INVACARE

Yes, you can.®

User Manual

English

rea Spirea²®

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CE

Contents

Product description
Rea® *Spirea²*

Rea® Spirea² is a wheelchair with many adjustment options and accessories. To ensure that you benefit as much as possible from Rea® Spirea² , 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 Rea® Spirea² in everyday life.

The Rea® Spirea² 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 is made of either vinyl or plush and is easily cleaned. The cushion and backrest are made of either polyester or plush.

This manual includes a description of the parts of the chair, simple adjustment options, how to use the Rea® Spirea² 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 Rea® Spirea² has many different components and accessories, the appearance of the accessories you have for your chair may differ from those shown.

NB!

This symbol means warning.

On the next page a number of points affecting your personal safety are shown. 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, backbrace 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 gives always 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, with long time sun shining on them, can reach temperature > 41 degrees C.

Delivery check

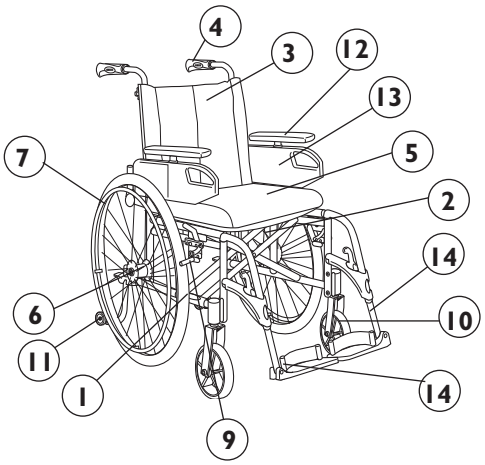
Check that all components comply with the delivery note. Any damage incurred during transport should be reported immediately to the delivery company. Retain all packaging until the transport company has inspected the consignment and an agreement has been reached.

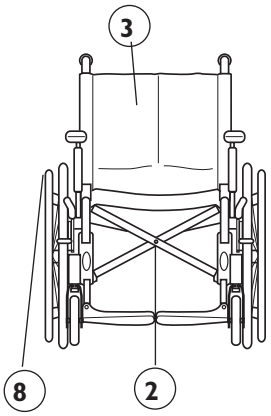
Daily performance check

Check that the following parts are still currently assembled on the wheelchair:

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

Parts of the wheelchair

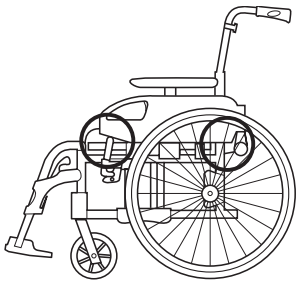




1. Frame (chassis)
2. Cross members
3. Backrest
4. Push handles
5. Seat
6. Rear wheel bracket
7. Rear wheel
8. Handrims
9. Brakes
10. Castors
11. Step tube/Anti tip device
12. Armrests
13. Sideguards
14. Legrests

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 foot-rests. Ensure that the backrest and push handles are securely in place. Also read the chapter Safety instructions/Propelling techniques.



Upholstery and frame colours

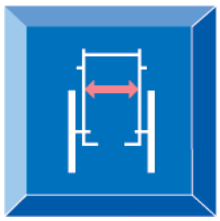
Upholstery	Black Jemima TR18 Grey Plush TR32
Frame colours	Pearl Grey

Accessories and instructions

Rea® Spirea2 has a wide range of accessories and options.

Backrest	Slingtype Tension adjustable Backrest bar
Seat	Sling seat depth adjustable 5 cm Tension adjustable and depth adjustable 5 cm
Seat cushions	5 cm
Legrests	80° legrests Legrests (angle-adjustable) Plaster legrest Amputee legrest Fixed footplate Angle-adjustable and depth-adjustable foot plate Heel strap
Armrests	Flip-up armrests Height adjustable armrest Hemiplegic armrest Autolock for armrests Long pad Short pad
Castors	125-200 mm, pneumatic or solid, wide or narrow
Rear wheels	16", 22", 24", pneumatic or puncture-proof
Brake	Carer-operated User-brake Extended brake arm
Others	Several types of hand rim Spoke guard Anti-tip devices Reflectors Kit Table Tray Pump Cane holder Tool kit Push handles brace external and high adjustable Pelvic belt

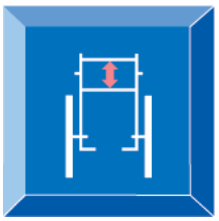
Technical data



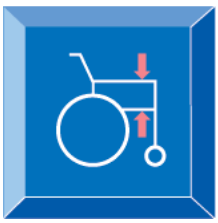
38, 40.5, 43, 45.5, 50.5 cm

40, 45 (-5) cm

38–50.5 cm



38–46 cm

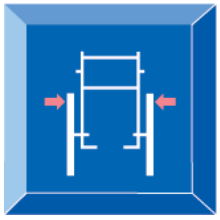


19–29 cm

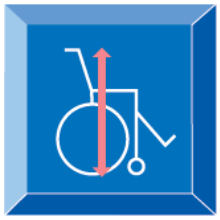
327–520 cm

0°–6°

10°

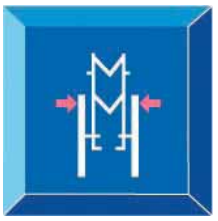


Seat width + 22 cm

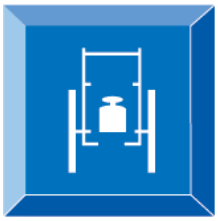


76–96.5 cm

90–115 cm



29 cm



15.3 kg

max 125 kg

Transport weight 8.5 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.

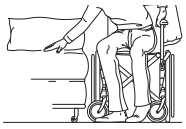
Intended use

- Rea® Spirea2 is a manual wheelchair for those using their chair active over longer periods of time (several hours in a row) or for short time and transportation purposes.
- Rea® Spirea2 is intended for users able to propel their wheelchair themselves but also for assistant to push the chair.
- Rea® Spirea2 has features and options to have the user properly and comfortable seated for many hours per day.
- Depending on the size of the castors (125–200 mm) Rea® Spirea2 can be used indoors and outdoors. We recommend the use of the big castors for running on bumpy ground.
- Note that Rea® Spirea2 may tip when used on a slope, especially if the slope is 8° or more. Use anti tip devices (and common sense)!
- Rea® Spirea2 is designed to use in a combination with a seat cushion placed on the seat, without the use of seat cushion, there is a risk of pressure sore.
- Rea® Spirea2 should always be equipped with footrests/legrests if the wheelchair is not propelled by the feet and have a low seat height.

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



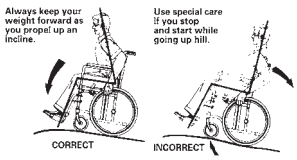
Propel the wheelchair as near as possible to the seat that you want to move to. Apply the brake. Remove/flip up the armrests and detach the legrests/move them outwards. Do not put any of your weight on the foot plates, as the chair may tip forwards.

When transfering from Rea® Spirea 2 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.

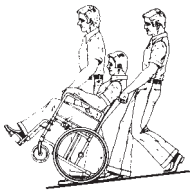
Propelling up a slope



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.

