



AUTOMATIC ENTRANCE SPECIALISTS

CS 61E / CS 61

CE



Manuale di installazione e manutenzione per automazioni per cancelli scorrevoli.

Installation and maintenance manual for sliding gate automatic system .

Manuel d'installation et d'entretien pour automatisme pour portails coulissants

Montage und Wartungshandbuch für Schiebetore Automatisierung

Manual de instalaciòn y manutenciòn para automatizaciòn de cancelas de corredera.

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- I** Impianto tipo
- UK** Standard installation
- F** Installation type
- D** Standard Montage
- E** Instalaci3n tipo

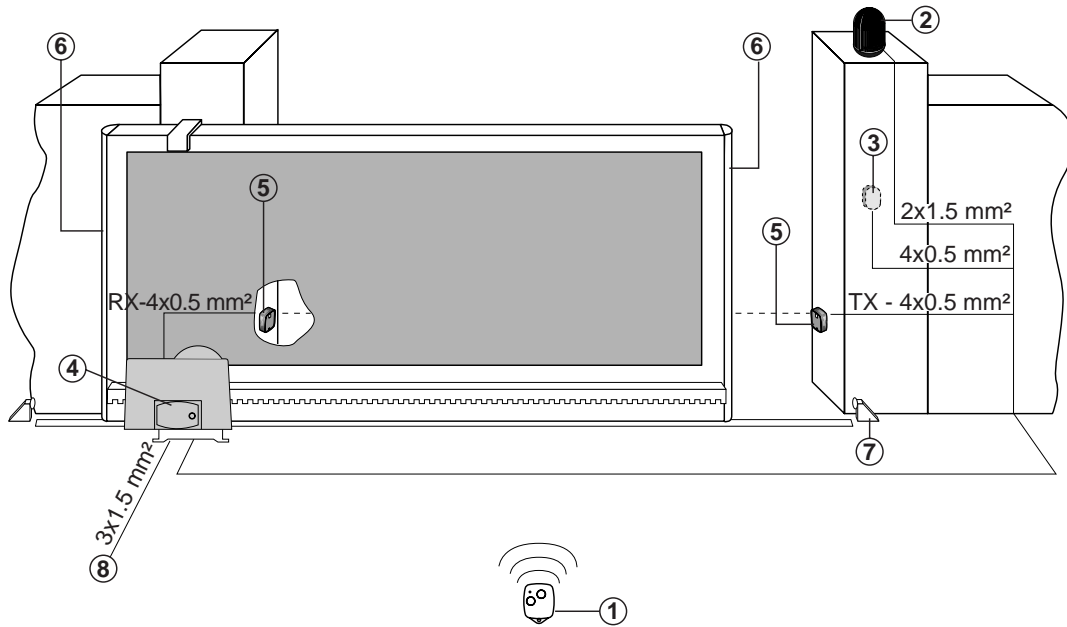


Fig. 1

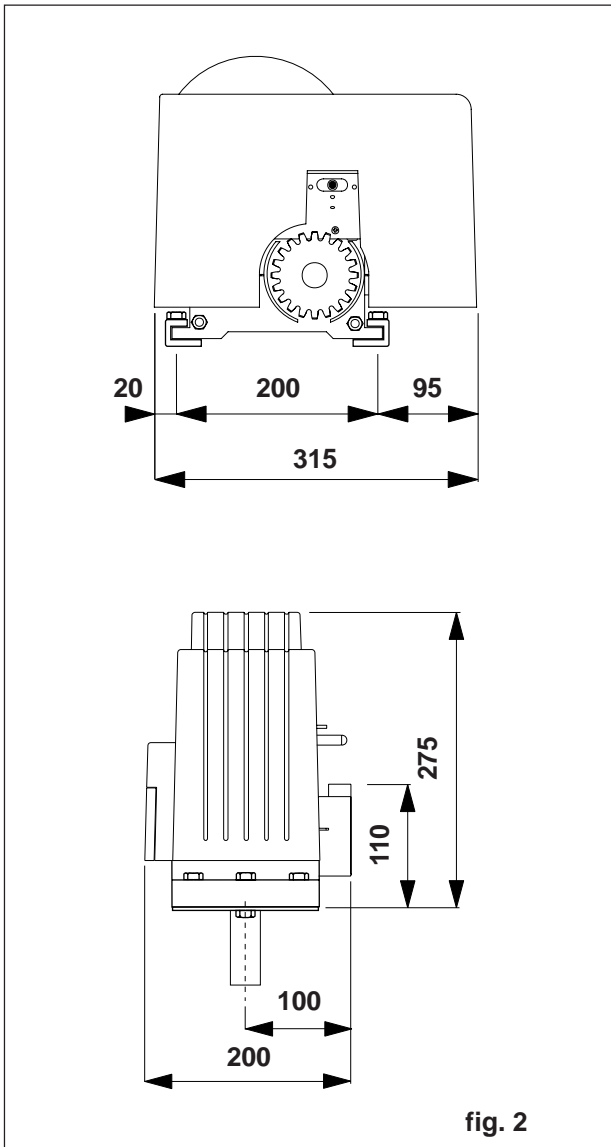


fig. 2

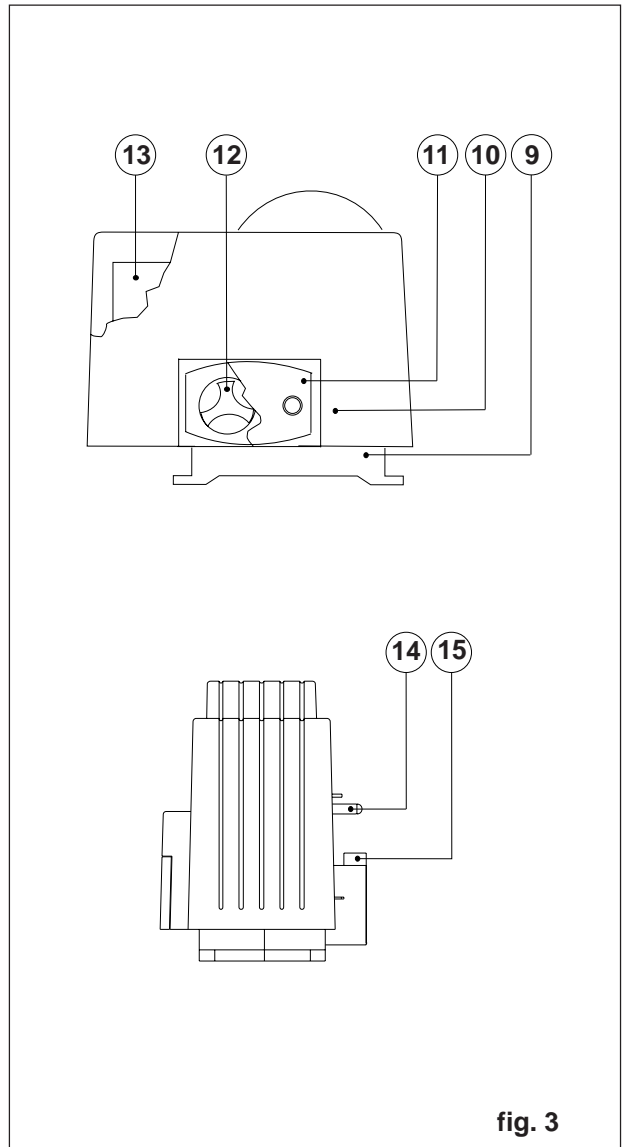


fig. 3

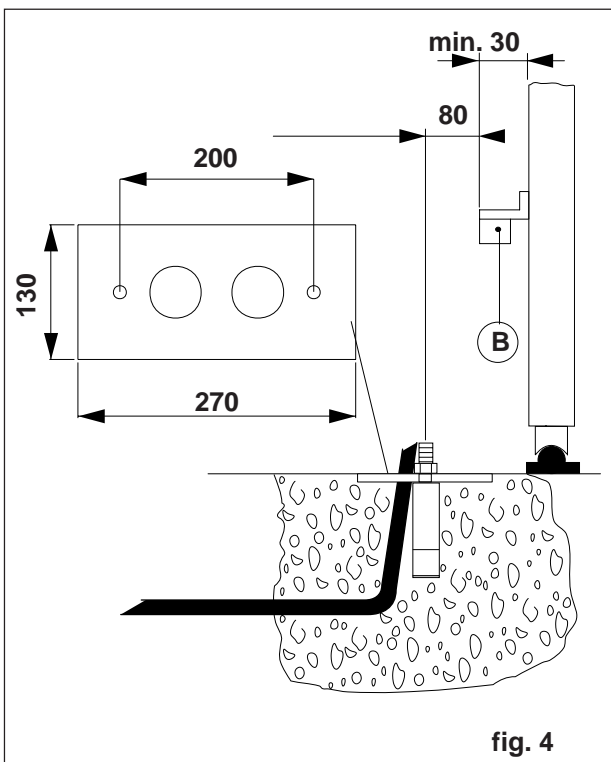


fig. 4

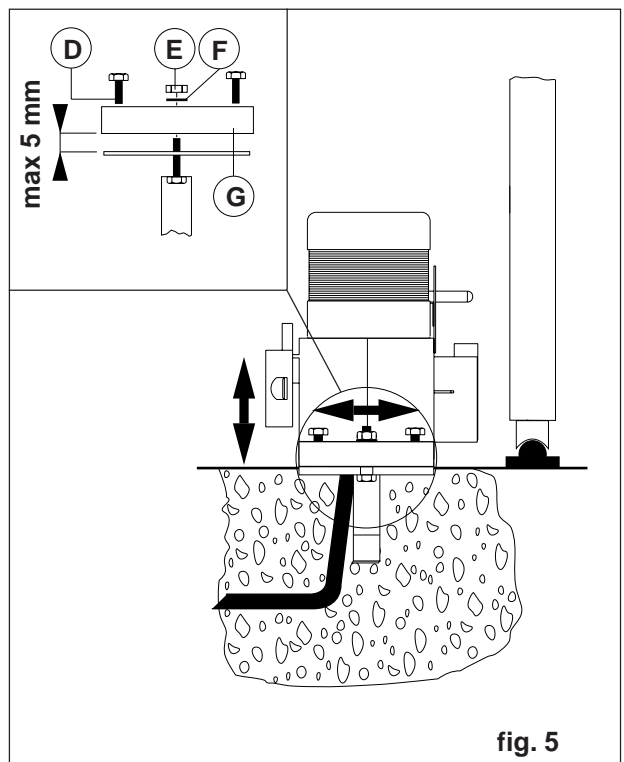
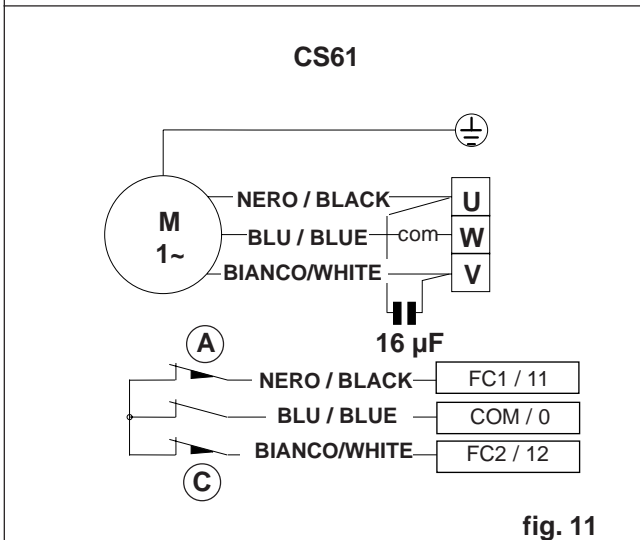
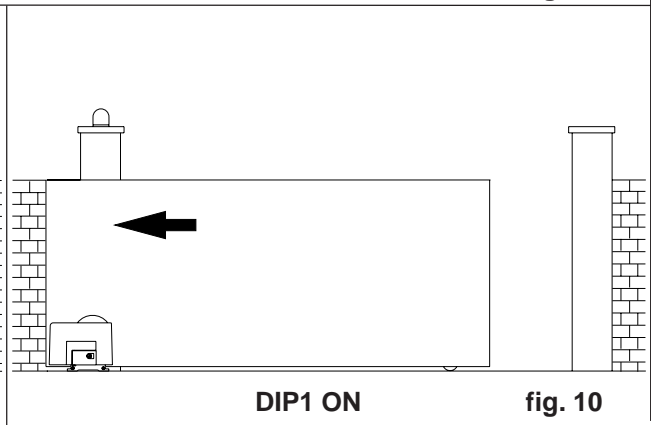
