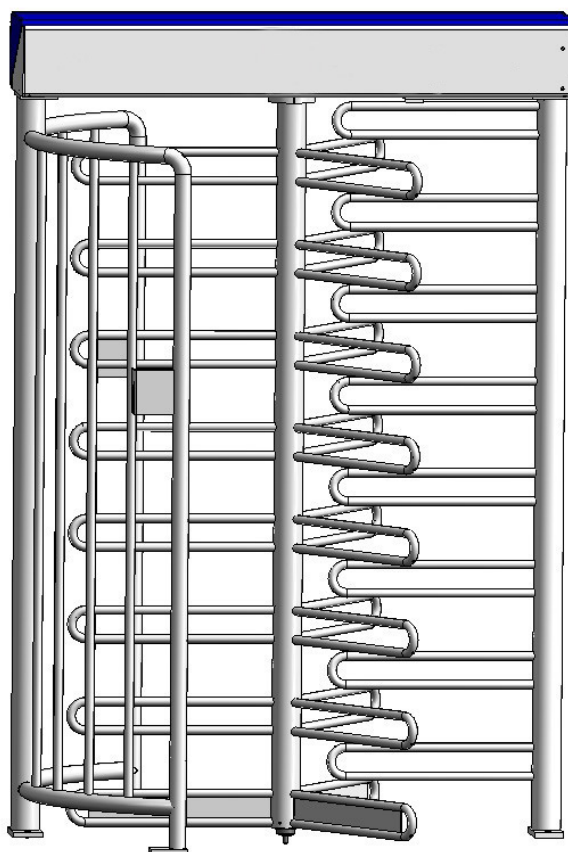


Operating instructions

Full Height Turnstile MPT-132



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Version: 02

Translation of the original operating instructions

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Contents

1	General	7
1.1	Information about the operating instructions	7
1.2	Pictogram explanation	8
1.3	Limitation of liability	9
1.4	Copyright protection	9
1.5	Scope of delivery	10
1.6	Spare parts	10
1.7	Warranty conditions	10
1.8	Disclaimer	11
1.9	Customer service	11
1.10	EC Declaration of Conformity	11
1.11	Environmental protection	11
2	Safety	12
2.1	Intended use	12
2.2	Changes and modifications	12
2.3	Operating personnel	13
2.3.1	Requirements	13
2.4	Operator's Responsibility	14
2.5	Personal protective equipment	15
2.6	Occupational safety and specific risks	15
2.6.1	Danger pictograms on the pedestrian barrier MPT-132	15
2.6.2	Hazard warnings and occupational safety	16
3	Technical data	19
3.1	Electrical connection	19
3.2	Operating conditions	19
3.3	Weight	19
3.4	Performance data	19
4	Design and function	20
4.1	Design	20
4.2	Versions	21
4.3	Function	21
5	Assembly and installation	22
5.1	Safety	22
5.2	Requirements for assembly	23
5.3	Foundation and empty conduits	24
5.3.1	Foundation plan	25
5.3.2	Base frame	27

Contents

5.4	Assemble the full height turnstile MPT-132	28
5.4.1	Mounting full height turnstile on the foundation	29
5.4.2	Mounting the support beam	30
5.4.3	Removing lock unit (optional)	32
5.4.4	Dismounting locking discs	33
5.4.5	Dismounting centering bolts	35
5.4.6	Mounting the floor bearing, mounting the center column on the drive flange	36
5.4.7	Mounting centering bolts, locking discs and lock unit	38
5.4.8	Fix the center column to the floor bearing ...	38
5.4.9	Setting the blocked position (home position)	39
6	Electrical connection	40
6.1	Safety	40
6.2	Power supply connection	41
6.2.1	Connecting the power supply	41
6.2.2	Inputs and outputs, customer	42
6.3	Connection diagram	43
6.4	Inputs X2	44
6.5	Relay outputs X1	45
7	Configuring the pedestrian barrier	46
7.1	Safety	46
7.2	Parameter settings	46
7.2.1	DIP switch block S1	47
7.2.2	DIP switch block S2	50
8	Start-up and operation	51
8.1	Safety	51
8.2	Start-up	52
8.2.1	Switching on and off the pedestrian barrier	52
9	Maintenance	53
9.1	Safety	53
9.2	Cleaning	54
9.3	Maintenance schedule	55
10	Troubleshooting	56
10.1	Malfunction – Logic controller MBC-110	56
10.1.1	Display of the error codes at the MBC-110 .	57
10.1.2	Display of the software version of the MBC-110	57
10.1.3	Error message on the MBC-110	58

10.2	Error message – motor control unit MMC-120	59
10.3	Downloading new software to logic controller MBC-110	61
11	Spare parts	62
12	Decommissioning, disassembly and disposal	62
13	EC-Declaration of Conformity.....	63
14	Appendix.....	64
14.1	Electrical circuit diagram.....	64
Index.....		65

1 General

1.1 Information about the operating instructions

These operating instructions provide important information on how to deal with the MAGNETIC full height turnstile MPT-132. Prerequisite for safe working is the observance of all specified safety notes and instructions.

In addition, the local accident prevention regulations valid at the barrier's area of application and general safety regulations have to be complied with.

Carefully read the operating instructions before starting any work! They are a product component and must be kept in direct proximity of the barrier, well accessible to the personnel at all times.

If the pedestrian barrier is passed on to a third party, it must be accompanied by the operating instructions.

Any used optional components from other manufacturers are governed by their own safety provisions and directives. These must also be observed.


General


1.2 Pictogram explanation


Warning notes


Warning notes are characterized by pictograms in these operating instructions. The warning notes are preceded by signal words expressing the scale of the hazard.

It is absolutely essential to observe the notes and to proceed with caution in order to prevent accidents as well as bodily injuries and property damage.

⚠ DANGER	
	<p>The signal word DANGER points to an immediately dangerous situation, which leads to death or severe injuries if it is not avoided.</p>

⚠ WARNING	
	<p>The signal word WARNING points to a potentially dangerous situation, which can lead to death or severe injuries if it is not avoided.</p>

⚠ CAUTION	
	<p>The signal word CAUTION points to a potentially dangerous situation, which can lead to minor injuries if it is not avoided.</p>

NOTICE	
	<p>The signal word NOTICE points to a potentially harmful situation, which can lead to property damage if it is not avoided.</p>

Hints and recommendations



NOTE!

... highlights useful hints and recommendations as well as information for an efficient and trouble-free operation.

1.3 Limitation of liability

All specifications and notes in these operating instructions were compiled in consideration to the valid standards and regulations, state-of-the-art technology and our long-standing knowledge and experience.

The manufacturer is not liable for damage caused by:

- Non-observance of the operating instructions
- Improper use
- Deployment of non-trained personnel
- Arbitrary modifications
- Technical changes
- Use of non-approved spare and wear parts.

The actual scope of supply may differ from the explanations and illustrations described in this manual in case of special designs, if additional order options are made use of, or due to latest technical changes.

1.4 Copyright protection

Surrendering the operating instructions to third parties without written permission of the manufacturer is not permitted.

Content details, texts, drawings, pictures and other illustrations are protected by copyright and are subject to industrial property rights. Any improper use shall be liable to prosecution.

Any type and form of duplication – also of extracts – as well as the exploitation and/or communication of the contents are not permitted without the manufacturer's written declaration of consent.

General

1.5 Scope of delivery



The scope of delivery comprises:

- 1 x Cage halves, steel or stainless steel
- 1 x Center column 3 x 120°
- 1 x Support beam with drive unit, MBC control unit, MMC control unit, if applicable additional lock unit and top cover
- 1 x Lock comb in galvanized steel or stainless steel
- 1 x Drilling jig
- 1 x Bearing pins, bearing sleeve and fastening materials
- 1 x Fastening kit (only within Europe)
- 2 x Door keys (top cover)

Supplied documentation:

- 1 x Operating Instructions
- 1 x Wiring diagram

1.6 Spare parts

 WARNING	
	<p>Risk of injury by incorrect spare parts!</p> <p>Incorrect or defective spare parts can result in damage, malfunctions or total failure and also impair safety.</p> <ul style="list-style-type: none"> – Use only the manufacturer's original spare parts.

Procure spare parts from authorized dealers or directly from the manufacturer. Refer to Page 2 for address.

A list of spare parts can be obtained upon request.

1.7 Warranty conditions

Subject to the condition that the operating instructions are observed, and that no inadmissible operations are carried out on the technical equipment, and that the installation has suffered no mechanical damage, MAGNETIC grants a warranty on all mechanical and electrical components of the product to the extent as stated in its standard terms of sales and delivery or as contractually agreed in writing.

1.8 Disclaimer

MAGNETIC expressly disclaims all implied and statutory warranties, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose with respect to the product and the statutory warranty of non-infringement of third party rights set forth in section 2312(3) of the uniform commercial code.

1.9 Customer service

Our customer service can be contacted for any technical advice. Information about the responsible contact person can be retrieved by telephone, fax, E-mail or via the Internet at any time, refer to manufacturer's address on page 2.



NOTE!

In order to enable fast handling note the data of the type plate such as type, serial number, version etc. before calling.

1.10 EC Declaration of Conformity

For the "EC Declaration of conformity" (pursuant to EC Machinery Directive 2006/42/EC, Annex II) refer to page 63.

1.11 Environmental protection

NOTICE



Danger for the environment by improper disposal of components or the pedestrian barrier!

In case of improper disposal of components or the pedestrian barrier, damage to the environment may result.

- Observe the local and national laws and directives.
- Disassemble pedestrian barrier according to resources. Sort resources and supply them to recycling.

Safety

2 Safety

2.1 Intended use

The MAGNETIC pedestrian barrier MPT is intended solely for controlling pedestrians in areas with authorized access.

The full height turnstile is usually integrated into the fence and gate complex.

The pedestrian barrier is intended for passage of persons who can pass the pedestrian barrier safely, quickly and without help. For persons who cannot pass the pedestrian barrier safely, quickly or without help, such as little children, older persons or persons with impairments, separate access options must be provided.

The MAGNETIC control units MMC and MBC are intended solely for controlling the MAGNETIC pedestrian barriers MPT.

WARNING



Non-intended use is dangerous!

Any use of the barriers other than intended and/or in a different manner can cause hazardous situations.

- Only use the pedestrian barrier and the controllers for the intended use.
- All specifications in these operating instructions have to be strictly complied with.

Any types of claims due to damage arising from improper use are excluded. The operator alone shall be responsible for any damage arising from improper use.



2.2 Changes and modifications

Changes, modifications and re-builds of the barrier modules can cause unforeseen danger.

A written authorization of the manufacturer is absolutely required before executing any technical changes and modifications at the barrier modules, the control unit or the control program.

2.3 Operating personnel

2.3.1 Requirements

 WARNING	
	<p>Risk of injury in case of inadequate qualification!</p> <p>Improper handling can lead to considerable physical injuries and property damage.</p> <ul style="list-style-type: none"> – Have any activities only carried out by the individuals assigned for that purpose.

The operating instructions specify the following qualification requirements for the different fields of activity:

- **Instructed people**
have been instructed during instructions provided by the operator with regard to the work assigned to them and possible hazards arising from improper conduct.
- **Specialized staff**
is due to its technical training, knowledge and experience as well as due to its knowledge of the pertinent regulations able to carry out the work assigned to it and to independently recognize potential hazards.
- **Qualified electricians**
are able, due to their technical training, knowledge and experience, as well as their awareness of the relevant standards and provisions, to undertake work on electrical systems and recognize potential risks.
In Germany, qualified electricians must satisfy the provisions of the Accident Prevention Regulation BGV A3 (e.g. master electrician). Appropriate regulations apply in other countries. These applicable regulations must be observed.