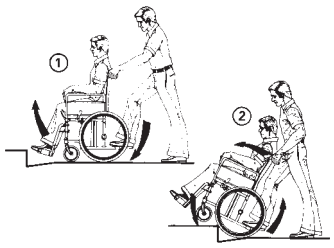
Propelling down a slope

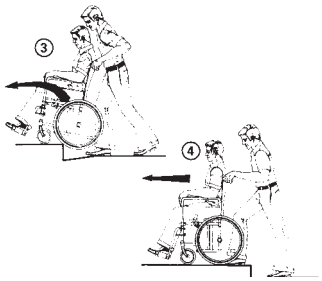


We recommend that you get the help of one or more assistants when going down steep and wet slopes.

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.

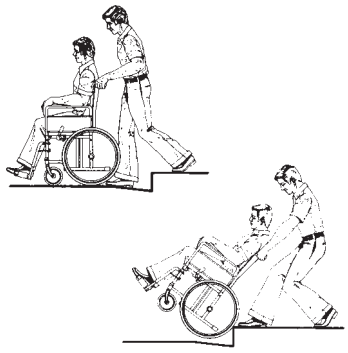
Illustration 3
Lean forward and lift/roll the wheelchair over the pavement edge.

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



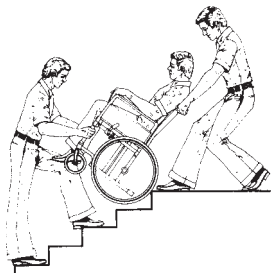
Generally this method is used by experienced assistants who are stronger than average. The method can also be used when the kerb or step is low and only constitutes a minimal obstacle.

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



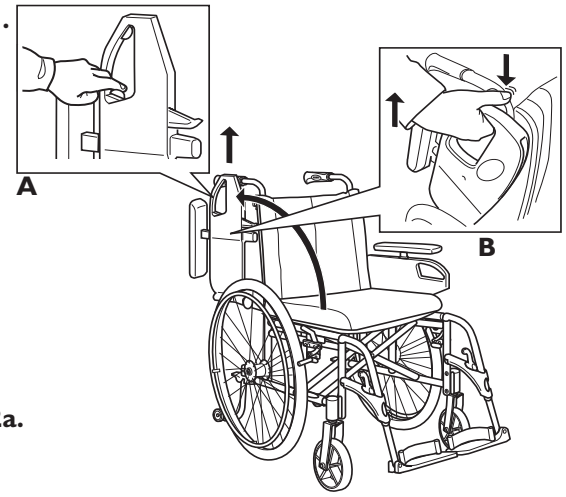
We advise you to avoid going up/down stairs in your wheelchair where possible, and to choose an alternative route instead.

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.

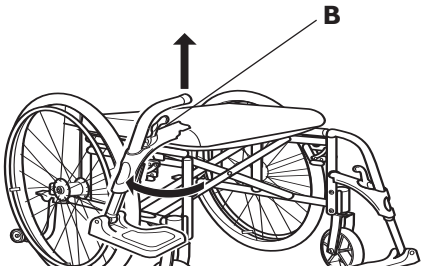
Transport

When you are to transport the Rea® Spirea2 you can easily remove certain parts to make the chair smaller and lighter.

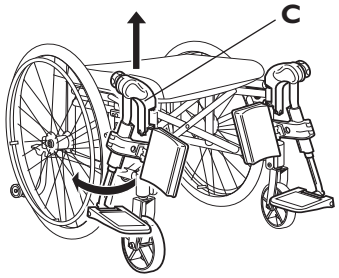
1.



2a.



2b.



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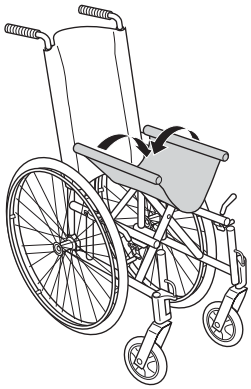
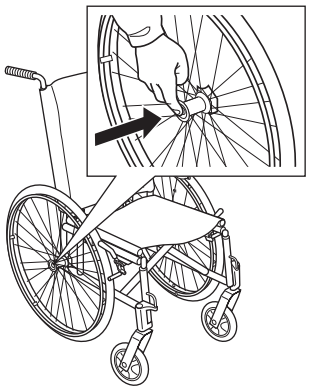


4.



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 having detachable one´s, just lift them up.

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

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

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

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

Concerning the brake
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.

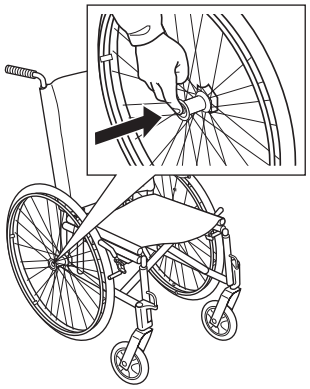
3. Push the seat down into a ”U” shape. Take hold of the sides of the seat and fold the chair completely.

If you have a backrest bar release it first by pressing on the small nob on the inside of the tube. It will automaticlly fall down to the side.

4. Remove the rearwheels by pressing the buttom in the centre of the hub whilst pulling the wheel away from the wheelchair. Finally, fold the anti-tip devices upwards (see page 23).

Assembly

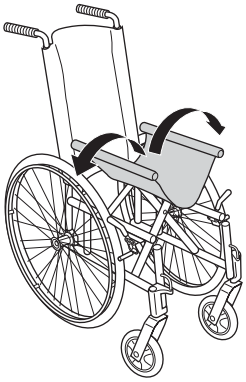
1.



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.

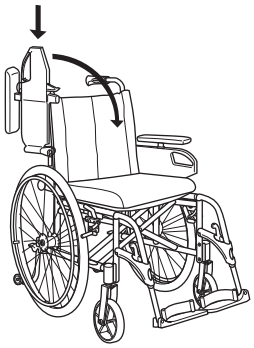


2. Unfold the wheelchair.

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

If you have a backrest bar fold it up by just fold it up into position see page 30 for picture.

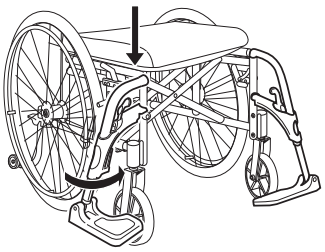
3.



3. 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.

4a.

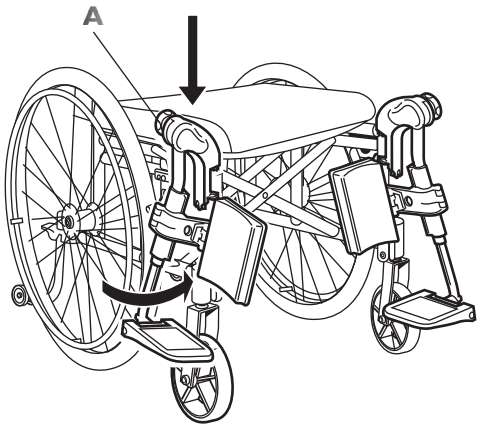


4. Footrests/legrests
The wheelchair can be equipped with either footrests or legrests.

4a. Footrests
Attach the footrests by pushing the tube at the upper part of the footrests down into the tubes on the wheelchair. You must angle the footrests outwards when inserting them.
Lock the footrests by turning them inwards. The footrests are automatically locked so there is no risk of them coming off the wheelchair.

