



Skippi

EN Instructions for use 3

Additional options

Before the power wheelchair is handed over, the qualified personnel must check off the additional options listed below if they are present on the power wheelchair.

The power wheelchair can be equipped with the following additional options:

Electronic drive-away lock*		
<input type="checkbox"/> Function enabled	<input type="checkbox"/> Function disabled	
If enabled, the function is activated by pressing the mode button on the control panel. The function is deactivated with the joystick.		

*See the section "Use" for more information.

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1 Foreword

INFORMATION

Last update: 2017-04-25

- ▶ Please read this document carefully before using the product.
- ▶ Follow the safety instructions to avoid injuries and damage to the product.
- ▶ Have yourself instructed by qualified personnel in the proper and safe use of the product.
- ▶ Please keep this document in a safe place.

INFORMATION

- ▶ New information regarding product safety and product recalls can be obtained from the Customer Care Center (CCC) at oa@ottobock.com or from the manufacturer's service department (see inside back cover or back page for addresses).
- ▶ You can request this document as a PDF file from the Customer Care Center (CCC) at oa@ottobock.com or from the manufacturer's service department (see inside back cover or back page for addresses). It is possible to increase the display size of the PDF document.
- ▶ For further questions about the instructions for use, please contact the qualified personnel who issued the product to you.

You have purchased a high-quality product which can be put to versatile, daily use at home and outdoors.

In order to exclude injuries of any type, familiarise yourself with the handling, functions and use of the product before using it. These instructions for use provide the necessary information.

Please note the following in particular:

- All users and/or their attendants must be trained by qualified personnel in the use of the product with the aid of these instructions for use. In particular, users and/or attendants must be informed of the residual risks with the aid of the safety instructions.
- Before the product is put into use, please explain all contents of the instructions for use to the child, especially the "Safety" section. This ensures that the functionality of the product for children is fully utilised.
- The product has been adapted to the needs of the user. Further changes may be made only by qualified personnel. We recommend checking the product settings regularly in order to assure an optimum fit over the long term. For growing children and youths in particular, fitting should be performed every six months.
- In case of questions or problems, please consult the qualified personnel that adapted the product or the manufacturer's service (see inside back cover or back page for addresses).
- The product may be combined only with the options listed here. The manufacturer assumes no liability for combinations with third-party medical devices and/or accessories not included in the modular system. Please also observe the information in the section "Liability".
- The operational safety of the product can only be ensured if it is used properly in accordance with the information contained in these instructions for use. The user is ultimately responsible for accident-free operation.
- Service and repairs to the product may only be carried out by qualified personnel. If you have any problems, please contact your specialist dealer. This ensures that any necessary repairs will be made exclusively with Ottobock spare parts.
- Your product may differ from the models shown. In particular, not all the options described in these instructions for use will be installed on your product.
- The manufacturer reserves the right to make technical changes to the model described in these instructions for use.

2 Intended use

2.1 Indications for use

The power wheelchair for children is designed solely for children and people of small stature who are unable to walk or who have a walking impediment, for control by the patient in the course of everyday use, indoors and outdoors. An option is available to allow an attendant to control the power wheelchair using an attendant control.

The wheelchair may only be used with the options listed in the product order form.

The manufacturer assumes no liability for combinations with third-party medical devices and/or accessories not included in the modular system.

The operational safety of the wheelchair can only be ensured if it is used properly in accordance with the information contained in these instructions for use. The user is ultimately responsible for accident-free operation.

2.2 Indications

The broad range of equipment options and the modular design allow the product to be used by people who are unable to walk or have a walking impediment, for example due to:

- Paralysis
- Loss of limbs
- Defects or deformation of the limbs
- Joint contractures or damage
- Other diseases

The following aspects should also be considered for custom fittings:

- Body size and body weight (for the maximum load capacity of the product, see the section "Technical data")
- Physical and mental condition
- Age of the user
- Living conditions/environment

2.3 Contraindications

Not known.

2.4 Qualification

The installation and adjustment tasks described in the section "Adjustments by qualified personnel" (see Page 15 ff.) may only be carried out by qualified personnel.

3 Product description

3.1 Function

The powerful drive system with two 12 V batteries combined with spring-mounted drive wheels allows obstacles to be crossed easily (Category B according to EN 12184) and offers safe operating performance.

The power wheelchair is controlled by the enAble40 wheelchair control unit (see Page 26). The latter includes a control panel to enter driving commands and display the current status as well as a controller that operates the drive motors and other electrical functions based on the inputs.

The special features of the power wheelchair include:

- Compact design and ease of use.
- Frame that can be disassembled, making transportation easier.
- Individual control adaptation possibilities through programming and options.
- Customisation through options and custom fabrication.
- Modular design that allows the power wheelchair to be equipped with additional modules and installed equipment in addition to the main components, such as various power seat functions (see Page 39) or an attendant control (see Page 44).
- Serviceability due to easy, straightforward access to all components.




3.2 Product Overview




- | | | | |
|---|-------------------------|----|--|
| 1 | Push handle | 7 | Legrest |
| 2 | Backrest | 8 | Seat cushion |
| 3 | Side panel with armrest | 9 | Control panel with joystick |
| 4 | Drive wheel | 10 | Plug with battery cable |
| 5 | Battery (battery pack) | 11 | Anti-tipper / frame protection rollers |
| 6 | Caster wheel | | |

4 Safety


4.1 Explanation of warning symbols


 WARNING	Warning regarding possible serious risks of accident or injury.
 CAUTION	Warning regarding possible risks of accident or injury.
 NOTICE	Warning regarding possible technical damage.


4.2 Safety instructions for assembly and adjustments


 WARNING
Incorrect settings
Risk of falling, tipping over or improper user posture due to incorrect settings
<ul style="list-style-type: none"> ▶ Settings may only be changed by qualified personnel unless otherwise prescribed. ▶ Before testing setting changes with the user seated, all screw connections must be firmly tightened. ▶ Check the product for safety and functionality after changing the settings.

4.3 Safety Instructions for Use

 WARNING
Improper product operation
Falling, tipping over, collision due to user error
<ul style="list-style-type: none"> ▶ The product may only be used by a qualified user. ▶ As a user or attendant, you must be trained in the use of the product by qualified personnel instructed by the manufacturer. ▶ Read the entire instructions for use. ▶ The product may not be used in case of exhaustion or under the influence of alcohol, medications or drugs. ▶ The product may not be used by users who have any mental limitations which can temporarily or permanently limit attentiveness and judgement. ▶ You must observe road traffic regulations when driving in road traffic.

 WARNING
Impermissible use
Risk of pinching, crushing, being pulled in, tipping, falling due to improper handling
<ul style="list-style-type: none"> ▶ Only use this product for its original intended purpose. ▶ Only one person may be transported with the product at any one time.

 WARNING
Overloading
Severe injuries if the product tips over due to overloading, damage to the product
<ul style="list-style-type: none"> ▶ Do not exceed the maximum load capacity (see the nameplate and section "Technical data"). ▶ Please note that certain options and add-on components will reduce the remaining load capacity.

 WARNING
Exceeding the service life
Serious injuries due to failure to observe the manufacturer's requirements
<ul style="list-style-type: none"> ▶ Using the product beyond the specified expected service life (see Page 62) leads to increased residual risk and should only take place subject to the due diligence and deliberations of qualified personnel. ▶ If the service life is reached, the user or a responsible attendant should contact the qualified personnel who fitted the product or the manufacturer's servicing department (see inside rear cover or back page for address). Here the user can obtain information about known risks and the current options for refurbishing the product.

⚠ CAUTION

Extreme temperatures

Hypothermia or burns through contact with components, failure of components

- ▶ Do not expose the product to any extreme temperatures (e.g. direct sunlight, sauna, extreme cold).

NOTICE

Use under incorrect environmental conditions

Damage to the product due to excessively high or low temperatures

- ▶ Only use the product within a temperature range of **-15 °C to +40 °C (5 °F to +104 °F)**.

4.4 Effects of electromagnetic interference on the product and on the user

INFORMATION

It is very important that you read this information regarding the possible effects of electromagnetic interference on your powered wheelchairs.

General information on electromagnetic interference

- Powered wheelchairs may be susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones.
- The interference (from radio wave sources) can cause the powered wheelchair to release its brakes, move by itself, or move in unintended directions.
- It can also permanently damage the powered wheelchairs control system.
- The intensity of the interfering EM energy can be measured in volts per meter (V/m). Each powered wheelchair can resist EMI up to a certain intensity. This is called its "immunity level". The higher the immunity level, the greater the protection. At this time, current technology is capable of achieving at least a 20 V/m immunity level, which would provide useful protection from the more common sources of radiated EMI.
- There are a number of sources of relatively intense electromagnetic fields in the everyday environment. Some of these sources are obvious and easy to avoid. Others are not apparent and exposure is unavoidable. However, we believe that by following the warnings listed below, your risk to EMI will be minimized.
- The sources of radiated EMI can be broadly classified into three types:
 - Hand-held portable transceivers (transmitters-receivers) with the antenna mounted directly on the transmitting unit. Examples include: citizens band (CB) radios, "walkie talkie," security, fire, and police transceivers, cellular telephones, and other personal communication devices.
NOTICE: Some cellular telephones and similar devices transmit signals while they are ON, even when not being used.
 - Medium-range mobile transceivers, such as those used in police cars, fire trucks, ambulances, and taxis. These usually have the antenna mounted on the outside of the vehicle.
 - Long-range transmitters and transceivers, such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.
- Because EM energy rapidly becomes more intense as one move closer to the transmitting antenna (source), the EM fields from hand-held radio wave sources (transceivers) are of special concern. It is possible to unintentionally bring high levels of EM energy very close to the powered wheelchair's control system while using these devices. This can affect powered wheelchair movement and braking.
- Other types of hand-held devices, such as cordless phones, laptop computers, AM/FM radios, TV sets, CD players, and cassette players, and small appliances, such as electric shavers and hair dryers, so far as we know, are not likely to cause EMI problems to your powered wheelchair.

Warnings regarding effects of electromagnetic interference

INFORMATION

The warnings listed below are recommended to prevent possible interference with the control system of the powered wheelchair.

⚠ WARNING**Effects of electromagnetic interference on the product**

Serious injuries in case of accidents due to uncontrolled driving behaviour

- ▶ Following the warnings listed below should reduce the chance of unintended brake release or powered wheelchair movement
- ▶ Do not turn ON hand-held personal communication devices, such as citizens band (CB) radios and cellular phones, while the powered wheelchair is turned ON.
- ▶ Be aware of nearby transmitters, such as radio or TV stations, and try to avoid coming close to them.
- ▶ If unintended movement or brake release occurs, turn the powered wheelchair OFF as soon as it is safe. In this case, please contact your authorised specialist dealer immediately.
- ▶ Be aware that adding accessories or components, or modifying the powered wheelchair, may make it more susceptible to interference from radio wave sources (Note: There is no easy way to evaluate their effect on the overall immunity of the powered wheelchair).
- ▶ Report all incidents of unintended movement or brake release to the authorised specialist dealer or the powered wheelchair manufacturer, and note whether there is a radio wave source nearby.

NOTICE**Interference from electromagnetic fields**

Restriction of function due to electromagnetic fields

- ▶ The power wheelchair has been tested according to EMC regulations. Nevertheless, the power wheelchair can generate electromagnetic fields that can cause interference with other devices. Therefore the controls should be switched off when no function is required.

Interference immunity of this power wheelchair**INFORMATION**

20 volts per meter (V/m) is a generally achievable and useful immunity level against interference from radio wave sources (as of May 1994; the higher the level, the greater the protection).

INFORMATION

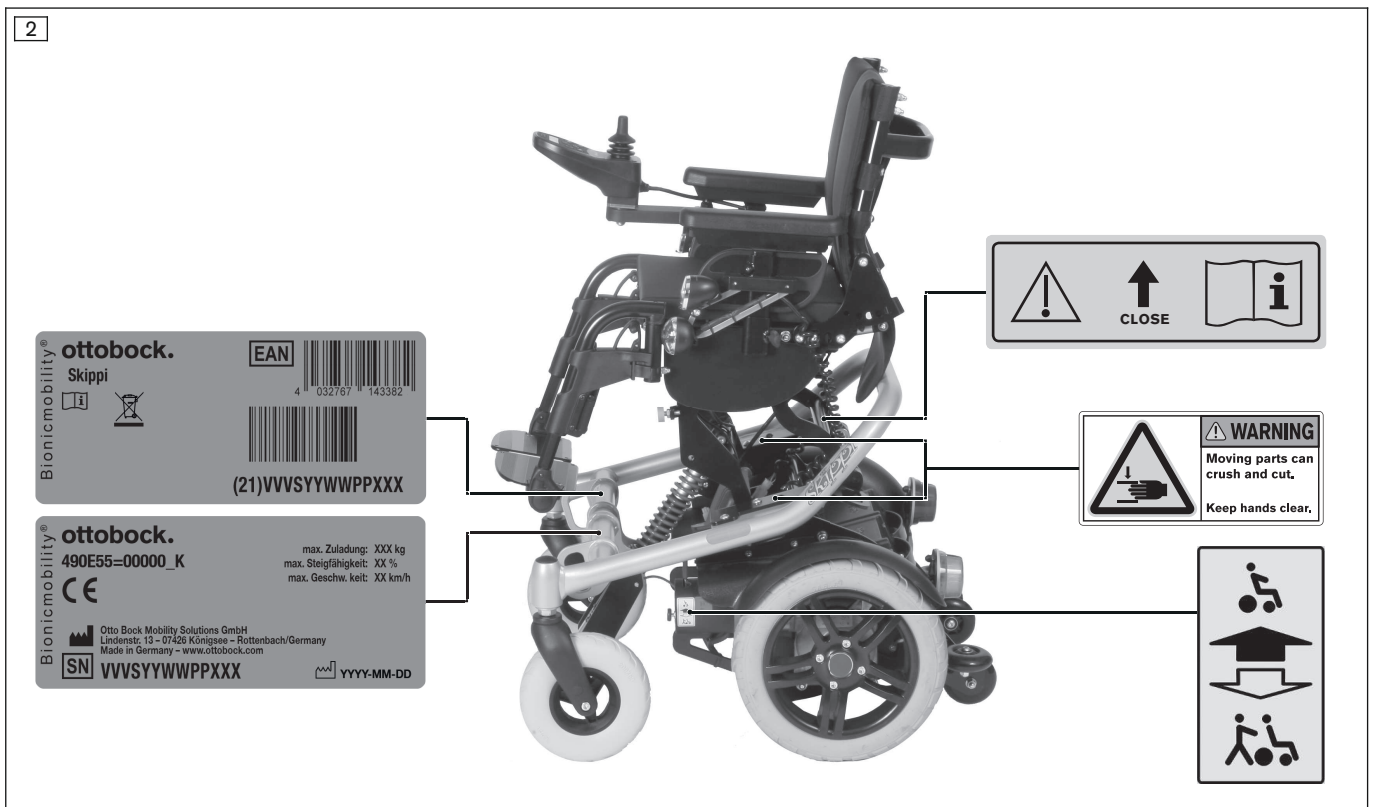
This powered wheelchair model as shipped, with no further modification, has an immunity level of **20 V/m**.

4.5 Further information**INFORMATION**

The serial number required for enquiries and orders can be found on the nameplate. For explanations of the nameplate, see the section "Nameplate" (see Page 12).

4.6 Nameplate and warning labels**4.6.1 Signage on the product**

The warning signs and nameplates are attached at the following mounting points to the power wheelchair:



Warning signs and nameplates on the power wheelchair

4.6.2 Nameplate

Label	Meaning
	A Product name
	B Read the instructions for use before using the product. Observe safety information in the instructions for use
	C Symbol for separate collection of electrical and electronic devices. Components of the power wheelchair and batteries may not be disposed of in household waste.
	D European article number (EAN)
	E Serial number*
	F Product identification (UDI)
	G Product reference number
	H CE marking – product in compliance with EU directives
	I Manufacturer information/address
	J Maximum load capacity (see section "Technical data")
	K Maximum climbing ability (see section "Technical data")
	L Maximum speed (see section "Technical data")
	M Manufacturing date**




The nameplate is located on the side of the frame below the seat.

* VVV = version; S = speed code; YY = year of manufacture; WW = week of manufacture; PP = production site; XXX = sequential production number

** YYYY = year of manufacture; MM = month of manufacture; DD = day of manufacture

4.6.3 Warning labels

Label	Meaning
	Engage the locking bar before use. Observe the information in the instructions for use.

Label	Meaning	
	A	Power driving mode: lock motor brake
3 	B	Manual driving mode: unlock motor brake
		<p>(Only in case of installation of ISO sets according to ISO 7176)</p> <p>Fixation point/eyebolt to attach the product in vehicles for transporting persons with reduced mobility</p>

5 Delivery

5.1 Scope of delivery

- Fitted power wheelchair with main components
- Installed options
- Battery charger
- Instructions for use

5.2 Options

The standard model can be fitted to the user's personal requirements thanks to a large range of options.

