

Operator for swing gates

FA01806-EN

CE

EAC



STYLO

STYLO-ME / STYLO-RME

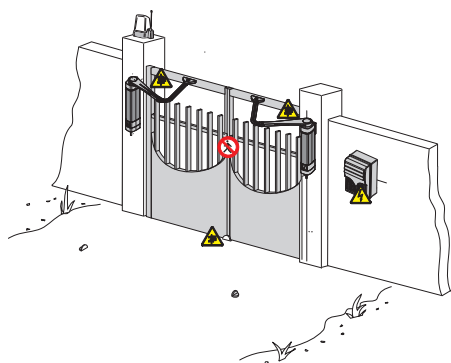
INSTALLATION MANUAL

WARNING! Important safety instructions for people: **READ CAREFULLY.** 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. 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. 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 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.



Danger of foot crushing



Danger of hand crushing



Danger! High voltage.



No transiting while the barrier is moving

KEY



This symbol indicates parts to read carefully.



This symbol indicates parts about safety.



This symbol tells you what to say to end users.

THE MEASUREMENTS, UNLESS OTHERWISE STATED, ARE IN MILLIMETERS.

DESCRIPTION

This product has been designed and built by CAME S.p.A.

The full range:

001STYLO-ME - 24 V DC non-reversible external gearmotor

001STYLO-RME - 24 V DC reversible external gearmotor

Mandatory accessories for STYLO-RME:

001LOCK81 - Single-cylinder blocking electro-lock

001LOCK82 - Double-cylinder blocking electro-lock

Intended use

The STYLO gearmotor is designed to automate residential and apartment block swing gates.

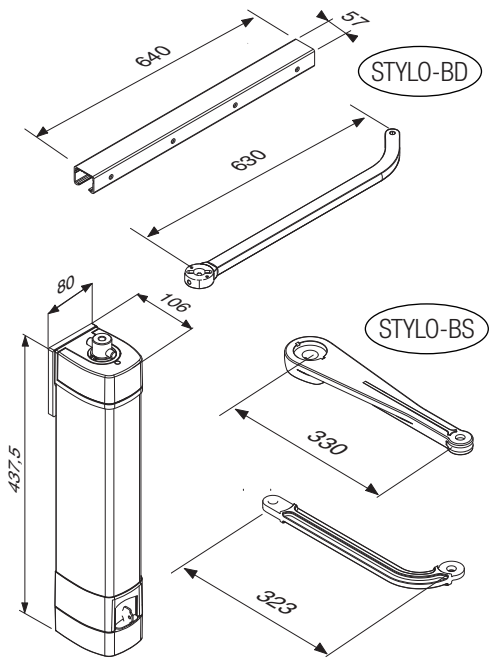
Any use other than that described above and installations that differ from what is set out in this technical manual are forbidden.

Limitations of use

Model	STYLO ME - STYLO RME		
Gate leaf width (m)	1.80	1.20	0.80
Gate leaf weight (kg)	100	125	150
Max gate leaf opening (°)	120 (with 001STYLO-BS arm)	135 (with 001STYLO-BD arm)	

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).

Dimensions



Technical data

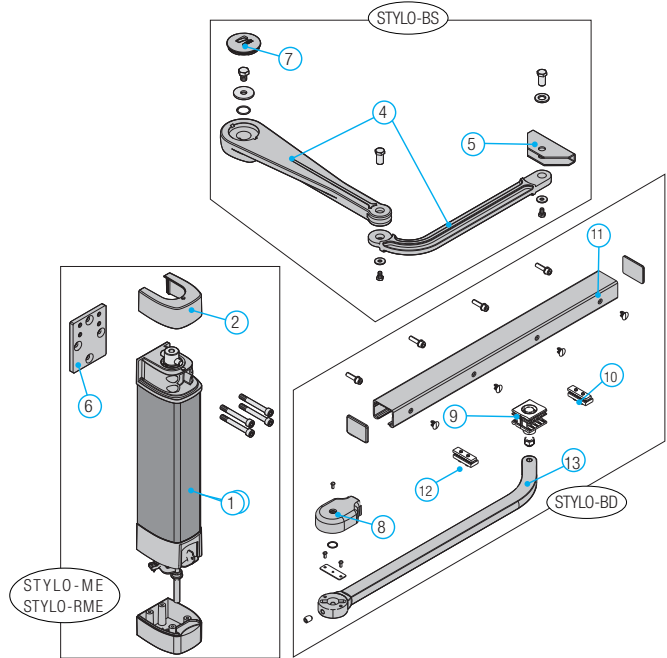
Type	STYLO ME - STYLO RME
Protection rating	IP54
Power supply	230 V AC (50/60 Hz)
Motor power supply	24 DC (50/60 Hz)
Current draw (max)	5 A
Power	48 W
Maximum torque	100 Nm
Opening time (90°)	adjustable
Duty cycle (%)	intensive use
Operating temperature (°C)	-20 - +55
Storage temperature (°C)	-20 - +70
Average life (cycles)	120,000
Gear ratio	1/531
Weight (kg)	6.8 kg