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

4b.



4b. 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 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. The legrest angle is adjusted by the knob (A).

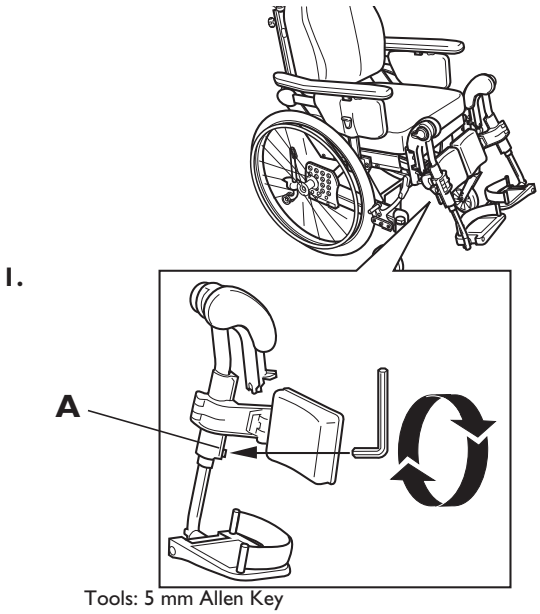
Be careful not to trap your fingers between frame and legrest.

Concerning the brake

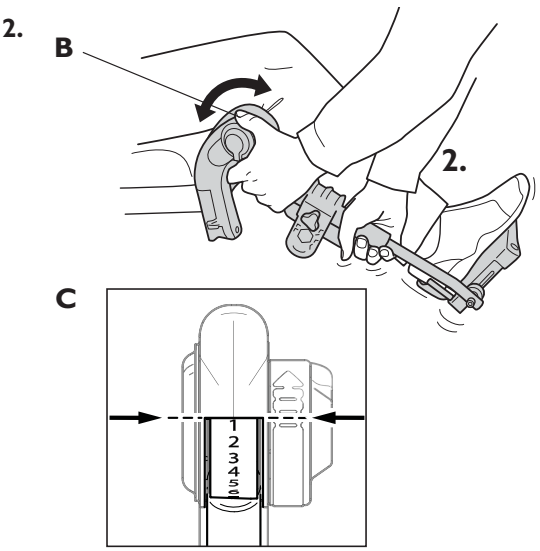
The lever of the brake where the handle is located, have a free play. The lever folds up automatically when the legrest have been swinged to its outward position without activating the brake. To activate the brake just press respectively pull at its most forward respectively rear located position.

Settings

ANGLE ADJUSTABLE LEGRESTS



Tools: 5 mm Allen Key



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.

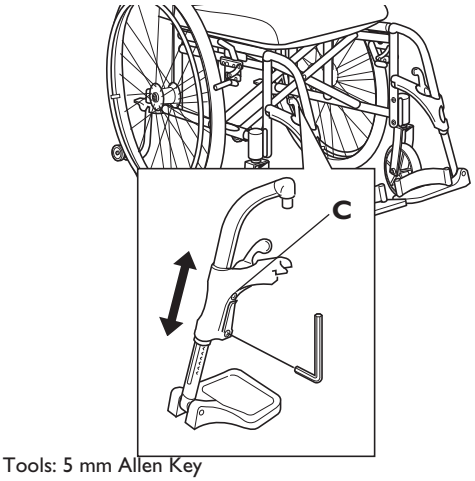
1. **Height adjustment**
   Loosen screw (A) with an Allen key. Adjust the legrest into a suitable height and the screw is caught by one of the recesses on the legrest tube. Then retighten the screw.

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

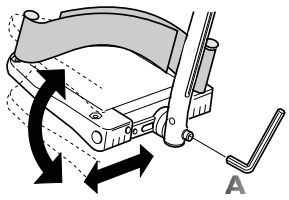
Height adjustment
Loosen screw (A) with an Allen key. Adjust the legrest into a suitable height and the screw is caught by one of the recesses on the legrest tube. Then retighten the screw.

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.

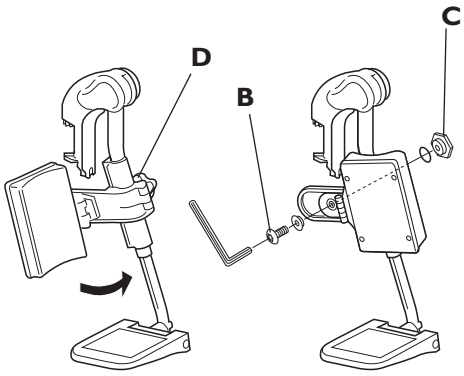
FOOTPLATES/CALF PADS

1.



Tools: 5 mm Allen Key

2.



Tools: 5 mm Allen Key

1. 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.

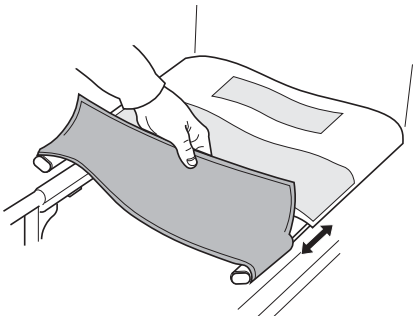
Do not place anything on the footplate when the screw is loose.

2. 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.

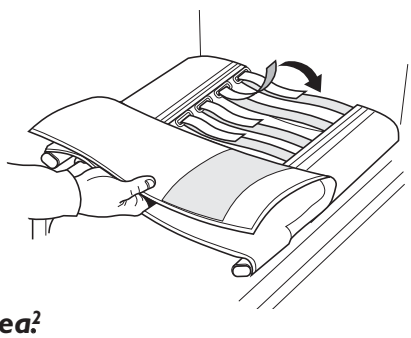
The height of the calf pads can easily be adjusted using the handwheel (D).

SEAT

1.



2.

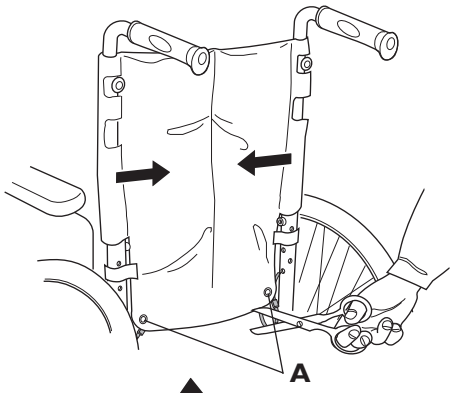


1. Adjusting the seat depth
Fold the seat slightly. Lift up the rear part. Pull into required depth.

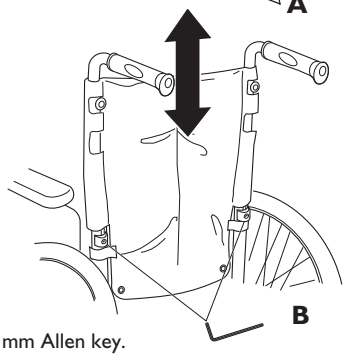
2. Adjustment of seat with variable shape
Pull back the seat's upper section so that the adjustable Velcro straps are visible. Use these straps to adjust the shape of the seat. Always have a cushion on the seat when testing its adjusted shape.

