

## Swing-gate gearmotor

FA02040-EN

CE

EAC



**A3024N**

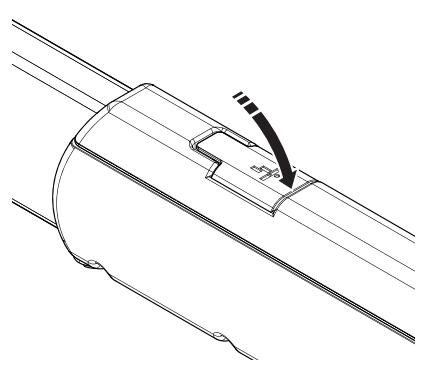
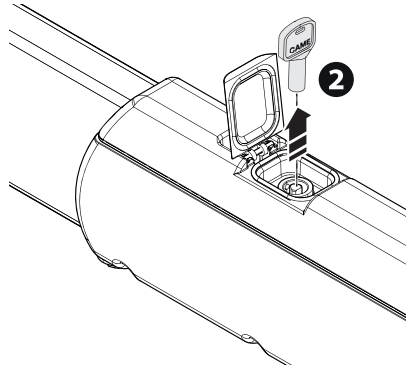
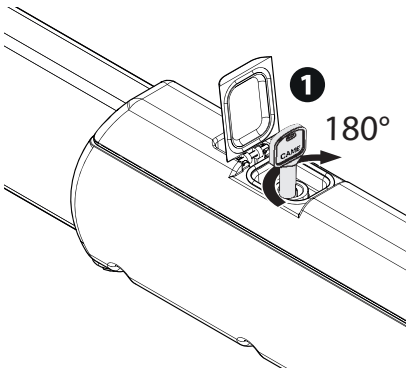
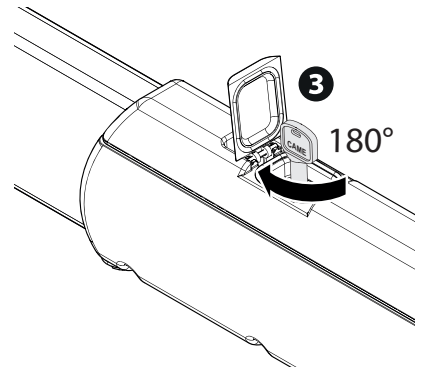
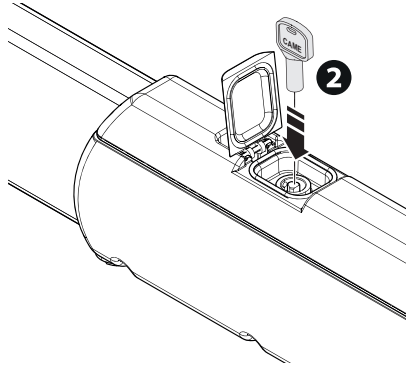
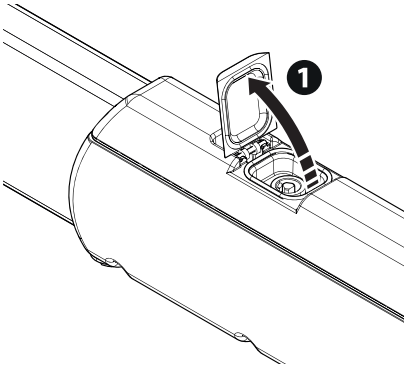
**A5024N**

**A3124N**

INSTALLATION MANUAL

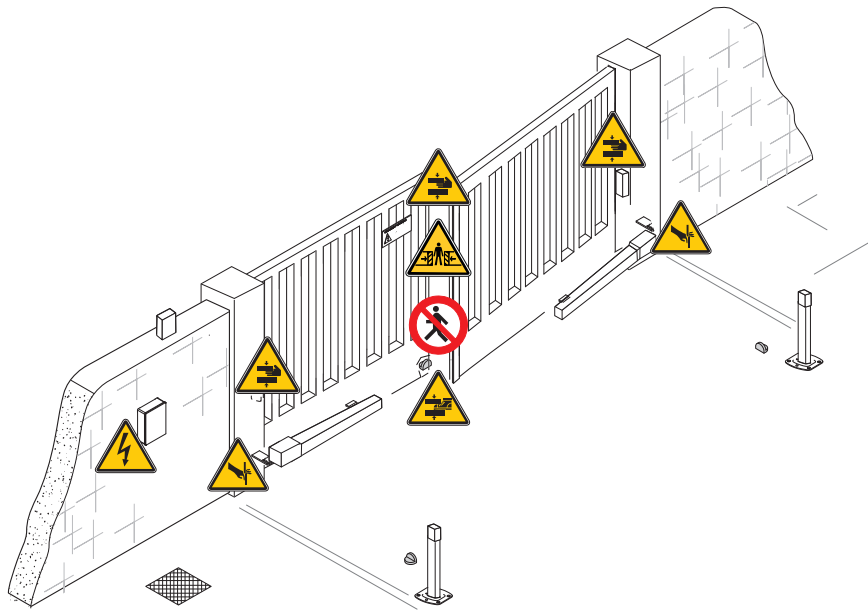
EN

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](http://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. • The appliance must be powered with a voltage corresponding to the value shown on the rating plate. Power must be supplied through a very low safety voltage system. • 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. • 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 support service, 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.



 No transiting while the barrier is moving.

 Danger of crushing.


 Risk of trapping hands.

 Risk of trapping feet.

 Risk of cutting hands.

 Electrical hazard.

## 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. Please 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.

## 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

### 001A3024N

A3024N - Irreversible gearmotor 24 V for swing gates with leaf up to 3 m and 400 kg.

### 001A5024N


A5024N - Irreversible gearmotor 24 V with opening and closing micro limit switch for swing gates with leaf up to 5 m and 400 kg.

### 801MP-0160

A3124N -Reversible gearmotor 24 V for swing gates with leaf up to 3 m and 400 kg.

