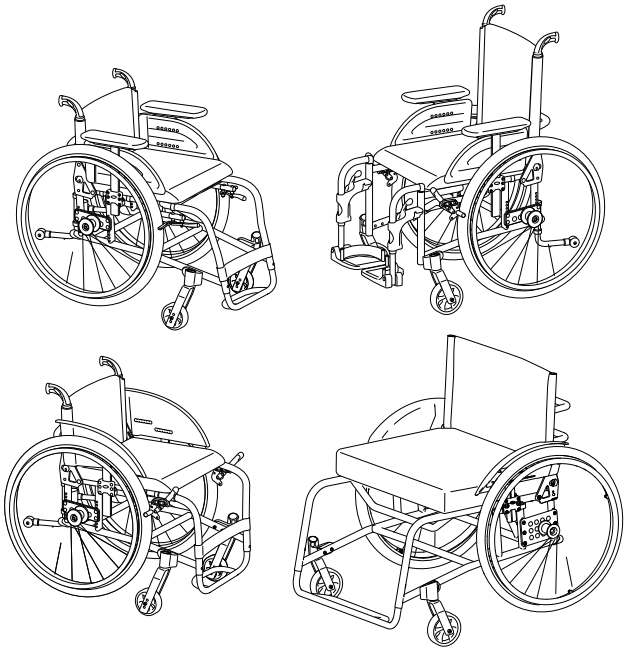


XLT

Active / Dynamic / Swing / Max

en **Active wheelchair**
User Manual

CE

This manual MUST be given to the user of the product.
BEFORE using this product, read this manual and save for future reference.

INVACARE®

Yes, you can.®

Contents

1 General

1.1 Information about the User Manual

Thank you for choosing an Invacare® wheelchair.

This User Manual contains important information about using the wheelchair. In order to ensure safety when using your wheelchair, read the User Manual carefully and follow the safety information.

The information contained in this manual is subject to change without notice.

If your vision is impaired, you can view the user manual as a PDF file on the Internet at www.invacare.com and enlarge it on-screen as required. If you cannot enlarge the texts and graphics sufficiently, please contact the Invacare® distributor for your country; ® addresses on the reverse of this document. If necessary, we will provide you with a high resolution PDF file of the user manual. Moreover, you can have the PDF file read out to you with the aid of suitable programs using special language functions on your computer (e.g. in Adobe® Reader® X: Shift+Ctrl+Y).

The equipment of your wheelchair may differ from the descriptions and diagrams given here due to the wide range of models available.

For latest important product information (eg.: product safety notices, product recalls, ...), please refer to our website at www.invacare.eu.com, your local specialized dealer or contact Invacare® in your country (for addresses, see back page of this manual).

1.2 Symbols in this manual

In this User Manual warnings are indicated by symbols. The warning symbols are accompanied by a heading that indicates the severity of the danger.

WARNING!
Indicates a hazardous situation that could result in serious injury or death if it is not avoided.

CAUTION!
Indicates a hazardous situation that could result in minor or slight injury if it is not avoided.

IMPORTANT!
Indicates a hazardous situation that could result in damage to property if it is not avoided.

Gives useful tips, recommendations and information for efficient, trouble-free use.

This product complies with Directive 93/42/EEC concerning medical devices. The launch date of this product is stated in the CE declaration of conformity.

Manufacturer

1.3 Warranty

Invacare guarantees that their wheelchairs are free from defects and are fully functional. The warranty covers all faults and defects which are verifiably attributable to faulty construction, substandard materials or poor workmanship. Warranty claims against the manufacturer may only be made by the distributor and not by the user of the product.

The warranty does not cover normal wear and tear, the consequences of improper handling or damage, poor maintenance and incorrect assembly or commissioning by the purchaser or a third person or faults which are attributable to circumstances beyond our control. Wearing parts are not covered by the guarantee. The warranty is voided if modifications are made to the product which were not authorized and not performed by the specialist dealer or if inappropriate accessories or spare parts are used. The warranty does not cover consequential costs arising from the rectification of defects such as freight and travel expenses, labor costs, fees etc.

The term of the warranty is 24 months.

Furthermore, the terms and conditions are part of the general terms and conditions particular to the individual countries in which the product is sold.

1.4 Standards and Regulations

Quality is fundamental to the company's operation, working within the disciplines of ISO 9001 and ISO 13485.

The wheelchair has been tested in accordance with EN 12183. It includes a test for flammability (EN 1021-2 and ISO 8191-2).

Invacare is continuously working towards ensuring that the company's impact on the environment, locally and globally, is reduced to a minimum. We use only REACH compliant materials and components.

1.5 Intended use

This Active Wheelchair is intended to provide mobility to persons limited to a sitting position.

Indications

- Disabled persons ages 12 and up (adolescents and adults) with mobility difficulties and a restriction to a sitting position.

Contraindications

There are no contraindications associated with proper use.

This active wheelchair needs to be prescribed and fit to your specific health condition.

1.6 Service life

The expected service life is five years, presuming that the product is used daily and in accordance with safety instructions, maintenance instructions and intended use, stated in this manual.

1.7 Copyright protection

2 Safety

2.1 Safety information

This section contains important safety information for the protection of the wheelchair user and assistant and for safe, trouble-free use of the wheelchair.

WARNING!
Risk of accidents and serious injury
Accidents with resulting serious injury can occur if the wheelchair is wrongly adjusted.
– Adjustments at the wheelchair always must be carried out by a specialist dealer.

WARNING!
Risk due to driving style being unsuitable for the conditions
There is a risk of skidding on wet ground, gravel or uneven terrain.
– Always adjust your speed and driving style to the conditions (weather, surface, individual ability, etc.).

WARNING!
Risk of injury
In a collision you could sustain injury to parts of your body that extend beyond the wheelchair (e.g. feet or hands).
– Avoid an unbraked collision.
– Never drive into an object head-on.
– Drive carefully through narrow passages.

WARNING!
Risk due to wheelchair being out of control
At high speed you could lose control of your wheelchair and overturn.
– Never exceed a speed of 7 km/h.
– Avoid collisions in general.

CAUTION!
Risk of burning
The wheelchair components can heat up when exposed to external sources of heat.
– Do not expose the wheelchair to strong sunlight before use.
– Before usage, check all components that come into contact with your skin for their temperature.

CAUTION!
Risk of getting fingers caught
There is always a risk of getting, e.g. fingers or arms, caught in the moving parts of the wheelchair.
– Make sure when activating the folding or insertion mechanisms of moving parts, such as the removable axle of the rear wheel, folding backrest or antitipper, that nothing becomes caught.

2.2 Safety devices

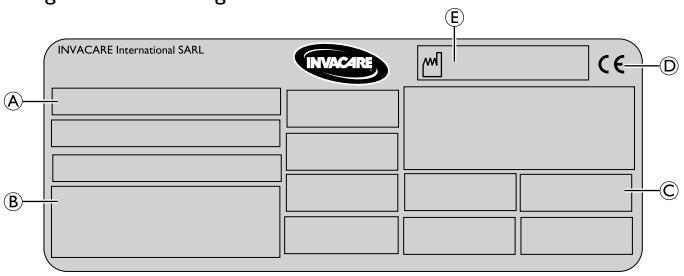
WARNING!
Risk of accidents
Safety devices that are incorrectly set or no longer working (brakes, antitipper) can cause accidents.
– Always check that the safety devices are working before you use the wheelchair and have them checked regularly by the specialist dealer.

The functions of the safety devices are described in chapter 3 Components and their functions, page 6 .

2.3 Labels and symbols on the product

Identification label

The identification label is attached to the frame of your wheelchair and gives the following information:



Ⓐ	Product designation
Ⓑ	Serial number
Ⓒ	Maximum user weight
Ⓓ	CE mark
Ⓔ	Date of manufacture

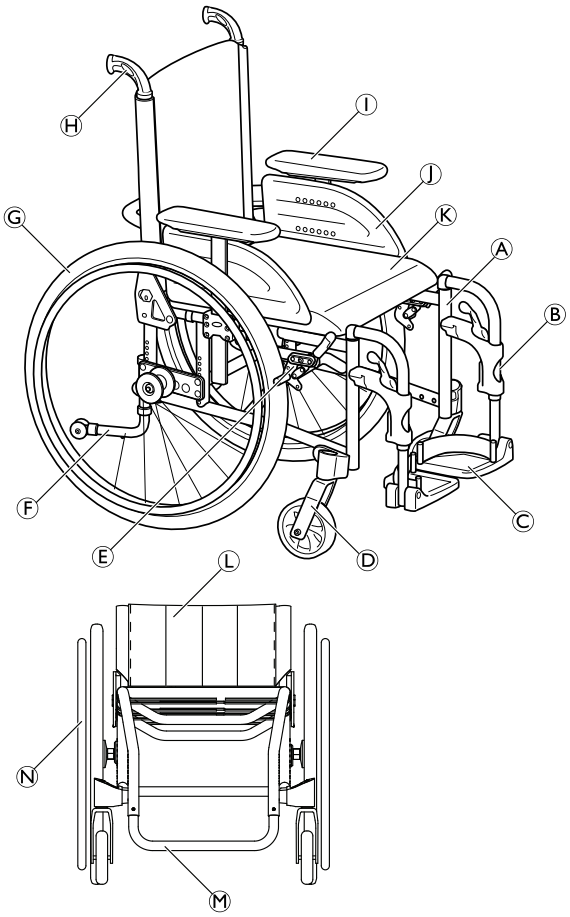
Snap hook symbols

Depending on the configuration, some wheelchairs may be used as a seat in a motor vehicle, some may not.

 ISO 7176-19	Tie-down positions where the restraint system straps must be placed in case of using the wheelchair as a seat in a motor vehicle, see section 7.6 Transporting the occupied wheelchair in a vehicle, page 23.
	**WARNING Symbol** This wheelchair is not configured for passenger transport in a motor vehicle. This symbol is attached to the frame close to the identification label.

3 Components and their functions

3.1 Overview

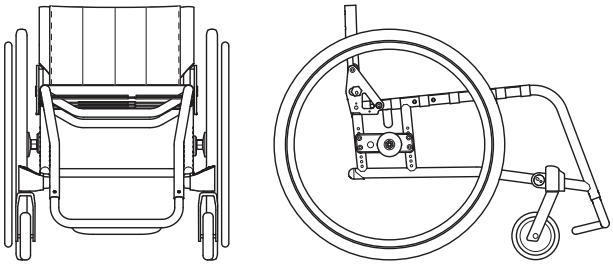


Ⓐ	Frame
Ⓑ	Legrest
Ⓒ	Footplate
Ⓓ	Castor fork with castor
Ⓔ	Parking brake
Ⓕ	Antitipper
Ⓖ	Rear wheel
Ⓗ	Push handle
Ⓘ	Armrest
Ⓙ	Clothes-guard
Ⓚ	Seat / Cushion
Ⓛ	Backrest
Ⓜ	Footrest tube
Ⓝ	Handrim

The equipment of your wheelchair may differ from the diagram as each wheelchair is manufactured individually to the specifications in the order.

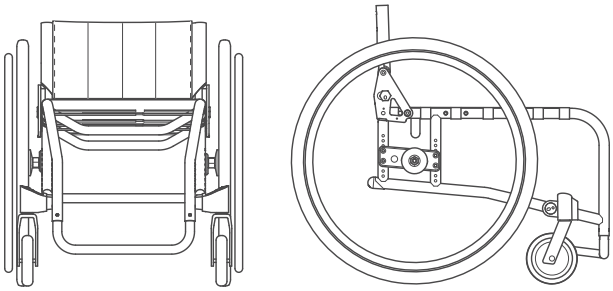
The following XLT models are available:

XLT Active (75° knee angle)



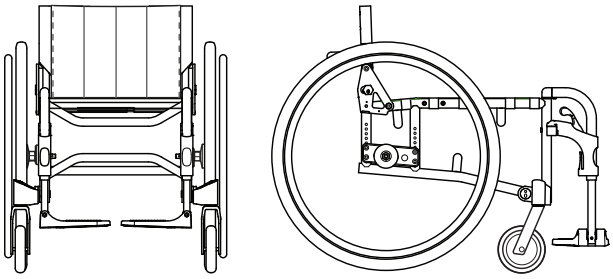
The XLT Active front is designed to hold your feet and lower parts of your leg steady. The footrest tube is standard.

XLT Dynamic (90° knee angle)



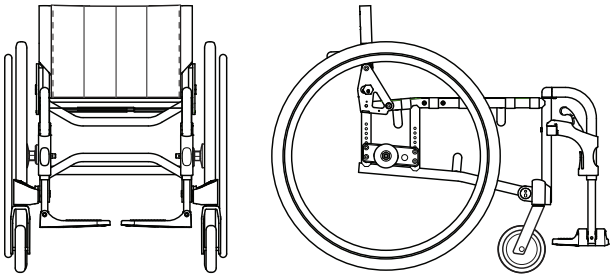
The XLT Dynamic is designed to hold your feet steady. The total length of the wheelchair is very compact. The footbow is standard.

XLT Swing (80°, 90° and angle adjustable legrests)



The XLT Swing is designed with a front offering more space for the feet and lower parts of the legs. The standard delivery includes collapsible footrests.

XLT Max (75° knee angle)



The XLT Max is designed for larger users and has a user weight capacity of 180 kg.

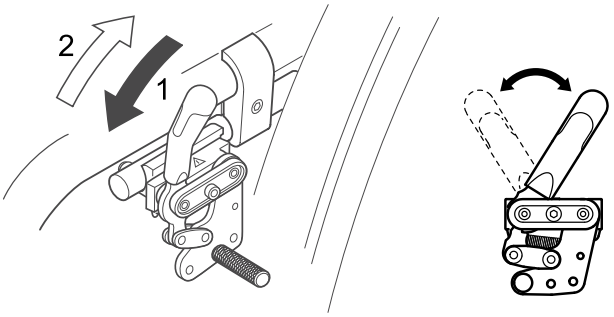
3.2 Parking brakes

The parking brakes are used to immobilise the wheelchair when it is stationary to prevent it from rolling away.

WARNING!
Risk of overturning if you brake sharply
If you apply the parking brakes while you are moving, the direction of movement can become uncontrollable and the wheelchair may stop suddenly, which can lead to a collision or to you falling out.
– Never apply the parking brakes while you are moving.

WARNING!
Risk of overturning
The parking brakes will not operate correctly unless there is sufficient air in the tires.
– Ensure the correct tire pressure, 3.10 Tires, page 12.

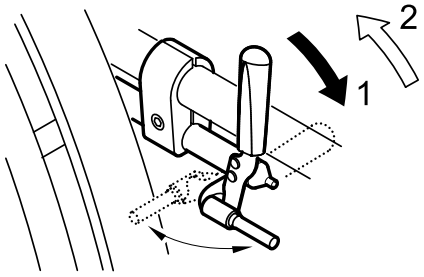
Standard brake



1. To apply the brake, push the brake lever forwards as far as possible.
2. To release the brake, pull the brake lever backwards.

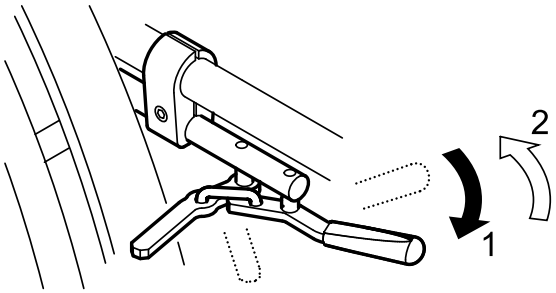
The lever of the standard brake can be folded back to facilitate transfers. To do so, pull up the lever and fold it backwards.

Performance brake



1. To apply the brake, push the brake lever forwards as far as possible.
2. To release the brake, pull the brake lever backwards.

Active brake



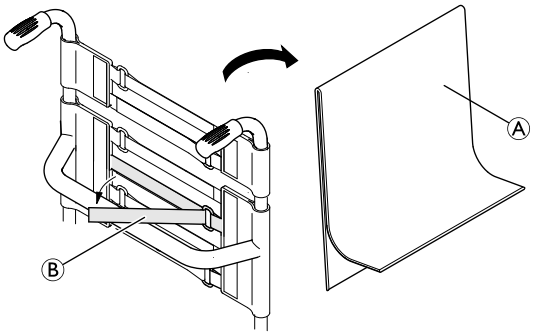
1. To apply the brake, pull the brake lever forwards beside or between your knees as far as possible.
2. To release the brake, push the brake lever backwards beside or between your knees.

3.3 Backrest

Backrest cover

You can adjust the tension of the backrest cover as required.

Adjusting the backrest cover



1. Remove the backrest cushion Ⓐ.
2. Loosen the Velcro® tapes Ⓑ on the rear of the backrest cover by simply pulling on them.
3. Tighten or loosen the tapes as required then reattach them.

WARNING!
Risk of tipping
If the bands are set very loose, the tipping point of your wheelchair is changed for the worse.
– Ensure that the bands are set correctly.

Backrest height

The height of the backrest can be adjusted. The adjustment must be carried out by the specialist dealer.

Backrest angle

The angle of the backrest can be adjusted. The adjustment must be carried out by the specialist dealer.

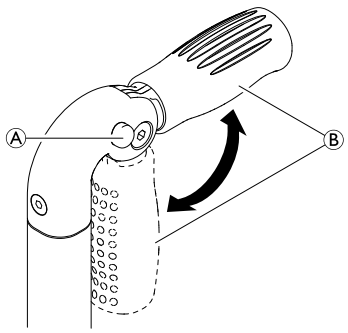
Backrest bar

WARNING!
Risk of accidents
The backrest bar is not suited for lifting or carrying the wheelchair with the user sitting in it as it can break.
– The backrest bar may not be used to lift or carry the wheelchair while the user is sitting in it.

3.4 Push handles

IMPORTANT!
– Always check the push handles before using the wheelchair, as to whether the hand grips are secure, cannot be turned and cannot be pulled off.

Foldable push handles

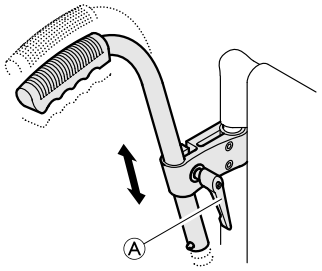


1. Fully depress button Ⓐ and fold up respectively fold down the push handle Ⓑ until it audibly engages.

CAUTION!
If not correctly engaged, the push handle could accidentally fold down while pushing the wheelchair.
– Make sure that the push handle is correctly engaged.

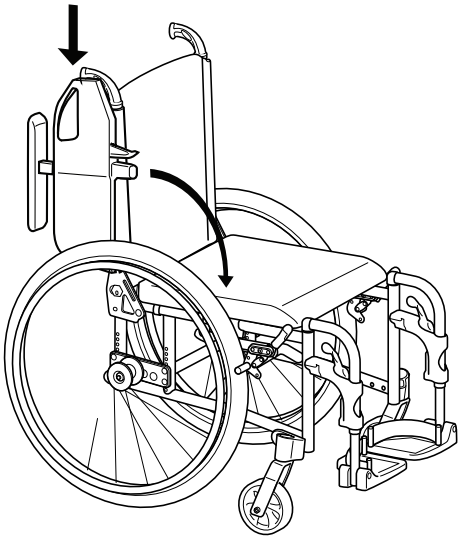
Height adjustable, angled push handles

The infinitely height adjustable push handles allow any assistant to adjust the handles to a comfortable level.



