

The **ALPHA** is provided with a mechanical locking system that grants the operator locking in the opened and closed position avoiding any needs for electric locks and/or magnetic locks. The torque intensity and the anti-crushing safety are adjustable through the control board.

Key-locked that must be used only in case of emergency and/or power failure to manually operate the gate.

### MAIN PARTS

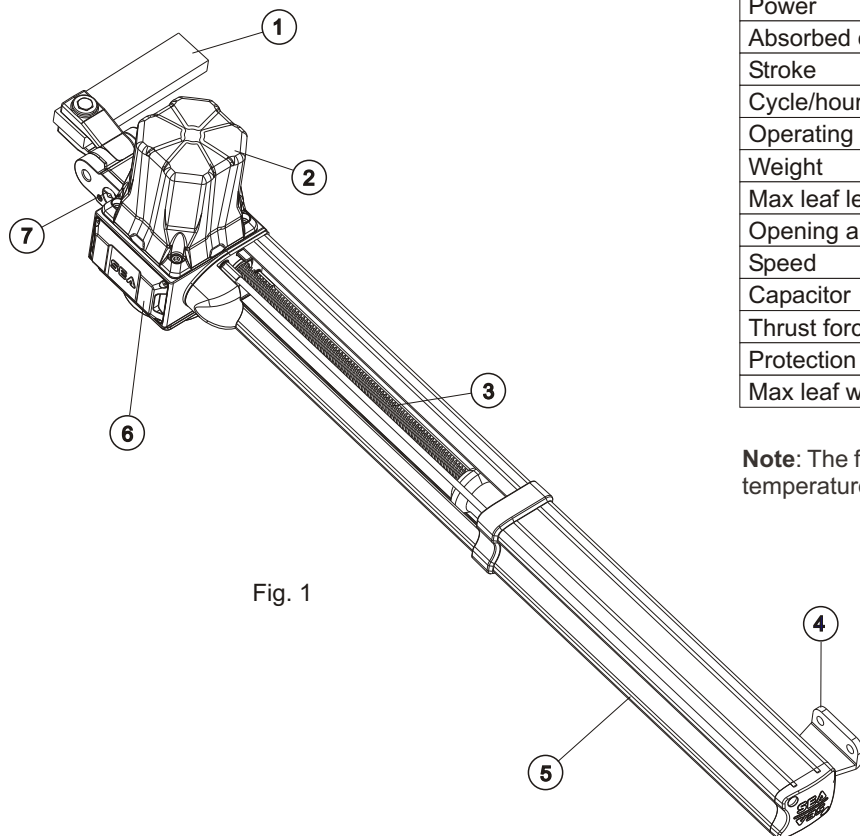


Fig. 1

TECHNICAL FEATURES	Alpha 200	Alpha 330
Power Supply	230V~ (±5%) 50/60 Hz	
Power	70W (24V) - 260W (230V)	
Absorbed current	1,2 A (24V) - 3 A (230V)	
Stroke	290 mm	400 mm
Cycle/hour	40 (24V) - 20 (230V)	
Operating temperature	-20°C ↕ +55°C ↕	
Weight	9 kg	9,5 kg
Max leaf length	2,0 m	3,3 m
Opening angle	90° - 110°	90° - 120°
Speed	1,7 cm/s	
Capacitor	4 uF (230V)	6,3 uF (230V)
Thrust force	250 daN (24V) - 350 daN (230V)	
Protection class	IP44	
Max leaf weight	200 kg	300 kg

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

- 1 Back bracket
- 2 Electric motor
- 3 Endless screw
- 4 Front bracket
- 5 Aluminum shaft-cover
- 6 Capacitor housing (230V version)
- 7 Manual Releasing

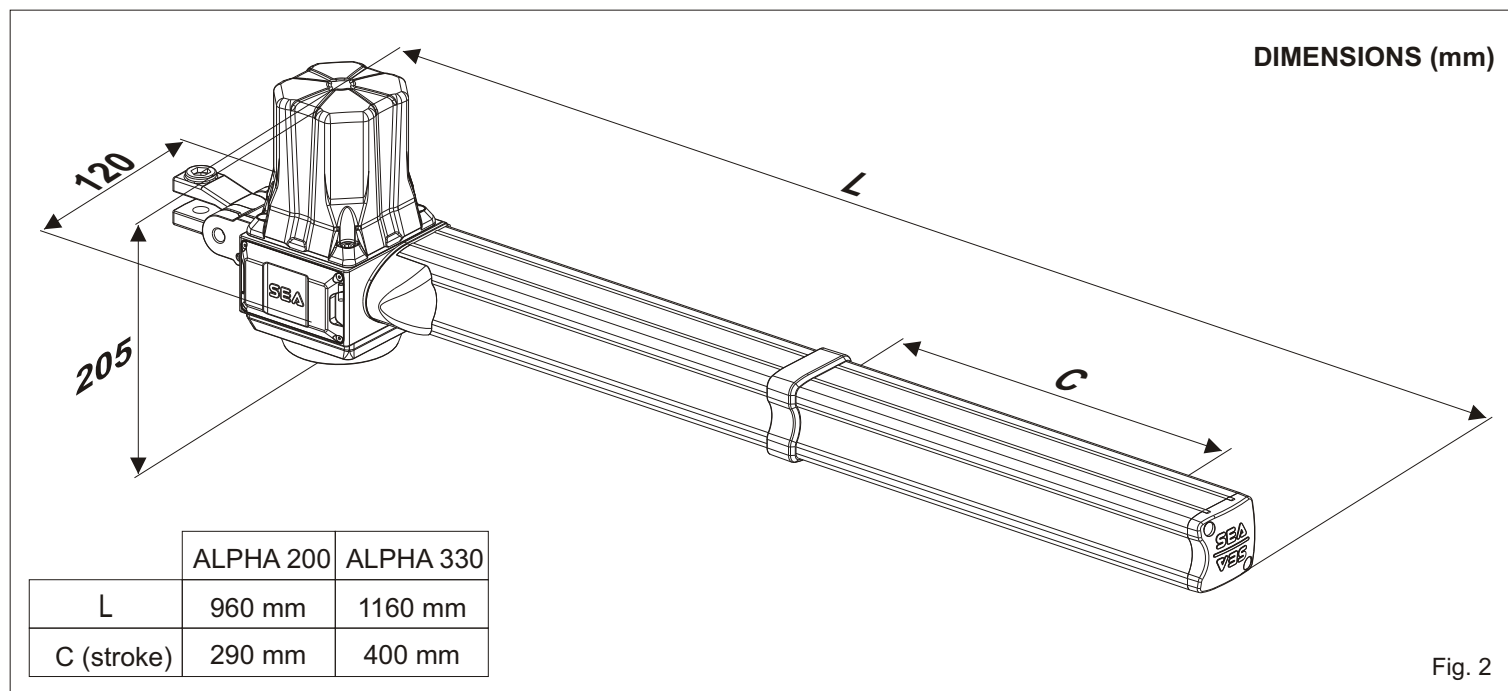
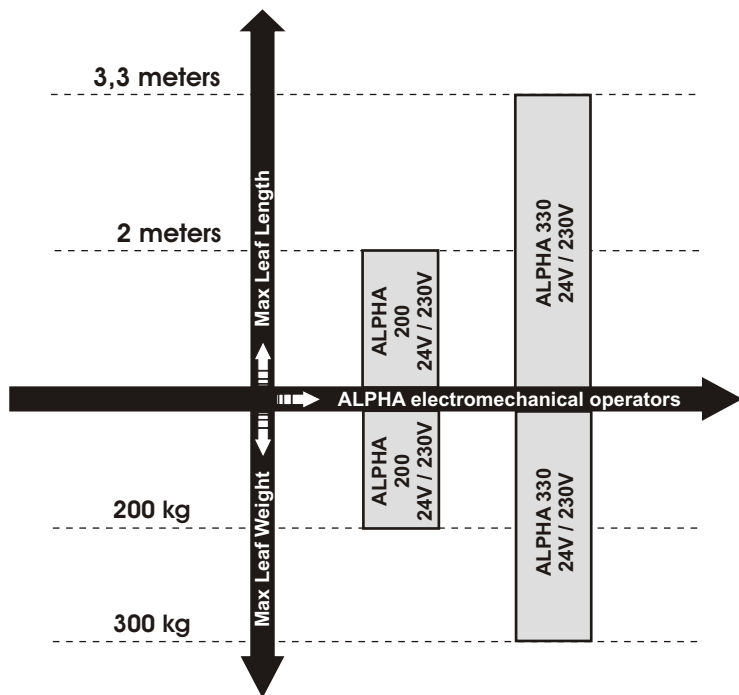


