Ditec
ENTREMATIC

Ditec QIK80EH

Electromechanical barrier

(Original instructions)

IP2085EN

Technical Manual

www.ditecentrematic.com

IP2085EN - 2013-05-10

Index

Key

This symbol indicates instructions or notes regarding safety, to which special attention must be paid.

This symbol indicates useful information for the correct functioning of the product.

1. General safety precautions

This installation manual is intended for qualified personnel only.
Installation, electrical connections and adjustments must be performed in accordance with Good Working Methods and in compliance with the present standards.
Read the instructions carefully before installing the product.
Bad installation could be dangerous.
The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as these are a potential source of danger.
Before installing the product, make sure it is in perfect condition.
Do not install the product in explosive areas and atmospheres: the presence of inflammable gas or fumes represents a serious safety hazard.
Before installing the motorisation device, make all the necessary structural modifications in order to create safety clearance and to guard or isolate all the crushing, shearing, trapping and general hazardous areas.
Make sure the existing structure is up to standard in terms of strength and stability. The motorisation device manufacturer is not responsible for failure to observe Good Working Methods when building the frames to be motorised or for any deformation during use.
The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account: applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the motorised door.
The safety devices must protect the crushing, cutting, trapping and general hazardous areas of the motorised door.
Display the signs required by law to identify hazardous areas.
Each installation must bear a visible indication of the data identifying the motorised door.
When requested, connect the motorised door to an effective earthing system that complies with current safety standards.
During installation, maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts.
The automation protection casing must be removed by qualified personnel only.
The electronic parts must be handled using earthed antistatic conductive arms. The manufacturer of the motorisation declines all responsibility in the event of component parts being fitted that are not compatible with the safe and correct operation.
Use original spare parts only for repairs or replacements of products.
The installer must supply all information on automatic, manual and emergency operation of the motorised door and must provide the user with the operating instructions.

IP2085EN - 2013-05-10

2. EC Declaration of Conformity

(Directive 2006/42/EC, Annex II-B)
The manufacturer Entrematic Group AB, with headquarters in Lodjursgatan 10, SE-261 44 Landskrona, Sweden,
declares that the Ditec QIK80EH type motorised barrier complies with the essential requirements of the following EC directives:
- Electromagnetic Compatibility Directive 2004/108/EC
- Machinery Directive 2006/42/EC
- Construction Products Directive 89/106/EC

conforms to the following characteristics of the standard EN 13241-1 (Attachment ZA):
- Factory production control (Conforming)
- Release of hazardous substances (Conforming)
- Resistance to wind load (Class 5)
- Safe opening (Conforming)
- Mechanical strength and stability (Conforming)
- Manoeuvring forces (Conforming)

Notified body: Treviso Tecnologia - CERT
Registration number: 1600
Address: Via Pezza Alta, 34 31046 Rustignè di Oderzo (TV)

Landskrona, 12-02-2013

Marco Pietro Zini
(BA President)

2.1 Machinery Directive

Pursuant to Machinery Directive (2006/42/EC) the installer who motorises a door or gate has the same obligations as the manufacturer of machinery and as such must:
- prepare the technical file which must contain the documents indicated in Annex V of the Machinery Directive;
  (The technical file must be kept and placed at the disposal of competent national authorities for at least ten years from the date of manufacture of the motorised door);
- draw up the EC Declaration of Conformity in accordance with Annex II-A of the Machinery Directive and deliver it to the customer;
- affix the EC marking on the motorised door in accordance with point 1.7.3 of Annex I of the Machinery Directive.

3. Technical specifications

	QIK80EH
Power supply	230 V~ 50/60 Hz
Absorption	1.2 A
Torque	200 Nm
Insulation class	Class 1
Opening time	6÷12 s/90°
Closing time	6÷12 s/90°
Bar length (max)	7950 mm
Service class	4 - INTENSE
Intermittence	S2 = 50 min S3 = 50%
Temperature	min -20° C max +55° C
Degree of protection	IP24D
Control panel	EL34

