

Automatic Gate Openers

International registered trademark n. 804888

# **KITE**

**ELECTROMECHANICAL OPERATOR FOR SWING GATES**



## **INSTALLATION MANUAL and Safety Information**

**SEA S.p.A.**  
**Zona industriale Sant'Atto - 64020 - Teramo - ITALY**  
**Phone: +39 0 861 588341 r.a. - Fax: +39 0 861 588344**  
[www.seateam.com](http://www.seateam.com)  
[seacom@seateam.com](mailto:seacom@seateam.com)

## TECHNICAL SPECIFICATIONS

**KITE** is an irreversible electromechanical swing gate operator, strong and safe, easy to install, for leaf length up to 5 m. KITE operator is equipped with release system through key, which allows the manual release of the leaf in case of emergency or black out

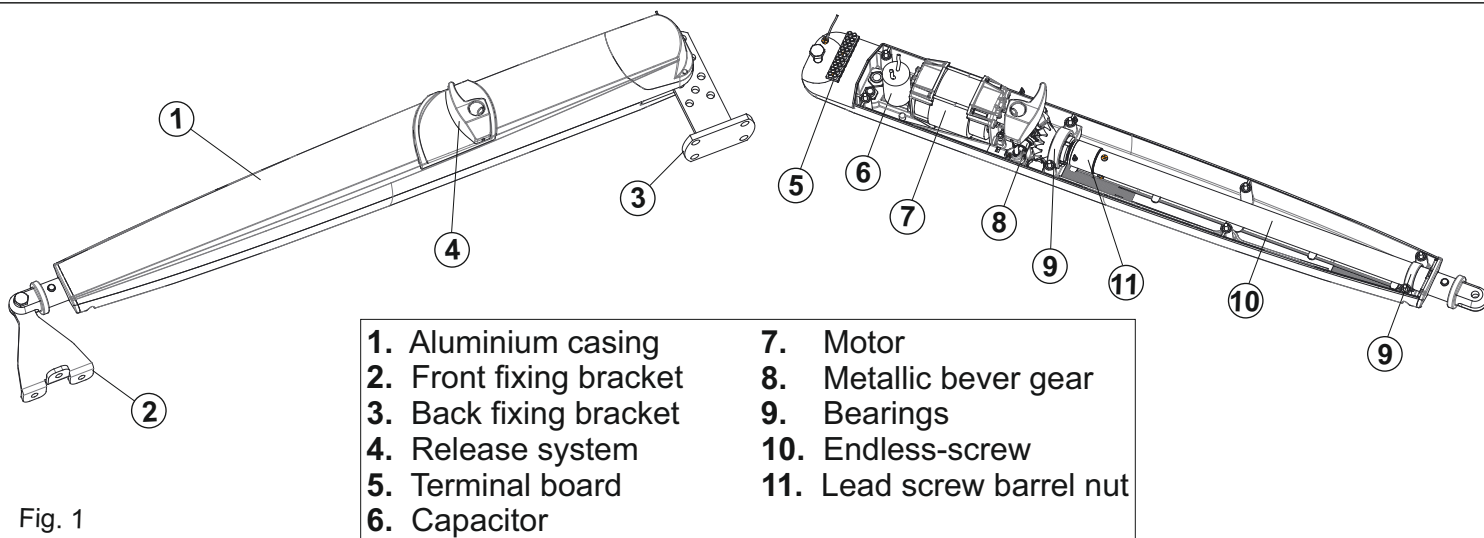
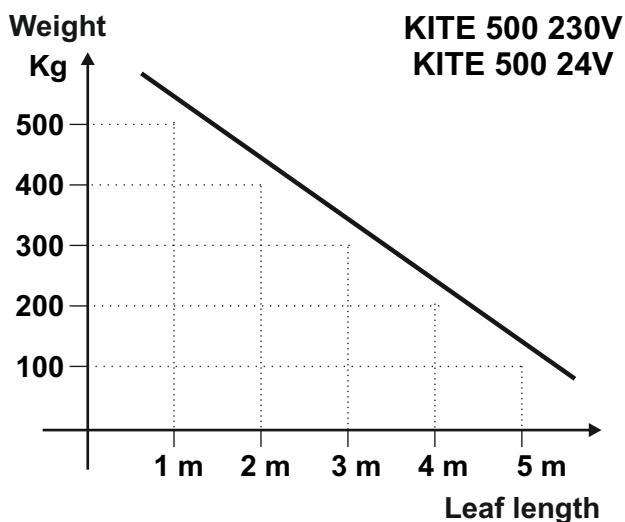
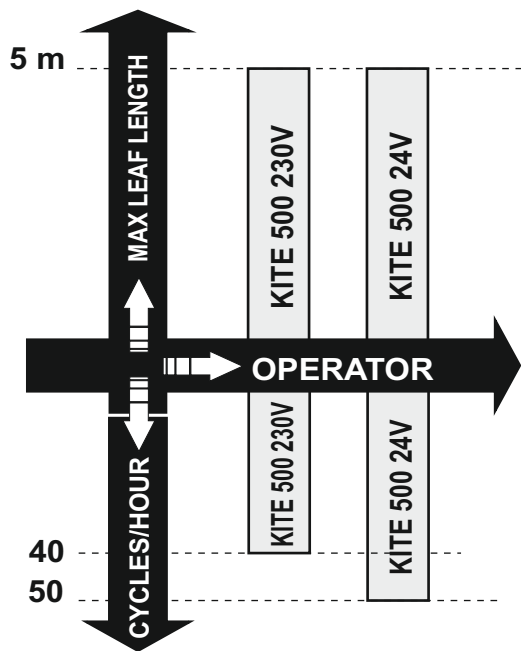


