

Integral Assist Installation instructions

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Translation of the original German installation instructions



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Foreword

These installation instructions will help you to install the electrically driven castor “Integral Assist” properly and safely.

In these installation instructions, it is referred to as the “device”.

The installation instructions will be referred to below as “instructions”.

Part of the device

The instructions form an integral part of the device.

- Carefully read the instructions before working on or with the device.
- Read and observe the instructions and guidelines in the instructions.
- Ensure that the instructions are accessible to the user at all times.
- Retain the instructions for the entire service life of the device.
- If the instructions are lost or become illegible, request a new copy from the manufacturer.
- Pass on the instructions to any subsequent owners of the device.

Target group

These operating instructions are intended for anybody

- installing,
- connecting and
- using the device.

In particular, they are aimed at fitters at frame manufacturers and users.

It is the responsibility of all such persons to take note of and understand the content of these instructions. Observing the information in these instructions will help to avoid hazards and increase the reliability and the service life of the device. In addition to the information in these instructions, always observe the statutory and other regulations that apply at the place of installation, e.g.:

- Accident prevention regulations
- Regulations governing safe and professional working.

Accompanying documentation

The following documentation is part of these instructions:

- EC Declaration of Incorporation
- Operating instructions issued by the manufacturer of the control system

Copyright

These instructions contain information that is subject to copyright. Do not copy, print or adapt these instructions to film or reproduce, process, reproduce or disseminate them with any other method, whether in whole or in part, without prior written consent from TENTE-ROLLEN GmbH.

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Manufacturer's address

If you require further information, please contact the manufacturer:

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Herrlinghausen 75
42929 Wermelskirchen, Germany
Phone: +49-219699-0
Fax: +49-219699-127
E-mail: info.de@tente.com
Internet: www.tente.com

Information on the responsible sales partner can be found on the Internet at www.tente.com.

Documentation manager

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Safety

Intended use

The device is intended for installation on a correspondingly prepared frame. This device is designed for the controlled movement and total locking of frames.

It is only permitted to use the device for commercial purposes

- indoors,
- on level and dry floors,
- at a maximum speed of 6 km/h

This device is part of a WeAssist system. You can find further information on this system on the website www.weassist.com.

Operation of the device on a frame is only permitted in combination with TENTE castors from the "Integral" series or with other types of castors approved by the manufacturer. Ensure that at least one castor is electrically conductive.

Proper use also includes observing and following all information in these instructions, particularly the safety information and technical data.

Any use of the device beyond this is not considered proper use.

The following tasks in particular are not considered proper use:

- Use of the device in areas with inclines or slopes outside of the permissible limits
- Use of the device in potentially explosive atmospheres
- Use of the device in private areas
- Use of the device outdoors
- Use of the device in conjunction with components that the manufacturer has not approved for use with this device
- Any structural modification to the device
- Opening the device
- Use of the device (moving, swivelling) when the total lock has been activated or activating the total lock on the device during movement
- Applying excessive lateral forces (higher than stipulated by standard EN 12531) while the directional lock or total lock has been activated
- Moving the device over obstacles (moving over, hitting) at a speed of greater than 3 km/h

- Use of the directional lock in the opposite direction of movement
- Parking on slopes
- Improper cleaning

TENTE-ROLLEN GmbH accepts no liability for damage caused by improper use. Improper operation of the device will mean that the manufacturer is not liable for material defects and voids the warranty.

The device is not classified as a medical, electrical device or system. Furthermore, it does not fall under the scope of the EU Medical Devices Directive/Regulation or similar national regulations. The device is a component that is installed onto a medical, electrical device by a manufacturer.

Note regarding residual dangers

The device was designed in accordance with the latest technical standards and generally recognised technical safety regulations and relevant standards. Safety hazards were eliminated as far as possible in the design process or using suitable equipment. Nevertheless, residual risks may arise during use of the device. Risks to persons and damage to the device or other property may arise, in particular, if the device is:

- not properly installed, connected or placed into operation by trained personnel,
- not used in accordance with its intended use or
- improperly used.

Braking system

This device has an assisted deceleration function. It is possible that this function cannot fully replace the operating brakes required on the frame.

If necessary, the operator must install a braking system on the frame and is responsible for such a system.

Basic safety notices

Avoiding the risk of fatal injuries

Risk of fatal injury due to electric shock caused by incorrect connection of the device.

