

en

# *Electric wheelchair*

*Model 1.618*

---

## *Operating manual*

---



CE

 **MEYRA®**

# Contents

<b>Meaning of the applied markers</b>	7
<b>Introduction</b>	7
<b>List of models</b>	7
<b>Indications / contraindications</b>	7
<b>Acceptance</b>	8
<b>Intended purpose</b>	8
<b>Use</b>	8
<b>Adjustment</b>	9
<b>Combination with manufacturer foreign products</b>	9
<b>Reinstallation</b>	9
<b>Life span</b>	10
<b>Base position</b>	10
<b>Overview</b>	11
Model 1.618	11
<b>Handling the electric wheelchair</b>	12
Securing the electric wheelchair	12
Functional checks	12
Driving	12
<b>Brakes</b>	12
Service brake	12
Braking the wheelchair	12
Emergency braking	12
Parking brake	12
Locking the brakes	13
Releasing the brakes	13
Drive-/push mode	14
Selecting the push mode	14
Selecting the motor mode	14

<b>Selecting the operation</b>	15
Pre-operation checks	17
Battery charging procedure	17
Positioning the operating module	18
Function description	18
Adjusting the distance to the padded arm support	18
Removing the operating module	18
Inserting the operating module	18
Swivelling the operating module	19
Height adjustment of the operating module	19
<b>Leg supports</b>	20
Central leg support	20
Calf belt	21
Removing the calf belt	21
Attaching the calf belt	21
Length adjustment of the calf belt	21
Lower leg support	22
Footplates	22
Footboard	22
Leg support upper part	23
Turning the leg supports to the side	23
Swivelling in the leg supports	24
Removing the leg supports	25
Attaching the leg supports	25
Mechanically height-adjustable leg supports	26
Lifting/lowering the leg support	26
Electrically height-adjustable leg support	27
Height adjustment	27
Removing the electrically height adjustable leg support	28
Hanging the electrically height adjustable leg support into place	28
<b>Arm supports</b>	29
Removing the arm support	29
Inserting the arm support	29


<b>Back support</b>	30
Folding down the back support	30
Unfolding the back support	30
Adjusting the back support angle	30
Secure positions of the back support	31
Adjustable back	32
Removing the back support upholstery	32
Placing the back support upholstery	32
Electrically adjustable back support	33
Folding down the electrically adjustable back support	33
Unfolding the back support	33
Back support upholstery	34
Tilt switch (optional)	34
<b>Seat</b>	35
Seat pad	35
Seat cushion	35
Seat inclination	35
Electrically adjusting the seat angle	35
Seat height adjustment	36
<b>Head support</b>	37
Adjustment of the head support	37
Use of the head support during handicapped person transport inside a motor vehicle	37
<b>Retaining strap</b>	38
<b>USB connector socket</b>	39
<b>Attendant control with priority switch</b>	40
Positioning the controller	40
<b>Rear-view mirror</b>	41
Removing the rear-view mirror	41
Attaching the rear-view mirror	41
Adjusting the rear-view mirror	41
<b>Lighting</b>	42

<b>Loading and transportation</b>	43
Loading	43
Ramps and lifting platforms	43
Transport of people inside a motor vehicle	43
Transport security	44
<b>Tyres</b>	45
<b>Maintenance</b>	45
Maintenance	45
Maintenance schedule	46
Fuses	48
Replacing the fuses	48
Lighting	49
Headlights	49
Fault correction	50
<b>Basic safety information</b>	51
Accompanying person	51
Transfer out of the electric wheelchair	52
Reaching for objects	52
Driving on falling, rising or transverse gradients	52
Crossing obstacles	53
Electrical system	53
Transport in public methods of transportation	53
Driving on public highways	54
<b>Cleaning</b>	54
Finish	55
Disinfection	55
<b>Repairs</b>	55
Repairs	55
Customer Service	55
Spare parts	56
Information for extended pauses of use	56

<b>Disposal</b>	56
Information for the specialist dealer	57
Programming the driving behaviour	57
<b>Technical data</b>	58
Tyre pressure of pneumatic tyres	58
Maximum range	58
Hill climbing ability	58
Applied norms	59
Values acc. to ISO 7176-15 for model 1.618	60
Further technical data for model 1.618	63
Meaning of the labels on the electric wheelchair	65
Meaning of the symbols on the type plate	66
Meaning of the symbols on the washing instruction	67
<b>Inspection certificate</b>	68
<b>Warranty / Guarantee</b>	69
Warrantee / Guarantee section	70
Inspection certificate for transfer	70
<b>Notes</b>	71

# MEANING OF THE APPLIED MARKERS

Safety instructions with a coloured background are mandatory and need to be observed under any circumstance!


-  This symbol indicates tips and recommendations.
- [ ] Reference to a picture number.
- ( ) Reference to a function element within a picture.

## INTRODUCTION

Read and observe this manual before first operation.

Children and juveniles should read this documentation together with their parents respectively a supervisor or accompanying person before first use.


This operating manual is to help you get accustomed to the handling of the electric wheelchair as well as to prevent accidents.

-  Please note that the illustrated equipment variants can deviate from your model.

We have therefore also listed chapters with options that might not be applicable for your individual electric wheelchair. A list of the available options and accessories can be viewed in the order form of your electric wheelchair.

Users with visual impairments can find the PDF-files together with further information on our website:

< [www.meyra.com](http://www.meyra.com) >.

-  Contact your specialist dealer when required.

Alternatively users with visual impairments can have the documentation read out by a helper.

Inform yourself regularly about product safety and possible recalls of our products in the < *Information center* > on our website: < [www.meyra.com](http://www.meyra.com) >.

We have developed an electric wheelchair that complies with the technical and governmental regulations of medical devices. For information about a severe accident that can still not be ruled out completely, please use our E-mail address < [info@meyra.de](mailto:info@meyra.de) > and inform the responsible governmental agency of your country.

## LIST OF MODELS

This operating manual applies to the following models:

Model 1.618

## INDICATIONS / CONTRAINDICATIONS

In case of allergic reactions, skin rashes and/or pressure sores during the use of the electric wheelchair sores contact a doctor immediately.

In order to prevent contact allergies, we recommend to use the electric wheelchair only when wearing clothes.

The functional diversity of your wheelchair permits application in situations with extreme to fully pronounced limitations in mobility/walking in case of structural and/or functional damages to the lower extremities (u.o. amputation, after-effects of injuries, musculoskeletal/neuromusculoskeletally caused motion disorders e.g. through:

- paralysis,
- loss of limbs (leg amputation),
- defective/deformed limbs,
- joint contractures/-damages,

- other diseases.

Also to be observed for individual provision are the physical and psychological state, age of the handicapped person as well as the personal living condition and private environment.

Every provision, case by case should be checked, tested and aligned to the individual ability limitations caused by the defined disability through an educated person (medical device consultant, rehabilitation consultant u.o.). This also includes that people that show a counter indications to the named problems in some cases need to give proof of the cognitive, mental and moral ability to operate one of the models shown in the list of models.

The electric wheelchair may not be used in cases of:

- Cognitive limitations and mental retarding, that rule out the independent use of the electric wheelchair.
- Limited eyesight, which cannot be compensated through glasses or other aids and that lead to limitations in the day to day.
- Influence of impairing medications (ask your doctor or pharmacist).
- Circumstances that prevent the individual use of the control device.
- Extreme limitations in balance and/or disorders in perception.
- Disability to sit.
- ☞ To these and other possible risk concerning your electric wheelchair ask your doctor, therapist or specialist dealer.

## ACCEPTANCE

All products are checked for faults in the factory and packed in special boxes.

- ☞ However, we request that you check the electric wheelchair for possible transport damage immediately on receipt – preferably in the presence of the carrier.
- ☞ The packaging of the electric wheelchair should be stored for a further transport that might become necessary.

## INTENDED PURPOSE

The electric wheelchair serves to improve independent mobility indoors and outdoors.

## USE

Never use the electric wheelchair without the leg supports and arm support units mounted!

The electric wheelchair serves solely for transporting **one** sitting person. – Other pulling or transporting uses do not comply with its intended purpose.

The electric wheelchair is applicable on level, firm surfaces and can be used as follows:

- for indoors (e.g. apartment, day care),
- outdoors (e.g. paved paths in parks).
- Never expose the electric wheelchair to extreme temperatures and damaging environmental conditions, such as sunlight, extreme cold or salty water.
- Sand and other dirt particles can seize on moving parts and render them without function.



The electric wheelchair offers manifold adjustment possibilities to individual vital statistics.

National regulations might prevent the use on busses, trains or in aircraft.

- ✎ Inform yourself at the transportation companies concerning limitations.
- ✎ Before going on a flight clarify the specific transport conditions with your flight agency and also the legal regulations concerning transport in a plane in your country of residence as well as at your destination.

Only apply the electric wheelchair within the scope of the specifications and limitation described in chapter *Technical data* on page 58.

## **ADJUSTMENT**

Always have adaptation, adjustment or repair work carried out by a specialist dealer.

The electric wheelchair offers manifold adjustment possibilities to individual vital statistics. Before first use an adaptation of the electric wheelchair and a practical instruction in the functionalities of your electric wheelchair should be carried out by your specialist dealer. The adaptation will take into account the driving experience, the physical limits of the user and the main place of use of the electric wheelchair. Before first use, check the functionality of your electric wheelchair.

Should your specialist dealer carry out a revision/reconditioning or make fundamental changes to your electric wheelchair, without the use of original spare parts, this under certain conditions may result in a remarketing of your electric wheelchair. This will further entail that your specialist dealer might need to conduct new conformity assessments and tests.

- ✎ We recommend a regular inspection of the electronic wheelchair adjustment in order to ensure a long-term optimal provision even with changing illness/handicap patterns of the user. Especially for juveniles an adjustment every 6 months is recommendable.
- ✎ We recommend regular medical exams in order to ensure safety for active participation in traffic.

## **COMBINATION WITH MANUFACTURER FOREIGN PRODUCTS**

Any combination of your electric wheelchair with components not supplied by us generally results in an amendment to your electric wheelchair. Please inquire with us if there is a valid combination clearance/release.

## **REINSTALLMENT**

The electric wheelchair is suited for reinstallation. With the building block system the electric wheelchair can be fit to accommodate different handicaps body sizes. Before reimplementation the electric wheelchair is to undergo a complete inspection.