1. To set the height of the push handles, loosen the bolt Ⓐ, push the handle to the desired position and tighten the bolt again.

3.5 Flip-up armrest



Folding

1. Grip the siderest by the cushion or by the front curve and fold it back.

Removing

1. Fold the siderest back and pull it up out of the holder on the back.

Fitting

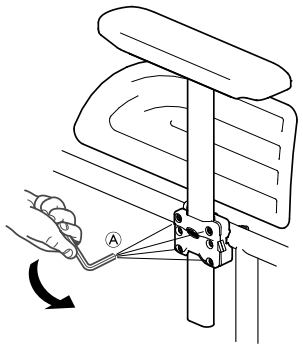
1. Insert the siderest from above into the holder on the back.
2. Fold it downwards.

Adjusting the height

1. Tip the lever Ⓐ on the front of the support and move the armrest upwards or downwards until you reach the desired height.
2. Engage the lever.
3. Perform the setting on both sides.

CAUTION!
This siderest does not engage into the wheelchair.
– Therefore do not hold it in order to lift the wheelchair.

3.6 Detachable armrest / mudguard



WARNING!
Risk of injury
The armrests are not locked and can be easily pulled out upwards.
– Do not lift or transfer the wheelchair using the armrests.
– Do not use the armrests for transportation when carrying the wheelchair up- or downstairs.

Removing

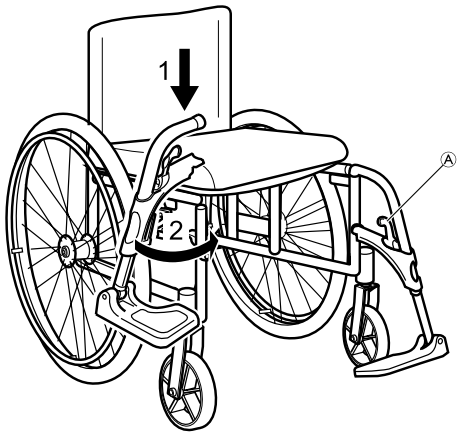
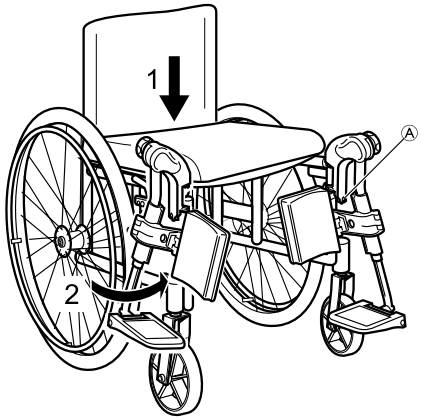
1. Pull the armrests by the arm cushion out of the holder.
2. To adjust how easy or difficult it is to pull the armrests out of the holder, change the degree to which the screws Ⓐ are tightened.

Fitting

1. Push the armrests into the holder.

The mudguard has to be removed and fitted in the same way.

3.7 Swiveling legrests

Fixed	
Angle adjustable	

Attaching

CAUTION!
Risk of trapping your fingers
– Be careful not to trap your fingers between frame and legrest.

1. Push the tubes at the upper part of the legrests down into the tubes on the wheelchair. Angle the legrests outwards when inserting them.
2. Lock the legrests by turning them inwards.

The legrests are automatically locked so there is no risk of them coming off the wheelchair.

Removing

1. Activate the release lever respectively the button Ⓐ.
2. Pull the leg rest upwards.

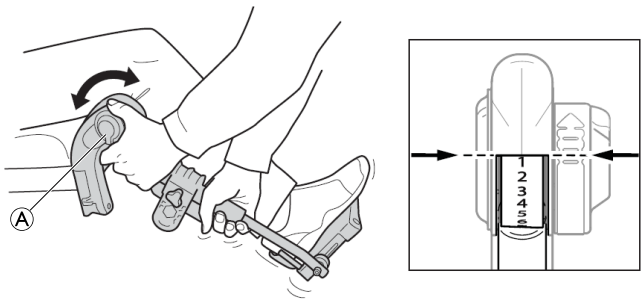
Swiveling

1. Activate the release lever respectively the button Ⓐ.
2. Swivel the leg rests to the outside.

Swiveling forwards

1. Swivel the leg rest forwards until it engages.

Adjusting the angle

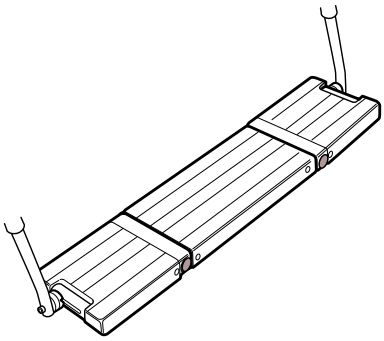


1. Pull the lever Ⓐ with one hand while supporting the legrest with your other hand.
2. When a suitable angle is obtained, let go of the lever and the legrest will look into one of seven preset positions.

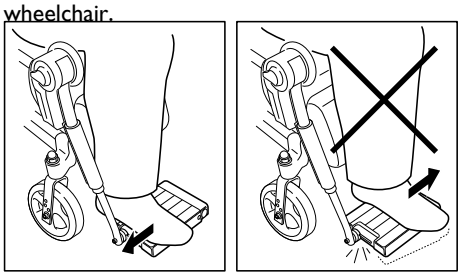
WARNING!
Risk of catching the ground
– The distance between the lowest part of the footrest and the ground must be at least 40 mm.

IMPORTANT!
Risk of damage to the mechanism
– Do not place anything heavy, or let children sit on the legrest.

3.8 Footboard converter XLT Max

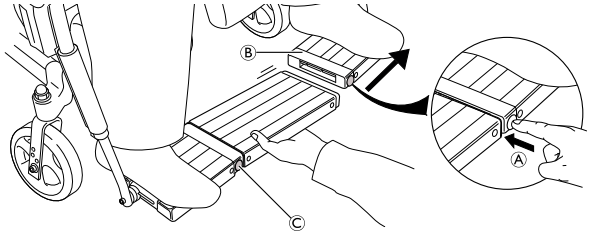


The footboard converter is a sturdy construction in three parts that is easily disassembled to allow for transfers into and out of the wheelchair.



IMPORTANT!
– Make sure that the feet are placed as far out as possible before the middle part is installed or removed. Otherwise the pressure on the footplates might cause the footboard to break.

Removing

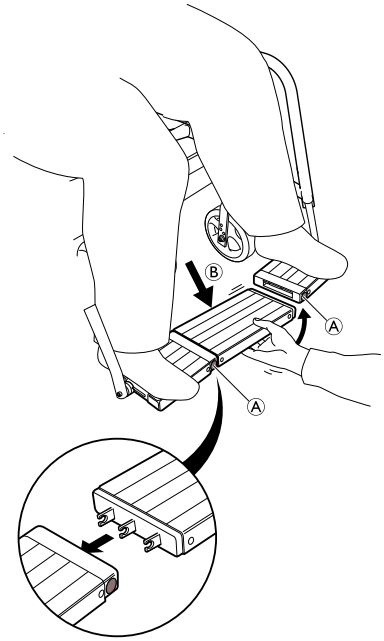


CAUTION!
Risk of pinching
When handling the footboard there is a risk of pinching your fingers.
– Make sure that no pressure is on the footboard when it is being handled and adjusted.

IMPORTANT!
– Make sure that the feet are placed as far out as possible.

1. Press button Ⓐ.
2. Slide the right-hand side footplate Ⓑ sideways.
3. Press button Ⓒ and remove the middle part.

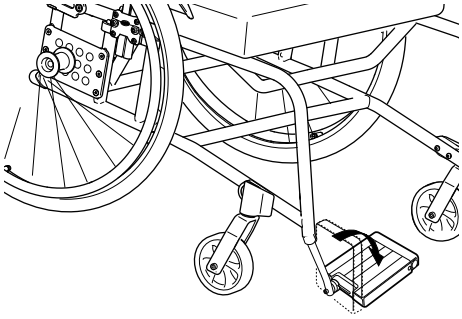
Installing



WARNING!
Risk of injury
If the middle part is not installed correctly it will fall out and the user can get hurt.
– The buttons Ⓐ must pop out when the middle part is installed correctly and turned the right way.

1. Install the middle part of the footboard converter by inserting the fasteners into one of the footplates and then on the other side.

A small marking (hole) on the part should be facing backwards Ⓑ (towards the wheelchair) when the footboard is assembled correctly.



The footplates can be flipped up to further facilitate transfers.

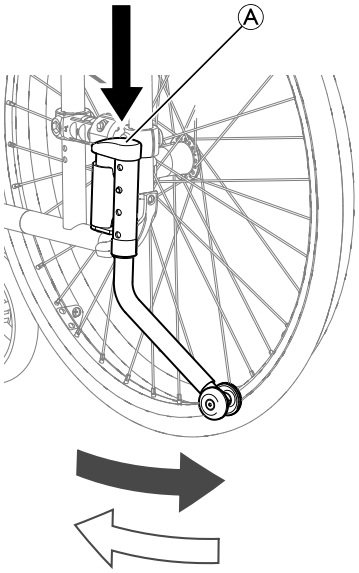
CAUTION!
Risk of breakage
The footboard is not designed for lifting the chair.
– Do not take hold on the footboard if you need to lift the chair.

3.9 Antitipper

An antitipper prevents the wheelchair from tipping backwards.

WARNING!
Risk of overturning
Antitippers that are incorrectly set or no longer working can lead to overturning.
– Always check that the antitipper is working before using the wheelchair and have it set or readjusted by a specialist dealer when required.

WARNING!
Risk of overturning
On uneven or soft ground, the antitipper can sink into potholes or directly into the ground, thereby curtailing or eliminating its safety function.
– Only use the antitipper when travelling on even and firm ground.



Activating the antitipper

1. Swing the antitipper completely backwards until it locks into position.

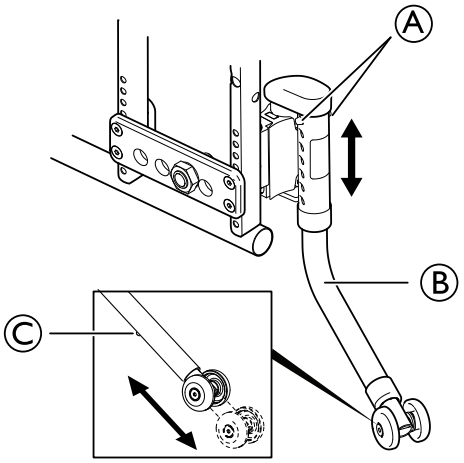
Deactivating the antitipper

1. Press the cap Ⓐ of the antitipper completely downwards and then sideways.

A red warning sticker can now be seen.

2. Swivel the antitipper backwards until it engages.

WARNING!
Risk of tipping
An activated antitipper can catch when negotiating a step or an edge.
– Always deactivate the antitipper before driving over a step or kerb.



Adjusting the height

1. Press the two knobs Ⓐ on each side of the housing and pull the tube Ⓑ to desired set of holes. The knobs will lock the tube into position.

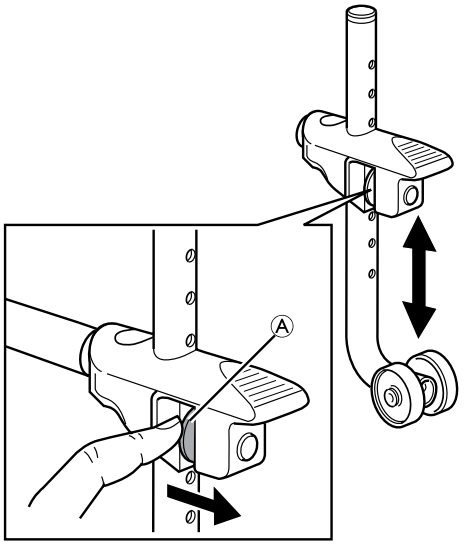
Attaching the depth

1. Press knob Ⓒ and pull the wheel tube in or out to the desired depth. The knob will lock the tube into position.

If further adjustments of height and/or position are necessary, refer to your specialized dealer.

Extended antitipper

Use extended anti-tip devices when an extended rear wheel attachment is used.



1. Lift the spring loaded button and select the required height. Ensure that the anti-tip device locks into its new position.

3.10 Tires

The ideal pressure depends on the tire type:

The table below is an indication. In case the tire differs from the list below, check the side of the tire, the maximum pressure is often listed there.

Tire	Max. pressure		
Profile tire	7 bar	700 kPa	101 psi
Schwalbe® Marathon Plus	10 bar	1000 kPa	145 psi
Schwalbe® One	10 bar	1000 kPa	145 psi
Schwalbe® Rightrun	10 bar	1000 kPa	145 psi
Solid tire, profile, grey	-	-	-
Solid tire (KIK type), black	-	-	-
Solid, light wheel	-	-	-

The compatibility of the tires listed above depends on the configuration and/or model of your wheelchair.

In case of a tire puncture consult a suitable workshop (e.g. bike repair shop, bicycle dealer ...) to have the tube replaced by a skilled person.

The size of the tire is mentioned on the sidewall of the tire. The change of appropriate tires must be carried out by a qualified technician/dealer.

CAUTION!

– The tires pressure needs to be equal in both wheels to avoid decreased driving comfort, to keep the parking brakes working properly and to ease propelling of the wheelchair.

3.11 Seat cushion

A suitable cushion is needed to provide an even pressure distribution on the seat.

Use a seat cushion with anti-slip underlay or Velcro® (hook) fastening tapes to avoid slipping of the seat cushion. A Velcro® (loop) fastening tape is pre-attached to the seat cover.

3.12 Seat position

Tipping stability

The seat position and thus the tipping stability of your wheelchair can be altered. The adjustment must be carried out by the specialist dealer.

Seat height front

The front seat height can be adjusted. The adjustment must be carried out by the specialist dealer.

Seat height rear

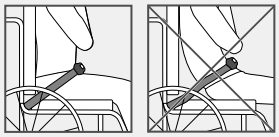
The rear seat height can be adjusted by several centimeters. The adjustment must be carried out by the specialist dealer.

4 Accessories

4.1 Posture belt

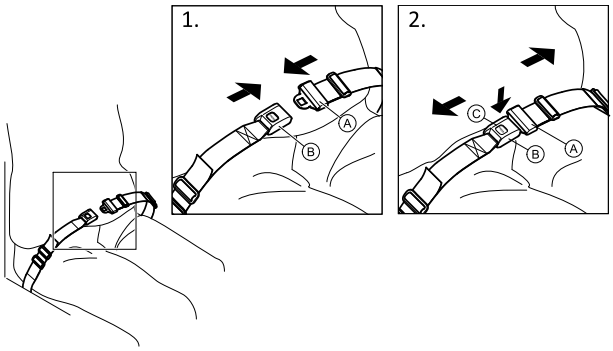
The wheelchair can be equipped with a posture belt. It prevents the user from sliding downward in the wheelchair or from falling out of the wheelchair. The posture belt is not a positioning device.

WARNING!
Risk of serious injury / strangulation
A loose belt can allow the user to slip down and create a risk of strangulation.
– The posture belt should be mounted by a qualified technician and fitted by the responsible prescriber.
– Always make sure that the posture belt is tightly fitted across the lower pelvis.
– Each time the posture belt is used, check if it fits properly. Changing the seat and/or backrest angle, the cushion and even your clothes influence the fit of the belt.



WARNING!
Risk of serious injury during transport
In a vehicle, a user in his wheelchair must be secured by a safety belt (3-point belt). A posture belt only is not sufficient as a personal restraint device.
– Use the posture belt as a complement, but not as a substitute to the 3-point safety belt, when transporting the wheelchair user in a vehicle.

Closing and opening the posture belt

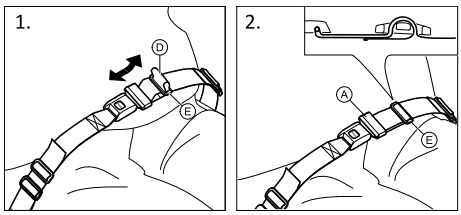


Ensure that you are sitting fully back in the seat and that the pelvis is as upright and symmetrical as possible.

1. To close, push the catch Ⓐ into the buckle clasp Ⓑ.
2. To open, push the PRESS button Ⓒ and pull the catch Ⓐ out of the buckle clasp Ⓑ.

Adjusting the length

The posture belt has the good length, when there's just sufficient space for a flat hand between body and belt.

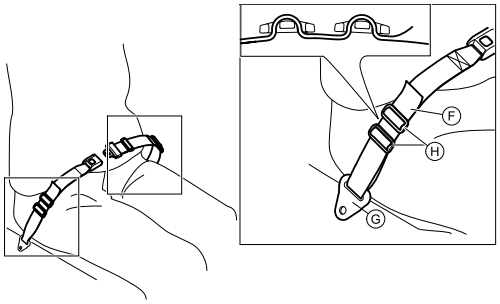


1. Shorten or extend the loop Ⓓ as required.
2. Thread loop Ⓓ through catch Ⓐ and plastic buckle Ⓔ until the loop is flat.

If this adjustment is not sufficient, it might be required to re-fit the posture belt at the fixations.

Fitting the posture belt at the fixations

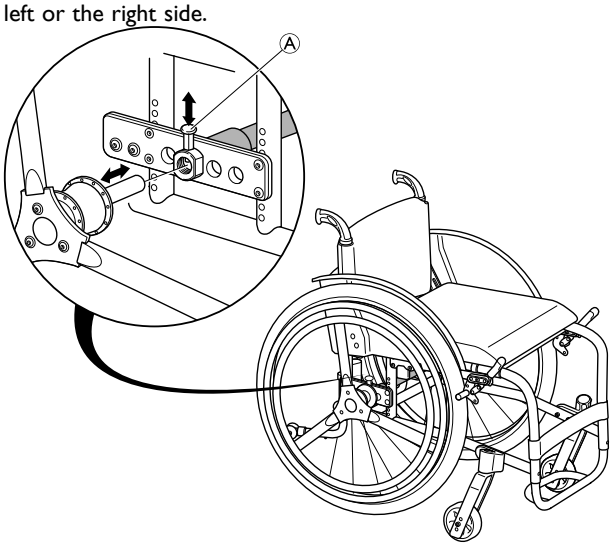
CAUTION!
– Thread the belt loop through both plastic buckles to avoid the belt from loosening.
– Do the adjustments on both sides equally, so that the buckle clasp remains in a central position.
– Make sure that the belts do not get caught in the spokes of a rear wheel.



1. Thread the loop Ⓕ through the fixation on the chair Ⓖ and then through BOTH plastic buckles Ⓗ.

4.2 One arm drive

The quick release one-arm drive allows the user to propel the wheelchair with one hand. Two hand rims are mounted on the same rear wheel. The one-arm drive wheel can be mounted on either the left or the right side.



