KARL STORZ — ENDOSKOPE

en **Instructions for use**
COR equipment cart series

11-2023

CE

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1 General information

1.1 Read the instructions for use

If the instructions for use are not followed, patients, users, and third parties may be injured or the product may be damaged.

- Read the instructions for use carefully and follow all the safety notes and warnings.
- Read the reprocessing instructions carefully and follow all the safety notes and warnings. The reprocessing instructions can be downloaded from www.karlstorz.com/ifu by entering the item number.
- Keep the instructions for use and reprocessing instructions in a safe place.

1.2 Read the instructions for use of compatible products

If the instructions for use of compatible products are not followed, patients, users, and third parties may be injured or the product may be damaged.

- Read the instructions for use of the compatible products carefully and follow all the safety notes and warnings.
- Read the reprocessing instructions of the compatible products carefully and follow all the safety notes and warnings.

1.3 Scope

The products listed here may not yet be available in all countries due to differences in approval requirements.

This instruction manual is valid for:

Transport system for devices and accessories

Product	Item number
Equipment Cart Boom Package, small, 115 V	UG040
Equipment Cart Boom Package, small	UG041
Equipment Cart Boom Package, high, 115 V	UG050
Equipment Cart Boom Package, high	UG051
LC Equipment Cart Boom Package	UG052
Boom Package, high, CH version	UG055
Isolation Transformer 100–120 V, 2,000 VA	UG300
Isolation Transformer 200–240 V, 2,000 VA	UG310
Earth Leakage Monitor 100–120 V	UG400
Earth Leakage Monitor 200–240 V	UG410
Monitor Holder	UG500
Monitor Holding Arm	UG510
Monitor Holding Arm, long	UG520
Monitor Swivel Arm	UG540

1.4 General signs and symbols

The signs and symbols used in this document have the following meaning:

Practical tip

This sign refers to useful and important information.

Actions to be performed

Action to be carried out by several steps:

- ✓ Prerequisite that must be met before carrying out an action.
1. Step 1
   - ⇨ Interim result of an action
2. Step 2
- ⇨ Result of a completed action

Actions in safety notes or in the case of a single step:

- ▶ Step 1

Lists

1. Numbered list
- Unnumbered list, 1st level
  - Unnumbered list, 2nd level

1.5 Description of warning messages

To prevent any injury to persons or damage to property, the warnings and safety notes in the instructions for use must be observed. The warnings use the following levels of danger:

⚠ WARNING

WARNING

Designates a possible imminent risk. If this is not avoided, it could lead to death or serious injuries.

⚠ CAUTION

CAUTION

Designates a possible imminent risk. If this is not avoided, it could lead to minor injuries.

NOTICE

NOTICE

Designates a possibly harmful situation. If this is not avoided, the products could be damaged.

2 Normal use

2.1 Intended use

Transport system for devices and accessories

- Duration of use: Short-term; continuous use for ≤ 30 days
- Invasiveness level: Non-invasive; equipment carts do not come into direct contact with the patient during use

2.2 Indications

No specific medical indication.

2.3 Contraindications

The COR equipment cart series are not used in body contact with the patient directly or indirectly, therefore contraindications cannot be applied to the COR equipment cart series.

2.4 Clinical benefits

No direct clinical benefit. The developed COR equipment cart system enables required equipments, devices and products to be positioned in OR in most space-efficient way. With its modular design, COR equipment cart series can be adapted to the respective requirements of the OR and supplemented with necessary add-on accessories at any time. Due to its modular concept, the COR equipment cart series may support the treating physician during different kinds of interventions, as necessary add-on accessories can be stored as needed.

The COR equipment carts contribute to the clinical benefit by allowing safe transportation of devices with ease of devices use during the procedure. Nevertheless, the devices for which the COR equipment cart series are used (monitors, instruments, etc.) contribute to the clinical benefit of the patients and these are indirectly related with the ease of use of the COR equipment cart series.

2.5 Residual risks

No residual risks directly related to the product were identified.

2.6 Target user populations

The medical device may only be used by doctors and medical assistants with a relevant specialist qualification.

2.7 Patient population

There are no restrictions in terms of patient groups for this product.

3 Safety and warning

⚠ WARNING

Danger due to non-observance of warnings and safety notes

This chapter contains warnings and safety notes structured according to hazards and risks.

- ▶ Carefully read and observe all warnings and safety notes.
- ▶ Follow the instructions.

3.1 Serious incidents

A ‘serious incident’ includes incidents which, directly or indirectly, had, could have had or could have any of the following consequences:

- – Death of a patient, user, or another person
- – Temporary or permanent serious deterioration in the medical condition of a patient, user, or another person
- – A serious threat to public health

- ▶ The manufacturer and appropriate authority must be notified of all serious incidents.

3.2 Correct handling and product testing

If the product is not handled correctly, patients, users, and third parties may be injured.

- ▶ Only persons with the necessary medical qualification and who are acquainted with the application of the product may work with it.
- ▶ Check that the product is suitable for the procedure prior to use.
- ▶ Check the product for the following properties, for example, before and after every use:
- – Functionality
- – Damage
- – Changes to the surface
- – In the case of several components: completeness and correct assembly

- ▶ Do not continue to use damaged products.
- ▶ Dispose of the product properly; see *Disposing of the product*.

3.3 Combination with other components

Combination of the product with unsuitable instruments and devices can result in uncontrolled behavior and injury to patients, users, and third parties.

- ▶ Only combine the product with devices and components that the manufacturer has approved for combined use, see chapter *Possible combinations*.
- ▶ Only use approved accessories.

3.4 Product not clean

The product is not clean when delivered. The use of products that have not been cleaned poses a risk of infection for patients, users, and third parties.

- ▶ Reprocess the product in line with the reprocessing instructions before initial use and every subsequent use.

3.5 Dangers from electrical current

An improper power supply may cause an electric shock and injure patients, users, or third parties.

- Ensure that all electrical installations of the operation room in which the product is connected and used conform with the applicable IEC standards.
- Use either the power cord supplied by KARL STORZ or a power cord which has the same properties and which bears a national mark of conformity.
- The product may only be operated with the line voltage stated on the rating plate.
- Connect the product to a power supply with protective conductor.
- Do not use freely accessible multiple socket outlets.

In the case of electrical products, individual components or the product itself may be live. Live parts can cause electric shocks in the event of contact and injure patients, users, and third parties.

- Do not touch the output jacks of the product and the patient at the same time during use
- Have servicing carried out by KARL STORZ or a company authorized by KARL STORZ.
- Always pull out the mains plug before carrying out any cleaning and maintenance work.

3.6 Damage due to ingress of liquid in electrical components

In the case of electrical products, individual components or the product itself may be live. Liquid ingress into an electrical product may result in a short circuit or an unintentional transfer of current. The product is damaged as a result and patients, users and third parties may be injured.

- Do not store liquids near the product or on the product.
- If liquid has entered the product, pull out the plug and allow the product to dry completely.

3.7 Electromagnetic interference

Medical electrical devices are subject to special precautions regarding electromagnetic compatibility. If other devices (e.g., MRT, CT, diathermy, electrocautery, or RFID) emit electromagnetic radiation, the product's functionality may be impaired. High-frequency (HF) communication equipment can affect electrical medical devices and impair their performance.

- During installation and operation of the product, please take note of the information on electromagnetic compatibility, see chapter *Electromagnetic compatibility*.

3.8 Failure of products

The product may fail during use.

- Have a replacement product ready for each application or plan for an alternative surgical technique.

4 Product description

4.1 Description of operation

4.1.1 Equipment cart

With the COR series, both safe transportation of devices and optimal working are guaranteed for endoscopic interventions. The field-specific configuration can be customized at any time by the addition of accessories. In addition, the configuration of the individual module components of the COR series can also be customized.

The central power supply to the equipment cart is supplied via the energy boom. In the energy boom with a power supply, the power lines of the electrical devices placed on the cart are connected to the isolation transformer and the potential equalization lines are connected to the potential equalization rail.

