



SEA[®]

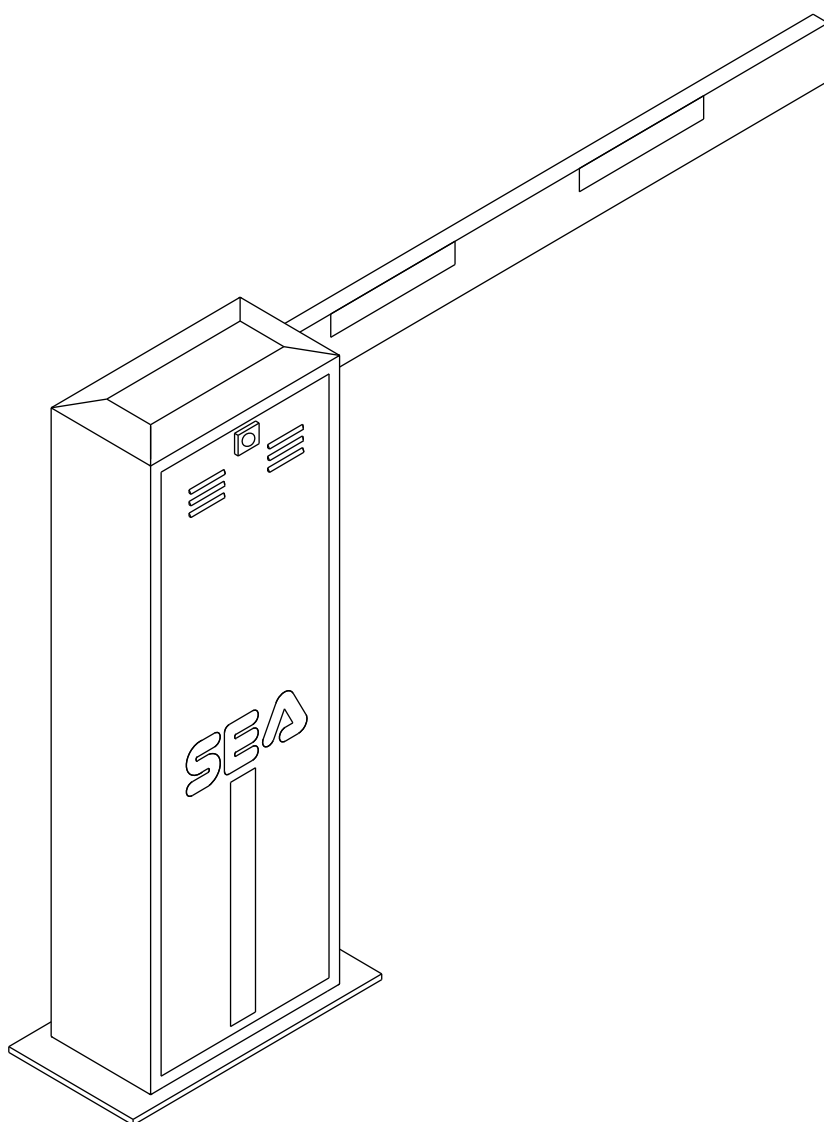


Automatic Gate Openers

International registered trademark n. 804888

VELA SPRINT

BARRIERA OLEODINAMICA - HYDRAULIC BARRIER



SEA S.p.A.

Zona industriale Sant'Atto - 64100 - Teramo - ITALY

Tel. +39 0861 588341 r.a. Fax +39 0861 588344

www.seateam.com

FEATURES

VELA 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 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 release system allows the manual opening in case of emergency

MAIN COMPONENTS

- 1 Limit switch cam for microswitch intervention (OPTIONAL)
- 2 Limit switch microswitch for slowing down time adjustment (OPTIONAL)
- 3 Galvanized steel rocker arm
- 4 Casing cover equipped with lock and personalized key
- 5 Balancing spring (available in different sizes to support the torque of the different beam lengths (see *Spring Table*)
- 6 Electric fan for forced air conveyance (RAPID VERSION ONLY)
- 7 Electronic card for programming and managing all operating and safety systems
- 8 Foundation plate made of galvanized steel sheet
- 9 Hydraulic unit temperature sensor for cooling fan activation (OPTIONAL)
- 10 Movement system with double-acting hydraulic piston and rocker arm
- 11 Hydraulic unit equipped with release screw for manual releasing in case of emergency, and two screws for torque adjustment
- 12 Casing made of cataphoresis treated steel sheet with epoxy powder coating
- Stainless Steel Casing On Request***
- 13 Extruded aluminum beam (available lengths: from 2 to 5 meters)

