CareFlex
CareFlexibility

The CareFlex **Smart**Seat™ User instructions

SmartSeat™

CE Class 1 Medical Device

SmartSeat™

These are the user instructions for the SmartSeat 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 CareFlex Distributor immediately.

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

Index

SmartSeat™

Who is the SmartSeat for?

The SmartSeat chair is designed for a range of clients who require a combination of comfort, pressure management and posture control from their seating system. The chair has a built-in pressure management system based on CareFlex's patented WaterCell Technology®.

The adjustability of the chair and the range of complementary accessories mean that the chair is suitable for clients who require specific support and positioning to achieve a good posture. The chair can be used in single or multi-user environments.

The SmartSeat chair should be selected for clients:

- Who need to maintain a reasonable, midline posture.
- With neurological conditions which make them sensitive to discomfort or affect muscle tone so that support is required to combat fatigue.
- For whom seat height for transfer is critical.
- When posture, pressure and comfort are important in equal measure.
- Who require a wide range of positions for different activities through the day.

The SmartSeat chair should also be considered:

- For multi-user environments such as stroke wards.
- Where infection control is an issue.

The SmartSeat chair is all about keeping the client in a functional position which is also comfortable and minimizes the risk of soft tissue damage. Once set up, the support will accommodate a range of postures.

The SmartSeat chair is suitable for clients who have or are:

- Congenital conditions e.g. Cerebral Palsy
- Neurological conditions e.g. MS, MD, MND
- Lower limb amputation
- Early stage HD
- Recovering from a Stroke or have long terms effects of a stroke
- Learning difficulties
- Frail and/or elderly

SmartSeat Unique Features

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

- Tilt-in-Space, which allows the client's position to be adjusted without affecting pelvic position.
- Legrest elevation, to raise the legs and support the lower leg with the knees at a relaxed angle.
- Back Angle Recline (optional), this allows adjustment of the hip angle and therefore enables the operator to find the optimium pelvic position for the client.

Pressure Relief and Support Features

CareFlex's Unique WaterCell Technology®

The SmartSeat chair incorporates CareFlex's patented WaterCell Technology® in the seat in combination with a composite visco elastic memory foam and high elastic foam cushion. The memory foam allows the seat cushion to conform to the client's body shape, distributing their weight over as large a surface area as possible. The high elastic foam prevents the memory foam bottoming out and makes the cushion responsive to client movement. The WaterCell Technology moves with the client to ensure that the cushion remains in contact with the client as they move and alter their weight distribution.

These pressure relief features make the SmartSeat chair 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.

Back Support Options

Two back support options are available for the SmartSeat chair. The deep laterally contoured back has kidney pads to provide simple lateral stability. These pads also increase the contact surface between client and seat, distributing their weight over as large a surface area as possible. The flat back has a basic lumbar curve and allows for the use of the SmartSeat adjustable laterals accessory which provides more solid prescriptive support to the thorax.

Choice of Actuation Formats

The SmartSeat chair has two actuation formats; manual and motorised. When Back Angle Recline has been fitted, three actuation formats become available; manual, pro-control and motorised.

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

2. Pro-Control Format
On the Pro-Control version of the SmartSeat 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.

3. Motorised Format
On the motorised version of the SmartSeat 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.

Maintenance and Servicing

All the covers on the SmartSeat chair can be removed for maintenance and servicing. No hook and loop fastenings or staples are used externally on the upholstery of the chair, making cleaning easier and addressing the majority of infection control issues.

Set-up and Adjustment Top Tips
Use a cloth tape measure to measure the client as you are setting up the chair. This will help limit the need for any re-adjustment. Regularly check the SmartSeat set up to ensure it is working as intended and the client is benefitting from the posture and pressure management solutions which are built into the chair.

Serial Number

Each SmartSeat chair has a unique chair number which must be quoted during any correspondence with CareFlex or your local CareFlex Distributor.

The chair number is printed onto a silver foil label which is normally affixed to the chair back frame. This number is essential for product traceability, and allows accessories and spare parts to be easily selected and ordered.

Chair Set-up

Importance of Chair Set-up

The suitability and effectiveness of these features are dependent on correct chair set up. Correct chair set up is dependent on three key elements: seat depth, seat width and seat to floor/footrest height.

Seat Depth

Seat depth and width must be set up to suit the client once the chair has been delivered.

Seat to Footplate Height

Seat to footplate height can be adjusted to suit the client and is likely to be adjusted regularly.