BACKREST

1.



2.



Tools: 5 mm Allen key.

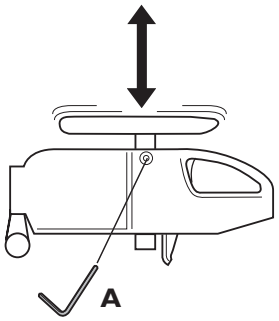
Adjusting the backrest height

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. Loosen screws (B) on the back of the backpipe with an Allen key. It is now possible to lower and raise the back.

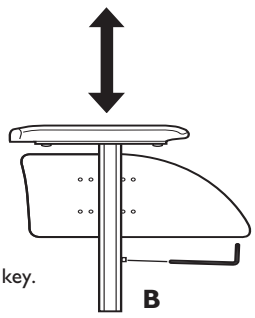
ARMRESTS

1.



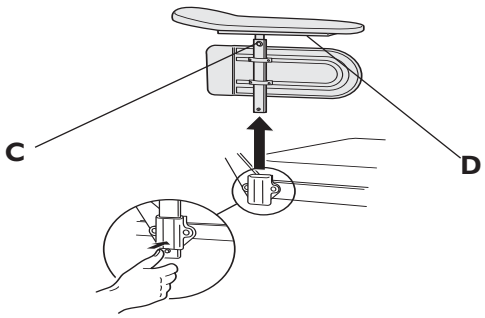
Tools: 5 mm Allen key.

2.



Tools: 5 mm Allen key.

3.



Adjust 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.

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.

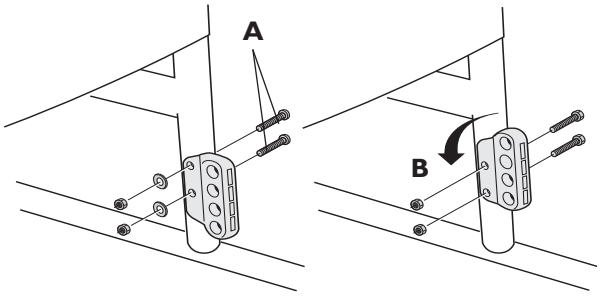
3. **Height adjustable armrest**
   Adjust the height of the armrests by turning the knob or Allen key screw (C), setting the required height and then re-tightening the knob/screw.

   Depth
   You can also adjust the depth of the armrest pad. Loosen the knob (D), set the pad in the required position and re-tighten the knob.

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

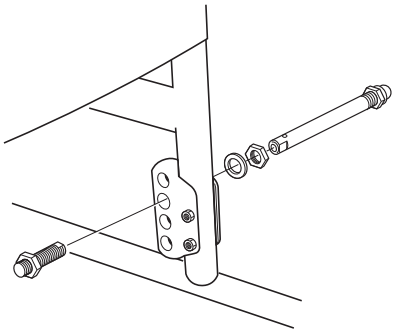
REAR WHEELS, ADJUSTMENT

1.



Tools: 10 mm fixed spanner
24 mm fixed spanner

2.



Tools: 10 mm fixed spanner
24 mm fixed spanner

1. Changing the balance

The rear wheel plate can be fitted in front of or behind the frame tube. If you place the wheels in any of the frontal positions, this will make the chair easier to propel, but also more unstable. You can counteract this by fitting an anti-tip device to the chair, giving you a chair that is both easy to propel and stable. Loosen the two attachment screws (A) so that the attachment can be moved. To achieve the lowest or highest seat height, you must turn the plate upside down (B).

The tip risk increases if the rear wheel are located in front of the backrest.

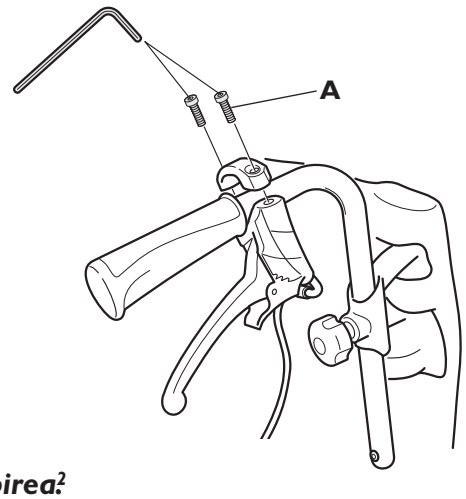
2. Changing the height of the drive wheel attachment.

The illustrations show quick-release rear wheels, but the procedure is the same for fixed hubs. Loosen the axle housing with a fixed key. Remove the casing and place in a different position. For different positions, see page 17.

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 40Nm. This is important for your own safety!

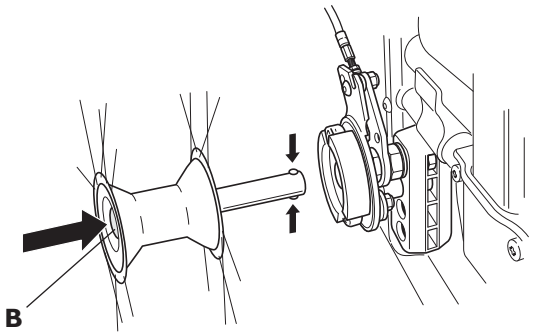
REAR WHEEL SETTINGS – CARER-OPERATED BRAKES

1.



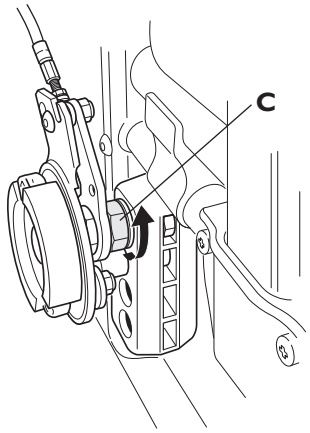
1. Loosen both screws (A) and remove the brake handle.

2.



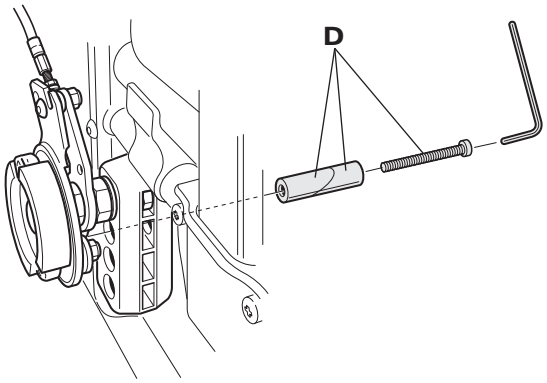
2. Remove the rear wheel by pressing button (B) on the wheel hub and pulling the rear wheel straight outwards.

3.



