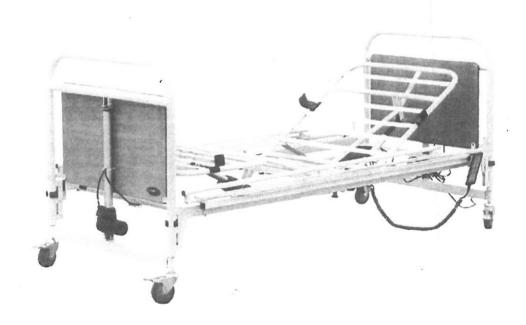


# SCAN BED ALPHA — FOUR SECTION FOR COMMUNITY USE



# USER MANUAL

SCAN MOBILITY LIMITED

MARSH HOUSE

90 RALPH'S WIFE'S LANE

BANKS, LANCASHIRE

PR9 8ER

# Scan Mobility User Manual Scanbed Alpha

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Scan Mobility Ltd, Scanbed Alpha user manual, Version 02 Effective from January 2011

# THE NURSING SCAN BED ALPHA

Scan Mobility accepts no liability for any use, change or assembly of the product other than as stated in the manual. Accessories not mentioned in this manual must not be used.

### General Information

The Scan Bed Alpha is Scan Mobility's new, separable nursing bed with a sliding back section for more comfort for the patient. It is a nursing bed which makes allowance for easy handling in that it unites 'low cost' and functionality.

### Description

The bed consists of the following parts:

- Two bed ends which can be regulated in height by means of a motor.
- A mattress support consisting of top frame head and a top frame foot. The backrest can be raised and lowered by motor adjustment as well as the knee section of the bed. The leg section can be raised and lowered by means of a rastofix lever.
- Two mattress handles.

### Accessories

- Mattress handles
- Side Rails
- Lifting Pole
- Grab Handle
- Extension Unit

# 2 General Information

### Warranty

The warranty covers all material and production defects for 2 years from the date of delivery.

All manufacturing defects or faults should be reported to Scan Mobility at the earliest opportunity.

The warranty does not cover additional costs, ie,

Transport, packaging, labour, sundry expenses etc

These are met by the customer.

The warranty does not cover;

Damage caused during transport that is not directly reported to the forwarder at the moment of delivery. Repairs performed by unauthorized centers and personel.

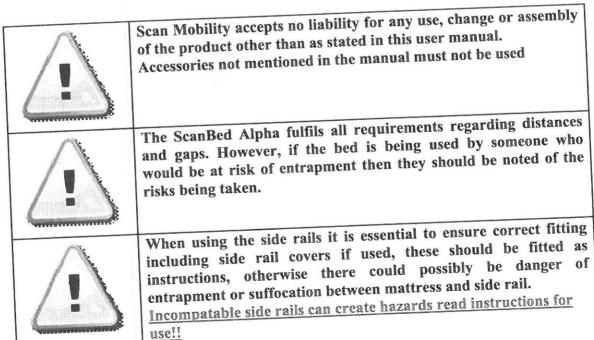
Parts subject to normal wear.

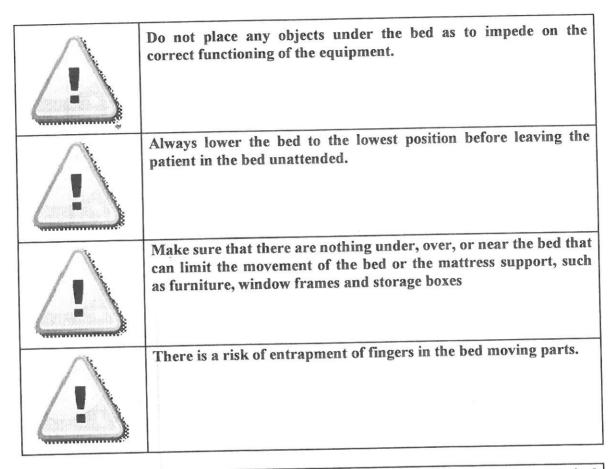
Malicious damge or damaged caused by improper use of the bed.

## 2 Warnings



# Warning







Electromagnetic interference between the bed and other electrical products can occur. To eliminate or reduce suck interference, increase the distance between the bed and the products or switch them off.

