

B500 classic/advanced

EN Instructions for Use (User)



Quality for life

Additional options for the B500 advanced

The model B500 advanced power wheelchair can be equipped with the following additional options (applicable options are checked):

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.		
Electronic steering lock*		
<input type="checkbox"/> Function enabled	<input type="checkbox"/> Function disabled	
The electronic steering lock is turned on or off with the following button when the motors are at standstill:		
<input type="checkbox"/> Warning flasher	<input type="checkbox"/> Direction indicator, right	<input type="checkbox"/> Direction indicator, left
<input type="checkbox"/> Horn	<input type="checkbox"/> Light	<input type="checkbox"/> Mode
2-way adapter cable*		
<input type="checkbox"/> Adapter cable included	<input type="checkbox"/> Adapter cable not included	
The included adapter cable allows the following functions to be selected directly through separate buttons:		
<input type="checkbox"/> Footrest, left	<input type="checkbox"/> Footrest, right	<input type="checkbox"/> Seat tilt
<input type="checkbox"/> Seat height adjustment	<input type="checkbox"/> Back angle adjustment	<input type="checkbox"/> Light
<input type="checkbox"/> Direction indicator, right	<input type="checkbox"/> Direction indicator, left	<input type="checkbox"/> Horn
<input type="checkbox"/> Warning flasher	<input type="checkbox"/> Other:	

*See the section 'Usage' for more information.

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1 Foreword

INFORMATION

Date of the last update: 2013-08-16

- ▶ Please read this document carefully.
- ▶ Follow the safety instructions.

INFORMATION

- ▶ These instructions for use (user) can be viewed and downloaded from the homepage www.ottobock.com. It is possible to increase the display size of the PDF document stored there.
- ▶ Please note that the instructions for use are revised regularly. The latest version can be viewed and downloaded on the respective product page at www.ottobock.com.
- ▶ For further questions about the instructions for use (user), please contact the qualified personnel who issued the product to you.

With this wheelchair, you have purchased a high quality product which can be put to versatile, daily use at home and outdoors.

Be sure to read these instructions for use before you start using the wheelchair. In particular, please observe the information in the chapters "Safety" and "Use".

Please note the following:

- If you have any questions or cannot solve a problem despite reading these instructions for use, please contact the qualified personnel who fitted the product or the manufacturer's service department (please see inside back cover or back cover for addresses).
- All users and/or attendants must be instructed by the 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 risk with the aid of the safety instructions in these instructions for use.
- The product has been adapted to the needs of the user. Further changes may be made only by qualified personnel. The manufacturer recommends checking the settings regularly in order to assure an optimum fit over the long term. Especially for children and youth, they should be checked every six months.
- 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 note also the information in the chapter "Liability".

- 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.
- Your wheelchair model may differ from the models shown. In particular, not all the options described in these instructions for use will be installed on your wheelchair.
- We reserve the right to make technical changes to the model described in these instructions for use.

2 Product Description

2.1 Function

The wheelchair is designed solely for individual use by persons who are unable to walk or who have a walking impediment, and can be operated either by the patient or by another person.

The wheelchair can be used on solid ground both indoors and outdoors.

2.2 Product Overview






Fig. 1 Main components


- | | |
|----------------------------|--|
| 1 Backrest | 6 Caster wheel |
| 2 Rear LED lights | 7 Footplates |
| 3 Drive wheel | 8 Seat cushion |
| 4 Motor with brake release | 9 Side panel (here: with front lights) |
| 5 Anti-tipper | 10 Control panel |

3 Safety

3.1 Explanation of Warning Symbols

 WARNING	Warnings regarding possible risks of severe accident or injury.
 CAUTION	Warnings regarding possible risks of accident or injury.
 NOTICE	Warnings regarding possible technical damage.

3.2 General Safety Instructions

 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 or medications.▶ The product may not be used in road traffic 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**

Failure to heed or observe the safety instructions

Risk of pinching, crushing, being pulled in, tipping, falling

▶ Observe all safety instructions in these instructions for use and in all other applicable documents.

 **WARNING**

Improper use of the product

Risk of pinching, crushing, being pulled in, tipping, falling

- ▶ Only use this product for its original intended purpose.
- ▶ Only one person may be transported with the product at any one time.

 **CAUTION**

Seat cushion or backrest cover may ignite

User may sustain burns

- ▶ The seat cushion and backrest cover are not highly flammable, but there is a possibility they may catch fire. Therefore utmost caution is required near open flame.
- ▶ Keep away from any sources of fire, especially burning cigarettes.

⚠ CAUTION**Extreme temperatures**

Risk of hypothermia or burns on components, failure of components

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

NOTICE**Overloading**

Damage to the product

- ▶ Do not exceed the maximum load capacity (see the section "Technical Data").

NOTICE**Use under incorrect environmental conditions**

Damage to the product

- ▶ Only use the product within a temperature range of **-25 °C to +50 °C**.

3.3 Reference to additional safety instructions

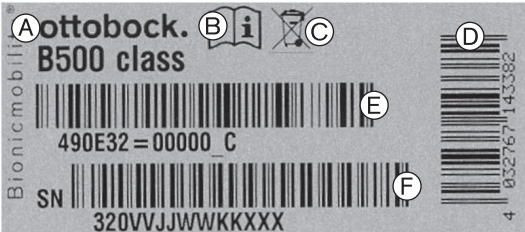

Observe additional safety instructions in the following chapters:

- Chapter "Preparation for Use"
- Chapter "Usage" > "Driving Functions"
- Chapter "Usage" > "Batteries/Charging Process"
- Chapter "Usage" > "Power Seat Functions"

- Chapter "Usage" > "Manual Seat Functions"
- Chapter "Usage" > "Disassembly/Transport"
- Chapter "Usage" > "Use in a Wheelchair Accessible Vehicle"
- Chapter "Usage" > "Care"
- Chapter "Maintenance/Repair"
- Chapter "Disposal"

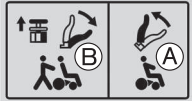

3.4 Name plate and warning labels

3.4.1 Name plate

Label	Meaning	
 <p>ottobock. B500 class 490E32 = 00000_C SN 320VVJJWWKKXXX</p>	A	Type designation
	B	Read the instructions for use before using the product. Observe safety information in the instructions for use.
	C	Symbol for separate collection of electric and electronic devices. Components of the power wheelchair and batteries may not be disposed of in household waste.
	D	European article number (EAN)
	E	Product reference number
	F	Serial number (including year of manufacture)
 <p>ottobock. B500 class max. Zuladung: XXX kg max. Steigfähigkeit: XX % max. Geschwindigkeit: XX km/h zul. Achslast vorn: XXX kg zul. Achslast hinten: XXX kg zul. Gesamtgewicht: XXX kg Otto Bock Mobility Solutions GmbH Lindenstr. 13 – 07426 Königsee/Germany Made in Germany – www.ottobock.com SN 320VVJJWWKKXXX</p>	G	Maximum load capacity (see chapter "Technical Data")
	H	Maximum climbing ability (see chapter "Technical Data")
	I	Maximum speed (see chapter "Technical Data")
	J	Allowable axle load, front
	K	Allowable axle load, rear
	L	Maximum gross weight
	M	Manufacturer information/address
	N	CE marking – product safety according to EU guidelines

The name plate is located on the side of the frame below the seat.

3.4.2 Warning labels

Label	Meaning	
	A	Electric driving mode: lock motor brake
	B	Manual driving mode: unlock motor brake
	Risk of pinching. Do not reach into the danger area.	

4 Delivery

4.1 Scope of supply

The power wheelchair is normally shipped fully assembled and fitted to the personal requirements of the respective user.

The scope of delivery includes:

- Fitted power wheelchair with main components
- Installed options
- Battery charger
- Instructions for Use (user)

4.2 Options

The standard model can be fitted to the user's personal requirements through 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.

4.2.1 Model B500 classic

The B500 classic power wheelchair can be equipped with up to 2 of the following power seat options:

- Power seat height adjustment
- Power seat tilt available in 3 different versions (up to 20°, up to 30°, up to 45°)
- Power back angle adjustment up to 30°
- Power adjustable footrests

The wheelchair is controlled by an enAble40 control unit.

4.2.2 Model B500 advanced

The B500 advanced power wheelchair can be equipped with up to 4 of the following power seat options:

- Power seat height adjustment
- Power seat tilt available in 2 different versions (up to 30°, up to 45°)
- Power back angle adjustment up to 30°
- Power adjustable footrests with 3 programmable versions (control of only left, only right or both sides)

The wheelchair is controlled by an enAble50 control unit.

For additional information on enabling/user specific adjustment of certain enAble50 control unit functions: see inside front cover.

4.3 Storage

4.3.1 During daily use

The power wheelchair should always be protected against external influences.

The control unit must be turned off.

4.3.2 In case of extended disuse

NOTICE

Deep discharge due to standby current

Risk of battery damage

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

INFORMATION

To remove the fuse, see section "Repair" > "Replacing a defective fuse".

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

Storage conditions

- Maintain an ambient temperature between **-40 °C and +65 °C** and a 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.
- Fill the wheels with slight overpressure and rotate them at regular weekly intervals to prevent flat tyres from extended standing.

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 underlay should be used if the product is parked 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** to ensure safe driving behaviour.
- The tyres should be replaced every **2 years** regardless of wear and tear.

5 Preparation for Use

5.1 Safety Instructions

⚠ WARNING

Improper modification of the settings

Risk of tipping, falling, improper user posture

- ▶ Do not modify the settings established by the qualified personnel.
- ▶ In case of problems with the settings (control panel problems etc.), please contact the qualified personnel who fitted your product.

⚠ WARNING

Improper handling of packaging materials

Risk of suffocation

- ▶ Keep packaging materials away from children.

⚠ CAUTION

Uncontrolled movement of components when making adjustments

Risk of crushing, pinching, blows to limbs

- ▶ 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

Unsecured screw connections

Risk of pinching, crushing, tipping over, falling of user

- ▶ 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 or secure the old screw connection with medium strength thread locker (e.g. Loctite 241®).

5.2 Initial operation

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

The following additional tasks may be required:

- Adjusting settings: see Page 15 et. seq.
- Installing the side panels: see Page 19
- Installing the footrests: see Page 20
- Charging the battery: see Page 36 et. seq.

5.2.1 Locking the back angle adjustment in place

If the power wheelchair is equipped with mechanical/power back angle adjustment, proceed as follows if necessary:

- 1) Fold the backrest up.
- 2) Place the cross bolt on the end of the gas compression spring or actuator into the bracket (see Fig. 2, item 1).
- 3) Push the lever down until the lock engages (see Fig. 2, item 2).
- 4) Check the bolt and lock to ensure that they are securely engaged.

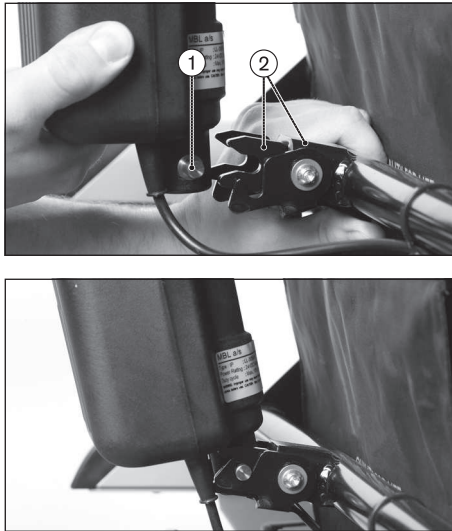


Fig. 2 Place the cross bolt into the bracket (top); locked cross bolt (bottom)

1 Cross bolt

2 Lock with lever

5.3 Adjustments

5.3.1 Prerequisites

Fine fitting/adjusting work should always be performed with the user. The user should sit upright in the power wheelchair while adjustments are made.

Seat height, seat width and seat angle are set according to the customer order and may only be changed by a specialist dealer.