4.1.2 Isolation transformer with earth leakage monitor

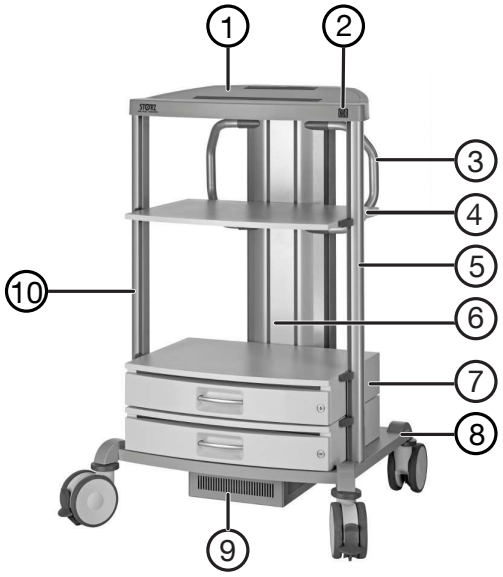
The earth leakage monitor is a monitoring/signaling device and is connected via a special plug-in connection to the isolation transformer. This ensures the safety of the electrical supply to devices on the equipment cart. The isolation transformer switches off automatically in the event of an overload and returns to operation once the temperature has cooled to 50 °C.
The earth leakage monitor monitors the dielectric resistance. If the resistance drops below a value of 50 kΩ, acoustic and visual signals are issued. In addition to the isolation resistance, the operating temperature and power utilization of the isolation transformer are also monitored.

4.2 Product overview

4.2.1 Equipment cart

The basic module of the COR equipment cart consists of the following components: cover, base plate with double castors, and boom package.

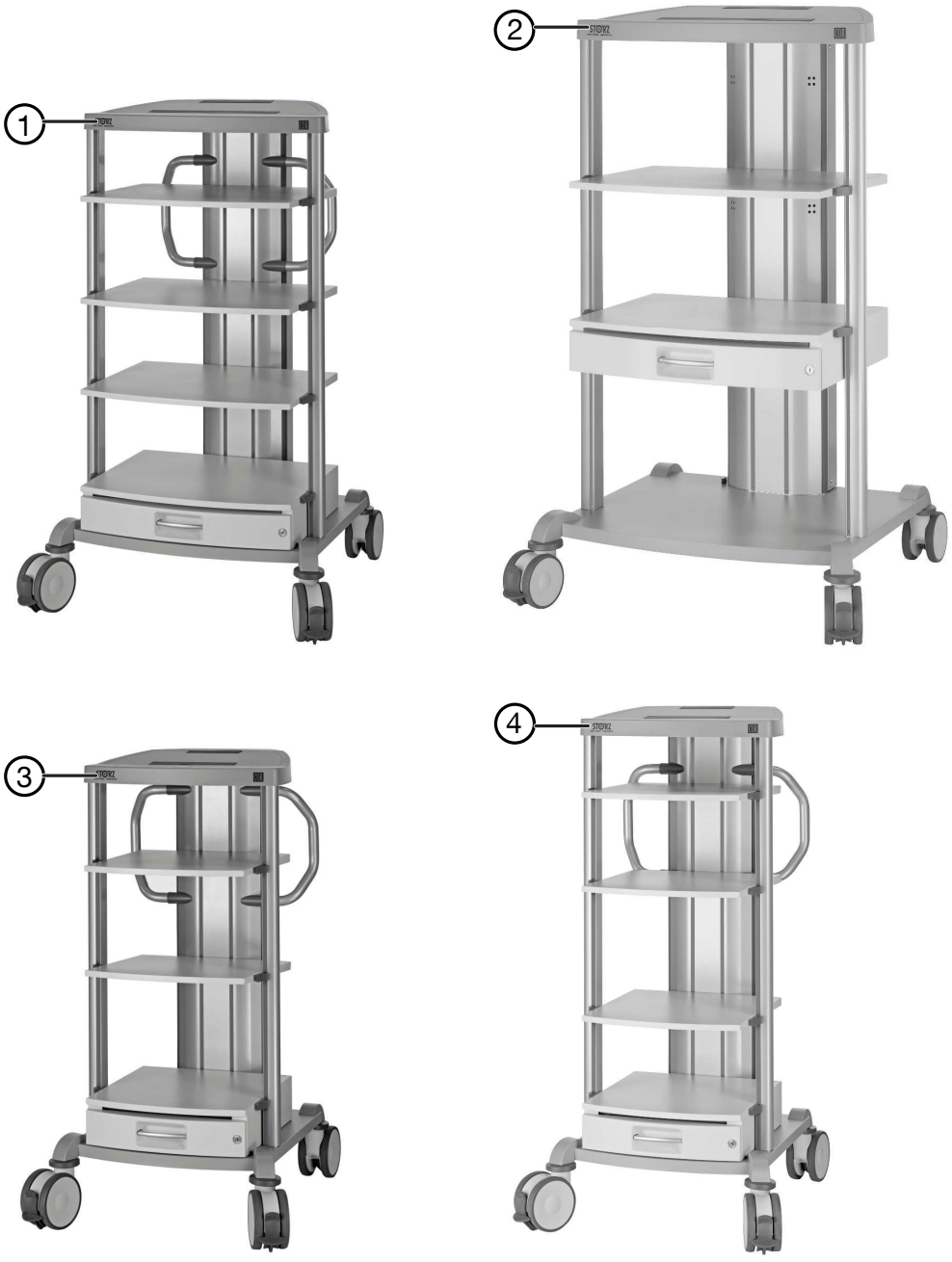
Auxiliary modules can be added to the basic module. In this context, the requirements of CEI/IEC 60347-7-710 must be observed by the operating organization.



Equipment Cart, e.g., UG210

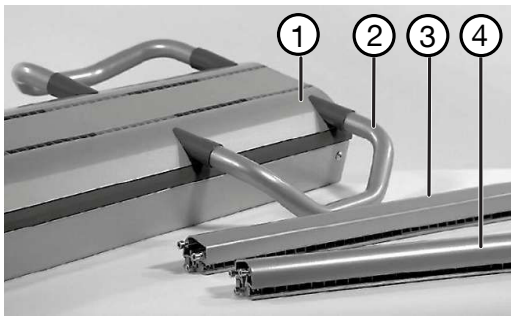
1 Cover
2 Central power switch
3 Transport handles
4 Shelf
5 Side boom, right (boom package)
6 Energy boom (boom package)
7 Drawer unit
8 Base module
9 Isolation transformer
10 Side boom, left (boom package)

4.2.1.1 Configuration examples



1 Equipment cart, wide, high (UG220)
2 LC equipment cart (UG230)
3 Equipment cart, narrow, small (UG110)
4 Equipment cart, narrow, high (UG120)

4.2.2 Boom package



1	Energy boom	3	Side boom, left
2	Transport handles	4	Side boom, right

4.2.3 Base module

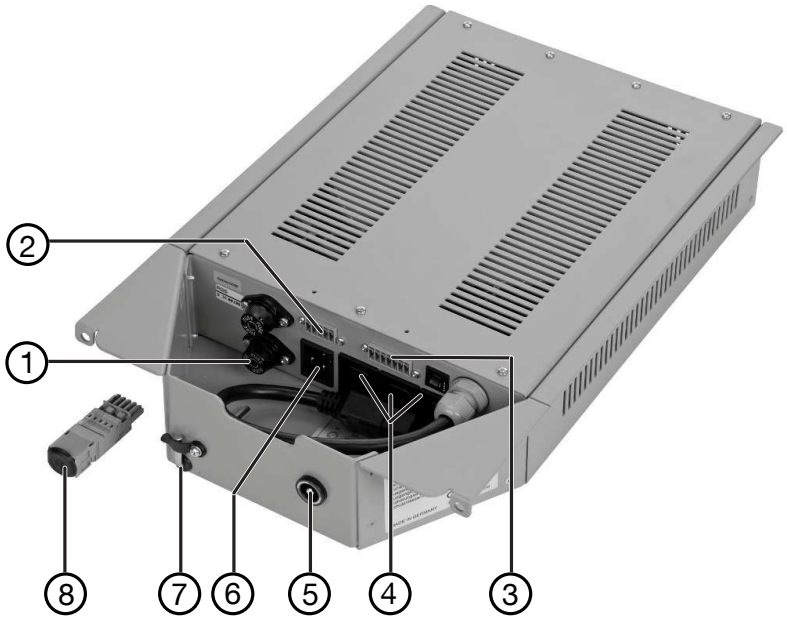
1	Base	3	Locking brake
2	Impact protection	4	Double swivel castor

4.2.4 Cover

The cover consists of the following components:

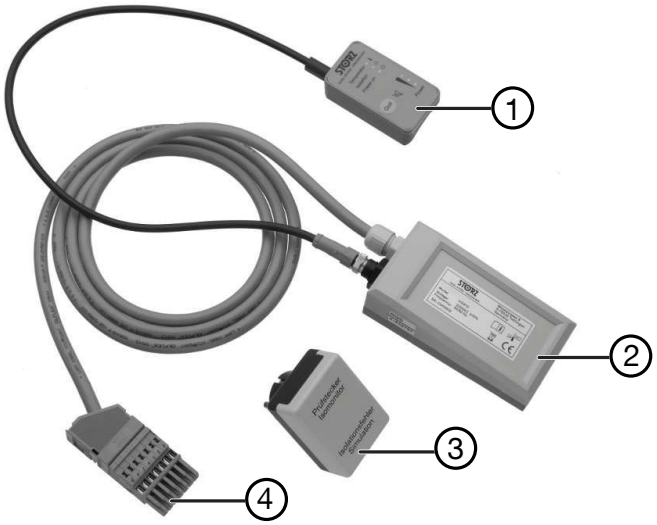
- Frame with main power switch on right
- Supply line to the distributor box/isolation transformer
- Cable bushing for earth leakage monitor
- 9 elongated holes for fixing on the energy/side booms
- Cable opening to the boom
- Service flap with rubber lips
- 5 positions for monitor holding arms with blind plugs

4.2.5 Isolation transformer



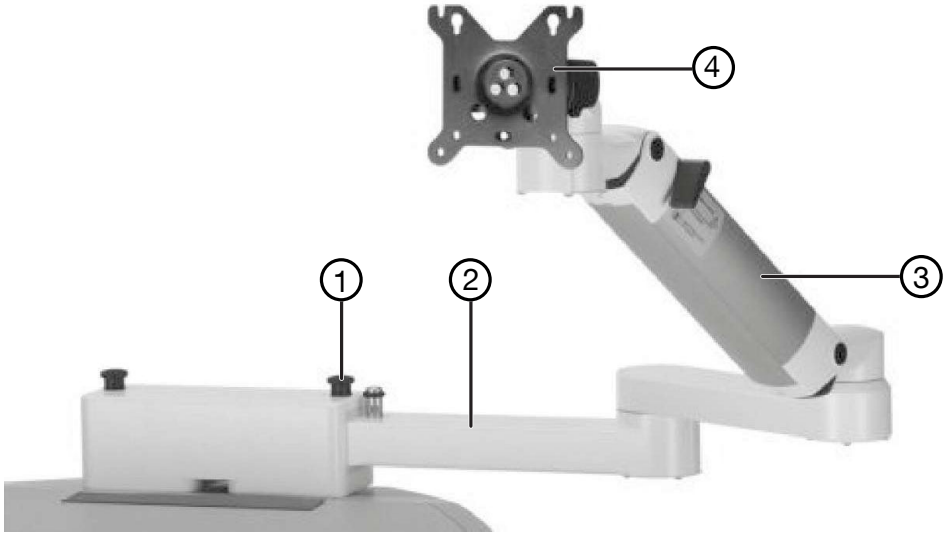
1	Fuse holder for device fuses	5	Potential equalization connector
2	Connection for main power switch	6	Power input connector
3	Connection for earth leakage monitor	7	Allen key
4	IEC connector sockets	8	Connection bridge

4.2.6 Earth leakage monitor



1	Control and display element	3	Test plug
2	Evaluation element	4	Connector for isolation transformer

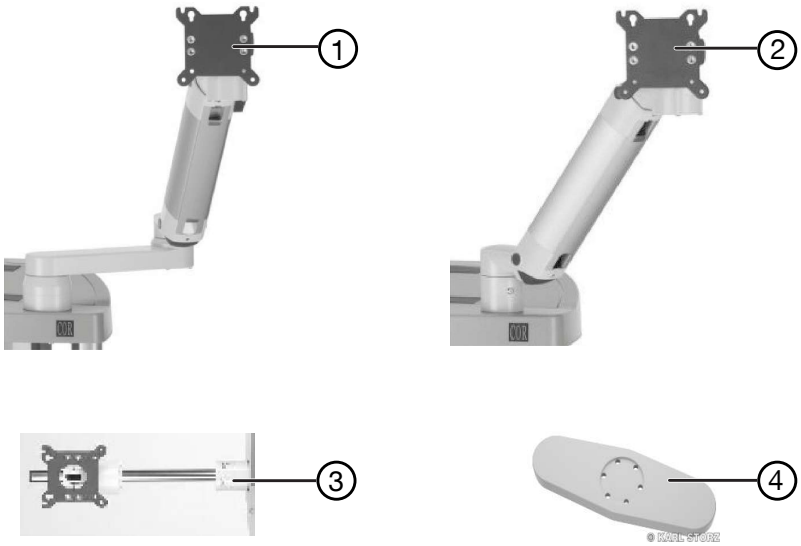
4.2.7 Holders for monitors and navigation cameras



Monitor swivel arm (UG540)

1	Fastening on the equipment cart	3	Holding arm
2	Swivel arm	4	Holder

4.2.7.1 Holder models

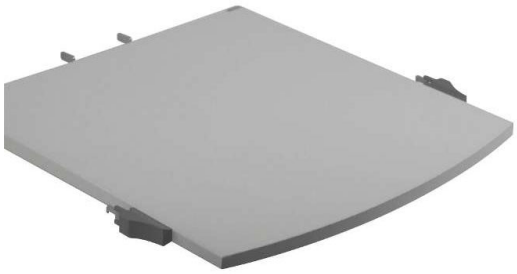


1	Monitor Holding Arm (UG520)	3	Monitor Holder (UG500)
2	Monitor Holding Arm (UG510)	4	Monitor Holder Adaptor (UG501)

4.3 Possible combinations

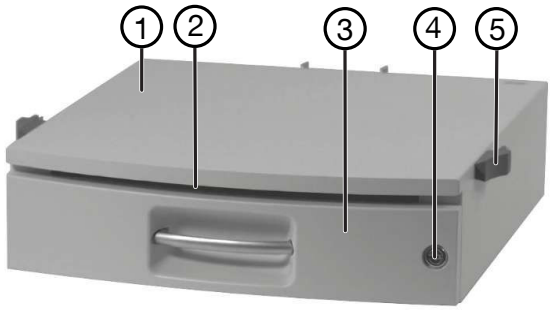
The COR equipment cart can be combined with the following components, depending on the size and version.

4.3.1 Shelf



4.3.2 Drawer unit

Drawer units come in two different sizes depending on the cart version. The number of drawers can be individually defined and depends on the boom length.



1 Placement space
2 Cable slot
3 Drawer
4 Lock
5 Tool-free attachment

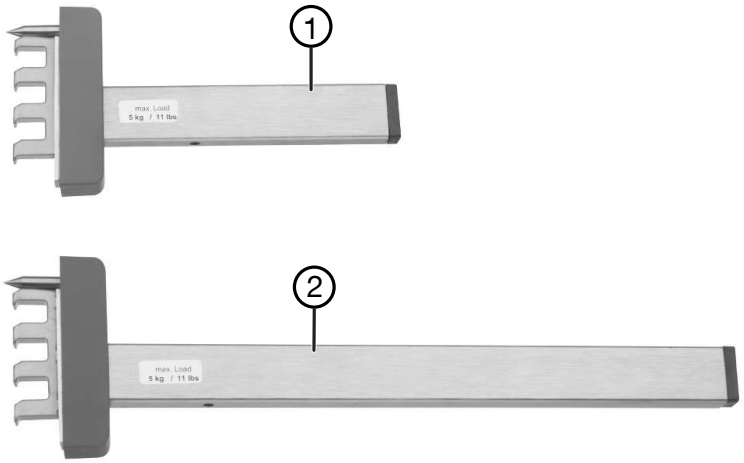
4.3.3 Pull-out elements

1 Sliding Tray Holder, narrow (UG610)
2 Sliding Tray Holder, wide (UG611)
3 Keyboard Shelf, narrow/wide (UG605, UG6060)

4.3.4 Holders for endoscopes

Holder for Flexible Endoscopes (8404IFH)

4.3.5 Equipment rails



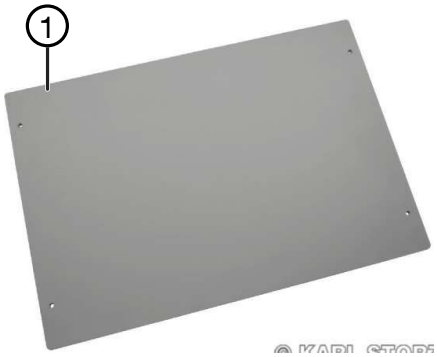
1 Equipment rail, short (UG607)

