



deprimo[®]

floor level bed



User Manual



Benmor Medical has been supporting bariatric care since 1996 and was the first company in the UK specialising in bariatric patient handling equipment.

As pioneers in the sales and rental market for bariatric equipment, Benmor Medical introduced total bariatric sales and rental solutions, allowing our customers to rent or purchase a bed, chair, hoist, commode and wheelchair as one package.

We continually strive to drive innovation and quality within the bariatric market and have established a firm reputation for excellent customer support and class leading products.

Benmor Medical supplies and rents a wide range of products which enable nurses and carers to provide the best quality care to patients.

Our extensive product portfolio includes: -

- Bariatric Beds
- Ultra Low Floor Level Beds
- Community Beds
- Mattresses
- Hoists
- Riser Recliner Chairs
- Static Chairs
- Commodes
- Walking Aids
- Bariatric Wheelchairs

Our well established reputation in the UK bariatric sector has been achieved by providing excellent 24/7 customer service, supported by innovative products.

For further information, please visit our website: www.benmormedical.co.uk

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1. Introduction

This user manual contains instructions for the installation, use and maintenance of the Benmor Medical Deprimo low bed.

The Deprimo low bed is a hospital bed that has been developed by Benmor Medical to reduce the risk of vulnerable patients injuring themselves by falling out of bed. This floor level bed has a low height range of 120mm (4.7") up to 820mm (32.3") and is available with crash mats that are placed either side of the bed, enabling patients to simply slide on and off the bed minimising the risk of injury to the patient and carer.

The fully profiling mattress platform is electrically operated by using either the patient or carer's handset and the patient's handset includes a lock out feature so that it is not used inappropriately.

The overall safe working load of the Deprimo is 250kg / 39 Stone / 550lbs with a patient safe working load of 190kg / 29 stone / 418lb; the Deprimo low bed is constructed from high quality materials and meets the requirements established under the directive 93/42/EEC concerning Medical Devices and the following harmonised standards where applicable: BS EN60601-1-2, BS EN 60601-2-52. The manufacturing process has been carried out in accordance with the Quality Management System under the standard ISO 13485:2012, ISO 9001:2008.



Benmor Medical shall not be liable for any damage or injury caused by failure to follow the proper instructions as described in this User Manual or by improper use of the bed.



Before using the bed, all staff must familiarise themselves thoroughly with the various parts and controls as detailed in this User Manual



Note: *All references to the position of parts are as viewed from a patient's perspective i.e. as the patient is laying on the bed.*



Note: *Benmor Medical reserves the right to modify the information in this User Manual at any time. The information in this User Manual may vary slightly with respect to the basic design of the product.*

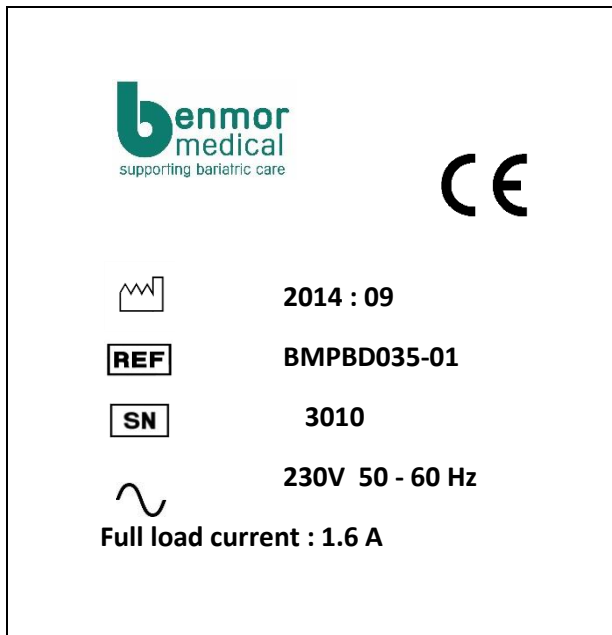
2. Identification Labels

When making contact with Benmor Medical the following information is required: -














- The correct Name or Model number of your bed.
- The correct Serial Number of your bed.

Both can be found on the identification labels which are located on the lower base frame.

Examples are shown below:-



3. Symbols

Icon	Description
	Attention, consult accompanying documents
	Consult Instructions For Use
	Type B Applied Part
	Type Number
	Serial Number
	Date of Manufacture
	Manufacturer
	General Precautions
	CE Mark relates to both Medical Device Directive 93/42/EC and RoHS Directive 2011/65/EC
	Primary Earth Connection
	Alternating Current
	Class II Equipment
	Tools Required

4. Delivery

The Deprimo bed is delivered fully assembled and demonstrated on delivery.

Additional training can be arranged if required. If the bed appears to be damaged or any components are missing on delivery, please contact Benmor Medical immediately.


5. Safe Use Guidelines

WARNINGS AND PRECAUTIONS



- Before using the bed it is recommended: -
 - All staff involved are familiar with the User Manual.
 - All functions are tested.
 - The bed is decontaminated and cleaned thoroughly before every use.
- The bed must be operated by personnel who have been properly trained or have suitable experience with equipment of this nature.
- The bed must only be used on clean, hard and flat horizontal surfaces.
- Never exceed the maximum load capacity of the bed, even for brief periods.
- The braking system must be locked whilst a patient is on the bed (except for patient manoeuvring).
- Check there is no risk for the patient, other people or accessories to become trapped when adjusting any sections of the bed.
- If an emergency situation requires the weight capacity of the bed to be exceeded, adjust all sections of the bed to their lowest positions. This should only be done if absolutely necessary.
- To avoid exceeding the weight capacity of the bed, no person should sit on the bed, next to the patient.
- The power cable for the bed must be unplugged before moving, cleaning or maintenance activities.
- Do not position the bed so that it is difficult to disconnect the mains plug.
- There is a possibility of injury to the patient or user if: -
 - The bed is used on an inappropriate floor surface.
 - The power cable is damaged or pulled out of the power socket.
 - Two or more electric functions are operated at the same time.
 - Any maintenance or repair work is not carried out according to the manufacturer's instructions.

WARNINGS AND PRECAUTIONS

	<ul style="list-style-type: none"> • Benmor Medical shall not be liable for any damage or injury caused by the use of accessories provided by other companies. • In the event of any defect which may jeopardise the patient or user safety, or which may damage the bed or building contents, remove the bed and do not use it until the defect is corrected. • Any repair work must be carried out by qualified staff. • When making repairs, only original materials and components should be used. Use only the cleaning and disinfectant agents recommended in this User Manual. • The bed should be left in its lowest position when unattended to reduce risk of patient falls. • When routing cables from other equipment on the bed, precautions shall be taken to avoid squeezing those cables between parts of the bed. • Avoid hazards caused by inappropriate handling of the power supply cord e.g. by kinking, shearing or other mechanical damages. • Use recommended accessories only
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When choosing bed and mattress combinations, it is important to assess the use of Safety Rails based on the clinical assessment of each individual patient and in line with local policy. Safety Rails must only be used with a mattress of the correct size and which is approved for use with the bed. The maximum recommended mattress thickness for use with Safety Rails is 110mm; refer to item E Fig.1.



When assessing the suitability of a mattress for use with Safety Rails, please consider that specialist powered air / foam replacement mattresses will typically envelop the patient when loaded and can generally be deeper than a foam mattress without compromising safety. All Benmor Medical mattress replacements will maintain sufficient clearance between patients and Safety Rails to preserve the function of the Safety Rail. Other makes of specialist mattress replacement must be assessed individually prior to use to verify sufficient clearance is maintained.



Incompatible mattresses can create entrapment hazards. Read instructions for use. Using non-approved mattress may compromise the Safety Rails and increase the chance of entrapment.



Do not modify this equipment without the authorisation from Benmor Medical.

**Contraindications**

The Deprimo bed is not to be used as a transport bed.

Never exceed the maximum load capacity of the Deprimo bed, even for brief periods.

6. Environmental Conditions

Operating

It is recommended that the bed is installed in a dry, indoor environment. The temperature and humidity ranges for optimum performance of the bed are: -

	Min	Max
Temperature (°C)	5	40
Relative Humidity (%) @ 30°C – not condensing	20	90
Altitude (metres)		< 2000

The Deprimo low bed is designed for medical purposes only. Electrical installations must comply with your local electrical installation requirements. It is recommended that the bed is disconnected from the electrical mains supply during exceptional cases i.e. lightning storms etc.