## Intended use

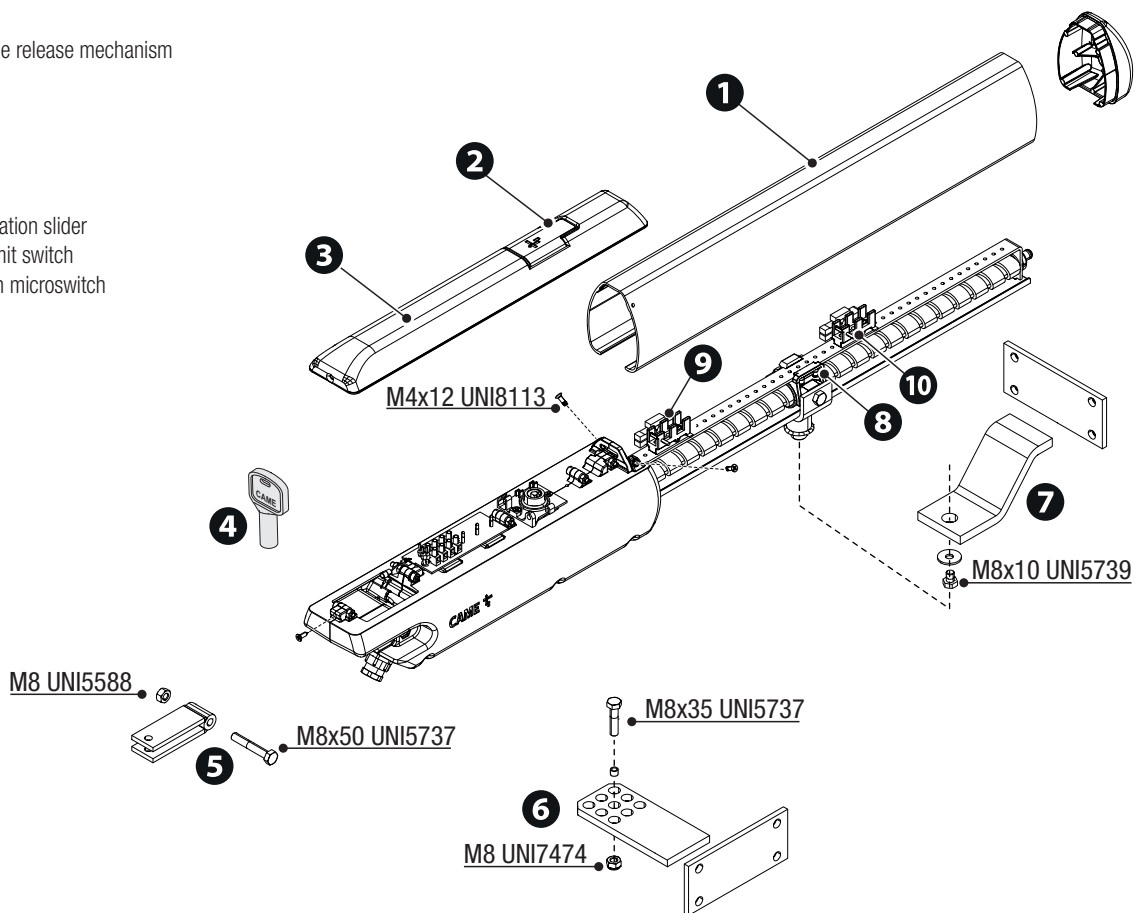
Solutions for applications in residential buildings and apartment blocks

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

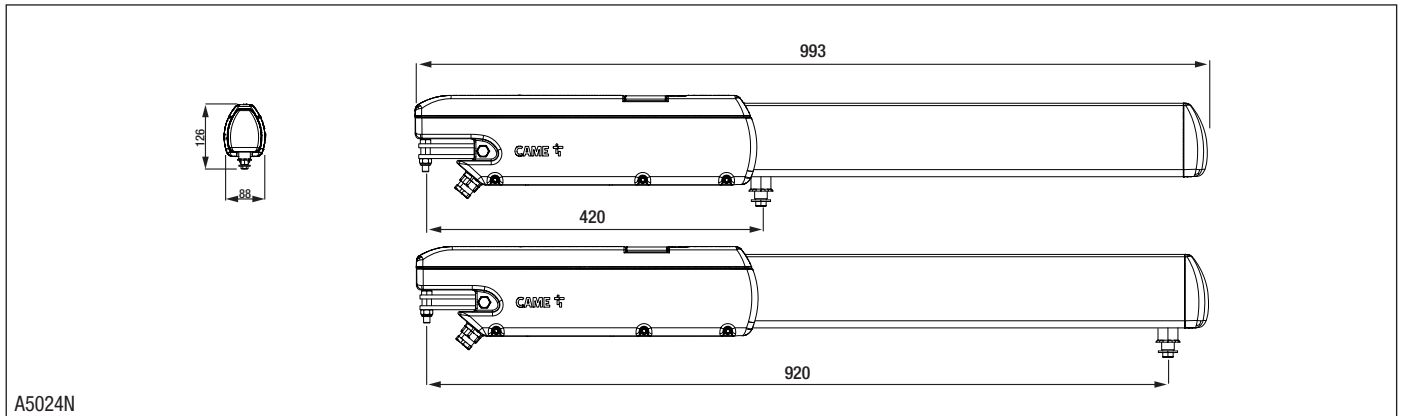
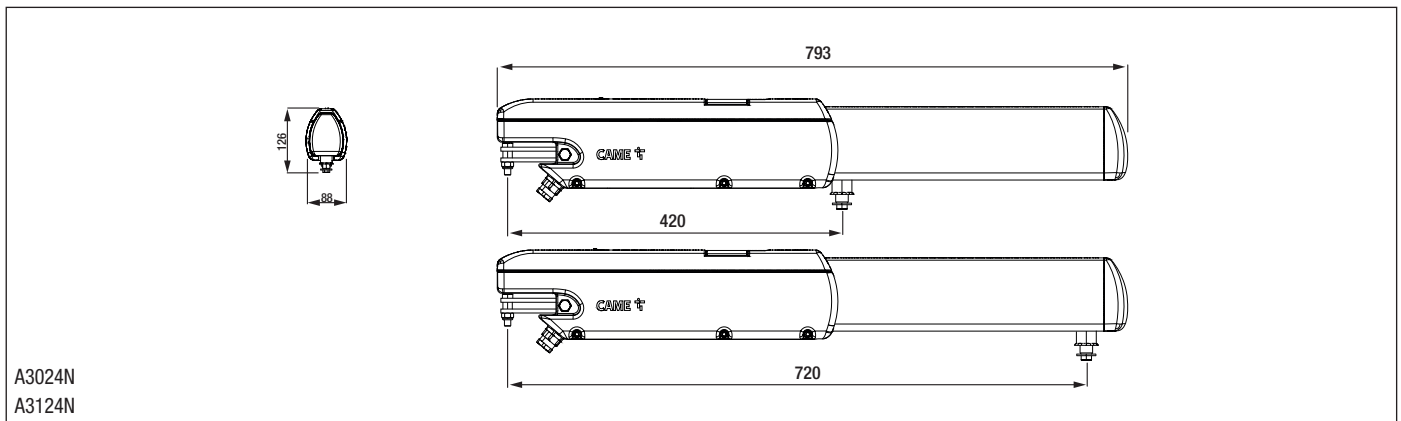
## Description of parts

### Gearmotor

- 1** Shaft
- 2** Door to access the release mechanism
- 3** Gearmotor cover
- 4** Release key
- 5** Jointed bracket
- 6** Pillar bracket
- 7** Gate bracket
- 8** Microswitch activation slider
- 9** Opening micro limit switch
- 10** Closing slowdown microswitch



## Size



## Usage limitations

MODELS	A3024N				A5024N				A3124N			
Gate-leaf length (m)	3	2.5	2	-	5	4	3	-	3	2.5	2	-
Leaf weight (kg)	400	600	800		400	500	600		400	600	800	

⚠ 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	A3024N	A5024N	A3124N
Motor power supply (V)	24 DC	24 DC	24 DC
Power (W)	120	120	120
Current draw (A)	Max. 10	Max. 10	Max. 10
Operating temperature (°C)	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55
Storage temperature (°C)*	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70
Thrust (N)	400 ÷ 4000	400 ÷ 4000	400 ÷ 4000
Opening time at 90° (s)	ADJUSTABLE	ADJUSTABLE	ADJUSTABLE
Cycles/hour	HEAVY-DUTY SERVICE	HEAVY-DUTY SERVICE	HEAVY-DUTY SERVICE
Sound pressure level (dB A)	≤70	≤70	≤70
Protection rating (IP)	44	44	44
Insulation class	I	I	I
Reduction ratio (i)	36	36	36
Weight (kg)	10	11	10
Average life (cycles)**	120.000	120.000	120.000

(\*) 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 specified should be understood purely as an indicative estimate. It applies to normal usage conditions and where the product has been installed and maintained in compliance with the instructions provided in the CAME technical manual. The average product life is also affected, including significantly, by other variables such as, but not limited to, climatic and environmental conditions. The average product life should not be confused with the product warranty.


