

# CAME

119DV11EN

## EXTERNAL OPERATOR FOR SWING GATES

Official Partner

**EXPO**

MILANO 2015

FEEDING THE PLANET  
ENERGY FOR LIFE



Installation manual

**STYLO**  
STYLO ME - STYLO RME

English

**EN**





**CAUTION!**  
**important personal safety instructions:**  
**READ CAREFULLY!**



### Foreword

• This product should only be used for the purpose for which it was explicitly designed. Any other use is considered dangerous. CAME 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 automation system.

### Before installing

*(preliminary check: in case of a negative outcome, do not proceed until you have complied with the safety requirements)*

• Check that the part you intend to automate is in good mechanical condition, balanced and aligned, and that it opens and closes properly. 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 not on level ground • Check that any lawn watering devices will not wet the operator 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. In such cases, use proper weight handling safety equipment • All opening commands (e.g. buttons, key selector switches, 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 (buttons, touch commands etc.) must be installed at a height of at least 1.5 m and must not be accessible to the public • All 'hold-to-run' 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 user, check 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 Signs (e.g. gate plate)

### Special instructions and advice for users

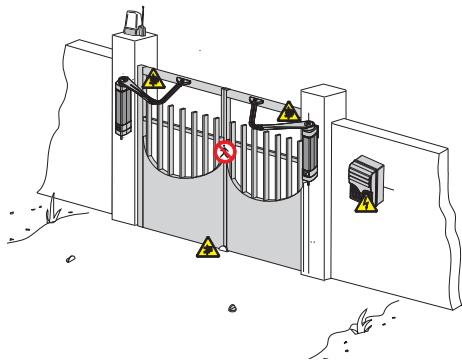
• Keep the gate's area of operation clean and clear of any obstacles. Check that there is no vegetation in the area of operation of the photocells and that there are no obstacles in the area of operation of the operator • Do not allow children to play with the fixed command devices, or in the gate's area of operation. Keep any remote control

devices (i.e. transmitters) or any control devices away from children as well, to prevent the operator from being activated accidentally • 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. To check that the photocells work, pass an object in front of them during closing. If the operator reverses the direction of movement or comes to a halt, the photocells work correctly. This is the only maintenance operation that must be carried out while the operator is live. Ensure that the glass on the photocells is kept clean (use a cloth slightly moistened with water; do not use solvents or any other chemicals as these could damage the devices) • 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 and before any other operation, to prevent dangerous situations. Read the instructions • Users are STRICTLY FORBIDDEN from performing OPERATIONS NOT EXPRESSLY REQUIRED AND STATED in the manuals. For repairs, adjustments and extraordinary maintenance, CONTACT THE SPECIALIST TECHNICAL SERVICE CENTRE. 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 'hold-to-run' 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 or performing maintenance.



**Key**

This symbol indicates parts to read carefully.



This symbol indicates parts about safety.



This symbol tells you what to say to end users.

**Description**

This product has been designed and built by CAME S.p.A. in compliance with applicable safety standards.

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**

We suggest you always fit an electrolock onto swing gates for a more reliable closure.

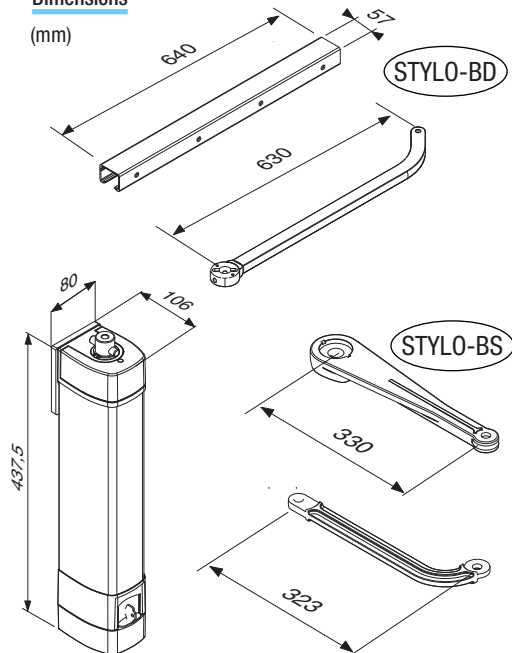
Model	STYLO ME - STYLO RME		
Gate leaf width (m)	1.80	1.20	0.80
Gate leaf weight (kg)	100	125	150
Max gate leaf opening (°)	120 (with 001STYLO-BS arm)	135 (with 001STYLO-BD arm)	