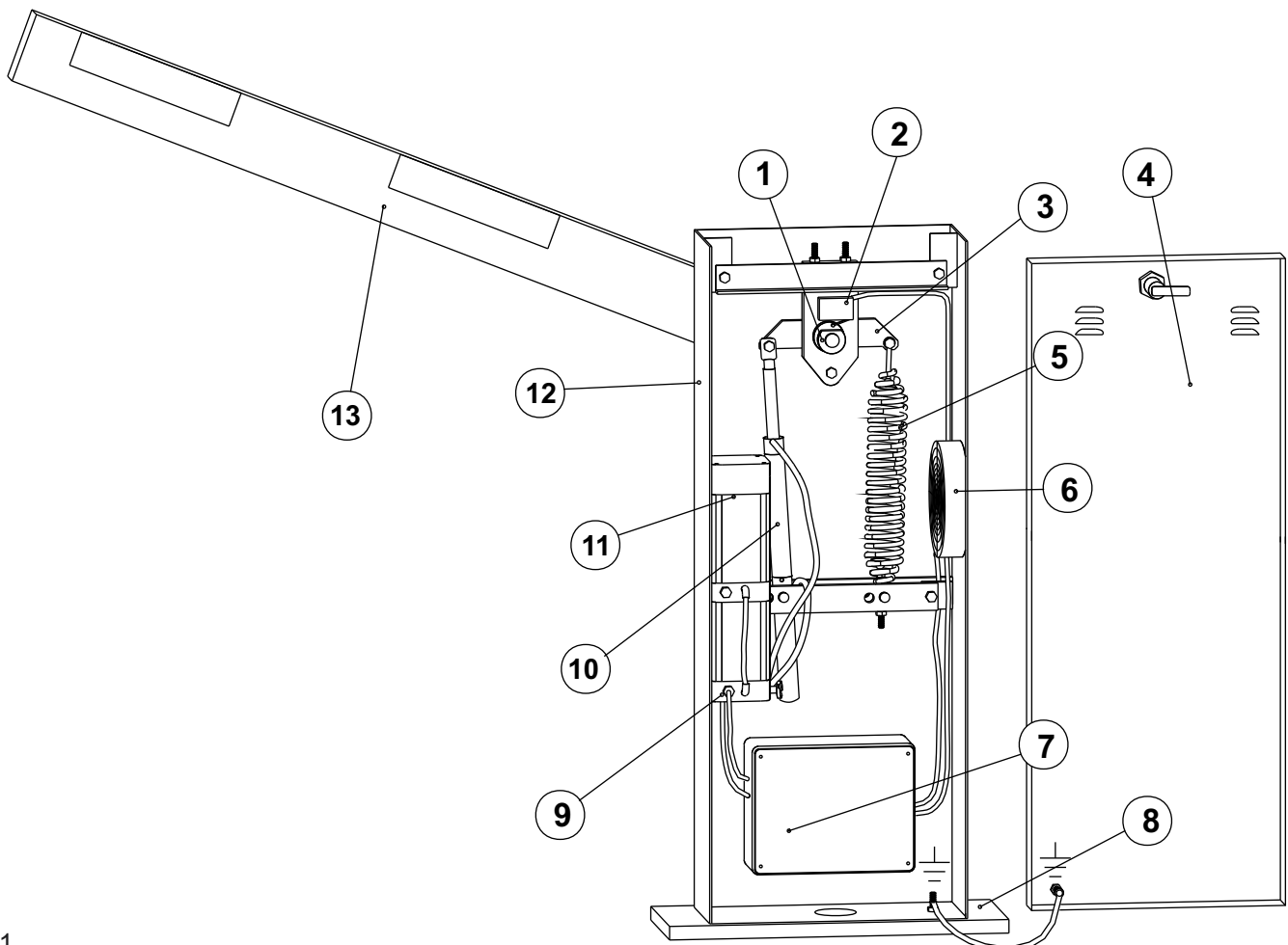
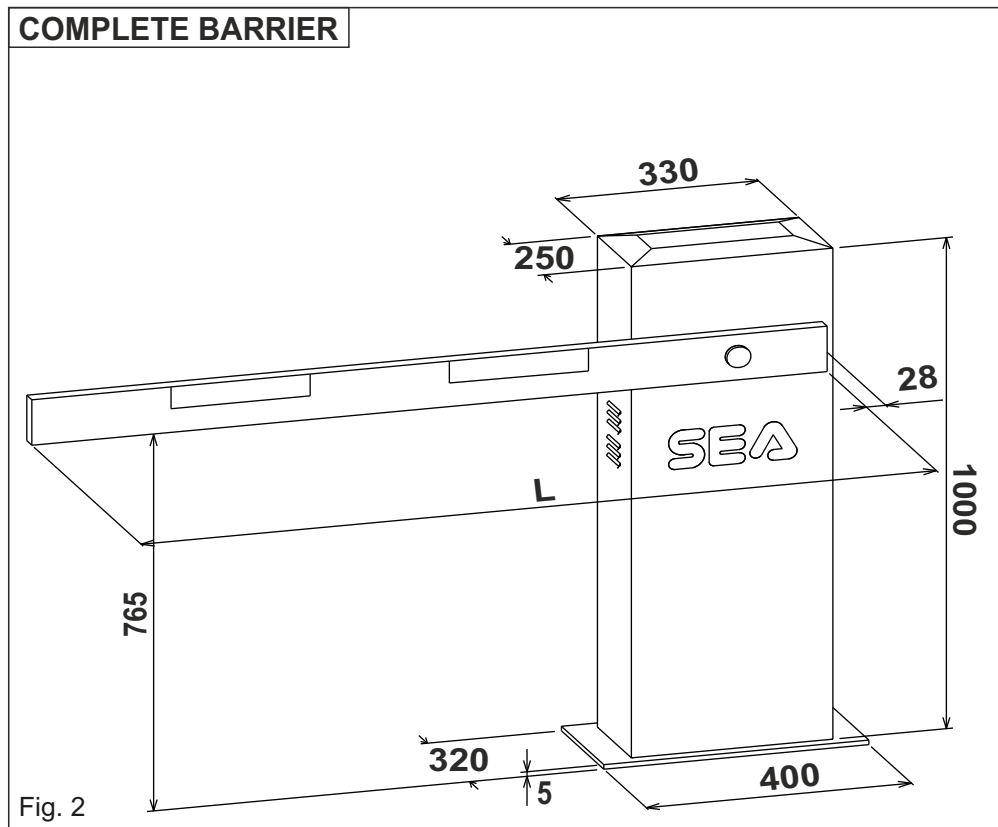


Fig. 1

DIMENSIONS



TECHNICAL FEATURES

DATA	VELA SPRINT 230V - 1 LITER	VELA SPRINT 230V - 1,5 LITRES	VELA SPRINT 230V IV - 1,5 LITRES
Supply voltage	230V~ ± 5% - 50/60 Hz		
Hydraulic unit supply voltage	230V		
Absorbed power	1,0 A		
Motor power	220 W		
Motor speed	1430 rpm		
Working temperature	- 20°C ↯ +55°C ↯		
Opening/closing time	8"	5"	ADJUSTABLE FROM 4" TO 7"
Protection class	IP 55		
Manual release system	YES		
Usage frequency	75%		100%
Anti-crushing device	BY-PASS VALVES		
Holding block	YES		
Slowdown	ELECTRONIC		
Barrier body treatment	CATAPHORESIS TREATMENT AND POLYESTER PAINTING		
Max. Length	5 METRES		5 METRES
Thermal protection switch	130°		
Starting capacitor	10 µF		—
Pump capacity	1 LITRES		1,5 LITRES
Weight	51 Kg		
Electronic equipment	GATE 1 DG		UNIGATE 1-I

Notes:

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

*The frequency of use is valid only if all beam length parameters and speed are respected:
see the schemes above and those in the next page*

BEAM SPEED (For VELA SPRINT 230V IV only)						
Spring Diameter	Spring Code	Beam Length	Beam Type	Minimum Opening Time	Default Opening Time	Spring Hook Color
6,5	16400010R1	3 m	LIGHT-TH	4"	5"	Yellow
7	16400015R1	4 m	LIGHT-TH	5,5"	6,5"	Blue
8	16400026R1	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*

SPRINGS FOR «LIGHT» BEAM		
Beam Length	Spring Diameter	Spring Code
2	5,5	16400005
2,5	6,5	16400010R1
3	6,5	16400010R1
3,5	7	16400015R1
4	7	16400015R1
4,5	8	16400026R1
5	8	16400026R1