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.

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.

Main components

1. Main body of the gearmotor
2. Upper cap
3. Lower cap
4. Hinged arm
5. STYLO-BD arm mounting bracket
6. Gearmotor mounting bracket
7. STYLO-BD cover
8. STYLO-BD cover
9. Slide guide
10. Opening stop
11. STYLO-BD slide rail
12. Closing stop
13. Straight arm



SYSTEM FEASIBILITY

⚠ Installation must be carried out by qualified and experienced personnel in compliance with applicable regulations.

Preliminary checks

⚠ Before installing the operator:

- 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 (that is, with minimum contact openings of 3 mm);
- Prepare suitable piping and ducts for routing the electrical cables, ensuring protection against mechanical damage;
- ⚡ Make sure that any connections within the container (made to ensure the continuity of the protection circuit) are fitted with additional insulation compared to the other internal conductor parts;
- Make sure the gate structure is sturdy enough, that the hinges are in proper working order and that there is no friction between the moving and fixed parts;
- Make sure there are opening and closing mechanical stops.

Cable types and minimum thicknesses

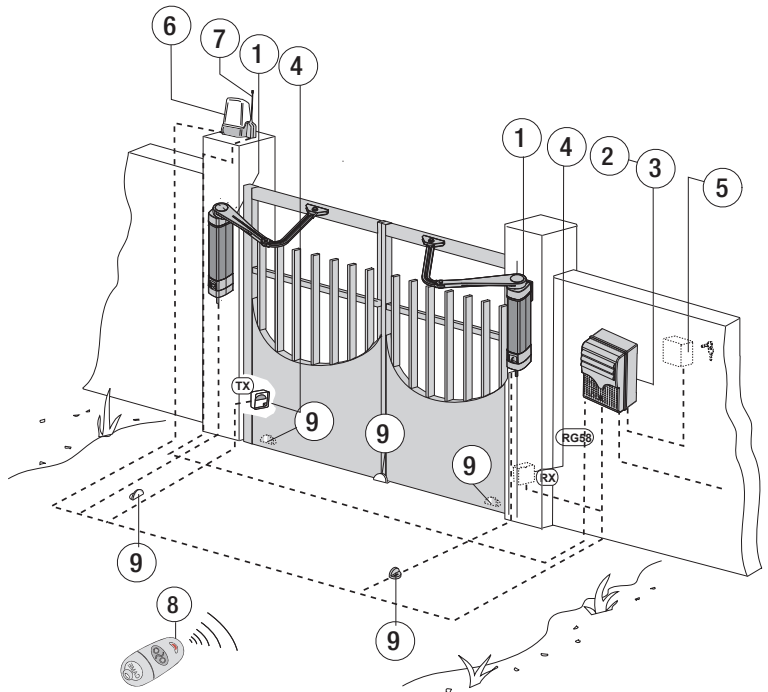
Connection	Cable type	Cable Length 1 < 15 m	Cable Length 15 < 30 m
230 V AC control panel power supply	H05RN-F	3G x 1,5 mm ²	3G x 2,5 mm ²
24 V DC (RME) motor/encoder power supply	FROR CEI 20-22 CEI EN 50267-2-1	3 x 1,5 mm ²	3 x 1,5 mm ²
24 V DC (RME) motor/encoder power supply		4 x 1,5 mm ²	4 x 2,5 mm ²
Flashing beacon		2 x 1,5 mm ²	
Photocell transmitters		2 x 0,5 mm ²	
Photocell receivers		4 x 0,5 mm ²	
Command and safety devices		2 x 0,5 mm ²	
Antenna	RG58	max 10 m	

📖 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.