- ✎ Hygienical measures required for reinstallation are to be carried out according to a validated hygienic plan and must include disinfection.

The service manual, intended for the specialist dealer provides information to the reinstallation and reinstallation frequency of your electric wheelchair.

## **LIFE SPAN**

We expect an average life span of about 5 years for this product, as far as the product is applied for its designated purpose and all maintenance and service guidelines. The life span of your product depends upon the frequency of use, the application environment and care. The implementation of spare parts can prolong the life span of the product. As a rule spare parts are available up to 5 years after production is discontinued.

- ☞ The indicated lifespan does not constitute additional guarantee.

## **BASE POSITION**

Only drive on slopes, inclines and obstacles in the basic position of the seat rising function, back inclination and seat angle.  
– Danger of overturning!

Basic position is to be understood as:

- Back inclination in upright position.
- Seat inclination in horizontal position (but max 10°).

# OVERVIEW

## Model 1.618

The overview shows the most important components and operating devices of the electric wheelchair.

Pos. Description

- (1) Head support
- (2) Back support
- (3) Arm support
- (4) Seat cushion
- (5) Steering wheel fork
- (6) Footplate
- (7) Steering wheel
- (8) Type plate
- (9) Selection lever drive-/push mode
- (10) Driving wheel
- (11) Pushing bar
- (12) Operating module
- (13) Front lighting
- (14) Rear lighting
- (15) Support castor
- (16) Electronic cover



# HANDLING THE ELECTRIC WHEELCHAIR

## Securing the electric wheelchair

The electric wheelchair is to be secured as follows to prevent it from rolling off unintentionally:

1. Switch the selection lever for drive-/push mode up to drive mode on both sides.
2. Switch off the operating module.

## Functional checks

The functions and safety of the electric wheelchair must be checked before the start of each journey.

- 🔊 For this observe chapter < *Inspections before starting to drive* > in the accompanying documentation.

## Driving

You define the speed and direction yourself with the joystick movements (driving and steering lever) while driving as well as the preadjusted maximum final speed of your electric wheelchair.

# BRAKES

Brake the electric wheelchair down carefully and in time. This is especially the case when driving in front of people and while driving downhill!

## Service brake

The motors work electrically as operating brake and carefully brake the electric wheelchair down without jerks to stillstand.

## Braking the wheelchair

For allotted braking of the wheelchair slowly guide the joystick (steering and driving lever) back to the centre position (zero-setting).

## Emergency braking

- 🔊 The electric wheelchair stops in shortest distance after releasing the joysticks.

## Parking brake

The parking brakes are only effective when the selection lever drive-/push mode is set to drive mode on both drives.

- 🔊 The parking brake disengages automatically when you start to drive.

## Locking the brakes

It should not be possible to push the electric wheelchair forward when the brakes are engaged.

To engage the brakes swivel the selection lever drive-/push mode on both sides as far as possible into drive mode [1].

- ☞ Activation of the selection lever is intended for an accompanying person.



## Releasing the brakes

Only transfer into or out of the electric wheelchair when the electric wheelchair is switched off and the selection lever drive-/push mode on both sides is in drive mode!

An unintentional movement of the joysticks (driving and steering lever) can otherwise lead to an uncontrolled start of the electric wheelchair! – Danger of accidents!

To loosen the brakes swivel the selection lever drive-/push mode on both sides down as far as possible into push mode [2].

- ☞ Activation of the selection lever is intended for an accompanying person.



## Drive-/push mode

Only switch the electric wheelchair to push mode when it is standing still for positioning or in case of emergencies, but not on slopes/hills.

- ☞ The electric magnetic brakes are switched off in the push mode.
  - A braking of the electric wheelchair is then only possible by switching to the drive mode.
- ☞ Grab hold of the push handle and back support in order to shunt the electric wheelchair.

### Selecting the push mode

1. Switch off the operating module because the pushing will otherwise be made difficult by the electric system.
  - ☞ Therefore observe operation manual < Operating module >.
2. Disengage the brakes [1].
  - ☞ Therefore observe chapter *Releasing the brakes* on page 13.

The electric wheelchair can now be pushed.

### Selecting the motor mode

1. Activate the brakes [2].
  - ☞ Therefore observe chapter *Locking the brakes* on page 13.
2. Switch the operating module on.
  - ☞ Therefore observe operation manual < Operating module >.

The electric wheelchair is now ready for use again.



## SELECTING THE OPERATION

In order to obtain operational readiness of the electric wheelchair the following directions are to be carried out in the indicated order.

- ☞ Charge the drive batteries via the operating module before the first journey.

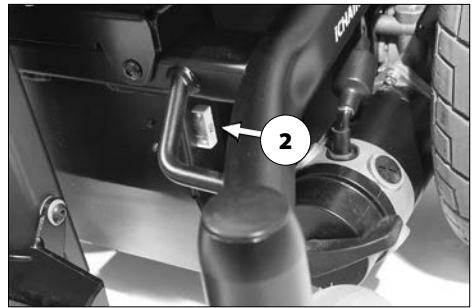
### 1. Selecting the motor mode.

Switch the drive motors to the drive mode [1]. – For this engage the brakes.

- ☞ Observe chapter *Locking the brakes* on page 13.

### 2. Check the correct fit of the battery/ mains fuse.

- ☞ The blade fuse for the battery/main current has to sit tightly in the fuse holder (2).



3. Check the position of the operating module.

The maximum extension reached, when a mark becomes visible in the receptacle tube of the operating module.

- ☞ The operating module should be positioned in such a way that you can comfortably and safely steer the electric wheelchair.
- ☞ The distance of the operating module to the padded arm supports can be adjusted after loosening the clamping screw (3).

4. After the adjustment retighten the clamping screw.

- ☞ For this observe chapter *Positioning the operating module* on page 18.

5. Switch the operating module on

- ☞ Press the On/Off-key (4) on the control panel of the operating module.
- ☞ Therefore observe operation manual *< Operating module >*.

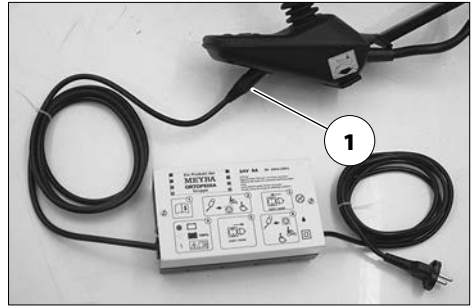




## Pre-operation checks

Before starting to drive, the following should be checked:

- ☞ the battery charging condition.
- ☞ The setting of the preselected final speed.
  - For this observe the operating manual < Operating module >.



## Battery charging procedure

Do not insert any objects other than the battery charger plug into the battery charging socket. – Danger of short circuit!

Only charge the batteries in well aired, dry rooms.

Protect the charger from heat, dampness, drop and spray water and jamming since it contains voltage. – Short circuit- and mortal danger!

Ensure a good ventilation of the charger during the charging (do not cover) in order to dissipate the heat generated by the charger. – Danger of fire!

Place the battery on a firm surface for charging.

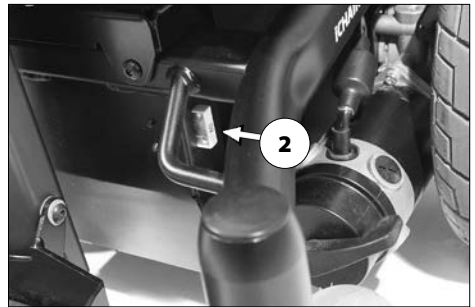
Do not put the charger on the seat of the electric vehicle for charging.

Do not smoke and avoid open flame or sparking when handling cables and electric devices. The charging gases that can be produced by the charging are always explosive.

Avoid spark build up through electrical static (for example caused by synthetic floor covers).

- ☞ For the battery charging procedure also observe the operating manual of the battery charger.

1. Lock the electric wheelchair.



- ☞ Therefore observe chapter *Securing the electric wheelchair* on page 12.
2. Insert the charger plug into the battery charging socket (1) of the operating module.
  3. Switch the battery charger on, resp. insert the main plug of the battery charger into the corresponding power socket.
    - ☞ The charging procedure is initiated.
  - ☞ The charging procedure only runs with an intact mains/battery fuse (2)!
  4. After a completed charging procedure disconnect the battery charger from the socket and remove the battery charging plug from the battery charging socket.

## Positioning the operating module

Switch off the operating module before adjusting/removing it.

### Function description

You will find a detailed description of the keys and symbols in the operating manual for < Operating module >.

The position of the operating module can be adjusted to suit the individual size of the user. The operating module can also be removed for transportation or storage and can be laid on the seat or stored separately.

### Adjusting the distance to the padded arm support

Switch off the operating module before adjusting/removing it.

The maximum extension reached, when a mark becomes visible in the receptacle tube of the operating module.

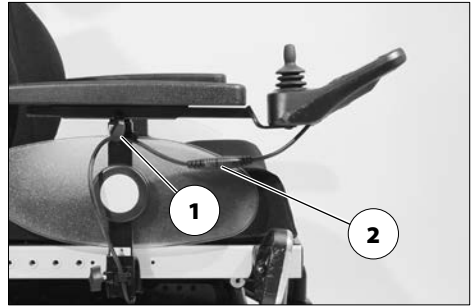
Slacken the clamping screw distance adjustment (1). Afterwards slide the operating module into the desired position. In doing so carefully guide the cable and retighten the clamping screw (1) securely.

### Removing the operating module

In order to remove the operating module loosen the clamping screw (1) and disconnect the plugged connection (2).

- Do not pull on the cable while doing so.

Afterwards pull out the operating module toward the front out of the arm support tube.



### Inserting the operating module

For drive mode insert the operating module from the front into the arm support tube and adjust the distance to the padded arm support.

- Therefore observe chapter *Adjusting the distance to the padded arm support* on page 18.

Afterwards re-establish the plugged connection (2).

- Check the function of the operating module.

## Swivelling the operating module

Do not grab into the area of the cross brace. – Danger of squashing!

With the swivel away operating module adapter [1] the operating module can be swivelled back to the side (2) so that it is located parallel to the arm support. This makes it possible, for example:

- to drive closer to a table,
- remove the operating module more easily.

