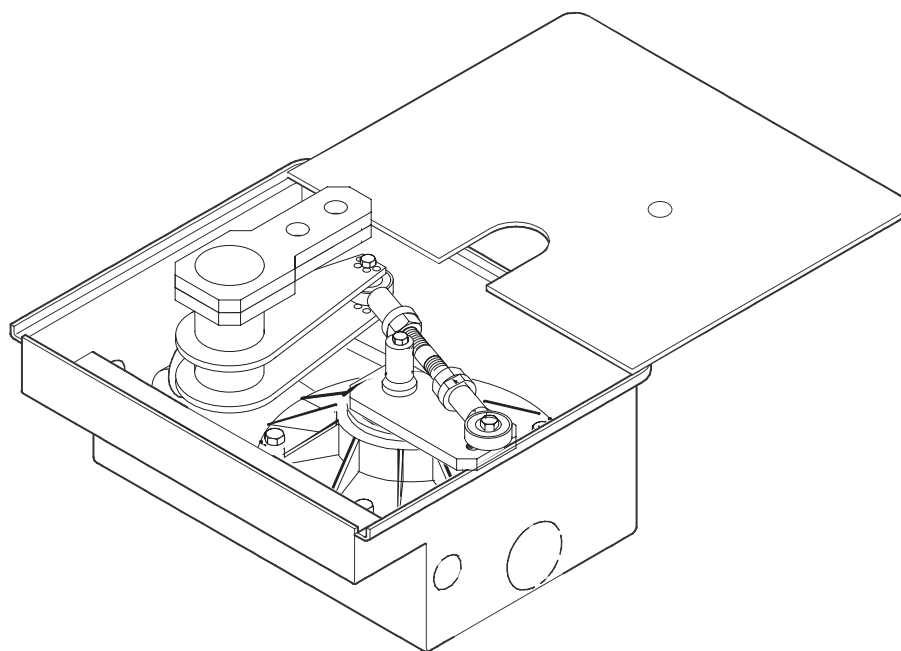


AUTOMATION SYSTEM FOR SWING GATES

FROG SERIES



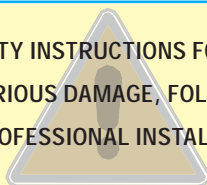
INSTALLATION MANUAL

SUPERFROG




"IMPORTANT SAFETY INSTRUCTIONS FOR INSTALLATION"

"CAUTION: IMPROPER INSTALLATION MAY CAUSE SERIOUS DAMAGE, FOLLOW ALL INSTALLATION INSTRUCTIONS CAREFULLY"

"THIS MANUAL IS ONLY FOR PROFESSIONAL INSTALLERS OR QUALIFIED PERSONS"




1 Legend

-  This symbol indicates sections to be read with particular care.
-  This symbol indicates sections concerning safety.
-  This symbol indicates notes to communicate to users.

2 Destination and limits of use

2.1 Intended use

The SUPERFROG automation system has been engineered to operate swing gates of up to 1500 kg.

 The use of this product for purposes other than as described above and installation executed in a manner other than as instructed in this technical manual are prohibited.

2.2 Limits to use

Length of gate leaf	< 4 m	4 m	5 m	6 m	7 m	8 m
Weight of gate leaf	1500 kg	1200 kg	1000 kg	800 kg	700 kg	600 kg

3 Reference standards

This product complies with the following standards: EN 12978, UNI EN 954-1, CEI EN 60335-1, UNI EN 12453.

4 Description

4.1 Automation

SUPERFROG was designed and manufactured by CAME CANCELLI AUTOMATICI S.p.A. and is compliant with the safety regulations in force. Guaranteed 24 months if not tampered with.

The automation system is composed of a foundation box, a gearmotor – and a series of arms.

The foundation box is made of steel and is 1.5mm thick on the sides and 4mm thick on the bottom. It houses the gearmotor which is made of a die-cast iron case, inside of which operates an worm-screw and helical worm gear based irreversible reduction system, which is lubricated with a SINCAT type oil and features a transmission arm.

4.2 Technical specifications

SUPERFROG

Power supply panel: 230/400V A.C. triphase 50/60Hz

Motor power supply: 230/400V A.C. triphase 50/60Hz

Max. draw: 2,5 A

Rated power: 600 W

Max. torque: 100 kgm

Opening time: 45 s (max. 95°)

Reduction ratio: 1/1800

Arm revolutions: 0.35 rmp

Operative intermittence: 50%

Protection level: IP67

Weight: 189 kg

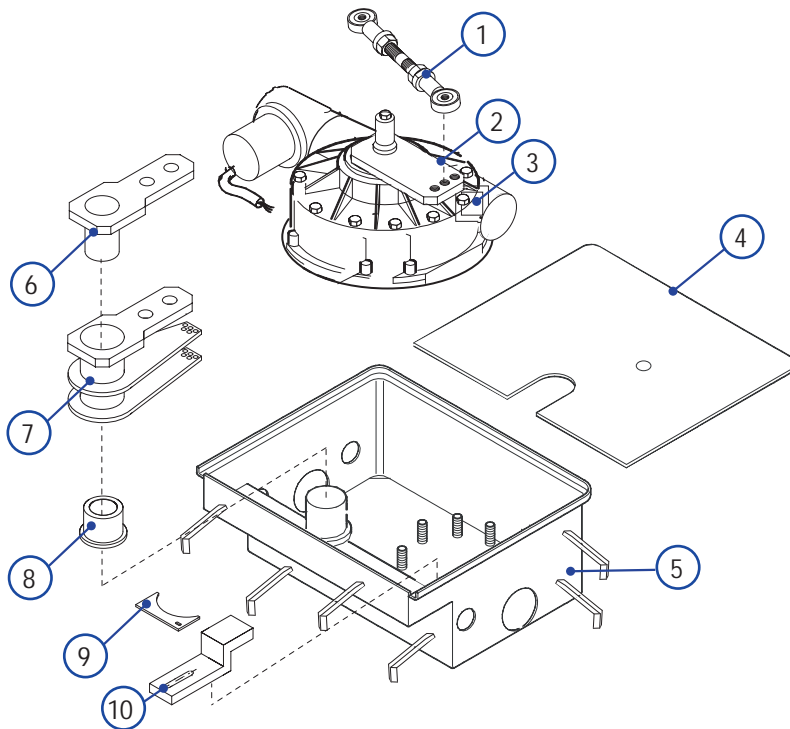
Insulation class:



4.3 Description of the parts

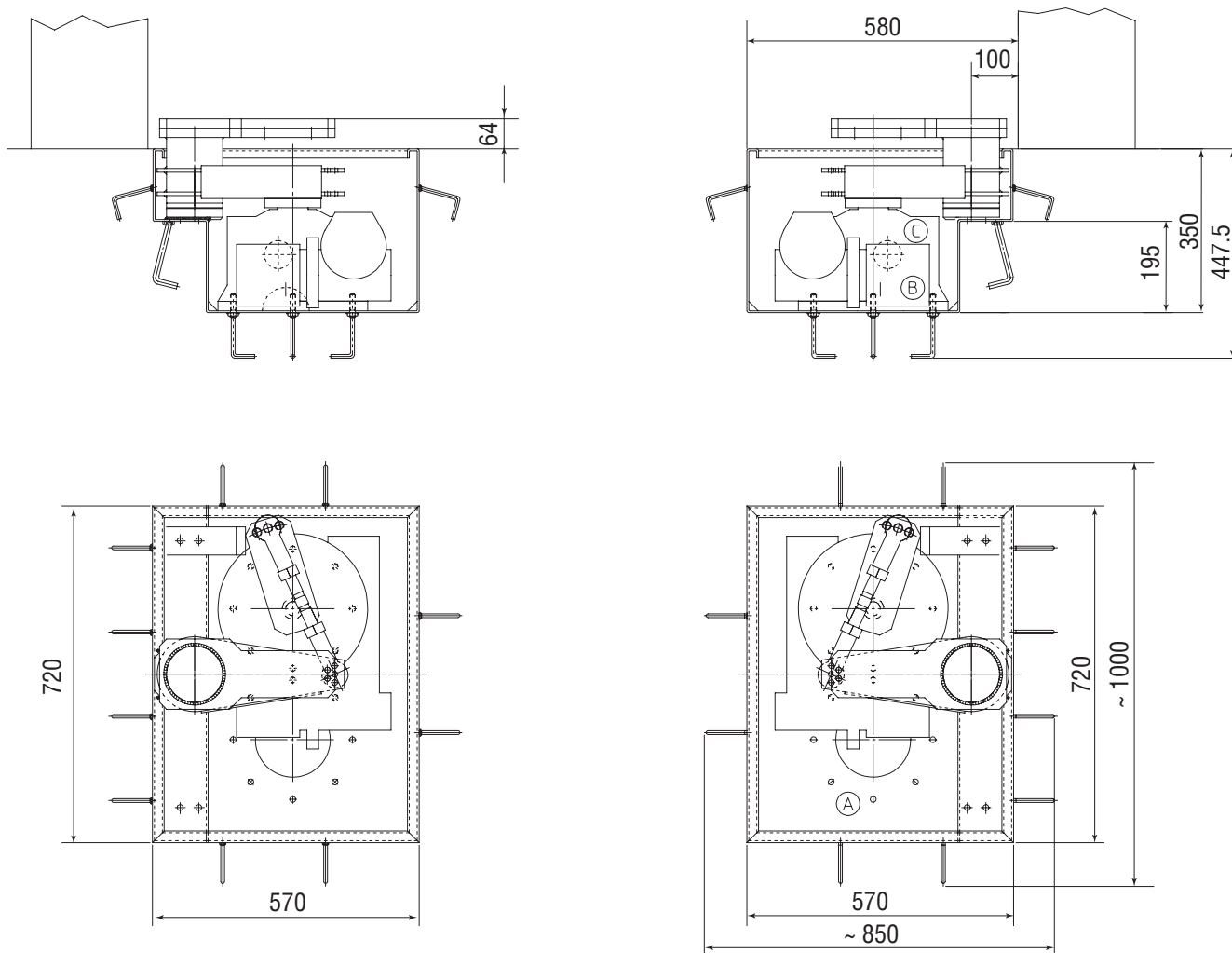
GEARMOTOR UNIT

- 1) Tie rod
- 2) Motor support assembly
- 3) Gearmotor
- 4) Cover
- 5) Foundation box
- 6) Upper arm assembly
- 7) Arm assembly
- 8) Sleeve bearing
- 9) Hole cover for case
- 10) Bracket for case



4.4 Dimensions

Measurements in mm




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.

5 Installation

 The installation must be carried out by expert, qualified personnel in total compliance with the norms in effect.

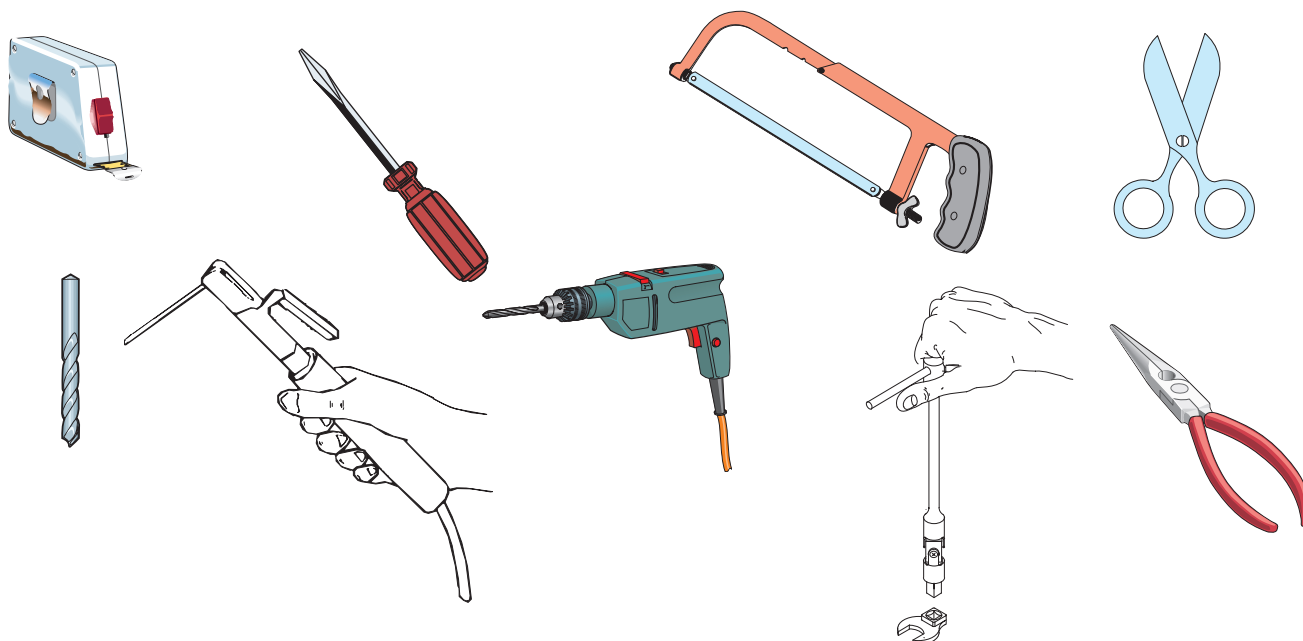
5.1 Preliminary checks

 Before proceeding with the installation, it is necessary to:

- Provide for a suitable omnipolar disconnection device with contacts more than 3 mm apart, and independent (sectioned off) power supply;
- Make 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;
- Set up a tube to serve as a draining system to prevent water build up and oxidation;
-  Make sure that any connections inside the container (made for the continuity of the protection system) are provided with additional insulation compared to the other conductive parts inside;
- Make sure that the structure of the gate is sufficiently sturdy, that the hinges are in good working order and that there is no friction among any of the moving parts;
- Make sure there is a mechanical stop for both the opening and closing phases.