The following can be adjusted by the user:

- Back angle
- Armrest height and position
- Lower leg length
- Strap lengths
- Position of the control panel

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

5.3.2 Adjusting the back angle

Standard/contour seat

- 1) Pull on the strap until the locking bolts are free.
- 2) Change the backrest angle to the desired position.
- 3) Release the strap. The locking bolts engage at the desired position.



Fig. 3 Adjusting the back angle

- 1 Release/locking strap 2 Locking bolts

Recaro® seat

⚠ WARNING

Incorrect Recaro® Seat settings

Risk of falling, tipping

- Note that the maximum backrest angle is **30°** while standing and **20°** while driving.

INFORMATION

For further Recaro® seat settings: see the chapter "Recaro® seat".

- Turn the knob on the left or right side of the backrest until the backrest is in the desired position (see Fig. 4, item 2).



Fig. 4 Adjusting the Recaro® seat angle

- 1 Release handle
2 Back angle adjustment knob

5.3.3 Adjusting the side panels

INFORMATION

To remove and install the side panels: see Page 19.

Adjusting the armrest height

- 1) Loosen the Allen head screw on the side panel with a size 3 Allen key (see Fig. 5).
- 2) Slide the armrests up or down to the desired position.
- 3) Tighten the Allen head screw.



Fig. 5 Allen head screw for height adjustment

Adjusting the armrest to the forearm length

- 1) Depending on the version, loosen 2 x Allen head screws on the bottom of the armrest (see Fig. 6).
- 2) Adjusting the armrest:
 - **Version 1:** Push the armrest along the slotted holes to the front or back into the desired position ((see Fig. 6), left).

- **Version 2:** Slide the armrest with the spare tube forward or backwards along the attachment rail to the desired position ((see Fig. 6), right).
- 3) Tighten the 2 Allen head screws.

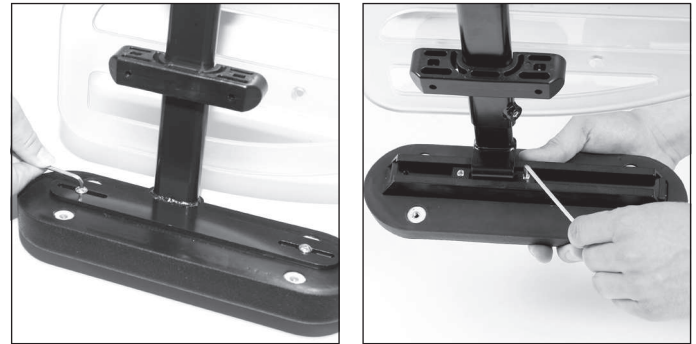


Fig. 6 Adjusting the armrest depth

5.3.4 Adjusting the footrests

INFORMATION

To remove and install the footrests: see Page 20.

Adjusting the lower leg length

CAUTION

Exposed pinch points

Pinching, crushing of fingers

► Ensure that your fingers are not in the danger area when flipping the footrests up or down.

- 1) Loosen the grub screws or Allen head screws (depending on the version) on the footplate bar (see Fig. 7).
- 2) Adjust the footplate bar to match the user's lower leg length.

INFORMATION: Ensure that the footplate bar is inserted into the swivel segment by at least 40 mm.

- 3) Tighten the grub screws or Allen head screws (depending on the version) on the footplate bar.



Fig. 7 Adjusting the lower leg length (standard footrest)

5.3.5 Adjusting the belt lengths

To adjust the belt lengths: see Page 59.

5.3.6 Adjusting the control panel

INFORMATION

The power wheelchair may be equipped with an optional height-adjustable or swing-away control panel holder (see Page 57).

Adjusting the control panel 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.

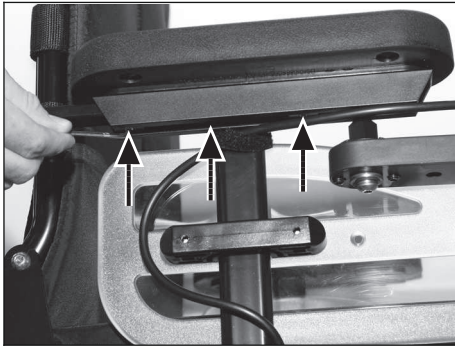


Fig. 8 Adjusting the control panel

Changing the control panel side

By default, the control panel is mounted on the side specified in the order. It can also be mounted on the other side later on if the user so desires.

INFORMATION

The control panel mounting side may only be changed by authorised personnel.

5.3.7 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.

If necessary, the qualified personnel can fit the already pre-programmed wheelchair control system and accessories to the specific user requirements.

6 Usage

6.1 Side panels

INFORMATION

For additional information on side panels with lighting: see Page 58.

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 a side panel with a control panel: carefully let the side panel with the control panel hang down.

INFORMATION: If necessary, the hook-and-loop closures for routing the control panel cable can be undone and the control panel can be removed.

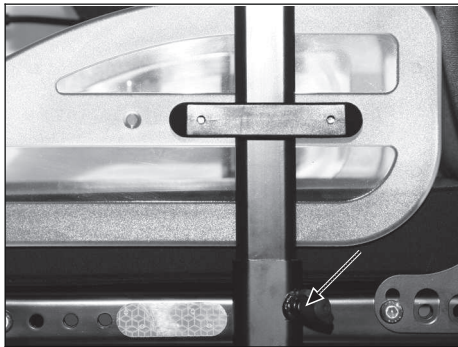


Fig. 9 Side panel wing screw

Installing the side panel

- 1) If necessary, install the control panel and fasten the hook-and-loop closures for routing the control panel cable.
- 2) Insert the side panel into the side panel holder.
- 3) Re-tighten the wing screw on the side panel holder.

6.2 Footrests

CAUTION

Exposed pinch points

Pinching, crushing of fingers

- ▶ Ensure that your fingers are not in the danger area when flipping the footrests up or down.

Removing the footrests

- 1) Unhook the calf band.
- 2) Flip the footplate up.
- 3) Release the footrest lock (see Fig. 10).
- 4) Flip the footrest out or in.
- 5) Pull the footrest up and remove it.



Fig. 10 Locking the footrest

Installing the footrests

Proceed as follows if a footrest must be installed:

- 1) Hook the footrest into the holder from above.
- 2) Swing the footrest forward until the footrest lock engages.
- 3) Hook the calf band into the holder.

6.3 Getting in / transfer

CAUTION

Getting in and out incorrectly

Risk of falling, tipping, pinching, crushing

- ▶ Turn the control unit off while getting in and out, in order to avoid accidental driving.

- ▶ 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.
- ▶ Ensure that your limbs are not in the danger area when swinging the footrests out or in.

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

Users can choose the method for getting into and out of the wheelchair which is most suitable for them.

Getting in from the front

CAUTION

Exposed pinch points

Pinching, crushing of fingers

- ▶ Ensure that your fingers are not in the danger area when flipping the footrests up or down.

- 1) Place the seat in the horizontal position.
- 2) Flip the footrests up (see Fig. 11) or remove them to gain a larger entry and exit area (see Fig. 10). Removing the footrests increases the available entry or exit area (see Fig. 12).
- 3) Have an attendant assist you or use a transfer lifter to get into and out of the power wheelchair.

- 4) Flip the footrest down or reinstall it and flip it down (see Page 20).
- 5) Put the lap belt on when necessary (when driving on the road).

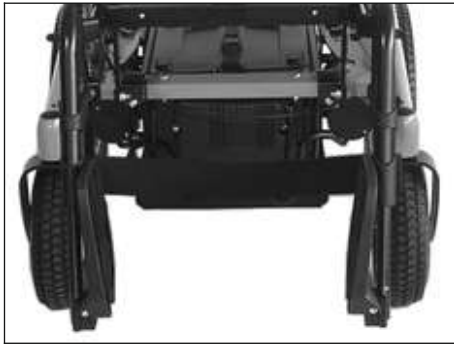


Fig. 11 Footrest flipped up



Fig. 12 Footrest removed

Getting in from the side

- 1) Place the seat in the horizontal position.
- 2) Bring the power wheelchair as close as possible to where the user is sitting.
- 3) Remove the side panel (see Page 19).
INFORMATION: If the control panel is on the side from which the user is getting into the wheelchair, it can be removed and laid onto the seat.
- 4) Remove the footrest if necessary (see Fig. 10).
- 5) Slide onto the seat from the side.
INFORMATION: A ramp makes it easier to get into and out of the wheelchair from the side.
- 6) Install the side panel (see Page 19).

- 7) Put the lap belt on when necessary (when driving on the road).

6.4 Control unit

CAUTION

Uncontrolled driving behaviour due to interference from electromagnetic fields

Risk of falling, tipping, collision with persons or nearby objects

- ▶ 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 or enAble50 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.

6.4.1 Control Panel

The power wheelchair is operated using the control panel.

The control panel consists of a keypad, an LCD display and a joystick. The charging/programming receptacle and two inputs for external buttons are located on the underside.

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

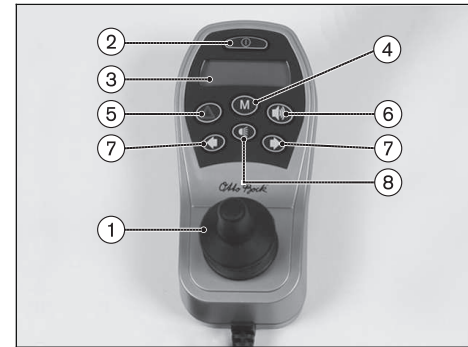


Fig. 13 enAble50 control panel (identical to: enAble40)

- | | |
|-------------------|---|
| 1 Joystick | 5 [Warning Flasher On/Off] button |
| 2 [On/Off] button | 6 [Horn] button |
| 3 LCD display | 7 [Direction Indicator Left/Right] button |
| 4 [Mode] button | 8 [Lights On/Off] button |

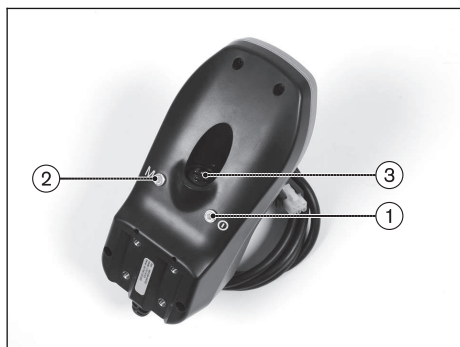


Fig. 14 Connections on the underside

- 1 External [On/Off] button connection (only on enAble50)
- 2 External [Mode] button connection (only on enAble50)
- 3 Charging/programming receptacle

6.4.2 Buttons and display functions

Joystick

The speed and driving direction are controlled with the joystick. When a seat option is activated, the joystick operates this seat option.

[On/Off] Button

Holding this button turns the power wheelchair on or off and activates/deactivates the drive-away lock.

[Mode] Button

Pressing the button briefly increases/decreases the speed level. After reaching the maximum speed level, you can change back to speed level 1 by pressing the button again (1-2-3-4-5-1-...).

Holding the button (for at least 2 seconds) switches the control unit into the **Power Seat Functions** menu.

[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.

[Direction Indicator Left] and [Direction Indicator Right] Button

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

[Lights On/Off] Button

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

LCD Display

The LCD display is the communication interface between the user and the control unit. It indicates the selected speed level, the remaining battery capacity, the status of power options as well as warnings and errors. All display symbols are displayed while the power wheelchair turns on.

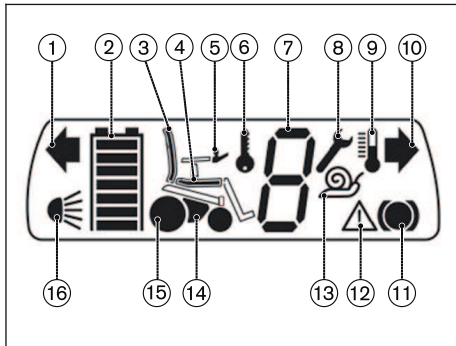



Fig. 15 LCD display with all symbols

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

Selected speed level (LCD display)

After turning the control panel on, the LCD display indicates the selected speed level and battery capacity in the **Driving** menu:

Display	Information
	Right: Selected speed level = 1 Left: Battery capacity

Battery capacity (LCD display)

INFORMATION





At temperatures of $< 0^{\circ}$ the battery capacity drops by up to **35%** in relation to the capacity for an outside temperature of 20° . This shortens the range of the power wheelchair accordingly. Moreover at low temperatures the battery capacity displayed on the control panel can differ more significantly from the actual battery capacity.


