

AUTOMATION FOR SWING GATES

SERIES FERNI



INSTALLATION MANUAL

FE40230



English



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ENGLISH



WARNING! Important instructions for the safety of people: READ CAREFULLY!



Foreword

• Use of the products must be restricted to its intended use (i.e. that for which it was expressly built for). Any other use is to be considered dangerous. Came Cancelli Automatici S.p.A. is not liable for any damage resulting from improper, wrongful or unreasonable use • Keep these warnings with the installation and use manuals issued with the automated system.

Before installing

(preliminary check: in case of a negative outcome, do not proceed before having complied with the safety obligations)

 Make sure that the parts you intend to automate are in good working order, and that they are properly balanced and aligned. Also, make sure that proper mechanical stops are already in place • If the operator will be installed at a height of less than 2.5 m from the ground or other access level, check whether you will need any protections and/or warnings • Any gate leaves, fitted with pedestrian entrances, onto which you will install an operator, must have a blocking mechanism when the gate is in motion • Make sure that the opening of the automated gate is not an entrapment hazard as regards any surrounding fixed parts • Do not mount the operator upside down or onto any elements that may fold under its weight. If needed, add suitable reinforcements at the points where it is secured • Do not install onto gates on either an upward or downward slope (i.e. that are not on flat, level ground) • Check that any lawn watering devices will not wet the gearmotor from the bottom up.

Installation

 Carefully section off the entire site to prevent unauthorised access, especially by minors and children • Be careful when handling operators that weigh more than 20 Kg (see installation manual). In such cases, employ proper weight handling safety equipment • All opening commands (e.g. buttons, key selectors, magnetic detectors, etc.) must be installed at least 1.85 m from the gate's area of operation perimeter - or where they cannot be reached from the outside of the gate. Also, the direct commands (e.g. push button, or proximity devices, etc.) must be installed at a height of at least 1.5 m and must not be accessible to the public • All 'maintained action' commands, must be placed where the moving gate leaves, transit areas and driveways are completely visible • If missing, apply a permanent label that shows the position of the release mechanism • Before delivering to the client, verify that the system is EN 12453 (impact test) standard compliant. Make sure that the operator has been properly adjusted and that the safety and protection devices, as well as the manual release are working properly • Where necessary and in plain sight, apply the Warning Sings (e.g. gate plate).

Special instructions and advice for users

 Keep the gate's area of operation clean and clear of any obstacles. Trim any vegetation that may interfere with the photocells • Do not allow children to play with the fixed command devices, or in the gate's area of operation. Keep any remote control devices (i.e. transmitters) away from the children as well • Frequently check the system, to see whether any anomalies or signs of wear and tear appear on the moving parts, on the component parts, on the securing points, on the cables and any accessible connections. Keep any joints (i.e. hinges) lubricated and clean, and do the same where friction may occur (i.e. slide rails) • Perform functional tests on photocells and sensitive edges, every six months. Keep glass panels constantly clean (use a slightly water-moistened cloth; do not use solvents or any other chemical products) • If the system requires repairs or modifications, release the operator and do not use it until safety conditions have been restored Cut off the power supply before releasing the operator for manual openings. See instructions • Users are FORBIDDEN to carry out ANY ACTIONS THAT THEY HAVE NOT BEEN EXPRESSLY ASKED TO DO OR SO INDICATED in the manuals. Any repairs, modifications to the settings and extraordinary maintenance MUST BE DONE BY THE TECHNICAL ASSISTANCE STAFF • On the periodic maintenance log, note down the checks you have done.

Special instructions and advice for all

- Avoid working near the hinges or moving mechanical parts
- Stay clear of the gate's area of operation when in motion Do not resist the direction of movement of the gate; this may present a safety hazard At all times be extremely careful about dangerous points that must be indicated by proper pictograms and/or black and yellow stripes When using a selector or command in 'maintained action' mode, keep checking that there are no people in the area of operation of the moving parts. Do this until you release the command The gate may move at any time without warning Always cut the power when cleaning performing maintenance.



This symbol tells you that the sections concern safety issues.



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

Intended use and limits

Intended use

The 001FE40230 operator is engineered and manufactured by CAME Cancelli Automatici S.p.A., in compliance with current safety regulations, to automate swing gates for residential or apartment-block use.



ENGLISH

The installation and use of this product for purposes other than those described in this manual are prohibited.

Limits to use

Limits to use of the hinged-arm gearmotor with 90° maximum opening of the gate leaf.