Detaching the rear wheel

1. Pull the knob Ⓐ and remove the rear wheel from the hub.

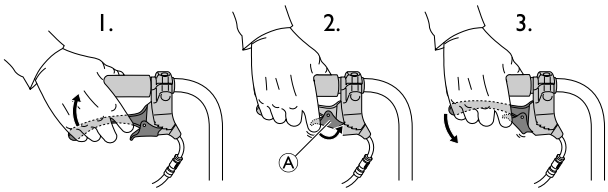
Attaching the rear wheel

1. Pull the knob Ⓐ and push the rear wheel back onto the hub.

WARNING!
Risk of injury
– After attaching the rear wheels, always check that the locking pin has actually locked the rear wheel into position when the knob has been released.
– Take hold of the wheels and try to detach them. This should not be possible.

CAUTION!
Risk of pinching your fingers
– Take care not to trap your fingers between the spokes and the three bars of the outer hand rim.

4.3 Assistant operated drum brakes



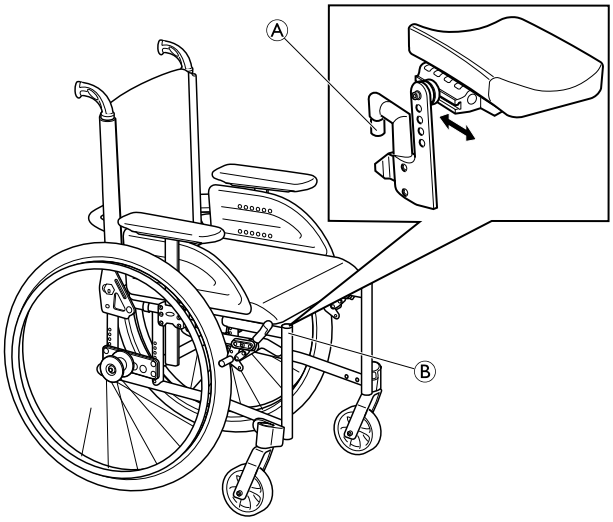
1. **Applying the brakes when moving**
   Pull both brake handles upwards (squeeze the handles) and the brake will be applied.

2. **Locking the brakes**
   Pull the brake handle upwards and move the lock catch Ⓐ upwards. Then release the handle.

3. **Releasing the brakes**
   Pull the handle upwards and the lock catch will release automatically.

WARNING!
Risk of accidents
– Incorrect adjustments or use of the brakes can reduce their performance.

4.4 Amputee legrests

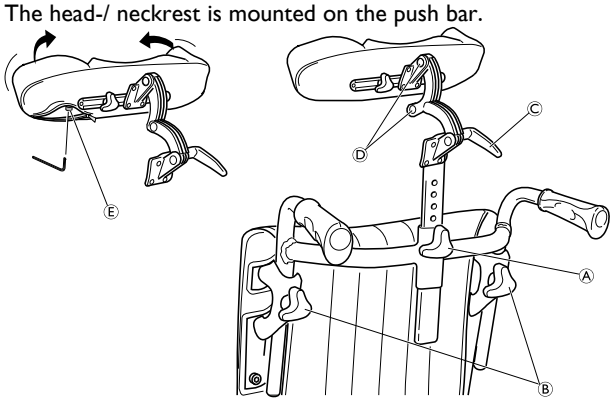


1. Attach the legrests by pushing the tube at the upper part Ⓐ of the legrests down into the tubes Ⓑ on the wheelchair. You must angle the legrests outwards when inserting them.
2. Lock the legrests by turning them inwards.

The legrests are automatically locked so there is no risk of them coming off the wheelchair.

4.5 Head-/ neckrest

The head-/ neckrest is mounted on the push bar.



Adjusting the height

1. Loosen the knobs (Ⓐ and/or Ⓑ) and adjust to desired height.
2. Retighten the knobs again.

Adjusting the angle

1. Loosen the handle Ⓒ and/or the screws Ⓓ and set the desired angle.
2. Retighten the handle and the screws again.

Adjusting the angle of the sides of the headrest

1. Unzip the zip at the bottom of the headrest.
2. Loosen the screw Ⓔ.
3. Set the required angle of the headrest sides.
4. Retighten the screw and close the zip.

WARNING!
Risk of tipping
A head and neckrest may affect the balance of the wheelchair when mounted behind the backrest.
– Check the balance of the wheelchair and adjust the rear wheels backwards for increased stability if necessary.

4.6 Air pump

The air pump is fitted with a universal valve connection.

1. Remove the dust cap from the valve connection.
2. Push the valve connection onto the open valve on the wheel and pump the wheel up.

4.7 Passive illumination

You can attach reflectors to the rear wheels.

5 Setup

5.1 Safety information

CAUTION!
Risk of injury
– Before using the wheelchair, check its general condition and its main functions, 8.2 Maintenance Schedule, page 27.

Your specialist dealer will supply your wheelchair ready for use. Your dealer will explain the main functions and ensure that the wheelchair meets your needs and requirements.

6 Using the wheelchair

6.1 Safety information

WARNING!
Risk of accidents
Uneven tire pressure can have a huge effect on handling.
– Check the tire pressure before each journey.

WARNING!
Risk of falling out of the wheelchair
When using small front wheels the wheelchair could get stuck at curbs or in floor grooves.
– Make sure that the front wheels are suitable for the surface you are driving on.

CAUTION!
Risk of crushing
There may be a very small gap between the rear wheel and the mudguard with the risk that you could trap your fingers.
– Ensure that you always propel your wheelchair using the handrims only.

CAUTION!
Risk of crushing
There may be a very small gap between the rear wheel and the parking brake with the risk that you could trap your fingers.
– Ensure that you always propel your wheelchair using the handrims only.

Theft and metal detection systems

In seldom cases the materials used in the wheelchair may activate theft and metal detection systems.

6.2 Braking during use

Whilst you are moving, you brake by transferring force to the handrim with your hands.

WARNING!
Risk of overturning
If you apply the parking brakes while you are moving, the direction of movement can become uncontrollable and the wheelchair may stop suddenly, which can lead to a collision or to you falling out.
– Never apply the parking brakes while you are moving.

WARNING!
Risk of falling out of the wheelchair
If the wheelchair is rapidly decelerated by an assistant pulling at the push handles, the user may fall out of the wheelchair.
– Always apply the posture belt if present.
– Make sure your assistant has been trained individually in transferring occupied wheelchairs.

CAUTION!
Risk of burning your hands
If you brake for a long time, a lot of frictional heat is produced at the handrims (especially MaxGrepp and Supergripp).
– Wear suitable gloves.

1. Hold the handrims and press evenly with both hands until the wheelchair stops.

6.3 Getting in and out of the wheelchair

WARNING!
Risk of overturning
There is a high risk of overturning during the transfer.
– Only get in and out without assistance if you are physically able to do so.
– When transferring, position yourself as far back as possible in the seat. This will prevent damaged upholstery and the possibility of the wheelchair tipping forward.
– Make sure that both castors are facing straight to the front.

WARNING!
Risk of overturning
The wheelchair could tip forwards if you stand on the footrest.
– Never stand on the footrest when getting in and out.

CAUTION!
If you release or damage the brakes the wheelchair could roll away out of control.
– Do not support yourself on the brakes when getting in and out.

IMPORTANT!
The mudguards and armrests could become damaged.
– Never sit on the mudguards or armrests when getting in and out.

1. Propel the wheelchair as near as possible to the seat that you want to move to.
2. Apply the parking brakes.
3. Remove the armrests or move them upwards out of the way.
4. Detach the legrests or swing them outwards.
5. Place your feet on the ground.
6. Hold the wheelchair and, if necessary, also hold a fixed object in the vicinity.
7. Move slowly to chair.

6.4 Driving and steering the wheelchair

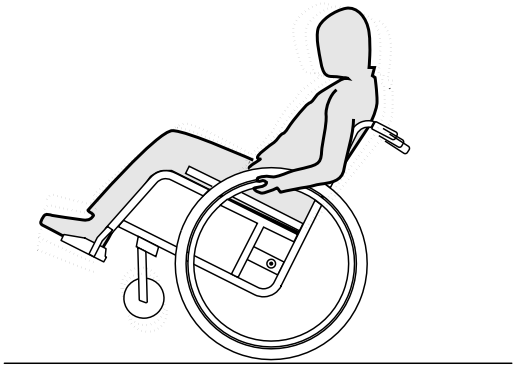
You drive and steer the wheelchair using the handrims.
Before driving without an assistant you must find your wheelchair's tipping point.

WARNING!
Risk of tipping
The wheelchair can tip backwards if it is not fitted with an antitipper. When finding the tipping point, an assistant must stand immediately behind the wheelchair to catch it if it tips over.
– To prevent tipping, install an antitipper device.

WARNING!
Risk of tipping
The wheelchair can tip forwards.
– When setting up your wheelchair, test its behavior in terms of tipping forward and adjust your driving style accordingly.

CAUTION!
A heavy load hanging on the backrest can affect the wheelchair's centre of gravity.
– Change your driving style accordingly.

Finding the tipping point



1. Release the brake.
2. Roll forwards a short distance, grasp both handrims firmly and push forwards with a slight kick.
3. The shift in weight and steering in opposite directions with the handrims will enable you to identify the tipping point.

6.5 Negotiating steps and kerbs

WARNING!
Risk of overturning
When negotiating steps you could lose your balance and tip the wheelchair over.
– Always approach steps and kerbs slowly and carefully.
– Do not go up or down steps that are higher than 25 cm.

CAUTION!
An activated antitipper prevents the wheelchair from tipping backwards.
– Deactivate the antitipper before going up or down steps or kerbs.

With an assistant

Going down a step

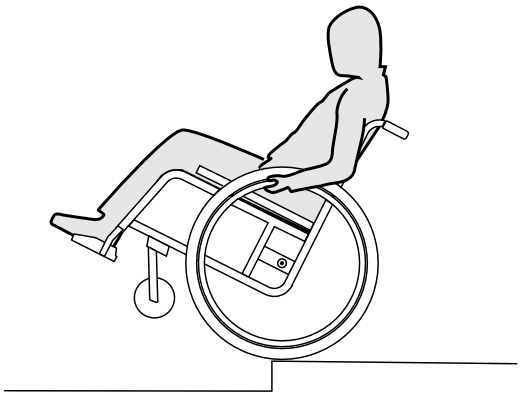
1. Move the wheelchair right up to the kerb and hold the handrims.
2. The assistant should hold both push handles, place one foot on the tipper aid (if installed) and tilt the wheelchair backwards so that the front wheels lift off the ground.
3. The assistant should then hold the wheelchair in this position, push it carefully down the step and then tilt it forwards until the front wheels are back on the ground.

Going up a step

WARNING!
Risk of serious injuries
Going up steps and kerbs frequently can result in earlier than expected fatigue break of the wheelchair backrest. The user might fall out of the wheelchair.
– Always use a tipper aid when going up steps or kerbs.

1. Move the wheelchair backwards until the rear wheels touch the kerb.
2. The assistant should tilt the wheelchair using both push handles so that the front wheels lift off the ground, then pull the rear wheels over the kerb until the front wheels can be placed back on the ground.

Without an assistant



WARNING!
Risk of tipping
When going down a step without an assistant you could tip over backwards if you cannot control your wheelchair.
– First learn how to go down a step with an assistant.
– Learn how to balance on the rear wheels, 6.4 Driving and steering the wheelchair, page 17.

Going down a step

1. Move the wheelchair right to the kerb, lift the front wheels and keep the wheelchair balanced.
2. Now slowly roll both rear wheels over the kerb. While doing this, hold the handrims firmly with both hands until the front wheels are back on the ground.

6.6 Going up and down stairs

WARNING!
Risk of overturning
When negotiating stairs you could lose your balance and overturn your wheelchair.
– Always use two assistants when negotiating stairs with more than one step.

1. You can go up and down stairs by taking them one step at a time, as described above. The first assistant should stand behind the wheelchair holding the push handles. The second assistant should hold a solid part of the front frame to steady the wheelchair from the front.

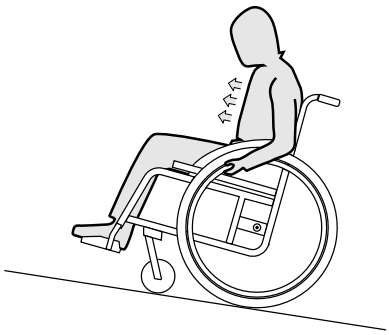
6.7 Negotiating ramps and slopes

WARNING!
Risk due to wheelchair being out of control
When negotiating slopes or gradients your wheelchair could tip backwards, forwards or sideways.
– Always have an assistant behind the wheelchair when approaching long slopes.
– Avoid lateral slopes.
– Avoid slopes of more than 7°.
– Avoid jerking when changing direction on a slope.

CAUTION!
Your wheelchair could run away even on slightly sloping ground if you do not control it using the handrims.
– Use the parking brakes if your wheelchair is stationary on sloping ground.

Going up slopes

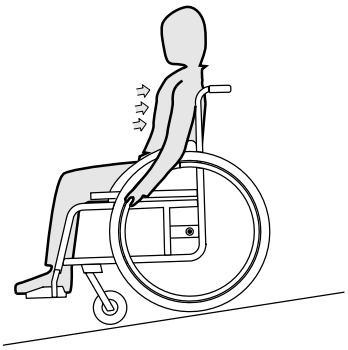
To go up a slope, you must create some momentum, keep up the momentum and control the direction at the same time.



1. Bend your upper body forwards and propel the wheelchair with quick, powerful strokes on both handrims.

Going down slopes

When going down slopes, it is important to control your direction and particularly your speed.



1. Lean back and carefully allow the handrims to run through your hands. You should be able to stop the wheelchair at any time by gripping the handrims.

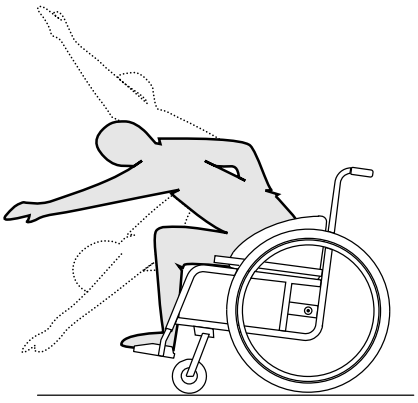
CAUTION!
Risk of burning your hands.
If you brake for a long time, a lot of frictional heat is produced at the handrims (especially MaxGrepp and Supergripp).
– Wear suitable gloves.

6.8 Stability and balance when seated

Some everyday activities and actions require you to lean forwards, sideways or backwards out of the wheelchair. This has a major effect on the wheelchair's stability. To keep your balance at all times, proceed as follows:

Leaning forwards

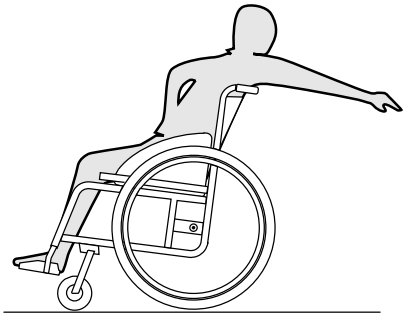
WARNING!
Risk of falling out
If you lean forwards out of the wheelchair you could fall out of it.
– Never bend too far forwards and do not shift forwards in your seat to reach an object.
– Do not bend forwards between your knees to pick up something off the floor.



1. Point the front wheels forwards. (To do this, move your wheelchair forwards slightly then back again.)
2. Apply both parking brakes.
3. When leaning forwards your upper body must remain over the front wheels.

Reaching backwards

WARNING!
Risk of falling out
If you lean too far backwards you could tip your wheelchair over.
– Do not lean out over the backrest.
– Use an antitipper device.



1. Point the front wheels forwards. (To do this, move your wheelchair forwards slightly then back again.)
2. Do not apply the parking brakes.
3. When reaching backwards do not reach so far that you have to change your sitting position.

7 Transport

7.1 Safety information

WARNING!
Risk of injury if the wheelchair is not properly secured
In the event of an accident, braking manoeuvre, etc. you may suffer serious injuries from flying wheelchair parts.
– Always remove the rear wheels when transporting the wheelchair.
– Firmly secure all wheelchair components in the means of transport to prevent them from coming loose during the journey.

IMPORTANT!
Excessive wear and abrasion could affect the strength of load-bearing parts.
– Do not pull your wheelchair across abrasive surfaces without the wheels fitted (e.g. pulling the frame over tarmac).

7.2 Disassemble the wheelchair for transport

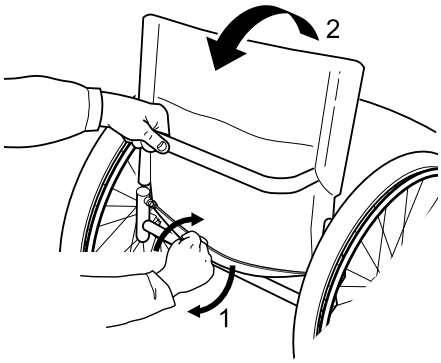
The XLT is easy to transport. Many parts are removable to make the wheelchair smaller and lighter.

1. Remove the armrests/mudguards, see chapter 3.5 Flip-up armrest, page 8 resp. 3.6 Detachable armrest / mudguard, page 9 .
2. Remove the legrests, see chapter 3.7 Swiveling legrests, page 9 .
3. Remove the rear wheels, see chapter 7.5 Removing and fitting the rear wheels, page 22.
4. Fold down the backrest, see chapter 7.3 Folding and unfolding the wheelchair, page 22.

CAUTION!
Risk of getting hurt
The backrest does not have a locking mechanism when folded down.
– Do not lift the wheelchair by grabbing the backrest bar, it may flip up and hurt you.

7.3 Folding and unfolding the wheelchair

The wheelchair has a rigid frame. Nevertheless, the backrest can be folded forwards and fixed there.



Folding the wheelchair

1. Remove the seat cushion, if present.
2. Fold the clothes-guard, if present, inwards against the backrest on both sides.
3. Twist the cord on the back of the wheelchair (1) and fold the backrest forward (2) until it engages.
4. The wheelchair can now be lifted using the backrest brace.

Unfolding the wheelchair

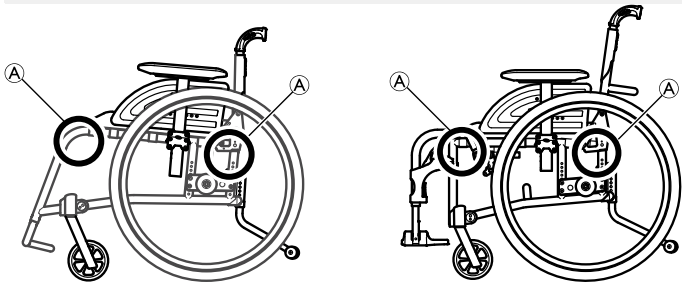
IMPORTANT!
– When unfolding the wheelchair, do not pull the backrest brace without previously releasing the backrest using the cord.
– Check that the backrest is completely engaged on the frame, before you use the wheelchair again.