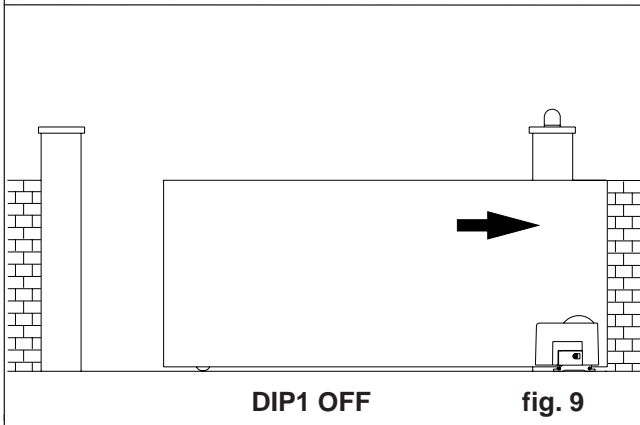
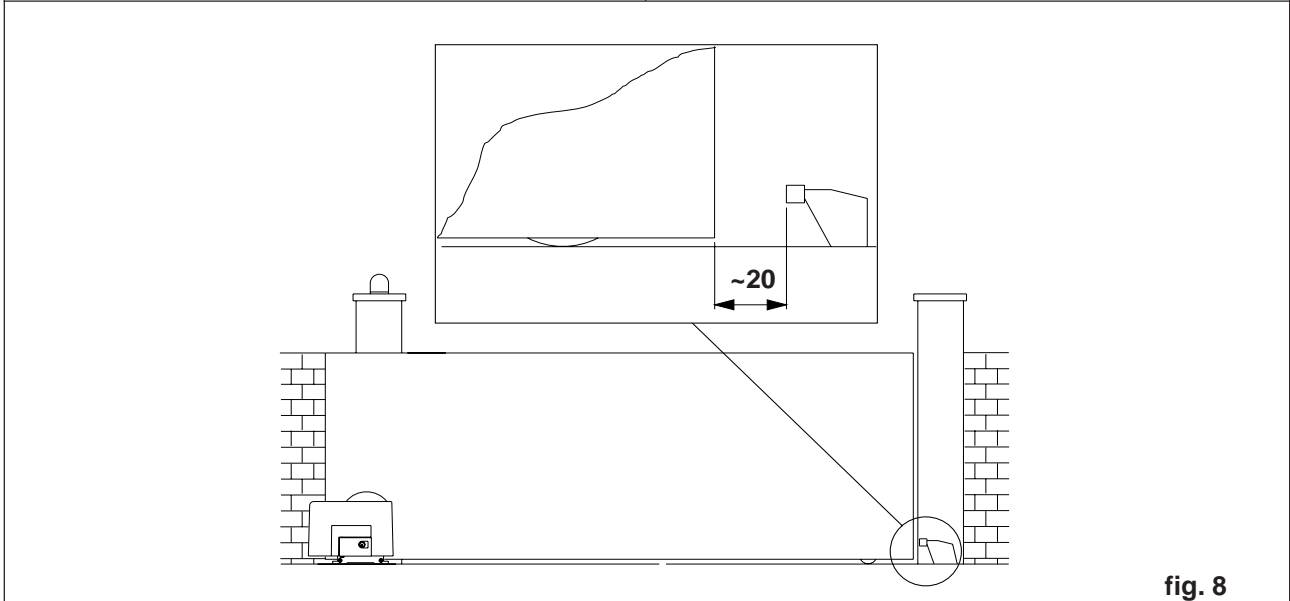
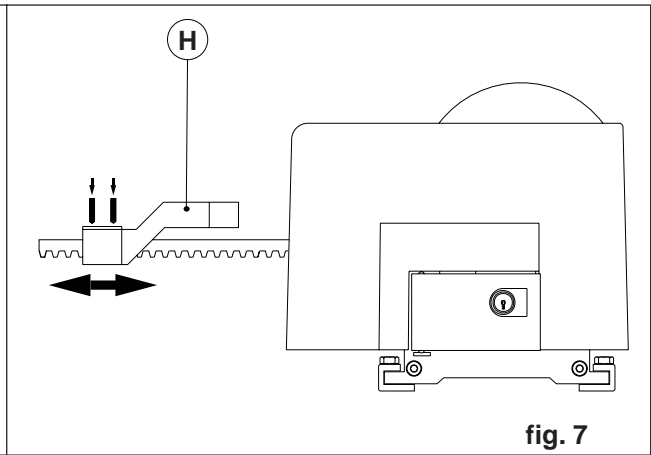
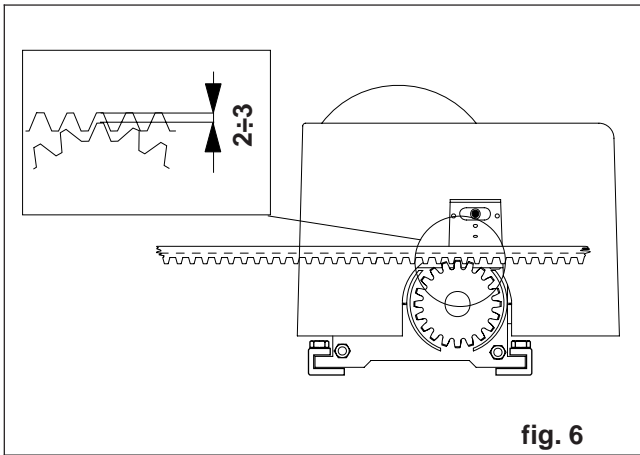


fig. 5





GENERAL SAFETY PRECAUTIONS

This installation manual is intended for professionally competent personnel only.

