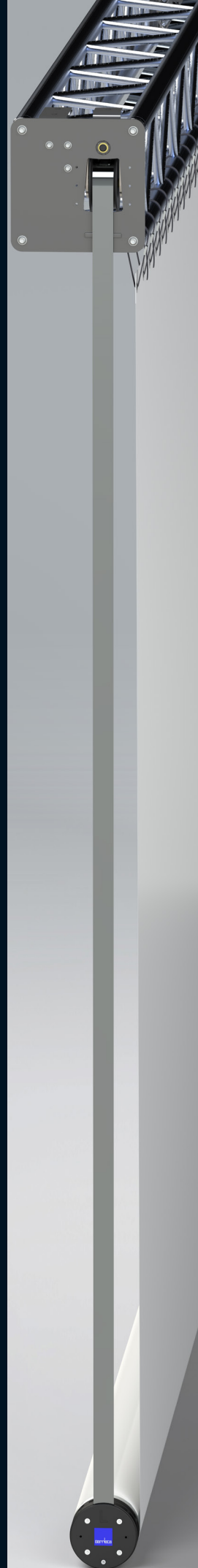


SCREENS **24000**

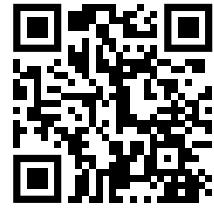
EN Operating manual

MEGASCREEN S





Scanning the following QR code or clicking on the previous icon in the PDF view leads you to the MEGASCREEN S-product page. There you will find further product information such as videos and application examples.



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The original operation manual was created in German.

All other language versions are translations of the original operation manual.

Errors and technical changes excepted.

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1 About this document

1.1 Handling the operating manual

Basic information on the operating instructions

This operation manual is part of the roller screen system MEGASCREEN S including:

- Roller screen MEGASCREEN S – Item no. 24000 04031 (3 m) to 24000 04081 (8 m) and special sizes.
- Control unit G-FRAME 54 – Item no. 32420 00801 (DMX – Item no. 24800 09121).
- Accessories (see *chapter 2.3 Accessories and spare parts* [► S. 15]).

The operating instructions provide important information for safe and efficient use of the product.



- è Read the operation manual and in particular *chapter 10 Safety* [► S. 55] thoroughly before use.
- è If you have any questions, please contact Gerriets GmbH (for contact details see *chapter 12.1 Contact us* [► S. 64]).
- è Hand out the operation manual to all persons who will be working with the roller screen system and its associated components.
- è Keep the operation manual available at all times in the immediate vicinity of the product described.
- è Hand over the operation manual to the new owner when selling the product.

Security information

In *chapter 10 Safety* [► S. 55] you find information on the intended use, higher-level safety instructions, information on personnel qualifications, safety and protective equipment, guidelines and standards as well as the disclaimer.

Specific safety instructions can be found in *chapter 4 Transport* [► S. 21], *chapter 5 Assembly* [► S. 24], *chapter 6 Operation* [► S. 40] and *chapter 7 Maintenance and Servicing* [► S. 43].

Accident prevention regulations

- è In addition to the instructions in this operation manual the local accident prevention regulations and national health and safety regulations are mandatory to apply.

1.1.1 Symbols and labelling

Display of a warning notice

Warnings are labelled with a signal word and pictogram and are highlighted separately. On the left-hand side of the warning, additional pictograms may specify an indicated hazards (in this example, warning of electrical voltage). Embedded warnings deviate from this scheme.



DANGER

Type and source of danger

Possible consequences if the warning is not observed.

- è Measures to avert the danger and its consequences.

Danger levels of warnings

The signal word, such as “warning”, describes the hazard level:

**DANGER**

High risk of an imminently hazardous situation resulting in serious injury or death.

**WARNING**

Medium risk of a potentially hazardous situation resulting in serious injury or death.

**CAUTION**

Low risk of a potentially hazardous situation resulting in a minor or moderate injury.

**ATTENTION**

Risk of a potentially hazardous situation resulting in damage to the product or property of others.

Explanation of warning and mandatory signs used in the operation manual

Warning of specific risks



General warning sign



Warning of suspended loads



Warning of falling objects



Warning of electrical voltage



Warning of obstacles in the head area



General mandatory sign



Observe the operating instructions

Other notes and symbols

è

Labelling an activity to be carried out (one step)



Labelling of page number references

1.

Labelling the first step

ō

Labelling a direct consequence of an action

✓

Marking the completion of an action

ÿ

Labelling of enumerations



Labeling of important information

2 Structure and function

Roller screen system

3 m Item no. 24000 04031

4 m Item no. 24000 04041

5 m Item no. 24000 04051

6 m Item no. 24000 04061

7 m Item no. 24000 04071

8 m Item no. 24000 04081

As well as special forms.

Below you will learn about the roller screen system MEGASCREEN S and its functionalities. Terms, designations and numbering from this chapter will be used again in later chapters.

The roller screen system MEGASCREEN S is a projection screen system for large image formats up to 8 × 6 m (W × H) and operates at a roll-up and roll-down speed of approx. 0.15 m/s.

The roller screen system MEGASCREEN S is supplied ex works with a completely pre-assembled screen by default. It was commissioned and set up in advance containing the roller screen itself as well as the G-FRAME 54 control unit with cabling and other accessories. These may vary in their characteristics depending on the particular order (please refer to your order confirmation and any order-related technical documents, drawings and circuit diagrams). The cables can be plugged from the control unit to the roller screen at both ends.

2.1 Roller screen MEGASCREEN S

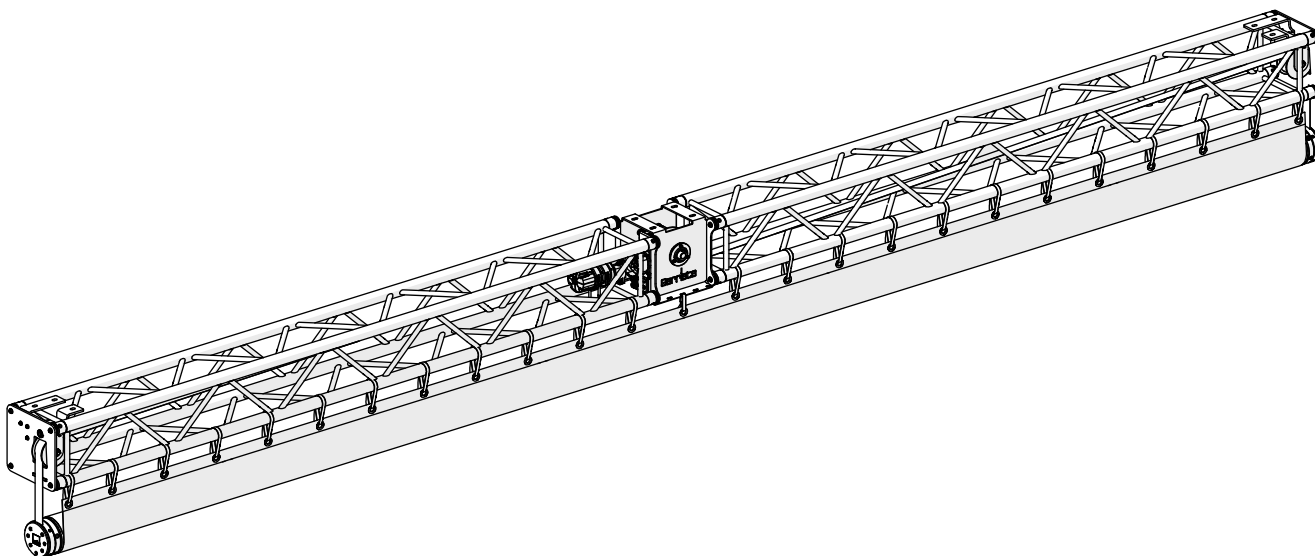


Fig. 1: Overview – Roller screen MEGASCREEN S

Roller screen

The roller screen MEGASCREEN S (see Fig. 1) consists of an aluminium truss construction (3/Fig. 2), an aluminium winding shaft (7/Fig. 2) and a centred motorization (1/Fig. 3) for winding the carrying straps (8/Fig. 2). The carrying straps are led over the guide rollers (1/Fig. 2), whereby the winding spring in the winding shaft winds the curtain upwards. The curtain is safed via the Gerriets clamp lock lashing straps (3/Fig. 3) to the aluminium crossbar.

The aluminium winding shaft for the front and rear projection (on PVC projection foil) has a diameter of 150 mm and an integrated device for retensioning via an intermediate ring with locking screws (5/Fig. 2). Furthermore, there is the option for the belt length compensation on the levelling screw to adjust the flatness (6/Fig. 2). The range limitation concerning the operating and emergency limit switch is carried out via gear

limit switches on the motor (see *chapter 2.1.1 Limit switch and emergency limit switch* [► S. 10]).

The attachments to the on-site support structure can be realized via the existing suspension positions on the drive and each guide roller unit (2/ Fig. 2 or 2/ Fig. 3) and optionally also via the truss itself. Here Gerriets offers the triangular suspension together with half coupler clamps available as an accessory (see *chapter 2.3 Accessories and spare parts* [► S. 15]) as a fastening option.

Number and designation:

- 1 Guide roller
- 2 Mounting holes on the sheet metal
- 3 Aluminium truss
- 4 Curtain
- 5 Intermediate ring with locking screws for tensioning the coiled spring
- 6 Levelling screw for belt length compensation
- 7 Aluminium winding shaft
- 8 Carrying strap

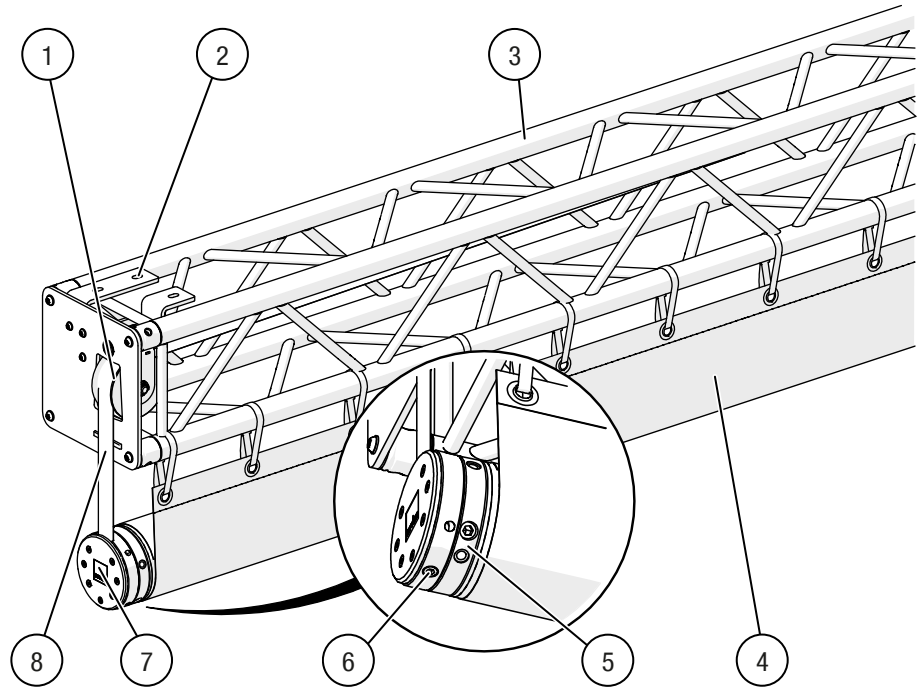


Fig. 2: Overview – MEGASCREEN S (1/2)

Number and designation:

- 1 Drive with bobbin
- 2 Mounting holes on the sheet metal
- 3 Gerriets clamp lock lashing strap
- 4 Signal connection
- 5 Power connection
- 6 Double brake

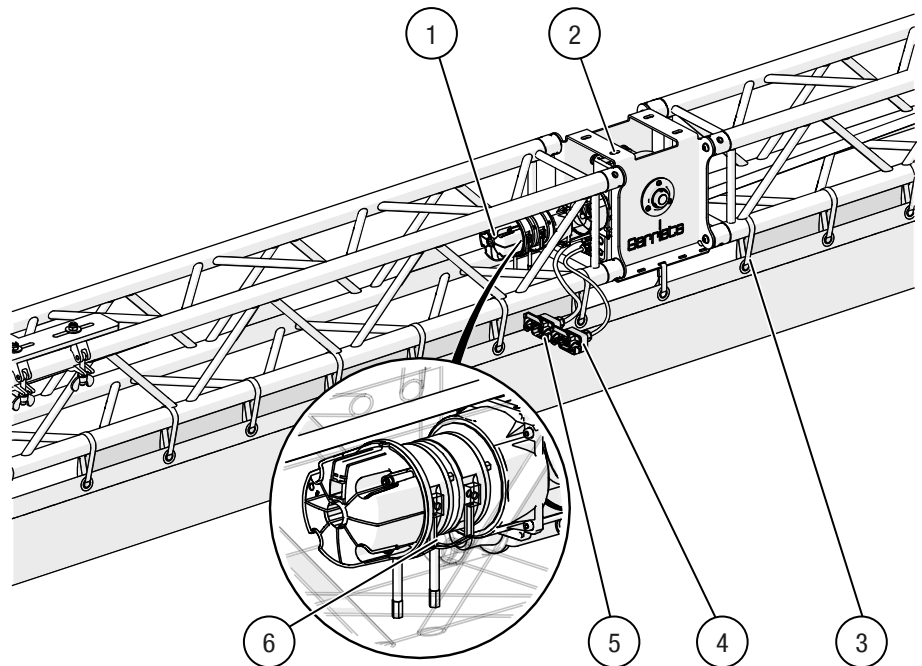


Fig. 3: Overview – MEGASCREEN S (2/2)

2.1.1 Limit switch and emergency limit switch

The roller screen MEGASCREEN S is equipped with gearbox limit switches on the motor unit for the pre-limit, operating limit and emergency limit positions “top” and “bottom”. If the pre-end position (3/ Fig. 4 – top or 4/ Fig. 4 – bottom) is reached, the drive slows down until it reaches the operational end position (2/ Fig. 4 – top or 5/ Fig. 4 – bottom). The emergency limit switch positions (1/ Fig. 4 – top or 6/ Fig. 4 – bottom) are for safety reasons and protect the screen, e.g. if the operating limit switches are overrun due to a defect.

Emergency limit switch positions

- 1 Emergency limit switch (top)
- 2 Operational limit switches (top)
- 3 Pre-limit switch (top)
- 4 Pre-limit switch (bottom)
- 5 Operational limit switch (bottom)
- 6 Emergency limit switch (bottom)

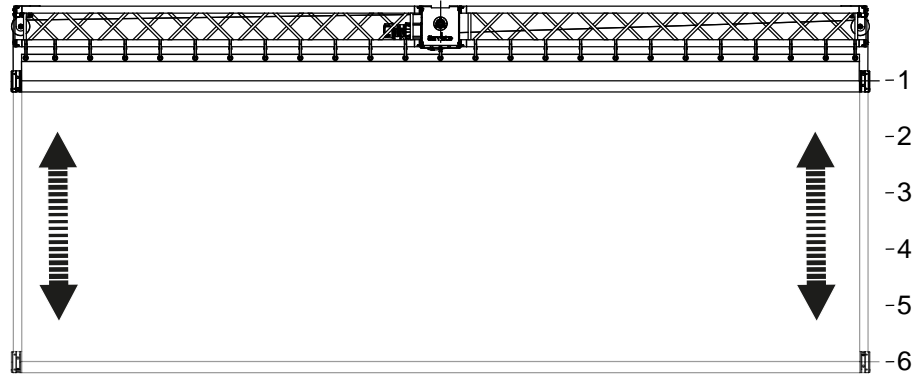


Fig. 4: Roller screen MEGASCREEN S – Limit switch and emergency limit switch

The limit switch positions on the MEGASCREEN S are preset to your requirements at the factory and no longer need to be adjusted. In case that an emergency limit switch position was reached, e.g. by a defect, the roller screen can be positioned back into the normal movement range using the key switch (see Fig. 12, [► S. 19]). In the emergency limit switch position, three windings of the fabric always remain on the tube for safety reason.

2.2 G-FRAME 54 control unit

The control unit G-FRAME 54 can move the roller screen up and downwards as well as regulate the speed of movement. It can be installed in a 19-inch rack, mounted on a wall or placed on a surface (see *chapter 5.1.1 Setting up the G-FRAME control unit* [► S. 25]). Furthermore, a second control point or a DMX module can be offered for the control unit when purchasing the corresponding control unit version. For operation via DMX, an additional external emergency stop button must be connected and, if necessary, further arrangements must be made for the intended use (see *chapter 10.1.1 Intended use* [► S. 55]).

2.2.1 Front: Control panel

On the front (see Fig. 5) you can see the control panel of the control unit. The main switch (8/ Fig. 5) is used to switch on the device, subsequently the control indicator light “ON” (1/ Fig. 5) lights up. The main switch (8/ Fig. 5) disconnects / connects the control unit from the power supply and can be secured in the 0-position using a padlock (lock not included in the scope of delivery).

Pressing and holding the “UP” button (2/ Fig. 5) makes the screen move upwards, with the “DOWN” button (4/ Fig. 5) it moves downwards. These buttons light up during the process. The potentiometer (5/ Fig. 5) can be used to change the

speed of the movement and consequently to reduce the maximum speed of the system.

The “STOP” button (3/ Fig. 5) indicates the presence of a problem (see *chapter 8 Problem solution* [► S. 50]). Pressing the “Emergency stop” switch (6/ Fig. 5), the entire system shuts down immediately. The key switch (9/ Fig. 5) must only be actuated with the key to move out of the emergency end (bottom) when the system has passed the operating end (bottom).

The optional internal/external switch (7/ Fig. 5) can be used to switch between internal and external triggering options (via second control point or DMX control unit).

