

# INSTRUCTIONS FOR THE INSTALLATION, USE AND MAINTENANCE OF THE MOTOR FOR ROLLING SHUTTERS WITH COMPENSATION SPRINGS



## UNIKO EVOLUTION

Is the split motor that can be easily installed on finished shutters without having to disassemble the axle or the spring boxes.

The standard model 60/200 can be adapted to be installed on:

- A) shutters with  $\varnothing$  48 mm and  $\varnothing$  42 mm axle;
- B) shutters with  $\varnothing$  220 mm spring boxes.

**ONLY ONE MODEL FOR ALL TYPES OF SHUTTERS**



**ATTENTION! THE UNCORRECT INSTALLATION CAN PROVOQUE SERIOUS RISKS  
CLOSELY FOLLOW AND KEEP THESE INSTRUCTIONS**

## INSTALLATION:

- A) This apparatus has been manufactured respecting the strictest safety standards in force, and is in conformity with the european directives 89/392/CEE, 93/68/CEE e 73/23/CEE.
- B) The installation will have to be done in respect of the standards in force on the subject of installation in the Country; the manufacturer declines all responsibilities for uncorrect installations or unproper use of the product. In order to be at standards, the installation should include an omnipolar sectionalising switch, the contacts of which should have a minimum opening distance of 3mm. For the electrical wiring, if not differently specified, use cable type H05 VVF. **THE MOTOR MUST BE GROUND-CONNECTED!**
- C) Before starting to install the motor, remove anything eventually left from previous installations.
- D) Install the motor at a height of min. 2,5 metres; place the command of the motor (selector etc.) far from any moving part, but in position as to easily see the shutter in movement, and at a height of min. 1,5 metres; install the manual unclamping at a height of min. 1,8 metres. Follow the indications of installing istructions.
- E) If the room where the motor is to be installed does not have a secondary entrance apart from the shutter, it is compulsory that the unclamping should be installed on the outside.
- F) After the installation:
  - verify the movements of the shutter (keep anyone far from the shutter until this has come to a complete closing);
  - verify the correct functioning of the limit-switch;
  - verify the correct functioning of the safety devices, pneumatic or optical, if installed, following the instructions given with such devices.
  - if a system of manual unclamping is installed, verify the correct functioning and **instruct the user on the use of it.**

## USE:

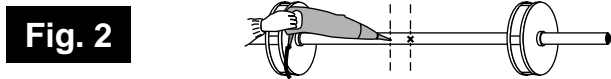
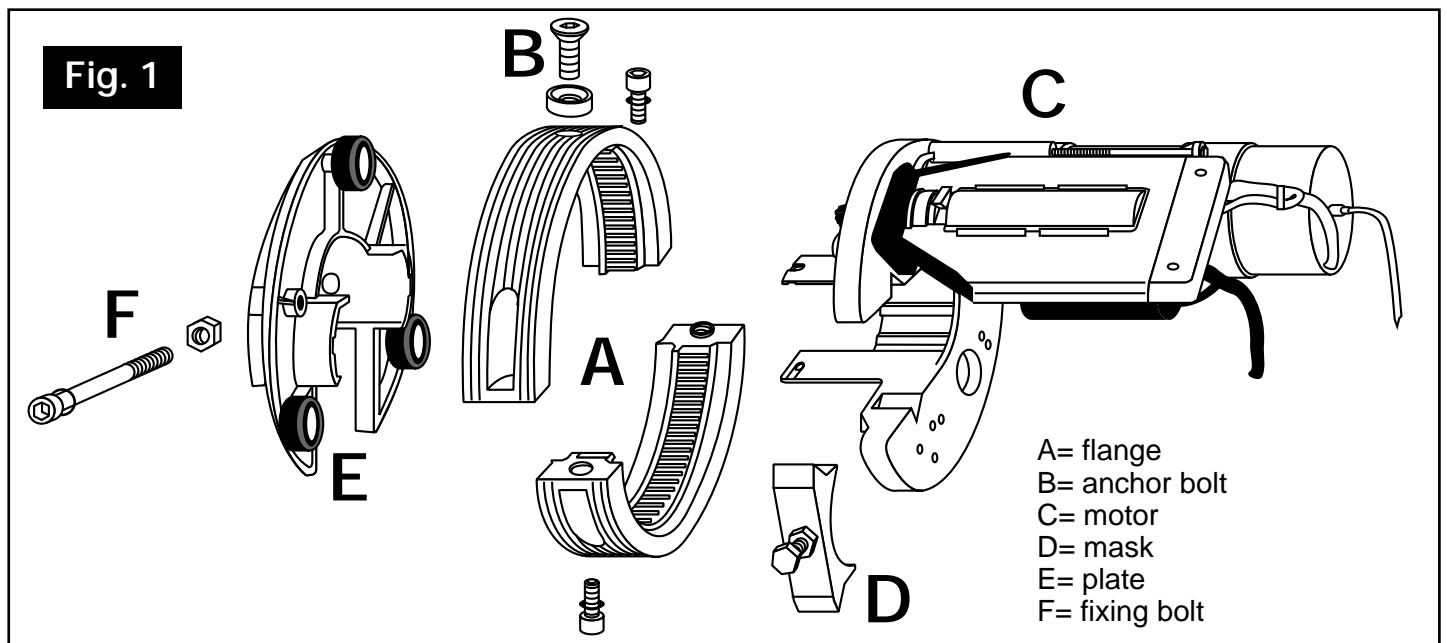
The apparatus is conceived for an intermittant use: 4 mins. Avoid unnecessary or too frequent manoeuvres in order to avoid overheating; the motor is anyhow protected by a thermic probe that interrupts feeding in case of overheating, and restores it after a cooling period. In any case, do not allow children to operate the motor.

