ENG

Mio Design 2018

Service Record

In the following all individual adjustments of the wheelchair are described. These adjustments require tools and specialised knowledge. Please leave the adjustments to a qualified rehab consultant.

MADE IN GERMANY

Unique people, unique solutions.

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Technical changes and misprints reserved. The pictures in this Instructions for use can differ from the actual equipment components. However, a corresponding conduction is possible.

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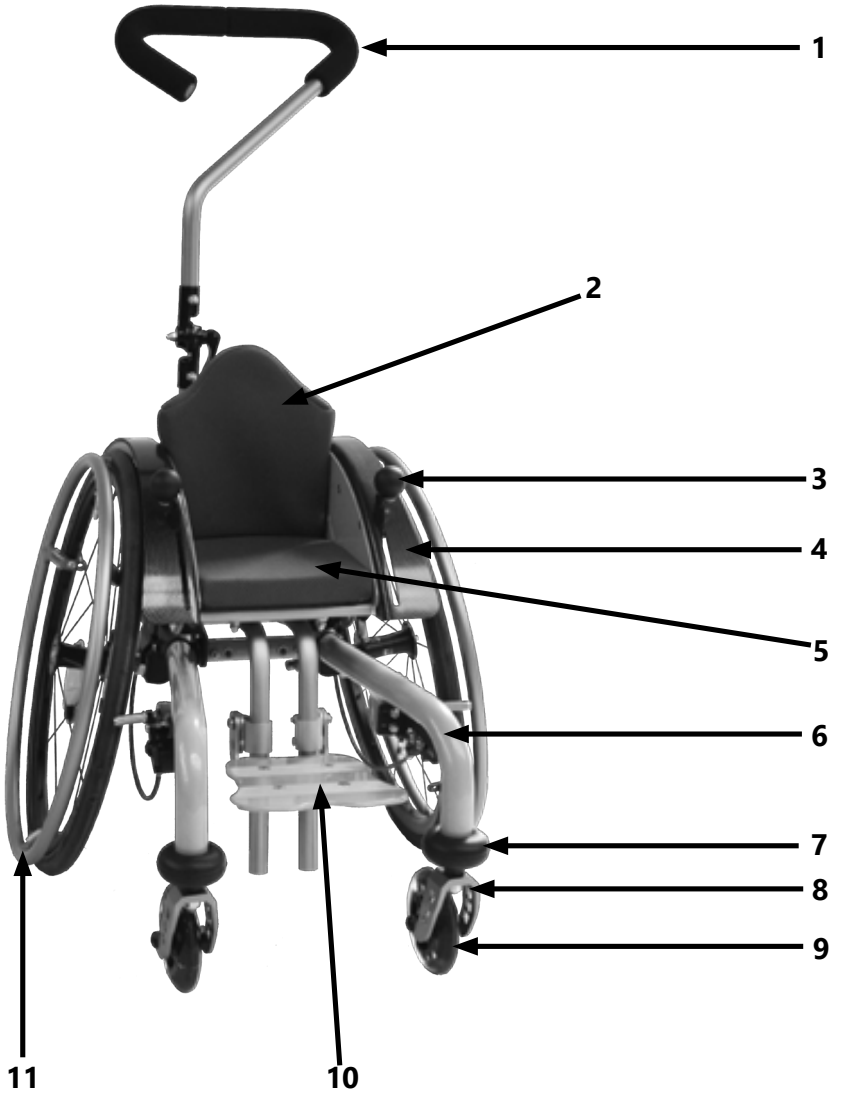
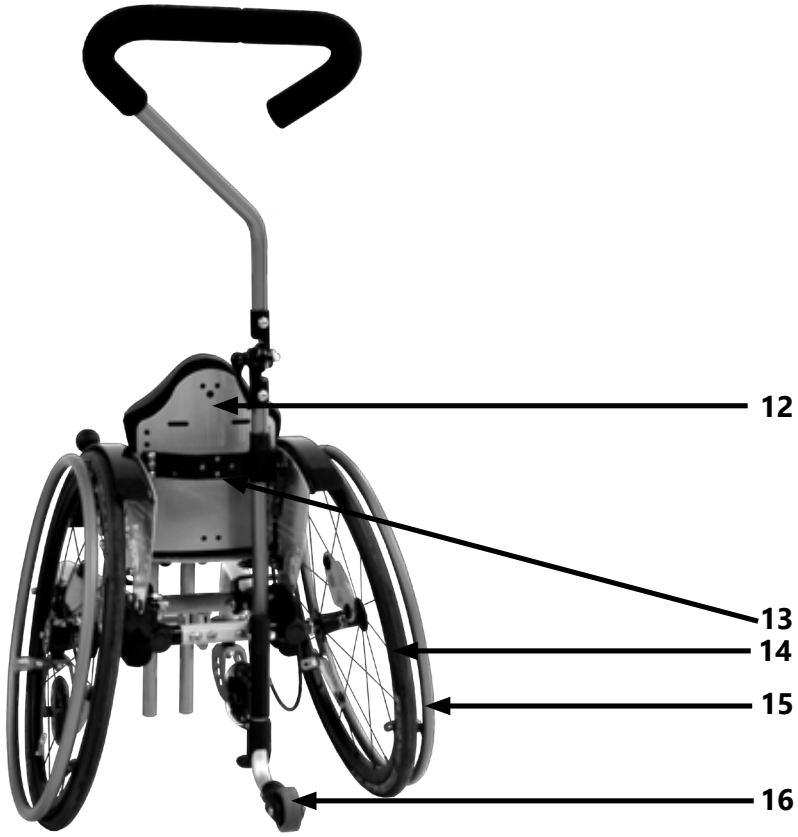


1 push handle
2 back cushion
3 brake lever
4 side guard
5 seat cushion
6 frame
7 impact protection
8 caster fork
9 caster
10 foot plate
11 hand rim



12 curved back plate
13 stabiliser bar
14 rear wheel
15 hand rim
16 anti-tipper

2 General information

2.1 General indications

In the following all individual settings, adjustments and repairs as well as the yearly inspection of the wheelchair are described. These adjustments require tools and specialised knowledge. Please leave the adjustments to a qualified rehab consultant.

Should questions or suggestions come up then please contact your medical supply store or our team (+49 7254 9279-0).

2.2 Documentation indications

Please note:

- Information about before sale can be found in the instructions for use
- Infomation for the user can be found in the instructions for use
- For maintenance instructions see: Chapter 4 (Repair & Maintenance)

2.3 Required torques and tools

For the following screws needed torque:

- M5: 5 Nm;
- M6: 7 Nm;
- M6 (axle plate) 10 Nm
- M8: 20 Nm;
- M10 (nut): 25 Nm; (caster)
- quick release axle fitting 40 Nm

Needed tools:

- torque wrench (5-50 Nm)
- open end wrench
- flex ratchet handle with socket wrench inserts
- hexagon screw driver
- Phillips screw driver
- flat head screw driver
- plastic mallet
- side cutter
- threadlocker (fluid)
- bicycle inner tube repair kit
- work bench/jaw vise with rubber pads

2.4 Explanation of symbols

ATTENTION! Warnings for personal Safety aspects that are of the utmost importance.

CORRECT safety adjustment/ use

WRONG adjustment/ use

NOT ALLOWED

References to additional/continuing reading.

important detail

correct or proper use/setting

incorrect or improper use/setting

(A); (B) reference from text to detail

Use

push/ pull/ insert / move/

Push in specific direction

Setting or adjusting the angle

open/ close

Turn clockwise

Turn counter-clockwise

steps to be done at the same time

steps to be done after each other

steps to be done on both sides

point of view

view from top

view from the side

view from the bottom

view from the front

view from the back

fasten parts

remove parts

2.5 General safety instructions

⚠ **Before each use be sure to check:**
- frame, back tubes, attachments and accessories for visible damage, bends, cracks or missing/loose scews,
- wheels/quick release axles for firm fit,
- sufficient tire pressure, tire tread,
- functionality of the brakes,
- firm fit of the angle adjustment elements/ eccentric clamps,
- firm fit of the seat plate/ the back/ the foot plate,
- functionality of the anti-tipper/ seat and back straps,
- if all previously disassembled parts are re-inserted or firmly locked.

⚠ There is a risk of injuries (e. g. such as bruising) on all rotating or folding parts, including adjustments, repairs and transport.

⚠ All wheelchair parts are to be handled with care. Do not throw or drop removable parts.

⚠ Before repairs or adjustments are made, clean/didinfect the wheelchair and secure it from tipping over and/or falling down.

⚠ Only use original spare parts.

⚠ Safety nuts may only be used once. Lossened safety nuts must be replaced by new ones.

⚠ Only the regular maintenance of all safety-relevant parts on the wheelchair by a qualified rehab workshop protects against damage and maintains our manufacturer's warranty.

Lifespan

⚠ Use beyond the specified lifespan increases the residual risks and should only be carried out after careful, qualified consideration by the operator. If the useful life is reached, the user or a responsible person should contact the specialist dealer. There you can be informed about the possibility of reprocessing the product.

Combination with products from other manufacturers

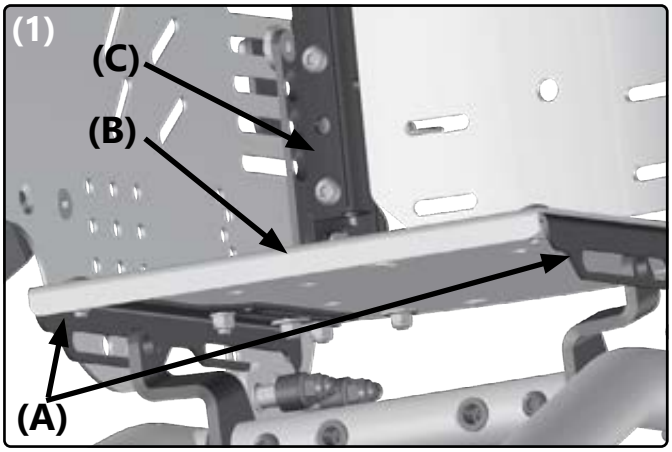
⚠ The wheelchair may only be combined with the electrical auxiliary drives approved by the manufacturer. The responsibility of restrictions or adjustmens as well as the attachment itself lies with the supplier of the additional system or the specialized retailer. Please ask about the conditions with the manufacturer of the auxiliary drives.

⚠ In combination of wheelchair and electric auxiliary drive, certain strains occur that can lead to damage to the wheelchair. Slowly approach abstacles and carefully overcome them so that little force is applied to the casters, rear wheels and the wheelchair as a whole.

3.1 Assembly group wheels

3.1.1 Centre of gravity/ wheelbase

(1) The centre of gravity is set with the seat support bracket **(A)** by displacing the seat plate **(B)** forward/backward and by displacing the back intake **(C)**.



The centre of gravity is the crucial factor for an optimal gripping point. The acceptance of the aid and, therefore, the success of the rehab programm depend on this (especially for the younger users). Please use the utmost care when fitting the wheelchair to this point.

The rear wheel is always factory-installed in the front hole of the rear wheel mount. Only with an angle adjustable back the rear wheel is mounted in the rear hole.

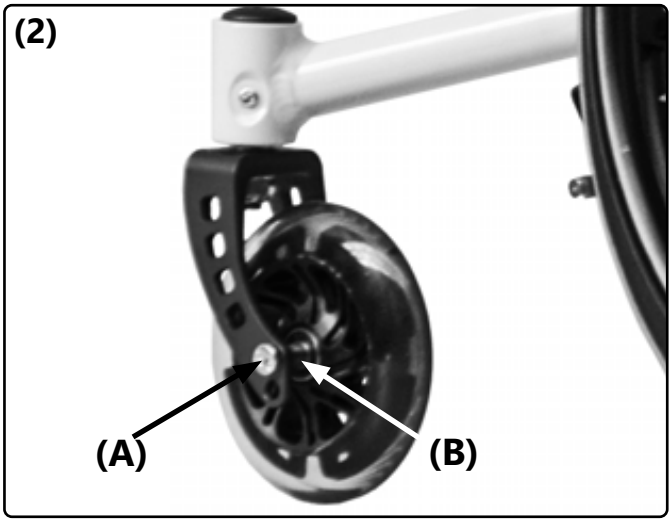
3.1.2 Camber

The camber and toe adjustment settings can be found in the separate service booklet "Camber and toe compensation". This can be found at http://www.sorgrollstuhltechnik.de

3.1.3 Casters

(2) To displace/replace the casters:

- remove the screws **(A)** completely,
- remove the husks,
- change the casters,
- if necessary, guide the husks and wheels in the new holes **(B)**,
- replace the safety nuts with new ones and retighten all the screws.