## Cable types and minimum thicknesses

Cable length (m)	up to 20	from 20 to 30
Power supply 24 V AC	4G x 1.5 mm <sup>2</sup>	4G x 2.5 mm <sup>2</sup>

 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

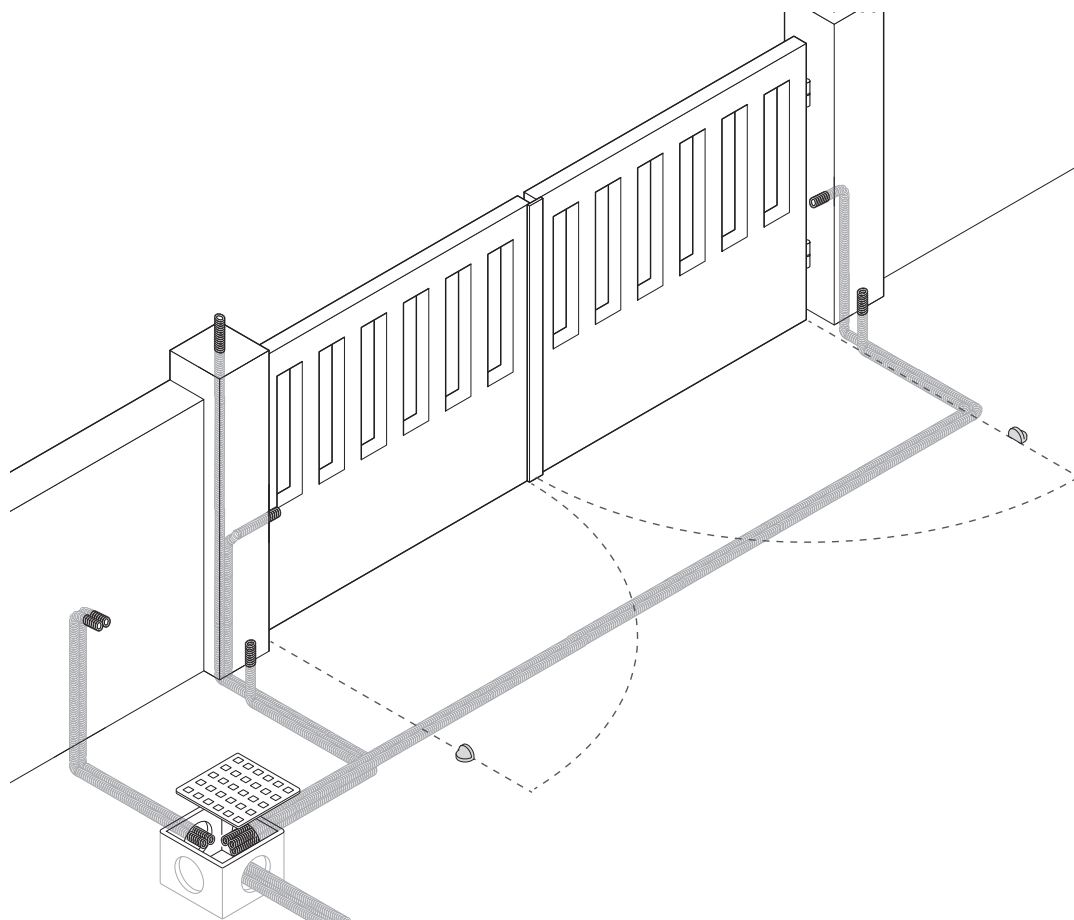
 The following illustrations are examples only. The space available for fitting the operator and accessories varies depending on the area where it is installed. It is up to the installer to find the most suitable solution.

 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.

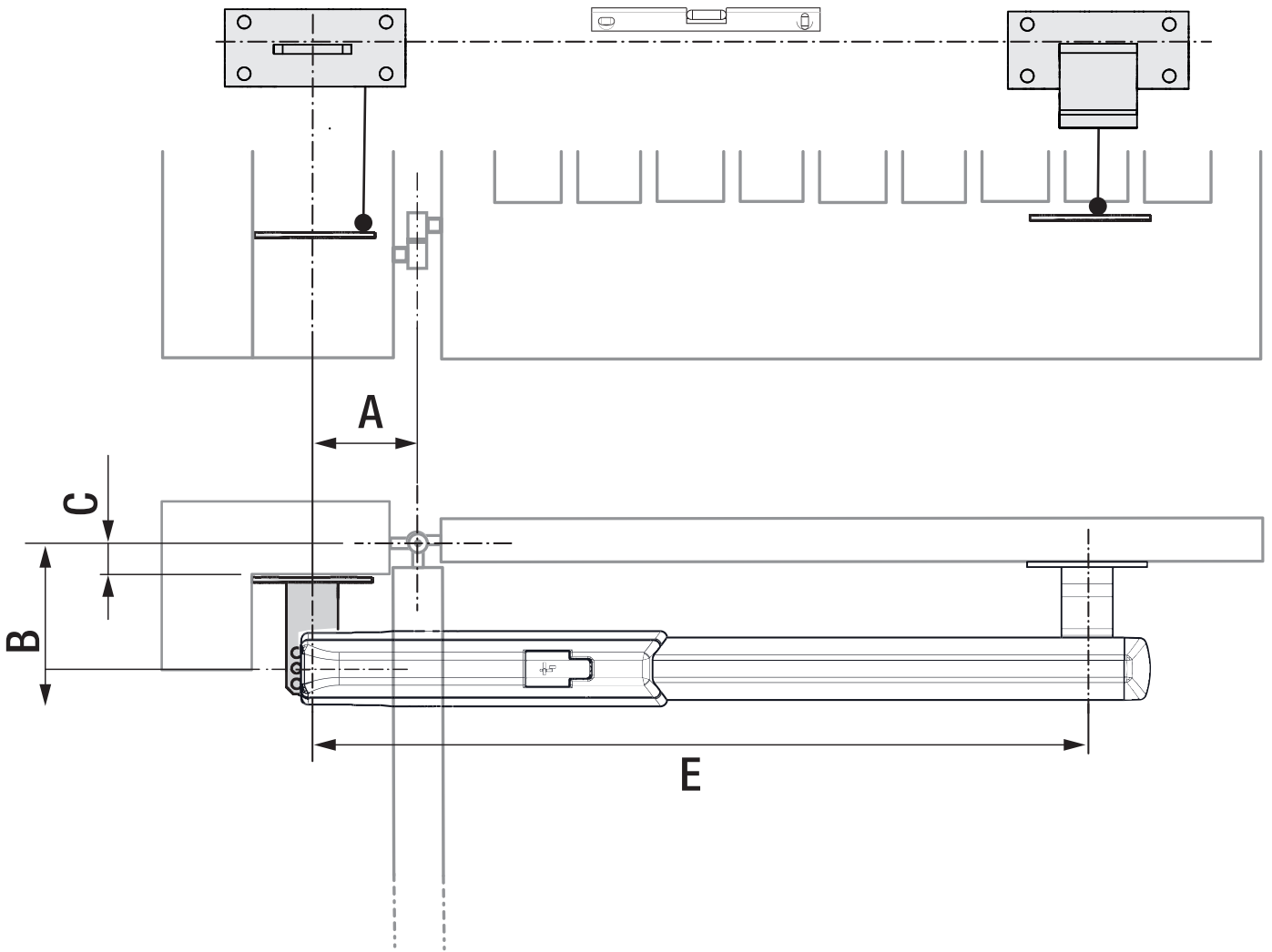


## Deciding where to fasten the brackets

 Install with the gate closed.