## 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
Gear ratio	1/531
Weight (kg)	6.8 kg

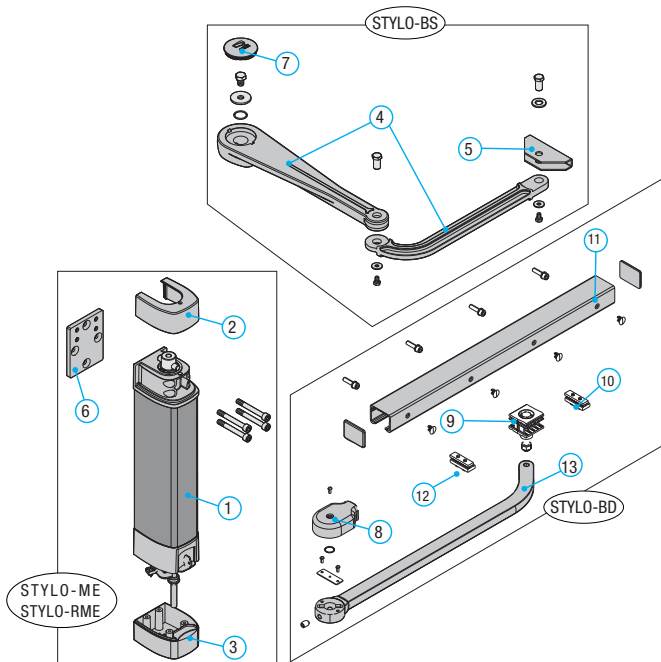
## Dimensions

(mm)



## Main components

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



The data and information provided in this manual are subject to change at any time without prior notice.

## System feasibility

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

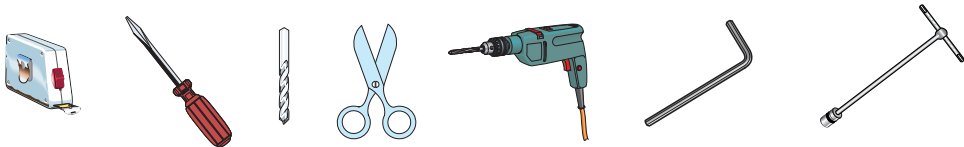
### Preliminary checks

△ Before installing the operator:

- Provide a suitable single-pole disconnection device, with a maximum of 3 mm between the contacts, to disconnect the power supply;
- 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.

### Tools and materials

Make sure you have all the tools and materials you will need for the installation at hand to work in total safety and compliance with current standards and regulations. The figure shows some examples of installer's tools.



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## Types of cables and minimum thicknesses

Connection	Type of cable	Cable length 1 < 10 m	Cable length 10 < 20 m	Cable length 20 < 30 m
Control panel power supply 230V		3G x 1.5 mm <sup>2</sup>	3G x 2.5 mm <sup>2</sup>	3G x 4 mm <sup>2</sup>
Motor power supply 24 V DC		4G x 1,5 mm <sup>2</sup>	4G x 1.5 mm <sup>2</sup>	4G x 2.5 mm <sup>2</sup>
Flashing light	FROR CEI 20-22	2 x 0.5 mm <sup>2</sup>	2 x 1 mm <sup>2</sup>	2 x 1.5 mm <sup>2</sup>
Photocell transmitters	IEC EN 50267-2-1	2 x 0.5 mm <sup>2</sup>	2 x 0.5 mm <sup>2</sup>	2 x 0.5 mm <sup>2</sup>
Photocell receivers		4 x 0.5 mm <sup>2</sup>	4 x 0.5 mm <sup>2</sup>	4 x 0.5 mm <sup>2</sup>
Accessory power supply		2 x 0.5 mm <sup>2</sup>	2 x 0.5 mm <sup>2</sup>	2 x 1 mm <sup>2</sup>
Control and security devices		2 x 0.5 mm <sup>2</sup>	2 x 0.5 mm <sup>2</sup>	2 x 0.5 mm <sup>2</sup>
Antenna connection	RG58		max. 10 m	