5.2 Tools and materials

Make sure all tools and materials necessary are within reach to install the edge in total safety, and in compliance with the regulations in force. The following figure illustrates the minimum equipment needed by the installer.



5.3 Cable list and minimum thickness

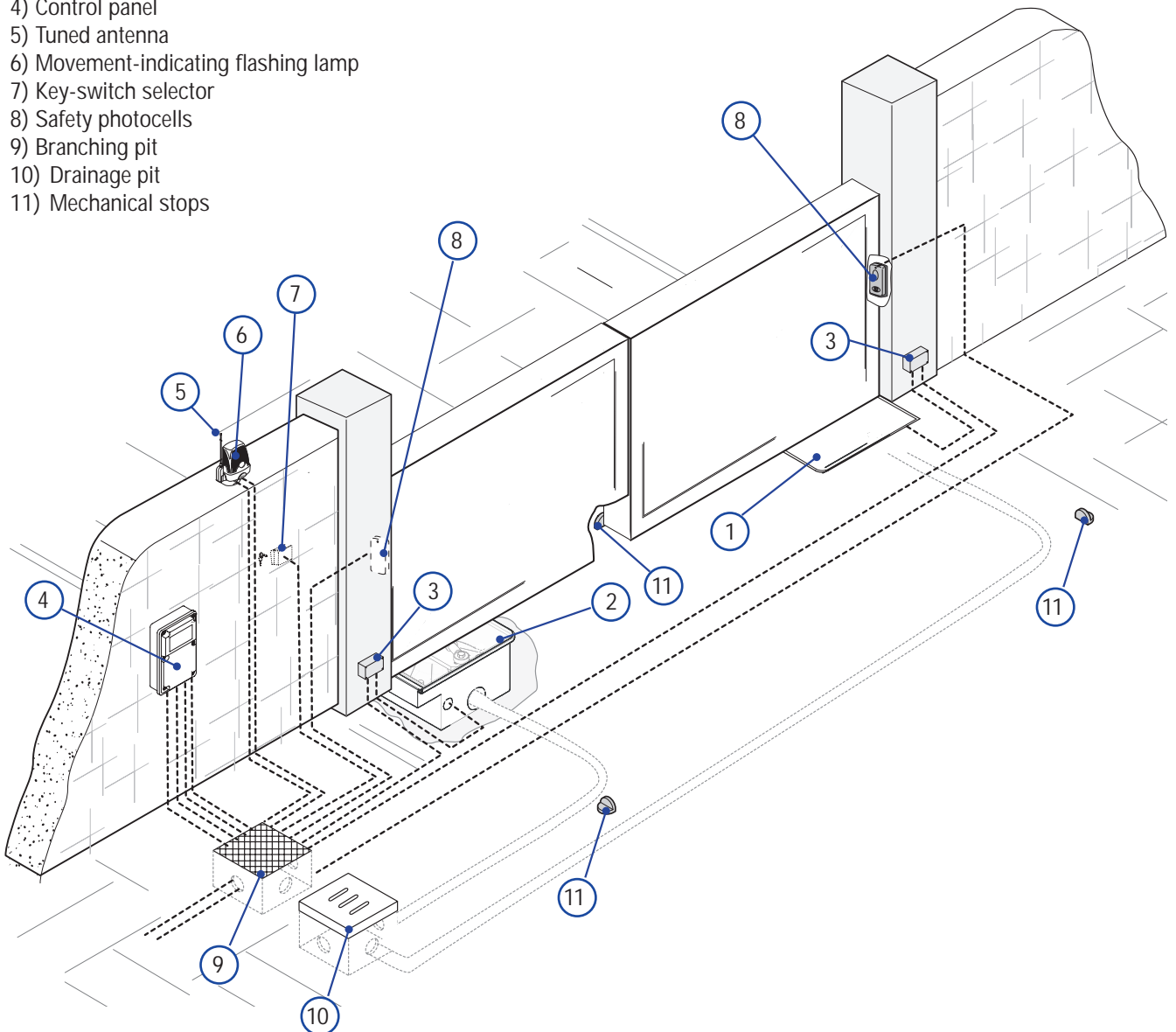
Connections	Type of cable	Length of cable 1 < 10 m	L. of cable 10 < 20 m	L. of cable 20 < 30 m
230/400V 3F power supply	FROR CEI 20-22 CEI EN 50267-2-1	4G x 1,5 mm ²	4G x 2,5 mm ²	4G x 4 mm ²
230/400V 3F motor power supply		4G x 1 mm ²	4G x 1,5 mm ²	4G x 2,5 mm ²
Flashing lamp		2 x 0,5 mm ²	2 x 1 mm ²	2 x 1,5 mm ²
Photocell transmitters		2 x 0,5 mm ²	2 x 0,5 mm ²	2 x 0,5 mm ²
Photocell receivers		4 x 0,5 mm ²	4 x 0,5 mm ²	4 x 0,5 mm ²
power supply to accessories		2 x 0,5 mm ²	2 x 0,5 mm ²	2 x 1 mm ²
Control 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		

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 draw 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 other than those mentioned in this manual please see the documents provided with the products themselves.

- 1) Right-hand gearmotor unit (MD gearmotor + CD foundation box)
- 2) Left-hand gearmotor unit (MS gearmotor + CS foundation box)
- 3) Cable box for connections
- 4) Control panel
- 5) Tuned antenna
- 6) Movement-indicating flashing lamp
- 7) Key-switch selector
- 8) Safety photocells
- 9) Branching pit
- 10) Drainage pit
- 11) Mechanical stops