 Respect the values indicated in the table.

The gate bracket and pillar bracket must be aligned horizontally.



A3024N

A3124N

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


A5024N

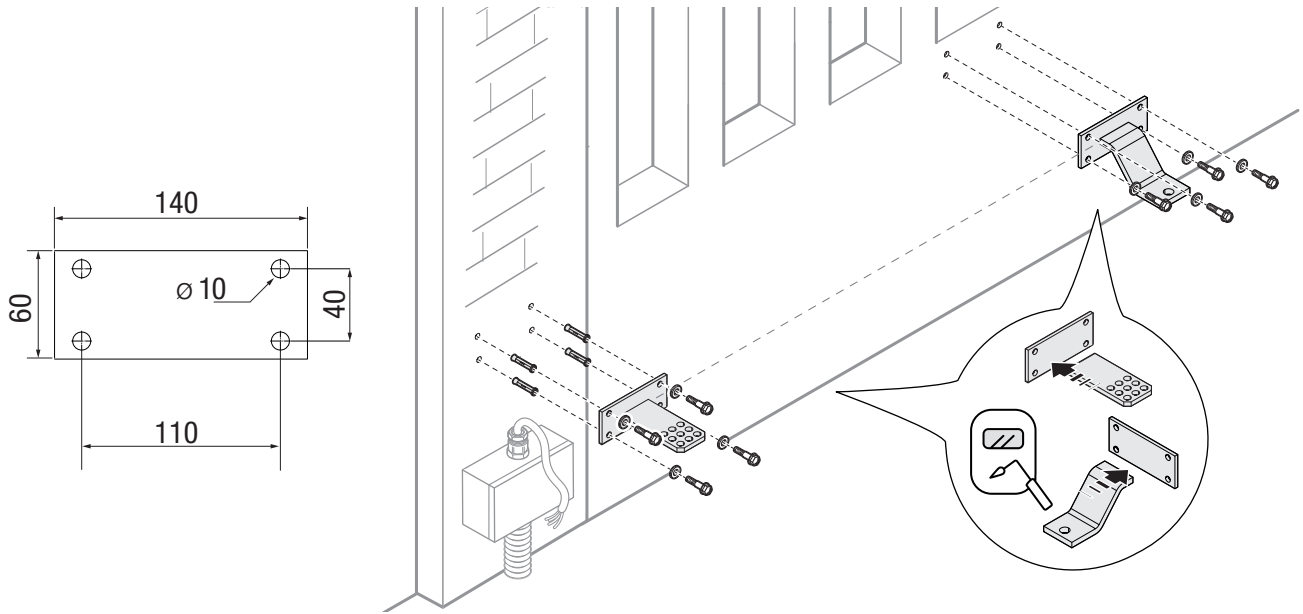
Gate-leaf opening (°)	A	B	E	Max. C
90	200	200	920	120
120	200	140	920	70



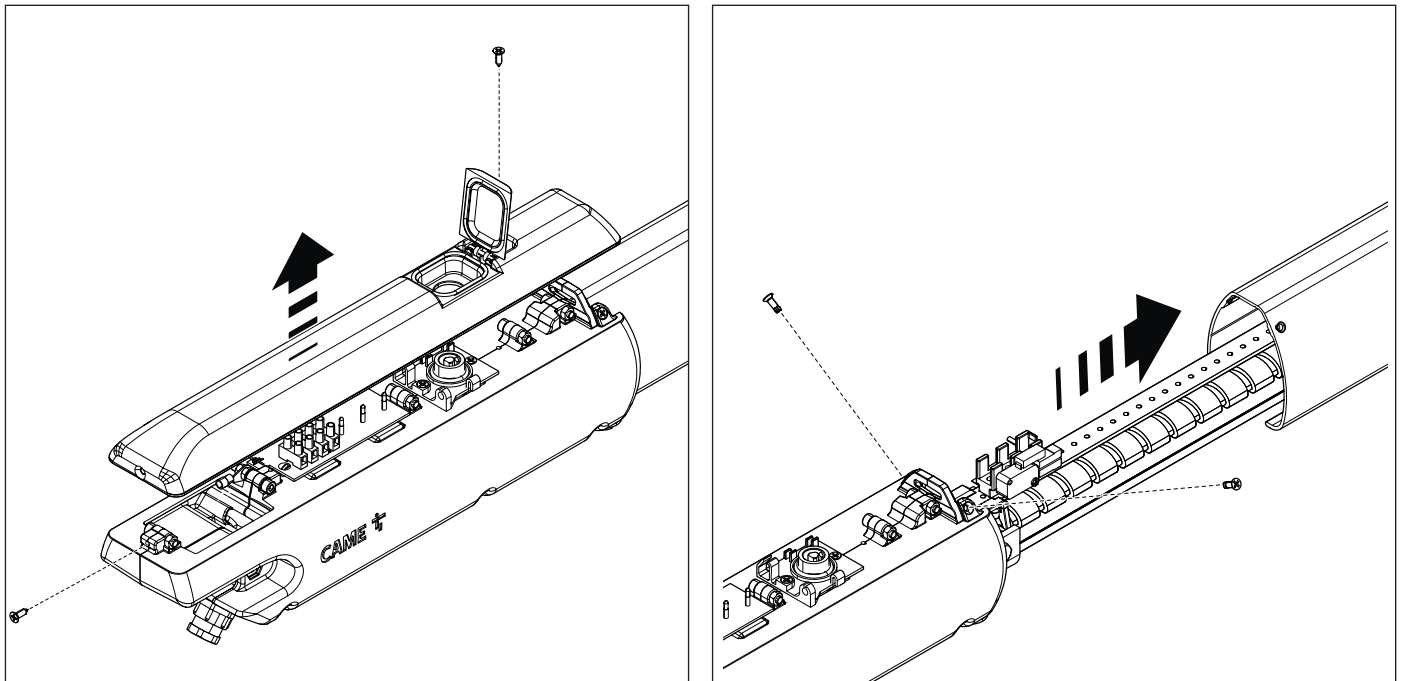
## Fastening the brackets

With the gate closed, fasten the anchoring plate and bracket to the gate.  
Fasten in place with screws or weld the bracket to the gate.

 The holes on the bracket fixing plate allow you to vary the opening angle of the gate leaf.

