

# ROTEC

# VersaTech Med-Surg

Our Ultra-Low bed, featuring uniquely designed side rails, exceeds expectations by significantly reducing Fall related injuries



Model V600 ULB / ULB+

## User manual

**Do not use the bed and its accessories without first reading this entire manual.  
Illustrations are for guidance only.**

### Technical assistance and parts

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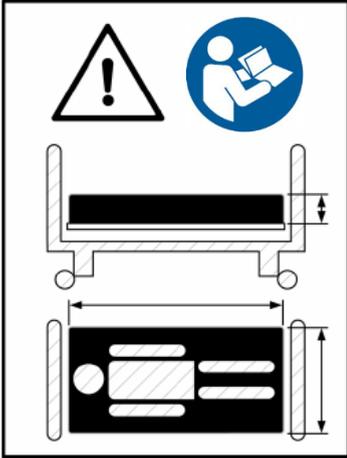
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# 1 GENERAL

## 1.1 Symbols

### On device labels



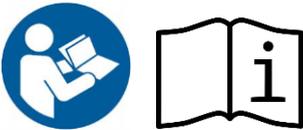
Symbol indicating that the mattress dimensions are very important and that you should consult the user manual for details.



Symbol illustrating the maximum patient weight allowed on the unit.



Symbol illustrating the maximum total weight allowed on the unit, including patient, mattress and all accessories (IV pole, IV, trapeze, traction frame, drainage bag, etc.).



Symbols indicating to consult the user manual



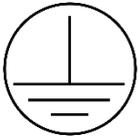
Protection against liquid splashes



Symbol indicating type B electrical protection



CSA Seal of Approval: Canadian Standards Association



Symbol indicating Class I insulation and grounding.



Symbol indicating AC power supply.



European conformity



European medical device



Class I medical device (low risk)



Do not dispose of in garbage. Arrange for recycling.

*For interface symbols, see section 3*

### **In the manual**



#### **Warnings :**

Used when special attention must be paid to indications to avoid injury and/or potential breakage.

### **Abbreviations**

CPR: Cardiopulmonary Resuscitation

SWL: Safe Working Load

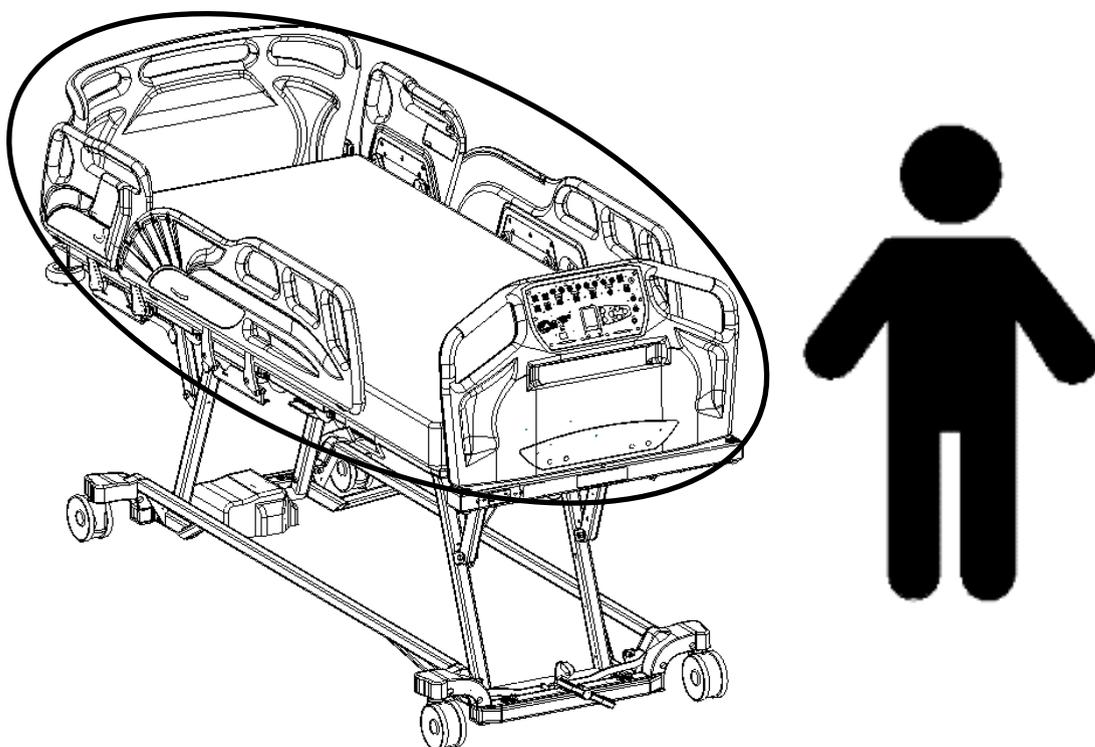
### 1.2 Intended use

This manual has been designed to assist you in using the VersaTech 600 ULB+ bed from Rotec. Please read this document carefully before use to ensure safe and secure operation.

This manual is an integral part of the unit and should always be included with the unit when sold or transferred. It must be accessible at all times to medical and maintenance personnel.

**Area:** This device has been designed for use in a care environment such as a hospital or other medical facility, where medical supervision is required, where monitoring is provided if necessary, and where the bed is used in procedures of a medical nature for treatment, diagnosis, monitoring, helping to maintain or improve the patient's condition. This includes intensive care, ambulatory care, and regular short- and long-term care. It is not designed for home care. Under no circumstances should this device be used in the presence of flammable anesthetic gases mixed with air or oxygen, or nitrous oxide.

**Applicable parts:** the parts of the device that come into contact with the patient and operator are intended to be the headboard and footboard, the side rails, the interface, the bed base and the accessories intended for use with the device.



**Patient:** It is expected that the patient will be able to use the unit's functions to a limited extent from the internal controls. The patient is expected to be of adult age, over 4ft (1.22M) in height and between 70 lb (32kg) and 500 lb (227kg) in weight. It is not designed for patients with behavioral or mental health problems.

**Operator:** It is expected that the **operator** using this unit will be a healthcare professional such as a nurse, doctor, attendant, etc. This operator must be able to understand and

apply the operating instructions in this manual. This operator must be able to understand and apply the operating instructions given in this manual. It is also expected that the **patient will** have limited access to certain functions within the unit.

**Service life:** the device is designed for 10 years of service under normal conditions and use (see specifications and conditions of use in the following sections).

Rotec cannot be held responsible for damage or injury caused by negligence or improper use of its products. Please note that all illustrations in this document are for guidance only.

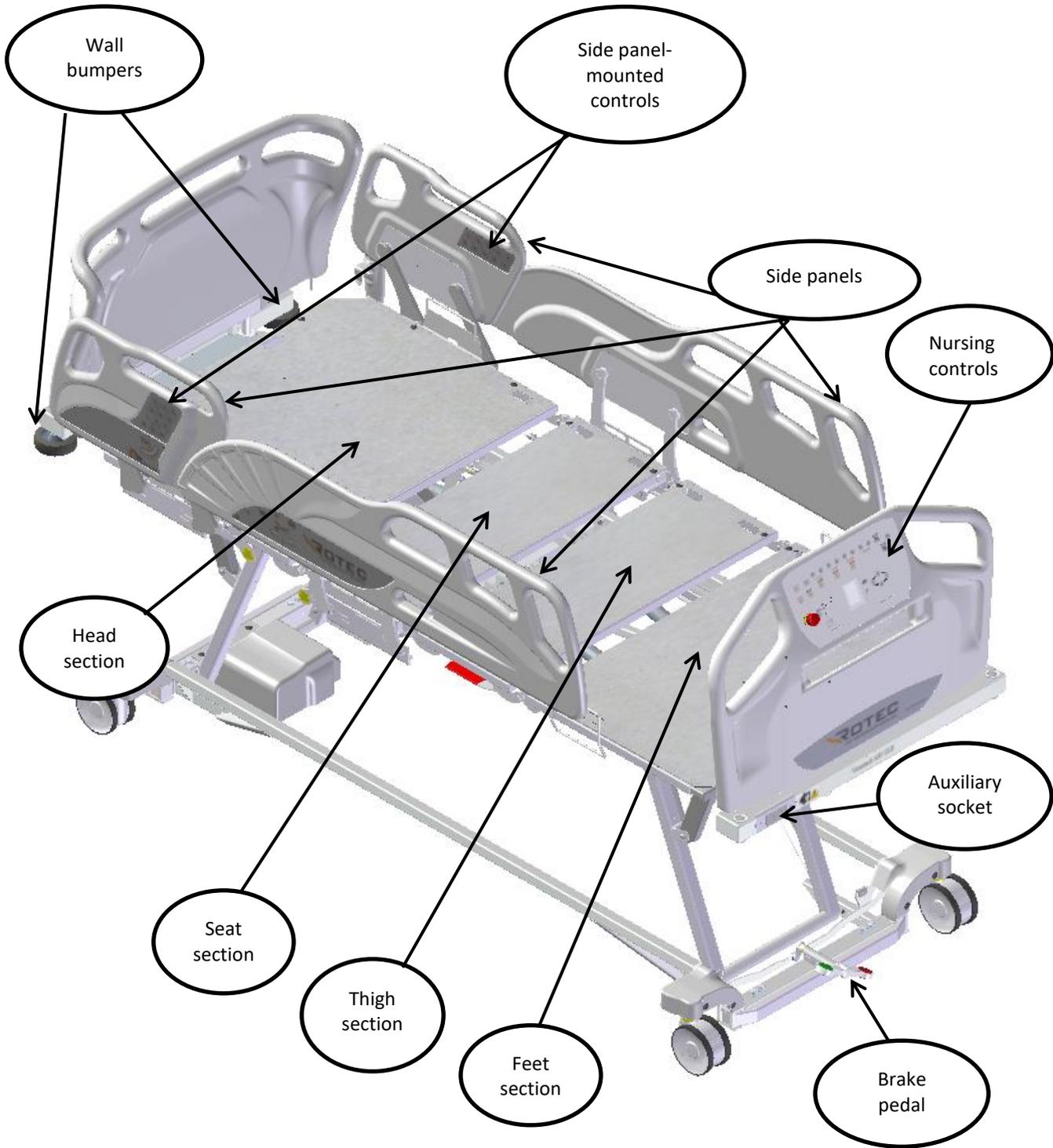
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### WARNINGS ON INTENDED USE

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- The device is not designed for pediatric use, to avoid the **RISK OF ENTRAPMENT LEADING TO DEATH**.
- Before using the bed and its accessories, it is imperative that this manual be read and personnel properly trained, to avoid **POSSIBLE INJURY** to both user and personnel.

1.3 Illustration



## 1.4 Features

- Height-adjustable low-profile bed base
- Reclining bed platform
- Length-adjustable platform
- Reclining backrest section
- Reclining thigh section
- 2-position manual tilt foot section
- 12.7cm (5") antistatic double wheel castors
- Synchronized brake and wheel steering system
- Traction frame supports
- IV pole holder
- Drainage bag holder
- Restraint strap holder
- Trapeze support
- Power cable holder
- Head and footboards can be removed without tools
- Composite half-length bed sides rails with integrated angle indicators
- Battery for temporary autonomy
- Integrated mattress retainers
- Removable hand control.
- Foot and side panel nursing control
- Electrical CPR function
- Auto-contour function
- Chair position function
- Light under the bed
- Mechanical CPR function
- Nurse call

## 1.5 Optional features

- Integrated scale and three-zone bed exit detection.
- Second removable control
- Transport cart
- Auxiliary socket

*Optional features may alter the dimensions shown.*

*The dimensions specified in this manual do not take into account manufacturing tolerances.*

## 1.6 Accessories

- Mattress, 9 kg (20 lb)
- Trapeze bar, 11 kg (23 lb)
- I.V. Pole 0.5 kg (1.1 lb)
- Drainage bag \*
- Traction frame \*
- Restraint strap \*

\* *product not available from device manufacturer.*

## 1.7 Mechanical specifications

### Maximum load capacity

Patient	227 kg (500 lb)
Trapeze	77 kg (170 lb)
IV Pole	10 kg (22 lb)
	5 kg per hook

Total (SWL) 272.7 kg (600 lb)

Total unit weight 245 kg (539 lb)  
Without accessories

### Overall dimensions

Width	102 cm (40 1/4")
Length	237 cm / 247cm / 257cm (93 3/8" / 97 3/8" / 101 3/8")

### Platform dimensions

Min. height	21.6 cm (8 1/2")
Max. height	81.3 cm (32")
Width	88.3cm (34 3/4")
Length	203cm / 213cm / 223cm (80" / 84" / 88")

### Max. angle of inclination

Folder section	70°
Thigh section	30°
Foot section	16°
Trendelenburg	±15°

### Recommended mattress

Length	203cm / 213cm / 223cm (80" / 84" / 88")
Height	12.7 to 15.2 cm (5" to 6")
Width	89cm (35")

### 1.8 Certifications

- CAN/CSA C22.2 No. 60601-1:14
- CAN/CSA C22.2 No. 60601-1-6:11+AMD1:2015
- CAN/CSA C22.2 No. 60601-2-52:11+AMD1:2017
- ANSI/AAMI ES60601-1:2005/(R)2012 - AND A1:2012, C1:2009/(R)2012 AND A2:2010/(R)2012 (Consolidated text - edition 3.1)
- IEC60601-1-6:2006 + A1: 2013
- IEC60601-2-52:2009+A1:2015
- European CISPR 11 :2015+A1 :2016/EN 55011 :2016+A12017, Class A, Group 1

### 1.9 Electrical specifications

Model	VersaTech 600 ULB
Insulation	Class II
Rated voltage	120/220/230/240 vac
Cycles	50/60 Hz
Maximum current	<u>120V model</u> <u>Without auxiliary outlet: 4.5A</u> <u>220/230/240V model</u> Without auxiliary outlet 4.5A



Note that ULB+ model is a Class I device and must be plugged in a grounded outlet. Connecting the device to a supply network that has no grounding terminal increases **RISK OF ELECTRICAL SHOCK**.

### Electrical specifications suite

Model	VersaTech 600 ULB+
Insulation	Class I
Rated voltage	120/220/230/240 VCA
Cycles	50/60 Hz
Maximum current	<u>120V model</u> With auxiliary outlet: 8.75 A  <u>220/230/240V model</u> With auxiliary outlet: 6.25 A
Protection	IPX4
Duty cycle	10% maximum (2 min. / 18 min.)
Maximum sound pressure level	< 59.5 dBa
Scale accuracy (when installed)	± 1 kg (± 2 lb) Min : 32 Kg (70 lb) e: 0.5 Kg

### 1.10 Terms of use

Operating environment	
Temperature	5 to 40 °C
Relative humidity	15% à 95% (Non-condensing)
Atmospheric pressure	70kpa to 106kpa
Storage environment	
Temperature	-40 to 70 °C
Relative humidity	10% à 100% (Non-condensing)
Atmospheric pressure	70kpa to 106kpa

### WARNINGS ON FEATURES AND SPECIFICATIONS

- Ensure that the height of the bed frame is at a suitable height for entry/exit to avoid the **RISK OF FALLING**, which could lead to **SERIOUS INJURY**.
- Before fully lowering the mattress base from the nursing controls, ensure that no part of the patient is sticking out from the mattress and that nothing is under the bed platform, as this could result in **SERIOUS INJURY AND/OR POTENTIAL BREAKAGE**.
- Class I device are provided with functional ground.

## 1.11 Electromagnetic compatibility (EMC)

This hospital bed complies with the following electromagnetic compatibility standards.

<u>Standards and test name</u>	<u>Compliance</u>
CISPR 11 (2015) A1 (2016) Conducted emissions	Group 1 - Class B 150kHz-30MHz
CISPR11 (2015) A1 (2016) Radiated emissions (Prescan 3m)	Group 1 - Class B 30MHz-1GHz
CISPR11 (2015) A1 (2016) Radiated emissions (10m)	Group 1 - Class B 30MHz-1GHz
IEC 61000-3-2 (2018) Harmonic current emission limits	Class A
IEC 61000-3-3 (2013) A1 (2017) Voltage fluctuations and flicker limitations	Observation Pst: 10 min. Observation Plt: 120 min
IEC 61000-4-2 (2008) Immunity to electrostatic discharge	Contact: $\pm 8$ kV. Air: $\pm 2$ kV, $\pm 4$ kV, $\pm 8$ kV, $\pm 15$ kV
IEC 61000-4-3 (2020) Immunity to radiated electromagnetic fields	80MHz-2.7GHz: 3V/m
IEC 60601-1-2(2014) Proximity fields of RF equipment	385MHz: 27V/m 710MHz,745MHz, 780MHz:9V/m 450MHz, 810MHz, 870MHz, 930MHz: 28V/m 1.72GHz, 1.845GHz, 1.97GHz, 2.45GHz: 28V/m 5.24GHz, 5.5GHz, 5.785GHz: 9V/m
IEC 61000-4-4 (2012) Immunity to fast electrical transients	Power: $\pm 2$ kV / 100kHz, I/O Ports: $\pm 1$ kV / 100kHz, Communication Ports: N/A
IEC 61000-4-5 (2014) A1 (2017) Overvoltage immunity	Power: $\pm 2$ kV L-PE / $\pm 1$ kV LL, I/O Ports: N/A, Communication Ports: N/A
IEC 61000-4-6 (2013) Immunity to conducted disturbances induced by RF fields	Power: 3V, I/O Ports: 3V, Communication Ports: 3V, ISM Bands: 6V
IEC 61000-4-8 (2009) Immunity to power-supply magnetic fields	Continuous field: 30A/m / 50Hz & 60Hz
IEC 61000-4-11 (2020) Immunity to voltage dips, short interruptions and voltage variations on AC input	Voltage drops: 0%One for half a cycle 0%One for 1 cycle 70%One for 25 cycles (at 50Hz) Short interruption: 0%Un for 250 cycles (at 50Hz)



### ELECTROMAGNETIC COMPATIBILITY WARNING

- Portable RF communications equipment, including peripherals such as antenna cables and external antennas, must not be closer than 30 cm (12 inches) to any part of the bed, including cables.
- Avoid stacking or placing equipment adjacent to other equipment to prevent malfunctioning. If such use is necessary, observe stacked or adjacent equipment carefully to ensure that it is operating correctly.
- The use of accessories, transducers and cables, other than those specified or supplied by the manufacturer, could result in increased electromagnetic emissions or reduced electromagnetic immunity, and lead to incorrect operation.

## 2 INSTALLATION

### 2.1 Power supply

At any time, the main voltage on the device can be safely removed by disconnecting the power cable from the device connected to the wall socket provided for this purpose. Ensure that the power cable is accessible at all times.

