## **ΡΛΡ**Λ**Γ**ΛΛΓ

## PARAVAN WHEELCHAIR SERIES

# User manual **PR 35 S**





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#### **ΡΛΆ**ΛΛΥΥ

#### Dear customer,

We would like to thank you for choosing our PARAVAN PR 35S standing wheelchair.

These operating instructions contain all the important information and instructions regarding your new PR 35S. We ask that you carefully read the following pages to ensure that your PR 35S will continue to work without problems for many years to come. Keep these operating instructions "to hand" for future reference. Our operating instructions contain answers to questions that relate to the equipment, operation and care of the PR 35S. However, if you still have questions or comments regarding the PR 35S, please do not hesitate to contact us.

Your PARAVAN Team

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- 1. Legal notice
- 1.1 Your manufacturer

Tel.: Fax: Email: Internet: >

QR code Fig. 1:

Many mobile telephones and PDAs have built-in cameras and software which allows the interpretation of QR codes, and with these you can directly transfer our contact information into the address book of your mobile phone or PDA.

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Help

Technology

Prepare

General

# General

Prepare

## 1.1.1 Copyright

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#### 1.1.2 Technical status of documentation

All details on technical data / specifications, illustrations and information in these operating instructions correspond to the information available at the editorial deadline in 2021.

The operating instructions for the PR 35S have been produced in the German language and can be translated into other languages; however in the case of any differences, the German version is legally binding.

## 2. Regarding these operating instructions



Fig. 2: Direction of travel

These operating instructions do not constitute a maintenance and repair manual and therefore are not suitable to use for the private carrying out of maintenance and repair work, or to provide instruction on this. You will receive information on the design and the operation of the product throughout its entire life cycle – from transport (delivery) to decommissioning (shutdown) of the PR 35S. The most important product features are listed and described below. All the specified product features can be combined with one another in different variants and functions, and can potentially differ from the series-production standard.

#### NOTE

These operating instructions are an essential part of the power wheelchair product and must always be kept near the PR 35S so that you can quickly access all important information.



All information on sides and directions in this documentation is always specified from the point of view of the operator and in the direction of travel!

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#### 2.1 Exclusion of liability

The operation of the PR 35S without faults or malfunctions can only be guaranteed if the information gained from these operating instructions is applied. PARAVAN GmbH assumes no liability or guarantee regarding damage or malfunctions that occur during operation due to the non-observance of these operating instructions or due to modifications made to the PR 35S.

In order to guarantee the fault-free operation of your PR 35S, please observe the maintenance instructions and maintenance intervals.

See chapter "17 Maintenance and servicing"

#### **ΡΛΫ**ΛΛνμι

#### 2.1.1 Guarantee

Guarantee services are based entirely on the respective PARAVAN guarantee provisions.

Excluded from guarantee claims is damage which has occurred due to:

- > Wear
- > Improper operation or use, e.g. overloading
- > Incorrect/infrequent maintenance
- Incorrect/infrequent care



See your personal "guarantee card".

#### 2.1.2 Technical modifications

All modifications to safety equipment, and technical modifications to the PR 35S in general, even if only minor, are strictly prohibited! All modifications must be authorised or carried out by PARAVAN GmbH.

PARAVAN GmbH reserves the right to undertake technical modifications and improvements to the product in the interest of our customers and progressive development.



#### NOTE

Claims relating to the guarantee and warranty shall expire in the event that any modification is made to the PR 35S that was not authorised by PARAVAN GmbH. Furthermore, dangerous malfunctions cannot be ruled out!

Prepare

General

General

WARNING

- > **Danger of injury** for persons operating a PR 35S which does not correspond to the original or delivered condition.
- > Material damage to the PR 35S through the use of unapproved parts or incorrectly installed parts.
- Do not make any technical modifications to the power wheelchair.
- Only operate the PR 35S in its original or delivered condition.
- > Use only original and approved replacement parts.
- Check the operating condition of the PR 35S before each trip.

Regarding these operating instructions

#### 2.2 Target group

The operator must acquire or gain a level of knowledge relating to the following points before operating the PR 35S:

- Knowledge of the content of the operating instructions in order to safely operate and also be able to move the PR 35S.
- > Knowledge of the safety and operating provisions listed herein in order to recognise potential dangers or dangerous situations and avert these for the user and his/her surroundings.



#### NOTE:

In order to ensure their own personal safety, only trained or instructed persons may operate a power wheelchair. As a user, please ensure you receive sufficient training when the product is supplied. If necessary, please contact us.



See section "24.4 Log of instructions upon supply"

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#### 2.3 Explanation of symbols

When reading the operating instructions you will encounter the following symbols and warning symbols.



#### The "Caution Danger!" logo

highlights hazards. The protective measures specified in the respective text must be followed in all cases. This symbol is always used in combination with the respective signal word, which indicates the level of danger:

- > **Danger!** Immediate danger to life and limb (irreversible).
- > Warning potential danger to life and limb (irreversible).
- > Caution potential danger to life and limb (reversible).
- > **Caution** potential damage to the vehicle.



Additional information for the user – e.g. in order to simplify the operation of the PR 35S and/or avoid damage to the PR 35S.

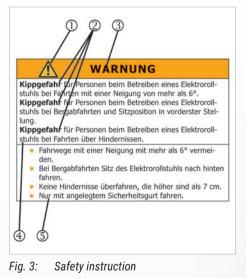


This symbol refers the user to further sections or further documentation – e.g. also to annexes of these operating instructions.

#### 2.3.1 Structure of safety notes

You can obtain the following information from the safety notes:

- > Warning or danger symbol ①.
- > Type and source of the danger 2.
- > Signal word ③.
- > Consequences of hazard occurring ④.
- > Protective measures (5).



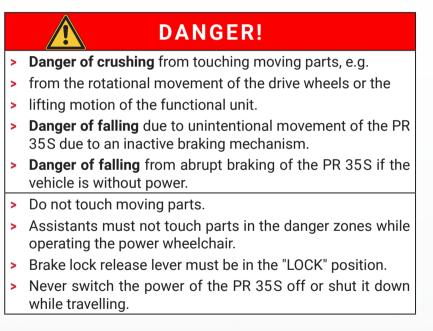
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## 3. Safety notes

## 3.1 Generally applicable safety notes

3.1.1 Operation instructions

For your protection and for the protection of people in your vicinity and of the environment, the following safety instructions must be observed and followed at all times.



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## WARNING

**Danger of tipping** for persons operating a PR 35S when travelling at an incline of more than 10°.

**Danger of tipping** for persons operating a PR 35S when travelling downhill and if the seat is in the foremost position. **Danger of tipping** for persons operating a PR 35S when travelling over obstacles.

- > Avoid routes with inclines greater than 10°.
- > Tilt the seat of the PR 35S back when travelling downhill.
- Do not cross any obstacles which are higher than 60-70 mm.
- > Only drive with your seatbelt fastened
- > Do not drive in a horizontal (lying) position.
- > Only drive in the lowest seat position.
- Only use the lifting, recline and tilting function on level surfaces.

Info

General

## WARNING

**Danger of injury** for persons operating a PR 35S which does not correspond to the original or delivered condition. **Material damage** to the PR 35S through the use of unapproved parts or incorrectly installed parts.

- Do not make any technical modifications to the power wheelchair.
- Only operate the PR 35S in its original or delivered condition.
- > Use only original and approved replacement parts.
- Check the operating condition of the PR 35S before each trip.



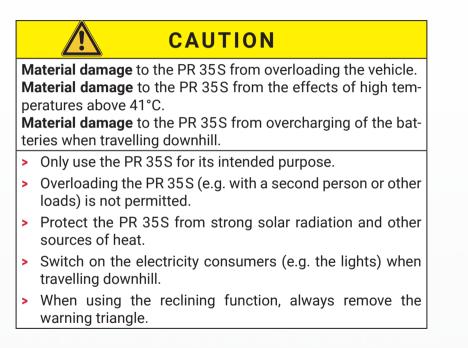
## WARNING

**Danger of injury** for persons while travelling with a PR 35S on rough ground.

**Danger of falling and tipping** for persons while operating the PR 35S on surfaces with diminished load bearing capacity. **Material damage** to the PR 35S from mechanical and physical influences while travelling on rough terrain.

- Avoid travelling on flat, slippery or greasy surfaces (e.g. ice, snow, wet grass, foliage, etc.).
- Avoid travelling through water with a depth of 50mm or more.
- > Observe the gross load weight of the vehicle.
- Observe the load bearing capacity (e.g. in the case of bridges or crosswalks) or condition of the ground.
- > Only drive with your seatbelt fastened.

#### 3.1.2 Information regarding use



## 3.1.3 Notes on transport

## CAUTION

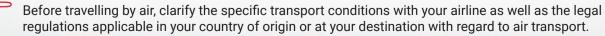
**Material damage** to the electric wheelchair through slipping from ramps or lift while being loaded. **Material damage** to the electric wheelchair through being secured and transported improperly in and electric wheelchair transporter.

- > Secure ramp from slippage.
- > Both the ramp and the electric wheelchair transporter must be positioned on even and firm surfaces.
- > The ramp or lift must be clean and dry.
- The ramp must be wider than the electric wheelchair and should be clearly visible to allow corrective steering.
- > Mount the ramp and lift in a single movement in order to prevent the electric wheelchair rolling backwards.
- > Secure the electric wheelchair in the transporter according to the usual legal regulations.
- Use only suitable and authorised securing equipment.
- > Switch the electric wheelchair off during transport.

National regulations may prevent you from taking it on buses, trains and air transport.



Ask your transport company about possible restrictions.



#### 4.1 Manufacturing standard

The PARAVAN PR 35S is a multifunctional power wheelchair that is ideal for indoor and outdoor use due to its compactness and manoeuvrability.

The PR 35S is designed and tested to ensure the highest possible degree of safety for the operator and his/ her surroundings. Our products are checked for faults after their manufacture. If a fault or malfunction nevertheless arises with your PR 35S, we ask that you contact your dealer or PARAVAN GmbH directly so that the issue can be dealt with.

PARAVAN power wheelchairs are manufactured and tested in accordance with:

> DIN EN 12184 Electrically powered wheelchairs, scooters and their chargers.

and are classified as Category B in this standard.

#### 4.2 Correct use

General

Informa

## NOTE

The PR 35S is only intended for the uses listed in the section "Usability of the vehicle".

The PARAVAN PR 35S is designed to transport a person indoors and outdoors. The control panel, including the joystick and optional controls for special operation, serves as the interface in terms of user operation and



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See section "3 Safety notes"

the liability of the manufacturer of the PR 35S.

See section "4.2.1 Usability of the PR 35S"

# General

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4.2.1 Usability of the PR 35S

- unproblematic
- > Transport of a person with a maximum body weight of 140kg.
- > Use as driver's or co-driver's seat, depending on the equipment variant.
- > Use within the German road traffic regulations ("StVO"), assuming complete and intact lighting.

(g

See section "12 Driving with the PR 35S"

#### - problematic or prohibited

- > Use as a means of tractive transport of loads or of several people.
- > Use of the PR 35S in extreme climatic conditions (heat/cold/moisture).
  - See section "2.1 Exclusion of liability"



See section "3 Safety notes"

## 4.2.2 Clearance declaration for non-dangerous goods (storage battery)

PARAVAN GmbH uses storage batteries which are classified as "non-dangerous goods", as long as these storage batteries are not mechanically damaged in any way.

The maintenance-free non-woven lattice storage batteries and the maintenance-free lead gel storage batteries are leak-proof, and in accordance with

- > IATA, regulation A 67
- > ADR, regulation 238 B
- > IMDG, regulation 238.2 and

UN 2800 Special Provisions are considered not dangerous goods and suitable for transport.

