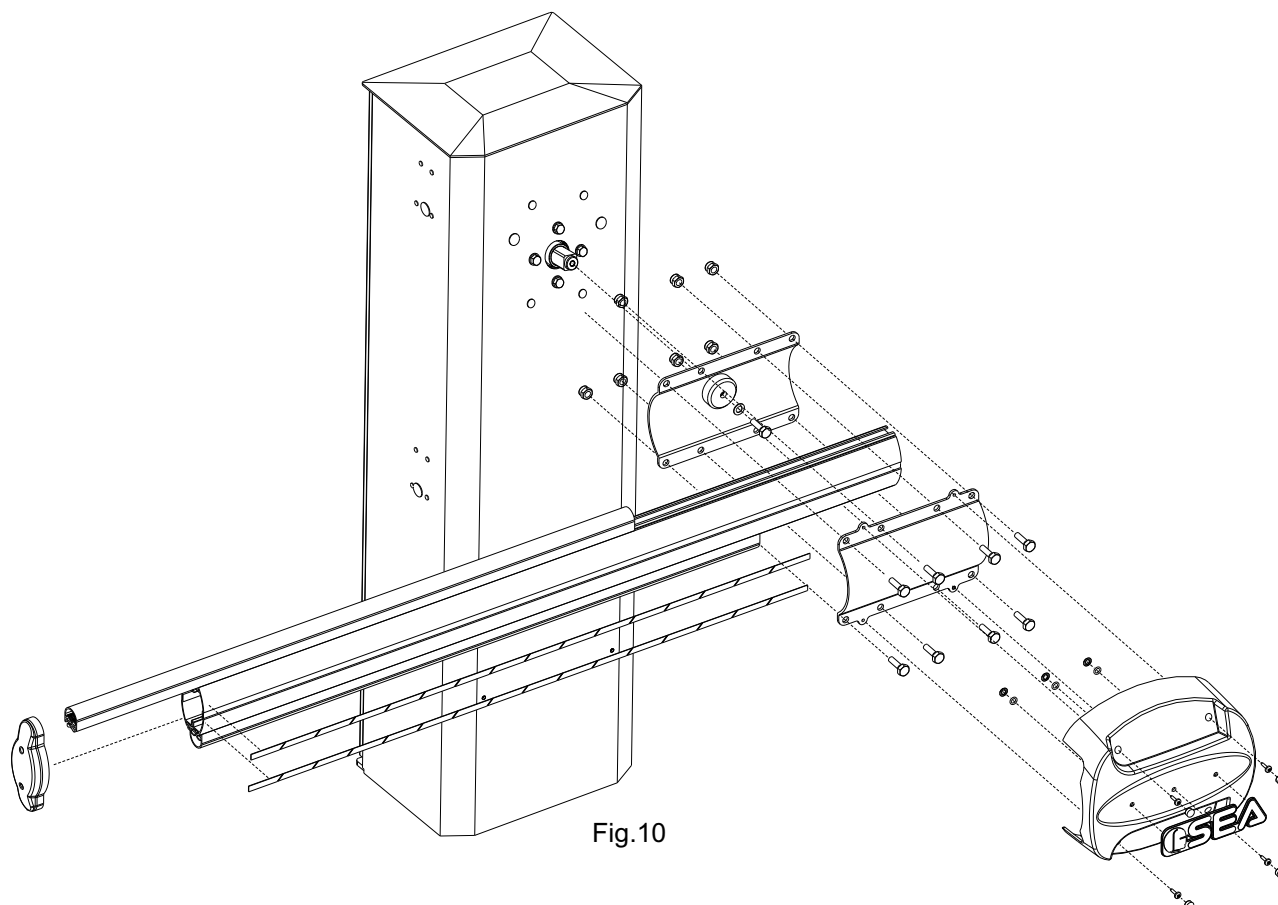


Fig.10

## 6) Skirt mounting on the beam

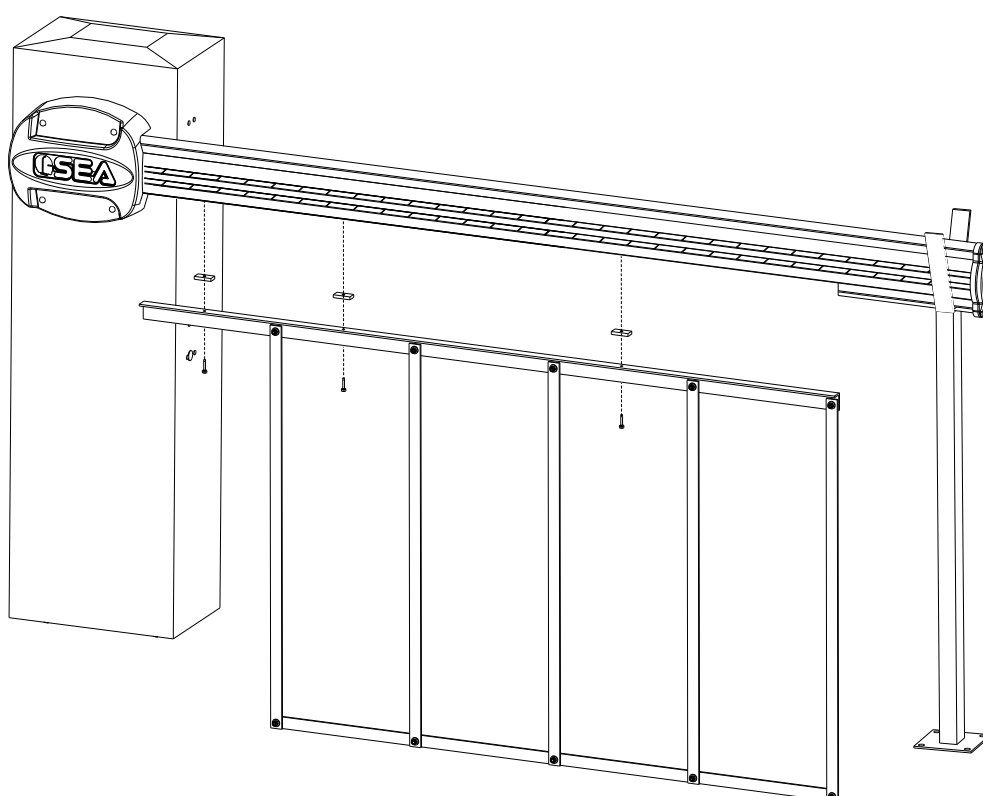


Fig.11



## 7) Beam balancing

- Release the beam with manual release, so that it is free to be opened and closed manually (Fig. 12).
- Place the beam at approx. 45°.
- Loosen or tighten the spring stretching nut until the spring counterbalances the weight of the 45° beam (Fig. 12). The best balancing position is obtained when the beam reaches the position shown in Fig. 12.
- After having obtained the balancing, lock the nuts of the spring stretcher with the counter nut and re-block the motor.

**Note:** For the correct balancing of the beam, we recommend to unhook the piston from the equalizer by removing the pivot as in Figure 7.

