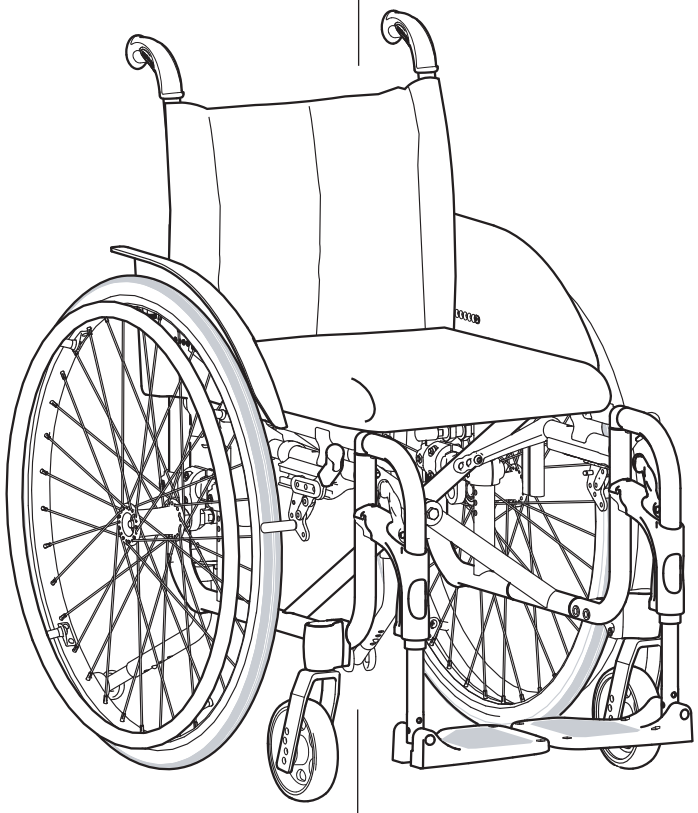
Invacare® Spinx

User Manual



English

Contents

Product description Invacare® Spinˣ

Invacare® Spinˣ is a wheelchair with many adjustment options and accessories. To ensure that you benefit as much as possible from your Invacare® Spinˣ, and in order to do its options justice, the chair must be tested and adjusted by competent personnel. We hope that you have also received instructions for using your Invacare® Spinˣ in everyday life.

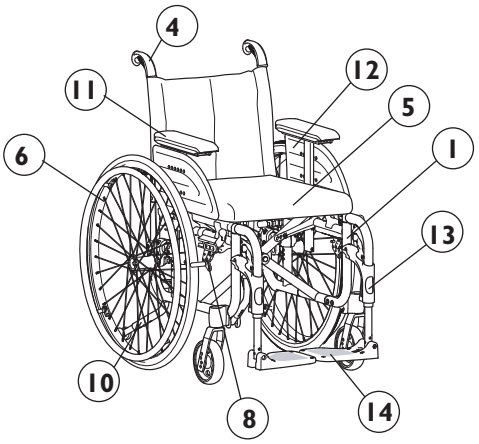
The Invacare® Spinˣ frame, legrests and hand rims are manufactured from high quality aluminium.
Vulnerable parts, the telescopic backrest tubes and the inner part of the legrest tubes, are made from steel.
The seat cushion is made of Jemima and the backrests are in Jemima or nylon. The padded seat is made of nylon.

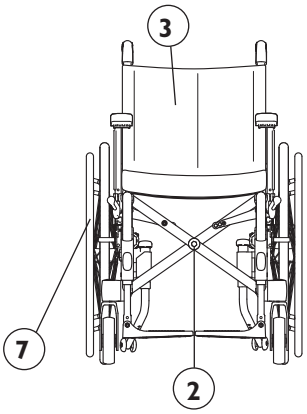
This manual includes a description of the parts of the chair, simple adjustment options, how to use the Invacare® Spinˣ safely and how to transport it. The manual must be read thoroughly before the chair is used.

Also included in this manual is a description of how the most common accessories are fitted and slightly more advanced settings.

As the Invacare® Spinˣ has many different components and accessories, the appearance of the accessories you have for your chair may differ from those shown.

Parts of the wheelchair





1. Frame (chassis)
2. Cross members
3. Backrest
4. Push handles
5. Seat
6. Rear wheel
7. Handrims
8. Brakes
9. Castors
10. Anti tip device
11. Armrests
12. Sideguards
13. Legrests
14. Footplate

NB!

This symbol means warning.

On this page a number of points affecting your personal safety are shown. Please Read it carefully!

Invacare® is only responsible for product changes carried out by personnel who we authorise. We reserve the right to make any changes to equipment and specifications without prior notice.

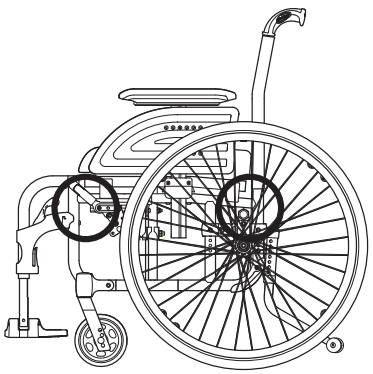
Failure to comply with instructions given may result in personal injury and/or product damage.

- Check each of the following before using the wheelchair:
  - that all parts are attached securely to the frame
  - that all wheels and knobs are properly tightened
  - that all brakes and anti-tip devices function correctly

- Never lift the wheelchair by the detachable armrests, footrests, backrest stay or by the adjustable push handles.
- Always apply the brake before getting into or out of the chair.
- Never stand on the footplates when getting into or out of the chair, because of the risk of tipping.
- Changing the seat angle always gives an increased risk of tipping over.
- The handrims may become hot due to friction, and this may cause injury to your hands.
- Use extensively the anti-tip device
- Remember that the effectiveness of the carer-operated brake is reduced in wet and slippery conditions, as well as when on a slope.
- Be careful to ensure that the drive wheels are securely attached.
- Drive wheels are not to be detached while the user is sitting in the chair.
- The more the backrest cover's Velcro straps are slackened the greater the risk of tipping the wheelchair becomes.
- Surfaces of the wheelchair like frame parts or upholstery can with long time exposure to sun reach temperatures over 41 °C.

LIFTING THE WHEELCHAIR

Always lift the wheelchair by gripping the frame at the points shown in the diagram. Never lift the wheelchair by the removable armrests or the footrests. Ensure that the backrest and push handles are securely in place. Also read the chapter Safety instructions/Propelling techniques.



Intended use

- Invacare® Spin^{X} is a manual wheelchair aimed for those who use the wheelchair during a longer period of time (several hours in a row).
- Invacare® Spin^{X} is designed for the user who can manoeuvre the wheelchair them-selves and as well for the user that requires assistance.
- Invacare® Spin^{X} have abilities and accessories that make it possible to adjust the sitting posture so it becomes comfortable and possible to keep for several hours.
- Invacare® Spin^{X} have many adjustment possibilities. With the right adjustments, carried out by a professional the wheelchair can be set up more specific to the user and assistants requirements. The possible adjustments are described in the Owners Manual that is delivered together with the wheelchair.
- Depending on the size of the castors (100-200 mm) could Invacare® Spin^{X} be used both indoor and outdoor. We recommend the larger wheels when the wheelchair is used on un-even ground.
- Note that Invacare® Spin^{X} may tip over, backwards, when being wheeled uphill, especially when the incline is more than 8° or if the rearwheels are mounted more forward on the rearwheel attachment. The effect of having the rear wheel fitted in the most forward position is that the chair will be easier to manoeuver, there is a however an increased risk of tipping backwards, therefore the use of anti tippers are recommended in this case. Use the Anti tip devises when there is a risk of that the chair will tip over and to achieve a higher stability.
- Invacare® Spin^{X} is designed to have a seat cushion on the seat. The seat cushion improves the body posture by the user and makes it possible to sit comfortable for a longer period of time in the wheelchair.

Daily performance check

Check that the following parts are securely fitted on the wheelchair and operational:

- Wheels
- Backrest
- Anti-tip device
- Push handles
- Footrests
- Brakes

Upholstery and frame colours

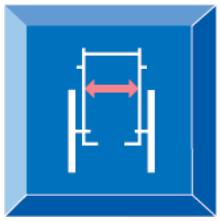
Upholstery	Black Nylon TR33, Black Jemima TR18
Frame colours	Blue, Red, Black, Grey (Limegreen and orange as special)

Equipment and accessories

Invacare® Spin^{x} has a wide range of accessories and options.

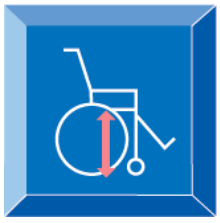
Backrest	Slingtype Tension adjustable Backrest bar Mistral2 cushion
Seat	Sling seat depth adjustable 5 cm Padded seat Tension and depth adjustable seat
Seat cushions	Standard 5 cm
Legrests	80° & 90° fixed legrest Angle-adjustable legrest Amputee legrest Fixed footplate Angle- and depth adjustable footplate One piece footrest Heel straps Calf strap
Armrests	Flip-up armrest Height adjustable armrest Long or short pad Autolocking
Castors	100-200 mm, pneumatic or solid, wide or narrow
Rear wheels	22", 24", pneumatic or puncture-proof
Brake	User-brake Carer-operated brake Extended brake arm One-arm brake
Others	Several types of handrims Spoke guard Anti-tip devices Reflectors Kit Table Tray Pump Cane holder Tool kit External push handles Pelvic belt Mudguard Sideguard Step tube

Technical data

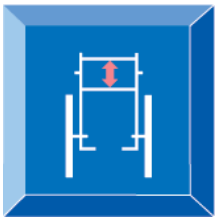


38, 40.5, 43, 45.5, 48**, 50.5** cm

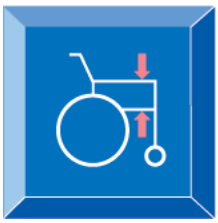
40, 45, 50 (-5) cm



41-53 cm



35-49 cm

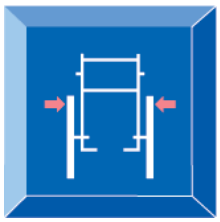


19–29 cm

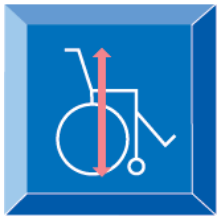
32-58 cm

0°– 6°

±12°



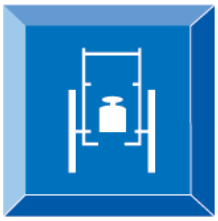
Seat width + 21 cm



76-113 cm

80-126 cm

29 cm



13 kg

max 125 kg
max 135 kg**

Transport weight
7,5 kg

Crash test*

*Our wheelchairs comply with ISO norm 7176-19 and have been tested in a basic configuration. The use in other configurations has not been tested. See section "Test report from dynamic safety restraint test", for test configuration. Wheelchair users should however transfer to the vehicle seat and use the vehicle installed restraint system whenever it is feasible

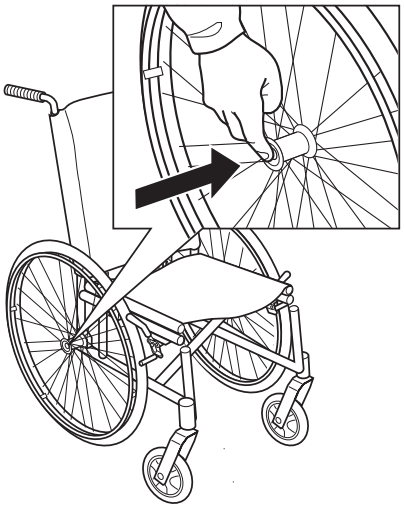
** For seat widths 48 and 50,5 cm the maximum user weight is 135 kg.

Delivery check

Check that all components comply with the delivery note. Any damage incurred during transport should be reported immediately to the delivery company. Retain all packaging until the transport company has inspected the consignment and an agreement has been reached.

