

# Sigma Neuro

# User Instructions



## Sigma Neuro User Information

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## Introduction to the Sigma Neuro Chair

### What is the Sigma Neuro?

The Sigma Neuro chair was developed to provide a dynamic, rehabilitation seating solution.

The purpose of the Sigma Neuro is to provide an easy to use and flexible chair that can be effortlessly adjusted by the user, carer or therapist to the most optimum position for those undergoing rehabilitation following a stroke, head injury or suffering from neurological or physical conditions.

The Sigma Neuro chair aims to meet the necessary standards set for tissue viability, infection control and moving and handling whilst providing optimal seating positioning, comfort and support for the user.

Accommodate users from +5' to +/- 6'6"

## Why is there a need for this type of chair?

The Sigma Neuro was designed in order to enable the provision of a complete care package for patients in general or specialist hospital wards, complementing variable positioning beds in a seated form and encouraging appropriate sitting positions.

The ability of a seated person to function efficiently and perform activities is dependent 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.

Key to the functionality of the Sigma Neuro is the consideration given to pressure management. The battery-operated features provide a simple to use linked back and seat recline facility enabling pressure to be redistributed over a wide surface area and combined with a Transflo pressure relieving seat module a high level of pressure reduction is achieved. All alterations are simple and quick to effect and the chair can manage a wide range of user needs and postural management configurations. The seat height of the chair is electrically adjusted to ensure it is correct for each individual user.

A contoured back upholstered in stretch breathable polyurethane fabric combined with fully adjustable head and lateral supports enables a stable midline position to be achieved. The clear plastic tray is simple to remove and allows a constant view of lower limbs and provides improved upper body support.

Additional features include the easy to adjust seat length and sliding footrest as well as the dual, self-locking swivel armrests for simple and effective side transference. Undemanding and effortless to manoeuvre on large, fully braked wheels.

## Who should consider using the Sigma Neuro?

The Sigma Neuro can be used in Acute hospitals and primary care units and the abundance of features makes it an invaluable seating solution for those undergoing rehabilitation.

## Sigma Neuro Product Information

### Range

- Sigma Neuro chair
- Sigma Neuro chair with wide seat option

### Accessories

- Headrest
- Wide seat retrofit pack
- Flat seat board (no seat module)
- Height adjustable footstool

### Replacement items

- Replacement seat module
- Replacement battery
- Replacement mains lead and RCD
- Replacement handset
- Replacement tray
- Replacement lateral supports
- Replacement head supports

## Guidelines for Best Practice

To ensure good practice when considering purchasing a Sigma Neuro chair 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. It is recommended that following receipt of the chair all staff members that will be supervising the user(s) should be trained in adjusting the chair to ensure it is adjusted safely and correct positioning is maintained for the benefit of the user.
4. Users of the Sigma Neuro should be supervised and checked regularly to ensure their most appropriate position is maintained in the chair.

## The User Instructions

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

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

The Sigma Neuro **must** be adjusted in terms of seat height and length for each individual user to ensure safe and comfortable use.

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

## Questions and Concerns

Should you experience any difficulties or have any concerns regarding the initial purchase or subsequently adjusting the Sigma Neuro 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.

## General Operation of the Sigma Neuro

It is recommended that the chair is adjusted to accommodate each user's specific requirements in terms of seat height and length.

Adjusting the seat height is easily made with the user in the chair however the seat length adjustment should be made when the chair is unoccupied.

## Powering the Sigma Neuro – Battery Care

On receipt of the chair the battery **must** be charged fully before use.

It is recommended that the battery be charged for **at least 8 hours**.

An audible warning buzzer will sound when a control button is pressed.

A graduated battery symbol illustrates the strength of charge that the battery has. The chair should be put on charge if only one indicator light is illuminated. The chair is fully charged when four lights are illuminated.

The chair can continue to be used whilst being charged.