The installation, the electrical connections and the settings must be completed in conformity with good workmanship and with the laws in force.

Read the instructions carefully before beginning to install the product. Incorrect installation may be a source of danger.

Packaging materials (plastics, polystyrene, etc) must not be allowed to litter the environment and must be kept out of the reach of children for whom they may be a source of danger.

Before beginning the installation check that the product is in perfect condition.

Do not install the product in explosive areas and atmospheres: the presence of flammable gas or fumes represents a serious threat to safety.

Before installing the motorisation device, make all the structural modifications necessary in order to create safety clearance and to guard or isolate all the compression, shearing, trapping and general danger areas.

Check that the existing structure has the necessary strength and stability.

The manufacturer of the motorisation device is not responsible for the non-observance of workmanship in the construction of the frames to be motorised, nor for deformations that may occur during use.

The safety devices (photoelectric cells, mechanical obstruction sensor, emergency stop, etc) must be installed taking into account: the provisions and the directives in force, good workmanship criteria, the installation area, the functional logic of the system and the forces developed by the motorised door or gate.

The safety devices must protect against compression, shearing, trapping and general danger areas of the motorized door or gate.

Display the signs required by law to identify danger areas.

Each installation must bear a visible indication of the data identifying the motorised door or gate.

Before connecting to the mains check that the rating is correct for the destination power requirements.

A multipolar isolation switch with minimum contact gaps of 3 mm must be included in the mains supply.

Check that upstream of the electrical installation there is an adequate differential switch and a suitable circuit breaker.

Ensure that the motorised door or gate has an earth terminal in accordance with the safety regulations in force.

The manufacturer of the motorising device declines all responsibility in cases where components which are incompatible with the safe and correct operation of the product only original spare parts must be used.

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

The fitter must supply all information concerning the automatic, the manual and emergency operation of the motorised door or gate, and must provide the user the device with the operating instructions.

MACHINERY DIRECTIVE

Pursuant to Machinery Directive (98/37/EC) the installer who motorises a door or gate has the same obligations as the manufacturer of machinery and as such must:

- prepare the technical file which must contain the documents indicated in Annex V of the Machinery Directive; (The technical file must be kept and placed at the disposal of competent national authorities for at least ten years from the date of manufacture of the motorised door);
- draft the EC declaration of conformity in accordance with Annex II-A of the Machinery Directive;
- affix the CE marking on the power operated door in accordance with point 1.7.3 of Annex I of the Machinery Directive.

For more information consult the "Technical Manual Guidelines" available on Internet at the following address: <http://www.seisnet.it/ditec/>

APPLICATIONS

Maximum permissible weight: 600 kg

Recommended weight: 400

Service life: 3 (minimum 10÷5 years of working life with 30÷60 cycles a day)

Applications: FREQUENT (For vehicle or pedestrian accesses to town houses or small condominiums with frequent use).

Minimum number of consecutive cycles: 15

- Performance characteristics are to be understood as referring to the recommended weight (approx. 2/3 of maximum permissible weight). A reduction in performance is to be expected when the access is made to operate at the maximum permissible weight.
- Service class, running times, and the number of consecutive cycles are to be taken as merely indicative having been statistically determined under average operating conditions, and are therefore not necessarily applicable to specific conditions of use. During given time spans product performance characteristics will be such as not to require any special maintenance.
- The actual performance characteristics of each automatic access may be affected by independent variables such as friction, balancing and environmental factors, all of which may substantially alter the performance characteristics of the automatic access or curtail its working life or parts thereof (including the automatic devices themselves). When setting up, specific local conditions must be duly borne in mind and the installation adapted accordingly for ensuring maximum durability and trouble-free operation.

DECLARATION BY THE MANUFACTURER

(Directive 98/37/EC, Annex II, sub B)

Manufacturer: DITEC S.p.A.

Address: via Mons. Banfi, 3 - 21042 Caronno Pertusella (VA) - ITALY

Herewith declares that the electromechanical automatic system series CS61E-CS61

- is intended to be incorporated into machinery or to be assembled with other machinery to constitute machinery covered by Directive 98/37/EC, as amended;
- is in conformity with the provisions of the following other EEC directives:
Electromagnetic Compatibility Directive 89/336/EEC, as amended;
Low Voltage Directive 73/23/EEC, as amended;

and furthermore declares that it is not allowed to put the machinery into service until the machinery into which it is to be incorporated or of which it is to be a component has been found and declared to be in conformity with the provisions of Directive 98/37/EC and with national implementing legislation.

