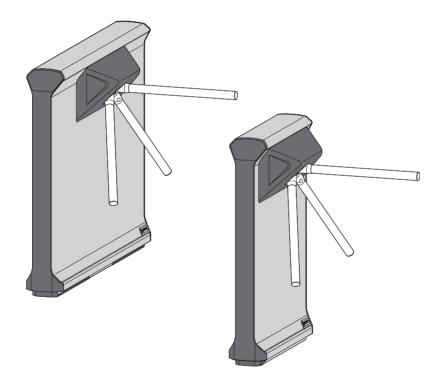


Operating Instructions

Turnstile MHTM[™] FlowMotion[®] **mTripod**



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Doc. ID: 5817,0026EN Version 02

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mTripod

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Contents

1	Notes	on the d	ocument	7
	1.1	Purpose	e and contents of this operating instructions	7
	1.2	Read ar	nd store the operating instructions	7
	1.3	Non-co	mpliance with the operating instructions	8
	1.4	Symbol	s and illustrations used in these operating instructions	8
		1.4.1	Warning notes and notes	8
2	Safety			10
	2.1	Intende	d use	10
	2.2	Change	s and modifications	10
	2.3	Target g	groups	11
		2.3.1	Operator and his responsibilities	11
		2.3.2	Personnel - activities and qualifications	12
	2.4	Persona	al protective equipment	13
	2.5	Symbol	s on the device	14
	2.6	For you	r safety	15
	2.7	To prote	ect the environment	16
	2.8	Emerge	ncy opening of the pedestrian gate	16
3	Techni	cal data		17
	3.1	Dimens	ions and design	17
		3.1.1	mTripod-ML	17
		3.1.2	mTripod-MS	19
	3.2	Clearan	ces and line configuration to be maintained	20
	3.3	Electric	al connection	21
	3.4	Operati	ng conditions	21
	3.5	Emissio	ns	21
	3.6	Control	unit MGC	22
4	Design	and fun	ction	23
	4.1	Design		23
	4.2	Functio	n	24

mTripod Contents

5	Recei	pt of goo	ds, transport and storage	25	
	5.1	Goods	receiving department	25	
	5.2	Safety o	during transport	25	
	5.3	Transpo	ort	26	
	5.4	Storage	2	27	
6	Unpa	cking, sco	ope of delivery and identification	28	
	6.1	Unpack	king	28	
	6.2	Scope of	of delivery	29	
	6.3	Identifi	cation	30	
		6.3.1	Type plate	30	
7	Instal	lation and	d assembly	31	
	7.1	Safety of	during installation and assembly	31	
	7.2	Mounti	ing options	32	
	7.3	Require	ed steps	32	
	7.4	Setting	up foundation and placing empty conduits	33	
		7.4.1	Requirements foundation	33	
		7.4.2	Requirements empty conduits	33	
		7.4.3	Setting up foundation and placing empty conduits	34	
		7.4.4	Foundation and empty conduit plan and reinforcement mTripod FMTP-ML	35	
		7.4.5	Foundation and empty conduit plan and reinforcement mTripod FMTP-MS	37	
	7.5	Base plate and drilling template mTripod FMTP-ML			
	7.6	Base plate and drilling template mTripod FMTP-MS			
	7.7	Aligning the pedestrian gate			
	7.8	Assemb	bly of the mTripod	41	
		7.8.1	Mounting variant "Direct mounting"	41	
		7.8.2	Mounting option «Mount base plate»	44	
		7.8.3	Mounting variant "Glue base plate"	48	
	7.9	Assemb	oling mTripod	52	
	7.10	Disman	Dismantling and mounting cover		
	7.11	Openin	g and closing the housing	60	
	7.12	Checking the assembly			

18 Inde		eclaration of Conformity	77	
10	17.2	Dismantling and disposing of the pedestrian gate	76	
	17.1	Safety during disassembly and disposal	76	
17		sembly and disposal	76	
	16.2	Decommissioning of the pedestrian gate	75	
	16.1	Safety during decommissioning	75	
16	Decor	nmissioning	75	
15	Custo	mer service	74	
14	Spare	parts and repair	74	
13	Corre	prrective action		
	12.2	Maintenance schedule	73	
	12.1	Cleaning the pedestrian gate	72	
12	Cleaning and maintenance			
11	Opera	Operation		
10	Test book			
	9.4	Parameterising the pedestrian gate	71	
	9.3	Switching the pedestrian gate on and off	69	
	9.2	Putting the pedestrian gate into operation	69	
	9.1	Safety during commissioning	69	
9	Comm	nissioning	69	
	8.6	Checking the electrical connections	68	
	8.5	Installing and connecting customer-access control devices	66	
	0.1	8.4.1 Connecting emergency opening contacts	6	
	8.4	Connecting customer control lines	6	
	8.3	Connecting the mains cable	64	
	8.1 8.2	Safety during electrical connection Installing electrical protective devices	63	
	0.1		62	

mTripod

1 Notes on the document

1.1 Purpose and contents of this operating instructions

These operating instructions provide all the information required for the product in the various phases of its life cycle.

These operating instructions contains the following information: Assembly and function, transport and storage, unpacking and delivery, installation and assembly, electrical connection, commissioning, operation, cleaning and maintenance, decommissioning, dismantling and disposal.



IMPORTANT!

For parameterisation see separate document "Description of MGC control unit for mTripod (Doc.ID: 5817,0025)".

1.2 Read and store the operating instructions

Pre-requisite for safe working is the observance of all specified safety notes, warning notes and instructions. In addition, the local accident prevention regulations, general safety regulations and local environmental regulations applicable to the area of application of the product must be observed.

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

If the product is passed on to third parties, please also provide these operating instructions.

1.3 Non-compliance with the operating instructions

Magnetic declines all liability for personal injury and material damage caused by not observing the operating instructions.

This applies in particular to damage caused by:

- > Non-intended use
- > Use of non-gualified personnel
- > Use of non-approved components
- > Unauthorised modifications
- > Inappropriate assembly and installation
- > Improper operation
- > Defective or unperformed maintenance and repairs
- > Use of non-approved spare parts
- > Operation of a faulty product

Symbols and illustrations used in these operating instructions 1.4

1.4.1 Warning notes and notes

Warning notes are characterised by pictograms in these operating instructions. A warning note starts with a signal word that expresses the extent of the hazard.

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

Warning Notes



DANGER

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



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

A CAUTION

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



NOTICE

The signal word NOTICE points to a potentially harmful situation, which leads to property damage if it is not avoided.

Notes and recommendations



IMPORTANT!

The signal word IMPORTANT highlights useful notes and recommendations as well as information for an efficient and trouble-free operation.

2 Safety

2.1 Intended use

The Magnetic turnstile mTripod is designed for the control of persons who wish to enter or leave a restricted area.

The turnstile is intended for passage of persons who can pass the turnstile safely, speedily and without any help. Separate access options are provided for persons who cannot pass the turnstile safely or without any help, e.g. small children, the elderly or persons with impairments. Children under 14 years of age may only pass through the turnstile under the supervision of an adult.

The turnstile may only be mounted on non-flammable floors.

The turnstile may only be operated within the temperature range indicated on the type plate.

Misapplications

Any other or further use is considered improper use. Magnetic is not liable for any resulting personal injury or damage to property.

For example, the following applications are considered to be contrary to regulations:

- > Unaccompanied use of the turnstile by children under 14 years of age.
- > Use of the turnstile by persons who cannot pass the turnstile safely, quickly or without assistance.
- > Using the turnstile without an enabled passage. This means that the blocking arms are forced to rotate.
- > Mounting the turnstile on a flammable floor.

2.2 Changes and modifications

Changes or modifications to the product, attachments or components may result in unforeseen hazards. Before making any technical changes or modifications to the product of any of the components, written permission must be obtained from Magnetic.

2.3 Target groups

2.3.1 Operator and his responsibilities

The operator must comply with the statutory obligations regarding work safety. In addition to the safety instructions and warning notes in these operating instructions, the valid safety, accident prevention and environmental protection regulations must be observed.

In particular, the operator must:

- > determine additional danger in a danger analysis.
- > implement the necessary behavioral requirements in work instructions for operation with the product at the operating location.
- regularly verify throughout the product time of use that the work instructions drawn up by him comply with the current state of the regulations.
- > adapt the work instructions to any new provisions, standards and usage conditions where required.
- clearly regulate the responsibilities for all work on the product and with the product such as installation, commissioning, operation, cleaning, maintenance, etc.
- > that the personal protective equipment is worn.
- > ensures that all employees who work with the product or on the product have read and understood the operating instructions.

Furthermore, the operator must train personnel regarding the use of the product at regular intervals and provide information on possible dangers.

Furthermore, the operator is responsible for:

- > the product is always in perfect technical condition.
- > the product is maintained at specified maintenance intervals
- > the product is only operated within the permitted temperature range.

The operator is also responsible that the danger area of the product cannot be accessed by any unauthorised persons under any circumstances.