The 'Battery Capacity' LCD display (see Fig. 15, item 2) is divided into seven segments which indicate the current battery capacity:

- 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 seven segments on the battery symbol.
- As the remaining battery capacity decreases, the LCD segments turn off one by one.

- If only one blinking segment is shown on the LCD display, then 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 display. The battery must be charged immediately.
- If all seven segments on the LCD display 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 display. Please continue to drive at low speed only.
- The charging process is indicated by the battery segments lighting up one after the other. The driving function is blocked when the battery is charging.

Battery indicator on the control panel

Display	Information
	Full battery capacity (right: selected speed level)
	Low battery capacity
	Charging process with drive-away lock
	Battery undervoltage with warning symbol

Display	Information
	Battery overvoltage with warning symbol

Further LCD display functions

Further LCD display symbols are described in the following sections:

- See section 'Usage' > 'Drive-Away Lock'
- See section 'Usage' > 'Seat Functions'
- See section 'Maintenance/Repair' > 'Troubleshooting'

6.5 Driving Functions

6.5.1 Safety Instructions

CAUTION

Lack of driving experience

Risk of tipping, falling

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

Hazards while driving

WARNING

Uncontrolled rolling

Risk of collision with persons nearby objects

- ▶ 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.
- ▶ Lock the brake every time before parking the power wheelchair.

⚠ CAUTION

Insufficient support of the seated person

Risk of falling out of the power wheelchair

- ▶ Always wear the safety belt / lap belt when driving in public.

⚠ CAUTION

Risk of uncontrolled driving behaviour

Risk of falling, tipping, collision with persons or nearby objects

- ▶ If any faults, defects or other hazards that can lead to personal injury are detected, the product must be taken out of service immediately.
- ▶ Contact your authorised specialist dealer if uncontrolled movement of the product occurs due to a malfunction.

⚠ CAUTION

Driving in the dark

Risk of an accident involving other traffic, collision with persons or objects in the vicinity.

- ▶ Wear bright clothing or clothing with reflectors.
- ▶ Turn the lights on (if available) or install active lights.
- ▶ Ensure that the reflectors on the power wheelchair are clearly visible.

⚠ CAUTION

Use of mobile devices with electromagnetic emissions (e.g., mobile phones)

Falling, collision with persons or objects due to interference with the control signals

- ▶ Turn all mobile devices off while driving, since the driving characteristics of the product are affected by electromagnetic fields.
- ▶ Turn the control unit off when it is not required, since the product may generate electromagnetic fields that can cause interference with other devices. The product has been tested according to EMC regulations.
- ▶ Notwithstanding compliance with all applicable EMC directives and standards, the product can be affected by interference from other electric devices (e.g., department store EAS systems) or cause interference with such devices. If this occurs, move your product outside the interference range.

Danger during use of public transportation, elevators, lifting platforms

WARNING

Use of public transportation, elevators, lifting platforms

Risk of tipping, collision with persons or objects in the vicinity

- ▶ Always turn the power wheelchair control unit off when using buses, trains, elevators, or lifting platforms.
- ▶ Engage the brake.

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 tyre pressure is printed on the casing.
- ▶ 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**.
- ▶ Avoid parking outside and in direct sunlight (UV radiation) since this causes the tyres to age quickly. The manufacturer recommends replacing the tyres every **2 years** regardless of the amount of wear.

- ▶ Always 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.
- ▶ Move your power wheelchair frequently or have a way to jack it up for storage.

Further 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.

6.5.2 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):

- The critical obstacle height is **50 mm**. Obstacles higher than **50 mm** may not be crossed.
- Always approach obstacles directly from the front (never at an angle with only one caster wheel).
- Always reduce speed to cross over obstacles (e.g. select speed level 1).
- Avoid jumping down from steps.
- Do not lean out of the wheelchair while crossing obstacles

Inclines and downgrades:

- Ascending or descending slopes up to **max. 9.5° (17 %)** is permitted. Driving on steeper inclines or downgrades is not permitted. Otherwise safe braking is not ensured.
- In order to navigate downgrades safely, the speed must be reduced according to the slope (e.g. select speed level 1).
- Never drive downhill backwards.

All terrain driving:

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, crossings, train crossings)
 - Snow-covered or icy areas

6.5.3 Switching on and off

WARNING

Lack of brake functionality

Risk of falling, tipping, collision with persons or nearby objects

- ▶ Ensure that the brake release lever is locked every time before you drive.
- ▶ Check to ensure that the brakes are operational and functional every time before you drive.

WARNING

Defective safety functions

Risk of falling, tipping, collision with persons or nearby objects

- ▶ 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 Fig. 13, item 2) turns the power wheelchair control unit on or off. The power wheelchair turns off automatically if the control unit is not 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 driving.
- 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.

6.5.4 Selecting the speed levels

- The power wheelchair has a programmable number of speed levels (delivery condition = 5 speed levels).
- The speed level is increased by briefly pressing the [Mode] button (see Fig. 13, item 4).

- After reaching the maximum speed level, the next speed level is 1.
- The LCD display indicates the selected speed level in the **Driving** menu:

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

6.5.5 Driving

WARNING

Driving on slopes, over obstacles

Falling, tipping over due to user errors

- ▶ Only drive on slopes up to max. 9.5° (17 %).
- ▶ Only cross obstacles which are not higher than **50 mm (2 in)**.
- ▶ Do not cross over any obstacles while driving on inclines or downgrades.
- ▶ Reduce speed when driving downhill (e.g. select speed level 1).
- ▶ Only drive over obstacles such as steps or low curbs at a reduced speed (**max. 3 km/h**).
- ▶ Approach obstacles at right angles and drive over them at one go.

- ▶ Only drive on inclines and over obstacles with the seat tilt and seat height adjustments lowered and with a vertical backrest. The seat can be tilted back slightly when driving downhill.
- ▶ Avoid embarking and disembarking on inclines and slopes.
- ▶ Do not drive over stairs.

⚠ WARNING

Driving on unsuitable surfaces

Risk of falling, tipping

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

⚠ CAUTION

Insufficient support of the seated person

Risk of falling out of the power wheelchair

- ▶ Always wear the safety belt / lap belt when driving in public.

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. The product is fully functional again once the unit has cooled down sufficiently (this may take several minutes depending on the ambient temperature).

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.

6.5.6 Range

INFORMATION

- ▶ Information about the range of the power wheelchair can be found in the chapter 'Technical Data'.
- ▶ 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 a power wheelchair:

- Battery capacity

- Age of the batteries
- Ambient temperature
- Driving conditions (e.g. terrain profile, condition of surface)
- Charging method
- Use of power options
- Body weight of user

6.5.7 Drive-away lock

INFORMATION

For the B500 advanced/B500 plus, the drive-away lock can only be activated as described if the function was previously enabled (see front inner cover). The factory default setting can be changed by the specialist dealer.

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


The power wheelchair control unit features an electronic drive-away lock. This function is activated/deactivated via the control panel.

The drive-away lock can only be activated or deactivated if the "Drive-away lock" parameter is set to "Function enabled". Unless otherwise specified in the order, the drive-away lock is set to "Function disabled" at the factory.

If this setting needs to be changed, this is done by the authorised person who fitted the wheelchair.

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 display 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.

Problem resolution

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.

6.5.8 Steering lock

INFORMATION

For the models with enAble50 control units the steering lock can only be activated as described below if the function was previously enabled (see inside front cover). The factory default setting can be changed by the specialist dealer.

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

The enAble50 control unit in the power wheelchair may be programmed with the optional 'Steering Lock' parameter. If the steering lock is activated, the caster wheels or the drive wheels (depending on the type) are set straight ahead.

This makes it easier to negotiate narrow ramps and to use lifts:

- When the joystick is deflected forward, the power wheelchair drives straight ahead.
- When the joystick is deflected backward, the power wheelchair always drives straight back.
- Turning is not possible when the steering lock is activated.
- The warning flasher lights flash when the steering lock is activated (standard programming).

Activating the steering lock

- 1) Bring the power wheelchair to a full stop.
- 2) Push the [Warning Flasher On/Off] button.
 - The steering lock is activated.
 - All warning flasher lights flash (standard programming).
- 3) Move the joystick forward/backward. The power wheelchair now drives straight ahead/back.

Deactivating the steering lock

- 1) Bring the power wheelchair to a full stop.
- 2) Push the [Warning Flasher On/Off] button.
 - The steering lock is deactivated.
 - All warning flasher lights stop flashing.
- 3) Move the joystick. The power wheelchair now drives in the chosen direction without the steering lock.

6.5.9 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.
- ▶ 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.

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

6.6 Activating/deactivating the brakes

⚠ WARNING**Uncontrolled rolling**

Risk of collision with persons nearby objects

- ▶ 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.
- ▶ Lock the brake every time before parking the power wheelchair.

⚠ WARNING**Improper maintenance, repair, or adjustment work on the brake**

Falling, tipping, collision with persons or nearby objects

- ▶ 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.


It is possible to push the power wheelchair in case of control unit failure or insufficient battery capacity. To do so, it is

necessary to disable the brake using the release mechanism described below.

The brake release is located between the frame and seat, on either the right or left side according to customer preference.

Disabling/deactivating the brake

- 1) Pull the brake release bolt up (see Fig. 16, item 1).
→ The brake release lever (see Fig. 16, item 2) is unlocked.
- 2) Push the brake release lever forward until it engages.
→ The brake is disabled, all braking systems are turned off.
→ The control unit will recognise that the brake has been disabled and deactivate the driving function.
→ A warning will appear on the LCD monitor as soon as the joystick is deflected:

Display	Information
	Brake is disabled

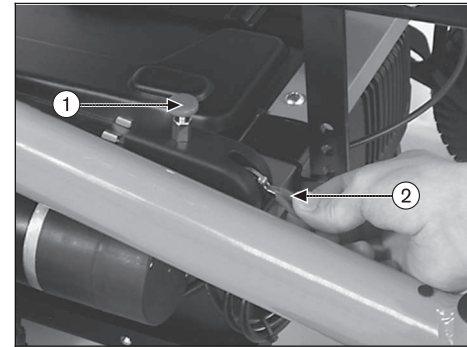


Fig. 16 Disabling the brake

1 Brake release bolt

2 Brake release lever

Enabling/activating the brake

- 1) Push the brake release lever (see Fig. 17, arrow) up until the brake release bolts engage.
- 2) Turn the control unit off and on again.
→ The driving function is activated.

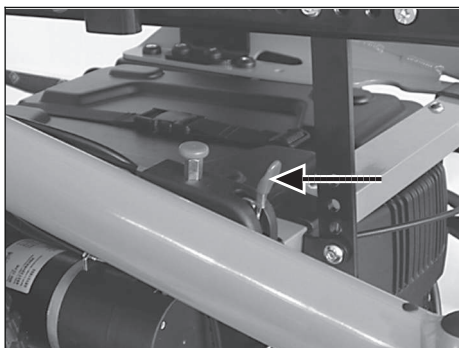


Fig. 17 Enabling the brake

6.7 Batteries/charging process

6.7.1 Safety Instructions

NOTICE

Unauthorised battery replacement

Damage to the battery due to user error

- ▶ 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.

6.7.2 General

The standard version of the power wheelchair is equipped with two maintenance-free gel batteries with a total capacity of **63 Ah (C5)**.

The power wheelchair can optionally be equipped with two AGM batteries with a total capacity of **63 Ah (C5)**.

The batteries are located beneath the wheelchair seat in a battery drawer. If the power wheelchair is not equipped with a drive wheel suspension, then the batteries are located in a tray.

