



EASY TO
INSTALL



RELIABLE AND
STURDY



ADVANCED KIT

Rino **W189** SEC

GATE OPENER technical manual



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Key



This symbol indicates instructions or notes regarding safety, to which special attention must be paid.



This symbol indicates useful information for the correct operation of the product.

1. General safety precautions



**Failure to respect the information given in this manual
may cause personal injury or damage to the device.
Keep these instructions for future reference**

This installation manual is intended for qualified personnel only. Installation, electrical connections and adjustments must be performed in accordance with Good Working Methods and in compliance with the present standards. Read the instructions carefully before installing the product.

Incorrect installation could be dangerous.

Before installing the product, make sure it is in perfect condition.

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

Make sure the existing structure is up to standard in terms of strength and stability. The motorisation device manufacturer is not responsible for failure to observe Good Working Methods when building the frames to be motorised, or for any deformations during use.

The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account the applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the motorized gate. The safety devices must protect the crushing, shearing, trapping and general hazardous areas of the motorised door.

Display the signs required by law to identify hazardous areas.

Each installation must bear a visible indication of the data identifying the motorized gate.



When requested, connect the motorized gate to an effective earthing system that complies with current safety standards.

During installation, maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts.

The automation protection casing must be removed by qualified personnel only.



The manufacturer of the motorisation device declines all responsibility if component parts not compatible with safe and correct operation are fitted.

Only use original spare parts when repairing or replacing products.

The installer must supply all information on the automatic, manual and emergency operation of the motorised gate, and must provide the user with the operating instructions.

2. Declaration of incorporation of partly completed machinery

(Directive 42/2006/EC, Annex II-B)

The manufacturer Entrematic Group AB, with headquarters in Lodjursgatan 10, SE44 261-Landskrona, Sweden, declares that the rinosec w186 automation for swing gates:

- is designed to be installed on a manual gate to form a machine pursuant to Directive 42/2006/EC. The manufacturer of the motorised gate must declare conformity with Directive 42/2006/EC (annex II-A) prior to initial machine start-up;
- complies with the applicable essential safety requirements indicated in Annex I, Chapter 1 of the Directive 42/2006/EC;
- complies with the Electromagnetic Compatibility Directive 30/2014/EU;
- complies with the RED Directive 53/2014/EU;
- the technical documentation complies with Annex VII-B of the Directive 42/2006/EC;

