

# PARAVAN®

PARAVAN WHEELCHAIR SERIES

User manual  
**PR 30/II**

 **EN** V1.4



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Dear customer,

We would like to thank you for choosing our PARAVAN PR 30/II wheelchair.

These operating instructions contain all the important information and instructions regarding your new PR 30/II. We ask that you carefully read the following pages to ensure that your PR 30/II 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 30/II. However, if you still have questions or comments regarding the PR 30/II, please do not hesitate to contact us.

Your PARAVAN Team

# Contents

## General

<b>1.</b>	<b>Legal notice .....</b>	<b>15</b>
1.1	Your manufacturer .....	15
1.1.1	Copyright .....	16
1.1.2	Technical status of documentation.....	16
<b>2.</b>	<b>Regarding these operating instructions .....</b>	<b>17</b>
2.1	Exclusion of liability .....	18
2.1.1	Guarantee .....	19
2.1.2	Technical modifications .....	20
2.2	Target group.....	22
2.3	Explanation of symbols.....	23
2.3.1	Structure of safety notes.....	24
<b>3.</b>	<b>Safety notes .....</b>	<b>25</b>
3.1	Generally applicable safety notes.....	25
3.1.1	Operation instructions .....	25
3.1.2	Information regarding use.....	29
3.1.3	Notes on transport.....	30
<b>4.</b>	<b>Performance description .....</b>	<b>31</b>
4.1	Manufacturing standard.....	31
4.2	Correct use .....	32
4.2.1	Usability of the PR 30/II.....	33
4.3	Approvals, certifications.....	34
4.3.1	EU approval as a driver seat.....	34
4.3.2	Clearance declaration for non-dangerous goods (storage battery) .....	35
4.3.3	German regulations on assistive technology (Hilfsmittelverordnung, H MV no.) .....	36
4.3.4	Definition of auxiliary equipment (incomplete excerpt) .....	36



4.3.5	Indication.....	37
4.3.6	Contraindications.....	37

**Information**

<b>5.</b>	<b>Product-specific data .....</b>	<b>38</b>
5.1	Trademark and type designation (type plate) .....	38
5.2	Location of the type designation (type plate) .....	39
5.3	Important information about your PR 30/II.....	40
5.3.1	The type plate of your PR 30/II .....	40
5.4	Accessories.....	41
5.4.1	Supplied accessories.....	41
5.4.2	Deliverable accessories.....	41
<b>6.</b>	<b>Description/function of the PR 30/II .....</b>	<b>42</b>
6.1	The seat K620 .....	42
6.2	Joystick control.....	43
6.3	Special control system .....	43
6.4	Tilt function (seat angle) .....	44
6.5	Vibration damped footrests .....	44
6.6	Road-safe in accordance with The Road Traffic Licensing Act (StVZO).....	45
6.6.1	§ 24 Special means of transportation.....	45
<b>7.</b>	<b>Overview of the PR 30/II .....</b>	<b>46</b>
7.1	Parts and their locations .....	46
7.2	Parts and their installation position, chassis.....	47

**Prepare**

<b>8.</b>	<b>Handing over the electric wheelchair .....</b>	<b>49</b>
-----------	---	-----------

8.1	Receiving your new electric wheelchair .....	49
8.2	How your electric wheelchair is delivered to you.....	49
<b>9.</b>	<b>Settings on your electric wheelchair; electronic.....</b>	<b>50</b>
<b>10.</b>	<b>Settings on your electric wheelchair; mechanical .....</b>	<b>51</b>
10.1	Receiving your new electric wheelchair .....	51
10.2	Combination with non-manufacturer products.....	51
10.3	The armrest.....	52
10.4	Setting the movability of the control panel .....	53
10.5	Series manual footrest unit.....	54
10.5.1	Optional electric footrest unit .....	54
10.5.2	Setting the tibialis angle .....	55
10.5.3	Setting the foot rest angle.....	56
<b>11.</b>	<b>Use of the PARAVAN comfort seat.....</b>	<b>57</b>
11.1	Setting the back support .....	57
11.1.1	Setting the back support angle .....	57
11.1.2	Setting the head support.....	58
11.1.3	Setting your sitting position .....	59
11.2	Setting your lying position.....	60
<b>12.</b>	<b>Removing and reattaching the chassis cladding .....</b>	<b>61</b>
12.1	Removing and reattaching the rear cladding.....	61
12.2	Removing and reattaching the side cladding.....	62

## Operate

<b>13.</b>	<b>Driving with the PR 30/II.....</b>	<b>63</b>
13.1	Insurance, liability insurance.....	63
13.2	Function check before the trip .....	64

13.3	Controlling the PR 30/II, directions of travel .....	65
13.4	Navigating bends, turning corners.....	66
13.5	Braking with the PR 30/II.....	67
13.5.1	PR 30/II braking system .....	67
13.5.2	PR 30/II braking characteristics .....	68
13.6	Travelling on hills, up and downhill travel.....	69
13.7	The drive programs / movement levels.....	70
13.8	Manual driving, push mode.....	71
13.8.1	Operation of the brake lock release lever (emergency release) .....	71
13.9	Information regarding roads, types of ground .....	72
13.9.1	Fording ability, driving through water .....	72
13.9.2	Climbing / traversing ability .....	72
13.9.3	Load bearing capacity .....	73
13.9.4	Rough ground or terrain.....	73
13.9.5	Slippery ground, traction .....	73
<b>14.</b>	<b>Parking and storing the PR 30/II.....</b>	<b>74</b>
<b>15.</b>	<b>Loading and transporting the power wheelchair.....</b>	<b>75</b>
15.1	Rules for loading wheelchairs.....	75
15.2	Securing and fastening the power wheelchair.....	76
15.3	Fasten the seatbelt in a moving vehicle .....	77
15.4	Securing the wheelchair with a 4 point strap restraint.....	78
15.5	Occupant restraint instruction .....	79
15.6	Dahl Docking Systems Assembly .....	81
15.6.1	Content of Dahl docking stations .....	83
15.6.2	Attaching the Dahl locking plate to the wheelchair .....	85
15.6.3	Attaching the Dahl locking plate to the wheelchair .....	87
15.6.4	Description of the Dahl Docking system functions .....	91
15.6.5	Securing the wheelchair in the docking station.....	92

15.6.6	Release from the docking station.....	94
15.6.7	Manual release in case of electric failure .....	95
<b>16.</b>	<b>Controls .....</b>	<b>96</b>
16.1	Control panel R-NET CJSM2 .....	96
16.1.1	Overview of the control elements .....	96
16.1.2	Status display.....	97
16.1.3	Start, switch off.....	98
16.1.5	Switch direction indicator on and off .....	99
16.1.4	Switch light on and off.....	99
16.1.6	Switch hazard lights on and off .....	100
16.1.7	Driving functions overview .....	101
16.1.8	Select drive program, drive.....	102
16.1.9	Electrical seat adjustment.....	103
16.1.10	Set time/date .....	104
16.1.11	Show/hide clock, configure 12h/24h display.....	105
16.1.13	Adjust display brightness .....	106
16.1.12	Adjust display brightness, automatic (recommended) .....	106
16.1.14	Block the controls (with the wheelchair switched on) .....	107
16.1.15	Release the controls (with the wheelchair switched off) .....	107
16.2	Control panel R-NET CJSM-L .....	108
16.2.1	Overview of the control elements .....	108
16.2.2	Status display.....	109
16.2.3	Start and switch off .....	110
16.2.4	Switch light on and off.....	111
16.2.5	Switch direction indicator on and off .....	111
16.2.6	Switch hazard lights on and off .....	112
16.2.7	Driving functions overview .....	113
16.2.8	Select drive program, drive.....	114



16.2.9	Electrical seat adjustment.....	115
16.2.10	Set time/date .....	116
16.2.11	Show/hide clock, configure 12h/24h display.....	117
16.2.12	Adjust the display background and brightness .....	118
16.2.13	Adjust display brightness .....	118
16.2.14	Block the controls (with the wheelchair switched on) .....	119
16.2.15	Release the controls (with the wheelchair switched off) .....	119

## Help

<b>17.</b>	<b>Moving out of the PR 30/II seat .....</b>	<b>120</b>
17.1	Procedure when moving sideways out of the seat.....	121
<b>18.</b>	<b>Maintenance and servicing.....</b>	<b>122</b>
18.1	Service partner.....	122
18.2	Cleaning and care .....	123
18.2.1	Metal surfaces .....	123
18.2.2	Plastics.....	123
18.2.3	Upholstery, fabric and vinyl .....	124
18.2.4	Disinfection .....	124
<b>19.</b>	<b>Disposal and environmental protection.....</b>	<b>125</b>
19.1	Packaging material.....	126
19.2	Advice on corrosion protection.....	126
19.3	Recommissioning.....	127
19.4	Information regarding transfer of the product.....	128
<b>20.</b>	<b>Troubleshooting .....</b>	<b>129</b>
20.1	Status indicator on the control panel .....	129
<b>21.</b>	<b>Electrical system.....</b>	<b>131</b>

21.1	Automatic fuses.....	131
21.2	Main fuse.....	132
21.2.1	Resetting a triggered main fuse.....	132
21.3	Operating the battery disconnect switch .....	133
21.4	Overload protection .....	134
21.4.1	Reset the triggered overload protection:.....	134
21.5	Connection option for auxiliary units.....	135
21.6	The lighting installation .....	136
21.7	Maintenance-free storage batteries .....	137
21.8	Information regarding storage batteries .....	138
21.9	Replacing the accumulators .....	139
21.10	Charging the PR 30/II .....	140
21.10.1	Procedure for charging the PR 30/II.....	141
21.10.2	The charger .....	142
21.10.3	Installing the charger, installation location .....	142
<b>22.</b>	<b>Technical equipment .....</b>	<b>143</b>
22.1	Technical data and dimensions.....	143
22.1.1	The average lifespan .....	143
22.1.2	Technical Data .....	144
22.1.3	Dimensions .....	145
22.2	Spare parts.....	149
<b>23.</b>	<b>Annexes and technical documentation .....</b>	<b>150</b>
23.1	Handling of sealed storage batteries .....	150
23.2	Maintenance plan & maintenance recommendations .....	151
23.3	Customer service book.....	153
23.4	EC declaration of conformity .....	155
23.5	Protocol of the handover briefing .....	156