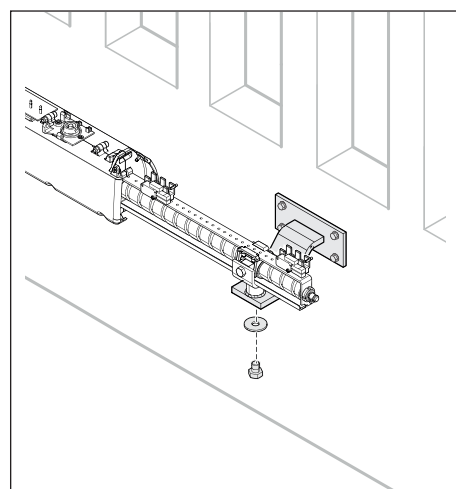
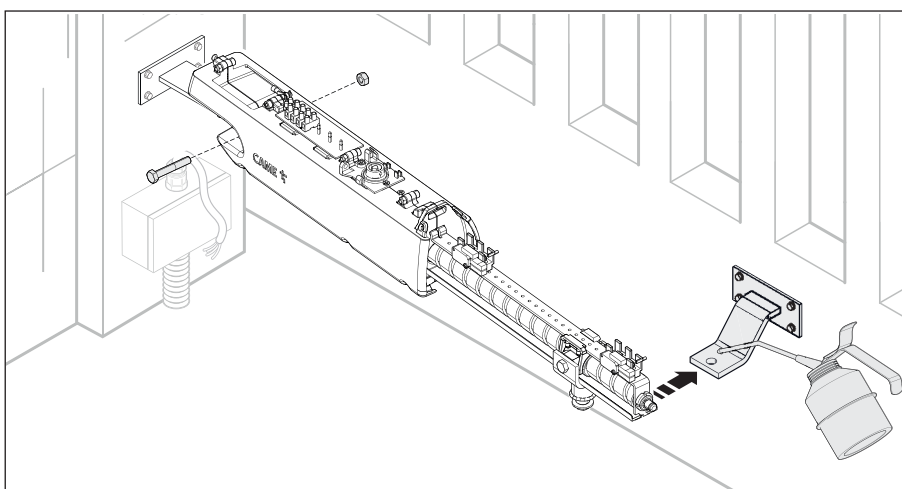
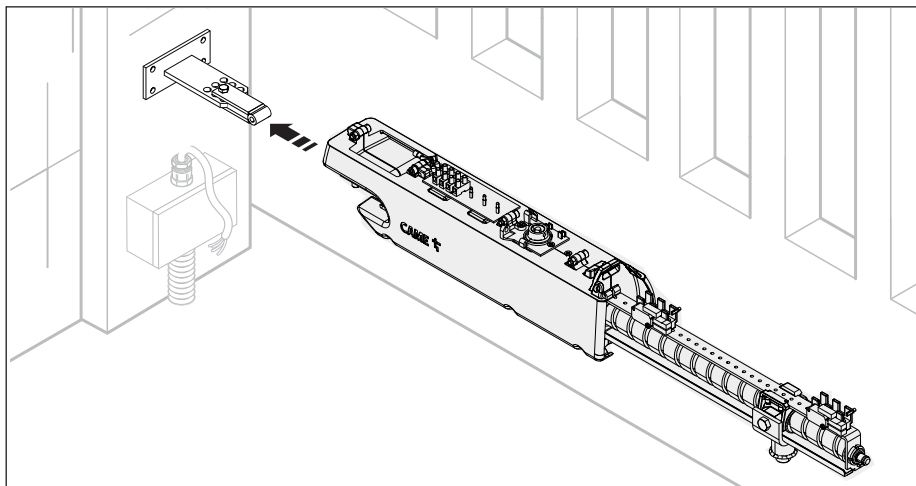
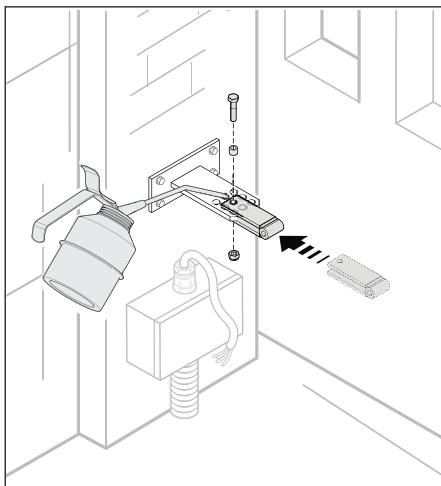


## Setting up the operator



## Fastening the gearmotor

 Lubricate all moving parts on the operator.



## Determining the opening end-of-travel points

 Perform these operations on both gearmotors.

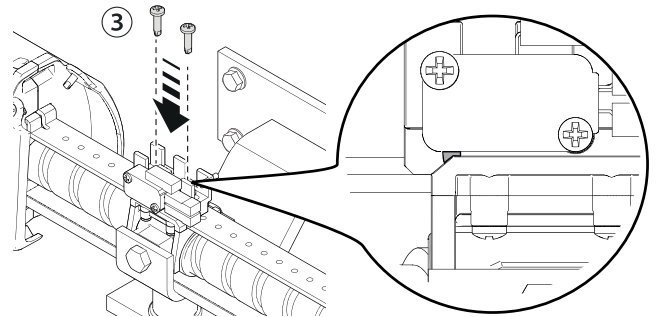
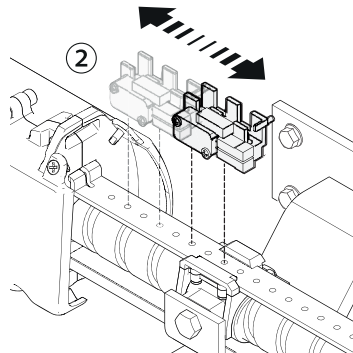
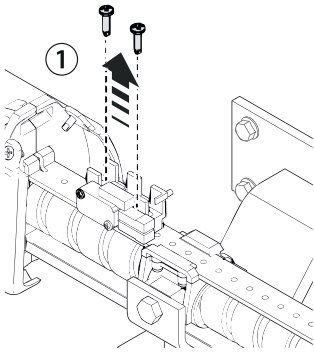
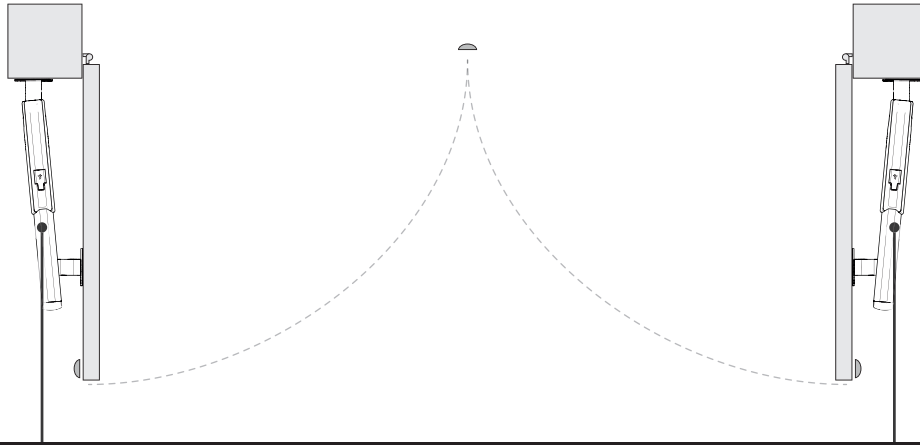
Release the gearmotor.