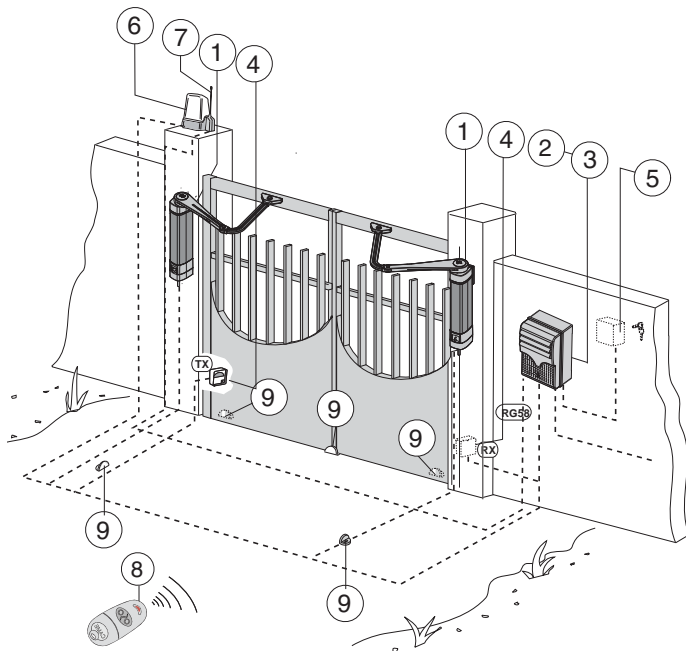
N.B.: If the cables differ in length compared to what is shown in the table, the cable cross-section is determined according to the actual current draw of the devices connected and according to the provisions of the IEC EN 60204-1 standard. For connections that require several, sequential loads, the sizes given on the table must be re-evaluated based on actual power draw and distances. When connecting products that are not specified in this manual, please refer to the documentation provided with said products.



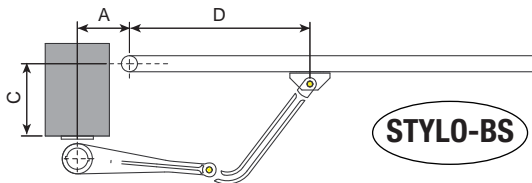
## Example of a system

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

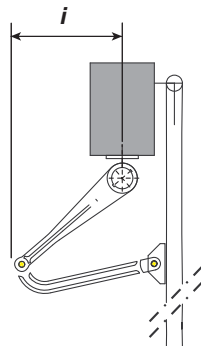
*N.B. For reversible versions, include the blocking electro-lock.*



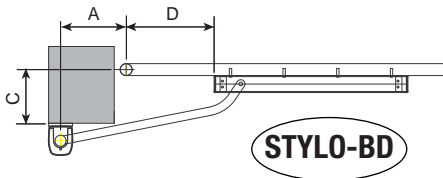
## Examples of applications



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



**$i$**  = 300 mm max  
with 90° opening



Gate-leaf opening (°)	A (mm)	C (mm)	D (mm)
90	90	0	400
90	90	40	400
90	90	150	400
90	90	180	400
90	90	200	400
90	230	180	300
135	230	0	300

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## 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.

