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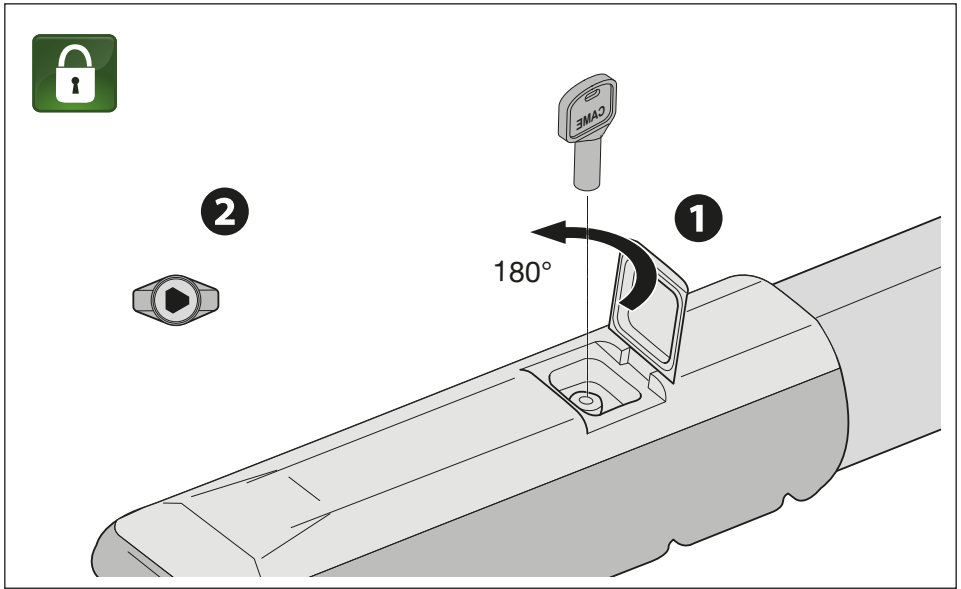
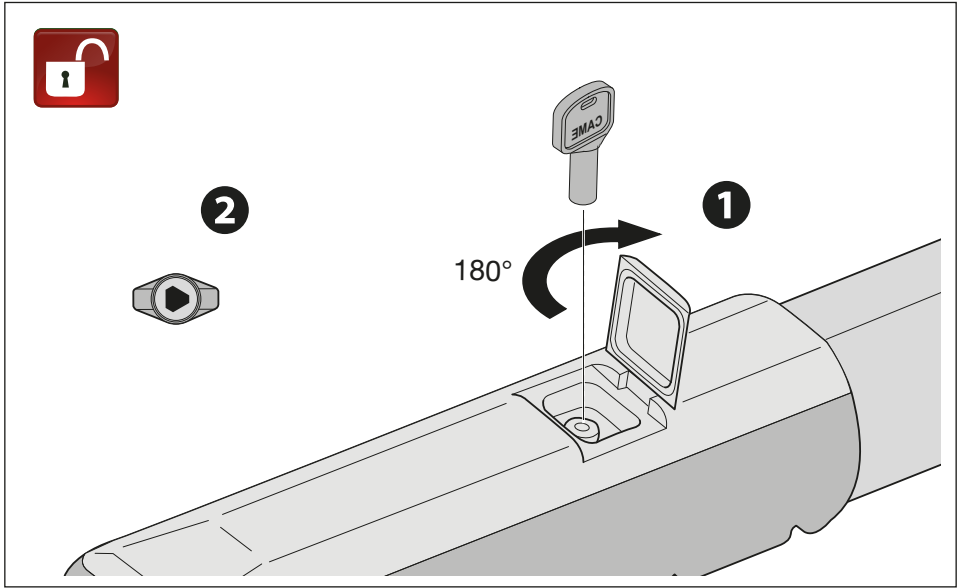


A3000	A3010	A5000	A5010
A3000A	A3100	A5000A	A5100
A3006	A3106	A5006	A5106

INSTALLATION MANUAL

EN

English



⚠ Important safety instructions.


⚠ Please follow all of these instructions. Improper installation may cause serious bodily harm.

⚠ Before continuing, please also read the general precautions for users.

Only use this product for its intended purpose. Any other use is hazardous. • The manufacturer cannot be held liable for any damage caused by improper, unreasonable or erroneous use. • This product is defined by the Machinery Directive (2006/42/EC) as partly completed machinery. • Partly completed machinery means an assembly which is almost machinery but which cannot in itself perform a specific application. • Partly completed machinery is only intended to be incorporated into or assembled with other machinery or other partly completed machinery or equipment thereby forming machinery to which the Machinery Directive (2006/42/EC) applies. • The final installation must comply with the Machinery Directive (2006/42/EC) and the European reference standards in force. • The manufacturer declines any liability for using non-original products, which would also void the warranty. • All operations indicated in this manual must be carried out exclusively by skilled and qualified personnel and in full compliance with the regulations in force. • The device must be installed, wired, connected and tested according to good professional practice, in compliance with the standards and laws in force. • All the components (e.g. actuators, photocells and sensitive edges) needed for the final installation to comply with the Machinery Directive (2006/42/EC) and with the reference harmonised technical standards are specified in the general CAME product catalogue or on the website www.came.com. • Make sure the mains power supply is disconnected during all installation procedures. • Check that the temperature ranges given are suitable for the installation site. • Do not install the operator on surfaces that could yield and bend. If necessary, add suitable reinforcements to the anchoring points. • Make sure that no direct jets of water can wet the product at the installation site (sprinklers, water cleaners, etc.). • Make sure you have set up a suitable dual-pole cut-off device along the power supply that is compliant with the installation rules. It should completely cut off the power supply according to category III surcharge conditions. • Demarcate the entire site properly to prevent unauthorised personnel from entering, especially minors. • In case of manual handling, have one person for every 20 kg that needs hoisting; for non-manual handling, use proper hoisting equipment in safe conditions. • Use suitable protection to prevent any mechanical hazards due to persons loitering within the operating range of the operator.

