



Operating instructions

Last updated: 10.2013

Parking barrier

Parc 300



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

MSBUS 

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DANGER!

IMPORTANT SAFETY INSTRUCTIONS:

ATTENTION! IT IS VITALLY IMPORTANT FOR THE SAFETY OF PERSONS THAT YOU FOLLOW ALL THE INSTRUCTIONS. KEEP THESE INSTRUCTIONS IN A SAFE PLACE.

IMPORTANT INSTRUCTIONS FOR SAFE INSTALLATION:

ATTENTION! SERIOUS INJURIES CAN BE CAUSED IF THE EQUIPMENT IS NOT INSTALLED CORRECTLY – BE SURE TO FOLLOW ALL THE INSTALLATION INSTRUCTIONS.

Regarding this document

- Original instruction manual.
- Part of the product.
- Read these instructions carefully before use and keep them in a safe place for future reference.
- Protected by copyright.
- No part of this manual may be reproduced without our prior approval.
- Subject to alterations in the interest of technical progress.
- All dimensions are given in millimetres.
- The drawings are not true to scale.

Meaning of symbols

DANGER!

Safety notice indicating a danger that will directly result in death or severe injury.

WARNING!

Safety notice indicating a danger that could result in death or severe injury.

CAUTION!

Safety notice indicating a danger that could result in slight or moderate injuries.

NOTICE


Safety notice indicating a danger that could result in damage to property or in irreparable damage to the product.

CHECK

Reference to a check that needs to be carried out.

REFERENCE

Reference to separate documents that must be observed.

- Instruction requiring action
- List, itemisation
- Reference to other sections of this document
-  Factory settings

1. General safety instructions

DANGER!

Failure to comply with the documentation could result in life-threatening danger!

- Be sure to follow all the safety instructions in this document.

1.1 Intended use

- The parking barrier system is intended only for installation in vehicular and pedestrian access areas in commercial or private facilities.
- The parking barrier system controls the entry and exit movements of human-operated vehicles and goods.
- Never use the parking barrier system to lift persons or objects.

The following applies for the product Parc 300:

- A suitable control unit is required to operate the parking barrier system.
 - The parking barrier system may be used only with barrier arms and balancing springs that are supplied by the manufacturer.
 - The parking barrier system may be used only with a suitable arm rest.
 - The following values must be observed:
 - Maximum movement cycles per day
- "10.1 Technical data"

1.2 Target group

- Installation, connection and initial operation: qualified and trained specialist personnel.
- Operation, inspection and servicing: the operator of the parking barrier system.

Requirements to be met by qualified and trained specialist staff:

- Knowledge of the general and specific safety and accident-prevention regulations.
- Knowledge of the relevant electrical regulations.
- Training in the use and care of appropriate safety equipment.
- Adequate instruction and supervision by qualified electricians.
- The ability to recognise hazards that can be caused by electricity.
- Knowledge of the application of the following standards
 - EN 12635 ("Doors and gates - Installation and use"),
 - EN 12445 ("Safety in use of power operated doors - Requirements"),
 - EN 12445 ("Safety in use of power operated doors - Test methods").

Requirements to be met by the operator of the parking barrier system:

- Knowledge and safekeeping of the instruction manual.
- Knowledge of general safety and accident-prevention regulations.

1.3 Warranty

The product is manufactured in accordance with the guidelines and standards listed in the manufacturer's declaration and in the declaration of conformity. The product left the factory in perfect order with regard to safety.

In the following cases, the manufacturer will accept no liability for damage. The warranty on the product and accessory components becomes void in the event of:

- Failure to observe these operating instructions.
- Incorrect handling and use of the product for anything other than its intended purpose.
- Work being carried out by unqualified personnel.
- Changes or modifications to the product.
- The use of replacement parts that have not been approved or were not manufactured by the manufacturer.

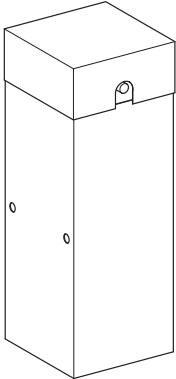
The warranty does not cover batteries, rechargeable batteries, fuses or bulbs.

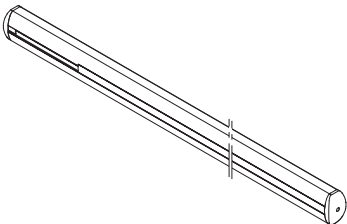
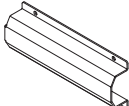
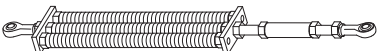
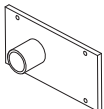









Further safety instructions are given in the relevant sections of the document.

- "4. Installation"
- "5. Operation"
- "6. Maintenance"
- "7. Disassembly"

2. Supply package

Standard scope of supply

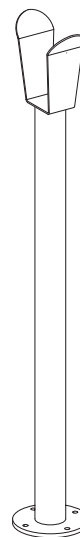
Item	Accessories	
1		1x

Item	Accessories	
2		1x
3		1x
4		1x
5		1x
6		1x
7		4x
8		4x
9		4x
10		4x
11		5x
12		1x
13		1x
14		1x

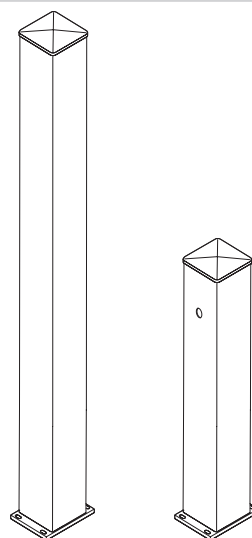
Possible barrier arm lengths: 4, 5 and 6 m

Accessories (optional)

