



AUTOMATIC ENTRANCE SPECIALISTS

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GLOBE

IP1839 - rev. 2006-07-24



- ① Manuale di installazione e manutenzione per porte basculanti a molle e sezionali.
- ② Installation and maintenance manual for spring balanced up and over door and sectional overhead doors.
- ③ Manuel d'installation et d'entretien pour portes basculantes a ressort et sectionneles.
- ④ Montage und Wartungsanleitung für Garagentorantriebe.
- ⑤ Manual de instalaciòn y mantenimiento para puertas basculante de resortes y seccionales.
- ⑥ Manual de instalaçõ e manutençõ para portas basculantes a molas e seccionadas.



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ISO 9001
Cert. n° 0957

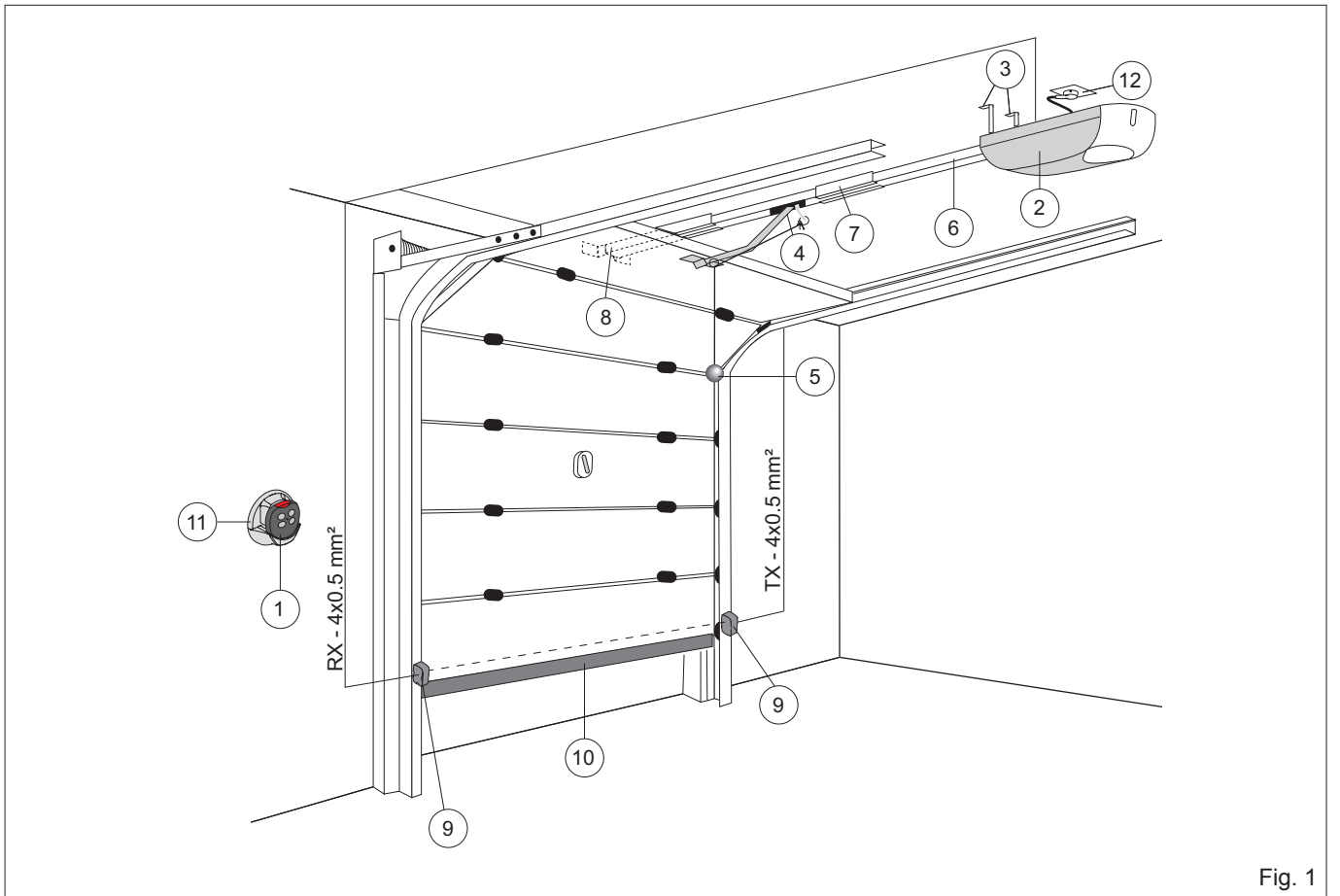


Fig. 1

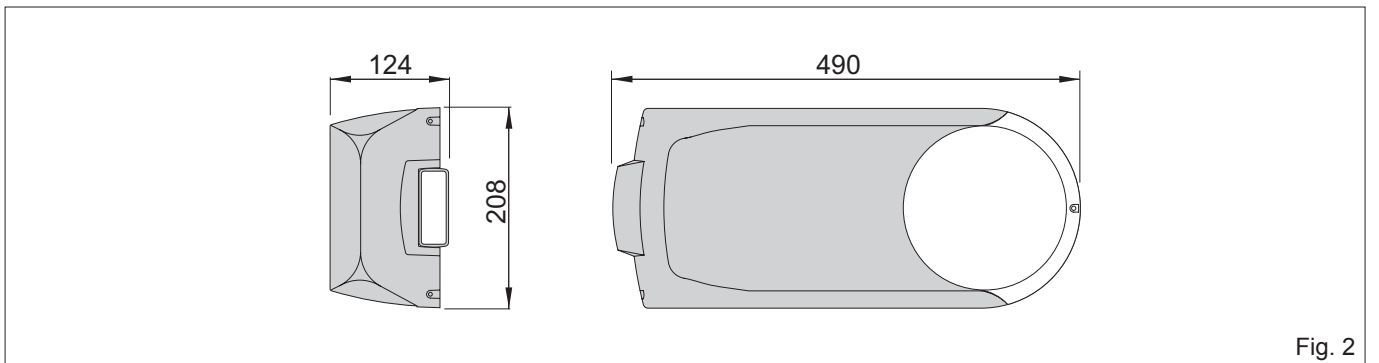


Fig. 2

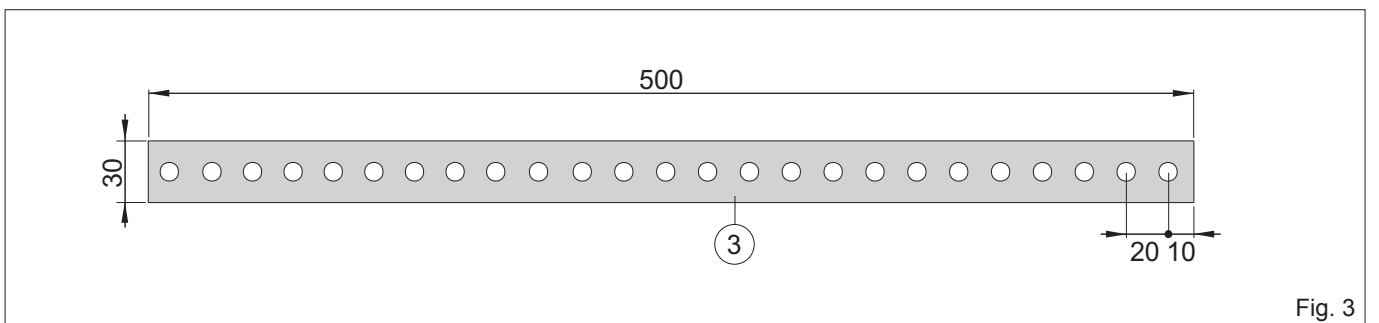


Fig. 3

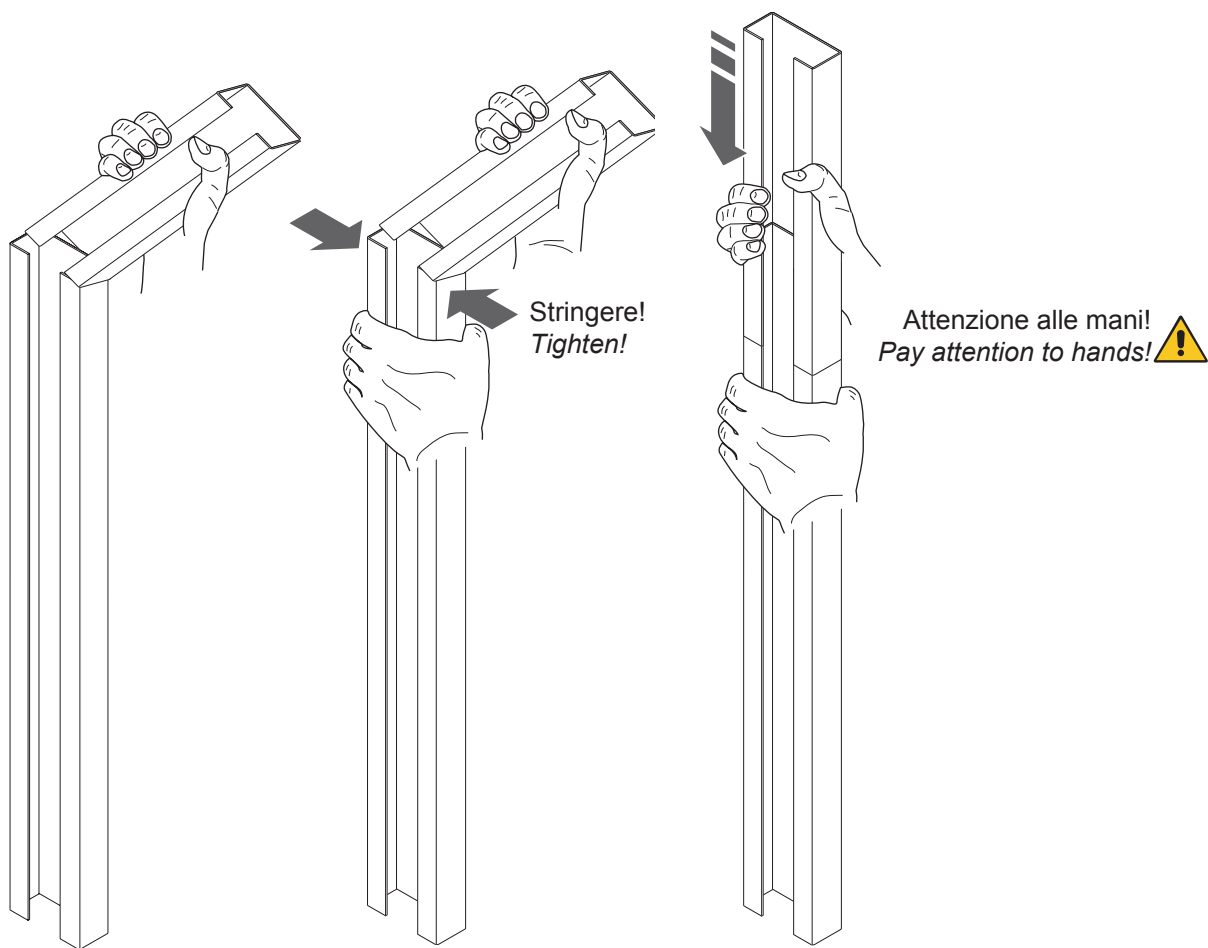
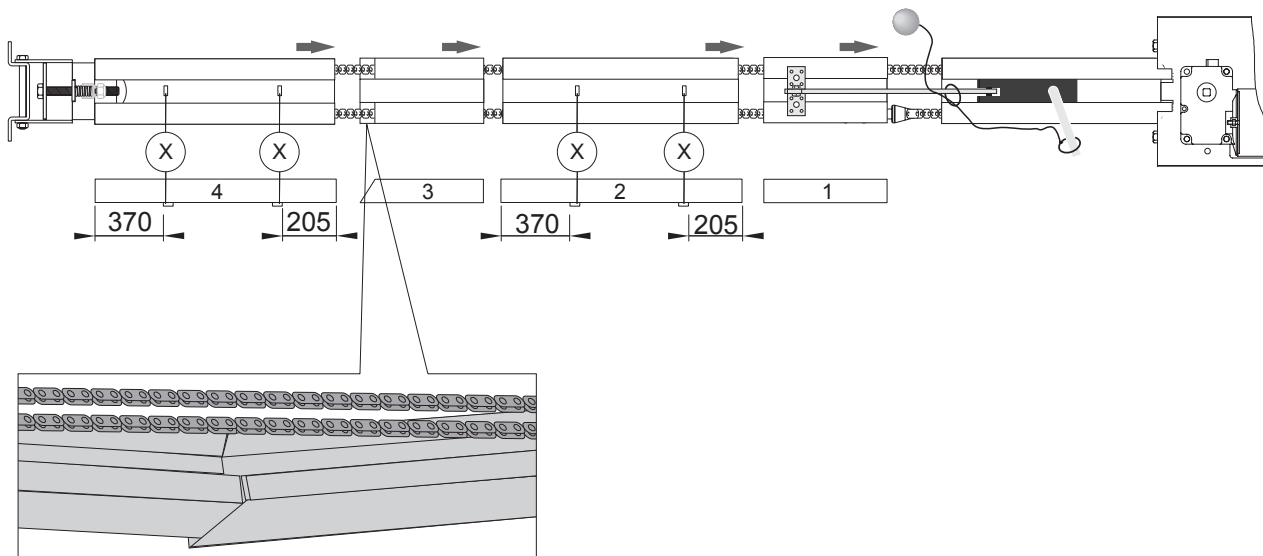