Example of a system

1. Gearmotor unit
2. Control panel
3. Radio receiver
4. Photocells
5. External key selector
6. Flashing light
7. Antenna
8. Transmitter
9. Mechanical stop

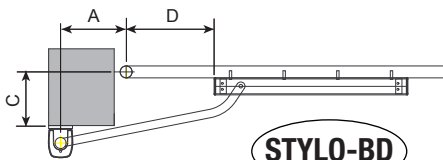


Examples of applications

i = 300 mm max
with 90° opening

STYLO-BS

Gate-leaf opening (°)	A (mm)	C (mm)	D (mm)
90	90	0 ÷ 180	450
90	130	180	450
120	170	0	450



STYLO-BD

Gate-leaf opening (°)	A (mm)	C (mm)	D (mm)
90	90	0 ÷ 200	400
90	230	180	300
135	230	0	300

To determine the minimum gate leaf length, add the track length (650 mm) to measurement D given in the table.

Note: measurement D varies depending on the application.

INSTALLATION

△ The following illustrations are only examples, given that the space for securing the operator and accessories varies depending on the overall dimensions. The installation technician is responsible for choosing the most suitable solution.

Preparation

Set up corrugated tubes for the connections coming from the junction box.

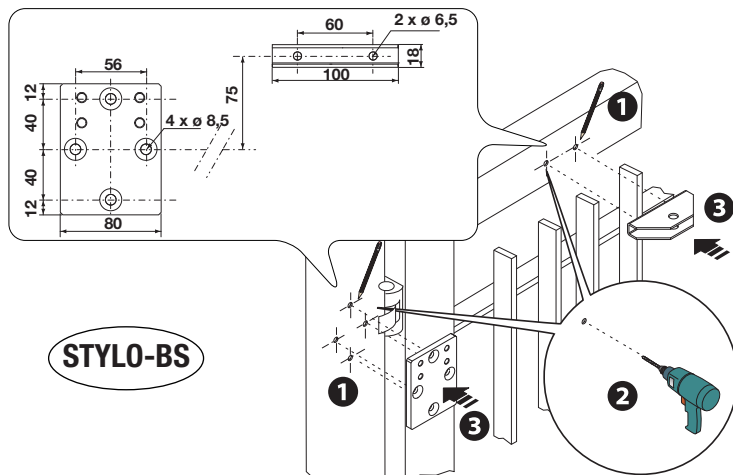
N.B. the number of tubes depends on the type of system installed and any accessories.

Securing the brackets

STYLO-BS

Trace all axes and dimensions, respecting the levels shown in the drawing ①, drill the marked points ②, then secure the gearmotor anchoring bracket to the wall or post as well as the arm mounting bracket to the gate ③.

Note: the illustrations are mere examples, it is up to the install to choose the most suitable solution depending on gate leaf type and thickness.