A full list of the available modules and accessories is shown on the order form and in the accessories catalogue.

To use options: see Page 19 et. seq.

5.3 Storage

5.3.1 Storage during daily use

The power wheelchair should always be protected against external influences.

The control unit must be turned off.

5.3.2 Storage during extended disuse

NOTICE

Deep discharge

Battery damage due to standby current

- ▶ Remove the fuse if the wheelchair is not used for more than 3 days.

Please observe the following if the power wheelchair is not used for more than **3 days**:

Storage conditions

- Maintain an ambient temperature between **-15 °C and +40 °C (5 °F and +104 °F)** and relative humidity between **45 % and 85 %**.
- Store the power wheelchair in a dry, enclosed room with sufficient air circulation and protection from external influences.
- Protect the wheels against ground frost, e.g. by relieving them completely through assembly blocks or wooden boards.
- Maintain sufficient clearance from sources of heat. If the product is parked for an extended period of time or the tyres overheat (e.g. in the vicinity of radiators or in case of exposure to strong sunlight behind glass), the tyres may become permanently deformed.
- Fill pneumatic tyres with slight overpressure.

- Rotate the wheels weekly to prevent flat tyres from extended standing.
- For extended storage, store the power wheelchair so the wheels are not in contact with the ground.

Note regarding the tyres

- If the power wheelchair is not moved for several days, permanent colour changes may occur where the wheelchair comes into contact with the surface it is standing on. Therefore a suitable mat should be used when parking it for extended periods of time.
- Tyres contain chemical substances that can react with other chemical substances (such as cleaning agents, acids, etc.).
- Black tyres contain soot particles. They may leave black marks where they come into contact with the ground. Therefore the manufacturer recommends grey tyres if the wheelchair is primarily used indoors.
- Avoid unnecessary parking outdoors. Direct exposure to sunlight/UV radiation causes the tyres to age more quickly. As a result, the tread surface hardens and corner pieces break out of the tread.
- The tyres must be changed when the tread is less than **1 mm (0.04")** to ensure safe driving behaviour.
- The tyres should be replaced every **2 years** regardless of wear and tear.
- When power wheelchairs with PU tyres are parked for long periods, the tyres may become deformed (flat spots). This deformation will go away on its own over time while driving.

6 Preparation for use

6.1 Safety instructions

General hazards while putting into operation

⚠ WARNING

Improper handling of packaging materials

Risk of suffocation due to neglect of the duty to supervise

- ▶ Packaging materials must be kept out of the reach of children.

Hazards while putting into operation by qualified personnel

⚠ WARNING

Incorrect charging or use of the battery

Risk of injury due to fire or explosion, battery damage, short circuit

- ▶ Observe the safety instructions in the section "Use" > "Batteries/charging process" (see Page 36).

Hazards while putting into operation by the user

⚠ WARNING

Independent modification of settings

Serious injuries to the user due to unallowable changes to the product

- ▶ Do not modify the settings established by the qualified personnel.
- ▶ In case of problems with the settings (unsatisfactory seating position, caster wheel wobble, etc.) please contact the qualified personnel who adjusted your product.

6.2 Initial operation

The specialist dealer ships the power wheelchair fully assembled and ready to use.

The following additional tasks may be required:

- Adjusting the settings (see next section)
- Installing the fuse (see Page 19)
- Installing the battery pack (see Page 36)
- Charging the battery (see Page 38)
- Folding up the backrest (see Page 22)
- Installing the side panels: see Page 20
- Installing the legrests: see Page 21

6.3 Handing over the product

⚠ WARNING

Lack of instruction

Tipping over, falling of the user due to lack of knowledge

- ▶ Instruct the user or the attendant in the proper use of the product when handing it over.

The following steps must be performed for the safe handover of the product:

- Have the user get into the product and perform a trial seat fitting. Pay special attention to proper positioning according to medical considerations.
- The user and any attendants must be instructed in the safe use of the product. In particular, the enclosed instructions for use (user) are to be used.
- The instructions for use must be given to the user or an attendant upon delivery of the wheelchair.
- The user or attendant should acknowledge that they have been instructed in how to use the product and were informed of the residual risks.

7 Settings

7.1 Safety instructions

General hazards during adjustments

⚠ WARNING

Uncontrolled movement of components when making adjustments

Crushing, pinching, blows due to non-observance of the maintenance and repair instructions

- ▶ Ensure that body parts, such as hands or head, are never in the danger zone.
- ▶ Perform the work with the aid of a helper for support.

⚠ CAUTION

Use of unsuitable tools

Pinching, crushing or damaging the product due to use of unsuitable tools

- ▶ When completing the tasks, only use tools that are suitable for the conditions at the place of work and for which safety and the protection of health are assured with proper use (see Page 65).

7.2 Adjustments by qualified personnel

The seat height, seat width and seat angle as well as the drive wheel suspension have been preset in accordance with the customer order.

Changes to these basic settings may only be made by qualified personnel. Related information is found in the 647G695=* service manual.

Information on adapting the seat angle: see Page 16.

All parts of the product should be cleaned thoroughly before adjustments are made.

The tools required for adjustments and maintenance tasks as well as the torque values for screw connections are listed in the section "Appendices" (see Page 65).

7.2.1 Safety instructions

⚠ WARNING

Incorrect settings

Risk of falling, tipping over or improper user posture due to incorrect settings

- ▶ Adjustments may only be carried out by qualified personnel instructed by the manufacturer.
- ▶ Check for safe function before delivering the product.

⚠ WARNING**Exposed pinch points**

Pinching, crushing of limbs (e.g. fingers) due to lack of caution in danger areas

- ▶ While adjusting power seat options, note that inherent pinch and shear points are located between the seat frame and the power wheelchair frame.
- ▶ Ensure that no body parts, such as hands or feet, are in the danger zone while you make adjustments to power seat options.

⚠ CAUTION**Unsecured screw connections**

Pinching, crushing, tipping over, falling of user due to assembly errors

- ▶ After all adjusting/readjusting work, retighten the mounting screws/nuts firmly. Observe any torque settings which may be specified.
- ▶ Any time you loosen a screw connection with thread lock, replace it with a new screw connection with thread lock or secure the old screw connection with medium strength thread locker (e.g. Loctite®241).

⚠ CAUTION**Improper lifting**

Crushing, pinching, blows due to failure to observe safety instructions

- ▶ Some parts of the power wheelchair, such as the batteries, frame, seat, and motors, are very heavy. Ensure ergonomically correct lifting of these parts. Use sufficiently large hoisting devices or perform this work with a helper.
- ▶ If it is necessary to work underneath raised parts or equipment, make sure these are secured by suitable means so that they cannot come loose, shift, or fall down.
- ▶ When using lifting platforms, ensure that the power wheelchair is centred on the platform and that no parts protrude into the danger zone.

NOTICE**Improper preparation before making adjustments**

Damage to the product due to falling down and failure to follow setting instructions

- ▶ When you work on the product, secure it so that it cannot tip over or fall over.
- ▶ Turn the power wheelchair off and remove the fuse before making any adjustments. Functional tests of the electrical components are excepted from this rule.
- ▶ Before performing any work on the seat, ensure that the cushion is sufficiently protected against mechanical, chemical, and thermal effects.

NOTICE**Use of unsuitable packaging**

Damage to the product caused by transportation using incorrect packaging

- ▶ Use only the original packaging for delivery of the product.

7.2.2 Adjusting the standard seat**7.2.2.1 Adjusting the seat angle****⚠ CAUTION****Improper adjustments**

Falling of the user out of the seat due to user error

- ▶ The user must not sit in the wheelchair during seat angle adjustments.

If necessary, the seat angle can be adjusted in 3 increments (-6°, +3° and +12°).



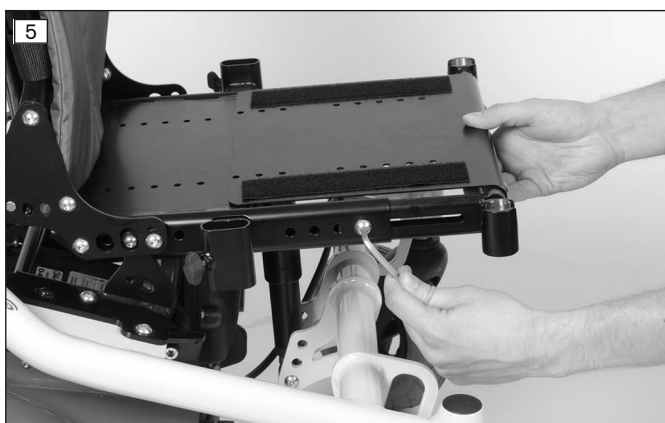
Adjusting the seat angle on the standard seat

- 1) Loosen both Allen head screws located at the front below the seat (see fig. 4).
- 2) Set the desired seat angle by placing the pin in the corresponding hole.
- 3) Re-tighten the Allen head screws after making the adjustment.
- 4) Check that the retaining clip on the pin is closed every time after the seat angle is adjusted.

The seat angle can be changed using the seat tilt function if the power wheelchair is equipped with seat tilt (power seat tilt: see Page 41; mechanical seat tilt: see Page 43).

7.2.2.2 Adjusting the legrests

The legrests can be subsequently adjusted to the requirements of the user.



Longitudinal adjustment of the footrest receiver

Telescoping the footrest receivers in the longitudinal direction is possible in pairs:

- 1) Remove the seat cushion, legrests and side panels.
- 2) Loosen the Allen head screws on both sides of the seat frame (see fig. 5).
- 3) Adjust the depth of the footrest receivers to the desired position.
- 4) Firmly re-tighten the Allen head screws on both sides of the seat frame.
- 5) Put on the seat cushion, and reinstall the legrests and the side panels.



Lateral adjustment of the footrest receivers

Lateral telescoping of the footrest receivers is possible independently from each other:

- 1) Remove the seat cushion, legrests and side panels.
- 2) Loosen the Allen head screws on the seat plate (see fig. 6).
- 3) Adjust the width of the footrest receivers to the desired position.
- 4) Firmly re-tighten the Allen head screws on the seat plate.
- 5) Put on the seat cushion, and reinstall the legrests and the side panels.

Adjusting the lower leg length

Adjusting the lower leg length is explained in the section "Use" > "Legrests" (see Page 21).

7.2.2.3 Adjusting the Back Upholstery

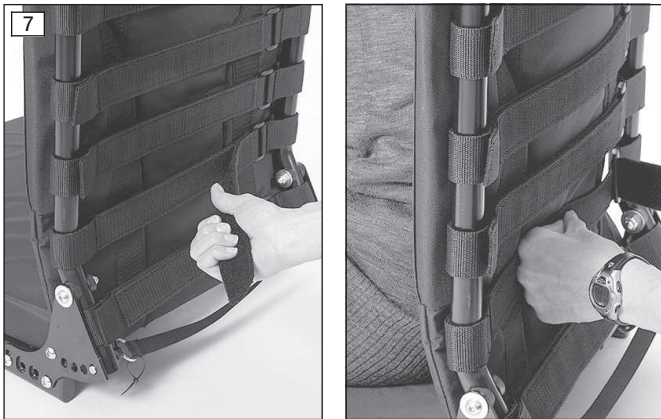
INFORMATION

A well adjusted backrest provides lasting comfort and reduces the risk of secondary damage and pressure zones.

INFORMATION

Ensure that the user's pelvis is positioned as far back in the seat as possible, i.e. between the backrest tubes.

The adaptable back upholstery of the standard seat can be adjusted in segments to the needs of the user. In order to properly adjust the upholstery, the user must be sitting in the standard seat during the adjustment process.



Adjusting the back upholstery

- 1) Pull the fabric of the back pad off the hook and loop straps of the back upholstery and fold it up.
- 2) Open and loosen the hook and loop straps one after the other (see fig. 7).
- 3) From the bottom to the top, adjust the tension of the hook and loop straps to the weight and anatomical condition of the user and fasten the straps one after the other.

INFORMATION: The two ends of the hook and loop strap have to overlap by at least 100 mm in each case.

INFORMATION: Adjust the respective lower hook and loop straps somewhat tighter. Deviating adjustments may be required in specific cases; this is the responsibility of the attending therapist.

- 4) Fold the fabric of the back pad back over the hook and loop straps and press it into place.

7.2.3 Adjusting the belt length

CAUTION

Incorrect approach to the adjustment process
 Injuries, malpositions, illness of the user due to adjustment errors

- ▶ The qualified personnel is responsible for individual positioning and fitting of the belt system.
- ▶ Excessively tight adjustment of the belt system may lead to unnecessary pain or illness of the user.
- ▶ Adjusting the belt system too loosely can cause the user to slide into a dangerous position. In addition, the fastening snaps could open unintentionally if they slide against hard parts of clothing (e.g. buttons).

CAUTION

Lack of instruction
 Injuries, malpositions, illness of the user due to information errors

- ▶ The qualified personnel is responsible for making sure that the user and/or attendant/nursing staff has understood the proper adjustment, use, maintenance and care of the belt system.
- ▶ In particular, ensure that the user and/or attendant/nursing staff knows how to quickly loosen and open the product to avoid delays in case of emergency.

Notes on correctly adjusting and applying the belts/belt systems: Belts/belt systems.

7.2.4 Changing control unit parameters

WARNING

Incorrect configuration settings
 Falling, tipping over, collision due to programming errors

- ▶ Programming may only be performed by qualified personnel trained by the manufacturer. The manufacturer of the product and the control unit manufacturer are not liable in case of damage caused by programming which was not performed properly and/or which was not adjusted properly according to the user's abilities.
- ▶ Note that modified parameter settings in the configuration can lead to changes in driving characteristics. In particular, changes to the speed, acceleration, braking or joystick settings can lead to unexpected and therefore uncontrollable driving characteristics and cause an accident.
- ▶ After configuration/programming is complete, the user must test the driving characteristics of the product under the supervision of the qualified personnel.

7.2.4.1 Wheelchair control options

If necessary, the programming of the wheelchair control unit can be adjusted to the specific user requirements.

Information on using the wheelchair control unit: see Page 26.

Troubleshooting information: see Page 60.

Further information on programming can be found in the service manual.

7.2.4.2 Attendant control

The power wheelchair can be ordered and equipped with an attendant control. It may be necessary to fit the already installed attendant control to the actual body size of the attendant.

Information on operating the attendant control: see Page 44.

Troubleshooting information: see Page 61.

7.3 Adjustments by the user

The power wheelchair is preconfigured on delivery. In the course of use, some settings can be subsequently changed by the user (see the following sections).

- Adjusting the armrests (see Page 20)
- Adjusting the lower leg length (see Page 21)
- Adjusting the back angle (see Page 23)
- Adjusting the position of the control panel (see Page 47)
- Adjusting the lap belt (see Page 24)

This fine-tuning should be carried out by attendants and in the presence of the user. The user should be sitting upright in the power wheelchair during fine-tuning.

All parts of the product should be cleaned thoroughly before adjustments are made.

7.3.1 Safety instructions

CAUTION

Screw connections not tightened

Pinching, crushing, tipping over, falling of user due to assembly errors

- ▶ After all adjusting/readjusting work authorised by the manufacturer, retighten the mounting screws/nuts firmly. Observe any torque settings which may be specified.

7.3.2 Changing control unit parameters

WARNING

Incorrect configuration settings

Falling, tipping over, collision due to programming errors

- ▶ Programming may only be performed by qualified personnel trained by the manufacturer. The manufacturer of the product and the control unit manufacturer are not liable in case of damage caused by programming which was not performed properly and/or which was not adjusted properly according to the user's abilities.

If necessary, the qualified personnel can adapt the preprogrammed wheelchair control unit and options to the concrete requirements of the user.

8 Use

8.1 Circuit breaker

INFORMATION

- ▶ Should the fuse burn out repeatedly after a short time for no discernible reason, contact the qualified personnel.
- ▶ For shipping or when the power wheelchair is not being used for an extended period of time, the fuse should be removed.

Note: The fuse typically comes installed in the dedicated fuse holder when the wheelchair is handed over to the user.

Before the power wheelchair can be switched on, the fuses may have to be inserted into the fuse holders provided for the purpose.

They are located on the underside of the battery packs (see fig. 8).



Installing the fuse

- 1) Remove the battery packs (see Page 36).
- 2) Remove the fuse from the supplied protective cover.
- 3) Insert the fuse into the slot provided (see fig. 8).
- 4) Reinstall the battery packs (see Page 36).

Removing the fuse

> **Prerequisite:** The control unit is switched off.

- 1) Remove the battery packs (see Page 36).
- 2) Take the fuse out of the slot (see fig. 8).
- 3) Reinstall the battery packs (see Page 36).

8.2 Side panels

INFORMATION

For additional information on side panels with lighting: see Page 48.

INFORMATION

Additional information for adjusting the control panel position: see Page 47.

The side panels protect the user and his/her clothing from getting dirty.

The installed armrests offer the user additional support for the forearms.