Number and designation:

- 1 Indicator light control “ON”
- 2 Button for moving the screen upwards
- 3 Indicator light “error message”
- 4 Button for moving the screen downwards
- 5 Potentiometer for speed
- 6 Emergency stop
- 7 Internal/external switch (only available if a second external console is provided)
- 8 Main switch
- 9 Approach and release emergency limit switch

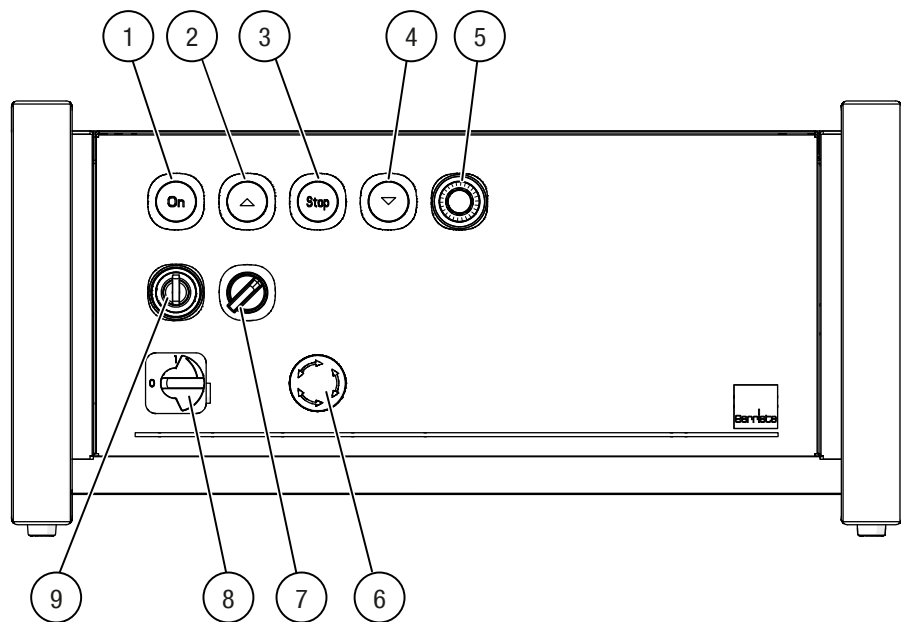


Fig. 5: Front – Control unit G-FRAME 54

2.2.2 Rear: Connections and settings

There are several connection and adjustment options at the rear. The power connection of the G-FRAME control unit is made via the cable gland (10/ Fig. 6) and is connected inside the control unit. The plug from the load cable (2/ Fig. 6) supplies the motor unit of the roller screen with power. Control commands are transmitted via the control cable plug (3/ Fig. 6) to the roller screen.

Optional second control point / control via DMX

Operation via a second control point or DMX is optional. In these cases, you will find the connection on the back of the G-FRAME control unit (4, 5 and 6/ Fig. 6).

The knurled screw (7/ Fig. 6) can be used to open the cover of the DMX address rotary switches (8/ Fig. 6). With these DMX address setting wheels, the DMX start address can be set. The associated DMX status LED (9/ Fig. 6) indicates the status of the DMX connection. Operating with DMX (start signal e.g. via DMX control unit) or looping of the signal is possible via the *DMX-IN socket* (5/ Fig. 6) or *DMX-OUT* socket (6/ Fig. 6).

Number and designation:

- 1 Emergency stop connection (optional)
- 2 Plug load cable
- 3 Control cable
- 4 Connection of second control point
- 5 *DMX-IN* socket (optional)
Second control panel connection (optional)
- 6 *DMX-OUT* socket (optional)
- 7 Knurled screw for cover DMX setting
- 8 Rotary switches for DMX address (optional)
- 9 DMX status LED (optional)
red = no connection / error
green = ready for use
- 10 Power supply (customer-side clamping)

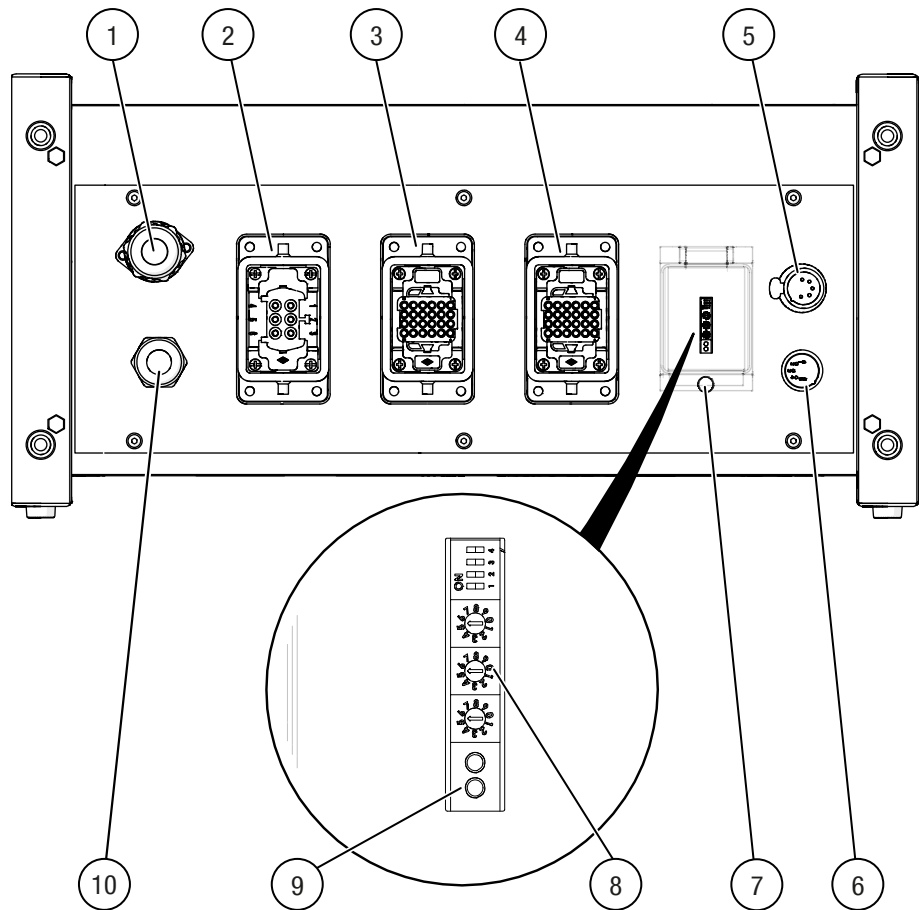


Fig. 6: Rear – Control unit G-FRAME 54

Control variants

The control unit G-FRAME 54 can be ordered in the standard version or with an additional DMX board. Both versions differ in their features and connection options:

- G-FRAME 54 MEGASCREEN S
Item no. 32420 00801
Incl. 25 m connection cable for roller screen
- Additional board for DMX – up/down and speed
Item no. 24800 09121
Recommended accessories: Emergency stop button for DMX operation
Item no. 24800 08011

2.2.3 Wiring diagram

Connection of the roller screen system

Below the connection diagram of the roller screen MEGASCREEN S with control unit G-FRAME 54 is shown (see Fig. 7).

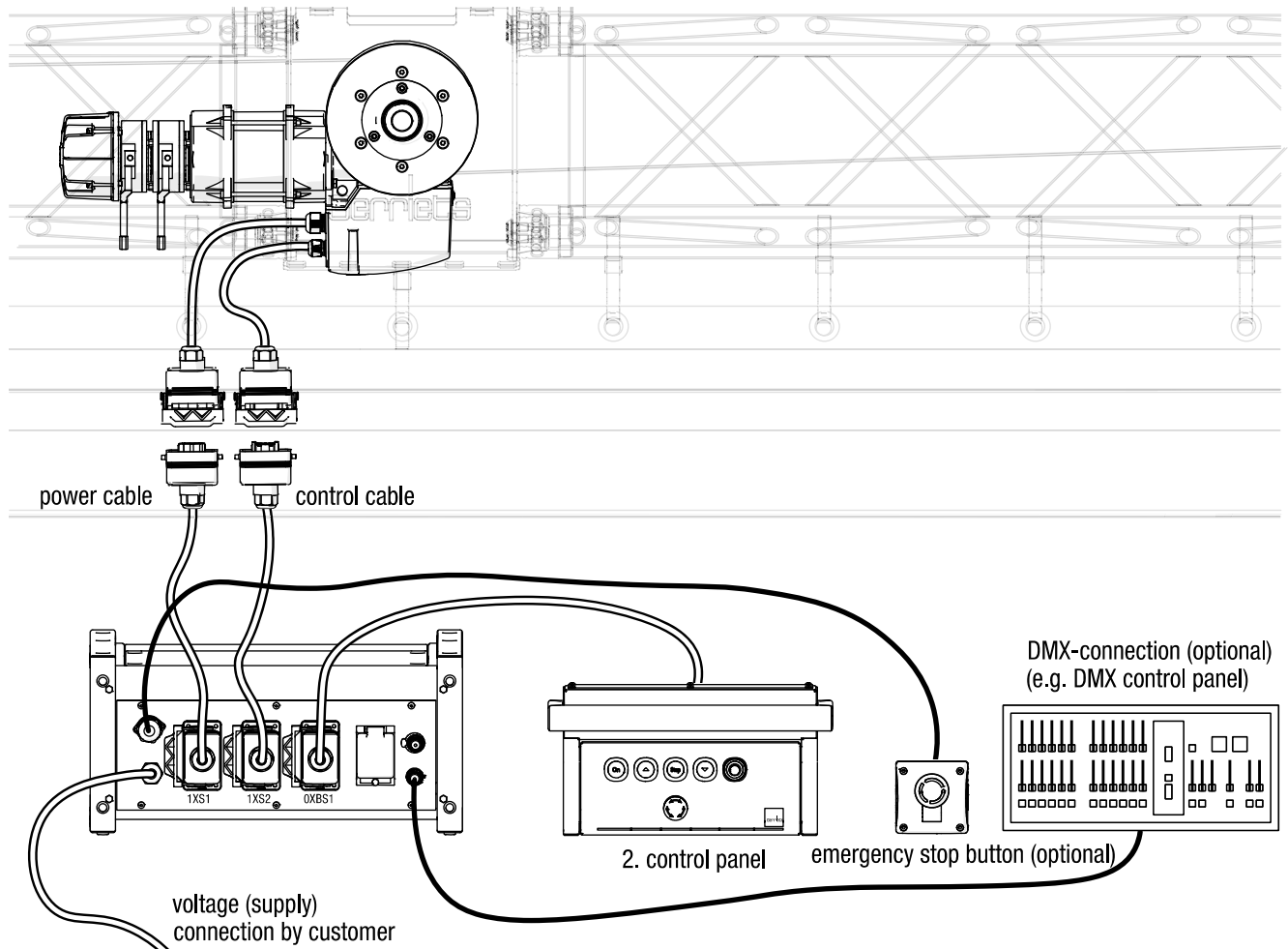


Fig. 7: Connection diagram – Control unit G-FRAME 54 MEGASCREEN S

2.2.4 DMX control

For communicating with an external DMX control unit, the MEGASCREEN S-control unit must be assigned a DMX start address. On the rear of the G-FRAME control unit, there is a cover over the red rotary switches on the DMX board. With these, the DMX address can be set to the desired value (see **8**/Fig. 6). The DMX control unit is connected to the “*DMX-IN*” interface at the rear. The MEGASCREEN S control units support the DMX512, DMX512-A and RDM protocols.

DMX addresses and commands

Start address: Move upwards

Start address +1: Move downwards

Start address +2: Set speed



When controlled via DMX, the roller screen MEGASCREEN S is no longer compliant and the operator must take instructions or measures to ensure safety (see also *chapter 10.1.1 Intended use* [► S. 55]).

DMX status LED

If the status light next to the address selection lights up green, the system is ready for control via DMX. If the status light lights up red, there is an error (e.g. DMX cable is not plugged in; see also *chapter 8 Problem solution* [► S. 50]).

Remote Device Management (RDM)

RDM is an extension of DMX512 and optimizes the DMX protocol by adding bidirectional communication between the controller and connected devices. The master device assigns DMX addresses to selected devices.



Setting the DMX address may have no effect when connected to an RDM master that overwrote the address.
A reset is possible by selecting the start address 900.

2.3 Accessories and spare parts

! ATTENTION

Material damage due to non-original spare parts and accessories

The use of parts from other manufacturers may jeopardize the proper functioning of the MEGASCREEN S and lead to malfunction or damage to the system or third-party property.

è Only use original parts and accessories from Gerriets GmbH

1 Triangular suspension

Item no. 43030 00201

2 Control and drive cables for Variable speed 25 m (incl. in the scope of delivery) Control and drive cable extension

5 m – Item no. 24800 07304

15 m – Item no. 24800 07305

25 m – Item no. 24800 07306

3 Wall mounting plate G-FRAME / Mounting bracket for 19-inch rack (included in scope of delivery)

4 External emergency stop button for DMX operation

Item no. 24800 08011

5 Second control point for variable speed incl. cable and wall mounting plate 337 × 125 × 175 mm (L × H × W)

Item no. 24800 07201

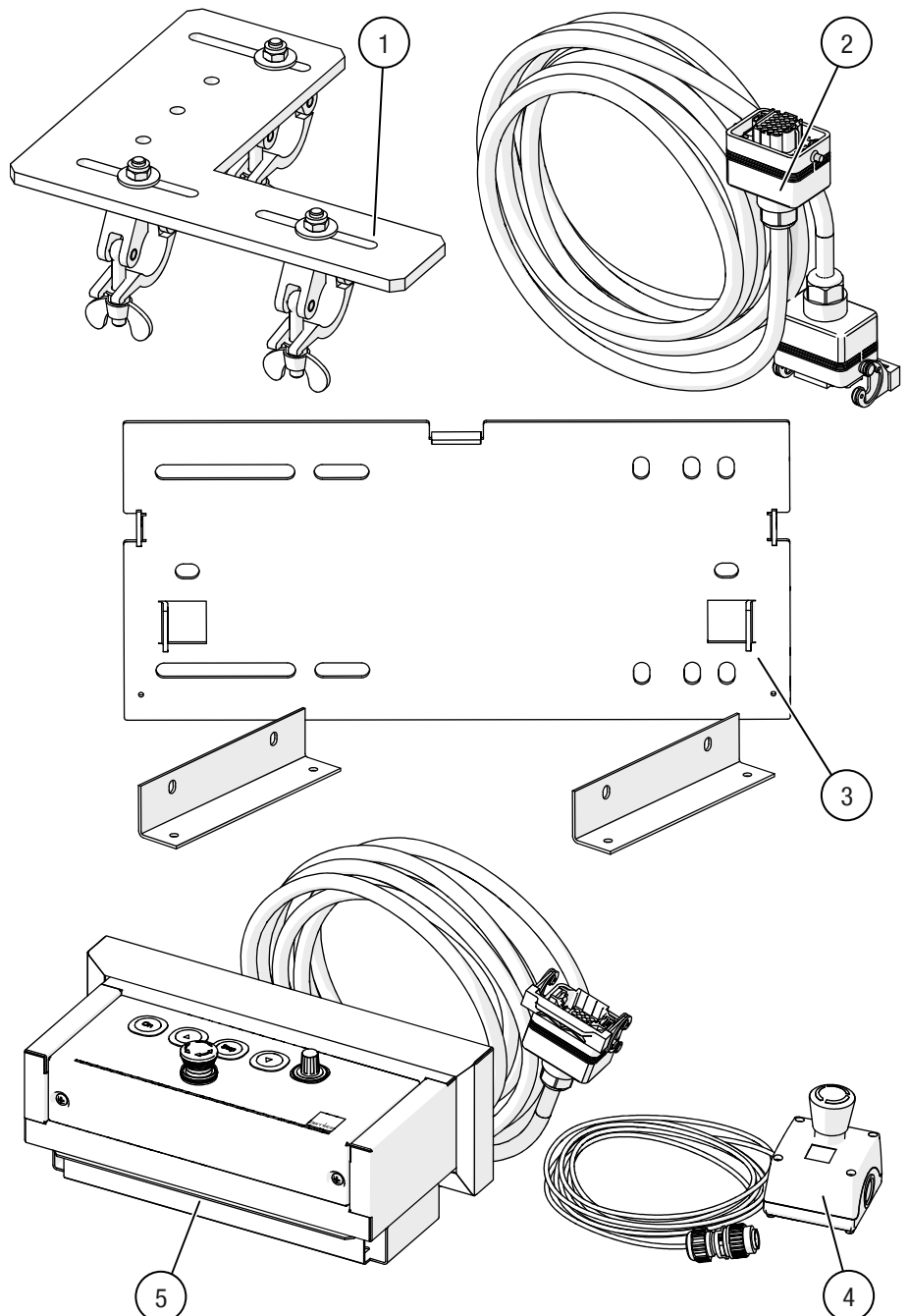


Fig. 8: Accessories – roller screen system MEGASCREEN S

3 Technical data

3.1 Ambient conditions

Ambient conditions and operating parameters

Parameters	Value
Permissible ambient temperature	+20 °C to +40 °C
EMC	Correspond to the EMC-Directive (2004/108/EC) and the EMC standards for use in industrial environments.
Moisture/wetness	Not suitable for use in damp/wet environments, corresponding to insulation class IP40
Connection	Socket outlet with line protection 10A, outer conductor with RCD Earth current monitoring

Tab. 1: roller screen system – Ambient conditions and application parameters

ATTENTION

Damage to the roller screen system due to wetness and wind

The roller screen system MEGASCREEN S is not designed for use in wet or windy conditions and may be damaged.

- è Use the roller screen system preferentially indoors.
- è Protect the roller screen system carefully from moisture, wetness, and wind during outdoor installations.