Gate-leaf width (m)	2.00	2.50	3.00	3.50	4.00
Gate-leaf weight (Kg)	800	600	500	450	400

Important: with gate-leaves wider than 2.50 m it is necessary the use of an electric lock.

Limits to use of the straight -arm gearmotor with 90° maximum opening of the gate leaf.

Gate-leaf width (m)	1.50	2.00	2.50
Gate-leaf weight (Kg)	550	500	300

Important: it is necessary to have an electric lock.

Description

The operator is composed of a die-cast aluminium casing. Inside the casing there is an endless screw and helical crown reduction system. Permanent fluid grease lubrication.

Technical features

Control panel power supply: 230 V AC 50/60Hz Motor power supply: 230 V AC 50/60Hz

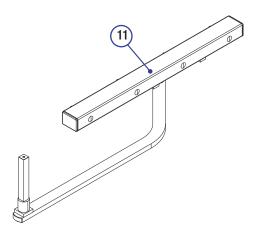
Max. draw: 1.2 A Power: 140 W Max. torque: 540 Nm Duty cycle: 30% Protection rating: IP44 Weight: 13.7 Kg Insulation class: I

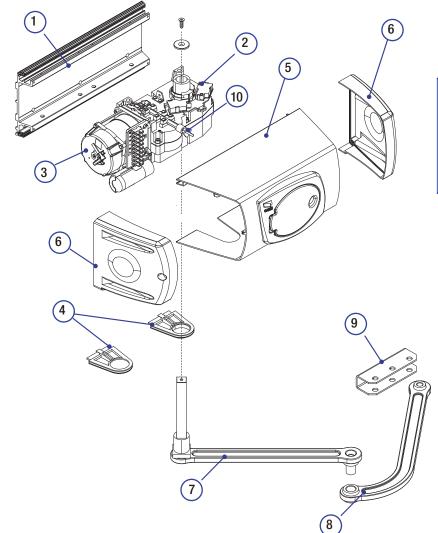
Motor thermoprotection: 150° C

90° opening time: 34 s

Description of the parts

- 1) Pillar bracket
- 2) Endstop
- 3) Gearmotor
- 4) Side supports
- 5) Cover
- 6) Side cover
- 7) Transmission arm
- 8) Driven arm
- 9) Gate bracket
- 10) Release handle
- 11) Straight arm with guide (see technical sheet for mounting procedure)





Dimensions mm 390 248 32 140 185

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

Preliminary checks



Before installing, do the following:

- Make sure you have a suitable omnipolar cut-off device with contacts more than 3 mm apart, and independent (sectioned off) power supply;
- Make sure you have suitable tubing and conduits for the electrical cables to pass through and be protected against mechanical damage;
- Wake 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 the structure of the gate is sturdy, the hinges work and that the is no friction between moving and non-moving parts;
- Make sure there is a mechanical stop for opening and closing.

Tools and materials

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



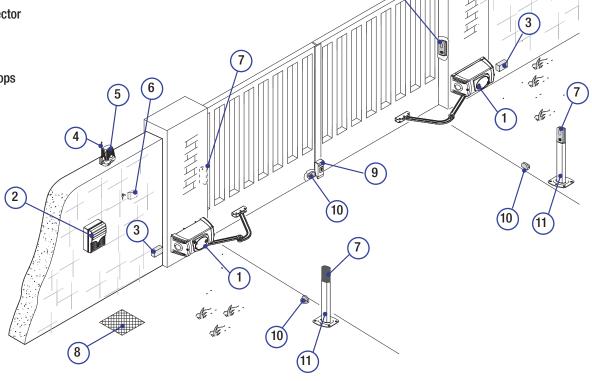
Cable list and minimum thickness

Connection	Type of cable	Cable length 1 < 10 m	Cable length 10 < 20 m	Cable length 20 < 30 m
230 V control panel power supply		3G x 1.5 mm ²	3G x 1.5 mm ²	3G x 2.5 mm ²
230 V motor power supply		3G x 1.5 mm ²	3G x 1.5 mm ²	3G x 2.5 mm ²
Flashing light	FROR CEI	2 x 1.5 mm ²	2 x 1.5 mm ²	2 x 1.5 mm ²
Photocell transmitters	20-22	2 x 0.5 mm ²	2 x 0.5 mm ²	2 x 0.5 mm ²
Photocell receivers	CEI EN 50267-2-1	4 x 1.5 mm ²	4 x 1.5 mm ²	4 x 1.5 mm ²
Accessories power supply		2 x 0.5 mm ²	2 x 0.5 mm ²	2 x 1 mm ²
Command and safety devices		2 x 0.5 mm ²	2 x 0.5 mm ²	2 x 0.5 mm ²
Antenna connection	RG58	max. 10 m		
Encoder connection	TWISTED	max. 30 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 drawn 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. When connecting products that are not included in this manual, refer only to the literature accompanying such products.