Fig. 4

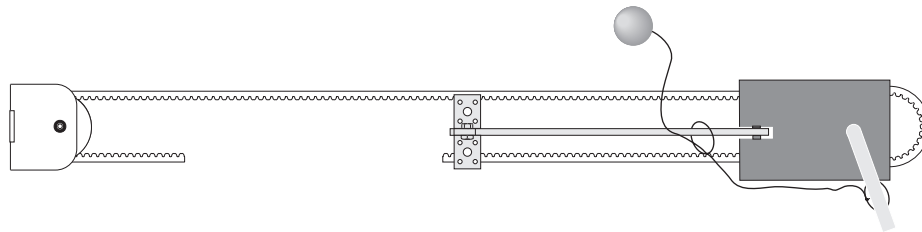


Fig. 5a

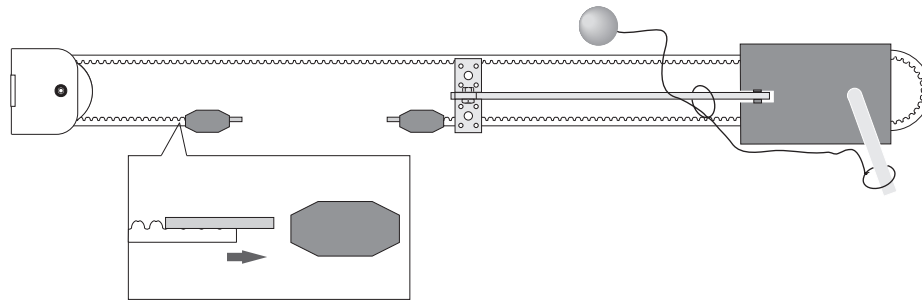


Fig. 5b

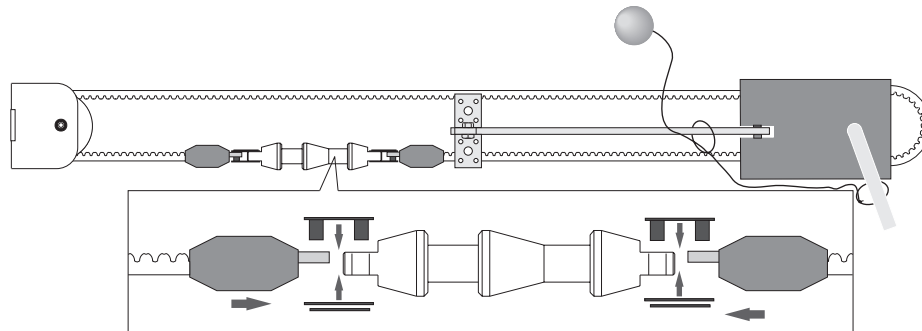


Fig. 5c

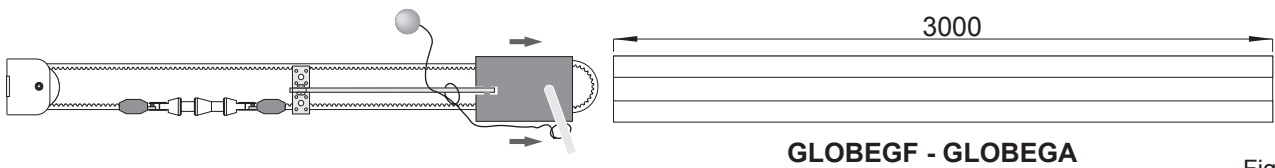


Fig. 5d

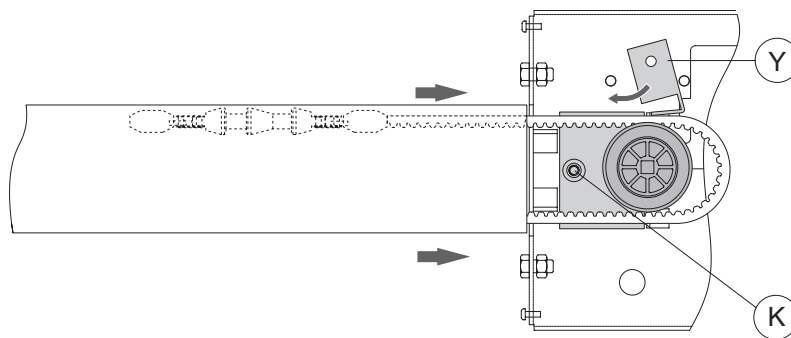


Fig. 5e

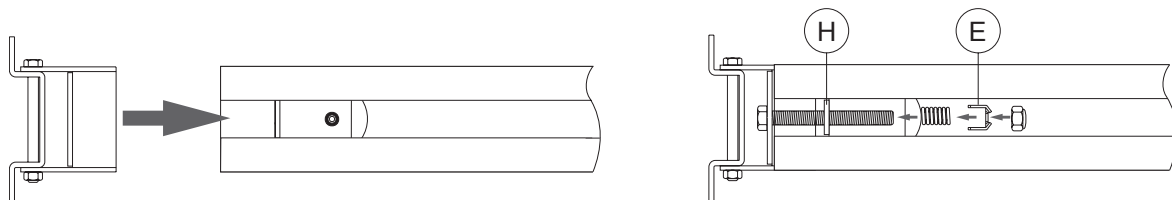


Fig. 5f

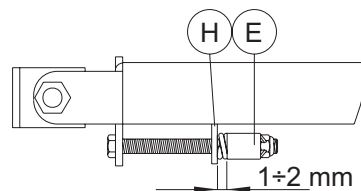


Fig. 6

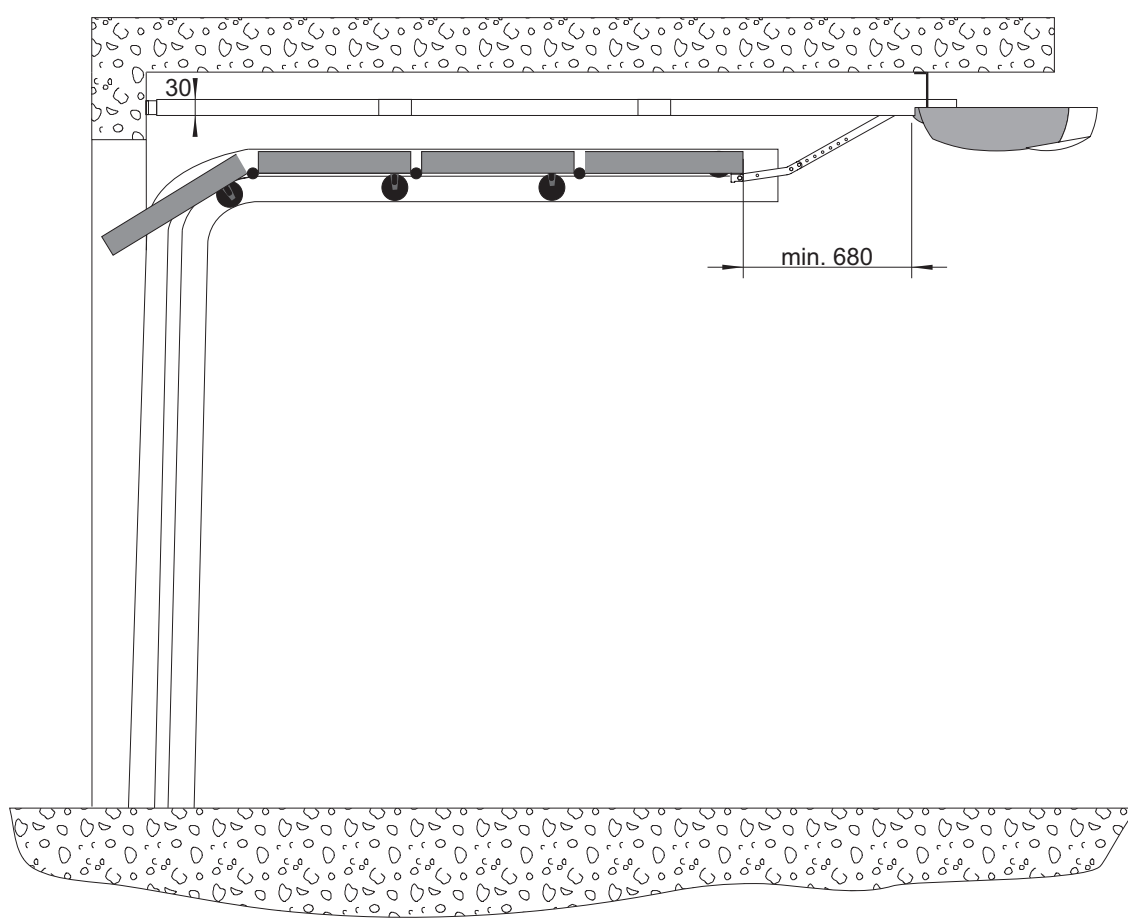
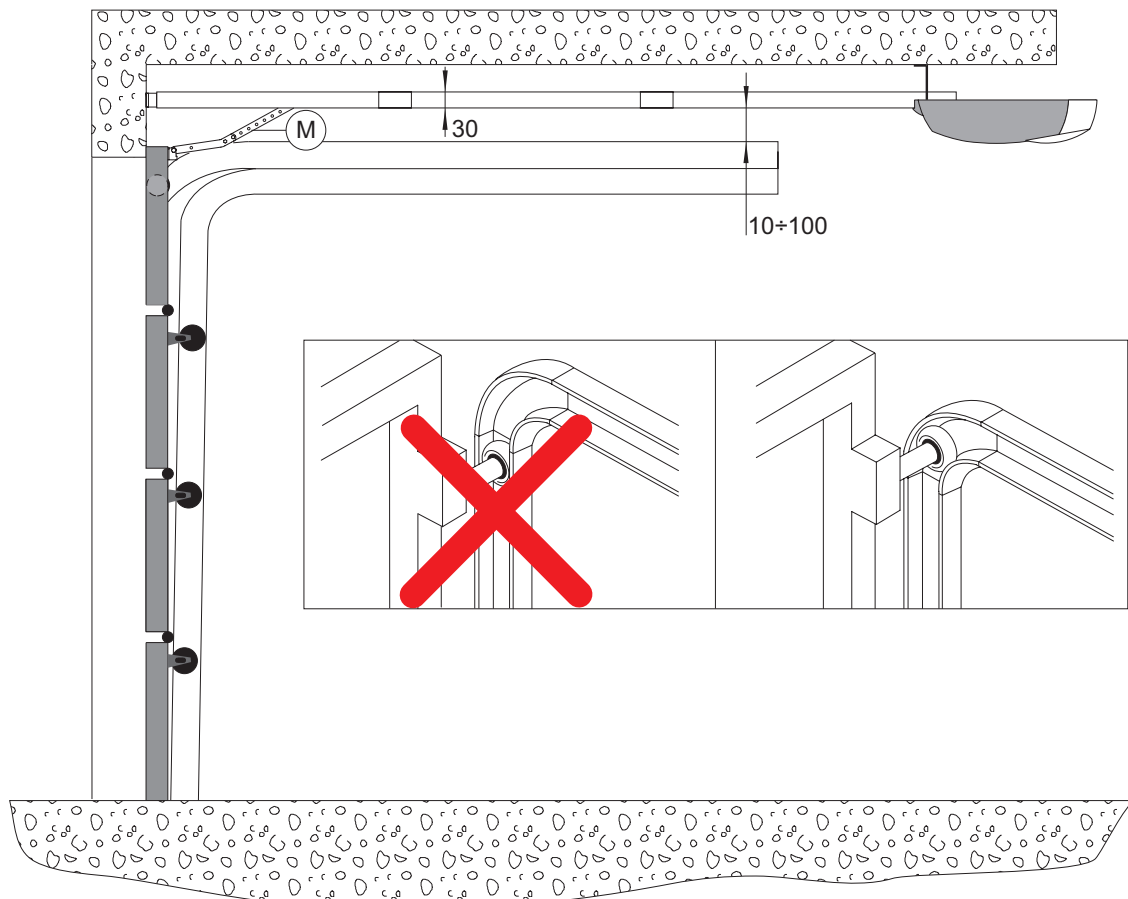