Transport / Storage

	Min	Max
Temperature (°C)	-10	+50
Relative Humidity (%) @ 30°C – not condensing	20	90
Air Pressure (hPa)	800	1060

7. Technical Specification

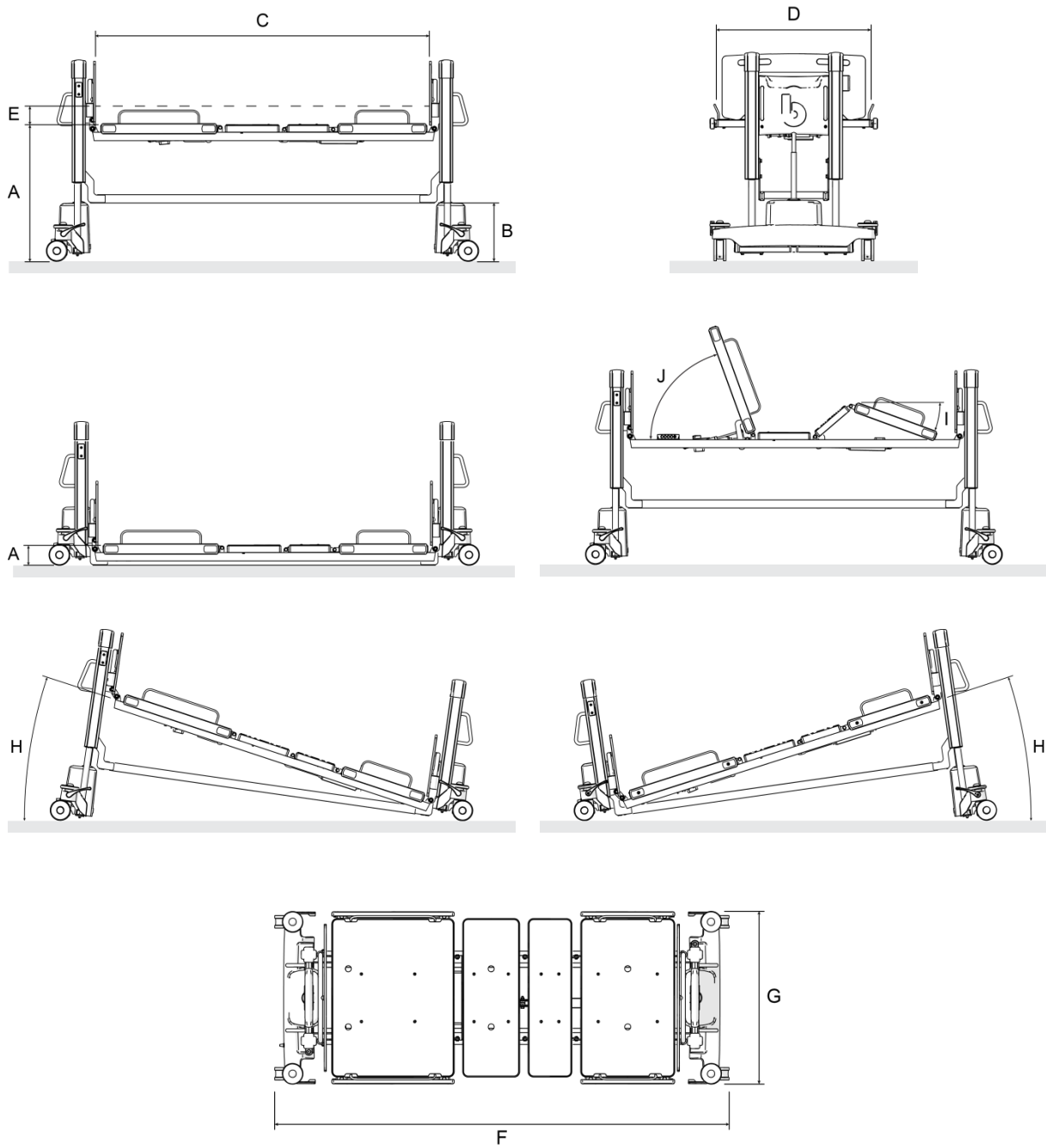


Fig.1

Bed Data – Key to Fig 1

Overall Length – F	2600mm
Overall Width – G	980mm
Mattress Platform Length – C	2000mm
Mattress Platform Width – D	900mm
Mattress Platform Height – A	Min 120mm - Max 820mm
Backrest – Max tilt angle – J	70°
Knee Break angle – I	20°
Trendelenburg – H	18°
Reverse Trendelenburg – H	18°
Ground clearance under bed base at top height - B	350mm
Product weight (approx)	168kg
Maximum Patient Weight	190kg / 29 stone / 418lbs
Maximum Safe Working Load (SWL)	250kg / 39 stone / 550lbs
Medical Device Classification	Class 1

Electrical Data

Power Supply	230V~ 50-60Hz
Power Consumption	Max. 1.6A AC
Duty Cycle	Max 10% or max 2 minutes continuous use followed by 18 minutes not in use
Equipment Classification	Class II Type B Applied Part
Liquid Ingress Protection	IPX4

8. Product Description

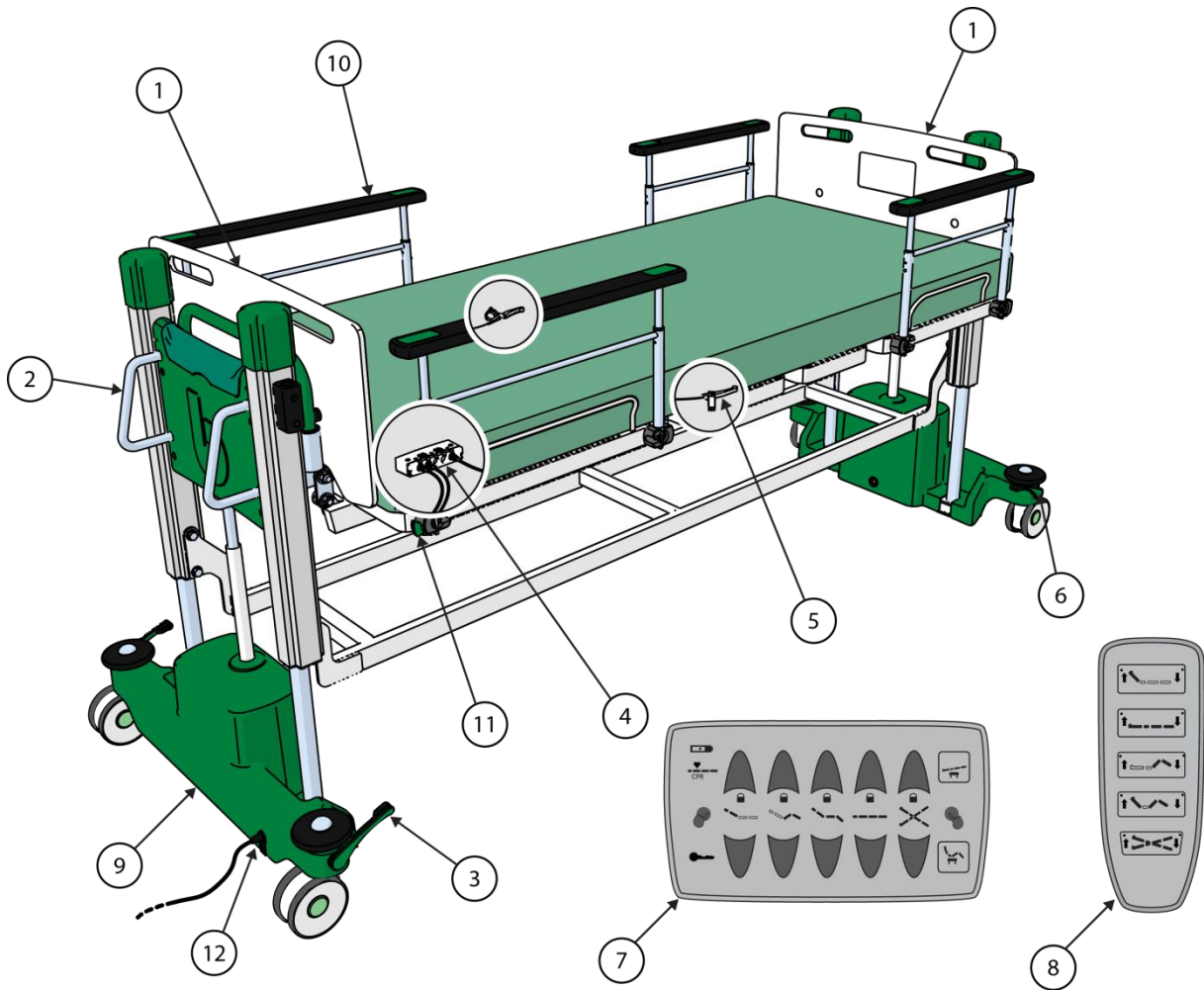


Fig.2

Key to Fig.2	
1.	Removable Headboard / Footboard
2.	Pushing Handle - Located at either end of bed
3.	Brake Pedal / Steering Pedal - Head end
4.	User Handset Dock
5.	Backrest Override Lever
6.	Brake Pedal - Foot End
7.	Supervisor Control Panel
8.	Patient Handset
9.	Serial Number Location
10.	Safety Rail
11.	Safety Rail Lock
12.	Power Cable

Note: The above illustration is for reference purposes only. The specification of your actual Deprimo bed may vary to the above illustration.

9. Installation and Setup

1. Remove any packaging completely.
2. Carefully check the bed for damage and any missing components.
3. All staff should carefully read the User Manual.
4. Plug the power cable into an electric socket.
5. Test all functions including:
 - Braking System
 - Fowler's position (adjustment of back and leg section).
 - Height adjustment of the mattress platform.
 - Trendelenburg and Reverse Trendelenburg.
 - Lock-out functions
6. Safely dispose of any packaging
7. Keep the User Manual in a safe accessible place.

9.1 Power Supply and Electrical Connection

The bed is delivered fully assembled and is ready to be connected to the power supply. The battery back-up safety feature allows the bed to be functional for a short time without mains power in emergency circumstances. The battery will automatically charge when the bed is connected to the power supply.

The bed should be placed as close as possible to the power supply and any excess cable safely positioned to avoid accidents.



To avoid the risk of electric shock, this equipment must only be connected to a mains supply with protective earth.



The replacement of power supply cords, fuses and other parts must be performed by a trained Benmor Medical technician.



The bed must only be used on clean, hard and flat horizontal surfaces.



Use recommended accessories only.



The Deprimo bed is not to be used as a transport bed but can be used for positioning.

10. Bed Adjustment – Supervisor Control Panel

The Supervisors Control Panel is located at the foot end of the bed, connected by a flexible cable and can be conveniently stored / located on the foot board using the clip on the rear of the panel.

The Supervisor Control Panel operates all bed functions as shown below.

To activate the controls on the Supervisor Control Panel you will need to simultaneously press and hold an Activation Button and a Positioning Button as required. This dual action operation enhances patient safety by preventing unintentional bed positioning. There are one button operations and these are detailed below.