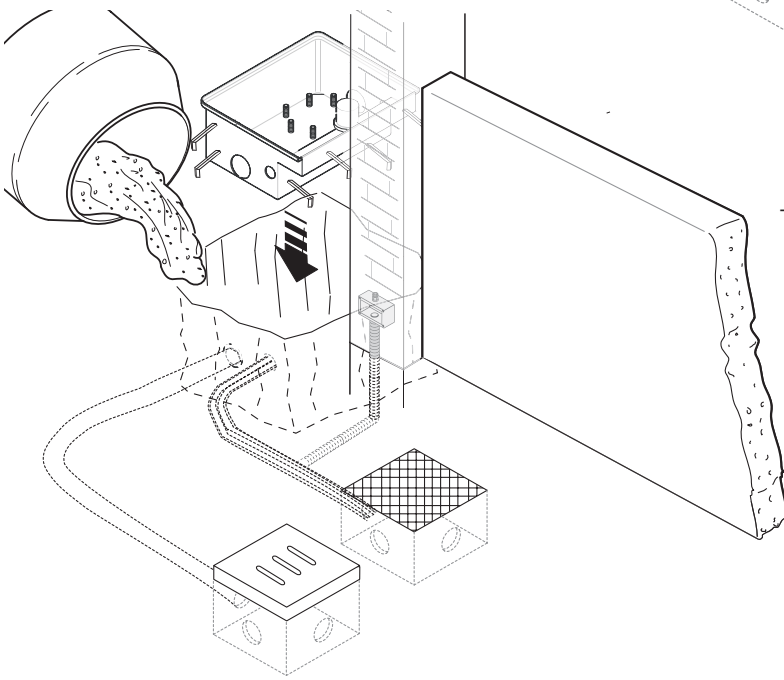
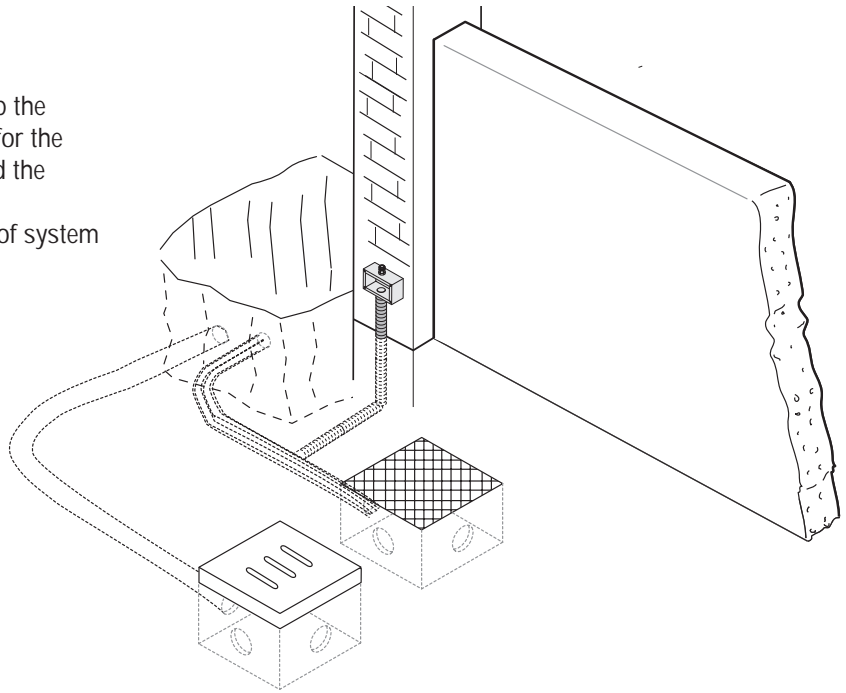
5.4 Preparing the foundation box

⚠ The following applications are only examples, as the space required for unit installation and the accessories vary depending on dimensions and therefore it is up to the installer to select the best solution.

Note: the following sketches show how to install the right-hand foundation box (CD).

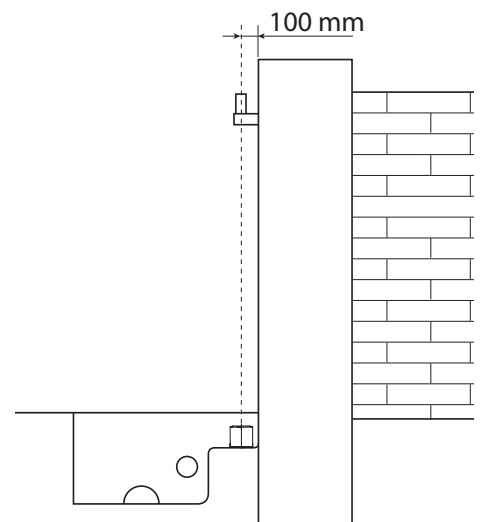
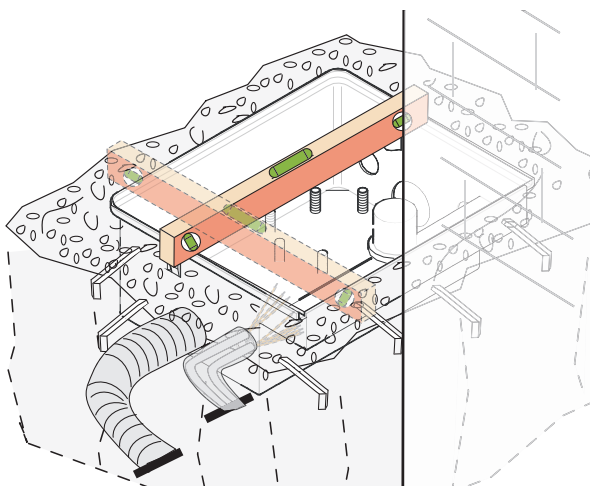
- Dig a pit to place the foundation box into, set up the required cable boxes and corrugated conduits – for the connections coming from the branching pit – and the drainage tube.

Note: the number of cables depends on the type of system and the accessories installed.

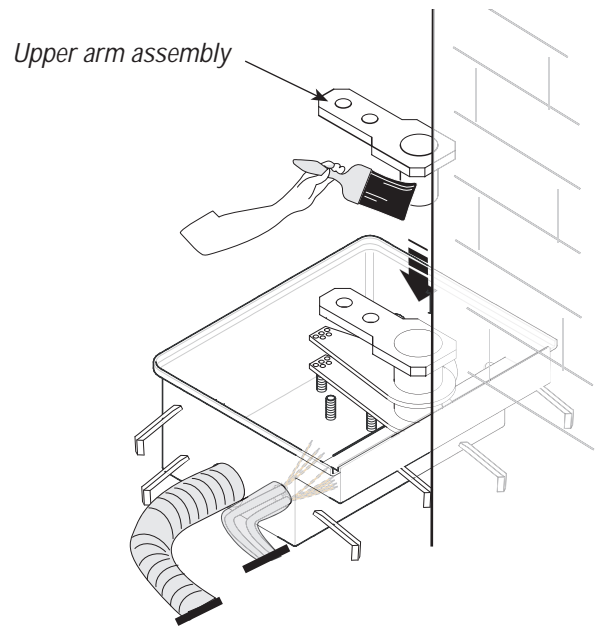
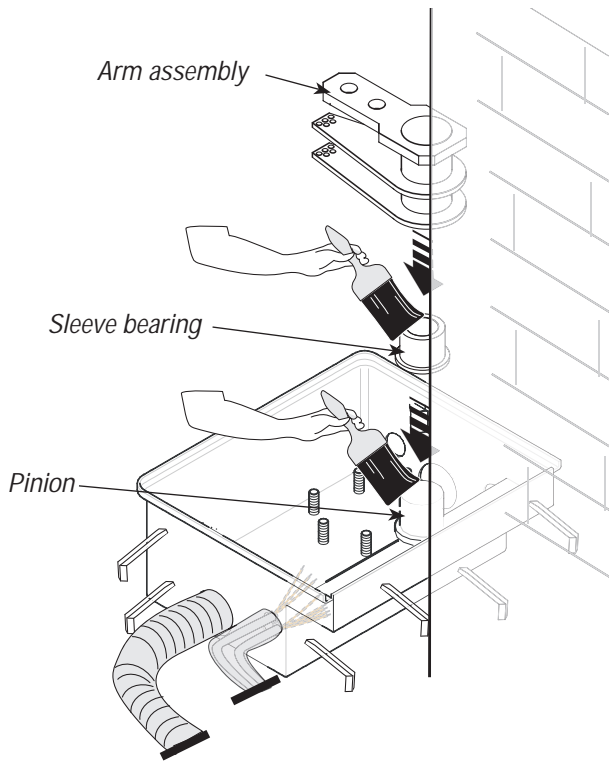


- Fill the pit with concrete and sink the foundation box into it, making sure that the corrugated and drainage tubes pass through the proper holes.

