

Duo – Electric/Regulated Motion User Instructions

Duo User Information June 2017

Contents

- 2 Introduction to the Duo chairs
- 3 Duo Product Range
- 3 Guidelines for Best Practice
- 3 Questions and Concerns
- 4 The User Instructions

General Operation of the Duo:

- 4 What is Tilt-in-Space?
- 4 Operating the Tilt-in-Space and Elevating Legrest
- 4 Regulated Motion Version
- 5 Back Height Adjustment
- 5 Back Support Adjustment
- 6 Footboard Height Adjustment
- 6 Footboard Angle Adjustment
- 6 Back Angle Adjustment
- 6 Seat Height Adjustment
- 6 Negative Legrest Angle
- 7 Seat Length Adjustment
- 7 Removing the Seat Module
- 7 Seat Width Adjustment
- 8 Arm Height
- 8 Headrest Angle Adjustment
- 8 Headrest Split-Wing Adjustment
- 9 Adjustable Positioning Headrest
- 9 Lateral Supports
- 9 Removable Arms
- 10 Pommel
- 10 Leg-Laterals
- 10 Lap-Belt and Pelvic Positioner
- 11 Potential Risks, Cautions and Warnings
- 11 Care and Maintenance
- 12 General Care
- 12 Helpline



IMPORTANT NOTICE

- On receipt of the chair the battery must be fully charged before use via the handset.
- It is recommended that the battery is charged for at least 8 hours.
- DO NOT let the battery completely discharge as this will render it unable to fully recharge again. If the battery is left to completely discharge it will have to be replaced and this **is not** covered under warranty.
- It is recommended that the battery is charged regularly overnight to prevent complete discharge.
- The chair may be used and operated whilst it is being charged.
- **WARNING** – If the chair is moved whilst plugged into the wall socket, damage may occur to the charger.

Introduction to the Duo chairs

What is the Duo?

The purpose of the Duo seating system is to provide the ultimate in positioning and postural management for those who are unable to maintain their body posture and require extra support.

The Duo is the third generation in Kirton's multi-positioning seating range following on from the original Persona and Solo chairs.

Whilst the original chairs provided significant manual adjustment and positioning opportunities, the Duo provides equivalent adjustment and positioning with the added value of electrically/battery operated Tilt-in-Space and legrest elevation or indeed the innovative Regulated Motion.

Designed to easily adjust the tilt-in-space positioning and elevate the legrest as well as providing a pressure management seating solution, the Duo is multi-adjustable in all its dimensions for each individual user.

Why is there a need for this type of chair?

The ability of a seated person to function efficiently and perform activities depends on their ability to adopt the appropriate posture. All activity is posture dependent. If a person cannot move or has problems adjusting their posture, it may be necessary to use seating to try to provide externally what is limited internally.

The Duo helps fulfil the need to maintain an individual's seated posture yet re-orientate and redistribute pressure. This is achieved by using the tilt-in-space and back angle recline features that are key to the Duo's functionality.

Who should consider using the Duo?

Designed for those with or at risk of developing an unconventional body shape or for those with postural related problems, the Duo can be used within a variety of different environments including domestic homes, hospitals, hospices and nursing home environments.



Duo Product Range

Range

- Major and Minor versions

Options

Different seat widths:

- Major - 400, 450 or 500
- Minor - 300, 350, 400 or 450

Available as either Ramped or Flat seat modules

Pressure Relieving Seat Options

- Intelli-Gel Seat Module
- Transflo Gel Seat Module
- Reflexion™ Foam Seat Module

Back Style Options

- Cushioned Waterfall Backrest
- Sculpted Reflexion™ Foam Backrest

Accessories

- Lateral supports
- Leg-Laterals
- Pommel
- Legrest bracket to achieve a 25° negative angle
- Extra waterfall cushion for Duo Major back heights 910mm, 940mm, 970mm
- Extra waterfall cushion for Duo Minor back heights 740mm, 780mm, 810mm, 840mm, 870mm
- Flat seat board
- Foot Sandals (large/small)
- Universal Tray
- Pelvic Positioners
- Lap-Belt

Guidelines for Best Practice

To ensure good practice when considering purchasing a Duo and effective use post purchase we advise that the following guidelines are considered:

1. Seek advice and input from a qualified therapist/professional and/or Kirton representative/distributor at the initial prescription of the chair.
2. If unsure when ordering the chair and any accessories contact either the therapist involved or your Kirton representative or distributor or our Customer Services Team on **Freephone 0800 212709 or +44 (0) 1440 705352** to discuss further.
3. Following delivery of the Duo chair, it is necessary for it to be configured and adjusted for the user. This can either be carried out by a therapist or individual trained in the set-up and configuration of the Duo chair or the regional Kirton representative, where possible.
4. It is recommended that during the initial set-up of the chair other staff members that will be supervising the user(s) should be trained in adjusting the chair to ensure the chair is adjusted safely and correct positioning is maintained for the benefit of the user. This is of particular importance where the chair is to be used by several different users who will all require different configurations of the chair to varying degrees.
5. Users of the Duo should be supervised and checked regularly to ensure their most appropriate position is maintained in the chair.



Questions and Concerns

Should you experience any difficulties or have any concerns regarding the initial purchase or subsequently adjusting the Duo chair or have any concerns regarding its use or operation then immediately contact either your Kirton representative, distributor or our Customer Services Team on **Freephone 0800 212709 or +44 (0) 1440 705352**, they will be delighted to help you.

The User Instructions

The purpose of the following user instructions is to provide a guide on how to utilise, adjust and maintain the Duo chair.

The instructions should be read by all those involved with the supervision of the user and/or the care of the chair before configuration and use.

The Duo **must** be set-up or configured specifically for each individual using the chair.

The necessary steps for configuration are detailed in this document to ensure correct positioning and to make postural adjustments to the chair to ensure safe and comfortable use.

Please retain these instructions with the Care and Maintenance card enclosed for future reference.

What is Tilt-in-Space?

Tilt-in-space is a unique pivoting system that provides a reclined, resting position whilst maintaining posture and pelvic stability.

Weight is distributed over a larger contact surface area, reducing the shearing forces on the skin, making it a simple yet effective way to combat the build up of pressure.

Key to the Duo is the ability to effect the tilt-in-space without over exertion by the carer or indeed the user through the use of a battery powered motor.

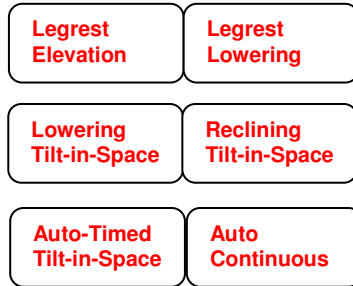
Operating the Tilt-in-Space and Elevating Legrest

The Duo enables either the carer or the user, where appropriate, to adjust the Tilt-in-Space facility and/or the elevating legrest by the simple touch of a button.

Electric Hand Controller Buttons



Regulated Motion Hand Controller Buttons



Regulated Motion Version

Tilt-in-Space & Legrest Elevation

Regulated Motion has been incorporated into the Duo chair range to create the ultimate pressure management chair.

The six buttoned hand controller is programmed to ensure the Tilt-in-Space has "Regulated Motion" or the ability to move over a range automatically adjusting the Tilt-in-Space. The pattern of movement is set to repeat to ensure motion over a period of time within a specified tilt range.

There are two time modes:

- Auto Timed over an 80 minute cycle, or
- Auto Continuous

As a guide the Tilt-in-Space cycle takes approximately 20 minutes to complete 15° of movement in one direction. It can be started at any angle except between 35° and fully reclined.

Note: To stop the Automatic mode press any of the four lower buttons to take the operation back to manual.



Back Height Adjustment

The correct postural position for the user is for the top of the chair back to be the same height as the top of the user's ear.

To increase the back height of the chair:

- Detach the loose cover back panel at the rear of the chair by unfastening the Velcro both at the top and bottom of the cover.
- Secondly, loosen the material backboard cover (it folds underneath the backboard for storage on lower back heights) so that the extra material hangs loose revealing an extra Velcro strip.
- To adjust the back height, use the spring pull "snaps" located on the metal back frame. When retracted and turned 90° the snaps will stay out whilst the correct position is selected. Slide the upper part of the back up or down until the height required is achieved and allow both pins to snap back into the required hole.
- Ensure both "snaps" are located correctly before use.
- For Duo Majors with a back height 910mm, 940mm, 970mm or for Duo Minors with a back height of 740mm, 780mm, 810mm, 840mm, 870mm an extra waterfall cushion is required to fill the increased back height space. Always check that there is enough cushioning when the back of the Duo is reclined as this can reveal a gap on the higher back heights. Use the extra waterfall cushion to fill this gap.
- The extra waterfall cushion should be fixed to the Velcro on the backboard cover. The remaining backboard cover should then be folded up behind the backboard for neatness.
- The waterfall cushions have been designed to condense and mould to the user as the dimensions of the chair are reduced or increased to fit altered chair dimensions. Where necessary the extra waterfall cushion should be inserted.

