



Automatic Gate Openers International registered trademark n. 804888



### **HYDRAULIC BARRIER**



MANUALE D`INSTALLAZIONE ed informazioni sulla sicurezza INSTALLATION MANUAL and Security Information

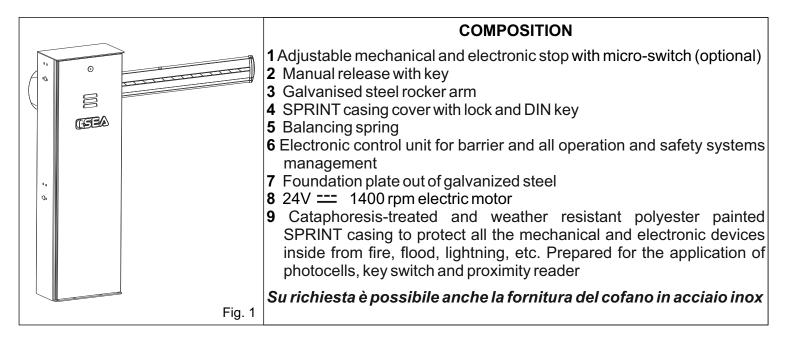
SEA S.p.A. Zona industriale 64020 S. ATTO Teramo - (ITALY) Tel. +39 0861 588341 r.a. Fax +39 0861 588344 www.seateam.com seacom@seateam.com

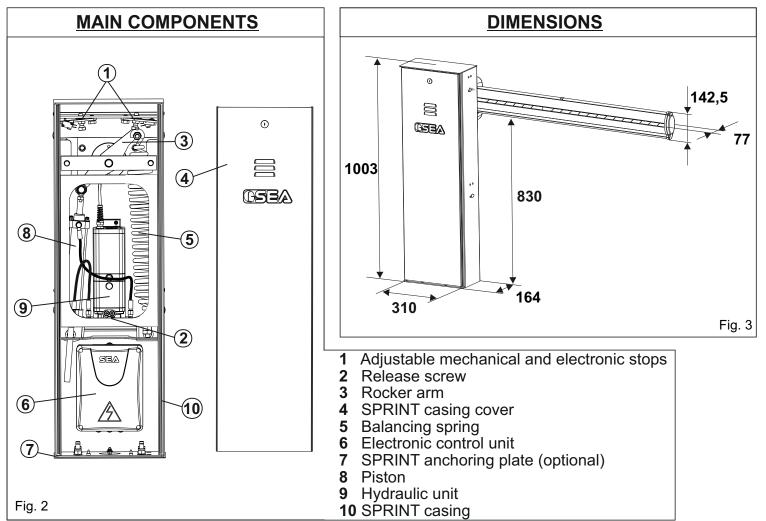




# **FEATURES**

SPRINT is a hydraulic barrier (2, 3, 4, 5 m) recommended for all 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 guarantee 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







# **TECHNICAL FEATURES**

DATA	SPRINT 24V (230V)	SPRINT 24V (115V)	SPRINT 230V - 1 LITER	SPRINT 230V - 2 LITERS
Supply voltage	230V~ ± 5% - 50/60 Hz	115V~ ± 5% - 50/60 Hz	230V~ ± 5%	- 50/60 Hz
Hydraulic unit		A.1		
supply voltage	2	4V	230V	
Absorbed power	10	Α	1,0 A	
Motor power	45	W	220 W	270 W
Motor speed	143		) rpm	
Working temperature	- 20°C / +55°C /			
Opening/closing time	ADJUSTABLE		10"	8"
Protection class	IP 55			
Manual release system	SI			
Usage frequency	90%		75%	
Anti-crushing device	AMPEROMETRIC		BY-PASS VALVES	
Holding block	YES			
Slowdown	ELECTRONIC			
Barrier body treatment	CATAPHORESIS TREATEMENT AND POLYESTER PAINTING			
Max. Length	5 METERS			
Thermal protection switch	130°		0°	
Starting capacitor			12,5 µF	6,3 µF
Pump capacity	2 LITERS		1 LITER	2 LITERS
Weight	51 Kg			
Electronic equipment	USER 1 24V DG		GATE 1 DG	