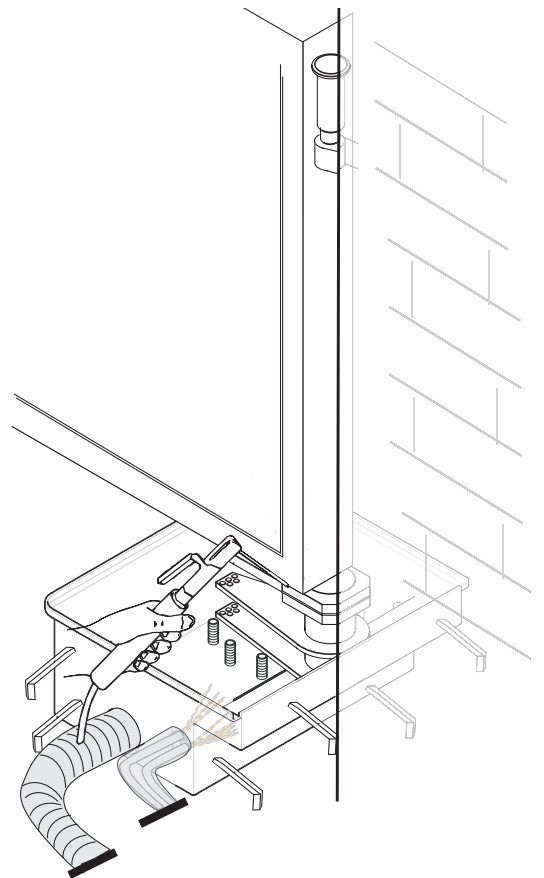
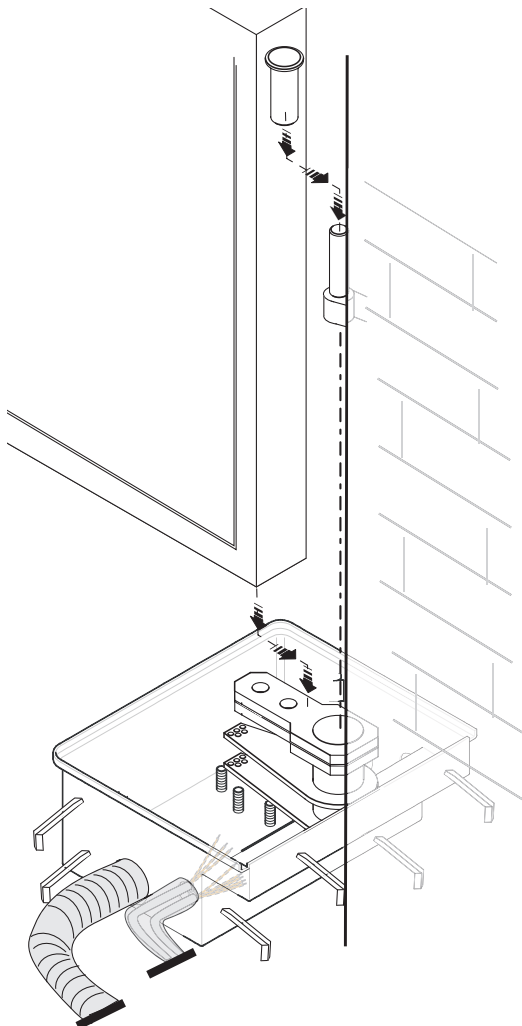
- Level the foundation box with the ground and position the pinion of the foundation box in line with the top hinge of the gate.



- Lubricate the pinion of the foundation box, the sleeve bearing, the arm assembly and the upper arm assembly. Follow the diagrams to assemble properly.



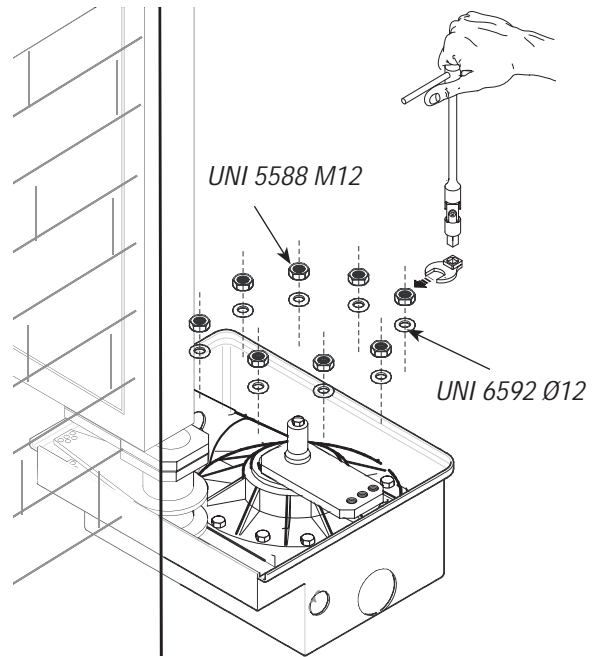
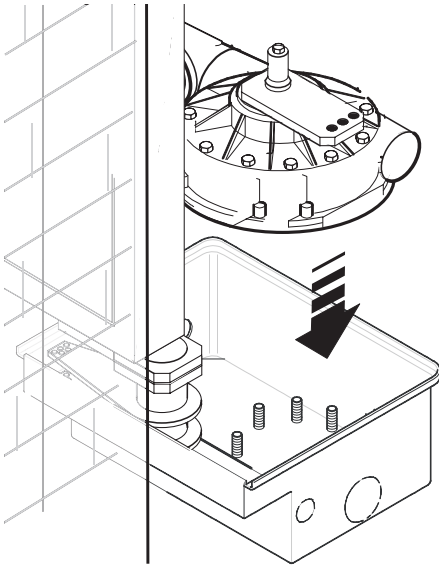
- Place the gate leaf above the upper arm assembly making sure that the hinge is secured properly. Properly weld the gate leaf to the upper arm assembly.