Caronno Pertusella, 03/06/1999.

Fermo Bressanini
Chairman

ENGLISH

1. TECHNICAL DATA

Power supply	230 V~ 50 Hz
Absorption	2 A
Motor power	250 W
Torque	700 N
Max. run	13 m
Max. door weight	600 kg
Speed	0.18 m/s
Intermittence	S2 = 15 min. / S3 = 25%
Temperature	-15 °C / +50 °C
Degree of protection	IP54
Weight	12.7 kg

2. REFERENCE TO ILLUSTRATIONS

2.1 Standard installation references (fig. 1)

ATTENTION: Only use DITEC's safety devices and accessories for installation.

- | | | |
|--|-----------------------------------|----------------------------|
| ① Radio | ⑤ Geared motor + Electrical board | ⑧ Opening and closing stop |
| ② Flashing light | ⑥ Photocells | |
| ③ Key selector | ⑦ Rubber hip / Sensitive hip | |
| ④ Connect power supply to an omni-pole switch with a contact opening gap of no less than 3 mm (not supplied by us) | | |

2.2 Geared motor references (fig. 2)

- | | |
|-----------------------|-----------------------|
| ⑨ Geared motor | ⑬ Electrical board |
| ⑩ Carter | ⑭ Limit-switch spring |
| ⑪ Release access door | ⑮ Pinion |
| ⑫ Release | |

3. INSTALLATION

3.1 Preliminary checks

Check for gate stability and that the slide wheels are in good condition and the top guides do not cause any friction. The slideway must be securely anchored to the ground and fully exposed along its full length. It must be perfectly smooth so as to avoid jamming of the gate.

Provide an opening and closing stop.



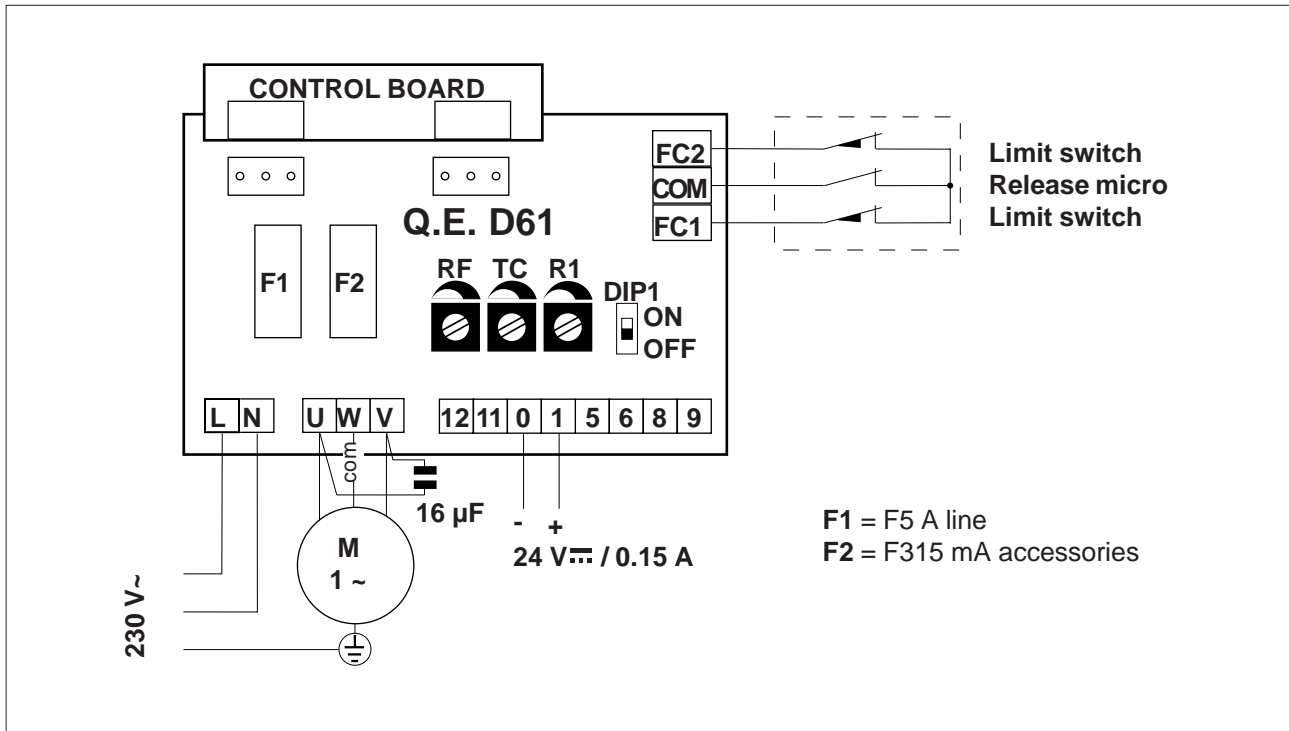
Make sure that the gate is securely inserted in the slideway so that it cannot come out of the slideway and fall.