Prolonged driving at the lower end of the battery indicator results in deep discharge which causes battery damage. If the power wheelchair is being driven when the battery is low the control unit switches to creep speed to save power.

6.7.3 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.

At temperatures of **< 0°** the battery capacity drops by up to **35%** in relation to the capacity for an outside temperature of **20°**. This shortens the range of the power wheelchair accordingly. Moreover the battery capacity 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 battery capacity.
- 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 to the power wheelchair 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 level that has been reached.
- 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.
- The fuse should be removed 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.

6.7.4 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.

6.7.5 Charging the battery

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.
- ▶ 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 through contact with the battery acid.
- ▶ Follow the battery manufacturer safety instructions.
- ▶ Wear protective goggles.

WARNING

Sparks

Risk of injury due to fire or explosion

- ▶ Switch the battery charger off and disconnect the mains plug before you disconnect the battery.

NOTICE

Improper charging

Damage to the batteries due to user error

- ▶ Avoid deep discharge of the battery. The manufacturer does not assume any liability for damage due to deep discharge.
- ▶ Charge the battery as soon as possible if the last three segments of the "Battery Capacity" LED indicator are flashing.
- ▶ 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) Connect the charging plug of the battery charger to the charging receptacle:
 - **Version 1:** Connection to the charging/programming receptacle on the power wheelchair control panel (enAble40: see Fig. 18, left; enAble50: see Fig. 18, right)
 - **Version 2:** Connection to the charging receptacle on the power wheelchair (only for B500 advanced model when equipped with seat height adjustment: see Fig. 19)

INFORMATION: Charging via this charging receptacle is faster than via the control panel.
- 3) Connect the battery charger to the mains socket and turn it on.

- The charging process starts automatically, and the battery charge condition is indicated by the LED indicator on the control panel and on the battery charger.
- 4) Turn the battery charger off when the charging process is complete.
 - 5) Disconnect the battery charger mains plug.
 - 6) Disconnect the battery charger plug from the control panel.
 - 7) Turn the power wheelchair control unit on.
- The power wheelchair is ready to use.



Fig. 18 Charging/programming receptacle on the control panel



Fig. 19 Charging receptacle on power wheelchair

6.8 Power seat functions

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

6.8.1 Safety Instructions

⚠ WARNING

Driving with power seat options

Falling, tipping over due to user error

- ▶ Drive in street traffic only with the seat tilt and seat height adjustments lowered and with a vertical backrest.

- ▶ 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.
- ▶ Slightly tilt the seat to the rear when driving forwards down inclines or over obstacles (e.g. curbs) and reduce the speed.
- ▶ Use the seat height adjustment and the seat tilt only on firm, level ground.
- ▶ Note that the climbing ability of power wheelchairs with electric seat height adjustment and seat tilt is reduced. Driving on inclines and slopes is permitted under ISO 7176-1 and 7176-2 with lowered seat height adjustment and lowered seat tilt up to **max 6° (10%)**.

⚠ WARNING

Overloading

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 the options "Electric seat height adjustment" and "Electric seat tilt" (see section "Technical Data").

⚠ WARNING

Exposed pinch points in the seat adjustment and lifting areas

Risk of pinching, crushing of limbs

- ▶ Note that when power seat options 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 power seat options are used.
- ▶ Ensure that no interfering objects, such as clothing or other obstacles, are in the danger area while power seat options are used.

⚠ WARNING

Overloading of the actuators

Risk of falling, tipping, pinching, crushing of limbs

- ▶ Avoid overloading the actuators. Overloading may cause the spindle nut to break, causing the seat to sag or the backrest to flip back suddenly.

NOTICE

Improper use of power seat options

Risk of damage to the product

- ▶ When using power 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.

6.8.2 Power seat height adjustment

⚠ WARNING

Improper use of the seat height adjustment feature

Risk of falling or tipping over due to operator error

- ▶ 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.
- ▶ When driving with the seat height adjustment feature raised, fasten the belts (lap belt, four-point belt) and do not lean out beyond the seat surface.

- ▶ 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

Lack of maintenance of the seat height adjustment feature

Risk of damage to the power wheelchair

- ▶ Inspect the seat height adjustment feature for visible signs of damage at least 1 x per month and ensure all screw connections are tight.
- ▶ Check for correct tire pressure.

NOTICE

Risk of transportation damage.

Risk of damage to the power wheelchair

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

INFORMATION

- ▶ Please also observe the safety instructions in the section "Power Seat Functions" > "Safety Instructions for Use".


- ▶ Observe the instructions for use in the sections "Power Seat Functions" > "Control of Power Seat Functions" and "Joystick and Display Functions".

The power wheelchair can be equipped with a power seat height adjustment feature. The seat height adjustment feature increases the height of the seat by up to **40 cm**, driven by a motor.



Fig. 20 Seat with raised seat height adjustment feature

The driving function remains available even when the seat is raised. The speed can be reduced (creep speed) if necessary when the seat is raised due to the decreased tipping resistance. This is indicated on the control panel by the snail symbol on the LCD display:

Display	Information
	Creep speed

6.8.3 Power seat tilt

⚠ WARNING

Incorrect seat tilt handling

Falling, tipping over due to user error

- ▶ 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, fasten the belts (lap belt, four-point belt) and do not lean out beyond the seat surface.

INFORMATION

- ▶ Please also observe the safety instructions in the section "Power Seat Functions" > "Safety Instructions for Use".
- ▶ Observe the instructions for use in the sections "Power Seat Functions" > "Control of Power Seat Functions" and "Joystick and Display Functions".

The power wheelchair can be equipped with a power seat tilt function. For more information on the specific equipment of this power wheelchair, contact the qualified personnel.

The power seat tilt function allows the seat to be tilted, for example to relieve pressure. The power seat tilt feature is available in 3 different versions:

- Power seat tilt up to **20°** (B500 classic only)
- Power seat tilt up to **30°**
- Power seat tilt up to **45°**

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



Fig. 21 Power seat tilt

6.8.4 Power back angle adjustment

⚠ WARNING

Incorrect use of back angle adjustment

Falling, tipping over due to user error

- ▶ Drive in street traffic only with a vertical backrest.
- ▶ When driving with the back angle adjustment activated, fasten the belts (lap belt, four-point belt) and do not lean out beyond the seat surface.

INFORMATION

- ▶ Please also observe the safety instructions in the section "Power Seat Functions" > "Safety Instructions for Use".
- ▶ Observe the instructions for use in the sections "Power Seat Functions" > "Control of Power Seat Functions" and "Joystick and Display Functions".

The power wheelchair with standard or contour seat can be equipped with a power back angle adjustment feature.

The power back angle adjustment feature allows for continuous tilting of the backrest up to **30°**.



Fig. 22 Power back angle adjustment

6.8.5 Power footrests

INFORMATION

- ▶ Please also observe the safety instructions in the section "Power Seat Functions" > "Safety Instructions for Use".
- ▶ Observe the instructions for use in the sections "Power Seat Functions" > "Control of Power Seat Functions" and "Joystick and Display Functions".

To avoid constant pressure or to ensure anti-shock support, the power wheelchair can be equipped with power adjustable footrests. The footrests can be activated individually or at the same time, depending on the configuration.



Fig. 23 Power footrest flipped up

The footplates can be flipped up to increase the entry and exit area.

In addition, the electrically adjustable footrests can be removed from their brackets and lifted up (see Fig. 24, item 1).

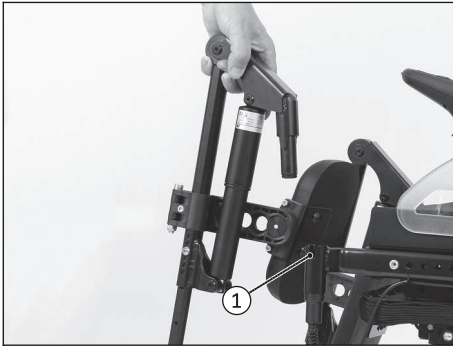


Fig. 24 Removing the footrest







6.8.6 Controlling power seat functions

- Holding the [Mode] button (approx. 2 seconds; see Fig. 13) activates control of the first power seat function, e.g. the power back angle adjustment or seat tilt.
- The LCD display indicates the currently selected seat function (see following chapter "Joystick and Display Functions").
- To switch between the various seat functions, press the [Mode] button briefly or move the joystick to the right.
- Once a seat function is selected, it is activated by moving the joystick forward or backward.
- The electric motor moves the seat function as long as the joystick is deflected, and stops at the end positions.

- Holding the [Mode] button again (approx. 2 seconds; see Fig. 13) deactivates the seat function in the selected position. The driving function is available again, and the speed level indicator is lit.

6.8.7 Joystick and display functions

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

Display	Seat function	Joystick* deflection
	Power seat height adjustment	Forward: Seat surface moves up Back: Seat surface moves down
	Power seat tilt**	Back: Seat slowly tips back Forward: Seat slowly tips toward the horizontal position
	Power back angle adjustment	Forward: Backrest tilts forward Back: Backrest tilts backward
	Power footrest - left	Forward: left footrest moves forward Back: Left footrest moves back
	Power footrest - right	Forward: Right footrest moves forward Back: Right footrest moves back
	Power footrests, coupled	Forward: Both footrests move forward Back: Both footrests move back

* Deflection direction can be modified by the specialist dealer; ** Seat surface and backrest

6.9 Manual seat functions

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

6.9.1 Safety Instructions

⚠ WARNING

Exposed pinch points in the seat adjustment area

Risk of pinching, crushing of limbs

- ▶ Note that when manual seat options 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 manual seat options are used.
- ▶ Ensure that no interfering objects, such as clothing or other obstacles, are in the danger area while manual seat options are used.

6.9.2 Manual seat tilt

⚠ WARNING

Unintentional lowering of the seat tilt

Risk of pinching, crushing of limbs

- ▶ Note that the seat can drop suddenly if the release lever is operated while the seat is tilted.

The power wheelchair with standard or contour seat can be equipped with a manual seat tilt function.

The manual seat tilt function allows the seat to be tilted, for example to relief pressure. The seat can be tilted back continuously by up to **20°**.

Tilting the seat back

- 1) Activate the release lever on the armrest (see Fig. 25).
 - 2) Move the seat to the desired angle.
 - 3) Let go of the release lever.
- The seat is tilted back.

The seat is easier to tilt if the backrest is tilted back.



Fig. 25 Tilting the seat manually

6.9.3 Manual back angle adjustment

The power wheelchair with standard or contour seat can be equipped with a manual back angle adjustment function.

The manual back angle adjustment function allows for tilting of the backrest up to **30°**.

Adjusting the back angle

- 1) Activate the release lever on the armrest (see Fig. 26).
 - 2) Move the backrest to the desired position.
 - 3) Let go of the release lever.
- The backrest is adjusted.



Fig. 26 Adjusting the back angle manually

6.9.4 Manual elevating footrests

The power wheelchair can be equipped with manual elevating footrests.

The manual elevating footrests make it possible to prevent a constant pressure load or to provide anti-shock support.

Swivelling the footrest

- 1) Activate the release lever on the footrest (see Fig. 27).
 - 2) Move the footrest to the desired position.
 - 3) Let go of the release lever.
- The footrest is adjusted.

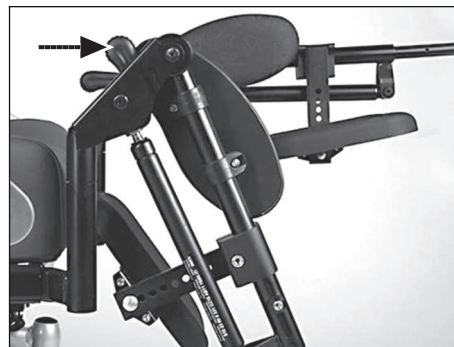


Fig. 27 Manual elevating footrest

6.10 Additional seat options

The power wheelchair can be equipped with a range of other seat options.