2.3.2 Personnel - activities and qualifications

Only authorised, trained and sufficiently qualified personnel may work on and with the product. The personnel must know and understand the operating instructions and the required operating instructions.

Designation	Qualification
Transport equipment operator	 > Has professional experience as a transport equipment operator or warehouse and transport worker. > Has a valid driving licence for the required industrial truck, e.g. forklift. > Knows the necessary regulations. > Can assess the work assigned to her/him, recognises possible dangers and take suitable safety measures.
Technician	 > Has completed training as a plant mechanic, plant fitter, assembly mechanic, assembly fitter or has a comparable technical education. > Has completed training as an electrical safety expert. > Has additional knowledge and experience. > Knows the associated technical terms and regulations. > Can assess the work assigned to her/him, recognises possible dangers and take suitable safety measures.
Magnetic MHTM™ FlowMotion® service expert	 Meets all requirements of the technician. Trained and authorised by Magnetic.
Operator	> Trained by the operator.

Table 1: Qualifications of personnel

Action	Transport equipment operator	Technician	Magnetic service expert	Operator
Transporting	x	х	-	-
Unpacking	x	Х	x	-
Laying the foundation	-	Х	-	-
Assembly	-	Х	x	-
Electrically connect	-	Х	x	-
Parameterise	-	Х	x	-
Commissioning 1)	-	Х	x	-
Operating	-	Х	x	x
Cleaning	-	Х	x	x
Waiting	-	Х	x	-
Rectify faults	-	Х	x	-
Repairing	-	Х	x	-
Decommissioning	-	Х	x	-
Disassemble	-	Х	x	-
Dispose	-	Х	-	-

1) According to the supplied test book MHTM[™] FlowMotion[®] mTripod

Table 2: Activities and qualifications

2.4 Personal protective equipment

It is necessary to wear personal protective equipment when dealing with the product so as to minimise health hazards.

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

2.5 Symbols on the device



Warning of dangerous electrical voltage!

The warning sign indicates hazardous areas with dangerous electrical voltage. Non-observance of the warning signs causes severe injuries or death. The work to be carried out may only be carried out by a qualified electrician or an electric safety expert.

This warning sign is fixed at the following point:

> At the terminals, under the cover.

2.6 For your safety



Mortal danger by electric voltage!

Touching live parts can be lethal. Damaged insulation or damaged parts may be fatal.

- > If the insulation or any parts are damaged, switch off the power supply at once and initiate repair.
- Only qualified electricians or electrical safety experts may work on the electrical system.
- Switch off power supply and secure against re-activation before performing any work. Test for absence of voltage.
- > Perform electrical installation in accordance with the applicable regulations.
- Install protective devices that are prescribed by national regulations, such as e.g. residual current circuit breakers.
 These protective devices must be provided by the customer.
- > Observe the information on the type plate.
- > Close all covers after work has been carried out.
- Keep moisture and dust away from live parts. Penetrating moisture and dust can lead to a short circuit.
- > If the electrical connection is made during precipitation, e.g. rain or snow, prevent the penetration of moisture by means of suitable protective covers.
- During or after a lightning strike into the system, there is danger to life if the components are touched or during a stay in the immediate vicinity of the system. When installing outdoors, do not install and mount the pedestrian gate during thunderstorms.

2.7 To protect the environment



Improper disposal!

Improper disposal can lead to damage to the environment.

- > Dispose of product in accordance with local and national laws and regulations.
- > Sort resources and supply them to recycling.

2.8 Emergency opening of the pedestrian gate

↗ Page 66, chapter 8.4.1.

3 Technical data

3.1 Dimensions and design

3.1.1 mTripod-ML

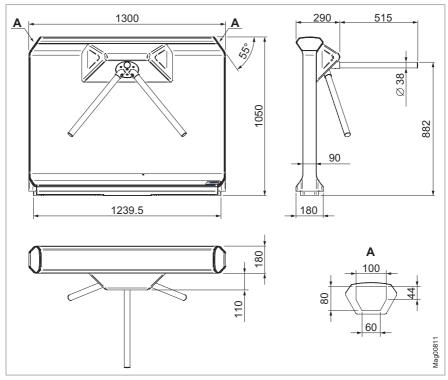


Fig. 1: Dimensions FMTP-ML (dimensions in mm)

A Dimensions for customer's access-control device

mTripod Technical data

Designation	Value
Dimensions (length x width x height)	1300 mm x 290 mm x 1050 mm オ Page 17, Fig. 1.
Passage width	515 mm
Weight	 > Turnstile complete: Approx. 70 kg > Optional foundation frame: Approx. 10.5 kg
Material	 Housing: mDure Optional foundation frame: Stainless steel
Housing colour, standard	 > Side parts: basalt > Frame: anthracite

Table 3: Dimensions and design – mTripod FMTP-ML

3.1.2 mTripod-MS

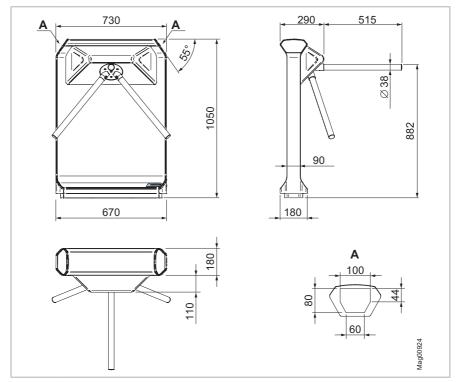
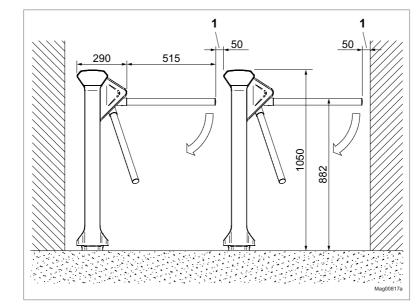


Fig. 2: Dimensions FMTP-MS (dimensions in mm)

A Dimensions for customer's access-control device

Designation	Value
Dimensions (length x width x height)	730 mm x 290 mm x 1050 mm ↗ Page 19, Fig. 2.
Passage width	515 mm
Weight	 > Turnstile complete: Approx. 56 kg > Optional foundation frame: Approx. 5.4 kg
Material	 Housing: mDure Optional foundation frame: Stainless steel
Housing colour, standard	 > Side parts: basalt > Frame: anthracite

Table 4: Dimensions and design – Tripod FMTP-MS



3.2 Clearances and line configuration to be maintained

Fig. 3: Clearances and line configuration to be maintained

1 Minimum distance 50 mm

3.3 Electrical connection

Designation	Value
Power supply	100 to 240 V AC ± 10 %, 50 to 60 Hz
Current consumption at 240 V AC	1.0 A
Current consumption at 100 V AC	2.1 A
Max. power	174 W
Duty cycle	100 %

Table 5: Electrical connection

3.4 Operating conditions

Designation	Value
Operating temperature range	−30 to +55 °C
Storage temperature range	−30 to +55 °C
Relative humidity	Max. 95 %, non-condensing
Protection class	IP 54

Table 6: Operating conditions

3.5 Emissions

Designation	Value
Airborne sound pressure level (LpA)	≤ 70 dB (A)

Table 7: Emissions

3.6 Control unit MGC

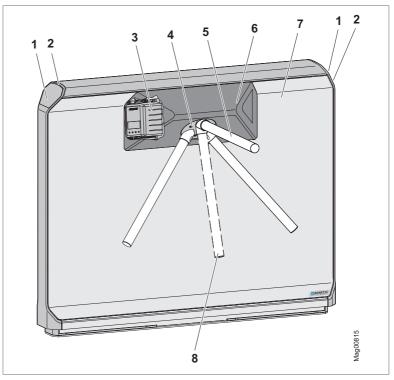
Designation		Value
Power supply		24 V DC
Control unit		max. 1 A max. 300 mA + current consumption of the different plug-in modules
Power consumption		max. 24 W: Max. 7.2 W + Power consumption of the individual plug-in modules
Control unit safety		1 A T
Output terminal 2	Output voltage	24 V DC
	Max. output current	300 mA
Digital inputs	Number	8
	Input voltage	24 ± 10 % V DC
	Input current	< 10 mA per input
	Max. cable length 1)	30 m
Digital outputs	Number	4 (open collector)
	Input voltage	24 ± 10 % V DC
	Input current	100 mA
	Max. cable length 1)	30 m
Relay outputs	Number	3 closers + 3 changeovers , isolated
	Max. switching voltage	30 V AC / DC
	Switching current	10 mA to 1 A
	Max. cable length 1)	30 m
Display	·	Graphics display, 128 x 65 Pixel
Number of slots for plug-in m	odules	5

 Specification without optional overvoltage module. For line lengths exceeding 30 m, overvoltage modules must be installed in front of the terminal clamps.

