Freedom 11 - Electrically Operated Profiling Bed



User Instructions

1. Introduction

Thank you for purchasing this product. The user manual should be read carefully before operating the bed. Please ensure that you understand all instructions. If you have any questions concerning the operation or maintenance of the bed please contact your provider.

1.1 Features

- Electrically operated backrest, height and knee break angle
- Infinitely variable, electrically operated head and foot tilt functionality (Trendelenburg & reverse Trendelenburg).
- Auto contour-simultaneous adjustment of the backrest and knee-break.
- Patient handset with integral function lockout.
- Bed breaks down into four separate sections. Major parts may be removed, easy to repair and replace.
- Integral full length steel side rails.
- Transport stand to aid storage and bed transportation.
- Easy storage.
- Head/foot panel is MDF with melamine.
- The actuators from Dewert.
- Finish incorporates AkzoNobel Interpon[®] antimicrobial ingredient.
- Castors with brake.
- The Integral length can be extended 160mm with a extra bed extension.
- Safety Standard is BS EN 60601-2-52:2015 and GB 9706.1-2007/IEC 60601-1:1998.European standards and quality control system

1.2 Warnings and cautions

Warnings in this user manual highlight potential hazards that if disregarded could lead to injury or death.

Cautions in this user manual highlight potential hazards that if disregarded could lead to equipment damage or failure.

2. Use

2.1 Typical use

Your bed is intended for use within the home environment. It has been designed to provide users with optimum independence and freedom of movement through the use of a touch button handset. The bed offers greatly reduced manual handling requirements for the carer by providing a bed with a fully profiling platform and electrical height adjustment capability.

2.2 Risk assessment

Before a patient uses the bed a risk assessment must be performed on a patient by patient basis. The risk assessment should include, but is not limited to:

- Entrapment
- Falling out of the bed
- Small children (and adults)
- Patients with learning difficulties
- Unauthorised people

Warning

Bed functions must be locked out if there is any doubt about the ability of the patient to operate the bed safely

2.3 Bed load

The safe working load of the bed is:	213kg (33 stone)
The maximum user weight of the bed is:	178kg (28 stone)

2.4 General warning

Warning

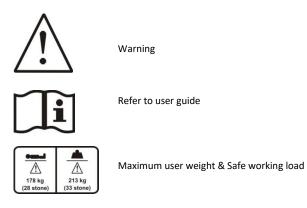
Misused electrical equipment can be hazardous.



- Accessories that have not been approved or designed for use with the bed should not be used.
- Electrically operated beds should not be used in the presence of flammable substances.



The following symbols are found on the bed:





Place of manufacture



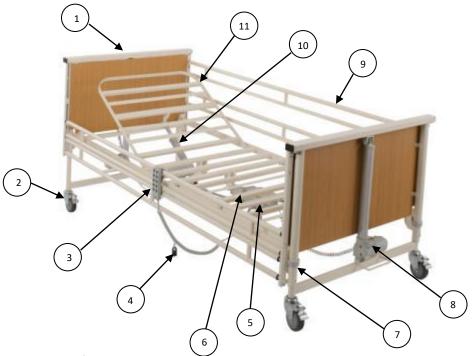
W.E.E.E Label (Do not discard in general waste, follow local recycling policy)



Class II, Type B

Refer to user guide for mattress suitability

4. Parts Identification



- 1. Head/foot end
- 2. Castor
- 3. Handset
- 4. Lockout fob
- 5. Control box & knee break actuator
- 6. Leg section
- 7. Locking collar
- 8. Hi/low actuator
- 9. Side rail
- 10. Backrest actuator
- 11. Backrest

(Transport stand not shown)

NOTE:

(1) ALLTHE PHOTOGRAPHS AND PICTURES IN THE USER INSTRUCTIONS ARE FOR REFERENCE ONLY.

(2) SIDE RAILS,CASTORS,COLOUR AND HEAD/FOOT BOARD AS THE REQUIREMENT IN YOUR PURCHASE ORDER.