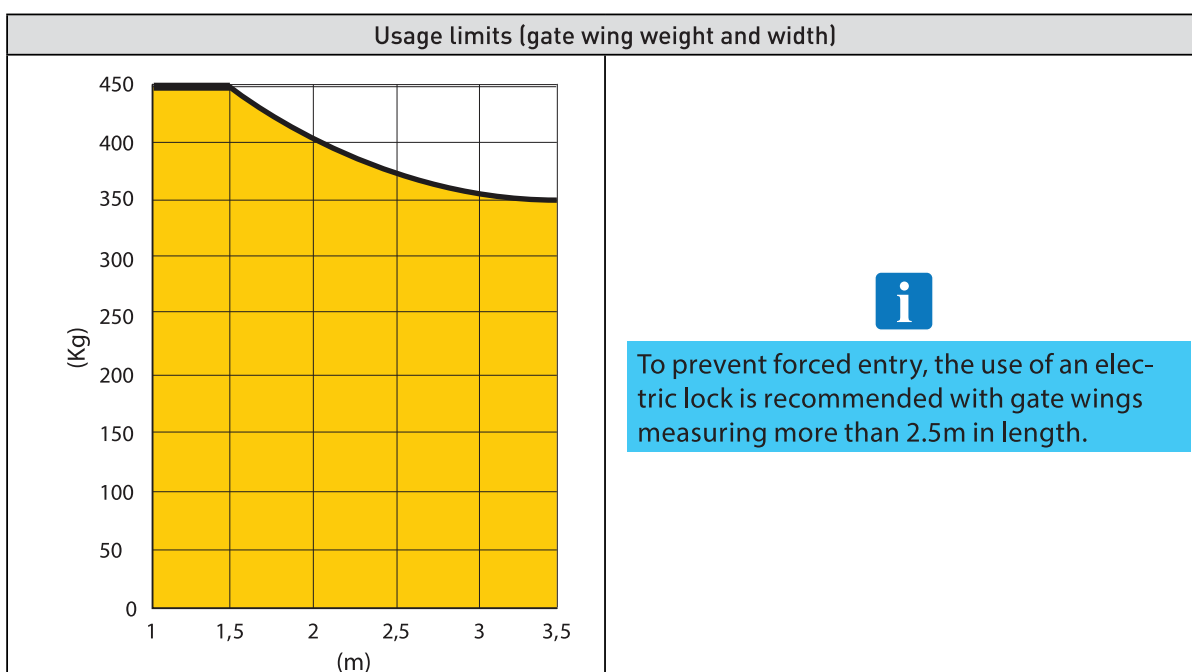
2.1 Machinery Directive

Pursuant to the Machinery Directive (42/2006/EC), the installer who motorises a door or gate has the same obligations as the manufacturer of machinery and as such must:

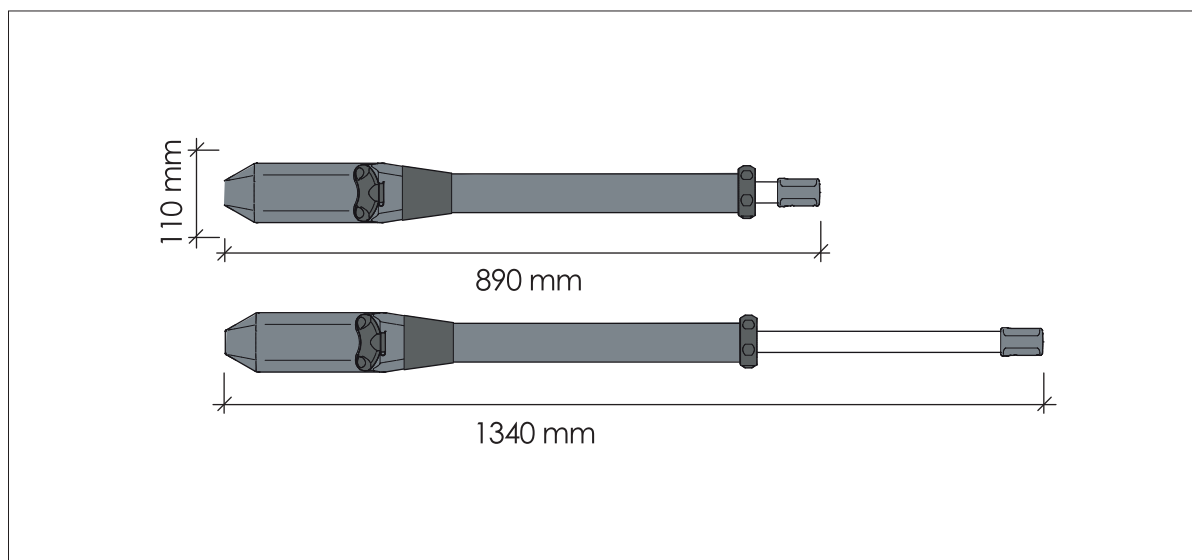
- prepare the technical data sheet which must contain the documents indicated in Annex V of the Machinery Directive;
- (the technical data sheet must be kept and placed at the disposal of competent national authorities for at least ten years from the date of manufacture of the motorised door or gate);
- draw up the EC Declaration of Conformity in accordance with Annex II-A of the Machinery Directive and deliver it to the customer;
- affix the EC marking on the motorised door or gate, in accordance with point 1.7.3 of Annex I of the Machinery Directive.

3. Technical specifications

Model	W189
Power supply	230V~ / 50Hz
Max absorption	1,7 - 1,2A
Power absorbed	300W
Capacitor	8μF
Max thrust	3500N
Maximum stroke	430mm
Opening time	22s / °90
Normal weight	350kg
Dutycycle	%60
Operating temperature	-20°C / +55°C
Degree of protection	IP44
Weight (kg)	6.00



