BEROLLKA bewegt

user manual

Kayou

The smallest for the first discovery tours

Stand 06/2024 Rev 04

Dear Customer,

We would like to thank you for the trust you have placed in us and are delighted that you have chosen a product from Berollka-aktiv. The KAYOU children's wheelchair is characterized by quality, safety, ease of use and modern design.
This wheelchair has been individually manufactured for your special requirements.

Please note that the equipment of your wheelchair could differ in some allusions and representations.

We reserve the right to make technical changes and improvements to the wheelchairs.

We kindly ask you to observe the security advice as well as the instructions attentively before using the wheelchair the first time.

If you have any questions about this or another product, please do not hesitate to contact us.

Your BEROLLKA bewegt **Team**

Legal Notice:
Berollka-aktiv Rollstuhltechnik GmbH
Jahnstraße 16
D-74889 Sinsheim
phone +49 (0)7261-7351-0
telefax +49 (0)7261-7351-10
E-mail: info@berollka.de
Internet: www.berollka.de

Revision status:
June 2024 - Rev. 04

Contents

Contents **page**

This manual should help you to become acquainted with your wheelchair. Furthermore, we want to give you some helpful suggestions, how to handle the wheelchair for daily use in different situations.

The user and dealer must have read and understood this user manual before using for the first time. Visually impaired people will find this user manual as a PDF file on our website **www. berollka. de**. If you have any questions or comments, please contact your dealer or our team (+49 - 7261 - 7351 - 0).

In the case of children or persons with impaired ability, parents or authorised carers must ensure that the instructions for use are followed.

Keep this user manual carefully. All annual inspections carried out must be documented by the dealer.

Transport

Please check the product on receipt for completeness, flawlessness and pay attention to possible transport damage.

Check the goods in the presence of your delivery man

If transport damage has occurred, please arrange for an inventory (identification of defects) in the presence of the transmitters. Please send a written complaint to the competent dealer.

Packaging

The packaging of the product should be kept for possible necessary transport. If you need to send the product back to us for repair or, in case of warranty, please use the original carton if possible, so that the product is optimally protected. Otherwise, recycle the packaging materials according to their nature. Do not leave the packaging materials unattended as they represent potential sources of danger.

Product disposal

Recycle the raw materials used for the product according to their nature.

Product storage (for a period of more than 4 months)

- carry out cleaning
- set seat angle (if available) to 90°
- removable textile parts, where appropriate, wrapped in foil or the like
- protect the product against rolling away and dirt
- storage in a dry environment without aggressive environmental influences

Product description – Material information

The base frame and the individual elements are made of steel or aluminium, corrosion-free and powder-coated. All body supports (except for the armrests) are upholstered and covered. The covers are made of 100% polyester or polyamide textile substrate and are flame retardant (according to DIN EN 1021-1+2).

Loading and transport

Prepare the desired packing size and secure the wheelchair and all dismantled parts with adequate load securing. In principle, the wheelchair is suitable for transport (land/air). Inform yourself about suitable load securing possibilities before transporting the wheelchair.

Wearing points:

- front frame tubes
- rear frame tubes
- **but not on** removable footrest holders and/or foot rests
- **but not on** side guards, armrests, clothing protection or therapy table

Ergonomic requirements

Note: If the push handle height of the backrest "Standard" is less than the ergonomic push handle height of 90cm, the backrest "Push handles height adjustable" should be selected.

Combinations with products from other manufacturers

Note

The wheelchair may only be combined with the additional electric drives approved by the manufacturer. Restrictions or adaptations as well as the cultivation itself are the responsibility of the provider of the additional system or the authorized dealer. Please ask the manufacturer of the auxiliary drives for the requirements.

The combination of the wheelchair and the electric auxiliary drive creates special loads that can lead to damage to the wheelchair. Take a slow approach to obstacles and overcome them carefully so that little force is applied to the castor, rear wheel and the entire wheelchair.

ATTENTION!

We cannot accept any liability for damages caused by the combination of our wheelchair with products of any kind from other manufacturers, which may involve significant risks. Unless there is an express approval of such a product by our company.

Purpose

The KAYOU wheelchair is designed for indoor and outdoor use. This serves as a mobility aid for persons with walking disabilities or severely limited walking ability. The wheelchair is designed for use indoors as well as outdoors for active users.

Indications

Care in case of inability to walk or severely limited ability to walk within the framework of the basic need to move freely and to carry out everyday activities. In addition, the wheelchair enables the child to perform various activities.

- for all forms of therapy for alternating positioning and positioning
- for stimulation/strengthening of the complete metabolism, the vegetative nervous system and/or the complete cardiovascular system
- to maintain, build up and activate the entire muscle tone or individual muscle groups
- paralysis
- Loss of limbs
- limb defect / deformity
- Joint contractures / joint damage (not on both arms)
- other diseases such as cardiovascular insufficiency or rheumatic diseases

Contraindication

The use of the wheelchair is unsuitable for:

- Perception disorders
- Severe balance disorders
- Joint contractures / joint damage (on both arms)
- Loss of limbs (both arms)
- Inability to sit

General Security Advice

Correct use of the wheelchair requires precise and careful instruction of the companion. Please read the operating instructions carefully and observe the notes.

- Always climb steps with the help of a companion.
- Do not use side guards or footrests to carry the wheelchair (just the fixed frame parts).
- Danger of falling when tipping the wheelchair. Practise the tipping only with a companion at first and explore the implication of the shift of emphasis.
- Always tighten the screws after changing of parts.
- The knee angle brake **depends on air-pressure**. Please control the air pressure of the rear wheels constantly.
- Do not use the wheelchair as a shower chair and do not expose it to sea water and sand, because this could damage the bearings.
- The clamp lever at the height adjustable push handles should always be tightened.
- Never expose the wheelchair to direct sunlight or other sources of heat for long periods of time, as components in contact with the body can heat up to over 41°C and may cause burns.
- Persons with insensitive skin (i.e. persons who cannot feel heat) and/or damaged skin must have a person capable of judgment check before using the aid whether it can be used without risk of burns on heated components.
- Maximum load capacity: **max. 50 kg**
- Serious incidents* occurring in connection with the product must be reported to the manufacturer and the competent authority of the Member State in which the user and/or the patient are established.
- On the Berollka homepage www.berollka.de we inform about possible recall actions.

Your specialist dealer can provide you with further information, who will also show you the variation and adjustment options for your undercarriage and how they affect driving safety.

* "Serious Incident" means an Incident that, directly or indirectly, has any of the following consequences:
(a) the death of a patient, user, or other person.
(b) the temporary or permanent serious deterioration of the health of a patient, user, or other person
(c) a serious danger to public health.
MDR, Article 2, 65

Transport of the wheelchair with occupants in a motor vehicle for the transportation of mobility-impaired persons (KMP transport)

Notice!

Due to their purpose, wheelchairs never achieve the stable properties of a seating system permanently mounted in the vehicle. We recommend, whenever possible, the use of a fixed vehicle seat for transporting a person in the motor vehicle.

Only wheelchair that have successfully passed a crash test according to ISO 7176-19 may be used as a seat in a motor vehicle. Successfully tested wheelchairs are marked on the attached type plate with the symbol for the attachment point.

The Wheelchair KAYOU has been successfully tested in accordance with ISO 7176-19 and are therefore approved as a seat in a motor vehicle, provided it has the necessary restraint devices.

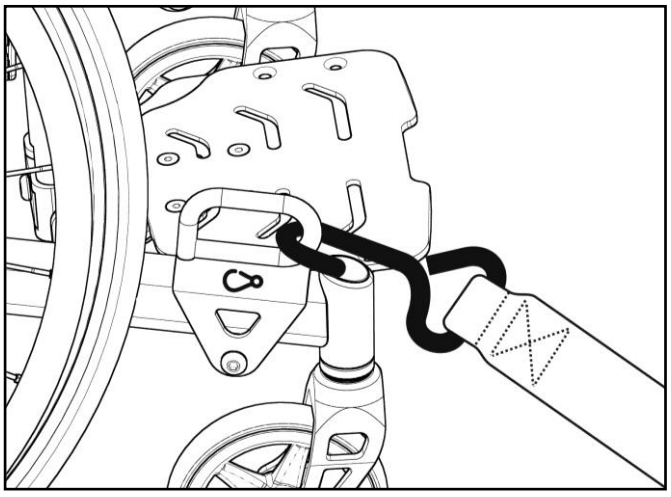
If your wheelchair is a custom design, it may not be used as a seat in a motor vehicle.