2 Equipment rail, long (UG608)

4.3.6 Holders for special applications

1 Footswitch Holder, for one-pedal footswitch (29005EFH)
2 Adaptor Plates, for CO_2 bottle holder, twin (UG627)
3 CO_2 Bottle Holder (UG609)
4 IV Pole (UG616, UG625)
5 IV Pole, height adjustable (UG617, UG626)
6 Holder for Support Element (UG613)
7 Camera Holder (UG612)
8 Pump Holder (UG624N)
9 Camera Holder (UG622)
10 Multifunctional Holder, long (UG623L)
11 Cable Manager (UG619)
12 Bracket (UG630)
13 Footswitch Holder, for two-pedal footswitch (29005DFH)
14 Multifunctional Holder (UG623)
15 COR Service Cover, narrow/wide (UG628, UG629)

4.3.7 Counterweights



1 Counterweight plate (UG614)

2 Additional weight (UG615)

4.4 Technical data

4.4.1 Equipment cart

Designation	UG110	UG120	UG210	UG220	UG230
Dimensions (W x H x D)	660 x 1,265 x 730 mm	660 x 1,474 x 730 mm	840 x 1,265 x 730 mm	840 x 1,265 x 730 mm	840 x 1,449 x 730 mm
Weight	68 kg	74 kg	78 kg	86 kg	79.5 kg
Boom package	UG40, UG41	UG50, UG51	UG40, UG41	UG50, UG51	UG52
Cover	UG020	UG020	UG021	UG021	UG022
Base module	UG010	UG010	UG011	UG011	UG012
Castor diameter	150 mm	150 mm	150 mm	150 mm	125 mm
Max. total weight	275 kg		275 kg		
Max. load	189 kg		189 kg		

4.4.2 Boom package

Designation	UG040	UG041	UG050	UG051	UG055	UG052
Energy boom (W x H x D)	580 x 972 x 125 mm		580 x 1,134 x 125 mm			
Weight	23.5 kg		25.5 kg			22.5 kg
Side boom (W x H x D)	55 x 972 x 45 mm		55 x 1,134 x 45 mm			
Power connection	115 V	230 V	115 V	230 V	230 V	230 V
Max. load for multiple socket outlet	15 A/110 V	16 A/230 V	15 A/110 V	16 A/230 V	16 A/230 V	16 A/230 V

4.4.3 Base module

Designation	UG010	UG011	UG012
Dimensions (W x H x D)	660 x 235 x 730 mm	840 x 235 x 730 mm	840 x 210 x 730 mm
Weight	23 kg	25 kg	24.2 kg
Castor diameter	150 mm	150 mm	125 mm
Equipment cart	Narrow	Wide	LC

4.4.4 Cover

Designation	UG021	UG020	UG022
Dimensions (W x H x D)	740 x 85 x 520 mm	560 x 85 x 520 mm	560 x 85 x 520 mm
Weight	15 kg	14 kg	14.2 kg
Equipment cart	Wide	Narrow	LC

4.4.5 Drawer unit

Designation	UG601	UG602
Dimensions (W x H x D)	450 x 126 x 510 mm	630 x 126 x 510 mm
Weight	11.3 kg	13 kg
Max. load for drawer	5 kg	5 kg
Max. load for placement space	60 kg	60 kg
Equipment cart	Narrow	Wide

4.4.6 Shelf

Designation	UG603	UG604
Dimensions (W x H x D)	450 x 25 x 510 mm	630 x 25 x 510 mm
Weight	4.5 kg	5 kg
Max. load for shelf	60 kg	60 kg
Equipment cart	Narrow	Wide

4.4.7 Holders for monitor and navigation camera

Designation	UG500	UG501	UG510	UG520	UG540
Dimensions (W x H x D)		245 x 20 x 80 mm			
Weight	2 kg	0.8 kg	3.9 kg	5.6 kg	9.9 kg
Max. load	18 kg		15 kg	15 kg	15 kg
Swivel range			320°	320°	180°
Range of rotation	Approx. 360°				
Projection			530 mm	760 mm	780 mm 1,170 mm from center
Operation	Monitor	Monitor adaptor	Monitor	Monitor	Monitor

4.4.8 Holders for endoscopes

Designation	8404IFH
Dimensions (W x H x D)	290 x 520 mm
Weight	1.5 kg
Operation	Flexible endoscope

4.4.9 Holders for special applications

Designation	UG609	UG612	UG613	UG616
Dimensions (W x H x D)	230 x 280 x 210 mm	Ø 75 x 90 mm	Ø 30 x 175 x 65 mm	1,300 mm
Weight	2 kg	0.5 kg	0.4 kg	1.65 kg
Max. load	40 kg	0.5 kg	10 kg	2 bottle hooks, 5 kg each
Operation	CO_2 bottle	Camera	Support element	Infusion

Designation	UG617	UG619	UG622
Dimensions (W x H x D)	1,200–1,800 mm	Ø 65 x 35 mm	Ø 31.7 x 29 mm
Weight	1.7 kg	0.3 kg	0.03 kg
Max. load	2 bottle hooks, 5 kg each		0.5 kg
Operation	Infusion	Cable	Camera

Designation	UG623	UG623L	UG624	UG627
Dimensions (W x H x D)	Ø 40 x 60 mm	192.08 x 60 x 40 mm	30 x 270 x 30 mm	250 x 249 x 4 mm and 150 x 249 x 4 mm
Weight	0.3 kg	0.5 kg	0.8 kg	3.1 kg
Max. load	10 kg	10 kg	10 kg	80 kg
Operation	Multifunction	Multifunction, two-part	Pump	2 CO_2 bottles

Designation	UG630	29005EFH	29005DFH
Dimensions (W x H x D)	45 x 50.5 x 67.5 mm	100 x 115 x 90 mm	50 x 130 x 60 mm
Weight	0.4 kg	1 kg	0.5 kg
Max. load	5 kg	1.5 kg	3 kg
Operation	Multifunction	One-pedal footswitch	Two-pedal footswitch

4.4.10 Keyboard shelves

Designation	UG605	UG606
Dimensions (W x D)	430 x 480 mm	630 x 480 mm
Max. load	10 kg	10 kg
Operation	Equipment cart, narrow	Equipment cart, wide

4.4.11 Equipment rails

Designation	UG607	UG608
Dimensions (W x H x D)	10 x 25 x 170 mm	10 x 25 x 300 mm
Weight	0.22 kg	0.32 kg
Max. load	5 kg	5 kg

4.4.12 Counterweights

Designation	UG614	UG615
Dimensions (W x H x D)	356 x 6 x 478 mm	290 x 6 x 478 mm
Weight	8 kg	6 kg

4.4.13 Isolation transformer

Product features:

- Sturdy metal housing, substructure device with multiple socket outlet
- Protected against short circuits and overloads

- Integrated temperature monitor in the primary circuit
- Fusing (2-pin) in the primary circuit
- Automatic cutout (1-pin) to protect the 7-pin output connector
- Plug-in connection (5-pin) for 2-pin power switch (external)
- Starting current limitation: electronic
- Output cable approx. 0.4 m HARSJT 3xAWG12 (option for max. 16 A: HARSJT 3xAWG14) with IEC connector socket (IEC 60320/C19)
- Approval as per IEC/EN 60601-1, IEC/EN 60601-1-2, IEC 60601-1; IEC 60601-1-2
- Compliance with the Low Voltage Directive 2014/35/EU (2006/95/EC)
- For medical systems according to the European Medical Device Regulation (MDR) EU 2017/745

Designation	**UG300**	**UG310**
Dimensions (W x H x D)	330 x 89.5 x 494.5 mm	330 x 89.5 x 494.5 mm
Weight	23 kg	23 kg
Operating voltage (AC)	100–120 V	200–240 V
Power consumption	2,000 VA	2,000 VA
Output current	19.50–16.25 V	9.75–8.12 V
Fuse rating	20 A	10 A
Leakage current	at 132/264 V < 300/500 µA	at 132/264 V < 300/500 µA
Automatic cutout: A	3 A	3 A
Electrical protection class	I	I
Degree of protection acc. to IEC 60259	IP 20	IP 20
Fuse type		
F20A-H	ESKA 1038.631 (420020)	
T20A-H	ESKA (option) 1038.331 (440020)	
F10A-H		ESKA 1038.627 (420010)
T10A-H		ESKA (option) 1038.327 (440010)
10.3 x 38 mm	x	x
5 x 20 mm		x (option)

The fine-wire fuses must be labeled with UL/CSA approvals for the American market and with VDE/EN approvals for the European market.