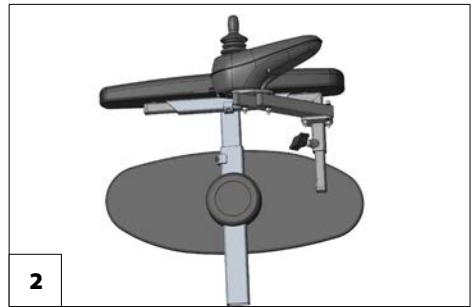
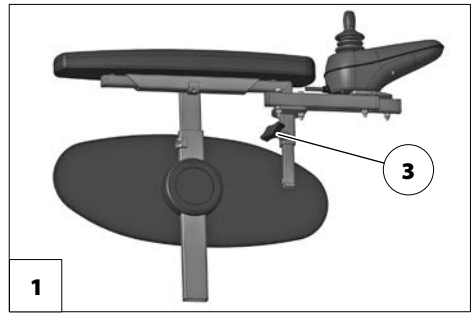
For regular drive mode the operating module can be swivelled back toward the front until it engages back into the magnetic lock [1].

- ⚠ Should the operating module be positioned too close to the arm support, move it forward before swivelling.

## Height adjustment of the operating module

After the adjustment retighten the clamping screw.

Loosen the clamping screw (3) to adjust the height of the operating module.



## LEG SUPPORTS

Before any actions on the leg support the electric wheelchair is to be secured against unintentional rolling motions.

☞ Therefore observe chapter *Securing the electric wheelchair* on page 12.

### Central leg support

The footboard [1] can be folded upward [2] in order to ease entry or exiting of the user.

- ☞ Check the locking points!
  - Remove both feet from the foot plate.
- ☞ Before starting to drive the footboard is to be lowered again [1].

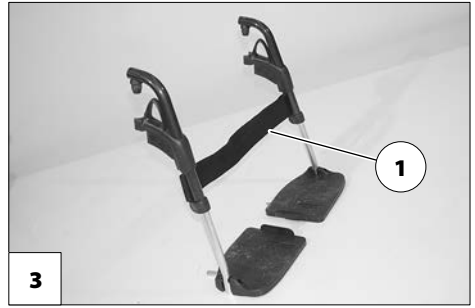


## Calf belt

Do not drive without the calf belt. – Danger of accident!

The removable calf belt (1) prevents the feet from sliding off the back of the footplates.

- ☞ The calf belt must be removed in order to swivel away the leg supports.
- ☞ The calf belt is omitted for height adjustable leg supports and is replaced by a calf pad.



### Removing the calf belt

For removal the calf belt is to be pulled from the attachment pins (2).

### Attaching the calf belt

For attachment both loops of the calf belt are slid over the attachment pins [3] / [4].



### Length adjustment of the calf belt

For length adjustment, the calf belt is guided around the special attachment pins [3] / [4] and adjusted in length with a velcro fastener.

## Lower leg support

The footplates, resp. footboard needs to be folded up before entry or exit [1] / [2].

- ☞ Check the locking points!
- Remove both feet from the footplates.
- Remove the calf belt (3), if present.
- ☞ Therefore observe chapter *Calf belt* on page 21.
- ☞ Before starting to drive the footplates resp. footboard need to be folded back down [4] and the calf belt attached.

## Footplates

The footplates can be folded outward and up [1] resp. inward and down [4].

## Footboard

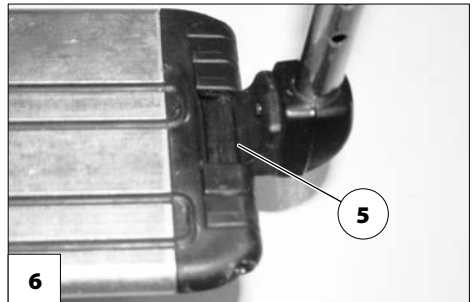
Fold the footboard up before swivelling away and removing the upper leg support.

## Folding up the footboard

In order to fold up the footboard lift the loose end of the footboard (5) as far as possible.

## Folding the footboard down

In order to fold down the footboard, lower the loose end of the footboard as far as possible down onto the footboard bracket [6].



## Leg support upper part

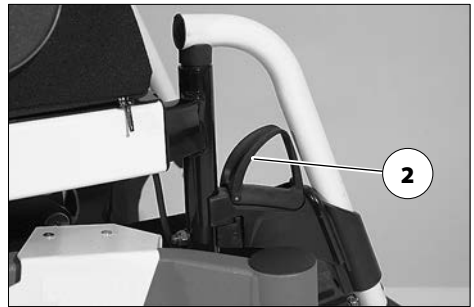
The upper leg support with an inserted lower leg support is termed leg support.

### Turning the leg supports to the side

Leg supports turned to the side are released automatically and can easily come off.

For easy transfer out of/into the electric wheelchair as well as driving closer to a closet, bed or bathtub the leg supports can be swivelled away toward the in- or outside [1].

- ☞ Remove the calf belt before swivelling away the leg supports.
  - ☞ Therefore observe chapter *Calf belt* on page 21.
- Fold up the footplates resp. footboard in order to swivel away the leg supports.
  - ☞ Therefore observe chapter *Lower leg support* on page 22.
- Afterwards pull or press the respective locking lever (2) backward and swivel the corresponding leg support outward.



## Swivelling in the leg supports

For inward swivelling, let the leg supports swivel forward until the lock audibly engages [1].

- After audibly swivelling the leg supports inward check the respective locking device.
- Afterwards observe chapter *Lower leg support* on page 22.





## Removing the leg supports

For easy transfer into and out of the electric wheelchair as well as a reduced wheelchair length (important for transport) the leg supports can be removed [1].

- ☞ Remove the calf belt before swivelling away the leg supports.
  - ☞ Therefore observe chapter *Calf belt* on page 21.

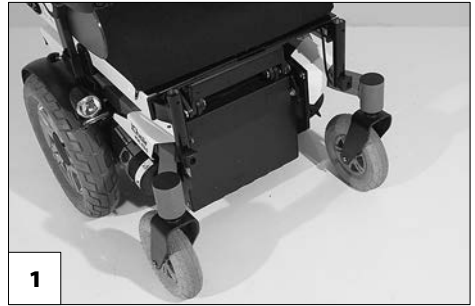
For removal first swivel the leg support sideways and then remove them toward the top [1].

- ☞ Therefore observe chapter *Turning the leg supports to the side* on page 23.
- ☞ Watch for possible danger of jamming!

## Attaching the leg supports

For inserting press the leg supports, swivelled to the side, parallel to the front frame tube and lower it into place [2]. – In doing so the holding pin must slide into the frame tube.

- ☞ After attachment swivel the leg supports inward [3].
  - ☞ Therefore observe chapter *Swivelling in the leg supports* on page 24.

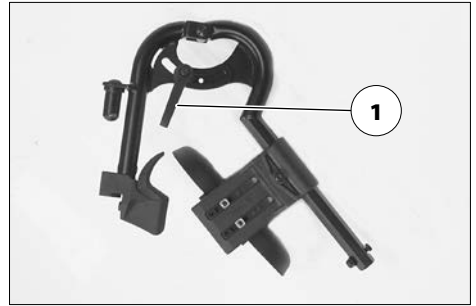


## Mechanically height-adjustable leg supports

Never put the free hand into the adjustment mechanism while adjusting the height adjustable leg support. – Danger of jamming!

Have the leg support that is to be adjusted secured against falling away by an accompanying person.

Do not let the leg support drop on its own weight. – Danger of injury!



### Lifting/lowering the leg support

1. Before lifting/lowering relieve the leg support by an accompanying person by slightly lifting it up.
2. Afterwards loosen the clamping lever (1) and have the leg support lifted/lowered slowly to the desired level by an accompanying person.
3. After the adjustment retighten the clamping lever (1).

## Electrically height-adjustable leg support

Never put the free hand into the adjustment mechanism while adjusting the height adjustable leg support. – Danger of jamming!

Electric contact is automatically established when attaching the electrically height adjustable leg support [1].

### Height adjustment

For height adjustment, raise or lower the leg support to the desired height via the operating module (1).

- ☞ Therefore observe operation manual < *Operating module* >.



## Removing the electrically height adjustable leg support

When the electrically height adjustable leg supports are removed the electric contact (3) needs to be protected from dampness, water and dust or dirt (e. g. for longer storage)!

- ☞ Possible function error of the electrical adjustment.
- ☞ For protection you can for example use the optional cover cap.

To remove the leg support, first pull or press the locking lever (1) to the back.

Afterwards swivel the leg support sideways and remove it toward the top [2].

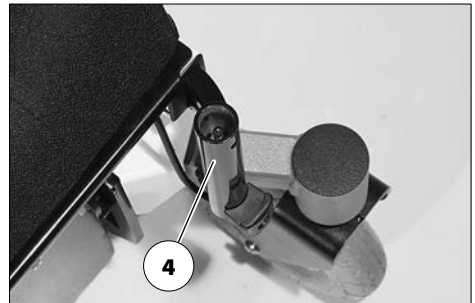
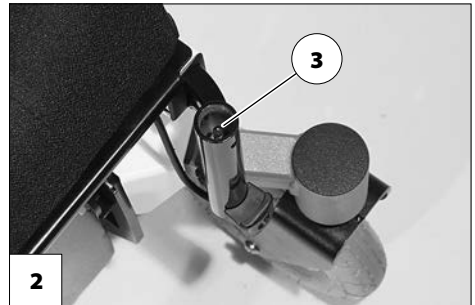
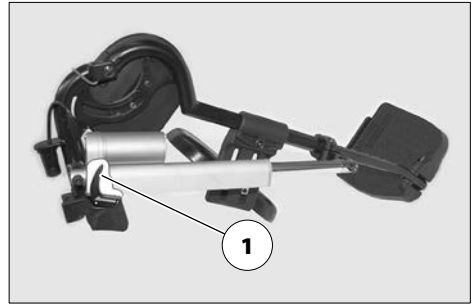
- ☞ Therefore observe chapter *Turning the leg supports to the side* on page 23.

## Hanging the electrically height adjustable leg support into place

- ☞ After attachment swivel the leg supports inward.
- ☞ Therefore observe chapter *Swivelling in the leg supports* on page 24.

Press the leg supports, swivelled to the side, parallel to the front frame tube and lower it into place. – In doing so the holding pin must slide into the frame tube (4).

- ☞ Conduct a function test on the electrically height adjustable leg support!



# ARM SUPPORTS

Do not use the arm supports [1] to lift or carry the electric wheelchair.

Do not drive without the arm supports!