Only those individuals who can be expected to work reliably are to be deployed as personnel. People, whose ability to respond is affected, e.g. by drugs, alcohol or medicines, may not be assigned. The regulations governing age and trade applicable at the point of use must also be observed for personnel selection.

2.4 Operator's Responsibility

The operator must comply with the statutory obligations regarding work safety.

In addition to the work safety notes in these operating instructions, the safety, accident prevention and environmental provisions applicable for the area the pedestrian barrier is used in must be complied with.

In particular, the operator must:

- gather information on applicable work protection provisions.
- determine additional danger in a danger analysis.
- implement the required code of conduct for operation of the pedestrian barrier on site in operating instructions.
- regularly verify throughout the pedestrian barrier's time of use that the operating instructions drawn up by him comply with the current state of the regulations.
- adapt the operating instructions to any new provisions, standards and usage conditions - where required.
- clearly determine the responsibilities for installation, operation, maintenance and cleaning of the pedestrian barrier.
- ensure that all employees that are working at or with the pedestrian barrier have read and understood the operating instructions.
- Furthermore, the operator must train personnel regarding the use of the pedestrian barrier at regular intervals and provide information on possible dangers.

Furthermore, the operator is responsible for:

- keeping the pedestrian barrier in perfect technical order and condition at all times.
- maintaining the pedestrian barrier according to the maintenance intervals and performing the safety inspections as stipulated.
- checking all protective facilities for completeness and proper function at regular intervals.

The operator is also responsible that the danger area of the pedestrian barrier cannot be accessed by any unauthorised persons, and in particular not by children, under any circumstances.

2.5 Personal protective equipment

It is necessary to wear personal protective equipment when dealing with the pedestrian barrier so as to minimize health hazards.

Before carrying out any work, properly dress the necessary protective equipment such as work clothes, protective gloves, safety shoes and wear during work.

2.6 Occupational safety and specific risks



The remaining risks resulting from the hazard analysis are specified in the following chapter.

Observe the safety notes listed here and the warning notes mentioned in the other chapters of these instructions to reduce health hazards and to avoid dangerous situations.

2.6.1 Danger pictograms on the pedestrian barrier MPT-132

The relevant dangerous areas on the barriers can be identified by the following pictograms:

Electric voltage


 DANGER	
	<p>Mortal danger by electric voltage!</p> <p>... indicates life threatening situations caused by electric voltage. Non-observance of the safety instructions causes severe injuries or death. Necessary work may only be carried out by an electrical specialist.</p> <p>This pictogram is fixed on the following component:</p> <ul style="list-style-type: none"> – Rear panel of the support beam with electrical components.

Safety


2.6.2 Hazard warnings and occupational safety

For your own safety and for the protections of the barrier modules, the following information must be observed and complied with:


Electric voltage

⚠ DANGER	
	<p>Mortal danger by electric voltage!</p> <p>Touching live parts can be lethal. Damage to the insulation or to individual components can be lethal.</p> <ul style="list-style-type: none"> – Switch off the power supply immediately in case of damage to the insulation and arrange repair. – Only electrical specialists may carry out work on the electrical system. – Switch off voltage supply and secure against re-activation before performing any work. Test for absence of voltage. – Never bypass or deactivate fuses. – When replacing fuses observe the correct amperage specification. – Keep moisture and dust away from live parts. Moisture or dust may cause a short circuit.


Electrical voltage – missing safety installations

⚠ DANGER	
	<p>Mortal danger by electric voltage!</p> <p>The safety installations that are required according to regional and local regulations must be provided by the customer. Usually these are:</p> <ul style="list-style-type: none"> – Residual current device (RCD) – Circuit-breaker – Lockable 2-pole main switch according to EN 60947-3.


Improper transport

⚠ WARNING	
	<p>Danger by falling down or tilting of a pedestrian barrier!</p> <p>The weight of the pedestrian barrier or its heavy components can cause serious physical injury and crushing!</p> <ul style="list-style-type: none"> – Have all transport work performed by trained personnel. – Use a pallet appropriate for the dead weight and dimensions of the components that can be moved by a forklift. – For lifting a pedestrian barrier, use suitable lifting gear that is designed for the weight of the barrier. – The pedestrian barrier or its heavy components must be carried and lifted from the pallet by a minimum of two people.

Heavy weight


⚠ WARNING	
	<p>Risk of injury when lifting heavy objects alone!</p> <p>The weight of heavy objects can seriously injure a person!</p> <ul style="list-style-type: none"> – The pedestrian barrier and its heavy individual components must be carried and lifted from the pallet by a minimum of two people.

Insufficient fixing


⚠ WARNING	
	<p>Risk of injury at insufficient fixing!</p> <p>Insufficient fixing of the pedestrian barrier or individual components such as the center column can cause serious injury and crushing!</p> <ul style="list-style-type: none"> – Before operation ensure the firm fixing of the composite anchors. – Check the firm fixing of all screws according to maintenance schedule. – Only qualified and skilled personnel are allowed to assemble the pedestrian barrier and the appropriate components.

Safety


Inadmissible operation

⚠ WARNING	
	Risk of injury at inadmissible operation!
	<p>An inadmissible operation can cause death or serious injuries.</p> <ul style="list-style-type: none"> – Before operating the barriers check all electrical and mechanical functions.

Sharp edges and spiky corners

⚠ CAUTION	
	Risk of injury on edges and corners!
	<p>Sharp edges and spiky corners can cause skin abrasions and cuts.</p> <ul style="list-style-type: none"> – Work carefully near to sharp edges and spiky corners. – In case of doubt wear protective gloves.

Signposting

⚠ CAUTION	
	Risk of injury by illegible symbols!
	<p>Labels and signs can become dirty or unrecognisable in the course of time.</p> <ul style="list-style-type: none"> – Always keep safety, warning and operating notes in a well readable condition. – Immediately renew damaged or unrecognisable signs or labels.

3 Technical data

3.1 Electrical connection

Designation	Unit	Value
Supply voltage	V AC / Hz	230 / 50
Current consumption: Pedestrian barrier open/close	A	0.2
Current consumption: Pedestrian barrier in motion	A	0.3
Starting current (approx. 30ms)	A	1
Power consumption: Rest position	W	25
Power consumption: Barrier in motion	W	35
Max. power consumption (if vandalized)	W	180
Duty cycle	%	100
Control voltage	V DC	42 / 30

Table 1: Electrical connection

3.2 Operating conditions

Designation	Unit	Value
Ambient temperature range	°C	–25 to +45
Protection class	–	IP 43, optional: IP 54

Table 2: Operating conditions

3.3 Weight

Designation	Unit	Value
Weight	kg	325

Table 3: Weight

3.4 Performance data

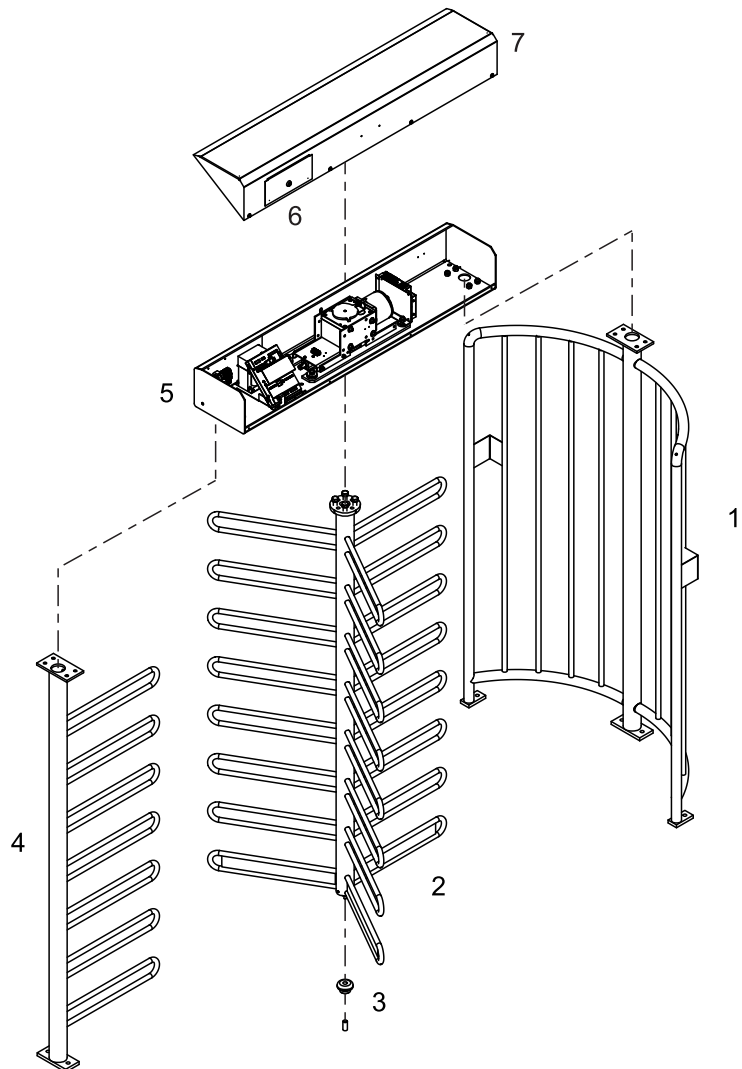
Designation	Unit	Value
Runtime for 120°	s	Adjustable 2.0 – 3.0

Table 4: Performance data

Design and function

4 Design and function

4.1 Design

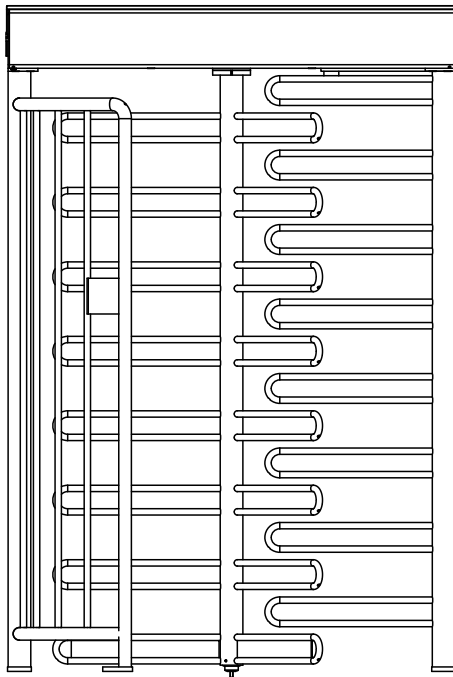


Mag58173511b

Fig. 1: Design of components

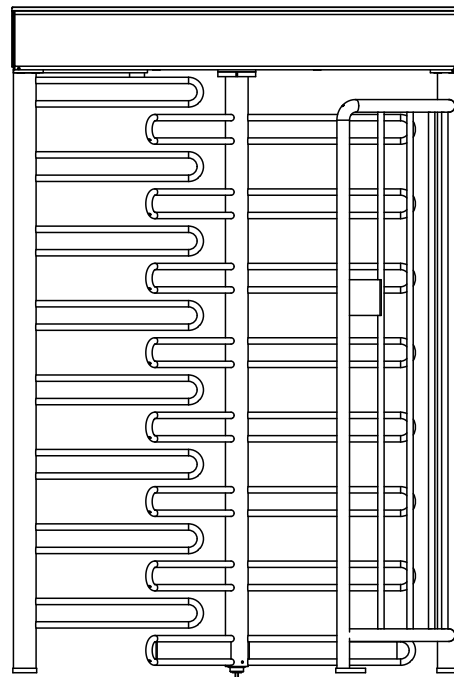
- 1 Cage halves
- 2 Center column
- 3 Synthetic bearing
- 4 Lock comb
- 5 Support beam with drive unit and drive flange
- 6 Service door
- 7 Top cover

4.2 Versions



Mag00058

Fig. 2: "Entry from left" version



Mag00059

Fig. 3: "Entry from right" version

4.3 Function

The pedestrian barrier MPT is intended for the controlling of pedestrians in outdoor areas with a relatively high security requirement.