⚠ When changing the casters, make sure that the Casters is mounted in the previous hole (4 "lower hole, 5" upper hole).

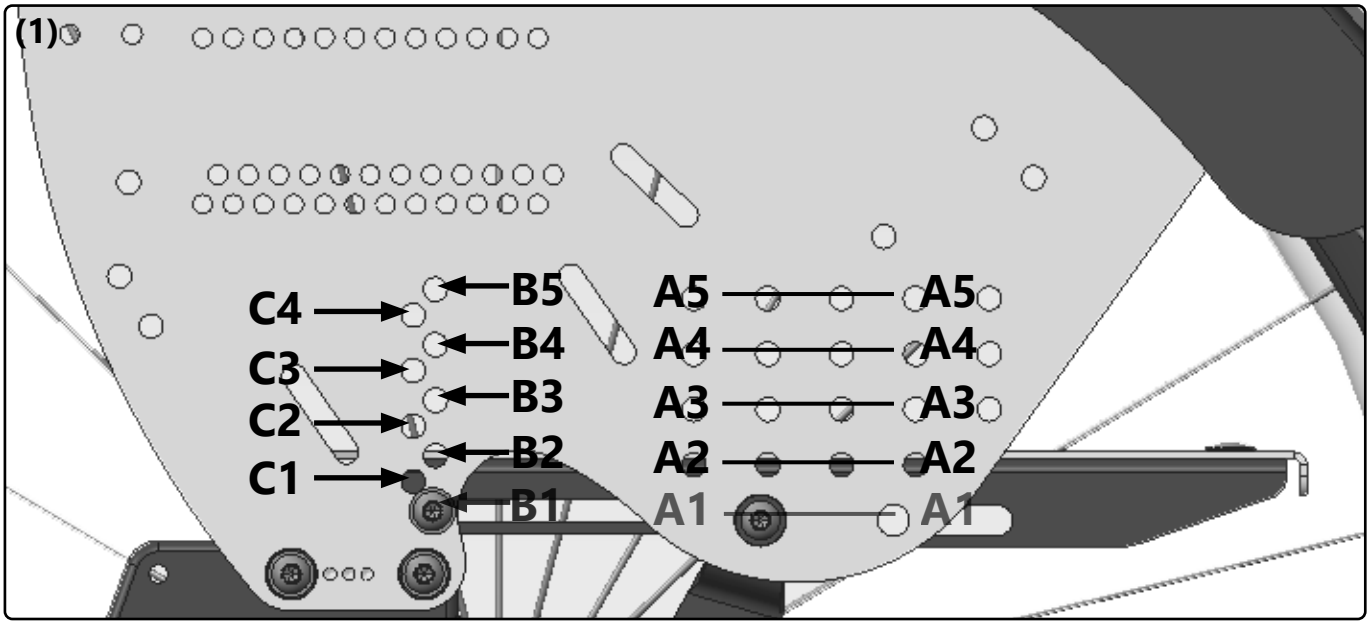
3.2.1 Seat heigh and seat tilt

The seat height is (next to the centre of gravity) a significant factor for the ideal length for turning the driving wheel and causes a positive division of the child's strength when using the wheelchair.
A general rule is: with a straight (and relaxed shoulder area) stance of the child, the elbows should reach the side guard. Be sure that when setting the seat height to check that the child does not need to lift its shoulders when moving the wheelchair.
A slight or strong seat tilt allows a safe and comfortable seat position with a good distribution of the seat pressure and promotes the straightening of the pelvis.
(1) By alternating the seat angle the seat height can be changed in 1,5 cm steps up to 4,5 cm and gives the following seat heights in the front:

- Remove the screws of the seat supporting angle
- mount the seat plate in the desired position,
- replace the screws and tighten them.

When setting the seat height regard the daily situations (pushing the wheelchair under a table at school or nursery school etc.). According to the set position of the foot notch, it must be ensured that the casters can turn freely 360°.

	Distance top edge of the seat to ground (without seat cushion!)				degree of tilting	
	with 18"	with 20"	with 22"	with 24"	bore	degree
A1	315 mm/ 31,5 cm	340 mm/ 34,0 cm	360 mm/ 36,0 cm	385 mm/ 38,5 cm	B1	without
A2	330 mm/ 33,0 cm	355 mm/ 35,5 cm	375 mm/ 37,5 cm	400 mm/ 40,0 cm	B2	without
					C1	slight
					B1	strong
A3	345 mm/ 34,5 cm	370 mm/ 37,0 cm	390 mm/ 39,0 cm	415 mm/ 41,5 cm	B3	without
					C2	slight
					B2	strong
A4	360 mm/ 36,0 cm	385 mm/ 38,5 cm	405 mm/ 40,5 cm	430 mm/ 43,0 cm	B4	without
					C3	slight
					B3	strong
A5	-	400 mm/ 40,0 cm	420 mm/ 42,0 cm	455 mm/ 45,5 cm	B5	without
					C4	slight
					B4	strong



3.2.2 Widening the seat

(1) To increase the seat width by 20 mm / 2 cm, you must remove the rear wheels, prevent the wheelchair from rolling away and proceed as follows:

- Completely remove screw connection between seat plate and seat support brackets,
- Completely remove screw connection for depression
- Completely remove side guards,
- Move spacer bushes.

(1) Remove seat plate

- Remove both screws **(D)** on both sides.
- Leave the seat support bracket **(A)** connected to the side panels.

(1) Remove the depression

- Remove all screws **(E)** on both sides.
- Leave the rear support brackets **(C)** connected to the side panels and remove only the back of the firm curved back plate

(2) Remove side guards

- Remove all screws **(A)** on both sides.
- Leave the seat support brackets **(B)** connected to the side panels.
- Remove the spacers **(C)**.

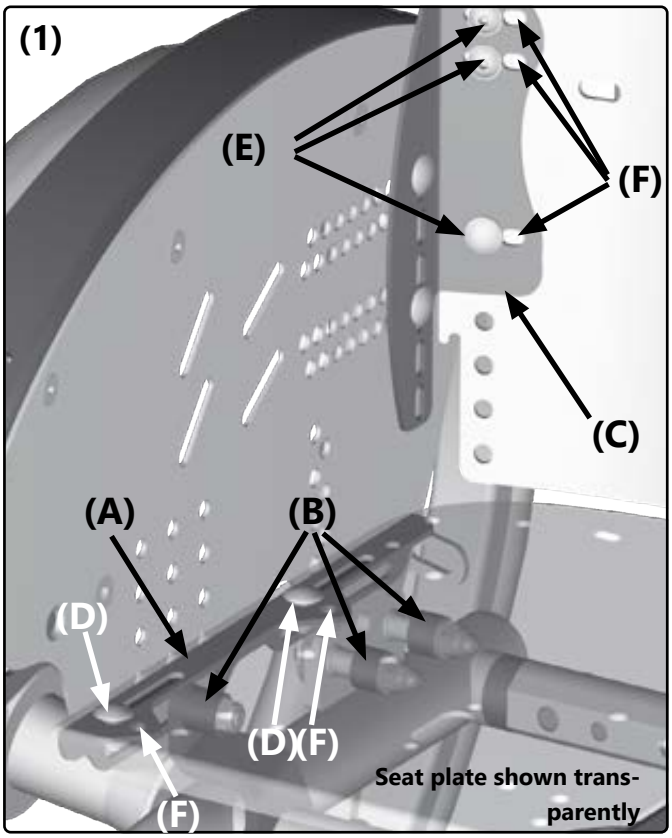
(3) Moving the spacers / widening of the wheelchair

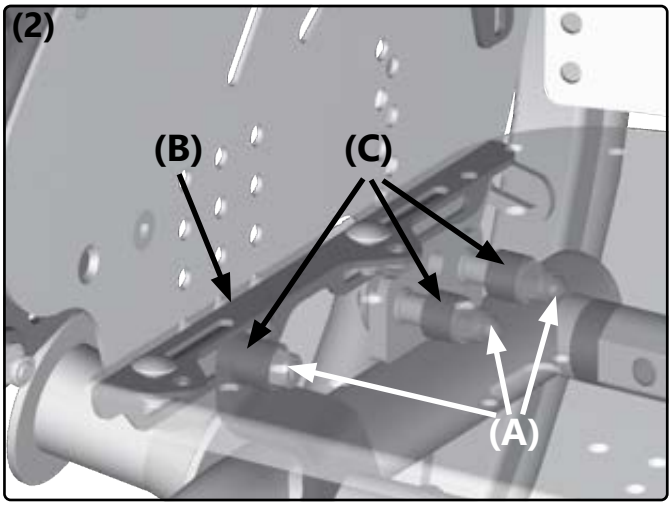
- The wheelchair is delivered by us in such a way that the spacers **(A)** necessary for the seat broadening sit on the inside.
- Move the spacers **(A)** between the side panel **(B)** and the brackets **(C)**.
- Replace all screws **(D)** and turn them tight.

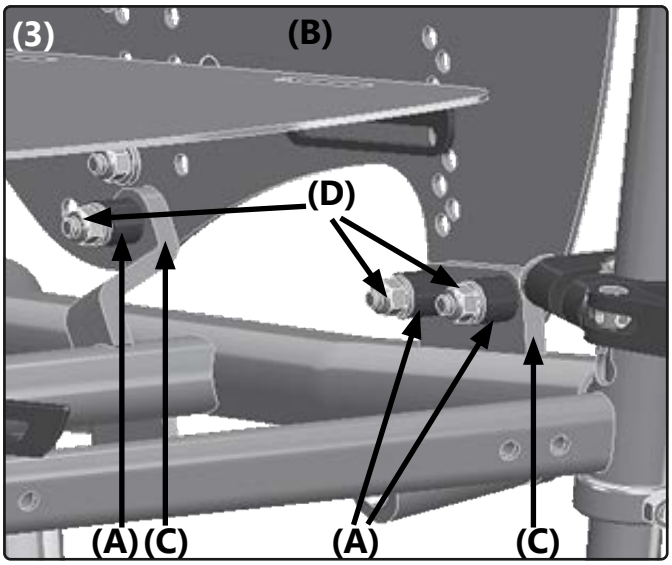
After the seat widening sit the spacers **(A)** on the outside between side panel and side panel holder.

(1) Insertion of the depression

- Use the screws **(E)** to screw the depression back into the new holes **(F)**.
- Check all screw connections.
- To change the seat height / seat angle:
- Completely remove the screws of the seat support bracket on both sides,
- Bring the seat plate into the desired position,
- Reinstall screw connections and tighten tightly.







⚠ After each change of the seat position, the position of the foot plate must be corrected. It must be ensured that the steering wheels can rotate freely under the foot plate by 360 °.

When adjusting the seat height, please take into account the domestic situation (accessibility of tables in kindergarten, at school, etc.).

3.2.3 Seat depth

On the pictures you can see the delivery status of the Mio (Design 2018):

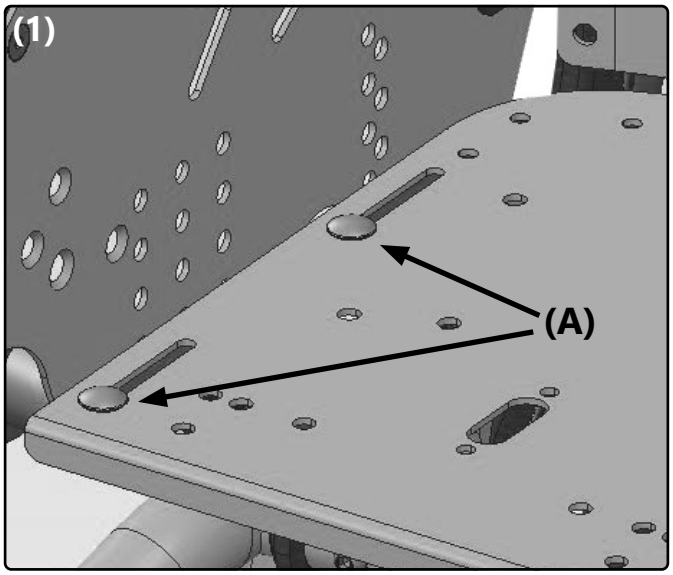
- **(1)** seat plate is mounted at the very back of the seat support bracket **(2B)**, so it stands behind about 20-30 mm / 2-3 cm above the dump back),
- **(2)** seat support bracket mounted at the front,
- **(3)** Backrest mounted at the back.