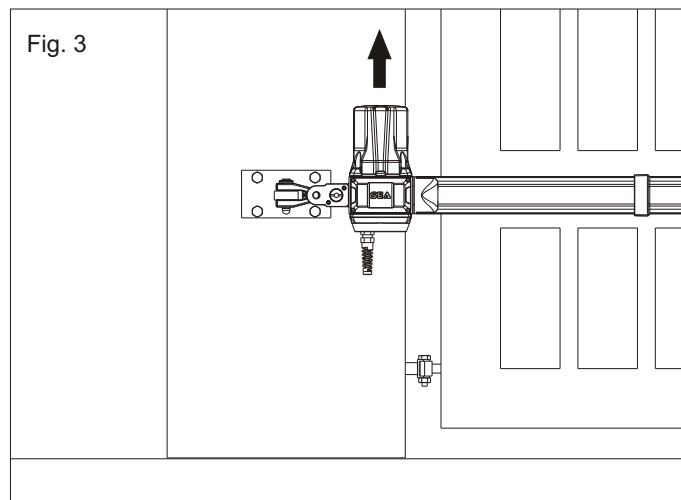
Fig. 2

## DIAGRAM FOR THE USE OF ALPHA 200 AND ALPHA 330

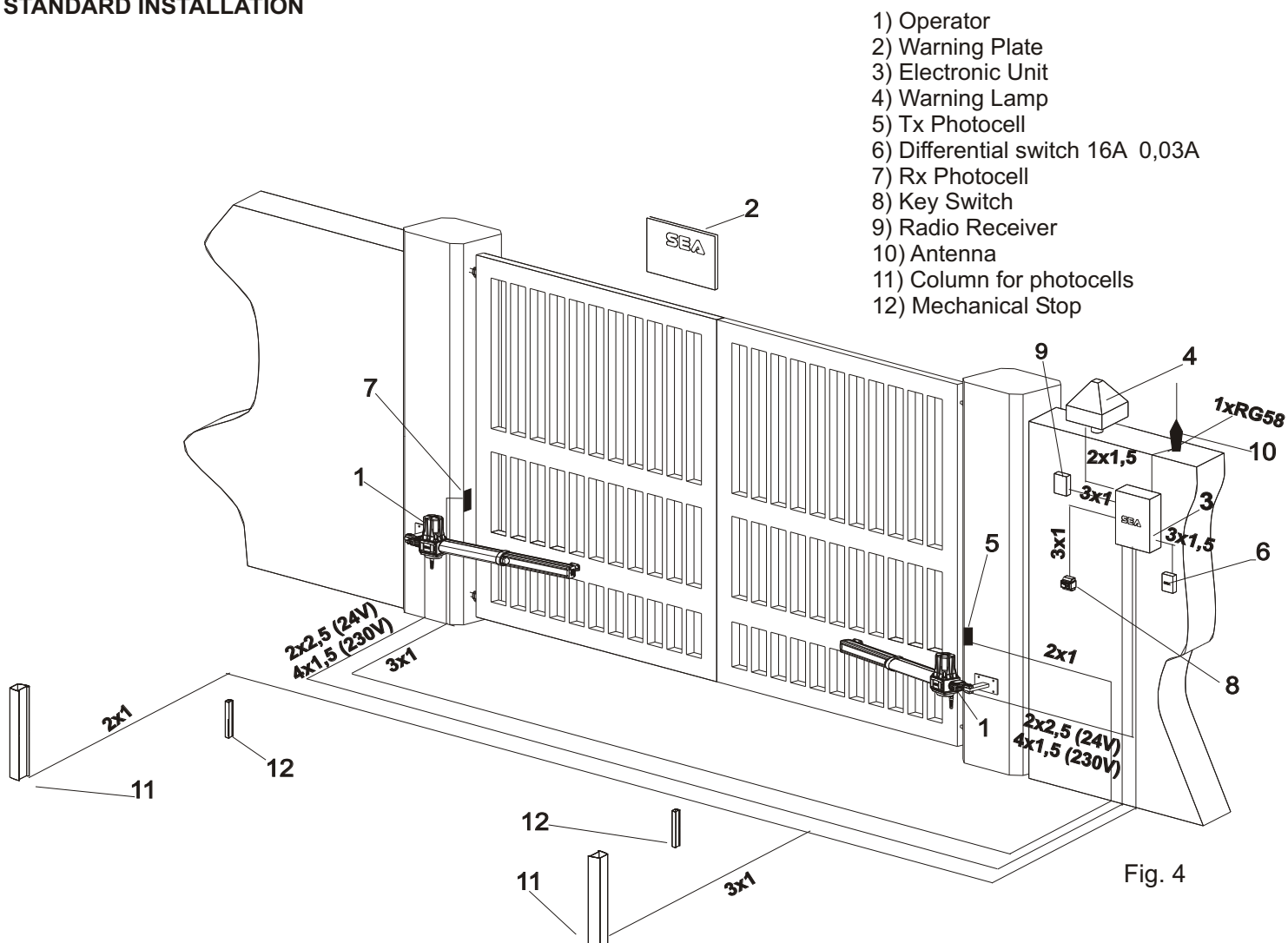


Notice:

