



# SEA<sup>®</sup>

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

CE

ENGLISH

ELECTROMECHANICAL OPERATOR FOR SWING GATES

## FLIPPER



## FITTING INSTRUCTIONS and security advices

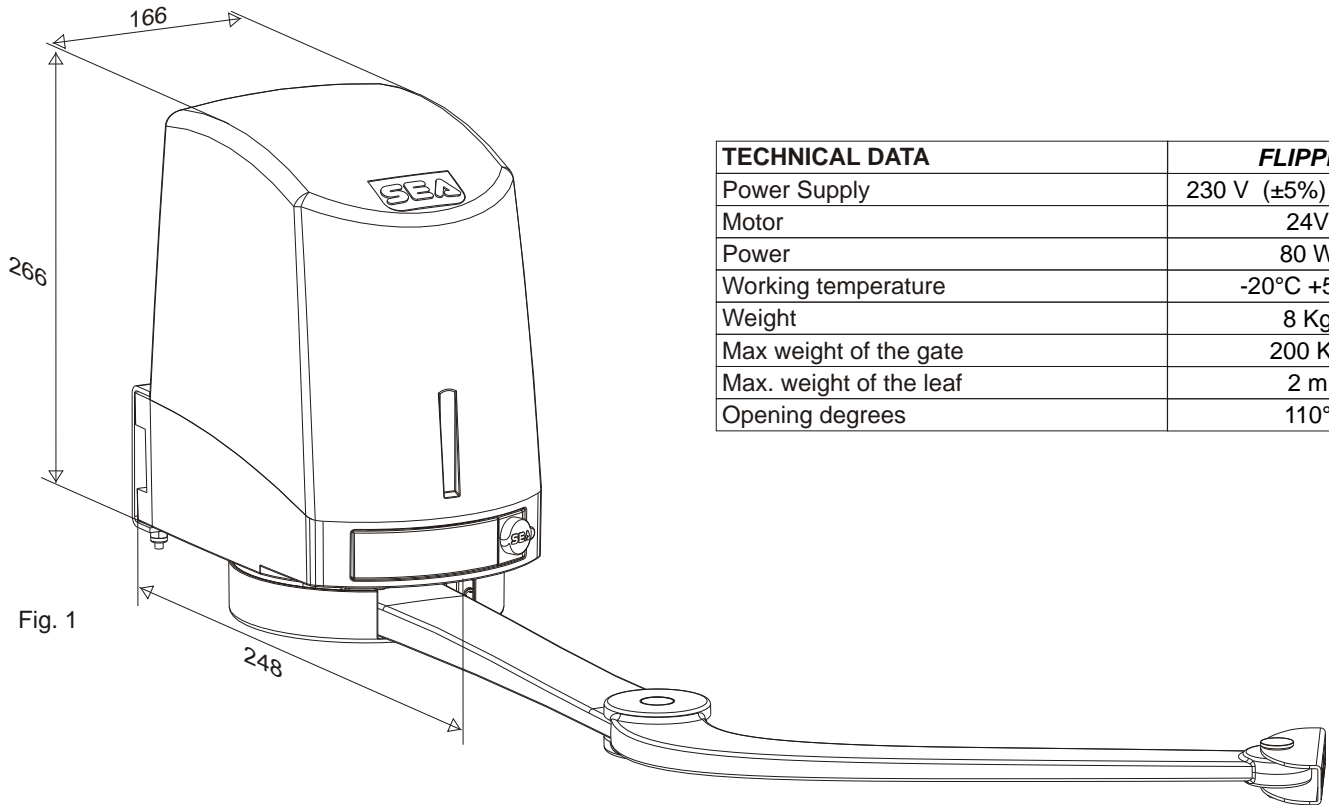
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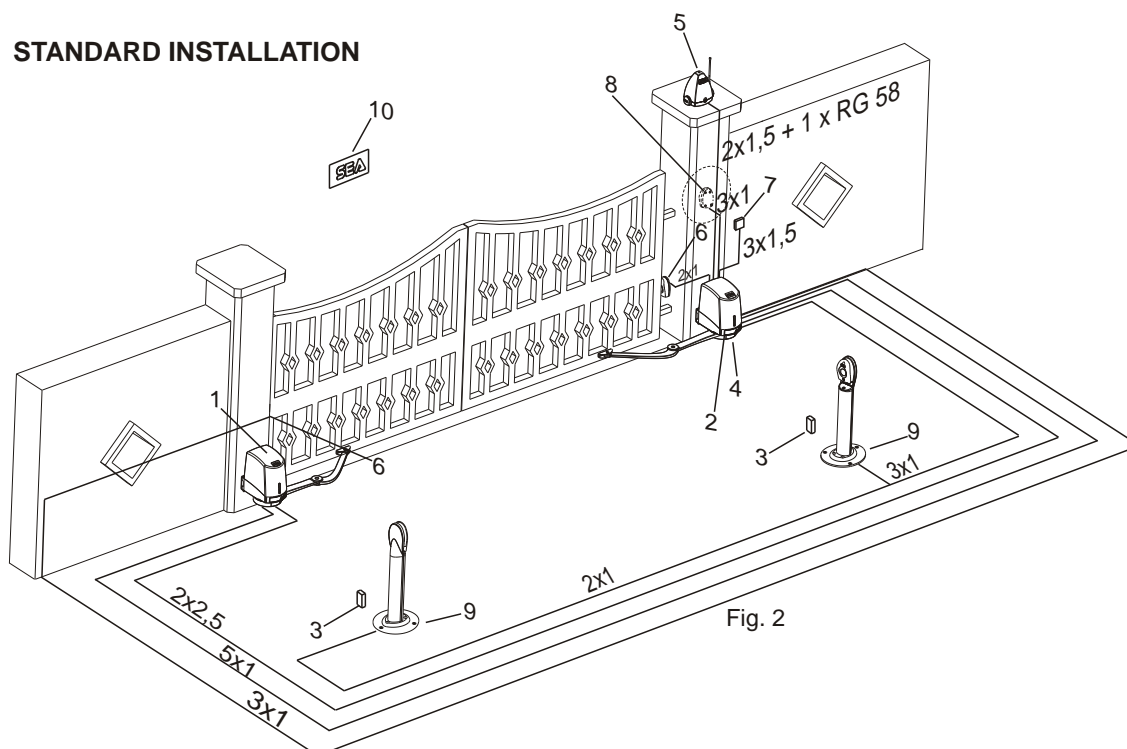
**Flipper** is an irreversible electromechanical swing gate operator for medium sized piers, maximum leaf length 2 m or 200Kg weight (see drawing in Fig 4-A)

