INNOVA®
CARE CONCEPTS

USER MANUAL

Interlude 500

TECHNICAL ASSISTANCE AND PARTS
T: 0345 034 1450
E: enquiries@innova.uk.com
W: www.innovacareconcepts.com

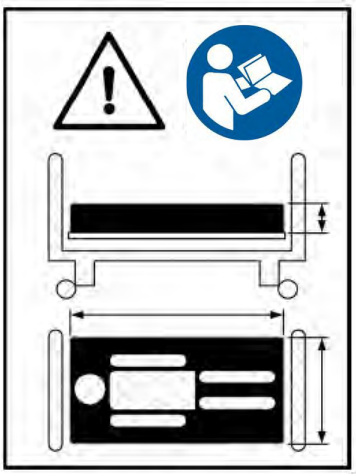
Do not use this device and its accessories without reading this manual in full. Illustrations are for information purposes only.

Table of content

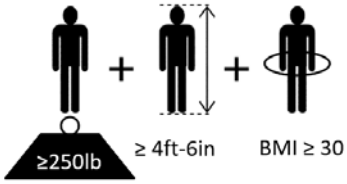
1 GENERAL

1.1 Symbols

1.1.1 *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

IPX4

Protection against liquid splashes

Symbol indicating a type B electrical protection

Seal of Approval CSA: Canadian Standards Association

Symbol indicating this is a Class II electrical device

Symbol indicating that the electrical power must be alternating current.

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

1.1.2 *In this manual*

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

1.1.3 *Abbreviations*

CPR : Cardiopulmonary Resuscitation
SWL : Safe Working Load

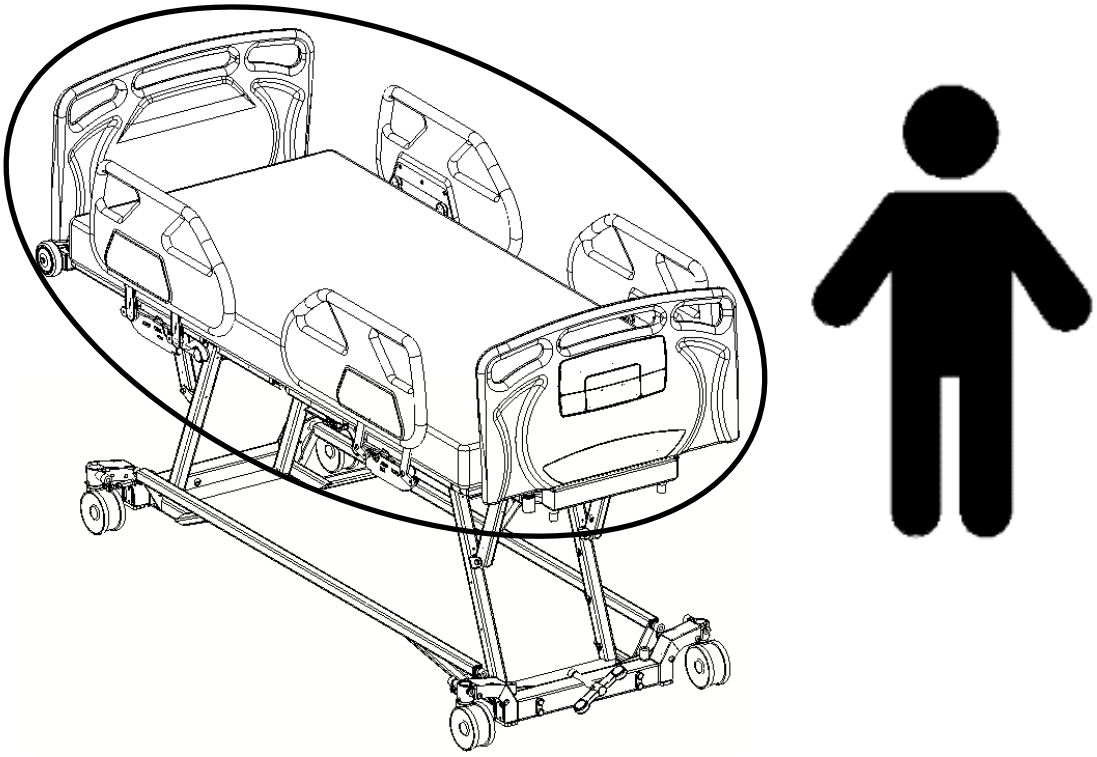
1.2 Intended use

This manual has been designed to assist you in using the Interlude 500 bed from Innova Care Concepts. 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.