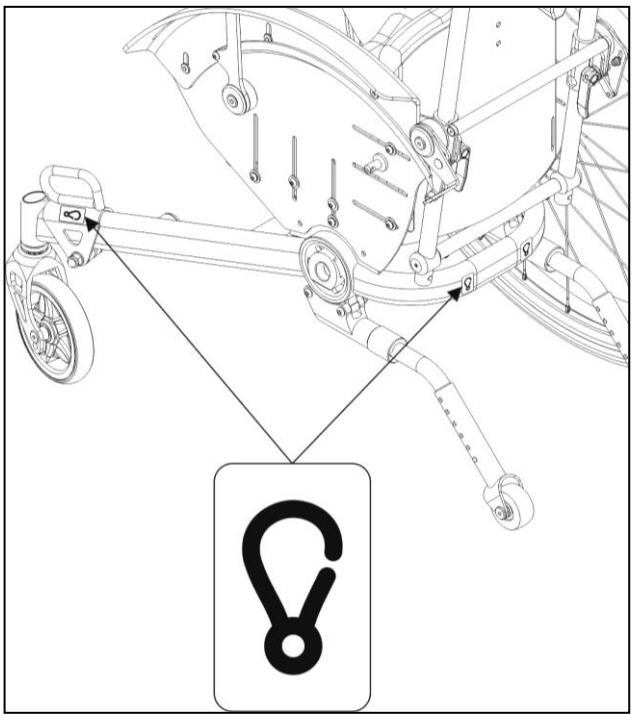
We can recommend the following manufacturers of restraint systems:

- Berollka wheelchair restraint system
- AMF-BRUNS GmbH & Co.KG

Note!

When using the wheelchair as a seat in a motor vehicle, only use the points marked with the symbol for the attachment point. These are usually located at the rear left and right on the frame tube and at the front left and right on the additionally mounted restraining eyelets.

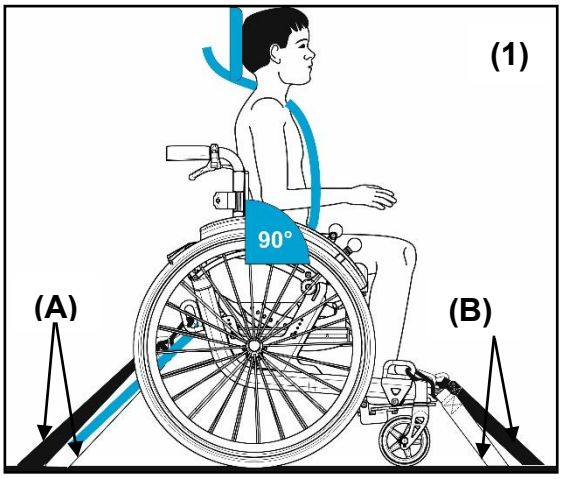




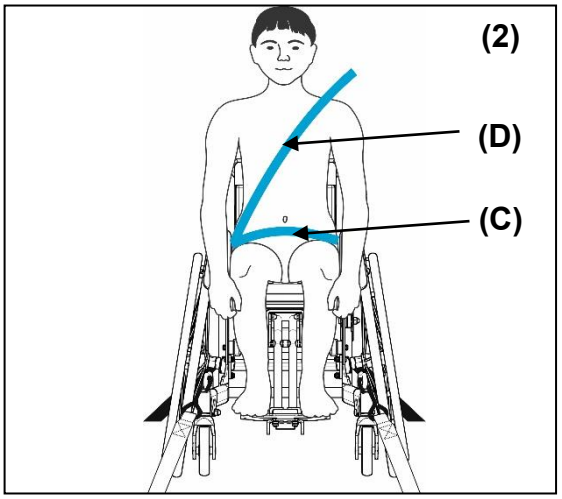
Important! The following points must be observed:

The wheelchair must be attached using a 4-point wheelchair restraint system anchored in the vehicle in accordance with ISO 10542. This can be snap hooks, S-shaped hooks or push-in fasteners. The wheelchair restraint system must be securely fastened and used in accordance with the manufacturer's instructions for use **(1A+B)**.

If the wheelchair is equipped with a back angle adjustment or seat tilt, it must be ensured that the occupant sits in an upright position with a 90° back angle during transport **(1).** Footrests that can be folded up must be set to the lowest position.



To reduce the risk of head and upper body injuries as much as possible, the user must also be secured with a fixed lap belt **(2C)** approved for transport in accordance with ISO 10542 and a shoulder belt **(2D)** anchored in the vehicle.



Information on securing the base and the user during transport in a motor vehicle

When in use, the safety belts must not be twisted or passed over components and so kept away from the body. They must fit closely and tightly without reducing comfort. The lock of the pelvic belt must be located between the pelvic bones (as centrally as possible). The tongues on the pelvic belt lock, which are used to fasten the shoulder belt, should be located on the right and left side of the pelvis.

All belts used for transport must be checked for damage at regular intervals.

A headrest approved for transport must be used.

The wheelchair may only be used as a forward-facing seat in motor vehicles in accordance with ISO 7176-19. No transport with lateral orientation!

After a collision, the specialist dealer must be visited immediately to check the chassis, frame, and brakes. Any damage must be immediately repaired by a specialist.

Overview of KAYOU wheelchair

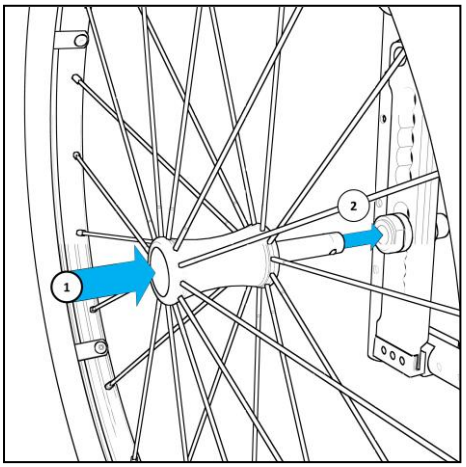
The illustration presents the indication of the most important elements at the wheelchair, as well as the definitions, which you will find by reading the manual.

Handling at delivery of the wheelchair

Your wheelchair is completely installed in a cardboard and delivered with hinged away back. Lose items are separately packed, with a view to avoiding transport damage.

Have your specialist dealer instruct you and your child in the safe use of the wheelchair.

Assembling



After unpacking your new wheelchair, take the rear wheels and insert them into the quick-release axle socket (2) using the quick-release axle (hub centre) (1).

ATTENTION:

Make sure that the quick release axle is securely locked in the axle adapter. It must not be possible to remove the rear wheel if the button is not pressed!

Check the proper functioning of the brake (fixing brake). Correct the air pressure of the tyres if necessary.

Mounting instructions

Tools required for maintenance and repair:

- Hexagon socket wrenches:: sizes 3, 4 and 5mm
- Open-end wrench: size 10, 11, 13, 19 and 24mm
- Crosshead screwdriver
- Tire mounting lever
- Torque wrench

Wheelchair – handling instruction

First driving attempts

Arrange your first driving attempts carefully at a flat area and with the help of a companion until you get used to your new wheelchair. You are only be allowed to take part in the public road traffic with a lot of practise. You must be especially careful with slopes and gaps or with overriding of barriers. The wheelchairs have only a restricted slide and tilt safety because of the construction.

Advise: Use the anti-tip wheel during the first drives.

Your wheelchair gives you a high degree of independence and mobility. The following points should give you incitations and proposals how to use your wheelchair optimally in daily situations.
Those practises are mainly for people in wheelchairs who have a healthy arm function and who are able to bend their upper part of the body forwards and back again.

Preseting of the wheelchair

The wheelchair should be adjusted accurately in order to use it optimally.
Therefore some important hints:

* The elbow should contact the highest point of the rear wheel when you sit upright.
* Disabled people without any control in the hip should sit in a slope of 3 to 4 cm falling off backwards.
* The axis of the rear wheels is vertical under the hip joint

* For severely disabled persons (tetraplegia, cerebral palsy), the seat must be moved backwards 2 - 3 cm.

Handling at the handrim

Put your hand at the handrim to power it, whereas you just put the thumb and the crooked forefinger at the handrim. The other fingers create a fist and do not contact the handrim.

Attention: When propelling the wheelchair, make sure that you do not touch the tyre cover with your thumb.
→Danger of jamming between tyre and side part / armrest !

Attention: Beware your hands when driving through narrow passages as for example though doors or entrances.
→ risk of injury of the hands

Starting the wheelchair

In order to start the wheelchair the upper part of the body have to be bended a little bit forwards, whereas the back doesn't contact the backrest. The hands are at the highest point of the hand rim (as shown).

This position is the start position when you drive in order to avoid a tilt of the wheelchair.

Advice:
You have to use an antitip wheel at an extreme wheel adjustment (see page 32).

Drive technology forwards

Out of the above shown position both hands are pushing the rear wheels constantly until the arms are stretched out. The upper part of the body should be taken calmly.
If the hands leave the hand rim when the arms are stretched out, the hands will be take in that position for a moment. Thereby the fist will become a stretched hand.
After a short while the hands sway back to the starting position.

Attention:
Do not touch the spokes or the rotating rear wheels.
Also do not touch the bolt of the brake or the tyre.
→Risk of injury!

Slowing down during full speed

When you want to slow down the wheelchair please put back the upper part of the body at first.
Lengthen the arms downwards and let slide the handrim through your thumb and your forefinger until the wheelchair grinds to a halt.

Steering the wheelchair during driving

Always put back the upper part of the body at first!
When steering the wheelchair during driving the handrim will be slowed down at the side, you want to steer.

Steering and turning of the wheelchair while standing

When steering the wheelchair while standing the handrim will be drawn back constantly and calmly in this direction you want to steer.

When turning on the spot the one hand pushes the wheelchair forwards and the other pushes it backwards.

Drive technology backwards

Lean back the upper part of the body!
Both hands begin to move the wheelchair backwards at the above shown position constantly and long above the highest point of the wheel.