Basically, the pedestrian barrier can be used in both directions. In multi-lane installations with high throughput rates, the entry and exit lanes can also be configured for one-way passage.

In its normal state, the pedestrian barrier is closed. The pedestrian barrier can be cleared only after authorization by an external command transmitter, e.g. card reader. Lightly pushing the center column activates the drive. The center column moves into the next closed position by itself.

The drive technology employed in this product enables the center column to be easily blocked in any position during operation.

No slipping clutches or similar devices are used.



In the event of power failure, the center column can be freely rotated in both directions. Should a power failure occur, the center column can be mechanically locked in one or both directions by an optional lock unit.

Assembly and installation



5 Assembly and installation

5.1 Safety

General


 WARNING	
	<p>Danger by inappropriate installation!</p> <p>Inappropriate installation can cause severe injuries!</p> <ul style="list-style-type: none"> – Only qualified personnel, authorised and briefed by the contracting partner may carry out all installation and assembly. – Prior to work, ensure that there is sufficient assembly space. – Pay attention to tidiness and cleanliness at the assembly site! Loose components and tools that are left lying around cause accidents. – Ensure correct arrangement and correct fit on the components. – Install all fastening elements correctly.

Improper transport


 WARNING	
	<p>Danger by falling down or tilting of a pedestrian barrier!</p> <p>The weight of the pedestrian barrier or its components can cause serious injury and crushing!</p> <ul style="list-style-type: none"> – Have all transport work performed by trained personnel. – Use a pallet appropriate for the dead weight and dimensions of the components that can be moved by a forklift. – To lift the pedestrian barrier or its heavy components, use a suitable lifting gear (slings etc.) that is rated for the weight of the pedestrian barrier. – Lifting and carrying the pedestrian barrier from the pallet should be done by a minimum of two people.

Assembly and installation

Heavy weight

⚠ WARNING	
	<p>Risk of injury when lifting heavy objects alone!</p> <p>The weight of heavy objects can seriously injure a person!</p> <ul style="list-style-type: none"> – The pedestrian barrier or its heavy components must be carried and lifted from the pallet by a minimum of two people.

Improper transport

NOTICE!	
	<p>Pedestrian barrier will be damaged if transported inappropriately!</p> <p>Substantial material damages can result from improper transport.</p> <ul style="list-style-type: none"> – Have all transport work performed by trained personnel. – When unloading the packages and during in-plant transportation always proceed with utmost care and caution. – Observe the symbols on the packaging. – Observe the dimensions of the pedestrian barrier. – Loading, unloading as well as moving the pedestrian barrier must take place with utmost care. – Only remove packaging directly before assembly.

Personal protective equipment

The following must be worn during all assembly and installation work:

- Work clothes
- Protective gloves
- Safety shoes.

5.2 Requirements for assembly

The following procedures have to be observed before assembly and installation:

- Laying the foundation
- Installing the empty conduits

Assembly and installation

5.3 Foundation and empty conduits

**NOTE!**

To provide a trouble-free operation use separate conduits for data cables and mains cables.

The functional safety of the pedestrian barrier hinges on the accuracy of the foundation.

Foundation

The foundation must meet the following requirements:

- have sufficient load-carrying capacity.
- have a skid-proof surface.
- be horizontal and level, max. deviations 2 mm/m
- have sufficient thickness for the fastenings.

Empty conduits

The empty conduits must be positioned accurately to the drilling plan. Refer to Page 25, Fig. 4.

5.3.1 Foundation plan

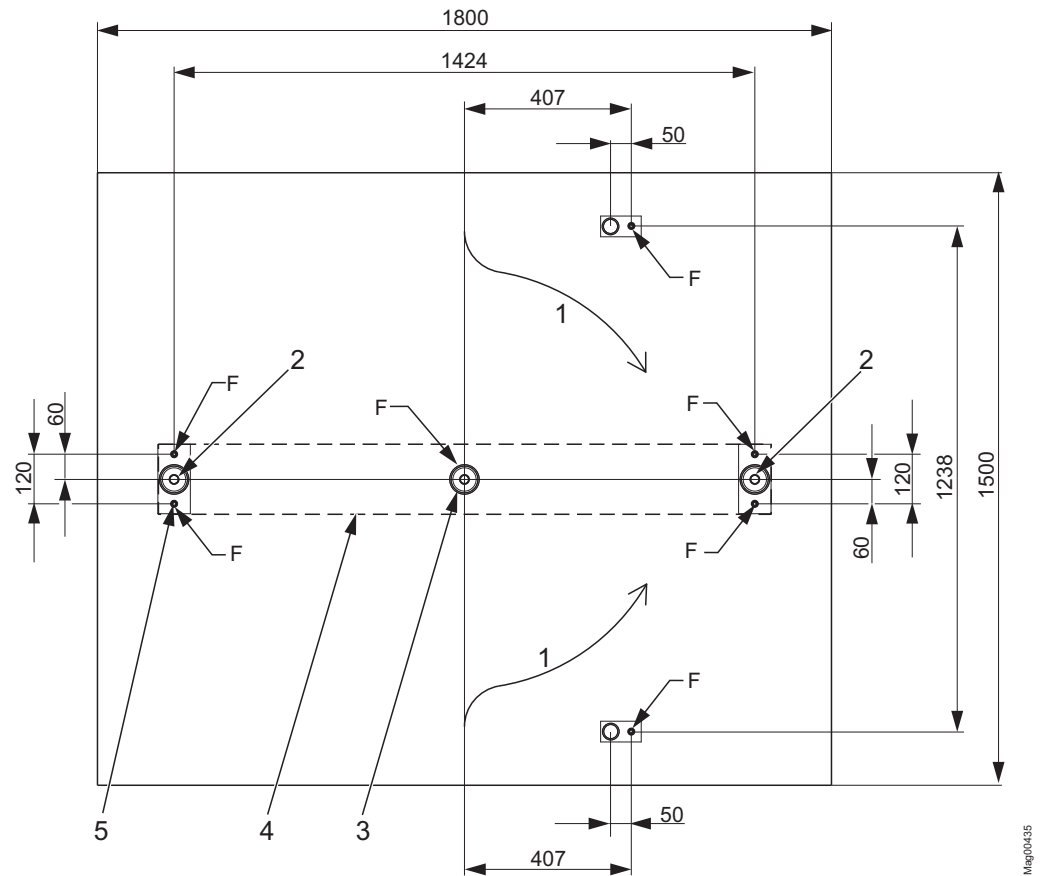


Fig. 4: Foundation plan

- 1 Passage direction
- 2 Empty conduits
- 3 Bearing
- 4 Drilling jig
- 5 Foundation anchor (F) with M10 internal thread, 16 mm bore hole, drilling depth: 90 mm

- Have cables overlapping for approx. 5 m of the conduits
- Composite anchors M10
- Bore hole diameter 16 mm, drilling depth 90 mm
- Conduit for mains cable and data line
- Foundation level and horizontal
- Concrete or adequately integrated industrial flooring
- With flagging, ensure that the anchor bolts grip firmly into the foundation, use longer bolts if necessary.

Assembly and installation

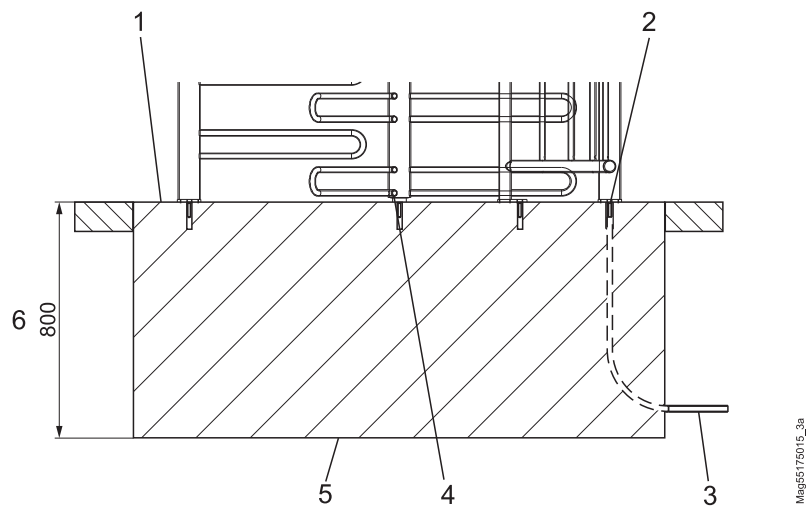


Fig. 5: Foundation plan and layout for empty conduits

- 1 Smooth trowel finish foundation, level and horizontal
- 2 Lay data cables and power cables in separate empty conduits. Leave empty conduits approx. 50 mm above the foundation. All power cables and data cables are to protrude at least 5 m from the empty conduits.
- 3 Empty conduit $D = 25 \text{ mm}$
- 4 After insertion, glue headless screws with Loctite 241 or similar removable adhesive as a screw retention method.
- 5 Concrete foundation C25/30 with reinforced steel
- 6 Frost depth 800 mm

5.3.2 Base frame

A base frame must be used to facilitate assembly on stone pavements or similar surfaces.

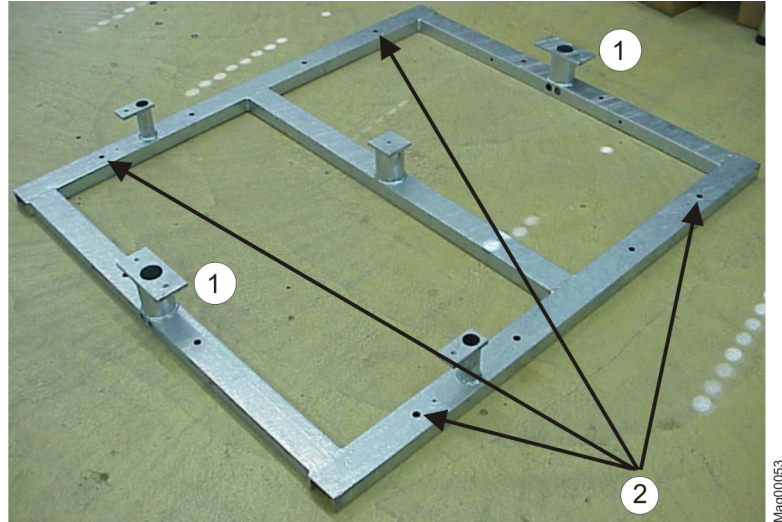
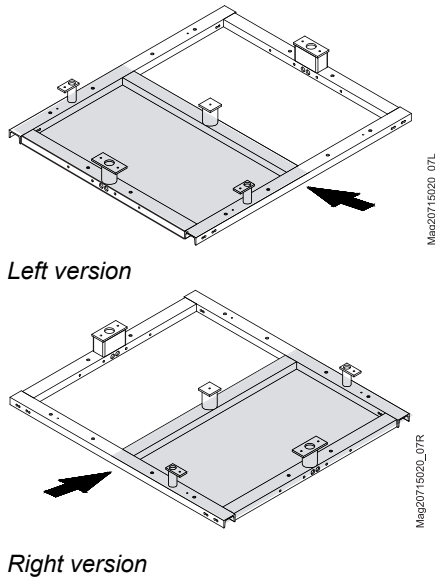


Fig. 6: Base frame

- 1 Possible cable penetration from the foundation into the full height turnstile MPT
- 2 Bore holes for leveling screws, 4-off, screws as required for aligning the base frame on the concrete, screws not shown.

