



GB

OPERATING MANUAL

OPERATING MODULE

PG Drives Technology

Model VR2

MEYRA[®]

ORTOPEDIA

We move people.

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INTRODUCTION

As a part of the electronic wheelchair the operating module VR2 directs the driving and control commands to the motors and electronic.

Depending on the equipment of the electronic wheelchair such as lighting and or electric adjustments the corresponding operating module version is connected.

You endanger yourself and others by an improper use of the operating module or its accessories. The correct handling must therefore be learned.

 **Note:**

Please note that the options and accessories are not a part of the standard scope of supply!

The purpose of this operating manual is to make you familiar with the handling of the operating module and to prevent accidents.

Attention:

-  Read and observe this manual before first operation:
- before first operation:
 - this operating manual,
 - the safety and general handling instructions < *Electronic vehicles* > as well as
 - the operating manual of the wheelchair.

 **Note:**

Children must read this operating manual together with the parents or supervising or accompanying person before the first use of the electric wheelchair.

SPECIFICATIONS/ UTILIZATION

Use

The operating module is only to be connected to wheelchair that has been prepared for the according controller < VR2 >.

The VR2 operating module is solely to be used to control the corresponding wheelchair and its additional options.

Adjustment

The operating module should be adapted to your disability by your dealer before the first use.

The adaptation will take into account the driving experience, the physical limits of the user and the main place of use of the wheelchair.

The sensitivity of the joystick can be adjusted by a dealer when there is a change in the degree of the disability.

Attention:

- ! You should only allow a dealer to carry out adjustments or settings.

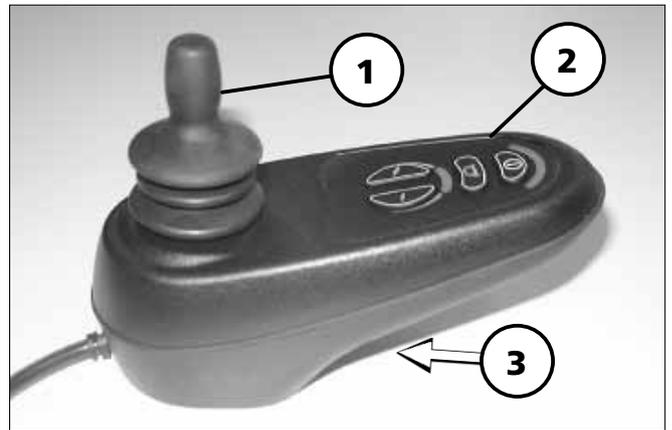
SAFETY INFORMATION

- ▲ Always handle a detached operating module correctly and never throw or drop it. To guarantee their function.
- ▲ Do not touch the ON/OFF button while driving. This will disable the vehicle.

OVERVIEW

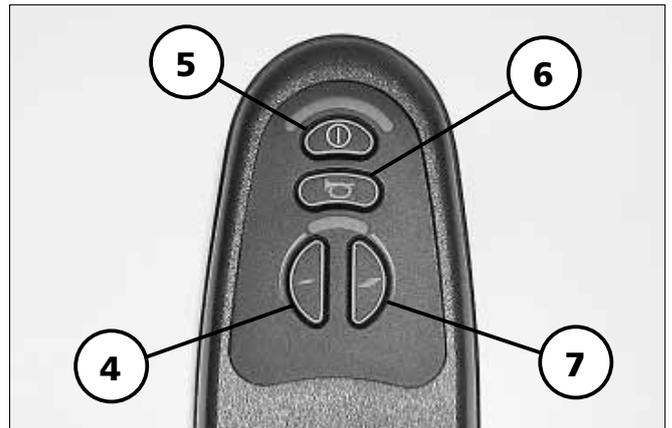
Operating module VR2 without light functions

- 1 Joystick
- 2 Control panel
- 3 Battery charging socket



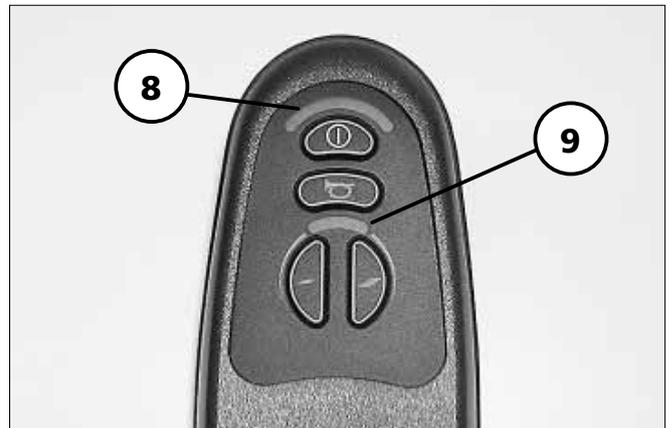
Control panel without light functions

- 4 Maximum speed / driving profile minus
- 5 Operating module ON/OFF
- 6 Horn signal
- 7 Maximum speed / driving profile plus