8.2.1 Removing/installing the side panels

To make getting in from the side easier or for transportation, the side panels can be removed if needed.



Removing the side panel

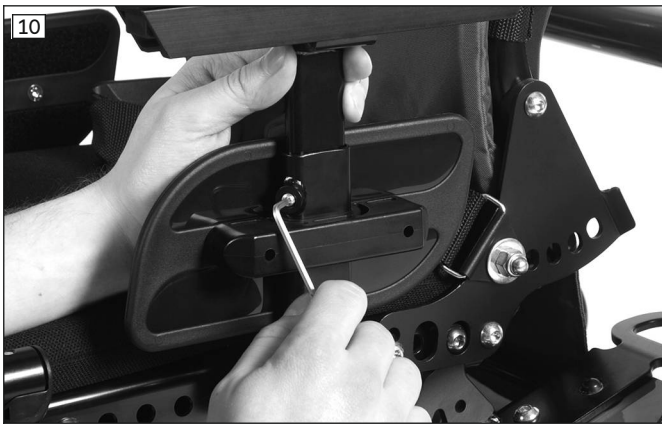
- 1) Loosen the wing screw on the side panel holder (see fig. 9).
- 2) Pull the side panel out from the side panel holder and set it aside.
- 3) **Only for side panel with control panel:**
 - Carefully let the side panel with the control panel hang down while getting in.
 - For transporting the power wheelchair, place the side panel on the seat.

Installing the side panel

- 1) Insert the side panel into the side panel holder.
- 2) Re-tighten the wing screw on the side panel holder (see fig. 9).

8.2.2 Adjusting the Side Panels

The height and depth of the armrests can be adapted to the requirements of the user.



Adjusting the armrest height

- 1) Loosen the Allen head screw on the side panel mounting.
- 2) Slide the armrests up or down to the desired position.
- 3) Re-tighten the Allen head screw.



Adjusting the armrest to the forearm length

- 1) Loosen the 2 set screws on the bottom of the armrest.
INFORMATION: 3 set screws need to be loosened on the control panel side.
- 2) Push the armrest to the front or back into the desired position.
- 3) Tighten the set screws.

8.3 Legrests

The legrests support the user's feet.

The height of the legrests has been adjusted by qualified personnel to the length of the user's lower leg.

The angle of the footrest has been set by the qualified personnel so that it allows the ankles to rest in a comfortable position.

8.3.1 Removing/installing the legrests

⚠ CAUTION

Incorrect handling when getting in

Crushing, pinching, impacts due to incorrect handling

- ▶ Do not reach into the danger area with your fingers when folding the legrest or footplates up or down.
- ▶ Never step on the footplates when getting in and out.
- ▶ Note projecting edges.

INFORMATION

For detaching/attaching the mechanically elevating legrests: see Page 43.



Removing the legrests

- 1) Unhook the calf band.
- 2) Flip the footplate up.
- 3) Push the legrest locking mechanism back and disengage it (see fig. 12).
- 4) Swing out the legrest.
- 5) Pull the legrest up and remove it.

Installing the legrest

- 1) Hook the legrest into the holder from above.
- 2) Swing the legrest forward until the legrest lock engages.
- 3) Fold down the footplate.
- 4) Hook the calf band into the holder.

8.3.2 Adjusting the legrests

⚠ CAUTION

Exposed pinch points

Crushing, pinching due to incorrect handling

- ▶ Do not reach into the danger area with your fingers when folding the legrest or footplates up or down.

The legrests can be subsequently adjusted to the user's lower leg length.



Adjusting the lower leg length and footplate angle

- 1) Loosen the Allen head screws on the footplate bar (see fig. 13, left).
- 2) Adjust the footplate to match the user's lower leg length.
CAUTION! Ensure that the footplate bar is inserted into the swivel segment by at least 60 mm.
- 3) **If necessary:** Adjust the footplate angle by loosening the attachment screw on the rear of the footplate bar (see fig. 13, right).
- 4) Re-tighten the Allen head screws on the footplate bar.

8.4 Backrest

⚠ CAUTION

Exposed pinch points

Crushing, pinching due to incorrect handling

- ▶ Do not reach into the danger area with your fingers when folding the backrest up or down.

The backrest provides pressure redistribution and support for the upper body.

8.4.1 Folding the backrest up/down

The wheelchair may be delivered with the backrest folded down. It has to be folded up and secured prior to use.

Method for standard back adjustment



Folding up the backrest

- 1) Pull on the strap until the locking bolts are free (see fig. 14).
- 2) Lift the backrest and move it to the desired position.
- 3) Allow the locking bolts to engage.
- 4) Check to ensure the lock is securely engaged by pulling on the backrest.

Folding down the backrest

- 1) Pull on the strap until the locking bolts are free (see fig. 14).
- 2) Fold the backrest down onto the seat.

Method for power back angle adjustment



Folding up the backrest

- 1) Fold the backrest up.
- 2) Push the lock lever down (see fig. 15, item 1).
- 3) Place the cross bolt on the end of the gas compression spring or actuator into the bracket (see fig. 15, item 2).
- 4) Release the lock lever until the cross bolt engages.
- 5) Check to ensure the lock is securely engaged by pulling on the backrest.

Folding down the backrest

- 1) Push the lock lever down (see fig. 15, item 1).
- 2) Release the cross bolt on the end of the gas compression spring or the actuator from the bracket (see fig. 15, item 2).
- 3) Fold the backrest down onto the seat.

8.4.2 Adjusting the Back Angle

The angle of the backrest can be adapted to the requirements of the user.

Adjusting the back angle using the strap

The adjustment is carried out as described in the previous section.

Power back angle adjustment

The back angle is adjusted as needed by using this seat function (see Page 42).

8.5 Getting in and transferring

⚠ CAUTION

Incorrect handling when getting in

Falling, tipping over due to incorrect handling

- ▶ Turn the control unit off while getting in and out, in order to avoid accidental driving.
- ▶ Always place the seat in a horizontal position.
- ▶ Note that the armrests are not capable of bearing full body weight, and therefore must not be used for getting into or out of the wheelchair.
- ▶ Always put on a lap belt when driving.

⚠ CAUTION**Incorrect handling when getting in**

Crushing, pinching, impacts due to incorrect handling

- ▶ Do not reach into the danger area with your fingers when folding the legrest or footplates up or down.
- ▶ Never step on the footplates when getting in and out.
- ▶ Note projecting edges.

The modular design of the power wheelchair and the ease with which you can remove the side panels make it easy to get into and out of the wheelchair from the side or from the front.

Getting into and out of the wheelchair can be done by the user individually in a way that suits him or her best.

**Getting in from the front**

- 1) Fold the footrest up (see fig. 16).
INFORMATION: Removing the legrests increases the entry or exit area (see Page 21).
- 2) Have an attendant assist you or use a transfer lifter to get into and out of the power wheelchair.
- 3) Fold the footrest down again.

**Getting in from the side**

To get in from the side, the right or left side panel corresponding to the entry side must be removed.

- 1) Bring the power wheelchair as close as possible to where the user is sitting.
- 2) Remove the side panel (see Page 20).
INFORMATION: If possible, always get in on the side opposite the control panel.
- 3) **If needed:** Remove the legrests (see Page 21).
- 4) Slide into the seat from the side. Using a transfer board can make side transfers easier.
- 5) **If needed:** Reinstall the legrest.
- 6) Reinsert the side panel (see Page 20).

8.6 Lap belt

The lap belt provides additional stabilisation and prevents the user from sliding out of the seat.

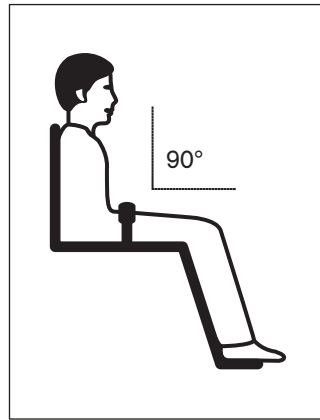
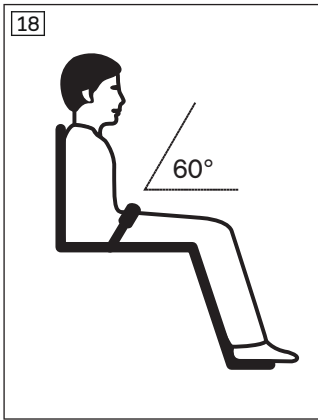
8.6.1 Adaptation**⚠ CAUTION****Improper adjustments**

Injuries, malpositions, illness of the user due to adjustment changes

- ▶ The belt system is an important part of an individual seating unit/seating solution. Do not modify the installation position and basic settings established by the qualified personnel.
- ▶ In case of problems with these adjustments (such as an unsatisfactory sitting position), promptly contact the qualified personnel who fitted the product.
- ▶ **Immediately** consult the qualified personnel if you detect signs of discomfort or fear when using the product.
- ▶ Have the basic settings of the belt system checked regularly. Adjustments may be required due to the growth of the user or because of changes in the course of the disease.

Small length adjustments of the belt by the user or an attendant (e.g. for clothing of different thickness) are possible.

The belt length can be adjusted on both sides. Excess belt length is taken up by the plastic slider.

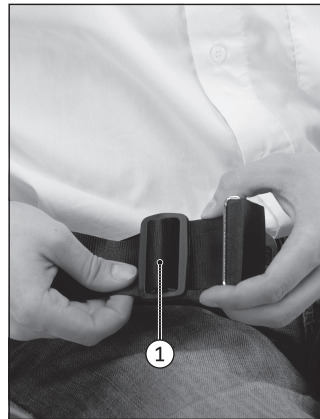


Positioning the user in the seat

- Place the user in an upright, 90° seated position (if physiologically possible).
- Ensure that the back is up against the backrest padding (if physiologically possible).
- The lap belt should be at an angle of about 60° to 90° to the seat surface and run in front of the pelvic bone.

Possible positioning errors

- The lap belt is positioned above the pelvis of the user in the area of the soft part of the stomach.
- The user does not sit upright in the seat.
- If the lap belt is too loose, the user can shift/slide out to the front.
- During the installation/adjustment, the lap belt is routed over parts of the seating system (e.g. over armrests or seat pads). This causes the lap belt to lose its retaining function.



Adjusting the belt length

- 1) Position the user in the seat. Follow the positioning instructions in the previous section to do so.
- 2) Close the belt.
- 3) Position the 2 halves of the buckle in front of the upper body, centred over the thighs.
- 4) Position the respective half of the buckle at a right angle (see fig. 19, item 1).
- 5) Slide the 2 halves of the closure to the desired position.
- 6) Release the respective half of the buckle.
- 7) Verify the adjustment.

WARNING! The lap belt has to fit closely but not too tightly so the user is not injured. It should be possible to slide two fingers comfortably between the strap and thigh.

8.6.2 Use

⚠ WARNING

Incorrect application

Throttling, suffocation or strangulation due to sliding forward in the product

- ▶ The lap belt must be put on when getting into the product and used at all times while using the product.
- ▶ Ensure that the buckle lies in the middle of the body.
- ▶ Remove any objects or clothing which get caught.

⚠ WARNING

Use of the belt system as a restraint system in a vehicle for transporting persons with reduced mobility is forbidden

Falling out of the product, serious injuries due to improper handling of the product

- ▶ Under no circumstances may the belt system be used as part of a personal restraint system for transportation in a vehicle for transporting persons with reduced mobility.
- ▶ Note that the belt system is only intended as additional stabilisation for the user sitting in the product.

CAUTION**Medical risks**

Injuries, pressure sores due to application errors

- ▶ Regular measures for pressure redistribution and skin examinations are required. Should skin irritation and/or skin reddening occur, consult the qualified personnel who adapted and adjusted the product. Do not continue using the product without consultation.

**Applying the lap belt**

- 1) Push the 2 halves together until the buckle engages with an audible click.
 - The lap belt has to fit closely but not too tightly so the user is not injured.
 - It should be possible to slide two fingers comfortably between the strap and thigh.
- 2) Pull to check that it is secure.

Opening the lap belt

- 1) Press the release button.
- 2) Open the belt buckle and lay the belt to the side.

Cleaning the belt system**INFORMATION**

Observe the washing recommendations on the product and the information in the corresponding instructions for use provided for the product.

- Belts with metal snaps may **not be washed in washing machines** as the penetration of water could cause corrosion and subsequent malfunctions.
- Clean the belt straps by gently dabbing them with warm soapy water (with some disinfectant) or carefully wiped with a dry, clean, absorbent cloth.

Additional cleaning instructions

- Allow the belts to air dry. Ensure that the belts and pads are completely dry before installation.
- Do not expose the belts to direct heat (e.g. sunshine, stove or radiator).
- Do not iron or bleach the belts.

8.7 Control unit**CAUTION****Risk of uncontrolled driving behaviour**

Falling, tipping, collision with persons or nearby objects due to interference from electromagnetic fields

- ▶ Switch all mobile devices off while driving.
- ▶ Turn the control unit off when it is not needed.

The power wheelchair is controlled by an enAble40 control unit.

Because the control unit is programmable, it can be adapted to the personal requirements of the user; e.g. the speed, acceleration and deceleration values can all be adapted.

8.7.1 Control panel

The power wheelchair is operated using the control panel.

The control panel consists of a button section, LCD screen and joystick. A charging receptacle is located on the underside.

The control panel is used to switch the power wheelchair on and off, enter driving commands and display the current status of certain functions and components.



- 1 Joystick
- 2 [Direction indicator left/right – on/off] button
- 3 [Warning flashers on/off] button
- 4 LCD screen
- 5 [On/Off] button
- 6 [Mode] button
- 7 [Horn] button
- 8 [Lights on/off] button
- 9 Charging/programming receptacle
- 10 Charging plug

8.7.2 Buttons and display functions

Joystick

The speed and driving direction are controlled with the joystick (see Page 33).

When a power seat option is activated, the joystick adjusts this seat option (see Page 42).

[On/off] button

Holding this button turns the power wheelchair on or off (see Page 32).

[Mode] button

Pressing the button briefly increases/decreases the speed level (see Page 33).

Holding the button longer (for at least 2 seconds) switches the control unit to the **Power seat functions** or **Additional options** menu.

In combination with additional operating steps, holding the button longer (at least 5 seconds) also activates/deactivates the drive-away lock (see Page 34).

[Direction indicator right] and [Direction indicator left] buttons

Pressing these buttons activates/deactivates the respective front and rear direction indicators. The direction indicator lights turn off automatically after 20 seconds.

[Warning flasher on/off] button

All 4 warning flashers are activated/deactivated when this button is pressed.

[Horn] button

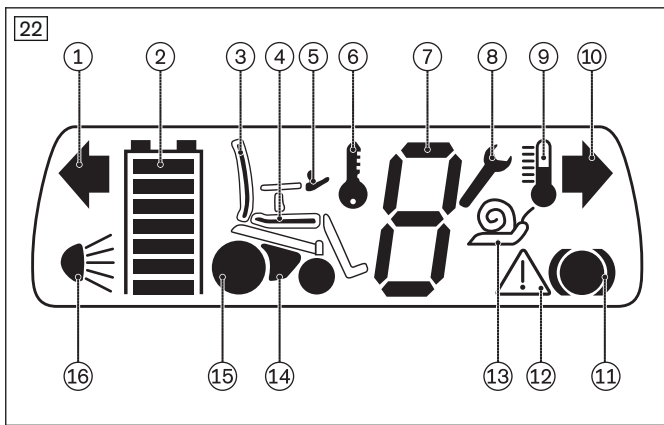
The horn will sound as long as the button is pressed.

[Lights on/off] button

The front and rear lights are activated/deactivated by pressing this button.

LCD screen

The LCD screen is the communication interface between the user and the control unit. It indicates the selected speed level, the battery charge level and the status of power options, as well as warnings and faults. All display symbols are displayed while powering up.



- 1 Direction indicator, left
- 2 Battery charge level
- 3 Power backrest
- 4 Power seat tilt
- 5 Control panel
- 6 Drive-away lock
- 7 Speed level
- 8 Open-end wrench
- 9 Excess temperature
- 10 Direction indicator, right
- 11 Drive wheel brake
- 12 Warning
- 13 Creep speed
- 14 Power module
- 15 Drive motor
- 16 Light

Selected speed level (LCD screen)

After turning the control panel on, the LCD screen indicates the last selected speed level and charge level of the battery in the **Driving** menu.

Display	Information
	Selected speed level = 1 (left: battery charge level)

Battery charge level (LCD screen)

INFORMATION





At temperatures of **< 0 °C/32 °F** the battery capacity drops by up to **35%** in relation to the capacity for an outside temperature of **20 °C/68 °F**. This shortens the range of the power wheelchair accordingly. Moreover at low temperatures the charge level displayed on the control panel can differ more significantly from the actual battery capacity.