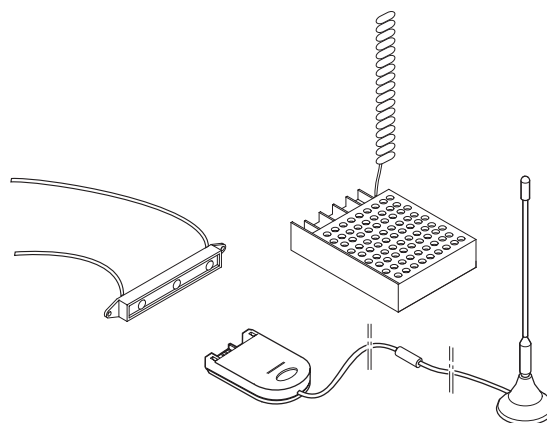
2.3 / 1



2.3 / 2

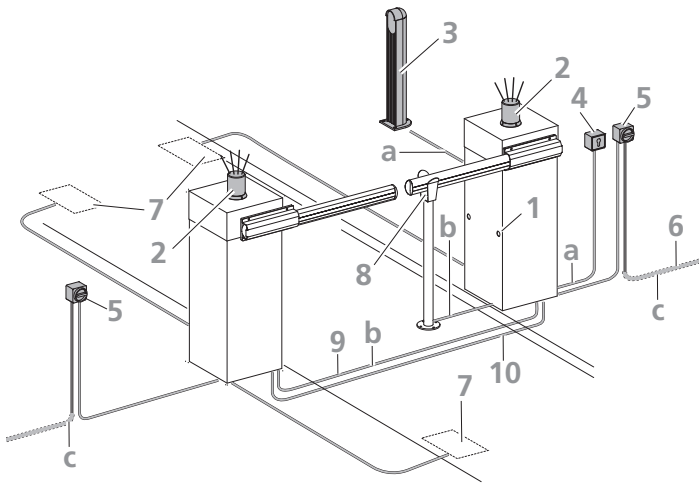


2.3 / 3



3. Parking barrier system

3.3 / 4



This is just an example of a parking barrier system. The details can vary according to the type of parking barrier and the associated equipment. The system shown comprises the following components:

- 1 Photocell
- 2 Signal light
- 3 Code keypad, transponder, coin acceptor
- 4 Key switch
- 5 Main switch (mains isolator switch)
- 6 Mains cable
- 7 Induction loops
- 8 Magnetic lock
- 9 Connecting cable for signal lights (for synchronous flashing)
- 10 Cable, MS bus (four-pole)

Cable cross-sections:

- a 2 x 0.5 mm²
- b 2 x 0.75 mm²
- c 3 x 1.5 mm²

REFERENCE

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

4. Installation

DANGER!

Life-threatening danger due to electric shock!

- It is vital that you disconnect the operator system from the power supply before commencing cabling work. Take measures to ensure that the power supply remains disconnected for the duration of the work.
- Observe the local safety regulations.
- It is imperative that you lay power cables separately from control cables. The control voltage is 24V DC.

NOTICE

Material damage resulting from incorrect installation of the operator!

To avoid installation errors and damage to the parking barrier system, it is essential that the following installation instructions are followed.

- 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. The installation height must be at least 1.5 metres from the ground.
- Only use fixing materials that are suitable for the foundation material in question.

4.1 Preparing for installation

Before commencing installation, the following works must be carried out without fail.

Supply package

- Check that all the parts are present.
- Check that all the necessary accessory parts for your installation situation are present.

Parking barrier system

- Ensure that a suitable mains connection and a mains disconnection facility are available for your parking barrier system. The minimum cross-section of the earth cable is 3 x 1.5 mm².
- Ensure that all cables are suitable for outdoor use (with respect to UV resistance and cold resistance).
- Ensure that a suitable foundation is available for your parking barrier system.
→ "4.2 Foundation plan"
- After installation is complete, ensure that no parts of the barrier system extend into the public footpath or street area.
- If possible, install bollards or kerbs to protect the barrier system.

REFERENCE

When using and installing accessory equipment, observe the corresponding documentation.

4.2 Foundation plan

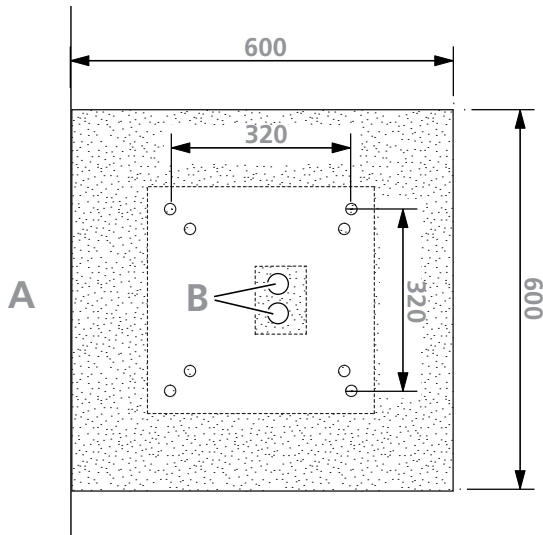
NOTICE

Possibility of damaging the foundation!

Incorrectly constructed foundations could lead to irreparable damage to the barrier system!

- Ensure that the size of the foundation block conforms to the specified minimum dimensions.
- Wait until the foundations have completely hardened before continuing with the installation.

4.2 / 1



A Traffic lane

B Duct pipes for mains and control cables

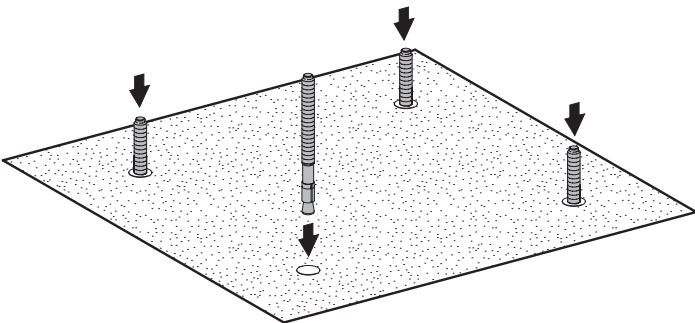
The depth of the concrete base must be at least 800 mm.