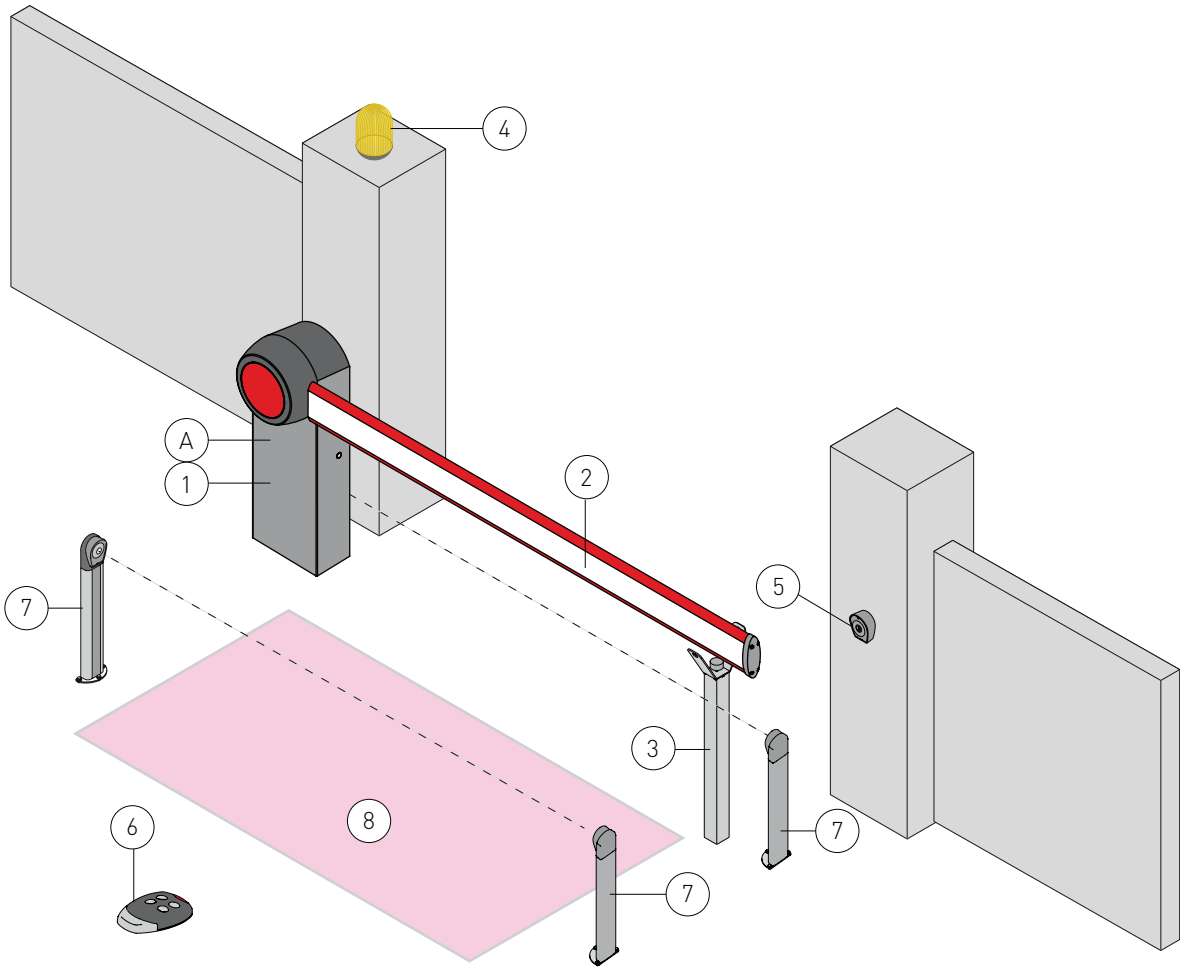
3.1 Operating instructions

Service class: 4 (minimum 10÷5 years of working life with 100÷200 cycles per day).
Applications: INTENSE (for apartment block, industrial and commercial entrances and car parks with vehicle access or access for intense pedestrian use).

- Performance characteristics are to be understood as referring to the recommended weight (approx. 2/3 of maximum permissible weight). When used with the maximum permissible weight a reduction in the above mentioned performance can be expected.
- Service class, running times, and the number of consecutive cycles are to be taken as merely indicative, having been statistically determined under average operating conditions, and are therefore not necessarily applicable to specific conditions of use.
- Each automatic entrance has variable elements such as: friction, balancing and environmental factors, all of which may substantially alter the performance characteristics of the automatic entrance or curtail its working life or parts thereof (including the automatic devices themselves). The installer should adopt suitable safety conditions for each particular installation.

