



AUTOMATION FOR SWING GATES



ATI SERIES



INSTALLATION MANUAL

A 3024 N

A 5024 N

“IMPORTANT INSTALLATION, SAFETY INSTRUCTIONS”

“CAUTION: IMPROPER INSTALLATION MAY CAUSE SERIOUS DAMAGE, FOLLOW ALL INSTALLATION INSTRUCTIONS CAREFULLY”

“THIS MANUAL IS ONLY FOR PROFESSIONAL OR QUALIFIED INSTALLERS”



1 Legend of symbols



This symbol tells you to read the section with particular care.



This symbol tells you that the sections concern safety issues.



This symbol tells you what to say to the end-users.

2 Intended use and restrictions

2.1 Intended use



The ATI 24V N gearmotor is specifically engineered to automate residential and condominium swing gates, even under intensive use.

2.2 Restrictions

The use of this product for purposes other than those described above and installation executed in a manner other than as instructed in this technical manual are prohibited.

3 Reference Standards

The company: Came Cancelli Automatici is ISO 9001:2000 quality certified; it has also obtained the ISO 14001 environmental safeguarding certification. Came engineers and manufactures all of its products in Italy.

This product complies with the following standards: *see declaration of compliance.*

4 Description

4.1 Gearmotor

This product is engineered and manufactured by CAME CANCELLI AUTOMATICI S.p.A. and complies with current safety regulations. Guaranteed 24 months if not tampered with.

The gearmotor is composed of two, cast aluminium half shells inside of which rest the gearmotor and endstops – with electro blocking – and an endless screw, epicycloidal gear reduction system.

4.2 Technical features

Control board power supply: 230 A.C. 50/60Hz

Motor power supply: 24V D.C. 50/60Hz

Max draw.: 10A

Power: 120W

Opening time (90°): adjustable

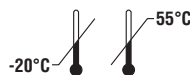
Gear ratio: 1/36

Duty Cycle: Intensive use

Protection Rating: IP44

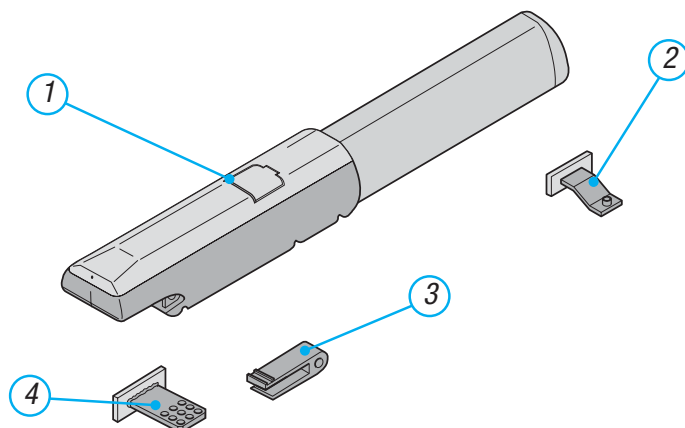
Weight: 10 kg

Operating temperature



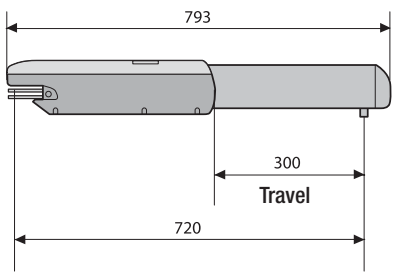
4.3 Description of parts

- 1) Operator
- 2) Front bracket
- 3) Back swivel-joint
- 4) Back bracket

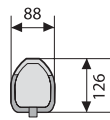


4.4 Overall dimensions

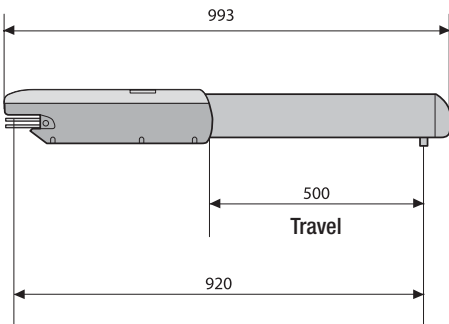
Measurements in mm



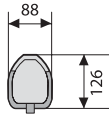
A 3024N



Gate leaf width	Gate leaf weight
m	kg
2.00	800
2.50	600
3.00	400



A 5024N



Gate leaf width	Gate leaf weight
m	kg
2.00	1000
2.50	800
3.00	600
4.00	500
5.00	400

5 Installation



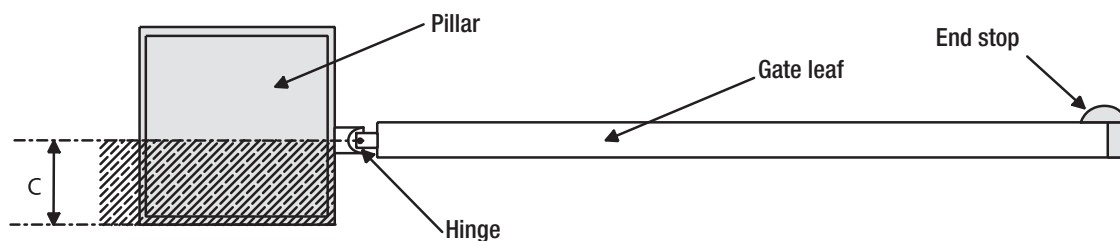
Installation must be carried out by expert qualified personnel and in full compliance with current regulations.