- 1) Watch the shutter during the movement, and keep anyone at a distance until it has finished its cycle.
- 2) Check the correct functioning of the movements (opening-closing-limitswitch), and of the electrical and safety devices.
- 3) To operate the manual unclamp of the motor, use the specific handle on the inside or the specific exagonal key on the outside. If the user is not able to carry out these operations, as well as if he notes anomalies in the functioning, he should immediately call upon the installer.

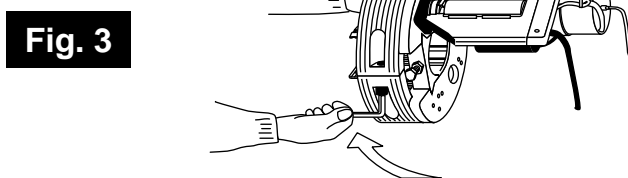
## MAINTENANCE:

The apparatus does not require maintenance.

- The eventual systems of unclamping and safety devices should be checked at least every six months.

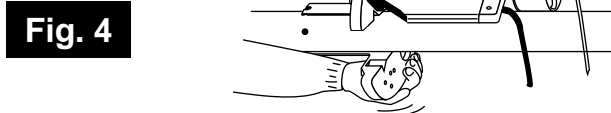


## INSTRUCTIONS FOR THE INSTALLATION OF THE MOTOR UNIKO EVOLUTION 60/200



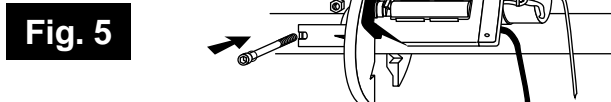
### FIG. 2

Determine the centre of the axle. Drill a hole of  $\text{\O}11\text{mm.}$  at 5 cm. on the left from the centre, taking care that the drill is perfectly horizontal, in order to have the same hole on the opposite side of the axle; the hole will accommodate the fixing bolt (F). If there are 3 spring boxes on the axle, this operation must be carried out between the two boxes on the right.



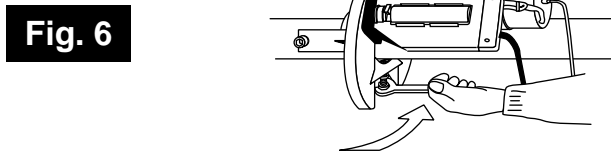
### FIG. 3

Unscrew the flange (A), slide out the plate (E) and extract the mask (D).



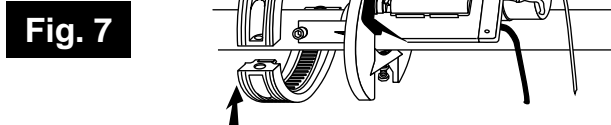
### FIG. 4

With a slight rotation, place the motor (C) on the axle, making the holes onto the body of the motor coincide with the holes previously made on the axle. For installations on axes of  $\text{\O}48\text{mm.}$  and  $\text{\O}42\text{mm.}$ , please refer to fig. 1a.