Assembly

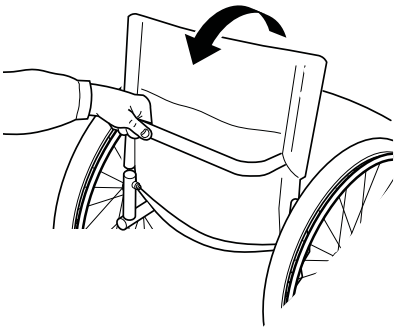
1.



1. Attach the rear wheels by pressing the button in the centre of the hub whilst simultaneously sliding the axle into the rear wheel position attachment of the positioning plate.

It is very important that you check that the locking pin has actually locked the wheel into position when the centre button has been released. Take hold of the wheels and try to detach them. This should NOT be possible.

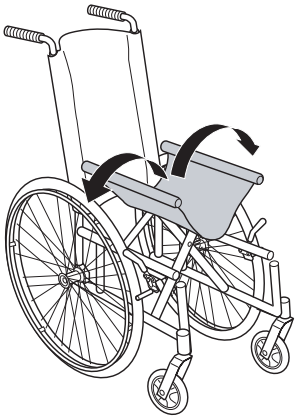
2.



2. Unfold the backrest by pulling backrest backward until it clicks into place. Make sure that the backrest is securely locked.

Be careful not to trap your fingers in the backrest links.

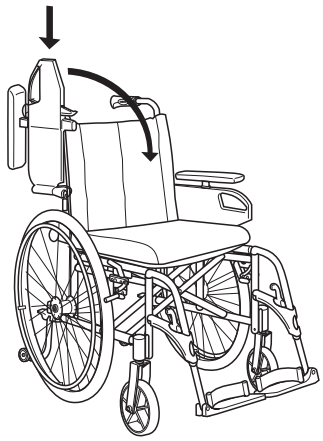
3.



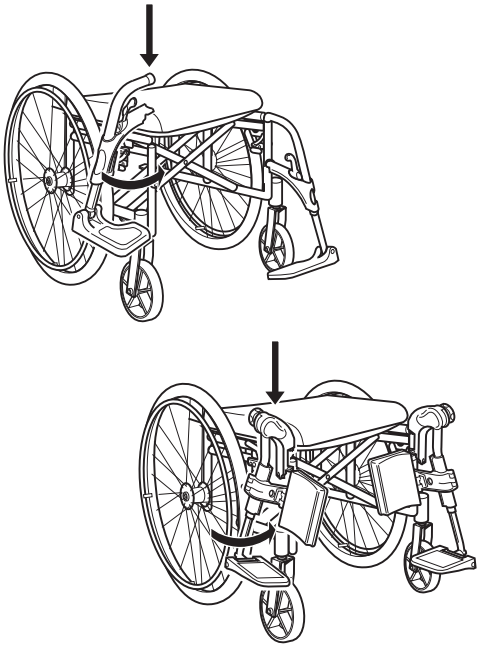
3. Unfold the wheelchair.

Be careful not to trap your fingers between seat and frame tube.

4.



5.



4. Insert the armrest by fitting it into the attachment on the backrest frame and then swing it down until it fits into position.

Do not place any fingers on the seat frame. When having detachable armrests, just press them down in the reciver.

5. Legrests

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 legrestsoutwards when inserting them.

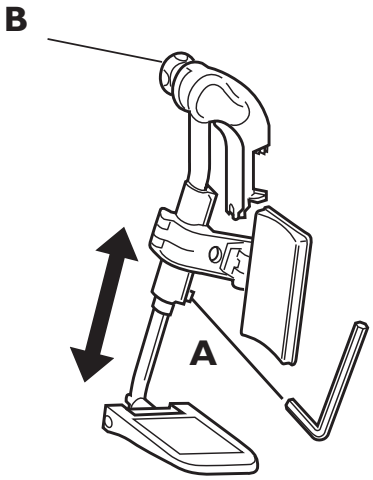
Lock the legrests by turning them inwards. The legrests are automatically locked so there is no risk of them coming off the wheelchair.

Be careful not to trap your fingers between frame and legrest.

Adjustments

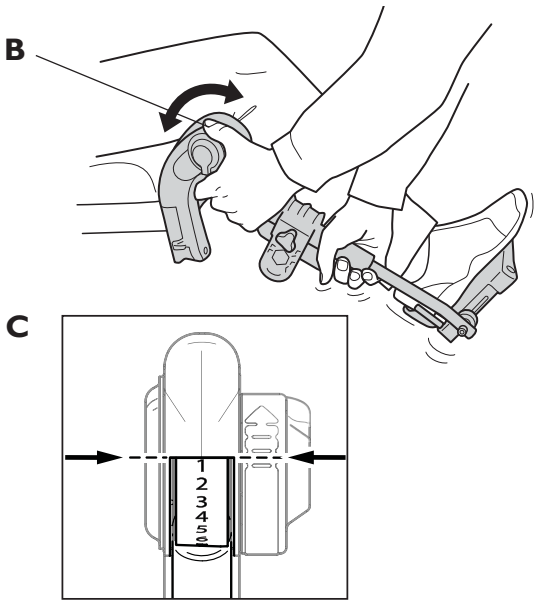
ANGLE ADJUSTABLE LEGRESTS

1.



Tools: 5 mm Allen Key

2.



Angle adjustable legrests support the legs and reduce pressure. The legrests can be used for bandaged legs, but not for legs in plaster casts. The legrests must always be fitted with calf pads, footplates and heel straps.

It is important to adjust the height and angle of the legrests to obtain a good seating position.

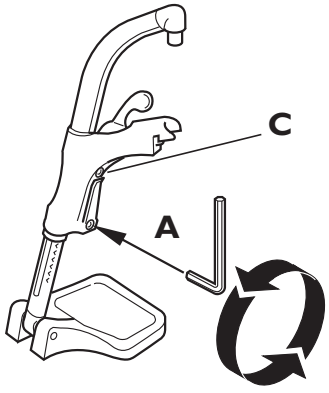
1. **Height adjustment**
   Loosen screw (A) with an Allen key. Adjust the legrest into a suitable height and the screw is caught by one of the recesses on the legrest tube. Then retighten the screw.

2. **Angle adjustment**
   Pull the lever (B) with one hand while supporting the legrest with your other hand. When a suitable angle is obtained, let go of the lever and the legrest will look into one of seven preset positions (C).

Do not place anything heavy, or let children sit on the legrest. It may cause damage to the mechanism.

The distance between the lowest part of the footrest and the ground must be at least 40 mm.

FIXED LEGRESTS



Tools: 5 mm Allen Key

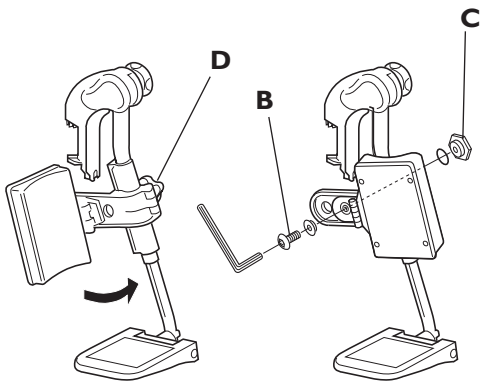
Height adjustment
Loosen screw (A) with an Allen key. Adjust the legrest into a suitable height and the screw is caught by one of the recesses on the legrest tube. Then retighten the screw.

NOTE! Don't touch the upper screw (C).

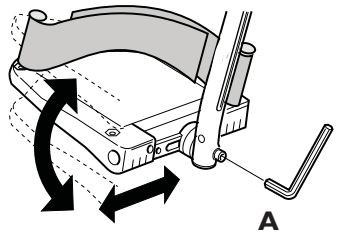
The distance between the lowest part of the footrest and the ground must be at least 40 mm.

CALF PADS/FOOTPLATES

1.

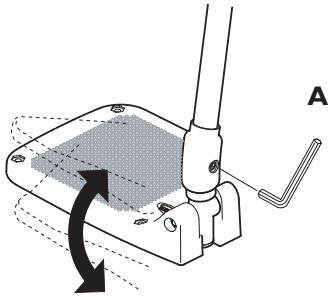


2.

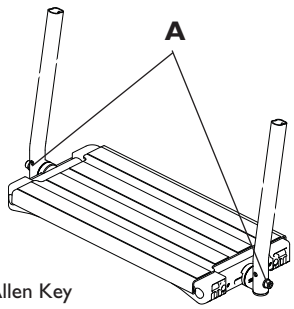


Tools: 5 mm Allen Key

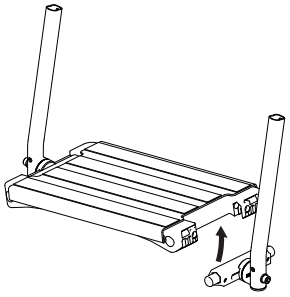
3.



4.



Tools: 5 mm Allen Key



1. Calf pads

The calf pads can be fitted in four different depth positions. Swing the pad forwards. Unscrew screw (B) using an Allen key. Remove the large nut (C) on the reverse side and place it in the other attachment hole. Move the calf pad to the new position and secure it into place with the screw.

The height of the calf pads can easily be adjusted using the handwheel (D).

2. Depth- and angle adjustable footplates

Adjust the angle and the depth by loosening the screw (A) at the footplate attachment with a 5 mm Allen key. Adjust the footplate to the correct position and retighten the screw.

⚠ Do not place anything on the footplate when the screw is loose.

3. Angle adjustable footplates

Adjust the angle by loosening the screw (A) on the footrest tube with a 5 mm Allen key. Adjust the footplate to the correct position and retighten the screw.

⚠ Do not place anything on the footplate when the screw is loose.

4. Footrest, one piece

Adjust the angle and the depth by loosening the two screws (A) at the footplate attachment with a 5 mm Allen key. Adjust the footplate to the correct position and retighten the screws.

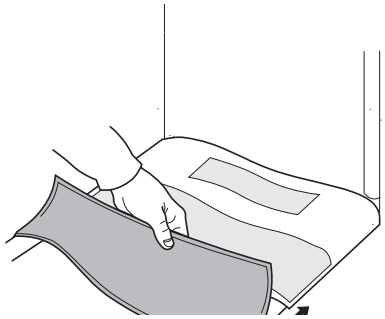
⚠ Do not place anything on the footplate when the screws are loose.

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

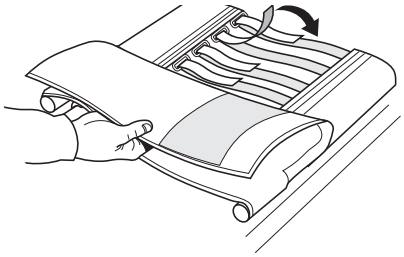
⚠ Be careful not to trap your fingers between the footrest and the reciever when folding it down.

SEAT

1.



2.

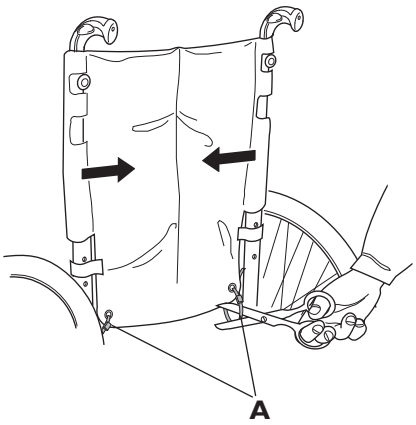


1. Adjusting the seat depth
Fold the seat slightly. Lift up the rear part. Pull into required depth.

2. Adjustment of shape (tension adjustable seat)
Pull back the seat's upper section so that the adjustable Velcro straps are visible. Use these straps to adjust the shape of the seat. Always have a cushion on the seat when testing its adjusted shape.