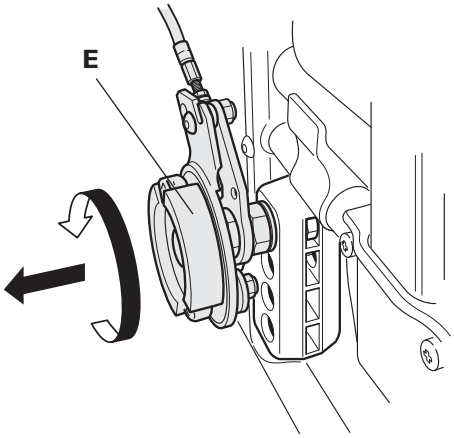
3. Loosen the nut (C) slightly, turn it anti-clockwise about ½ a turn.

4.



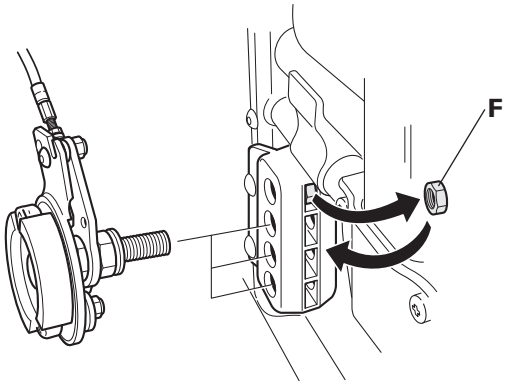
4. Remove the screw and the two screw casings (D).

5.



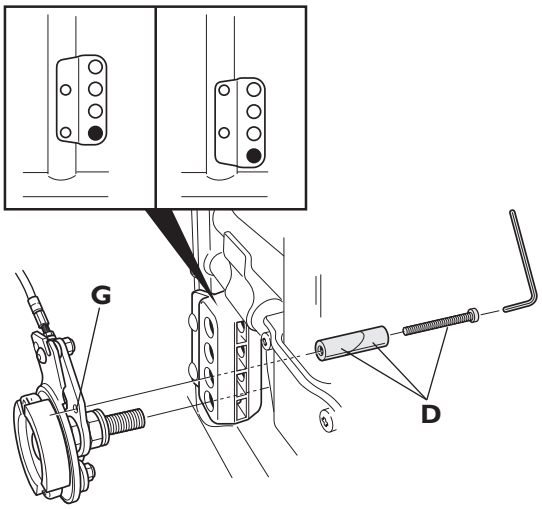
5. Remove the brake unit (E) from the rear wheel attachment by turning it anti-clockwise.

6.



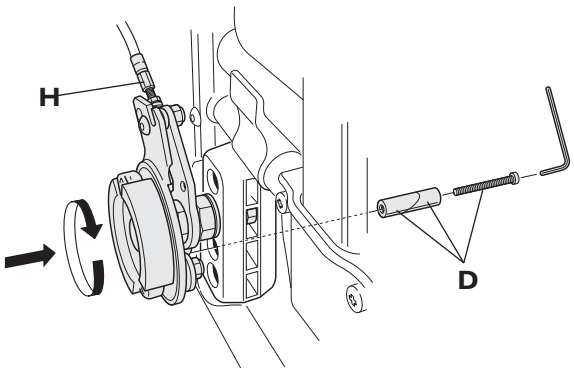
6. Remove the nut (F) from its groove in the rear wheel attachment and place it in the new position.

7.



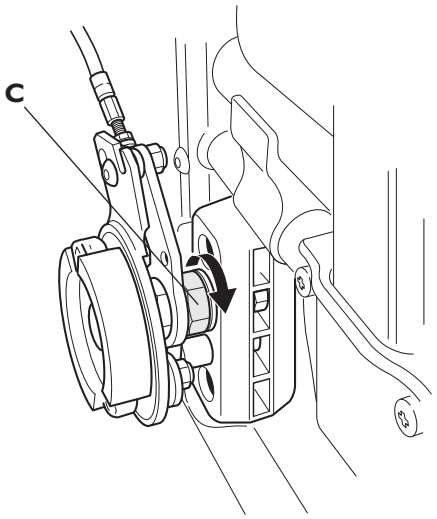
7. The rear wheel attachment can be placed in two different positions (see picture). If the brake unit is to be placed in the lower position (see picture), the screw with its two casings (D) must be placed in the upper position (G) on the brake.

8.



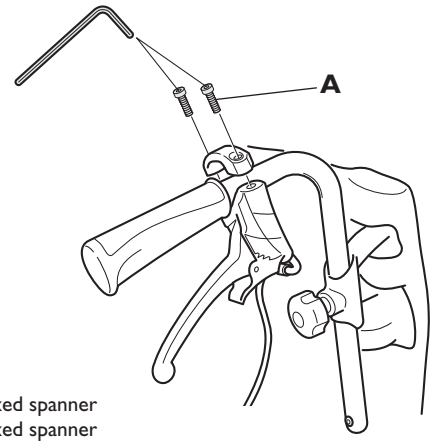
8. Place the brake unit in its new position and turn the brake clockwise to screw it into place. Make sure that that the wire attachment (H) points upwards. This is important because the screw with both its casings (D) must fit into its attachment on the brake.

9.



9. Tighten the nut (C) to the rear wheel attachment (clockwise).

10.

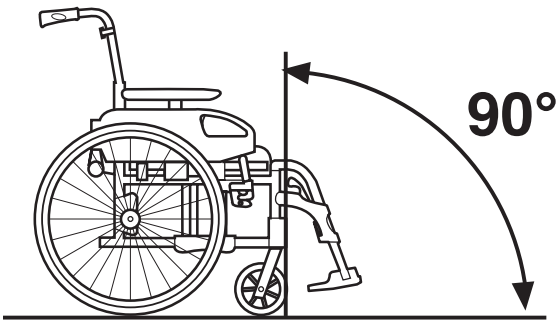


10. Screw the brake handle securely into place using the two screws (A).

Tools: 13 mm fixed spanner
10 mm fixed spanner

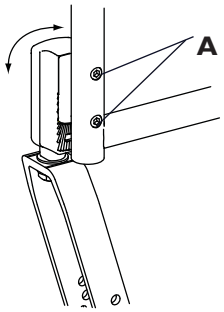
CASTOR WHEELS, ADJUSTMENT

1.



1. 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 the ground is 90°.

2.



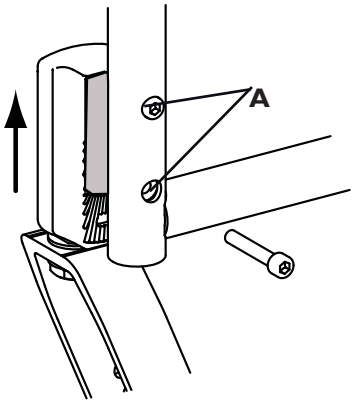
2. Adjusting the angle

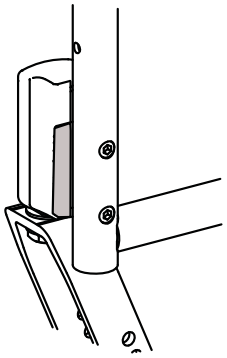
Loosen screws (A) approximately two turns. Adjust the castor housing to the correct angle by turning it. On the inside of the castor housing there are ribbed marks that provide the possibility to adjust to 0°, 3° or 6° angle. When the castor house is parallell to the tube, the angle is 0°. Do not forget to tighten the screws when you've reached the desired angle.