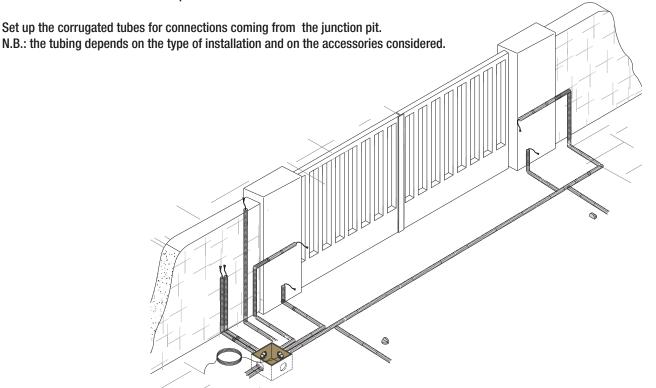
Standard installation

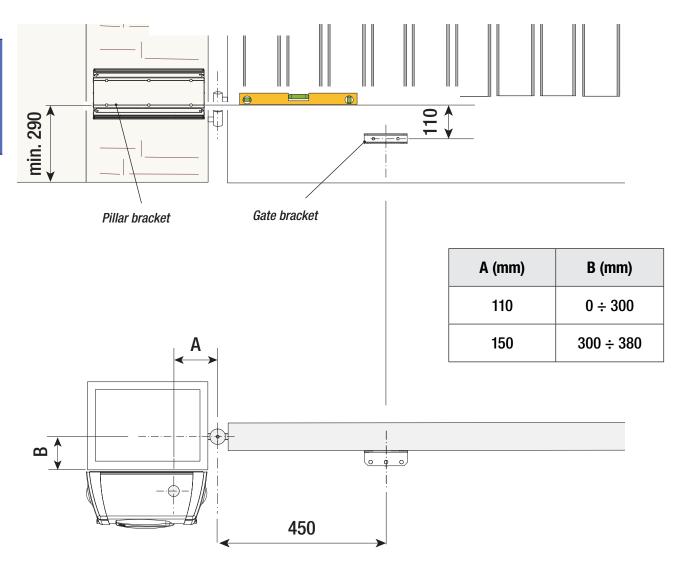
- 1) 001FE40230 operator
- 2) Control panel
- 3) Junction box
- 4) Antenna
- 5) Flashing light
- 6) Key-switch selector
- 7) Photocells
- 8) Junction pit
- 9) Electric lock
- 10) Mechanical stops
- 11) Photocell post



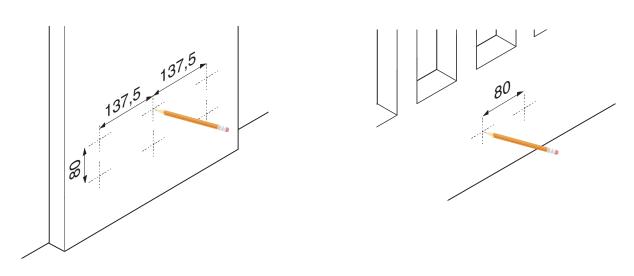
Setting up the corrugated tubes and anchoring brackets.

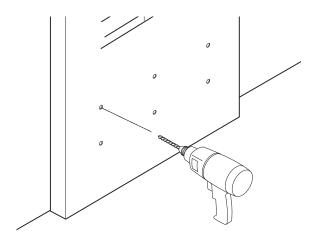
The following figures are only examples, since the room necessary for fixing the automation and the accessories depend on the dimensions. It is therefore up to the installer the choice of the most suitable solution.

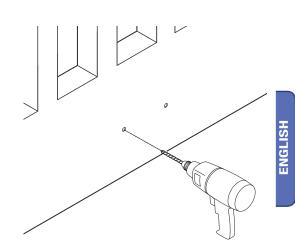




Mark the fixing points for both the pillar and gate brackets, respecting dimensions indicated in the drawing.

