

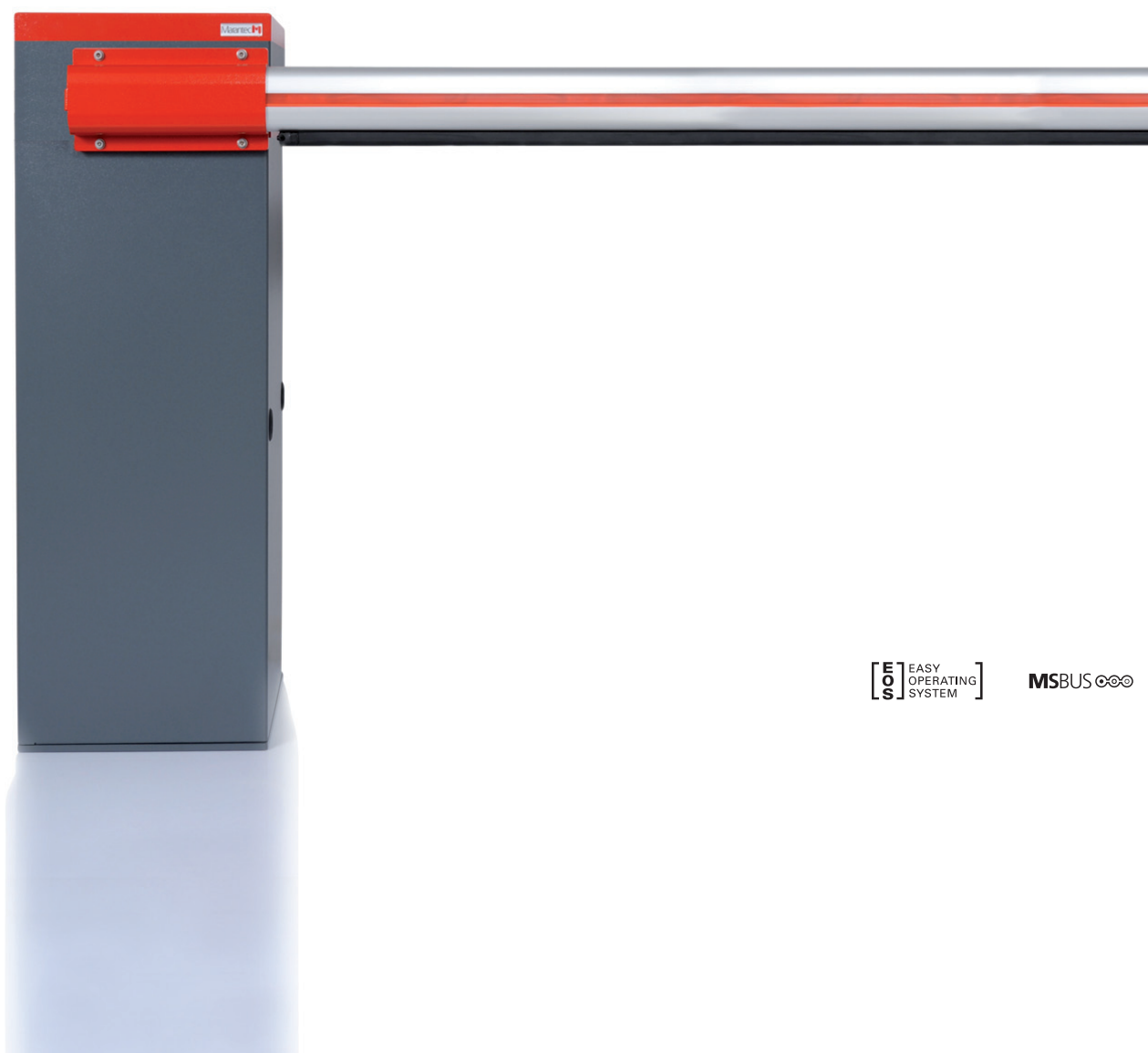


Operating instructions

Last updated: 01.2014

Parking barrier

Parc 200 / Parc 200 speed



[E] EASY
[O] OPERATING
[S] SYSTEM

MSBUS 

1. Meaning of symbols

Advice



Caution! Danger of personal injury!

The following safety advice must be observed at all times so as to avoid personal injury!



Attention! Danger of material damage!

The following safety advice must be observed at all times so as to avoid material damage!



Advice / Tip



Check



Reference

Identification plate on parking barrier

Type: _____

Art. No.: _____

Product No.: _____

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3. General safety advice



Please read carefully!

IMPORTANT SAFETY INSTRUCTIONS:

IMPORTANT - PLEASE OBSERVE ALL SAFETY INSTRUCTIONS TO PREVENT INJURY TO PERSONS.

PLEASE KEEP THESE INSTRUCTIONS FOR FURTHER USE.

IMPORTANT INSTRUCTIONS FOR SAFE INSTALLATION:

IMPORTANT - INCORRECT INSTALLATION CAN RESULT IN SERIOUS INJURY. PLEASE FOLLOW ALL INSTALLATION INSTRUCTIONS.

Target group

This operator system may only be installed, connected and put into operation by qualified and trained professionals!

Qualified and trained specialist personnel are persons

- who have knowledge of the general and special safety regulations,
- who have knowledge of the relevant electro-technical regulations,
- with training in the use and maintenance of suitable safety equipment,
- who are sufficiently trained and supervised by qualified electricians,
- who are able to recognise the particular hazards involved when working with electricity,
- with knowledge regarding applications of the EN 12635 standard (installation and usage requirements).

Warranty

For an operations and safety warranty, the advice in this instruction manual has to be observed. Disregarding these warnings may lead to personal injury or material damage. If this advice is disregarded, the manufacturer will not be liable for damages that might occur.

The warranty does not include batteries, rechargeable batteries, fuses and bulbs.

To avoid installation errors and damage to the parking barrier system, it is essential that the installation instructions are followed. The system may only be used after thoroughly reading the respective mounting and installation instructions.

The installation and operating instructions must be submitted to the parking barrier operator and kept in a safe place. They contain important advice for operation, checks and maintenance.

