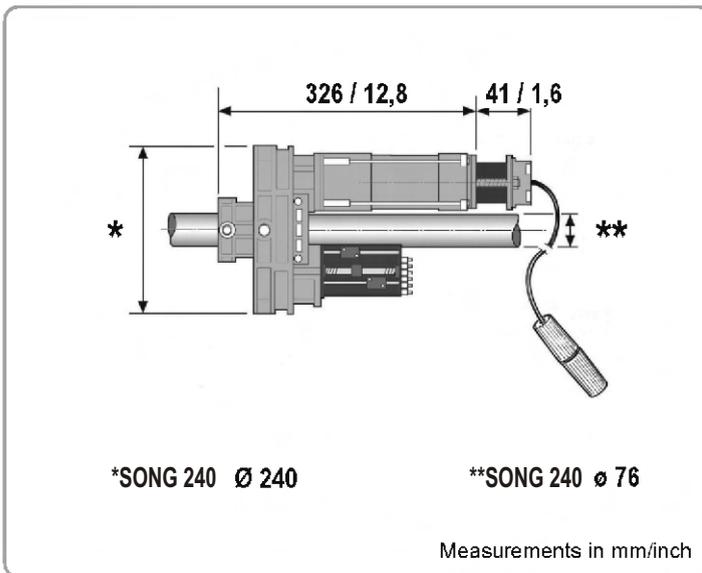




TECHNICAL DATA / INSTALLATION SONG 240

English

| TECHNICAL DATA | | SONG 240 |
|-------------------------------|----------------|----------------------------------|
| Max gate weight | kg/lbs | 280/617 |
| Max gate surface | m ² | 24 |
| Limit switch winding capacity | N°rotat. | 7,5 |
| Nominal functioning torque | Nm | 290 |
| Max operating torque | Nm | 200 |
| Max lifting force from earth | kg/lbs | 240 |
| Max operating force | kg/lbs | 165 |
| Pulley revolutions | rpm | 9 |
| Pulley diameter | mm/in | 240 |
| Shaft diameter | mm/in | 76 |
| EEC Power supply | | 230V ~ 50HZ / 120V ~ 60HZ |
| Motor capacity with load | W | 600 / 500 |
| Power absorbed with load | A | 2,8 / 4,16 |
| Capacitor | µF | 20 / 60 |
| Functioning cycles | N° | 14 - 20s/2s |
| Daily operations suggested | N° | 30 |
| Service | | 30% |
| Nominal functioning time | s | 630 |
| Motor weight | kg/lbs | 11 |
| Working Temperature | °C | -10 ÷ +70 |
| Protection | IP | 30 |



ROLLING GATE CONTROL

The European Standard EN 12604 "Industrial, Commercial and Garage Doors and Gates - Mechanical Aspects - Requirements", at the point 4.3. "Protection against unintentional and uncontrolled movements" requires also that*:

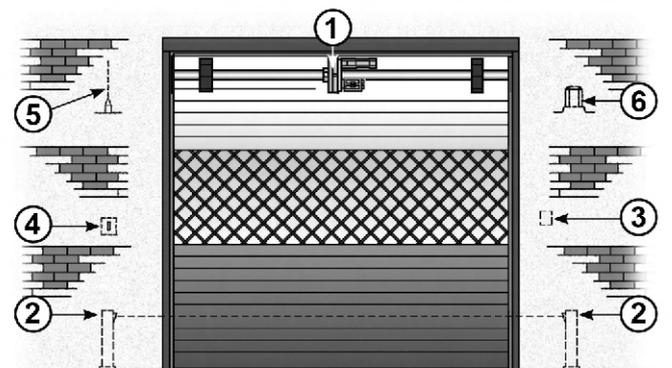
a - The vertically operating door leaves shall be balanced so that the door leaf can stop in any position, or that the out-of-balance state shall not produce, in any case, a static force at the primary closing edge of the door exceeding 150N (15,3 kg / 33,70 lbs).