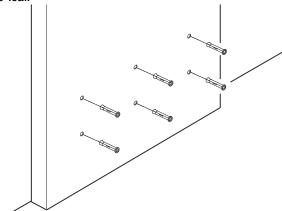


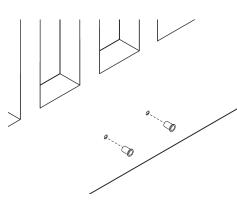




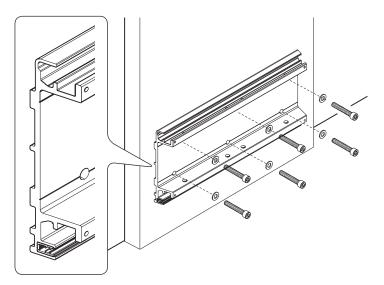
Insert the dowel or use other inserts suitable for the bracket resistance.

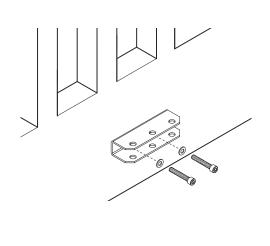
Note: figures are only examples, it is up to the installer the choice of the most suitable solution depending on the type and dimensions of the gate-leaf.





Place the brackets as indicated in the figure and fix them.

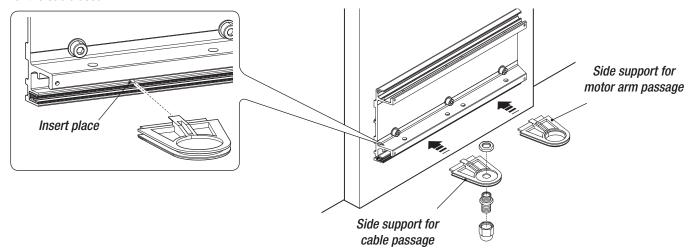


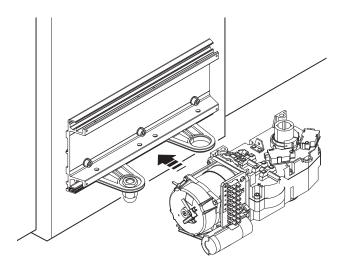


Installing of the gearmotor and the transmission arms

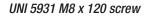
Insert the side supports in the insert places on the pillar bracket. One of the two lateral inserts is for the power cable to go through, the other is for the gearmotor arm to go through.

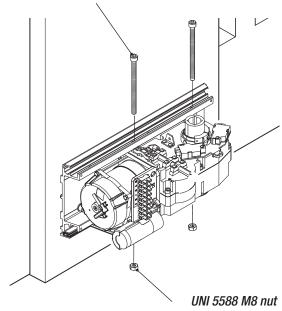
N.B.: before inserting the support for the cable passage on the bracket, fix a cable gland on it; such cable gland need to be suitable for the cable used.



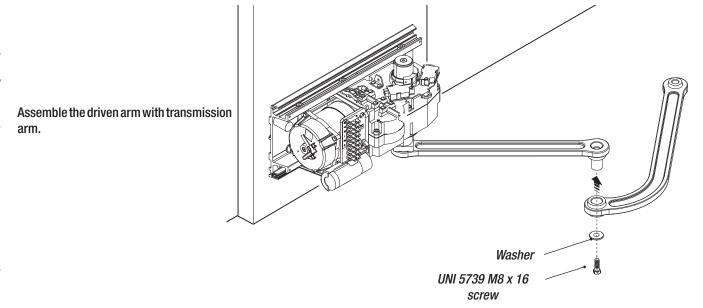


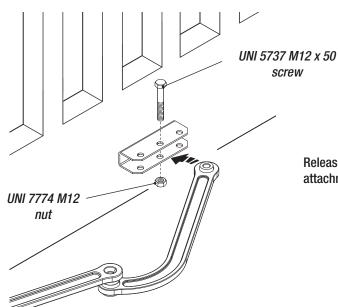
Insert the gearmotor on the plate.





Secure the gearmotor with screws and nuts.



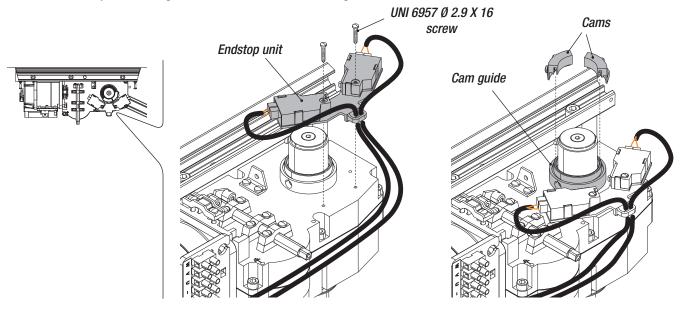


Release the gearmotor and secure the driven arm to the gate-attachment bracket using the nut and bolt.