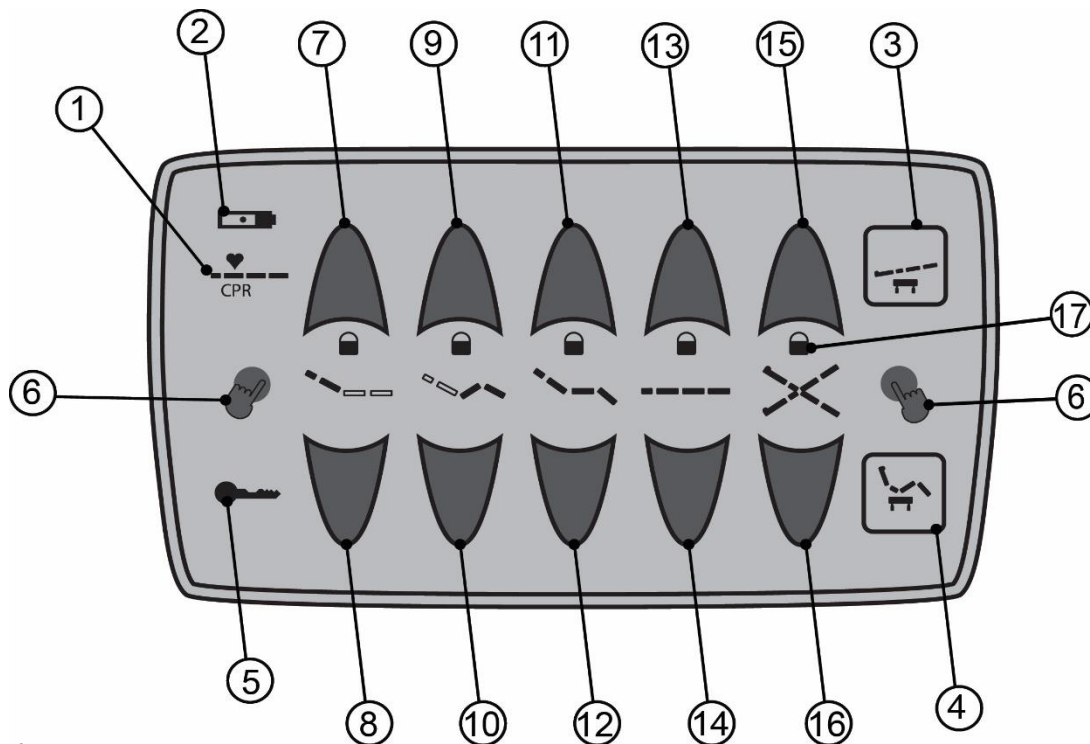


Fig.3

Key to Fig.3	
1.	Cardio Pulmonary Resuscitation (CPR) (One Button Operation)
2.	Battery Charge Indicator
3.	Trendelenburg Anti-Shock Positioning (One Button Operation)
4.	Chair Position (One Button Operation)
5.	Patient Handset Function Lockout Facility – Master
6.	Activation Button
7.	Backrest up
8.	Backrest down
9.	Knee Break Up
10.	Knee Break Down
11.	Simultaneous Backrest and Knee Break Up
12.	Simultaneous Backrest and Knee Break Down
13.	Raise Platform
14.	Lower Platform
15.	Foot Down Tilt (Reverse Trendelenburg)
16.	Head Down Tilt (Trendelenburg)
17.	Patient Handset Function Lockout Facility – Child

Supervisor Control Panel Symbols



Before carrying out these operations, check there are no objects on or under the lower frame which could interfere with the bed movement. This function can be locked out by means of the Supervisor Control Panel.

A. SUPERVISOR CONTROL PANEL LOCATION

The supervisor control panel is located at the foot end of the bed, connected by a flexible cable and can be conveniently stored/located on the foot board moulding.

B. SUPERVISOR CONTROL PANEL BATTERY CHARGE INDICATOR

The current battery charge state is displayed via a battery charge indicator on the supervisor control panel (item 2 Fig.3). When charging the battery, the charge indicator should be lit amber. If this is not the case please contact your service representative.

C. LOW BATTERY WARNING

When battery power is at a critical low, the bed will emit a warning beep during the activation of any handset functions (see section 26 for audible warnings).



The bed is designed to run from mains power, with the battery as a backup facility should mains power fail. Failure to keep the battery charged properly could result in injury to the patient.

D. SUPERVISOR CONTROL PANEL USER LOCKOUT FACILITY

The supervisor control panel provides the ability to lock out any or all functionality from the patient handset, preventing the patient from performing functions that are deemed unsafe or unwanted.

To lock out a function simultaneously press and hold the *patient handset function lockout facility button - master* (item 5 Fig.3) and the *patient handset function lockout facility button - child* (item 5 Fig.3) that corresponds with the function you wish to lockout. A light will illuminate to indicate this function is now locked.

To reactivate this feature simultaneously press and hold the *patient handset function lockout facility button - master* (item 5 Fig.3) and the *patient handset function lockout facility button - child* (item 5 Fig.3) that corresponds with the function you wish to reactivate.

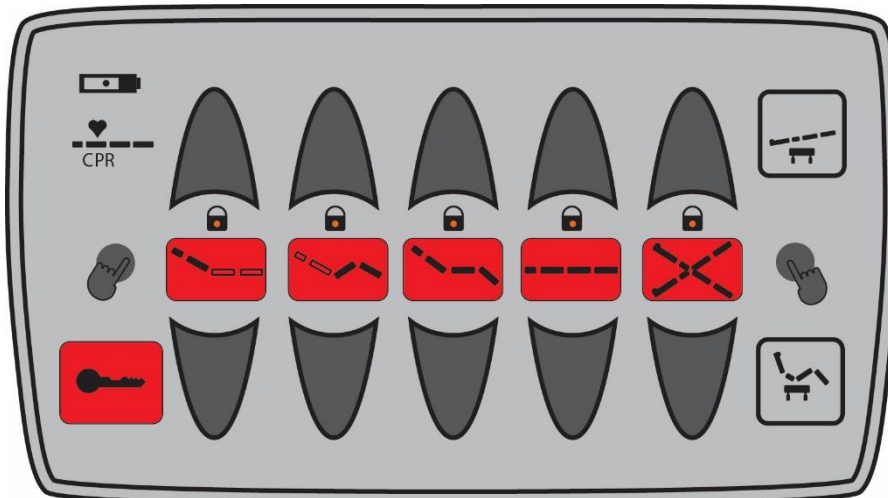


Fig.4 - Showing all user functions locked out.



When leaving patients unattended the bed should be fully lowered and the raise and lower function disabled from the patient handset to minimise any risk of injury should the patient fall off the bed.



When leaving patients unattended the bed Trendelenburg and reverse Trendelenburg function should be disabled from the patient handset to minimise any risk of injury to the patient.

E. BATTERY CHARGE INDICATOR

Indicates the charge level of the battery.



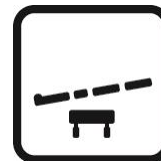
F. ONE BUTTON CARDIO PULMONARY RESUSCITATION (CPR) FUNCTION

Indicates the button required to position the bed into Trendelenburg Anti-Shock Positioning.



G. ONE BUTTON TRENDLENBURG ANTI-SHOCK POSITIONING FUNCTION

Indicates the button required to position the bed into cardio pulmonary resuscitation (CPR).



H. ONE BUTTON CHAIR FUNCTION

Indicates the button required to position the bed into the chair position.



I. FUNCTION LOCKOUT

Indicates the button required to lock out functionality from the patient handset.



F. ACTIVATION BUTTON

Indicates the activation button on the supervisor control panel. This button must be held down whilst any of the standard feature buttons are pressed. Failure to do so will prevent the function from activating and is considered a safety measure to prevent accidental activation. Standard features include. Backrest, Knee break, Chair position (one button chair position not included) platform height and Trendelenburg /reverse Trendelenburg.



G. BACKREST FUNCTION

Indicates the button required to manipulate the backrest angle.



H. KNEE BREAK FUNCTION

Indicates the button required to manipulate the angle of the knee break.



I. SIMULTANEOUS BACKREST & KNEE BREAK

Indicates the button required to manipulate the angle of the backrest and knee break at the same time.



J. PLATFORM HEIGHT FUNCTION

Indicates the button required to change the height of the patient platform. When lowering the platform, movement will stop when clearance between either side of the bed and the floor is 230mm. At this point, release the button, check the area underneath the bed is clear, then reactivate the button and the bed will resume movement to the floor.



K. TRENDLENBURG & REVERSE TRENDLENBURG FUNCTION

Indicates the button required to change the angle of the patient platform from Trendelenburg to reverse Trendelenburg.



11. Bed Adjustment – Patient Handset



Before carrying out these operations check there are no objects on or under the lower frame which could interfere with the bed movement. This function can be locked out by means of the Supervisor Control Panel.

The Patient Handset is connected by a flexible cable and can be positioned either side of the bed. It adjusts individual parts of the bed mattress platform and has limited functions as opposed to the Supervisor Control Panel.

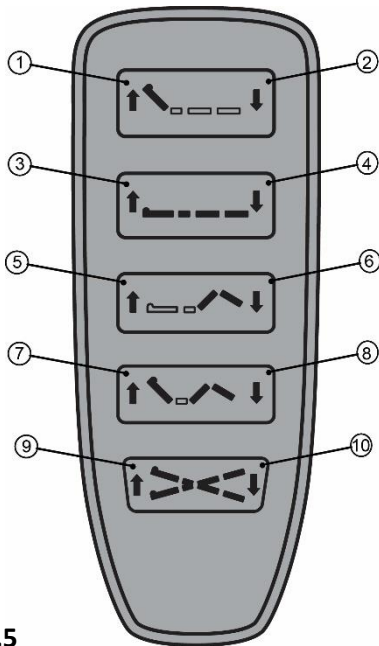


Fig.5

Key to Fig.5	
1.	Backrest up
2.	Backrest down
3.	Raise Platform
4.	Lower Platform
5.	Knee Break Up
6.	Knee Break Down
7.	Simultaneous Backrest and Knee Break Up
8.	Simultaneous Backrest and Knee Break Down
9.	Foot Down Tilt (Reverse Trendelenburg)
10.	Head Down Tilt (Trendelenburg)

1. BACKREST FUNCTION

Indicates the button required to manipulate the backrest angle.