3.1 Gearmotor dimensions



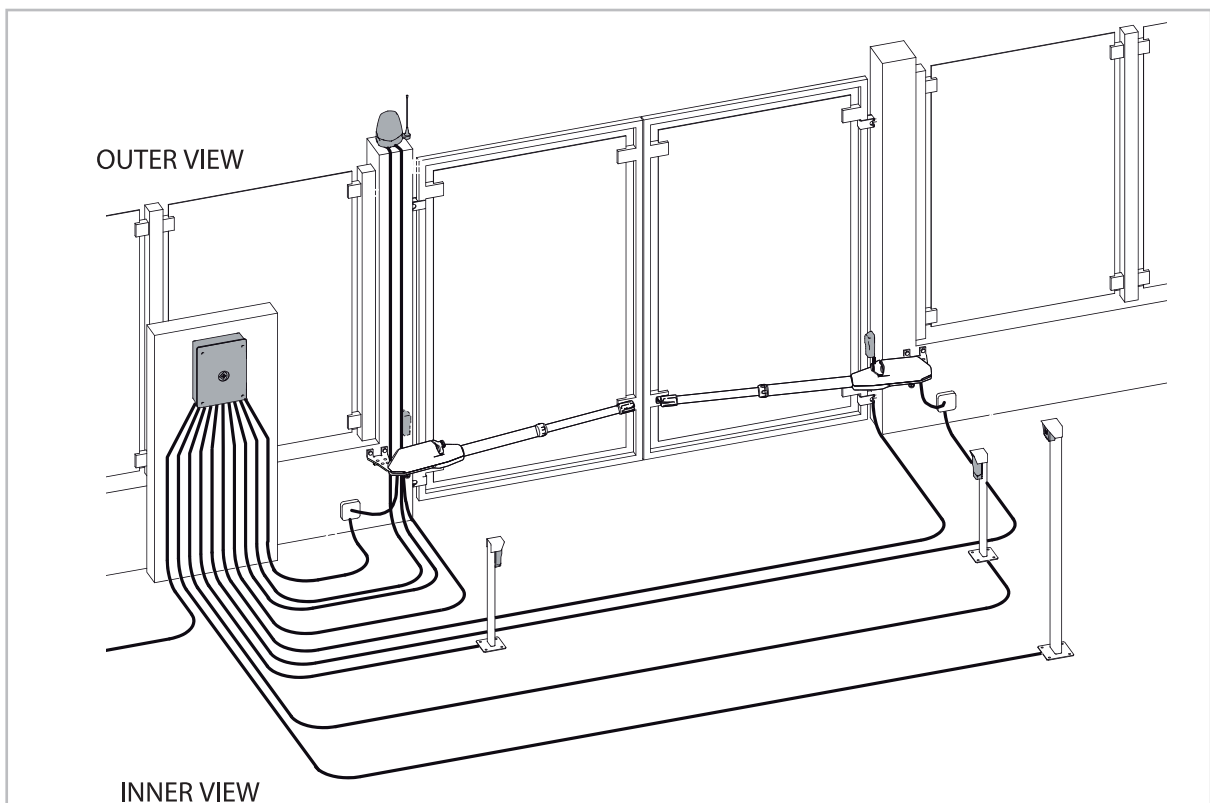
4. Standard installation

4.1 Preliminary checks

Before installing make sure:

- The gate conditions are suitable to automate.
- Weight, dimensions and gate construction are proper for the operator you intend to buy.
- You have suitable mechanical ground stops.
- The automated parts are in good mechanical conditions.
- The opening of the automated gate is not an entrapment hazard as regards any surrounding fixed parts and there is sufficient space for manual release.
- Any lawn watering devices will not wet the gearmotor from the bottom up.
- The earth cable is properly connected.
- Do not install onto gates on either an upward or downward slope (i.e. that are not on flat, level ground).

4.2 Wiring



4.3 Cable types

The quantities of tubes and cables needed (not included in the kit) depend on the type and number of accessories connected to the gate area.

	230V
A operator	3x1,5 Earth
B Control panel	2x1,5 + Earth
C Photocell receiver	rx 4x0,75
C' Photocell transmitter	tx 2x0,75
D Key switch	2x0,75
E Aerial	RG58
F Blinker	2x0,75

5. Mechanical installation

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

5.1 Preliminary checks

Make sure the gate structure is sturdy and the hinges are lubricated and smooth.

Install a stop in the open and closed positions (the mechanical structural elements must be compliant with the requirements of the standard EN12604).

Check that the installation measurements are correct in relation to the distance between the hinge of the wing and the corner of the pillar [C] and the desired opening angle [D].

i The automation fastening point varies according to the space available and the gate to be automated. The installer must therefore choose the best solution to ensure that the system works correctly in each individual situation.

The installation measurements indicated in the table allow you to choose the values of [A] and [B] on the basis of the required opening angle and in relation to the on-site spaces and overall dimensions. Increasing measurement [A], you reduce the opening approach speed.