1. Pull the cord on the backrest of the wheelchair (1).
2. Pull the backrest backwards (2) using the backrest brace, until the backrest tube engages on both sides of the frame.
3. Fold the clothes-guard back into position on both sides.

The model XLT Max does not have a locking function. Just pull the backrest upwards and check that it is fixed in place.

7.4 Lifting the wheelchair

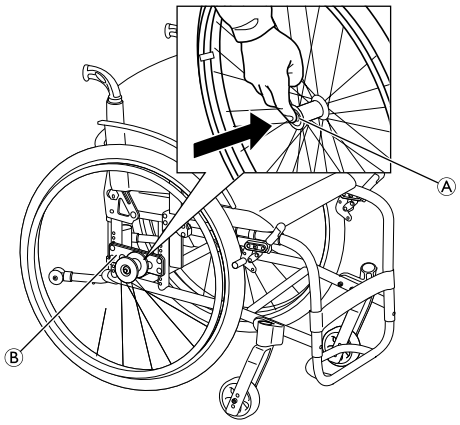
IMPORTANT!
– Never lift the wheelchair by removable parts (armrests, footrests).
– Ensure the backrest posts are securely in place.



1. Fold the wheelchair, see chapter 7.3 Folding and unfolding the wheelchair, page 22.
2. Always lift the wheelchair by gripping the frame at points Ⓐ.

7.5 Removing and fitting the rear wheels

WARNING!
Risk of overturning
If the removable axle of a rear wheel is not fully engaged, the wheel can become loose during use. This can lead to overturning.
– Always ensure that the removable axles are fully engaged whenever you fit a wheel.



Removing the rear wheels

1. Release the brakes.
2. With one hand, hold the wheelchair upright.
3. With the other, hold the wheel through the external spoke rim around the wheel hub.
4. Using your thumb, press the removable axle button Ⓐ. Keep it pressed and pull the wheel out of the adapter sleeve Ⓑ.

Fitting the rear wheels

1. Release the brakes.
2. With one hand, hold the wheelchair upright.
3. With the other, hold the wheel through the external spoke rim around the wheel hub.
4. Using your thumb, press the removable axle button and hold it down.
5. Push the axle into the adapter sleeve Ⓑ up to the stop.
6. Release the removable axle button and make sure that the wheel is secure.

7.6 Transporting the occupied wheelchair in a vehicle

Even when the wheelchair is properly secured and the following rules are met, injuries to passengers may occur in a collision or sudden stop. Therefore Invacare strongly recommends transferring the wheelchair user to the vehicle seat with the seatbelt on. Do not make alterations or substitutions to points of the wheelchair (structure, frame or parts) without the written consent of Invacare. The wheelchair has been successfully tested according to the requirements of ISO 7176–19.

WARNING!
Risk of serious injury or death
To use the wheelchair as a seat in a vehicle the backrest height must be at least 400 mm.

To transport the wheelchair with user in a vehicle, a restraint system must be installed in the vehicle. Wheelchair tie-downs and occupant restraint systems must be approved according to ISO 10542-1. Contact your local Invacare® representative or specialist dealer for more information on getting and installing an approved and compatible restraint system.

WARNING!
If, for some reason, it is impossible to transfer the wheelchair user to a vehicle seat, the wheelchair can be used as a seat in a vehicle if the following procedures and regulations are followed. A transportation kit (optional) has to be fitted on the wheelchair for such a purpose.
– The wheelchair must be secured in the vehicle with a 4-point wheelchair restraint system.
– The user must wear a 3-point passenger restraint system secured to the vehicle.
– The user must be additionally secured with a posture belt in the wheelchair.

WARNING!
Safety restraint devices must only be used when the wheelchair user's weight is 22 kg or more (ISO-7176-19).
– Do not use the wheelchair as a seat in a vehicle when the user weight is lower than 22 kg.

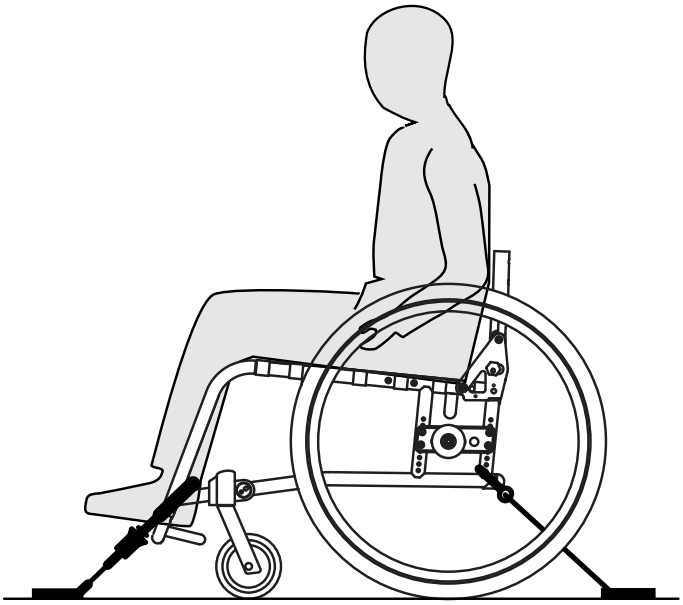
WARNING!
– Before journey contact transporter and request information about the capability for the below required equipment.
– Make sure there is sufficient free space around the wheelchair and user to avoid the user making contact with other vehicle occupants, unpadded parts of the vehicle, wheelchair accessories or anchor points of the restraint system.

WARNING!
– Make sure the tie-down points at the wheelchair are not damaged and that the parking brakes are fully functional.
– It's recommended to use puncture-proof tires during transport to avoid brake problems due to reduced tire pressure.

WARNING!
Injury or damage may occur from wheelchair components or accessories loosened during a collision or sudden stop.
– Ensure all removable or detachable components and accessories are removed from the wheelchair and securely stored in the vehicle.
– It is essential to have your wheelchair checked by a specialist dealer after an accident, collision etc.

IMPORTANT!
It is recommended that training be given on the proper use of a restraint system product.
– Refer to the user manuals supplied with the restraint systems.
– The following illustrations may differ depending on the restraint system supplier.

Securing the wheelchair with a 4-point restraint system

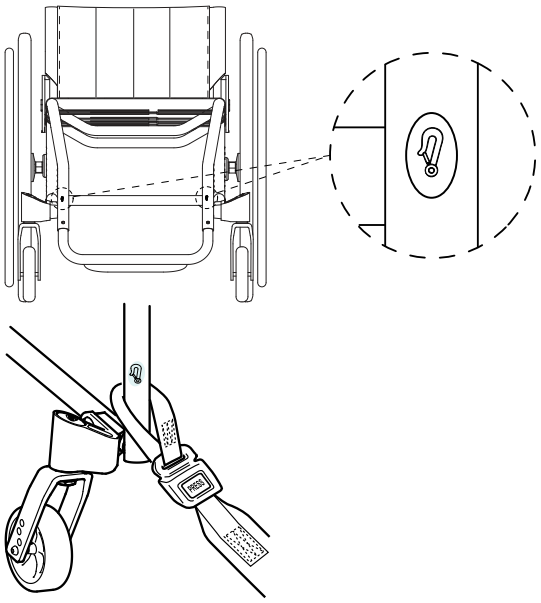


WARNING!
– Place the wheelchair with the user forward-facing in direction of vehicle travel.
– Apply the wheelchair parking brakes.
– Activate antitipper (if installed).

The wheelchair tie-down positions where the restraint system straps must be placed are marked with snap hook symbols (see following figures and section 2.3 Labels and symbols on the product, page 5).

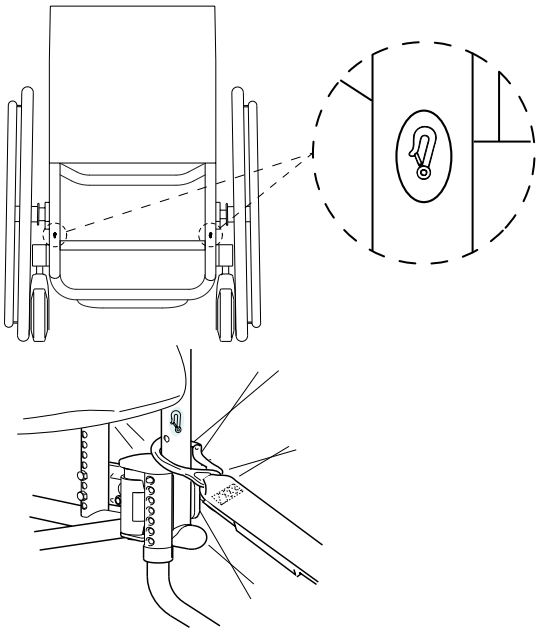
1. Using the front and rear straps of the 4-point restraint system, secure the wheelchair to the vehicle mounted rails. Refer to the user manual supplied with 4-point restraint system.

Front side tie-down positions for belt straps:



1. Attach the front straps above the castor supporters as shown in the two figures above (see location of the attachment labels).
2. Attach front straps to the rail system referring to best practice recommended instructions from the safety belt manufacturer.
3. Release parking brakes and apply tension front straps by pulling the wheelchair backwards from the rear.
4. Re-apply parking brakes.

Rear side tie-down positions for snap hooks:



1. Attach the snap hooks to the rear frame right above the adapter plate as shown in the two figures above (see location of the attachment labels).
2. Attach rear straps to the rail system referring to best practice recommended instructions from the safety belt manufacturer.
3. Tighten the straps.

IMPORTANT!
– Make sure that the snap hooks are covered with slip resistant material to avoid laterally slipping on the axle.

IMPORTANT!
– Check the plungers are fully engaged on both sides and located in the same position of the cut-out section of the rail.
– Make sure that the angle between the rails and the straps lies between 40° and 45°.

Fit posture belt

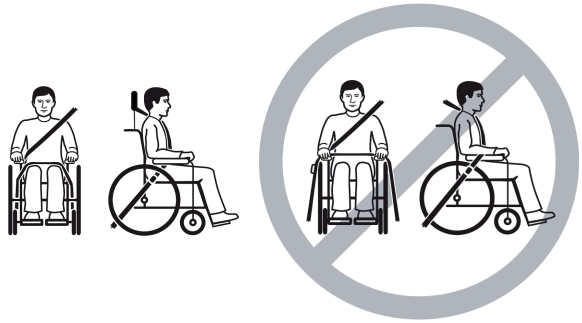
WARNING!
The posture belt must be used in addition to but never as a substitute for an approved passenger restraint system (3-point belt).

1. Adjust posture belt to fit the wheelchair occupant, see section 4.1 Posture belt, page 13.

Fastening the 3-point passenger restraint system

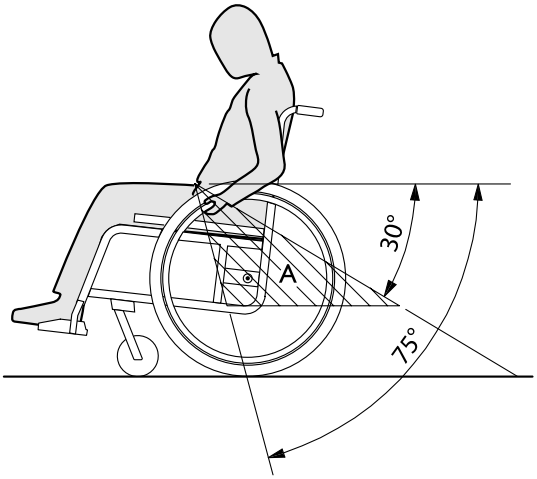
IMPORTANT!
The illustration above may differ depending on the restraint system supplier.

WARNING!
– Ensure the 3-point passenger restraint system fits as tightly across the user's body as possible without discomfort and no part is twisted.
– Ensure the 3-point passenger restraint system is not held away from the user's body by parts of the wheelchair such as armrests or wheels etc.
– Ensure the user restraint has a clear path from the user to the anchor point without interference by any part of the vehicle, wheelchair, seating or accessory.
– Ensure the lap belt fits snugly over the occupant's pelvis and is not allowed to ride up into the abdominal area.
– Ensure the user is able to reach the release mechanism unaided.



1. Attach the 3-point passenger restraint system refering to the user manual supplied with your 3-point restraint system.

IMPORTANT!
– Apply the pelvic belt of the 3-point passenger restraint system low across the pelvis so that the angle of the pelvic belt is within the preferred zone (A) of 30° to 75° to the horizontal. A steeper angle is preferred, but never exceeding 75°.


A
30°
75°

8 Maintenance

8.1 Safety information

WARNING!
Some materials deteriorate naturally over time. This could result in damage to wheelchair components.
– Your wheelchair should be checked by a specialist dealer at least once a year or if it has not been used for a long period.

Your küschall® specialist dealer can provide help in carrying out regular maintenance. To find an authorised specialist dealer near you, contact the küschall® distributor for your country (end of this document).

8.2 Maintenance Schedule

To ensure safe and reliable operation, carry out the following checks and maintenance regularly or have it carried out by another person.

	weekly	monthly	annually
Check the tire pressure	x		
Check that rear wheels are seated correctly	x		
Checking the adjustment of the backrest joint	x		
Check posture belt	x		
Visual check		x	
Clean the front wheels		x	
Check bolts		x	
Check spokes		x	
Check parking brakes		x	
Have wheelchair checked by a specialist dealer			x

Check the tire pressure

1. Check the tire pressure, 3.10 Tires, page 12.
2. Inflate the tires to the required pressure.
3. Check the tire tread at the same time.
4. If necessary, change the tires.

Check that rear wheels are seated correctly

1. Pull on the rear wheel to check that the removable axle is seated correctly. The wheel should not come off.
2. If the rear wheels are not engaged properly, remove any dirt or deposits. If the problem persists, have the removable axles re-fitted by a specialist dealer.

Check the adjustment of the backrest joint

1. Sit into the wheelchair and lean back on the backrest. The backrest must be correctly engaged.
2. Pull the release cord. The pins must be free-moving on both sides. Otherwise, the backrest joint will have to be re-fitted by a specialist dealer.

Check posture belt

1. Check that the posture belt is adjusted correctly.

IMPORTANT!
– Loose posture belts must be adjusted by a specialist dealer.
– Damaged posture belts must be replaced by a specialist dealer.
– Posture belts must always be installed by a specialist dealer.

Visual check

1. Examine your wheelchair for loose parts, cracks or other defects.
2. If you find anything, have your wheelchair checked immediately by a specialist dealer.

Clean the front wheels

1. Check that the front wheels turn freely.
2. Remove any dirt or hair from the front wheel bearings.

Check the bolts

Bolts can work loose through constant use.

1. Check that the bolts are tight (on the footrest, seat cover, sides, backrest, frame, seat module).
2. Tighten any loose bolts with the suitable torque. Therefore refer to the Service Manual, available on the internet at www.kueschall.com.

IMPORTANT!
Safety nuts and bolts lose their effectiveness as a result of repeated loosening and tightening.
– Safety nuts and bolts must be replaced by a specialist dealer.

Check the spoke tension

The spokes should not be loose or distorted.

1. Loose spokes must be tightened by a specialist dealer.
2. Broken spokes must be replaced by a specialist dealer.

Check the parking brakes

1. Check that the parking brakes are positioned correctly. The brake is set correctly if the brake shoe depresses the tire by a few millimeters when the brake is applied.
2. If you find that the setting is not correct, have the brakes correctly set by a specialist dealer.

IMPORTANT!
The parking brakes must be reset after replacing the rear wheels or changing their position.

Checking after a heavy collision or blow

IMPORTANT!
The wheelchair can sustain visibly undetectable damage as a result of a heavy collision or hard blow.
– It is essential to have your wheelchair checked by a specialist dealer after a heavy collision or hard blow.

Repairing or changing an inner tube

1. Remove the rear wheel and release any air from the inner tube.
2. Lift one tire wall away from the rim using a bicycle tire lever. Do not use sharp objects such as a screwdriver which could damage the inner tube.
3. Pull the inner tube out of the tire.
4. Repair the inner tube using a bicycle repair kit or, if necessary, replace the tube.
5. Inflate the tube slightly until it becomes round.
6. Insert the valve into the valve hole on the rim and place the tube inside the tire (the tube should lie right round the tire with no creases).

7. Lift the tire wall over the edge of the rim. Start close to the valve and use a bicycle tire lever. When doing this, check all the way round to ensure that the inner tube is not trapped between the tire and the rim.
8. Inflate the tire to the maximum operating pressure. Check that no air is escaping from the tire.

Spare parts

All spare parts may be obtained from a küschall® specialist dealer. A current list of spare parts is available on the internet at www.kueschall.com.

8.3 Cleaning

Your wheelchair will serve you well for many years if you clean it regularly.

IMPORTANT!
Sand and seawater can damage the bearings and steel parts can rust if the surface is damaged.
– Only expose the wheelchair to sand and seawater for short periods and clean it after every trip to the beach.

IMPORTANT!
– Do not use coarse abrasives, aggressive cleaning products or high-pressure cleaners. Never use acids, alkalines or solvents such as acetone or cellulose thinner.
– Always use ordinary household cleaning agents.

1. Clean the cushions and metal parts with a soft, damp cloth.
2. Dry the wheelchair carefully with a cloth after using it in the rain.
3. If the wheelchair is dirty, wipe off the dirt as soon as possible with a damp cloth and dry it carefully.

Regular cleaning will reveal loose or worn parts and enhance the smooth operation of your wheelchair. To operate properly and safely, your wheelchair must be cared for just like any other vehicle. For upholstery that is severely stained or surface finish that is badly damaged, contact an authorized dealer for further information.

Cleaning upholstery
For cleaning upholstery refer to the instructions on the label on the seat, cushion and backrest cover.

Cleaning metal surfaces
Hot water and mild detergent on soft cloth should be use to cleaning metal surfaces.

1. Wipe down with damp cloth.
2. Dry surface by wiping down with dry cloth.

Car polish and soft wax can be used to remove abrasions and restore gloss.

Cleaning plastic surfaces
Plastic surfaces must be cleaned with soft cloth, mild detergent and hot water.

IMPORTANT!
– Do not use solvents or kitchen cleaners to clean plastic surfaces.

1. Rinse surface with clean water.
2. Dry surface by wiping down with dry cloth.

8.4 Disinfection

The wheelchair may be disinfected by spraying or wiping with tested, approved disinfectants.

The Robert Koch Institute has a list of currently approved disinfectants at *www.rki.de*.

9 Troubleshooting

9.1 Safety information

Faults may arise as a result of daily use, adjustments or changing demands on the wheelchair. The table below shows how to identify and repair faults.

CAUTION!
– Contact your specialist dealer immediately if you notice a fault with your wheelchair, e.g. a significant change in handling.

IMPORTANT!
– Some of the actions listed must be carried out by an authorised specialist dealer. These are indicated. We recommend that *all* adjustments are carried out by a specialist dealer.