3.2 MEGASCREEN S roller screen

Mechanical data

Parameters	Value
Weight depends on the pipe length (excluding curtain, control and connection cable)	3 m – 170 kg
	4 m – 180 kg
	5 m – 190 kg
	6 m – 200 kg
	7 m – 210 kg
	8 m – 220 kg
Dimensions	See Fig. 9
Load capacity	max. 40 kg
speed	0.15 m/s
Fastening	truss, triangular suspension, defined drill holes on metal sheets.
Max. Lifting height	6 m (may vary depending on order)

Tab. 1: Roller screen MEGASCREEN S – Mechanical data

Description of the dimensions:

1 Pipe length (x)

2 Screen width
 $\text{pipe length } (x) - 20 \text{ mm}$

3 Total length
 $\text{pipe length } (x) + 125 \text{ mm}$

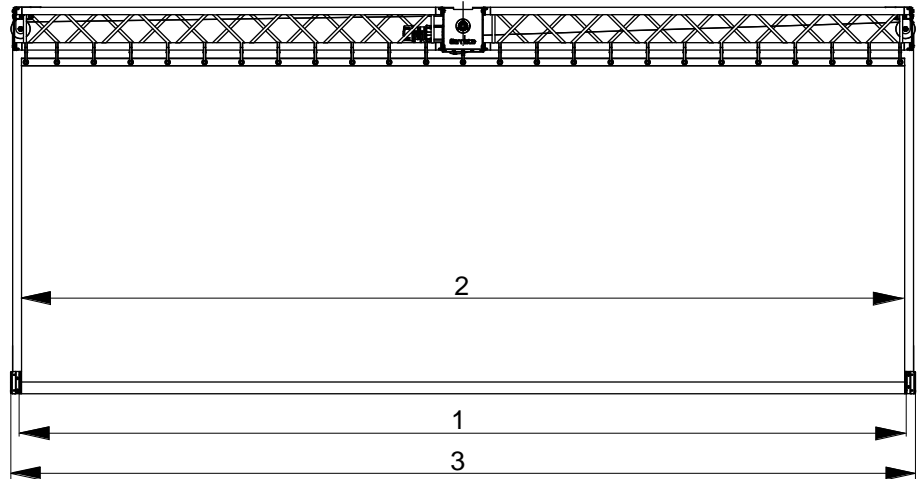


Fig. 9: Roller screen MEGASCREEN S – Dimensions front view

Description of the dimensions:

1 Wide of the roller screen (total)

2 Height of the roller screen
(retracted)

3 Height of the roller screen with
triangular suspension (optional)

4 Wide of the roller screen with
triangular suspension (optional)

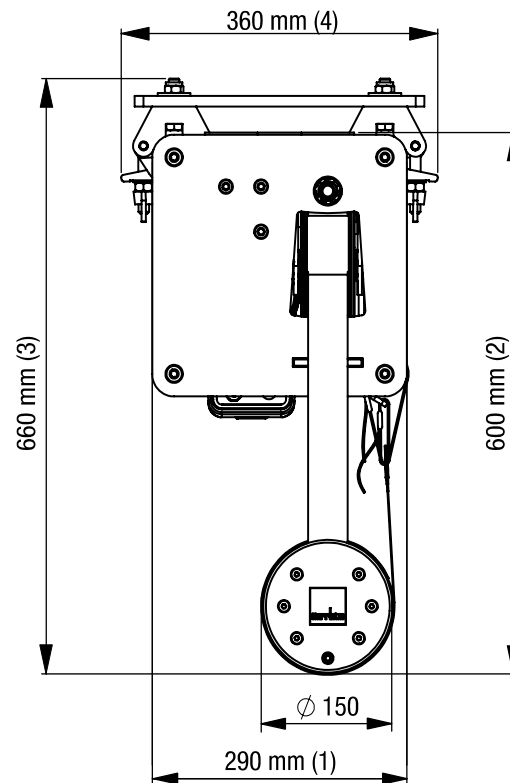


Fig. 10: Roller screen MEGASCREEN S – Dimensions side view

Minimum dimension of the suspension points of the roller screen

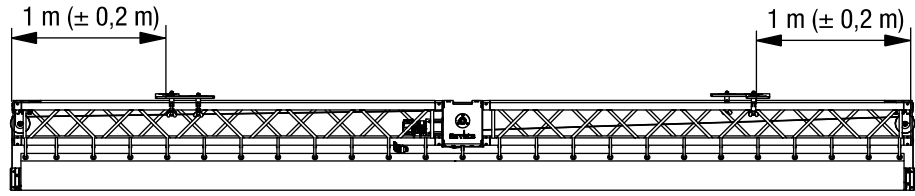


Fig. 11: Roller screen MEGASCREEN S – Suspension points



When attaching the MEGASCREEN S with only two points, we recommend a distance of 1 m (± 0.2 m) from the end of the truss for all system widths (from 4 to 8 m).

Electrical data

Parameters	Value
Electrical data (power supply)	3 × 230 V / 400 VAC, 0.55 kW, 50 Hz
Insulation class	IP54
Electrical connection	<ul style="list-style-type: none"> · Power cable rectangular connector with bracket · Control cable rectangular connector with bracket
Control unit connection cable (included)	25 m
Operating mode / motor duty cycle (short-time operation, constant load)	S3
Rated motor current (A)	4,1 / 2,4
Max. Switches per hour (opening & closing)	20
On-site fuse protection (A)	10

Tab. 2: Electrical data – Roller screen MEGASCREEN S

3.3 Control unit G-FRAME 54

Mechanical data

Parameters	Value
Weight	16.5 kg
Dimensions	See Fig. 12 and Fig. 13

Tab. 3: Mechanical data – Control unit G-FRAME 54

Dimensions: Front view

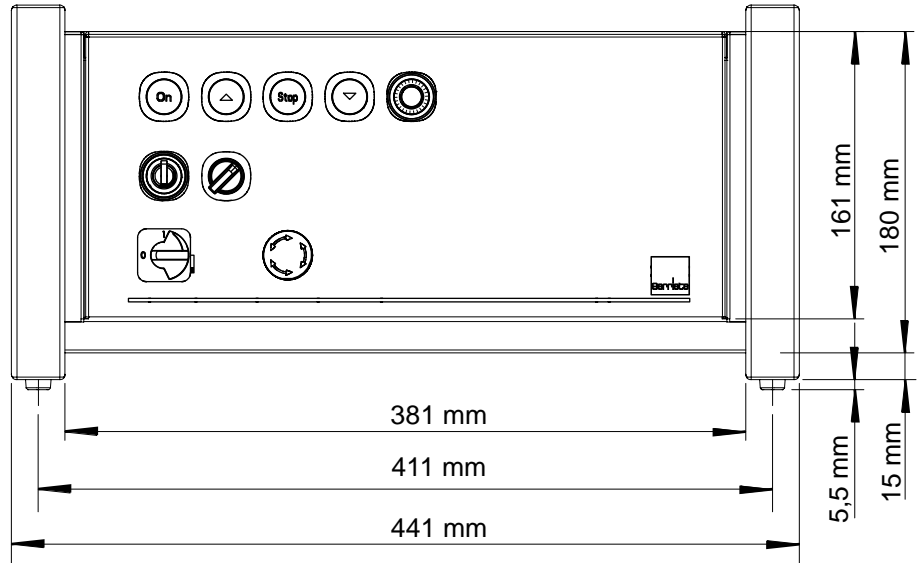


Fig. 12: Front view – G-FRAME 54 control unit (example)

Dimensions: Side view

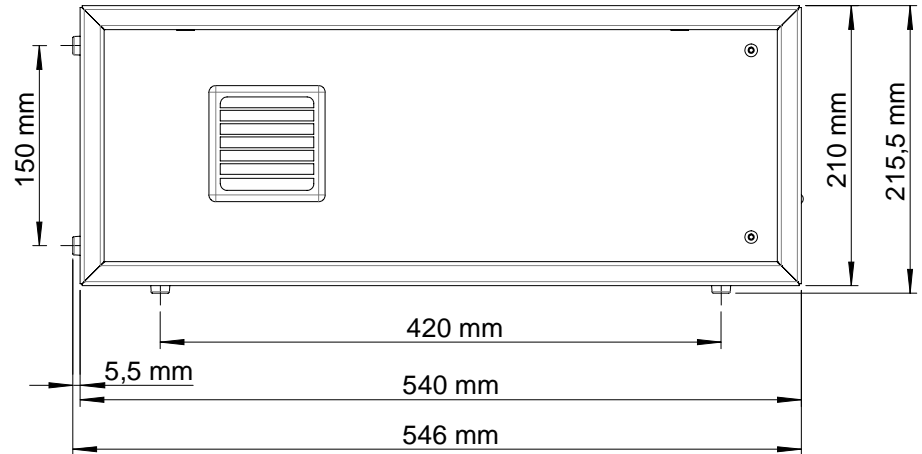


Fig. 13: Side view – G-FRAME 54 control unit (example)

Electrical data

Parameters	Value
Electrical data	<ul style="list-style-type: none"> · 230 V AC, 8 A, 50 Hz · 120 V AC, 15 A, 60 Hz
Insulation class	IP40
Electrical connection	Emergency stop <i>///</i> socket, cable gland for power supply connection, MEGASCREEN S connection (power, control), second control point connection, <i>DMX-IN</i> socket, <i>DMX-OUT</i> socket.
Connection cable (exclusive)	Customer-side clamping <ul style="list-style-type: none"> · NYM-J 3 × 1.5 mm²

Tab. 4: Electrical data – Control unit G-FRAME 54

4 Transport

4.1 Transport



- è Check the packaging for any transport damage. Keep records and file a complaint immediately if the product is damaged.
- è Ensure that the delivery is complete by checking the delivery note.
- è Make sure to file a complaint about any missing or damaged parts immediately.
- è If necessary, keep the original packaging for later storage.
- è Consider the safety instructions in *chapter 10 Safety* [► S. 55].
- è Carry out a visual inspection after each transport and periodically during the life cycle.

! ATTENTION

Material damage due to the not tempered roller screen

When using the roller screen system MEGASCREEN S at excessively low temperatures, the brittleness of the screen film in the low temperature range can cause damage.

- è Lead the roller screen systems MEGASCREEN S slowly to room temperature before first use, after transport or unheated rooms
 - è Only operate the roller screen within the permitted temperature range (see *chapter 3.1 Ambient conditions* [► S. 16]).
-



! WARNING

Personal injury and property damage due to incorrectly executed or improper transport

Incorrect or improper transport can cause goods to fall and result in personal injury or material damage.

- è Wear the necessary personal protective equipment (safety shoes, gloves).
 - è Use suitable aids or carrying devices (e.g. lifting devices (e.g. lifting devices, carrying straps).
-

4.2 Release and attach the transport lock

After the delivery, the roller screen MEGASCREEN S is secured with a transport lock in a wooden transport crate. The securing device protects the screen material and must be removed before installation or reattached before transport.

Materials / Tools

Quantity	Materials / Tools
1	Hexagon wrench AF 13 (not included in scope of delivery)
1	TORX®-key T30 (not included in the scope of delivery)
1	Slotted screwdriver (not included in the scope of delivery)

Table 5: Materials and tools required for wall mounting

Releasing the transport lock

1. Open the transport crate.
2. Lift the MEGASCREEN S roller screen out of the crate using suitable lifting gear including the transport lock and take the weight off the transport feet.
3. Loosen the screw connection of the threaded rods on one side using an AF 13 hexagon wrench (see Fig. 14).
4. Loosen the pipe clamps on both transport feet by levering the pipe clamps open with a flat-blade screwdriver (the design of the pipe clamps may vary depending on the manufacturer; see Fig. 14).

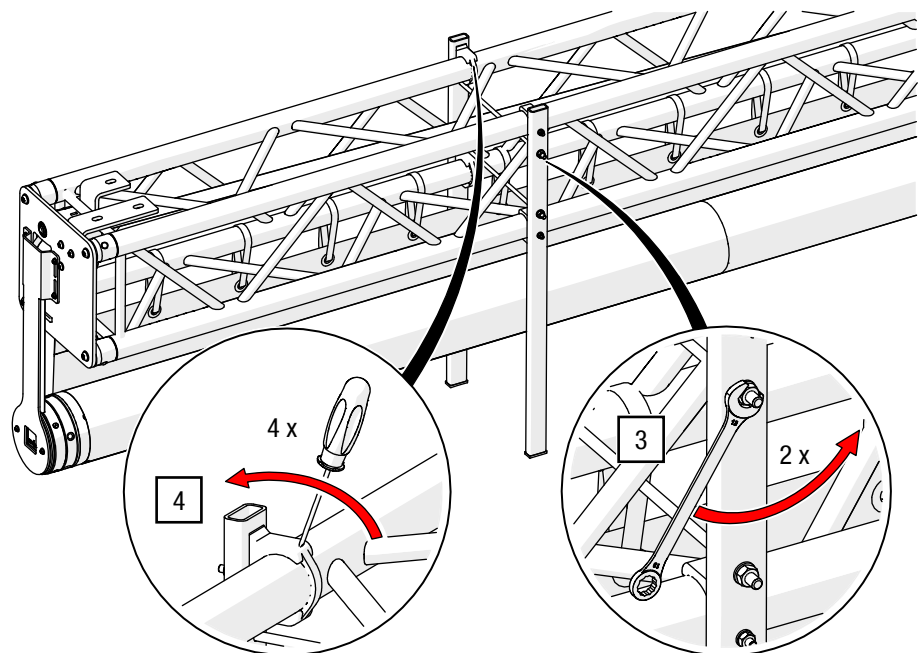


Fig. 14: Loosen transport feet

- Loosen the locking plates on the sides with a TORX®-key T30 (see Fig. 15).

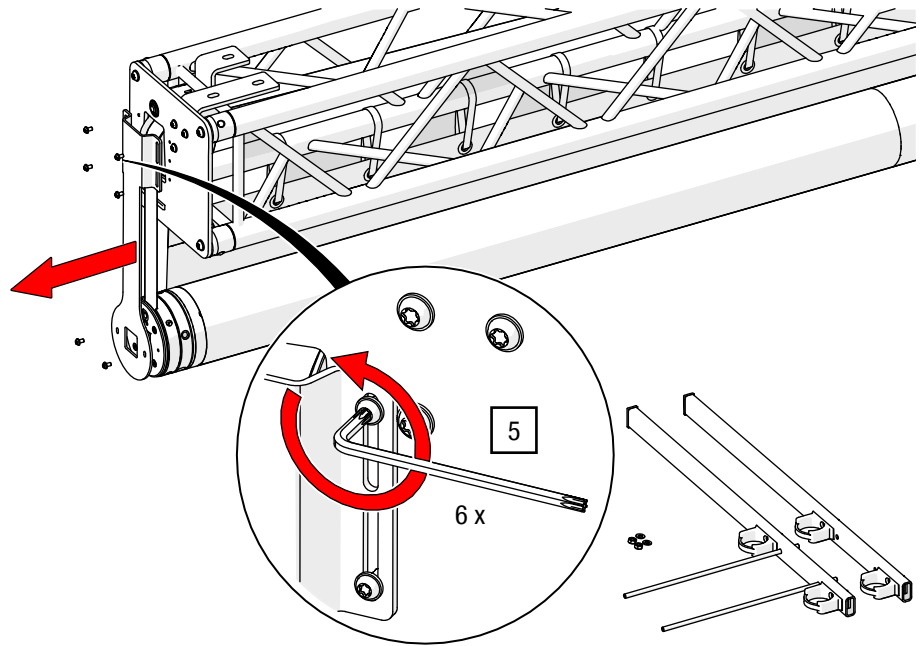


Fig. 15: Release transport lock

- Check that all components are present in accordance with the scope of delivery.



Save the transport lock including all screws and, if necessary, the transport crate for later storage or transport.

Attaching the transport lock

- Move the roller screen MEGASCREEN S to the end position – operational end (top).
 - Detach the roller screen from its mounting situation (according to the customer's installation).
 - Attach the pipe clamps of the transport feet (design may vary depending on the manufacturer) to the truss of the roller screen.
 - Screw the threaded rods of the transport feet together with a hexagon wrench AF 13 hand-tight.
 - Screw the securing plates to the side of the roller screen using a TORX®-key T30 hand-tight.
- ☐ The transport lock is correctly attached. Position the roller screen in the transport crate for further transport or storage.

5 Assembly

Notes on
security



- è Consider the safety instructions in *chapter 10 Safety* [► S. 55]
- è Installation of the roller screen system by qualified personnel only.
- è If you encounter problems during installation that you cannot solve yourself, please let us know and call us.



! DANGER

Danger to life due to electrical voltage

When working on the electrical installation, there is a danger to life due to high voltages.

- è Never open the housing while it is connected to a power source.
- è Ensure that the system is de-energized before working on and in the terminal box.
- è Electrical installation works by qualified specialists only.
- è If the power supply is damaged, switch off immediately and arrange for repairs.
- è Keep moisture away from live parts.
- è Never bypass the fuses or put them out of operation.



! WARNING

Personal injury and property damage due to falling objects

If the load-bearing capacity of the ceiling structure or individual components is too low, objects may come loose and fall, resulting in death, serious injury or damage to property.

- è Take into account the maximum load-bearing capacities of the overall system and individual assemblies.
 - è Ensure that the existing substructure of the building has sufficient load-bearing capacity for the installation of the MEGASCREEN S.
 - è Check whether the building's stability certificate covers the additional load or whether even a further check by a structural engineer or reinforcement is necessary.
 - è Do not make any changes, additions or conversions to the roller screen or individual components of the system unless authorized in writing by Gerriets.
 - è Always assemble the screw connections of the parts with the aid of the specific assembly instructions and tables for tightening torques.
 - è Always insert securing elements such as rings, clips and pins correctly and check their effectiveness.
 - è Secure the load with secondary fuses.
 - è Check sling gear for suitability and permissible load-bearing capacity before use.
 - è If you are unsure, please contact the company Gerriets GmbH.
-

5.1 Installing and setting up the control unit

Requirements for mounting the control unit

Component	Necessary requirements
Electrical connection	<ul style="list-style-type: none"> · Alternating voltage 230 Volt, 50 Hz. Socket outlet with line protection 10A. · All phase conductors with RCD Earth current monitoring.