Please note that this is a Class I device and must be plugged into an earthed socket.

#### POWER SUPPLY WARNINGS

- Connecting the device to an ungrounded power supply increases the **RISK OF ELECTRIC SHOCK**;
- After a significant accidental liquid spill on electronic components, cables and/or motors. The operation of these components may be affected. Immediately unplug the bed, remove the user from the bed, clean and have the bed inspected by qualified technicians. Failure to follow these safety instructions could jeopardize the integrity of the bed and result in **SERIOUS INJURY**. The bed can only be put back into service if it has been properly cleaned and inspected;
- **TO AVOID INJURY AND/OR BREAKAGE, ENSURE THAT** the power cable is not in a position where it could be damaged during use of the bed;

## 2.2 Pre-commissioning check

The following checks are necessary to ensure that no damage has occurred during transport of the bed:

- (if applicable) Check the packaging for visible damage;
- (if applicable) Unpack the unit;
- Visually check that the unit is in good condition;
- Connect device power cable
- Leave appliance plugged in for at least 48 consecutive hours
- Then check that each function of the device operates in accordance with the operating instructions provided in this manual (see section 3).
- Disconnect the power cable and operate the motors to check the battery.

If any damage or malfunction appears on the bed, please contact Rotec's technical service department without hesitation.

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### WARNINGS ON CHECKING BEFORE COMMISSIONING

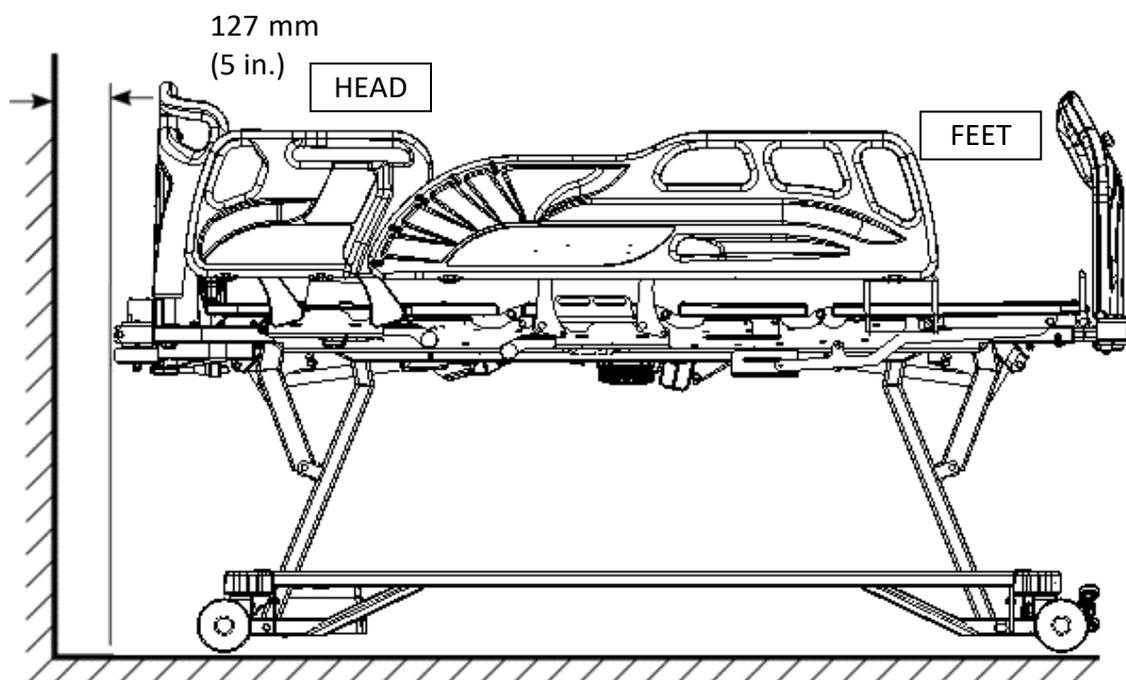
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- Ensure that power cables from nearby electrical devices do not become entangled in moving parts of the unit. Continued use of the device under these conditions may result in **SERIOUS ELECTRICAL INJURY**.

## 2.3 INSTALLATION

### 2.3 Positioning in the environment

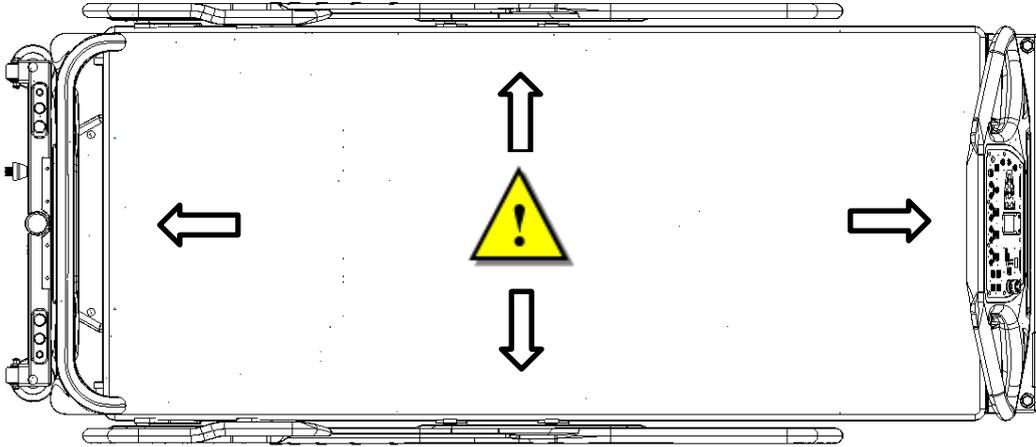
To install this model, the bed must be placed horizontally, at least 127 mm (5 in.) from the wall. Similarly, check that no objects obstruct the end of the foot section, then apply the brakes (see section 3.2).



The bed can therefore be used without worrying about the risk of contact with the wall.

## 2.4 Mattress installation/replacement

To install a mattress on the unit, please use a mattress that complies with the recommended mattress dimensions. In addition, please ensure that the mattress selected matches the configuration of the platforms chosen. (See mechanical specifications).



Place the mattress on the unit and insert it between the rails located on the edges of the platform. Note that the mattress must be compressed to allow it to fit between the rails. Otherwise, the platform configuration is inadequate for the dimensions of the selected mattress.

### WARNINGS ON FEATURES AND SPECIFICATIONS

- Use a mattress that is correctly sized to fit the mattress support platform to avoid the **RISK of the patient entangling** between the side rails and the mattress, which could lead to **DEATH**.

### 3 OPERATING INSTRUCTIONS

#### 3.1 Electrical bed functions

Symbols	Descriptions
	<b>Up arrow:</b> adjusts the various functions of the device upwards.
	<b>Down arrow:</b> adjusts the various functions of the device downwards.
	<b>Backrest function:</b> tilts the backrest section up or down. Press the nearby up or down arrow to engage the actuator. Release to stop movement.
	<b>Thigh function:</b> tilts the thigh section and adjusts the height of the foot section up or down. Press the nearby up or down arrow to engage the actuator. Release to stop movement.
	<b>Auto-contour function:</b> Allows you to tilt the thigh and back sections and adjust the height of the foot section up or down at the same time Press the nearby up or down arrow key
	<b>Bed Height function:</b> adjusts the height of the bed upwards or downwards. Press the nearby up or down arrow to engage the actuator. Release to stop movement.  Note: for safety reasons, the function on the hand control and on the side panels inside the unit are limited from lowering the unit completely. Please use the function at the foot of the bed to lower the unit to its minimum height.
	<b>Trendelenburg function:</b> tilts the bed platform so that the foot of the bed is lower than the head of the bed, and vice versa. Press the nearby up or down arrow to engage the actuator. Release to stop movement.  Note: function stops when bed platform returns to horizontal position
	<b>Lock function:</b> locks a function on the remote control and on the fixed inside control for the patient from the nurse control at the foot of the bed. Press this button to lock the function displayed nearby. A red light will illuminate above the padlock symbol, indicating that the function is locked.

	<p>The recessed button locks all the device's movement functions on the remote control and controls them fixed on the bed sides and at the foot of the bed, except for the CPR function.</p>
	<p><b>Chair function:</b> places the bed in the chair position. This function tilts the back and thigh section upwards, adjusts the height of the foot section upwards and tilts the bed so that the foot section is lower than the head section.</p> <p>Press this button until all functions have reached their maximum position. Release to stop movement.</p> <p>Note: the entire operation may take up to 60 seconds. The chair position is not meant for foot end bed egress.</p>
	<p><b>Electric CPR function:</b> puts the bed in the optimum position for performing CPR maneuvers. This function is to be used for this purpose <b>ONLY</b>.</p> <p>Release the control to stop movement.</p>
	<p><b>Light function:</b> turns on the light under the bed.</p> <p>Press to switch on and/or off</p>
	<p><b>Call bell function:</b> This function sends a signal to the nurses' station.</p> <p>Press the button to send the signal.</p>
	<p><b>Connection indicator:</b> Indicates by means of an indicator light whether or not the bed is connected to the wall socket. Allows the battery to recharge.</p>

#### WARNINGS ON THE USE OF ELECTRICAL FUNCTIONS

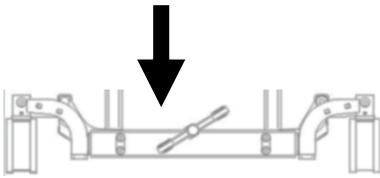
- If the user's state of health requires it, and for his/her own safety, lock the bed's movement functions intended for use by the patient and place the bed in the lowest position, with the platforms horizontal and the bed sides rails raised;
- Before activating the CPR function, make sure that none of the user's limbs are sticking out from the mattress, and that nothing is under the bed deck, as this could result in **SERIOUS INJURY AND/OR POTENTIAL BREAKAGE**;
- The CPR function is to be **USED IN EMERGENCIES ONLY**. Use of this function for any other purpose could result in **SERIOUS INJURY** to the patient or operator.
- Always position the bed at a reduced height when the patient is unattended or asleep, to reduce the risk of **INJURY AND FALLS**;
- Do not leave tables or other appliances requiring access under the bed when it is lowered to its lowest position, as this will cause **SERIOUS MECHANICAL DAMAGE**.
- Always ensure that no objects or equipment interfere with the movement of the moving parts of the bed before operating any of the movement controls, e.g. patient or staff members, medical equipment, etc. This could result in **SERIOUS INJURY AND/OR EQUIPMENT BREAKDOWN**.

## 3.2 Moving the unit

To move the unit, we recommend raising the base by at least 150mm (6") from its lowest position, to facilitate access to the foot pedal. To operate the system, place the foot pedal in one of three positions:

### DIRECTIONAL

To engage the directional mode and allow the right-headed caster to roll in a straight line:



Press on the green side of the pedals.

### NEUTRAL

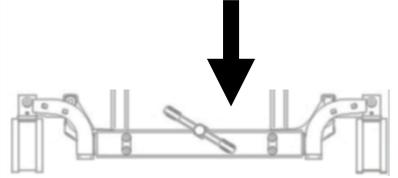
To remove all restrictions and allow the bed to roll freely in all directions:



Position pedals horizontally.

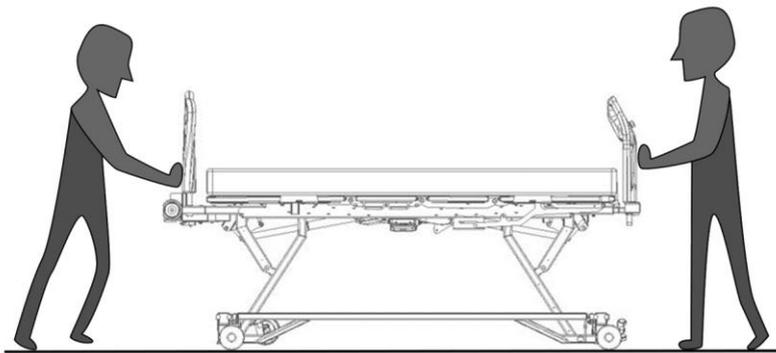
### BRAKE

To apply the brakes and bring the bed to a complete stop:



Press the red side of the pedals.

When the bed is heavily loaded, two people are recommended to move it.

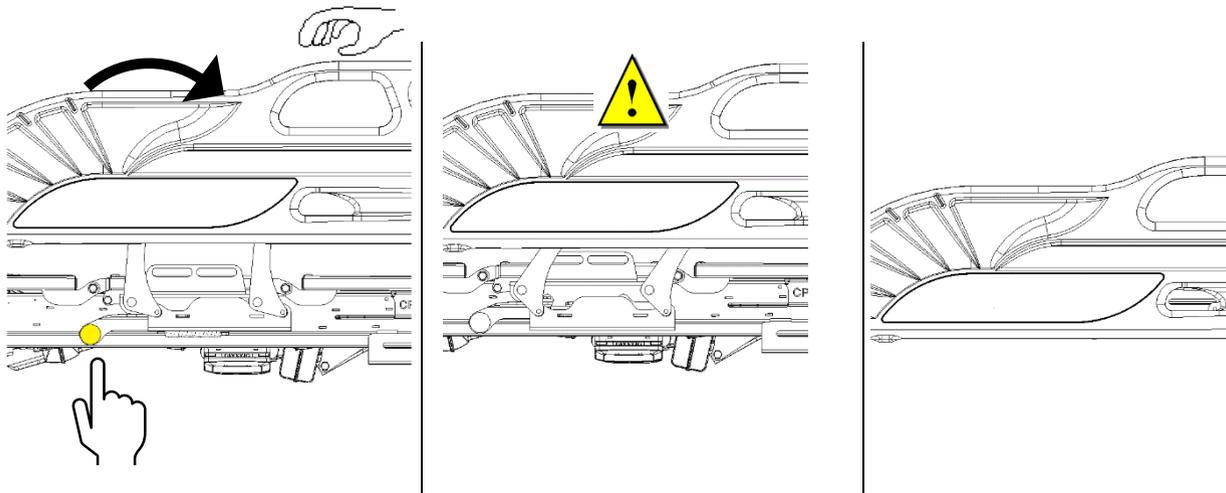


### WARNINGS ON THE SYNCHRONIZED BRAKE SYSTEM

- Always apply the brakes after moving the bed or when a patient is on the bed, as this could cause **INJURY TO** the patient when getting on and off the bed.
- Always check that the brakes are engaged when attempting to move the bed.

### 3.3 Side rails guards

To open one side of the bed, use 2 hands, with one hand on the handle and the other pushing the lever located under the bed frame, move the half-rail downwards with a rotating movement, move the half-rail until it stops in its lowest position.



To close the half-rail, pull it up with a twisting motion. Then make sure the half-rail is locked in its highest position by trying to move it from left to right.

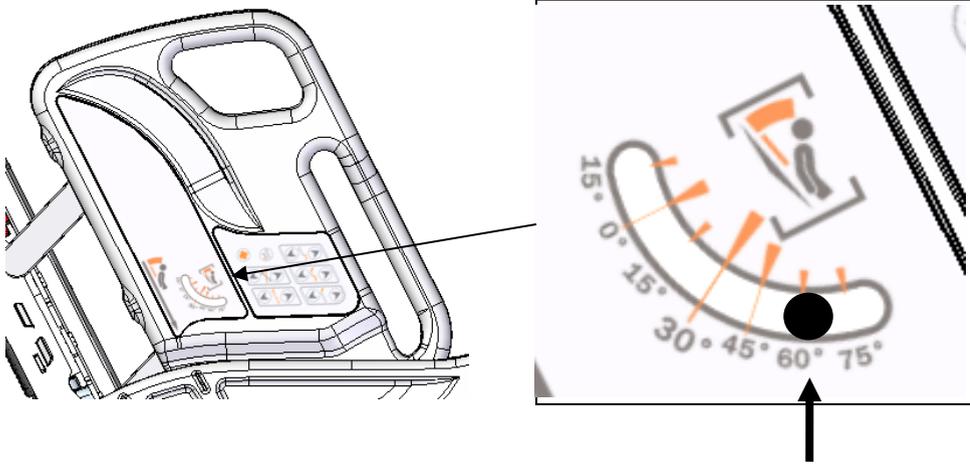
#### WARNINGS ON THE USE OF SIDERAILS

- Side rails are designed to prevent accidental falls only. They must not be used to prevent the patient from leaving the bed, to help the patient turn around in the bed or as a means of restraint. It is the operator's responsibility to use appropriate restraints, in the interest and for the safety of the user;
- Make sure that nothing can impede the movement of the side rails (blankets, patient's limbs, etc.) before operating them, to avoid the risk of injury.
- Unless otherwise advised by a physician, leave the sides of the bed raised and locked when the user is unattended or asleep, to avoid the **RISK OF FALLING**. In addition, it is preferable to leave the bed at its lowest height, to limit the risk of injury in the event of a fall.
- When the half-rail is raised to the closed position, always check that the mechanism is securely locked to avoid the RISK OF FALLING.
- Ensure that the feet are not under the appliance when the base is lowered to its lowest position. When the side panels are lowered, they may come into contact with the feet and raise the side panel slightly.

### 3.4 Angle indicators

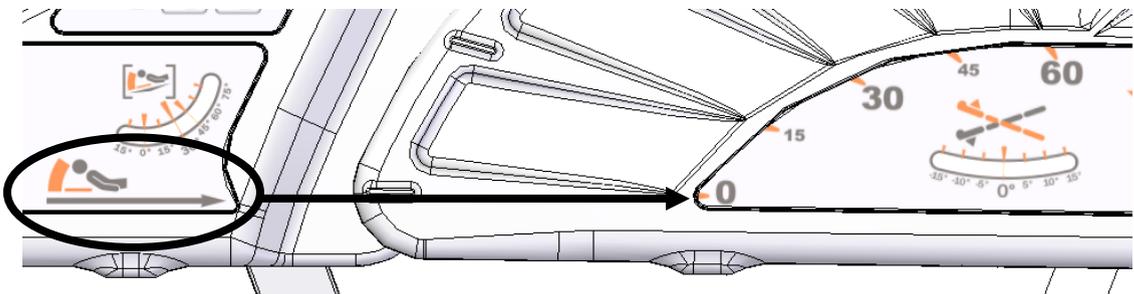
#### The backrest in relation to the floor

The angle of the backrest in relation to the ground is approximated by looking at the measurement (in degrees) indicated by the ball at its lowest point.