4.3 Mounting the parking barrier cabinet

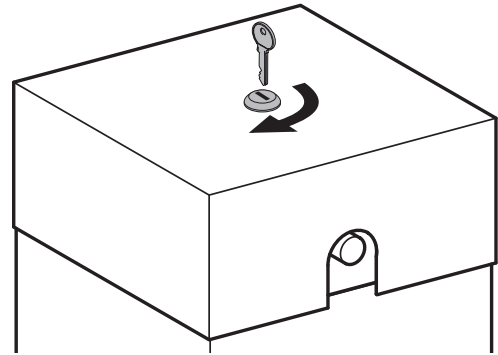
CHECK

- Check that the foundations meet the specified requirements and that the concrete has fully hardened.

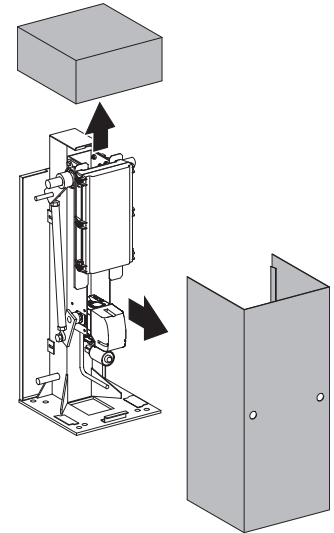
4.3 / 1



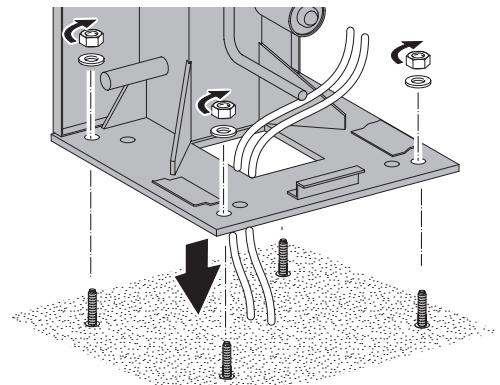
4.3 / 2



4.3 / 3



4.3 / 4



- The position of the cabinet will need to be adjusted later, so do not fully tighten the screws.

4.4 Mounting the parking barrier arm

WARNING!

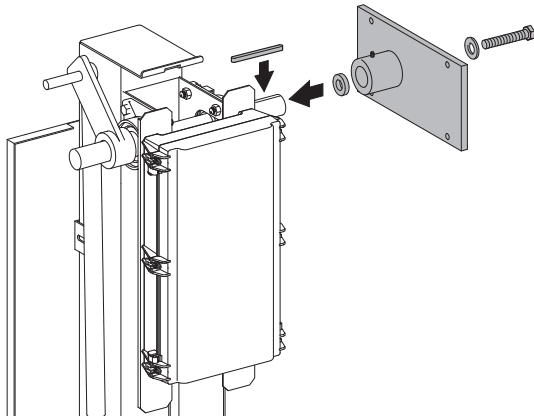
Possibility of serious injury due to falling components!

- Secure the parking barrier arm temporarily to prevent it from falling before it is properly fixed in place.
- To avoid damaging the barrier arm, the barrier arm must be fitted by two people.

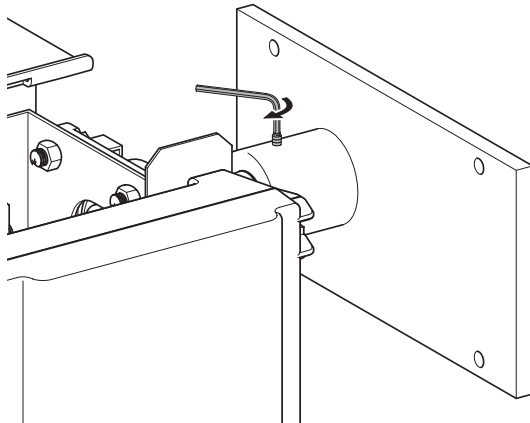
The parking barrier arm can be mounted on the left-hand or the right-hand side. Here, the arm is shown mounted on the right-hand side.

- Release the operator.
- "5.2 Emergency operation"

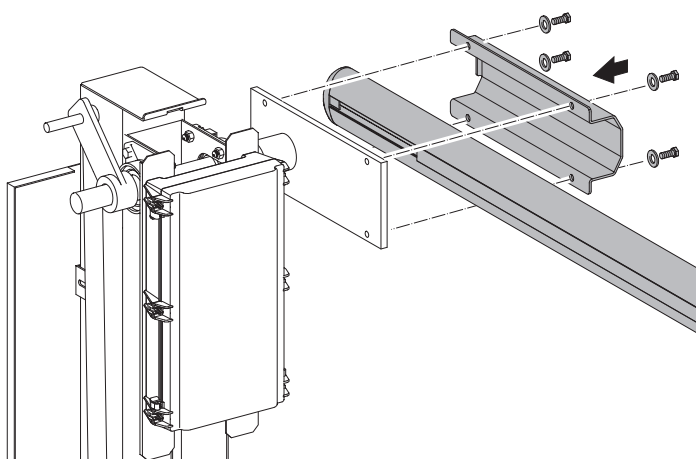
4.4 / 1



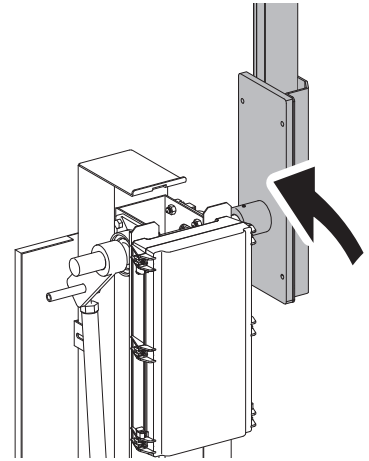
4.4 / 2



4.4 / 3



4.4 / 4



- Lock the operator.
- "5.2 Emergency operation"