This item is produced according to the directives and standards mentioned in the Manufacturer's Declaration and in the Declaration of Conformity. The product has left the factory in perfect condition with regard to safety.

Power-operated installations must be checked by an expert (and this must be documented) before they are put into operation and thereafter as required, but at least once a year.

Correct use

The parking barrier system is designed exclusively for use in access zones. Its purpose is to provide safe access for goods and vehicles, whether guided or driven by persons, in industrial parks or residential areas. Please note that this operator system must only be used with the barrier arms and counterbalance springs supplied by the manufacturer.

Information on installing the parking barrier system

- Render any installations inoperable that will no longer be needed after the parking barrier system has been installed.
- Before commencing cabling works it is very important to disconnect the operator system from the electricity supply. Ensure that the electricity supply remains disconnected throughout the cabling works.
- Adhere to the local protection regulations.
- Use only fixing materials which are approved for the substrate concerned.
- Lay the electricity supply cables and control cables; these MUST be laid separately. The controls voltage is 24 V DC.
- Mount all pulse generators and control devices (e.g. radio code keypad) within sight of the parking barrier and at a safe distance from any moving parts of the parking barrier system.

Advice on commissioning the park barrier system

To ensure proper operation of the system within the CEN (European Committee for Standardisation) states it is essential that the relevant European health and safety directives and standards are taken into account. The technical data relating to environmental conditions, degree of protection, loading and duty cycle must be complied with. All parking barrier users must be instructed in the system's operation once it has been installed.

- Make sure that children cannot play with the controls.
 - Make sure before operating the parking barrier that no objects or people are in the danger zone of the parking barrier.
 - Test all existing emergency command devices.
 - Never place your hands in a moving parking barrier or moving parts.
 - Be aware of possible crushing and shearing hazards posed by the parking barrier system.
- The EN 13241-1 regulations must be observed.

Advice on servicing the parking barrier system

To ensure proper operation, the following items must be checked regularly and repaired if necessary. Before any works to the parking barrier system are undertaken, the operator system must be disconnected from the mains.

- Check once a month to ensure that the operator system reverses if the parking barrier encounters an obstacle. Depending on the operational direction of the parking barrier, place a 1,500 mm high obstacle in its path.
- Perform a check on the OPEN and CLOSE automatic cut-out setting.
- Check all movable parts of the parking barrier system.
- Check the parking barrier system for wear or damage.
- Inspect the safety devices installed every six months.

Information on cleaning the parking barrier system

Never use water jets, high pressure cleaners, acids or bases for cleaning.

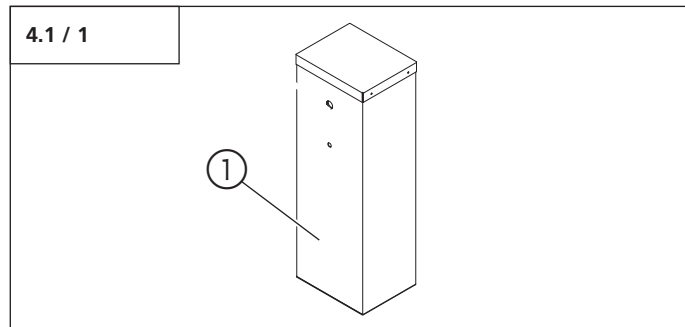
Beside the advice in these instructions, please observe the general safety and accident prevention regulations!

Our sales and supply terms and conditions are effective.

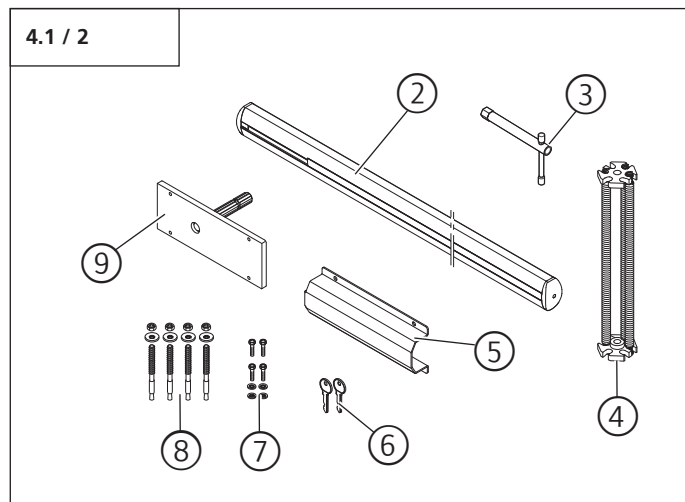
4. Product overview

4.1 Parc 200 supply package

Standard package



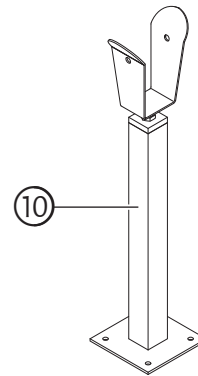
1 Parc 200 cabinet



- 2 Barrier arm (boom) (3 m, 4 m)
- 3 Release key
- 4 Spring unit
- 5 Counter bracket
- 6 Key (2x)
- 7 Screw set
- 8 Heavy-duty dowel M10
- 9 Full-floating axle