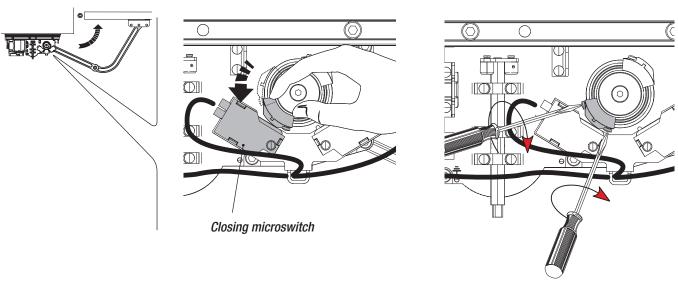
Warning: in case there are no mechanical stops, securing and adjusting operations for the endstop unit are mandatory.

Securing and adjusting the endstop unit for the LEFT gearmotor

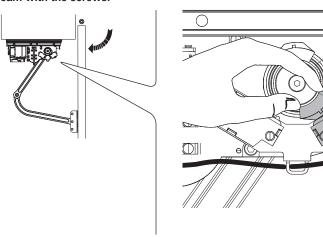
Secure the endstop unit to the gearmotor and fit the cams on the guide.

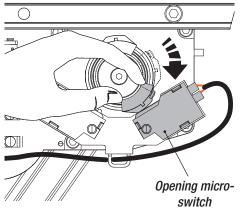


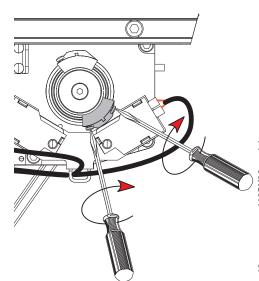
Fully close the gate-leaf of the left gearmotor and rotate the cam counter-clockwise until the closing microswitch inserts. Fix the cam with the screws.



Fully open the gate-leaf of the left gearmotor and rotate the cam counter-clockwise until the closing microswitch inserts. Fix the cam with the screws.



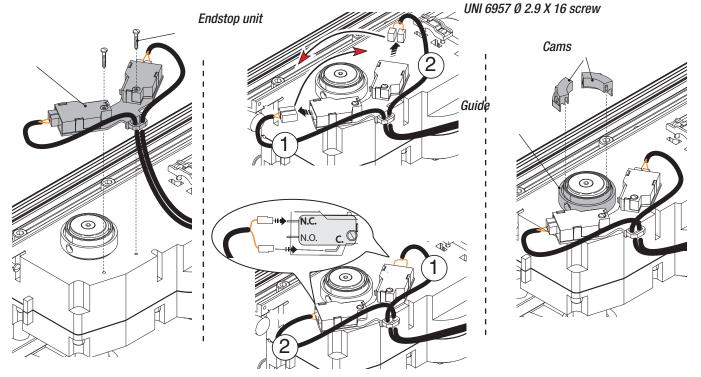




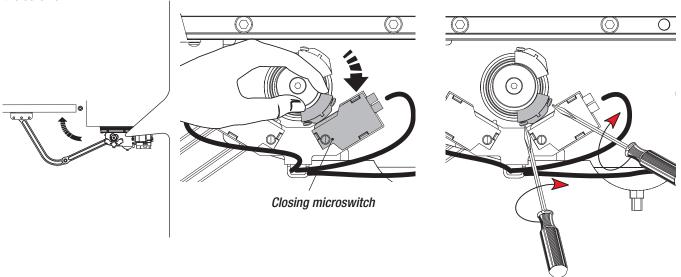
P. 12 - Manual code: 119DV38 ver. 1.1 10/2010 © CAME Cancelli Automatici S.p.A. - The data and information reported in this installation manual are susceptible to change at any time and without obligation on CAME Cancelli Automatici S.p.A. to notify users.

Securing and adjusting the endstop unit for the RIGHT gearmotor

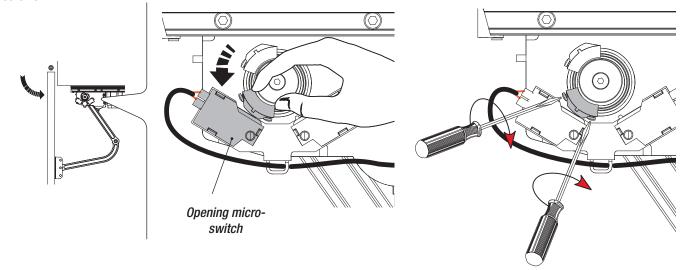
Secure the endpoint assembly to the gearmotor, invert the cables on the microswitches and insert the cams/onto into the guides



Fully close the gate-leaf of the left gearmotor and rotate the cam clockwise until the closing microswitch inserts. Fix the cam with the screws.