The operator must be installed with the motor facing upward (Fig. 3)



## STANDARD INSTALLATION

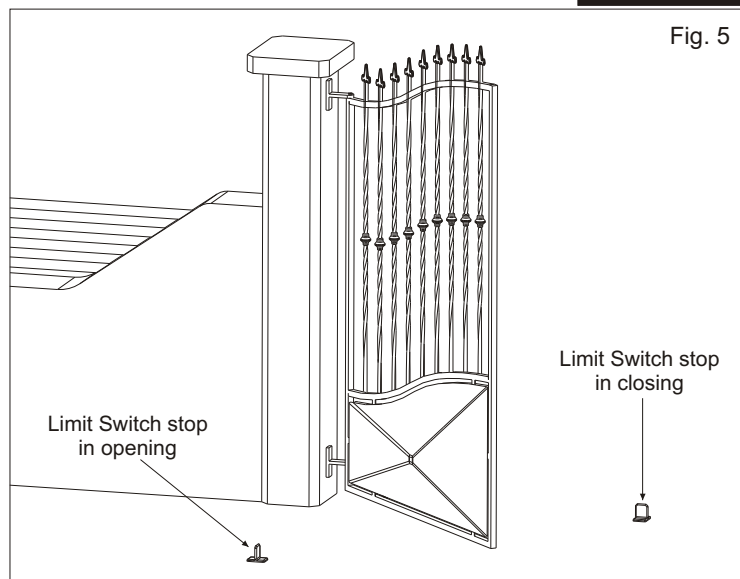


## 1. GATE ARRANGEMENT

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

Make sure that:

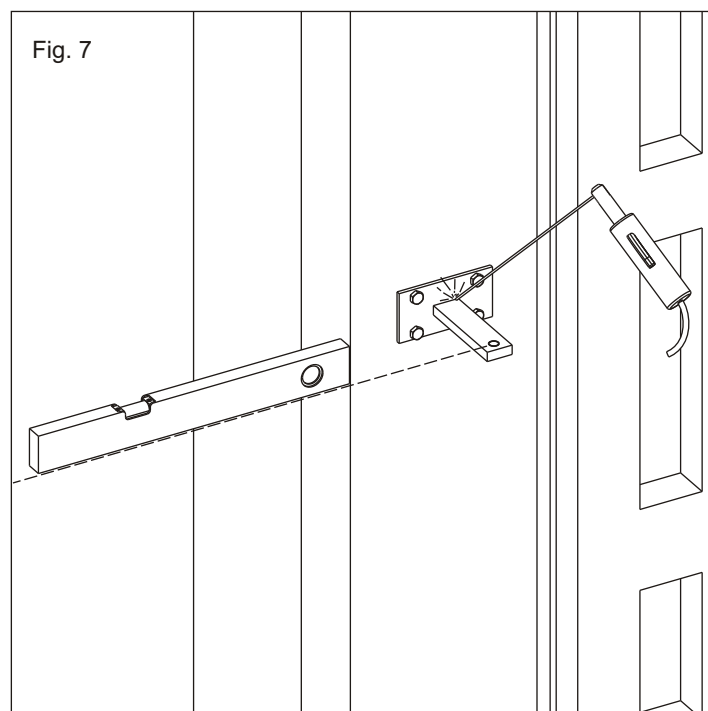
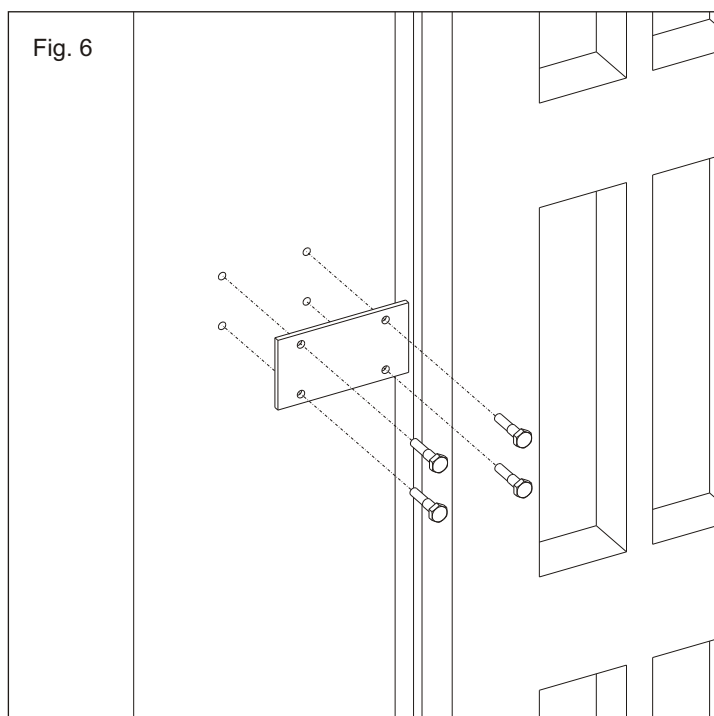
- A.** the gate fixed and moving parts have a strong and crush-proof structure;
- B.** the length of each leaf is not over 2,0 meters (Alpha 200), 3,3 meters (Alpha 330);
- C.** the weight of each leaf is not over 200 Kg (Alpha 200), 300 Kg (Alpha 330);
- D.** the hinges are hardly anchored and are able to support the torque of the operator; they do not have irregular movements and/or any friction during the whole movement of the leaf;
- E.** the stops of the leaf are fixed to the ground (Fig. 5).



## 2. INSTALLATION OF THE OPERATORS

**2.1.** Fix the holed mounting plate to the post using screws as shown in Fig 6. The plate must be positioned perfectly horizontal and perpendicular to the post,

**2.2.** Weld the back bracket to the plate (Fig 7) following the dimensions shown in Fig 8 and 9. If it is necessary, cut the bracket without going over the minimum limit of 60 mm (Fig 10).