5.1 Preliminary checks



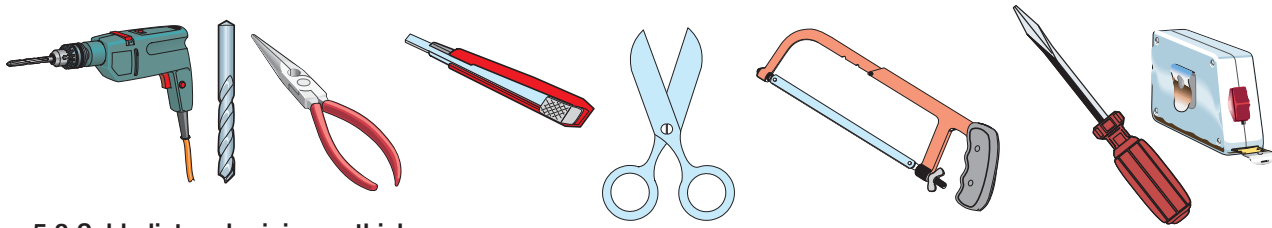
Before installing, do the following:

- Make sure the structure of the gate is sturdy, the hinges work and that there is no friction between moving and non-moving parts;
- That measurement C is not greater than the value shown in Tab. 3, p. 4. In this case you need to work on the pillar until said measurement is obtained;
- Make sure the path of the electrical cables complies with the command and safety instructions;
- That there is a (soundly secured to the ground) mechanical stop to prevent the gate leaf/gearmotor from over extending.
- ⚡ Make sure that any connections inside the case (that provide continuance to the protective circuit) be fitted with extra insulation as compared to the other conductive parts inside;
- Make sure you have suitable tubing and conduits for the electrical cables to pass through and be protected against mechanical damage.



5.2 Tools and materials

Make sure you have all the tools and materials you will need for the installation at hand to work in total safety and compliance with the current standards and regulations. The following figure illustrates the minimum equipment needed by the installer.

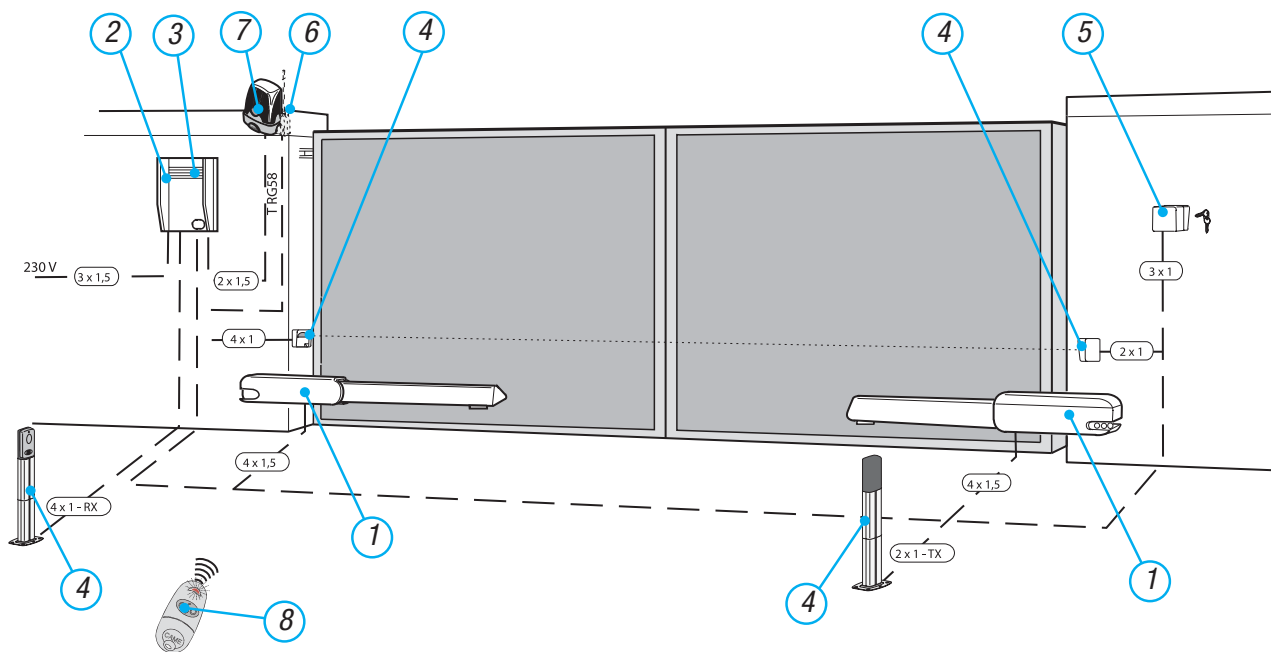


5.3 Cable list and minimum thickness

Connections	Type of cable	Length of cable 1 < 10 m	Leng. cable 10 < 20 m	Leng. cable 20 < 30 m
Control panel power supply 230V 2F	FROR CEI 20-22 CEI EN 50267-2-1	3G x 1,5 mm ²	3G x 2,5 mm ²	3G x 4 mm ²
Flashing light 24V		2 x 0,5 mm ²	2 x 1 mm ²	2 x 1,5 mm ²
Photocell transmitters		2 x 0,5 mm ²	2 x 0,5 mm ²	2 x 0,5 mm ²
Photocell receivers		4 x 0,5 mm ²	4 x 0,5 mm ²	4 x 0,5 mm ²
24V Accessories power supply		2 x 0,5 mm ²	2 x 0,5 mm ²	2 x 1 mm ²
Command buttons		2 x 0,5 mm ²	2 x 0,5 mm ²	2 x 0,5 mm ²
Endstop		3 x 0,5 mm ²	3 x 1 mm ²	3 x 1,5 mm ²
Encoder plug	2402C 22AWG	max. 30 m		
Antenna connection	RG58	max. 50 m		