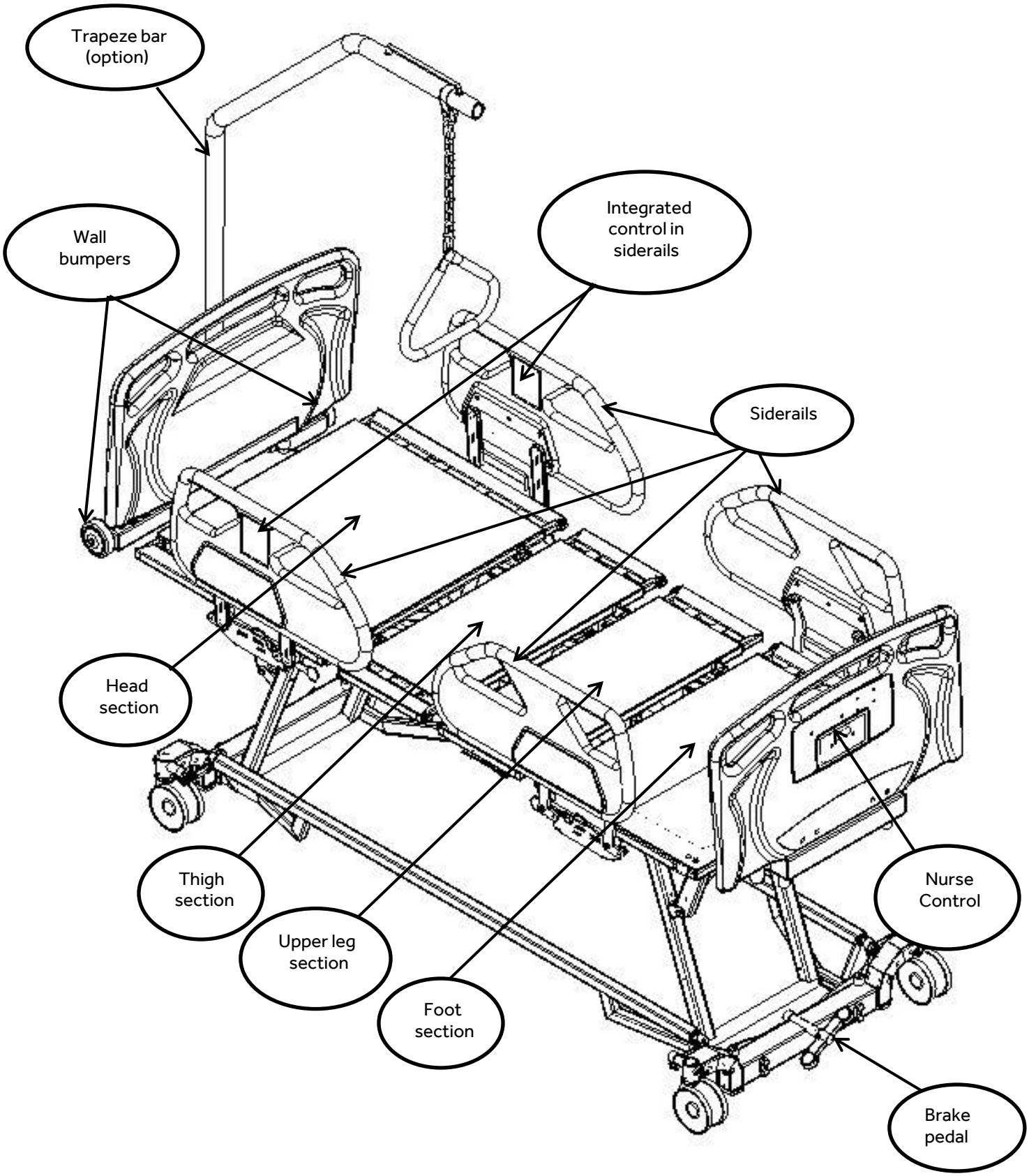
Life cycle: This device is designed for a life cycle of 10 years in working condition and in normal use (see the specifications and conditions of use in the following sections)

Innova Care Concepts 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
- Foot section and structure 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.
- Nurse controls integrated on footboard and siderails
- Nurse call
- Electrical CPR function
- Mechanical CPR Function
- Auto-contour feature
- Cardiac chair position
- Under bed light

Optional features

- Integrated scale
- Bed exit detection (two zone)
- Additional hand control
- Transportation trolley

Optional features may change the above-mentioned dimensions.
The dimensions specified herein do not consider manufacturing tolerances.

Intended Accessories

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

** product not available by the device manufacturer.*

1.5 Mechanical specifications

Maximum load capacity	
Patient	*454kg (1000lb)*
Trapeze	*77kg (170lbs) 10kg*
IV pole	*(22lbs) 5 kg per*
support	*hook 500kg*
Total (SWL)	*(1100lb)*
Device weight Without accessories	*240kg (525lbs)*
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") 81.3 cm (32")*
Maximum height Width	*88.9cm/ 96.5cm/ 104cm/ 119cm (35"/38"/ 41"/ 47")*
Length	*203cm/ 213cm/ 223cm (80"/ 84"/ 88")*
Maximum inclination angle	
Back section	*65°*
Thighs section	*34°*
Trendelenburg	*±12°*
Recommended mattress	
Length	*203cm/ 213cm/ 223cm (80"/84"/88")*
Thickness	*12.7 à 15.2 cm (5 "à 6")*
Width	*91cm/ 99cm/ 107cm/ 122cm (36"/39"/ 42"/ 48")*

1.6 Certifications

CSA standards

- 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 standards

- 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

1.7 Electrical specifications

Classification	*Class II*
Power	120/230 VAC
Frequency	50/60 Hz
Current Rating	5.8 A
Protection	IPX4
Duty cycle	10% maximum (2 min. / 18 min.)
Maximum acoustic sound pressure	< 55 dBa
Scale accuracy (option)	± 2% + 1 kg (2%+ 2 lb).

1.8 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 cay 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.

2 INSTALLATION

2.1 Powering the device

At all time, 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 II and that, for this reason, the power plug isn't grounded.

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.

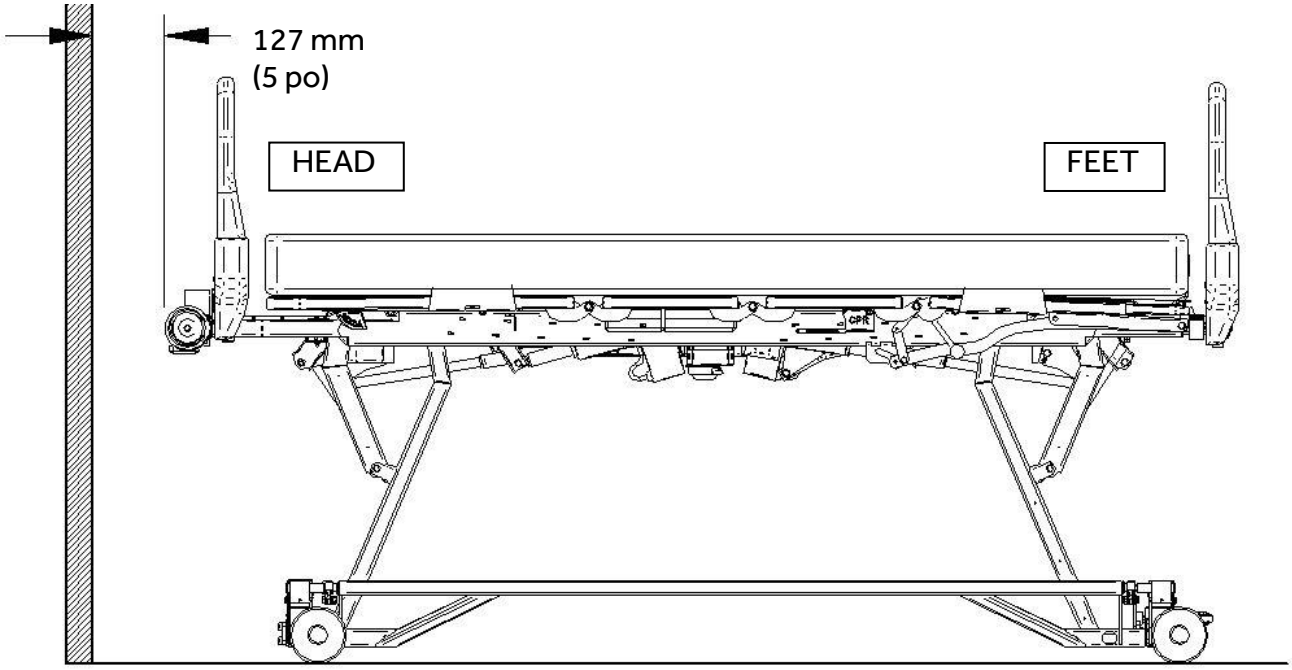
Note that the verification of CPR function should be performed with a mattress and a person adequately leaned otherwise it might not work. If damage or malfunction appear on the bed, without hesitation contact the Technical Services Department of Innova Care Concepts.