**NOTICE:**  
**ALPHA operator is not provided with mechanical torque regulation. The control board must be provided with electronic torque regulation (unless presence detectors are installed) to install it in conformity with the DIRETTIVA EN12453 and EN12445.**

## DIMENSIONS FOR INSTALLATION

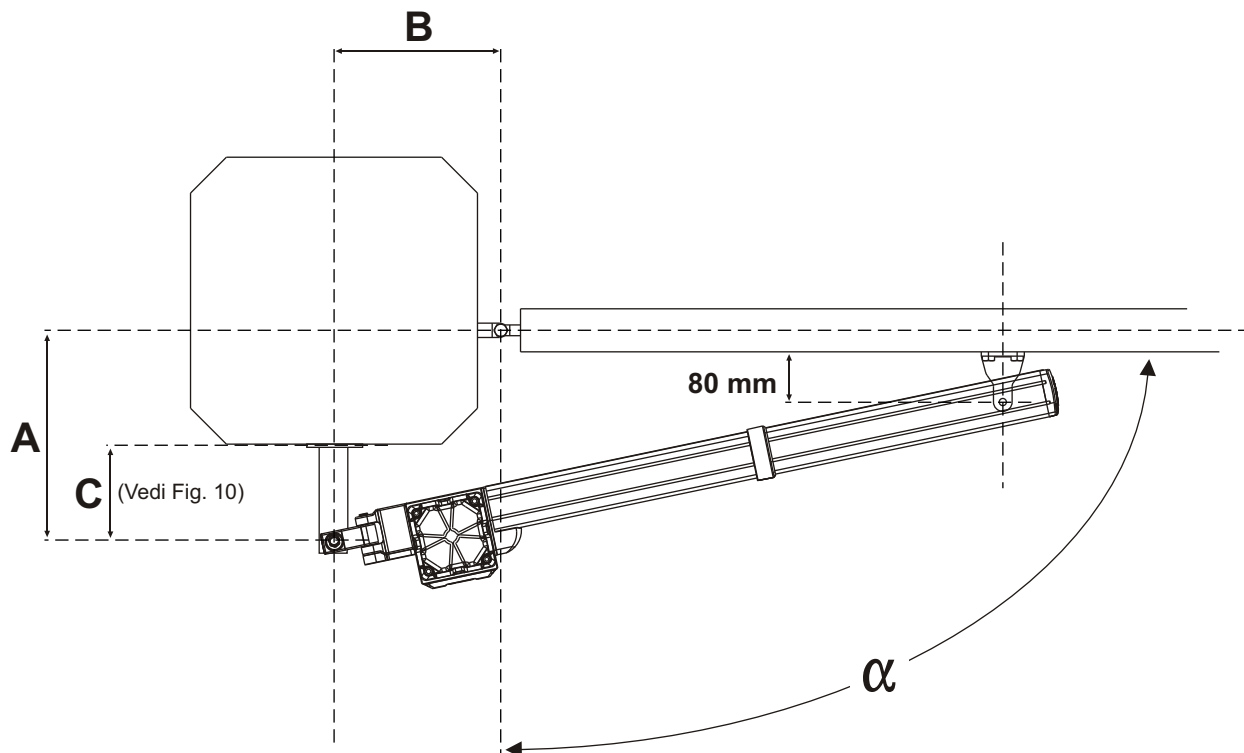


Fig. 8

### ALPHA 200 STANDARD

Opening angle $\alpha$				
90°	A	160	140	120
	B	110	130	150
110°	A	110	110	120
	B	110	120	110

### ALPHA 330 STANDARD

Opening angle $\alpha$					
90°	A	150	190	200	220
	B	150	190	170	160
120°	A	140	150	160	
	B	180	170	160	

The above mentioned dimensions are in mm.

During selection, prefer the higher dimensions of A and B.

Fig. 9

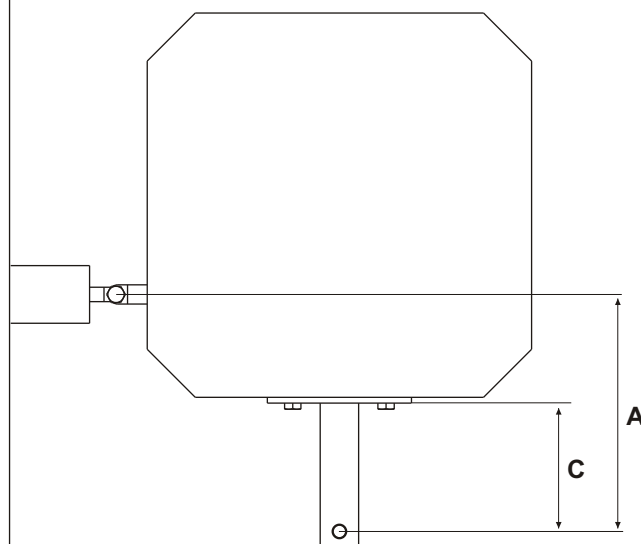
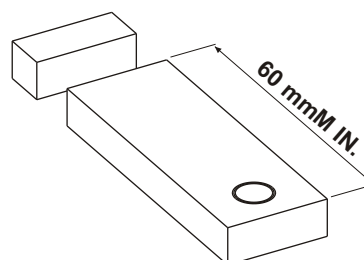
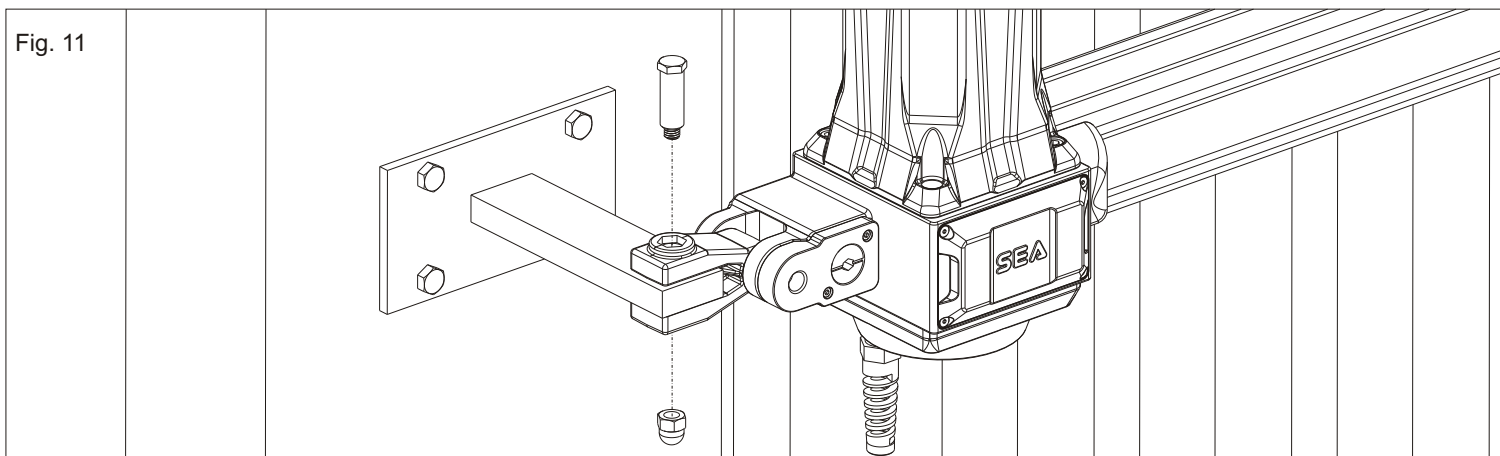


