





Operating and Care Instruction Manual

SE4400/4400LGE

**HI-LO Pressure Care Chairs** 

## **SAFETY WARNING**



This manual MUST be read and understood before use of this product.

- The electrical system of this chair is designed to be used with a 240V power source.
- Do not allow the battery back-up system to fully discharge before connecting to mains supply where this accessory is fitted.
- Do not continue to operate the handset by repeatedly pressing the buttons if any of the functions will not move.
- Do not continually operate the chair functions. Doing this may cause the thermal fuse in the control box to cut off power.
- Do not force the operation of any part of the chair. Doing so may cause damage. Refer to the manual for correct operation of the chair.
- Keep the chair away from any source of open flame.
- Do not use the system in the presence of flammable gases (such as anaesthetic agents).
   We recommend that this system is used under the guidance of a healthcare professional.
- The use of this system is only part of an overall care plan. The patient must still be repositioned regularly.
- The control unit should only be serviced by authorized personnel. Return to your authorized distributor for repair.
- Switch off the electrical supply to the chair and disconnect from power source before cleaning and inspection.
- Brakes must be applied when transferring client into or out of chair and when not in use.
- Chairs are designed to be used on smooth, level paved areas.
- The Backrest and Leg rest must not be sat on. Doing so may seriously damage the chair.
- Care should be exercised that power cords are not in the way of any mechanism or moving parts.
- Any damaged, worn, broken or non-functioning parts should be reported and repaired. If client or carers safety is at risk, the unit should be withdrawn from service until repaired and safe for use.
- **Communication:** Carers must always inform other carers, the client and any other person in the vicinity, when positioning, transporting or using any of the chairs functions.
- Never operate this chair while under the influence of alcohol or any other substances that could detract from your alertness or physical and intellectual acuity.
- This chair must not be used by more than one occupant at any time or for carrying any other loads.
- CHILDREN MUST NOT be allowed to operate chair or controls AT ANY TIME. Any child in the vicinity of the chair MUST BE SUPERVISED AT ALL TIMES.
- For any information on the Electrical System please turn to Section 5 Technical Data.
- WARNING: DO NOT LEAVE CLIENT UNATTENDED, ESPECIALLY WHILE SEAT IS RAISED!



This manual does not override the OH&S Policy of any organisation using this product. Please refer to your organisation's OH&S Policy before using this product.

## 1. INTRODUCTION

Thank you for choosing another quality Sertain Product. This manual is your guide to operating, cleaning and routine maintenance of the Sertain **SE4400 Series** Hi-Lo Pressure Care Chairs. It must be kept with the chair at all times.

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## 2. PRODUCT DESCRIPTION

The Sertain SE4400/4400LGE Series Hi-Lo Series Pressure Care Chair range provides comfort, assistive pressure care (via adjustability and positioning) and flexibility for those who are mobile / immobile, at risk of developing pressure sores, and who spend a large part of their day sitting or lying down. It is both Client and Carer friendly, being used in some procedural and intensive care environments (model depending and subject to suitable assessment)

The SE4400 Series chairs have the following features in common:

- Electrically operated reclining backrest.
- Electrically operated seat tilt.
- Electrically operated height adjustment.
- Electrically operated leg rest adjustment (includes spline function).
- Fold out padded footrest.
- Extendible footrest.
- Removable arms.
- Swing-away 3-position head wings.
- Pressure area management seating system.
- Adjustable headrest cushion.
- Will lie in the supine position.
- Maximum weight capacity 160kg (STD) & 300kg (Large).
- 150mm castors.
- Emergency battery back-up system.



### 1. Power Cord Use and Storage - See diagram

When not in use, the power cord is stored, as shown, under the edge of the seat. To charge the chair batteries, park chair near to a power source, un-wrap the power cord, plug it into power source and switch on power. Ensure that the chair and cord are not left in an unsafe/hazardous position. Follow your organizations policy on the use of power cords. Always STOW cord before moving chair.



### 2. Seat Tilt Adjustment

Before tilting seat make sure it is safe to do so, make sure the client/patient and the carer are safe and the client is positioned correctly.

Tilt chair to desired position by depressing the left or right hand buttons on the handset either side of the **SEAT** icon as shown in Fig 2.



#### 3. Seat Height Adjustment

Before adjusting seat height make sure it is safe to do so, make sure the client/patient and the carer are safe and the client is positioned correctly.

Note: To maintain this function, chair power cord should be connected to power supply. Power cord must be unplugged from power supply and stowed carefully on chair before transporting client or moving chair.



Make sure that no items, (equipment etc), are placed over the chair. Raise the chair to the desired height by depressing the correct buttons on the handset either side of the **HILO** icon.

HILO icon as shown in Fig 3

#### To Lower chair

Make sure that no items, (equipment etc), are placed under the chair. Lower the chair to the desired height by depressing the correct buttons on the handset either side of the **HILO** icon as shown in Fig 3.

CLIENT/PATIENT must not be left unattended when seat is RAISED.



#### 4. Back Rest Adjustment

Before adjusting backrest, make sure it is safe to do so, make sure the client/patient and the carer are safe and the client is positioned correctly including limbs, clothing, etc. Make sure no item (equipment, persons, etc) obstruct the path of the backrest, to prevent injury to client or carer. Adjust backrest to desired position by depressing the left or right hand buttons on the handset either side of the **Back Rest** icon as shown in Fig 4.

⚠ Client/patient must not sit on backrest or at anytime egress over the backrest when it is reclined.

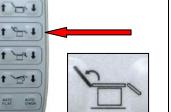
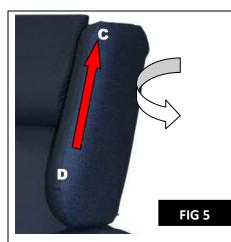


FIG 4



#### 5. Swing Away Head Wings

Make sure client/patient and carer are safe and client is positioned safely.

While applying light pressure on head wing at **'C'** lift at **'D'** and swing outwards and relocate into the desired position. To return to the original position reverse this procedure. Assess need for brakes to be engaged.



**6a.** <u>Removable 2- Position Armrest - (Models with this feature)</u>

First make sure that the brakes are applied and client/patient and carer are safe and client is positioned safely, including limbs, clothing, etc.

**To operate 2 position feature - pull** and **hold** the white release knob found near the front of the arm down at the pivot bracket, and rotate the arm away from the chair. Release the knob and the pin will drop into the 2<sup>nd</sup> position (23°) as the arm is rotated. To return to the original (standard) position, reverse this process.



FIG 6a

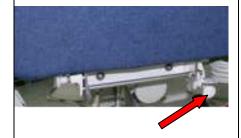
**6b.** <u>Removable 2- Position Armrest – Style No.1</u> (Models with this feature)

First make sure that the brakes are applied and client/patient and carer are safe and client is positioned safely, including limbs, clothing, etc.