### DIMENSIONS (mm)

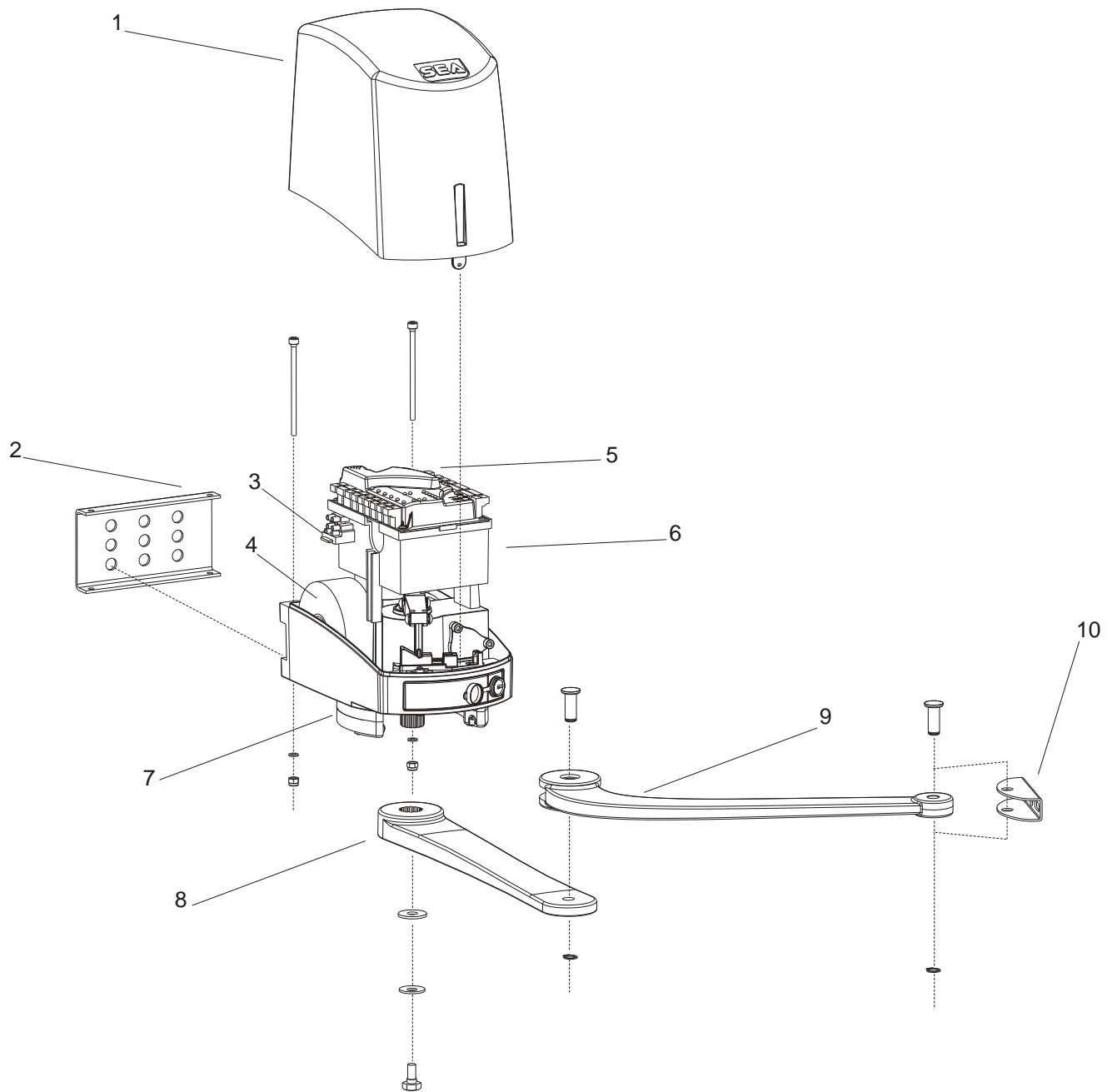


TECHNICAL DATA	FLIPPER
Power Supply	230 V (±5%) 50/60 Hz
Motor	24V
Power	80 W
Working temperature	-20°C +55°C
Weight	8 Kg
Max weight of the gate	200 Kg
Max. weight of the leaf	2 m
Opening degrees	110°

### STANDARD INSTALLATION



- 1-Operator 1
- 2-Operator 2
- 3-Stop in opening (where possible)
- 4-Electronic unit included
- 5-Flashing lamp + antenna
- 6-Photocell Ghost 40
- 7-Differential switch 16a-0,03a
- 8-Key switch Key Plus
- 9-Column for photocell  
Pilar + Ghost40
- 10-Warning plate



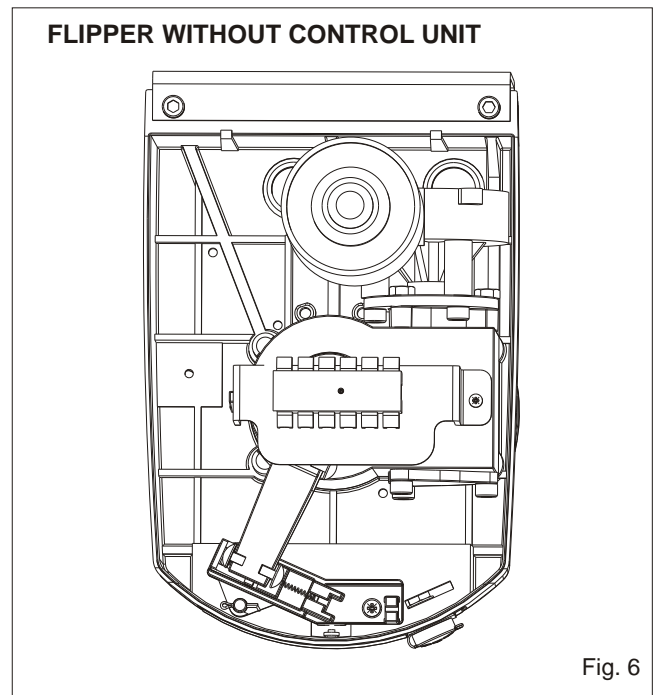
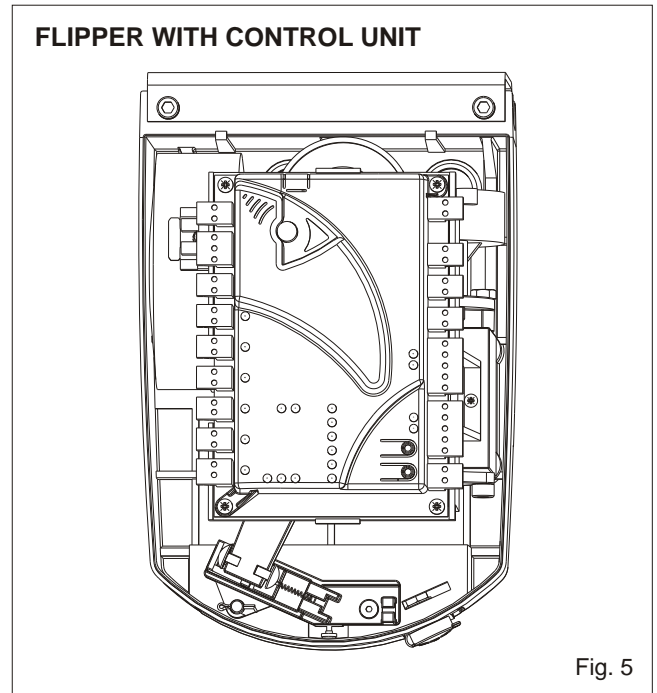
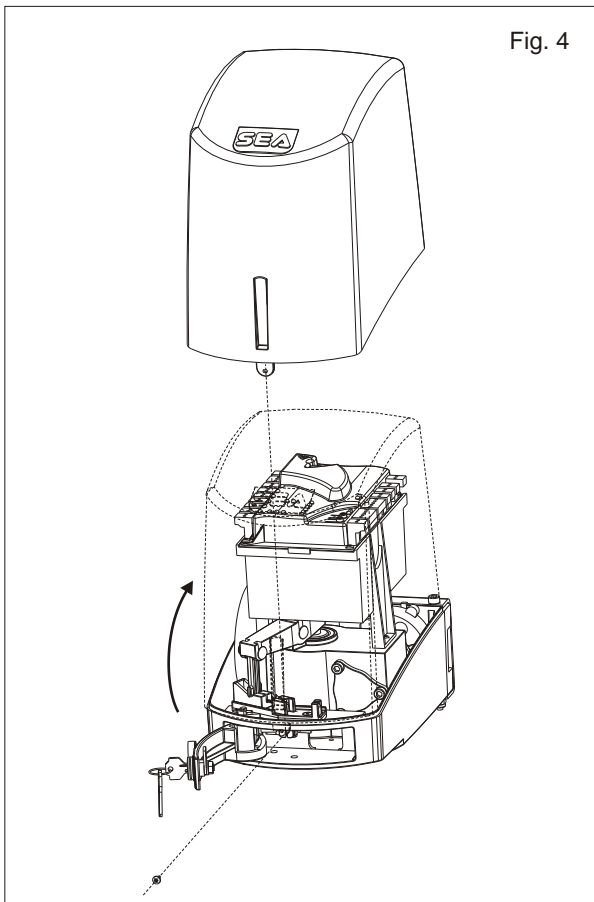
- 1. Carter
- 2. Anchrage plate
- 3. Fuse
- 4. Transformer
- 5. Electronic control unit
- 6. Battery/card support (battery optional)
- 7. Mech./electr. Stop (electrical optional)
- 8. Straight articulated arm
- 9. Curved articulated arm
- 10. Back fixation
- 11. Protection cover

Fig. 3

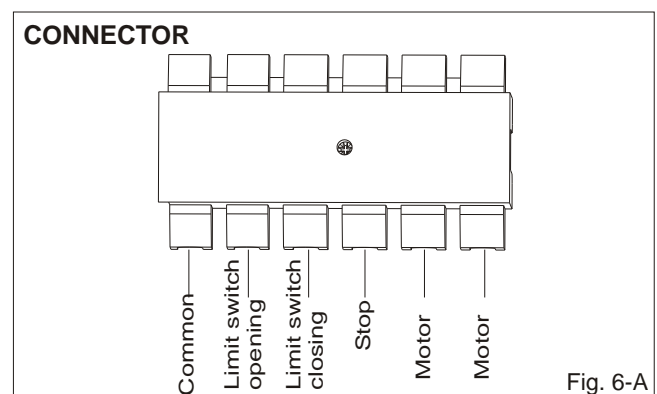
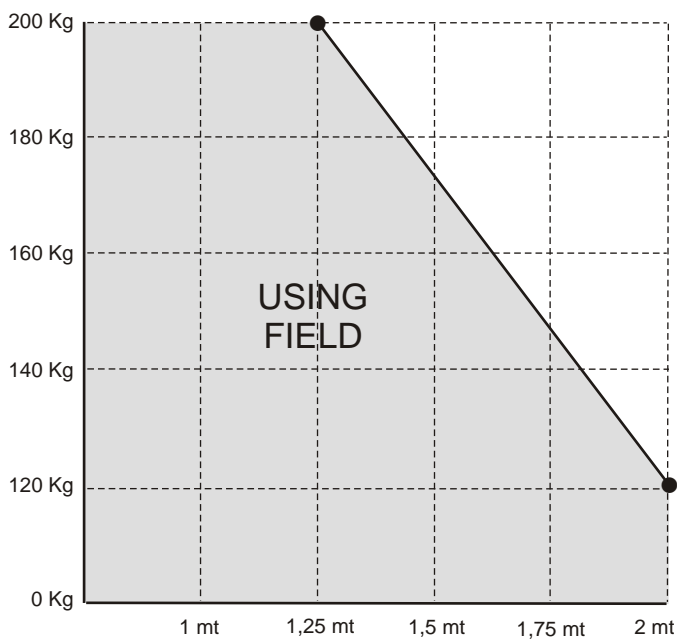


### CARTER OFF MOUNTING

Open the little release door and take off the screw on the inside (Fig 4).