IP2085EN - 2013-05-10

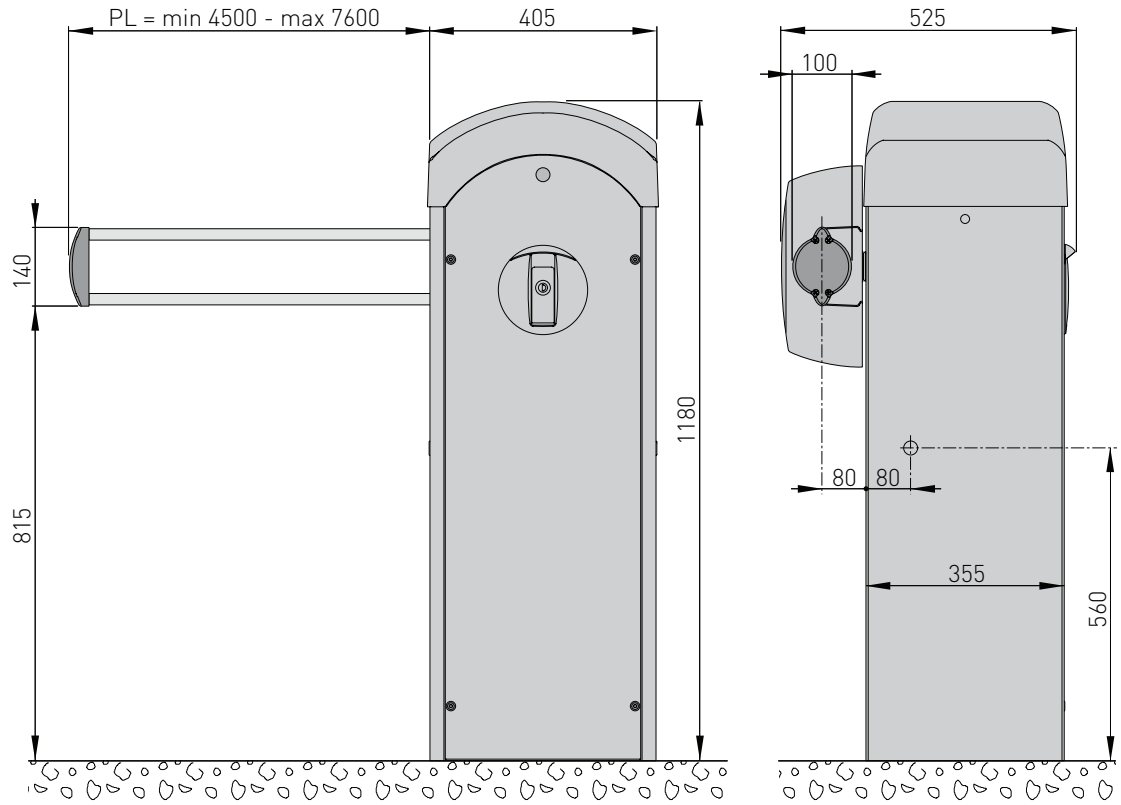
4. Standard installation



Ref.	Code	Description
1	QIK80EH QIK80Z	Barrier cabinet Cabinet fastening base
2	QIKC40 QIKCG QIKLUX QIKC QIKAM QIKGR	Bar 3975 mm Joint for bar Bar lighting kit Box of 10 bar reflectors Mobile support Aluminium skirt 2000 mm
3	QIKAF QIKAFE QIKAFZ	Fixed support Fixed support with electromagnetic block Fixed support fastening base
4	LAMPH	Flashing light
5	XEL5 LAN4 LAN7 XELCA	Key selector switch Combination keyboard Card decoder Column for control accessories
6	GOL4	Remote control
7	XEL2 XELCB	Photocells Photocell column
8	LAB9	Magnetic loop detector for passage control
A		Connect the power supply to a type-approved omnipolar switch, with a contact opening distance of at least 3 mm (not supplied). Connection to the mains must be via independent channel and separate from the connections to the control and safety devices.

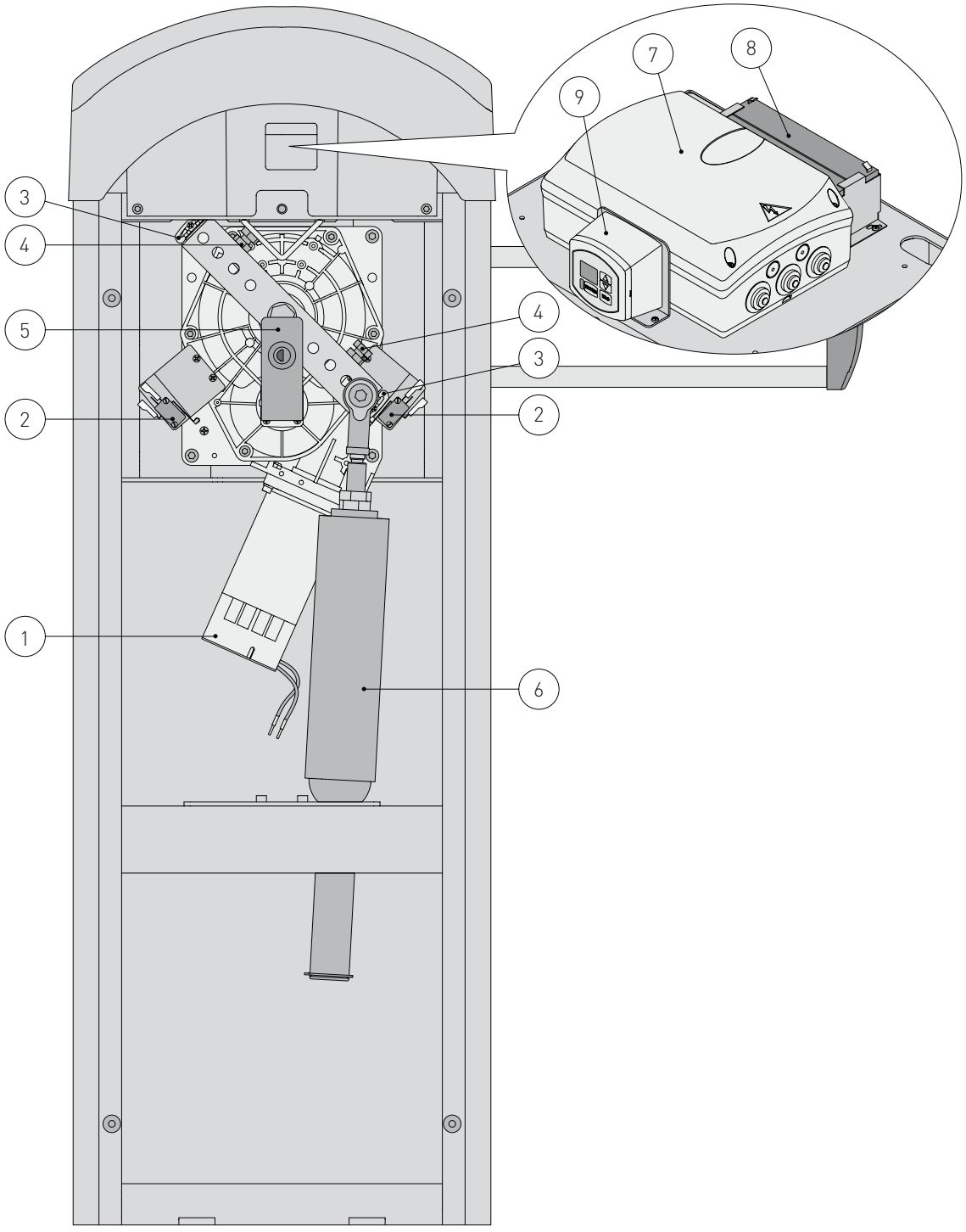
The given operating and performance features can only be guaranteed with the use of DITEC accessories and safety devices.