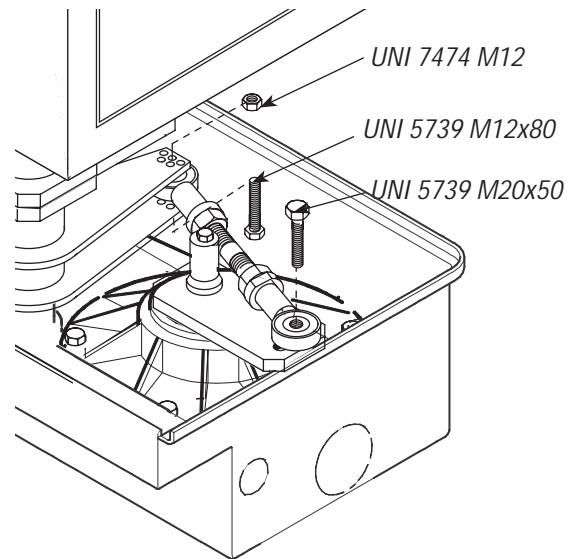
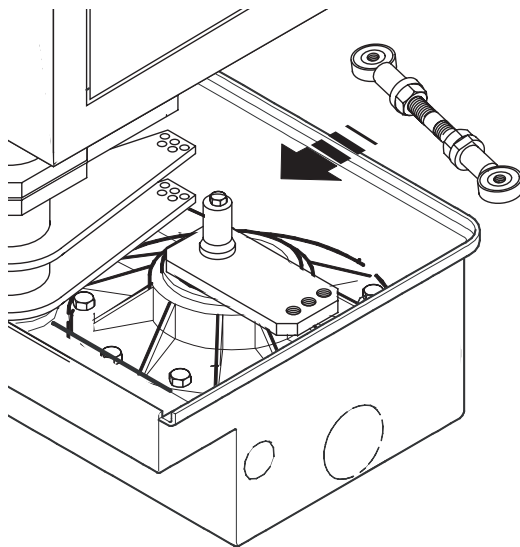
5.5 Installing the motor unit

N.B. the diagrams that follow show an outer view so as to make the (MD) right-hand gearmotor installation more intuitive.

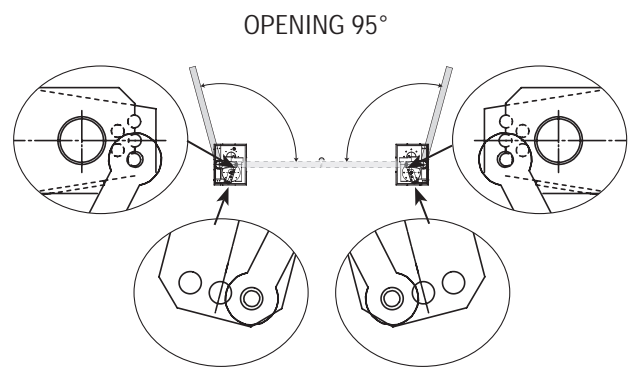
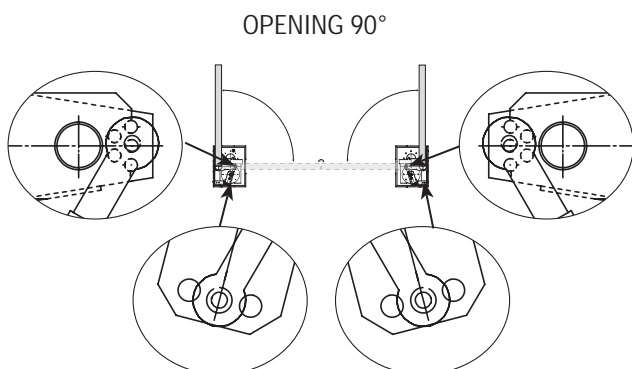
- Place the gearmotor into the foundation box and fasten it with nuts and washers using the crow's foot wrench supplied and the proper ratchet wrench.



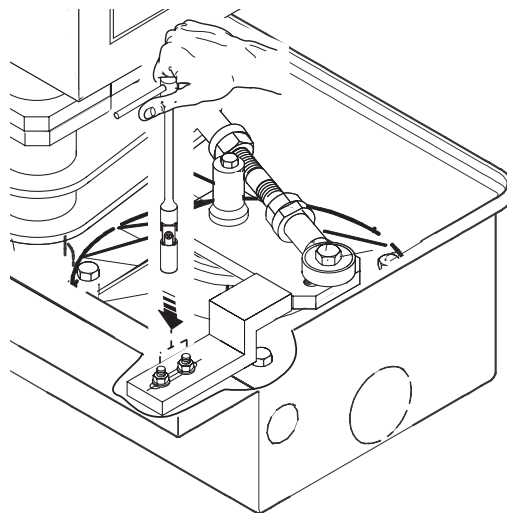
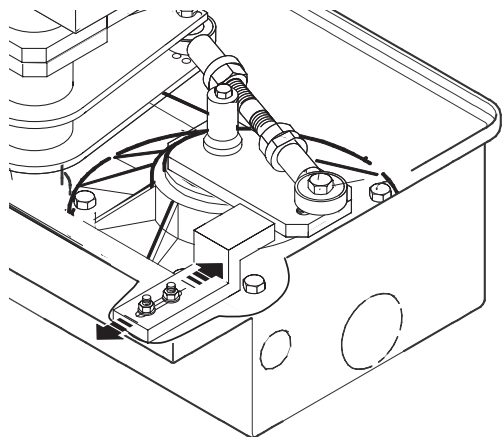
- Fasten the tie rod between the motor support and the arm assembly with nuts and bolts in the proper holes.



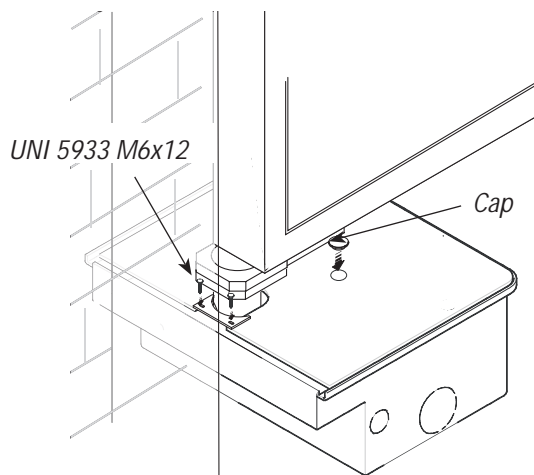
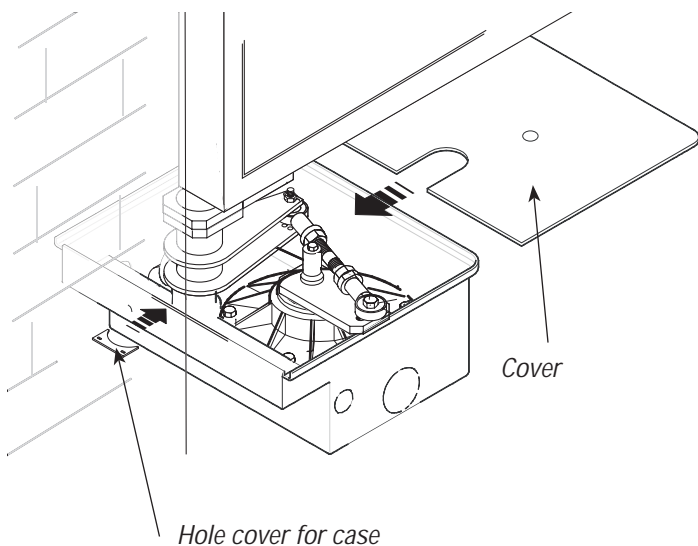
Note: the arms are fitted with several holes to enable different gate-leaf opening angles.