BACKREST

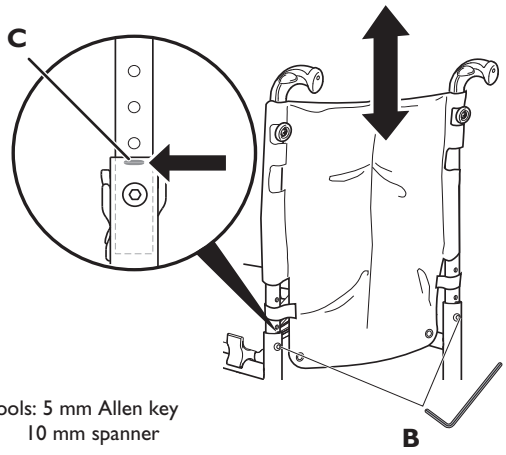
1.



Height adjustment, fixed backrest.

1. Use a pair of scissors and remove the plastic ties (A) at the bottom of the backcloth. Then fold the chair slightly, by lifting the seat upwards.

2.

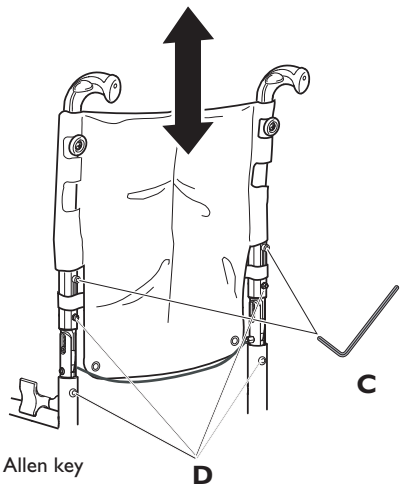


Tools: 5 mm Allen key
10 mm spanner

2. Remove screws (B) on the back of the backrest tube with an Allen key. It is now possible to lower and raise the back. Fasten the screws and nuts and tighten.

When adjusting the height, the embossed mark (C) on the backrest tube must NEVER be visible above the frame tube. Otherwise the backrest may come loose and cause serious injury. Make sure that the backrest is safely secured.

1.



Tools: 5 mm Allen key

Height adjustment, foldable backrest.

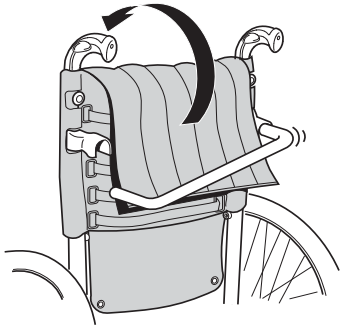
1. Loosen screws (C) on the back of the backrest tube with an Allen key. It is now possible to lower and raise the back. Retighten the screws.

NOTE! Don't touch the lower screws (D).

When you have fitted the backrest in the correct position, it is important that you check thoroughly that the screws are tightened securely. This is important for your own safety!

TENSION ADJUSTABLE BACKREST

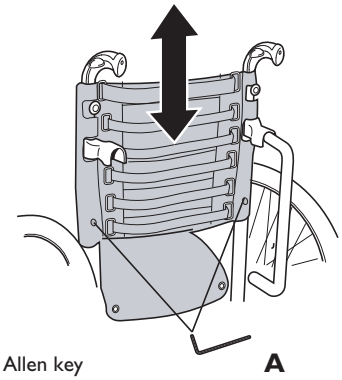
1.



Adjustment of backrest height

1. Detatch the left hand side of the back brace by depressing the catch on the inside of the left hand bracket and then rotate the brace downwards. Fold the chair slightly by taking hold of the the seat and pulling upwards. Then loosen and fold the backcloth forward, so that it rests on the seat.

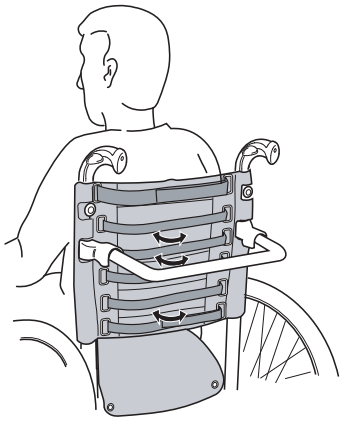
2.



Tool: 5 mm Allen key

2. Slacken the screws (A) on the rear of the back tube, using an Allen key. It is now possible to raise or lower the back and then retighten the screws.

3.

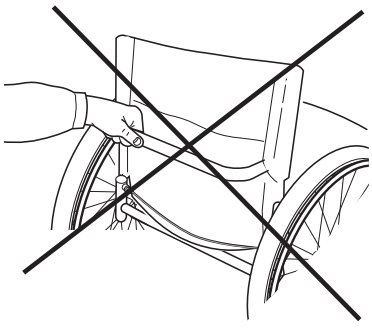


Adjustment of backrest tension

3. Adjust the shape of the backrest by adjusting the Velcro straps.
   The user should be seated in the chair and the back brace should be in place when adjusting the Velcro straps. When adjustment is complete fold the backcloth back into position and secure it with the Velcro straps.

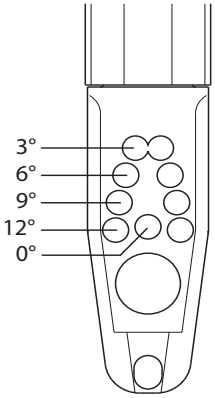
When you loosen the backrest, the tip-risk increases. We recommend the use of anti-tip devices.

4.



4. Please observe that the backrest bar may not be used for lifting the chair!

BACKREST RECLINE

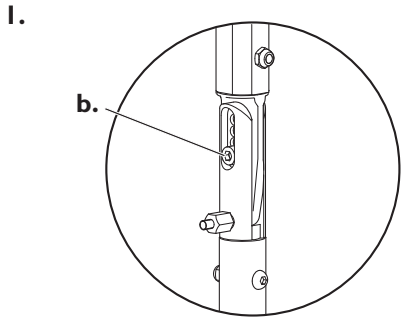


A.

When the Spin× is equipped with a foldable backrest, the backrest angle can be adjusted in angles from 0 ° to ±12° (pic. A).

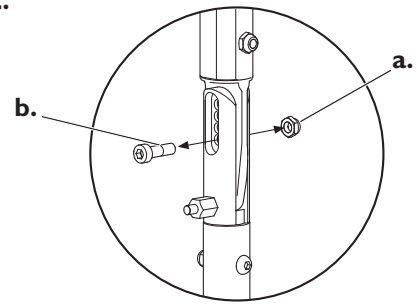
Angle adjustment

1. Loosen the screw (a) using an 5 mm Allen key.



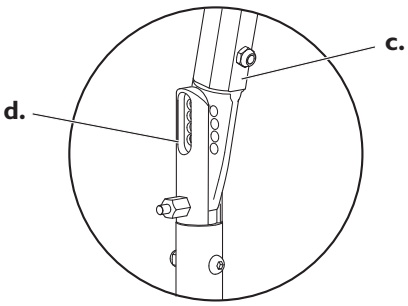
1.

2. Remove the screw (a) and nut (b).



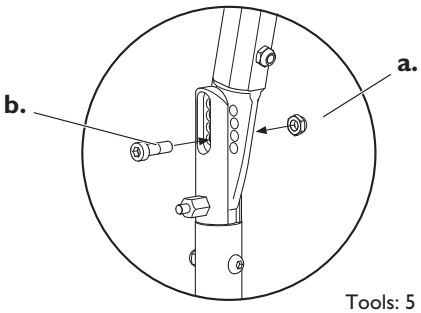
2.

3. The backrest tube can now be angled forward or backward. Place the upper tube (c) in the desired angle and make sure that one of the angle holes (A) is visible through the hole in the lower tube (d).



3.

4. To lock the backrest tube, first place the nut (b) in it's slot on the lower tube, then attach the screw (a) and tighten. Make sure that the backrest is still foldable.



4.

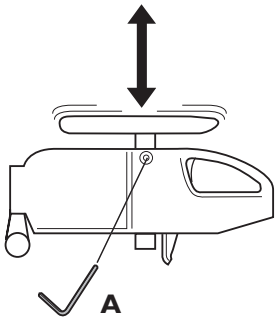
Tools: 5 mm Allen key

Note that when the backrest is angled backwards, it also increases the risk of tipping the chair backwards. Adjust the rear wheels to a stable position. We recommend the use of anti-tip devices.

Make sure that the backrest is safely secured.

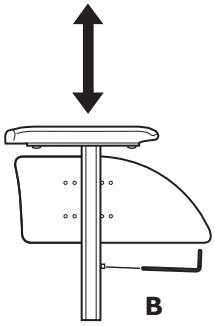
ARMRESTS/MUDGUARD

1.



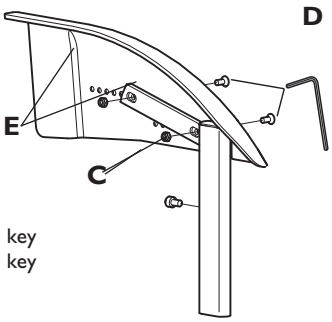
Tools: 5 mm Allen key.

2.



Tools: 5 mm Allen key.

3-4.



Tools: 3 mm Allen key
5 mm Allen key

Adjusting the height of the armrests

1. **Flip up armrest**
   If your chair is equipped with armrests that can be raised or lowered, this is achieved by loosening the screw (A), moving the armrest into the required position, and retightening the screw.

   When adjusting the height, do not place your fingers between armrest pad and side plate as they may get trapped.

2. **Detachable armrest**
   If your chair is equipped with armrests that can be raised or lowered, this is achieved by pulling up the armrest and loosening the screw (B) under the armrest. Move the screw up or down to the desired position and retighten the screw. Lower the armrest again.

   When adjusting the height do not place your fingers between seat tube and side plate as they may get trapped.

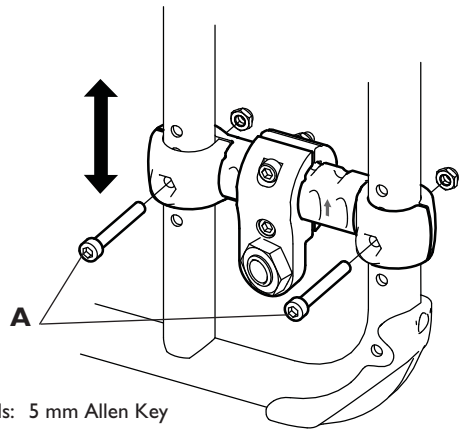
3. **Mudguard**
   Adjust the height of the mudguard by pulling up the mudguard and loosening the screw (C). Move the screw up or down to the desired position and retighten the screw. Insert the mudguard again in it's attachment.

   When adjusting the height do not place your fingers between seat tube and side plate as they may get trapped.

4. To adjust the depth of the mudguard, unscrew screws (D) using an Allen key. Remove the nuts (E) on the reverse side. Move the mudguard into the required position and fasten the screws again.

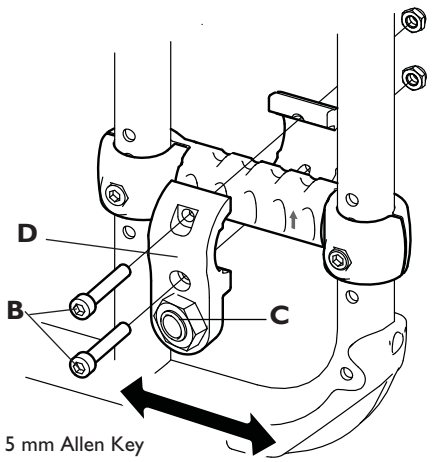
REAR WHEELS, ADJUSTMENT

1.



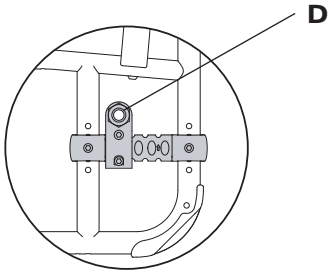
Tools: 5 mm Allen Key

2.

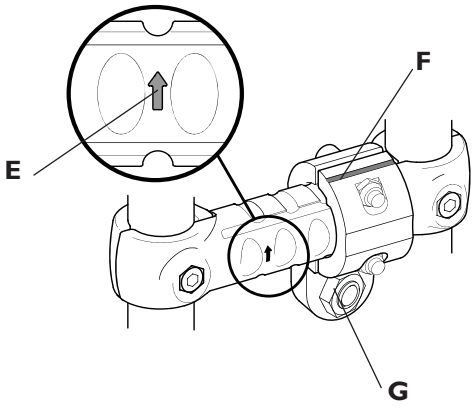


Tools: 5 mm Allen Key

3.



