

SKS ROLTEC

User Manual

User Manual for

MOVEO+ / SR 71F

Category B wheelchair

(FWD) SR-71F_USERMANUAL v2.0.0 UK



Preface



READ THIS USER MANUAL BEFORE USING THE WHEELCHAIR.

Please note: For pre-sale information, see the last page of this user manual.

SKS ROLTEC would like to congratulate you on the purchase of your new wheelchair and thank you for the trust you have placed in us in choosing our product. Models may vary, therefore not everything will necessarily apply to your wheelchair.



The first time the wheelchair is used, it should be in an area with plenty of space and no traffic, starting at a low speed.



Children and young people should read the documentation for the wheelchair with an adult before using it for the first time.

In this user manual you will find all the information you need to be able to operate the wheelchair. If you have any questions that are not clarified in this user manual, you are always welcome to contact your SKS ROLTEC dealer.

If you find that the font size in the printed version of the user manual is difficult to read, the user manual is available in large font in an electronic version of this manual and is available upon request (e-mail: info@roltec.com). You can then enlarge the PDF file on the screen using the zoom function.

Service, repairs and serious incidents

For serious incidents, repairs and/or service contact your dealer, or ROLTEC el-kørestole (e-mail: info@roltec.com, tel: +45 87434900). A list of dealers can be found at www.roltec.com.

Information about product recalls and product safety can be found in EUDAMED. In case of product recalls and product safety concerns, all potentially affected wheelchair users will be contacted immediately.



Remember to follow the daily, weekly and annual inspections/checks instructed in this User Manual.

Intended use / Indications

ROLTEC's electric wheelchairs are designed for people who have a partial or full walking disability, but whose sight, physical and mental capacity enables them to use an electric wheelchair.

Contraindications

- People with severe cognitive impairments may be unable to operate an electric wheelchair safely or make decisions related to its use.
- People with severe visual impairments may be unable to see obstacles or hazards in their path, which may increase the risk of accidents.

Product approval

This product meets the requirements of standard EN 12184:2022, ISO 7176-8, ISO 7176-14 and ISO 7176-9.

(FWD) SR 71 F / Moveo+.

Category B

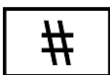
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Produced and issued by ROLTEC el-kørestole A/S

Release date: 2026-05-19

Symbols used in this User Manual

 Exercise extreme caution when this symbol is shown. Failure to do so may lead to personal injury and material damage, including damage to the wheelchair.	 Exercise caution when this symbol is shown.	 Do not ride in the chair when this symbol is shown.
 Read the user manual and the enclosed documentation	 This product complies with EU Medical Device Regulation 2017/745	 Manufacturer
 Unique Device Identifier	 Device model	 Serial number
 Catalog reference	 Date of production	

ROLTEC contact info:



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SAFETY INSTRUCTIONS



If the height is changed using force, with the seat raised or tipped, there is a risk of the chair overturning. In such case, to minimise this risk, it is important that the seat is raised as little as possible, is in a horizontal position with the chair back as upright as possible.



Driving on surfaces that slope to one side should be avoided, as the tilting may increase the risk of the chair overturning. When the chair is used on uneven surfaces, the seat should not be raised, to ensure the chair's stability.



The stopping distance of the wheelchair can be significantly greater when driving on slopes than when driving on level ground. Always reduce speed before driving downhill, uphill or across a slope.



Avoid touching leaking batteries, as the contents are corrosive and can be harmful to your health.



ROLTEC el-kørestole A/S is exempt from all liability for any accidents caused through negligence, nor can ROLTEC el-kørestole A/S be held liable for the personal injuries or material damage that may arise if the user or other person has not followed the recommendations, warnings and instructions that are given in this user manual. You should therefore read the instructions for use thoroughly. It contains important warnings and instructions.



Increased risk of overturning if lift, tilt and electric back are used.



Moveo+ / SR 71F is approved for a user weight of 136 Kg.



You should always have the wheelchair switched off when getting in or out of the chair - also when you are being assisted by an attendant, so that the chair does not start to roll if the joystick is inadvertently activated.



When the control box is swung out to the side or into place, there may be a risk of getting caught on the swivel bracket. Take care not to get your own or anyone else's fingers caught



The wheelchair is EMC-tested. However, this does not rule out the possibility of the wheelchair being affected by electro-magnetic fields for example from mobile phones. For this reason, transportable transmission, receiving and communications devices should not be used or switched on when the wheelchair is switched on. Should the wheelchair be started up unintentionally, or if the brakes fail, the wheelchair must be switched off immediately. Note that this does not rule out the possibility of the chair emitting electromagnetic fields, which may affect the surroundings, for example, office alarm systems.



Warning; the chair's electronics may cause so much electromagnetic interference that store alarms, for example, and electric gates in the immediate vicinity of the wheelchair can be affected.



Exercise particular care when driving down ramps.



When the chair's brakes are released, the chair may start to roll if it is standing on a sloping surface.



When braking (emergency braking) by pressing the On/Off button, the user's upper body can fall forwards and, in extreme cases, this may result in the user falling out of the chair. This form of braking should only be used as an emergency stop.



Batteries should be charged in a well-ventilated area.



If the batteries are damaged and leak, contact your dealer, as it may be hazardous to come into contact with the contents of the batteries. The wheelchair should then be stored in a dry, well-ventilated room. Spent batteries should be taken to the local authority's waste disposal site for recycling. This also applies to other parts of the wheelchair, e.g. used tyres and tubes. The whole wheelchair may also be returned to the dealer to be disposed of.



If there is a strong smell during charging (there may be a fault with the batteries), contact your dealer, as it may be hazardous to breathe in the vapours from the battery. The wheelchair should then be stored in a dry, well-ventilated room.



When the wheelchair is exposed to external heat sources, such as the sun's rays, the surface temperature may increase so much on some surfaces that you could burn yourself on them. This applies to dark and black surfaces in particular.



Warning; the wheelchair's operating parameters can be adjusted, so they fall outside the limits specified in the standard (EN 12184). The user must beware of the dangers this can lead to, such as long braking distances. Always let the dealer carry out adjustments and settings



Warning; there is a danger of the wheelchair being caught up on poor terrain, e.g. loose sand or deep holes.



With regard to fire hazards, it is hereby stated that the combination of the seat's foam padding and upholstery has been tested and approved in accordance with EN 1021-1:2006 and EN 1021-2:2006



Only equipment that is assembled by personnel authorised by SKS ROLTEC may be used.



When using the chair and its functions, there may be a danger of getting stuck in it. When the control box is swung in or out to the side, there may be a risk of getting caught on the swivel fitting.



A headrest should always be used when the electrical functions - Tilt and Back - are used.



Beware that, if the chair is left in sunlight, the upholstery can get so hot that it can cause burns.



The wheelchair's lift and tilt functions are designed in such a way that it will not fall by itself, but will only move when these functions are used.
These functions are also designed to ensure continuous driving.



If the wheelchair is not secured properly in a vehicle, this may cause damage to the vehicle itself, the wheelchair or the passengers in the vehicle during the journey. If you do not use a seatbelt while sitting in a wheelchair, this may lead to serious injuries in the event of an accident.



No modifications or replacements should be made to the wheelchair's mounting points or to the construction and frame parts or components without consulting the wheelchair manufacturer.



A Dahl Docking Station may only be built into a wheelchair by the qualified and authorised staff of a registered firm that carries out car adaptations. To order Dahl Docking and accessories, please contact Dahl Engineering in Denmark for further details.
You can find Dahl at www.dahlengineering.dk



The wheelchair may only be transported in a vehicle that is approved or adapted for such purposes. It is safer if the wheelchair is separated from the driver's cabin. Transport in a trailer is also an optional recommendation. If the wheelchair is transported in a bus, van or other vehicle, it is essential that the chair is properly secured and that the vehicle's mounting points are firmly fixed. In all transport situations, the wheelchair must be correctly secured at the 4 tie-down points, to prevent the chair from slipping or tilting during the journey. Check that the wheelchair is properly secured and that the parking brakes are activated. The wheelchair can be locked in position by attaching the mounting straps through the fittings on the front and back, each of which has an indication label.



Follow the vehicle manufacturer's mounting instructions to secure the wheelchair. Always make sure that the mounting points on the vehicle are securely fixed. This is strongly recommended, as the heavy wheelchair may cause serious problems in the event of a road accident.



If the instructions for use are not followed carefully, this will put the user at great risk of danger and the wheelchair at risk of damage.

Adjustments and settings before use

Before the wheelchair is used for the first time, it must be correctly adjusted to the user and the intended use environment. The wheelchair shall only be used when its configuration (the seating position, leg supports, armrests, etc..) has been adjusted so that the user can operate the wheelchair safely and comfortably. The initial adjustment should be carried out by qualified personnel who have the necessary technical competencies, such as . For more information on adjustments see the service manual provided.

Check before running

- ! The following should be checked before running:
- ! The battery's charge status
- ! Set at the required speed

⚠ Turn off the control box before getting in and out

👉 When driving indoor, the wheelchair shall not be driven faster than speed level 3 of the 5 speed levels.

For further information about speed levels read section "Speed".

For further information about intended driving read section "SAFETY INSTRUCTIONS".

Users are advised that changes to the control parameters and other settings undertaken by the user or other unauthorised personnel are made at their own risk!

- ! Always let the dealer carry out adjustments and settings

Inspection:

Daily inspection

⚠ It is extremely important to check the chair for damage on a daily basis. Pay particular attention to visible breakages in cables and defects in the rubber bellows on the joystick.

👉 If the damage mentioned above is present, the wheelchair should not be used, and driving it is at your own risk!

⚠ If you find that the wheelchair and its accessories are not working as expected, or if there are unusual noises or a suspected defect, contact your wheelchair supplier as soon as possible.

Weekly check

Parking brake: This test should be carried out on an even surface, with at least one metre's clearance around the wheelchair.

1. Power up the wheelchair.

Check that the wheelchair remains switched on after initialisation and that the battery indicator shows a sufficient battery level.

2. Push the joystick slowly forwards, until you hear that the parking brakes are activated. The wheelchair will now start to run slowly.
3. Release the joystick. You should now be able to hear both parking brakes being activated within a couple of seconds, and the chair braking.

Repeat the test three more times.

Push the joystick slowly backwards, to the left and to the right.

Connectors and cables: Check that the cables and connector are arranged neatly and not damaged.

Joystick rubber seal: Check that the rubber around the control stick is not damaged or torn, so that no water or foreign bodies are able to penetrate.

Joystick mounting: Check that the control box and fittings are mounted properly and are not loose. Do not over-tighten any screws

Monthly check



Check the air pressure in the wheels at least once a month.

Annual check



We recommend that the chair is sent for servicing once a year by an authorised ROLTEC dealer in the country in which it was purchased. Contact your dealer if there are any problems or if a solution is not described in this user manual.

If your chair is equipped with an electrically adjustable back rest, this should be checked once a year. Moving parts should be lubricated and checked for wear. All visible bolts should be re-tightened.