Fig. 10



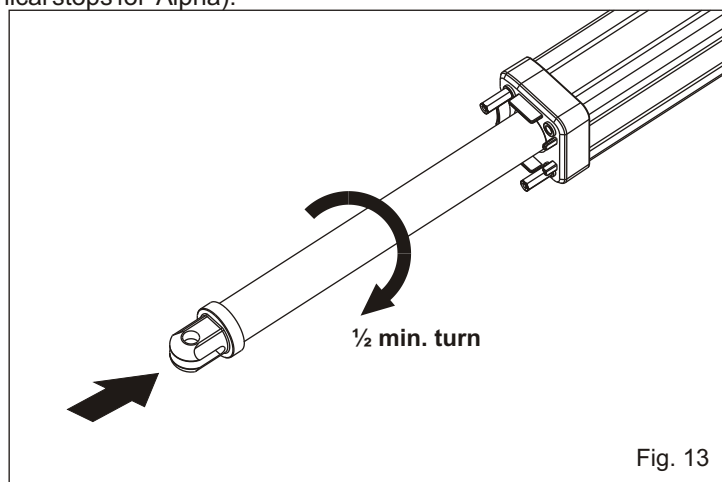
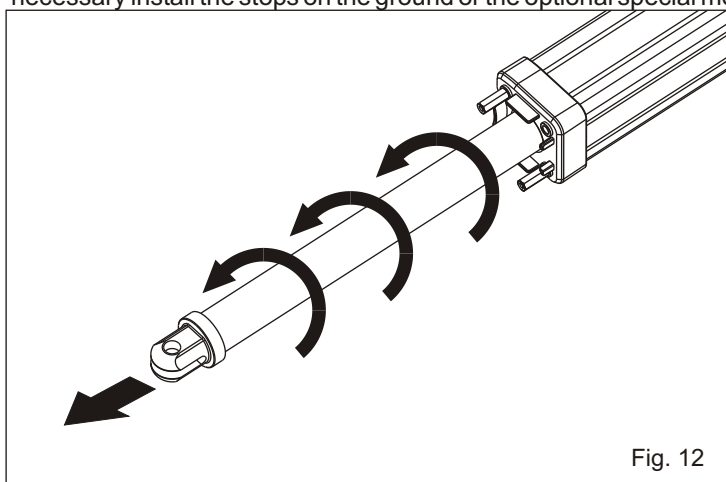
**2.3.** Attach the operator on the previously installed back-bracket and fix it with the provided pivot (Fig 11)



**2.4.** Release the arm (see paragraph 3)

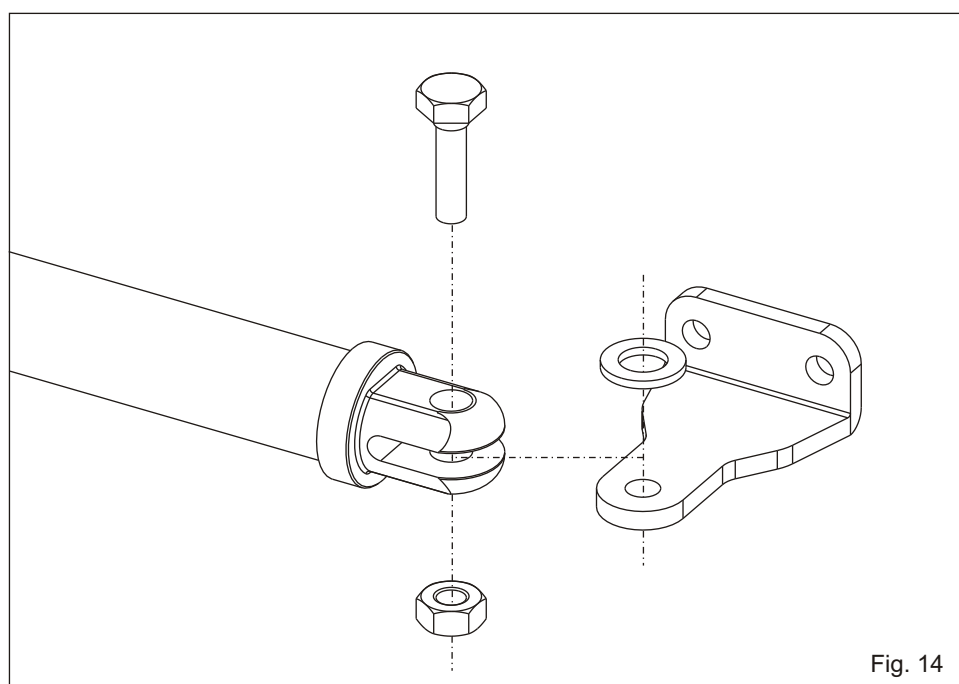
**2.5. WARNING:** Turn the shaft up to its max. extension, afterwards turn it about at least half turn into the opposite direction (screw it) see Fig. 12 and 13.

**Note:** After installation, in opening, leave minimum 15 mm of working stroke, to avoid that the operator goes into mechanical lock (if necessary install the stops on the ground or the optional special mechanical stops for Alpha).

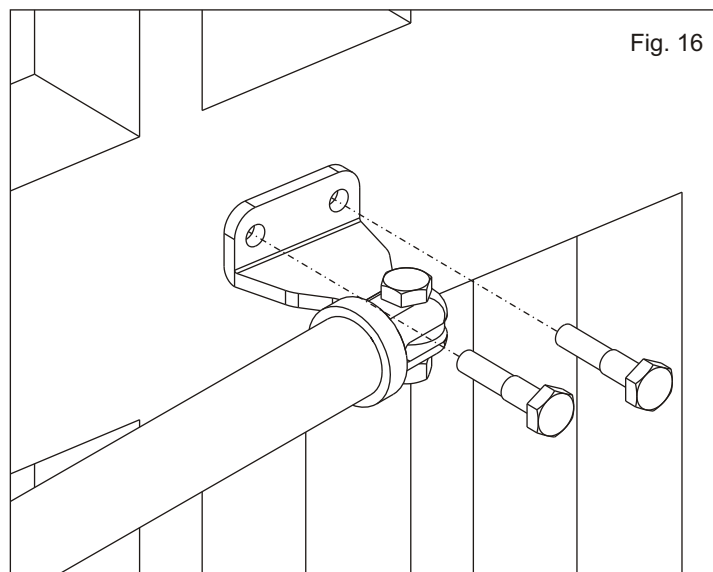
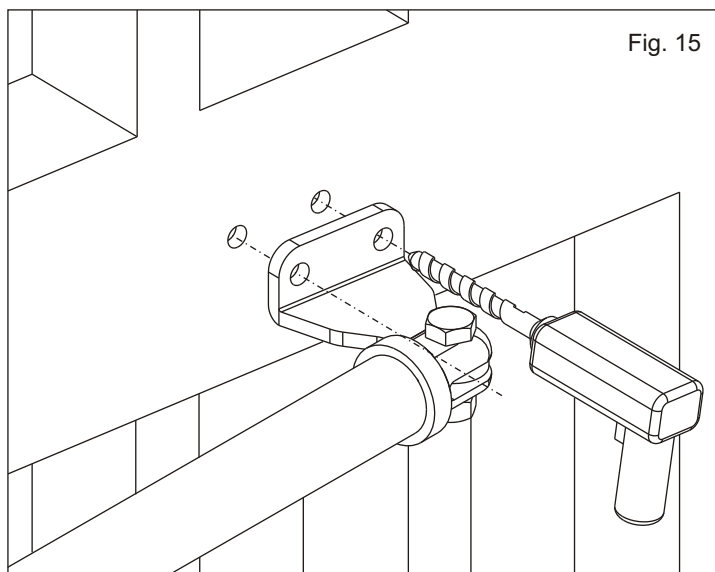