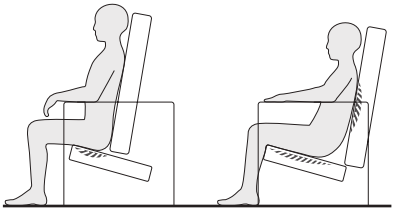
Seat to Floor Height

Seat to floor height will have been measured during the initial seating assessment and the SmartSeat chair will have been factory assembled to these measurements but can be adjusted by a technician in the field.

Seat Depth

SAFETY NOTE
Seat depth should not be adjusted when a client is sat in the chair or when the chair is tilted backwards.

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 too long. If the seat depth is too short then the client's body weight will be concentrated in too small an area.



Seat Too Short; Increase in pressure beneath the bottom.

Seat Too Long; Increased pressure on bottom, sacrum and shoulders.

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 to set up the SmartSeat chair.

Adjusting Seat Depth:

1. 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 a release lever on the rear left hand underside of the seat.

2. To adjust seat depth, locate the two rails at the bottom of the back valance. Squeeze the thinner rail up against the thicker rail to release the mechanism controlling seat depth. Keeping the two rails squeezed together, push or pull the back of the chair to the desired position. Once at the correct position, release the lower, thinner rail. The back may jump back

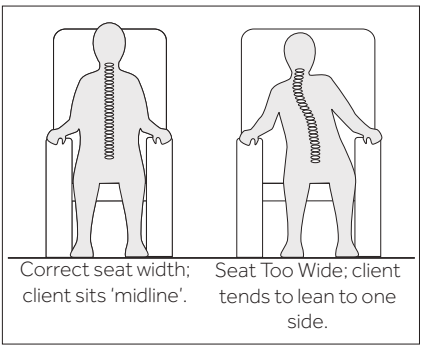
Squeeze the thin rail against the thicker rail to release the seat depth mechanism. Some operators may find it easier to use both hands to squeeze the release mechanism and adjust the seat depth.

slightly as the locking mechanism engages.

Note: For ease of adjustment, ensure all wheels are locked.

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 user'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 pelvis properly.



Seat width should always allow for a little bit 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 quickly tire and experience discomfort.

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

Adjusting Seat Width:

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

2. To release the mechanisms, locate the tabs on the back of the arms. Pull the tabs backwards until they stop. To reduce seat width, by moving the arms in towards the centre of the chair, place the palm of your hand in the middle of the outside face of the arm

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

and push the arm inwards. To increase seat width by moving the arms out from the centre of the chair, place your hand in the middle of the arm against the inside face and pull the arm outwards.

3. Once the arm is in the desired position let go of the tab. The arm may jump slightly as the adjustment mechanism locks into the most appropriate position. If the chair is unoccupied, smooth out the lumbar cushion to minimize wrinkling of the cover.

Pull the tab out and pull the middle of the arm to increase the seat width.

Checking Symmetry of Seat Width

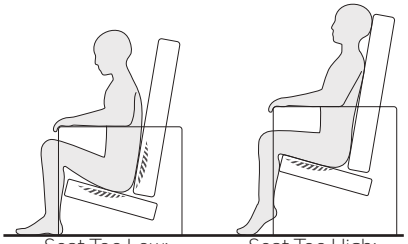
Wherever possible aim to have the arms adjusted symmetrically so that the client is located centrally in the chair. Look at the arms from the back of the chair and judge distance from the inside face of arms to the edges of the chair back frame. For the most accurate set-up of seat width, use a rule or tape measure or the incremental markings on the back of these instructions to ensure the adjustment of the arms is symmetrical.

Use a tape measure, rule or the guidelines on the back page of these instructions to check arm position and symmetry.

Seat Height

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

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 will 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. This will increase the pressure on their bottom and sacrum and could cause discomfort at the hips.



Seat Too Low; Increase in pressure on the buttocks and lower back.

Seat Too High; Increase in pressure beneath thighs.

If the client is less ambulant and is being regularly portered then seat height can be set relative to the footplate. Again, ensuring the foot is flat and fully supported is important.

The SmartSeat chair seat height will have been measured during assessment and the chair made to these dimensions for the client prior to delivery.

Further Adjustments

If further adjustment is required, please contact your local CareFlex Distributor or contact CareFlex for the additional 'SmartSeat Chair Seat Height Adjustment' User Instruction document.

Back Angle Recline (BAR)

This is an optional feature. Back Angle Recline is used to adjust the angle between the seat and the back, thus changing the angle of the client's hips.

The SmartSeat standard back is fixed at an angle of 104°. With BAR, the back angle can be adjusted between approximately 95° to 125°. The forward position of 95° provides a more comfortable setting for mealtimes and is best suited for activities, or when the client is preparing to stand. The 125° recline position is a comfortable setting for resting.