Verify it after having manually released the SONG 240 operator.

b - If a spring fails, the resulting out-of-balance static force occurring at the primary closing edge of the roller shutter shall not exceed 200N (20,4 kg / 44,94 lbs), even when the SONG 240 operator is manually released. After this failure, you must intervene on the door to substitute the broken spring and correct the balance state. Therefore, we suggest you to fraction the roller shutter weight with an adequate number of springs (* This is a free interpretation).

WARNING: The EN 12445 standard "Industrial, commercial and garage doors and gates - safety in use of power operated doors - test methods" at point 4.1.2 "safeguarding against hazard of being lifted" provides that the rolling gate shall not be able to lift more than 20 kg / 44 lbs. In order to meet this standard, SEA suggests to install a control board with electric power regulation.

IN ORDER TO ENSURE A CORRECT FUNCTION ONLY SEA'S COMPONENTS MUST BE USED

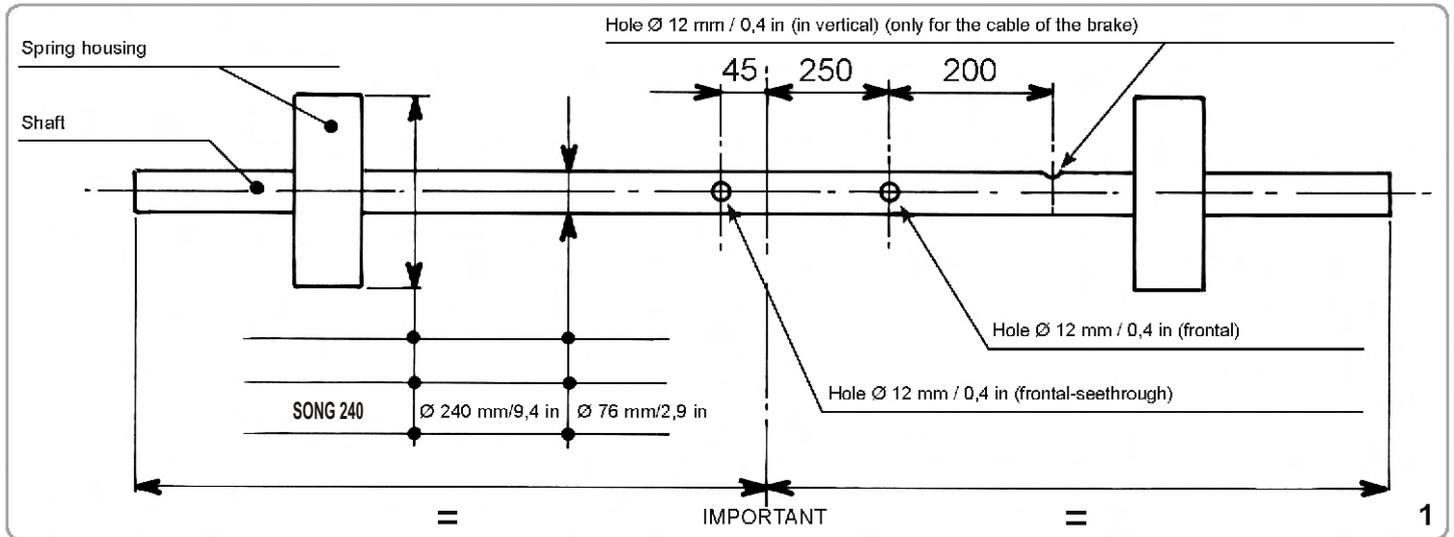


- 1 - SONG 240 operator
- 2 - Photoelectric cells (external)
- 3 - Push-Button
- 4 - Key selector
- 5 - Tuned aerial
- 6 - Flashing lamp



