



*Brilliantly designed*

## Owner's Manual

### VersaTech 1100 ULB+



Do not use this device and its accessories without reading this manual in full.  
Illustrations are for information purposes only.

---

TECHNICAL ASSISTANCE AND PARTS

☎ 1-450-783-6444 📠 1-450-783-6446

📧 [info@rotecbeds.com](mailto:info@rotecbeds.com)

✉ 123 rue de l'Église, Baie-du-Febvre, QC J0G 1A0 Canada

DOC01E-V11ULB+ REV-4

Publication 2022-10-31

# TABLE OF CONTENT

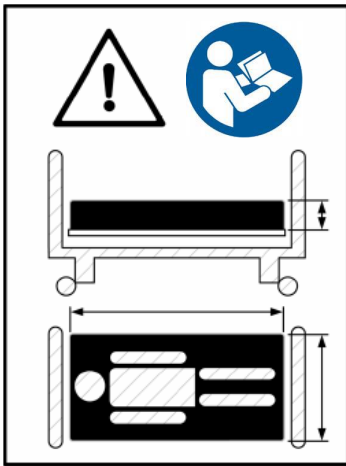
- 1 GENERAL..... 4**
  - 1.1 Symbols.....4
  - 1.2 Intended use.....6
  - 1.3 Illustration of the device.....8
  - 1.4 Characteristics .....9
  - 1.5 Optional features.....9
  - 1.6 Intended Accessories.....9
  - 1.7 Mechanical specifications.....9
  - 1.8 Certifications.....10
  - 1.9 Electrical specifications.....10
  - 1.10 Storage and handling.....10
  - 1.11 Electromagnetic Compatibility (EMC) .....11
  
- 2 INSTALLATION..... 12**
  - 2.1 Powering the device .....12
  - 2.2 Verification before putting into service.....13
  - 2.3 Positioning in the operating environment .....14
  - 2.4 Installation/Replacement of the mattress .....15
  
- 3 OPERATING INSTRUCTIONS..... 16**
  - 3.1 Electrical functions of the bed .....16
  - 3.2 Moving the device .....19
  - 3.3 Side rails.....21
  - 3.4 Angle indicators .....22
  - 3.5 Length extension of the platform.....22
  - 3.6 Width extension of the platform .....24
  - 3.7 Head and foot boards .....25
  - 3.8 Adjustment of the foot angle section.....26
  - 3.9 IV poles receptacle.....26
  - 3.10 Drainage bag receptacle .....27
  - 3.11 Attaching restraint straps .....28
  - 3.12 Installation of the trapeze bar (option) .....29
  - 3.13 Traction frame receptacle .....30
  - 3.14 Mechanical CPR function .....31
  - 3.15 Nurse Call and DB37 output .....32
  - 3.16 Integrated scale (option) .....33
  - 3.17 Bed exit detection system (option) .....34
  - 3.18 VersaDrive motorized wheel (option) .....36
  - 3.19 Auxiliary outlet (option).....39
  
- 4 Maintenance..... 40**
  - 4.1 Cleaning .....40
  - 4.2 Preventive maintenance.....41
  - 4.3 Disposal of the device at end of life .....42

- 4.4 Troubleshooting Guide .....43
- 5 WARRANTY AND RETURN POLICY..... 46**
- 5.1 Limited warranty.....46
- 5.2 Return policy.....47
- 6 REPAIR PROCEDURES ..... 48**
- 6.1 Replacing the QLCI (scale circuit).....48
- 6.2 Replacing the main circuit or its battery .....49
- 6.3 Replacing the VersaDrive battery .....50
- 6.4 Replacing the power cord.....52
- 6.5 Replacement of the nurse call port .....54
- 6.6 Siderail assembly replacement.....55
- 6.7 Replacement of the foot structure extension .....56
- 6.8 Replacement of a wall bumper.....57
- 6.9 Bed caster replacement.....58
- 6.10 Load cell replacement.....61
- 6.11 Motor replacement of the leg section.....63
- 6.12 Backrest motor replacement.....65
- 6.13 High/Low motor replacement .....71
- 6.14 CPR handle replacement .....73
- 6.15 CPR control cable replacement .....74
- 6.16 High/low motor lever replacement (foot end).....75
- 6.17 High/low motor lever replacement (head end) .....78

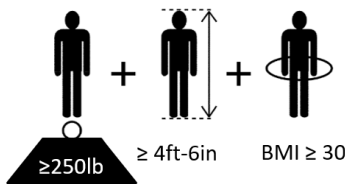
# 1 GENERAL

## 1.1 Symbols

### On the device labels



Symbol indicating that the mattress dimensions are very important to respect and to consult the user manual to know the characteristics.



Symbol illustrating the conditions to respect by the patient to use the bed safely



Symbol illustrating the patient's maximum weight allowed on the device.



Symbol illustrating the maximum permissible weight on the apparatus comprising a patient, the mattress and all accessories (IV pole, trapeze, traction frame, drainage bag, etc.)



Symbol indicating to consult the user manual



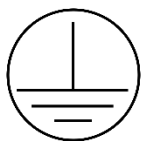
Protection against liquid splashes



Symbol indicating a type B electrical protection



Seal of Approval CSA: Canadian Standards Association



Symbol indicating this is a Class I grounded electrical device



Symbol indicating that the electrical power must be alternating current.



Symbol meaning that the manufacturer or importer affirms the good's conformity with European health, safety, and environmental protection standards



European medical device



Class I medical device (low risk)



Do not throw in the garbage. Arrange for recycling.

*For symbols of the keypads and buttons, refer to Section 3*

### In this manual



#### **Warning:**

Used when particular attention must be paid to the information to prevent injury and / or potential failure.

### Abbreviations

CPR : Cardiopulmonary Resuscitation

SWL : Safe Working Load

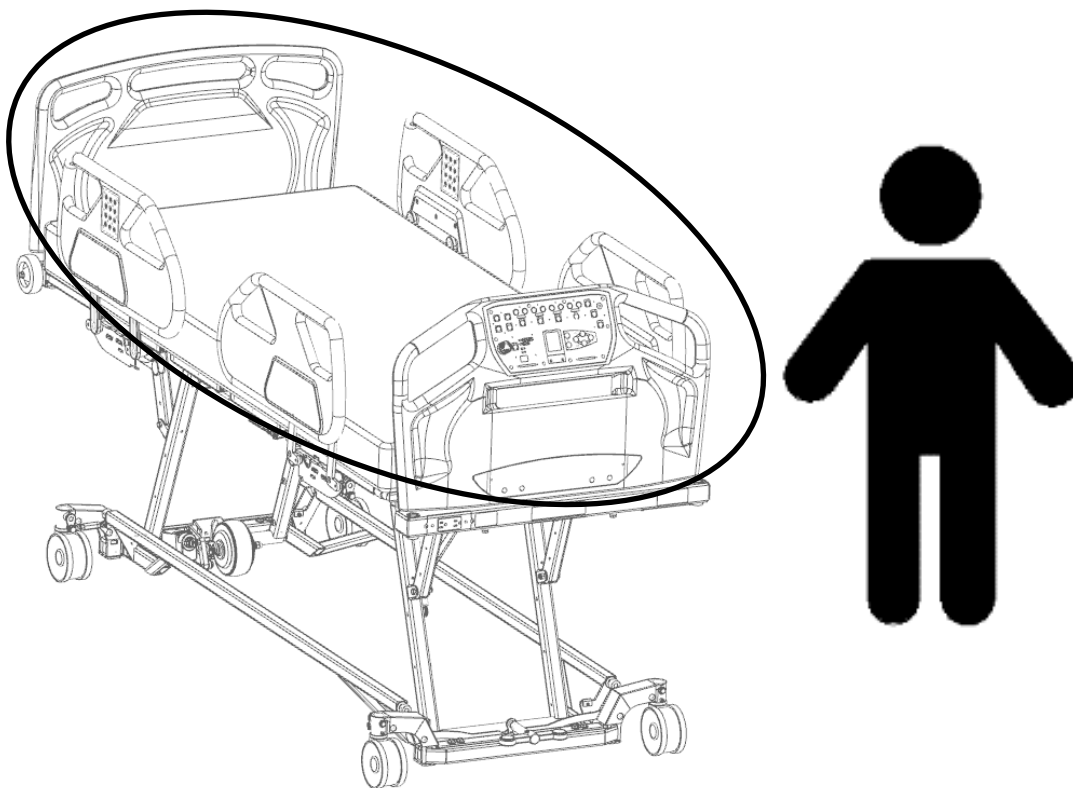
### 1.2 Intended use

This manual has been designed to assist you in using the VersaTech 1100 ULB+ bed from Rotec International. Be careful to read this document before using the device to ensure a safe and risk-free usage.

This manual is an integral part of the device and should always be included with the unit during the sale or transfer. It must be always accessible for medical personnel and maintenance personnel.

**Domain:** This device has been designed to be used in a medical care environment such as a hospital or other medical infrastructure, where medical surveillance is required, where control measures are applied if required and where the bed is used for medical procedures such as treatment, diagnostic, supervision, to maintain and improve a patient's condition. This includes intensive care, ambulatory care, or regular medical care of a short or long duration. It is not designed for home care. This device should never be used in the presence of flammable anesthetic gas mixed with air or oxygen or nitrous oxide.

**Applied parts:** It is expected that the parts of the device in contact with the patient and the operator are the head and footboard, the side rails, the interface, the platform as well as any accessories intended to be used with the device.



**Patient:** Patient are intended to use a subset of the device functions using inside controls. The patient intended to use this device must be an adult with an BMI of 30 or more and a weight between 250 lb (114 kg) et 1000 lb (454 kg). The bed is not designed for use with patients with behavioral or mental health issues.

**Operator:** It is expected that the operator using this device being a health professional such as a nurse, a doctor, a care giver, etc. This operator must be able to understand and apply the instructions issued in this manual. It is also expected that the patient can access some of the functions while in the bed.

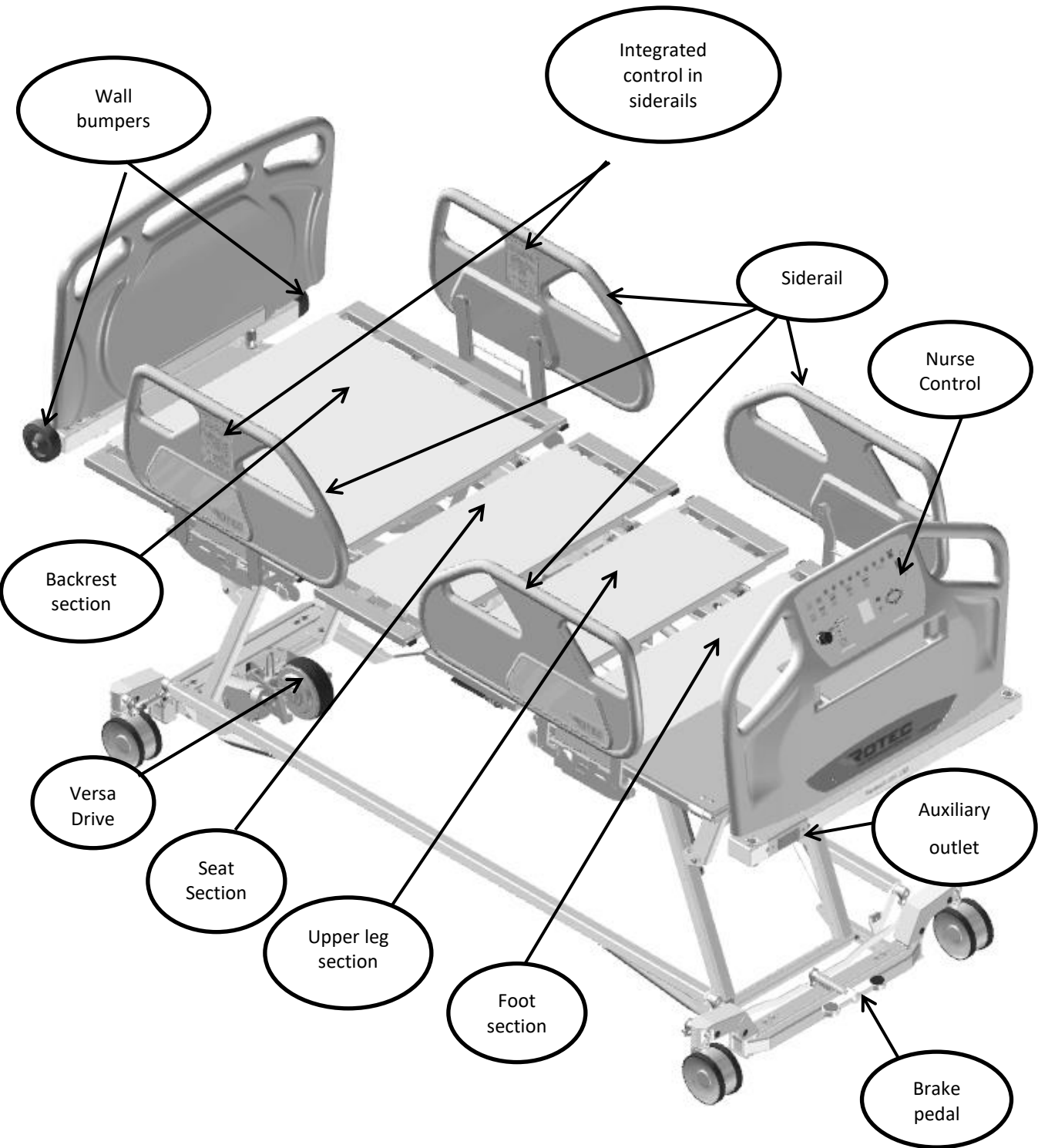
**Life cycle:** This device is designed for a life cycle of 10 years in working condition and in normal use (see the specifications and conditions of use in the following sections)

Rotec International cannot be held liable for damage or injury caused by negligence or improper use of its products. Also note that all illustrations contained herein are for guidance only.

### WARNINGS ABOUT THE INTENDED USE

- The device is not intended for pediatric use or people with a body mass index (BMI) under 30. Doing so would present serious **RISK OF ENTRAPMENT THAT COULD LEAD TO DEATH**.
- It is imperative to be aware of this manual and to train staff properly before using the bed and its accessories to prevent **ANY INJURY**, to both the user and the staff.

1.3 Illustration of the device





## 1.4 Characteristics

- Adjustable height of the bed
- Inclinable bed frame (Trendelenburg)
- Width extension of the platform
- Expandable in length
- Angle adjustment of the back section
- Angle adjustment of the thighs section
- Angle adjustment of the foot section
- Mobile device on 12.7cm (5") diameter antistatic wheels
- Synchronize brake system with directional function on wheel
- Traction frame receptacle
- IV pole receptacle
- Drainage bag receptacle
- Restraint strap receptacle
- Trapeze bar receptacle
- Power cable holder
- Composite head and foot boards, removable without any tools
- Composite half-rail
- Back up battery for temporary autonomy
- Integrated foot mattress retainer
- Integrated angle indicators
- Removable hand control.
- Controls in footboard and siderails
- Nurse call
- Electrical CPR function
- Mechanical CPR Function
- Auto-contour feature
- Cardiac chair position
- Under bed light

## 1.5 Optional features

- Integrated scale and bed exit detection (two zone egress detection)
  - Additional hand control
  - Transportation trolley
  - Motorized VersaDrive wheel
  - Auxiliary power outlet
- Optional features may change the dimensions. The dimensions specified herein do not consider manufacturing tolerances.*

## 1.6 Intended Accessories

- Mattress, 9 kg (20 lb)
- Trapeze bar, 11 kg (23 lb)
- IV Pole, 0.5 kg (1 lb)
- Drainage bag\*
- Traction frame\*
- Restraint strap \*

\* *product not available by the device manufacturer.*

## 1.7 Mechanical specifications

### Maximum load capacity

Patient	454 kg (1000 lb)
Trapeze	77 kg (170 lb)
IV pole support	10 kg (22 lb)
	5 kg per hook
Total (SWL)	500kg (1100 lb)

Device weight	263 kg (580 lb)
---------------	-----------------

### Without accessories

### Overall dimension

Width	102 cm/109 cm /117 cm/132 cm (40"/43"/46"/52")
Length	237 cm /247cm / 257cm (93 1/8"/97 1/8"/101 1/8")

### Dimension of the mattress support platform

Minimum height	21.6 cm (8 1/2")
Maximum height	81.3 cm (32")
Width	88.9cm/ 96.5cm/ 104cm/ 119cm (35"/38"/ 41"/ 47")
Length	203cm/ 213cm/ 223cm (80"/ 84"/ 88")

### Maximum inclination angle

Back section	70°
Thighs section	32°
Foot Section	16°
Trendelenburg	±12°

### Recommended mattress

Length	203cm/ 213cm/ 223cm (80"/84"/88")
Thickness	12.7 to 15.2 cm (5 "to 6")
Width	91cm/ 99cm/ 107cm/ 122cm (36"/39"/ 42"/ 48")

### 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
- 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

Isolation	Class I
Power	120/220/230/240 VAC
Frequency	50/60 Hz
Current Rating	<u>120V Model</u> With Outlet: 8.75A With VersaDrive: 4.65 A With VersaDrive & Outlet: 9.65 A <u>220/230/240V Model</u> With Outlet: 6.25A With VersaDrive: 4.65 A With VersaDrive & Outlet: 7.15 A
Protection	IPX4
Duty cycle	10% maximum (2 min. / 18 min.)
Maximum acoustic sound pressure	< 55 dBa
Scale accuracy (when installed)	± 2% + 1 kg (2%+ 2 lb). Min: 100 Kg e: 0.5 Kg

### 1.10 Storage and handling

#### Operating environment

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

#### Storage environment

Temperature	-40 to 70 °C
Relative humidity	10% to 100% (Non-condensing)
Atmospheric pressure	70kpa to 106kpa



### WARNINGS ABOUT FEATURES AND SPECIFICATIONS

- Make sure that the height of the mattress is convenient for entering and exiting the device easily. Otherwise, it may cause a **RISK OF FALLING** that could lead to **SERIOUS INJURY**.
- Before lowering the mattress completely, make sure there is no body parts of the patient exceeding or are underneath the mattress to avoid **SERIOUS INJURY AND/OR TO POTENTIAL BREAK** on the device.

## 1.11 Electromagnetic Compatibility (EMC)

This hospital bed complies with the following electromagnetic compatibility standards.

<u>Test Name Standards</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) Electrostatic Discharge Immunity	Contact: $\pm 8$ kV. Air: $\pm 2$ kV, $\pm 4$ kV, $\pm 8$ kV, $\pm 15$ kV
IEC 61000-4-3 (2020) Radiated Electromagnetic Field Immunity	80MHz-2.7GHz: 3V/m
IEC 60601-1-2(2014) Proximity fields from 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) Electrical Fast Transient Immunity	Power: $\pm 2$ kV / 100kHz, I/O Ports: $\pm 1$ kV / 100kHz, Communication Ports: N/A
IEC 61000-4-5 (2014) A1 (2017) Surge 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) Power Frequency Magnetic Field Immunity	Continuous Field: 30A/m / 50Hz & 60Hz
IEC 61000-4-11 (2020) Voltage Dips, Short Interruptions and Voltage Variation Immunity on AC Input	Voltage dips: 0%Un during half cycle 0%Un during 1 cycle 70%Un during 25 cycles (at 50Hz) Short interruptions: 0%Un during 250 cycles(at 50Hz)



### WARNINGS ON ELECTROMAGNETIC COMPATIBILITY

- Portable RF communications equipment, including peripherals such as antenna cables and external antennas, should be no closer than 12 inches (30 cm) to any part of the bed, including cables.
- Avoid stacking or placing equipment adjacent with other equipment to prevent improper operation of the products. If such use is necessary, carefully observe stacked or adjacent equipment to make sure that they are operating properly.
- The use of accessories, transducers, and cables, other than those specified or provided by the manufacturer, could result in increased electromagnetic emissions, or decreased electromagnetic immunity and result in improper operation.

## 2 INSTALLATION

### 2.1 Powering the device

At all times, the primary voltage on the device can be removed safely by unplugging the unit's power cable connected to the wall socket for this purpose. Ensure the power cable is always accessible.

Note that this device is of Class I and must be plugged in a grounded outlet.

---

### WARNINGS ABOUT POWER TO THE UNIT

---

- Connecting the device to a supply network that has no grounding terminal increases **RISK OF ELECTRIC SHOCK**;
- After accidental and significant spill liquid on electronic components, cables and / or motors the operation of these components may be affected. You should immediately disconnect the bed and then remove the user from the bed, clean and inspect the bed by qualified technicians. The bed can be returned to service only if it has been properly cleaned and inspected. Not following these instructions could jeopardize the integrity of the device and could lead to **SERIOUS INJURY**.
- Make sure the power cable is always at a safe place during the use of the device to avoid damaging it and causing **SERIOUS ELECTROCUTION INJURY**.