**To remove armrest** - First adjust armrest to 2nd position (23°) - see **6a**, and then **push** the white release knob towards the chair (see arrow FIG 6b). Lift Armrest at the back and slide back and up, to disengage from location pivot point.

**To replace armrest** - locate the front pivot, angle armrest out from chair and drop the back pivot into slot - you may need to Push the white release knob towards the chair.



 $\triangle$ 

Then make sure armrest is securely fastened.

NOTE: FOR SAFETY REASONS THE ARMRESTS WILL NOT FOLD UNDER THE CHAIR.

FIG 6b







FIG 6c





FIG 6d

**6c.** <u>Removable 2- Position Armrest – Style No.2</u> (Models with this feature)

First make sure that the brakes are applied and client/patient and carer are safe and client is positioned safely, including limbs, clothing, etc

**To remove armrest** - first **pull** and **hold** the white release knob (see arrow in FIG 6c) and at the same time with the other hand swing the armrest down. When the arm stops, let go of the release knob. Then hold the armrest with both hands, lift it up slightly and then pull out and away from the side of the chair.

**To replace armrest** – while holding the armrest with both hands, line up the front and rear pivot points within the slots of the armrest bracket. Slide the arm down into this slot as far as you can go, and then rotate the armrest up towards the chair. The release pin at the front of the retaining bracket should automatically allow the armrest to move past it and then it will snap into the 2<sup>nd</sup> position location. **Pull** and **hold** the white release knob and rotate the arm further upward until the arm is in the 1<sup>st</sup> or standard position.

Make sure armrest is securely fastened before leaving the chair.

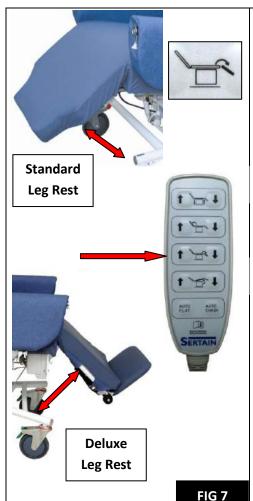
NOTE: FOR SAFETY REASONS THE ARMRESTS WILL NOT FOLD UNDER THE CHAIR

6d. **Drop-arm** (Models with this feature)

<u>First make sure that the brakes are applied and client/patient and carer are safe and client is positioned safely, including limbs, clothing, etc.</u>

**To lower armrest:** Twist Knob in direction of arrow label, and then push armrest down until it can go no further.

**To raise armrest:** Twist Knob in direction of arrow label, and then lift armrest up until the locking mechanism automatically clicks into place until it can go no further.



### 7. Leg Rest Adjustment - Standard & Deluxe

Before adjusting leg rest, make sure it is safe to do so. Make sure client/patient and carer are positioned safely.

Adjust Leg Rest to the desired position by depressing the left or right hand buttons on the handset either side of the **Leg Rest** icon as shown in **Fig 7**.

<u>Before</u> lowering leg rest to forward transfer the client, or when using the stand-up lifter, Footrest must first be folded down under leg rest cushion. See **8a** for instructions.

Make sure no item (equipment, persons, etc) obstruct the path of the leg rest.

Client/patient must not sit on or at anytime egress over the leg rest when it is up. Leg rest must be fully retracted before forward transfer is performed!

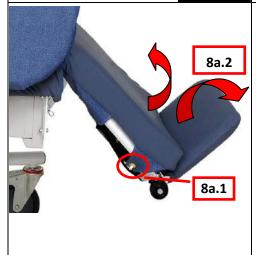
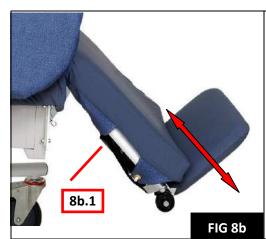


FIG 8a

### 8a. Fold-Out Footplate (models with this feature)

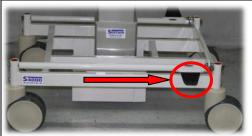
Make sure the client is correctly positioned. Unhook Cover eyelet at **8a.1** on both sides of the chair. Lift padded leg rest cushion only and then fold out footrest (see figure **8a.2**). Cover eyelets **(8a.1)** must then be re-hooked.

<u>Before</u> lowering leg rest to forward transfer the client, or when using the stand-up lifter, Footrest must be folded down under leg rest cushion.



### 8b. Leg Rest Length Adjustment

Unfasten the three 'hook and loop' straps from the underside of leg rest at **8b.1** – shorten or lengthen leg rest to desired position and re-fasten straps. Always make sure the 'hook and loop' straps have been fully re-fastened with sufficient grip.



#### 9. Central Locking Castors (models with this feature)

Press down on the <u>left side pedal to activate brake</u>. Press down on the <u>right side pedal to activate</u> tracking/directional lock.

### Mid-position is neutral.

Make sure you have castors fully engaged in desired position before any procedure.

FIG 9

FIG 10







**10a.** Operate tracking castors (Models with this feature) Swing castor into position parallel with side frame. Press down green/silver tab and click into position. To disengage press top of green/silver tab. Tracking position needs to be engaged whenever the leg rest is down.

**10b.** Activate brakes (Models with this feature) Individual brakes on rear castors; to engage, press down red/silver tab. To disengage, press top of red plastic tab.



### 11. Auto Chair Function



#### **WARNING:**

Before using this function, make sure it is safe to do so. Make sure no item (equipment, persons, etc) obstruct the path of any moving part of the chair during this function. Warn attendees before actioning this function.

This is an automatic chair position function — to operate, <u>press and hold</u> the 'Auto Chair' button, as indicated in Fig. 11 (bottom right corner of handset button series). While holding this button (from any existing position), the chair will operate the backrest, seat tilt, hi-low, and leg rest functions simultaneously until the chair position is reached (Hi-Lo will be at its lowest height). Once this position is reached and all motors have stopped then release the button.

Release of the button before the chair has reached the preset sitting position, will stop all functions wherever they are at the time. The chair will not continue to operate automatically. Resuming pressure on the button will continue the function.

**FIG 11** 

## 12. Auto Flat Function (this is not a CPR facility)



### WARNING:

Before using this function, make sure it is safe to do so. Make sure no item (equipment, persons, etc) obstructs the path of any moving part of the chair during this function. Warn attendees before actioning this function.

This is an automatic Bed / Lay Flat position function – to operate, <u>press and hold</u> the 'Auto Flat' button, as indicated in Fig. 12 (bottom left corner of handset button series). While holding this button (from any existing position), the chair will operate the backrest, seat tilt, hi-low, and leg rest functions simultaneously until the bed/lay flat position is reached (Hi-Lo will be at its lowest height). Once this position is reached and all motors have stopped then release the button.

Release of the button before the chair has reached the preset bed/lay flat position, will stop all functions wherever they are at the time. The chair will not continue to operate automatically. Resuming pressure on the button will continue the function.