Fig. 1

### USING GRAPHICS



TECHNICAL DATA	KITE 500 230V	KITE 500 24V
Power supply	230V~ (±5%) 50/60 Hz	24Vcc
Max. Power	230 W	60 W
Max. Absorbed current	1,1 A	2,5 A
Stroke	400 mm *	
Speed	2 cm/s	adjustable
Cycle/hour (operating at 20°C)	40	50
Operating temperature	-20°C	+55°C
Motor thermal protection	130°C	-----
Max. thrust	3000 N	2000 N
Capacitor	10 µF	-----
Operator weight	7,5 Kg	7,8 Kg
Protection	Ip 44	
Max. Leaf length	5 m	

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

\* with mechanical stops in opening and closing

### DIMENSIONS (mm)

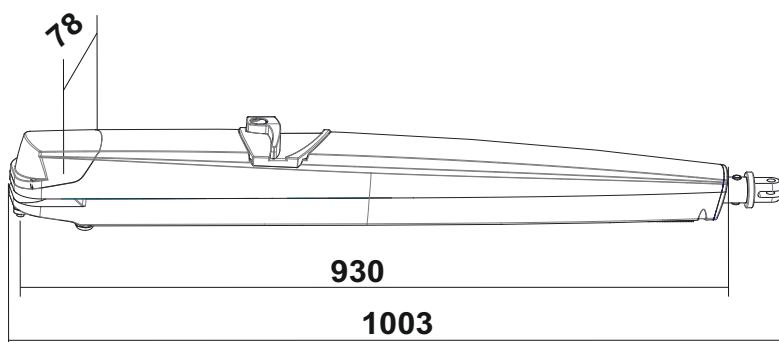
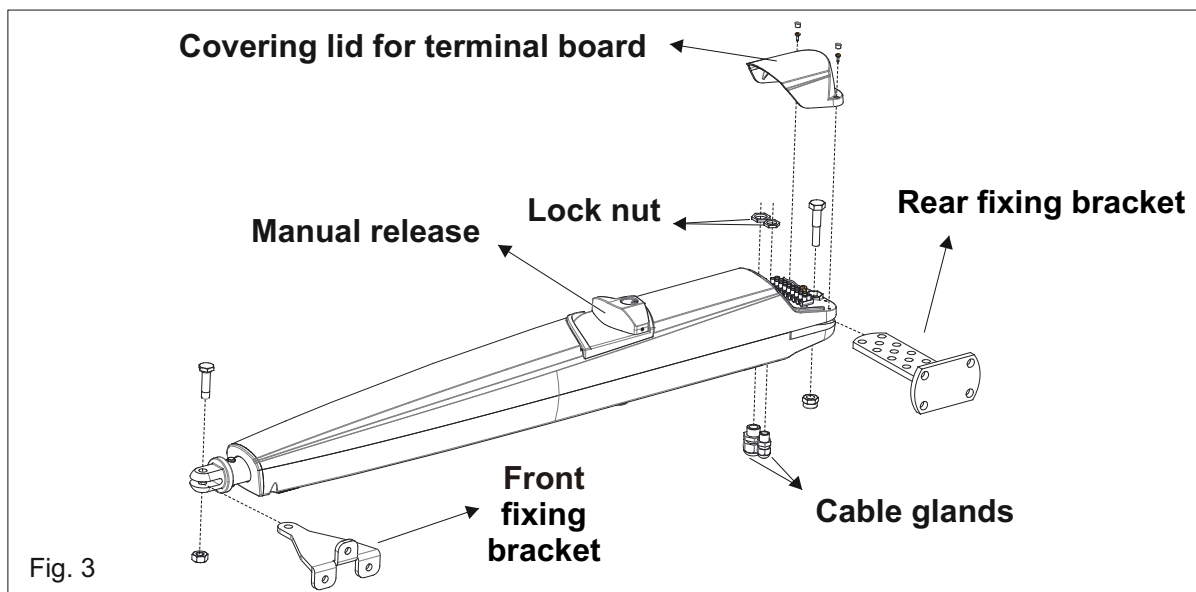