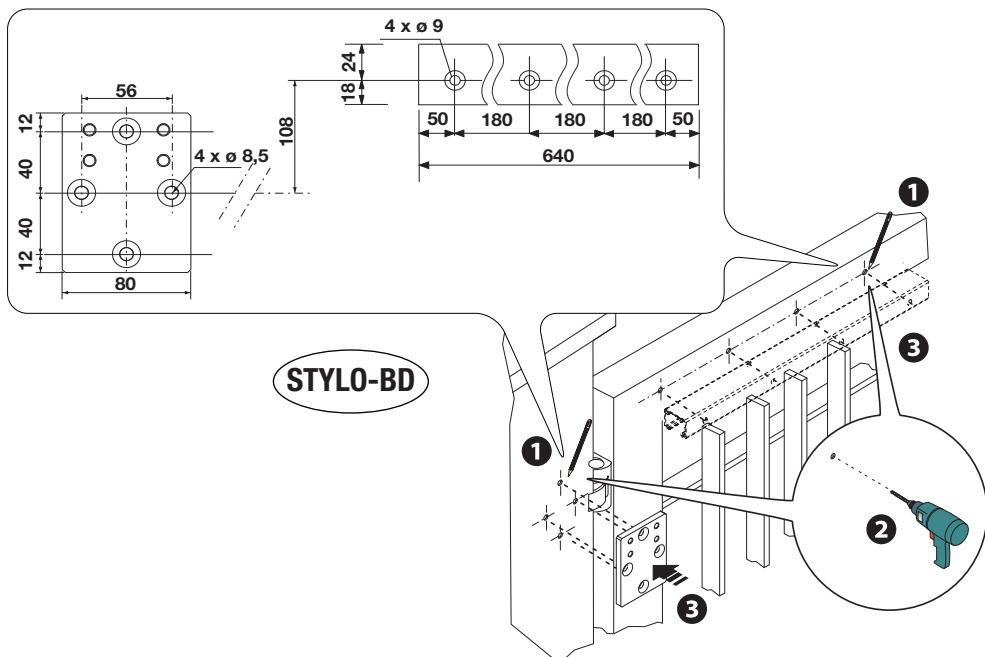


STYLO-BS

STYLO-BD

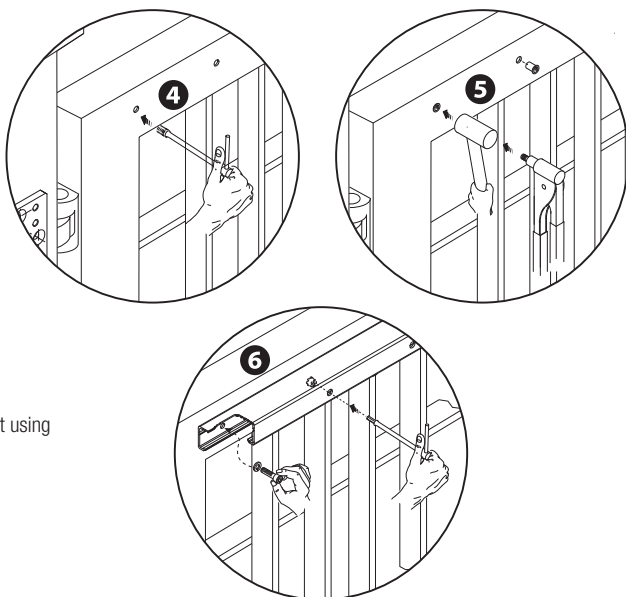
Trace all axes and dimensions, respecting the levels shown in the drawing ❶, drill the marked points ❷, then secure the gearmotor mounting bracket to the wall or post and the slide rail ❸.

Note: the illustrations are mere examples, it is up to the install to choose the most suitable solution depending on gate leaf type and thickness.



Drill the holes using an M8 male piece ❹ or use the M8 threaded inserts or suitable materials for securing the rail ❺.

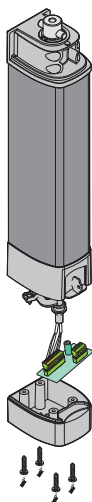
Note: the illustrations are mere examples, it is up to the install to choose the most suitable solution depending on gate leaf type and thickness.



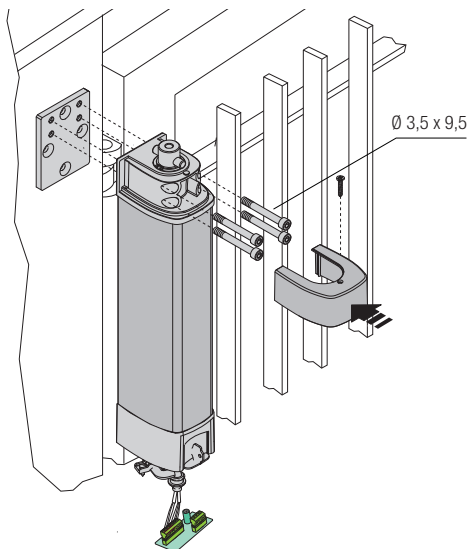
Position the slide rail in the holes and secure it using threaded cylinder head screws ❻.

Securing the gearmotor

Remove the lower cap from the gearmotor.



Secure the gearmotor to the flange using the four bolts supplied. Secure the upper cap.