## 2.2 Verification before putting into service

The following verifications are required to ensure that no damage occurred during transport of the bed:

- (If applicable) Check that the packaging of the device has no apparent damage;
- (If applicable) Unpack the device from its packaging;
- Visually inspect if the device appears to be in good condition;
- Connect the device power cable;
- Allow the device to be connected for at least 48 consecutive hours;
- Then verify that each function of the device operates according to the operating instructions provided in this manual (see section 3);
- Unplug the power cable and operate the actuators to verify the battery.

Note that the verification of CPR function should be performed with a mattress and a person adequately leaned as it is calibrated to work with the intended patient weight.

If damage or malfunction appear on the bed, without hesitation contact the Technical Services Department of Rotec International.

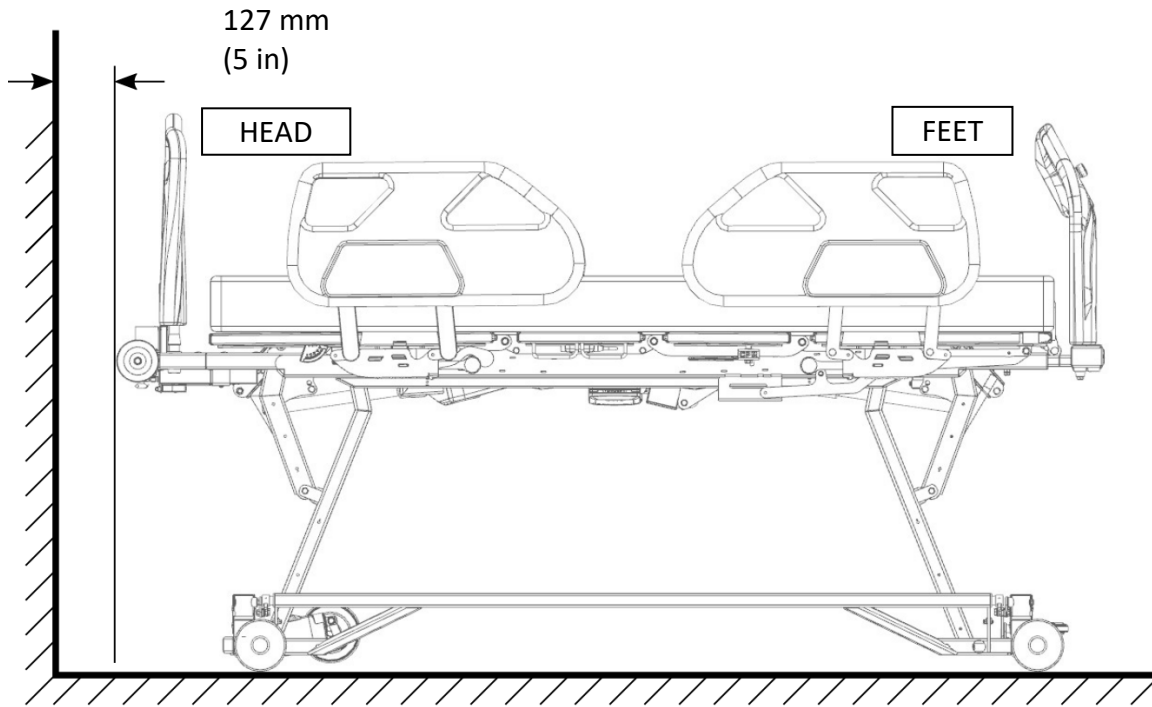
### WARNINGS ABOUT VERIFICATION

- Ensure that the power cables of electrical devices that are nearby do not get caught in the moving parts of the device. Not doing so could lead to **SERIOUS INJURIES BY ELECTROCUTION**.

## 2.3 INSTALLATION

### 2.3 Positioning in the operating environment

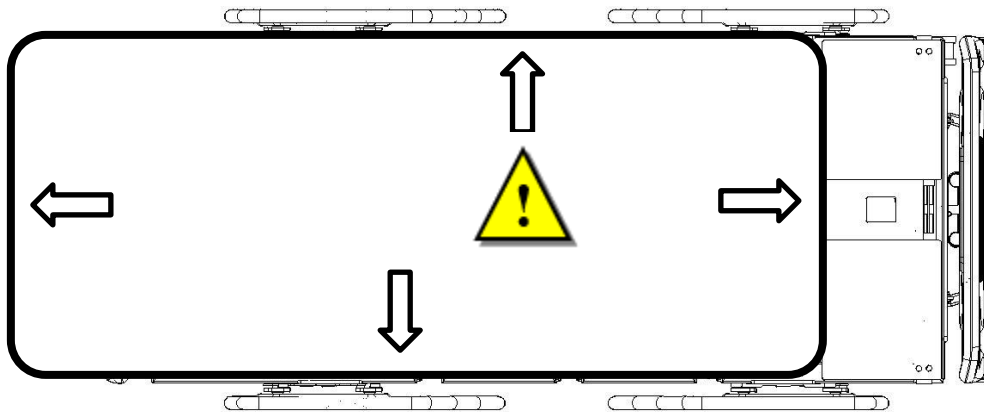
To install this bed model, place it horizontally at a distance of at least 127 mm (5 inches) from the wall. In the same manner, check that no object obstructs the end of the feet section and then apply the brakes (see section 3.2)



It is therefore possible to use the bed without worrying about the risk of contact with the wall.

## 2.4 Installation/Replacement of the mattress

Use a mattress corresponding to the recommended specifications. Ensure that the platform configuration is matching the mattress. (See Mechanical Specifications)










Lay the mattress on the device and insert it in between the rail guards of the platforms. Notice that the mattress must be compressed to be inserted. Otherwise, the platform adjustment is inappropriate for the dimensions of the mattress.

### WARNINGS ABOUT FEATURES AND SPECIFICATIONS







- Use a mattress of the correct size and adapted to the platform size in order to avoid **RISKS OF ENTRAPMENT** between the siderails and mattress which can lead to DEATH.

### 3 OPERATING INSTRUCTIONS

#### 3.1 Electrical functions of the bed

Symbols	Descriptions
	<p><b>Arrow pointing upwards:</b> Allow upwards adjustment of the various functions of the equipment.</p>
	<p><b>Arrow pointing downwards:</b> Allow downwards adjustment of the various functions of the equipment.</p>
	<p><b>Backrest functions:</b> Allow tilting adjustment of the backrest section upwards or downwards.</p> <p>Press on the arrow pointing upwards or downwards located next to the symbols to switch on the motor. Release the control to stop all movement.</p>
	<p><b>Thigh functions:</b> Allow tilting adjustment of the thigh section and raising or lowering the foot section.</p> <p>Press on the arrow pointing upwards or downwards located next to the symbols to switch on the motor. Release the control to stop all movement.</p>
	<p><b>Auto-contour functions:</b> Allow tilting the thigh section and the backrest section and adjusting the height of the foot section upwards or downwards at the same time.</p> <p>Press on the arrow pointing upwards or downwards located next to the symbols to switch on the motor. Release the control to stop all movement.</p>
	<p><b>Bed height functions:</b> Allow the height adjustment upwards or downwards of the bed.</p> <p>Press on the arrow pointing upwards or downwards located next to the symbols to switch on the motor. Release the control to stop all movement.</p> <p>Note: The buttons situated on the inside of siderails and on the remote control have a limited range on lowering the bed for safety reasons. To lower the bed to the lowest height, use the controls on the foot panel.</p>
	<p><b>Trendelenburg functions:</b> Allow tilting the bed so the foot section is lower than the head section and conversely.</p> <p>Press on the arrow pointing upwards or downwards located next to the symbols to switch on the motor. Release the control to stop all movement.</p> <p>Note: the function stops when the bed is back horizontally.</p>



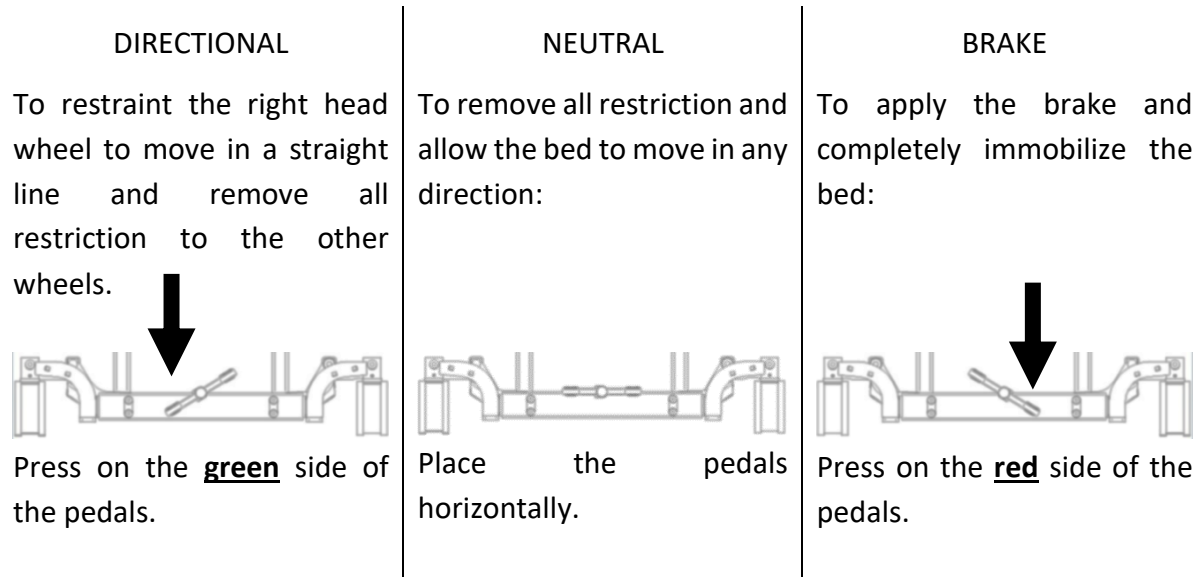
	<p><b>Locking functions:</b> Allow locking a function of the remote control and of the patient control from the nurse control at the foot of the bed.</p> <p>Press this button to lock the function displayed nearby. A red indicator with light up underneath the lock symbol, indicating that the function is locked.</p> <p>The button to the side locks all moving functions of the equipment located on the remote control, the patient control on the side of the bed and at the foot control of the bed except for the CPR functions.</p>
	<p><b>Chair position:</b> Allow the bed to be moved in a chair position. This function tilts up the back and thigh sections upwards, adjust the height of the foot upwards and tilt up the bed so the foot section is lower than the head section.</p> <p>Press this button until all functions reach their maximum positions. Release the control to stop all movement.</p> <p>Note: The complete operation may take up to 60 sec.</p>
	<p><b>Electric CPR function:</b> Allow the optimum positioning of the bed to apply the cardiopulmonary resuscitation. This function must be use for this purpose <b>ONLY</b>.</p> <p>Release the control to stop all movement.</p>
	<p><b>Light function:</b> This function turns on the light located underneath the bed.</p> <p>Press this button to turn on or off the light.</p>
	<p><b>Nurse call function :</b> This function sends a signal to the nurse’s station.</p> <p>Press this button to send the signal.</p>
	<p><b>Plug-in indicator light</b> This light indicates that the bed is plugged in a wall power outlet. Allows the battery to recharge.</p>

#### WARNINGS ABOUT THE USE OF ELECTRICAL FUNCTIONS

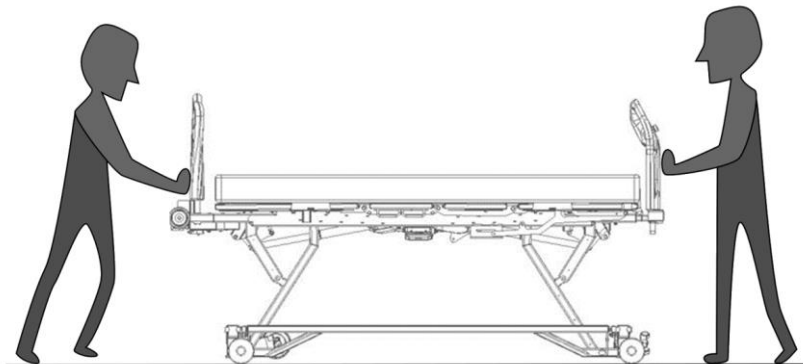
- If the user's physical condition requires it, and that, for his own safety, lock the movement of the bed functions intended to be used by the patient and place the bed in the low position, the platforms horizontal and bed rails in the raised position;
- Ensure that no body part exceed the mattress and that there is nothing interfering under the platform of the bed before activating the CPR function. **SERIOUS INJURIES** may occur if this function is not used properly.
- CPR function should only be **USED IN CASE OF EMERGENCY ONLY**. Using this function for other purposes could lead to **SERIOUS INJURIES** to the patient or operator.
- Always position the bed at a reduced height when the patient is sleeping or unattended to reduce the **RISK OF FALLS** that could lead to **INJURIES**;
- Do not leave a table or other device requiring access under the bed when it is lowered down because this will cause **SERIOUS MECHANICAL DAMAGE**.
- Always make sure no objects or equipment hinders the movement of the movable parts of the bed before activating a motion controls, such as: patient or staff limbs, medical equipment, etc. this could result in **SERIOUS INJURY AND / OR DAMAGE TO EQUIPMENT**.

### 3.2 Moving the device

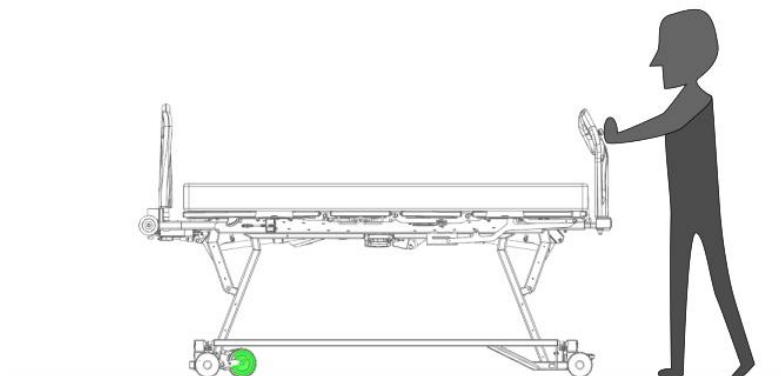
To move the device, it is recommended to raise the bed of at least 150mm (6 inches) from its lowest position to facilitate access to the pedal. To operate the system, place the pedal in one of the following three positions:



When the bed is heavily loaded, it is recommended to have two persons to move it.



However, if you are moving the bed using the VersaDrive motorized assistance, it is preferable to move the bed on your own.

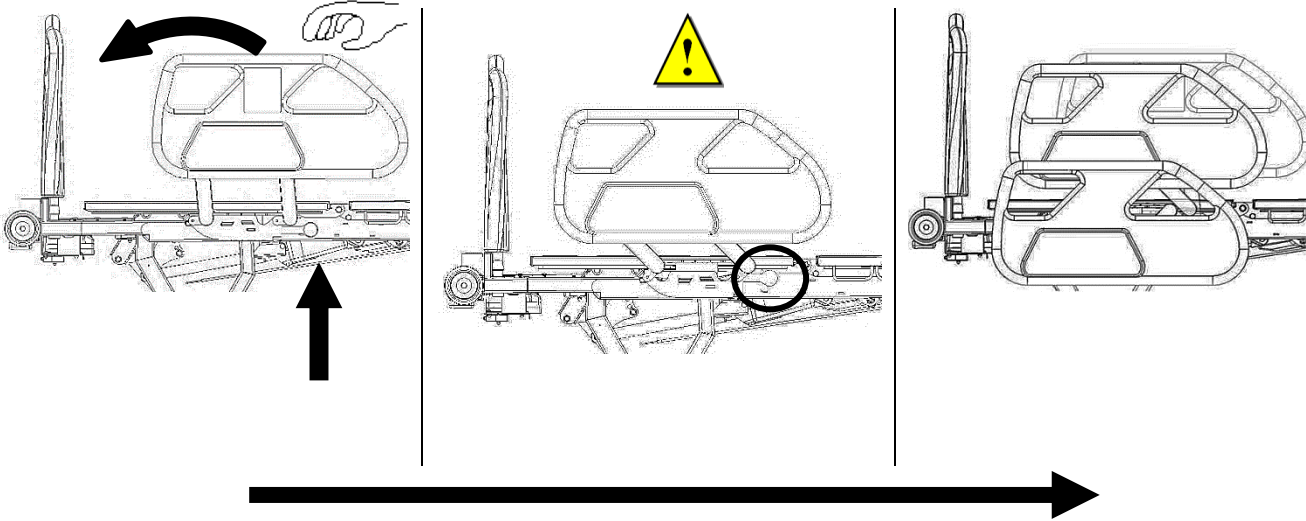


### WARNINGS ABOUT THE SYNCHRONIZED BRAKE SYSTEM

- Always apply the brakes after moving the bed or when a patient is on the bed since not doing so could cause **INJURIES** to the patient when it comes in and out of bed.
- Always verify that the brakes are well locked after activated them by trying to move the device.

### 3.3 Side rails

To lower one side rail, push the lever located underneath the mattress near the mechanism and move the side rail downwards with a rotating movement. For a better security, the side rail locks after being activated. Press again on the lever and move the half-length side rail until it stops to the lowest position.



To raise the side rail, pull the side rail upwards by a rotational movement. Then, make sure that the side rail is completely locked at the highest position by trying to move it sideways.

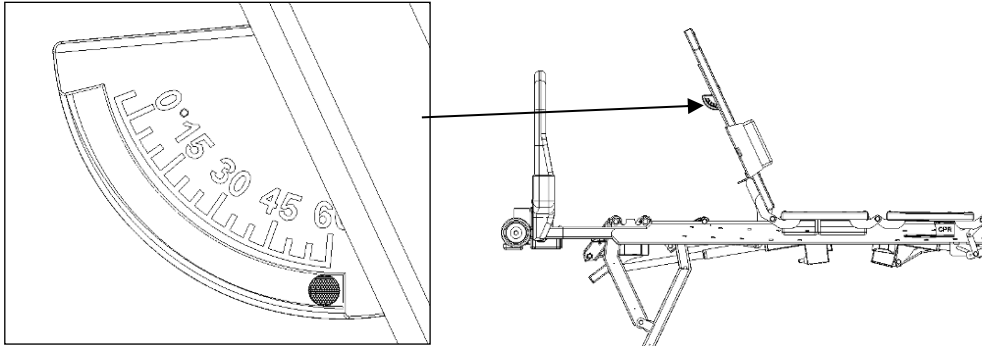
#### WARNINGS ABOUT SIDERAILS USE

- When raising the siderails in close position, always make sure that the side rail is completely locked at the highest position by trying to move it sideways in order to avoid **RISKS OF FALLING**.
- The side rails are designed to prevent accidental falls only. They should not be used to prevent the patient from leaving the bed, to assist the patient to turn over in bed or as a restraint. It is the responsibility of the operator to use appropriate restraints, and this in the interest and for the safety of the user;
- Ensure that nothing can impede the movement of the side rails (blankets, patient's limbs, etc.) before you activate them
- Unless otherwise medically advised by a professional, leave the side rails up and locked while the user is sleeping or left without any supervision to avoid **RISKS OF FALLING** ; also, it is recommended to keep the height of the bed to its lowest in order to reduce the **RISKS OF INJURIES** related to falling.
- Make sure the feet are not under the device when lowering the patient surface to its lowest. When the siderails are open (unlock position), they come in contact with the ground and raise a little.

## 3.4 OPERATING INSTRUCTIONS

### 3.4 Angle indicators

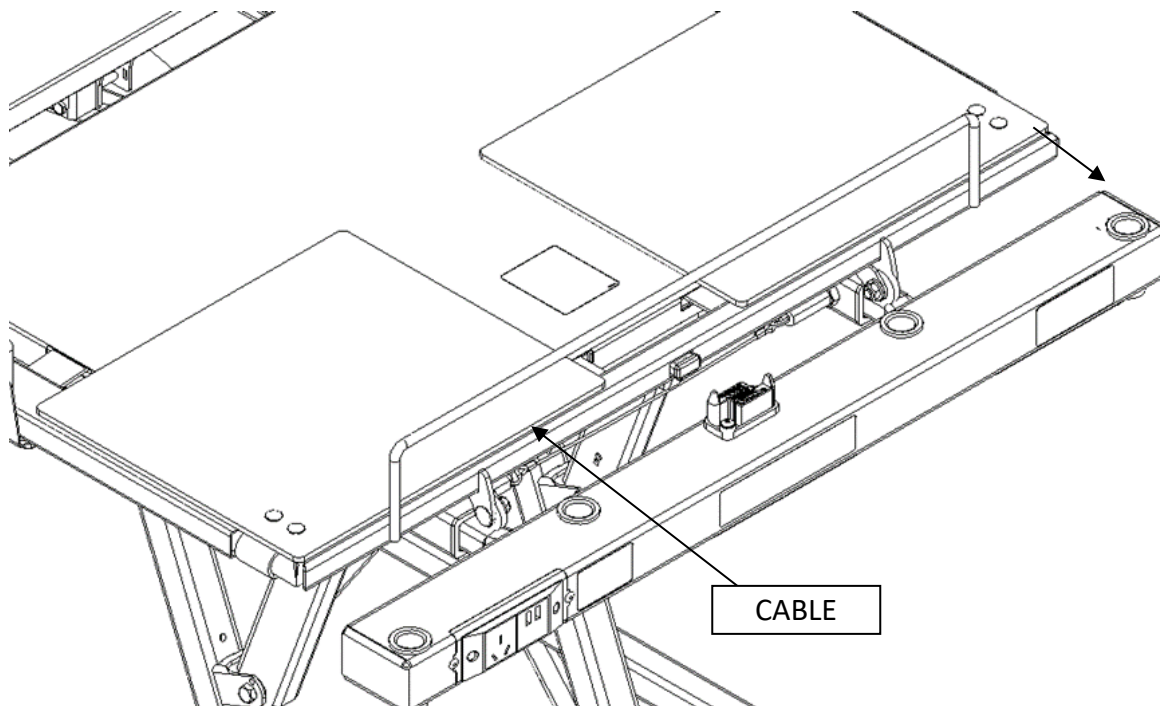
The angle of the back-rest section relative to the ground is approximately given by the angle indicator fixed underneath the back-rest section. The measure (in degree) is indicated by a small ball following the graduation etched.