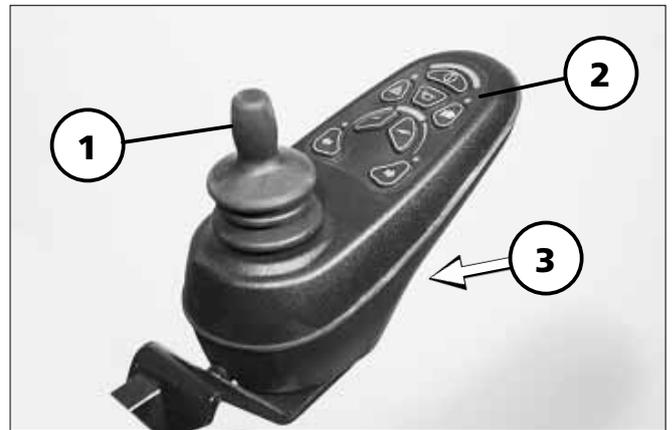
LED-displays

- 8 Battery indicator
- 9 Display max. final speed / driving profile (only one diode lights up at a time)



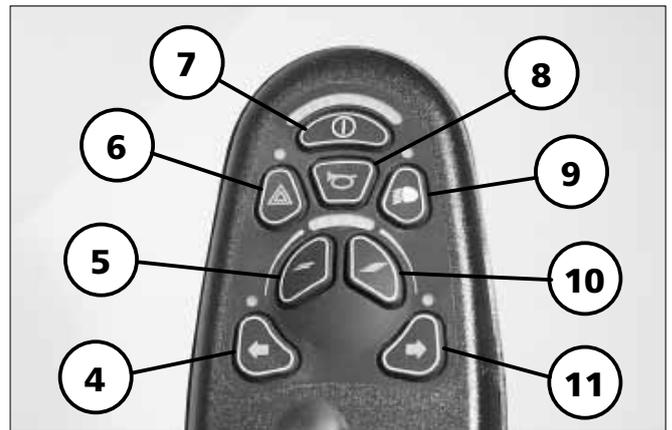
Operating module VR2 with light function

- 1 Joystick
- 2 Control panel
- 3 Battery charging socket



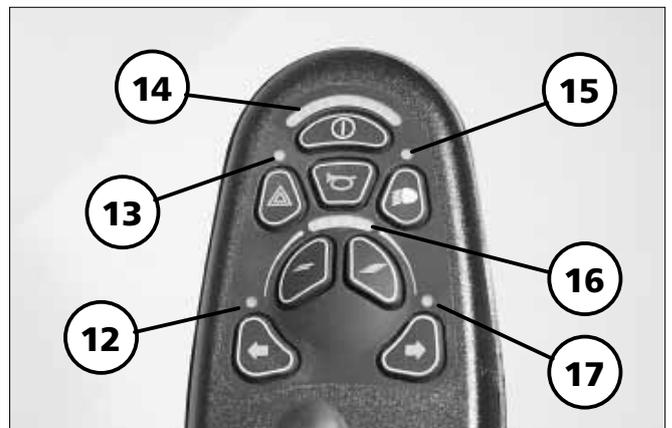
Control panel with light functions

- 4 Left indicator ON/OFF
- 5 Maximum speed / driving profile minus
- 6 Warning lights on/off
- 7 Operating module ON/OFF
- 8 Horn signal
- 9 Lighting ON/OFF
- 10 Maximum speed / driving profile plus
- 11 Right indicator ON/OFF



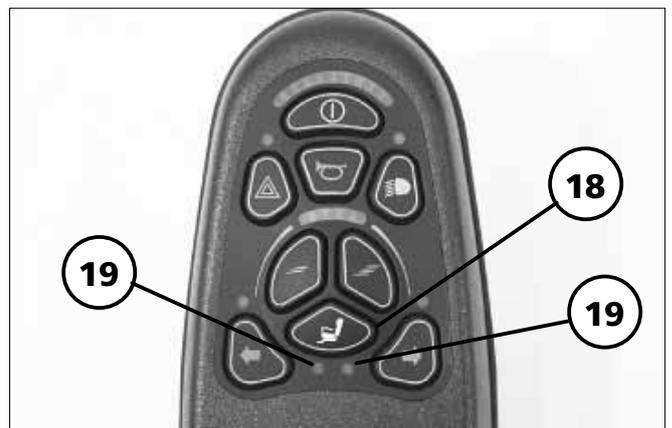
LED-displays

- 12 Display left indicator
- 13 Display warning lights
- 14 Battery indicator
- 15 Display lighting
- 16 Display max. final speed / driving profile (only one diode lights up at a time)
- 17 Display right indicator



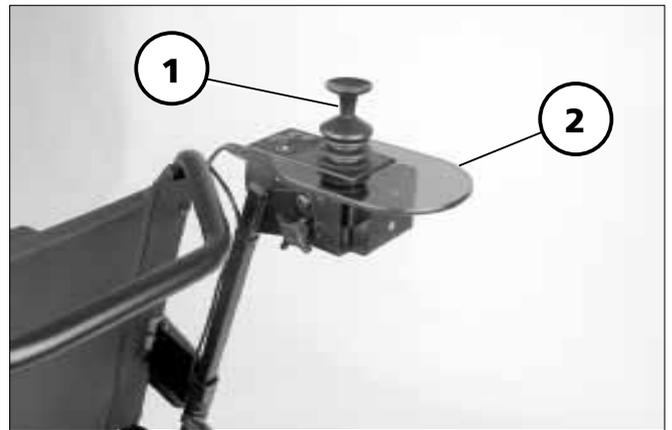
Operating module VR2 with light-adjustment function