Back Angle Recline Adjustment

Caution has to be taken when adjusting BAR to provide a comfortable and stable sitting position. It should only be adjusted by those who understand how to achieve a good seating posture. If misused, BAR can lead to an unstable seating position where the client can easily slide out of the chair or quickly slide into sacral sitting. Both sliding actions could lead to pressure damage through shear.

Ideally, BAR should be altered very occasionally to suit the client's condition. For regular changes in position it is best to use the TiS facility, as this can be adjusted without affecting pelvic stability. BAR may be disconcerting for some clients. Please ensure the client is comfortable and does not become distressed if they are fully reclined backwards.

SAFETY NOTE
Always warn the client before changing back angle to ensure they do not become distressed or agitated.

Back Angle Recline - Manual & Pro-Control Versions

Manual & Pro-Control BAR's are fitted with a locking lever to prevent accidental activation.

To adjust the BAR position, grip both handle bars firmly. With the left hand, use the index finger to find the small locking lever which is fitted at the front of the main lever. Once the locking lever has been activated, the operator can then proceed to pull the main lever using their entire hand.

Back Angle Recline - Fully Motorised Version

On the motorised SmartSeat BAR is controlled by the handset. The third row of two buttons control BAR. The left hand button reclines the back. The right hand button returns the back to the upright position.

The SmartSeat Chair in Day to 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 castors should be engaged before transfer.

Locking the Brakes:

1. 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 so that the blue brake levers can be easily accessed.

2. Press down the end of the blue brake levers with your foot. 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. The lever will snap down and the castors will roll freely.

Each castor has a brake.
Apply at least two before transfer.

Tilt-in-Space

The SmartSeat 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.

SAFETY NOTE
When tilting the SmartSeat chair forward, ensure the footplate height is set so that the footplate will not hit the floor.

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 Tilt-in-Space to ensure they do not become distressed or agitated.

The chair will Tilt-in-Space 20˚ backwards. This degree of tilt may be disconcerting for some clients. Please ensure the client is comfortable and does not become distressed if they are fully tilted backwards.

Adjusting Tilt-in-Space:

1. Manual Format

On the manual option the Tilt-in-Space feature is controlled by the small lever on the push handle.

To adjust the Tilt-in-Space, squeeze the lever and tilt the chair to the desired angle. Release the lever to hold the chair at the desired angle.

2. Motorised Format

On motorised chairs, the second row of buttons on the handset control the Tilt-in-Space movement.

SAFETY NOTE

It is essential to regularly check the adjustment of the seat to footplate height to ensure it does not hit the ground when lowered. When the chair is tilted backwards it is possible to extend the seat to footplate height so that it is greater than the seat to floor height. However, if the chair is tilted forward when the seat to footplate height is fully extended the footplate may hit the floor and damage the legrest mechanism. This is especially important if the chair is in its lowest seat to floor height setting.

Legrest Elevation

The SmartSeat chair 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.

Ensure the legrest is fully lowered before transferring a client to or from the chair.

The range of legrest elevation is from 80° at the knees 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.

Adjusting Legrest Elevation:

1. Manual Format

On the manual option of the SmartSeat chair, legrest elevation is controlled by the lever located on the right hand side panel. Pull this lever out 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.

Manual operation legrest lever on the right side of the chair.

To lower the legrest, pull the lever out 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.

2. Motorised Format
On the motorised option, legrest elevation is controlled by the handset. The top row of two buttons control legrest elevation. The left hand button raises the legrest. The right hand button returns the legrest to its lowered position.

Integral Footplate

The legrest has an integral height and angle adjustable footplate to provide support to 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.

Rotate wing knob clockwise to deploy

Deploying the Footplate:

1. Locate the wing knob positioned on the left hand side of the footplate assembly.

2. With your right hand, grip the recess on the front edge of the footplate, and with your left hand twist the wing knob clockwise to release the footplate.

3. When released, pull the footplate until it is felt to click into its 90° position.

4. 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.

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

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 Footplate Angle
To adjust the angle, locate the round knobs mounted each side of the back corners of the footplate. Pull out 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.

Stowing the Footplate:

1. To fold the footplate up and store it behind the legrest the footplate must be set at its 90° angle position. See 'Footplate Angle / Plantar Flexion Control' for instructions on how to do this.

2. Once the footplate angle is at 90°, give the front edge of the footplate a sharp tap and push the footplate in to its minimum depth.

3. 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.

Twist the wing kno b clockwise to release the footplate for stowing.

Seat to Footplate Height

The SmartSeat chair 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 action of the legrest.

Adjusting Seat to Footplate Height:

1. To adjust seat to footplate height, deploy the footplate and locate the indexer on the footplate receiver mounted centrally on the back of the legrest.

2. Pull the indexer out and lift/lower the footplate to the desired position. Once at the desired position, release the indexer. The footplate may drop slightly as the indexer locates in the closest height setting.