This medical bed can be used together with medical electrical equipment connected to the heart or the blood vessels, provided that following points are respected.

- The medical bed should be equipped with the means for potential equalization connection marked out by a symbol shown in the back of this manual.
- Medical electrical equipment as described above, should not be fixed on the bed's metallic accessories such as side rails, lifting pole, drip rod, bed ends etc, In addition, the medical electrical equipment power supply cord should be kept clear of the accessories or any other moving part of the bed

## User weight limits:

Backrest – 80 kilos Knee break – 60 Kilos Foot Section – 60 Kilos

This bed is not suitable for children under the age of 12 years old

# Before using the bed for the first time:

- Read through this instruction manual from start to finish to prevent damage due to incorrect operation.
- Before using the bed the user must check that the bed is fully operational and in perfect working order as well as follow the instruction manual.

The care bed fulfils all the requirements of the 93/42/EWG directive for medical products. It is classified as a class 1 active medical product.

The actuators bed have been inspected by TUV (technical inspection authority) any piece of technical equipment, electrical or otherwise, can prove hazardous if not properly operated.

Please pay attention to your obligations as the operator in accordance with the Operators of Medical Products Ordinance, in order to ensure a permanent safe operation of this medical product with no risk of danger to patients, users or third parties.

The instruction manual contains safety information which must be followed. All users working on and with the bed must be familiar with the content of this instruction manual and follow the safety advice provided.

Instructions for the Operator:

- Ant piece of technical equipment, electrical or otherwise, can prove hazardous if not properly operated. You are obligated to instruct users in the proper use of this bed.
- Ensure that the users know where this information manual is located.

**2.1 Definition of the Groups of Persons Involved**In this instruction manual, the following groups of persons are defined as:

### **Operator**

Operators (e.g.: medical suppliers, medical specialists, medical insurance providers) are every natural and legal person who use the bed or by whose orders the bed is used. The operator is obliged to properly instruct users.

### User

Users are persons who, on the basis of their training, experience or through instruction, are entitled to operate the bed or to carry out work on it. Users have received instruction in the handling of this bed. Furthermore, they are able to recognise and avoid possible hazards as well as assess the clinical condition of the patient.

#### **Patient**

In this instruction manual, a patient is defined as a person who is infirm, disabled or in need of care and occupies this bed.

# Safety information for the Operator

- using the instruction manual, which must be provided with the bed, ensure that every user is instructed in the safe operation of this bed before using for the first time. Draw every user's attention to the possible hazards that can arise if the bed is used improperly. This applies in particular to the use of electrical drives and the side guards.
- only permit persons who have been properly instructed to use this bed.
- Make sure that substitute staff are also sufficiently well instructed in the safe operation of the bed.
- Check that all staff are complying with the safety information.

# Safety information for the User

- Ensure that the operator instructs you in the safe operation of the bed.
- Ensure that no obstacles such as furniture or sloped ceilings could impede adjustments to the bed.
- when using external electrical components such as patients lifts, reading lamps, or compressors for positioning system, ensure that all equipment mains cables will not become entangles or damaged by the moving parts of the bed.
- If any damage or malfunction is suspected, unplug immediately from the mains supply, indicate clearly that the bed is "out of order" and take it out of service. Report this immediately to the operator responsible.
- Route the mains cable in such a way that it cannot be pulled, driven over or damaged by moving parts when the bed is operated.
- Before moving the bed, it is important to always unplug it from the mains supply. Store the mains cable in the mains cable holder provided to ensure that it will not fall out when moved and get damages.
- Always make sure that the mattress platform has travelled to its lowest position before leaving the patient unattended. In this way, you greatly reduce the risk of the patient injuring himself/herself as a result of falling when getting out the bed.
- To safeguard the patient, and especially children, against unintentional motorised adjustment, place the handset out of reach if:

The patient is unable to operate the bed safely or free himself/herself from potentially dangerous positions.

The patient could be at risk due to inadvertent adjustment of the electric motors.

