

Workshop crane, foldable

Operating instructions

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en-GB



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A About this manual

These operating instructions describe the correct use of the products listed in the "Scope" chapter – see page 5. All Jungheinrich products are developed and produced according to the current state of the art. However, risks can arise in the case of incorrect use. Please observe the corresponding information and read through the operating instructions carefully. The operating instructions form part of the device and are valid for all specified device versions. The operating instructions describe the safe and correct use of the device in all operating phases.



Any technical questions should be directed to your authorised service partner.

The workshop crane described in these operating instructions is used for lifting, moving and lowering heavy loads.

1 Scope and target group

Scope

This document applies to the following unit:

- Workshop crane, foldable

Target groups

For the purposes of these operating instructions the "owner" or "operator" is defined as any natural or legal person who either uses the described device himself or on whose behalf it is used. In special cases (e.g. rental), the owner is considered to be the person who is charged with the specified operational duties in accordance with existing contractual agreements between the owner and operator of the device.

Target group	Tasks
Owner	<ul style="list-style-type: none">– Keep these operating instructions accessible at the usage location of the device, including for later reference.– Ensure that the device is used correctly and only by trained and authorised personnel.– Instruct employees to read and observe these operating instructions and other applicable documentation, particularly the safety instructions and warnings – see page 7.– Observe additional device-specific provisions and regulations.
Operator	<ul style="list-style-type: none">– Read and observe these operating instructions and other applicable documentation, particularly the safety instructions and warnings see page 7.– Ensure that the device is used correctly and in accordance with the safety regulations.

Tab. 1: Owner and operator duties

2 Information and instructions

General information

- Indicates additional information and explanations.

Structure of warnings

Warnings are used in this document to highlight potential causes of personal injury or material damage.

- Always read and observe these warnings.
- Follow all measures highlighted by the relevant warning.

The following warning levels are used to reflect the severity and probability of the relevant hazard:

DANGER!

Indicates an extremely dangerous situation. Failure to observe this warning can lead to serious, irreversible injuries or death.

WARNING!

Indicates an extremely dangerous situation. Failure to observe this warning can lead to serious, irreversible injuries or death.

CAUTION!

Indicates a dangerous situation. Failure to observe this warning can lead to minor or moderate injuries.

NOTICE

Indicates a risk of material damage. Failure to observe this warning can lead to material damage.

Structure of instructions

Instructions in this document are structured as follows:

Aim of the described activity

Requirements

- Prerequisites for activity

Tools and Material Required

- Tools and materials required for an activity (optional specification)

- Step
- Step
 - Sub-step

Result of action

B Security

The safety chapter provides important information on how to work safely with the described product. Failure to observe the specified measures can result in material damage and injuries, and potentially even death.

- Before commissioning and operating the device: Read the safety chapter thoroughly.
- Use the described device only as specified in this document.

1 Correct Use and Application

The device described is used for lifting, moving and lowering heavy loads and is intended for private and commercial use.

Correct environmental conditions

The device will be permanently damaged if exposed to extreme environmental conditions.

- Only use the device under the permitted conditions – see page 15.
- Do not use the device in areas or environments with high levels of humidity.
- Do not use the device in areas or environments at risk of explosion or fire.
- Do not use the device in very dusty areas or environments.
- Do not use the device in outdoor areas.
- Do not use the device in corrosive areas or environments.
- Do not use the device in temperatures outside the permissible temperature range – see page 15.

Possible incorrect use

Inappropriate use of the device poses a risk of injury, will result in material damage and reduces the service life of the device.

The device is not suitable for the following applications:

- Transporting persons
- Transporting loads on slopes or inclines
- Transporting insufficiently secured loads
- Moving the device with electrical or mechanical aids

2 Duties of individuals

Duties of the owner

Incorrect preparation of the device can result in serious damage or injuries. The owner must:

- Ensure that the device is used as intended.
- Ensure that the device is in perfect technical condition.
- Replace any damaged or missing warnings and information signs on the device.
- Ensure compliance with all regulations concerning accident prevention, safety and disposal as well as those regarding operation, maintenance and repairs.

- Provide suitable protective equipment for the operator.
- Make the operating instructions available at the usage location.
- Retain test reports for at least 2 years.

