



**SEA**  
Sistemi elettronici  
di Aperture Porte e Cancelli

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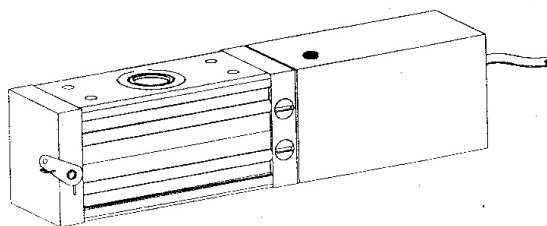
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**CE**

## INSTALLATION

# ARA

## FOR AUTOMATING FOLDING DOORS

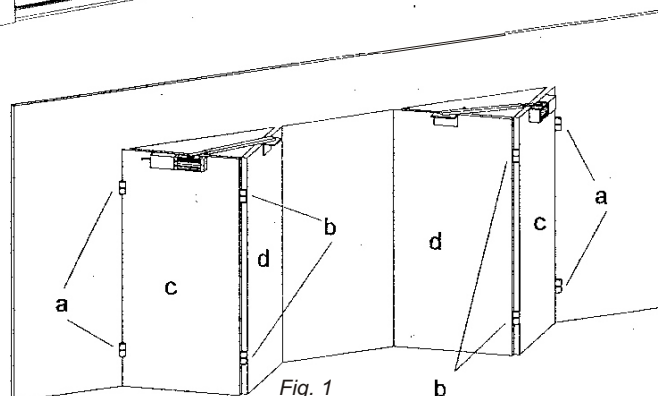


### THE DOOR (Fig. 1)

The door must have two leaves or four leaves (two leaves at each side).

The door can be made of any material on condition that the frame is rigid.

The hinges (a - b) must not have excessive friction or tolerance, necessary condition for a good operation of the unit.



### UPPER GUIDE BEARING AND SLIDING ROLL (Fig. 2)

The door must have an upper or lower track (a) and a roll (b) that will have to guide and support the leaves, according to their dimension and weight, reducing the load on the hinges (a - b).

When the door is closed, the two leaves must always match on a upper ledge as wide as the door.

### INSTALLING THE OPERATOR (Fig. 3)

The operator must be installed either on the leaf (fig. 1- ref. c) hinged directly to the pillar or to the wall.

Position the door as in fig. 3.a (door closed); the length A, that is the distance between drive shaft plumb and hinges (fig. 1 - ref. b), must be between 14 cm and 16 cm.

When fixing the position of the operator, check that the by-pass valves (fig. 2 ref. c) are always visible. Overturn the operator to execute a right-hand or a left-hand installation, always keeping the valves in a frontal position.

Weld the brackets (fig. 2 - ref. d) to the upper edge of the door in the right position, so to fix the measurement A established.

Fix the operator to the bracket using the screws (fig. 2 - ref. e).

Release the operator by turning the lever (fig. 2 - ref. f) anticlockwise, insert the splined (fig. 2 - ref. h), to which the arm is already fixed, (fig. 2 - ref. i) in the centre of rotation (fig. 2 - ref. g).

Act on the arm (fig. 2 - ref. i), turning it in the sense of opening of the door up to the stop, and then turn it back for about 5°.

Spot the position in the middle of the leaf (fig. 2 - ref. \*) and fix in this position the angle iron (fig. 2 - ref. l) with the pin for the fixing of the telescopic arm (using a seeger ring).

Shorten the telescopic arm if necessary (both the elements for the same length) (fig. 2 - ref. m) so to install the telescopic arm on the pin (fig. 2 - ref. l). Leave about 5 cm as shown in fig. 3.d between the sheath and the edge of the telescopic arm.

Check that the door opens and closes completely and that the two parts of the telescopic arm are committed for a sufficient length (at least 20 cm) in the most disadvantaged situation, that is closed.

Grease the telescopic and the anterior pin.

Remove the breathing screw (fig. 2 - ref. n) from top of the operator and replace it with the filter provided. Release the lever (fig. 2 - ref. f) so that it goes back in the position of hydraulic lock; acting on the screw (fig. 2.a - ref. a) and the broaching (fig. 2.a - ref. b) turn the release lever for about 10° - 15° clockwise referred to the horizontal axis (shaft) of the operator.

Adjust the electric cable of the operator and proceed with the electrical connections.