Table 6 Requirements for mounting and setting up the control unit

WARNING

Risk of injury if original parts are not used

Failure to use original parts may jeopardize the function and safety of the roller screen system may be impaired.

- è Only use original parts from Gerriets GmbH unless otherwise specified.
- è If you are unsure about your project, please contact the company Gerriets GmbH.

5.1.1 Setting up the G-FRAME control unit

Below you will find the instructions for the three different installation options for the G-FRAME control unit: on the table, on the wall or on a 19-inch rack.



There must be a clear view of the danger zone from the operating position. If necessary, the operator must be instructed by a second person with an unobstructed view of the danger zone while moving the unit. It is also possible to monitor the danger zone using a video system.

Installation location: Table

The base (table, shelf or similar) must be at least 440 × 220 × 650 mm (W × H × D) in size and load-bearing.

ATTENTION

Material damage due to unsuitable installation of the control unit

Despite its rubber feet, the control unit can fall off the table and be damaged if the cables are pulled or bumped.

- è Place the control unit on a surface with a raised edge.
- è Protect the control unit from a third-party interference during operation.
- è Secure and route the cables properly.

Installation location: Wall

Prerequisites
Wall mounting

Component	Necessary requirements
G-FRAME control unit	<ul style="list-style-type: none"> The control panel is mounted on the front of the horizontal control unit (see Fig. 16) The control unit is disconnected from the power supply
Wall mounting plate	The wall mounting plate is screwed into the intended mounting position with 4 × hexagon head screws (Ø hole 8.5 mm; not included in the scope of delivery).

Tab. 7 Requirements for wall mounting

- è Consider the load-bearing capacities of the wall material and screw connection.

Materials / Tools
Wall mounting

Quantity	Materials / Tools
1	Allen key AF 3 (not included in the scope of delivery)
1	Allen key AF 6 (not included in the scope of delivery)
1	Control unit G-FRAME 54
1	Wall mounting plate
1	Hexagon socket screw M8×30

Table 8: Materials and tools required for wall mounting

Instructions for wall mounting

- De-energize the control unit before working in the housing and prevent against being switched on again.
 - ⚠ WARNING:** Electrical voltage can cause death or serious injury.
- Loosen the control panel with the Allen key AF 3 on both sides (see Fig. 16).
- Lift the control panel from the control box (see Fig. 16).

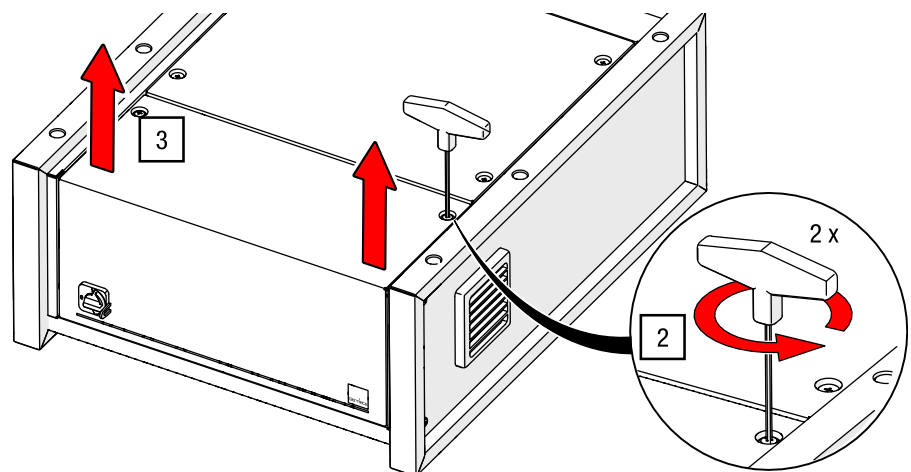


Fig. 16: Release and lift the control panel (control model may differ)

Positioning the detached control panel

4. and 5. Rotate the control panel by 180° and then tilt it by 90° so that it is orientated as shown in Fig. Fig. 18 (see Fig. 17).

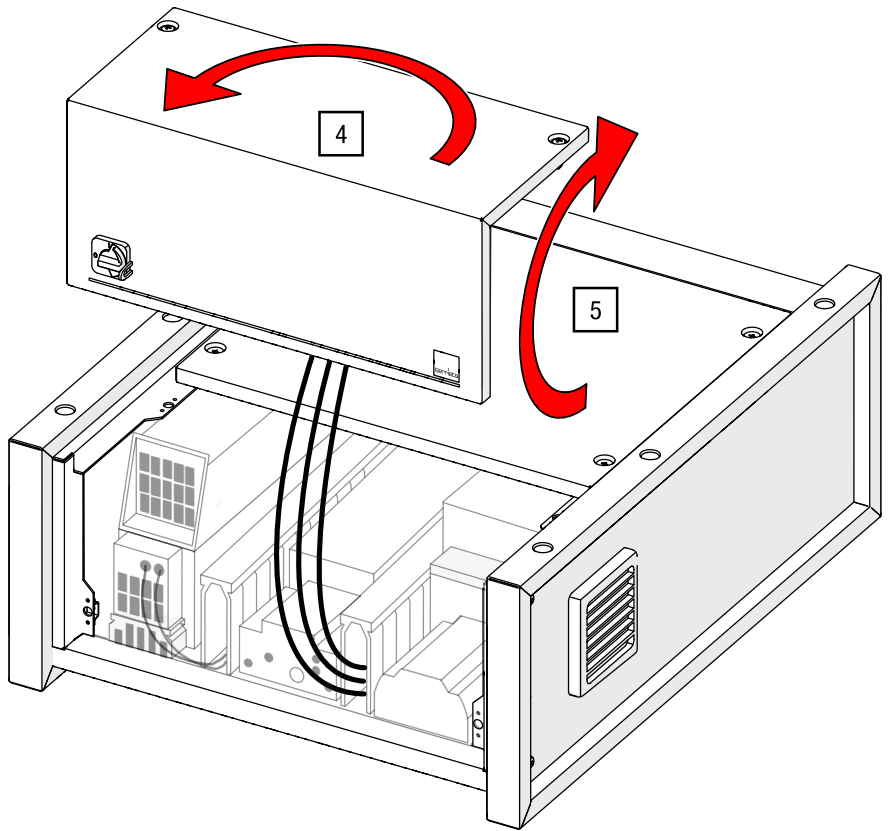


Fig. 17: Rotate detached control terminal (control model may differ)

Insert control panel

6. Place the control panel back on the control housing (see Fig. 18).



Do not screw the control panel in place yet. You will need to access the inside of the housing for further steps during installation.

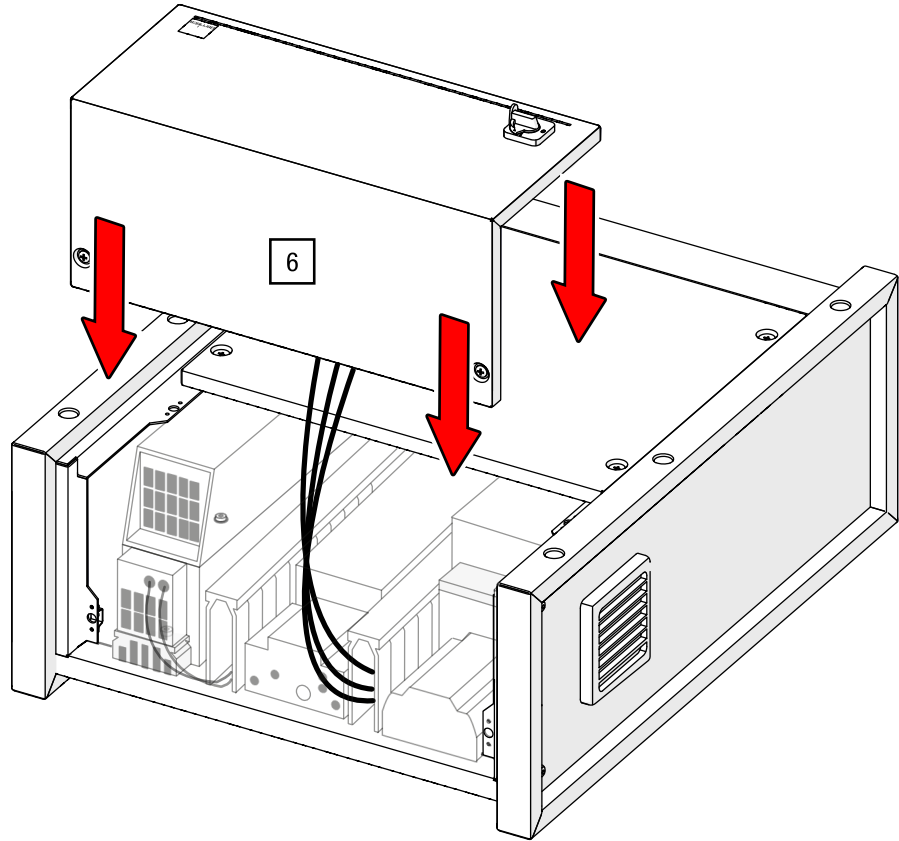


Fig. 18: Insert terminal (control model may differ)

Screw the control unit to the wall

7. Set up the control unit and hang it in the two hooks of the wall mounting plate already pre-mounted on the wall using the slots provided on the back (see Fig. 19).
8. Lift off the control panel and secure the control unit to the wall mounting plate using the enclosed M8 × 30 hexagon socket screw (see Fig. 19).



You will find the open threaded hole for the locking screw in the centre of the upper interior of the control unit. The locking screw is tightened with an Allen key AF 6 until it presses against the wall mounting plate.

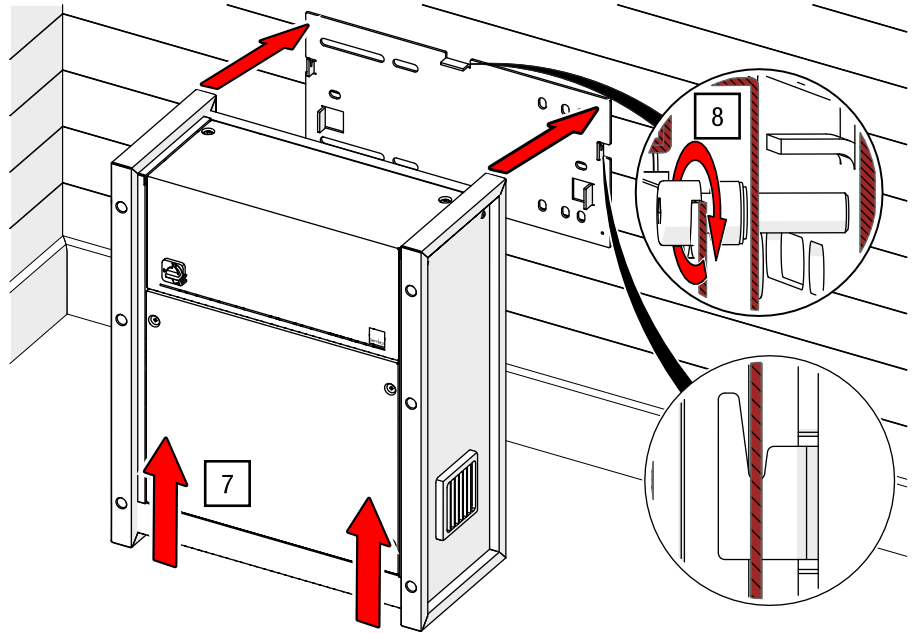


Fig. 19: Fixing the control unit to the wall mounting plate (control unit model may vary)

9. Put the control panel in the control unit housing and fasten the control panel with the Allen key AF 3.
 10. Check that the control unit is firmly seated.
- ü The control unit is now firmly mounted on the wall and ready for installation. You will find the cable connections at the bottom.

Installation location: Server cabinet/rack



Use a second person or lifting aids to position and screw the control unit into the 19-inch rack.

Component	Necessary requirements
G-FRAME control unit	The control panel is mounted on the front of the horizontal control unit (see Fig. 20).
19-inch rack (customer-side)	The rack is accessible from the rear for connecting the cables.

Tab. 9: Requirements for rack mounting

Materials / Tools

Quantity	Materials / Tools
1	Allen key AF 4 (not included in the scope of delivery)
1	Control unit G-FRAME 54
2	Mounting bracket for 19-inch rack
4	Hexagon socket screw M5×10 (pre-assembled on the housing)
4	Mounting material (according to the 19-inch rack used; not included in the scope of delivery)

Tab. 10: Materials and tools required for rack mounting

Loosen screws

1. Loosen the 4 pre-assembled hexagon socket screws on both sides in the front area of the housing using an Allen key AF 4 (see Fig. 20).

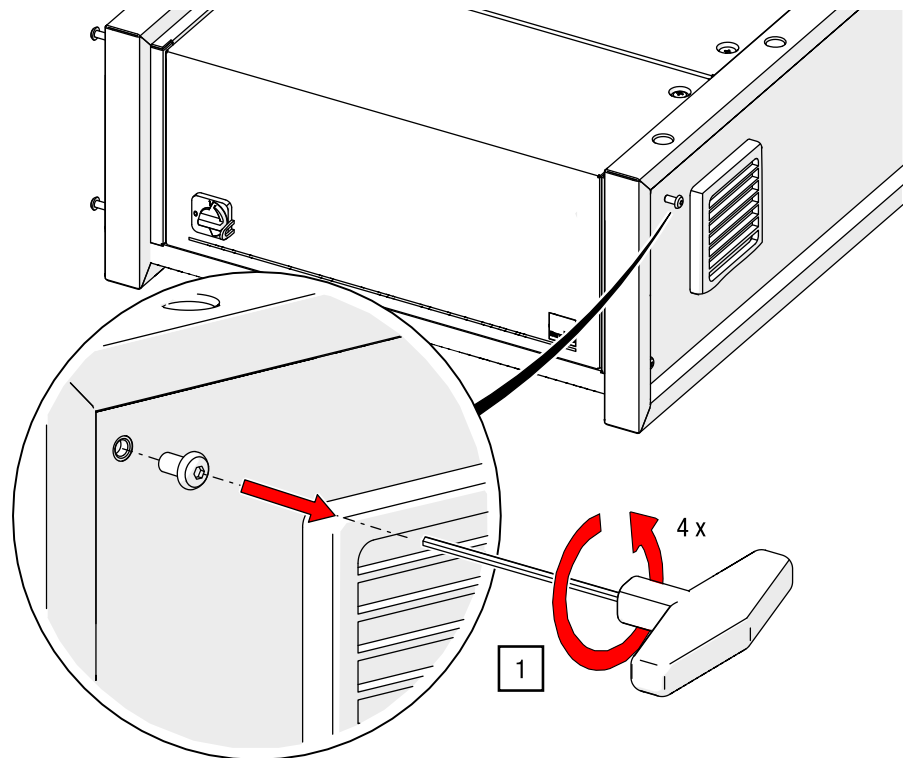


Fig. 20: G-FRAME control unit Screws for. Loosen mounting bracket screws (control unit model may differ)

Screw on the rack mounting bracket

2. Screw the mounting brackets to both sides of the G-FRAME control unit using the hexagon socket screws (see Fig. 21).

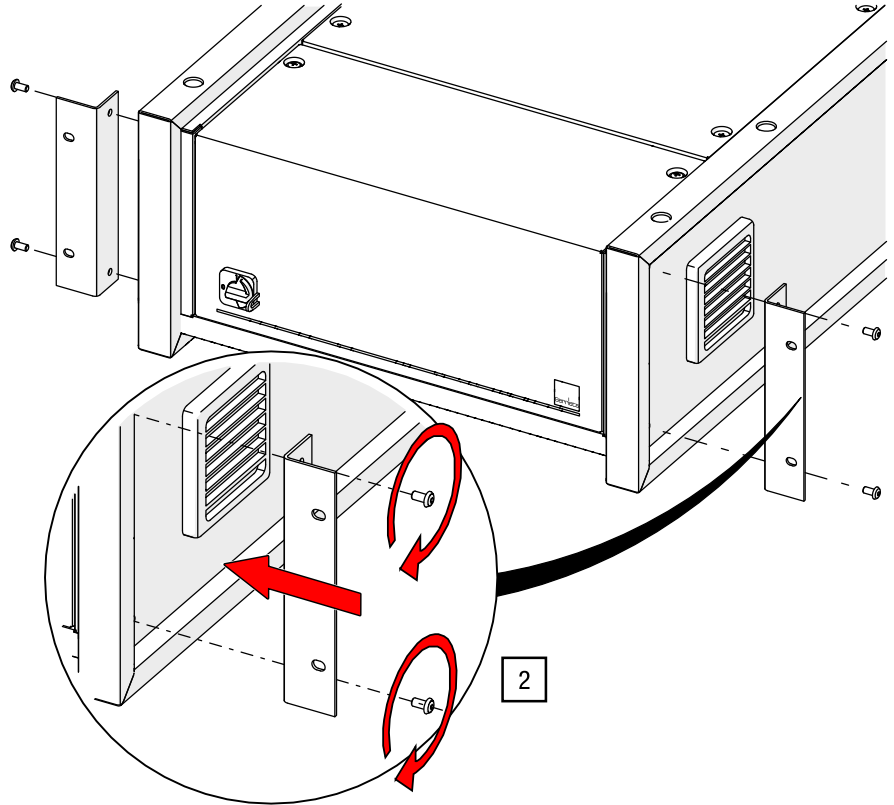


Fig. 21: Screw on the rack mounting bracket (control unit model may vary)

Screw the G-FRAME control unit into the rack

3. Position the G-FRAME control unit in the 19-inch rack and screw it in place using suitable mounting material (see Fig. 22).