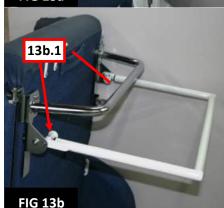


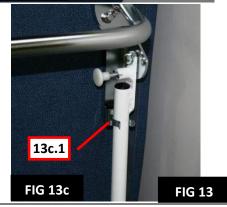




**FIG 12** 







13. Lay Flat Support Bar Function – for backrest support when performing procedures (if fitted to your chair)

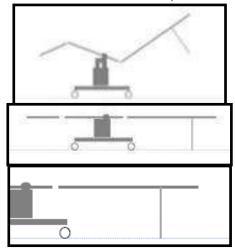


### **WARNING 1:**

Before using this function, make sure it is safe to do so. Make sure no item (equipment, persons, etc) obstructs the path of any moving part of the chair during this function. Warn attendees before actioning this function. This item is NOT a push handle and is not to be used as such)

### TO ENGAGE:

Lift / swing out the Support Bar at 13a.1 (see FIG 13b) until it is 90° to the backrest. Make sure both locating Pins at 13a.2 are locked with the Support Bar at 90° to the Backrest. Now you may perform 'Auto Flat Function' (see Item 12).



#### TO RELEASE AND STORE:

Release Pins at 13b.1 (see FIG 13b) and lower Support Bar till it is held by retaining Clip at 13c.1 (see FIG 13c). Make sure the locating Pins are engaged ready for the next event.

CPR WARNING: If you or your facility decides to use this chair for CPR purposes, it is only to be performed if the chair has a LAY FLAT SUPPORT BAR (see Item 13) fitted to manufacturers' specifications and the bar is at 90° (degrees) to the BACKREST and the FLOOR – see following conditions.

In the event you need to perform CPR on a client in this chair you must have fully read and understood everything on this document and the following must be strictly adhered to;

- 1. If you have a LAY FLAT SUPPORT BAR SWINGDOWN STYLE it must be fully engaged FIRST (see Item 13 & FIG 13)
- 2. Then fully activate AUTO FLAT SYSTEM (see Item 12 & FIG 12).
- 3. You have assessed the need for a CPR assistance device such as a CPR board which may be required for effective CPR due to the Pressure Care Seating system in use on this chair. Your clinical team needs to assess this as the manufacturer provides the chair with multi-positioning outcomes but cannot guarantee or advise on the effectiveness of the patient outcomes from a **CPR** event due to a multitude of external factors.
- 4. The chair must be inspected for any damage or fatigue after each CPR event to maintain its integrity.

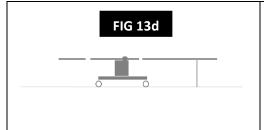


FIG 13e

### 13. Lay Flat Support Bar Function – Continued



### **WARNING 2:**

When the chair is in or close to complete LAYFLAT position (when performing Function Item 12) the **SEAT TILT (Item 2) MUST NOT BE ACTIVATED** or **FIG 13e** could occur, endangering persons or equipment.



### 14. Headrest Cushion Adjustment

Raise or lower headrest cushion to desired position by adjusting the headrest flap in the loop at rear of the backrest (see figure 14a).



### 15. Fitting Activity Tray (All models)

Apply brakes before fitting tray.

Tray locating lugs are situated on front of the chair arm underneath the tray retaining tube.

Disengage locating pins (pull pin down and ¼ turn), slide the table arms into desired position, engage locking pins (¼ turn in reverse).

NOTE: If tray is to be locked make sure pins are located and locked securely for client and carer's safety.

## **Some Key Features Illustrated**





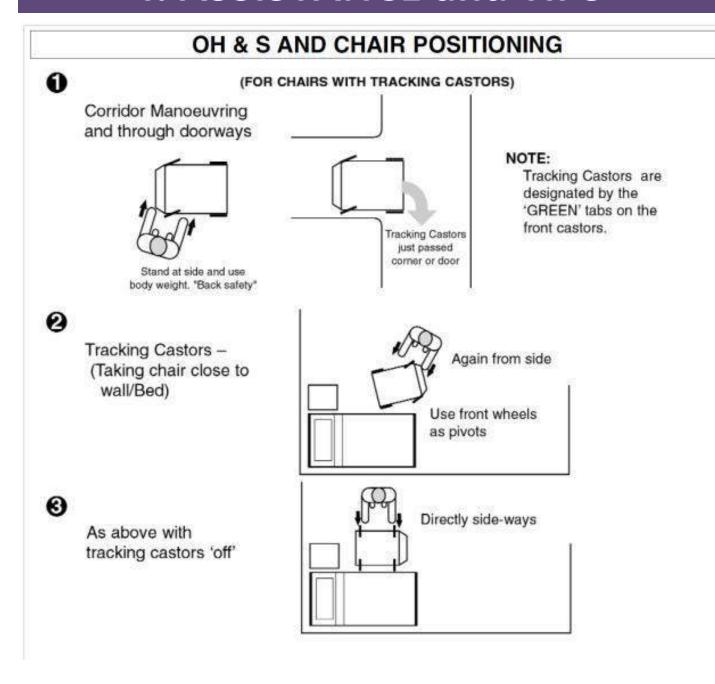


DO NOT USE CHAIR UNTIL YOU HAVE FULLY READ THE INSTRUCTIONS





## 4. ASSISTANCE and TIPS



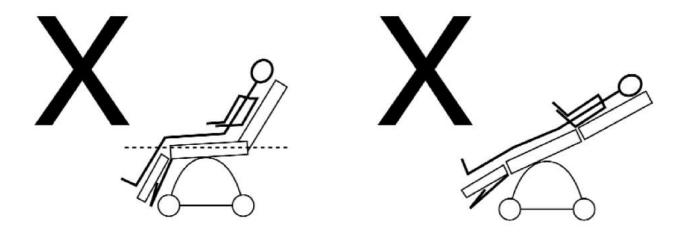
NOTE: REMEMBER!! In any manoeuvre, the safety of the Client and Carer is paramount. This is only a guide and does not take the place or override your OH&S training or Client handling techniques. This must be approved by those responsible persons in your organisation before use.

E & OE

## 4. ASSISTANCE and TIPS cont'd

## **REMEMBER!** POSITION YOUR CLIENT CORRECTLY

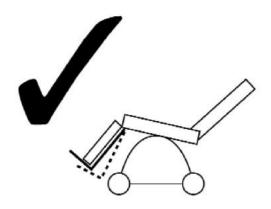
These simple ideas may decrease the incidence of the Patient/Client sliding forward in the chair and increase their safety

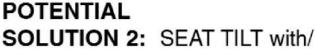


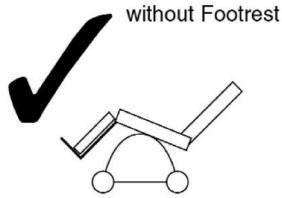
Patients/Clients tend to slide in the above positions ... 'You can't go to sleep on a slippery-dip'

## REMEMBER! Make sure Client is well positioned into the chair!

## POTENTIAL SOLUTION 1: FOOTREST







NOTE: REMEMBER!! In any manoeuvre, the safety of the Client and Carer is paramount.