4.4.14 Earth leakage monitor

Designation	UG400	UG410
Dimensions (W x H x D)	44 x 80 x 28.7 mm	44 x 80 x 28.7 mm
Evaluation element dimensions	67 x 125 x 40 mm	67 x 125 x 40 mm
Weight	0.8 kg (control unit)	0.8 kg (control unit)
Operating voltage (AC)	100–120 V	200–240 V
Operating frequency	50/60 Hz	50/60 Hz
Response threshold (dielectric resistance)	≤ 25 kΩ	≤ 50 kΩ
Response time	< 2 seconds	< 2 seconds
Power consumption	4 VA at 120 V AC / 50 Hz	4 VA at 240 V AC / 50 Hz
Electrical protection class	II	II
Degree of protection acc. to IEC 60259	IP 40	IP 40

4.5 Symbols employed

4.5.1 Symbols on the packaging

Symbol	Meaning
	Manufacturer
	Date of manufacture
	Medical device
	Article no.
	Serial number
	Number of products in the product packaging
	Unique Device Identifier
	Consult the printed or electronic instructions for use

Symbol	Meaning
	Fragile, handle with care
	Keep away from sunlight
	Keep dry
	Federal (USA) law restricts this device to sale by or on the order of a physician.
	CE marking With this marking, the manufacturer declares the conformity of the product with the applicable EU directives. A code number after the CE mark indicates the responsible notified body. The EU directives relevant to the product can be found in the EU Declaration of Conformity, which can be requested from KARL STORZ.

4.5.2 Symbols on the product

Symbol	Meaning
	ON
	OFF
	Separate collection of electrical and electronic devices. Do not dispose of in household refuse.
	CE marking With this marking, the manufacturer declares the conformity of the product with the applicable EU directives. A code number after the CE mark indicates the responsible notified body. The EU directives relevant to the product can be found in the EU Declaration of Conformity, which can be requested from KARL STORZ.
	Potential equalization connector
	Protection class II
	Alternating current

Symbol	Meaning
	Note for the user to consult the instructions for use for important cautionary information such as warnings and precautions.
	Follow the instructions for use. The color may differ on the product. The symbol is black/white on the packaging label.
	Do not extend the monitor arm beyond the rear of the cart. Always secure devices and monitors when moving the cart.

4.6 Ambient conditions

Storage/transport conditions (with electronic equipment)	
Temperature	-10 °C ... +60 °C
Relative humidity	5 – 95%
Air pressure	min. 700 – 1,060 hPa

Storage/transport conditions (without electronic equipment)	
Temperature	-20 °C ... +60 °C
Relative humidity	5 – 95%
Air pressure	min. 700 – 1,060 hPa

Operating conditions	
Temperature	0 °C ... +40 °C
Relative humidity	30 – 75%
Air pressure	min. 700 – 1,060 hPa

4.7 System description

This chapter describes the requirements for medical electrical systems according to IEC 60601-1: Medical electrical equipment, section 16.

4.7.1 Definition

A medical electrical system (ME system) is a combination of individual devices, of which at least one has to be a medical electrical device. The devices are interconnected by a functional connection or a multiple socket outlet. Multiple socket outlets which are provided for the ME system may only be used to supply power to devices which are designated as part of the ME system.

The COR equipment cart system may, for example, consist of the following components:

- Monitor
- Control unit
- Videoendoscope

The components can be connected with control cables.

In addition, the auxiliary modules listed in the technical data may be used individually.

Other system components are not covered by these instructions for use. All changes and additions must be completely re-evaluated and documented in accordance with IEC 60601-1. Risk management must be observed in accordance with the standards. All instructions for use of the

system components remain valid and must be observed. Components and equipment that are not part of the system may only be connected to the system with additional documentation, assessment, and additional notes for the user.

4.7.2 Application area

Aside from the applied parts, no other parts of the system are suitable for use within the patient environment.

4.7.3 Combination with non-medical products

The system must not be connected to other non-medical products. All deviations from this instruction require a new assessment of risks and additional documentation with warnings and notes for the user. All medical electrical components are considered products for the purposes of IEC 60601-1.

4.7.4 Permissible system load

1. To determine the maximum load that must be absorbed by the system, follow the instructions for use of the products.
2. Check the maximum permissible load of a multiple socket outlet in connection with a KARL STORZ isolation transformer depending on the model used.

ⓘ If the isolation transformer is connected to the system via a multiple socket outlet, the isolation transformer is part of the medical electrical system.

4.7.5 Multiple socket outlets

According to IEC 60601, Section 3, Term 3.67, a multiple socket outlet consists of one or more socket outlets that may be connected to or integrated in medical devices via flexible cables or leads to form a supply network or to provide a comparable voltage.

There are two permissible options for connecting to the line voltage supply:

– Each product is supplied from a separate wall socket outlet.
– Products are operated in combination via a multiple socket outlet in connection with isolation transformers (e.g., in a video cart).

1. If using other connection methods or combinations of the entire system, take new measurements to ensure that the maximum leakage currents as per IEC 60601-1 are not exceeded.
2. Ensure that the multiple socket outlet can only be accessed with tools, so that the system cannot be subsequently modified.
3. Do not use freely accessible multiple socket outlets.
4. Do not use any additional multiple socket outlets or extension cables.
5. Do not place the multiple socket outlet on the floor.
6. Do not simultaneously touch the non-medical products and the patient in the patient environment.

4.7.6 Installation of the ME system

1. The ME system must be set up and installed by qualified personnel who have been authorized by KARL STORZ. Persons who have been commissioned with assembly by the operator or the responsible organizations are solely responsible for their actions.
2. Set up the COR equipment cart in accordance with the configuration plan and the assembly instructions. Necessary tools are included with the equipment cart components.
3. Install the ME system according to the information in the accompanying documents and the position of the devices as prescribed by the configuration plan.
4. Lay and connect the supply and connecting lines accordingly.

5. Connect the power lines and potential equalization lines (if applicable).

4.7.7 Commissioning the ME system

The ME system must undergo functional testing and safety testing during initial commissioning.

1. Commission all the components of the ME system as per their manual and test their functionality.
2. Test joint functionality for devices to be used in combination.
3. Document the correct functionality.
4. Have an electrical safety test carried out for the ME system, see see chapter *Safety inspection in accordance with IEC 62353* [p. 36].

4.7.8 Maintenance

1. Required maintenance work can be found in the instructions for use of the system components.
2. When a video cart is used, inspect the supply line for mechanical damage before each use of the system and arrange for a replacement to be carried out by a specialist if damage is detected.
3. After the initial assembly of all system components, perform a safety test according to IEC 62353. If the assembly is carried out at the factory, the protocol of the safety test is supplied.
4. Have the safety check carried out and recorded yearly by an electrician.

5 Preparation

5.1 Unpacking the product

1. Carefully remove the product and accessories from the packaging.
2. Check the delivery for missing items and possible damage.
3. In the case of damage, hidden defects, and short deliveries, document their nature and extent and contact the manufacturer or supplier immediately.
4. Keep packaging for further transport.

5.2 Reprocessing the product

- ▶ Reprocess the product in line with the reprocessing instructions before using it.

5.3 Assembling the product

Details of the assembly of the COR equipment cart series as well as the description of how devices are to be correctly positioned and connected on the cart can be found in the assembly instructions (Art. no. 96206915EN) and in the assembly video at http://www.karlstorz.com. A video on how to attach a monitor swivel arm to a COR equipment cart can also be found on the KARL STORZ website. KARL STORZ recommends that two persons assemble the cart.

1. Please follow the assembly instructions and the assembly video.
2. Check the stability with the devices mounted and with all accessories fitted.
3. Finally, mount the monitor holding arms on the equipment cart. Use a counterweight plate if necessary to ensure the equipment cart is stable.

5.4 Installing the shelf or drawer

The grid bars in the energy boom and side booms are divided into two colors for better orientation. The color of the bar changes every ten slots in order to facilitate installation of the shelves/drawers.

1. Count the grids in the energy boom and the side booms to ensure that there is an equal number of grids at the front and rear.
2. Push the shelf/drawers into the grid horizontally, pushing the locking pin of the plastic cover on the mounting hook into the grid as far as it will go.

5.5 Setting up the product

⚠ WARNING

Overheating! Risk of fire!

Insufficient ventilation can cause an internal build-up of heat, resulting in a safety shut-down. If the product overheats, there is a risk of fire. Patients, users, and third parties may be injured.

- ▶ Ensure that there is sufficient air circulation.
- ▶ Keep air inlets and outlets free.

⚠ WARNING

Product rolling away unintentionally or devices falling off it! Risk of injury!

Patients, users, or third parties may be injured if the product rolls away during application or the devices placed on the product are not adequately secured.

- ▶ Once the product is in position, use the locking brakes to secure it.
- ▶ Secure the devices placed on the product to prevent them from falling off.

This product and connected components may only be used in medical rooms with electrical installations that conform to applicable national regulations.