Slowing down while driving backwards

When slowing down the wheelchair during driving backwards you have to put your upper part of the body forwardly.
The hands grab the handrim down as far as possible. At first grab the handrim with your thumb and your forefinger and then with all your fingers.

The daily use of the wheelchair

Your wheelchair of Berollka-aktiv was produced for your daily demands and advanced in long time experiences. The Berollka-aktiv wheelchair can be used from you as independent as possible in your daily life.
Thereby do not exclude a companion – quite the contrary. The companion who is an useful assistance for you can use your wheelchair easily.

Following you will find some hints and advices how to deal with daily barriers independently or with a companion.

How to deal with slopes

Attention:
People, who are not able to balance the shift of emphasis with their upper part of the body should have a companion for their safety if the slope is more than 1%.

Bend your upper part of the body forwards that the emphasis will be as forward as possible and grab the handrim as forward as possible.
Push the rear wheels with both hands coexistently and in short advances (not jerkily). Bow your arms and begin to push in the same position.

For your safety:

- To avoid the risk of tipping over, you must drive with upper body compensation even on small inclines and especially during the first journeys with anti-tip device (support roller).
- Avoid jerky starts when driving uphill.
- Transporting goods behind the backrest has an unfavourable effect on the centre of gravity, which increases the risk of tipping.

ATTENTION: Please note that with the most extreme adjustment of the rear wheels, the centre of gravity is shifted backwards (e.g. especially with active wheelchairs with a large seat incline) and as a result the wheelchair can tip over backwards even on a small incline (see adjustment options from page 26).

Tilting of the wheelchair

Tilting of the wheelchair means just driving on the rear wheels.

Attention:
For this you need a good ability and balance. Please notice that the wheelchair with a extreme position can tilt easily!

The following practices are only to arrange with an experienced companion.

Put your upper part of the body backwards and grab the handrim slightly beyond the highest point of the handrim to tilt the wheelchair. Move the wheelchair forwards jerkily without bowing the upper part of the body forwardly. The front wheels take off the ground.

To balance the wheelchair you have to make balancing exercises by agitating the handrims. The companion supports you to balance by tapping you on the shoulders.

Attention: At first practise the tilting only do with a companion.

To cope with slopes

We recommend you a companion for driving on slopes for your own safety. Thereby the companion has to notice that you need more power on slopes than on flat areas.
Never drive faster than footstep pace and must have your wheelchair under control every time.

Attention:
The braking power on slopes is considerably less than on slopes. Thereby the braking power will be reduced because of bad ground conditions (e.g. wetness, snow). The wheels could cause a dangerous sliding, which can lead to unwanted course deviations. A careful brake application excludes this.

It is possible to deal with a slope either on 4 wheels or on 2 wheels.

4 wheels

Put your upper part of the body backwards to shift the emphasis.
Stretch your arms and grap the handrim as forward as possible with both hands.
The handrim should slide through your thumb and your forefinger.

Notice that the footrests do not contact the ground at the end of a slope as a suddenly, unwanted braking could danger you.

2 wheels

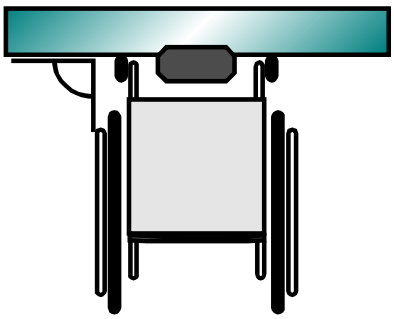
The precondition for this is to handle with the balance and the driving on the rear wheels! (Note: this ability eases a lot!)

Build with your upper part of the body an extension of the backrest.
Tilt your wheelchair and begin to roll slowly. You should grab the handrim as forward as possible during driving and try to balance the wheelchair on 2 wheels.
You should also slide the handrim through your thumb and your forefinger.
You can slow down respectively grind to a halt by tilting your upper part of the body forwardly.

How to overcome steps, pavements or barriers

An existing antitip wheel has to be swing in and swing out at first. At barriers you should possibly use ramps or elevators together with the help of a companion.

Notice:
The basic prerequisite for overcoming steps, edges or rails is driving upright to the barrier (see draft !).
When you drive angularly your wheelchair could tilt. Then you are allowed to overcome the barriers only with a companion.



Attention: Please note that the rear wheels with an extreme position could tilt backwards already at small barriers (see adjustability page 21).

It is possible to overcome a step out of driving and out of standing.

Driving down from steps

Note: When driving down the step the footrest could contact the roadway. Thereby you could fall off the wheelchair.

Drive upright to the step and tilt your wheelchair forwardly. Grab the handrim as forward as possible and roll down the step slowly (handrims are sliding through your fingers). If you contact the ground with the rear wheels bow your upper part of the body slightly backwards and put down the castors.

Attention:
If you have to drive down a step on four wheels that is to say without tilting you have to be careful because of the tilting danger. Moreover the antitip wheel can danger the overcoming of the step by the wheels of the antitip wheel staying on the step and the rear wheels staying in the air. Thereby it is not possible to brake, drive or steer.

Driving up out of standing

Tilt your wheelchair after the upright driving on the step and deposit the castors on the step. Thereby bow your upper part of the body forwardly in order to shift the emphasis forwardly.
Grab the handrims in the front and push the rear wheels over the step.

This method demands more power than the following „during driving“.

Drive up during driving
Do already tilt your wheelchair while driving to the step and put down the castors until the rear wheels contact the step.
Put the rear wheels over the step with the swing you already have.

Attention: Advice for highly debilitated people!

The wheelchair can already tilt at small barrier heights of **1mm** at a certain position, a back height, the body proportion and the wheelbase.
In those situations you are only allowed to overcome barriers with the help of a companion.

How to overcome stairs

Advice:
We recommend 2 companions for your own safety when overcoming stairs with more than 2-3 steps.

An existing antitip wheels has to be swing in during overcoming of the stair and afterwards to be swing out.

Attention: Height adjustable handles have to be locked. Bags and goods have to be removed from the backrest in order not to hinder the companion.

When **driving down** small stairs (2 to 3 steps) you or your companion drive the wheelchair to the topmost step. The companion tilts the wheelchair on the rear wheels and let slide the wheelchair step by step.
You could support the companion by slowing down the wheelchair after each step.

When driving up the stairs you or your companion drive the wheelchair backwards to the first step. The companion tilts the wheelchair on the rear wheels and lifts it with the handles step by step.
You can support the companion by pulling the handles backwards.

Attention: Please check that the handles are locked on the back pipes and that the height adjustable handles are fixed.

Climbing the stairs in a threesome

Advice: You need 2 companions at high steps and at stairs with more than 3 steps.

The companions are only allowed to grab at fixed mounted parts without lifting the wheelchair.

When **moving up** the stairs the person behind pulls the wheelchair at the fixed mounted handles over the step.
The person below grabs at the foremost frame pipes and stabilises the situation.
Thereby he pushes the wheelchair into the steps.

Advice:
Do not carry the wheelchair – risk of accident

When **moving down** the companion below slows down the wheelchair by pushing it into the steps. The upper companion maintains at the handles, ensures him and keeps him in the right position. The wheelchair should move step by step.

Attention: Please carry the wheelchair only at the frame and the push handles. Please check that the handles are mounted at the back pipes.

Advice:
Elevators and **ramps** are especially dangerous for wheelchairs.
There is a tilting danger already at a slope of 1% when driving onto ramps depending on the position of the wheels.

When using elevators you have to keep enough safe distance to possible range of dangers for example an automatically closing door.

How to change positions to bed or into another chair

Advice:
Always lock the brake before changing positions!
Do not step at the footrest when changing positions. Tilting danger!
Practise the changing only with a companion.

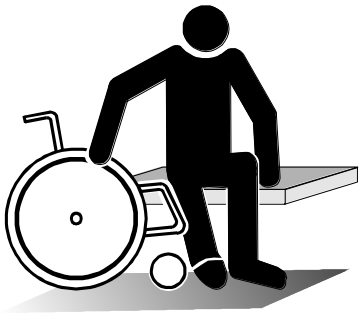
Drive your wheelchair to the bed or chair in an angle of 30-45° and then lock the brake.

Lock the brakes and put the footrest up!

Slide with your bottom as ahead as possible on the seat and then put the next standing foot on the ground.

Then support you with one hand on the bed or chair and with the other hand on the armrest or the seat of the wheelchair.

Stem yourself with both arms and change with swing respectively let you slide to the seat (over the sliding board).



Reverse the procedure if you want to change from bed or chair back into your wheelchair.

If your wheelchair has demountable side guards/armrests you can also change sidewise. Therefore drive with your wheelchair parallel to the long side of the bed or chair and lock the brakes. (further instructions see above).

Adjustabilities

As every disability is different the wheelchair has to cope with different demands. Or to say it in another way a wheelchair can be used for different disabilities by changing certain positions.

There is also the possibility to reach a convenient driving through some effective changes at the wheelchair position.
Your wheelchair has different devices, which you can adjust according to requirements. You can also ask your dealer to do this for you.

Attention: Always tighten the screws!

The photo shows the wheelchair type **KAYOU**

Quick release axles for rear wheels

For the transport of your wheelchair, the quick-release axles of the rear wheels offer you a considerable simplyfication. When the quick-release axle button is pressed in, you can easily pull off the rear wheel.
Mounting the rear wheel is just as easy. By pressing in the quick-release axle button, you can push the quick-release axle into the screw-in adapter of the axle plate as far as it will go. Release the quick-release axle button and the wheel is firmly seated.