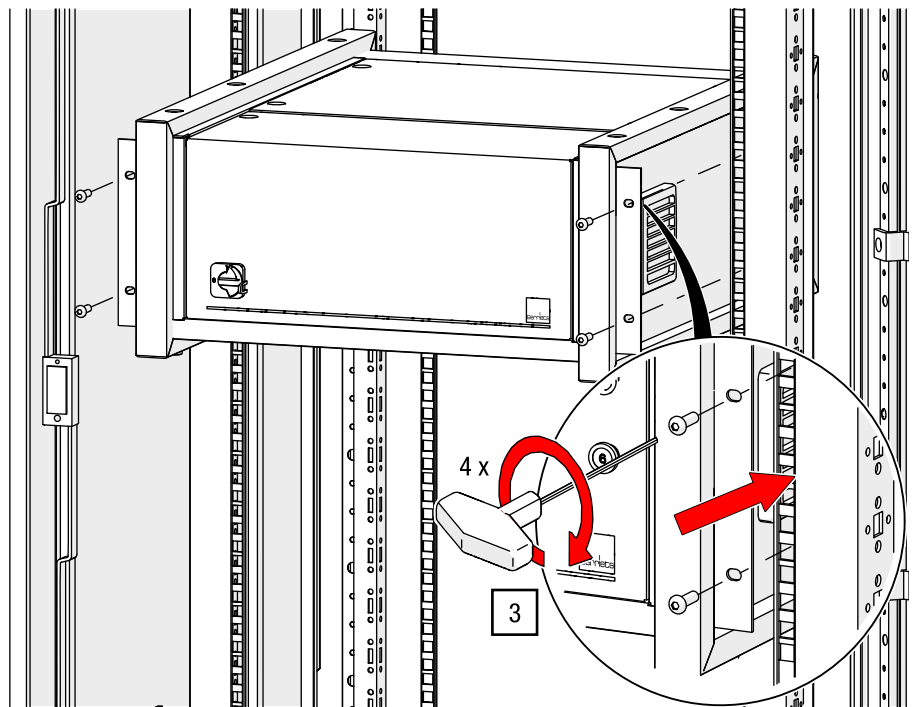


Fig. 22: Screwing the G-FRAME into the rack (control unit model may differ)

5.1.2 Connecting the G-FRAME control unit

In *chapter 2.2 G-FRAME 54 control unit* [► S. 10] the connections for the G-FRAME control unit are described. Furthermore, you will find in *chapter 2.2.3 Wiring diagram* [► S. 13] information about the connection options for the control unit.

Connect G-FRAME

1. De-energize the control unit before working in the housing and prevent against being switched on again.

⚠ WARNING: Electrical voltage can cause death or serious injury.

2. Loosen the control panel with the Allen key AF 3 on both sides and lift off the control panel (see Fig. 23).

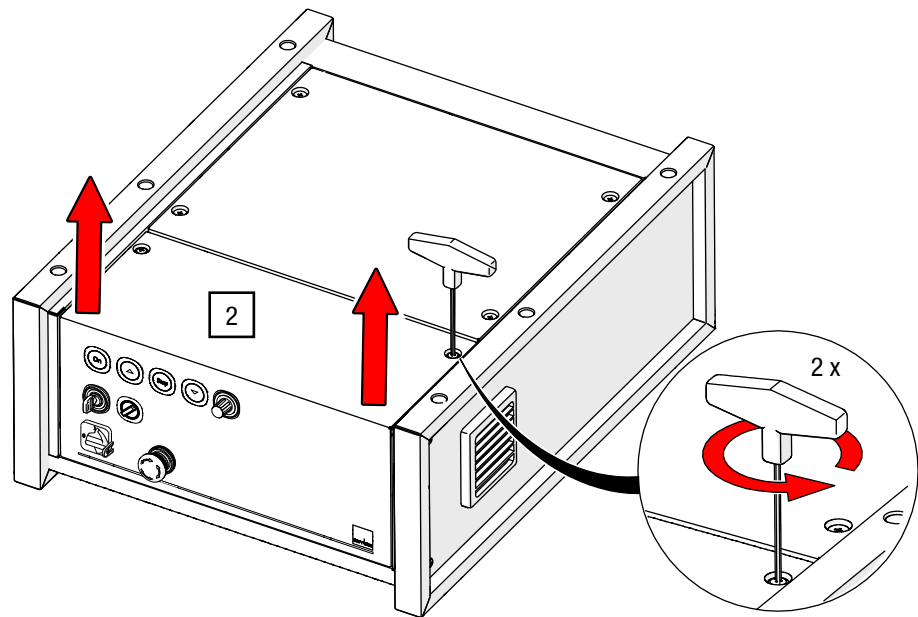


Fig. 23: G-FRAME 54 – Releasing and lifting the control panel

3. Feed your connection cable through the cable gland on the back of the control unit and connect the power according to the manufacturer's instructions (WAGO).



Clamping takes place on a feed-through terminal block.

4. Close the housing again with an Allen key AF 3.

Connecting the connection cable to the MEGASCREEN S

5. Plug the 25 m power cable into the socket labelled 1XS1 on the back of the control unit and lock it with the bracket (see Fig. 24).
6. Plug the 25 m control cable into the socket labelled 1XS2 on the back of the control unit and lock it with the bracket (see Fig. 24).

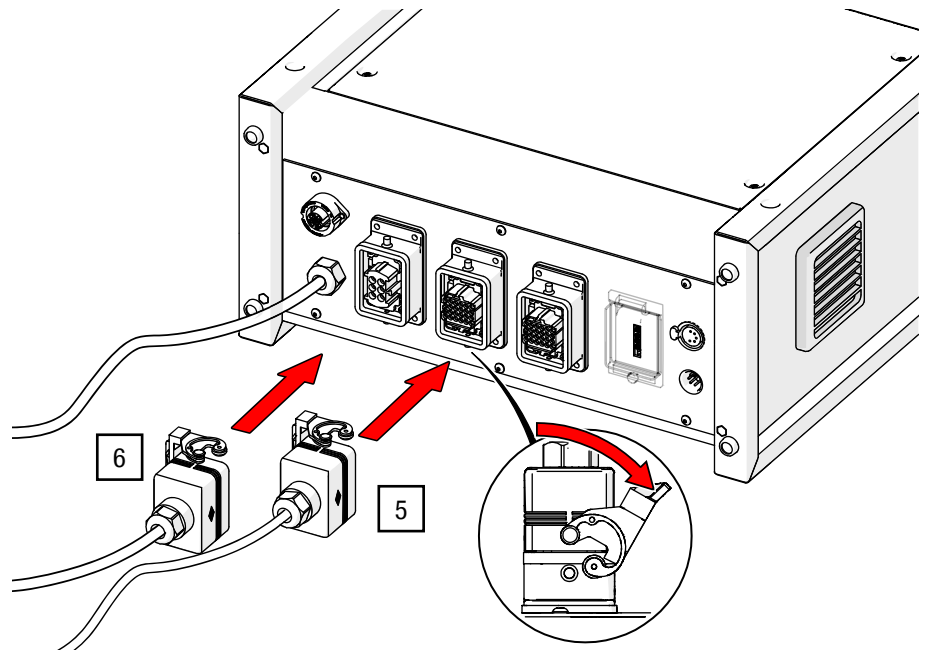


Fig. 24: G-FRAME 54 – Connecting the power and control cable of the roller screen (illustration of the G-FRAME may differ)

- ü The control unit is now connected and you can operate the roller screen via the front of the control unit. See *chapter 6 Operation* [► S. 40].

5.1.3 G-FRAME control unit – Setting up DMX operation

Connect emergency stop switch and DMX control unit to G-FRAME

1. Connect the plug from the emergency stop button to the emergency stop socket on the back of the control unit (see Fig. 25).
2. Connect the DMX input cable, which comes from an external DMX-control unit, to the *DMX IN* socket with the 5-pin XLR plug (5/ Fig. 6) on the rear of the control unit (see Fig. 25).

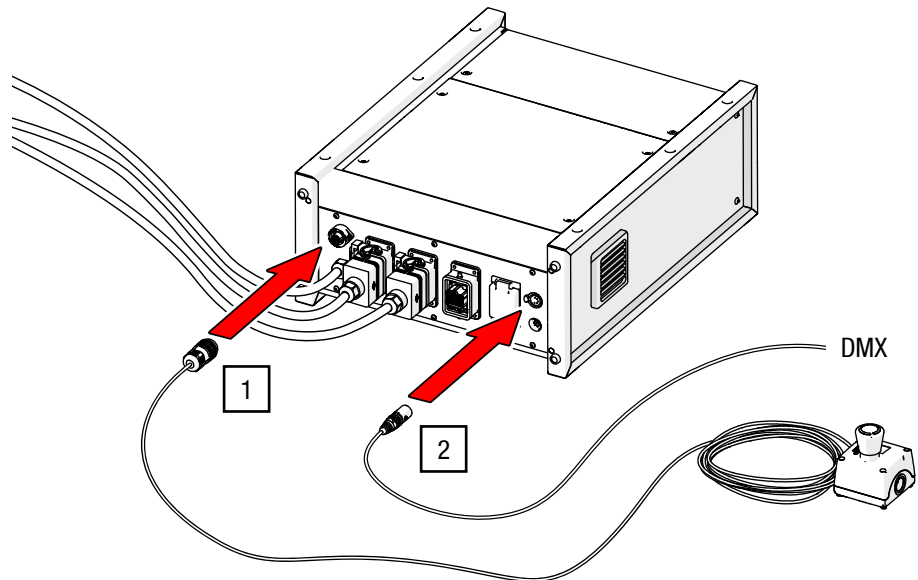


Fig. 25: G-FRAME 54 – Connecting DMX

Connection with other devices: Loop through DMX signal and power



You can loop the DMX signal through to other devices.

- è Connect the *DMX-OUT* socket (6/ Fig. 6) with a 5-pin XLR cable and connect the control unit to other DMX devices.

DMX address assignment

To communicate with the external DMX control unit, you must assign a DMX start address to the G-FRAME control unit. There is a recess on the back (G-FRAME control unit) of the control unit that exposes the DMX board with the red rotary switches.

1. Loosen the knurled screw on the DMX rotary switches (7/ Fig. 6) and open the cover.
2. Using a screwdriver change the settings on the rotary switches (1, 10 and 100 digits) to the desired digit (see Fig. 26).



In the example in Fig. 26 the DMX address 256 is set as an example. The slide switches 1-4 (“dipswitches”) remain switched off.

Setting the DMX address on the rotary switch

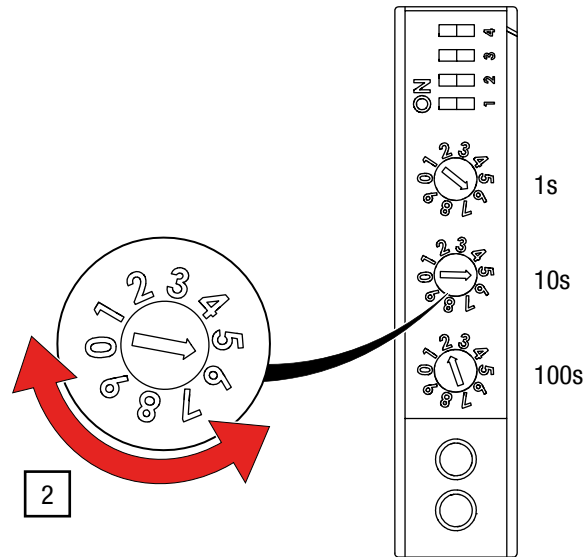


Fig. 26: Rotary switch for setting the DMX address on the G-FRAME control unit

5.1.4 Control unit – Set up second control point

Installation location: Table

The base (table, shelf or similar) must be sufficiently dimensioned and load-bearing.

! ATTENTION

Material damage due to unsuitable installation of the control unit

Despite its rubber feet, the control unit can fall off the table and be damaged if the cables are pulled or knocked.

- è Place the control unit on a surface with a raised edge.
- è Protect the control unit from third-party interference during operation.
- è Secure and route the cables properly.

Installation location: Wall

Wall mounting requirements

Component	Necessary requirements
Wall mounting plate	The wall mounting plate is screwed into the intended mounting position with 4 × hexagon head screws (plate: Ø- hole 5 mm).

Tab 11 Requirements for wall mounting

- è Observe the load-bearing capacities of the wall material and screw connection.

Materials / tools for wall mounting

Quantity	Materials / Tools
1	Second control point – Item no. 24800 07201
1	Wall mounting plate
1	Mounting material (not included in the scope of delivery)

Tab. 12: Materials and tools required for wall mounting

Instructions for wall mounting

1. Attach the wall mounting plate supplied with the control unit to the wall using suitable fixing materials.
2. Suspend the second control point from the mounting plate. Ensure a tight fit (see Fig. 27).

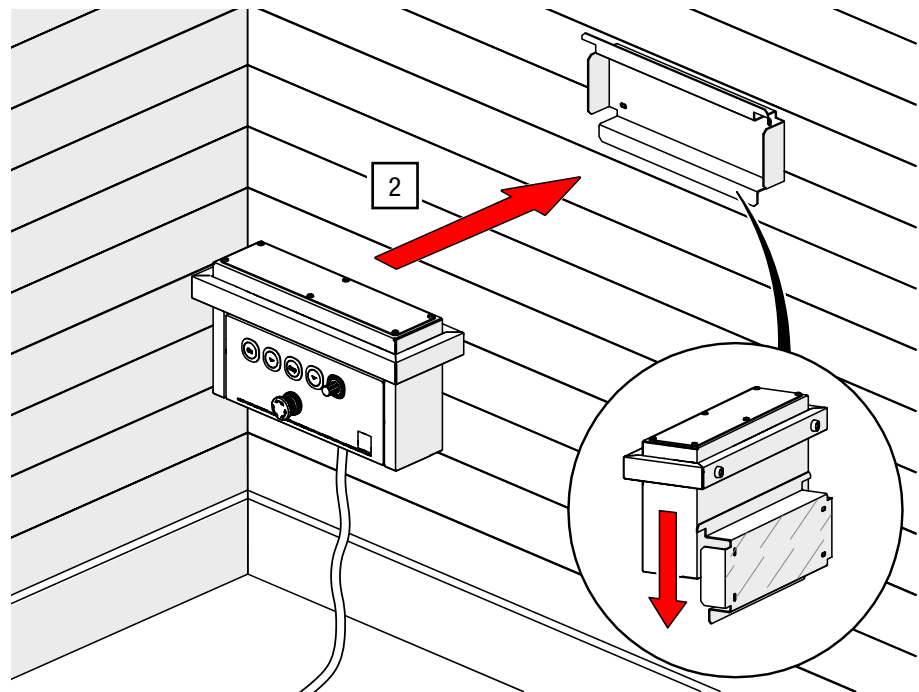


Fig. 27: Hang up the second control point.

5.1.5 Control unit – Connect second control point

1. Plug the control cable of the second control unit into the socket labelled OXSB1 on the rear of the control unit and lock it with the bracket (see Fig. 28).

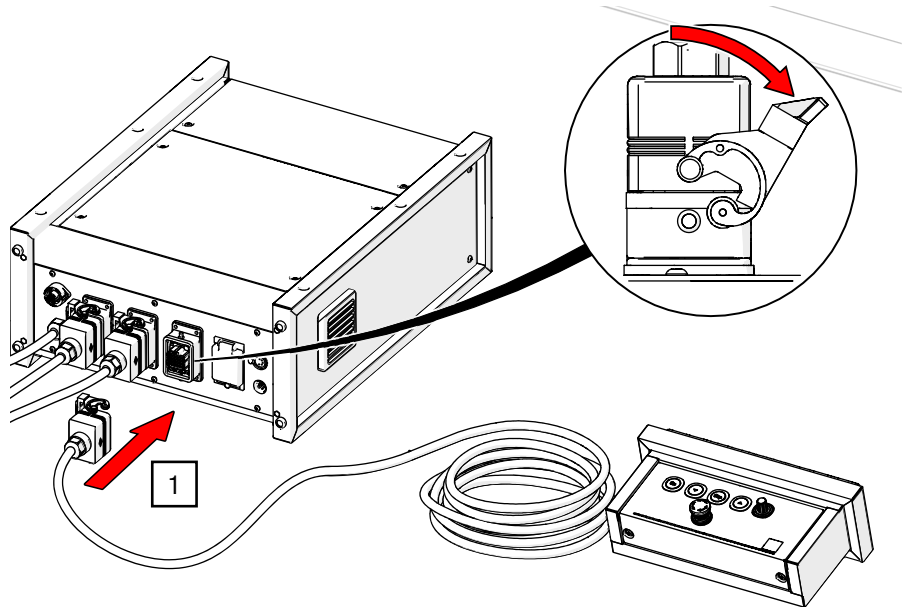


Fig. 28: G-FRAME 54 – Connect 2nd control point

2. Switch the G-FRAME control unit to “external” using the internal/external changeover switch (see 8/Fig. 5).
- ü The control unit is now connected and you can operate the roller screen via the front of the 2nd control unit. See also *chapter 6 Operation* [► S. 40].



The G-FRAME control unit repeats the control buttons of the second control point. Its buttons have no function after switching from internal to external except the emergency stop switch.

5.2 Mount and connect the roller screen

- è Ensure that the mounting points are levelled as well as possible in order to avoid tilting later on.
- è Information on the mounting distances can be found under Fig. 11 [► S. 18].

Requirements for mounting a roller screen

Component	Necessary requirements
Mounting points	<ul style="list-style-type: none"> · Ideally, the suspension points are located on a traction device (e.g. leaflet hoist or chain hoist system) so that installation can be carried out close to the ground. · Load-bearing suspension points above the planned installation site. The total weight and the distribution of the suspension points can be found in the project-specific documents.

