



REFERENCE

Record of Chair Settings (for your future reference)

Date:	Height	Depth	Angle	Offset	Rotation
.....					
Sacral					
Lumbar					
Thoracic					
Cervical					

Date:	Height	Depth	Angle	Offset	Rotation
.....					
Sacral					
Lumbar					
Thoracic					
Cervical					

USER INSTRUCTIONS





These are the user instructions for the **SmartSeat Pro** specialist seating system from CareFlex.

Please read them carefully before using the chair and keep them safe in a 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 as shown.

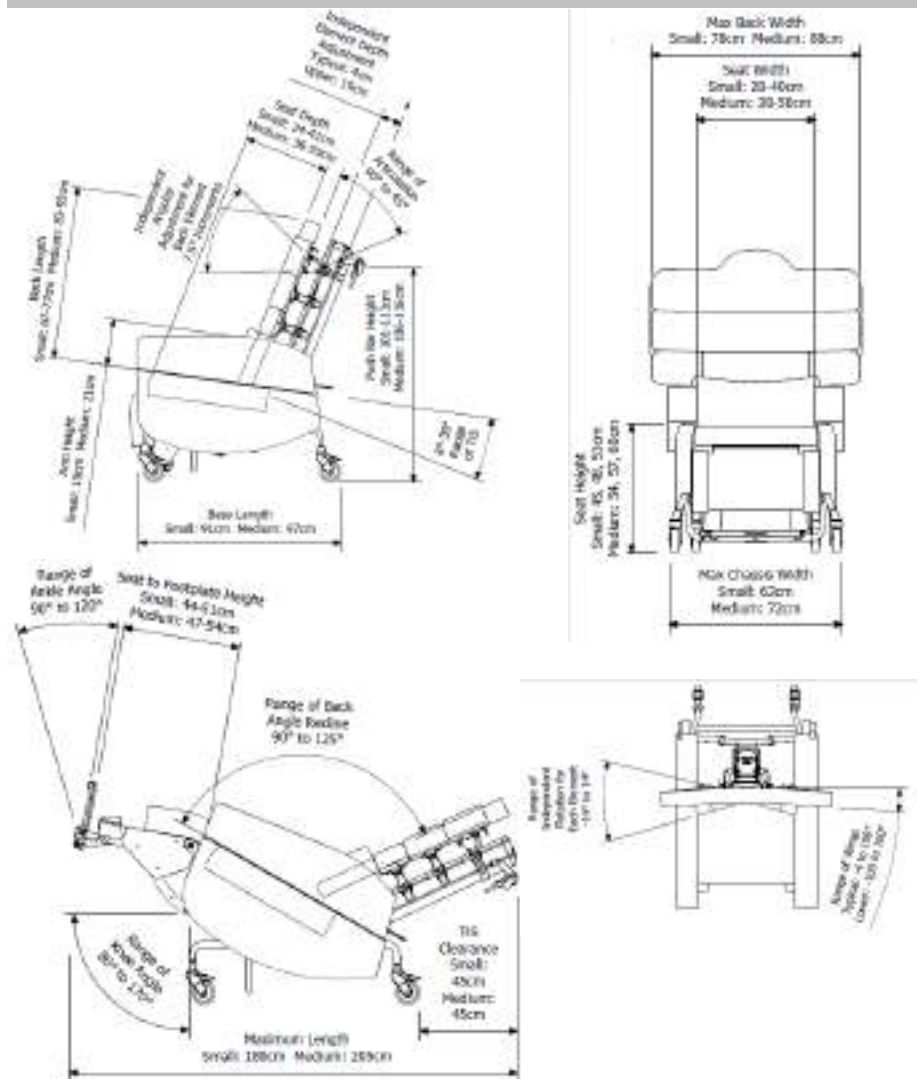


If you are in any doubt about the safe operation of the SmartSeat Pro, contact CareFlex or your local CareFlex distributor for clarification and further training.



REFERENCE

Technical Data





LOOKING AFTER YOUR CHAIR

Care & Maintenance

Guidelines for safe operation (cont.);

- Do not charge the batteries when the client 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).



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WHO IS THE SMART SEAT PRO FOR?

The **SmartSeat Pro** is a highly adjustable, modular seating system for clients with complex postural and pressure management needs. It has been designed to give healthcare professionals maximum adaptability to optimise posture, functions and comfort for their clients.

The chair has a built-in pressure management system based on Careflex's patented WaterCell Technology®.

CLIENT GROUPS

For those with complex postural needs:

- Semi-ambulant or non-ambulant
- Scoliosis, Lordosis, Kyphosis

Neurological conditions:

- Multiple Sclerosis, Muscular Dystrophy, Motor Neurone Disease, Cerebral Palsy
- Dementia Care
- Head injury and spinal cord injury
- Stroke rehabilitation

ENVIRONMENTS

- Nursing and residential homes
- Specialist wards
- Stroke rehabilitation, brain or spinal injury, intensive therapy units
- Domestic and homecare



LOOKING AFTER YOUR CHAIR

Care & Maintenance

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 legrest 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 client is sat in the chair.
- Always ensure the client's feet do not drag on the ground when the chair is moved—elevate the legrest to lift their feet free from the floor.
- 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 client 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 **SmartSeat Pro** must never be used in motor vehicles for client transportation.



LOOKING AFTER YOUR CHAIR

Care & Maintenance

Upholstery (cont.);

Regularly unclip the back of the seat cushion to lift the cushion up at the back 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 adjustment of the chair or its accessories without consulting CareFlex.

Motorised chairs;

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



UNIQUE FEATURES

The **SmartSeat Pro** chair incorporates features which allow it to be set up to accommodate different postures and provide seating positions for a range of activities.

- **Multi-adjustable back**, consisting of components that can be altered in height, depth, angle, offset and rotation to suit individual client needs
- **WaterCell Technology**, which is used in combination with a composite visco elastic memory foam and high elastic foam to optimise weight distribution and reduce the risk of development of pressure sores
- **Tilt-In-Space**, which allows the client's position to be adjusted without affecting pelvic position to redistribute body weight and combat fatigue
- **Back Angle Recline**, to adjust the hip angle to create a comfortable position
- **Legrest elevation**, to raise the legs and support the lower leg with the knees at a relaxed angle.