Manually open the leaf to the desired point.

Unscrew the screws in the opening microswitch assembly.

Slide the microswitch assembly along the boom until it is activated by the slide guide fixed on the nut bushing.

Secure the microswitch assembly to the boom again using the screws.



## Determining the closing slowdown travel end points

📖 Perform these operations on both gearmotors.

Release the gearmotor.

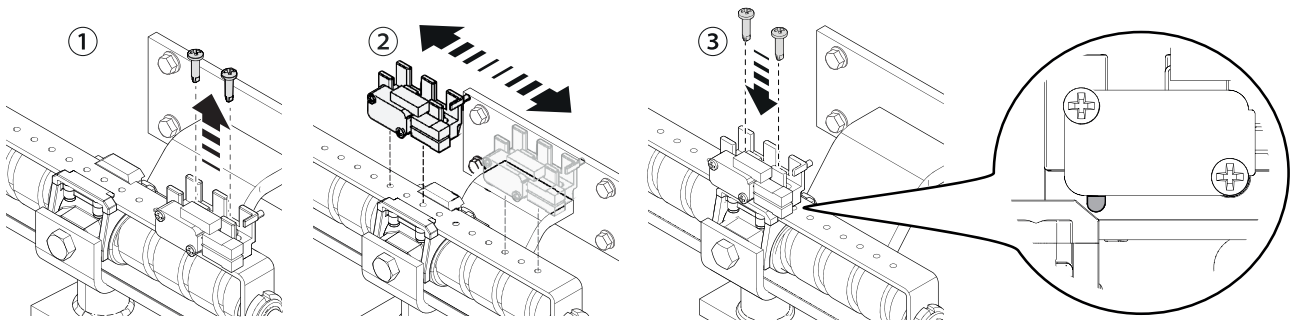
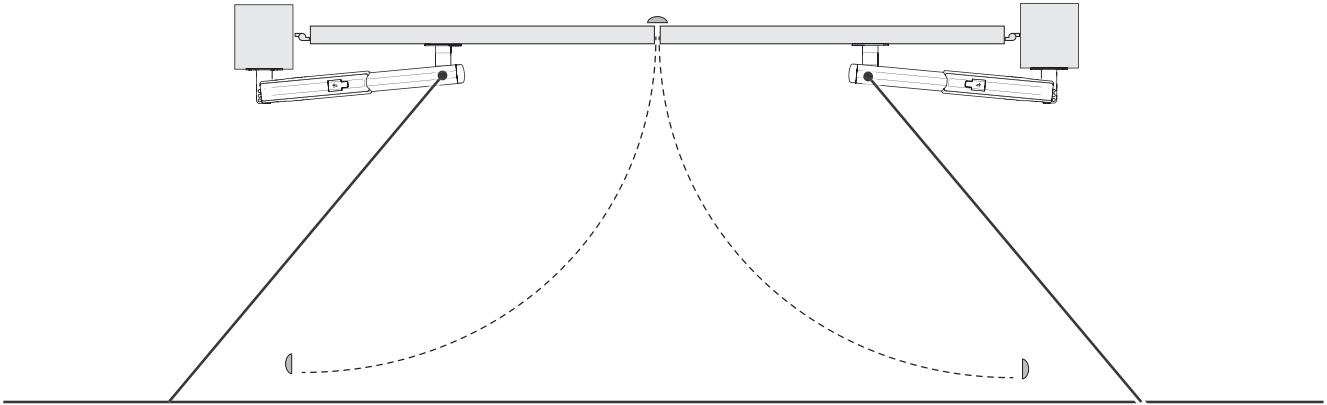
Manually close the leaf to the desired point.

Unscrew the screws in the closing microswitch assembly.

Slide the microswitch assembly along the boom until it goes beyond the contact point with the slide guide fixed on the nut bushing.

📖 Activation of the microswitch (cam pressed) signals the starting point for the closing slowdown phase.

Secure the microswitch assembly to the boom again using the screws.

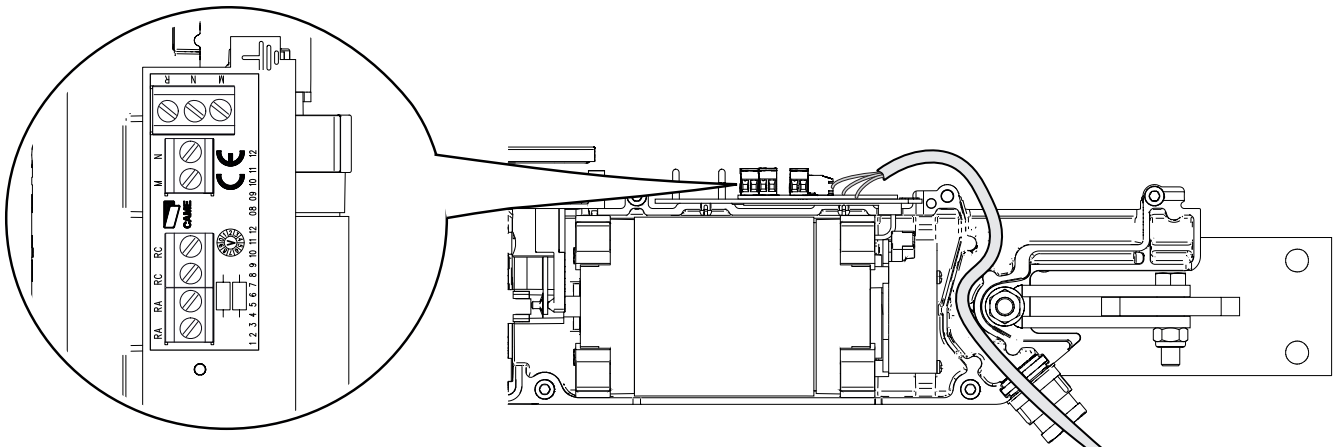


After adjusting the travel end points, run travel self-learning from the control panel, following the instructions in the control panel manual.