INSTALLATION

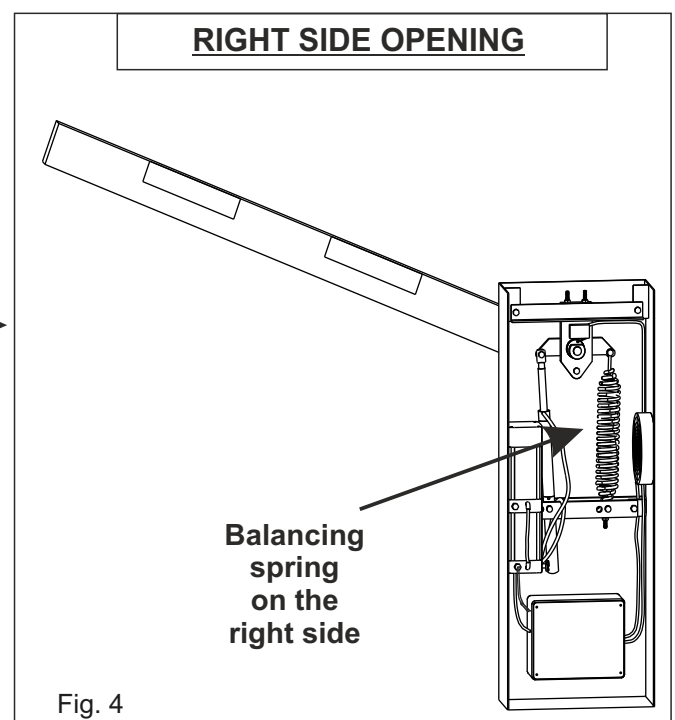
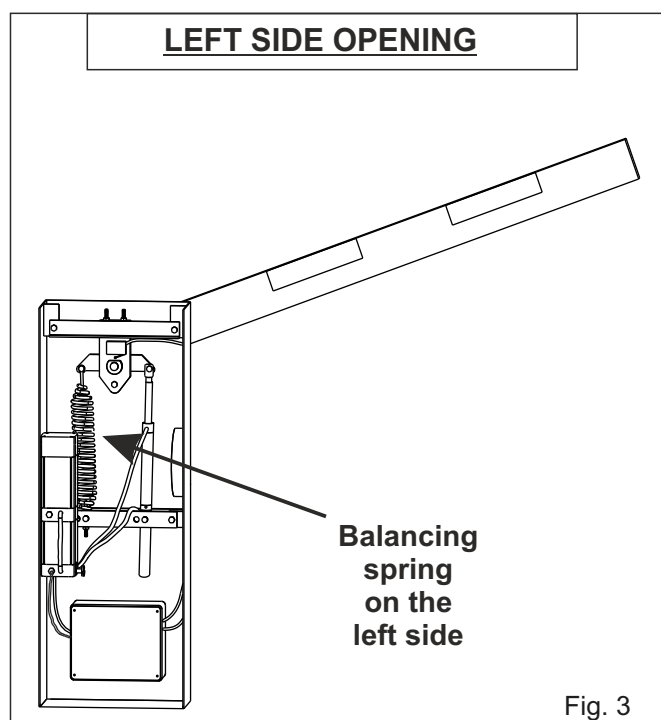
1 - BALANCING SPRING POSITION

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

If the spring is installed on the left, the beam opening will be towards the left (Fig. 3)

If the spring is installed on the right, the beam opening will be towards the right (Fig. 4)

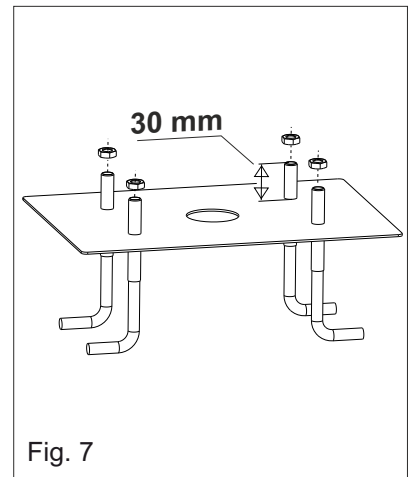
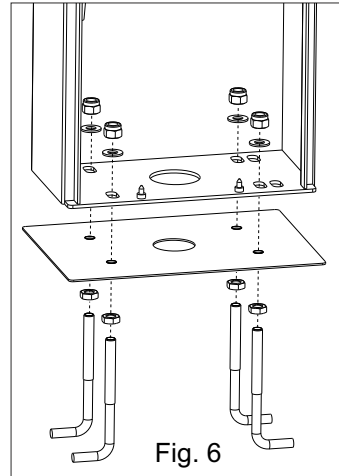
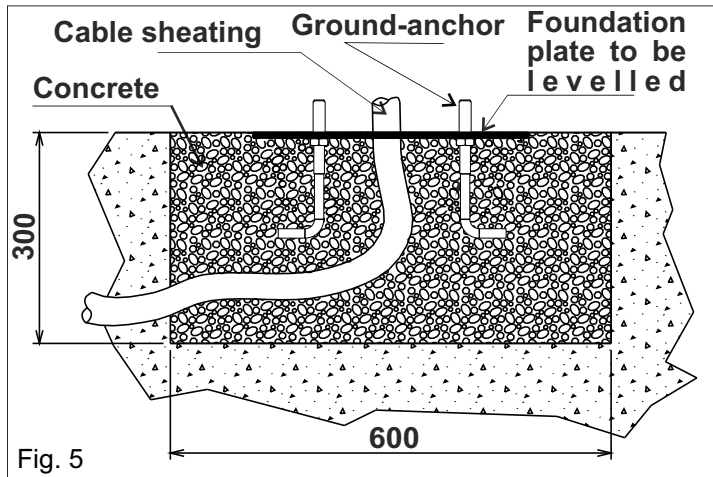
FOR THE SPRING ASSEMBLY PROCEDURE, REFER TO THE POINT 4



2 - FOUNDATION PLATE ANCHORING

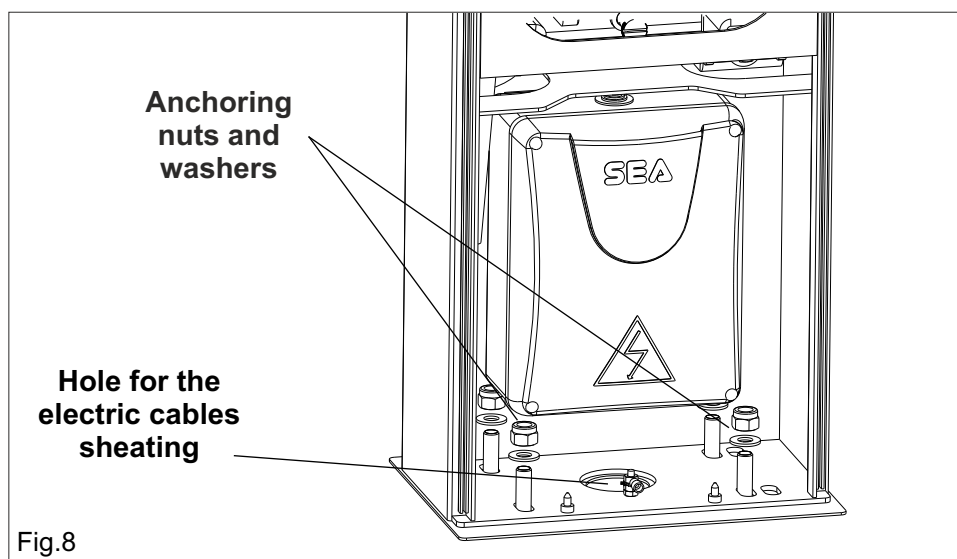
- Make a 600 x 600 x 300 mm (depth) hole in the ground
- Fill the hole with R425 concrete and place the foundation plate as shown in Fig. 5
- Accurately level the plate