N.B.: If the cable length differs from that specified in the table, then you must determine the proper cable diameter in the basis of the actual power draw by the connected devices and depending on the standards specified in CEI EN 60204-1. For connections that require several, sequential loads, the sizes given on the table must be re-evaluated based on actual power draw and distances.

5.4 Standard installation

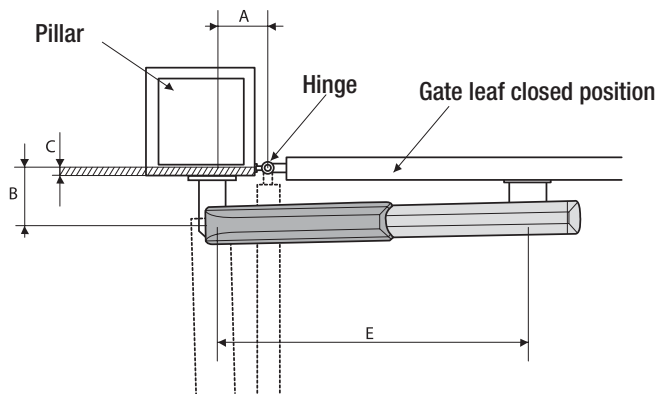


- 1) Operator
- 2) Control panel
- 3) Radio receiver
- 4) Photocells
- 5) Selector switch
- 6) Antenna
- 7) Flashing light
- 8) Transmitter

The data and information shown in this manual may be changed by CAME cancelli automatici s.p.a. at any time without prior warning.

5.4 Mounting

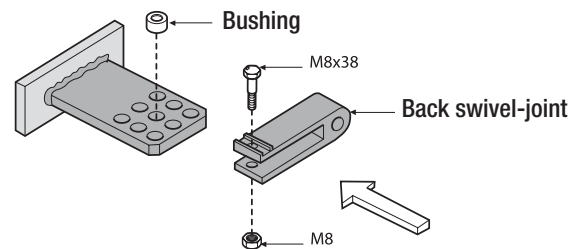
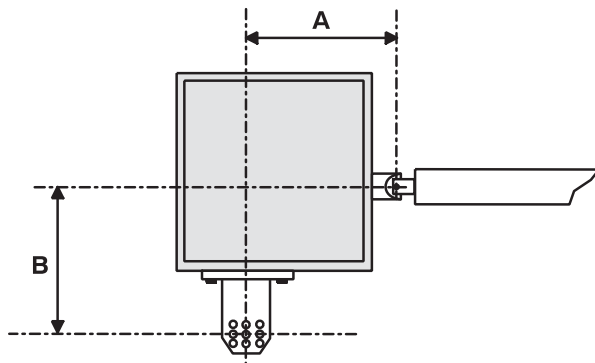
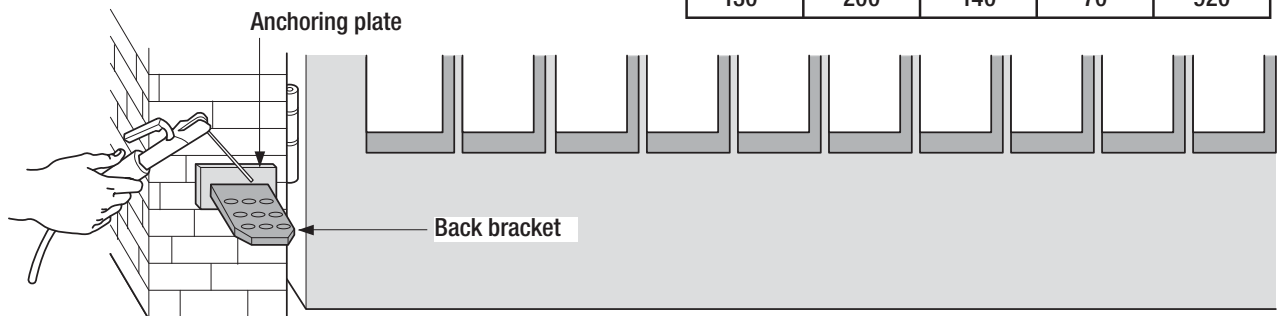
! The following are just example applications, given that the space for securing the operator and accessories may vary depending on the dimensions. It is thus up to the installer to choose the most suitable solution.