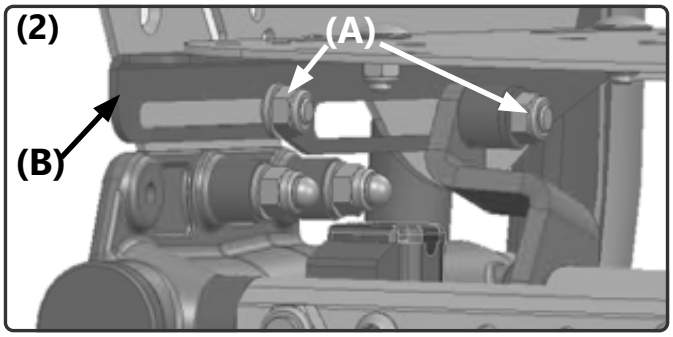
(Not with equipment "back angle adjustable")

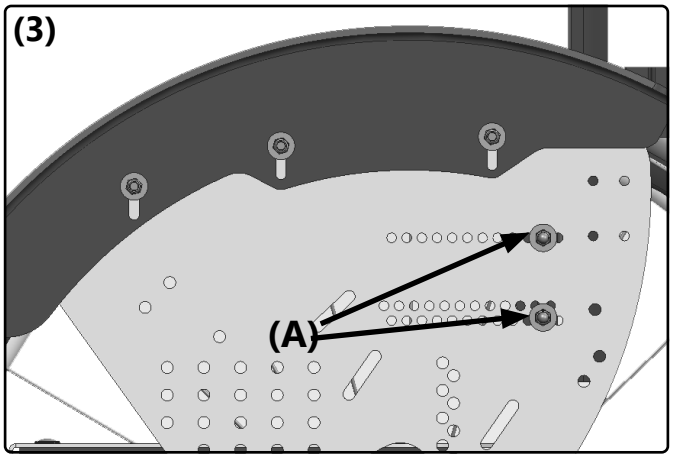
The seat depth can be infinitely changed by approx. ± 40 mm / 4 cm, by moving the back of the sink an additional approx. ± 30 mm / 3 cm.

There are three ways you can change the seat depth:

- by displacing the seat plate,
- by displacing the seat support angle,
- by displacing the firm curved back plate.

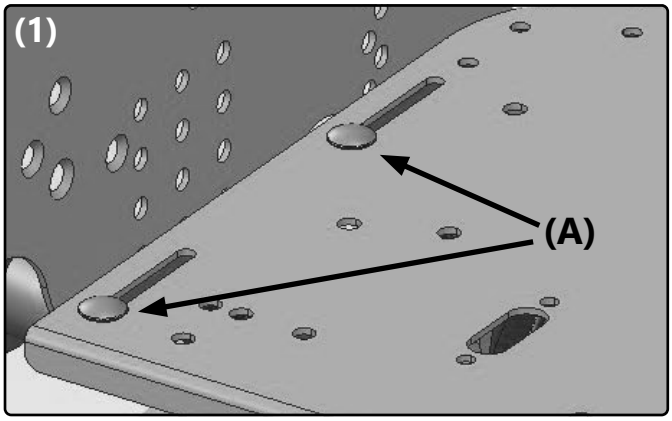






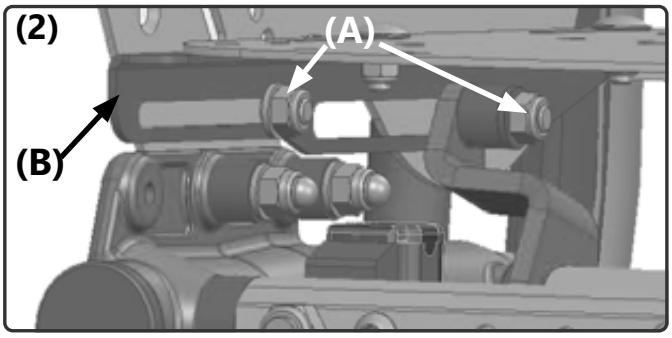
3.2.4 Adjusting seat plate

- **(1)** Loosen screw connections **(A)** on both sides,
- move the seat plate to the desired position,
- Tighten screw connections **(A)** again.



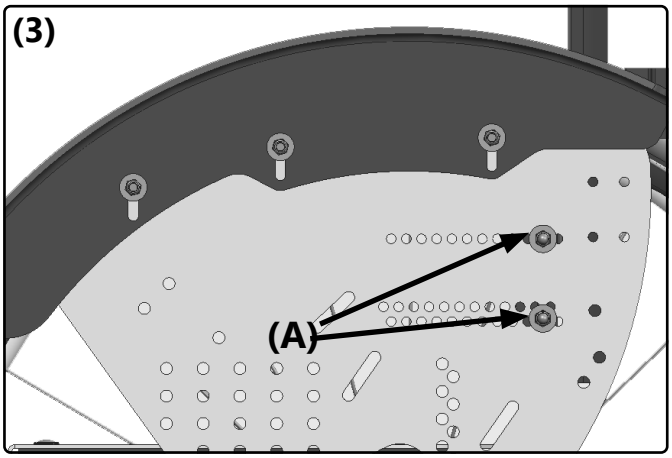
3.2.5 Adjusting the seat support brackets

- **(2)** Loosen screw connections **(A)** on both sides,
- slide the seat support bracket **(B)** to the desired position on both sides,
- Tighten screw connections **(A)** again.



3.2.6 Adjusting back

- **(3)** Loosen screws **(A)** on both sides,
- Bring the back to the desired position,
- Tighten the screws in the desired bore again.



3.2.7 Centre of gravity

The focus of the user is set via:

- the position of the seat support angle vertically and horizontally
- and the position of the firm curved back plate

The center of gravity of the user in his wheelchair is THE decisive factor for the optimal grip point and thus a positive force balance. Especially with young users, the acceptance of the aid and thus the success of the rehabilitation measure are decided. For this reason, please use the utmost care and patience when adjusting the wheelchair.

By default, the wheelchair is preset in a relatively tilt-stable position. The farther the backrest and / or seat support brackets are mounted to the rear, the faster the wheelchair tends to tilt backwards. It can also be tipped more easily on 2 wheels. Practiced wheelchair users can thus overcome obstacles more easily.

⚠ A tilted wheelchair can unsettle inexperienced users to a high degree and possibly even demotivate! Even if the anti-tippers (safety wheels) are activated and there is no danger, a beginner is more likely to be blocked and limited in his ability to respond.

⚠ Please proceed carefully and only with the assistance of an experienced escort step by step to the maximum and user-desired point of tilt

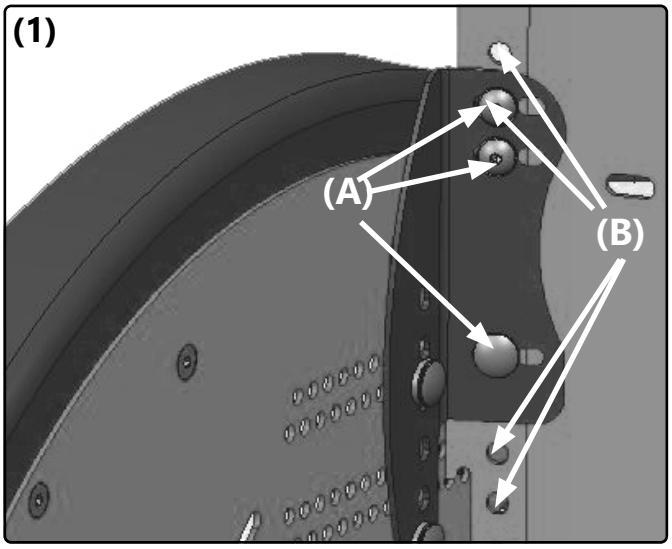
3.3 Assembly group back

The Mio (Design 2018) offers three back systems:
- Standard,
- angle adjustable (with adjustable covering or SORG backrest program) or
- fixed with back tubes (with adjustable covering)

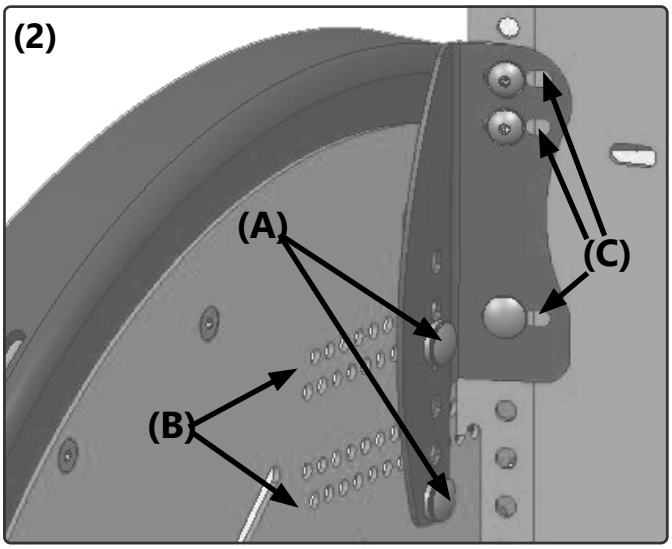
As a measure of thumb for the greatest possible freedom of movement of the arms when driving the wheelchair applies to active riders: back height = lower edge of shoulder blades.

3.3.1 Standard back

Change the back height:
- **(1)** Remove the rear wheels and secure the wheelchair from rolling away.
- Remove all screws **(A)** completely,
- put the dump back in the desired position,
- insert the screws into the alternative holes **(B)**
- and tighten all screws **(A)** firmly.

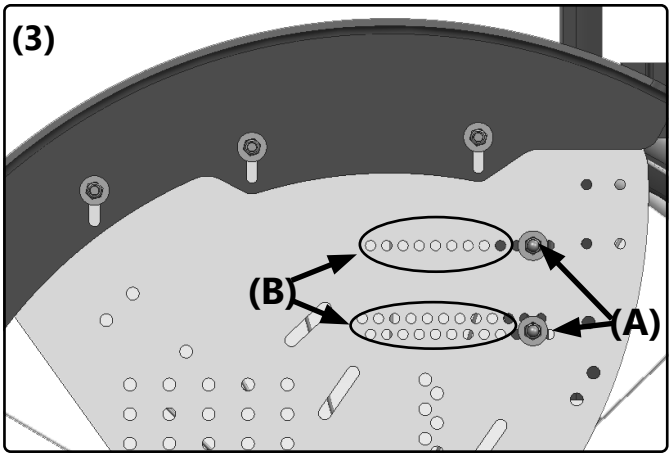


Adjusting the back position:
- By adjusting the back position, both the seat depth and the center of gravity can be influenced.
- **(2)** Remove all screws **(A)** on both sides.
- Move your back along the holes **(B)** to the desired position,
- insert the screws **(A)** into the new position **(B)** and
- tighten all screws **(A)** tightly.



Adjusting the back angle:
- The back can be adjusted at an angle of 0 °, + 5 °, + 10 °, -5 ° and -10 °:
- **(3)** Remove all screws **(A)** on both sides.
- Bring your back to the desired angle,
- insert the screws **(A)** into the alternative holes **(B)**
- and tighten all screws **(A)** tightly.

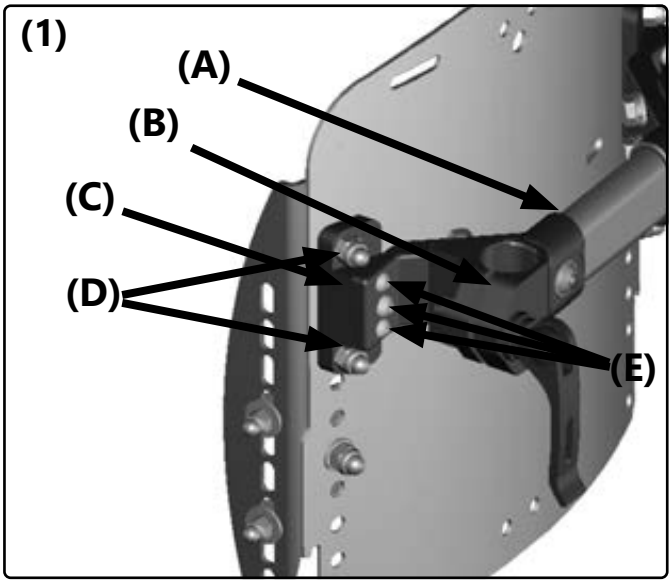
Broadening the back:
- **(2)** The broadening is done by moving the side parts outwards and mounting the spine in the new holes **(C)**.
- Proceed as described above.