- 18 Adjustment functions
- 19 Display of the activated adjustment function



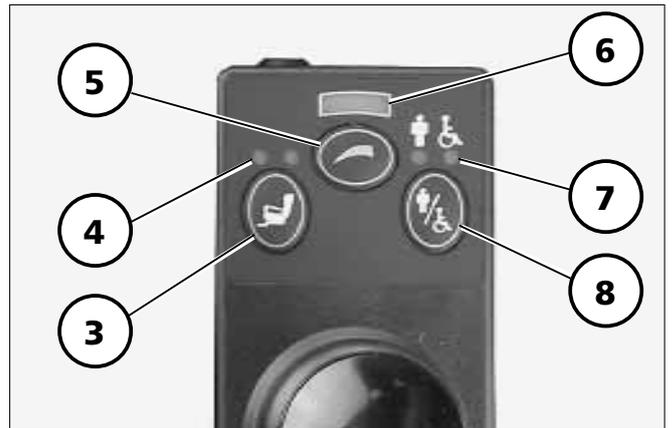
Control unit for accompanying person for operating module VR2

- 1 Joystick
- 2 Support plate



Control panel

- 3 Adjustment functions
- 4 Display of the activated adjustments
- 5 Pre-selection of the max. final speed / driving profile
- 6 Display max. final speed / driving profile (only one diode lights up at a time)
- 7 Display control operation (User / Attendant)
- 8 Control operation (User / Attendant)



PREPARING THE WHEEL-CHAIR FOR OPERATION

Recharging batteries

To charge the batteries first switch off the operating module. Then insert the plug of the battery charger into the charging socket (1) on the front of the operating module.

☞ Also view *< Operating manual of the wheelchair >*.

Attention:

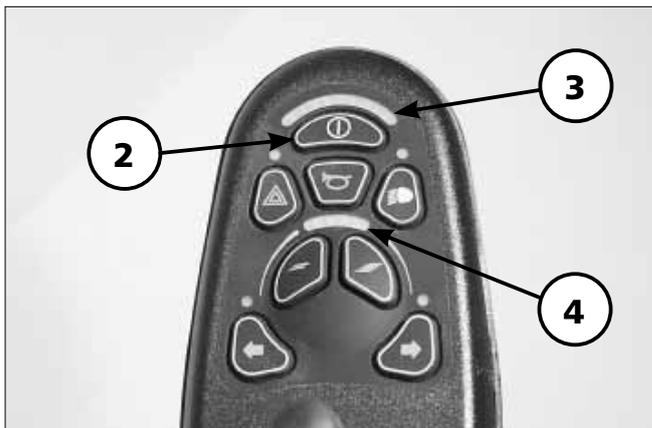
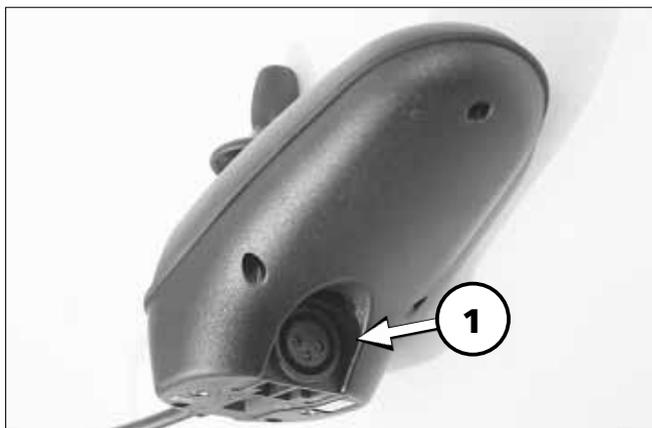
- ! Do not insert other objects into the battery charging socket.
 - Danger of short circuit!

Switching the operating module on

Press the ON/OFF key to switch on the operating module (2). The electronic system now performs a system test. The electronic system is ready when the battery indicator (3) is permanently lit.

Note:

- Do not move the joystick during the duration of the test.
- ☞ If a running light appears in the display for the maximum final speed (4), the key-lock function is still activated.
- ☞ see chapter *< key-lock function >*.



Key-lock function

In order to protect the wheelchair from unauthorised use, it can be locked with the key-lock function.

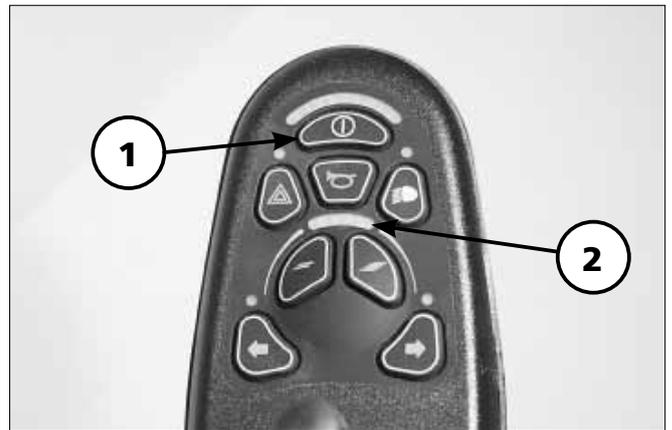
Switch on the Key-lock function

To switch on the key-lock function the wheelchair is engaged.