Tab. 3

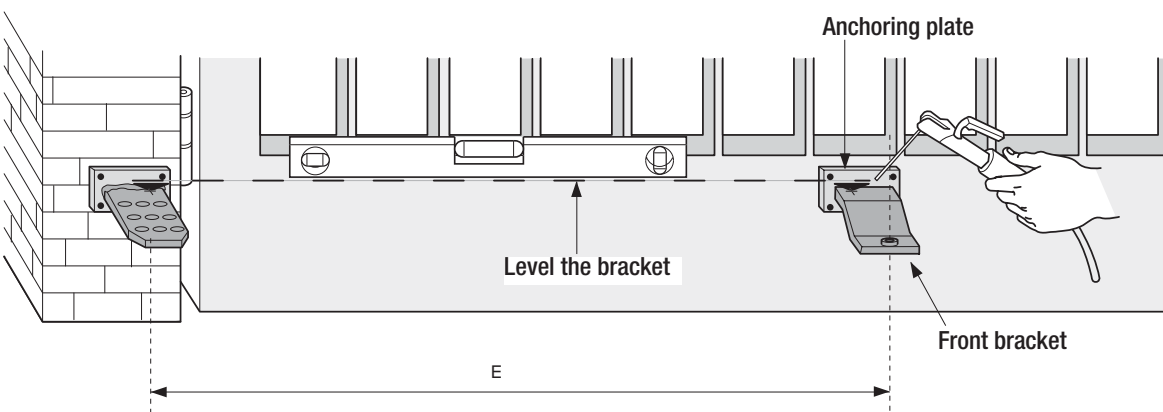
Gate leaves up to 3 m				
Opening	A mm	B mm	C max mm	E mm
90°	130	130	60	720
120°	130	110	50	720

Gate leaf up to 5 m				
Opening	A mm	B mm	C max mm	E mm
90°	200	200	120	920
130°	200	140	70	920

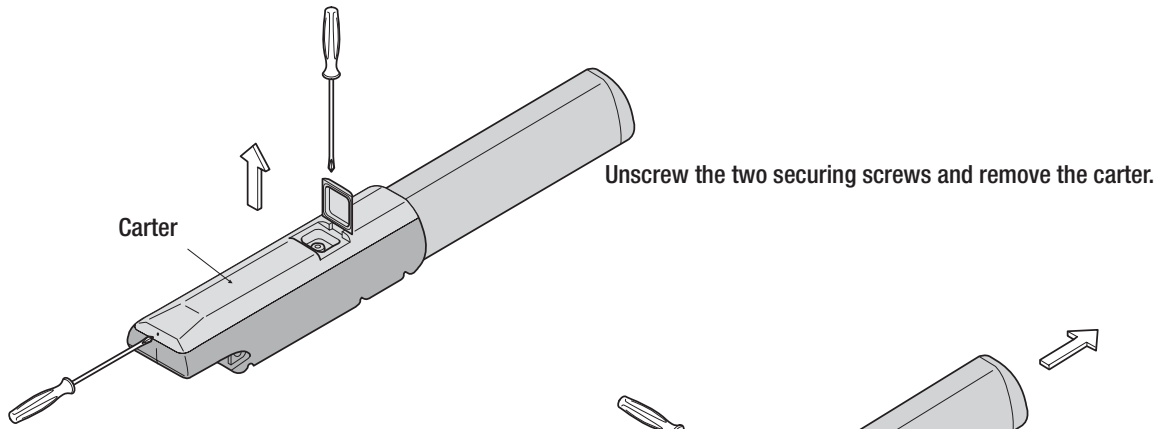


Apply the anchoring plate to the pillar using the back bracket (fig. 1) making sure the A and B measurements are right (Tab. 3) between the hinge axis and central bore hole on the bracket. The back bracket has several other holes for changing the opening angle of the gate.

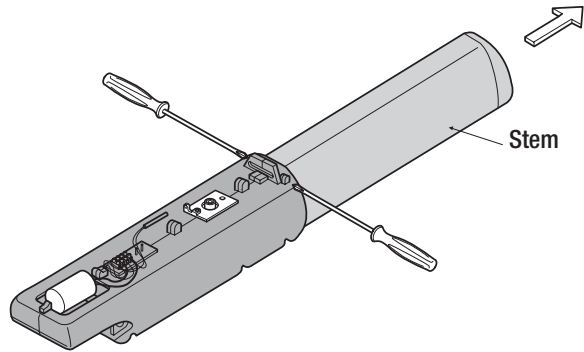
N.B.: increasing the B measurement decreases the opening angle resulting in slower peripheral speed and greater motor thrust on the gate leaf. Increasing measurement A increases the opening angle resulting in greater peripheral speed and reduced motor thrust on the gate leaf.



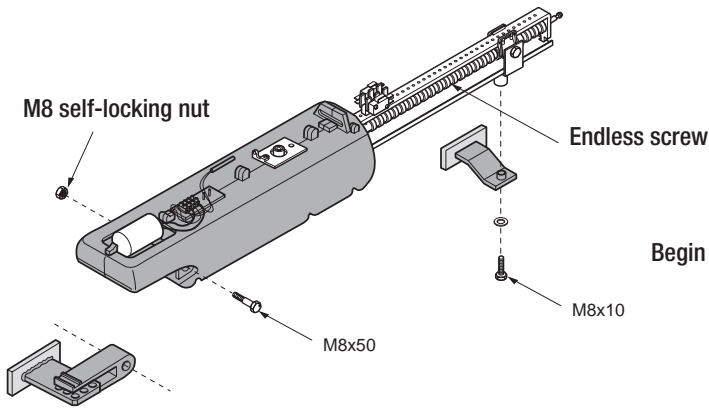
With the gate closed apply the anchoring plate to the gate leaf, making sure that the front bracket is lined up horizontally with the back bracket and ensuring that measurement E is met.



Unscrew the two securing screws and remove the carter.