See "Clearance certificate for non-dangerous goods"



You will receive the respective appropriate clearance certificate for your storage batteries when you receive your PR 35S.

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General

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## 4.3 Approvals, certifications

#### 4.3.1 EU approval as a driver seat

The anchoring of the safety belt has been certified and approved in accordance with 76/115/EEC as has the seat in relation to its anchoring in accordance with 74/408/EWG with the Paravan docking system.

## DANGER!

#### Potential risk of injury or serious injury or death

In conjunction with the Dahl Docking system the wheelchair has been successfully crash-tested according to ISO 7176-19:2008 - Wheeled mobility devices for use as seats in motor vehicles. The test was carried out with vehicle anchored safety belt system only. The integrated 3- or 4-point seat belt should not be used or relied on for occupant restraint in a moving vehicle. Use a vehicle installed and approved 3 point belt instead.

- > Technical Reports Nos. 08-00719-CP-GBM and 08-00723-CP-GBM.
  - See Section "23 Annexes and technical documentation"



#### 4.3.2 German regulations on assistive technology (Hilfsmittelverordnung, HMV no.)

The PR 35S standing wheelchairs are approved in accordance with assistive technology guidelines:

- Kassenarztrecht in Nordwürttemberg Richtlinien und Normen und Verordnungen und Leistungen (Panel doctors law in Northern Württemberg - guidelines and standards and regulations and services), page B 2 - 1 ff
- As auxiliary equipment permitted under the German regulations on assistive technology, number:
- > HMV no. 18.99.03.2038

#### 4.3.3 Definition of auxiliary equipment (incomplete excerpt)

Auxiliary devices are physical medical services i.e. things which succeed in making medical treatment safe by their compensatory, supportive or relieving effect, or which allow physical hindrances to be overcome. They include prostheses, orthopaedic and other auxiliary equipment, visual aids, physical tools or technical products...

General

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#### 4.3.4 Indication

The inability to walk or severely limited ability to walk within the context of the basic need to move in your own home.

The provision of wheelchairs with a standing feature is advisable if regular (several times per day) standing training must be carried out as a therapeutic action, and other standing aids, e.g. underarm crutches, axillary crutches, walking frames, cannot be used.

These wheelchairs are only used if manually operated standing devices cannot be operated due to the wheelchair user's low level of residual strength.

#### 4.3.5 Contraindications

The provision of power wheelchairs is unsuitable for persons with:

- > Severe balance disorders
- Limited and inadequate vision
- Severely limited cognitive abilities
- > Loss of both arms, or the inability to sit

### Product-specific data

### 5.1 Trademark and type designation (type plate)



This information can be found on the type plate. It is very important to provide this in any correspondence with PARAVAN GmbH so that you receive relevant professional advice.

- > Series number, chassis no. ①
- Model name ②
- > Max. speed ③
- > HMV number ④
- > PR 35S unladen weight (5)
- > Max. payload (body weight) 6
- Production date ⑦

Fig. 5: T

Type plate

See section "5.3.1 Type plate of your PR 35S"

5.

#### **ΡΛΡ**ΛΛΛΓ

General

#### 5.2 Location of the type designation (type plate)

The type designation (type plate) is affixed to the PR 35S in a 1-fold design. The type designation (type plate) has dimensions of approx. 70 mm x 40 mm.

> The type designation (type plate) is situated on the rear right of the battery box ① of the PR 35S.



Fig. 6: Location of type plate

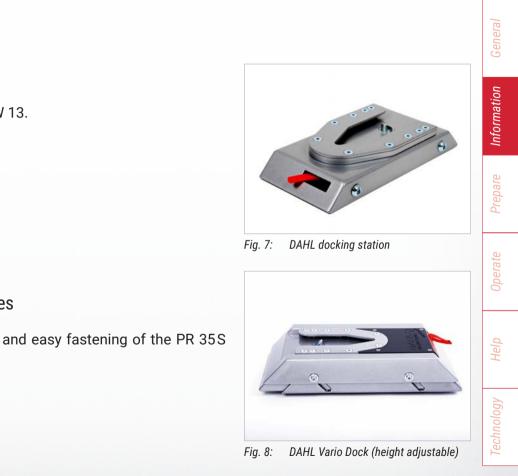
Please make sure this information is recorded when you receive the PR 35S, or if necessary enter the information yourself, so that you always have it to hand.

- > Day of delivery/supply
- Supply by (dealer or branch)
- 5.3.1 The type plate of your PR 35S

Stick a duplicate of your type plate here!

Information

Prepare



#### 5.4 Accessories

- 5.4.1 Supplied accessories
- > Charger with charging cable.
- > Operating instructions.
- > Socket wrench with T-handle, SW 13.
- > Allen key, size 5.

#### 5.4.2 Deliverable accessories

 DAHL docking station for quick and easy fastening of the PR 35S in a vehicle. **ΑΥΛΛΥΒ** 

General

6.

- Information
- Prepare

ite

### Description/function of the PR 35S

#### 6.1 The seat

The PR 35S seat is an in-house development from PARAVAN GmbH that is precisely tailored to the needs of customers. The PR 35S features:

- > Special shock absorbers in the seat to provide relief to the thigh muscles.
- > 6-axles with 12-fold individual adjustment of the armrest in order to be able to set an optimum and fatiguefree position for the arms.
- > MeshTex textile cover made from breathable nanofabric to reduce the risk of decubitus.

#### **ΡΛΡ**ΛΥΛΓΙ

#### 6.2 Joystick control

All the functions of the PR 35S can be selected or accessed via the joystick, the control panel and the integrated control system. Such functions include:

- steering,
- braking behaviour,
- > speed, control of the two drive motors,
- > secondary functions, depending on which control system or equipment is used.

#### 6.3 Special control system

A multitude of special controls, such as

- chin control,
- environmental control,
- > etc.

can be implemented in the PR 35S.

If you have requests or suggestions for us regarding this, please do not hesitate to contact us. Thank you.

Description/function of the PR 35S

#### 6.4 Tilt function (seat angle)

The PR 35S is equipped with a tilt function. The tilting process can be interrupted and fixed in any direction of movement and at any position.

The seat tilt (angle) can be set as follows at the touch of a button:

forwards, thus also serving as a standing aid

See section "11 The seat, operation"

#### or

backwards - for relaxing, preventing pressure sores, easing back pain and ensuring better weight distri-> bution.



Information

Prepare

#### Description/function of the PR 35S

### 6.5 Road-safe in accordance with The Road Traffic Licensing Act (StVZO)

The PR 35S is a road-approved vehicle that includes the following features as standard equipment:

- > LED headlights for optimum illumination ①.
- > LED direction indicator 2.
- > LED rear lights for the best possible visibility 3.
- Identification by yellow reflectors on the side in the middle of the wheel.

### 6.5.1 § 24 Special means of transportation

- The Road Traffic Licensing Ag
  - The Road Traffic Licensing Act (StVZO) makes reference to wheelchairs. In it, it is stated that:
- (1) Push and gripping wheelchairs, sledges, prams, scooters, children's bikes and similar means of transportation are not vehicles as defined in this Act.
- (2) Wheelchairs or other wheelchairs as defined in section 1 may be driven in places where there is pedestrian traffic, however only at walking speed.







Fig. 10: Illumination at the rear



**ΡΛΡ**Λ**Γ**ΛΛΛ

7. Overview of the PR 35 S

### 7.1 Parts and their locations



Fig. 11: Wheelchair overview

The following terms for parts or individual parts are used in the operating instructions. Their location on the PR 35S is shown in the photo.

- > Control panel with joystick ①
- Armrest axle adjustable ②
- > Back rest (electric) ③
- > Headrest ④
- > Footplate/footrests (5)
- > Brake lock release lever, emergency release 6
- > Drive wheel, standard version puncture-resistant  $\ensuremath{\oslash}$
- > Battery box ®
- Casing ⑨
- > Rear wheel, standard version puncture-resistant <sup>(1)</sup>

General

Information

Prepare

#### **ΡΛΡ**ΛΛΛΓ

#### 7.2 Parts and their installation position, chassis

The following terms for parts or individual parts are used in the operating instructions. The installation position on the chassis of the PR 35S is shown in the photo.

- > Seat plate ①
- > Seat guides ②
- > Rear wheel ③
- > Rigging eye, rear ④
- > Actuator module ⑤
- > Battery box 6
- > Storage battery ⑦

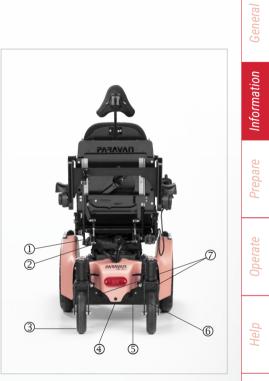


Fig. 12: Parts, chassis rear

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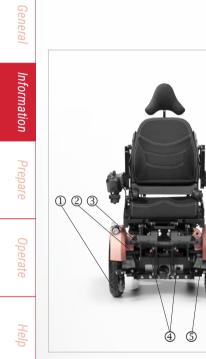


Fig. 13: Parts, chassis front

- > Drive wheel ①
- > Rigging eye ②
- > Control units ③
- > Brake lock release lever, emergency release ④
- > Drive motor (5)

Technology

#### 8.1 Receiving your new PR 35S

Check your PR 35S for completeness and compare the items received in the delivery with your order documents. If anything is unclear, contact PARAVAN GmbH immediately! Check (visually inspect) that the PR 35S is in proper condition. Report damage which can be attributed to delivery or transport immediately and in writing to your

> dealer, forwarding agent or medical supply store

#### and

> PARAVAN GmbH.

#### 8.2 How the PR 35 S is supplied to you

The PR 35S is supplied to you in the following ready to drive and ready to operate condition:

- > Fully assembled and with equipment corresponding to your specifications upon ordering.
- > All attachments and control elements are preset to your body measurements in accordance with the order.
- > Precharged storage batteries.

**ΡΛΖ**ΛΛΛΠ

### 9. Settings on the PR 35 S, electronic

General

Prepare

The setting and configuration of the PARAVAN control unit is very complex and, for your own safety, can only be undertaken by your service technician.

All parameters of the PARAVAN control unit can be subsequently set to your requirements and desires. These include:

- > All driving features such as e.g. moving off and braking.
- > Steering behaviour.

If an adjustment of the control parameters is necessary or desired, please contact your dealer or PARAVAN GmbH.

### 10.1 Receiving your new PR 35S

All mechanical parts or equipment and control elements are set to your body dimensions. If adjustment is still needed however, this can be undertaken at any time. Your PARAVAN PR 35S is designed in such a way that it can be adjusted to your body dimensions in all respects.



For your own safety, only allow your service technician to carry out all mechanical settings or modifications to the equipment. The customer should not change these settings himself!

(B

See section "24.4 Log of instructions upon supply"

### 10.2 Combination with non-manufacturer products



Any combination with components not supplied by us generally constitutes a modification of your power wheelchair. Ask us whether there is a valid combination approval from us.

**ΡΛΖ**ΛΛΛΠ

Technology

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Set the angle of the armrest pad. 10.3.1

These instructions apply to both the right and left sides.

The angle of the armrest pad can be tilted. It can also be adjusted horizontally forwards or backwards, allowing it to be

adapted for any purpose and to every body size.

- Loosen hexagonal cap nut ①. >
- Swing the armrest pad 2 into the desired position. >
- Tighten hexagonal cap nut ①, approx. 8 Nm. >

Fig. 14: Angle of armrest pad





#### **ͻνγγγ**

#### 10.3.2 Set the horizontal position of the armrest pad



Fig. 15: Position of the armrest pad

These instructions apply to both the right and left sides.