**2.6.** Attach the front bracket to the extremity of the shaft (Fig 14)

**2.7.** Close the gate

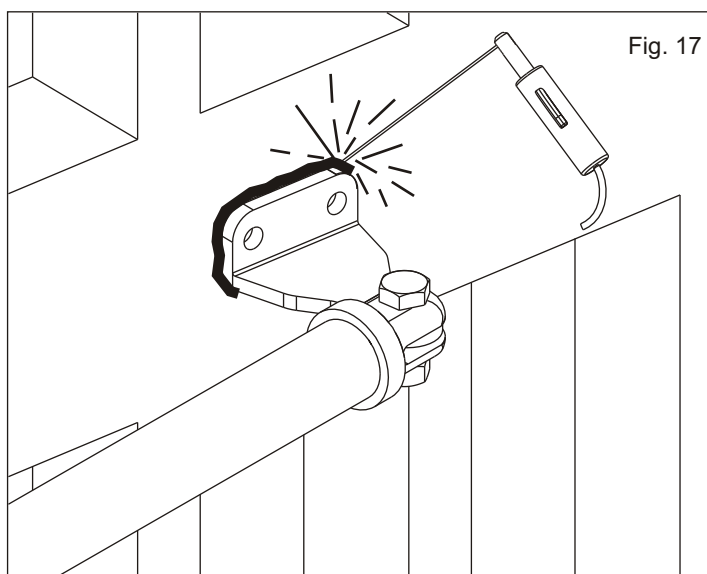


**2.8.** Drill a hole into the gate (Fig 15) to be able to attach the front bracket with the supplied bolts being careful to place the operator perfectly horizontal (Fig 16).



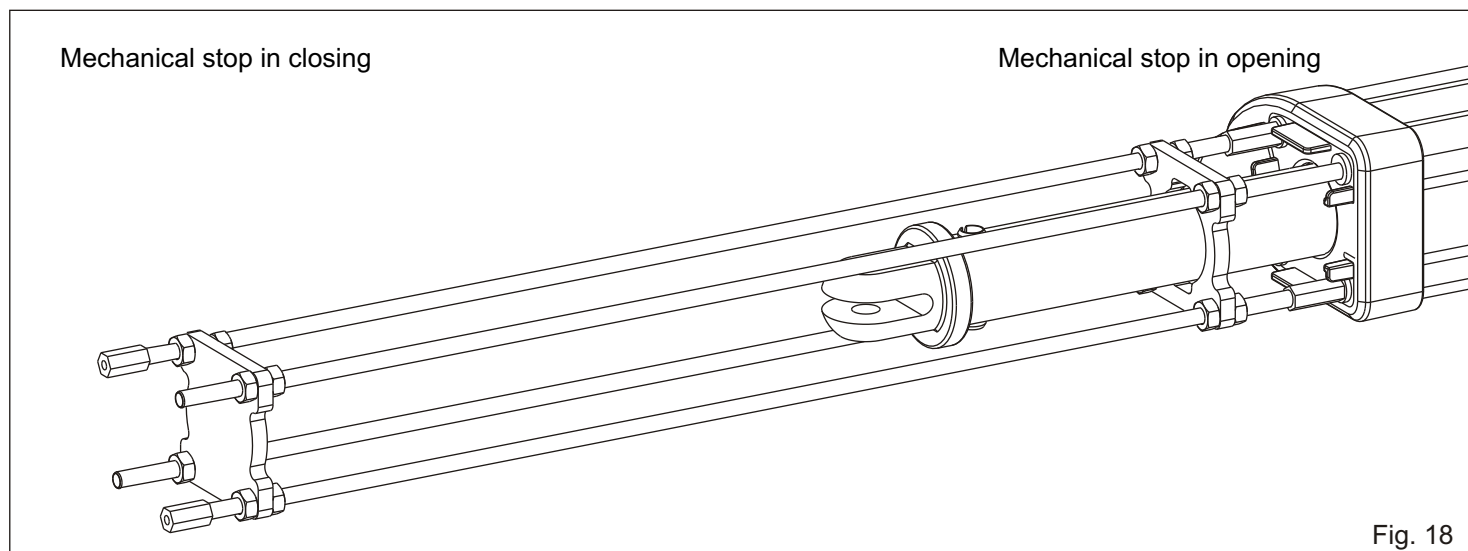
**NOTE:**

if it is not possible to attach the front bracket with the bolts, weld it to the gate (Fig 17), being careful to protect the shaft from welding waste.



**INSTALLATION OF POSITIVE STOPS**

On request mechanical stop in opening and closing available.