- Ensure that all connections are made by specialist personnel.
- Ensure that all connection cables are properly laid.
- Ensure that the connection cables are undamaged.
- Only use the appropriate connection cables to connect up the device.
- Only carry out work on the device when it is de-energised and has cooled down.

Avoiding the risk of serious injuries

Risk of injury when moving the device due to limbs being pulled in.

- Wear tight-fitting clothing when working on the device.
- Do not wear any loose jewellery.
- Protect long hair with a hair net.

Avoiding the risk of slight injuries

Crushing may occur due to colliding with persons.

- Ensure that no persons are present in movement path of the frame during operation.

Avoiding damage to property and malfunctions

Risk of damage to property due to improper use of the device.

- Only use the device as described in these instructions.

Damage to property may occur if the device cables are not secured.

- Ensure that all connection cables are properly laid.

Malfunctions may occur if the connector is disconnected.

- Ensure that all connectors are plugged into the respective sockets.

Malfunctions may occur if the components are insufficiently secured.

- Tighten all of the installation screws required for installing the components in accordance with the manufacturer's specifications.

Risk of damage to property due to water ingress.

- Ensure that the connection cable remains inserted during cleaning.
- Do not use any high pressure cleaners.

- Avoid the use of steam cleaners.

- Avoid the use of UV cleaning devices.

- Only use suitable cleaning agents. Contact your sales partner for information on suitable cleaning agents.

Risk of malfunctions or material damage to electronic components due to electrostatic charge.

- Always avoid electrostatic charge. Use suitable protective measures for this purpose.

Risk of malfunctions or damage to property due to moving the device over or into obstacles.

- Ensure that the device is only moved over or into obstacles at a reduced speed (max. 3 km/h) suitable for the situation.

Personnel qualifications for installation

Personnel commissioned to carry out the installation work must have read and understood these instructions. They must also have specialist knowledge in the following areas:

- Installation of auxiliary electrical equipment
- Production of holes and screw connections.

Personnel qualifications for connection

Personnel commissioned to connect up the device must have read and understood these instructions. They must also have specialist knowledge in the following areas:

- Establishing and checking electrical connections
- Professional laying of electrical cables.

Personnel qualifications for use

Users of the device must have read and understood these instructions. They must also be familiar with the relevant laws, regulations and rules for the intended use of the device.

Personal protective equipment

Make sure that the protective clothing specified for the relevant activity is worn during all work. The protective clothing must be selected according to the risks anticipated during the respective activity. In particular, the protective clothing must protect against the following risks:

- Injuries to the body
- Injuries to the hands
- Injuries to the feet.

Structural features of notices warning of danger



CAUTION

Notices containing the word CAUTION warn of a situation which may lead to slight or moderate injuries.

Structural features of notices warning of damage

ATTENTION!

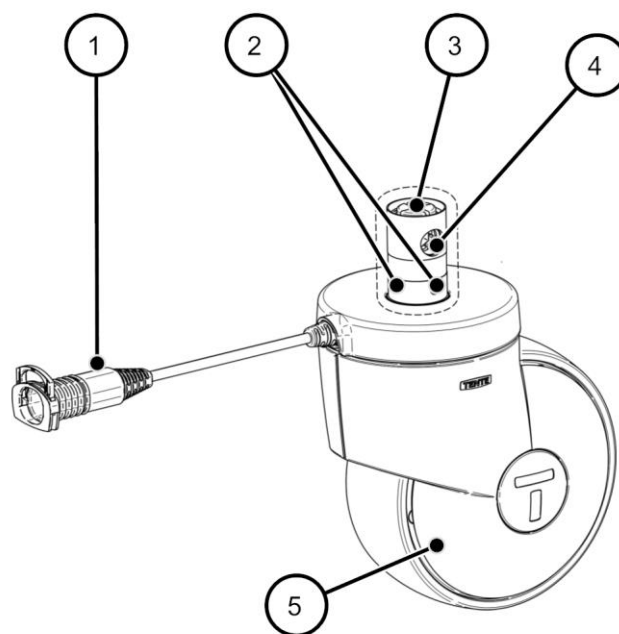
These notices warn of a situation that leads to damage.

Description

Scope of delivery

The device is supplied ready for installation. The power supply and fixing material are not included in the scope of delivery.

Overview of the device



- ① Connector
- ② Four threaded holes for installation
- ③ Guide sleeve
- ④ Hole for the switching rod
- ⑤ Castor

Task and function

The device is designed for

- the controlled movement,
- assisted driving and deceleration,
- and total locking of the frame.