### 3.5 Length extension of the platform

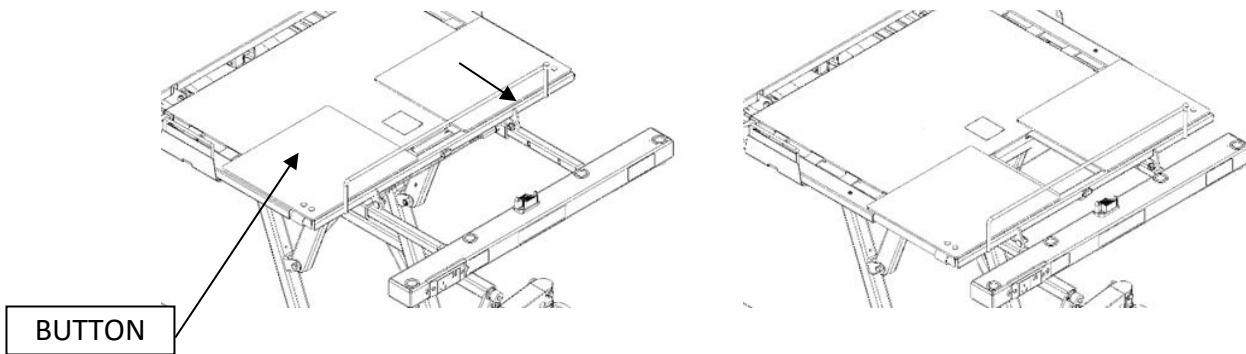
\* It is recommended to bring up the foot section to the maximum to operate the extension of the platform with ease.

- 1) Pull the cable located under the foot section;
- 2) With the other hand, push/pull the foot extension of the structure;
- 3) Release the cable. The extension will lock automatically to the following mattress dimensions: 84 in & 88 in.



- 4) Push the button located to the end of the foot section
- 5) With the other hand, push/pull the foot extension of the section

- 6) Release the button. The extension will lock automatically to the following mattress dimensions: 84 in & 88 in.

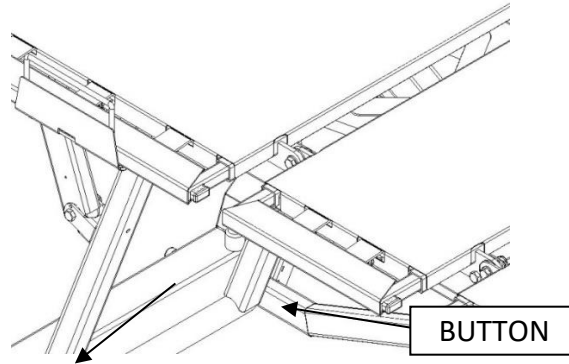


#### WARNING ON LENGTH EXTENSION OF THE PLATFORM

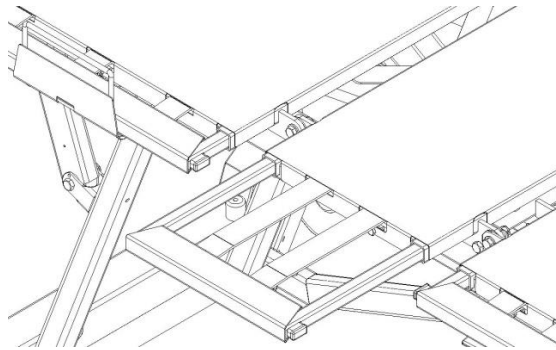
- Never extend the foot section the platform without extending the foot section of the structure to avoid **MECHANICAL BREAK AND/OR INJURIES**.
- After extending the platform, always verify that the length fit the size of the mattress use to avoid **RISKS OF ENTRAPEMENT** that could lead to **DEATH**.

### 3.6 Width extension of the platform

- 1) Push the button located at the corner of a section.
- 2) Push/pull on the extension section.



- 3) Release the button. The extension will lock automatically to the following mattress dimensions: 36" in, 39" in, 42" in, 48" in.



- 4) Make sure the extension section is well lock by trying to pull or push it.
- 5) Repeat these steps for all the extension sections around the device. There is a total of 8 section to extend around the device to extend the width properly.

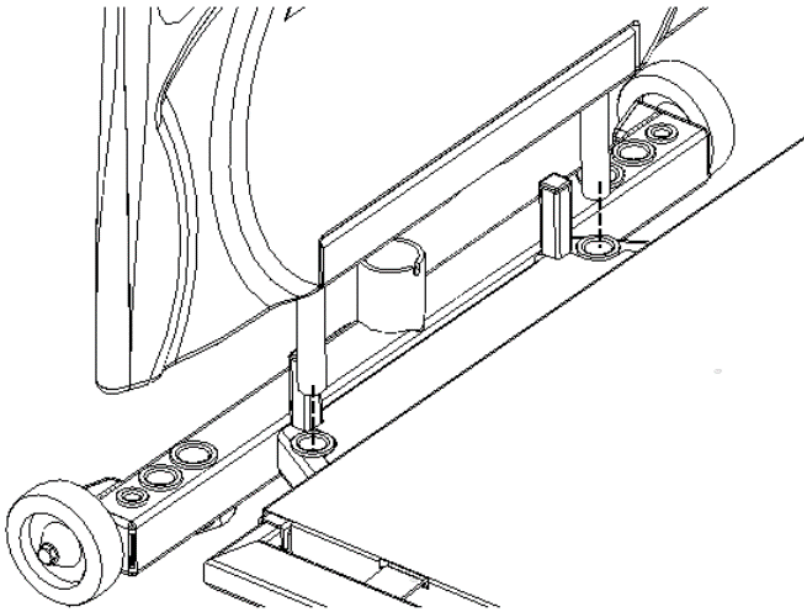
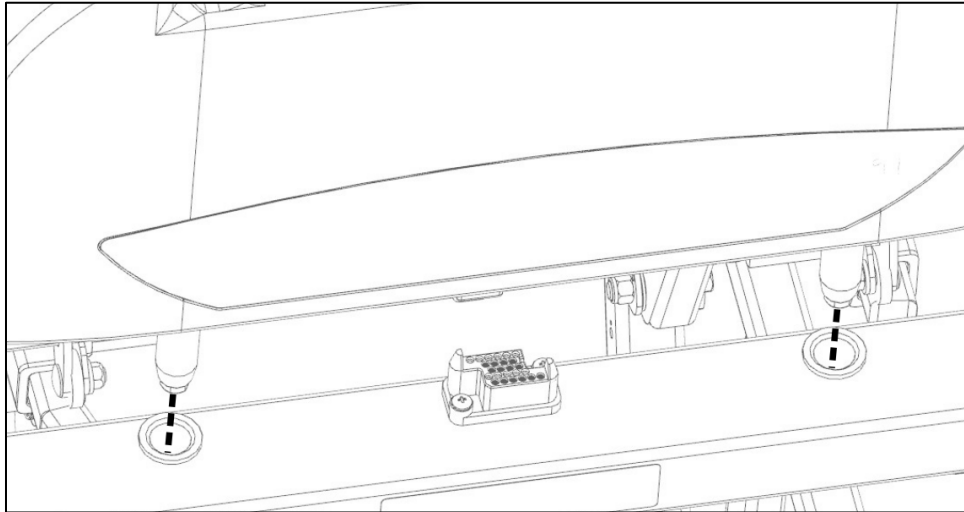
### WARNING ON WIDTH EXTENSION OF THE PLATFORM

- After extending the platform, always verify that the width fit the size of the mattress use to avoid **RISKS OF ENTRAPMENT** that could lead to **DEATH**.



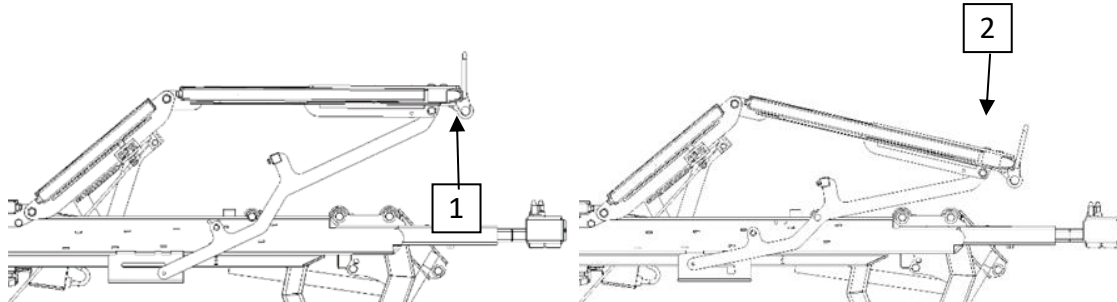
### 3.7 Head and foot boards

To install the headboard or footboard, slide the two (2) stems, of the head or foot board, into the two (2) holes provided for this purpose to the bottom as shown here below. To remove the panel, do the reverse movement as described above.



### 3.8 Adjustment of the foot angle section

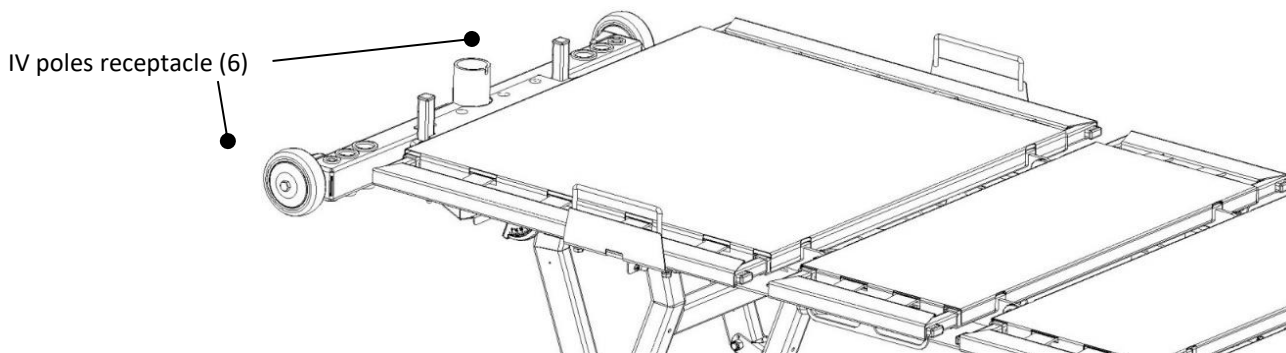
While raised, the foot section of the mattress may be inclined if needed. To do so, lift the far end of the foot section platform (step #1). The mechanism should unlock. Then, lower it until it reaches the stopper (step #2).



To put back the foot section platform in its horizontal position, raise it until it blocks and, with the other hand, push down the mechanism in its lock. Otherwise, just lower the hold section platform to the horizontal position with the electrical function. The foot section will automatically get back to its horizontal position afterwards.

### 3.9 IV poles receptacle

Six (6) receptacle are located at the head of the structure. Among them, three different dimensions are at your disposal. Diameter dimensions of 1/2, 7/8 and 1 inch.

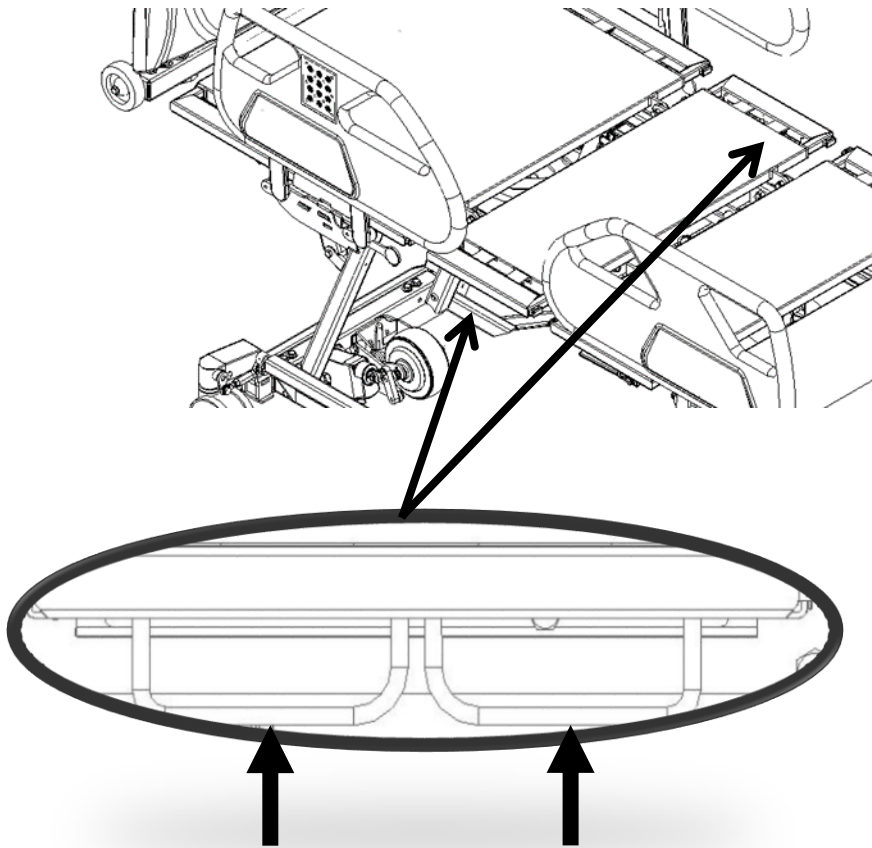


#### WARNING ABOUT IV POLES RECEPTACLE

- Do not use the Trendelenburg function when IV poles are fix to the device to avoid **MATERIAL DAMAGE** and **RISK OF INJURIES** to the patient.

### 3.10 Drainage bag receptacle

For the installation of drainage bags, use the 2 locations provided for this purpose beneath the seat section as support for the drainage bag.

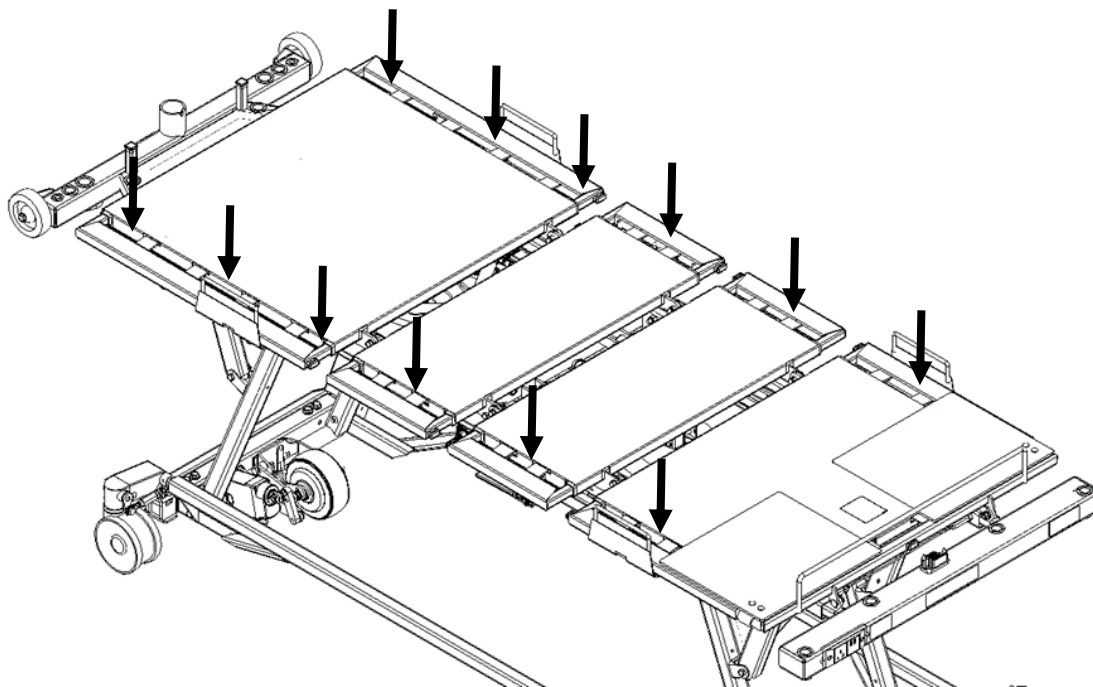


#### WARNING ABOUT BAG RECEPTACLE

- Do not lower the device to its minimal height when a drainage bag is hooked to the device. The drainage bag could fall off the device and cause **INJURIES** to the patient.
- Beware, hook a drainage bag elsewhere on the device could cause **INJURIES** to or **MATERIAL DAMAGE**.

### 3.11 Attaching restraint straps

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

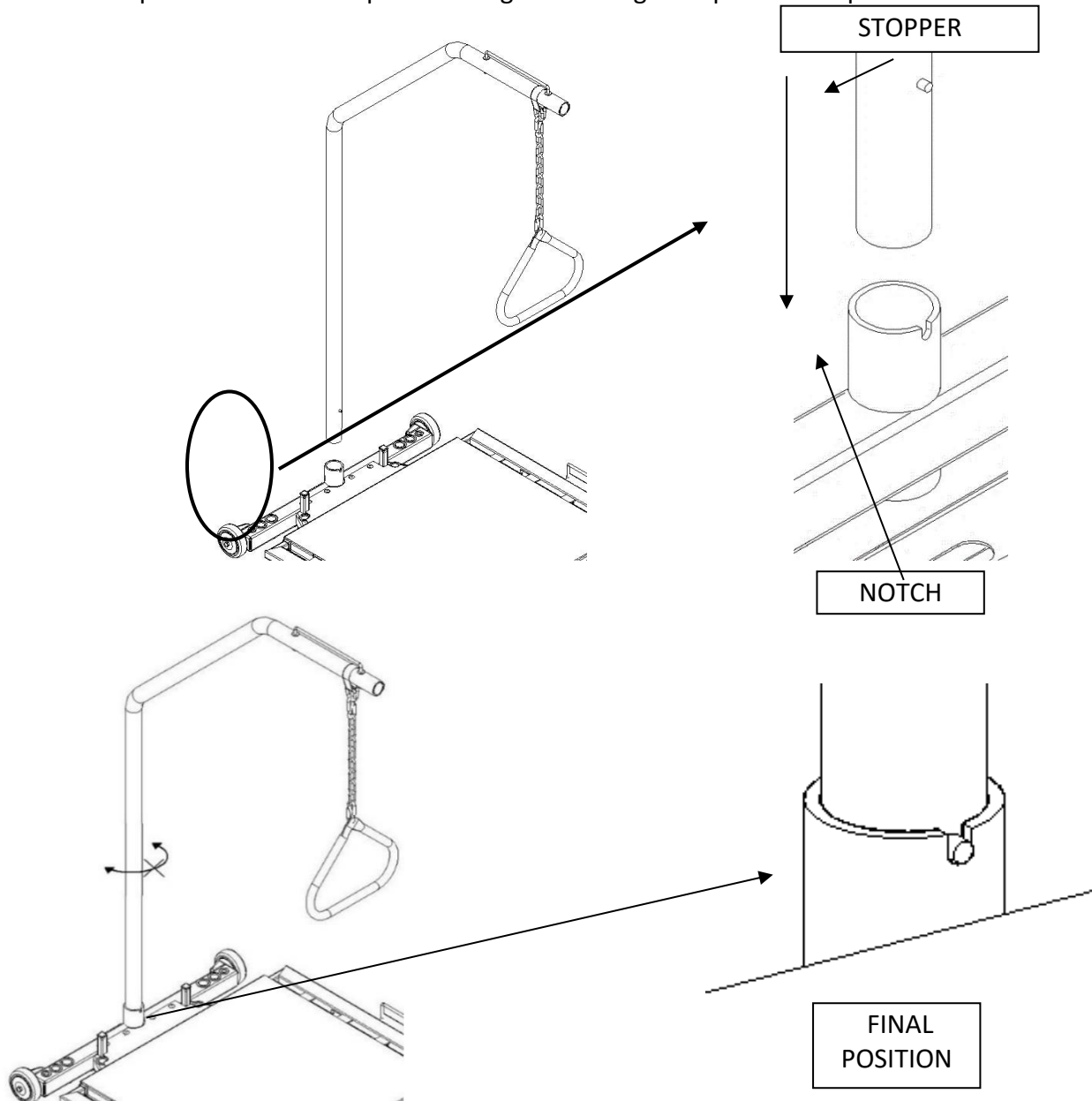


#### WARNINGS ABOUT THE RESTRAINT STRAPS

- Verify that the restraining straps are not further tightening the patient during movements of the platform because this may cause **RISK OF INJURY**.