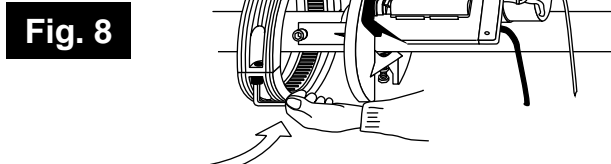
### FIG. 5

Insert **temporarily** the fixing bolt (F) in order to line up the motor on the axle.



### FIG. 6

Insert the mask (D) and screw **moderately** the bolt in order to avoid problems during the next phases.

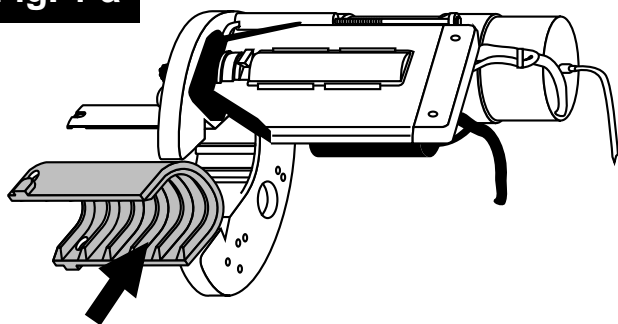


### FIG. 7

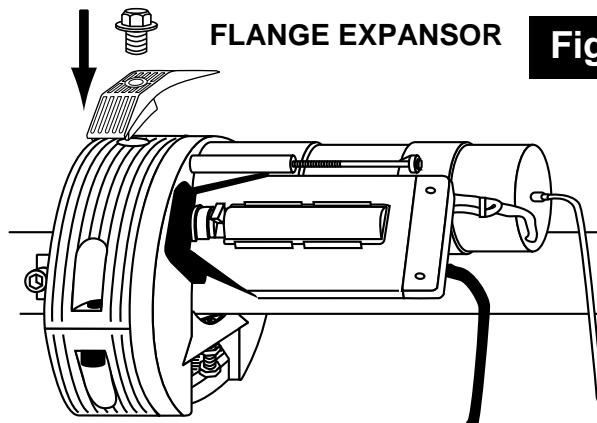
Reassemble the flange (A) on the axle.

### FIG. 8

Tight up the flange.

**Fig. 1 a** ADAPTOR UNIKO EVOLUTION

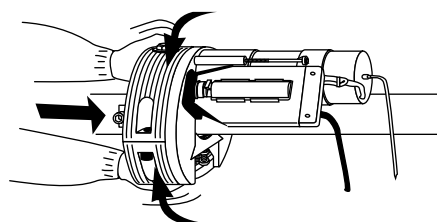
\*A) if the motor UNIKO EVOLUTION is to be installed on a shutter with axle  $\varnothing 48\text{mm.}$  or  $\varnothing 42\text{mm.}$  and spring boxes  $\varnothing 200\text{mm.}$ , use the adaptor to insert on to the motor as illustrated in the picture, right after phase 3.

**FLANGE EXPANSOR****Fig. 1 b**

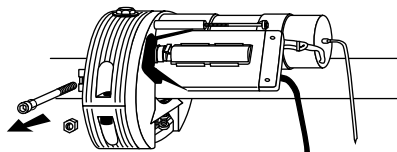
\*\*B) if the motor UNIKO EVOLUTION is to be installed on a shutter with axle  $\varnothing 60\text{mm.}$  and spring boxes  $\varnothing 220\text{mm.}$ , use the expander to insert on to the flange as illustrated in the picture, right after phase 13.

**FIG. 9**

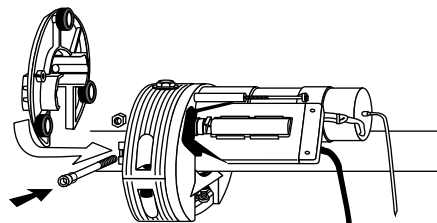
Insert the flange onto the motor (C), taking care that the gears engage perfectly with the flange.