Fig. 1:	QR code .....	15
Fig. 2:	Direction of travel.....	17
Fig. 3:	Safety instruction.....	24
Fig. 4:	TÜV Logo.....	34
Fig. 5:	Type plate .....	38
Fig. 6:	Location of type plate.....	39
Fig. 7:	DAHL docking station.....	41
Fig. 8:	DAHL Vario Dock (height adjustabel).....	41
Fig. 9:	Seat K620 .....	42
Fig. 10:	LED Headlights in front.....	45
Fig. 11:	LED rear lights in the back.....	45
Fig. 12:	Wheelchair overview.....	46
Fig. 13:	Parts, Chassis rear.....	47
Fig. 14:	Parts, chassis front.....	48
Fig. 15:	Swivel mechanism.....	53
Fig. 16:	Manual footrest.....	54
Fig. 17:	Lower leg length.....	54
Fig. 18:	Tibialis angle .....	55
Fig. 19:	Foot rest angle .....	56
Fig. 20:	Back support angle.....	57
Fig. 21:	Head support .....	58
Fig. 22:	Sitting position .....	59
Fig. 23:	Lying position .....	60
Fig. 24:	Rear cladding .....	61
Fig. 25:	Rear light and cable .....	61
Fig. 26:	Side cladding.....	62
Fig. 27:	Front headlight, cable .....	62
Fig. 28:	Brake lock release lever (emergency release) .....	64
Fig. 29:	Joystick .....	65

Fig. 30:	Brake lock release lever (emergency release) .....	71
Fig. 31:	Attachment point at the front.....	76
Fig. 32:	Attachment point at the rear .....	76
Fig. 33:	Illustration of improper belt-restraint fit .....	77
Fig. 34:	Illustration of proper belt-restraint fit.....	77
Fig. 35:	Rear securement points .....	78
Fig. 36:	Front securement points .....	78
Fig. 37:	Positioning the occupant restraint with 4 point strap system .....	79
Fig. 38:	Positioning the occupant restraint for use with dahl docking system only .....	80
Fig. 39:	Dahl docking system .....	81
Fig. 40:	Content of Dahl Docking Station MK II standard set # 501750.....	83
Fig. 41:	Content of Dahl VarioDock™ standard set # 503600 .....	84
Fig. 42:	Dahl Adaptationkit for Dahl Docking Station .....	85
Fig. 43:	Torx TX 27 .....	85
Fig. 44:	Knurled screws Paravan.....	86
Fig. 45:	Rear and side covers Paravan.....	86
Fig. 46:	Main cable battery .....	87
Fig. 47:	Removing the batteries .....	87
Fig. 48:	Position of the Dahl system .....	88
Fig. 49:	Fastening of the Dahl system .....	88
Fig. 50:	System functions Dahl .....	91
Fig. 51:	Manual release step 1 .....	95
Fig. 52:	Manual release step 2 .....	95
Fig. 53:	Control panel R-NET CJSM2 .....	96
Fig. 54:	Function keys .....	97
Fig. 55:	Status display.....	97
Fig. 56:	Speed control (tortoise) active .....	98
Fig. 57:	„On / off“ key .....	98
Fig. 58:	Light on and off .....	99



Fig. 59:	Turn signal right / left .....	99
Fig. 60:	Light symbol (colour).....	99
Fig. 61:	Hazard lights on / off .....	100
Fig. 62:	Symbols (colour).....	100
Fig. 63:	Driving functions.....	101
Fig. 64:	Charging status indicator (driving function blocked).....	101
Fig. 65:	Select drive program.....	102
Fig. 66:	Joystick travelling direction .....	102
Fig. 67:	Example: Display of seat functions .....	103
Fig. 68:	"Set time" function menu.....	104
Fig. 69:	Setting the time and date .....	104
Fig. 70:	Set clock to visible/invisible.....	105
Fig. 71:	Setting the display brightness.....	106
Fig. 72:	Autom. display brightness .....	106
Fig. 73:	Blocking the controls .....	107
Fig. 74:	Lock symbol.....	107
Fig. 75:	Control panel R-NET CJSM-L .....	108
Fig. 76:	Function keys .....	109
Fig. 77:	Status display.....	109
Fig. 78:	"On / off" key .....	110
Fig. 79:	Speed control (tortoise) active .....	110
Fig. 80:	Light on and off .....	111
Fig. 81:	Turn signal right / left .....	111
Fig. 82:	Light symbol (colour).....	111
Fig. 83:	Hazard lights on / off .....	112
Fig. 84:	Symbols (colour).....	112
Fig. 85:	Driving functions.....	113
Fig. 86:	Driving function blocked.....	113
Fig. 87:	Select drive program.....	114

Fig. 88:	Joystick travelling direction .....	114
Fig. 89:	Display of seat functions.....	115
Fig. 90:	"Set time" function menu.....	116
Fig. 91:	Setting the time and date .....	116
Fig. 92:	Set clock to visible/invisible.....	117
Fig. 93:	Setting the display brightness .....	118
Fig. 94:	Setting the display background .....	118
Fig. 95:	Blocking the controls.....	119
Fig. 96:	Controls blocked – block symbol .....	119
Fig. 97:	Move from the seat, footrests.....	121
Fig. 98:	Move from the seat, armrest.....	121
Fig. 99:	Recycling .....	126
Fig. 100:	Main fuse, active.....	132
Fig. 101:	Main fuse.....	132
Fig. 102:	Battery disconnect switch.....	133
Fig. 103:	Battery dicon. switch, inactive .....	133
Fig. 104:	Illumination at the front .....	136
Fig. 105:	Illumination at the rear .....	136
Fig. 106:	Energy coupling.....	139
Fig. 107:	Modification, accumulator .....	139
Fig. 108:	Plug in the charging cable.....	141
Fig. 109:	Set up charger.....	142
Fig. 110:	EC declaration of conformity .....	155

# 1. Legal notice

## 1.1 Your manufacturer



Fig. 1: QR code

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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.

## 1.1.1 Copyright

This documentation and all of its parts are protected by copyright. All rights arising from this copyright, especially those relating to the translation, reprint, presentation, use of illustrations and tables, radio broadcasting, microfilming or reproduction of information in other ways, and the storage of such information in data processing systems, also with regard to the use of specific extracts, remain reserved. The reproduction of this work or a part of this work, even in individual cases, is only permitted within the limits of the statutory provisions of the current version of the Copyright Act (Urheberrechtsgesetz) of the Federal Republic of Germany of 9 September 1965. Such reproduction is generally subject to a fee. Contraventions are subject to the penal provisions of the Copyright Act.

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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 Oktober 2023.

The operating instructions for the PR30/II 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 30/II. 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 30/II 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!

## 2.1 **Exclusion of liability**

The operation of the PR 30/II 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 30/II.

In order to guarantee the fault-free operation of your PR 30/II, please observe the maintenance instructions and maintenance intervals.



See chapter “18 Maintenance and servicing”

## 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 30/II 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 30/II that was not authorised by PARAVAN GmbH. Furthermore, dangerous malfunctions cannot be ruled out!



 <b>WARNING</b>	
>	<b>Danger of injury</b> for persons operating a PR 30/II which does not correspond to the original or delivered condition.
>	<b>Material damage</b> to the PR 30/II through the use of unapproved parts or incorrectly installed parts.
>	Do not make any technical modifications to the power wheelchair.
>	Only operate the PR 30/II in its original or delivered condition.
>	Use only original and approved replacement parts.
>	Check the operating condition of the PR 30/II before each trip.

## 2.2 Target group

The operator must acquire or gain a level of knowledge relating to the following points before operating the PR 30/II:

- > Knowledge of the content of the operating instructions in order to safely operate and also be able to move the PR 30/II.
- > 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"

## 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 30/II and/or avoid damage to the PR 30/II.



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.

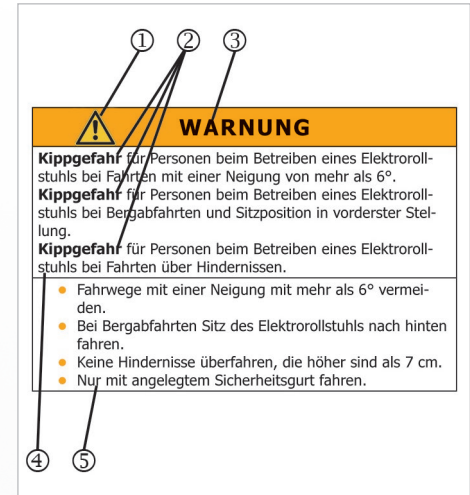


Fig. 3: Safety instruction




### 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.

 <b>DANGER!</b>	
>	<b>Danger of crushing</b> from touching moving parts, e.g.
>	from the rotational movement of the drive wheels or the
>	lifting motion of the functional unit.
>	<b>Danger of falling</b> due to unintentional movement of the PR 30/II due to an inactive braking mechanism.
>	<b>Danger of falling</b> from abrupt braking of the PR 30/II if the vehicle is without power.
>	Do not touch moving parts.
>	Assistants must not touch parts in the danger zones while operating the power wheelchair.
>	Brake lock release lever must be in the "LOCK" position.
>	Never switch the power of the PR 30/II off or shut it down while driving.



## WARNING

**Danger of tipping** for persons operating a PR 30/II when travelling at an incline of more than 10°.

**Danger of tipping** for persons operating a PR 30/II when travelling downhill and if the seat is in the foremost position.

**Danger of tipping** for persons operating a PR 30/II when travelling over obstacles.

- > Avoid routes with inclines greater than 10°.
- > Tilt the seat of the PR 30/II 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.



## WARNING

**Danger of injury** for persons operating a PR 30/II which does not correspond to the original or delivered condition.

**Material damage** to the PR 30/II through the use of unapproved parts or incorrectly installed parts.

- > Do not make any technical modifications to the power wheelchair.
- > Only operate the PR 30/II in its original or delivered condition.
- > Use only original and approved replacement parts.
- > Check the operating condition of the PR 30/II before each trip.



## WARNING

**Danger of injury** for persons while travelling with a PR 30/II on rough ground.


**Danger of falling and tipping** for persons while operating the PR 30/II on surfaces with diminished load bearing capacity.

**Material damage** to the PR 30/II 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

 <b>CAUTION</b>	
<b>Material damage</b> to the PR 30/II from overloading the vehicle.	
<b>Material damage</b> to the PR 30/II from the effects of high temperatures above 41°C.	
<b>Material damage</b> to the PR 30/II from overcharging of the batteries when travelling downhill.	
<ul style="list-style-type: none"><li>&gt; Only use the PR 30/II for its intended purpose.</li><li>&gt; Overloading the PR 30/II (e.g. with a second person or other loads) is not permitted.</li><li>&gt; Protect the PR 30/II from strong solar radiation and other sources of heat.</li><li>&gt; Switch on the electricity consumers (e.g. the lights) when travelling downhill.</li><li>&gt; When using the reclining function, always remove the warning triangle.</li></ul>	

### 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.



Before travelling by air, clarify the specific transport conditions with your airline as well as the legal regulations applicable in your country of origin or at your destination with regard to air transport.

## 4. **Performance description**

### 4.1 **Manufacturing standard**

The PARAVAN PR 30/II is a multifunctional power wheelchair that is ideal for indoor and outdoor use due to its compactness and manoeuvrability.

