CAPS II User Guide

Who to contact for support

If you have a problem with any of our products, your first contact should the organisation who supplied the product to you. If there is a problem that your therapist is unable to answer then please do get in touch directly.

Your Seat Details
Serial number label here

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Parts included in this CAPS II Seating System

- ☐ Seat Unit
- ☐ Pommel or kneeblock
- ☐ Footrests
- ☐ Headrest
- ☐ Harness
- ☐ Lap Belt
- ☐ Tray
- ☐ Interface Board

1 Your seating system

This User Guide will help you to get the most from your seating system – please take some time to read the relevant sections carefully!

We work hard to bring the best evidence-based products to market using the latest manufacturing techniques. We work as a multi-disciplinary team to develop our products, and have a highly skilled manufacturing unit to manufacture our designs in the UK.

Training, support and customer service are a key part of what we do to help to ensure you get the most from your seating system and it meets your postural and lifestyle needs.

All of our products are developed with durability in mind.

1.1 Identifying parts of the seating system

- Backrest – Provides a solid base with a cushion to support the back
- Headrest – Supports the head
- Thoracic Lateral – Supports the top part of the body (the trunk). May be set to work with the Pelvic Laterals to correct or prevent curvature of the spine
- Pelvic Lateral – Support the sides of the pelvis. Work with the Lap Strap to keep the pelvis in a good position. Work with the Thoracic Laterals to correct a curvature of the spine. May work with a kneeblock to align asymmetrical legs
- Kneeblock – Works with the Sacral Pad and Lap Strap to keep the pelvis in an upright position
- Footrest – To position the feet. Will work with the seat cushion to help distribute pressure. May work with the kneeblock or pommel to align the legs
- Harness – Help to position and stabilise the top part of the body.
- Interface – Allows the seat to be attached to and removed from the wheelbase.
- Sacral Pad – Support the back of the pelvis and works with the lap strap and kneeblock to keep the pelvis upright
- Seat Cushion – Supports the bottom of the pelvis and the legs. It normally has a ramp to keep the legs in a good position.
- Lap Strap – Works with the Sacral Pad and Lap Strap to keep the pelvis in an upright position

1.2 Seat configuration

The seating system will be delivered already set up to the measurements recorded during the assessment. If measurements were not provided when the seat was ordered, the chair should be pre-set by the clinician at the seating clinic before the user is positioned in it.

Your seating system should be already set up and adjusted by a qualified prescriber. Clinical suitability and stability of the seating system should also be checked at delivery.

If the wheelbase is a tilting type, you may find it useful to tilt the base when positioning the user in the seating system. This will help to position the pelvis back against the backrest with the help of gravity.

With the user in the seat, it is a good idea to check the supportive components in a methodical way. Start by ensuring the pelvis is adequately supported, and then work towards the feet. Afterwards, work upwards from the pelvis. We suggest this order:

1. Pelvis back against back cushion and pelvic strap in place
2. Knees in position
3. Feet in position on the footrest and footstraps attached
4. Trunk harness in place if used
5. Head in position on the headrest.

If you had tilted the seat for the transfer, reduce the tilt to the appropriate position.

It is important to check the seat, particularly the adjustable parts, during the first few weeks of use. Most importantly, check the effect the seat has when it is first delivered. Tell the fitting team if you have any cause for concern, e.g. if the person has very red knees or a sore bottom, or if they do not even want to use the seat.

The seat will be providing a new posture for the user to learn. Try to avoid introducing other new things at the same time! Do not let them sit in it for too long when they are just getting used to it. Check with your therapist if you are unsure how long to expect them to use the seat at first.

Small adjustments, by the seating team, may be necessary during the first few weeks or so, as the user becomes accustomed to the seat.

After initial set-up adjustments are made, you should check the seat daily for fabric wear and to check all the parts are operating to a good standard.

2 Using the seating system

The CAPS II Seating system has been specifically designed to meet demanding postural requirements, whilst being very adjustable, adaptable and easy to use.