These pressure relief features make the SmartSeat Pro suitable for those clients at medium to high risk of pressure damage when used as part of a therapy programme assessed and prescribed by an appropriate Healthcare Professional.



CHOICE OF ACTUATION FORMATS

The **SmartSeat Pro** has three actuation formats; manual, motorised and Pro-control.

Manual Format

On the manual version of the **SmartSeat Pro** chair the Tilt-in-Space, Back Angle Recline and the elevating legrest are controlled by locking gas actions.

Motorised Format

On the motorised version of the **SmartSeat Pro** chair the Tilt-in-Space, Back Angle Recline and the elevating legrest are controlled by electric actuators which are powered by a rechargeable 24V battery system.

Pro-Control Format

On the Pro-control version of the **SmartSeat Pro** chair the Tilt-in-Space and the elevating legrest are controlled by electric actuators which are powered by a rechargeable 24V battery system. Back Angle Recline is controlled by a locking gas action.



LOOKING AFTER YOUR CHAIR

Care & Maintenance

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 your local CareFlex distributor.

If the client is experiencing severe discomfort, do not use the chair.

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. Refer to the CareFlex fabric guide for upholstery cleaning details. Wipe up spills and contamination as soon as they are noticed. Stains and soiling can lead to staining and more severe infection 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.

MOTORISED SMARTSEAT PRO

Electrical System

Chargers;

- 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.

Note:

- **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 a client.

IF IN ANY DOUBT, CONTACT YOUR CAREFLEX DISTRIBUTOR IMMEDIATELY

MAINTENANCE & SERVICING

The covers on the **SmartSeat Pro** 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 control issues.

Chair Number

Each **SmartSeat Pro** 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, above the seat depth adjustment rail 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.



Maintenance Tip:

Regularly check the SmartSeat Pro set up to ensure it is working as intended and that the client is benefitting from the posture and pressure management features of the chair.



GUIDE TO EVERY DAY USE

Brakes

During transfer it is important that the chair is as stable as possible. The chair is fitted with four fully braked castors and the brakes on at least **TWO** of the castors should be engaged prior to transfer.

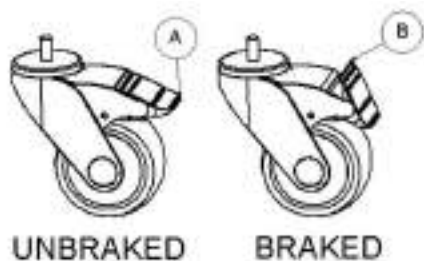
Locking the Brakes:

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

Releasing the Brakes:

To release the brakes, gently kick the end of the lever which is pointing upwards (B). The lever will snap down and the castors will roll freely.



MOTORISED SMARTSEAT PRO

Electrical System

The **SmartSeat Pro** uses actuators to adjust the Tilt-in-Space, back angle recline and legrest elevation. The actuators are powered by a 24V DC rechargeable battery system, which needs to be regularly charged in order to maintain battery performance.

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—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.



Motorised SmartSeat handset.



Connecting the 24V DC charger to the motorised SmartSeat handset.



ACCESSORIES

Adjustable Lateral Accessory

Height adjustment (cont.);

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.

Lateral Options & Sizes:

Code	Description	Chest Width
T4LMR	Adjustable Laterals (Pair)	230-390mm
T4LMW	Adjustable Laterals (Pair)	300-460mm
T4LKR	Adjustable Kidney Lateral (Pair)	275-395mm

Safety Note: The adjustable laterals should not be used to control trunk position for someone who is highly agitated, specifically for those who rock back and forth. There is a danger that if an occupant leans forward and then rocks backward they may injure their back against the firm support of the lateral structure.



GUIDE TO EVERY DAY USE

Tilt-in-Space

The **SmartSeat Pro** chair has a Tilt-in-Space facility which allows the client to be reclined without adjusting the angle at the hips. This helps the client to maintain a stable sitting posture whilst distributing their weight over a large surface area.

Tip: Tilt-in-Space should be regularly adjusted to facilitate an easy change in weight distribution, thus avoiding pressure build up in any one area.

Always warn the client before changing the Tilt-in-Space setting to ensure that they do not become distressed or agitated.

The chair will tilt approximately 20° backwards. This degree of tilt angle may be disconcerting for some clients.

Safety Note: When tilting the SmartSeat Pro chair forward, ensure that the footplate height is set so that the footplate will not hit the floor.



GUIDE TO EVERY DAY USE

Tilt-in-Space

Manual Format:

On the manual format chair, the Tilt-in-Space feature is controlled by the lever positioned on the right hand side (A) of the push handle.

To adjust the angle of tilt, squeeze the lever and tilt the chair to the desired angle. Release the lever to lock the chair at the desired angle.

Motorised Format:

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



ACCESSORIES

Adjustable Lateral Accessory

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 50mm range of adjustment per side. Note that on the maximum width setting it is necessary to ensure the lumbar cushion wing is positioned rearward.

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 central spine.
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 spanner to loosen the two 10mm bolts (circled), the pad can be repositioned. Three steps are available, each representing 20mm of movement. Ensure the two 10mm 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.



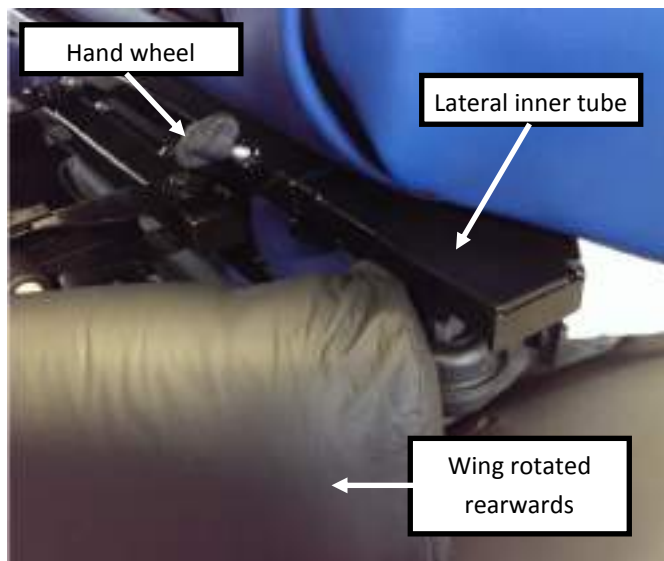
ACCESSORIES

Adjustable Lateral Accessory

Fitting the laterals (cont.);

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

To fit the laterals, slide the first lateral metal inner tube into the lateral receiver bracket outer tube, and tighten the hand wheel to secure in place.