The PR 30/II 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 30/II, 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

The PARAVAN PR 30/II 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 the liability of the manufacturer of the PR 30/II.



### NOTE

The PR 30/II is only intended for the uses listed in the section “Usability of the vehicle”.



See section “3 Safety notes”



See section “4.2.1 Usability of the PR 30/II”



## 4.2.1 Usability of the PR 30/II

### - unproblematic

- > Transport of a person with a maximum body weight of 140kg, optionally 141- 200kg.
- > 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.



See section "13 Driving with the PR 30/II"

### - problematic or prohibited

- > Use as a means of tractive transport of loads or of several people.
- > Use of the PR 30/II in extreme climatic conditions (heat/cold/moisture).



See section "2.1 Exclusion of liability"



See section "3 Safety notes"

## 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. Use a vehicle installed and approved 3 point belt.



See Section "23 Annexes and technical documentation"



Fig. 4: TÜV Logo

### 4.3.2 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 30/II.

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

The PR 30/II 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. 18.99.06.1143

### 4.3.4 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...



### 4.3.5 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.

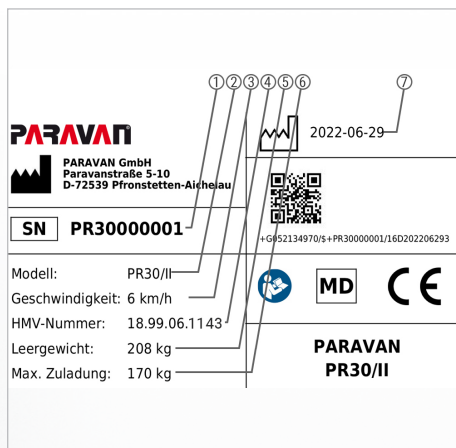
### 4.3.6 Contraindications

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

## 5. 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.

- > Model name ①
- > Series number, chassis no. ②
- > Production date ③
- > Max. speed ④
- > HMV number ⑤
- > PR 30/II unladen weight ⑥
- > Max. payload (body weight) ⑦

Fig. 5: Type plate



See section “5.3.1 Type plate of your PR 30/II”

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

The type designation (type plate) is affixed to the PR 30/II 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 30/II.



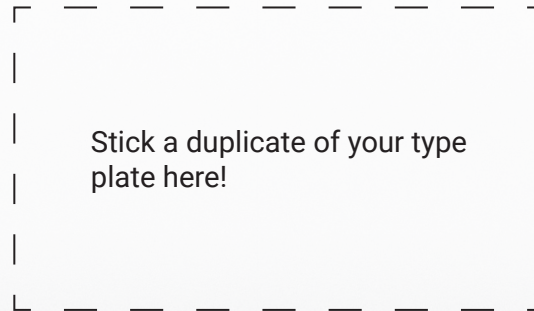
Fig. 6: Location of type plate

## 5.3 **Important information about your PR 30/II**

Please make sure this information is recorded when you receive the PR 30/II, 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 30/II





## 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.



Fig. 7: DAHL docking station

### 5.4.2 Deliverable accessories

- DAHL docking station for quick and easy fastening of the PR 30/II in a vehicle.



Fig. 8: DAHL Vario Dock (height adjustabel)

## 6. Description/function of the PR 30/II

### 6.1 The seat K620



- Removable headrest, adjustable in height and inclination ①
- Armrest can be swivelled backwards by means of a wheel screw under the armrest, adjustable in angle ②
- Backrest angle adjustable by hand by means of rotary wheel ③
- Optional: electrically via joystick

Fig. 9: Seat K620

## 6.2 Joystick control

All the functions of the PR 30/II 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 30/II.



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

## 6.4 ***Tilt function (seat angle)***

The power wheelchair is equipped with a stable scissor lift system, which allows continuous height adjustment and can reach an extended height of 0-30 cm. and can reach an extended height of 0-30 cm. The lifting process can be interrupted and fixed at any position in the upward or downward movement. This ensures the greatest possible radius of action in everyday domestic life and in the work environment.

At the push of a button, the tilt (seat inclination) can be adjusted as follows:

- > backwards, for relaxation, decubitus prophylaxis, step positioning and better weight distribution, to facilitate breathing, to relieve the diaphragm.



See section “11 The K620 seat, operation”

## 6.5 ***Vibration damped footrests***

- > Shock-absorbing, split or joined to counteract spasticity.
- > Depending on the equipment, electrically adjustable in length and angle.



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

The PR 30/II 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.



Fig. 10: LED Headlights in front

### 6.6.1 § 24 Special means of transportation



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. 11: LED rear lights in the back

## 7. Overview of the PR 30/II

### 7.1 Parts and their locations

General

Information

Prepare

Operate

Help

Technology



Fig. 12: Wheelchair overview

The following terms for parts or individual parts are used in the operating instructions. Their location on the PR 30/II 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 ⑦
- > Battery box ⑧
- > Casing ⑨
- > Rear wheel, standard version puncture-resistant ⑩

## 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 30/II 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

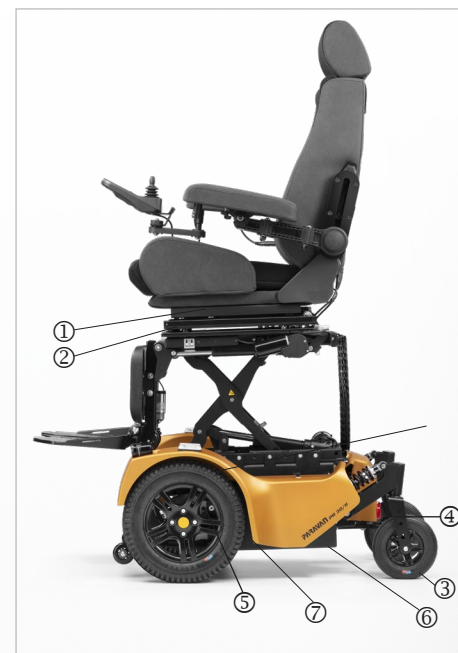


Fig. 13: Parts, Chassis rear



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

Fig. 14: Parts, chassis front



## 8. **Handing over the electric wheelchair**

### 8.1 **Receiving your new electric wheelchair**

Check that your your electric wheelchair is complete and compare the state in which it was delivered with what is indicated on your order. Where there is any doubt, contact PARAVAN GmbH immediately! Check (visually) that your electric wheelchair is in proper order. Report any damage that may be due to transport or delivery immediately in writing to your

- > dealer, forwarder or medical supplier
- and**
- > PARAVAN GmbH



See Section "1.1 Your manufacturer"

### 8.2 **How your electric wheelchair is delivered to you**

The electric wheelchair will be in the following state of assembly, ready for use and operation:

- > Fully assembled and equipped in accordance with your order instructions.
- > All components and auxiliary elements are pre-set to your body mass as it figured in your order.
- > Ready charged accumulators.

## 9. Settings on your electric wheelchair; electronic

General

Information

Prepare

Operate

Help

Technology

The settings and configuration needed for PARAVAN controls are very complex and for your own safety can only be done by your service technician.

All parameters used in PARAVAN controls can be adjusted later to your needs and wishes. These parameters include:

- > All drive properties, such as starting and braking.
- > Steering behaviour.



Should you need or would like to have adjustments made to control parameters, please contact PARAVAN GmbH or your dealer.



See Section "1.1 Your manufacturer"

## 10. **Settings on your electric wheelchair; mechanical**

### 10.1 **Receiving your new electric wheelchair**

All mechanical components and equipment and operating elements are set to match your body mass. However, if any adjustment should be necessary, then it can be made at any time. Your PARAVAN electric wheelchair is build so that it can be adjusted to the needs of any body mass.



For your own safety, please make sure all mechanical settings and changes to the wheelchair's equipment are made by your service technicians. No modifications made by the customer are permitted!



See Section "23.4 Handover briefing"

### 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.

## 10.3 The armrest

These working instructions are valid for right and left, if necessary the direction of rotation of the screw connection is the other way round!

When adjusting the armrest projection, proceed in the following order sequence when adjusting the armrest projection:

- Loosen the hexagonal cap nut ①.
- Loosen the hexagonal cap nut ③.
- Move the armrest ② to the desired position.
- Tighten the hexagonal cap nuts ① and ③ with approx. 8 Nm.





## 10.4 *Setting the movability of the control panel*



Fig. 15: *Swivel mechanism*

The horizontal swivel mechanism of the control panel can be set to adjust its level of stiffness (i.e. in terms of the responsiveness and movability of the joint).



This level of stiffness can only be set by your service technician!

## 10.5 Series manual footrest unit

Your specialist supplier will position the footrest at the correct lengths. The same applies to the angle of the foot. The footrests can be swivelled away following unlocking and can be removed by lifting them up.

### 10.5.1 Optional electric footrest unit

The electric angle and length compensation enables the electrical adjustment of the length of the footrest unit and the adjustment of the angle to the seat. The angle of the footrests can only be manually adjusted by means of a setting screw. The rest for the lower leg / the lower leg length can be electrically adjusted via the PARAVAN control in the length setting.

- > Select the menu in the control.
- > Make your setting.



See Section "16 Controls"



If this adjustment mode is not sufficient for your needs, then the foot support must be mechanically adjusted at the foot support ①!



Fig. 16: Manual footrest

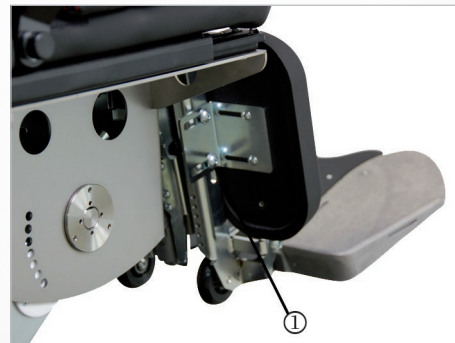


Fig. 17: Lower leg length

## 10.5.2 Setting the tibialis angle

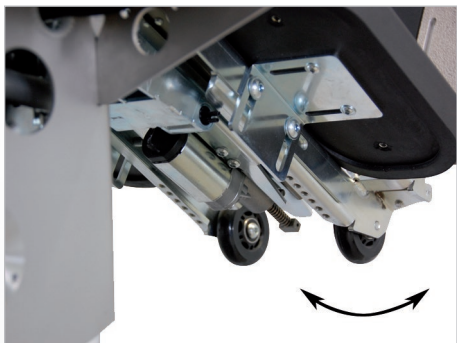


Fig. 18: Tibialis angle

The projection of the lower leg and of the tibialis angle (between the upper and lower leg) can be made using the angle setting of the PARAVAN control, depending on how your model is equipped.

- > Select the menu in the control.
- > Make your setting.