- The electrical cables must pass through special pipes, ducts and cable glands in order to guarantee adequate protection against mechanical damage.
- The electrical cables must not touch any parts that may overheat during use (such as the motor and transformer).
- Before installation, check that the guided part is in good mechanical condition, and that it opens and closes correctly.
- The product cannot be used to automate any guided part that includes a pedestrian gate, unless it can only be enabled when the pedestrian gate is secured.
- Make sure that nobody can become trapped between the guided and fixed parts, when the guided part is set in motion.
- All fixed controls must be clearly visible after installation, in a position that allows the guided part to be directly visible, but far away from moving parts. In the case of a hold-to-run control, this must be installed at a minimum height of 1.5 m from the ground and must not be accessible to the public.
- Where operated with a hold-to-run control, install a STOP button to disconnect the main power supply to the operator, to block movement of the guided part.
- If not already present, apply a permanent tag that describes how to use the manual release mechanism close to it.
- Make sure that the operator has been properly adjusted and that the safety and protection devices and the manual release are working properly.
- Before handing over to the final user, check that the system complies with the harmonised standards and the essential requirements of the Machinery Directive (2006/42/EC).
- Any residual risks must be indicated clearly with proper signage affixed in visible areas, and explained to end users.
- Put the machine's ID plate in a visible place when the installation is complete.
- If the power-supply cable is damaged, it must be immediately replaced by the manufacturer or by an authorised technical assistance centre, or in any case, by qualified staff, to prevent any risk.
- Keep this manual inside the technical folder along with the manuals of all the other devices used for your automation system.
- Make sure to hand over to the end user all the operating manuals of the products that make up the final machinery.
- The product, in its original packaging supplied by the manufacturer, must only be transported in a closed environment (railway carriage, containers, closed vehicles).
- If the product malfunctions, stop using it and contact customer services at <https://www.came.com/global/en/contact-us> or via the telephone number on the website.
- The manufacture date is provided in the production batch printed on the product label. If necessary, contact us at <https://www.came.com/global/en/contact-us>.
- The general conditions of sale are given in the official CAME price lists.

DISMANTLING AND DISPOSAL

 CAME S.p.A. employs an Environmental Management System at its premises. This system is certified and compliant with the UNI EN ISO 14001 standard to ensure that the environment is respected and safeguarded. Please continue safeguarding the environment. At CAME we consider it one of the fundamentals of our operating and market strategies.

Simply follow these brief disposal guidelines:

DISPOSING OF THE PACKAGING

The packaging materials (cardboard, plastic, etc.) can be disposed of easily as solid urban waste, separated for recycling.

Before dismantling and disposing of the product, please always check the local laws in force.

DISPOSE OF THE PRODUCT RESPONSIBLY

DISPOSING OF THE PRODUCT

Our products are made of various materials. Most of these materials (aluminium, plastic, iron and electrical cables) are classified as solid urban waste. They can be separated for recycling and disposed of at authorised waste treatment plants.

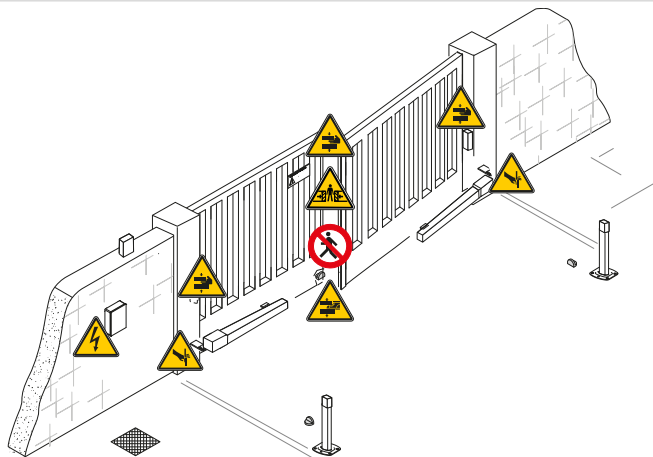
Other components (electronic boards, transmitter batteries, etc.) may contain pollutants.


These must be removed and disposed of by an authorised waste disposal and recycling firm.

It is always advisable to check the specific laws that apply in your area.


DISPOSE OF THE PRODUCT RESPONSIBLY

Main points of danger for people



 No transiting while the barrier is moving.




 Risk of trapping hands.

 Risk of cutting hands.

 Risk of trapping feet.

 Electrical hazard.

Key

-  This symbol shows which parts to read carefully.
-  This symbol shows which parts describe safety issues.
-  This symbol shows what to tell users.