## ELECTRICAL CONNECTIONS

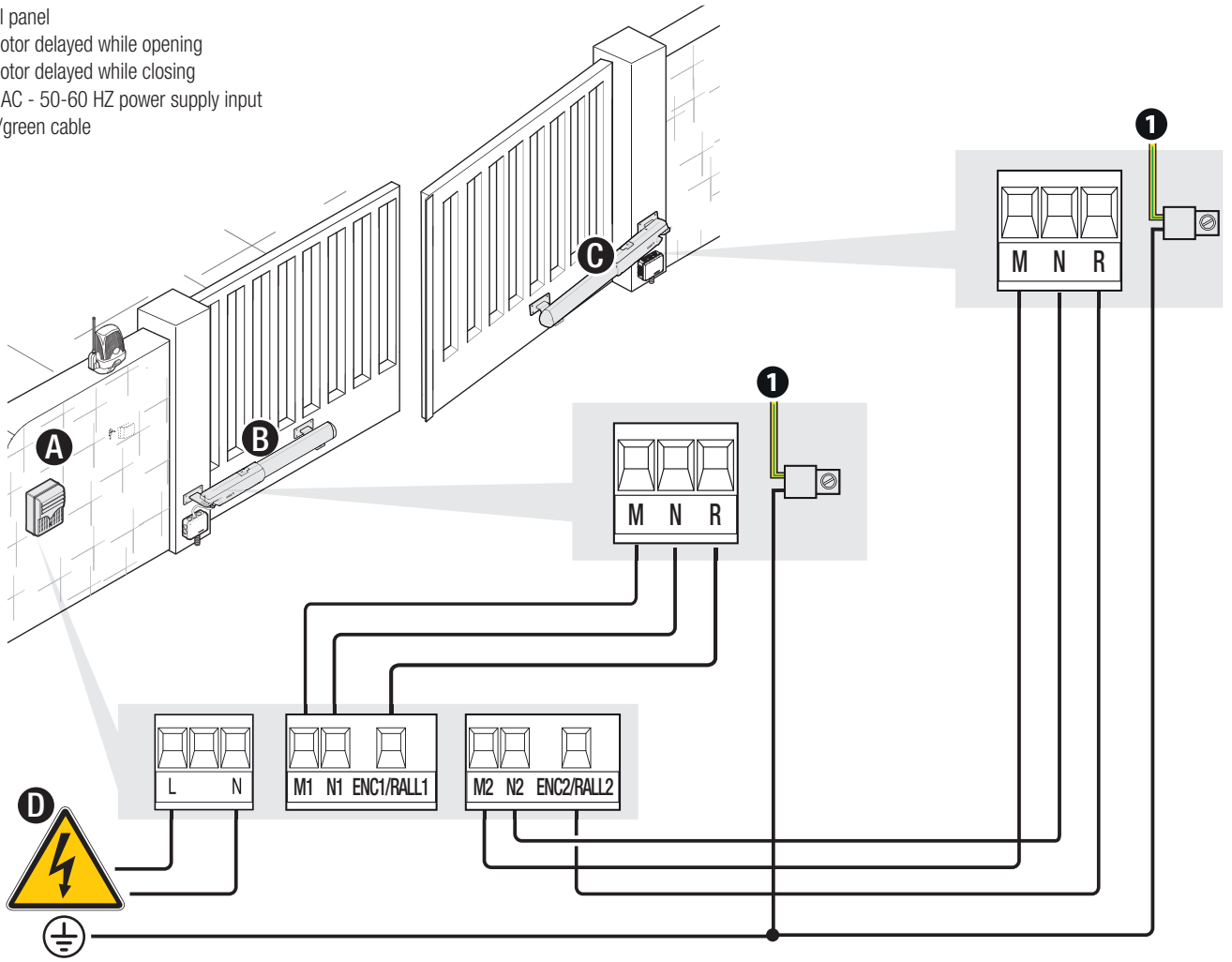
⚠ Before working on the control panel, disconnect the mains power supply and remove the batteries, if any.

📖 The reversible model A3124N is only compatible with the ZLX24M or ZLX24S electronic boards.



📖 Where there is only one gearmotor in the system, make the electrical connections on the gearmotor (M2).

- A** Control panel
- B** Gearmotor delayed while opening
- C** Gearmotor delayed while closing
- D** 230 V AC - 50-60 HZ power supply input
- 1** Yellow/green cable



**Deciding where to fasten the brackets**

Respect the values indicated in the table.

Close the gate manually.

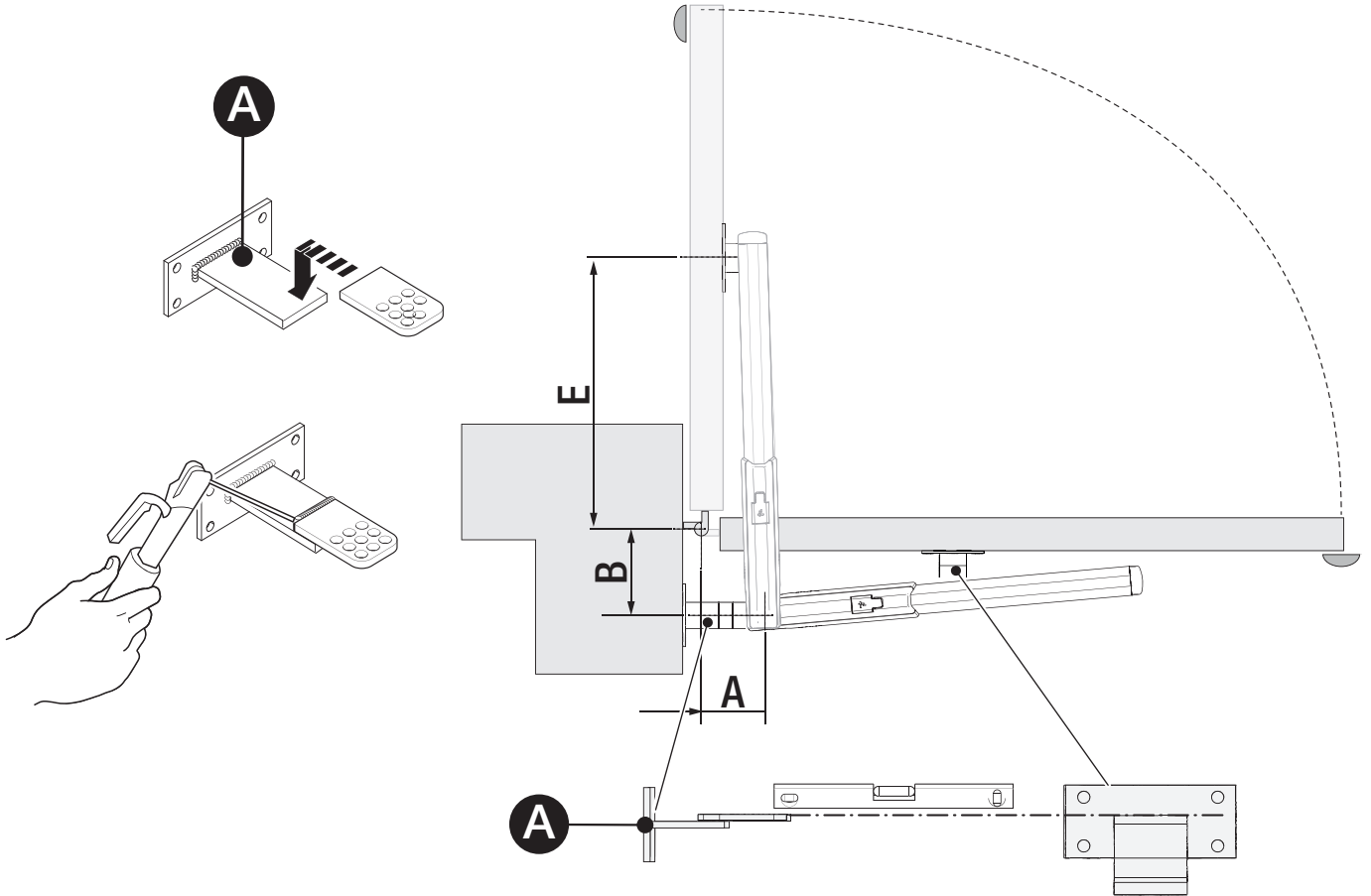
Take measurements A and B.

Weld the pillar bracket to an additional bracket and position it in place.

Open the gate a maximum of 90° and take measurement E.

Fasten the second bracket to the gate.