Fig. 7a

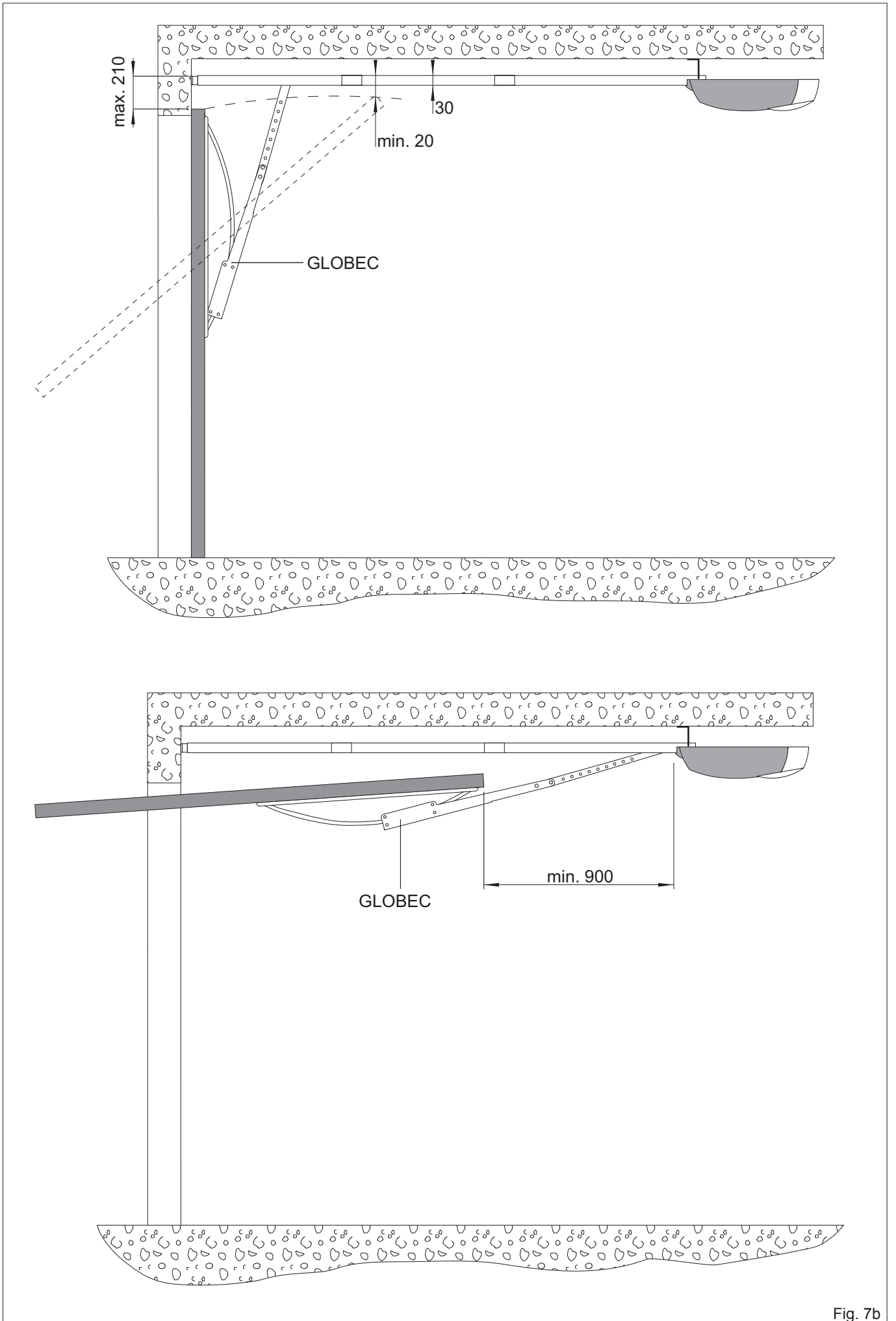


Fig. 7b

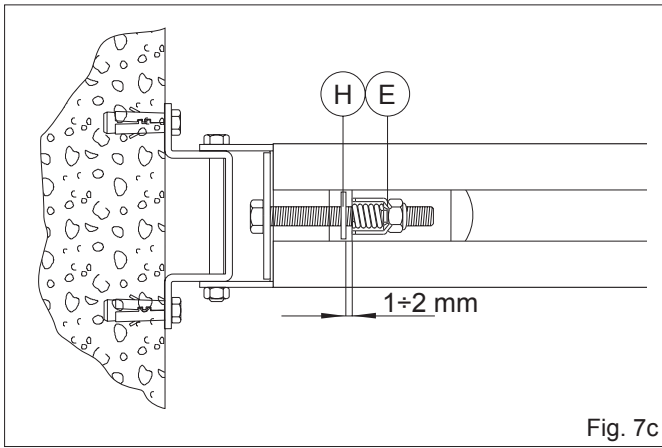


Fig. 7c

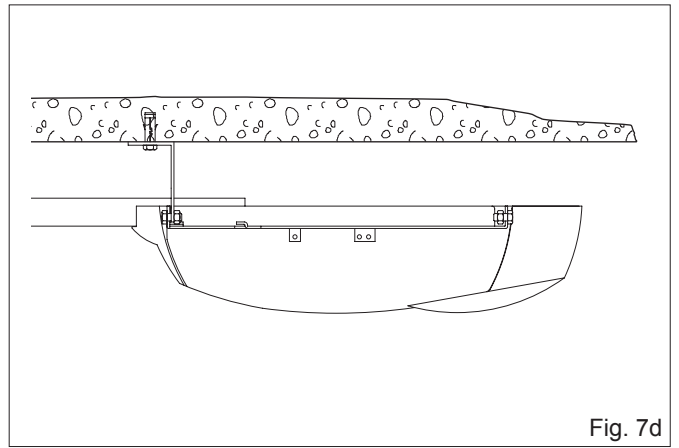


Fig. 7d

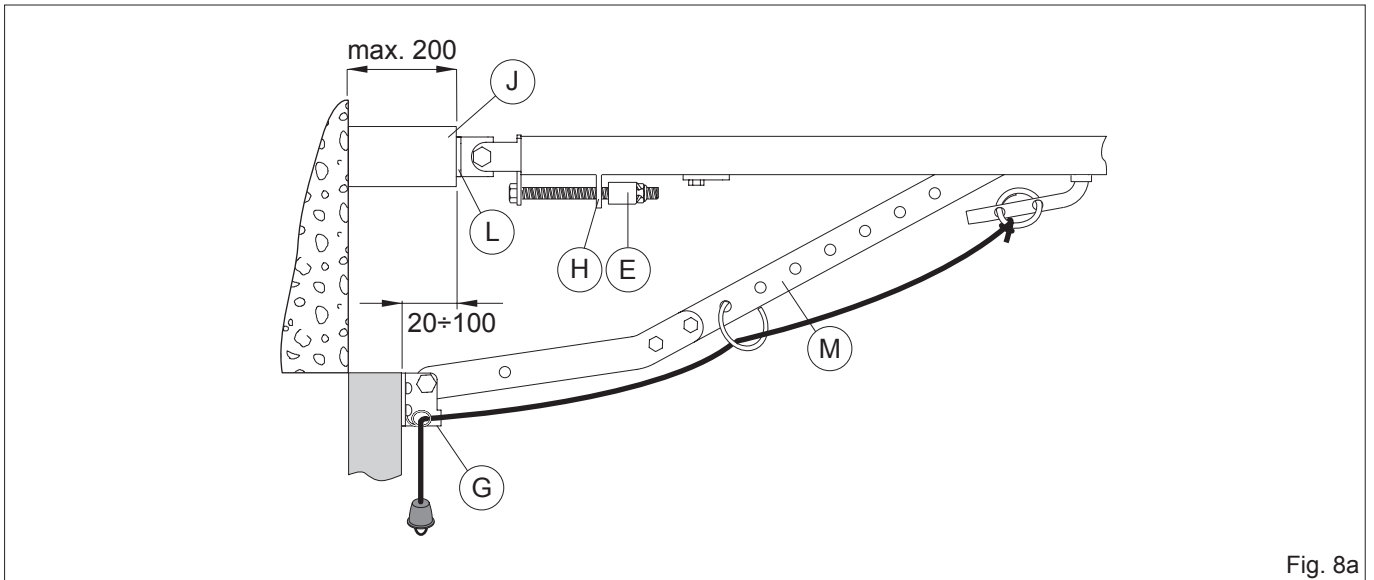


Fig. 8a

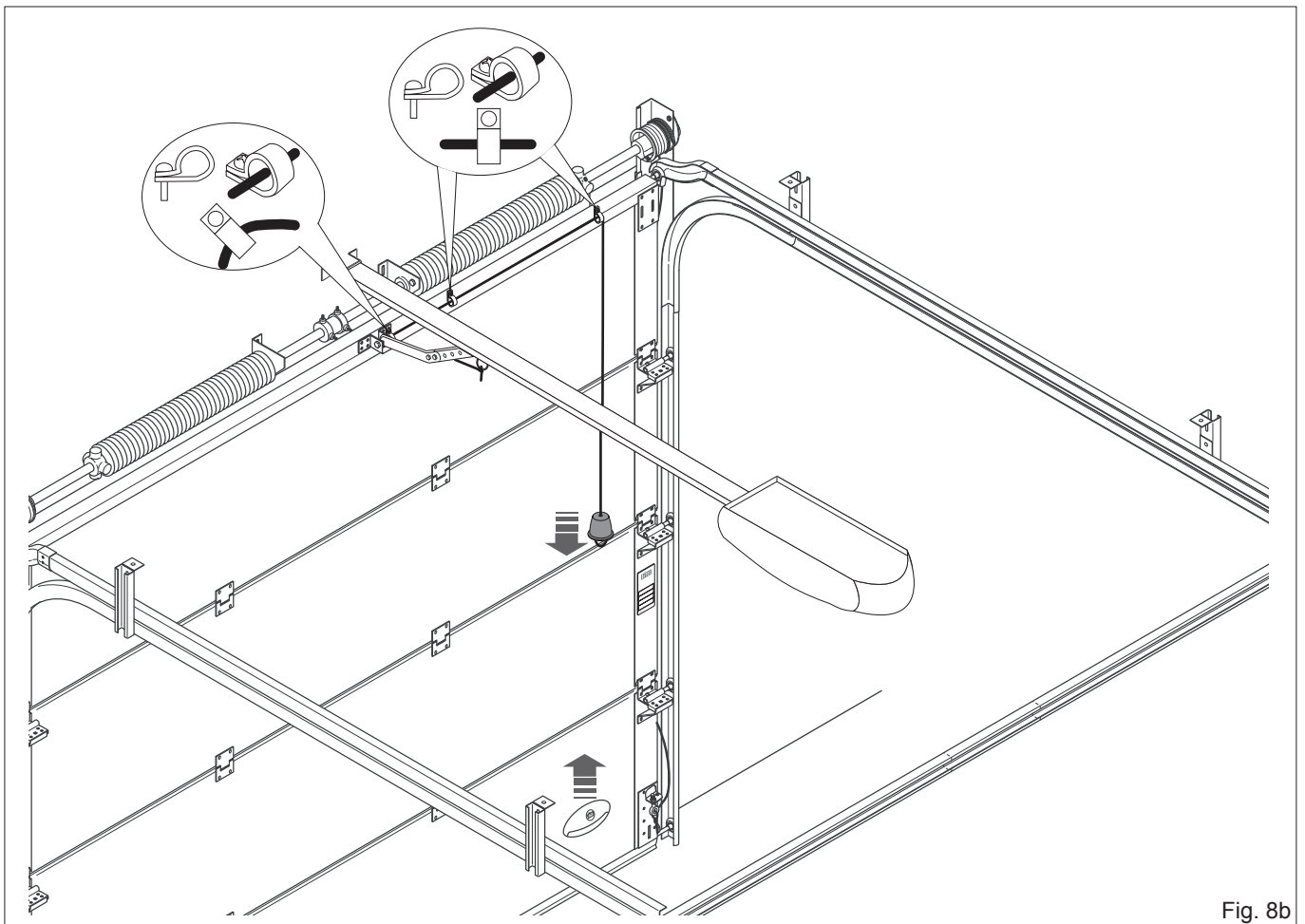


Fig. 8b

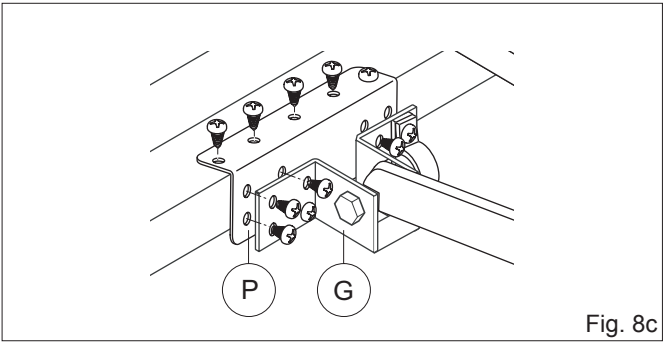


Fig. 8c

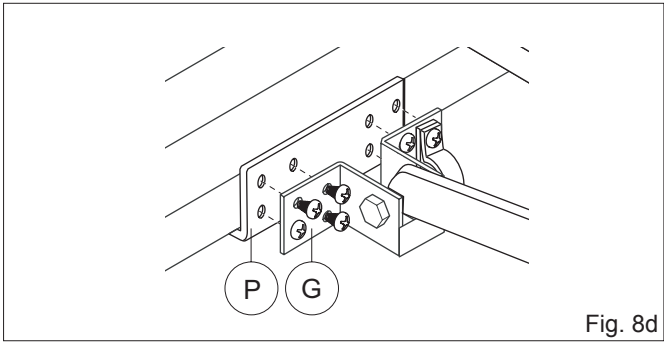


Fig. 8d

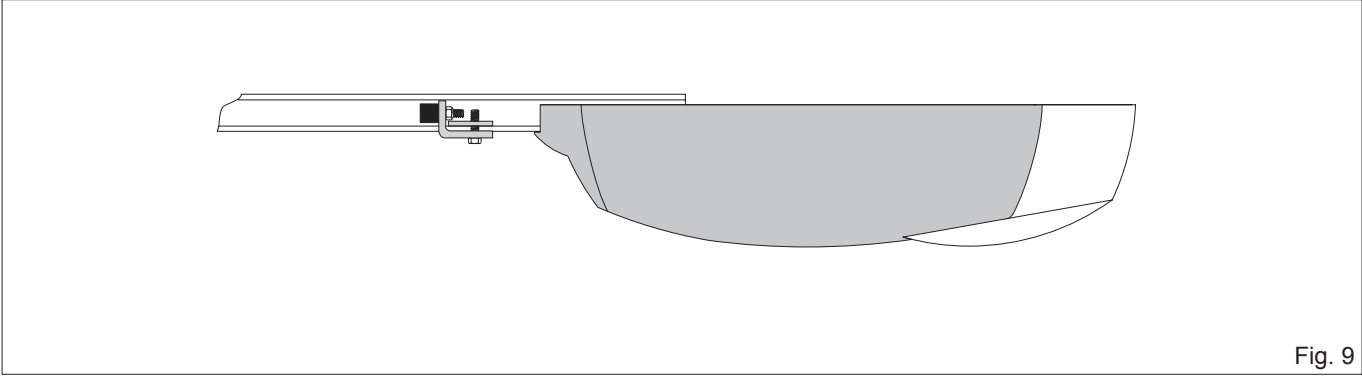


Fig. 9

GLOBESI

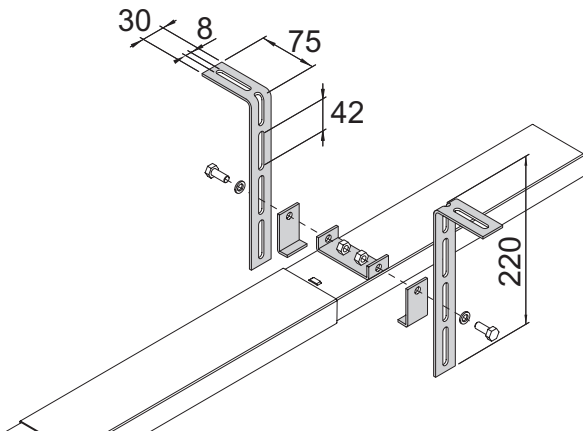


Fig. 10a

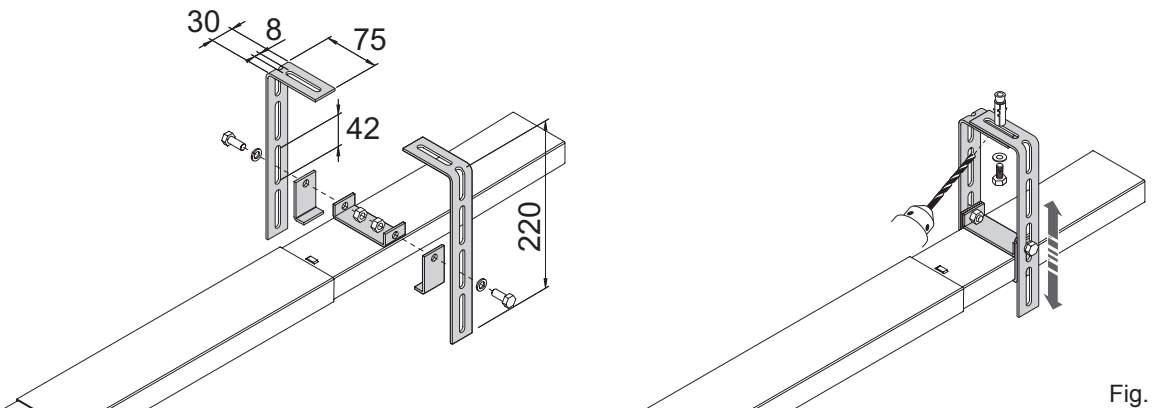


Fig. 10b

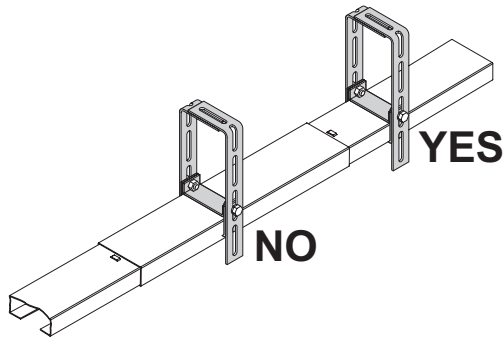



Fig. 10c

GENERAL SAFETY PRECAUTIONS

 This installation manual is intended for professionally competent personnel only.

Installation, electrical connections and adjustments must be performed in accordance with Good Working Methods and in compliance with applicable regulations. Before installing the product, carefully read the instructions. Bad installation could be hazardous.

The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as these are a potential source of hazard. Before installing the product, make sure it is in perfect condition.

Do not install the product in an explosive environment and atmosphere: gas or inflammable fumes are a serious hazard risk.

Before installing the motors, make all structural changes relating to safety clearances and protection or segregation of all areas where there is risk of being crushed, cut or dragged, and danger areas in general.


Make sure the existing structure is up to standard in terms of strength and stability.

The motor manufacturer is not responsible for failure to use Good Working Methods in building the frames to be motorised or for any deformation occurring during use.


The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account: applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the motorised door or gate.

The safety devices must protect any areas where the risk exists of being crushed, cut or dragged, or where there are any other risks generated by the motorised door or gate. Apply hazard area notices required by applicable regulations.