The measurements, unless otherwise stated, are in millimetres.

Description

001A3000

Irreversible gearmotor 230 V with opening micro limit switch for swing gates with leaf up to 3 m and 400 kg.

001A3000A

Irreversible gearmotor 230 V with opening and closing micro limit switch for swing gates with leaf up to 3 m and 400 kg.

001A3006

Irreversible gearmotor 230 V with opening micro limit switch for swing gates with leaf up to 3 m and 800 kg (slow version).

001A3010

Irreversible gearmotor 120 V with opening micro limit switch for swing gates with leaf up to 3 m and 800 kg.

001A3100

Reversible gearmotor 230 V with opening micro limit switch for swing gates with leaf up to 3 m and 800 kg.

001A3106

Reversible gearmotor 230 V with opening micro limit switch for swing gates with leaf up to 3 m and 800 kg (slow version).

001A5000

Irreversible gearmotor 230 V with opening micro limit switch for swing gates with leaf up to 5 m and 400 kg.

001A5000A

Irreversible gearmotor 230 V with opening and closing micro limit switch for swing gates with leaf up to 5 m and 400 kg.

001A5006

Irreversible gearmotor 230 V with opening micro limit switch for swing gates with leaf up to 5 m and 400 kg.

001A5010

Irreversible gearmotor 120 V with opening micro limit switch for swing gates with leaf up to 5 m and 400 kg.

001A5100


Reversible gearmotor 230 V with opening micro limit switch for swing gates with leaf up to 5 m and 1000 kg.

001A5106

Reversible gearmotor 230 V with opening micro limit switch for swing gates with leaf up to 5 m and 1000 kg.

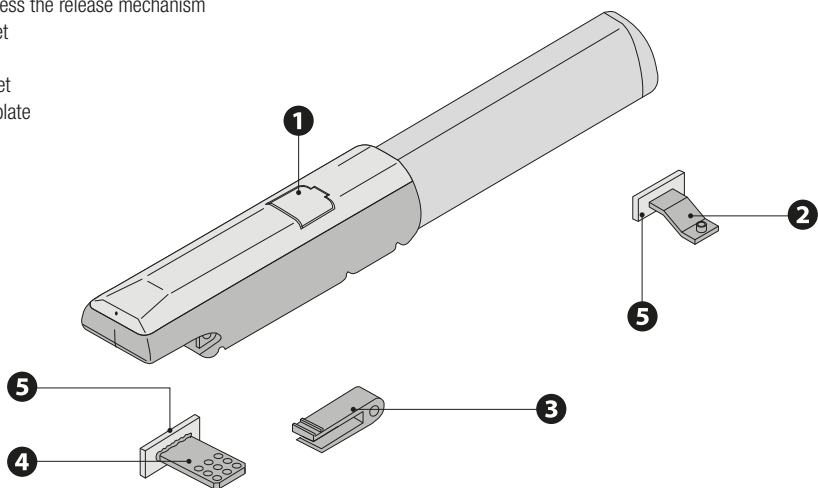
Intended use

Solutions for applications in residential buildings and apartment blocks

 **Any installation and/or use other than that specified in this manual is forbidden.**

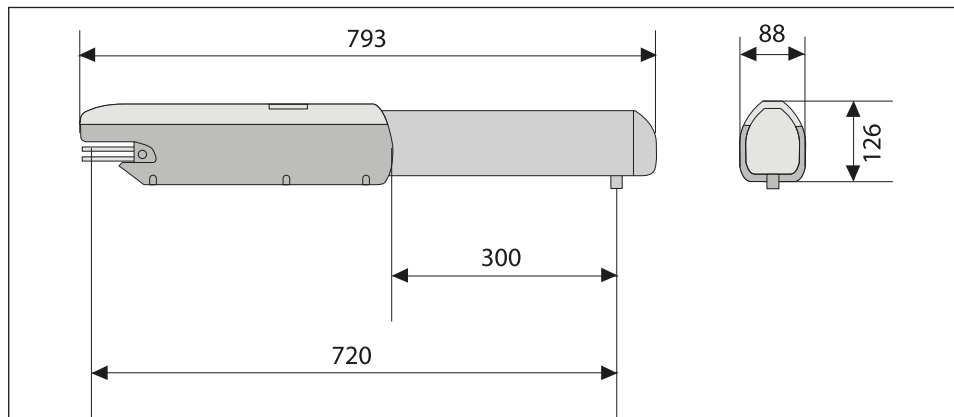
Description of parts

- 1 Door to access the release mechanism
- 2 Gate bracket
- 3 Coupling
- 4 Pillar bracket
- 5 Anchoring plate