5. Dimensions



IP2085EN - 2013-05-10

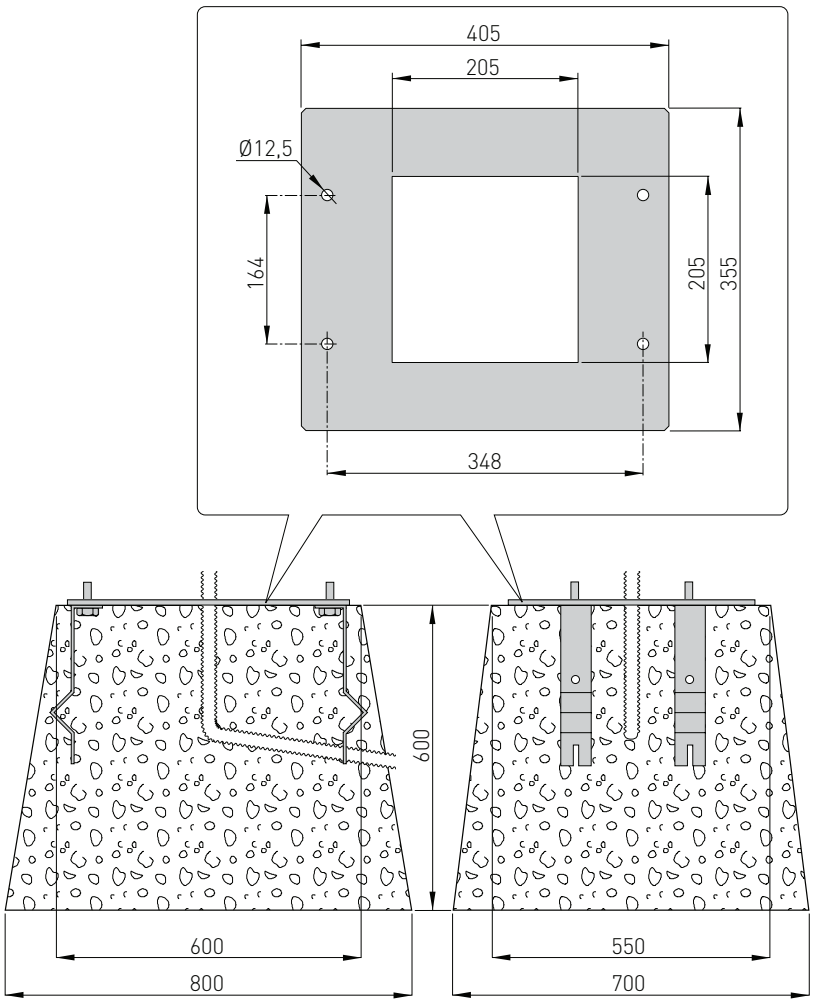
6. Main components



Ref.	Code	Description
1		24 V⎓ motor with encoder
2		Opening/closing limit switches
3		Limit switch adjustment
4		Mechanical stop adjustment
5		Key release
6		Blue spring Ø63 mm
7		Control panel
8	BATKH	Continuous mode battery kit
9	MD2	Display module for diagnostics and advanced control

7. Mechanical installation

Unless otherwise specified, all measurements are expressed in mm.

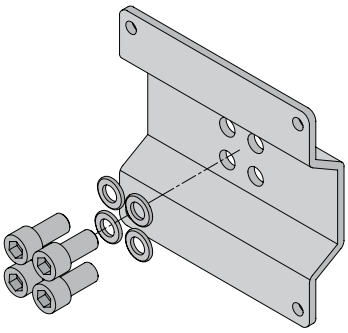


- If the surface does not allow cabinet to be fastened strongly and firmly, prepare a concrete base with embedded anchor ties and QIK80Z base plate which must be level and clean.
- Insert elements made of iron or another material in the anchor ties to attach the ties to the concrete reinforcement.
- Pass the cable ducts through the central hole of the plate.
  WARNING: make sure that the fastening is strong and firm.
- Secure the cabinet.

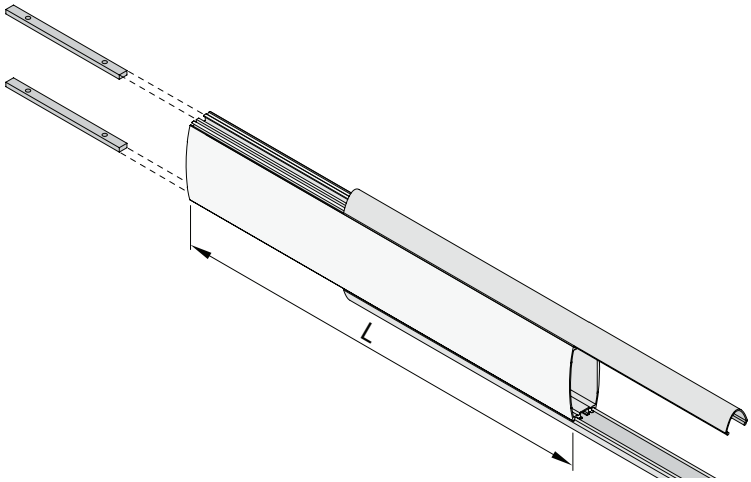
N.B.: to open the cabinet, release the automation as described on page 18 and unscrew the 4 screws on the front.

IP2085EN - 2013-05-10

8. Installation of bar



1



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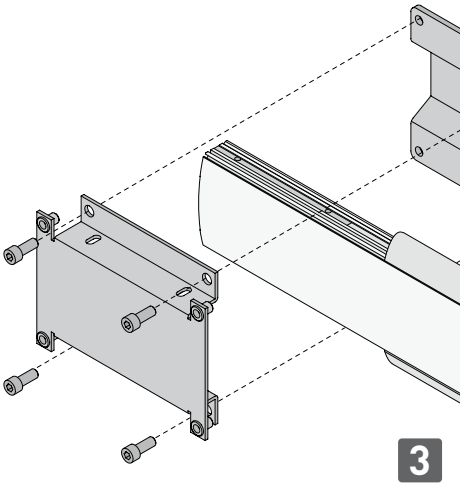