### 3.12 Installation of the trapeze bar (option)

Insert the trapeze bar in the receptacle taking care to align the position stop with the notch.



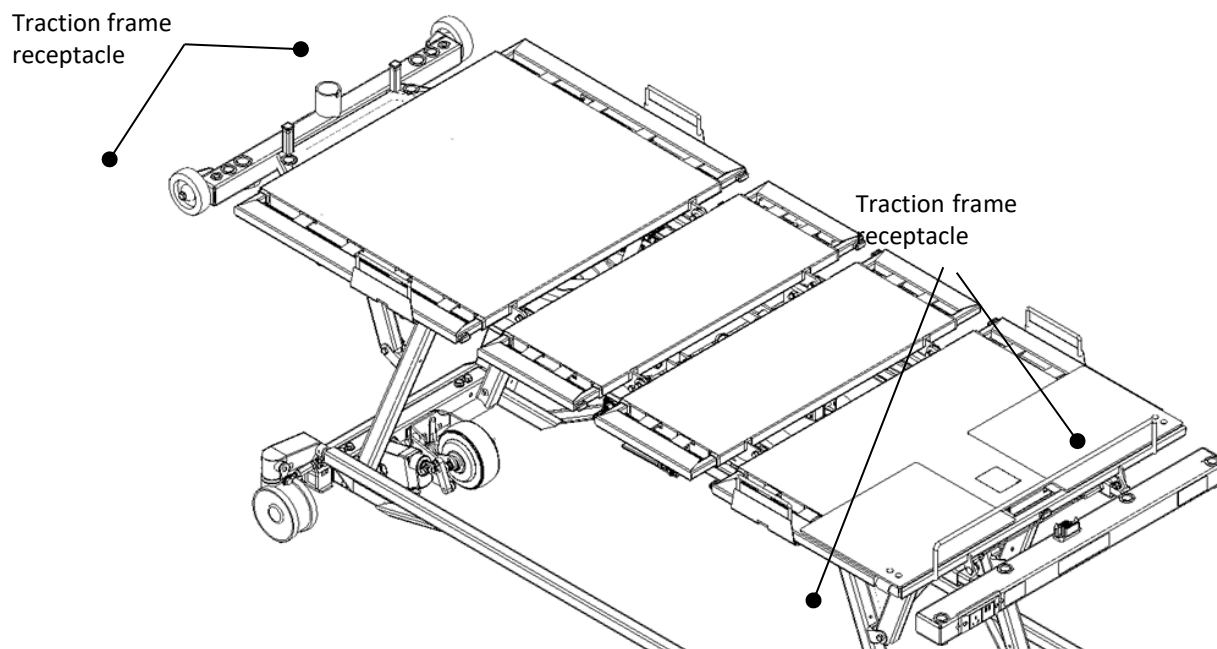
Make sure that the trapeze bar is properly positioned by trying to move with a rotating movement. Made exclusively for Rotec brand trapeze.

#### WARNING ABOUT TRAPEZE BAR

- Do not use the Trendelenburg function when a trapeze bar is fix to the device to avoid **MATERIAL DAMAGE** and **RISK OF INJURIES** to the patient.

### 3.13 Traction frame receptacle

To install a traction frame, use the receptacles shown below. Diameter of 7/8 inch.

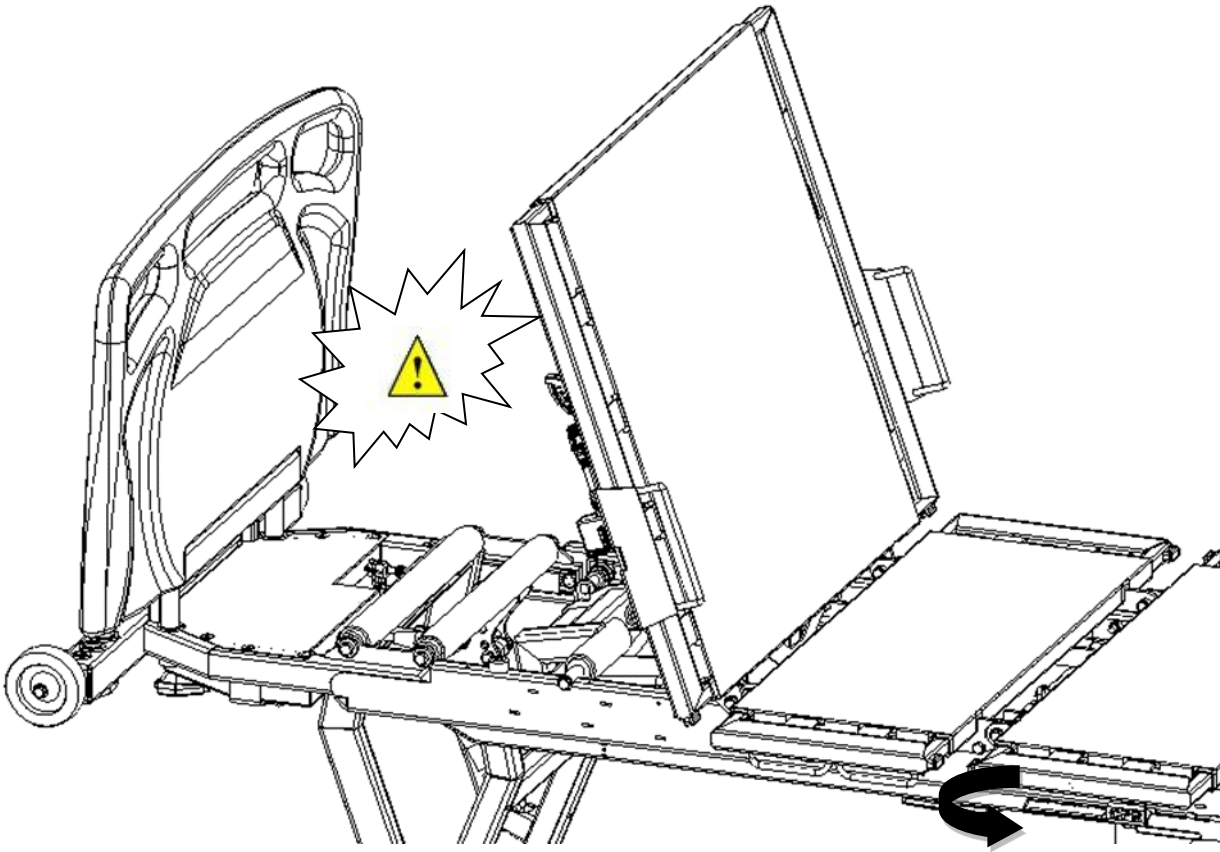


#### WARNING ABOUT THE TRACTION FRAME RECEPTACLE

- Do not use the Trendelenburg function when a traction frame is fix to the device to avoid **MATERIAL DAMAGE** and **RISK OF INJURIES** to the patient.

### 3.14 Mechanical CPR function

To use the mechanical CPR function, pull the handle located under the upper leg section platform as illustrated below to lower the backrest section platform only.



#### WARNING ABOUT THE CPR FUNCTION

- Ensure that no body part exceed the mattress and that there is nothing interfering under the platform of the bed before activating the CPR function. **SERIOUS INJURIES** may occur if this function is not used properly.
- CPR function should only be **USED IN CASE OF EMERGENCY ONLY**. Using this function for other purposes could lead to **SERIOUS INJURIES** to the patient or operator
- The side rails must be in the raised position upon triggering of the mechanical CPR. Otherwise, the side rails mechanism could open suddenly and cause **SERIOUS INJURIES**.

### 3.15 OPERATING INSTRUCTIONS

---

#### 3.15 Nurse Call and DB37 output

Pressing the nurse call button sends a signal to the guard station.

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

This type of plug is an industry standard. If another type of connection is required, please contact us for other available connection options.

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



Note: This receptacle also sends a signal in case of bed exit if this option is enabled.

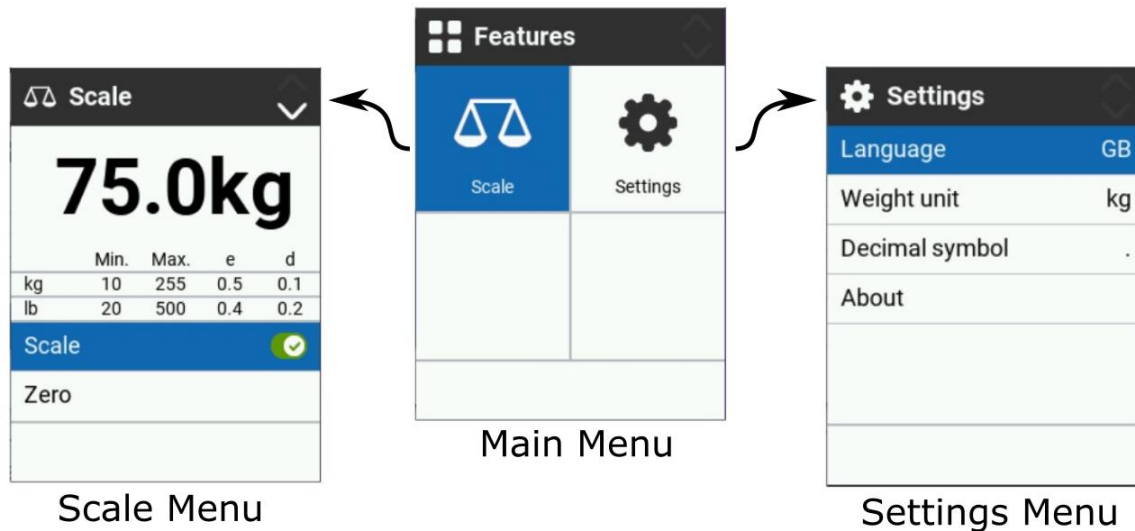
#### WARNING ABOUT THE DB37 OUTPUT

- Ensure that the signal is functional. A non-functional connection could lead to **TREATMENT DELAYS WHICH COULD AGGRAVATE OR CAUSE INJURIES.**



### 3.16 Integrated scale (option)

The integrated scale allows measurement of a patient's weight. This function is accessible on the foot panel screen using directional keys.



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

#### Scale menu

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

Functions of the Scale menu :

- Scale On/Off : Enables and disables the scale.
- Zero : Resets the scale to zero to neglect the current accessories. Only possible when the bed is empty.

#### Settings Menu

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

It is possible to change the display language as well as other parameters of the scale system.

#### Warning on accuracy of the scale

- Weight display by the scale system could vary from real weight of the patient. The precision of the integrated scale system is of  $\pm 2\% + 1 \text{ kg}$  ( $2\% + 2 \text{ lb}$ ). The caregivers must consider this precision.
- It is recommended to keep the bed still and on brakes if taking a series of measures on a long period. Moving the bed and the orientation of its wheels could change considerably the weight measured by the system.

### WARNING ABOUT THE SCALE SYSTEM

- Scales integrated to bed should always be use as a **REFERENCE ONLY AND IS NOT MEANT TO BE USE FOR MEDICAL TREATMENT.**
- Disabling the scale will disable the bed exit or egress detection function.

### 3.17 Bed exit detection system (option)

The 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.

#### Buttons identification



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



Zone 2: Lateral movement detection. The system will warn that the patient is attempting to leave the bed. 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, ensure that the patient is in a centered position in the bed to minimize false alarms and increase the accuracy of the system.

Also includes Zone 1 alert.

#### Alerts:

The detection system has three types of alerts to notify staff.

Visual indication is provided by light indicators located below the footboard interface. These indicators flash when the alert is triggered.

The buzzer can sound to alert caregivers. You can activate or deactivate the buzzer according to your needs. To do so, press and hold the activation button of the bed exit detection system until you hear one of the following beeps

1 beep: buzzer **deactivated**

3 beeps: buzzer **activated**

The warning to the nurse call system is done by connecting to the DB-37 outlet of the facility. (See Nurse Call section)

There might be a delay of up to 5 seconds before the alarm is triggered after egress.

### Caution

This system may not accommodate everyone. Additional device may be needed. This apparatus does not replace visual supervision from the medical staff. The manufacturer does not pretend that this equipment will stop the falls. This device is an additional tool to the complete program of management of mobility of residents by the caregivers. Have this equipment tested before each utilization. Read all instructions and legal advice.

Furthermore, the system is not conceived to replace the proper medical practice, included but not limited to a direct supervision of the patient or an appropriate fall prevention training of medical staff.

This device provides the warnings as soon as a patient leaves the bed. It does not prevent from falls. The alarm may not activate if the utilization instructions are not respected. If the alarm is not functioning appropriately, turn it off and replace it by a system that works properly.

Ensure that your establishment has a clear and efficient response management policy of falls and fall alarms.

Whenever possible, the vendor intends to limit its responsibilities for particular damages, accessories or indirect economic loss for the repair or replacement of the product. The vendor declines all responsibilities for damages, compensatory damages or any other damages related to the utilization of the products.

This product is intended to be used only by the certified medical staff.

### WARNINGS ABOUT THE BED EXIT ALARM SYSTEM

- This function shall **NEVER** be use as a unique method to prevent falling. This situation could lead to **RISK OF INJURIES** to the patient.
- This function shall **NEVER** be use as a replacement for visual surveillance. This situation could lead to **RISK OF INJURIES** to the patient.
- This function shall **NEVER** be use as a unique method of surveillance for agitated, combative, or suicidal patient or « high risks of falling » patient. This situation could lead to **RISK OF SERIOUS INJURIES** to the patient.
- Disabling the scale will disable the bed exit or egress detection function.

### 3.18 VersaDrive motorized wheel (option)

If your bed is equipped with the motorized VersaDrive assistance, you can use it to move the bed with less effort. The interface located on the foot board panel.

#### Turning the system on



Unplug the bed and place the brake pedal in the neutral position when using the motorized assistance.

Press and hold the power button until you hear a beep and the indicator flashes. Remove your finger from the panel and wait a few instants while the system is calibrating, and the motor wheel gets lowered to the floor. Once the wheel is lowered and ready, a beep is emitted the indicator stops flashing.

#### Moving

Once the system is ready, put both hands on the foot panel handles and push or pull to make the wheel naturally assist your motion. A sensor in the foot panel indicate to the wheel the required movement.

For your safety, the wheel assists movement up to a speed of 0.9 m/s.  
Note that the wheel restricts and does not assist lateral movement.

#### Turning the system off

To turn off the system, hold the power button until a signal is heard and the indicator flashes. The wheel will lift, and the light indicator turns off when done.

#### Battery charge level



The motorized wheel is powered by an independent battery. Light indicators display the charge level.

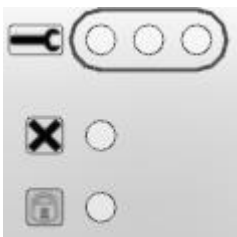
The VersaDrive battery automatically recharges when the unit is plugged in through the main power cable. When the bed is plugged in, the motorized wheel is disabled and will not activate.

**Emergency stop button**

Warning: Using the emergency button disables the electric brake and the operator will have to slow down the load without assistance. Only use this button in the event of an electrical failure causing loss of control. Do not use it to brake or to normally turn off the system.

Pressing this switch immediately switches off power assist drive.

After pressing the emergency switch all indication lights will start blinking in normal speed. The emergency switch can be unlocked by turning it clockwise. After unlocking, all indication lights will remain blinking. The system can be reactivated by pressing the on/ off switch briefly.

**Troubleshooting Indicators**

If the power button indicator light glows in a color other than green or if the illustrated indicators light up, the system may be in a non-functional error state.

Reset the system and if the problem persists follow the VersaDrive Troubleshooting Guide in the next section.

**⚠ WARNING ABOUT THE MOTORIZED WHEEL**







- Always deactivate the motorized wheel after completing the movement and engage the brakes to prevent involuntary movement **THAT CAN LEAD TO WOUNDS.**
- Completely turn off and raise the wheel before the patient enters or exits the bed to reduce the risk of tipping.
- The VersaDrive must only be operated by qualified staff.
- The operator must not be disturbed or under the influence of substances that can affect driving.
- Do not use on slopes exceeding 6 degrees.
- Ensure that the mattress and the patient are not pressing against the foot panel while using the VersaDrive.

### 3.18 OPERATING INSTRUCTIONS

#### VersaDrive Troubleshooting Guide

In case the VersaDrive system doesn't work as expected, follow the indications below until the problem is resolved.

1. Turn the system off, then turn it on.
2. Do not touch the foot panel in the first few seconds of calibration.
3. Ensure no lights are blinking, and troubleshooting indicators are off.
4. Otherwise, check the troubleshooting table.
  - a. Inspect the indicated parts.
  - b. Ensure all their cables are properly connected.
  - c. Try a replacement part if available.
5. Contact your customer service.

Problem	Advice
All lights are blinking.	Emergency button is active, twist to reset.
Orange blinking battery light	Low charge, plug the bed.
Green blinking battery light.	Unplug the mains power cable before moving.
System doesn't start or immediately switches off.	Issue with battery or charger.
Wheel remains inactive while system is on.	Issue with wheel or control box.
Bed doesn't automatically brake.	Issue with foot panel sensor.
Bed moves short distances by itself.	Issue with floor angle or foot panel sensor.
X or Lock indicator is lit.	Issue with control box program.
	Issue with control box.
	 Issue during initial calibration.
	 Issue with stable signal. Possibly caused by an object touching the foot panel, causing a stable pressure on the sensor. Can sometimes happen at very low speed with constant handle pressure.  Otherwise, issue with foot panel sensor.
	Issue with foot panel connection or buttons.
	Issue with motor wheel.

### 3.19 Auxiliary outlet (option)

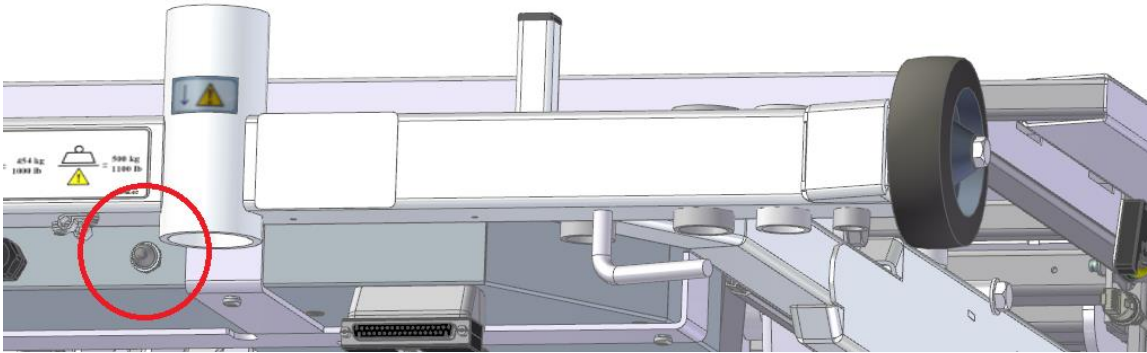
If the bed is equipped with an auxiliary power outlet, it is located under the footboard.

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

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

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

If the outlet does not work, press the breaker reset button near the power cord inlet (at the head) to reconnect the circuit.



#### WARNING ABOUT THE AUXILIARY POWER OUTLET

- Only connect medical grade devices consuming 5A (120 VAC) / 2.5A (220/230/240 VAC) or less to the auxiliary outlet.
- Connecting an electrical device to the auxiliary outlet effectively creates an electromechanical system. This may result in a reduced level of safety.
- An extension cord or multi-tap socket should not be connected to the bed's auxiliary socket.
- Do not use the auxiliary outlet for life sustaining equipment.

# 4 MAINTENANCE

## 4.1 Cleaning

Here are the precautions to consider when cleaning the device:

- Do not wash with high pressure water jet. Ultrasonic and immersion of the various parts of the bed are not recommended;
- **Always disconnect** the bed before cleaning;
- Use soaps commonly used in hospitals, such as Presept, Zochlor, Fectolime, F-12167 Zep, Zep Spirit II, ACCEL Prevention RTU (Virox), Clorox wipe Healthcare or 3M HWS-100 etc. or residential soaps and clean the bed by hand. The products may be applied by spraying. Ensure that the concentration of cleaning product meets the manufacturer's recommendations.
- A chlorine solution up to a concentration of 10000ppm can be used. Rinse with clear water to remove any excess chlorine residue after the recommended time.
- Can be washed with steam, but do not use high pressure jet;
- Be sure that the cleaned parts **are clean and dry** before using the bed.