Avoid completely discharging the battery as this may cause permanent damage. 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 be charged regularly overnight to keep the battery fully charged.

If the chair is not used for a period of time the battery should be charged every 3 months.

The battery should be charged utilising the cable attachment with the RCD plug that is included with the chair. The cable attaches to the back of the chair just beneath the accessories bar. The RCD should then be plugged into the mains socket. Always check that the RCD has been reset and is charging the battery before leaving to charge. Should the chair be moved away whilst being charged, the quick release mains cable will effect and no damage will be caused to the chair or cable.



## The Hand Control Unit

### Seat and back recline Seat height adjustment

The hand control unit has four buttons that effect movement in the Sigma Neuro. It either raises or lowers the chair or reclines/tilts the chair.

The hand control unit can either be carer or user operated by the simple touch of a button.

A power light at the top of the hand control unit illuminates whenever any of the movement arrow buttons are depressed to indicate that power is activated.

The level of power is illustrated beneath the directional arrows in the form of an illuminated battery segmented into four portions that are lit according to the power remaining.

### Linked seat and back recline

The linked seat and back recline facility is a dual motion action. The back angle will initially recline slightly and the seat will also then recline to ensure optimum positioning of the user.

The top two arrows on the hand control unit effect the linked seat and back recline motion. The arrow pointing left on the left hand side of the hand control unit will bring the linked seat and back recline into an upright position. The arrow pointing right on the right hand side of the unit will recline linked seat and back facility.

### Seat height adjustment

The seat height of the Sigma Neuro should be adjusted to suit the calf length of each individual user. The feet should sit comfortably on the floor or sliding footrest, if in use with no undue downward pressure on the thighs of the individual.

- The bottom two arrows on the hand control unit effect the seat height alterations.
- To raise the seat height the upward arrow on the right hand side of the hand control unit should be pressed.
- To lower the seat height the downward arrow on the left hand side of the hand control unit should be pressed.
- The user should be regularly checked to ensure that an optimum seated position is retained.

## Seat Module

### Seat length adjustment

The seat length should be adjusted according to the user's thigh length. When the user is seated upright and firmly against the back of the chair a clearance of 25mm or one inch between the front of the seat cushion and the calf is desirable. The user should not be seated when adjusting the seat length.

- To adjust the seat length of the seat module, pull the adjustment knob located on the right hand side of the seat module straight out. This will release the seat module and it will now slide backwards or forwards to the desired length.
- Release the adjustment knob and allow it to locate the desired positioning hole on the side of the chair frame.
- Ensure the seat module is firmly in place before reseating the user



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## Removing the seat module

The seat module can be removed for either cleaning or to replace it with a flat board for use with an alternative dynamic pressure cushion.

- To remove the seat module, pull the adjustment knob located on the side of the seat module straight out. The seat module will now slide forwards to the furthest point of the seat pan. At this point the spring latch on the underside of the seat needs to be released in order to remove the seat module fully from the chair.
- Now either cleaning can take place or the replacement flat board can be slid onto the chair for use with an alternative dynamic pressure cushion.
- To replace the seat module or the flat board onto the chair, slide the module or board onto the runners and determine the positioning of the module in respect to the holes on the side of the chair frame, release the adjustment knob and locate in the desired positioning.
- Ensure the seat module is firmly in place before reseating the user.



## Retrospective extension of width between the arms

The width between the arms of the Sigma Neuro can be extended from the standard 475mm to 550mm wide by the insertion of spacer blocks.

The wide seat retrofit pack contains a Sigma Neuro spanner to remove the armrests and the silver peg as well as a spacer block.

To fit the spacer blocks to increase the width between the Sigma Neuro arms to 550mm, remove the existing seat module as described in "Removing the seat module".

Using the Sigma Neuro spanner provided, locate it in the pivot of the armrest (two small holes) and turn anticlockwise to loosen and subsequently remove the armrest.