4.



Active rear wheel fixation

By changing the position of the rearwheel on the rearwheel attachment you can alter both the seat height and the manoeuvrability/stability of the wheelchair. The further forward the rearwheel is positioned, the more manoeuvrable your chair becomes, but with reduced stability.

1. To alter the height position of the rearwheel plate, use an Allen key to remove the screws (A), choose the new position and fasten the screws.

Always remember to adjust the brakes, when the rearwheel position is changed.

2. To move the rearwheel (either backwards or forwards) on the rearwheel attachment, first remove the screws (B), adjust to the required position and then fasten the screws.

The tip risk increases if the rear wheels are located in front of the backrest. Use anti-tip devices.

Always remember to adjust the brakes, when the rearwheel position is changed.

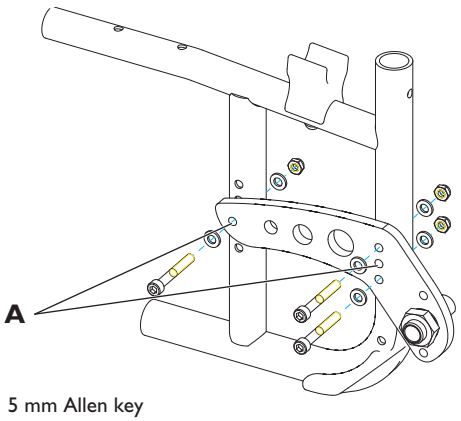
When you have fitted the wheels in the correct position, it is important that you check thoroughly that the nuts and screws are tightened securely. The axle housing (C) must be tightened with a manual and dynamometric wrench calibrated to 40Nm.This is important for your own safety!

3. To obtain lower seat heights, the clamp (D) can be mounted upside down (pic 3).

Always make sure that the arrow (E) and the line (F) is pointing upwards, when mounting the rearwheel attachment.

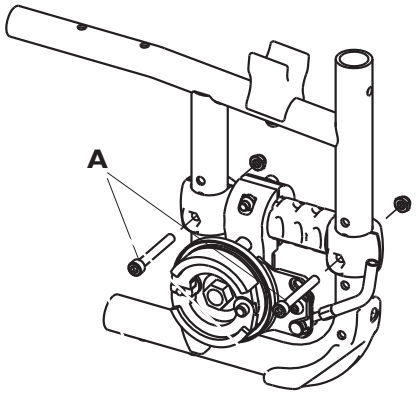
Do not try to loosen nut (G)!

1.



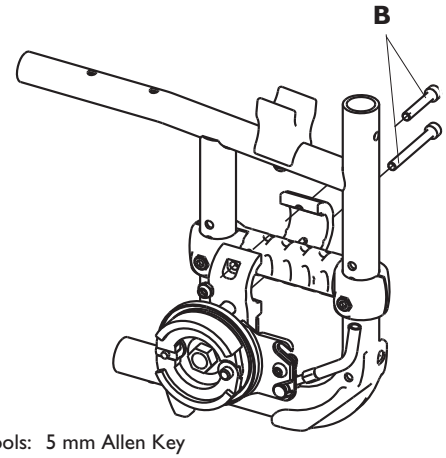
Tools: 5 mm Allen key
10 mm fixed spanner

2.



Tools: 5 mm Allen Key

3.



Tools: 5 mm Allen Key

Passive rear wheel fixation
By changing the position of the rear wheel fixation you can alter the seat height of the wheelchair.

1. To alter the height position of the rear wheel fixation, use an Allen key and a fixed spanner to remove the screws , washers and nuts. Choose the new position and fasten the screws again. Note that the holes (A) are the reference holes for mounting the fixation correctly/horizontally.

When you have fitted the wheels in the correct position, it is important that you check thoroughly that the screws and nuts are tightened securely. This is important for your own safety.

Always remember to adjust the brakes, when the rear wheel position is changed.

Active rear wheel fixation with drumbrake
By changing the position of the rearwheel on the rearwheel attachment you can alter both the seat height and the manoeuvrability/stability of the wheelchair. The further forward the rearwheel is positioned, the more manoeuvrable your chair becomes, but with reduced stability.

2. To alter the height position of the rearwheel plate, use an Allen key to remove the screws (A), choose the new position and fasten the screws again.

Always remember to adjust the brakes, when the rearwheel position is changed.

3. To move the rearwheel (either backwards or forwards) on the rearwheel attachment, first remove the screws (B), adjust to the required position and then fasten the screws.

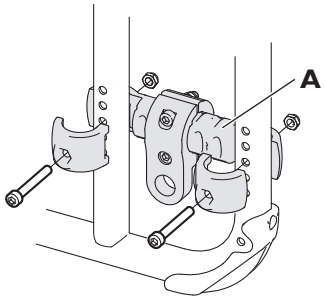
The tip risk increases if the rearwheels are located in front of the backrest. Use anti-tip devices.

Always remember to adjust the brakes, when the rearwheel position is changed.

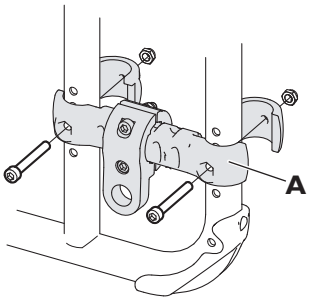
When you have fitted the wheels in the correct position, it is important that you check thoroughly that the nuts and screws are tightened securely. This is important for your own safety!

CAMBER, ADJUSTMENT

3a.



3b.



You can mount the rearwheel attachment in two ways. One for 0° camber and one to obtain 3° camber.

3a. 0° camber

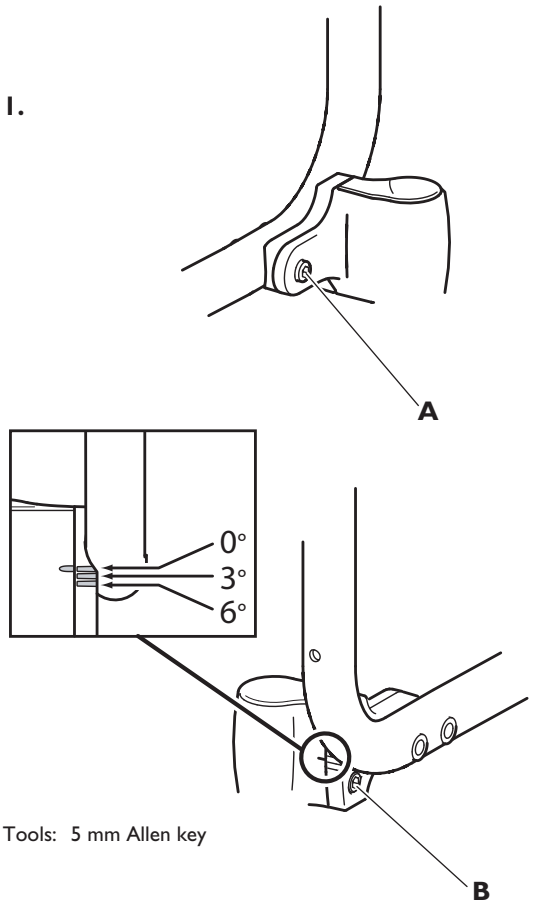
Mount the rearwheel attachment (A) on the inside of the frame as shown in picure 3a.

3b. 3° camber

Mount the rearwheel attachment (A) on the outside of the frame as shown in picure 3b.

CASTOR WHEELS

1.



Tools: 5 mm Allen key

When you have found the seat height and seat angle you are pleased with, it is important for the chair's propelling ability to control that the angle between the castor attachment and ground surface is 90°.

1. **Adjusting the castor angle.**
   Loosen the screws (A) and (B) by approximately 2–3 turns. Adjust the castor housing to desired angle by turning it to the correct jag. Retighten the screws.

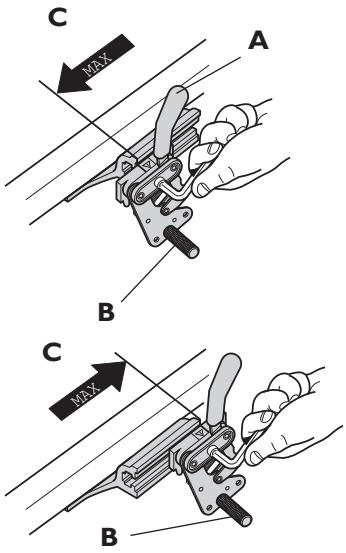
   Note! It is possible to have negative adjustment of the castor housing (-3° and -6°) but this is NOT recommended!

Check that the castor is securely fitted after replacement and that the jags lockes into each other.

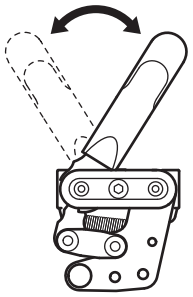
Do not loosen screw B more than 5 turns. The corresponding nut will then come loose and fall out of the castor housing.

BRAKES

1.



Tool: 5 mm Allen key



To apply the brake to the chair, move the lever (A) forwards. To release the brake, move the lever backwards (towards you).

Take care not to trap your fingers between the brake shaft and tyre.

Adjusting the brake

1. Check that the tyres are inflated to the correct air pressure (indicated on the tyre wall). Then, using an Allen key, loosen the screw and slide the brake to the desired position and tighten. The correct distance between the brake shaft (B) and the tyre is approx. 15 mm.

   NB.
   The brake must not be moved further than indicated in the picture (C).

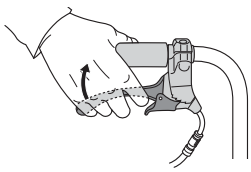
Incorrect adjustments or use of the brake can reduce the effectiveness of the brake.

Free play

The lever of the brake where the handle is located, have a free play. The lever folds up automatically when the legrest have been swinged to its outward position without activating the brake. To activate the brake just press respectively pull at its most forward respectively rear located position.
The reason behind is that when the legrests is swinged to the side it will in some positions interfere with the brake lever.

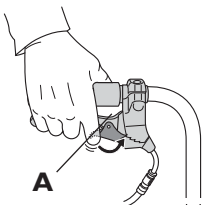
CARER-OPERATED BRAKE

1.



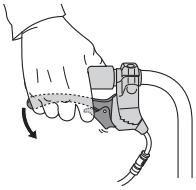
1. Apply the brakes when moving: pull both brake handles upwards (squeeze the handles) and the brake will be applied.

2.



2. Lock the brakes: pull the brake handle upwards and move the lock catch (A) upwards. Then release the handle.

3.

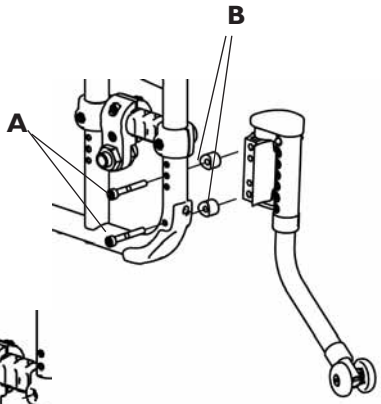


3. Release the brakes: pull the handle upwards and the lock catch will release automatically.

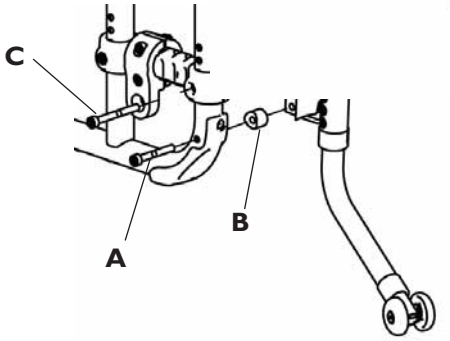
Incorrect adjustments or use of the brake can reduce the effectiveness of the brake.