Assembly and installation

5.4 Assemble the full height turnstile MPT-132

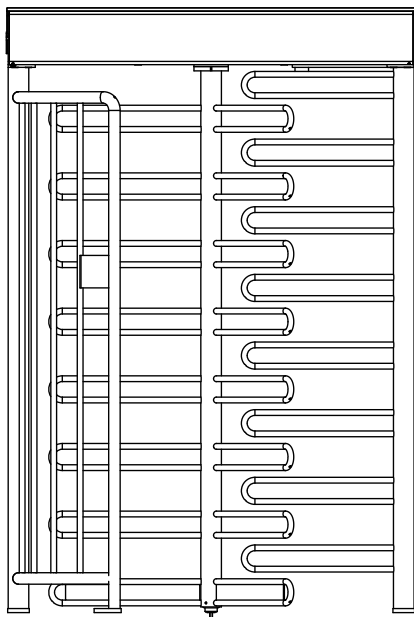


Fig. 7: Entry from left version

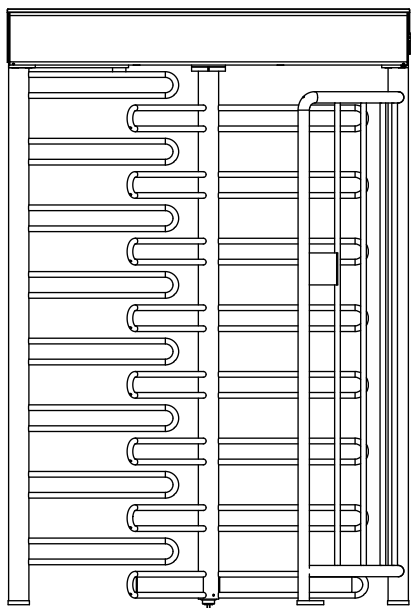


Fig. 8: Entry from right version

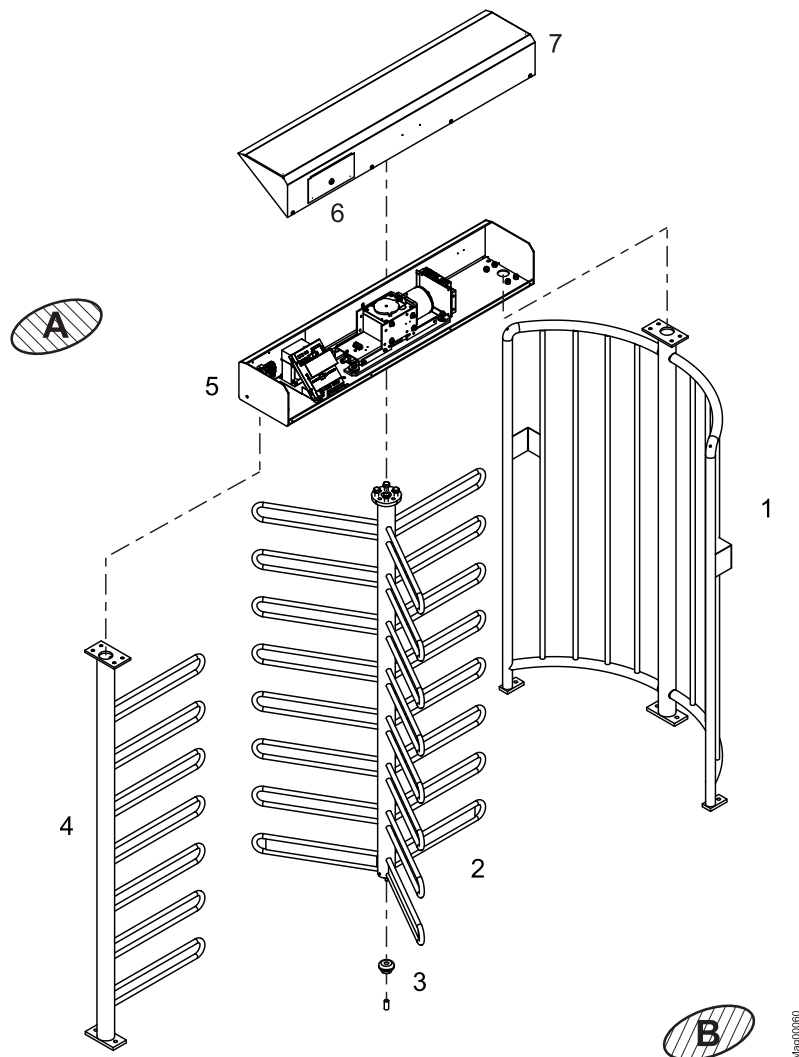


Fig. 9: Assemble full height turnstile

- 1 Cage halves
- 2 Center column
- 3 Synthetic bearing
- 4 Lock comb
- 5 Support beam with drive unit and drive flange
- 6 Service door
- 7 Top cover

- A Unprotected area
- B Protected area

**NOTE!**

Before starting assembly, establish whether the cage half is to be right or left entry. See Fig. 9.

If code card reader, buttons or columns are pre-mounted on the cage half, they are important for setup.

5.4.1 Mounting full height turnstile on the foundation

**NOTE!**

The foundation must have hardened off.

Foundation and empty conduits must be tested prior to commencing assembly.

The full height turnstile is mounted to the foundation by 6 composite anchors. The mounting material is included in the delivery.



Fig. 10: Drilling jig

1. Make the bore holes as per the drilling plan (see Page 25, Fig. 4). Use the drilling jig supplied.
2. Carefully remove any sand and swarf from the bore holes and their immediate vicinity.
3. Set the anchor bolts supplied as shown on the enclosed description and allow hardening.

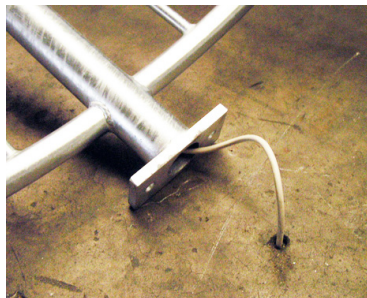


Fig. 11: Power and control cables

Assembly and installation

4. Pull the power cable and any control cables completely through the tube of the lock comb (Fig. 9, Pos. 1) and/or the cage half (Pos. 2).



Fig. 12: Setting up cage halves and lock comb

5. Grease the supplied M 10 screws.
6. Mount the cage half (Fig. 9, Pos. 2) and lock comb (Pos. 1) and fasten using the M 10 screws.
 - Do not allow the screws to come into contact with dust, sand or similar substances.
 - Do not tighten the screws completely.

5.4.2 Mounting the support beam

1. Open the top cover of the support beam.
The cover is secured with 4 hexagon socket screws.



Fig. 13: Open the top cover

2. Loosen the screws using a size 4 hexagon wrench
3. Pull top cover forwards.



Fig. 14: Mounting the support beam

4. Position the support beam (Fig. 9, Pos. 3) using the hoist onto the lock comb and cage half.



WARNING!

Risk of injury from a falling support beam!

5. Immediately secure and tighten the support beam using the 4 M 12 x 35 countersunk screws supplied.

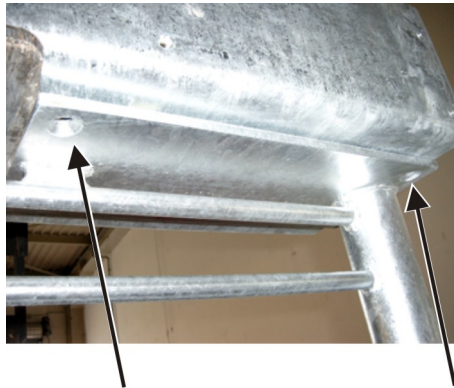


Fig. 15: Mounting the support beam



Fig. 16: Tighten the fastening screws

6. Tighten the fastening screws on the foundation using a size SW 17 (AF 17) wrench.

Assembly and installation

5.4.3 Removing lock unit (optional)

**NOTE!**

The drive unit has various loosely fastened elements for transportation purposes.

The center column has to be partially removed before it can be mounted.

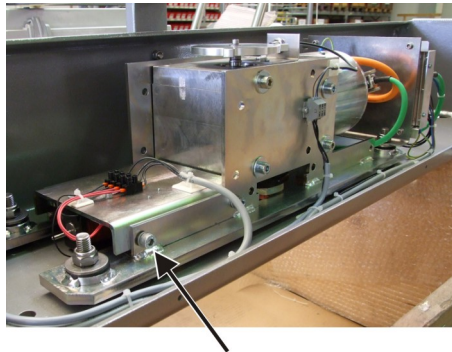


Fig. 17: Loosen hexagon socket screws on top housing with drive unit

1. Loosen the 4 hexagon socket screws on the lock unit.

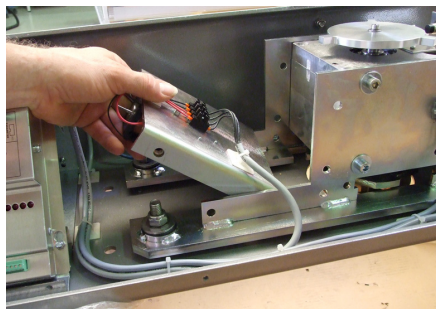


Fig. 18: Remove the lock unit.

2. Remove the lock unit.

5.4.4 Dismounting locking discs

**NOTE!**

Complete the following steps, always turning the drive flange in a clockwise direction (viewed from below).

**NOTE!**

The drive unit has various loosely fastened elements for transportation purposes.

The center column has to be partially removed before it can be mounted.

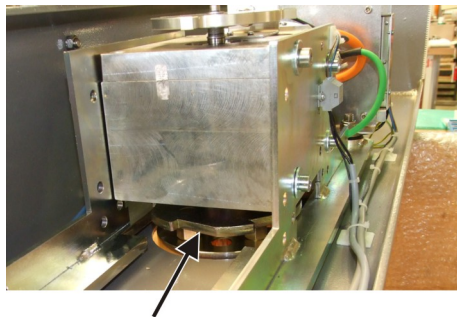


Fig. 19: Locking discs



Fig. 20: Turn the screw on the drive shaft

1. Turn the screw on the drive shaft using a size SW 6 hexagon wrench until the first fixing screw Fig. 21) becomes visible.

Assembly and installation

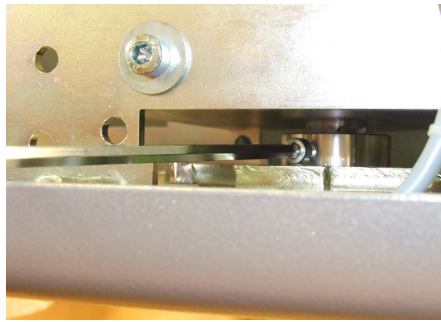


Fig. 21: Remove the fixing screw

2. Remove the 1st fixing screw.
3. Turn the drive flange for 180°.
4. Remove the 2nd fixing screw.



Fig. 22: Left locking disc

Note! The illustration of the locking disc does not correspond to the original.

5. Remove the left locking disc. Put the locking discs as removed apart, making sure that they have the same position as when mounted. Affix markings.
6. Turn the drive flange.

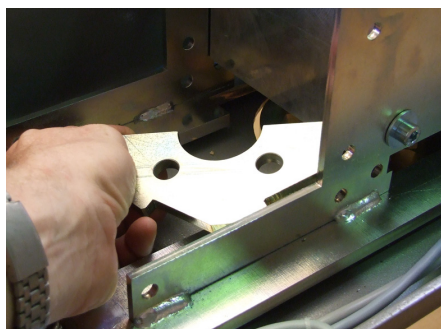


Fig. 23: Right locking disc

7. Remove the right locking disc. Put the locking discs as removed apart, making sure that they have the same position as when mounted. Affix markings.