Proceed as follows to check and set the position of the armrest pad:

- > Loosen the ① wing bolt.
- > Push the armrest pad <sup>(2)</sup> forwards or backwards to the desired position.
- > Tighten the wing bolt ① hand-tight.

#### 10.4 Armrest

every body measurement.

General

Prepare

Changing the position of the armrest potentially involves using another setting!

The armrest is multi-horizontal in all directions (projection) and can be

- Proceed as follows to check and set the position of the armrest:
- Height ① of the armrest. >
- Angle 2 of the armrest. >
- Projection 3 of the armrest. >
- If required, correction of the armrest pad. >

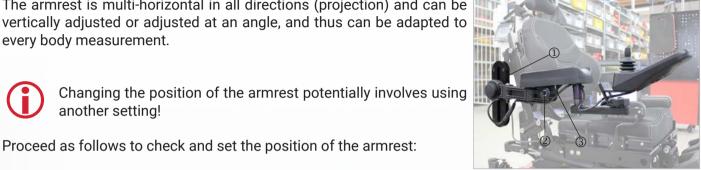


Fig. 16: Position check of the armrest

#### **ΡΛΑ**ΛΛΛΓι

#### 10.5 Set the height of the armrest



Fig. 17: Height of armrest

These instructions apply to both the right and left sides.

Turning the hand-operated wheel to the left releases the armrest, thereby enabling its height to be adjusted.

When the desired height is reached, turn the hand-operated wheel to the right and pull it tight.

> Armrest is locked or fixed.

#### 10.6 Angle of the armrest



Fig. 18: Armrest angle

The armrest is pivoted on the attachment point. This allows the complete armrest to be swung upwards for comfortable sitting and standing or moving from the wheelchair's seat.

Prepare

General

Settings on the PR 35S, electronic

#### **10.7** Set the projection of the armrest

This work instruction applies to the right and left sides; it is possible that the rotational direction of the screw connection is reversed!

Proceed as follows to check and set the projection of the armrest:

- > Loosen hexagonal cap nut ①.
- > Loosen hexagonal cap nut ③.
- > Move the armrest 2 into the desired position.
- > Hexagonal cap nut ① and ③ tighten approx. 8 Nm.





Prepare

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#### **10.8** Setting the mobility of the control panel



Fig. 20: Swivel mechanism

The horizontal swivel mechanism of the control panel can be set in relation to the degree of hardness (response behaviour or the mobility of the joints).

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Prepare

General

Settings on the PR 35S, electronic

General

Prepare



#### 10.9 Footrest unit

The footrest unit's angle relative to the seat can be adjusted using the electrical angle compensation function. The angle of the footplates can only be altered manually using a set screw.

10.9.1 Setting the lower leg length

The lower leg support or lower leg length is set to your body dimensions.

Manually adjustable >







### 10.9.2 Setting the tibial angle



Fig. 22: Tibial angle

The support of the lower leg or the tibial angle (between upper and lower leg) can be electrically modified via the PARAVAN control unit in the angle adjustment setting, depending on the equipment version.

- > Select menu in the control unit.
- > Select the settings.

See section "15 Control"

Prepare

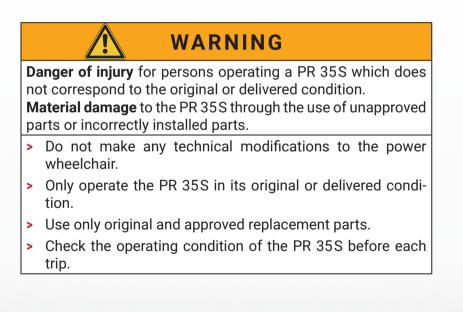
General

### 11.1 Insurance, liability insurance

We recommend that you speak with your insurance advisor before starting to use the PR 35S so that its use is included in your insurance – in particular in your liability insurance.



Please note that within the context of applicable legal provisions, a legal requirement may exist to insure the PR 35S during use in road traffic.



#### 11.2 Function check before the trip

General

>

your own safety:

Prepare

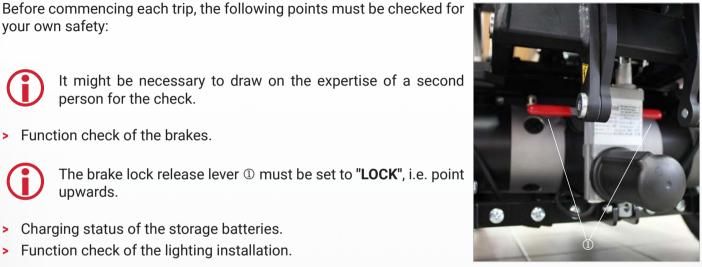
- Charging status of the storage batteries. >
  - Function check of the lighting installation. >

(emergency release)"

person for the check.

Function check of the brakes.

upwards.



Brake lock release lever (emergency Fia. 23: release)

- Help



See section "20 Electrical Equipment"

See section "12.9.1 Operation of the brake lock release lever

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Driving with the PR 35S

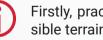
#### 11.3 Controlling the PR 35 S, directions of travel

The PR 35S is controlled via the joystick on the control panel.

The following basic control options are available if you put the joystick into the positions below:

- Joystick forwards & The PR 35S travels forwards. >
- Joystick left or right & The PR 35S changes the direction of travel in > accordance with the position selected.
- Joystick backward & The PR 35S travels backwards. >
- Joystick in the neutral position (middle) & The brakes are active, the > wheelchair does not travel.

In order to avoid unwanted movement of the PR 35S, do not perform any sudden movements (driving commands) on the joystick!



Firstly, practise controlling the wheelchair on safe and accessible terrain.

When the backrest and reclining function is activated, the Scoot Control collides with the backrest and the headrest holder. Therefore, please fold down the Scoot Control before operating this function!





**ΡΛΖ**ΛΛΛΠ

Operate

#### 11.4 Navigating bends, turning corners



Prepare

Operate

The PARAVAN PR 35S is equipped with front-wheel drive. This means that the rear swings out during steering motions, i.e. turning corners.

This is how you navigate a bend:

> Push the joystick into the required travelling position (forwards or backwards).

#### And at the same time,

> push the joystick into the required travelling direction (left or right).

#### Example:

Push the joystick into the position, from the point of view of the operator, of right upwards (2:00 pm position) & The PR 35S curves to the right.



See section "3 Safety notes"

# **11.5 Braking with the PR 35 S**

### 11.5.1 PR 35S braking system

Two independently working braking systems (safety systems) are used in the PARAVAN PR 35S in order to guarantee the greatest possible level of safety. The PR 35S has a parking and service brake which complies with the Road Traffic Licensing Regulation (StVZO). The functions of the individual safety systems are as follows:

- Safety during the trip: By releasing the joystick (the joystick always returns to its neutral position in the middle) in driving mode, the motor brake automatically switches itself on and brakes the PR 35S.
- Safety in the case of a power cut or interruption: If there is an interruption to the power supply, e.g. due to a discharged storage battery, the safety magnet brake locks and the PR 35S comes to a standstill. If this is the case, it can only be mechanically unlocked and manually moved.

See section "12.9.1 Operation of the brake lock release lever (emergency release)"

ΡΛΖΛΥΛΓ

The braking distance, i.e. the distance from initiating the braking process until the PR 35S comes to a standstill, is heavily dependent on factors such as:

- Ground or condition of the road.
- Total weight (vehicle and driver) of the PR 35S. >



Prepare

When braking from full speed at approx. 6km/h, your PR 35S has a braking distance of approx. 1 metre! During the braking process from high speeds, especially in the case of downhill travel, the power wheelchair can lurch from side to side or swerve. For this reason avoid sharp braking!

#### 

#### 11.7 Travelling on hills, up and downhill travel

You must observe the following rules for your own safety when travelling up and downhill:

- Put the longitudinal seat adjustment mechanism into the furthest back position in order to avoid slipping. >
- Only travel with your seatbelt fastened. >
- Avoid sharp braking during downhill travel so that the PR 35S does not lurch from side to side or swerve. >
- When travelling up and downhill select a low movement level or speed so that you don't lose control over > the PR 35S at any time.
- When travelling up and downhill from an incline of more than 7°, the stability of the PR 35S cannot be > guaranteed, or there can be a danger of the PR 35S tipping.
- The power generated during downhill travel is diverted into the battery. If the battery is fully charged upon > commencing the trip, the safety system switches to emergency stop in order to avoid damage due to the overloading of the electronics. If this is the case, switch an electricity consumer (light) on in order to run down the battery, and then continue your trip.



The brake lock release lever must be set to "LOCK" when travelling up or downhill. The motor brake is only effective when set to "LOCK". The result of this would be travelling downhill without braking!



See section "12.9.1 Operation of the brake lock release lever (emergency release)"

General

Prepare

Operate

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### **11.8**

#### 8 The drive programs / movement levels

The PARAVAN PR 35S has five different drive programs, or movement levels. You can select the desired movement level or final speed of the PR 35S on the control panel.

The maximum final speed in the respective movement level is reached by moving the joystick as far as it will go.

The functions of the individual movement levels are as follows:

- > Movement level 1: Highest degree of control over the PR 35S; 20% of the final speed, driving indoors.
- > Movement level 2: 40% of the final speed.
- > Movement level 3: 60% of the final speed.
- > Movement level 4: 80% of the final speed.
- > Movement level 5: Only for practised drivers/operators; max. final speed.



See section "15 Control"

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#### 11.9 Manual driving, push mode

11.9.1 Operation of the brake lock release lever (emergency release)

If you want to push the PR 35S, you must set both brake lock release levers ① on the left and right drive side to "UNLOCK" (downwards).

 $(\mathbf{i})$ 

Do not set to **"UNLOCK**" on a gradient! In this position, the drive motor is unable to brake!

#### Positions of the brake lock release lever ${\rm \textcircled{O}}$

#### LOCK

> Lever position upwards = driving; braking system is active!

#### UNLOCK

> Lever position downwards = pushing; braking system is deactivated!

CAUTION: During push mode the control unit must be switched off!



Fig. 25: Brake lock release lever (emergency release)

General

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### 11.10 Information regarding roads, types of ground



# WARNING

**Danger of tipping** for persons operating a PR 35S when travelling at an incline of more than 10°.

**Danger of tipping** for persons operating a PR 35S when travelling downhill and if the seat is in the foremost position. **Danger of tipping** for persons operating a PR 35S when travelling over obstacles.

- > Avoid routes with inclines greater than 10°.
- > Move the seat of the PR 35S back when travelling downhill.
- > Do not cross any obstacles that are higher than 60-70mm.
- > Only travel with your seatbelt fastened.

### 11.10.1 Fording ability, driving through water

- > When driving through water, damage to the electronic parts (motors, control units etc.) as well as to the storage batteries due to the ingress of water can occur.
- 11.10.2 Climbing / traversing ability
- While travelling over obstacles that are higher than approx. 60-70 mm, you could touch the ground and get stuck or tip over with your PR 35S with the battery box.

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#### 11.10.3 Load bearing capacity

> Do not travel across grounds on which there is a danger that you could fall and therefore could become stuck or tip over. Keep the total weight of the vehicle in mind.



See section "22.1 Technical data and dimensions"

#### 11.10.4 Rough ground or terrain

- > When travelling on rough ground or terrain, there is a danger that you could get stuck or tip over with your PR 35S.
- On difficult terrain or over kerbs, only drive with the seat completely lowered! (because of the impact on the engine)

#### 11.10.5 Slippery ground, traction

When travelling over slippery ground (e.g. uncoated ramps, wet grass, snow, ice, etc.) your PR 35S can lose traction. This means that the drive power or the braking power is not transferred.