CAUTION: 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 sheathing 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. 3)

Before installing the spring, check the opening direction of the beam, whether to the right or left (Fig. 3 and Fig. 4)

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 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

CAUTION: Before performing this operation, release the actuator 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) taking care not cause constrictions on the flexible pipes

1- Remove the fixing screws of the spring and the piston

2- Remove the bracket after removing screws and nuts

3- Position the piston on the desired CLOSING side of the beam (at the place of the spring) and secure it to the rocker arm using the screw

Once the piston has been rotated, tighten it with the fixing screws and lubricate everything with grease (Fig. 10) (use DIN 51502 KP 2 N-20 - K 2 K-20 grease)

4- Position the spring at the place of the piston and fix it to the rocker arm, lubricating with grease (Fig. 0)

5- Reposition the bracket considering that the outermost holes are reserved for the spring anchor pin, while the innermost ones are reserved for the piston anchor pin (both in case of right side or left side beam closing)

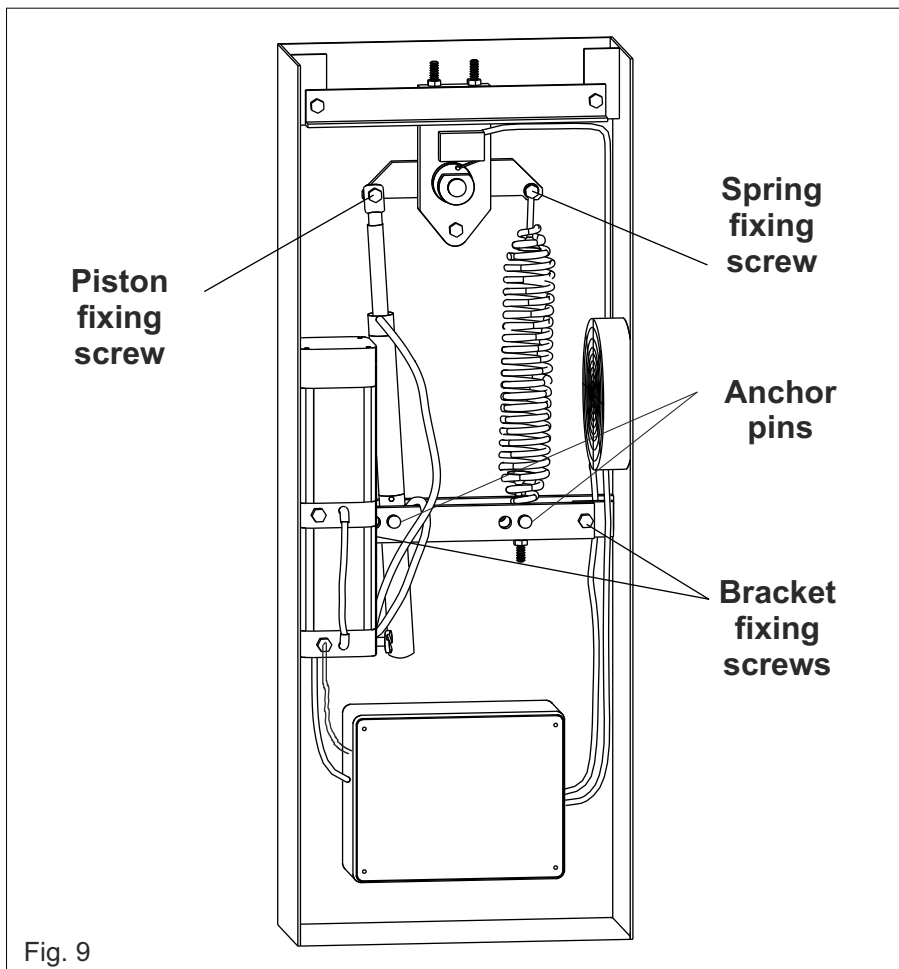


Fig. 9

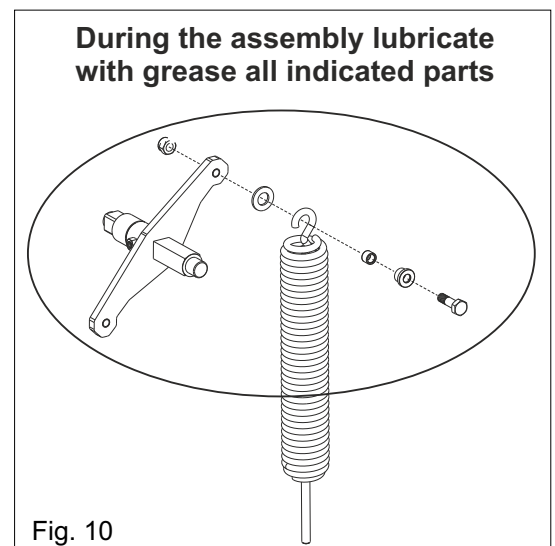


Fig. 10

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

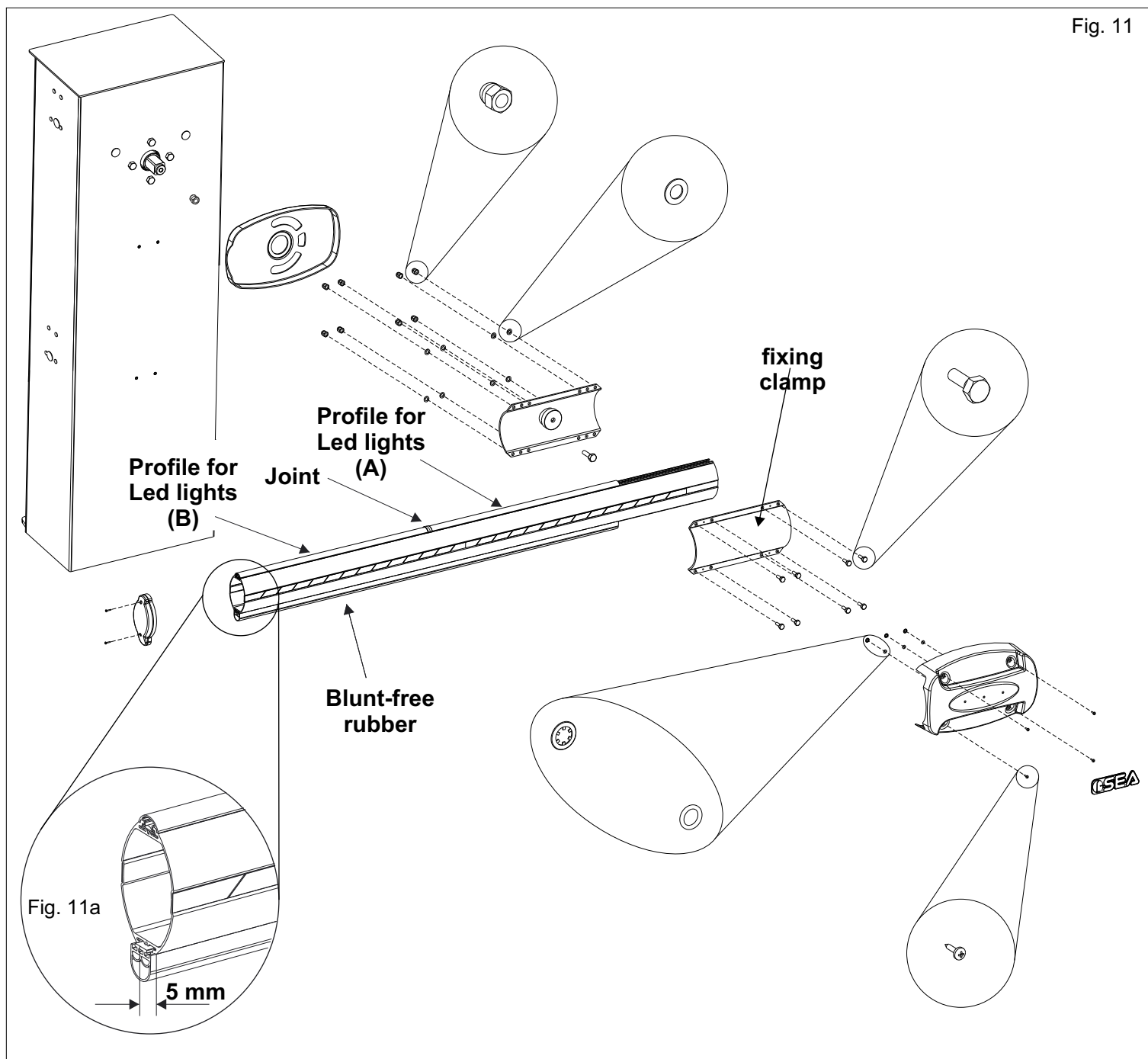


Fig. 11

- 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. 11a)

- 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. 11a

6 - SKIRT ASSEMBLY ON THE BEAM

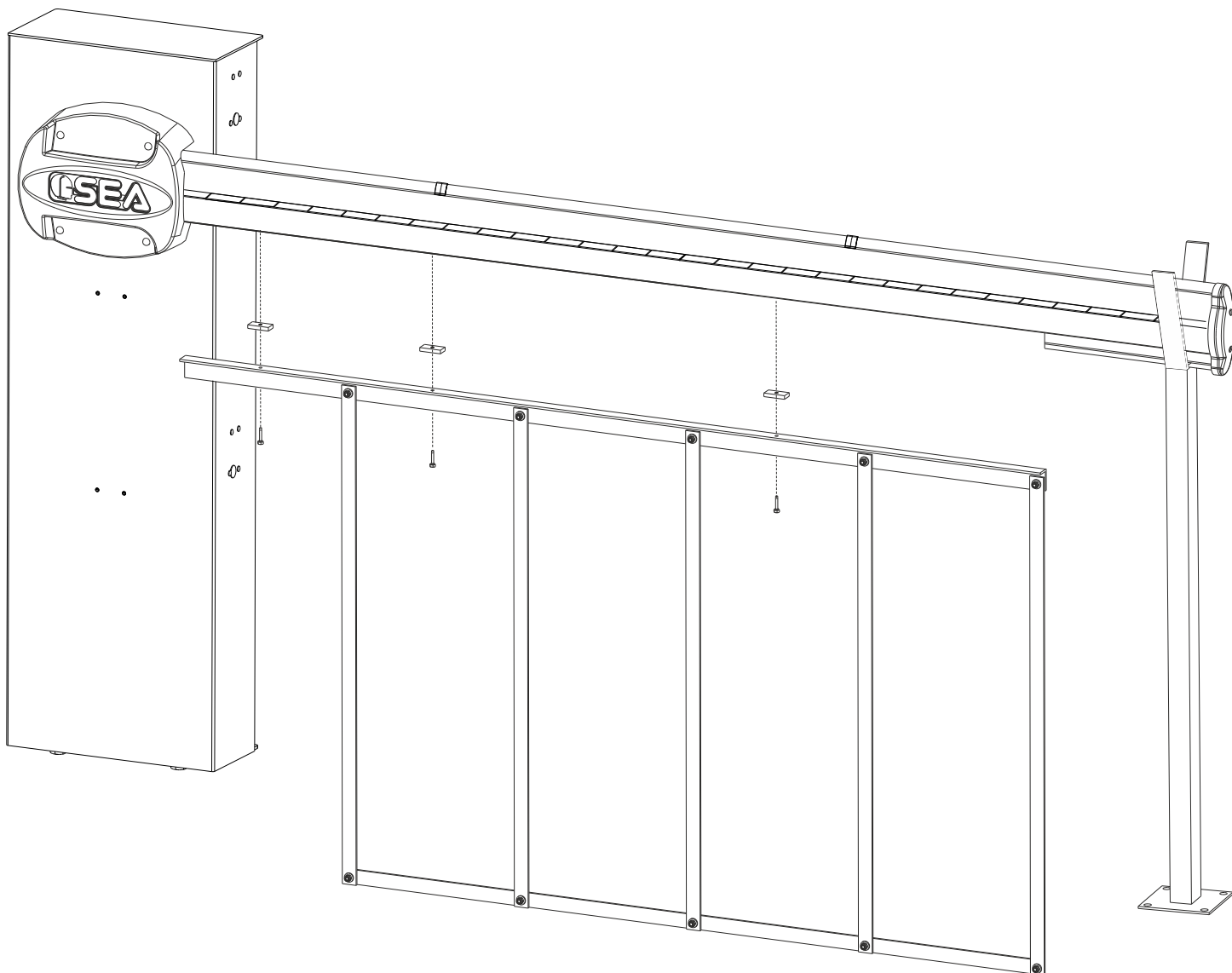


Fig. 12

7 - BEAM BALANCING

- Release the operator with manual release, so that beam is free to be open and closed manually (Fig. 13)
- Place the beam at approximately 45°
- Loosen or tighten the spring stretching nut until the spring counterbalances the weight of the 45° beam (Fig. 13). The best balancing position is when the beam reaches and stays in the position shown in Fig. 13
- After having obtained the balancing, lock the spring stretching nut with the counter nut and re-block the operator