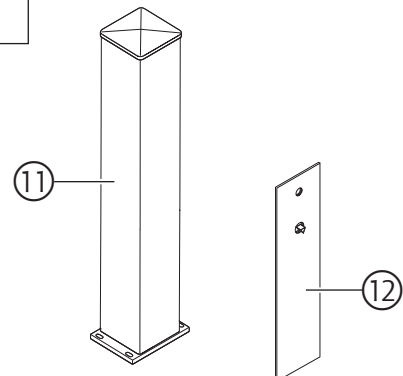
Accessories

4.1 / 3



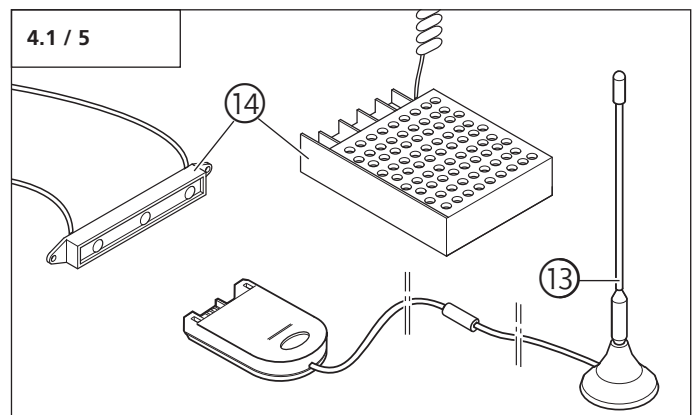
- 10 Boom end support post with cradle section, height-adjustable (optional where barrier arm is less than 4 m long, essential where barrier arm is 4 metres or more in length)

4.1 / 4



- 11 Support post, empty housing
- 12 Manual release mechanism

4.1 / 5

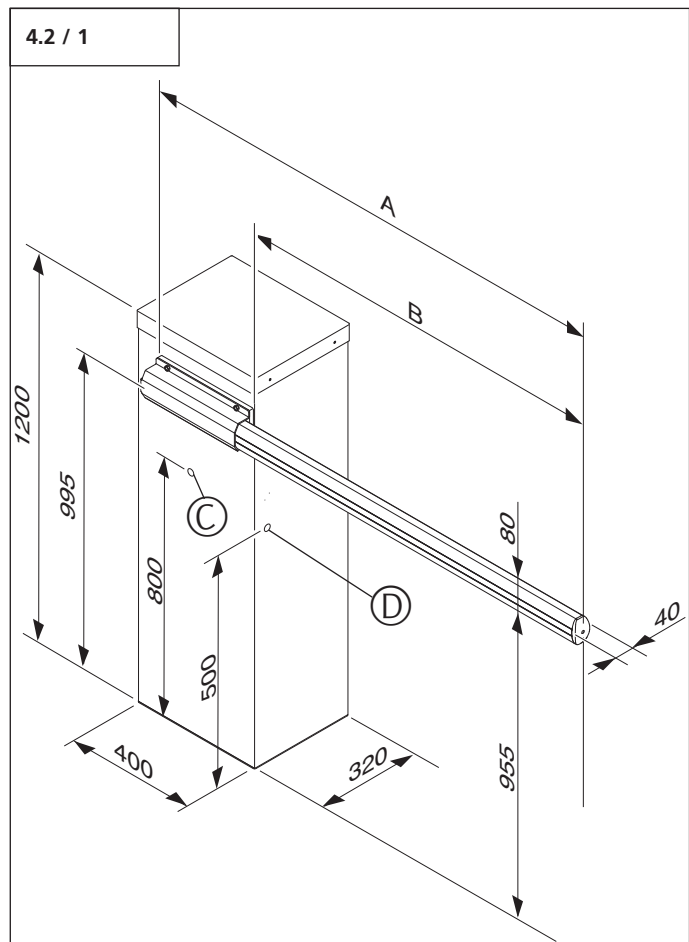


- 13 Magnetic base aerial (Digital 178)
- 14 Barrier arm (boom) LED light

4. Product overview

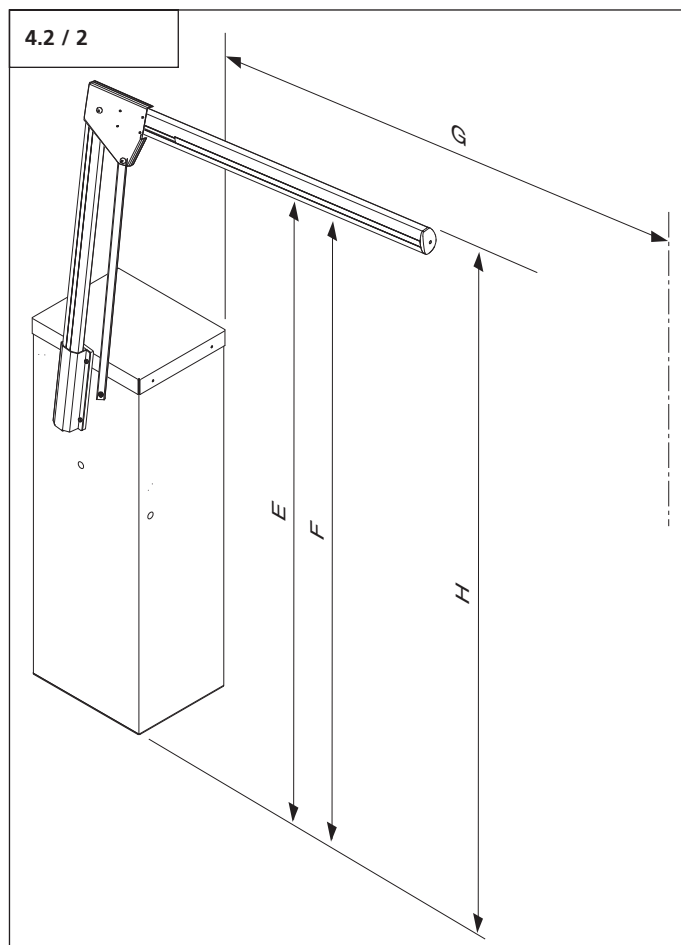
4.2 Dimensions

Parc 200



- A Barrier arm (boom) length
- B Span = barrier arm length -300
- C Coiled cable ducting
- D Photocell barrier adapter

Parc 200 park barrier with articulated arm

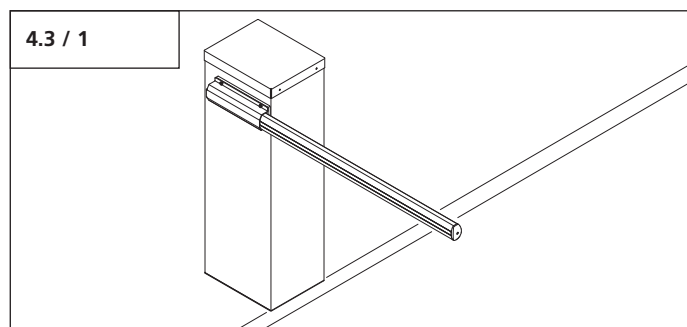


- E Clearance height with 2000 mm rubber profile
- F Clearance height without 2030 mm rubber profile
- G Access width 2000 mm
- H Required height 2150 mm