Securing the transmission arm

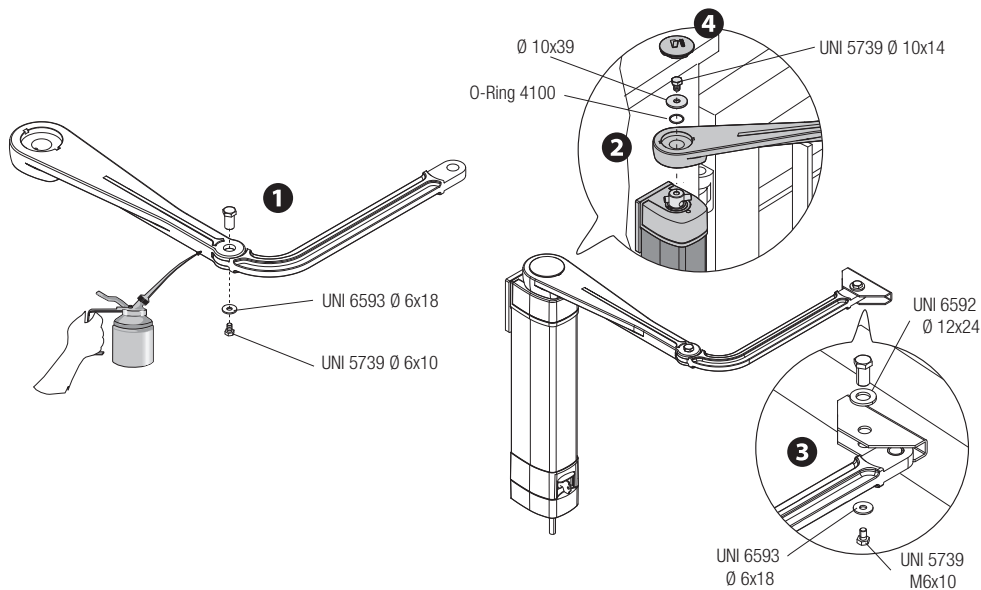
STYLO-BS

Assemble the hinged arm by joining the two half-arms with nuts and bolts. Lubricate the rotation pins **1**.

Insert the hinged arm onto the gearmotor shaft and secure it using the screw and washer **2**.

Release the gearmotor, open the gate leaf and hook the arm using the nuts and bolts **3**.

Cover the hole using the cap **4**.



STYLO-BD

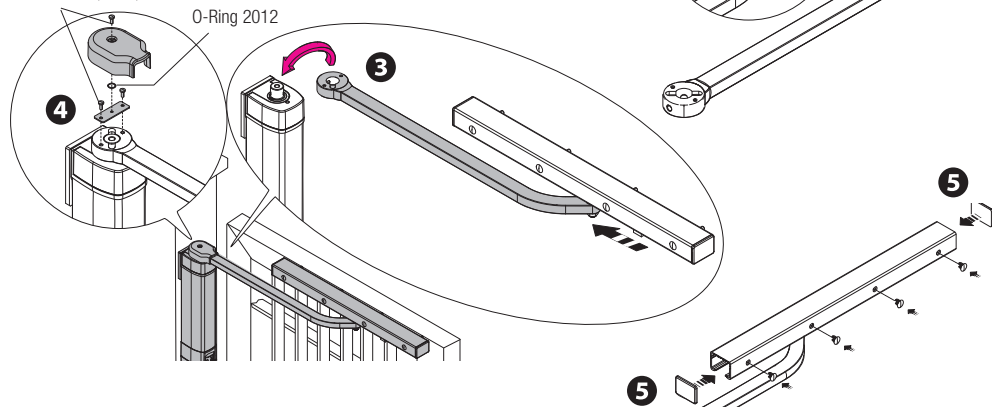
Assemble the slide guide to the transmission arm as shown in the drawing **1**.
Insert the guide into the rail **2**.

Assemble the straight arm onto the gearmotor shaft **3**. Cover the hole with the cap and secure it using the supplied screws **4**.

Insert the end caps of the rail and the hole covers **5**.