Using the tapered end of the Sigma Neuro spanner as a screwdriver, remove the silver peg. There should now be room to insert the spacer block that will increase the width between the arms of the chair.

Replace the silver peg through the spacer block and the pivot pin. Reattach the armrest using the Sigma Neuro spanner. Ensure the washers on the armrest are replaced on either side of the armrest pivot bolt and screw tight.

The seat module can now be replaced onto the chair. Slide the module or board onto the runners and determine the positioning of the module in respect to the holes on the side of the chair frame, release the adjustment knob and locate in the desired positioning.

Ensure the seat module is firmly in place before reseating the user.

## Swivel Armrests

Both the arms on the Sigma Neuro have the facility to swivel backwards to allow for side transference of the seated individual as well as providing hoist access.

- To swivel the armrests backwards, locate the black pin at the base of the armrests, pull out and push the armrests backwards.



- Care should be taken to ensure that fingers do not get trapped between the back of the armrest and the framework of the chair when moving the armrest backwards.
- The armrest will lock back into its upright position once returned.
- The armrests should only be swivelled backwards when transferring users from the chair. Users should not be left for long periods without the armrests in place.

## Sliding Footrest

The sliding footrest provides the user with an area to place their feet particularly when in transit.

The footrest can be fully extended by manually pulling the base of the footrest forwards; similarly it is retracted by pushing the footrest backwards.

## Wheels

The Sigma Neuro chairs are fitted with 125mm fully braked wheels.

- To apply the brakes, press down on the front edge of the red, ridged pad on each wheel. The brakes should be applied during all transfer operations.



- To unlock the brakes, push down on the top edge of the red, ridged pad until it is level with the rest of the wheel.



- Always check that wheels are not locked before moving the chair.

## Loose Covers

The Sigma Neuro can be fitted with disposable loose covers for the back and seat modules.

The loose covers fit snugly to the chair and need to be pulled firmly over their respective modules

## Head Support

It is important to establish the correct position of the head support for each individual user of the chair.

The Sigma Neuro has an adjustable head support to give support to either the back/side of the head or the temples/forehead.

The height of the head support can be adjusted by loosening the two “easy release” wing nuts situated on the top of the push handle on the back of the chair. Once loosened, slide to the desired position and then retighten the two “easy release” wing nuts.

The head support itself can be adjusted by loosening the two “easy release” wing nuts on either side. Once loosened, adjust to the desired position and then retighten the two “easy release” wing nuts.



## Lateral Support

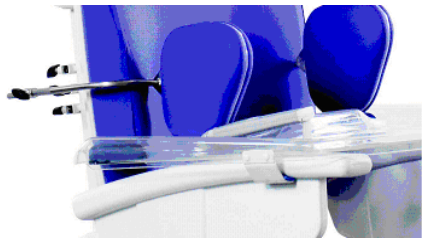
The Sigma Neuro is fitted with two lateral supports that operate independently but are adjusted in the same way.

It is important to establish the correct position of the lateral support for each individual user of the chair to encourage midline positioning and control, comfortable and positive support.

Both lateral supports can be completely removed and fitted to one of the three positional bars on the back of the chair.

The height and width of the lateral support can be adjusted by loosening the two “easy release” wing nuts situated in the middle on either side of the push handle and then loosen the wing nut on the metal bar at the back of the chair.

Once loosened, remove the lateral support and adjust to the correct height and width position and then retighten the “easy release” wing nuts on the back of the chair and on the sides of the push handle.



## Clear Plastic Tray

The Sigma Neuro clear plastic tray rests across the two armrests of the Sigma Neuro and can be easily removed by sliding the tray forwards

The tray allows a constant view of the lower limbs and enables improved upper body support.

The elbow pressure points are cushioned on either side by a pressure relieving elbow pad.

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## Footstool

The Sigma Neuro height adjustable footstool can be easily adjusted to suit the correct height for the user.

To raise to the correct position, grasp the sides of the footstool and slide upwards until the correct height is obtained. The footstool will then lock into position.