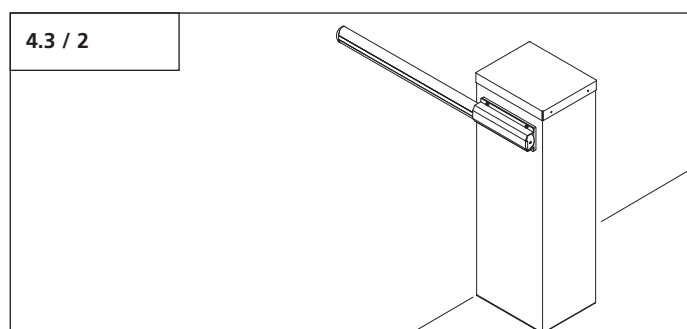
4. Product overview

4.3 Options

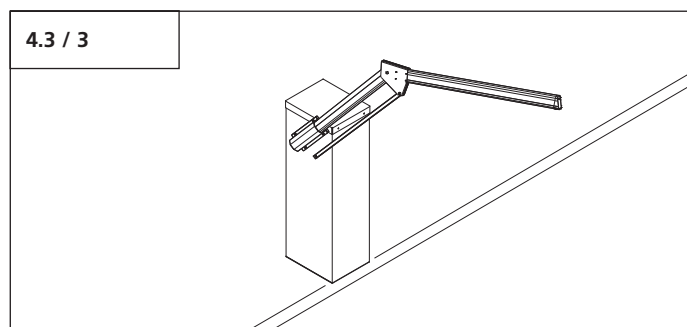
Parking barrier cabinet on the left



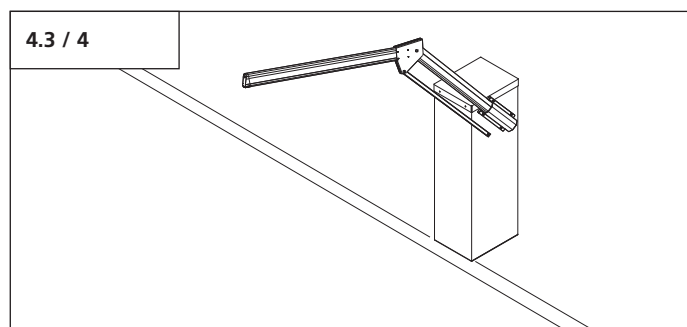
Parking barrier cabinet on the right



Parking barrier cabinet on the left with articulated arm



Parking barrier cabinet on the right with articulated arm











5. Preparation for mounting

5.1 General notes

The pictures in these instructions are not true-to-scale. Dimensions are always given in millimetres (mm)!

For correct mounting you will need the following tools:

5.1 / 1		
	10 / 13 / 17 / 19 / 22 / 24	2
		
3	ø 10	
		
	3 / 5 / 6	

Transport

- be transported upright and
- be prevented from falling over.

5. Preparation for mounting

5.2 Checks



Attention!

In order to guarantee correct mounting, carry out the following checks before installing.

Supply package

- Check the package to ensure that all the parts are included.
- Check that you have all the additional components that are necessary for your particular installation requirements.

Parking barrier system

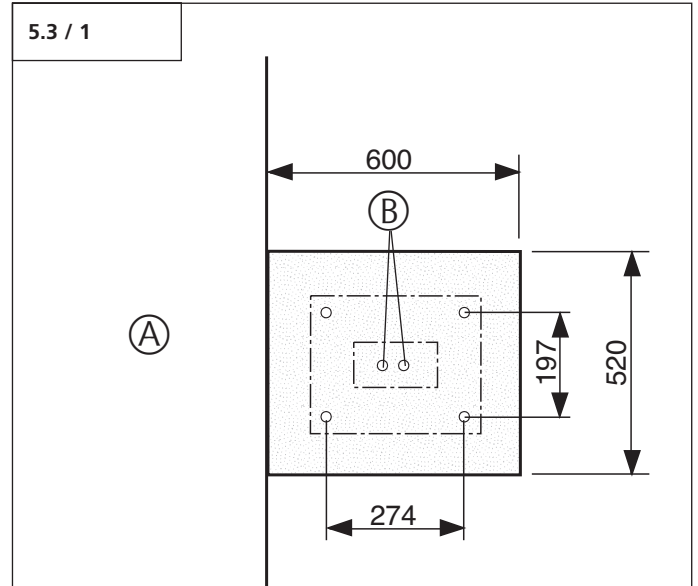
- Ensure that a suitable mains connection and a mains disconnection facility are available for your parking barrier system. The minimum cross-sectional area of the earth cable is $3 \times 1.5 \text{ mm}^2$.
- Ensure that all cables are suitable for outdoor use (UV resistant and cold resistant).

5.3 Concrete foundation layout



Attention!

To prevent damage to the concrete foundation, the size of the foundation base must comply with the instructions.



- A Driveway
B Duct pipe for cabling to control panel and mains supply cabling

The depth of the concrete base must be at least 800 mm.