Tab. 13: Mounting the roller screen – requirements

Materials / Tools

Quantity	Materials / Tools
1	Roller screen MEGASCREEN S
1	Power and signal cable 25 m
1	Mounting material according to the structure (not included)

Table 14: Materials and tools required

1. Attach the roller screen according to your on-site support structure considering the static requirements.



Mounting points must be levelled as far as possible, as levelling is only possible to a limited extent (approx. 10 mm per side).

2. Connect the control and power cables to the control unit of the roller screen using the 1XXM1 and 1XSM2 connections on the control unit in advance (see Fig. 29).



All outgoing cables must be secured to the crossbar or the on-site support structure to relieve the load and prevent the cable from kinking (e.g. with a soft tie or a G-cable – see shop Item no. 4107001021).

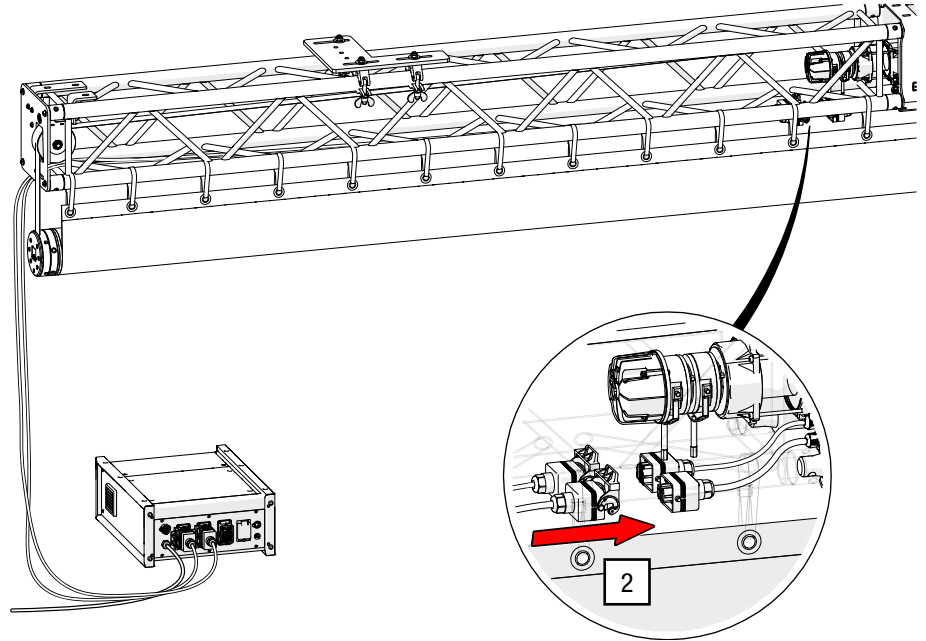


Fig. 29: Connecting the power and control cable to the roller screen

6 Operation

- è Operate the roller screen system only under the conditions described in *chapter 3.1 Ambient conditions* [► S. 16] specified operating parameters.
- è Let acclimatize the roller screen system to the room temperature before first use.
- è Consider the safety instructions in *chapter 10 Safety* [► S. 55].
- è Check that the system (especially the load suspension and the conveyor belt) is in perfect condition during commissioning.
- è Let the system being checked by an authorized expert on initial commissioning and every 4 years (see *chapter 10.5 Testing of mechanical equipment* [► S. 61]).
- è After significant changes, let the system being checked by an expert when recommissioning.
- è Put the projection screen system into operation only when safe operation is guaranteed.
- è Depending on the installation situation, integrate protective structures to prevent access to the danger zone.
- è The operating personnel must have a clear view of the travel and danger zone when operating the system.
- è Do not hang any additional loads on the truss of the roller screen.

6.1 Operating the control unit

In *chapter 2 Structure and function* [► S. 8] the components and connections are described. An overview of the connections and numbering can be found in Fig. 5 [► S. 11].

Information on the limit switches can be found in *chapter 2.1.1 Limit switch and emergency limit switch* [► S. 10].



The button assignment and operation of the second control point corresponds to the G-FRAME 54 MEGASCREEN S control unit and is therefore not explained separately.

6.1.1 G-FRAME control unit

Component	Necessary requirements
G-FRAME control unit	<ul style="list-style-type: none"> · Correctly connected (see <i>chapter 5.1.2 Connecting the G-FRAME control unit</i> [► S. 32]). · Wiring checked for tight fit and integrity.

Table 15: Necessary requirements – G-FRAME control unit

Switch on the control unit

1. Turn the main switch to the 1-position in order to switch on the control unit (7/Fig. 5; [► S. 11]).

○ The “ON” indicator light (1/Fig. 5) is on.

2. Make sure that the environmental parameters correspond to the required values.

ⓘ **CAUTION:** The canvas material can be damaged and broken if the temperature is too low.

Move MEGASCREEN S up and down

3. Ensure that the driving area is clear of people and objects.

⚠ **WARNING:** Moving parts on the roller screen can cause serious injury or damage to property.

4. Press and hold the “DOWN” button (4/Fig. 5) to move the screen downwards.

○ The screen moves downwards to the pre-limit switch (bottom) and then more slowly towards the operational end position (bottom). It stops automatically at the operational end position.

5. Press and hold the “UP” button (2/Fig. 5) to move the screen upwards.

○ The screen moves upwards to the pre-limit switch (top) and then more slowly to the operational end position (top). It stops automatically at the operational end position.

Regulate speed on potentiometer

6. For a lower speed, turn the potentiometer (5/Fig. 5) anticlockwise (v_{max} to v_{min}).

7. For a higher operating speed (v_{min} to v_{max}), turn the potentiometer (5/Fig. 5) in a clockwise direction.

8. Switch off the control unit after operation and secure it at the main switch with a padlock.

6.1.2 DMX operation

In *chapter 2 Structure and function* [► S. 8] the components and connections of the roller screen system MEGASCREEN S are described.

Component	Necessary requirements
G-FRAME control unit	<ul style="list-style-type: none"> · Correctly connected (see <i>chapter 5.1.2 Connecting the G-FRAME control unit</i> [► S. 32]). · Wiring checked for tight fit and integrity. · DMX address set at the rear (see <i>chapter 2.2.4 DMX control</i> [► S. 14]).
External emergency stop button	<ul style="list-style-type: none"> · Correctly connected and checked for function.

Tab. 16: Necessary requirements for operating the G-FRAME control unit via DMX



If the connection is correct, the green DMX status LED lights up (see Fig. 6). If the red DMX status LED lights up, there is an error. In this case, read *chapter 8 Problem solution* [► S. 50]. Errors are not displayed on the DMX user interface.

1. Turn the main switch to the 1-position to switch on the control unit (7/Fig. 5; [► S. 11]).
2. Turn the internal/external switch (5/Fig. 5; [► S. 11]) to the “external” selection.
3. Check the emergency stop for functionality in advance.
 - ⚠ **WARNUNG:** Moving parts on the roller screen can cause serious injury or damage to property. If the DMX signal is interrupted, the roller screen can no longer be controlled. A missing emergency stop button near the DMX control unit cancels the conformity.
4. Select the “Start address” on your DMX control unit to start the roller screen upwards.
5. Select “Start address+1” on your DMX control unit to move the roller screen downwards.
6. After operation, switch off the G-FRAME control unit and secure it at the main switch with a padlock to prevent unauthorized usage.

Select DMX addresses on DMX control unit

7 Maintenance and Servicing

7.1 Proper maintenance



Regular maintenance in accordance with the maintenance schedule is a prerequisite for efficient and safe use of the machine.

- è Consider the maintenance instructions (see *chapter 7.2 Maintenance schedule* [► S. 43]).
- è Carry out maintenance and servicing work regularly to ensure trouble-free operation throughout the product's service life.
- è The danger zone must be cordoned off for maintenance work.
- è De-energize live components before starting any work: turn the yellow/red main switch on G-FRAME control units e.g. to the "0" position and secure it with a padlock to prevent it from being switched on again.
- è Reinsert screw connections in accordance with the specific assembly instructions and locking elements (e.g. rings, pins, and clips) and check their effectiveness.
- è Visual inspection of the system after each transport and periodically during the life cycle.
- è After events that could have damaging effects on the safety of the system and / or critical faults, an extraordinary inspection must be carried out by an authorized expert.

7.2 Maintenance schedule

Maintenance measure	before each use	quarterly	half-yearly
Visual inspection: Are the cables and plug connections undamaged?			
Check: Do the plugs engage?			
Visual inspection: Does the carrying strap have cracks, kinks or dents?			
Check: All screw connections for tightness			
Visual inspection: Suspensions			
Check: Canvas attachment			
Check: Electrical system and control			
Check: Is the control unit fault-free?			
Check: Is the screen film clean and wrinkle-free?			

Table 17: Maintenance table

Cleaning



To clean the PVC projection screen, we recommend the Gerriets cleaning set Item no. 42010 00101 with cleaning agent and microfiber cloth.

! ATTENTION**Material damage due to moisture and cleaning agents**

Components of the roller screen system MEGASCREEN S are not waterproof according to IP40 and can be damaged by water or cleaning agents during cleaning.

- è Clean the roller screen system carefully with a damp cloth.
 - è Ensure that no moisture reaches the electronic components.
 - è Do not use aggressive chemicals.
-

Maintenance frequency
Varies according to use

Some of the work mentioned is highly dependent on usage and environmental conditions. The specified cycles are minimum values. Different maintenance cycles are possible in individual cases.

- è Correct any deviating maintenance cycles.
- è Instruct the operating personnel accordingly.

7.3 Increase the tension of the carrying strap

If the tension in the coil spring decreases or the projection surface is changed, it may be necessary to retension the coil spring.



This procedure should be carried out by two people.

Materials / Tools

Quantity	Materials / Tools
2	M12 screw or Ganter clamping lever (lever shown; not included in scope of delivery)
1	Allen key AF 10 (not included in scope of delivery)

Tab. 18: Materials and tools required for retensioning the carrying strap

Re-tensioning the coil spring:

1. Lower the screen to working height.
2. Fix two clamping levers (e.g. an M12 screw or Ganter clamping lever – not included in the scope of delivery) hand-tight in the M12 threaded holes provided on the clamping ring (see Fig. 30).

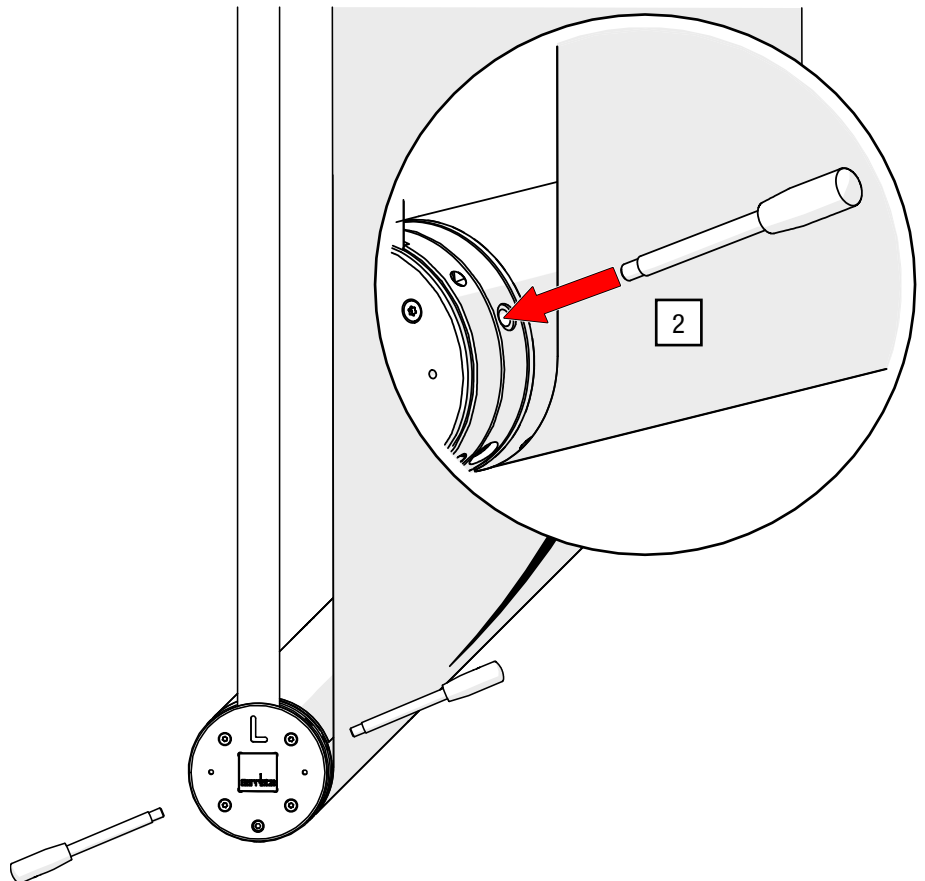


Fig. 30: Fixing the clamping lever to the clamping ring

3. Take the handle of at least one clamping lever firmly in your hand and hold it firmly (see Fig. 31).

⚠ WARNING: A freely rotating winding shaft after loosening the locking screws can cause injury or damage to the screen.

4. With a second person, loosen the locking screws on the clamping ring using an Allen key AF 10 (see Fig. 31).

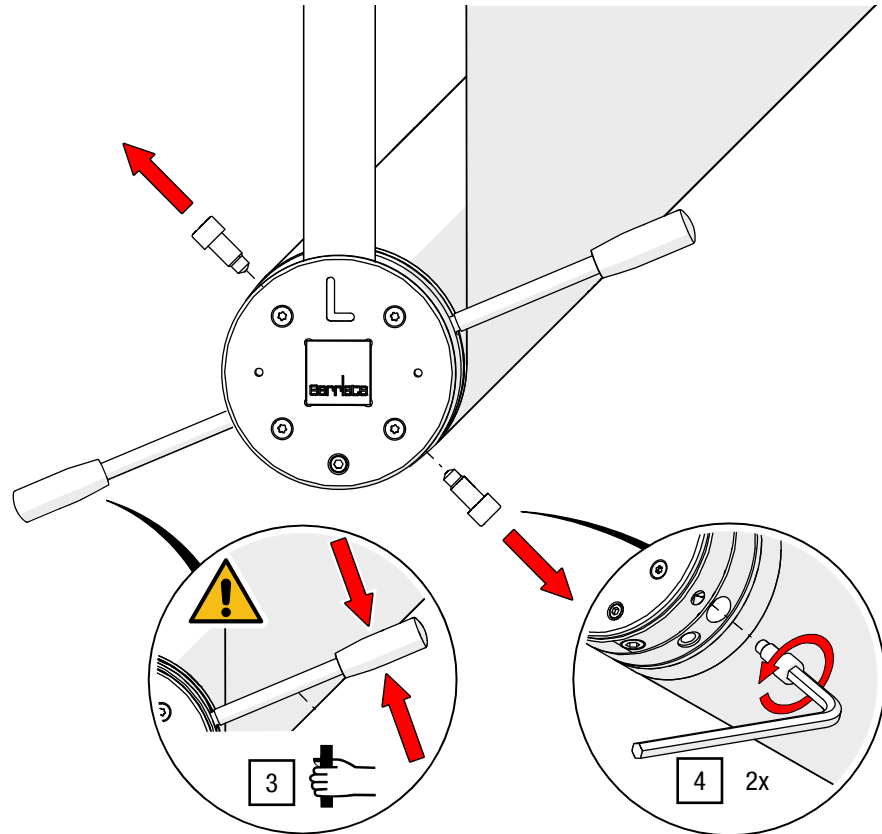


Fig. 31: Hold the clamping lever and loosen the clamping screws

5. Use the tensioning levers to turn the tensioning ring in the winding direction until sufficient pre-tension has been achieved and pay attention to the positioning at an index point (see Fig. 32).

⚠ CAUTION: The coil spring can be destroyed by putting too much pre-tension. Make a note of the values already set and observe the specification of max. 3 turns.



The clamping rings should be set symmetrically for the left and right sides.

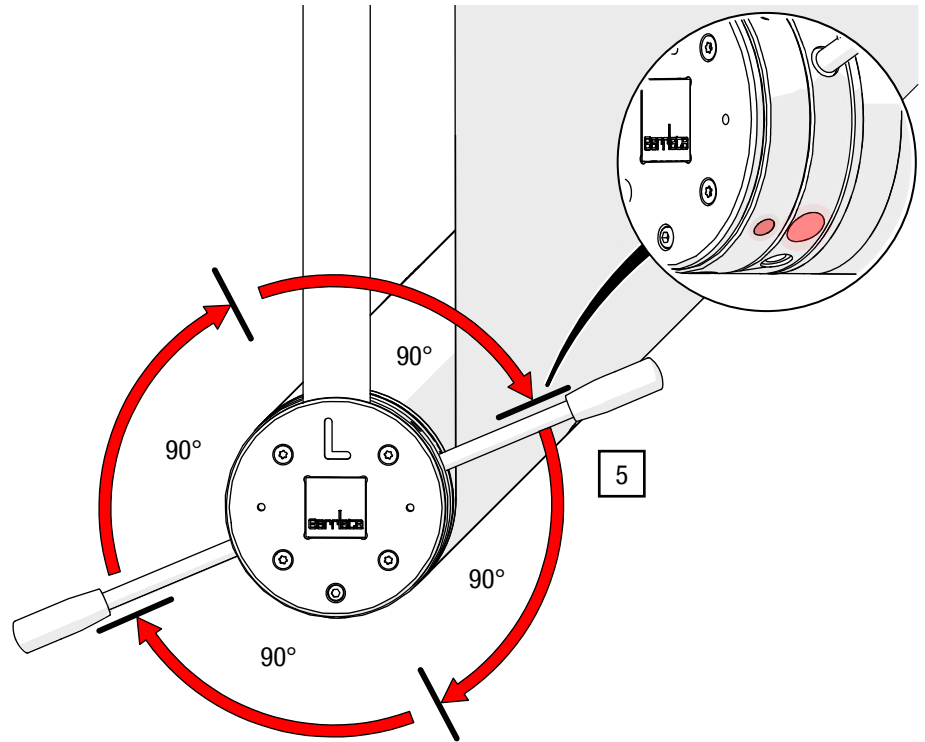


Fig. 32: Tensioning the coil spring with the tension lever

6. Turn the locking screws hand-tight into the intended positions using the Allen key AF 10 (see Fig. 33).
7. Loosen the clamping levers (see Fig. 33).