Now, if necessary, repeat this process to fit the second lateral to the chair. Reposition the lumbar cushion wing to the desired position if it has been adjusted for clearance.

GUIDE TO EVERY DAY USE

Back Angle Recline

The **SmartSeat Pro** chair has a Back Angle Recline (BAR) facility which is used to adjust the angle between the seat and the back, thus opening/closing the hip angle.

Always warn the client before changing the Back Angle Recline setting to ensure that they do not become distressed or agitated.

The chair back angle can be adjusted between approximately 90° to 125°. The forward position provides a more comfortable setting for meal times and activities, and the rearward setting is more suited to resting.

Safety Note: The back angle should only be adjusted by those who understand how to achieve good posture.

If misused, this adjustment can lead to an unstable sacral seating position, and may result in pressure damage through shear.

Back Angle Recline should be altered very occasionally to suit a clients condition. For regular changes in position it is best to use the Tilt-in-Space facility, as this can be adjusted without affecting pelvic stability.

GUIDE TO EVERY DAY USE

Back Angle Recline

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.

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 (B). Once the locking lever has been activated, the main lever can then be squeezed to adjust the back angle.

Motorised Format:

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



ACCESSORIES

Adjustable Lateral Accessory

The **SmartSeat Pro** can be fitted with adjustable laterals which have height and width adjustment to provide support to the sides of the rib cage. The adjustable laterals can be retrofitted to any **SmartSeat Pro** chair and each lateral can be independently adjusted.

The objective of using supports like adjustable laterals is to position the client as upright and as close to a 'midline' position as possible so that pelvis, spine and head are aligned in a vertical column.

However, adjustable laterals can also be used to support asymmetric postures. In all situations, adjust the laterals to fit against the skeleton i.e. the ribs. If the lateral is positioned too low down it is likely that the occupant will end up leaning over the top edge of the lateral.

Tip: The laterals should be adjusted so that there is a two finger gap between the top edge of the lateral and the occupant's axilla (arm pit).

Fitting the laterals;

Each **SmartSeat Pro** is fitted with a lateral receiving bracket as standard.

This is located on the rear of the lumbar cushion element and consists of a metal receiver tube with plastic hand wheels (see opposite).





ACCESSORIES

Tray

Retro-fitting 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 do this you will need a 3mm allen key. Begin by removing the arms of the chair as per the earlier section 'Occasional arm removal'.
- With the arms removed you will see plates surrounding the mounting points for the arm location pegs. The plates are held in place with counter-sunk screws. Use a 3mm allen key to undo these, taking care not to drop or lose the screws, and keeping the side covers around the mounting points in place.
- Lift off the plates and position the webbing straps over the front screw holes so that the straps will hang over the sides of the base panels.
- Re-position the plates and screw them down fully so that the screws pass through the plates and webbing, securing the straps in place.
- Re-fit the arms as per earlier instructions.



Securing the tray straps.



GUIDE TO EVERY DAY USE

Legrest Extension

The **Smart Seat Pro** has an integral legrest which can be angled upwards to support the legs. The patented legrest mechanism articulates, following the movement of the knee as it elevates the legs. The legrest incorporates visco-elastic memory foam for pressure relief.

Safety Note: Ensure the legrest is fully lowered before transferring a client into or out of the chair

The range of legrest elevation is from 80° to 170°. Over-elevating the legs can cause tightness in the hamstrings which could cause discomfort. A legrest cannot be used to straighten contractures in the knees and close attention needs to be paid to the angle of elevation and for how long legs are elevated to ensure good positioning and continued comfort.



GUIDE TO EVERY DAY USE

Legrest Extension

Adjusting Legrest Elevation

Manual format:

On the manual format chair, legrest elevation is controlled by the lever located on the right hand side panel. Pull this lever outward and the legrest will begin to raise. It may be necessary to lift the legrest towards its maximum elevation, depending on the weight of the client's lower legs. Once the legrest is at the desired angle, release the lever.



To lower the legrest, pull the lever outward and the legrest will return to its lowered position. It may be necessary to push the legrest down if the client has weak or light lower legs.



ACCESSORIES

Tray

The **SmartSeat Pro** has a tray which can be used as a surface for activities and, when the chair is upright, to support cups and plates.

The tray rests across the arms of the chair and is made from moulded plastic. It has attachment points on the sides to locate it securely to the chair. As the chair arms move with the seat and back as the chair is tilted it is important that liquids and anything else which might spill are removed from the tray before the chair is tilted.



As the tray can be secured in place it must not be used as a restraint to keep the occupant in the chair.

Using the tray;

Once the occupant is sat in the chair, rest the tray across the arms so that the tray fits snugly against the client but does not press in to their abdomen.

The buckles on the tray straps mate with the buckles on the top edge of the chair sides. Clip the two halves of the buckles together on all four straps.



Tray attached and front straps adjusted to correct tension.

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.



ACCESSORIES

Belts and Harnesses

Fitting the Groin harness;

The groin harness is fitted by positioning the harness on the seat with the buckles facing down. The straight edge onto which the webbing straps have been attached needs to be lined up with the bottom edge of the back cushion.

- Push the webbing straps through the gap between the seat and the back cushion. Pull the straps under the mounting bars on the rear bottom edge of the back. Loop the straps over the bars and feed them back through the gap between the seat and back cushion.
- The straps can be positioned over the arms of the chair until the occupant has been transferred into the chair.



GUIDE TO EVERY DAY USE

Legrest Extension

Adjusting Legrest Elevation

Motorised format:

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

Integral Footplate

The legrest has an integral height and angle adjustable footplate to provide support for the client's feet when the legrest is raised or when they are being portered in the chair. The footplate is stowed away behind the legrest.

Accessing the Footplate

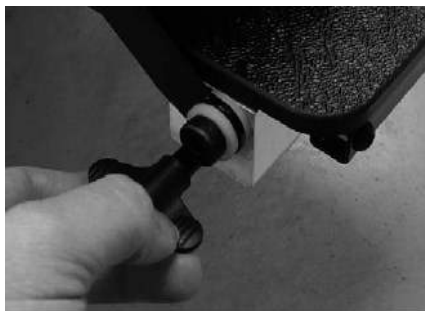
Tilting the chair back and elevating the legrest gives better access for deploying the footplate. The first few times the footplate is used it will be easier to position the chair like this so that familiarity with the process can be easily developed.