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 Positioning in the operating environment

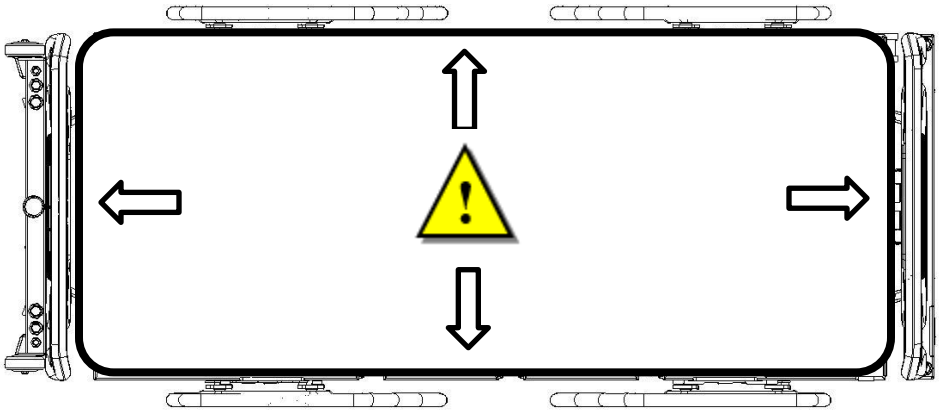
To install this bed model, place it horizontally at a distance of at least 127 mm (5 inches) from the wall. In the same manner, check that no object obstructs the end of the feet section and then apply the brakes (see section 3.2)



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
	**Arrow pointing upwards:** Allow upwards adjustment of the various functions of the equipment.
	**Arrow pointing downwards:** Allow downwards adjustment of the various functions of the equipment.
	**Backrest functions:** Allow tilting adjustment of the backrest section upwards or downwards. 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.
	**Thigh functions:** Allow tilting adjustment of the thigh section and raising or lowering the foot section. 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.
	**Auto-contour functions:** Allow tilting the thigh section and the backrest section and adjusting the height of the foot section upwards or downwards at the same time. 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.
	Bed height functions: Allow the height adjustment upwards or downwards of the bed. 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. 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.
	**Trendelenburg functions:** Allow tilting the bed so the foot section is lower than the head section and conversely. 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. Note: the function stops when the bed is back horizontally.
	**Locking functions:** Allow locking a function of the remote control and of the patient control from the nurse control at the foot of the bed. Each function can be locked individually or by group. 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.

	**Total lock functions:** Allow locking 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. Press this button for 5 seconds. Red indicators will light up under each of the locked symbols of the nurse control indicating that the moving functions of the equipment are locked. To deactivate this function, press again and hold the button for 5 seconds.
	**Chair position:** 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. Press this button until all functions reach their maximum positions. Release the control to stop all movement. Note: The complete operation may take up to 60 sec.
	**Electric CPR function:** Allow the optimum positioning of the bed to apply the cardiopulmonary resuscitation. This function must be use for this purpose **ONLY.** Release the control to stop all movement.
	**Light function:** This function turns on the light located underneath the bed. Press this button to turn on or off the light.
	**Nurse call function (optional):** This function sends a signal to the nurse's station. Press this button to send the signal.
	**Plug-in indicator light** The illuminated indicator light indicates that the bed is plugged in a wall power outlet.

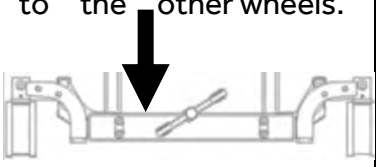
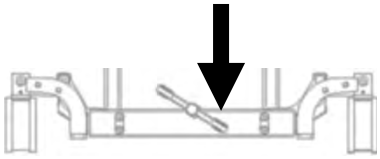
WARNINGS ABOUT THE USE OF ELECTRICAL FUNCTIONS

- If the user's physical condition requires it, and that, for their 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**.**

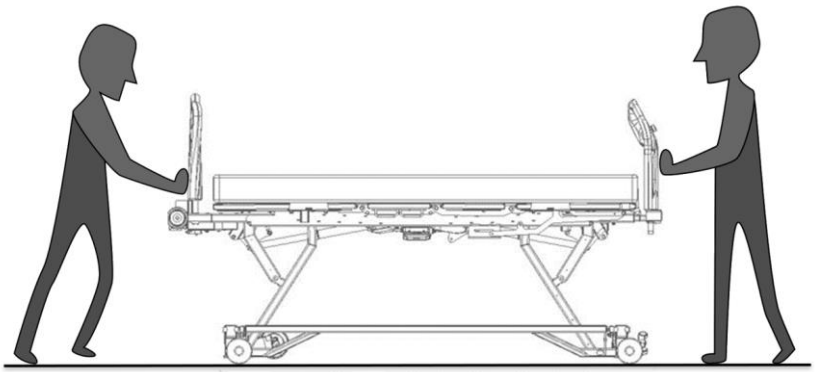
- Always position the bed at a reduced height when the patient is sleeping or unattended to reduce the **RISK OF FALLS** that could lead to **INJURIES**;
- Do not leave a table or other device requiring access under the bed when it is lowered down because this will cause SERIOUS MECHANICAL DAMAGE.
- 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 in order to facilitate access to the pedal. To operate the system, place the pedal in one of the following three positions:

DIRECTIONAL	NEUTRAL	BRAKE
To restraint the right head wheel to move in a straight line and remove all restriction to the other wheels.	To remove all restriction and allow the bed to move in any direction:	To apply the brake and completely immobilize the bed:
		
Press on the **green** side of the pedals.	Place the pedals horizontally.	Press on the **red** side of the pedals.