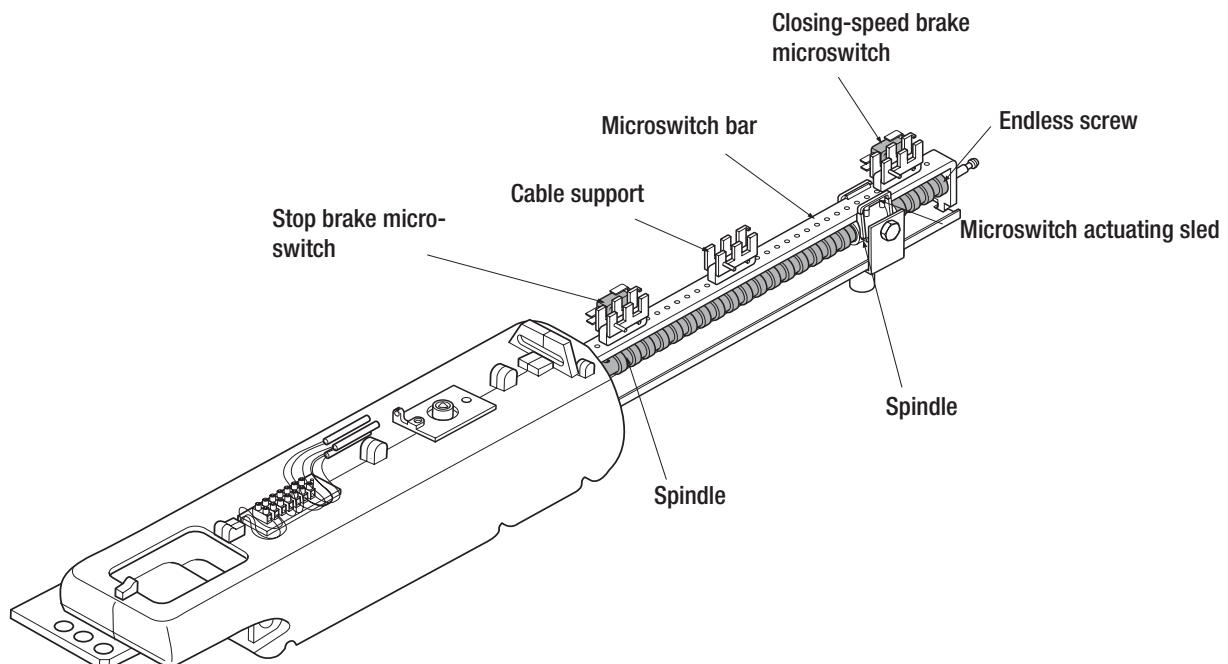
Unscrew the two securing screws and remove the stem.



Begin mounting the gearmotor to the two brackets.

N.B.: we suggest lubricating (using neutral grease) the endless screw and the bushing upon installation.

5.7 Securing and adjusting the endstop



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OPENING PHASE: (stop)

Release the gearmotor and swing the gate-leaf to the fully open position you desire, then, unscrew the securing screws on the opening stop micro-switches assembly.

Slide the micro-switch assembly along the micro-switch bar until it is inserted by contact on the micro-switch activating sled

Secure the micro-switch assembly using the respective screws.

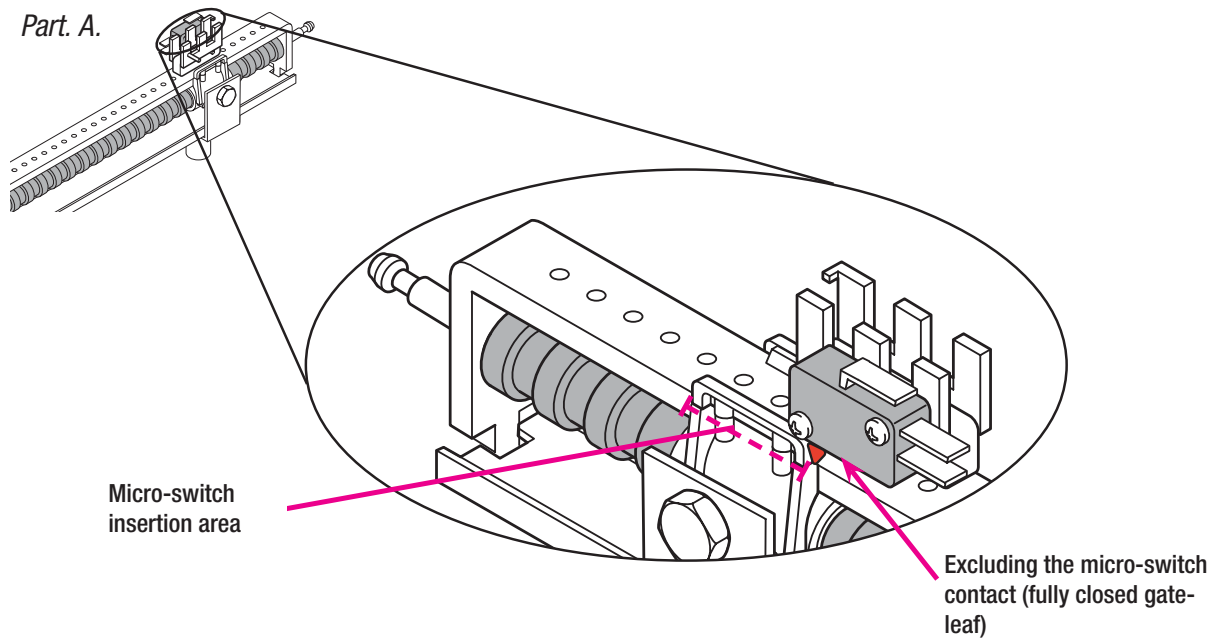
CLOSING PHASE (deceleration)

Swing the gate until fully closed.