1. Hold onto the ON/OFF-key (1) until a signal tone is heard, only then release it again.
2. Move the joystick forward until a signal tone is heard, only then release the joystick.
3. Move the joystick backward until a signal tone is heard, only then release the joystick.

☞ The joystick returns to the centre (zero position) and the operating module automatically switches off with a long signal tone.

☞ The key-lock function is then engaged.



Switch off the Key-lock function

After switching the operating on a running light appears in the display for the max final speed / driving profile (2).

1. Activate the ON/OFF-key (1).
2. Move the joystick forward until a signal tone is heard, only then release the joystick.
3. Move the joystick backward until a signal tone is heard, only then release the joystick.

☞ The joystick returns into the centre (zero position) and the key function is switched off after a long signal tone.

☞ The wheelchair is ready for operation again.

PRE-OPERATION CHECKS

Battery voltage

The battery indicator displays the battery voltage after the system test performed by the electronic system after the operating module has been switched on (1).

Less LED segments of the battery indicator are lit as the battery voltage reduces.

Battery display

The battery indicator displays the existing battery voltage as follows:

The colours mean:

green = batteries charged.

☞ The charging status corresponds to the number of green lit LEDs.

yellow = recharging recommendable.

red = batteries discharged, recharge without delay.

☞ **Note:**

An accurate battery indication is only given during travel on a level surface.

Uphill/downhill driving causes an inaccurate indication.



Evaluation

The exactness of the battery gauge depends for example on the temperature, age and strain on the battery is therefore subject to certain restrictions.

The kilometric performance (range) of the wheelchair should be tested at least once.

Pre-selectable maximum speed

After switching on the operating module the last pre-selected max. final speed resp. preselected driving profile is shown (only one diode is lit at a time).

By pressing the keys (1) and (2) the pre-selectable final speed resp. driving profile can be decreased or increased.

The display (3) shows the selected speed step resp. selected driving profile.

Attention:

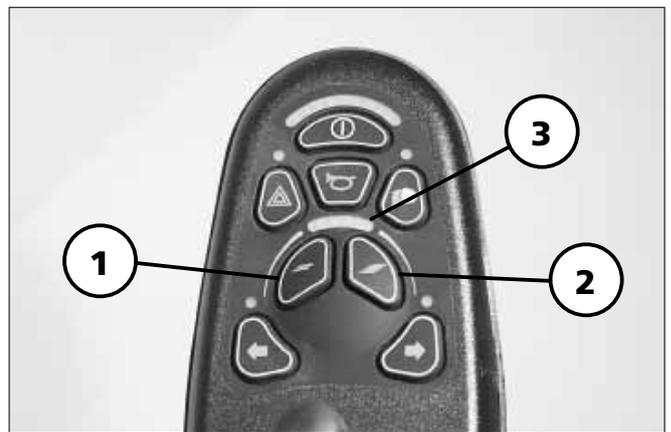
- ! Danger of accident due to unsuitable setting of the pre-selected speed!

For driving situation in which you feel insecure, select a low final speed resp. low driving profile, (e.g. driving in tight spots, downhill, on ramps, in pedestrian areas or similar).

Attention:

- ! The final speed resp. driving profile is to be pre-selected in dependence on the personal impression of the respective driving situation!

The speed is to be adjusted accordingly to the slope when driving downhill. Never exceed the permitted max speed. – **Danger of accident!**



Diving speed stages:

The max. final speed can be pre-selected in 5 speed steps resp. driving profiles.

In speed step / driving profile 5 the max. final speed, depending on the version of the vehicle, is 6, 8, 10 or 12 km/h.

In speed step / driving profile 1 the max. final speed lies 20% of the max. possible speed.

👉 **1. Situation example:**

Use in the home.

Required setting: low speed pre-selection / driving profile (1).

👉 **Result of a pre/selection that is too high:**

Small movements of the director result in quick acceleration. The driver loses the control in the confined space of the home.

– **Danger of accident!**

👉 **2. Situation example:**

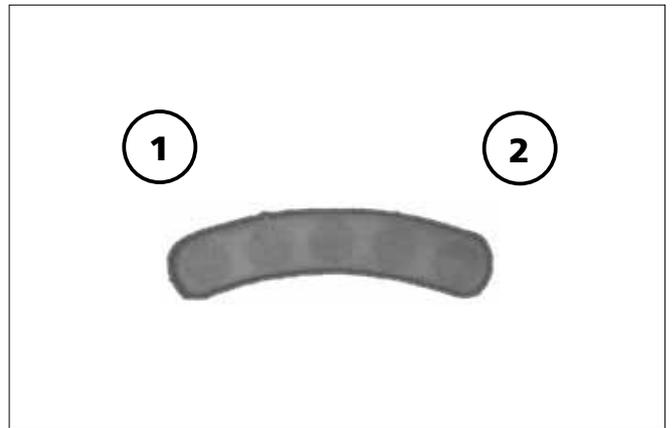
Crossing a road junction.

Required setting: high speed pre-selection / driving profile (2).