Power consumption increases significantly if there is not enough air in the tyres. Different pressure in the tyres will result in uneven running

Warranty

The warranty is invalidated if the user has not carried out regular maintenance of the wheelchair, and the warranty will also be invalidated if the user has undertaken, or allowed a third party to undertake, repairs, mounting or modifications without ROLTEC's prior written consent. Nor does the warranty cover defects or damage caused by incorrect usage or storage of the wheelchair. The warranty will also be invalidated if the wheelchair is used in a manner or for a purpose for which it is inherently not suitable.

Components list

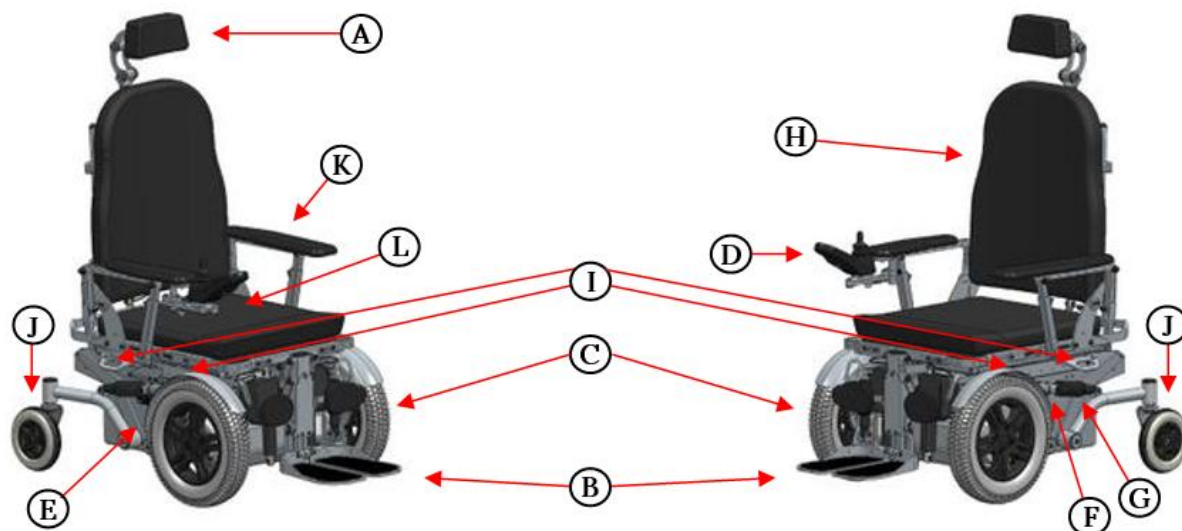


Figure 1. Components list.

A-Headrest	B-Leg support	C-Drive wheel
D-Control box	E-Identification label	F-Push/run handle
G-Adjustable spring	H-Chair back	I-Clamping eyes
J-Flywheel	K-Armrest	L-Seat cushion

All of ROLTEC's chairs have one unique identification number (label), which is located on the right side of the wheelchair, see diagrams.
It also has information, including the max. user weight and the time of production (see UDI).

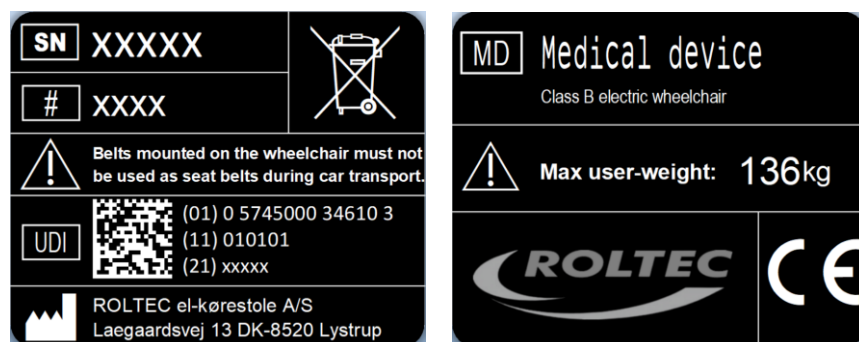


Figure 2. Identification labels.

The chair must be disposed of as electrical waste, i.e. the product must not be thrown out with household waste, but should be collected separately for environmentally-friendly disposal.

Control box and electric seat functions

The wheelchair has several electric seat functions that can be controlled from all available control boxes.

The following control boxes are described in the next sections, and may vary depending on your wheelchair configuration:

- CJSM
- CJSM2
- JSM

The following functions can be made available:

- Reclining backrest
- Seat lift
- Seat tilt
- Leg support height
- Leg support bent outward

All available electric functions are infinitely adjustable. The functions may vary depending on the wheelchair configuration.

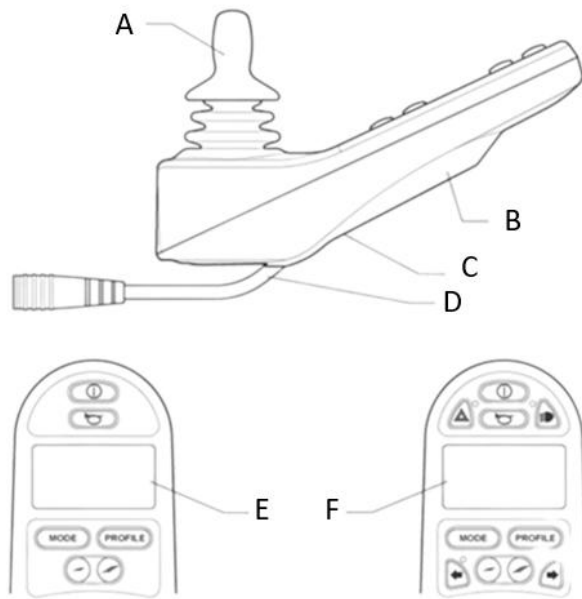
The wheelchair may be configured with other compatible control interfaces that are manufacturer-approved control input devices, provided that the selected configuration is verified as suitable for the individual user and does not exceed specified operating limitations of the device.



There is a risk of crushing or entrapment when using the electric seat functions. Make sure that nothing gets trapped between the moving parts, as this may cause injury.

Control box "CJSM"

The "CJSM" control box uses the PG R-Network and consists of a joystick, function buttons, and an LCD display. In addition, there is a charging socket on the front and two jack sockets at the bottom of the control box.



- A: Joystick
- B: Charging socket
- C: External jack sockets
- D: Control box cable
- E: LCD screen without lighting functions
- F: LCD screen with lighting functions

Figure 3. CJSM control box.

CJSM - Control box function buttons

	On/Off button: The On/Off button switches the wheelchair on and off. When the display lights up, the wheelchair is switched on; when the display is off, the wheelchair is switched off. Do not use the On/Off button to stop the wheelchair, except in an emergency.
	Profile button: The Profile button allows the user to navigate between the drive profiles. The number of available profiles depends on how the control system is programmed.
	Speed buttons: These buttons decrease or increase the maximum driving speed. The left button reduces the speed, while the right button increases it.
	Mode button: The Mode button allows the user to navigate through the electric seat functions when pressed once. Press the button again to return to drive mode. The available functions depend on the programming and the control equipment fitted.
	Light button: This button switches the wheelchair lights on and off. Press the button to turn the lights on, and press it again to turn them off. When the lights are on, an LED next to the button indicates this. * May be optional equipment on some models.
	Horn button: This button emits a warning sound when pressed.
	Left/Right indicator buttons: These buttons switch the wheelchair's left or right turn signal on and off. Press the button to activate the indicator, and press it again to turn it off. When the indicator is on, an LED next to the button shows this. * May be optional equipment on some models.
	Hazard warning light button: This button switches the wheelchair's hazard warning lights on and off. Press the button to turn the hazard warning lights on. When activated, the wheelchair lights flash. An LED next to the button indicates this at the same time. * May be optional equipment on some models.

Table 1. Explanation of the control box function buttons.

CJSM - Control box display

When switched on, the display lights up. The interface on the display shows the driving screen (Fig. 4). You can be either on the driving screen or the mode screen. Each screen can display several statuses. To change the screen status, the mode or profile button can be pressed, and navigation can be carried out within the interface.

Driving screen:

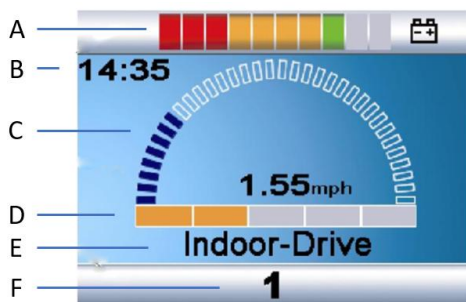


Figure 4. CJSM driving screen.

- A: Battery indicator
- B: Clock
- C: Speed indicator
- D: Speed level
- E: Driving display
- F: Current driving profile

Mode screen:

If you want to adjust your seating position (using the electrically adjustable parts), you must press the mode button once. The display will then switch to the mode screen and can no longer be controlled with the joystick for driving. To drive again, press the mode button once more.

On the mode screen, the electric functions are activated by moving the joystick either forwards or backwards. For example, move the joystick forwards to move the backrest forwards, and vice versa (Fig. 5).

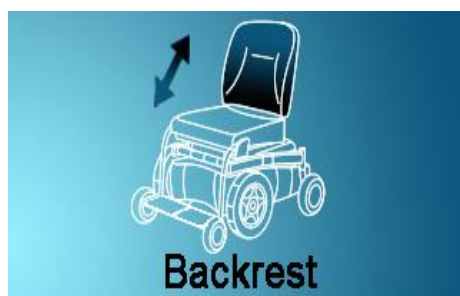


Figure 5. CJSM mode screen with backrest adjustment.

If the screen does not show the part of the wheelchair that you want to control, you must

move the joystick to the right or left and select the relevant electrically adjustable part.

The display of the adjustable parts on the mode screen depends on the equipment fitted. All adjustments are stepless. The lifting movement can be interrupted at any time during upward or downward movement and fixed in any position.

Driving profile:

The control unit can be set so that the wheelchair is suited to different environments. For example, if you select the "Soft" profile, the wheelchair will respond more gently. When you are outdoors, the profile can be set to a smoother driving style. The name of the current profile is shown at the bottom of the driving screen.

The profile button allows the user to navigate through the available drive profiles of the control system. The number of available drive profiles depends on how the control system is programmed.

Battery indicator:



Figure 6. CJS battery indicator with reduced range.

The battery indicator shows the battery status.

Red, yellow and green lights: full range!

Red and yellow lights: reduced range!

Red diodes flashing slowly: very short range! The wheelchair must be charged immediately to avoid damage to the batteries or system lockout.

The battery indicator "moves upward": the wheelchair is charging. You cannot use the wheelchair while the charger is connected. To use the wheelchair again, it must be switched off and on again.

Speed levels:

The maximum speed can be controlled by using the speed buttons on the control box together with forward movement of the joystick. The speed bar in the display shows the maximum speed in the selected profile. There are 5 speed levels in total, as shown below.