ANTI-TIP DEVICES

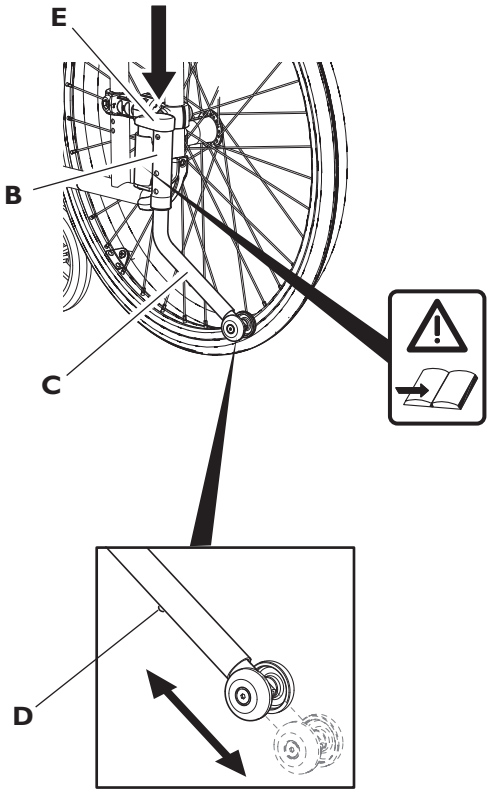
1a.



1b.



2-4.



⚠ Make sure the anti-tip device is securely locked before use.

⚠ For safety reasons we recommend the use of two anti-tip devices!

The anti-tip device is foldable and adjustable in both height and depth. Please pay special attention to the placement of the anti-tip device when in use. A sticker will warn you if the anti-tip device is not activated.

1. Mounting

a. Insert the two shorter screws into the holes in the rear part of the chassis according to picture 1a. Place the two spacers (B) on the screws. Note that the curved surface should be towards the tube. Fit the anti-tip device on the screws and tighten.

b. Remove the back screw and nut on the rear wheel attachment and discard them. Mount the longer screw (C) through the rear wheel attachment according to picture 1b. Put the shorter screw (A) into the hole in the rear part of the chassis. Place one spacer (B) on the shorter screw (A) Note that the curved surface should be towards the tube. Fit the anti-tip device and tighten the screws.

2. Adjusting height

To adjust the height press the two knobs (B) on each side of the housing and pull the tube (C) to desired set of holes.
The knobs will lock the tube into position.

⚠ Do not use knobs (B) to fold or unfold the anti-tip device.

3. Adjusting depth

To adjust the depth press knob (D) and pull the wheel tube out to desired depth. The knob will lock the tube into position.

⚠ The distance between the anti-tip wheel and the ground, and the distance between the anti-tip wheel and rear wheel, should be approx. 5 cm.

4. Folding

To swing the anti-tip device under the wheelchair, press the cap (E) downwards and then sideways.

NOTE! A red warning sticker can now be seen.

To activate the anti-tip device, just swing it back in place and it will lock into position automatically.

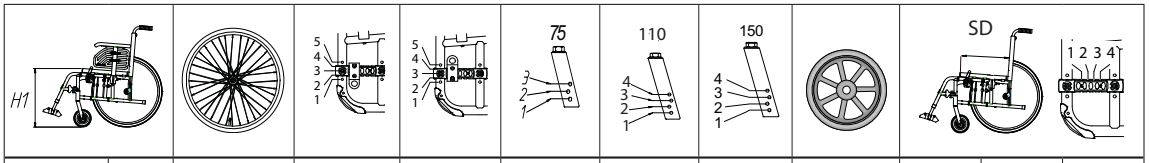
NOTE! When the anti-tip device is correctly activated the warning sticker will be hidden.

⚠ Use your foot when folding the anti-tip device. If you do it by hand, there is an increased risk that you will trap your fingers between the anti-tip housing and the tube.

⚠ Never forget to fold down the anti-tip devices or the wheelchair may tip over.

WHEELCHAIR HEIGHTS

22" Rear wheel



H mm	X°	X"	pos.	pos.	pos.	pos.	pos.	mm	SD40	SD45	SD50
410	0	22	-	2	2	-	-	100	1,2,3,4	1,2,3,4	1,2,3,4
410	3	22	-	3	2	-	-	100	1,2,3,4	1,2,3,4	1,2,3,4
410	6	-	-	-	-	-	-	-	-	-	-
430	0	22	-	1	1	-	-	100	1,2,3,4	1,2,3,4	1,2,3,4
430	3	22	-	2	1	-	-	100	1,2,3,4	1,2,3,4	1,2,3,4
430	6	22	-	3	1	-	-	100	1,2,3,4	1,2,3,4	1,2,3,4
455	0	22	4	-	-	2	-	120	1,2,3,4	1,2,3,4	1,2,3,4
455	3	22	-	1	-	3		120	1,2,3,4	1,2,3,4	1,2,3,4
455	6	22	-	2	-	3	-	120	1,2,3,4	1,2,3,4	1,2,3,4
455	0	22	4	-	-	3	-	140	1,2,3,4	1,2,3,4	1,2,3,4
455	3	22	5	-	-	3	-	140	1,2,3,4	1,2,3,4	1,2,3,4
455	6	22		1	-	3	-	140	1,2,3,4	1,2,3,4	1,2,3,4
455	0	22	4	-	-	3	-	150	1,2,3	1,2,3,4	1,2,3,4
455	3	22	5	-	-	3	-	150	1,2,3	1,2,3,4	1,2,3,4
455	6	-	-	-	-	-	-	-	-	-	-
480	0	22	3	-	-	-	3	100	1,2,3,4	1,2,3,4	1,2,3,4
480	3	22	5	-	-	-	3	100	1,2,3,4	1,2,3,4	1,2,3,4
480	6	-	-	-	-	-	-	-	-	-	-
480	0	22	3	-	-	-	4	120	1,2,3,4	1,2,3,4	1,2,3,4
480	3	22	4	-	-	-	4	120	1,2,3,4	1,2,3,4	1,2,3,4
480	6	22	5	-	-	-	4	120	1,2,3,4	1,2,3,4	1,2,3,4
480	0	22	2	-	-	1	-	140	1,2,3,4	1,2,3,4	1,2,3,4
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480	6	22	5	-	-	1	-	140	1,2,3,4	1,2,3,4	1,2,3,4
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480	3	22	3	-	-	1	-	150	1,2,3,4	1,2,3,4	1,2,3,4
480	6	-	-	-	-	-	-	-	-	-	-
505	0	22	1	-	-	-	1	100	1,2,3,4	1,2,3,4	1,2,3,4
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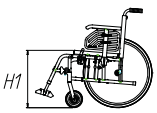
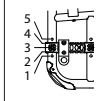
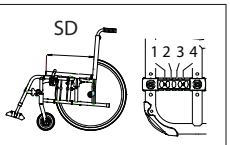
505	6	22	3	-	-	-	3	150	1,2,3	1,2,3,4	1,2,3,4
505	0	22	1	-	-	1	-	180	1,2	1,2,3,4	1,2,3,4
505	3	22	2	-	-	1	-	180	1,2	1,2,3,4	1,2,3,4
505	6	22	3	-	-	1	-	180	1,2	1,2,3,4	1,2,3,4
505	0	22	1	-	-	-	4	180	1,2	1,2,3,4	1,2,3,4
505	3	22	2	-	-	-	4	180	1,2	1,2,3,4	1,2,3,4
505	6	22	3	-	-	-	4	180	1,2	1,2,3,4	1,2,3,4
505	0	-	-	-	-	-	-	-	-	-	-
505	3	22	1	-	-	1	-	200	-	1,2	1,2,3,4
505	6	-	-	-	-	-	-	-	-	-	-

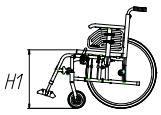
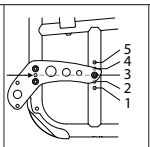
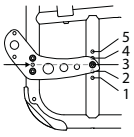
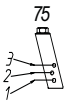
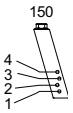
- = Not applicable

24" Rear wheel

- = Not applicable

											
H mm	X°	X"	pos.	pos.	pos.	pos.	pos.	mm	SD40	SD45	SD50
410	0	24	-	4	2	-	-	100	1,2,3,4	1,2,3,4	1,2,3,4
410	3	24	-	5	2	-	-	100	1,2,3,4	1,2,3,4	1,2,3,4
410	6	-	-	-	-	-	-	-	-	-	-
430	0	24	-	3	1	-	-	100	1,2,3,4	1,2,3,4	1,2,3,4
430	3	24	-	4	1	-	-	100	1,2,3,4	1,2,3,4	1,2,3,4
430	6	24	-	5	1	-	-	100	1,2,3,4	1,2,3,4	1,2,3,4
430	0	24	-	2	-	4	-	120	1,2,3,4	1,2,3,4	1,2,3,4
430	3	24	-	4	-	4	-	120	1,2,3,4	1,2,3,4	1,2,3,4
430	6	24	-	5	-	4	-	120	1,2,3,4	1,2,3,4	1,2,3,4
455	0	-	-	-	-	-	-	-	-	-	-
455	3	24	-	3	-	3	-	120	1,2,3,4	1,2,3,4	1,2,3,4
455	6	24	-	4	-	3	-	120	1,2,3,4	1,2,3,4	1,2,3,4
455	0	24	-	1	-	3	-	140	1,2,3,4	1,2,3,4	1,2,3,4
455	3	24	-	2	-	3	-	140	1,2,3,4	1,2,3,4	1,2,3,4
455	6	24	-	3	-	3	-	140	1,2,3,4	1,2,3,4	1,2,3,4
480	0	-	-	-	-	-	-	-	-	-	-
480	3	24	-	1	-	1	-	120	1,2,3,4	1,2,3,4	1,2,3,4
480	6	24	-	2	-	1	-	120	1,2,3,4	1,2,3,4	1,2,3,4
480	0	24	5	-	-	-	4	120	1,2,3,4	1,2,3,4	1,2,3,4
480	3	-	-	-	-	-	-	-	-	-	-
480	6	24	-	2	-	-	4	120	1,2,3,4	1,2,3,4	1,2,3,4
480	0	24	4	-	-	-	4	140	1,2,3	1,2,3,4	1,2,3,4
480	3	24	5	-	-	-	4	140	1,2,3	1,2,3,4	1,2,3,4
480	6	-	-	-	-	-	-	-	-	-	-
480	0	24	4	-	-	1	-	150	1,2,3,4	1,2,3,4	1,2,3,4
480	3	24	5	-	-	1	-	150	1,2,3,4	1,2,3,4	1,2,3,4
480	6	-	-	-	-	-	-	-	-	-	-
505	0	24	3	-	-	-	1	100	1,2,3,4	1,2,3,4	1,2,3,4
505	3	24	4	-	-	-	1	100	1,2,3,4	1,2,3,4	1,2,3,4
505	6	24	5	-	-	-	1	100	1,2,3,4	1,2,3,4	1,2,3,4
505	0	24	3	-	-	-	2	120	1,2,3,4	1,2,3,4	1,2,3,4
505	3	24	4	-	-	-	2	120	1,2,3,4	1,2,3,4	1,2,3,4
505	6	24	5	-	-	-	2	120	1,2,3,4	1,2,3,4	1,2,3,4
505	0	24	2	-	-	-	2	140	1,2,3	1,2,3,4	1,2,3,4
505	3	24	3	-	-	-	2	140	1,2,3	1,2,3,4	1,2,3,4
505	6	-	-	-	-	-	-	-	-	-	-
505	0	24	3	-	-	-	3	150	1,2,3	1,2,3,4	1,2,3,4
505	3	24	4	-	-	-	3	150	1,2,3	1,2,3,4	1,2,3,4
505	6	24	5	-	-	-	3	150	1,2,3	1,2,3,4	1,2,3,4
505	0	24	3	-	-	1	-	180	-	1,2	1,2,3,4
505	3	24	4	-	-	1	-	180	-	1,2	1,2,3,4
505	6	-	-	-	-	-	-	-	-	-	-
505	0	24	3	-	-	-	4	180	1	1,2,3	1,2,3,4
505	3	24	4	-	-	-	4	180	1	1,2,3	1,2,3,4
505	6	24	5	-	-		4	180	1	1,2,3	1,2,3,4
505	0	24	2	-	-	1	-	200	*	1,2	1,2,3,4
505	3	24	3	-	-	1	-	200	*	1,2	1,2,3,4
505	6	-	-	-	-	-	-	-	-	-	-
530	0	-	-	-	-	-	-	-	-	-	-
530	3	24	2	-	-	-	1	140	1,2,3	1,2,3,4	1,2,3,4
530	6	24	4	-	-	-	1	140	1,2,3	1,2,3,4	1,2,3,4
530	0	24	1	-	-	-	1	150	1,2,3	1,2,3,4	1,2,3,4
530	3	24	2	-	-	-	1	150	1,2,3	1,2,3,4	1,2,3,4
530	6	24	3	-	-	-	1	150	1,2,3	1,2,3,4	1,2,3,4
530	0	24	1	-	-	-	2	180	1	1,2,3	1,2,3,4
530	3	24	2	-	-	-	2	180	1	1,2,3	1,2,3,4
530	6	24	3	-	-	-	2	180	1	1,2,3	1,2,3,4
530	0	24	1	-	-	-	3	200	*	1,2	1,2,3,4
530	3	24	2	-	-	-	3	200	*	1,2	1,2,3,4
530	6	24	3	-	-	-	3	200	*	1,2	1,2,3,4