Duties of the operator

Incorrect operation of the device can result in serious damage or injuries. The operator must:

- Provide evidence of his or her ability to use the device.
- Provide evidence of his or her commissioning by the owner or their legal representative.
- Prevent unauthorised use of the device.
- Wear safety shoes or safety equipment in accordance with statutory and operational regulations when operating the device.
- Assume responsibility for the correct use of the device during operation.
- Independently take the device out of service and inform the relevant supervisor(s) in the case of damage to the device during operation.
- Before raising the load, make sure that the maximum permissible load capacity is not exceeded.

3 Safety information for specific operating phases

3.1 Transport

Transporting the device safely

Incorrectly secured transports can result in material damage and personal injury.

- Remove the load before transporting the device.
- Use lifting gear with sufficient capacity.
- Secure the HGV or trailer against rolling away before loading the device.
- Correctly secure the device to the lashing rings on the HGV or trailer.
- When jacking up, prevent slipping or tipping by means of wedges or wooden blocks.

3.2 Operation

Requirements for travel paths and work areas

Failure to observe the specific environmental conditions can result in significant material damage and severe personal injury.

- Only travel on level surfaces that are designated as traffic routes.
- Maintain a sufficient safety clearance between the pump lever and racks/walls.
- Do not travel on slopes or inclines unless expressly permitted in this document.
- Traffic route conditions have a significant influence on the stopping distance. Adjust the travel behaviour to the prevailing conditions.
- Visibility conditions have a significant influence on the travel path. Ensure that you have clear visibility.
- Keep unauthorised persons out of the work area.
- Always set down and store the load at the designated locations.
- Never deposit the load and device on traffic, escape or rescue routes or in front of passageways, roller shutter gates and doors.

Preventing injuries to third parties

A heightened accident risk exists for unauthorised persons in the hazardous area.

- Instruct unauthorised persons to leave the hazardous area.
- In the case of a potential risk to persons, issue a warning signal in a timely manner.
- If endangered persons fail to leave the hazardous area, stop the device immediately.



The hazardous area is classed as the area in which persons are exposed to a direct risk by the movements of the device or are endangered indirectly, e.g. due to a falling load.

Travelling onto lifts and loading bridges

A heightened risk of material damage and personal injury exists in lifts and on loading bridges.

- Before travelling onto lifts and loading bridges, ensure that they offer sufficient capacity for the individual weight of the device including the load and operator.
- Before travelling onto lifts and loading bridges, ensure that they are suitable and approved for such use by the owner.
- Travel load-first onto lifts and loading bridges and maintain a sufficient distance from the side walls.
- Park the device securely before any persons step into the lift or onto the loading bridge.

Moving loads safely

An inadequately secured load poses a heightened risk of material damage and personal injury.

- Ensure that the load is in correct condition.
- Do not move loads unless they have been picked up safely and securely.
- If there is a risk of the load tipping: take appropriate protective measures.

3.3 Maintenance

Conducting maintenance work safely

Thorough and expert servicing is one of the most important prerequisites for safe operation of the device. Failure to perform regular maintenance can result in a malfunction of the device and poses a potential hazard to personnel and equipment.

- Perform maintenance and repair work in line with the specified maintenance intervals – see page 24.
- Maintenance and repair work must only be completed by specialist personnel with the requisite training.
- In the case of uncertainty, contact the manufacturer's customer service department.
- Use only original spare parts from the manufacturer.
- When repairing or replacing components, observe the device-specific settings.
- When replacing rollers, ensure that the device remains level (e.g. always replace left and right at the same time).
- Immediately after any maintenance work, complete all steps for returning the device to service – see page 26.
- Do not clean the device with flammable liquids.
- Before working on the hydraulic cylinder: Fully lower the load handler.

4 Conversions and modifications

Modifying the design and function of the device

Any conversions or changes to the design of the device which have not been approved by the manufacture can result in severe personal injury and significant material damage. All warranty and liability claims will be void.

If modifications are to be made, they require written permission from the manufacturer, an authorised representative or a legal successor. This includes, but is not limited to, the following actions:

- Changes affecting the capacity
- Changes affecting the stability
- Changes affecting the control function
- Changes affecting the visibility
- Addition of attachments.

Under no circumstances must the operating speed of the device be changed, not even with the manufacturer's approval.

5 Residual risks

Using consumables

Improper handling of consumables is hazardous to health, life and the environment.