The following information is intended for general use of your seating system that are appropriate for all users. Adjustments to the seating system not outlined in this manual should be completed by a competent Therapist or Rehabilitation Engineer.

There are many options available with the CAPS II seat to ensure an appropriate posture is maintained. Please read the appropriate sections based upon the seat you have been provided. If you are unsure, please check with your prescriber.

Many of the parts are removable from the wheelbase to make handling it easier. Some parts are fixed and not removable. When the seating system is handed over to you, this should be demonstrated to you.

You should also read carefully the user manual provided for the wheelchair.

The seating system can be removed from the wheelbase to enable it to be used on a second wheelbase. To reduce the weight of the seat unit, first take out the removable components.

2.1 Headrest

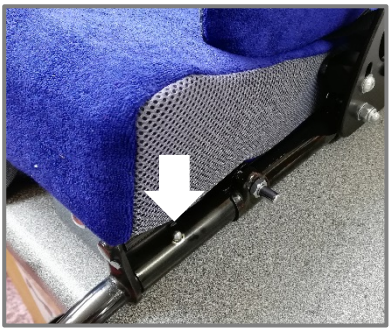
1 To remove the headrest, rotate the lever to release the headrest

2 Slide the headrest out of the socket.

To replace the headrest, slide it back into the receiver. A sleeve tube on the headrest stem should ensure it is positioned in the same location each time. Tighten the lever by turning it clockwise.

2.2 Footrest

1 To remove the footrest, push the pip pin located at the front of the seat



2 Pull the footrest drop towards you.

On some footrest types, like a padded footbox, both footrest drop tubes are linked together. If this is the case, you will need to release one side slightly, release the opposite to allow the complete footrest to be removed.

When replacing the footrests, ensure they are fully locked into position and the footstraps attached where required.

To replace the footrest, push the pip pin and locate the footrest drop tube in the receiver. Ensure it clips into place.

2.3 Pommel or Kneeblock

If your system comes with a knee block or pommel you can remove it and adjust the height and depth. To remove press the release pin, located on the pommel mounting bracket underneath the seat, and pull the pommel out.

1 Press the release pin underneath the front of the seat.

2 Pull the pommel or kneeblock towards you.

2.4 Straps

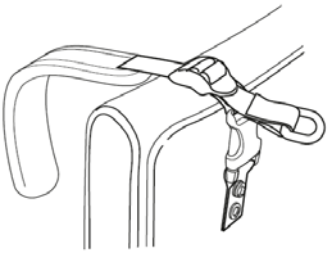
The pelvic strap and harness should be clipped into position and tightened. When the seating system is handed over, you should be shown how tight it should be. If the user is hoisted into the seating system, the straps should be attached before removing the hoist and sling.

Before clipping the straps together, do a quick check to ensure the webbing is not twisted or caught.

Different types of harness are used on the seating system. Both the Top Pull and Rear Pull Harnesses are tightened from the rear. The Front Pull harness is tightened from the front.

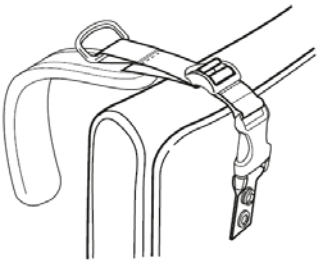
1 Rear Pull Harness

Tension is adjusted by pulling the webbing loop towards the rear of the seat.



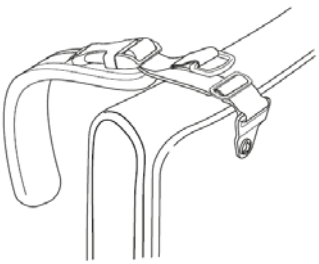
2 Front Pull Harness

Tension is adjusted by pulling the webbing loop towards the front of the seat.



3 Top Pull Harness

Tension is adjusted by pulling the webbing upwards.