Back Support Adjustment

The user may require more or less waterfall cushioned support dependent on the individual's needs and the back height required. For those that require a back height greater than 910mm on the Major version and 740mm on the Minor an extra waterfall cushion can be added (see back height adjustment).

The cushioning of the waterfall pillows can be increased or decreased according to user need.

• To decrease padding:

Simply unzip the cushions at the back; slit the fabric bag carefully and remove the amount of Dacron padding necessary. Take care not to trap any of the fibres in the zipper.

• To increase padding:

If more Dacron is required to provide firmer cushioning and support, unzip the cushions at the back and add more Dacron preferably behind the bagged Dacron so as to avoid trapping any loose fibres in the zipper.

Extra Dacron can be obtained from Kirton. Please contact your Kirton representative or distributor or our Customer Services Team on **Freephone 0800 212709** or **+44 (0) 1440 705352** to discuss further.



Footboard Height Adjustment

It is important to try and support the whole foot from the heel to the toes with the thighs evenly distributed on the seat cushion to ensure the least possible pressure directly behind the knee.

- The complete footboard assembly slides up and down the front tubes. It is easily adjusted by using spring pull “snaps”. When retracted and turned 90° the snaps will stay out whilst the correct position is selected.
- To find the “snaps” on the footrest, tilt the footboard upwards and pull out both pins.
- Slide the footboard up or down as required and allow the pins to click back into the required hole.

Footboard Angle Adjustment

The angle of the footboard can be adjusted to three different settings; - 15°, 0°, 25° from the horizontal.

- Using the spring pull “snap” adjusters located at the sides of the footboard, pull out and turn so that they stay out. Adjust the footboard to select the angle required, then turn the pins so that they “snap” into the appropriate holes.
- The footboard can also “flip up” towards the legrest by pulling out and turning the snaps on either side so that they stay out and simply pushing the footboard towards the legrest. This is particularly useful for those individuals who would like their feet on the floor or have some mobility when exiting the chair.

Back Angle Adjustment

The angle of the back is adjustable in relation to the seat in order to ensure comfort and facilitate correct positioning.

To alter the angle, squeeze the “brake-style” handle on the right hand side of the push handle at the back of the chair. This activates the positioning mechanism and enables the back to recline.

Release the lever when the desired angle is achieved.

To bring the chair back to an upright position, squeeze the “brake-style” handle on the right hand side of the push handle at the back of the chair and guide the chair to the desired position.

Seat Height Adjustment

The seat height of the chair can be either raised or lowered according to the needs of the user.

On the right hand side of the chair is a retractable handle that facilitates the chair movement.

To raise the chair:

- Turn the handle clockwise.

To lower the chair:

- Turn the handle anticlockwise.

Negative Legrest Angle

For those individuals requiring a negative 25° legrest angle, an extra bracket is required and needs fitting.

Please contact your Kirton representative or distributor or our Customer Services Team on **Freephone 0800 212709** or **+44 (0) 1440 705352** for advice.



Seat Length Adjustment

To ensure that the correct seat length is achieved for each user a clearance of 25mm or one inch between the front of the seat cushion and the calf is desirable when the user is firmly against the back of the seat.

- To **adjust**, locate at the rear of the seat module at the back of the chair frame a silver-spring adjuster. Lifting the spring will enable the seat module to be moved forwards or backwards according to the user's needs.
- The seat module may be stiff to adjust but by moving to the front of the chair and positioning one hand at the back of the seat module and the other at the front the correct seat length should be achieved.
- Check that the silver-spring adjuster is securely in place and the seat module is not movable.
- Sit the user in the chair and check the dimensions.

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Removing the Seat Module

To remove the seat module completely for either replacement or cleaning the following steps should be taken.

- Locate at the front of the chair two screws that should be removed completely using a Phillips screwdriver.
- When replacing the seat module do not forget to replace the screws at the front of the seat and ensure that the silver-spring clip is locked in place.

Seat Width Adjustment

The seat width depends on the user's hip width and will vary according to the level of pelvic support required. If substantial support is needed, the chair arms should fit firmly against the user. Both arms should be at the same distance from the seat cushion, to obtain a central position for the user.