Attention: Every time you mount the rear wheel, check that the quick-release axle is firmly seated axially.

The possibility of removing the rear wheels without tools gives you the advantage of being able to remove them at any time, e.g. for transporting the wheelchair.

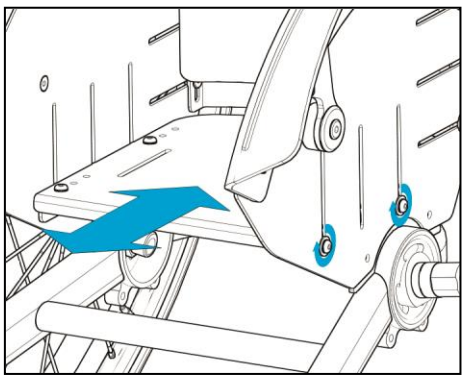
Seat adjustments

The Kayou wheelchair has been designed so that the drive wheels and the castor wheels always remain in the same position.

The position and adjustment of the seat and the back shell are the influencing factors regarding easy, comfortable and pleasant driving. Your Berollka wheelchair therefore offers you many possibilities to adjust the wheelchair according to your individual needs.

Attention: Please note that in the most extreme settings (seat and back all the way back and back angle greater than 90°) the wheelchair can very easily tip over backwards.

To adjust the seat to the frame and thus the centre of gravity, you have to loosen the screw connections on the mounting brackets. Now you can adjust the seat plate.



In order to change the seat depth, you must also loosen the screws on the backrest and adjust it according to the displacement of the seat plate.

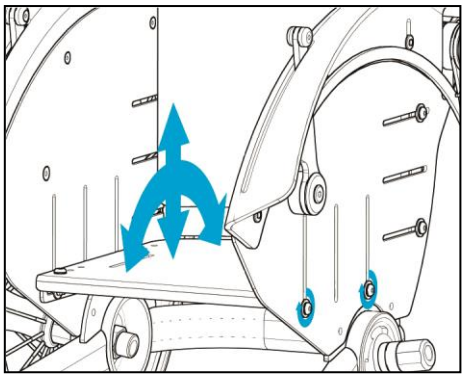
This will adjusted the centre of gravity and thus significantly influence the drive characteristics.

In the "rear" position, you have a very manoeuvrable but also tippy wheelchair.

Please note, however, that there is a **great risk of tipping over** in this position, as the calculated critical obstacle height can already be 1mm if the body is in an unfavourable position. This setting is only recommended for experienced wheelchair users and should always be used in conjunction with an anti-tip wheel.

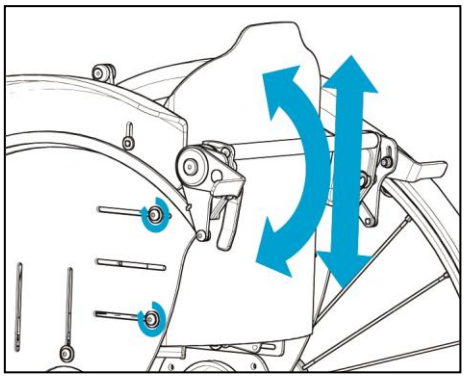
If, on the other hand, the setting is "front", i.e. the complete seat unit is set forward from the drive axle, the wheelchair is characterised by a high degree of stability and little risk of tipping over. However, you have the disadvantage that the wheelchair is not as manoeuvrable.

Seat height and angle



You have to loosen the two screws in the side part so that you can adjust the seat plate in height or also in angle. The seat angle can be adjusted in a range from -10° to +35°. Tighten the screws well after adjustment to prevent the seat plate from loosening.

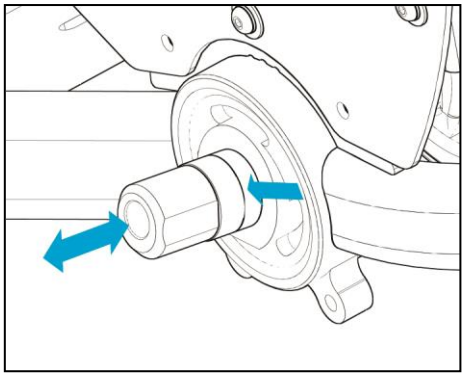
Backrest – Hight and angle



To adjust the hight and angle of the backrest, you have to loosen the screws on both sides of the clothing guard.

The backrest can then be adjusted in height and angle. The back angle can be adjusted continuously in the range from -15° to +15°.

Negative camber



A negative camber can be attained by using a screw-in adapter with an angled hole. You can choose between 7°, 9° or 11°camber angle. The 11° camber angle can be archieved by turning the 7°-adapter by 180°! The 9° camber angle requires a seperate adapter.

The screw-in adapters can be mounted on the axle suspension. Depending on the camber, the adapter must be moved and underlaid with spacers, so that the wheel will be positioned accordingly.

Spacer for screw-in adapter

Wheel size 20“	
Camber angle [°]	Spacer [mm]
7	---
9	15
11	25

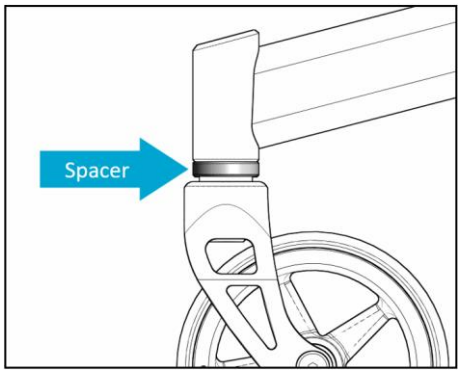
Wheel size 22“	
Camber angle [°]	Spacer [mm]
7	---
9	10
11	20

Wheel size 24“	
Camber angle [°]	Spacer [mm]
7	---
9	10
11	17,5

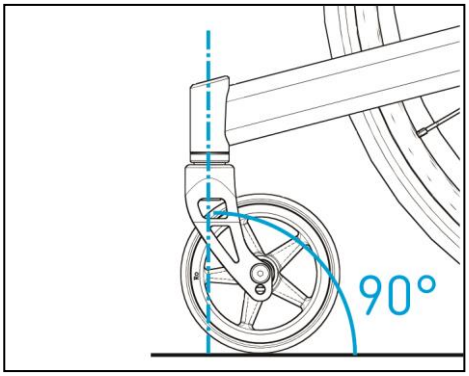
Spacer at the castor fork

Because of the different camber angles at 7°, 9° or 11°, there is a change in the rear hight of the wheelchair.

There are spacers which allow to restore the vertical allignment of the castor fork‘s threaded axle.



This is very important for a good driving behaviour of the wheelchair.



Spacer for axle affixing

Wheel size 20“	
Camber angle [°]	Spacer [mm]
7	11,5
9	8
11	---

Wheel size 22“	
Camber angle [°]	Spacer [mm]
7	17,5
9	13
11	---

Wheel size 24“	
Camber angle [°]	Spacer [mm]
7	15
9	7
11	---

Attention: Most extreme adjustments

Due to the adjustment options on the seat (to the base frame), extreme adjustments can be made to your wheelchair!

The **most extreme setting** is achieved by the rearmost position of the seat and the largest seat angle. This position is further emphasised by the corresponding back angle. This extreme position is the most dangerous, as the **static stability** is very low in this position, which means that the wheelchair can very easily tip over backwards. The static stability limit is calculated from the centre of gravity coordinates and the geometric dimensions, which is reached when the wheelchair with occupant is in the "propelling" position.

With such settings, you may only drive with **anti-tip wheels** or with an accompanying person.

The extreme adjustment described above also reduces the critical obstacle height, as the centre of gravity shifts to the rear and without upper body compensation the wheelchair can very easily tip over backwards.
The critical obstacle height is the height at which the centre of gravity of the wheelchair with the user is just vertically above the rear axle. This critical obstacle height is already reached at an obstacle height of 1 mm in extreme settings.

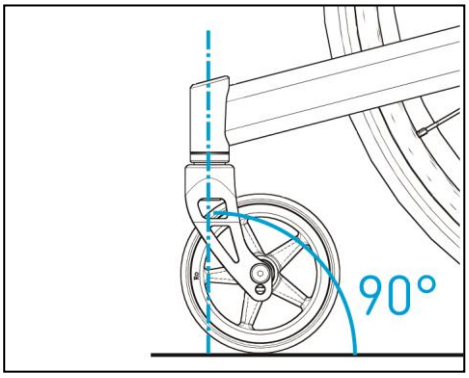
Attention:

- As the risk of tipping over is already very high on slopes and when negotiating obstacles, your wheelchair **must be equipped with anti-tip wheel** (safety wheel)

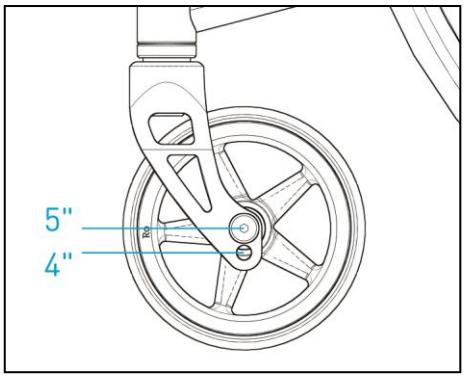
- Make sure that you retighten the bolts and nuts for all adjustments!