Fig. 2

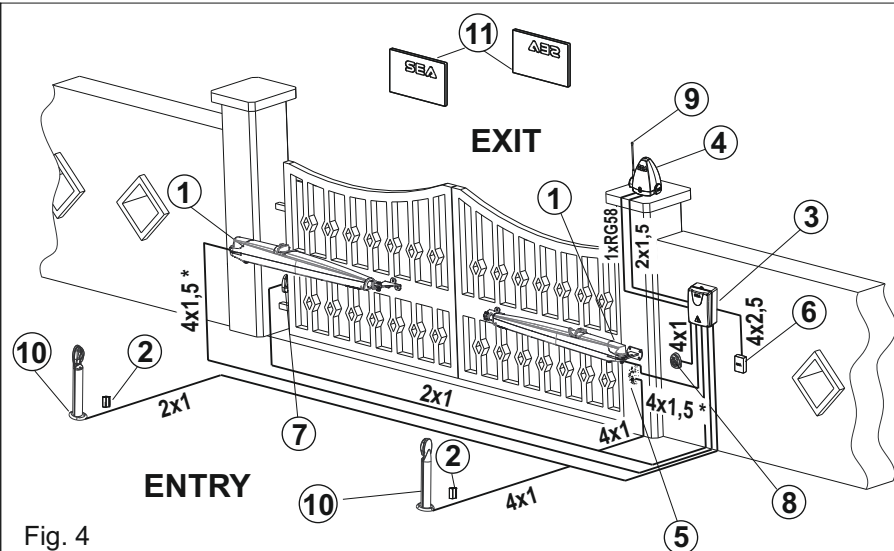
## MAIN PARTS



## STANDARD INSTALLATION

- 1) Operator
- 2) Mechanical stop
- 3) Electronic control unit
- 4) Flashing lamp
- 5) Right Photocell (Dx)
- 6) Differential switch 16A - 0,03A
- 7) Left Photocell (Sx)
- 8) Start/Stop push button with key
- 9) Antenna
- 10) Support for photocells
- 11) Warning notice

**\* For KITE 24V operator use 2x2,5 cables type to connect the motors to the control unit**

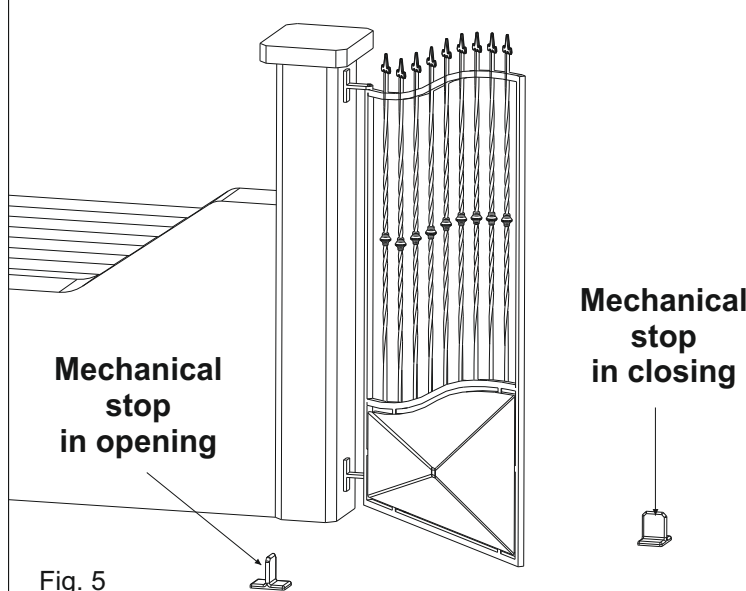


## GATE ARRANGEMENT

Some checks on the gate are required to verify the KITE operator fitting;  
Make sure that:

- A.** the fix and the moving parts of the gate are strong and non-deformable;
- B.** the length of each leaf does not exceed 5 m
- C.** the weight of each leaf does not exceed 500 Kg
- D.** the hinges and the general structure must be in good conditions and able to support the operator thrust; the gate must move smoothly throughout its whole travel;

*Where possible, it is advisable to install mechanical stops on the ground for a good functioning of the operator*