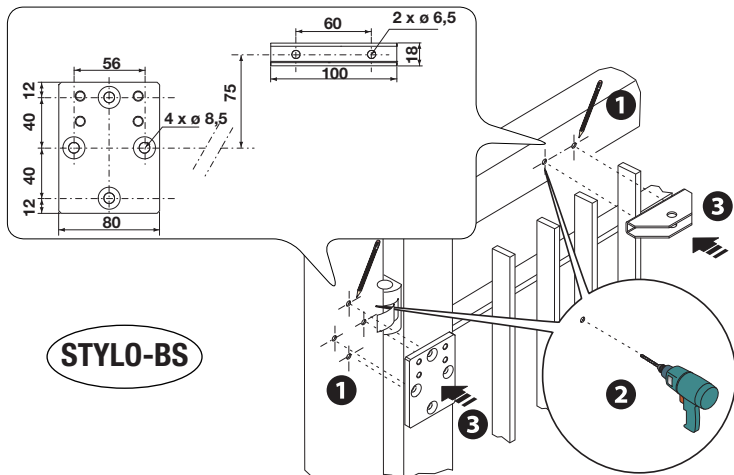
N.B. the number of tubes depends on the type of system installed and any accessories.

### 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**.

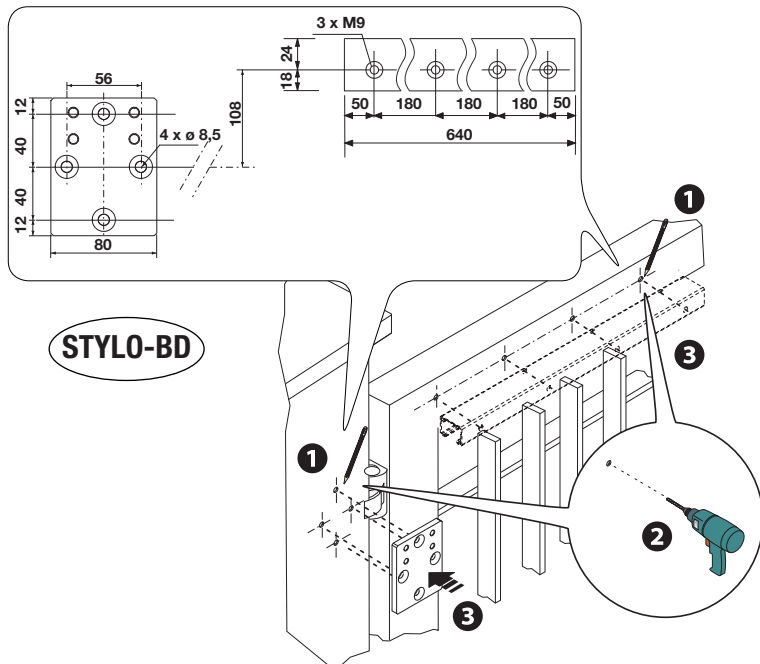
*Note: the illustrations are mere examples, it is up to the install to choose the most suitable solution depending on gate leaf type and thickness.*



**STYLO-BD**

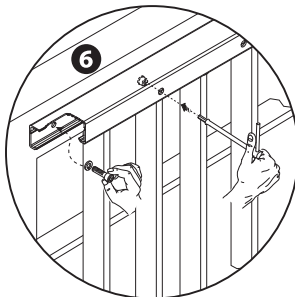
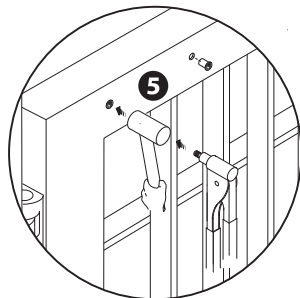
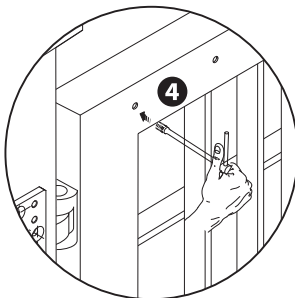
Trace all axes and dimensions, respecting the levels shown in the drawing **1**, drill the marked points **2**, then secure the gearmotor mounting bracket to the wall or post and the slide rail **3**.

*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.*



Drill the holes using an M8 male piece **4** or use the M8 threaded inserts or suitable materials for securing the rail **5**.