- At regular intervals, carry out a visual inspection of the mains cable to check for mechanical damage. Such a check should be performed:
- $\circ$  When the bed has been moved or relocated before plugging it back in the mains supply.
- Regularly by the user when the bed is in constant operation.
- Whenever the cable has been subjected to any mechanical load, (e.g. has been driven over by the bed, trolleys or hoists).

### Special features

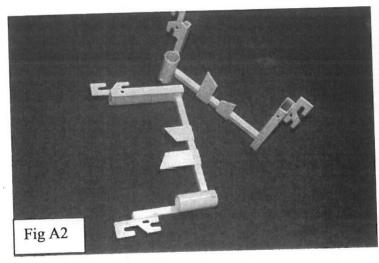
- Electrical height adjustment of the mattress between 33 and 80cm
- Electrical adjustment of the backrest between approx 0 and 70 degrees
- Electrical adjustment of the thigh rest between approx 0 and 20 degrees
- Manual leg raiser between 0 and 25 degrees
- Electrical tilting (trendellenberg/anti trendellenberg)
- built in Auto regression on the backrest preventing sliding down the bed and sheering
- Moveable via four, individual locking castors
- Built-in extension at the foot end
- Variable platform height setting accommodates taller and shorter patient's transfer needs
- Tool free meaning the bed is assembled and dismantled without tools ensuring a fast convenient and efficient service
- Weight limit of 200kg
- Side guards that can be lowered on both sides allowing easy patient transfer
- Modular design facilitates infection control recommendations
- Low foot end allowing good personnel care such as foot massage and allows user to see over the foot end.
- Storage dolly to safe space and ease of transporting

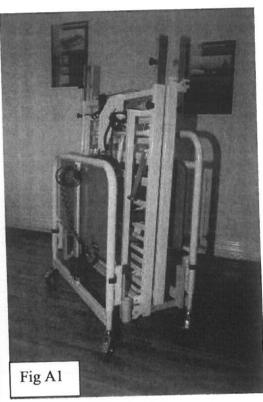
## Structural Design

The bed consists of two headboards, a mattress platform that can be separated in the middle, and two side guards a patient's lifting pole with a grab handle. The bed is equipped with four individually-locking castors. All motors control box and handset are attached to the relevant parts of the bed.

# Assembly Guidance and putting into service

- The bed is delivered, unassembled or on a mounted storage unit. (Fig A1) by using the units (Fig A2)
- The operator's experts assemble the bed on site.
- Remove all packaging and cable bindings.





When mounting the two pieces of the mattress platform on to the transport unit make sure all motors are set to the in position so the platform can be mounted correctly.

The motors on the platform must face towards the headboards, and connection bars placed in the sockets located on the unit.

The lifting pole can also be placed on the unit in the round tube on the side of the unit.

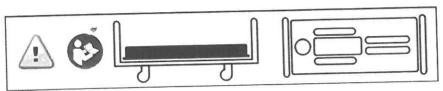
Side rails are provided boxed separate from the bed.

#### **Mattress**

When using side rails on the bed it is important that you have a 220mm measurement from the top of the mattress to the top of the side rail.

This can be achieved by using a <\_150mm mattress

Mattress dimensions should be 2000mm x 850mm standard



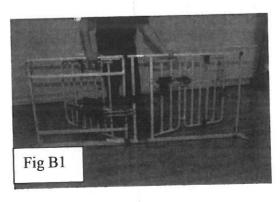


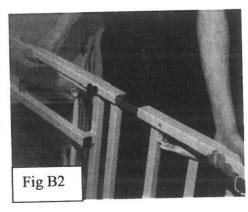
The Mattress should be 2000mm long x850mm wide and a maximum of 150mm depth.

Incompatible mattresses can create Hazards. Read instructions for use.

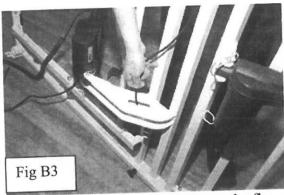
# Assembly of the mattress platform

- Remove lifting pole from storage unit
- Remove both mattress parts from the unit
- Place backrest section of platform on floor by pulling out backrest which will allow section to rest (Fig B1)
- Take out the connection sleeves from the unit and place them in the frame of the backrest section putting thumb screws in the location holes provided. (Fig B2)





- Next take the other platform section from the unit placing adjacent from the other ensuring the motors are both on the sane side and slide the second section on to the connection sleeve and locating the remaining thumb screws to secure the two sections together. (Fig B1)
- Once you have the mattress platform together you can rest this on its side by again pulling out the backrest and knee support, then remove cable ties from the knee motor and thread through the hole on the platform, (Fig B3), you can now plug the knee motor into the backrest on the control box located on the head section of the platform. Remove cable tie from mains lead.