(3) LIFTING POLE, IV POLE, MATTRESS, SIDE RAIL COVERS AND SHELF ARE OPTIONAL FOR BED.

 Before attempting to assemble the bed, ensure these instructions have been read and fully understood.



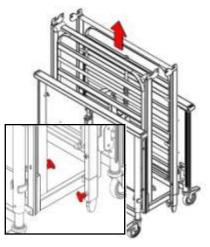
- It is advisable to assemble the bed with a second able bodied person.
- Take care when disassembling the bed from the transport stand, the sections are of considerable weight.

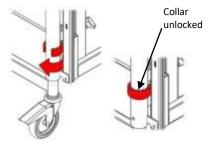
5.1 Removal from the transport stand

No tools are necessary for the assembly of the bed. The assembly procedure is as follows:

- Clear the area intended for the bed of any obstructions and ensure the surface is level.
- Apply the brakes to the castors.
- Loosen the hand wheels on the transport stand that hold the leg section in place and then lift this section off the stand and carefully place flat on the floor.
- Loosen the hand wheels on the backrest section (attaching it to the transport stand) and then lift this section off the stand and carefully place flat on the floor.
- Turn the locking collars on <u>one</u> of the bed ends so that they are both in the <u>unlocked</u> position.
- Carefully lift the ends of the transport, stand away from the bed end and place carefully against a wall or on the floor. Note, when the transport stands are lifted away neither bed end will be supported.
- Turn the locking collars on the remaining bed end so that they are in the <u>unlocked</u> position.
- Carefully lift the ends of the transport stand away from this bed end.

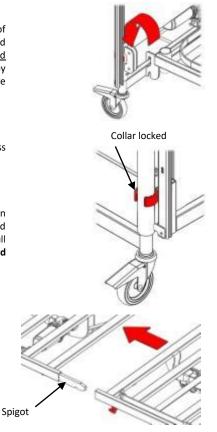
The bed has now been separated into its constituent parts.





5.2 Assembling the bed

- Whilst supporting one of the bed ends lift one of the mattress platform halves and hook into the bed end. Turn the locking collars into their <u>locked</u> position. Note: If this action is being undertaken by a single person it is recommend that the castors are braked before assembly commences.
- Repeat for the remaining bed end and mattress platform halve.
- Release the brakes on the castors.
- Bring both halves of the bed together and align each section so that the spigots in the head end locate into the open tube ends in the foot end. Pull the two sections together and tighten the 2 hand wheels.



Warning

- The bed must never be used with the hand wheels loose or if missing.
- The bed must never be used with the locking collars in the unlocked position or if missing.

Caution



If the bed has been supplied with tie wraps/Velcro (or similar) securing any of the sections in place ensure they are removed prior to operation.

5.3 Adding the bed extension (Optional extra)

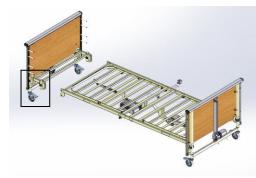
The bed extension offers the taller occupant a safer and a more comfortable experience without the loss of the bed's original features. Longer full length side rails or 3/4 steel side rails are required when the bed is fitted with the bed extension. **Parts Identification:**

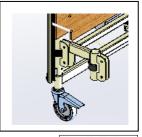




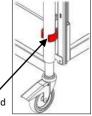
The assembly procedures are as follows:

- Whilst supporting the bed extension assembly and hook into the bed <u>foot end</u>.
- Turn the locking collars into their **locked** position.



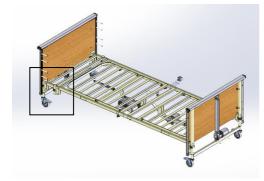


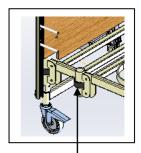
2



Locking Collar locked

 Whilst supporting the mattress platform – leg section assembly lift and hook into the bed extension assembly. Turn the locking collars into their <u>locked</u> position.





Locking Collar locked



Warning

The bed must never be used with the locking collars in the unlocked position or if missing.