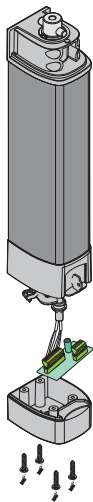
*Note: the illustrations are mere examples, it is up to the install to choose the most suitable solution depending on gate leaf type and thickness.*



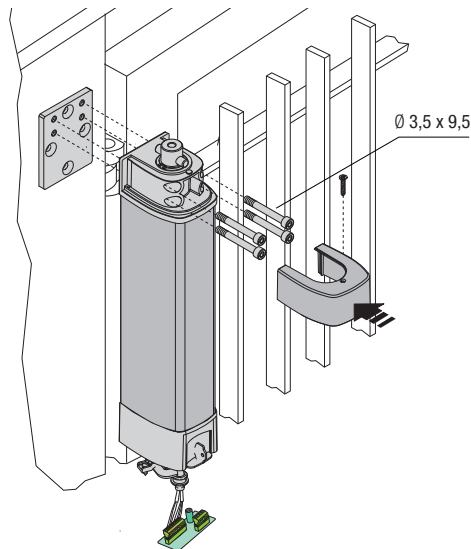
Position the slide rail in the holes and secure it using threaded cylinder head screws **6**.

## 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

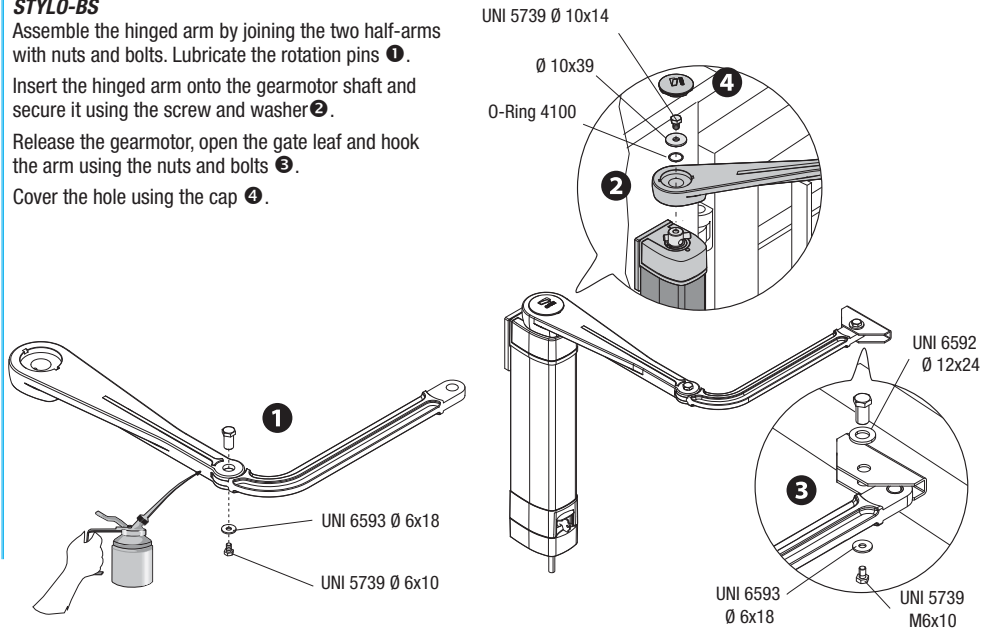
### STYLO-BS

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**.