## CONNECTIONS

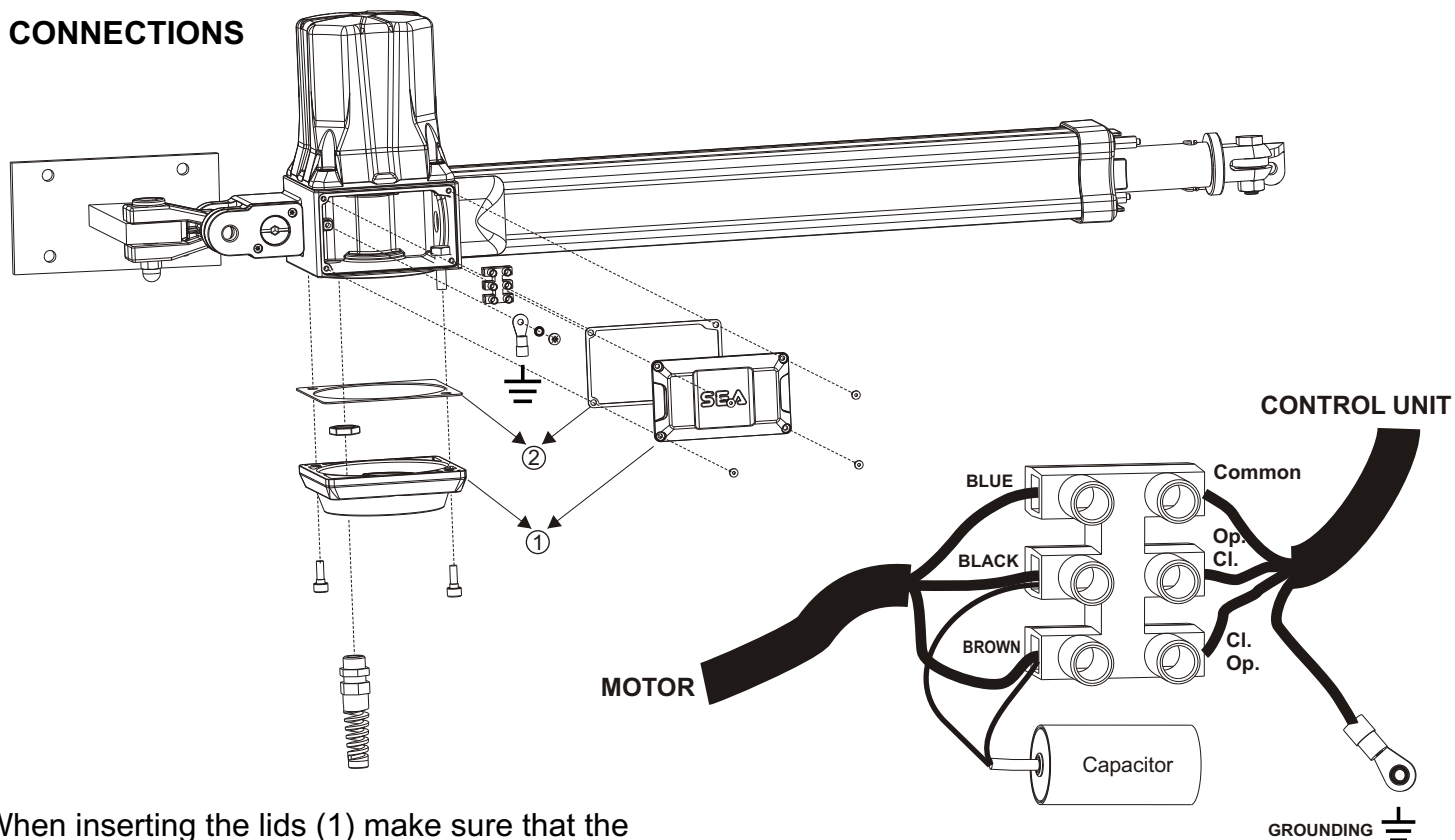
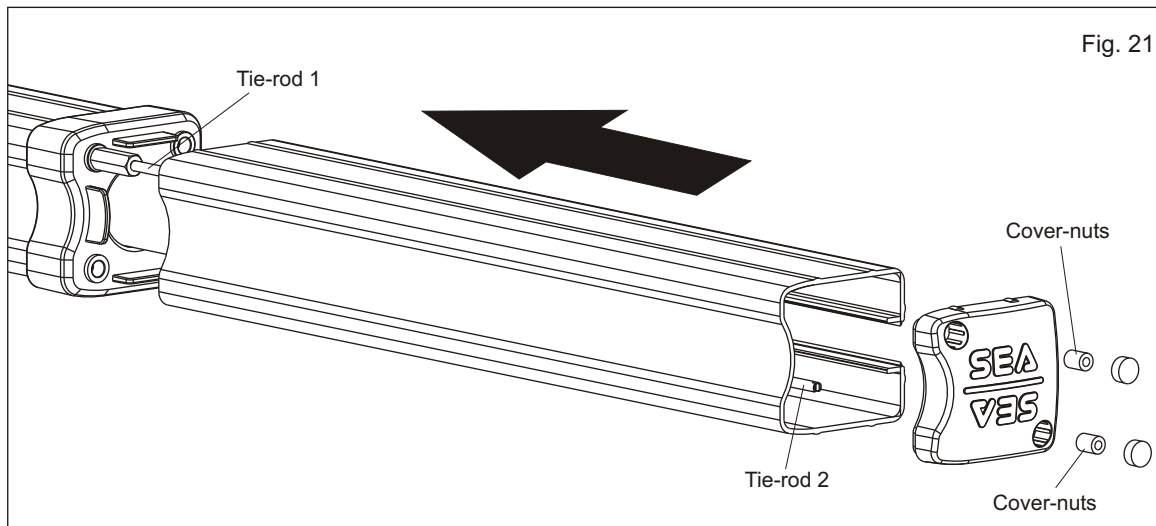
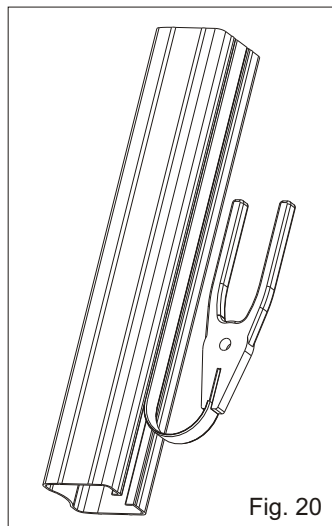


Fig. 19

**2.9.** Release the arm (see paragraph 3)

**2.10.** Remove the pull tongue from the shaft-cover (Fig 20) and mount it on the operator through the two tie-rods without excessively tightening the two cover-nuts (Fig 21).