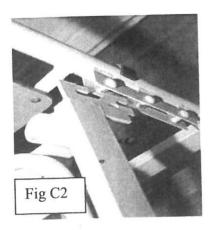
Lay the mattress platform down on the floor with the side with the motors on the floor.

## Assembly of head/footboard

Head and foot boards are connected to the storage unit with grey **D** ring clips that rotate round the leg of the bed end to locate the hooks on the unit, release these clips to allow each head board to come away from unit. (Fig C2)

- Take the large headboard and locate it behind the backrest end of the platform, place it close up to the platform ensuring the location brackets are facing inward. (Fig C1)
- Hold the headboard raise the platform and locate the hooks on the platform on the desired setting, turn locking clips to secure platform to headboard. Repeat this process with the foot end headboard. (Fig C2)





Once both bed ends are attached take the motor cable from the foot end and connect it through the same hole as the knee motor and plug into control box, for the head end cable this can be fed through the cable holders provided on the inside of the backrest platform.

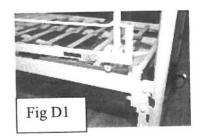
Plug in the hand control in the port provided on the control box and secure the cable holder provided, the bed is now ready to use once plugged into the mains electrical supply.

The control box is clearly marked for each motor cable to be placed in the correct port.

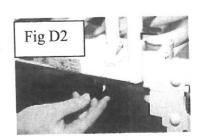
# INSTRUCTIONS FOR THE CORRECT FITTING OF SIDE RAILS TO SCANBED ALPHA

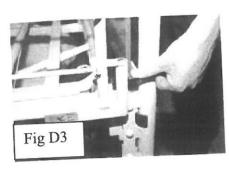
## Assembly of side rails

• Remove siderails from any packaging, place the siderail on the outside frame of the bed (with 250mm gap at the foot end of the bed). (Fig D1)



• Fit side rail onto frame using brackets provided locating it at the head end of the bed (brackets always facing inward toward bed) using thumb screw provided and tighten to secure making sure 250mm gap from side end to bed end. (Fig D2)



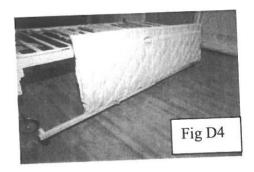


• Test the side rail to make sure in working order by pressing down on the silver release button, this will allow the side to fold down on to the frame of the bed. To relocate in up position simply pull the side up by its top rail until the release mechanism locks back into place. (Fig D3)

# NB SIDE RAILS SHOULD ALWAYS BE FITTED WITH THE PLUNGER MECHANISM LOCATED AT THE HEAD END OF THE BED

• If using side rails make sure cover is attached around the bottom of the rail rather than the frame of the bed.(Fig D4)

IF THE SIDE RAIL OR SIDE RAIL COVERS ARE FITTED INCORRECTLY THIS WILL IMPEDE THE USE OF THE SIDE RAIL, WHICH COULD POTENTIALLY LEAD TO POSSIBLE PATIENT ENTRAPMENT



### Mattress

When using side rails on the bed it is important that you have a 220mm measurement from the top of the mattress to the top of the side rail.

This can be achieved by using a <\_150mm mattress Mattress dimensions should be 200 x 85 standard

If bed is extended 215 x 85

Mattress dimensions for extended bed

## Extending the bed

You can extend the bed by 150mm taking the mattress length to 2015mm or 2020mm Do not try to extend the bed with anyone on the bed. Also, the bed's footboard should be removed.

Ideally the bed should be extended prior to full assembly of the bed, although it is possible if the bed has already been installed.