---

### WARNING ABOUT CLEANING

---

- Failure to follow these safety instructions for cleaning could jeopardize the integrity of the bed and make it unusable.



## 4.2 Preventive maintenance

Checks to be conducted annually:

- Check that the equipment is still in good condition;
- Connect the device power cable;
- Let the device connected for at least 48 consecutive hours;
- Verify that the nuts and bolts are tight;
- Check the wear of shoulder washers used to reduce friction of moving parts. Do not lubricate. Replace if necessary;
- Check that no object or equipment hinders the movement of the moving parts of the bed (wheels, structure, etc.);
- Check the wire condition of; the remote control, the power cord and bed cables. Replace damaged ones;
- Verify correct operation of all functions of the device according to the instructions for use provided in this manual (see section 3).
- Unplug the power cable and operate the actuators to verify the battery.
- If the VersaDrive option is installed, use the motorized wheel to test this feature and battery life.

For optimum performance, it is recommended to replace the bed batteries every 3 years.

### WARNING ABOUT PREVENTIVE MAINTENANCE

- Preventive maintenance is essential to maintain the reliability of the bed. A bed which demonstrates abnormalities should not be used. Any abnormality must be repaired immediately by an authorized and competent person. Failure to follow these safety instructions for cleaning would jeopardize the integrity of the bed and could lead to **SERIOUS INJURY**.
- Any replacement of an equivalent part not certified by Rotec International on the device may result in **SERIOUS INJURY AND / OR SIGNIFICANT MECHANICAL BREAKDOWN AND MAY LIMIT OR VOID THE PRODUCT WARRANTY**.
- Any break on a part giving access to electronic parts must trigger immediately a lock down of the device until the broken part is repair/replace. Not doing so could lead to **SERIOUS INJURIES BY ELECTROCUTION**.

### 4.3 Disposal of the device at end of life

To safely dispose of the device at the end of his life, take the following steps:

- Remove the batteries from the device and take all necessary steps to return them in a facility intended for this purpose.
- Remove the power cables, connectors, motors, circuit, the controller, and the electronic control of the device. Then take all necessary steps for recycling them in a facility provided for this purpose.
- Remove the wheels of the bed, the plastic covering, panels and side rails and plastic joints of the different bed mechanisms. Then take all necessary steps for recycling them in a facility provided for this purpose.
- Place remaining metal parts for recycling as it should.

## 4.4 Troubleshooting Guide

If any problems arise with the bed or one of its components, refer to the guide below. If the following or additional problems persist, do not hesitate to contact one of our technicians.

### Verifications

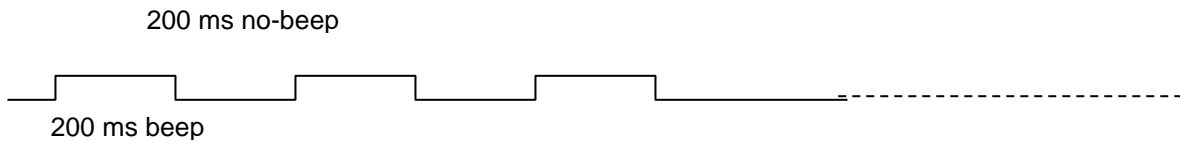
PROBLEMS	VERIFICATIONS
None of the functions of the remote control or the nurse control are working.	<ul style="list-style-type: none"> <li>✓ Is the power cord properly plugged in?</li> <li>✓ Is the power cord damaged? If so, replace it.</li> <li>✓ Verify all connections.</li> </ul>
None of the functions on the remote control are working.	<ul style="list-style-type: none"> <li>✓ Is the control lock activated?</li> <li>✓ Is the remote control wire properly plugged in?</li> <li>✓ Is the remote control wire damaged? If so replace it.</li> </ul>
One or many functions of the remote control are not working.	<ul style="list-style-type: none"> <li>✓ Verify the above-mentioned.</li> <li>✓ Is the control lock activated for these functions? If not, are the nurse control functions working? If so, have the remote control inspected.</li> <li>✓ Verify the above-mentioned.</li> </ul>
The bed runs very slowly.	<ul style="list-style-type: none"> <li>✓ Is the power cord properly plugged in?</li> <li>✓ Is the power cord damaged? Is so, replace it.</li> </ul>
Device emits one or several audible beeps	<ul style="list-style-type: none"> <li>✓ Refer to the next section about acoustical signal explanation</li> </ul>

## 4.4 MAINTENANCE

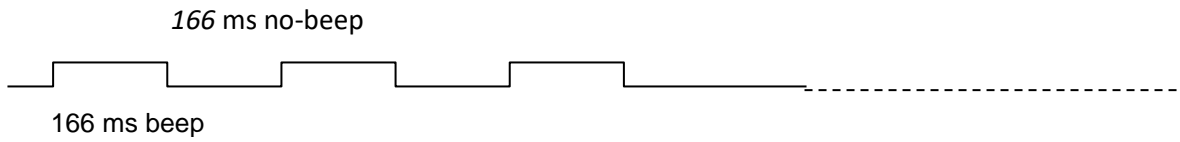
---

### Explanation of acoustical signals

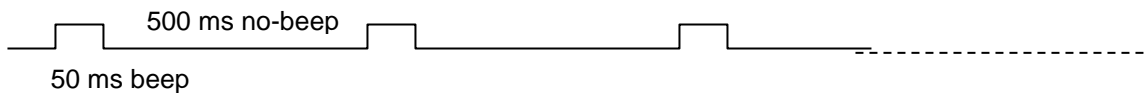
*Position Lost:*



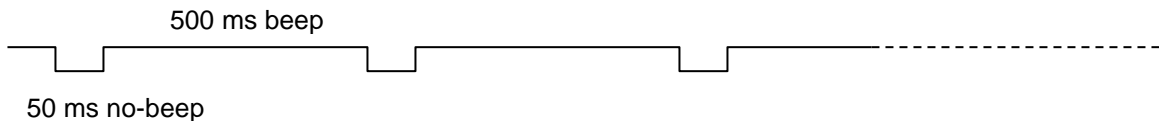
*OBD Alarm:*



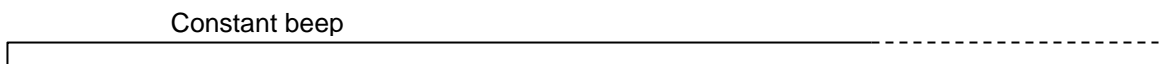
*Fatal error:*



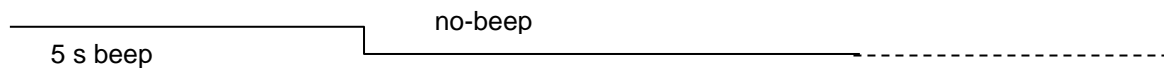
*Fatal error reset:*



*Hoot:*



*Over-heating:*



---

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

When the control box is in fatal error mode, a fatal error beep will be present each time a button is pressed to alert the user of the condition. In addition, all lights will flash when the system is in fatal error. Each function of the control box responds to fatal errors in a specific manner. Here are the types of possible errors:

- 1) Error of positioners on actuators: occurs when the control box expects to see positioning pulses when an actuator moves but does not see these pulses.
- 2) Error of a motor output: occurs when power demand 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 has been generated (the press of a button generates a unique code).
- 3) Error actuator (s) missing (s) occurs when a function is called, but the actuators required for the function are not all present.

A fatal error is to be deleted by pressing the buttons for raising and lowering the height of the bed on the nurse control at the foot of the bed or on the removable control (hand control) for 5 seconds. You will hear the beeps (10) from the resetting of the fatal error while this is done. When the beeps stop, the reset is complete.

A fatal error should not lead to the loss of memory of the actuators position. It is up to the user who reset the fatal error to determine if the system is in a safe position. Raise the bed to its maximum height to ensure proper actuator position calibration.

# 5 WARRANTY AND RETURN POLICY

## 5.1 Limited warranty

Rotec International warranty to the original purchaser of bed VersaTech 1100 ULB, the following protections:

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

The warranty coverage begins from the date of purchase of the device and no employee or representative of Rotec International is authorized to change this warranty in any way whatsoever. **This warranty does not cover damages caused by negligence or inappropriate use. Rotec International will not be held responsible for any other warranty offered by any person, firm or company, to the exclusion of the one stipulated above.** Rotec International reserves the right to substitute equal or superior quality materials during repairs and/or replacements. The material replaced and covered by this warranty does not allow one to benefit from a new warranty. It only benefits from the original warranty.

The warranty on the bed and / or its accessories does not apply to damages resulting from modification and / or unauthorized additions or installation of accessories other than those authorized by Rotec International. Use only replacement parts supplied by Rotec International. Proof of annual preventive maintenance could be asked for to benefit of this warranty.

For further information, contact our technical services. Our hours of operation are from Monday to Friday from 8h30 to 12h00 and 13h00 to 17h00.

---

### WARNING ON WARRANTY

---

- Any changes to the device without the authorization of Rotec International may lead to **SERIOUS INJURY AND / OR IMPORTANT MECHANICAL DAMAGE AND COULD LIMIT OR CANCEL THE PRODUCT WARRANTY.**

## 5.2 Return policy

### Non-compliant product

If a Rotec International product is not according to the original order invoice, the problem must be notified within 48 hours after the time of delivery. Actions necessary to correct the situation will be at Rotec International's expense and will be made as soon as possible, following the notification of the non-compliance.

### Damaged product

It is the responsibility of the receiver to verify the shipment even if the box(es) seems to be in good condition. **If there is any damage, it must be indicated on the bill of lading.** Rotec International must be informed of the situation within 24 hours of receipt of goods in order to notify the carrier as soon as possible. If Rotec International is not informed within 24 hours or the damages are not indicated on the bill of lading, the customer may have to pay all the costs incurred to replace or repair the damaged product.

### Return product

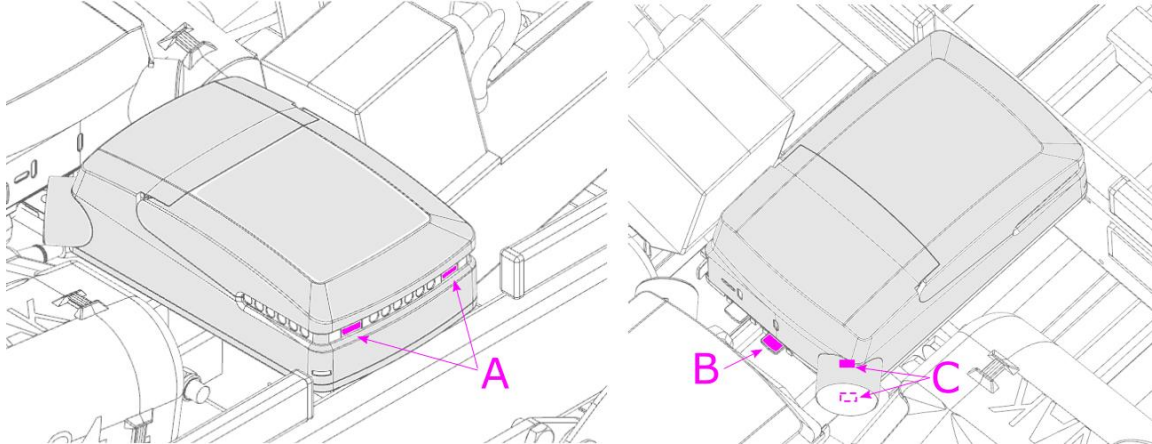
Returned goods require a RGA number and are subject to a 25% restocking fee. Furthermore, the customer must pay the transport charges. For more information, please contact our customer service.

## 6 REPAIR PROCEDURES

### 6.1 Replacing the QLCI (scale circuit)

Required tools:

- Flat screwdriver - Cutting pliers



Procedure :

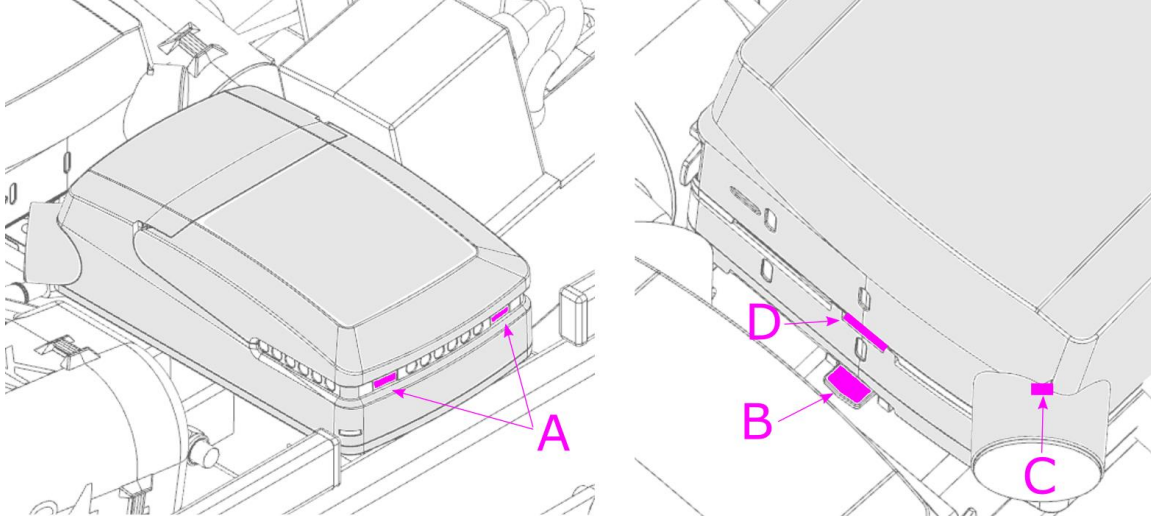
1. Raise the bed to the highest position and apply the brakes.
2. Unplug the power cord from the wall outlet.
3. Open the case by pressing the two latches (A).
4. Disconnect all cables under the cover, noting their location.
5. Remove the QLCI by pressing the lock on the bottom (B) and sliding it out. Cut wire ties if necessary.
6. Disconnect the power supply from the corner of the QLCI (C) using a flathead screwdriver.
7. Reverse the above steps to install the new QLCI.
8. Check the scales for proper operation before returning the bed to service.



## 6.2 Replacing the main circuit or its battery

### Required tools:

- Flat screwdriver - Cutting pliers



### Procedure :

1. Raise the bed to the highest position and apply the brakes.
2. Unplug the power cord from the wall outlet.
3. Open the case by pressing the two latches (A).
4. Disconnect all cables under the cover, noting their location.
5. Remove the circuit by pressing on the bottom lock (B) and sliding it out. Cut wire ties if necessary.
6. Disconnect the power supply from the circuit (C) using a flat screwdriver.
7. Separate the battery from the circuit by sliding the lock D. Open the wire door screwdriver so you can disconnect the
8. Reverse the above steps to install the new
9. Check all controls for proper operation returning the bed to service.



corner of the  
pressing and  
with a  
wire.  
parts.  
before

### BATTERY DISPOSAL WARNING

- Arrange for the battery to be recycled at a facility designated for this purpose.

### 6.3 Replacing the VersaDrive battery

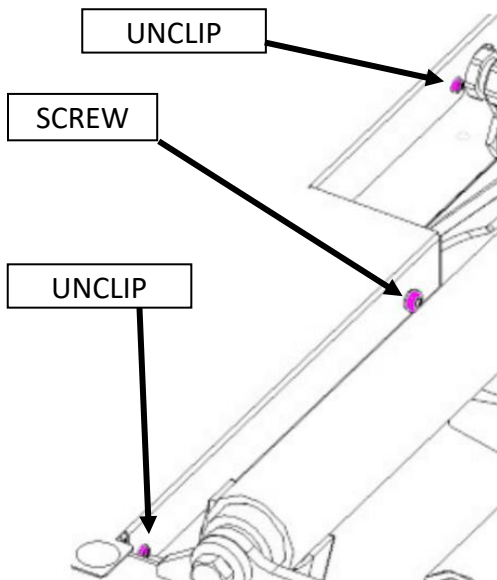
#### Required tools:

- Robertson #2 square screwdriver - Flat screwdriver
- Extractor screwdriver

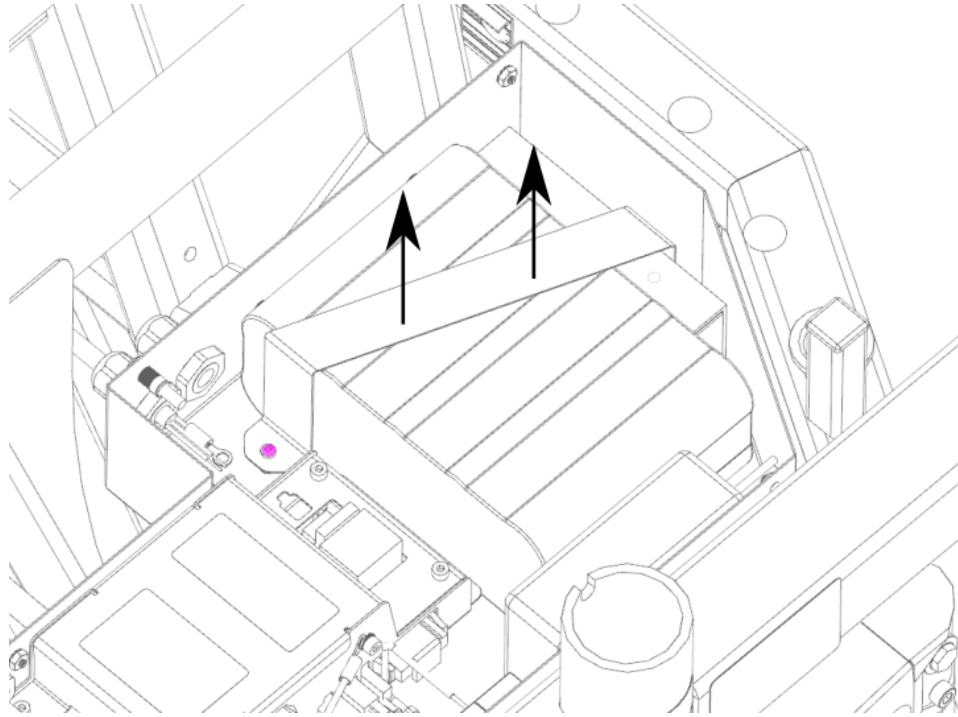
**⚠ ATTENTION! THE MAINTENANCE OF THE ELECTRICAL SYSTEM MUST ONLY BE CARRIED OUT BY QUALIFIED PERSONNEL.**

#### Procedure :

1. Raise the bed to the highest position and apply the brakes.
2. Unplug the power cord from the wall socket.
3. Lift the backrest and open the electrical box, using a screwdriver to remove the rivets.
4. Unscrew the screw using the Robertson #2 square screwdriver.
5. Unclip the cover using the flat screwdriver.



6. Remove the metal support from the battery by unscrewing the two screws.



7. Remove and disconnect the battery completely.
8. Reverse the above steps to install the new battery.
9. Check all controls for proper operation before returning the bed to service.

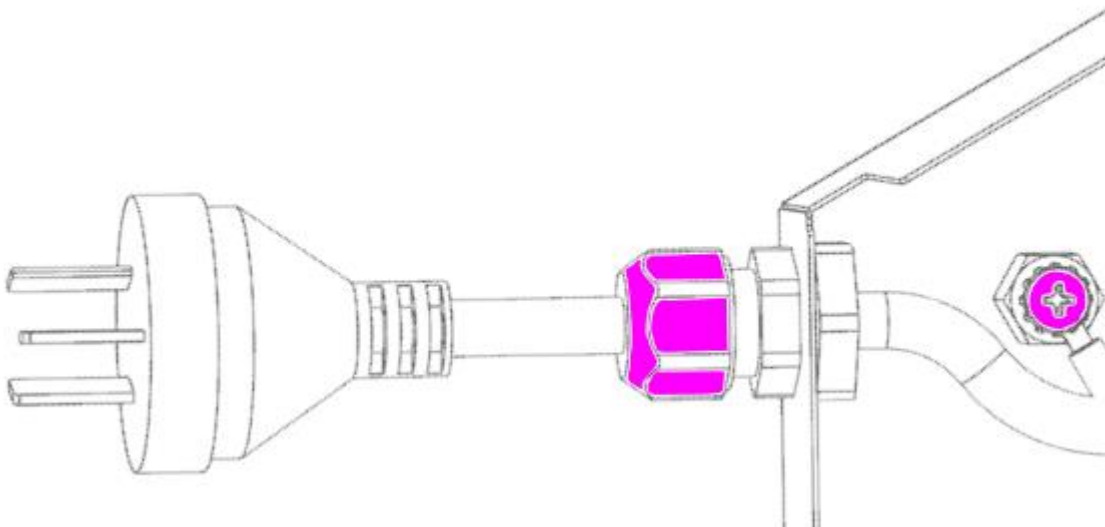
 BATTERY DISPOSAL WARNING

- Arrange for the battery to be recycled at a facility designated for this purpose.