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

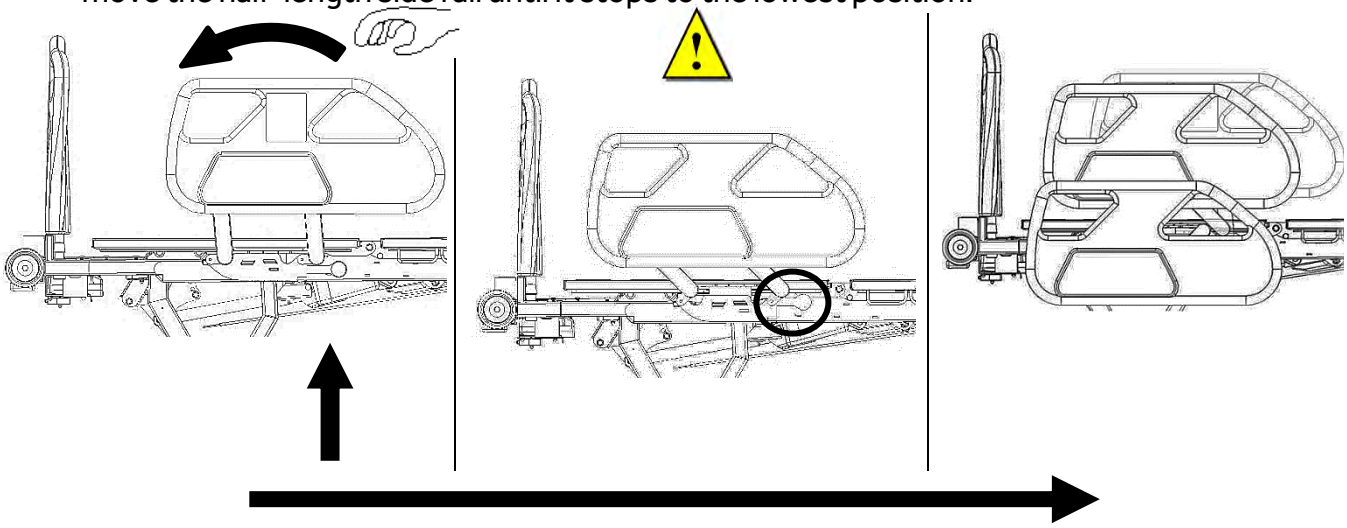


WARNINGS ABOUT THE SYNCHRONIZED BRAKE SYSTEM

- 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.



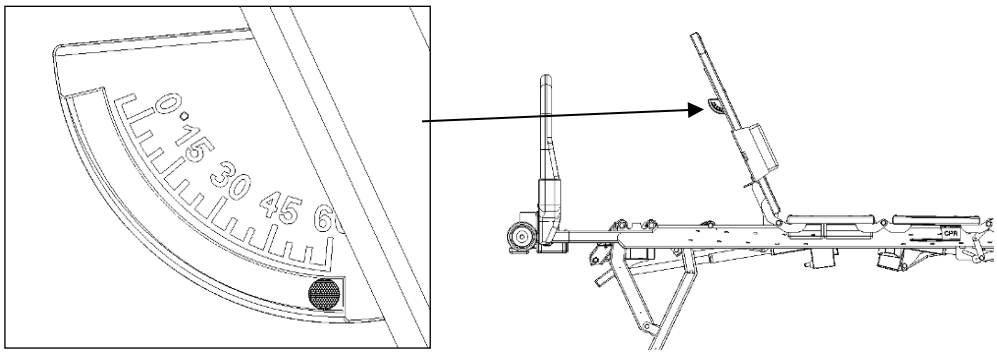
To raise the side rail, pull the side rail upwards by a rotational movement. Then, make sure that the side rail is completely locked at the highest position by trying to move it sideways.

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. 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 feets are not under the device when lowering the patient surface to its lowest. When the siderails are open (unlock position), they come come in contact with the ground and raise a little.

3.4 Angle indicators

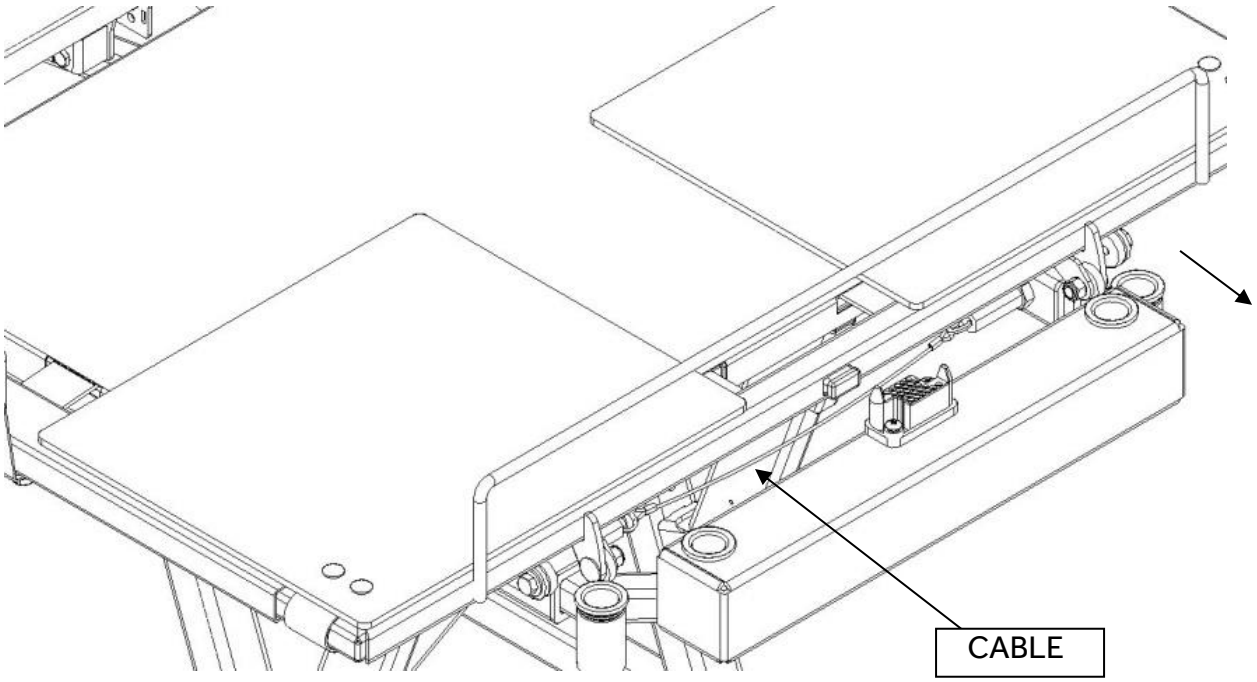
The angle of the back-rest section relative to the ground is approximately given by the angle indicator fixed underneath the back-rest section. The measure (in degree) is indicated by a small ball following the graduation etched.