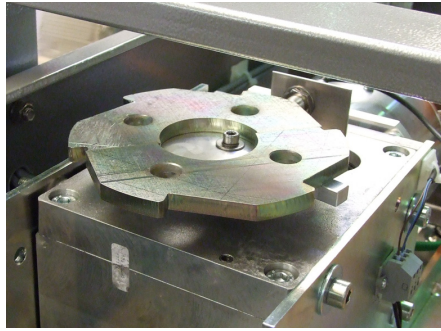


Fig. 24: Dismounting locking discs

5.4.5 Dismounting centering bolts

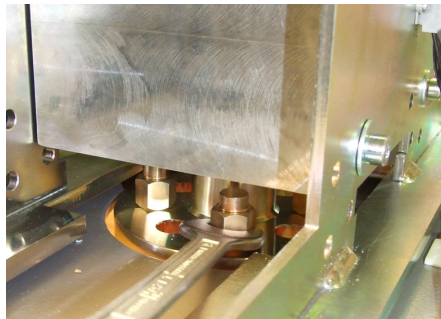


Fig. 25: Centering bolts

1. Dismount the 4 centering bolts.
2. Turn the flange so that the two bore holes for the fastening screws on the center column can be accessed from the side.

Assembly and installation

5.4.6 Mounting the floor bearing, mounting the center column on the drive flange

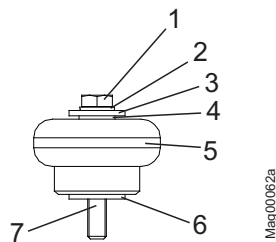
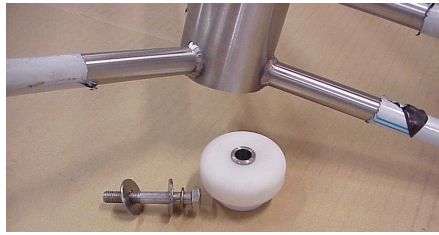


Fig. 26: Floor bearing (synthetic bearing)

- 1 Screw
- 2 Spring washer
- 3 Disc
- 4 Sleeve
- 5 Bearing pin
- 6 Disc
- 7 Bearing

1. Mount the synthetic bearings on the finished floor.



Fig. 27: Place the center column on the floor bearing

2. Place the center column on the floor bearing.



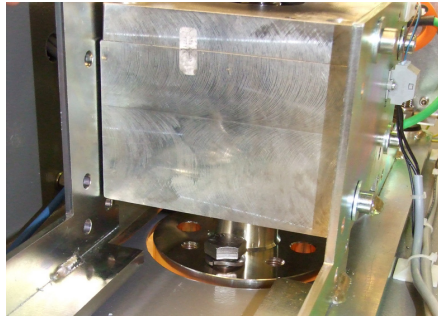
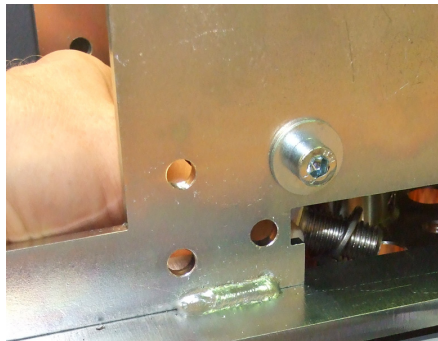


Fig. 28: Mounting center column onto the drive flange

3. Fasten the center column using the 4 M 16 screws supplied from the top to the drive flange.



- Screw in the fastening screw with spring washer for the center column as shown.



- Tighten fastening screw firmly.
4. Turn the center column, insert and tighten the rest of the fastening screws.

Assembly and installation

5.4.7 Mounting centering bolts, locking discs and lock unit

Mount the centering bolts, the lock disc and lock unit (optional) in the reverse order to dismounting. See Page 32 etc., Chapter 0, 5.4.4 and 5.4.5.

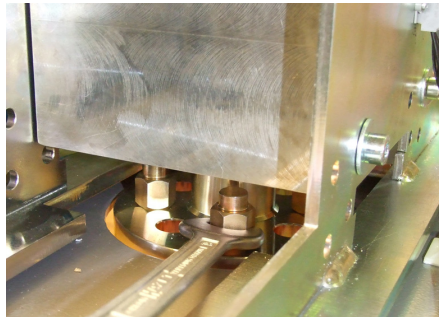


Fig. 29: Mounting the lock

1. Dismount the 4 centering bolts.
2. Mount the left and right locking disc.
The groove must be facing the full height turnstile!
3. Dismount the 2 fixing screws.
4. Mount the lock unit (optional).

5.4.8 Fix the center column to the floor bearing



Fig. 30: Fixing the center column

1. Fix the center column to the floor bearing using 3 headless screws.
2. Tighten all 3 headless screws so that the center column can be moved easily in both rotating directions.
3. Secure headless screws using Loctite 241 or similar.

5.4.9 Setting the blocked position (home position)

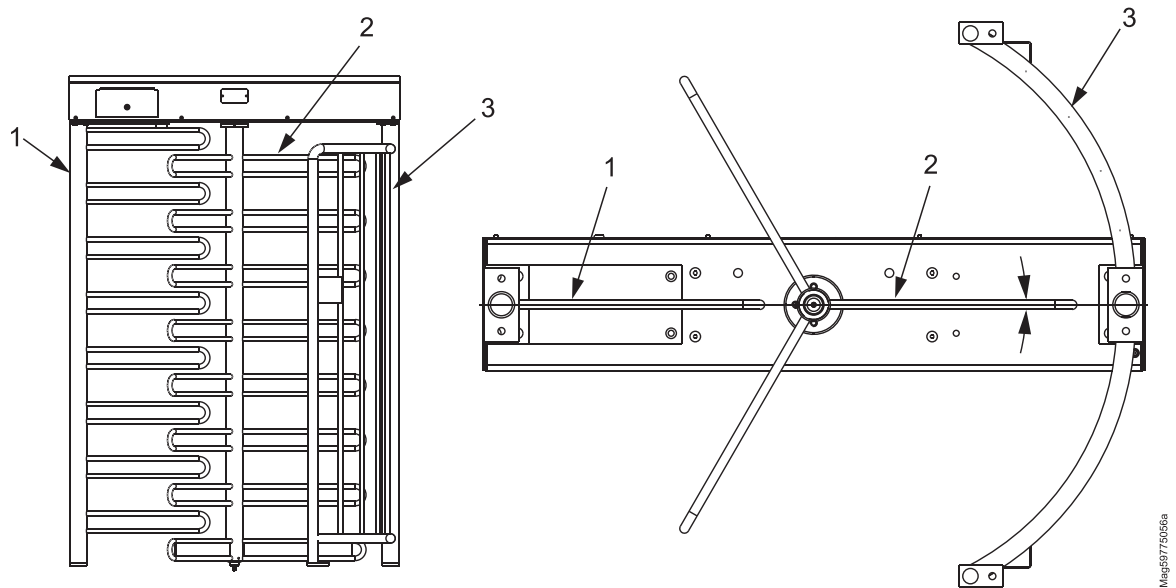


Figure 31 Setting the full height turnstile to the "blocked" position

- 1 Lock comb
- 2 Center column: blocked position
- 3 Cage halves

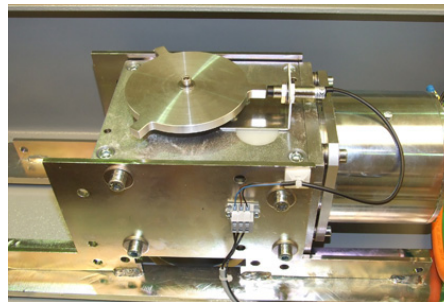


Fig. 32: Cam plate with proximity switch



1. Set the center column with lock comb to the "blocked" position (see Page 39, Figure 31).
2. Check whether the cam plate is exactly in front of the proximity switch.
If it is clearly offset, the full height turnstile must be adjusted as follows.
3. Loosen the hexagon socket screw SW4 on the cam plate.
4. Turn the cam plate so that it is exactly in front of the proximity switch.
5. Retighten the hexagon socket screw.

Electrical connection



6 Electrical connection

6.1 Safety



General

 WARNING	
	<p>Danger by inappropriate installation!</p> <p>Inappropriate installation can cause serious injuries or death.</p> <ul style="list-style-type: none"> – Only qualified personnel, authorized by the operator and instructed appropriately, may carry out electrical installation tasks. – Pay attention to tidiness and cleanliness at the assembly site! Loose components and tools that are left lying around cause accidents. – Install all fastening elements correctly.

Electric voltage

 DANGER	
	<p>Mortal danger by electric voltage!</p> <p>Touching live parts can be lethal.</p> <p>Damage to the insulation or to individual components can be lethal.</p> <ul style="list-style-type: none"> – Switch off the power supply immediately in case of damage to the insulation and arrange repair. – Only electrical specialists may carry out work on the electrical system. – Switch off voltage supply and secure against reactivation before performing any work. Test for absence of voltage. – Never bypass or deactivate fuses. – When replacing fuses observe the correct amperage specification. – Keep moisture and dust away from live parts. Moisture or dust may cause a short circuit.

Electric voltage – missing safety installations

 DANGER	
	<p>Mortal danger by electric voltage!</p> <p>The safety installations that are required according to regional and local regulations must be provided by the customer. Usually these are:</p> <ul style="list-style-type: none"> – Residual current device (RCD) – Circuit-breaker – Lockable 2-pole main switch according to EN 60947-3.

6.2 Power supply connection

6.2.1 Connecting the power supply

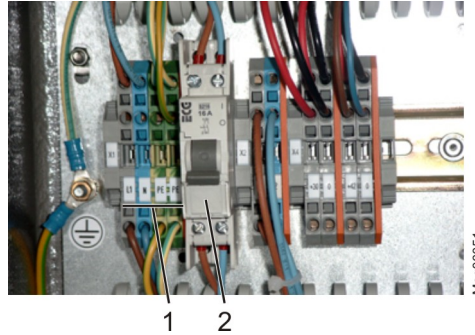


Fig. 33: Power supply

- 1 Terminals L, N, PE
- 2 2-pole mains switch

Connect the power cable only to the correct terminals L, N, PE (1).

The 2-pole main switch (2) de-energizes the entire unit.