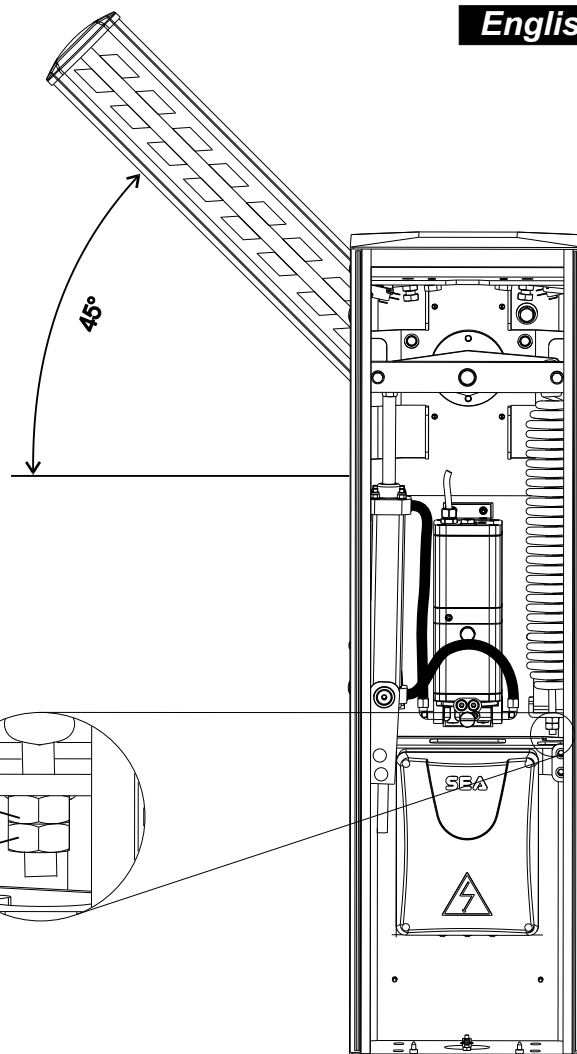


Fig. 12

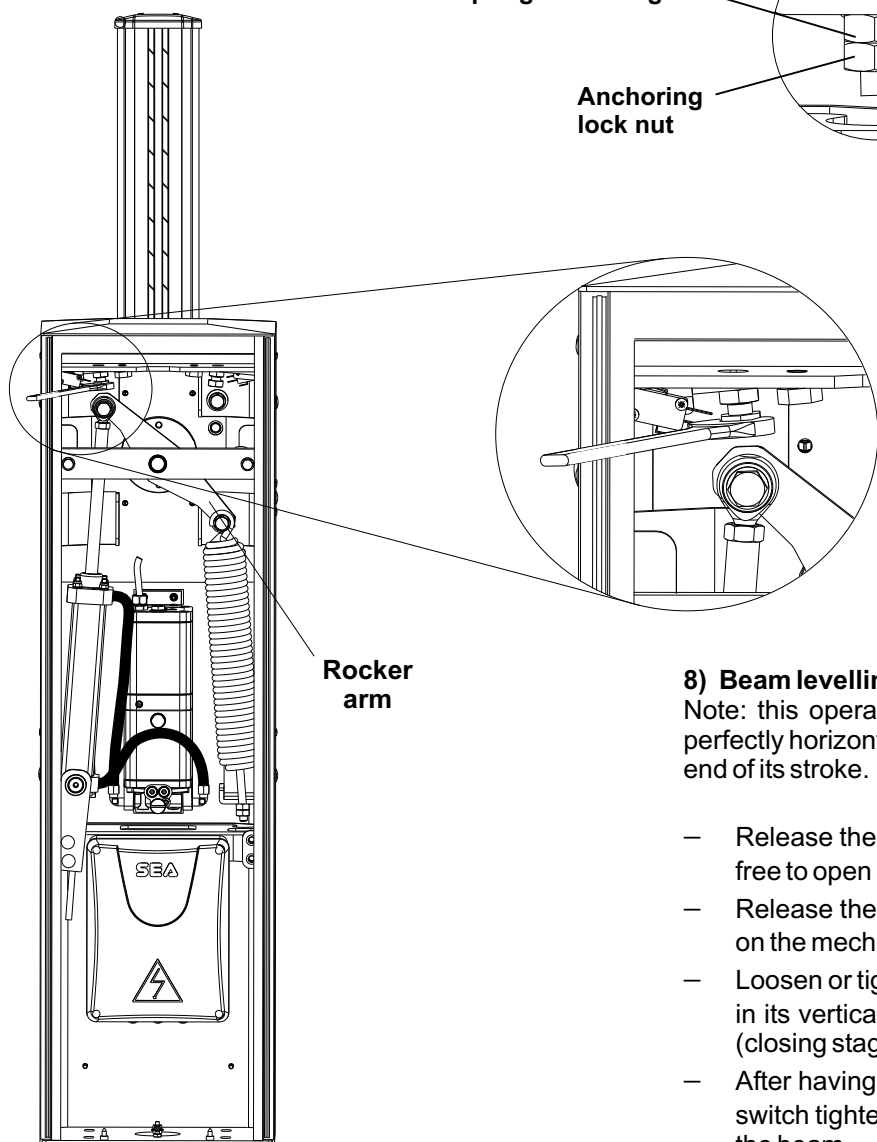


Fig. 13

## 8) Beam levelling

**Note:** this operation must be carried out only if the beam is not perfectly horizontal (closing stage) or vertical (opening stage) at the end of its stroke.

- Release the beam with the special manual release so that it is free to open and close manually.
- Release the screws of the limit switch on unscrewing the nuts on the mechanical stops (fig. 13).