The PR 35S has a parking and service brake which complies with the Road Traffic Licensing Regulation (StVZO).

Prepare

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## 12. Parking and storing the PR 35 S

In order to avoid damage to the PR 35S, you must observe the following rules if you park the PR 35S (e.g. overnight) or do not use it for an extended time period:

- > Create a connection to the charging device.
- > Choose a dry parking space.
- > Do not expose the PR 35S to high or to too low temperatures.
- > Cover the PR 35S with a suitable cover.

Technology

# 13. Loading and transporting the power wheelchair

The power wheelchair must always be shut down and correctly secured or fastened in the transport vehicle. When loading the power wheelchair, you can use loading aids such as ramps, lifts and hoists with sufficient load-bearing capacity.

## **13.1** Rules for loading wheelchairs

The following rules must be observed for and during loading:

- The maximum support height specified on the ramp must be greater than the height from the ground to the support edge to be cleared (e.g. in the case of a car, the car boot area).
- > Check the loading capacity of the ramp(s), of the lift or the hoist.
- > Due to safety reasons, the power wheelchair may only be loaded into cars or on split ramps when unoccupied (without baggage or a person).
- Loading may only be carried out by a person who can safely operate and control your power wheelchair.
- A power wheelchair which is unfit to drive may only be loaded by your authorised specialist workshop. This workshop is the only entity aware of the possible danger situations and how to counter them.

Help

# 13.2 Securing and fastening the power wheelchair

The power wheelchair must be connected or tied to the transport vehicle with tightening straps, hooks or loops in order to prevent slipping. The power wheelchair must be fastened in accordance with the guide-line

- DIN 75078 (parts 1 and 2) "Vehicles for the transportation of persons with reduced mobility"
- The power wheelchair has the following attachment points:
- > At the front, two rigging eyes ①
- > At the rear, one rigging eye  ${}^{\textcircled{}}$
- Help

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- If your vehicle is equipped with a DAHL docking station, further fastening is not necessary.
- (B)
- See section "5.4.2. Deliverable accessories"



Fig. 26: Attachment point at the front



Fig. 27: Attachment point at the rear

## **ΡΛΆ**ΛΛΥ

# 13.3 Fasten the seatbelt in a moving vehicle

# DANGER

Belt must not be held away from the body by wheelchair components such as armrests or wheels.



Belt restraints should make full contact with the shoulder, chest and pelvic. Belts should be positioned low on the pelvis near the thight-abdominal junction.



Fig. 28: Illustration of improper belt-restraint fit

Parking and storing the PR 35S



Fig. 29: Illustration of proper belt-restraint fit

General

# 13.4 Occupant restraint instruction

- > Use a vehicle anchored occupant restraint system to secure the occupant.
- Both pelvic and upper torso restraint belts must used to restrain the occupant to reduce the possibility of head and should not be held away from the body by wheelchair components such as armrest or wheels.
- > Restraints should be mounted to appropriate vehicle pillar and should not be held away from the body by wheelchair components such as armrest or wheels.

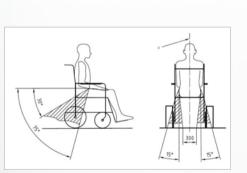


Fig. 30: Positioning the occupant restraint with 4 point strap system

# WARNING

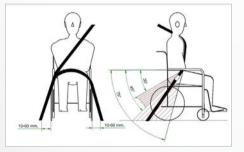
Positioning the occupant restraint with 4 point strap system

Pelvic restraint belt must be worn low across the front of the pelvis so that the angle of the pelvic belt is within the preferenced zone of 30° - 75° to the horizontal.

Technology

The upper torso restraint belt must fit over the shoulder and across the chest as illustrated Fig. 47. Restraint belts must be adjusted as tightly as possible consistent with use comfort.

- > Restraint belt webbing must not be twisted when in use.
- Care should be taken when applying the occupant restraint to position the seatbelt buckle so that the release button will not be contacted by wheelchair components during a crash.



WARNING
 Positioning the occupant restraint for use with Dahl docking system only
 When using wheelchair with Dahl docking system, the floor anchorage points for occupant restraint should be located 10 - 60 mm outside wheels, on each side. The pelvic belt must be worn low across the front of the pelvis - so that the angle of the pelvic belt is within the optional or preferred zone of 30° - 75°. As shown a steeper (greater) angle within the preferred zone, 45° - 75° is desirable i.e. closer to, but never exceeding 75° degrees.

Fig. 31: Positioning the occupant restraint for use with dahl docking system only

# 13.5 Dahl Docking Systems Assembly

According to ISO 7176-19:2008, the Dahl Docking Station MK II and VarioDock<sup>™</sup> are are suitable for power wheelchair models PR50, PR 40, PR 35S, PR 35, PR piccolino, PR Biolution und PR Heavy Duty duty from Paravan.

The following instructions explain how to assemble the Dahl Docking Station MK II and VarioDock<sup>™</sup> on the wheelchair, using the PARAVAN adaption kit. Please also refer to Dahl Engineerings instructions for vehicle installation, use and maintenance.

The operation of the electric wheelchair without faults or malfunctions can only be guaranteed if the knowledge gained from these assembly instructions is observed and implemented. PARAVAN GmbH assumes no liability or warranty for damage or operating faults resulting from non-compliance with these assembly instructions or from modifications to the electric wheelchair.



	Fig. 3	32:	Dahl	dockin	q	system
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### **ΡΛΫ**ΛΛν

# WARNING

**Risk of injury** through incorrect handling of the batteries. **Damage to property** through incorrect handling of the batteries.

- > Handle with special care.
- May only be connected and disconnected by qualified personnel.
- > Keep away from fire.
- > Dispose of damaged batteries properly.



# 13.5.1 Content of Dahl docking stations

Fig. 33: Content of Dahl Docking Station MK II standard set # 501750

General

### **ΡΛΆ**ΛΛΥΛ</u>Π

General

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Fig. 34: Content of Dahl VarioDock<sup>™</sup> standard set # 503600

Technology

# 13.5.2 Attaching the Dahl locking plate to the wheelchair

An additional wheelchair-specific adaptation kit is required for mounting the Dahl locking plate. It contains special nuts and plastic spacers to be fitted inside the battery box.

DAHL Docking Station Installation Kit Locking Plate 503125 (PV art. no.: 000043535) and DAHL adaptation set for DAHL Docking station 502064 (PV art. no.: 000044508):

- ① Countersunk screw with Torx TX27 ISO 14581 M8x35 14.9 (PV art. no.: 000043534)
- 2 Locking plate with screws for docking station 10069 (PV- Art.-No.: 000020667)
- ③ 8 mm intermediate piece for locking plate for 10069 DAHL (PV art. no.: 000010131)
- ④ DAHL spacer 502071 (PV art. no.: 000044507)
- ⑤ DAHL nu 500759 (PV-Art.-Nr.: 000044506)

To install the Dahl locking plate, use the DAHL Adaptation kit, article 502064.

> To mount the adapter set you need a Torx wrench TX 27. Tighten the Torx screws with a torque of 16-18 Nm.

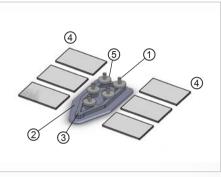


Fig. 35: Dahl Adaptationkit for Dahl Docking Station



Fig. 36: Torx TX 27 Parking and storing the PR 35S

Prepare

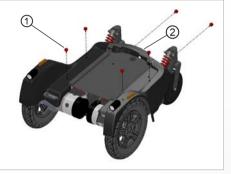
Operate

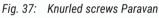
logy

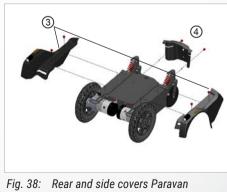
**ͻν϶νν** 

The cover must first be removed to attach the Dahl docking station to the Paravan wheelchair.

- To remove the cover, loosen the six knurled screws ①. If a main disconnect switch is installed on the rear panel, first remove the key of this switch ②.
- Remove the rear fairing ③, as well as the side fairings. The order in which these are removed is not important.
- To open the cover of the battery box, the two front hexagonal screws must be removed with a wrench with a width across flats of 10mm. Afterwards the battery box can be tilted backwards over the hinges caution: here the whole weight of the structure rests on the lid!







Prepare

Operate

# 13.5.3 Attaching the Dahl locking plate to the wheelchair

#### Removing the batteries:

- Disconnect the main cable plug on the left and right side of the batteries.
- > Remove the left and right batteries.



Fig. 39: Main cable battery

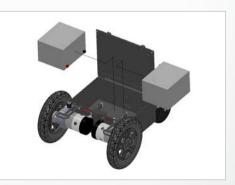


Fig. 40: Removing the batteries

Parking and storing the PR 35S

**ΑΥΛΛΥΒ** 

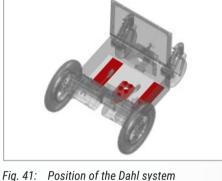
# ormation

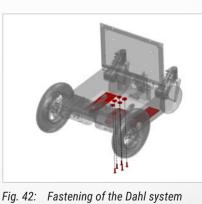
Prepare

# 1

#### Mounting DAHL system:

- Position the locking plate 503125 on the bottom of the wheelchair. The holes for positioning are already provided in the battery box.
- Fasten the locking plate inside the battery box with the adaptation set 502064 and screw the five countersunk screws from below with the DAHL nuts 500759. Adjust the height of the locking rail (1.2).
- Additional intermediate pieces (1mm, 2mm, 3mm, 8mm, 10mm) may be required. The fine adjustment is done when adjusting the wheelchair at the DAHL docking station in the vehicle. Finally, glue the six spacers 502071 to the bottom of the battery box so that the batteries lie flat when inserted and cannot slip.
- Once you have adjusted the height of the locking rail, screw in the pan-head screws medium tight w ith a screw lock. If using the power height adjustable Dahl VarioDock, additional spacers will not be needed for adjusting the height.





After the Dahl system has been attached to the wheelchair chassis, reinsert the batteries and reattach the panelling in reverse order.



The PARAVAN adapter kit can also be pushed further forwards or backwards and fastened accordingly, depending on the position of the counterpart in the vehicle.



Operate

Installation of the Dahl Docking systems in the vehicle: Only professional companies in the business of converting or building wheelchair accessible vehicles can order the docking system from Dahl Engineering. A qualified and experienced technician must carry out the installation. Dahl Engineering can provide vehicle specific installation instructions for a large range of vehicles, which must be respected by the fitter.Please contact Dahl Engineering for further information about approved vehicles and fitting positions.

To attach the Dahl Docking Station to the PR 35S, use the screws provided.

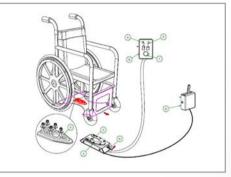


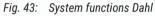
General

# 13.5.4 Description of the Dahl Docking system functions

Dahl Docking station
 Lock plate and spacer

- ③ Lock pin
- ④ Red LED
- ⑤ Green LED
- ⑥ Control panel
- ⑦ Release button
- (8) Manual emergency release lever
- Manual operating lever





Please refer to Dahl Engineerings installation and user guide for height adjustable VarioDock™ system.

Prepare

Operate

Technology

## **ΡΛΆ**ΛΛΥΓΙ

# 13.5.5 Securing the wheelchair in the docking station

- Maneuver the wheelchair slowly and in a uniform direction over the docking station. The lock plate under the wheelchair helps to guide the wheelchair into place in the docking station. When the lock plate is fully engaged in the docking station, a spring-action locking pin automatically secures the lock plate.
- The docking station is equipped with a control switch that indicates whether the lock plate is correctly secured in the docking station. As soon as the lock plate comes into contact with the locking pin, a warning tone will sound (a high-pitched howl), and the red diode/lamp (LED) in the control panel will light up until the lock plate is either fully engaged or else the wheelchair is removed from the docking station.
- As an indication that the wheelchair is properly secured, the warning tone will cease, the red lamp (LED) in the control panel will go out and the green lamp (LED) will light up.
- > Do not forget to buckle up for driving.