Castor and castor fork

A optimal driving behavior of the wheelchair is tied to a vertical allignment of the castor fork‘s threaded axle. The adaptation on the frame is welded, so the adjustment is made possible through the size of the castor and the position of it‘s suspension.



Castor suspension	1. drillhole from below for 4“
	2. drillhole from below for 5“

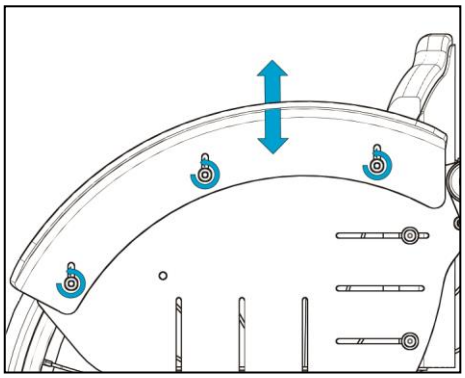


Clothing guard

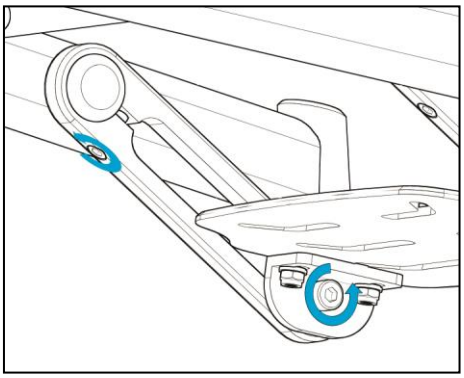
To adjust the clothing guard:

Start by loosening the three screws. Then reposition the clothing guard and fasten the srews again.

It should be noted that there is enough space between the clothing guard and the tire, so it can rotate unhindered.

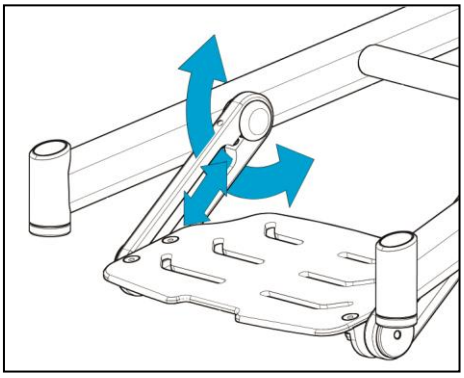


Footrest



The position of the footrest is adjustible in both hight and angle and therefore fits in the individual needs of the driver.

First loosen all the screws in both the clamping lug and the clamping element. Now you can move the footrest according to the lenght of the lower leg and also put it in the desired angle. Afterwards thighten the screws again.



ATTENTION: Make sure the screws are tightend properly!

Note:

If you position the footrest on ground level, this might increase the probability of collisions both with the ground and the castors.

Brake in side guard integrated

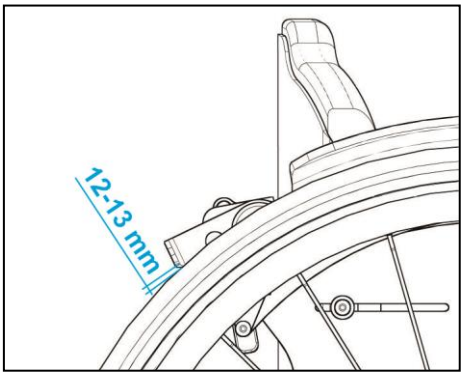
The brakes depend on the air pressure of the rear wheels. Therefore, always check the correct tyre pressure before driving off. If the air pressure is too low or the brake distance is too large, the brake will lose its function.

Air pressure recommendation:

Performance tyre	20“x1 / 22“x1 / 24“x1	max 7 bar

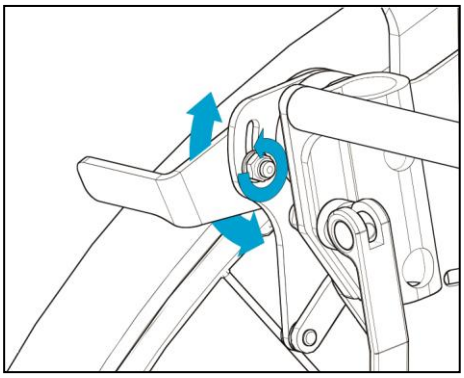
The brakes must be adjusted in a way that the contact pressure of the pressure lever on the corresponding rear wheel is so strong that the wheelchair is safely braked. This is the case when the rear wheel can no longer be turned by normal manual force.

The distance between the pressure lever and the drive wheel is approx. 12-13mm.



To adjust the brake, i.e. to change the distance between the tyre and the pressure lever, you must first loosen the nut on the inside of the brake mechanism.
Once this has been loosened, you can adjust the pressure lever.

After the adjustment, please make sure that you have tightened all the screw connections so that the pressure lever cannot come loose.



ATTENTION:

- The parking brakes are not designed to brake the moving wheelchair (not a sliding brake).
- As the parking brake is air pressure dependent, you must check the brakes and tyre pressure regularly!
- The non-stop use of your wheelchair can cause wear on the tyres and brake mechanism, which makes it necessary to readjust the brake.

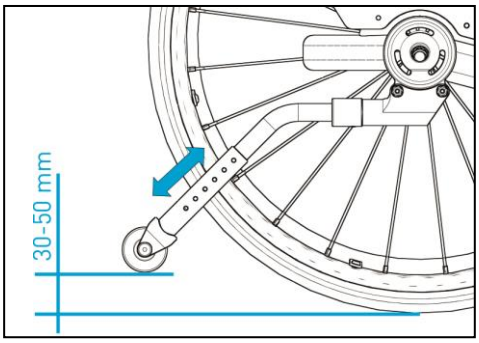
Accesories

Your wheelchair is designed like a modular system so that you can also attach individual accessories to your wheelchair at a later point in time.

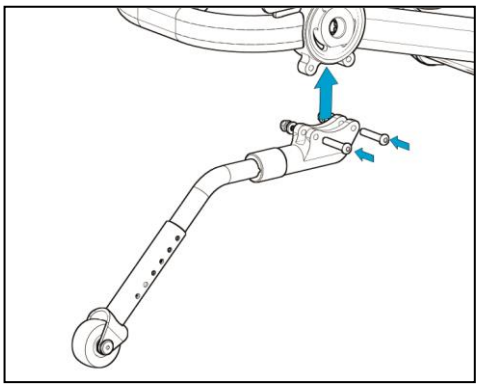
Accessories are parts or components that can be attached to your wheelchair in addition to or instead of other parts. Accessories should be selected when ordering a wheelchair, but can also be ordered later (with an extra charge, as additional parts may be needed).
For more information on accessories as well as other accessories, please refer to the spare parts catalogue.

anti-tip wheel - laterally located

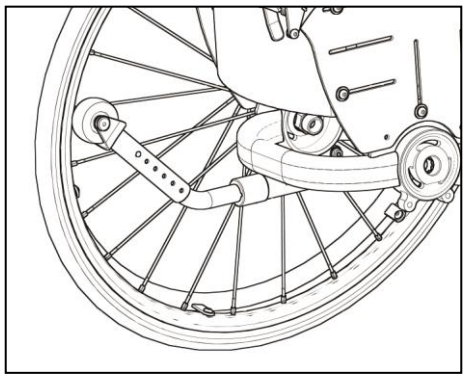
The anti-tip wheel (safety wheel) prevents the wheelchair from tipping backwards. The anti-tip wheel must have a distance of approx. 30-50mm to the floor.
This anti-tip device is particularly recommended for inexperienced wheelchair users, for wheelchairs with angle-adjustable backrests or for wheelchair users with leg amputations.

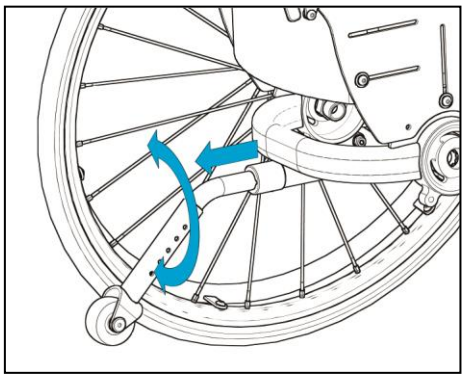


The device is screwed onto the axle mount from below with two screws.



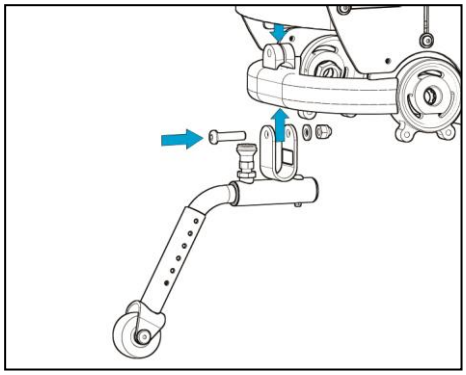
Note:
When driving over steps (kerbs), the anti-tip device must be swivelled upwards by 180° to prevent it from touching down.