Unscrew the securing screws on the closing deceleration micro-switch assembly.

Slide the micro-switch assembly along the micro-switch bar until it is completely passing the contact point on the micro-switch activating sled (as shown in part A.)

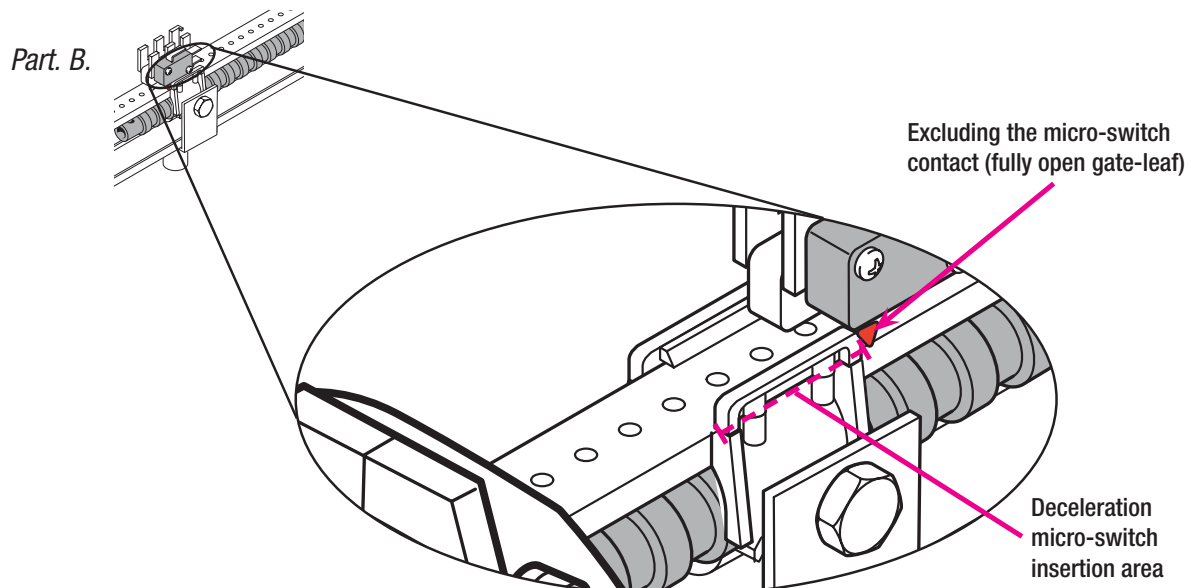
Secure the micro-switch assembly using the respective screws.

**OPENING PHASE (deceleration if set up on the control panel):**

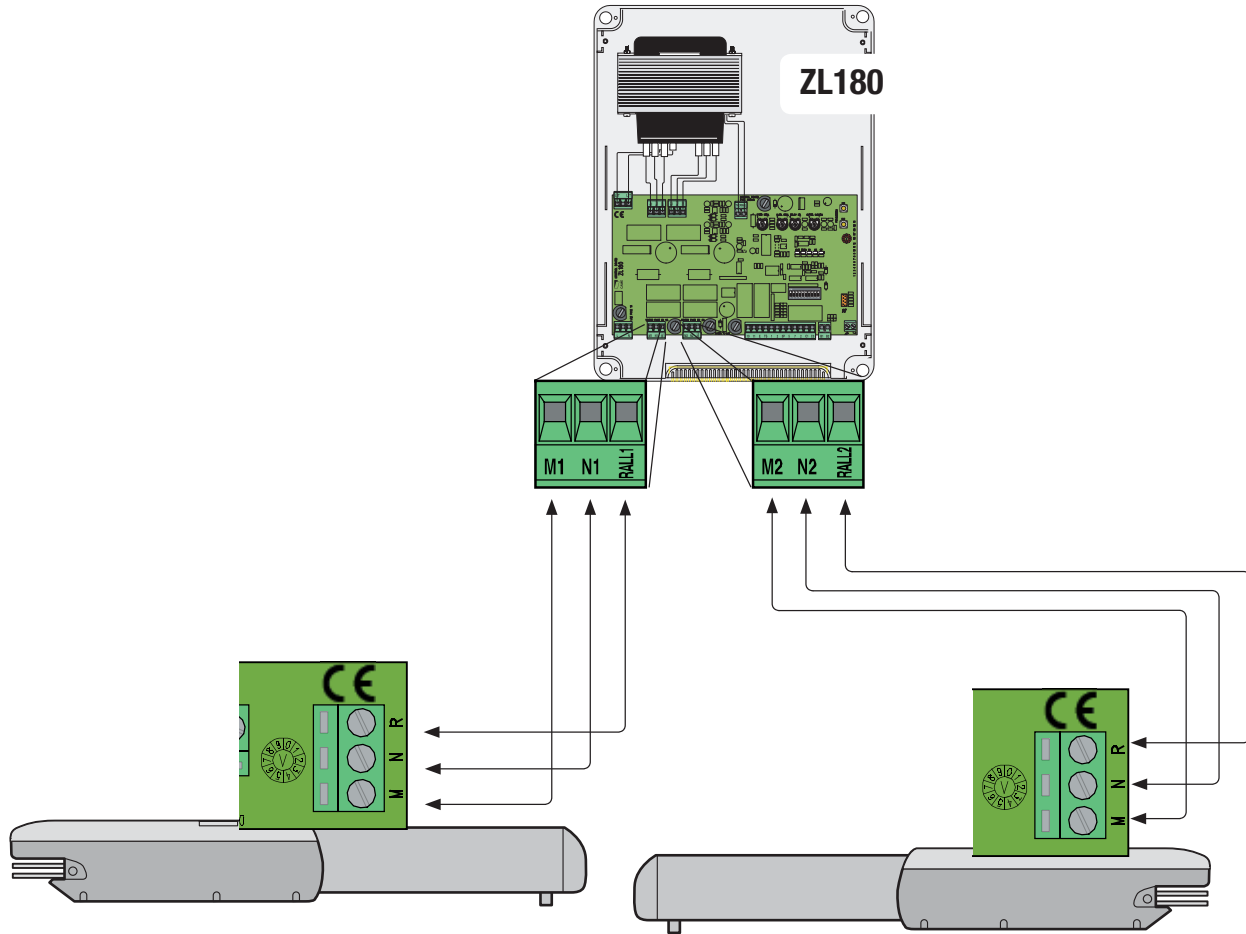
Release the gearmotor and swing the gate-leaf to the fully open position you desire, then, unscrew the securing screws on the opening stop micro-switches assembly.