## INSTALLATION TYPE

### INSIDE INSTALLATION

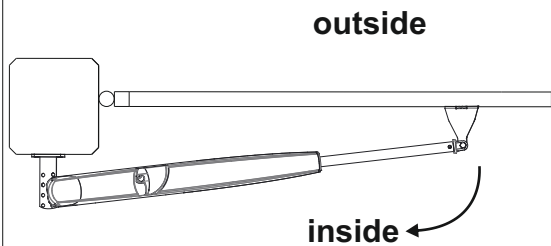


Fig. 6

### OUTSIDE INSTALLATION

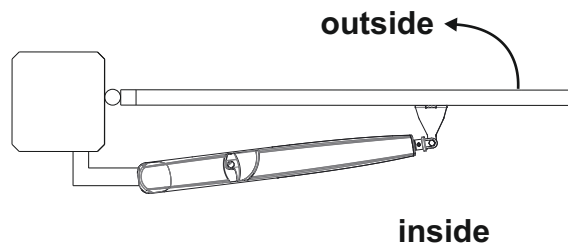


Fig. 7



**IN ANY CASE,  
INSTALL THE  
OPERATOR  
ALWAYS INSIDE  
THE PROPERTY**

## INWARD INSTALLATION

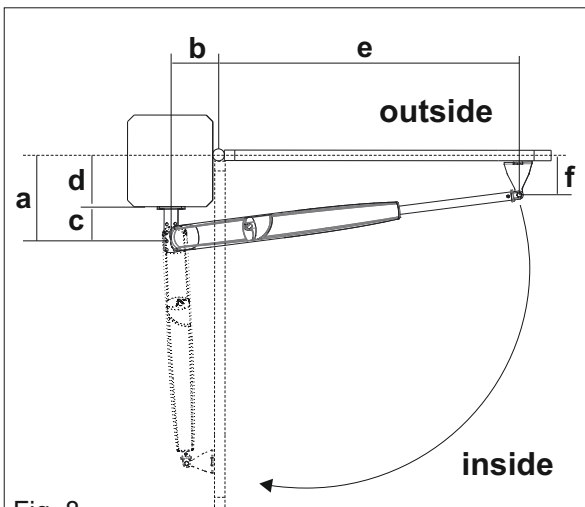


Fig. 8

**\* The « f » dimension has been calculated for a 40 mm thick gate**

a (mm)	b (mm)	c (mm)	d max (mm)	e (mm)	f * (mm)	Stroke for 90°	Opening for 90°	Max Stroke for opening angle	Opening angle
240	120	63	177	1210	140	360	90	381	100
250	120	63	187	1210	140	370	90	390	100
260	120	63	197	1210	140	380	90	394	95
210	100	63	147	1233	140	310	90	319	95
220	100	63	157	1233	140	320	90	329	95
230	100	63	167	1233	140	330	90	339	95
240	140	63	177	1193	140	380	90	394	95
230	140	63	167	1193	140	370	90	392	100
220	140	63	157	1193	140	360	90	389	105
220	160	63	157	1174	140	380	90	395	95
210	160	63	147	1174	140	370	90	395	100
200	160	63	137	1174	140	360	90	395	105
160	160	63	97	1175	140	320	90	371	115
160	180	63	97	1155	140	340	90	392	110
150	200	63	87	1137	140	350	90	400	105
140	210	63	77	1125	140	350	90	395	105