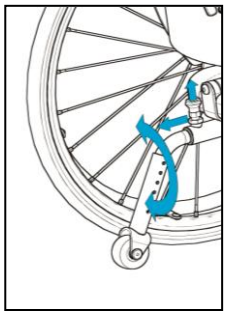


anti-tip wheel - centrally located

In addition to the side anti-tipper, there is also this variant, which is attached to the centre of the frame crossbar.

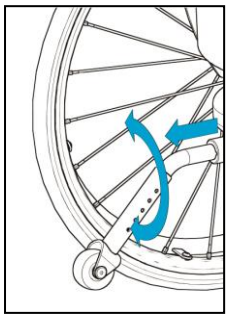


Up to Kayou serial number 26-2260:
To "swing up" the central anti-tip wheel, the locking catch must be pulled upwards, then the anti-tipper can be swung upwards or fully removed. To lock in the raised position, release the locking pin so that the anti-tip wheel engages.



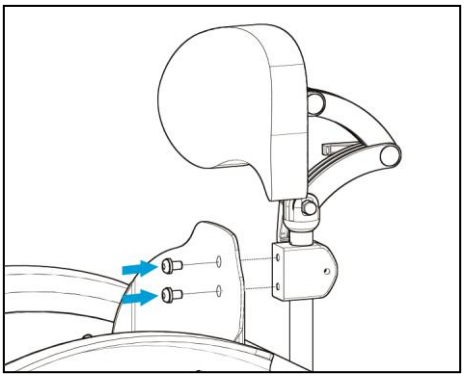
It is important to make sure that the locking bolt is re-engaged, otherwise the anti-tip wheel is not secured against turning away or falling out!

From Kayou serial number 26-2261:
By pulling on the anti-tipper, it is unlocked and can be swivelled upwards by 180°, where it automatically engages again. It is no longer possible to remove the whole anti-tipper.

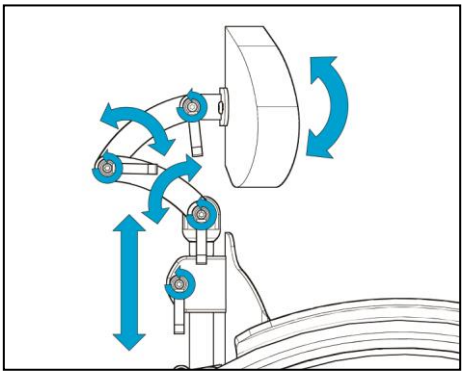


Headrest

To attach the headrest, fit the headrest holder to the holes provided on the backrest panel using the M6x12 screws supplied. Please tighten the screws sufficiently!



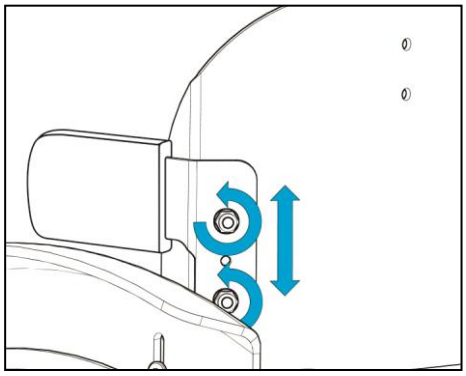
To adjust the headrest to the person, you must loosen the respective clamping levers, then you can adjust the height and position of the headrest according to your requirements.



ATTENTION:
Tighten the clamping lever again after adjustment!

Thorax pad

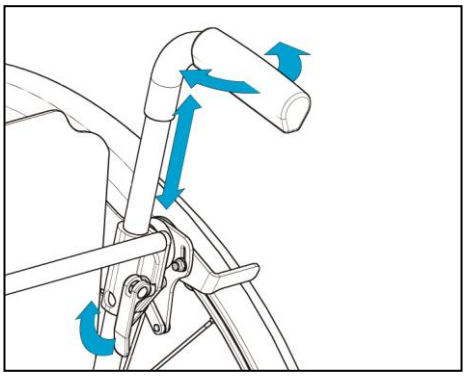
The thorax pads can be mounted by using the pre-drilled holes on the sides of the backrest with the provided M6x12 panhead screws.



Height-adjustable push handles

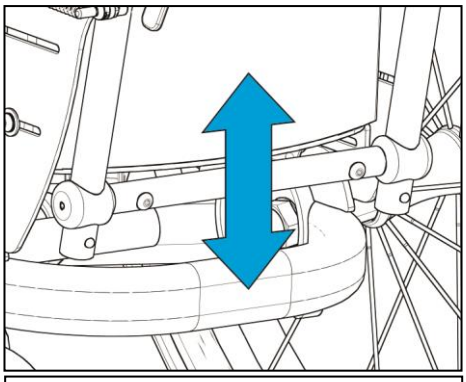
The individual push handles are inserted into the push handle holder from above and clamped in the required position by means of a clamping lever.

To remove a push handle, the stand spring, which is located at the lower end, must be pressed in. Only then can the push handle be pulled out completely and removed. This is for safety reasons so that the push handles cannot be removed accidentally.



The described possibility of removing the push handles without tools has the advantage of being able to remove them at any time, e.g. for transporting/loading the wheelchair. However, the disadvantage is that the wheelchair no longer offers adequate grip options for pushing the wheelchair when the push handles have been removed!

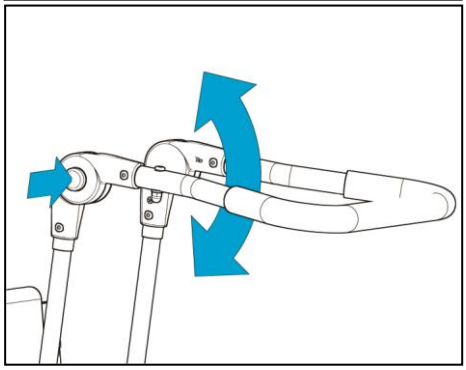
There is a additional bar for further stabilisation at the lower end of the push handles. If necessary, it can be relocated upwards.



Push bow height adjustable / angle adjustable

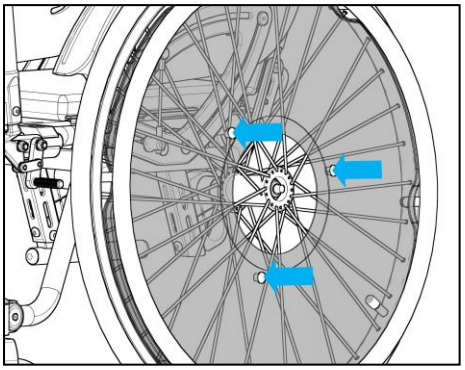
With the push bow version, it is also possible to adjust the angle of the push bow by pressing in the release button on the plastic joint.

The plastic joint must engage audibly.



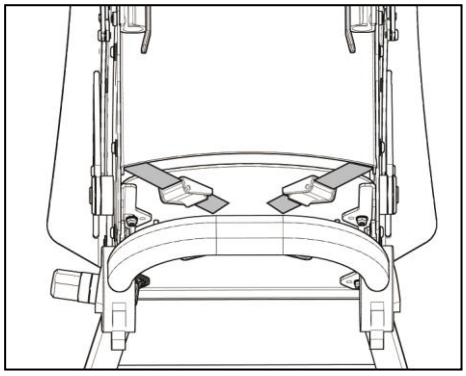
Spoke cover

The spoke cover prevents fingers from reaching into running wheels or spokes. It can be easily mounted/dismounted with 3 clips.



Savety belt

The safety belt is attached to the wheelchair using buckles beneath the seating plate. Its main purpose is to not let the user slip out of the wheelchair.

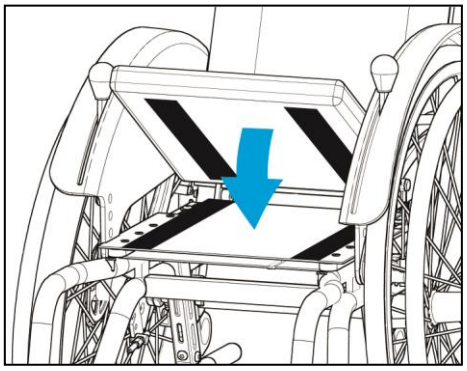


You can adjust the length of the belt using the sliding buckle on the belt.
The belt is opened and closed at the belt buckle.

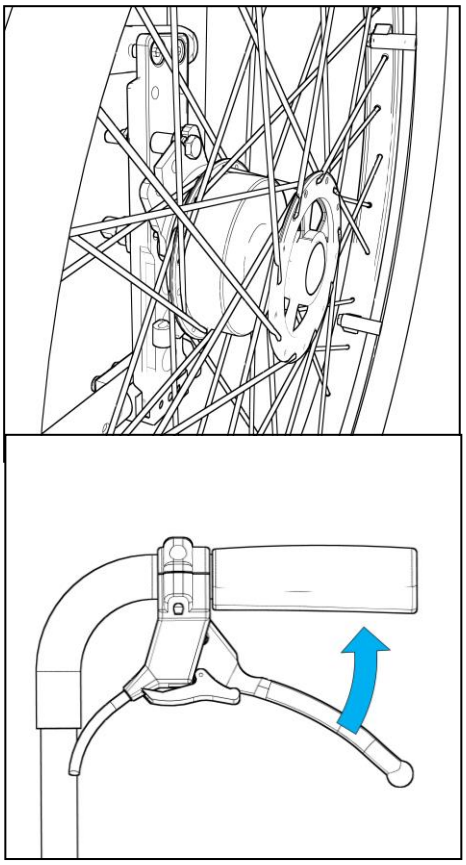
Seat cushion

The seat cover has two fleece strips with which the anatomical seat cushion is fixed in the desired position on the seat surface.