Indexer for seat to footplate height adjustment.

Footplate Removal and Re-fitting

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 side of the indexer, feel for a small round button. Press this in and the footplate assembly will slide free of the receiver on the legrest. Be prepared to take the weight of the footplate assembly as it comes free of the legrest.

Retaining button. Press in to slide footplate out completely.

Re-fitting the Footplate

To re-fit the footplate assembly, 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.

SmartSeat Arms

Arm Removal and Side Transfer

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

Front location point for arm fitment.

Occasional Arm Removal:

1. 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.

2. 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. 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 in to the tube and lift the arm clear of the chair. You may need to angle the arm outwards to clear the underside of the wing if seat depth is adjusted towards the minimum setting.

Depress the button to release the front arm mounting peg.

3. Re-fit the arm by reversing the above process.

Frequent Arm Removal:

1. 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.

Lift the arm off the base sides.

2. Remove the arm as described above. With the arm off the chair, depress the small round button of the locking device into the front arm mounting peg. Take a pair of long-nosed pliers and whilst holding the small button down, push the pliers up into the bottom end of the tube. This will push the small button past its locating hole and prevent it popping out and disabling the locking device.

3. To reinstate the locking device, use long-nosed pliers to carefully grip the end of the small button and pull and 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 and Options

Contoured Back

As with all CareFlex chairs, a contoured back option is available which offers simple lateral support, helping to limit leaning and give additional control during upper trunk movement.

When ordered as an option on a new chair, the contoured back consists of a medium density foam profile which has sculpted sides to provide support to the sides of the ribcage. This support is in place above arm height as the seat width adjustment system allows for accurate control of lateral hip position.

Retro-fitting Contoured Back

A contoured back can be fitted to a chair which was originally ordered with a flat back. A replacement or retro-fit contoured back consists of the profiled foam and an appropriately shaped cover.

Fitting Instructions:

1. To fit a contoured back you will need a 13mm spanner or socket wrench. Begin by unclipping the sides of the chair back valance. There are plastic 'J' strips sewn to the edges of the valance. These clip over thin bars which make up part of the structure of the chair back. Starting at the lower sides, unclip the valance until it can be folded over the top of the chair back.

2. Detaching the valance reveals the three back cushion frames. Identify the middle frame and look for the nuts in each corner which hold the frame in place. Undo the nuts and keep them safe, ready to re-fit the frame.

Grip the 'J' strip at the top and un-clip from the thin side bar.

Continue around the bottom edge of the valance.

Remove the flange nut at each corner of the middle cushion wire to remove the middle cushion.

3. Lift the middle back cushion off from the front of the chair. The cover fits over the frame and foam to keep the foam in place. Carefully twist the frame out of the cover, one corner at a time. The foam can then be compressed and pulled out of the cover.

4. Fit the contoured foam into the contoured cover, noting that the foam will only go in one way because of the shaping of the contours. Once the foam has been inserted into the cover and generally aligned, fit the frame into the cover as well. The 'Christmas Tree' shaped profiles need to point up as the top edges of the contours angle down. Put one side into the cover first, pulling the frame over the threaded studs which are used to bolt the frame in place. The cover can then be pulled over the opposite side. Pull the cover straight so that the corners of the cover sit neatly around the four studs on the frame. Keep on manipulating the foam until the cover and the corners are filled out by the foam and look neat.

5. Fit the frame onto the chair back between the top and lumbar cushions and fasten it in place with the nuts removed earlier. Re-fit the back valance.

Wire removed off one corner.

Wire pulled out sideways.

Wire fitted into contoured back cover.

Adjustable Laterals

Adjustable Laterals can be fitted to SmartSeat chairs with the flat back option. The adjustable laterals have height and width adjustment to provide support to the sides of the rib cage. The adjustable laterals can be retro fitted to any SmartSeat chair fitted with a flat back. Each lateral is adjusted independently. 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 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. The adjustable 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).

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 back they may injure their back against the firm support of the laterals.

SAFETY NOTE
If the chair is fitted with Back Angle Recline (BAR), the operator must be aware of the following:- As the back angle increases the height of the laterals also increases. The operator must ensure the laterals are set low enough prior to operating BAR to prevent the client from experiencing discomfort under the armpits.

Height

The Adjustable Laterals have a 15cm range of height adjustment. The height of the laterals is set with a clamping lever.


Lift up the cam lever to adjust lateral height.

Adjusting the Height:

1. To adjust the height of the laterals, flick the lever up so that it feels loose.

2. Hold the lever and the lateral pad itself and raise or lower the lateral to the desired position.

3. Fold the lever back down to lock the height of the lateral.

Width

The Adjustable Laterals have 5cm of width adjustment in 1cm increments. The width position is controlled by a pull-out indexer.