**Total stroke 400 mm - max suggested stroke 380 mm**

## OUTWARD INSTALLATION

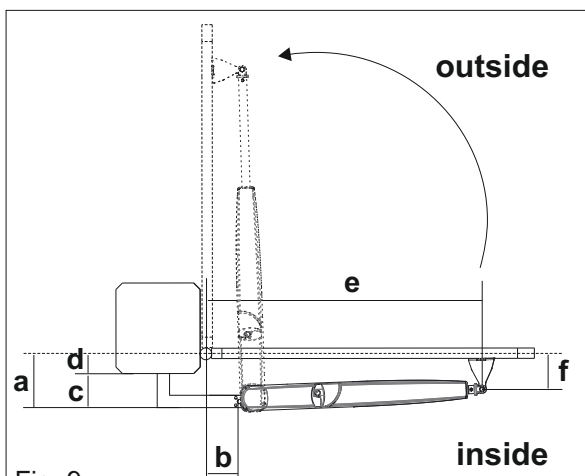


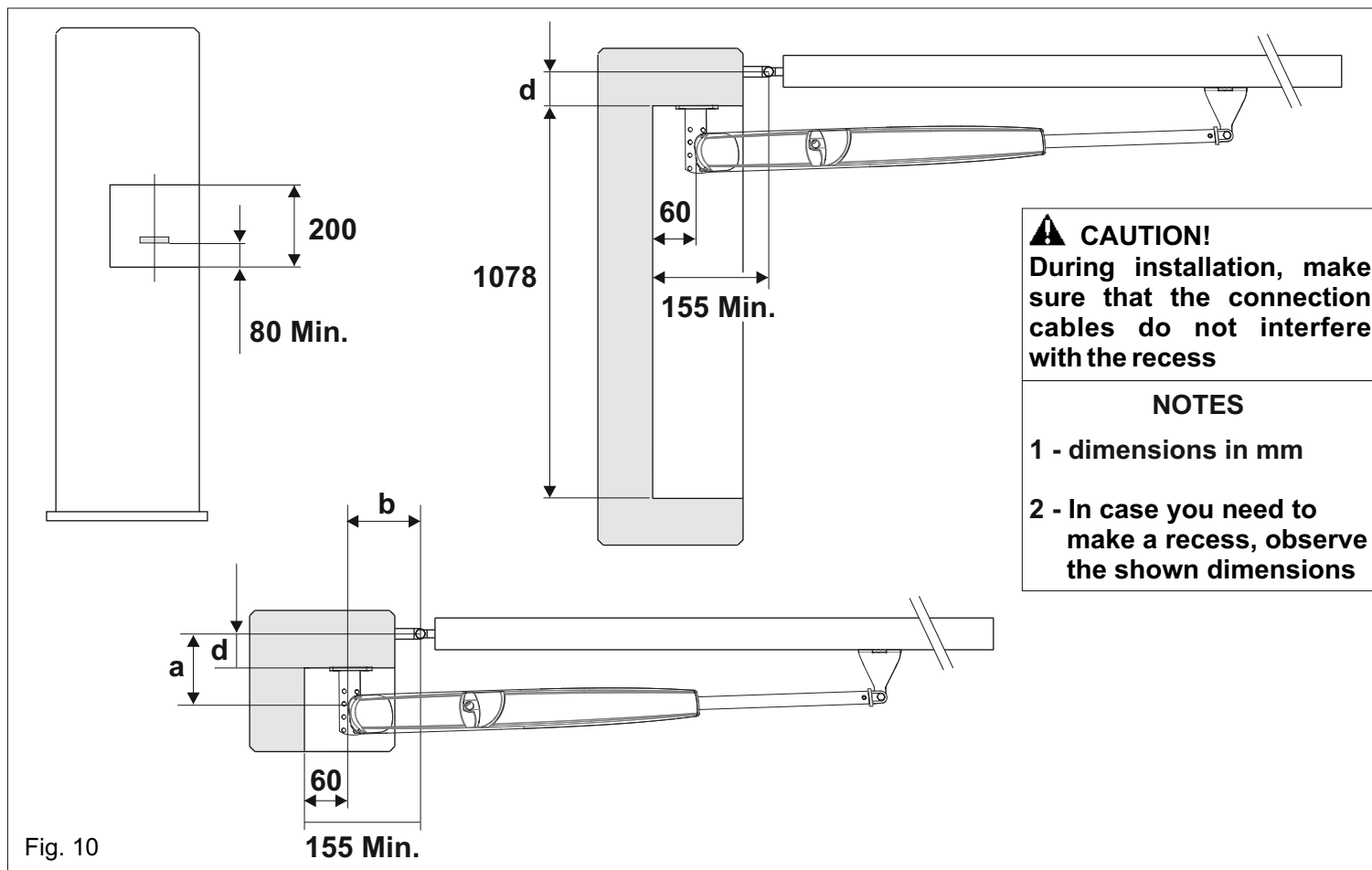
Fig. 9

**\* The « f » dimension has been calculated for a 40 mm thick gate**

a (mm)	b (mm)	c (mm)	d max (mm)	e (mm)	f * (mm)	Stroke for 90°	Opening for 90°	Max Stroke for opening angle	Opening angle
150	100	63	87	1045	140	250	90	259	95
150	120	63	87	1065	140	270	90	297	105
150	140	63	87	1085	140	290	90	330	110
160	120	63	97	1065	140	280	90	307	105
160	140	63	97	1085	140	300	90	331	105
160	160	63	97	1105	140	320	90	365	110
160	180	63	97	1125	140	340	90	392	110
180	140	63	117	1085	140	320	90	351	105
200	160	63	137	1104	140	360	90	394	105

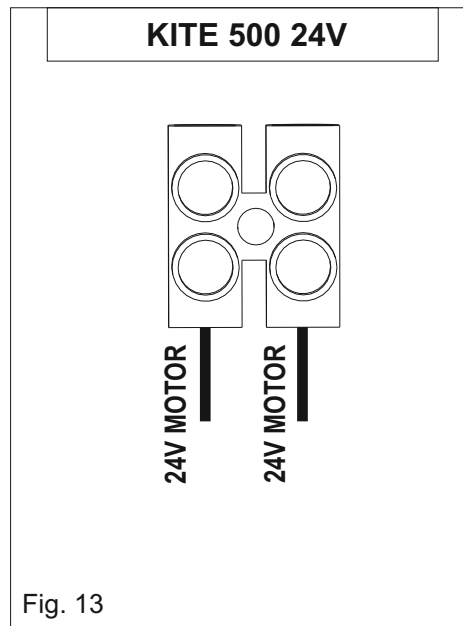
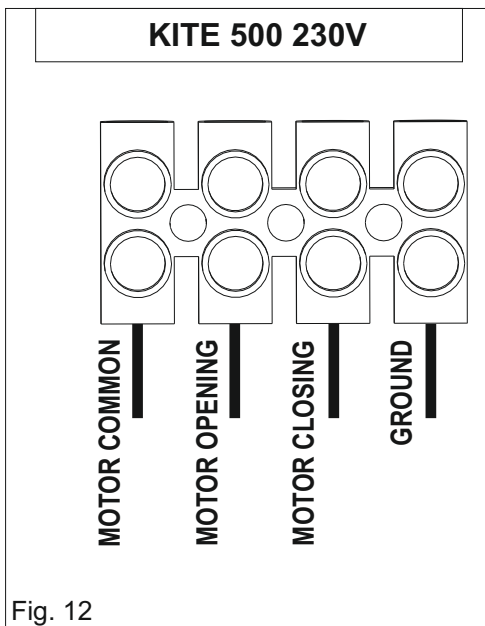
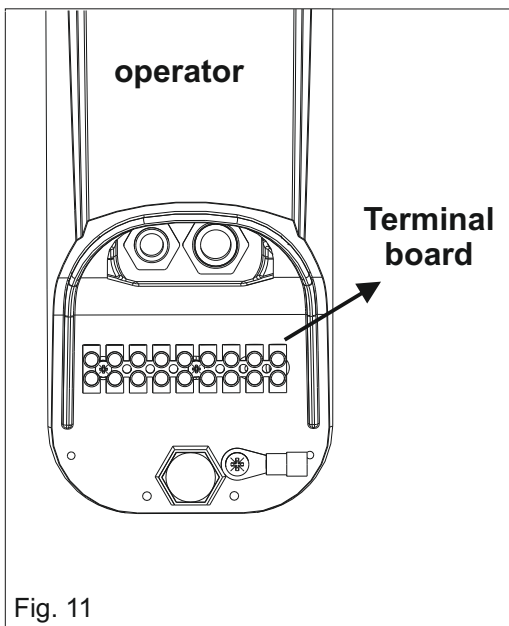
**Total stroke 400 mm - max suggested stroke 380 mm**