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

DATA	SPRINT FAST	SPRINT 230V IV - 1,5 LITERS	
Supply voltage	230V~ ± 5% - 50/60 Hz		
Hydraulic unit	0001/		
supply voltage	230V		
Absorbed power	1,2 A 1,0 A		
Motor power	250 W	220 W	
Motor speed	1430 rpm		
Working temperature	- 20°C ∦ +55°C ∦		
Opening/closing time	3" ADJUSTABLE DA 4" A		
Protection class	IP 55		
Manual release system	YES		
Usage frequency	75%	90%	
Anti-crushing device	BY-PASS VALVES		
Holding block	YES		
Slowdown	ELECTRONIC		
Barrier body treatment	CATAPHORESIS TREATEMENT AND POLYESTER PAINTING		
Max. Length	3 METERS	5 METERS	
Thermal protection switch	130°		
Starting capacitor	12,5 µF	_	
Pump capacity	3 LITERS	1,5 LITERS	
Weight	51 Kg		
Electronic equipment	GATE 1 DG	UNIGATE 1-I	

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



BEAM SPEED (For SPRINT 24V only)				
Beam Length	Opening Time	Speed Setting		
Beam 3 m	6"	Speed 100%		
Beam 4 m	8"	Speed 80%		
Beam 5 m	10"	Speed 70%		
Articulated Beam 3,5 m	10"	Speed 70%		

SPRINGS FOR «LIGHT» BEAM				
Beam Length	Spring Diameter	Spring Code		
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		

English

	BEAM SPEED (For SPRINT 230V IV only)					
Spring Diameter	Spring Code	Beam Length	Beam Type	Minimum Opening Time	Default Opening Time	Spring Hook Color
6	1640008	3 m	LIGHT-TH	4''	5''	Yellow
7	16400015	4 m	LIGHT-TH	5,5''	6,5''	Blue
8	16400026	5 m	LIGHT-TH	7''	8"	Pink

Note: The speed setting must comply with the minimum value indicated in the "Minimum Opening Time" column, which varies according to the beam length; DO NOT set values lower than the indicated minimum

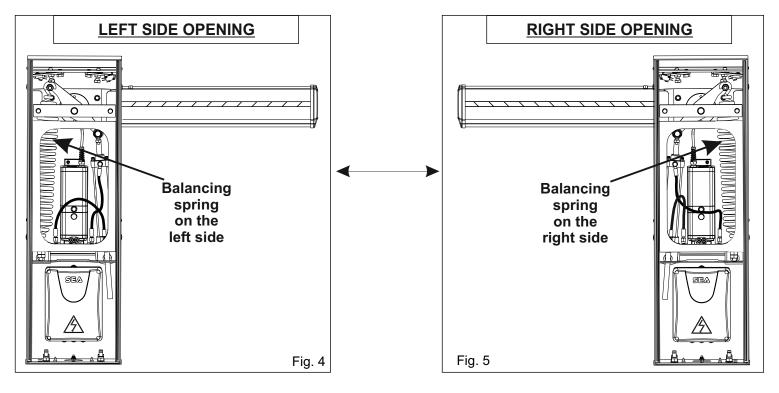
# **INSTALLATION**

### **1 - BALANCING SPRING POSITION**

The excellent flexibility of the barrier you are installing allows the closing of the beam on the right or on the left side of the barrier, depending on your needs

#### <u>If the spring is installed on the left, the beam opening will be towards the left (Fig. 4)</u> If the spring is installed on the right, the beam opening will be towards the right (Fig. 5)

#### FOR THE SPRING ASSEMBLY PROCEDURE, REFER TO THE POINT 4

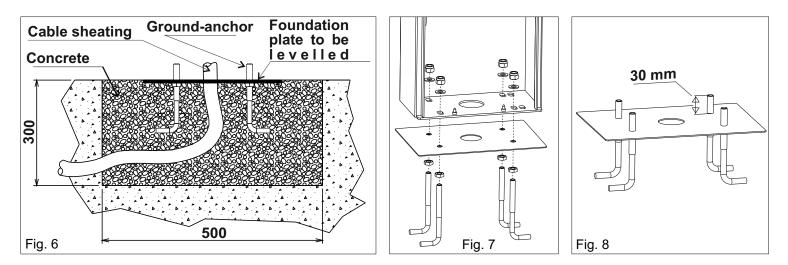




# **2 - FOUNDATION PLATE ANCHORING**

- - Make a 500 x 500 x 300 mm (depth) hole in the ground
- Fill the hole with R425 concrete and place the foundation plate as shown in Fig. 6
- Accurately level the plate