Table 8: Control unit MGC

4 Design and function

4.1 Design





- 1 Room for access-control device provided by the customer, e.g. card reader
- 2 Space for GED (passage direction display)
- 3 Control unit MGC
- 4 Drive for blocking element, consisting of 3 blocking arms
- 5 Blocking arm (3 x)
- 6 Cover for control unit and drive blocking element consisting of cover and trapezoidal plate
- 7 Side part (front panel)
- 8 Drop arm (option)

4.2 Function

The Magnetic turnstiles mTripod separate and control pedestrians who wish to access or leave areas with restricted access.

Depending on the parameterisation of the turnstile, it can be passed either in one direction or in both directions after the turnstile has been released. Furthermore, the turnstile can be used in free entry or exit mode.

For emergencies such as fire or power failures Magnetic has developed the option "drop arm". With this option, when an emergency is triggered or in the event of a power failure, the blocking arm, which is at the top at this time, unlocks. The blocking arm turns downwards. When the voltage returns, the blocking arm is automatically turned to its basic position. With turnstiles without the "drop arm" option, the passage in both directions is enabled when an emergency is triggered and in the event of a power failure.

A random function is integrated for checking persons or bags. If the random function reaches the random value of passes, the pass is blocked and a signal is given. Only after the operator, e.g. porter, has actuated an enable signal, the passage is enabled and the person can pass.

5 Receipt of goods, transport and storage

5.1 Goods receiving department

Immediately check the delivery after receipt for completeness and transport damages.

In the event of externally visible transport damage, proceed as follows:

- > Do not accept the delivery or only under reserve.
- > Note the extent of damage on the transport documents or on the delivery note of the carrier.
- > Lodge complaint.



IMPORTANT!

Lodge a complaint for each defect, as soon as it is recognised. Compensation claims can only be submitted within the valid complaint periods.

5.2 Safety during transport

Qualification of personnel

- > Transport equipment operator
- > Technician
- > Magnetic MHTM[™] FlowMotion[®] service expert

↗ Page 12, chapter 2.3.2.

Personal protective equipment

Wear the following personal protective equipment:

- > Work clothes
- > Protective gloves
- > Safety shoes.

🗥 WARNING		
Δ	Lifting of heavy loads!	
	The weight of heavy objects can severely injure a person's back or supportive system.	
	Preferably transport the transported goods with suitable transport aids.	
	Alternatively, the transported goods can be carried by two persons.	

> Lift and deposit the transport goods with two persons.

NOTICE

1
1

mproper transport!

Improper transport can result in damage to the product.

- > Observe the symbols on the packaging.
- > Always load, transport and unload packages carefully.
- > Observe dimensions.
- Do not remove packaging until immediately before assembly and at the final location of the product.

5.3 Transport

The recipient of the product is responsible for internal transport.

- > Transport and put down the load with a suitable forklift or lift truck.
- > The forklift forks or lift truck forks must reach completely under the transported goods. Observe the centre of gravity of the load.
- > Secure the load with sufficiently sized loops.

5.4 Storage

Store packages or the product under the following conditions:

- > Store the delivery in its original packaging. Observe the symbols on the packaging.
- > Do not store outdoors.
- > Store dry and dust free.
- > Do not expose to aggressive media.
- > Protect against solar irradiation.
- > Avoid mechanical vibrations.
- > Storage temperature range: -30 to +55 °C
- > Relative humidity: max. 95 %, non-condensing

Check the general condition of all components and packaging regularly, if they are stored for longer periods than 3 months.

6 Unpacking, scope of delivery and identification

6.1 Unpacking

Lifting of heavy loads!

The weight of heavy objects can severely injure a person's back or supportive system.

- > Preferably transport the transported goods with suitable transport aids.
- > Alternatively, the transported goods can be carried by two persons.
- > Lift and deposit the transport goods with two persons.

The individual components are packed according to the expected transport conditions.

Do not destroy the packaging and remove only directly before assembly. The packaging is designed to protect the individual components from transport damage, corrosion, etc.

- 1. Unpack product at final location.
- 2. Place the product vertically.
- 3. Report incomplete and faulty delivery to Magnetic.
- 4. Check the scope of delivery with the delivery note.
- 5. Separate material according to type and size and continue to use them after recycling. Observe national and regional laws and guidelines.

6.2 Scope of delivery

The following components are supplied as standard for each mTripod turnstile:

- > 1 mTripod turnstile with mounted rear panel and trapezoidal plate
- > Front panel
- > Cover
- > 3 blocking arms
- > 1 attachment set for 3 blocking arms without "drop arm" option
- > 1 attachment set for 3 blocking arms with "drop arm" option
- > 4 U-profiles
- > 1 assembly tool
- > Drilling template
- > Documentation: Electrical circuit diagram, test book, these operating instructions and description "MGC control unit"

For options and attachments, see your order confirmation.

6.3 Identification

6.3.1 Type plate

The type plate is located under the cover to the right of the drive unit.

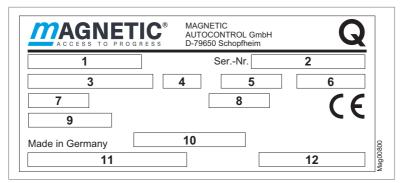


Fig. 5: Type plate

- 1 Product name
- 2 Serial number
- 3 Power supply
- 4 Frequency
- 5 Current consumption
- 6 Power consumption
- 7 Protection class (IP)
- 8 Duty cycle for operating mode S1 "Continuous operation"
- 9 Ambient temperature range
- 10 Date of manufacture, version, printing date of the type plate
- 11 Barcode of the product name
- 12 Bar code for serial number

7 Installation and assembly

7.1 Safety during installation and assembly

Qualification of personnel

- > Technician
- > Magnetic MHTM[™] FlowMotion[®] service expert

↗ Page 12, chapter 2.3.2.

Personal protective equipment

Wear the following personal protective equipment:

- > Work clothes
- > Protective gloves
- > Safety shoes.

A WARNING				
Δ	Improper attachment!			
	Improper attachment can cause the pedestrian gate to tip over, causing bruising and serious injury.			
	Install the pedestrian gate on the foundation according to the description.			
	Observe and follow separate notes and instructions provided by the manufacturer of the attachment material.			
	> After assembly, check all bolts and nuts for tightness.			

🕂 WARNING



Improper assembly on flammable ground!

Installing the pedestrian gate on a flammable floor can promote the development of a fire and accelerate the spread of the fire. A fire and the resulting smoke can cause life-threatening injuries.

> Only install the pedestrian gate on a non-flammable floor.

7.2 Mounting options

Mounting variant	Material required per turnstile (attachments)	Comments
Mount the turnstile directly on a foundation.	 Attachment set BSS100 for mounting the turnstile directly on a foundation ¹⁾ 	Use M8 x 30 screws. Do not use screws M8 x 16 for this mounting variant.
Mount base plate on foundation or unfinished floor. Mount the turnstile on the finished floor using threaded rods.	 Base plate FURA100 / FURA101²⁾ Attachment set BSSFURA100 for mounting the turnstile using threaded rods³⁾ 	The mounting material for the base plate must be provided by the customer.
Glue base plate to foundation or finished floor. Mount the turnstile on the base plate.	 > Base plate FURA100 / FURA101²⁾ > Attachment set BSKL100 for gluing the base plate > Attachment set BSS100 for mounting the turnstile on the base plate⁴⁾ 	Use screws M8 x 16 from attachment set BSS100 for mounting the turnstile. Do not use screws M8 x 30 for this mounting variant.

You can install the mTripod turnstile as follows:

1) mTripod-ML: 8 foundation anchors, mTripod-MS: 6 foundation anchors

2) mTripod-ML: Base plate FURA100, mTripod-MS: Base plate FURA101

3) mTripod-ML: 8 threaded rods, mTripod-MS: 6 threaded rods

1) mTripod-ML: 8 screws, mTripod-MS: 6 screws (foundation anchors and composite mortar are not required)

Table 9: Mounting options

7.3 Required steps

The following work step must be carried out prior to assembly:

Set up foundation and placing empty conduits.
 Page 33, chapter 7.4.

The following work steps must be carried out during assembly:

- > Unpack the pedestrian gate. 7 Page 28, chapter 6.1.
- > Align the pedestrian gate.
- > Install the pedestrian gate. **↗** Page 52, chapter 7.9.
- > Connect the pedestrian gate electrically. ↗ Page 62, chapter 8.

7.4 Setting up foundation and placing empty conduits

7.4.1 Requirements foundation

The foundation must meet the following requirements:

- > Have sufficient load-carrying capacity
- > Concrete C20/25 or corresponding industrial floor
- > Attachment must be able to grip securely
- > Foundation cross section according to foundation and empty conduit plan
- > Non-slip surface
- > Horizontal and level.

↗ Foundation and empty conduit plan mTripod FMTP-ML: Page 35, Fig. 6.

↗ Foundation and empty conduit plan mTripod FMTP-MS: Page 37, Fig. 8.

For outdoor assembly, the foundation must meet the following additional requirements:

- > Concrete C35/45 XD 3 XF2
- > Foundation depth: at least 800 mm, frost-proof. Adjust foundation depth to the local conditions.
- > Reinforcement mesh according to reinforcement plan

Reinforcement plan mTripod FMTP-ML: Page 36, Fig. 7.
 Reinforcement plan mTripod FMTP-MS: Page 38, Fig. 9.