## Putting into service

Each time before putting the bed into service, the user must check that:

- The bed castors are braked
- Power supply is compatible with the bed (230 volt, 50 hertz).
- The mains cable is connected and routed such that it cannot be damaged.
- The mains cable, motor cables and handset cable cannot be damaged by moving parts of the bed.
- No obstacles such as night tables, electrical sockets, shelves or chairs inhibit adjustments of the bed.
- All adjustments functions are in proper working order and have been checked.

# Only after carrying out these checks, may the bed be put into operation.

## Location requirements

- There must be sufficient room available for the beds entire range of adjustments, furniture, window sills etc must not impede adjustments.
- Before using the bed on parquetry floors, check if the castors will cause discolouration due to the existing floor sealing compounds. Use on tiles, carpet, laminate and linoleum floors is completely safe.
- A properly installed 230 Volt mains socket must be available close to the bed (preferable)

Observe the following points when positioning the bed to minimise the risk of fire due to external influences!

• Do not smoke in the bed since the mattress and bedding used may not be resistant for smoking materials.

- Only use additional equipment that is in perfect working order (e.g. lamps, radios).
- Avoid using extension cables or multiple socket bars under the bed (risk of fire due to penetrating fluids).
- Please note that when using a powered mattress or static mattress with straps that the straps do not impede any moving parts of the bed.

### Dismantling

- Remove any bed accessories such as lifting pole, grab handles and side rails.
- lower bed down to lowest point and unplug from mains, remove cable guard and remove motor cables for bed ends and knee motor. Motor cables for bed ends can be coiled up and attached to the bed end on the outside using the pin holding the motor in place.
- Separate mattress platform from bed ends by turning locking clip to open position and lifting platform to release hooks, repeat at the other end and put ends back on storage unit.
- Once bed ends are on the storage unit apply breaks to allow you to put the platform on safely without the bed rolling around.
- Using the same technique as when assembling the bed lift the platform on its side and use the backrest and knee profile to keep it upright, remove thumb screws from connection bars to slide leg section away from the head section of the platform and mount on the storage unit.
- You may notice both sections of the platform have mattress retainers attached to the profile, make sure these are folded inward to allow the sections to be mounted on the storage unit.
- Coil the mains cable up and slide through the hole where the motor cables went through to store and hook hand set on to the frame and place head section on to the storage unit.
- Place thumb screws back into the platform connection bars and place bars into the holders on the storage unit.
- If a lifting pole has been used this can be placed back in the lifting pole location bracket attached to the unit, side rails and grab handles are transported separately from the bed.
- Before moving the bed check all cables, mains lead and handset are all secured within the bed and unit, remove breaks and begin moving/storing the bed.

### Handset/Function

The electrical bed functions can be activated by the patient or the user using the handset, (Fig E1) The electric motors operate as long as the corresponding buttons are pressed.

**Backrest** 

Knee break

Mattress base high/low

Tilt/anti-tilt (when using the tilt you must apply breaks)

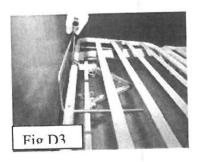
The following base rule applies to the keys:

▲ Up ▼ Down

The coiled cable provides ample flexibility and freedom of motion.

The handset is waterproof and washable (IP 66)





The only part of the mattress platform that is not electric is the manual foot raiser located at the foot end of the mattress platform, by lifting the leg section with the handle provided it can be locked at several points raising the feet. To lower the leg, lift to top point of ratchet and lower down to flat position.

(Fig D3)

### Castors

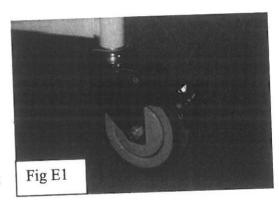
The bed is equipped with four individual locking castors.

Warning - Move the bed only when mattress base is in the lowest position.

**Locking:** Use your foot to press down on the foot lever; do not use fingers or bare feet. (Fig E1)

**Release:** Use your foot to press the upright foot lever to release the break (Fig E1)

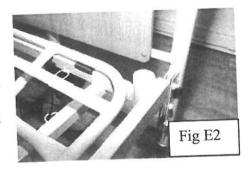
The break has a red sticker on the lever indicating the 'break'



### **Lifting Pole**

The lifting pole can be fitted either side of the bed at the head end, the pole slides into the round hole located in the corner of the inner platform (Fig E2), it simple slides in and is turned to a locked position.

