CareFlex

SmartSeatPro II Small Quick User Guide UI

The SmartSeatPro II Small - our revolutionary modular chair has evolved, taking specialist seating to a whole new level. This seating system is highly adjustable and adaptable for individuals with complex posture and pressure management needs.

The SmartSeatPro II Small is an effective seating solution for children, young adults, and the smaller older adult with the following conditions and postural challenges:

- Cerebral palsy
- Traumatic brain injury
- Spinal cord injury
- Neurological/neuromuscular conditions
- Semi-ambulant and non-ambulant
- Pelvic instability
- Muscle weakness or paralysis
- Abnormal muscle tone and/or contractures
- Scoliosis
- Increased thoracic kyphosis



And suitable for the following environments:

- Domestic and home care
- Rehabilitation settings
- Hospital wards
- Schools and colleges
- Nursing and residential homes

WARNING
A level of supervision appropriate to the user's abilities should be applied at all times.

CE UKCA

Class 1
Medical Device

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The SmartSeatPro II Small Chair User Guide

These are the user instructions for the SmartSeatPro II Small specialist seating system from CareFlex.

Please read them carefully before using the chair and keep them in a safe place for future reference.

These instructions include details of the performance of the chair. If the chair should start behaving outside of its intended performance, show signs of damage or excessive wear, or otherwise feel unsuitable, please take it out of service and contact CareFlex or your regional CareFlex distributor immediately.

It is possible to store the user instruction booklet inside the wing upholstery of the head support cushion by unzipping the aperture on the rear of the cushion and sliding the booklet inside.

If you are in any doubt about the safe operation of the SmartSeatPro II Small, contact your CareFlex Customer Support or your local CareFlex distributor for clarification and further training.

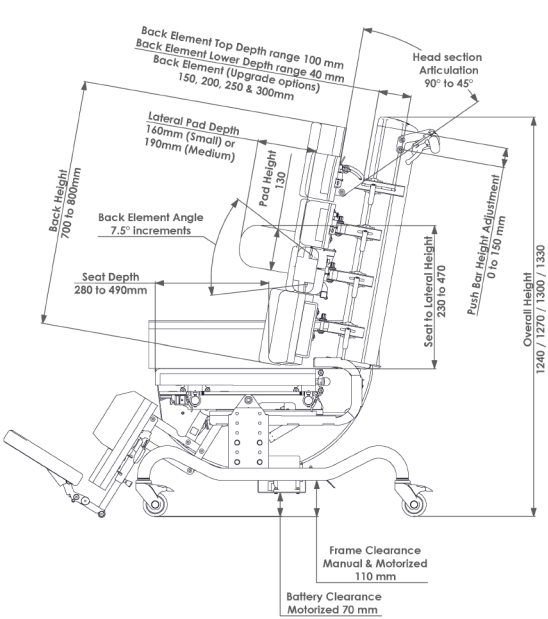
The SmartSeatPro II Small Introduction

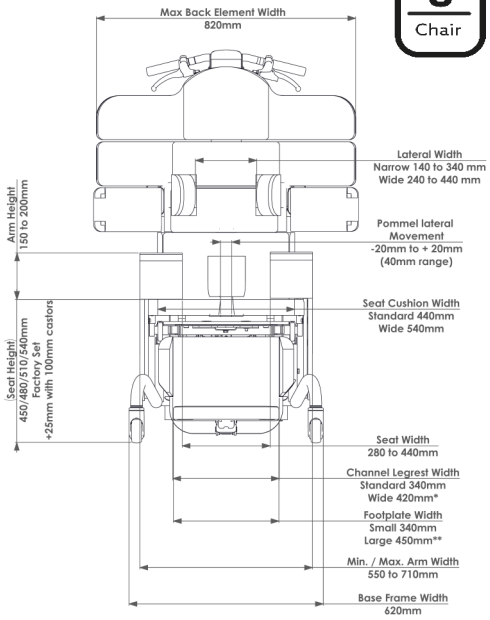
The SmartSeatPro II Small is a highly adjustable modular seating system for children, young adults, and smaller older adults that takes specialist seating to the next level for those with complex posture and pressure care needs. The SmartSeatPro II Small's unique design allows for a range of configurations to ensure postural asymmetries can be fully stabilised, accommodated, and, where possible, corrected from the feet, through the pelvis and spine, and to the head.

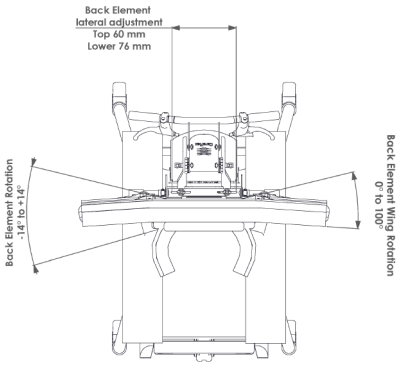
The SmartSeatPro II Small benefits from Tilt-in-Space, Back Angle Recline, and a multi-adjustable back and head system with new sections of modifiable filling. The chair's design gives Health & Social Care Professionals maximum adaptability to optimise posture, function and comfort for individuals in all environments, including domestic settings, schools, care homes and hospitals. Operation of chair functions can be by either manual gas action control or battery-controlled motors with a pro-control option. The chair provides high levels of comfort and the robust construction quality associated with CareFlex chairs. The SmartSeatPro II Small comes with a 5-year warranty on the frame and 1-year on all other parts and labour.

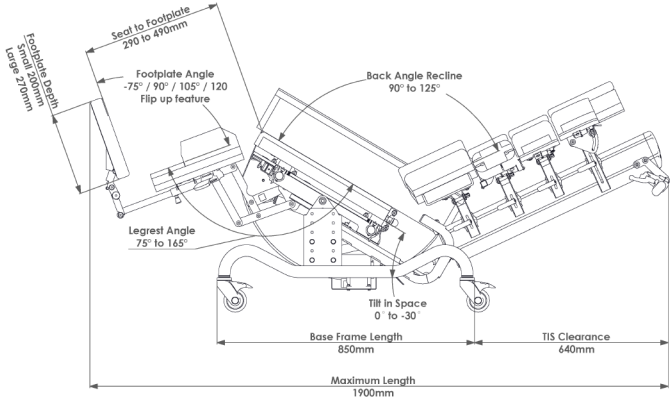
The chair's pressure care features make the SmartSeatPro II Small suitable for those at risk of pressure injury when used as part of a management programme assessed and prescribed by an appropriate Health & Social Care Professional.

The SmartSeatPro II Small Technical Drawings









Weights	Kilograms
Chair Weight - Manual (Standard Specification)	66kg
Chair Weight - Motorised (Standard Specification)	72kg
Maximum User Weight	100kg

(All measurements ±10mm / 5°) (Weights depend on chair specifications)

The SmartSeatPro II Small Overview

FEATURES

- Multi-Adjustable and Modifiable Back and Head System
- Tilt-in-Space with Inclinometer (Visual Tilt Angle Indicator)
- Back Angle Recline with New Visual Indicator
- WaterCell Technology
- Negative Angle, Channelled and Elevating Leg Rest
- Angle Adjustable Flip-Up Footplate
- Integral Seat Depth Adjustment
- Integral Seat Width Adjustment
- Integral Arm Height Adjustment
- Adjustable and Removable Armrests
- Hoist and Transfer Friendly Frame with Increased Ground Clearance
- Four Fully Braked Castors
- Removable Battery Tray on Motorised Versions

OPTIONS

- Back and Head Adjustment Kits (Lever Adjustment or New Quick-Release)
- Back Depth Adjustment Upgrades
- Ergonomically Shaped Lateral Supports
- Range of Head Supports
- Range of Positioning Aids
- Range of Footplate Supports
- Adjustable and Swivel-Head Pommel
- Tray
- Tailored Seating Solutions

Choice of Actuation Formats

Manual Format
On the manual version of the SmartSeatPro II Small chair the Tilt-in-Space, Back Angle Recline and the elevating leg rest are controlled by locking gas actions.