See Section „16 Controls“

### 10.5.3 Setting the foot rest angle

The angle of the foot rests can be set separately for each foot rest to match your individual needs.

The following settings are available:

- > Screw the adjustment screw inwards -> the foot rest is lowered.
- > Screw the adjustment screw outwards -> the foot rest is raised.



Do not force the adjustment screw in or out. Raise the foot rest a little to remove pressure on the adjustment screw.

Take the following steps in the following sequence when setting the angle of the foot rest:

- > Raise the foot rest ③.
- > Loosen the lock nut ①.
- > Screw the adjustment screw ② in or out as required.
- > Check your setting (lower the foot rest).
- > Tighten the lock nut ① to about 8 Nm.

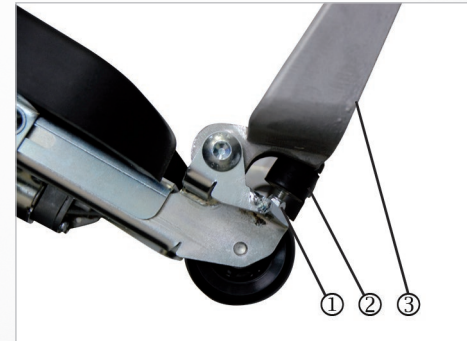


Fig. 19: Foot rest angle



# 11. Use of the PARAVAN comfort seat

## 11.1 Setting the back support

### 11.1.1 Setting the back support angle



Fig. 20: Back support angle

The back support and the back support angle can be changed manually.

- > Turn the handwheel (Position for manual execution would be ①) on the side of the seat to adjust the back support angle.

The back support and the back support angle can be changed electrically using the PARAVAN control.

- > Select the menu in the control.
- > Make your setting.



See Section "16 Controls"

## 11.1.2 Setting the head support

If you need the head support position to be change, you can adjust the height of the head support to your individual needs in 5 stages.

You have the following settings available:

Adjusting head inclination:

- Push the head support ① into the required inclination -> push the head support up backwards or forwards.

Height adjustment in five stages:

- Push the head support ① into the required stage -> pull the head support upwards or push it downwards. The head supports ② have five stages.

In order to remove the head support (e.g. at the hairdresser) you must pull it up over the final stage and pull it free. Do the same in reverse to replace it.



Fig. 21: Head support

### 11.1.3 Setting your sitting position



Fig. 22: Sitting position

The seat can be moved forward or backwards using the PARAVAN control if you have chosen this optional special accessory.

- > Select the menu in the control.
- > Make your setting.



See Section "3 Notes on safety"



See Section "16 Controls"

## 11.2 **Setting your lying position**

The seat can be moved into a lying position using the PARAVAN control.

The lying position function is not provided within the control. It must be set individually by the user.

Take the following steps in the following sequence when setting the lying position:

- Select the menu in the control.
- Move the lift arm upwards.
- Set the required tilt for the seat (Optional special equipment).
- Set the required tilt for the back support.
- Set the foot support angle and length (Optional special equipment)



See Section "16 Controls"



Fig. 23: Lying position



## 12. Removing and reattaching the chassis cladding

### 12.1 Removing and reattaching the rear cladding



Fig. 24: Rear cladding

The chassis cladding can be removed for maintenance, repair or cleaning.

Take the following steps in the following sequence when removing and reassembling the rear cladding:

> Loosen and remove knurled screws ①.



Put aside the knurled screws and plastic washers.

> Remove the rear cladding carefully.

> Disconnect the cable for the rear light ② at the connection.

> Reassemble in the opposite sequence.

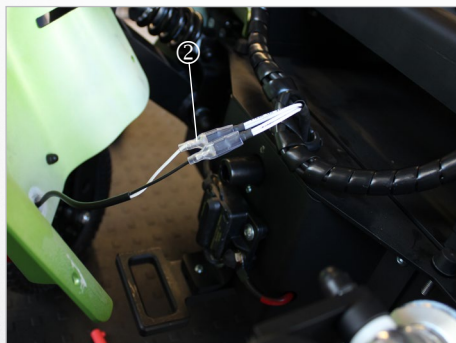


Fig. 25: Rear light and cable

## 12.2 Removing and reattaching the side cladding

The chassis cladding can be removed for maintenance, repair or cleaning.

Take the following steps in the following sequence when removing and reattaching the side cladding:

- Loosen and remove knurled screws ①.
- Remove rear cladding.



See Section "12.1 Removing and reattaching the chassis cladding"

- Raise the side cladding at rear.
- Disconnect the cable for the front headlight and directional indicator ② at the connection.
- Remove side cladding from the front.
- Reassemble in the opposite sequence.



Make sure the plastic washers are present, as they protect the chassis components from damage.



Fig. 26: Side cladding

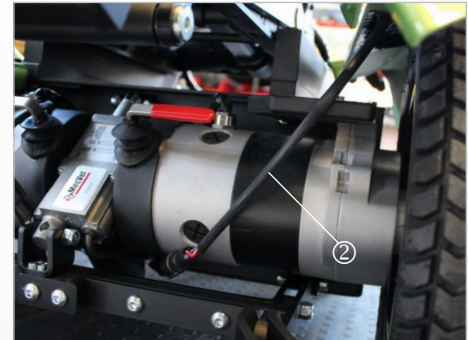


Fig. 27: Front headlight, cable


## 13. Driving with the PR 30/II

### 13.1 Insurance, liability insurance

We recommend that you speak with your insurance advisor before starting to use the PR 30/II 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 30/II during use in road traffic.

 <b>WARNING</b>	
<b>Danger of injury</b> for persons operating a PR 30/II which does not correspond to the original or delivered condition. <b>Material damage</b> to the PR 30/II through the use of unapproved parts or incorrectly installed parts.	
<ul style="list-style-type: none"><li>&gt; Do not make any technical modifications to the power wheelchair.</li><li>&gt; Only operate the PR 30/II in its original or delivered condition.</li><li>&gt; Use only original and approved replacement parts.</li><li>&gt; Check the operating condition of the PR 30/II before each trip.</li></ul>	

## 13.2 *Function check before the trip*

Before commencing each trip, the following points must be checked for your own safety:


 It might be necessary to draw on the expertise of a second person for the check.

> Function check of the brakes.

 The brake lock release lever ① must be set to "**LOCK**", i.e. point upwards.

> Charging status of the storage batteries.

> Function check of the lighting installation.

 See section "13.8.1 Operation of the brake lock release lever (emergency release)"


 See section "21 Electrical Equipment"



Fig. 28: Brake lock release lever (emergency release)



### 13.3 Controlling the PR 30/II, directions of travel



The PR 30/II 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 30/II travels forwards.
- > Joystick left or right & The PR 30/II changes the direction of travel in accordance with the position selected.
- > Joystick backward & The PR 30/II travels backwards.
- > Joystick in the neutral position (middle) & The brakes are active, the wheelchair does not travel.



Fig. 29: Joystick



In order to avoid unwanted movement of the PR 30/II, 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!

## 13.4 ***Navigating bends, turning corners***



The PARAVAN PR 30/II 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 30/II curves to the right.



See section "3 Safety notes"

## 13.5 **Braking with the PR 30/II**

### 13.5.1 PR 30/II braking system

Two independently working braking systems (safety systems) are used in the PARAVAN PR 30/II in order to guarantee the greatest possible level of safety. The PR 30/II 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 30/II.
- > 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 30/II comes to a standstill. If this is the case, it can only be mechanically unlocked and manually moved.



See section "13.8.1 Operation of the brake lock release lever (emergency release)"

## 13.5.2 PR 30/II braking characteristics

The braking distance, i.e. the distance from initiating the braking process until the PR 30/II 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 30/II.



When braking from full speed at approx. 6km/h, your PR 30/II 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!



## 13.6 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 30/II 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 30/II at any time.
- When travelling up and downhill from an incline of more than 7°, the stability of the PR 30/II cannot be guaranteed, or there can be a danger of the PR 30/II 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 "13.8.1 Operation of the brake lock release lever (emergency release)"

## 13.7 *The drive programs / movement levels*

The PARAVAN PR 30/II has five different drive programs, or movement levels. You can select the desired movement level or final speed of the PR 30/II 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 30/II 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"

## 13.8 Manual driving, push mode

### 13.8.1 Operation of the brake lock release lever (emergency release)

- > If you want to push the PR 30/II, you must set both brake lock release levers ① on the left and right drive side to **"UNLOCK"** (downwards).



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 ①

##### 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. 30: Brake lock release lever (emergency release)

## 13.9 Information regarding roads, types of ground



### WARNING

**Danger of tipping** for persons operating a PR 30/II when travelling at an incline of more than 10°.

**Danger of tipping** for persons operating a PR 30/II when travelling downhill and if the seat is in the foremost position.

**Danger of tipping** for persons operating a PR 30/II when travelling over obstacles.

- > Avoid routes with inclines greater than 10°.
- > Move the seat of the PR 30/II back when travelling downhill.
- > Do not cross any obstacles that are higher than 60-70mm.
- > Only travel with your seatbelt fastened.

### 13.9.1 Forging 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.

### 13.9.2 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 30/II with the battery box.



### 13.9.3 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"

### 13.9.4 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 30/II.
- On difficult terrain or over kerbs, only drive with the seat completely lowered! (because of the impact on the engine)

### 13.9.5 Slippery ground, traction

- When travelling over slippery ground (e.g. uncoated ramps, wet grass, snow, ice, etc.) your PR 30/II can lose traction. This means that the drive power or the braking power is not transferred.



The PR 30/II has a parking and service brake which complies with the Road Traffic Licensing Regulation (StVZO).

## 14. ***Parking and storing the PR 30/II***

In order to avoid damage to the PR 30/II, you must observe the following rules if you park the PR 30/II (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 30/II to high or to too low temperatures.
- Cover the PR 30/II with a suitable cover.

## 15. 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.

### 15.1 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.

## 15.2 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 guideline

- 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 ②



If your vehicle is equipped with a DAHL docking station, further fastening is not necessary.