7.4.2 Requirements empty conduits

Observe the following points for the empty conduits:

- > Place empty conduits according to the foundation plan.
- > Conduits have to be planned to a sufficient length.
- > Plan empty conduits required for access-control devices and other peripheral devices. The cabling for this is the responsibility of the customer.



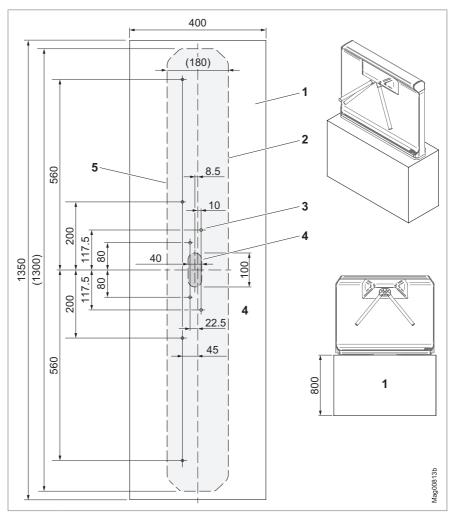
IMPORTANT!

To ensure trouble-free operation, separate empty conduits must be installed for all mains cables and control lines.

7.4.3 Setting up foundation and placing empty conduits

- Excavate the foundation hole according to the foundation and empty conduit plan.

 ¬ Page 35, Fig. 6. ¬ Page 36, Fig. 7.
- 2. If installed outdoors, lay the reinforcement braid.
- 3. Place empty conduits according to the foundation and empty conduit plan in the foundation hole.
- 4. Close empty conduit to prevent water from entering.
- 5. Concrete the foundation.
- 6. Create smooth coating.
- 7. Let concrete cure.
- 8. Apply moisture protection for outdoor installation.



7.4.4 Foundation and empty conduit plan and reinforcement mTripod FMTP-ML



- 1 Foundation, frost depth, outdoor area
- 2 Outline mTripod FMTP-ML
- 3 Boreholes (8 x)
- 4 Feed-through for empty conduits
- 5 Passage side, side of the locking arms

mTripod Installation and assembly

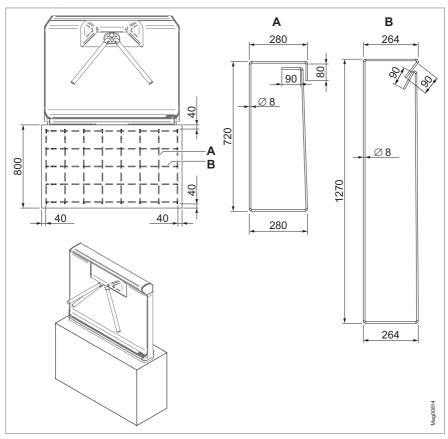


Fig. 7: Reinforcement plan FMTP-ML (dimensions in mm)

7.4.5 Foundation and empty conduit plan and reinforcement mTripod FMTP-MS

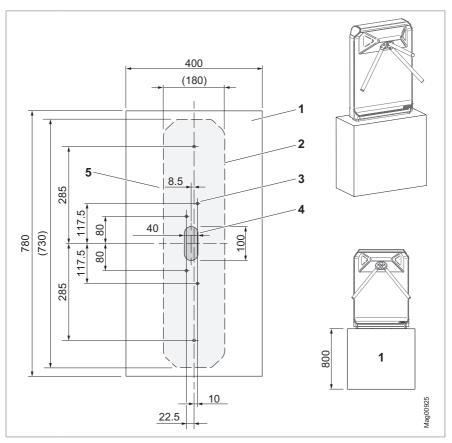


Fig. 8: mTripod FMTP-MS foundation and empty conduit plan (dimensions in mm)

- 1 Foundation, frost depth, outdoor area
- 2 Outline mTripod FMTP-MS
- 3 Boreholes (6 x)
- 4 Feed-through for empty conduits
- 5 Passage side, side of the locking arms

mTripod Installation and assembly

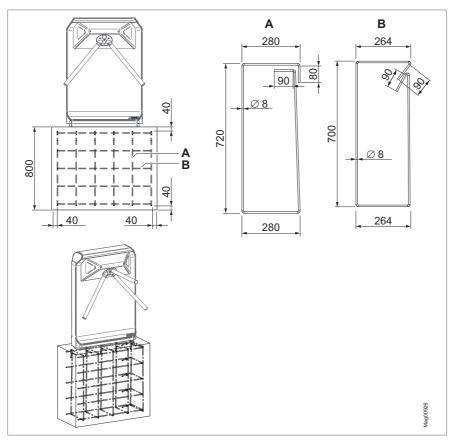


Fig. 9: Reinforcement plan FMTP-ML (dimensions in mm)

7.5 Base plate and drilling template mTripod FMTP-ML

Note that, depending on the mounting variant, only 8 threaded rods or 8 screws are required for mounting the mTripod FMTP-ML turnstile. See following figure, positions 6 and 9.

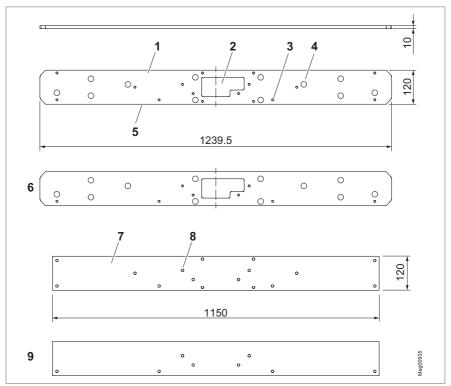


Fig. 10: Base plate and drilling template mTripod FMTP-ML (dimensions in mm)

- 1 Base plate FURA100
- 2 Feed-through for empty conduits
- 3 Holes M8 for threaded rods or screws (14 x), see item 6 and 9
- 4 Holes \varnothing 20 mm for foundation anchors (12 x)
- 5 Passage side, side of the locking arms
- 6 Base plate FURA100, only relevant positions for threaded rods or screws for mTripod FMTP-ML shown
- 7 Drilling template, see position 6 and 9
- 8 Holes for threaded rods
- 9 Holes for threaded rods, only relevant positions for threaded rods shown for mTripod FMTP-ML

7.6 Base plate and drilling template mTripod FMTP-MS

Note that, depending on the mounting variant, only 6 threaded rods or 6 screws are required for mounting the mTripod FMTP-MS turnstile. See following figure, position 8.

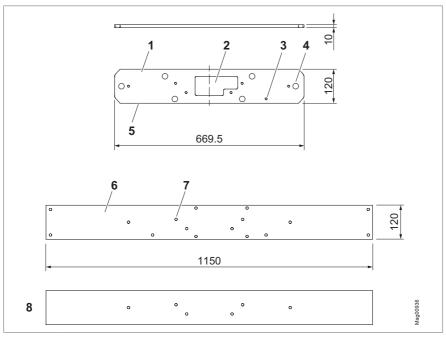


Fig. 11: Base plate and drilling template mTripod FMTP-MS (dimensions in mm)

- 1 Base plate FURA101
- 2 Feed-through for empty conduits
- 3 Holes for threaded rods M8 or screws (6 x)
- 4 Holes \varnothing 20 mm for foundation anchors (6 x)
- 5 Passage side, side of the locking arms
- 6 Drilling template, see position 8
- 7 Holes for threaded rods
- 8 Holes for threaded rods, only relevant positions for threaded rods shown for mTripod FMTP-MS

7.7 Aligning the pedestrian gate

When installing several pedestrian gates, align the pedestrian gates to the customer's specifications and to the on-site conditions, e.g. walls, tile joints and railings, using a laser or scale.

7.8 Assembly of the mTripod

7.8.1 Mounting variant "Direct mounting"

With this mounting variant, you mount the turnstile directly on a foundation. For the variant mTripod FMTP-ML you need 8 foundation anchors. For the variant mTripod FMTP-MS you need 6 foundation anchors.

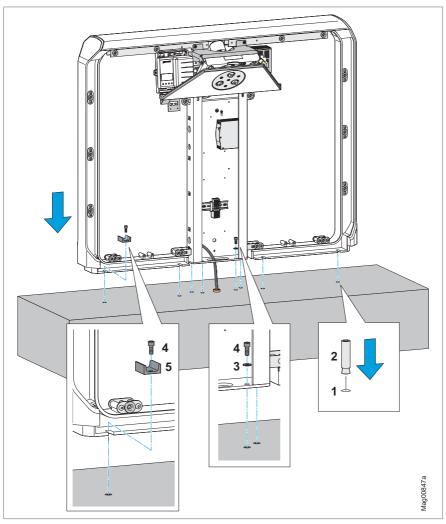
Required material (attachments):

> Attachment set BSS100 for mounting the turnstile directly on a foundation

Prerequisites

- > The foundation was built.
- > The empty conduits were laid.
- > The foundation has cured.

mTripod Installation and assembly



- Fig. 12: Mounting variant "Direct mounting" mount turnstile, shown here mTripod FMTP-ML
- 1 Drill hole (FMTP-ML: 8 x and FMTP-MS: 6 x)
- 2 Female threaded sleeves 12 x 90, M8, stainless steel (FMTP-ML: 8 x and FMTP-MS: 6 x)
- 3 Washer A 8.4 mm, stainless steel (4 x)
- 4 Screw M8 x 30, stainless steel (FMTP-ML: 8 x and FMTP-MS: 6 x)
- 5 U-profiles (4 x)



IMPORTANT!