### DRAWING LEAVES DIMENSIONS Fig. 4-A





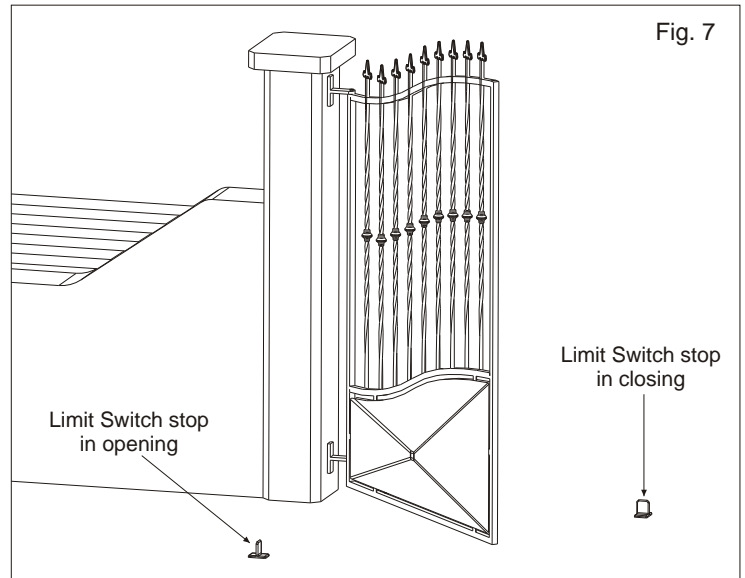
### GATE ARRANGEMENT

It is necessary to make controls on the gate to make sure the application of FLIPPER automation can be possible.

Make sure that:

- A.** The gate fixed and moving parts have a strong and crush-proof structure;;
- B.** The weight of each leaf is not over 200 Kg (see drawing pag. 18, Fig 4-A);
- C.** The length of each leaf is not over 2 m (see drawing pag. 18, Fig 4-A);
- D.** The hinges are strongly anchored and are able to support the torque of the operator; they do not have irregular movements and/or any friction during the whole movement of the leaf;

The FLIPPER operator comes with limit switch stop in opening and closing, nevertheless it is recommended to install mechanical limit switch stops to be fixed on the ground in



### DIMENSIONS FOR THE INSTALLATION

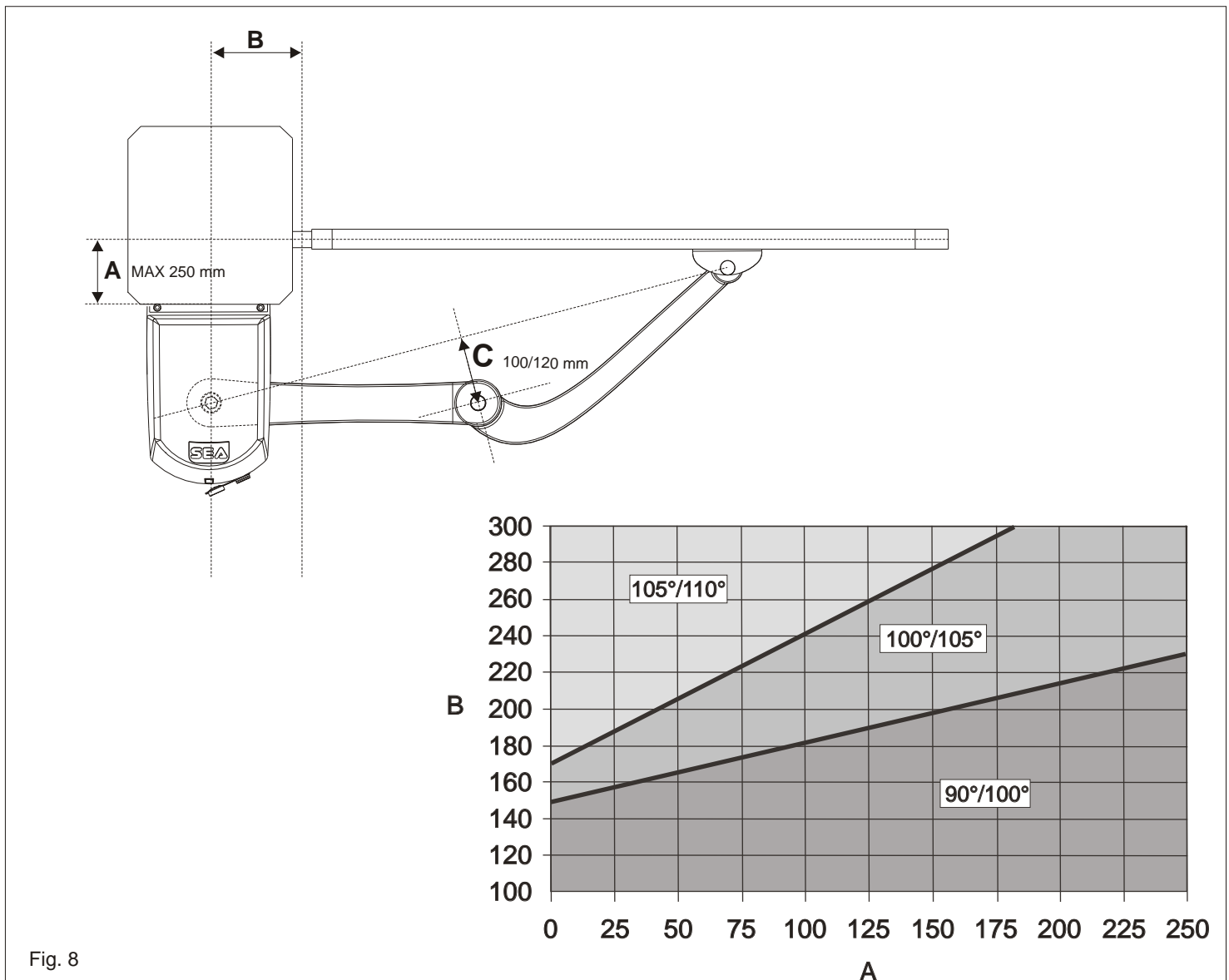
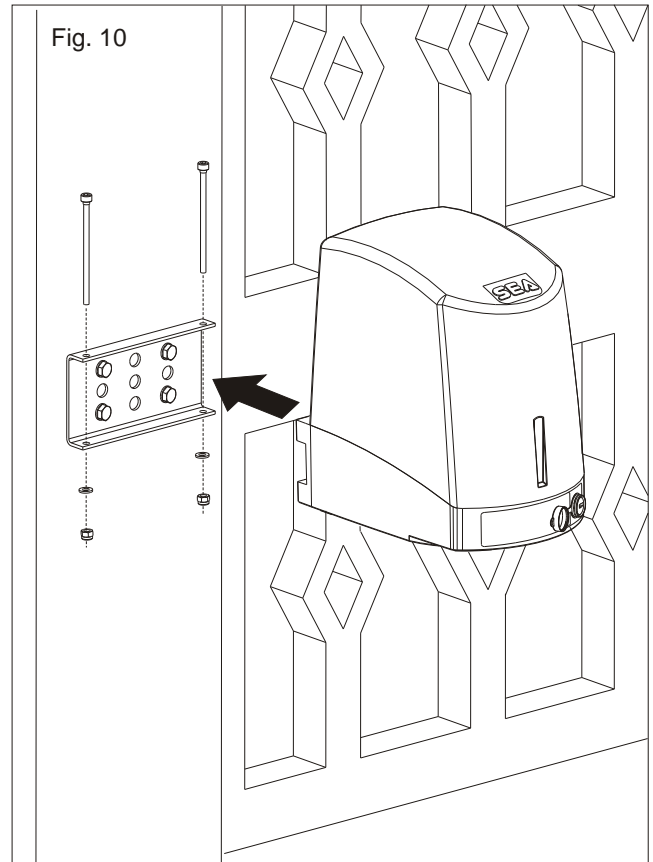
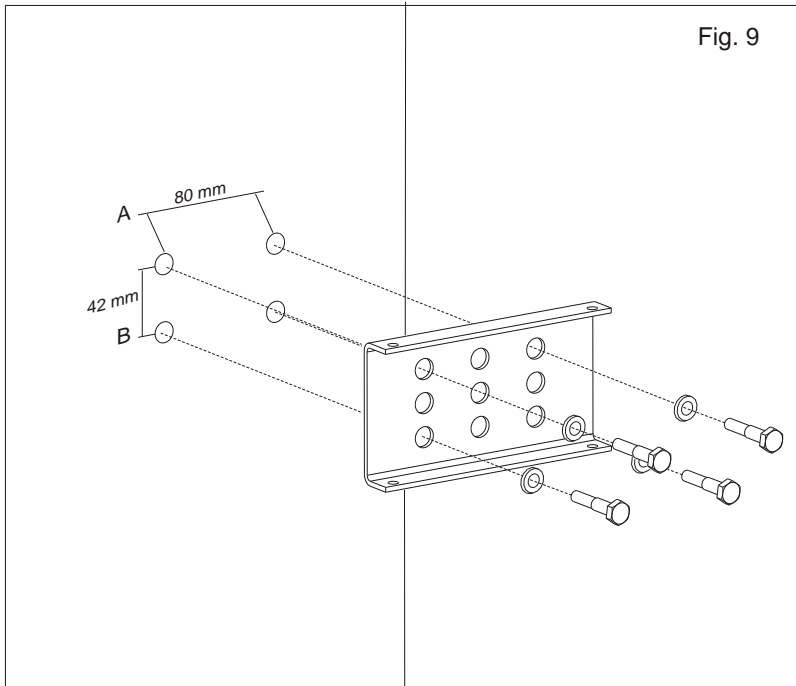