3. PLATFORM HEIGHT FUNCTION

Indicates the button required to change the height of the patient platform. When lowering the platform, movement will stop when clearance between either side of the bed and the floor is 230mm. At this point, release the button, check the area underneath the bed is clear, then reactivate the button and the bed will resume movement to the floor.



5. KNEE BREAK FUNCTION

Indicates the button required to manipulate the angle of the knee break.



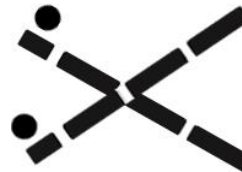
7. SIMULTANEOUS BACKREST & KNEE BREAK

Indicates the button required to manipulate the angle of the backrest and knee break at the same time.



9. TRENDELENBURG & REVERSE TRENDELENBURG FUNCTION

Indicates the button required to change the angle of the patient platform from Trendelenburg to reverse Trendelenburg.



Note: To prevent the Patient Handset from being damaged it should always be stored, using the provided hook, on your bed Safety Rail.

11.1 PATIENT HANDSET LOCATION

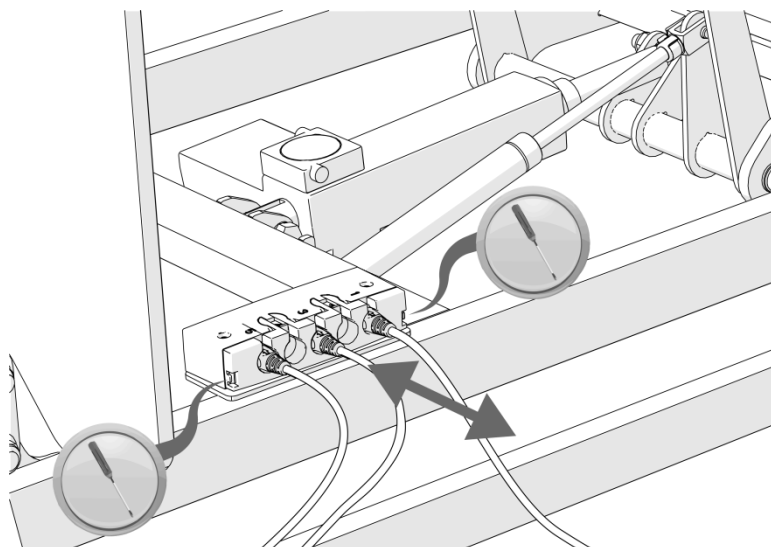
The patient handset is located at the head end of the bed, connected by a flexible cable and can be conveniently stored or located on either side of the bed that suits the patient.



To prevent damage to the handset ensure it is stored using the hook provided.

11.2 REMOVING THE PATIENT HANDSET

If required the patient handset can be removed completely. To remove the handset, raise the backrest to reveal the user handset dock (item 4, Fig.2). A tool such as a screwdriver must be used to remove the anti-tamper cover. The handset can then be unplugged and stored safely away. In the event of the bed requiring a reset, the patient handset will need to be reattached (see 21).



11.3 HEIGHT ADJUSTMENT

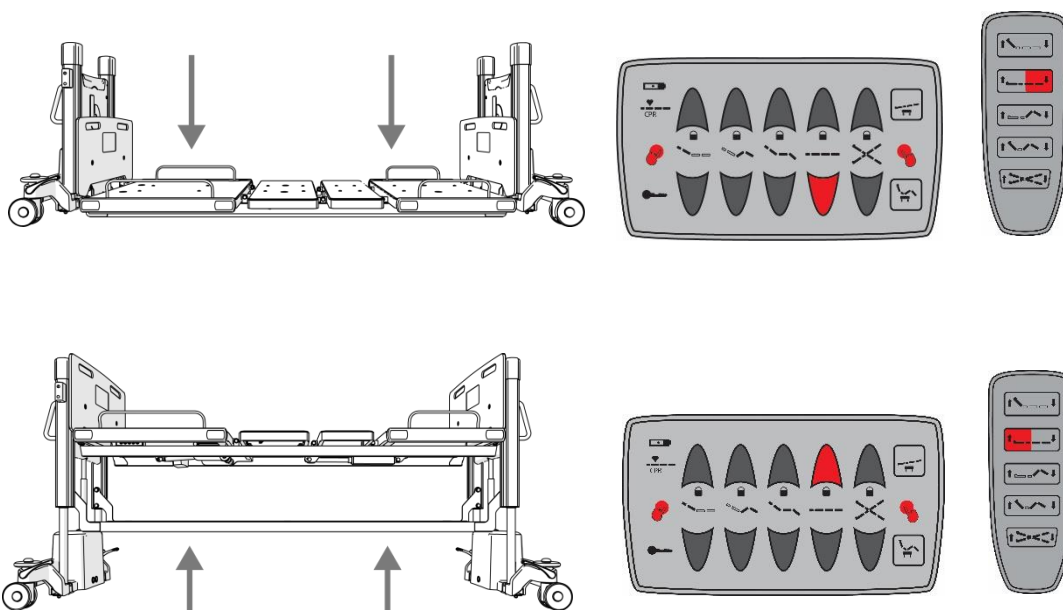
The height of the patient platform is adjusted by using either the supervisor or patient handsets. When lowering the platform, movement will stop when clearance between either side of the bed and the floor is 230mm. At this point, release the button, check the area underneath the bed is clear, then reactivate the button and the bed will resume movement to the floor.

11.4 HEIGHT ADJUSTMENT – SUPERVISOR CONTROL PANEL

To adjust the height of the bed using the supervisor control panel, press and hold the activation button (item 6 Fig.3) whilst simultaneously pressing one of the height adjustment buttons. (Items 13 or 14 Fig.3)

11.5 HEIGHT ADJUSTMENT – PATIENT HANDSET

To adjust the height of the bed using the patient handset, press and hold one of the height adjustment buttons. (Items 3 or 4 Fig.5)



Ensure there is nothing to impede the raising or lowering of the patient platform as this could result in damage to the equipment and/or injury to the patient.

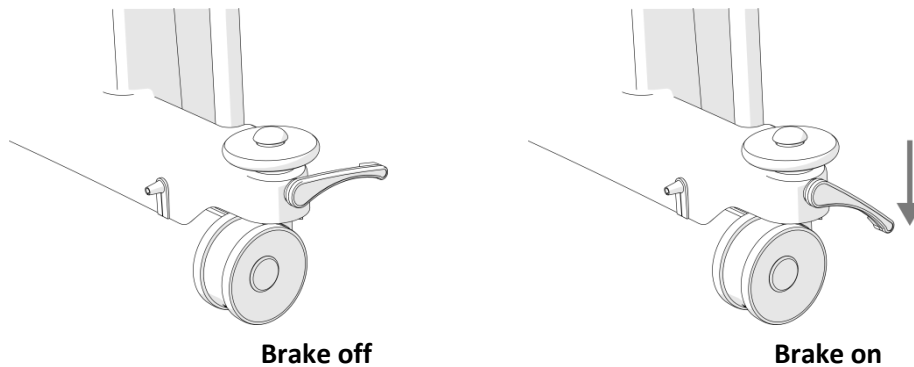


When leaving patients unattended the bed should be fully lowered and the raise and lower function disabled from the patient handset to minimise any risk of injury should the patient fall off the bed.

12 Castor Braking

12.1 USING THE BRAKES

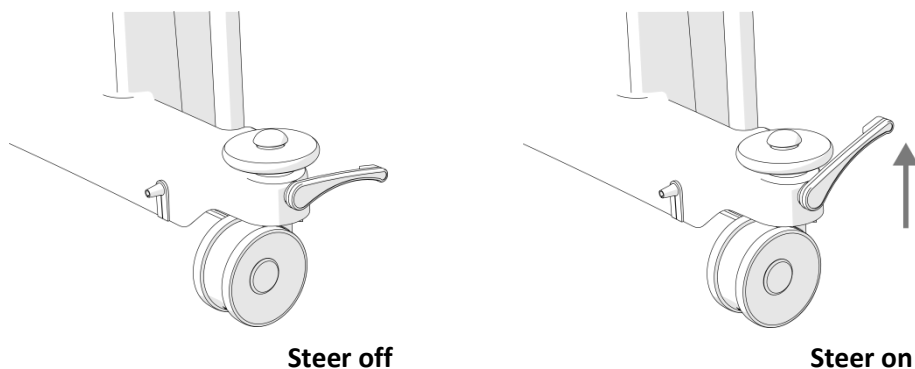
Both brakes at the head-end of the bed can be simultaneously engaged by depressing either head-end brake pedal. The same rule applies for the brakes at the foot-end of the bed. The brakes at one end of the bed can then be disengaged by lifting either pedal at the desired end.



Always apply both sets of brakes when a patient is getting on or off the bed, or when transferring patients from the bed to another platform.

12.2 USING THE STEERING CASTOR

The bed can be manoeuvred more easily by engaging the steering mechanism (Item 3, Fig.2); the mechanism is engaged by lifting either pedal located at the head end. To move the bed sideways ensure the pedal is in the neutral position.



Ensure the bed is set to the 'Brake' position before placing a patient onto your bed.