The extension assembly has now been assembled to the bed. For

Freedom II series beds:

- Freedom II Basic Bed
- Freedom II Classic Bed
- Freedom II Luxury Bed

Options of side rails:

The longer side rails will be:

- BED01/SR/EXT Full length steel side rails for basic and classic beds
- BED01/WD/SR/EXT Full length wooden side rails for luxury beds

Three quarter steel side rails will be:

MAGIC/SR – Three quarter steel side rails

Specification for BED01/EXT Bed Extension:

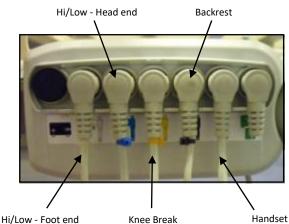
Extended Length	Width
180mm	880mm

5.4 Fitting the electrical system

 Plug the actuator and handset cables into the control box. The cables are colour matched to the graphic on the control box, using this plug the cables into the corresponding ports. Note, the plugs only fit into the ports in one orientation. Ensure the cables are plugged fully into the control box.

Note: The two bed ends are identical but plugging them into the correct port is important. Note the cable tie colour before plugging in.

- Once all the cables are connected they are to be secured in place by attaching the supplied antiremoval clip.
- Clip the mains cable into the hook on the head end section of the bed.





Mains cable clip

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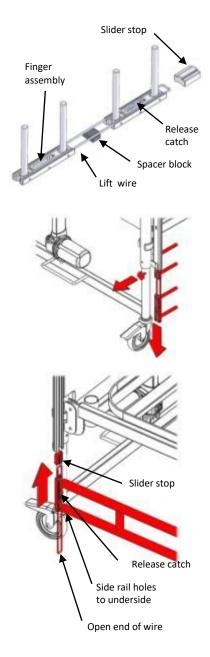
Caution

- Ensure all cables are free from moving parts and are not under excessive tension.
- Ensure the two hi/low actuators are plugged into the correct ports, if not the tilt function will not work correctly.

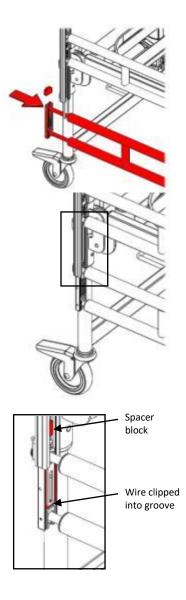


5.5Fitting the side rails

- Raise the bed to approximately the midpoint of its height range (see page 15 for operation of the handset).
- Lower the finger assemblies to their 'down' position. (see page 14 for an explanation of how to lower the fingers)
- Remove the hand-wheel from the side rail channel at the foot end of the bed.
- Remove the entire finger assembly set from the channel (as per top right image).
- Taking the first side rail slide the end of it into the top set of fingers that are still located in the channel at the head end of the bed. Carefully rest the unattached end on the floor taking care to ensure that the other end is sufficiently far into the fingers so that it will not fall out.
- Take the previously removed assembly and clip the wire into the top moulding (the top moulding is identified by the metal release catch in the middle).
 Ensure the open end of the wire loop is pointing towards the end of the moulding with the half moon in it.
- Slide the fingers into the side rail.
- Whilst holding the fingers in the side rail, with the other hand slide the plastic slider stop into the channel. Slide the plastic finger assembly into the channel (after the slider stop). Lift the assembly until a click is heard and the mechanism locks into place, approximately 1/3 up the channel. Let go of the side rail.



- Take the second side rail and fit this into the remaining lower set of fingers that are still located in the channel at the head end of the bed. Carefully rest the unattached end on the floor taking care to ensure that the other end is sufficiently far into the fingers so that it will not fall out.
- Take the remaining finger assembly and position the top finger through the wire loop, so that the bottom finger is hanging freely under the loop. (Note, if there is no wire loop visible push it down the channel using the slider stop).
- Lift the remaining side rail and slide the fingers into the open end, ensuring that one finger remains within the wire loop.
- Whilst holding the fingers in the side rail, with the other hand slide the plastic spacer block into the channel.
- Slide the finger assembly partially into the channel. Clip the open end of the wire loop into the groove that is positioned just above the lower finger. Once clipped into place lift the complete side rail assembly to the top of the channel.
- Re-fit the previously removed hand-wheel. (The handwheel is orientated so that when fitted the threaded section is pointing towards the middle of the bed)
- Repeat the assembly process for the side rail on the other side of the bed.