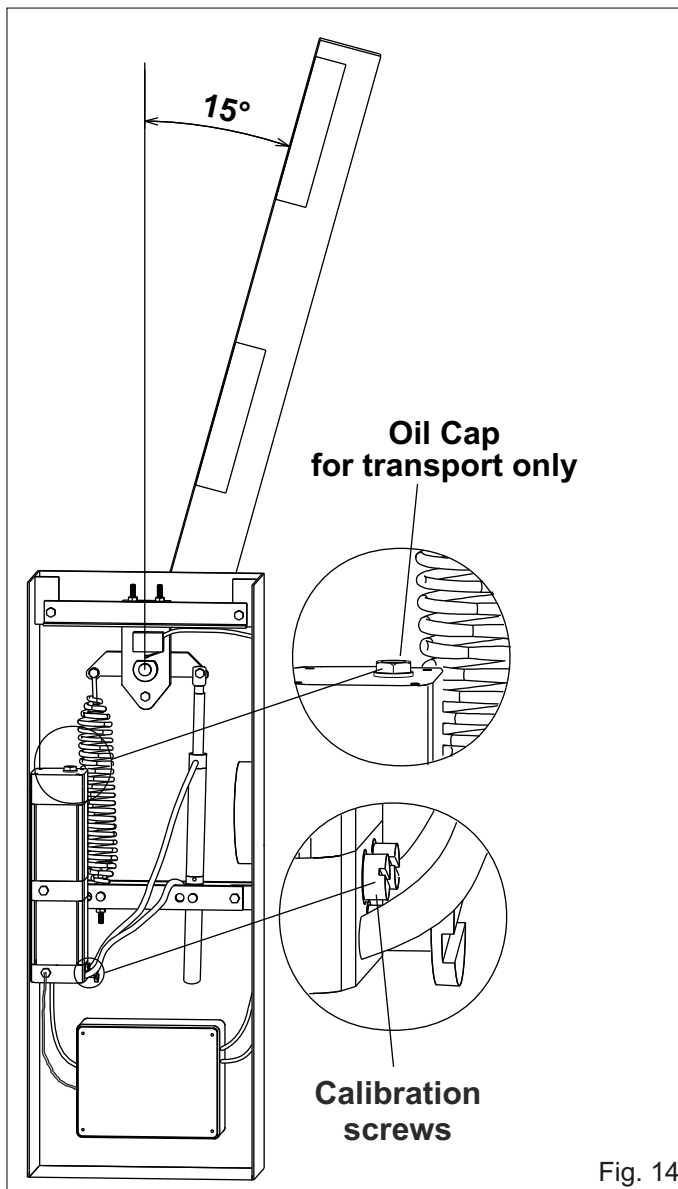


Fig. 14

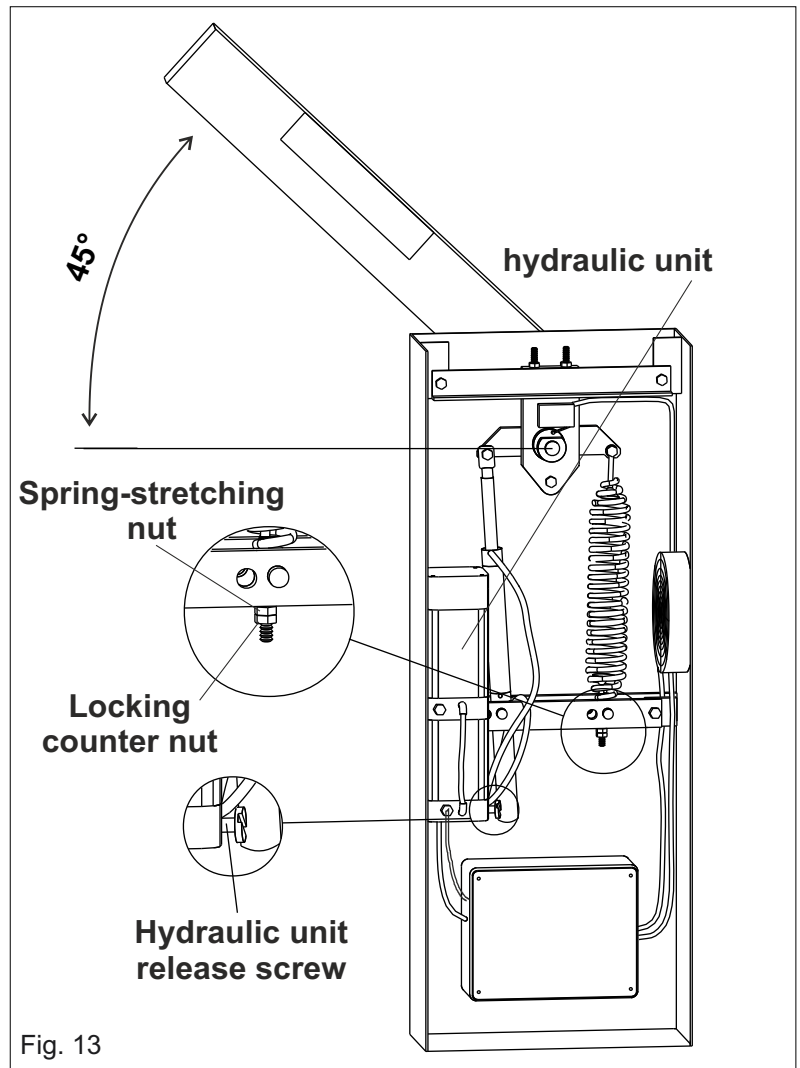


Fig. 13

8 - THRUST ADJUSTMENT

If necessary, the piston thrust force can be adjusted through the two calibration screws (gray to open and yellow to close) placed on the hydraulic unit side (Fig. 14).

WARNING

The automation is factory adjusted to a force of 15 Kg to guarantee the anti-crushing safety, therefore it is recommended to not alter this adjustment except in case of absolute necessity

WARNING:
BEFORE STARTING THE VELA SPRINT BARRIER IT IS NECESSARY TO REPLACE THE OIL CAP FOR TRANSPORT WITH THE DRILLED ONE SUPPLIED

9 - BEAM LEVELLING

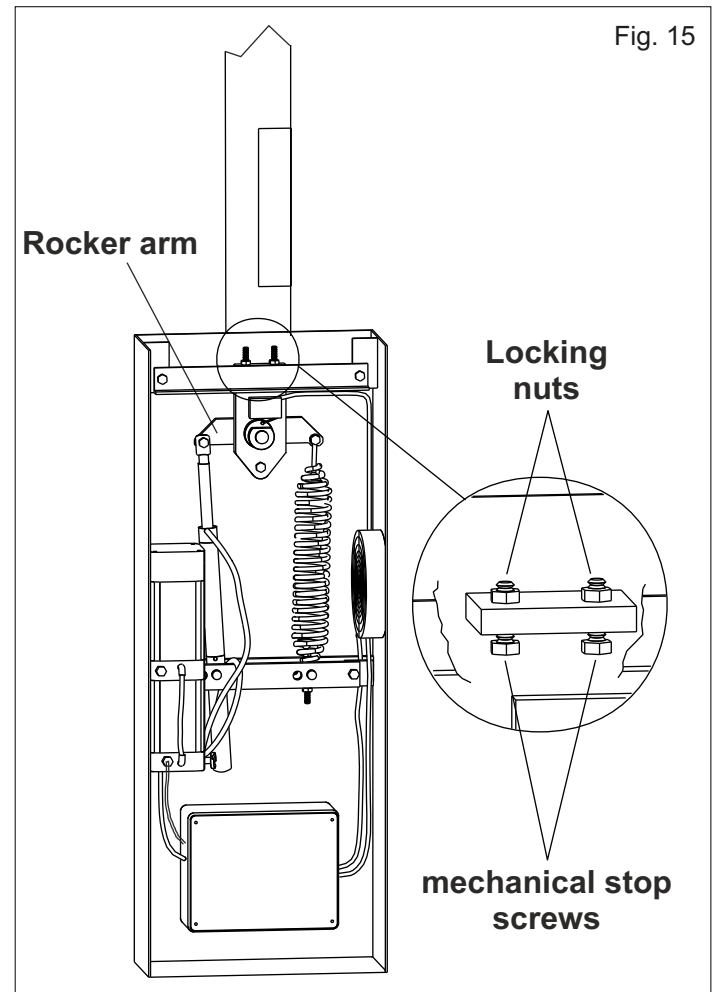
WARNING: This operation must be carried out only if the beam is not perfectly horizontal (in closing position) or vertical (in opening position) at the end of its stroke