Reducing measurement [B], you increase the gate opening angle.

Measurements [A] and [B] must, however, be compatible with the effective piston stroke

-Cut off the power before starting wiring.

-Make sure you have set up a suitable dual-pole cut off device (3 mm wires) along the power supply.

- Make sure you have suitable tubing and conduits for the electrical cables: connect the motors, control panel and accessories using separated corrugated tubes, in order to prevent interferences that may result in bad operation.

- Fit the power cable keeping a curve as shown in picture 2, in order to avoid water blackflow inside the operator.

- All opening commands and safety devices must be free of tension (dry contact).

The ram operators are supplied handless version, it means they can be installed either on the right or left side of the gate (see picture 3).

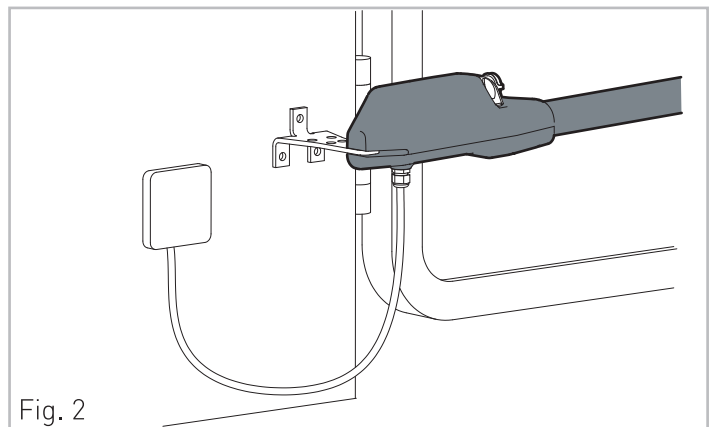


Fig. 2

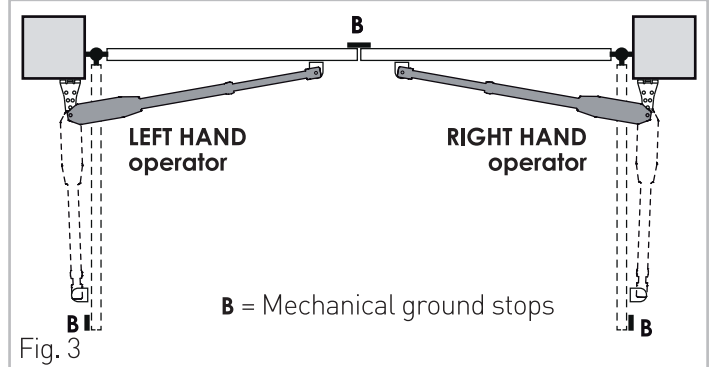


Fig. 3

Gate in closing position

- inox pipe maximum extension 4 mm

Gate in opening position

- inox pipe minimum extension 50 mm

(see picture 4).

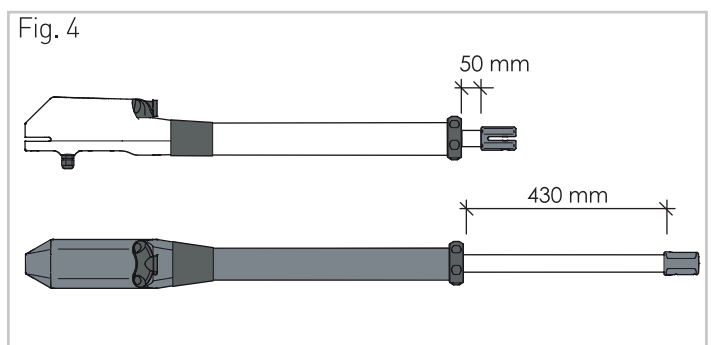


Fig. 4

5.2 Fastening the brackets

a) If the gate is sturdy you can fit the gearmotor wherever it goes, at any height from ground.

b) If the gate is particularly light fit the gearmotor as close as possible to gate centerline.

Gate leaf hinged in the center of the pillar (see picture 6).

Gate leaf hinged on the corner of the pillar (see picture 7).

Best of performance is obtained respecting **A** and **B** dimensions, see picture 8 (opening angle 90°).