3.5 Length extension of the platform

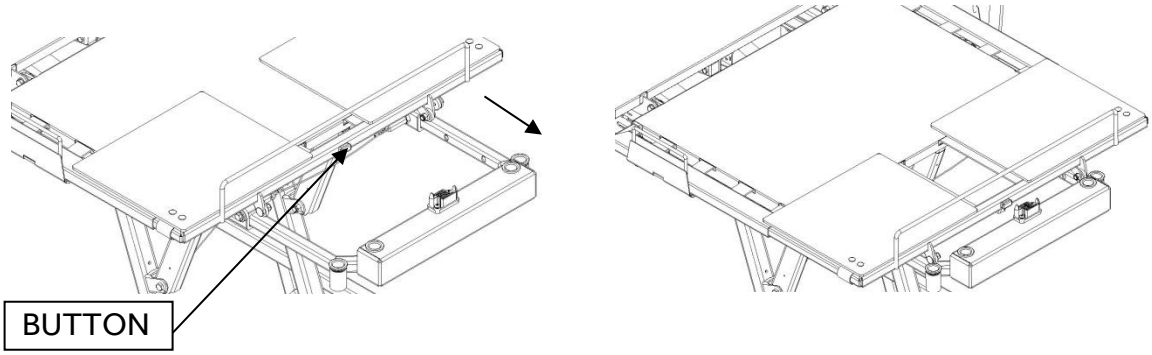
* It is recommended to bring up the foot section to the maximum in order to operate the extension of the platform with ease.

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.

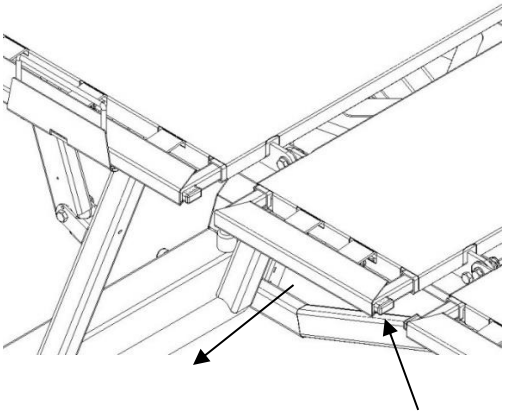


WARNING ON LENGTH EXTENSION OF THE PLATFORM

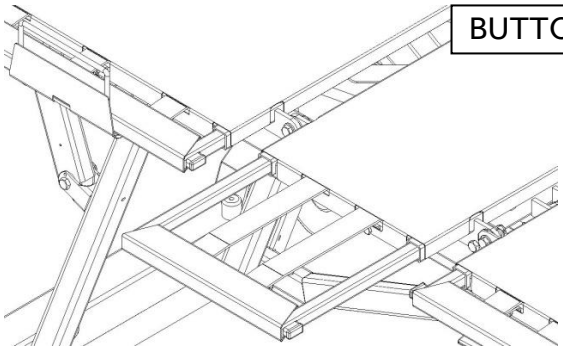
- Never extend the foot section the platform without extending the foot section of the structure to avoid **MECHANICAL BREAK AND/OR INJURIES**.
- After extending the platform, always verify that the length fit the size of the mattress use to avoid **RISKS OF ENTRAPEMENT** that could lead to **DEATH.**

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.



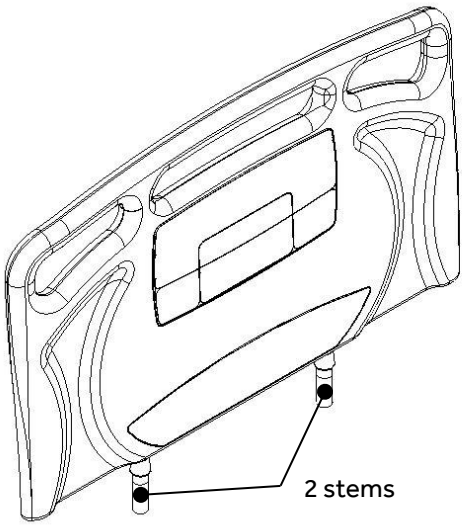
4) Make sure the extension section is well lock by trying to pull or push it.
5) Repeat these steps for all the extension sections around the device. There is a total of 8 section to extend around the device in order to extend the width properly.

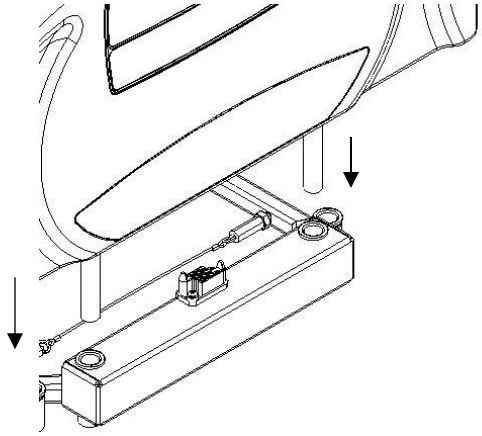
WARNING ON WIDTH EXTENSION OF THE PLATFORM

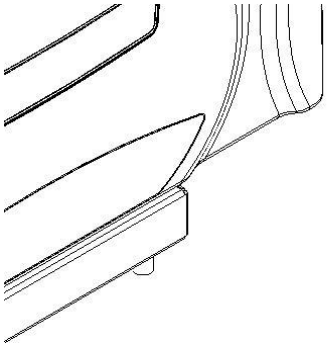
- After extending the platform, always verify that the width fit the size of the mattress use to avoid **RISKS OF ENTRAPEMENT** that could lead to **DEATH.**

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.