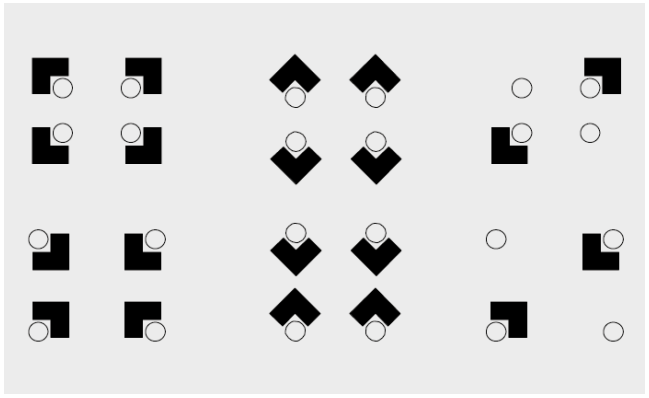
1. Place the product on a flat horizontal surface.
2. Keep the product out of reach of patients.

5.5.1 Securing the product

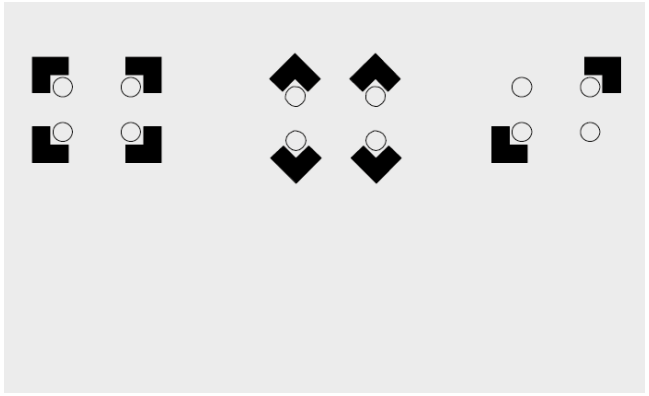
1. To prevent the equipment cart from rolling around, push the brake lever down with your foot and apply the locking brakes to the double swivel castors.

5.5.2 Securing devices

1. Secure the devices with the stabilizing elements to prevent them from falling.



Securing options for bases



Securing options for rail bases

5.6 Loading the product

⚠ WARNING

Working load too high! Risk of injury!

Patients, users, or third parties may be injured if excessive load is applied to the product or attachments.

- ▶ Observe the permitted working load of the product and attachments, see chapter *Technical data* [p. 19].

The center of gravity of the equipment cart changes as it is loaded.

1. Load the shelves and drawers of the equipment cart from the bottom up.
2. Load the monitor holding arms last.

5.7 Unloading the product

The center of gravity of the equipment cart changes as it is unloaded.

1. Unload the shelves and drawers of the equipment cart from the top down.
2. Firstly unload the monitor holding arms and then the shelves and drawer units.

5.8 Moving the product

⚠ WARNING

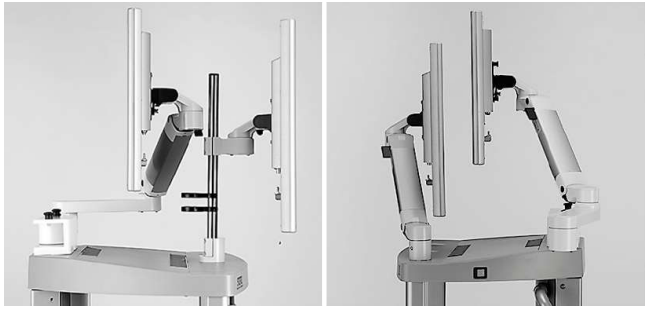
Product tipping over or hitting an object! Risk of injury and material damage!

People may be injured and the product may be damaged if the product tips over or hits a door frame when it is being moved, for example.

- ▶ Take care when moving the product.
- ▶ Look out for door frames, cables, and uneven floors.

All attachments must be put into the transport position before moving the equipment cart to a different location.

1. Switch off all devices.
2. Disconnect the external power supply.
3. Remove the potential equalization line.
4. Position the monitors in the direction of travel.



5. Push in all pull-out elements (drawers, keyboard shelves and sliding tray holders).
6. Lock all drawers.

7. Release the locking brakes on the double swivel castors by pushing the brake lever upward with your foot.

8. Move the equipment cart by holding the handles or both side booms at the same time.

5.9 Connecting the product

1. Use the brake lever to secure the double swivel castors on the equipment cart.
2. Switch off the central power switch of the equipment cart and the power switches of the devices on the cart.
3. Unwind the cart power line from the cable carrier.
4. Insert the power line's plug into a safe and grounded socket.

5.10 Connecting devices

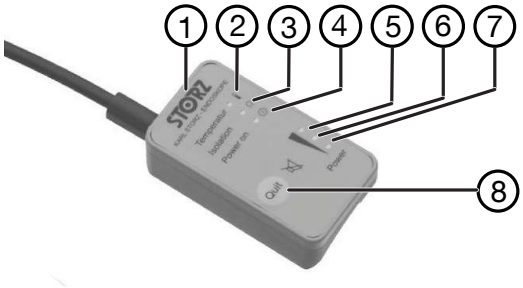
The devices are connected to the isolation transformer.

- ✓ A safe, grounded power connection is available.
- ✓ The complete ME system is switched off (OFF = 0).
- ✓ The power switch jumper plug (ST1) is disconnected.
- ✓ The devices are switched off (OFF = 0).
- ✓ The devices are compatible with the output voltage of the isolation transformer.
- ✓ The regulations, requirements, and prerequisites for supply lines and connecting cables have been observed.
- ✓ The necessary total output of the devices does not exceed the maximum total power consumption which is given on the rating plate.

1. Connect the devices to the isolation transformer (output).
2. Check that all supply lines and connecting cables are secure.
3. Switch on the isolation transformer (ON = I) or plug in the power switch jumper plug (ST1).

⇨ Voltage is present at the output. The devices can be switched on.

5.11 Connecting the earth leakage monitor



1 Control and display element

2 Temperature
LED yellow: Excess temperature

3 Isolation
LED yellow: Isolation error

4 Power on
LED green: Power indicator

5 Power
LED red: Power utilization >90%

6 Power
LED yellow: Power utilization >60%

7 Power
LED green: Power utilization >30%

8 “Quit” button
Acoustic alarm switch-off

1. Plug the 7-pin plug of the evaluation element of the earth leakage monitor into the connection on the isolation transformer.
2. Plug the 8-pin plug of the control and display element into the connection on the evaluation element.
   - ⇨ The “Power on” LED lights up and signals the operational readiness of the earth leakage monitor.
   - ⇨ The three “Power” LEDs indicate the current consumption of the connected devices.
   - ⇨ The “Temperature” LED lights up and a continuous tone sounds. The permissible operating temperature has been exceeded.
   - ⇨ The “Isolation” LED lights up and a pulsing signal sounds. The resistance has dropped below the threshold value of the earth leakage monitor.
3. Switch off the acoustic signal with the “Quit” button.
4. Rectify the fault.

⇨ The “Temperature” and “Isolation” LEDs go out.

5.12 Testing the system with the test plug

The system test must be performed every time before putting the equipment cart into operation. An isolation fault is simulated with the test plug for the system test.

1. Insert the test plug into one of the sockets on the equipment cart.
   - ⇨ Isolation fault: The “Isolation” LED lights up and a pulsing signal sounds.
2. Switch off the acoustic signal with the “Quit” button.
3. Remove the test plug.
   - ⇨ The “Power on” LED lights up and signals the operational readiness of the earth leakage monitor. The system test has been performed successfully.
   - ⇨ The “Isolation” LED lights up. The system test has not been performed successfully.
4. To continue testing the system, unplug one device after the other.
5. Repeat steps 1 – 3 until the “Power on” LED lights up in each case.

6. If all devices are disconnected from the isolation transformer and the system test still cannot be performed successfully, send the earth leakage monitor to the manufacturer with the isolation transformer.

6 Disassembly

6.1 Disconnecting the product from the power supply

1. In the case of devices that store data, save the data.
2. Switch off the power switches of the devices on the equipment cart.
3. Switch off the central power switch of the equipment cart.
4. Pull the plug of the power line out of the grounded socket.
5. Wind the power line around the carrier on the cart.

6.2 Removing the shelf or drawer

1. Remove all devices from the shelf/drawer.
2. Pull out the locking pins of the plastic cover.
3. Lift the shelf/drawer slightly and take it out.

7 Maintenance, servicing, repairs, and disposal

7.1 Maintaining the product

⚠ WARNING

Risk of injury due to product degradation!

Patients, users and third parties may be injured as a result of product and accessory degradation.