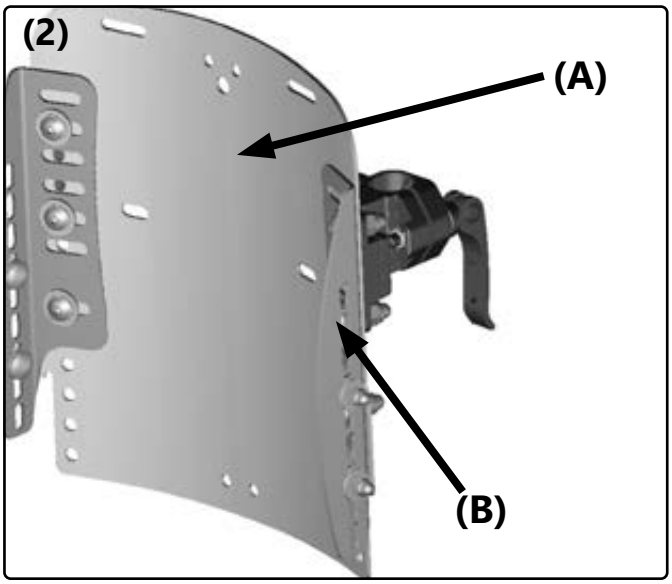


⚠ Try new setting only with the help of a helper!

3.3.2 Attachment of the stabilizer bar and push handles to standard curved back plate

Please note that the stabilizer bar **(1A)** with the push handle holders **(1B)** must always be attached through the backplate **(2A)** and back angle **(2B)**.
Make sure the bolts **(1E)** go through the stabilizer bar, wedge **(1C)** and angle.
The wedge is attached to the backplate with the back angle using the M6 safety nuts **(1D)** and the associated M6 screws.



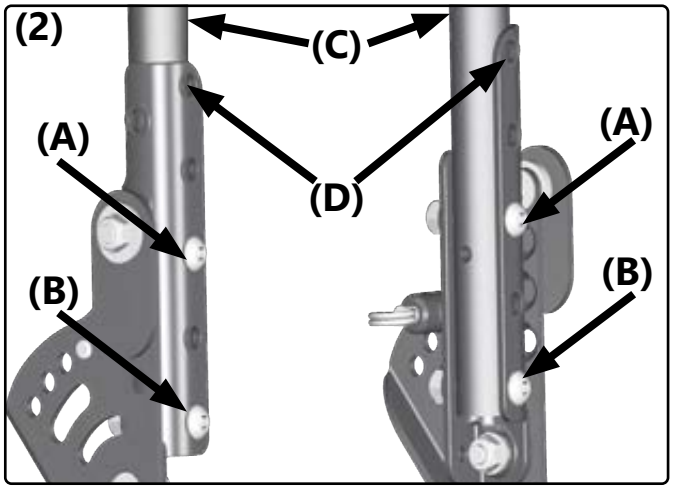


3.3.3 Adjusting the back angle

The back angle adjustment allows a threefold adjustment in approx. 12 ° steps to the rear (max. 24 °).

Change the back height:

- **(1)** Remove the rear wheels and secure the wheelchair from rolling away.
- Remove both screws **(A)** and both screws **(B)**,
- move the back tubes **(C)** upwards by 50 mm / 5 cm,
- put the screws **(A)** back in their original position
- and the screws **(B)** into the hole **(D)**.
- Tighten all screws **(A + B)** again.



⚠ Try new setting only with the help of a helper!

Changing the back position:

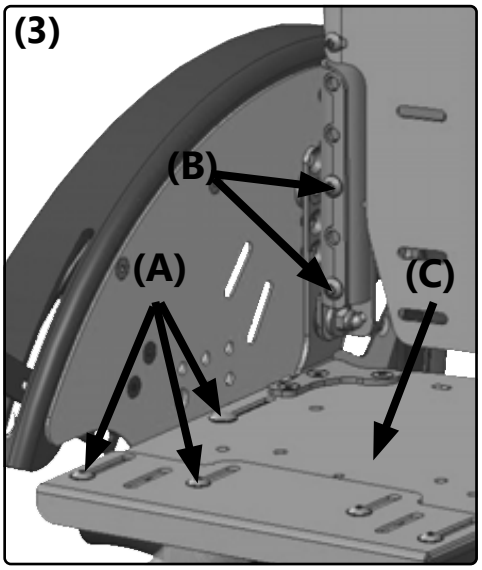
- In contrast to the standard back, the position of the angle-adjustable back can only be achieved by changing the sitting position. For this you can move the seat plate and / or the seat support angle:

To move the seat plate:

- **(2)** Remove both rear wheels and secure the wheelchair from rolling away.
- Loosen all screws **(A)** and both screws **(B)** on both sides.
- Move the seat plate **(C)** together with the back to the desired new position
- and tighten all screws **(A)** again.

To move the seat carrier angle:

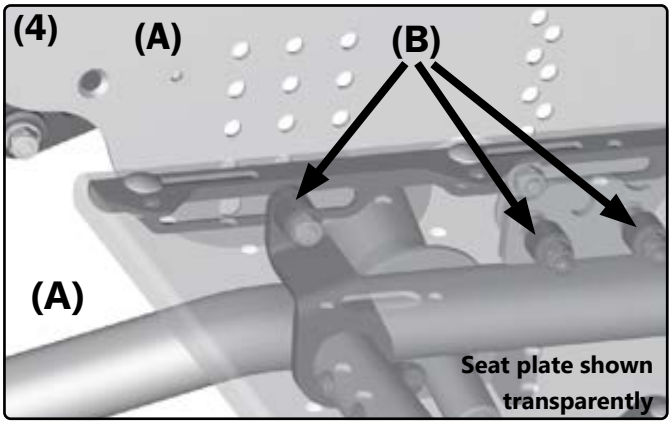
- **(3)** Remove both rear wheels and secure the wheelchair from rolling away.
- Loosen the screws **(A)** on both sides,
- move the support angle to the desired new position
- and tighten all screws **(A)** again.



⚠ Try new setting only with the help of a helper!

Widening of the back (angle adjustable):

- **(3)** The broadening takes place by moving the side parts **(A)** outwards using the spacer bushings **(B)**.
- Please proceed as described.
- Replace the screws **(3B)** with new, longer ones (included) and insert spacer bushings **(B)**.

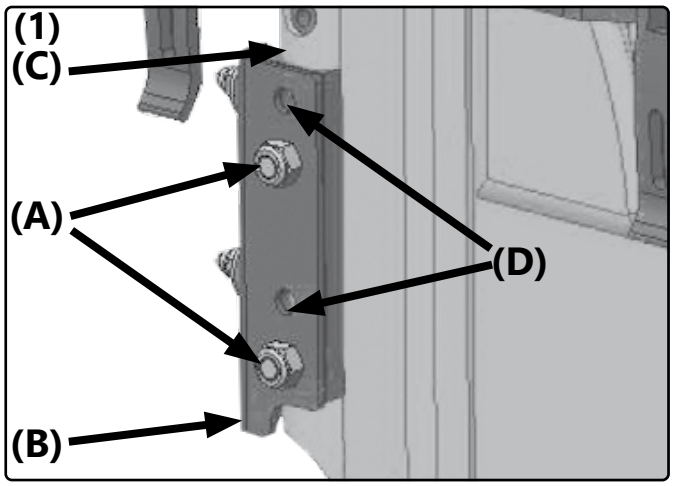


3.3.4 back with back tubes

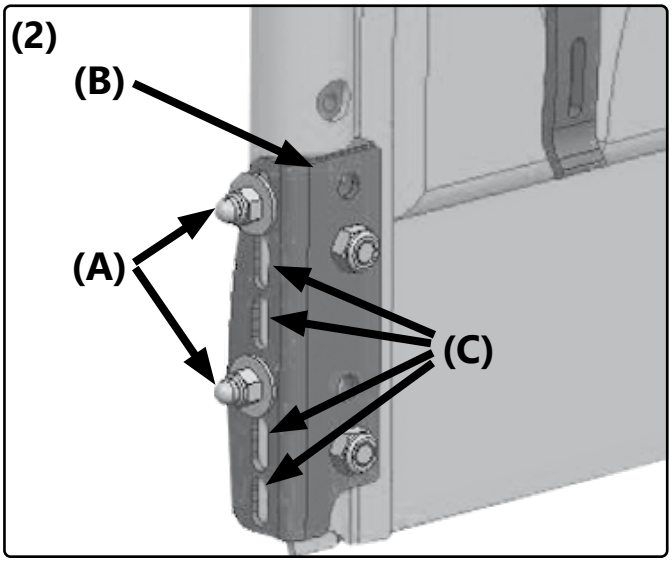
You can change the back height by approx. 25 mm / 2.5 cm by moving the back tubes and additionally by approx. 25 mm / 2.5 cm over the holder of the back tubes.

(1) Offset the back tubes:

- Remove the rear wheels and secure the wheelchair against rolling away.
- On both sides remove both screws **(A)** from the holder **(B)** of the back tubes **(C)**.
- Move the back tubes **(C)** 25 mm / 2.5 cm into the alternative holes **(D)**.
- Insert the screws **(A)** again
- and turn it tight.

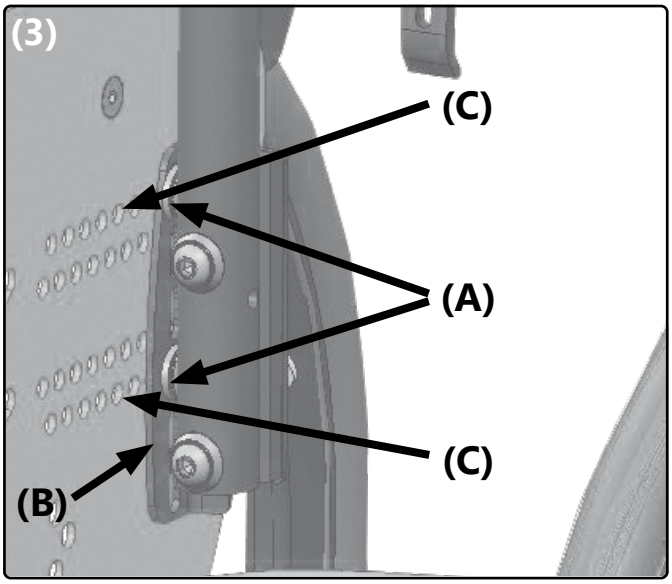


(2) Moving the holders along the slots:
- Remove the rear wheels and secure the wheelchair against rolling away.
- Loosen both screws **(A)** on the holder **(B)** on both sides.
- Slide the holders **(B)** along the slots **(C)** to the desired position and
- retighten all screws **(A)**.
- In addition, you can move the holders **(B)** completely:
- Remove both screws **(A)** on both sides,
- move the complete holder **(B)** with your back into the alternative slots **(C)**
- put the screws **(A)** in the new position
- and tighten all screws **(A)** again.



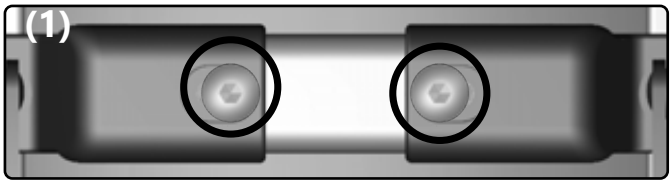
Setting the return position:
- Proceed as described above.

Adjusting the back angle:
- The back can be adjusted at an angle of 0 °, + 5 °, + 10 °, -5 ° and -10 °:
- Remove both screws **(A)** on both sides,
- move the holder **(B)** of the back tubes along the row of holes **(C)** to the desired angle,
- put all screws in the new position and turn them tight.
- Widening of the back (with back tubes):
- The broadening is done by moving the side parts outwards and mounting the spine in the new holes.
- Proceed as described above.



⚠ Try new setting only with the help of a helper!

3.3.5 Adjusting the width of the stabilizer bar when converting the back system



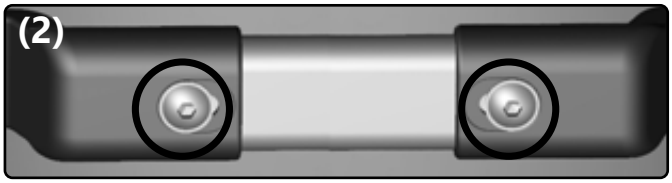


Image (1) shows the wide adjustment of the stabilizer bar. Please always select this setting for the back with back angle ADJUSTMENT.