See section "5.4.2. Deliverable accessories"

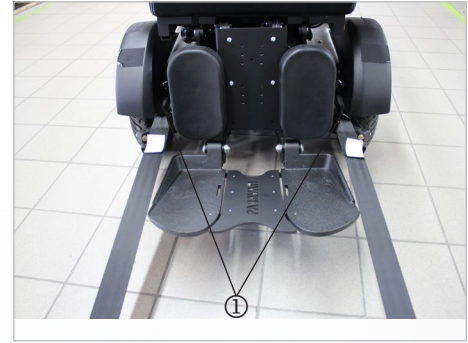


Fig. 31: Attachment point at the front




Fig. 32: Attachment point at the rear



### 15.3 *Fasten the seatbelt in a moving vehicle*

 <b>DANGER</b>
<p><b>Potential risk of injury or serious injury or death.</b></p> <p>An approved, vehicle anchored safety belt system, should be used to secure occupant.</p>

 <b>DANGER</b>
<p>Belt must not be held away from the body by wheelchair components such as armrests or wheels.</p>

 <b>DANGER</b>
<p>Belt restraints should make full contact with the shoulder, chest and pelvic. Belts should be positioned low on the pelvis near the thigh-abdominal junction.</p>

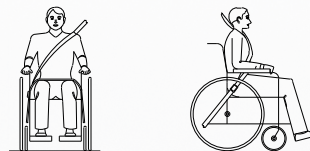


Fig. 33: Illustration of improper belt-restraint fit

Fig. 34: Illustration of proper belt-restraint fit

## 15.4 Securing the wheelchair with a 4 point strap restraint system

Standard ISO 10542-1 tie down straps are only tested to 85 kg + user.

It is recommended to use with 4 point strap restraint system rated for the total weight of the wheelchair including any option, 2 at front and 2 at the back that conforms to ISO 10542-1.

If using a standard 4 point WTORS for securing a wheelchair heavier than 85 kg, use 6 straps to secure the wheelchair, 2 straps at the front and 4 straps at the back.

Recommended angle for tie down straps.

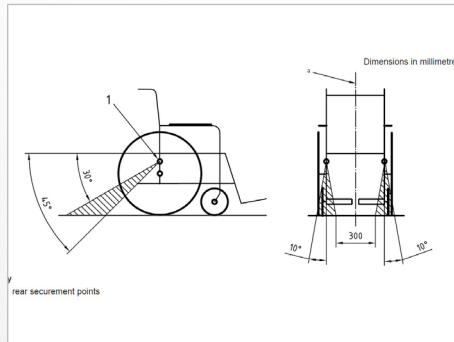


Fig. 35: Rear securement points

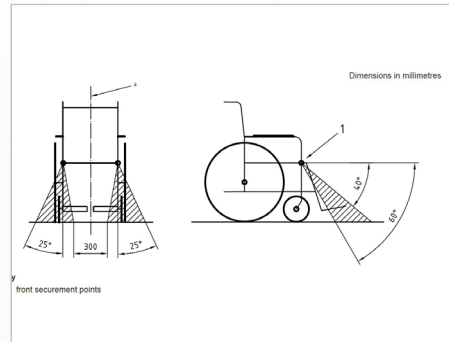


Fig. 36: Front securement points

## 15.5 Occupant restraint instruction

- > Use a vehicle anchored occupant restraint system to secure the occupant.
- > Both pelvic and upper torso restraint belts must be 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.

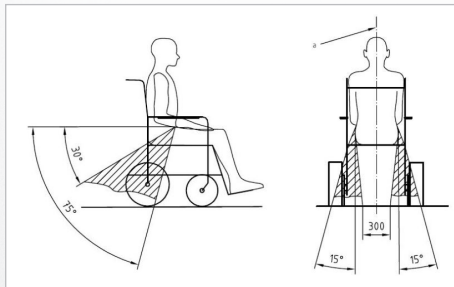


Fig. 37: Positioning the occupant restraint with 4 point strap system



### 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 preferred zone of 30° - 75° to the horizontal.

- 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.

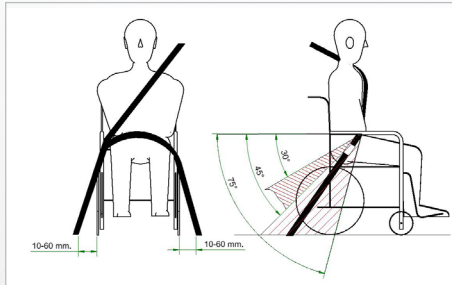


Fig. 38: Positioning the occupant restraint for use with dahl docking system only



## 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.



## 15.6 Dahl Docking Systems Assembly

According to ISO 7176-19:2008, the Dahl Docking Station MK II and VarioDock™ are suitable for power wheelchair models PR 50, PR 30/II, PR 25, PR 35 S, PR 35, PR Piccolino, PR Biolution and PR Heavy Duty from Paravan.

The following instructions explain how to assemble the Dahl Docking Station MK II and VarioDock™ on the wheelchair, using the PARAVAN adaption kit. Please also refer to Dahl Engineering's 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. 39: Dahl docking system



## 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.

## 15.6.1 Content of Dahl docking stations

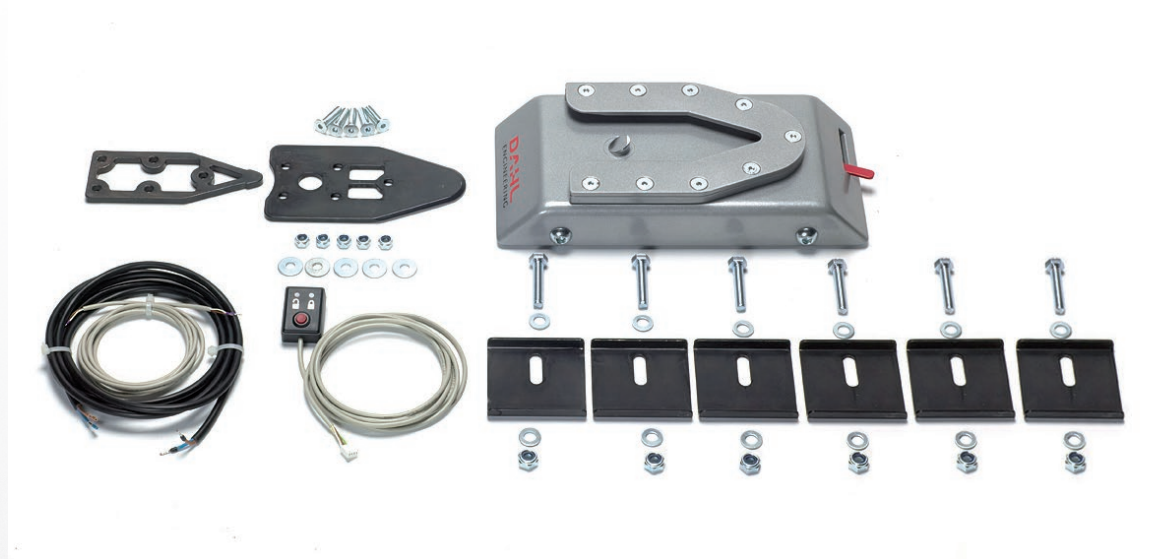


Fig. 40: Content of Dahl Docking Station MK II standard set # 501750



Fig. 41: Content of Dahl VarioDock™ standard set # 503600



## 15.6.2 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.

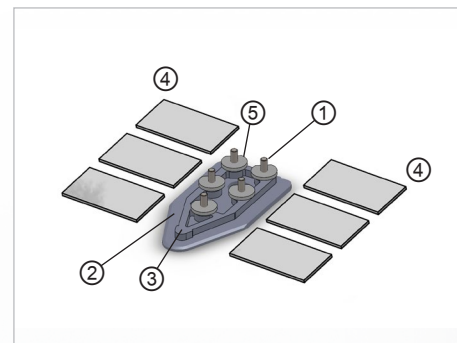


Fig. 42: Dahl Adaptationkit for Dahl Docking Station



Fig. 43: Torx TX 27

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!

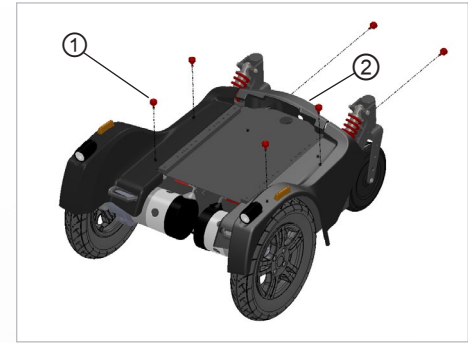


Fig. 44: Knurled screws Paravan

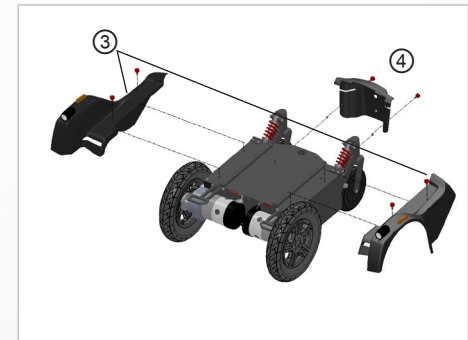


Fig. 45: Rear and side covers Paravan

## 15.6.3 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. 46: Main cable battery

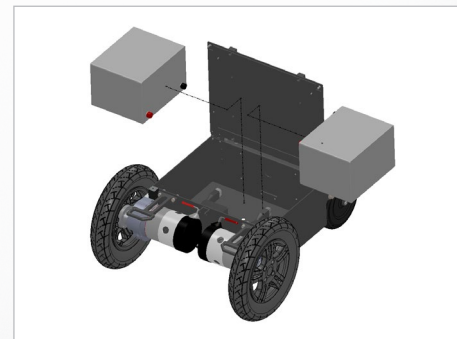


Fig. 47: Removing the batteries

## 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 with a screw lock. If using the power height adjustable Dahl VarioDock, additional spacers will not be needed for adjusting the height.

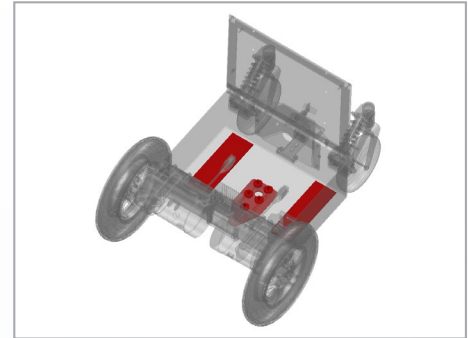


Fig. 48: Position of the Dahl system

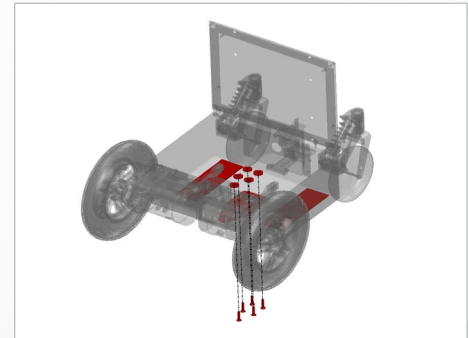


Fig. 49: Fastening of the Dahl system



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

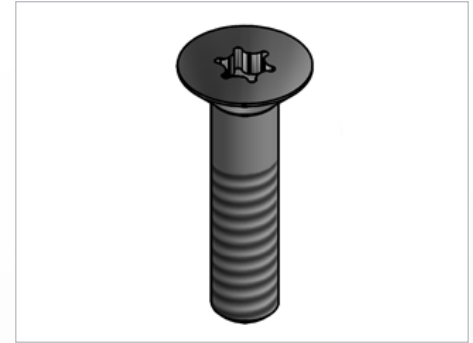


The PARAVAN adapter kit can also be pushed further forwards or backwards and fastened accordingly, depending on the position of the counterpart in the vehicle.