This is only a guide and does not take the place or override your OH&S training or Client handling techniques. This must be approved by those responsible persons in your organisation before use. E &

# 5. TECHNICAL DATA

GENERAL TECHNICAL DATA				
DESCRIPTION	MODEL			
Please note that your particular model may have some of the features listed and not others, depending on the configuration chosen.  The list of technical specs. below is not exhaustive, and if you require any further information please contact the Company that sold the chair to you.	SE4400- 400 STD SIZE	SE4400- 300 STD SIZE	SE4400- 400 LARGE SIZE	SE4400- 300 LARGE SIZE
Armrest Height (Drop Down type) - at hips (from seat cushion)	190	190	190	190
Armrest Height (Standard removable type) - at hips (from seat cushion)	180	180	180	180
Backrest - Height (from seat cushion)	740	740	740	740
Backrest - Recline Range	96° - 180°	96° - 180°	96° - 180°	96° - 180°
Backrest - Width at Shoulders	530	530	620	620
Castors - Central Locking 150mm type	available	available	available	available
Castors - Standard 150mm DL & TB type (individual locking)	available	available	available	available
Leg Rest Length - Deluxe type	440	440	440	440
Leg Rest Length - Fully Extended (via slide-out footrest)	up to 150 mm extra	up to 150 mm extra	up to 150 mm extra	up to 150 mm extra
Leg Rest Length - Standard type	420	420	420	420
Overall - Height (Backrest upright)	1250	1250	1250	1250
Overall - Length (Supine Position) - Deluxe Leg Rest Type	1840	1840	1900	1900
Overall - Length (with Leg Rest Down , Backrest Up & Foot Rest away - depending on model)	1150	1150	1170	1170
Overall - Width (Drop Down type arm)	740	740	820	820
Overall - Width (Standard Removable type arm)	720	720	800	800
Seat - Depth	520	520	570	570
Seat - Height - Maximum (tilted forward)	940	840	950	840
Seat - Height - Minimum (tilted forward)	540	540	540	540
Seat - Height - Minimum (@ 0° degrees)	560	560	560	560
Seat - Incline Range (Forward to Rear)	-2 to 13°	-2 to 13°	-2 to 13°	-2 to 13°
Seat - Width (between arms - Drop Down type)	530	530	605	605
Seat - Width (between arms - Standard Removable type)	510	510	585	585
Weight Capacity - Maximum	160kg	160kg	300kg	300kg
ARTG Number	136976	136976	136976	136976
Dimensions are nominal and are measured in MM without covers depressed.				
Design and specifications are subject	to change w	ithout notice	e. E&OE	

# DESCRIPTION OF THE VARIOUS SIGNS USED IN THIS MANUAL



### Warning!

Failure to comply with these instructions may result in accidents involving serious personal injury.



Failing to follow these instructions can result in the product being damaged or destroyed.

## **DO'S and DON'TS**

### DO'S

- ✓ Do plug the chair into mains power and charge the Emergency Battery Back-up system for 24hrs before the 1<sup>st</sup> use.
- ✓ Do keep the control box plugged into the mains supply whenever possible. This will extend the life of the Emergency Battery Back-up. A large number of cycles can be obtained from operating solely on the batteries; however battery lifetime is reduced with frequent discharging.
- ✓ Do inspect all cables particularly the mains power cable for any damage; replace where necessary.
- ✓ Do make sure that the Handset coil cable is always free and not tangled up in the workings of the chair.
- ✓ Do stow the mains power cable and the HB handset when moving or transporting the chair.
- ✓ Do clean the actuators, control box, handset and attendant control panel at regular intervals to remove dust and dirt.
- ✓ Do maintain the batteries correctly, see Battery Maintenance & Replacement.

### **DON'TS**

X Don't allow the batteries to fully discharge before connecting to the mains supply. The batteries are a lead-acid gel cell type that can be trickled charged continuously (batteries used for standby / emergency back-up) and have a high current discharge capacity. The batteries are not the nickel cadmium type and must not be periodically fully discharged. Life is greatly reduced by deep or complete discharging of the batteries. The best lifetime is obtained by charging the batteries as often as possible.

X Don't continue to operate the handset by repeatedly pressing the buttons if the chair function will not move, or the actuator will not function. If this occurs then the actuator has either reached its end position, the load is too great or there is a problem. Refer to troubleshooting guide.

X Don't exert excessive force on the handset cable as this may break off the wires inside the cable and prevent some or all of the operations.

X Don't continually operate the chair functions. The system is not designed as an exercise machine and continuous operation will cause the thermal fuse in the control box transformer to cut off power to the transformer; the control box will then require servicing. Refer to the manufacturer's manual for the specified duty cycle.



## **SAFETY INSTRUCTIONS**

PLEASE READ THE FOLLOWING SAFETY INFORMATION CAREFULLY. IT IS IMPORTANT FOR EVERYONE WHO IS TO CONNECT, INSTALL OR USE THE SYSTEMS TO HAVE THE NECESSARY INFORMATION

AND ACCESS TO THIS MANUAL.

### **Classification:**

The equipment is not suitable for use in the presence of a flammable anaesthetic mixture with air or with oxygen or nitrous oxide.



### Warning!

The plastic parts in the system cannot tolerate cutting oil.



#### Warning!

If faults are observed, the products must be replaced. Never spray directly on the products with a high pressure cleaner.



The LINAK products cannot tolerate the influence of strong solvents, basic or alkaline liquids.

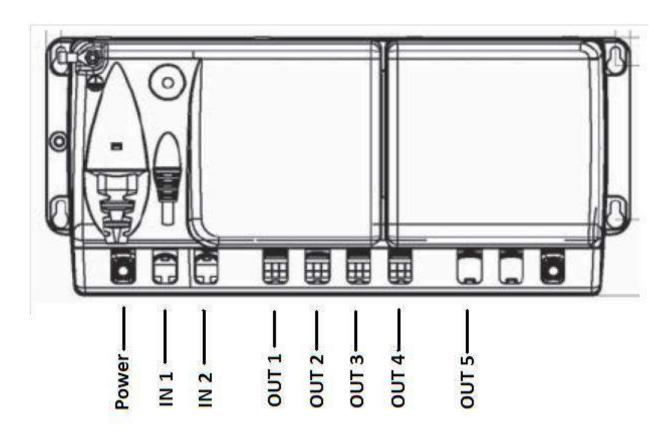


The duty cycle printed on the label of the control box must always be noted. If this is exceeded, there is a risk of the control box being overheated and damaged. Unless otherwise specified on the label, the duty cycle is max. 10%: max. 2 minutes in use followed by 18 minutes not in use. Exceeding the duty cycle will result in a dramatic reduction in the lifespan of the product.