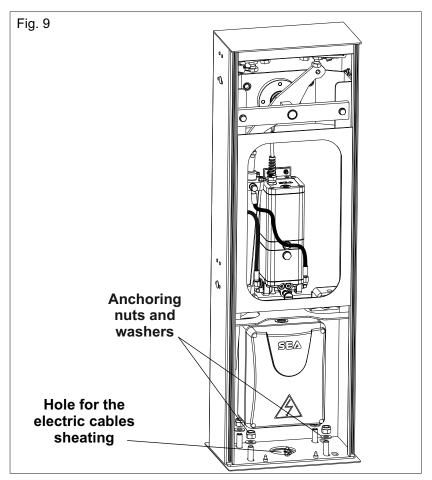
**<u>CAUTION</u>**: The foundation plate is equipped with a hole in the middle for the passage of electric cables; make sure that a sheath for electrical cables complying with current regulations passes through the hole before filling with the concrete



## **3 - CASING 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 sheating for cables passes through the large hole on the casing base
- Fix the casing to the foundation plate, screwing the supplied nuts and washers carefully







### 4 - BALANCING SPRING MOUNTING

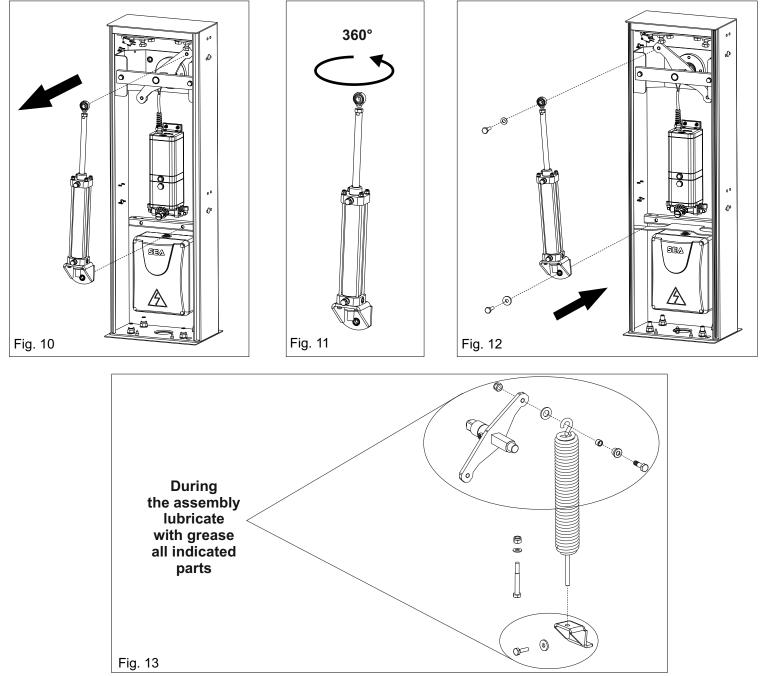
The barrier is supplied prepared for the left side opening as standard (Fig. 4) Before installing the spring, check the opening direction of the beam, whether to the right or left (Fig. 4 and Fig. 5)

If the barrier must open to the right, in addition to the spring mounting on the correct side, it is necessary to reverse the piston from the right side to the left side (Fig. 10 and Fig. 12) making it rotate on itself by 360 ° in order to release it from the connecting pipes between control unit and piston and prevent them from intertwining (Fig. 11)

**CAUTION:** Before performing this operation, release the actuator as shown in Fig. 24 and loosen the two fittings of the connection pipes between the hydraulic unit and the hydraulic piston by half a turn to facilitate the inversion (only on the hydraulic unit), as shown in Fig. 10, taking care not cause constrictions on the flexible pipes (not visible in the figures)

Once the piston is rotated, tighten it with the fixing screws and lubricate everything with grease (use DIN 51502 KP 2 N-20 - K 2 K-20 grease)