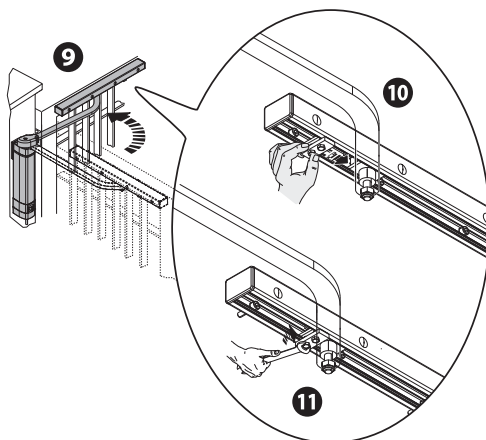
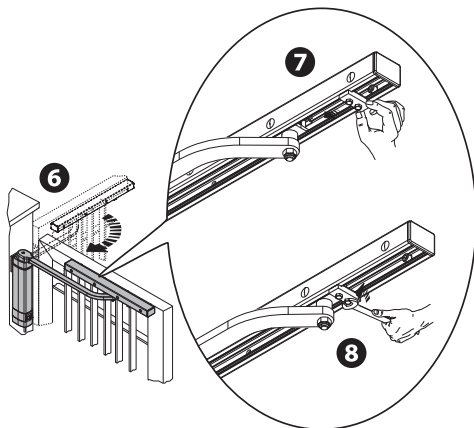
UNI 6954 Ø 3,9 x 9,5

O-Ring 2012



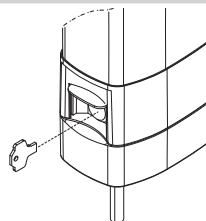
Release the gearmotor (see paragraph on manual release). Fully open the gate leaf **9** and position the mechanical stop so that it coincides with the slide guide **10** and then secure it **8**.

Fully close the gate leaf **9** and position the closing mechanical stop so that it coincides with the slide guide **10** and then secure it **11**.



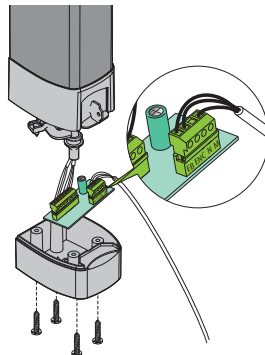
MANUAL RELEASE OF THE NON-REVERSIBLE GEARMOTOR

Cut off mains power and open the protective trap door for release. Insert the key and turn it.



ELECTRICAL CONNECTIONS

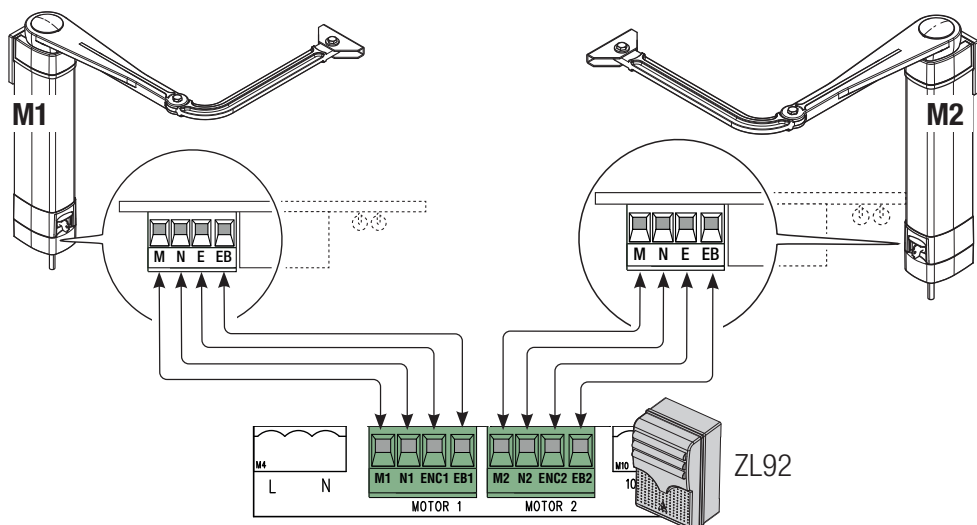
Open the lower cap and make the necessary electrical connections. Complete installation by closing the lower cap again.