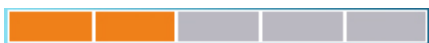


Figure 7. CJS speed level set to level 2.

In addition, the wheelchair moves more slowly if the joystick is only pushed slightly forwards compared with when it is pushed fully forwards.

Speed limiter:



Figure 8. CJSM reduced speed symbol.

The maximum speed of the wheelchair is reduced when the seat is raised or tilted beyond a certain point. This is indicated by an orange tortoise appearing on the display.

CJSM settings menu:

To access the settings menu, you must press and hold the "decrease speed" and "increase speed" buttons on the CJSM at the same time.

Available settings (Fig. 9):

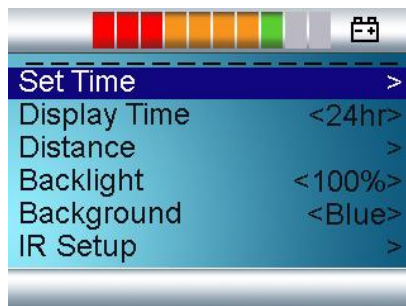


Figure 9. CJSM settings menu.

Available settings (Fig. 9):

- Set time
- Display time
- Distance
- Backlight
- Background
- IR Setup

Set time:

Move the joystick to the right to set the time. Select "Exit" at the bottom of the menu to return.

Display time:

Selection of the time format to be displayed. Options: 12h, 24h, Off.

Distance:



Figure 10. CJS distance information display.

The following submenu appears (Fig. 10):

Total distance: Total distance travelled by the power module. Trip distance: The trip counter can be reset. Display distance: Choose whether trip or total distance is shown in the display. Clear trip distance: Reset the trip counter. Exit: Exit the menu.

Backlight:

Backlight brightness.

Options: 0% to 100% in steps of 10%.

Background:

Background. The background colour can be selected here.

Blue = Blue background in all profiles

White = White background in all profiles (the display is easier to see in strong sunlight)

Auto = The wheelchair can be programmed to show a different background in different profiles.

IR Setup:

Not applicable for this control box.

CJS - Locking the control box



Figure 11. CJS lock symbol.

The system can be locked using the joystick, so that the wheelchair can no longer drive and the system cannot be activated.

Locking the system:

1. When the wheelchair is switched on, press and hold the "On/Off" button.
2. After 1 second, a beep sounds; release the "On/Off" button.
3. Move the joystick forwards until you hear a beep.

4. Move the joystick backwards until you hear a beep.
5. Release the joystick; you will now hear a long beep.
6. The wheelchair is now locked – a symbol appears on the display.

Unlocking the system:

1. If the wheelchair is switched off, switch it on.
2. Move the joystick forwards until you hear a beep.
3. Move the joystick backwards until you hear a beep.
4. Release the joystick; you will now hear a long beep.
5. The wheelchair is now unlocked – the symbol disappears from the display.

Control box "CJSM2"

The CJSM2 control box uses the PG R-Network and consists of a joystick, function buttons and an LCD display. In addition, there is a charging socket on the front and two jack sockets at the bottom of the control box.

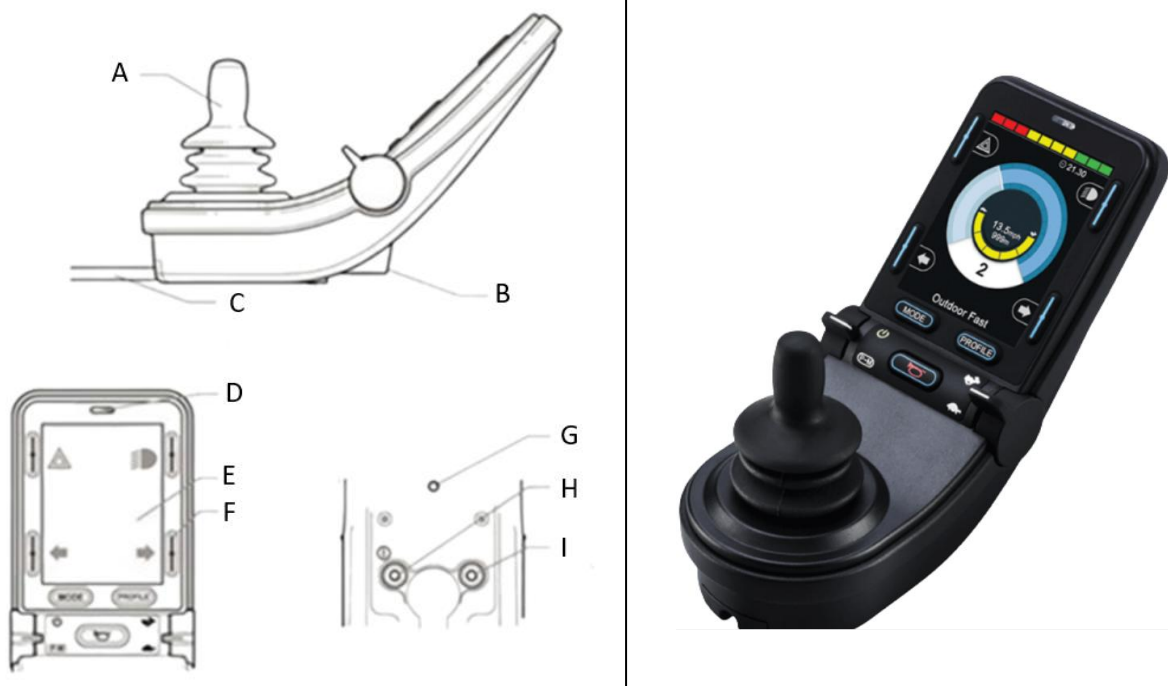


Figure 12. CJSM2 control box.

- A: Joystick
- B: Charging socket
- C: Control cable
- D: IR receiver, light sensor, LCD diagnostic LED
- E: LCD screen
- F: Side buttons
- G: IR transmitter
- H: Jack plug
- I: Profile jack plug

CJSM2 - Control box function buttons

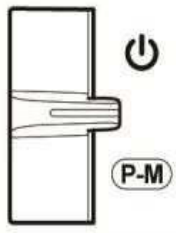
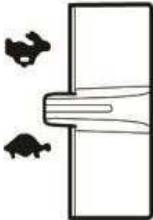
	On/Off button: The On/Off button switches the wheelchair on and off. When the display lights up, the wheelchair is switched on, and when the display is off, the wheelchair is switched off. Do not use the On/Off button to stop the wheelchair, except in an emergency.
	Profile button: The Profile button allows the user to navigate between the drive profiles. The number of available profiles depends on how the control system is programmed.
	Speed buttons: These buttons decrease or increase the driving speed.
	Mode button: The Mode button allows the user to navigate through the electric seat functions when pressed once. Press the button again to return to drive mode. The available functions depend on the programming and the control equipment fitted.
	Light buttons: These buttons control the wheelchair's lighting functions. The function for each button is illustrated by a symbol shown on the LCD screen beside the button. When a function is activated, the symbol lights up or flashes.
	Horn button: This button emits a warning sound when pressed.

Table 2. Explanation of the control box function buttons

CJSM2 - Control box display

When switched on, the display lights up. The interface on the display shows the driving screen (Fig. 13). You can be either on the driving screen or the mode screen. Each screen can display several statuses. To change the screen status, the mode or profile button can be pressed, and navigation can be carried out within the interface.

Driving screen:

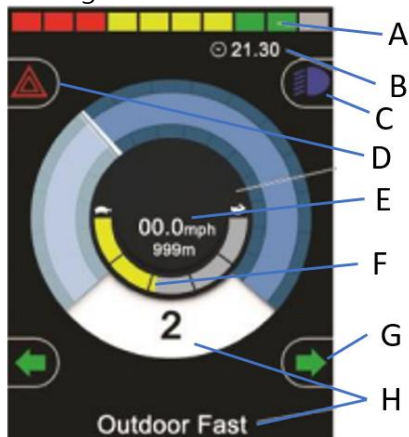


Figure 13. CJSM2 driving screen.

- A: Battery indicator
- B: Clock
- C: Lights
- D: Hazard warning lights
- E: Speed indicator
- F: Speed level
- G: Turn indicators
- H: Current driving profile

Mode screen:

If you want to adjust your seating position (using the electrically adjustable parts), you must press the mode button once. The display will then switch to the mode screen and can no longer be controlled with the joystick for driving. To drive again, press the mode button once more.

On the mode screen, the electric functions are activated by moving the joystick either forwards or backwards. For example, move the joystick backwards to raise the seat, and vice versa (Fig. 14).



Figure 14. CJS2 mode screen with seat lift adjustment.

If the screen does not show the part of the wheelchair that you want to control, you must move the joystick to the right or left and select the relevant electrically adjustable part.

The display of the adjustable parts on the mode screen depends on the equipment fitted. All adjustments are stepless. The lifting movement can be interrupted at any time during upward or downward movement and fixed in any position.

Driving profile:

The control unit can be set so that the wheelchair is suited to different environments. For example, if you select the "Soft" profile, the wheelchair will respond more gently. When you are outdoors, the profile can be set to a steadier driving style. The name of the current profile is shown at the bottom of the driving screen.

The profile button allows the user to navigate through the available drive profiles of the control system. The number of available drive profiles depends on how the control system is programmed.

Battery indicator:



Figure 15. CJS2 battery indicator with reduced range.

- All 10 bars lit (red, yellow and green): the wheelchair is fully charged.
- 7 bars lit (red and yellow): the wheelchair must be charged as soon as possible.
- 3 bars lit or flashing slowly (red): the wheelchair must be charged immediately to avoid damage to the batteries.

The battery indicator "moves upward": the wheelchair is charging. You cannot use the wheelchair while the charger is connected. To use the wheelchair again, it must be switched off and on again.

Speed levels:

The maximum speed can be controlled by using the speed buttons on the control box together with forward movement of the joystick. The speed bar in the display shows the maximum speed in the selected profile. There are 5 speed levels in total, as shown below.



Figure 16. CJS2 speed level set to level 5.

In addition, the wheelchair moves more slowly if the joystick is only pushed slightly forwards compared with when it is pushed fully forwards.

Speed limiter:



Figure 17. CJS2 reduced speed symbol.

The maximum speed of the wheelchair is reduced when the seat is raised or tilted beyond a certain point. This is indicated by an orange tortoise appearing on the display.

CJS2 - Settings menu:

To access the settings menu, you must press and hold the hazard warning light button. To exit the settings, select "Exit" in the settings menu.

The settings menu:

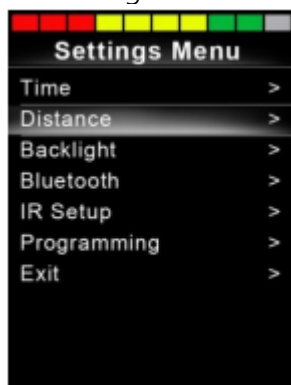


Figure 18. CJS2 settings menu.