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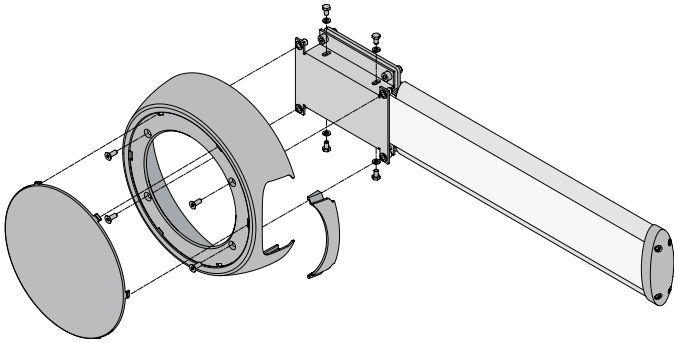

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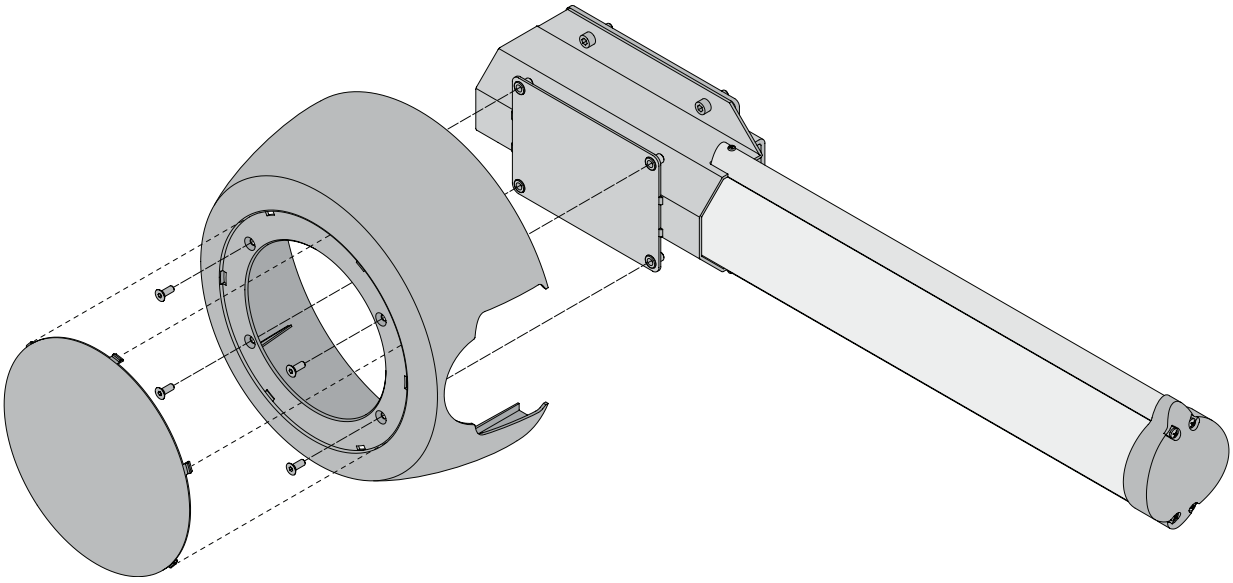


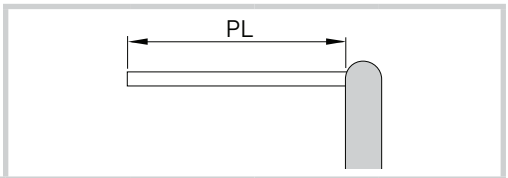
5

- Cut the length of the bar to L=PL+350 mm.
- Install the bar as shown in the figure.

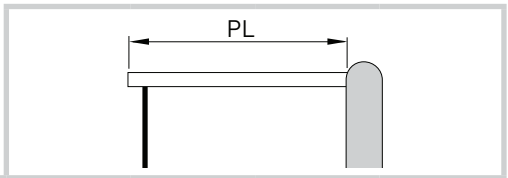
9. Bar balancing

- Release the automation as described on page 18 and place the bar in the vertical opening position.
- Place the spring in the correct position depending on the choice of opening direction as described on page 13.
- Using the nuts placed above the spring (see ref. [B] on page 13), compress the spring until the bar is balanced at an angle of 5°-30° to the floor (in this position, the bar must be stationary or point slightly upwards).
  WARNING: compression of the spring must comply with measurement A indicated on page 13.
- Make sure that the bar remains still when in the open or closed position.

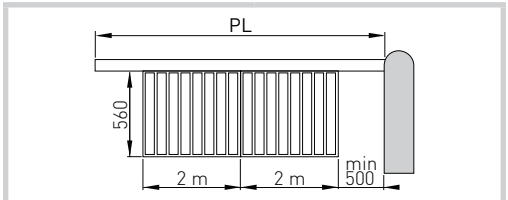
WARNING: never use the force of the motor to support the weight of the bar. Always use the balancing spring.



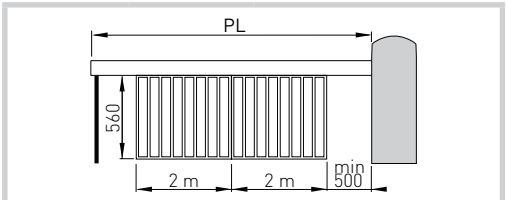
PL (mm)				
4500-5199	QIKM5	/	/	/
5200-5999	/	QIKM5	/	/
6000-6999	/	/	QIKM5	/
7000-7600	/	/	/	QIKM5



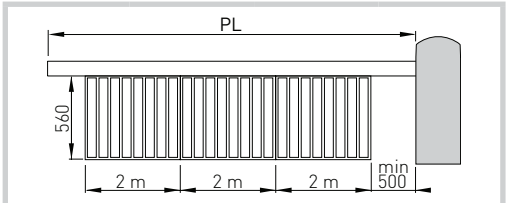
PL (mm)				
4500-4999	QIKM5	/	/	/
5000-5799	/	QIKM5	/	/
5800-6799	/	/	QIKM5	/
6800-7200	/	/	/	QIKM5