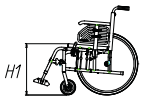
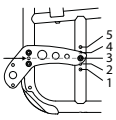
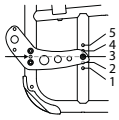
22" Passive rear wheel fixation

								
H mm	X°	X"	pos.	pos.	pos.	pos.	pos.	mm
410	0	22	-	2	2	-	-	100
410	3	22	-	3	2	-	-	100
410	6	-	-	-	-	-	-	-
430	0	22	-	1	1	-	-	100
430	3	22	-	2	1	-	-	100
430	6	22	-	3	1	-	-	100
455	0	22	4	-	-	2	-	120
455	3	22	-	1	-	3	-	120
455	6	22	-	2	-	3	-	120
455	0	22	4	-	-	3	-	140
455	3	22	5	-	-	3	-	140
455	6	22	-	1	-	3	-	140
455	0	22	4	-	-	3	-	150
455	3	22	5	-	-	3	-	150
455	6	-	-	-	-	-	-	-
480	0	22	3	-	-	-	3	100
480	3	22	5	-	-	-	3	100
480	6	-	-	-	-	-	-	-
480	0	22	3	-	-	-	4	120
480	3	22	4	-	-	-	4	120
480	6	22	5	-	-	-	4	120
480	0	22	2	-	-	1	-	140
480	3	22	4	-	-	1	-	140
480	6	22	5	-	-	1	-	140
480	0	22	2	-	-	1	-	150
480	3	22	3	-	-	1	-	150
480	6	-	-	-	-	-	-	-
505	0	22	1	-	-	-	1	100
505	3	22	3	-	-	-	1	100
505	6	22	4	-	-	-	1	100
505	0	22	1	-	-	-	2	120
505	3	22	2	-	-	-	2	120
505	6	22	4	-	-	-	2	120
505	0	-	-	-	-	-	-	-
505	3	22	2	-	-	-	3	140
505	6	22	4	-	-	-	3	140
505	0	22	1	-	-	-	3	150
505	3	22	2	-	-	-	3	150
505	6	22	3	-	-	-	3	150
505	0	22	1	-	-	1	-	180
505	3	22	2	-	-	1	-	180
505	6	22	3	-	-	1	-	180
505	0	22	1	-	-	-	4	180
505	3	22	2	-	-	-	4	180
505	6	22	3	-	-	-	4	180
505	0	-	-	-	-	-	-	-
505	3	22	1	-	-	1	-	200
505	6	-	-	-	-	-	-	-

- = Not applicable

24" Passive rear wheel fixation.

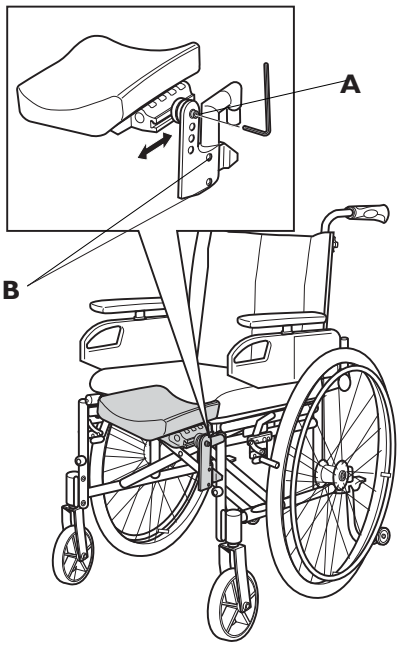
- = Not applicable

								
H mm	X°	X"	pos.	pos.	pos.	pos.	pos.	mm
410	0	24	-	4	2	-	-	100
410	3	24	-	5	2	-	-	100
410	6	-	-	-	-	-	-	-
430	0	24	-	3	1	-	-	100
430	3	24	-	4	1	-	-	100
430	6	24	-	5	1	-	-	100
430	0	24	-	2	-	4	-	120
430	3	24	-	4	-	4	-	120
430	6	24	-	5	-	4	-	120
455	0	-	-	-	-	-	-	-
455	3	24	-	3	-	3	-	120
455	6	24	-	4	-	3	-	120
455	0	24	-	1	-	3	-	140
455	3	24	-	2	-	3	-	140
455	6	24	-	3	-	3	-	140
480	0	-	-	-	-	-	-	-
480	3	24	-	1	-	1	-	120
480	6	24	-	2	-	1	-	120
480	0	24	5	-	-	-	4	120
480	3	-	-	-	-	-	-	-
480	6	24	-	2	-	-	4	120
480	0	24	4	-	-	-	4	140
480	3	24	5	-	-	-	4	140
480	6	-	-	-	-	-	-	-
480	0	24	4	-	-	1	-	150
480	3	24	5	-	-	1	-	150
480	6	-	-	-	-	-	-	-
505	0	24	3	-	-	-	1	100
505	3	24	4	-	-	-	1	100
505	6	24	5	-	-	-	1	100
505	0	24	3	-	-	-	2	120
505	3	24	4	-	-	-	2	120
505	6	24	5	-	-	-	2	120
505	0	24	2	-	-	-	2	140
505	3	24	3	-	-	-	2	140
505	6	-	-	-	-	-	-	-
505	0	24	3	-	-	-	3	150
505	3	24	4	-	-	-	3	150
505	6	24	5	-	-	-	3	150
505	0	24	3	-	-	1	-	180
505	3	24	4	-	-	1	-	180
505	6	-	-	-	-	-	-	-
505	0	24	3	-	-	-	4	180
505	3	24	4	-	-	-	4	180
505	6	24	5	-	-	-	4	180
505	0	24	2	-	-	1	-	200
505	3	24	3	-	-	1	-	200
505	6	-	-	-	-	-	-	-
530	0	-	-	-	-	-	-	-
530	3	24	2	-	-	-	1	140
530	6	24	4	-	-	-	1	140
530	0	24	1	-	-	-	1	150
530	3	24	2	-	-	-	1	150
530	6	24	3	-	-	-	1	150
530	0	24	1	-	-	-	2	180
530	3	24	2	-	-	-	2	180
530	6	24	3	-	-	-	2	180
530	0	24	1	-	-	-	3	200
530	3	24	2	-	-	-	3	200
530	6	24	3	-	-	-	3	200

Accessories

AMPUTEE LEGREST

1-2.



Tool:
4 mm Allen key

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

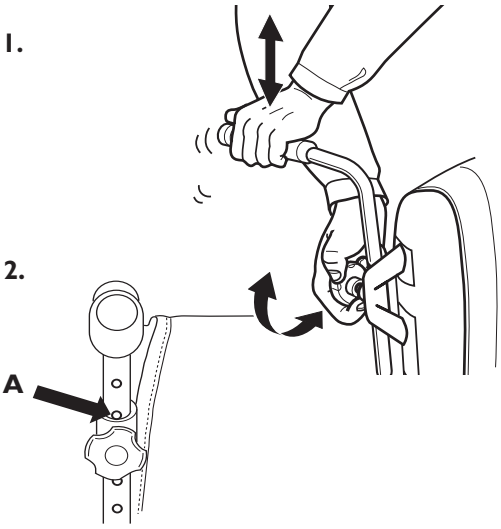
2. Loosen screw (A) to adjust the angle of the pad and its position in depth. Loosen screws (B) to adjust the height.

When using amputee legrests the balance of the wheelchair changes. The risk is reduced by moving the drive wheels backwards. See the chapter on drive wheel attachment for more information.

EXTERNAL PUSH HANDLES

1.

2.



Adjusting the height of the push handles

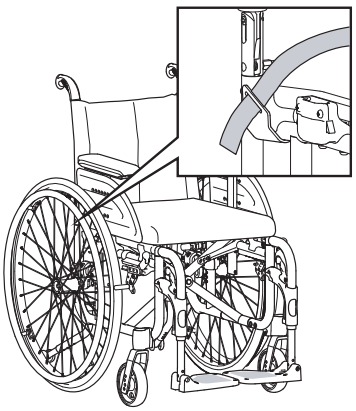
1. To raise or lower the height of the push handles turn the knob and raise the handles to the required height. Tighten when the correct position is achieved.

2. When hole (A) is visible, just above the attachment, the handle will be in the right "locking-position".

Make sure the push handles is securely locked before use.

PELVIC BELT

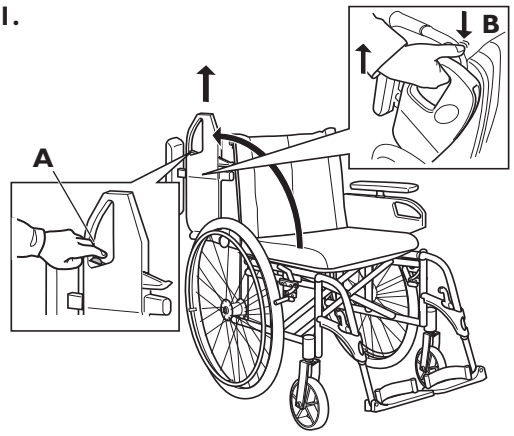
1.



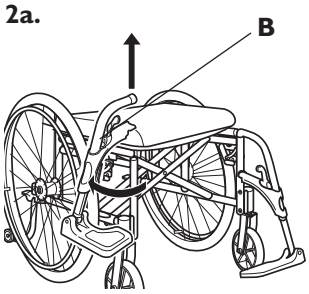
The pelvic belt is mounted on the brackets placed at the rear of chassis (Pic 1).

Transport

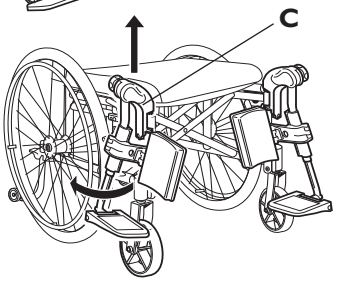
1.



2a.

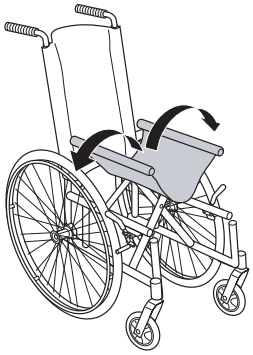


2b.

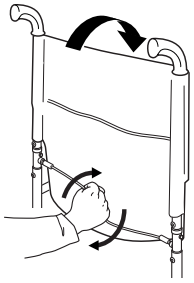


3.

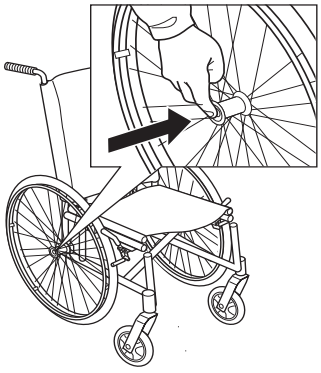
Alt. 1



Alt. 2



4.