Available settings (Fig. 18):

- Time
- Distance
- Backlight
- IR Setup
- Programming
- Exit

Time - setting the clock:

Move the joystick to the right to set the time. Select "Exit" at the bottom of the menu to return.

Distance:

The following submenu appears:

Total distance: Total distance travelled by the power module.

Trip distance: The trip counter can be reset. Display distance: Choose whether trip or total distance is shown in the display.

Clear trip distance: Reset the trip counter.

Exit: Exit the menu.

Backlight:

Backlight.

Options: 0% to 100% in steps of 10%.

IR Setup:

The CJSM2 includes an IR transmitter and receiver for controlling common IR devices such as TV remote controls, DVD players, cable/satellite receivers, or environmental controls such as automatic door openers.

Example of use: The on/off function for several devices, such as the television, can be learned in the IR setup menu. The CJSM2 then sends the code for the learned command in a burst during mode operation. In this case, it switches the television on or off.

To create an IR code, based on the television example above:

- Select the command that will be used as the sequence initiator. In this example: TV > On/Off.
- Select "Learn code" by moving the joystick to the right while the command is highlighted.
- Point the television remote control at the IR LED of the CJSM2 and press the On/Off button twice.

- After each successful learning process, a confirmation briefly appears on the screen.
- The IR codes are now activated in mode operation.

To delete an IR code, based on the television example above:

- To delete an IR code for a specific command, highlight the relevant command in the device menu, in this case TV, and move the joystick to the right. Then select the option "Delete code".

Programming:

Overview of display data. The following can be changed:

- Sleep: Sets the time after which the control system enters sleep mode if no command is received from an input device.
- Buzzer volume: Sets the volume of the buzzer that indicates button presses.
- Horn volume: Sets the volume of the horn when it is used.
- Start-up beep: Determines whether a short beep sounds when the controller is switched on.
- Display speed: Sets how the wheelchair speed is shown; options are mph or km/h.
- Diagnostics: Allows the user to retrieve diagnostic information from the control system.

CJSM2 - Locking the control box:



Figure 19. CJSM2 lock symbol.

The system can be locked using the joystick so that the wheelchair can no longer drive and the system cannot be activated.

Locking the system:

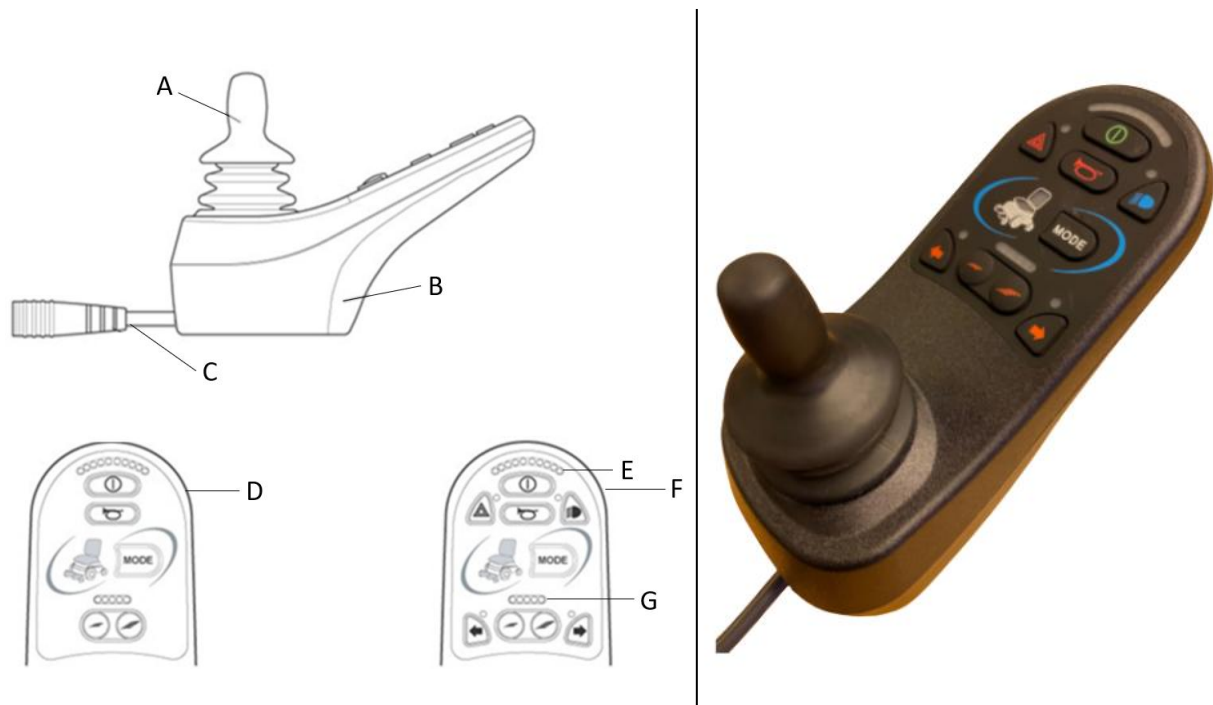
1. With the wheelchair switched on, press and hold the "On/Off" button upwards.
2. After 1 second, the wheelchair beeps; release the "On/Off" button.
3. Move the joystick forwards until a beep is heard.
4. Move the joystick backwards until a beep is heard.
5. Release the joystick; a long beep will now be heard.
6. The wheelchair is now locked - a symbol appears in the display.

Unlocking the system:

1. If the wheelchair is switched off, switch it on.
2. Move the joystick forwards until a beep is heard.
3. Move the joystick backwards until a beep is heard.
4. Release the joystick; a long beep will now be heard.
5. The wheelchair is now unlocked - the symbol disappears from the display.

Control box "JSM"

The JSM control box uses the PG R-Network and consists of a joystick and function buttons. In addition, there is a charging socket on the front.



- A: Joystick
- B: Charging socket
- C: Control cable
- D: Control box without lighting functions
- E: Battery indicator
- F: Control box with lighting functions
- G: Speed levels

Figure 20. JSM control box.

JSM - Control box function buttons

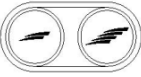
	On/Off button: Use the On/Off button to switch the chair on or off. Do not use the On/Off button to stop the wheelchair, except in an emergency.
	Speed buttons: These buttons reduce or increase the driving speed.
	Mode button: The Mode button allows the user to navigate through the electric seat functions when pressed once. Press the button again to return to drive mode. The available functions depend on the programming and the control equipment fitted.
	Light button: This button activates and deactivates the wheelchair lighting. Press the button to turn the lights on, and press it again to turn them off. When the light is activated, the LED next to the button indicates this. *Additional equipment may be fitted on some models.
	Horn button: This button emits a warning sound when pressed.
	Indicator buttons: These buttons activate and deactivate the wheelchair's left and right turn indicators. Press the button to activate the indicator, and press it again to turn it off. When the indicator is activated, the LED next to the button indicates this. *Additional equipment may be fitted on some models.
	Hazard warning light button: This button activates and deactivates the wheelchair's hazard warning lights. Press the button to switch the hazard warning lights on. When activated, the wheelchair lights flash. At the same time, the LED next to the button indicates this. *Additional equipment may be fitted on some models.

Table 3. Explanation of the control box function buttons.

JSM - Control box display

	<u>Setting the electrically powered functions</u> Press the "Mode" button to select drive mode or to set the electrically powered functions. - When no symbols (backrest, seat, leg supports) are lit, the wheelchair is in drive mode. - When one of the symbols is lit, the electrically powered functions can be adjusted. Move the joystick to one side to select the function to be adjusted. Move the joystick forwards or backwards to activate the function, depending on its direction of movement. The following symbols light up when the function is selected (depending on which functions are available on the wheelchair): Move the joystick to one side to select the function to be adjusted. Move the joystick forwards or backwards to activate the function, depending on its direction of movement. Left leg support: The symbol for the left leg support lights up. Right leg support: The symbol for the right leg support lights up. Both leg supports: Both symbols (right and left) light up at the same time. Backrest: The symbol for the backrest lights up. Tilt function: The symbols for backrest and seat flash, and both leg support symbols light up. Seat lift: The seat symbol flashes, and the symbols for backrest and both leg supports light up. Tilt function: The symbols for backrest and seat flash, and both leg support symbols light up. Seat lift: The seat symbol flashes, and the symbols for backrest and both leg supports light up.
	<u>Speed levels</u> Constantly lit: Shows the maximum speed: 1 illuminated LED is the lowest speed level, and 5 illuminated LEDs indicate the maximum speed level. LEDs flashing: The speed is limited for safety reasons. LEDs moving up and down: The control system is locked. Profile indicator:

	If profiles have been selected instead of maximum speed, the LEDs indicate the selected profile.
	<u>Battery indicator</u> Shows that the wheelchair is switched on and indicates the battery status. Red, yellow and green lights (1–10 lights): The wheelchair is charging. Red and yellow lights (1–7 lights): The wheelchair must be charged. Red lights (1–3 lights constantly lit or flashing): The wheelchair must be charged immediately to avoid damage to the batteries. LEDs moving upward: The wheelchair is charging and cannot be driven while charging. The wheelchair must be switched off and on again before it can be driven. LEDs moving up and down: If the joystick is activated before, or at the exact moment when, the wheelchair is switched on, the LEDs move up and down to indicate that the joystick is not in the centre position when the wheelchair is switched on. Return the joystick to the centre position to enable driving. If the joystick is not centred within 5 seconds, it will not be possible to drive the wheelchair, even if the joystick is centred. 7 LEDs will flash (counting from the left). Switch the wheelchair off and on again to drive once the joystick is centred. If a different number of LEDs begins to flash, this may indicate that there is a fault in the system. LEDs moving upward: The wheelchair is charging and cannot be driven while charging. The wheelchair must be switched off and on again before it can be driven. LEDs moving up and down: If the joystick is activated before, or at the exact moment when, the wheelchair is switched on, the LEDs move up and down to indicate that the joystick is not in the centre position when the wheelchair is switched on. Return the joystick to the centre position to enable driving. If the joystick is not centred within 5 seconds, it will not be possible to drive the wheelchair, even if the joystick is centred. 7 LEDs will flash (counting from the left). Switch the wheelchair off and on again to drive once the joystick is centred.

	If a different number of LEDs begins to flash, this may indicate that there is a fault in the system.
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Table 4. The control box display.

Swivel bracket

When getting in or out of the wheelchair, or when positioning the chair at a table, the user can swing the control box out to the side, parallel to the arm rest.

The control box is locked when it is turned inwards to the drive position. Release the lock that is located on the inner side of the control box and push on the inside of the box to move it out to the side.

R-seat seating system

The standard wheelchair uses an R-seat seating system, which includes a non-slip seat cushion. The cushion uses strong and proven Velcro that is secured to the seat by a professional.

Furthermore, the R-seat seating system includes the frame of the wheelchair (figure 1, 2 and 3).