Fig. 8



### MOUNTING PLATE ATTACHMENT AND MOUNTING OF THE MOTOR

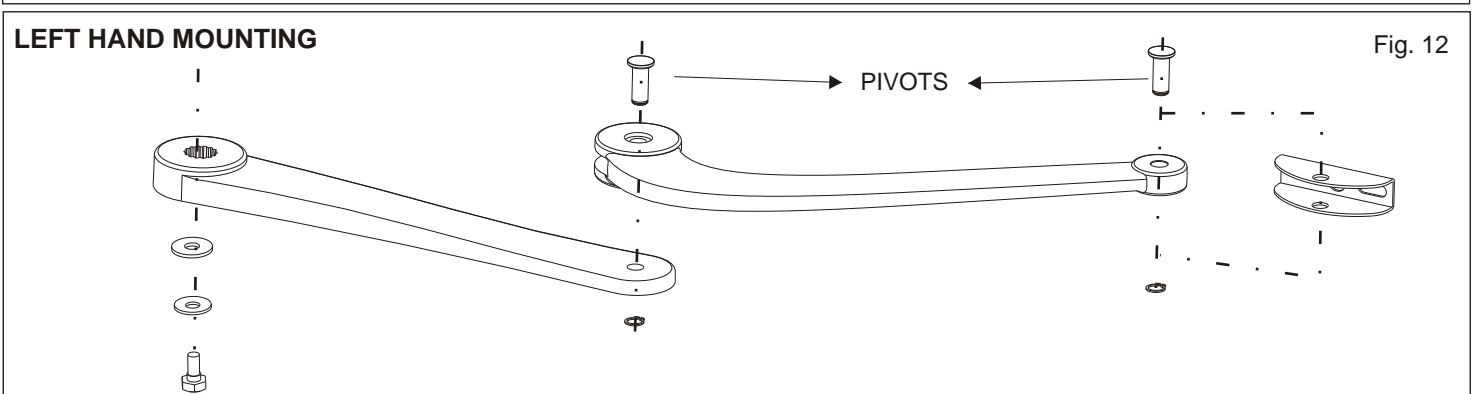
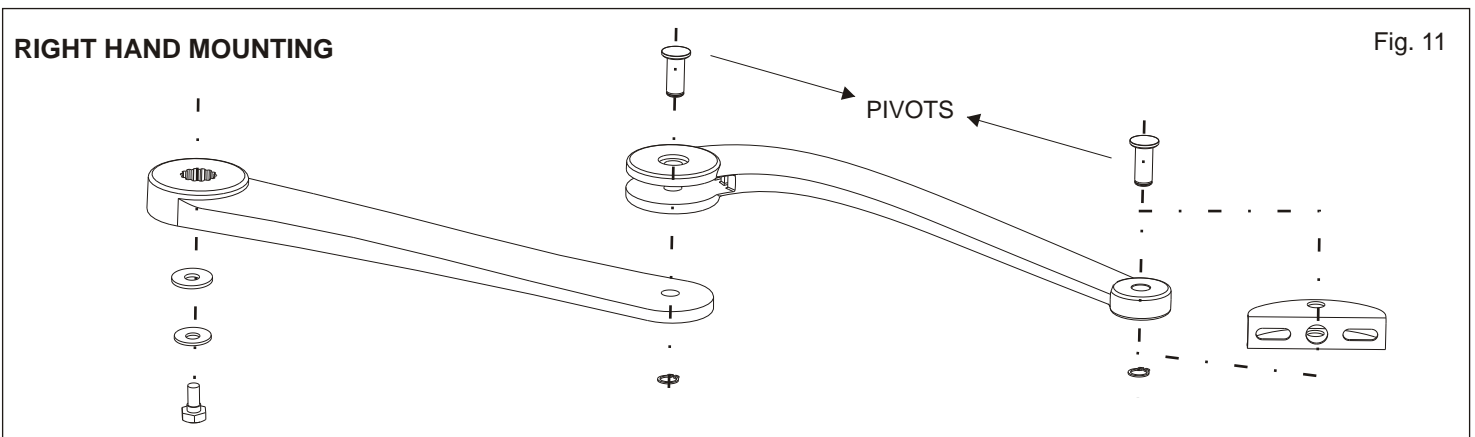
- Attach the mounting plate to the pilaster with 4 screws and 4 washers not included (Fig. 9).
- Make sure that the plate is in horizontal position (with level).
- Mount the motor on the plate using the 2 furnished screws.



### ASSEMBLING OF THE ARTICULATED ARM

- The two articulated arms must be assembled differently, distinguishing the right arm from the left one. See Fig. 11 and 12.

**Note:** Before inserting the pivots lubricate them with water repellent grease





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## FLIPPER

### FITTING AND CONNECTION INSTRUCTIONS



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#### ATTACHMENT OF THE ARTICULATED ARM TO THE MOTOR

- Fit the articulated arm into the motor shaft and lock it with the special screws (Fig. 13).
- The protection cover must be mounted on the end of all adjustments.