6.10.1 Contour seat

Compared to the standard seat, the contour seat provides the user with improved comfort and lateral support.



Fig. 28 Contour seat

6.10.2 Recaro® seat

⚠ WARNING

Incorrect Recaro® Seat settings

Risk of falling, tipping

- ▶ Note that the maximum backrest angle is **30°** while standing and **20°** while driving.

The power wheelchair can be equipped with various Recaro® seat models.

They provide individually adjustable, comprehensive seating comfort.

Folding the backrest forward (reducing the transportation size)

- 1) Pull the release handle on the Recaro® seat (see Fig. 4, item 1) up. The release handle is located on the side of the backrest.
 - 2) Fold the backrest forward.
 - 3) Let go of the release handle.
- The backrest is folded forward.

Folding the backrest up

- ▶ Fold the backrest up until the release handle is securely engaged.
- The backrest is folded up.

Removing the headrest

Two people are required to remove the headrest.

- 1) 1st person: Find the release points on the Recaro® seat below the cover (see Fig. 29) and push them at the same time.
 - 2) 2nd person: Pull the headrest up and out.
- The headrest is removed.

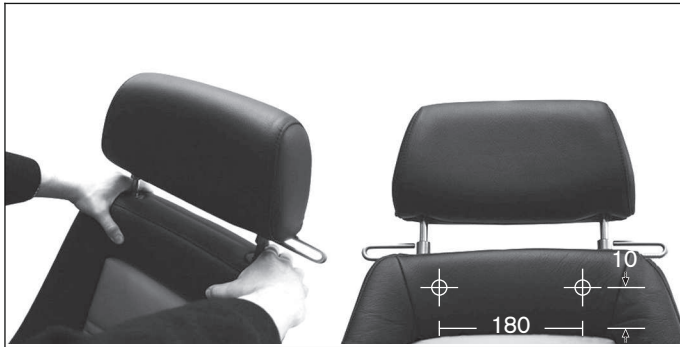


Fig. 29 Image showing the release points

Removing the Recaro® seat from the mobility base

- 1) Loosen the left and right locking bolts on the seat frame.
To do this, pull the release strap under the seat bottom forward and hold it (see Fig. 30, item 1).
 - 2) To release the rear seat clip from the bracket, tip and push the seat back slightly.
 - 3) Remove the Recaro® seat.
- The Recaro® seat has been removed.

Attaching the Recaro® seat to the mobility base

⚠ CAUTION

Recaro® seat not locked in place

Risk of tipping

- ▶ During installation of the Recaro seat, ensure that the seat clip is engaged firmly in the clips.
- ▶ Ensure that the front locking bolts are engaged up to the key ring.

- 1) Set the back edge of the Recaro® seat onto the end of the seat frame.
- 2) Push the seat forward until the rear seat clip protrudes into the bracket.
- 3) Tip the seat forward until the locking bolts engage with the seat frame (see Fig. 30, item 2).

CAUTION! Visually inspect and shake the seat to ensure secure locking.

→ The Recaro® seat is installed.

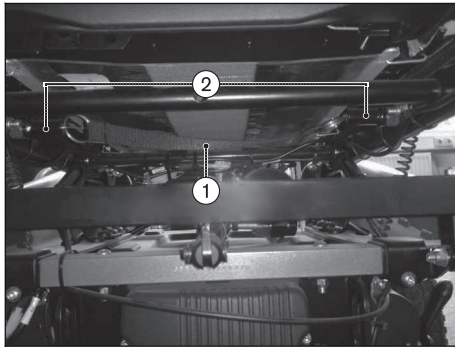


Fig. 30 Releasing/locking the Recaro® seat

- 1 Release strap 2 Locking bolts

Adjusting the Recaro® seat

INFORMATION

To adjust the back angle of the Recaro® seat: see Page 15.

Adjusting the lateral supports in the lumbar region

INFORMATION

This information only applies to the Recaro® LT model.

- 1) Turn the knob on the side of the backrest forward.
→ Both lateral supports are moved closer together.
- 2) Turn the knob on the side of the backrest backwards.

→ Both lateral supports are moved apart.

Adjusting the pads

The seat surfaces X and W are equipped with a pull-out pad at the front of the seat bottom. The adjustment lever for the pad is located below the seat bottom.

- 1) Pull the pad adjustment lever up and hold it there.
- 2) Move the pad to the desired position.
- 3) Release the adjustment lever and let it engage.

→ The adjustment lever is in a safe position if it engages audibly and has returned to its initial position.

Adjusting the headrest

The height and tilt angle of the headrest are adjustable.

6.10.3 Headrest

The manufacturer offers the option of equipping the standard and contour seats with a headrest.

The bracket for attaching the headrest mounting kit is attached with an adapter which is mounted to the back frame.

INFORMATION

See the manufacturer documentation for information on attaching the mounting kit.



Fig. 31 Headrest with mounting kit

6.11 Control unit accessories

The power wheelchair can be equipped with the following optional control unit accessories.

6.11.1 Attendant control

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

For the standard and contour seats, the attendant control is located on the backrest cross tube. For the Recaro® seat, the attendant control is located on the headrest.

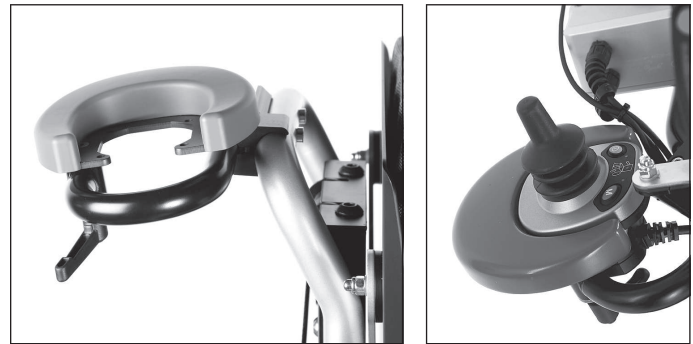


Fig. 32 Attaching the attendant control

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.

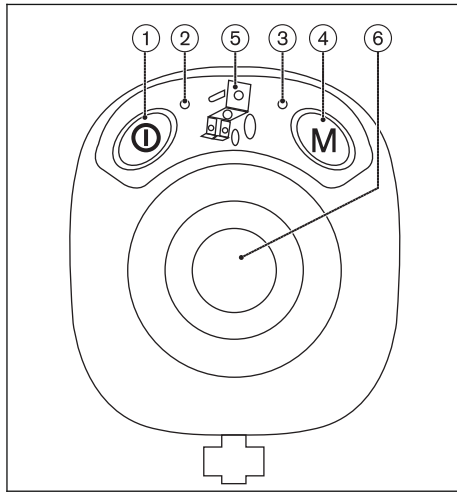



Fig. 33 Attendant control

- | | |
|------------------------------------|--|
| 1 [On/Off] button | 4 [Mode] button |
| 2 Battery capacity (LED indicator) | 5 Selected power seat function (LED indicator) |
| 3 Mode (LED indicator) | 6 Joystick |

[On/Off] Button

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

After the attendant control has been switched on, the LCD monitor on the control panel shows the following information:

Display	Information
	Attendant control activated

Battery Capacity (LED indicator)

The LED lights up when the unit is on.

Colour and flash codes provide information on the current battery capacity:

LED	Information
Green is lit	Battery capacity > 70%
Orange is lit	Battery capacity 30% – 70%
Red is lit	Battery capacity < 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)


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 79)
Off	LED indicator switched to seat function

Selected Power Seat Function (LED indicator)

The electric seat functions are accessed by pressing and holding the "M" button (approx. 2 seconds).

The currently selected seat function is indicated on the control panel display (see Page 39 ff.) and by the following LEDs on the attendant control:

Display	Information
	Power back angle adjustment

Display	Information
	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 (see Page 39 et. seq.).

The corresponding LEDs flash if an error occurs (see Page 79).

Joystick

The joystick is used for driving. The further it is moved away from the centre position, the faster the power wheelchair will drive in this direction.

If the seat functions are accessed with the [Mode] button, then the joystick is used to select and activate the seat functions (see Page 39 ff.).

6.11.2 Push-button module

WARNING

Risk of uncontrolled driving behaviour

Risk of falling, tipping, collision with persons or nearby objects


- Note that no changes of any kind may be made to the push-button module by the user. Programming of the push-button module may only be performed by trained, authorised personnel.







Power wheelchairs with enAble50 control units can be equipped with optional push-button modules.

The push-button module lets the user select additional power seat functions directly during normal driving operation.

Available functions

Depending on the power wheelchair model and programming of the push-button module, up to five power seat functions (see Fig. 34, item 1) can be controlled during normal driving operation:

Display	Information
	Power seat height adjustment

Display	Information
	Power seat tilt
	Power back angle adjustment
	Power footrest, left
	Power footrest, right
	Power footrests, coupled
	Other special functions (combinations) S1 – S5

Key functions

- The [Mode] button (see Fig. 34, item 2) is used to toggle among the different functions (1-2-3-4-5-1-2-...).
- The blue LED (see Fig. 34, item 3) indicates the selected power function.
- The respective function (function up/down) is activated using the buttons [Selected function up] and [Selected function down] (see Fig. 34, item 4).

INFORMATION

The function of the [Selected function up/down] buttons can be programmed according to the user's wishes (button [Selected function up] = function up or function down - depending on programming).

In addition, there are three Piko buttons that can be connected to the push-button module and positioned at will (see Page 57).

The Piko buttons perform the same functions as the [Mode] button and the [Selected function up]/[Selected function down] buttons (see Fig. 34, items 2 and 4). Symbols on the back of the push-button module indicate the corresponding functions.

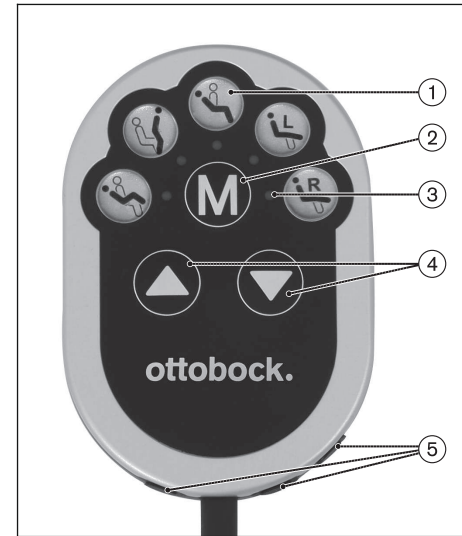


Fig. 34 Push-button module

- 1 Available power functions
- 2 [Mode] button
- 3 Selected function (LED indicator)
- 4 [Selected function up/down] buttons (see information box)
- 5 Jack plugs for connecting Piko buttons

6.11.3 Adapter cable for Piko button

INFORMATION

For additional information on the user-specific adjustment of this function: see inside front cover.

Power wheelchairs with enAble50 control units can be equipped with optional two-way adapter cables.

- The connected Piko button can be used to control power seat functions as well as other functions (see inside front cover). These functions are specified when the power wheelchair is ordered.
- Each Piko button switch is programmed with a so-called toggle function. The selected function is activated as long as the button is pressed. The selected function is activated in the opposite direction if the button is released and pushed again.
- For example, if the power back angle adjustment is activated, the backrest tilts back as long as the button is pressed the first time around. Activating this function again causes the backrest to tilt forward as long as the button is pressed.

6.11.4 External odometer

The power wheelchair can be equipped with an external odometer.

It is connected to the control panel guard.

Additional information on using it can be found in the manufacturer's instructions for use.



Fig. 35 External odometer

6.12 Additional options

6.12.1 Control panel holder

Swing-away control panel holder

The manufacturer offers the option of equipping the power wheelchair with a removable control panel mounted on a swing-away control panel holder. This 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.

- 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.



Fig. 36 Swing-away control panel holder with removable control panel

Height-adjustable control panel holder

The power wheelchair can be equipped with a special control panel holder which allows for height adjustment of the control panel.

- 1) Loosen the mounting screws.
- 2) Adjust the height of the control panel holder.
- 3) Tighten the mounting screw.