Geared motor installation

Unless otherwise specified, all measurements are expressed in millimetres.





- 3.2** (Fig. 4) Lay a concrete foundation with buried anchoring brackets and the base plate, making sure that it is perfectly level and smooth. Allow for 80 mm between the plate axis and the rack (B). Route the cable ducts through the two holes in the middle of the plate.
- 3.3** (Fig. 5) Open the release access door (11), loosen the screw that locks the carter and lift it. Insert the anchoring feet (G) at the gear motor base. Position the geared motor on to the base plate. Adjusting gearmotor: horizontally by sliding in the anchoring feet notches, vertically with the 4 levelling screws (D): **while adjusting vertically, keep the motor slightly raised above the base plate so as to allow enough space to secure the rack and to make any subsequent adjustments, if necessary.**
- 3.4** (Fig. 6) Secure the rack by disengaging the geared motor and opening the gate. Place the rack on pinion (15) and move the gate manually to secure the rack along its full length. Once the rack has been secured, vertically adjust the geared motor so as to have a gap of 2 to 3 mm between the pinion and the rack. Finally, firmly secure the geared motor by fitting shims (E) and washers (F).
- 3.5** (Fig. 7, 8) Adjusting limit switch: secure the limit stop skids (H) on to the rack so that the gate stops about 20 mm before reaching the stop.

4. ELECTRICAL CONNECTIONS CS61E

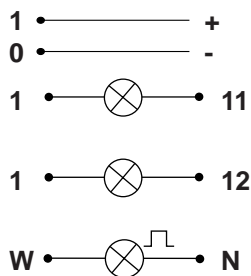


4.1 Controls

WARNING: Link up all N.C. contacts (if not used) by means of jumpers. The terminal bearing the same number are equivalent.

CONTACT	FUNCTION	DESCRIPTION
1 —  — 5 (N.O.)	STEP BY STEP	With TC at maximum: “open-stop-close” sequence. With TC not at maximum: “open-close/automatic closure” sequence. The closing control can operate when the gate is standing opened.
1 —  — 6 (N.C.)	STOP SAFETY CONTACT	It stops and/or prevents any movement.
1 —  — 8 (N.C.)	REVERSAL SAFETY CONTACT	Reverses movement (re-opens) during closing. When door is not moving, inhibits all operation.
1 —  — 9 (N.C.)	EMERGENCY STOP	By opening the 1-9 contact the gate stops or remains still and the automatic closing is disabled.
REMOTE CONTROL	STEP BY STEP	It has the same function as the 1-5 control.
Parallel connection of automatic controls		This model does not permit the running of two motors in parallel.

4.2. Output and accessories



Accessories power supply. 24V $\overline{\text{DC}}$ / 0.15A (nominal) / 0.3 A (peak) output for powering of external accessories including gate state lamp.

Lamp (24 V / 1.5 W) gate open with DIP1 ON, closed gate lamp with DIP1 OFF.

Lamp (24 V / 1.5 W) gate close with DIP1 OFF, open gate lamp with DIP1 ON.

Flashing light. 230 V \sim / 100 W max. output. It is lighting during the opening and closing operation. With automatic closure mode the flashing begins 3 s before the end of the setted time of TC, with TC lesser 3 s the flashing lasts as long as the break time.

4.3 Setting and adjustments

TC - Automatic closure time. From 0 to 120 s, with TC from 0 to 3/4 turn. The counting begins:

- at the end of the opening operation and lasts as long as the time set on the TC trimmer;
- after a safety device has operated (1-6 / 1-8) and lasts half the time set on the TC.

TC at maximum disable the automatic closure. **Warning:** the position of TC (which enables or disables automatic closing) also selects the function of control 1-5.

RF - Power adjustment. Setting of RF from min to max selects min to max power. The motor always starts up at max power and after 1 s switches over to the power set via RF.