## **LINAK OPENBUS™ DO'S and DON'TS**

- 1) Before connecting or disconnecting OPENBUS™ accessories or handsets to / from the system:
  - a. Disconnect the CB from mains power.
  - b. Wait at least 2 minutes after the last key press.
- 2) Only connect the originally specified type of Actuator to the appropriate port on the CB.
- 3) Only connect the originally specified Handset to the system.
- **4)** Wait at least 2 minutes after the last key has been pressed before removing the BA18 or BA20 battery from your system. Otherwise battery operation may be blocked for 30 minutes.
- 5) Do not connect / disconnect an Actuator while pressing any keys on the Handset or Foot Switch.
- **6)** Use O-rings on all connectors and secure all connectors / cables with the cable locking devices supplied.
- 7) Use blind plugs with O-rings to seal any unused ports on the CB and junction boxes.
- 8) Do not stretch or unduly strain any of the cables and connectors.
- 9) In cases where a CU20 or CP20 requires replacement, in order to avoid damage to new components, replace the complete CB20, rather than individual components.
- **10)** Ensure that the system is suitably protected from ESD (Electro Static Discharge) via the ESD drag chain/wire fitted to the base of your chair. If worn out, replace with an original part.

## **WIRING POSITION DIAGRAM**



FUNCTION	SE4400 STD SIZE		SE4400 LARGE SIZE		
FUNCTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION	
Power	CP2001000A010 69	Control Power Unit	CP2001000A01069	Control Power Unit	
IN 1	HB8X135-00	Handset	HB8X135-00	Handset	
IN 2	0821008	Port Plug	0821008	Port Plug	
OUT 1	BL131HA11300A or BL14HA11400A	HILO Column	BL131HA11300A or BL14HA11400A	HILO Column	
OUT 2	31110H+101504K	Backrest Actuator – 150mm stroke	BL131HA11300A or BL14HA11400A	HILO Column	
OUT 3	31110H+301004K	Leg Rest Actuator – 100mm spline	31110H+101504K	Backrest Actuator – 150mm stroke	
OUT 4	31120H+1005004 K(LAUS112092)	Seat Tilt Actuator – 50mm stroke	31110H+301004K	Leg Rest Actuator – 100mm spline	
OUT 5	N/A	N/A	31120H+1005004K( LAUS112092	Seat Tilt Actuator – 50mm stroke	

## **Reset / Initialisation Procedure**

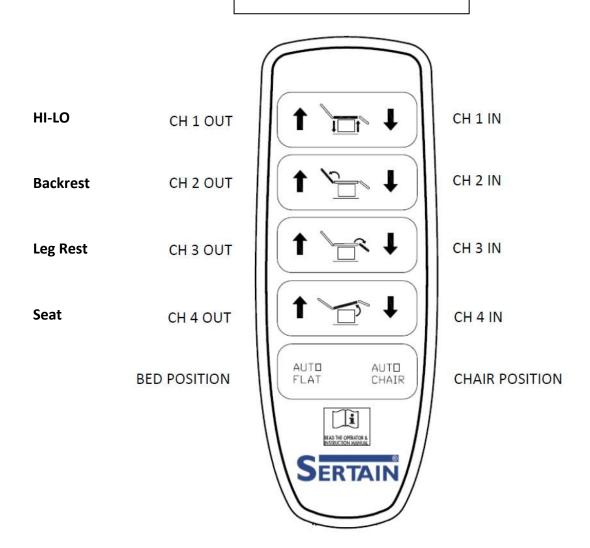
Use the **handset** to perform the following procedures:

- 1) **RESET** the system by simultaneously pressing the **CH1 UP / DOWN** keys until the system stops beeping (approx 5 seconds). Please note that the two keys **must** be activated at exactly the same time.
- 2) **INITIALISE** the system by running the actuators to their end-stop position as per below (press and hold the button until the actuator has stopped):

SE4400 STD - 160kg	SE4400 Large Size –	
	300kg	
a. Drive CH1 in	a. Drive CH1 &	
	CH2 in	
b. Drive CH2 in	b. Drive CH3 in	
c. Drive CH3 in	c. Drive CH4 in	
d. Drive CH4 in	d. Drive CH5 in	

## **Handset Functions**

### **SE4400 Standard Size**



## **Handset Functions**

**SE4400 Large Size** 

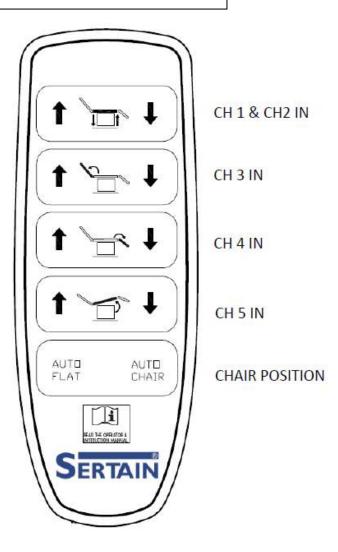
HI-LO CH 1 & CH2 OUT

Backrest CH 3 OUT

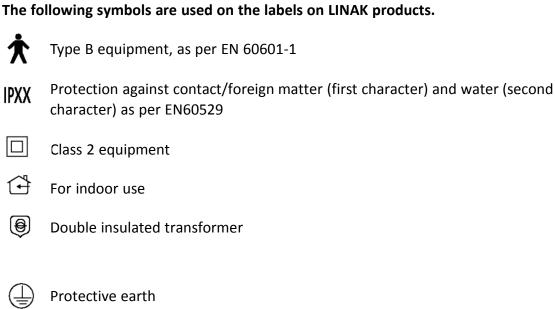
Leg Rest CH 4 OUT

Seat CH 5 OUT

**BED POSITION** 



## **Key to Symbols**



**Alternating Current** 

---- Direct current

Attention, consult accompanying documents

Lock function

Release function

Charge indicator

Safety switch/enable button

## **Information on Control Boxes**

Please be aware if the control box is not visible after mounting, all information regarding limitation of use shall be marked on the end of the product.

### **Output Voltage**

On control boxes connected to the mains the voltage of the actuator is dependent on the load, and the no-load voltage can reach 50V. Control boxes connected to the battery can reach a voltage of 30V during charging and no load.

### For All control boxes with batteries

Prior to first use of LINAK batteries, please make sure that they are being charged 24 hours in order to reach proper function and prolong the lifetime of the batteries.

### Warning!

Please observe the following maintenance, replacement, and disposal requirements to ensure a safe and reliable operation. See <u>Cleaning and Maintenance</u> section for this detail.

#### **Insulation Class**

LINAK control boxes are available in insulation class 1 and insulation class 2.

Class 1 means with earth connection

Class 2 means without earth connection

When measuring the resistance in the earth connection in LINAK Control Boxes (class 1), it is recommended to use equipment, delivering a test current of no less than 5A. The resulting voltage will correspond to the resistance in the earth connection. Test currents below 5A, would yield no exact measurements.