Fig. 37 Height-adjustable control panel holder

6.12.2 Lights

The power wheelchair can be equipped with a light kit.

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

The light kit consists of two rear lights with integrated direction indicators and two front lights, each consisting of a front LED light and a direction indicator.

The front lights are fastened to the self-contacting side panels (see Fig. 38, left). When the side panels are inserted into the side panel holders the contacts touch each other and current can flow (see Fig. 38, right).

To replace broken lamps: see Page 74.

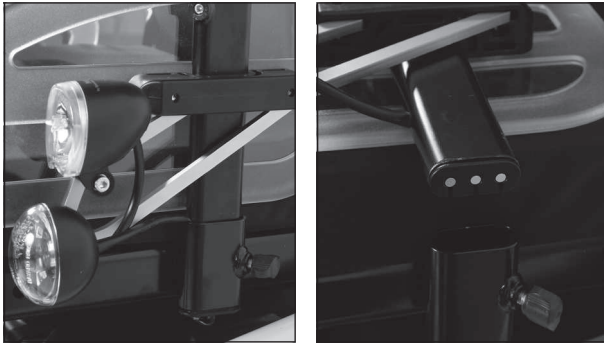


Fig. 38 Front lights

6.12.3 Belts / belt systems

Lap belt

⚠ CAUTION

Insufficient support of the seated person

Risk of falling out of the power wheelchair

- ▶ Always wear the safety belt / lap belt when driving in public.

⚠ CAUTION

Putting the lap belt on incorrectly

Risk of pressure points, constriction

- ▶ Ensure that the buckle lies in the middle of the body.

- ▶ Ensure that the lap belt is not too tight against the body.
- ▶ Remove objects or clothing which get caught.

The lap belt provides additional support and keeps the user from sliding out of the seat.

Putting the lap belt on

- > The user sits upright or lies in the power wheelchair.
- 1) Push the 2 halves together until the buckle engages with an audible click.
- 2) Pull to check that it is secure.
- The belt is put on.



Fig. 39 Putting the lap belt on

Opening the lap belt

- ▶ Press the red release button.
- The buckle is open and the belt can be removed.

Adjusting the belt length

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

- > The user sits upright or lies in the power wheelchair.
- 1) Close the belt.
- 2) Position the 2 buckle halves in the middle of the body.
- 3) Position the respective half of the buckle at a right angle (see Fig. 40, item 1).
- 4) Slide the 2 halves of the closure to the desired position.
- 5) Release the respective half of the buckle.
- The belt length is adjusted.

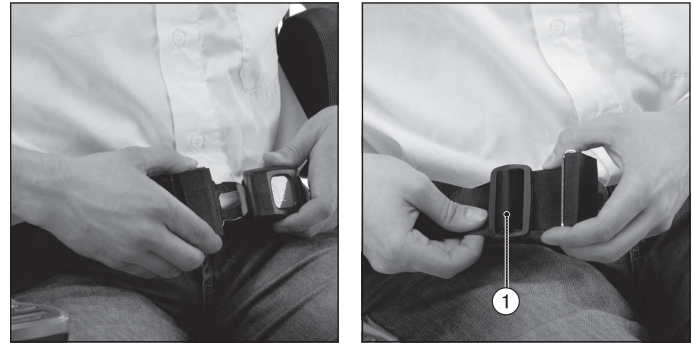


Fig. 40 Adjusting the lap belt

1 Belt buckle

Four-point belt/chest belt

⚠ CAUTION

Insufficient support of the seated person

Risk of falling out of the power wheelchair

- ▶ When driving in public areas, always wear the four-point or chest belt for additional support.
- ▶ Under no circumstances may the belt system be used as part of a restraint system for transportation in a wheelchair accessible vehicle.

⚠ CAUTION**Putting the four point belt on incorrectly**

Risk of pressure points, constriction

- ▶ Ensure that the bottom belt is not too tight between the lap belt and the thigh.
- ▶ Ensure that the buckle lies in the middle of the body.
- ▶ Ensure that the shoulder belt lies against the chest equally on both sides and is not too tight.
- ▶ Remove objects or clothing which get caught.

The power wheelchair may be equipped with a four-point or chest belt.

The four-point or chest belt makes it possible to secure patients in the power wheelchair.

Putting the four-point/chest belt on

- > The user sits upright or lies in the power wheelchair.
- 1) Close all buckles so that they engage with an audible click.
- 2) Pull to check that it is secure.
- The belt is put on.

Adjusting the belt length

- > The user sits upright or lies in the power wheelchair.
- 1) Close the belt.
- 2) To lengthen: Turn the length adjustment buckle by **90°** and pull.

- 3) Turn the buckle back to the original position when the belt length is correct.
- 4) To shorten: Pull on the free belt end.
- The belt length is adjusted.

6.12.4 Suspension (steering casters/drive wheels)

The power wheelchair can be equipped with a suspension system.

A spring and shock absorber element on each of the two steering casters increases driver comfort, especially on uneven surfaces, and improves traction.

The suspension effect is improved even more by a drive wheel suspension.



Fig. 41 Steering caster suspension



Fig. 42 Drive wheel suspension

6.12.5 Locking the steering casters

The power wheelchair may be equipped with a steering caster lock.

These serve to lock the steering casters in the forward direction, so that turning is no longer possible. Having the power wheelchair drive in a perfectly straight line increases safety when driving on ramps or using elevators.

Engaging the steering caster lock

- ▶ Push the folding lever on the front of the frame to the side a bit until it disengages from the centre position.
- The bolt at the bottom edge of the front frame extends and engages with the front fork as soon as the power wheelchair faces straight ahead (see Fig. 43, left).

- The steering casters are locked. The power wheelchair drives straight in both forward and reverse.

Disengaging the steering caster lock

- ▶ Turn the folding lever to the middle position until it engages.
- The lever is in the unlocked position (see Fig. 43, right).
- The steering casters are unlocked and can swivel freely again.

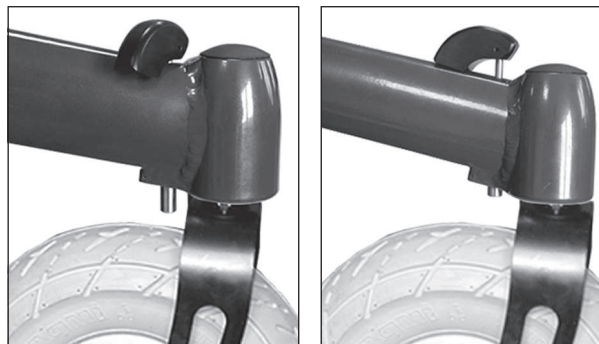


Fig. 43 Steering caster lock, engaged and disengaged

6.12.6 Rear bumper

The power wheelchair may be equipped with a bumper.

The bumper provides increased user protection in case of a collision.

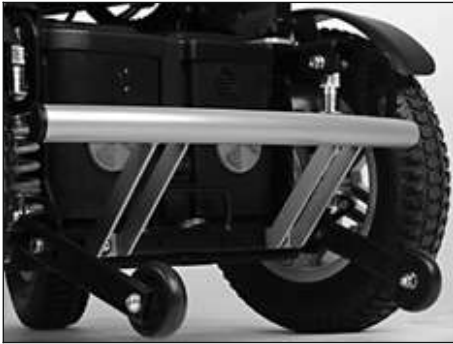


Fig. 44 Rear bumper

6.12.7 Overview of additional options

INFORMATION

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

The power wheelchair may be equipped with additional options:

- Curb climbing assist: To overcome curbs and steps with a maximum height of **100 mm**
- Puncture-proof tyres: Solid rubber tyres
- Seating shell adapter: To attach special seating shells; control panel holder for seating shells also available

- Armrest accessories: Special adapters for the armrests in our accessories catalogue
- Joystick accessories: Tetra fork; STICK S80; softball; golfball, flexible joystick stem
- Control panel guard: Metal guard for impact protection
- Crutch holder
- Folding rearview mirror
- Tray
- Attachable desktop
- Accessory box, backpack, mobile phone pocket

6.13 Disassembly/transport

6.13.1 Safety Instructions

⚠ WARNING

Lifting the power wheelchair incorrectly

Risk of falling, tipping, damage to the power wheelchair

- ▶ Only use sufficiently large hoisting devices to transport the power wheelchair (see the "Technical Data" chapter for the weight of the power wheelchair).
- ▶ Attendants may only lift the power wheelchair by solidly attached components. Footrests or armrests may not be used as lifting points.

⚠ WARNING

Improper transportation in aircraft

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

- ▶ Follow the IATA (International Air Transport Association) rules when transporting the power wheelchair in an aircraft. To this end, the fuse must always be removed 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.

⚠ CAUTION

Securing the power wheelchair insufficiently during transport

Risk of pinching, crushing, blows to body parts

- ▶ During transportation in vehicles, 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 another 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.

6.13.2 Reducing the transportation size

- 1) Flip the footrests up and remove.
- 2) Remove the side panels.
- 3) Fold the backrest forward on to the seat surface.



Fig. 45 Power wheelchair with reduced transportation size

Folding down the backrest without back angle adjustment

- 1) Pull on the backrest release strap.
- 2) Remove the side panels.
- 3) Pull the release strap back.

- 4) Manually fold the backrest forward on to the seat surface.



Fig. 46 Folding the backrest down

Folding down the backrest with back angle adjustment

- 1) Remove the side panels.
- 2) Push the lever (see Fig. 47, item 2) on the back of the backrest up and unlock the cross bolt (see Fig. 47, item 1) at the bottom end of the gas compression spring or adjustment drive.
- 3) Remove the cross bolt from the bracket.
- 4) Fold the backrest forward on to the seat surface.

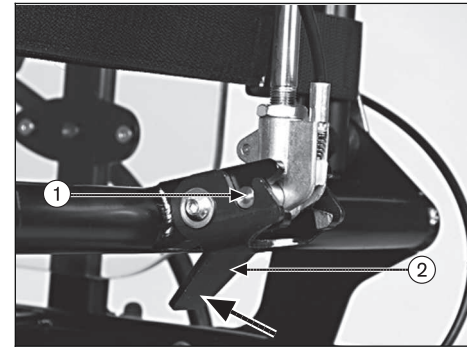


Fig. 47 Removing the cross bolt

1 Cross bolt

2 Lever

6.13.3 Reducing the transportation size – Recaro® seat

To remove/install the Recaro® seat on the mobility base and to fold the backrest down: see Page 49.

6.13.4 Preparing for transport

- 1) Position the power wheelchair in its transport location.
- 2) Turn the control unit off.
- 3) Engage the brake.
- 4) Use the eyebolts and cargo straps to attach the power wheelchair to the means of transportation.

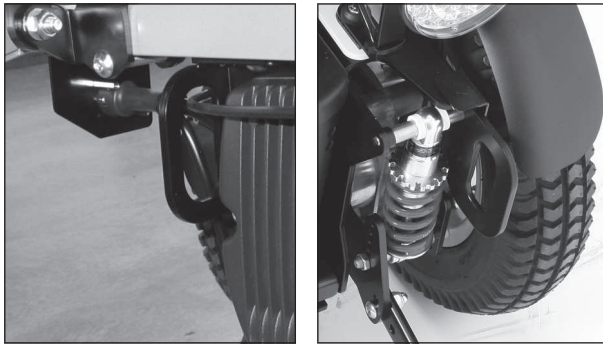


Fig. 48 Front (left) and rear (right) eyebolts

6.14 Use in a wheelchair accessible vehicle

6.14.1 Safety Instructions

⚠ WARNING

Use as a seat in a wheelchair accessible vehicle

Risk of falling out of the power wheelchair, severe injury in case of accident

- ▶ Always use the seats and restraint systems in the wheelchair accessible vehicle first. This is the only way to provide optimal protection for the occupants in case of accident.
- ▶ Never transport more than one person in the power wheelchair.