- Loosen or tighten the stop screws so that the beam is released in its vertical position (opening stage) and horizontal position (closing stage) (Fig. 13).
- After having executed the levelling lock the screws of the limit switch tightening the nuts on the mechanical stops and re-lock the beam.





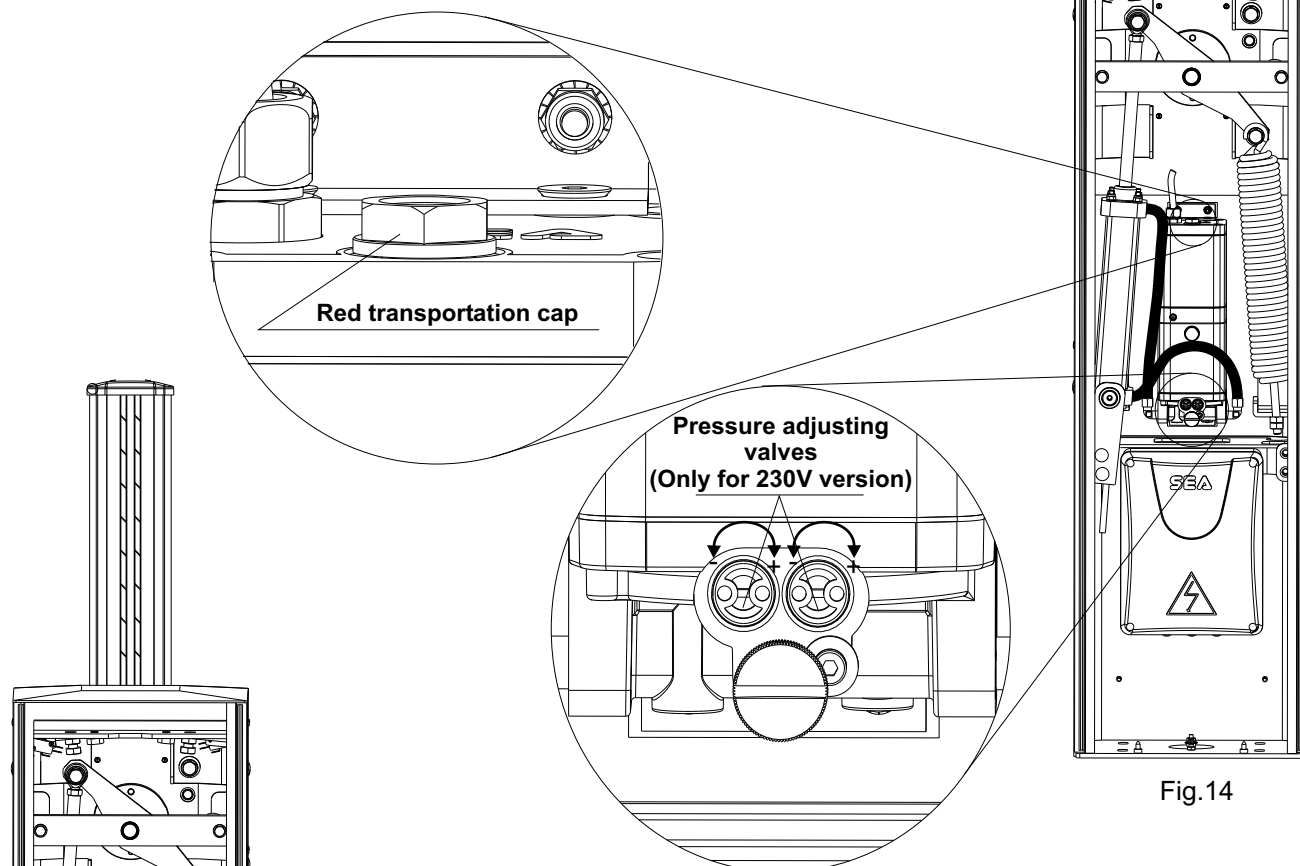
## ONLY 230V VERSION

### 9) Force adjustment

If necessary the piston force can be adjusted by the two adjusting screws (grey and yellow) placed on the front lower place of the Hydraulic pump unit (Fig. 14).