### ADJUSTING THE BY-PASS VALVES (Fig. 2-ref. c)

One screw regulates the closing thrust, the other one the opening thrust; by turning clockwise the thrust increases, anticlockwise decreases. These very sensitive valves act only on the pressure of the operator (thrust) and don't regulate the speed, nor influence hydraulic lock.

Holding with the hands, control the thrust given by the operator and then proceed with the adjusting, to obtain a strong and continuous movement. (According to the UNI 8612 Ed. 89 Regulations, the door must stop with a pressure of 15 Kg).

The release system has a spring return so that by releasing the cable the operator automatically stops.

A key lock is available to control the release system from outside (box in fig. 2).

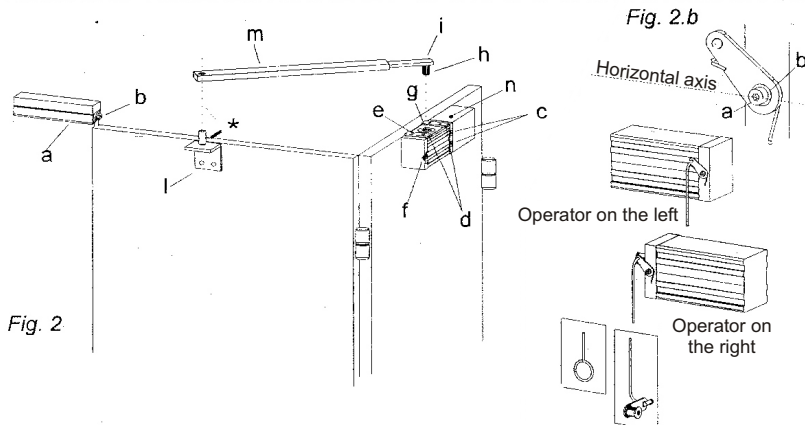


Fig. 2

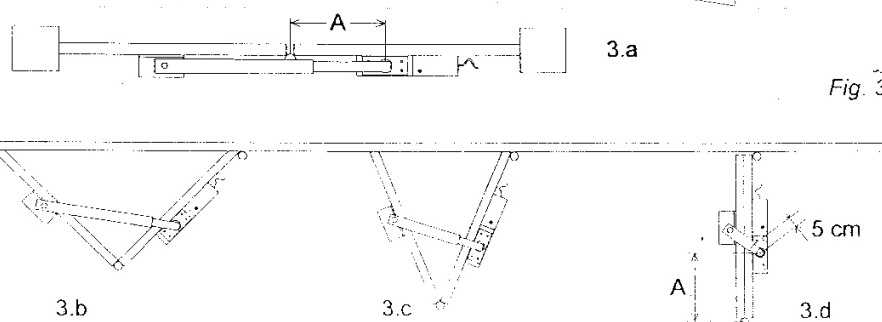


Fig. 3



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Operators without hydraulic lock have a manual release device too, to allow moving the leaf easily in case of power fault.

If the space behind the open door is not enough for the operator, it is possible to make a symmetric installation; in this case the operator will be mounted on the external leaf (fig. 1), and the angle of the pin ( fig. 2 - ref. I ) on the leaf hinged to the wall or to a pillar (fig. 1); then proceed as described above.

Fig. 2. b shows how to connect the key external release system (on request) to the release lever using a cable.

The internal **release** is activated by applying the cable, provided in the operator kit, to the release lever.

### SAFETY PRECAUTIONS

All electrical work should conform to current regulations. A 16A 0,030A 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.

### SPARE PARTS

To obtain spare parts contact:

**SEAs.r.l. ZONA Ind.le, 64020 S.ATTO Teramo Italia**

### INTENDED USE

The ARA operator has been designed to be solely used to automate folding doors.

### SAFETY AND ENVIRONMENTAL COMPATIBILITY

Dispose of the product and circuit packing materials in a responsible, appropriate way.

### CONFORMITY REQUIREMENTS

The Ara operator conforms to the following:

73/23/EC (Electric Safety)

### STORAGE

STORAGE TEMPERATURES			
T <sub>min</sub>	T <sub>max</sub>	Humidity <sub>min</sub>	Humidity <sub>max</sub>
-40 °C	+80 °C	5% no condensation	90% no condensation

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.

### LIMIT OF GUARANTEE

The Ara operator is guaranteed for a period of 24 months. The guarantee period starts from the date stamp printed on the unit. The Ara guarantee will be void if the unit has been incorrectly installed, not used for the purpose intended, tampered with or modified in any way.

The validity of this guarantee only extends to the original purchaser of the unit.

**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 it considers necessary to its products with no obligation to notice.*