Control that the castor housing is fastened properly after the adjustment.

Tools: 5 mm Allen key

3.





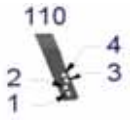
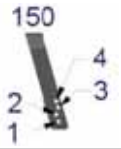
3. Adjusting the height

Loosen the lower of the two screws (A) completely.
Loosen the upper screw approximately two turns.
Move the castor housing upwards.
Re-attach the lower screw, but do not tighten completely.
Adjust the angle according to point 2 above.
Tighten both screws.

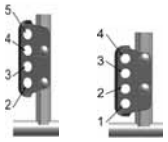
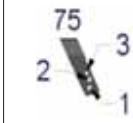
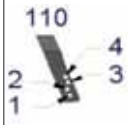
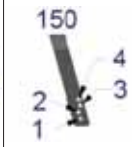
Control that the castor housing is fastened properly after the adjustment.

WHEELCHAIR HEIGHTS

16" Rear wheel, 0° angle

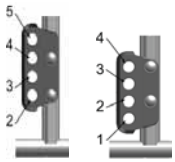
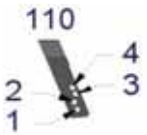
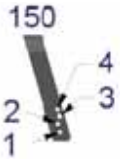
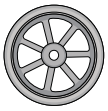
				
46	2	-	2	140
46	2	-	2	150
46	2	-	3	180
46	2	1	4	200
50	1	-	1	200

22" Rear wheel

						
38	0°	4	2	-	-	125
	3°	5	2	-	-	125
	6°	-	2	-	-	-
40,5	0°	3	-	3	-	125
	3°	4	-	3	-	125
	6°	5	-	3	-	125
43	0°	2	-	1	4	125
	3°	3	-	1	4	125
	6°	4	-	1	4	125
43	0°	2	-	2	-	140
	3°	3	-	2	-	140
	6°	4	-	2	-	140
43	0°	2	-	2	-	150
	3°	3	-	2	-	150
	6°	4	-	2	-	150
45,5	0°	1	-	-	2	125
	3°	2	-	-	2	125
	6°	3	-	-	2	125
45,5	0°	1	-	-	3	140
	3°	2	-	-	3	140
	6°	3	-	-	3	140
45,5	0°	1	-	-	3	150
	3°	2	-	-	3	150
	6°	3	-	-	3	150
45,5	0°	1	-	-	4	180
	3°	2	-	-	4	180
	6°	3	-	-	4	180
48	0°	-	-	-	1	-
	3°	1	-	-	1	140
	6°	2	-	-	1	140
48	0°	-	-	-	1	-
	3°	1	-	-	1	150
	6°	2	-	-	1	150
48	0°	-	-	-	2	-
	3°	1	-	-	2	180
	6°	2	-	-	2	180
48	0°	-	-	-	3	-
	3°	1	-	-	3	200
	6°	2	-	-	3	200
	6°	3	-	-	3	150

- Not applicable

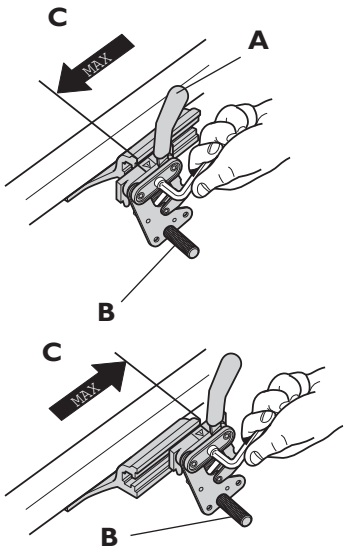
24" Rear wheel

					
40,5	0°	4	3	-	125
	3°	5	3	-	125
	6°	-	3	-	-
43	0°	3	1	4	125
	3°	4	1	4	125
	6°	5	1	4	125
43	0°	3	1	-	140
	3°	4	1	-	140
	6°	5	1	-	140
43	0°	3	2	-	150
	3°	4	2	-	150
	6°	5	2	-	150
45,5	0°	2	-	2	125
	3°	3	-	2	125
	6°	4	-	2	125
45,5	0°	2	-	3	140
	3°	3	-	3	140
	6°	4	-	3	140
45,5	0°	2	-	3	150
	3°	3	-	3	150
	6°	4	-	3	150
45,5	0°	2	-	4	180
	3°	3	-	4	180
	6°	4	-	4	180
48	0°	1	-	1	140
	3°	2	-	1	140
	6°	3	-	1	140
48	0°	1	-	1	150
	3°	2	-	1	150
	6°	3	-	1	150
48	0°	1	-	2	180
	3°	2	-	2	180
	6°	3	-	2	180
48	0°	1	-	3	200
	3°	2	-	3	200
	6°	3	-	3	200
50,5	0°	1	-	2	200
	3°	1	-	1	200
	6°	2	-	1	200

- = Not applicable

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.

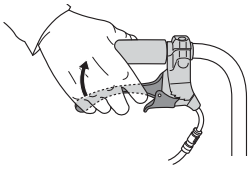
   NB.
   The brake must not be moved further than indicated in the picture (C).

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 swung to its most 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.

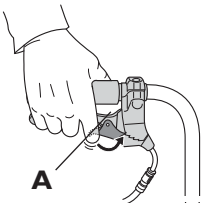
CARER-OPERATED BRAKE

1.



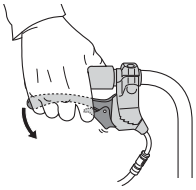
1. Apply the brakes when moving: pull both brake handles upwards (squeeze the handles) and the brake will be applied.

2.



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

3.

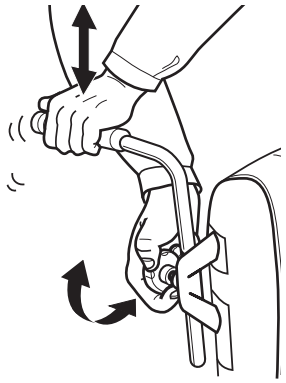


3. Release the brakes: pull the handle upwards and the lock catch will release automatically.

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

PUSH HANDLES

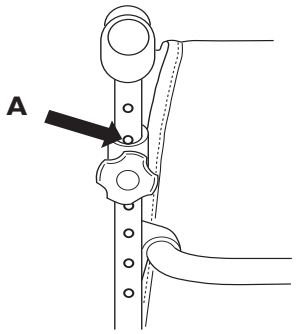
1.



Adjusting the height of the push handles

1. To raise or lower the height of the push handles twist the knob at the same time as you move the handles to the required height.Tighten once correct position is achieved.

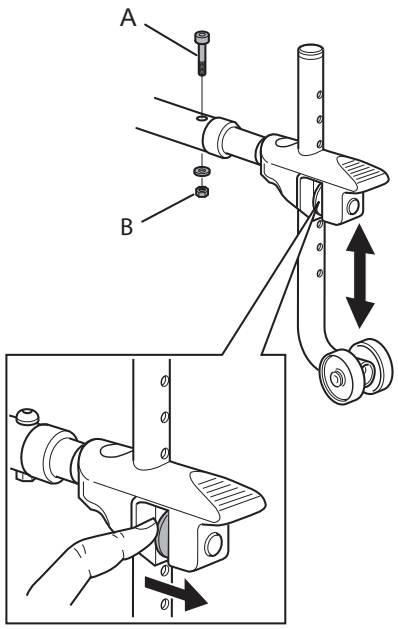
2.