The possibility of removing the seat cushion has the advantage that you can also clean it accordingly.



Drum brakes



In order to be able to adapt a drum brake wheel to your wheelchair, a so-called drum brake carrier with torque support must be mounted on the axle plate on the wheelchair.

This drum brake carrier holds the drum brake wheel. The accompanying person can easily operate the drum brake with the brake handle mounted on each push handle. The drum brake wheel is attached via a quick-release axle in the same way as the standard wheel and removed in the same way (see page 12).

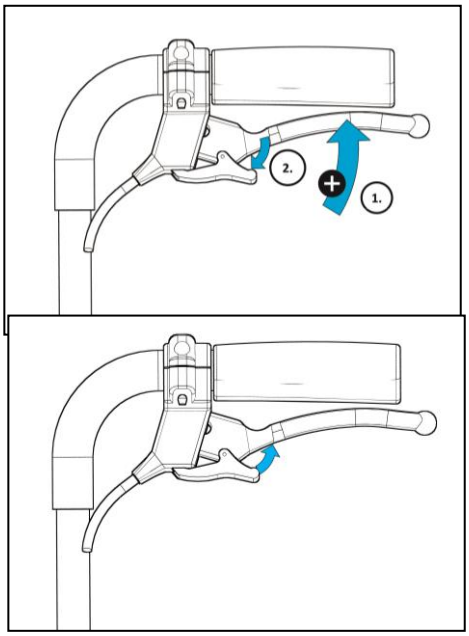
Attention:
Only specialist dealers are permitted to retrofit a drum brake!

The **drum brake** works independently of air pressure. It is integrated in the wheel hub and therefore inaccessible. It offers the accompanying person the possibility to brake while pushing (especially when going downhill). The drum brake also allows for controlled or dragging braking.

Note: Uneven actuation of the two brake levers produces cornering.

Note: Clean the brake bodies of the drum brake wheels at short intervals with a soft brush.

Locking brake



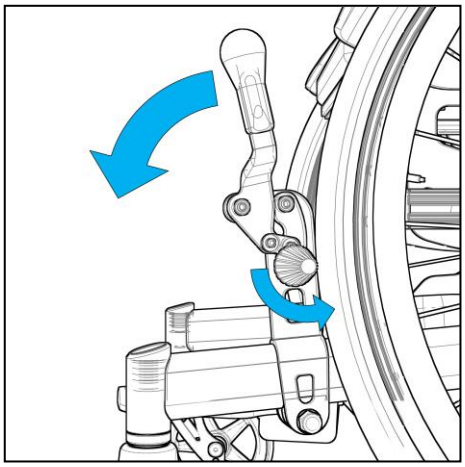
To lock the brake, operate the brake lever until the pawl can be swung forward and the brake lever can be locked.

Releasing the brake

To release the brake, simply actuate the locking lever. This unlocks the brake lever or the pawl and releases it from the lock.

Fixing brake on the frame (Knee angle brake)

To adjust the brake, i.e. to change the distance between the tyre and the pressure lever, you must first loosen the two screws on the clamping adapter. Once these have been loosened, you can move the complete brake and the clamping adapter on the frame. Now adjust the distance between the pressure lever and the rear wheel to 8 mm for normal tyres/light tyres (9 mm for solid tyres).



After adjustment, please make sure that you have tightened all screw connections again so that the brake cannot come loose.

ATTENTION:

- **The fixing brakes are <u>not</u> designed to brake the moving wheelchair.**
- As the fixing brake is air pressure dependent, you must **check the brakes and air pressure regularly!**
- **Non-stop use** of your wheelchair can cause wear on the tyres and brake mechanism, which requires readjustment of the brake.

Product name: **Kayou**

Aid number: **18.50.03.2010**

All measurements ± 5%

Description	Measurements		Note
Seat width (SW)	2 cm grid	18-26 cm at 20“ frame 20-28 cm at 22“ frame 22-32 cm at 24“ frame	
Seat depth (SD)	2 cm grid	18-26 cm at 20“ frame 20-30 cm at 22“ frame 22-34 cm at 24“ frame	
Back height (BH)	2,5 cm grid	15 - 35 cm	
Heigth of the seating plate	20“ 22“ 24“	30,5 – 36,5 cm 32,5 – 38,0 cm 35,0 – 43,0 cm	Continuous
Lower leg length (LLL)	continuous	20“: up to max. 30 cm 22“: up to max. 31 cm 24“: up to max. 35cm	
Seat angle	continuous	-10° up to +30°	
Back angle	continuous	-15° up to +15°	
Wheel sizes: front rear	4“ or 5“ 20“, 22“ or 24“	Solid rubber tires pneumatic tyre	
Wheel camber	9° Standard	optional 7° or 11°	
Overall width wheelchair	at 7° camber at 9° camber at 11° camber	SW +30cm SW +33cm SW +36cm	
Type of brakes		- brake in side-guard integrated - Knee angle brake - Brake for companion	
Weight of the Standard version	> 4,8 kg > 6,5 kg	without the rear wheel with the rear wheel	depending on equippment
Max. payload	50 kg		
underground conditions	even and solid surface		
Normative requirements	The wheelchair meets the requirements of ISO 7176-8		

Materials of the wheelchair

In the following table you will find a list of the materials used on your wheelchair.

Assembly	Material	Surface
Frame parts	St37k/ EN AW-5083	Powder-coated
Attachment parts	St37k/ EN AW-6060	Powder-coated / anodised
Connecting parts and screws	St37K 1.4302 EN AW-6060	Powder-coated / chrome plated / anodised
Clamping lever	Plastic PA6	
Side panels / clothing guard	EN AW-5754	Powder-coated
Foot plate/footboard profile	EN AW-6060	Powder-coated
Cushion	VB 100 30mm thickness	
Cushion cover	Trevira CS	
Wheels/ rolls	Rubber	
Handles	TPE 45 Shore	

Maintenance and care

The responsibility for the maintenance of the medical aid or therapy device lies with the owner or proprietor of the product. Non-compliance with the maintenance or the maintenance intervals according to the schedule in the operating instructions of the product may result in the expiry of the warranty of this product. Furthermore, non-compliance with the maintenance may lead to an impairment of the functionality or endanger the safety of the user and/or the carer or accompanying person.

Your wheelchair, like other assistive devices, requires regular maintenance. Furthermore, the wheelchair will be extremely grateful to you if you treat it with care, as it will then retain its good looks for years. As a precaution, all metal parts are protected against corrosion by means of powder coating, anodising or chrome plating. In addition, highly stressed parts are made of stainless steel.

You should regularly wipe the wheelchair with a soft slightly damp cloth or, if necessary, with a mild household cleaner (without ammonia or solvents). Observe the care and safety instructions of the respective manufacturer.

Rub the metal parts dry with a cloth after cleaning.

The cushioned parts should only be cleaned with a soapy solution.

For the wooden parts, you may only use a slightly damp cloth.

If you want to clean the wheelchair for hygienic reasons with a common and not too aggressive disinfectant, you should only do this by spraying and/or wiping. To do this, spray the disinfectant onto a cloth and then rub the parts with this cloth.
All cleaning agents that are approved for hospital hygiene by the Robert Koch Institute according to the VAH / DGHM are permitted for cleaning our wheelchairs!

Note: No scouring agents or similar harsh cleaners may be used. Do not use a high-pressure cleaner.

Remark:

Due to the constant use of your wheelchair, certain screws may become loose. Therefore, occasionally tighten the screws or ask your dealer to do so.

You must check the tyre pressure regularly. Therefore, make sure that the air pressure of the rear wheels is correct before every journey:

Rear wheels	Leight weight wheel	x1“	max. 7 bar

- If the air pressure is too low, rolling resistance increases, the tyres wear out prematurely and the braking effect is reduced.
- If the air pressure of the rear wheels is different, the wheelchair pulls to one side.
- The valves must always be protected against dust and dirt by valve caps.
- In the event of a flat tyre, please contact your specialist dealer.

Note:
If the tyres of the pneumatic drive wheels are damaged, you should not continue to use the wheelchair. Immediately visit a specialist dealer to have new tubes and/or new tyres fitted.

If you continue to use the wheelchair despite this, there is a risk that:

- if the running surface is damaged, you will have no braking functions with the knee angle brake
- the effort required to propel the wheelchair is considerably greater, as the rolling resistance increases
- damage to the rims can also occur. This means that changing the tyres and inner tube alone is no longer sufficient, the drive wheel must also be replaced.
- there is no more damping from the pneumatic tyres due to a puncture.

No person should be sitting in the wheelchair when the tyres are changed. Always have the tyres changed in pairs, as two differently worn tyres will impair the wheelchair's straight-line stability.

We therefore recommend that you have your wheelchair checked regularly for function and damage, depending on the degree of use, <u>but at least once a year</u>, by an expert (e.g. specialist dealer).