5

Please refer to Dahl Engineerings installation and user guide for height adjustable VarioDock<sup>™</sup> system.

# DANGER

# Potential risk of injury or serious injury or death! Do not move the vehicle:

- Whilst the wheelchair is being maneuvered into position in the docking station
- > If the wheelchair and user are not correctly secured.
- If the warning tone sounds and/or the red warning lamp (LED) in the control panel flashes or is lit!

Always check if the lock plate is properly engaged in the docking station by trying to reverse the wheel chair out of the docking station before moving the vehicle. (It must not be possible to reverse out of the docking station without pressing the red release button in the control panel).

Genera

Prepare

Operate

# **ΡΛΫ**ΛΛΨ

# 13.5.6 Release from the docking station

- > When the vehicle has been brought to a halt, remove the safety belt.
- > To unlock commence by driving the wheelchair forward to release pressure on the lock pin.
- Press the red release button in the control panel. The locking pin will be triggered/ released for approx.
   5 or 8 seconds, after which the locking pin is automatically locked/activated again.
- Move the wheelchair away from the docking station within this 5 or 8 second period. Do not attempt to reverse out of the docking station until the red LED on the control module, which indicates the unlock position, has been illuminated.



Please refer to Dahl Engineerings installation and user guide for height adjustable VarioDock<sup>™</sup> system.



# WARNING

Attempting to reverse the wheelchair before the red LED has been illuminated will result in blocking the docking stations locking mechanism, which makes it impossible to reverse. If this happens repeat above unlocking procedure.

# 13.5.7 Manual release in case of electric failure

A manual emergency release is located at the front edge of the docking station.

- Move wheelchair forward to remove the pressure on the lock pin and push the red release arm to one side and hold it there while the wheelchair moves away.
- A cable-activated manual operating lever can also be fitted (accessory). The red release arm is also pushed to one side and should be held there whilst the wheelchair moves away.

If the described manual release procedures fails, an emergency release tool made from red plastic comes with each docking station.

- > Move wheelchair forward to remove the pressure on the lock pin
- Place the emergency release tool in the gap between the locking plate and the docking station.
- Push the release tool and wheelchair forward until the locking pin has been forced down - after which the wheelchair can reverse out of the docking station.
- > Please also refer to Dahl Engineering instructions for installation, use and maintenance for Dahl Docking Station MK II and VarioDock<sup>™</sup> systems.



Fig. 44: Manual release step 1



Fig. 45: Manual release step 2

Technology

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# 14. Controls

# 14.1 Control panel R-NET CJSM2

# 14.1.1 Overview of the control elements



Fig. 46: Control panel R-NET CJSM2

With the control panel (joystick) built into your power wheelchair, you can control all of the power wheelchair's driving, steering and braking processes. All additional functions which are equipped with displacement motors, such as the lifting arm and the sitting functions, must also be operated via the control panel.

- "On/off" key ① Selection of profile (movement levels)/mode (seat functions)
- > "Direction indicator, right/left" keys ②
- > LCD diagnostic LED brightness sensor ③
- > Display ④ (colour)
- > MODE key (5) for switching function drive program/seat functions
- > PROFILE key (6) (selection of movement levels)
- > Joystick ⑦ (determines direction of travel)
- > "Horn" key ⑧
- > Function key 
  () for selecting/drilling down to movement levels
- > "Hazard lights" key 10
- > "Light" key 1
- > Charging status indicator for storage battery 🕲

**ΡΛΖ**ΛΛΛΠ

Prepare

#### Status display 14.1.2

The function keys are used to select the specific functions displayed in the assigned fields on the display.

Symbols 2 + 5 play an active part in the "hazard lights"

Symbols of the status indicator:

- Charging status of the storage batteries ① >
- Direction indicator, left ② >
- "On/off" light ③ >
- System status ④ ("tortoise"  $\rightarrow$  speed control active) >
- Direction indicator, right (5) >
- Time (6) >
- Hazard lights "on/off" ⑦ >

function!

Current seat function / Current driving profile (8) >





Fig. 47: Function keys



Fig. 48: Status display

Operate

Fig. 50: "On / off" key

14.1.3

1

Fia. 49:

Start, switch off

Speed control (tortoise) active

# General

**ΑΥΛΛΥΒ** 

# Start

Outdoor

Push the "on/off" switch ① upwards.

- > The status display briefly flashes and the last selected function in terms of movement level / seat function is shown.
- > Press the switch ① downwards again to:
- Select movement levels 1 to 5
- > Then switch to the seat functions

#### Switch off

Push the "on/off" switch ① upwards.

> The power wheelchair switches itself off (assuming it is already switched on).



# 14.1.5 Switch direction indicator on and off

Press key ① or ② for the respective direction indicator, left or right.

- > The selected direction indicator will flash.
- > Press once more → direction indicator switches off.



Fig. 52: Turn signal right / left

# 14.1.4 Switch light on and off

Press the key ① for the "light on"

Prepare

General

Help

The lighting installation switches itself on and the light symbol lights up blue.

function.



Fig. 51: Light on and off



Fig. 53: ight symbol (colour)

# **ΡΛΆ**ΛΛΥΓΙ

# 14.1.6 Switch hazard lights on and off

Press the "hazard lights" key  ${\rm \textcircled{O}}$  for the "hazard lights on" function.

- > The hazard lights switch themselves on, while the hazard lights symbol flashes red and both direction of travel symbols flash green.
- > Press the key again  $\rightarrow$  The hazard lights / hazard lights symbol switch themselves off.



Fig. 54: Hazard lights on / off

© 21.30 00.0mph 999m 2 Outdoor Fast

Fig. 55: Symbols (colour)

# 14.1.7 Driving functions overview



Fig. 56: Driving functions

Overview of the driving functions shown on the display of the control panel during driving, steering and braking actions of the power wheelchair.

- > Selected drive program/movement level ①
- Respective setting (having drilled down) for the selected movement level (1 to 5)fast/slow ②
- ③ (Profile) key for switching to a higher or lower drive program (1 to 5).
- Key ④ to change speed in the drive program. Drilling down the respective drive program.
- > Display of the current speed (km/h) (5)
- > "Trip" display in kilometres ⑥

Display turns black when a charging device is connected.

- If the wheelchair is switched on, the charging status indicator is the only thing shown.
- First connect the charging lead for the charging device at the joystick, then plug the power cable for the charging device into the socket.



If the power wheelchair is being charged via the charging socket on the control panel, driving mode is automatically blocked.

General

Technology

## **ΡΛΆ**ΛΛΥΒ

# 14.1.8 Select drive program, drive

The power wheelchair must be in driving mode.

The last selected drive program is shown on the display (profiles 1 to 5). Drive profiles 1 to 5 are further divided into 5 levels once you drill down.

Press the switch upwards or downwards to switch to a higher or lower sub-level.

> The selected drive program and sub-level will appear on the display.

Push the joystick in the direction in which you wish to travel.

- > The power wheelchair moves in the selected direction.
  - Move forwards
  - 2 Turn to the right
  - ③ Move backwards
  - ④ Turn to the left

See section "3 Safety notes"



Fig. 58: Select drive program



# 14.1.9 Electrical seat adjustment



Fig. 60: Example: Display of seat functions

Use the MODE key to switch from the drive program to the seat functions. Select the desired seat function by moving the joystick " $\leftarrow$  left/right  $\rightarrow$ ".

> The adjustment functions menu will appear on the display.



Only the released or available functions can be selected.

To make the desired setting:

adjust the seat, seat position, backrest, tilting of seat, angle for legs and lying/standing function via the joystick (by moving it forwards or backwards).

Switch back to the drive program with the Profile key.

> The power wheelchair is ready to drive.



See section "3 Safety notes"

00

Prepare

General

# **ΡΛΡ**Λ**Γ**ΛΛΛ

Prepare

# Fig. 62: Setting the time and date



<Off>

<0s>





Einstellungen

Zeit einstellen Zeit anzeigen

Entfernung

Hintardbeleucht.

**Backlight Timeout** 

Auto Backlight

# 14.1.10 Set time/date

Press and hold the "hazard lights" key to access the "Settings" menu.

The special functions menu will appear on the display.

Move the joystick  $\rightarrow$  left/right to access the options "year, month, date, day of the week, hours and minutes". Select the desired option by moving the joystick " $\leftarrow$  left/right  $\rightarrow$ ".

Move the joystick " $\uparrow$  up/down  $\downarrow$ " to select exactly the setting you want. To save and guit the menu, go to "Quit" and close it by moving the joystick "↑up/down↓".

# 14.1.11 Show/hide clock, configure 12h/24h display

Zeit einstellen		
Zeit anzeigen	<24h>	
Entfernung	>	
Hintgrdbeleucht.	<100%>	
Auto Backlight	<off></off>	
Backlight Timeout	<0s>	
Programming		
Verlassen		

*Fig.* 63: *Set clock to visible/invisible* 

Select the program function:

- > Press and hold the "hazard lights" key.
- > The "Settings" menu appears.
- > Use the joystick to select "Set time". Move the joystick "← left/right →".
- Select "12h/24h display" or "Off" by moving the joystick "← left/right →".
- > To save  $\rightarrow$  quit the program. Move the joystick " $\leftarrow$  left/right  $\rightarrow$ ".

Prepare

Genera

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# 14.1.13 Adjust display brightness

Select the program function:

- > Press and hold the "hazard lights" key.
- > Select "Back lighting" from the settings.
- Select the intensity of the lighting (0 to 100% in 10% stages) by moving the joystick "← left/right→".
- > To save  $\rightarrow$  quit the menu.

# 14.1.12 Adjust display brightness, automatic (recommended)

The display brightness is automatically adjusted to lighting

conditions by the factory. Menus may be arranged slightly differently, depending on the software version.

Select the program function:

- > Press and hold the "hazard lights" key.
- > Select "Auto Backlight" from the settings.
- Select "On/Off" by moving the joystick "← left/right →".
- > To save, quit the menu.

Entfernung Hintardbeleucht.	<100%>
Auto Backlight	<100 /6>
Backlight Timeout	<0s>
Programming	>
Verlassen	>

Einstellungen

<24h

Zeit einstellen Zeit anzeigen

Fig. 64: Setting the display brightness

Zeit einstellen	
Zeit anzeigen	<24h
Entfernung	
Hintgrdbeleucht.	<100%
Auto Backlight	<off< td=""></off<>
Backlight Timeout	<0s
Programming	
Verlassen	

#### Fig. 65: Autom. display brightness

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General

# 14.1.14 Block the controls (with the wheelchair switched on)

- Turn the control panel off and press and hold the ON/OFF button ① > until you hear a beeping sound
- Move the joystick forwards until you hear a beeping sound >
- Move the joystick backwards until you hear a beeping sound >
- Immobiliser is activated



Fig. 66: Blocking the controls

# 14.1.15 Release the controls (with the wheelchair switched off)

- Switch on  $\rightarrow$  and a "padlock symbol" appears  $\square$ .
- Move the joystick forwards until you hear a beeping sound >
- Move the joystick backwards until you hear a beeping sound >
  - The "Functions" menu is now available the last function selected is shown



Fig. 67: Lock symbol

Prepare

General

>

# **ͻνγνγυ**

# 14.2 Control panel R-NET CJSM-L

# 14.2.1 Overview of the control elements



Fig. 68: Control panel R-NET CJSM-L

With the control panel (joystick) built into your power wheelchair, you can control all of the power wheelchair's driving, steering and braking processes. All additional functions which are equipped with displacement motors, such as the lifting arm and the sitting functions, must also be operated via the control panel.