Charging:

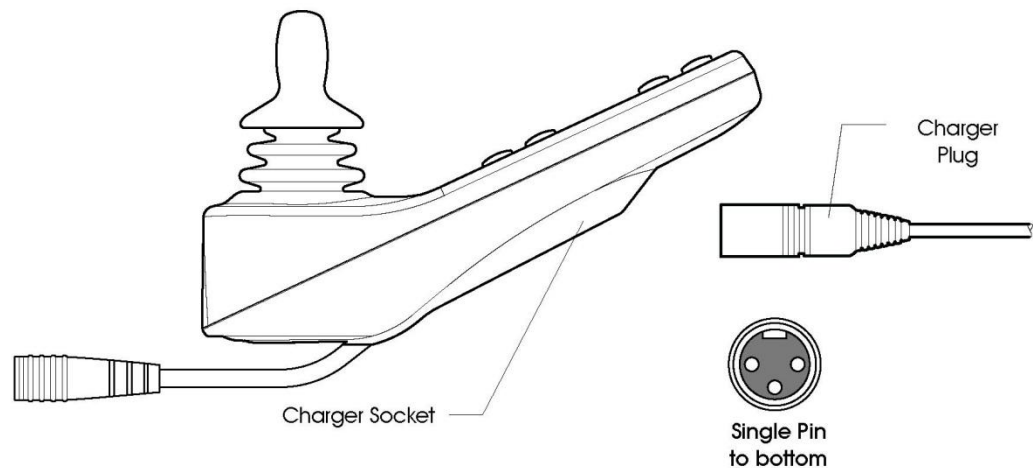


Figure 21. Charging connector and charger plug.

 Batteries should be charged in a well-ventilated area.

The wheelchair uses “dry” gel batteries. These batteries are completely sealed and are maintenance-free.

Note that the chair cannot be driven as long as the charger is connected. When charging is complete, the charging connector should be removed, and the wheelchair can then be switched on in the normal way.

You can expect to drive a distance of 28, 40 or 50 km per charge, depending on the type of batteries that are installed. The driving distance will be reduced if the chair is equipped with additional electrical equipment.

The battery charger must first be connected to a 220 V socket. Then plug the battery charger connector into the wheelchair’s charging connector, which is in the control unit. Always ensure the chair is fully charged.

If the wheelchair is not used for extended periods (see Storage section), ensure the batteries are re-charged regularly, otherwise they will become damaged. This can be done by keeping the charger switched on and connected to the chair. It will then re-charge the batteries itself when it is required. The wheelchair should be stored in a dry, well-ventilated room.

 Avoid touching leaking batteries, as the contents can be harmful to your health. If the batteries are leaky, it is extremely important to place the chair outside or in a very well-ventilated room.

 Batteries shall only be replaced by competent personnel acc. to the service manual.

 Only plug the charging connector into the battery re-charging connector, nothing else.
Danger of short circuiting!

 Only use the charger supplied.



See accompanying instructions for using the charger.

External control box:

The wheelchair may be supplied with an external control box, which can be used instead of, or together with, the control stick and display diagrams for activating the wheelchair's electrically-powered functions.

Positioning belts

The wheelchair can be supplied with different types of belts from our large belt selection. The belts can be fastened as required on the seat's C-profile or the seat's back. Fittings for mounting the lap belt are installed in the C-profile on both sides of the seat, as in Fig. 22.

 Belts mounted on the wheelchair must not be used as personal seat belts during car journeys. The car's seat belts must be used by the user at all times.

This rule applies, regardless of whether belts are used in the wheelchair's tie-down hooks - Dahl's Docking System and tie-down systems.



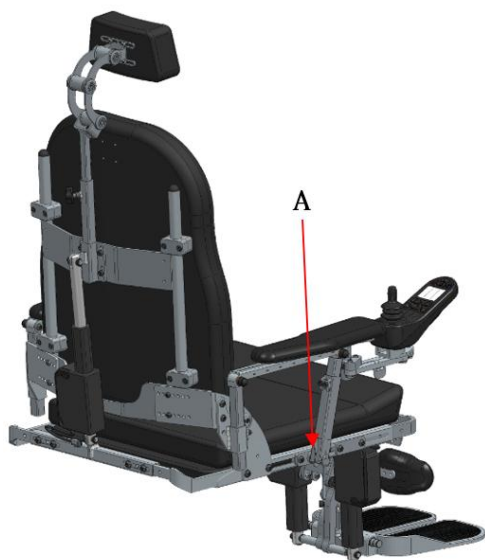
Figure 22. Installing the lap belt.

Transferring to and from the wheelchair

⚠ When transferring to and from the wheelchair, switch the chair off and ensure the brakes are on, before getting in or out.

For sideways transfer, or if a canvas aid needs to be used for the transfer, the armrests can be raised.

Press on the release button (A) and lift the armrest up



The armrests can be lifted up vertical with the backrest on both the left and right side.



Transport of the chair

 The electric wheelchair must not be lifted by the chair back, leg supports or armrests.

Loading/unloading

 The electric wheelchair can be loaded/unloaded using a ramp.

Securing during transportation

The electric wheelchair must be secured by means of tie-down hooks.

 The 4 approved tie-down hooks on the wheelchair (marked with hook symbols at the side of the hooks)

Transportation as freight:

The wheelchair must stand on its wheels at all times

Transport by train - EU Regulation No 1300/2014, Appendix M

The characteristics of this wheelchair may, depending on the specific configuration and occupant weight, exceed the limits specified in Appendix M of Commission Regulation (EU) No 1300/2014 for an interoperable wheelchair transportable by train.

In particular, when the wheelchair is used with the maximum user weight, the fully laden weight of the wheelchair and occupant may exceed 300 kg. The wheelchair may therefore not be suitable for use on all trains, wheelchair spaces, ramps, lifts or boarding aids designed according to Appendix M.

Before travelling by train, check the actual wheelchair configuration, total weight, dimensions and any requirements specified by the railway operator.

Transportation by car:

Transporting the wheelchair and user in motorised vehicles

⚠ You must ensure that the vehicle is suitable for the road transportation of passengers seated in wheelchairs, and that the vehicle is suitably equipped to transport a passenger in a wheelchair. Make sure that the method of unloading is suitable for your vehicle type.

⚠ The vehicle's undercarriage and anchorage points must be able to withstand the total weight of the wheelchair, with all accessories, and the user.

⚠ The wheelchair must be secured in a forward-looking direction. The wheelchair is crash-tested in accordance with ISO 7176-19: Mobile equipment on wheels used as seats in motorised vehicles, and meets the requirements for head-on collisions for forward-facing seating. The wheelchair has not been tested for other collision directions in a motorised vehicle.

Note: WTORS must be used in accordance with the manufacturer's instructions.

WTORS: Is an abbreviation of Wheelchair Tie-down and Occupant Restraint System, which is used in ISO standards 7176-19 and 10542. It is a complete system consisting of equipment for securing the wheelchair and a seat belt for the user. The abbreviation WTORS will be used in this user manual.

⚠ The wheelchair may only be secured at the anchorage points marked on the chair's frame.

⚠ The anchorage points (2 in front, 2 at the rear), are marked with a hook symbol.

⚠ Tie-down equipment must not be fastened to the wheelchair's accessories, such as armrests, support arms, anti-tip protection or other fittings.

⚠ Modifications or replacements must not be carried out on the wheelchair's anchorage points for a docking system, 4-point tie-down restraint system or the wheelchair's other construction, without the prior consent of the wheelchair manufacturer.

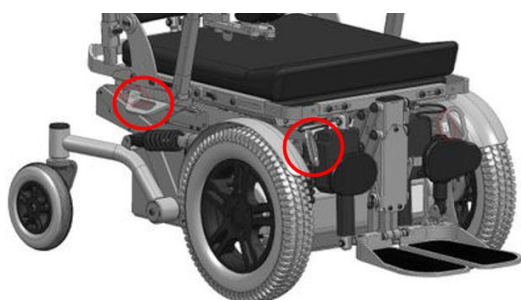


Figure 23. Tie-down strap anchorage points.



Figure 24. Tested anchorage point symbol for tie-down straps.

Securing the wheelchair with a strap system

⚠ The standard 4-point WTORS is only tested for a wheelchair weighing 85 kg + user in accordance with ISO 10542-1.

⚠ For securing wheelchairs weighing over 85 kg, it is recommended that you use a heavy duty system, which conforms to ISO 10542, and which is tested for its ability to withstand the total weight of the wheelchair, including all options. For a heavy duty system, 4 straps are used to secure the wheelchair, 2 straps in front and 2 straps behind.

⚠ If a standard 4-point WTORS is used to secure a wheelchair weighing more than 85 kg, 6 straps must be used to secure the wheelchair. 2 straps in front and 4 straps behind.

⚠ Never use tie-down equipment that does not carry the ISO 10542 approval marking.

Angles for tie-down straps

When tie-down straps are installed, their angles must fall within the preferred angles shown below.

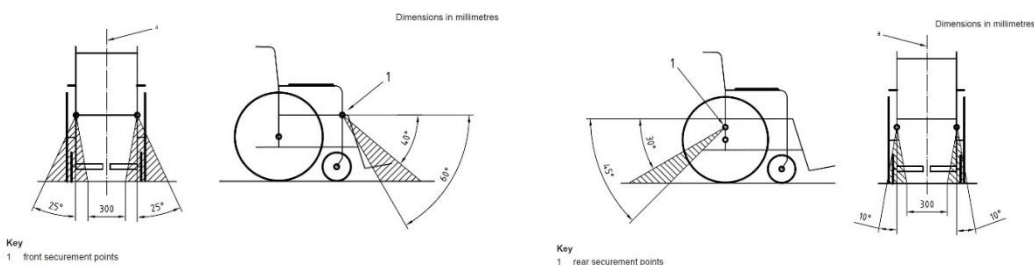


Figure 25. Preferred tie-down strap angles.

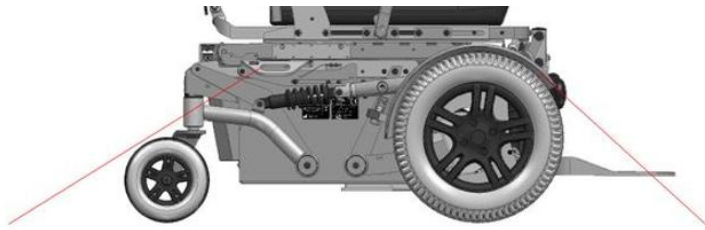


Figure 26. Wheelchair tie-down strap anchoring.