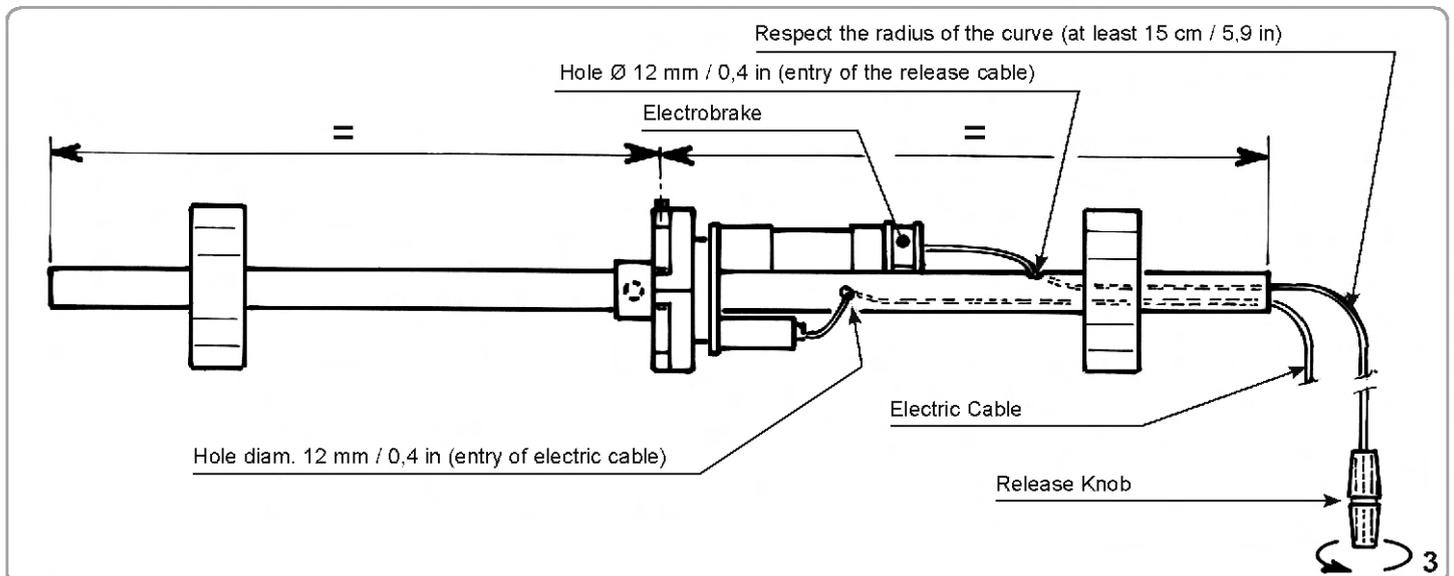
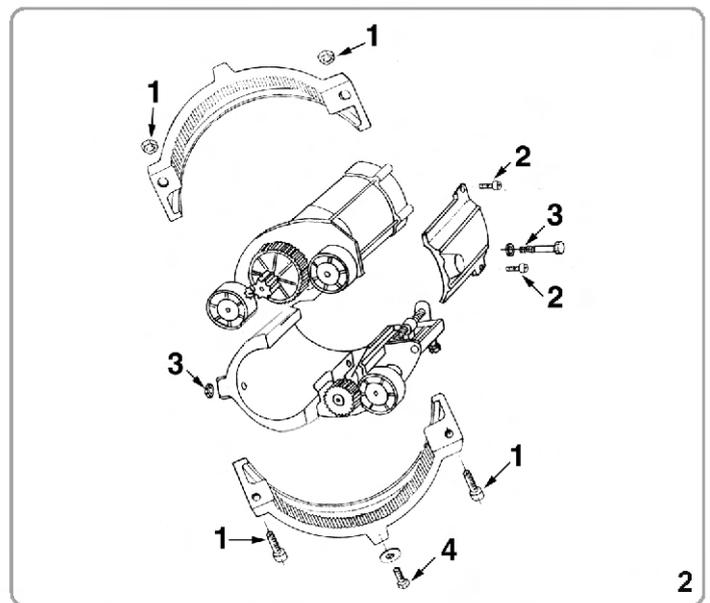
HOW INSTALL SONG 240 WITH ELECTROBRAKE

IMPORTANT: Before install SONG 240 check that the shutter is correctly balanced by its screws mounted on the shaft. Verify it manually by opening and closing the shutter.



After have chosen SONG 240 according to the dimensions of the shutter, verify the diameter of the spring housing and of the shaft, because they must have the same diameter of the chosen motor.