## Removing the arm support

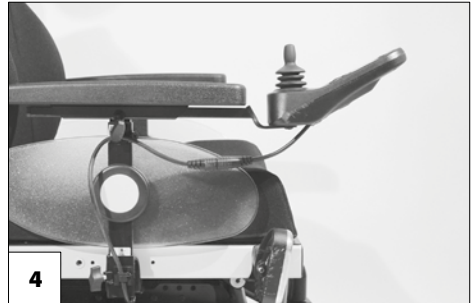
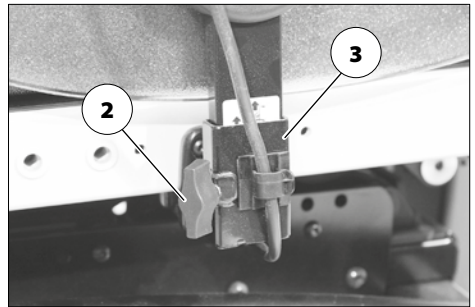
To remove the arm support, loosen the clamping screw (2) first and then pull out the arm support toward the top.

- ☞ The operating module (4) must be removed first if the arm support on the control side is to be removed.
  - ☞ Therefore observe chapter *Removing the operating module* on page 18.

## Inserting the arm support

For inserting the arm support, first slide the arm support as far as possible into the bracket (3) and then tighten the clamping screw (2).

- ☞ Watch for possible jamming areas!
- ☞ For inserting the operating module [4] observe chapter *Inserting the operating module* on page 18.



## BACK SUPPORT

The back support can be folded down for storage or transport.

- ☞ For better demonstration of the wire cable (1) the back support is shown without cushion.

### Folding down the back support

- ☞ If required remove the seat pad (velcro fastener).

Disengage the back support by pulling or pressing the wire cable (1) at its centre and fold it onto the seat [2].

- ☞ Watch for possible jamming areas!

### Unfolding the back support

For this raise the back support and pull the pressure bolts inward by pulling or pressing on the wire cable (1).

Release the wire cable in order to lock the back support in the desired position (3). – Slide the back support until the pressure bolts audibly click into place.

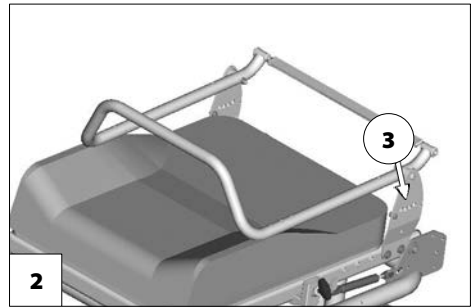
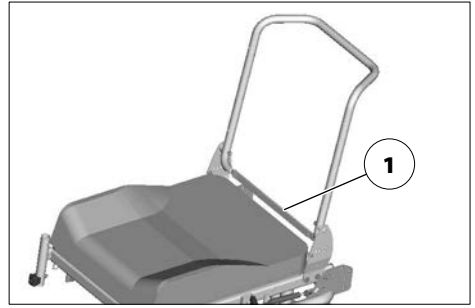
- If required replace the seat pad.
- ☞ The greasing of the thrust bolts is recommended for an easier latching of the backrest.
- ☞ Check the lock of the back support.

### Adjusting the back support angle

Unlock the back support by pulling or pressing the centre of the wire cable (1).

Release the wire cable in order to lock the back support in the desired position (3). – Slide the back support until the pressure bolts audibly click into place.

- ☞ Check the secure locking in of the back support.



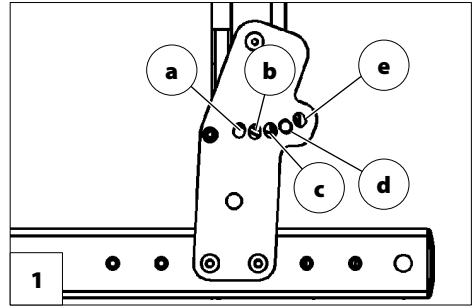
## Secure positions of the back support

Any change to the seat inclination will lead to different safe back support adjustments!

The diverse possible seat adjustments also includes such settings, that may only be used as resting positions, since they might lead to instable driving conditions in drive mode.

Depending on the set seat inclination you may only select certain back support adjustments for driving on hills [1].

- For your safety you should have the set seat inclination confirmed by your specialist dealer and marked in the chart!



### Example:

Adjusted seat inclination:.....4,5°

The pressure bolt of the back support may only be in positions c, d, or e when driving on hills/slopes.

## Model 1.618

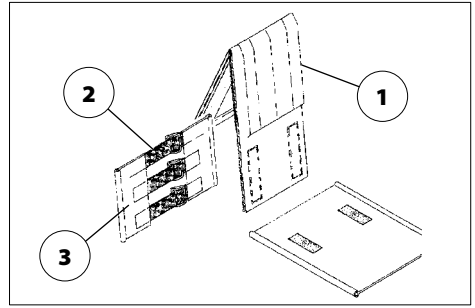
Seat inclination	Adjusted seat inclination	safe position of the back support inclination [1]
2°		c, d
4.5°	manufacturer setting	c, d
7,5°		c, d, e
10°		d, e

## Adjustable back

The adjustable back is adjustable through a velcro strap on the spanning straps (2).

### Removing the back support upholstery

For removal, first pull off the rear part of the back support upholstery (1), then fold it over to the front and pull it off of the adjustable back strap (3).



### Placing the back support upholstery

For placing the back support upholstery (1), lay it centred around the upper velcro straps (2) and attach it to the adjustable back strap with the velcro fasteners (3).

- ☞ For a soft upper edge you should leave a little space between the upper spanning belt (2) and the folded back support upholstery (1).
- ☞ When the user leans against the back support upholstery (1) again, pay attention that:
- ☞ The pressure of the back must be spread evenly throughout the back support upholstery.
- ☞ A complete hand should fit in between the cushion and back at the upper edge of the back support upholstery.
- ☞ The head of the user must be held in balance through the adjustment of the spanning straps.



The extended parts of the back support are fastened to the top or bottom seat surface depending on the adjusted back support height (4).



## Electrically adjustable back support

Any change to the seat inclination will lead to different safe back support adjustments!

Only adjust the back support when the electric wheelchair is standing on a level surface. A danger of tipping over exists on gradients!

The back support [1] is electrically adjustable.

- ☞ Herefore view the operating manual < *Operating module* >.

### Folding down the electrically adjustable back support

Fold open the safety latch (2) first for folding over the electrically adjustable back support, then remove the pin (3).

- ☞ Keep the back support and motor in position with one hand at the push bar.

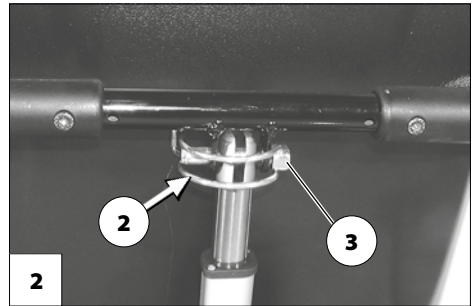
Afterwards place the motor onto the lower rack and fold the back support forward.

- ☞ Remove the back support cushion to achieve less folding height [4].
- ☞ Reinsert the pin (3) in order to prevent loss.

### Unfolding the back support

After raising the back support [1] remove the pin (4), lift the motor and hang it into place. The reinsert the pin (4) and fold the safety bracket close [5].

- ☞ Check the locking device after raising the back support up and reinserting the pin.
- ☞ Keep the pin clean at all times for flawless function.



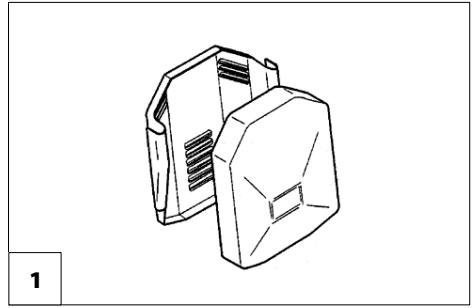
## Back support upholstery

The back support upholstery is secured to the back support shell with Velcro fasteners and can be pulled off [1].

## Tilt switch (optional)

Optionally your electric wheelchair can be equipped with a tilt switch that limits the back support angle in combination with the seat inclination.

- ☞ If the safe angle, even while driving, is exceeded the wheelchair automatically brakes to a stop and a < beep > will sound at every movement of the joystick. Continuing to drive is only possible when the back support, resp. seat angle is reduced.



# SEAT

## Seat pad

The seat pad [1] is attached to the seat plate with velcro straps and can be removed for cleaning and maintenance.

Replace and attach the seat pad again after cleaning or maintenance [1]. – Velcro fastener.



## Seat cushion

The seat cushion is placed with the burling side onto the seat plate.

## Seat inclination

Only adjust the seat angle [2] when the electric wheelchair is standing on a horizontal, level surface. A danger of tipping over exists on gradients.

The seat-angle adjustment is not linked with an automatic speed reduction function.

An increased danger of tipping over exists with a reclined back support.

Before driving make sure that you have not adjusted a negative seat inclination, resp. that the seat inclination ensures a safe sitting position even while driving on hills/slopes.



## Electrically adjusting the seat angle

The seat inclination [1] is administrated through the operating module or a separate adjustment module.

- ⚠ Watch for possible jamming areas!
- ⚠ Therefore observe operation manual < *Operating module* >.

## Seat height adjustment

Before seat height adjustment, check whether the adjustment area is free of obstacles. – Danger of injury!

Use of the seat height adjustment is only permitted on straight surfaces and during stillstand of the vehicle.

The seat height [1] can be controlled through the operating module.

- ☞ Through this the seat height can be continuously adjusted up to.
- ☞ Therefore observe operation manual < *Operating module* >.
- ☞ The speed is limited when the seat is lifted out of the initial position.
- ☞ The limitations to speed are automatically reset as soon as the seat reaches the initial position..



## **HEAD SUPPORT**

We recommend the fitting of two rear-view mirrors for driving with a head support.

The head support is swivel/proof, height- and depth adjustable as well as removable.

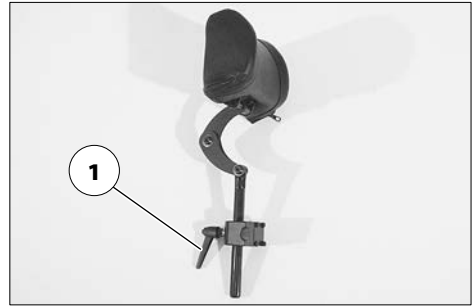
### **Adjustment of the head support**

The maximum height adjustment is indicated by the marking!