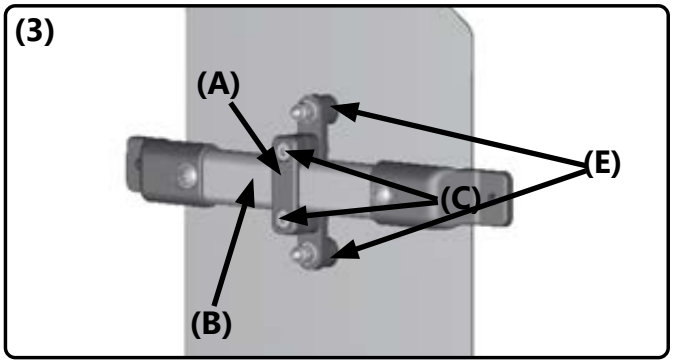
Image (2) shows the narrow setting of the stabilizer bar. Please select this setting when mounting the back angle ADJUSTABLE with back tubes or for the back system without back tubes.

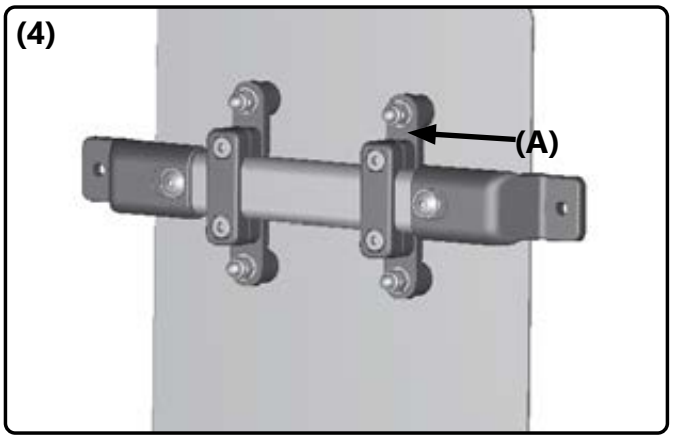
3.3.6 Back shell connection

Assembly of the back shell connection:

- Mount the clamping parts of the back shell connection **(3A)** to the profile tube of the stabilizer bar **(3B)**.
- Slide the connection bracket **(4A)** over the M6 screws **(3C)** and fix them with the M6 safety nuts.
- The clamp is fixed using the M6 screws **(3C)**.
- The specialist store must then professionally connect the self-made backrest or the seat shell to the connection bracket using the enclosed spacers **(3E)**.

From a seat width of 30 cm, two connections are screwed **(4)**. Please proceed as described above for each connection.





⚠ If the leg support is set too high, it will lead to kinking in the pelvis. A too low set will block the blood and lymph circulation.
Therefore, leave enough space between the back of the knee and the seat cushion (about one hand width - without thumb). The thighs must rest evenly on the seat cushion.

3.4.1 Standard leg support

The standard legrest can be rotated 360 ° on the Mio (Design 2018) in the bracket mount **(1G)** like a Ferris wheel. This "turning" changes the distance between the seat and footplate both horizontally and vertically.

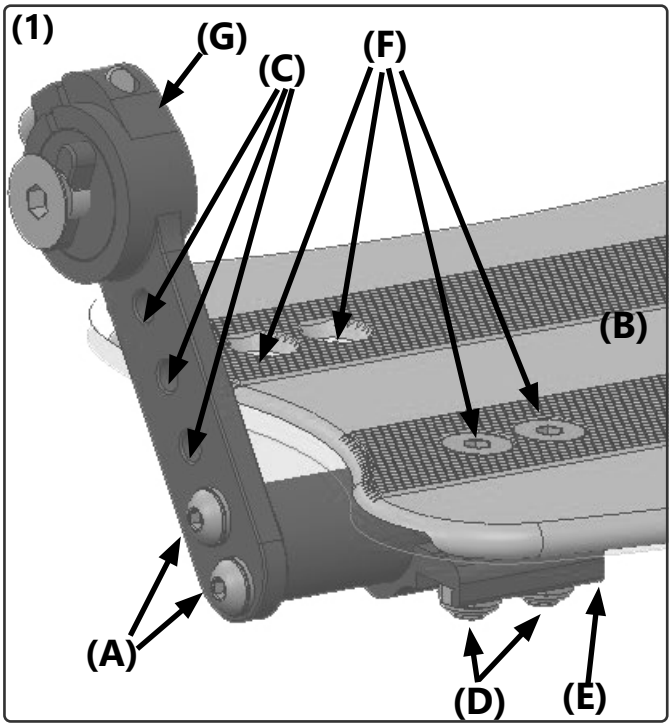
Vertical adjustment of the leg support (lower leg length):
- **(1)** Remove screws **(A)** on both sides.
- Place base plate **(B)** in the desired hole **(C)**. (The footplate must be in the same position on both sides.)
- Reinstall screws **(A)** and tighten.

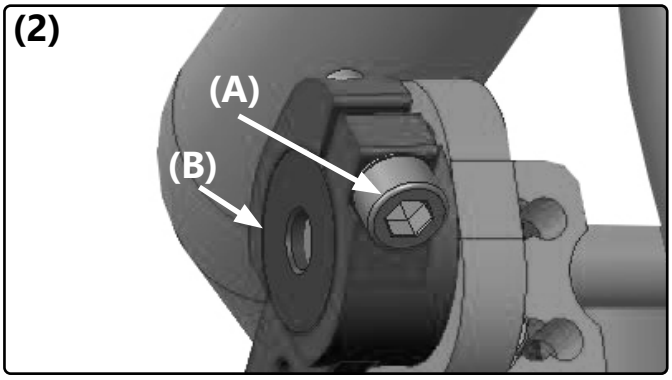
Horizontal adjustment of the leg support (angle adjustment of the footplate holder):
- **(2)** loosen screws **(A)** on both sides,
- Place the footplate holder **(B)** on both sides in the same desired position,
- Turn screws **(A)** tight again,
- if necessary, readjust the angle of the footplate (see next point).

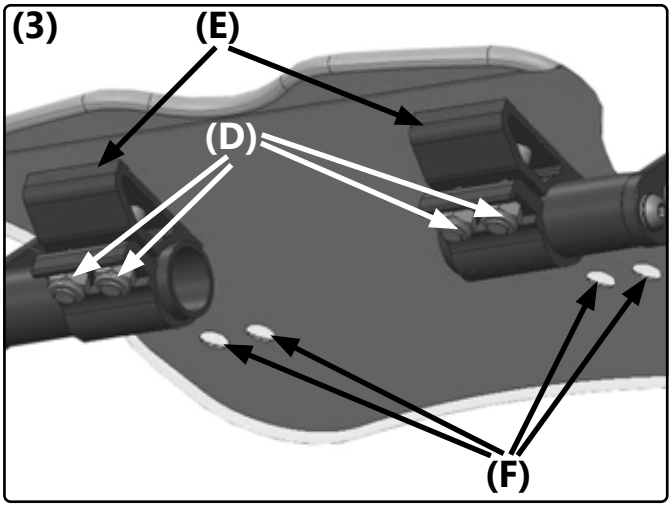
Horizontal adjustment of the leg support (angle adjustment of the footplate)
- **(1)** loosen all screws **(D)** on both sides,
- Bring the leg support **(B)** to the desired angle,
- tighten all screws **(D)** again.

Horizontal adjustment of the distance of the footplate
- **(1+3)** To change the distance by 30 or 60 mm / 3 or 6 cm turn the clamping parts **(E)** by 180 ° and / or screw them to the front holes **(F)** of the foot plate.
- For moving the clamping parts:
- Remove screws **(D)** on both sides,
- Turn clamping parts **(E)** horizontally by 180 ° and
- Reinstall screws **(D)** and tighten tightly.

To move the footplate:
- Remove screws **(D)** on both sides,
- Place base plate in alternative holes **(F)** and
- Reinstall screws **(D)** and tighten tightly

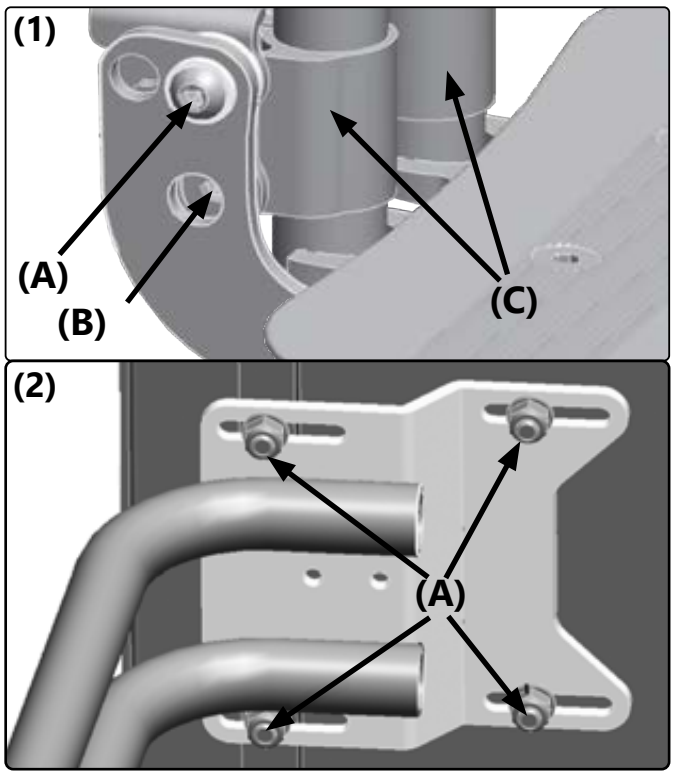






3.4.2 Removable leg support

The mounting of the leg supports takes place in the middle under the seat plate.



Setting the lower leg length:

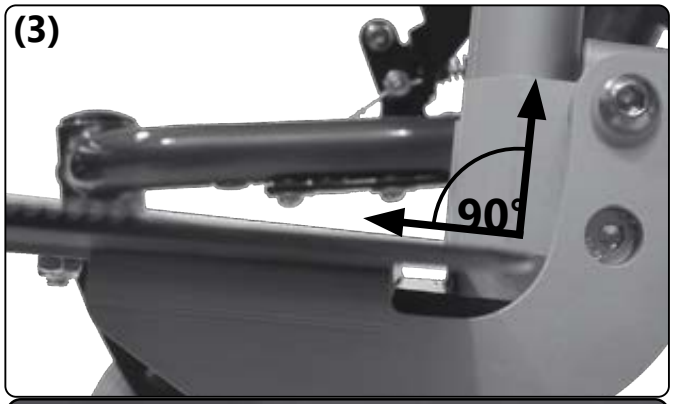
- **(1)** Loosen both screws on both sides **(A+B)**,
- push both foot plate holders (clamping profile) **(C)** in the position wanted,
- retighten the screws **(B)**,
- but only tighten the screws **(A)** so tight that the foot plate can still be folded back.

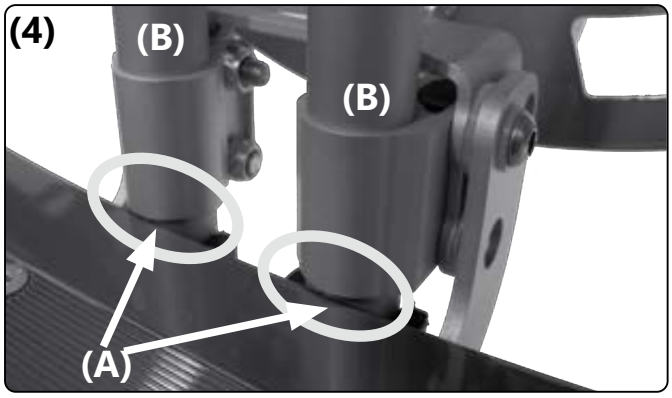
Setting the depth:

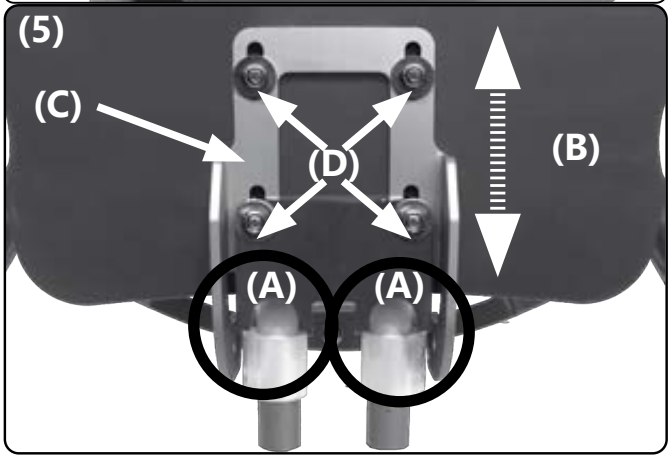
- **(2)** Loosen all four screws **(A)** under the seat plate,
- slide the leg support holder **(B)** in the position wanted
- and retighten the screws **(A)**.