Motorised Format
On the motorised version of the SmartSeatPro II Small chair the Tilt-in-Space, Back Angle Recline and the elevating leg rest are controlled by electric actuators, which are powered by a rechargeable 24V battery system.

Pro-Control Format
On the pro-control version of the SmartSeatPro II Small chair the Tilt-in-Space and the elevating leg rest are controlled by electric actuators, which are powered by a rechargeable 24V battery system. Back Angle Recline is controlled by a locking gas action.

1. Brakes

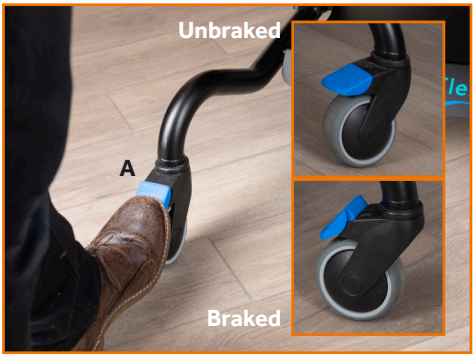
During transfers into and out of the chair it is important that the chair is as stable as possible.

The chair is fitted with four fully braked castors, and at least TWO of the castors should be engaged with brakes on prior to transfer.

- To lock the brakes, position the chair approximately where you need it to be for transfer.

1a. Locking the Brakes

- Gently push the chair away from you so that the castors swivel around and the blue brake levers can be easily accessed.
- Press down the end of the brake levers with your foot **(A)**. The lever will angle down and click into the locked position.



1b. Releasing the Brakes

- To release the brakes, gently kick the end of the lever that is pointing upwards.
- The lever will snap up and the castors will roll freely.

Always brake the castors before transferring the user into or out of the chair.

2. Tilt-in-Space

The SmartSeatPro II Small chair has a Tilt-in-Space function which allows the user to be tilted without adjusting the critical angles for sitting at the hips and knees. This helps the user to maintain a stable sitting posture whilst redistributing their weight over a large surface area and allows for periods of rest, if safe and appropriate.

Tilt-in-Space should be regularly adjusted to facilitate a change in position and weight distribution, thus avoiding pressure build up in any one area.

- **Always warn the user before changing the Tilt-in-Space setting to ensure that they do not become distressed or agitated, which could impact on postural stability.**
- **The chair will tilt 30° backwards. This degree of tilt angle may be disconcerting for some individuals.**
- **When tilting the SmartSeatPro II Small chair forward, ensure that the footplate height is set so that the footplate will not hit the floor.**
- **Tilt-in-Space should always be prescribed responsibly, ensuring that it is safe and appropriate for the user following a comprehensive assessment of posture and risk, with advice sought from the multi-disciplinary team where indicated. In some cases, this function will be contra-indicated.**

2a. Tilt-in-Space Operation

Manual Format:
Tilt-in-Space is controlled with the lever on the right-hand side of the push handle at the back of the chair:

- To adjust the angle of tilt, squeeze the lever **(A)** and tilt the chair to the desired angle. Release the lever to lock the chair at the desired angle.

Do not attempt to raise the user to a standing position when the chair is tilted backwards.



Squeeze the right-hand lever to operate Tilt-in-Space.

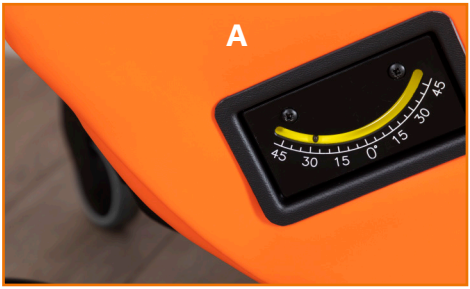
Motorised Format:
On motorised chairs, the second row of buttons on the handset controls the Tilt-in-Space angle adjustment.



Motorised remote
(a pro-control remote differs to this).

2b. Tilt-in-Space Use & Inclinometer

- Seat to back angle remains the same – the whole system tilts posteriorly.
- Promotes pelvic stability.
- Encourages pressure redistribution.
- Manages energy levels.
- Assists with hoisting and positioning.
- Tilt angle will be dependent on safety, tolerance, and appropriateness.
- The new informative inclinometer **(A)** will aid seating prescription and safe use.



Tilt-in-Space inclinometer.

3. Back Angle Recline

The SmartSeatPro II Small chair has a Back Angle Recline function which is used to adjust the angle between the seat and the back, thus opening/closing the hip angle.
Always warn the user before changing the Back Angle Recline setting to ensure that they do not become distressed or agitated, which can affect postural stability.
The chair back angle can be adjusted between 90° to 125°. The upright position provides a more comfortable setting for meal times and activities, and the recline setting is more suited to resting.

Back Angle Recline should always be prescribed responsibly, ensuring that it is safe and appropriate for the user following a comprehensive assessment of posture and risk, with advice sought from the multi-disciplinary team where indicated. In some cases, this function will be contra-indicated, and it could also increase shear and friction forces.

3a. Back Angle Recline Operation

Manual Format:
On the manual format chair the Back Angle Recline feature is controlled by the lever positioned on the left-hand side **(B)** of the push handle and labelled with a blue band as shown.

To adjust the angle of recline, grip the handle bar firmly. With the left hand, use your index finger to locate the small locking lever which is fitted in front of the main lever **(C)**. Once the locking lever has been activated, the main lever can then be squeezed to adjust the back angle.

Do not attempt to raise the user to a standing position when the chair is in recline.

Motorised Format:
On motorised chairs, the third row of buttons on the handset controls the Back Angle Recline adjustment.



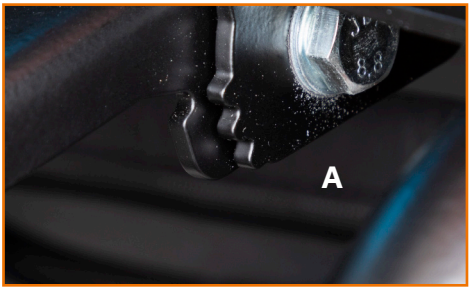
Squeeze the left-hand lever to operate Back Angle Recline.



Motorised Back Angle Recline
(a pro-control remote differs to this).

3b. Back Angle Recline Use & Indicator

- Seat to back angle adjusts to open up the hip angle.
- Assists with comfort and reduces abdominal pressure.
- Accommodates reduced hip flexion range of movement, and helps alleviate any associated pain.
- Back angle will be dependent on hip range of movement and pelvic stability.
- The visual back angle indicator **(A)** for degree of recline will aid seating prescription and safe use.



Back Angle Recline indicator - indicating every 15° (90° - 125°).