The head support can be detached or adjusted in height after the clamping lever (1) has been slackened.

### **Use of the head support during handicapped person transport inside a motor vehicle**

This head support is not released for transport of handicapped people inside a motor vehicle!



## RETAINING STRAP

Make sure that no objects are trapped between belt and the body! – Thus you avoid painful pressure points.

The retrospective assembly of a retaining strap is only to be carried out by a specialist workshop!

The retaining strap is not part of the retaining system for the electric wheelchair and/or the user during transport in motor vehicles.

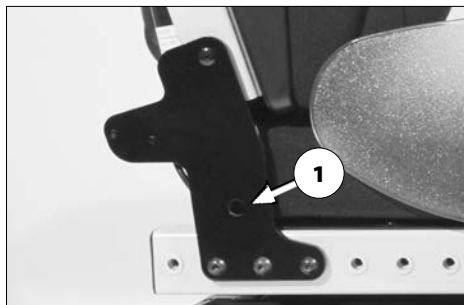
The retaining strap is screwed on, from the outer side, at the respective back support holder (1).

The retaining strap serves to stabilise the sitting position and prevents falling forward out of the electric wheelchair.

To fasten the retaining strap, pull both ends forward and audibly let the buckle click into place.

To open the retaining strap, press down the release button and pull the two ends of the strap apart.

- ✎ The retaining straps can be adjusted in length and should not be pulled too tight.



## USB CONNECTOR SOCKET

The maximum power consumption may not exceed 1 A per connection!

- ☞ The USB connector socket requires a permanent power supply. This may require a more frequent recharging of the batteries.

The USB connector socket serves to connect devices with a USB plug type A.

- ☞ The maximum power consumption may not exceed 1 A per connection.

To connect devices, first pull of the clothes guard [1], then insert the USB plug.

- ☞ If the USB connector socket is not used, close it with the splash protection cap [2].



# ATTENDANT CONTROL WITH PRIORITY SWITCH

The control unit for accompanying person enables the accompanying person an easy control of the electric wheelchair with auxiliary operating module.

## Positioning the controller

- ☞ Switch off the operating module before position adjustment! – This prevents an unwanted movement of the electric wheelchair.

## Height adjustment

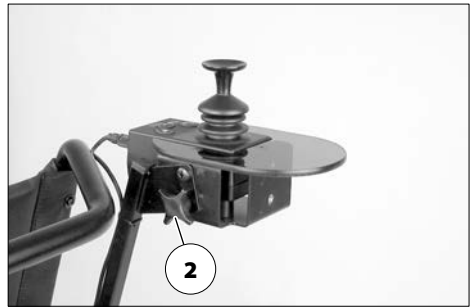
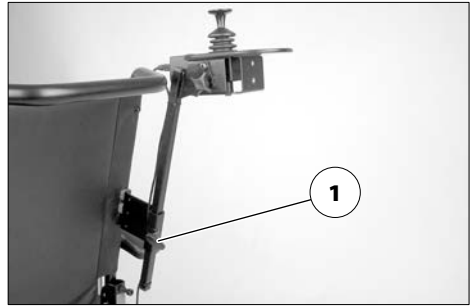
Hold the operating module and then slacken the clamping screw (1).

Move the operating module into the desired position and retighten the clamping screw.

## Angle adjustment

Hold the operating module and then slacken the clamping screw (2).

Swivel the operating module into the desired position and retighten the clamping screw.





## REAR-VIEW MIRROR

### Removing the rear-view mirror

To remove the rear-view mirror loosen the clamping screw (2) and pull the rear-view mirror forward out of the arm support tube.

- ☞ Carefully place the rear-view mirror down and protect the mirror glass from strain or other objects.
- ☞ The rear-view mirror is to be kept clean at all times.

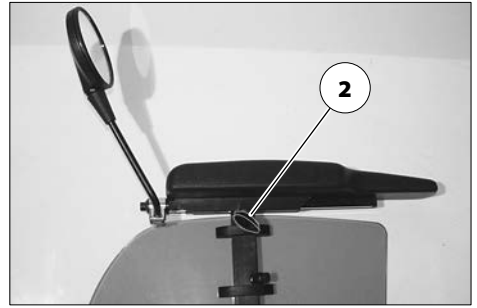
Use common glass cleanser to clean the mirror. In doing so the manufacturers instructions are to be observed.

### Attaching the rear-view mirror

For drive mode insert the rear-view mirror from the front into the arm support tube and tighten the clamping screw (2).

### Adjusting the rear-view mirror

1. Preadjust the rear-view mirror by turning the clasp.
2. Turn the rear-view mirror on the attachment rod and ball joint until you reach the desired angle.

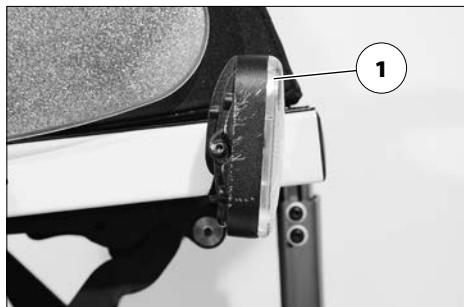


## LIGHTING

For driving outdoors and on public roads the electric wheelchair is equipped with LED-lighting equipment.

The lighting is activated over the operating module for the driver.

- ☞ Therefore observe operation manual < Operating module >.
- ☞ Always switch on the lighting system in poor visibility conditions and especially during darkness in order to see better and be better seen by others.
- ☞ Ensure that headlights, turn signals and taillights as well as reflectors are not covered by clothes or other objects attached to the electric wheelchair.



## LOADING AND TRANSPORTATION

Do not use the back support, leg supports, arm supports or restraints to lift the electric wheelchair!

The electric wheelchair must be switched off before lifting!

The parts detached for loading must be carefully stowed and carefully attached again before the next journey.

No special carrying points are allocated for carrying detachable components.

The following procedures may be necessary due to lack of space for the transport in vehicles:

- Remove the leg supports.
- Remove the arm supports.
- Remove or fold over the back support.

### Loading

The weight of the electric wheelchair is reduced when you remove detachable components.

The electric wheelchair can be loaded with the aid of ramps or lifting platforms.

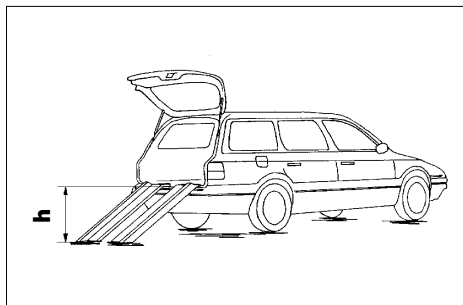
### Ramps and lifting platforms

Observe the operating manual for the ramp or lifting platform.

Observe the manufacturer's information for the ramp or lifting platform.

The maximum bearing height specified for the ramp must be greater than the height 'h' from the ground to the loading surface, e.g. of the car.

The load capacity of the ramp or lifting platform must be higher than the overall permitted weight of the electric wheelchair.



There is a danger of tilting when driving backwards on ramps!

### Transport of people inside a motor vehicle

To determine if your electric wheelchair is approved as a seat for person transport inside a motor vehicle, please look at the type plate of your electric wheelchair.

- ☞ Therefore view chapter *Meaning of the symbols on the type plate* on page 66.
- ☞ Electric wheelchairs that are not suited for use as a seat for transport in a motor vehicle are marked with an additional label. – For this observe chapter *Meaning of the labels on the electric wheelchair* on page 65.
- ☞ Observe the guideline < *Safety with Meyra-wheelchairs, also during transport in motor vehicles* >! – This document and further information can be accessed on our website < [www.meyra.com](http://www.meyra.com) > in the < *Download Archive* >.

People transportation acc. to ISO 7176-19 is only permitted with the following anchoring systems:

- 4-point anchoring system acc. to ISO 10542,
- Dahl Dockingstation MK II,

– Dahl VarioDock

Information for assembly and operation are to be taken from the anchoring system specific assembly and operating manual. This document is included with any anchoring system. The specific document for the anchoring system can also be viewed in the product specific category < *Operating manuals* > on our website < [www.meyra.com](http://www.meyra.com) >.

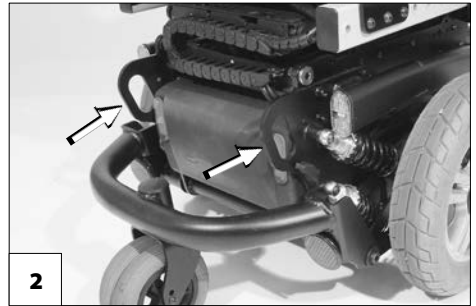


## Transport security

All regulations and directions of the respective transport company are to be observed. – Ask for these before the transport.

The electric wheelchair is only to be secured through the securing points [1] and [2].

- ☞ For this also observe chapter *Meaning of the labels on the electric wheelchair* on page 65.
- ☞ The procedure for securing the wheelchair can be read in the document < *Safety and general handling instructions electric vehicles* > chapter < *Transport in motor vehicles or with conveyors* >. – This document and further information are available in the < *Information center* > on our website < [www.meyra.com](http://www.meyra.com) >.



## **TYRES**

Tyres are made of a rubber mixture and can leave permanent or difficult-to-remove marks on some surfaces (e.g. plastic, wooden or parquet flooring, carpets, mats). We cannot accept liability for damages on surfaces caused by wear or chemical processes of the tyres.

## **MAINTENANCE**

An incorrect or neglected cleaning and maintenance results in a limitation of the product liability.

### **Maintenance**

The following maintenance Instruction gives you a guide for carrying out the maintenance work.

- ✎ The maintenance plan does not give information about the actual extent of work determined on the vehicle.