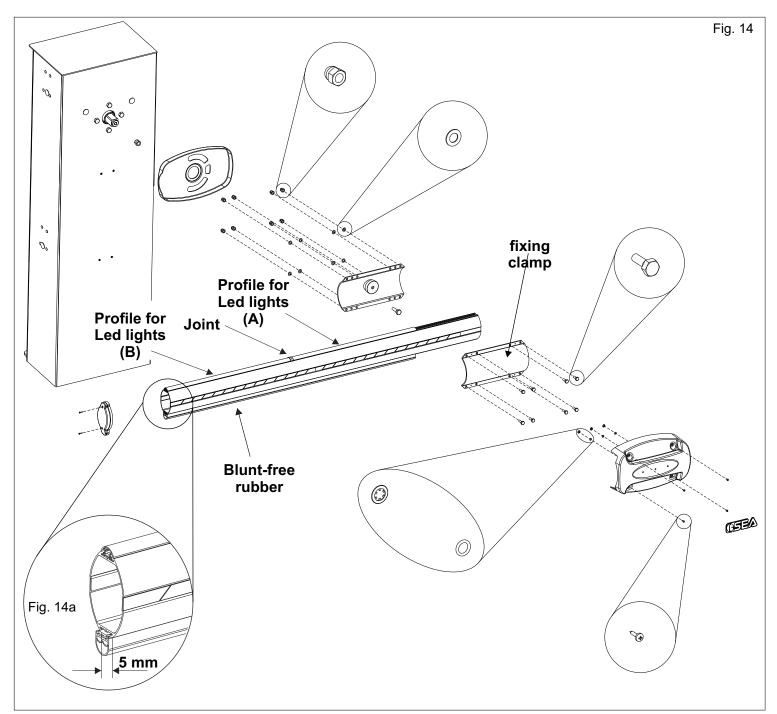
Now it is possible to insert the spring in the casing, screwing it as shown in Fig. 13





#### 5 - «LIGHT» BEAM ASSEMBLY

CAUTION: For 4 m and 5 m length beams we recommend installing the fork support on the ground (at the closing point of the beam) or the folding support to install on the beam itself



- Mount the first segment (A) of the profile for the insertion of the Led lights, positioning it on the fixing clamp end-point

- Mount the joint

#### NOTE: It is important to space-out each segment of the profile for Leds with the joint

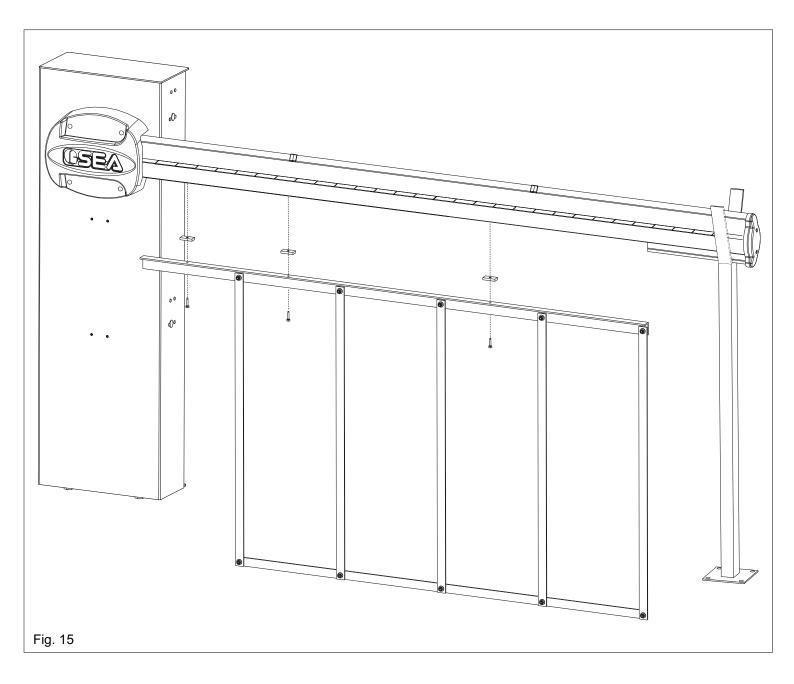
- Mount the second segment (B) of the profile for Leds

# - Repeat the operation for all segments of the profile for Leds until covering the beam length WARNING: The last Led profile must be cut with a hacksaw at the end of the beam (Fig. 14a)

- Mount the blunt-free rubber in the lower part of the beam, making it protrude by 5 mm at the end of the beam, as shown in Fig. 14a