Setting the angle:

- **(3)** The angle of the foot plate is set by us at 90° ex works.
- **(4)** By changing the end stop **(A)** on the tubes **(B)** the angle of the foot plate can be adjusted up to ± 15°.
- **(5)** For this, the position of the foot plate **(B)** must be moved forward (= slanting foot plate) or backward (= rising foot plate) on the holder unit **(C)**.
- Loosen all four screws **(D)**,
- put the foot plate in the position wanted
- and retighten the screws.







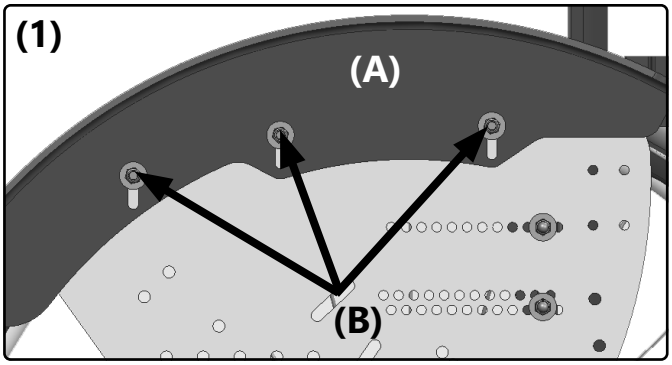
3.5.1 Side guards

The side guards on the Mio cannot be changed.

Adjusting the skirt guard

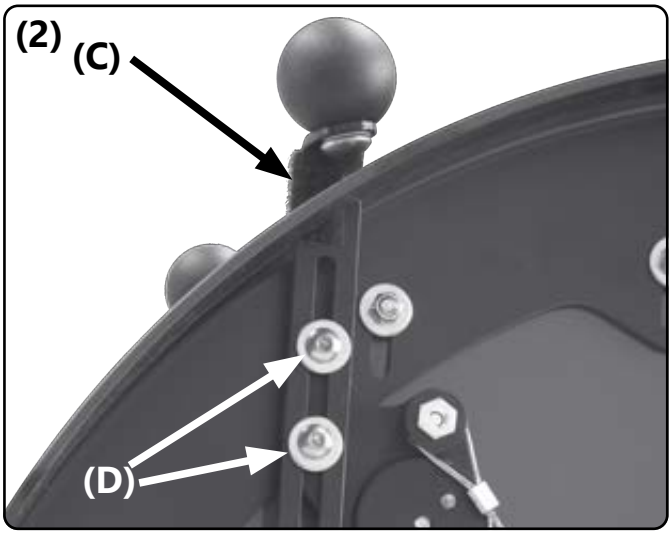
(1) The skirt guard **(A)** can be adjusted in height:

- Loosen the screws **(B)** on both sides,
- set the height of the clothes guard **(A)**
- and retighten the screws **(B)**.



(2) If necessary, the length of the brake lever **(C)** needs to be adjusted to the new position of the skirt guard:

- Loosen the screws **(D)** on both sides,
- align the brake lever **(C)**
- and retighten all of the screws **(D)**.



⚠ Afterwards, check the functionality of the brakes!

3.6 Assembly group brake

3.6.1 Wheel lock/ service brake

(1 next page) Each wheelchair is equipped with two wheel locks. They consist of brake pressing bolt **(A)**, Brake lever **(B)** (if necessary, with extension), adjustment screws **(C)** and if need be the Bowden cables **(D)**.

⚠ Wheel locks only serve the purpose of putting the wheels in a resting position. They are not made to brake the wheelchair while driving.

⚠ The correct function of the brake can be impaired by :

- too low air pressure,
- wetness, dirt, snow, ice, etc.
- worn tires,
- worn brake bolts,
- dirty brake bolt screws,
- a defected Bowden cable,
- too big of a distance between brake pressing bolt and tire.

Check all bolted connections of the brakes for their tightness at regular intervals.

⚠ After all changes to the rear wheels, adjust the brake. On a ramp with a gradient of 12% (= 7 °), the rear wheels of the wheelchair must not slippage at maximum load with the wheel lock on.

The maximum distance between the brake pressing bolt and the tires, with opened brake, is as follows:

Standard KLB	21mm
Pull to lock brake	11mm
KLB with rollback blocking about	10mm
cable brake	6mm

(technical changes reserved).

3.6.2 Cable brake

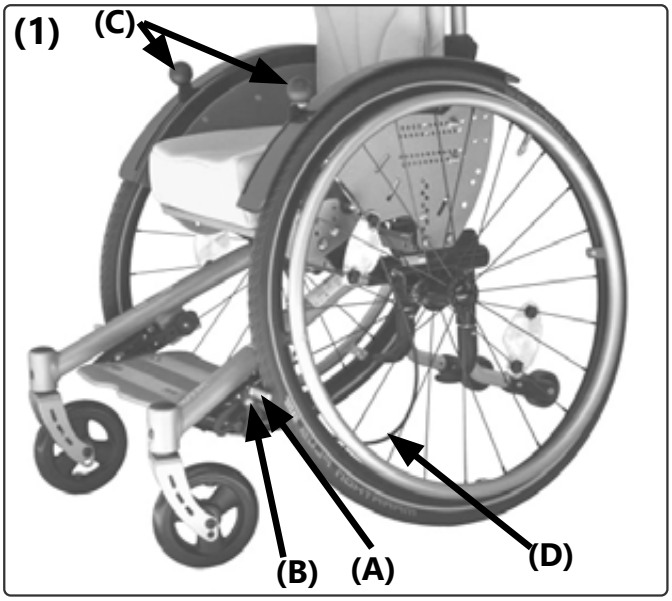
(1) The cable brake is built in to the side guard and is operated with a cable. The functionality must be checked regularly and if necessary reset.

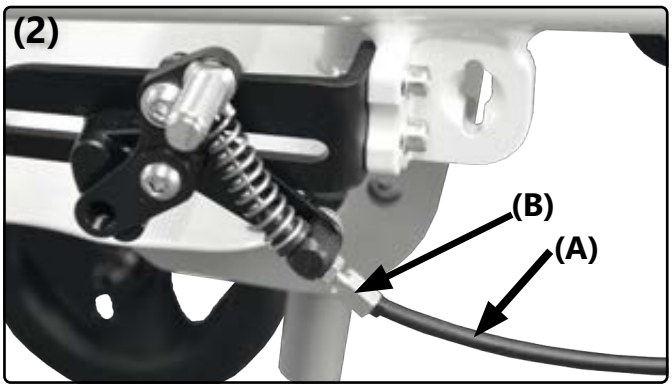
(2) To retention the cable control you must turn the setscrew **(A)**: clockwise= tighten, counter clockwise= loosen.

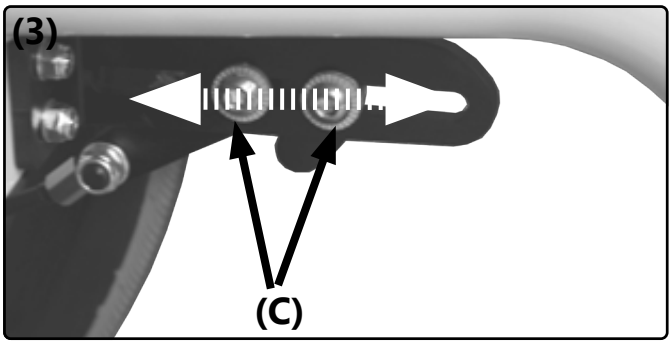
(3) In order to change the distance between the brake pressing bolt and the driving wheel:

- Loosen both screws **(D)**,
- move the whole brake pad ,while the brake is open, in the new position
- and retighten the screws **(D)**.

⚠ Afterwards, check the functionality of the brake.





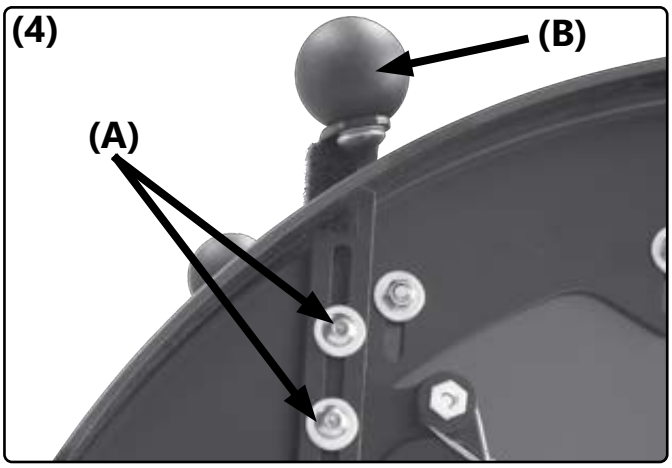


3.6.3 Setting the length of the brake lever

(4) In order to set the length of the brake lever:

- Loosen both screws **(A)**, if necessary, on both sides,
- align the brake lever **(B)**
- and retighten all the screws **(A)**.

⚠ Afterwards, check the functionality of the brake. The wheelchair with passenger (max. load capacity) must stand securely, with drawn brake, on a ramp with a 12,3% (= 7°) descent.



3.7.1 Adjust height

(1) The anti-tipper consists of 4 parts:
- Anti-tipper holder **(A)**,
- foot lever **(B)**,
- anti-tipper wheel **(C)**
- with holder and the anti-tipper bail **(D)** which can be pulled down and turned 180° (partly sticking in the anti-tipper holder).

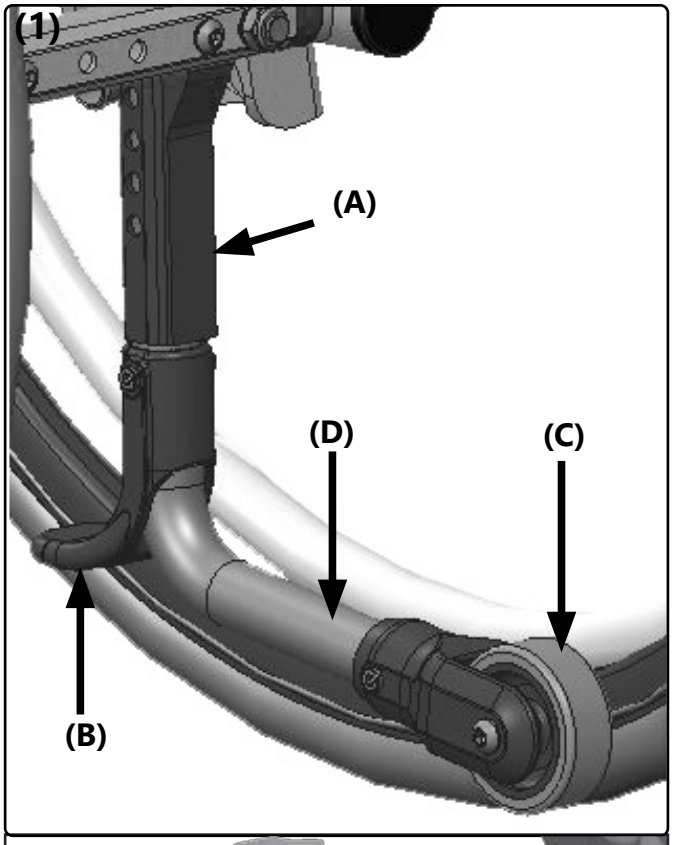
(2) The height of the anti-tipper can be changed by the screw **(A)**:
- Remove the driving wheels,
- remove the screws **(A)** and the case **(B)**,
- displace the anti-tipper bail **(C)** in the holder **(D)** in the position wanted **(E)**,
- replace the case **(B)** and the screw **(A)**
- and retighten the screw.