4. Leg Rest

The SmartSeatPro II Small has an integral leg rest which can be elevated to support the legs. The leg rest mechanism articulates, following the movement of the knee as it elevates the legs. The leg rest incorporates visco-elastic memory foam for pressure care.

Ensure the leg rest is fully lowered before transferring an individual into or out of the chair.

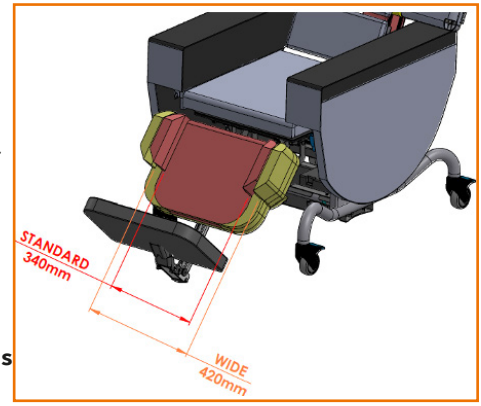
- **The range of leg rest elevation is from 75° to 165°. The range of elevation tolerated by the user will depend on knee range of movement. If tightness in the hamstrings muscles or contractures in the knees are present then to ensure comfort and postural stability it is critical that the leg rest is not over-elevated. Close attention to the length of time the leg rest elevation is utilised is also needed.**

The Smartseat Pro II Small comes with the option of two leg rest sizes, standard or wide.

Standard: 340mm channel width, suitable for all size configurations.
Wide: 420mm channel width, providing a wider distance between the leg rest channels.

- The wide leg rest is only suitable for the following size configuration:
  - Seat width from 400mm
  - Seat height from 510mm

We recommend that the large footplate is more suited to this leg rest size.



Choice of a standard and wide leg rest.

4a. Leg Rest Operation

Manual Format:
The leg rest can be elevated to promote comfort during periods of rest, manage oedema, or to achieve a change of position:

1. Locate lever at the right-hand side of the leg rest.
2. Squeeze the lever then lift or lower the leg rest to the desired angle.
3. Release lever to lock the position.
4. To lower the leg rest, squeeze the lever and push the leg rest to return it to it's lowered position.



Never leave the user unsupervised in the chair with the leg rest elevated.

- **Leg rest elevation should only be used within the ranges tolerated by the user based on their knee range of movement and should not affect pelvic stability.**

Motorised Format:
On the motorised format chair, the leg rest elevation is controlled by the handset. The top row of two buttons control the elevation. The left hand button raises the leg rest, and the right hand button lowers the leg rest.



Locate the lever on the right-hand side of the leg rest.



Motorised remote
(a pro-control remote differs to this).

5. Height & Angle Adjustable Flip-Up Footplate

UK Patent Approved GB 2589439

A footplate is important for the user's comfort, postural stability and pressure distribution. The SmartSeatPro II Small footplate is also suitable for users with a longer lower leg length. The footplate is fixed into a bracket on the back of the leg rest. To insert and adjust the footplate height:

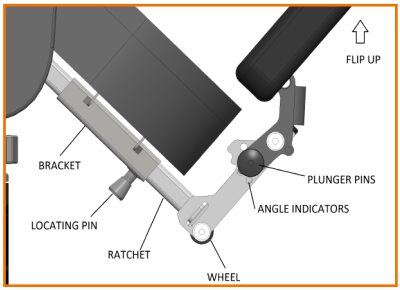
1. Pull out the locating pin on the bracket and insert the footplate.
2. Slide the footplate up or down to adjust to the desired height.
3. Release the locking pin; the pin should 'click' into position when the footplate is properly located.

- **Note**: The footplate stem has a ratchet and wheel safety feature. This ensures that should the footplate come into contact with the floor it will rise up out of the way maintaining chair stability. The wheel offers some protection to the flooring.

The ratchet feature is predominantly for safety; we advise that the footplate height is reduced by hand every time the leg rest is lowered.



The footplate fits into the bracket on the back of the leg rest.

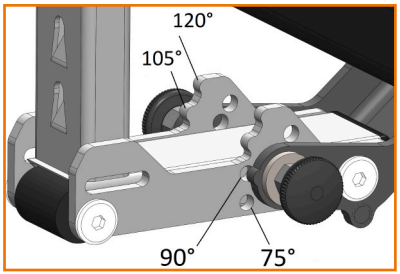


Parts of the footplate.

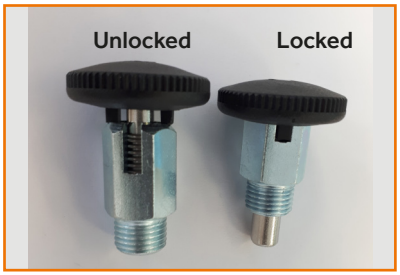
The SmartSeatPro II Small footplate angle can be adjusted to correct positioning at the feet to neutral, or accommodate fixed postures at the ankles. To adjust the footplate angle:

1. Ensure this operation is carried out by a competent person, and that no weight is being applied to the footplate.
2. The position is set by the plunger pins as shown; each indicator offers 1 of 4 different positions and 0° is achieved when vertical. Pull out one of the plungers and twist so that it is locked off (see image).
3. With one hand safely on the footplate, pull out the second plunger pin so that the footplate can angle to the desired setting.
4. When this is achieved, lock both plunger pins into position, fully engaging with the corresponding holes on each side.
5. The footplate will 'flip-up' to vertical 0° from any position and return to its original setting.

Keep fingers away from the mechanism when performing this task to avoid any potential finger traps.



Locating the plunger pin.



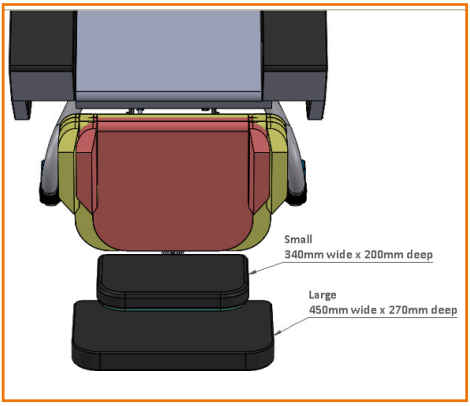
The footplate can be adjusted and set to a choice of 4 positions; 75°, 90°, 105° & 120°. This equates to a 120° range of adjustment. In all angled positions the footplate can easily flip-up to 0° (vertical) to move it out of the way.

5a. Footplate Options

The SmartSeatPro II Small comes with the option of two footplate sizes, small and large.

- Small (340mm wide x 200mm deep).
- Large (450mm wide x 270mm deep).

Note the large footplate will not entirely flip-up to vertical when used with the standard-size leg rest due to the leg rest channel height.

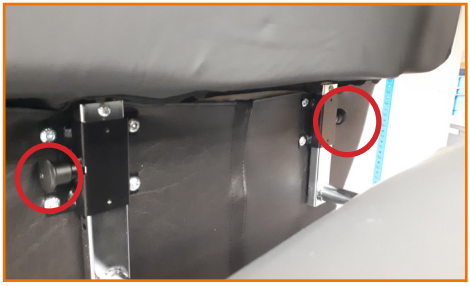


Choice of a small or large footplate.

6. Armrest Height Adjustment & Removal

To adjust the armrest height, locate the two plunger pins on the inside of the armrest; one towards the front and one towards the rear.