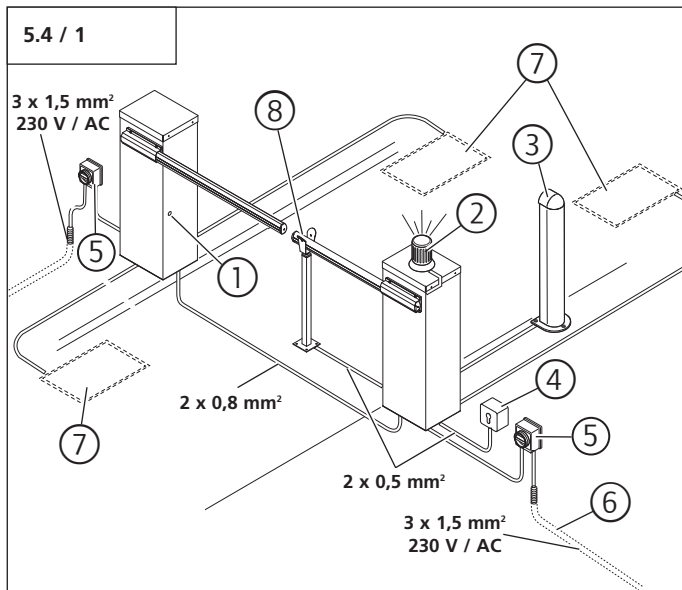
5. Preparation for mounting

5.4 Cabling layout



Advice:

This is just an example of a cabling layout; the layout can vary depending on the associated equipment.



- 1 Photocell
- 2 Signal light
- 3 Code button, transponder, Coin acceptor
- 4 Key switch
- 5 Mains isolator switch (mains disconnection facility)
- 6 Mains supply cable
- 7 Induction loops
- 8 Magnetic lock



Reference:

For the installation and cabling of the sensors, control elements and safety equipment, the relevant installation instructions must be observed.

6. Installation

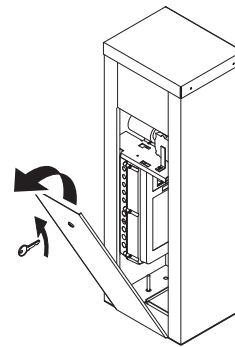
6.1 Mounting the parking barrier cabinet



Attention!

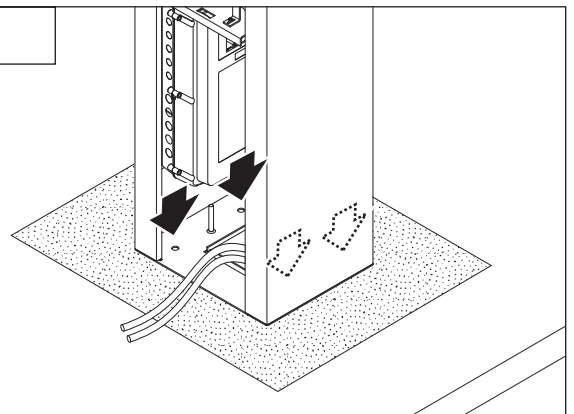
A concrete foundation according to the specifications must be provided and be hardened to ensure satisfactory long-term operation of the parking barrier system.

6.1 / 1



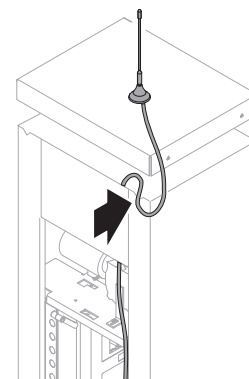
- Open the cabinet.

6.1 / 2



- Screw the cabinet to the concrete base.

6.1 / 3



- Insert aerial through the cable ducting (optional).

6. Installation

6.2 Mounting the parking barrier arm



Attention!

- To avoid damaging the barrier arm, the barrier arm must be fitted by two people. The barrier arm must be supported to prevent it from falling before it is securely fixed in place.
- If the side on which the barrier arm opens needs to be changed over, this must be carried out before the barrier arm is fitted.



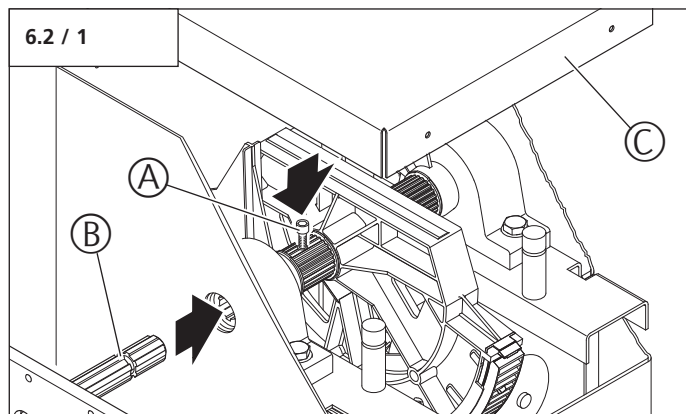
Reference:

The procedure for reversing the side of opening is described in Section 6.5.

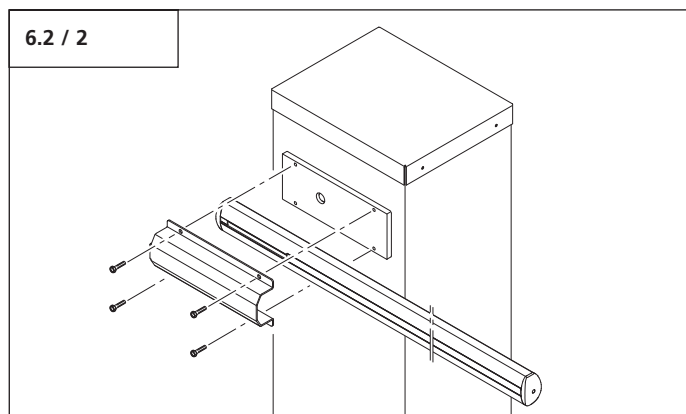


Advice:

The shaft must be inserted so that the locking screw (A) engages with groove (B).



- Remove the cover (C).
- Fix the barrier arm adapter.



- Screw the barrier arm on in a horizontal position.

6.3 Mounting the spring units



Caution!