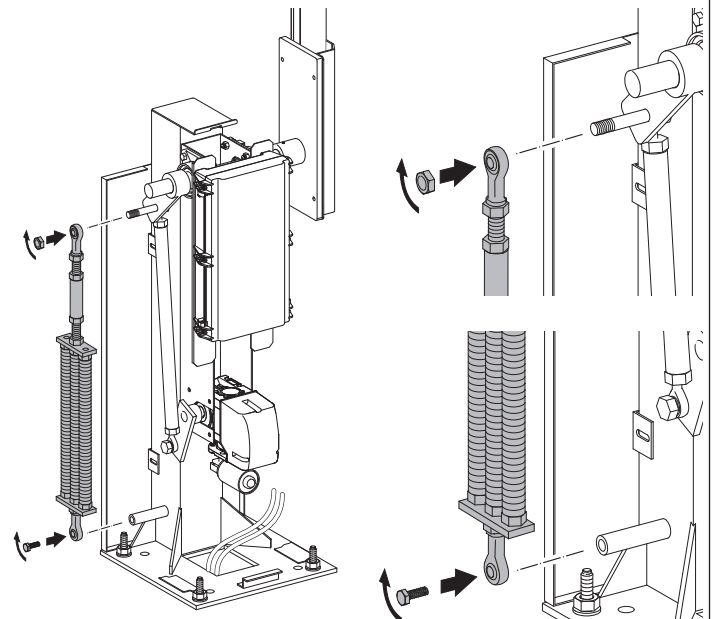
4.5 Mounting the spring unit

DANGER!

Life-threatening danger due to a falling barrier!

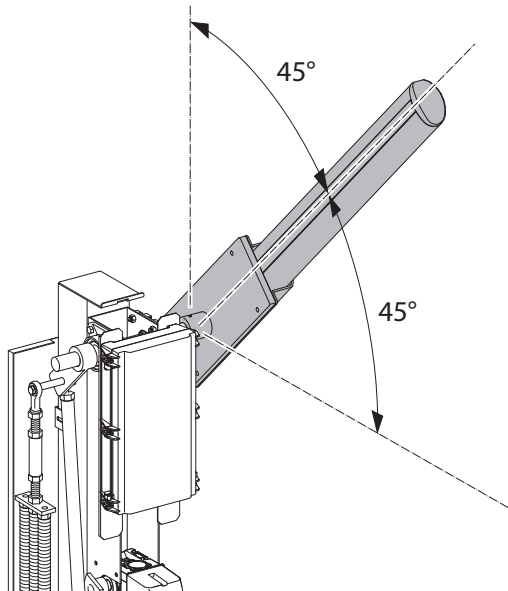
- Before commencing installation, secure the barrier arm in the vertical position.

4.5 / 1



- Release the operator.
- "5.2 Emergency operation"

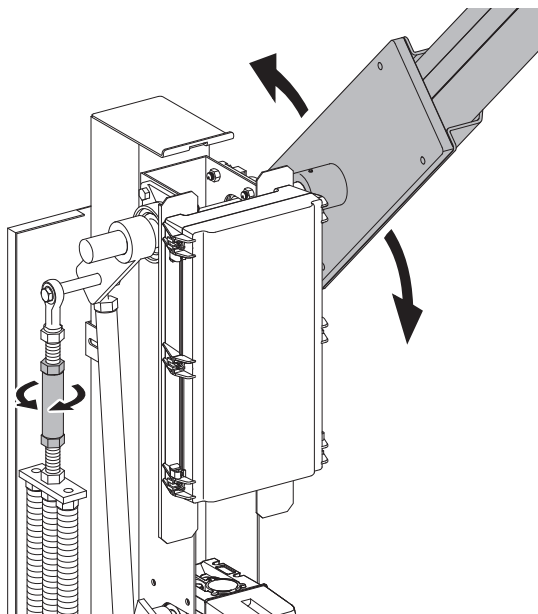
4.5 / 2



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.

- Check the tension of the spring.

4.5 / 3



The spring tension is adjusted using the adjusting screw.

- Adjust the tension of the spring, if necessary.

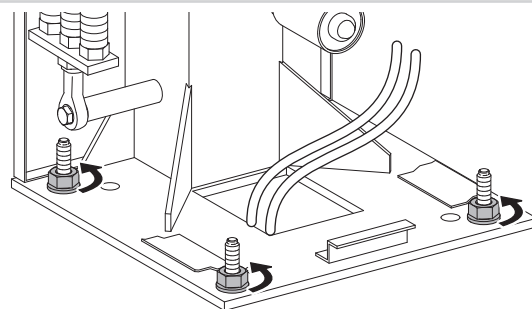
When the spring tension has been set correctly:

- Move the barrier arm to its horizontal position.
- Lock the operator.

→ "5.2 Emergency operation"

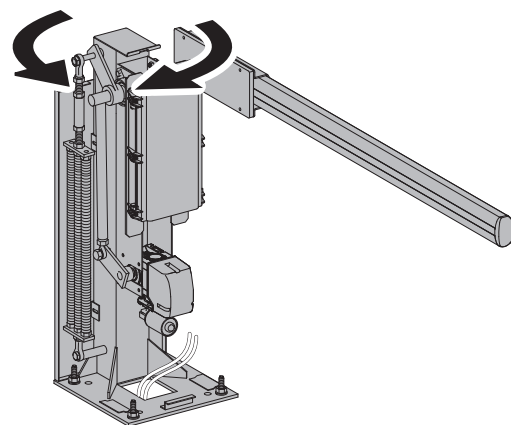
4.6 Fixing the barrier system to the ground

4.6 / 1



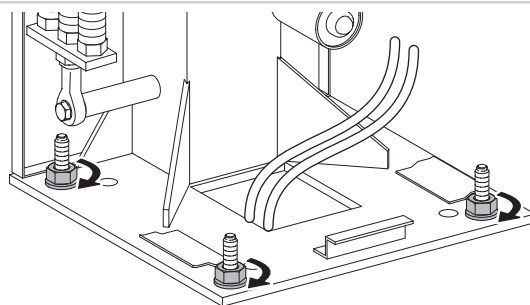
- Loosen the foundation screws slightly so that the position of the cabinet can be adjusted.