## 6. CLEANING & MAINTENANCE

## **GENERAL MAINTENANCE**

The following should be checked and adjusted if required, at a minimum of two monthly intervals:

- All nuts and bolts on pivot points:
  - ❖ If they are loose, tighten without restricting pivot operation.
  - ❖ If they are worn, replace with a **WINTUR** approved fastener.
- All functions of chair i.e. backrest, seat tilt, leg rest, footrest, wings and arms, directional lock, braking system – refer to supplier for any repairs required
- <u>Upholstery inspection</u> any tears, rips, parts missing, etc refer to supplier of chair for replacement parts

#### Castors

- Check condition and ensure they are freewheeling and bearings are not loose.
- Remove any grime and grime build-up.
- Check that directional lock and brake functions both work correctly.
- Please note: All pintles must be checked at regular intervals. They must be fully and firmly fitted in tube and locating device. Retaining screw must be tight. All faulty parts must be replaced immediately.

### <u>Electrics</u>

All cables and motors to be inspected for damage.

## **ELECTRICS – MAINTENANCE**

### Valid for all LINAK products

- The LINAK products must be cleaned at regular intervals to remove dust and dirt and inspected for mechanical damage, wear and breaks.
- The LINAK products are closed units and require no internal maintenance.
- Only type IP66 are waterproof and type IP66W tolerates being washed in tunnels.
- This chair and its LINAK components are not rated IP66 washable.

### Valid for all LINAK actuators and Lifting columns

- Actuators / lifting columns must be inspected at attachment points, wires, piston rod, cabinet, and plugs, as well as checking that the actuator / lifting columns function correctly.
- To ensure that the pre-greased inner tube remain lubricated the actuator must only be washed down when the piston rod is fully retracted.

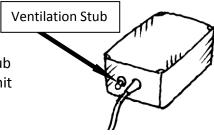
### Valid for all LINAK control boxes and handsets

- Electronics must be inspected at attachment points, wires, cabinet, and plugs.
- Inspect the connections, cables, cabinet, and plugs, and check for correct functioning (does not apply to battery versions).
- With the exception of the CS16 and CS18 PCB the control boxes are sealed and maintenance-free.
- Inspect at regular intervals that the ventilation aperture on the external battery is positioned correctly and is intact throughout its length, approx. 20mm, see figure 1.

### Figure 1

**Ventilation of external batteries, BA18** (for models fitted with this type)

Check at regular intervals that the ventilation stub is undamaged and intact. The construction of the ventilation stub permits the battery gases to get to get out, but does not permit penetration of water.



### Maintenance of batteries

The batteries are to be replaced after 4 years at the latest - perhaps earlier, dependent on the pattern of use. Frequent and high-powered discharges reduce the battery life. For an optimum lifetime the product must be connected to the mains voltage as often as possible. The batteries must be charged at least every

3rd month - otherwise they will be damaged in due to self-discharge. It is recommended to test the battery function at least once every year.

### Replacement of batteries

The batteries must only be replaced by the following mechanical and electrical compatible types:

Kobe 1.2-6 (6V, 1.2 Ah) Yuasa 1.2-6 (6V, 1.2 Ah)
PBQ 1.2-12 (12V, 1.2 Ah) or 1.3-12 (12V, 1.3 Ah) Kobe 1.2-12 (12V, 1.2 Ah)
PBQ 2,9-12 (12V, 2.9 Ah) Rocket 2.9-12 (12V, 2.9 Ah)

The batteries must be new or maintained by means of charging at least every 3rd month. The batteries, which make a set, must be supplied with identical production codes. Mismatching of production codes may lead to severely reduced life time expectancy.

### Interpretation of the production codes are as follows:

Kobe: XX (day) XX (month) X (year) X (production line number) Yuasa: X (year)

XX (month) XX (day) XX (serial number)

PBQ made in Korea: XX (not relevant) X (year) X (month) XX (day) X (not relevant)

PBQ made in China: X (year) X (month) XX (day)

Example: "DA10" (04-01-10)

Before mounting ensure that the battery set is correctly connected, compare with the drawing in the battery room, and check that no connectors are loose.



### Warning!

- From the factory the battery room is hermetically separated from the electronics room. When replacing the batteries this separation must not be damaged or modified as this may allow penetration of battery gas into the electronics room with risk of explosion.
- When replacing batteries in waterproof products (IP 65 and IP 66) precautions must be taken that the sealing material (silicone ring or joint filler) is not damaged and that it is correctly placed in the groove. Hereafter the screws in the cover are to be fastened with approximately 1 Nm. If the seal is damaged it must be replaced by a new silicone string (LINAK article no. 0008004 for a roll of 100 metres).
- If a non-LINAK battery is used, it is important to check that the current is not reversed (plus and minus swapped over) This applies to both control boxes, which always run off battery and control boxes with battery backup. Contact your nearest LINAK dealer for specification of type, size etc

### Disposal

The batteries, which are lead-acid batteries, can be returned to LINAK or disposed in the same way as car batteries.



### Warning!

The battery room is supplied with ventilation that ensures correct and necessary airing of the battery room. This airing must not be blocked or covered as a positive pressure may occur with risk of explosion.

If the product has been exposed to mechanical overload (lost on the floor, collision/squeezing in the application or a powerful stroke) the product must be sent to an authorised workshop for control of the hermetic separation between the battery and electronics rooms.

## **CLEANING & DISINFECTION of ELECTRICAL COMPONENTS**

The products can be cleaned as follows according to their IP protection, which is stated on the product label:

IP	CLEANING INSTRUCTIONS
IPX0	Clean with a damp cloth.
IPX1	Clean with a damp cloth.
IPX2	Clean with a damp cloth.
IPX3	Clean with a damp cloth.
IPX4	Clean with a damp cloth.
IPX5	Wash with a brush and water, but not water under pressure.
IPX6	Wash with a brush and water. The water can be under pressure, but the system must not be hosed down directly with a high pressure cleaner.  Max. 20°C.
IPX6 W*	Clean by the use of water tunnels

X can have a value of between 1 and 6.

\* The following products can be marked with IPX6, but they are still allowed for wash tunnels: ACP, ACM (mini), ACM (new), BA18, CB12/14/18, DJB, FS2, HB40, LA28, LA32, LA34 stand, LA34 comp.

The materials are resistant to the majority of cleaners and disinfectants used in the hospital and nursing home sector. Cleaning with a steam cleaner, for example, is not permitted, as it will not be possible to maintain a minimum distance of 300 mm from the electrical parts.

IP 66W products can be washed in wash tunnels that wash according to the "Machine Decontamination" provided that the following guidelines are complied with:

- The cleaning and disinfection cycle in the wash tunnel must not last longer than 10 minutes.
- The nozzle pressure in the wash tunnel must not exceed 10 bar.
- The distance between the nozzle and the electrical parts must be at least 300 mm.
- The handset and motor plug must be pushed right in.
- The water temperature must not exceed 85°C.
- Cooling with cold water is not permitted.

To avoid degreasing of the piston rod, the actuator should be retracted to minimum stroke before washing.