Follow the separate notes and instructions for the composite mortar and foundation anchors.

↗ Foundation and empty conduit plan mTripod FMTP-ML: Page 35, Fig. 6.

↗ Foundation and empty conduit plan mTripod FMTP-MS: Page 37, Fig. 8.

1. Drill the boreholes for the female threaded sleeves according to the foundation plan.

NOTICE

Wrong orientation of the turnstile! The turnstile is not symmetrically constructed. Align the turnstile so that the passage side is on the correct side. Observe foundation plan.

- 2. Clean the boreholes with compressed air.
- 3. Inject composite mortar into the boreholes.
- 4. Female threaded sleeves with internal thread to the bottom of the boreholes by hand. The BSS100 mounting kit contains mounting aids.
- 5. Wait for the curing time. Follow separate instructions.
- 6. Position turnstile.
- 7. Place U-profiles, washers and hexagonal screws.

WARNING

Possible injuries due to falling pedestrian gate! Use screws M8 x 30 from attachment set BSS100. Do not use the M8 x 16 screws.

- 8. Slightly tighten the screws.
- 9. Align turnstile.
- 10. Tighten the screws firmly.
- 11. If necessary, seal the housing with a silicone joint.
- 12. Arrange electrical connections.

 ¬ Page 62, chapter 8.
- 13. Mount the holding bracket, trapezoidal plate, front panel, cover and locking arms. ↗ Page 52, chapter 7.9.

7.8.2 Mounting option «Mount base plate»

With this type of installation, first mount the base plate on the foundation or on the unfinished floor. After completion of the finished floor, install the turnstile on the finished floor using threaded rods. For the variant mTripod FMTP-ML you need 8 threaded rods. For the variant mTripod FMTP-MS you need 6 threaded rods.

Required material (attachments):

- > Base plate FURA100 for mTripod FMTP-ML
- > Base plate FURA101 for mTripod FMTP-MS
- > Attachment set FURA100 for mounting the turnstile
- > The mounting material for the base plate must be provided by the customer.

Install and prepare the base plate before finishing the finished floor

Prerequisites

- > The foundation / raw floor was erected.
- > The empty conduits were laid.
- > The foundation / unfinished floor has hardened.

↗ Base plate and drilling template Tripod FMTP-ML: Page 39, Fig. 10.

↗ Base plate and drilling template Tripod FMTP-MS: Page 40, Fig. 11.

1. Mount the base plate on the foundation or unfinished floor.

NOTICE

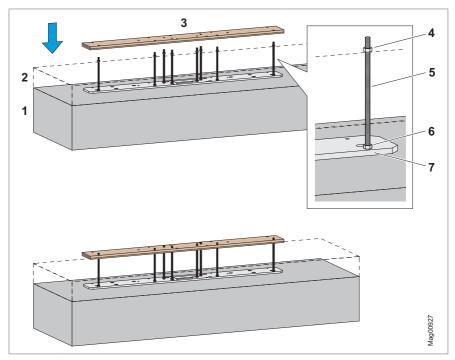
Wrong orientation of the turnstile! The turnstile is not symmetrically constructed. Align the turnstile so that the passage side is on the correct side. Note figure base plate.

2. Screw the threaded rods into the base plate.

NOTICE

Incorrect positioning of the threaded rods! Note figure base plate.

- > mTripod FMTP-ML: 8 threaded rods
- > mTripod FMTP-MS: 6 threaded rods
- 3. Fix threaded rods with nuts.
- 4. Mount the other nuts slightly above the planned finished floor height on the threaded rods.
- 5. Place the drilling template on the threaded rods.



- Fig. 13: Mounting and preparing the base plate
- 1 Foundation / raw floor
- 2 Planned finished floor
- 3 Drilling template
- 4 Nut M8, slightly above the planned finished floor (FMTP-ML: 8 x and FMTP-MS: 6 x)
- 5 Threaded rods M8 x 210, stainless steel (FMTP-ML: 8 x and FMTP-MS: 6 x)
- 6 Nut M8 (FMTP-ML: 8 x and FMTP-MS: 6 x)
- 7 Base plate

Mounting the turnstile after completion of the finished floor

Prerequisites

- > The finished floor is finished.
- 1. Remove the drilling template and nuts from the threaded rods.

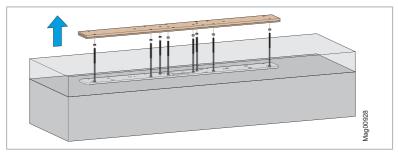
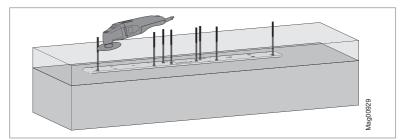


Fig. 14: Remove drilling template and nuts



2. Flex off threaded rods 20 mm above the finished floor.

Fig. 15: Flexing off threaded rods

- 3. Place the turnstile on the threaded rods. *¬* Page 47, Fig. 16.
- 4. Mount the turnstile with U-profiles and nuts.
- 5. Tighten nuts slightly.
- 6. Align turnstile.
- 7. Tighten nuts to 10 Nm.
- 8. If necessary, seal the housing with a silicone joint.
- 9. Arrange electrical connections. *¬* Page 62, 8.
- 10. Mount the holding bracket, trapezoidal plate, front panel, cover and locking arms. *ব* Page 52, chapter 7.9.

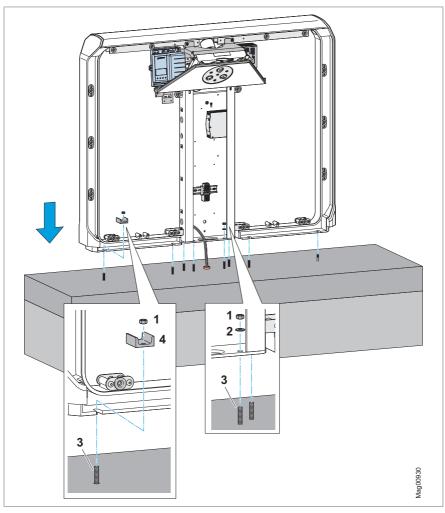


Fig. 16: Mounting variant "Mount base plate" – Mount turnstile, shown here mTripod FMTP-ML

- 1 Nut M8 (FMTP-ML: 8 x and FMTP-MS: 6 x)
- 2 Washer A 8.4 mm, stainless steel (4 x)
- 3 Threaded rods M8 x 210, stainless steel (FMTP-ML: 8 x and FMTP-MS: 6 x)
- 4 U-profiles (4 x)

7.8.3 Mounting variant "Glue base plate"

With this type of installation, you first glue the base plate onto the foundation or the finished floor. Then mount the turnstile on the base plate. For the variant mTripod FMTP-ML you need 8 screws. For the variant mTripod FMTP-MS you need 6 screws.

Required material (attachments):

- > Base plate FURA100 for mTripod FMTP-ML
- > Base plate FURA101 for mTripod FMTP-MS
- > Attachment set BSKL100 for gluing the base plate
- > Attachment set BSS100 for mounting the turnstile on the base plate (foundation anchors and composite mortar are not required)

Prerequisites

- > The foundation / finished floor was erected.
- > The empty conduits were laid.
- > The foundation / finished floor has hardened.



IMPORTANT!

Follow the separate instructions and packaging labels for the surface cleaner, construction adhesive and remover.

The floor must be free of paint and varnish.

→ Base plate and drilling template Tripod FMTP-ML: Page 39, Fig. 10.

↗ Base plate and drilling template Tripod FMTP-MS: Page 40, Fig. 11.

1. Place and align base plate.

NOTICE

Wrong orientation of the turnstile! The turnstile is not symmetrically constructed. Align the turnstile so that the passage side is on the correct side. Note figure base plate.

2. Draw the outline of the base plate on the floor. Make sure that the markings are either washable or invisible.

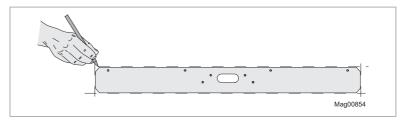
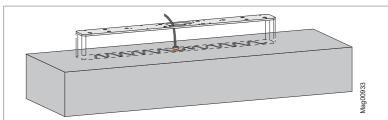


Fig. 17: Mark outline

- 3. Put the base plate aside. The underside must face upwards.
- 4. Clean the floor with the "HaftClean" surface cleaner.
- 5. Clean the underside of the base plate with the surface cleaner "HaftClean Metall".
- 6. Apply construction adhesive "Klebt + D Dicht Power" to the floor in the form of a beat within the marking. Apply less adhesive towards the edge.