- A** - Make the holes on the shaft as indicated on the rising above draw (see pict. 1), open the motor and mount it as indicated in the instruction.
- B** - Open the pulley unscrewing the 2 screws (1).
- C** - Dismount the fixing flange on the shaft unscrewing the screws (2).
- D** - Mount SONG 240 on the shaft and position the motor up and the limit switch down (see pict. 3). Fix SONG 240 on the shaft using the fixing flange and its screws (2) and (3).
- E** - Reassemble the pulley and re-screw its screws (1).
- F** - On the last section of the shutters make a hole \varnothing 12 mm / 0,4 in which allows to fix the shutter to the pulley of SONG 240 using the proper screws (4).
- G** - Insert the electrical cable and the releasing cable in the holes on the shaft and execute the electrical connections (see pict. 8).

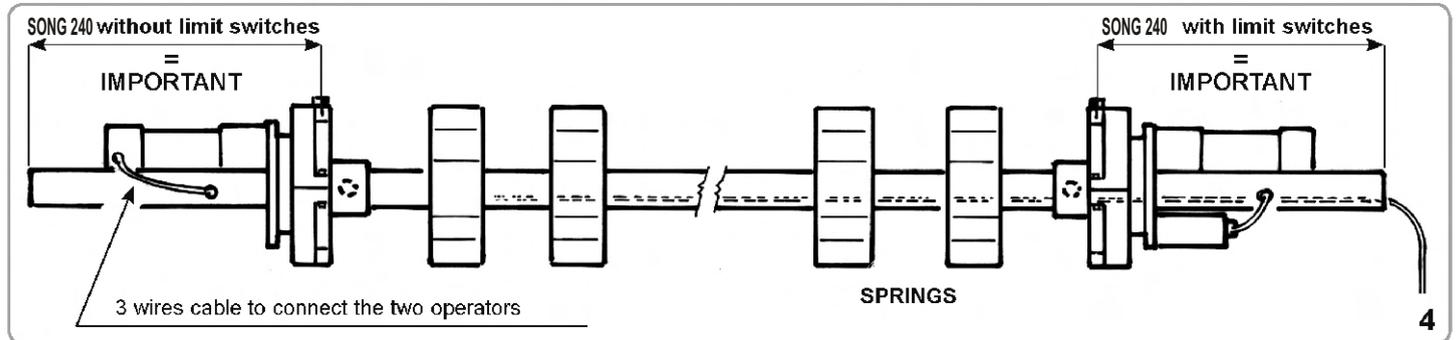




ROLLING SHUTTER WITH LENGHT SHAFT OVER 4 MT

In this case we suggest to mount 2 SONG 240 on the same shaft at the shutter extrimities. It is necessary to eliminate the limit switch of one of the 2 SONG 240 and connect in parallel the two motors.

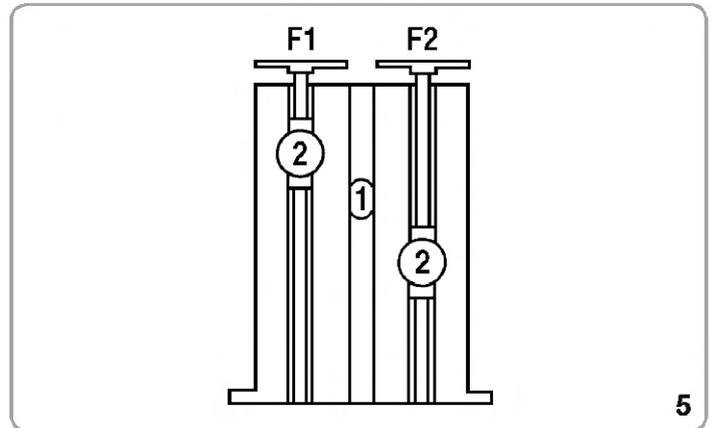
IMPORTANT: Before fixing the two pulleys to the shutter laminate (4), verify that the sense of rotation of the 2 SONG 240 is the same.



IMPORTANT!