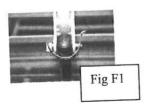
To remove the lifting pole, simply turn the pole and lift to take out of socket.

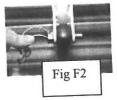


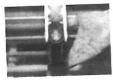
# **Emergency Lowering of the Backrest**

The backrest motor is held in place by a D ring locking pin. (Fig F1)

Simply hold the backrest and pull the clip down and slide the pin out. (Fig F2)







The backrest motor will be free to drop down and enable you to gently lower the backrest down flat. (Fig F3) Fig F3

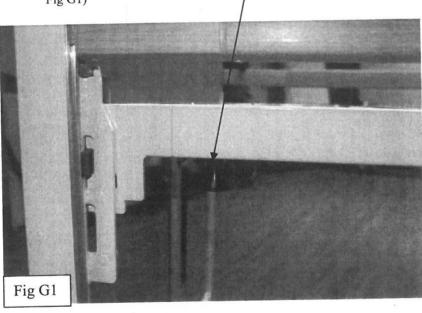
## 2.6 Extending the bed

You can extend the bed by 150mm taking the mattress length to 2015mm Do not try to extend the bed with anyone on the bed. Also, the bed's footboard should be removed.

Ideally the bed should be extended prior to full assembly of the bed, although it is possible if the bed has already been installed.

### If the bed has been installed

- Lower and remove side rail from the foot board (see removing side rails)
- Disconnect the footboard from the mattress platform (See dismantling bed)
- Unscrew the two thumbscrews on the undercarriage of the side frame on both sides of the bed (See Fig G1)



- Once removed, the connecting part at the end will pull out.
- When the threaded hole is aligned with the hole in the frame, you can re screw the thumbscrew back in.
- Repeat on the other side.
- Slacken the two screws on the mattress support extension and pull out approximately 150mm. Retighten the two screws
- Lift mattress platform back onto the footboard end and re connect the extendable side rails.

## Cleaning and Maintenance

### Cleaning

Cleaning is the most important measure and requirement for a successful chemical disinfection. Routine cleaning of the bed is generally sufficient when the bed is occupied to ensure a hygienic environment.

Before a new patient occupies the bed, it must be first cleaned and disinfected.

WARNING -- Before cleaning or disinfecting

- Remove the mains cable from the power supply and store the mains lead such that it does not come into contact with water or other cleaning solutions.
- Make sure all motor plugs are properly inserted.
- There must be no visible damage to many electrical components.

The bed does not tolerate cleaning in automatic washing plants or the use of waterjet based cleaning equipment.

- 1. Please make sure the power plug is removed from the socket outlet before cleaning.
- 2. The bed should be washed down using a wet sponge, cloth or brush.
- 3. Use ordinary household cleaning agents. Never use acids, alkaline or solvents such as acetone or cellulose thinner.
- 4. The hand control, motors and control unit may be washed with brush and water, but not with pressurized water.
- 5. Dry the bed after cleaning.

NB! All plugs must be installed during washing of the bed.

### **Maintenance Chart**

Service and maintenance of the Scan Mobility Alpha Junior Bed must only be performed by personel who have received the necessary instruction/training.						
Bed Id. No:						
Date: Name:		+	-	-		
Visual inspection of all parts of the bed (plastic deformation and/or wear and tear of welded joints						
Control of all centers of rotation (motors & mattress support parts			_			
All motors running without failures (with regular speed and low noise)						
Check the Rastofix fittings and function	l .			_		
Check mains cable and plug are intact and free of damage Check the running of the cable						
Check all remaining cables for damages						
Also check the running of the cables		+				
Check side rails are running correctly						
Locking into place when raised						
Release and lower correctly		+	-	$\vdash$		
Check castor wheels (security, breaking and free movement)						

### 3.3 Maintenance

- Personnel who have received the necessary instructions or training may only perform Service and maintenance of the bed.
- When relocating the bed, service must be carried our according to the service schedule.