### The following directions regarding cleaners and disinfectants must be complied with:

- They must not be highly alkaline or acidic (pH value 6-8).
- They must not contain caustic agents.
- Their contents must not be able to change the structure of the surface or adhesion of the plastic.
- They must not break down grease.



### Warning!

The systems must not be sprayed directly with a high pressure cleaner.

## **GENERAL CLEANING INSTRUCTIONS**

This is a guide only and the manufacturer does not accept any liability/responsibility for use thereof. The above maintenance program is comprehensive but not exhaustive.

### 1. General Cleaning

For longevity, wiping the chair covers with a neutral detergent and a warm water solution is preferable, then dry with a soft, clean cloth. The use of mild non-abrasive pure soap is recommended. Stubborn grime may require gentle scrubbing with a soft brush. (Refer to standard instructions). Armrests, wings etc can all be easily swung away / removed to allow for cleaning access.

DO NOT MACHINE WASH. DO NOT DRY CLEAN
FOR TREATING SPECIFIC STAINS, ALWAYS REMEMBER THAT PROMPT ATTENTION YIELDS
MORE COMPLETE REMOVAL.

WARNING: Never use furniture polishes, abrasive cleaners or steel wool. Regular use of cleaners containing hydrocarbons or similar additives may cause damage to the vinyl and harden the surface. Strong solvents, e.g. Acetones are detrimental to the vinyl surface. Avoid exposure to excessive heat and non-colour-fast dye stuffs found in some articles of clothing as they may transfer to the fabric surface. Sunlight will also shorten the life of most vinyls.

### 2. Replaceable Foams and Vinyl

Should it be necessary replacement foams and vinyls are available to keep the product up to standard. The modular design of the Regency & Sertain® Care Chair ensures that individual covers can be replaced without the need for full re-covering as per traditionally upholstered chairs.

#### 3. Framework

The framework of the Sertain® Care Chairs is manufactured from zinc-coated steel; there is no timber used at all in the main construction of the Sertain® Care Chairs. In the event of soiling, spillages and contamination the most of the chair frame can be easily rinsed using a neutral detergent solution. On the electrical Sertain® Chair models, check the actuators IP rating to confirm if they withstand rinsing where necessary without damage to the electrical circuits.

### 4. Vinyl Protector

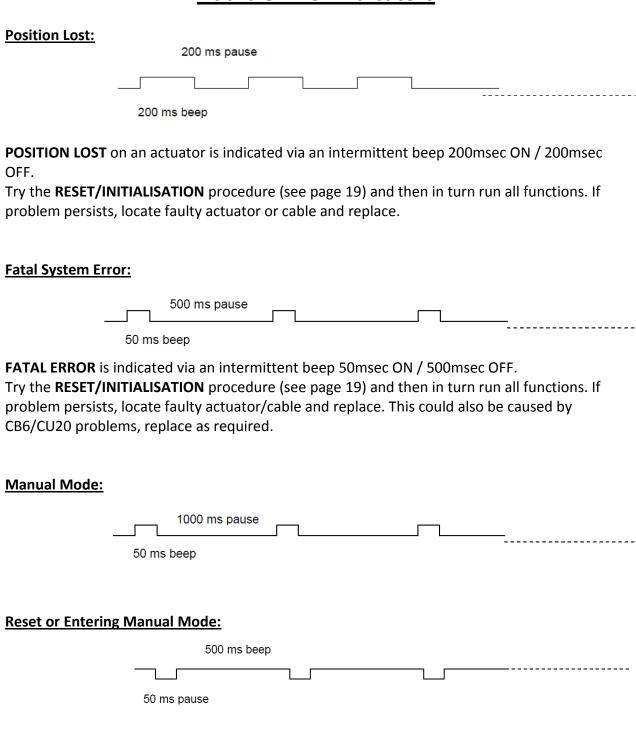
Distributors of the Regency & Sertain® ranges of high-dependency seating supply a <u>vinyl</u> Protectant treatment, containing a plasticiser. This easy to apply solution can be sprayed on and left to air dry, after cleaning, leaving the chair <u>vinyl</u> surface fresh and supple.

NOTE: For more detailed CLEANING INFORMATION please call your Distributor

## 7. TROUBLESHOOTING

	PROBLEM	POSSIBLE CAUSE	REMEDY
1	No functions at all	No power to the system	<ul> <li>Check the power cable is plugged into the power socket and that the power is switched on.</li> <li>Check the battery connections</li> </ul>
2	No functions at all when the power cable is disconnected from mains power	<ul> <li>Battery pack is missing</li> <li>Batteries are flat</li> <li>Batteries are damaged or at the end of their lifespan</li> </ul>	<ul> <li>Replace missing battery pack</li> <li>Plug the power cable into mains power and charge for a minimum of 24hrs. If problem persists employ an approved         Sertain/Linak qualified technician to check the batteries/charging circuit and/or replace the batteries.</li> </ul>
3	Actuator will drive OUT but not IN	Position Lost on actuator	Try performing the Reset/Initialisation procedure. If problem persists, replace the actuator.
4	Actuator will not drive IN or OUT.	Cable to the     actuator is either	Reconnect or replace the faulty component
	Intermittent beeping from	disconnected or	Perform the
	the control box when	faulty.	Reset/Initialisation
	button is pressed	<ul> <li>Actuator is faulty</li> </ul>	procedure
5	One or more actuators stop while operating them	Actuator is overloaded	Reduce or remove load on the chair and try again
6	HILO columns will not	Cable to column	Reconnect or replace the
	drive IN or OUT	is disconnected	faulty component
		or Faulty.	Perform the
		<ul> <li>Column is faulty</li> </ul>	Reset/Initialisation procedure

## **Audible Error Indicators**



A CONSTANT BEEP when any button is pressed indicates power management error in the CB. Ensure the system is connected to MAINS 240V and leave without operating for minimum 6 hours. If, after 6 hours the problem still exists, replace the CB.