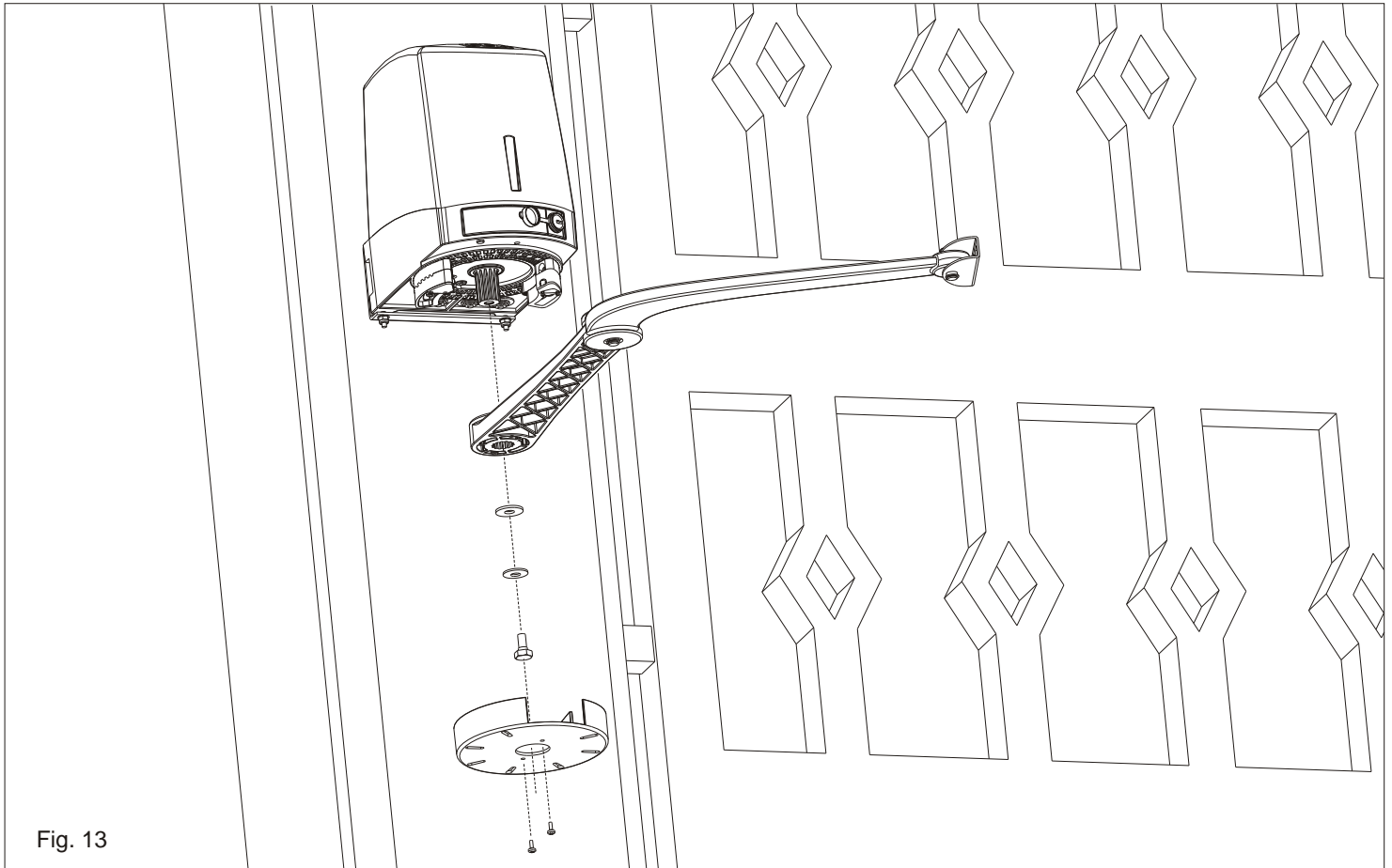


Fig. 13

#### EXTERNAL RELEASE MOUNTING

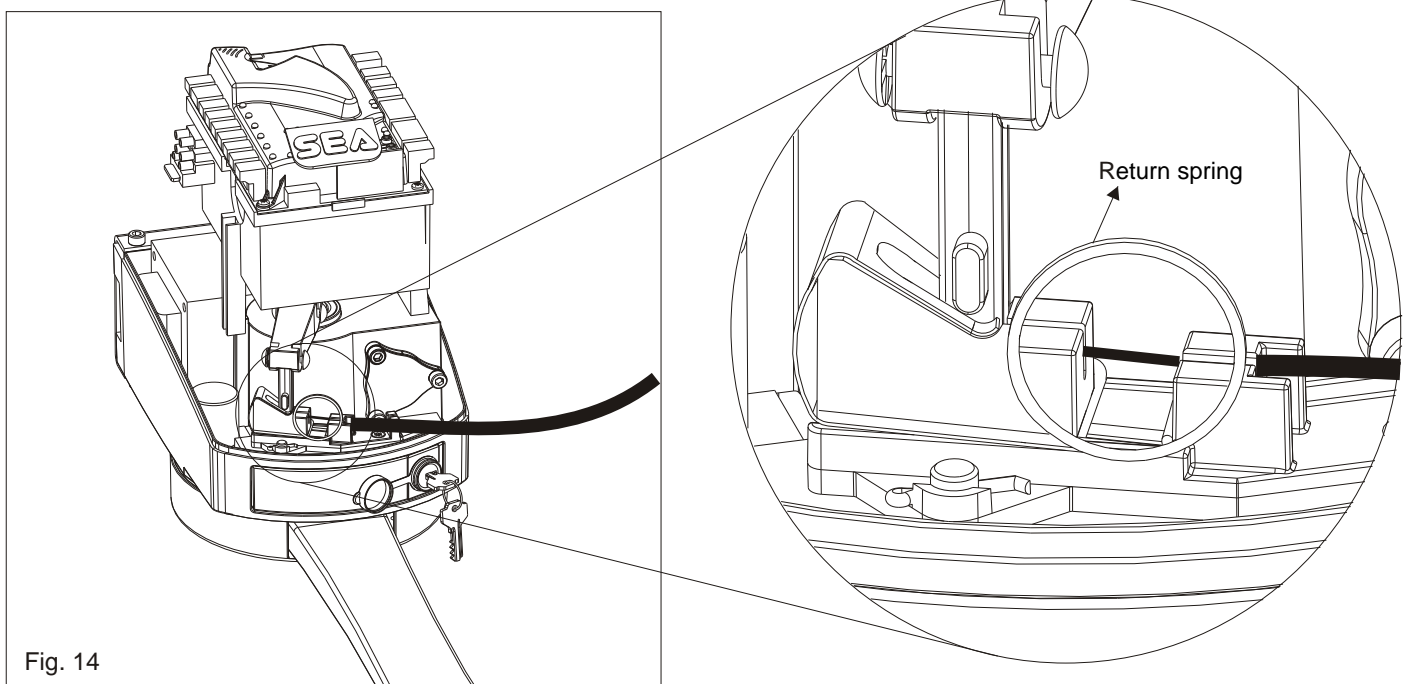


Fig. 14

For further information see point "External release".



### FIXING OF THE FRONT BRACKET

- Close the leaf completely
- Release the motor (see Fig. 18 e 19)
- Extend the articulated arm (Fig. 8), lean the adjustable front bracket on the gate and make two marks on the center of the two holes (Fig. 15) respecting the measures in Fig. 8.
- Perforate the leaf and fix the front bracket with the screws (Fig. 16)
- Before tightening the screws move the front bracket to the right or to the left for a good positioning of the arm on the gate (Fig. 17) respecting the measure D in Fig. 8.