**A** Additional bracket (not included)



**A3024N**

**A3124N**

Gate-leaf opening (°)	A	B	E
90	130	130	720

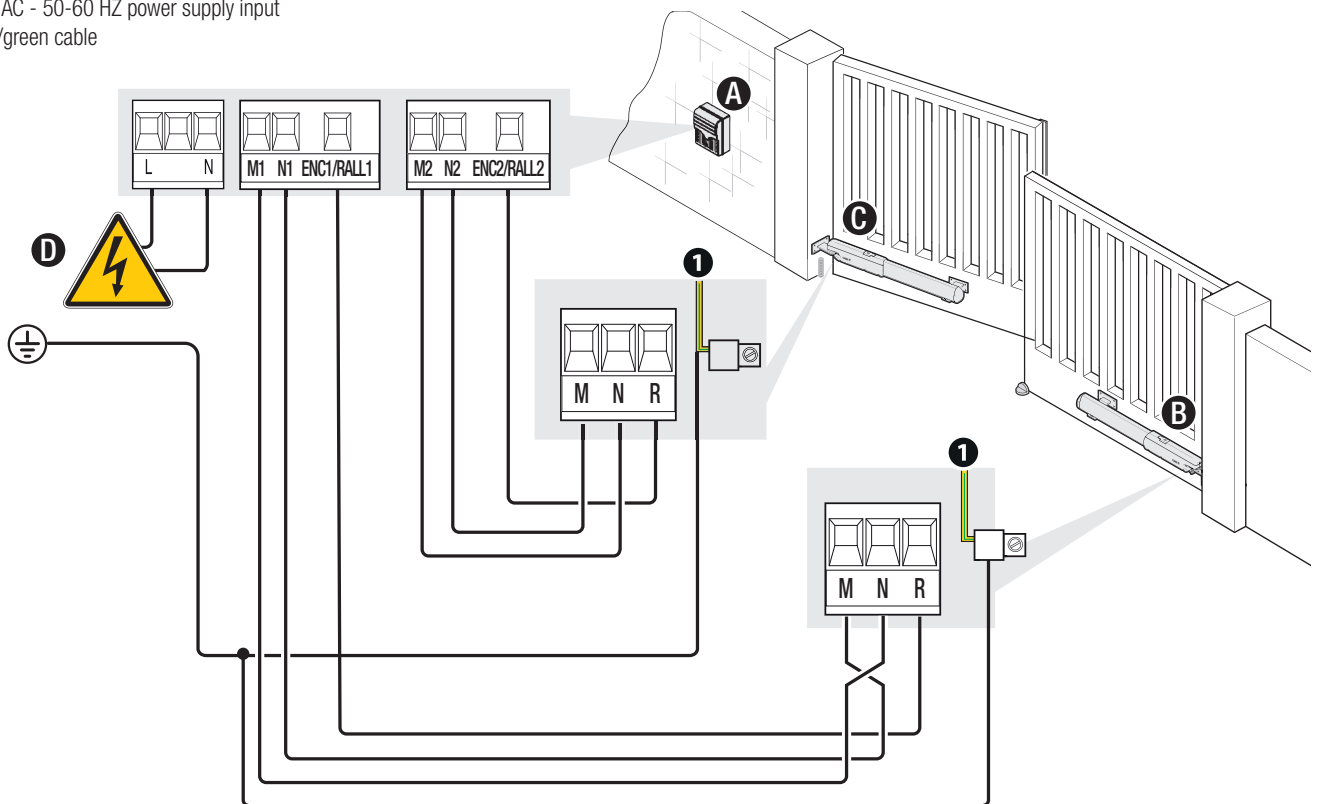
**A5024N**

Gate-leaf opening (°)	A	B	E
90	200	200	920

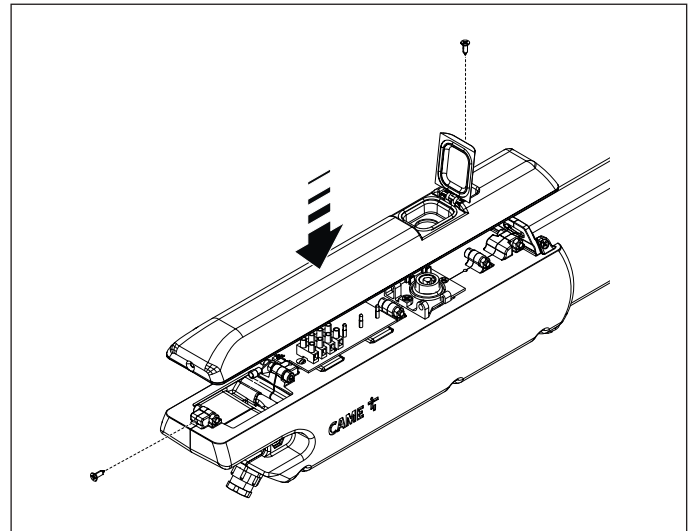
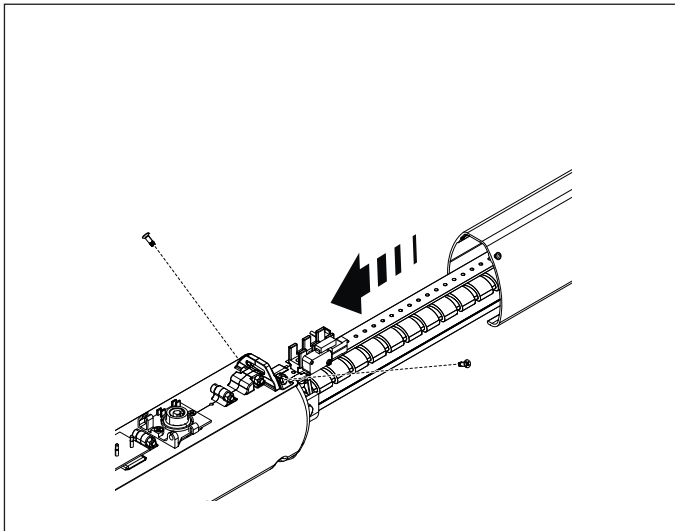
## Electrical connections

Where there is only one gearmotor in the system, make the electrical connections on the gearmotor (M2).

- A** Control panel
- B** Gearmotor delayed while opening
- C** Gearmotor delayed while closing
- D** 230 V AC - 50-60 HZ power supply input
- I** Yellow/green cable



## FINAL OPERATIONS



⚠ Before carrying out any cleaning or maintenance, or replacing any parts, disconnect the device from the power supply.

⚠ This document informs the installer of the checks that must be carried out during maintenance.

⚠ If the system is not used for long periods of time, e.g. for installations at sites with seasonal closures, disconnect the power supply. When the power supply is reconnected, check the system is working correctly.

📖 For information on correct installation and adjustments, please see the product installation manual.

📖 For information on choosing products and accessories, please see our product catalogue.

**Every 20,000 cycles – or at least every 6 months of use – the following maintenance must be performed.**

Perform a general and complete check of the tightness of the nuts and bolts.

Grease all of the moving mechanical parts.

Check the warning and safety devices are working properly.

Check for any wear on the moving mechanical parts and check that they are working properly.

Check the release mechanism is working efficiently by performing a manoeuvre with the leaf free. The gate leaf must not be obstructed.

Check the cables are intact and connected correctly.

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