#### Backrest to seat

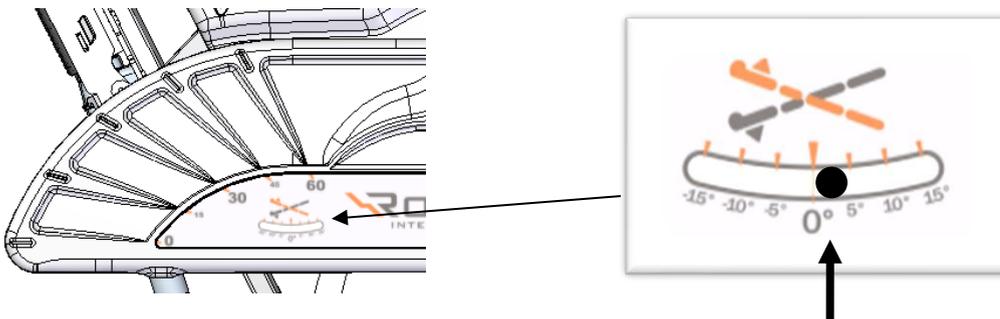
The angle of the backrest in relation to the seat is approximated by looking at the arrow (head side) which points to the degrees inscribed on the foot side.



Bed rails must be closed and locked so that the measurement indicated by the arrow on the head rail corresponds to the correct angle on the foot rail.

#### The Trendelenburg

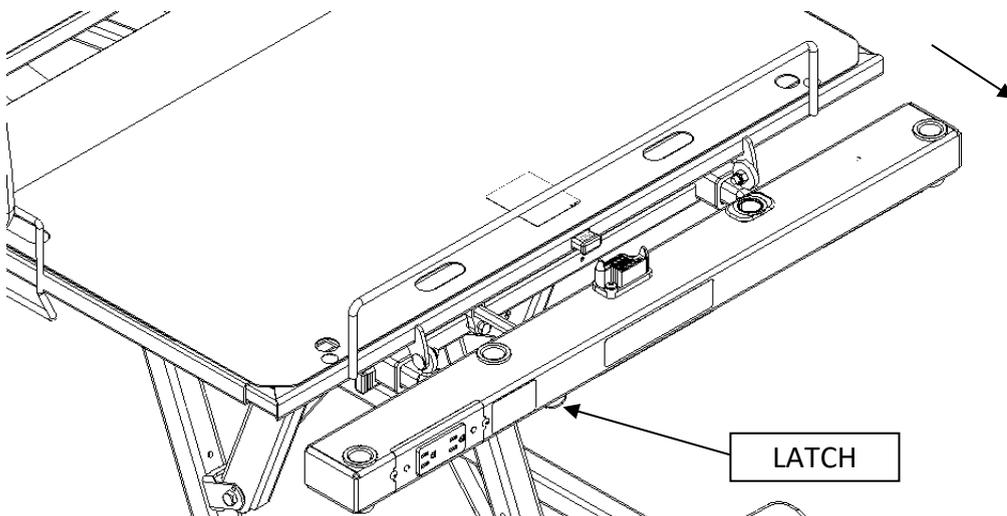
The angle of the bed in Trendelenburg and Reverse Trendelenburg is given approximately by looking at the measurement (in degrees) indicated by the ball at its lowest point.



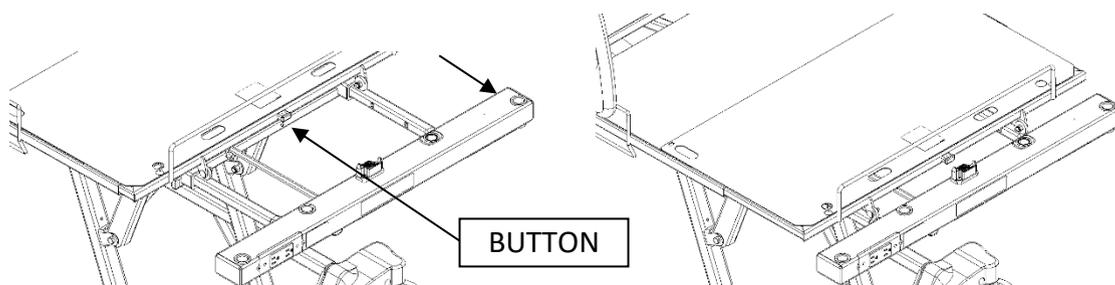
### 3.5 Bed length extension

\* We recommend raising the foot section as high as possible to facilitate use of the platform's length extension.

- 1) Press and release the latch on the underside of the foot frame extension;
- 2) Pull on the foot frame extension ;
- 3) The extension automatically locks to the following mattress sizes: 84" & 88".



- 4) Press the button in the center of the foot section of the platform;
- 5) With the other hand, pull on the platform foot extension;
- 6) Release the button and the extension locks in place at the same dimensions (84" & 88").

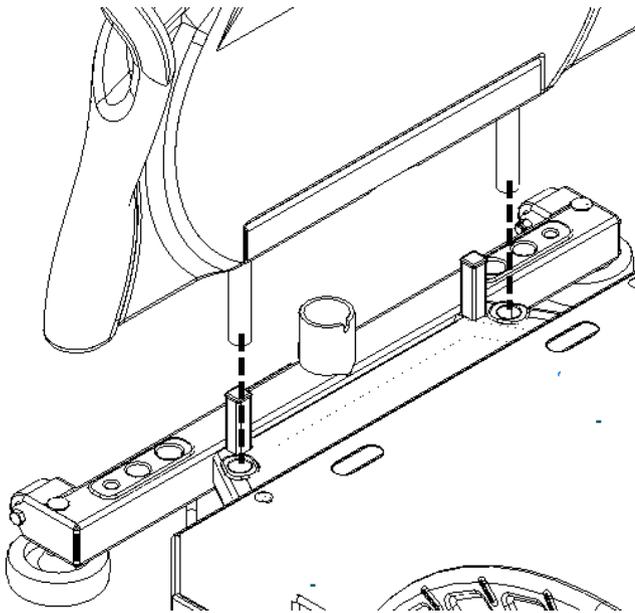
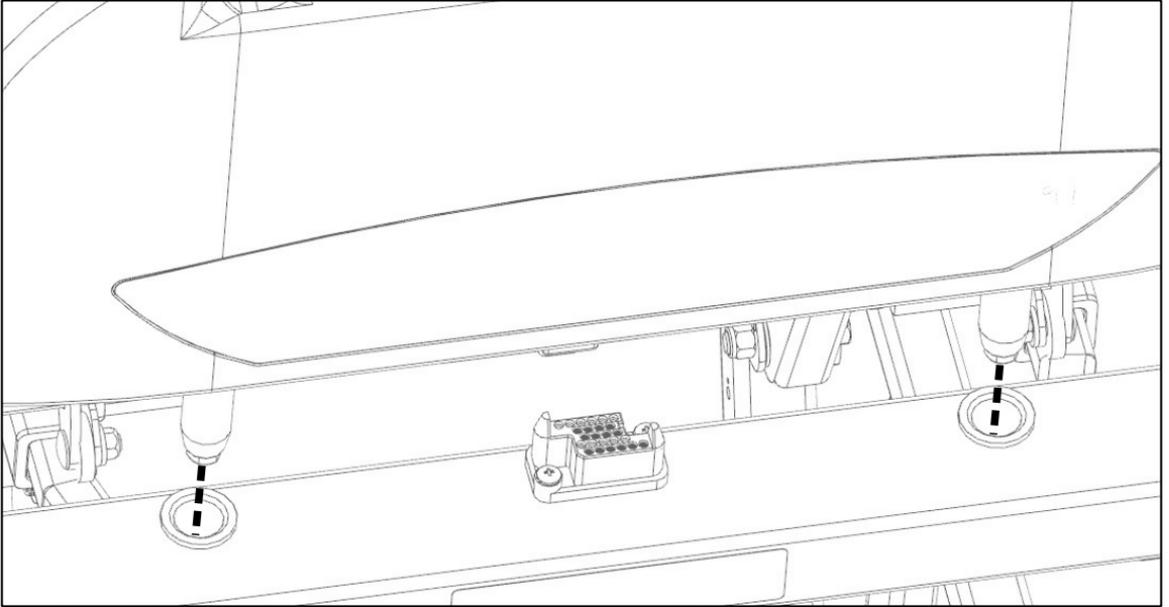


#### WARNINGS ON USE

- To avoid **INJURY AND/OR BREAKAGE**, never stretch the base without first stretching the foot frame extension.
- After extending the platform in length, always make sure that the length is equal to or slightly less than the length of the mattress being used, to avoid **RISKS OF ENTRAPMENT** that could lead to **DEATH**.

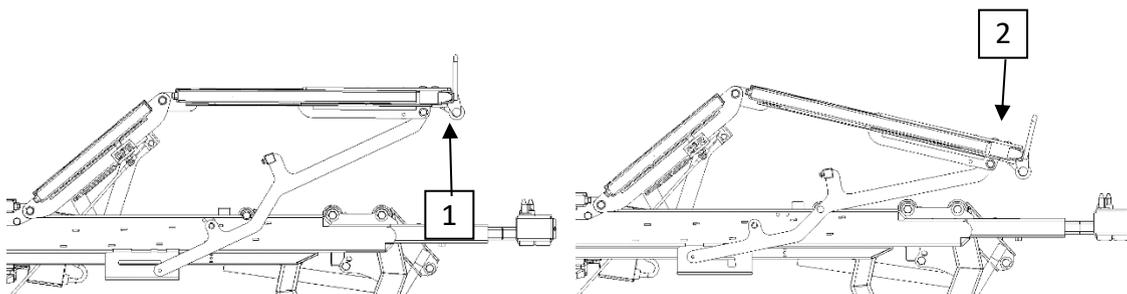
### 3.6 Headboard and footboard installation

To install a bed end panels, slide the two (2) rods, from the head or foot board, through the two (2) holes provided until they reach the bottom, as shown below. To remove the panel, follow the reverse procedure described above.



### 3.7 Foot section angle adjustment

When raised, the end of the foot section of the bed platform can be lowered as required. To do this, simply lift the end of the foot section (step #1). The mechanism should unlock. Then lower the foot section until it reaches the lock (step #2).

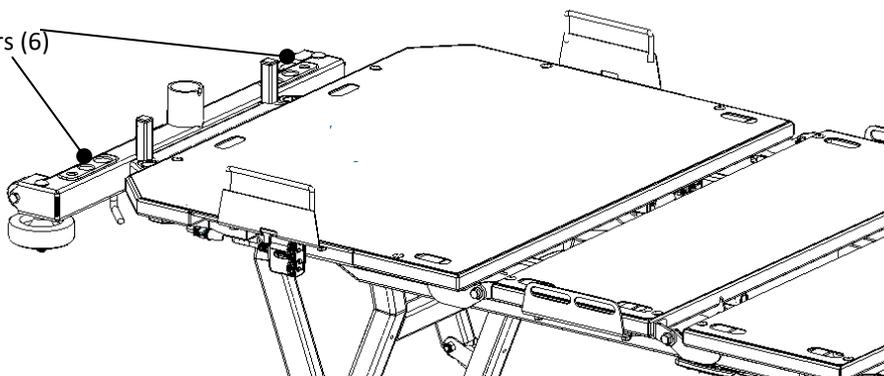


To return the foot section to the horizontal position, fully lower the thigh section using the motorized controls and the foot section will lock back into the horizontal position.

### 3.8 IV Pole holder

Six (6) devices are located at the head of the structure, in three different sizes: 1/2, 7/8 and 1 inch diameter.

Devices for  
IV Pole holders (6)

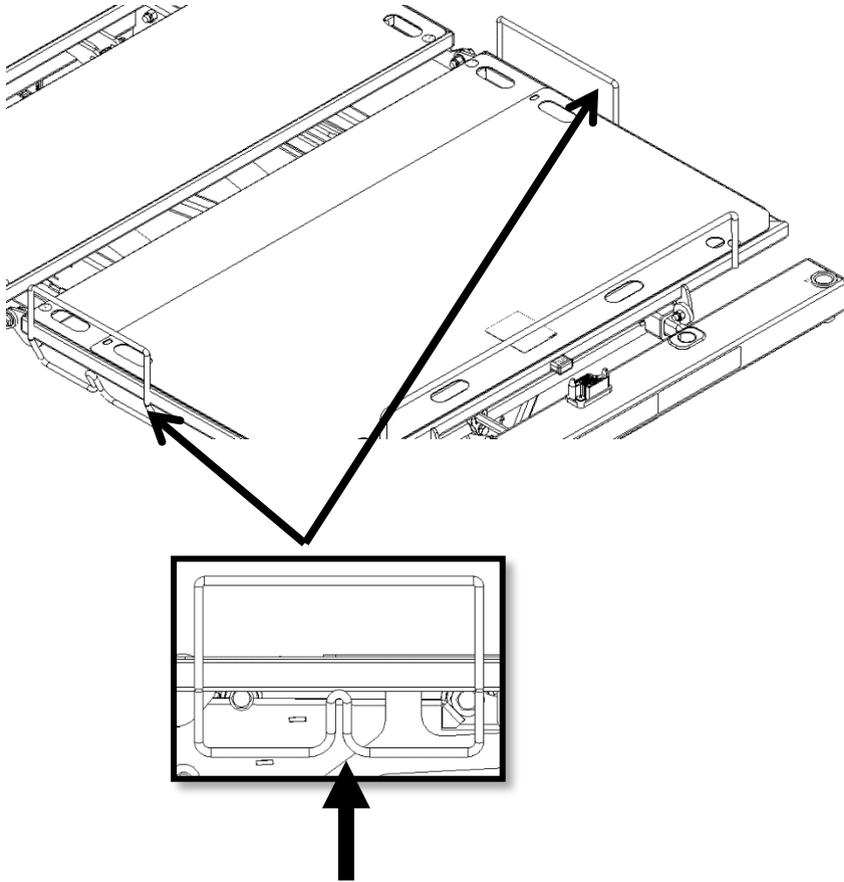


#### **⚠ WARNINGS ON THE IV POLE HOLDER**

- Do not use the Trendelenburg function when an IV pole is installed on the bed, to avoid material damage and **RISK OF INJURY** to the patient.

### 3.9 Drainage bag hooks

The two (2) hooks designed for drainage bags are located below and on either side of the foot section of the platform.

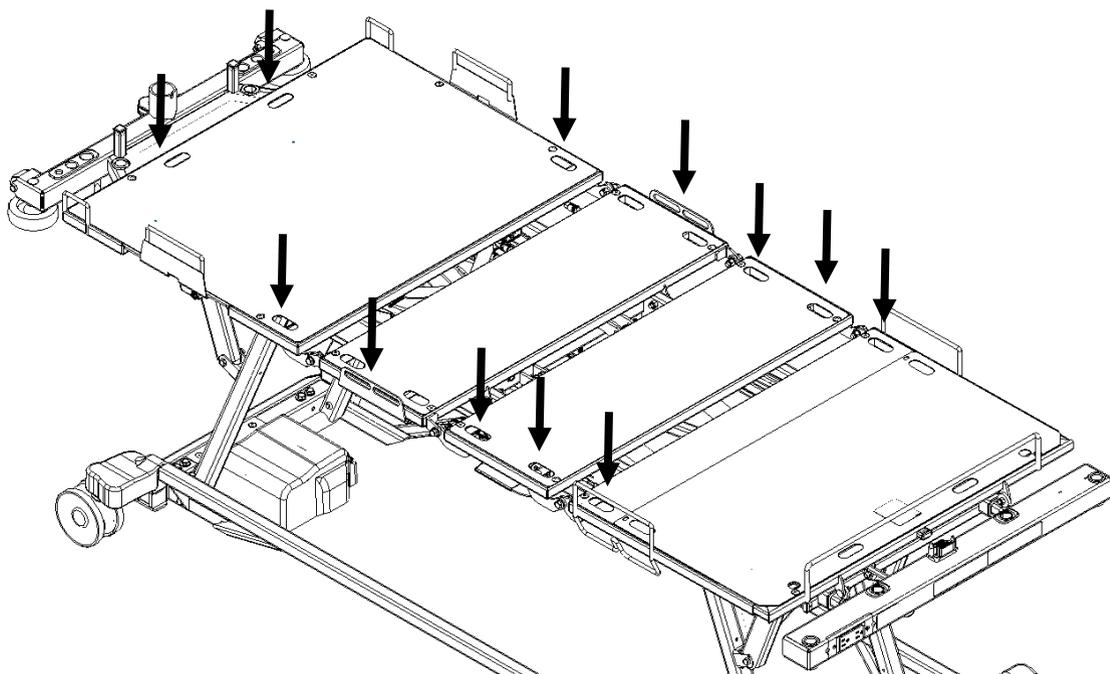


#### **⚠ WARNINGS DRAINAGE BAG**

- Do not lower the base to its minimum height when drainage bags are hooked under the seat section. The bags could come off and INJURE the patient.
- Caution: hanging a drainage bag elsewhere on the unit could cause INJURY AND/OR BREAKAGE when moving the sections.

### 3.10 Openings for restraint belts

The openings for the restraint belts are located on each side of the platform. It is the responsibility of the medical staff to use restraint belts properly and to choose which openings to use.