PL (mm)				
4600-4799	QIKM5	/	/	/
4800-5499	/	QIKM5	/	/
5500-6499	/	/	QIKM5	/
6500-6800	/	/	/	QIKM5



PL (mm)				
4800-5899	/	/	QIKM5	/
5900-6500	/	/	/	QIKM5

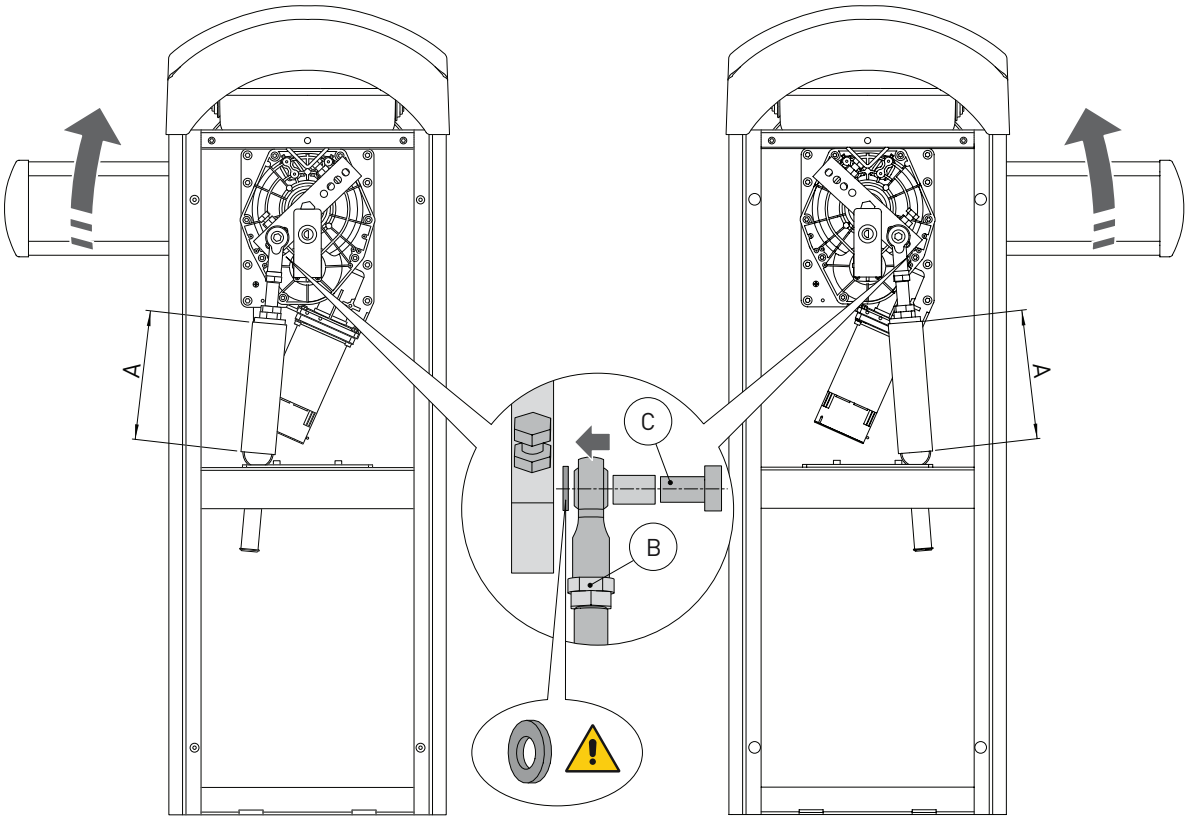


PL (mm)				
6700	/	/	/	QIKM5

WARNING: for PL≥4000 mm, you must use the fixed support QIKAF-QIKAFE or the mobile support QIKAM.
With the fixed support with the electromagnetic block QIKAFE installed, use the configurations indicated for the mobile support QIKAM.