## **<u>6 - SKIRT ASSEMBLY ON THE BEAM</u>**





# 7 - BEAM BALANCING

- Release the operator with manual release, so that beam is free to be open and closed manually (Fig. 16)

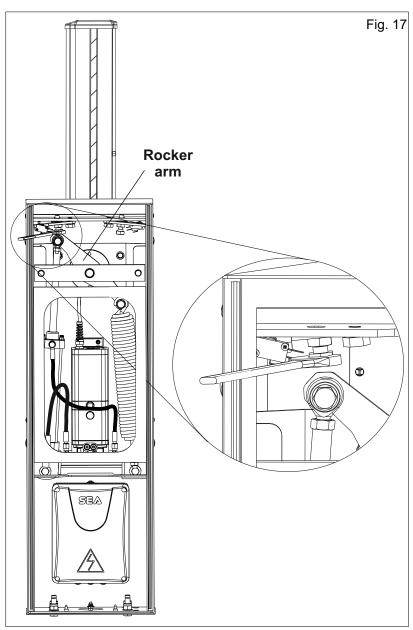
- Place the beam at approximately 45°

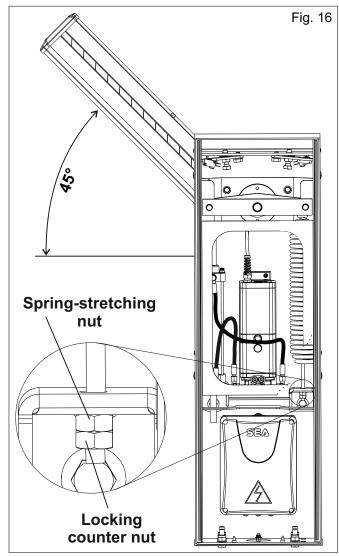
- Loosen or tighten the spring stretching nut until the spring counterbalances the weight of the 45° beam (Fig. 16). The best balancing position is when the beam reaches and stays in the position shown in Fig. 16

- After having obtained the balancing, lock the spring stretching nut with the counter nut and re-block the operator

NOTE: For the correct balancing of the beam, we recommend to unhook the piston from the rocker arm by removing the pivot as per Fig. 10

## 8 - BEAM LEVELLING





WARNING: This operation must be carried out only if the beam is not perfectly horizontal (in closing position) or vertical (in opening position) at the end of its stroke

- Release the operator with manual release, so that beam is free to be open and closed manually

Release the mechanical stops screws by unscrewing the locking nuts on the mechanical stops (Fig. 17)

- Loosen or tighten the mechanical stops screws so that the beam is released in its vertical position (opening position) and horizontal position (closing position) (Fig. 17)

- After having executed the levelling, lock the screws of the mechanical stops by tightening the nuts and re-lock

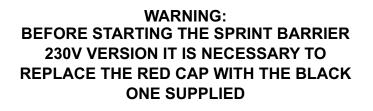


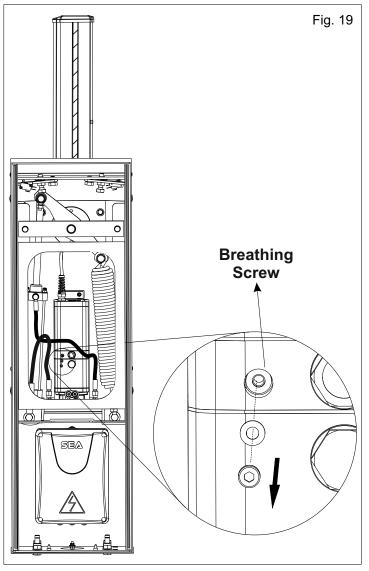
# ONLY FOR 230V MODEL

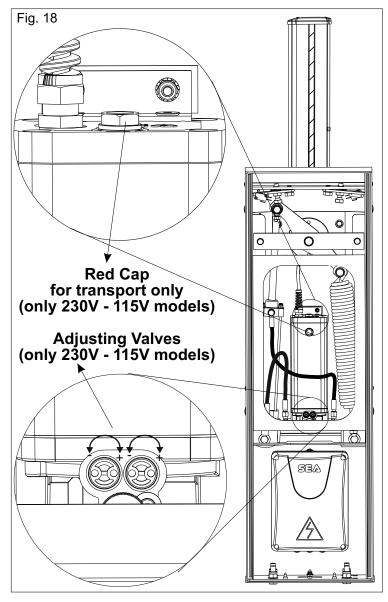
## 9 - THRUST ADJUSTMENT

If necessary the piston thrust can be adjusted through the two screws (grey and yellow) placed on the front of the Hydraulic pump unit (Fig. 18)