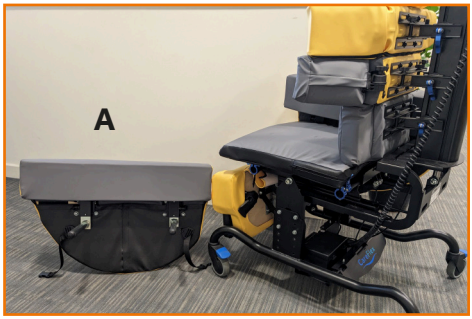
1. With a plunger pin in each hand, pull both outwards to disengage.
2. Slide the arm up or down to adjust to the desired height.
3. Release the plunger pins to lock into position, and you should hear an audible click.
4. Armrest height can be set differently from front to back, resulting in angled armrests, which may be indicated for users with specific upper limb positioning requirements.
5. The armrest height should be based on the outcome of the user's assessment; please refer to these measurements or seek further guidance from the Health & Social Care Professional.



Plunger pins located on the inside of the armrest.

The armrests **(A)** can be removed to aid user transfers, positioning, cleaning and servicing:

1. Locate the two quick release levers; one is located at the front of the seat base and one at the rear.
2. Pull in an upwards motion to loosen.
3. The armrest can then be removed.



The armrest can be removed completely for side transfers or maintenance.

7. Seat Cushion

The SmartSeatPro II Small comes with a choice of two seat module widths, which would have been specified at the assessment. The specification of these is for comfort and safety; recommended widths are as stated:

Standard Cushion – For users with a seat width of less than 340mm.
Large Cushion – For users with a seat width of 340mm and above.

7a. Seat Cushion Removal

It may be necessary to remove the seat cushion to access parts of the chair and for cleaning and replacing the cushion.

To remove the seat cushion:

1. Unlock the cam lock buckles on the front of the seat and pull the straps through.
2. Detach the Velcro connecting the leg rest to the underside of the seat module.
3. Unclip the one central plastic J clip at the back and pull it out of the slot.
4. Now remove the seat.
5. To fit or re-fit the seat re-attach in the reverse order, ensuring the straps are pulled tight to reduce seat movement.



Location of the seat cushion buckles and Velcro.



Location of the seat cushion rear J clip.

8. Seat Width

Seat width adjustment helps to laterally stabilise the pelvis. Correct seat width can reduce the tendency for the user to lean or shuffle the pelvis. These undesirable movements can result in pelvic obliquity or pelvic rotation and the posture becoming increasingly unstable with unequal loading on tissues. Left unmanaged, this leaning posture could lead to the development of a scoliosis.

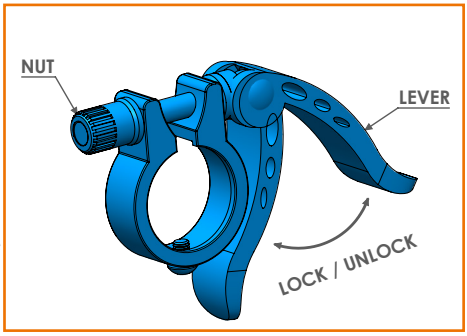
Seat width should generally allow for a small amount of movement as the user's body weight and posture naturally shifts throughout the day. If the user is held in a rigid position, they can fatigue quickly and experience discomfort.

8a. Adjusting Seat Width

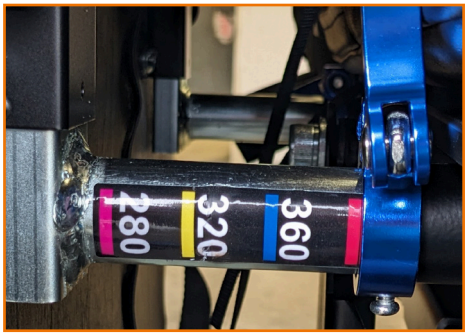
To adjust seat width, each armrest can be moved in or out:

- Locate the two quick release levers; one is located at the front of the seat base and one at the rear.
- Pull in an upwards motion to UNLOCK
- To reduce seat width, move the armrests inwards to the centre of the chair by placing the palm of the hand on the outside face of the armrest and push.
- To increase seat width, move the armrests outwards. Hold each side of the arm securely with both hands, one towards the front of the chair and one near the rear. Gently pull to the desired position.
- Once the desired seat width is achieved, lower the levers to LOCK the armrests in position.
- Armrests can be set at different seat widths from front to back and left to right, which may be indicated for individuals with fixed lower limb postures such as wind sweeping, or those with increased body mass in the gluteal and hip areas.
- **This may cause some superficial damage to the seat width stickers if undertaken without care.**

If required over time, the quick release levers can be tightened or loosened, by holding the lever in an unlocked position and turning the nut (clockwise to tighten and anti-clockwise to loosen).



Quick release levers.



The SmartSeatPro II Small has a width size guide on each arm.

9. Seat Depth

It is critical to set seat depth correctly in order to prevent 'sacral sitting' and to achieve the best distribution of weight between the user and the chair.

Sacral sitting occurs when the pelvis tilts backwards. The sacral area can be susceptible to pressure problems. Sacral sitting will occur if the seat depth is set too long. If the seat depth is too short then the area over which body weight is distributed may be reduced, which can increase the risk of pressure injury.

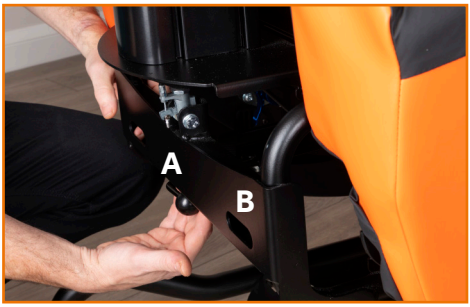
- **Seat depth should be set with the user's pelvis positioned firmly at the back of the seat cushion so that their lower back and lumbar is supported by the back cushion. There should be a two or three finger gap between the back of the user's knee and the front of the seat cushion for comfort.**
- **If the individual already has a chair or wheelchair with the correct seat depth, measure this size and use it as a starting point for setting the SmartSeatPro II Small.**

9a. Seat Depth Adjustment

Appropriate seat depth is critical to the performance of the chair and the user's postural stability. To adjust seat depth:

1. Locate the lever **(A)** at the back and left-hand side under the chair.
2. Twist lever down and pull/push the seat frame **(B)** on right-hand side until seat depth is in desired position.
3. Release the lever and pull the handle until the seat "clicks" positively into position.

Never adjust the seat depth when the user is in the chair or when the chair is reclined or tilted.



Locate the lever at the back of the chair.



Twist lever down.

10. Seat Height

- If the user can raise to standing themselves or with minimal assistance, the seat height should be set so that the user's feet rest flat on the floor and the underside of their thighs are in contact with the full length of the seat cushion.
- If the seat height is too high, the user's heels may be lifted off the floor and pressure will build up along the underside of their thighs. If the seat is too low, their knees will be raised and there will be no contact between the back of their thighs and the seat cushion, increasing the pressure on their bottom and sacrum.
- If the user is less ambulant then the seat height can be set reference to the footplate, again ensuring the foot is flat and fully supported.
- The SmartSeatPro II Small will have been measured at assessment and manufactured to the preferred dimensions.