Connection values: 230 V/50 Hz

Pre fuse: Max. 16 A

Electrical connection

6.2.2 Inputs and outputs, customer

The following connections are available for control and feedback on customer's side:

- 6 Digital inputs to control the pedestrian barrier.
- Red LEDs indicate the switching state of the inputs
- 6 Relays outputs to feed back information.
- Green LEDs indicate the switching state of the outputs

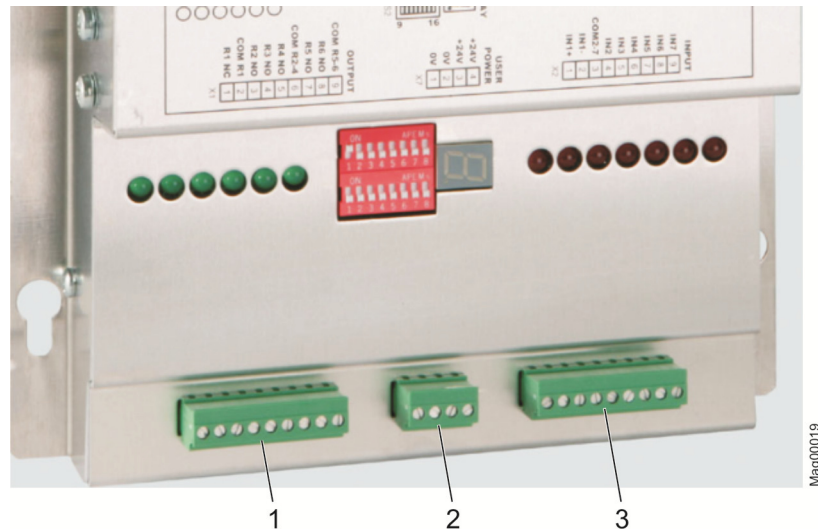


Fig. 34: Customer connections to MBC-110

- 1 Connection relay outputs, plug X1
- 2 24 V DC output, max. 300 mA, plug X7
3. Digital input connection, plug X2

6.3 Connection diagram

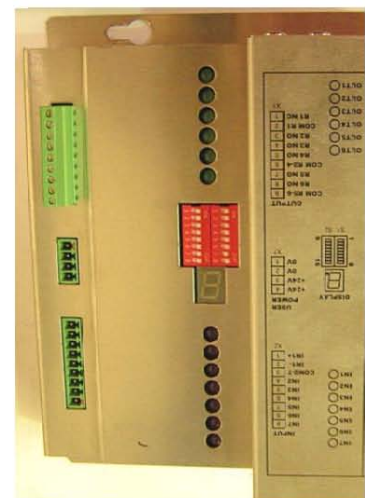
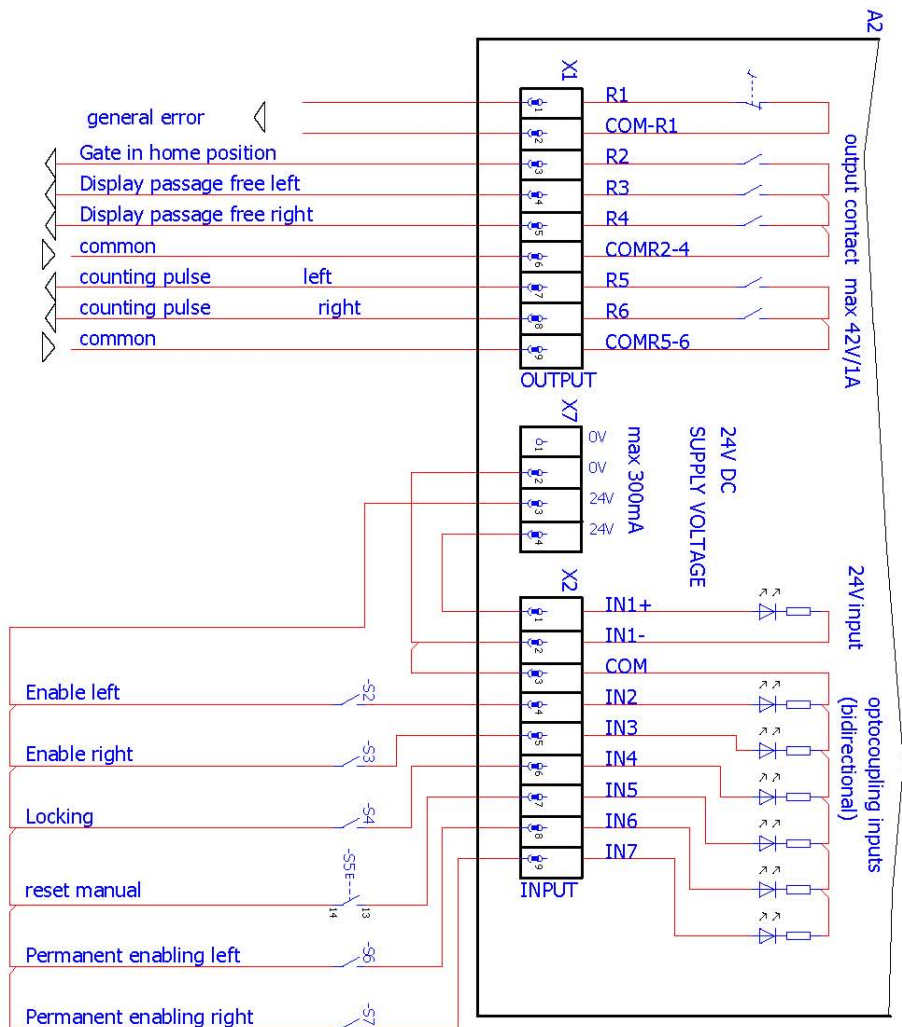


Fig. 35: MBC-110, customer's connection (5527,5113)

Electrical connection

6.4 Inputs X2

Input	Function	Description
IN1+ IN1-	Emergency (ASB signal for servo-controller) Emergency switch (defective wiring) Fire alarm system	The function of input 1 cannot be changed, as the input hardware is connected to the ASB input of the motor output stage. The servo-controller can be enabled via this input. The logic is inverted (broken wire detection), i.e. the controller is powered only if a permanent signal is present. When the signal disappears, the motor dies immediately.
IN2	Clearance right	Clearance pulse for passage to the right. Center column then turns in a clockwise direction (viewed from above)
IN3	Clearance left	Clearance pulse for passage to the left. Center column then turns in a counterclockwise direction (viewed from above)
IN4	Blocking	Input for blocking the unit. If this input is active, all clearance pulses and the hold-open time are cleared.
IN5	Manual reset	Input for manually resetting the controller. Required only if the "manual reset" or "security level" high function has been set
IN6	Permanent clearance right	Input for permanent clearance to the right.
IN7	Permanent clearance left	Input for permanent clearance to the left.

Table 5: Inputs

6.5 Relay outputs X1

- Isolated relay contacts, wired in groups
- Switched voltage 5 - 24V
- Switched current 10 mA - 1 A

Relay output	Function	Description
R1	Global error / Power failure	<p>When certain errors occur, a permanent signal is delivered via this output for as long as the fault is present (contact is interrupted as long as the fault is present).</p> <p>Potential error/alarm states are:</p> <ol style="list-style-type: none"> 1 Barrier runtime too long = obstacle detected 2 CAN communication with end stage is impaired 3 Hardware error in end stage 4 Software error in end stage 5 Homing function running 6 Emergency input is activated (inverted → signal no longer present) 7 Power failure 8 Manual reset expected (only if fitted)
R2	Full height turnstile in blocked position	A permanent signal is delivered via this output for as long as the full height turnstile is in one of the three blocked positions.
R3	Display passage Clear left	A permanent signal is delivered via this output for as long as the passage to the left is clear.
R4	Display passage Clear right	A permanent signal is delivered via this output for as long as the passage to the right is clear.
R5	Counting pulse left	A counting pulse lasting 500 ms is delivered via this output at the start of the passage.
R6	Counting pulse right	A counting pulse lasting 500 ms is delivered via this output at the start of the passage.


Table 6: Relay outputs

Configuring the pedestrian barrier

7 Configuring the pedestrian barrier

7.1 Safety

General

⚠ WARNING	
	<p>Risk of injury due to inappropriate configuration!</p> <p>Incorrect configuration can cause injury.</p> <ul style="list-style-type: none"> – Only sufficiently qualified personnel authorized and instructed by the user are allowed for the configuration of the pedestrian barrier. – Carry out all operating steps according to the specifications of these Operating Instructions.

7.2 Parameter settings

Some functions and parameters of the pedestrian barrier can be adjusted via two blocks each equipped with 8 DIP switches. For a precise description, see Page 47, Chapter 7.2.1 and Page 50, Chapter 7.2.2.



NOTE!

Changes to DIP switch settings are adopted only after the power supply to the pedestrian barrier has been switched off and switched back on again.

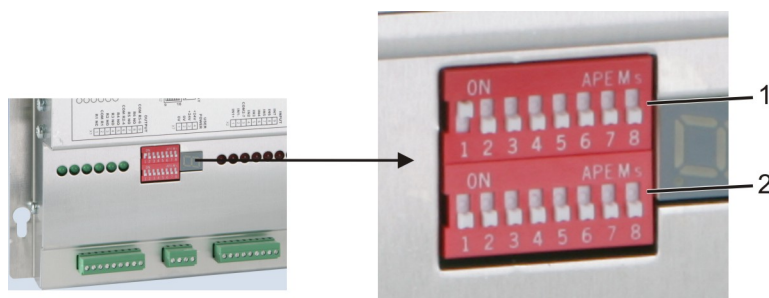


Fig. 36: MBC 110 DIP switch block S1 and S2

- 1 DIP switch block S1
- 2 DIP switch block S2

Mag00046

Configuring the pedestrian barrier

7.2.1 DIP switch block S1

DIP S1.x	Function	Description						
1	Pulse storage	<p>When pulse storage is deactivated, the barrier is cleared via a pulse to one of the two opening inputs. If further opening pulses are received while the barrier is still open, they are ignored.</p> <p>With opening pulse storage activated, several opening pulses can be stored. The barrier then remains open until the number of stored pulses is again zero. With each passage, the number of stored pulses is reduced by one.</p> <p>Options:</p> <ul style="list-style-type: none">■ OFF: No pulse stored■ ON: Up to 5 pulses stored for each rotational direction						
2	Buzzer function	<p>The buzzer emits permanent warning sound in the following situations:</p> <ul style="list-style-type: none">■ during homing■ during a passage in the wrong direction■ if there is a error in the control■ if the barrier is vandalised <p>The buzzer also emits an acknowledge sound in the following situations:</p> <ul style="list-style-type: none">■ when the lane is free for the next passage <p>Options</p> <ul style="list-style-type: none">■ OFF: Buzzer completely switched off■ ON: Buzzer switched on						
3	Response after power is restored	<p>This option can be used to specify whether, once power has been restored, the controller first waits for a pulse at the "Manual reset" pulse or whether it starts to home immediately.</p> <p>Options</p> <table><tr><th>DIP S1.3</th><th>Response after power is restored</th></tr><tr><td>OFF</td><td>Automatic reset</td></tr><tr><td>ON</td><td>Manual reset</td></tr></table>	DIP S1.3	Response after power is restored	OFF	Automatic reset	ON	Manual reset
DIP S1.3	Response after power is restored							
OFF	Automatic reset							
ON	Manual reset							

Configuring the pedestrian barrier

DIP S1.x	Function	Description															
4	Security Level	<p>The setting defines how the lock is to respond if there are several attempts to pass the barrier in the wrong direction.</p> <p>The "Security low" setting enables a complete passage in the locked direction in several steps. If the wrong direction is detected, the center column is first blocked and then cleared again immediately. If the center column continues to be pushed at this moment in time, it can move forward again until being blocked again for a brief moment, and so on. This enables a pedestrian to achieve a complete passage with repeated pushes.</p> <p>If, when the center column is cleared, the control detects that it is no longer being pushed, the drive re-approaches its original final position.</p> <p>In the case of "High security", it is not possible to repeatedly push the barrier in the wrong direction. After several attempts, the center column will not be cleared until a manual RESET has been executed.</p> <p>Options</p> <ul style="list-style-type: none"> ■ OFF: Security low ■ ON: Security high 															
5 and 6	Hold-open time	<p>The hold-open time is the maximum time for which the passage remains clear after a clearance signal if nobody starts to pass through. After the hold-open time has expired, the passage is blocked again.</p> <p>The hold-open time has four possible settings.</p> <table border="1"> <thead> <tr> <th>DIP S1.5</th><th>DIP S1.6</th><th>Hold-open time</th></tr> </thead> <tbody> <tr> <td>OFF</td><td>OFF</td><td>10 s</td></tr> <tr> <td>OFF</td><td>ON</td><td>20 s</td></tr> <tr> <td>ON</td><td>OFF</td><td>30 s</td></tr> <tr> <td>ON</td><td>ON</td><td>infinite</td></tr> </tbody> </table>	DIP S1.5	DIP S1.6	Hold-open time	OFF	OFF	10 s	OFF	ON	20 s	ON	OFF	30 s	ON	ON	infinite
DIP S1.5	DIP S1.6	Hold-open time															
OFF	OFF	10 s															
OFF	ON	20 s															
ON	OFF	30 s															
ON	ON	infinite															
7	Version status of the software	<p>If this function is activated during operation, the software version is shown on the 7 segment display in cycles.</p> <p>Options</p> <ul style="list-style-type: none"> ■ OFF: Normal operating display ■ ON: Version is displayed 															
8	Factory settings	<p>This DIP switch can be used to restore the factory settings for all parameters. This requires the controller to be switched off. DIP switch 8 is then set to ON and the controller is reactivated. If the controller notices that the DIP switch is set to ON at activation, all parameters will be reset to the value at delivery. If the 7-segment display shows the normal operating state, the DIP switch can be set back to OFF.</p> <p>Options</p> <ul style="list-style-type: none"> ■ OFF: Normal operation ■ ON: Reset the parameters (possible only after the control has been switched on) 															