2.5 Removing the seat unit

The seat unit should only be released and removed once the user has transferred out of the seat.

1 Disengage the rear red seat retaining strap and clip back into place next to the backrest. Pull it as tight as you can so it does not hang down during removal of the seat.

2 Place any loose straps onto the seat base so they don't get in the way.

3 Disengage the two catches, one on each side of the seating system.

4 Holding the front of the seat, lift it out of the catch and put the front of the seat back down just in front of the catch.

5 Standing at the side, hold the front carry handle and the rear of the seat, lift the seat unit off the interface board.

2.6 Attaching the seat unit

1 Standing at the side, hold the front carry handle and the rear of the seat, lift the seat unit. Take care when lifting a heavy weight.

2 Engage the pins at the rear of the interface board into the holes on the rear of the seating system

3 Fully slide the seat unit back into place

4 Locate the pins at the front of the interface board into the catch and ensure they fully engage.

5 Secure the red seat retaining strap around the push handles of the wheelchair.

3 Seat Options

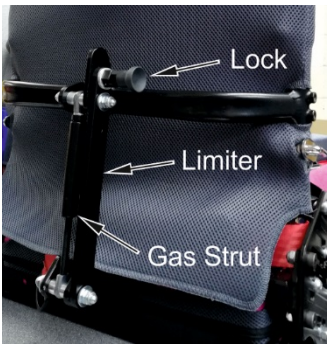
The seating system may be supplied in one of a number of configurations with several possible options fitted. If you have any of these fitted to your seat, the clinician will let you know when the seat is handed over to you.

3.1 Lynx Backrest

A Lynx Seating System has a special backrest whose shape can be changed over time. This can be to accommodate changes in posture. It consists of a number of interlinked plastic components. This will typically be fitted to the backrest of the seating system. The seat in the photo above is shown with the backrest covers and cushion removed.

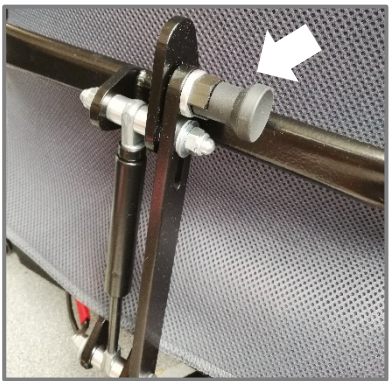
> **!** **The Lynx backrest is not user adjustable. Please refer to your clinician if you feel adjustment of modification may be required.**

3.2 Dynamic Backrest



A Dynamic Backrest allows the backrest to move if the user extends heavily and may be supplied after careful consideration by the clinicians.

1 The Lock is shown in the Locked position.



2 Disengage the lock to allow the dynamic backrest to move. Pull the Lock towards you and rotate it a quarter of a turn.

The backrest pivots with a Gas Strut controlling how easy it is to push. A Limiter limits the range of movement. The Lock enables the dynamic element to be removed when it is not required or should not be used, such as during transport.

> **!** **The Dynamic Backrest must be locked when used in transport.**

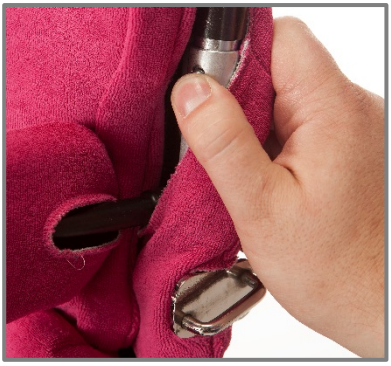
3.3 Swingaway Lateral Supports

Swingaway Lateral Supports may be fitted to the seating system to make transfers into and out of the seat easier. They can be fitted to one or both sides. There are two types of swingaway lateral supports. You may need to move the backjacket cover to see the type of swingaway that has been fitted.