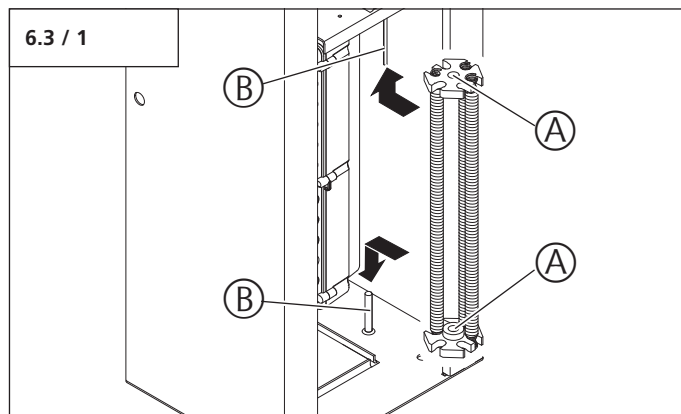
- To prevent the unlocked barrier arm from falling, the barrier arm must be locked when it is in an upright position.
- To ensure correct operation, nuts (C) must be locked after adjusting the tension of the spring.

- Release the operator.
- Raise the barrier arm until it is in an upright position.
- Lock the operator.



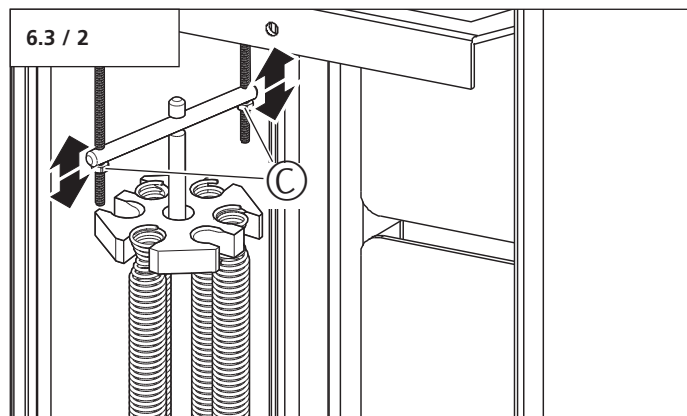
Reference:

The procedure for releasing the operator is described in Section 7.2.

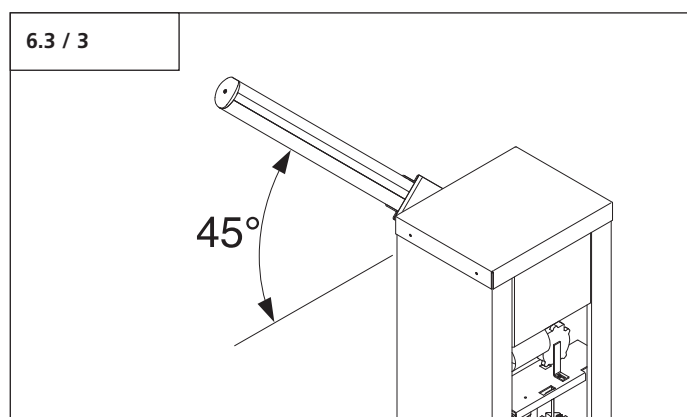


- Push the drill-holes (A) onto the threaded rods (B).
- Screw on the spring unit.
- Release the operator.

6. Installation



- Set the tension of the spring.
- Lock the nuts (C).
- Lock the operator.



Advice:

The tension of the spring must be adjusted so that the barrier arm is automatically held in place when it is in a half-opened position.

6.4 Setting the boom position

To set the barrier arm position

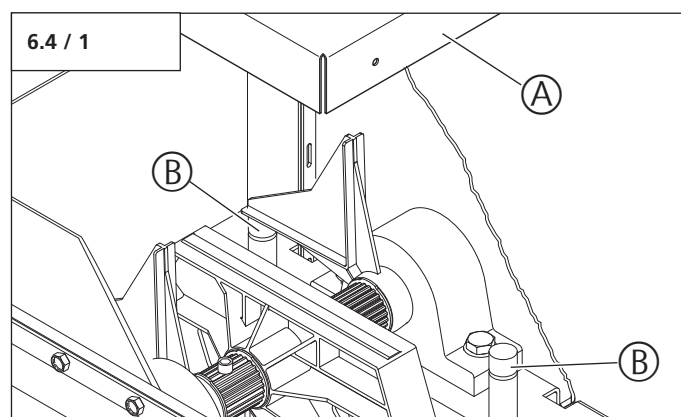
The barrier arm must be lowered and in a horizontal position.



Reference:

The instructions for setting the OPEN and CLOSED barrier arm positions can be found in the control unit documentation.

To set the spring buffers



- Remove the cover (A).
- Adjust the spring buffers (B) in pairs.
- Tighten the spring buffers (B).



Advice:

The spring buffers (B) must be set so that they are under slight tension.

6. Installation

6.5 Reversing the side of opening

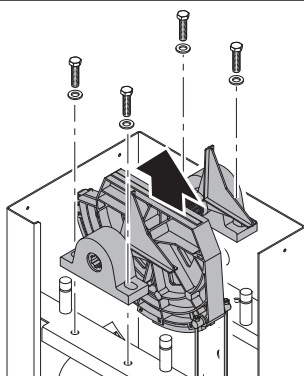
- Release the operator.



Reference:

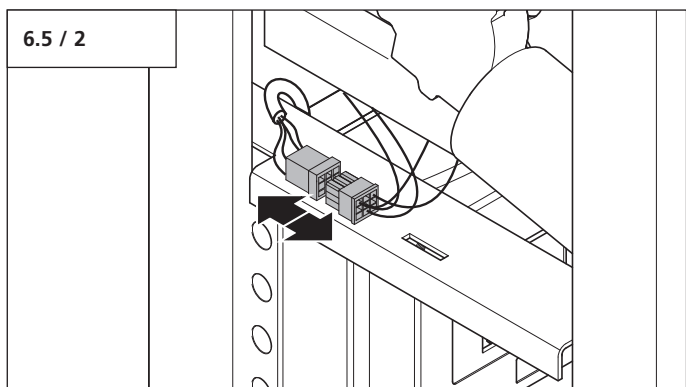
The procedure for releasing the operator is described in Section 7.2.