The "Charge level" LCD indicator is divided into 7 segments and shows the current battery charge level:

- Immediately after the power wheelchair is switched on, the battery indicator shows the battery charge level that was saved before the wheelchair was last switched off.
- After brief operation, the battery indicator shows the exact battery status.
- A charge of 100% corresponds to 7 segments on the battery symbol.
- As the remaining battery charge decreases, the LCD segments turn off one by one.
- If only 1 blinking segment is shown on the LCD screen (or all segments are off), the battery is in a low voltage state. Because further use will result in battery damage, the warning signal is also shown on the LCD screen. The battery must be charged immediately.
- If all 7 segments on the LCD screen are flashing, this means that the battery is in an overvoltage state. Because further use will result in battery damage, the warning signal is also shown on the LCD screen. Please continue to drive at low speed only.
- The charging process is indicated by the battery segments lighting up one after the other. When the battery is charging, the driving function is blocked.

Battery indicator on the control panel

Display	Information
	Battery charged (right: selected speed level)

Display	Information
	Battery charging urgently required
	Charging process with drive-away lock
	Battery undervoltage with warning symbol
	Battery overvoltage with warning symbol

Further LCD screen functions

Further LCD screen symbols are described in the following sections:

- Section "Drive-away lock": see Page 34
- Section "Power seat functions": see Page 39
- Section "Troubleshooting": see Page 59

8.8 Driving functions

8.8.1 Safety instructions

Hazards while driving

CAUTION

Lack of riding experience

Collision, falling due to errors in handling the product

- ▶ Practise using the product on level, open ground first.

CAUTION

Uncontrolled driving behaviour, unexpected sounds or odours

Falling, tipping, collision with persons or nearby objects due to defects

- ▶ If any faults, defects or other hazards that can lead to personal injury are detected, the product must be taken out of service immediately. This includes uncontrolled movements as well as sounds that are unexpected or previously not noted or odours that deviate significantly from the state of the product at the time of delivery.
- ▶ Please contact your authorised dealer.

CAUTION

Insufficient support of the seated person

Risk of falling out of the power wheelchair due to lack of restraint

- ▶ Always use the installed belt system when driving in public.
- ▶ Information about subsequent acquisition and mounting is provided by the qualified personnel that handed the product over to you.

CAUTION

Driving in the dark

Risk of collisions with other traffic participants due to lack of lighting

- ▶ Wear bright clothing or clothing with reflectors.
- ▶ Use the lights on the wheelchair.
- ▶ **If present:** Ensure that the reflectors on the rear marker plate on the product are clearly visible.

Hazards during use of public transportation, elevators, lifting platforms

⚠ CAUTION

Use of elevators, lifting platforms

Risk of tipping, collision with persons or nearby objects due to incorrect parking

- ▶ Always turn the power wheelchair control unit off when using elevators or lifting platforms.
- ▶ Make sure that the brake is engaged.

⚠ CAUTION

Safe positioning when using public transit

Crushing, pinching, impacts, collision with persons or objects, damage to the product due to human error

- ▶ Only use public transit approved for the transportation of power wheelchairs.
- ▶ Always observe the current applicable transportation guidelines of the transit company and/or the legal requirements in your country when using public transit.
- ▶ Always ensure that you are held in place securely when travelling on public transport. To do so, use the wheelchair areas, wheelchair bays and restraint systems provided. Turn the power wheelchair off before the vehicle starts to move.
- ▶ The transportation of a person sitting in a wheelchair in public transit constitutes a significant safety risk for all participants. We therefore recommend using the seats provided during transportation.
- ▶ While using public transit, you are not permitted to sit in the wheelchair without an approved personal restraint system.

Danger when carrying across obstacles

⚠ WARNING

Improper lifting by attendants

Tipping over, falling of the user due to lifting on components that come loose or are not intended for lifting

- ▶ Only lift the product by firmly mounted components (e.g. on the main frame).
- ▶ Do not lift the product on components installed with screw connections, or on add-on or plug-on components (e.g. on the backrest of legrests, armrests).

Hazards when using the seat

⚠ WARNING

Seat cushion and back padding may ignite

Burns due to user error

- ▶ The seat and backrest upholstery as well as padding fulfil the requirements for flame resistance according to the norms ISO 8191-2 or DIN EN 1021-2. However, they may still ignite if fire is handled improperly or negligently.
- ▶ Keep away from all ignition sources, especially lit cigarettes.

⚠ CAUTION

Skin damage

Risk of skin reddening during long-term use

- ▶ Do not use the seat until it has been adjusted by a suitably qualified or experienced person.
- ▶ Examine the skin for redness on a regular basis. Skin reddening is a clinical indicator of tissue damage.
- ▶ If redness of the skin or other problems occur during use, stop using the seat immediately. Only start using the seat again after consulting the prescribing doctor or therapist.

⚠ CAUTION

Failure to observe care instructions

Soreness due to user error

- ▶ No seat can completely eliminate sitting pressure or possible soreness.
- ▶ When using the seat, always ensure good skin care and regular pressure relief.

NOTICE**Improper use**

Damage to the seat surface due to user error

- ▶ Do not allow the seat to come into contact with sharp objects. This also applies to animals such as pet cats with sharp claws.
- ▶ If the seat is expected to come into contact with liquid, such as spilt drinks or episodes of incontinence, always use it in conjunction with a liquid-repellent cover.
- ▶ Only use the Ottobock incontinence covers for this product. Contact the qualified personnel to obtain a spare Ottobock cover.

Hazards due to defective tyres**CAUTION****Defective tyres**

Accidents/falling due to poor traction, reduced braking force or lack of manoeuvrability

- ▶ Maintain sufficient tyre pressure. The correct air pressure is printed on the sidewall of the tyre.
- ▶ Ensure that the drive wheels have the same pressure.
- ▶ Ensure that the tyres have sufficient tread depth. The tyres must be changed when the tread depth is less than **1 mm**.

Additional information**INFORMATION**

During use of the power wheelchair, electrical discharges (high voltage with low current; discharge via the user) may occur which are caused by factors such as friction. However, these do not represent a health hazard.

Electrostatic discharge may also occur if the power wheelchair is equipped with puncture-proof tires. Retrofitting the wheelchair with pneumatic tires can correct this problem.

8.8.2 Driving notes**General information:**

- Beginners should always drive slowly.
- Always take curves slowly.
- Uncontrolled driving behaviour may occur on uneven ground. Therefore the speed must always be adjusted to the ground conditions.
- Driving backwards should be limited to manoeuvring or short distances on level ground.

Obstacles (steps, curbs, tracks):

- Always approach obstacles directly from the front (never at an angle with only one front wheel).
- Always reduce speed to cross over obstacles (e.g., select speed level 1 or 2).
- Note the information on the critical obstacle height (see the section "Technical data"). Crossing obstacles greater than the height difference specified there is not permitted.
- Avoid jumping down from steps.
- Do not lean out of the wheelchair while crossing obstacles.
- Only cross railway systems and railway tracks in the designated areas.
- Do not negotiate railroad crossings too close to the edge. Otherwise, the wheels could accidentally move off the railroad crossing.
- Stop before the railroad crossing and check to the left and right for safety.

Inclines and downgrades:

- Note the information on permitted inclines and downgrades (see the section "Technical data"). Driving on inclines or downgrades exceeding this percentage is not permitted. The wheelchair may otherwise tilt and not brake safely.
- The control unit and the motors have to be protected against overloading. Therefore, the continuous climbing ability depends on the overall weight (wheelchair weight + user weight + payload) as well as the ground conditions, exterior temperature, battery voltage and driving style of the user. In individual cases, the continuous climbing ability can be significantly lower than the value specified.

- In order to navigate downhill gradients safely, the speed must be reduced according to the slope (e.g. select speed level 1).
- Never drive downhill backwards.

Terrain:

- The speed must be reduced in dangerous areas (e.g. select speed level 1).
- Typical dangerous areas include:
 - Narrow paths along waterways/slopes/cliffs (e.g., quay walls, dikes, etc.)
 - Cramped rooms or areas
 - Steep downgrades (e.g., in the mountains, facing streets)
 - Unsurfaced areas (e.g., on construction sites, intersections, train crossings)
 - Snow-covered or icy areas

Using the control unit:

- The control system always has to be mounted securely and the joystick position must be correct.
- The hand or limb used to operate the joystick should be supported, for example on the side panel arm pad.
- The joystick must not be used as the sole support for the hand or limb, because wheelchair movements and bumps could cause a loss of control.
- The intelligent speed control system minimises the effects of slopes and different types of terrain.
- If the power wheelchair does not drive at full speed even when the battery is fully charged, the selected speed level should be checked. Contact the qualified personnel if increasing the speed level does not solve the problem.

Further instructions for use

- Attaching loads (e.g. backpacks) can adversely affect stability. We recommend always attaching a backpack to the push handles with the shoulder straps. The load should not exceed **5 kg**.
CAUTION: If push handles are not installed on the product, suspending additional loads on the wheelchair is not permitted.
- The recommended total width for category B power wheelchairs in an operational state is **700 mm (27.5")**. The products in the series generally meet this requirement. This ensures the unhindered use of escape routes, for example.
- The products in this series generally meet the minimum technical requirements for wheelchairs transportable by train (see Page 65).

8.8.3 Switching on and off

⚠ WARNING

Lack of brake functionality

Falling, tipping over, collision with persons or nearby objects due to lack of inspection

- ▶ Ensure that the brake release lever is in the driving position every time before you drive (see Page 35).
- ▶ Check the control unit display to ensure that the brakes are operational and functional (see Page 60).

⚠ WARNING

Defective safety functions

Falling, tipping over, collision with persons or nearby objects due to lack of inspection

- ▶ Before every use, ensure that the product and its safety functions are in safe and proper condition.
- ▶ Only use the product if all safety functions, e.g. the automatic brakes, are functional.

INFORMATION


In dangerous situations, the product can be turned off at any time using the on/off button. When the button is pressed, the product brakes immediately and the electrical functions cease. Malfunctions such as an insufficient supply of power to the controls are recognised by the software, triggering an emergency stop or reducing the speed of the product. A warning signal will also sound.

- Pressing the [On/Off] button (see Page 26) turns the power wheelchair control unit on or off. The power wheelchair turns off automatically if the control unit has not been used for an extended period of time.
- The power wheelchair brakes automatically and comes to a stop if it is turned off with the [On/Off] button while being driven.

- Each time you switch on the control unit, it will return to the previously selected speed level.
- The specialist dealer can use the parameter settings to specify the default speed level or default menu of the power wheelchair after it is turned on according to the user's requirements.

8.8.4 Selecting the speed levels

- The power wheelchair has a programmable number of speed levels (as-delivered condition = 5 speed levels).
- The speed level is increased by briefly pressing the [Mode] button.
- Once the highest speed level has been reached the speed skips back to level 1.
- The LCD screen indicates the selected speed level in the **Driving** menu.

Display	Information
	Selected speed level = 1 (left: battery charge level)

8.8.5 Driving

⚠ WARNING

Driving on slopes, over obstacles

Falling, tipping over due to user error

- ▶ Only cross obstacles or negotiate ascents or descents that are within the permitted maximums. For more information, see the section "Technical data" (see Page 63).
- ▶ Do not cross over any obstacles while ascending or descending inclines.
- ▶ Avoid embarking and disembarking on inclines and slopes.
- ▶ Do not drive over stairs.

⚠ WARNING

Driving on unsuitable surfaces

Risk of falling or tipping over due to operator error

- ▶ Do not operate the power wheelchair on very smooth surfaces (e.g. icy surfaces) or very rough surfaces (e.g. gravel or rubble).

⚠ WARNING

Longer braking distance

Risk of falling, tipping over or collision due to operator error

- ▶ Note that the braking distance is much longer on downgrades than on the level.
- ▶ Also reduce speed when driving downhill (e.g. select speed level 1).

INFORMATION

The control unit of the product switches to a safe mode at elevated temperatures and after driving uphill for extended periods of time, limiting the performance of the product.

The user is able to drive the product out of a hazardous situation at any time. After a short time, the product is fully operational again.

The power wheelchair is controlled by moving the joystick:

- The further the joystick is deflected from the centre position, the faster the power wheelchair will drive in this direction.
- The maximum speed at full deflection of the joystick depends on the selected speed level.
- Releasing the joystick automatically activates the brake function, bringing the power wheelchair to a halt.

The mechanical brakes are activated automatically when the power wheelchair comes to a stop so that it cannot roll.

8.8.6 Range

INFORMATION

- ▶ Information about the range of the product can be found in the section "Technical data".
- ▶ Note that the batteries reach their full capacity only after **20–30** charge cycles, and the product can achieve the stated range only then.
- ▶ Please note that the specified range was determined under defined conditions in accordance with ISO 7176-4. In practice the range can be reduced by up to **50%**.

The following factors influence the range of the product:

- Battery capacity
- Battery age (batteries reach their full capacity only after **approx. 20** charge cycles, and the product can achieve the stated range only then)
- Ambient temperature
- Driving conditions (e.g. terrain profile, condition of surface)
- Charging method
- Type and number of power options
- Overall weight of the wheelchair with selected equipment
- Use of power options
- Body weight of user
- Tyres (air pressure, tyre tread depth)

8.8.7 Drive-away lock

INFORMATION

The drive-away lock can only be activated as described below if the function was previously enabled (see inside front cover). The drive-away lock parameter is set to "Off" by default. The factory setting may also have been set to "On" by the specialist dealer or at the factory according to the order.


Please ask your specialist dealer about the setting selected for you.

The power wheelchair control unit features an electronic drive-away lock, which is disabled by default.

If the function has been ordered and enabled, the drive-away lock can be activated or deactivated as follows using the control panel:

Activating the drive-away lock

- ▶ While the control unit is turned on, press and hold the [Mode] button for at least 5 seconds.
- A short beep confirms that the drive-away lock was activated.
- INFORMATION: If keypress beeps are activated, then the drive-away lock is only active after the second beep.**
- The control unit turns itself off.
- The key symbol on the LCD screen indicates that the drive-away lock is activated:

Display	Information
	Drive-away lock

Deactivating the drive-away lock

- 1) Push the [On/Off] button on the control panel.
 - The control unit is turned on. The LCD screen indicates that the drive-away lock is activated.
- 2) Push the joystick all the way forward until a beep sounds.
- 3) Push the joystick all the way back until a beep sounds.
- 4) Release the joystick.
 - A long beep confirms that the driving function is enabled.
 - The battery indicator and speed level are shown on the LCD screen.
 - The drive-away lock is deactivated and driving is enabled.

Troubleshooting

The drive-away lock remains active if the joystick is not moved correctly.

- 1) Turn the control unit off in order to deactivate the drive-away lock again.

- 2) Turn the power wheelchair on.
- 3) Deactivate the drive-away lock again.

8.8.8 Adjusting the driving characteristics

⚠ WARNING

Incorrect configuration settings

Falling, tipping over, collision due to programming errors

- ▶ Programming may only be performed by qualified personnel trained by the manufacturer. The manufacturer of the product and the control unit manufacturer are not liable in case of damage caused by programming which was not performed properly and/or which was not adjusted properly according to the user's abilities.

Adjusting and setting the speed, acceleration and deceleration values to the individual user requirements is performed exclusively by qualified personnel trained by the manufacturer.

8.9 Enabling/disabling the brakes

⚠ WARNING

Uncontrolled rolling

Risk of collision with persons or nearby objects due to unlocked brake

- ▶ Note the lack of brake functionality when the brake is deactivated. The brake function may only be released in the presence of an attendant.
- ▶ Should the user be unable to release the brake himself, the brake can be released by the attendant.
- ▶ Note that when the power wheelchair is moved on an incline, the attendant must provide the required brake force.
- ▶ Ensure that the wheel lock is engaged each time when parking the power wheelchair.

⚠ WARNING

Improper maintenance, repair, or adjustment work on the brake

Falling, tipping, collision with persons or nearby objects due to improper operation

- ▶ Repairs and adjustments to the brake may only be made by qualified personnel trained by the manufacturer. Incorrect settings can lead to a loss of braking power.

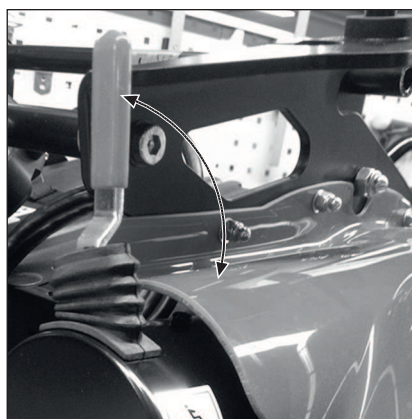
INFORMATION

When the joystick is activated while the brakes are unlocked, the control unit emits an error signal on the control panel. If this is not the case, something has malfunctioned and the problem must be eliminated immediately by a specialist dealer.

It is possible to push the power wheelchair in case of control unit failure or insufficient battery charge level.

To do so, the brake is deactivated via the mechanical release.

The brake release is located on the opposite side of the automatic circuit breaker and charging receptacle on the side of the frame.