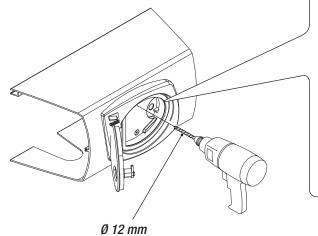
Fully open the gate-leaf and rotate the other cam counter-clockwise until the opening microswitch inserts. Fix the cam with the screws.



Securing the side covers and the release handles

Once connections and adjustments are completed, drill through the marked point:

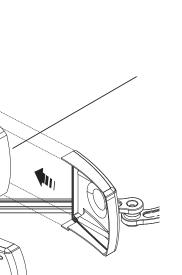
- up for the left gearmotor;
- down for the right gearmotor.



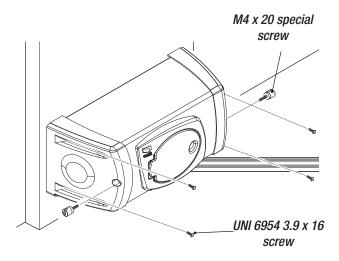
Release support for LEFT gearmotor

Release support for RIGHT gearmotor

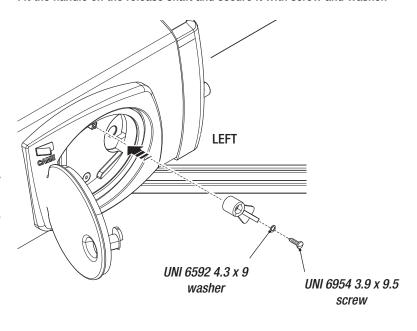
Connect the ground cable to the gearmotor. Insert the cover on the bracket.

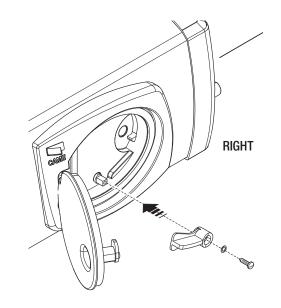


Place the side covers on both sides of the central cover.



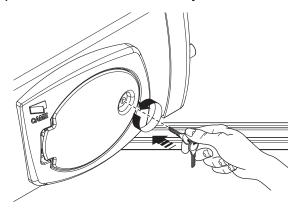
Fit the handle on the release shaft and secure it with screw and washer.

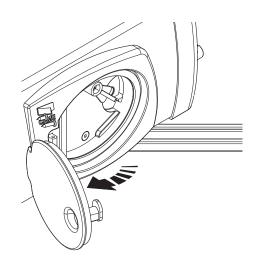




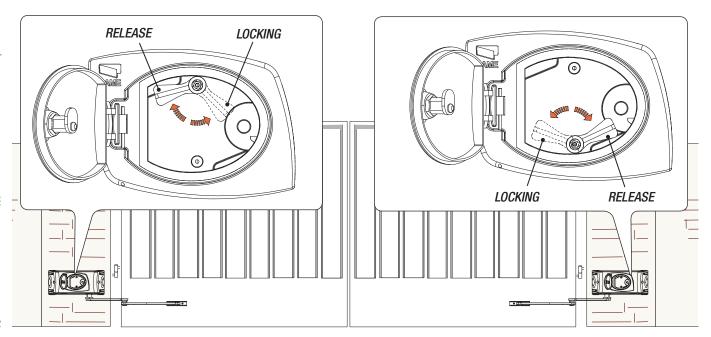
Manual release and locking of the gearmotor

Open the door with the customized key.