👉 **Result of a pre/selection that is too low:**

The road junction is not crossed quickly enough.

– **Danger of accident** due to on-coming vehicles!



JOYSTICK

Attention:

- ! Only move the joystick when the battery indicator (2) shows a constant light.

Drive and steering movement

The wheelchair is accelerated and braked with the joystick. Move the joystick (1) slowly in the desired driving direction.

The further you move the joystick away from the centre position, the faster the wheelchair will travel (up to the pre-selected maximum speed).

A simultaneous lateral deflection of the joystick causes a curve travel. The wheelchair will turn almost on the spot if the joystick is only deflected sideways.

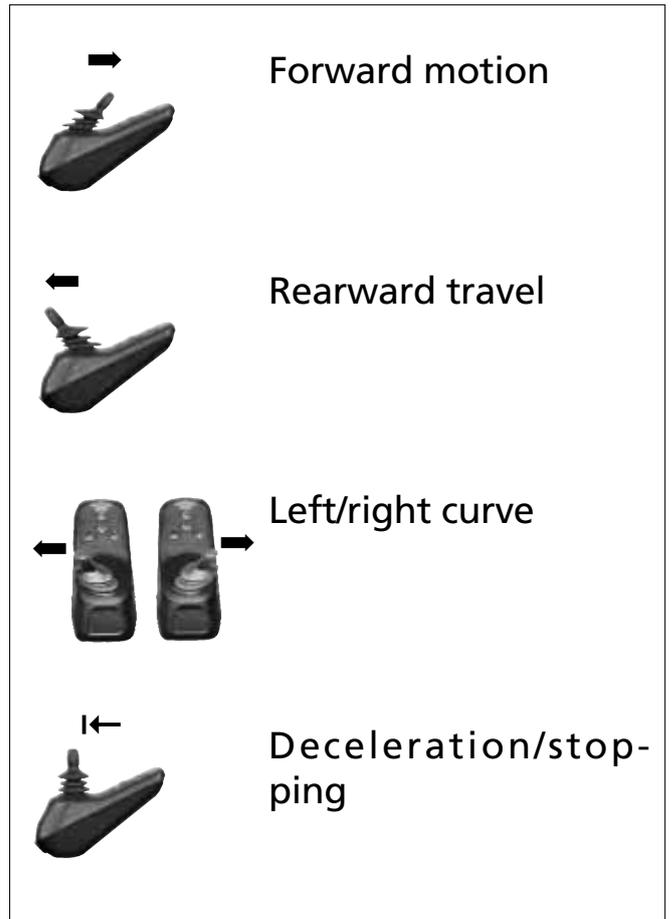
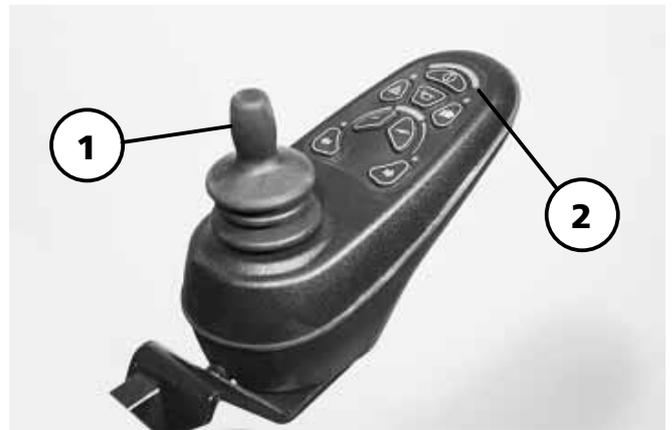
Note:

The speed is reduced automatically during reverse or curve driving.

Braking the wheelchair

The wheelchair stops when you let go of the joystick.

For allotted braking slowly guide the joystick back to the centre position (zero-setting).



BUTTONS AND SYMBOLS

Keys with control diode



Lighting

Switches the lights on or off when the < light > key is pressed.



Left indicator

Switches the turn signal on or off when the < left turn signal > key is pressed.

👉 A quick blinking of the LED indicates a defective spherical bulb.



Warning lights

Switches the warning lights on or off when the < warning light > key is pressed.



Right indicator

Switches the turn signal on or off when the < right turn signal > key is pressed.

👉 A quick blinking of the LED indicates a defective spherical bulb.



Adjustment functions

Switches the adjustment functions on or off when the < adjustment function > key is pressed.

👉 The lit LED shows the selected adjustment function.

Key and LED displays



ON / OFF

Switches the operating module on resp. off when pressing the < I/O > key.



Horn

A signal is sounded as long as the < Horn > key is pressed.



Plus

Increases the pre-selectable final speed/driving profile by one step when pressing the < Plus > key.

☞ The lit LED shows the selected step.



Minus

Decreases the pre-selectable final speed/driving profile by one step when pressing the < Minus > key.

☞ The lit LED shows the selected step.



Battery display

Less LED segments of the battery indicator are lit as the battery voltage reduces.

☞ Therefore also observe chapter < Battery voltage >.



Display of the maximum final speed

The display shows the pre-selected maximum final speed resp. the selected driving profile.

Control unit for accompanying person

Option



Key final speed / driving profile (1)

– Increases the pre-selectable final speed resp. driving profile (only one LED is lit at a time) by one step.