Releasing/deactivating the brake


- 1) **If needed:** Turn the control unit off.
- 2) Push the brake release levers down (see fig. 23, see arrow).
 - The drive motors are released and the power wheelchair has no braking function.
 - After switching the control unit on: The control unit recognises that the brake has been released and deactivates the driving function.
 - A warning will appear on the control panel when the joystick is deflected (see below).

Enabling/activating the brake

- 1) **If needed:** Turn the control unit off.
- 2) Push the brake release lever up (see fig. 23, see arrow).
- 3) Switch on the control unit.

→ The driving function is activated.

Brake deactivated: warning on control panel

Display	Information
	Brake released

8.10 Batteries/charging process

8.10.1 Safety instructions

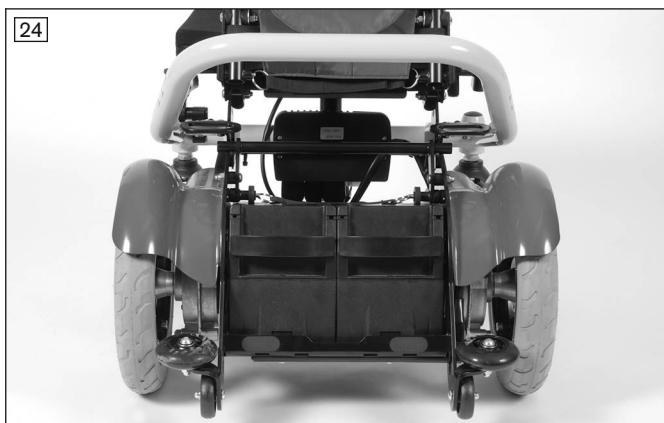
NOTICE

Unauthorised battery replacement
 Battery damage due to unauthorised changes to the product

- ▶ Replacing the battery or modifying the battery installation position may only be performed by qualified personnel trained by the manufacturer.
- ▶ The charging profile of the battery charger established at the factory matches the batteries included in the scope of delivery and may not be altered independently.

8.10.2 General

The power wheelchair is equipped with maintenance-free batteries. See the section "Technical data" for the battery capacity.

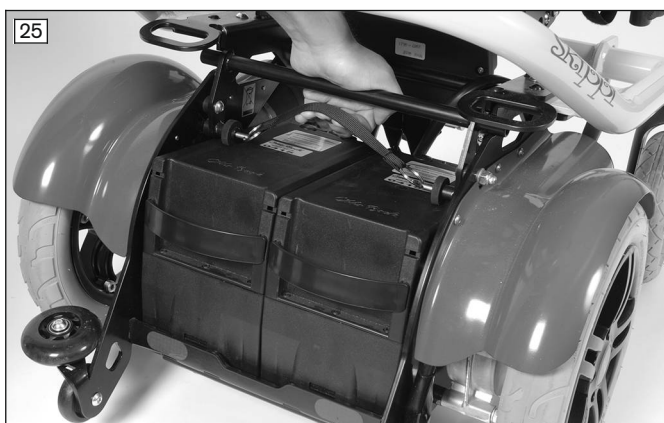


The batteries are located in 2 battery packs below the seat of the power wheelchair (see fig. 24).

NOTICE: Please note that driving for an extended period of time in the lower range of the battery indicator will result in deep discharge and therefore battery damage. In this case the control unit of the power wheelchair switches to power-saving creep speed while driving when the battery is low.
NOTICE: Please also observe the information for charging the battery (see the next section).

8.10.3 Installing/removing the battery pack

Removing and installing the battery packs is necessary to use the power wheelchair, insert or remove the fuses, and to replace the battery packs.



Removing battery packs

- > **Prerequisite:** The control unit is switched off.
- 1) Pull the release strap for the seat lock and simultaneously fold the locking bar to the front (see fig. 25).
- 2) Remove the exposed battery packs (see fig. 26).
- 3) Insert the fuse if needed (see Page 19).

Inserting battery packs

- > **Prerequisite:** The control unit is switched off.
- 1) Lift the battery packs into the drive unit bracket. In doing so, ensure that the red arrows on the battery packs point in the driving direction and that the plug contacts engage with the battery contacts.
- 2) Fold the locking bar back to prevent the battery packs from falling out (see fig. 25).



8.10.4 Battery charging information

The range of the power wheelchair is determined by the battery capacity. The battery capacity is influenced by many factors. In addition to the temperature, battery age and driving conditions, the charging cycle also has a pronounced effect on the capacity and therefore on the range.

Batteries reach their full capacity only after **approx. 20** charge cycles. Only if the full capacity of the batteries has been reached can the power wheelchair achieve the stated range.

At temperatures of **< 0 °C/32 °F** the battery capacity drops by up to **35%** in relation to the capacity for an outside temperature of **20 °C/68 °F**. This shortens the range of the power wheelchair accordingly. Moreover the charge level displayed on the control panel can differ more significantly from the actual battery capacity.

The following information should be observed for an optimal charging cycle:

- The batteries can be charged at any time, regardless of the remaining charge level.
- It takes about **10 hours** until a discharged battery (only 1 flashing segment) is completely charged. When the charging process is complete, the battery charger can remain connected with no risk of overcharging or damaging the battery. The battery charger features a programmed recharging phase that will maintain the battery capacity at the previously reached level.
- If the power wheelchair is used every day, the battery should be charged every night.
- Never discharge the batteries completely (deep discharge).
- The batteries will gradually discharge if the wheelchair is not used for extended periods of time. If the power wheelchair is not used for an extended period, the batteries should be charged **1 x per week** to maintain their capacity.
- After charging the batteries, the circuit breaker should be deactivated if the wheelchair is not used for more than 3 days.
- The power wheelchair control unit must be switched off while the batteries are charging to allow all of the charging current to be fed into the battery.

8.10.5 Battery charger

NOTICE

Improper use of the battery charger

Damage to the battery charger, damage to the battery due to user error

- ▶ Only use battery chargers from Ottobock, which have been verified and approved by the manufacturer for use with the respective batteries (observe information on the battery charger).
- ▶ Ensure that the information on the battery charger nameplate matches the country-specific voltage of the respective mains grid.
- ▶ Only use the battery charger within the specified temperature and humidity limits.
- ▶ Place the battery charger on a level surface.
- ▶ If you locate the battery charger near a window, protect it from direct sunlight.
- ▶ Avoid overheating of the battery charger. Do not cover the ventilation slits in the case.
- ▶ Switch the control unit off during the charging process so that all of the charging current is fed into the battery.
- ▶ Avoid dust, dirt and moisture.
- ▶ Only clean the battery charger with a dry cloth.

The battery charger is designed for maintenance-free and low-maintenance batteries.

Please see the instructions for use supplied with the battery charger for further details on use and on the LED displays.

8.10.6 Charging the battery

⚠ WARNING

Improper use of the battery charger

Risk of electric shock due to contact with live components

- ▶ Do not touch live electrical components. The battery charger and its cables are live when the charger is on.
- ▶ Do not remove any insulation or protective covers.

⚠ WARNING

Discharge of explosive gases during battery charging

Burns due to explosion after a user error

- ▶ Ensure sufficient ventilation in enclosed spaces.
- ▶ Do not smoke or light fires.
- ▶ Sparks must be avoided. Switch the battery charger off and disconnect the mains plug before you disconnect the battery.
- ▶ Do not cover the ventilation slits in the case.
- ▶ Only use battery chargers which have been verified and approved by the manufacturer for use with the respective batteries (observe information on the battery charger). Non-observance may result in explosion of the battery, resulting in a health hazard.

NOTICE

Improper charging

Damage to the battery due to user error

- ▶ Please note the manufacturer's instructions for the batteries being used. Follow the battery manufacturer safety instructions.
- ▶ Avoid deep discharge of the battery. The manufacturer does not assume any liability for damage due to deep discharge.
- ▶ Charge the battery immediately when the control panel indicates a deep discharge (see section "Buttons and display functions").
- ▶ Charge the batteries weekly if the power wheelchair is not used for an extended period of time.

- 1) Turn the control unit on the power wheelchair off.
- 2) Plug the battery charger plug into the charging receptacle on the power wheelchair control panel (see fig. 21).
- 3) Connect the battery charger to the mains socket and turn it on.
 - The charging process starts automatically and the battery charge level is indicated by the LCD screen on the control panel and on the battery charger.
- 4) Turn the battery charger off and pull the plug out of the mains socket when the charging process is complete.
- 5) Disconnect the battery charger plug from the control panel.
- 6) Turn the power wheelchair control unit on. The power wheelchair is ready to use.

8.11 Seat

The product is equipped with a standard seat.

8.11.1 Safety instructions

⚠ WARNING

Seat cushion and back padding may ignite

Burns due to user error

- ▶ The seat and backrest upholstery as well as padding fulfil the requirements for flame resistance according to the norms ISO 8191-2 or DIN EN 1021-2. However, they may still ignite if fire is handled improperly or negligently.
- ▶ Keep away from all ignition sources, especially lit cigarettes.

⚠ CAUTION**Skin damage**

Risk of skin reddening during long-term use

- ▶ Do not use the seat until it has been adjusted by a suitably qualified or experienced person.
- ▶ Examine the skin for redness on a regular basis. Skin reddening is a clinical indicator of tissue damage.
- ▶ If redness of the skin or other problems occur during use, stop using the seat immediately. Only start using the seat again after consulting the prescribing doctor or therapist.

⚠ CAUTION**Failure to observe care instructions**

Soreness due to user error

- ▶ No seat can completely eliminate sitting pressure or possible soreness.
- ▶ When using the seat, always ensure good skin care and regular pressure relief.

NOTICE**Improper use**

Damage to the seat surface due to user error

- ▶ Do not allow the seat to come into contact with sharp objects. This also applies to animals such as pet cats with sharp claws.
- ▶ If the seat is expected to come into contact with liquid, such as spilt drinks or episodes of incontinence, always use it in conjunction with a liquid-repellent cover.
- ▶ Only use the Ottobock incontinence covers for this product. Contact the qualified personnel to obtain a spare Ottobock cover.

8.11.2 Headrest

The seat of the power wheelchair can be equipped with a headrest. The headrest or head/neckrest stabilises and guides the user's head. It has been mounted to the mounting kit for head/neckrests by qualified personnel.

INFORMATION

Please see the manufacturer documentation provided for information on adjusting the headrest as well as cleaning instructions.

8.12 Power seat functions

The power wheelchair can be equipped with a range of different optional power seat functions.

For more information on the specific equipment of this power wheelchair, contact the qualified personnel.

8.12.1 Safety instructions**⚠ WARNING****Driving with power seat functions**

Falling, tipping over due to driving with unallowable seat settings

- ▶ Only drive in road traffic and on inclines and downgrades with the seat tilt and seat height adjustments lowered and with a vertical backrest. Always use a belt system.
- ▶ Slightly tilt the seat to the rear when driving down obstacles in a forward direction (e.g. curbs) and reduce the speed.
- ▶ Drive with the seat raised or with the seat tilt/back angle adjustment activated only for short distances at home. Always use the speed level 1 for this. Note that the field of vision is limited when driving. Always use a belt system.
- ▶ Use the seat height adjustment and the seat tilt only on firm, level ground.
- ▶ To avoid uncontrolled driving movements, ensure that the control unit is always in "Power seat functions" mode before using the power seat functions.
- ▶ To avoid hazardous situations, note the correct deflection direction of the joystick (see Page 42).

⚠ WARNING**Overloading**

Risk of falling, tipping over due to non-compliance with technical data

- ▶ Note that the maximum permitted load of the power wheelchair may be reduced when using power seat functions (see the section "Technical data").

⚠ WARNING**Lack of maintenance**

Severe user injuries, damage to the product due to maintenance errors

- ▶ Check the adjustment functions for visible signs of damage at least **1 x per month** and ensure all screw connections are tight.

⚠ WARNING**Exposed pinch points**

Pinching, crushing of limbs (e.g. fingers) due to lack of caution in danger areas, damage to the product

- ▶ Note that when seat functions are used, inherent pinch and shear points are located between the seat frame and the power wheelchair frame.
- ▶ Ensure that no body parts, such as hands or feet, are in the danger area while the seat functions are used.
- ▶ Ensure that no interfering objects, such as clothing or other obstacles, are in the danger area while the seat functions are used.

⚠ WARNING**Overloading of the actuators**

Risk of falling, tipping, pinching, crushing of limbs due to improper handling

- ▶ Avoid overloading the actuators. Overloading may cause components to break, leading to uncontrolled dropping of the seat or causing the backrest to flip back.

NOTICE**Improper use of electric seat options**

Damage to the product through user error

- ▶ When using electric seat options, note that the seat function actuators are not designed for continuous use, only for short-term use under limited loads (10% load, 90% idle time).
- ▶ Observe the following guidelines: at maximum load capacity, 10 seconds of activation time must be followed by approx. 90 seconds of idle time. The power seat functions are considered independently of the driving function for this purpose.
- ▶ Only activate the power seat functions if no fault or error is present.

8.12.2 Power seat height adjustment**⚠ WARNING****Improper use of the seat height adjustment feature**

Falling, tipping over due to driving with unallowable seat settings

- ▶ Use the seat height adjustment feature only with the backrest in the upright position.
- ▶ Drive in street traffic only with the seat height adjustment lowered.
- ▶ Even when driving indoors, fasten the belts and do not lean out beyond the seat surface when the seat height adjustment feature is raised.
- ▶ Ensure that creep speed is activated when the seat height adjustment function is used. If this is not the case, contact a specialist dealer immediately. Only use the power wheelchair with the seat height adjustment in its lowest position until the fault is rectified.

NOTICE**Risk of transportation damage**

Damage to the product through user error

- ▶ Always lower the seat height adjustment feature fully for loading or transportation.

INFORMATION

- ▶ Also observe the safety instructions in the section "Power seat functions" (see Page 39).
- ▶ Observe the instructions for use in the sections "Controlling power seat functions" (see Page 42) and "Joystick functions" (see Page 42).

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The power seat height adjustment feature raises the seat bottom by up to **200 mm** using a motor drive.

The seat can be moved up continuously to the height specified.

The driving function can be used indoors even when the seat is raised. In this case, the driving speed is automatically reduced (creep speed).

Creep speed is indicated on the control panel as follows:

Display	Information
	Restricted speed (creep speed)

8.12.3 Power seat tilt**⚠ WARNING****Incorrect seat tilt handling**

Falling, tipping over due to driving with unallowable seat settings

- ▶ Use the seat tilt feature only with the backrest in the upright position.
- ▶ Drive in street traffic only with the seat tilt lowered.
- ▶ When driving with the seat tilt activated, even at home, fasten the belts and do not lean out beyond the seat surface.

INFORMATION

- ▶ Also observe the safety instructions in the section "Power seat functions" (see Page 39).
- ▶ Observe the instructions for use in the sections "Controlling power seat functions" (see Page 42) and "Joystick functions" (see Page 42).

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The power seat tilt function allows the seat to be tilted up to **20°**, for example to relieve pressure.

The seat can be tilted back continuously to the specified angle.

The power wheelchair has an integrated feature that shifts the centre of gravity and serves to improve stability against tipping.

8.12.4 Combined seat height adjustment/seat tilt

INFORMATION

- ▶ Also observe the safety instructions in the section "Power seat functions" (see Page 39).
- ▶ Observe the instructions for use in the sections "Controlling power seat functions" (see Page 42) and "Joystick functions" (see Page 42).

This function allows the seat to be tilted while continuously raising the seat surface at the same time. For further information on the functions and relevant safety information, see the preceding section.

8.12.5 Power back angle adjustment

⚠ WARNING

Incorrect use of back angle adjustment

Falling, tipping over due to driving with unallowable seat settings

- ▶ Drive in street traffic only with a vertical backrest.
- ▶ When driving with the back angle adjustment activated, even at home, fasten the belts and do not lean out beyond the seat surface.

INFORMATION

- ▶ Also observe the safety instructions in the section "Power seat functions" (see Page 39).
- ▶ Observe the instructions for use in the sections "Controlling power seat functions" (see Page 42) and "Joystick functions" (see Page 42).



The power back angle adjustment feature enables the backrest to be tilted up to **25°**. The backrest can be tilted back continuously to the angle specified above.




8.12.6 Controlling power seat functions

- Power seat functions are activated and controlled via the control panel (see Page 26).
- Holding the [Mode] button (approx. 2 seconds;) activates control of the first power seat function.
- The LCD screen indicates the currently selected seat function (see the following section "Joystick functions"). The driving function is not available at this time and the speed level indicator switches off.
- To switch between the various seat functions, press the [Mode] button briefly or move the joystick to the right.
- Once a seat function has been activated, it is adjusted by moving the joystick forward or backward.
- The electric motor moves the seat according to the seat function as long as the joystick is deflected and stops at the end positions.
- Holding the [Mode] button again (approx. 2 seconds) deactivates the seat function in the selected position. The driving function is available again and the speed level indicator on the LCD screen is lit.