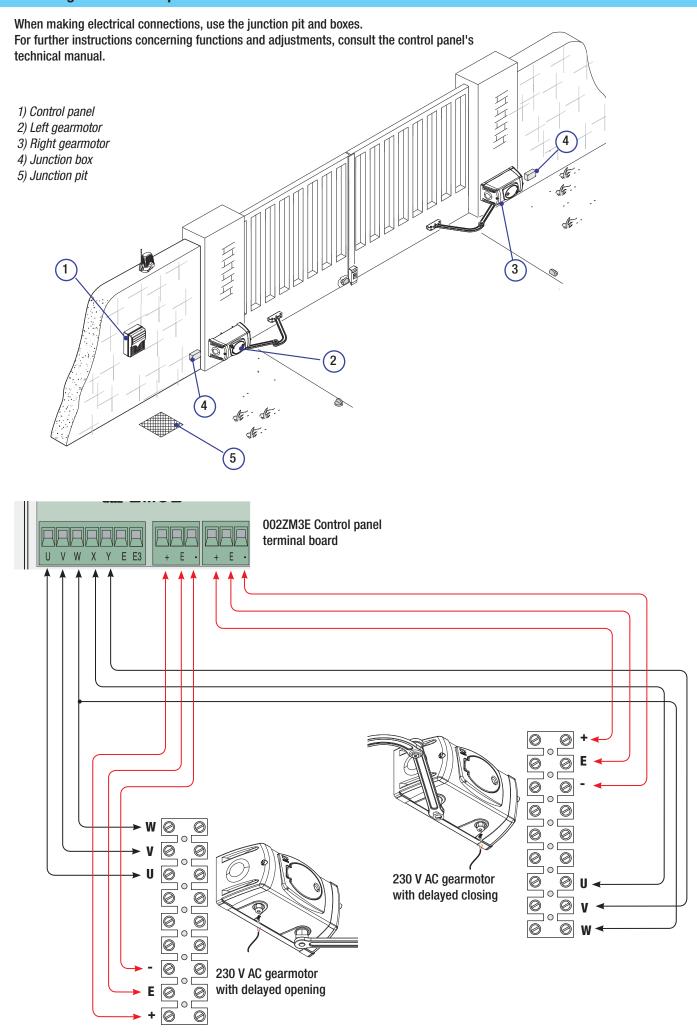


To release the gearmotor, fully clockwise rotate the release lever. To lock the gearmotor, bring the lever back to original position.



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Connecting to the control panel



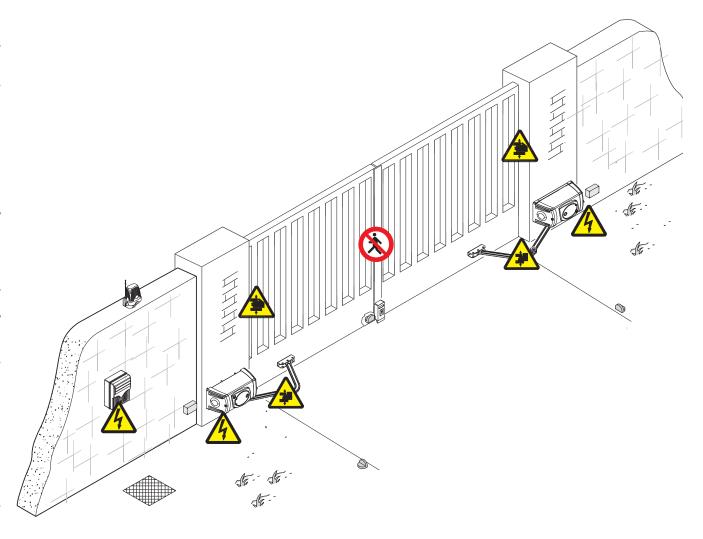
P. 16 - Manual code: 119DV38 ver. 1.1 10/2010 © CAME Cancelli Automatici S.p.A. - The data and information reported in this installation manual are susceptible to change at any time and without obligation on CAME Cancelli Automatici S.p.A. to notify users.

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 transmitters 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.



Danger of crushing hands



Danger of crushing feet



Danger! High voltage



No transit during operation

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 to the proper work of the automation.

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

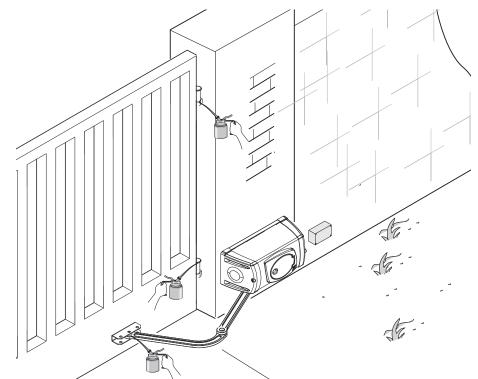
To check the efficiency of the safety devices, move an object in front of the photocells when gate is closing. If the operator inverts the motion or stops, the photocells are working properly.

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



Check that no vegetation hinders the operation of the photocells, and that the gate's movement is not hindered by any obstacles.