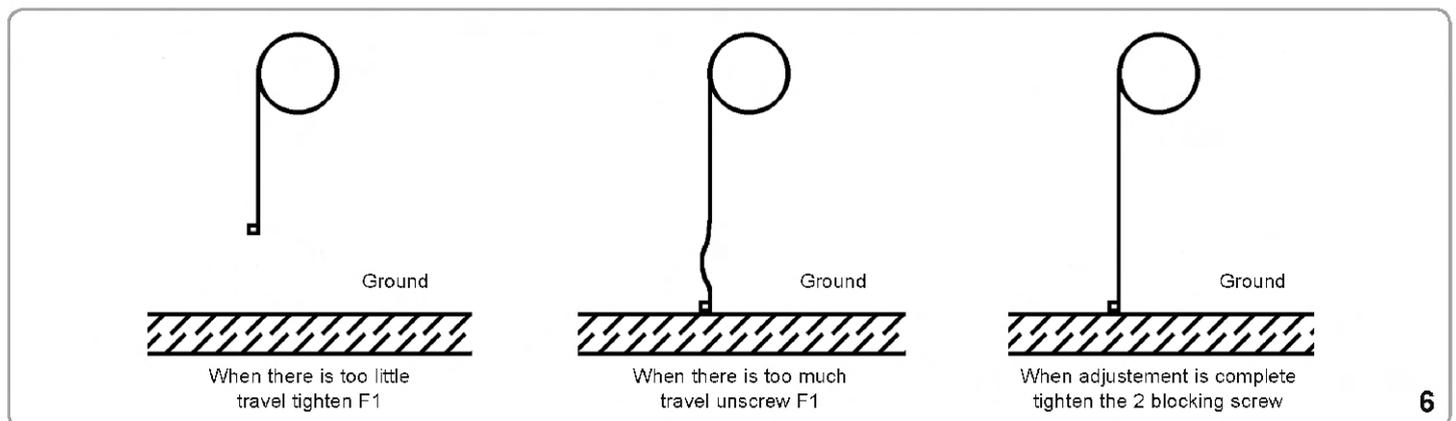
When mounted with engine on the left all the operations are inverted and limit switch F1 becomes F2

- 1 - Cam for end travel
 - 2 - Screw for blockage of the limit switches
 - F1- Screw for regulation of limit switch which stop the upward movement
 - F2- Screw for regulation of limit switch which stop the downward movement
- For the regulation of the electrical limit switches tighten the two blue screw and unscrew or tighten the wheels F1 and F2.
To maintain the desired position of the switches you must block the two screws when the regulation is completed.

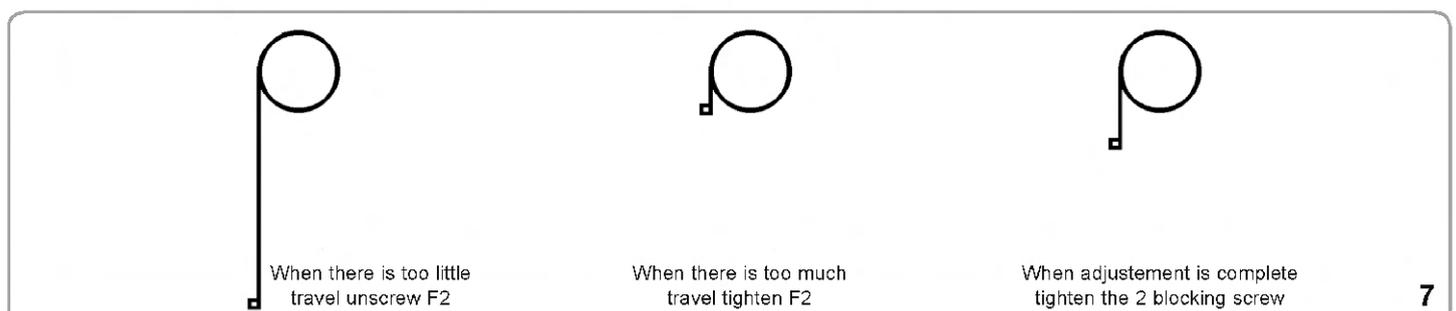


ATTENTION: Avoid all the manouvres of the motor really not necessary during the regulation. Many manouvres at the same time cause the intervention of the thermal sensor.