8.12.7 Joystick functions

The following power seat functions can be controlled with the joystick:

Display	Function	Joystick movement ¹⁾
	Power seat height adjustment	Forward: Seat surface moves up Back: Seat surface moves down

Display	Function	Joystick movement ¹⁾
	Power seat tilt ²⁾	Back: Seat slowly tips back Forward: Seat slowly tips forward to a horizontal position
	Power back angle adjustment	Forward: Backrest tilts forward Back: Backrest tilts backward
	Special functions (e.g. coupled back adjustment and seat tilt)	Forward: Seat functions move forward Back: Seat functions move back

¹⁾ Direction of movement can be modified by the specialist dealer; ²⁾ Seat surface and backrest

8.13 Manual seat functions

The power wheelchair can be equipped with a range of different optional mechanical seat functions.

For more information on the specific equipment of this power wheelchair, contact the qualified personnel.

8.13.1 Safety instructions

⚠ WARNING

Driving with mechanical seat functions

Risk of falling or tipping over due to operator error

- ▶ Drive in road traffic and on inclines and downgrades only with a vertical backrest. Always use a belt system.
- ▶ Drive with the back angle adjustment activated only for short distances at home. Always use the speed level 1 for this. Note that the field of vision is limited when driving. Always use a belt system.

⚠ WARNING

Lack of maintenance

Severe user injuries, damage to the product due to maintenance errors

- ▶ Check the adjustment functions for visible signs of damage at least **1 x per month** and ensure all screw connections are tight.

⚠ WARNING

Exposed pinch points

Pinching, crushing of limbs (e.g. fingers) due to lack of caution in danger areas, damage to the product

- ▶ Note that when seat functions are used, inherent pinch and shear points are located between the seat frame and the power wheelchair frame.
- ▶ Ensure that no body parts, such as hands or feet, are in the danger area while the seat functions are used.
- ▶ Ensure that no interfering objects, such as clothing or other obstacles, are in the danger area while the seat functions are used.

8.13.2 Mechanical seat tilt

The mechanical seat tilt function with a gas compression spring allows the seat to be tilted, for example to relieve pressure. The seat can be tilted back continuously up to an angle of **20°**.

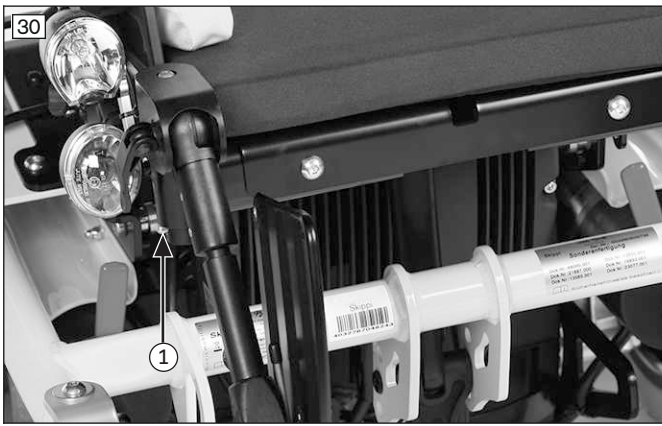
This seat tilt adjustment is operated with a release lever at the push handles.

8.13.3 Mechanically elevating footrests

INFORMATION

- ▶ Please also observe the safety instructions in the section "Manual seat functions": see Page 43.

The mechanically elevating footrests let the user change the angle independently to prevent a constant pressure load or to provide anti-shock support.



Removing the legrests

- 1) Flip the footplate up.
- 2) Push the legrest locking mechanism (push button) to the inside (see fig. 30, item 1).
- 3) Pull the legrest up and remove it.

Installing the legrest

- 1) Insert the legrest into the holder from above.
- 2) Push the legrest locking mechanism (push button) to the inside (see fig. 30, item 1).
- 3) Push down the legrest until the push button locks the legrest.
- 4) Fold down the footplate.



Pivoting the legrest

- 1) Deactivate the release lever on the legrest (see fig. 31, item 1). This cancels the blocking provided by the gas compression spring.
- 2) Move the legrest to the desired position.
- 3) Tighten the release lever (see fig. 31, item 2).
 - The gas compression spring is blocked again.
 - The legrest is adjusted.

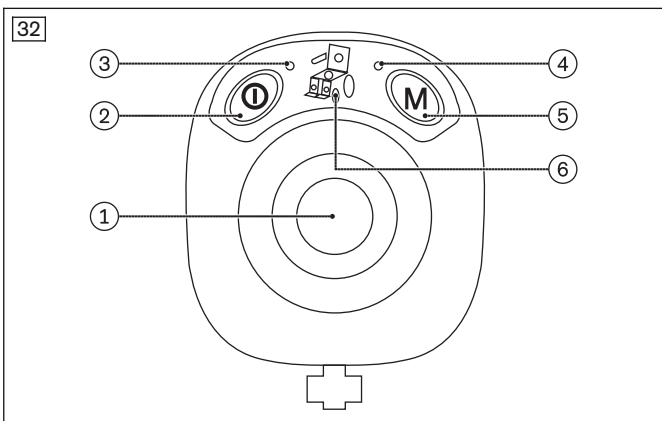
8.14 Control unit accessories

8.14.1 Attendant control

The power wheelchair can be equipped with an optional separate control panel for attendant operation. The separate control panel is angle-adjustable.

Functional overview

The attendant uses the attendant control to operate the driving function and the power seat functions. The module is connected in conjunction with the control panel or as a separate input device. The module is connected in combination with the separate LCD monitor and special control (if any).



Attendant control overview

- 1 Joystick
- 2 [On/off] button
- 3 [Charge level] LED display
- 4 [Mode] LED indicator
- 5 [Mode] button
- 6 [Selected power seat function] LED indicator

Joystick

The attendant uses the joystick to control the speed and driving direction. When a seat option is activated, the joystick operates this seat option.

[On/Off] button

The button is used for switching the power wheelchair on, activating the drive-away lock and switching the wheelchair off.

[Charge level] LED display**INFORMATION**

- ▶ The following information on LED function only applies when the attendant control is used as an individual input device.
- ▶ If the **control panel/attendant control are used in combination**, the battery charge level is indicated by the display symbols on the LCD screen (see the section "Button and display functions").

The LED lights up when the unit is on.

Colour and flash codes provide information on the current battery charge level:

LED	Information
Green is lit	Battery charge level >70 %
Orange is lit	Battery charge level 30% - 70%
Red is lit	Battery charge level < 30%
Red is flashing	Battery deep discharge Charge as soon as possible
Green is flashing	Battery over-voltage (e.g. after driving downhill) Continue driving slowly
Red/orange/green flashing alternately	Charging process/drive-away lock

[Mode] button

Switch between speed level 1 and 2 by pressing the button briefly.

Push and hold the button (at least 2 seconds) to switch the control unit to the power seat functions.

[Mode] LED indicator**INFORMATION**

- ▶ The following information on LED function only applies when the attendant control is used as an individual input device.
- ▶ If the **control panel/attendant control are used in combination**, the selected speed level and errors are indicated by the display symbols on the LCD screen (see the section "Button and display functions" and "Wheelchair control unit fault overview").

The LED has 3 colour and various flash codes to indicate the statuses of the speed level and system faults:





LED	Information
Green is lit	Speed level 1
Orange is lit	Speed level 2
Red is flashing	Fault (see Page 61)
Off	LED indicator switched to seat function

[Selected power seat function] LED indicator**INFORMATION**

- ▶ The following information on LED function only applies when the attendant control is used as an individual input device.
- ▶ When the **control panel/attendant control are used in combination**, the chosen seat function is indicated by the display symbols on the LCD screen (see the section "Power seat functions" > "Joystick and display functions").

The power seat functions are accessed by depressing of the "M" button for approx. 2 seconds.

The currently selected seat function is indicated by the following LEDs:

Display	Information
	Power back angle adjustment
	Power seat tilt
	Power seat height adjustment
	Coupled power seat adjustment (backrest and seat tilt)

Moving the joystick to the right switches between the different seat functions. The respective function can be extended or retracted by moving the joystick forward or back.

The corresponding LEDs flash if an error occurs (see Page 61).

8.14.2 Mid-tray control

CAUTION

Improper adjustment

Crushing or pinching due to adjustments which are too tight

- ▶ Do not pinch the user when sliding in the product.

CAUTION

Collisions while driving

Crushing or pinching by the tray

- ▶ Please note that the user may be crushed by the tray in the event of a collision. Avoid collisions.

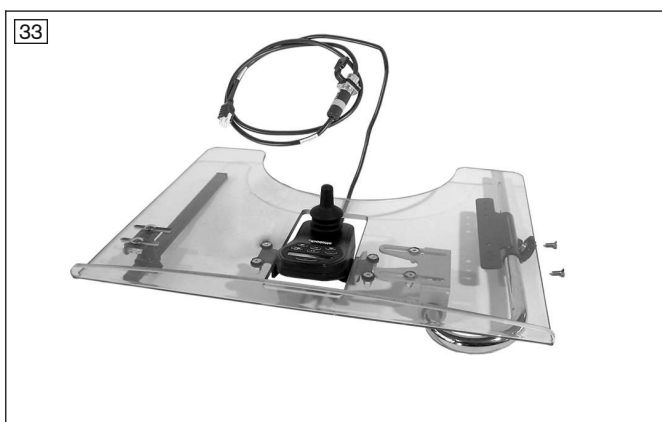
NOTICE

Improper use

Damage to the product caused by incorrect use

- ▶ Ensure that the user does not travel with the tray folded down to the side.
- ▶ Do not pull the product too far out from the receiver tube.
- ▶ Do not place any hot objects on the tray top.
- ▶ Do not overload the tray top. See the section "Technical Data" for the maximum permissible load capacity.

The power wheelchair may be equipped with a mid-tray control.



The product has the following special features:

- Positioning of the enAble40 control panel anywhere on the surface of a swing-away tray
- Integration into the tray surface
- Implementation in custom fabrication

Detailed information about the mid-tray control and its operation is provided by the qualified personnel.

8.15 Additional options

8.15.1 Control panel holder

Control panel holder, standard

The control panel holder can be pulled off to the front when needed.



Pulling off the control panel holder

- 1) Grasp the control panel holder on the front.
- 2) Pull the control panel holder off to the front.

Installing the control panel holder

- 1) Insert the control panel holder into the rail.
- 2) Slide the control panel in to the rear.

Swing-away control panel holder

The control panel holder makes it possible to drive the power wheelchair under a table or closer to an object. The control panel holder can be rotated up to the armrest.



Swinging away the control panel holder

- 1) Apply slight pressure to push the control panel holder to the side.
→ The pivot element is unlocked.
- 2) Swing the control panel holder away to the side.
INFORMATION: The pivot element locks in place again when the holder is rotated back to the original position.



Removing/installing the control panel

- 1) **Removing:** Pull the control panel up and off the ball head.
- 2) **Installing:** Set the control panel onto the ball head and push it down.

8.15.1.1 Adjusting the control panel position

INFORMATION

By default, the control panel is mounted on the side specified in the order. It can also be mounted on the other side of the power wheelchair later on if the user so desires. Please contact the qualified personnel who delivered the product to you.

The depth position of the control panel is subsequently adjustable.



Adapting the control panel position to the forearm length

- 1) Loosen the 3 set screws on the bottom of the armrest.
- 2) Slide the rail with the control panel forwards or backwards.

INFORMATION: If the control panel rail is too long it can be shortened. Please contact the qualified personnel who adjusted your product.

- 3) Tighten the 3 set screws on the bottom of the armrest.

8.15.2 Lighting

Information on replacing broken lamps: see Page 58.

8.15.2.1 Lighting for road traffic

The installed lighting is suitable for driving in street traffic during hours of darkness.

The lights, right and left direction indicators and the warning flashers are operated via the control panel.

Front lighting

The 2 front lights (see fig. 38, left) each encompass a direction indicator lamp (bottom left) and an LED front lamp (top left).

The front lights are fastened to the self-contacting side panels.



Side panel removal/installation

- 1) Loosen the thumb screw on the side panel holder.
- 2) Pull the side panel out from the side panel holder and set it aside.

INFORMATION: When the side panels are inserted into the side panel holders the contacts touch each other and current can flow (see fig. 38, right).

INFORMATION: Carefully let the side panel with the control panel hang down.

- 3) Insert the side panel back into the side panel holder.
- 4) Re-tighten the thumb screw on the side panel holder.



Rear lighting

The rear lights encompass 2 LED rear lamps with integrated direction indicators.

8.15.2.2 Lighting for footpaths

This lighting makes driving on footpaths easier during hours of darkness. Power wheelchairs with this equipment are not permitted for use in road traffic.

The lighting consists of 1 front light without direction indicator. The front light is installed either on the left or right according to the order.



To turn on the front light at dusk, press the [Lights on/off] button (see Page 26).
The lighting angle is secured by latches.

8.15.3 Push handles

The push handles make pushing the wheelchair easier for the attendant.



Adjusting the height

- 1) Release the clamping lever.
- 2) Adjust the push handle to the desired height.
INFORMATION: To reduce the transportation size, slide the push handles all the way down and turn them to the inside if needed.
- 3) Close the clamping lever tightly.
INFORMATION: Both push handles must be adjusted to the same height during use.

8.15.4 Overview of other options

INFORMATION

You can find these and other optional add-on components on the order form and in the accessories catalogue.

The power wheelchair can be equipped with additional options:

- Armrest accessories: Special adapters for the armrests in our accessories catalogue
- Joystick top: Tetra fork, STICK S80, softball, ball top, sponge ball
- Control panel safety bar: Metal bar for impact protection
- Bumper bar
- Tray
- Manual horn
- Pennant
- Puncture-proof tyres: Solid rubber tyres
- Tool kit

These and other optional add-on components are included in the order form and in the wheelchair accessories catalogue.

8.16 Use in vehicles for transporting persons with reduced mobility

⚠ WARNING

Use in vehicles for transporting persons with reduced mobility

Serious injuries in case of accidents due to user error

- ▶ Always use the seats and restraint systems in the vehicle for transporting persons with reduced mobility first. This is the only way to ensure optimum protection of passengers in the event of an accident.
- ▶ If the product is to be used as a seat in a vehicle for transporting persons with reduced mobility, the safety elements offered by the manufacturer and appropriate personal restraint systems must be used. For more information, please refer to our brochure with the order number 646D158.
- ▶ Never transport more than one person in the power wheelchair.
- ▶ Turn off the control unit after positioning the power wheelchair in the vehicle for transporting persons with reduced mobility.
- ▶ Use the power wheelchair in a vehicle for transporting persons with reduced mobility only if the seat is all the way down and the backrest is in a vertical position.
- ▶ Observe the limitations regarding installed options (see Page 52).

⚠ WARNING

Use of the belt system as a passenger restraint system in vehicles for transporting persons with reduced mobility is forbidden

Serious injuries due to improper handling of the product

- ▶ Under no circumstances may the belts and positioning aids offered with the product be used as part of a passenger restraint system in vehicles for transporting persons with reduced mobility.
- ▶ Note that the belts and positioning aids offered with the product are only intended to help support the user sitting in the product.

The product may be used as a seat in vehicles for transporting persons with reduced mobility.

During transport in vehicles for transporting persons with reduced mobility, the product must be sufficiently secured with attachment straps.

8.16.1 Required accessories

To use the power wheelchair as a seat in a vehicle for transporting persons with reduced mobility, additional options have to be mounted (Skippi without seat height adjustment: 491S00=SK024 anchor point kit; Skippi with seat height adjustment: 491S00=SK005 anchor point kit). The qualified personnel who fitted the wheelchair can provide more information.

Using the product in the vehicle

⚠ WARNING

Positioning in vehicles for transporting persons with reduced mobility

Serious injuries in case of accidents due to user error

- ▶ Positioning in vehicles for transporting persons with reduced mobility may only be performed by qualified personnel.
- ▶ Instruct the qualified personnel regarding the mounting points on your product described below.

The product has been tested according to ANSI/RESNA and ISO 7176-19.



Securing the power wheelchair in the vehicle

- 1) Position the power wheelchair in the vehicle for transporting persons with reduced mobility. For more information, refer to section 5 in the brochure "Transporting persons with reduced mobility", order number 646D158.
- 2) Turn the control unit off (see Page 32).
- 3) Verify brake locking. Engage the brakes if needed (see Page 35).
- 4) Apply the attachment straps (see below).



Applying the front attachment straps

- 1) Hook each of the front attachment straps into its corresponding front anchor point from the outside (see fig. 43).
- 2) Tighten the front attachment straps.