Slide the micro-switch assembly along the micro-switch bar until it is completely passing the contact point on the micro-switch activating sled (as shown in part B.).

Secure the micro-switch assembly using the respective screws.



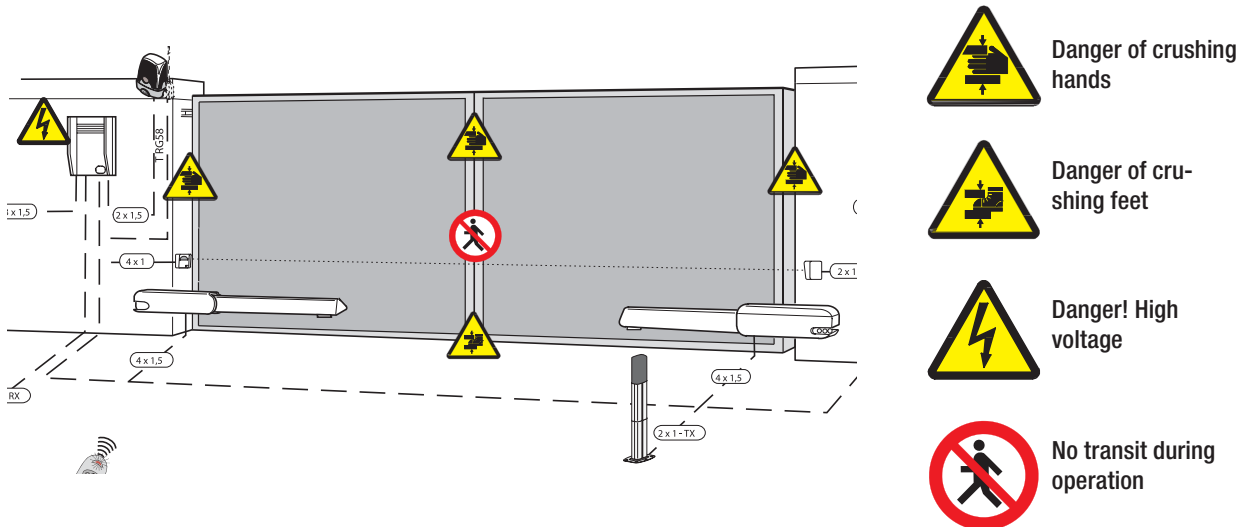
5.8 Connecting to the ZL180 control panel



6 Safety instructions

⚠ Important safety instructions

This product must only be employed for its originally intended use. Any other use is wrong and potentially dangerous. The manufacturer cannot be held liable for any damages resulting from wrongful, erroneous or negligent uses. Avoid working close to the hinges or other moving mechanical parts. Stay out of the opening/closing arc when operator is in motion. Do not exercise force against the motion of the operator as this could result in potentially dangerous situations.




Do not allow children to play or loiter within the opening/closing arc of the operator. Keep remote controls and any other command device out the reach of children, to prevent operator from being activated by accident. In the event of anomalous behaviour, stop using the operator immediately.

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7 Maintenance

7.1 Periodic maintenance

 Periodic maintenance to be carried out by the end-user is as follows: wipe clean the glass surface of the photocells; check that the safety devices work properly; remove any obstructions.

We suggest checking the state of lubrication and tightness of the anchoring screws on the operator.