When you are transporting the Invacare® Spin× you can easily remove certain parts to make the chair smaller and lighter.

1. Start by removing the armrests.

   Flip up armrests
   Press the button (A), swing up the armrest.
   Lift it straight up. You may need to hold it slightly forward then lift it straight up (B).

   Detachable armrests
   When you have detachable armrests, just lift them up.

2a. Remove the fixed legrests by pressing the level (B), whilst turning the footrests outwards or inwards and pull them straight up.

2b. Remove the adjustable legrests by pressing the level (C) backwards, whilst turning the legrests outwards and pull them straight up.

⚠ Be careful not to trap your fingers between frame and legrest.

3. **Folding the chair**
   Alternative 1:
   If you have a backrest bar first detach the left hand side of the backrest stay by depressing the catch on the inside of the left hand bracket and then rotate the stay downwards. Fold the chair by pulling the seat upwards.

   Alternative 2:
   After removing the wheels, flip down the backrest by grabbing the wire at the lower back of the backrest and twisting it to release the backrest locking.

⚠ Please be careful when folding the backrest forward onto the seat as there is a risk of finger entrapment.

4. Remove the rearwheels by pressing the button in the centre of the hub whilst pulling the wheel away from the wheelchair.

Transport of wheelchairs in vehicles

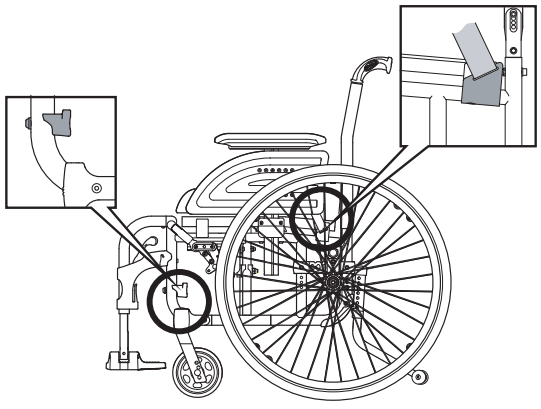
The Invacare® Spin× has been tested for safety in collisions according to ISO 7176-19. The Invacare® Spin× can be used for transport in vehicles that have been specially adapted for this purpose. The wheelchair must be securely fastened in the vehicle according to the methods described on the following page. Remember that the best solution is always to move the user from the wheelchair into a normal car seat.

TEST REPORT FROM DYNAMIC SAFETY RESTRAINT TEST

Test no:	P602670C	Customer: Invacare Rea AB
Date:	21/06/2006	
Pulse specification:	ISO 7176-19 / ISO-10542	
Wheelchair:	Manufacturer:	Invacare Rea AB
	Model:	Invacare® Spin×
Configuration:	Forward facing	
Safety restraint device:	Manufacturer:	Unwin Safety Systems
	Model:	WWR/ATF/K/R + WWR/HD/ATF/K/R
	Attachment device:	Unwin Low Profile Rail
	Configuration:	4 Pt. Restraint
User safety belt:	Manufacturer:	Unwin Safety Systems
	Model:	QIR/3H/ATF/WH
Testdummy:	Hybrid III	
	Weight:	76 kg
Test configuration:	Chassis:	SW43 / SD45
	Weight:	20,2 kg
	Backrest:	Tension adjustable, foldable
	Seat:	Standard 5 cm
	Armrest:	Height adjustable
	Legrest:	Fixed 80° Alu2003
	Rear wheel:	24" pneumatic
	Castor:	140 x 37 mm
	Accessories:	Backrest stay, heel straps, pelvic belt

The safety restraint devices used in this test must be approved according to ISO10542. We have chosen to work with Unwin, a well-known quality manufacturer of safety restraint devices for wheelchairs.

Only chairs equipped with transport kit and pelvic belt (see picture to the right) are approved for transport in vehicles.



Transport of wheelchair in vehicles with passive rear wheel fixation

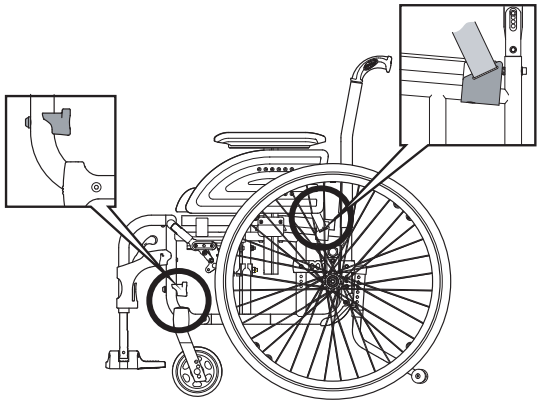
The Invacare® Spin^{X} with passive rear wheel fixation has been tested for safety in collisions according to ISO 7176-19. The Invacare® Spin^{X} with passive rearwheel fixation can be used for transport in vehicles that have been specially adapted for this purpose. The wheelchair must be securely fastened in the vehicle according to the methods described on the following page. Remember that the best solution is always to move the user from the wheelchair into a normal car seat.

TEST REPORT FROM DYNAMIC SAFETY RESTRAINT TEST

Test no:	P604734A	Customer: Invacare Rea AB
Date:	23/11/2006	
Pulse specification:	ISO 7176-19 / ISO-10542	
Wheelchair:	Manufacturer:	Invacare Rea AB
	Model:	Invacare® Spin^{X} with passive rearwheel fixation
	Configuration:	Forward facing
Safety restraint device:	Manufacturer:	Unwin Safety Systems
	Model:	WWR/ATF/K/R + WWR/HD/ATF/K/R
	Attachment device:	Unwin Low Profile Rail
	Configuration:	4 Pt. Restraint
User safety belt:	Manufacturer:	Unwin Safety Systems
	Model:	QIR/3H/ATF/WH
Testdummy:	Hybrid III	
	Weight:	76 kg
Test configuration:	Chassis:	SW45.5/SD45
	Weight:	20,0 kg
	Backrest:	Tension adjustable, foldable
	Seat:	Standard 5 cm
	Armrest:	Height adjustable
	Legrest:	Fixed 80° Alu2003
	Rear wheel:	24" pneumatic
	Castor:	140 x 37 mm
	Accessories:	Backrest stay, heel straps, pelvic belt

The safety restraint devices used in this test must be approved according to ISO10542. We have chosen to work with Unwin, a well-known quality manufacturer of safety restraint devices for wheelchairs.

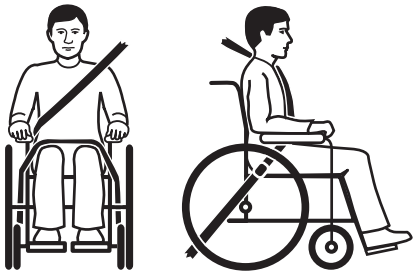
Only chairs equipped with transport kit and pelvic belt (see picture to the right) are approved for transport in vehicles.



TO OBSERVE BEFORE TRANSPORTING WHEELCHAIRS IN VEHICLES

- We recommend that wheelchair users should transfer to the seat of the vehicle and use the installed restraint system of the vehicle whenever feasible.
- The wheelchairs are tested in a basic configuration. The use in other configurations has not been tested. See user manual, section "Test report from dynamic safety restraint test", for test configuration.
- Auxiliary wheelchair equipment is either secured to the wheelchair or removed from the wheelchair and secured in the vehicle during transit (for example table trays).
- Alterations or substitutions are not to be made to points of the wheelchair or to structural and frame parts without the written consent of Invacare® .
- A wheelchair-anchored pelvic belt must be fitted across the wheelchair occupant in addition to the lap and diagonal restraint (3-point belt).
- Belt restraints are not to be held away from the body by wheelchair components or parts such as armrests, postural restraints, wheels, etc. (See illustration below.)
- The wheelchair must be securely fastened in the vehicle with an ISO 10542-2 approved 4-point tie-down system, according to the methods described in this manual.
- The occupied wheelchair must be tied down in an forward-facing configuration, with the parking brake applied.
- The wheelchair backrest should be positioned as close to vertical as possible and the seat as close to horisontalt as possible.

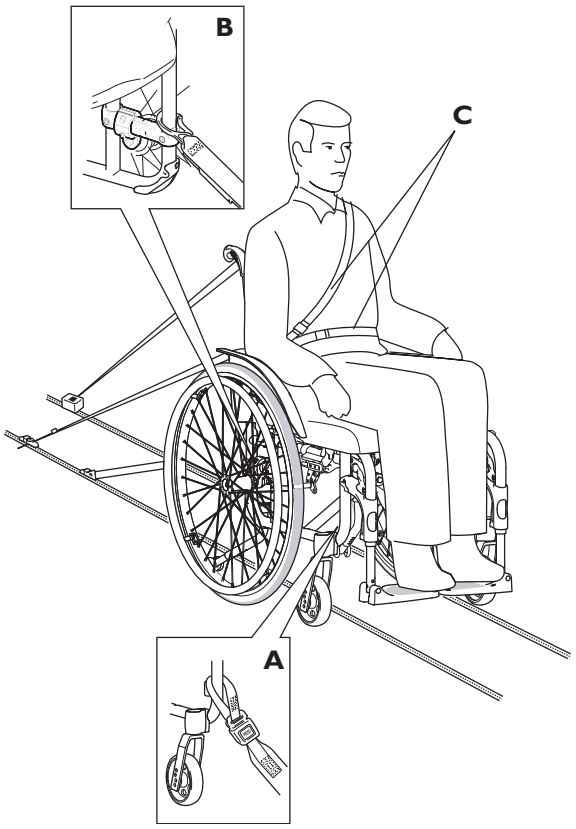
Please observe that even if these products and recommendations are provided in order to increase security and safety, injury to vehicle occupants still might occur in the event of a collision or other accidents and no guarantee is given in this respect.



Correct placement of belt

Incorrect placement of belt

RESTRAINT METHODS



A. Front restraints with straps

1. Connect the front straps around the front tube of the frame, just above the lower polyamid block, see picture A.
2. Release brakes and tension front straps by pulling the wheelchair backwards. Re-apply wheelchair brakes.

B. Rear restraints

1. Attach the snap hooks of the rear straps around the rear tube of the frame, just above the rear wheel attachment, see picture B.
2. Tighten the straps.

C. Pelvic belt and 3-point safety belt

1. Check that the pelvic belt is correctly attached to the wheelchair, adjust the length and fasten it around the user.
2. Fasten the 3-point safety belt around the user..

Safety instructions/ propelling techniques

We recommend that the qualified person who has prescribed your wheelchair for you, tests the wheelchair and that he/she makes the adjustments that you want, taking your build and needs into account. We also hope that you have received help in learning how best to use your chair. Start by practising carefully until you are familiar with the wheelchair's possibilities and limitations.

Moving to and from the wheelchair

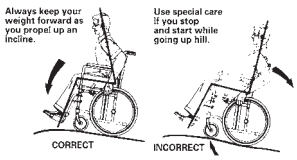
Propel the wheelchair as near as possible to the seat that you want to move to. Apply the brake. Remove/flip up the armrests and detach the legrests/move them outwards. Do not put any of your weight on the foot plates, as the chair may tip forwards.

When transfering from the wheelchair do not place your fingers between frame tube and seat tube.

Stretching and bending

Propel the wheelchair as near as possible. When stretching and bending, do always have full contact between the backrest and the back otherwise the wheelchair may tip over. Stretching behind the back is not recommended.

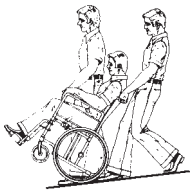
Propelling up a slope



Many experienced users manage to propel up a slope by themselves. In order not to lose control of the steering and to avoid tipping backwards, you should always lean forwards whilst propelling up a slope. Propel the wheelchair forwards using short, quick strokes applied to the hand rims, in order to maintain speed and steering control.
Generally, help is needed in the case of steep slopes.
If you have to stop on a slope, it is particularly important to ensure that you do not make any sudden or unexpected backward movements when you start moving the wheelchair forwards again. As the wheelchair is already leaning backwards, such a movement can cause the wheelchair to tip backwards.