Each installation must clearly show the identification details of the motorised door or gate.

 Before making power connections, make sure the plate details correspond to those of the power mains.

Fit an omnipolar disconnection switch with a contact opening gap of at least 3 mm. Make sure an adequate residual current circuit breaker and overcurrent cutout are fitted upstream of the electrical system. When necessary, connect the motorised door or gate to a reliable earth system made in accordance with applicable safety regulations. During installation, maintenance and repair, interrupt the power supply before opening the lid to access the electrical parts.

 To handle electronic parts, wear earthed antistatic conductive bracelets.

The motor manufacturer declines all responsibility in the event of component parts being fitted that are not compatible with the safe and correct operation.

For repairs or replacements of products only original spare parts must be used.

The installer shall provide all information relating to automatic, manual and emergency operation of the motorised door or gate, and provide the user with operating instructions.

MACHINERY DIRECTIVE



Pursuant to Machine Directive (98/37/EC) the installer who motorises a door or gate has the same obligations as a machine manufacturer and shall:

- prepare technical documentation containing the documents indicated on Schedule V of the Machine Directive; (The technical documentation shall be kept and placed at the disposal of competent national authorities for at least ten years starting on the date of manufacture of the motorised door);
- draw up the EC declaration of conformity according to Schedule II-A of the Machine Directive;
- affix the CE mark on the motorised door pursuant to para. 1.7.3 of Schedule I of the Machine Directive.

For more details, refer to the "Guidelines for producing technical documentation" available on Internet at the following address: www.ditec.it

OPERATING INSTRUCTIONS

Service class: 3 (minimum 30 cycles a day for 10 years or 60 cycles a day for 5 years)

Use: FREQUENT (for multi-family entrances or small condominiums with frequent car or pedestrian transit)

- The operating performance specifications refer to the recommended weight (about 2/3 of maximum allowed weight). Use with maximum allowed weight could reduce the above performance specifications.
- The service class, operating times and number of consecutive cycles are merely approximate. These have been statistically determined in average conditions of use and are not certain for each single case. They refer to the period when the product operates without the need for special maintenance.
- Each automatic entrance features variable factors such as: friction, balancing and environmental conditions that can substantially change both the duration and operating quality of the automatic entrance or part of its components (including automatic system). It is up to the installer to adopt adequate safety coefficients for each single installation.

MANUFACTURER'S DECLARATION

(Directive 98/37/EC, Schedule II, part B)

Manufacturer: DITEC S.p.A.

Address: via Mons. Banfi, 3

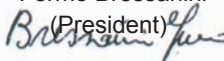
21042 Caronno P.IIa (VA) - ITALY

Declares that the automatic system for spring balanced up and over doors and sectional overhead doors of the GLOBE series:

- is manufactured to be incorporated into a machine or to be assembled with other machines to make a machine considered by Directive 98/37/EC;
- is in conformity with the conditions of the following other EC directives:
 - R&TTE Directive 1999/5/EC,
 - Electromagnetic compatibility directive 89/336/EEC;
 - Low-voltage directive 73/23/EEC;

and further certifies that the machine shall not be commissioned until the machine into which it is to be incorporated or of which it is to become a component part has been identified and has been declared in conformity with the conditions of the Directive 98/37/EC and the transposing national legislation.

Caronno Pertusella,
27-07-2000

Fermo Bressanini
(President)



1. TECHNICAL DETAILS

	GLOBE7	GLOBE7J	GLOBE10
Power supply	230 V~ / 50-60 Hz	120 V~ / 50-60Hz	230 V~ / 50-60 Hz
Absorption	0,7 A	1,4 A	1,2 A
Fuse F1	F1,6A	F3,15A	F1,6A
Thrust	500 N	500 N	900 N
Max stroke	2500 mm	2500 mm	2500 mm
Max load	7 m ²	7 m ²	10 m ²
Opening speed	0,15 m/s (chain) 0,18 m/s (belt)	0,15 m/s (chain) 0,18 m/s (belt)	0,12 m/s (belt + 71RC1) 0,15 m/s (chain) 0,18 m/s (belt)
Closing speed	0,10 m/s (chain) 0,12 m/s (belt)	0,10 m/s (chain) 0,12 m/s (belt)	0,10 m/s (chain) 0,12 m/s (belt)
Service class	3 - FREQUENT	3 - FREQUENT	3 - FREQUENT
Intermittence	S2 = 30 min / S3= 50%	S2 = 30 min / S3= 50%	S2 = 30 min / S3= 50%
Temperature	-20° C / +55° C	-20° C / +55° C	-20° C / +55° C
Degree of protection	IP10	IP10	IP10
Control Panel	70R	70R	71R (71RC1)

2. REFERENCE ILLUSTRATIONS AND ACCESSORIES

The given operating and performance features can only be guaranteed with the use of DITEC accessories and safety devices.

2.1 Standard installation references (fig. 1)

- [1] Radio
 - [2] Drive unit
 - [3] Retention bracket
 - [4] Slide
 - [5] Release cord
 - [6] Guide
 - [7] Guide coupling
 - [8] Transmission
 - [9] Photocells
 - [10] Sensitive edge
 - [11] Transmitter support
 - [12] Connect the power supply to an omnipolar switch with contact opening distance of at least 3 mm (not supplied by us) or by means of power plug.
-  Connection to supply mains must be carried out in an independent raceway separate from control connections and safety device connections.

2.2 Accessories

- BATK1** Battery kit
- GLOBEC** Adapter for up and over doors with counterweights
- ASB1** External release kit with cord and lock L=900 mm
- ASB2** Cord release device L= 2000 mm
- GLOBEL** Extension set for 1120 mm chain
- GLOBELV** Extension set for 1120 mm belt (for steel guide only)
- GLOBEFM** Additional close stop
- GLOBESI** Intermediate support
- GLOBEGF** Iron track L=3000 mm
- GLOBEGA** Aluminium track L=3000 mm

3. INSTALLATION

3.1 Chain type GLOBE assembly (fig. 4)

- Extend the chain.
- Fit the coupling [1] as far as the guide stop. Fit the guide [2] as far as the stop. Fit the coupling [3] as far as the guide stop [2].
- Superimpose the guide [4] on the coupling [3], correctly fit the transmission in the guide [4]: lift the guide as shown in the detail to permit fitting the transmission.
- Move the coupling [3] towards the transmission as far as the guide stop [4].

Note: the guides must be fitted in a specific direction (see stops [x] shown in illustration).

3.2 Belt type GLOBE assembly (fig.5)

- (fig. 5a) Fit the belt to the transmission and slide.
- (fig. 5b) Fit the belt stop as shown in the illustration.
- (fig. 5c) Fasten the two ends of the belt to the release pin by means of the couplings keeping to the pin direction shown in the illustration.
- (fig. 5d) Fit the drive pin (belt - transmission - slide) in the guide.
- (fig. 5e) Pass the belt around the pulley and secure by means of the pin [Y]. Fit the guide as shown in fig. 3, lock in the drive unit as far as the stop and tighten screw [K].
- (fig. 5f) Push the transmission towards the outside of the guide and fasten the retention bracket to the wall.