13 BACKREST ADJUSTMENT

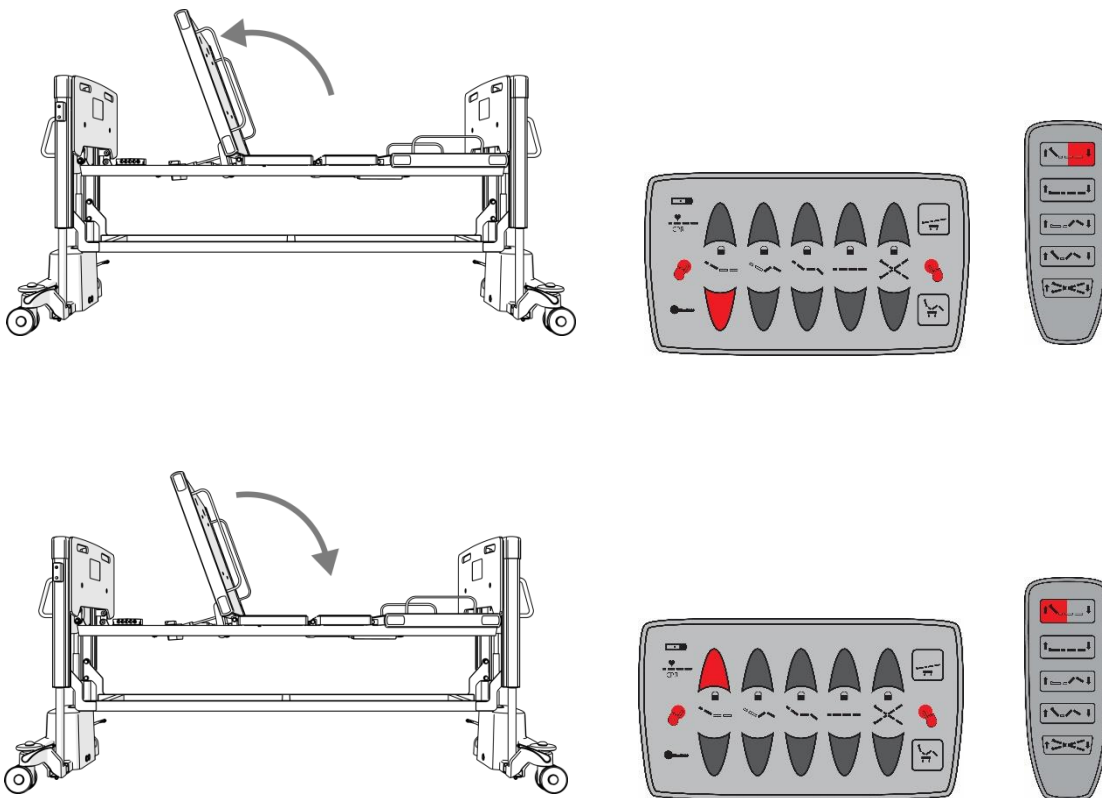
The backrest angle is adjusted by using either the supervisor or patient handsets.

13.1 BACKREST ADJUSTMENT – SUPERVISOR CONTROL PANEL

To adjust the backrest of the bed using the supervisor control panel, press and hold the activation button (Item 6 Fig.3) whilst simultaneously pressing one of the backrest adjustment buttons. (Items 7 or 8 Fig.3)

13.2 BACKREST ADJUSTMENT – PATIENT HANDSET

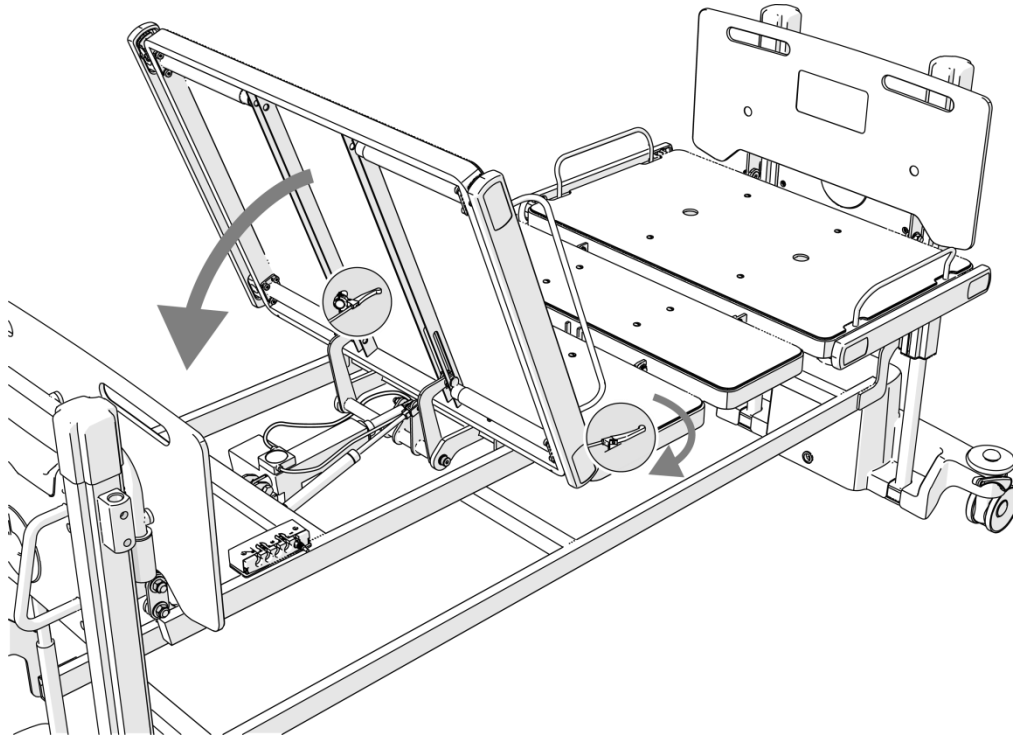
To adjust the height of the bed using the patient handset, press and hold one of the backrest adjustment buttons. (Items 1 or 2 Fig.5)



Ensure there is nothing to impede the raising or lowering of the backrest as this could result in damage to the equipment and/or injury to the patient.

14 BACKREST OVERRIDE

In case of an emergency when the backrest needs to be lowered quickly (such as when CPR or Trendelenburg functions need activating), the bed provides a handle that overrides the bed's electronics and allows the backrest to return to its flat position in a controlled manner. The handle is conveniently located in the centre of the bed on both sides. To prevent patients and visitors tampering with the lever, it is placed out of sight behind the frame work. Its position can be identified by the backrest override label. To drop the backrest quickly, squeeze the handle until the backrest is flat. Letting go of the handle when the backrest is falling will cause the backrest to stop falling, and may cause damage to the actuator.



Ensure there is nothing to impede the lowering of the backrest as this could result in damage to the equipment and/or injury to the patient.

15 USING THE TRENDELENBURG FUNCTION

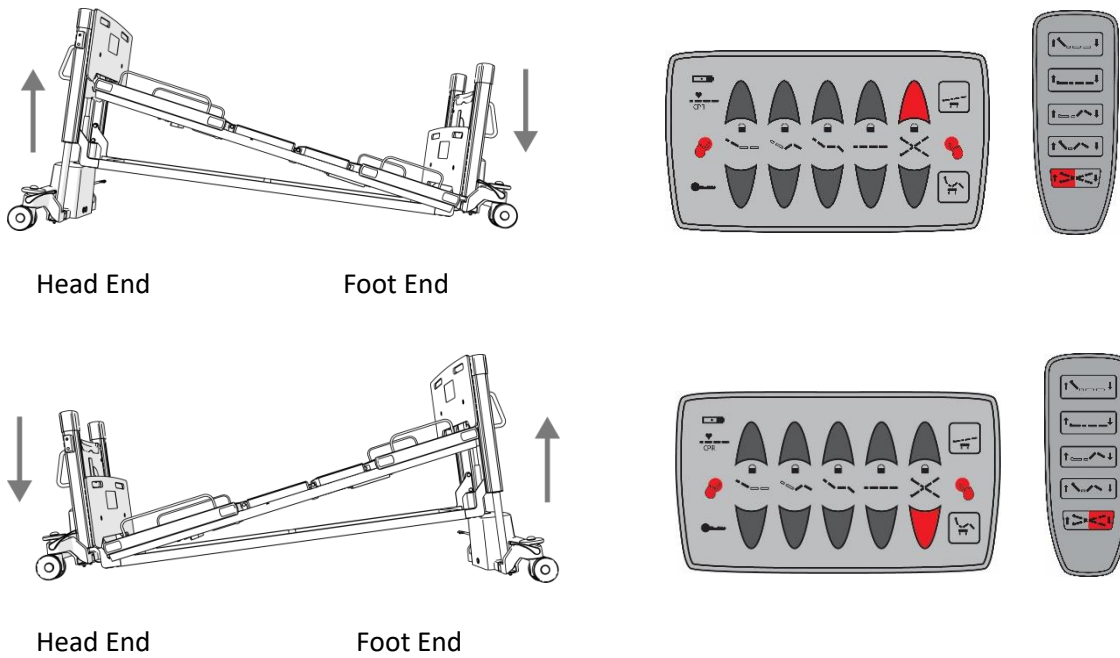
The patient platform can be moved into head down tilt (Trendelenburg) or foot down tilt (Reverse Trendelenburg) using either the supervisor or patient handsets.


15.1 TRENDELENBURG FUNCTION – SUPERVISOR CONTROL PANEL

To adjust the Trendelenburg function of the bed using the supervisor control panel, press and hold the activation button (Item 6 Fig.3) whilst simultaneously pressing one of the Trendelenburg adjustment buttons. (Items 15 or 16 Fig.3)

15.2 TRENDLENBURG FUNCTION – PATIENT HANDSET

To adjust the Trendelenburg function of the bed using the patient handset, press and hold one of the Trendelenburg function buttons. (Items 9 or 10 Fig.5)



 Ensure there is nothing to impede the bed from moving between Trendelenburg and reverse Trendelenburg as this could result in damage to the equipment and/or injury to the patient.