- 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

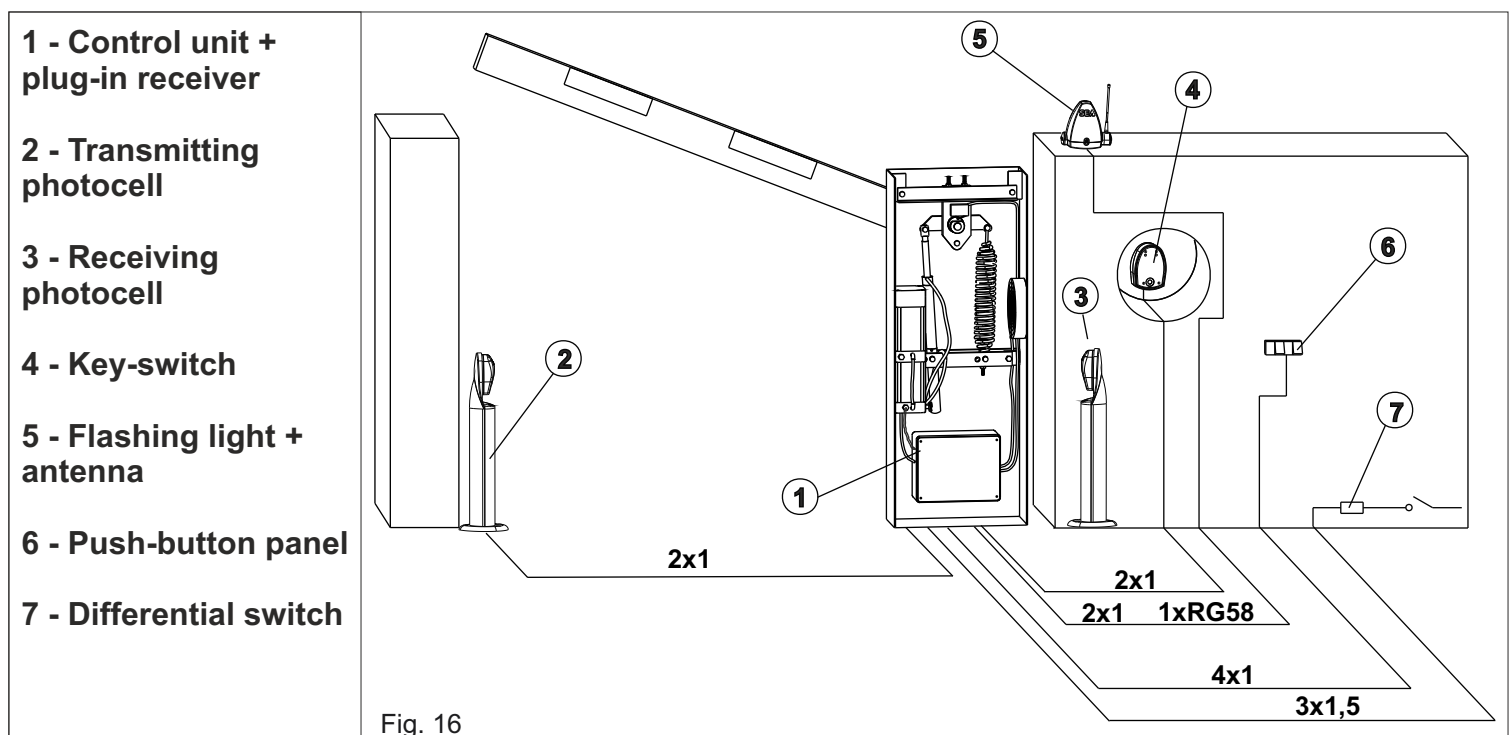
- Loosen or tighten the mechanical stops screws so that the beam is released in its vertical position (opening position) and horizontal position (closing position)

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



10 - ELECTRICAL SYSTEM

In the Fig. 16 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

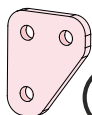


VELA SPRINT

ASSEMBLY OF BALANCING SPRING FOR BEAMS UP TO 5 METERS LENGTH



If you want to install a beam up to 5 meter on the VELA SPRINT barrier, it will be necessary to respect the procedure described in this instruction



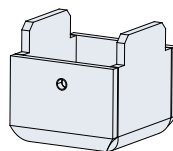
(a)



(b)



(c)

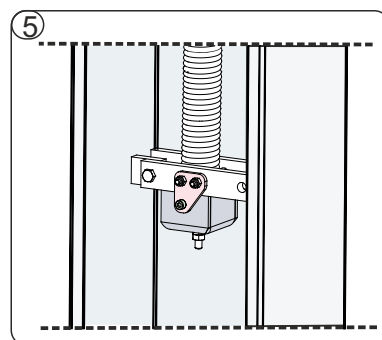
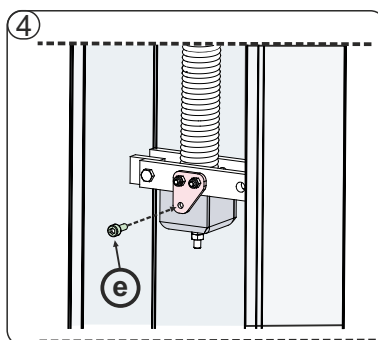
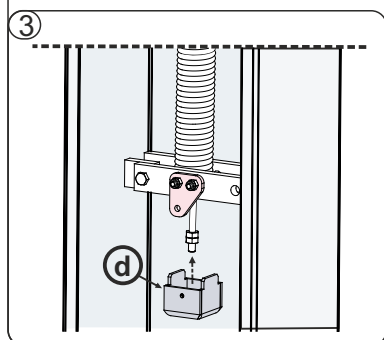
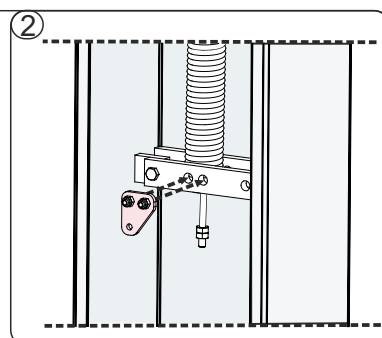
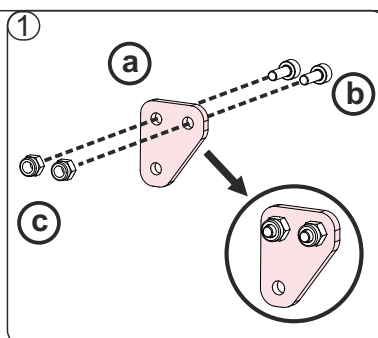