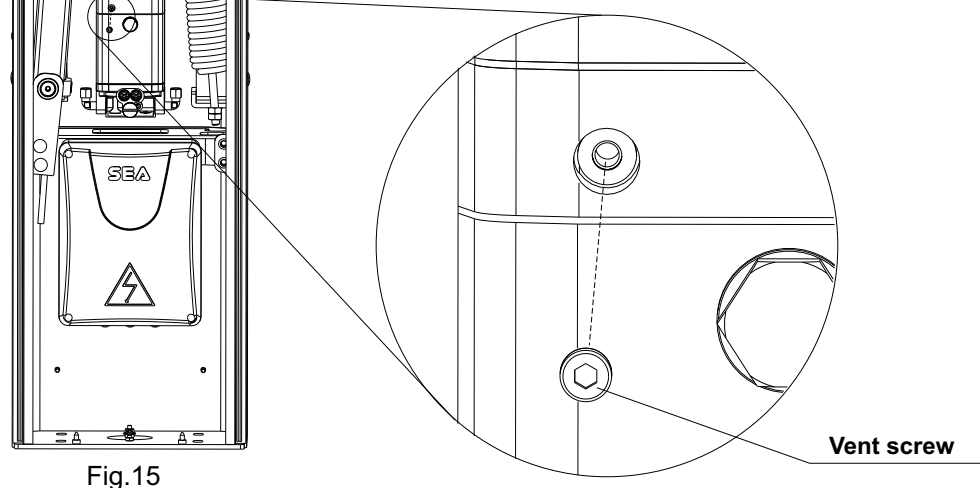
\* The automation is adjusted at 15 Kg force ex works so to guarantee the anti-crush safety. We recommend to adjust it only in case of necessity.

Replace the red cap with the supplied black one.



## ONLY 24V VERSION

Remove the vent screw (Fig. 15).