- Use consumables in the correct manner and in accordance with the manufacturer's specifications.
- Work with consumables must only be performed by qualified specialist personnel.

C Structure and function

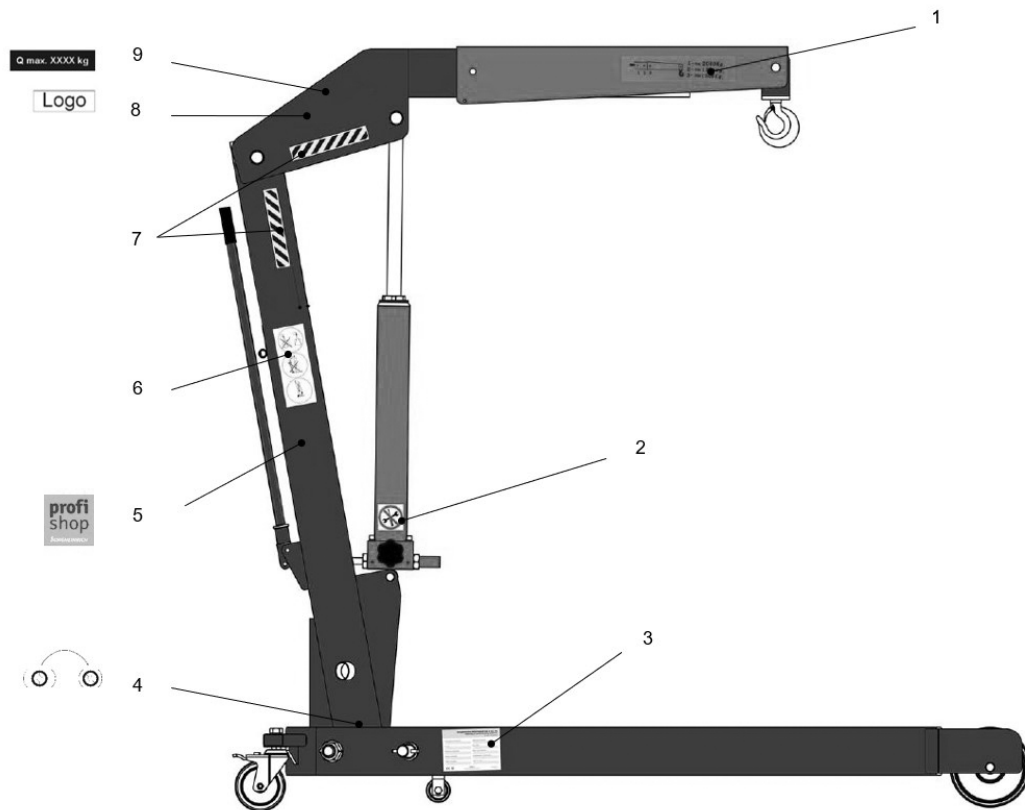


Item	Designation	Function
1	Boom extension	Changing the length of the boom
2	Bolt with spring cotter pin	Securing the boom extension
3	Load handler	Lifting arm of the crane
4	Mast	Support pillar of the crane
5	Hydraulic cylinder	Raising and lowering the boom
6	Handle	Controlling and moving the crane
7	Pump lever	Pumping up the boom
8	Star knob for hydraulic valve with return spring	Lowering the load
9	Bolt with locking pin	Ensuring stability on both sides of the chassis
10	Swivel castor with parking brake	Moving and parking the crane securely
11	Rollers	Moving the device
12	Chassis	Moving and stabilising the crane
13	Load hook with safety catch	Carrying the load

1 Marking and labelling

1.1 Warning and information signs

Locations of the warning and information signs



Item	Designation
1	Load limits of the boom
2	Prohibition sign: do not performance maintenance or repairs yourself
3	Data plate
4	Brake function notice
5	Jungheinrich PROFISHOP logo
6	Warnings <ul style="list-style-type: none"> – Attach load correctly – Prohibition sign: do not step under the load handler – Crane in folded state
7	Crushing hazard between boom and mast Never position body parts between the mast and the boom!
8	Logo
9	Q_{max} XXXX kg

1.2 Data plate

Jungheinrich PROFISHOP AG & Co. KG
 Haferweg 24, 22769 Hamburg, GERMANY
 Hersteller / Manufacturer