GUIDE TO EVERY DAY USE

Integral Footplate

Deploying the footplate:

- Locate the wing knob positioned on the left hand side of the footplate assembly.
- With your right hand, grip the recess on the front edge of the footplate, and with your left hand twist the knob clockwise to release the footplate.
- When released, pull the footplate until it is felt to click into its 90° position.
- At this point the footplate will look short. A further tug on the front edge of the footplate extends the support surface. At full extension the foot support surface should be approximately 26cm from front to back.



Twist the wing knob clockwise to release the footplate for stowing.



Grip the centre of the footplate to extend the foot support surface.

ACCESSORIES

Belts and Harnesses

Groin harness;

A groin harness helps to keep the user positioned correctly in the chair.

Adjusting the harness;

- Position the loose webbing straps over the arms of the chair and transfer the client onto the chair so that they are sitting on the groin harness.
- Position the ends of the groin harness with the buckles attached over the client's thighs and connect the buckles to the webbing straps.
- Adjust the length of the webbing straps through the buckles so that the groin harness helps control the client's position.
- Do not over-tighten the straps as this may lead to discomfort. The groin harness must not be used as a restraint.



Groin harness.



Groin harness straps fitted between seat and back cushions.



ACCESSORIES

Belts and Harnesses

Fitting and adjusting the straps of Chest Harnesses;

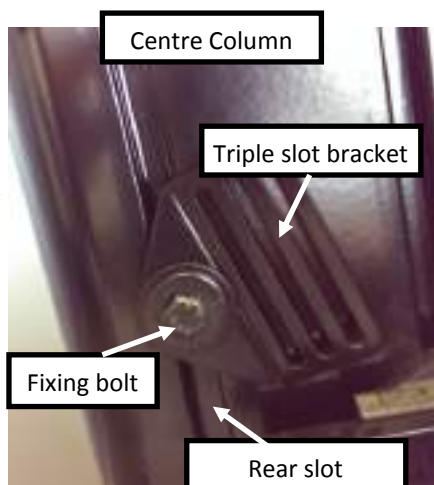
The shoulder straps of the chest harness should be fed through the back of the chair between the head (cervical) and shoulder (thoracic) cushions.

Two triple slot brackets can be fitted to the rearward slot of the centre column, at a height appropriate to the client. To fit a triple slot bracket, firstly ensure the bolt is not threaded through the silver nut to the extent that the bolt thread is exposed. Offer up the bracket to the slot in the column, inserting the nut and twisting the bolt slowly. Check visually to ensure the nut has rotated in the slot and 'engaged' before tightening fully with a 10mm spanner.

Repeat this for the second triple slot bracket and then thread the shoulder straps through the bracket to secure.

The lower straps can be passed between the lower back cushion and the seat cushion before being looped around the back frame bars and threaded through a ladder lock buckle to secure.

Adjustment for length is possible at both the upper two and lower two mounts, whichever is most appropriate for the client.



GUIDE TO EVERY DAY USE

Integral Footplate

Footplate angle/Plantar Flexion Control

The footplate has three angle settings to provide comfort and support plantar flexion. As the legrest is elevated, having a 90° angle at the ankle will become more uncomfortable. The footplate can be angled down to provide a more relaxed position.

Adjusting the angle

To adjust the angle, locate the round knobs mounted each side of the back corners of the footplate. Pull the knobs and tilt the footplate to the desired angle. Release the knobs and they will click into the nearest angle setting.



Pull out the round knob on each side of the back edge of the footplate to adjust footplate angle.



GUIDE TO EVERY DAY USE

Integral Footplate

Stowing the footplate:

- To fold the footplate up and store it behind the legrest, the footplate must be set at its 90° angle positions.
- Once the footplate angle is at 90°, give the front edge of the footplate a sharp tap and push it into its minimum depth.
- Rotate the wing knob clockwise and the footplate assembly will release—push the front of the footplate and it will swing up behind the legrest. A further firm push at the end of the movement will lock the footplate into position.

Seat to Footplate Height

The **SmartSeat Pro** has an articulating legrest which has a naturalistic movement to provide support to the lower leg as the knees flex. This means that for the majority of occupants the footplate will provide consistent support as the legrest elevates. However, it is sometimes necessary to make seat to footplate height adjustments as a consequence of knee position not working in harmony with the rest of the legrest.



ACCESSORIES

Belts and Harnesses

Dynamic sternum harness;

The Dynamic sternum harness has the same features as the Dynamic chest harness but has more incised profile for greater comfort across the chest.

Adjusting the harness;

Harnesses need to be positioned high up on the chest to act against the rib cage. Ensure the harness clears any abdominal implants.

- Position the harness so that the bottom edge lines up with the bottom edge of the client's rib cage, and the top sections of the harness pads sit over the collar bones. This will ensure that the webbing straps do not rub.
- In day to day use when transferring a client to or from the chair, undo the shoulder straps and one of the bottom straps. The harness can remain attached to the chair with one of the lower buckles.
- Regularly check and adjust the tension in the shoulder straps by pulling the folded over end of the webbing strap through the buckle.
- Adjust the bottom straps at their mounting point.



Position the harness with the lower edge level with bottom edge of the rib cage.



ACCESSORIES

Belts and Harnesses

Dynamic chest harness;

The Dynamic chest harness is made from neoprene with soft edge binding which allows the harness to stretch in response to movement. This provides comfort and support whilst not restricting active positioning. The main body of the harness should be positioned so that the bottom edge is level with the lower edge of the rib cage.

Four straps attach the body of the harness to the chair. The lower straps have multi-direction buckles which swivel to follow the direction of pull to the mounting point to avoid twisting and provide comfort. The Dynamic chest harness is designed to be used in conjunction with a pelvic belt.



Chest harness with V shaped shoulder straps.



GUIDE TO EVERY DAY USE

Seat to Footplate Height

Adjusting Seat to Footplate Height

- To adjust seat to footplate height, deploy the footplate and locate the indexer on the footplate receiver, which is mounted centrally on the underside of the legrest.
- Pull the indexer out and lift/lower the footplate to the desired position. Once at the desired position, release the indexer. The footplate might drop slightly as the indexer locates into the closest height setting.