## 10) Drilling scheme for passage of light power cable

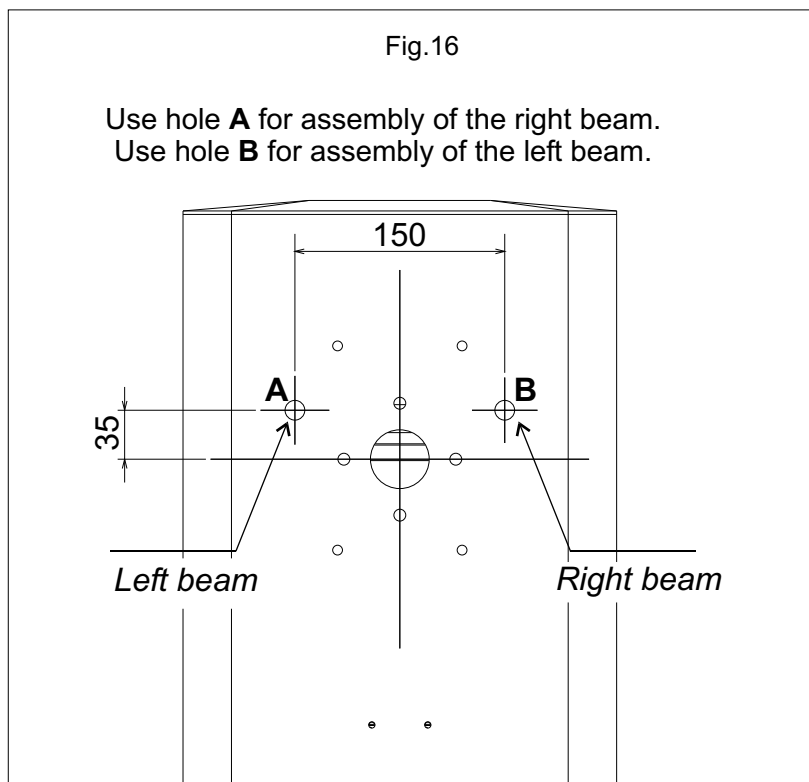


Fig.17

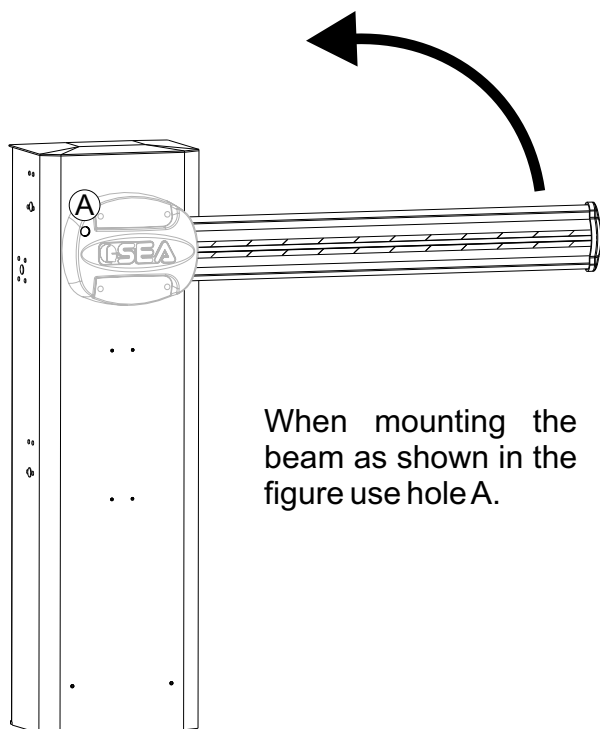
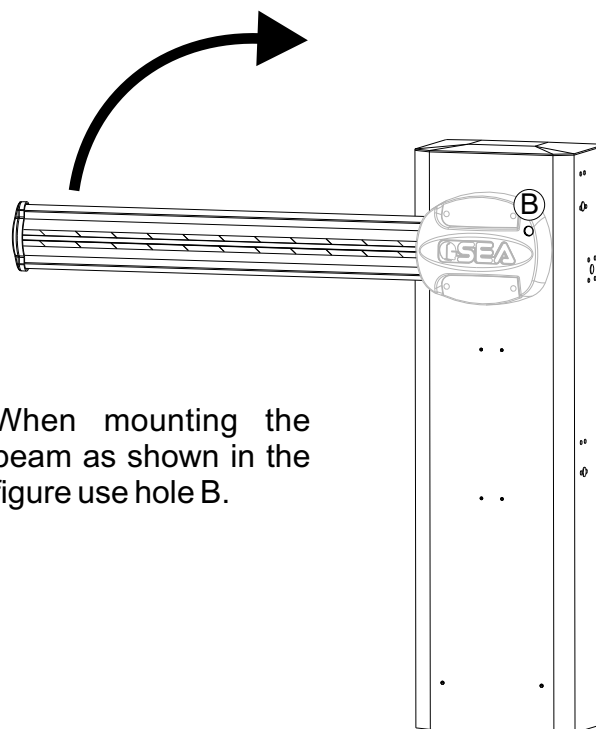


Fig.18





## 11) Electrical system

Fig. 19 sketches the electrical system that the barrier requires.

The two numbers located near the electrical cables indicate the cable number and section.

### Captions:

- 1- SPRINT electronic control unit + Plug-in receiver
- 2- Transmitting photocell
- 3- Receiving photocell
- 4- Key switch
- 5- Flashing light + Antenna
- 6- Push-button station
- 7- Differential switch

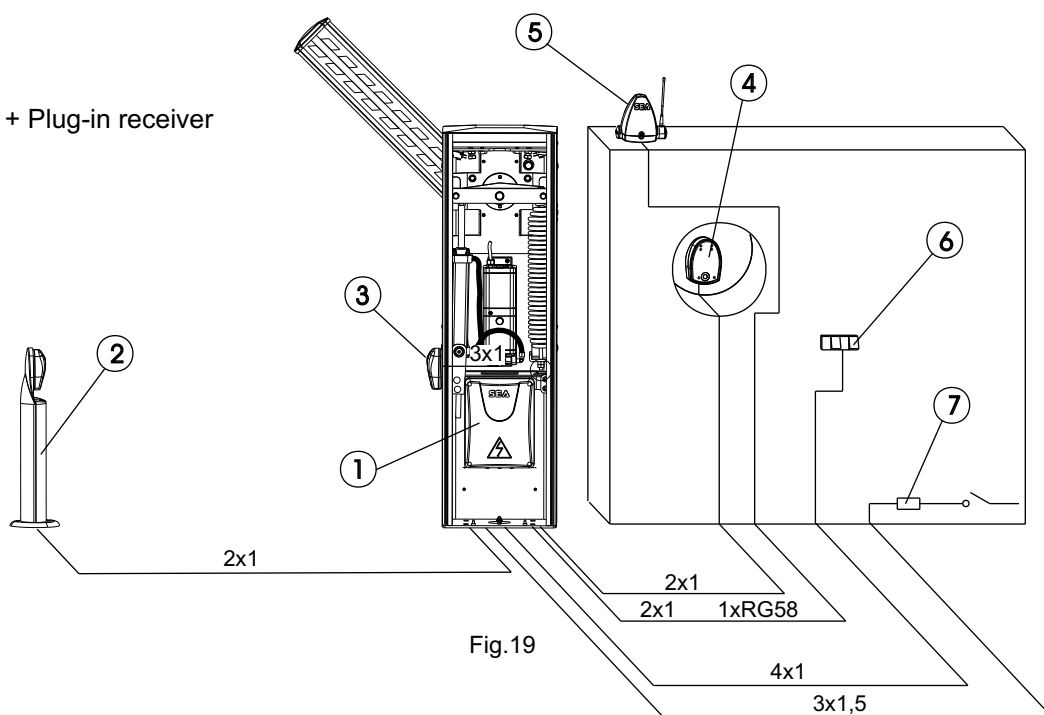


Fig.19

## ACCESSORIES FOR SPRINT



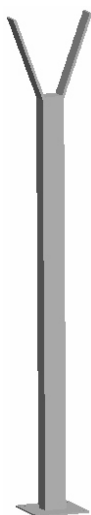
KEY SWITCH



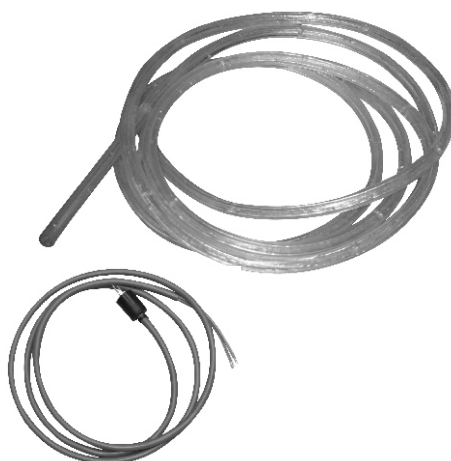
PHOTOCELLS



WARNING LAMP



FORK SUPPORT



LED LIGHTS KIT



BATTERY KIT  
(Only 24V version)