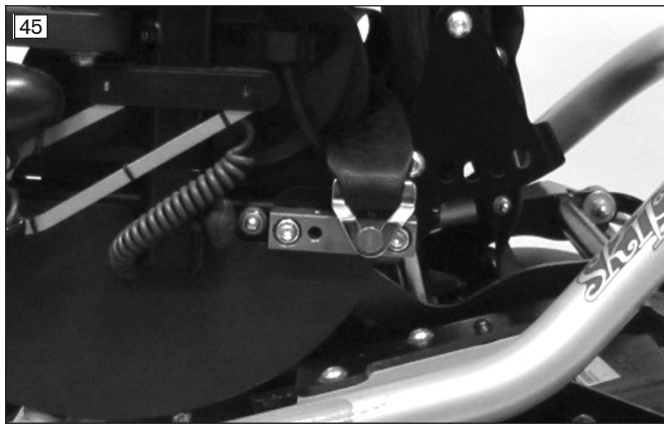


Applying the rear attachment straps

- 1) Hook each of the rear attachment straps into its corresponding rear anchor point from below (see fig. 44).
- 2) Tighten the rear attachment straps.

Placement of the restraint system integrated in the vehicle

Fastening the restraint lap belt of the vehicle for transporting persons with reduced mobility is mandatory. The belt system of the power wheelchair can be used in addition to position the passenger during transportation.



Fastening the restraint lap belt

- 1) Guide each end of the restraint lap belt from the inner side of the seat through to the outer side of the seat.
- 2) Engage the end of the restraint lap belt on the pin (see fig. 45).

Restrictions for use

⚠ WARNING

Risk of accidents and injury due to using the product with certain settings and/or installed options

Severe injury in case of accidents due to options coming loose

- ▶ Before using the product as a seat in a vehicle for transporting persons with reduced mobility, remove options that need to be taken off for safe transportation. Please observe the following table.
- ▶ Stow all dismantled components securely in the vehicle for transporting persons with reduced mobility.
- ▶ Please note that certain settings on the product exclude the use of the product in a vehicle for transporting persons with reduced mobility.

Option*	Transportation in a vehicle for transporting persons with reduced mobility not possible	Option must be removed	Secure option on product
Power back angle adjustment	X		
Headrest with mounting kit		X	
Tray, swing-away to the side		X	
Lap belt with buckle*			X
Mid-tray control, swing-away to the right or left			X
Control panel holder, swing-away in parallel			X

* The lap belt can be used to position the passenger during transportation. Using the personal restraint system is nevertheless required.

8.17 Disassembly and transport

8.17.1 Safety instructions

⚠ WARNING

Improper transportation in aircraft

Burns, explosion or damage to the battery due to failure to observe the rules for transportation

- ▶ Follow the rules of the IATA (International Air Transport Association) and the respective airline when transporting the power wheelchair in an aircraft. To this end, the fuse must always be removed (or the automatic circuit breaker turned off) and the battery connectors must be insulated so that they are short-circuit-proof prior to check-in of the power wheelchair as luggage.
- ▶ Note that those batteries in particular which may leak or will not be transported upright must be removed and packaged so they cannot leak or short circuit.
- ▶ For more information please visit the www.iata.org website. The manufacturer recommends contacting the airline directly before every flight to obtain information regarding special transport regulations.
- ▶ Use the SSR (special service request) codes to describe the type of limited mobility if necessary. These can be searched in the internet, for example.

CAUTION**Securing the power wheelchair insufficiently during transport**

Crushing, pinching of body parts due to failure to observe transportation instructions

- ▶ During transportation in vehicles or aircraft, on lifting platforms or in lifts, turn the control unit of the power wheelchair off and lock the brake.
- ▶ The power wheelchair must be secured in accordance with the regulations for the transport device.
- ▶ During transport in a vehicle, the power wheelchair must be secured sufficiently with cargo straps. Only attach the cargo straps to the corresponding transportation eyelets and specified tie-down points.

NOTICE**Lifting the power wheelchair incorrectly**

Damage to the power wheelchair due to failure to observe transportation instructions

- ▶ Hoisting devices used for transportation must have a sufficient capacity. For more information about weight, see the section "Technical data" (see Page 63).
- ▶ Do **not** attach the hoisting devices on moveable or adjustable components.
- ▶ Ensure that the seat is lowered all the way and the backrest is in a vertical position prior to loading and for transporting the power wheelchair.

8.17.2 Reducing the transportation size

The transportation size can be reduced in a few steps to make transporting the product easier.

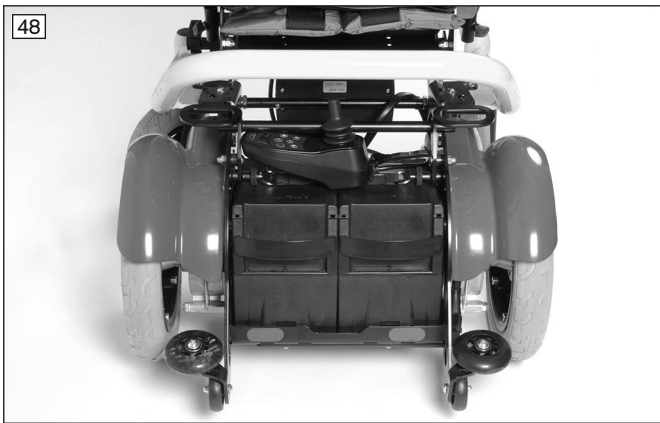
**Preparing for transport**

- 1) Turn the control unit off.
- 2) **If needed:** Remove the control panel (see Page 47) and carefully set it aside.
- 3) Remove the side panels (see Page 20) and place them on the seat.
- 4) Fold the backrest forward and onto the seat surface (see Page 22).
- 5) Remove the legrests and set them aside (see Page 21).
- 6) **If needed:** Slide the push handles down and turn them to the inside (see Page 49).
- 7) **If needed:** Remove the battery packs (see Page 36).

**Separating the frame and drive unit bracket**

To further reduce the size of the power wheelchair, the frame can be separated from the drive unit bracket:

- > **Prerequisite:** The battery packs have been removed (see Page 36).
- 1) **If needed:** Pull the seat lock release strap and fold the locking bar all the way down (see fig. 25).
 - 2) Push down on the step points (frame protection rollers) above the anti-tipper rollers on the drive unit bracket until these touch the ground (see fig. 47).
 - 3) Slightly lift the frame to separate it from the drive unit bracket (see fig. 47).
 - 4) Separately set aside the frame and drive unit bracket.



Reducing the required space

- 1) Set the battery packs back into the drive unit bracket.
INFORMATION: Ensure that the red arrows on the battery packs point forward.
- 2) Fold the locking lever down again to prevent the battery packs from falling out (see Page 36).
- 3) Lay the control panel on top of the battery packs (see fig. 48) or insert it into the corresponding holder.
INFORMATION: Ensure that the control panel is not switched on and that cables are not pinched.
→ Now the power wheelchair is ready to transport and can be stowed in a vehicle.

8.17.3 Preparing for transport

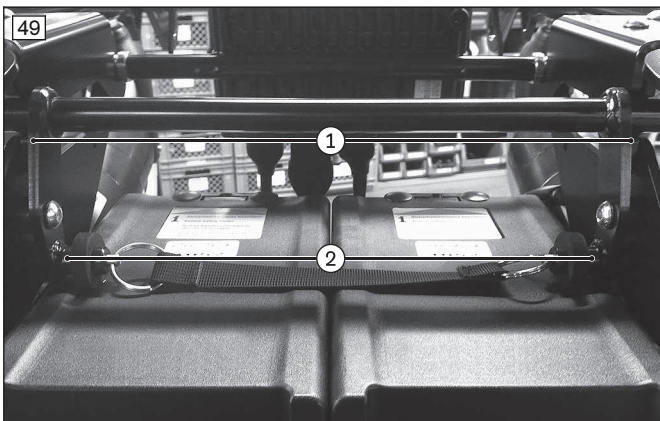
Transporting the power wheelchair as a whole

- 1) **If needed:** Turn the control unit off (see Page 26).
- 2) **If needed:** Lock the brake (see Page 35).
- 3) Use cargo straps to attach the power wheelchair to the transport vehicle.

8.17.4 Assembly

To reassemble the power wheelchair, the steps described above must be carried out in reverse order.

If the frame was separated from the drive unit bracket for transportation of the power wheelchair, correct locking of the frame has to be ensured during assembly:



Connecting the frame to the drive unit bracket

- 1) Prepare the drive unit bracket and frame.
- 2) Pull the seat lock release strap and fold the locking bar all the way down (see fig. 25).
- 3) On the drive unit bracket, push down on the step points (frame protection rollers) above the anti-tipper rollers until these touch the ground (see fig. 47). The drive unit bracket is now at an angle.
- 4) Set the frame onto the drive unit bracket from above (see fig. 47).
- 5) Pull the seat lock release strap and fold the locking bar all the way up (see fig. 25).

INFORMATION: In doing so, ensure that the locking bar is pushed back into its proper position (see fig. 49, item 1). Both locking bolts have to engage properly (see fig. 49, item 2).
CAUTION! Falling due to lack of frame stability. Check that the locking bolts are properly engaged at both sides on the outside of the base support. The bolts must be clearly visible so that the frame cannot disengage from the drive unit bracket (see fig. 50).



8.18 Care

8.18.1 Safety instructions

⚠ CAUTION

Incorrect cleaning

Injuries due to product damage, infections/skin irritations due to user error

- ▶ Water must not come into direct contact with the electronics, motor or batteries under any circumstances during cleaning. Never use a water jet or high-pressure cleaning apparatus to clean the product.
- ▶ To avoid contamination with germs, clean seat cushions and back upholstery whenever they get soiled.
- ▶ Disinfect the product regularly.
- ▶ Use a cloth or sponge for cleaning.
- ▶ To avoid corrosion, do not use any aggressive cleaning agents or solvents.
- ▶ Check the driving behaviour of the product after cleaning it.

INFORMATION

Piston rods do not require lubrication. They are maintenance-free.

8.18.2 Cleaning

The power wheelchair must be cleaned regularly, depending on the amount of use and the degree of soiling.

- Clean the control panel, battery charger, armrest and trim components with a damp cloth and mild cleaning solution.
- Use a dry brush to clean the seat and back upholstery as well as the seat cushion.
- Use a damp plastic brush to clean the wheels and frame.
- Do not use any aggressive cleaners, solvents or hard brushes etc.
- Do not spray the product with a pressure washer.
- Observe further cleaning instructions in the section "Belts/belt systems": (Belts/belt systems).

8.18.3 Disinfection

- 1) Thoroughly clean the pads before disinfecting.
- 2) Wipe all parts of the product with a disinfectant.

Important information about disinfecting

- Only use colourless water-based disinfectants. Observe the instructions for use provided by the manufacturer.
- Prior to disinfection, clean the seat and back padding, control panel and armrests.

9 Maintenance and repair

9.1 Safety instructions

⚠ WARNING

Insufficient maintenance

Severe user injuries, damage to the product due to failure to observe maintenance intervals

- ▶ The power wheelchair may only be serviced by qualified personnel trained by the manufacturer. The functionality and operating safety of the power wheelchair must be verified and a service performed at least **1 x per year**.
- ▶ In case of frequent user changes (children and growing youth) or changing clinical pictures, the power wheelchair should be inspected, adjusted and serviced **1 x every six months**.

⚠ WARNING

Failure to inspect important product features

Severe user injuries, damage to the product due to maintenance errors

- ▶ Inspect the seat adjustment features for visible signs of damage at least **1 x per month** and ensure all screw connections are tight.
- ▶ Maintain sufficient air pressure in the tyres. The correct tyre pressure is printed on the tyre casing and listed in the section "Technical data".

⚠ CAUTION

Uncontrolled driving behaviour, unexpected sounds or odours

Falling, tipping, collision with persons or nearby objects due to defects

- ▶ If any faults, defects or other hazards that can lead to personal injury are detected, the product must be taken out of service immediately. This includes uncontrolled movements as well as sounds that are unexpected or previously not noted or odours that deviate significantly from the state of the product at the time of delivery.
- ▶ Please contact your authorised dealer.

9.2 Maintenance

- The function of the product should be checked before each use.
- The product should not be used if defects are noted. This applies in particular in case of instability of the product or altered driving characteristics as well as problems with the user's seating position or the stability of the seat. Inform the qualified personnel promptly for the rectification of defects.
- This also applies if loose, worn, bent or damaged components, cracks in the frame or broken frame components are identified.
- Some maintenance tasks and smaller repairs can be carried out to a certain extent by the user at home. Further information is found in the sections "Maintenance intervals" (see Page 56) and "Repair" (see Page 57).
- Failure to maintain the product can lead to serious or life-threatening injury to the user of the product.
- Service and repairs may only be carried out by authorised, qualified personnel or the manufacturer. This will ensure that only Ottobock spare parts are used for repairs.

9.2.1 Maintenance intervals

The functions described below must be checked by the user or an attendant at the specified intervals:

Component	Activity	Prior to every use	Weekly	Monthly
Drive wheels	Check whether wheel mounts are securely fastened			X
	Check whether the central nut on the drive shaft is securely fastened			X
	Check whether wheels rotate freely and without axial runout			X
	Check directional stability of the power wheelchair	X		
Caster wheels	Check the steering play of the caster wheels			X
	Check whether the fork fits in the adapter without play			X
	Check whether wheels rotate freely and without axial runout			X
	Check whether the mounting nuts are tight			X
Seat attachment	Check whether mounting screws are fastened properly			X
Legrest	Check ratchet mechanism for functionality and firm fit			X
	Check for damage to footplates			X
Legrest, mechanically elevating	Check ratchet mechanism for functionality and firm fit			X
	Check for damage to footplates			X
	Visually inspect the piston rod for scratches and oil leaks			X
Padding/straps	Ensure padding is in perfect condition			X
	Check the attachment straps for wear			X
	Check belt buckle for functionality		X	
Tyres	Check air pressure (see tyre sidewall)			X
	Check for sufficient tread depth (min. 1 mm)			X
	Check for damage			X
Batteries	Check battery charge level	X		
Lights	Check for external damage		X	
	Verify functionality	X		
Electronics	Check whether the control unit is functioning properly (inform qualified personnel of any LED error messages)	X		

Component	Activity	Prior to every use	Weekly	Monthly
Electronics	Check whether the battery charger is functioning properly (inform qualified personnel of any LED error messages)		X	
	Check plug connections			X
Brake	When brake is disengaged: check whether the LED indicator on the control panel is flashing	X		
	When brake is engaged: check braking function by trying to push the chair			X
Power seat adjustments	Visually inspect all moving components and cabling for damage			X
	Check that screw connections are tight			X
Side panel and armrest	Check whether mounting screws are fastened properly			X
	Check whether screw connections between the armrest and the control unit are tight	X		
	Check armrest for damage		X	
Gas compression spring or actuator	Visually inspect the piston rod for scratches and oil leaks			X
Product	Check the legibility and completeness of all labels and markings on the product			X

9.3 Repair

⚠ WARNING

Prohibited repairs

Severe user injuries, damage to the product due to adjustment and installation errors

- ▶ Only carry out the repairs described in this section.
- ▶ Other repairs may not be completed by the product user but only by instructed, qualified personnel.

9.3.1 Replacing a defective fuse

INFORMATION

When replacing, only use fuses of the same type. Note the printed rating.

To replace a fuse: see Page 19.

Should the fuse burn out repeatedly after a short time for no discernible reason, contact the qualified personnel.

9.3.2 Wheel replacement

⚠ CAUTION

Uncontrolled movements of the power wheelchair

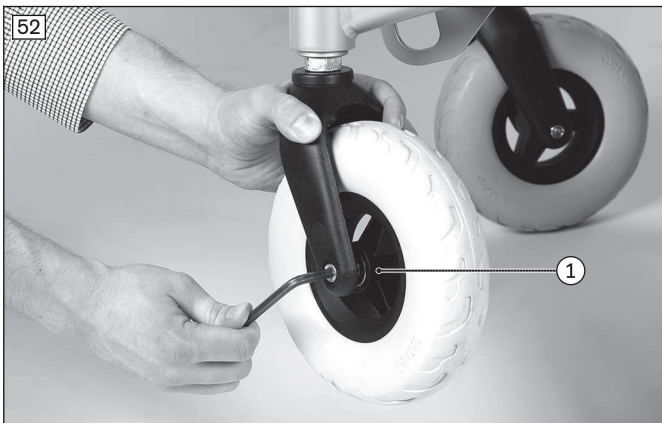
Crushing, pinching, blows due to non-observance of repair instructions

- ▶ When jacking up, secure the power wheelchair to prevent it from slipping or tilting to the side by placing a suitable base under the drive unit bracket.
- ▶ Ensure that body parts, such as hands or head, are never in the danger zone.



Replacing the drive wheel

- 1) Turn the control unit off.
- 2) Jack up the power wheelchair so that the wheel you want to replace can rotate freely.
- 3) Loosen and remove the 4 screws around the wheel hub.
- 4) Pull the drive wheel forward off the wheel hub.
- 5) Slide the new drive wheel onto the wheel hub.
- 6) Tighten all 4 screws using the torque wrench. The torque value is **25 Nm**.



Replacing the caster wheel

- 1) Turn the control unit off.
- 2) Jack up the power wheelchair so that the wheel you want to replace can rotate freely.
- 3) Loosen the axle screw using an Allen wrench and pull out the axle.
- 4) Remove the caster wheel from the caster fork.
- 5) Insert the new caster wheel into the caster fork.
- 6) Slide in the axle.
- 7) Tighten the axle screw using a torque wrench. The torque value is **10 Nm**.