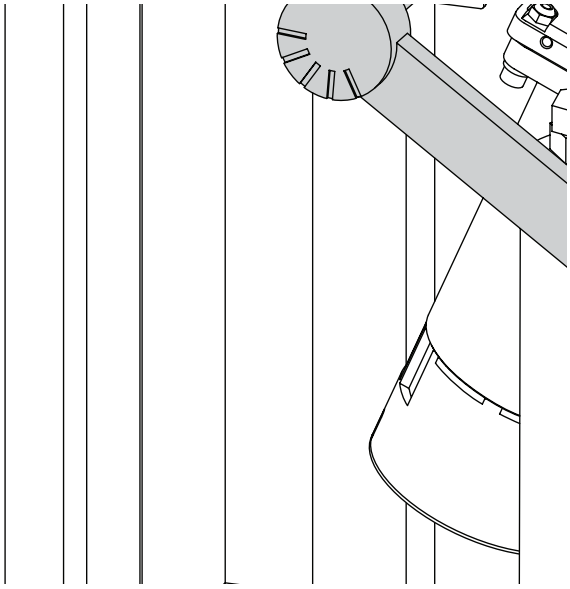
IP2085EN - 2013-05-10

10. Selecting opening direction



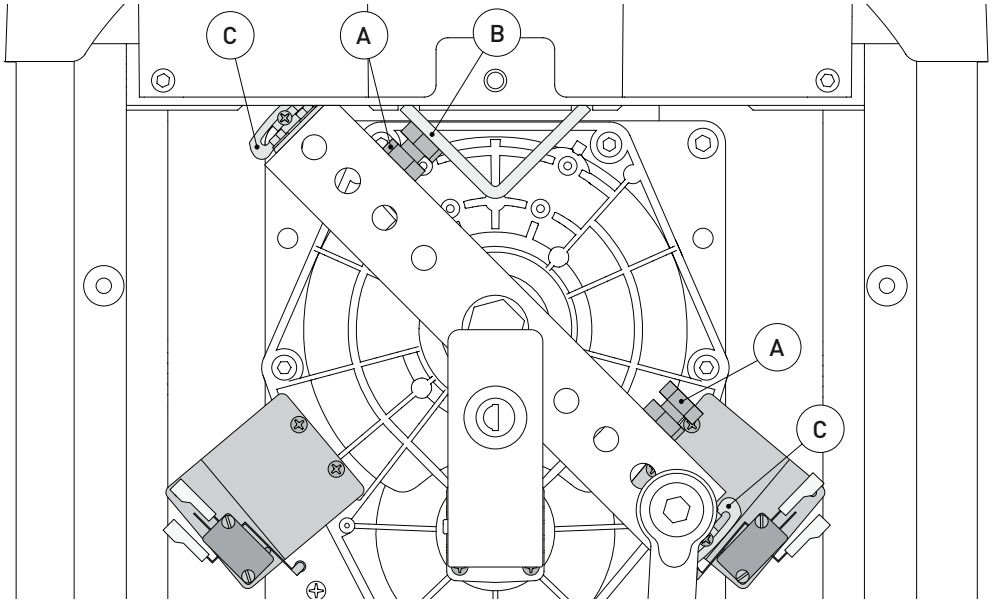
Right opening
DIP2=OFF

Left opening
DIP2=ON



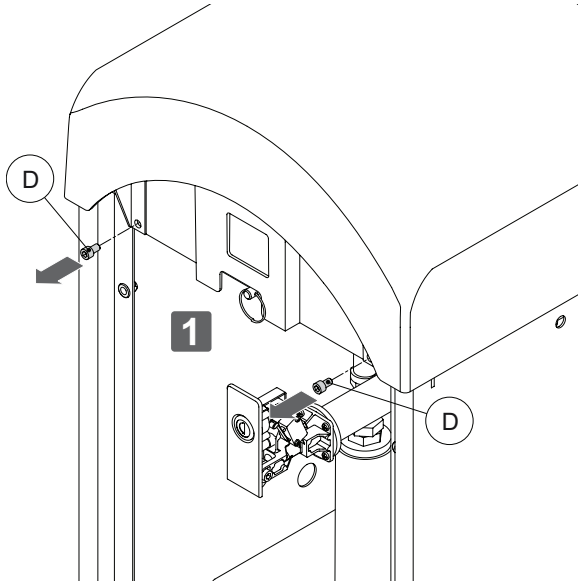
- Select the opening direction as shown in the figure.
- Mount the spring using the special screw M12x40 [C] with thread locking compound and tightly fasten as shown in the figure.
- Set the DIP2 on the control panel EL34 as shown in the figure.
- Once you have installed the bar, adjust the compression of spring QIKM5 using the nuts [B] until measurement A≥245 mm is obtained.

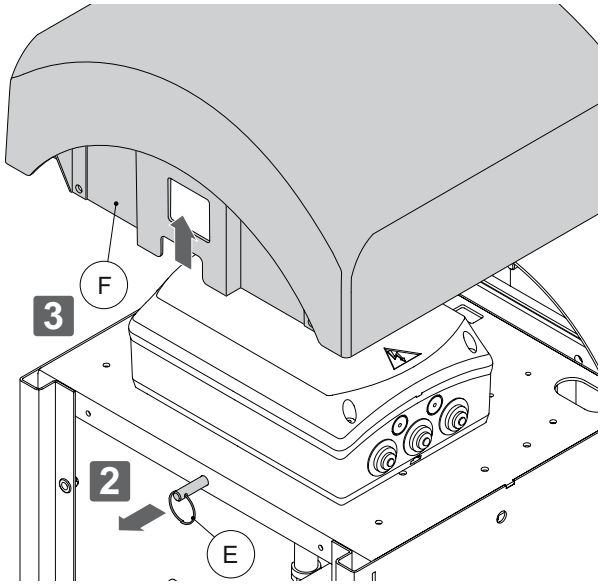
11. Limit switch adjustment



- Adjust the opening and closing position of the bar using the special screws [A].
- Adjust the opening and closing limit switches using the special cams [C] so that the switches are activated approx. 3 mm before the mechanical stop [B].

12. Access to control panel





- Unscrew and remove the front screws [D].
- Pull the ring [E] and lift the cabinet cover [F].

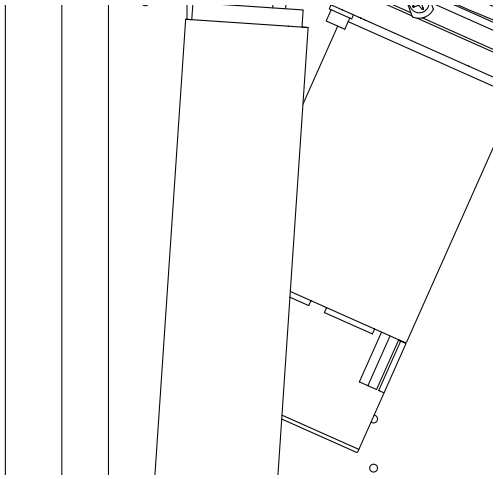
IP2085EN - 2013-05-10

13. Electrical connections

N.B.: The electrical wiring and start-up of the gearmotors are shown in the control panel installation manuals.