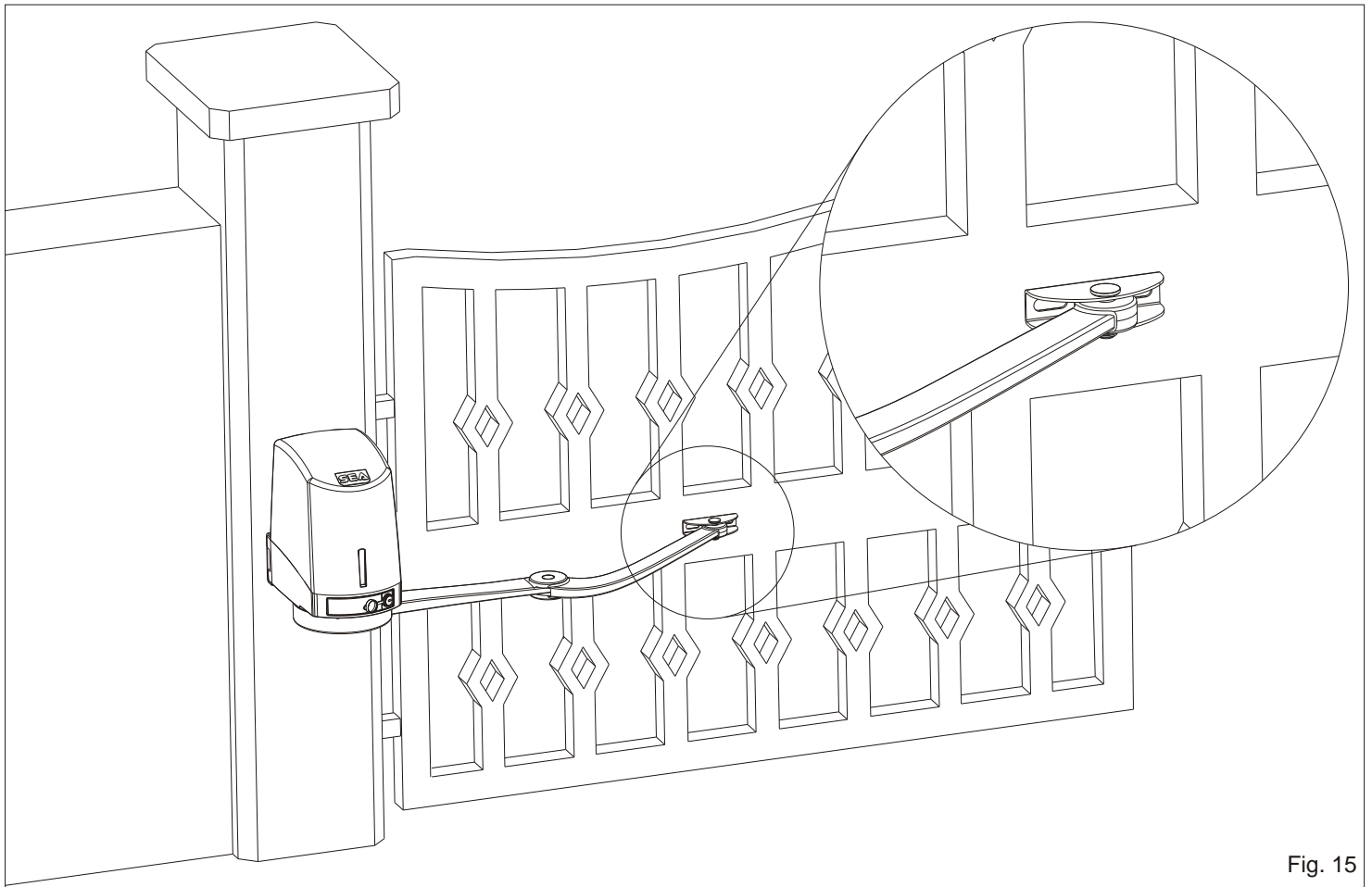


Fig. 15

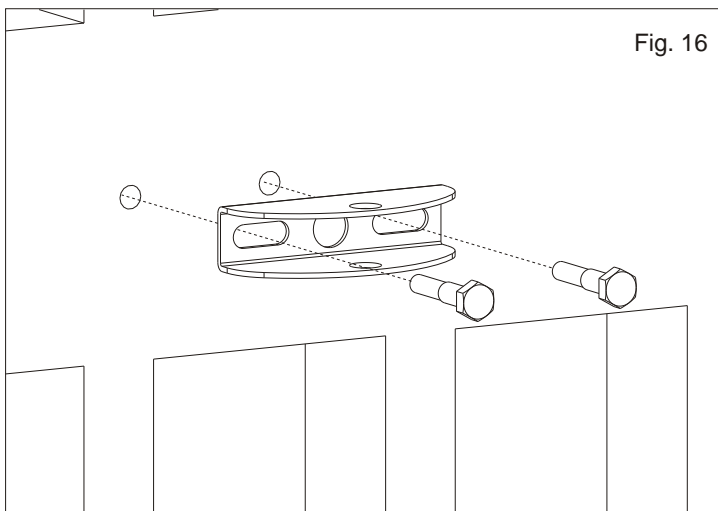


Fig. 16

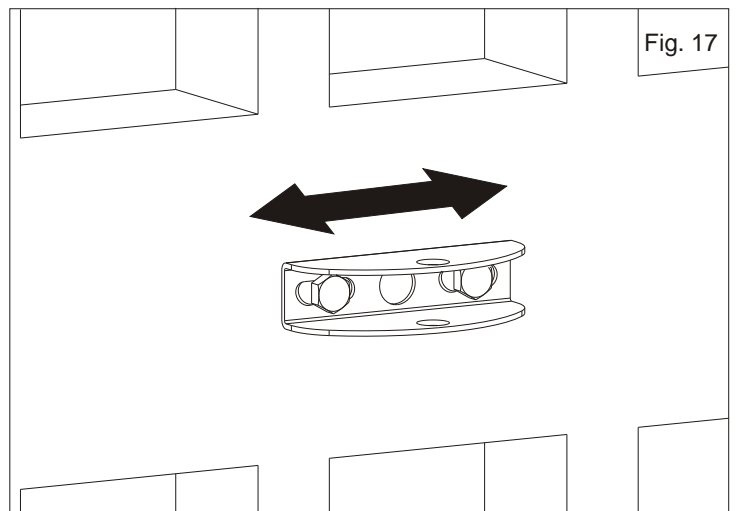


Fig. 17



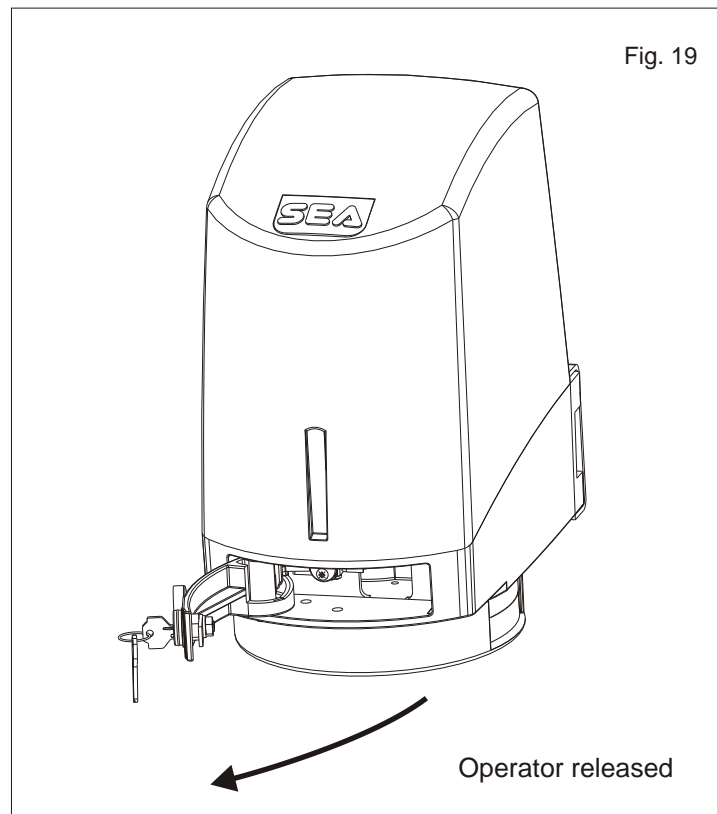
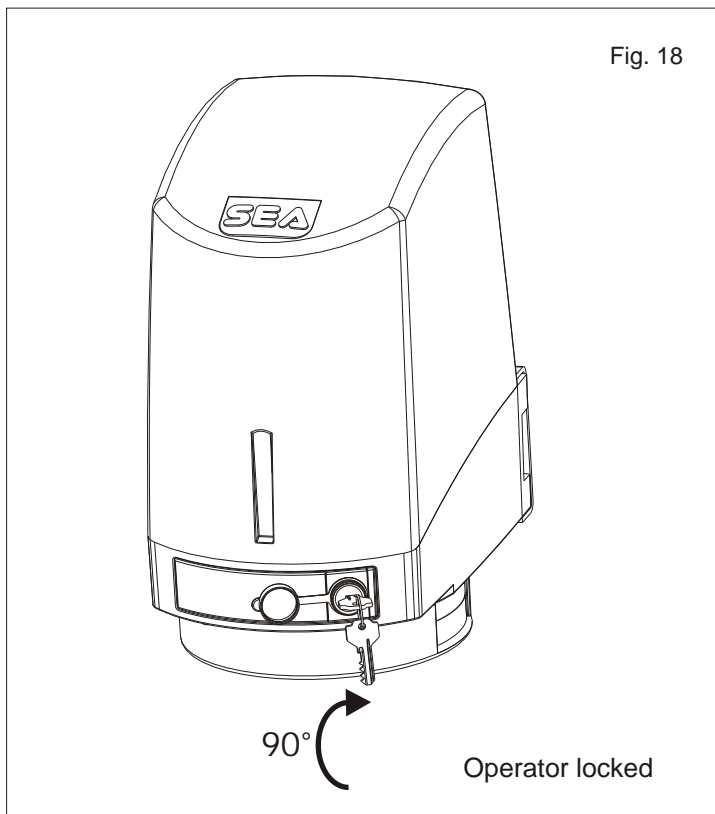
### RELEASE SYSTEM

#### To release operate as follows:

- Take off the protection cap of the lock.
- Insert the key and turn about 90° into clockwise direction (Fig. 18).
- Pull the door until its complete opening (Fig. 19).
- Open manually the leaf

#### To block again operate as follows:

- close the door again.
- Turn the key about 90° into anti-clockwise direction.
- Extract the key.
- Close the lock again with the protection cap.

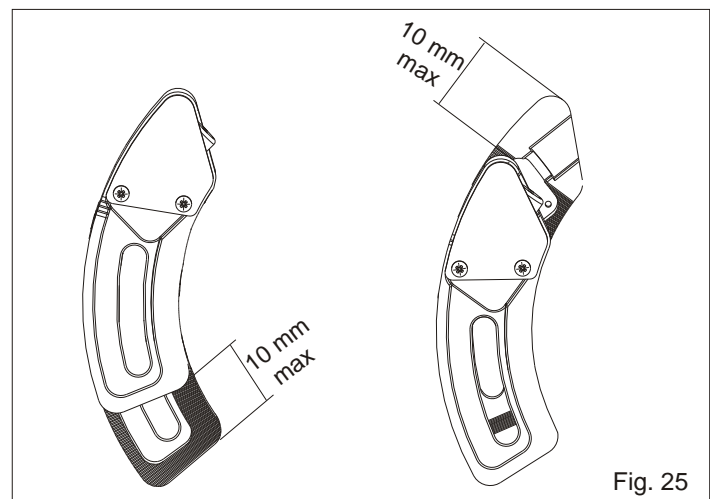
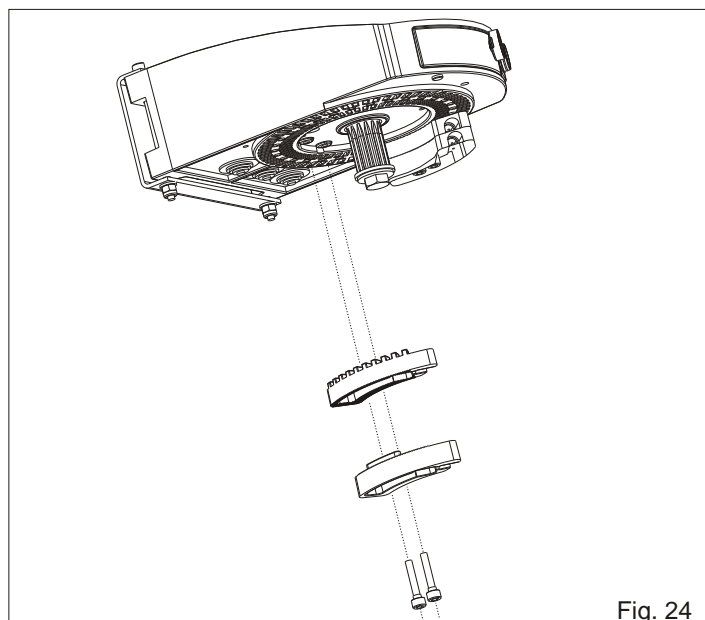
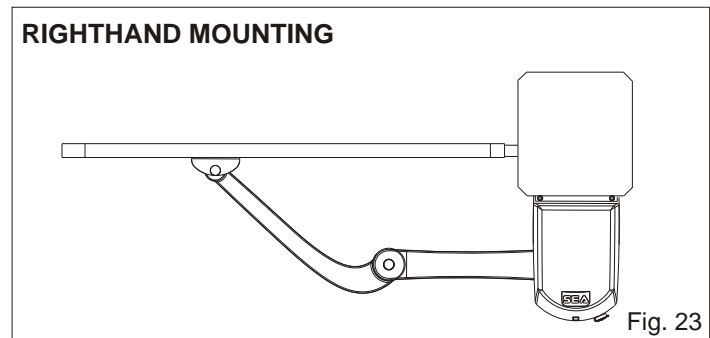
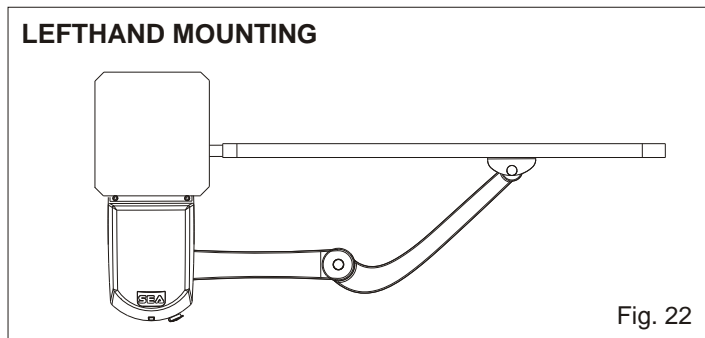
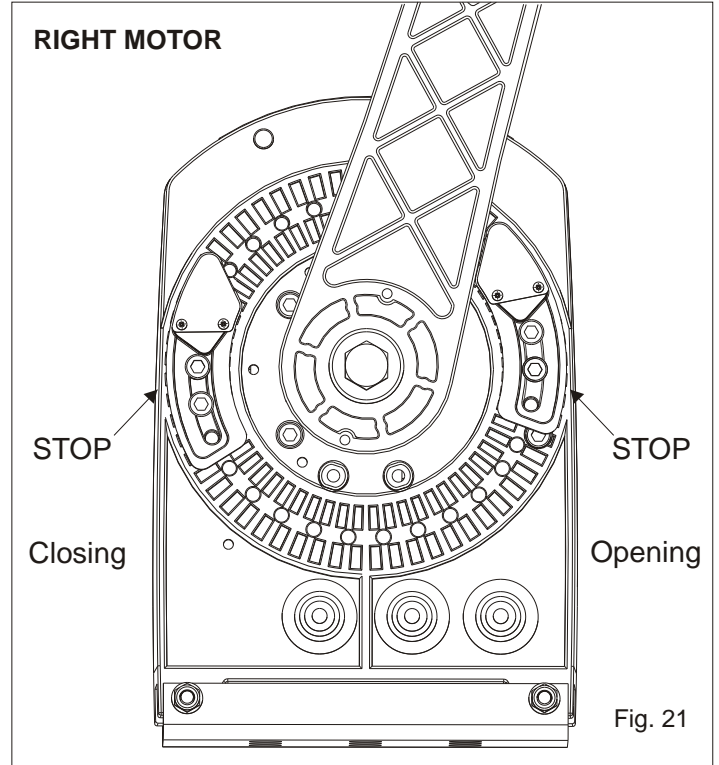
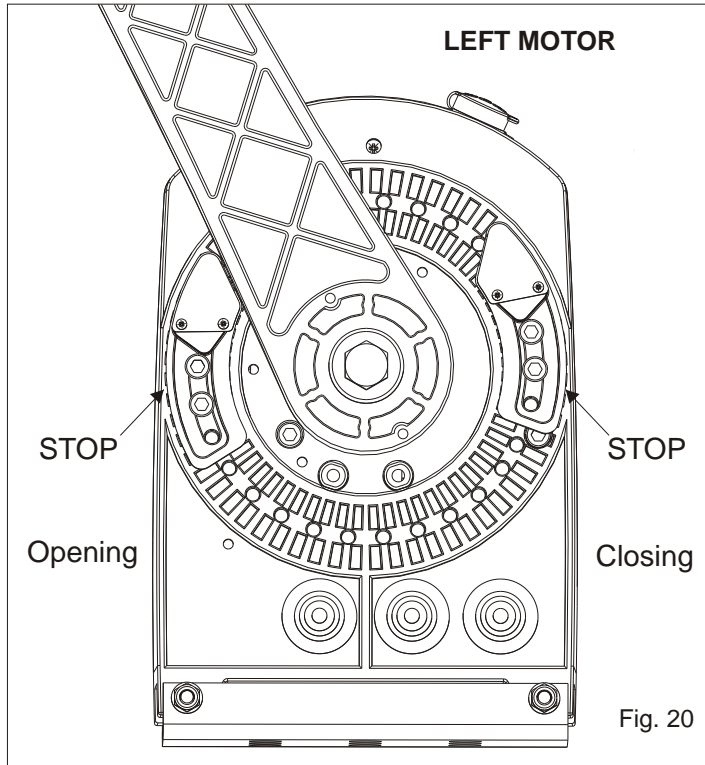