- > "On/off" key ①
- "Direction indicator, right/left" keys ②
- > Display showing the signal currently active (light, indicator) ③
- > Display ④ (colour)
- > MODE key (5) for switching function drive program/seat function
- > PROFILE key (6) (selection of movement levels)
- Joystick ⑦
- > "Horn" key ⑧
- > Function key (1) for selecting/drilling down to movement levels
- > "Hazard lights" key 🔞
- > "Light" key 11
- > Charging status indicator for storage battery 12





Prepare

Operate

# 14.2.2 Status display

The function keys are used to select the specific functions displayed in the assigned fields on the display.

Symbols 2 + 5 play an active part in the "hazard lights"

Symbols of the status indicator:

- > Charging status of the storage batteries ①
- > Direction indicator, left ②
- > "On" light ③
- > System status ④ ("tortoise" → speed control)
- > Direction indicator, right (5)

function!

- > Time 6
- > Hazard lights ⑦









Fig. 70: Status display

# **ΡΛΫ**ΛΛΝ

# 14.2.3 Start and switch off



Fig. 71: "On / off" key

#### Start

Push the "on/off" switch ①.

 The last selected function in terms of movement level / seat function is shown.

#### Switch off

Push the "on/off" switch ①.

> The power wheelchair switches itself off (assuming it is already switched on).



Fig. 72: Speed control (tortoise) active

General



# 14.2.4 Switch light on and off

Press key ① or ② for the respective direction indicator, left or right.

- > The selected direction indicator will flash.
- > Press once more → direction indicator switches off.



Fig. 74: Turn signal right / left

# 14.2.5 Switch direction indicator on and off

Press the key ① for the "light on" function. The lighting installation switches itself on and the light symbol lights up blue. Press once more: "light off".



Fig. 73: Light on and off



Fig. 75: Light symbol (colour)

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#### **ΡΛΆ**ΛΛΥΓΙ

#### 14.2.6 Switch hazard lights on and off

Press the "hazard lights"key ① for the "hazard lights on" function.

- > The hazard lights switch themselves on, while the hazard lights symbol flashes red and both direction of travel symbols flash yellow.
- > Press the key again  $\rightarrow$  The hazard lights / hazard lights symbol switch themselves off.



Fig. 76: Hazard lights on / off



Fig. 77: Symbols (colour)

#### 14.2.7 Driving functions overview



Fig. 78: Driving functions



Fig. 79: Driving function blocked

Overview of the driving functions shown on the display of the control panel during driving, steering and braking actions of the power wheelchair.

- > Selected drive program/movement level ①
- Maximum speed in the selected drive program ②
- > Key ③ to switch to a higher (+) or lower (-) drive program
- > Key ④ to change speed in the drive program
- Display showing "trip" in kilometres and current speed (km/h) (5)

Display is blank when a charging device is connected.

- If the wheelchair is switched on, the charging status indicator is the only thing shown.
- First connect the charging lead for the charging device at the joystick, then plug the power cable for the charging device into the socket.



If the power wheelchair is being charged via the charging socket on the control panel, driving mode is automatically blocked.

#### **ΡΛΆ**ΛΛΥΓΙ

#### 14.2.8 Select drive program, drive

The power wheelchair must be in driving mode.

> The last selected drive program is shown on the display.

Press the profile key ① to select/switch to one of the 5 movement levels (profiles).

> The selected drive profile will appear on the display.

Press the relevant key to select a higher ② or lower ③ maximum end speed in the respective drive profile.

> The preference within the drive profile will appear on the display.

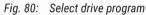
Push the joystick in the direction in which you wish to travel.

- > The power wheelchair moves in the selected direction.
  - ① Move forwards
  - ② Turn to the right
  - ③ Move backwards
  - ④ Turn to the left



See section "3 Safety notes"









#### 14.2.9 Electrical seat adjustment



Fig. 82: Display of seat functions

Use the "Mode key" to switch from the drive program to the seat functions. Select the seat function by moving the joystick " $\leftarrow$  left/right  $\rightarrow$ ". > The respective seat function will appear on the display.

Only the released or available functions can be selected.

Adjust the seat via the joystick (push forwards or backwards).

> The seat carries out the desired function.

Switch back to the drive program with the mode key.

- > The power wheelchair is ready to drive.
  - See section "3 Safety notes"

#### **ͻνγγγ**

General

Prepare

Operate

#### 14.2.10 Set time/date

Press and hold the "slower" ① and "faster" ② speed keys to access the "Settings" menu.

> The special functions menu will appear on the display.

Move the joystick  $\rightarrow$  right to access the options "year, month, date, day of the week, hours and minutes". Select the desired option by moving the joystick " $\leftarrow$  left/right  $\rightarrow$ ".

Move the joystick " $\uparrow$  up/down $\downarrow$ " to select exactly the setting you want. To save and quit the menu, go to "Quit" and close it by moving the joystick " $\uparrow$  up/down $\downarrow$ ".







Fig. 84: Setting the time and date

#### 14.2.11 Show/hide clock, configure 12h/24h display



*Fig. 85:* Set clock to visible/invisible

Select the program function:

- > Press and hold the keys ①+②
- > The "Settings" menu appears.
- > Use the joystick to select "Display time".
- Select "12h/24h display" or "Off" by moving the joystick "← left/right →".
- > To save  $\rightarrow$  quit the program.

Prepare

General

#### Controls

# **ͻνͻνν**ΰ

#### 14.2.12 Adjust the display background and brightness

Select the program function:

- > Press and hold the "slower" ① and "faster" ② speed keys.
- > Select "Back lighting" from the settings.
- Select the intensity of the lighting (as a percentage) by moving the joystick "← left/right →".
- > To save  $\rightarrow$  quit the menu.

#### 14.2.13 Adjust display brightness

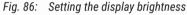
Select the program function:

- > Press and hold the "slower" ① and "faster" ② speed keys.
- Select the preferred option by moving the joystick "← left/right →".
- > To save, quit the menu.



Fig. 87: Setting the display background





(1)

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General

Prepare

Operate

#### 14.2.14 Block the controls (with the wheelchair switched on)

- Turn the control panel off and press and hold the ON/OFF button ① until you hear a beeping sound
- > Move the joystick forwards until you hear a beeping sound
- > Move the joystick backwards until you hear a beeping sound
- Immobiliser is activated





#### 14.2.15 Release the controls (with the wheelchair switched off)

- > Switch on → and a "padlock symbol" appears  $\square$ .
- > Move the joystick forwards until you hear a beeping sound
- > Move the joystick backwards until you hear a beeping sound
- The "Functions" menu is now available the last function selected is shown.



Fig. 89: Controls blocked – block symbol

General

# 15. Moving out of the PR 35 S seat

For your own safety, the instructions below must be followed in order to enable you to move out of the PR 35S independently:

- > You should be able to safely carry your own weight.
- > You should be able to push yourself off from the PR 35S with both arms simultaneously using the same amount of strength.
- > You should have a safe position to support yourself, one from which you cannot slip.
- > You should have practised everything often enough in the presence of another person.
- > You should consider all eventualities in case you fall on the floor and there is no one present with you.

We recommend that you enlist the help of another person. However, you should point out the dangers to this person. In all cases, discuss the implementation process together. Never support yourself on the control panel, the PR 35S could be accidentally activated and would then start following uncontrolled commands.



If you want to move to the seat of another PR 35S, the brake lock release lever must be set to "LOCK" (upwards) and the PR 35S must be switched off.

(B)

See section "12.9.1 Operation of the brake lock release lever (emergency release)"

General

Prepare

Operate

Help

#### 15.1 Procedure when moving sideways out of the seat

When moving sideways out of the seat, proceed as follows:

- > Position the PR 35S sideways
- > Adjust the seat to the required height
- > Turn off the PR 35S

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- > Fold up 1 footrests
- > Swing <sup>(2)</sup> armrest upwards
- > Move from the seat



Fig. 92: Move from the seat, footrests



Fig. 93: Move from the seat, armrest

Maintenance and servicing

If you want to use and operate the PARAVAN PR 35S in line with its intended purpose, you need to comply with the recommended annual maintenance plan that was designed for the power wheelchair. All driven parts and in particular the functional unit are designed to ensure low-maintenance and fault-free operation of the PR 35S.

However, in order to guarantee its perfect functioning, the PR 35S must nonetheless:

- be handled with care,
- be kept clean,
- > be serviced periodically on an annual basis.

#### 16.1 Service partner

If problems occur, please contact your medical supply store or your dealer, or PARAVAN GmbH directly.

In order to have maintenance work carried out, please contact your medical supply store or your dealer, or PARAVAN GmbH directly. Maintenance and servicing works must only be carried out by trained persons.

**ΡΛΖ**ΛΛΛΠ



#### 16.2 Cleaning and care



Never use a high-pressure cleaner to clean the PR 35S. Avoid contact of the electronic parts with water.

Regular care and maintenance will prevent unnecessary wear and damage to your PARAVAN power wheelchair. Switch off the power supply before cleaning the wheelchair.

#### 16.2.1 Metal surfaces

The high-quality powder coating ensures optimum corrosion protection. Use a soft cloth or sponge, warm water and a mild cleaning agent for normal cleaning. Carefully wipe with a damp cloth and then dry. Treat abrasion marks on semi-matt surfaces with soft wax. Follow the instructions of the soft wax manufacturer. Abrasion marks and scratches can be removed from shiny surfaces with car polish. You can use liquid car polish or pastes. Apply soft car wax after polishing to restore the original surface shine. Spray the covers of the springs on the rear wheel suspensions regularly with a commercially available multifunction oil or lubricant.

#### 16.2.2 Plastics

For normal cleaning of plastic surfaces, use a soft cloth, mild detergent and warm water. Rinse thoroughly and dry the surfaces with a soft cloth. Do not use solvents or abrasive household cleaners.

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### 16.2.3 Upholstery, fabric and vinyl

For normal cleaning of the upholstery, use lukewarm water and a mild, non-abrasive soap. Use a soft cloth or brush. Wipe any water or soapy water residue dry with a clean, dry cloth. Allow the surface to dry. Repeat this process for stubborn dirt or stains. Ink stains may be removed with soap and water followed by treatment with isopropyl alcohol.

Do not use cleaning methods other than those listed here. Other cleaning methods may attack and damage the vinyl, which may void the wheelchair's warranty. If necessary, you can remove the cover before cleaning. For more information, see the washing instructions on the upholstery.

#### 16.2.4 Disinfection

Spraying and washing with tested and approved disinfectants is permitted. A current list of all approved disinfectants can be found on the website of the Robert Koch Institute at **www.rki.de**.

# 17. Disposal and environmental protection

General

Prepare

The PR 35S itself and its individual components are technically durable. In most cases, recyclable and harmless raw materials are used for its design and manufacture. After it has been decommissioned, the PR 35S is ideally suited to undergo proper recycling processes and environmentally friendly disposal procedures.



National and regional waste disposal provisions must be complied with.

The PR 35S can be dismantled into the following main parts for the purpose of recycling:

- metals,
- plastic or composite materials,
- electronic waste,
- storage batteries.
- Help

A top-end recycling procedure in accordance with the type and character of the waste should be sought ("Closed Substance Cycle and Waste Management Act"). This is economically viable if the costs associated with recycling are not disproportionate to the costs which would be incurred for waste disposal.