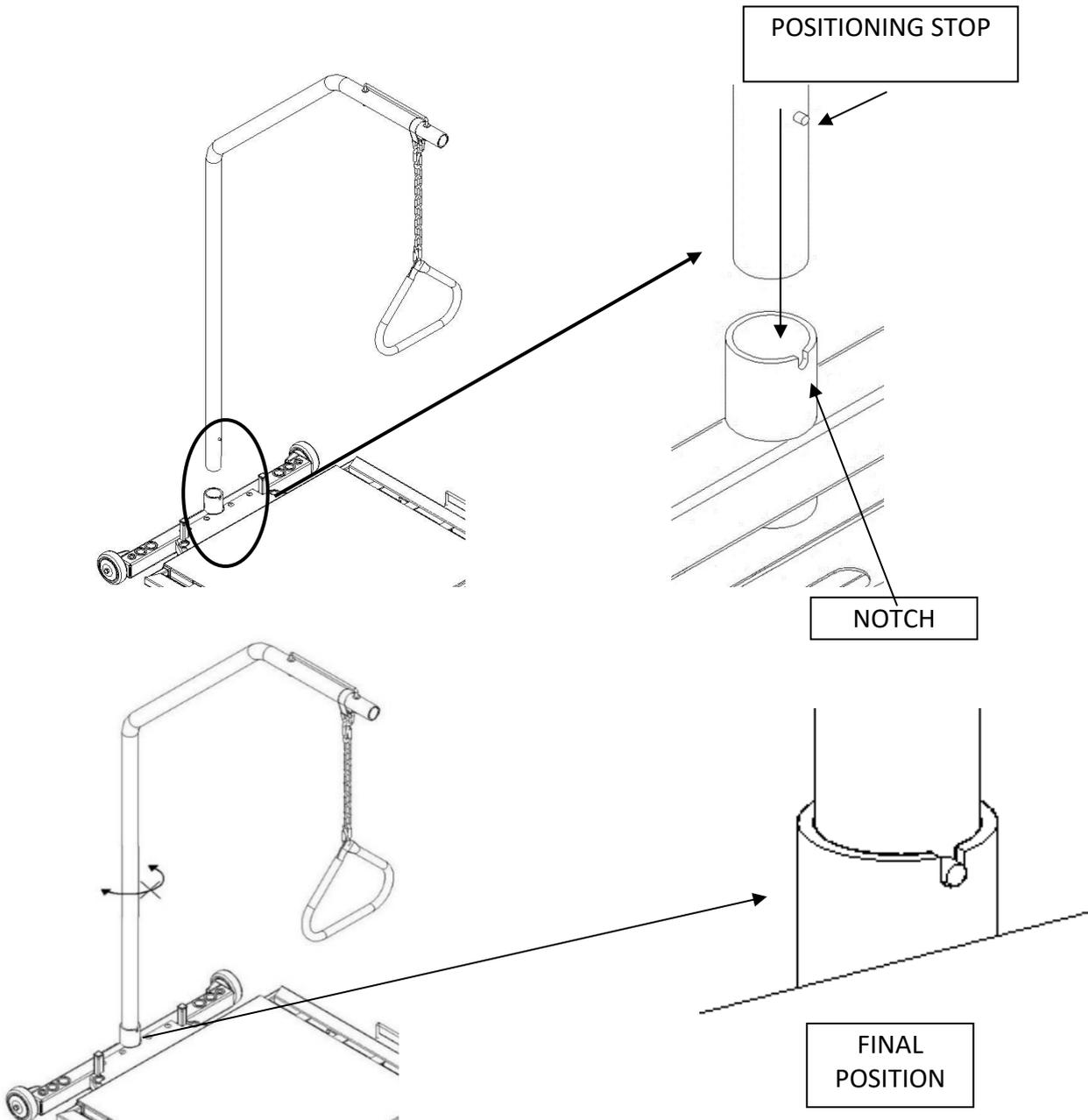


#### WARNINGS ON RESTRAINT BELTS

- Check that the restraint belts do not squeeze the patient more tightly during platform movements, as this could lead to **RISK OF INJURY**.

### 3.11 Trapeze bar installation (optional)

Insert the trapeze bar into its receptacle, taking care to align the positioning stop with its notch. Designed for Rotec trapezes bar.



Make sure the trapeze bar is correctly positioned by attempting to move it by turning it.

#### **⚠ WARNINGS ON THE TRAPEZE BAR**

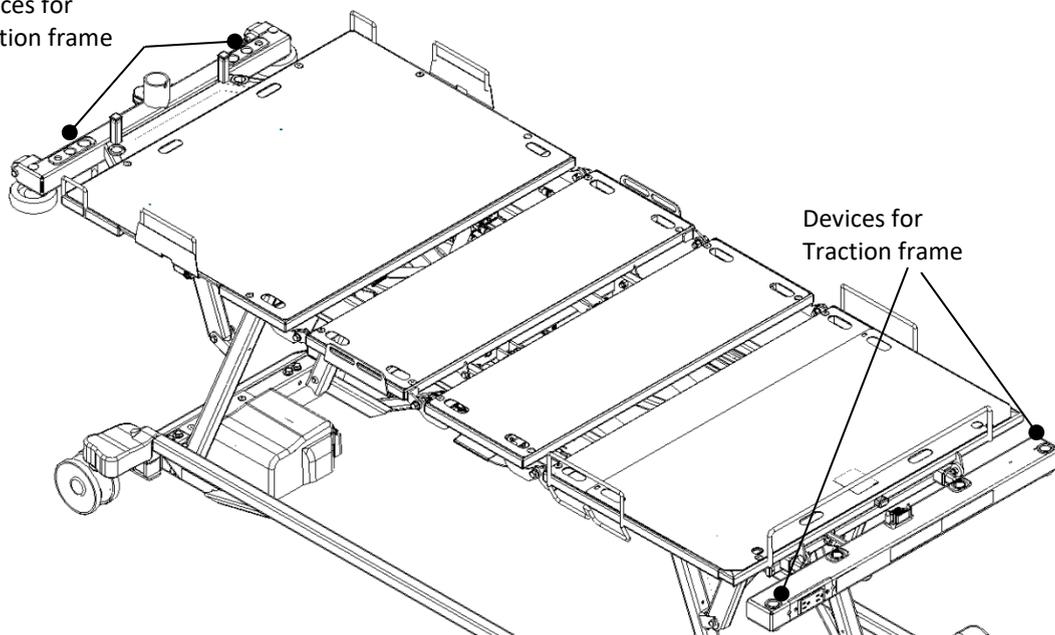
- Do not use the Trendelenburg function when a trapeze bar is installed on the bed, to avoid **MATERIAL BREAKAGE** and the **RISK OF INJURY** to the patient.

### 3.12 Traction frame support

Here are the locations for installing the traction frame. 7/8" diameter opening.

Devices for

Traction frame

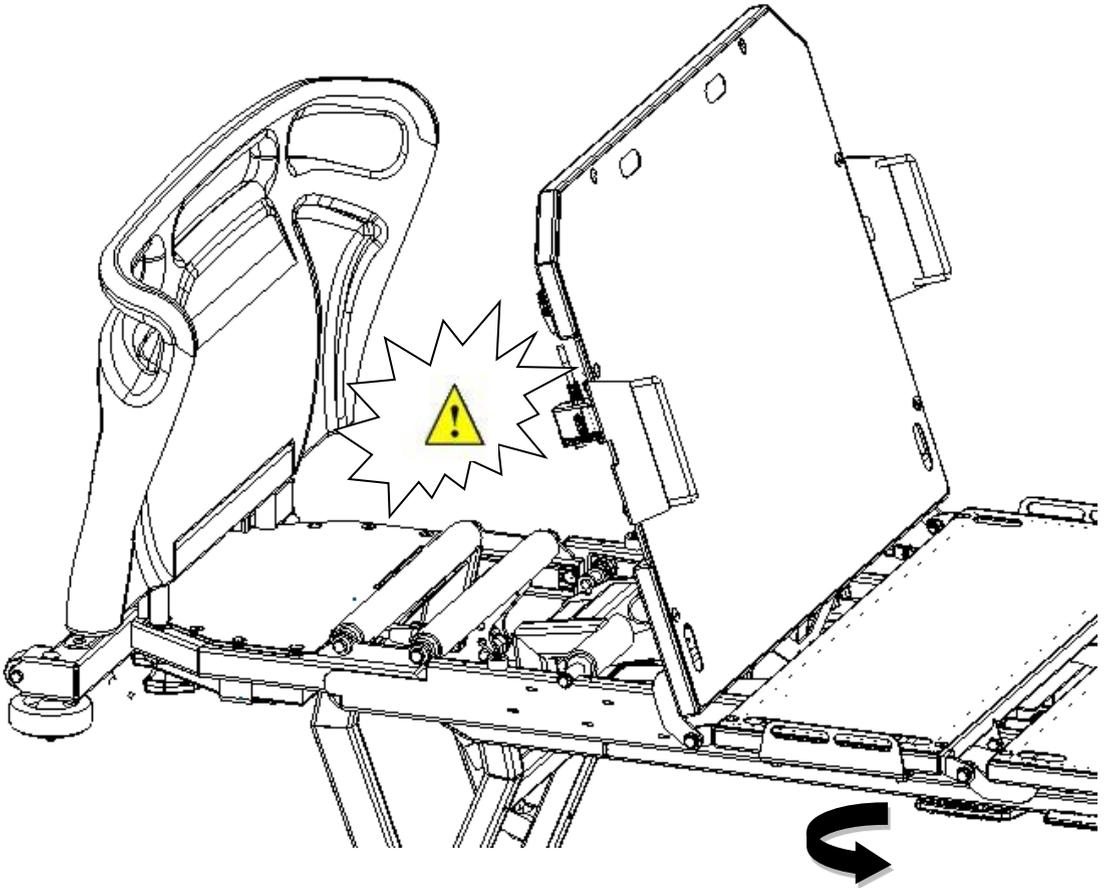


#### WARNINGS TRACTION FRAME SUPPORT

- Do not use the Trendelenburg function when the traction frame is installed on the bed. It could collide with surrounding objects, causing mechanical damage or even increasing the risk of injury to the patient.

### 3.13 Mechanical CPR

To use the function, pull the CPR handle located under the thigh section of the platform as shown below to lower the backrest section only.



#### **⚠ WARNINGS ON MECHANICAL CPR**

- When activating the CPR function, make sure that no part of the user's body protrudes from the mattress and that nothing is under the bed platform, as this could result in **SERIOUS INJURY AND/OR POTENTIAL BREAKAGE**.
- The CPR function is to be **USED IN EMERGENCIES ONLY**. Use of this function for any other purpose could result in **SERIOUS INJURY** to the patient or operator.
- The siderails must be in the raised position when the mechanical CPR is triggered. Otherwise, the siderails mechanism could open abruptly, causing **SERIOUS INJURY**.

### 3.14 Nurse call and DB37 output

Pressing the nurse call button sends a signal to the on-call station.

The bed must be connected to the wall using a DB37 communication wire. The socket for this wire is located under the frame at the head end of the bed.

This type of connection is an industry standard. If another type of connection is required, please contact us to find out about other available connection options.

Depending on the facility's system configuration, the socket offers the option of sending a normally connected (NC) or normally open (NO) signal.



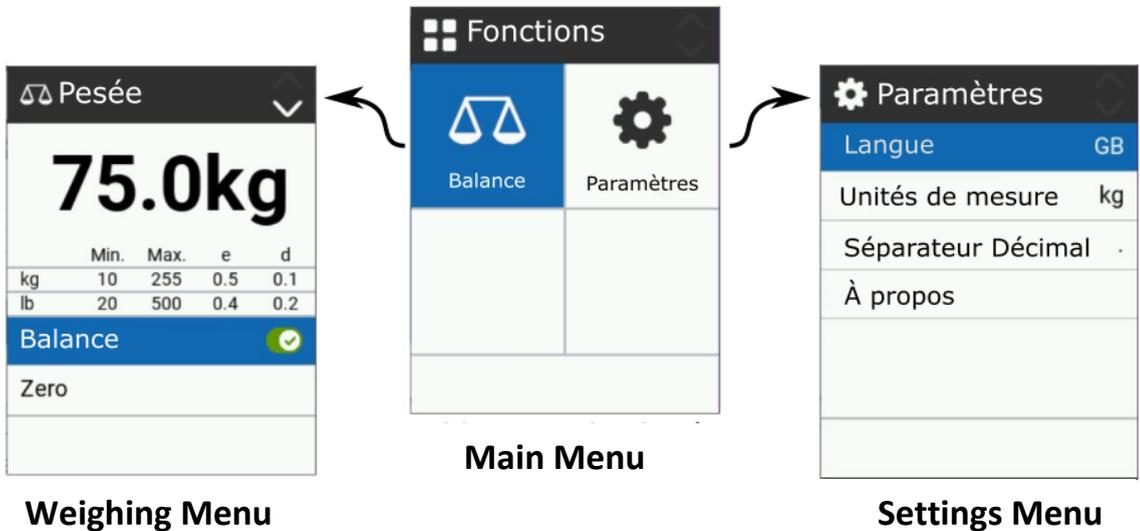
Note: This socket also sends a signal on bed exit if this option is enabled.

#### **⚠ WARNINGS ON THE DB37 SOCKET**

- Check that the signal is working properly after connecting. A non-functional connection could result **IN PROCESSING DELAYS THAT COULD AGGRAVATE OR CAUSE INJURY.**

### 3.15 Integrated scale (optional)

The integrated scale option lets you measure a patient's weight. These functions can be accessed via the display and directional keys on the footboard.



Use the arrow keys to navigate the menus. The highlighted blue color indicates the current selection.

#### Weighing menu

From the main menu, select the Scale icon and press the OK button to access the weighing menu. Note that the bed must be plugged in to use the scale.

Weighing menu functions :

- Scale On/Off: Activates or deactivates the function.
- Zero: Resets the scale to zero in order to remove the weight of accessories. Only possible when bed is empty.

#### Settings menu

From the main menu, select the Settings icon and press the OK button to access the Settings menu.

You can change the display language and other scale system parameters.

#### Note on scale accuracy

- The error will be +/- 1KG (2 lb) maximum when in use.
- It is advisable to align the castors in the same direction as when moving the bed, and to keep the castors locked during a series of measurements. Moving the bed and changing the orientation of the castors may change the measured value. Measurements taken before moving the bed should not be compared with those taken afterwards.

#### WARNINGS ON THE SCALE SYSTEM

- The bed scale is intended for **REFERENCE PURPOSES ONLY AND IS NOT SUITABLE FOR PRECISION MEDICAL USE SUCH AS DOSING MEDICATION.**
- Deactivating the scale also deactivates the bed exit detection system.

### 3.16 Bed exit detection system (optional)

Bed exit detection requires no calibration and can warn if there is a variation in the weight measured on the scales.

Press one of the buttons described below while the patient is in bed to activate the function.

#### Key identification



Zone 1: Bed exit detection. The system will warn if the weight measured in the bed reduces significantly, indicating that the patient is no longer in bed.



Zone 2: Lateral motion detection. The system will warn if the patient attempts to leave the bed. Please note that this option may cause false alarms if the patient is agitated, or if the patient moves around the bed while sleeping. When activating Zone 2, make sure the patient is in a centered position in the bed to minimize false alarms and increase system accuracy.

Also includes Zone 1 alert.



Zone 3: Frontal movement detection. The system will alert if the patient attempts to leave the bed towards the foot end of the bed. Please note that this option may cause false alarms if the patient is agitated, or if the patient moves around the bed while sleeping. When activating Zone 3, make sure the patient is in a centered position in the bed to minimize false alarms and increase system accuracy. Also includes Zone 1 & 2 alert.

#### Alerts

If the patient moves and activates the alert, the system issues 3 types of warning.

Visual indication is provided by indicator lights located under the footboard interface. When the system needs to warn staff, these indicators flash.

The buzzer can emit a sound to alert caregivers. You can activate or deactivate the buzzer as required. To do so, press and hold the zone 1 & 2 activation button on the bed exit detection system until one of the following beeps is heard:

1 beep: buzzer **deactivated**

3 beeps: buzzer activated

### 3.16 OPERATING INSTRUCTIONS

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Alerting the on-call station is done by connecting to the DB37 output connected to the facility. (See Nurse Call section)

There may be a delay of up to 5 seconds before the alarm is activated after motion detection.

#### **Warning**

This device is not suitable for all individuals. Other devices may be required. This device is not a substitute for visual control by caregivers. The manufacturer makes no claims that this device will stop and/or prevent falls. This device is an additional tool to a comprehensive program of resident mobility management by caregivers. Test this device before each use. Read instructions and legal notices.

Furthermore, the system is not designed to replace good care practices, including, but not limited to, direct patient supervision or adequate staff training for falls prevention.

This device provides the earliest possible warning that a patient is leaving the bed. This device does not prevent falls. The alarm may not sound if the operating instructions have not been followed. If the alarm does not work properly, turn it off and replace it with a properly functioning alarm system.

Make sure your facility has a clearly defined policy for managing responses to falls and fall alarms.

Where permitted, it is Seller's intention to limit any liability for special, incidental or consequential economic damages to the repair or replacement of the product. Seller disclaims all liability for damages, compensatory interest or otherwise arising out of the use of the products.

This product is intended for use by authorized nursing staff only.

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#### **WARNINGS ABOUT THE BED EXIT DETECTION SYSTEM**

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- This function should **NEVER** be used as a fall prevention method. This could result in **RISK OF INJURY** to the patient.
- This function should **NEVER** be used as a substitute for visual inspection. This could result in **RISK OF INJURY** to the patient.
- This function should **NEVER** be used as the sole means of monitoring patients who are agitated, combative, suicidal or at extreme risk of falling (e.g. patients with bone lesions or previous hip fractures). This can lead to **SERIOUS RISKS OF INJURY**.
- Deactivating the scale also deactivates the bed exit detection system.

### 3.17 Auxiliary output (optional)

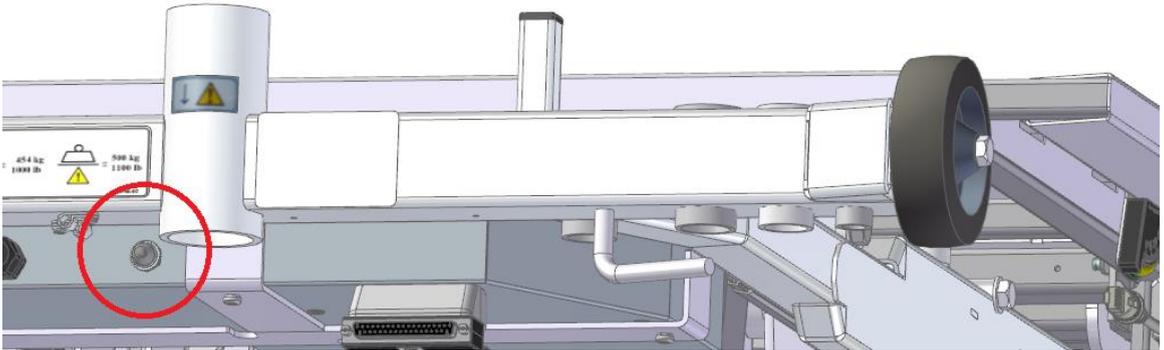
If the bed is equipped with an auxiliary power socket, this is located under the footboard.

The voltage of the auxiliary socket is that of the mains supply, and the socket capacity may be 2.5A or 5A, depending on the model.

This socket is connected to the unit's main power supply via an isolation transformer. Unplugging the bed's wall power supply deactivates the output.

It is designed for connection to a maximum 600W air mattress pump. Exceeding the current indicated on the plug marking may cause the circuit to break.

If the plug doesn't work, press the circuit-breaker reset button located near the power cable inlet (at the head) to reconnect the circuit.