### MECHANICAL POSITIVE STOP ADJUSTMENT IN OPENING

- Release the operator.
- Open the leaf completely or up to the desired opening point.
- Position the stop as in Fig. 24 on the stop of the arm and lock the screws as in Fig. 25.

**N.B:** The delivered screws are selfthreading and have to be locked at 10 Nm.



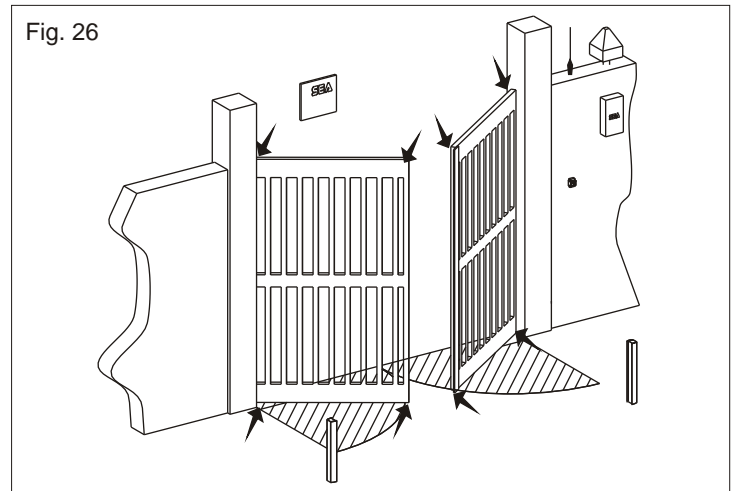


### RISK EXAMINATION

The points pointed by arrows in Fig. 26 are potentially dangerous. The installer must take a close risk examination to prevent crushing, conveying, cutting, grappling, trapping so to guarantee a safe installation for people, things and animals (Re. Laws in force in the country where the installation has been made).

### PERIODICAL MAINTENANCE

Grease the moving parts (Articulated arm, release, etc..)	Annual
Check the functioning of the release	Annual
Check the lock of the screws	Annual
Check the wear of the devices in movement	Annual
Check the integrity of the connected cables	Annual



### DECLARATION OF CONFORMITY

SEA declares under its responsibility that the products

FLIPPER

meets the essential requisites provided for by the following European Directive and following changes:

**89/392/CEE (Machine Directive)**

**89/336/CEE (Electromagnetic Compatibility Directive)**

**73/23/CEE (Low Tension Directive)**

### SAFETY PRECAUTIONS:

All electrical work should conform to current regulations. A 16 A 0,030 A differential switch must be incorporated into the source of the operators main electrical supply and the entire system properly earth bonded. Always run mains carrying cables in separate ducts to low voltage control cables to prevent mains interference.

### INTENDED USE:

FLIPPER operator has been designed to be used only for the automation of swing gates.

### SPARE PARTS:

To obtain spare parts contact:

**SEA S.r.l. - Zona Ind.le S.Atto, 64020 S. Nicolò a Tordino - Teramo - ITALIA**

### SAFETY AND ENVIRONMENTAL COMPATIBILITY:

Don't waste product packing materials and/or circuits.

When being transported this product must be properly packaged and handled with care.

### WARRANTY

The warranty for the operator FLIPPER is of 24 months starting from the date printed on the product. The product will be accepted under guaranty if it does not present damages due to improper use or to any kind of modification or chagement.

### MAINTENANCE AND OUT OF SERVICE:

The decommission and maintenance of FLIPPER must only be carried out by specialised and authorised personnel.

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

*SEA reserves the right to do changes or variations that may be necessary to its products with no obligation to notice.*



**FLIPPER ACCESSORIES**



KEY SWITCH



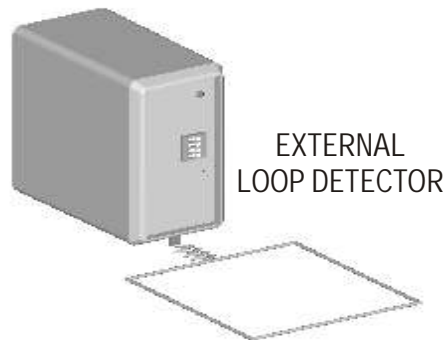
PHOTOCELLS



RADIO RECEIVER



ELECTRIC LOCK



EXTERNAL  
LOOP DETECTOR



FLASHING LAMP



TRANSMITTER



KIT EXTERNAL LOCK  
FLIPPER



KIT LIMIT SWITCH



SUPPORTS  
FOR PHOTOCELLS



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di Apertura Porte e Cancelli  
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# FLIPPER

## ISTRUZIONI DI MONTAGGIO E COLLEGAMENTO



**ENGLISH**

### TERMS OF SALE

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

**GENERAL NOTICE** The gate automation systems must be assembled exclusively with SEA components, unless specific agreements apply. Non-compliance with the applicable safety standards (European Standards EN 12453 EN12445 and others) 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 and always under those Terms of sale. 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.

**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 noncompliance of safety standards and good practice during installation and use of the purchased products.

#### **8) WARRANTY.**

**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.r.l. within 30 days from the purchase date. 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.