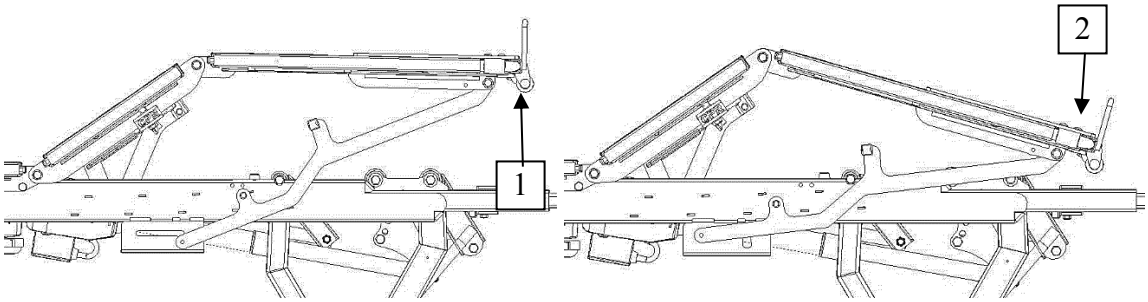






3.8 Adjustment of the foot angle section

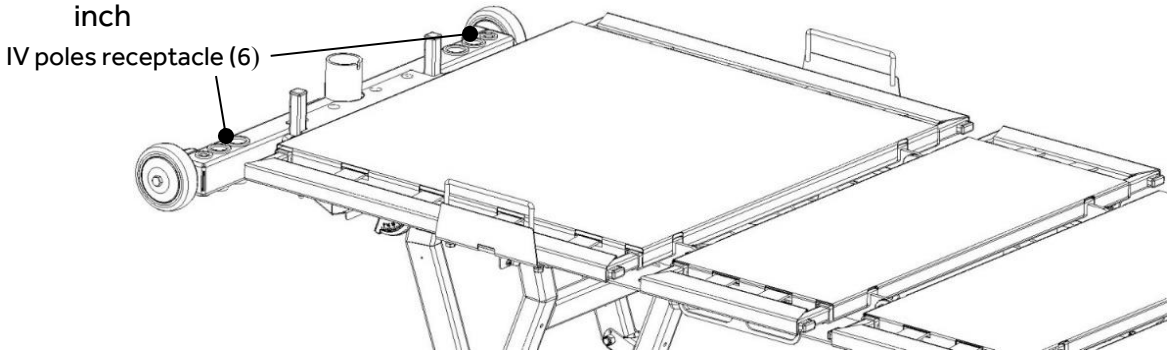
While raised, the foot section of the mattress may be inclined if needed. To do so, lift the far end of the foot section platform (step #1). The mechanism should unlock. Then, lower it until it reaches the stopper (step #2).



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

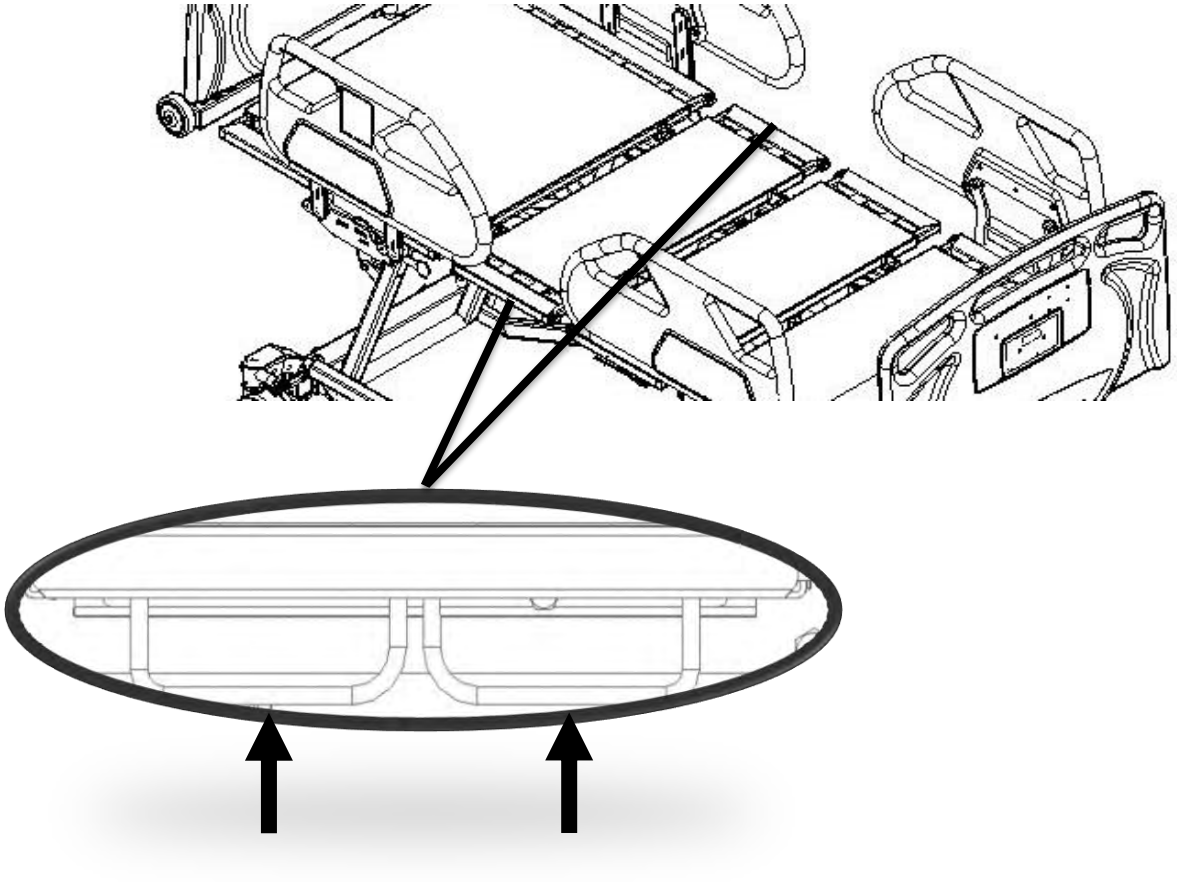


WARNING ABOUT IV POLES RECEPTACLE

- 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 thigh section as support for the drainage bag.