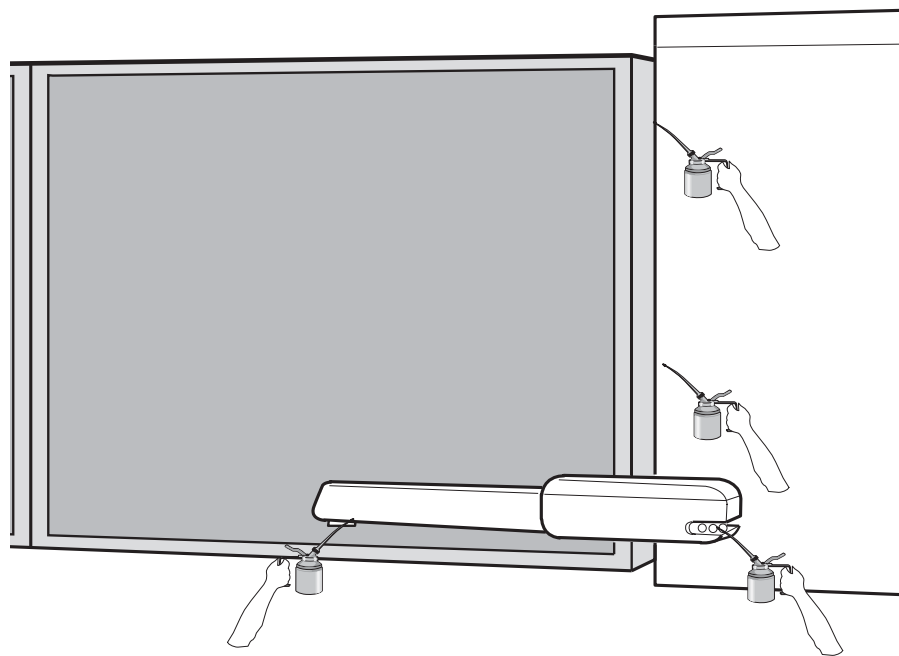
To check the efficiency of the safety devices, move an object in front of the photocells when gate is closing. If the operator inverts the motion or stops, the photocells are working properly.

This is the only maintenance procedure to be carried out with the power source connected.

Before performing any maintenance procedures, cut off the main power, to prevent possible accidents due to gate movement.

To clean the photocells use a water dampened cloth. Do not use solvents or other chemical products which may ruin the devices.

In the event of any strange vibrations or squeaking, lubricate the joints with grease, as shown in the diagram.



Make sure there are no plants within the photocell's beam, and that the gate motion is free of any obstacles.

7.2 Trouble shooting

MALFUNCTIONS	POSSIBLE CAUSES	CHECK AND REMEDIES
The gate will not open nor close	<ul style="list-style-type: none">• There is no power• The gearmotor is released• The transmitter's batteries are run down• The transmitter is broken• The stop button is either stuck or broken• The opening/closing button or the key selector are stuck	<ul style="list-style-type: none">• Check that the power is up• Call assistance• Replace batteries• Call assistance• Call assistance• Call assistance
The gate opens but will not close	<ul style="list-style-type: none">• The photocells are engaged	<ul style="list-style-type: none">• Check that photocells are clean and in good working order• Call assistance
The flasher does not work	<ul style="list-style-type: none">• The bulb is burnt	<ul style="list-style-type: none">• Call assistance

Installer's stamp	Operator name
	Date of job
	Technician's signature
	Requester's signature
Job performed _____	

Installer's stamp	Operator name
	Date of job
	Technician's signature
	Requester's signature
Job performed _____	

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9 Phasing out and disposal

 CAME CANCELLI AUTOMATICI S.p.A. employs a UNI EN ISO 14001 certified and compliant environmental protection system at its plants, to ensure that environmental safeguarding.

We ask you to keep protecting the environment, as CAME deems it to be one of the fundamental points of its market operations strategies, by simply following these brief guidelines when disposing:

DISPOSING THE PACKING MATERIALS

The packing components (cardboard, plastic, etc.) are solid urban waste and may be disposed of without any particular difficulty, by simply separating them so that they can be recycled.

Before actions it is always advisable to check the pertinent legislation where installation will take place.

DO NOT DISPOSE OF IN NATURE!

DISPOSING OF THE PRODUCT

Our products are made using different types of materials. The majority of them (aluminium, plastic, iron, electric cables) can be considered to be solid urban waste. They may be recycled at authorised firms.

Other components (electrical circuit board, remote control batteries etc.) may contain hazardous waste.

They must, thus, be removed and turned in to licensed firms for their disposal.

Before acting always check the local laws on the matter.

DO NOT DISPOSE OF IN NATURE!

10 Conformity declaration



MANUFACTURER'S DECLARATION OF CONFORMITY

Pursuant to annex II B of the Machinery Directive 98/37/EC



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tel (+39) 0422 4940 - fax (+39) 0422 4941
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--- STANDARDS ---

EN 13241-1
EN 12453
EN 12445

EN 12635
EN 12978
EN 60335-1

EN 61000-6-2
EN 61000-6-3

Declares under its own responsibility that the equipments for automatic garage doors and gates listed below:

A 3024 N - A5024 N

... comply with the National Law related to the following European Directives and to the applicable parts of the following Standards.

--- DIRECTIVES ---

98/37/CE - 98/79/CE
98/336/CEE - 92/31/CEE
73/23/CEE - 93/68/CE
89/106/CEE

MACHINERY DIRECTIVE
ELECTROMAGNETIC COMPATIBILITY DIRECTIVE
LOW VOLTAGE DIRECTIVE
CONSTRUCTION PRODUCTS DIRECTIVE

IMPORTANT WARNING!

Do not use the equipment specified here above, before completing the full installation in full compliance with the Machinery Directive 98/37/EC

MANAGING DIRECTOR
Mr. Andrea Menuzzo

Reference code to request a true copy of the original: **DDF B EN A001C**

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