R1 - Obstacle detection adjustment. The electric board is fitted with a safety device which, in case of an obstacle being detected, causes the gate to stop moving when it is opening and to reverse movement when it is closing. With trimmer R1 at minimum there is maximum sensitivity. With R1 at maximum the function is cut out.

DIP1 - Selection of movement direction OFF = opening toward the right, ON = opening toward the left (see fig. 9 and 10).

5. STARTING UP



WARNING: the operations regarding point 5.2 are without safety devices. the trimmer can only be adjusted with gate not moving (RF excluded).

- 5.1. Set TC, RF and R1 at maximum. Short circuit the safety devices and the stop device. Select desired movement direction by means of DIP1 (see fig. 9 and 10).
- 5.2. Power and check the gate functions correctly with a sequence of step-by-step commands. Check the action of the limit switches.
- 5.3. Remove the jumpers and connect the safety devices (1-6 and 1-8) and the stop (1-9). Check their function.
- 5.4. Adjust the automatic closure with TC. **Warning:** the automatic closure time after the operation of one of the safety devices is half the set time.
- 5.5. Put RF in the position which ensures functioning and the safety of the user.
- 5.6. After having set RF, set the obstacle detection sensitivity with R1.
- 5.7. Connect any accessories and check their function.
- 5.8. Re-fit the casing and make sure that the stop microswitch tripped by release door (11) is properly operating.

6. ELECTRICAL CONNECTION CS61

Connect the motor and limit switches to the control panel as in figure 11. (A) and (C) refer to opening and closing limit switch.

7. TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	REMEDY
Gate fails to open and close.	Power failure.	Check for power supply from mains.
	F1/F2 fuse blown.	Change fuse.
	Safety contacts open.	Check terminals 6, 8 and 9 in the E. B.
	Geared motor released.	Check that release door is locked and that release microswitch is pressed.
Gate opens but fails to close.	Radio control not working.	Check for proper installation and activation of the radio device (TX and RX).
	Safety contacts open.	Check terminal 8 of the E.B.
	Photocells activated.	Check that photocells are clean and properly working
External safeties fail to trigger.	Automatic closure not working.	Check that TC trimmer is not set to maximum.
	Incorrect wiring between photocells and the Electric Board.	Connect N.C. safety contact in series and remove any jumpers.
Flashing light not work.	Bulb blown.	Replace with a 230 V bulb.

8. MAINTENANCE PROGRAM (each 6 month)

Power off (230 V~ mains and batteries, if installed)

- Check gate/gear motor alignment and the distance (2-3 mm) between the mouth of the pinion and the crest of the rack.
- Clean the wheel slideways, the rack and the pinion of the geared motor.

Power on (230 V~ mains and batteries)

- Check the functioning of the limit switches (the gate must come to a halt ~ 20 mm before the stop)
- Check the power adjustments.
- Check the operation of all command and safety functions (photocells).

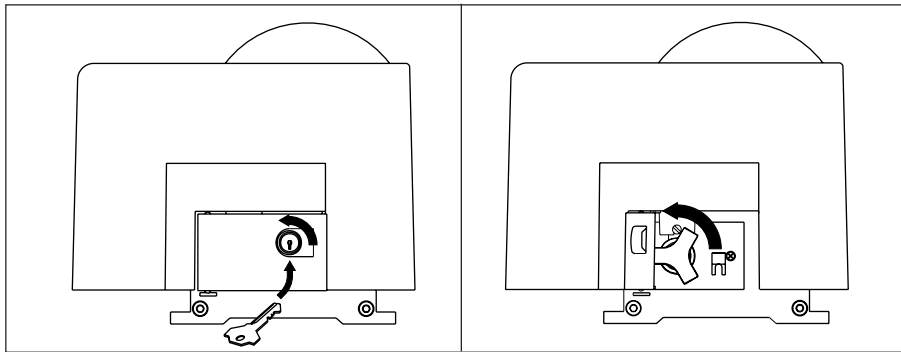
ATTENTION: For spare parts, see the spares price list.



AUTOMATIC ENTRANCE SPECIALISTS

Operating instruction CS61E, CS61

Automation for sliding gates



RELEASE INSTRUCTION

In case of faulty operation or power failure, insert and rotate the key anticlockwise. Open the door and rotate the release knob anticlockwise. Manually slide the gate open

To re-lock the gate, rotate the knob clockwise without tightening, slightly move the gate and finally fully tighten down the knob. To return to automatic mode, lock the door with the key.

WARNING: If the door is opened, the limit switch common is opened thus preventing all operations.



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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