If there is any doubt about the assembly of the side rails contact the provider of the equipment. Incorrectly fitted side rails can lead to death.

5.6 Checking the bed

The bed is now fully assembled. Before the bed is put into use ensure the bed is correctly assembled:

- Are the locking collars on the corners of the bed correctly orientated in the locked position?
- Are the 2 mattress platform and 4 side rail channel hand-wheels tight?
- Has all packaging been removed, e.g. cable ties/Velcro securing the platform sections?
- Are the cables free of all moving parts of the bed and is there sufficient slack in the cables to allow for movement?
- Is the bed clear of obstructions?
- Has a risk assessment been performed on the suitability of the bed for the user?

6. Operation of the Bed

6.1 General safety

- When the bed is operated, ensure that obstacles such as over-bed tables and other furniture are not causing an obstruction.
- Ensure the electrical cables are not in tension.
- Ensure that any mattresses used are of the correct size and type and have been fitted correctly. A
 range of suitable pressure relieving and pressure reducing mattresses are available from your
 supplier.
- Before operating the bed ensure the patient is positioned appropriately.
- When a patient is left unattended ensure the bed is set at its minimum height.



Caution

Special care should be taken when fitting an air mattress to the bed as incorrect fitting could damage the bed frame.

6.2 Preparing for use

Prior to operating the bed for the first time the following simple checks must be performed:

- Ensure the bed and all accessories are at room temperature.
- Ensure the bed has been cleaned and disinfected (page 20).
- Ensure the mains cable is plugged into an appropriate mains socket.
- Ensure the brakes on the castors at the head end of the bed have been applied.
- Using the handset ensure the bed is level (see page 15 for handset operation).

Note, if the electrical functions do not operate ensure the handset has been 'unlocked' (see page 15 for handset operation)

6.3 Brake system

The bed has 4 braked castors.

- To apply the brakes: Press the brake pedal down.
- To release the brakes: Lift the brake pedal up.

When the bed is in use ensure the brakes on the castors at the head end of the bed have been applied.

Warning

- If the bed is to be pushed up/down a slope it is advised that two people move the bed, with one person at each end.
- If the bed is to be pushed with a heavy load it should be assessed whether or not two people should move the bed, this is dependent on the situation and load on the bed.

6.4 Side rails

The bed comes as standard with full length side rails. A side rail height extension can be ordered as an accessory.

When specifying a mattress and side rail combination a clinical assessment of the patient's needs must be carried out in line with the local policy.

6.4.1 Mattress thicknesses



Warning

- Full length side rails = 90mm maximum mattress thickness
- Full length side rails with height extension = 120mm maximum mattress thickness
- Side rails must only be used with a mattress of the correct size and type that is approved for use with this bed.

If an overlay air mattress is used it may be necessary to use a thinner foam mattress for the combined height to maintain the 90-120mm dimension.

6.4.2 Operating the side rails



Warning

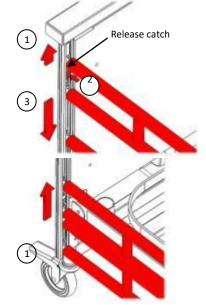
- Ensure the side rails are locked in place at all times when in the raised position.
- A risk assessment should be carried out to consider the age, condition and size of the patient to assess the suitability of side rails.
- Side rails are not designed to act as restraints for patients.
- Side rails are not designed to be used as a patient lifting aid.
- When operating the side rails ensure they are free from obstructions, to prevent injury/entrapment.

Caution

- Do not use the side rails to move the bed.
- When lowering do not drop the side rail.