3.3 Chain or belt tensioning (fig.6)

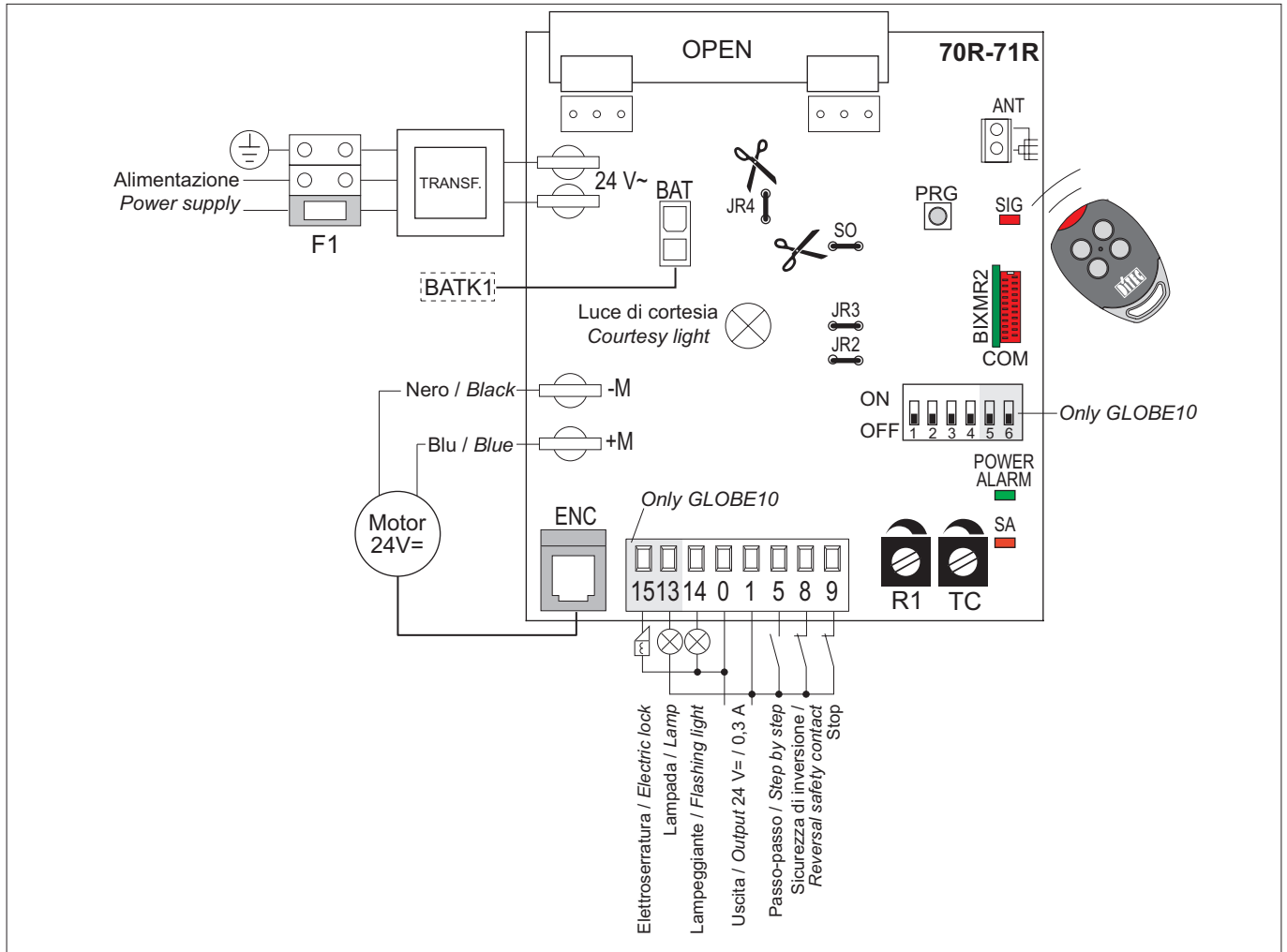
- Correct tensioning is achieved by leaving 1+2 mm between the spring retainer [E] and stop [H] to enable the spring [E] to work in the best possible way.

Attention: over-tightening could affect proper operation of the automatic system.

3.4 GLOBE installation (fig. 7-8)

- Establish and trace the retention point of the guide on the wall and ceiling (fig. 7a).
- Attention: in the case of spring balanced up and over doors with counterweights use GLOBEC (fig. 7b). With the off-board drive unit, fit the guide to the wall using the transmission bracket (fig. 7c).*
- (fig. 7d) Fit the bracket [3] and secure using the screws provided. Lift the unit and bend the brackets to measure (if necessary eliminate the excess parts), then fasten to the ceiling.
- Attention: (fig. 8) to fully open sectional doors with special heights, the arm [M] can be shortened and the coupling point [L] can be moved from 20 mm to 100 mm further in than [G]. If necessary, fit a shim [J] (not supplied by us, max 200 mm) between the wall and the tightener [L]. This way the stroke of the slide will be increased by exploiting all the available guide.*
- Manually release (see OPERATING INSTRUCTIONS) and move the slide up to the closed door, then fit the retention bracket [G] on the top edge, possibly interposing the supplied reinforcing angular [P] (fig.8c-d); afterwards, re-lock the slide by moving the door manually.
 - (Fig. 9) Fit the stop in the guide and secure in the desired opening position.
 - (Fig. 10) For stronger fastening the intermediate support GLOBESI can be installed.

4. ELECTRICAL CONNECTIONS










ATTENTION: Make a jumper all the N.C. contacts if not used. Use only DITEC accessories and safety devices.

4.1 Controls

Control	Function	Description
1 — 5	N.O.	STEP-BY-STEP With DIP1=OFF the closure of the contact activates the sequence: open-stop-close-open. <i>Note: if automatic closing is enabled, the STOP is not permanent but at a time that is set by TC.</i>
		OPEN WITH AUTOMATIC CLOSING With DIP1=ON and the automatic closure on, the closure of the contact activates an opening operation.
		OPEN WITHOUT AUTOMATIC CLOSING With DIP1=ON and TC=MAX, the closure of the contact activates an opening operation. With the automation idle, the closure of the contact performs the operation opposite to that prior to the stop.
1 — 8	N.C.	REVERSAL SAFETY CONTACT The closing of the contact during the closure manoeuvre causes the movement to invert (re-opening).
1 — 9	N.C.	STOP The opening of the contact causes the movement to stop and the automatic closure to be disabled. Resetting the command, the door remains still until a 1-5 command or a radio command is received.

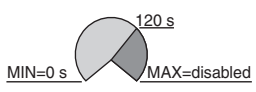

4.2 Output and accessories

Output	Value	Description
1  + 0  -	24 V = / 0,3 A (nominal) 24 V = / 0,5 A (peak)	Accessories power supply. External accessories power supply output.
0  14	24 V = / 30 W max.	Flashing light (LAMPH). It is activated both on opening and on closing.
	24 V = / 25 W	Courtesy light. It is activated for 3 minutes on every opening and closing command.
BAT		Battery operation. An optional battery kit is available (BATK1). With power supply on, the batteries are kept charged. Without power supply, the panel is powered by the batteries until power returns or until battery power falls below the safety threshold. In this latter case, the control panel goes off. <i>Attention: to allow recharging, the batteries kit must always be connected to the control panel. Periodically, verify the battery efficiency.</i> <i>Note: the operating temperature of the rechargeable batteries is +5°C/+40°C approximately. To ensure proper battery operation rooms should be air-conditioned.</i>
0  15	24 V = / 1,2 A max	Electric lock. It is activated at each opening command given from closed door.
0  15 8,2 Ω / 5 W	12 V / 15 W	Electric lock. With a 12 V electric lock, connect the 8,2 Ω / 5 W resistor. It is activated at each opening command given from closed door.
1  13	24 V = / 3 W	Open door light (analogic output). Light comes on and only goes off when door is closed.

71R

5. SETTINGS

5.1 Trimmer

Output	Description
TC 	Automatic closing time. From 0 to 120 s, with TC<MAX. With TC=MAX automatic closing is disabled. The count starts with door stopped for time set with TC. After the intervention of a safety (1-8), the countdown begins with the open door and lasts for the whole time set with TC. With TC=MAX or contact 1-9 open, automatic closing is disabled. If disabled with 1-9, automatic closing is re-enabled, once the contact 1-9 has been closed again, only after a control 1-5 or a remote control.
R1 	Obstacle thrust adjustment. The control panel is equipped with a safety device that stops the opening operation and stops and inverts the closing operation in the presence of an obstacle. With R1=MIN there is maximum obstacle sensitivity (minimum thrust). With R1=MAX the detection function is deactivated (maximum thrust).

5.2 Dip-Switches

	Description	OFF	ON	
71R	DIP1 Control 1-5 function.	Step by step.	Opening.	
	DIP2 Selection of direction.	Opening towards gearmotor.	Closing towards gearmotor.	
	DIP3 Disengagement on the closing stop with JR2=ON	2 mm	5 mm	0,5 mm <i>Note: use this selection to prevent an incomplete closing of the sectional doors.</i>
		Disengagement on the closing stop with JR2=OFF		
	DIP4 State of door at start. Indicates how the electronic panel considers the door at the time of start.	Open. With DIP1=OFF the first control 1-5 closes the door. With DIP1=ON the first control 1-5 opens the door.	Close. The first control 1-5 opens the door. <i>Note: automatic closing cannot be the first control even if enabled.</i>	
	DIP5 Electric lock release.	Disabled.	Enabled. Before opening from closed door, a thrust is included in closing to facilitate electric lock release.	
DIP6 Pre-flashing light.	Disabled during opening. Enabled only with automatic closure with TC>3 s.	Enabled for both opening and closing.		

5.3 Jumpers

	Description	OFF	ON
SO	Safety operation.	The opening of contact 1-8 with door stopped enables opening manoeuvre. In the last 30 mm before closing stop, this causes stop.	The opening of contact 1-8 with door stopped prevents any operation.
JR2	Automation type.	Up and over door with counterweight.	Sectional and up and over door with springs.
JR3	Maximum limit manoeuvring forces.	Normal closing force. <i>Note: use safety edge.</i>	Reduced closing force.
JR4	Built-in radio receiver.	Disabled.	Enabled.

5.4 Signals

LED	ON	Flashing
POWER ALARM	24 V= power supply.	Encoder / automation fault.
SA	Indicates that at least one of the N.C. safety contacts is open.	Upon starting the LED flashes indicating the count of the operations which have been carried out: each quick flashing = 1000 operations each slow flashing = 10000 operations
SIG	During radio transmitter enabling/storing phase.	During radio transmission reception.



6. RADIO

The control panel is equipped with a radio receiver with a frequency of 433.92 MHz. The antenna is a 173 mm long rigid wire. The range of the radio receiver can be increased by connecting the external antenna on the flashing light or by installing a tuned BIXAL antenna.

Note: use a RG58 (max 10 m) coaxial cable to connect the external antenna to the control panel.

Up to 200 transmitters can be memorised in the BIXMR2 memory.