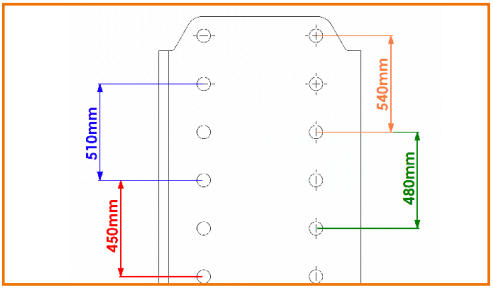
10a. Seat Height Adjustments

- If further adjustment is necessary, remove both armrests and carefully place chair on its side. Remove the four bolts on either side using a 13mm spanner and reposition into the desired holes, repeat on the other side.
- See diagram below for seat height bolt positions.

This should only be carried out by a trained person or technician.



Seat height adjustment bolts.



Seat height measurements.

11. Back Configurations & Adjustments

The SmartSeatPro II Small has a unique multi-adjustable back and head system that consists of four individual cushion elements providing postural support for:

1. Pelvis and sacral region
2. Lumbar region
3. Thoracic region
4. Head and cervical region



Back adjustments using a bolt set-up.

11a. Back Adjustment Options

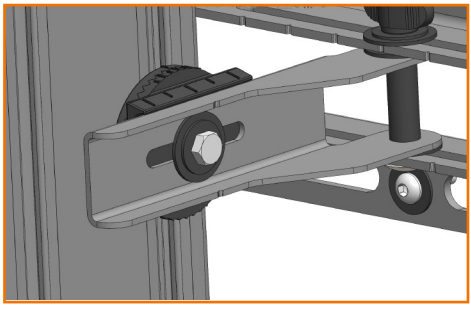
To maintain the integrity of individual postural management settings, key adjustments on the back are adjustable using a 10mm swan neck spanner or socket. Alternatively, CareFlex offer three back section fixing methods, which would have been specified on assessment:

1. Bolts (standard option)
2. Lever Lock (upgrade option)
3. Quick Release (upgrade option)

11b. Back Adjustments - Bolts

As standard the back sections will be fixed to the centre pillar with M6 bolts; these can be adjusted by using a 10mm spanner.

To adjust, partially loosen the bolts in an anticlockwise direction, set the back section as required and tighten the bolts in a clockwise direction. This method is preferred so that accidental adjustment of the back sections cannot take place, as the chair must be set to suit the user.



Back adjustments using a bolt set-up.

11c. Back Adjustments - Lever Lock

Lever lock – a tool free solution to adjust and set the back sections. The advantage is that adjustments can be made more easily without the need for tools. To operate:

Much like the bolt, these can be tightened (clockwise) or loosened (anticlockwise).



Lever lock set-up.

11d. Back Adjustments - Quick Release Lever

Quick release lever - another tool free solution to adjust and set the back sections, with the same advantages. To operate:

- Pull the lever out to a horizontal direction.
- Make any necessary adjustments and lock the lever.
- If finite adjustment is required to improve the locking and unlocking, then you can wind gently clockwise to improve the locking strength, or anti-clockwise to reduce the locking strength. We suggest half a turn at a time until the required strength is achieved.

Levers are set in the factory to optimum strength. Be careful to not excessively wind the levers, by doing so could cause it to accidentally come loose, or break.



Quick release lever - locked.



Quick release lever - unlocked.

11e. Height, Depth, Angle & Rotation Adjustment

Each back cushion element is secured to the centre pillar by two adjustment pivot points. When loosened, these pivot points will permit the cushion element to be:

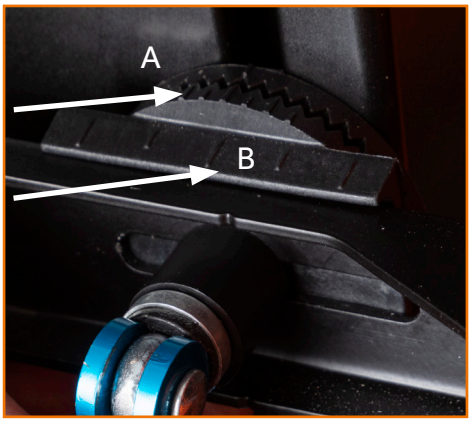
- **Raised or lowered:** (assuming there is space above or below); support the weight of the cushion element and move it up or down the slot to the desired position before locking into place.
- **Depth adjusted**: support the weight of the cushion element and move it forward or back to the desired position before locking into place.
- **Angle adjusted**: support the weight of the cushion element and twist upwards or downwards (assuming there is space above or below) to set the desired angle before locking into place. Note: Ensure the pivot points are sufficiently loosened to disengage the gear mechanism.
- **Rotation**: support the weight of the cushion element and with one pivot point locked and the other loosened, twist to set the desired rotation angle before locking back into place.



Pivot point detail (shown with optional quick release levers fitted).

The pivot point plastic parts include indicators to act as a guide reference for adjustment:

- Each line **(A)** on the geared mechanism indicates 7.5° of angle rotation.
- The distance between the notches on the metal bracket **(B)** is 30mm.
- Keeping a record of these settings can be useful for future review.



Rotation adjustment indicators.

11f. Offset Adjustment

Each back cushion element can be adjusted left and right independently.

The sacral cushion element offset range is limited by the seat width setting.

The rear mounting brackets of each cushion element contain two hand wheels that should be loosened to permit left or right movement of the back section element. To operate:

- Loosen the hand wheels gently in an anticlockwise motion until the back section can be moved.

Do not loosen more than two turns or the hand wheels may come loose.

- When the optimum location is found for the back section, tighten the hand wheels in a clockwise motion until tight.
- **Note** the notches in each section which are spaced by 20mm of travel.



Offset adjustments.

11g. Back Filling Adjustment

The back cushion elements have removable Dacron filling that can be adjusted where needed.

- Find the zip on the bottom of each back section.
- Unzip to locate the internal Dacron filled pillow.
- Add or remove Dacron as per required.
- Place pillow back into back section and zip up.

Do not make adjustments without an assessment and attending Health & Social Care Professional.

- **Each section has its own unique pillow, ensure each pillow is returned into the correct section.**



Remove or add the Dacron filling where adjustments are needed.

11h. Head Support Angle Adjustment

The upper head support cushion element can be articulated by a further 45°.

- To achieve this, locate the two small hand wheels (circled) and loosen.
- Hold the head support and move to the angle desired before ensuring the hand wheels are re-tightened to secure into position.



Hand wheels on upper head support.

11i. Wing Adjustment

1. The thoracic and cervical back elements include adjustable wings to provide contouring and support to suit the user's needs.
2. To make the adjustment, firstly locate the zipped aperture at the rear of the upholstery (one per wing). Unzip the upholstery and find the small hand wheel.
3. Loosen the hand wheel and move the wing to the desired angle before re-tightening. Ensure the wing is secure and then re-zip the aperture to finish.



Zipped area on adjustable wings.



Unzip to locate hand wheel.

11j. Lateral Wing Adjustment

The lumbar back element includes adjustable wings that can be used to provide contouring or act as mild laterals. When left as 'flat', the wings are positioned just above the arm rest of the seat and can therefore be used as elbow blocks/pads.

To make any adjustment firstly locate the small plastic black hand wheel.
Loosen the hand wheel and move the wing to the desired angle before re-tightening. Ensure the wing is secure.