Maintenance

Time interval	Instructions
Day 1	Read the instructions carefully before using the product and keep them for later use.
	Store the tools on/at the product.
Daily	Use a dry cloth for cleaning.
	Visual inspection. Defective or worn parts must be replaced or repaired immediately.
	Ensure that all fastenings are in place.
	Check harnesses, waistcoats, buckles for signs of wear and tear.
	Pay attention to the max. specifications or markings for all adjustments.
Weekly	Check that all wheels turn properly and that wheel brakes or wheel locks work properly
	Check that the angle adjustment is faultless and that the safety lock is working properly.
	Use a cloth with warm water and a mild detergent to remove dirt and clean the product. Dry the product before using it again.
Monthly	All screws, nuts and other locking devices must be checked and tightened regularly to prevent unwanted faults.
	Oil the moving parts, we recommend a professional lubricant, e.g. Metaflux clear grease spray
Annually	Check the frame and frame parts for wear and tear or never use a product with detected faults or defects. Have the inspection carried out by the specialist dealer at least once a year

Reuse

The KAYOU product has been designed to be suitable for reuse after various measures have been carried out and it has been released.

Product service life

According to the criteria on quality and safety in the reuse of rehab products, we as the manufacturer can reliably guarantee a service life of 5 years. Provided that the wheelchair KAYOU is regularly maintained and serviced in accordance with the guidelines and intervals specified by Berollka Rollstuhltechnik GmbH and stated in the operating instructions.

Disposal

The wheelchair may only be disposed of with the approval of the responsible cost bearer. The wheelchair must be disposed of in accordance with the applicable national legal regulations. Please contact your specialist dealer for this.

Reuse check

In general, the specialist dealer must check whether there are any defects based on the condition with regard to safety, previous use and hygiene regulations. If necessary, the corresponding parts must be replaced.

Documentation

- ✓ are all labels (especially serial number) present and clearly legible?
- ✓ are instructions for use enclosed (download at **www.berollka.de** if necessary)?

The following measures must be fulfilled:

- Thorough cleaning and disinfection with the appropriate agents
- Maintenance according to the maintenance plan and inspection by the manufacturer or authorised dealer
- Preparation of the accompanying documents and release for reuse

For the reuse of our products, we recommend a basic inspection of the product by a competent specialist dealer.

Reuse check:

Visual inspection

- ✓ Check product for cleanliness, thoroughly clean or disinfect if necessary.
- ✓ Check surface protection (chrome, paint, etc.)
- ✓ Check frame and components for damage
- ✓ Check cushions, seat and backrest upholstery for damage and hygienic condition. clean and/or replace if necessary

Mechanical check

- ✓ Check and retighten all screw and clamp connections.
- ✓ Check and retighten all locking parts.
- ✓ Check armrests for condition and adjustability
- ✓ Check Bowden cables for function and condition
- ✓ Check condition of tyres and air pressure
- ✓ Check brakes for function, adjust if necessary and test drive
- ✓ Check the swivelling of the castors
- ✓ Check rear wheels for: spokes loose, spoke reflectors present, check concentricity, ball bearings in order, quick-release axles running smoothly, check wheel camber.
- ✓ Passive lighting present?
- ✓ Check safety belt
- ✓ Check secure fastening of brake and push handles

Maintenance

- ✓ Lubricate / oil moving parts and bearings.

Driving test

- ✓ Check lane behaviour / directional stability
- ✓ Check fixing break
- ✓ Check tipping safety

A checklist for wheelchairs is available for download on our website (**www.berollka.de/downloads**).

In general, the specialist dealer must check whether there are any defects based on the condition with regard to safety, previous use and hygiene regulations and, if necessary, the corresponding parts must be replaced.

In particular, the following wearing parts may be required:

- Tyres of the steering wheels and drive wheels
- Arm pads
- Seat and backrest cushioning
- Brake lever caps
- general covers
- Bowden cables of the brakes
- Bowden cables of the gas springs

Warranty

In addition to the General Terms and Conditions, we undertake to provide the following warranty on the wheelchair supplied by us:

2 years warranty on frame (on manufacturing or material defects)

We grant you a 12-month warranty on the gas springs and stabilisers used in accordance with the manufacturer's instructions.

Berollka-aktiv does not assume any warranty for damages resulting from improper or unprofessional assembly and/or repair, from neglect and wear and tear as well as from modifications of assemblies by the user or third parties. In these cases our product liability expires.

Unusable or defective parts, in accordance with the above points, will be repaired and replaced free of charge within the warranty period if Berollka-aktiv is informed of this immediately, enclosing proof of new purchase. The rejected parts are to be sent to Berollka-aktiv postage or freight paid.

If it can be proven that there is a material or manufacturing defect, defective parts will be replaced free of charge. Modifications and constructive interventions that go beyond the adjustment to the personal body size can no longer be the responsibility of us as the manufacturer.

We reserve the right to make technical changes.

Attention: Special construction versions are excluded from exchange.

We cannot accept any liability for damage resulting from combinations of our wheelchairs with third-party products of any kind, which may involve considerable risks. Unless such a product has been expressly approved by our company.

Further excluded are defects which occur due to natural wear and tear, excessive stress, violent damage and improper use.

The warranty expires if no original spare parts from Berollka-aktiv are used for repairs.

The constant use of your wheelchair can cause screws, nuts and spokes to loosen. Therefore, tighten them occasionally or ask your dealer to do so.

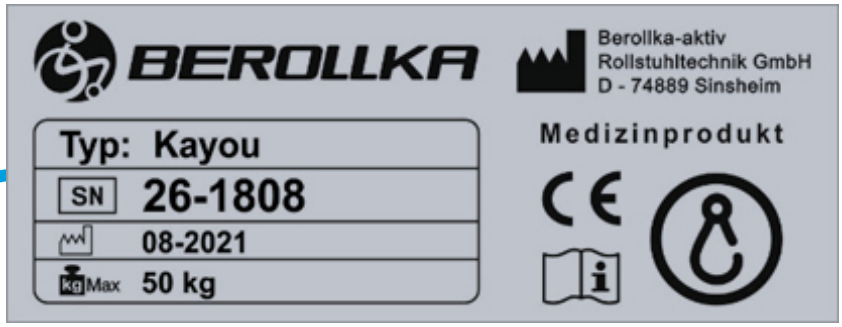
Note

Modifications to our components (such as additional drilling on the frame) are not permitted and automatically void the warranty!
Exceptions only with written permission from Berollka-aktiv.

Please note that in case of changes to the product, the responsibility goes to the person who changed the product!

Type plate

The type plate is located at the front left on the inside of the base frame.



Type plate: Wheelchair **Kayou**

Explanation of symbols:

CE	CE-marking
	Follow the instructions for use
	Crash-tested; meets the requirements of ISO 7176-19:2008; approved as a seat in motor vehicles
	Not crash-tested; NOT approved as a seat in motor vehicles
Typ:	Product name
SN XX-XXXXX	Serial number
XX/XXXX	Date of manufacture
kg Max XX kg	Max. Payload

When reordering accessories or spare parts, you should always state the serial number (and possibly the order number) in order to guarantee smooth processing of your order.

EU-Declaration of conformity

BEROLLKA bewegt

CE

EU-KONFORMITÄTSERKLÄRUNG
EU DECLARATION OF CONFORMITY

Name und Adresse der Firma Name and address of the firm	Berollka-aktiv Rollstuhltechnik GmbH Jahnstraße 16 D-74889 Sinsheim
Single Registration Number (SRN)	DE-MF-000007043
Produktname Product name	KAYOU
Handelsname (mit Code) Trade name (with code)	Kayou – Abduktionsrahmen (2600)
mit der Basis-UDI-DI with the basis-UDI-DI	406635810102600000002T
Zweckbestimmung Intended purpose	Der Kayou ist ein manueller Rollstuhl, der Menschen mit Gehunfähigkeit oder stark eingeschränkter Gehfähigkeit als Mobilitätshilfe im täglichen Leben dient. The Kayou is a manual wheelchair that is intended to provide mobility in daily life to person who are unable to walk or have difficulty in walking.
Wir, Berollka-aktiv Rollstuhltechnik GmbH, erklären in alleiniger Verantwortung, dass das Produkt, auf welches sich diese Erklärung bezieht, ein Klasse 1 Gerät ist und dass es den einschlägigen Bestimmungen der Verordnung (EU) 2017/745 über Medizinprodukte entspricht. We, Berollka-aktiv Rollstuhltechnik GmbH, declare under our sole responsibility that the product(s) to which this declaration relates, is a class 1 Medical Device, and is in conformity with the requirements of the Regulation (EU) 2017/745 on medical devices	

Sinsheim, 11.04.2024

Ort, Datum / Place, date

Jörg Bender

Geschäftsführer / Managing Director
Name und Funktion / Name and function

CAUTION:

We cannot accept any liability for damage resulting from combinations of our wheelchairs with third-party products of any kind, which may involve considerable risks. Unless such a product has been expressly approved by our company.

CAUTION:

Constant use of your wheelchair may cause certain bolts, nuts and spokes to become loose. Therefore, tighten them occasionally or ask your dealer to do so.

Rollstuhltechnik GmbH

Jahnstraße 16 74889 Sinsheim

phone +49 7261 – 7351 - 0

telefax +49 7261 – 7351 - 10

www.berollka.de