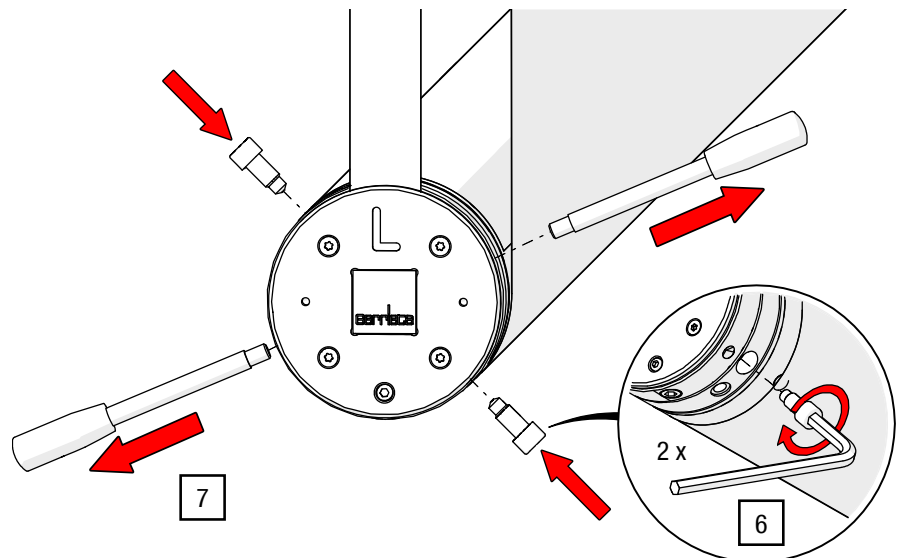


Fig. 33: Fix the locking screws and release the clamping lever

- ü The tension of the winding spring has been increased correctly and the MEGASCREEN S roller screen is ready for use.

7.4 Readjust levelling screw

You can correct a slight tilt (± 10 mm) on the MEGASCREEN S roller screen using levelling screws attached to the side of the winding shaft.



Use a spirit level for ideal adjustment.

Materials / Tools

Quantity	Materials / Tools
1	Allen key AF 5 (not included in the scope of delivery)
1	Allen key AF 8 (not included in scope of delivery)
1	Spirit level (not included in the scope of delivery)

Table 19: Materials and tools required for levelling the roller screen

Loosen the locking screw

1. Lower the screen to working height.
2. Loosen the locking screw with an Allen key AF 5 by approx. half a turn (see Fig. 34).

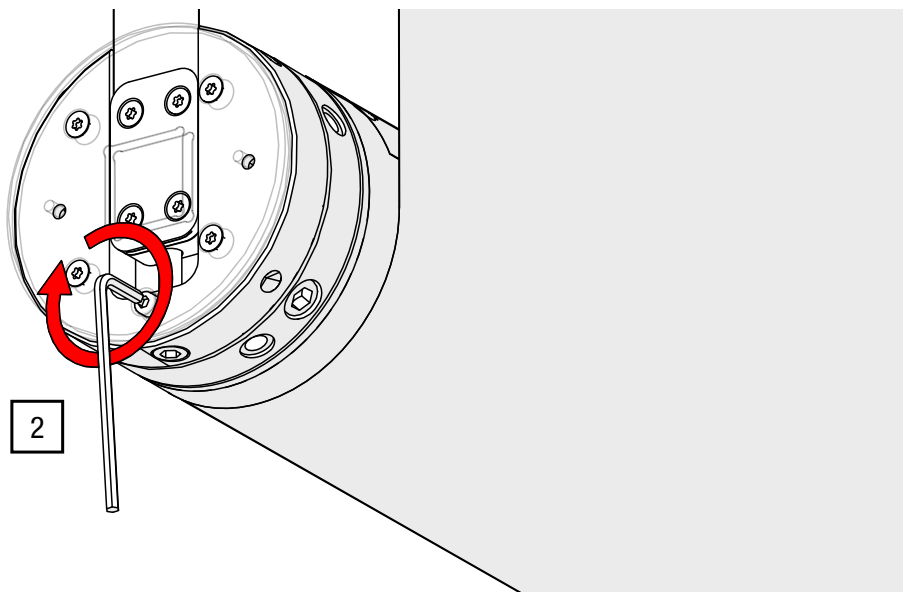


Fig. 34: Setting the levelling – Loosen the locking screw

Adjustment upwards

- Turn the levelling screw clockwise using an Allen key AF 8 (see Fig. 35).

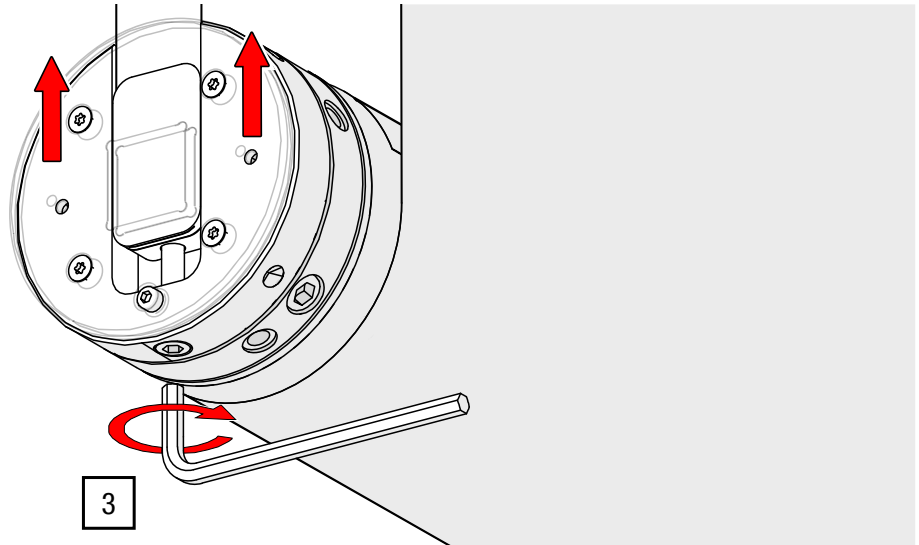


Fig. 35: Setting the levelling – adjusting the winding shaft upwards

Downward adjustment

- Turn the levelling screw counterclockwise using an Allen key AF 8 (see Fig. 36).

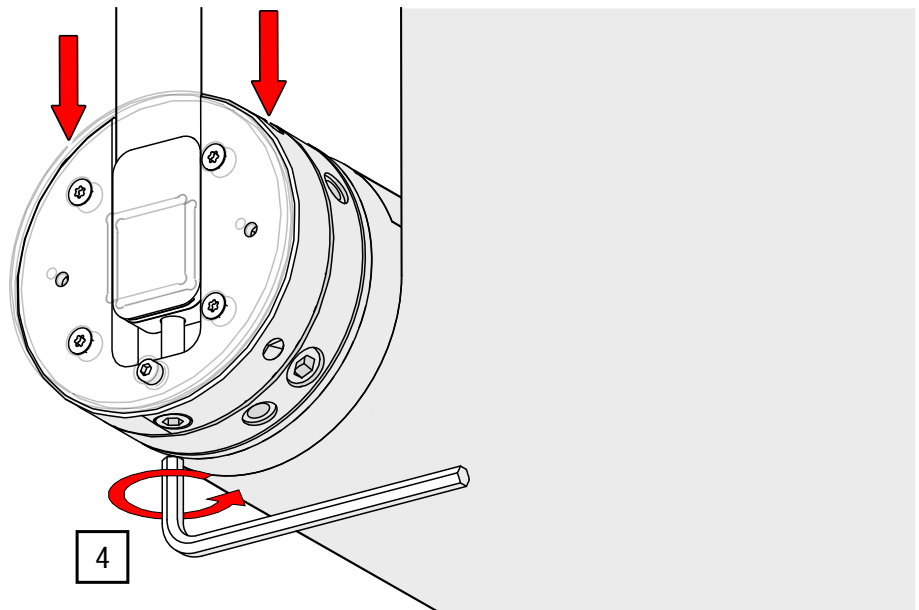


Fig. 36: Setting the levelling – Adjusting the winding shaft downwards

- Tighten the safety screw from step 2 (see Fig. 34) with an Allen key AF 5 hand-tight.

8 Problem solution



- è In the event of faults whose cause you cannot determine and rectify yourself, shut down the system and contact Gerriets GmbH customer service (see *chapter 12.1 Contact us* [► S. 64]).
- è Works on the electrical installation must be carried out by specialized personnel and in particular during the warranty period by Gerriets GmbH personnel.

! ATTENTION

Material damage due to unauthorized changes to the roller screen system

The function and safety of the trigger unit MEGASCREEN S may be impaired by additions or modifications of any kind.

- è Do not make any changes or additions to the machine without consulting Gerriets GmbH and obtaining its written consent.

8.1 MEGASCREEN S roller screen

Problem	Cause	Elimination
Film is not stretched or creases	Tensioning with tension belts or a tensioning device on the film is not sufficient.	<ul style="list-style-type: none"> è Tighten the lashing straps locally to ensure a uniform appearance. è Carry out a levelling of the winding shaft, see <i>chapter 7.4 Readjust levelling screw</i> [► S. 48]. è Retighten the winding spring (see <i>chapter 7.3 Increase the tension of the carrying strap</i> [► S. 45]).
Steel belt sounds tinny / rattles	The alignment of the screen is not correct. The edge of the belt is rubbing against the flanged wheel.	<ul style="list-style-type: none"> è Check the roller screen for correct alignment and adjust it using the levelling screws. è Check the horizontal position of the truss in the longitudinal and transverse directions. è Correct the alignment of the roller screen on the suspensions.

Tab. 20: Troubleshooting for the trigger unit

8.2 G-FRAME control unit

Problem	Cause	Elimination
Red "Stop" indicator light	The motor on roller screen overheats due to frequent driving and/or temperatures higher than the permitted operating temperature.	<ul style="list-style-type: none"> è Allow the system to cool down. è If the device switches off several times due to overheating, contact Gerriets GmbH customer service (see <i>chapter 12.1 Contact us</i> [► S. 64]).
	Fault on thermal contact	<ul style="list-style-type: none"> è Contact Gerriets GmbH customer service (see <i>chapter 12.1 Contact us</i> [► S. 64]).
	Move over the operating limit switch and at the emergency limit switch	<ul style="list-style-type: none"> è Have the screen moved out of the emergency end again by authorized specialist personnel and check that the limit switches are functioning correctly.
	Emergency stop circuit open	<ul style="list-style-type: none"> è Set the control unit to "internal" or plug a dummy plug into the connection for the second control point.
	Two limit switches respond simultaneously	<ul style="list-style-type: none"> è Contact Gerriets GmbH customer service (see <i>chapter 12.1 Contact us</i> [► S. 64]).
	Electrical fault on the frequency inverter	<ul style="list-style-type: none"> è Contact Gerriets GmbH customer service (see <i>chapter 12.1 Contact us</i> [► S. 64]).

Tab 21: Problem solution for G-FRAME control unit

8.3 Control via DMX

Problem	Cause	Elimination
Setting the DMX address on the control unit has no effect when operating with an RDM master.	The RDM master overwrites the DMX address.	<ul style="list-style-type: none"> è Carry out a “reset” on the control unit by selecting the “start address 900”.
Setting the DMX address has no effect.	The slide switches (“dipswitches”) beside the rotary switches for DMX settings have been adjusted.	<ul style="list-style-type: none"> è Switch the slide switches to “off” (see also Fig. 26 [► S. 35]).
DMX status LED flashes red.	There is no DMX signal or the cabling is deficient	<ul style="list-style-type: none"> è Connect a DMX control unit. è Check that all cable connections are secure and intact.
DMX status LED flashes green.	No valid DMX start address has been set.	<ul style="list-style-type: none"> è Check the DMX address, see also Fig. 26 [► S. 35]).

Tab. 22: Troubleshooting for DMX control

9 Decommissioning and disposal



In the event of a defect in individual components of the roller screen system, we focus on sustainability and offer to repair them if this is possible.

We will be happy to check whether a repair makes sense for you.

Contact us using the contact options in *chapter 12 Contact and warranty*

[► S. 64] or via the contact details for the locations on the back.

- è Please refer to *chapter 10.3.3 Target groups and activities* [► S. 59] with regard to responsibilities.

9.1 Temporary shutdown and storage

Temporary shutdown

1. Secure the danger zone and disconnect the roller screen from the power supply.
2. Start dismantling from the payload side and remove loads and load-bearing components in the power flow step by step.
3. Roll up all cables and fasten them securely to the machine.
4. Clean all components and store them in.

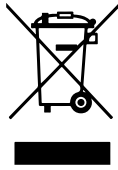
Information about storage

Short-term and medium-term storage (up to 2 years) is possible without special measures under storage conditions corresponding to the ambient conditions in *chapter 3.1 Ambient conditions* [► S. 16].

- è For longer-term storage, take additional measures to protect against corrosion.
- è Store the roller screen system dry and dust-free; ideally in the original packaging.
- è Do not expose the roller screen system to aggressive media.

9.2 Environmental protection, dismantling and disposal

Environmental protection/WEEE



Dispose of the roller screen system, the components, and the accessories at the end of its service life in an environmentally friendly manner in accordance with the applicable legal regulations.

Observe the national and international regulations. This applies primarily, but not exclusively, to metals, electronic components, batteries and accumulators, fiber composites, non-ferrous metals, plastics, and PVC.

In doubt, contact your local authority or a specialized waste disposal company to ensure proper disposal in accordance with environmental standards. They can provide you with information on the correct procedures and methods.

Packaging materials that are no longer required for storage or transport must be disposed of in an environmentally friendly manner.

è Do not dispose of electronic components in residual waste, as they are recyclable materials (2012/19/EU; WEEE Directive)

Dismantling and disposal

1. Secure the danger zone and disconnect the roller screen system from the power supply.
2. Start dismantling from the payload side and remove loads and load-bearing components in the power flow step by step.
3. Separate machine parts and electrical components according to type.
4. Dispose of all parts properly in accordance with local regulations.

10 Safety

10.1 Utilization

10.1.1 Intended use

The roller screen system MEGASCREEN S is intended exclusively as a winding shaft for suitable films and fabrics indoors.

Operation above persons may only take place under constant supervision by trained specialist personnel and after an expert inspection (see *chapter 10.5 Testing of mechanical equipment* [► S. 61]).

For safe and proper use of the roller screen system, it is essential to follow all the information and instructions in the operating instructions.

- è Use the roller screen system only for its intended purpose and in a technically safe condition.
- è Use the roller screen system only in compliance with the maximum permitted curtain sizes and recommended maintenance and inspection work.

Exception under own responsibility

When controlling via DMX, conformity can no longer be guaranteed without additional measures.

- è Provide additional safety measures such as an external emergency stop button (see *chapter 2.3 Accessories and spare parts* [► S. 15]).
- è Create a risk assessment and take measures to minimize damage due to improper operation and possible risks of injury.
- è Reliably prevent people from entering the danger zone under the load.

10.1.2 Foreseeable misuse

Any use other than that specified under the intended use is considered as an improper use.

Consequences of non-compliance

Failure to follow the instructions in this user manual may result in serious consequences including death, serious injury to persons and damage to the system or the property of third parties. These are not covered by the product warranty or liability.

- è Please refer to *chapter 10.7 Disclaimer* [► S. 62].

Further examples of improper use

Examples of improper use include, but are not limited to

- Attaching attachments not approved by Gerriets and modifying the product.
- Shutting down the roller screen without visual inspection.
- Moving the roller screen above people.
- Unauthorised entry into the danger zone.

10.2 General warnings

Fundamentals

The roller screen system MEGASCREEN S complies with the latest technical standards and the applicable safety and occupational health and safety regulations.

Nevertheless, there is a risk of injury to the user and third parties and damage to property when using it.

Responsibility and risk assessment

Overall responsibility for the operation of the technical system lies with the operator.

- è Consider the hazard and safety instructions in the operating instructions.
- è Create a risk assessment and take measures to minimize damage due to improper operation and possible risks of injury.

Mechanical hazards



DANGER

Risk of injury from falling objects and suspended loads

Falling objects can cause accidents resulting in death, serious injury or damage to property.

- è Pay attention to the maximum load-bearing capacity of the overall system and individual components.
- è Ensure that the existing substructure of the building has sufficient load-bearing capacity for the installation of the MEGASCREEN S.
- è Check whether the building's stability certificate covers the additional loads or whether a further check by a structural engineer or reinforcement is necessary.
- è Avoid dynamic loads such as falls ("falling" of the load into the static system) or swinging movements.
- è Do not make any changes, additions or conversions to the roller screen system unless this has been authorized in writing by Gerriets.
- è Secure the danger zone.
- è Secure loads to be fastened against falling during installation (e.g. using suitable lifting gear).
- è Always assemble the screw connections of the parts with the aid of the specific assembly instructions and tables for tightening torques.
- è Always use securing elements such as rings, clips and pins correctly and check their effectiveness.
- è Check the mounting equipment for suitability and permissible load-bearing capacity before use.
- è Always ensure that the operator has a clear view of the system during the driving process.

Electrical hazards


⚠ DANGER
Danger to life due to electrical voltage

There is a risk of fatal electric shock on contact with live parts. A damaged cable or its insulation can be life-threatening.