Indexer for seat to footplate height adjustment.



GUIDE TO EVERY DAY USE

Integral Footplate

Footplate Removal

At some point the footplate may not be required. The footplate can be removed if this is the case.

Removing the Footplate

To remove the footplate, stand at the right side of the chair and elevate the legrest to maximum. Locate the indexer controlling seat to footplate height, pull it out and at the same time pull the footplate out until you feel it hit its maximum stop. On the right hand side of the indexer, feel for a small round button. Press this and the footplate assembly will slide free of the receiver. Be prepared to take the weight of the assembly as it comes free of the legrest.



Retaining button. Press into slide footplate out completely.



ACCESSORIES

Belts and Harnesses

4-point belt set-up (cont.);

- To open the belt, press the tabs on the sides of the buckle so the two halves spring apart.

4-point belt secondary straps set-up (cont.);

- With the main strap correctly adjusted for tension and position, pull the secondary straps over the sides of the client's thighs and down towards the seat board. The secondary straps should be at right angles to the sides of the seat board.
- Make a note of the position of the straps relative to the front edge of the seat. If seat width adjustment is tending towards the minimum seat width, adjust the arms out to their widest position. Push the sides of the seat cushion away from the sides of the chair to reveal the thin round bars mounted on the inside of the chair sides.
- Thread the end of each secondary webbing strap through a ladder lock buckle. Loop the webbing around the thin round bars and re-thread the end of the webbing through the buckle. Adjust the length of the belt by threading more or less webbing through each ladder lock buckle.
- Once the tension is correct on both sets of straps, re-adjust the seat width as per the earlier instructions.



ACCESSORIES

Belts and Harnesses

4-point pelvic belt;



4-Point Pelvic Belt with main strap coming over the hips between 45° and 60°. Secondary strap at right angles to seat board.

This belt has a centre-pull adjustment. The main 40mm strap is mounted so that it sits at between 45° and 60° across the hips.

The secondary straps pull down over the thighs to sit at right angles to the seat board. The secondary straps prevent the main belt riding up and provide some support to the outside of the thigh. The comfort pads are made from neoprene.

The secondary straps come down from the main pad and over the sides of the client's thighs so that they sit at right angles to the seat board.

4-point belt set-up;

- Adjust the main webbing strap through the central side release buckle so that there is approximately 15cm of loose webbing each side of the buckle. Set the main length of the belt through the ladder lock buckles on the rear bottom edge of the back frame. The belt should be sufficiently tight to support and control the pelvis without being painful.
- In day to day use clip the two halves of the side release buckle together once the occupant is sat in the chair. Additional tension can be applied to the belt by pulling the D-rings which will draw the webbing through the buckle.



GUIDE TO EVERY DAY USE

Integral Footplate

Refitting the Footplate

To refit the footplate, present the rectangular tube of the assembly to the receiver on the back of the legrest. Push in the small button on the top edge of the tube so that it can slide into the receiver. Adjust the footplate to the desired height.



GUIDE TO EVERY DAY USE

Arm Removal and Side Transfer

The arms of the **SmartSeat Pro** can be removed for servicing and for side transfer. If the intention is to regularly remove the arms then the arm locking device can be disabled so that the arms can be lifted off the chair easily.

Occasional Arm Removal:

- Detach the tabs which hold down the front edge of the seat cushion. Plastic 'J' strips are sewn onto the ends of these tabs and clip on to thin round bars on the underside of the front edge of the seat board.
- Push the front of the cushion to one side to reveal the side cover attachment. Unclip the 'J' strip at the front top corner of the side cover. Hold the cover up and locate the vertical tube which is the front location point for the arm.



Front location point for arm fitment.



ACCESSORIES

Belts and Harnesses

Padded pelvic belt set-up;

- To set up the overall length of the belt, pull the D-rings towards the central release buckle. Set the main length of the belt through the ladder lock buckles on the rear bottom edge of the back frame. The belt should be sufficiently tight to support and control the pelvis without being painful.
- In day to day use clip the two halves of the side release buckle together once the occupant is sat in the chair. Additional tension can be applied by pulling the D-rings forward. This will shorten the length of the belt through the ladder lock buckles, pulling the pads in towards the client. If additional tension is required once the D-rings have been pulled as far forward as possible, re-adjust the length of the belt through the ladder lock buckles on the rear bottom edge of the back frame.
- To open the belt, press the tabs on the sides of the buckle so the two halves spring apart.



ACCESSORIES

Belts and Harnesses

Plain pelvic belt set-up;

- Adjust the webbing through the side release buckle so that there is approximately 15cm of loose webbing each side. Set the main length of the belt through the ladder lock buckles on the rear bottom edge of the back frame. The belt should be sufficiently tight to support and control the pelvis without being painful.
- In day to day use clip the two halves of the side release buckle together once the occupant is sat in the chair. Additional tension can be applied to the belt by pulling the D-rings which will draw the webbing through the buckle.
- To open the belt, press the tabs on the sides of the buckle so that the two halves spring apart.

Padded pelvic belt;

The padded pelvic belt is 'rear pull', so that day to day adjustments are made by pulling D-rings on the webbing straps which adjust in length through ladder lock buckles on the ends of the comfort pads.



Padded Pelvic Belt. Adjustment is made at the rear end of the pads.

The main adjustment is set at the mounting points. The comfort pads are manufactured using neoprene.



GUIDE TO EVERY DAY USE

Arm Removal and Side Transfer

- At the end of the tube you will see a small round button. This is the locking device which prevents the arm being inadvertently removed from the chair. Press this button to lift the arm clear of the chair.
- You may need to angle the arm outwards to clear the underside of the wing if the seat depth is adjusted towards the minimum setting.
- Re-fit the arm by reversing the above process.



Depress the button to release the front arm mounting peg.



GUIDE TO EVERY DAY USE

Arm Removal and Side Transfer

Frequent Arm Removal:

- If the arm is going to be removed frequently as would be expected if regular side transfers are being made, the locking device can be disabled.
- To do this, you will need a pair of long-nosed pliers. This should not be done to chairs in multi-user environments or where people with challenging behaviour may unintentionally remove the arm.
- With the arm removed from the chair, depress the small button located at the end of the tube. Insert the long-nosed pliers into the end of the tube to push the button past its locating hole to prevent it popping out.
- To reinstate the locking device, use the pliers to grip the end of the small button and pull/twist it around so that it pops back through its locating hole.