## Maintenance schedule

WHEN	WHAT	REMARK
<b>Before starting out</b>	<b>General</b> Test for faultless operation.	Carry out test yourself or with a helper.
	<b>Checking the magnetic brake</b> Move the selection lever for the drive/push mode into the drive mode position on both sides.	Carry out test yourself or with a helper. If the electric wheelchair can be pushed, have the brakes repaired immediately by the specialist workshop. – Danger of accident!
Especially before driving in the dark	<b>Lighting</b> Check the lighting equipment and reflectors for flawless functioning.	Carry out test yourself or with a helper.
<b>Every 2 weeks</b> (depending on distance covered)	<b>Check air pressure of the tyres.</b> Tyre filling pressure:  View <i>Technical data</i> on page 58.	Carry out test yourself or with a helper. Use a tyre gauge.
	<b>Adjustment screws</b> Screws and nuts are to be checked for tight fit.	Carry out test yourself or with a helper. Retighten the loosened adjustment screws. Contact specialist workshop upon demand.
<b>Every 6 -8 months</b> (depending on distance covered)	<b>Wheel attachments</b> Wheel nuts or screws are to be checked for tight fit	Do it yourself or with the aid of a helper. Securely tighten any loosened wheel nuts or screws and retighten again after 10 operating hours or resp. 50 km. Contact specialist workshop upon demand.

WHEN	WHAT	REMARK
<p><b>Every 2 months</b> (depending on distance covered)</p>	<p><b>Check tyre profile</b> Minimum tread = 1 mm</p>	<p>Carry out a visual check yourself or with a helper.</p> <p>If the tyre profile is worn down or if the tyre is damaged, consult a specialist workshop for repairs.</p>
<p><b>Every 6 months</b> (depending on frequency of use)</p>	<p><b>Check</b></p> <ul style="list-style-type: none"> <li>- Cleanness.</li> <li>- General condition.</li> </ul>	<p>View chapter <i>Cleaning</i> on page 54.</p> <p>Do it yourself or with the aid of a helper.</p>
<p>Manufacturer recommendation:</p> <p><b>Every 12 months</b> (depending on frequency of use)</p>	<p><b>Maintenance jobs</b></p> <ul style="list-style-type: none"> <li>- Vehicle</li> <li>- Battery charger</li> </ul>	<p>To be carried out by the specialist dealer.</p>

## Fuses

Only replace the safety fuse with a safety fuse of the same type!

### Replacing the fuses

Before replacing fuses, park the electric wheelchair on a level surface and secure it from rolling away.

- ☞ Therefore observe chapter *Securing the electric wheelchair* on page 12.

New fuses can be obtained for example at petrol stations.

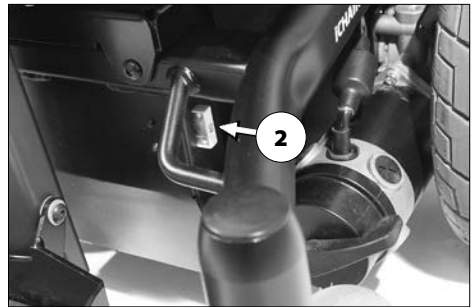
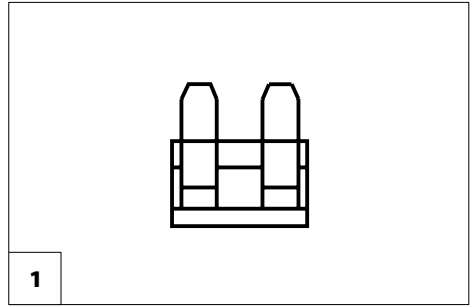
- ☞ If the safety fuse blows again, take the battery to a specialist dealer for repair.

### Fuse

Mains-/battery fuse [1]

The blade fuse for the battery current is plugged inside the fuse holder (2) of the battery case.

- ☞ Observe chapter *Technical data* on page 58!





## Lighting

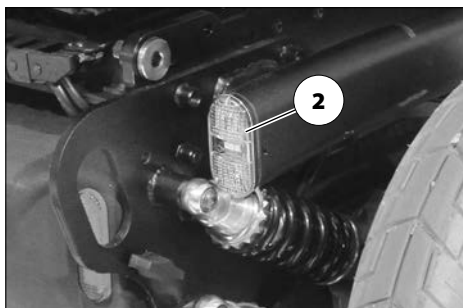
The lighting (1)+(2) is equipped with longlife LED-technology.

- ☞ Immediately have a defective LED-lamp repaired by a specialist workshop.

## Headlights

The housing of the light (1) must be adjusted so that the light cone is visible on the driving surface. – The lower edge of the light cone should be set at distance of 3 meters to the front of the electric wheelchair.

- ☞ The lighting case might need to be re-adjusted after adjustment of the seat inclination.
- ☞ If needed go to a specialist workshop for adjustment.



## Fault correction

Fault	Cause	Remedy
Battery indicator on the operating module does not light up after the switch-on.	Battery fuse is defective or not correctly inserted.	Replace defective fuse or clean contacts and insert correctly.
	Plug connection of the power supply without contact.	Check the plug connections.
The battery gauge blinks after the switch-on.	One or both of the drive motors are switched to push mode.	Move the selection lever for the drive/push mode into the drive mode position on both sides.
	Plug connection at one of the drives without contact.	Check the plug connections.
	Malfunction in the electronics.	Have it repaired by the specialist workshop. (Push mode) Selection lever in driving mode position.
	Not listed faults.	View < Error diagnostics > in the operating manual for the operating module.
Lighting not active.	LED-lamp defective.	Let it be repaired or replaced by a specialist workshop.
	Lighting fuse or drive electronics defective.	Let it be repaired or replaced by a specialist workshop.

## **BASIC SAFETY INFORMATION**

This safety information is an extract of the *Safety and general handling instructions*, that can be found on our website: < [www.meyra.com](http://www.meyra.com) >.

Do not insert fingers into open frame tubes (for example after removing the arm supports, leg supports or support castors). – Danger of injury!

A stable sitting position is to kept while using the electric wheelchair, even when not in motion and especially on hills and slopes. – Danger of accidents!

In a safe sitting position the back of the user lies directly on the back support upholstery and the hip of the user is at the back end of the seat.

Transit out of the electric wheelchair on hills/slopes may only be carried out in emergencies and with the aid of an accompanying person and/or helper! – Danger of accidents!

Adjust the seat inclination only when the electric wheelchair is standing on a horizontal, level surface. A danger of tipping over exists on gradients!

Increased danger of tipping over when using the angle adjustable back support.

Before starting to drive make sure that no negative seat inclination has been adjusted, respectively that a safe seating position is ensured.

You should not smoke while using the electric wheelchair.

Exposure to direct sunlight can cause seat covers/upholstery, arm support pads, leg supports and handles to heat up to over 41 °C. – Contact with exposed skin can result in injury! Prevent such heating by parking the electric wheelchair in a shaded area.

Special attachment points for the carry along objects are the push handles. – The maximum permitted additional load on the push handles is 5 kg.

Only transfer into or out of the seat when the electric wheelchair is switched off and the selection lever drive-/push mode on both sides is in drive mode!

Inadvertently knocking the joystick will set the electric wheelchair in motion without control! – Danger of accidents!

### **Accompanying person**

The accompanying person must be made aware of all possible danger situation before the start of his/her supportive involvement. The parts of your electric wheelchair that are held onto by the accompanying person are to be checked for tight fit.

## Transfer out of the electric wheelchair

Drive with the electric wheelchair as closely as possible to the spot where you want to switch out of the wheelchair.

- ☞ Herefore additionally observe chapters *Securing the electric wheelchair* on page 12, *Lower leg support* on page 22 and *Removing the arm support* on page 29.
- ☞ We recommend to conduct the transfer from the electric wheelchair together with an aid.

## Reaching for objects

Avoid an extreme forward or backward inclination of the upper body when picking up or placing heavy objects. – Danger of electric wheelchair tipping over, especially in the case of narrow seat widths and high seat heights (seat cushion)!

## Driving on falling, rising or transverse gradients

For safety reasons, the maximum permitted gradient is limited because the tip-over stability and the braking and steering behaviour are impaired by a reduced floor/road.

- ☞ Observe chapter *Technical data* on page 58.

Never lean towards the downhill direction when driving on rising, falling or transverse gradients.

Avoid jerky changes of the driving condition (especially with critically adjusted driving parameters as for example high delay values).

Always drive with a low speed on rising/falling gradients.

Extreme inclinations or slopes are to be driven on with adequate final speed.

Never switch to push mode on gradients. The automatic brakes are inoperative in the push mode.

Do not push the vehicle on gradients.

While driving in curves and when turning on inclinations and slopes there is a danger of tilting.

Avoid driving on inclinations or slopes with insufficient surface condition. Even with only on sided existence of ice, water, moss or similar on the ground, there is a danger that the electric wheelchair will loose traction and begin to slide out of control. If required immediately bring the joystick back into the neutral position.

Never drive faster than walking speed.

The braking force transferred to the driving surface is much less on a downward slope than on a level driving surface and is further reduced by poor road conditions (e.g. rain, snow, grit, dirt). A dangerous slipping of the wheels due to excessive braking and an associated unwanted course deviation must be avoided by way of a careful dosed braking.

At the end of the downward slope, take care that the foot plates do not make contact with the ground and endanger you through a sudden braking effect.

Transverse surfaces to the driving direction (e.g. transversely sloped pavements) effect a turning of your electric wheelchair in the downhill direction. You or an accompanying person must compensate for this drift by a counter-steering.

## Crossing obstacles

The obstacle crossing capability depends on the driving surface gradients, the adjustment of the leg supports and other factors.

Each crossing of obstacles involves a risk! – tilting danger of the electric wheelchair.

The crossing of obstacles is a special danger situation in which a combination of the safety advice in the sections headed uphill driving, downhill driving and driving transverse to a slope must be observed in addition to other safety advice.

Keep well clear of obstacles like ruts, rails and gully covers or similar sources of danger.

Always drive slowly and at a right (90°) angle towards small obstacles, e.g. curbs/edges. Cross the obstacle forwards with about 0.5 m approach and simultaneously with both front- resp. rear wheels. Otherwise your electric wheelchair could tilt diagonally and you could fall out of the electric wheelchair.

Always maintain a safety distance between the wheelchair and drops, stairs and similar obstacles sufficient for reaction, braking and turning.

If possible, let one or more helpers lift you out of the electric wheelchair and carry you to the destination point.

You can easily fall out of the electric wheelchair when driving down a step (e.g. pavement curb) if the footplates or leg supports land on the driving surface []. The crossing of rails or ruts requires increased attention.

– Unwanted course deviation!

The safe driving on stairs is impossible with conventional electric vehicles.

## Electrical system

An incorrect and/or inappropriate modification of the driving behaviour can impair the safety of the electric wheelchair and the electric wheelchair user. – Danger of accidents!

The electronic control system of the electric wheelchair must not be modified.