## To the attention of users and technicians

### 12) Release system

#### To release operate as follows:

- Open the door with the delivered special key
- Turn about 90° into anti-clockwise direction the release screw placed on the hydraulic unit.
- Move the beam with the hand

#### To re-lock operate as follows:

- Turn about 90° into clockwise direction the release screw placed on the hydraulic unit.
- Close the door

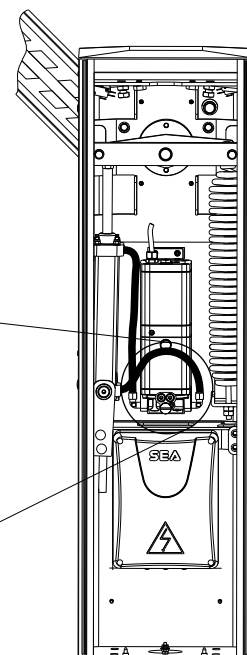
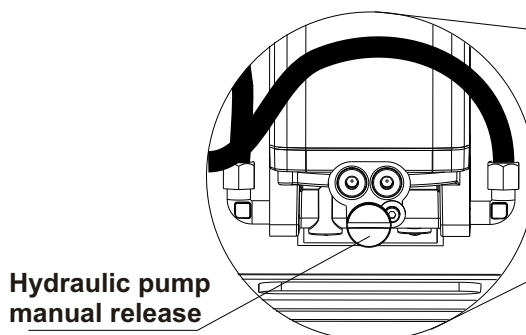
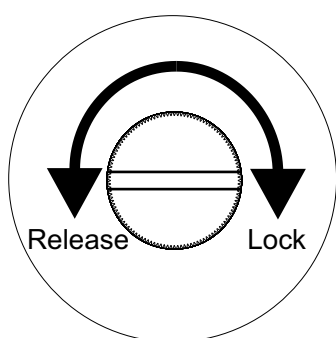


Fig.20

### PERIODICAL MAINTENANCE

Check the functionality of the release	Annually
<b>Lubricate the bearing of the balance</b>	Annually
Check the efficiency of the spring	Annually
Check the beam fixing screws and the balance and the casing	Annually
Check the integrity of the connexion cables	Annually
Check the efficiency of the batteries (where included)	Annually
Check and eventually adjust the value of intervention of the anti-crash sensor.	Annually

All above mentioned operations must be executed exclusively by authorized installers.

### NOTES

The electrical installation and the operation logics must comply with current regulations. Keep the power cables (motors, power supply) separated from the control cables (push-buttons, photo-eyes, radio, etc.). Separate conduits should be used to prevent noise issues.

**Note:** Use "cable clips" and/or "duct/box pipes" fitting close to the control panel box so to protect the interconnection cables against pulling efforts.

### SPARE PARTS

The spare parts orders must be sent to: **SEA S.p.A. Zona Ind.le, 64020 S.ATTO Teramo Italy**

### SAFETY AND RESPECT FOR THE ENVIRONMENT

We recommend not to spoil the environment with product and circuit packing material.

### LONG-TERM STOP AND MAINTENANCE

The disassembly and/or stop and /or maintenance of the SPRINT automation system must be carried out by skilled and expert technicians.

### GUARANTEE LIMITS

For the guarantee see the sales conditions on the official SEA price list.

**NOTE: THE MANUFACTURER SHALL NOT SHOULD ANY RESPONSIBILITIES IN CASE OF DAMAGE CAUSED BY INAPPROPRIATE, WRONG OR CARELESS USE.**

*SEA reserves the right to make all the necessary changes and modifications of the products and / or manuals without giving prior notice.*

## TERMS OF SALES

**EFFICACY OF THE FOLLOWING TERMS OF SALE:** the following general terms of sale shall be applied to all orders sent to SEAS.p.A. All sales made by SEA to all costumers are made under the prescription of this terms of sales which are integral part of sale contract and cancel and substitute all apposed clauses or specific negotiations present in order document received from the buyer.

**GENERAL NOTICE** The systems must be assembled exclusively with SEA components, unless specific agreements apply. Non-compliance with the applicable safety standards (European Standards EM12453 – EM 12445) and with good installation practice releases SEA from any responsibilities. SEA shall not be held responsible for any failure to execute a correct and safe installation under the above mentioned standards.

**1) PROPOSED ORDER** The proposed order shall be accepted only prior SEA approval of it. By signing the proposed order, the Buyer shall be bound to enter a purchase agreement, according to the specifications stated in the proposed order.

On the other hand, failure to notify the Buyer of said approval must not be construed as automatic acceptance on the part of SEA.

**2) PERIOD OF THE OFFER** The offer proposed by SEA or by its branch sales department shall be valid for 30 solar days, unless otherwise notified.

**3) PRICING** The prices in the proposed order are quoted from the Price List which is valid on the date the order was issued. The discounts granted by the branch sales department of SEA shall apply only prior to acceptance on the part of SEA. The prices are for merchandise delivered ex-works from the SEA establishment in Teramo, not including VAT and special packaging. SEA reserves the right to change at any time this price list, providing timely notice to the sales network. The special sales conditions with extra discount on quantity basis (Qx, Qx1, Qx2, Qx3 formula) is reserved to official distributors under SEA management written agreement.

**4) PAYMENTS** The accepted forms of payment are each time notified or approved by SEA. The interest rate on delay in payment shall be 1.5% every month but anyway shall not be higher than the max. interest rate legally permitted.