The device is securely fixed to a prepared frame and can be used in a WeAssist system.

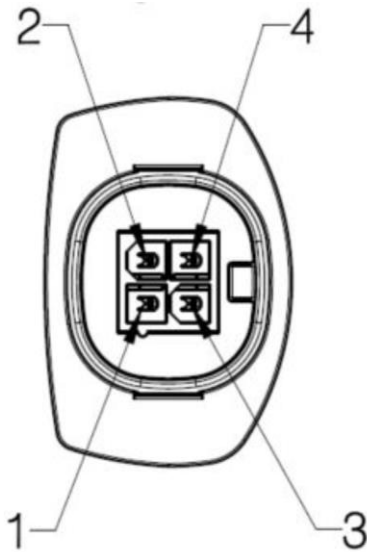
The device has the following operating modes:

- Total lock
- Neutral position
- Directional lock

Neutral position allows the frame to move and swivel. Moving, assisted driving and deceleration is still possible when the directional lock has been activated. Total lock does not allow any movement.

Assignment of the connector

The wires in the connector are assigned as follows:



Pin no.	Pin definition
1	BI-GND
2	BI-DATA
3	BI-STATUS
4	BI-SUPPLY

Rating plate

The rating plate is located on the device's connection cable. You will find the following information (at least) on the rating plate:

- Manufacturer's address
- Model name
- Supply voltage
- Electrical wire
- Protection class
- Year of production
- Serial number.

Technical data

Device	
current:	max. 10 A
Weight:	4.6 kg
Load capacity:	150 kg
Ambient storage temperature:	−10 to 45 °C
Permissible ambient temperature for operation:	5 to 40 °C
Maximum operating altitude above sea level:	2,000 m
Connection plug:	LINAK PCP connector, 4 pole minifit
Supply voltage range:	20–42 V DC
Electrical conductivity:	No
Speed:	6 km/h
Inclines/slopes	6°

We reserve the right to implement technical changes.

Transporting the device

- Transport the device in its original packaging.
- If the original packaging is not available, package the device so that it is protected against moisture and mechanical damage.

Unpacking the device

ATTENTION!

Risk of damage to property due to pulling on the connection cable on the device.

- Do not use the connection cable to pull the device when removing it from its packaging.

- Take the device out of its packaging.
- Check the device for transport damage.
- Contact your sales partner if you identify any transport damage.

Preparing installation

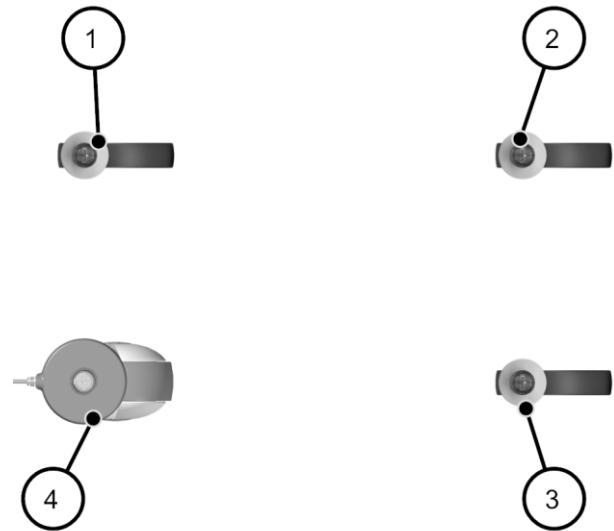
Creating the prerequisites for installation

Ensure that the frame to which the device should be installed fulfils the following requirements:

- Design the interface on the frame so that the driving forces expected during operation can be safely transmitted.
- Design the interface on the frame so that the device sits in the mount with as little backlash as possible.
- In the case of washable versions, seal all openings to the interface to the device to prevent water ingress.
- There are a sufficient number of castors with a “total lock” function. We recommend at least four castors.
- The castor system has a central locking system.
- At least one castor is electrically conductive.
- All applicable laws, standards and guidelines are observed and followed.

Installation position of the castors

The following diagram shows our recommended positions for installing the castors on a frame.



- ① Castor: electrically conductive, no directional lock, with total lock
- ② Castor: no directional lock, with total lock
- ③ Castor: no directional lock, with total lock
- ④ Castor: with directional and total lock (device described in these instructions)

Installing the device



CAUTION

Risk of crushing when swivelling the device.

Risk of fingers being crushed or grazed.