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 30/II, use the screws provided.



## DANGER

**Potential risk of injury or serious injury or death due to use of incorrect screws.**

- > Use the screws provided.
- > Do not use any other screws than those supplied from Dahl Engineering (part no. 502800 which is quality 14.9 with torx 27 key). Standard screws will not be strong enough in the event of a collision.

## 15.6.4 Description of the Dahl Docking system functions

- ① Dahl Docking station
- ② Lock plate and spacer
- ③ Lock pin
- ④ Red LED
- ⑤ Green LED
- ⑥ Control panel
- ⑦ Release button
- ⑧ Manual emergency release lever
- ⑨ Manual operating lever



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

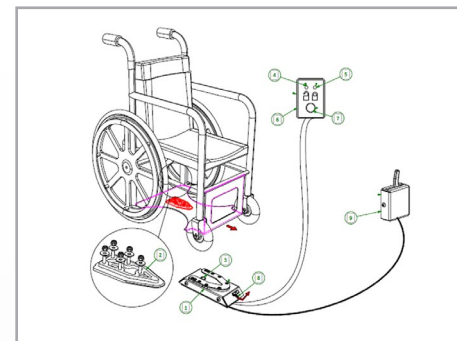


Fig. 50: System functions Dahl

## 15.6.5 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.



Please refer to Dahl Engineering's installation and user guide for height adjustable VarioDock™ 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).

## 15.6.6 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™ 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.

## 15.6.7 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™ systems.



Fig. 51: Manual release step 1

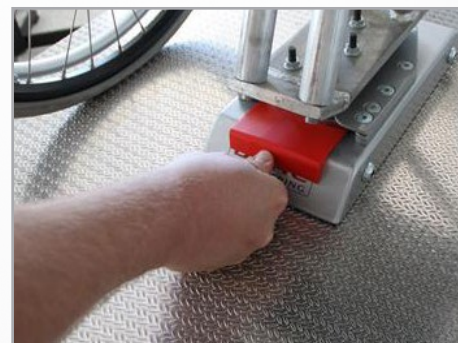


Fig. 52: Manual release step 2

## 16. Controls

### 16.1 Control panel R-NET CJSM2

#### 16.1.1 Overview of the control elements



Fig. 53: 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 ⑨ for selecting/drilling down to movement levels
- > "Hazard lights" key ⑩
- > "Light" key ⑪
- > Charging status indicator for storage battery ⑫



## 16.1.2 Status display

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

Symbols of the status indicator:

- > Charging status of the storage batteries ①
- > Direction indicator, left ②
- > "On/off" light ③
- > System status ④ ("tortoise" → speed control active)
- > Direction indicator, right ⑤
- > Time ⑥
- > Hazard lights "on/off" ⑦
- > Current seat function / Current driving profile ⑧



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



Fig. 54: Function keys



Fig. 55: Status display

## 16.1.3 Start, switch off



Fig. 56: Speed control (tortoise) active

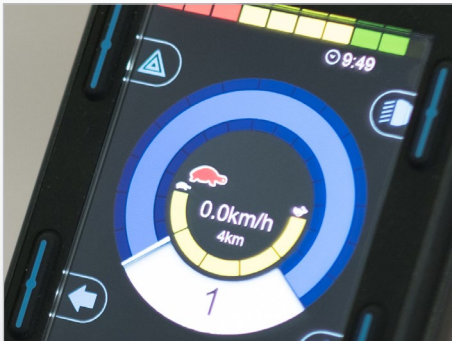


Fig. 57: „On / off“ key

### Start

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).

### 16.1.5 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. 59: Turn signal right / left

### 16.1.4 Switch light 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. 58: Light on and off



Fig. 60: Light symbol (colour)

## 16.1.6 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 green.
- Press the key again → The hazard lights / hazard lights symbol switch themselves off.



Fig. 61: Hazard lights on / off

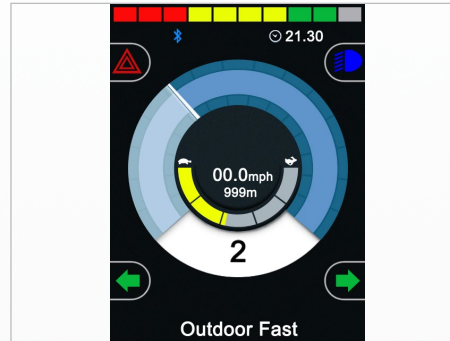


Fig. 62: Symbols (colour)



## 16.1.7 Driving functions overview



Fig. 63: 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



Fig. 64: Charging status indicator (driving function blocked)

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.

## 16.1.8 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 ① or downwards ② 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.
  - ① Move forwards
  - ② Turn to the right
  - ③ Move backwards
  - ④ Turn to the left



See section "3 Safety notes"



Fig. 65: Select drive program



Fig. 66: Joystick travelling direction

## 16.1.9 Electrical seat adjustment



Fig. 67: 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 “← left/right →”.

> 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"

## 16.1.10 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 → left/right to access the options "year, month, date, day of the week, hours and minutes". Select the desired option by moving the joystick "← left/right →".

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



Fig. 68: "Set time" function menu

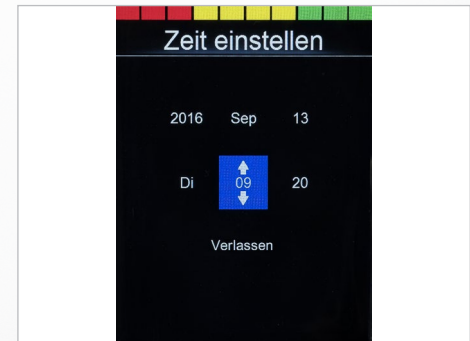


Fig. 69: Setting the time and date



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



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 → quit the program. Move the joystick "← left/right →".

Fig. 70: Set clock to visible/invisible

### 16.1.13 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 → quit the menu.

### 16.1.12 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.

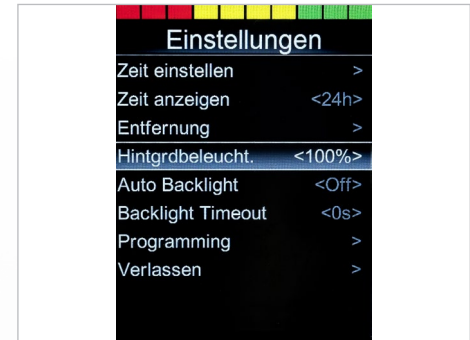


Fig. 71: Setting the display brightness

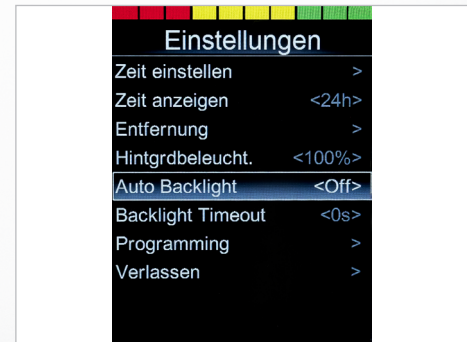


Fig. 72: Autom. display brightness

### 16.1.14 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. 73: Blocking the controls

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


- > Switch on → and a "padlock symbol" appears .
- > 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. 74: Lock symbol

## 16.2 Control panel R-NET CJSM-L

### 16.2.1 Overview of the control elements



Fig. 75: 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 ⑨ for selecting/drilling down to movement levels
- > "Hazard lights" key ⑩
- > "Light" key ⑪
- > Charging status indicator for storage battery ⑫



## 16.2.2 Status display

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

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
- > Time ⑥
- > Hazard lights ⑦



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



Fig. 76: Function keys



Fig. 77: Status display

## 16.2.3 Start and switch off



Fig. 78: "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. 79: Speed control (tortoise) active

## 16.2.4 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. 81: Turn signal right / left

## 16.2.5 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. 80: Light on and off



Fig. 82: Light symbol (colour)



## 16.2.6 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 → The hazard lights / hazard lights symbol switch themselves off.



Fig. 83: Hazard lights on / off



Fig. 84: Symbols (colour)



## 16.2.7 Driving functions overview



Fig. 85: 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
- > 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

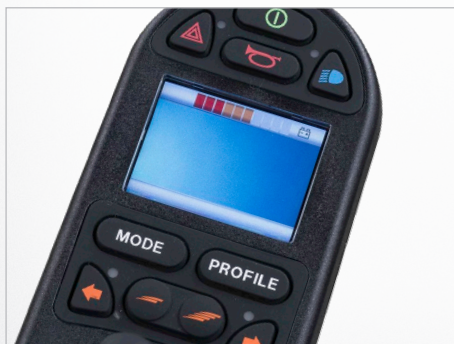


Fig. 86: Driving function blocked

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.

## 16.2.8 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"



Fig. 87: Select drive program



Fig. 88: Joystick travelling direction

## 16.2.9 Electrical seat adjustment

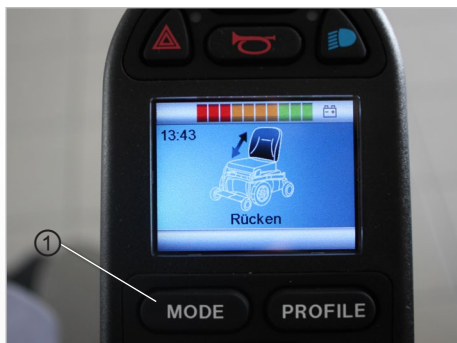


Fig. 89: Display of seat functions

Use the "Mode key" to switch from the drive program to the seat functions. Select the seat function by moving the joystick "← left/right →".

> 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"



## 16.2.10 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 → right to access the options "year, month, date, day of the week, hours and minutes". Select the desired option by moving the joystick "← left/right →".

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



Fig. 90: "Set time" function menu



Fig. 91: Setting the time and date



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



Fig. 92: 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 → quit the program.