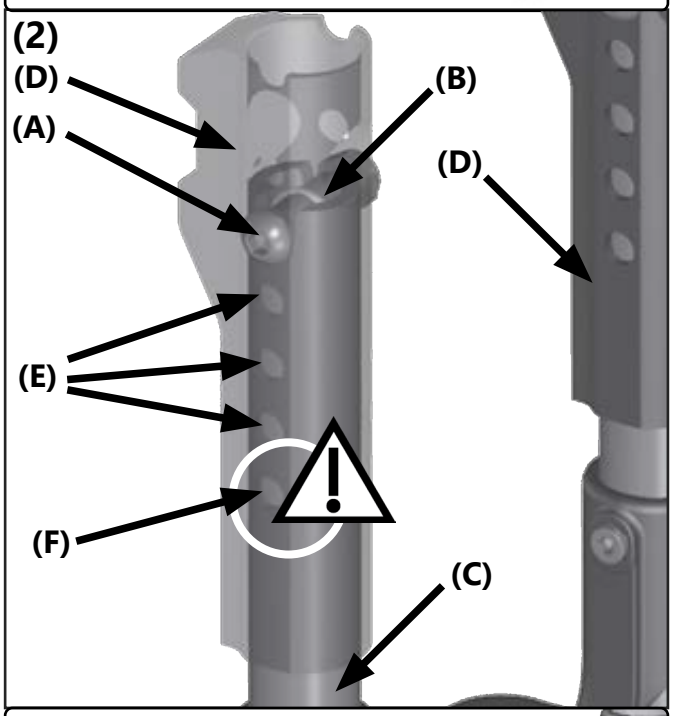
⚠ After the first removal, the safety nuts are to be replaced.

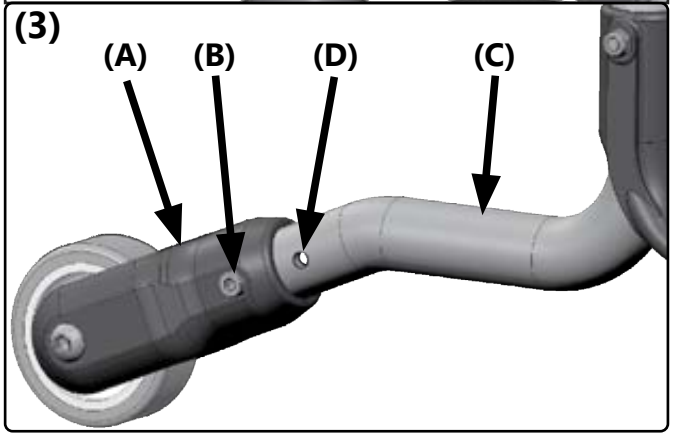
The bottom hole **(D)** is design related and cannot be used. The anti-tipper bail could slide out of the holder when turning/activating the anti-tipper.

(3) If the wheelchair if set very active and the activated anti-tipper sticks out too far back, then the anti-tipper bail can be shortened.

- Remove the screw **(B)**
- remove the anti-tipper wheel and the holder **(A)**,
- shorten the anti-tipper bail **(C)** with a saw to the length wanted,
- place the anti-tipper wheel and the holder back on the anti-tipper bail **(C)**,
- place the screws **(B)** in the hole **(D)** and tighten them.





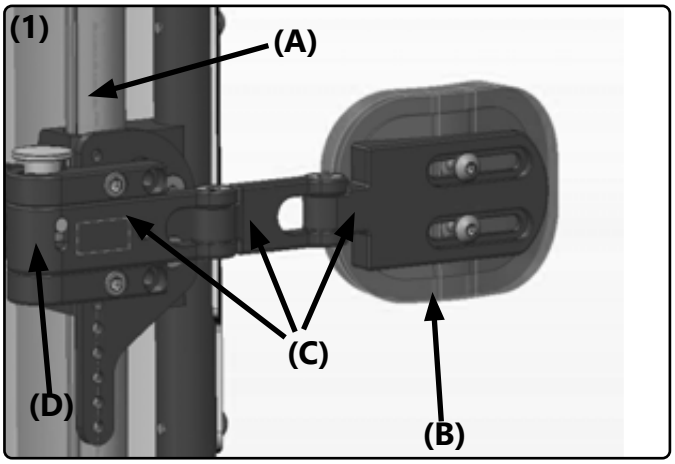


3.8 Assembly group truss pads

3.8.1 Classification

(1) The truss pads consist of the following parts:

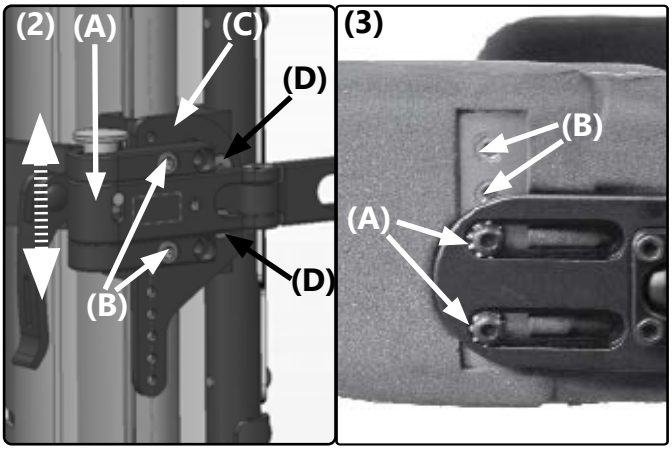
- **(A)** connection (C-bar)
- **(B)** truss pad cushion
- **(C)** truss pad holder
- **(D)** locking joint



3.8.2 Vertical setting

(2) The vertical setting of the truss pads occurs on the one hand by moving the locking joint **(A)**. Loosen both screws **(B)**, move the locking joint **(A)**, and retighten the screws **(B)**.

Vertical setting
(2) On the other hand, the truss pads can be adjusted by turning the c-bar **(D)**. Remove the locking joint **(A)** by unscrewing the screws **(B**). Remove screws **(D)**, turn the c-bar 180° and retighten the screws **(D)**. Remount the locking joint **(A)** to the c-bar and retighten the screws **(B)**.



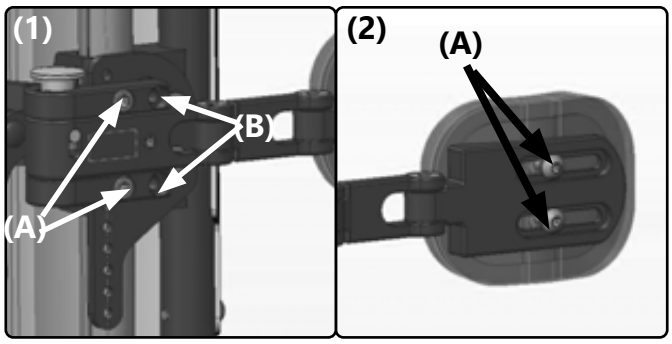
vertical setting
(3) Additionally, with truss pad size II the height can be adjusted be displacing the cushions. Remove the screws **(A)**, place the cushion on the holes **(B)**, replace and retighten the screws **(A)**.

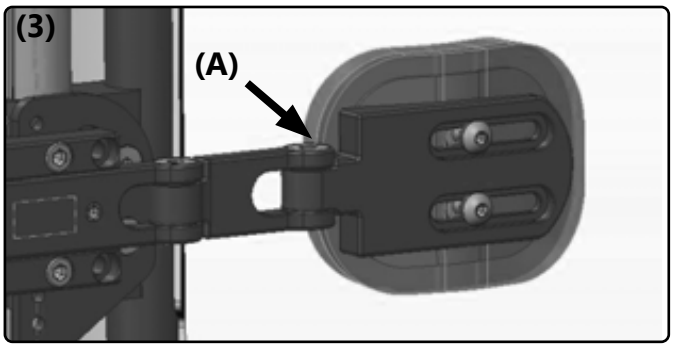
3.8.3 Horizontal setting

(1) The horizontal setting occurs on the one hand by displacing the locking joint. Remove both screws **(A)**, place the locking joint in the alternate holes **(B)**, replace and retighten the screws.

horizontal setting
(2) On the other hand, it can occur by displacing the cushions. Remove the covers, remove the screws **(A)**, displace the cushion and retighten the screws **(A)**. After, replace the covers.

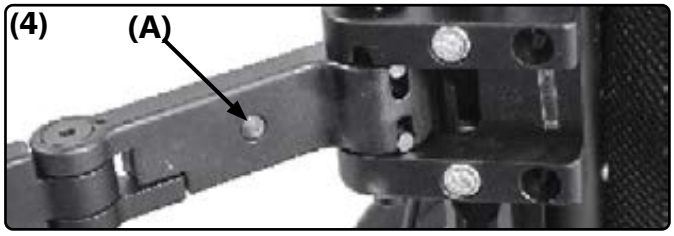
Horizontal extension
(3) For the horizontal extension add an extension piece (spare part): Remove the screw **(A)**, add the extension piece and screw it together on both ends.





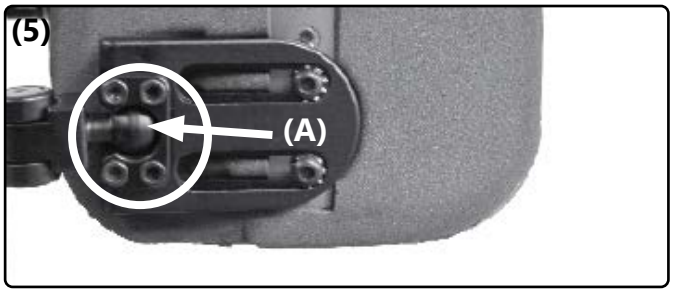
3.8.4 Fine adjustment of the truss pad holder

(4) The fine adjustment of the room between locking joint and truss pad holder occurs with the adjustment screw **(A)**.



3.8.5 Adjusting to the user

(5) If all positioning and extension works are finished close the truss pads, adjust the joints in the necessary position and tighten all joint screws **(3A)**. The ball joint is then fixated by tighten the four screws **(B)**.

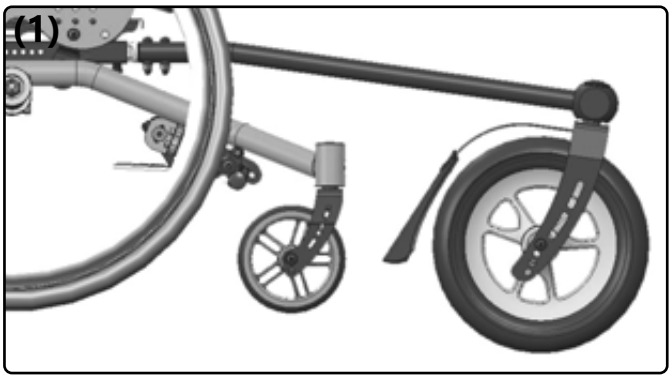


3.9 Assembly group outdoor front end

3.9.1 Settings

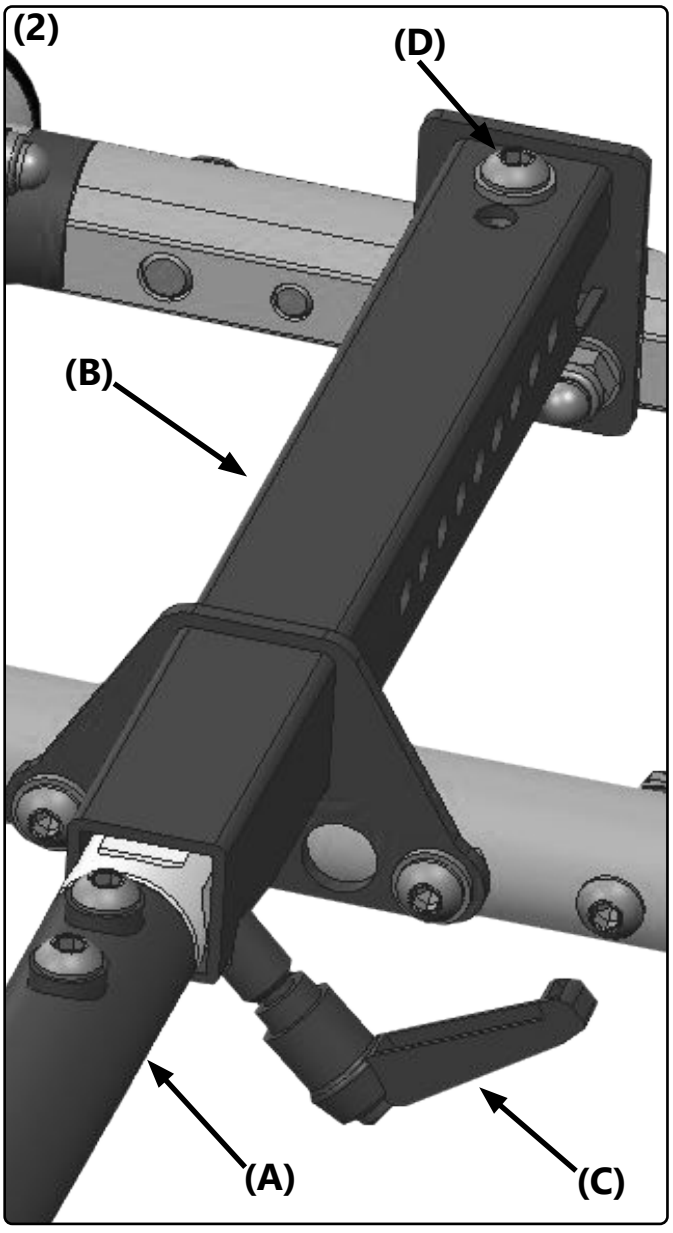
Length of the outdoor front end:

- With the length of the outdoor front end, you can adjust the driving and sliding comfort:
- long outdoor front end = very strong absorption of shocks, very soft driving comfort, good rear and sliding economy, large turning circle.
- short outdoor front end = good absorption of shocks, very good rear and sliding economy, well suited for active driving, small turning circle.