4.6 / 2



- Bring the barrier into the desired position.

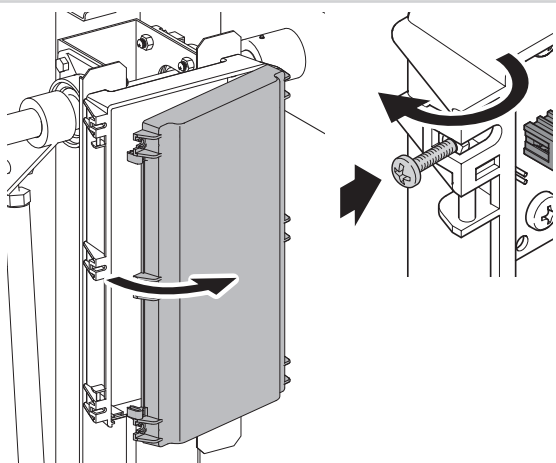
4.6 / 3



- Screw the pillar securely to the ground.

4.7 Opening the control unit

4.7 / 1



4.8 Connection to the control unit

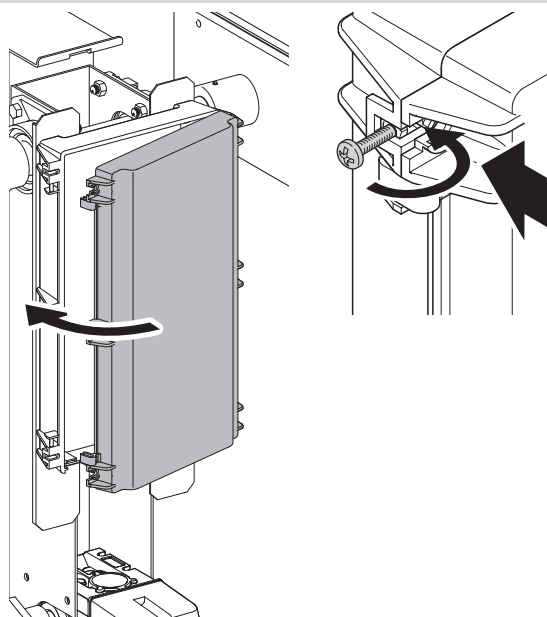
To operate the parking barrier system, it must be connected to a suitable control unit.

REFERENCE

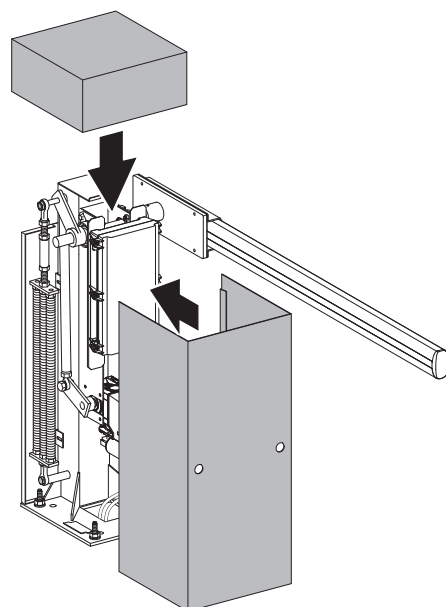
Follow the instructions in the relevant documentation when connecting the operator to the control unit.

4.9 Completing the installation

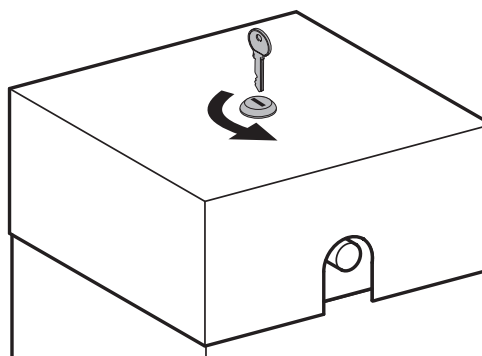
4.9 / 1



4.9 / 2



4.9 / 3



5. Operation

WARNING!

Danger of injury due to uncontrolled operation of the barrier arm!

- Operate the controls or the hand transmitter only when there are no persons or objects in the path of the parking barrier.
- Ensure that the controls and the hand transmitter are never used by children or unauthorised persons.
- Ensure that the hand transmitter cannot be operated by accident (in a trouser pocket, for example).

5.1 Operating systems

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

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

REFERENCE

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

5.2 Emergency operation

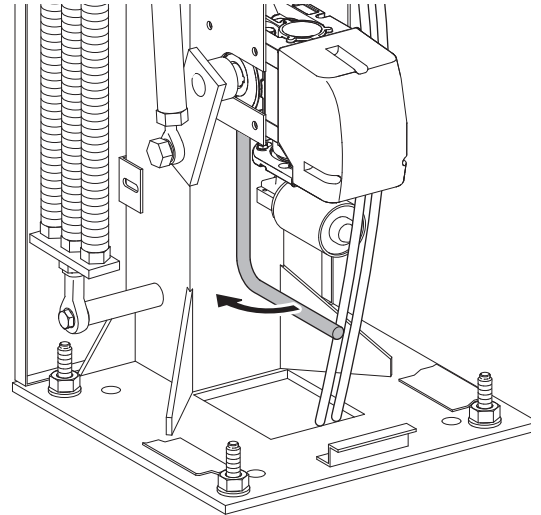
CAUTION!

Danger of injury due to uncontrolled movement of the parking barrier!