If arms are being frequently removed, the button in the mounting peg needs to be depressed and then pushed up into the tube.



ACCESSORIES

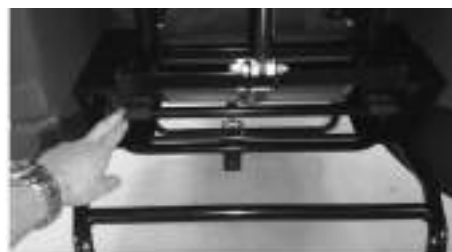
Belts and Harnesses

Fitting pelvic belts;

Pelvic belts are attached to the anchor bars on the rear bottom edge of the back frame.

Thread the end of each strap through a ladder lock buckle. Loop the webbing around the mounting bars and rethread the end of the webbing through the ladder lock buckle.

Adjust the length of the belt by threading more or less of the webbing through the ladder lock buckle.



Pelvic Belt fitted around the back frame tube and held in place with a tri-glide.

Plain pelvic belt;

This is a simple strap made from 50mm webbing with a double adjustable side release buckle. It is intended for use as a safety strap when portering a client in a chair. As it is not padded, it will not be particularly comfortable as a long-term positioning aid.



ACCESSORIES

Belts and Harnesses

CareFlex belts and harnesses are designed to be used as positioning aids to help the client maintain a good sitting posture whilst reducing the risk of soft tissue damage through the effects of shear which can occur if the client has unstable posture.

A level of supervision appropriate to the client's abilities must be applied at all times.

Warning: The use of pelvic belts and harnesses must be thoroughly risk assessed by a healthcare professional. Appropriate training in their function, adjustment and operation must be provided for all those who use them.

Pelvic belts;



These are designed to stabilize the pelvis and keep the client in an upright, functional position.

All pelvic belts need to be correctly adjusted to adequately support the client without restricting breathing or causing discomfort. It is essential that a pelvic belt is not adjusted to fit loosely around the client and is not allowed to work loose over time, as this will enable the client's pelvis to tilt backwards, encouraging them to slide down and forward in the chair.

CareFlex pelvic belts are intended to pull back over the hips at an angle of between 45° and 60°. This angle helps to maintain a vertical pelvis by simultaneously pulling the hip joint down and back.



CLINICAL SET UP FOR POSTURAL MANAGEMENT

Introduction

The Importance of Chair Set-up

The suitability and effectiveness of these features are dependent on correct chair set-up. Correct set-up is dependent on the foundation of correct seat depth, seat width and seat to floor/footrest height.

Seat Depth

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

Sacral sitting occurs when the pelvis tilts backwards so that the lower back (sacrum), as well as the bottom, is resting on the seat cushion. 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 client's bodyweight will be concentrated in too small an area.

Seat depth should be set with the client's bottom positioned firmly at the back of the seat cushion so that their lower back and lumbar is supported by the back cushion. There needs to be a two or three finger gap between the client's calf and the front of the seat cushion for comfort.

If the client already has a chair or wheelchair with the correct seat depth, measure this size and use it as a starting point for setting the **SmartSeat Pro**.



CLINICAL SET UP FOR POSTURAL MANAGEMENT

Seat Depth

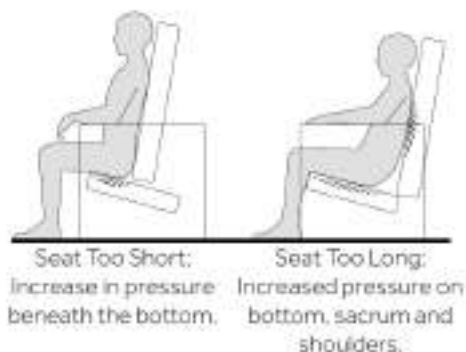
Adjusting Seat Depth:

Seat depth is adjusted by moving the back of the chair over the seat unit. The front edge of the seat will stay in the same place. The seat depth mechanism is controlled by the release lever on the rear left hand underside of the seat.

To adjust, locate the two rails as shown, and squeeze the thinner rail up against the thicker rail to release the mechanism. Keeping the two rails squeezed together, adjust the seat depth to the desired position and release to lock.



Squeeze the thin rail against the thicker rail to release the seat depth mechanism. Some operators may find it easier to use both hands to squeeze the release mechanism and adjust the seat depth.



ACCESSORIES

Pommel

- Use a 4mm allen key to undo the four fixings which hold the seat board in place. Put the fixings in a safe place ready for re-positioning the board.
- Locate the two holes drilled horizontally through the front cross tube of the seat frame. Position the pommel receiving bracket against these holes. Ensure that the nut welded to the underside of the tube is facing down.
- Fit the two bolts supplied with the bracket through the holes in the bracket plate and the holes in the seat frame cross tube, and fasten the bracket in place with nyloc nuts. Spanners must be used to tighten the bracket in place.
- Refit the seat board and cushion. Ensure the plastic strips on the seat cushion tabs are clipped securely in place front and back. Smooth out the seat cushion under the back.



Pommel bracket fitted to front cross tube of seat frame.



ACCESSORIES

Pommel

Removing the pommel;

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

Pommel receiving bracket fitting;

If ordered with a chair, the pommel receiving bracket will be fastened in place. If retro-fitting a pommel to an existing chair, the receiving bracket will need to be fastened in place on the seat frame. You will need a 5mm allen key and two 13mm spanners to do this.

Fitting instructions;

- Undo the zip which attaches the crumb catcher on the front of the seat cushion to the top of the legrest.
- The seat is held in place by two tabs on the front edge, and a large tab on the back edge. The tabs have plastic strips sewn into them which clip over thin bars on the seat frame. Unclip these strips and lift the seat cushion out of the chair.



Separating the two halves of the crumb catcher which joins the seat to the legrest.



Removing the seat board.