Before connecting the power supply, make sure the plate data correspond to that of the mains power supply.
An omnipolar disconnection switch with minimum contact gaps of 3 mm must be included in the mains supply.
Check that upstream of the electrical installation there is an adequate residual current circuit breaker and a suitable overcurrent cutout.
Use a H05RN-F 3G1.5 or H05RR-F 3G1.5 type electric cable and connect it to terminals L (brown) and N (blue) inside the automation.
Connect the earth wire ⏚.
Connection to the mains power supply, in the section outside the automation, is made with independent channel and separated from the connections to the control and safety devices.
The channel must penetrate the automation through the holes on the base plate at least 50 mm.
Make sure there are no sharp edges that may damage the power supply cable.
Make sure the mains power conductors (230 V) and accessory power conductors (24 V) are separated.

14. Routine maintenance plan



Perform the following operations and checks every 6 months according to intensity of use of the automation.
Disconnect the 230 V~ power supply and batteries (if present):
- Clean and oil the levers and check the nuts and screws are all well tightened.
- Clean and grease the spring-post as shown in the figure.
- Check the electrical connections.
- Check that the manual release is operating correctly.
- Check that the bar is balanced correctly as shown on page 12.

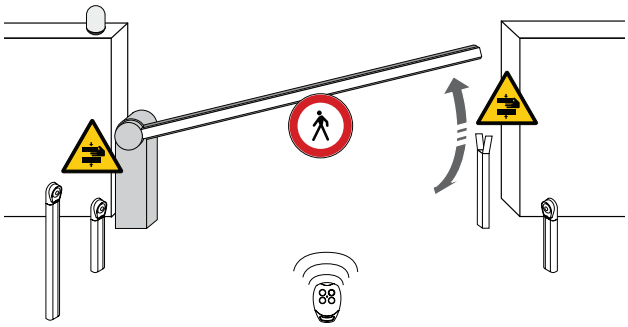
Reconnect the 230 V~ power supply and batteries if present:
- Check that obstacle detection is operating correctly.
- Check that all control and safety functions are working correctly.

N.B.: For spare parts, see the spares price list.

IP2085EN - 2013-05-10

Operating instructions

General safety precautions



These precautions are an integral and essential part of the product and must be supplied to the user.
Read them carefully since they contain important information on safe installation, use and maintenance.
These instructions must be kept and forwarded to all possible future users of the system.
This product must only be used for the specific purpose for which it was designed.
Any other use is to be considered improper and therefore dangerous. The manufacturer cannot be held responsible for any damage caused by improper, incorrect or unreasonable use.
This product must not be used by people (including children) with reduced physical, sensorial or mental abilities, or lack of experience or knowledge, unless they are given proper surveillance and instructions for operating the device by a person responsible for their safety.
Avoid operating in the proximity of the hinges or moving mechanical parts.
Do not enter within the operating range of the motorised door while it is moving.
Do not block the movement of the motorised door since this may be dangerous.
Do not allow children to play or stay within the operating range of the motorised door.
Keep remote controls and/or any other control devices out of the reach of children in order to avoid possible involuntary activation of the motorised door.
In the event of a fault or a malfunction of the product, turn off the power supply switch, do not attempt to repair or intervene directly and contact only qualified personnel.
Failure to comply with the above may cause a dangerous situation.
All cleaning, maintenance or repair work must be carried out by qualified personnel.
To ensure that the system works efficiently and correctly, the manufacturer's indications must be complied with and only qualified personnel must perform routine maintenance of the motorised gate.
In particular, regular checks are recommended in order to verify that the safety devices are operating correctly.
All installation, maintenance and repair work must be documented and made available to the user.
To dispose of electrical and electronic equipment as well as batteries correctly, users must take them to special "recycling centres" provided by the municipal authorities.

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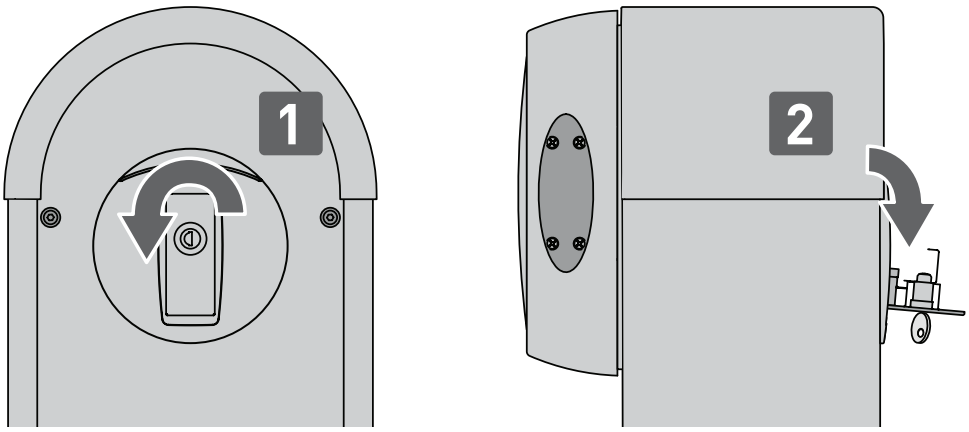
Electromechanical barrier

DETACH AND DELIVER TO THE CUSTOMER

Manual release instructions



In the event of a fault or power failure, insert the key, turn it anticlockwise and completely open the hatch. Manually open the barrier. To block the barrier again, close the hatch, turn the key clockwise and remove the key.

WARNING: do not release with the springs under tension without bar. Perform bar locking and release with the motor switched off. Do not enter the operating range of the bar. When the barrier is released, the bar may move of its own accord. When the hatch is closed but the key is still horizontal, the release microswitch is open and all manoeuvres are prevented. To deactivate the barrier, the power supply must be removed and the batteries disconnected (if present).

For any problems and/or information, contact the support service.

Installer's stamp	Operator
	Date of intervention
	Technician's signature
	Customer's signature

Intervention performed

DETACH AND DELIVER TO THE CUSTOMER

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IP2085EN - 2013-05-10

IP2085EN - 2013-05-10

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