**5) DELIVERY** Delivery shall take place, approximately and not peremptorily, within 30 working days from the date of receipt of the order, unless otherwise notified. Transport of the goods sold shall be at Buyer's cost and risk. SEA shall not bear the costs of delivery giving the goods to the carrier, as chosen either by SEA or by the Buyer. Any loss and/or damage of the goods during transport, are at Buyer's cost.

**6) COMPLAINTS** Any complaints and/or claims shall be sent to SEA within 8 solar days from receipt of the goods, proved by adequate supporting documents as to their truthfulness.

**7) SUPPLY** The concerning order will be accepted by SEA without any engagement and subordinately to the possibility to get it's supplies of raw material which is necessary for the production; Eventual completely or partially unsuccessful executions cannot be reason for complains or reservations for damage. SEA supply is strictly limited to the goods of its manufacturing, not including assembly, installation and testing. SEA, therefore, disclaims any responsibility for damage deriving, also to third parties, from non-compliance of safety standards and good practice during installation and use of the purchased products.

**8) WARRANTY** The standard warranty period is 12 months. This warranty time can be extended by means of expedition of the warranty coupon as follows:

**SILVER:** The mechanical components of the operators belonging to this line are guaranteed for 24 months from the date of manufacturing written on the operator.

**GOLD:** The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator.

**PLATINUM:** The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator. The base warranty (36 months) will be extended for further 24 months (up to a total of 60 months) when it is acquired the certificate of warranty which will be filled in and sent to SEA S.p.A. The electronic devices and the systems of command are guaranteed for 24 months from the date of manufacturing. In case of defective product, SEA undertakes to replace free of charge or to repair the goods provided that they are returned to SEA repair centre. The definition of warranty status is by unquestionable assessment of SEA. The replaced parts shall remain propriety of SEA. Binding upon the parties, the material held in warranty by the Buyer, must be sent back to SEA repair centre with fees prepaid, and shall be dispatched by SEA with carriage forward. The warranty shall not cover any required labour activities.

The recognized defects, whatever their nature, shall not produce any responsibility and/or damage claim on the part of the Buyer against SEA. The guarantee is in no case recognized if changes are made to the goods, or in the case of improper use, or in the case of tampering or improper assembly, or if the label affixed by the manufacturer has been removed including the SEA registered trademark No. 804888. Furthermore, the warranty shall not apply if SEA products are partly or completely coupled with non-original mechanical and/or electronic components, and in particular, without a specific relevant authorization, and if the Buyer is not making regular payments. The warranty shall not cover damage caused by transport, expendable material, faults due to non-conformity with performance specifications of the products shown in the price list. No indemnification is granted during repairing and/or replacing of the goods in warranty. SEA disclaims any responsibility for damage to objects and persons deriving from non-compliance with safety standards, installation instructions or use of sold goods. The repair of products under warranty and out of warranty is subject to compliance with the procedures notified by SEA.

**9) RESERVED DOMAIN** A clause of reserved domain applies to the sold goods; SEA shall decide autonomously whether to make use of it or not, whereby the Buyer purchases propriety of the goods only after full payment of the latter.

**10) COMPETENT COURT OF LAW** In case of disputes arising from the application of the agreement, the competent court of law is the tribunal of Teramo. SEA reserves the faculty to make technical changes to improve its own products, which are not in this price list at any moment and without notice. SEA declines any responsibility due to possible mistakes contained inside the present price list caused by printing and/or copying. The present price list cancels and substitutes the previous ones. The Buyer, according to the law No. 196/2003 (privacy code) consents to put his personal data, deriving from the present contract, in SEA archives and electronic files, and he also gives his consent to their treatment for commercial and administrative purposes.

**Industrial ownership rights:** once the Buyer has recognized that SEA has the exclusive legal ownership of the registered SEA brand num.804888 affixed on product labels and / or on manuals and / or on any other documentation, he will commit himself to use it in a way which does not reduce the value of these rights, he won't also remove, replace or modify brands or any other particularity from the products. Any kind of replication or use of SEA brand is forbidden as well as of any particularity on the products, unless preventive and expressed authorization by SEA.

**In accomplishment with art. 1341 of the Italian Civil Law it will be approved expressly clauses under numbers:**

**4) PAYMENTS - 8) GUARANTEE - 10) COMPETENT COURT OF LOW**



## GENERAL NOTICE FOR THE INSTALLER AND THE USER

1. Read carefully these **Instructions** before beginning to install the product. Store these instructions for future reference
2. Don't waste product packaging materials and /or circuits.
3. 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. SEAS.p.A. declines all liability caused by improper use or different use in respect to the intended one.
4. The mechanical parts must be comply with Directives: Machine Regulation 2006/42/CE and following adjustments), Low Tension (2006/95/CE), electromagnetic Consistency (2004/108/CE) Installation must be done respecting Directives: EN12453 and En12445.
5. Do not install the equipment in an explosive atmosphere.
6. SEAS.p.A. is not responsible for failure to observe Good Techniques in the construction of the locking elements to motorize, or for any deformation that may occur during use.
7. Before attempting any job on the system, cut out electrical power and disconnect the batteries. Be sure that the earthing system is perfectly constructed, and connect it metal parts of the lock.
8. Use of the indicator-light is recommended for every system, as well as a warning sign well-fixed to the frame structure.
9. SEAS.p.A. declines all liability as concerns the automated system's security and efficiency, if components used, are not produced by SEAS.p.A..
10. For maintenance, strictly use original parts by SEA.
11. Do not modify in any way the components of the automated system.
12. The installer shall supply all information concerning system's manual functioning in case of emergency, and shall hand over to the user the warnings handbook supplied with the product.
13. Do not allow children or adults to stay near the product while it is operating. The application cannot be used by children, by people with reduced physical, mental or sensorial capacity, or by people without experience or necessary training. Keep remote controls or other pulse generators away from children, to prevent involuntary activation of the system.
14. Transit through the leaves is allowed only when the gate is fully open.
15. The User must not attempt to repair or to take direct action on the system and must solely contact qualified SEA personnel or SEA service centers. User can apply only the manual function of emergency.
16. The power cables maximum length between the central engine and motors should not be greater than 10 m. Use cables with 2,5 mm<sup>2</sup> section. Use double insulation cable (cable sheath) to the immediate vicinity of the terminals, in particular for the 230V cable. Keep an adequate distance (at least 2.5 mm in air), between the conductors in low voltage (230V) and the conductors in low voltage safety (SELV) or use an appropriate sheath that provides extra insulation having a thickness of 1 mm.