9.2 Identifying and repairing faults

Fault	Possible cause	Action
The wheelchair does not travel in a straight line	Incorrect tire pressure on one rear wheel	Correct tire pressure, ® 3.10 Tires, page 12
	One or more spokes broken	Replace faulty spoke(s), ® specialist dealer
	Spokes tightened unevenly	Tighten loose spokes, ® specialist dealer
	Front wheel bearings are dirty or damaged	Clean or replace the bearings, ® specialist dealer
The wheelchair tips backwards too easily	Rear wheels are mounted too far forwards	Mount the rear wheels further back, ® specialist dealer
	Back angle too large	Reduce the backrest angle, ® specialist dealer
The brakes are gripping poorly or asymmetrically	Incorrect tire pressure in one or both rear tires	Correct tire pressure, ® 3.10 Tires, page 12
	Brake setting incorrect	Correct the brake setting, ® specialist dealer
Rolling resistance is very high	Tire pressure in rear tires is too low	Correct tire pressure, ® 3.10 Tires, page 12
	Rear wheels not parallel	Ensure the rear wheels are parallel, ® specialist dealer
The front wheels wobble when moving fast	Too little tension in front wheel bearing block	Tighten the nut on the bearing block axle slightly, ® specialist dealer
	Front wheel has worn smooth	Change front wheel, ® specialist dealer
The front wheel is stiff or stuck	Bearings are dirty or faulty	Clean or replace the bearings, ® specialist dealer

10 After Use

10.1 Storage

IMPORTANT!
Risk of damage to the product
– Do not store the product near heat sources.
– Never store other items on top of the wheelchair.
– Store the wheelchair indoors in a dry environment.
– Refer to section 11.2 Environmental conditions, page 33.

After long-term storage (more than four months) the wheelchair must be inspected in accordance to chapter 8 Maintenance, page 27.

10.2 Re-use

The wheelchair is suitable for re-use. The following actions should be taken:

- Cleaning and disinfection, 8.3 Cleaning, page 28 and 8.4 Disinfection, page 28 in this manual.
- Inspection, 8.2 Maintenance Schedule, page 27 in this manual.
- The wheelchair should be adapted for the new user in accordance with the service documentation (available from the küschall® distributor in your country).

10.3 Disposal

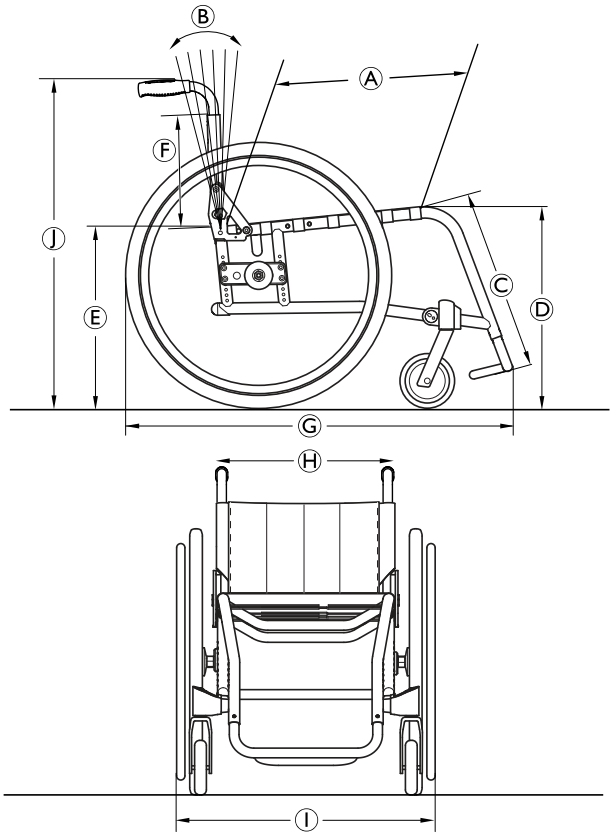
Be environmentally aware and dispose of your wheelchair properly. Disposal is subject to national and local regulations.

For correct disposal, contact your specialist dealer or ask your town or district council about local waste management companies.

11 Technical data

11.1 Dimensions and weight

Dimensions and weight may alter according to different configurations. All dimensions and weight specifications given below reflect the minimum/maximum possible values for the wheelchair.



		XLT Active	XLT Dynamic	XLT Swing	XLT Max
Ⓐ	Seat depth	360 – 500 mm, in increments of 20 mm	360 – 500 mm, in increments of 20 mm	360 – 500 mm, in increments of 20 mm	500/550/600 mm, in increments of 20 mm
Ⓑ	Backrest angle	90° ± 10°	90° ± 10°	90° ± 10°	90° ± 10°
	Seat plane angle	0° – 14°	0° – 14°	0° – 14°	0° – 14°
Ⓒ	Knee-to-heel length	380 – 505 mm, in increments of 10 mm	355 – 485	280 – 510	380 – 480 mm, in increments of 10 mm
	Leg to seat surface angle	105° – 105°	90° – 90°	90° – 200°	90° – 200°
Ⓓ	Seat height front	400 – 520 mm, in increments of 10 mm	400 – 500 mm, in increments of 10 mm	390 – 520 mm, in increments of 10 mm	440 – 520 mm, in increments of 10 mm
Ⓔ	Seat height rear	380 – 500 mm, in increments of 10 mm	380 – 480 mm, in increments of 10 mm	370 – 500 mm, in increments of 10 mm	420 – 500 mm, in increments of 10 mm
Ⓕ	Backrest height	200 – 350 / 300 – 490 mm, in increments of 15 mm	200 – 350 / 300 – 490 mm, in increments of 15 mm	200 – 350 / 300 – 490 mm, in increments of 15 mm	400 – 490 mm, in increments of 15 mm
Ⓖ	Overall length with leg rests	830 – 1030 mm	830 – 1030 mm	830 – 1030 mm	930 – 1080 mm
Ⓗ	Effective seat width	355 – 480 mm, in increments of 25 mm	355 – 480 mm, in increments of 25 mm	330 – 505 mm, in increments of 25 mm	505/555/605 mm, in increments of 25 mm
Ⓘ	Overall width *	555 – 680 mm	555 – 680 mm	530 – 705 mm	715/765/815 mm
Ⓙ	Overall height	610 – 1050 mm	610 – 1050 mm	610 – 1050 mm	790 – 1100 mm
	Armrest to seat height	210 – 310 mm	210 – 310 mm	210 – 310 mm	210 – 310 mm
	Front location of armrest structure	330 – 430 mm	330 – 430 mm	330 – 430 mm	330 – 430 mm
	Hand rim diameter	445 – 585 mm	445 – 585 mm	445 – 585 mm	445 – 585 mm
	Horizontal location of axle (3 positions, also depending on seat angle)	+90 – (–65) mm	+90 – (–65) mm	+90 – (–65) mm	+90 – (–65) mm
	Total weight	9.8 kg	9.8 kg	11.3 kg	21 kg
	Transport weight (without rear wheels)	6 kg	6 kg	6 kg	13.3 kg
	Weight of the heaviest part	6 kg	6 kg	6 kg	13.3 kg
	Maximum user weight	135 kg	135 kg	135 kg	180 kg
	Minimum turning radius	550 – 700 mm	450 – 550 mm	540 – 900 mm	710 mm
	Maximum slope angle brake	7°	7°	7°	7°
	Static stability downhill Static stability uphill Static stability sideways	n/a 1° – 15° n/a	n/a 1° – 15° n/a	n/a 1° – 15° n/a	11° – 20° 7° – 10° 19°

11.2 Environmental conditions

Do not expose the wheelchair to temperatures below -20 °C or above 40 °C.

11.3 Materials

The components used to manufacture küschall® wheelchairs consist of following materials:

Frame tubes / Backrest tubes	Aluminium / Titanium[1)] / Carbon Fiber[1)]
Seat cover / Backrest cover	PA / PE / PVC
Push handle	Steel / Aluminium / TPE
Clothes guard / Mudguard	Plastic or Carbon Fiber[1)]
Supporting parts / Attachments	Steel / Aluminium / Titanium[1)]

Screws and bolts	Steel
Castors	Aluminium

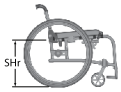
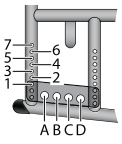
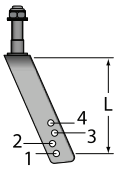
[1)] Not all küschall® wheelchair models can be built in Carbon Fiber and/or Titanium.

All components have either a protective coating or are corrosion resistant.

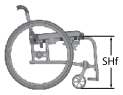
12 Service

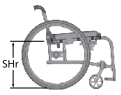
12.1 Seat height tables

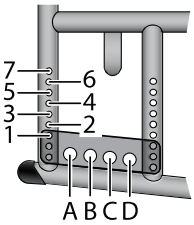
XLT Active

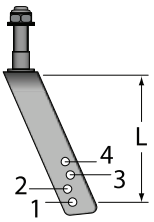
				
SHf	SHr	L=75	L=110	L=150	[mm]
	1 2 3 4 5 6 *				
22”					
40	- - - 40 39 38	2			75 (3”)
41	41 40 39 38	1			75 (3”)
41	41 40 39 38	2			100 (4”)
42	41–42 40 39 38	1			100 (4”)
43	43 41–42 40 39 38		2		75 (3”)
43	43 41–42 40 39 38		4		125 (5”)
43	43 41–42 40 39 38		3		100 (4”)
43	43 41–42 40 39 38	1			125 (5”)
44	44 43 41–42 40 39 38		4		140 (5.5”)
44	44 43 41–42 40 39 38		1		75 (3”)
44	44 43 41–42 40 39 38		3		125 (5”)
44	44 43 41–42 40 39 38		2		100 (4”)
45	44 43 41–42 40 39 38		3		140 (5.5”)
45	44 43 41–42 40 39 38		1		100 (4”)
45	44 43 41–42 40 39 38		2		125 (5”)
45	44 43 41–42 40 39 38		3		150 (6”)
46	44 43 41–42 40 39 38		2		140 (5.5”)
47	44 43 41–42 40 39 38		1		125 (5”)
47	44 43 41–42 40 39 38		2		150 (6”)
47	44 43 41–42 40 39 38			2	75 (3”)
47	44 43 41–42 40 39 38			3	100 (4”)
47	44 43 41–42 40 39 38			4	125 (5”)
47	44 43 41–42 40 39		1		140 (5.5”)
48	44 43 41–42 40 39			4	140 (5.5”)
48	44 43 41–42 40 39		1		150 (6”)
48	44 43 41–42 40 39		2		180 (7”)
48	44 43 41–42 40			1	75 (3”)
48	44 43 41–42 40			2	100 (4”)
48	44 43 41–42 40			3	125 (5”)
48	44 43 41–42 40			4	150 (6”)
49	44 43 41–42 40			3	140 (5.5”)
49	44 43 41–42 40		1		180 (7”)
49	44 43 41–42			1	100 (4”)
50	44 43 41–42			2	125 (5”)

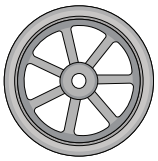
50	44	43	41–42							3	150 (6”)
50	44	43								4	180 (7”)
50	44	43								2	140 (5.5”)
51	44	43								1	125 (5”)
51	44	43								2	150 (6”)
51	44	43								3	180 (7”)
51	44	43								1	140 (5.5”)
52	44	44								1	150 (6”)
52	44	44								2	180 (7”)
* Not applicable											







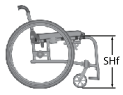


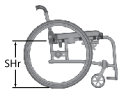


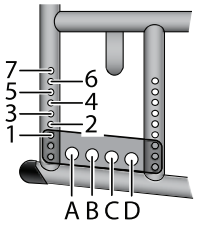
SHf	SHr							L=75	L=1 10	L=1 50	[mm]
	1	2	3	4	5	6	*				
24”/25” Low profile											
40						40		2			75 (3”)
41					41	40		1			75 (3”)
41					41	40		2			100 (4”)
42					41–42	40		1			100 (4”)
43				43	41–42	40			2		75 (3”)
43				43	41–42	40			4		125 (5”)
43				43	41–42	40			3		100 (4”)
43				43	41–42	40		1			125 (5”)
44				43	41–42	40			4		140 (5.5”)
44				43	41–42	40			1		75 (3”)
44			44	43	41–42	40			3		125 (5”)
44			44	43	41–42	40			2		100 (4”)
45		45	44	43	41–42	40			3		140 (5.5”)
45		45	44	43	41–42	40			1		100 (4”)
45		45	44	43	41–42	40			2		125 (5”)
45		45	44	43	41–42	40			3		150 (6”)
46	46	45	44	43	41–42	40			2		140 (5.5”)
47	46–47	45	44	43	41–42	40			1		125 (5”)
47	46–47	45	44	43	41–42	40			2		150 (6”)
47	46–47	45	44	43	41–42	40				2	75 (3”)
47	46–47	45	44	43	41–42	40				3	100 (4”)
47	46–47	45	44	43	41–42	40				4	125 (5”)
47	46–47	45	44	43	41–42	40			1		140 (5.5”)
48	46–47	45	44	43	41–42	40				4	140 (5.5”)
48	46–47	45	44	43	41–42	40			1		150 (6”)

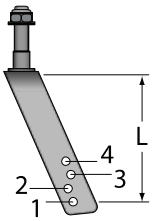
48	46–47	45	44	43	41–42	40	*D1–4 (SD40)		2		180 (7”)
48	46–47	45	44	43	41–42	40				1	75 (3”)
48	46–47	45	44	43	41–42	40				2	100 (4”)
48	46–47	45	44	43	41–42	40				3	125 (5”)
48	46–47	45	44	43	41–42	40				4	150 (6”)
49	46–47	45	44	43	41–42	40				3	140 (5.5”)
49	46–47	45	44	43	41–42	40			1		180 (7”)
49	46–47	45	44	43	41–42					1	100 (4”)
50	46–47	45	44	43	41–42					2	125 (5”)
50	46–47	45	44	43	41–42					3	150 (6”)
50	46–47	45	44	43	41–42					4	180 (7”)
50	46–47	45	44	43	41–42					2	140 (5.5”)
51	46–47	45	44	43	41–42					1	125 (5”)
51	46–47	45	44	43	41–42					2	150 (6”)
51	46–47	45	44	43	41–42		*D1–5 (SD40)			3	180 (7”)
51	46–47	45	44	43						1	140 (5.5”)
52	46–47	45	44	43						1	150 (6”)
52	46–47	45	44	43			*D1–3 (SD40)			2	180 (7”)

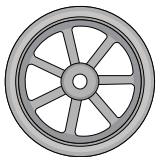
* Not applicable / SD = seat depth









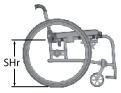


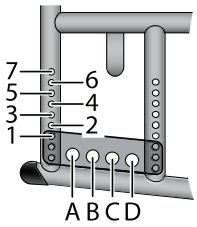
SHf	SHr							L=75	L=110	L=150	[mm]
	1	2	3	4	5	6	*				
26” Low profile											
41						41		1			75 (3”)
41						41		2			100 (4”)
42					42	41		1			100 (4”)
43					42–43	41			2		75 (3”)
43					42–43	41			4		125 (5”)
43					42–43	41			3		100 (4”)
43					42–43	41		1			125 (5”)
44				44	42–43	41			4		140 (5.5”)
44				44	42–43	41			1		75 (3”)
44				44	42–43	41			3		125 (5”)
44				44	42–43	41			2		100 (4”)
45			45	44	42–43	41			3		140 (5.5”)
45			45	44	42–43	41			1		100 (4”)
45			45	44	42–43	41			2		125 (5”)
45			45	44	42–43	41	*D4 (SD40)		3		150 (6”)
46		46	45	44	42–43	41			2		140 (5.5”)
47	47	46	45	44	42–43	41			1		125 (5”)

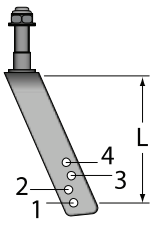
47	47	46	45	44	42–43	41	*D2 (SD40)		2		150 (6”)
47	47	46	45	44	42–43	41				2	75 (3”)
47	47	46	45	44	42–43	41				3	100 (4”)
47	47	46	45	44	42–43	41				4	125 (5”)
47	47	46	45	44	42–43	41			1		140 (5.5”)
48	47–48	46	45	44	42–43	41				4	140 (5.5”)
48	47–48	46	45	44	42–43	41	*D2 (SD40)		1		150 (6”)
48	47–48	46	45	44	42–43	41	*D2–6 (SD40)		2		180 (7”)
48	47–48	46	45	44	42–43	41				1	75 (3”)
48	47–48	46	45	44	42–43	41				2	100 (4”)
48	47–48	46	45	44	42–43	41				3	125 (5”)
48	47–48	46	45	44	42–43	41				4	150 (6”)
49	47–48	46	45	44	42–43	41				3	140 (5.5”)
49	47–48	46	45	44	42–43	41	*C1, D1–6 (SD40)		1		180 (7”)
49	47–48	46	45	44	42–43	41				1	100 (4”)
50	47–48	46	45	44	42–43	41				2	125 (5”)
50	47–48	46	45	44	42–43	41	*D1 (SD40)			3	150 (6”)
50	47–48	46	45	44	42–43	41	*D1–6 (SD40)			4	180 (7”)
50	47–48	46	45	44	42–43	41				2	140 (5.5”)
51	47–48	46	45	44	42–43	41				1	125 (5”)
51	47–48	46	45	44	42–43	41				2	150 (6”)
51	47–48	46	45	44	42–43	41	*D1–6 (SD40)			3	180 (7”)
51	47–48	46	45	44	42–43	41				1	140 (5.5”)
52	47–48	46	45	44	42–43					1	150 (6”)
52	47–48	46	45	44	42–43		*D1–6 (SD40)			2	180 (7”)

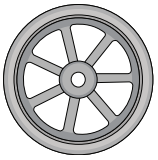
* Not applicable / SD = seat depth

XLT Dynamic





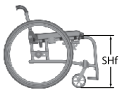


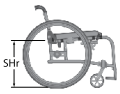


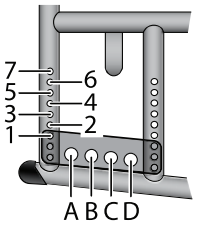
SHf	SHr							L=75	L=110	L=150	[mm]
	1	2	3	4	5	6	*				
22”											
39					39	38		2			75 (3”)
40				40	39	38		1			75 (3”)
41				40	39	38		2			100 (4”)
42			41–42	40	39	38		1			100 (4”)
43		43	41–42	40	39	38			2		75 (3”)
43		43	41–42	40	39	38			4		125 (5”)