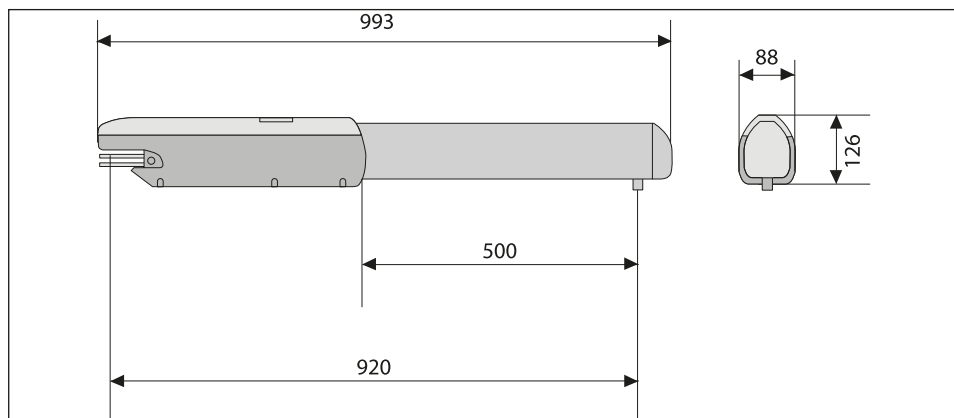


Size

A3000 A3000A A3010 A3006 A3100 A3106



A5000 A5000A A5006 A5010 A5100 A5106



Usage limitations

MODELS	A3000		
Gate-leaf length (m)	3	2.5	2
Leaf weight (kg)	400	600	800

MODELS	A5000		
Gate-leaf length (m)	5	4	3
Leaf weight (kg)	400	500	600

⚠ For swing gates, installing an electric lock is always recommended. This is to ensure the leaves close reliably and to protect the gearmotor parts.

It is also recommended for irreversible gearmotors – and is mandatory where the leaves are more than 2.5 m in length.

For reversible gearmotors, electric locks are required to ensure the leaves close. The installer is responsible for installing an electric lock, taking into account the size and type of leaf (e.g. panelled) and the installation area (e.g. windy location).

Technical data

MODELS	A3000	A3000A	A3010	A3006	A3100	A3106
Motor power supply (V)	230 AC 50/60 Hz	230 AC 50/60 Hz	110 AC 50/60 Hz	230 AC 50/60 Hz	230 AC 50/60 Hz	230 AC 50/60 Hz
Power (W)	260	260	260	260	260	260
Capacitor (µF)	10	10	50	10	10	10
Current draw (A)	1,2	1,2	2,6	1,2	1,2	1,2
Operating temperature (°C)	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55
Storage temperature (°C)*	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70
Thrust (N)	400 ÷ 4000	400 ÷ 4000	400 ÷ 3000	400 ÷ 4000	400 ÷ 4000	400 ÷ 4000
Opening time at 90° (s)	19 ÷ 25	19 ÷ 25	19 ÷ 25	28 ÷ 35	19 ÷ 25	28 ÷ 35
Cycles/hour	24	24	22	16	24	16
Sound pressure level (dB A)	≤70	≤70	≤70	≤70	≤70	≤70
Protection rating (IP)	44	44	44	44	44	44
Insulation class	I	I	I	I	I	I
Reduction ratio (i)	36	36	36	36	36	36
Weight (kg)	10	10	10	10	10	10
Average life (cycles)**	120000	120000	120000	120000	120000	120000


MODELS	A5000	A5000A	A5006	A5010	A5100	A5106
Motor power supply (V)	230 AC 50/60 Hz	230 AC 50/60 Hz	230 AC 50/60 Hz	120 AC 50/60 Hz	230 AC 50/60 Hz	230 AC 50/60 Hz
Power (W)	260	260	260	260	260	260
Capacitor (µF)	10	10	10	50	10	10
Current draw (A)	1,2	1,2	1,2	2,6	1,2	1,2
Operating temperature (°C)	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55
Storage temperature (°C)*	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70
Thrust (N)	400 ÷ 4000	400 ÷ 4000	400 ÷ 4000	400 ÷ 4000	400 ÷ 4000	400 ÷ 4000
Sound pressure level (dB A)	≤70	≤70	≤70	≤70	≤70	≤70
Protection rating (IP)	44	44	44	44	44	44
Insulation class	I	I	I	I	I	I
Reduction ratio (i)	36	36	36	36	36	36
Weight (kg)	11	11	11	11	11	11
Average life (cycles)**	120000	120000	120000	120000	120000	120000


(*) Before installing the product, keep it at room temperature where it has previously been stored or transported at a very high or very low temperature.


(**) The average product life is a purely indicative estimate. It applies to compliant usage, installation and maintenance conditions. It is also influenced by other factors, such as climatic and environmental conditions (where present, see the MCBF table).

Cable types and minimum thicknesses


Cable length (m)	up to 20	from 20 to 30
Power supply 230 V AC	3G x 1.5 mm ²	3G x 2.5 mm ²
Motor power supply 230 V AC	4G x 1.5 mm ²	4G x 2.5 mm ²


 When operating at 230 V and outdoors, use H05RN-F cables compliant with 60245 IEC 57 (IEC); when operating indoors, use H05VV-F cables compliant with 60227 IEC 53 (IEC). For power supplies up to 48 V, you can use FROR 20-22 II cables compliant with EN 50267-2-1 (CEI).

 If the cable lengths differ from those specified in the table, define the cable cross-sections according to the actual power draw of the connected devices and in line with regulation CEI EN 60204-1.

 For multiple, sequential loads along the same line, recalculate the values in the table according to the actual power draw and distances. For information on connecting products not covered in this manual, please see the documentation accompanying the products themselves.