Display (2) of the pre-selected final speed resp. driving profile



Display of the adjusted control type (3)

– User- or attendant control



Key control type (4)

– Switches between user- and attendant control



Key adjustment functions (5)

– Switches the adjustment function on/off.

(Function optional)



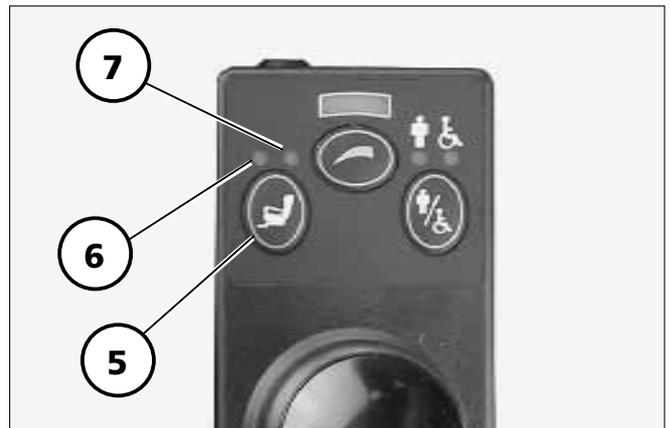
Display of the adjustment functions (6) and (7)

– The LED (6) or (7) lights up when the adjustment function is selected.

(Function optional)

Note:

The adjustment function key is only active if the wheelchair features electric adjustments.



ADJUSTMENT FUNCTIONS

Max. two electrical adjustment options can be selected over the operating module.

The selectable adjustment function depends on the equipment fitted to the wheelchair.

Switching on the adjustment mode

Press the key adjustment functions (1).

☞ The lit LED (2) or (3) indicates the selected adjustment option.

Selecting adjustment options

1. Adjustment option

– Move the joystick 1x to the left.

☞ Left LED (2) light up in yellow.

2. Adjustment option

– Move the joystick 1x to the right.

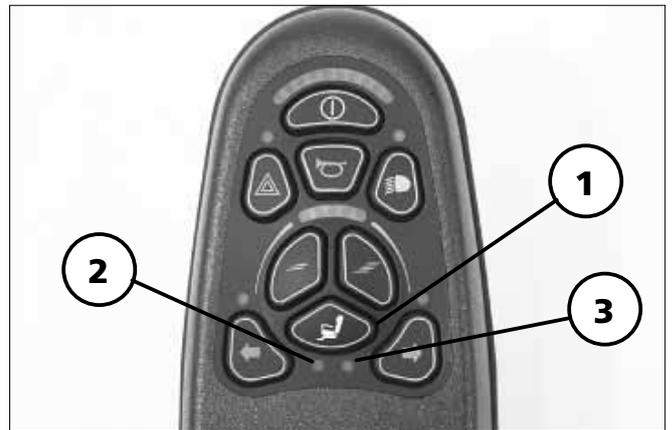
☞ Right LED (3) light up in yellow.

Adjusting the adjustment options

☞ Therefore move the joystick forward accordingly.

resp.

☞ Therefore move the joystick backward accordingly.



Switching off the adjustment mode

Press the key adjustment functions (1) again.

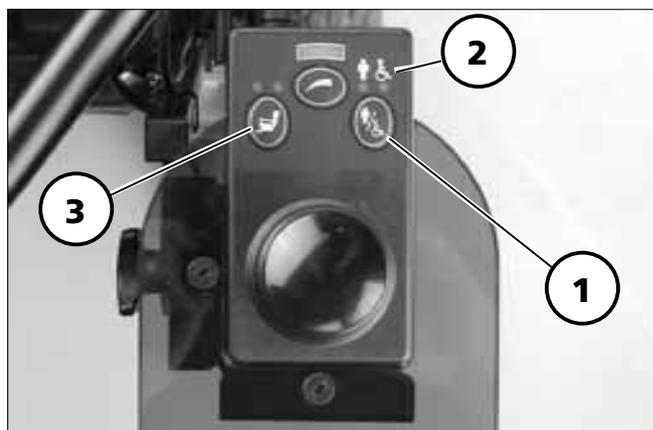
☞ The LED of the selected adjustment options extinguishes.

CONTROL UNIT FOR ACCOMPANYING PERSON

A control by an accompanying person is only possible with the operating module VR2.

Note:

Therefore also observe chapter < *Keys and symbols* >.



Selecting the control

After turning on the operating module VR2 with the ON/OFF-key the last selected control option is active.

You switch between the user control mode and the accompanying person control mode by pressing the push-button (1).

Note:

The symbol above a lit up LED (2) shows the currently active control.

Adjustment functions

Max. two electrical adjustment options (3) can be selected over the operating module.

Note:

Therefore observe chapter < *Adjustment functions* >.