16 USING THE KNEE BREAK FUNCTION

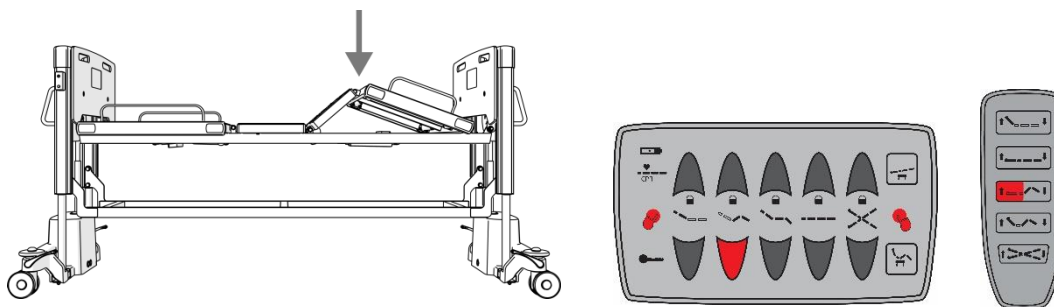
The patient platform can be manipulated in order to break the knee and provide comfort to the patient using either the supervisor or patient handsets.

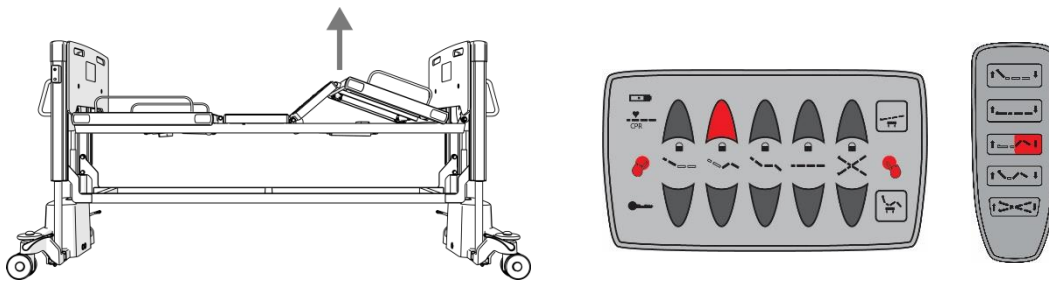
16.1 KNEE BREAK FUNCTION – SUPERVISOR CONTROL PANEL

To adjust the knee break function of the bed using the supervisor control panel, press and hold the activation button (Item 6 Fig.3) whilst simultaneously pressing one of the knee break adjustment buttons. (Items 9 or 10 Fig.3)

16.2 KNEE BREAK FUNCTION – PATIENT HANDSET

To adjust the knee break function of the bed using the patient handset, press and hold one of the knee break function buttons. (Items 5 or 6 Fig.5)





Ensure there is nothing to impede the bed from moving between knee break and flat as this could result in damage to the equipment and/or injury to the patient.

17 USING THE CHAIR POSITION FUNCTION

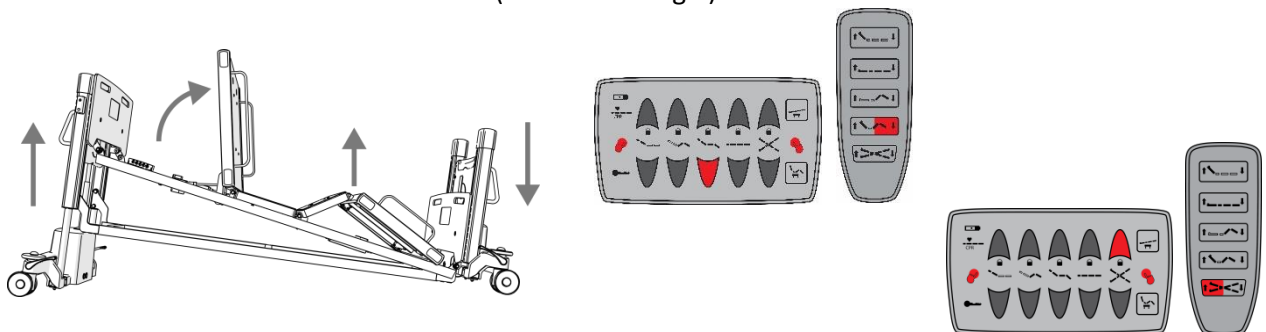
The patient platform can be manipulated into a chair position. This includes raising the backrest, breaking the knee and tilting the bed into the foot down position to provide comfort to the patient using either the supervisor or patient handsets.

17.1 CHAIR POSITION FUNCTION – SUPERVISOR CONTROL PANEL

To adjust the Chair Position function of the bed using the supervisor control panel, press and hold the activation button (Item 6 Fig.3) whilst simultaneously pressing either the knee break adjustment buttons (Items 11 or 12 Fig.3), the backrest adjustment buttons () or the simultaneous backrest and knee break buttons (), to achieve the desired the profile. Then press and hold the reverse Trendelenburg adjustment button to tilt the bed into foot down.

17.2 CHAIR POSITION FUNCTION – PATIENT HANDSET

To adjust the Chair Position function of the bed using the patient handset, press and hold one of the knee break function buttons. (Items 7 or 8 Fig.5)

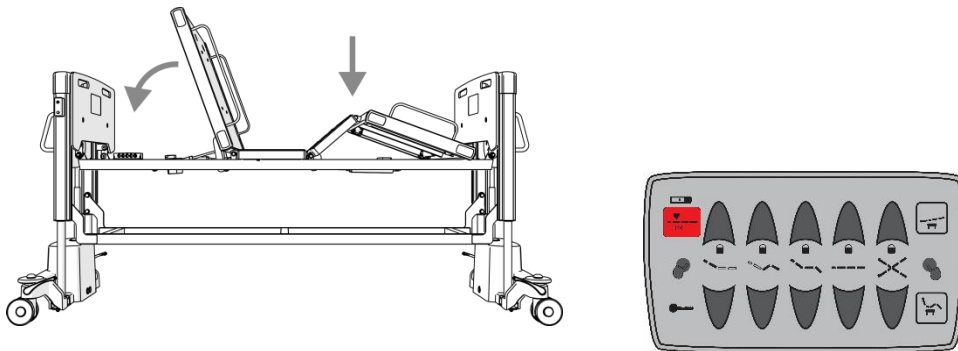




Ensure there is nothing to impede the lowering of the backrest as this could result in damage to the equipment and/or injury to the patient.

18 ONE BUTTON CARDIO PULMONARY RESUSCITATION (CPR) FUNCTION

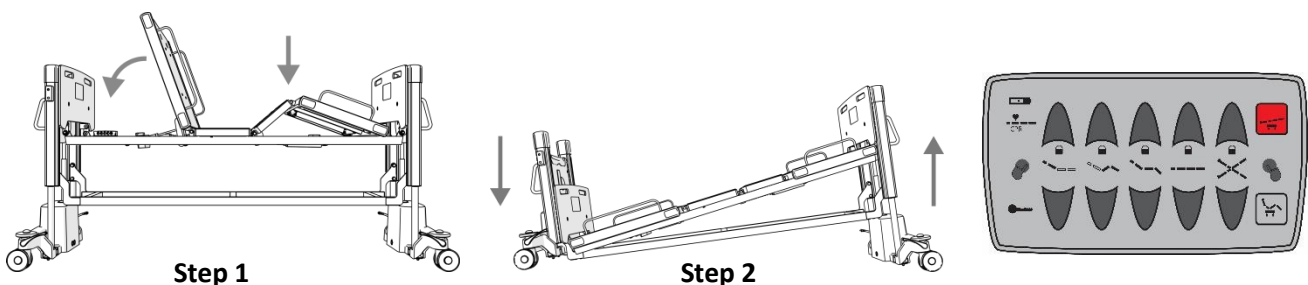
The supervisor control panel provides a one button solution for positioning the bed in a way suitable for Cardio Pulmonary Resuscitation (CPR). This function cannot be carried out on the patient handset. To activate the CPR function press and hold the CPR button (Item 1 Fig.3) the bed will then perform two actions. Firstly, if in Trendelenburg or reverse Trendelenburg, the bed will level. Secondly, the platforms will return the bed to its flat state. The backrest override should always be activated in this situation (see Section 14) to ensure patient assumes a flat position as soon as possible. Once level and flat, the bed will be positioned at a height of 650mm to facilitate patient access.



Ensure there is nothing to impede the raising or lowering of the patient platform as this could result in damage to the equipment and/or injury to the patient.

19 ONE BUTTON TRENDELENBURG ANTI-SHOCK POSITIONING FUNCTION

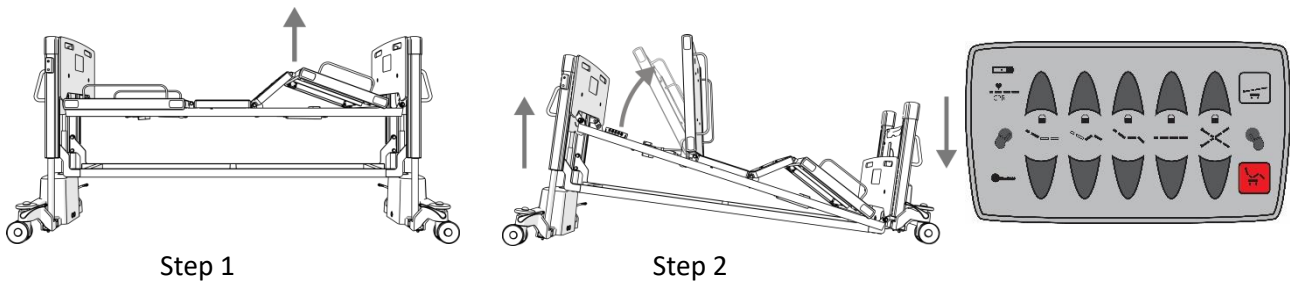
The supervisor control panel provides a one button solution for Trendelenburg Anti-Shock Positioning. This function cannot be carried out on the patient handset. To activate the Trendelenburg Anti-Shock Positioning function press and hold the Trendelenburg Anti-Shock Positioning button (Item 1 Fig.3) the bed will then perform two actions. Firstly, if the backrest or knee break functions are in use, it will return the bed to its flat state. Secondly it will position the bed into head down tilt.