#### WARNINGS ON THE AUXILIARY SOCKET

- Only connect medical-grade devices consuming 5A (120 VAC) / 2.5A (220/230/240 VAC) or less to the auxiliary socket.
- In practice, connecting an electrical device to the auxiliary socket leads to the creation of an electromechanical system. This can lead to a reduced level of safety.
- Do not connect an extension lead or a multi-outlet socket to the bed's auxiliary socket.
- Do not use the auxiliary socket for life-sustaining equipment.

# 4 MAINTENANCE

## 4.1 Cleaning

The following precautions should be taken when cleaning the unit:

- Do not wash with high-pressure water jets. Ultrasonic cleaning and immersion of bed parts are not recommended;
- Always unplug the bed before cleaning;
- Use products commonly used in hospitals, such as Presept, Zochlor, Fectolime, Zep F-12167, Zep Spirit II, ACCEL Prevention RTU (Virox), Clorox Healthcare Wipes or 3M HWS-100 etc., or residential soaps, and clean the bed by hand. Products can be applied by spraying. Ensure that the concentration of the cleaning product complies with the cleaning product manufacturer's recommendations;
- Can be steam-washed, but do not use high-pressure jets;
- Make sure all cleaned parts are clean and dry before using this bed.



### WARNINGS ON CLEANING

- Caution: failure to follow the cleaning instructions could jeopardize the integrity of the unit and render it unusable.

## 4.2 Preventive check

Annual checks:

- Check that the unit is still in good condition;
- Connect the device cable;
- Leave the unit plugged in for at least 48 consecutive hours;
- Check that bolts and nuts are tight;
- Check shoulder washers used to reduce friction on moving parts for wear. Do not lubricate. Replace if necessary;
- Check that no objects or equipment hinder the movement of the bed's moving parts (wheels, frame, etc.);
- Check condition of remote control wire, power cord and bed wiring. Replace damaged wires;
- Check that all functions are operating correctly, in accordance with the operating instructions in this manual (see section 3).
- Disconnect the power cable and operate the motors to check the battery.

For optimum performance, we recommend replacing the bed's batteries every 3 years.

### PREVENTIVE INSPECTION WARNINGS

- Periodic maintenance is essential to maintain the bed's reliability. Any bed showing signs of malfunction must only be used and repaired by authorized and competent personnel. Failure to comply with these safety instructions could jeopardize the integrity of the bed and result in **SERIOUS INJURY**.
- Any replacement of equivalent parts not certified by Rotec may result in **SERIOUS INJURY AND/OR SIGNIFICANT MECHANICAL BREAKAGE AND MAY LIMIT OR VOID THE PRODUCT WARRANTY**.
- Any breakage of a part giving access to electronics must result in immediate storage of the unit until the damaged part has been replaced. Continued use under these conditions may result in **SERIOUS ELECTRICAL INJURY**.

### 4.3 End-of-life disposal

For safe disposal of the device at the end of its life, follow the steps below:

- Remove the batteries from the device and arrange for them to be recycled at an appropriate facility.
- Remove power cables, connectors, motors, circuitry, hand controls and electronic controls from the unit. Then take the necessary steps to recycle them in a facility set up for this purpose.
- Remove the wheels, plastic covers from the base, panels and side rails, as well as the plastic seals from the various bed mechanisms. Then arrange to have them recycled at a recycling facility.
- Dispose of the remaining metal parts for recycling as appropriate.

## 4.4 Troubleshooting guide

If you experience any difficulties with the bed and/or any of its components, please consult the section below. If the following or other problems persist, do not hesitate to contact our technical support department.

### Checks

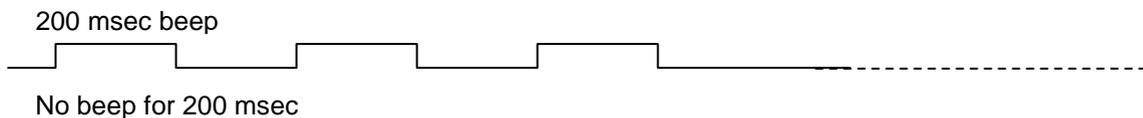
PROBLEMS	VERIFICATIONS
None of the controls work, whether Either on the remote control or on the nursing control.	<ul style="list-style-type: none"> <li>✓ Is the power cord properly connected?</li> <li>✓ Is the power cord damaged? If so, replace it.</li> <li>✓ Check all connection plugs.</li> </ul>
No commands work on  the remote control.	<ul style="list-style-type: none"> <li>✓ Are the controls locked? Is the remote control cable properly connected?</li> <li>✓ Is the remote control cable damaged? If so, replace it.</li> </ul>
One or more functions of the remote control does not work.	<ul style="list-style-type: none"> <li>✓ Check the above points.</li> <li>✓ Are the controls locked? If no, on the nurse control commands do they work? If so, have the remote control checked.</li> </ul>
The bed move slowly.	<ul style="list-style-type: none"> <li>✓ Is the power cord properly connected?</li> <li>✓ Is the power cord damaged? If so, replace it.</li> </ul>
The device emits one or more beeps.	<ul style="list-style-type: none"> <li>✓ See the following section for an explanation of acoustic signals</li> </ul>

## 4.4 MAINTENANCE

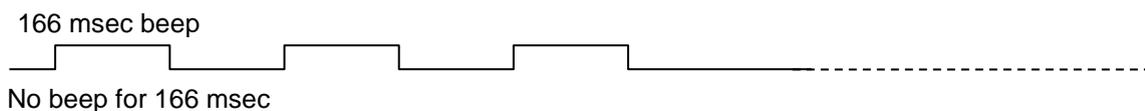
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### Explanation of acoustic signals

*Loss of actuator position:*



*Bed exit alarm :*



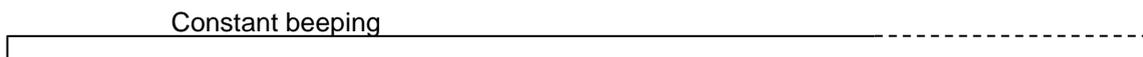
*Fatal error (see section 4.4.3) :*



*Reset fatal error:*



*Warning:*



*Overheating*



### **Troubleshooting after a fatal error**

When the control box is in fatal error mode, a fatal error beep will be present every time a button is pressed to alert the user to the condition. In addition, all LEDs will start flashing when the system is in fatal error. Each control box function reacts to fatal errors in a specific way. Here are the possible types of error:

1. Positioner error on actuators: occurs when the control box expects to see positioning pulses when an actuator moves but does not see these pulses.
2. Motor output error: occurs when a power request is generated but there is no command to go with it. This error is generated for safety reasons, so that no involuntary movement occurs on the bed without a specific code having been generated (pressing a key generates a unique code).
3. Missing actuator(s) error: occurs when a function is called, but not all the actuators required for the function are present.

An unrecoverable error must be cleared by simultaneously pressing the bed height up/down buttons on the nurse control at the foot of the bed or on the removable control (hand control) for 5 seconds. The fatal error reset beeps (10) are heard while this is being done. When the beeps stop, the reset is complete.

An unrecoverable error should not cause the actuators to lose their stored position. It is up to the user resetting the fatal error to determine whether the system is in a safe position. Raise the bed to the highest position to obtain the correct calibration.

# 5 WARRANTY AND RETURN POLICY

## 5.1 Limited warranty

Rotec warrants to the original purchaser of the VersaTech 600 ULB+ bed, the following protections:

- 1 year on manufacturing defect and accessories;
- 2 years on motors and electronic components;
- 10 years on the structure.

Warranty coverage begins from the date of purchase of the unit and no employee or representative of Rotec is authorized to change this warranty in any way. **This warranty does not cover damage caused by negligence or improper use. Further, except for the warranty set forth above, Rotec shall not be liable for any other warranty made by any other person, firm or corporation.** Rotec reserves the right to substitute materials of equal or better quality for repairs and/or replacements. Replaced materials covered by the warranty do not qualify for a new warranty. They benefit only from the original warranty.

The warranty on the bed and/or its accessories does not apply to damage resulting from unauthorized modifications and/or additions or the installation of accessories other than those authorized by Rotec. Use only replacement parts supplied by Rotec. Proof of annual preventive maintenance may be required.

For further information, please contact our technical support department. Service hours are Monday to Friday, 8:30am to 12:00pm and 1:00pm to 5:00pm.

### WARRANTY DISCLAIMER

- Any modification of the unit without the authorization of Rotec may result in **SERIOUS PERSONAL INJURY AND/OR SIGNIFICANT MECHANICAL DAMAGE AND MAY LIMIT OR VOID THE PRODUCT WARRANTY.**

## 5.2 Return policy

### Non-conforming product

If a Rotec product does not conform to the original purchase order, the problem must be reported within 48 hours of receipt of the product. Any action required to bring the product into conformity will be at Rotec expense and will be carried out as soon as possible after the non-conformity has been reported.

### Damaged product

It is the recipient's responsibility to check the goods even if the box(es) appear to be in good condition. **If there is any damage, it must all be indicated on the delivery note at the time of receipt of the goods.** Rotec must be informed within 24 hours of the date of delivery to the consignee in order to take appropriate action against the carrier as soon as possible. If Rotec is not notified of the damage within 24 hours of delivery to the consignee, or if the damage is not noted on the delivery note at the time of receipt of the goods, the consignee may be liable for the full cost of repair and/or replacement of the damaged goods.

### Returned product

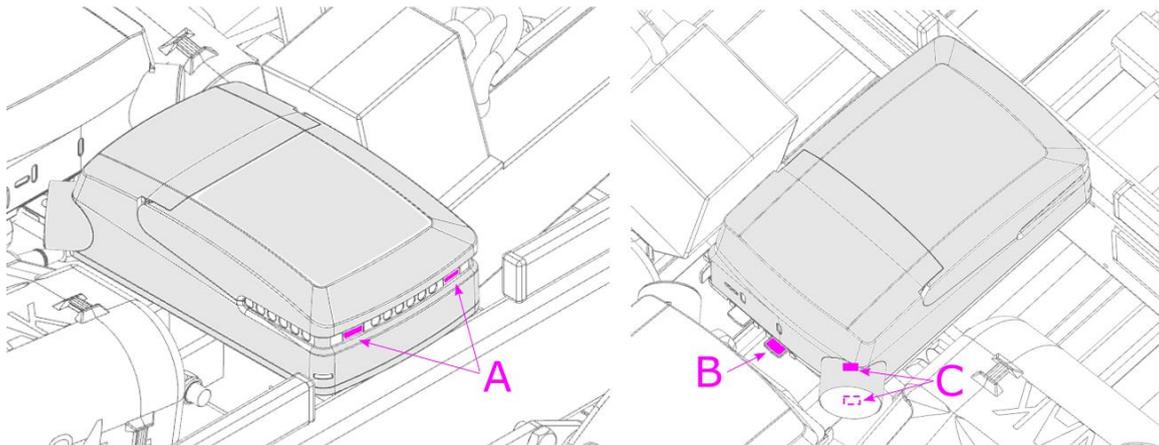
Returned products must have a Return Authorization (RA) number and are subject to a 25% restocking fee. In addition, shipping costs must be paid by the customer. For more information, please contact our customer service department.

# 6 REPAIR PROCEDURES

## 6.1 QLCI replacement (scale circuit)

Tools required :

- Flat screwdriver
- Cutting pliers



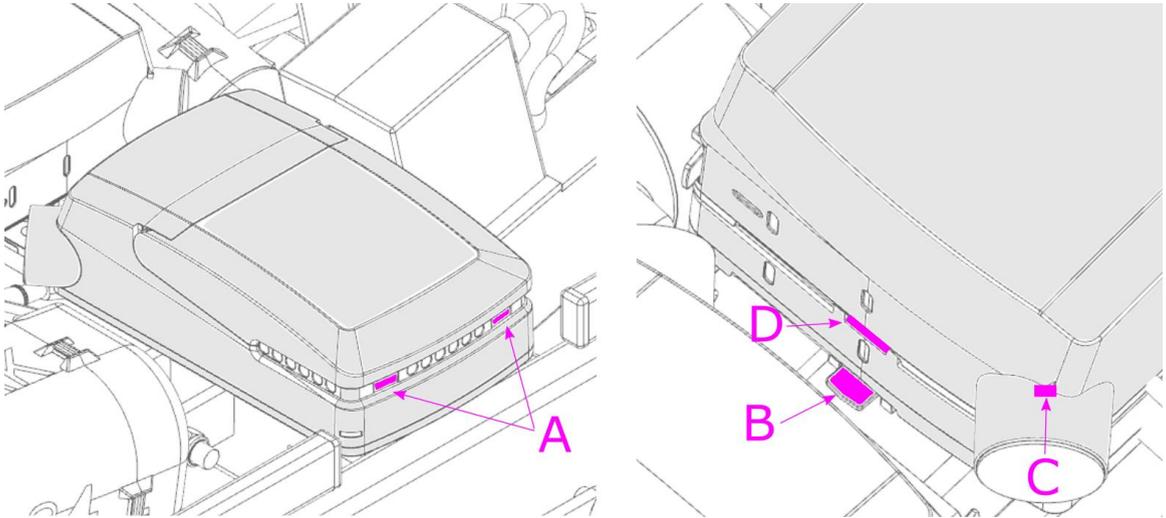
Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Unplug the power cable from the wall socket.
3. Open the case by pressing the two latches (A).
4. Disconnect all cables under cover, noting their location.
5. Remove the QLCI by pressing the lock on the underside (B) and sliding it off. Cut wire ties if necessary.
6. Disconnect the output signal cable from the corner of the QLCI (C) using a flathead screwdriver.
7. Reverse the above steps to install the new QLCI.
8. Check that the scales are working properly before putting the bed back into service.

## 6.2 Replacing the main circuit or its battery

### Tools required :

- Flat screwdriver
- Cutting pliers



### Procedure:

9. Raise the bed to its highest position and apply the brakes.
10. Unplug the power cable from the wall socket.
11. Open the case by pressing the two latches (A).
12. Disconnect all cables under cover, noting their location.
13. Remove the circuit by pressing the lock on the underside (B) and sliding it out. Cut wire ties if necessary.
14. Disconnect the power supply from the circuit corner (C) using a flathead screwdriver.
15. Separate the battery from the circuit by pressing lock D and sliding. Open the wire door with a screwdriver to disconnect the wire.
16. Reverse the above steps to install the new parts.
17. Check that all controls are working properly before putting the bed back into service .



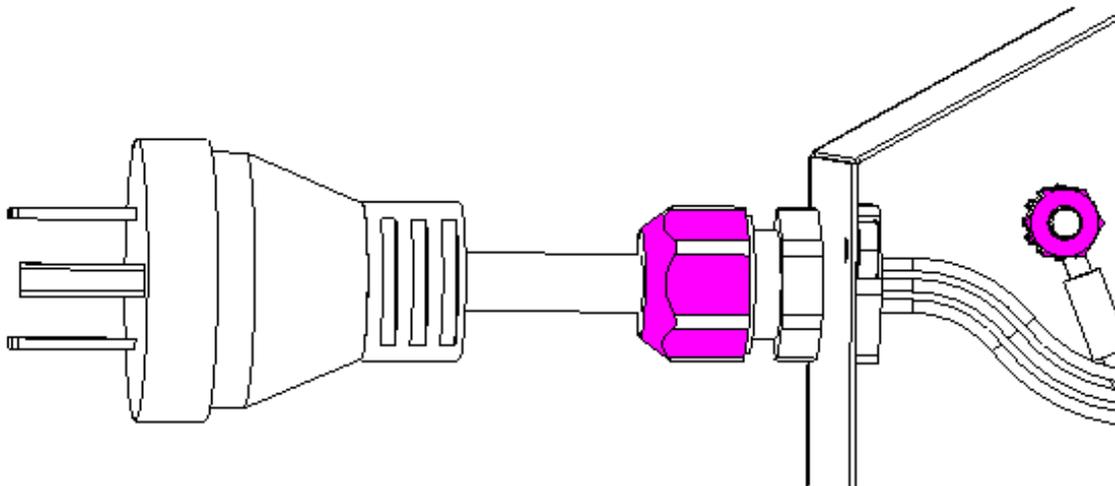
### **⚠ WARNINGS ON BATTERY STORAGE**

- Arrange for the battery to be recycled in an appropriate facility.

### 6.3 Replacing the power cord

#### Tools required :

- Robertson square screwdriver #2
- Flat screwdriver
- Socket screwdriver 3/8
- Screwdriver extractor

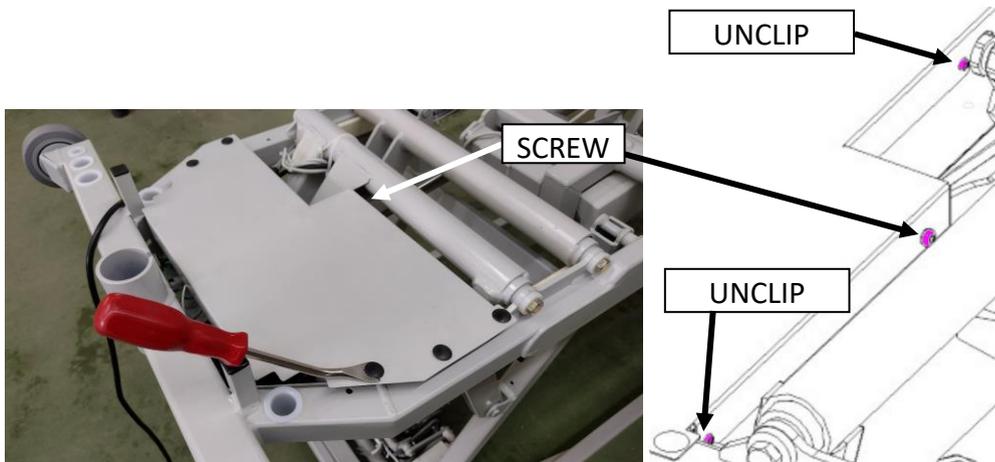


**⚠ CAUTION! MAINTENANCE OF THE ELECTRICAL SYSTEM MAY ONLY BE CARRIED OUT BY QUALIFIED PERSONNEL.**

#### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Unplug the power cord from the wall socket.
3. Remove the eyelets securing the cable to the chassis.
4. Unscrew the grommet.

- Lift the backrest and open the electrical box. See battery section.