REGULATION OF THE LIMIT SWITCH WHICH STOPS THE DOWNWARD MOVEMENT

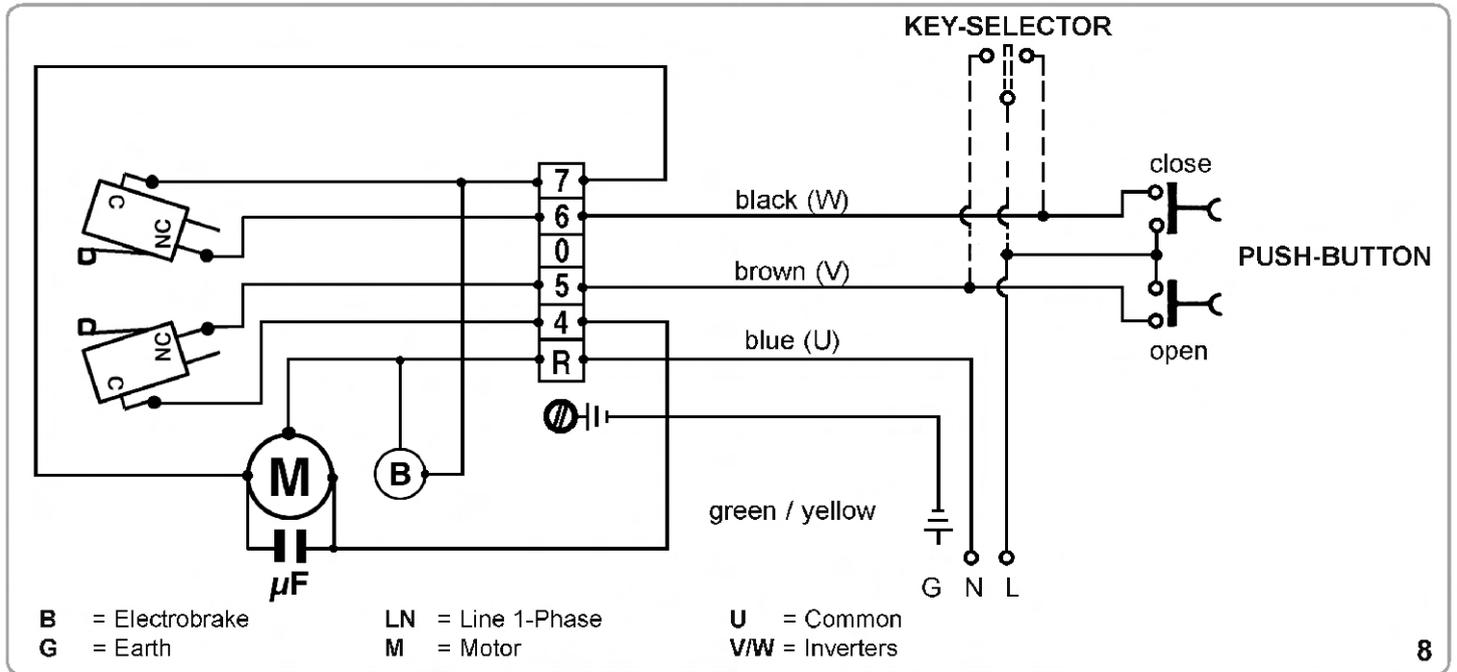


REGULATION OF THE LIMIT SWITCH WHICH STOPS THE UPWARD MOVEMENT





CONNECTION DRAW OF: SONG 240 + PUSH-BUTTON + KEY SELECTOR



If SONG 240 is required complete with electrobrake, the connection of the electrobrake to the motor is made in factory.