Ensure there is nothing to impede the raising or lowering of the patient platform as this could result in damage to the equipment and/or injury to the patient.

20. ONE BUTTON CHAIR POSITION FUNCTION

The supervisor control panel provides a one button solution for positioning the bed into a chair position. This function cannot be carried out on the patient handset. To activate the chair function press and hold the chair position button (Item 4 Fig.3) the bed will then perform two actions. Firstly, if the platform is flat, the knee will break. Secondly it will position the bed into foot down tilt. Finally the backrest will rise to its full extent. Releasing the button during the raising of the backrest will halt the movement in its current position (patients may not wish the backrest to be at maximum elevation in chair position).



Ensure there is nothing to impede the raising or lowering of the patient platform as this could result in damage to the equipment and/or injury to the patient.

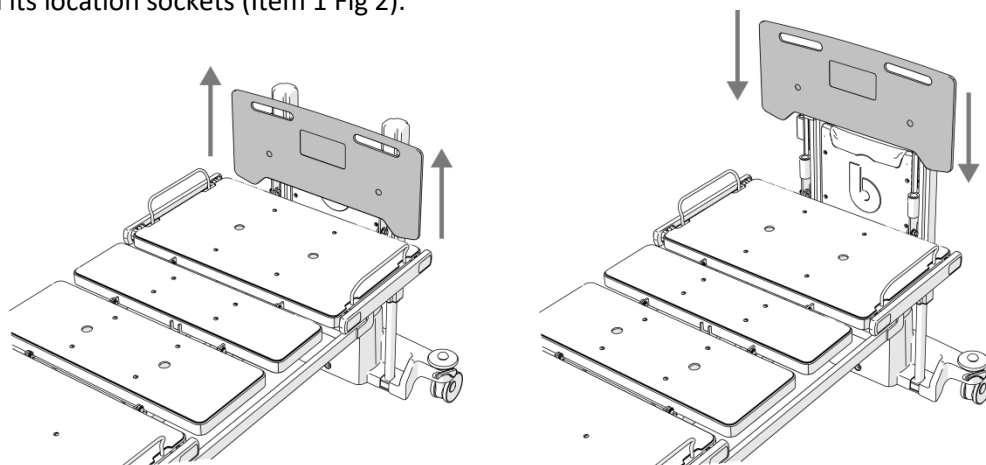
21. SYSTEM RESET

In the event of a positioning function not responding properly whilst using either the supervisor control panel or the patient handset, a system reset can be initiated by long pressing both the raise platform and lower platform button on the patient handset (Items 3 & 4 Fig. 5). Whilst the bed is resetting, a series of long beeps will be emitted for approximately 5 seconds. Reset is complete once the beeps have stopped.



22. REMOVING THE HEAD BOARD

The head boards at either end of the bed can be removed for improved access to the patient. To remove a headboard, ensure there are no obstructions and that the handset is safely located on another part of the bed. Lift from the two upper handles and the headboard will be removed from its location sockets (Item 1 Fig 2).





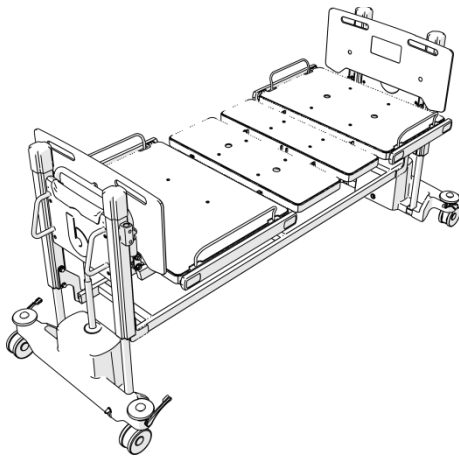
The headboard is designed to be light weight and easy to clean. However care should be taken when removing the headboard from the bed. Dropping the headboard could result in injury to the user or patient.



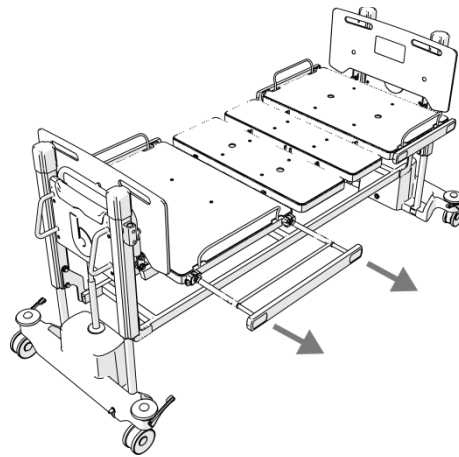
If stored away from the bed the headboard should be cleaned using the methods described in section 24 before being returned to its docking position on the bed.

23. STOWABLE SAFETY RAILS

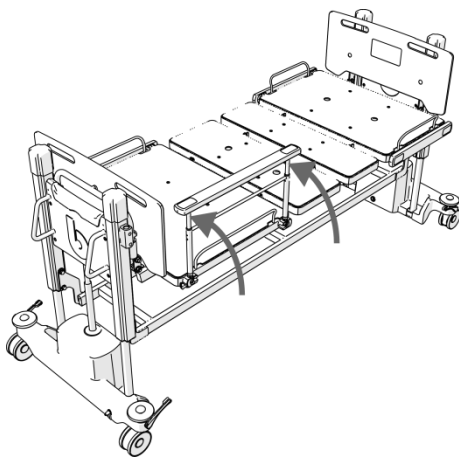
The bed has 4 stowable safety rails allowing the user to store the safety rails within the bed frame. When erecting and collapsing the safety rails ensure that the bed and safety rails are free from any obstructions. To erect the safety rails, use both hands on the handrail to pull the rail out from the bed frame. Rotate the safety rail 90° upwards and press down on the rail to ensure the lock is engaged. The sticker on the lock has a red area to help identify when the safety rail is not full engaged.



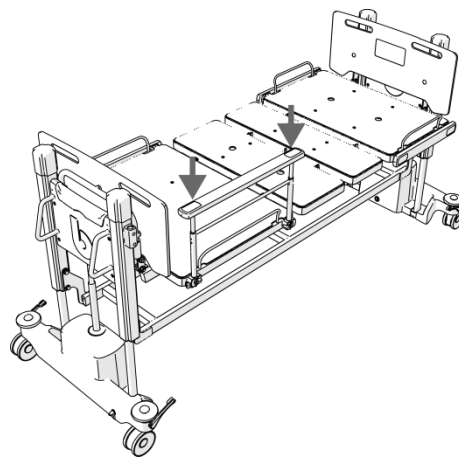
Step 1



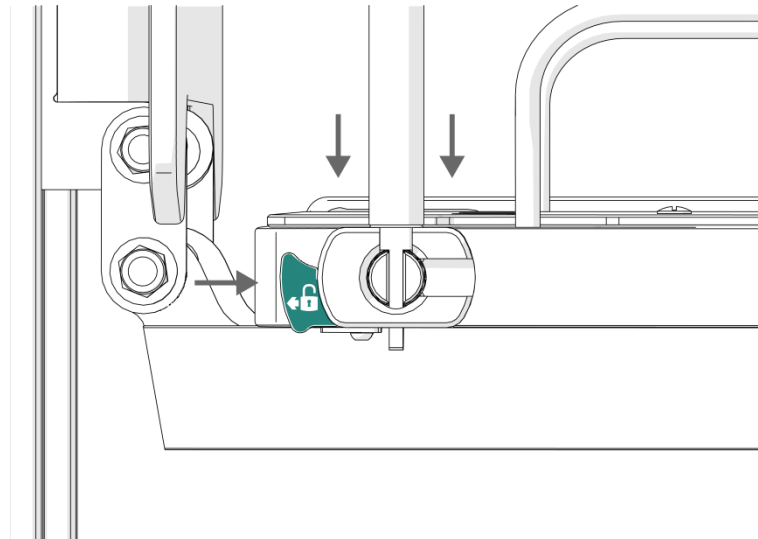
Step 2



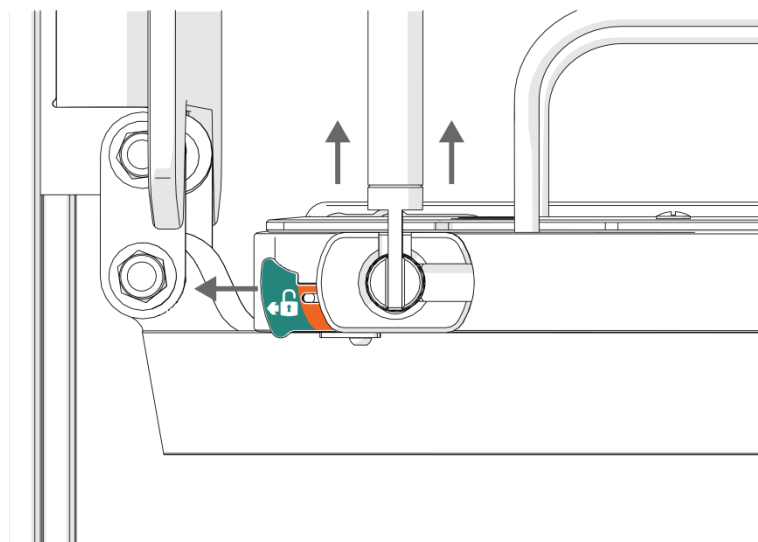
Step 3



Step 4



To collapse the safety rail, first pull on the catch in the lock mechanism and lift the safety rail to disengage. Repeat the erection movements in reverse to stow the safety rail.