- To **adjust** the arms in and out, remove the side arm panel by pulling it away from the chair. It is fitted with plastic clips for easy removal and fitting.
- Locate and loosen the butterfly knob at the rear of the under arm and the spring-loaded popper at the front.
- Pull the spring-loaded popper down and pull the whole arm assembly either in or out to the required width. Keep the gap between each arm and the seat the same.
- Ensure that the spring-loaded popper is securely in place and re-tighten.
- Repeat on the opposite arm
- Replace the side arm panel by locating the plastic clips on the metal frame of the chair and pressing until it fixes to the frame.



Arm Height

The user's elbow should rest comfortably on the armrest, high enough to provide support without having shoulders raised or hunched.

- To **adjust** the arm height, remove the side arm panel by pulling it away from the chair. It is fitted with plastic clips for easy removal and fitting.
- Loosen the front and back spring-loaded levers. Rotate anti-clockwise until loose.
- Raise or lower the arm to the required setting.
- Secure both the front and back levers.
- Do not take the arm above 300mm from the top of the seat module as the arm panel will not fit back onto the side of the arm.



Arm height adjustment



Split-wing headrest adjustment

Headrest Angle Adjustment

The headrest tilts backwards or forwards, supporting the user's head as required.

- Using the small spring-loaded lever on the left hand side of the back frame, release the locking mechanism by turning the lever anti-clockwise.
- Move the headrest to the desired position and turn the lever clockwise to lock. The lever is ratcheted and will rotate freely when pulled out.
- To avoid damaging the ratchet mechanism, push the lever in when loosening or tightening the locking mechanism.

Advice: Try not to restrict the angle of vision too much when adjusting the headrest and wing positions whilst ensuring user comfort – keep it within range for watching television and conversation when the head is against the headrest.

Headrest Split-Wing Adjustment

The split-wings provide lateral support to the user's head and shoulders. They can be angled in or out for a more central position and should be adjusted to provide support to the user in the centre of the chair.

The articulating joints in the split-wing headrest are an integral part of the back of the Duo.

By bending both wings on each side of the headrest, the headrest can be set in its desired position.

It may require some effort to manoeuvre the wings. The wing movement has been made tight to ensure that it will not move when you are sitting in the chair in a relaxed position.

To tighten the wings:

Use an Alun Key and a 13mm adjustable spanner (not supplied).

- Pull the wing back so that it lies flat.
- Loosen the cover to expose the friction joint.
- Tighten by using the Alun Key at the top of the joint and the 13mm adjustable spanner to secure the bolt, at the bottom.
- Refit the cover and adjust to suit.

Adjustable Positioning Headrest

The top section of the headrest is designed to adjust forward and backward to facilitate precise positioning of the head to support the user. It is adjusted in the following way:

- Remove the two grey clips that hold the top section of the headrest in place.
- Slide the metalwork forwards until it reaches the desired position.
- Replace the two grey clips, ensuring they lock into corresponding holes in the framework to lock the headrest in place.



Adjustable Positioning Headrest

Lateral Supports (optional)

- The Duo can be fitted with two lateral supports that operate independently but are adjusted in the same way.
- Both lateral supports can be completely removed.
- To detach or attach the lateral supports, loosen the “triangular” handle and adjust to preference.
- The two supports can be moved horizontally across the bar (wider or narrower) or vertically to suit the individual in the chair. They are marked to ensure that they are positioned evenly to provide balanced support where appropriate.

- To move vertically, loosen the black spring-loaded levers on each lateral support at the rear of the chair. Rotate anti-clockwise until loose.
- Raise or lower the lateral support to the required setting and secure the levers.
- To move horizontally, loosen the “triangular” handle and adjust to preference. When appropriate positioning has been found then the “triangular” handles should be tightened to provide stable and secure support.

Removable Arms

- Arms are detachable for easy side transfer and sling positioning if a hoist is used.
- Remove the side arm panel by pulling it away from the chair. It is fitted with plastic clips for easy removal and fitting.
- Locate and loosen the butterfly knob at the rear of the under arm and the spring-loaded popper at the front.
- Pull the spring-loaded popper down and pull the whole arm assembly either in or out to the required width. Keep the gap between each arm and the seat the same.
- Pull arm away from chair.
- Ensure that the spring-loaded popper is securely in place and re-tighten.
- To ensure user safety, **never** remove both arms at the same time and **never** sit on the arms or put undue pressure at the front.

Pommel (optional)

The pommel simply slides on and off from the front of the seat module.