- ▶ Shut down the product.
- ▶ Have the deficiencies repaired by persons authorized by KARL STORZ.

If they are not described in more detail here, maintenance activities may only be performed by KARL STORZ or by a company authorized by KARL STORZ.

7.1.1 Maintenance

The following maintenance intervals are recommended:

Interval	Activity	To be performed by
annually	Safety test	KARL STORZ service technicians

7.2 Changing the fuse on the isolation transformer

⚠ WARNING

Undesired current flow! Risk of injury!

Live parts of the equipment can cause severe injuries due to electric shock.

- ▶ Do not open the housing.
- ▶ Make sure that the connection to the power supply is disconnected.
- ▶ Request a KARL STORZ service technician for service work.

- ✓ The product is switched off.
- ✓ The power cord is disconnected from the product.

1. Remove the fuse holder with a screwdriver.
2. Remove the defective fuse.
3. Insert a new fuse. Only use fuses with the specified values; see chapter see chapter *Isolation transformer* [p. 22].
4. Insert the fuse holder and fix in place with the screwdriver.
5. Connect the power supply again.
6. Switch on the product and test for proper operation.

7.3 Safety inspection in accordance with IEC 62353

⚠ WARNING

Risk of injury due to product degradation!

Patients, users and third parties may be injured as a result of product and accessory degradation.

- ▶ Shut down the product.
- ▶ Have the deficiencies repaired by persons authorized by KARL STORZ.

Regardless of the national accident prevention regulations and testing intervals for medical devices, for this device safety checks must be performed as repeat inspections according to IEC 62353 and recorded by a qualified electrician at least once a year. Detailed specifications regarding the scope and execution of the safety inspection can be found in the service manual.

7.3.1 Visual inspection

1. Check the product and accessories for any mechanical damage.
2. Check labels for readability.

7.3.2 Electric measurements

ⓘ Limit values for electrical measurements can be found in the current IEC 62353.

1. Measure the protective ground resistance.
2. Measure the earth leakage current.
3. Measure the touch current.
4. Measure the patient leakage current.

7.3.3 Functional test

Test the components of the product as follows:

1. Check that the double swivel castors move easily and are free from defects/cracks.
2. Check the function of the brakes.
3. Check the shelves, drawer units and other shelving areas to ensure they are sturdy and secure.
4. Move, tilt, and rotate the monitors on the holding arms.
   ⇨ Movement must function smoothly and without much play.
5. Check all connecting cables and connections for damage and ensure they are secure.
6. Document the results of the safety test.

7.4 Repairing the product

Repair work may only be performed by KARL STORZ or by a company authorized by KARL STORZ. The interventions described in this instruction manual are exempt from this rule.

- Please contact your local KARL STORZ subsidiary or authorized dealer (see the list of subsidiaries).

Contaminated devices may not be shipped. To prevent contact infections and airborne infections, products must first be decontaminated. KARL STORZ reserves the right to send back contaminated products.

7.5 Disposing of the products

The product meets the requirements of the Directive on Waste Electrical and Electronic Equipment (WEEE).

Within the scope of application of this directive, KARL STORZ SE & Co. KG is responsible for the proper disposal of this product.

1. The product must be disposed of in accordance with the applicable national regulations and laws at a suitable collection point for the reprocessing of electrical and electronic equipment.
2. Dispose of accessories in compliance with country-specific laws and regulations.

3. To prevent damage to the environment and personal injury, contact KARL STORZ SE & Co. KG, a KARL STORZ branch, or an authorized dealer and find out the address of the collection point in your area.

The following components can be disposed of without conditions:

Item	Item number
Monitor Holder	UG500
Monitor Holding Arm	UG510
Monitor Holding Arm, long	UG520
Monitor Swivel Arm	UG540
IV Pole	UG616
IV Pole, height adjustable	UG617

8 Accessories and spare parts

8.1 Accessories

Article	Order no.
Power cord, length 100 cm	UG700
Special power cord 15 A, length 100 cm	UG700U
Connecting cable, length 100 cm	UG702
Power cord, US 15 A, length 500 cm	UG709
Power cord, US 20 A, 500 cm	UG710
Power cord, China, length 500 cm	UG711
Power cord, UK, 500 cm	UG712
Equipment cart potential equalization cable set	29005PA-DR
Potential equipotential cable, 1 m	20010670
Potential equalization cable, 150 cm	20010570
Potential equalization cable length 200 cm	20010670
Potential equipotential cable, 5 m	20010270

8.2 Spare parts

Article	Order no.
COR, POAG rail base module	ET21-1001
COR, power cord, 5 m	ET21-1002
COR, POAG plate, energy boom	ET21-1004
COR, plastic cover, monitor mount	ET21-1006
COR, grid bar, dark	ET21-1007
COR, grid bar, light	ET21-1008
COR, service cover, narrow	ET21-1009
COR, service cover, wide	ET21-1010
COR, cover with logo, narrow	ET21-1011
COR, cover with logo, wide	ET21-1012
COR, rubber lip for energy boom	ET21-1013
COR, handle on energy boom	ET21-1014
COR, main power switch + cable	ET21-1015
COR, blind plug, power switch	ET21-1016
COR, cover for locking device	ET21-1017
COR, wheel covers	ET21-1018
COR, impact protection caps	ET21-1019
COR, T-slot rubber profile for side boom	ET21-1020

Article	Order no.
COR, cover for equipment rail	ET21-1021
6-way terminal strip, long cable	ET21-1022
6-way terminal strip, short cable	ET21-1023
COR, assembly set	ET21-1024
COR, screw set	ET21-1025
COR, key for drawer	ET21-1026
COR, non-slip corners	ET21-1030
COR, drawer insert, narrow	ET21-1031
COR, drawer insert, wide	ET21-1032
COR, side boom, low	ET21-1033
COR, side boom, high	ET21-1034
COR, lacquer RAL 9006 White aluminium	ET21-1035
COR, lacquer RAL 9002 Grey white	ET21-1036
COR, lacquer RAL 7042 Traffic grey	ET21-1037
COR, energy boom cover for OR1 AF 90x90	ET21-1038
COR, hinge set	ET21-1039
COR, tray, small	ET21-1040
COR, tray, large	ET21-1041
COR, 6-way terminal strip 125 V, US	ET21-1042
COR, Velcro strap for UG609	ET21-1043
Power distributor box, COR	ET21-1044
COR, energy boom cover, low	ET21-1045
COR, energy boom cover, high	ET21-1046
Velcro strap, 530 mm	ET21-1047U
COR, plug insert	ET69-3127000100
COR, earth leakage monitor display	ET69-3239001600
COR, earth leakage monitor 115 V	ET69-3239001700
COR, earth leakage monitor 230 V	ET69-3239001800
COR, test plug	ET69-3239001900
COR, 20 A fuses, transformer	ET69-3258010800
COR, 10 A fuses, transformer	ET69-3258011000
Fuse, 15 A	ET69-3258012100
COR, hook + clip for earth leakage monitor display	ET69-3225017400
COR, VESA 75/100 adaptor, rotating	ET71-K-AV-GS-BL
COR, accessories kit for UG500, UG510, UG520	ET71-SZ-B-001

Article	Order no.
COR, accessories kit for UG500, UG510, UG520	ET71-SZ-B-001
COR, cable conduit for UG500	ET71-SZ-B-004
COR, accessories kit for monitor holder UG501	ET71-SZ-B-005

9 Electromagnetic compatibility

9.1 General notes on the operating environment

Special environment

The product is suitable for use in close proximity to an active HF electrosurgical device in professional healthcare facility environments. Professional healthcare facility includes physician offices, dental offices, limited care facilities, freestanding surgical centers, freestanding birth centers, multiple treatment facilities, hospitals (emergency rooms, patient rooms, intensive care, surgical rooms, outside the RF shielded room of an ME system for MRT).

ⓘ This product has been evaluated for compatibility with high-frequency surgical equipment.

ⓘ The emission characteristics of this product make it suitable for use in professional healthcare environment as well as residential environment (CISPR 11 Class B). This product offers adequate protection to radio communication service. In the rare event of interference to the radio communication service, the user might need to take mitigation measures, such as relocating or re-orienting equipment.

⚠ WARNING

Electromagnetic interferences! Malfunction!

Use of this product adjacent to or stacked with other equipment could result in improper operation.

- ▶ This situation should be avoided.
- ▶ If such use is necessary: Verify that this equiptment and the other equipment are operating normally.

⚠ CAUTION

MR unsafe!

This product is MR unsafe.

- ▶ Keep the product away from the Magnetic Resonance Imaging (MRI) Scanner Room and mobile MRI scanner.