- ⚠ General instructions for seat belts for restraining wheelchair users
- ⚠ Use a 3-point seat belt system to restrain the wheelchair user. The belt must have the approval mark ISO 10542, e (EU European certification) or (E) (UNECE certification).
- ⚠ If the lap belt and shoulder belt can be separated, both should be used to restrain the user and reduce the risk of injury to the head and chest in the event of a vehicle collision.
- ⚠ The user's seat belt must securely attached to suitable points in the vehicle.
- ⚠ Use an appropriate headrest during transport.
- ⚠ A postural belt (e.g. a lap belt or other supporting belt), which is secured to the vehicle's seat or frame, must not be used as a seat belt or be relied on to restrain a wheelchair user in a vehicle in motion.
- ⚠ The seat belt should be in full contact with the shoulder, chest and pelvis, and the lap belt should be positioned low across the front of the pelvis, where the pelvis and thigh meet (see ISO standard 7176-19) (Fig. 28).
- ⚠ The transverse belt to the torso should run, as illustrated, obliquely across the chest and close to the mid-point of the shoulder.
- ⚠ The seat belt should be worn as tightly as possible without impairing the user's comfort.
- ⚠ Seat belts must not be twisted during use.
- ⚠ Care must be taken with the positioning of the seat belt lock, so that the release catch does not come into contact with vehicle components during driving or a collision.
- ⚠ The seat belt must not be held away from the body by vehicle components or parts, such as the arm rest or wheel.



Figure 6 — Illustration of improper belt-restraint fit

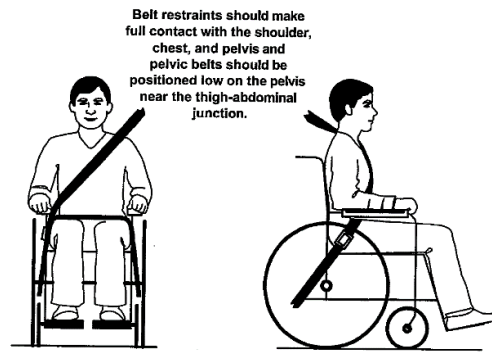


Figure 7 — Illustration of proper belt-restraint fit

Figure 27. Incorrect seat belt installation (left). Figure 28. Correct seat belt installation (right).

Positioning the seat belt when using a 4-point strap tie-down system

⚠ The lap belt should be positioned low across the front of the pelvis, thus forming an angle that falls within the preferred or optional zone of 30° to 75°, as shown in the illustration. A more abrupt (larger) angle within the preferred zone of 45° to 75° is desirable, but never more than 75°

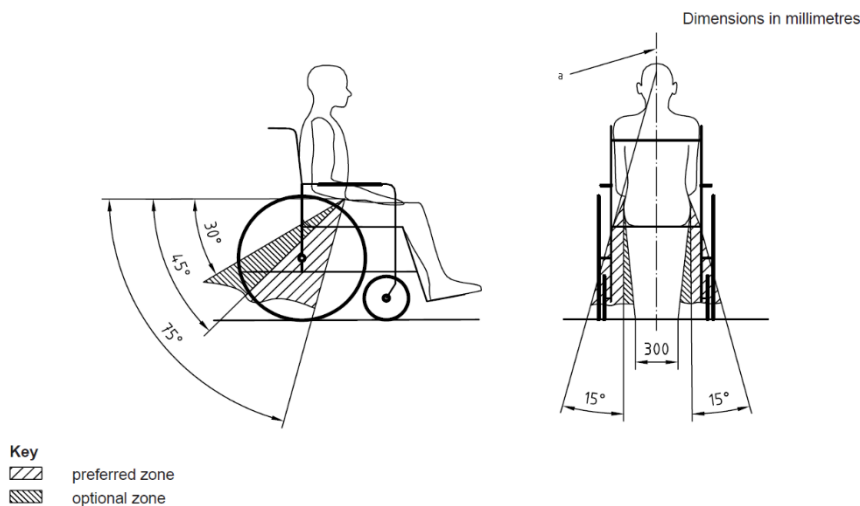


Figure 29. Lap belt angles with a 4-point WTORS.

Positioning the seat belt when securing a wheelchair with a Dahl docking system

⚠ When a wheelchair with a Dahl docking system is secured, the floor anchoring points for the seat belt should be placed 10 to 60 mm on the outer side of the wheelchair's wheels. The lap belt should be positioned low across the front of the pelvis, thus forming an angle

that falls within the preferred or optional zone of 30° to 75°, as shown in the illustration. A more abrupt (larger) angle within the preferred zone of 45° to 75° is desirable, but never more than 75°.

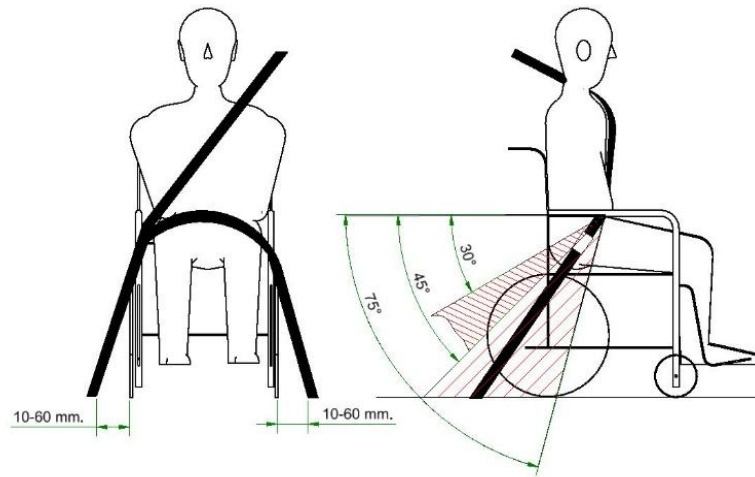


Figure 30. Lap belt angles with a Dahl Docking System.

Description of function for Dahl Docking System

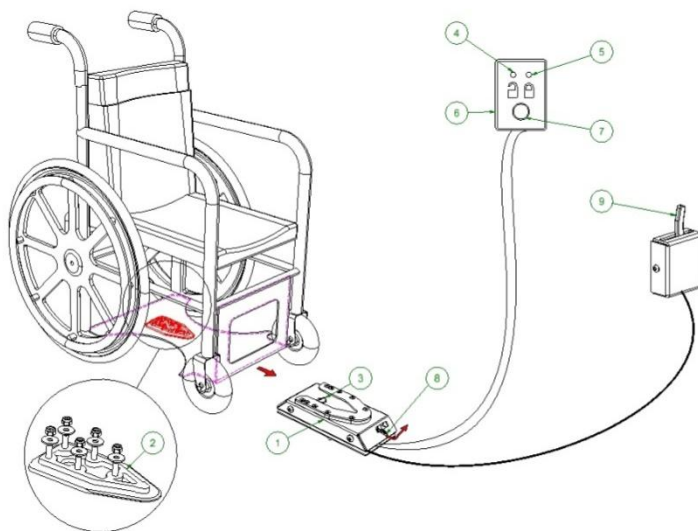


Figure 31. Dahl Docking System components.

- (1) Dahl Docking Station
- (2) Locking plate and 8 mm spacer plate
- (3) Locking pin
- (4) Red LED
- (5) Green LED
- (6) Control box
- (7) Push button/Release button
- (8) Manual emergency release

(9) Manual release catch

Securing the wheelchair in the docking station

1. Drive slowly and evenly over the docking station. The locking plate underneath the wheelchair helps to guide the wheelchair into place in the docking station. When the locking plate is positioned far enough forward in the docking station, a spring-loaded locking pin automatically secures the locking plate.
2. The docking station is equipped with a control switch that indicates whether the locking plate is correctly secured in the docking station. The moment the locking plate touches the locking pin, a warning tone is heard, and the red diode light (LED) lights up on the control box, until the locking plate is fully in place, or the wheelchair is driven out of the docking station.
3. As an indication that the wheelchair is correctly secured, the warning tone should cease, the red light (LED) on the control box should go out, and the green light (LED) should light up.
4. Don't forget to tighten the safety belt before driving.



Do not set the vehicle in motion:

While the wheelchair is being driven into place in the docking station.

If the wheelchair and user are not correctly secured using seat belts

If the warning tone sounds, and/or the red warning light (LED) on the control box flashes or lights up!



Always check that the locking plate is correctly secured in the docking station by trying to reverse the wheelchair out of the docking station before the vehicle is set in motion. (It should not be possible to reverse the wheelchair out of the docking station without pressing the red release button on the control box.)

Release from the docking station

1. When the vehicle is brought to a stop, remove the seat belt.
2. Drive the wheelchair as far into the docking station as you can, in order to remove the pressure on the locking pin.
3. Press the red release button on the control box. The locking pin releases after approx. 5 seconds. The locking pin then automatically locks again.
4. Reverse the wheelchair out of the docking station before the approx. 5 seconds have passed. Do not attempt to reverse out of the docking station before the red LED on the control box, which indicates unlocked status, lights up.

 Attempting to reverse out of the docking station before the locking pin is depressed fully and the red LED on the control box lights up will block the locking pin, making it impossible to reverse out of the docking station. Repeat the above release procedure when this happens.

Manual release in the event of an electrical fault.

In the event of an electrical fault, a manual emergency release has been placed on the docking station beforehand.

1. The red release arm is pushed to the side and secured while the wheelchair is driven away.
2. A cable-activated manual control lever can also be installed as an accessory. The red release arm is also pushed to the side and secured while the wheelchair is driven away.

If the described procedures for manual release fail, an emergency release tool is also supplied in red plastic with each docking station.

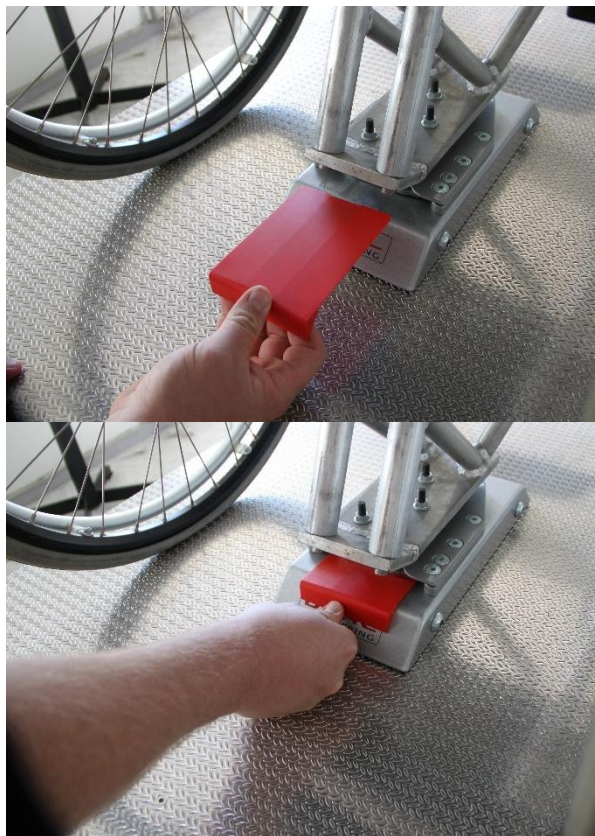


Figure 32. Manual release tool for the docking station.

1. Drive the wheelchair as far into the docking station as possible, in order to remove the pressure on the locking pin.
2. Place the release tool in the slot between the locking plate and the docking station.

3. Push the release tool and wheelchair forward firmly until the locking pin is forced down - the wheelchair can then be reversed out of the docking station.