Tip: If desired, these wings can be rotated completely rearwards. This can be useful when removing the SmartSeatPro II Small arms.



Hand wheel to make lateral wing adjustments.

11k. Lateral Wing Extension

In addition to being adjustable for angle, the lateral wings can be extended (by 60 mm) to provide extra lateral support for the user.

To make this adjustment, the two M6 bolts need to be loosened with a 10mm spanner and then the lateral wing can be moved forwards and back.

Tip: Set the lateral wings to minimum when not in use to ensure the chair will clear standard size doorways.



Access to extend lateral wing.

12. Headrest (Accessory)

The complete range of CareFlex headrests are available for the SmartSeatPro II Small. Headrests are attached to the thin slot located on the rear of the upper back cushion. Each headrest has a strap attached to its top edge, which in turn has short strips of plastic hook profile sewn at intervals along their length.

12a. Positioning the Headrest

Position the headrest at the appropriate height for the chair user, pull the strap tight over the chair and clip the closest plastic hook over the slot (as circled in the image).



Headrest fitting slot.

13. Pommel (Accessory)

A pommel can be used to control knee position, usually by abducting (pushing apart) the knees to help keep the seating position stable and level. The pommel is designed to separate the knees and support the whole inside of the knee joint. For this reason the pommel is not depth adjustable and sticks out in front of the seat edge.

A pommel should never be used as a restraint and the user must not be allowed to slide into the sacral sitting position, resting against the pommel.

13a. Fitting the Pommel

Fit the pommel with the leg rest angled downward; this will give the best access to the receiving bracket.
Locate the rectangular slot in the loose flap of fabric between the top edge of the leg rest and the underside of the seat cushion.
The receiving bracket for the pommel is located under the front edge of the seat cushion.
Fit the metal stem of the pommel through the slot into the receiving bracket and push the pommel until it is felt to click into place.



A pommel should only be fitted and removed when the leg rest is fully lowered.

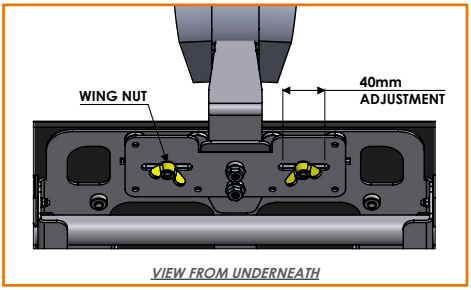
13b. Removing the Pommel

To remove the pommel, hold it at the bottom edge of the metal stem and pull directly outwards.

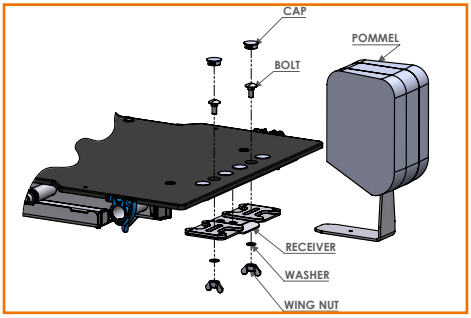
13c. Pommel Lateral Adjustment

Central adjustment - To adjust the pommel side to side by up to 40mm, loosen the two wing nuts on the pommel receiver, which can be found underneath the seat cushion. The receiver can then be moved by up to 40mm from side to side. Find the correct location and re-tighten the wing nuts.

Do not loosen more than four turns or the wing nuts may come loose.



Removing the pommel bracket.



Fitting the bracket to the seat board.

13d. Pommel Head Rotation

The pommel head can be rotated 360° if required, to aid the user to achieve a comfortable position.
To rotate the head without the need for tools:

1. Undo the zip on the back of the pommel. Loosen the cover to access the hand wheel.
2. Turn the hand wheel anti-clockwise until the head rotates freely.
3. When the desired position is set, tighten the thumb screw by twisting clockwise.
4. Re-attach the cover and zip up securely.
5. Check the user is comfortable, adjust if required.



Pommel head rotation adjustment.

14. Adjustable Laterals (Accessory)

The SmartSeatPro II Small can be fitted with adjustable laterals which have height, width and angle adjustment to provide support to the trunk. The adjustable laterals can be retrofitted to any SmartSeatPro II Small chair and each lateral can be independently adjusted. The SmartSeatPro II Small offers a range of ergonomic lateral pads to suit a wider range of individuals.

The number, size and position of each required lateral support is determined at the assessment.

The objective of using lateral supports is to position the user as upright and as close to a 'midline' position as possible so that pelvis, spine and head are aligned in a vertical column. Adjustable laterals can also be used to support asymmetric postures.

Height selection - Can be achieved each side by using combinations of pad adjustment, arm selection and pad height adjustment; this is discussed further in this section. A range of 230mm to 470mm from the seat height is achievable on each side.

Width selection – Pads with a range of:
- 140mm – 340mm chest width (Narrow)
- 240mm – 440mm chest width (Wide)

Depth – Two pad sizes and depth options to accommodate various body shapes:
- 160mm (Small)
- 190mm (Medium)

A kidney shaped pad is also available **(A)**.

Tip: When the laterals are fitted and positioned there should be at a minimum a two finger gap between the top edge of the lateral and the user's axilla (arm pit).



The SmartSeatPro II Small lateral pad accessory (sold in singles).



(A) The SmartSeatPro II Small kidney shaped pads accessory (sold in pairs).

14a. Fitting the Laterals

If laterals are ordered at the same time as a new chair order, each SmartSeatPro II Small will be fitted with lateral receiving brackets.
To fit Laterals retrospectively see 14b.

The two brackets are located on the rear of the lumbar cushion element and consist of two metal receiver tubes with plastic hand wheels (see right).

Tip: The wing on the lumbar cushion element can be rotated rearwards to make fitments of the accessory lateral easier.



Lateral receiving bracket and hand wheel.

To fit the laterals:

1. Firstly the correct lateral height and pad size should have been specified when ordered, as there are numerous options for achieving the perfect fit. Refer to the table further in this section or seek guidance from the Health & Social Care Professional.
2. Slide the first lateral metal inner tube into the lateral receiver bracket outer tube, and tighten the hand wheel to secure in place.
3. If required, repeat this process to fit additional laterals to the chair. Reposition the lumbar cushion wing to the desired position if it has been adjusted for clearance.

14b. Retrofitting Laterals

If you wish to retrospectively fit laterals to a chair, which did not previously have them, follow these steps to fit a lateral receiver tube(s):

1. The thoracic section of the back will have been pre-fitted with four screws, two top and two bottom.
2. The lateral receiver tube can be fitted to the top two holes, the bottom two holes, or both, by fitting two sets of receiver tubes, depending on number of laterals and positions required.
3. Remove the required screws with a 4mm Allen socket key.
4. Fit the receiver tube(s) using the screws that were just removed.
5. This task is now complete, and you can fit the lateral as above.

Note this task should be undertaken by a trained person or technician.



Retrofitting lateral receiving brackets, image shows two sets of receiver tubes being used.

14c. Lateral Width Adjustment

Simply slide the lateral inwards or outwards to adjust the width setting. Ensure the hand wheel is tightened securely once the desired width is achieved. It is possible to achieve 100mm range of adjustment per side. Note that on the maximum width setting it is necessary to ensure the lumbar cushion wing is positioned rearward.