## INSTALLATION ON MASONRY PILLARS, MAKING A RECESS



## CONNECTIONS

**!** *make connections only after installation is complete and when the power supply is OFF*





## PRELIMINARY NOTES

- 1 - For the correct operation it is very important to position both the operator and its front and rear fixing brackets, in a perfectly horizontal way, by using a level, as shown in Fig. 14
- 2 - Before mounting operator on the rear and the front brackets, lubricate with water repellent grease
- 3 - The operator must be mounted with the release facing upwards (Fig. 14)

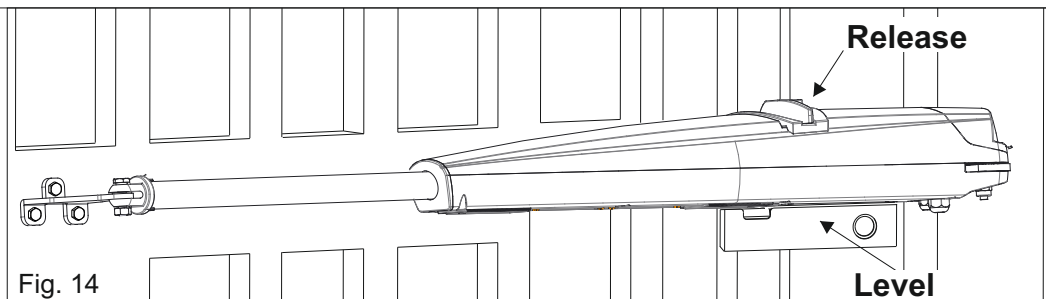


Fig. 14

## REAR FIXING BRACKET MOUNTING

### REAR FIXING BRACKET TO BE SCREWED

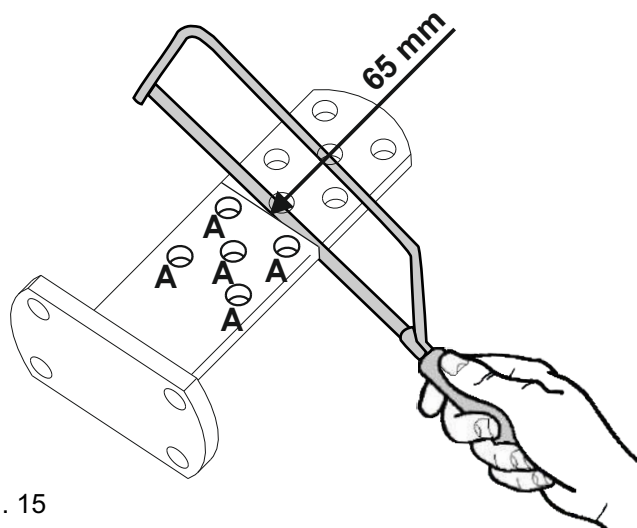


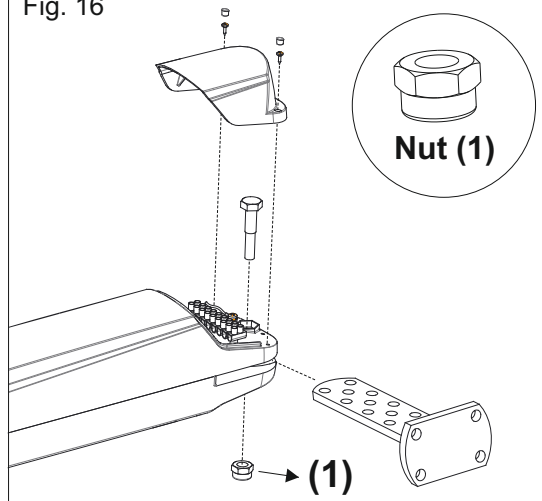
Fig. 15

If the rear fixing bracket has to be screwed using the holes marked as «A», so the fixing bracket must be cut at It is not necessary to cut the bracket if using other holes

*The support must be positioned so that the operator is in a perfect horizontal position (see Fig.14)*

**⚠ CAUTION!** To avoid the oscillation of the operator during the operating phase, it is recommended to adjust the nut (1) (Fig. 16) taking care to not block the rotation of the operator on the fixing bracket

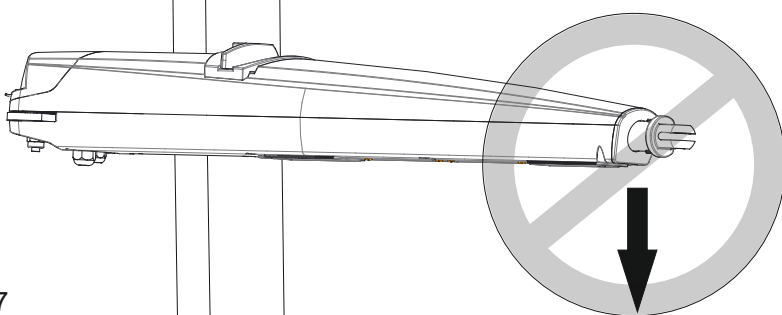
Fig. 16



### WARNING!

once the rear bracket has been fixed, immediately fix the front bracket, always keeping the operator in a horizontal position. Do not leave the front of the operator detached because it would fall down causing damage

Fig. 17





## PRELIMINARY NOTES

- 1 - According to the gate type (wood, iron, aluminium) the front bracket can be welded or screwed
- 2 - Before mounting the rear and the front fixing brackets, lubricate with water repellent grease
- 3 - The operator must be mounted with the release facing upwards (Fig. 14)