Disposal and environmental protection

#### 17.1 Packaging material

The packaging consists of largely recyclable material which is harmless to the environment, such as:

- > wood, e.g. pallets or outer packaging,
- > metal, e.g. tightening straps,
- bubble wrap.

Take advantage of the opportunity to recycle the packaging in an environmentally-friendly way. Recycling of rubbish should *Fig. 94: Recycling* take priority over its disposal.

#### 17.2 Note on corrosion protection

All metal parts on your PARAVAN power wheelchair are corrosion-protected, e.g. by hot-dip galvanising, electroplating and powder-coated surfaces.



Please observe the cleaning instructions see "16 Maintenance and servicing"



General

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#### 17.3 Recommissioning

If the PR 35S has been out of service for a long time, the following steps must be carried out before it is recommissioned:

check protective devices, repair if necessary,

e "16 Maintenance and servicing"

- complete maintenance or review,
- complete cleaning.



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Before it can be operated again, the PR 35S must be completely cleaned and approved for use after a thorough inspection by a service technician authorised by PARAVAN GmbH.



Prepare



#### **ΡΛΆ**ΛΛΥ

#### 17.4 Information regarding transfer of the product

If you give or sell the PARAVAN PR 35S standing wheelchair to another person, you must also pass on all the necessary technical documents for safe handling and operation, such as:

- operating instructions,
- > proofs of maintenance

to the new user.

Please see "16 Maintenance and servicing"

# 18. Troubleshooting

### 18.1 Status indicator on the control panel

General

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Error message	Meaning
Centre joystick / Joystick zentrieren	The most common cause of this error is that the joystick is not centred when the control system is switched on. "Joystick off-centre" will appear on the display for five seconds. If the joystick is not released within this time, an error will be generated. Please ensure that the joystick is centred and then switch the control system on. When switching on the control system, make sure that you do not touch the joystick button with your hand.
Low battery / Batteriestand niedrig	This message appears when the control system detects that the battery voltage has dropped below 16 V. Check the state of the batteries and the connections in the control system. High battery / Hohe Batteriespannung This message appears when the control system detects that the battery voltage has risen above 35 V. The most common reason for this is that you have overcharged the battery or there is a bad connection between the control system and the batteries. Check the state of the batteries and the connections in the control system.
System lock active / Sperre aktiv	This message appears when one of the blocking inputs is active and locked. Switch the control system off and on again. This will remove the system lock and may get rid of the error. Check all cables and switches on the corresponding blocks.

Troubleshooting

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Error message	Meaning	]  -	
Brake error / Bremsen	This message appears when the control system detects a problem with the magnetic brakes or their connections. Check the magnetic brakes, cables and connections in the control system. Check that the motor brakes have not come uncoupled.		Information
	Motor error / Motorfehler This message appears when the control system detects that the connection to a mo- tor has been interrupted. Check the motors, cables and connections in the control system.		Prepare
Gone to sleep / Ruhemo- dus	This message appears when the control system has been inactive for longer than the [time] period defined by the "SleepTimer" parameter. Gyro disconnected / Gyro ni. angeschl This message appears when the control system detects that the gyro module is no longer connected.		Operate
	Reconnect the gyro module and restart the system. Bad cable / Kabelfehler This message appears when the control system detects an error in the cabling that enables the modules to communicate with one another. Check whether the cables or connections have been interrupted or squashed/jammed.		Help
	If there is any visible damage to the cables, replace them and switch the control unit off and on again. Please speak to customer service about any replacements you may need.		nology



# 19. Electrical system

#### **19.1** Automatic fuses

The PARAVAN PR 35S standing wheelchair is equipped with an automatically triggering fuse and an overload protection device. These are described in more detail below:

> Main fuse: This protects the complete electrical system in the event of overloading by PR 35S electrical consumers – the response is an instant and complete electrical shut-down of the entire power wheelchair.



- See section "20.2 Main fuse"
- > Overload protection: The power generated during downhill travel is diverted into the storage batteries. If the storage batteries were already charged, the safety system switches to emergency stop.



See section "20.3 Overload protection"

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#### 19.2 Main fuse

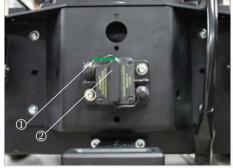


The main fuse is located at the rear of the power wheelchair.

An active (triggered) main fuse is indicated by the swung out green lug.

#### 19.2.1 Resetting a triggered main fuse

- Push the lug ① of the active main fuse ② back into its original position ③. & The lug must audibly or visibly lock into place.
- > The PR 35S is ready for operation again.





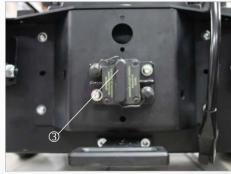


Fig. 96: Main fuse



#### **19.3 Operating the battery disconnect switch**

By activating the battery disconnect switch, the installed 2x12 V AGM batteries are disconnected from the power circuit of the wheelchair to ensure safe transport.

The disconnect switch is located on the right rear part of the chassis below the panelling. Turning and removing the disconnect key will disconnect the batteries so that the wheelchair cannot be started up even by pressing the on switch on the joystick.

Completely fold up the wheelchair and ensure that nothing can be damaged during transport. Switch off the control unit.

Now turn the key 90° and remove it, now no more adjustment can be made. The chair can now only be pushed by disengaging the mechanical brake on the motor. After securely lashing the wheelchair, lock the brakes again.



Fig. 97: Battery disconnect switch



Fig. 98: Battery dicon. switch, inactive

Electrical system

#### **19.4 Overload protection**

While travelling downhill, the generated power is diverted into the storage batteries – the drive motors work like a generator in this case. If you have fully charged your PR 35S before travelling downhill, the security system switches to emergency stop in order to avoid damage to the electrical system (control, electronics, etc.).

Active (triggered) overload protection is indicated by gradual braking until the PR 35S comes to a standstill.

#### 19.4.1 Reset the triggered overload protection:

- > Switch on the power generators, e.g. lighting. The generated excess power is now immediately used again.
- > The PR 35S is ready for operation again.

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#### **19.5 Connection option for auxiliary units**



The PARAVAN PR 35S offers the option of connecting different auxiliary units with a voltage of 12 volts or 24 volts to the PR 35S on-board power supply.

If you require special equipment (e.g. a respirator) for this connection, please contact PARAVAN GmbH. The external connections are individually adjusted for the respective consumer and the cable harness is cut to size or moved in position.

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#### **ΡΛΡ**ΛΛΛΓΙ

#### **19.6** The lighting installation

The PARAVAN PR 35S is equipped with a lighting installation featuring LED technology that is fully approved for road traffic. Due to the LED lamps used, the wearing out or maintenance of this installation is practically impossible/unnecessary.

To switch on the lighting installation, proceed as follows:

- > Select menu in the control unit.
- > Switch on the lighting installation.



See section "15 Control"

Parts of the lighting installation:

- > LED front headlamps ①
- > LED direction indicator @
- > LED rear light ③







Fig. 100: Illumination at the rear



#### **19.7** *Maintenance-free storage batteries*

Your PARAVAN PR 35S is equipped with high quality and powerful storage batteries. These maintenance-free storage batteries are completely sealed. Refilling or topping up the electrolyte (battery acid) is therefore not intended or possible.

The charging status or the capacity of the storage batteries can be read on the control panel.

- > Red zone: low capacity, immediate recharging necessary.
- > Yellow zone: energy is still sufficient, recharging if the opportunity arises.
- > Green zone: Storage battery fully charged, full capacity.



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See section "15 Control"



See section "20.8 Charging the PR 35S"

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#### **19.8** Information regarding storage batteries

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Sealed storage batteries must never be opened. Opening the storage batteries will result in irreparable damage to them and could lead to a complete power failure.



See section "22.1 Handling sealed storage batteries"



The storage batteries must be recharged after every use (even if they have only been minimally discharged) with the supplied charger. Always connect the charger during periods of non-use of the power wheelchair. The supplied charger automatically switches to "trickle charging" and thus guarantees continuous full use of the storage battery's functions. If you leave the storage batteries uncharged for too long they will deeply discharge and recharging will no longer be possible, meaning the battery should be replaced.



See section "20.8.2. Charger"



When disposing of storage batteries, please observe the current regulations relating to waste disposal. For information regarding these, please contact the responsible city council or municipal authority, or contact a disposal company directly.



See section "18 Disposal and Environmental Protection"



#### 19.9 Charging the PR 35S



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When using the external charging socket, the joystick is deactivated during the charging process. This means that the wheelchair is completely inoperable during the charging process!

#### Care tips:

Always ensure that the storage batteries have full charging capacity. >

Only charge the storage batteries with the charger supplied by us.

- Daily overnight charging is recommended. >
- The PR 35S should be charged for at least 8 hours uninterrupted. >
- The charging cycle ends when the green lamp is lit up. >
- Always connect the charger during periods of non-use (trickle charging). >



If you observe these care tips, the performance and service life of the storage batteries will be maximised.



See section "20.6 Maintenance-free storage batteries"



See section "20.7 Information regarding storage batteries"

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#### 19.9.1 Procedure for charging the PR 35S



Fig. 101: Plug in the charging cable

> Turn off the PR 35S.

- > Put the charger on a heat-insensitive surface, e.g. on the footrests.
- > Put the charger plug ① into the charging socket on the control panel.
- Connect the charger to the power supply & The charging process starts.
- Check the charging status. & Are the storage batteries at full capacity? The charging process is complete.
- > Disassembly in reverse order.



Terminate the connection between the power at the power socket and the charger.

# 19.9.2 The charger

The purpose of the charger is to automatically charge the storage batteries. The charger is housed in splash-proof sheet-steel casing. It complies with the guidelines and protection requirements of the:

- > Low Voltage Directive 2006/95/EC,
- > Electromagnetic Compatibility Directive 2004/108/EC.



- Read the operating instructions included separately with the charger.
- 19.9.3 Installing the charger, installation location
- > Only install in dry rooms.
  - > Do not cover casing openings.
  - > Ensure sufficient ventilation.
  - Do not install near to radiant heaters (e.g. under lamps, on heaters etc.)



During the charging process, put the charger on the foot supports of the wheelchair.



Fig. 102: Set up charger

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# 20. Technical equipment

### 20.1 Technical data and dimensions

# 19.9.4 The average lifespan

We assume an expected average product life of 6-10 years for this product, provided that the product is used within the intended use and all maintenance and service specifications are complied with.

The service life of your product depends on the frequency of use, the environment in which it is used and the care it receives. The service life can be extended by using spare parts.

The stated service life does not constitute an additional guarantee!