- ▶ Use the power wheelchair in a wheelchair accessible vehicle only if the seat is all the way down and the backrest is in a vertical position.

⚠ WARNING

Use of the belt system as a restraint system in a wheelchair accessible vehicle is forbidden

Risk of falling out of the power wheelchair, severe injury in case of accident

- ▶ Under no circumstances may the belt system be used as part of a restraint system for transportation in a wheelchair accessible vehicle.
- ▶ Note that the belt system is only intended to help support the user sitting in the power wheelchair.

6.14.2 Permitted use

The power wheelchair may be used for transport in a wheelchair accessible vehicle if a suitable restraint system is used. The securing components (such as lap belts) sold by the manufacturer only serve as additional restraints for the person sitting in the power wheelchair.

For more information, please refer to our brochure on using Ottobock products in wheelchair accessible vehicles, order number 646D158.

6.14.3 Restrictions for Use

WARNING

Unallowable use as a seat in a wheelchair accessible vehicle

Serious injuries due to use with unapproved accessory combinations

- ▶ The power wheelchair cannot be used as a seat in a wheelchair accessible vehicle with all equipment and accessory combinations. Observe the restrictions described below.

Use in a wheelchair accessible vehicle is **not** permissible if the following options are used:

- Mechanical or power seat tilt 20°
- Recaro® n-Joy, Recaro® n-Joy-Plus or modular Recaro® seat system
- Combination of the following:
 - Standard seat, large, and seat height 45 cm
 - Contour seat, large, and seat height 52 cm

6.14.4 Necessary accessories

An anchor kit is required to use the power wheelchair as a seat in a wheelchair accessible vehicle. The qualified personnel who fit the wheelchair can provide more information.

The weight of the person being transported is limited to **max. 100 kg** in a wheelchair accessible vehicle.

6.14.5 Use

Ensure that the wheelchair is fully secured with lashing straps for transport in a wheelchair accessible vehicle. For more information please refer to our brochure on using Ottobock products in wheelchair accessible vehicles, order number 646D158.

Straps can be attached via the eyebolts on the frame (see section 'Necessary accessories').

Before transporting the power wheelchair switch off the control unit and engage the brake.

6.15 Care

6.15.1 Safety Instructions

NOTICE

Incorrect cleaning

Risk of damage to the product, especially to the electronics

- ▶ Water must not come into direct contact with the electronics, motor or battery under any circumstances.
- ▶ Never use a water jet or high-pressure cleaning apparatus to clean the product.
- ▶ Use a cloth or sponge for cleaning.
- ▶ To avoid corrosion, don't 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.

6.15.2 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.

6.15.3 Disinfection

- ▶ Wipe all parts of the product with a disinfectant.

Important information about disinfecting

- Water-based disinfectants should be used. Observe the instructions for use provided by the manufacturer.
- Prior to disinfection, clean the seat and back upholstery, seat cushion, control panel and armrests.

7 Maintenance/Repair

7.1 Safety Instructions

⚠ WARNING

Improper maintenance, repairs or adjustments

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 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**.
- ▶ 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.

NOTICE

Failure to inspect important product features

Damage to the product

- ▶ 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".

7.2 Maintenance

For the components, special attention must be paid to the following points in the maintenance table below:

- Functionality of the components
- Correct adjustment of the components
- Damage, deformation
- Tightness of screw connections

7.2.1 Maintenance intervals

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

Component	Task	Prior to every use	Weekly	Monthly
Rear 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 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
	Recaro® seat: Check whether seat lock is positioned securely	X		
Footrest	Check ratchet mechanism for functionality and firm fit			X
	Check for damage to footrests			X
Manual elevating footrest	Check ratchet mechanism for functionality and firm fit			X
	Check for damage to footrests			X
	Visually inspect the piston rod for scratches and oil leaks			X
Padding/belts	Ensure padding is in perfect condition			X
	Check the safety belts for wear			X
	Check belt buckle for functionality		X	
Tyres	Check air pressure (see tyre sidewall)			X

Component	Task	Prior to every use	Weekly	Monthly
Tyres	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		
	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 whether 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

7.3 Repair

7.3.1 Replacing a defective fuse

INFORMATION

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

The safety fuse (for values, see section "Technical data" > table "Electrical system") is located in the battery drawer (power wheelchair with drive wheel suspension) or in a battery tray (power wheelchair without drive wheel suspension).

Opening the battery drawer (in models with drive wheel suspension)

> The control unit is turned off.

- 1) Pull up the release bolt.
- 2) Pull gently on the battery drawer to roll it out to the rear.
- 3) Open the clip on the strap.
- 4) Remove the battery drawer cover.



Fig. 49 Pulling on the release bolt

Opening the battery tray (on models without drive wheel suspension)

> The control unit is turned off.

- 1) Lift the seat cushion from the seat plate.
- 2) Remove the seat bottom.
- 3) Open the clip on the battery tray strap.
- 4) Remove the battery tray cover.

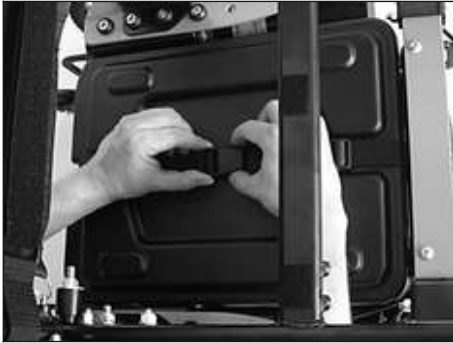


Fig. 50 Unbuckling the strap

Removing the fuse

- 1) Open the fuse holder cover (see Fig. 51, item 1).
- 2) Pull the fuse out of the spring contacts (see Fig. 51, item 2).

Installing the fuse

- 1) Remove the fuse from the protective cover.
- 2) Open the fuse holder cover.
- 3) Centre the fuse on the spring contacts and insert it.
- 4) Close the fuse holder cover until you feel it engage.

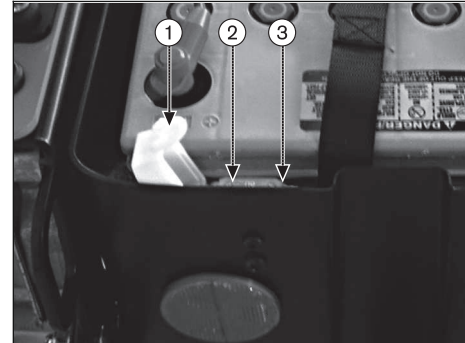


Fig. 51 Fuse in the fuse housing

- 1 Fuse housing with cover
- 2 Fuse inserted
- 3 Fuse holder

Closing the battery drawer (in models with drive wheel suspension)

- 1) Place the cover on the battery drawer.
- 2) Close the strap buckle.
- 3) Push the drawer under the seat until the release bolt engages.

INFORMATION: As you close the battery drawer, ensure that the release bolt engages correctly in the intended notch.

Closing the battery tray (on models without drive wheel suspension)

- 1) Place the cover on the battery tray.
- 2) Close the strap buckle.
- 3) Replace the seat bottom and push it down tightly.
- 4) Press the seat cushion firmly onto the hook-and-loop material on the seat plate.

7.3.2 Replacing a defective bulb

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.

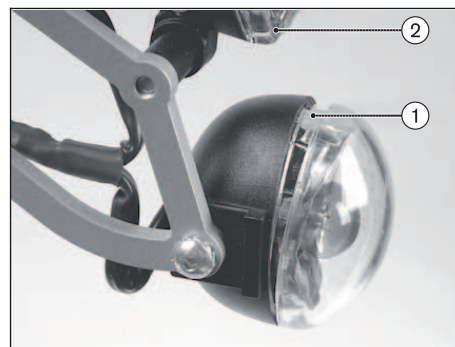


Fig. 52 Front lights

- 1 Notch (place screwdriver here)
- 2 Front LED light

Replacing the front direction indicator lamp

> Remove the fuse (see previous section).

- 1) Place a small screwdriver into the notch in the direction indicator housing and flip the cover down (see Fig. 52, item 1).
- 2) Remove the cover.
- 3) Turn the defective bulb slightly to unlock it and then remove it.
- 4) Grasp the new bulb with a cloth, insert it into the socket and lock it in place.
- 5) Position the cover, hook it on and press it down tightly.



Fig. 53 Replacing the front direction indicator bulb

Replacing the front LED light

The front LED light (see Fig. 52, item 2) is maintenance-free. If repairs are required, the qualified personnel who fitted the wheelchair can help.

Replacing the rear LED light (including rear direction indicator)

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

7.3.3 Replacing the battery

Batteries may only be replaced by authorised personnel.

7.4 Troubleshooting

⚠ CAUTION

Risk of uncontrolled driving behaviour

Risk of falling, tipping, collision with persons or nearby objects

- ▶ If any faults, defects or other hazards that can lead to personal injury are detected, the product must be taken out of service immediately.
- ▶ Contact your authorised specialist dealer if uncontrolled movement of the product occurs due to a malfunction.

INFORMATION

In the event of communication problems in the control unit bus system, the system triggers an emergency stop in order to prevent 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.
- ▶ Contact a specialist dealer.

Faults are indicated on the LCD display via the "Battery Capacity" indicator on the control panel or on the attendant control (if available). The following table shows the individu-

al 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. The specialist dealer uses the saved data to determine future service and maintenance intervals.

7.4.1 Types of notifications

Warning








A warning indicates a status or malfunction of one or several components of the power wheelchair. The function of components that have no 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.

Fault

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

7.4.2 Wheelchair control unit fault overview

Display	Error/Warning	Probable cause	Possible corrective action
	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
	Hand-held control unit fault	Defective 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 unit and the controller; Defective cabling, software or hardware	Check cabling/plug connections Contact specialist dealer
	Battery undervoltage	Battery deep discharge Battery cable malfunctioning or faulty connection to the battery	Charge as soon as possible Check the connection to the battery (charge the battery if the connection is good)

Display	Error/Warning	Probable cause	Possible corrective action
	Battery overvoltage	Voltage too high (after complete charging and driving downhill)	Continue driving slowly
	Back angle adjustment motor fault	Faulty cabling or plug contacts Defective actuator	Check cabling/plug connections Contact specialist dealer
	Seat tilt motor fault	Faulty cabling or plug contacts Defective actuator	Check cabling/plug connections Contact specialist dealer
	Seat height adjustment motor fault	Faulty cabling or plug contacts Defective actuator	Check cabling/plug connections Contact specialist dealer
	Power footrest motor fault	Faulty cabling or plug contacts Defective actuator	Check cabling/plug connections Contact specialist dealer
	Drive motor fault	Faulty cabling or plug contacts Defective drive motor	Check cabling/plug connections Contact specialist dealer
	Brake fault	Brake disabled Defective brake	Close brake release Contact specialist dealer
	Emergency stop	Severe controller/hand-held control unit and/or drive motor malfunction	Check cabling/plug connections Contact specialist dealer

7.4.3 Attendant control fault overview

Battery LED

LED	Fault/Warning	Cause	Possible corrective action
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	Fault/Warning	Cause	Possible corrective action
Red is flashing	Various product faults	More detailed information about the existing fault is shown on the LCD monitor on the control panel (see Page 77 f.).	

Seat function LEDs

LED	Fault/Warning	Cause	Possible corrective action
Backrest LED is flashing	Back angle adjustment motor fault	Faulty cabling or plug contact Defective actuator	Check cabling/plug connections Contact specialist dealer
Seat bottom LED is flashing	Seat tilt motor fault	Faulty cabling or plug contact Defective actuator	Check cabling/plug connections Contact specialist dealer
2 LEDs below the seat bottom are flashing	Seat height adjustment motor fault	Faulty cabling or plug contact Defective actuator	Check cabling/plug connections Contact specialist dealer
Backrest/seat bottom LED is flashing	Power seat function temperature warning	Overheating due to excessive load	Cool down phase

8 Disposal

8.1 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.

8.2 Disposal Information

To dispose of the wheelchair, return it to the specialist dealer.