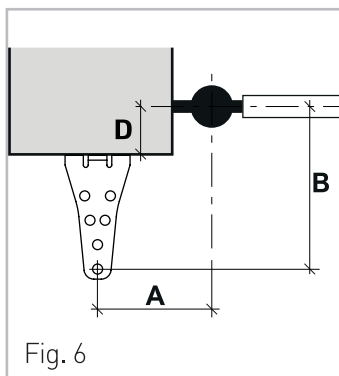


Fig. 6

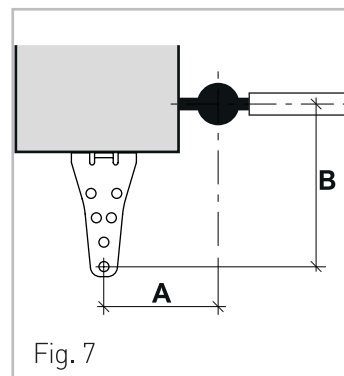
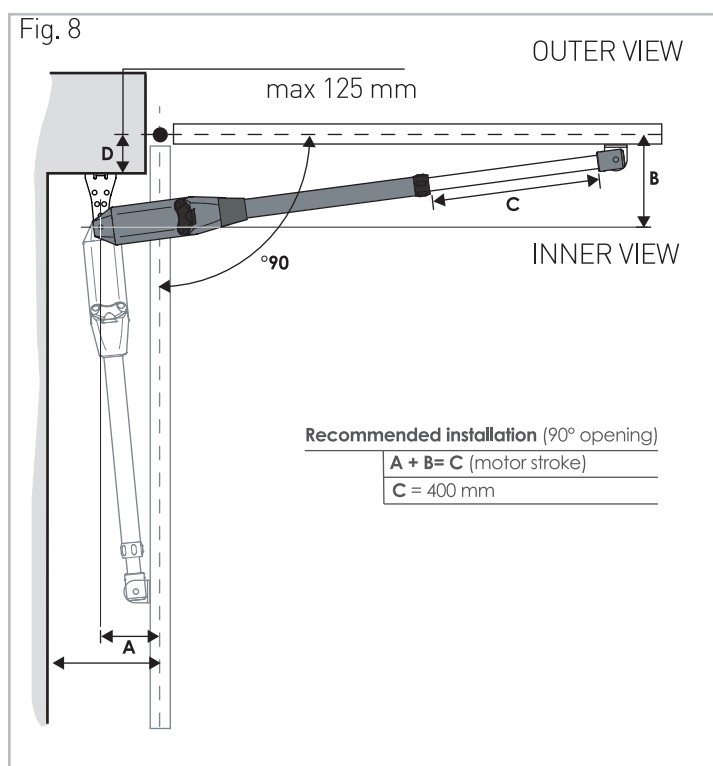


Fig. 7



If the ideal scenario of **A** and **B** is not applicable, refer to the below table to determine the brackets position (values are expressed in mm).

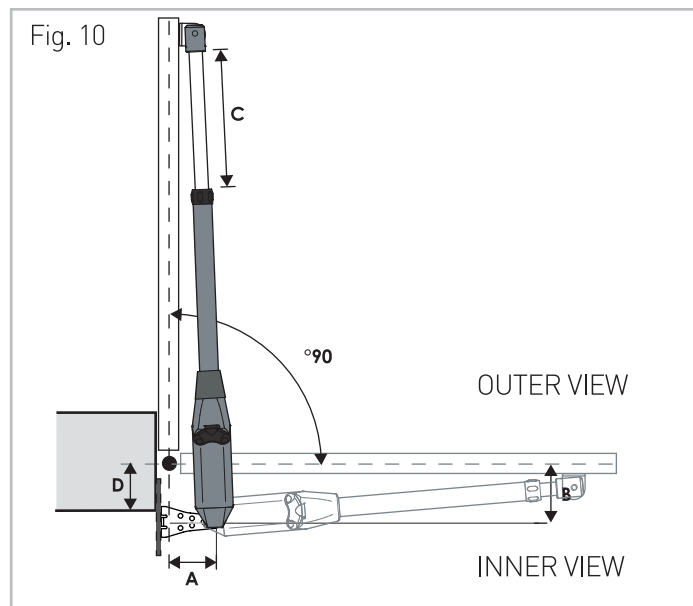
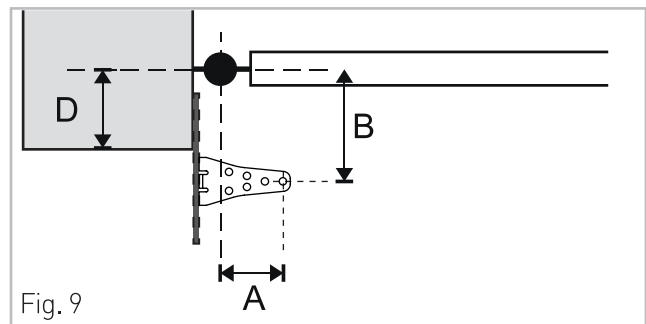
D	125	100	75	50	25	0
A	195	160	185	210	235	260
B	205	240	215	190	165	140
Rear bracket	80 80	110	140	140	140	140
Minimum leaf length	1140	1170	1150	1130	1100	1080