(1) For telescoping the length:

- Remove the screw **(D)**
- set the screws forwards or backwards by the desired number of holes
- and tighten the screws **(D)** firmly.
- The holes are spaced 20 mm apart.
- The screw **(D)** serves as an aid. Always push the cone tube into the retaining plate **(B)** until it touches the screw **(D)**.



⚠ The front part **(A)** of the outdoor front end must always be fixed with the clamping lever **(C)** in the retaining plate **(B)**.

Mounting outdoor front end:

- Close the parking brakes of the wheelchair.
- Tilt the wheelchair slightly backwards or place it on the jack-up aid.
- **(2)** Insert the end of the cone tube **(A)** into the retaining plate **(B)** from the front.
- Guide the cone tube **(A)** to the stop **(D)** on the retaining plate **(B)**.
- while still in the floating state, turn the clamping lever **(C)** as tight as possible, as it will fix the steering and pushing aid to the wheelchair.
- Release parking brakes

To dismantle outdoor front end please proceed in reverse / analogue order.

⚠ The outdoor front end may only be mounted if there is no user in the wheelchair.

4.1 Repairs

⚠ Repairs are to be done by your specialized retailer.

4.2 Spare parts

Only original spare parts can be used! They are available at your medical supply store.

The spare parts list can be downloaded at www.sorgrollstuhltechnik.de or can be requested directly from us.

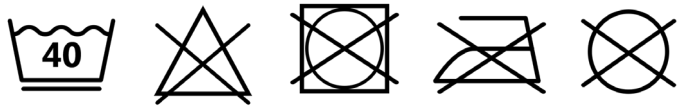
For a correct delivery of spare parts the appropriate serial number of the wheelchair is to be stated. You will find the number on the type label on the wheelchair's frame.

4.3 Maintenance

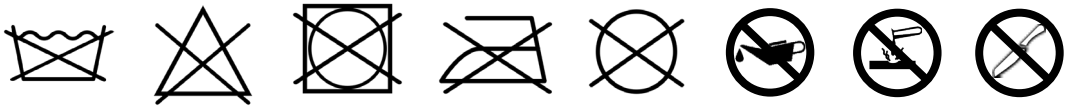
Clean the wheelchair and all components regularly with a mild household water-based cleaner and then dry it thoroughly.

In addition, clean the rear wheels and the casters and free the axles of dirt and impurities e.g. hair etc.).

Wash textile parts:
care directions:



Wipe off pleather, straps and other upholstery:
Care directions:



4.4 Disinfection

Before each disinfection the parts should be cleaned off first. For disinfection use a household water-based agent. Observe the instructions of the respective manufacturer.

4.5 Storage

- Carry out cleaning
- Fold foldable wheelchair (if available)
- Adjust seat tilt to 90° (if available)
- If necessary, pack removable textile parts in foil or similar
- Secure the wheelchair from rolling away and getting dirty
- Store in a dry environment without aggressive environmental influences.

4.6 Lifespan

The expected lifespan, depending on the intensity of use and the number of re-uses, is 5 years. For this purpose, the product must be used within the intended purpose and intended use, the instructions in the instructions for use must be followed and all maintenance and service intervals must be observed.
The product can be used beyond this period if it is in a safe condition. This theoretical lifespan is not a guaranteed lifespan and is subject to a case-by-case check by specialist retailers, as is reusability.
Use beyond the specified lifespan leads to an increase in residual risks and should only be carried out after careful and qualified consideration by the operator.
The lifespan can also be shortened depending on the frequency of use, the environment and care. The usual service life does not refer to wear parts such as textile parts, wheels and plastic parts that are subject to material-specific aging and / or wear. This specified service life does not constitute an additional guarantee or guarantee.

4.7 Reinstatement

Before reuse, a full inspection according the the checklist must be carried out by a specialized retailer. All disinfection measures for reuse must be carried out according to a validated hygiene plan.

4.8 Disposal

The wheelchair my only be disposed of with the approval of the benefactor. Disposal of the wheelchair mus be in accordance with the applicable national regulations

4.9 Maintenance/Inspection

For safety reason and to maintain product liability, an inspection by your retailer is required at least once a year. This must be carried out and documented according to the following checklist.

Checklist maintenance and care (user)

⚠ A poor or neglected maintenance of the wheelchair represents a significant safety risk.

Before each use:
Please check:

- frame, back tubes, mounting parts and accessories for visible damages, deflections, cracks or missing/loose screws,
- wheels/quick release axles for firm fit,
- the airpressure of the tires, tire tread,
- the function of the brakes,
- firm fit of the angle adjustements/eccentric clamps,
- firm fit of seat plate/back/foot plate,
- the function of the anti-tipper/seat and back straps,
- if all previously dismantled parts are put on again or firmly locked.

Every 3 months:
(depending on use, earlier)
Please check:

- screws for firm fitting
- welds, attachments and accessories for hidden damages, deflections or cracks
- tire tread
- the firm fit of third-party systems (if available)

Clean the wheelchair and oil all moving parts.

⚠ If you notice any defects during maintenance, please contact your specialist retailer immediately and do not use the wheelchair anymore.

Checklist yearly inspection (specialized retailer)

Template (available for download at www.sorgrollstuhltechnik.de/downloadportal)

Preparatory Work
☐ cleaning done

Check:
☐ Frame, back, mounted parts and accessories checked for damage, bends, cracks and corrosion,
☐ all fixing screws checked for firm fit and completeness,
☐ casters and rear wheels as well as the associated attachments checked for good condition, functionality and proper running qualities,
☐ spokes checked for firm fit and completeness,
☐ brakes cleaned and maintained,
☐ Locking mechanisms (tripod springs of push handles, quick-release axles, eccentric clamps, etc.) checked for functionality,
☐ anti-tipper checked for firm fit and fuctionality.

Oiling:
☐ moving parts and bearings oiled

Final check:
☐ functional check of all mechanical adjusting devices carried out.

5 Technical specifications

5.1 Data and measurements

Model: Mio (Design 2018)
Type: 911
German Aid Indix Nr.: 18.99.02.1023

All measurements ±5%

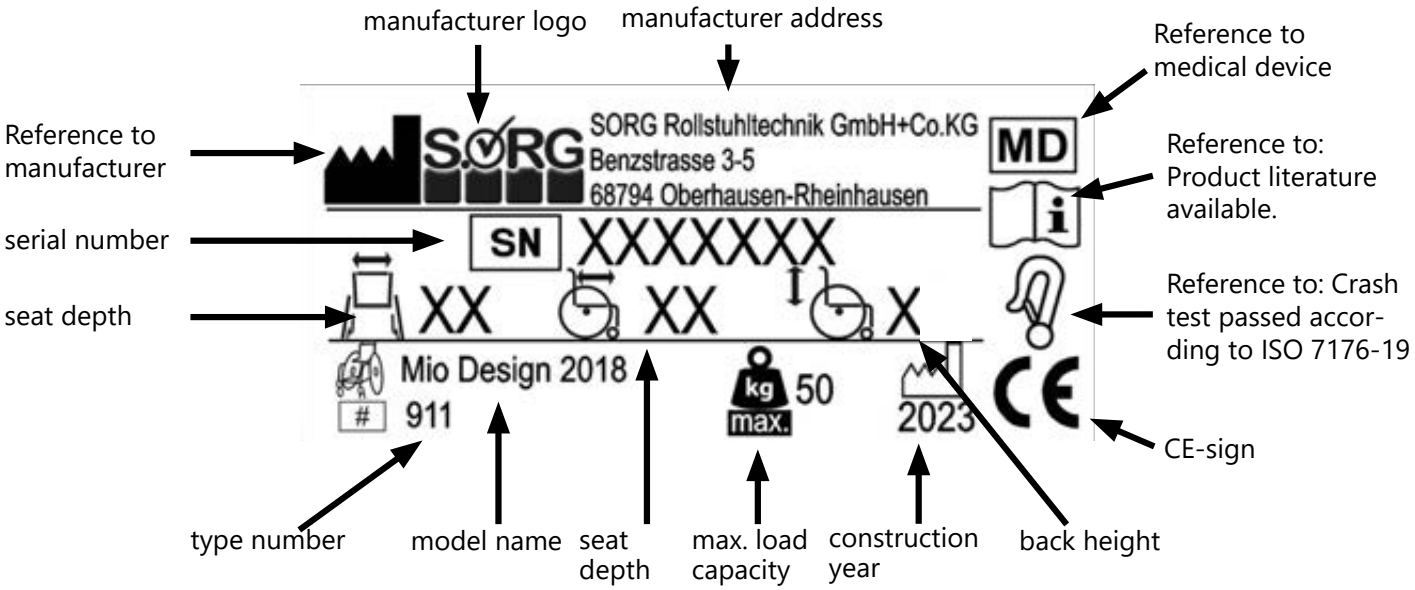
Indication	Measurements		Comment
seat width (SW)	20-mm-intervals	180 to 340 mm	+20 mm growable
seat depth (SD)	20-mm-intervals	180 to 360 mm	± 30 mm growable
back height (BH)	50-mm-intervals	250 to 400 mm	+50 mm growable
back angle:	78° to 114°		in raster
camber	9°	(optional 7/11°)	
upper edge seat to upper edge footrest	retro-frame:	100-300 mm	without seat cushion!
	taurus-frame:	150-350 mm	
upper edge seat to ground	with 18“	315 – 360 mm	without seat cushion!
	with 20“	340 – 400 mm	
	with 22“	360 – 420 mm	
	with 24“	385 – 445 mm	
ETRTO wheel size	with 18“	Ø 406 mm	
	with 20“	Ø 451 mm	
	with 22“	Ø 489 mm	
	with 24“	Ø 540 mm	
absolute width of wheelchair	min.	SW + 310 mm,	
	max.	SW + 365 mm	
absolute length of wheelchair	with 18“	605 mm	without push handles!
	with 20“	630 mm	
	with 22“	695 mm	
	with 24“	745 mm	
absolute height of wheelchair	min.	500 mm	without push handles!
	max.	850 mm	
incline	max. permitted	12,3% = 7°	
descent	max. permitted	12,3% = 7°	
stability	max. permitted	12,3% = 7°	
turning circle		about. 900 mm	
load capacity (max.)	50 kg	user and all attachment parts (shell, truss pads, therapy table, head rest etc.)	
empty weight min. with SW 20, ST 200 mm, 20“ wheels, 4“ PU casters	6,9 kg	equipped with: frame, rear wheels, hand rims, casters, parking brake, foot plate, side guards, clothes guards and anti-tipper.	
wheels	standard wheels, light weight wheels	optional light weight-drum brake-wheels	
casters:	4“, 5“	transparent with LED, solid rubber black with aluminum rims, polyurethane grey with synthetic rim	
tire pressure:	Information on the tire casing - generally (3-10 bar)		
support point:	back frame tube/ front frame tubes		
heaviest piece:	frame 4,5 kg		
corrosion protection	material		stainless steel, aluminum
	coating		powder coating, galvanizing, anodizing
length of use of the wheelchair	3 years	at not excessive demand	
life cycle of the wheelchair	5 years		
Normative requirements	The wheelchair meets the requirements of ISO 7176-8 and the requirements against ignition.		

5.2 Meaning of labels

The meaning of the individual labes is explained in the texts at the respective place.

If the type plate is damaged or gets lost, a new one can be ordered from SORG Rollstuhltechnik.

Type plate:



5.3 Declaration of conformity

SORG Rollstuhltechnik declares that the product Mio (Design 2018) a class 1 device is and it complies with the EU regulation (EU) 2017/745 on medical devices.

This was confirmed by a conformity assessment procedure according to the medical Product Guidelines.

CE

If the product is not modified with SORG wheelchair technology, this declaration will lose its validity.

Notes

Notes

Notes

Service Record Mio (Design 2018)

company stamp

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