- Ensure that the device can be swivelled freely within the swivelling range.

ATTENTION!

Risk of damage to property or malfunctioning of the device due to insufficient fixing or excessive insertion depth of the screw (> 4 mm) into the device's guide sleeve.

- Ensure that the fixing screws are tightened in accordance with the manufacturer's specifications.

ATTENTION!

Risk of damage to property or malfunctions and a loss of warranty due to the use of unapproved castors.

- Only use castors that have been approved by TENTE-ROLLEN GmbH.

ATTENTION!

Risk of malfunctions on the device or frame due to the use of another castor with a directional lock.

- Only install one castor with a directional lock on the frame.

The following components are required to install the device on the prepared frame:

- This device
 - Suitable tools, depending on the fixing method (not included)
 - At least two M6 screws (not included in the scope of delivery)
 - At least two washers (not included in the scope of delivery)
- Position the device as recommended (see Page 9).
 - Push the guide sleeve (4) into the mount on the frame.
 - Select the length of screws taking into account the following points:

- Max. screw insertion depth into the guide sleeve of 4 mm
- Material thickness of the washer
- Material thickness of the frame mount

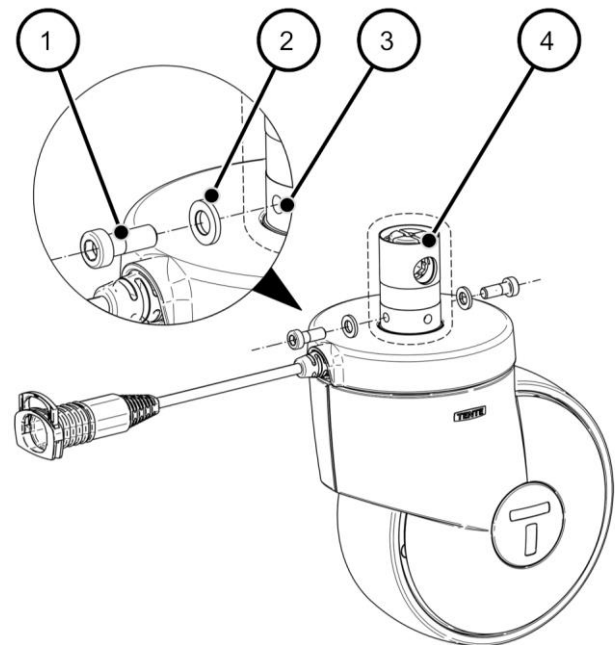
- Ensure that the four threaded holes (3) on the device line up with the through holes in the mount on the frame.
- Fix the device to the frame using the M6 screws (1) and washers (2).

ATTENTION!

Risk of damage to property or malfunctions on the device due to the use of liquid screw adhesive.

- Ensure that no liquid screw adhesive flows into the interior of the guide sleeve.

- Tighten the screws in accordance with the manufacturer's specifications. Secure the screws to prevent self-loosening.
- Ensure that the device is securely fixed to the frame.



Connecting up the device

ATTENTION!

Risk of damage to property or malfunctioning of the device due to a loose connector.

- Ensure that the connector is correctly connected to the connector on the corresponding system.

- Connect up the device in accordance with the guidelines for corresponding components in the WeAssist system. Observe the additional information provided on www.weassist.com.

Maintaining the device

- ❗ The device components are maintenance free.

Carrying out a visual inspection

- Check the device for malfunctions, mechanical damage, wear and cracks before placing it into operation.
- Ensure that the device is firmly fixed to the frame before placing it into operation.

Cleaning the device

ATTENTION!

Improper cleaning can cause irreparable damage to the device.

- Ensure that no liquids can penetrate into the components on the device during cleaning.

- Remove any external dirt using a dry cloth or a cloth moistened with a mild soap solution.
- If using mechanical cleaning processes, observe the AK-BWA guidelines (Arbeitskreis Bettgestell- und Wagen-Dekontaminationsanlagen – Working Group for Bed Frame and Trolley Decontamination Systems).

Replacing components

ATTENTION!

Unauthorised repair work can cause irreparable damage to the device.

- Ensure that the device is not opened.
- Do not carry out any repair work on components of the device.
- Completely replace any faulty components.
- Ensure that faulty components are completely replaced by new original spare parts from TENTE-ROLLEN GmbH.

- Ensure that the faulty components on the device are only replaced by qualified specialists.

Dismantling the device

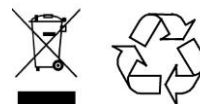
- Dismantle the device in the reverse order to installation.