INSTALLATION

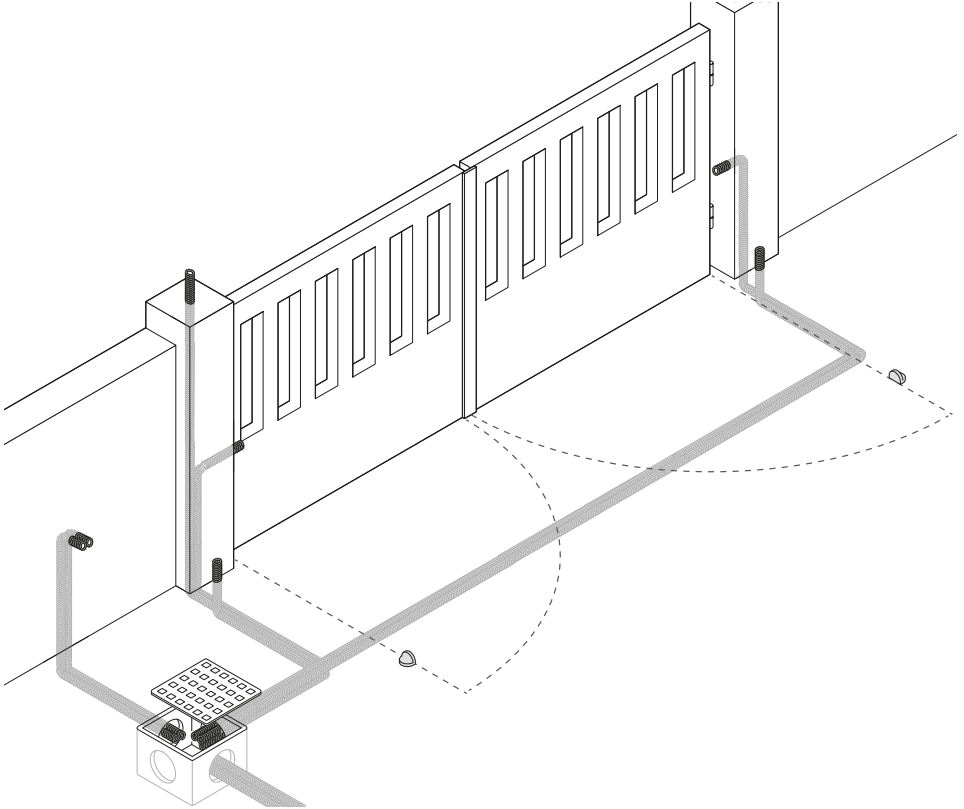
 The following illustrations are examples only. The space available for fitting the operator and accessories varies depending on the area where it is installed. It is up to the installer to find the most suitable solution.

 The drawings refer to a gearmotor installed on the left-hand side.


Preliminary operations

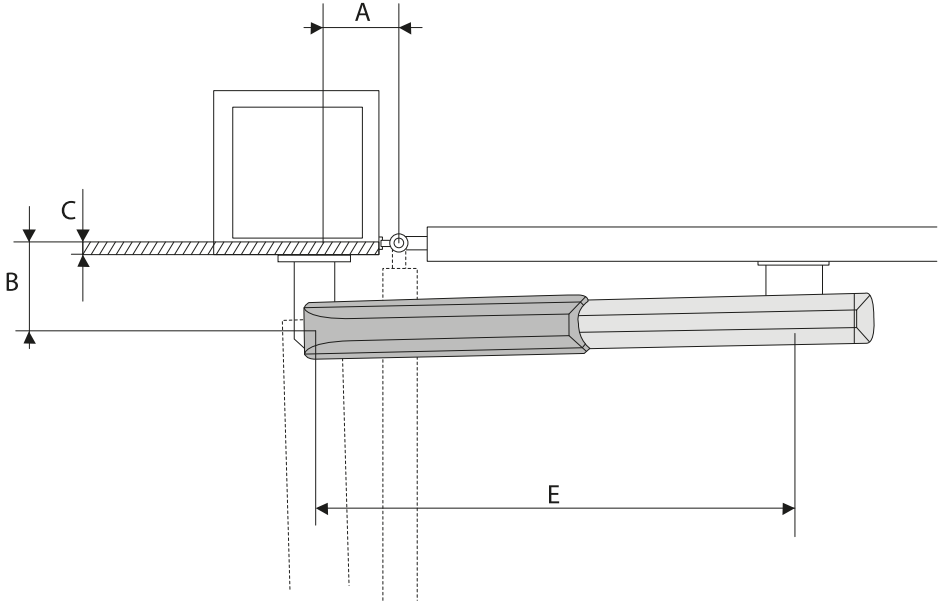
Prepare the junction boxes and corrugated tubes you need for the connections from the junction pit.

 The number of tubes depends on the type of system and the accessories that are going to be fitted.



Deciding where to fasten the brackets

 Respect the values indicated in the table.