Adjusting the Width:

1. To adjust the position of the laterals, pull out the indexer and, whilst holding the lateral pad, slide the lateral to the desired position.

2. Once at the desired width, release the indexer and ensure it has registered in the nearest appropriate increment.

Pull out the indexer to adjust lateral width.

Retro-fitting Adjustable Laterals

The support assemblies of the adjustable laterals are positioned on the chair between the wings and the back frame. To retro-fit the adjustable laterals you will need a 5mm allen key. A ball-end allen key makes the job easier.

1. Begin by unclipping the sides of the chair back valance. There are plastic 'J' strips sewn to the edges of the valance. These clip over thin bars which make up part of the structure of the chair back. Starting at the lower sides, unclip the valance until it can be folded over the top of the chair back.

2. The fastening which hold the wings in place on the chair back need to be partially undone. There are two lower fastenings behind the back cushions and two higher fastenings hidden by the cushion of the top back section.

3. Compress the sides of the top back cushion to reveal the two top fastenings. Use a 5mm allen key to partially undo these fastenings. Five complete turns of each fastening will

Remove the valance and undo the two lower wing mounts with a 5mm ball end allen key.

Use a 5mm ball end allen key to loosen the second from top wing mount.

be sufficient for fitting the adjustable lateral connectors.

4. Go to the back of the chair and undo the two lower fastenings by the same amount.

5. The adjustable laterals come in handed pairs and the left and right can be identified when the indexer controlling width adjustment is on the bottom edge of the lateral assembly. The adjustable lateral connectors fit over the two lower fastenings. Taking the adjustable lateral for the appropriate side, carefully slide the connectors between the wings and the two lower fastening mounting plates. The hook shaped cut-outs on the connectors slide over the fastenings.

6. Once in position, re-tighten all fastenings and clip the back valance back in place. For ease, clip the bottom of the valance in place before the sides.

Fitting adjustable laterals between the back frame and wings (middle cushion removed for clarity).

Headrests

The complete range of CareFlex headrests are available for the SmartSeat chair. These are attached to the thin round bar between the push handles on the back of the chair. Each headrest has a strap attached to its top edge. The straps have short strips of plastic hook profile sewn at intervals along its length.

Positioning the Headrest

Position the headrest at the appropriate height for the chair occupant, pull the strap tight over the top of the chair and clip the most appropriately positioned plastic hook over the round bar between the handles.

Fitting headrest straps to the bar between the push handles.

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.

Pommel fitted and removed when the legrest is fully lowered.

A pommel must never be used as a restraint and the client must not be allowed to slide into sacral sitting and come to rest against the pommel.

Fitting the Pommel:

1. Fit the pommel with the legrest angled down as this will give the best access to the receiving bracket.

2. To fit the pommel, locate the square hole in the loose flap of fabric between the top edge of the legrest and the underside of the seat cushion. The receiving bracket for the pommel is located under the front edge of the seat cushion behind the square hole.

3. 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 position.

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:

1. Undo the zip which attaches the crumb catcher on the front of the seat cushion to the top of the legrest.

2. 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 'J' strips sewn onto them which clip over thin bars on the seat frame beneath the front and back edge of the seat board. Unclip the 'J' strips and lift the seat cushion out of the chair.

3. 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.

4. Locate the two holes drilled horizontally through the front cross tube of the seat frame. Position the pommel receiving bracket against these holes. Ensure the nut welded to the underside of the tube is facing down.

5. 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.

6. Re-fit the seat board and cushion. Ensure the 'J' strips on the seat cushion tabs are clipped securely in place front and back. Smooth out the seat cushion under the back.

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

Removing the seat board.

Pommel bracket fitted to front cross tube of seat frame.

Belts and Harnesses

CareFlex pelvic 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 an unstable posture.

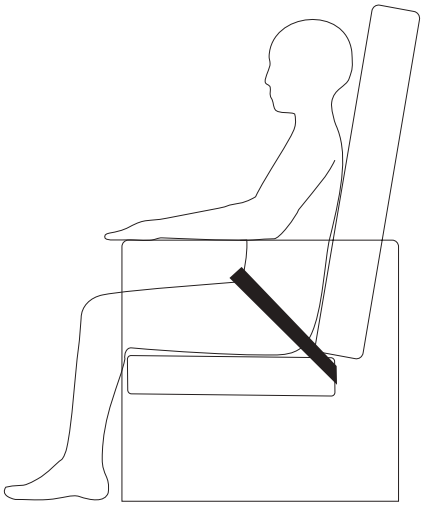
A level of supervision appropriate to the client's abilities must be applied at all times.