Table 7: DIP switch block S1

Configuring the pedestrian barrier

7.2.2 DIP switch block S2



DIP S2.x	Function	Description															
1	Heating active	<p>This DIP switch is used to specify whether or not the auxiliary heating should be activated.</p> <p>Options</p> <ul style="list-style-type: none"> ■ OFF: Auxiliary heating inactive ■ ON: Auxiliary heating active 															
2 and 3	Force for starting a passage	<p>When a clearance pending, the movement will not be started until the customer pushes the full height turnstile. There are four settings for the required force:</p> <table> <tr> <th>DIP S2.2</th><th>DIP S2.2</th><th>Force</th></tr> <tr> <td>OFF</td><td>OFF</td><td>slight</td></tr> <tr> <td>OFF</td><td>ON</td><td>medium</td></tr> <tr> <td>ON</td><td>OFF</td><td>medium-strong</td></tr> <tr> <td>ON</td><td>ON</td><td>strong</td></tr> </table>	DIP S2.2	DIP S2.2	Force	OFF	OFF	slight	OFF	ON	medium	ON	OFF	medium-strong	ON	ON	strong
DIP S2.2	DIP S2.2	Force															
OFF	OFF	slight															
OFF	ON	medium															
ON	OFF	medium-strong															
ON	ON	strong															
4 and 5	Speed	<p>This DIP switch can be used to select one of three defined speeds (slow/medium/fast) for normal operation:</p> <table> <tr> <th>DIP S2.4</th><th>DIP S2.5</th><th>Speed</th></tr> <tr> <td>OFF</td><td>OFF</td><td>slow</td></tr> <tr> <td>OFF</td><td>ON</td><td>medium</td></tr> <tr> <td>ON</td><td>OFF</td><td>fast</td></tr> <tr> <td>ON</td><td>ON</td><td>fast</td></tr> </table>	DIP S2.4	DIP S2.5	Speed	OFF	OFF	slow	OFF	ON	medium	ON	OFF	fast	ON	ON	fast
DIP S2.4	DIP S2.5	Speed															
OFF	OFF	slow															
OFF	ON	medium															
ON	OFF	fast															
ON	ON	fast															
6	Rotational direction for homing (viewed from above)	<p>This DIP switch specifies the rotational direction of the center column during homing. This means that even during homing, no unauthorized person can pass the barrier.</p> <p>Options</p> <ul style="list-style-type: none"> ■ OFF: Counterclockwise ■ ON: Counterclockwise 															
7	Select the pedestrian barrier setup	<ul style="list-style-type: none"> ■ OFF: 3 x 120° ■ ON: No function 															
8	Software reset	<p>If the DIP-switch is in the position ON, the control automatically performs a reset approx. 10 seconds after the occurrence of a non-resettable error (errors from E20 onwards). If there are no further faults pending, homing is performed after the voltage returns and the pedestrian barrier returns to operation.</p> <ul style="list-style-type: none"> ■ ON: Software reset after a non-resettable error ■ OFF: No software reset is performed. 															

Table 8: DIP switch block S2



8 Start-up and operation

8.1 Safety

General

 WARNING	
	<p>Danger by inappropriate start-up and operation!</p> <p>Inappropriate start-up and operation can cause serious injuries or death.</p> <ul style="list-style-type: none"> – Make sure that the top cover is correctly mounted before starting work.

Electric voltage

 DANGER	
	<p>Mortal danger by electric voltage!</p> <p>Touching live parts can be lethal.</p> <p>Damage to the insulation or to individual components can be lethal.</p> <ul style="list-style-type: none"> – Switch off the power supply immediately in case of damage to the insulation and arrange repair. – Only electrical specialists may carry out work on the electrical system. – Before starting work ensure that the electrical system is dead! – Always turn the power supply off and safeguard against unintentional restarting before maintenance, cleaning, and repair work. – Never bypass or deactivate fuses. – When replacing fuses observe the correct amperage specification. – Keep moisture and dust away from live parts. Moisture or dust may cause a short circuit.

Start-up and operation

8.2 Start-up

Inspection prior to initial start-up

The following inspections must be performed prior to initial start-up:

- Check power supply.
- Check wiring emergency input IN1.
Refer to Page 43, Fig. 35.
- Check connection of digital inputs IN2 and IN3.
Refer to Page 43, Fig. 35.
- Check connection of relays outputs 1 to 6.
Page 43. Page 43, Fig. 35.
- Check all screwed connections.
- Check pedestrian barrier for ease of movement.



NOTE!

Make sure that, when the power supply is switched on, there are no obstructions to operation of the barrier. The access lane must be clear.

Home position setting, see Page 39, Chapter 5.4.9.

8.2.1 Switching on and off the pedestrian barrier

Switching on

Activate main switch on therear panel of the support beam.
See also Page 41, Fig. 33.

Switching off

Deactivate main switch on therear panel of the support beam.
See also Page 41, Fig. 33.




NOTE!

Wait at least 10 seconds between switching off and restoring the power supply.


9 Maintenance

9.1 Safety

General

⚠ WARNING	
	<p>Danger by inappropriate maintenance!</p> <p>Inappropriate start-up and operation can cause severe injuries or death.</p> <ul style="list-style-type: none"> – Only qualified personnel, authorized by the operator and instructed appropriately, may carry out maintenance tasks. – Prior to work, ensure that there is sufficient assembly space. – Pay attention to tidiness and cleanness at the assembly site! Loosely stacked or lying around components and tools are accident sources. – If components have been replaced: Pay attention to correct installation of the spare parts. Re-install all fastening elements correctly. – Before restarting, ensure that all covers are correctly installed.

Electric voltage

⚠ DANGER	
	<p>Mortal danger by electric voltage!</p> <p>Touching live parts can be lethal.</p> <p>Damage to the insulation or to individual components can be lethal.</p> <ul style="list-style-type: none"> – Switch off the power supply immediately in case of damage to the insulation and arrange repair. – Only electrical specialists may carry out work on the electrical system. – Before starting work ensure that the electrical system is dead! – Always turn the power supply off and safeguard against unintentional restarting before maintenance, cleaning, and repair work. – Never bypass or deactivate fuses. – When replacing fuses observe the correct amperage specification. – Keep moisture and dust away from live parts. Moisture or dust may cause a short circuit.

Maintenance


Personal protective equipment

The following must be worn during maintenance work:

- Work clothes
- Protective gloves
- Safety shoes.

9.2 Cleaning

Aggressive cleaning aids and substances

NOTICE	
	<p>Unit damage possible!</p> <p>Aggressive cleaning agents and substances can damage or destroy electrical cables and components.</p> <ul style="list-style-type: none"> – Do not use cleaning agents with aggressive ingredients.

Carrying out cleaning work:

1. Disconnect the power supply and secure against restarting.
2. Remove dirt as required.
 - Clean stainless steel surfaces and power-coated parts regularly with a damp cloth and then dry off carefully.
 - Clean stainless steel surfaces with an appropriate cleaning aid. We recommend the stainless steel care spray of the company 3M. Spray surface evenly and thinly with stainless steel care and rub dry using a clean and dry disposable cloth.
 - Never use wet cloth.
 - Wash off zinc surfaces using water and a soft cloth. Remove stubborn marks as soon as possible using a standard commercial cleaning agent for zinc (e.g. ROTOL New Formula A2).
3. Remove oil deposits using an absorbent material.
4. Vacuum away dust from inside the support beam.
5. After cleaning, check that all previously opened covers have been properly closed and that the functions of any safety equipment fitted have been restored.

9.3 Maintenance schedule

The following describes the maintenance work that is necessary for optimal, trouble-free operation.

If increased wear of individual components or functional groups is revealed during regular inspections, the operator must reduce the required maintenance intervals on the basis of the actual signs of wear.

If you have any questions regarding maintenance activities or intervals, contact the dealer or manufacturer (service address on Page 2).

Interval	Maintenance work	To be carried out by
Every 6 months	Check the center column and side components for damage.	Expert
	Visual inspection of the support beam, inside and out, for damage. Clean the housing and repair paint damage as necessary.	Expert
	Check the optional lock unit	Expert
	Check play on the floor bearing and ease of movement	Expert
	Check screwed connections on the drive flange	Expert
	Check function of the residual current operated device	Qualified electrician
Every 12 months	Check electric cables for damages.	Qualified electrician
	Check if all electrical connections are firm.	Qualified electrician
	Check signs and labels for legibility.	Expert
	Check foundation fastening.	Expert
The electrical tests are to be performed in accordance with the regulations applicable at the installation site.		

Table 9: Maintenance schedule

Troubleshooting

10 Troubleshooting



NOTE!

Additionally, dispose of the diagnostic program *MBC Diag* for further diagnostics. This program can be used to read all error states from the *MBC-110* and the associated *MMC-120*. For further information contact your authorized dealer or *MAGNET-IC* directly.

10.1 Malfunction – Logic controller MBC-110

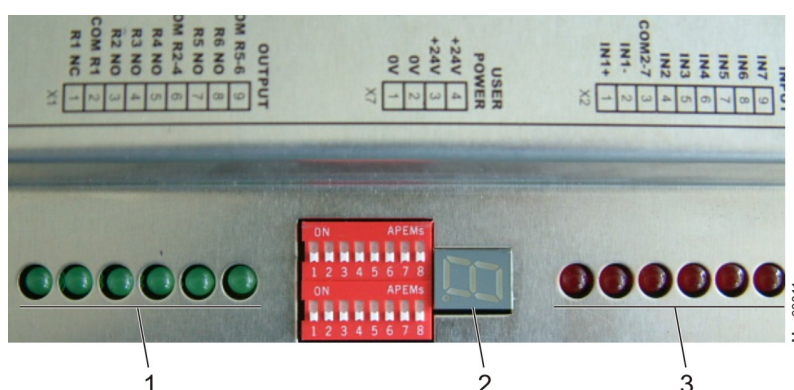


Fig. 37: LEDs and display on the logic controller MBC-110

- 1 LED for outputs = green
- 2 One-digit display
- 3 LED for inputs = red

The customer interface inputs and outputs of the MBC-110 indicate their switching status through LEDs.

- Red LED is switched on: Input is activated.
- Red LED is switched off: Input is not activated.

10.1.1 Display of the error codes at the MBC-110

When the DIP switch S1.8 is set to OFF (factory setting), the display indicates a message if an error occurs. See also Page 49, Table 7.

During normal operation mode the point continuously flashes at 0.5 Hz.

The error codes are shown on the one-digit display of the MBC-110. The numerals and letters in the error code are displayed successively for 2 seconds at a time.

Example

The error code E05 is displayed as follows:

1. E (Error)
2. Pause
3. 0
4. Pause
5. 5
6. Pause
7. Steps 1 to 6 are repeated.

10.1.2 Display of the software version of the MBC-110

If the DIP switch S1.7 is ON the display shows the current software. See also Page 49, Table 7.

The numerals and letters in the software version are displayed successively for 2 seconds at a time.

Example

The software version 1.4 is displayed as follows:

1. u
2. 1. (1st numeral with stop)
3. 4 (2nd numeral without stop)
4. Pause
5. Steps 1 to 4 are repeated.