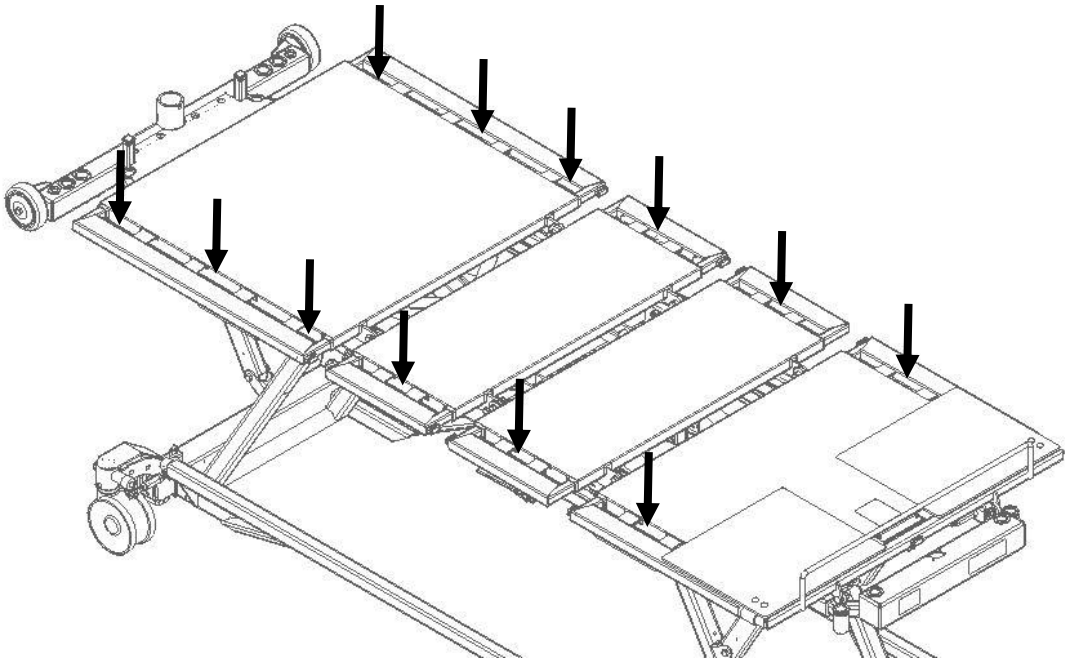


WARNING ABOUT BAG RECEPTACLE

- 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.

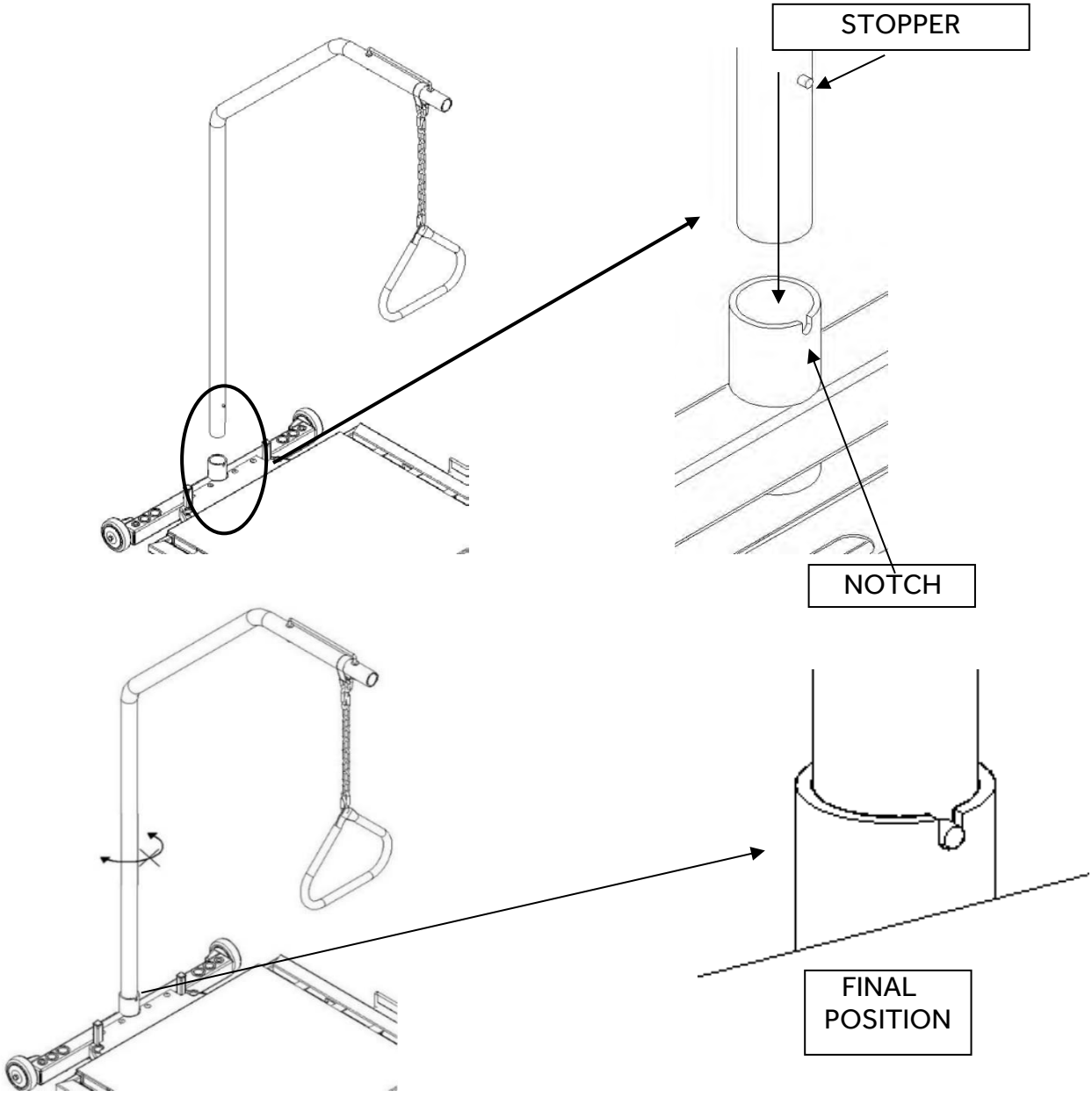


WARNINGS ABOUT THE RESTRAINT STRAPS

- 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 (optional)