**Dichiarazione di conformità**  
**Declaration of Conformity**

La SEA S.p.A. dichiara sotto la propria responsabilità e, se applicabile, del suo rappresentante autorizzato che il prodotto:

*SEA S.p.A. declares under its proper responsibility and, if applicable, under the responsibility of its authorised representative that the product:*

<b>Descrizione / Description</b>	<b>Modello / Model</b>	<b>Marca / Trademark</b>
SPRINT 24V-230V (e tutti i suoi derivati)	11703005/00//50/500	SEA
<i>SPRINT 24V-230V (and all its by-products)</i>	<i>11703005/00//50/500</i>	<i>SEA</i>

è costruito per essere incorporato in una macchina o per essere assemblato con altri macchinari per costruire una macchina ai sensi della Direttiva 2006/42/CE:  
*is built to be integrated into a machine or to be assembled with other machinery to create a machine under the provisions of Directive 2006/42/CE:*

è conforme ai requisiti essenziali di sicurezza relativi al prodotto entro il campo di applicabilità delle Direttive Comunitarie 2006/95/CE e 2004/108/CE.  
*it is conforming to the essential safety requirements related to the product within the field of applicability of the Community Directives 2006/95/CE and 2004/108/CE.*

**COSTRUTTORE o RAPPRESENTANTE AUTORIZZATO:**  
**MANUFACTURER or AUTHORISED REPRESENTATIVE:**

SEAS.p.A.  
DIREZIONE E STABILIMENTO:  
Zona industriale 64020 S.ATTO Teramo - (ITALY)  
Tel. +39 0861 588341 r.a. Fax +39 0861 588344  
[Http://www.seateam.com](http://www.seateam.com)

I test sul prodotto sono stati effettuati in configurazione standard e in riferimento alle norme specifiche per la sua classe d'utilizzo.

*The products have been tested in standard configuration and with reference to the special norms concerning the classe of use.*

(Luogo, data di emissione)  
(Place, date of issue)  
Teramo, 27/09/2012

L'Amministratore  
The Administrator  
Ennio Di Saverio



# CERTIFICATO DI ESTENSIONE GARANZIA CERTIFICATE OF WARRANTY EXTENTION

*n.*

## PRODOTTO/ PRODUCT

- Modello/Model \_\_\_\_\_
- Matricola n. /Serial Number \_\_\_\_\_
- Data di acquisto/Date of order \_\_\_\_\_
- Data di installazione/Date of installation \_\_\_\_\_

**Centrale/Control unit**

SEA ☐

Altri/Others ☐

**Fotocellule/Photocells**

SEA ☐

Altri/Others ☐

**RX - TX**

SEA ☐

Altri/Others ☐

**Altri accessori /Other accessories**

SEA ☐

Altri/Others ☐

## UTENTE/Customer

Nome e Cognome \_\_\_\_\_

*First Name and Family Name* \_\_\_\_\_

Indirizzo/Address \_\_\_\_\_

## INSTALLATORE/Installer

Ragione sociale/Company Name \_\_\_\_\_

Nome e Cognome/First and Family Name \_\_\_\_\_

Indirizzo/Address \_\_\_\_\_

## INSTALLATORE/INSTALLER

Firma per il trattamento dei dati personali 196/2003

Agreement of law No. 196/2003 (Privacy Code)

Copia da restituire

*Copy to be returned*

Firma e Timbro

*Sign and Stamp* \_\_\_\_\_

N.B: L'estensione della garanzia legale di 12 mesi a 24 mesi e 36 mesi è valida solo se il presente modulo viene rispedito per posta o fax a SEA S.p.A. entro 15gg dalla data di acquisto. Allegare relativa fattura d'acquisto.

Note: The extension of the legal standard warranty of 12 months to 24 months and to 36 months, is valid only if the present form is returned by mail or fax to SEA S.p.A within 15days from the date of purchase. Attach customer invoice.



**SEA®**  
Sistemi Elettronici  
di Apertura Porte e Cancelli  
International registered trademark n. 804888

SEA S.p.A. - Zona Industriale San Atto- 64020 Teramo (Italy)

Phone +39 0861 588341- Fax +39 0861588344

[www.seateam.com](http://www.seateam.com) - [info@seateam.com](mailto:info@seateam.com)





**SEA<sup>®</sup>**  
Sistemi Elettronici  
di Apertura Porte e Cancelli  
International registered trademark n. 804888



**SEA S.p.A.**  
**Zona industriale 64020 S.ATTO Teramo - (ITALY)**  
**Tel. +39 0861 588341 r.a. Fax +39 0861 588344**

**[www.seateam.com](http://www.seateam.com)**

**[seacom@seateam.com](mailto:seacom@seateam.com)**