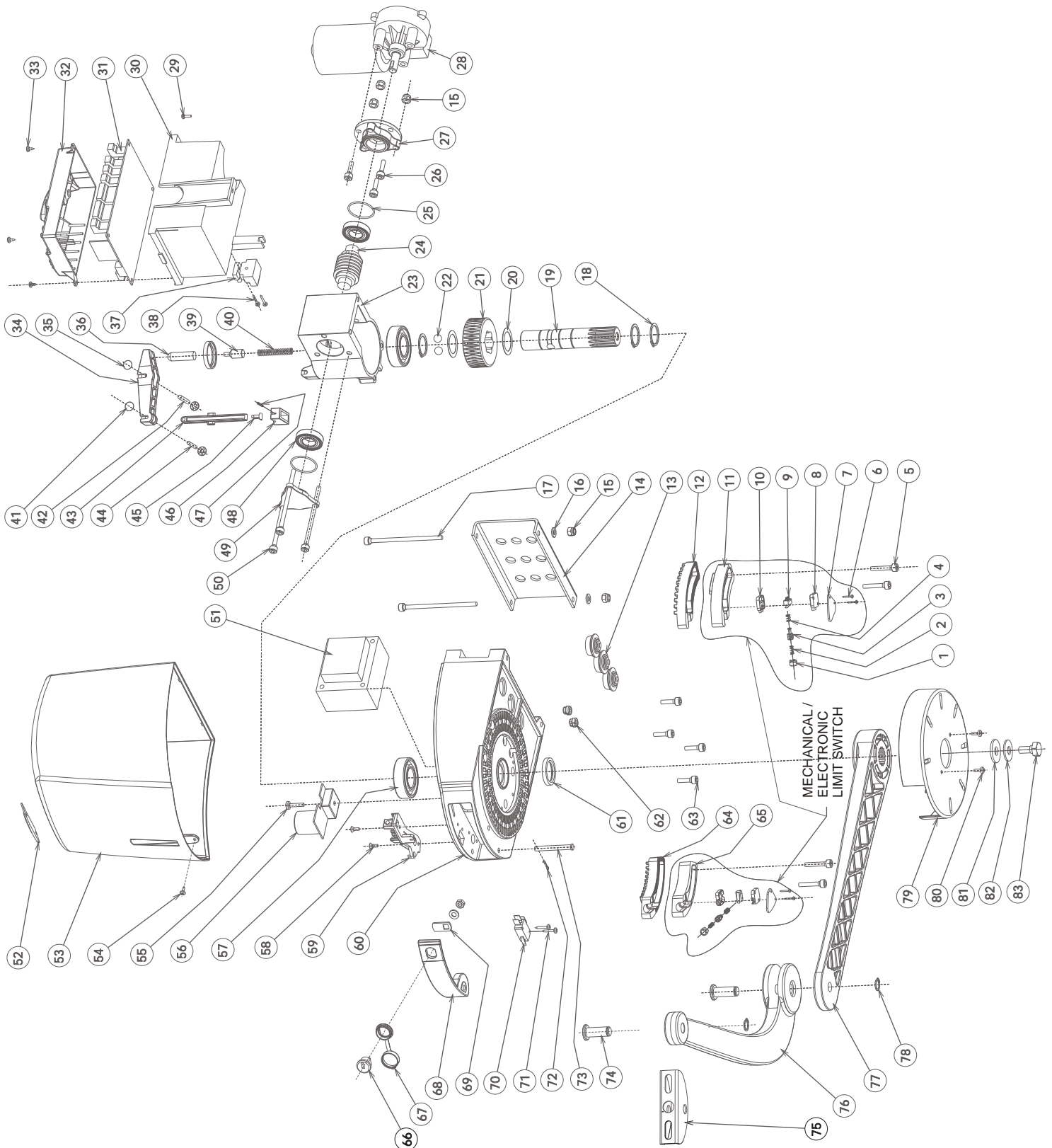
The definition of warranty status is by unquestionable assessment of SEA. The replaced parts shall remain propriety of SEA. Binding upon the parties, the material held in warranty by the Buyer, must be sent back to SEA repair centre with fees prepaid, and shall be dispatched by SEA with carriage forward. 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 installation, or if the product label of the manufacturer with the registered SEA trademark n° 804888 has been removed . 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 repairs of products in warranty and out of warranty is accepted only if the procedure of SEA are fully respected by the customer.

**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 acquires the property of the goods only after full payment of the invoice.

**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. The official language for the interpretation of the catalogue, the manuals, the terms of sale and any other is the italian language. SEA reserves the faculty to make technical changes to improve its own products, which are and are not included 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:** with the purchase, the buyer accepts in full the present Terms of Sale and recognizes that SEA has the exclusive legal ownership of the registered SEA International trademark n° 804888 which is attached on each products label, and/or on manuals, packaging and/or in any other documentation, and he will commit himself to use it in its marketing and/or installation activity in a way which does not reduce the value of these rights; he won't also remove, replace or modify the trademark or any other particularity from the products. Any kind of replication or use of SEA brand is forbidden as well as of any change of sings-brands on the products, unless preventive and expressed authorization by SEA.



83	SCREW T6 M 10 X20 GALV.
82	ELAST. WASHER M10 TIPOA UNI8940 ZN
81	WASHER P.10.5X30X2.5 UNI8693 ZN
80	SCREW TCCR M4X10 ZN SEC. TRILOB.
79	COVER ARTICULATED ARM FLIPPER
78	SEEGER EST.D.12 GALV.
77	SCREW TCEI M6X20 ZN SEC. TRILOB.
76	STRAIGHT ARM FLIPPER LAV.
75	CURVED ARM FLIPPER LAV.
74	BRACKET ARM/GATE
73	PIVOT ARM FLIPPER
72	PIN D.6X50 X RELEASE LEVER
71	PIN 2X12 UNI1336
70	SCREW TCCR AUT3X18 UNI9707 ZN
69	MICRO OMRON V-163-1A6/LONG LEVER
68	TONGUE WITH HOLE FOR LOCK LEPIUS
67	RELEASE LEVER FLIPPER
66	TCAP LOCK COVER RELEASE PLUS
65	LOCK D.15 RELEASE PLUS
64	STOP HANDLE B SX FLIPPER
63	SCREW TCEI M6X20 ZN SEC. TRILOB.
62	STOP HANDLE SX FLIPPER
61	CABLE PRESS SR 2M-1 NYLON
60	SEAL-PARAOIL 25X35X5 TYPE GP
59	BASE FLIPPER
58	EXTERNAL RELEASE PLATE
57	V.TSPCR M4X10NIC SZ.TR.UNI8113
56	BEARING 6205 2Z
55	SCREW TCCR M5X20 ZN UNI8112
54	SCREW AUT.TCCR3X10 ZINC.UNI9707
53	CARTER FLIPPER
52	LOGO SEA FOR FLIPPER (ABS)
51	TRANSFOR.230V.160VA FOR FLIPPER
50	SCREW TCEI M6X95 8.8 ZINCATA
49	FRAME CAP FLIPPER
48	BEARING 16003 2Z
47	SPRING EXTERNAL RELEASE FLIPPER
46	EXTERNAL RELEASE FLIPPER
45	SPRING FLIPPER
44	PIN CYL.4X28 UNI6364-A
43	ROD FLIPPER
42	PIN CYLIND. 6X32 UNI6364-A
41	ELASTIC. FIXING W/CALOTTE D.4
40	SPRING D.8 L.46 F.1.1 SP.15 OR
39	PIN BALL RELEASE FLIPPER
38	SCREW TCCR 2.9X19 ZINC. UNI6964
37	CONNECTOR 3 WAYS+FUZE SUPPORT
36	PIN RELEASE FLIPPER
35	ELAST. FIXING W./CALOTTE D.5
34	PIVOT FLIPPER
33	SCREW AUT.TCCR 3.5X8 ZN UNI9707
32	COVER FOR ELECTR. CARD FLIPPER
31	USER 2 24V W/BOX
30	BATTERY CARD SUPPORT
29	SCREW TCCR M5X10 SEZ.TRILOB. ZN
28	MOTOREDUCER FLIPPER 11NM
27	MOTOR FLANGE FLIPPER
26	SCREW TCEI M6X20 8.8 GALV.
25	SEAL OR.2125(31,47X1,78)VITON
24	ENDLESS SCREW M1,5 FLIPPER
23	FRAME FLIPPER
22	SCREW TCCR 3.5X8 ZN UNI100 C-6
21	BALL DIAMETER 10 UNI100 C-6
20	WHEEL Z40 ARM PRO
19	CUTTING RING 34.5X25.15X0.3
18	SLOW SHAFT FLIPPER
17	SEEGER EST.D.25 ZN
16	SCREW TCEI M6X100 GALV.
15	WASHER P.6.4X12.5X1.6 UNI6692 ZN
14	FIXING PLATE FLIPPER
13	SELFLOCKING NUT HIGH M6 GALV.
12	CABLE PASSAGE IN PVC D. 20
11	STOP ROD B DX FLIPPER
10	STOP ROD B DX FLIPPER
9	SEMISHELL UP. MICRO FLIPPER
8	MICROINT. AH1662 X FLIPPER
7	SEMISHELL INF. MICRO FLIPPER
6	PLATE MICRO STOP FLIPP.
5	SELF CUT. SCREW TC CR. 2.2X13 NICH.
4	SCREW TCEI M6X30 ZN SEC. THREELOB.
3	SPRING PUSHBUTTON MICRO FLIPPER
2	PUSHBUTTON MICRO INTERRUPTER
1	CAP FLIPPER