### 6.4 Replacing the power cord

Required tools:

- Robertson #2 square screwdriver - Flat screwdriver
- Phillips #2 screwdriver - Extractor screwdriver

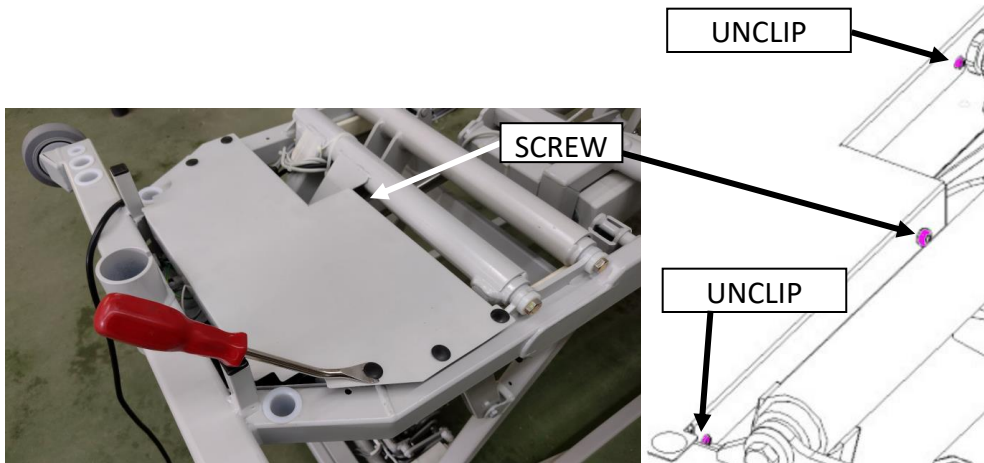


**ATTENTION! THE MAINTENANCE OF THE ELECTRICAL SYSTEM MUST ONLY BE CARRIED OUT BY QUALIFIED PERSONNEL.**

Procedure :

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

- Lift the backrest and open the electrical box.



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



- Disconnect the green wire from the grounding pole.
- Remove the power cord.
- Reverse the above steps to install the new power cord. Be sure to put the power cord grounding connector underneath, in contact with the stud.
- Check all controls for proper operation before returning the bed to service.

### 6.5 Replacement of the nurse call port

#### Tools required:

- Flat screwdriver
- Cutting pliers



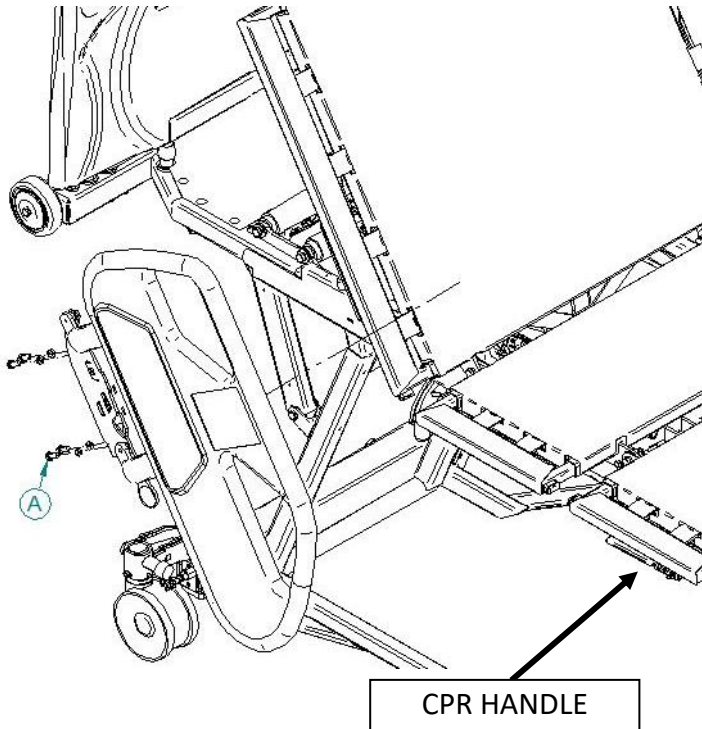
#### Procedure :

1. Raise the bed to the highest position and apply the brakes.
2. Unplug the power cord from the wall outlet.
3. Using wire cutters, remove the cable ties securing the nurse call connector cable to the frame.
4. Remove the two screws shown.
5. Follow the cable and disconnect it by pressing the two locks and disconnecting it.
6. Reverse the above steps to install the new nurse call.
7. Check all controls for proper operation before returning the bed to service.

## 6.6 Siderail assembly replacement

### Tools required:

- ½" Socket
- 3/8" Drive Ratchet
- Cutting Pliers



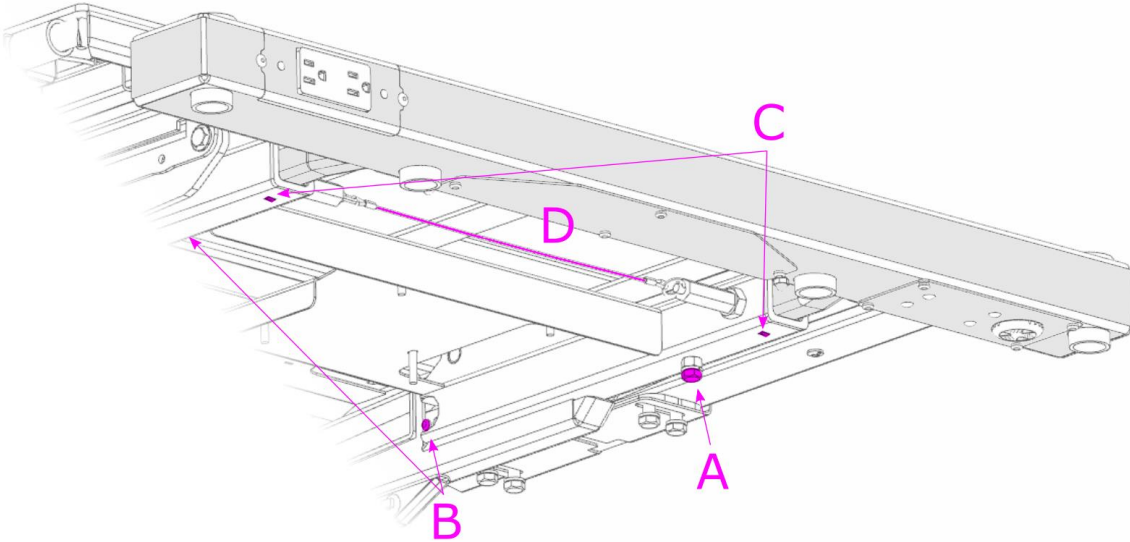
### Procedure :

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

### 6.7 Replacement of the foot structure extension

#### Tools required:

- Flat screwdriver - 1/2" wrench
- Robertson #2 long square screwdriver



#### Procedure :

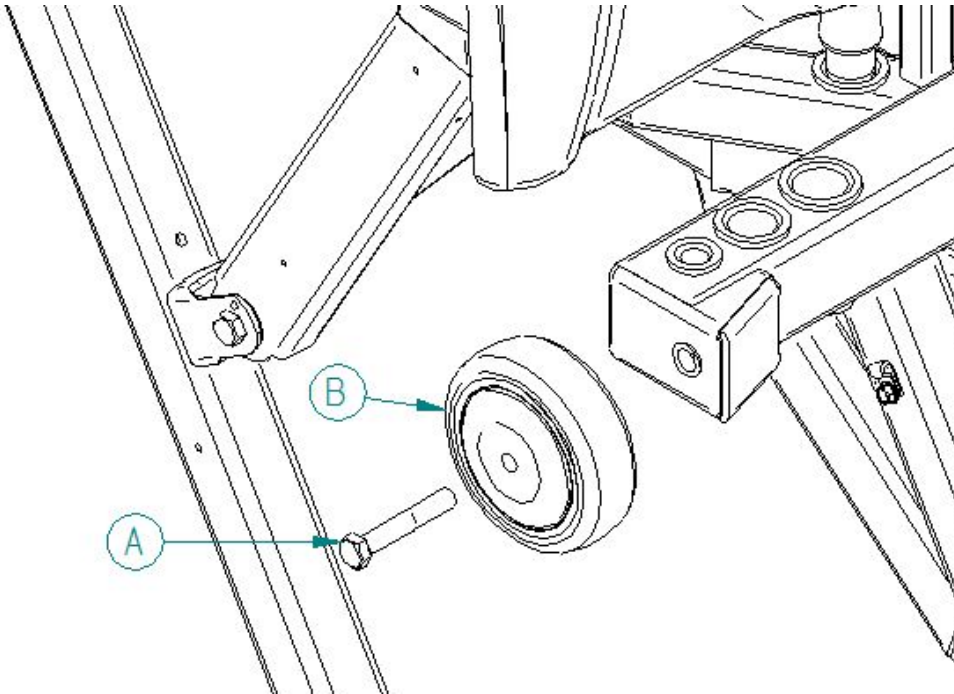
1. Raise the bed to the highest position and apply the brakes.
2. Raise the foot section.
3. Unplug the power cord from the wall outlet.
4. Extend the foot section by pulling on the red cable (D).
5. Remove the screw (A) with the ½ inch wrench and the screws (B) with the square screwdriver.
6. Disconnect the outgoing cables from the holes near the screws (B).
7. Using a flathead screwdriver, press the tabs on the guide (C) and slide it out. Repeat the same process on the other side and remove the foot extension.
8. Reverse the above steps to install the new leg extension.
9. Check the foot panel for proper operation and all controls before returning the bed to service.



## 6.8 Replacement of a wall bumper

### Tools required:

- 9/16" Combination Wrench



### Procedure:

1. Raise the bed to its highest position and apply the brakes.
1. Remove the nut (A) with a 9/16" combination wrench and remove the wall bumper.
2. Reverse the above steps to install the new wall bumper.

### 6.9 Bed caster replacement

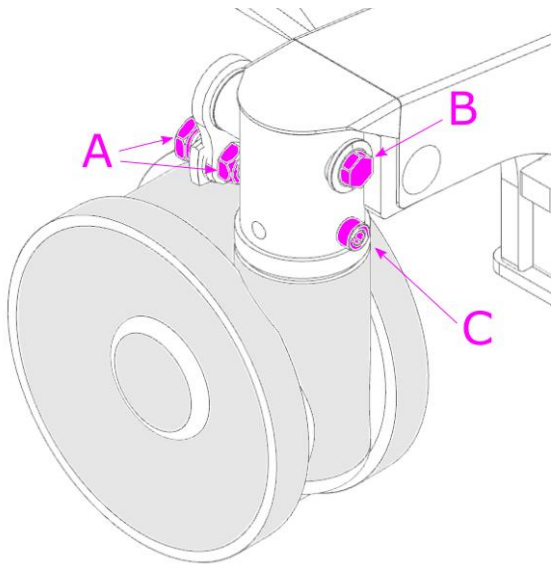
#### Tools required:

- 9/16" Combination Wrench
- 1/2" Combination Wrench
- Trim clip removal tool
- #3 Allen Wrench
- #4 Allen Wrench
- #5 Allen Wrench
- Axle stands (2)

#### Procedure:

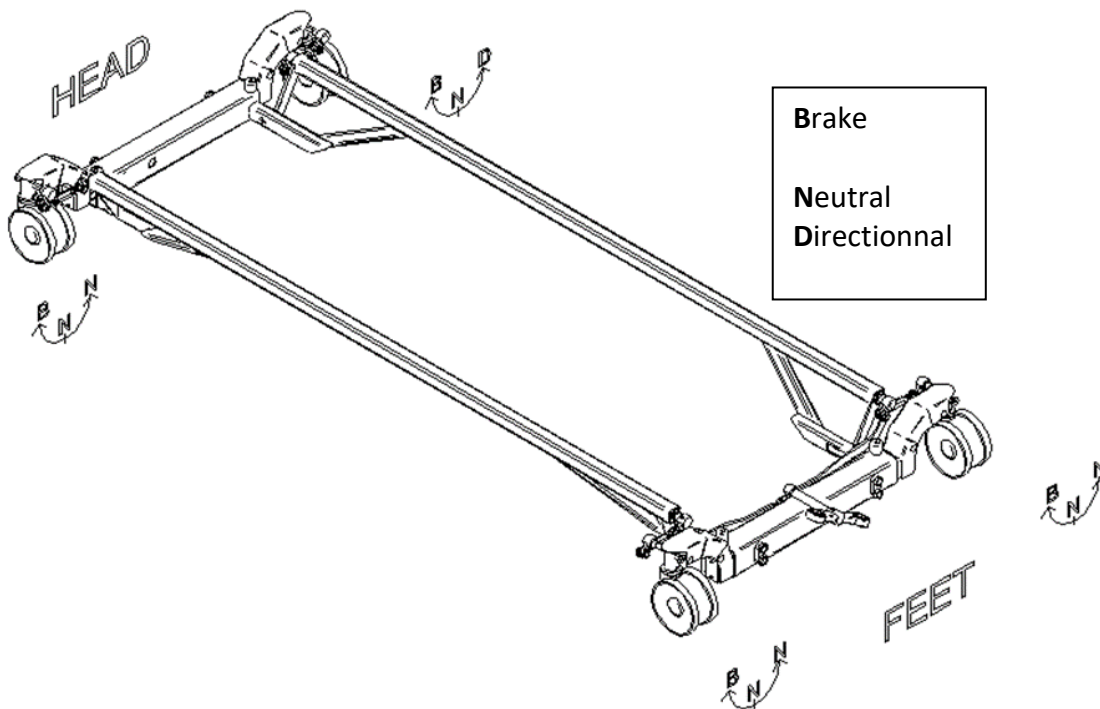
1. Raise the bed to its highest position.
2. Position the brake pedal of casters to neutral.
3. Put the axle stands under the bed frame beside the defective caster.
4. Lower the bed until the defective caster stops touching the ground.





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

Notice: Make sure that the bed caster is correctly oriented before installing it. This illustration below shows how the caster's mechanism is working.



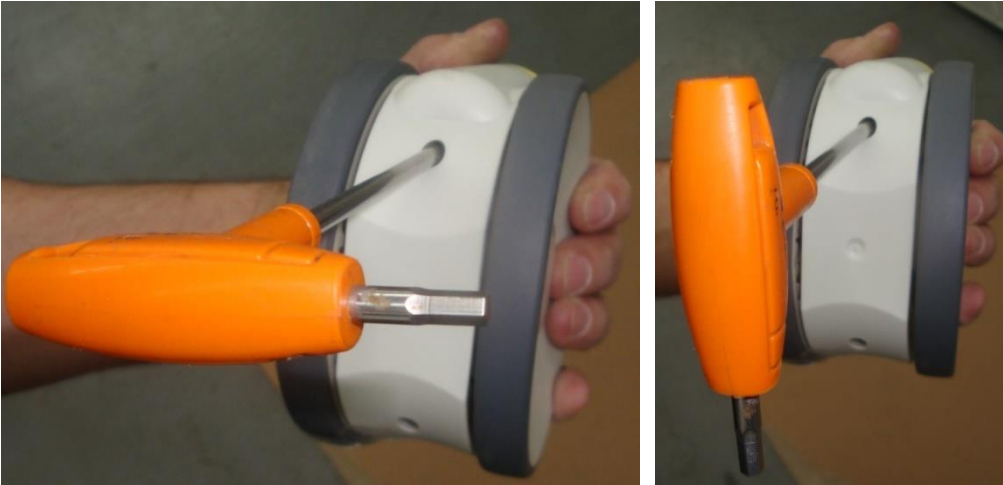
8. Reverse the above steps to install the new caster.
9. Verify that the new caster is working properly before getting back the bed to service.

Notice: if the new caster doesn't brake correctly, there is an adjustment under the caster

## 6.9 REPAIR PROCEDURES

---

1. Use a #4 Allen Wrench to turn the adjustment screw a quarter at a time until it brakes correctly.  
(Counter clockwise to tighten/ clockwise side to loosen).



## 6.10 Load cell replacement

### Tools required :

- Tools to remove the wheel (see previous section)
- Long 3/4" socket and ratchet
- Wrench 9/16
- Magnet

### Procedure :

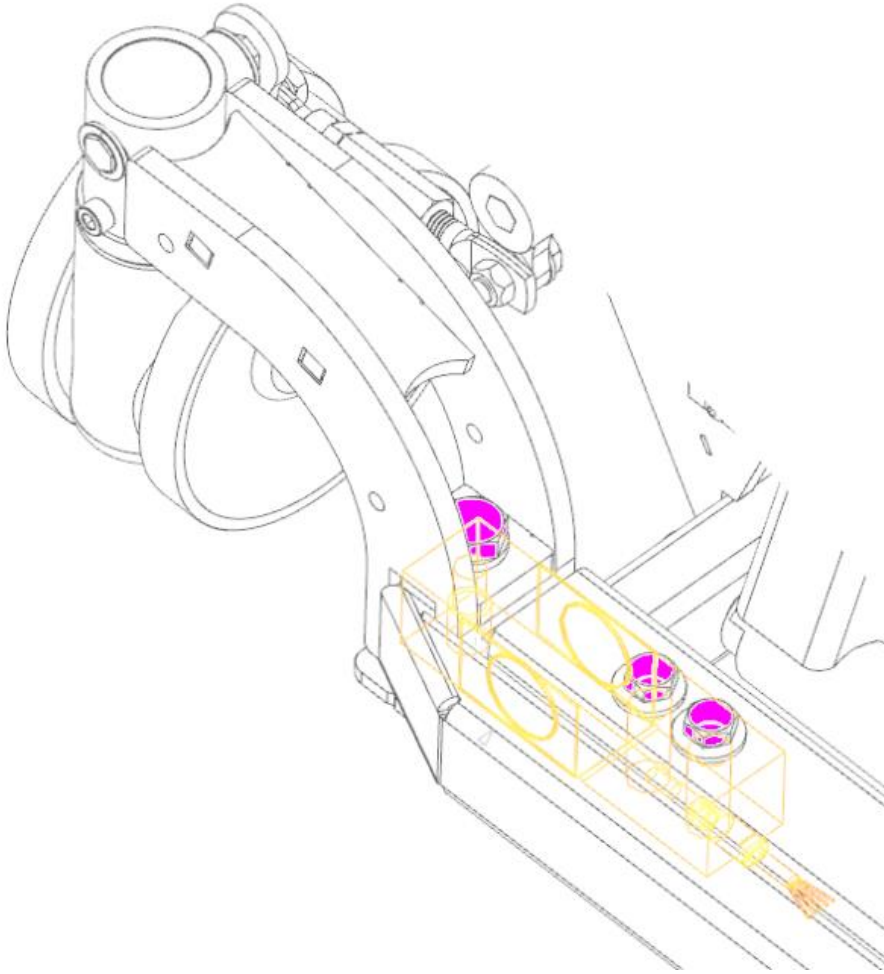
1. Unplug the power cord of the bed from the wall outlet and raise the bed to its highest position.
2. Position the brake pedal of casters to neutral.
3. Put the axle stands under the bed frame beside the defective load cell.
4. Lower the bed until the caster of the defective load cell stops touching the ground.