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

Pelvic Belts 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 allow the client's pelvis to tilt backwards, encouraging them to slide down and forward in the chair.



Pelvic Belt coming over the hips between 45° and 60°.

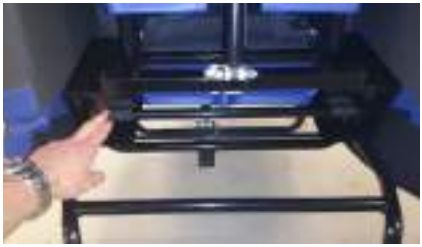
CareFlex pelvic belts are intended to pull back over the hips at an angle between 45° and 60°. This angle helps to maintain a vertical pelvis by simultaneously pulling the hip joint down and back.

Fitting Pelvic Belts

The pelvic belts are attached to the anchor bars on the rear bottom edge of the back frame each side of the valance. Thread the end of each webbing strap through a tri-glide buckle. Loop the webbing around the mounting bars and re-thread the end of the

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

webbing through the tri-glide. Adjust the length of the belt by threading more or less webbing through each tri-glide buckle. For a 'Back Angle Recline' type SmartSeat, the straps mount on the round bar at the rear of the BAR base frame.



For Back Angle Recline, the straps mount on the round bar at the rear of the BAR base frame.

Plain Pelvic Belt

The Pelvic Belt 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.

Plain Pelvic Belt fitted. Adjustment straps go through buckle.

Plain Pelvic Belt Set-up:

1. 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 tri-glide 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.

2. 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.

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

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

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

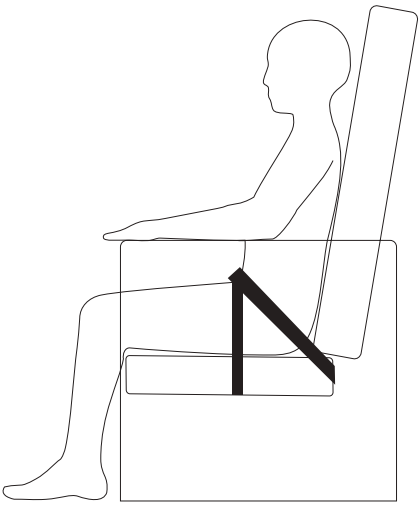
comfort pads. The main adjustment is set at the mounting points. The comfort pads are made from neoprene.

Padded Pelvic Belt Set-up:

1. To set up the overall length of the belt, pull the D-rings towards the central side release buckle. Set the main length of the belt through the tri-glide 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.

2. 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 tri-glide buckles on the rear bottom edge of the back frame.

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



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

4-Point Pelvic Belt

The 4-Point Padded Pelvic belt has 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.

4-Point Pelvic Belt fitted. Adjustment straps through buckle.

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 Pelvic Belt Set-up – Main Belt:

1. 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 tri-glide 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.

2. 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.

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

Front straps of 4-Point Pelvic Belt positioned around bars at side of seat cushion (seat cushion removed for clarity).

4-Point Pelvic Belt – Secondary Straps:

1. 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.

2. Make a note of the position of the straps relative to the front edge of the seat. If seat width adjustment is tending towards 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 to the inside of the chair sides.

3. Thread the end of each secondary webbing strap through a tri-glide buckle. Loop the webbing around the thin round bars and re-thread the end of the webbing through the tri-glide. Adjust the length of the belt by threading more or less webbing through each tri-glide buckle.

4. Once the tension is correct on both sets of straps, re-adjust seat width as per the earlier instructions.

Chest harness with V shaped shoulder straps.

Sternum harness with U shaped shoulder straps.

Dynamic Chest Harness

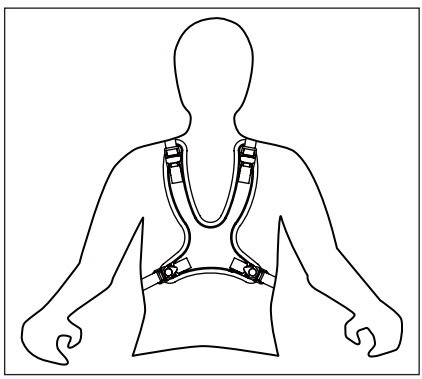
The Dynamic Chest Harness is made from neoprene with soft edge binding which allows the harness to stretch in response to movement. This provides comfort and support whilst not restricting active positioning. The main body of the harness should be positioned so that the bottom edge is level with the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

Dynamic Sternum Harness

The Dynamic Sternum Harness has the same features as the Dynamic Chest Harness but has a more incised profile for greater comfort across the chest.