- When the gate leaf is in the closed position, adjust the box bracket until it stops against with the motor arm assembly and fasten it.

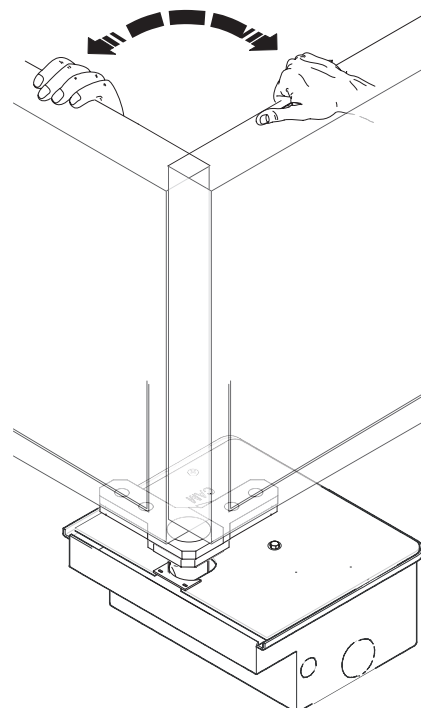
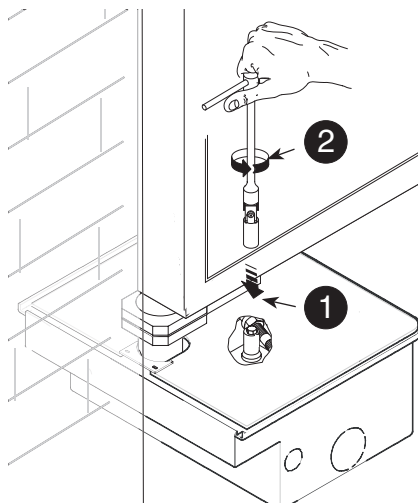
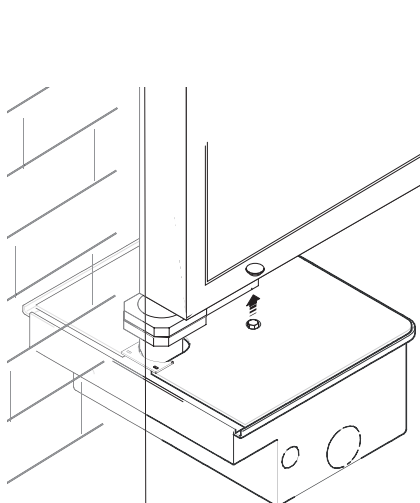


- Rest the cover on top of the foundation box, fix the hole cover into place and insert the cap into the cover.



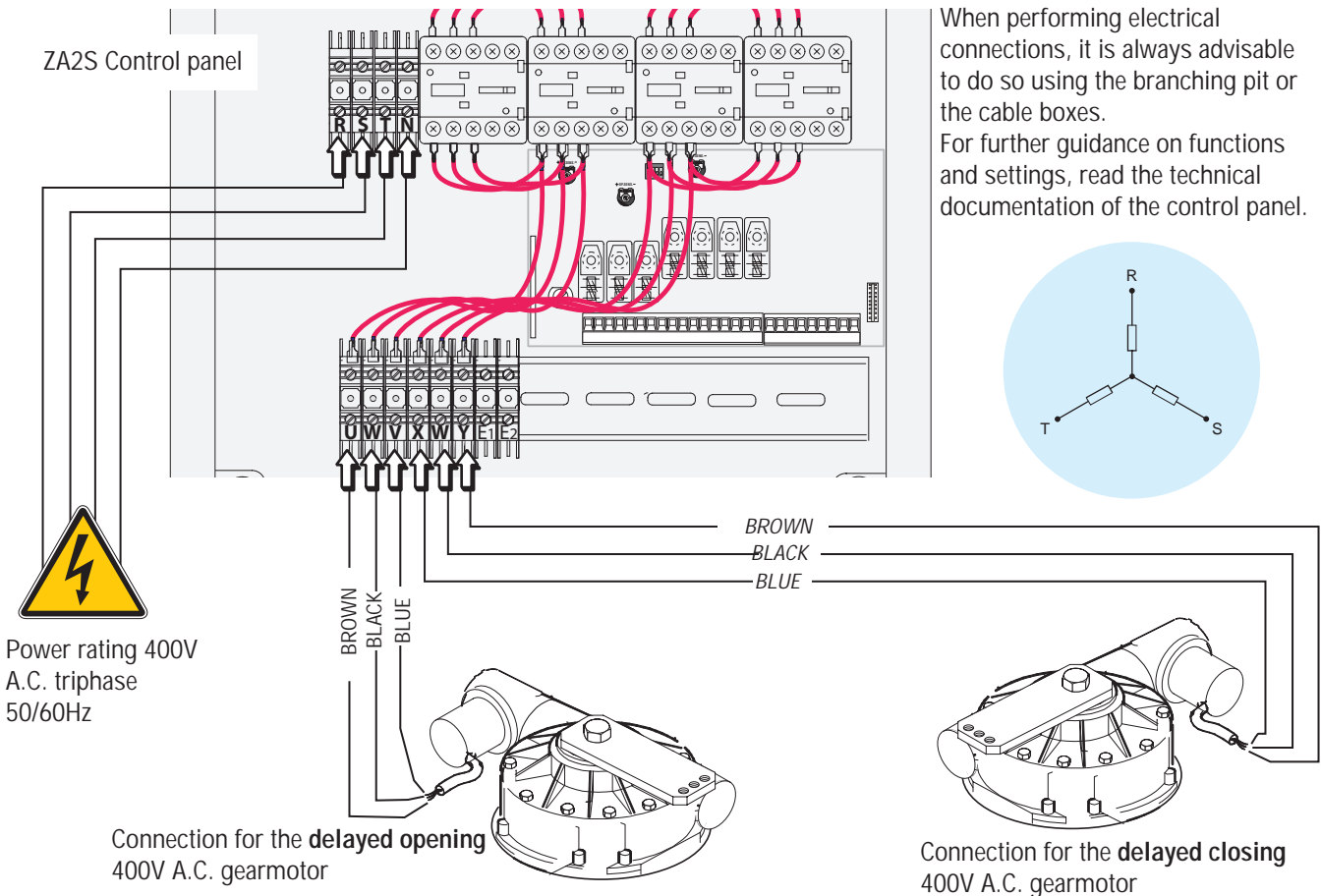
5.6 Manual release of the gearmotor

- Remove the cap, loosen the motor arm assembly screw by turning it counter-clockwise to move the gate leaf manually.