Electrical connection of the STYLO ME gearmotor to the control panel

24 V (DC) gearmotor with
delaying opening action

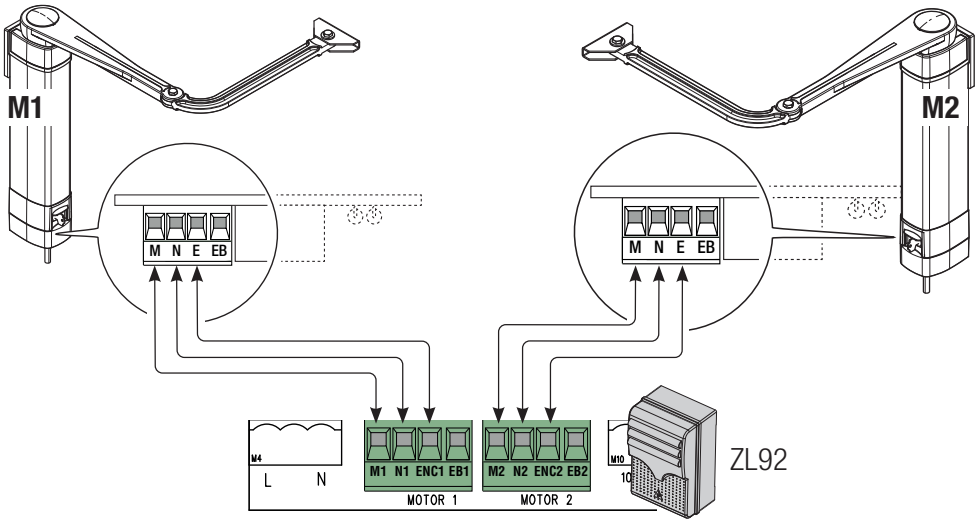
24 V (DC) gearmotor with
delaying closing action



Electrical connection of the STYLO RME gearmotor to the control panel

24 V (DC) gearmotor with
delaying opening action

24 V (DC) gearmotor with
delaying closing action



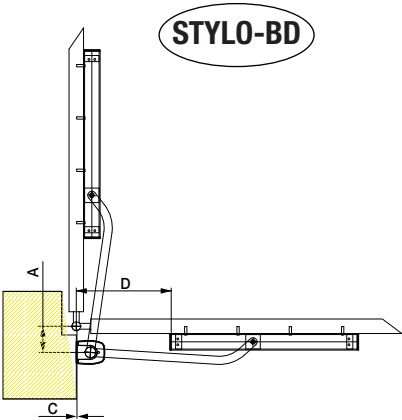
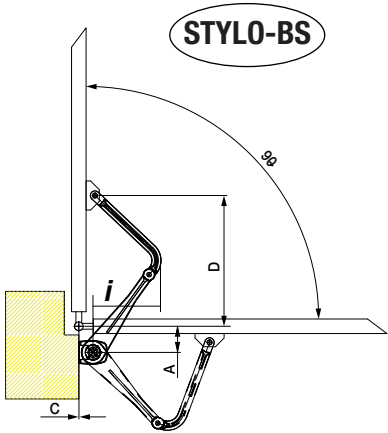
INSTALLING AND CONNECTIONS FOR OUTER OPENING

Following, are the only things that change compared to a standard installation:

Examples of applications

Gate-leaf opening (°)	A (mm)	i (mm)	C (mm)	D (mm)
90	90	285	0	450
90	180	210	0	450
120	90	125	0	450

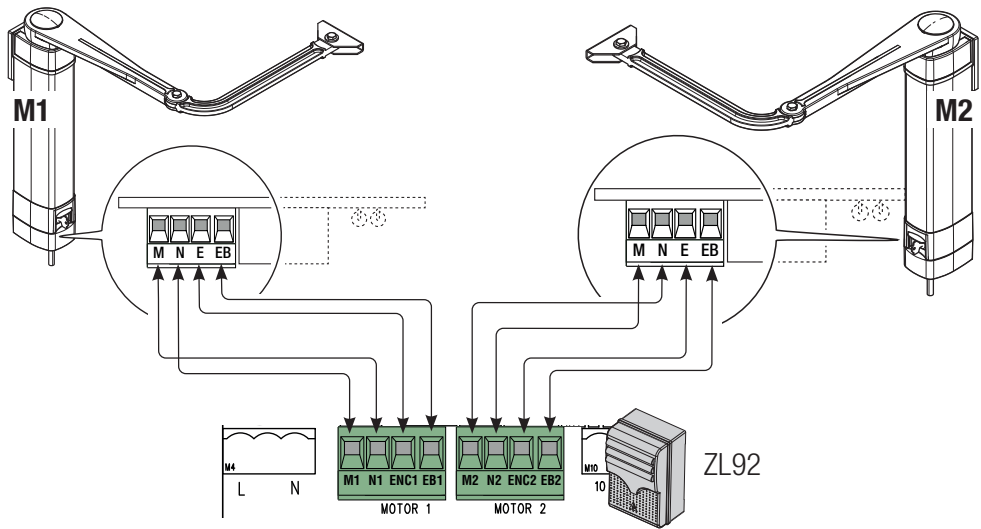
Gate-leaf opening (°)	A (mm)	C (mm)	D (mm)
90	90	0	400