(d)

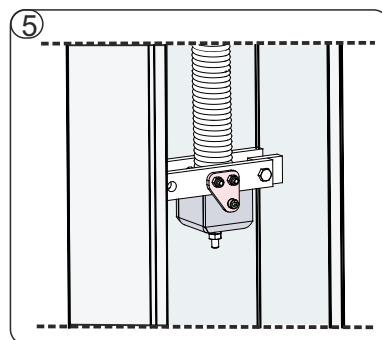
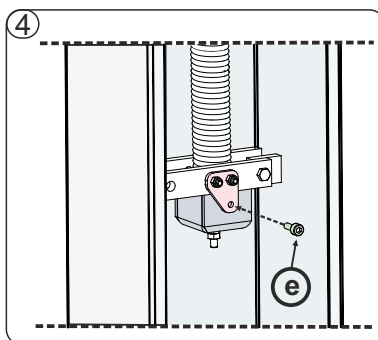
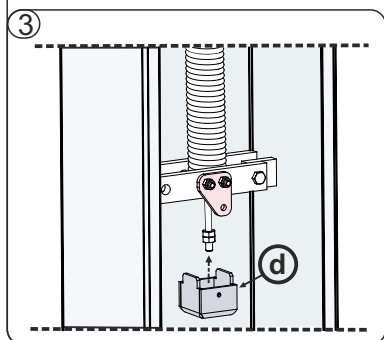
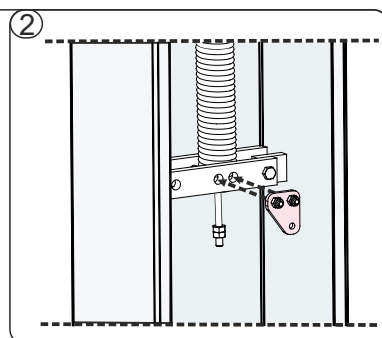
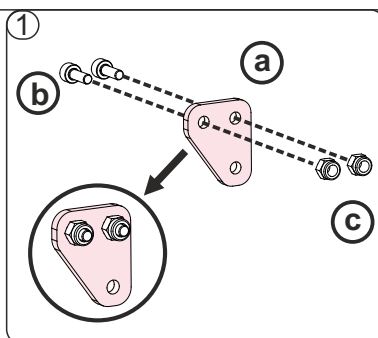


(e)

BEAM ASSEMBLY OPENING FROM RIGHT TO LEFT



BEAM ASSEMBLY OPENING FROM LEFT TO RIGHT



TO THE ATTENTION OF THE TECHNICIAN AND THE END-USER

RISK EXAMINATION The installer must take a thorough risk examination to prevent crushing, conveying, cutting, grappling, trapping so as to guarantee a safe installation for people, things and animals (Re. Laws in force in the Country where installation has been made). As for misunderstandings that may arise refer to your area distributor or call our help desk. These instructions are part of the device and must be kept in a well known place. The installer shall follow the provided instructions thoroughly. SEA products must only be used to automate doors, gates and wings. Any initiative taken without SEA explicit authorization will preserve the manufacturer from whatsoever responsibility. The installer shall provide warning notices on not assessable further risks. SEA in its relentless aim to improve the products, is allowed to make whatsoever adjustment without giving notice. This doesn't oblige SEA to upgrade the past production. SEA can not be deemed responsible for any damage or accident caused by product breaking, being damages or accidents due to a failure to comply with the instructions herein. The guarantee will be void and the manufacturer responsibility will be nullified if SEA original spare parts are not being used. The electrical installation shall be carried out by a professional technician who will release documentation as requested by the laws in force. Packaging materials such as plastic bags, foam polystyrene, nails etc must be kept out of children's reach as dangers may arise.

INITIAL TEST AND STARTING OF THE AUTOMATION: After having completed the necessary operations for a correct installation of the product and after having evaluated all the risks which could arise in any installation, it is necessary to test the automation to guarantee the maximum security and, in particular, to guarantee that the laws in force are fully respected. The first Start must be executed according to the rule **EN 12445** which establishes the methods of tests for checking the gate automation respecting the limits established by the rule **EN 12453**.

SAFETY PRECAUTIONS: All electrical work should comply with the current regulations. A 16A / 0,030 differential switch must be used. Separate the source cables (operators, power supply) and command cables (photocells, push-buttons, etc). Be sure the entire system is properly earth bonded. Always run cables in separate ducts to prevent interferences.

INTENDED USE: The operator has been designed to be used for the automation of barriers only.

SPARE PARTS: Send request for spare parts to: **SEA S.p.A. - Teramo - ITALY - www.seateam.com**

SAFETY AND ENVIRONMENTAL COMPATIBILITY: Don't waste product packing materials and/or circuits.

STORAGE: Materials must be properly packaged, handled with care and with appropriate vehicles;

WARRANTY LIMITS - see the sales conditions

MAINTENANCE AND DECOMMISSION: must only be carried out by specialised and authorised personnel.

THE MANUFACTURER CAN NOT BE DEEMED RESPONSIBLE FOR ANY DAMAGE OR INJURY CAUSED BY IMPROPER USE OF THIS PRODUCT

SEA S.p.A. reserves the right to make any required modification or change to the products and/or to this manual without any advanced notice obligation.

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. Any other use could compromise the condition and the operation of the product or be a source of danger. SEA S.p.A. declines all liability caused by improper or different use in respect to the intended one.
4. The mechanical parts must be comply with: Machine Regulation 2006/42/CE and following adjustments, Low Tension (2006/95/CE), Electromagnetic Consistency (2004/108/CE). Installation must respect 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 concerning system security and efficiency, if components used are not produced by SEA
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 control unit and motors should not be greater than 10 m. Use cables with 2,5 mm² section. Use double insulation cable (cable sheath) close to the terminals, in particular for the 230V cable. Keep an adequate distance (at least 2.5 mm in air), between low voltage (230V) cables and safety low voltage cables (SELV) or use an appropriate sheath that provides extra insulation having a thickness of 1 mm

TERMS OF SALES

EFFICACY OF THE FOLLOWING TERMS OF SALE: the following general terms of sale shall be applied to all orders sent to SEA S.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 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 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 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

NOTES

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SEA[®]



Automatic Gate Openers

International registered trademark n. 804888

SEA S.p.A.

Zona Industriale Sant'Atto - 64100 - Teramo - ITALY

Tel. +39 0 861 588341 r.a. Fax +39 0 861 588344

www.seateam.com