- è Never unplug connectors under load.
- è De-energize the electrical system before carrying out any maintenance, cleaning, or repair work.
- è Ensure that the system is de-energized when working on the switch box.
- è Carry out electrical installation work by qualified specialists only.
- è Install an infeed with a power supply isolating device in accordance with DIN EN 60204.
- è Disconnect the system from the power supply before working in the control unit housing.
- è Regularly check the electrical protection such as overcurrent protection, potential equalization and residual current protective devices in accordance with the power supply system.
- è Regularly check the system and its cabling for damage (see *chapter 7 Maintenance and Servicing* [► S. 43]).
- è In the event of damage, switch off the power supply immediately and arrange for repairs.
- è Keep moisture away from live parts.
- è Never bypass fuses or put them out of operation.

10.3 Personnel and target group

10.3.1 Responsibility of the operator

Definition of the operator

The operator is a person who uses the system or the machine commercially or economically for their own purposes or leaves it to third parties. During operation, the operator bears legal product responsibility for the protection of personnel or third parties.

Obligations of the operator

- è Comply with the applicable health and safety guidelines and inform your staff accordingly.
- è Draw up a risk assessment and make arrangements to rule out damage caused by improper operation and residual hazards as far as possible.
- è Ensure that the personnel is familiar with the regulations on occupational safety and accident prevention.
- è Create internal operating instructions for the roller screen system and instruct your staff to read them.
- è Provide your personnel with the necessary protective equipment (see *chapter 10.3.5 Personal protective equipment* [► S. 60]).
- è Train and inform your staff regularly about specific hazards.
- è Prevent unauthorized and untrained persons from operating the appliance.
- è Operate the roller screen system only under the conditions described in *chapter 3 Technical data* [► S. 16] specified operating parameters.

10.3.2 Responsibility of the staff

All persons authorized to work on the roller screen undertake to do so before starting work:

- Observe the basic regulations on occupational safety and accident prevention.
- Read and observe the operating instructions, including the safety chapter and the safety instructions.

10.3.3 Target groups and activities

Definition of the target group

Target group	Definition
Instructed personnel	An employee of a venue or service provider who has been instructed by the responsible event technician or by the manufacturer on specific topics relating to sales.
Responsible event technician	The event technician responsible for a venue is a specialist who is responsible for planning, implementing and monitoring the technical aspects of events. The specialist ensures that all technical requirements are met.
People with specialized training (mechanics/electrical engineering)	Specialist staff with specialized training, such as electrical engineering or mechanics, are qualified experts in their respective fields. The specialist staff have the specific knowledge, skills, and training to master complex technical tasks in their specialized field.

Table 23: Definitions of different target groups

Areas of activity of the staff

Activity	Instructed personnel	Responsible event technician	People with specialized training (mechanics/electrical engineering)
Transport	√	√	–
Assembly	–	–	√
Commissioning	–	√	√
Troubleshooting and fault rectification	–	√	√
Operation	√	√	–
Maintenance	–	√	√
Dismantling	–	–	√
Disposal/recycling	√	√	√

√ = In the area of activity

– = not in the area of activity

Table 24: Allocation of the areas of activity to the target groups

10.3.4 Scenic stay in the danger zone

When using the roller screen system on stages or stage areas above people who need to be within the travelling range of the screen for artistic or other reasons, it is essential that they are thoroughly informed in advance about the associated risks and correct behavior in the event of danger.



The operating personnel may only operate the MEGASCREEN S if there are no persons in the danger zone. The roller screen should always be operated with a clear view of the movement. Other procedures are considered improper.

10.3.5 Personal protective equipment

If necessary, the operator must provide the following personal protective equipment for the operating and maintenance personnel:

Symbol	Protective equipment
	Protective gloves
	Safety shoes
	Safety helmet

Table 25: Personal protective equipment

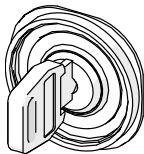
10.4 Safety and protective equipment

10.4.1 Non-separating protective devices

Recessed actuation buttons
(dead man's switch)

The operating button on the Control unit G-FRAME 54 is recessed to prevent unintentional activation. The movement of the roller screen is interrupted when the switch is released.

Key switch



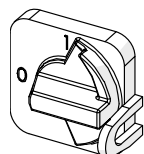
A key switch is fitted to the G-FRAME control unit to prevent unauthorized operation in the travel range between the operating end and the emergency end (e.g. in the event of a malfunction if the operating end is overrun).

Emergency stop switch



An emergency stop switch is fitted to the G-FRAME control unit to de-energize the entire system in the event of danger.

Main switch
(lockable)



A power supply isolator is fitted to the G-FRAME control unit to de-energize the system. The power supply isolator can be locked in the 0-position with a small padlock to prevent unauthorized persons from switching it on.

10.4.2 Isolating protective devices

Isolating protective devices must be installed by the operator in accordance with the installation situation and hazardous situation, if necessary or applicable.

- è Create a risk assessment of your system to identify and, if possible, eliminate sources of danger.

10.5 Testing of mechanical equipment

Health and safety regulations and scope of application

In Germany, the regulations of the German Social Accident Insurance (DGUV) apply to the inspection of work equipment in event technology when it is put into operation initially and subsequently at regular intervals. These are binding, autonomous legal standards.

If the mechanical equipment is used in a different area of application, the local accident prevention regulations and national health and safety regulations apply.

Inspection on commissioning and recurring

The MEGASCREEN S roller screen system is a “technical machine installation” as defined by regulation DGUV 17 (BGV C1 / BGG 912 GUV regulation 17 (BGV C1): Event and production venues for theatrical performances. If your company is within the scope of BGV C1, the proper installation, equipment and operational readiness of the system must be checked by an authorized expert before initial commissioning and after significant changes before recommissioning. This is also further specified in DGUV Principle 315-390: Inspection of technical equipment for event technology.

Periodic inspections by qualified persons are required annually and by authorized experts every 4 years. The tensioning devices for suspending the roller screen must also be inspected, which makes it advisable to synchronize the two expert inspections.

- è Arrange for an inspection by authorized experts before commissioning and every 4 years.
- è Combine the annual expert inspection with complete maintenance and servicing.

10.6 Guidelines and standards

EU/EC directives and standards

The roller screen system complies with the guidelines:



- 2006/42/EC Machinery Directive (MRL)
- 2004/108/EC Electromagnetic compatibility (EMC)
- 2006/95/EC Low Voltage Directive (LVD)

The roller screen system complies with the standards:

- DIN EN 17206:2020 Event technology – Machines and other production areas – Safety requirements and tests
- DIN 56950-4:2015-12 Event technology – Technical equipment – Part 4: Safety requirements for ready-made projection screens

Harmonized standards

The following harmonized standards are also met:

- DIN EN 60204-1:2019-06 Safety of machinery – Electrical equipment of machines - Part 1: General requirements (IEC 60204-1:2016, modified); German version EN 60204-1:2018
- EN ISO 13849-1:2015 Safety of machinery – Safety-related parts of control systems - Part 1: General principles for design (ISO 13849-1:2015); German version EN ISO 13849-1:2015
- DIN EN ISO 12100:2011-03 Safety of machinery – General principles for design – Risk assessment and risk reduction (ISO 12100:2010); German version EN ISO 12100:2010
- EN 1037:1995 + A1 Safety of machinery – Prevention of unexpected start-up
- EN 62061:2005 Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems

10.7 Disclaimer

Gerriets GmbH assumes no liability or warranty for damages and malfunctions caused by:

- Disregard of the operation manual.
- Non-intended use.
- Use of personnel which is not appropriately qualified.
- Use of spare parts, accessories and materials that have not been authorized by Gerriets GmbH.
- Not by Gerriets GmbH authorized modifications or conversions of the product.

11 Abbreviations and explanation

11.1 Terms and explanation

ELL/R	Entertainment load limit at rest in accordance with DIN EN 17206:2020. This characterizes the maximum possible load at rest and corresponds to half of the working load limit (WLL).
EMC	EMC stands for Electromagnetic Compatibility. This describes the ability of electrical devices and systems to function without interference in electromagnetic environments.
IP	The IP protection class describes the protection of devices against moisture, dust, etc. It varies from IP00 (no protection) to IP68 (complete protection against dust and permanent submersion) and indicates the degree of protection.
DMX	DMX stands for Digital Multiplex and is a digital transmission protocol that is used to transmit control data for lighting and sound systems. It enables several devices to be controlled via a single connection and data to be exchanged in real time.
A	Ampere (A) is a unit of electric current.
DMX512	DMX512 is an industrial standard protocol for the transmission of digital control signals e.g. operating lighting and stage equipment. It enables the transmission of up to 512 channels via a single DMX cable and is widely used in many professional stage environments.
VDC	VDC stands for "Volt Direct Current". This is a type of current in which the current flows in a single direction and re-power supply constant.
Nm	Nm (Newton meters) is a unit of measurement for torque, i.e. the force required to turn an object. It corresponds to a force of one Newton with a lever arm length of one meter.
V_{\max}	Maximum speed of the corresponding device.
V_{\min}	Minimum speed of the corresponding device.

12 Contact and warranty

12.1 Contact us

Business hours:	Monday – Thursday	08:00 a.m. – 12:00 a.m. 01:00 p.m. – 05:00 p.m.
	Friday	08:00 a.m. – 12:00 a.m. 01:00 p.m. – 03:30 p.m.
Telephone switchboard:	Our switchboard is always available for you during business hours. Outside of business hours, you can leave messages on our answering machine for an unlimited time or send us your enquiry by e-mail.	
Telephone:	Centre / Switchboard	+49 7665 – 960 0
Telefax:	Centre / Switchboard	+49 7665 – 960 125
Addresses:	Delivery address	GERRIETS GmbH Bühnenbedarf Im Kirchenhürstle 5 – 7 D-79224 Umkirch
	Postal address	Gerriets GmbH Bühnenbedarf P.O. Box 1154 D-79220 Umkirch
	Commercial Register Freiburg	HRB-No. 2678
	VAT number	142191543
	Managing Director	Hannes Gerriets
Further contact options	Internet	www.gerriets.com
		www.gerriets-accoustics.com
	e-mail	info@gerriets.com

Contacts to our locations worldwide & QR code to the website with further international contact options can be found on the back of this document.

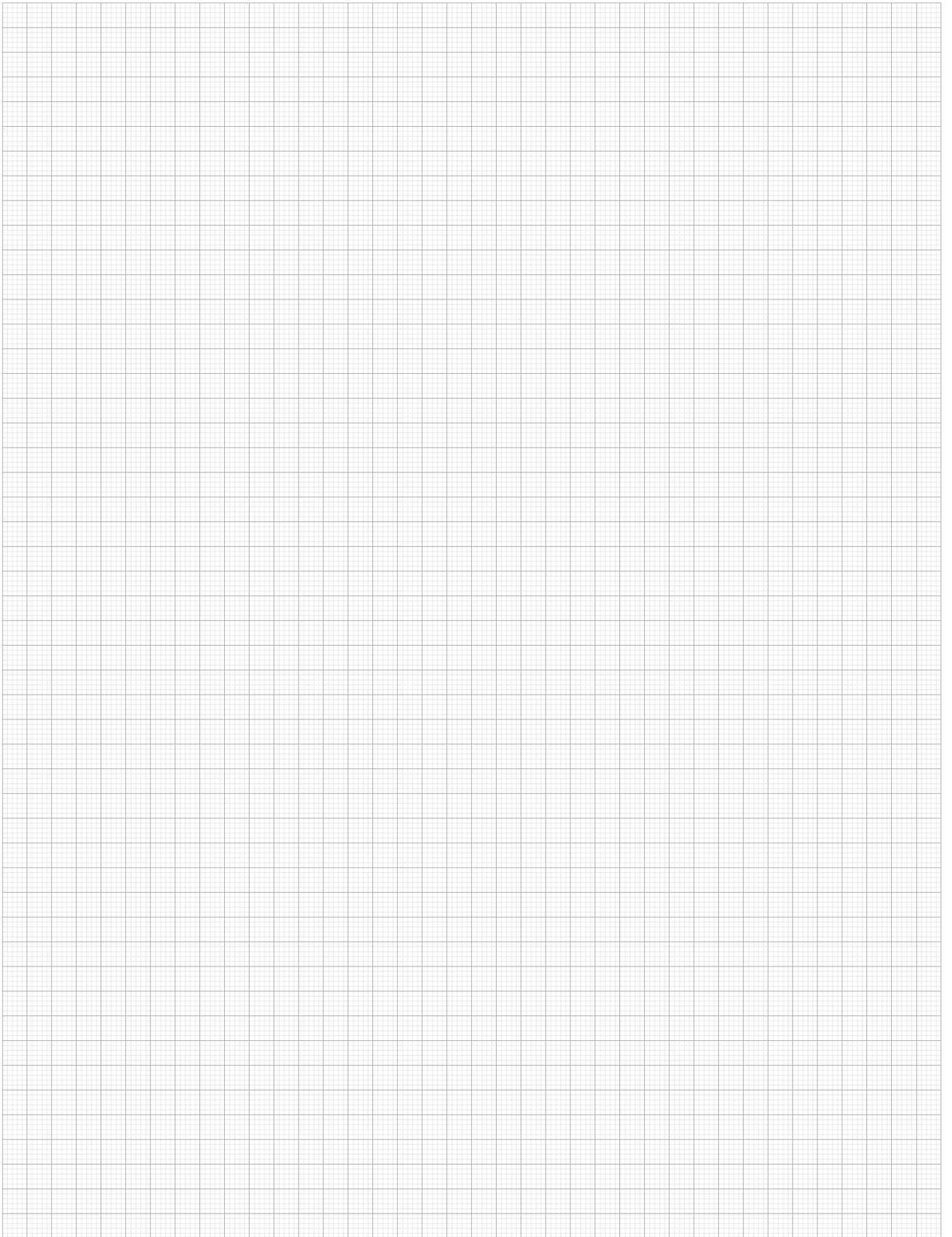
12.2 Customer service and repair

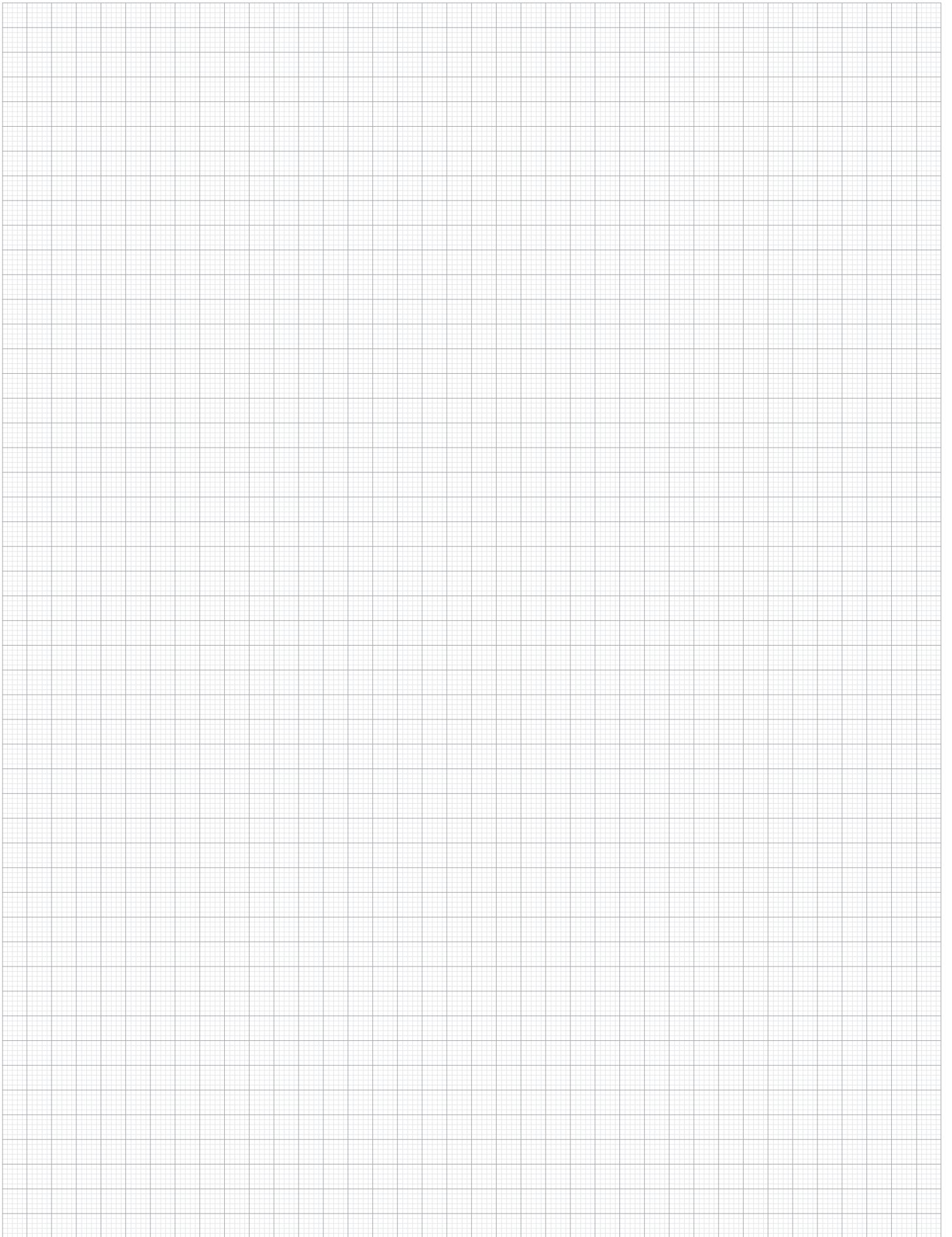
Our product is supplied with a two-year warranty. This covers the replacement or repair of defective parts caused by material or manufacturing faults. The warranty does not cover damage caused by improper use, overloading or improper maintenance.

Please note that modifications or repairs by unauthorized personnel can lead to faults that are not covered by the warranty.

In the event of a defect, please contact our customer service team to check your warranty claim and discuss how we can best help you. With our high quality standards, your complete satisfaction is always important to us and we are available to you during our business hours.

Please also see our general terms and conditions at www.gerriets.com.





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