3.3.1 Sleeve Tube Type

1 Locate the position of the spring pin that locates the swingaway lateral support.

2 Press the pin to disengage the swingaway lateral support. Swing the lateral support away to the required position.

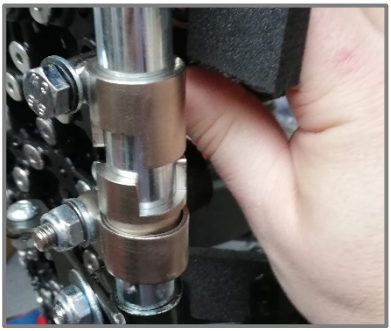


3 To lock the swingaway lateral support into position, rotate back around the tube and ensure the spring pin fully engages.

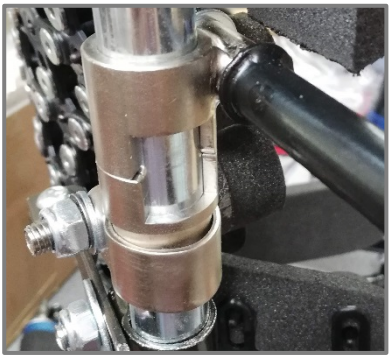
3.3.2 Castellated Type

1 Locate the swingaway lateral support mechanism.

2 Lift the lateral support using the black tube attached to the pad. Lift it near the swingaway mechanism.



3 Rotate the tube away around the backrest tube.



4 Identifying when adjustment is needed

It is important to understand when the seat may need adjustment. Adjustment should only be carried out by your seating team or a competent person.

4.1 Seat depth

The seat depth may be too short if the back of the user's legs touch the front of the seat cushion when their pelvis is fully back against the back cushion.

The seat depth may be too long if there is a gap of more than 2" between the back of the user's legs and the front of the seat cushion when their pelvis if fully back against the seat cushion.

4.2 Footrests

The footrests may be too high if the there is a gap between the underneath of the user's leg and the top of the seat cushion, or the legs are not parallel to the base of the seat cushion.

The footrests may be too low if the feet do not make contact with the footrests.

4.3 Lateral supports

The top and bottom lateral supports should be aligned so that the client can be positioned with their regular clothing.

The laterals may be too close together if it is difficult to fit the user between them.

The laterals may be too far apart if the user leans to one side.

The top laterals may be too high if they are touching the user's armpit. There should normally be a gap of between 1" and 2".

The laterals may be too low if the gap between the top of the lateral pad is bigger than 2". Very occasionally thoracic laterals may be set lower for someone who has good trunk ability, for example of help facilitate self-propulsion on a manual wheelchair.

4.4 Kneeblock or pommel

The pommel is in the correct place if the side of the user's knees are positioned in the centre of the padding of the pommel.

The pommel may need adjustment if the knee is in contact with the edges of the pommel, or not making contact at all.

The kneeblock is correctly adjusted if it can be easily inserted when the user's pelvis is correctly positioned against the backrest. It should just touch the front of the knees.

The kneeblock is too loose if there is a gap between the front of the knee and the kneeblock pad. This could cause the user the slide forwards. Very occasionally a kneecup on one side may be set slightly forwards for clinical reasons.

The kneeblock is too tight if you are unable to locate it when the user's pelvis is correctly positioned against the backrest.

4.5 Lap Strap

The lap strap is correctly adjusted if there is sufficient slack to enable you to easily connect the buckle when positioning the user and still enable you to adjust the tension correctly.

The lap strap is too tight if the two halves of the buckle will not reach to attach.

The lap strap is too loose if you can adjust the tension fully.

4.6 Harness

The harness is correctly adjusted if there is sufficient slack to enable you to easily connect the buckle when positioning the user and still enable you to adjust the tension correctly.

The harness is too tight if the two halves of the buckle will not reach to attach.

The harness is too loose if you cannot adjust the tension fully.

The harness straps should not come into contact with the neck. Where it is present, the strap that joins the two halves should be positioned on the user's chest, and not near their neck.

IMPORTANT!