Troubleshooting

10.1.3 Error message on the MBC-110

Error message	Error description	Automatic reset
01	Obstruction detection with runtime monitoring	Yes
02	Emergency input is activated	Yes
03	Reserved	
04	Reserved	
05	Wrong way	Yes
06	Wrong way high security	No
07	Vandalism detection	Yes
08	Reserved	
09 – 0F	Reserved	
11 – 1F	Reserved	
20	Error occurred on servo	No
21	Servo's output stage 0 cannot be activated	No
22	Node guarding error, servo 0	No
23 – 3F	Reserved	
40	Reserved	No
41	Incorrect program code	No
42	Full height turnstile blocked by the drive unit	
43-49	Reserved	
50-57	Software error	No
59-5C	Reserved	
5D	CRC error, EEPROM	No
5E	CRC error, flash	No
5F	Watchdog error	No
60	CAN Bus error: Error when initializing CAN protocol stack	No
61	CAN Bus error: Bus OFF	
62	CAN Bus error: Error when initializing CAN bus	No
63	CAN Bus error: Error with CAN servo address	No
64	Reserved	
65	I2C Bus error	No
66	CAN Bus error: Error in CANopen stack	No
67 – 6F	Reserved	
70	Servo with wrong Firmware detected → download required	No
72	Servo with wrong application detected → download required	No
74	Servo with wrong application version detected → download required	No
76	Servo with wrong hardware detected	No
78	Servo software cannot be cleared	No
7A	No communication with servo boot loader	No
7C	Error when downloading firmware to the servo	No
7E	Error when activating firmware on the servo	No
71, 73, 75, 77, 79, 7B, 7D, 7F	Reserved	
80 – 99	Reserved	

10.2 Error message – motor control unit MMC-120

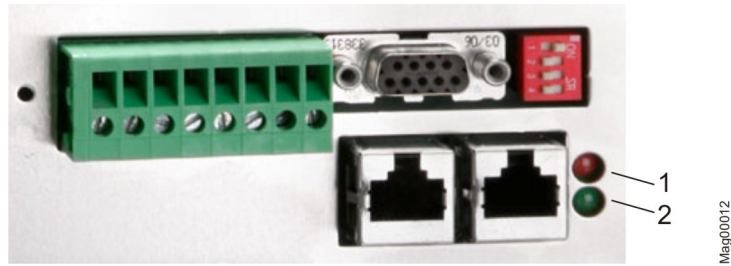


Fig. 38: LEDs on MMC-120

- 1 Red LED for error diagnosis
- 2 Green LED for indication of the power supply state and the safety input state

LED	Description	Possible cause / Troubleshooting	To be carried out by
Green LED is OFF.	No power supply	Check power supply.	Qualified electrician
Green LED is flashing	Power supply is present. Safety input signal is missing.	Missing signal at emergency input IN1 of the MBC-110. CAN connection between MBC-110 and MMC-120 defective.	Qualified electrician
Green LED is ON.	Normal operation	—	—
Red LED is OFF	No error code	—	—
Red LED is ON.	External error with emergency stop	Search for errors in the MBC-110 or in the MMC-120.	Qualified electrician
Red LED is flashing	Error Number of blink impulses indicates the error code.	See Table 11	Qualified electrician
Red and green LED are ON	Application program has been erased. Boot loader is waiting for downloading the application program.	Download has been interrupted. Refer to the following Chapter "Downloading application program".	Qualified electrician

Table 10: Description of the LEDs on the MMC-120

Troubleshooting

Error message	Description	Possible cause
2	Resolver error	Plug not properly inserted, short circuit
4	Motor phase error	Motor cable not connected. Wiring defective
5	Lifeguarding CAN	CAN communication with MBC-110 interrupted.
6	Short circuit to ground	Short circuit between motor phase and ground
7	Motor phases shorted	Short circuit between two motor phases
8	DC bus Over-voltage	DC bus voltage too high (> 56 V)
9	DC bus Under-voltage	DC bus voltage too low (< 17 V)
11	Over-temperature heat sink	Heat sink temperature too high (> 80 °C)
20	I ² t surveillance motor	Motor overloaded.

Table 11: Error message on the MMC-120

10.3 Downloading new software to logic controller MBC-110

**NOTE!**

Before a download, the position of the DIP switch on the MBC-110 must be noted so that the unit can be restored to its previous operating state following the download.



1. Note switch position of the 16 DIP switch on the MBC-110.
2. Isolate the power supply to the pedestrian barrier. Wait a few seconds until the capacitors in the power pack have discharged.
3. Set all 16 DIP switches on the MBC-110 to the ON position.
4. Restore the power supply to the pedestrian barrier.
5. The MBC-110 detects from the position of the DIP switch that a download is to be executed.
6. The MBC-110 is initializing. The display first shows "P" and then "G".
7. The MBC-110 assumes the waiting state. The display shows "L" and a flashing stop. At this point in time, the download can be cancelled by switching off the power supply.
8. Set all 16 DIP switches to the OFF position.
9. The download is executing:
 - The program memory of the logic controller is erased. The display on the MBC-110 shows "c" (clear) and a flashing stop.
 - The new software is being downloaded. The display shows "d" (download) and a flashing stop.
 - The new software is activated by booting the logic controller. A rotating bar appears in the display.
10. Disconnect the power supply again.
11. Reset the DIP switches on the MBC-110 to the old position you noted down earlier.
12. Reconnect the power supply. The unit starts to operate.

**NOTE!**

If the download failed, run another download. Contact MAGNETIC if necessary.

Spare parts

11 Spare parts

 WARNING	
	<p>Risk of injury by incorrect spare parts!</p> <p>Incorrect or defective spare parts can result in damage, malfunctions or total failure and also impair safety.</p> <ul style="list-style-type: none"> – Use only the manufacturer's original spare parts.

Procure spare parts from authorized dealers or directly from the manufacturer. Refer to Page 2 for address.

Spare part drawings can be obtained on request.

12 Decommissioning, disassembly and disposal

A pedestrian barrier that is no longer usable should not be recycled as a complete unit, but disassembled into individual components and recycled according to material types. Non-recyclable materials have to be disposed of in an environmental-friendly manner.

Prior to decommissioning and disposal of the pedestrian barrier, it must be completely separated from the surrounding units.

- Decommissioning, disassembly and disposal of the pedestrian barrier may only be carried out by specialised staff.
- Disassemble the pedestrian barrier in reverse order from assembly.
- The pedestrian barrier has to be disposed of in accordance with the respective country-specific regulations.



NOTE!

For expert information regarding disposal of electric equipment contact MAGNETIC or competent electricians.



Konformitätserklärung

Declaration of Conformity



Der Hersteller / manufacturer

MAGNETIC Autocontrol GmbH

Grienmatt 20-28
D-79650 Schopfheim

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Telefax +49 (0) 7622 / 695-602

Dokumentationsbevollmächtigter / Documentation Engineer

Herr Stefan Wellinger

Telefax +49 (0) 7622/695-719

erklärt hiermit für das von ihm gelieferte Produkt / *this is to certify that the delivered product*

Bezeichnung / *designation*

Drehkreuz / Full high turnstile

Typ / *type*

MPT-132*

MPT-152*

Ab Serien-Nr. / *from serial no*

10276527

die Konformität nach / *corresponds to the conformity of*

Richtlinie / directive 2006/42/EG (Maschinen-Richtlinie / *machine directive*)

geändert durch / *amended by* **2009/127/EG**

Richtlinie / directive 2014/35/EU (Niederspannungs-Richtlinie / *low voltage directive*)

Richtlinie / directive 2014/30/EU (EMV-Richtlinie / *EMC directive*)

Angewandte harmonisierte Normen (oder Teile daraus) / *Realized harmonized norms (or parts of them):*

EN ISO 12100:2010

Sicherheit von Maschinen – Grundbegriffe, allgemeine Gestaltungsleitsätze – Teil 2: Technische Leitsätze / *Safety of machinery – Basic concepts, general principles for design – Part 2: Technical principles*

EN 60204-1:2006/AC:2010

Sicherheit von Maschinen – Elektrische Ausrüstung von Maschinen – Teil 1: Allgemeine Anforderungen / *Safety of machinery – Electrical equipment of machines – Part 1: Specifications for general requirements*

EN 61000-6-2:2005/AC:2005

Elektromagnetische Verträglichkeit (EMV) – Teil 6-2: Fachgrundnormen – Störfestigkeit für Industriebereiche / *Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments*

EN 61000-6-3:2007/A1:2011/AC:2012

Elektromagnetische Verträglichkeit (EMV) – Teil 6-3: Fachgrundnormen – Störaussendung für Wohnbereich, Geschäfts- und Gewerbebereiche sowie Kleinbetriebe / *Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standard for residential, commercial and light-industrial environments*

Diese Erklärung ist keine Zusicherung von Eigenschaften im Sinne des Produkthaftungsgesetzes. Die Sicherheitshinweise der Betriebsanleitung sind zu beachten. / *This declaration is not a guarantee of characteristics in the sense of product liability law. The safety regulations of the operating instructions have to be observed.*

Schopfheim, den 20.04.2016

Ort und Datum / *place and date*


Unterschrift / *signature*

Appendix

14 Appendix

14.1 Electrical circuit diagram

The electric circuit diagram is supplied as a separate document.

Index

A

Assembly

Centering bolts	38
Dismount centering bolts	35
Dismount locking discs	33
Fix the center column to the floor bearing	38
Full height turnstile	28
Lock unit (optional)	38
Locking discs	38
Removing lock unit (optional)	32
Requirements	23
Setting the blocked position	39
Support beam	30
Turnstile on the foundation	29

Assembly

Center column	36
---------------------	----

B

Base frame	27
------------------	----

C

Cage halves	20, 28
Center column	20, 28
Cleaning	54
Configuring the pedestrian barrier	46
Connection diagram	
MBC-110	43
Copyright protection	9
Customer service	11

D

Decommissioning	62
Design	20
DIP switch block S1	47
DIP switch block S2	50
Disassembly	62
Disposal	62
Downloading MBC-110 software	61
Drive flange	20, 28
Drive unit	20, 28

E

EC Declaration of Conformity	11
EC-Declaration of Conformity	63
Electrical circuit diagram	64
Electrical connection	
Technical data	19
Empty	26
Empty conduits	24
Environmental protection	11

Error message – motor control unit MMC-120 ...	59
--	----

F

Foundation	24, 26
Function	21

G

General	7
---------------	---

H

Hazard notes	16
Home position	39

I

Inputs	44
Inputs and outputs, customer	42
Instructed people	13
Intended use	12

L

Limitation of liability	9
Lock comb	20, 28

M

Maintenance	53
Maintenance schedule	55
Malfunction	
Logic controller MBC-110	56
MBC-110	
Display error codes	57
Display of software version	57
Error code table	58
Malfunction	56

O

Occupational safety	15, 16
Operating conditions	19
Operating instructions	7
Operating personnel	
Requirements	13
Operator's responsibility	14

P

Performance data	19
Personal protective equipment	15
Pictogram explanation	8
Power supply connection terminals	41

Q

Qualified electricians	13
------------------------------	----

R

Relay outputs	45
---------------------	----

Index

S		Switching off.....	52
Safety.....	12	Switching on.....	52
Assembly.....	22	Synthetic bearing	20, 28
Configuration.....	46	T	
Electrical connection	40	Technical data.....	19
Installation	22	Top cover	20, 28
Maintenance.....	53	Troubleshooting	56
Operation.....	51	V	
Start-up.....	51	Versions	21
Scope of delivery	10	W	
Service door.....	20, 28	Warning not.....	8
Spare parts	10, 62	Warranty conditions	10
Specialized staff.....	13	Weight.....	19
Start-up	52		
Support beams.....	20, 28		

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