To lower:

- 1. Lift the side rail vertically upwards.
- 2. Depress the release catch.
- 3. Gently lower the side rail (the release catch can be let go of when lowering side rail).



To raise:

1. Lift the side rail until it is heard to latch into position at the top height.

6.5 Electrical operation

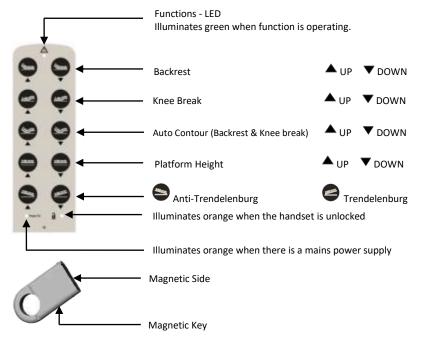
The bed is supplied with an easy to use handset, the handset can either be operated by the occupant or carer. If the carer is to operate the bed ensure that the occupant is made aware of the action(s) about to take place.



Warning

 Ensure the risk assessment is undertaken to ensure the suitability of the occupant using the handset.

6.5.1 Handset function



6.5.2 Lockout function

The nurse handset is supplied a magnetic key with a lockout function which enables the carer to disable the handset if it is deemed unsuitable for the occupant. To lock/unlock the handset, swipe the magnetic side over the padlock symbol.



The handset is locked when the bed just has a mains power supply.



The bed is not fitted with a battery backup facility. The bed must always be plugged into the mains supply during normal use.

6.6 Knee break/leg section

Note: The operation of the knee break/leg section dependent on the position of the ratchet as detailed below.

The bed is fitted with an adjustable leg section. When the knee break function on the handset is operated the height or angle of the leg section is adjusted, depending on whether or not the leg section ratchet is set.

Knee break height/angle adjustment:



To set the bed so that the leg section is raised:

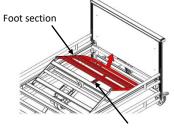
- Press the knee break button on the handset and raise the knee break (height not important).
- Lift the foot section a little so that the ratchet engages.
- The leg section height adjustment will now be set.

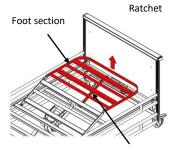
To set the bed so that the knee break is raised:

- Press the knee break button on the handset and raise the leg section (height not important).
- Lift the foot section a little so that the ratchet disengages.
- Gently lower the foot section down.
- The knee break height/angle adjustment will now be set.

Leg section height adjustment:







Ratchet

- Before attempting to assemble the bed onto the transport stand ensure these instructions have been read and fully understood.
- It is advisable to assemble the bed with a second able bodied person.
- Take care when assembling the bed onto the transport stand, the sections are of considerable weight.

Side rails

- Raise/lower the bed to approximately its mid height (see page 15 for operation of the handset).
- Remove the hand-wheel from one of the channels.
- Lower the side rail to its bottom position (the lower slider will partially protrude from the channel)
- Whilst holding the lower side rail unclip the wire from the lower finger assembly and carefully slide out of the channel.
- Carefully remove the lower side rail.
- Whilst holding the upper side rail press the release catch and carefully slide the upper finger assembly out of the channel.
- Carefully remove the upper side rail.
- Relocate the finger assemblies into the channel (see page 9 for assembly order).
- Re-fit the hand-wheel into the channel.
- Repeat for the other side of the bed.

Electrics

- Flatten and lower the bed to its minimum height (see page 15 for operation of the handset).
- Unplug the mains cable from the mains socket.
- Using a flat bladed screwdriver remove the anti removal clip from the control box.
- Unplug the hi/low and backrest actuator cables from the control box (see page 8).

Bed frame

- Release the brakes from the castors.
- Loosen the hand-wheels in the middle of the bed frame.
- Whilst supporting both halves of the bed frame split the bed in half and gently lower onto the floor.
- Unlock both locking collars on one end
- Whilst supporting the bed end lift the platform half away and gently position both sections on the floor/against a wall.
- Repeat for the remaining half of the bed.
- Using the 2 orange Velcro straps that first came with the bed, secure the moving parts of the backrest and leg section to the bed frame halves.