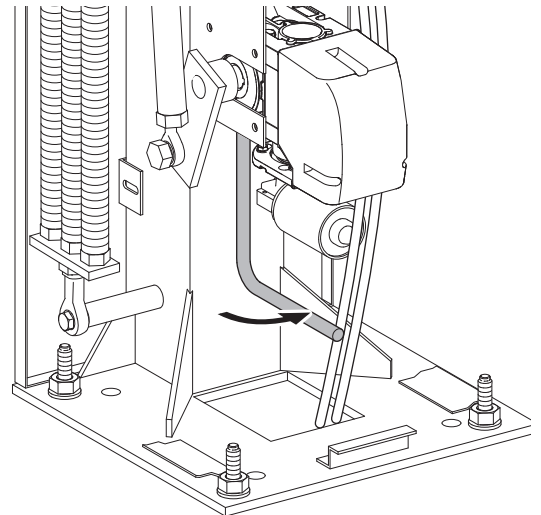
When the release mechanism is operated, uncontrolled barrier arm movements could occur:

- If the springs are weak or broken.
- If the barrier is not balanced.
- When the mechanism is released, only move the barrier carefully and at a moderate speed!

5.2 / 1



5.2 / 2



6. Maintenance

DANGER!

Life-threatening danger due to a falling barrier!

- Before commencing installation, secure the barrier arm in the vertical position.

To ensure fault-free operation, the parking barrier system must be inspected regularly and, if necessary, be repaired. Before any works to the parking barrier system are undertaken, the operator system must be disconnected from the mains.

Monitoring

- Check once a month to ensure that the operator system reverses if the parking barrier encounters an obstacle. Place an obstacle with a height of 1.5 m in the path of the parking barrier to check this.
- Check the settings of the automatic cut-out in the OPEN and CLOSE directions.
- Check all movable parts of the parking barrier system.
- Check the parking barrier system for wear or damage.
- Move the barrier arm manually to check that it moves easily and smoothly.

Maintenance

In order to guarantee trouble-free operation, the spring unit must be replaced at the following intervals:

- Barrier arm lengths 4 m and 5 m every 200,000 cycles
- Barrier arm length 6 m every 80,000 cycles

Care and cleaning

DANGER!

Life-threatening danger due to electric shock!

- It is vital that you disconnect the barrier system from the power supply before commencing cleaning work. Take measures to ensure that the power supply remains disconnected for the duration of the cleaning operation.

NOTICE

Damage resulting from incorrect operation!

When cleaning the operator system, never use: direct water jets, high pressure cleaners, acids or alkaline solutions.

- Clean the outside of the housing using a damp, soft cloth that does not shed fibres.

If particularly dirty, the housing can be cleaned using a mild detergent.

7. Disassembly

DANGER!

Life-threatening danger due to electric shock!

- It is vital that you disconnect the barrier system from the power supply before commencing dismantling work. Take measures to ensure that the power supply remains disconnected during disassembly.

WARNING!

Possibility of serious injury due to incorrect dismantling!

- Observe all the applicable health and safety regulations.

The system must be disassembled by a qualified technician, following the installation instructions in reverse.

8. Disposal

Do not dispose of old equipment or batteries with the normal household waste!

- Dispose of old devices at a waste collection centre for electronic waste or via your specialist dealer.
- Dispose of old batteries in a battery recycling container or via a specialist dealer.
- Dispose of the packaging material in the special waste collection containers for paper, cardboard and plastic.

9. Rectifying faults

REFERENCE

To rectify faults, follow the instructions in the control unit documentation.

10. Appendix

10.1 Technical data

Electrical data

Rated voltage (regional deviations are possible)	V	230 / 260
Rated frequency	Hz	50 / 60
Current input	A	1.1
Power consumption in operation*	kW	0.25
Power consumption in stand-by*	W	approx. 3.2
Motor duty cycle	MDC	90%
Control voltage	V DC	24
Protection category of motor unit		IP 65
Protection class		II

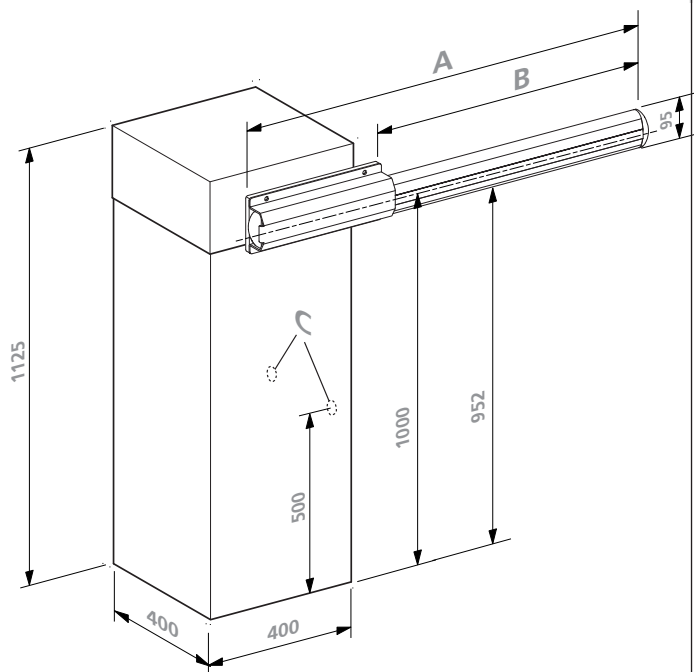
* without any additional equipment connected

Mechanical data

Opening time (barrier specific)	s	8 – 15
Movement cycles per day		
– Barrier arm length up to 4 m	max./	1,000
– Barrier arm length from 4 m	day	750

Environmental data

Dimensions of the barrier system:
 A Barrier arm (boom) length
 B Span = barrier arm length - 300
 C Photocell fixing



Weight (total)	kg	92
Sound pressure level	dB(A)	< 70

Environmental data

Temperature range		°C	-20
		°C	+60

Supply package

Reference point technology
Soft start / Soft stop
Automatic cut-out
Obstruction protection
Undervoltage protection
Excess travel stop
Electronic travel cut-out
Connection for push button, code button and key switch
Fault signalling