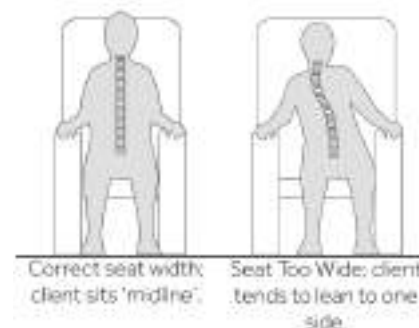
CLINICAL SET UP FOR POSTURAL MANAGEMENT

Seat Width

Adjusting Seat Width:

Seat width affects side-to-side pelvic stability. This is important as the spine should line up centrally with the pelvis. If the pelvis is free to move to one side then the client's spine will usually lean in the opposite direction. As gravity pulls the client over, the spine will begin to curve to compensate as the client tries to keep their head level. The client will take on a characteristic 'S' shaped spine or scoliosis. The more upright the client's trunk is, the more critical pelvic stability becomes; it is therefore important to use a chair with the correct seat width in order to position the pelvic properly.

Tip: Seat width should always allow for a small amount of movement as the client's body weight and posture naturally shifts throughout the day. If the client is held in a rigid position, they will tire quickly and experience discomfort.





CLINICAL SET UP FOR POSTURAL MANAGEMENT

Seat Width

Adjusting Seat Width:

Each arm of the SmartSeat Pro has a unique adjustment mechanism which allows the arm to be moved in or out relative to the centre of the chair.

To release the mechanisms, locate the tabs on the back of the arms and pull backwards until they stop.

To reduce the seat width, move the arms inwards to the centre of the chair by placing the palm of your hand on the outside face of the seat arm and push.

To increase the seat width, move the arms outwards by placing the palm of your hand on the inside face of the seat arm and push.



Pull the tabs on the back of the arms to release the mechanism to adjust seat width.



Pull the tab out and push the middle of the arm to reduce the seat width.

Once the arm is in the desired position, let go of the tab. If the chair is unoccupied, smooth out the lower back cushions to minimise the wrinkling of material.



ACCESSORIES

Pommel

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.

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

Fitting the pommel;

Fit the pommel with the legrest angled downward; this will give the best access to the receiving bracket.

Locate the square hole in the loose flap of fabric between the top edge of the legrest and the underside of the seat cushion.



Pommel fitted and removed when the legrest is fully lowered.

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 square hole into the receiving bracket and push the pommel until it is felt to click into place.



ACCESSORIES

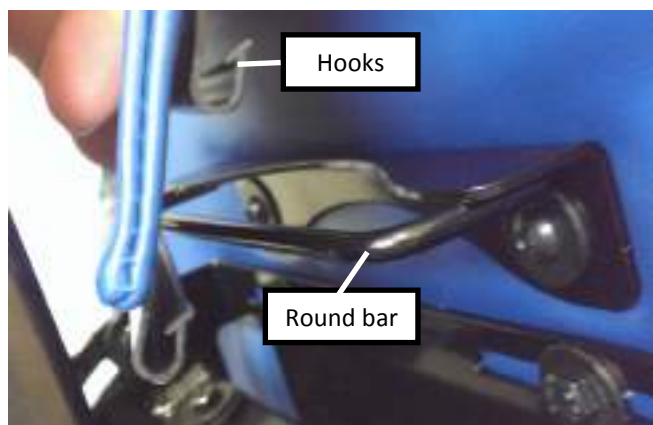
Headrests

The complete range of CareFlex headrests are available for the **Smart Seat Pro**.

Headrests are attached to the thin round bar 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.

Positioning the headrest;

Position the headrest at the appropriate height for the chair occupant, pull the strap tight over the chair and clip the closest plastic hook over the round bar.



CLINICAL SET UP FOR POSTURAL MANAGEMENT

Seat Width

Safety Note: Do not adjust the seat width if the occupant is leaning heavily onto the arm you are trying to adjust. Do not attempt to adjust the seat width when the tray accessory is fitted to the chair.

Wherever possible aim to have the arms adjusted symmetrically so that the client is located centrally in the chair. Look at the arms from the back of the chair and judge the distance from the inside face of the arms to the adjacent back cushion. For the most accurate set up of seat width, measure using a rule or tape measure and record the settings.

Seat Height

If the client can raise to standing themselves or with minimal assistance, the seat height should be set so that the client'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 client'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 client is less ambulant then the seat height can be set reference to the footplate, again ensuring the foot is flat and fully supported.

The **SmartSeat Pro** will have been measured at assessment and manufactured to the preferred dimensions.

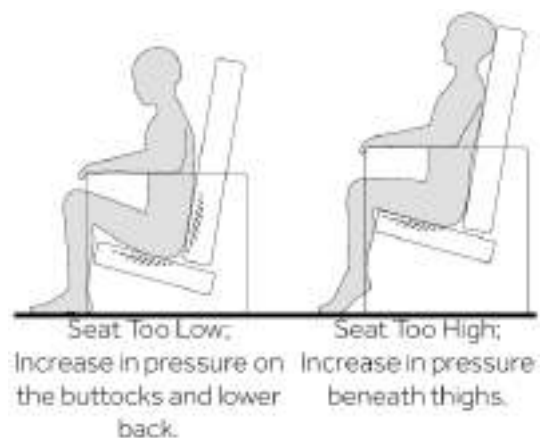


CLINICAL SET UP FOR POSTURAL MANAGEMENT

Seat Height

Further adjustments:

If further adjustment is necessary, please contact your local CareFlex distributor or contact CareFlex for the additional 'SmartSeat Chair Height Adjustment' user instruction.



CLINICAL SET UP FOR POSTURAL MANAGEMENT

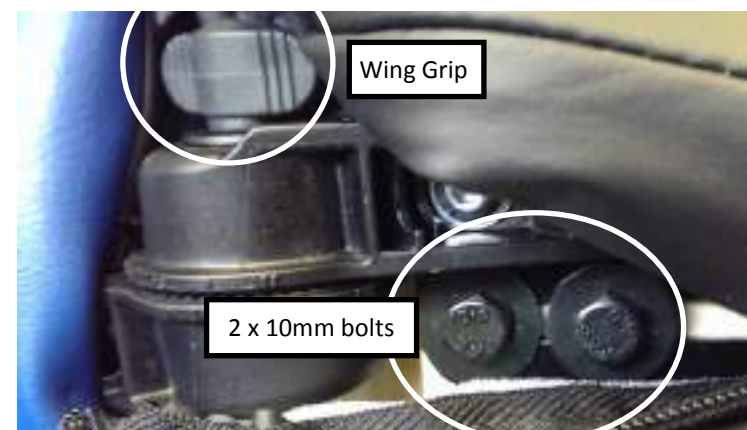
Back Configuration & Adjustment

Lateral wing adjustment (cont.);

Tip: If desired, these wings can be rotated completely rearwards. This can be useful when removing the **SmartSeat Pro** arms.