Assembling onto the stand

- Position both transport stand brackets onto one bed end, taking care to ensure the brackets are both orientated in the same direction.
- Turn both locking collars into the locked position.
- Hook the remaining bed end onto the transport stands.
- Turn both locking collars into the locked position.

- Lock the castors.
- Loosen the hand-wheels on the transport stands.
- Carefully lift the backrest section and lower the spigots through the <u>open tubes on the side of</u> <u>the transport stand brackets</u>, ensuring the electrics are facing inwards.
- Tighten the hand-wheels on the transport stands.
- Carefully lift the leg section and lower the open end onto the vertical bars, ensuring the electrics are facing inwards.
- Tighten the hand-wheels on the leg section frame.
- Ensure all cabling is neatly wrapped around the relevant bed sections and is not dragging on the floor or is under excess tension.

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The bed must never be moved on the transport stand with the locking collars in the unlocked position or if missing.

8. Power Failures

The bed does not have battery backup functionality. In the event of a power failure the bed will not function, resulting in the backrest and/or knee break remaining up, if previously raised.

The backrest and knee break are operated via two individual actuators that are located underneath the mattress platform.

- If either the backrest or knee break is raised, locate the actuator supporting the relevant section.
- Hold/support the section.

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- Remove the pins that hold the actuator in place.
- Gently lower the section(s) to the flattened position.

Warning

• It is recommended that 2 carers support the section prior to removing the pin.

holding the frame must be ready to support the weight on removal of the pin.

When the pins are removed there is nothing supporting the section, the carer(s)

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Infection control and routine cleaning must be carried out in accordance with your local Infection control policy or regulatory body.

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Warning

Always disconnect the bed from the main power supply prior to cleaning.

It is advisable to remove any accessories that are fastened to the bed.

These instructions apply to all accessories apart from soft products (e.g. mattresses).

- All surfaces to be wiped down with a disposable soft cloth moistened with a mild detergent and diluted in warm water (40°C).
- The bed should be cleaned by starting with the cleanest parts of the bed and systematically
 moving to the dirtiest parts. Extra care should be taken around areas where excess dirt or dust
 may gather.
- The cloth should be changed during the cleaning process if it becomes soiled.
- Rinse down with clean water to remove detergent residue.
- Wipe surfaces down with 1,000 parts per million chlorine solution (0.1%)
- Dry off with a paper towel.
- Always ensure the cleaned parts are allowed to dry before putting the mattress back in place.

Note: If any of the 3 stages stated above (detergent, rinse down & chlorine solution) are omitted or combined it will reduce the effectiveness of the clean.

In cases of blood spills or other bodily fluids it is recommended that a chlorine solution of 10,000 parts per million (1%) is used instead.

Note: The use of neat bleach or similar surface cleaners are not recommended as damage may be caused to the cleaned surfaces.

Alternatively:

recommended the use of Chlor-clean tablets. Follow the manufacturer's instructions for concentration guidelines and instructions for use.

Refer to the infection control policy, copies are available from Contact details can be found on the back of this booklet.

10. Maintenance

Only authorised service personnel or service engineers should carry out repairs or service activities. Failure to do so may result in the manufacturer's warranty becoming void. **The bed must be serviced once yearly, as a minimum.** also recommends that the carer performs frequent visual and operational inspections. If there are any signs of damage or the bed is not performing as it should withdraw it from service until the bed has been repaired and is fit for use again.

Periodically check to ensure that:

- The bed operates as per its intended purpose.
- All parts are present.
- All fixtures and fittings are tight.
- The frame is mechanically sound.
- No parts show signs of excessive wear.
- The bed is cleaned following the guidelines in this user guide.

Disposal of components must comply with local policy.

10.1 Fault finding

Listed below are a set of electrical faults that may occur within the service life of the bed. If a fault does occur please try the following suggestions, as these may help in diagnosing the fault.