## FRONT FIXING BRACKET MOUNTING

### SCREWED FRONT FIXING BRACKET

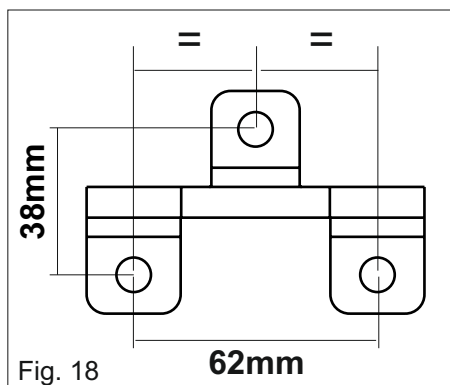


Fig. 18

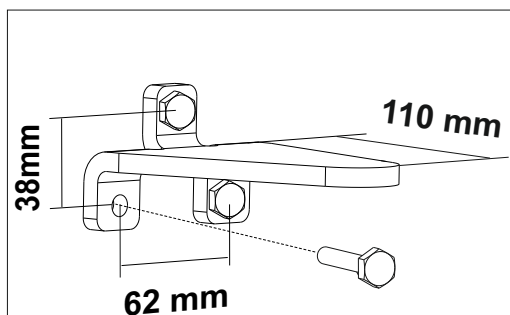


Fig. 19

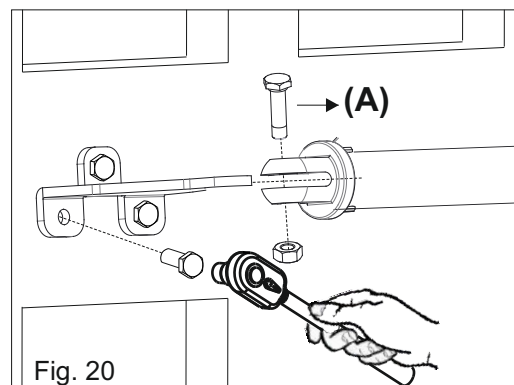


Fig. 20

Once the operator has been mounted on the rear fixing bracket, **close the leaf** and proceed as follows:

- 1) Release the operator keeping it always in a horizontal position
- 2) Screw the front fixing bracket onto the gate in correspondence of the holes made respecting the dimensions as per Fig. 18 and Fig. 19
- 3) Insert the bracket into the housing pin on the operator (Fig. 20) and tighten the «A» screw to max 8.5 Nm

**CAUTION: Lubricate the pin with grease before installing the front fixing bracket on the operator**

### WELDED FRONT FIXING BRACKET

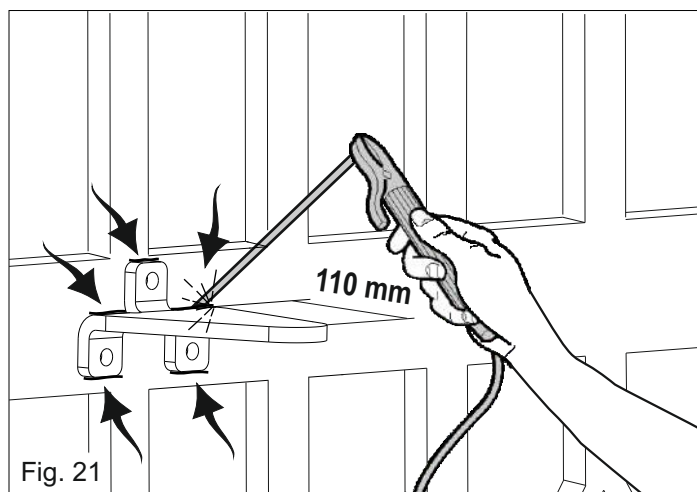


Fig. 21

Once the operator has been mounted on the rear fixing bracket, **close the leaf** and proceed as follows:

- 1) Release the operator keeping it always in a horizontal position
- 2) Weld the front fixing bracket on the gate operating on the the points indicated by the arrows (Fig. 21)
- 3) Insert the bracket into the housing pin on the operator (Fig. 20) and tighten the «A» screw to max 8.5 Nm

**CAUTION: Lubricate the pin with grease before installing the front fixing bracket on the operator**

## TO THE ATTENTION OF THE TECHNICIAN AND THE END-USER

### INTERNAL METAL RELEASE SYSTEM

#### TO RELEASE THE OPERATOR:

- 1) Turn counter-clockwise the lock protection cover (Fig. 22)
- 2) Insert the key and turn of about 90° clockwise (Fig. 23)
- 3) Turn the handle counter-clockwise to release the operator (Fig. 24)

#### TO LOCK THE OPERATOR:

- 1) Turn the handle clockwise to revert it to the initial position
- 2) Turn the key about 90° counter-clockwise (Fig. 25)
- 3) After having relocked the operator, close the lock protection cover to prevent damages due to atmospheric agents

**NOTE: for a proper operation of the manual release it is recommended to observe the current regulations regarding the thrust force**