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

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

9 Legal Information

9.1 Service life

Based on market observations and the current state of technology, the manufacturer has calculated that the product can be used for a period of **5 years**, provided that it is used properly and that the service and maintenance instructions

are followed. Storage times at the dealer or with paying parties are not included in this period.

However, we would like to emphasise that the product is reliable far beyond this defined period of time, provided that it is cared for and maintained properly.

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 service (see inside or outside of rear cover for address).

9.2 Liability

The manufacturer's warranty applies only if the device has been used under the conditions and for the purpose described. The manufacturer recommends that the device be used and maintained according to the instructions for use.

The manufacturer is not responsible for damages caused by components and spare parts not approved by the manufacturer. Repairs must be carried out exclusively by authorised dealers or by the manufacturer.

9.3 CE Conformity

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

9.4 Warranty terms

More information on the warranty terms and conditions is available from the qualified personnel who adapted the product or from the manufacturer's service department (see back inside cover or back cover for addresses).

9.5 Trademarks

All denotations within this accompanying document are subject to the provisions of the respective applicable trademark laws and the rights of the respective owners, with no restrictions.

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

Should trademarks in this accompanying 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.

10 Appendices

10.1 Technical data

General Information			
Application class (according to DIN EN 12184)		Class B	
Dimensions and weights	Standard Seat	Contour seat	Recaro® seat*
Seat depth	340 – 500 mm	360 – 480 mm	380 – 560 mm
Seat width	340 – 560 mm	380 – 560 mm	---
Seat height	450 mm, 500 mm, 550 mm	approx. 520 mm, approx. 570 mm	
Lower leg length	250 – 540 mm	280 – 540 mm	

* For seat version Recaro® n-joy Plus

Dimensions and weights	
Armrest height (telescoping armrest)	225 - 350 mm; standard seat, junior: 205 - 275 mm
Armrest length (standard)	260 mm
Back angle	-9/1/11/21° or 0/10/20/30°
Overall width	645 mm
Overall height	1030 mm
Overall length	1080 mm
Weight when empty*	95 kg

Dimensions and weights	
Transport weights*	See weight when empty*, of which: Side panel: < 1 kg Footrest (standard): approx. 1 kg Footrest (manually elevating): 1.8 kg
Max. load capacity (user weight)**	Basic model: 140 kg (with optional 40-cm power seat height adjustment: 130 kg) Model with standard seat, junior option: 100 kg
Turning radius	900 mm
Turning circle***	1550 mm
Caster wheel tyre size	9" – 10"
Drive wheel tyre size	14"
Tyre pressure	See tyre sidewall

* The specified weights vary according to the selected options and model.

** For further limitations pertaining to maximum load capacity please refer to the order form.

*** = 3-point turn by 180°

Electrical system*	
IP protection rating (according to DIN EN 60529)	IPX4
Operating voltage	24 V
Batteries:	
Gel (standard)	2 x 12 V; 63 Ah (C5)
AGM (optional)	2 x 12 V; 63 Ah (C5)

Electrical system*	
Lighting: Front LED light Front direction indicator Rear LED light (including rear direction indicator)	24 V, maintenance-free 10 W, 24 V 24 V, maintenance-free
Fuse	80 A (for enAble40 control unit) 120 A (for enAble50 control unit)
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	B500 'classic': enAble40 B500 'advanced': enAble50
Operating voltage	24 V DC
Max. output current per motor	75 A (for enAble40 control unit) 130 A (for enAble50 control unit)

Driving data	
Speed	6 km/h and/or 10 km/h (see nameplate for precise information)
Maximum safe inclination	Climbing ability, basic model*: 9.5° (17%) Approved climbing ability with lowered seat height adjustment feature/seat tilt: max. 6° (10%)
Maximum obstacle height	50 mm (100 mm with curb climbing assist)
Range (on level surfaces)**	approx. 35 km

Driving data	
Braking distance (according to DIN EN 12184:2009)***	at 6 km/h: 1000 mm (horizontal); 2000 mm (inclination) at 10 km/h: 2100 mm (horizontal); 4200 mm (inclination)
Operating temperature	-25 °C to +50 °C
Transport and storage temperature	-40 °C to +65 °C

* In individual cases, the continuous climbing ability can be significantly lower than the value specified.

** The specified range was determined under defined conditions according to 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	Coated frame

Kundenservice/Customer Service

Europe

Otto Bock HealthCare
Deutschland GmbH
37115 Duderstadt · Germany
T +49 (0) 5527 848-3433
F +49 (0) 5527 848-1460
healthcare@ottobock.de

Otto Bock Healthcare
Products GmbH
1070 Wien · Austria
T +43 (0) 1 5269548
F +43 (0) 1 5267985
vertrieb.austria@ottobock.com

Otto Bock Adria Sarajevo D.O.O.
71000 Sarajevo
Bosnia-Herzegovina
T +387 (0) 33 766200
F +387 (0) 33 766201
obadria@bih.net.ba

Otto Bock Bulgaria Ltd.
1612 Sofia · Bulgaria
T +359 (0) 2 80 57 980
F +359 (0) 2 80 57 982
info@ottobock.bg

Otto Bock Suisse AG
CH-6036 Dierikon
T +41 (0) 41 455 61 71
F +41 (0) 41 455 61 70
suisse@ottobock.com

Otto Bock ČR s.r.o.
33008 Zruč-Senec
Czech Republic
T +420 (0) 377825044
F +420 (0) 377825036
email@ottobock.cz

Otto Bock Iberica S.A.
28760 Tres Cantos (Madrid)
Spain
T +34 (0) 91 8063000
F +34 (0) 91 8060415
info@ottobock.es

Otto Bock France SNC
91978 Courtaboeuf Cedex
France
T +33 (0) 1 69188830
F +33 (0) 1 69071802
information@ottobock.fr

Otto Bock Healthcare plc
Egham, Surrey TW20 0LD
United Kingdom
T +44 (0) 1784 744900
F +44 (0) 1784 744901
bockuk@ottobock.com

Otto Bock Hungária Kft.
1135 Budapest · Hungary
T +36 (0) 1 4511020
F +36 (0) 1 4511021
info@ottobock.hu

Otto Bock Adria d.o.o.
10431 Sveta Nedelja · Croatia
T +385 (0) 1 3361 544
F +385 (0) 1 3365 986
ottobockadria@ottobock.hr

Otto Bock Italia Srl Us
40054 Budrio (BO) · Italy
T +39 (0) 051 692-4711
F +39 (0) 051 692-4720
info.italia@ottobock.com

Otto Bock Benelux B.V.
5692 AK Son en Breugel
The Netherlands
T +31 (0) 499 474585
F +31 (0) 499 476250
info.benelux@ottobock.com

Industria Ortopédica
Otto Bock Unip. Lda.
1050-161 Lisboa · Portugal
T +351 (0) 21 3535587
F +351 (0) 21 3535590
ottobockportugal@mail.telepac.pt

Otto Bock Polska Sp. z o.o.
61-029 Poznań · Poland
T +48 (0) 61 6538250
F +48 (0) 61 6538031
ottobock@ottobock.pl

Otto Bock Romania srl
077405 Chitila, Jud. Ilfov
Romania
T +40 (0) 21 4363110
F +40 (0) 21 4363023
info@ottobock.ro

OOO Otto Bock Service
143441 Moscow
Region/Krasnogorskiy Rayon
Russian Federation
T +7 (0) 495 564 8360
F +7 (0) 495 564 8363
info@ottobock.ru

Otto Bock Scandinavia AB
60114 Norrköping · Sweden
T +46 (0) 11 280600
F +46 (0) 11 312005
info@ottobock.se

Otto Bock Slovakia s.r.o.
851 01 Bratislava 5
Slovak Republic
T +421 (0) 2 32 78 20 70
F +421 (0) 2 32 78 20 89
info@ottobock.sk

Otto Bock Sava d.o.o.
34000 Kragujevac
Republika Srbija
T +381 (034) 351 671
F +381 (034) 351 671
info@ottobock.rs

Otto Bock Ortopedi ve
Rehabilitasyon Tekniği Ltd. Şti.
34387 Mecidiyeköy-Istanbul
Turkey
T +90 (0) 212 3565040
F +90 (0) 212 3566688
info@ottobock.com.tr

Africa

Otto Bock Algérie E.U.R.L.
Mackie-Ben Aknoun · Alger
DZ Algérie
T +213 (0) 21 9138663
F +213 (0) 21 9138663
information@ottobock.fr

Otto Bock Egypt S.A.E.
Mohandessein · Giza · Egypt
T +202 (0) 330 24 390
F +202 (0) 330 24 380
info@ottobock.com.eg

Otto Bock South Africa (Pty) Ltd
Johannesburg · South Africa
T +27 (0) 11 312 1255
info-southafrica@ottobock.co.za

Americas

Otto Bock Argentina S.A.
CP 1426 Ciudad Autónoma de
Buenos Aires · Argentina
T +54 (0) 11 4706-2255
F +54 (0) 11 4788-3006
atencionclientes@ottobock.com.
ar

Otto Bock do Brasil Ltda.
13051-030 Campinas-São Paulo
Brasil
T +55 (0) 19 3729 3500
F +55 (0) 19 3269 6061
ottobock@ottobock.com.br

Otto Bock HealthCare Canada
Burlington, Ontario, L7L 5N5
Canada
T +1 (0) 289 288-4848
F +1 (0) 289 288-4837
infocanada@ottobock.com

Otto Bock HealthCare
Andina Ltda.
Bogotá · Colombia
T +57 (0) 1 8619988
F +57 (0) 1 8619977
info@ottobock.com.co

Otto Bock de Mexico S.A. de C.V.
C.P. 01180 México, D.F. · Mexico
T +52 (0) 55 5575 0290
F +52 (0) 55 5575 0234
info@ottobock.com.mx

Otto Bock HealthCare
Minneapolis, MN 55447 · USA
T +1 (0) 763 553 9464
F +1 (0) 763 519 6153
usa.customerservice
@ottobockus.com

Asia/Pacific

Otto Bock Australia Pty. Ltd.
Baulkham Hills NSW 2153
Australia
T +61 (0) 2 8818 2800
F +61 (0) 2 8814 4500
healthcare@ottobock.com.au

Beijing Otto Bock
Orthopaedic Industries Co., Ltd.
Beijing, 100015, P.R. China
T +8610 (0) 8598 6880
F +8610 (0) 8598 0040
news-service@ottobock.com.cn

Otto Bock Asia Pacific Ltd.
Wanchai, Hong Kong · China
T +852 (0) 2598 9772
F +852 (0) 2598 7886
info@ottobock.com.hk

Otto Bock HealthCare India
Mumbai, 400071 · India
T +91 (0) 22 2520 1268
F +91 (0) 22 2520 1267
information@indiaottobock.com

Otto Bock Japan K. K.
Tokyo, 108-0023 · Japan
T +81 (0) 3 3798-2111
F +81 (0) 3 3798-2112
ottobock@ottobock.co.jp

Otto Bock Korea HealthCare Inc.
137-070 Seoul · Korea
T +82 (0) 2 577-3831
F +82 (0) 2 577-3828
info@ottobockkorea.com

Otto Bock
South East Asia Co., Ltd.
Bangkok 10900 · Thailand
T +66 (0) 2 930 3030
F +66 (0) 2 930 3311
obsea@ottobock.co.th

Other countries

Otto Bock HealthCare GmbH
37115 Duderstadt · Germany
T +49 (0) 5527 848-1590
F +49 (0) 5527 848-1676
reha-export@ottobock.de

Ihr Fachhändler | Your specialist dealer



Versandanschrift für Rücksendungen/Adress for Returns:
Otto Bock Manufacturing Königsee GmbH
Lindenstraße 13 · 07426 Königsee-Rottenbach/Germany



Otto Bock Mobility Solutions GmbH
Lindenstraße 13 · 07426 Königsee-Rottenbach/Germany
T +49 (0) 69 9999 9393 · F +49 (0) 69 9999 9392
ccc@ottobock.com · www.ottobock.com

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