6.5 / 1



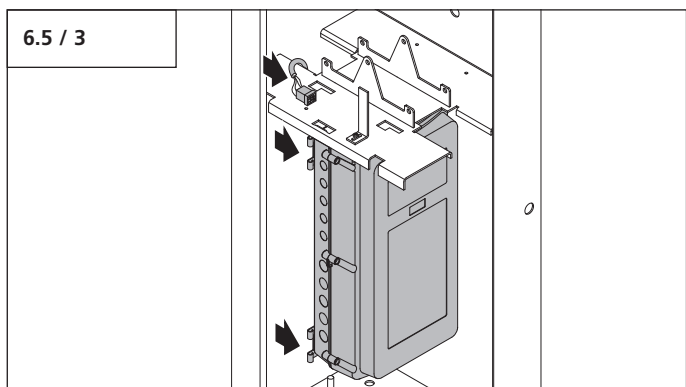
- Take out barrier arm shoulder.

6.5 / 2



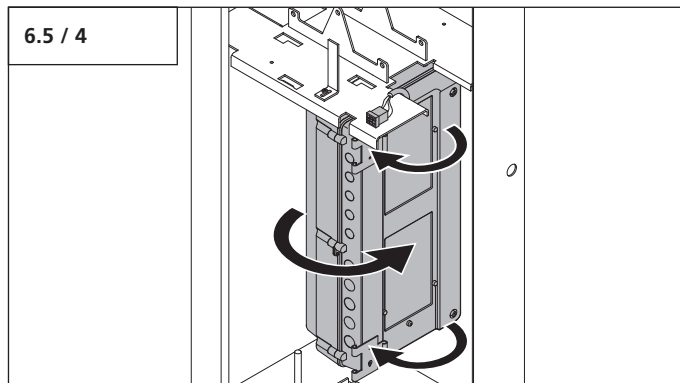
- Remove plug from socket.

6.5 / 3



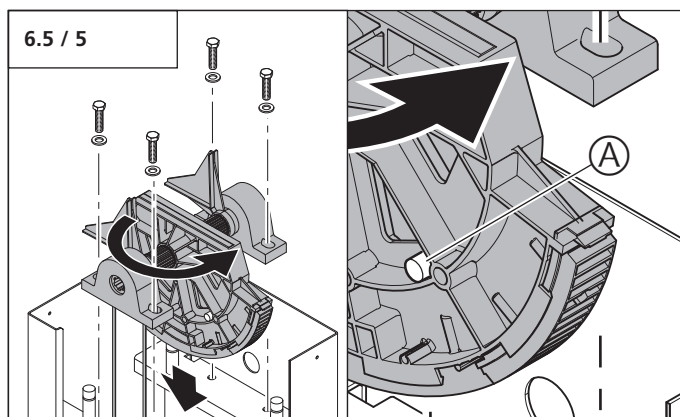
- Remove controls from cabinet.
- Remove cable from cabinet.

6.5 / 4



- Give controls a 180° turn.
- Screw hinges onto opposite side.
- Attach controls to cabinet.

6.5 / 5



- Screw reference point magnet (A) onto opposite side.
- Give barrier arm shoulder a 180° turn and replace in the cabinet.



Attention!

After changing the opening side, the rotational direction must be altered accordingly in order to prevent damage to property. To change the rotational direction, swap the leads at terminals 1 and 2 of the motor connection XM70A.



Reference:

The motor connection XM70A is described in the control unit documentation.

- Lock the operator.

6. Installation

6.6 Connection of control elements

**Reference:**

A description of the control unit can be found in the relevant documentation for the control unit.

7. Operation

7.1 Operating systems

The following operating devices can be used to actuate the parking barrier system:

- Code keypad
- Transponder
- Coin acceptor
- Induction loop
- Hand transmitter / radio technology

**Reference:**

Please refer to the relevant manuals for instructions on using the operating devices.

7. Operation

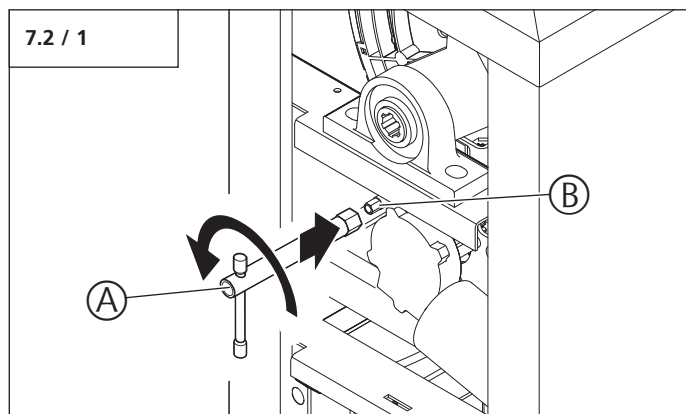
7.2 Release

Releasing



Attention!

To prevent damage, the barrier arm must only be released if the spring unit is fully intact. The barrier arm may move upwards during this procedure.



- Place release key (A) over red release nut (B).
- Turn release key (A) approx. 180° in an anticlockwise direction until it stops.
- Partially raise and lower barrier arm manually.

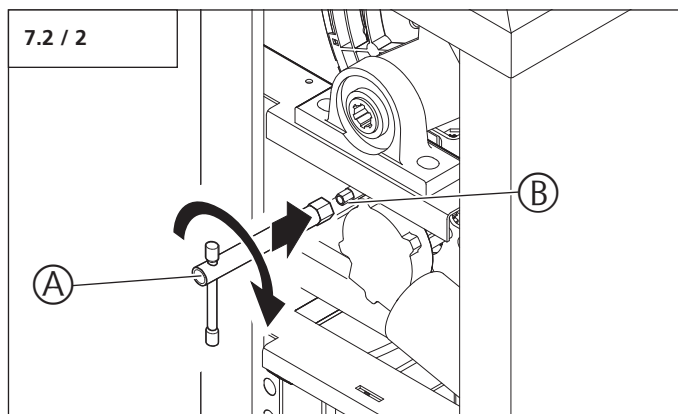
The transmission is now mechanically disengaged from the drive shaft. The parking barrier can only be moved manually. The electric circuit in the controls is interrupted and the controls are out of operation. A corresponding message is displayed.