A3000

A3006

A3010

A3100

A3106

Gate-leaf opening (°)	Max. C	To	B	E
90	60	130	130	720
120	50	130	110	720

A5000

A5006

A5010


A5100

A5106


Gate-leaf opening (°)	Max. C	To	B	E
90	120	200	200	920
120	70	200	140	920
90	120	200	200	920
120	70	200	140	920

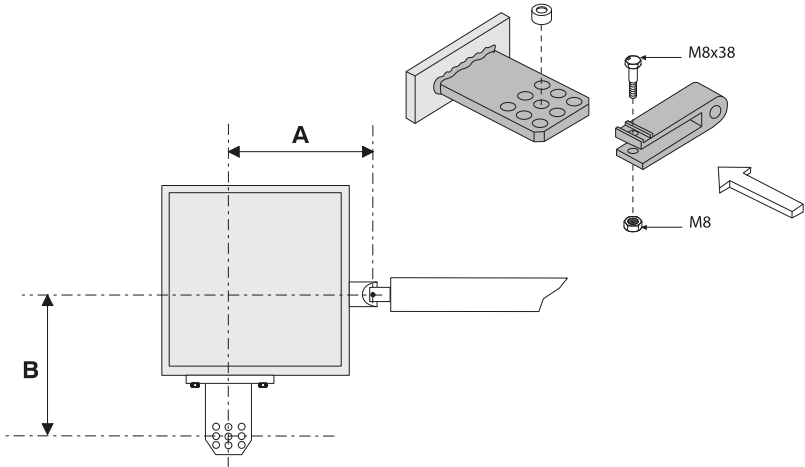
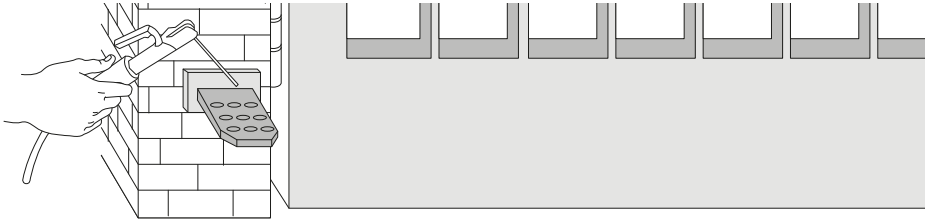
Fastening the brackets


Secure the anchoring plate to the pillar with plugs and screws.


 **If there is a metal post instead of a pillar, the anchoring plate must be welded to the post.**

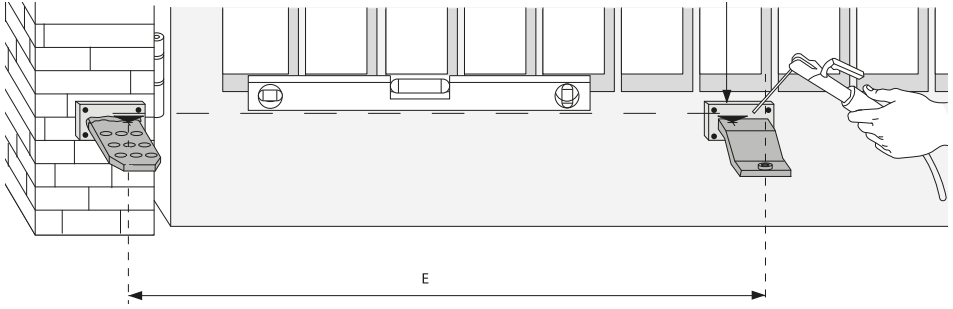
Weld the post bracket to the anchoring plate.

 **The holes in the pillar bracket allow you to vary the opening angle of the gate leaf.**




 **By increasing measurement B, the opening angle decreases. This decreases the peripheral speed and increases the motor thrust on the leaf.**

 **By increasing measurement A, the opening angle increases. This increases the peripheral speed and decreases the motor thrust on the leaf.**



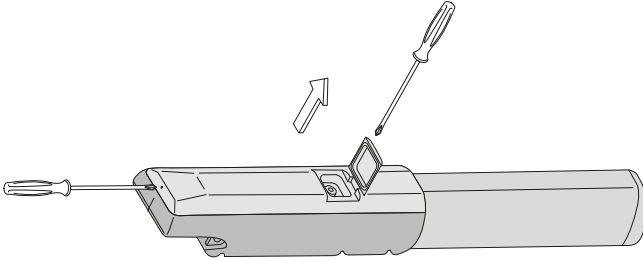
With the gate closed, fasten the anchoring plate and bracket to the gate.

 **The gate bracket and pillar bracket must be aligned horizontally.**

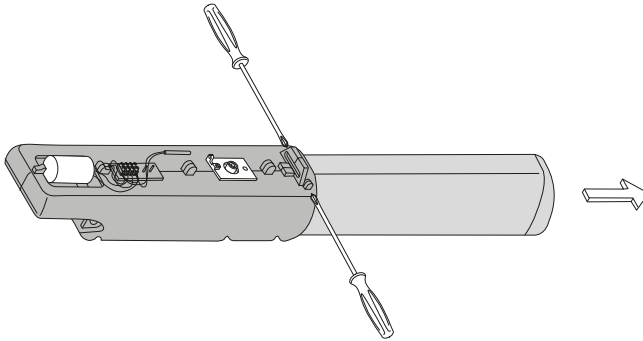
 **Please respect measurement E as listed in the table.**

Fastening the gearmotor

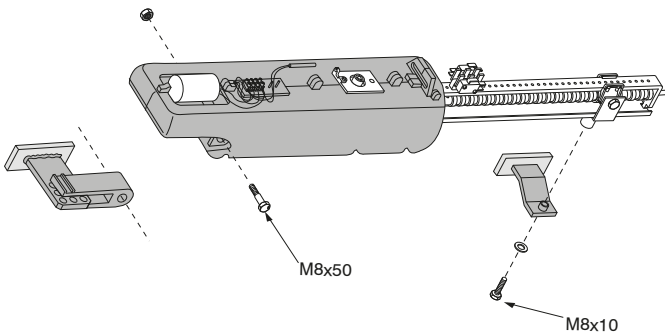
Unscrew the two screws and remove the casing.