Please refer also to Dahl Engineering's directions for assembly, use and maintenance.

Mounting the Dahl Docking System in the vehicle

➔ See the service manual.

Dahl Engineering only sells the docking station to professional vehicle conversion companies for the transportation of wheelchair users. The mounting should be carried out by a qualified and experienced technician/fitter.

Push function

 Only engage the push function when absolutely necessary

For instance, if electronics on wheelchair fail and it's necessary to move the wheelchair user to a safe place. Otherwise push function can be used for transporting the empty wheelchair onboard a vehicle, moving the empty wheelchair close to the bed in order to onboard the user.

The electronic brake can be disconnected if it is necessary to move/push the wheelchair manually.

The electric vehicle's motors are equipped with automatic brakes that prevent the electric vehicle from rolling. This brake can be disconnected if it is necessary to move/push the wheelchair manually.

The brake release levers are located on the front wheel drives, at the side of the chair between the drive wheels and the flywheels. The brakes are released when the levers are pressed down.

When the brakes are disconnected, the wheelchair cannot be driven with the joystick. The brakes must be engaged, and the wheelchair switched off and on, before the chair can be driven again.

 Transfer to/from the electric wheelchair is only permitted when the wheelchair is turned off and the lever for switching between the drive and push function is set on both sides to the drive function.

 When the brakes are disconnected, the wheelchair will "beep" and show "PM Brake error" in the display, to warn that the brakes are disconnected as long as the chair is turned on.

 All wheelchairs can roll by themselves when the brakes are switched off manually, if they are standing on a sloping surface.

 The push function may only be engaged by an attendant, not the user themselves. This ensures that the brakes are only disengaged in the presence of an attendant who is able to ensure that the electric vehicle does not move without supervision.



Figure 33. Wheelchair in drive function.

The brakes are active when the levers are up.



Figure 34. Wheelchair in push function.

The brakes are released when the levers are pressed down.

Brakes

The wheelchair brakes when you let go of the joystick and it returns to the vertical position. It is possible to adjust the speed at which the chair brakes, so that there is less overrun. A short overrun will make the chair brake abruptly. This adjustment must be carried out by ROLTEC

 Pay particular attention to the overrun when using ramps. Let go of the control stick and brake before the edge of the ramp.

Emergency brake: the wheelchair's emergency brake is activated by pressing the ON/OFF button, which turns the wheelchair off. This method of braking results in very abrupt braking

It is possible to adjust the speed at which the chair brakes.
This adjustment must be carried out by ROLTEC.

Tyres

To ensure the wheelchair works properly, it is important that the tyres have the prescribed pressure. The maximum pressure is stated on the tyre
The inner tubes in the tyres are equipped with auto-valves. They can therefore be pumped with an automatic pump.
ROLTEC recommends air pressure in the large tyres of: 40 PSI.

 Check the air pressure at least once a month. Power consumption increases significantly if there is not enough air in the tyres. Different pressure in the tyres will result in uneven running. The wheelchair can be supplied with anti-leak tyres as an extra, or an anti-leak liner on both front and rear wheels.

 Warning: Do not continue driving with a punctured or underinflated tyre. This may affect steering, braking, stability and driving performance, and may increase the risk of tipping or loss of control.

If a tyre puncture occurs:

1. Stop the wheelchair in a safe location.
2. Switch off the wheelchair.
3. Do not attempt to continue driving unless it is necessary to move away from immediate danger.
4. Contact your dealer or authorised service personnel for inspection and repair.
5. After repair or replacement, check that the tyre pressure is within the specified range before using the wheelchair again.

Lights and reflectors

The wheelchair is equipped with reflectors on the front and rear.

Lights and flashing lights are optional extras (but required for HMV wheelchairs).

Disposal of the wheelchair and batteries

The wheelchair can be disposed of by returning it to the dealer, who will then dispose of it in the most environmentally-friendly way.

The batteries should be replaced by the dealer. The dealer will ensure that the used batteries are disposed of in the most environmentally-friendly manner.

This product is supplied by an environmentally-conscious manufacturer. This product may contain substances that can harm the environment if they are disposed of on sites that do not comply with current legislation.

Cleaning

 The wheelchair must not be hosed down with water or immersed in water, but should be wiped down with a wet, wrung out cloth. Stains and scratches on the black-painted metal parts that do not penetrate the plastic covering can be removed using scouring powder on a damp cloth. Scratches that penetrate the plastic covering can be touched up by painting with spray paint.

The number of the paint used on the black metal parts of the wheelchair is RAL No.9017. The wheelchair's parts should only be wiped down with a wet, wrung cloth.

Disinfection

Commercially available spray or wiping can be used to disinfect the wheelchair. Start by spraying or wiping parts of the wheelchair. Leave the wheelchair for about 15 minutes and if needed dry it with disposable paper or cloth. The wheelchair is now ready.

A list of approved disinfectants is available at

https://www.rki.de/DE/Content/Infekt/Krankenhaushygiene/Desinfektionsmittel/Downloads/BGBI_60_2017_Desinfektionsmittelliste.pdf?__blob=publicationFile



Do not use solvents

Recycling

This wheelchair is designed to be reused. If the chair is to be reused, observe the regulations for cleaning and disinfection, to reduce the risk of transmitting a contagious disease.

The wheelchair must be checked by an authorized ROLTEC dealer before reuse.

Storage

Put the wheelchair on charge when it is not being used to ensure that the batteries are fully charged at all times. When charging is complete, the charger switches off automatically.

Before long term storage:

1. Clean and dry the wheelchair thoroughly.
2. Fully charge the batteries before storage.
3. Switch off the wheelchair.
4. Place the wheelchair on a dry, clean and level surface.
5. Store the wheelchair in a dry and well-ventilated area within the specified storage temperature range.
6. Position the seat lift in the lowest position and place the seat tilt, backrest and leg supports in a stable neutral position.
7. Make sure that the drive system is engaged and that the wheelchair cannot roll unintentionally.
8. Check that the tyres are inflated to the specified tyre pressure.
9. Protect the wheelchair from moisture, direct sunlight, dust, frost and heat sources.
10. Do not place heavy objects on the wheelchair during storage.

⚠ Warning: Do not store the wheelchair with discharged batteries. Deep discharge may permanently damage the batteries and may prevent the wheelchair from operating correctly.

During long-term storage, the batteries must be recharged regularly. Recharge the batteries at least every month, or more often if required due to the storage conditions or battery type.

⚠ Warning: Do not leave the charger permanently connected during storage unless the charger is approved for long-term maintenance charging. Incorrect charging may damage the batteries or create a safety hazard.

⚠ Warning: After long-term storage, the wheelchair must not be used until it has been checked and is confirmed to operate safely.

Troubleshooting:

CJSM:

Fault:	Problem:	Solution:
The chair does not power up	The charging connector is inserted	Remove the charging connector
	Brake release activated	Deactivate brake release
	System error	Check cable (Contact dealer if necessary)
The chair is powered up but does not react to buttons or the joystick	System error	Turn the chair off and on again (Contact dealer if necessary)
Symbol appears in display 	The joystick is locked	Unlock the joystick: See section Locking the joystick:
Lift cannot be moved down	Something is stuck.	Check to see if something is stuck between the sub-part and the seat.
The chair can only move slowly	Decelerator lift activated	If the "tortoise" symbol appears in the display, then move the lift to the bottom.
	Decelerator tilt activated	If the "tortoise" symbol appears in the display, then move the lift to the horizontal position.
The chair pulls to one side	Wrong tyre pressure	Check tyre pressure.
Symbol appears in display 	The system has reduced effectiveness of the motors to avoid overheating.	Stop driving and let the motors cool down. They are overloaded and subject to a greater load than they are designed for.
Symbol appears in display 	The control system has become too hot and has reduced the power.	Turn the chair off and let it cool down.
	Other reasons	Contact ROLTEC.
Symbol appears in display 	If the wheelchair is being prevented from operating.	Turn the wheelchair off and on again to use the wheelchair. (Contact dealer if necessary)

Symbol appears in display 	The system has generated an error and shows a text, module and an error code	Contact ROLTEC.
Symbol appears in display 	Joystick activated	Let go of the joystick and centre it to be able to use wheelchair.
	If you activate the joystick before or at the same time as powering up, the symbol will flash.	If the joystick is activated when the chair is powered up, it cannot be driven. If it is not returned to the rest position within 5 seconds, the wheelchair should be turned off and then on again.

CJSM2:

Fault:	Problem:	Solution:
The chair does not power up	The charging connector is inserted	Remove the charging connector
	Brake release activated	Deactivate brake release
	System error	Check cable (Contact dealer if necessary)
The chair is powered up but does not react to buttons or the joystick	System error	Turn the chair off and on again (Contact dealer if necessary)
Symbol appears in display 	The joystick is locked	Unlock the joystick: See section Locking the joystick:
Lift cannot be moved down	Something is stuck.	Check to see if something is stuck between the sub-part and the seat.
The chair can only move slowly 	Decelerator lift activated	If the "tortoise" symbol appears in the display, then move the lift to the bottom.
	Decelerator tilt activated	If the "tortoise" symbol appears in the display, then move the lift to the horizontal position.

The chair pulls to one side	Wrong tyre pressure	Check tyre pressure.
Symbol appears in display 	The system has reduced effectiveness of the motors to avoiding overheating.	Stop driving and let the motors cool down. They are overloaded and subject to a greater load than they are designed for.
Symbol appears in display 	The control system has become too hot and has reduced the power.	Turn the chair off and let it cool down.
	Other reasons	Contact ROLTEC.
Symbol appears in display 	If the wheelchair is being prevented from operating.	Turn the wheelchair off and on again to use the wheelchair. (Contact dealer if necessary)
Symbol appears in display 	The system has generated an error and shows a text, module and an error code	Contact ROLTEC.
Symbol appears in display 	Joystick activated	Let go of the joystick and centre it to be able to use wheelchair.
	If you activate the joystick before or at the same time as powering up, the symbol will flash.	If the joystick is activated when the chair is powered up, it cannot be driven. If it is not returned to the rest position within 5 seconds, the wheelchair should be turned off and then on again.

JSM:

Number of light diodes flashing:	Problem:	Solution:
1 LED 	1. The battery must be re-charged	Put the wheelchair on charge
	2. There is a poor connection to the battery.	Check the connections to the battery.
2 LED 	1. Poor connection to the left* motor	Check the connection to the motor
3 LED 	1. The left* motor has a short circuit re: a battery connection	Contact an authorised repairs service.
4 LED 	1. Poor connection to the right* motor	Check the connection to the motor
5 LED 	1. The right* motor has a short circuit re: a battery connection	Contact an authorised repairs service.
6 LED 	1. The wheelchair has been prevented from running by an external signal, e.g. special solution with contact.	The reason will depend on the special solution model - Contact ROLTEC or the supplier.
7 LED 	1. Joystick not centred	Turn the wheelchair off, centre the joystick and turn the wheelchair on again.
	2. Joystick error.	Contact an authorised repairs service.
8 LED 	1. System error.	Check all connections
9 LED  + control box beeping	1. Brakes are <u>mechanically disconnected</u>	Reconnect the brakes, see <i>section Mechanical disconnection of brake</i>
	2. Poor connection to brake	Check that the motor/brake wiring is attached firmly in the electronics box on the wheelchair.