!

If the lap strap or harness are too loose, the user can potentially slide down in the seat and will be at risk of strangulation. It is particularly important these components are maintained and adjusted correctly.

The harness requires urgent adjustment if any of the straps are touching the neck.

Postural support devices, such as postural lap straps and postural harnesses, should NOT be the PRIMARY means of restraint in transport.

4.7 Tray

The depth setting of the tray is correct if it comes close to the user but does not touch their stomach.

The tray will need adjusting if it touches the user's stomach or restricts trunk movement.

The height of the tray is correct if it is comfortable and allows some shoulder and arm movement.

The tray is likely to be too low if the elbows do not make contact with the tray.

The tray is likely to be too high if the shoulder is too flexed with the elbows too far to the side.

4.8 Headrest

The headrest generally sits slightly above where the neck joins the head.

It is likely to too low if it is in contact with the neck (unless it is designed to be positioned in this way) or it restrict shoulder movement.

It is likely to be too high if the user can get their head caught underneath the headrest.

4.9 Backrest

With the user correctly positioned in the seat, the backrest is likely to be too low if the shoulders are more than 2” above the top of the backrest.

With the user correctly positioned in the seat, the backrest is likely to be too high if the shoulders are more than 2” below the top of the backrest.

4.10 Comfortable?

Observe the user once they have positioned in the seat and ask if they are comfortable. The seat acts to stabilise parts of the body, and support them, so the user should be more able with the support than without it.

5 Transportation

Our seating systems are suitable for use in transport with an occupant so long as:

- it was supplied interfaced onto the wheelbase that it is only used in the configuration and on the base with which it was originally supplied
- it was supplied as a kit to be interfaced onto the wheelbase by the customer, that it has been fitted in line with the fitting instructions and only to a compatible wheelbase that is suitable for transportation
- it is only used in a forward-facing position when used in a vehicle
- it is used in line with these user instructions and those of the wheelbase on which it is used.

Travelling in a vehicle whilst seated in a wheelchair is normally safe if you follow basic safety guidelines. Whilst thousands of people are killed or seriously injured on the roads each year almost none of these deaths include people seated in wheelchairs.

The highest risk to most wheelchair users occurs whilst getting on or off the vehicle. The hazards of normal driving, cornering and heavy braking often present a greater hazard than those of a crash and should be considered accordingly.

Each new seating system and wheelchair should normally be assessed for use in a vehicle and you should be given information this by the person issuing the equipment.

If not please ensure you check with them as soon as possible.

The following key points should always be considered:

- Take care getting on or off the vehicle (this is where most accidents happen)
- Transfer to a vehicle (safety) seat wherever possible
- Travel forward facing
- Secure the seat to the wheelchair
- Secure the wheelchair to the vehicle
- Always use a vehicle lap & shoulder seat belt (regardless of posture belts)
- Use the headrest as normal (ensure it is securely tightened in position)
- Use the kneeblock if normally used
- Use postural straps like a lap strap or harness as normal
- Our seats can be used in a tilted position, but check with the wheelchair manufacturer.
- Remove the tray
- Larger vehicles = less risk to occupants

The system should normally be secured using a three stage process:

Seat > Wheelchair > Occupant

5.1 Securing the Seat

Ensure that the seating system is fully secured onto the locking interface board, which secures it to the wheelchair. The red safety strap must also be securely fastened around the wheelchair push handles. If you are unclear about this stage, contact your local wheelchair service or Active Design.

5.2 Securing the Wheelchair

The wheelchair should be secured into the vehicle by the transport provider (bus driver).

It should normally only be used forward facing and will normally be secured with a four point tie-down system (special webbing belts at each corner).

5.3 Securing the Occupant

The transport provider should secure the user with an extra seat belt (similar to that used in a car).

Care should be taken with the placement of the lap strap to ensure it is placed so as to lie across the hips in a position where it will anchor the pelvis and not ride up into the abdomen. The shoulder strap should be positioned across the torso and over the shoulder, ensuring the strap neither cuts into the neck or slides off the shoulder.