**Fig. 9****FIG. 10**

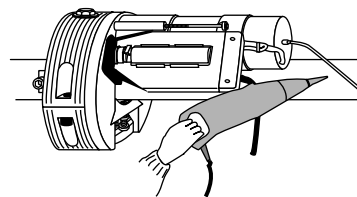
Extract the fixing bolt (F).

**Fig. 10****FIG. 11**

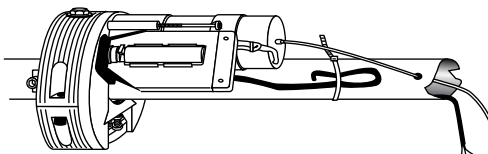
Insert the plate (E) and tighten *moderately* but firmly the fixing bolt (F), in order to avoid ovality in the axle. Then tighten the mask (D) through the lock nut.

**Fig. 11****FIG. 12**

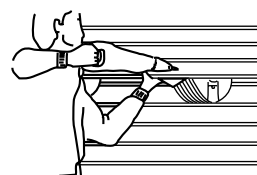
Drill a hole near the motor on the right hand side of the axle and slip the electric cable in until it comes out from the right end of the axle. If the motor has the electromagnetic brake, drill another hole and slip in the cable for the unclamping.

**Fig. 12****FIG. 13**

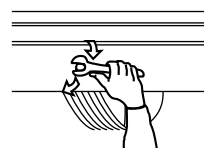
We advise to fix the electric cable through a band as shown in the picture, in order to avoid that the same cable is tensioned.

**Fig. 13****FIG. 14**

Unscrew the anchor bolt (B) and drill a matching hole on the first element of the shutter. We advise to use a packing between the element and the flange. In case of installation with spring boxes of  $\varnothing 220\text{mm.}$ , please refer to picture 1b.

**Fig. 14****FIG. 15**

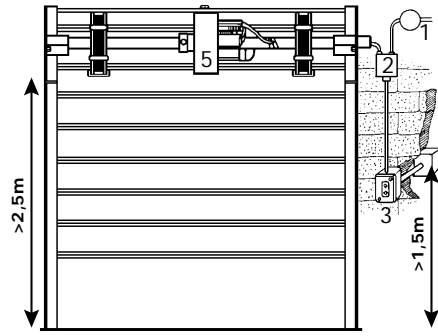
Tighten the anchor bolt (B). Make all the wiring as illustrated at picture 16 page 4.

**Fig. 15****ATTENTION:**

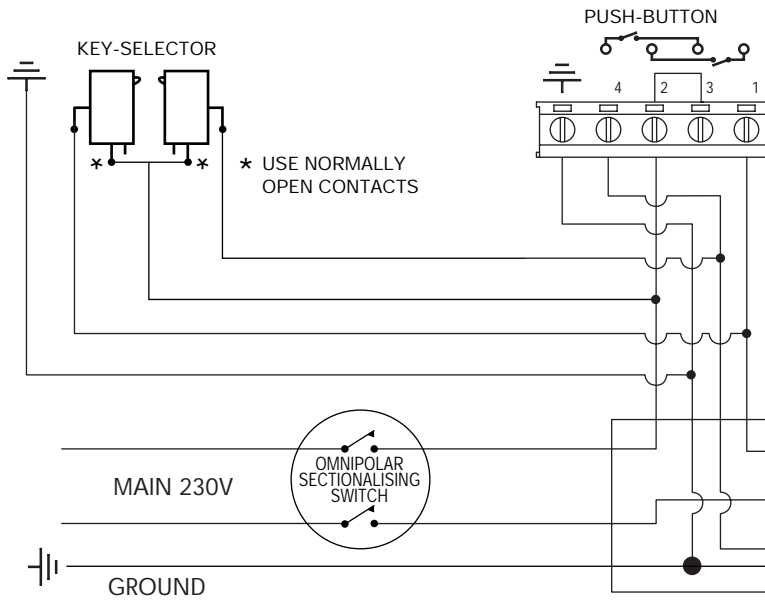
THE ELECTRICAL WIRING, CONNECTION OF CABLE AND SETTING OF LIMIT SWITCH ARE DESCRIBED AT PAGE 4.