Constant beep

**Hoot:** 

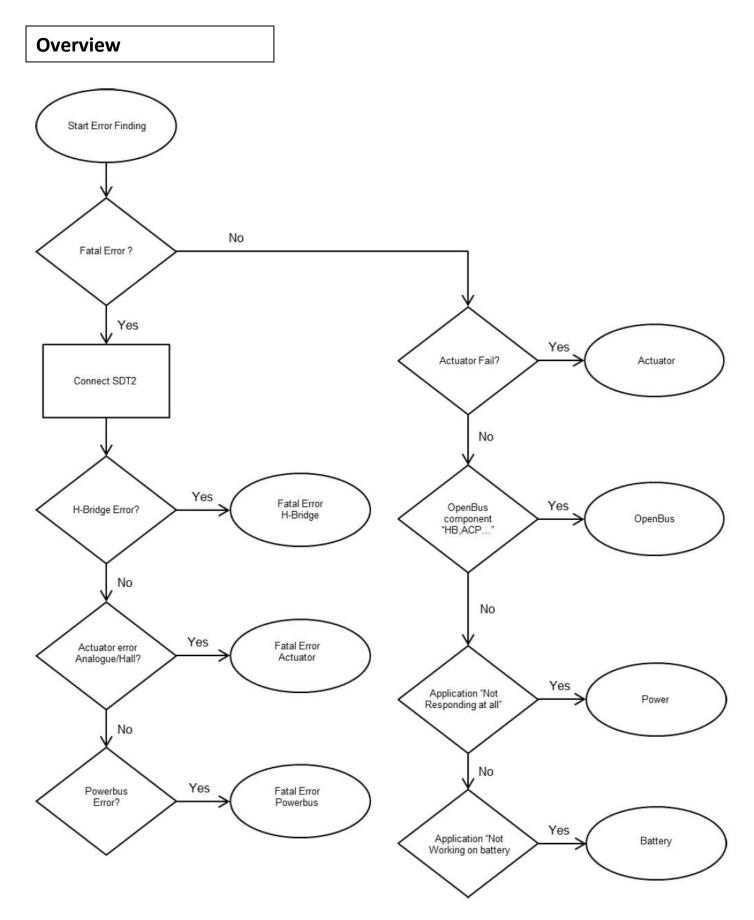
Over-heating:					
5 s beep	pause				
<b>OVERHEATING</b> is indicated by a 5 second beep when a function is activated. Allow the system to cool down before operating.					
Medium level battery (only CB20):					
1 s beep	pause				

 $\mbox{\bf BATTERY LOW}$  is indicated by a 1 second beep when a function is activated.

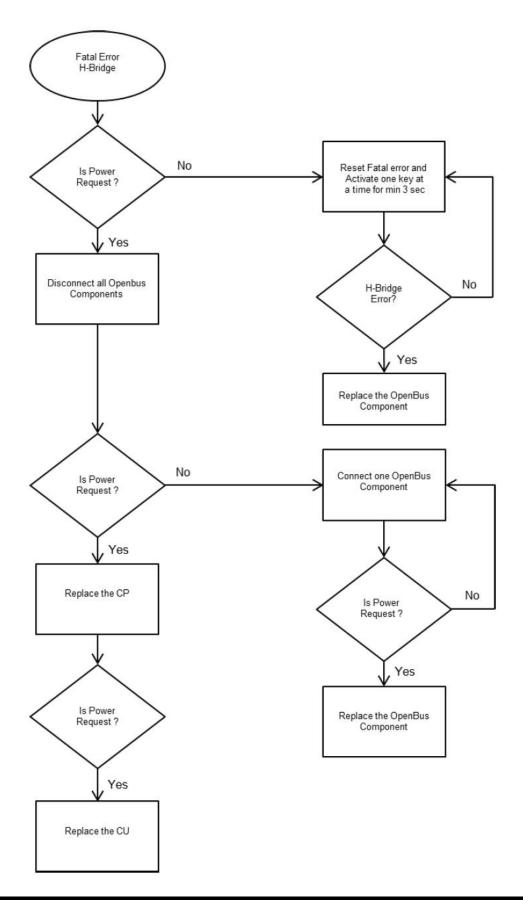
Charge or replace the battery.

(If the temperature exceeds a pre-defined level the driving stops followed by a 5s beep tone. If the next activation is carried out before the temperature level is at an acceptable level, driving is not allowed and the 5s beep tone comes up).

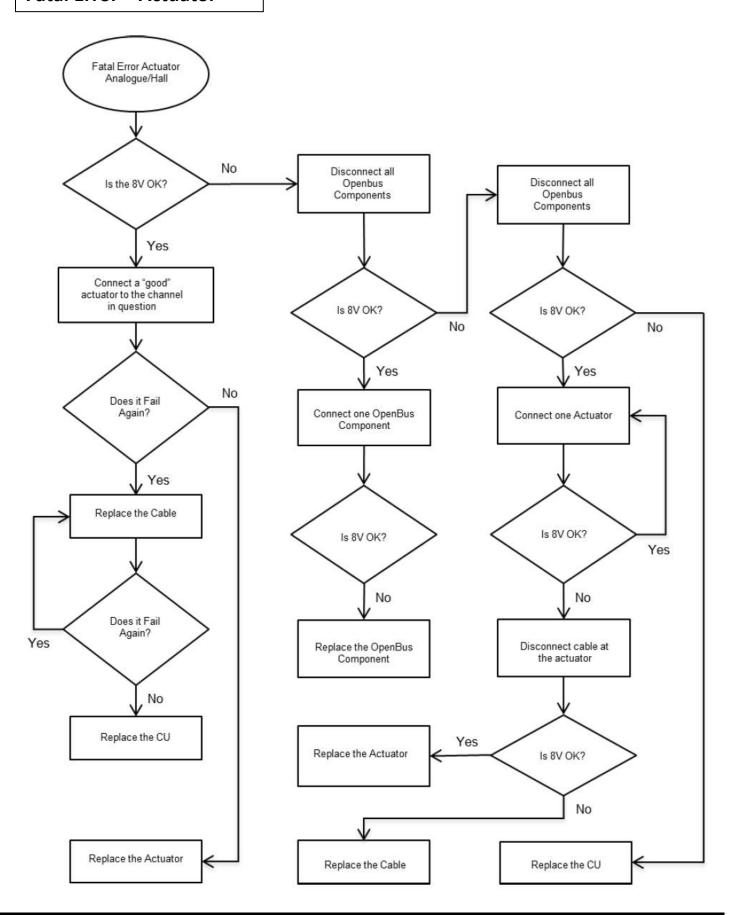
## **Service Data Tool 2 Fault Finding Flow Charts**



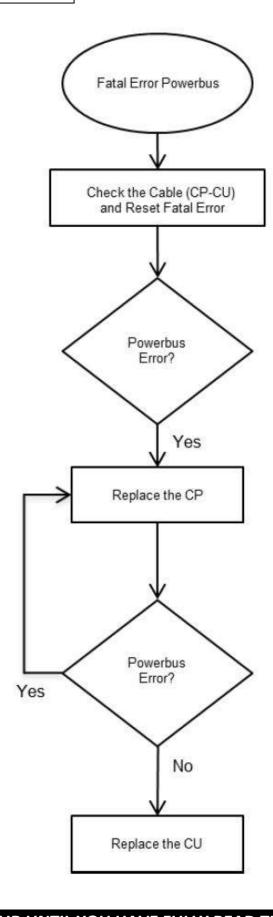
## Fatal Error - H Bridge



## **Fatal Error – Actuator**



### **Fatal Error – Power Bus**



## 8. WARRANTY

Please consult <u>separate</u>
'Warranty Card' for details.

Any further information required please contact your distributor

# **NOTES**

# **NOTES**











APPLY BRAKES WHEN **TRANFERRING PATIENTS** 



PO BOX 6125 SOUTH WINDSOR DC NSW 2756 AUSTRALIA ANOTHER WINTUR PRODUCT



Contact us on:-

info@sertaincare.com

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