Unscrew the two screws and remove the shaft.




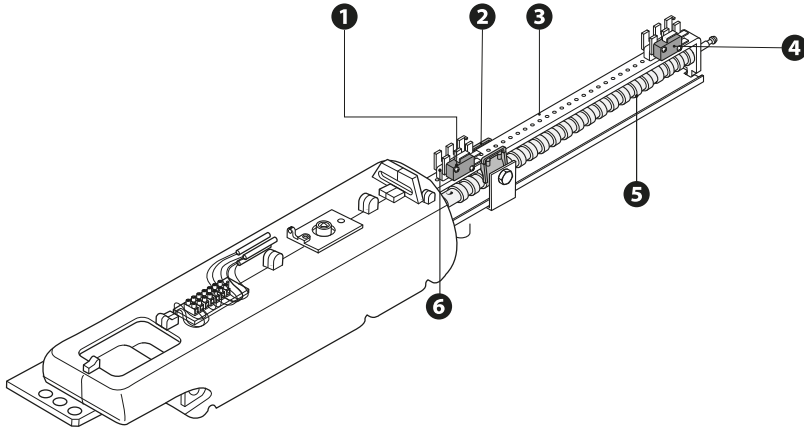
Fasten the gearmotor to the two brackets.



 Lubricate the endless screw and bushing well using a neutral grease.

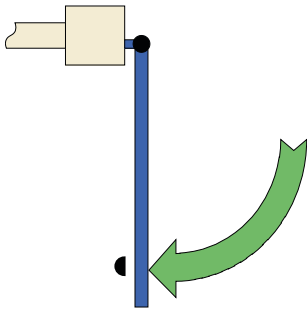
Adjusting the opening and closing micro limit switches

 Only the A3000A and A5000A models have both opening and closing micro limit switches. All other models only have an opening micro limit switch.



- ❶ Opening micro limit switch
- ❷ Microswitch activation slider
- ❸ Microswitch support boom

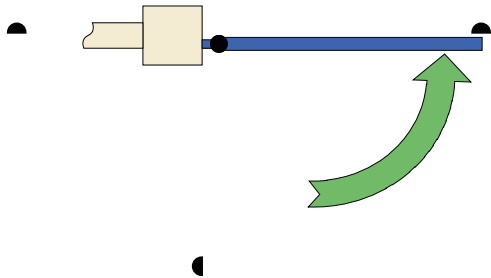
- ❹ Closing micro limit switch
- ❺ Endless screw
- ❻ Fastening screw



Opening adjustment

Release the gearmotor.

Move the leaf to the maximum desired opening position.
Unscrew the screws in the opening microswitch assembly.
Slide the microswitch assembly along the support boom until it connects with the microswitch activation slider.
Secure the microswitch assembly using the screws.



Closing adjustment

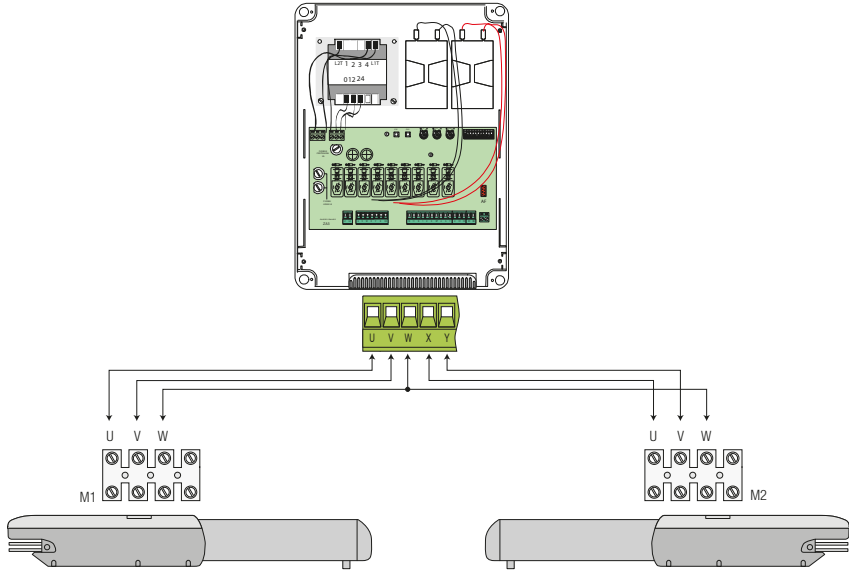
Release the gearmotor.

Move the leaf to the closed position.
Unscrew the screws in the closing microswitch assembly.
Slide the microswitch assembly along the support boom until it connects with the microswitch activation slider.
Secure the microswitch assembly using the screws.