Should the electric wheelchair react in an unaccustomed manner or fulfil uncontrollable manoeuvres, the joystick/director is to be brought back into the neutral position/initial position immediately and/or the electric wheelchair to be switched off at once.

## Transport in public methods of transportation

Your electric wheelchair is not designed for user transport in public transportation vehicles. Limitations may occur. We recommend use of one of the firmly built in seats of the public vehicle.

Should it nevertheless become necessary to carry out the transport while sitting in the electric wheelchair, the following needs to be observed:

- Use the space designated by the public transportation services for parking.
- Observe the regulations of the transport company before parking the electric wheelchair.
- Park your electric wheelchair opposite to the driving direction in the reserved space.
- The electric wheelchair is to be placed so that the back support it will be supported by the border of the parking space.
- One side of the electric wheelchair must also lie against the border of the parking space, so that the electric

wheelchair cannot slide away in case of an accident or sudden braking manoeuvre.

- Additionally activate the parking brakes.

## Driving on public highways

Observe the valid regulations for public traffic of your country and if necessary ask your specialist dealer for required accessories.

Your electric wheelchair can optionally be fit with lighting equipment. The lighting equipment consists of:

- Headlights,
- Rear reflectors.

With limited visibility and especially in the dark we recommend to mount active lighting equipment and to turn it on in order to see better and be seen.

- ☞ When participating in public traffic the user is responsible for the functional and operationally safe condition of the electric wheelchair.
- ☞ The valid traffic regulations must be observed and abided when participating in public traffic.
- ☞ Wear light-coloured and conspicuous clothing when driving in darkness.
- ☞ When driving in the dark avoid using the road or bicycle lanes.
- ☞ Observe that the lighting equipment is not covered by clothes or any other objects attached to the electric wheelchair.
- ☞ In case of physical limitation, such as blindness, a driving ability certification for independent driving of the electric wheelchair is required.

## CLEANING

The plastic panelling is attacked through non-ionic tensides as well as solvents and especially alcohol.

Do not clean the electric wheelchair with a high-pressure cleaner! – Danger of short circuit!

The cushions and covers are normally fit with care instructions (instruction for care).

- ☞ For this observe chapter *Meaning of the symbols on the washing instruction* on page 67.

In all other cases the following information is true:

- ☞ Clean the upholstery with warm water and hand washing liquid.
- ☞ Remove spots with a sponge or a soft brush.
- ☞ Wash off persistent dirt with commercial fine detergent.
- ☞ Do not soak! Do not machine wash!

Follow-up with clean water and allow to dry.

The chassis and wheels can be cleaned damp with a mild detergent. Afterwards dry off well.

- ☞ Check the chassis for corrosion damages as well as other damages.
- ☞ Only clean the plastic parts with warm water and neutral detergent or soft soap.
- ☞ When using commercial plastic cleansers the manufacturers application instructions are to be observed.

Keep the lighting components clean at all times and check for correct functioning before each journey.

- ☞ Keep water and moisture away from electrical components and cabling!

- Danger of damage to the electric and the operating keyboard through water jets.

Silicone free water based cleaning agents and care products should be used for the care of the vehicle.

- ☞ In doing so the manufacturers instructions are to be observed.

Do not use aggressive cleaning agents e.g. solvents, or hard brushes etc.

Further information to cleaning can be found in the < *Information center* > on our website:

< [www.meyra.com](http://www.meyra.com) >.

## Finish

The high quality finish ensures an optimum of protection against corrosion.

- ☞ Should the coating be damaged with scratches or similar, these areas can be touched up with our paint pen available at the specialist dealer.

Slight lubrication of moving parts will ensure for their long functioning.

## Disinfection

If the product is used by more than one person (for example in a care centre), the use of a commercial disinfectant is mandatory.

- ☞ Before disinfection the upholstery and handles are to be cleaned.
- ☞ A spray- or wiping disinfection is permitted with tested and accredited disinfectants.

You can get information on tested and permitted disinfectants and procedures at your national facility for health protection.

- ☞ During the use of disinfectants it can happen that surfaces might be affected in such a fashion that the long term functionality of parts can be limited.
- ☞ In doing so the manufacturers instructions are to be observed.

## REPAIRS

Repairs are generally to be carried out by a specialist dealer.

### Repairs

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

### Customer Service

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

## Spare parts

Spare parts can only be ordered from specialist dealers. In case of repair work, only original spare parts are to be used!

- ☞ Spare parts from other manufacturers can cause malfunctions.

The spare parts list with the respective part numbers and drawings is available at the specialist dealer.

In order to ensure the correct delivery of a spare part, always quote the corresponding serial number (SN) of the electric wheelchair! You will find this on the type plate.

Whenever repair work on the electric wheelchair is carried out by the specialist dealer, the supplementary information, e.g. assembly/operating instructions must be attached to the operating manual of the electric wheelchair, the date of the modification must be recorded and stated when ordering spare parts.

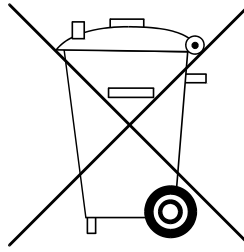
This should prevent wrong order details on future spare parts orders.

## Information for extended pauses of use

In case of longer periods without use, the following measures are required:

- ☞ Charge the batteries at least once a month for a period of more than 16 hours.
- ☞ The storage temperature is to be observed.
  - ☞ For this observe chapter *Technical data* on page 58.

## DISPOSAL



The disposal must comply with the respective national law.

Please enquire about local disposal arrangements at your municipal authority.



## Information for the specialist dealer

A maintenance and service manual for this wheelchair is available on our website < [www.meyra.com](http://www.meyra.com) > in the service area < *Download* >, in which you can find the following information:

1. Adjustments that can be carried out with tools.
2. Step by step explanations to important repairs.
3. Information on model specific amendments.
4. A checklist for the annual inspection.

The functional tests necessary for the inspection are listed in the check list.

They are a guide for the performance of the inspection work.

- ☞ It does not outline the actual scope of the necessary work which can only be ascertained by an inspection of the vehicle.

After the successful completion of an annual inspection the inspection certificate should be recorded in the operating manual.

A draft for further inspection certificates can be copied from the maintenance and service manual when required. It then has to be added to the operating manual.

## Programming the driving behaviour

The driving behaviour of the electric wheelchair can be adjusted through the programming device.

- ☞ Therefore observe the respective < Maintenance and service manual >.

The driving behaviour of the electric wheelchair should be adjusted to the individual requirements and the learning process of the respective user at regular intervals.

- ☞ The programming must be specially tailored to the user. The capacity of reaction, the constitution as well as physical and psychical abilities are to be considered. A talk with the doctor or therapist can be very helpful.
- ☞ Any change to the manufacturer set programming may result in an increased danger of accidents.
  - ☞ Possible danger of tilting in curves.

## TECHNICAL DATA

All data given in the < *Technical data* > refers to the standard version.

Dimensional tolerance  $\pm 15$  mm,  $\pm 2^\circ$ .

### Calculation of the max. user weight:

The maximum total load is calculated on the basis of the unloaded weight of the electric wheelchair and the maximum passenger weight.

Additional weight due to subsequent additions or luggage reduce the maximum permissible passenger weight.

### Example:

A driver wishes to take luggage with a weight of 5 kg. Thus, the maximum user weight is reduced by 5 kg.

## Tyre pressure of pneumatic tyres

Maximum tyre pressure is printed on the tyres on each side.

### Full tyre pressure – steering wheel

Standard:

2.5 - 3.5 bar = 36 - 50 psi

### Full tyre pressure – drive wheel

Standard:

3.0 - 4.0 bar = 44 - 58 psi

Ultra-light running tyres:

6 bar = 87 psi

High pressure:

8 bar = 116 psi

## Maximum range

The nominal values indicated by are reasonable in compliance with ISO 7176-4.

The maximum range depends to a large extent on the following factors:

- battery condition,
- weight of the driver,
- driving speed,
- driving style,
- road surface condition,
- driving conditions,
- ambient temperature.

The maximum range is greatly reduced by:

- frequent driving upwards on ramps,
- insufficient charging condition of the drive batteries,
- low ambient temperature (e.g. in winter)
- frequent starts and stops (e. g. in shopping malls),
- aged, sulphated drive batteries,
- frequently necessary steering manoeuvres,
- reduced driving speed (especially at walking speed).

In practical use, the maximum range under 'normal conditions' is then reduced to approx. 80 – 40 % of the nominal value.

## Hill climbing ability

Gradients in excess of the permitted values (e.g. ramps) should for safety reasons only be driven when the wheelchair is empty!

## Applied norms

The electric wheelchair complies with the norm:

- EN 12184: 2014
- ISO 7176-8: 2014
- ISO 7176 -19: 2008
  - ☞ Assessment of the Crashtest, in which the electric wheelchair is attached to the retaining system of the vehicle, has been carried out according to the testing methods of annex D.

The crash test has been conducted and accepted with following anchoring systems:

- 4-point anchoring system acc. to ISO 10542,
- Dahl Dockingstation MK II,
- Dahl VarioDock
- ☞ The corresponding product accompanying documents are included with the product.

The models are allocated to application class B according to the norm EN 12184.

The applied parts and components we use are in compliance to EN 1021-2 for resistance against inflammation.