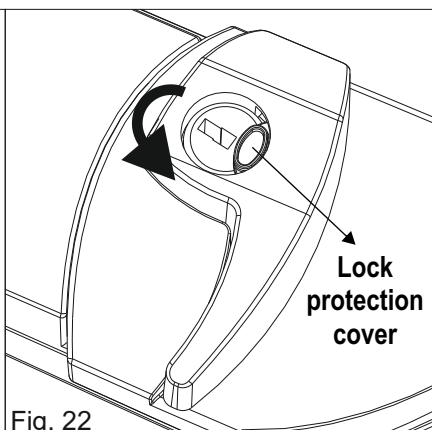


Fig. 22

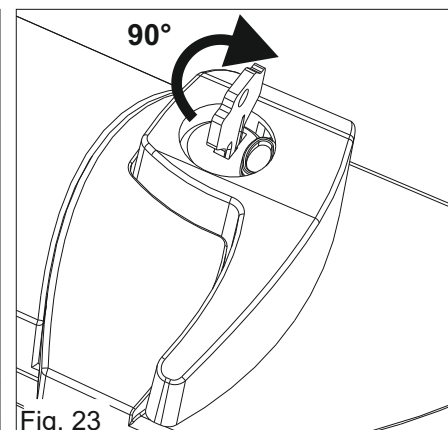


Fig. 23

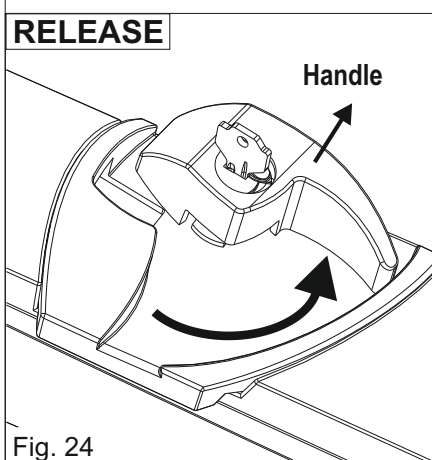


Fig. 24

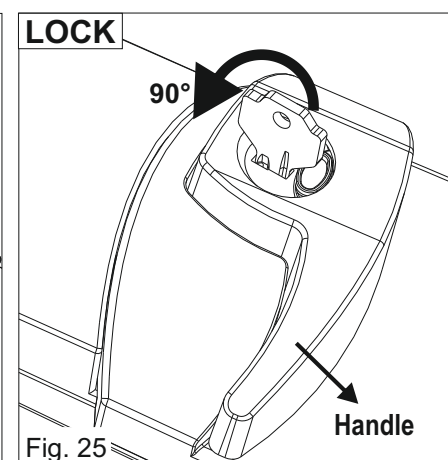


Fig. 25

### PERIODICAL MAINTENANCE



**All operations MUST be made exclusively by an authorized installer and when power supply is OFF**

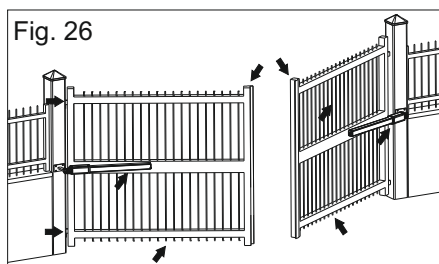
1	Check the robustness and the stability of the gate, especially of the points of support and/or the gate points of rotation (pivots)	Yearly
2	Check the release system function	Yearly
3	Check and grease the fixing pivots and the endless screw	Yearly
4	Check the integrity of the connection cables	Yearly
5	Verify the function and the conditions of the mechanical stops in opening and closing	Yearly
6	Verify the good condition of all mechanism subject to stress (as front and rear fixing brackets)	Yearly
7	Check the function of all accessories, in particular of all safety devices	Yearly

**After the periodical maintenance operations it is necessary to repeat the test of the automation and its commissioning**

## TO THE ATTENTION OF THE TECHNICIAN AND THE END-USER

### RISK EXAMINATION

The points pointed by arrows in Fig. 26 are potentially dangerous. 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 swing gates only.

**SPARE PARTS:** Send request for spare parts to: **SEA S.p.A. - Teramo - ITALY - [www.seateam.com](http://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 mm<sup>2</sup> 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** 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**

**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, i prodotti:

*SEA S.p.A. declares under its proper responsibility and, if applicable, under the responsibility of its authorised representative that, by installing the appropriate safety equipment and noise filtering, the products:*

Descrizione / Description	Modello / Model	Marca / Trademark
<b>KITE 500 230V</b> (e tutti i suoi derivati / <i>and all its by-products</i> )	11010000IV	SEA
<b>KITE 500 24V</b> (e tutti i suoi derivati / <i>and all its by-products</i> )	11010200	SEA
<b>KITE 500 BR</b> (e tutti i suoi derivati / <i>and all its by-products</i> )	11010005	SEA

sono costruiti per essere incorporati in una macchina o per essere assemblati con altri macchinari per costruire una macchina ai sensi della Direttiva 2006/42/CE

*are 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*

sono conformi ai requisiti essenziali di sicurezza relativi ai prodotti entro il campo di applicabilità delle Direttive Comunitarie 2014/35/UE e 2014/30/UE

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

Luogo, data di emissione

*Place, date of issue*

Teramo, 09/07/2020

L'Amministratore  
The Administrator  
Ennio Di Saverio





## Automatic Gate Openers

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Le agradecemos por haber escogito SEA.

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**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)**