Fig. 18: Apply construction adhesive



7. Immediately place the base plate on the adhesive. Observe markings.



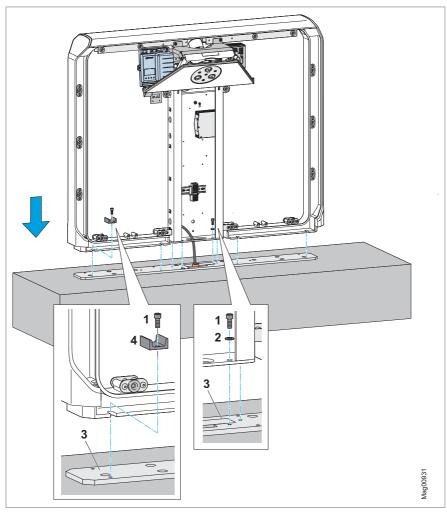
- 8. Press the base plate on well immediately. If the base plate stands out due to unevenness of the floor, weight the base plate.
- Remove excess adhesive as soon as possible with "Klebt + Dichtet Entferner". If the adhesive has already cured, remove excess adhesive with a suitable tool. When selecting the tool, consider the material of the base.
- 10. Wait for the curing time.
- 11. Place the turnstile on the base plate. 7 Page 51, Fig. 20.
- 12. Place U-profiles, washers and hexagonal screws.

NOTICE

Possible damage to the finished floor!

Use screws M8 x 16 from attachment set BSS100. Do not use the M8 x 30 screws.

- 13. Slightly tighten the screws.
- 14. Align turnstile.
- 15. Tighten the screws firmly.
- 16. If necessary, seal the base plate laterally with a silicone joint.
- 17. Arrange electrical connections. 7 Page 62, 8.
- Mount the holding bracket, trapezoidal plate, front panel, cover and locking arms. J Page 52, chapter 7.9.





- 1 Screw M8 x 16, stainless steel (FMTP-ML: 8 x and FMTP-MS: 6 x)
- 2 Washer A 8.4 mm, stainless steel (4 x)
- 3 Base plate
- 4 U-profiles (4 x)

7.9 Assembling mTripod

Prerequisites

> The turnstile is mounted on the floor.

The turnstile is delivered with assembled rear panel and assembled trapezoidal plate. Cover, front panel and blocking arms are not assembled on delivery.

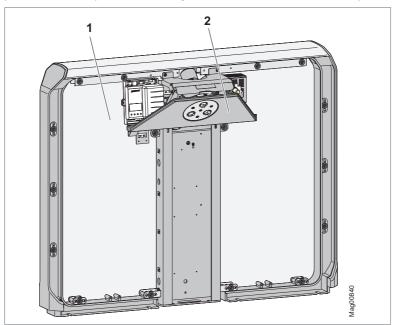
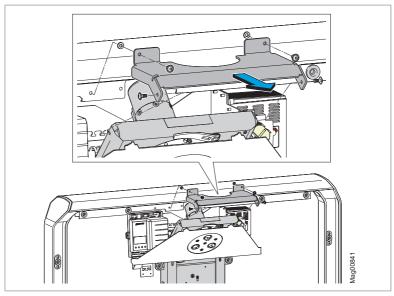


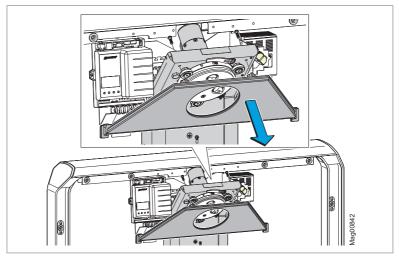
Fig. 21: Turnstile in delivery state

- 1 Rear panel
- 2 Trapezoidal plate



1. Disassemble the holding bracket. To do this, loosen the 4 screws.

Fig. 22: Disassembly of the holding bracket



2. Disassemble the trapezoidal plate. To do this, loosen the 2 screws.

Fig. 23: Disassemby of the trapezoidal plate

- 3. Arrange electrical connections. *¬* Page 62, chapter 8.
- 4. Assemble the trapezoidal plate.
- 5. Assemble the holding bracket.
- 6. Assemble the front panel. A click sound is heard each time it clicks into place.

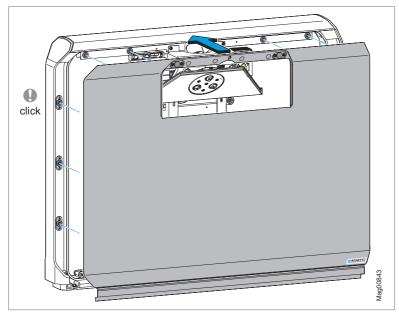
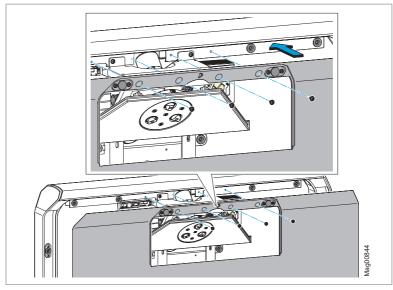


Fig. 24: Assembly of the front panel



7. Attach the front panel with the 4 screws.

Fig. 25: Attachment of the front panel

8. Assemble the cover. The cover is held by 2 magnets.

ACAUTION

Danger of crushing! Hold the cover with both hands only on the side. Do not hold the cover at the front or top edge.

- > Hang in the cover.
- > Tilt the cover backwards until the magnets close the cover.

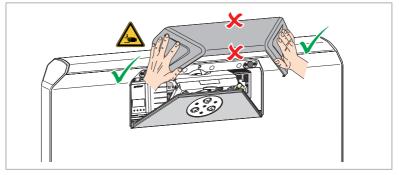


Fig. 26: Assembly of the cover

9. Assemble blocking arms.

- > Blocking arms with drop arm function:

 ¬ Page 56, chapter Fig. 27
- > Blocking arms without drop arm function:
 ↗ Page 57, chapter Fig. 28

IMPORTANT!

The scope of delivery includes one attachment set for blocking arms without "drop arm" option and one attachment set with "drop arm" option per pedestrian gate. Assemble the blocking arms with the correct attachment set.

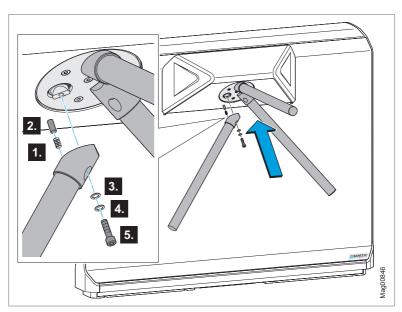


Fig. 27: Assembly of the blocking arms with drop arm function Observe the assembly sequence of the spring, silicone sleeve, washer, north lock washer and hexagon head screw..

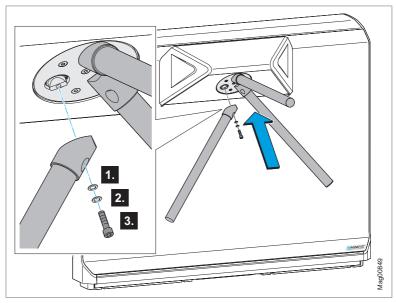


Fig. 28: Assembly of the blocking arms without drop arm function Observe the assembly sequence of the washer, north lock washer and hexagon head screw.

7.10 Dismantling and mounting cover

For the following activities, for example, you must disassemble the cover:

- > Switch the pedestrian gate on and off.
- > Parameterise the control unit MGC.

The cover is held by 2 magnets.

Disassembling the cover

- 1. Place the supplied tool near the magnets.
- 2. Lever the cover forward with the tools.
- 3. Unhook the cover.

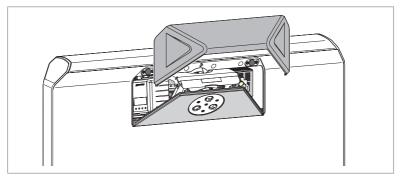


Fig. 29: Disassembling the cover

Mounting the cover

1. Hang in the cover.

\Lambda CAUTION

Danger of crushing! Hold the cover with both hands only on the side. Do not hold the cover at the front or top edge.

2. Tilt the cover backwards until the magnets close the cover.

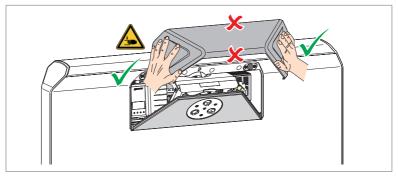


Fig. 30: Mounting the cover

7.11 Opening and closing the housing

To perform the electrical connection you have to open the housing.

Opening the housing

- 1. Disassemble cover. *¬* Page 41, chapter 7.8.
- 2. Disassemble blocking arms. 7 Page 56, Fig. 27 or Page 57, Fig. 28
- 3. Loosen the 4 screws of the front panel. *¬* Page 55, Fig. 25.
- 4. Disassemble front panel.