9.2 Accessories, transducers, and cables

System cables and maximum lengths used for EMC compliance				
Type	**Shield**	**Length [m]**	**Ferrite**	**Use**
COR, power cord	No	5	No	Power connection
Power cord, US, 15 A	No	5	No	Power connection
Power cord	No	1	No	Power connection
Special power cord, 15 A	No	1	No	Power connection
Potential equalization cable	No	5	No	Potential equalization

⚠ WARNING

Reduced immunity! Malfunction!

The use of an accessory, transducers and cables with the product other than those specified in this manual may result in increased emissions or decreased immunity.

- Preferably use the accessories specified in the manual.
- When using other than those specified in this manual, it becomes the responsibility of the user to determine compliance with IEC 60601-1-2.

⚠ WARNING

Degradation of performance! Malfunction!

Portable RF communications equipment (including peripherals such as antenna cables and external antennas) could result in degradation of the performance of the product.

- Use portable communications equipment no closer than 30 cm (12 inches) to any part of the product, including cables.

9.3 Test-Tables

9.3.1 Table 1 – Compliance level for immunity tests

Interference immunity tests	EN/IEC 60601-1-2 test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) acc. to IEC 61000-4-2	± 8 kV contact discharge ± 15 kV air discharge	± 8 kV contact discharge ± 15 kV air discharge	The relative humidity should be at least 30%.
Electrical fast transients/bursts acc. to IEC 61000-4-4	± 2 kV for power lines ± 1 kV for input and output lines 100 kHz repetition	± 2 kV/± 1 kV for power lines ± 1 kV for input and output lines 100 kHz repetition	The power supply quality should be that of a typical commercial or hospital environment.
Surges acc. to IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to ground	± 1 kV line(s) to line(s) ± 2 kV line(s) to ground	The power supply quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions, and fluctuations of the power supply acc. to IEC 61000-4-11	<u>Voltage dip:</u> Dip to 0% for 1 cycle @ 0° phase angle Dip to 70% for 25/30 cycles @ 0° phase angle Dropout to 0% for 0.5 cycles @ 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° phase angles <u>Voltage interruption:</u>	<u>Voltage dip:</u> Dip to 0% for 1 cycle @ 0° phase angle Dip to 70% for 25/30 cycles @ 0° phase angle Dropout to 0% for 0.5 cycles @ 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° phase angles <u>Voltage interruption:</u>	The power supply quality should be that of a typical commercial or hospital environment. If the user of the equipment requires continued operation in the event of interruptions to the power supply network, it is recommended that the equipment be powered from an uninterruptible power supply or a battery.

Interference immunity tests	EN/IEC 60601-1-2 test level	Compliance level	Electromagnetic environment – guidance
	100% for 250/300 cycles	100% for 250/300 cycles	
Magnetic field at the supply frequency (50 Hz/60 Hz) acc. to IEC 61000-4-8	30 A/m at 50 Hz/60 Hz	30 A/m at 50 Hz/60 Hz	If image distortion occurs, it may be necessary to position the equipment further from sources of power frequency magnetic fields or to install magnetic shielding. Before installing the device, the electromagnetic field should be measured to ensure that it is sufficiently low.
Immunity test acc. to IEC 61000-4–3 for high-frequency electromagnetic fields	3 V/m 80 MHz to 2.7 GHz see chapter *Table 2 – Test levels for proximity fields from RF wireless communications equipment* [p. 45] for wireless HF near field test levels	3 V/m 80 MHz to 2.7 GHz	-
Immunity to conducted disturbances, induced by radio-frequency fields acc. to IEC 61000-4-6	3 V_{rms} on 150 kHz to 80 MHz 1 kHz 80% AM modulation 6 V_{rms} in ISM frequency bands between 0.15 MHz and 80 MHz	3 V_{rms} on 150 kHz to 80 MHz 1 kHz 80% AM modulation 6 V_{rms} in ISM frequency bands between 0.15 MHz and 80 MHz	-
Magnetic field in close proximity, IEC 61000-4-39	8 A/m @ 30 kHz (CW modulation) 65 A/m @ 134.2 kHz (pulse modulation) 7.5 A/m @ 13.56 kHz (pulse modulation)	8 A/m @ 30 kHz (CW modulation) 65 A/m @ 134.2 kHz (pulse modulation) 7.5 A/m @ 13.56 kHz (pulse modulation)	-

9.3.2 Table 2 – Test levels for proximity fields from RF wireless communications equipment

Test frequency MHz	Frequency band [a] MHz	Radio service [a]	Modulation	Immunity test level V/m	Compliance level V/m
385	380–390	TETRA 400	Pulse modulation [b] 18 Hz	27	27
450	430–470	GMRS 460, FRS 460	FM [c] ± 5 kHz deviation 1 kHz sine wave	28	28
710	704–787	LTE band 13 & 17	Pulse modulation [b] 217 Hz	9	9
745					
780					
810	800–960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE band 5	Pulse modulation [b] 18 Hz	28	28
870					
930					
1720	1700–1990	GSM 1800, CDMA 1900, GSM 1900, DECT, LTE band 1, 3, 4, 25, UMTS	Pulse modulation [b] 217 Hz	28	28
1845					
1970					
2450	2400–2570	Bluetooth, WLAN 802.11 b/g/n, RFID 2450, LTE band 7	Pulse modulation [b] 217 Hz	28	28
5240	5100–5800	WLAN 802.11 a/n	Pulse modulation [b] 217 Hz	9	9
5500					
5785					

If necessary to achieve the immunity test level, the distance between the transmitting antenna and the product may be reduced to 1 meter. The 1 meter test distance is permitted by IEC 61000-4-3.

[a] For some radio services, only the uplink frequencies are included.

[b] The carrier shall be modulated using a 50% duty cycle square wave signal.

[c] As an alternative to FM modulation, the carrier may be pulse modulated using a 50% duty cycle square wave signal at 18 Hz. While it does not represent actual modulation, it would be worst case.

9.3.3 Table 3 – Emission class and group

Guidelines and manufacturer's declaration – electromagnetic emissions

The product is intended for use in such an environment as specified below. The customer or user of the device should ensure that it is used in such an environment.

Interference emission measurements	Conformity	Electromagnetic environment – Guidelines
RF emissions according to CISPR 11	Group 1	The product uses RF energy for its internal function only. Therefore, its RF emissions are very low and are not likely to cause any interference affecting nearby electronic equipment.
RF emissions according to CISPR 11	Class B	The product is suitable for use in all establishments including domestic establishments and those directly connected to the public low voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions acc. to IEC 61000-3-2	Class A	
Voltage fluctuations/flicker emissions acc. to IEC 61000-3-3	Compliant	

10 Errors and messages

10.1 Fault correction

Fault	Possible causes	Actions
The connected devices do not work	Equipment cart not switched on	▶ Switch on the central power switch on the equipment cart
	Device not switched on	▶ Switch on the power switch on the device
	Device power line not connected to the central power supply	▶ Check the device power supply and, if necessary, connect
	Equipment cart power line not connected	▶ Check the equipment cart power supply and, if necessary, connect
	No output voltage at the power distributor	▶ Check the interface connection between the power distributor and the central power switch ▶ Disconnect the power distributor from the power supply and remove all devices at the output ▶ Connect the power distributor to another power supply ▶ Check the automatic cutout of the supply circuit ▶ Contact Service
	No output voltage at the isolation transformer	▶ Check the interface connection between the isolation transformer and the central power switch ▶ Disconnect the isolation transformer from the power supply and remove all devices at the output of the isolation transformer ▶ Check the fine-wire fuses at the input module of the isolation transformer ▶ Connect the isolation transformer to another power supply ▶ Check the automatic cutout of the supply circuit

Fault	Possible causes	Actions
		▶ Check the overcurrent safety switch in the output circuit of the isolation transformer ▶ Contact Service
Earth leakage monitor does not work	Equipment cart not switched on	▶ Switch on the central power switch on the equipment cart
	Earth leakage monitor not connected to the isolation transformer	▶ Connect the earth leakage monitor with the interface line to the isolation transformer
	Isolation transformer not connected to the power supply	▶ Connect the isolation transformer to the central power switch of the equipment cart
	Safety features active (fine-wire fuse, automatic cutout of the supply circuit, overcurrent safety switch in the output circuit)	▶ Disconnect the isolation transformer from the power supply and remove all devices at the output of the isolation transformer ▶ Check the fine-wire fuses at the input module of the isolation transformer ▶ Check the automatic cutout of the supply circuit ▶ Check the overcurrent safety switch in the output circuit of the isolation transformer ▶ Contact Service

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