Pre-select the maximum speed

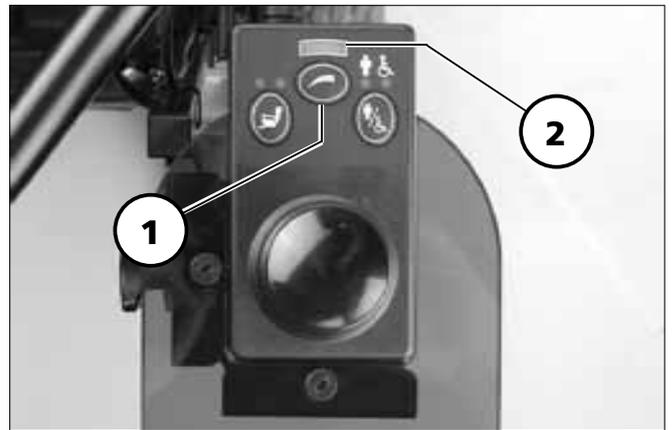
When pressing the key (1) before or while driving the pre-selectable maximum final speed resp. driving profile is increased by one step up to max step 5. Step 1, the lowest final speed resp. driving profile, automatically follows step 5.

Note:

The diode (LED) that lights up in the display (2) indicates the selected speed step / driving profile.

Attention:

- ! Danger of accidents due to unsuitable selection of the pre-selectable final speed resp. driving profile!
- The final speed resp. driving profile is to be set in accordance with the personal abilities of the attendant in the respective driving situation!
- Changing into a lower speed stage may only be done during a still-stand of the wheelchair.



For driving situation in which you feel insecure, select a low final speed resp. driving profile, (e.g. driving in tight spots, downhill, on ramps or similar).

Attention:

- ! During downhill driving, the speed must be reduced and adjusted to the respective gradient.

Drive and steering movement

The wheelchair is accelerated and braked with the joystick. Move the joystick (1) slowly in the desired driving direction.

The further the joystick is moved out of the centre position, the faster (up to the pre-set final speed / driving profile) does the electronic wheelchair become.

A simultaneous lateral deflection of the joystick causes a curve travel. The wheelchair will turn almost on the spot if the joystick is only deflected sideways.

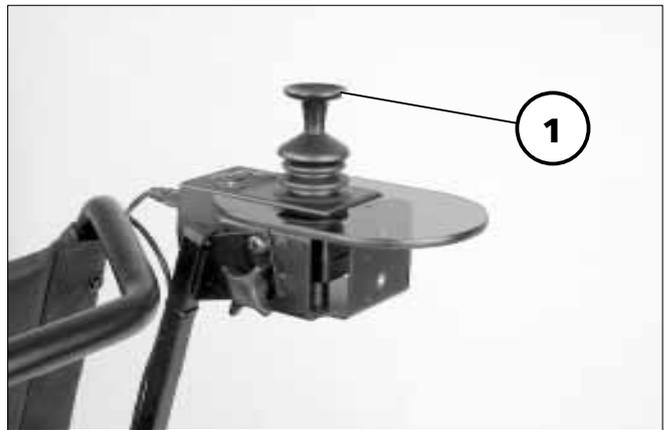
Note:

The speed is reduced automatically during reverse or curve driving.

Braking the wheelchair

The wheelchair stops when you let go of the joystick.

For allotted braking slowly guide the joystick back to the centre position (zero-setting).



ADJUSTMENT MODULE

Four electric adjustment options can be controlled through the adjustment module [1].

The functionality of the adjustment options depends on the respective configuration of the wheelchair.

Attention:

- ! Only conduct adjustments during the standstill of the wheelchair!
- Even with activated lock function and with the operating module switched off the function of the adjustment module remains. The adjustment module cannot be secured against foreign use!
- Take care that the rocker switch is not accidentally activated!
 - Danger of accidents!



Rocker switch

As long as the rocker switch is pressed an adjustment of the respective option occurs.

After releasing the rocker switch it automatically returns into the zero position and the adjustment is finalised.

Adjusting the adjustment options

① Left leg support

Lifting the left foot support assembly

- Press the rocker switch up.

Lowering the left foot support assembly

- Press the rocker switch down.

② Seat inclination

Lowering the seat toward the back

- Press the rocker switch up.

Lowering the seat toward the front

- Press the rocker switch down.

③ Back support

Reclining the back support

- Press the rocker switch down.

Lowering the back support to the front

- Press the rocker switch up.

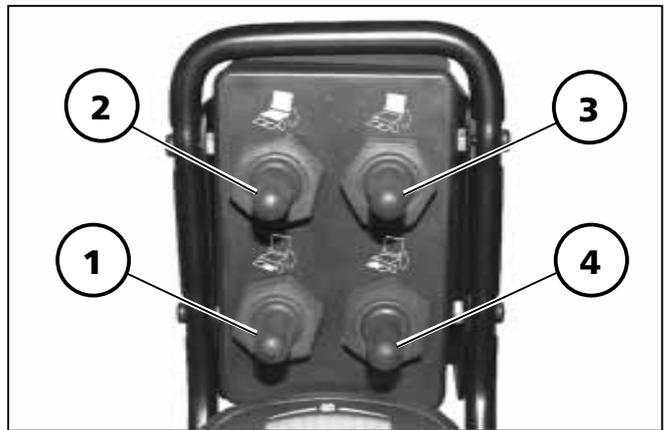
④ Right leg support

Lifting the right foot support assembly

- Press the rocker switch up.

Lowering the right foot support assembly

- Press the rocker switch down.



Fuse

The adjustment module is secured with a separate fuse (1) of 10 A which is located beneath the battery lid.