Equipment

Aerial Digital 178
Photocells
Fire service release mechanism
LED barrier arm lighting
Support post with forked cradle
Push button
Key switch
Code button
Master / slave control
Coin acceptor
Magnetic lock
Synchronised flashing of LED lights

10.2 Declaration of Incorporation / Declaration of performance 2013-01

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 300
Revision status: 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



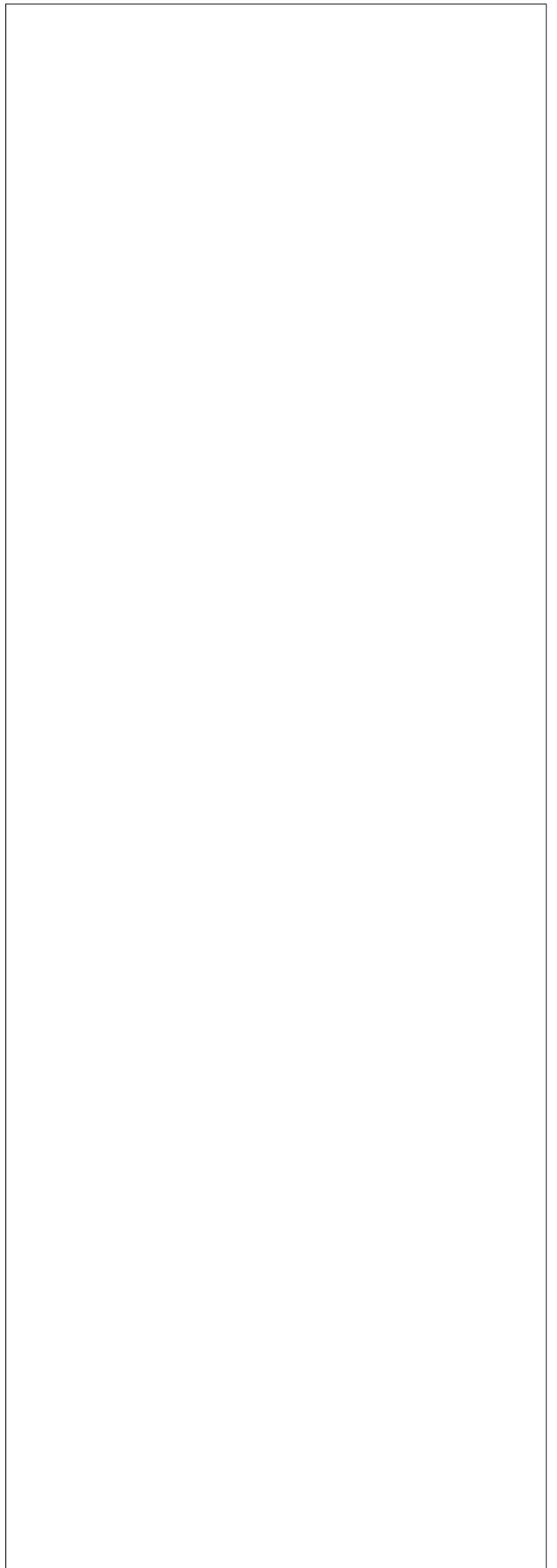