Adjusting the Harnesses:

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

1. 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 pad sit over the collar bones. This will ensure that the webbing straps do not rub.

2. 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.

3. Regularly check and adjust the tension in the shoulder straps by pulling the folded over end of the webbing strap through the buckle.

4. Adjust the bottom straps at their mounting point.

Shoulder strap adjustment.

Fitting and adjusting the Straps of Chest Harnesses:

The shoulder straps need to be fitted through the gap between the top and middle back cushions.

1. Unclip the rear valance. There are plastic 'J' strips sewn to the edges of the valance. These clip over thin bars which make up part of the structure of the chair back. Starting at the lower sides, unclip the valance until it can be folded over the top of the chair back.

2. Once the shoulder straps have been fitted through the gap between the top and middle back cushions a tri-glide buckle can be threaded on to the end of each strap.

3. Each strap can then be looped around the thin round bars on the back frame and re-threaded through the tri-glide buckle.

Bottom strap fitting.

Shoulder strap fitting.

Groin Harness

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

Adjusting the Groin Harness:

1. 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.

2. Position the ends of the groin harness with the buckles attached over the client's thighs and connect the buckles to the webbing straps.

3. Adjust the length of the webbing straps through the buckles so that the groin harness helps control the client's position.

4. Do not over-tighten the straps as this may lead to discomfort. The groin harness must not be used as a restraint.

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 line up with the bottom edge of the back cushion.

1. Push the webbing straps though the gap between the seat and back cushions. Pull the straps under the mounting bars on the rear bottom edge of the back either side of the valance. Loop the straps over the bars and feed them back through the gap between the seat and back cushions.

2. The straps can be positioned over the arms of the chair until the occupant has been transferred into the chair.

Groin harness.

Groin harness straps fitted between seat and back cushions.

...looped around the back frame cross bar and fed back between seat and back cushion.

DO NOT wrap the strap around the thin seat depth adjustment release bar.

Tray

The SmartSeat chair 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 SmartSeat chair's 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.

SmartSeat tray.

Using the Tray:

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

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

3. Adjust the tension in the tray straps to secure the position of the tray. The tension can be adjusted to change the front-to-back position of the tray.

Tray attached and front straps adjusted to correct tension.

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.

1. 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'.

2. 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 allen 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.

3. 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.

4. Re-position the plates and screw them down fully so that the screws pass through the plates and webbing, firmly captivating the straps in place.

5. Re-fit the arms as per the earlier section of the instructions.

Securing the tray straps.

Motorised SmartSeat

The SmartSeat uses actuators to adjust the Tilt-in-Space and legrest elevation (Back Angle Recline is optional). The actuators are powered by a 24V DC rechargeable battery system which needs to be regularly charged in order to maintain battery performance.

Motorised SmartSeat handset.

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 the 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 the chair regularly overnight is recommended.

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

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

Chargers:

1. Only chargers supplied by CareFlex should be used to charge CareFlex chairs. Do not use a CareFlex charger to charge other products.

2. 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 socket on the side of the chair handset. Switch the mains power ON.

3. The LED light on the charger should glow yellow to indicate that it is charging. As the batteries come up to full charge the LED will

turn green.

4. At the end of the charging cycle, switch the charger mains supply OFF before disconnecting all leads and plugs.

5. When disconnecting the cable, always pull the moulded body of the plugs straight out of the socket. Do not pull the wire as this may damage the cable and the socket.

DO NOT:

- Leave the chair connected to the mains with the mains power switched off.
- Move the chair when it is connected to the mains.
- Charge the batteries when there is a client in the chair.

If, after charging, the motor actuators do not work, take the chair out of service immediately and contact CareFlex or your local Distributor.

Looking after the 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 CareFlex.

If the client is experiencing severe discomfort, do not use the chair. Take it out of service immediately and contact CareFlex or your local CareFlex Distributor.

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 for 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 at the back and clean the seat board and 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.

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 a client is sat in the chair
- Always ensure that the client's feet do not drag on the ground when the chair is moved by elevating the legrest to lift their feet off 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 facility
- 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 chair must never be used in motor vehicles for client transportation
- Do not charge the chair's batteries when a client is sat in the chair (motorised versions)
- Do not move the chair if the charging lead is connected between the chair and mains power supply (motorised versions)

Your **Notes**

Write your CareFlex Chair Number here:- _____

CareFlexibility®

Our Vision

To be the industry leader in specialist posture and pressure management solutions.

We want to make a difference

Through providing pioneering high quality products and education, we want every individual to have access to the best possible posture and pressure management product for them – a product that not only improves their own life, but which also provides reassurance for their care providers.

Our Mission

To provide a high quality, bespoke range of life enhancing posture and pressure management products to meet the individual needs of our customers.