Ensure all manual and electrical parts function correctly and are in a secure state

### After 3 months

Ensure that all manual and electrical parts are functioning, and tighten any loose bolts, screws and nuts etc.

### Annually

Perform a service and maintenance check

### Lubrication

We recommend lubricating the bed according to the following instructions:

- 1. Points of rotation in mattress support base and frame Lubricate with oil.
- 2. Motor attachment points to mattress platform Lubricate with oil
- 3. Upper attachment point of Rastofix fitting Lubricate with oil.

## **Trouble Shooting:**

If malfunctions occur when the cot is operated, contact the expert employed by the operator for maintenance and repairs.

On no account should the user attempt to rectify malfunctions in the electrical system!



Danger of electric shock!

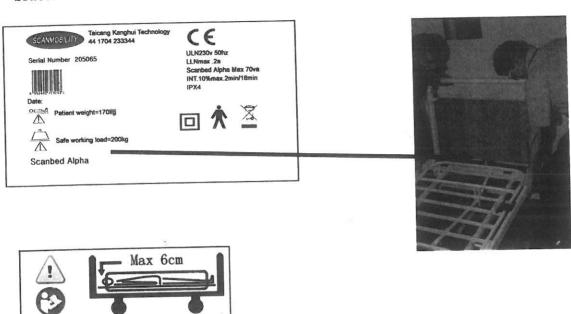
Any work and/or repairs to the electrical drive system may only be carried out by service engineers, the drive manufacturer or qualified and authorised electricians in compliance with all the relevant VDU and safety regulations

# **Trouble Shooting Table**

The following table is a guide for detecting and rectifying malfunctions:

was to have been a state of the		Calation
Problem	L 033IDIC COMOCO	• Insert mains cable
Hand set or drive unit system is not functioning	<ul> <li>Mains cable is not plugged in.</li> <li>No power supply to socket</li> <li>Hand set plug is incorrectly inserted.</li> <li>Hand set or drive unit system is defective.</li> </ul>	<ul> <li>Insert mains cable</li> <li>Check socket/fuse box</li> <li>Check connector plugs on control unit.</li> <li>Inform tour operator about necessary repairs.</li> </ul>
Drives only operate for a short time when buttons are pressed.	Bed is blocked by an obstacle	Reduce load     Remove obstacle     Inform your
Individual drives operate in one direction only		operator about necessary repairs.
The wrong function is activated when handset buttons are pressed.	connected (mixed up)	operator about necessary repairs.
Drives stop abruptly after longer adjustmentimes.		system inoperative

To identify the product please look at the Product Label located on headrest cross brace.



There is a maximum gap at head end of bed of 6cm, see diagram left

## SWL weight limits:

Backrest – 80 kilos Knee break – 60 Kilos Foot Section – 60 Kilos Weight limit of 200kg

Patient Weight Limit 170 Kilos Mattress and accessories 30 Kilos If the Mattress and accessories exceed 30 Kg then the patient weight will be reduced by that amount!

The care bed fulfils all the requirements of the 93/42/EWG directive for medical products. It is classified as a class 1 active medical product.

**Technical specifications** 

All measurements are stated in cm. All angles are stated in degrees.

All measurement and angles are stated without tolerances.

Voltage supply:220V, 50Hz

Max. current input: 4.5 A

Voltage output: 24V Protection class: IP 54

Insulation class: II, type B

The patient is not separated from the ground and the chassis.



Double insulated.



The bed is not provided with a mains switch, so the mains plug is the only separation from the mains.

Sound level: 45-50 dB(A)

The product should be reused where possible.



## Weights

Bed end-1 piece	g
Bed, complete, excluding accessories75 kg	

## Declaration of Conformity

Manufacturer

Taicang Kanghui Technology

Development Co Ltd

Product & Model

Scan Bed Alpha & Scan Bed Alpha Junior

Classification

Class 1

We herewith declare that the above mentioned product is CE marked and meets the provisions of the Council Directive 93/42/EEC for Medical Devices, including the latest modifications on EN12182:2012, EN60601-2-52 2010 for application 3 and 4.

Registered with MHRA No CA009924.

Please read the user manual before using this product.

Kind Regards

Goograf Manager Kanghai Technology Managing Director Scan Mobility Limited