To lower to the correct position, grasp the sides of the footstool and slightly slide upwards, then push down until the correct height is obtained. The footstool will then lock into position.



## Care and Maintenance

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

- 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.
- The hand controller should not be cleaned with either aggressive or abrasive cleaners as the membrane may detach and reduce the life of the buttons as wells as the text becoming difficult to read.

## Material Used

### Echo

- Description: *PU Transfer Laminated Proban Knitted Cotton*
- Composition: *PU 38% Cotton 62%*
- Weight: *260gsm*
- Resistance to water penetration: *above 350cm (5psi or 36kpa)*
- Coating Adhesion: *above 35N/5cm*
- Fire Retardant to: *BS 5852 ignition sources 0, 1 and 5*
- Moisture Vapour Permeability: *10% (BS 3546)*

Anti-microbial:

Echo incorporates the anti-microbial agent Actifresh.

Micro-organisms whose growth is inhibited by anti-microbial agent include Staphylococcus aureus (& MRSA), Klebsiella pneumoniae, Aspergillus niger.

## Cleaning Instructions<sup>1</sup>

Recommended cleaning instructions for Polyurethane Transfer Laminated Fabrics.

The recommended cleaning and disinfection instructions should be followed whenever possible to avoid damage to the PU membrane which could lead to premature failure of the cover.

For superficial dirt use a disposable wipe and a warm solution of neutral detergent. Do not use abrasive cleaners.

Disinfect insitu using a 0.1% sodium hypochlorite solution (100ppmm chlorine).

Thoroughly dry fabric before re-use or storage.

Do not iron.

In certain circumstances, however, it might be appropriate to use an organic solvent to remove stubborn stains or surface contamination. In these instances it is suggested that the following list of commonly available solvents be tried. In some instances there could be swelling of the polyurethane and an increase in surface gloss. It is not recommended that they be used repeatedly as the long term effects are unknown.

### Solvents to be used with caution

<b>Hydrocarbon</b>	Petroleum ether White Spirit
<b>Alcohols</b>	Methanol Ethanol
<b>Chlorinated Hydrocarbons</b>	Dry Cleaning Fluids There are numerous types; Test on small area before using.

<sup>1</sup> Source: Lifesafe®, Dewsbury Feb 2002

### Solvents to be avoided

<b>Ester</b>	Ethyl acetate (Nail polish removers) Amyl acetate
<b>Ketones</b>	Acetone Methyl ethyl ketone



## Helpline

### Potential Risks, Cautions and Warnings

- The user is at risk if the Sigma Neuro is not specified and adjusted to their particular requirements.
- Take care not to over stretch the hand control cable or allow it to drag on the floor that could result in the wheels running over it causing the cable to be cut.
- Excessive drop loading onto the seat could cause undue stress on the joints and potentially split the seams of the upholstery.
- Excessive “kerbing” during movement of the chair could cause undue stress or indeed break the wheels of the chair. Care should be taken to push in a straight line and avoid bumping into walls and skirting.
- Care should be taken to sit fully in the seat and not on the seat edge to avoid tipping of the chair (more relevant for heavier individuals)
- Care should be taken if standing on the sliding footrest not to overload or jump as this could damage or break the footrest.
- **Do not** try moving the chair without first ensuring that all wheels are unlocked.



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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 at the base of each chair and helps us identify your details and deal with your enquiry efficiently.

### Service and Maintenance Indicator

A service and maintenance indicator is located on the push handle of the chair.

This indicator will flash after 11 months of use to advise that the chair should be serviced.

Annual servicing of the chair will extend the warranty of the chair to 5 years if maintained from new and extend the chair's lifespan.

The annual maintenance service is chargeable per chair. Additional components and parts will be quoted and charged separately.

Should you require any further information or costs please do not hesitate to contact our Customer Service Team on **Freephone 0800 212709**