Always replace fuses with one of the same type! New fuses can be obtained at petrol stations.

Note:

Only have this fuse exchanged by a specialist dealer.

Repositioning the adjustment module

For the adaptation to the individual requirements the adjustment module can be attached at any different position on the wheelchair, e.g. on the arm support.

Attention:

-  Only have the repositioning of the adjustment module carried out by a specialist dealer.



FAULT DIAGNOSIS

The LED segments of the battery indicator blink quickly when there is a fault. The number of blinking segments indicates the possible fault source.

 **Note:**

If the malfunction cannot be repaired and the vehicle no longer operated, contact an authorised specialist workshop.

1 segment blinks: The battery voltage is too low. Check the plug on the operating module and the battery connections. Charge the batteries.

2 segments blinks: The electrical connection to the left motor is open-circuit. Check the motor connection cable, motor cable plug and motor.

3 segments blink: The electrical connection to the left motor is defective (short-circuit). Check the motor connection cable, motor cable plug and motor.

4 segments blinks: The electrical connection to the right motor is open-circuit. Check the motor connection cable, motor cable plug and motor.



5 segments blinks: The electrical connection to the right motor is defective (short-circuit). Check the motor connection cable, motor cable plug and motor.

6 segments blinks: The drive disable function is active. The drive disable function is an electronic security function that prevents the wheelchair from being driven when a battery charger is connected.

7 segments blinks: A system or joystick error. Movement of the joystick during ignition, resp. during the test phase of the operating module can also lead to this error indication. Control unit or pulse device is defective.

7 segments and the speed/driving profile display are "lit":

The joystick communication is defective. Check the connector cable.

8 segments blink: Defective pulse device or a system fault. Check cables and connecting plugs.

8 segments and actuators are "lit":

One actuator is defective. On two actuators check which one is not functioning and check the cables on this one.

9 segments blinks: Fault on the magnetic brakes of the motor. This fault indication appears also if the lever of the drive motors is in the push mode position. Move the lever to the drive mode position.

10 segments blinks: The battery voltage is too high (downhill driving) or the electrical connections are not O.K. Check the plug on the operating module and the battery connections.

Safety checks

The electronic system conducts constants checks during operation. The user should carry out regular checks to supplement these electronic safety measures. Have the wheelchair checked immediately by an authorised specialist dealer if one of these checks shows irregularities.

Daily checks

- ▲ Check the operating module and the electronic components connected to it for external damage and correct securing to the wheelchair.
- ▲ With the operating module switched off, check the joystick for external damage and check to see if the joystick returns to the centre position from all other positions.

Weekly checks

- ▲ Joystick function in combination with the magnetic brake system: Ensure that there is a free space of at least 1 m around the wheelchair before starting this check.

Switch the operating module on and wait until the battery gauge shows operational readiness by lighting up. Now move the joystick slowly to the front until the brake system audibly reacts click noise. The wheelchair will might start to travel. Now release the joystick. The brake must audibly engage within a few seconds. Carry out the same check for the right, left and reverse driving direction.

- ▲ Check all cabling and plugs for external damage and proper tightness.
- ▲ Check the joystick and the lower collar for damage and cracks.

Annual checks

- ▲ Have the electronic system checked by your dealer as part of the annual maintenance of the wheelchair.

SERVICE

Repairs

Trustingly contact your specialist dealer for maintenance work. He has been introduced to the maintenance at has educated personnel.

Customer Service

In case you have any questions or need help please contact your specialist dealer who can assume counselling, service and repairs.

NOTES

GUARANTEE

Within the scope of our terms of delivery and payment, we offer the following guarantees in respect of perfect condition:

- **2 years** for the electronic

We reserve the right to make technical improvements.

Should you have any complaints about the operating module or one of its parts, please do not hesitate to send us the enclosed guarantee cut-out with your complaint.

Do not forget to include the requested information regarding model description, delivery note number with date of delivery, vehicle identification number (Fz-I-Nr.) and your retailer. The vehicle identification number (Fz-I-Nr.) is indicated on the type plate.

This guarantee is offered subject to the use of the operating module as per instructions and the regular implementation of maintenance work and inspections.

Damage to the surface, damage due to screws and washers which have worked loose or worn out mounting holes due to frequent assembly and dismantling are not covered by this guarantee.

Furthermore, damage to the electronics caused by improper cleaning using steam cleaning equipment or the deliberate or accidental flooding of the components are also excluded.

Malfunctions due to sources of interference, such as mobile phones with high transmission power and other sources of radiation outside the standard specifications are not covered by the guarantee.

Attention:

- ! Failure to observe the instructions
- in the operating manual, improperly carried out maintenance work and, especially, technical changes and additions (add-ons) carried out without our prior consent will lead to a general loss of guarantee and product liability.

Note:

This Operating Manual is part of the wheelchair and should be handed over whenever the wheelchair changes hands.

 The product conforms with the EC Directive 93/42/EEC (MDD) for medical products

GUARANTEE COUPON

Fill in the details! If necessary, copy and return.

Guarantee

Model designation:

Delivery note no.:

Vehicle ID No. (Fz-I-Nr.) (view type plate):

Date of delivery:

Stamp of the authorised dealer:



┌ Your specialist dealer: ┐

└

└

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