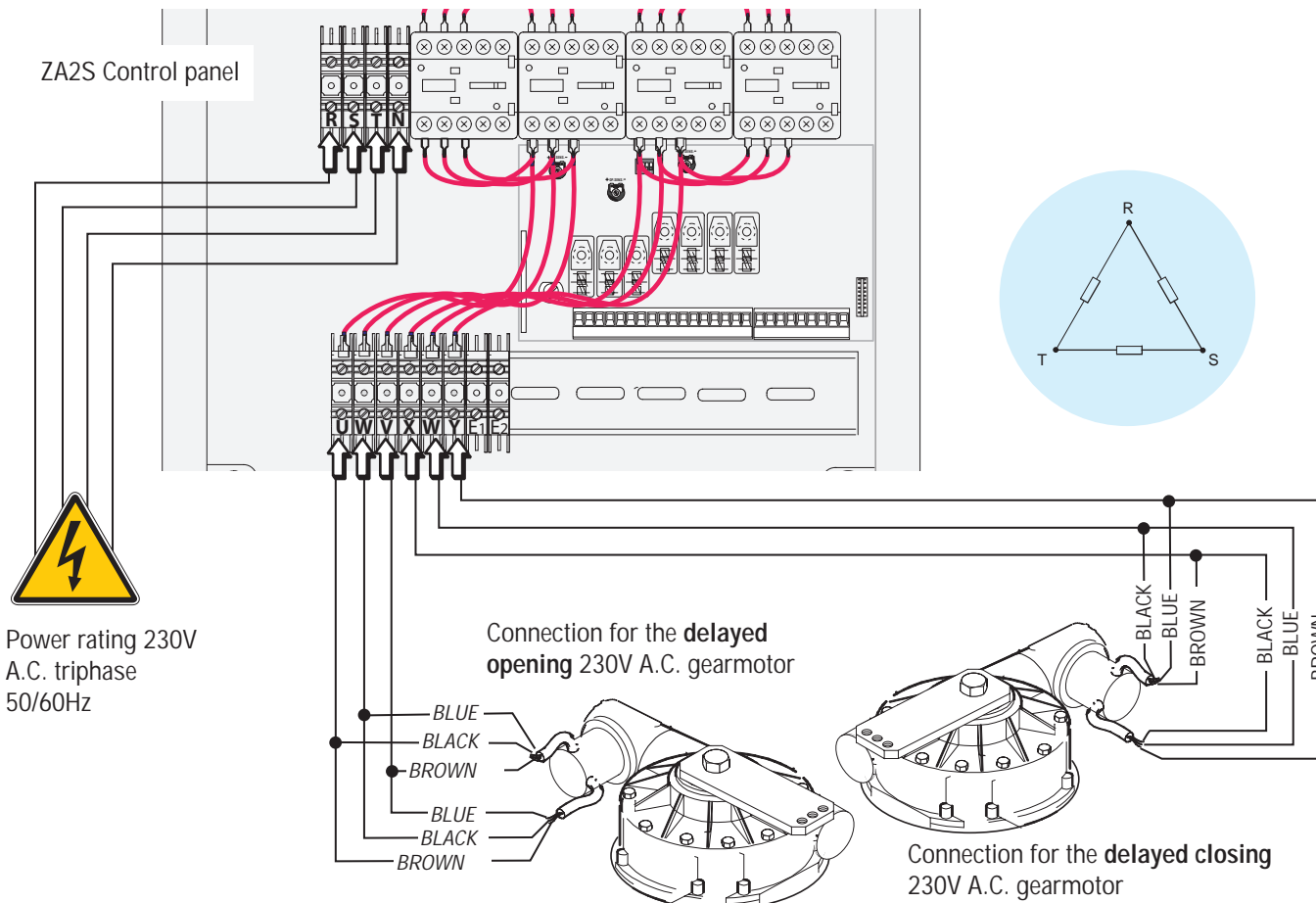


6 Connecting up to the control panel

Electrical connection for 400V gearmotor.



Electrical connection for 230V gearmotor.



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7 Maintenance

 The unit does not require specific maintenance.

Only as a precautionary measure and in case of intensive use, we recommend periodically checking (every 6 months) on the state of the electric wire connected to the motor, the tightness of the nuts and the proper oiling of the sliding points between fixed and mobile parts.

All checks must be recorded (in a dedicated record-book).

8 Demolition 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.

Please continue our efforts to protect the environment—which CAME considers one of the cardinal elements in the development of its operational and market strategies—simply by observing brief recommendations as regards disposal:

DISPOSAL 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.

PLEASE DISPOSE OF PROPERLY!

PRODUCT DISPOSAL

Our products are made up of various types of materials. Most of them (aluminium, plastics, iron, electrical wires, etc.) may be disposed of in normal garbage collection bins and can be recycled by disposing of in specific recyclable material collection bins and disposal in authorized centres.

Other components (electrical boards, remote control batteries, etc.), however, may 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.

PLEASE DISPOSE OF PROPERLY!

9 Manufacturer's warranty



MANUFACTURER'S DECLARATION OF CONFORMITY

Pursuant to annex II B of the Machinery Directive 98/37/EC



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IMPORTANT WARNING!

*Do not use the equipment specified here above, before completing the full installation
In full compliance with the Machinery Directive 98/37/EC*

Declares under its own responsibility that the equipments for automatic garage doors and gates listed below:

DRIVERS FOR SWING GATES

FROG-MD / FROG-CD / FROG-MS / FROG-CS

... comply with the National Law related to the following European Directives and to the applicable parts of the following Standards.

98/37/CE - 98/79/CE	MACHINERY DIRECTIVE
98/336/CEE - 92/31/CEE	ELECTROMAGNETIC COMPATIBILITY DIRECTIVE
73/23/CEE - 93/68/CE	LOW VOLTAGE DIRECTIVE
89/106/CEE	CONSTRUCTION PRODUCTS DIRECTIVE

EN 13241-1	EN 12635	EN 61000-6-2
EN 12453	EN 12978	EN 61000-6-3
EN 12445	EN 60335-1	EN 60204-1

MANAGING DIRECTOR
Mr. Andrea Menuzzo

Reference code to request a true copy of the original: DDF B EN A003 ver.1.0

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