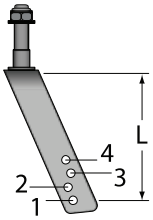
43		43	41–42	40	39	38			3		100 (4")
43		43	41–42	40	39	38	*D3(SD40)	1			125 (5")
44		43	41–42	40	39	38			1		75 (3")
44		43	41–42	40	39	38	*D2(SD40)		3		125 (5")
44	44	43	41–42	40	39	38			2		100 (4")
45	44	43	41–42	40	39	38			1		100 (4")
45	44	43	41–42	40	39	38	*D1 (SD40)		2		125 (5")
46	44	43	41–42	40			*D1 (SD40)		1		125 (5")
47	44	43	41–42	40						2	75 (3")
47	44	43	41–42	40						3	100 (4")
47	44	43	41–42							4	125 (5")
48	44	43	41–42							1	75 (3")
48	44	43	41–42							2	100 (4")
48	44	43	41–42							3	125 (5")
49	44	43	41–42							1	100 (4")
49	44	43	41–42							2	125 (5")
50	44	43								1	125 (5")
24"/25" Low profile											
40						40		1			75 (3")
41						40		2			100 (4")
42					41–42	40		1			100 (4")
43				43	41–42	40	*D5 (SD40)		2		75 (3")
43				43	41–42	40	*D1–6 (SD40)		4		125 (5")
43				43	41–42	40	*D5 (SD40)		3		100 (4")
43				43	41–42	40	*D1–6 (SD40)	1			125 (5")
44			44	43	41–42	40	*D4–5 (SD40)		1		75 (3")
44			44	43	41–42	40	*D1–6 (SD40)		3		125 (5")
44			44	43	41–42	40	*D4 (SD40)		2		100 (4")
45		45	44	43	41–42	40	*D3–4 (SD40)		1		100 (4")
45		45	44	43	41–42	40	*D3–6 (SD40)		2		125 (5")
46	46	45	44	43	41–42	40	*D2–6 (SD40)		1		125 (5")
47	46–47	45	44	43	41–42	40	*D2–4 (SD40)			2	75 (3")
47	46–47	45	44	43	41–42	40	*D2–4 (SD40)			3	100 (4")
47	46–47	45	44	43	41–42	40	*D2–5 (SD40)			4	125 (5")
48	46–47	45	44	43	41–42	40	*D1–4 (SD40)			1	75 (3")
48	46–47	45	44	43	41–42	40	*D1–4 (SD40)			2	100 (4")

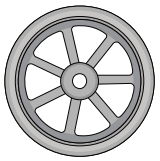
48	46–47	45	44	43	41–42	40	*D1–5 (SD40)			3	125 (5”)
49	46–47	45	44	43	41–42		*D1–4 (SD40)			1	100 (4”)
49	46–47	45	44	43	41–42		*D1–4 (SD40)			2	125 (5”)
50	46–47	45	44	43			*D1–6 (SD40)			1	125 (5”)
* Not applicable / SD = seat depth											





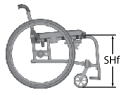


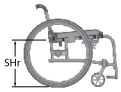


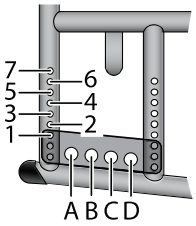


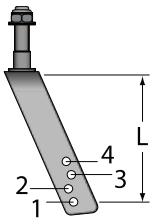
SHf	SHr							L=75	L=110	L=150	[mm]
	1	2	3	4	5	6	*				
26” Low profile											
42						41	*D1–6 (SD40)	1			100 (4”)
43					42–43	41	*D1–6 (SD40)		2		75 (3”)
43					42–43	41	*D1–6 (SD40)		4		125 (5”)
43					42–43	41	*D1–6 (SD40)		3		100 (4”)
43					42–43	41	*D1–6 (SD40)	1			125 (5”)
44				44	42–43	41	*D1–6 (SD40)		1		75 (3”)
44					42–43	41	*D1–6 (SD40)		3		125 (5”)
44				44	42–43	41	*D1–6 (SD40)		2		100 (4”)
45			45	44	42–43	41	*D1–6 (SD40)		1		100 (4”)
45			45	44	42–43	41	*D1–6 (SD40)		2		125 (5”)
46		46	45	44	42–43	41	*D1–6 (SD40)		1		125 (5”)
47	47	46	45	44	42–43	41	*D1–6 (SD40)			2	75 (3”)
47	47	46	45	44	42–43	41	*D1–6 (SD40)			3	100 (4”)
47	47	46	45	44	42–43	41	*D1–6 (SD40)			4	125 (5”)
48	47–48	46	45	44	42–43	41	*D1–6 (SD40)			1	75 (3”)
48	47–48	46	45	44	42–43	41	*D1–6 (SD40)			2	100 (4”)
48	47–48	46	45	44	42–43	41	*D1–6 (SD40)			3	125 (5”)
49	47–48	46	45	44	42–43	41	*D1–6 (SD40)			1	100 (4”)
49	47–48	46	45	44	42–43	41	*D1–6 (SD40)			2	125 (5”)
50	47–48	46	45	44	42–43		*D1–6 (SD40)			1	125 (5”)
* Not applicable / SD = seat depth											

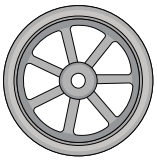
XLT Swing





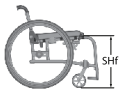


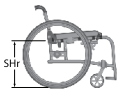


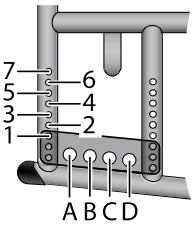


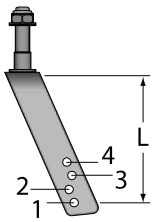
SHf	SHr							L=75	L=110	L=150	[mm]
	1	2	3	4	5	6	*				
22”											
39					39	38		2			75 (3”)
40				40	39	38		1			75 (3”)
41			41	40	39	38		2			100 (4”)
42			41–42	40	39	38		1			100 (4”)
43		43	41–42	40	39	38			2		75 (3”)
43		43	41–42	40	39	38			4		125 (5”)
43		43	41–42	40	39	38			3		100 (4”)
43		43	41–42	40	39	38		1			125 (5”)
44		43	41–42	40	39	38			4		140 (5.5”)
44		43	41–42	40	39	38			1		75 (3”)
44		43	41–42	40	39	38			3		125 (5”)
44		43	41–42	40	39	38			2		100 (4”)
45	44	43	41–42	40	39	38	*D1–2 (SD40)		3		140 (5.5”)
45	44	43	41–42	40	39	38			1		100 (4”)
45	44	43	41–42	40	39	38			2		125 (5”)
45	44	43	41–42	40	39	38	*D1–4 (SD40)		3		150 (6”)
46	44	43	41–42	40	39				2		140 (5.5”)
47	44	43	41–42	40	39				1		125 (5”)
47	44	43	41–42	40	39		*D1–2 (SD40)		2		150 (6”)
47	44	43	41–42	40	39					2	75 (3”)
47	44	43	41–42	40	39					3	100 (4”)
47	44	43	41–42	40	39					4	125 (5”)
47	44	43	41–42	40			*D1–2 (SD40)		1		140 (5.5”)
48	44	43	41–42	40			*D1–2 (SD40)			4	140 (5.5”)
48	44	43	41–42	40			*D1–3 (SD40)		1		150 (6”)
48	44	43	41–42	40			*D1–6 (SD40)		2		180 (7”)
48	44	43	41–42	40						1	75 (3”)
48	44	43	41–42	40						2	100 (4”)
48	44	43	41–42	40						3	125 (5”)
48	44	43	41–42	40			*D1–2 (SD40)			4	150 (6”)
48	44	43	41–42							3	140 (5.5”)
49	44	43	41–42				*C1–2, D1–6 (SD40) + D1–2 (SD45)		1		180 (7”)
49	44	43	41–42							1	100 (4”)
50	44	43	41–42							2	125 (5”)

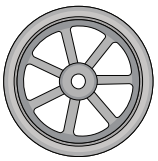
50	44	43	41–42				*D1–2 (SD40)			3	150 (6”)
50	44	43	41–42				*D1–6 (SD40)			4	180 (7”)
50	44	43								2	140 (5.5”)
51	44	43								1	125 (5”)
51	44	43								2	150 (6”)
51	44	43					*C1, D1–6 (SD40) + D1 (SD45)			3	180 (7”)
51	44									1	140 (5.5”)
52	44						*D1–6 (SD40)			1	150 (6”)
52	44						*D1–6 (SD40)			2	180 (7”)
* Not applicable / SD = seat depth											





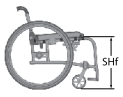


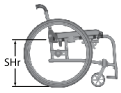


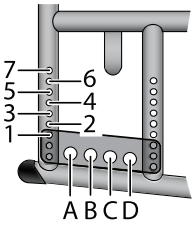


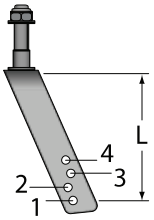
SHf	SHr							L=75	L=110	L=150	[mm]
	1	2	3	4	5	6	*				
24”/25” Low profile											
40						40		2			75 (3”)
41					41	40		1			75 (3”)
41					41	40		2			100 (4”)
42					41–42	40		1			100 (4”)
43				43	41–42	40			2		75 (3”)
43				43	41–42	40			4		125 (5”)
43				43	41–42	40			3		100 (4”)
43				43	41–42	40		1			125 (5”)
44			44	43	41–42	40	*D4–6 (SD40)		4		140 (5.5”)
44			44	43	41–42	40			1		75 (3”)
44			44	43	41–42	40			3		125 (5”)
44			44	43	41–42	40			2		100 (4”)
45		45	44	43	41–42	40	*D3–6 (SD40)		3		140 (5.5”)
45		45	44	43	41–42	40			1		100 (4”)
45		45	44	43	41–42	40			2		125 (5”)
45		45	44	43	41–42	40	*D1–6 (SD40)		3		150 (6”)
46	46	45	44	43	41–42	40	*D2–5 (SD40)		2		140 (5.5”)
47	46	45	44	43	41–42	40	*D1 (SD40)		1		125 (5”)
47	46	45	44	43	41–42	40	*D2–6 (SD40)		2		150 (6”)
47	46	45	44	43	41–42	40				2	75 (3”)
47	46	45	44	43	41–42	40				3	100 (4”)
47	46	45	44	43	41–42	40				4	125 (5”)
47	46	45	44	43	41–42	40	*D1–5 (SD40)		1		140 (5.5”)
48	46	45	44	43	41–42	40	*D1–4 (SD40)			4	140 (5.5”)
48	46	45	44	43	41–42	40			1		150 (6”)

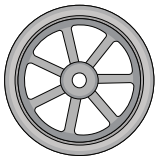
48	46	45	44	43	41–42	40			2		180 (7”)
48	46	45	44	43	41–42	40				1	75 (3”)
48	46	45	44	43	41–42	40				2	100 (4”)
48	46	45	44	43	41–42	40				3	125 (5”)
48	46	45	44	43	41–42	40	*D1–6 (SD40)			4	150 (6”)
49	46	45	44	43	41–42		*D1–4 (SD40)			3	140 (5.5”)
49	46	45	44	43	41–42				1		180 (7”)
49	46	45	44	43	41–42					1	100 (4”)
50	46	45	44	43	41–42					2	125 (5”)
50	46	45	44	43	41–42		*D1–6 (SD40)			3	150 (6”)
50	46	45	44	43			*C1–7, D1–6 (SD40) + D1–6 (SD45)			4	180 (7”)
50	46	45	44	43			*D1–3 (SD40)			2	140 (5.5”)
51	46	45	44	43						1	125 (5”)
51	46	45	44	43			*D1–6 (SD40)			2	150 (6”)
51	46	45	44	43			*C1–6, D1–6 (SD40) + D1–6 (SD45)			3	180 (7”)
51	46	45	44				*D1–3 (SD40)			1	140 (5.5”)
52	46	45	44				*D1–6 (SD40)			1	150 (6”)
52	46	45	44				*C1–6, D1–6 (SD40) + D1–6 (SD45)			2	180 (7”)
* Not applicable / SD = seat depth											







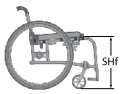
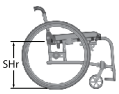
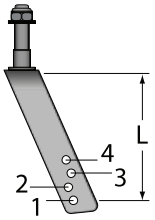
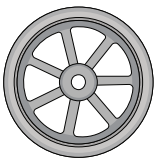




SHf	SHr							L=75	L=110	L=150	[mm]
	1	2	3	4	5	6	*				
26” Low profile											
41						41		1			75 (3”)
41						41		2			100 (4”)
42					42	41		1			100 (4”)
43					42–43	41			2		75 (3”)
43					42–43	41			4		125 (5”)
43					42–43	41			3		100 (4”)
43					42–43	41	*D6 (SD40)	1			125 (5”)
44				44	42–43	41	*D1–6 (SD40)		4		140 (5.5”)
44					42–43	41			1		75 (3”)
44				44	42–43	41	*D5–6 (SD40)		3		125 (5”)
44				44	42–43	41			2		100 (4”)
45			45	44	42–43	41	*D1–6 (SD40)		3		140 (5.5”)
45			45	44	42–43	41	*D4 (SD40)		1		100 (4”)
45			45	44	42–43	41	*D4 (SD40)		2		125 (5”)

45			45	44	42–43	41	*C4–5, D1–6 (SD40) + D4–5 (SD45)		3		150 (6”)
46		46	45	44	42–43	41	*D1–6 (SD40)		2		140 (5.5”)
47	47	46	45	44	42–43	41	*D2–4 (SD40)		1		125 (5”)
47	47	46	45	44	42–43	41	*C2–3, D1–6 (SD40) + D2–3 (SD45)		2		150 (6”)
47	47	46	45	44	42–43	41				2	75 (3”)
47	47	46	45	44	42–43	41	*D2–3 (SD40)			3	100 (4”)
47	47	46	45	44	42–43	41	*D2–3 (SD40)			4	125 (5”)
47	47	46	45	44	42–43	41	*D1–6 (SD40)		1		140 (5.5”)
48	47	46	45	44	42–43	41	*D1–6 (SD40)			4	140 (5.5”)
48	47	46	45	44	42–43	41	*C2–3, D1–6 (SD40) + D2–3 (SD45)		1		150 (6”)
48	47	46	45	44	42–43	41	*B2, C1–6, D1–6 (SD40) + D1–6 (SD45)		2		180 (7”)
48	47	46	45	44	42–43	41				1	75 (3”)
48	47	46	45	44	42–43	41	*D2–3 (SD40)			2	100 (4”)
48	47	46	45	44	42–43	41	*D2–3 (SD40)			3	125 (5”)
48	47	46	45	44	42–43	41	*D1–6 (SD40) + D2 (SD45)			4	150 (6”)
49	47	46	45	44	42–43	41	*D1–6 (SD40)			3	140 (5.5”)
49	47	46	45	44	42–43	41	*B1–4, C1–3, D1–6 (SD40) + C1–2, D1–6 (SD45)		1		180 (7”)
49	47	46	45	44	42–43	41	*D1–2 (SD40)			1	100 (4”)
50	47	46	45	44	42–43	41	*D1–2 (SD40)			2	125 (5”)
50	47	46	45	44	42–43	41	*C1–3, D1–6 (SD40) + D1–3 (SD45)			3	150 (6”)
50	47	46	45	44	42–43	41	*B1, C1–7, D1–7 (SD40) + D1–6 (SD45)			4	180 (7”)
50	47	46	45	44	42–43		*D1–6 (SD40)			2	140 (5.5”)
51	47	46	45	44	42–43		*D1–2 (SD40)			1	125 (5”)
51	47	46	45	44	42–43		*C1, D1–6 (SD40) + D1 (SD45)			2	150 (6”)
51	47	46	45	44	42–43		*B1–2, C1–6, D1–6 (SD40) + C1–2, D1–6 (SD45)			3	180 (7”)
51	47	46	45	44			*D1–6 (SD40)			1	140 (5.5”)
52	47	46	45	44			*C1, D1–6 (SD40) + D1 (SD45)			1	150 (6”)
52	47	46	45	44			*C1–6, D1–6 (SD40) + D1–6 (SD45)			2	180 (7”)
* Not applicable / SD = seat depth											

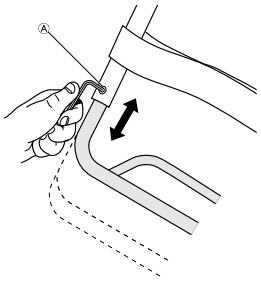
XLT Max

				
SHf	SHr	L=110	L=150	[mm]

	A1	A2	B1	B2	C1	C2	*			
26" Low profile										
44	*	*	44	43–42	41	40		4	*	75 (3")
45	*	45	44	43–42	41	40		3	*	100 (4")
46	*	45	44	43–42	41	40		3	*	100 (4")
47	46	45	44–43	42	41	40		2	*	75 (3")
47	46	45	44–43	42	41	40		2	*	125 (5")
48	46	45	44–43	42	41	40		1	*	100 (4")
48	46	45	44–43	42	41	40–39		1	*	125 (5")
48	46	45	44–43	42	41	40–39		2	*	140 (5.5")
49	46	45	44–43	42	41	40–39		*	4	75 (3")
49	46	45	44–43	42	41–40	39		*	3	125 (5")
49	46	45	44–43	42	41–40	39		1	*	100 (4")
50	46	45–44	43	42	41–40	39		*	3	140 (5.5")
50	46	45–44	43	42	41–40	39		*	4	100 (4")
50	46	45–44	43	42	41–40	39		*	2	125 (5")
51	46	45–44	43	42	41–40	39		*	2	150 (6")
51	46	45–44	43	42	41–40	39		*	3	140 (5.5")
51	46	45–44	43	42	41–40	*		*	1	125 (5")
52	46	45–44	43	42	41–40	*		*	1	150 (6")
52	46	45–44	43	42–41	41	*		*	2	75 (3")
* Not applicable / SD = seat depth										

12.2 Adjusting the footbow

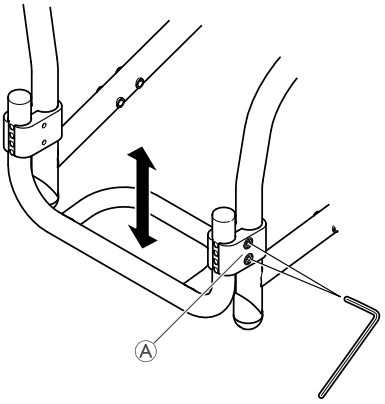
Standard footbow



Difficulty: ●○○ Tools: 4 mm Allen key / 10 mm fixed spanner

1. Remove the screw Ⓐ on both sides.
2. Adjust the footbow to the correct height.
3. Retighten the screws and adjust the calf-strap.

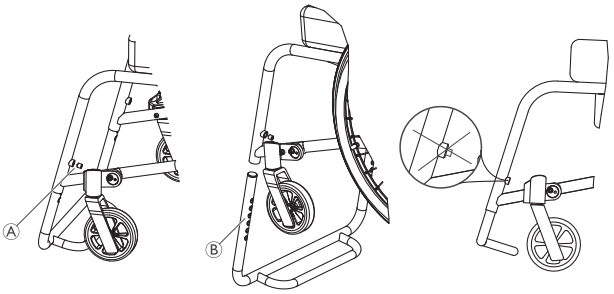
High-mounted footbow



Difficulty: ●○○ Tools: 5 mm Allen key

1. Loosen the screws Ⓐ on both sides.
2. Adjust the clamp and footbow to the correct height.
3. Retighten the screws and adjust the calf-strap.