## 16.2.12 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 → quit the menu.

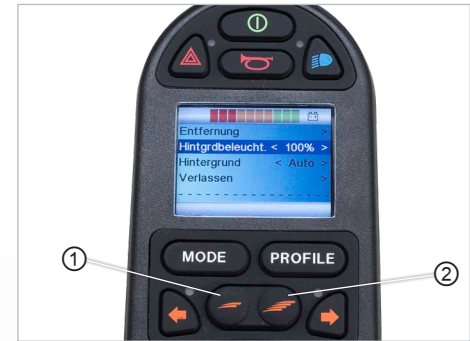


Fig. 93: Setting the display brightness

## 16.2.13 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.

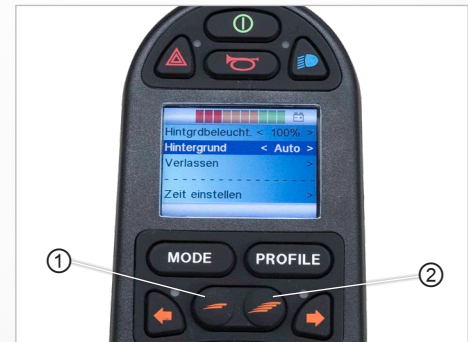


Fig. 94: Setting the display background

### 16.2.14 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



Fig. 95: Blocking the controls

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


- > Switch on → and a "padlock symbol" appears .
- > 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. 96: Controls blocked – block symbol

## 17. **Moving out of the PR 30/II seat**

For your own safety, the instructions below must be followed in order to enable you to move out of the PR 30/II independently:

- You should be able to safely carry your own weight.
- You should be able to push yourself off from the PR 30/II 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 30/II could be accidentally activated and would then start following uncontrolled commands.



If you want to move to the seat of another PR 30/II, the brake lock release lever must be set to "**LOCK**" (upwards) and the PR 30/II must be switched off.



See section "13.9.1 Operation of the brake lock release lever (emergency release)"



## 17.1 Procedure when moving sideways out of the seat

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

- Position the PR 30/II sideways
- Adjust the seat to the required height
- Turn off the PR 30/II
- Fold up ① footrests
- Swing ② armrest upwards
- Move from the seat



Fig. 97: Move from the seat, footrests

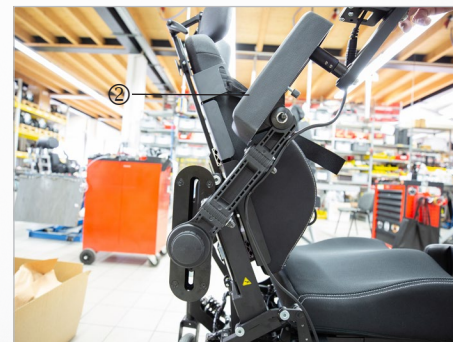


Fig. 98: Move from the seat, armrest

## 18. **Maintenance and servicing**

If you want to use and operate the PARAVAN PR 30/II 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 30/II.

However, in order to guarantee its perfect functioning, the PR 30/II must nonetheless:

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

### **18.1 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.

## 18.2 *Cleaning and care*



Never use a high-pressure cleaner to clean the wheelchair. 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.

### 18.2.1 *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 multi-function oil or lubricant.

### 18.2.2 *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.

### 18.2.3 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.

### 18.2.4 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](http://www.rki.de)**.



The PR 30/II 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 30/II 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 30/II can be dismantled into the following main parts for the purpose of recycling:

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

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.

## 19.1 **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 take priority over its disposal.

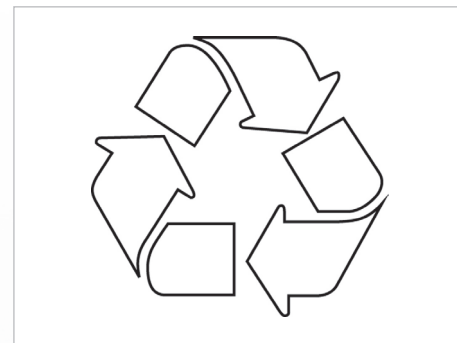


Fig. 99: Recycling

## 19.2 **Advice 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 „18 Maintenance and servicing“.

## 19.3 *Recommissioning*

If the PR 30/II 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,
- > complete maintenance or review,
- > complete cleaning.



Before it can be operated again, the PR 30/II must be completely cleaned and approved for use after a thorough inspection by a service technician authorised by PARAVAN GmbH.



See chapter “18 Maintenance and servicing”

## 19.4 **Information regarding transfer of the product**

If you give or sell the PARAVAN PR 30/II 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.



See chapter “18 Maintenance and servicing”



## 20. Troubleshooting

### 20.1 Status indicator on the control panel

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.

<b>Error message</b>	<b>Meaning</b>
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.
Motor error / Motorfehler	This message appears when the control system detects that the connection to a motor has been interrupted. Check the motors, cables and connections in the control system.
Gone to sleep / Ruhemodus	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. 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. 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.

## 21. **Electrical system**

### 21.1 **Automatic fuses**

The PARAVAN PR 30/II 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 30/II electrical consumers – the response is an instant and complete electrical shut-down of the entire power wheelchair.



See section "21.2 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 "21.4 Overload protection"

## 21.2 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.

### 21.2.1 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 30/II is ready for operation again.

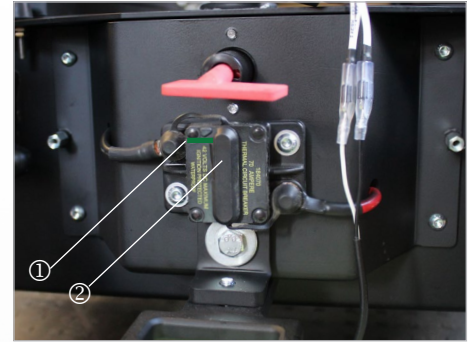


Fig. 100: Main fuse, active

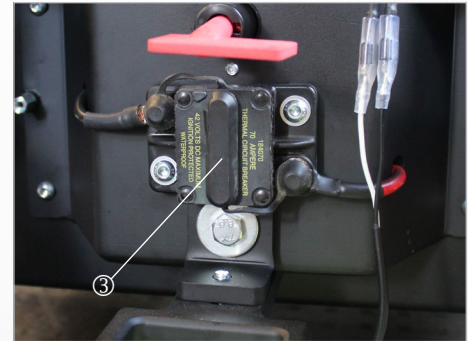


Fig. 101: Main fuse



## 21.3 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. 102: Battery disconnect switch

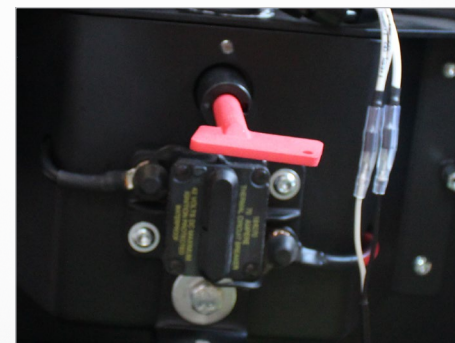


Fig. 103: Battery dicon. switch, inactive

## 21.4 **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 30/II 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 30/II comes to a standstill.

### 21.4.1 Reset the triggered overload protection:

- > Switch on the power generators, e.g. lighting. The generated excess power is now immediately used again.
- > The PR 30/II is ready for operation again.

## 21.5 Connection option for auxiliary units



The PARAVAN PR 30/II offers the option of connecting different auxiliary units with a voltage of 12 volts or 24 volts to the PR 30/II 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.

## 21.6 The lighting installation

The PARAVAN PR 30/II 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 "16 Control"

Parts of the lighting installation:

- LED front headlamps ①
- LED direction indicator ②
- LED rear light ③



Fig. 104: Illumination at the front



Fig. 105: Illumination at the rear



## 21.7 Maintenance-free storage batteries

Your PARAVAN PR 30/II 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.



See section "16 Control"



See section "21.10 Charging the PR 30/II"

## 21.8 *Information regarding storage batteries*

General

Information

Prepare

Operate

Help

Technology



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 "19.10.2. 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 "17 Disposal and Environmental Protection"

## 21.9 Replacing the accumulators

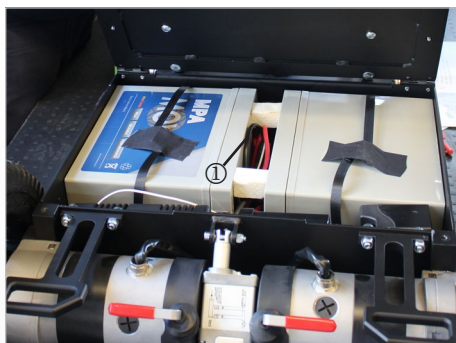


Fig. 106: Energy coupling

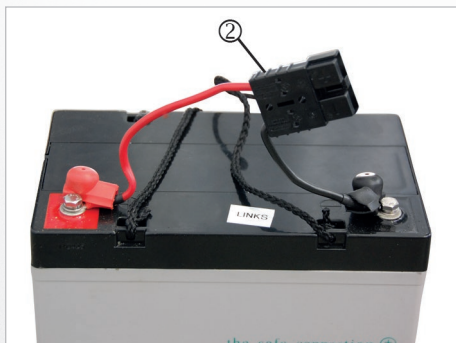


Fig. 107: Modification, accumulator



If it is necessary to change the batteries on your power wheelchair, have this done by your service technician or at your dealer to ensure the functional safety of your power wheelchair.

- > Raise the lift arm.
- > Remove the fairing.



See chapter „12 Removing and fitting the chassis panelling“.

- > Loosen 6 cant screws
- > Fold the seat backwards
- > Disconnect the energy coupling ①
- > Remove the accumulators: -> Pull the accumulator out of the battery box by the retaining loops.
- > Transfer the remaining part of the energy coupling to the new accumulator.
- > Insert the new accumulator into the battery box.
- > Connect the energy coupling.
- > Fit the fairing.
- > Carry out a function check.

## 21.10 Charging the PR 30/II



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



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.
- Daily overnight charging is recommended.
- The PR 30/II 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 "21.7 Maintenance-free storage batteries"



See section "21.8 Information regarding storage batteries"



## 21.10.1 Procedure for charging the PR 30/II

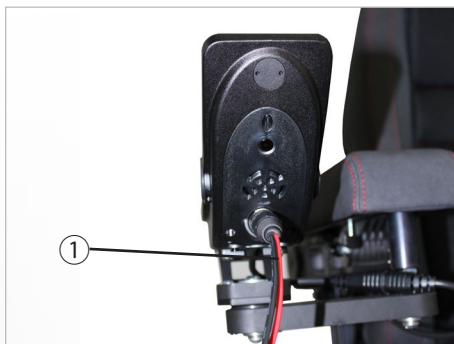


Fig. 108: Plug in the charging cable

- > Turn off the PR 30/II.
- > 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.

## 21.10.2 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.

## 21.10.3 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. 109: Set up charger

## 22. *Technical equipment*

### 22.1 *Technical data and dimensions*

#### 22.1.1 The average lifespan

We assume an expected average product life of 8-10 years for this product, provided that the product is used within the intended use and all maintenance and service specifications are complied with.

When the life cycle expires, this date can be extended annually after evaluation by the manufacturer PARAVAN.

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 original spare parts.



The stated service life does not constitute an additional guarantee!