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**STYLO-BD**

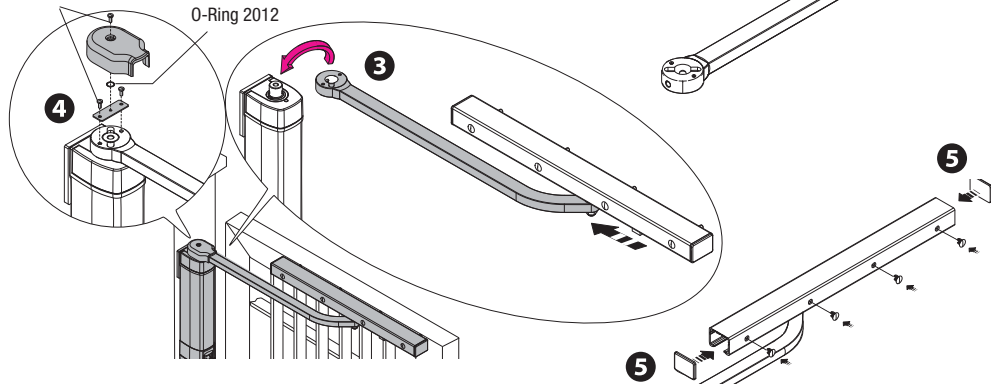
Assemble the slide guide to the transmission arm as shown in the drawing ①. Insert the guide into the rail ②.

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.

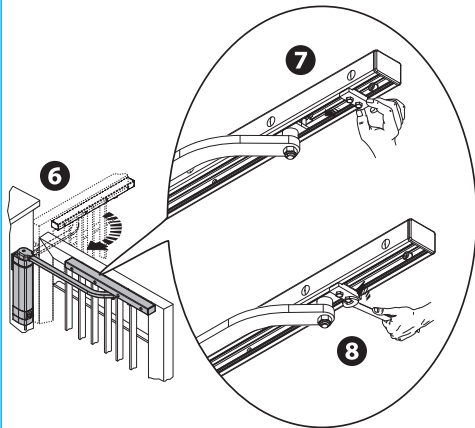
UNI 6954 Ø 3,9 x 9,5

O-Ring 2012

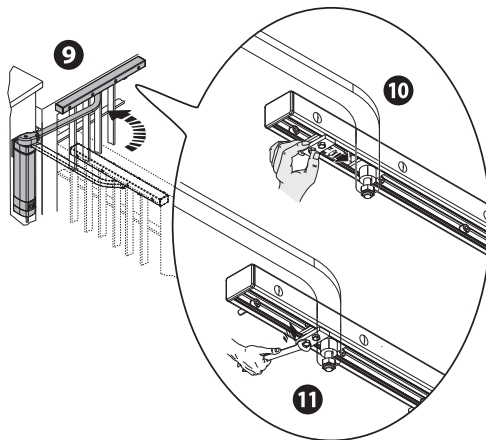




Release the gearmotor (see paragraph on manual release). Fully open the gate leaf ⑨ and position the mechanical stop so that it coincides with the slide guide ⑩ and then secure it ③.

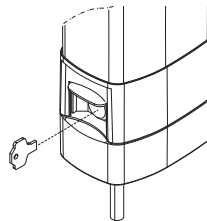


Fully close the gate leaf ⑨ and position the closing mechanical stop so that it coincides with the slide guide ⑩ and then secure it ⑪.



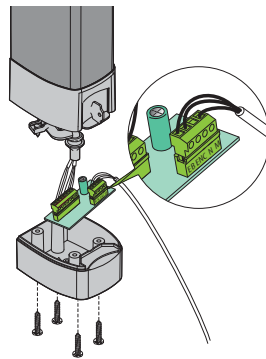
## Manual release of the non-reversible gearmotor