Trouble shooting

PROBLEMS	POSSIBLE CAUSES	CHECKS AND REMEDIES
The gate does not open nor close	There is no power supply The operator is released The transmitter's battery is flat The transmitter is broken The stop button is either stuck or broken The opening/closing button or the keyswitch selector are stuck	 Check that the power is up Call assistance Replace batteries Call assistance Call assistance Call assistance
The gate opens but does not close	The photocells are stressed	Check that the photocells are clean and in good working order Call assistance
The flashing light does not work	The bulb is burnt	Call assistance

Periodic maintenance log To be done by the end-user (every 6 months)

Date	Notes	Signature

Extra-ordinary maintenance

The following table serves to note down any extraordinary maintenance, repairs or improvements performed by specia-

N.B.: Any extraordinary maintenance must be performed by specialised technicians.

Extra-ordinary maintenance	e log
Installer's stamp	Operator name
	Date of job
	Technician's signature
	Requester's signature
Job performed	
Installer's stamp	Operator name
motanor o otamp	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	
Installer's stamp	Operator name
	Date of job
	Technician's signature
	Requester's signature
Job performed	

Phasing out and disposal

In its premises, CAME Cancelli Automatici S.p.A. implements an Environmental Management System certified in compliance with the UNI EN ISO 14001 standard to ensure environmental protection.

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:

SPOSAL OF PACKAGING

The packaging components (cardboard, plastic, etc.) are all classifiable as solid urban waste products and may be disposed of easily, keeping in mind recycling possibilities.

Prior to disposal, it is always advisable to check specific regulations in force in the place of installation.

DO NOT DISPOSE OF IN NATURE!

SPOSAL OF PRODUCT

Our products are made using different types of materials. Most of these (aluminium, plastic, iron, electric cables) can be disposed of as solid urban waste. They can be recycled

at local recycling plants or authorised disposal dumps.

Other components (electron ics cards, remote control batteries, etc) may however contain polluting substances.

They should therefore be removed and given to qualified service companies for proper disposal.

Prior to disposal, it is always advisable to check specific regulations in force in the place of disposal.

DO NOT DISPOSE OF IN NATURE!



Came Cancelli Automatici s.p.a.

indirizzo Via Martiri della Libertà

n. 15

c.a.p. 31030

loc.

Dosson di Casier

prov. Treviso

stato Italia

DICHIARA CHE LE QUASI MACCHINE

Automazioni per cancelli a battente

A180; A1824; A18230; A3000; A3000A; A3006; A3100; A3106; A3024; A3024N; A5000

A5100; A5000A; A5006; A5106; A5024; A5024N

AX302304; AX402306; AX412306; AX71230; AX3024; AX5024

KR300D; KR300S; KR310D; KR310S; KR510D; KR510S

FROG-A; FROG-AE; FROG-AV; FROG-A24; FROG-A24E; FROG-B; FROG-J

MYTO-ME

F7000; F7001; F7024; F7024N; F4000; F4024

F1000; F1100; F1024; F500; F510

FE40230; FE4024

RISPETTANO I REQUISITI ESSENZIALI APPLICATI

1.1.3; 1.1.5; 1.2.1; 1.2.2; 1.3.2; 1.3.7; 1.3.8.1; 1.4.1; 1.4.2; 1.5.1; 1.5.6; 1.5.8; 1.5.9; 1.5.13; 1.6.1; 1.6.3; 1.6.4; 1.7.1; 1.7.2; 1.7.4

SONO CONFORMI ALLE DISPOSIZIONI DELLE SEGUENTI DIRETTIVE

DIRETTIVA 2006/42/CE DEL PARLAMENTO EUROPEO E DEL CONSIGLIO del 17 maggio 2006 relativa alle macchine e che modifica la direttiva 95/16/CE

DIRETTIVA 2004/108/CE DEL PARLAMENTO EUROPEO E DEL CONSIGLIO del 15 dicembre 2004 concernente il riavvicinamento delle legislazioni degli stati membri relative alla compatibilità elettromagnetica.

PERSONA AUTORIZZATA A COSTITUIRE LA DOCUMENTAZIONE TECNICA PERTINENTE

Came Cancelli Automatici s.p.a.

indirizzo Via Martiri della Libertà

n. 15

c.a.p. 31030

loc.

Dosson di Casier

prov. Treviso

stato Italia

La documentazione tecnica pertinente è stata compilata in conformità all'allegato IIB

Came Cancelli Automatici S.p.A. si impegna a trasmettere, in risposta a una richiesta adeguatamente motivata delle autorità nazionali, informazioni pertinenti sulle quasi macchine,

VIETA

la messa in servizio finché la macchina finale in cui deve essere incorporata non è stata dichiarata conforme, se del caso alla 2006/42/CE.

Dosson di Casier (TV) lì 16 settembre 2010 Gianni Michielan Managing Director

DDI B IT A001o ver. 4.1 21 aprile 2010

Dichiarazione in lingua Originale

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