11 Produktbezeichnung / Product Type

10 Typ / Type

9 Seriennummer / Serial Number

8 Hubbereich / Lifting Range

7 Tragkraft / Load Capacity

2 Artikelnummer / Item Number

3 Option / Option

4 Baujahr / Year of Manufacture

5 Gesamtlänge/-breite / Total Length/Width

6 Leergewicht / Weight

CE Made in

Fig. 1: Data plate (schematic)

Item	Information
1	Name and address of manufacturer
2	Article number
3	Option
4	Year of manufacture
5	Total length/width
6	Net weight
7	Capacity
8	Lift range
9	Serial number
10	Type
11	Product designation

→ For device-related queries or when ordering spare parts, always quote the serial number.

D Technical Specifications

1 Performance data

Technical data – workshop crane, foldable

Designation	Value	Unit
Boom length	1,330 - 1,630	mm
Clearance	165	mm
Lift range	260 - 2,490	mm
Height	2,073	mm
Width	1,170	mm
Depth	2,000	mm
Entry width	980	mm
Capacity	1,500 - 2,000	kg
Net weight	165	kg

Correct environmental conditions

Condition	Value
Application area	Indoor application
Permitted ambient temperature	+5°C to +40°C
Minimum illumination	50 Lx

E Commissioning and transport

1 Using the Truck for the First Time

Assembly

- Fold down the two sides of the chassis individually.
- Then secure both sides using bolts with locking pins.
- For safety reasons, assembly and disassembly must be carried out by two people.

Preparing for commissioning

- Verify that the warning and information signs are present and undamaged. Replace any damaged or missing signs.
- Check all supplied components for transport damage.
- Check the functionality of the actuators, rollers, wheel axles and pump lever.
- Immediately notify the carrier of any transport damage or missing components.
- Fold down both sides of the chassis. Then secure both sides with a bolt and locking pin.

2 Transport

⚠ CAUTION!

Inadequately secured transport!

Risk of material damage and personal injury due to unsecured loads.

- ▶ The device must be sufficiently secured when transported on an HGV or trailer.
- ▶ Use the lashing rings on the HGV or trailer.
- ▶ The device must only be loaded by specially trained personnel while observing the applicable regulations.

⚠ WARNING!

Inadequately secured load!

Risk of material damage and personal injury due to falling loads.

- ▶ Always use cranes and lifting gear with sufficient capacity.
- ▶ Attach lifting gear only to the designated attachment points.
- ▶ Ensure that there are no persons in the area under the suspended load.
- ▶ Instruct all persons to leave the hazardous area during crane loading.

F Operation

CAUTION!

Collisions with persons in the vicinity!

Risk of personal injury.

- ▶ Before moving the device, raising or lowering the load, instruct persons to leave the hazardous area.
 - ▶ In the case of a potential risk to persons, issue a warning signal in a timely manner.
 - ▶ If endangered persons fail to leave the hazardous area, stop the device immediately.
-

1 Checking the device before daily use

Regular inspection allows faults or malfunctions to be recognised at an early stage and rectified promptly. This increases the service life of the product and helps to ensure safe operation.

Checking the device for damage and defects before start-up at the beginning of a shift

- Remove and loads from the device.
- Visually inspect all assemblies for deformation or cracks.
- Check the lift mechanism for correct function and ease of movement. Look out for any unusual noises and blockages.
- Check the hydraulic system for leaks.
- Check the rollers for correct function and ease of movement.
- Check that retaining rings, locking and cotter pins are in place.
- Verify that all signs and warnings are present and legible.
- Check the function of the load hook safety catch and repair if necessary.
- Immediately notify the relevant supervisor(s) of any damage or defects on the device.
- Take any devices with damaged or defective safety-relevant components out of service and repair them before next use.

2 Setting up/converting the boom

WARNING!


Falling components!

Risk of personal injury and property damage due to the boom extension falling or slipping out.

► Align the boom horizontally to prevent it from falling or slipping out.

Setting up the boom

- Position the boom horizontally.
- Align the boom extension to the desired position.

 Changing the boom length changes the maximum load capacity. Observe the information on the boom extension!

- Insert the bolt at the desired point and secure with the cotter pin.

The boom is set up.

3 Raising the load

WARNING!

Inadequately secured load!

Risk of material damage and personal injury due to falling loads.