Posture belts & harnesses should remain fastened.

The following Journey Checklist may help to ensure all steps are taken to ensure the safe use of the CAPS Seating System in transport.

5.4 Journey Checklist

- ☑ Seat secured to wheelchair
- ☑ Seating system latched onto locking interface
- ☑ Red strap tightened
- ☑ Wheelchair secured into vehicle
- ☑ Normally a four point webbing system
- ☑ Lap and diagonal seat belt fitted around user
- ☑ Postural straps to remain in place
- ☑ Kneeblock used as normal
- ☑ Headrests used as normal
- ☑ Tray should normally be removed
- ☑ Other items are secured or fitted in line with transport plan

You can find more comprehensive information on transport in our Guidance section.

6 Routine Maintenance

The seating and interface should be checked by the organisation who provided the seat every 6 month for security of fixings, nuts and bolts.

Seat & back cushions and lateral supports should be checked for wear and degradation of the foam.

Straps should also be checked for signs of wear (especially stitching). The seating Fusion is fully guaranteed for 24 months but should last between 3 and 5 years if the seat is correctly maintained.

The interface should be checked every 6 months (maximum period 12 months) for security of fixings, nuts and bolts and the correct operation of the spring loaded catches.

6.1 Cushion

Check the condition of the seat and back cushions annually.

6.2 Harnesses

This product should be checked every six months for security of fixings and for signs of wear. It should be replaced if:

- There are any signs of damage to the buckles or they do not latch securely
- It cannot be adjusted to the correct length to support the required posture
- The webbing is frayed, or the stitching failing.

6.3 Lap Straps

This product should be checked every six months for security of fixings and for signs of wear. It should be replaced if:

- There are any signs of damage to the buckles or they do not latch securely
- It cannot be adjusted to the correct length to support the required posture
- The webbing is frayed, or the stitching failing.

6.4 Taking care of the covers

The seating system covers can be removed and machine washed. All upholstery is machine washable at 40°C. Tumble dry on a cool setting.

Upholstery should be washed weekly if used intensively, and immediately washed if the covers are soiled or have visible stains.

Further information can be found on the label.

The covers provided on our seating systems complies with the Furniture and Furnishings (Fire) (Safety) Regulations 1988/89 Schedule 7 Part 2 SI 1324.

Daily checks should be undertaken by the family or carer to ensure the seat is stable, the fabric is not heavily worn, and that parts such as the laterals, fixings to the wheelchair and harness fixings are firm and solid.

If you have a problem with any of our products, your first contact should be the organisation who supplied the product to you. If there is a problem that your therapist is unable to answer then please phone, fax or email us.

7 Important Information

7.1 Statutory Compliance

Our seating systems are manufactured to comply with the Medical Devices Directive MDD93/42/EEC and amendments in 2007/47/EEC. In terms of the Medical Devices Directive, our seating systems are classified as Class I Medical Devices.

7.2 Testing

7.2.1 Fabric

We need our fabrics to last. We independently test the materials used in our seating systems to the following standards:

- BS EN ISO 105-C06:1997 (Colour fastness)
- BS EN ISO 105-BO2:1999 (Fastness to light)
- BS EN ISO 12947-2:1998 Martindale abrasion resistance (30000 rubs with 12kPa load)

7.2.2 Foam

Our Reflex foams are tested to:

- BS 5852-2:1982 using Ignition Source Crib 5

7.2.3 Actiflex

The fabric used in our Actiflex lap straps and harnesses has been tested to the Aerospace standard C525.853 Part 1 Appendix F a-I for flammability.

7.3 Warranty

All of our products are manufactured to the highest standards.

Active Design offers a two year warranty against defects in material and workmanship from the date of purchase. Active Design will not be held responsible for any damage or injury due to misuse or modifications of these products.

Active Design Ltd

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