Footbow XLT Max



Difficulty: ●○○ Tools: 5 mm Allen key

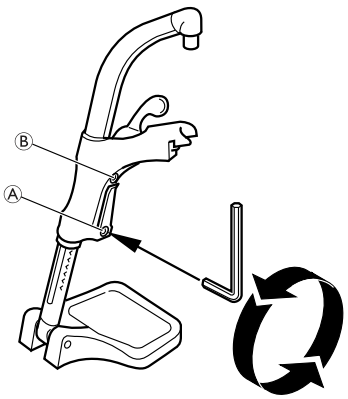
1. Loosen the screws Ⓐ on both sides.
2. Adjust the footbow to the correct height using one of the six holes Ⓑ in the footbow tube.
3. Retighten the screws and adjust the calf-strap.

WARNING!
Risk of injury
The footbow can fall out if the screws are not tightened properly.
– Make sure that both screws are positioned in the holes on the tube.

WARNING!
Risk of catching the ground
– The distance between the lowest part of the footrest and the floor or ground must be at least 40 mm.

CAUTION!
– Make sure that the screws do not protrude out of the casing.

12.3 Adjusting the fixed legrests



Difficulty: ●○○ Tools: 5 mm Allen key

Height adjustment

Do not adjust the upper screw Ⓑ.

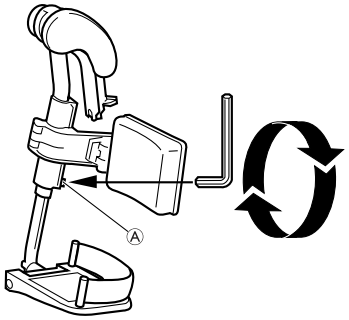
1. Loosen the screw Ⓐ.

When adjusting the height a clicking sound will occur. One ”click” is one step in height.

2. Pull the legrest until you have obtained the correct height and the screw is caught by one of the recesses on the legrest tube.
3.
4. Retighten the screw.

WARNING!
Risk of catching the ground
– The distance between the lowest part of the footrest and the floor or ground must be at least 40 mm.

12.4 Adjusting the angle adjustable legrests



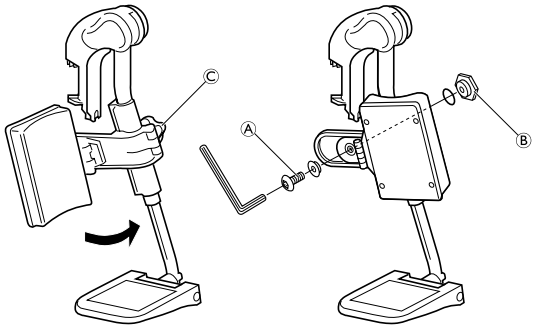
Difficulty: ●○○ Tools: 5 mm Allen key

Height adjustment

1. Loosen the screw Ⓐ.
2. Adjust the legrest into a suitable height and the screw is caught by one of the recesses on the legrest tube.
3.
4. Retighten the screw.

WARNING!
Risk of catching the ground
– The distance between the lowest part of the footrest and the floor or ground must be at least 40 mm.

12.5 Adjusting the calf pads



Difficulty: ●○○ Tools: 5 mm Allen key

Depth adjustment

The calf pads can be fitted in two different depth positions.

1. Swing the pad forwards.
2. Remove the screw Ⓐ.
3. Remove the large nut Ⓑ on the reverse side and place it in the other attachment hole.
4. Move the calf pad to the new position and secure it into place with the screw.

Height adjustment

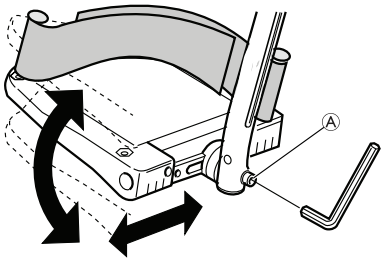
The height of the calf pad can easily be adjusted using the knob screw Ⓒ.

WARNING!
Risk of catching the ground
– The distance between the lowest part of the footrest and the floor or ground must be at least 40 mm.

Angle adjustment

See chapter 3.7 Swiveling legrests, page 9 .

12.6 Adjusting the depth and angle adjustable footplates



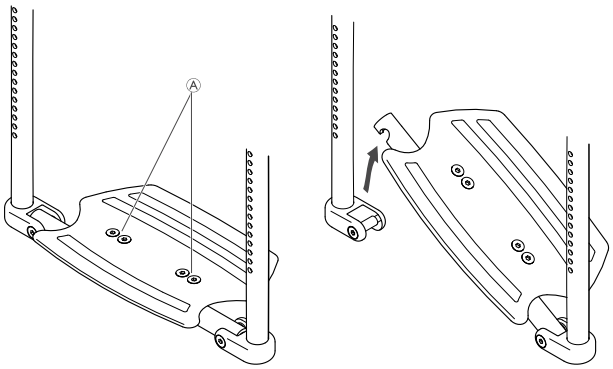
Difficulty: ●○○ Tools: 5 mm Allen key

Angle and the depth adjustment

1. Loosen the screw Ⓐ at the footplate attachment.
2. Adjust the footplate to the correct position and retighten the screw.

IMPORTANT!
– Do not place anything on the footplate when the screws have been loosened.

12.7 Adjusting the one-piece footrest



Difficulty: ●○○ Tools: 4 mm Allen key / 10 mm fixed spanner

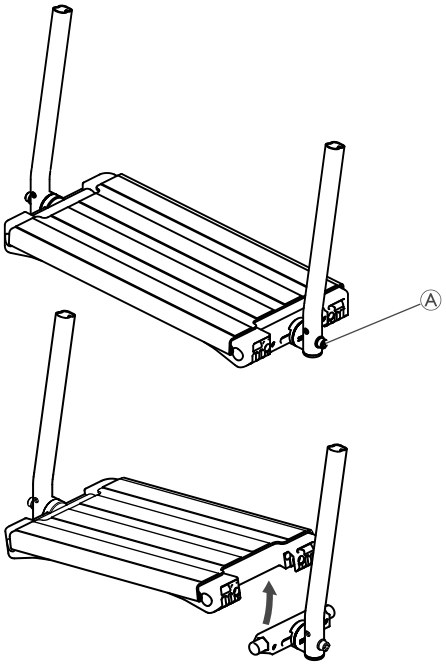
Angle adjustment

1. Loosen the four screws Ⓐ at the footplate attachment.
2. Adjust the footplate to the correct position and retighten the screw.

The footrest can be flipped up. Lift the right side of the footrest upwards.

CAUTION!
– Be careful not to trap your fingers between the footrest and the receiver when you fold down the footrest.

12.8 Adjusting one-piece footrests (XLT Swing)



Difficulty: ●○○ Tools: 5 mm Allen key

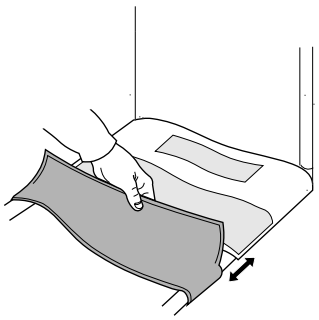
Angle adjustment

1. Loosen the two screws Ⓐ at the footplate attachment.
2. Adjust the footplate to the correct position and retighten the screw.

The footrest can be flipped up. Lift the right side of the footrest upwards.

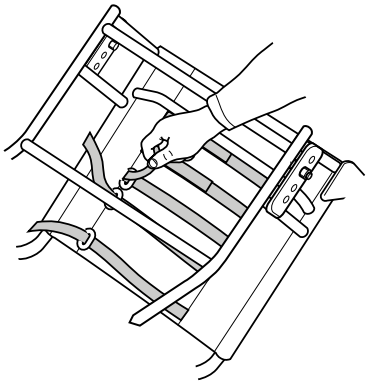
CAUTION!
– Be careful not to trap your fingers between the footrest and the receiver when you fold down the footrest.

12.9 Adjusting the seat



Seat depth adjustment

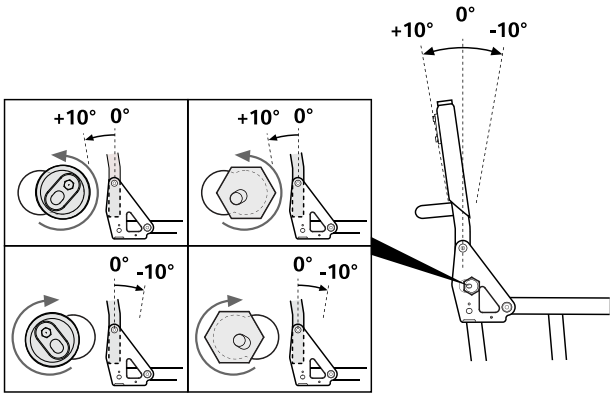
1. Lift up the front part, slide into required depth.



Seat shape adjustment

1. Use the straps underneath the seat to adjust the shape of the seat.

12.10 Adjusting the backrest

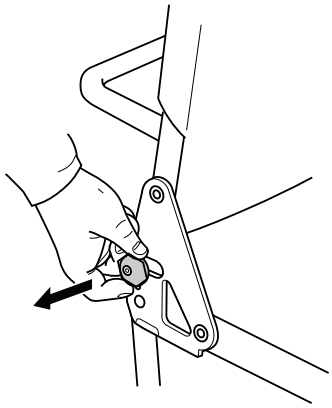


Difficulty: ●●●

Tools: 4 mm Allen key / 10 mm fixed spanner
5 mm Allen key / 24 mm fixed spanner

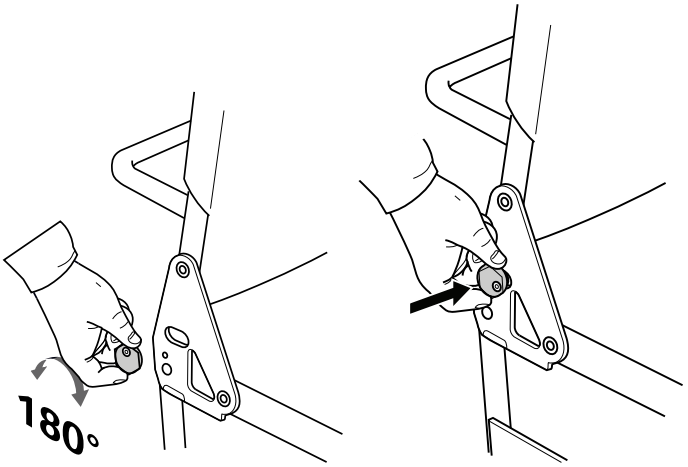
The backrest can be mounted in two different positions, each with the possibility to change the angle of the backrest. The angle is stepless variable by ±10 degrees.

Tilting forwards



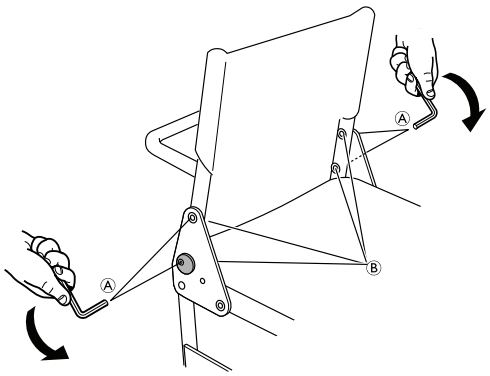
1. Loosen the socket cap screw on the eccentric plate.
2. Hold the inner nut firmly in place with the fixed spanner.
3. Position the eccentric plate in the position furthest back (as in the illustration above).
4. Adjust the angle to maximum –10°.
5. Hold the nut steady from the inside and retighten the socket cap screw using the Allen key.

Tilting backwards

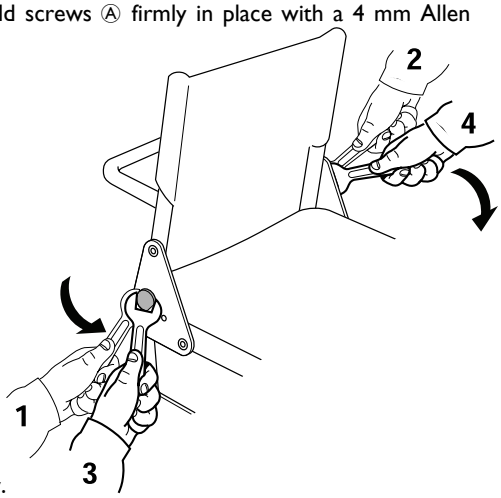


1. Loosen the socket cap screw on the eccentric plate and rotate by 180°.
2. Hold the inner nut firmly in place with the fixed spanner.
3. Position the eccentric plate in the position furthest forwards (as in the illustration above).
4. Adjust the angle to maximum –10°.
5. Hold the nut steady from the inside and retighten the socket cap screw using the Allen key.

Angle adjustment, fine adjustments



1. Loosen the four nuts Ⓑ on the inside of the backrest tubes 1- 2 turns with a 10 mm fixed spanner.
2. Hold screws Ⓐ firmly in place with a 4 mm Allen key.



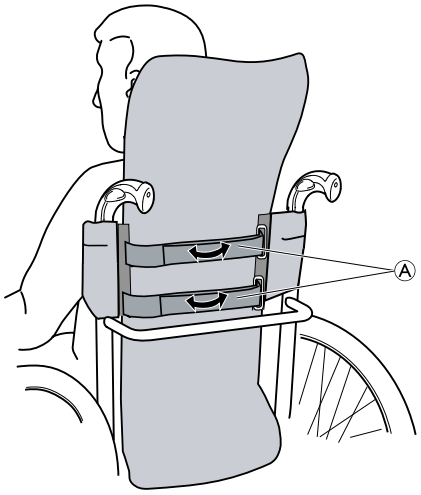
3. Using a 24 mm fixed spanner, turn the plates – a little at a time, first on one side of the chair, then on the other side.
   For XLT Max: Using a 5 mm Allen key, turn the plates – a little at a time, first on one side of the chair, then on the other side.

ℹ By this alternating procedure, you can adjust the tilt of the backrest. You must alternate between the two plates whenever you turn them, otherwise, the backrest could become twisted, and its ergonomic advantages will be lost.

4. Once you have found the right position, retighten the nuts Ⓑ on the inside, while holding the screws Ⓐ firmly in place with the Allen key.

⚠ **WARNING!**
Risk of tipping
The risk of tipping increases the further the backrest is tilted to the back.
– We always recommend the use of antitippers.

Adjusting the shape



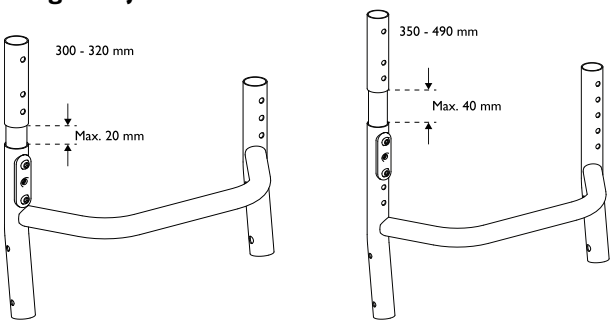
1. Adjust the shape of the backrest by adjusting the Velcro straps.

ℹ The user must be seated in the chair when the Velcro straps are adjusted.

2. When adjustment is complete fold the backcloth back into position and secure it with the Velcro straps.

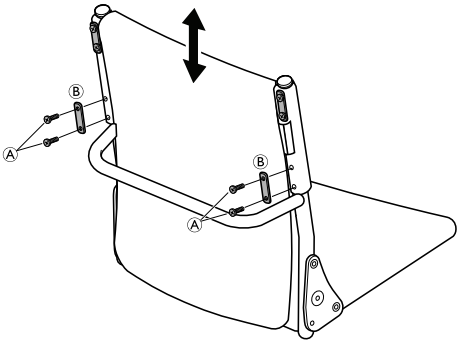
⚠ **WARNING!**
Risk of tipping
When you loosen the backrest, the risk of tipping increases.
– We always recommend the use of antitippers.

Height adjustment



A backrest extension can be used for adjustable backrest heights and to obtain heights over 350 mm. Two different extenders are available, one for heights 300-320 mm and one for heights 350-490 mm.

! **IMPORTANT!**
– Observe that the extenders may not be raised more than 20 or 40 mm.

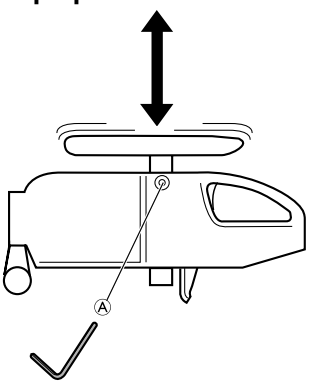


Difficulty: ●○○ Tools: 4 mm Allen key

1. Loosen and remove screws Ⓐ and the plastic brackets Ⓑ on the back of the back support.
2. Adjust the backrest extension to the desired height.
3. Refit the plastic brackets and screws.

12.11 Adjusting the armrests / mudguards

Flip-up armrests

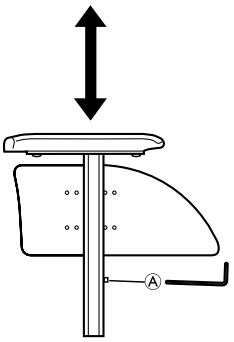


Difficulty: ●○○ Tools: 5 mm Allen key

1. Loosen the screw Ⓐ.
2. Move the armrest into the required position.
3. Retighten the screw.

⚠ **CAUTION!**
Risk of pinching your fingers
– When adjusting the height, do not place your fingers between armrest pad and sideplate as they may get trapped.

Detachable armrests

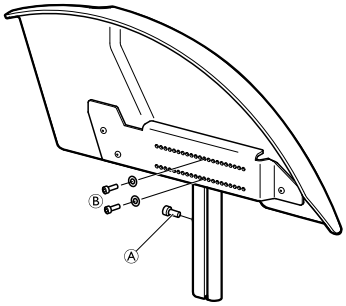


Difficulty: ●○○ Tools: 5 mm Allen key

1. Pull up the armrest.
2. Loosen the screw Ⓐ under the armrest.
3. Move the screw up or down into the required position.
4. Retighten the screw and lower the armrest.

CAUTION!
Risk of pinching your fingers
– When adjusting the height do not place your fingers between seat tube and side plate as they may get trapped.

Mudguards



Difficulty: ●○○ Tools: 5 mm and 3 mm Allen key

Height adjustment

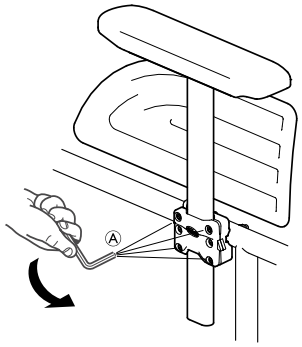
1. Pull the mudguard out of it's attachment.
2. Loosen screw Ⓒ.
3. Move the screw up or down into the required position.
4. Retighten the screw and insert the mudguard again in it's attachment.

CAUTION!
Risk of pinching your fingers
– When adjusting the height do not place your fingers between seat tube and side plate as they may get trapped.