- Disconnect the white and black wires of the power cable from the junction boxes. **MAKE SURE THE BED IS UNPLUGGED.**

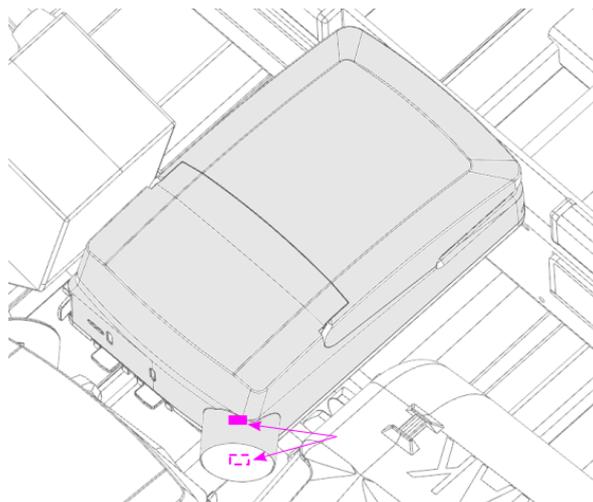
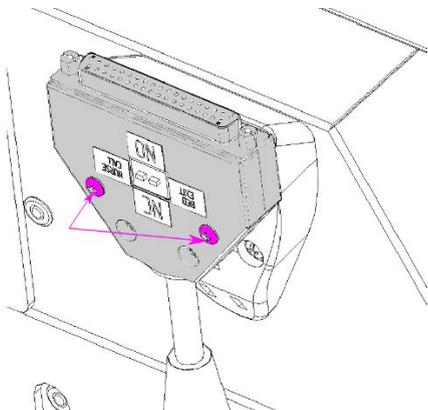


- Disconnect green wire from ground pole.
- Remove power cord.
- Reverse the above steps to install the new power cord. Be sure to replace the power cord grounding lug underneath.
- Check that all controls are working properly before putting the bed back into service.

### 6.4 Nurse call port replacement

#### Tools required :

- Flat screwdriver
- Cutting pliers



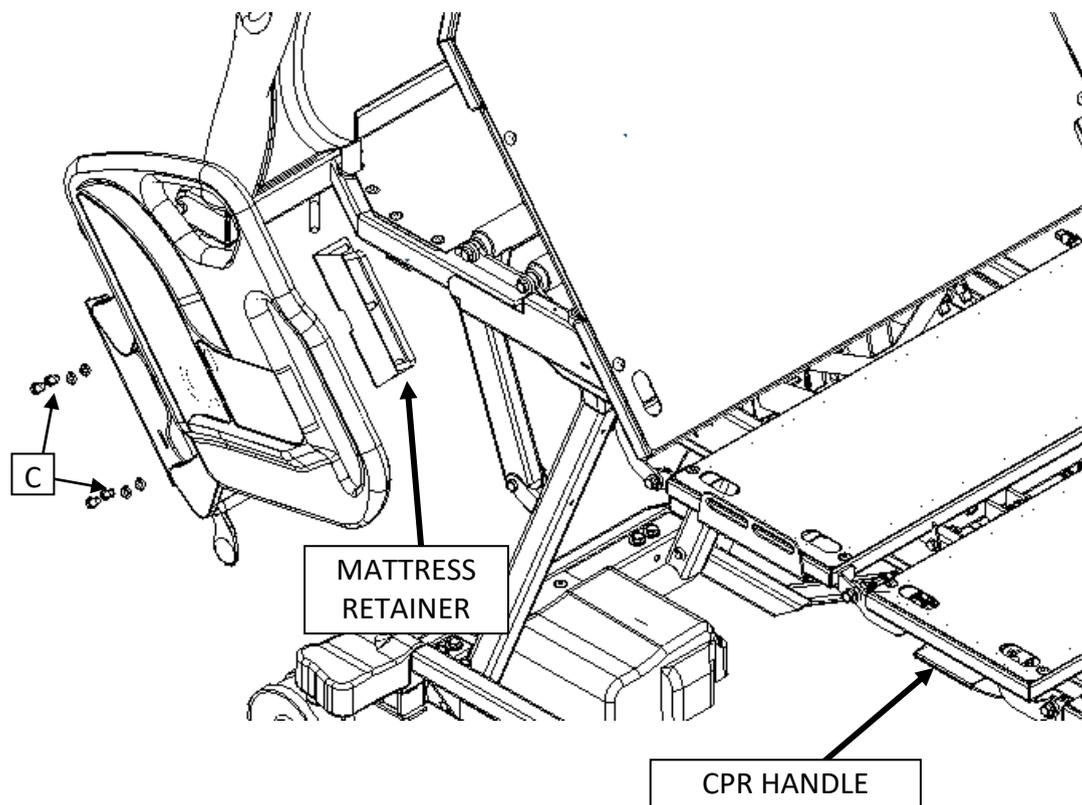
#### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Unplug the power cord from the wall socket.
3. Using wire cutters, remove the cable ties securing the nurse call connector cable to the chassis.
4. Remove the two screws shown.
5. Follow the cable and disconnect it by pressing the two locks.
6. Reverse the above steps to install the new nurse call.
7. Check that all controls are working properly before putting the bed back into service.

## 6.5 Bed side rail replacement

### Tools required :

- 1/2" socket
- 3/8" ratchet wrench
- Cutting pliers



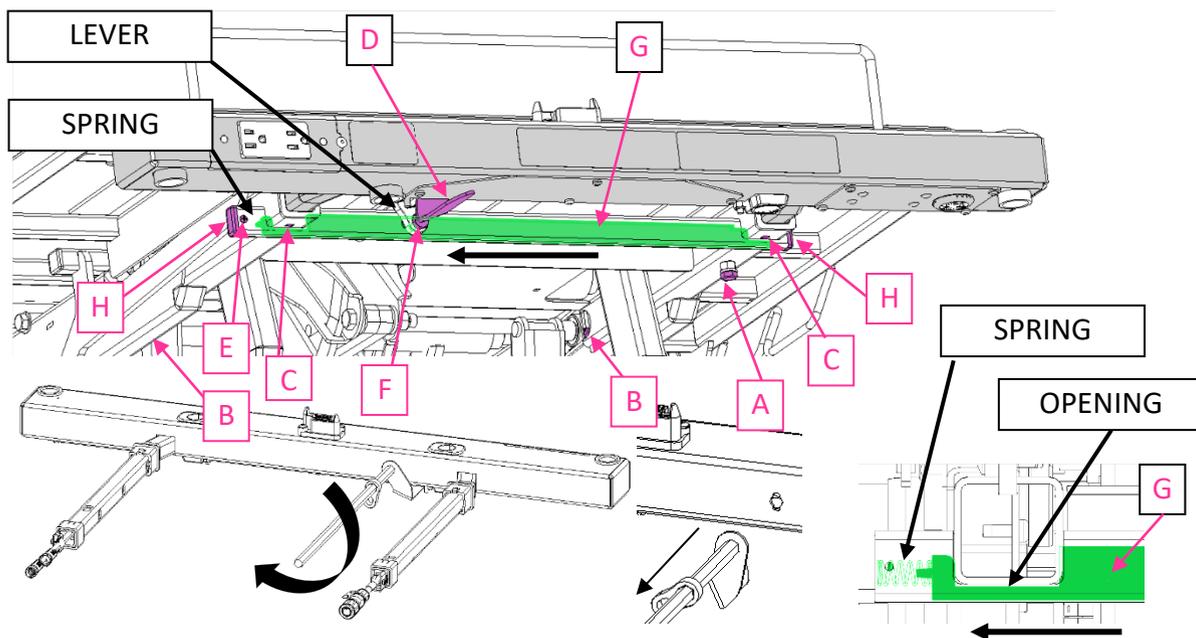
### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Raise the backrest section to the highest position (if the controls no longer work, operate the CPR handle and raise the backrest section manually) and lift the side of the bed to be repaired.
3. Unplug the power cord from the wall socket.
4. Follow the wire from the side rail to the junction box, remove the lock from the box and disconnect.
5. Using wire cutters, remove the cable ties securing the side rail cable to the frame.
6. Using a 3/8" ratchet wrench and 1/2" socket, remove the 4 screws (A) securing the side rail assembly to the head section and remove the assembly and railing. Support the assembly when removing the last screw.
7. Reverse the above steps to install the new side rail assembly.
8. Check side rail movement and correct operation of all controls, including nurse call (optional), before returning the bed to service.

## 6.6 Replacement of footboard structure extension

### Tools required :

- Flathead screwdriver
- 1/2" wrench
- 3/8" wrench
- Robertson long square screwdriver #2



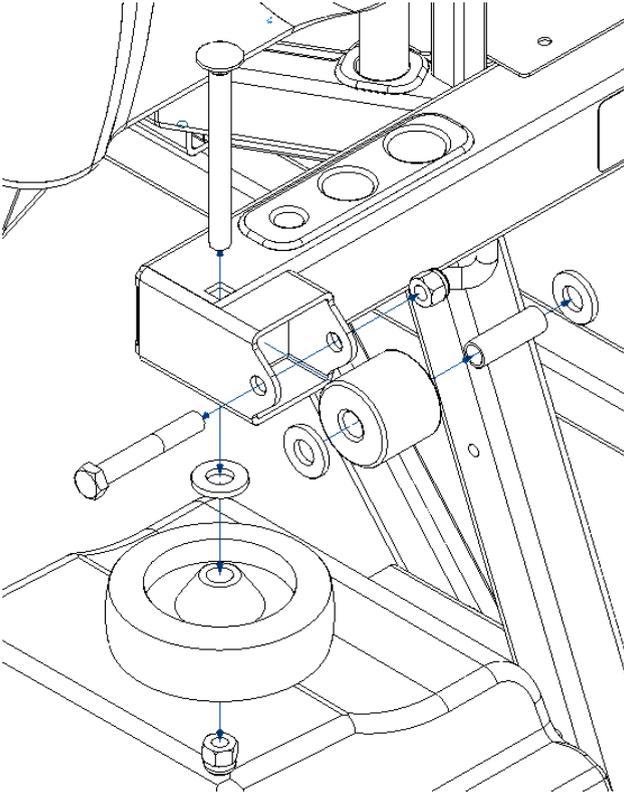
### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Lift the foot section.
3. Unplug the power cord from the wall socket.
4. Unscrew screw (E) and remove the plastic plugs (H) using a flathead screwdriver, taking care not to lose the spring.
5. Remove screws (A) with 1/2" wrench and screws (B) with square screwdriver.
6. Disconnect cables from holes near screws (B).
7. Remove screw (F) using 1/2" wrench.
8. Using the flathead screwdriver, move the lock (G) towards the openings.
9. Using a flathead screwdriver, press the tabs on guide (C) and slide it out. Repeat the same operation on the other side and remove the foot extension.
10. To remove the extension, turn the latch 1/4 turn to remove it from its base.
11. Reverse the above steps to install the new foot extension, making sure the latch (D) and lever are correctly positioned.
12. Check all footboard controls for correct operation before putting the bed back into service.

## 6.7 Replacement of wall bumper(s)

### Tools required :

- 9/16" wrench



### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Loosen nuts with 9/16" wrench and remove shock absorbers.
3. Reverse the above steps to install the new bumpers.

### 6.8 Replacing a bed wheel

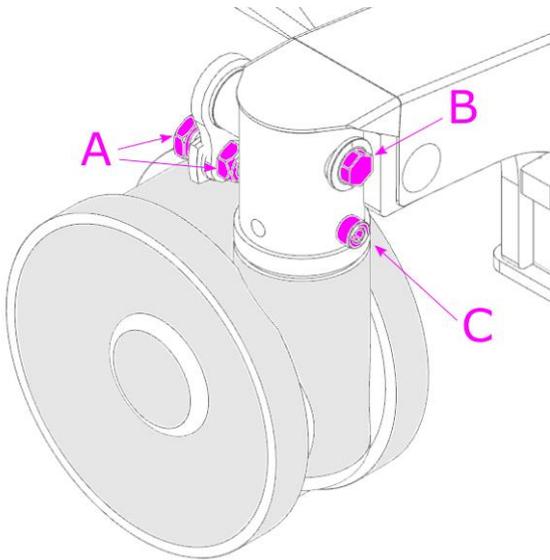
#### Tools required :

- 9/16" wrench
- 1/2" wrench
- Extractor screwdriver
- Allen key #3
- Allen key #4
- Allen key #5
- Candle (2)
- Hammer

#### Procedure:

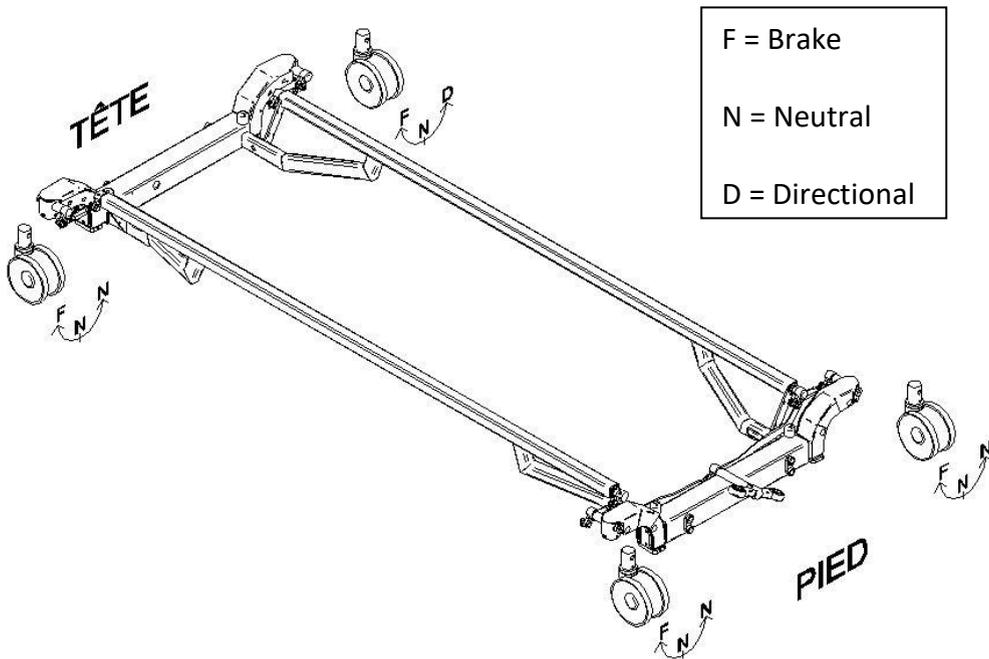
1. Raise the bed to its highest position.
2. Set brake pedal to neutral position.
3. Place jack stand on the side of the defective wheel.
4. Lower the bed onto the jack stand so that the wheel no longer touches the ground.





5. Unscrew screw (A) and nut using hexagonal keys.
6. Remove hexagonal pin (B) by tapping on the end.
7. Unscrew the Allen screw (C) and remove the wheel.

**Note:** *Orient correctly before installing on the base. The illustration below shows the direction in which the wheel should operate when activated.*



8. Reverse the above steps to install the new wheel.

## 6.8 REPAIR PROCEDURES

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9. Check that the brakes are working properly before putting the bed back into service.

**Note:** *If the wheel does not brake properly, there is an adjustment under the wheel.*

Using a #4 Allen key, turn one quarter-turn at a time in either direction until the desired result is achieved (counter-clockwise to tighten, clockwise to loosen).



## 6.9 Replacing a load cell

### Tools required :

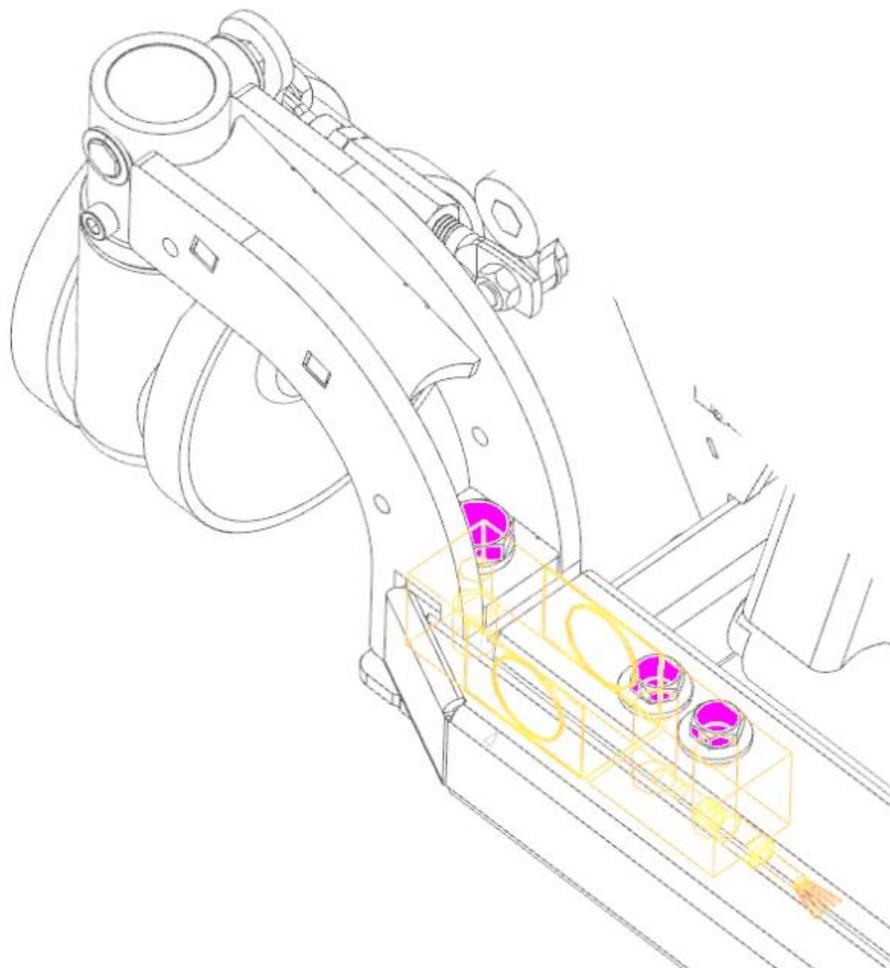
- Tools for removing the wheel (see previous section)
- 3/4" socket wrench and ratchet      • 9/16" wrench
- Magnet

### Procedure:

1. Unplug the bed's power cord from the wall socket and raise the bed to its highest position.
2. Set brake pedal to neutral position.
3. Place jack stand on the side of the faulty cell.
4. Lower the bed onto the jack stand so that the wheel no longer touches the ground.