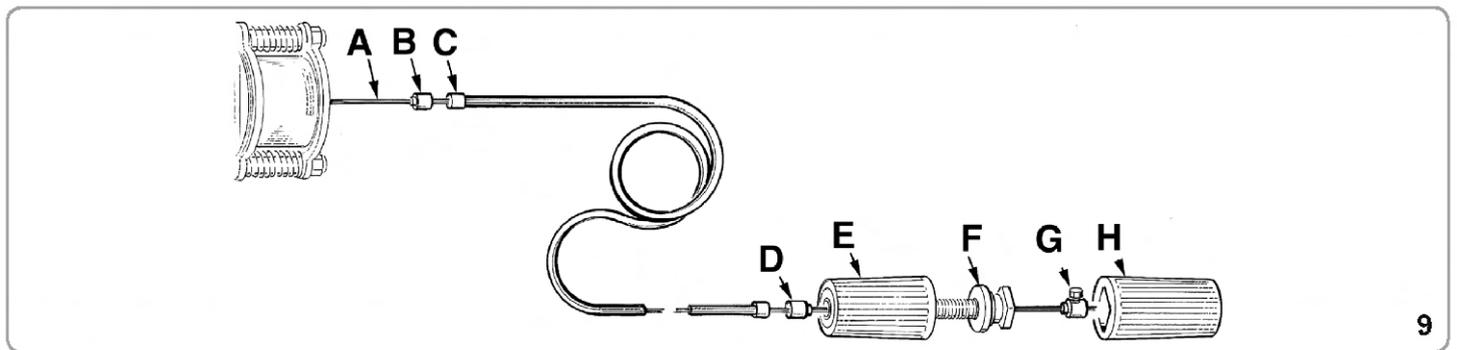
IMPORTANT: Use proper push button and key selector.

In the draw you can see now connect the push button for the opening and closing control on the inside of the premises and of the key selector for the external control.

TRANSMITTER AND PHOTOCELLS:

- SEA can supply electronic control board for the remote control through transmitter, push button, key selector;
- The control board can also be arranged or the connection of safety photocell.

RELEASE KNOB FOR SONG 240 ELECTROBRAKE: ASSEMBLY PROCEDURE



- 1° - Insert the steering compass (B) into the cable (A), as shown in the drawing.
 - 2° - Insert the sheathed cable (C) along the cable (A).
 - 3° - Insert the compass (D) onto the cable (A) as shown.
 - 4° - Insert part (E) paying attention that part (F) has been completely screwed.
 - 5° - Insert the compass with the blocking screw (G) against part (F) and tighten the hexagonal screw with a key n° 7.
 - 6° - Fix part (H) with part (F).
- To safely carry out the movement of the rolling gate it is important to

verify that:

- there are handles on the rolling gate;
- their position does not create dangerous points during the use;
- **the manual effort to move the rolling gate must not exceed 225N for the doors located in private sites and 390N for the doors located in commercial or industrial sites (values indicated in point 5.3.5 of EN 12453 standard).**

ATTENTION: the activation of the release can cause an uncontrollable movement of the rolling gate in case the latter is not perfectly balanced.

MAINTENANCE

To be undertaken only by specialized staff after disconnecting power supply.

Every two years it is advisable to check if the screws of the pulley and the screw fixing to the shaft are tighten.

Check that the springs are properly balanced and lubricate the guide with silicone grease.



ACCESSORIES FOR SONG 240

Description

- Administration of one 230 V~ motor
- Automatic, semiautomatic logic
- Extractable connector
- Connector for plug in receivers SIGNAL series



ROLLING



EXTERNAL RELEASE KIT



PHOTOCELLS



WARNING LAMP



REDUCTION TUBES



COMPENSATION RINGS

DECLARATION OF CONFORMITY

SEA declares under its responsibility that the product

SONG 240

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

2006/42/CE (Machine Directive)

2004/108/CE (Electromagnetic Compatibility Directive)

2006/95/CE (Low Tension Directive)

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.

INTENDED USE:

The SONG 240 operator has been designed to be solely used for the automation of sectional doors and balancing doors.

SPARE PARTS:

To obtain spare parts contact:

SEA s.r.l. -Zona Ind.le, 64020 S. ATTO 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.

CORRECT DISPOSAL OF THIS PRODUCT (WASTE ELECTRICAL & ELECTRONIC EQUIPMENT) - EUROPE ONLY



(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

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.