## 22.1.2 Technical Data

<b>Orthopaedic seat K210 seating unit</b>	
Seat width	400 mm
Seat depth	500 mm
Back height	580 mm
Lifting function as measured without seat	500mm - 800mm
Seat lift max.	300 mm
Tilting	0° (optional 0° - 45°)
Back angle	Backward 0° - 67°
Adjustment of foot position	120 mm
Seat length adjustment, optional	120 mm
Foot angle adjustment, optional	0° - 90°
Electric foot rest, optional	0° - 90°
Head support	5 positions
Armrest	6 axes with 12 individual adjustments
<b>Weights</b>	
Empty weight including accumulators, without seat	166kg
Empty weight including accumulators, with seat	198kg
Maximum load	140kg (standard), 141kg - 200kg (optional)



## 22.1.3 Dimensions

<b>Dimensions</b>	
Total width of chassis without seat (Standard seat fully within the chassis width)	640mm
Total length without foot rests, forward movement.	940mm
Total length without foot rests, reverse movement.	850mm
Total height, standard seat, including head support	1320mm
Total height, standard seat, without head support	1160mm
<b>Electrics</b>	
Accumulators	2 x 12 Volt
Lights	turn signal front and rear lights
Range	approx. 30km*
<b>Suspension / tyres</b>	
Distance between wheels for drive axle	520mm (inner width)
Distance between wheels for rear axle	340mm (inner width)
Wheelbase	640mm
Dimensions of front wheel	3.00 - 8
Dimensions of rear wheel	2.00 x 50

## Details of upholstery on armrests, seat and back, description of the frame

General

Information

Prepare

Operate

Help

Technology

<b>Armrest padding</b>	
Upholstery material:	PV foam
Strength:	20mm
Compression hardness:	7,2 kPa
Volume weight:	56 kg/m <sup>3</sup>
Cover:	BC 12 / Floridas

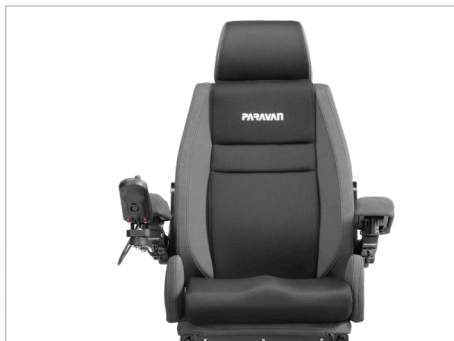


<b>Seat upholstery</b>	
Upholstery material:	PR Schaumstoff / MOI System
Strength:	50 - 110 mm
Compression hardness:	-
Volume weight:	340 +/- 25 N
Cover:	Marschwarz



Seat cushions and backrest cushions are molded foam parts and therefore cannot be measured in RG. Molded parts are measured according to DIN standards. This is done in N.

## Details of upholstery on armrests, seat and back, description of the frame




<b>Back upholstery</b>	
Upholstery material:	PR Schaumstoff / MOI System
Strength:	30 - 50 mm
Compression hardness:	77 kg/m <sup>3</sup> ± 5%*
Hardness level:	340 +/-25 N*
Volume weight:	260 +/- 25 N
Cover:	Marschwarz

\* These are not cut foam cuboids, so they are foamed as molded parts. And therefore measured in N according to Din ISO 2439.

<b>Frame</b>	
Upholstery material:	S2 235 JR / S3 55 M2
Coating:	Galvanization
Corrosion protection:	Galvanization



Seat cushions and backrest cushions are molded foam parts and therefore cannot be measured in RG. Molded parts are measured according to DIN standards. This is done in N.


<b>Driving properties</b>	
Floor clearance	80mm
Maximum height of obstacles	60mm
Turning radius	780mm
Maximum slope (uphill)	12° = 21%**
Maximum slope (downhill)	10° = 17%**
Maximum lateral slope	6° = 11%**
Speed	Standard 6 km/h, optional max. 10km/h*
* The maximum range was measured under test conditions. Weight, terrain and weather conditions may influence this figure in everyday operation.	
** When travelling on steeply inclined terrains do not use top speed, and also travel with particular care where the seat height has been adjusted, there is seat tilt or where the seat length has been changed, and on uneven surfaces (e.g. grass, gravel, sand, ice and snow)!	
 See Section "3 Notes on safety"	



## 22.2 Spare parts



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.

 <b>WARNING</b>	
<b>Danger of injury</b> for persons operating a PR 30/II which does not correspond to the original or delivered condition. <b>Material damage</b> to the PR 30/II through the use of unapproved parts or incorrectly installed parts.	
<ul style="list-style-type: none"><li>&gt; Do not make any technical modifications to the power wheelchair.</li><li>&gt; Only operate the PR 30/II in its original or delivered condition.</li><li>&gt; Use only original and approved replacement parts.</li></ul>	

## **23. Annexes and technical documentation**

### **23.1 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.

General

Information

Prepare

Operate

Help

Technology

## 23.2 Maintenance plan & maintenance recommendations

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

General

Information

Prepare

Operate

Help

Technology

When	What	Note
Every 6- 8 months	<b>Wheel fastenings</b> Check wheel nuts or bolts for tightness	Carry out check yourself or with an assistant  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	<b>Check:</b> - Cleanliness - General condition	See chapter <b>18.2 Cleaning &amp; maintenance</b>  Carry out yourself or with an assistant.
Every 12 months	<b>Inspection work</b> - Wheelchair - Charger	To be carried out by the specialist workshop



### 23.3 *Customer service book*

- > 1. Inspection (12 months after commissioning)  
 Date: \_\_\_\_\_ Signature: \_\_\_\_\_ Stamp: \_\_\_\_\_
  
- > 2. Inspection (annual)  
 Date: \_\_\_\_\_ Signature: \_\_\_\_\_ Stamp: \_\_\_\_\_
  
- > 3. Inspection (annual)  
 Date: \_\_\_\_\_ Signature: \_\_\_\_\_ Stamp: \_\_\_\_\_
  
- > 4. Inspection (annual)  
 Date: \_\_\_\_\_ Signature: \_\_\_\_\_ Stamp: \_\_\_\_\_

General

Information

Prepare

Operate

Help

Technology

› 5. Inspection (annual)  
Date:

Signature:

Stamp:

› 6. Inspection (annual)  
Date:

Signature:

Stamp:

› 7. Inspection (annual)  
Date:

Signature:

Stamp:

› 8. Inspection (annual)  
Date:

Signature:

Stamp:

# 23.4 EC declaration of conformity

**Declaration of Conformity**  
Version 1

**PARAVAN GmbH**  
Paravanstraße 5-10  
72539 Pfronstetten-Aichelau  
GERMANY

**We declare under our sole responsibility that the product listed below**  
Wir erklären in alleiniger Verantwortung, dass das unten aufgeführte Produkt  
Nous déclarons sous notre propre responsabilité que le dispositif médical

**Intended purpose**  
Produktbezeichnung: Code, Typ, Model, Anwendungszweck

Description du produit; code, type, modèle, destination,

Power Wheelchair, designed for the mobility of  
a person with dissability indoors and outdoors.  
Elektronistuhl, konzipiert für die Mobilität einer Person  
mit Behinderung im Innen- und Außenbereich.  
Fauteuil roulant électrique conçu pour la mobilité  
d'une personne handicapée à l'intérieur et à l'extérieur.

**PR 30/II**

G052122390

PARAVAN GmbH  
Paravanstraße 5-10  
72539 Pfronstetten Aichelau  
GERMANY

DE-MF-000006423

**Basic UDI-DI:** G052122390

**manufactured by:** Paravanstraße 5-10 Pfronstetten Aichelau GERMANY

**Single registration number (SRN)** DE-MF-000006423

**meets all the provisions of the Regulation (EU) 2017 /745 on medical devices, especially Annex I - III, which apply to it.**  
*allen Anforderungen der Verordnung (EU) 2017/745 über Medizinprodukte, insbesondere Anhang I-III, entspricht, die anwendbar sind  
remplit toutes les exigences du Règlement (UE) 2017/745 relatif aux dispositifs médicaux, en particulier annexe I-III, qui le concernent.*

**Device Classification according to Annex VIII** **Class I**  
Produktklassifizierung nach Anhang VIII  
Classification selon l'annexe VIII

**Initial date of first Declaration of Conformity:** 03/2013  
*Erstmalige Ausstellung der Konformitätserklärung:  
Année de première Déclaration de Conformité.*

**Valid until:** 31.12.2025  
*Gültig bis:  
valable jusqu'au:*

**Place and issue date:** Aichelau 05.07.2022  
*Ausstellungsort und -datum:  
Lieu et date de délivrance:*

Geschäftsführer: Roland Arnold  
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Kontakt Manager: Roland Arnold  
IBAN: DE56 6405 0090 0100 0049 10; BIC: SOLA DE33 REU  
Umsatzsteuer-ID: DE237525479  
IK 930841201  
Commerciauk 46 Reutlingen; IBAN: DE27 6404 0033 0428 8270 00; BIC: COBA DE33 040

**Operations Manager**  
Roland Arnold  
*Roland Arnold*  
Geschäftsführer  
Le Directeur des Opérations

1

Fig. 110: EC declaration of conformity

## 23.5 Protocol of the handover briefing

Due to the flexible options available for setting up your electric wheelchair, you must observe the following points:

### Where there is tilt:

- It should be ensured that the seat is not leaning out too far to the front or back, as this may mean you might slip out of the seat.
- The tilting is set suitably for your body weight.
- First set tilt, and then set the back support.
- Where using tilting always wear your safety belt.
- Where using tilting travel only at half the speed of the selected driving level.

### Seat and back support in the special orthopaedic seat:

- Adjust the back support only as far as absolutely necessary as the motor does not have the power to lift the weight of the driver. Use the tilt function first.
- Be careful of other components (the backpack, etc.) when adjusting the back support and tilting.

### Lifting arm:

- Ensure head and leg clearance when lifting and lowering the seat. Foot rests should not come into contact with the ground.
- With the seat left extended more than about 100mm the electric wheelchair will move at only half speed.



**Foot rests:**

- > When adjusting the height and angle of the foot rests, be careful that the height does not make contact with the seat padding.
- > The foot rest setting must be higher than any obstacle. In addition, the foot rest must not become caught up by the obstacle, as this may cause the electric wheelchair to topple over.

**Seat adjustment forward and back:**

- > When you are moving the seat back or forwards, make sure that the foot supports positioned at a low height.
- > When driving the electric wheelchair, make sure that the seat is not in its foremost position, as this could generate a danger of overbalancing!

**Control/Joystick**

- > Your electric wheelchair is controlled by moving the joystick forwards, backwards and from side to side on the control panel







PARAVAN WHEELCHAIR SERIES

*User manual*  
**PR 30/II**

ORIGINAL INSTRUCTION MANUAL

**Paravan GmbH**

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