## Values acc. to ISO 7176-15 for model 1.618

	min.	max.
Overall length (measured at 4° seat inclination) with central leg support	1060 mm	1150 mm
with divided leg supports	1180 mm	1250 mm
Overall width 12"-wheel / 14"-wheel		
SW = 380 mm	600 / 640 mm	650 mm
SW = 430 mm	600 / 640 mm	700 mm
SW = 480 mm	630 / 640 mm	750 mm
SW = 530 mm	680 / 680 mm	800 mm
Overall dimensions, max. permitted		
with 180 W drives		270 kg
with 350 W drives		330 kg
User weight (incl. additional load)		
with 180 W drives		120 kg
with 350 W drives		160 kg
User weight (incl. additional load, with 350 W-drives), if the product is used as a seat inside a motor vehicle (Dahl-Docking-System, crash-tested acc. to ISO 7176-19)		136 kg
Weight of the heaviest part	0.9 kg	4.5 kg
Actual seat depth	400 mm	530 mm
Actual seat width	380 mm	650 mm
Folding length Centr. leg sup.: footplate up-folded; Div.leg sup.: Leg supports swivelled inward	870 mm	990 mm
Folding width	– mm	– mm
Folding height		
Standard- / Adjustable back	700 mm	880 mm
ErgoSeat-seat and -back With Recaro seats the back support cannot be folded onto the seat surface.	860 mm	950 mm
Seat surface height at front edge (without cushion)		
with 0° seat angle	430 mm	510 mm
with 4° seat angle (Cushion thickness (front edge): Standard: 60 mm, ErgoSeat: 70 mm, Recaro: 150 mm)	455 mm	535 mm
Seat angle mechanical	0°	10°
Seat angle electric, code 118 / 4118	0°	3° / 50°
Code 4937	-25°	45°
Seat lift, code 4937	0 mm	200 mm

## Values acc. to ISO 7176-15 for model 1.618

	min.	max.
Seat lift, code 27:		
Seat lift (lifting height)	0 mm	300 mm
Seat angle	0°	30°
Seat surface height (with Ergoseat with extended seat lift)		870 mm
Back support angle, mechanical (Measured to vertical on the seat plate)	-10°	30°
Back support angle, electrical (Measured to vertical on the seat plate)	-10°	50°
Back support height		
Standard- / Adjustable back	450 mm	500 mm
ErgoSeat-back	530 mm	570 mm
Recaro-back	640 mm	
Foot support to seat Lower shank length, without seat cushion with single leg supports:		
Code 93, 92, 86 with Code 805, 54	280 mm	430 mm
with mechanical central leg supports:		
Code 5100	280 mm	400 mm
Code 5101	330 mm	450 mm
with electric central leg supports:		
Code 4935	200 mm	400 mm
Code 5104	200 mm	450 mm
Code 4949	350 mm	450 mm
Static stability downhill	-°	8.5°
Static stability uphill	-°	8.5°
Static stability lateral	-°	8.5°
Dynamic stability uphill	-°	8.5°
Angle leg support - seat surface:		
Central leg support, mechanically adjustable	85°	95°
central leg support, electrically adjustable	90°	180°
Divided leg supports, mechanically adjustable	110°	
divided leg supports, electrically adjustable	110°	180°
Arm support height from seat surface (w/ w/o seat cushion)		
Arm support code 106 or code 21	240 / 180 mm	350 / 290 mm
Arm support up-swivelling, Code 24	235 / 175 mm	300 / 240 mm
Back support to front edge of arm support	330 mm	450 mm
Obstacle height		60 mm

## Values acc. to ISO 7176-15 for model 1.618

	min.	max.
Minimal turning radius (measured at 4° seat inclination)		
with central leg supports (depending on features)	700 mm	800 mm
with divided leg supports (depending on features)	800 mm	900 mm
Weight of the dummy (ISO 7176-8)		160 kg
Max. forward top speed (depending on features)	6 km/h	10 km/h
Minimum breaking distance from top speed	1000 mm	2100 mm
Maximum range with 6 km/h (depending on battery capacity)	30 km	40 km
Maximum range with 10 km/h (depending on battery capacity)	25 km	35 km
Axle horizontal position	- mm	- mm

## Further technical data for model 1.618

	min.	max.
Sound level		70 dB(A)
Protection class	IP X4	
Min. turning area		
central leg support	1050 mm	1150 mm
divided leg support	1130 mm	1230 mm
Performance drive control		
with 180 W drives	24 V / 70 A	
with 350 W drives	24 V / 90 A	
Engine output		
6 km/h	180 W	
10 km/h	350 W	
Main fuse	80 A	
Lighting (option)	LED-technology 24 V	
Additional load	- kg	10 kg
Front axle load (max. permitted)		
with 180 W drives	130 kg	
with 350 W drives	160 kg	
Rear axle load (max. permitted)		
with 180 W drives	200 kg	
with 350 W drives	240 kg	
Ground clearance with 12 1/2"-drive wheels	70 mm	
Ground clearance with 14"-drive wheels	80 mm	
Empty weight (with drive batteries)	120 kg	165 kg
Empty weight (without drive batteries)	90 kg	120 kg
Overall height	960 mm	1150 mm

### Transport dimensions

Length (incl. support castors, without leg supports)	870 mm	930 mm
Width (without arm supports)		
with code 38, SW 380 mm	600 mm	640 mm
with code 43, SW 430 mm	600 mm	640 mm
with code 48, SW 480 mm	630 mm	640 mm
with code 53, SW 530 mm	680 mm	

## Further technical data for model 1.618

	min.	max.
Height, with standard- or adjustable back	630 mm	710 mm
Height, with ErgoSeat-cushion (Without arm support, back folded onto seat, seat cushion removed from seat plate and laid onto back)	700 mm	800 mm

### Climatic data

Ambient temperature	-25 °C to +50 °C
Storage temperature with drive batteries	-25 °C to +50 °C
Storage temperature without drive batteries	-40 °C to +65 °C

### Steering wheel

ø 200 x 50 mm (8")	pneumatic tyres, max. 2.5 bar (36 psi) puncture safe
--------------------	--

### Driving wheel

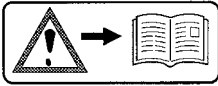
ø 325 x 58 mm (12,5 x 2.5")	pneumatic tyres, max. 3.5 bar (50 psi) puncture safe
ø 364 x 75 mm (14 x 3.5")	pneumatic tyres, max. 3.5 bar (50 psi) puncture safe

### Drive batteries

2 x 12 V 43 Ah (5 h) / 50 Ah (20 h)	sealed, maintenance free
2 x 12 V 63 Ah (5 h) / 73 Ah (20 h)	sealed, maintenance free
Max. battery dimensions (LxWxH)	260 x 174 x 205 mm
Charging current	12 A

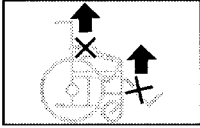


## Meaning of the labels on the electric wheelchair



### Attention!

Read the operating manuals and other provided documentation.



Do not lift the electric wheelchair at the arm supports or leg supports.  
Removable parts are not suitable for carrying.



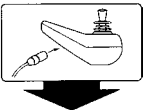
Drive mode



Push mode



Push only on level surfaces.



Indication for charging socket.



The electric wheelchair is **not** approved as a seat within a motor vehicle.



Indication for danger of jamming. – Do not reach in here.



Operation in moving transport vehicles. – Switch off or switch to driving program 3.

## Meaning of the symbols on the type plate



Manufacturer



Order number



Serial number



Production date



Permitted user weight



max. permissible total weight



Permitted axle weights



Max. permissible rising gradient



Max. permissible falling gradient

max. ... km/h

Permitted maximum speed



The product is approved as a seat within a motor vehicle.



Max. permitted user weight if the product is approved as a seat within a motor vehicle.



The product is **not** approved as a seat within a motor vehicle.



Medical device

## Meaning of the symbols on the washing instruction

(the symbols correspond to European standard)



Wash as delicates with the indicated maximum temperature in °C.



Wash as regular laundry with the indicated maximum temperature in °C.



Hand wash only



Do not bleach.



Not suited for the dryer.



Do not iron.



Do not dry-clean.

# INSPECTION CERTIFICATE

## Vehicle data:

Model:

Delivery note no.:

Serial-no.(SN):

## Recommended safety inspection 1st year (at least every 12 months)

Stamp of specialist dealer:

Signature: \_\_\_\_\_

Place, date: \_\_\_\_\_

Next safety inspection in 12 months

Date: \_\_\_\_\_

## Recommended safety inspection 2nd year (at least every 12 months)

Stamp of specialist dealer:

Signature: \_\_\_\_\_

Place, date: \_\_\_\_\_

Next safety inspection in 12 months

Date: \_\_\_\_\_

## Recommended safety inspection 3rd year (at least every 12 months)

Stamp of specialist dealer:

Signature: \_\_\_\_\_

Place, date: \_\_\_\_\_

Next safety inspection in 12 months

Date: \_\_\_\_\_

## Recommended safety inspection 4th year (at least every 12 months)

Stamp of specialist dealer:

Signature: \_\_\_\_\_

Place, date: \_\_\_\_\_

Next safety inspection in 12 months

Date: \_\_\_\_\_

## Recommended safety inspection 5th year (at least every 12 months)

Stamp of specialist dealer:

Signature: \_\_\_\_\_

Place, date: \_\_\_\_\_

Next safety inspection in 12 months

Date: \_\_\_\_\_

## **WARRANTY / GUARANTEE**

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.

We accept legal liability for this product within the scope of our general terms and conditions and warranty and in certain cases other verbal resp. agreed upon guarantees. For warranty and guarantee demands please contact your specialist dealer with following Warranty/Guarantee section and the there included information on model description, delivery note number with delivery date and serial number (SN).

The serial number (SN) can be read off of the type plate.

Precondition for the acceptance of liability in any case is the intended use of the product, the use of original spare parts by authorised dealers as well as maintenance and inspections in regular intervals.

Guaranty is not granted for surface damages, tyres of the wheels, damages due to loosened screws or nuts as well as worn out attachment holes due to frequent assembly work.

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

Interferences through radiation sources such as mobile phones with high transmission power, HiFi-equipment and other extreme interference radiators outside of norm specifications cannot be declared as warranty or guarantee claims.

This operating manual as a part of the product is to be handed out in case of a change of owner.

For evaluation of our products you can use our < *Information center* > sector < *PMS* > on our website < [www.meyra.com](http://www.meyra.com) >.

We reserve the right to make technical improvements.



This product is conform with the EC-Directive 93/42 EEC and fulfils the requirements of the from May 25th 2021 valid regulation (EU) 2017/745 for medical devices.

## Warranty / Guarantee section

Please fill out! Copy if necessary and send the copy to the specialist dealer.

# Warranty / Guarantee

Model designation:

Delivery note no.:

SN (view type plate):

Date of delivery:

Stamp of the specialist dealer:

## Inspection certificate for transfer

### Vehicle data:

Serial-no.(SN):

Model:

Delivery note no.:

Stamp of specialist dealer:

Signature: \_\_\_\_\_

Place, date: \_\_\_\_\_

Next safety inspection in 12 months

Date: \_\_\_\_\_

# NOTES

---

Your specialist dealer

---

---

**MEYRA GmbH**

Meyra-Ring 2



32689 Kalletal Kalldorf  
GERMANY



Tel +49 5733 922 - 311  
Fax +49 5733 922 - 9311



info@meyra.de

www.meyra.de

---