## 6.10 REPAIR PROCEDURES

---

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

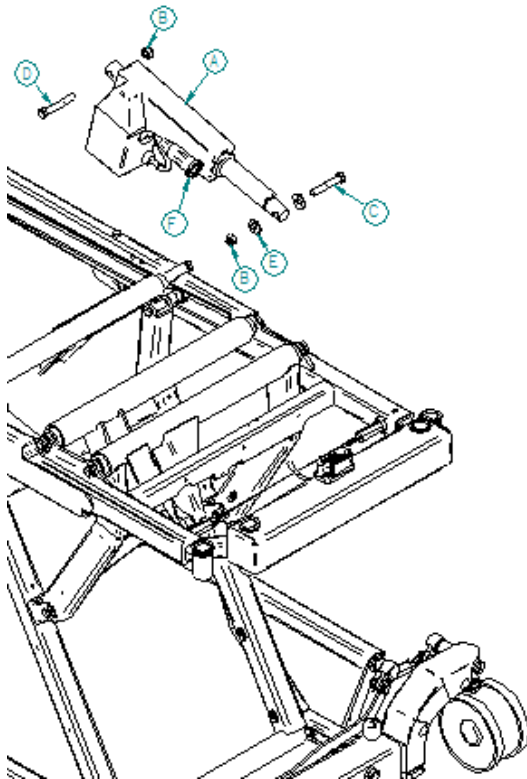
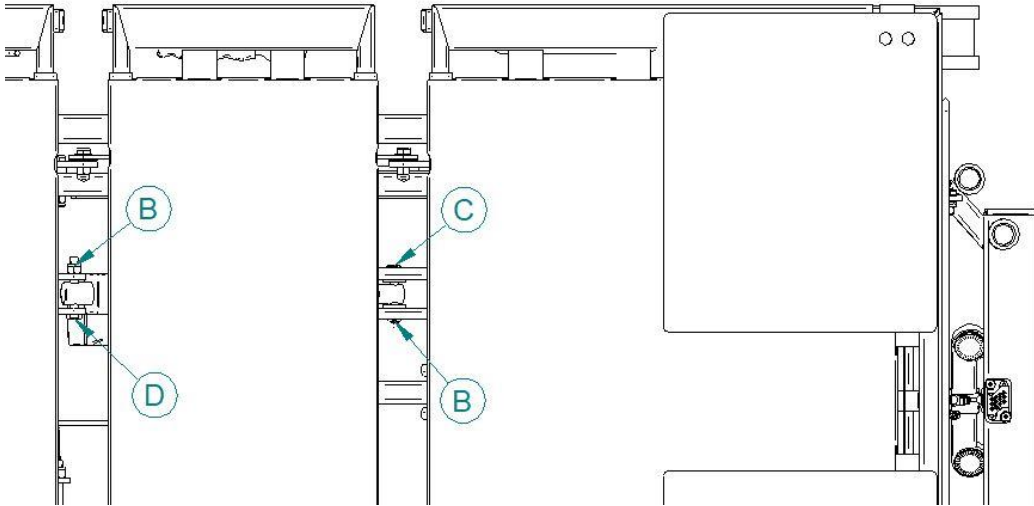


6. Remove the metal cover with the screwdriver extractor.
7. Remove the 3 bolts screwed into the cell.
8. Remove the plastic cover where the wires enter the axle.
9. Pull the wire entering the axle out of the scale connector and disconnect it.
10. Remove the cell, ideally with a magnet, or by holding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

## 6.11 Motor replacement of the leg section

### Tools required:

- 9/16" Combination Wrench
- Regular Slotted Screwdriver
- Cutting Plier

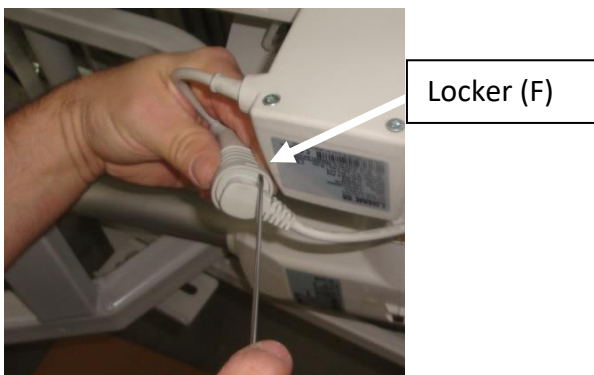


## 6.11 REPAIR PROCEDURES

---

### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Put the foot section to its horizontal position.
3. Unplug the power cord of the bed from the wall outlet.
4. With a cutting plier, remove the cable ties holding cables on the motor (A).
5. Unplug the cable from the motor (A) by removing the locker (F) from the connector with a regular slotted screwdriver.



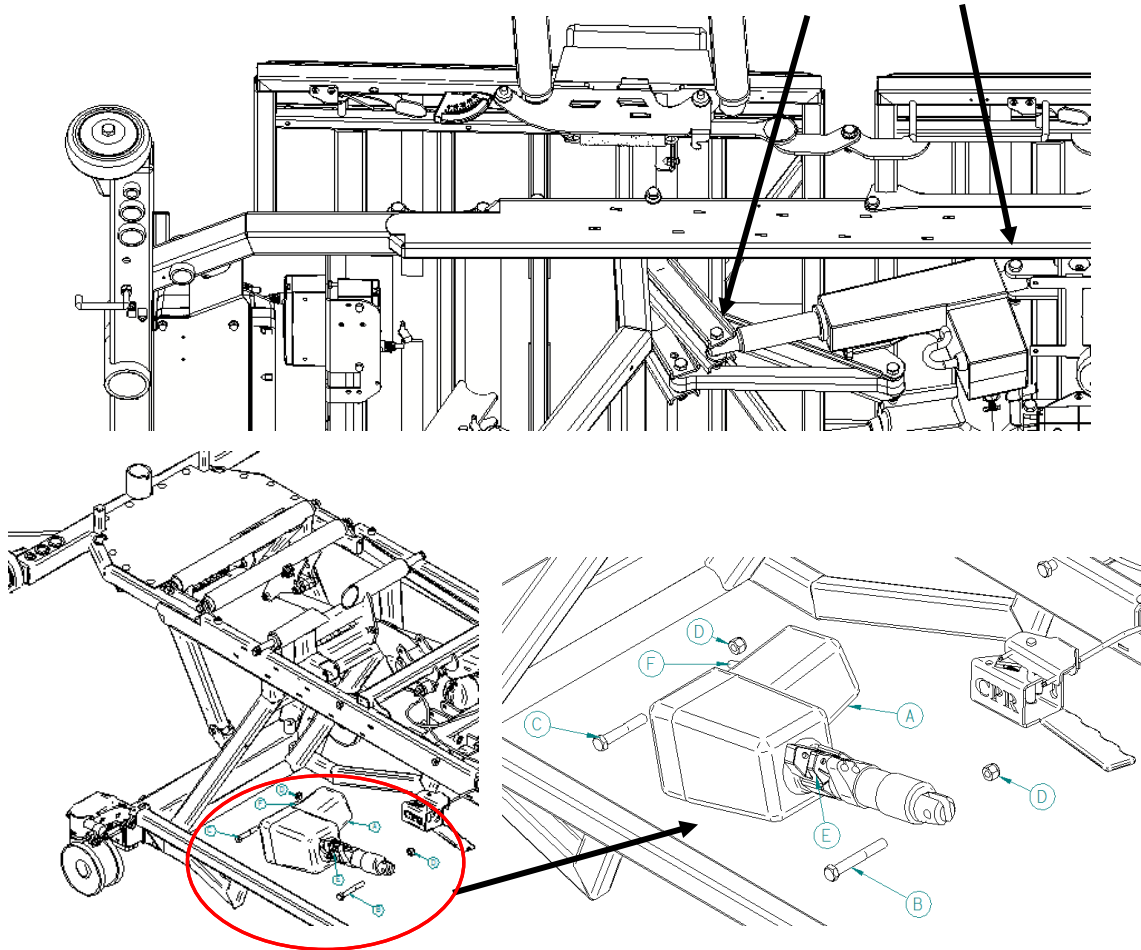
6. Remove the bolts (C and D) by holding them with a 9/16" Combination Wrench and remove the nut (B) associate with it with another 9/16" Combination Wrench.
7. Reverse the above steps to install the new motor to the leg section mechanism.
8. Verify that the new motor is working properly before returning the bed back to service.



## 6.12 Backrest motor replacement

### Tools required:

- 9/16" Combination Wrench
- Regular Slotted Screwdriver
- Cutting plier

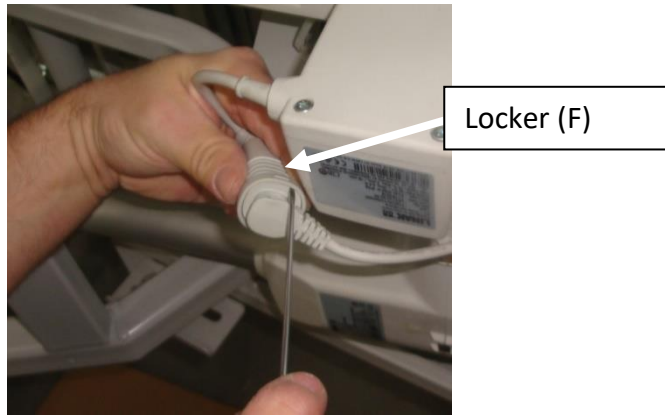


### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Raise the backrest to its highest position.
3. Unplug the power cord of the bed from the wall outlet.
4. With a cutting plier, remove the cable ties holding cables on the motor

## 6.12 REPAIR PROCEDURES

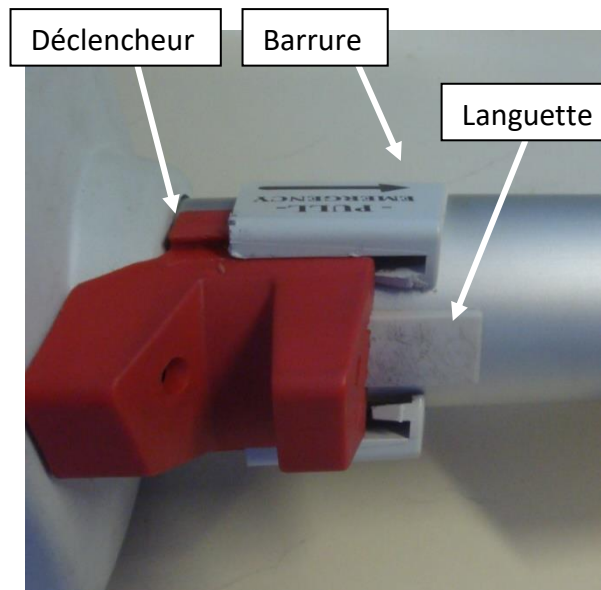
5. Unplug the cable from the motor (A) by removing the locker (F) from the connector with a slotted screwdriver.



6. Unlock the trigger lock with a regular slotted screwdriver by pushing straight on it.

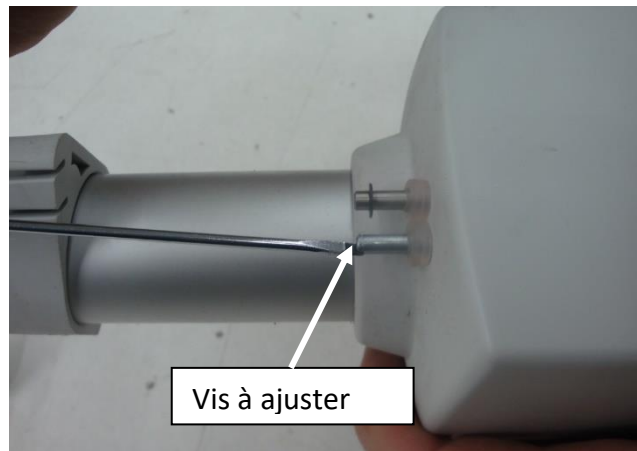


7. Remove the trigger lock, the trigger and the spacer strip.

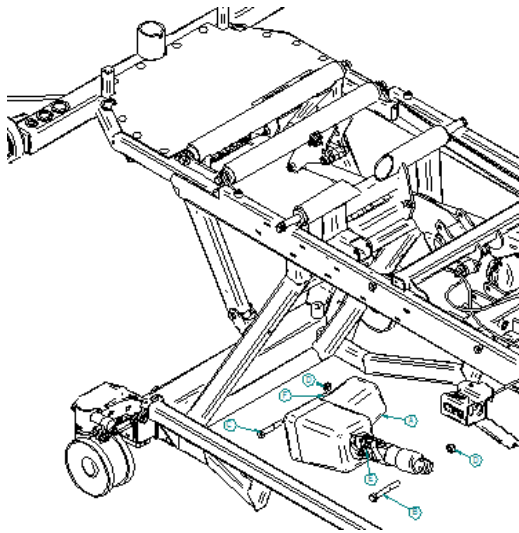


Circlips

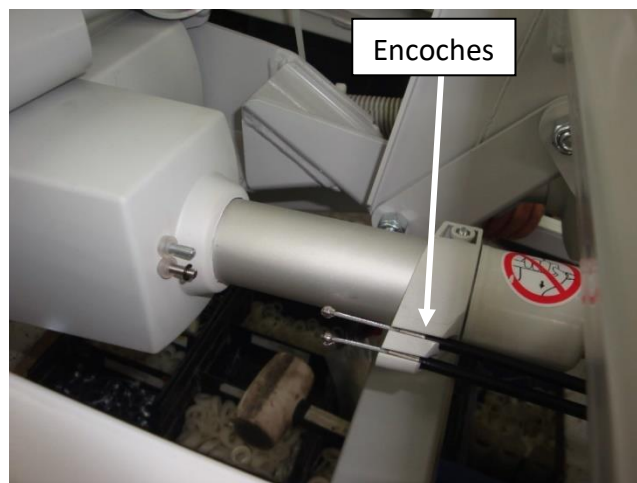
8. Adjust the screw to the same length as the rod with the snap ring.



9. Remove the bolts (B and C) by holding them with a 9/16" Combination Wrench and remove the nut (D) associate with it with another 9/16" Combination Wrench. The motor should now be free to remove from the bed frame. Reverse this step to assemble the new motor in place.

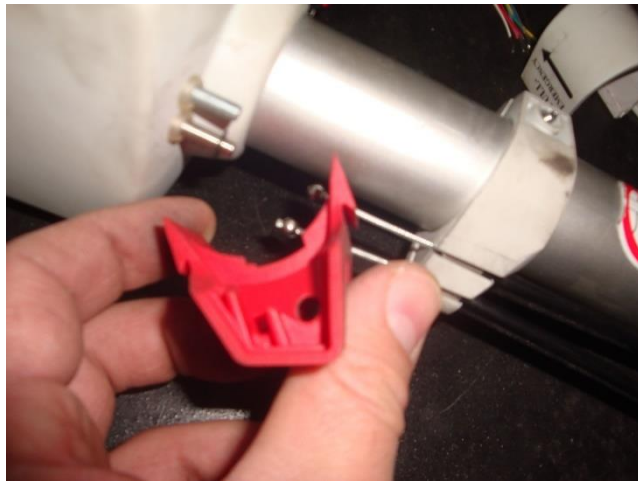


10. Put the cables in the notches of the cable guide bracket.

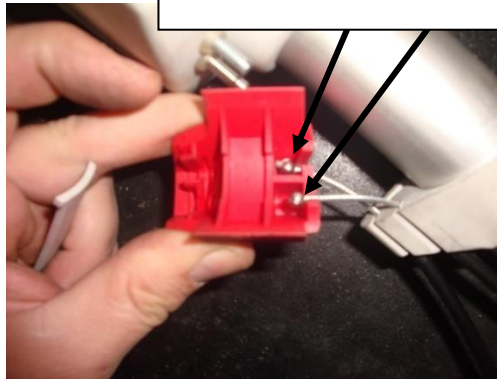


*Notice how the rod with the snap ring fit into the trigger by looking inside the trigger.*

11. Put the cables end in the notches of trigger.



Encoches du déclencheur



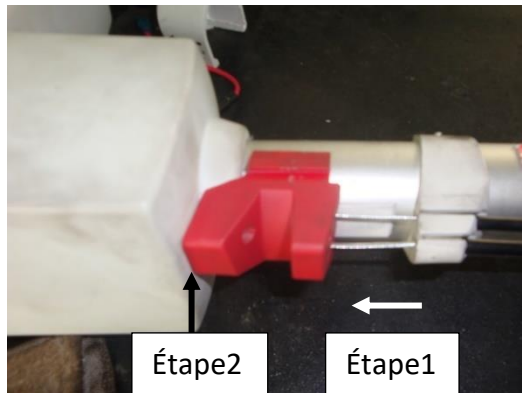
12. Install the spacer strip.



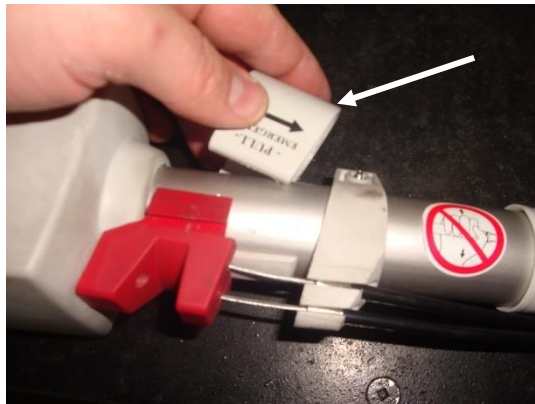
13. Put the trigger on the motor and drag it to the snap ring.



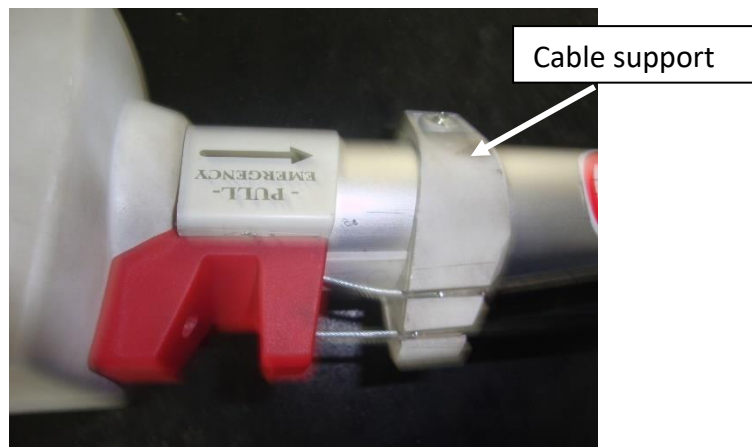
14. Insert the trigger lock.



15. Drag the trigger lock in the notches.



16. Drag cables support to spacer strip and screw it with the regular slotted screwdriver.

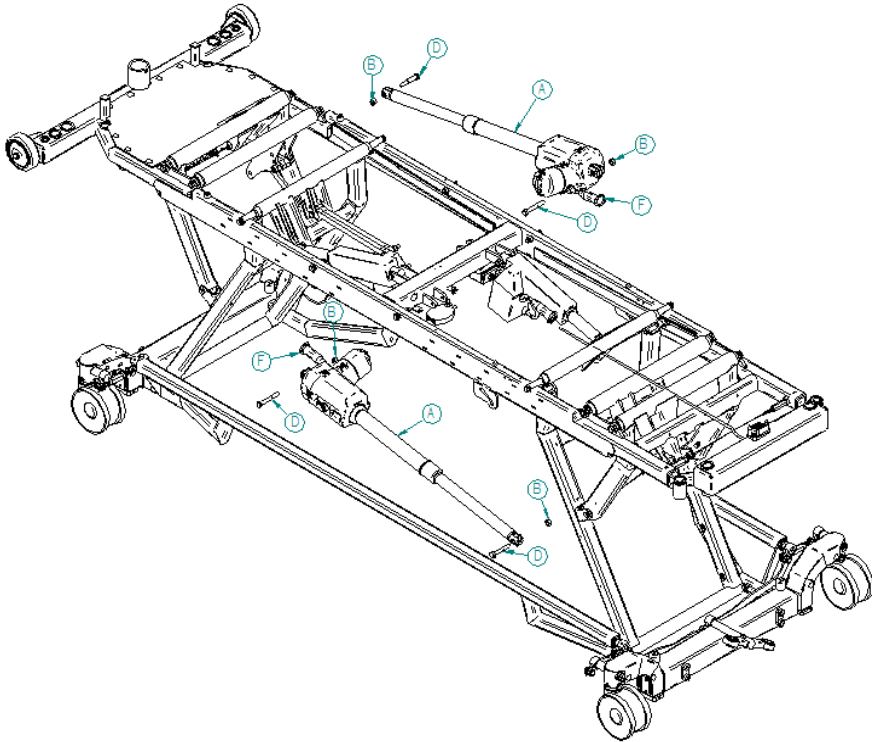


17. Attach the cables as it was with new cable ties
18. Verify that the new motor is working properly before returning the bed back to service.

## 6.13 High/Low motor replacement

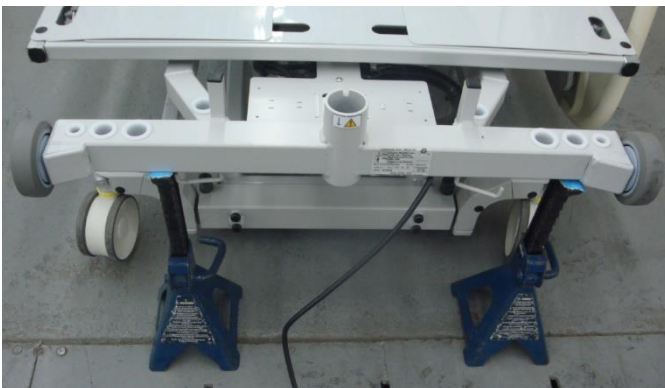
### Tools required:

- 9/16" Combination Wrench
- Regular Slotted Screwdriver
- Cutting plier
- Axle stands (2)
- Trim clip removal tool



### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Place the axle stands under the top frame end where the motor as to be replace and lower the frame on the axle stands until the high/low mechanism raise the casters

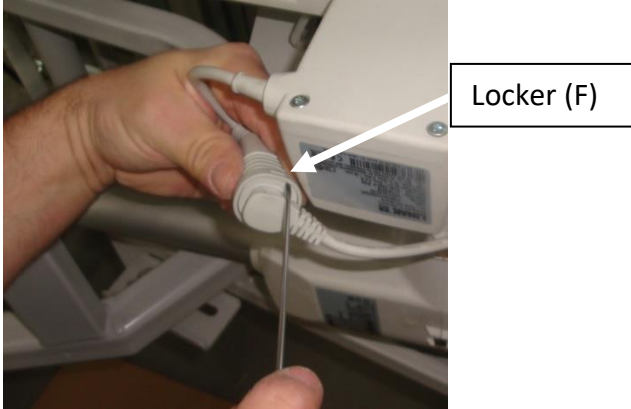


3. Raise the backrest to its highest position and put down the side rail.
4. Unplug the power cord of the bed from the wall outlet.