Be careful not to trap your fingers between brakepin and tyre.

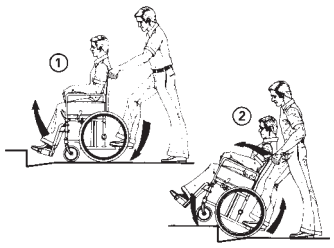
Propelling down a slope



We recommend that you get the help of one or more assistants when going down steep and wet slopes.

First check the slope to see if there are any particular risks, such as potholes, slippery sections, etc. Never use your brake to slow down. When you apply the brake on a downward slope, the wheels lock and the wheelchair can suddenly pull to one side, tip sideways or stop immediately, which can cause you to be thrown out of the chair. Always control the speed with the hand rims. Remember that the hand rims may become hot due to friction, and this may cause injury to your hands. Try to propel down the slope in a straight line as much as possible. Never change direction when propelling down a slope. Never propel up or down a slope crosswise.

Onto a kerb



This method is for when the assistant is always behind the wheelchair and creates the greatest safety for the user.
The following advice is for the assistant:

Illustration 1
Adjust the anti-tip device upwards. Ensure that the user's feet rest securely on the footrests and cannot slide off. Then lean the wheelchair backwards and push it forwards against the kerb.

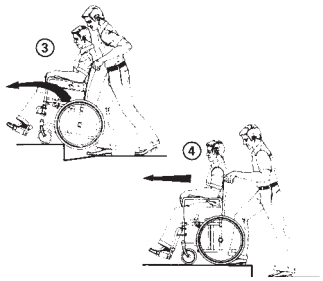


Illustration 2
Lower the frontal part of the wheelchair onto the pavement and place yourself as close to the chair as possible, before you lift up the whole wheelchair.

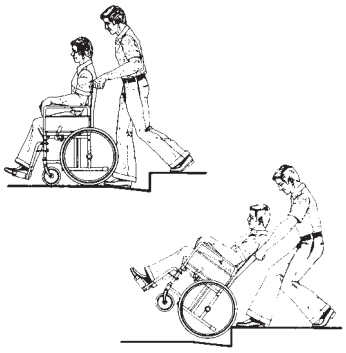
Illustration 3
Lean forward and lift/roll the wheelchair over the pavement edge.

Illustration 4
Lower the wheelchair onto the pavement so that the weight is divided on all four wheels. Ensure that the wheelchair does not roll backwards.

Off a kerb

Follow the procedure above, but in reverse order (step 4, 3, 2 and then 1) to move off a kerb.

Kerbs – alternative method



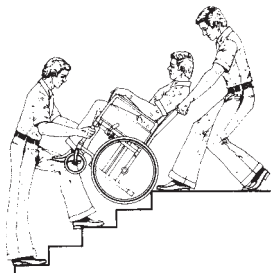
Generally this method is used by experienced assistants who are stronger than average. The method can also be used when the kerb or step is low and only constitutes a minimal obstacle.

The assistant goes backwards onto the pavement and then pulls the wheelchair up onto the pavement. It is important for the assistant to use his/her body correctly to prevent injury. Tip the wheelchair backwards and roll the chair over the kerb onto the pavement. Take particular care if the kerb is wet or slippery.

Escalators

Do not use the escalator when you are in the wheelchair. Find out whether there is a lift nearby.

Stairs



We advise you to avoid going up/down stairs in your wheelchair where possible, and to choose an alternative route instead.

We recommend that you receive help from two assistants to get up and down stairs. One assistant goes in front of the chair and hold the frame of the wheelchair, whilst the other assistant goes behind the chair and holds the push handles. Fold the anti-tip device upwards. Balance the wheelchair on the drive wheels until the balance point is found. The wheelchair is then rolled down the stairs, step by step, by letting the drive wheels roll over the edge of each step. Assistants must remember not to hold removable armrests or legrests. In addition, assistants should remember to lift correctly, using their legs and keeping their backs as straight as possible.

Guarantee

We provide a two-year guarantee from the delivery date. Damage due to wear and tear on upholstery, tyres, (rubber) tubes, hand rims and castors etc., is not covered by the guarantee. Damage that has been caused through physical violence or abnormal use is not covered. Damage caused by users who weigh more than 125 kg is not covered. The guarantee will only apply if the maintenance instructions are followed.

Maintenance instructions

Your Invacare® Spin^{x} is easy to keep clean and in good condition. Just follow the instructions below.

Cleaning

- Wipe metal sections and the upholstery regularly with a damp cloth. A mild detergent may be used. If necessary, the upholstery can be washed at 40°C. Ordinary washing powder/liquid can be used.
- For disinfection use a damp cloth and an alcohol based (max. 70%) detergent.

Washing and Disinfection

1. Remove all loose and removable covers and wash these in a washing machine following the washing instructions for each article.
2. Spray the wheelchair with detergent, for example a car-cleaning agent with wax, and leave on to work.
3. Rinse the wheelchair with a high-pressure cleaning or ordinary jet of water depending on how dirty the chair is. Do not aim the jet towards bearings and draining holes. If the wheelchair is washed in a machine the water must not be hotter than 60 degrees.
4. Spray the chair with alcohol for disinfection.
5. Leave the chair to dry in a drying cabinet. Remove parts where water has collected for example in end tubes, ferrules etc. If the chair has been washed in a machine, blow-drying with compressed air is recommended.

Wheels and tyres

- Wheel axles are to be wiped clean and lubricated with a drop of oil.
- Pneumatic tyres have valves similar to those on a car tyre, and the tyres can be pumped up using the same type of pump used for cars.

When inflating tyres there is a risk of explosion if over inflated. The recommended pressure is written on the side of the tyre

Technical servicing

- Only original parts or those approved and fulfilling Invacare's specifications may be used.
- All technical servicing is to be carried out by an authorised wheelchair technician or by Invacare's service department. The wheelchair should be checked by authorised wheelchair technicians or Invacare's service department once a year. The address and telephone number are on the back cover of the manual.
- Check all parts of the wheelchair once a week. If you discover damage, please contact Invacare immediately. The address and telephone number are on the back cover of this manual.

Service life

We estimate that Invacare® Spin^{x} has a service life span of five years. It is difficult to state the exact length of the service life of our products, and the length stated is an estimated average life span based on normal use.
The life span may be considerably longer if the wheelchair is used to a limited extent, and if it is used with care, maintained and handled properly. The life span may be shorter if the wheelchair is subjected to extreme use.

Accidents/Near-accidents

Please inform your Invacare sales company (phone number is on the back cover) of any accidents/near-accidents that were caused by this wheelchair and that have led to/ could have led to personal injury.
The relevant authority in your country must also be notified.

Testing

Invacare® Spin^{x} has been tested and approved by The Swedish Handicap Institute and TÜV in Germany and is CE -marked according to the Medical Device Directive.

Recycling

The wheelchair can be divided into the following main components:

- Chassis
- Plastic parts
- Upholstery
- Wheels, tyres and tubes
- Packing

Chassis

The chassis is produced in aluminium and is fully recyclable. Recycling aluminium requires only 2–5 % of the energy compared to new produced aluminium.

Plastic parts

The plastic parts in the chairs are produced of plastic of the family "Thermoplastic" and are marked with recycling symbols (where it is possible due to part size). The main plastic material is polyamide. This material can be recycled or burned in approved facilities.

Upholstery

Upholstery is produced of polyester, nylon or PVC. The efficient way to recycle the parts is to burn them in approved facilities.

Wheels, tyres and tubes

- The hand rim, rim, spokes and hub are made of steel, stainless steel or aluminium and can be recycled according to above.
- Tyres and tubes are made of rubber and can be recycled according to above.

Packing

All Invacare Rea AB packing material is developed to fit the products in an optimal way to reduce unnecessary waste in material. All boxes are recyclable.
Contact your local recycling agent to get correct information how to handle the above mentioned materials.

Surface treatment

Lacquered surfaces are lacquered with polyester. Some steel parts are zinc-plated. Not lacquered aluminium parts are anodised. Visible wooden parts are lacquered.

Manufacturer:

Invacare Rea AB
Växjövägen 303 S-343 71 DIÖ SWEDEN

Sales companies:

Belgium & Luxemburg:
Invacare nv, Autobaan 22, B-8210 Loppem
Tel: (32) (0)50 83 10 10, Fax: (32) (0)50 83 10 11
belgium@invacare.com

Danmark:
Invacare A/S, Sdr. Ringvej 37, DK-2605 Brøndby
Tel: (45) (0)36 90 00 00, Fax: (45) (0)36 90 00 01
denmark@invacare.com

Deutschland:
Invacare Aquatec GmbH, Alemannenstraße 10, D-88316 Isny
Tel: (49) (0)75 62 7 00 0, Fax: (49) (0)75 62 7 00 66
info@invacare-aquatec.com

Ulrich Alber GmbH, Vor dem Weissen Stein 21, D-72461 Albstadt-Tailfingen
Tel: (49) (0)7432 2006 0, Fax: (49) (0)7432 2006 299
info@ulrich-alber.de

European Distributor Organisation:
Invacare, Kleiststraße 49, D-32457 Porta Westfalica
Tel: (49) (0)57 31 754 540, Fax: (49) (0)57 31 754 541
edo@invacare.com

España:
Invacare SA, c/Areny s/n, Polígon Industrial de Celrà, E-17460 Celrà (Girona)
Tel: (34) (0)972 49 32 00, Fax: (34) (0)972 49 32 20
contactsp@invacare.com

France:
Invacare Poirier SAS, Route de St Roch, F-37230 Fondettes
Tel: (33) (0)2 47 62 64 66, Fax: (33) (0)2 47 42 12 24
contactfr@invacare.com

Ireland:
Invacare Ireland Ltd, Unit 5 Seatown Business Campus, Seatown Road, Swords, County Dublin - Ireland
Tel: (353) 1 810 7084, Fax: (353) 1 810 7085
ireland@invacare.com

Italia:
Invacare Mecc San s.r.l., Via dei Pini 62, I-36016 Thiene (VI)
Tel: (39) 0445 38 00 59, Fax: (39) 0445 38 00 34
italia@invacare.com

Nederland:
Invacare BV, Celsiusstraat 46, NL-6716 BZ Ede
Tel: (31) (0)318 695 757, Fax: (31) (0)318 695 758
nederland@invacare.com
csede@invacare.com

Norge:
Invacare AS, Grensesvingen 9, Postboks 6230, Etterstad, N-0603 Oslo
Tel: (47) (0)22 57 95 00, Fax: (47) (0)22 57 95 01
norway@invacare.com
island@invacare.com

Österreich:
Mobitec Mobilitätshilfen GmbH, Herzog Odilostrasse 101, A-5310 Mondsee
Tel: (43) 6232 5535 0, Fax: (43) 6232 5535 4
office@mobitec-austria.com, austria@invacare.com

Portugal:
Invacare Lda, Rua Estrada Velha, 949, P-4465-784 Leça do Balio
Tel: (351) (0)225 1059 46/47, Fax: (351) (0)225 1057 39
portugal@invacare.com

Sverige & Suomi:
Invacare AB, Fagerstagatan 9, S-163 91 Spånga
Tel: (46) (0)8 761 70 90, Fax: (46) (0)8 761 81 08
sweden@invacare.com
finland@invacare.com

Switzerland:
Mobitec Rehab AG, Benkenstrasse 260, CH-4108 Witterswil
Tel: (41) (0)61 487 70 80, Fax: (41) (0)61 487 70 81
office@mobitec-rehab.ch
switzerland@invacare.com

United Kingdom:
Invacare Limited, Pencoed Technology Park, Pencoed, Bridgend CF35 5HZ
Switchboard Tel: (44) (0)1656 776200, Fax: (44) (0)1656 776201
Customer services Tel: (44) (0)1656 776222, Fax: (44) (0)1656 776220
UK@invacare.com

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