9.3.3 Replacing the inner tube and tyre

The caster wheels are generally puncture-proof and can only be changed as a whole.

The rims of the drive wheels are in two parts and can be separated by removing the Allen head screws.



Making repairs

- 1) Remove the wheel in question (see previous section).
- 2) **For pneumatic tyres only:** Let all air out of the tyre and push the valve fully into the rim.
- 3) Loosen the 5 Allen head screws connecting the two parts of the rim (see fig. 53, left).
- 4) Pry back the tyre from the edges of the rim.
- 5) **For pneumatic tyres only:** Pull out the defective inner tube (see fig. 53, right).
- 6) **For pneumatic tyres only:** Repair the inner tube with a standard tyre repair kit or replace it.
- 7) Reassemble the rim. Firmly tighten the screws.
- 8) Reinstall the wheel (see previous section).

9.3.4 Replacing a defective bulb

NOTICE

Use of incorrect bulbs

Damage/melting of the connecting cables due to excess current flow

- Note that the LED lighting may only be replaced with original lighting.

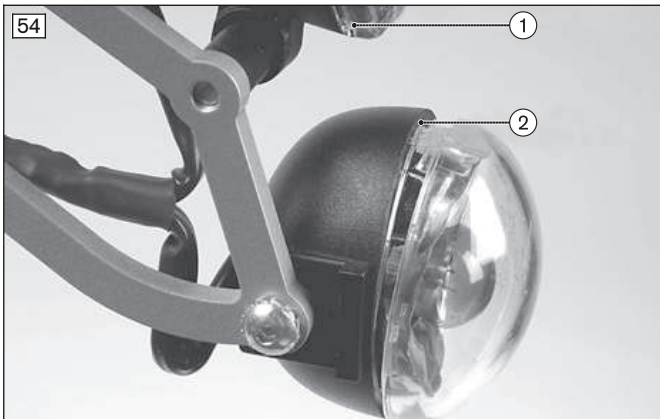
NOTICE**Penetration of moisture**

Risk of damage to the light

- ▶ During installation, ensure that the plates are seated accurately in the housing.
- ▶ Ensure that the screws are seated tightly against the plate.

INFORMATION

Lamp housings and lamps can both be ordered from the specialist dealer.

**Replacing the LED front light**

The LED front light (see fig. 54, item 1) is maintenance-free.

If repairs are required, the qualified person who fitted the wheelchair can help.

Information on repairing the front direction indicator (see fig. 54, item 2) is found in the following section.

**Replacing the front direction indicator lamp**

> **Prerequisite:** The circuit breaker is deactivated (see Page 19).

- 1) Set a small screwdriver into the notch in the direction indicator housing and flip the cover down (see fig. 54, item 2).
- 2) Remove the cover.
- 3) Slightly rotate the defective lamp to release it from the lock on the lamp socket, and pull it out (see fig. 55).
- 4) Hold the new lamp with a cloth, insert it into the socket and lock it in place.
- 5) Set the cover in place, hook it on, and press it down tightly.

Replacing the LED rear light (including rear direction indicator)

The rear LED light is maintenance-free. If repairs are required, the qualified person who fitted the wheelchair can help.

9.3.5 Replacing a battery

Batteries may only be replaced by authorised personnel.

9.4 Troubleshooting**INFORMATION**

In the event of communication problems in the bus system of the controls, the system triggers an emergency stop and thus prevents any uncontrolled functions.

- ▶ Note that after every emergency stop, you have to turn the power wheelchair control unit on again.
- ▶ If the driving function is still not available after turning the control unit on again, activate pushing mode by releasing the brake.
- ▶ Inform the qualified personnel immediately.

Faults are indicated on the control panel LCD screen, on the LCD monitor (if installed) or on the attendant control (if installed). The following table shows the individual notifications as well as the associated fault sources and possible causes and measures.

If the measures described here do not resolve the faults completely, contact your specialist dealer. The specialist dealer is able to read the exact error codes with a handheld programming device and can perform a targeted system analysis.

The control unit stores a list of all faults that occur. The specialist dealer reads this information, for example during a general overhaul of the power wheelchair. Based on the saved data, the specialist dealer determines future service and maintenance intervals.

9.4.1 Types of notifications

Warning

A warning indicates a status or malfunction of one or several components of the power wheelchair. The function of components without errors is not restricted.




For example, if the connection between the control unit and seat motor is faulty, this error will only be indicated if the user attempts to activate the motor. However, the driving function is still available.

Error

An error affects one or several functions of the power wheelchair. The power wheelchair and its functions are not fully operational until the fault is resolved.

9.4.2 Wheelchair control unit error overview

Display symbol	Error/warning	Cause	Possible measure
	Controller temperature warning	Overheating due to excessive load	Cool down phase
	Motor temperature warning	Overheating due to excessive load	Cool down phase
	Joystick warning	Joystick not in home position when the unit is turned on	Move the joystick to the home position before switching the unit on
	Control panel or input device fault	Defective control panel or input device (e.g. joystick)	Contact specialist dealer
	Controller fault	Defective controller	Check all connections Contact specialist dealer
	Communication error (alternately flashing)	Faulty connection between the hand-held control device and the controller; defective cabling, software or hardware	Check cabling/plug connections Contact specialist dealer
	Battery undervoltage	Battery deep discharge Battery cable malfunctioning/faulty connection to the battery	Charge as soon as possible Check the connection to the battery (charge the battery if the connection is good)
	Battery overvoltage	Voltage too high (after complete charging and driving downhill)	Continue driving slowly
	Fault with back adjustment motor	Faulty cabling or plug connections Defective actuator	Check cabling/plug connections Contact specialist dealer
	Seat tilt motor fault	Faulty cabling or plug connections Defective actuator	Check cabling/plug connections Contact specialist dealer
	Seat height adjustment motor fault	Faulty cabling or plug connections Defective actuator	Check cabling/plug connections Contact specialist dealer

Display symbol	Error/warning	Cause	Possible measure
	Drive motor fault	Faulty cabling or plug connections Defective drive motor	Check cabling/plug connections Contact specialist dealer
	Brake fault	Open brake release Defective brake	Close brake release Contact specialist dealer
	Emergency stop	Severe controller/hand-held control device and/or drive motor malfunction	Check cabling/plug connections Contact specialist dealer

9.4.3 Attendant control error overview

Battery LED

LED	Error/warning	Cause	Possible measure
Red is flashing	Battery undervoltage	Battery deep discharge	Charge as soon as possible
Green is flashing	Battery overvoltage	Voltage too high (after complete charging and driving downhill)	Continue driving slowly

Mode LED

LED	Error/warning	Cause	Possible measure
Red is flashing	Various product faults	More detailed information about the existing fault is shown on the LCD screen on the control panel (see Page 60 f.).	

Seat function LEDs

LED	Error/warning	Cause	Possible measure
Backrest LED is flashing	Back angle adjustment motor fault	Faulty cabling or plug contact Defective actuator	Check cabling/plug contacts Contact specialist dealer
Seat surface LED is flashing	Seat tilt motor fault	Faulty cabling or plug contact Defective actuator	Check cabling/plug contacts Contact specialist dealer
2 LED's below the seat surface are flashing	Seat height adjustment motor fault	Faulty cabling or plug contact Defective actuator	Check cabling/plug contacts Contact specialist dealer
Backrest/seat bottom LED is flashing	Power seat function temperature warning	Overheating due to excessive load	Cool down phase

10 Disposal

10.1 Safety instructions

NOTICE

Disposal of batteries

Pollution due to incorrect disposal

- ▶ Observe the information printed on the batteries by the manufacturer.
- ▶ Note that the batteries may not be disposed of as household waste.

10.2 Disposal Information

Return the product to the specialist dealer for disposal.

Please return defective batteries to your specialist dealer when buying new ones.

All components of the product must be disposed of properly in accordance with the respective national environmental regulations.

10.3 Information on Re-use

CAUTION

Used seat padding

Functional and/or hygienic risks due to re-use

- ▶ Replace the seat padding if the wheelchair is to be re-used.

The product is suitable for re-use.

Similar to second-hand machines or vehicles, products that are being re-used are subject to increased strain. Features and functions must not change in a way that could endanger users or other persons within the product's lifespan.

The product must first be thoroughly cleaned and disinfected before it can be re-used. Then the product must be examined by an authorised specialist to check the condition and to look for wear and possible damage. All worn and damaged parts as well as components which do not fit or are unsuitable for the new user must be replaced.

Detailed information on replacing components as well as information on the required tools and the prescribed service intervals can be found in the service manual.

11 Legal information

All legal conditions are subject to the respective national laws of the country of use and may vary accordingly.

11.1 Liability

The manufacturer will only assume liability if the product is used in accordance with the descriptions and instructions provided in this document. The manufacturer will not assume liability for damage caused by disregarding the information in this document, particularly due to improper use or unauthorised modification of the product.

11.2 CE Conformity

This product meets the requirements of the European Directive 93/42/EEC for medical devices. This product has been classified as a class I device according to the classification criteria outlined in Annex IX of the directive. The declaration of conformity was therefore created by the manufacturer with sole responsibility according to Annex VII of the directive.

The product meets the requirements under the RoHS Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

11.3 Warranty

Further information on the warranty terms and conditions can be obtained from the qualified personnel that has fitted this product or the manufacturer's service (see inside back cover for addresses).

11.4 Service Life

Expected service life: **5 years.**

The design, manufacturing and requirements for the intended use of the product are based on the expected service life. These also include the requirements for maintenance, ensuring effectiveness and the safety of the product.

Using the product beyond the specified expected service life leads to increased residual risk and should only take place subject to the due diligence and deliberations of qualified personnel.

If the service life is reached, the user or a responsible attendant should contact the qualified personnel who fitted the product or the manufacturer's servicing department (see inside rear cover or back page for address). Here the user can obtain information about known risks and the current options for refurbishing the product.

11.5 Trademarks

All product names mentioned in this document are subject without restriction to the respective applicable trademark laws and are the property of the respective owners.

All brands, trade names or company names may be registered trademarks and are the property of the respective owners.

Should trademarks used in this document fail to be explicitly identified as such, this does not justify the conclusion that the denotation in question is free of third-party rights.

12 Technical data

INFORMATION

- ▶ Much of the technical data below is given in mm. Please note that product settings – unless otherwise specified – cannot be adjusted in the mm range but only in increments of approx. **0.5 cm** or **1 cm**.
- ▶ Note that the values achieved during adjustment may deviate from the values specified below. The deviation can be **±10 mm** and **±2°**.

General information	
Application class (in compliance with DIN EN 12184)	Class B

Dimensions and weights	
Seat depth	290 – 370 mm (11.4" – 14.5")
Seat width	300 – 420 mm (11.8" – 16.5")
Seat width with removable lateral pads	240 – 360 mm (9.4" – 14.2")
Seat height	445 mm (17.5")
Lower leg length	150 – 430 mm (5.9" – 16.9")

Dimensions and weights	
Armrest height	160 – 230 mm (6.3" – 9")
Armrest length	235 mm (9.3")
Back height*	400/420/440/460 mm (15.7/16.5/17.3/18.1")
Overall width	590 mm (23.2")
Overall height	775 mm/840 mm (30.5"/33.1")
Overall length	With legrests: 870 mm/940 mm (34.2"/37") Without legrests: 640 mm/710 mm (25.2"/28")
Weight when empty*	66.5 kg (146.5 lbs)
Transport weights	See weight when empty, of which: Side panel: < 1 kg (< 2.2 lbs) Footrest: approx. 1 kg (approx. 2.2 lbs) Battery, removable***: approx. 11 kg (approx. 24 lbs)
Max. load capacity (Permissible user weight)	50 kg (110 lbs)
Turning radius	680 mm (26.8")
Turning circle****	1070 mm (42.1")
Caster wheel tyre size	8"
Drive wheel tyre size	12.1/2x2.1/4"
Tyre pressure	12.5" drive wheel: 2.4 bar/240 kPa/35 PSI Adjust the tyre pressure according to the specifications on the tyre sidewall to prevent injuries or damage to the product:

* Depending on version

** The specified weight varies according to the selected options and model.

*** Each

**** = 3-point turn by 180°

Seat functions (optional)	
Back angle adjustment*	Manual on standard seat with release strap: adjustable in 10° increments (-9/1/11/21° or 0/10/20/30°) Power: continuously adjustable by up to 25°
Seat tilt*	Mechanical: adjustable by up to 20° Power: adjustable by up to 20°
Seat height adjustment*	Power: adjustable by up to 200 mm (7.9")
Combined seat height adjustment/seat tilt*	Seat height adjustment: adjustable by up to 200 mm (7.9"); seat tilt: adjustable by up to 20°; power

* Depending on order/version

Electrical system*	
IP protection rating (according to DIN EN 60529)	IP44
Operating voltage	24 V
Batteries	2 x 12 V; 28 Ah (C5) / 33 Ah (C20); AGM; maintenance-free
Lighting: LED front light Front direction indicator LED rear light (including rear direction indicator)	24 V, maintenance-free 10 W, 24 V 24 V, maintenance-free
Fuse	60 A in each battery pack
Battery charger	For more information see the included battery charger instructions for use

* The product meets all requirements under ISO 7176-14.

Control unit	
Model	enAble40 (with controller and hand-held control device)
Operating voltage	24 V DC
Max. output current per motor	75A
Force for operating the joystick on the standard control panel	1.6 N

Driving data	
Speed	See nameplate for precise information: 6 km/h (3.7 mph); 7.2 km/h (4.4 mph)
Maximum safe inclination	Climbing ability, basic model*: 7° (12%)
Maximum obstacle height	60 mm (2.4")
Range (on level surfaces)**	approx. 25 km (15.5 miles)
Braking distance (according to DIN EN 12184:2009)***	At 6 km/h (3.7 mph): 1000 mm (39.4") – horizontal; 2000 mm (78.7") – on incline At 7.2 km/h (4.4 mph): 1200 mm (47.2") – horizontal; 2400 mm (94.5") – on incline
Operating temperature	-15 °C to +40 °C (5 °F to +104 °F)
Transport and storage temperature	-15 °C to +40 °C (5 °F to +104 °F)

* The control unit and the motors have to be protected against overloading. Therefore, the continuous climbing ability depends on the overall weight (wheelchair weight + user weight + payload) as well as the ground conditions, exterior temperature, battery voltage and driving style of the user. In individual cases, the continuous climbing ability can be significantly lower than the value specified.

** The specified range was determined under defined conditions in accordance with ISO 7176-4. In practice the range can be reduced by up to **50%**. For information on this, see the section "Range" in the instructions for use (user).

*** The braking distance can be correspondingly longer due to user weight, installed options and condition of the tyres, and due to weather and surface conditions.

Corrosion protection	
Corrosion protection	Dip-coated frame (KTL coating)

13 Appendices

13.1 Threshold values for wheelchairs transportable by train

INFORMATION

- ▶ The products in this series fully satisfy the minimum technical requirements of regulation (EU) No. 1300/2014 regarding train accessibility for people with disabilities. However, not all versions can comply with all threshold values due to different settings.
- ▶ With the help of the table that follows, you or the qualified personnel can take measurements and verify whether the specific product in question meets the threshold values.

Feature	Threshold value (according to regulation (EU) No. 1300/2014)
Length	1200 mm (47.2"); plus 50 mm (2") for the feet
Width	700 mm (27.6"); plus 50 mm (2") on each side for the hands when moving
Smallest wheels	approx. 3" or greater according to the regulation, the smallest wheel must be able to accommodate a gap measuring 75 mm (3") horizontally and 50 mm (2") vertically
Height	max. 1375 mm (54.1"); including a 1.84 m (72.5") large male wheelchair user (95th percentile)
Turning radius	1500 mm (59.1")
Maximum weight	300 kg (661 lbs); for wheelchair with occupant, including baggage
Maximum obstacle height that can be overcome	50 mm (2")
Ground clearance	60 mm (2.4"); at an upward slope angle of 10°, ground clearance must measure at least 60 mm (2.4") under the foot rest for going forward at the end of the slope
Maximum inclination angle on which the wheelchair will remain stable	6° (dynamic stability in all directions) 9° (static stability in all directions, also when wheel lock engaged)

13.2 Required Tools

The following tools are required for adjustments and maintenance work:

- Allen keys in sizes 2 – 8 mm
- Ring and open-ended spanners in sizes 8 – 24
- Socket wrenches in sizes 8 – 20 mm
- Phillips head screwdriver (size: 2)
- Torque wrench (measurement range 5-50 Nm)

13.3 Torque values of the screw connections

Unless otherwise specified, screw connections are tightened with the following torque values:

- Thread diameter M4: 3 Nm
- Thread diameter M5: 5 Nm
- Thread diameter M6: 10 Nm
- Thread diameter M8: 25 Nm



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Kundenservice/Customer Service

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