5.3. Outward opening

Your gate can be automated for opening outwards too. In this case the value of A is towards the gate center. In this case the value of B is towards the gate center. See picture 9 and 10 and fit the bracket accordingly.



A and B however will remain the same applied for inward opening.

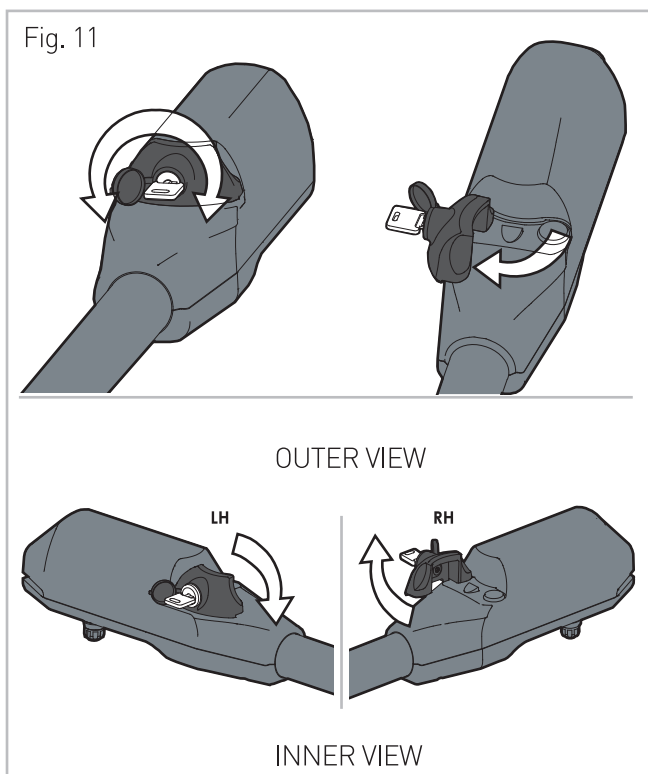


6. Release instructions

- Insert the key and turn it 90° clockwise (see picture 11).
- Pull the release handle inwards to unlock the LH motor and outwards to unlock the RH motor



The gate can be locked in any position after the first start command the system will return to its default settings.



7. Routine maintenance plan

Carry out the following operations and checks every 6 months or 36.000 cycles.

Disconnect the 230V~ power supply:

- Clean and lubricate the gate rotation pins, hinges and drive screw with neutral grease.
- Check the resistance of the fixing points.
- Check the electrical connections are in good condition.

Reconnect the 230V~ power supply:

- Check the power adjustment.
- Check all the commands and safety functions (photocells) are operating correctly.
- Check the release system is working correctly.



NOTE: for spare parts, refer to the spares price list.

8. Troubleshooting


Problem	Possible cause	Operation
The gate doesn't open or close.	No power supply.	Make sure the mains supply is active.
	Gearmotor released.	See the release instructions.
	Photocells occupied.	Check the photocells are clean and operating correctly.
	Permanent STOP command.	Check the STOP command or the control panel.
	Faulty selector.	Check the selector or control panel.
	Faulty remote control.	Check the condition of the batteries.
	Electric lock not working.	Check the lock is positioned and working correctly.
Il cancello apre ma non chiude.	Photocells occupied.	Check the photocells are clean and operating correctly.

9. Disposal



The packaging components (cardboard, plastic, etc.) must be separated out for recycling. Refer to the local disposal regulations before proceeding.

The packaging materials must not be discarded in the environment or left within reach of children, as they are a potential source of danger.

 To dispose of electrical and electronic equipment, batteries and accumulators correctly, take the product to the differentiated disposal and recycling centres, respecting the regulations in force.