Reference:

The messages are explained in the documentation supplied with the control unit.

Locking



- Place release key (A) over red release nut (B).
- Turn release key (A) approx. 180° in a clockwise direction until it stops.
- Partially raise and lower barrier arm manually.



The transmission and drive shaft are now mechanically engaged. The parking barrier can only be moved with the motor. The electric circuit in the controls is closed again and the controls are in operation.

8. Attachment

8.1 Technical Data for Parc 200 / Parc 200 speed

Electrical data		
Nominal voltage *)	V	230 / 260
Nominal frequency	Hz	50 / 60
Power consumption	A	1.1
Power input - operation	KW	0,25
Power input - stand-by	W	3.6
Operating mode (operating time)	ED	90%
Control voltage	V DC	24
Protection category, motor unit		IP 65
*) subject to country-specific alternations		

Mechanical data		
Opening time (barrier specific)	sec.	3 - 10
Movement cycles per day		
Barrier arm length: up to 2.3 m		1,500
Barrier arm length: up to 3.3 m		1,000
Barrier arm length: up to 4.3 m		750

General data		
Motor unit dimensions	mm	405x325x1210
Weight	kg	55
Sound pressure level	db (A)	< 70
Temperature range	°C	 -20
		 +60

Features / Safety functions	
Reference point technology	x
Soft-Start / Soft-Stop	x
Automatic cut-out	x
Blocking protection	x
Undervoltage protection	x
Excess travel stop	x
Electronic travel cut-out	x
Connection for pushbuttons, code buttons and key switches	x
Error messages	x

8.2 Colour coding and assignment of counterbalance spring

Type of barrier	Barrier arm			Barrier arm with impact protection			Barrier arm with 8.2 kΩ switching strip			Articulated arm
	2,3	3,3	4,3	2,3	3,3	4,3	2,3	3,3	4,3	
Barrier length in metres	2,3	3,3	4,3	2,3	3,3	4,3	2,3	3,3	4,3	2
Counterbalance spring, red #91386 (number)	3	0	2	1	2	1	1	2	1	3
Counterbalance spring, white #91385 (number)	0	2	3	1	2	4	1	2	4	0



Advice:

Barrier arms of 4 metres and more in length also require an end support post with a cradle section.

8. Attachment

8.3 Maintenance



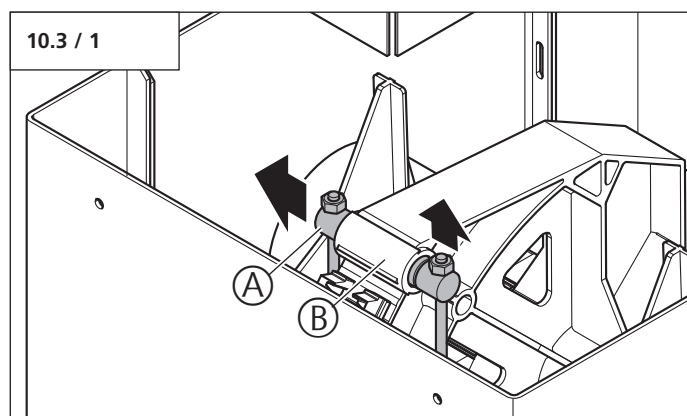
Caution!

To avoid injuries, the barrier arm must be secured against falling.

To ensure trouble-free operation, every 100,000 cycles:

- the springs must be replaced,
- the spring holder in the shoulder wheel must be cleaned and lubricated with grease.

Lubricating the spring holder



- Open the door.
- Remove the cover.
- Release the operator.
- Open the barrier arm.
- Take all the springs out of the spring holder (A).
- Remove the spring holder (A) from the shoulder wheel (B).
- Clean and grease the spring holder (A).
- Assemble all the components again in the reverse order.



Reference:

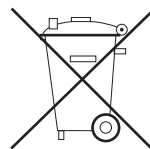
The procedure for releasing the operator is described in Section 7.2.

8.4 Disassembly



Caution!

To avoid injuries, the barrier arm must be secured against falling.



To disassemble, follow assembly instructions in reverse order.

8. Attachment

8.5 Declaration of Incorporation / Declaration of performance 2013-02

We hereby declare that in its design and construction, and in the form as delivered, the product mentioned below complies with the relevant basic requirements of the EC Machinery Directive (2006/42/EC).

This declaration shall no longer be valid if changes are made to the product without our authorisation.

**Product: Parking barrier system Parc 200, Parc 200 speed
Revisionsstand: R01**

In addition, the machinery is in conformity with all regulations of the EU Construction Products Regulation No. 305/2011, the Electromagnetic Compatibility Directive 2004/108/EC and the Low Voltage Directive 2006/95/EC.

- Machinery Directive 2006/42/EC
Health and safety requirements applied according to Annex 1
EN 60204-1:2007
EN ISO 12100:2011
EN ISO 13849-1:2008
Cat. 2 / PLC for the functions of power limitation and end position detection
- EMC electromagnetic compatibility 2004/108/EC
EN 55014-1:2012
EN 61000-3-2:2010
EN 61000-3-3:2009
EN 61000-6-2:2006
EN 61000-6-3:2011
- Low voltage directive 2006/95/EC
EN 60335-1:2012
EN 60335-2-103:2010

The relevant technical documentation is compiled in accordance with Annex VII(B) of the Machinery Directive 2006/42/EC. We undertake to transmit, in response to a reasoned request by the market surveillance authorities, this information in electronic form within a reasonable term.

Intended use

This barrier system is manufactured for installation in access and entry areas in commercial or private facilities, in compliance with the harmonised standards DIN EN 13241-1:2003.

Type tested by TÜV Nord Cert GmbH - 0044

Assessment of constancy of performance according to system 3

Declared performance:

Resistance to wind load	Class 1
Operating forces / closing forces	Pass
Safe opening	Pass



01.09.2013

M. Hörmann
Management



Person authorised to compile the relevant technical documentation:

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GmbH & Co. KG
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English

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Subject to changes which are in the interest of technical improvements.