The safety rails are designed to be light weight and easy to clean. However care should be taken when storing and erecting safety rails from the bed. Losing control of the safety rail could result in injury to the user or patient.



When erecting the safety rails, make sure that the lower section of the safety rails has been fully engaged into its socket.



When collapsing the safety rails care should be taken to avoid pinching the fingers between the rail and bed frame.



Before adjusting the Safety Rails, carefully check there are no objects which may interfere with their function. Take care not to get hands or fingers caught when adjusting the Safety Rails.



The intended use of the Safety Rails is to prevent the user from falling out of bed. They are not intended to act as a form of restraint or limit the freedom of people by preventing them from intentionally leaving their beds; nor are they intended to restrain people whose condition disposes them to erratic, repetitive or violent movement.



Incompatible Safety Rails can create entrapment hazards.



The safety rails shall not be used as support or leverage for the patient, when leaving or repositioning on the bed.

24. Cleaning and Decontamination



Disconnect the bed from the electricity supply before carrying out decontamination procedures.

Basic cleaning information



Only use disinfectants designed for cleaning healthcare equipment i.e. Sodium Dichloroisocyanurate (NaDCC), Sodium Hypochlorite (NaOCL) or similar (up to 10,000 ppm available chlorine).



Do not use alkaline or acid chemical products. Do not use abrasives (scouring powder), scourers or other materials / agents which could damage the bed coating. Do not use caustic or corrosive substances to clean the bed. Do not use chemical substances which may affect the finish of the bed, such as acetone, petroleum etc.



It is recommended that only CE marked cleansers & disinfectants are used to clean the beds. Benmor Medical shall not be liable for any damages caused by the use of inappropriate detergents or disinfectants.



Do not use phenol based disinfectants.

The bed should be cleaned and disinfected as per the 'Cleaning Regimes' table below or in line with local infection control policy: -

Cleaning Regimes

Level of cleaning	Areas to be cleaned
1. Daily Cleaning	All exposed surfaces of the bed: - <ul style="list-style-type: none"> ➤ Head and foot boards ➤ All areas of Safety Rails ➤ Exposed areas of mattress platform ➤ Accessories (handsets, IV pole etc)
2. Clean before every use	Bed parts stated in (1) and also: - <ul style="list-style-type: none"> ➤ All the areas of the mattress platform. The upper parts of the undercarriage. ➤ Connecting conduits between mattress platform and undercarriage. ➤ Freely accessible metal parts of the mattress platform. ➤ Bumper wheels (x4). ➤ Braking system levers.
3. Complete Cleaning and Disinfection	All parts of the bed stated in (1) and (2), and also: - <ul style="list-style-type: none"> ➤ All the metalwork under the mattress platform. ➤ All areas under the mattress platform.

Cleaning

Wearing suitable protective clothing, clean all surfaces with a disposable cloth soaked in a neutral detergent and hand hot water, being careful with the beds electrical parts. Start by cleaning the upper sections of the bed and work along all horizontal surfaces. Work methodically towards the lower sections of the bed and clean the wheels last.

Take extra care to clean areas that may trap dust or dirt. Rinse with clean water and dry with disposable paper towels.

Allow the cleaned parts to dry before replacing the mattress.

Disinfecting

After cleaning the bed as described above, wipe all surfaces with *Sodium Dichloroisocyanurate (NaDCC)*, *Sodium Hypochlorite (NaOCL)* or similar at a concentration of 1,000 parts per million (0.1%) of available chlorine. Wipe dry with a clean dry cloth. In the case of pooling body fluids, e.g. blood, the concentration of NaDCC or NaOCL should be increased to 10,000 parts per million (1%) of available chlorine. Wipe dry with a clean dry cloth.

25. Troubleshooting

Operating issues that can arise with the bed can usually be solved by following these simple steps: -

Problem	Possible Cause	Solution
None of the electric operating system is functioning	<ul style="list-style-type: none"> ➤ Mains power supply failure. ➤ Control box or Supervisor Control Panel are in locked or off position. ➤ Loose electrical connections. ➤ Electrical unit failure. 	<ul style="list-style-type: none"> ➤ Is the power lead plugged in and switched on? ➤ Check that the orange power light on the Handset is on. ➤ Switch the keys into the open position. ➤ Check all connections between the actuators and the control unit. ➤ Contact your technical service provider.
Any individual electric functions are not responding	<ul style="list-style-type: none"> ➤ Loose electrical connections. ➤ Unit failure. 	<ul style="list-style-type: none"> ➤ Check the individual connections to the control unit. ➤ Contact your technical service provider.
Bed is vibrating		<ul style="list-style-type: none"> ➤ Contact your technical service provider.
Castor(s)	<ul style="list-style-type: none"> ➤ The castor brake system may be worn out. 	<ul style="list-style-type: none"> ➤ Change castor – contact your technical service provider.
The castor(s) do not swivel correctly.	<ul style="list-style-type: none"> ➤ The castors may be dirty. 	<ul style="list-style-type: none"> ➤ Clean the castors.



Note: *If any function of the bed becomes compromising or dangerous to the patient in anyway, discontinue use immediately and report to your service provider.*

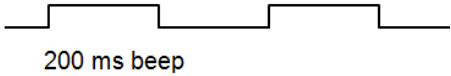
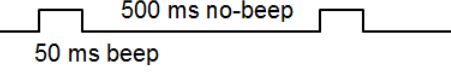
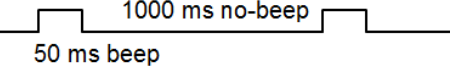
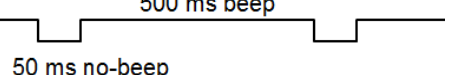
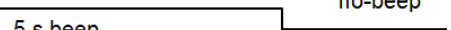


Never try to repair an electrical fault if you are unqualified or have not been officially trained by Benmor Medical.



Do not attempt to open any of the electrical control boxes. You may get an electric shock. This will also invalidate your warranty

26. Audio Feedback Patterns

Problem	Explanation	Tone
Position Lost	The control box has lost the position of an actuator	<p>200 ms no-beep</p>  <p>200 ms beep</p>
Fatal Error	There is a fatal error crashing the system	<p>500 ms no-beep</p>  <p>50 ms beep</p>
Manual Mode	The bed is in manual mode	<p>1000 ms no-beep</p>  <p>50 ms beep</p>
Reset of Fatal Error or entering Manual Mode	The control box is being reset or entering manual mode	<p>500 ms beep</p>  <p>50 ms no-beep</p>
Over-heating	An actuator is over-heating	<p>5 s beep</p>  <p>no-beep</p>

27. Storage and Transportation

When storing the bed: -

- Unplug the power cable from the cable power supply.
- Remove all accessories (IV poles, etc.)
- Wrap or cover the bed and its accessories to prevent dust contamination and protect them in a manner which will prevent damage.
- Store the bed in an environmentally safe place.



For storage conditions, see section 6 under Environmental Conditions. Ensure the bed is well wrapped or packed and that no heavy loads are placed on it before transportation.

28. Service and Maintenance

The bed is designed to have the minimum amount of maintenance throughout its lifetime. Cleaning and disinfecting of the bed may result in damage to some parts, therefore it is advisable the functions of the bed are checked for any signs of deterioration or reduction of function at 12 monthly intervals by a suitably trained person.

- All moving joints and pivot pins must be checked and adjusted/replaced as required i.e. Backrest, Knee-break, Safety Rails, Brake linkages and Castors - Wipe and lubricate with silicon oil as required.
- Safety Rails safety catches – check operation and security.
- Inspect all the wiring for damage including the curly hand set cables and if damaged, do not use the bed until the cable wiring is replaced.
- Check the articulation of the bed including Trendelenburg positions.
- Visually examine all bed accessories – check wipe and clean.

All service and repair activities must be carried out by suitably qualified and trained personnel approved by Benmor Medical.

A maintenance program is available which involves an annual visit from a trained Benmor Medical technician and covers minor repairs and general testing. Please contact Benmor Medical for more details.



In the event of a major defect or any issues which may compromise patient safety, do not use the bed but contact Benmor Medical immediately.



The Deprimo bed should be fully serviced every 12 months at minimum.



Do not modify the Deprimo bed without the authorisation from Benmor Medical.

29. Recommended Accessories

Description	Product Code
Medium Risk Foam Mattress	BMPBFMD
Crash Mat (no fold)	BMPBCM

30. Disposal

This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general waste.

Disposing of this product correctly will save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. If you are unsure of your national requirements with respect to disposal please contact your local authority, dealer or supplier for further information.



Penalties may be applicable for incorrect disposal of waste, in accordance with national legislation.

The above information is based on the European waste electrical and electronic equipment directive 2002/96/EC,

Please note the Deprimo contains a lead gel battery pack which will require a replacement battery every three years.

31. Warranty and Service

Benmor Medical grants a warranty which covers the product for a period of one year from the date of purchase.

During the warranty period, any defect affecting the operation of the equipment due to faulty manufacture or parts will be repaired or replaced free of charge.

Benmor Medical reserves the right to examine the product before repair in order to determine the nature and cause of the defect and whether it is covered by the warranty.

Exclusions to the Warranty

The warranty does not cover the installation, start-up, cleaning, replacement or supply of any type of accessories. Other areas not covered are 'acts of God', improper installation, degradable environments, smoke, fire, neglect, improper maintenance and storage / operation in extreme environments.

Benmor Medical shall not be liable for any damage, injury or loss caused by misuse of the product.

32. Contact Details

Benmor Medical (UK) Ltd



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Deprimo bed



www.benmormedical.co.uk