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

ANTI-TIP DEVICES

1-2.



Tool: 5 mm Allen key
10 mm fixed spanner

The anti-tip device also acts as a step tube. It is height adjustable and is easy to adjust.

1. Change the plastic plugs on both step tubes to the ones enclosed. Push the anti-tip device onto the tube and secure with screw (A) and nut (B).

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

Never forget to fold down the anti-tip devices.

Transport of wheelchairs in vehicles

The Rea® Spirea2 has been tested for safety in collisions according to ISO-7176-19:2001. Rea® Spirea2 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 pages. 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 (ISO-7176-19)

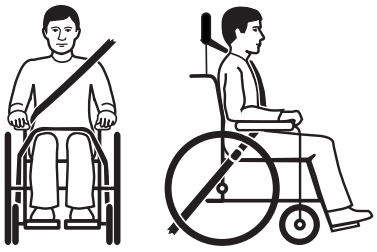
Test no:	P303194A	Customer: Invacare Rea AB
Date:	2003-09-19	
Test no:	F403233	Customer: Invacare Rea AB
Date:	2004-02-16	
Pulse specification	Testing to be carried out ISO-7176-19	
Wheelchair	Manufacturer:	Invacare Rea AB
	Model:	Rea® Spirea2, Rea® Spirea2 transport
	Weight:	16.4 kg
	Configuration:	Forward facing
Safety restraint device	Manufacturer:	Unwin Safety Systems
	Model:	4 Pt WWR/ATF/K/R
	Attachment device:	Unwin Low Profile Rail
User safety belt:	Manufacturer:	Unwin Safety Systems
	Model:	3 Pt WWR/HD/ATF/K/R
Test dummy	Hybrid III	
	Weight:	76.5 kg
Test Configuration	Chassie:	43/40 cm
	Backrest:	Fixed
	Seat:	Sling seat depth adjustable Velcro adjustable in depth and shape
	Armrests:	Detachable
	Legrests:	Fixed
	Rear wheels:	24" pneumatic, 16" pneumatic
	Castors:	150 x 27 mm
	Accessoires:	Heal straps
	Tested:	2003-09-19, 2004-02-16

The safety restraint devices used in this test must be approved according to ISO-10542. We have chosen to work with Unwin, a well-known quality manufacturer of safety restraint devices for wheelchairs.

TO OBSERVE BEFORE TRANSPORT OF 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 the 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. (i.e. 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 and 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 belt system, according to the methods described in the manual.
- The occupied wheelchair must be tied down in an forward-facing configuration, with the parking brake applied.
- The test dummy weight is 75 kg, according to ISO-7176-19, although the chairs are approved for users up to 125 kg.
- The wheelchair backrest should be positioned as close as possible to 90 degrees.
- If possible, a headrest should be used during transit, in order to reduce the risk of neck unjury. The headrest should be placed as high as possible.

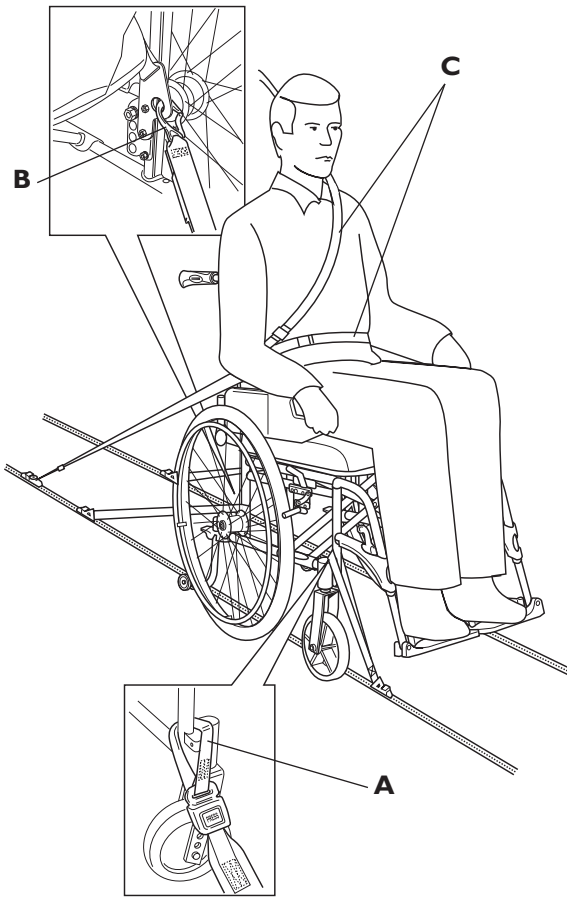
Please observe that even if these products and recommendations are provided in order to increase security and safety, injury to vehicle occupants still might occur in the event of a collision or **other accidents and no guarantee is given in this respect.**

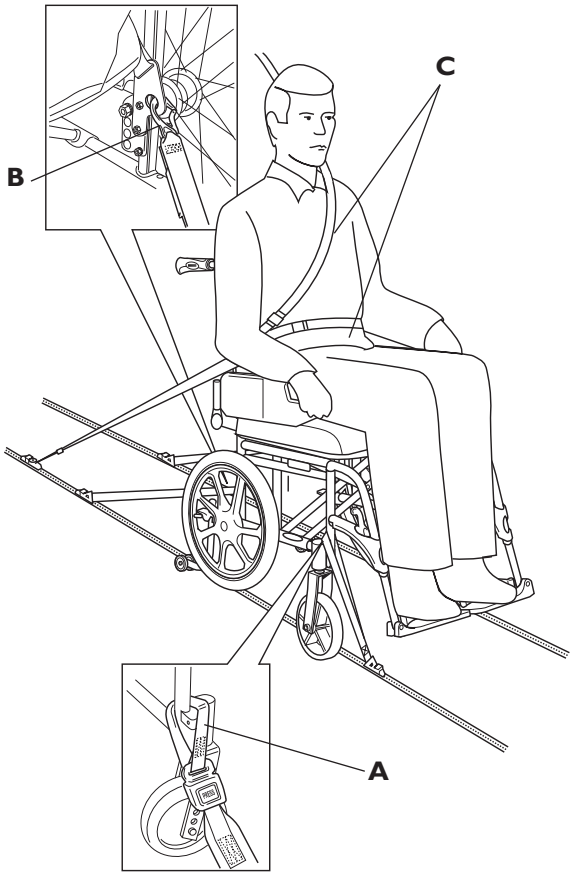


Correct placement of belt

Incorrect placement of belt

RESTRAINT METHODS





Rea® Spirea²

A. Frontal restraints with straps

1. Connect the frontal straps around the frontal part of the frame.
2. Release brakes and tension front straps by pulling the wheelchair backwards from the rear.
3. Re-apply wheelchair brakes.