Fig. 16

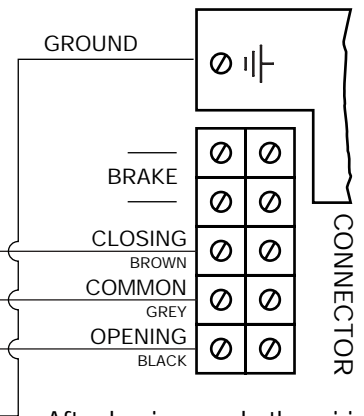
## CONFIGURATION AND ELECTRICAL WIRING



- 1 - SHUNTING BOX
- 2 - CONNECTION BOX
- 3 - INSIDE PUSH-BUTTON
- 4 - KEY SELECTOR
- 5 - MOTOR



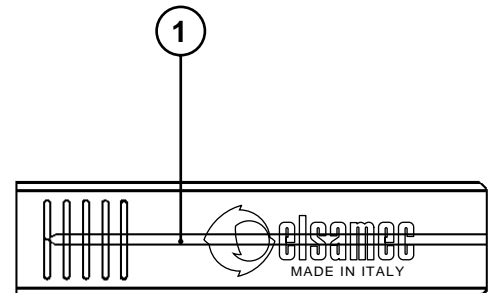
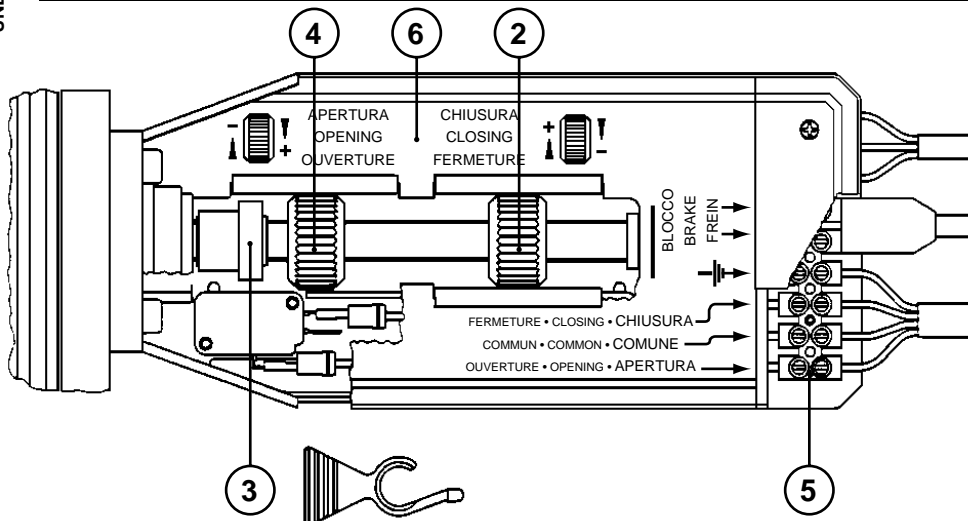
## ELECTRICAL SCHEME



According to the standards concerning low tension enforced in the country low-tension commands, models SECUR and BRICK are available.

After having made the wiring, protect the connector with its cover.

## MOD. ES 60/200 UNIKO EVOLUTION SETTING OF LIMIT-SWITCH



**N.B.:** The ticking that can be heard during the setting of the opening limit is due to the frictioning of the travelling wheel on a crest (in order to reach its final position): this is perfectly normal.

The setting can be done in two ways: A) semi-automatic B) traditional (by trials)

## A) SEMI-AUTOMATIC

**1)** Take the transparent cover off (1) and place the right travelling wheel (2) in contact with the closing microswitch. This operation must be performed when the shutter is completely unrolled.

**2)** Verify that the fork (3) is in the position as showed in the picture (between the left travelling wheel and the opening microswitch).

**3)** After having wired the motor with the line through the connector (5), start it and roll the shutter until 10-15 cm. from the upper opening limit.

**4)** Unroll the shutter and verify that it stops on the point previously set. If it does not, act on the right travelling wheel (2) in the sense of the arrows (+ or -).

**5)** Take off the fork (3), roll the shutter and verify that the limit corresponds to the one previously set.

If corrections are necessary, act on the left travelling wheel in the sense of the arrows (+ or -).

**6)** Finally, re-place the transparent cover.

## B) TRADITIONAL (by trials)

Act on the right travelling wheel (2) according to the arrows (+ or -) for setting the closing. Likewise, act on the left travelling wheel (4) for setting the opening.

**N.B.:** In the traditional setting, the fork (3) must be taken off before performing any setting.