- ▶ Do not position body parts under the raised load.
 - ▶ Do not move loads unless they have been adequately secured.
 - ▶ If there is a risk of the load tipping: take appropriate protective measures.
-

NOTICE

Exceeding the permitted load capacity!

Risk of damage to the device due to excessive loads.

- ▶ Note the permissible maximum capacity.
 - ▶ The load capacity is reduced when the boom is extended.
 - ▶ Observe the information on the boom extension!
-

Raising the load

- Position the load centrally in front of the chassis.
- Apply the parking brakes on the swivel castors.
- Attach the lifting gear to the load.
- Attach the load to the load hook via the lifting gear.
- Move the pump lever up and down until the desired height is reached.

The load has been raised.

4 Moving the load

WARNING!

Swinging load!

Risk of personal injury and property damage due to swinging load or sudden tipping over.

- ▶ Ensure that the load is in correct condition.
 - ▶ Only move loads that have been attached correctly and securely.
 - ▶ Do not move the crane jerkily.
-

CAUTION!

Unintentional lowering of the load!

Risk of personal injury due to crushing.

- ▶ Do not place any part of your body between the raised load and the ground.
-

Moving the load

Requirements

- Load is raised.
- Parking brake is released.
- Steer the device to the left or right using the handle.

The device moves in the desired direction.

5 Lowering the load

CAUTION!

Lowering load!

Risk of personal injury due to crushing.


- ▶ Always lower the load slowly and carefully.
- ▶ Do not place any part of your body between the raised load and the ground.
- ▶ Never position body parts between the mast and the boom.
- ▶ Wear safety shoes.

NOTICE

Increased impact load!


Risk of device damage and malfunction due to excessively fast lowering of the load.

- ▶ Always lower the load slowly and carefully.

-  If the device is to be moved after depositing the load, ensure that there is sufficient room for manoeuvring.

Lowering the load

- Turn the star knob for the hydraulic valve with return spring to the left and slowly lower the load.

-  Due to the risk of damage to the load or the workshop crane, turn the star knob for the hydraulic valve with return spring carefully to the left.

The load has been lowered.

6 Parking the device

Parking the device securely

- Position the device on a smooth, level surface.
- Lower the boom fully.
- Fold up both sides of the chassis so that the device does not interfere with other operations.
- Then secure both sides using bolts with locking pins.
- Apply the parking brake on the swivel castor.

The device is parked securely.

G Maintenance and repair

1 Faults and troubleshooting

- In the case of a device fault, carry out the following troubleshooting measures.
- If you encounter problems when carrying out the measures or if they fail to rectify the problem, contact the manufacturer's customer service department.

CAUTION!

Incorrect maintenance!

Risk of material damage and personal injury due to failure of important components.

- ▶ Use only original spare parts from the manufacturer.
- ▶ Maintenance and repair work must only be completed by specialist personnel with the requisite training.
- ▶ When replacing rollers, ensure that the device remains level (e.g. always replace left and right at the same time).
- ▶ Always observe the device-specific settings when carrying out repairs or replacing components.

Fault table

Fault	Possible cause	Fault rectification
Crane cannot be erected.	Chassis cannot be folded down.	Check the chassis for external damage. Check the locking bolt.
	Chassis is not fully folded down.	Place the crane on level ground.
The workshop crane cannot be moved.	Parking brake is applied.	Release the parking brake.
	Parking brake jammed.	Check the function of the parking brake and contact customer service if necessary.
Load handler does not reach the top position.	Oil level in hydraulic reservoir too low.	Contact customer service.

Fault	Possible cause	Fault rectification
Load handler not lifting even though the hydraulic pump is working correctly.	Load too heavy.	Reduce the load.
	Load too heavy due to blockage.	Ensure that the load to be lifted is dismantled and/or can be moved freely.
	Hydraulic valve no longer closes or leaks due to oil contamination.	Clean the outside of the hydraulic unit and, if necessary, contact customer service.
	Star knob for hydraulic valve is not set correctly.	Adjust the hydraulic valve.
	Spring return on the star knob does not work.	Ensure correct function of the spring return.
	Viscosity of hydraulic oil is too high.	Check the temperature at the area of use.
	There is air in the hydraulic unit.	Contact customer service.
	Hydraulic unit is defective.	Contact customer service.
Raised load handler lowers automatically.	Hydraulic unit is leaking.	Contact customer service.
	Hydraulic valve no longer closes or leaks due to oil contamination.	Clean the outside of the hydraulic unit and, if necessary, contact customer service.
	Star knob cannot be turned back completely.	Check the spring return for contamination.
	Star knob rotates freely on the shaft.	Check the threaded rod on the star knob.
	Star knob does not reset automatically.	Ensure correct function of the spring return.
Raised load is lowered slowly or not at all.	Ambient temperature too low, hydraulic oil too viscous.	Move to area with higher ambient temperature.
	Star knob without function.	Check the threaded rod on the star knob.
	Hydraulic cylinder is damaged or deformed.	Contact customer service.