Depth adjustment

1. Unscrew screws and washers Ⓑ.
2. Move the mudguard into the required position.
3. Retighten screws with washers.

Adjusting the play of the support



Difficulty: ●○○ Tools: 5 mm

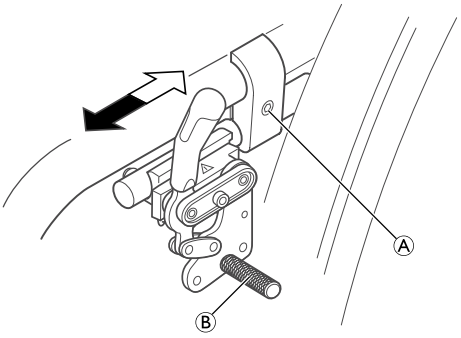
The armrests and mudguards are equipped with adjustable supports that enables you to reduce the play when pulling up or pushing down the tubes.

1. Tighten or loosen the screws Ⓐ in the four corners as needed.

IMPORTANT!
– Take care not to loosen the two middle screws. These attach the supports to the frame.

CAUTION!
Risk of pinching your fingers
– Take care that your fingers do not get caught between armrest/mudguard and tire.

12.12 Adjusting the parking brakes



Difficulty: ●○○ Tools: 5 mm Allen key

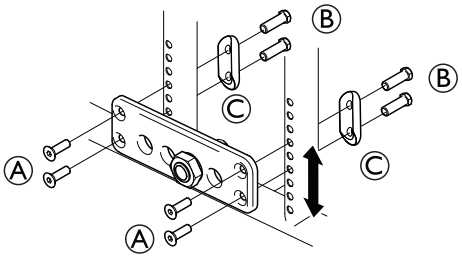
1. Check that the tires are inflated to the correct pressure as indicated on the side of the tire.
2. Loosen the screw Ⓐ and slide the brake and brake attachment to the desired position.
3. Retighten the screw.

IMPORTANT!
Incorrect adjustments or use of the parking brakes can reduce their performance.
– Make sure that the distance between the brake pin Ⓑ and the tire, when the brake is disengaged, is approx. 15 mm. The brake pin must be in a horizontal position.

12.13 Adjusting the rear wheel attachment

By changing the position of the rear wheel on the rear wheel attachment you can alter both the rear seat height and the manoeuvrability/stability of the wheelchair. The further forward the rear wheel is positioned, the more manoeuvrable your chair becomes, but with reduced stability. For seat heights and positions, please refer to the seat height tables.

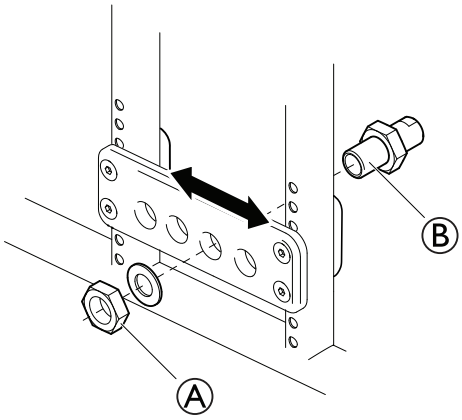
Adjusting the height



Difficulty: ●○○ Tools: 4 mm Allen key / 10 mm fixed spanner

1. Hold screws Ⓐ in place and loosen the nuts Ⓑ and the fixation supports Ⓒ (if present).
2. Choose the new position and re-fasten screws, nuts and fixation supports.

Adjusting the rear wheel position



Difficulty: ●○○ Tools: 24 mm fixed spanner

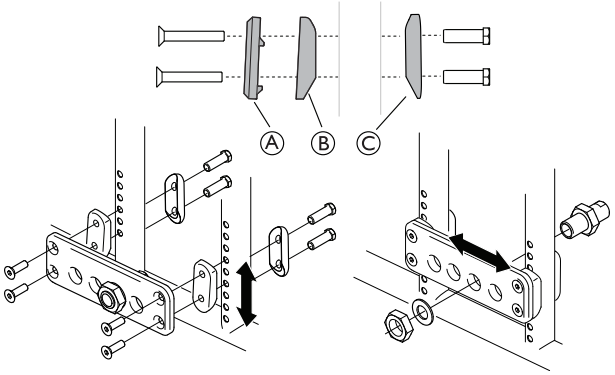
1. Remove the nut Ⓐ with the washer.
2. Move the axle housing Ⓑ to the required position.
3. Re-fasten the nut with the washer.

WARNING!
Safety risk
The risk of tipping increases if the rear wheels axle is located in font of the backrest.
– Use antitippers.

WARNING!
Safety risk
– Always adjust the parking brakes, when the rear wheel position has been changed.

WARNING!
Safety risk
– When you have fitted the wheels in the correct position, it is important that you check thoroughly that the nuts and screws are tightened securely. The axle housing should be tightened with a manual and dynamometric wrench calibrated to 40 Nm.

Adjusting the wheel camber

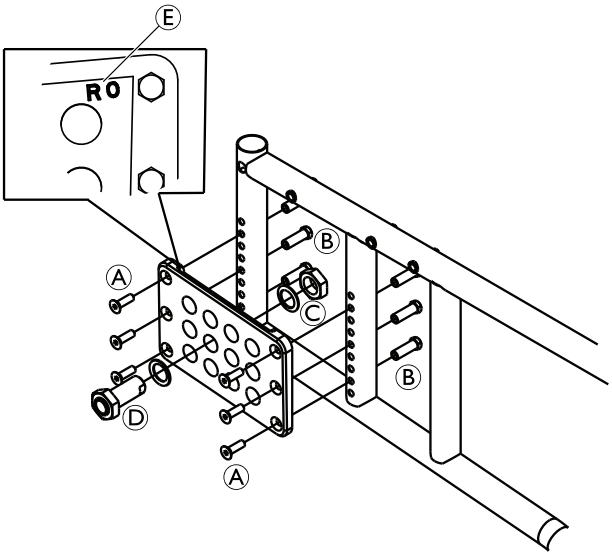


The cambered rear wheel plate is mounted and adjusted in the same way as the original rear wheel plate with camber blocks between rear wheel plate and frame, see above.

IMPORTANT!
– Make sure that the rib Ⓐ on the rear wheel plate, the chamfer Ⓑ on the camber block and on the fixation support Ⓒ (if present) is placed downwards.

12.14 Adjusting the rear wheel attachment (XLT Max)

By changing the position of the rear wheel on the rear wheel attachment you can alter both the rear seat height and the manoeuvrability/stability of the wheelchair. The further forward the rear wheel is positioned, the more manoeuvrable your chair becomes, but with reduced stability. For seat heights and positions, please refer to the seat height tables.



Adjusting the height

Difficulty: ●○○ Tools: 4 mm Allen key / 10 mm fixed spanner

1. Hold screws Ⓐ in place and loosen nuts Ⓑ.
2. Choose the new position and re-fasten screws and nuts.

Adjusting the rear wheel position

Difficulty: ●○○ Tools: 24 mm fixed spanner

1. Remove the nut Ⓒ.
2. Move the axle housing Ⓓ to the required position.
3. Re-fasten the nut.

Adjusting the wheel camber

The rear wheel camber can be adjusted to 0° or 2°. See the markings Ⓔ on the inside of the rear wheel plates. R0 stands for "right side, 0°". The marking with the desired camber should be placed in the back upper corner of the rear wheel plate.

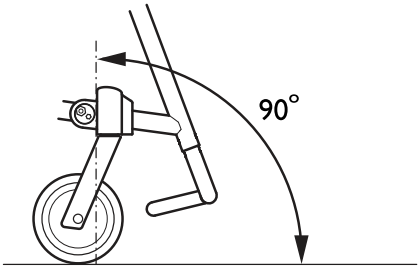
1. Hold screws Ⓐ in place and loosen nuts Ⓑ.
2. Turn the rear wheel fixation plate to the desired camber.
3. Reinsert and tighten the screws and nuts.

WARNING!
Safety risk
The risk of tipping increases if the rear wheels axle is located in font of the backrest.
– Use antitippers.

WARNING!
Safety risk
– Always adjust the parking brakes, when the rear wheel position has been changed.

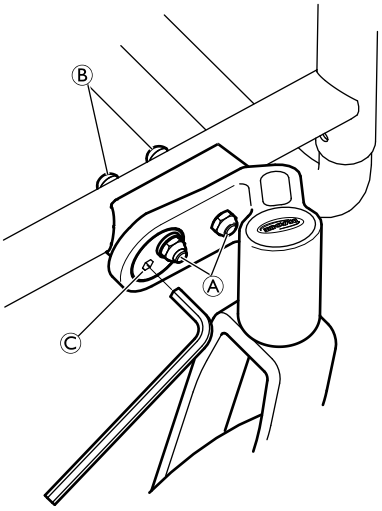
WARNING!
Safety risk
– When you have fitted the wheels in the correct position, it is important that you check thoroughly that the nuts and screws are tightened securely. The axle housing should be tightened with a manual and dynamometric wrench calibrated to 40 Nm.

12.15 Adjusting the castor wheels



The manoeuverability of the wheelchair is very much dependent on the castors and their position relative to the ground surface. The angle between the castor housing and the ground should be exactly 90 degrees.

Adjusting the castor angle



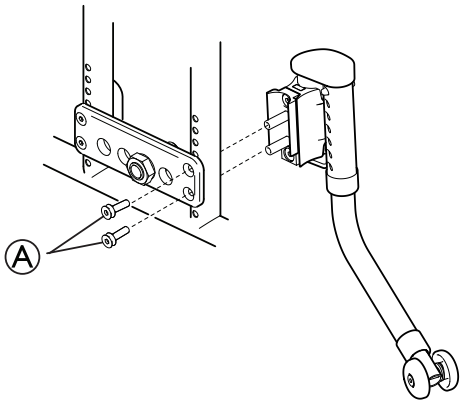
Difficulty: ●●● Tools: 4 mm and 5 mm Allen keys / 10 mm fixed spanner

1. Loosen nuts Ⓐ with 1-2 turns with the fixed spanner, while holding screws Ⓑ firmly in place with the 4 mm Allen key.
2. Adjust the castor housing to the desired angle by inserting the 5 mm Allen key in the hexagon hole Ⓒ and turning it to the desired angle.
3. Retighten the nuts.

WARNING!
Risk of accidents
– Check that the castor is securely fitted after replacement.

12.16 Mounting the antitippers

Standard antitipper

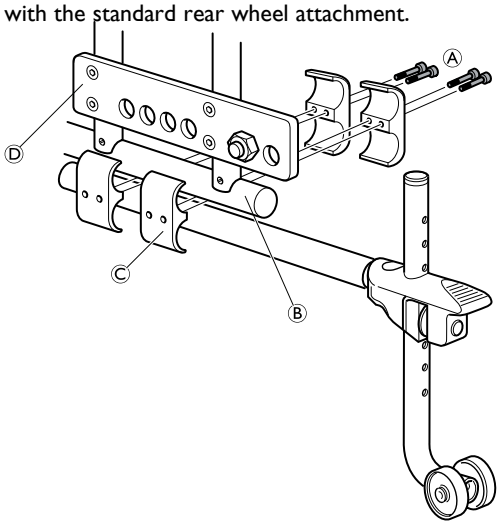


Difficulty: ●○○ Tools: 4 mm Allen key

1. Remove the rear screws Ⓐ and nuts on the rear wheel attachment.
2. Insert the antitipper in the holes in the rear part of the chassis.
3. Fit the antitipper on the screws and tighten.

Extended antitipper

The extended antitipper also acts as a step tube. It is height adjustable and easy to adjust. This extended anti-tip device is primarily used when an extended rear wheel attachment is used. It can also be used with the standard rear wheel attachment.



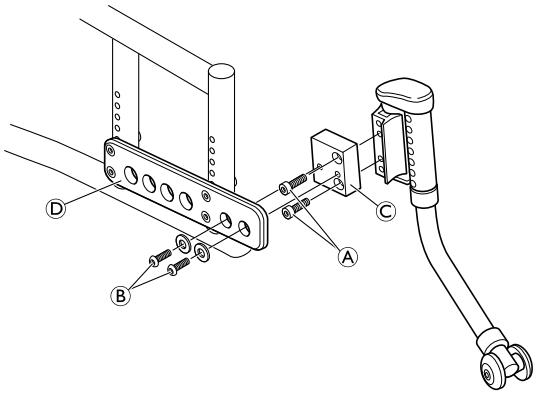
Difficulty: ●○○ Tools: 5 mm Allen key

1. Attach the antitipper to the frame tube Ⓑ with brackets Ⓒ and screws Ⓐ.

The rear wheel attachment Ⓓ cannot be mounted in the lowest position when the extended antitipper is used.

IMPORTANT!
– The distance between the antitipper wheel and the ground, and the distance between the antitipper wheel and rear wheel, must be approx. 50 mm both.

One arm drive antitipper



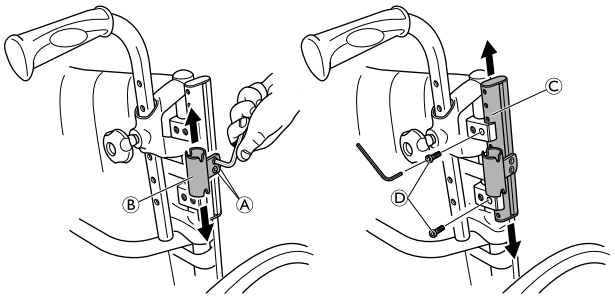
Difficulty: ●○○ Tools: 4 mm and 5 mm Allen key

1. Attach the adapter plate Ⓒ to the antitipper with the screws Ⓐ.
2. Attach the antitipper with adapter plate to the rear wheel attachment Ⓓ with the screws and washers Ⓑ.

12.17 Adjusting the trunk support

The trunk support can be swung away or lifted out of its holder. The height, depth and sideways positions are easy to adjust.

Adjusting the height



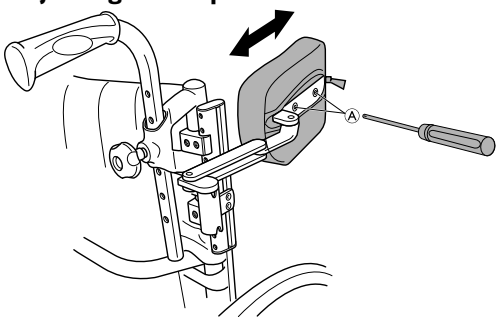
Difficulty: ●○○ Tools: 4 mm Allen key

1. Slacken the screws Ⓐ.
2. slide the holder Ⓑ up or down to the required position.
3. Re-tighten the screws.

or:

1. Remove the outer screws Ⓓ on the attachments.
2. Move the bracket up or down to the required position.
3. Re-tighten the screws.

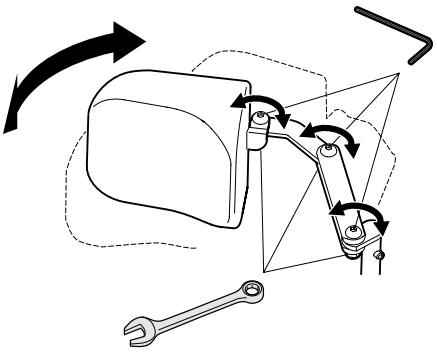
Adjusting the depth



Difficulty: ●○○ Tools: Screw driver

1. Open the zip on the cover to reach screws Ⓔ.
2. Slacken screws.
3. Adjust the trunk support to the desired position.
4. Retighten screws and close the zip.

Adjusting the angle



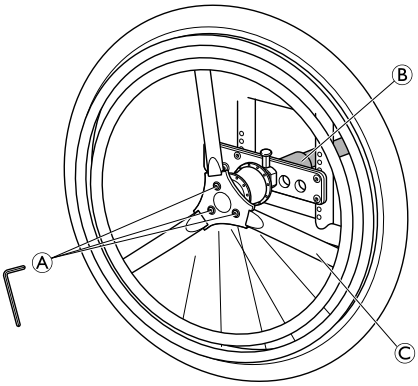
Difficulty: ●○○ Tools: 5 mm Allen key / 13 mm fixed spanner

1. Remove the cover on the arm of the trunk support to reach the screws and nuts.
2. Slacken the screws and nuts.
3. Adjust the desired angle using the three joints.
4. Secure tightly the screws and nuts and reattach the cover.

12.18 Adjusting the one arm drive

The hand rims can be positioned either level with each other (internal position) or with the inner, smaller hand rim protruding slightly (external position).

Changing the position of the hand rims



Difficulty: ●○○ Tools: 5 mm Allen key

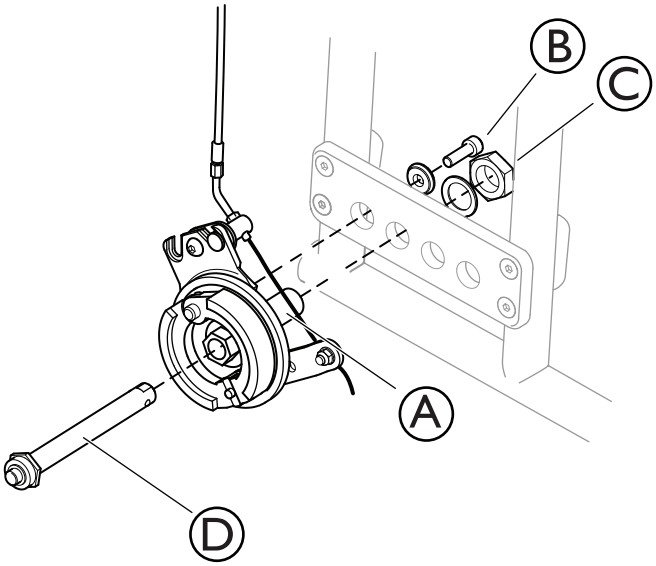
1. Unscrew the three screws Ⓐ.
2. Remove the hand rim and turn it over.
3. Put it back into position and firmly retighten the three screws.

CAUTION!
Risk of injury
– Take care when removing the telescopic transmission shaft Ⓑ. Point it away from the body when releasing the powerful spring.

The transmission shaft is an integral part of the wheelchair and the user will be unable to propel the wheelchair without it.

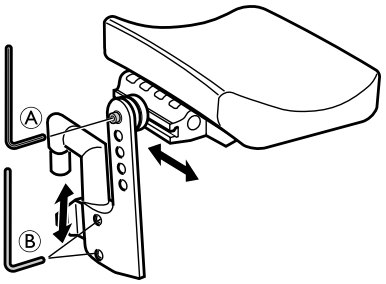
12.19 Mounting the drum brake

Difficulty: ●●● Tools: 4 mm and 5 mm Allen keys / 10 mm fixed spanner



1. Attach the drum brake Ⓐ and the rear wheel axle Ⓓ.
2. Attach the nut and the washer Ⓒ, tighten with 40 Nm.
3. Attach the screw and washer Ⓑ.

12.20 Adjusting the amputee legrests



Difficulty: ●○○ Tools: 5 mm Allen key

Adjusting the angle and depth

1. Slacken the screw Ⓐ.
2. Adjust the cushion's angle and depth.
3. Retighten the screw.

Adjusting the height

1. Slacken the screws Ⓑ.
2. Adjust the cushion's height.
3. Retighten the screws.

Notes

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