- To remove, firmly take hold of the pommel upholstery and metal work and pull. The pommel will slide out of the seat module.
- To fix the pommel in place, take the metal bar of the pommel and align with the fixing point at the front of the seat module in the centre. Simply push the pommel in place.

Leg-Laterals (optional)

The Leg-Laterals are one complete unit that slides onto the legrest assembly.

The footboard must be removed before attempting to fix the Leg-Laterals to the legrest assembly.

- To remove the footboard assembly retract the spring pull “snaps”. Slide the footboard down and off the legrest assembly.
- Pull out the “snaps” on the Leg-Lateral unit. Align the unit with the legrest assembly and slide the Leg-Lateral unit up the legrest to the desired position. Ensure the zips of the lateral pads are on the underside of the Leg-Lateral Unit to guarantee it has been put on the correct way.
- Locate the pins into the correct positioning holes and click the “snaps” into a firm fixing.

Lap-Belt and Pelvic Positioner

Lap-Belt

- To use the Lap-Belt effectively, undo the buckle joining the two halves of the strap by depressing the button on the central console and place the straps over the arms or to the side of the seat before transferring the user into the chair.
- When the user is seated, bring the two sides of the buckle together and fasten.
- Adjust the strap by pulling on the plastic loop to give firm control but take care not to restrict user movement.
- **NOTE: Please refer to Lap-Belt User Instructions enclosed for further information.**

Pelvic Positioner

- Lay the positioner out flat.
- Place the positioner in the seat of the chair with the buckles pointing towards the chair front and the levers on the buckles facing down.
- Feed the lengths of the straps through the D-Rings on either side of the seat cushion.
- Place the ends of the straps over the arms of the chair before transferring the user into the chair.
- Sit the user into the chair with their pelvis firmly back in the seat and their buttocks on the back edge of the harness.
- Bring the straps over the users thigh and through the buckles on each end of the harness.
- Pull the straps tight and fasten down the levers on the buckles. The fit should be snug – not too tight and not too loose.



Potential Risks, Cautions & Warnings

- The user is at risk if the Duo is not properly configured to their particular physique and requirements.
- It is recommended that the tilt-in-space is changed at regular intervals to reduce the risk of pressure sores.
- When tilting a user who has their feet on the floor or footboard without elevating the legrest, exercise care to avoid pressure build up behind the user's knees.
- The footboard must **never** be stood on when transferring into or out of the chair. It will not support the user's full weight and may cause the chair to tip.
- **Never** sit on the elevating legrest or push the chair around by it as this may damage the mechanism and may cause the chair to tip.
- To ensure user safety **never** remove both arms at the same time.
- **Never** sit on the arms or put them under undue pressure.
- When adjusting the headrest angle or the arms, push the lever in when tightening or loosening the locking mechanism to avoid damaging the ratchet mechanism.
- Users should be **regularly** checked and supervised when sitting or lying in the chair to mitigate the user moving or sliding into an inappropriate position.
- Care should be taken when adjusting the chair not to trap fingers or clothing in the framework.

- The user is at risk if the Lap-Belt is not properly specified and adjusted to their particular requirements.
- Users should be **regularly** checked and continuously supervised when using the Lap-Belt to mitigate the user moving or sliding into an inappropriate position.
- Thrusts, spasms and strong movements, for example as well as partial loosening of the Lap-Belt could cause injury to the user.
- Care should be taken not to over tighten the Lap-Belt in order to reduce the risk of harm to the user.

Care and Maintenance

For recommended care, cleaning and maintenance, please refer to the care and maintenance guidelines enclosed with your chair and the care label fixed to the chair.

General Care

- Wipe down framework with soapy water and a soft cloth.
- Check castors regularly for build up of fluff and dirt particles.
- Cleaning with scouring pads is not advised.

Helpline

Should you have any concerns either pre or post purchase of the chair contact our Customer Services Team on **Freephone 0800 212709** or from outside the UK **+44 (0) 1440 705352** to discuss further. Alternatively, if you purchased your chair from a Kirton distributor in the first instance please contact your point of reference there.

If your call concerns a specific seating product or item of furniture please have ready your sales order number before you telephone. This can be located on the base of each chair and helps us identify your details and deal with your enquiry efficiently.



A DIRECT HEALTHCARE GROUP COMPANY



**23 Rookwood Way
Haverhill
Suffolk
CB9 8PB
England**

**Telephone: +44 (0)1440 705352
Fax: +44 (0)1440 706521
Freephone: 0800 212709**

**Email: info@kirtonhealthcare.co.uk
www.kirton-healthcare.co.uk**