B. Rear restraints

1. Attach the snap hooks in the holes on the belt attachments.
2. Tighten the straps.

C. Fastening of seat belt and safety belt

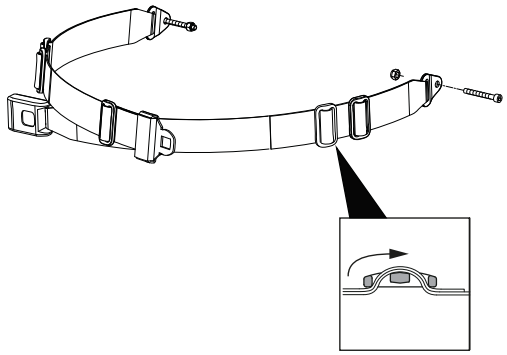
1. Check that the seat belt on the wheelchair is correctly fastened.
2. Fasten the 3-point safety belt over the user.

If pelvic belt on the wheelchair is missing we recommend that the user should transfer to the seat of the vehicle, if possible.

The safety belt should not be kept from the user's body by the parts of the wheelchair.

PELVIC BELT

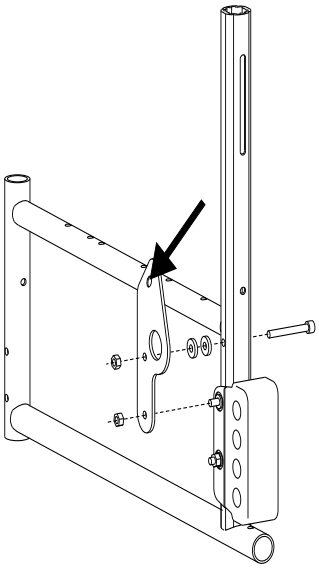
1.



1. The pelvic belt is used to prevent the risk of falling or sliding out of the chair and for providing the user with a good posture.

! When in use, make sure that the belt is threaded through both plastic buckles otherwise the belt might slide and not provide the necessary support.

2-3.

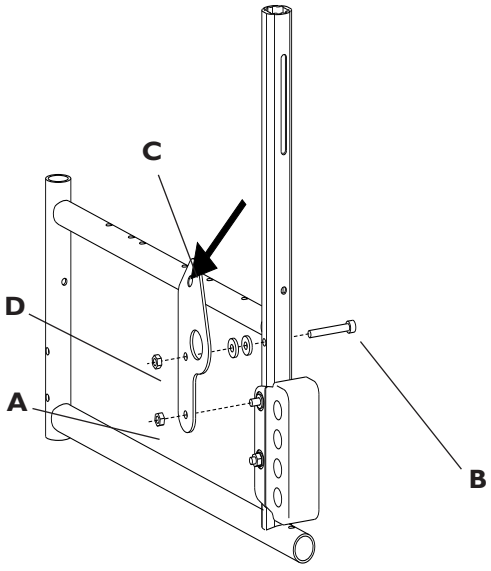


2. The pelvic belt is used to prevent the risk of falling or sliding out of the chair and for providing the user with a good posture.

3. Adjustment

Ensure that the user is sitting fully back in the seat and that the pelvis is as upright and symmetrical as possible - not forward on one side or tilted back. Position the lap belt so that the hip bones can be felt above the belt. Adjust the length using the buckles so that there is just sufficient room for your hand to slide between your body and the belt. It is recommended that the clasp is kept in a central position, i.e. make adjustments to each side. These adjustments should be checked and possibly changed each time the belt is used.

4.



Tools: 5 mm Allen key
10 mm Spanner

4. Installation of pelvic belt attachment

- Remove nut (A) from the upper screw of the rear wheel attachment.
- Insert screw (B) from the outside of the wheelchair into the free hole on the backrest tube. Put two plastic washers on the end of screw (A).
- Fit the pelvic belt attachment (C) on the two screws and tighten both nuts (A, D).

Maintenance

Guarantee

Rea® Spirea2 is covered by a guarantee of two years from the delivery date.

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.

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. The recommended pressure for drive wheels is:

Standard tyres:	3.5 bar 50 psi
Low profile tyres	7.0 bar 90 psi
Castors 150 mm:	2,5 bar

When inflating the tyres there is a risk of explosion when inflating to much

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 Rea® Spirea2 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

Rea® Spirea2 has been tested and approved by The Swedish Handicap Institute and is CE -marked according to the Medical Device Directive.

Recycling

The wheelchair Spirea2 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 fibres, PUR 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 are developed to fit the products in an optimal way to reduce unnecessary waste in material. All boxes are recyclable.
Contact your local recyclling agent to get correct information how to handle the above mentioned materials.

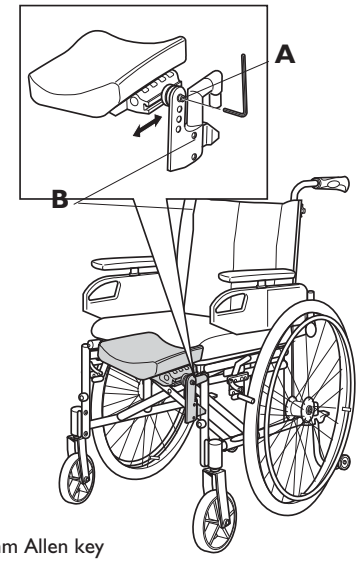
Surface treatment

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

Accessories

AMPUTEE LEGREST

1.



Tool: 5 mm Allen key

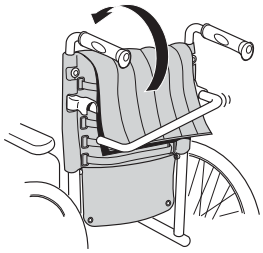
1. Attach the legrests by pushing the tube at the upper part of the legrests down into the tubes on the wheelchair. You must angle the legrests outwards when inserting them. Lock the legrests by turning them inwards. The legrests are automatically locked so there is no risk of them coming off the wheelchair.

2. Slacken screw (A), on the cushion's mounting, in order to adjust the cushion's angle and depth. Slacken screws (B) in order to adjust the cushion height.

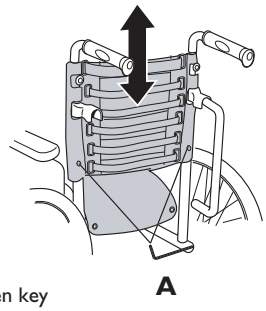
Warning Tip risk
There is an increased risk of tipping for amputated users. Use anti-tippers and/or re-balance the wheelchair when amputee legrests are used

TENSION ADJUSTABLE BACKREST

1.

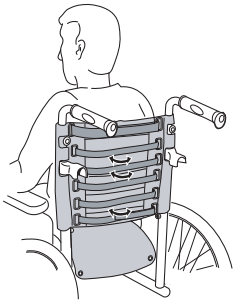


2.



Tool: 5 mm Allen key

3.



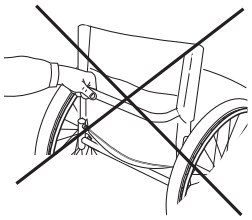
Adjustment of backrest

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

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

4.



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

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Art. No. 1431575-7 2011-08-15