**NOTE:** The thrust is standard adjusted at a force of 15 Kg to guarantee the anti-crush safety. We recommend to adjust it only if necessary







# **ONLY FOR 24V MODEL**

### **10 - BREATHING SCREW REMOVING**

On SPRINT 24V models it is absolutely necessary to remove the breathing screw as shown in Fig. 19



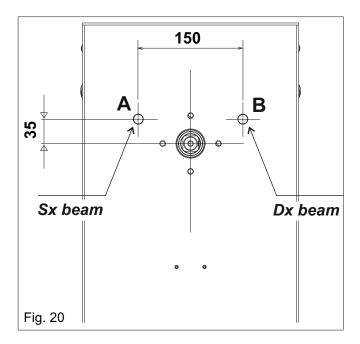


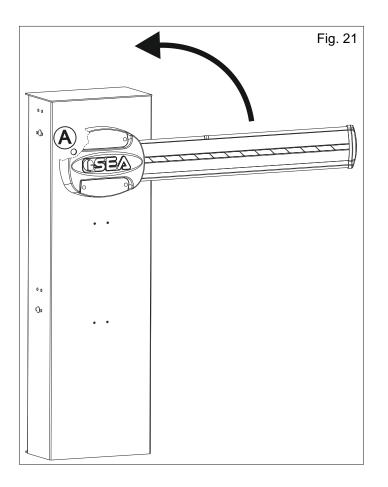
### **11 - DRILLING DIAGRAM FOR PASSING THE LIGHTS POWER CABLES**

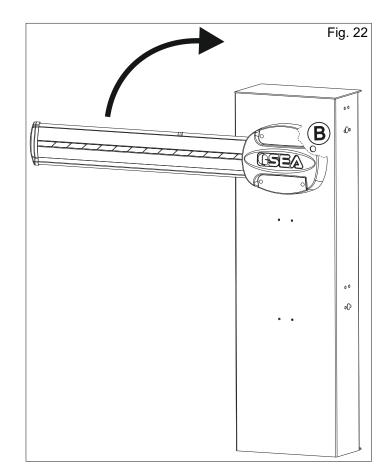
The diagram in Fig. 20 shows the measures for the realization of the holes for the passage of the power supply cables for the barrier lights

If the beam opening is **TOWARDS THE LEFT**, then use the hole **«A»** (Fig. 21)

If the beam opening is **TOWARDS THE RIGHT**, then use the hole **«B»** (Fig. 22)





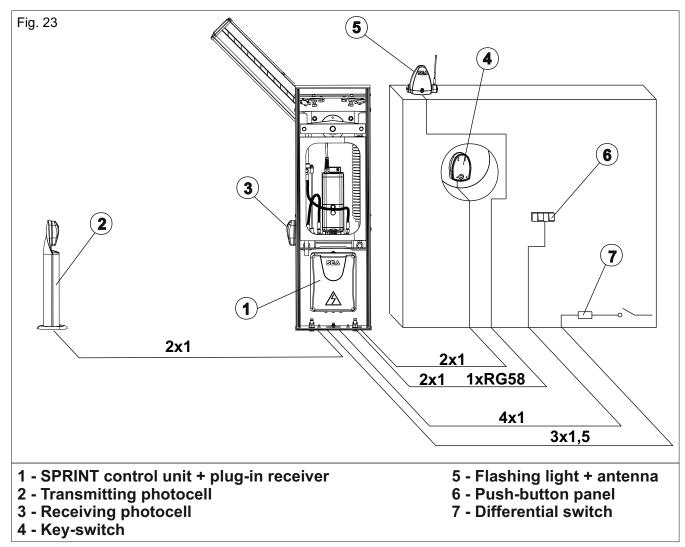




## **12 - ELECTRICAL SYSTEM**

In the Fig. 23 it is shown a typical layout of the electrical system the barrier requires;