How?

INNOVATING – producing proven high quality products in response to market feedback and investment in research and development.

EDUCATING the industry and healthcare community on how appropriate pressure and posture management products can improve life quality for individuals.

SUPPORTING our stakeholders and developing good long-term relationships with them.

CARING in everything we do – from our environmental responsibility, to caring about the people we work with.

GROWING our company at a healthy sustainable rate, which is never greedy or solely profit focused.

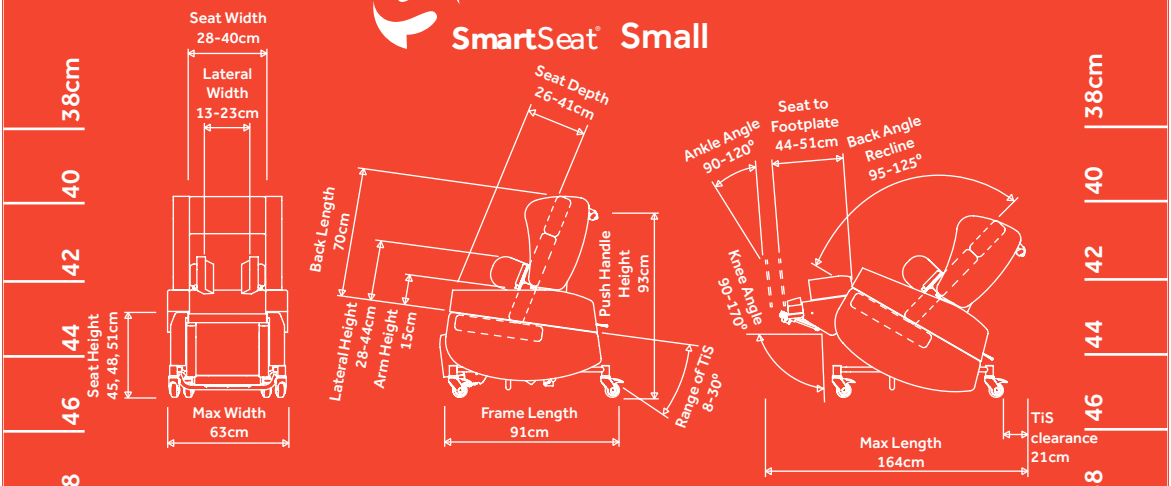
Our Values

Caring. Innovative. Knowledgeable. Dependable. Meticulous. Confident. Enthusiastic. Practical.

To inside of right arm

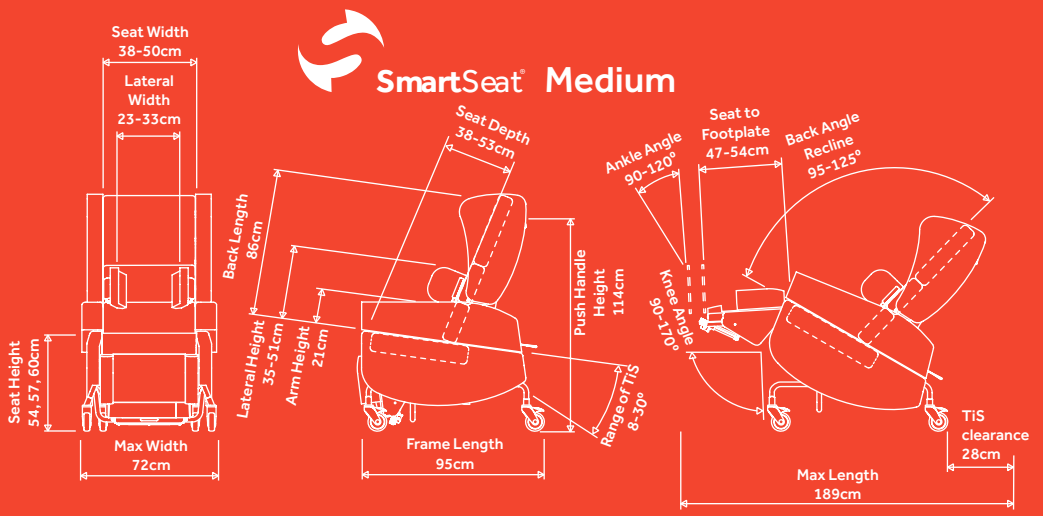
To inside of left arm

SmartSeat® Small



Max User Weight	100kg
Product Weight	60kg

SmartSeat® Medium



Max User Weight	160kg
Product Weight	70kg

To find out more or to book a free, no-obligation product demonstration please:

Call: 0800 0186440 | Email: enquiries@careflex.co.uk | Visit: www.careflex.co.uk

CareFlex
CareFlexibility®