NOTE

Front panel may break if disassembled incorrectly.

- > Alternately open side closures. 7 Fig. 31, 1. to 6.
- > Open the top closures. ↗ Fig. 31, 7. to 8.
- > Open the lower closures. ↗ Fig. 31, 9. to 10.

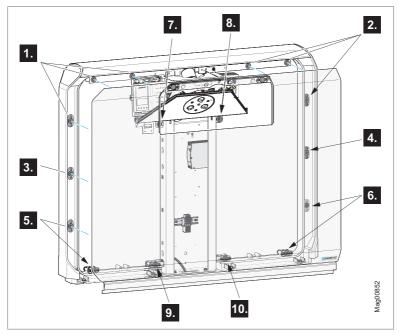


Fig. 31: Disassembly of the front panel

- 5. Disassemble holding bracket. **7** Page 53, Fig. 22.
- 6. Disassemble trapezoidal plate. *¬* Page 53, Fig. 23.

Closing the housing

- 1. Assemble trapezoidal plate.
- 2. Assemble holding bracket.
- 3. Assemble front panel.
- 4. Assemble blocking arms.
- 5. Assemble cover. **7** Page 41, chapter 7.8.

7.12 Checking the assembly

After assembly, check the following points:

- > Are all screws and nuts tightened?
- > Have all pedestrian gate covers been properly assembled?

8 Electrical connection

8.1 Safety during electrical connection

Qualification of personnel

- > Technician
- > Magnetic MHTM[™] FlowMotion[®] service expert

↗ Page 12, chapter 2.3.2.

Personal protective equipment

Wear the following personal protective equipment:

- > Work clothes
- > Protective gloves
- > Safety shoes.

DANGER

Electric voltage!

Touching live parts can be lethal. Damaged insulation or damaged parts may be fatal.

- > Only qualified electricians or electrical safety experts may work on the electrical system.
- Switch off power supply and secure against re-activation before performing any work. Test for absence of voltage.
- Keep moisture and dust away from live parts. Penetrating moisture or dust can lead to a short circuit.
- > If the electrical connection is established at precipitation, e.g. rain or snow, penetration of moisture must be prevented by suitable measures, such as a protective cover.
- Install protective devices that are prescribed by national regulations, such as e.g. residual current circuit breakers.
 These protective devices must be provided by the customer.
- > Observe the information on the type plate.
- > Close all covers after work has been carried out.

A DANGER

Mortal danger from lightning and electrical voltage!

During or after a lightning strike into the system, there is danger to life if the components are touched or during a stay in the immediate vicinity of the system.

- > When installing outdoors, do not install and mount the pedestrian gate during thunderstorms.
- > Protect yourself in buildings or vehicles.

NOTICE



Electromagnetic interference!

The pedestrian gate is approved for industrial, residential, commercial and business use. Operation in other electromagnetic environmental conditions may cause interference or malfunctions.

- > Place control lines and mains cables into separate conduits.
- Customer access-control devices, signal transmitters and receivers must be EMC-tested and comply with the prescribed EMC limits. In this case, a conformity assessment must be carried out by the customer.

8.2 Installing electrical protective devices

Protective devices that are prescribed by national regulations must be installed on site. This safety equipment is to be provided by the customer.

As a rule, the following protective devices must be installed:

- > Residual current device (RCD)
- > Circuit-breaker
- > Lockable 2-pole main switch acc. to EN 60947-3.

8.3 Connecting the mains cable



IMPORTANT!

The wire cross-section of the mains cable must be between 1.5 and 4 mm². Observe national provisions on line length and associated line cross-section.

Prerequisites

- > The housing is open. ↗ Page 60, chapter 7.11.
- 1. Disconnect the system from the power supply. Ensure that the system is powered down. Secure against reactivation.

\Lambda DANGER

Mortal danger by electric voltage!

2. Strip mains cable and strands according to the following figure.

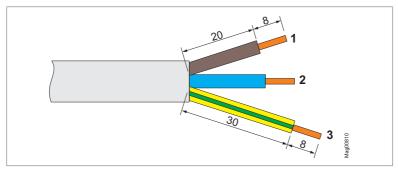
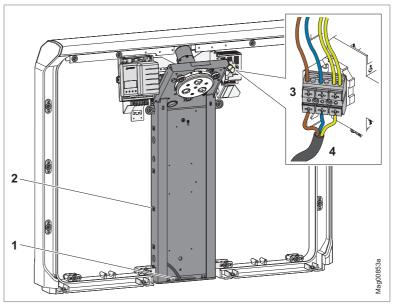


Fig. 32: Stripping (dimensions in mm)

- 1 Phase
- 2 Zero conductor
- 3 Protective earth conductor
- 3. Carefully lead the mains cable through the housing to the connection compartment and fasten it with the brackets.
- 4. Connect the mains cable to the terminals X1: Connect L / N / PE. ↗ Wiring diagram, separate document.
- 5. Attach mains cable to the tabs with 2 cable ties.





- 1 Feed-through for empty conduits and lines
- 2 Straps for fixing empty conduits and lines
- 3 Terminals
- 4 Mains cable to be connected

8.4 Connecting customer control lines



IMPORTANT!

For connecting the control lines provided by the customer, see separate document "Description of MGC control unit for mTripod (Doc.ID: 5817,0025)".

8.4.1 Connecting emergency opening contacts

 \neg Separate wiring diagram and document "Description control unit MGC for mTripod (Doc.ID: 5817,0025)".

Connect fire service switches, emergency opening contacts, etc. to the "Emergency release" input. This input has the highest priority. The "Emergency open" input function is superior to all other input functions. As long as +24 V DC are present at this input, the pedestrian gate is in operation.

Turnstiles with "drop arm" option: If the signal drops, the holder magnet for the "drop arm" is released. The motor starts up briefly so that the "drop arm" can be released.

Turnstiles without "drop arm" option: If the signal drops, the passage is enabled in both directions.

8.5 Installing and connecting customer-access control devices

You can install access-control devices in the following locations:

- > At both ends of the housing
- > On the rear panel of the turnstile

↗ Separate wiring diagram and document "Description control unit MGC for mTripod (Doc.ID: 5817,0025)".

At both ends of the housing

Attach the access-control device to the cover with screws. Observe the installation dimensions. \neg Page 66, Fig. 34.

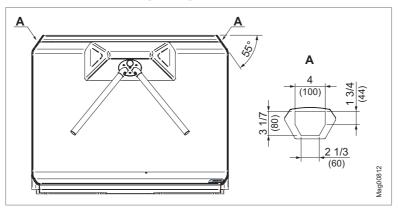


Fig. 34: Installation space for access-control device

A Dimensions for customer's access-control device

On the rear panel of the turnstile

In general, you can also mount devices on the rear panel of the turnstile. The maximum permitted drilling depth is 5 mm.

Additional mTripod FMTP-MS:

The rear panel of the mTripod FMTP-MS turnstile is additionally equipped with struts. There are already cast holes on the struts, which you can drill out if necessary. We recommend universal screws 4.5 x 25 mm as fastening screws. The maximum permitted drilling depth is 7 mm.

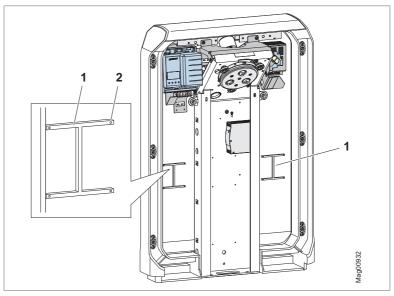


Fig. 35: Rear panel mounting options – mTripod FMTP-MS only

- 1 Backup: H-shaped struts (2 x)
- 2 Drill holes, diameter: 1.5 mm, per reinforcement 4 x

8.6 Checking the electrical connections

After the electrical installation, check the following points:

- > Does the power supply match the specification on the type plate?
- > Are the prescribed protective devices installed?
- > Is the pedestrian gate connected according to wiring diagram?
- > Is the emergency signal transmitter correctly connected?
- > Are the customer's signal transmitters and receivers correctly connected?
- > Are all screws firmly tightened?
- > Have all pedestrian gate covers been properly assembled?

9 Commissioning

9.1 Safety during commissioning

Qualification of personnel

- > Technician
- > Magnetic MHTM[™] FlowMotion[®] service expert

7 Page 12, chapter 2.3.2.

Personal protective equipment

Wear the following personal protective equipment:

- > Work clothes
- > Protective gloves
- > Safety shoes.

9.2 Putting the pedestrian gate into operation



IMPORTANT!

Commissioning must be carried out in accordance with the test book. See separate document "Test Book MHTM™ FlowMotion[®] mTripod (Doc.ID: 5873,0002)".

9.3 Switching the pedestrian gate on and off



Switching the pedestrian gate on again too fast can lead to damage to the device!

NOTICE

> Wait for at least 10 seconds after switching off the pedestrian gate before you switch the mains power on again.