10 LED 	1. An excess of voltage has occurred in the control system.	This is normally caused by a poor battery connection. Check the connections to the batteries.
7 LED+ S 	1. Poor connection to connector.	Check the cable connections between the control box, seat electronics and bottom electronics.
	2. Cable broken	Replace cable.
Actuator Flash 	1. Electrical function fault.	Check whether one of the electrical functions is working, check the connections from the electronics of the actuator that does not work.

* If the programme has been changed, it could be the opposite motor.

Product data:



Figure 35. Product data diagram.

FWD:

Wheelchair type: Class B

Class B Wheelchair designed for both limited indoor use and outdoor use.

General measurements	Specification
Total length	1030 mm
Length without leg supports	790 mm
Total width with 3.00 x 8" wheels/chassis	590 mm
Seat mounting height	360 mm
Ground clearance	75 mm

Weight	Specification
Maximum user weight with standard electric lift system	136 kg
Test dummy weight, EN 12184	136 kg
Total weight of wheelchair incl. batteries, without seat and foot supports	120 kg, depending on configuration
Mass of the heaviest removable part, battery	19,5 kg
Total mass of wheelchair	165 kg, depending on configuration

Temperature range	Specification
Storage temperature	-40 °C to +65 °C

Operating temperature	-25 °C to +50 °C
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Lights	Specification
Light type	Diodes

Batteries	Specification
Battery disposal	Batteries must not be disposed of as general waste. They must be recycled.
Maximum charging current	12 A
Battery type	GF12-051-Y1, C20 V12 56 Ah
Battery type	GF12-063-Y0, C20 V12 70 Ah
Battery type	CPX75-12, C20 V12 65 Ah
Battery type	CPX100-12, C20 V12 100 Ah

Motors	Specification
Motors	2 motors, 24 V / 400 W

Drive data	Specification
Maximum driving distance with 65 Ah batteries at 8 km/h	Approx. 40 km
Maximum driving distance with 65 Ah batteries at 13 km/h	Approx. 30 km
Maximum speed forwards, FWD	Approx. 13 km/h
Maximum speed forwards, HMV wheelchairs	Approx. 6 km/h
Maximum speed in reverse, FWD	Approx. 5 km/h
Required clearance for turning, FWD	Radius 66 cm
Minimum corridor width required to turn the wheelchair to face the opposite direction, FWD	132 cm

Note: Maximum speed may vary depending on regulatory requirements.

Stability and obstacle performance	Specification
Static stability downhill, uphill and sideways	9°
Dynamic stability uphill	6°
Maximum incline to the sides, backwards and forwards with seat lift in top position or maximum seat tilt	6°
Ability to climb kerb without run-up, forwards	70 mm
Ability to climb kerb without run-up, reverse	50 mm

Tyres and noise levels	Specification
Air pressure in tyres	223–284 kPa
Air pressure in tyres	2.23–2.84 bar
Air pressure in tyres	32–40 PSI
Noise level for wheelchair intended for outdoor use	Within limit: 75 dB(A)
Noise level for wheelchair intended for indoor	Within limit: 65 dB(A)

use	
Standard tyre type	Air-filled tyres on the large wheels
Optional tyre type	Puncture-resistant wheels

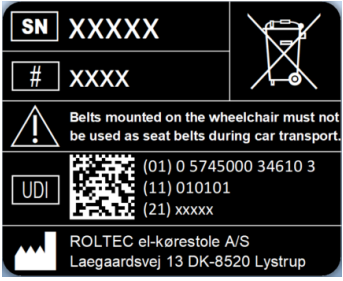
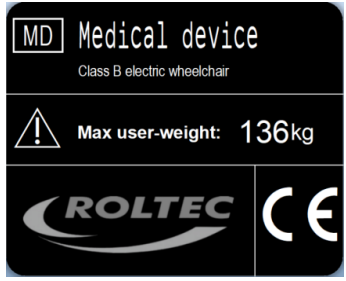
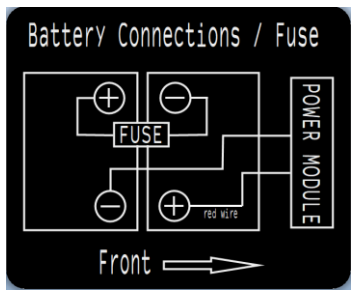
Wheels	Specification
Propelling wheel diameter	340 mm
Castor wheel diameter	170 mm
Horizontal displacement	440 mm
Reference point for horizontal displacement	Propelling wheel axle from seat/back plane intersection

Additional specifications	Specification
Front positioning of armrest	0–435 mm
Distance from armrest to seat, incl. cushion	170–350 mm
Underarm angle to seat surface angle	90°–180°
Distance from footrest to seat	365–490 mm
Footrest with electric horizontal adjustment	90°–160°
Footrest with manual horizontal adjustment	90°–180°
Backrest height	500 and 570 mm
Backrest angle with electric adjustment	90°–135°
Backrest angle with electric adjustment	90°–170°
Backrest angle with manual adjustment	90°–125°
Seat height from floor, incl. cushion	460–760 mm
Seat lift	300 mm
Effective seat width	400–640 mm
Effective seat depth	480 and 550 mm
Seat angle	0°–50°
Minimum braking distance from maximum speed	3400 mm

Components (materials)	Material
Seating padding	Polyurethane foam
Seating cover	Polyester/nylon
Backrest padding	Polyurethane foam
Backrest cover	Polyester/nylon
Armrest padding	Polyurethane foam
Armrest cover	Leather
Frame	Steel
Coating	Powder coated
Corrosion protection	Yes

Note: The exact wheelchair data (incl. labels) for the specific wheelchair depends on the configuration. Contact your local dealer for specific wheelchair information

Explanation of labels/stickers on electric wheelchair

Push function  TD_12.02.06-03	Device identification label  TD_12.02.06-01	Manufacturer label; & dispose device as electrical waste  TD_12.02.06-02
Warning of personal injury - Do not place your hands or arms in between the components  TD_12.02.06-07	Battery replacement warning  TD_12.02.06-06	Battery label with diagram  TD_12.02.06-10
Read the user instructions  TD_12.02.06-05		

New labels can be ordered by contacting ROLTEC.

Spare parts and accessories

Spare parts and accessories should be ordered from the ROLTEC dealer. The wheelchair's expected life span is approx. 6 years, depending on use. The product's life span depends on the frequency of use, the application environment as well as the care of the product.

A service manual is available on request.

Components that are included in the supply

A solid base, charger, leg supports, control box, back rest, seat cushion, arm rest and head restraint.

RESERVATIONS FOR CHANGES TO THE SPECIFICATIONS as a large selection of optional extras and accessories are available. There may therefore be different components to the chair.

The chair is supplied ready-assembled and ready to use, but the USER MANUAL MUST ALWAYS BE READ BEFORE THE WHEELCHAIR IS USED.

This user manual has been drawn up in compliance with current regulations.

As ROLTEC el-kørestole A/S undertakes ongoing product development, we reserve the right to make changes.

The primary user of the electric wheelchair is the person for whom the electric wheelchair is intended to alleviate a disability. When changing primary user, the electric wheelchair must be assessed as suitable by ROLTEC electric wheelchairs A/S or an authorized representative.

Performance and intended clinical benefits

This wheelchair is intended to provide powered mobility for persons with partial or full walking disability who are able to operate an electric wheelchair safely.

When correctly selected, configured, maintained and used in accordance with this user manual, the wheelchair may support daily mobility, independence, accessibility and participation in social, educational, work-related and everyday activities.

The wheelchair's performance is supported by its powered driving function, braking system, stability characteristics, control system, seating system and available electric seat functions.

The specific performance data and operating limits are provided in the technical data section of this user manual.

The manufacturer's clinical evaluation concludes that the benefits of powered mobility outweigh the residual risks when the wheelchair is used as intended and in accordance with the instructions for use.

PRE-SALE INFORMATION

A: If you find that the font size in the printed version of the user manual is difficult to read, the user manual is available in large font in an electronic version of this manual and is available from ROLTEC upon request (e-mail: info@roltec.com or tel: +45 87434900). You can then enlarge the PDF file on the screen using the zoom function.

B: ROLTEC's electric wheelchairs are designed for people who have a walking disability, but whose sight, physical and mental capacity enables them to use an electric wheelchair.
MAX. User weight 136 kg.

C: The intended operator of the electric wheelchair: Occupant. The electric wheelchair can be used in some indoor environments and some outdoor environments. Please read this user manual, incl. safety instructions, to be aware of risks such as narrow passages e.g. when driving through doors and entrances, and other risks like using lifts, ramps, and so on.

D: Moveo+ / SR 71F is a class B wheelchair according to EN 12184:2022.

E: Measurements: Moveo+ / SR 71F: 590 mm width, 360 mm height without seat, 1030 mm length. The weight of Moveo+ / SR 71F: 165 kilograms.

F: The minimum width of corridor in which the electric wheelchair can be turned to face the opposite direction is a width of 132 cm (or a radius of 66 cm).

G: Max. safe incline is 6°

The overall dimensions of the electric wheelchair does not exceed the values recommended in EN 12184:2014, A.1.1, hence the measurement data.

H: Standard options available: electric lift, electric tilt, electric back rest, and electric leg rests. Available options may depend on the specific wheelchair configuration.

I: Wheelchairs are not designed to be taken apart. Mass of the heaviest removable parts 2 x batteries: 39 kilograms (or 19,5 kilogram per battery).

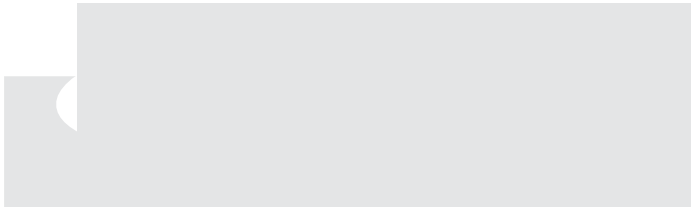
J: The wheelchair is intended to be used as a seat in a motor vehicle.

K: Theoretical continuous driving distance: 34,5 km. The distance will be reduced if the wheelchair is frequently used on slopes, uneven terrain or to mount kerbs, etc.

L: MAX Height of kerb for which the wheelchair can descend safely, descending while driving with front: 7 cm, and descending while driving backwards behind: 5 cm.

M: Programming and adjustment of the controller must only be carried out by ROLTEC, an authorised dealer, or other qualified service personnel using approved programming equipment. Programming may affect the wheelchair's driving performance. Incorrect programming may reduce safe driving performance and increase the risk of injury or

damage to the wheelchair. Users and unauthorised persons must not change the controller settings. If adjustment is required, contact your dealer or ROLTEC.



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