Disposal

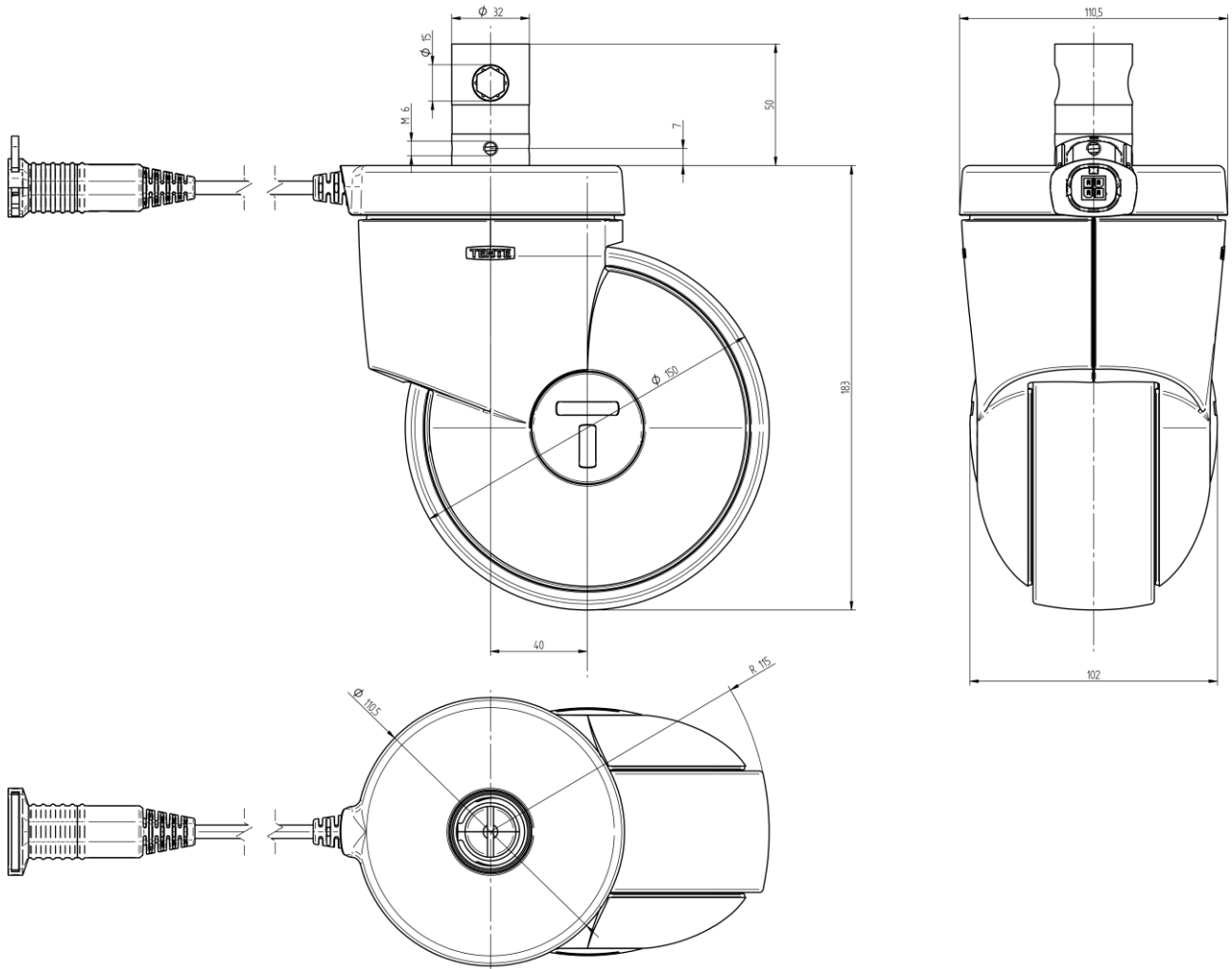
The environmentally sound disposal of electronic assemblies, recyclable materials and other components is regulated by national and regional laws. Disposal in regular household waste is not permitted. Contact the appropriate local authority for detailed disposal information. You must sort the parts to dispose of all of them in an environmentally sound manner. Sort the parts as follows:

- Hazardous waste
- Electronic scrap
- Metals
- Plastics.

- Send other suitable parts for recycling.



Dimensioned drawings



All dimensions are in mm. Tolerances are available on request.