14d. Lateral Height Adjustment

There are multiple approaches to adjusting the lateral height:

1. Large changes in height setting can be achieved by adjusting the lumbar cushion height on the centre pillar.

2. Smaller changes in height setting can be achieved by adjusting the lateral pad position on the lateral metal work. View the chair from the front and push the covering to one side to expose the bracket. By using a 10mm spanner to loosen the two x M6 bolts **(A)**, the pad can be repositioned. Three steps are available, each representing 20mm of movement. Ensure the two x M6 bolts are tightened prior to use. It may be easier to rotate the wing on the lumbar cushion element rearwards to gain better access to the brackets.
3. Each lateral can, if desired, be rotated by 180° and fitted on the opposite side of the chair. The effect of this is to provide further options for height adjustment quickly and simply. The range that can be achieved by doing so is detailed in the lateral selection guide next.



Loosen the two x M6 bolts to reposition the pad.

The adjustable laterals should not be used to control trunk position for someone who is highly agitated, or for those with severe uncontrolled movements. There is a danger that if the user leans forward and then moves backward with force they may injure their back against the firm support of the lateral structure.

14f. Lateral Angle Adjustment

If required, each pad can be angled to accommodate the users body shape, or adjustments already made to the back sections of the chair. To achieve this, you will need a 10mm spanner, it may be easier to rotate the wing on the lumbar cushion element rearwards to gain better access to the brackets. To angle the brackets:

1. View the chair from the front and push the covering to one side to expose the bracket.
2. By using a 10mm spanner to loosen the two x M6 bolts (circled), the pad can be rotated as required, and a trial-and-error approach is suggested to ensure the pad is comfortable for the user.
3. Ensure the bolts are thoroughly tightened when the final angle is achieved so that the pad cannot slip in use.



Loosen the two x M6 bolts to reposition the pad.

14e. Lateral Selection Guide

ADJUSTABLE LATERALS (SINGLE)				FOR OFFICE USE ONLY	
Height From Seat		Select X	Pad Type (See Key Below)	Width Adjuster Arm	Receiver Location
USER'S RIGHT SIDE	210-270mm *			MET6044	LOWER
	280-340mm			MET6043	LOWER
	360-420mm			MET6044	UPPER
	410-470mm			MET6043	UPPER
USER'S LEFT SIDE	210-270mm			MET6043	LOWER
	280-340mm			MET6044	LOWER
	360-420mm			MET6043	UPPER
	410-470mm			MET6044	UPPER

Pad Type Key		
Narrow / Small	Chest Width 140-340mm / Pad Depth 160mm	NS
Narrow / Medium	Chest Width 140-340mm / Pad Depth 190mm	NM
Wide / Small	Chest Width 240-440mm / Pad Depth 160mm	WS
Wide / Medium	Chest Width 240-440mm / Pad Depth 190mm	WM

*Laterals set at the lowest setting 210-270mm will interfere with the arm height adjustment.

15. Tray (Accessory)

The SmartSeatPro II Small can be fitted with a tray, which can be used to assist in the user's upper limb positioning and engagement in activities; it should never be used as a restraint.

- Once the user is sat in the chair, rest the tray across the arm rests so that the tray fits snugly against the user but does not press in to their abdomen.
- The buckles on the tray straps connect with the buckles on the inside of the chair sides. Clip the two halves of the buckles together on all four straps.
- Adjust the tension in the tray straps to secure the position of the tray. Then tension can then be adjusted to change the front-to-back position of the tray.

Always ensure that the tray does not interfere with any stoma devices, feeding tubes or similar devices in-situ.



SmartSeatPro II Small tray.

15a. Retrofitting Tray Straps

If a chair is ordered with a tray the chair will be fitted with the appropriate attachment straps. If a tray is ordered separately then attachment straps will need to be fitted to the chair.

To attach the tray straps to the armrest:

1. Remove each arm from the chair and lay down.
2. Remove the two x caps from the inside of the arm and discard.
3. Fit the two straps to each arm using a 4mm Allen key, two x bolts and two x washers are provided.
4. Fix the two x CFLEXMP034 (plastic triple mounting slot plate 40mm) through the holes, with M6 x 25mm button head screw and washer, in each arm.
5. Refit the arms.
6. The tray straps can now be clipped to the armrest straps.



Securing the tray straps using a 4mm Allen key.



Connect tray straps.

16. Positioning Aids (Accessory)

CareFlex belts and harnesses are designed to be used as positioning aids to help the user maintain a good sitting posture whilst reducing the risk of soft tissue damage through the effects of shear and friction and promoting safety within the chair.
A level of supervision appropriate to the user's abilities must be applied at all times.

The use of belts and harnesses must be thoroughly risk assessed by a Health & Social Care Professional. Appropriate training in their function, adjustment and operation must be provided for all those who use them.

- **Please read the disclaimer on page 40.**

16a. Fitting Plain and Padded Pelvic Belts

- Pelvic belts are attached to the anchor bars on the rear bottom edge of the back frame.
- Fit two x HAR0093 tri-glide adjusters, one per strap on each side of the belt.
- Loop each strap through the rear slots in the back of the chair as shown.
- Tighten using the tri-glide as required.
- To fasten the buckle, 'click' two halves together.
- To release buckle, press tabs on the sides of buckle and pull two halves apart.

Pelvic belts are intended to be used as positioning aids not for restrictive practice.



Pelvic belt attaches via slots on the rear of the chair and held in place with a tri-glide.



Padded pelvic belt fitted.

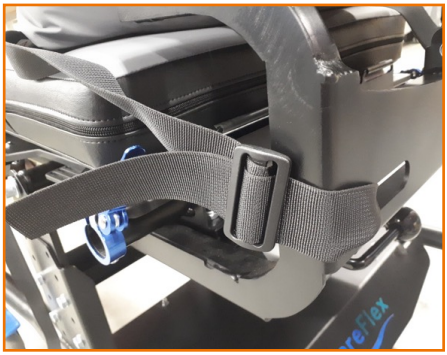
16b. Fitting 4-Point Pelvic Belts

1. 4-Point pelvic belts are attached to the anchor bars on the rear bottom edge of the back frame.
2. Fit two x HAR0093 tri-glide adjusters, one per strap on each side of the belt.
3. Loop each strap through the rear slots in the back of the chair as shown.
4. Tighten using the tri-glide as required.
5. Fix two x CFLEXMP034 (plastic Triple mounting slot plate 40mm) through the appropriate holes in the plastic seat board using one x M6 x 30mm button head screw, two x M6 washers and one x M6 Nyloc nut, for each one.



Unless the belt has been purchased retrospectively these will have been factory fitted.

6. Loop the straps exactly as shown, then secure and tighten. The belt must be started from the inside slot and work outwards to ensure the mounting plate cannot weaken.
7. To fasten the buckle, 'click' two halves together.
8. To release buckle, press tabs on the sides of buckle and pull two halves apart.



1-4) Pelvic belt attaches via slots at the rear.



5) Fitting the plastic triple mounting plates.



6) Looping the strap through the mounting plate.



7-8) 4-Point padded pelvic belt secured.