The numbers shown in correspondence with the electric cables indicate, respectively, the quantity of cables and their selection



# **ACCESSORIES FOR SPRINT**





#### To the attention of users and technicians

### RELEASE SYSTEM

#### To release, proceed as follows:

- Open the door with the supplied special key
- Turn the release screw on the hydraulic unit 90°
- anticlockwise (Fig. 24)
- Move the beam manually

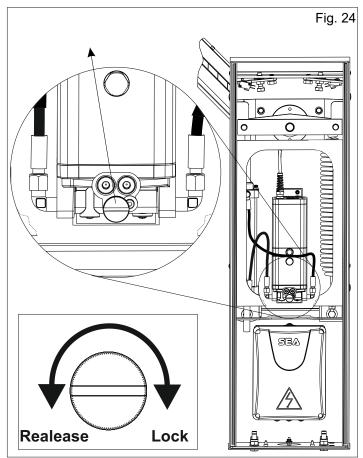
#### To re-lock, proceed as follows:

- Tighten the release screw on the hydraulic unit 90° clockwise (Fig. 24)

- Close the door

### PERIODICAL MAINTENANCE

Check the functionality of the release		
Lubricate the bearing of the rocker arm		
Check the efficiency of the spring	Annual	
Check the beam fixing screws, the rocker arm and the casing		
Check the integrity of the connexion cables		
Check the efficiency of the batteries (if included)	Annual	
Check and eventually adjust the value of intervention of the anti-crush sensor	Annual	



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

#### WARNINGS

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, photocells, radio, etc.). Separate conduits should be used to prevent noise issues. *Note:* Use "cable-glands" and/or "pipes/sheatings" close to the control panel box so to protect the interconnection cables against pulling efforts

#### INTENDED USE

The operator has been designed exclusively for the automation of barriers.

#### SPARE PARTS

The spare parts orders must be sent to: SEA S.p.A. - 64100, Sant'Atto - TERAMO - ITALY - www.seateam.com SAFETY AND RESPECT FOR THE ENVIRONMENT

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

#### STORAGE

STORAGE TEMPERATURE				
T <sub>min</sub>	T <sub>max</sub>	Humidity <sub>min</sub>	Humidity <sub>max</sub>	
-30°C∦	+60°C 🕻	5% without condensation	90% without condensation	

The product must be handled using suitable means.

#### LONG-TERM STOP AND MAINTENANCE

The disassembly and/or stop and /or maintenance of the 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 SHOULDER 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 or manuals without giving prior notice



#### Dichiarazione di conformità Declaration of Conformity

La SEA S.p.A. dichiara sotto la propria responsabilità e, se applicabile, del suo rappresentante autorizzato che, con l'installazione degli adeguati dispositivi di sicurezza e di filtraggio disturbi, il prodotto: *SEA S.p.A. declares under its proper responsability and, if applicable, under the responsability of its authorised representative that, by installing the appropriate safety equipment and noise filtering, the product:* 

Descrizione / Description

Modello / Model

Marca / Trademark

SPRINT barriera/barrier

11703000-A

SEA

(e tutti i suoi derivati/and all its by-products)

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 ai prodotti entro il campo di applicabilità delle Direttive Comunitarie 2014/35/UE e 2014/30/UE

is conforming to the essential safety requirements related to the products within the field of applicability of the Community Directives 2014/35/UE and 2014/30/UE

COSTRUTTORE o RAPPRESENTANTE AUTORIZZATO: MANUFACTURER or AUTHORISED REPRESENTATIVE:

SEA S.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

Luogo, data di emissione *Place, date of issue* Teramo, 15/05/2019

ministratore AdminIstra m



## **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. Noncompliance 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 expressively clauses under numbers: 4) PAYMENTS - 8) GUARANTEE - 10) COMPETENT COURT OF LOW



## English 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. SEA S.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), electromgnetic Consistency (2004/108/CE) Installation must be done respecting Directives: EN12453 and En12445.

5. Do not install the equipment in an explosive atmosphere.

6. SEA S.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. SEA S.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.

# Automatic Gate Openers

Questo articolo è stato prodotto seguendo rigide procedure di lavorazione ed è stato testato singolarmente al fine di garantire i più alti livelli qualitativi e la vostra soddisfazione. Vi ringraziamo per aver scelto SEA.

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