2 Maintenance

CAUTION!

Uncontrolled movement of the device!

Risk of personal injury and material damage due to sudden movements of the device.

- ▶ Park the device securely when not in use and before maintenance work.
- ▶ Apply the parking brake.

CAUTION!

Safety equipment rendered ineffective!

Risk of personal injury and material damage due to ineffective safety equipment.

- ▶ Never render safety equipment (e.g. safety catch on the load hook) ineffective.
- ▶ Repairs must only be carried out by qualified specialists.

2.1 Maintenance intervals

Requirements

- The device is used in single-shift operation.
- The device is used under normal operating conditions – see page 7.
- Maintain the device at the specified intervals.
- If the device is operated in very dusty conditions, subjected to extreme temperature fluctuations or used in multi-shift operation, the intervals must be reduced accordingly.

Maintenance interval	Maintenance
Daily.	Check the device before operation, check that the bolts and cotter pins are present and correctly seated – see page 17.
After the first 100 operating hours.	<ul style="list-style-type: none">– Re-tighten wheel nuts and bolts.– Check the hydraulic system for leaks.
Monthly.	<ul style="list-style-type: none">– Remove dirt and foreign bodies.
Every 3 months.	Check the setting of the hydraulic valve.
Every 6 months.	<ul style="list-style-type: none">– Check the function of the hydraulic valve.– Check all parts of the device for wear and replace faulty parts.
Annually or after unusual events.	Have safety checks performed at regular intervals and following any unusual events – see page 26.

2.2 Consumables

Lubricants

Lubricant		Value	Unit
Hydraulic oil	Oil type	HM or HL	-
	Viscosity	30	cSt at 40 °C
	Refill quantity	1.25	Litres

3 Repairs

3.1 Safety tests to be performed at intervals and after unusual events

- Always perform safety checks in accordance with national regulations. These may deviate from the steps listed below.

Requirements

- The inspecting person is qualified to conduct the following check.
- The inspecting person is independent and unbiased (from an operational and business perspective) and assesses the device purely in terms of its safety.
- The inspecting person possesses sufficient knowledge and experience to assess the condition of the device and the effectiveness of the safety equipment based on the rules of technology and the principles for testing the described device.
- Inspect the technical condition of the device with regard to accident safety.
- Thoroughly check the device for damage.
- Produce a written test report and retain it for at least 2 years. Responsibility for the test report rests with the owner.
- Rectify any identified defects before next using the device.
- Following a successful inspection, attach an inspection plaque to the device in a visible location.

H Shutdown, storage and disposal

1 Decommissioning

1.1 Shutting down the device

- Thoroughly clean the device.
- Apply a thin layer of oil or grease to any non-painted mechanical components.

1.2 Returning the device to service after shutdown

- Thoroughly clean the device.
- Apply a thin layer of oil or grease to any non-painted mechanical components.
- Start up the device.
- Perform a complete function check immediately after start-up.

2 Storage

2.1 Storing the device

NOTICE

Incorrect storage!

Risk of material damage.

- ▶ Always store the device in a dry and frost-free environment.
- ▶ Fold up the chassis, then park the device in a secured area to save space.

Storing the device

Requirements

- Device is being taken out of service for more than 2 months (e.g. for operational reasons).
- Device has been prepared for storage as described, see page 27.
- Protect the device against dust and corrosion, e.g. using a tarpaulin.
- Before storing the device for longer than 6 months, discuss necessary additional measures with the manufacturer's customer service department.

3 Disposal

3.1 Decommissioning the device

- Observe the applicable regulations in the country of use when decommissioning the device.

3.2 Disposing of the device

- Observe the country-specific regulations regarding disposal of the device and consumables.