5. Undo the bed wheel as described in the previous section.

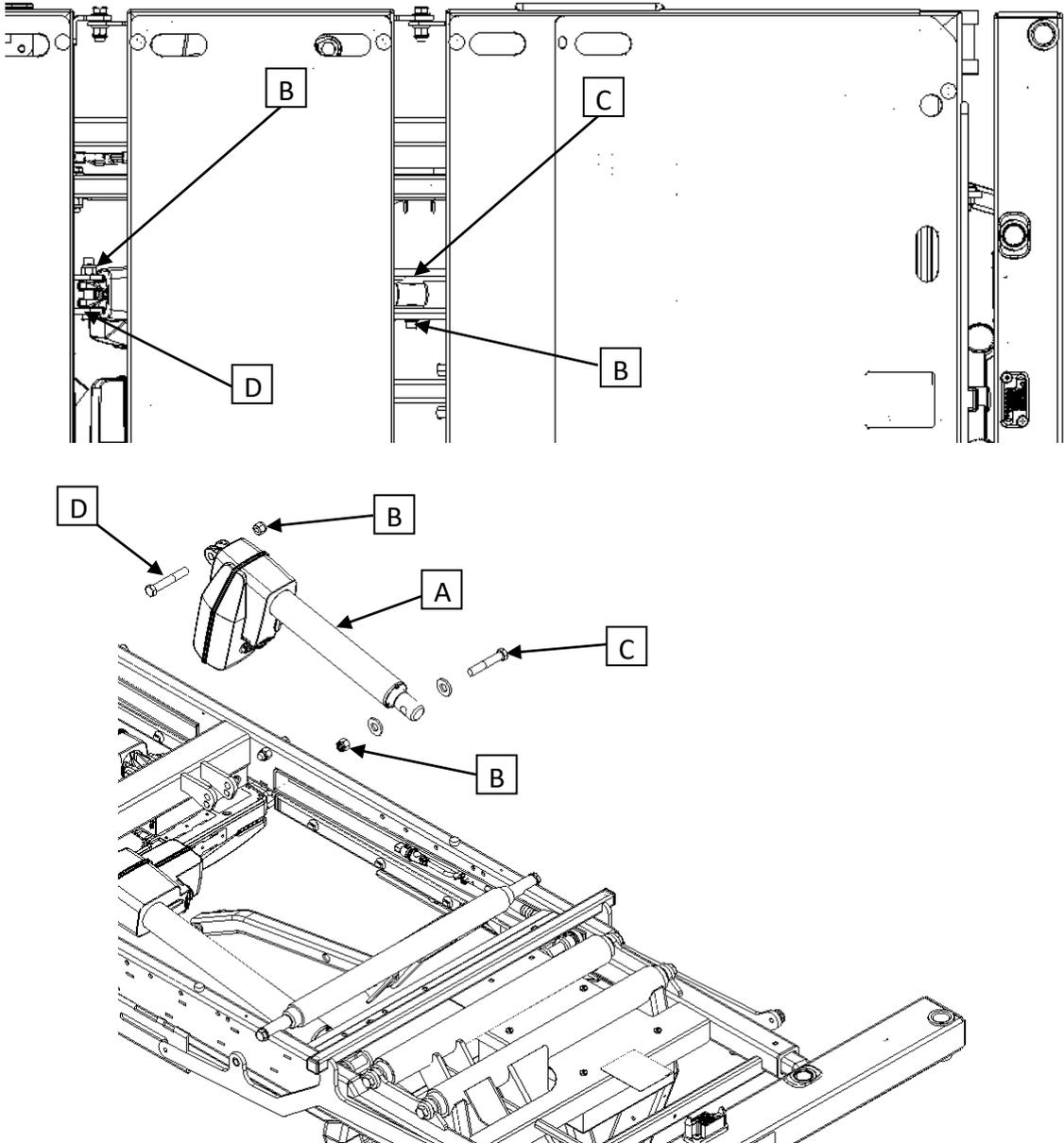


6. Remove the cover using the screwdriver extractor.
7. Remove the 3 bolts screwed into the cell.
8. Remove the plastic cover where the wires enter the axle.
9. Pull the wire entering the axle out of the scale connector and disconnect it.
10. Remove the cell, ideally using a magnet or a sharp object.
11. Reverse the above steps to install the new cell.
12. Check that the cell is working properly before putting the bed back into service.

## 6.10 Foot section motor replacement

### Tools required :

- 9/16" wrench
- Flathead screwdriver
- Cutting pliers



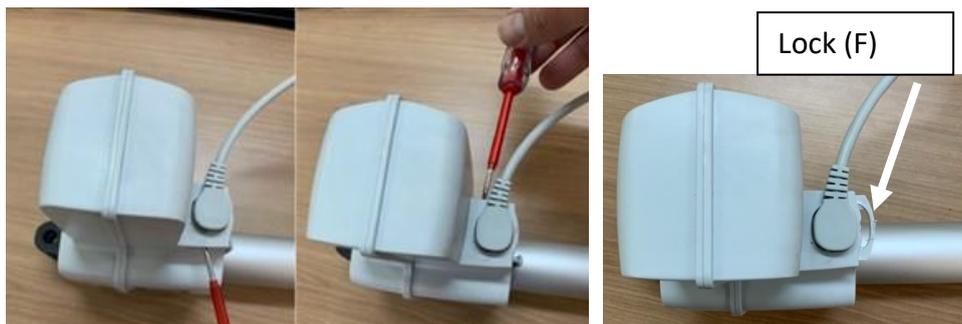
### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Position platforms horizontally.
3. Unplug the power cord from the wall socket.
4. Using wire cutters, remove the cable ties securing the cables to the motor (A).

## 6.10 REPAIR PROCEDURES

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5. Disconnect the motor cable (A) by removing the lock (F) with a flathead screwdriver, pressing down on both sides.

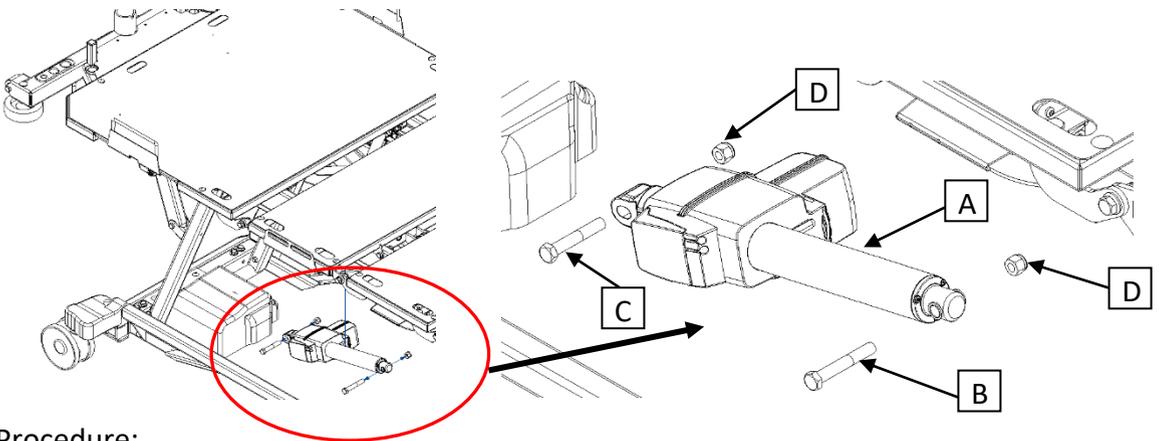
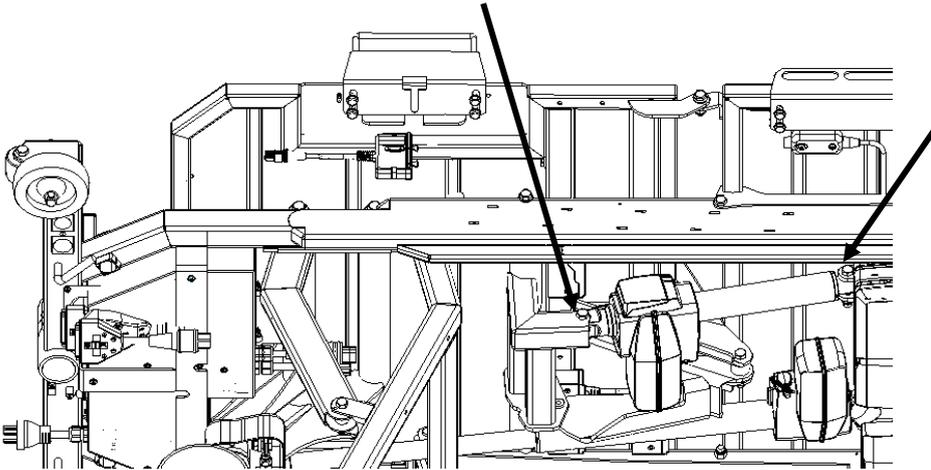


6. Using a 9/16" wrench, retain the 2 screws (C and D) and, using another 9/16" wrench, loosen the nuts (B).
7. Reverse the above steps to install the new foot section motor.
8. Check that the foot section motor is working properly before putting the bed back into service.

## 6.11 Backrest section motor replacement

### Tools required :

- 9/16" wrench
- Flathead screwdriver
- Cutting pliers

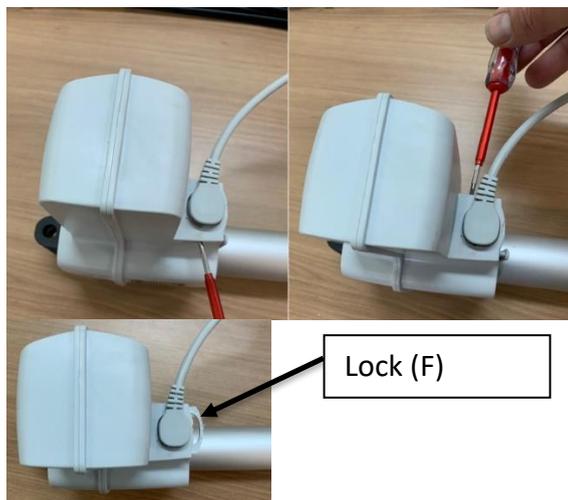


### Procedure:

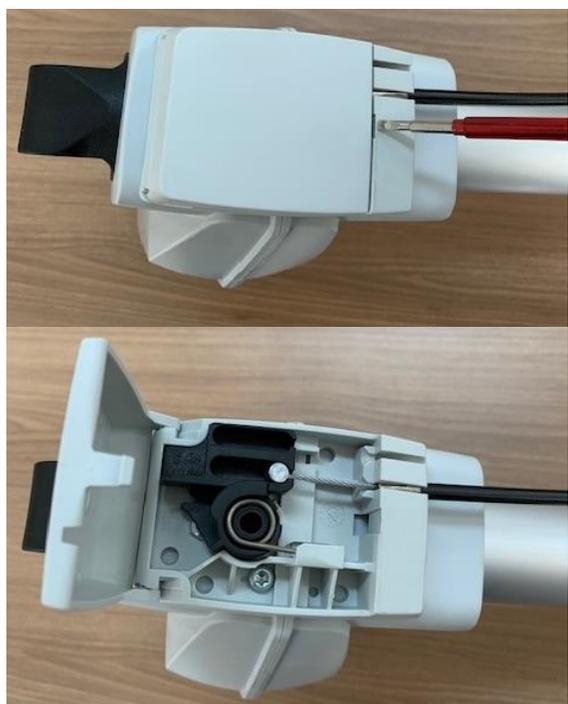
1. Raise the bed to its highest position and apply the brakes.
2. Raise the head section.
3. Unplug the power cord from the wall socket.
4. Using wire cutters, remove the cable ties securing the motor cable to the chassis.

## 6.11 REPAIR PROCEDURES

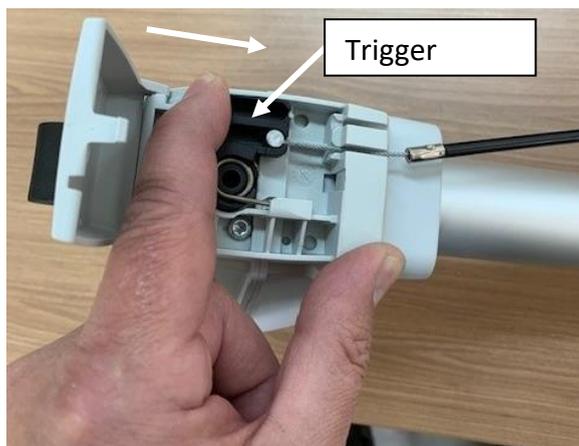
5. Disconnect motor cable (A) by removing lock (F). Use a flat-blade screwdriver and press on both sides to remove the lock.



6. Using a flathead screwdriver, open the motor cover.



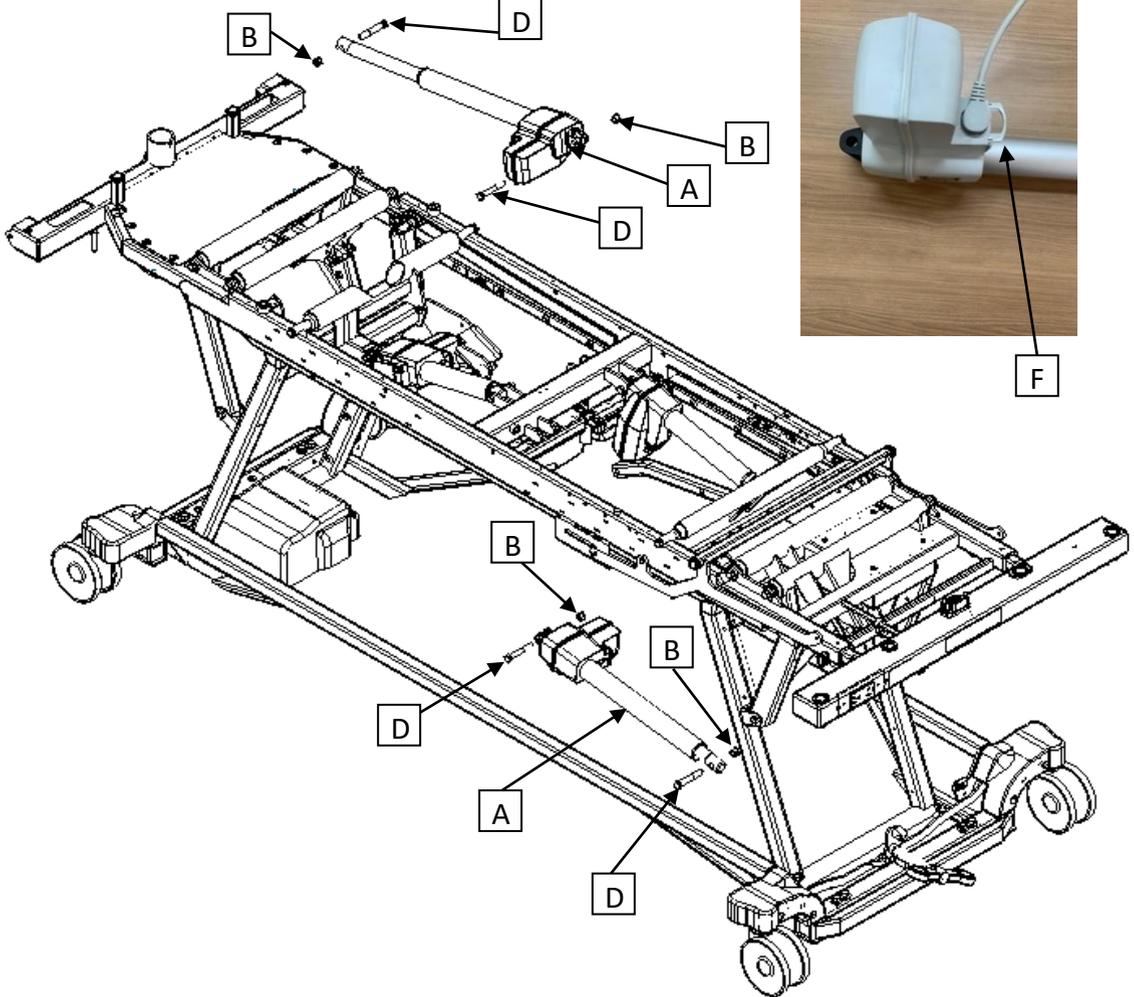
7. Move the trigger release and remove the cable from its base.



## 6.12 Replacement of lift motors

### Tools required :

- 9/16" wrench
- Flathead screwdriver
- Cutting pliers
- Jack stand
- Screwdriver extractor



### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Support the top frame on the jack stand.



3. Lower the side panels and raise the head section.
4. Unplug the power cord from the wall socket.
5. Using the screwdriver extractor, remove the seat platform cover.
6. Using wire cutters, remove the cable ties securing the motor cable to the chassis.
7. Disconnect the motor cable (A) by removing the lock (F) with a flathead screwdriver, pressing down on both sides.



8. Using a 9/16" wrench, hold the 2 screws (C and D) and with another 9/16" wrench loosen the nuts (B).

**⚠ BE CAREFUL WHEN REMOVING THE SCREWS, THE BASE STRUCTURE WILL DROP, SO HOLD THE BASE.**

9. Reverse the above steps to install the new lift motor.
10. Check that the lift motor is working properly before putting the bed back into service.