**ΑΥΛΛΥΒ** 

## 20.1.1 Technical Data

Wheelchair versions			
PR 35S	120 to 160 cm body height		
Seat adjustment	Seat adjustment		
Seat height	440 mm		
Seat angle forwards (standing function)	90°		
Seat angle backwards (tilting)	45°		
Backrest angle	8° to 85°		
Foot support angle	0° - 90°		
Main dimensions			
Width	570 mm		
Length	850 mm		
Length (footplates folded up)	960 mm		

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#### 20.1.2 Dimensions

Other special features		
Puncture-proof tyres	Fold-up footplate	
Independent leaf spring rear suspension	Footrests with length compensation	
Compatible with DAHL docking station	Controls: R-Net	
Individual seat pad adjustment	Maintenance-free gel batteries	
Electrical equipment	· ·	
Storage batteries	2 x 12 Volt / 85 Ah / C20	
Lighting	LED direction indicators LED front and rear lights	
Range	Approx. 30 km	
Chassis / tyres		
Spacer width at the drive axle	490 mm	
Spacer width at the rear axle	320 mm	
Wheelbase	560 mm	
Measurements of front wheel	3.00 - 8 clearance	
Measurements of rear wheel	2.50 - 3 clearance	



General

27 - 42 cm		
33 - 44 cm		
34 - 42 cm		
-		
80 mm		
71 mm		
710 mm		
12% / 4%**		
12% / 4%**		
12% / 4%**		
6km/h* or 10km/h (optional)*		
Weights		
160 Kg		
80 Kg		
Operating conditions		
10° - 40°		
20% - 90%		

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Technical equipment

#### Technical equipment

#### Details regarding the pads on the arm supports, seat and rear, description of the frame

Arm support pads	
Pad material:	PV foam
Thickness:	20mm
Compression hardness:	7.2 kPa
Density:	56 kg/m³
Cover:	BC 12 / Floridas



Seat pads	
Pad material:	PR foam / MOI system
Thickness:	50 - 110 mm
Compression hardness:	-
Density:	340 +/- 25 N
Cover:	Matt black

The seat pad and backrest pad are moulded foam parts and are therefore not measurable in volumetric weight. Moulded parts are measured in accordance with DIN standards. Measurement is made in N.





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#### Details regarding the pads on the arm supports, seat and rear, description of the frame



Back pads	
Pad material:	PR foam / MOI system
Thickness:	30 - 50 mm
Compression hardness:	77 kg/m3 ± 5%*
Degree of hardness:	340 +/-25 N*
Density:	260 +/- 25 N
Cover:	Matt black

\* These are not cut foam cuboids and are therefore foamed as moulded parts. And therefore measured in N in accordance with Din ISO 2439.

Frame	
Pad material:	S2 235 JR / S3 55 M2
Coating:	Galvanisation
Corrosion protection:	Galvanisation



The seat pad and backrest pad are moulded foam parts and are therefore not measurable in volumetric weight. Moulded parts are measured in accordance with DIN standards. Measurement is made in N.

Technical equipment

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### 20.2 Spare parts

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\*\* When travelling on steep slopes, please do not travel at maximum speed or use the seat height adjustment, tilt or seat length adjustment functions and please exercise particular caution when travelling on uneven surfaces (e.g. grass, gravel, sand, ice and snow)!



See section "3 Safety notes"

Replacing original parts with non-original parts or parts made in the style of the original (copied) is strictly prohibited/forbidden! Only obtain your replacement parts from your dealer or PARAVAN GmbH.



# WARNING

**Danger of injury** for persons operating a PR 35S which does not correspond to the original or delivered condition. **Material damage** to the PR 35S through the use of unapproved parts or incorrectly installed parts.

- Do not make any technical modifications to the power wheelchair.
- Only operate the PR 35S in its original or delivered condition.
- > Use only original and approved replacement parts.

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## 21.1 Information regarding electromagnetic compatibility

- ➡ The installation and maintenance of the device may only be carried out by specialist staff.
- Only the charging station supplied by the manufacturer may be used.
- ➡ The connector must be securely installed. Electronic components and cables must not be damaged.
- The use of longer cables lengths can result in increased emitted interference or reduced interference immunity.
- Only the original accessories supplied by the manufacturer may be used.
- In special cases, e.g. if highly sensitive equipment is being used in the direct vicinity of the device, additional remedial action might need to be taken so that the electromagnetic interference emission is further lowered below the set limit values.

General



## 21.2 Compliance level

The interference immunity levels in accordance with IEC 60601 are fulfilled.

#### Manufacturer's declaration - electromagnetic interference

The PR 35S is designed to be operated under the electromagnetic conditions specified below. The customer or the user of the device should ensure that it is used under these conditions.

	Emission measurements	Compliance	Electromagnetic conditions – guideli- nes	
	HF emissions in accordance with CISPR11	Group 1	The PR 35S only uses HF energy for its internal functions. Therefore its HF emissions are very low, and it is unlikely that adjacent electronic devices will be disturbed by these.	
	HF emissions in accordance with CISPR11	Class B	The device is designed to be used in all	
-	Emission of harmonics in accordance with IEC61000-3-2	Class A	set-ups including living areas and those which are directly connected to a public	
	Emission of voltage fluctuations/flickers in accordance with IEC61000-3-3	fulfilled	power grid that also supplies power to buildings being used for living purposes.	

Table 201 in accordance with DIN EN 60601-1-2, 6.8.3.201

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#### Manufacturer's declaration - electromagnetic immunity

The PR 35S is designed to be operated under the electromagnetic conditions specified below. The customer or the user of the device should ensure that it is used under these conditions.

Interference immunity tests	IEC 60601 – test level	Compliance level	Electromagnetic conditions – guide- lines
Electrostatic discharge (ESD), in accordance with IEC 61000-4-2	± 6 kV Contact dischar- ge ± 8 kV Air discharge	± 6 kV Contact dischar- ge ± 8 kV Air discharge	Floors should be made from wood or concrete, or have ceramic tiles. If the flooring is made from synthetic material, the relative humidity must be at least 30%.
Fast transient electric bursts in accordance with IEC 61000-4-4	± 2 kV for power supply cables ± 1 kV for input and output cables	± 1 kV for input and output cables	The quality of the supply voltage should correspond to that of a typical business or hospital environment.
Surges, in accordance with IEC 6100-4-5	± 1 kV differential mode voltage ± 2 kV common-mode voltage	Not usable	The quality of the supply voltage should correspond to that of a typical business or hospital environment.

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Information	Voltage dips, short interruptions and fluc- tuations in the supply voltage, in accordance with IEC 61000-4-11	<ul> <li>&lt; 5% UT (&gt;95% dip of UT) for 0.5 periods</li> <li>40% UT (60% dip of UT) for 5 periods</li> <li>70% UT (30% dip of UT) for 25 periods</li> </ul>	Not usable	The quality of the supply voltage should correspond to that of a typical business or hospital environment. If the movanimo user requires continued functionality in the event the power supply is interrupted, it is
Prepare		< 5% UT (>95% dip of UT) for 5 seconds		recommended that the movanimo be connected to an interruption-free power supply or a battery.
Operate	Magnetic field in the power supply fre- quency (50/60 Hz) in accordance with IEC 61000-4-8	3 A/m	3 A/m	Magnetic fields in the mains frequen- cy should correspond to the typical values which are present in a busi- ness and hospital environment.
	NOTE UT is the mains vo	ltage before using the test	level	

Help

Table 202, in accordance with DIN EN 60601-1-2, 6.8.3.201



## 22. Annexes and technical documentation

## 22.1 Handling of sealed storage batteries

When charging sealed storage batteries by water electrolysis at the positive electrode, the oxygen released is guided through a glass mat from the positive to the negative electrode and converted back to water again after a series of chemical reactions. During charging, part of the oxygen also enters the shared gas compartment. The housing of sealed storage batteries is designed to act as a pressure vessel through which reinforced walls prevent the excess oxygen from escaping until complete recombination at the negative electrode occurs. If improper charging is carried out, hydrogen along with oxygen also arises at the negative electrode. This hydrogen cannot be converted to water, but rather discharges including the oxygen present in the gas compartment via the safety valves after the permitted excess pressure level has been exceeded. If improper charging is avoided, no water loss will occur in sealed storage batteries and the storage batteries are completely maintenance-free. During storage and energy extraction there is no oxygen in the gas compartment and the storage battery has low pressure. Opening the valves must be avoided in all cases as if oxygen enters them, the negative electrode will be oxidised. This will result in irreparable damage and could lead to the complete power failure of the storage battery.



## 22.2 Maintenance plan & maintenance recommendations

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_	When	What	Note
Information	Before driving	<b>General</b> Check for proper function	Carry out check yourself or with an assistant
tion		Check magnetic brake	Carry out check yourself or with an assistant
Prepare			If the power wheelchair can be pushed, have the brake repaired immediately by a specialist workshop Danger of accident!
Operate	Before driving in the dark	<b>the lighting unit</b> Check that the lighting system & reflectors are working properly	Carry out check yourself or with an assistant
Help	Check, if driving behaviour is suspicious	Have the tyre pressure checked.	Visit a specialist workshop. (Sanitary shop/contact PARAVAN)
Тес		Adjustment screws & Bolt connections	Carry out check yourself or with an assistant
Technology		Check screws or nuts for tight fit.	Tighten loosened screws.
V			Visit a specialist workshop.

When	What	Note
Every 6- 8 months	Wheel fastenings Check wheel nuts or bolts for	Carry out check yourself or with an assistant
	tightness	Tighten loosened wheel nuts or bolts firmly and retighten after 10 operating hours or 50 km
		If necessary, visit a specialist workshop.
Every 2 months	<b>Check tyre tread</b> Minimum tread depth = 1 mm	Carry out visual inspection yourself or with an assistant. If the tyre tread is worn or damaged, consult a specialist workshop for repair
Every 6 months	Check: - Cleanliness - General condition	See chapter <b>18.2 Cleaning &amp; maintenance</b> Carry out yourself or with an assistant.
Every 12 months	Inspection work - Wheelchair - Charger	To be carried out by the specialist workshop

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Annexes and technical documentation

General	22.3 Customer service book		
ral Information	<ul> <li>1. Inspection (12 months after comm Date:</li> </ul>	nissioning) Signature:	Stamp:
n Prepare	<ul> <li>2. Inspection (annual) Date:</li> </ul>	Signature:	Stamp:
Operate	<ul> <li>3. Inspection (annual)</li> <li>Date:</li> </ul>	Signature:	Stamp:
Help	<ul> <li>A. Inspection (annual)</li> <li>Date:</li> </ul>	Signature:	Stamp:
Technology			

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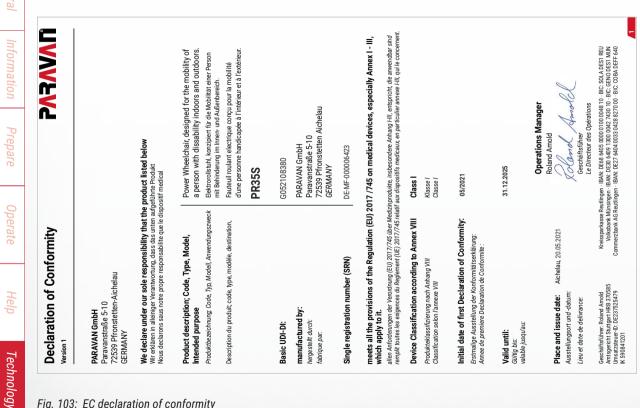
Operate

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>	5. Inspection (annual) Date:	Signature:	Stamp:
>	6. Inspection (annual) Date:	Signature:	Stamp:
>	7. Inspection (annual) Date:	Signature:	Stamp:
>	8. Inspection (annual) Date:	Signature:	Stamp:

Annexes and technical documentation



#### 22.4 EC declaration of conformity

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## 22.5 Log of instructions provided upon delivery

Due to the flexible setting options of the PR 35S, the following information should be noted:

### When using the tilt function:

- It must be ensured that the seat is not tilted too far forwards or backwards, as otherwise you could slip out of the seat.
- > The tilt function is set to your weight.
- > Tilt the wheelchair first, then set the backrest.
- > Always wear the seatbelt when using the tilt function.
- > When using the tilt function, only half the speed of the selected movement level is possible.

#### Seat / backrest in the special orthopaedic seat

- > The backrest must only be adjusted as far as is necessary, as the motor is not powerful enough to lift the weight of the driver. Use the tilt function first.
- > When adjusting the backrest and the tilting angle, be aware of attachments (backpack, etc.).



## Notes





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### PARAVAN WHEELCHAIR SERIES

User manual **PR 35 S** 

ORIGINAL INSTRUCTION MANUAL

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