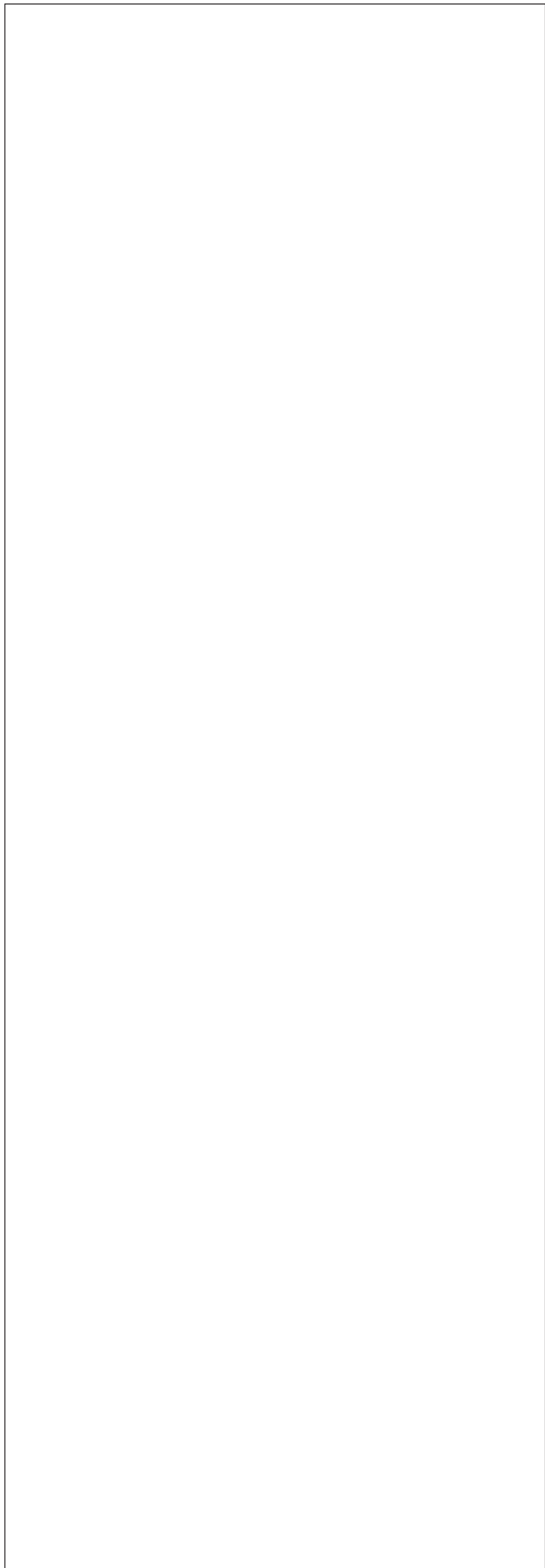
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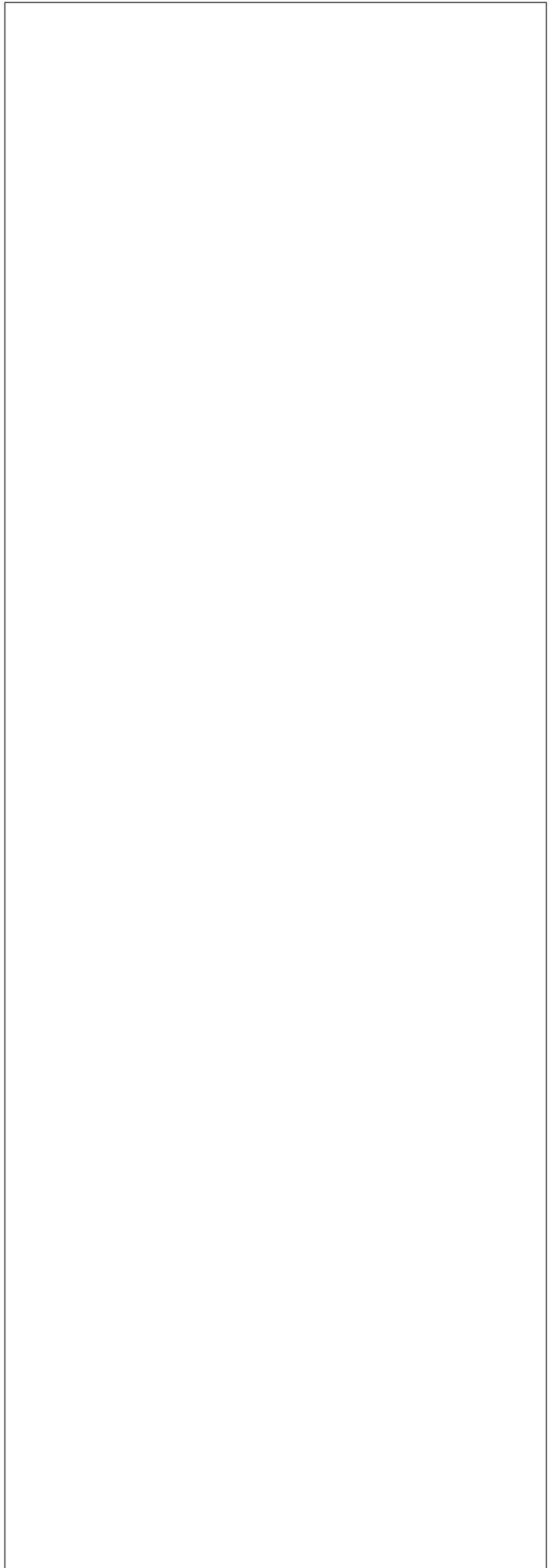
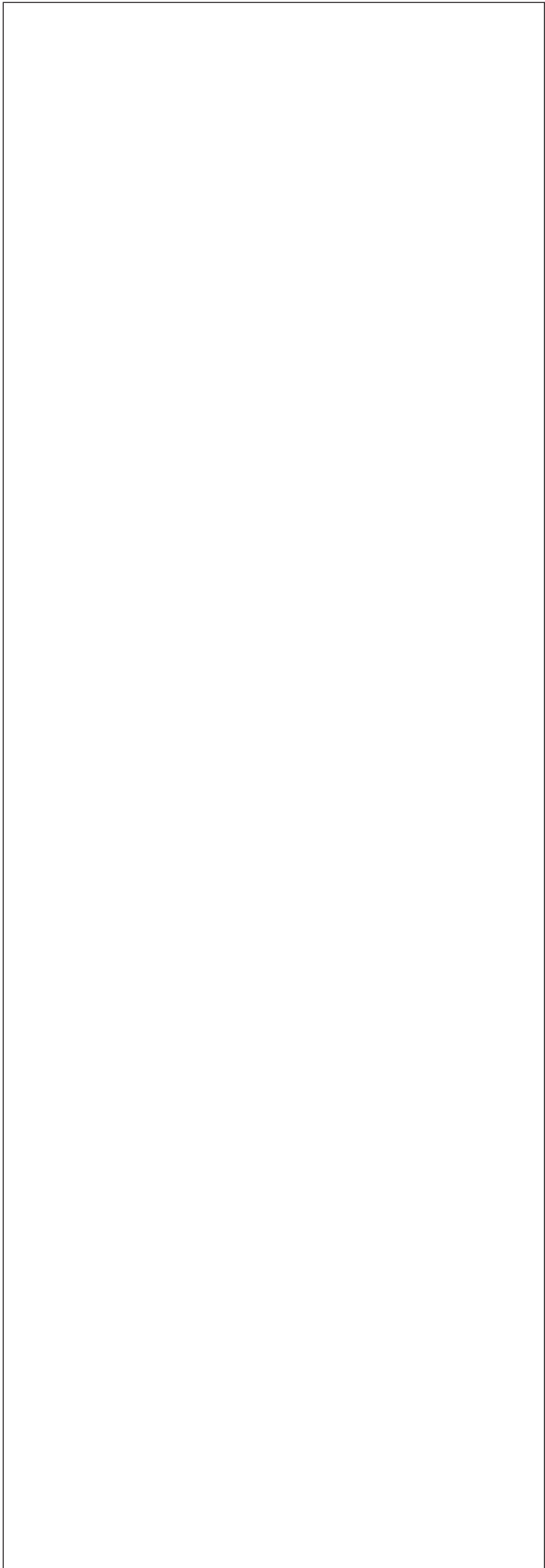
M. Hörmann
Management



Person authorised to compile the relevant technical documentation:
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GmbH & Co. KG
Remser Brook 11 · 33428 Marienfeld · Germany

Phone: +49 5247 705-0





Type plate

Typ (A)	_____
Rev (B)	_____
Art. No. (C)	_____
Prod. No. (D)	_____