Electrical connection of the STYLO ME gearmotor to the control panel

24 V (DC) gearmotor with
delaying opening action

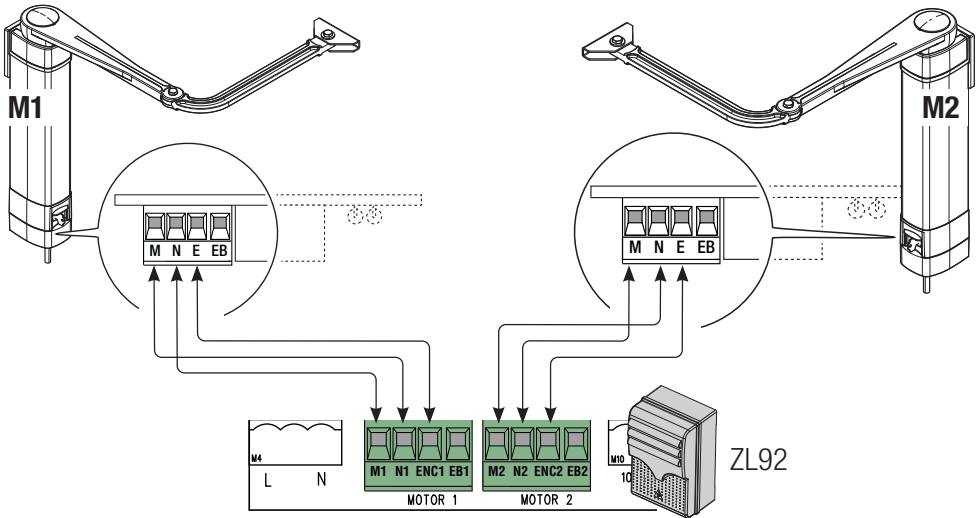
24 V (DC) gearmotor with
delaying closing action



Electrical connection of the STYLO RME gearmotor to the control panel

24 V (DC) gearmotor with
delaying opening action

24 V (DC) gearmotor with
delaying closing action



TROUBLESHOOTING

MALFUNCTIONS	POSSIBLE CAUSES	CHECKS AND REMEDIES
The gate does not open or close	• No power supply • The transmitter battery is flat • The transmitter is broken • The stop button is stuck or broken • The opening/closing button or the key selector switch are stuck	• Check for power • Replace the batteries • Contact service • Contact service • Contact service
The gate opens but does not close	• The photocells are engaged	• Check that the photocells are clean and work correctly • Contact service
The flashing light does not work	• The bulb has blown	• Contact service

MAINTENANCE

 Before any maintenance, disconnect power to prevent any possible dangerous situations that can be caused by accidental movement of the device.

Periodic maintenance log to be completed by the user (every six months)

[illegible]

DISMANTLING AND DISPOSAL

 **CAME S.p.A.** implements an EN ISO 14001 certified and compliant Environmental Management System at its plants, to ensure environmental protection.

Please continue our efforts to protect the environment, something that CAME considers to be one of the foundations in developing its business and market strategies, simply by observing brief recommendations as regards disposal:

DISPOSAL OF PACKAGING

Packaging components (cardboard, plastic etc.) can be disposed of together with normal household waste without any difficulty, by simply separating the different types of waste and recycling them.

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

DISPOSE OF PROPERLY!

DISPOSAL OF THE PRODUCT

Our products are made with different materials. Most of them (aluminium, plastic, iron, electrical cables) can be disposed of together with normal household waste. They can be recycled if collected, sorted and sent to authorised centres.

Other components (circuit boards, remote control batteries etc.), on the other hand, may contain pollutants.

They should therefore be removed and handed over to companies authorised to recover and recycle them.

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

DISPOSE OF PROPERLY!

REFERENCE REGULATIONS

The product complies to the reference regulations in effect.

CAME 

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