- 1. Disassemble cover. *¬* Page 41, chapter 7.8.
- 2. Switch the pedestrian gate on or off using the on/off switch.

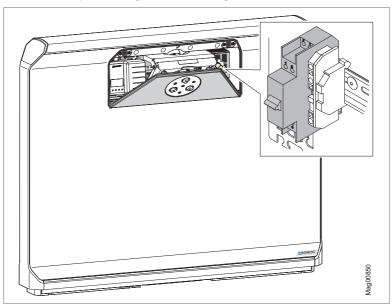


Fig. 36: Switching the mTripod on and off

- 1 On and off switch
- 3. Assemble cover.

9.4 Parameterising the pedestrian gate



IMPORTANT!

For parameterisation see separate document "Description of MGC control unit for mTripod (Doc.ID: 5817,0025)".

10 Test book

The pedestrian gate must be checked at least once a year in accordance with the test book.

The test book "MHTM FlowMotion® mTripod (Doc.ID: 5873.0002)" is included in the scope of delivery.

11 Operation

The operation of the pedestrian gate depends on the connected access-control devices, signal transmitters and signal receivers as well as on the parameterisation of the control unit.

We recommend to create a description for the operation, depending on the connected devices and the parameterisation.



IMPORTANT!

For parameterisation see separate document "Description of MGC control unit for mTripod (Doc.ID: 5817,0025)".

12 Cleaning and maintenance

12.1 Cleaning the pedestrian gate



Aggressive cleaning aids and substances!

NOTICE

Aggressive detergents and consumables may damage or destroy components, electric cables, or the coating of the pedestrian gate.

> Do not use cleaning agents with aggressive ingredients.

Cleaning the pedestrian gate from the outside

- 1. Switch off the power supply and secure against being switched on again.
- 2. Pre-clean surfaces with a damp cloth. Never use wet cleaning cloths.
- 3. Clean the surface with a mild household cleaner.
- 4. Carefully clean areas with persistent dirt with spirit.
- 5. Dry surfaces with a dry cloth.

12.2 Maintenance schedule

Interval	Work	Personnel	
Monthly	Check emergency function.	Operator	
	Check the "drop arm" function for turnstiles with the "drop arm" option.	Operator	
	Check the housing for damage from the outside.	Operator	
Every 6 months	Check the attachment of the blocking arms.	Technician	
	Check function of the external residual current operated device	Technician	
Every 12 months	Check electrical lines for damage.	Technician	
	Check if all electrical connections are firm.	Technician	
	Check the fastening of the housing.	Technician	
Table 10: Maintenance schedule			

The maintenance plan lists all work required to ensure safe, optimum and trouble-free operation of the pedestrian gate.

13 Corrective action



IMPORTANT!

For troubleshooting see separate document "Description of MGC control unit for mTripod (Doc.ID: 5817,0025)".

14 Spare parts and repair

NOTICE



Wrong and faulty spare parts!

Incorrect or defective spare parts can result in damage, malfunctions or total failure and also impair safety.

> Use only the manufacturer's original spare parts.

Spare parts are available from your authorised dealer. The address can be found on your delivery receipt, invoice or the rear of these operating instructions.

Spare part lists can be obtained on request.

15 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.



IMPORTANT!

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

16 Decommissioning

You disable the pedestrian gate in the following cases:

- > The pedestrian gate is installed at a different location.
- > The pedestrian gate will be decommissioned for more than 6 months.

If you only want to deactivate the pedestrian gate for a short time, see the "Switching the pedestrian gate on and off" section. 7 Page 69, chapter 9.3.

16.1 Safety during decommissioning

Qualification of personnel

- > Technician
- > Magnetic MHTM[™] FlowMotion[®] service expert

↗ Page 12, chapter 2.3.2.

Personal protective equipment

Wear the following personal protective equipment:

- > Work clothes
- > Protective gloves
- > Safety shoes.

16.2 Decommissioning of the pedestrian gate

- 1. Switch the pedestrian gate off. *¬* Page 69, chapter 9.3.
- 2. Disconnect the pedestrian gate from the power supply.
- 3. If necessary, remove the pedestrian gate.
- 4. Store pedestrian gate or components properly. 7 Page 27, chapter 5.4.

17 Disassembly and disposal

17.1 Safety during disassembly and disposal

Qualification of personnel

- > Technician
- > Electrical specialist
- > Magnetic MHTM[™] FlowMotion[®] service expert

↗ Page 12, chapter 2.3.2.

Personal protective equipment

Wear the following personal protective equipment:

- > Work clothes
- > Protective gloves
- > Safety shoes.

17.2 Dismantling and disposing of the pedestrian gate

Prerequisites

- > The pedestrian gate is not in operation. ↗ Page 75, chapter 16.2.
- 1. Disassemble the pedestrian gate into individual parts.
- 2. Recycle parts by type and material. Dispose of non-recyclable materials in an environmentally friendly manner. Observe local and national laws and guidelines.
- $\sqrt{}$ The pedestrian gate is disassembled and disposed of.



EU-Declaration of Conformity

The manufacturer MAGNETIC AUTOCONTROL GmbH hereby declares for the product supplied by him:

Designation	Pedestrian gate FlowMotion®
Туре	mTripod FMTP-M*
From serial number	F10044260

The conformity according to: Directive 2006/42/EC (Machine directive) amended by 2009/127/EC Directive 2014/30/EU (EMC directive)

Applied harmonised standards (or parts hereof): EN ISO 12100:2010

Safety of machinery - General principles for design - Risk assessment and risk reduction

EN 60204-1:2006/AC:2010

Safety of machinery – Electrical equipment of machines – Part 1: Specifications for general requirements

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

Electromagnetic compatibility (EMC) – Part 6-2: Generic standard – Immunity for industrial environments

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

Electromagnetic compatibility (EMC) - Part 6-3: Generic standard - Emission standard for residential, commercial and light-industrial environments

EN ISO 13849-1:2008/AC:2009

Safety of machinery – Safety-related parts of control systems – Part 1: General principles for design

EN 60335-2-103:2015

Household and similar electrical appliances - Safety - Part 2-103: Particular requirements for drives for gates, doors and windows

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.

MAGNETIC AUTOCONTROL GmbH Grienmatt 20-28 79650 Schopfheim

Documentation Engineer Mr. Stefan Wellinger

Mlinge Han

Schopfheim, 18/03/2019 Place and date

Signature

Index

Α

Access-control devices	
Assembly	66
Connecting	66
Assembling	52
Assembly	31, 41
mTripod	52
Testing	61
Top cover	59

В

Base plate	
mTripod FMTP-ML	40
mTripod FMTP-MS	39
Blocking arm	23
Blocking element	23

С

Changes 10
Cleaning72
Clearances
Min 20
Commissioning 69
Connection See Electrical connection
Control lines
Connecting65
Control unit MGC 23
Technical data 22
Corrective action 73
Cover 23
Customer service74

D

Decommissioning	75
Design	23
Dimensions	17
mTripod-ML	17
mTripod-MS	19
Disassembly	76
Top cover	58
Disposal	76

Drilling template	
mTripod FMTP-ML	39
mTripod FMTP-MS	40
Drop arm	23

Ε

Electrical connection	2
Technical data 22	1
Testing 68	3
Emergency opening	ŝ
Emissions 22	1
Empty conduits	
Requirements 33	3
EU-Declaration of Conformity72	7

F

Foundation
Requirements 33
Set up 34
Foundation plan
mTripod FMTP-ML 35
mTripod FMTP-MS 37
Front panel 54
Function 24

G

Goods receiving department 25	Goods receiving	department	25
-------------------------------	-----------------	------------	----

н

Holding b	racket		53
-----------	--------	--	----

I

Installation	31
Intended use	10

L

Layout for empty conduits	
mTripod FMTP-ML 35	5
mTripod FMTP-MS37	7
Line configuration 20	C

Μ

Magnetic MHTM [™] FlowMotion [®] service	
expert	12
Mains cable	
Connecting	64
Maintenance schedule	73

mTripod **Index**

Misapplications	10
Modifications	10
Mounting options	32
Direct mounting	41
Glueing the base plate	48
Mounting the base plate	44

Ν

Notices	
Presentation	

0

Operating conditions 2	21
Operation 7	/2
Operator	
Responsibility 1	1

Ρ

Parameterise	71
Personal protective equipment	13
Personnel	
Qualification	12

Q

Qualification	
Personnel	12

R

Rear panel	52
Reinforcement plan	
mTripod FMTP-ML	36
mTripod FMTP-MS	38
Repair	74

S

Safety	10
Safety guards	
Install	63
Scope of delivery	29
Side part	23
Spare parts	74
Storage	27
Switching off	69
Switching on	69

т

Target groups1	1
----------------	---

Technical data	17
Test book	
Top cover	
Assembly	59
Disassemble	58
Transport	
Trapezoidal plate	52, 53
Type plate	30

U

Unpacking28	8
-------------	---

W

Warning Notes	
Presentation	8

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