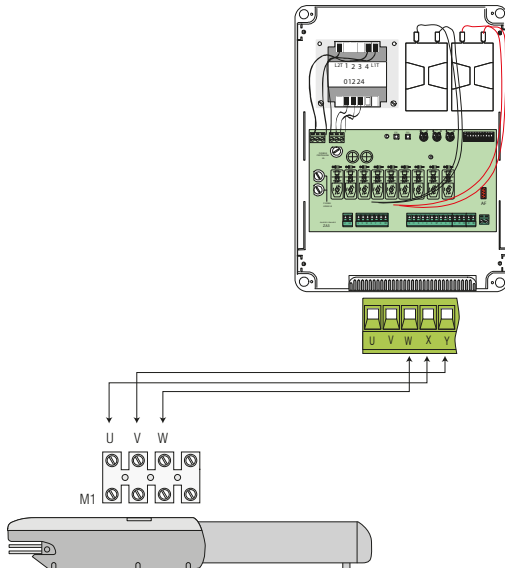
ELECTRICAL CONNECTIONS

- ⚠ Before working on the control panel, cut off the mains power supply.
- 📖 Remove the protective cover to access the terminal block.
- 📖 For space reasons, capacitors for the 110 V versions should be connected to the control panel.

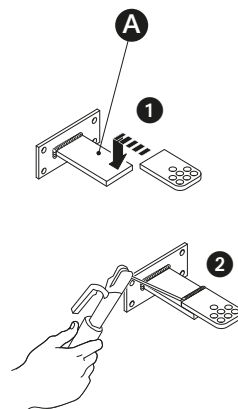
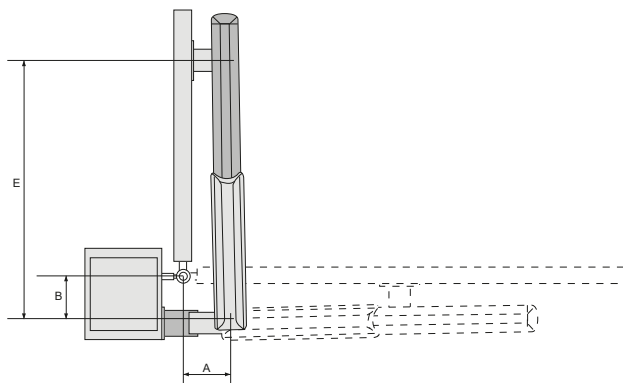
Connecting 2 motors to a ZA3P or ZM3E control panel.



Connecting 1 motor to a ZA3P or ZM3E control panel.



OUTWARDS OPENING



A Additional bracket (not included)

Measure the lengths labelled A and B.
Fasten the pillar bracket to an additional bracket and apply it to the pillar.
Open the gate and measure length E.

 **Maximum gate opening: 90°.**

Fasten the bracket to the gate.

Make the electrical connections.

Reposition and adjust the opening stop microswitch assembly.

 **Respect the values indicated in the table.**

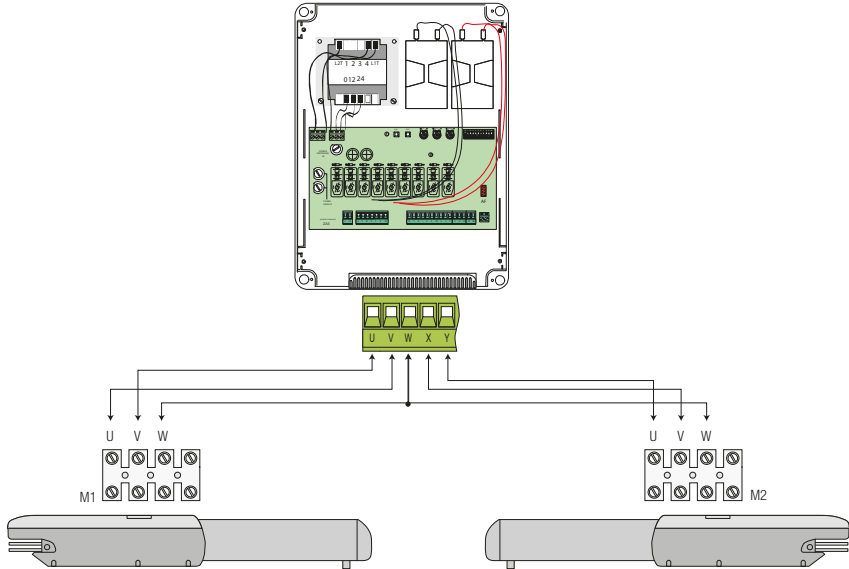
A3000	A3006	A3010	A3100	A3106
Gate-leaf opening (°)		To	B	E
90		130	130	720
90		130	130	720

A5000	A5006	A5010	A5100	A5106
Gate-leaf opening (°)		To	B	E
90		200	200	920
90		200	200	920

Electrical connections

- ⚠ Before working on the control panel, cut off the mains power supply.
- 📖 Remove the protective cover to access the terminal block.
- 📖 For space reasons, capacitors for the 110 V versions should be connected to the control panel.

Connecting 2 motors to a ZA3P or ZM3E control panel.



- 📖 Reposition the opening stop microswitch assembly because when the gate is open the microswitch assembly is at the end of the piston and the wire needs to be extended (not supplied).



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