16c. Fitting Chest and Sternum Harnesses

1. A dynamic chest harness can provide anterior support and comfort whilst not restricting active positioning or function.
2. Fit the two x FAS4009 (25mm Fix Lock) buckles, one to each strap, and loop the straps through the rear slots in the back of the chair as shown. Tighten as required.
3. Upper straps – Feed the shoulder straps through the back metalwork and fix with two x clip locks as shown.
4. The dynamic chest harness is held in position with a strap from each corner, two straps attach at the users waist and two over their shoulders.
5. These straps are attached to the harness with cam lock buckles, the length of the straps can be adjusted through the buckles.

Always ensure the harness is positioned correctly and comfortably, not over-tightened and not interfering with in-situ medical devices.



2) The harness attaches via rear slots.



3) Fitting the upper straps.



A secured sternum harness.



A secured chest harness.

16d. Fitting Groin Harnesses

The groin harness is a positioning aid that can provide maximum pelvic control to help stabilise the position of the pelvis and prevent the user from sliding forward in the chair.

1. Loop the straps through the slots on the back of the chair, and return back through the lower cushion to the seat cushion.
2. The harness consists of a neoprene cross shape and webbing straps. Two points of the padded cross shape are attached at the junction between the seat and back cushions.
3. When seated in the chair, the two loose ends of the harness should be pulled up over the users thighs and attached to the straps at the rear of the chair.
4. The harness can be adjusted through the webbing straps.



1) Loop the two straps through the wide slots at the back of the chair.



2) Secure the groin harness by clicking the buckles together.

17. Motorised SmartSeatPro II Small

The SmartSeatPro II Small uses actuators to adjust the Tilt-in-Space, Back Angle Recline and leg rest elevation. The actuators are powered by a 24V DC rechargeable battery system, which needs to be regularly charged in order to maintain battery performance.

17a. Charging the Battery

When a motorised chair is first delivered and before it is used, charge the batteries for a minimum of 24 hours to ensure they are at full power. Similarly if motors have not been used for a prolonged period, charge the batteries for 24 hours to bring them up to full power. Establish a regular regime for battery charging, overnight is recommended.

The battery unit will make a buzzing sound when the battery is nearing its minimum charge level. Charge as soon as is practicable. Avoid operating the chair when it is on charge, especially at the beginning of the charge cycle as this may damage the control box.

- Only chargers supplied by CareFlex should be used to charge CareFlex chairs. Do not use a CareFlex charger to charge other products.
- Plug the charger in to a mains outlet with the power OFF. Connect the jack on the end of the thin charger cable to the side of the chair handset. Switch the mains power ON.
- The LED light on the charger should glow yellow to indicate it is charging. As the batteries come up to full charge the LED will turn green.
- At the end of the charging cycle, switch the charger mains supply OFF before disconnecting all leads and plugs.
- When disconnecting the cable, always pull the moulded body of the plug straight out of the socket. Do not pull the wire as this may damage the cable and the socket.



Fit the charging plug from the charger into the socket on the side of the motorised handset.

- **Do not leave the chair connected to the mains with the mains power switched off.**
- **Do not move the chair when it is connected to the mains.**
- **Do not charge the batteries when the chair is occupied by an individual.**
- **If in any doubt contact CareFlex or your CareFlex distributor.**

Looking After Your Chair

Every time it is used, check the chair over for signs of damage or excessive wear. If the chair shows signs of excessive wear, damage or incorrect performance, please take it out of service immediately and contact CareFlex Customer Support 0800 018 6440.
If the user is experiencing severe discomfort or any adverse effects, do not use the chair and liaise with a Health & Social Care Professional for review.

Upholstery:

- The chair is upholstered in high quality materials which are waterproof and fire retardant. However, do not store or use the chair in damp or wet areas. Similarly, do not position the chair near or against sources of direct heat or naked flames.
- Covering materials may fade or degrade if subjected to excessive heat or sunlight. Wipe up spills and contamination as soon as they are noticed. Soiling can lead to staining and more severe infection prevention and control issues if not addressed immediately.
- For cleaning and decontamination procedures, refer to the appropriate section of the Fabric and Cleaning Guide supplied with the chair.
- CareFlex use a range of covering materials, each with particular characteristics and specific cleaning guidelines. If you are unsure of the chair's covering material, contact CareFlex with the serial number of the chair which will allow CareFlex to trace the specification of the chair.
- Regularly unclip the back of the seat cushion to lift the cushion up and clean the seat board around the sides of the seat cushion where food crumbs and other debris can accumulate.

Structural maintenance:
Do not attempt to carry out any structural maintenance or structural adjustment of the chair or its accessories without consulting CareFlex.

Motorised chairs:
For motorised chairs, regularly charge the batteries as per the earlier instructions.

Guidelines for safe operation:

- Please take the time to familiarise yourself with all the aspects of the chair and its functions before using the chair.
- Do not 'ride' on the push handles or subject them to excessive loads.
- Do not sit on the leg rest or subject it to excessive loads.
- Do not attempt to stand on the footplate .
- Do not tip the chair backwards to ascend steps or overcome thresholds, especially if the user is sat in the chair.
- Always ensure the user's feet do not drag on the ground when the chair is moved; elevate the leg rest to lift their feet free from the floor and utilise the footplate, if able.
- Always ensure that there are no obstructions under the chair and that there is plenty of space around the chair before using the Tilt-in-Space or Back Angle Recline functions.
- Always apply at least two brakes when the user is transferred to or from the chair.
- Always try to avoid storing or using the chair in areas where it may obstruct exits or passageways.
- The SmartSeatPro II Small must never be used in motor vehicles for user transportation.

Looking After Your Chair Continued

- Do not charge the batteries when the user is in the chair (motorised version).
- Do not move the chair if the charging lead is connected between the chair and mains power supply (motorised versions).

Maintenance and Servicing

The covers on the SmartSeatPro II Small chair can be removed for maintenance and servicing. No hook and loop fasteners or staples are used externally on the upholstery of the chair, making cleaning easier and addressing the majority of infection prevention and control issues.

Each SmartSeatPro II Small chair has a unique chair number which must be quoted during any correspondence with CareFlex or your regional CareFlex distributor.
This number is on a silver foil label and can be found on the lower right-hand side of the back frame at the rear of the chair.
The number is essential for tracing the product and allows accessories and spare parts to be easily selected and ordered.



Regularly review the SmartSeatPro II Small set-up to ensure it is working as intended and that the user is benefiting from the posture and pressure management features of the chair. Seek guidance from a Health & Social Care Professional, if indicated.

***Disclaimers**

Tilt-in-Space and Back Angle Recline should always be prescribed responsibly, ensuring that they are safe and appropriate for the user following a comprehensive assessment of posture and risk, with advice sought from the multi-disciplinary team where indicated. In some cases these functions will be contra-indicated, and they could also increase shear and friction forces.

All belts and harnesses (positioning aids) must be prescribed, implemented, and monitored responsibly following a comprehensive risk assessment. Please see the following for further information:

- Medicines and Healthcare Regulatory Agency (MHRA) (2015) MDA/2015/018 *All posture or safety belts fitted to supportive seating, wheelchairs, hoists and bathroom equipment* London: MHRA
- British Standard (BS) (2019) 8625:2019 *Selection, placement and fixation of flexible postural support devices in seating* London: BSI

Identification Label



Notes

CareFlex Chair Number: _____

Notes

CareFlex Chair Number: _____

Notes

CareFlex Chair Number: _____

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SmartSeatPro II
website page

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