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



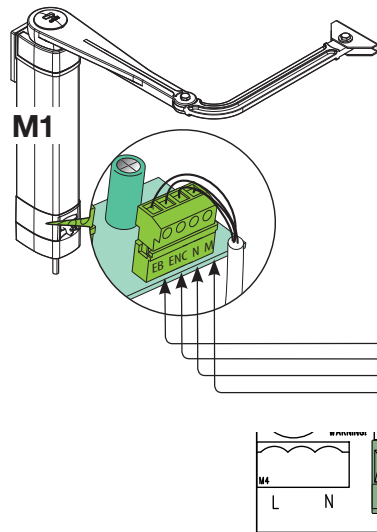
## Electrical connections

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

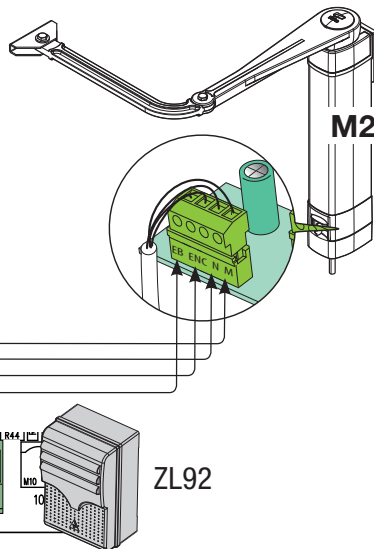


## Electrical connection of the STYLO ME gearmotor to the control panel

24 V (DC) gearmotor with  
delaying opening action

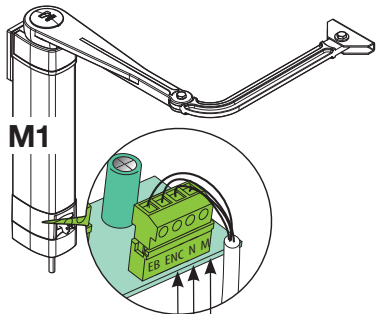


24 V (DC) gearmotor with  
delaying closing action

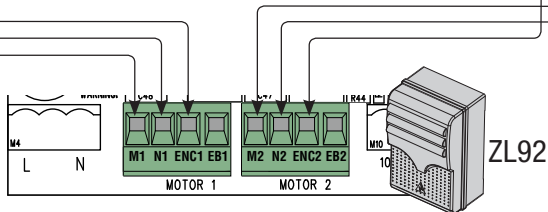
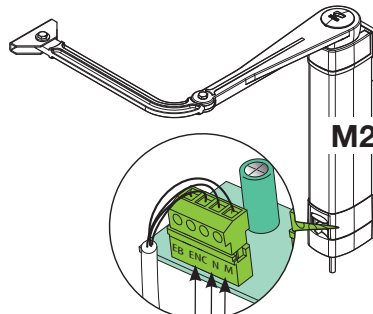


## Electrical connection of the STYLO RME gearmotor to the control panel

24 V (DC) gearmotor with  
delaying opening action



24 V (DC) gearmotor with  
delaying closing action




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## Troubleshooting

MALFUNCTIONS	POSSIBLE CAUSES	CHECKS AND REMEDIES
The gate does not open or close	<ul style="list-style-type: none"> <li>No power supply</li> <li>The transmitter battery is flat</li> <li>The transmitter is broken</li> <li>The stop button is stuck or broken</li> <li>The opening/closing button or the key selector switch are stuck</li> </ul>	<ul style="list-style-type: none"> <li>Check for power</li> <li>Replace the batteries</li> <li>Contact service</li> <li>Contact service</li> <li>Contact service</li> </ul>
The gate opens but does not close	<ul style="list-style-type: none"> <li>The photocells are engaged</li> </ul>	<ul style="list-style-type: none"> <li>Check that the photocells are clean and work correctly</li> <li>Contact service</li> </ul>
The flashing light does not work	<ul style="list-style-type: none"> <li>The bulb has blown</li> </ul>	<ul style="list-style-type: none"> <li>Contact service</li> </ul>

## 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)***

Date	Notes	Signature

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## Extraordinary maintenance

⚠ The table below is used to note any extraordinary maintenance, repairs or improvements carried out by specialist companies.

N.B.: Extraordinary maintenance must be carried out by specialist technicians.

### ***Extraordinary maintenance log***

Installation technician stamp	Operator name
	Date of intervention
	Technician signature
	Customer signature
Intervention carried out _____ _____ _____	
Installation technician stamp	Operator name
	Date of intervention
	Technician signature
	Customer signature
Intervention carried out _____ _____ _____	

## 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!**

## Declaration of conformity

**Declaration CE** - CAME S.p.A. declares that this device complies with the essential requirements and other relevant provisions established in Directives 2004/108/EC and 2006/42/EC.

An original copy of the declaration of conformity is available on request.



**English** - Manual code: **119DVI1EN** vers. **5** 01/2015  
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