## 6.13 REPAIR PROCEDURES

---

5. Remove the cover of the seat section with the Trim clip removal tool.
6. With a cutting plier, remove the cable ties holding cables on the motor (A).
7. Unplug the cable from the motor (A) by removing the locker (F) from the connector with a slotted screwdriver.



8. Remove the bolts (D) by holding them with a 9/16" Combination Wrench and remove the nut (B) associate with it with another 9/16" Combination Wrench.

**⚠ WARNING REMOVE THE BOLTS CAREFULLY. THE BASE FRAME WILL GO DOWN. HOLD IT**

9. Reverse the above steps to install the new motor into the high/low mechanism.
10. Verify that the new motor is working properly before returning the bed back to service.



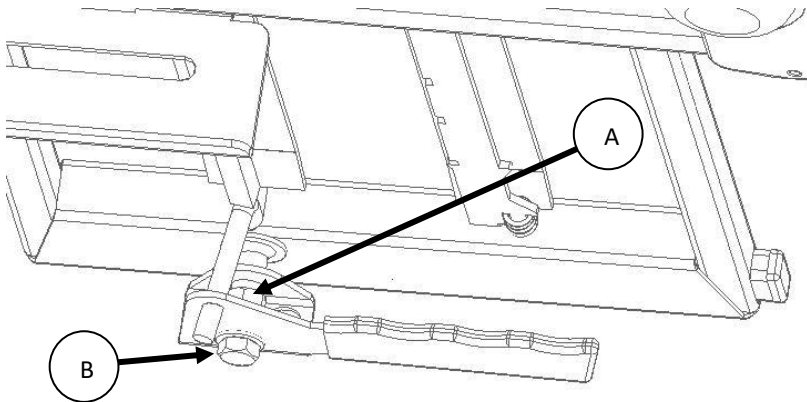
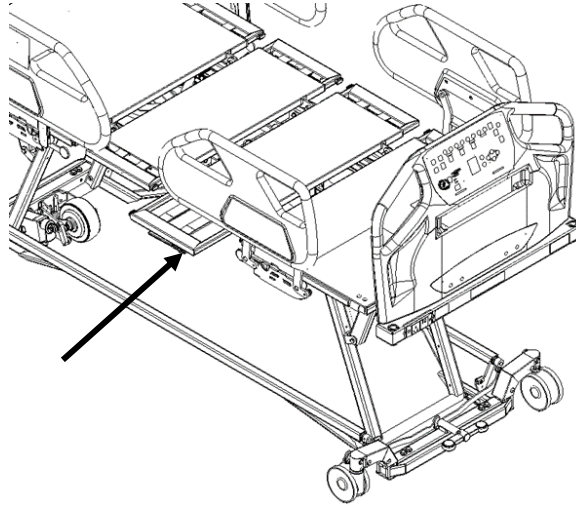
## 6.14 CPR handle replacement

### Tools required:

- #2 Robertson Screwdriver
- 9/16" Combination Wrench

### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Extend the tight section to its maximum length.
3. Unplug the power cord of the bed from the wall outlet.



4. With a 9/16" combination wrench, unscrew the counter-nut (A) and then unscrew completely the screw (B).
5. Replace the broken handle by the new one.
6. Reverse the above steps to fix the new handle in place
1. Verify that the CPR is working properly before returning the bed back to service.

### 6.15 CPR control cable replacement

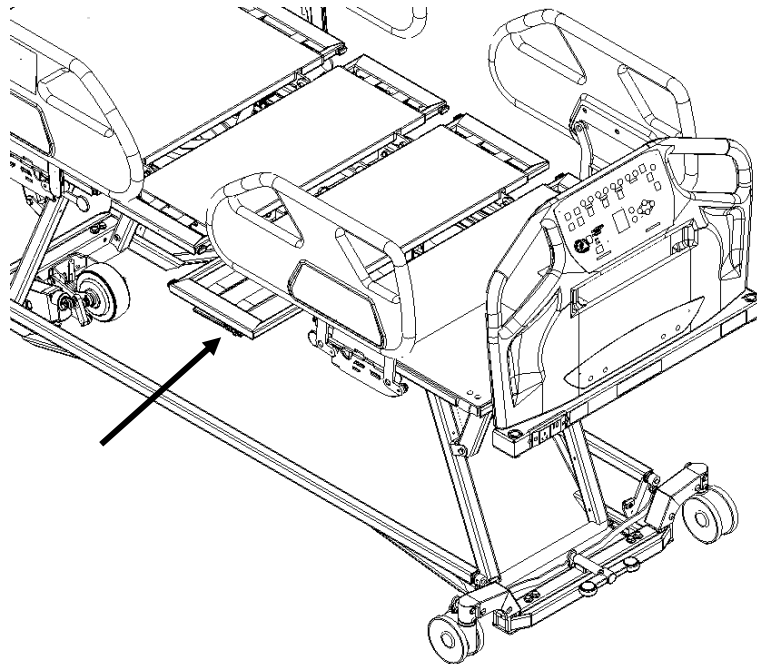
#### Outils requis :

- 7/16" Combination Wrench

• Pliers

#### Procédure :

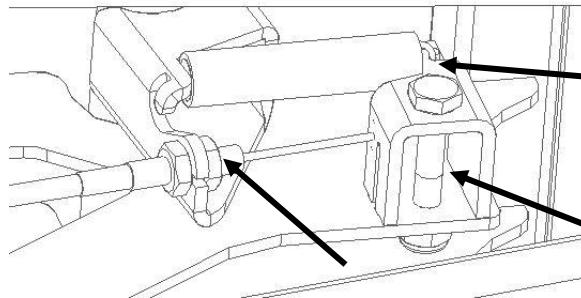
1. Raise the bed to the highest position and apply the brakes.
2. Lift the head section and stretch the upper leg section.
3. Unplug the power cord of the bed from the wall outlet.



4. With the two 7/16" combination wrench, remove the screw (A) and the nut (B)
5. The extension spring, the spacer bracket should fall apart with the nut. Make sure to keep them safe reassembly.
6. With the two 7/16" combination completely the counter-nut (C) and from its support.
7. For the instruction about removing other end of the control cable, see
8. Reverse the steps above to install the new control cable to the upper leg section.
9. Verify that the CPR is working properly before returning the bed back to service.

wrench, remove

and the locking screw and the the

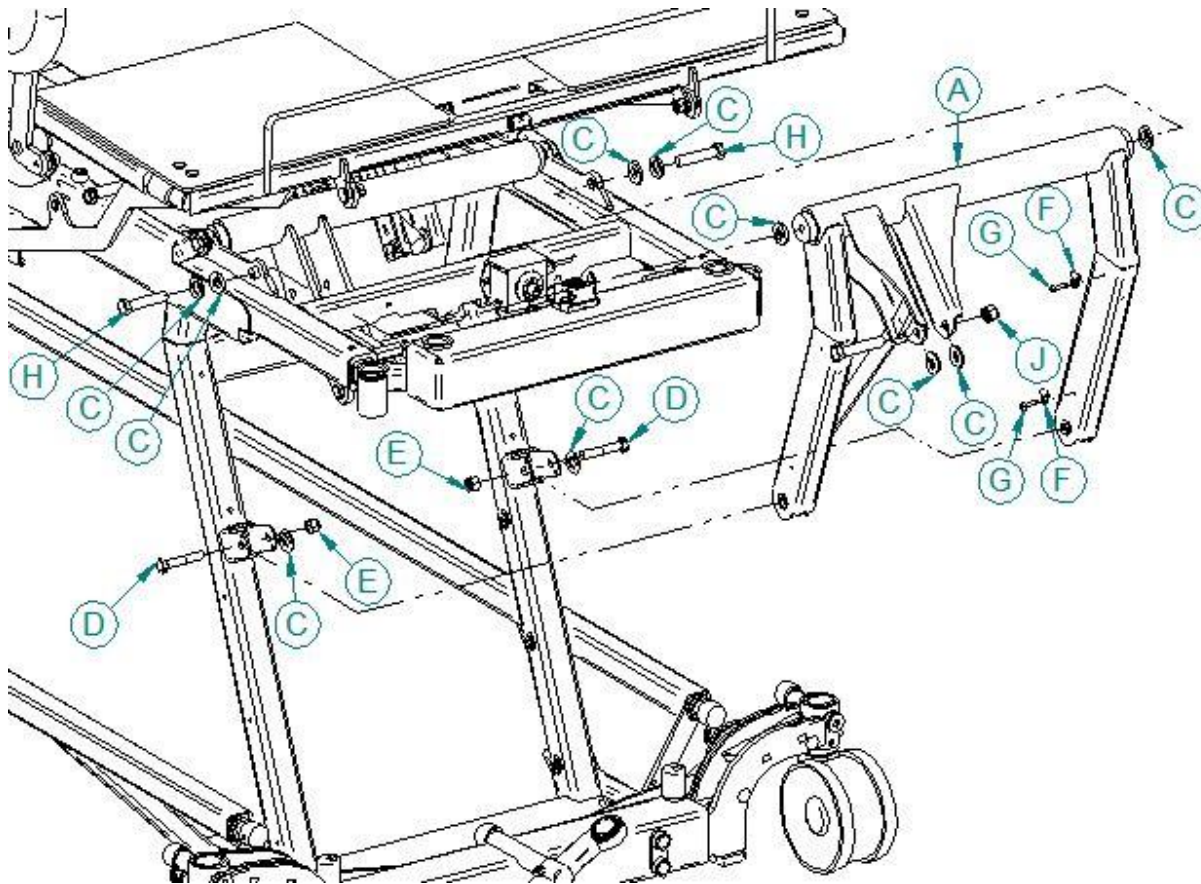


wrench, unscrew remove the cable and installing the the section 6.12

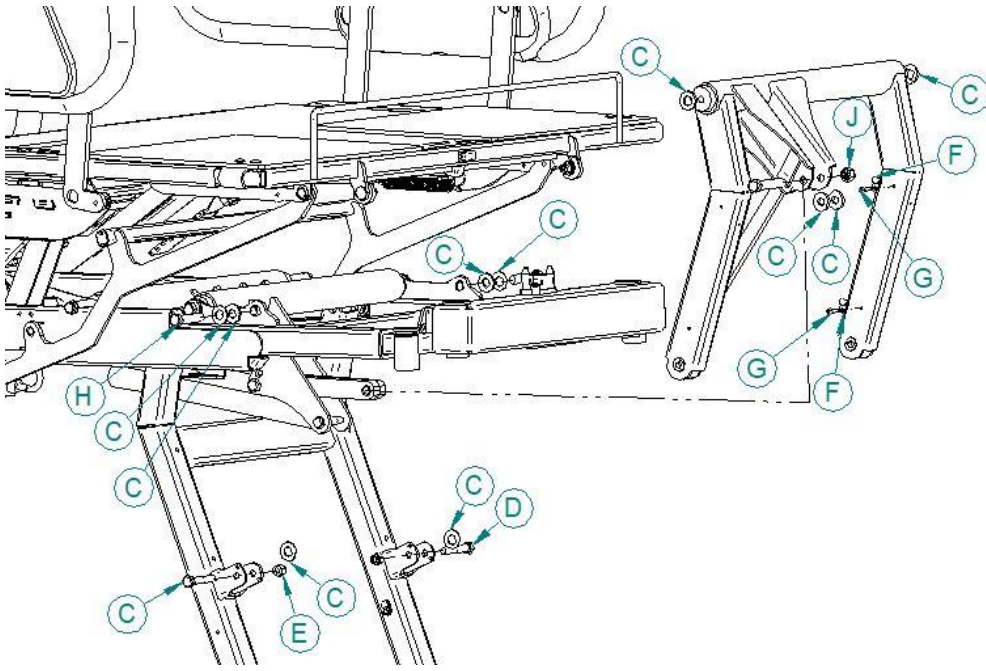
## 6.16 High/low motor lever replacement (foot end)

### Tools required:

- 9/16" Combination Wrench
- #2 Robertson Screwdriver
- Axle stands (2)
- 3/8" Drive Ratchet
- 9/16" Socket
- 5/8" Socket
- 5/8" Combination Wrench



## 6.16 REPAIR PROCEDURES



### Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Extend the top frame extension.
3. Place the axle stands under the top frame extension and lower the frame on the axle stands until the high/low mechanism start raising the casters



4. Lift the foot section platform.
5. Unplug the power cord of the bed from the wall outlet.

6. Remove the screws (G) from the plastic eyelets (F) holding cables to the bed frame with a #2 Robertson screwdriver.
7. Hold the bolt (H) with a 5/8" combination wrench. Remove the nut (J) with a 3/8" drive ratchet and a 11/16" socket. Remember the location of the Nylon washer (K) and keep parts.
8. Hold the bolts (D) with the 9/16" combination wrench. Remove the nuts (E) with the 3/8" drive ratchet and the 9/16" socket. Remember the location of the Nylon washers (K). Keep parts.

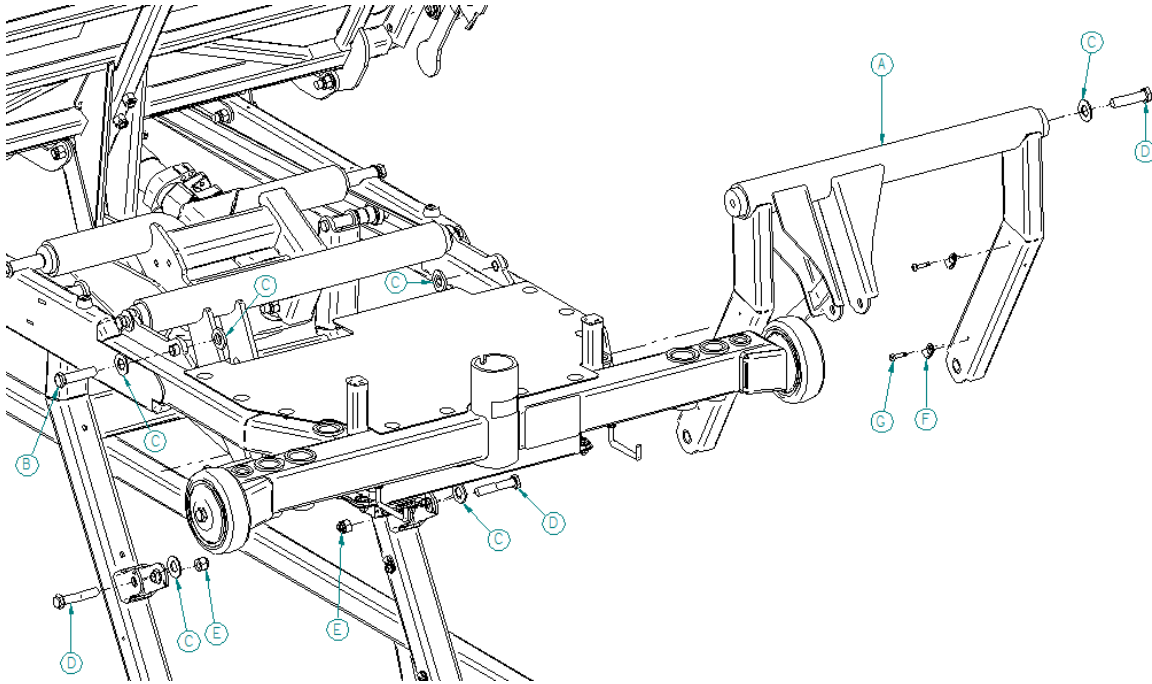
 **WARNING REMOVE THE BOLTS CAREFULLY. THE BASE FRAME WILL GO DOWN. HOLD IT**

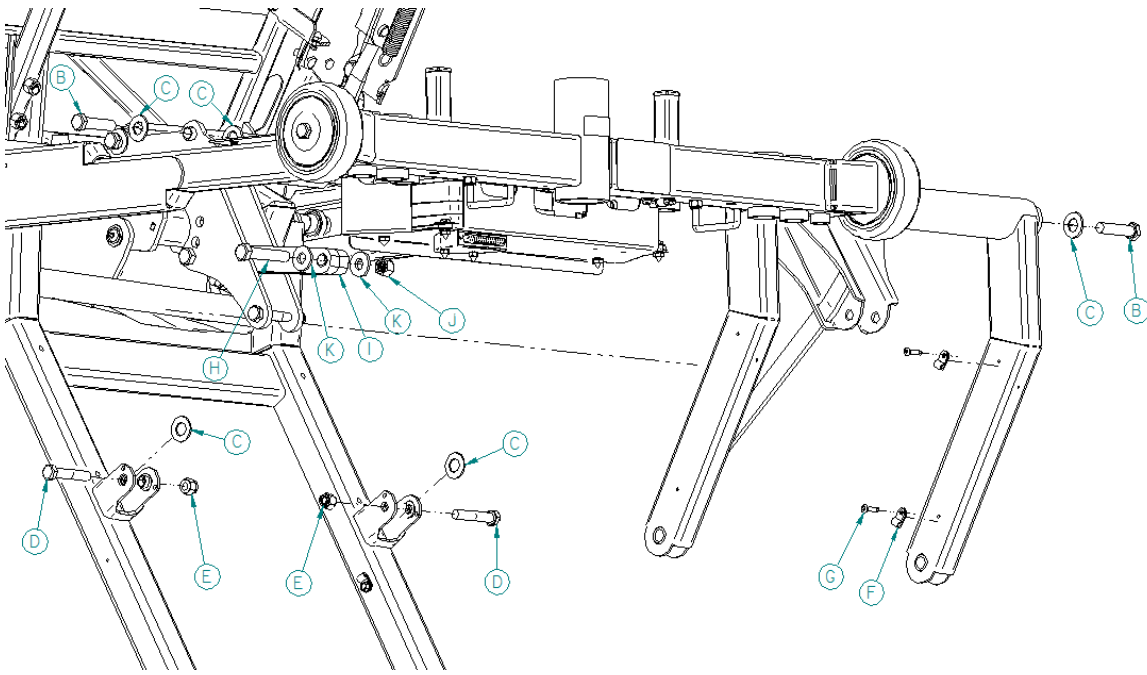
9. With the 3/8" drive ratchet and the 5/8" socket, remove the bolts (B) fixing the high/low motor lever to the top frame. Hold the assembly while removing the last bolt so it won't fall. Remember the location of the Nylon washers (C).
10. Reverse the above steps to install the new foot section.
11. Verify that high/low mechanism is working properly before returning the bed back to service.

## 6.17 High/low motor lever replacement (head end)

Tools required:

- 9/16" Combination Wrench
- Axle stands (2)
- 9/16" Socket
- 5/8" Combination Wrench
- #2 Robertson Screwdriver
- 3/8" Drive Ratchet
- 5/8" Socket






**Procedure:**

1. Raise the bed to its highest position and apply the brakes.
2. Place the axle stands under the top frame and lower the frame on the axle stands until the high/low mechanism start raising the casters



3. Lift the backrest section platform.
4. Unplug the power cord of the bed from the wall outlet.
5. Remove the screws (G) from the plastic eyelets (F) holding cables to the bed frame with a #2 Robertson screwdriver.



6. Hold the bolt (H) with a 5/8" combination wrench. Remove the nut (J) with a 3/8" drive ratchet and a 11/16" socket. Remember the location of the Nylon washer (K) and keep parts.
7. Hold the bolts (D) with the 9/16" combination wrench. Remove the nuts (E) with the 3/8" drive ratchet and the 9/16" socket. Remember the location of the Nylon washers (K). Keep parts.


 **WARNING REMOVE THE BOLTS CAREFULLY.  
THE BASE FRAME WILL GO DOWN. HOLD IT CAREFULLY.**


8. With the 3/8" drive ratchet and the 5/8" socket, remove the bolts (B) fixing the high/low motor lever to the top frame. Hold the assembly while removing the last bolt so it won't fall. Remember the location of the Nylon washers (C).
9. Reverse the above steps to install the new foot section.
10. Verify that high/low mechanism is working properly before returning the bed back to service

---

TECHNICAL ASSISTANCE AND PARTS

 1-450-783-6444  1-450-783-6446

 [info@rotecbeds.com](mailto:info@rotecbeds.com)

 123 rue de l'Église, Baie-du-Febvre, QC J0G 1A0 Canada

DOC01E-V11ULB+ REV-4  
Publication 2022-10-31