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

To make this adjustment, the two 10mm bolts (shown below) need to be loosened 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.



CLINICAL SET UP FOR POSTURAL MANAGEMENT

Back Configuration and Adjustment

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 zipped aperture at the rear of the upholstery (one per wing, as shown).



Unzip the upholstery and locate the small plastic black wing grip inside. Loosen the wing grip and move the wing to the desired angle before re-tightening. Ensure the wing is secure and then re-zip the aperture to finish.



CLINICAL SET UP FOR POSTURAL MANAGEMENT

Back Configuration and Adjustment

Multi-adjustable back rest:

The **SmartSeat Pro** has a unique multi-adjustable back that consists of four individual cushion elements providing postural support for:

1. Sacral curve
2. Lumbar curve
3. Thoracic curve
4. Cervical curve

The table below lists the type of adjustment available for each cushion element:

	Height	Depth	Angle	Offset	Rotation
Sacral	•	•	•	• ¹	•
Lumbar	•	•	•	•	•
Thoracic	•	•	•	•	•
Cervical	•	•	•	•	•

Note 1: Range of offset limited by seat width setting



CLINICAL SET UP FOR POSTURAL MANAGEMENT

Back Configuration and Adjustment

Tools required;

To maintain the integrity of client postural management settings, key adjustments on the back are adjustable using a 10mm swan neck spanner or socket. Alternatively, CareFlex can provide an optional lever-lock kit if specified at the time of chair order—please contact your local CareFlex distributor for details.

Height, depth, angle and 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.



CLINICAL SET UP FOR POSTURAL MANAGEMENT

Back Configuration & Adjustment

Wing adjustment;

The thoracic and cervical back elements include adjustable wings to provide contouring and support to suit the client's needs.

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 wing grip.

Loosen the wing grip and move the wing to the desired angle before re-tightening. Ensure the wing is secure and then re-zip the aperture to finish.





CLINICAL SET UP FOR POSTURAL MANAGEMENT

Back Configuration and Adjustment

Head support (Cervical) angle adjustment;

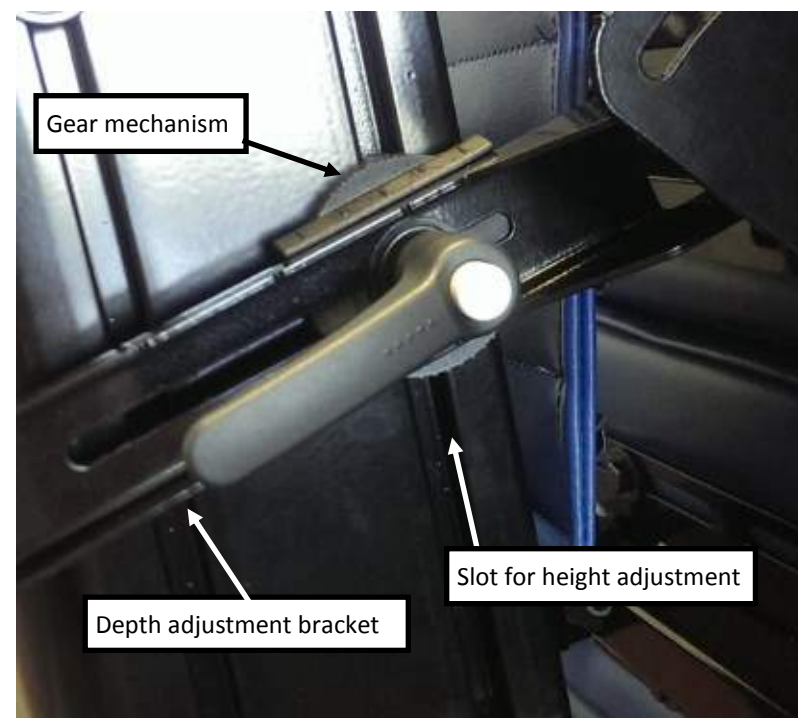
The upper head support cushion element can be articulated by a further 45°. To achieve this, locate the two small wing grips (circled below) and loosen. Hold the head support and move to the angle desired before ensuring the wing grips are re-tightened to secure into position.



CLINICAL SET UP FOR POSTURAL MANAGEMENT

Back Configuration & Adjustment

Illustration: Pivot point detail (shown with optional lever lock fitted):



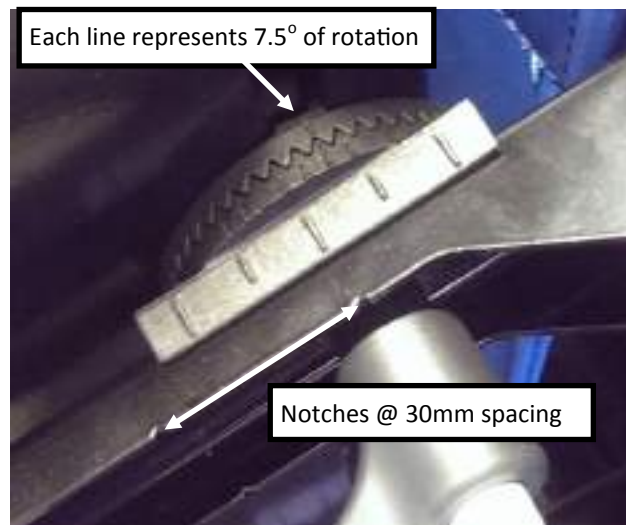
CLINICAL SET UP FOR POSTURAL MANAGEMENT

Back Configuration and Adjustment

Height, depth, angle and rotation adjustment (cont.);

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

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



CLINICAL SET UP FOR POSTURAL MANAGEMENT

Back Configuration & Adjustment

Offset adjustment;

Each back cushion element can be adjusted left and right independently. Note: the sacral cushion element offset range is limited by the seat width setting.

The rear mounting brackets of each cushion element contains four bolts that should be loosened to permit left or right movement of the cushion element. The diagram below shows the location of the four bolts which can be adjusted using the 10mm spanner.