Fault	Possible Cause	Remedy
Electrical function(s)	Functions locked out on handset	Unlock function(s)
do not work	Mains lead not plugged into the control box or wall	Check to see if the 'power on' light on the handset is lit and the mains lead is plugged in at both ends
	Fuse has blown in the mains plug	Check to see if the 'power on' light on the handset is lit, if not replace fuse
	Actuator/handset leads not plugged in	Check plug connections on the control box
	Damage to mains cable, actuator cable or handset cables	Turn off at the mains and contact the approved service engineer
	Heavy load on the bed and the duty cycle has been exceeded	Remove load and allow control box to cool before re-operating
Electrical functions working slowly	Heavy load on the bed	Remove load

10.2 General maintenance

...... recommend that the following maintenance procedure is performed every 12 months.

Warning



Always disconnect the bed from the main power supply prior to performing any maintenance procedures.

- Check that all electrical functions operate correctly on the handset.
- Check that all electrical cables are in good condition.
- Check that the mains cable and plug are in good condition, if either is damaged it must be replaced as a complete assembly, the plug must never be re-wired.
- Check that all nuts, bolts and fasteners are tight and that none are missing or incomplete.
- Check that all clevis pins and R-clips for motors are present.
- Check that all clevis pins and R-clips to place the head & foot ends and mattress platform are present.
- Check that all hand-wheels are present and tight.
- Check that both the knee break and leg rest functions work correctly.
- Check the castors lock/unlock correctly and that when locked the castors do not move.
- Check that the frame is mechanically sound.
- Raise and lower the safety sides. Check that they move smoothly.
- Check the release button and install button move smoothly.
- Check that the lock on the safety sides automatically engages when raised.

For more detailed service information please contact

11. Specification

11.1 Bed data

Overall length	2150mm
Overall height	825 – 1215mm
Overall width	980mm
Mattress platform height	340mm – 730mm
Under bed clearance (to underside of frame)	300mm
Under bed clearance (to underside of actuator)	145mm
Mattress platform length	2020mm
Mattress platform width	870mm
Head down tilt	0-11°
Foot down tilt	0 - 26°

Mattress platform angles (max)



Safe working load
Maximum user weight

213kg (33 stone) 178kg (28 stone)

Product weight:

- Bed without side rails
- Steel side rails

Mattress sizes:

- Length 2000mm maximum
- Width 870mm recommended (900mm maximum)
- Thickness see page 12

75kgs

15 kgs

11.2 Electrical data

Voltage in

Current in

Duty rating

100 - 240V, ~50/60Hz Max. 3,15A 10% Max,**2 mins** of continuous use followed by **18 mins** not in use.

Safety standards

BS EN 60601-1: 2006 BS EN 60601-2-52:2010

EMC

BS EN 60601-1-2:2002

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IP54

Electrical shock protection

Liquid ingress protection

The electrical system is only suitable for use when:

Ambient temperature +5° to +40°C Humidity

20% - 90% at 30°C

12. Warranty

This warranty does not cover;

a) damage or failure by or attributes to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alterations, lightning or other incidence of excess voltage or current.

- b) any repairs other than those provided by aauthorised technician.
- c) consumables such as fuses.
- d) cosmetic damage.
- e) transportation, shipping or insurance costs .
- f) costs of product removal, installation setup service adjustment or re-installation.

This limited 1 year warranty gives you specific legal rights and you may also have other rights.

...... cannot be held responsible for any injury or incident which relates to the use of this bed in conjunction with accessories manufactured by companies other than

..... has a policy of continual product improvement and reserves the right to amend specifications covered in this brochure.

No part of this brochure may be reproduced without the written approval of The manual may be updated or revised without advance notice.

Warranty Card

Please retain this Warranty Card and your Invoice as proof of purchase. In the event of a warranty claim, please present these documents along with the product.

Purchaser's name	
Address	
Product Name	Freedom 11 - 5 Function Electric Basic Bed
Serial No	
Invoice No	
Invoice date	

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Manufacturer:

Email:

Tel:

Freedom 11 Profiling Bed 15/11/2023