Consult the L series remote control use instructions for the memorisation, cloning and cancellation of transmitters.

From one to four CH buttons of the same transmitter can be memorised on the control panel.

If just one transmitter CH button (any) is memorised command 1-5 (step-by-step/open) is performed.

If from two to four CH buttons of the same transmitter are memorised, the operations associated to the CH buttons are as follows:

- CH1 = command 1-5 step-by-step/open ;
- CH2 = partial opening command, causes the automation to open for 1 min.;
- CH3 = courtesy light on/off command ;
- CH4 = stop command, equal to the 1-9 impulsed command.

If the control panel is replaced, the BIXMR2 memory in use can be introduced to the new control panel.

Attention: the insertion and extraction of the BIXMR2 memory must be carried out in the absence of a power supply.

7. STARTING



ATTENTION: The operations relating to 7.3 are performed without safety devices.

The trimmer can only be adjusted with the door stopped.

The 70R-71R electronic control panels do not need limit switches as they are provided with an encoder.

After each start, the electronic control panel is RESET and the first operation is carried out at reduced speed (automation position learning).

The automation automatically slows down near the stops.

7.1 Make a jumper between the safety devices 1-8, 1-9.

7.2 Set the TC trimmer and R1 at maximum

7.3 Switch on power: have the closing and opening stops learnt with subsequent step-by-step controls.

7.4 Remove the jumpers and connect the safety devices (1-8) and the stop (1-9) and check correct operation.

7.5 If desired, adjust the automatic closing with the TC trimmer.

7.6 Set the thrust on obstacles with R1.

Check that the manoeuvring force and the scattering force between the door and the obstacle is lower than the values indicated by standards EN12453 e EN12445.

7.7 Connect any accessories and check operation.

8. MAINTENANCE SCHEDULE (every 6 months)

Without 230 V~ and battery power supply:

- Clean and lubricate the moving parts (above all the internal edges of the guide where the trolleys run).
- Check the stability of the automation system and check the tightness of all the screws.
- Check battery efficiency.

Restore the 230 V~ and battery power:

- Check the correct operation of the lock/release system (if fitted).
- Check the stability of the door and that movement is smooth and friction-free.
- Check the correct operation of all the control and safety functions.

Note: if the position of the door stops is changed or, more in general, after maintenance operations, interrupt and restore power (batteries included if these are fitted) to repeat the learning process.

IMPORTANT: For the spare parts, refer to the spare parts list.

8. TROUBLESHOOTING

Problem	Possible cause	Remedy
The automation does not open and close.	No power.	Check that the control panel is on (the POWER ALARM led must be on).
	Accessories in short circuit. (LED POWER ALARM flashing)	Disconnect all the accessories from the terminals 0-1 (24 V= are required) and reconnect these one at a time.
	Line fuse burnt out.	Replace the fuse F1.
	The stop contact is open	Check terminal 9 of the control panel
The automation opens but does not close	The safety contacts are open. (LED SA on).	Check terminal 8 of the control panel.
	The photocells (if fitted) are triggered. (LED SA on).	Make sure the photocells are clean and working properly.
	Automatic closing does not work.	Check the setting of the TC trimmer
The automation fails to open.	The automation is closed and the photocells (if fitted) are operative. (LED SA on).	Make sure the photocells are clean and working properly. See jumper SO.
	Remote control does not work.	Make sure the transmitters have been properly stored on the built-in radio receiver. In case of failure of the radio receiver built in the control panel, the remote control codes can be accessed by extracting the memory module.
	Command devices faulty or connections interrupted.	Check opening by means of jumper 1-5 of the terminal board control panel.
The external safety devices (if fitted) fail to operate.	Wrong connections between the photocells and the control panel	Connect the N.C. safety contacts together in series and remove any jumpers on the terminal board of the control panel.
The automation opens/closes for a short distance and then stops.	Encoder faulty. (LED POWER ALARM flashing).	Replace the encoder.
	Motor leads reversed. (LED POWER ALARM flashing).	Check the motor leads.
	There are frictions.	Manually make sure the automation is moving freely.
	Encoder not connected.	Check the connection.
	False encoder contacts.	Clean the contacts by engaging and disengaging the encoder plug on the contacts.
	R1 set too low.	Check R1 adjustment.
The radio remote control has a low range and does not work with the automation in motion.	Radio transmission is hampered by metal frameworks and reinforced concrete walls.	Install the antenna outside. Replace the batteries of the transmitters.



RELEASE INSTRUCTION

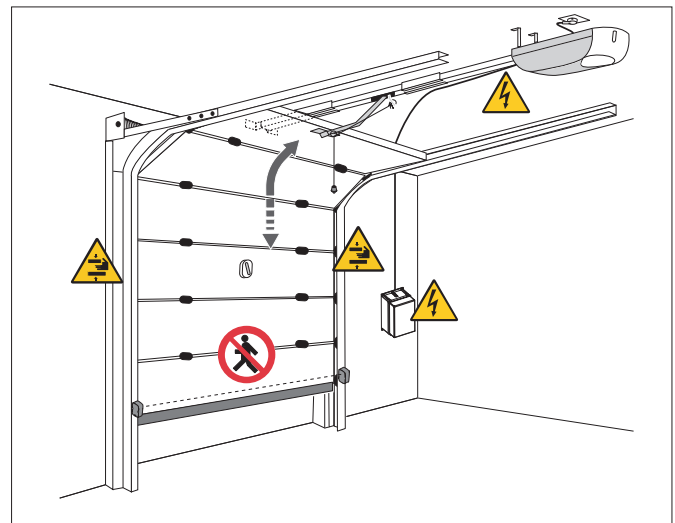
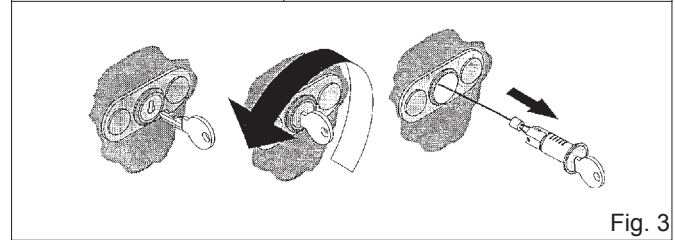
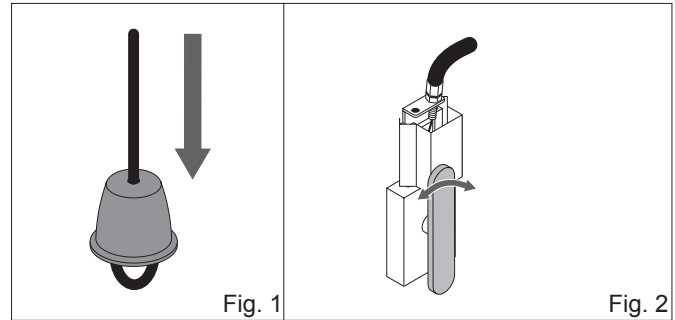
Perform the lock and release operations with the motor stopped. Keep outside the range of action of the door. If released, the door could move in an independent manner.

Note: to disconnect the door, interrupt the power supply and disconnect the batteries (if fitted).

In case of an emergency, to open the up and over door manually, perform the following operations:

- *Internal cord release (fig. 1):*
pull the cord with a downward movement until the lock release lever is triggered. Keeping the cord pulled, open the door manually.
- *ASB2 external cord release (fig. 2):*
turn the release handle by 90° clockwise or anticlockwise and open the door manually.
- *ASB1 external cord release with key (fig. 3):*
turn the key by 90° anticlockwise, remove the lock block and pull the cord until the release lever trips and then move the door slightly; fit the block in the lock and turn by 90° clockwise, remove the key and open the door manually.

To restore motor operation, move the door manually: the release mechanism fastens on automatically.



GENERAL SAFETY PRECAUTIONS

The following precautions are an integral and essential part of the product and must be supplied to the user. Read them carefully as they contain important indications for the safe installation, use and maintenance. These instruction must be kept and forwarded to all possible future user of the system. This product must be used only for that which it has been expressly designed. Any other use is to be considered improper and therefore dangerous. The manufacturer cannot be held responsible for possible damage caused by improper, erroneous or unreasonable use. Avoid operating in the proximity of the hinges or moving mechanical parts. Do not enter the field of action of the motorised door or gate while in motion. Do not obstruct the motion of the motorised door or gate as this may cause a situation of danger. Do not lean against or hang on to the barrier when it is moving. Do not allow children to play or stay within the field of action of the motorised door or gate. Keep remote control or any other control devices out of the reach of children, in order to avoid possible involuntary activation of the motorised door or gate. In case of break down or malfunctioning of the product, disconnect from mains, do not attempt to repair or intervene directly and contact only qualified personnel. Failure to comply with the above may create a situation of danger. All cleaning, maintenance or repair work must be carried out by qualified personnel.

In order to guarantee that the system works efficiently and correctly it is indispensable to comply with the manufacturer's indications thus having the periodic maintenance of the motorised door or gate carried out by qualified personnel.

In particular regular checks are recommended in order to verify that the safety devices are operating correctly. All installation, maintenance and repair work must be documented and made available to the user.



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