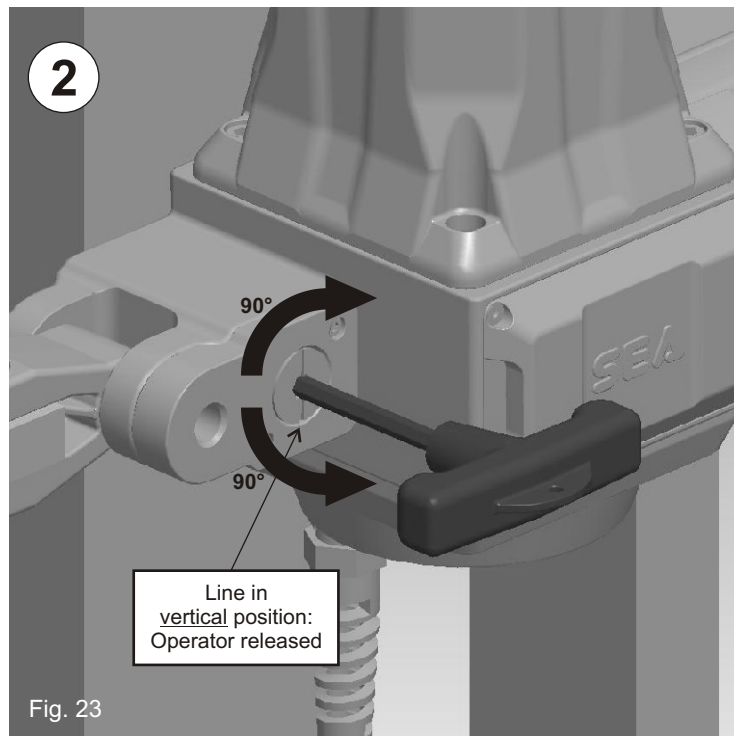
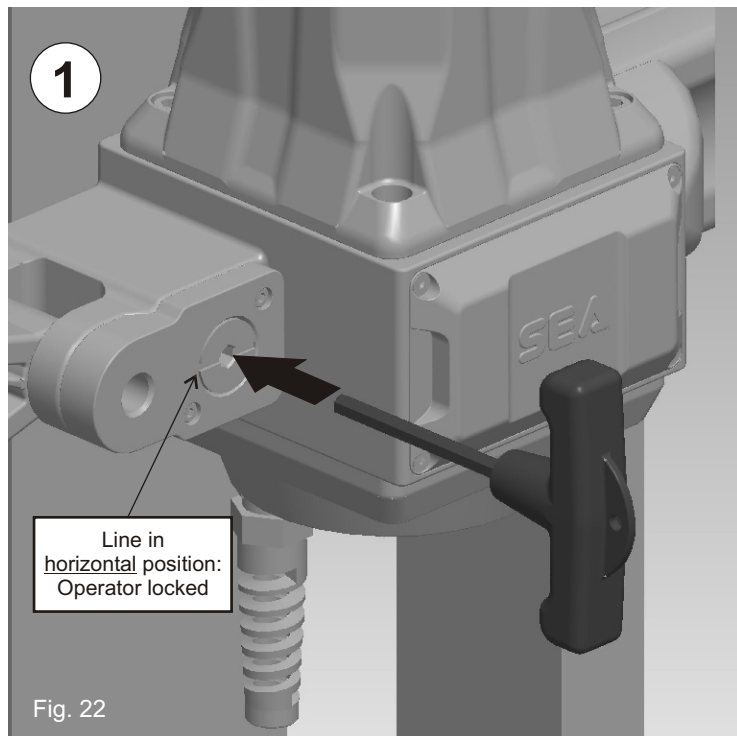


## To the attention of users and technicians

### 3. RELEASING SYSTEM OF THE OPERATOR

3.1. To release the operator follow the instruction below

1. put the red T-shaped release key into the hexagonal hole as in Fig. 22
2. turn the release key of 90° toward right or left until it stops without forcing (Fig. 23).

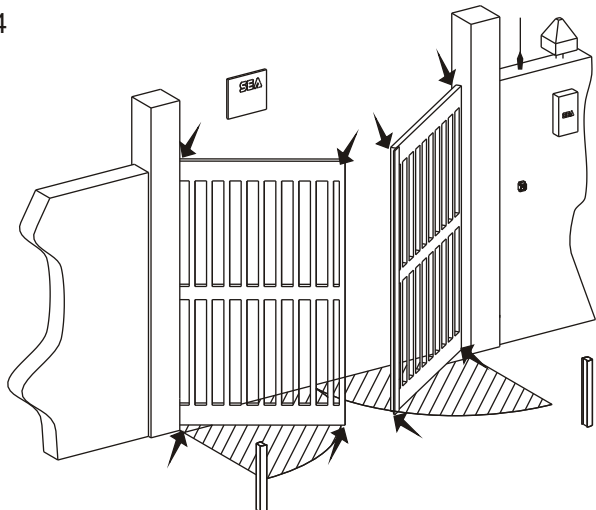


3.2. To lock the actuator again bring the line in the horizontal position through the release key (Fig. 22) and move the leaf manually until the clutch of the automation.

### RISK EXAMINATION

The points pointed by arrows in Fig. 24 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.).

Fig. 24



### NOTICE

SEA s.r.l 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 (according to Machine Law) will be nullified if SEASrl 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. This is a quotation from the GENERAL DIRECTIONS that the installer must read carefully before installing.

Packaging materials such as plastic bags, foam polystyrene, nails etc must be kept out of children's reach as dangers may arise.



## To the attention of users and technicians

### 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:

Alpha 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.

### MAINTENANCE AND OUT OF SERVICE:

The decommission and maintenance of this unit 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.*

### ARRANGEMENTS

Read attentively the installation manual as it gives important indications concerning safety, installation, use and maintenance.

Installation, maintenance, reparation, controls and eventual putting out of function of the product must be executed by qualified staff only.

**For the security of people it is important to follow with attention all the advises and instructions in this manual. A wrong installation or a wrong use of the product can cause sever damages to people.**

**The max. length of the power supply cable between control unit and motors is 10m, use cables with 2,5 mm<sup>2</sup> section.**

Use wirings with double insulated cables (cables with sheath) up to the immediate proximities of the terminals especially for the power supply cable (230V~).

The control unit must not be used by people (including children) whose physical, sensory or mental ability is reduced, or with lack of experience or knowledge, unless they are guarded or have been instructed on how to use the control unit by a person responsible for their safety. Children must be guarded to make sure that they don't play with the control unit.

Foresee on the power supply net of the automation a device that assures the complete omnipolar disconnection from the net, with a distance of opening of the contacts on each pole of at least 3mm. Those devices of disconnection have to be foreseen on the power supply net accordingly to the rules of installation, and they have to be directly connected to the power supply terminals.

It is necessary to keep in adequate distance (at least 2.5 mm in the air) the low tension conductors (230V~) from the very low tension conductors (SELV) or to use a suitable sheath of at least 1 mm which supplies an additional insulation.

Make sure that during installation the power supply and interconnection cables cannot come into contact with pointed or sharp extremities.

Dispose of the package materials (plastics, carton, polistirene, etc.) respecting the laws in order. Keep nylon and polistirene bags out of the reach of children.

## To the attention of users and technicians

Save these instructions for further information attaching them to the technical documents.

This product has been projected and built exclusively for the use described in this instruction manual.

Uses not indicated in this manual could damage the product and be source of danger.

SEA declines all responsibility for improper or different use from the one for which it has been planned and described in the present manual.

Don't install the product in explosive atmospheres.

SEA declines all responsibility for the non-observance of the good technique in the construction of closings (doors, gates, etc.), as well as for the deformations which could occur during the use.

Remove the power supply before any intervention on the installation. Disconnect also possible battery buffers if present.

Make sure that the earth installation has been correctly made: connect all the metallic parts of the closing (doors, gates, etc.) and all the components of the installation provided with earth terminals.

Apply all the safety devices (photocells, sensitive edges, etc.) which are necessary to protect the area from dangers of crushing, conveying, cutting.

SEA declines all responsibility for safety and for the correct functioning of the automation if parts of other producers are used.

Use only original parts for any maintenance or reparation.

Do not modify the parts of the automation if not explicitly authorized by SEA.

Instruct the user of the installation on the applied command systems and how to manually open the gate in case of emergency.

**What is not explicitly contained in these instructions is not permitted.**