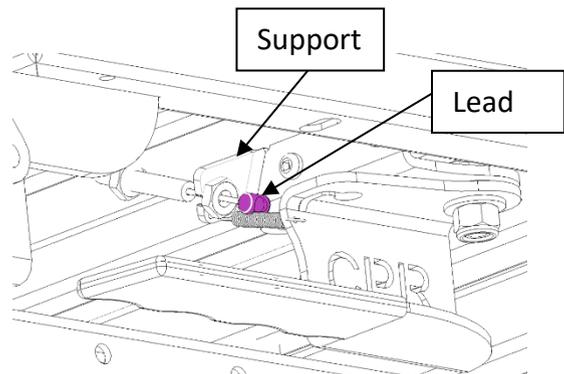
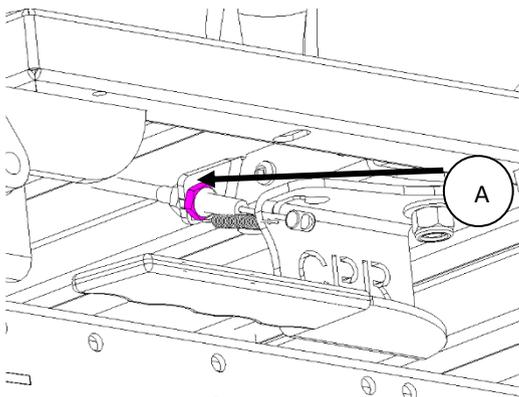
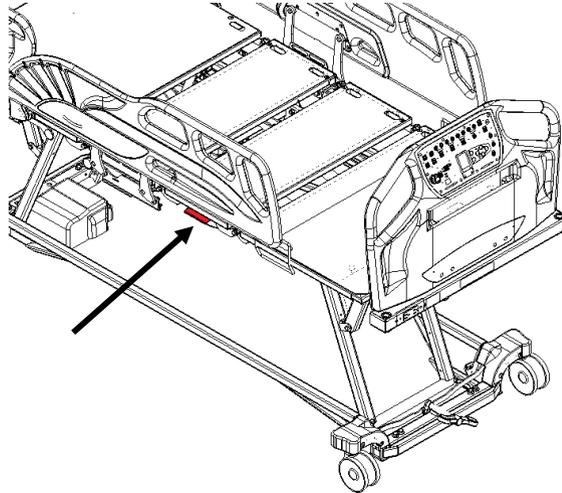
## 6.13 CPR handle replacement

### Tools required :

- 7/16" wrench
- Robertson screwdriver

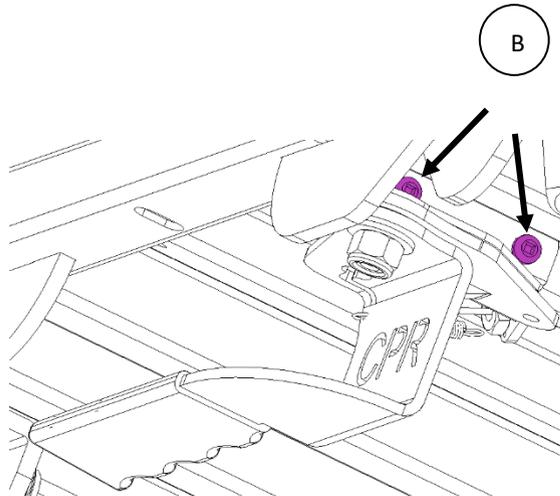
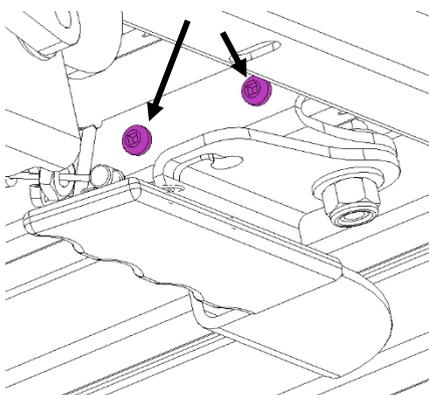
### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Unplug the power cord from the wall socket.
3. Locate the CPR handle.



4. Using a 7/16" wrench, loosen locknut (A).
5. Disengage the cable from the support and the lead from the handle and remove the cable.
6. Unscrew the 4 screws (B) using the Robertson screwdriver and remove the

hand (B)



## 6.13 REPAIR PROCEDURES

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7. Reverse the above steps to install the new handle.
8. Check that the handle is working properly before putting the bed back into service.

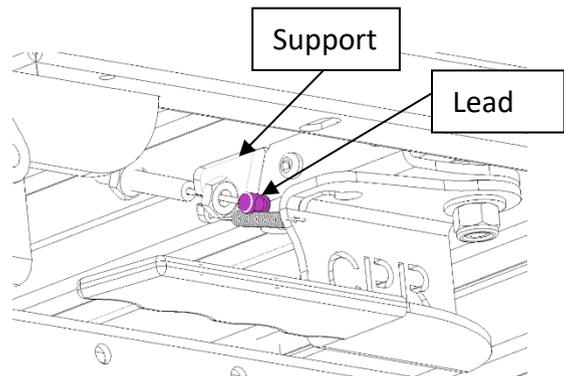
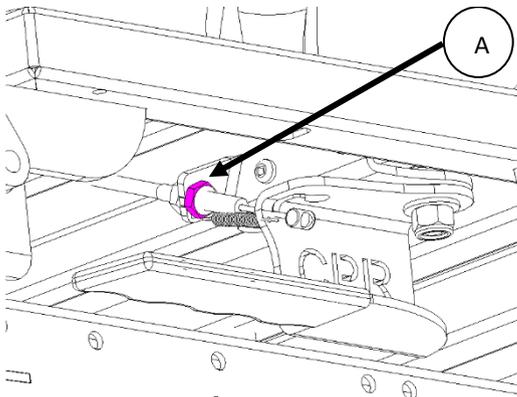
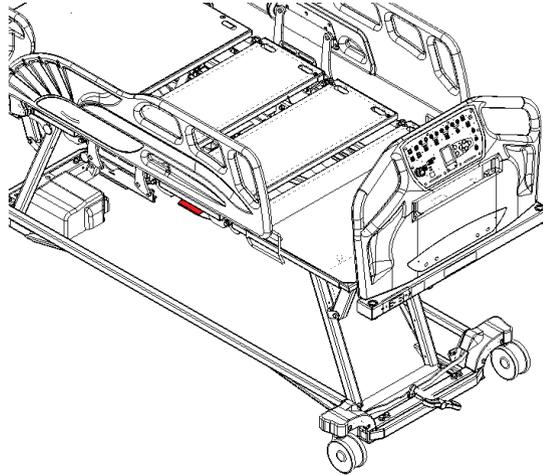
## 6.14 CPR cable replacement

### Tools required :

- 7/16" wrench

### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Unplug the power cord from the wall socket.
3. Locate the CPR handle.

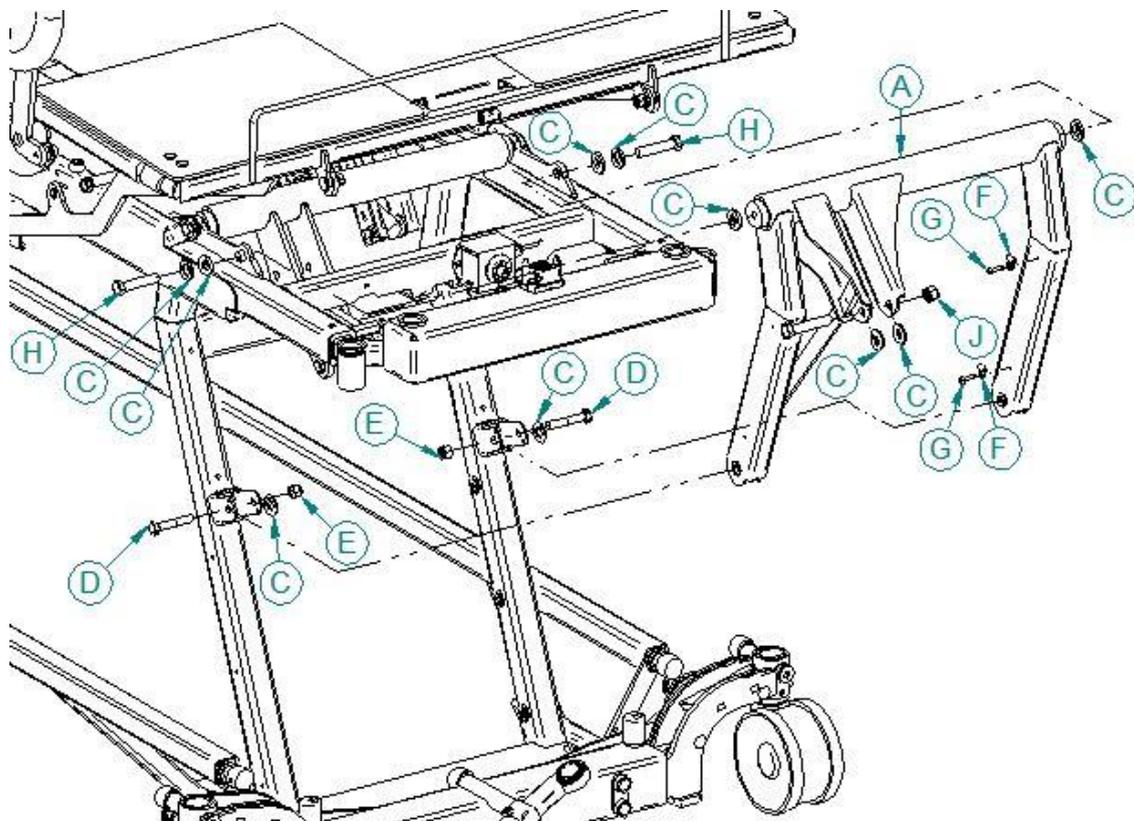


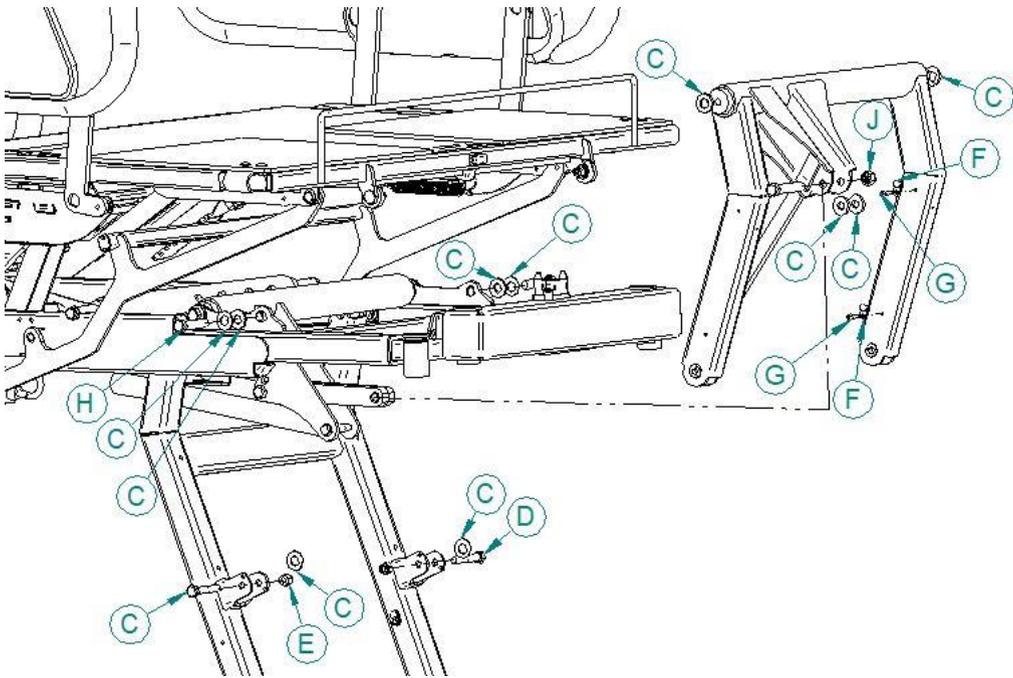
4. Using a 7/16" wrench, loosen locknut (A).
5. Disengage the cable from the support and the lead from the handle and remove the cable.
6. For instructions on removing and installing motor-side cables, see section 6.12.
7. Reverse the above steps to install the new cable.
8. Check that the handle is working properly before putting the bed back into service.

## 6.15 Foot lift frame replacement

Tools required :

- 9/16" wrench
- Robertson #2 screwdriver
- Jack stand
- 3/8" ratchet wrench
- 9/16" socket
- 5/8" socket
- 5/8" wrench





**Procedure:**

1. Raise the bed to its highest position and apply the brakes.
2. Stretch the foot extension and support it on the jack stand.



3. Raise the foot section.
4. Unplug the power cord from the wall socket.
5. Using a Robertson screwdriver, unscrew the screws (G) from the plastic eyelets (F) holding the load cell cable.

## 6.15 REPAIR PROCEDURES

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6. Using a 5/8" wrench, retain the screw (H) and with the ratchet wrench and 11/16" socket loosen the nuts (J) connecting the lifting frame section and the power link (I), taking care to retain all parts and note the location of the nylon washers (K).
7. Using a 9/16" wrench, retain the screw (D) and with the ratchet wrench and 9/16" socket loosen the nuts (E) connecting the elevation frame section and the elevation arm, taking care to retain all parts and note the location of the nylon washers (C).

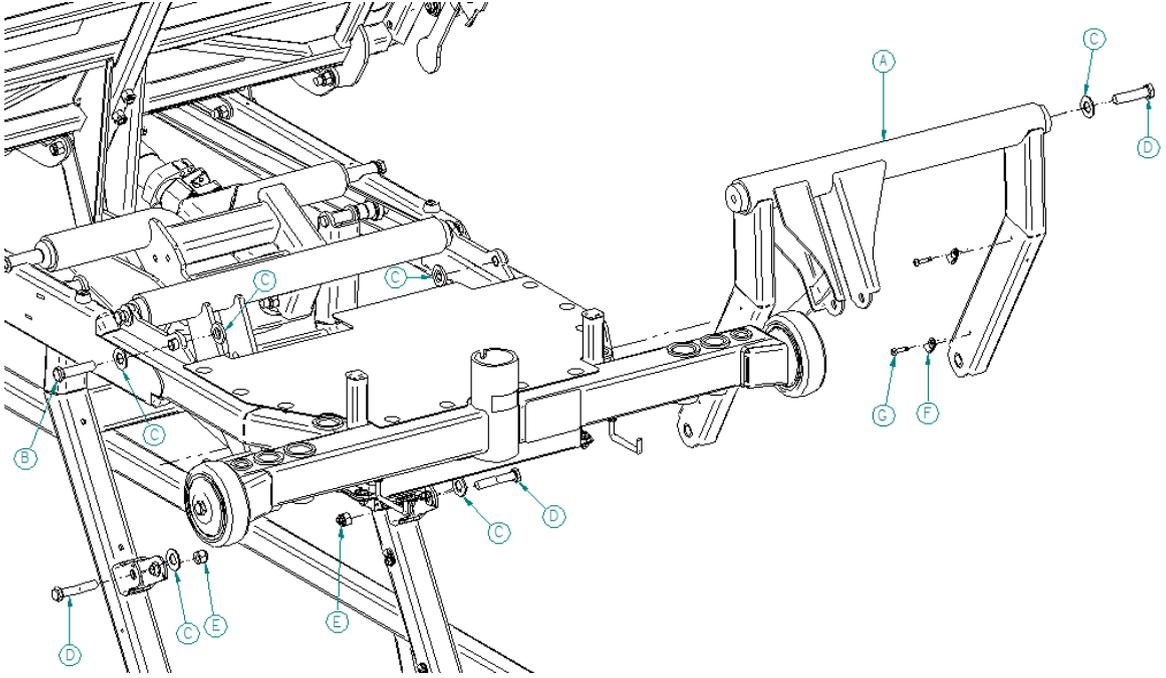
** CAUTION: WHEN REMOVING THE SCREWS, THE BASE STRUCTURE WILL DROP, SO HOLD THE BASE.**

8. Using the ratchet wrench and 5/8" socket, loosen the screws (B) connecting the elevation frame section to the upper frame and remove the assembly. Support the assembly when removing the last screw, noting the location of the nylon washers (C).
9. Reverse the above steps to install the new elevation frame.
10. Check that the bed is working properly before putting it back into service.

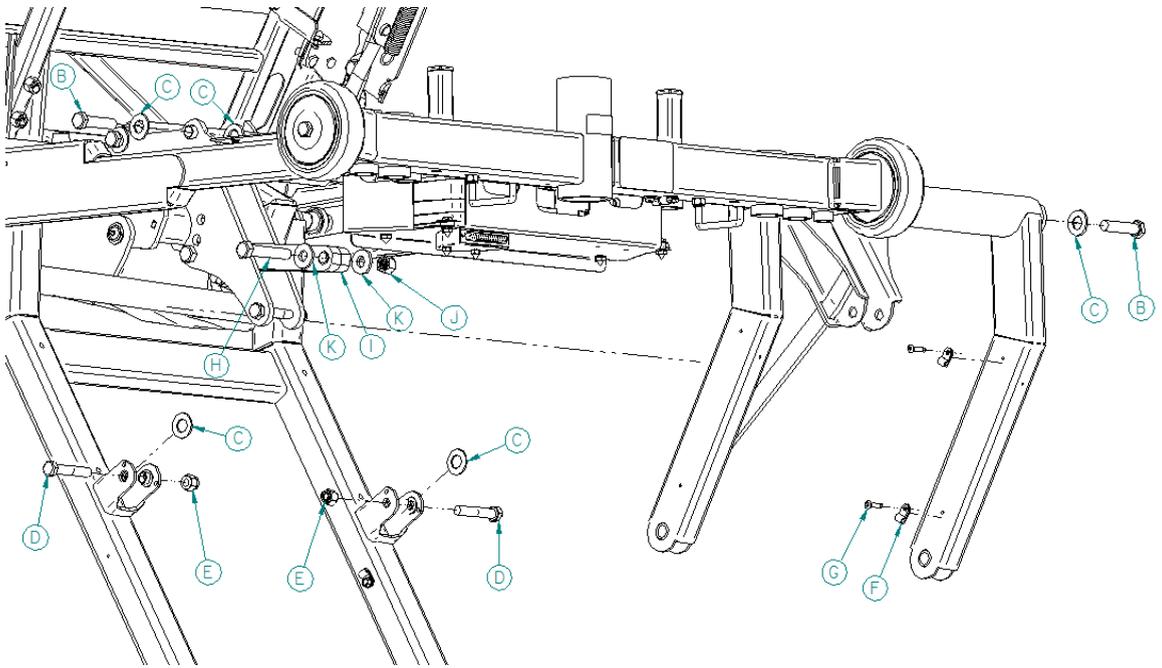
## 6.16 Head lift frame replacement

### Tools required :

- 9/16" wrench
- Robertson #2 screwdriver
- Jack stand
- 3/8" ratchet wrench
- 9/16" socket
- 5/8" socket
- 5/8" wrench



## 6.16 REPAIR PROCEDURES



### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Support the top frame on the jack stands.



- 3.
4. Raise the head section.
5. Unplug the power cord from the wall socket.
6. Using a #2 Robertson screwdriver, unscrew the screws (G) from the plastic eyelets (F) holding the load cell cable.

7. Using a 5/8" wrench, retain the screw (H) and with the ratchet wrench and 11/16" socket loosen the nuts (J) connecting the lifting frame section and the power link (I), taking care to retain all parts and note the location of the nylon washers (K).
8. Using a 9/16" wrench, retain the screw (D) and with the ratchet wrench and 9/16" socket loosen the nuts (E) connecting the elevation frame section and the elevation arm, taking care to retain all parts and note the location of the nylon washers (C).

 **CAUTION: WHEN YOU REMOVE THE SCREWS, THE BASE STRUCTURE WILL DROP DOWN, HOLDING THE BASE IN PLACE.**

9. Using the ratchet wrench and 5/8" socket, loosen the screws (B) connecting the elevation frame section to the upper frame and remove the assembly. Support the assembly when removing the last screw, noting the location of the nylon washers (C).
10. Reverse the above steps to install the new elevation frame.
11. Check that the bed is working properly before putting it back into service.