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



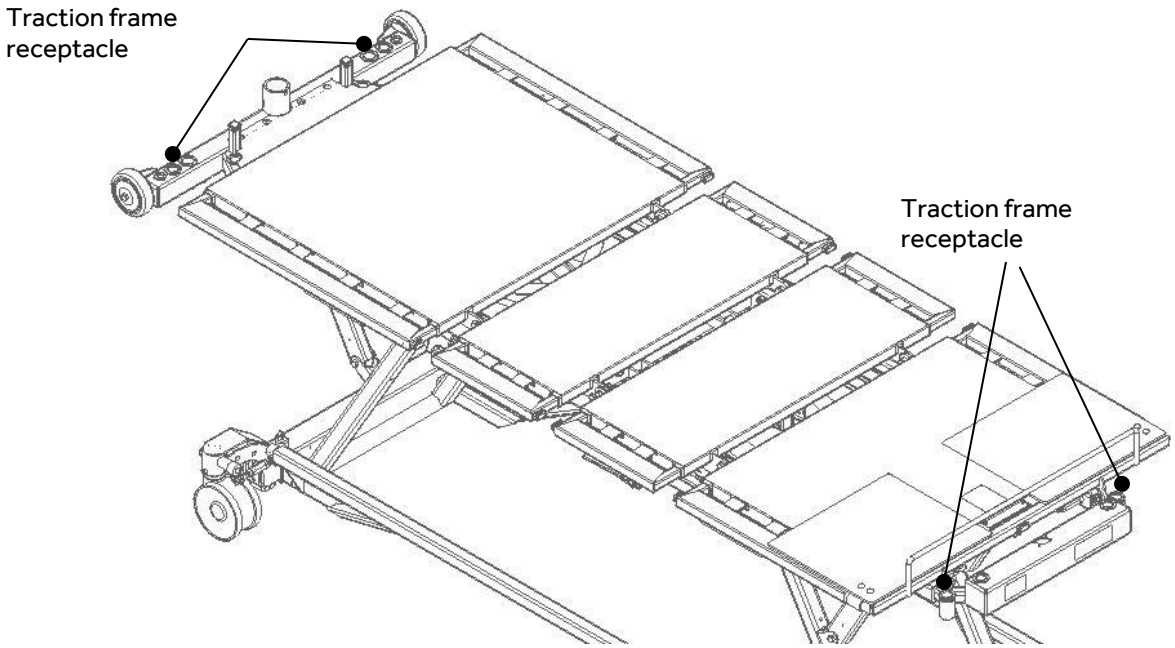
Make sure that the trapeze bar is properly positioned by trying to move with a rotating movement.

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.

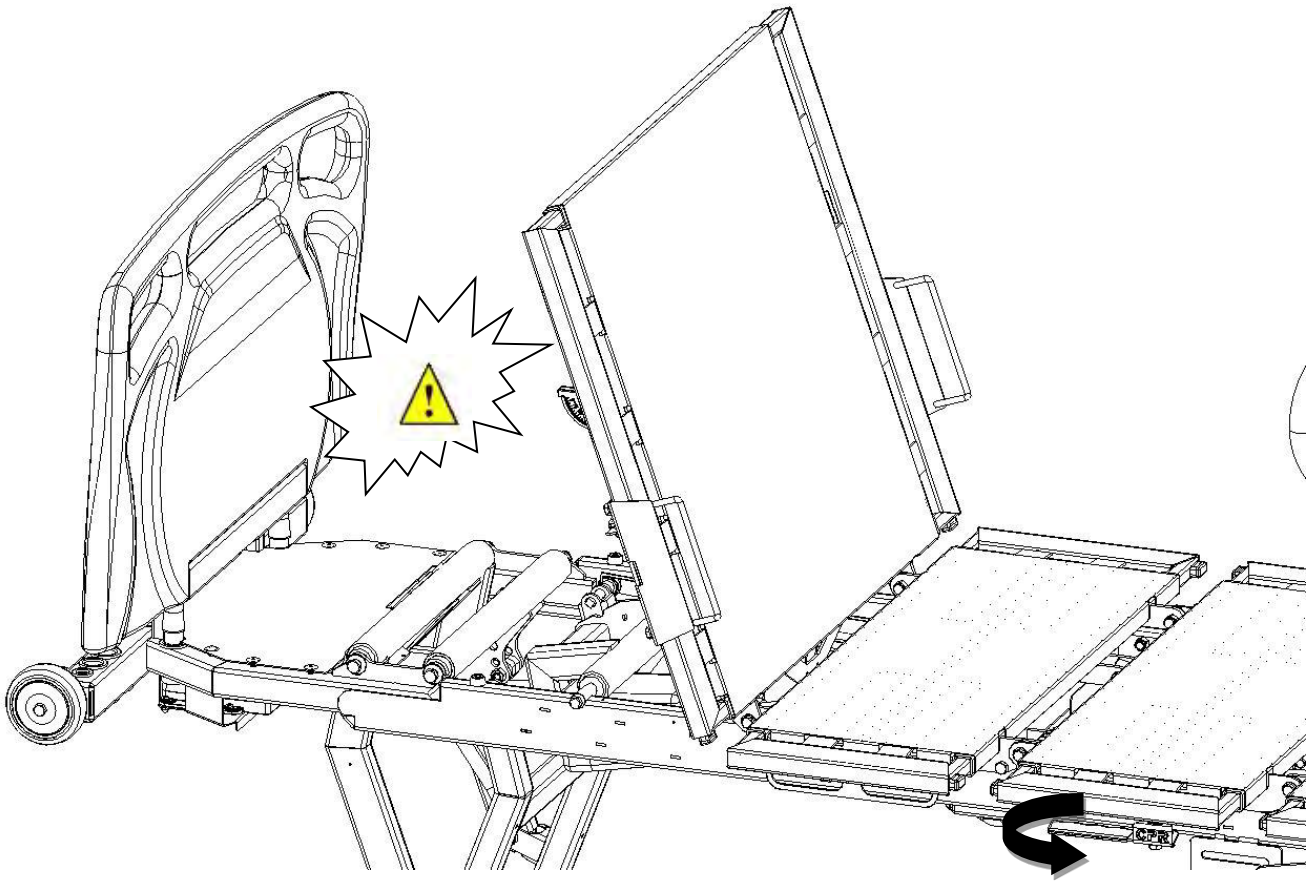


WARNING ABOUT THE TRACTION FRAME RECEPTACLE

- 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 fonction

To use the mechanical CPR function, pull the handle located under the upper leg section platform as illustrated below in order 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 Integrated scale (option)

To use the integrated scale, please find below the different functions added to the interface of the nurse control in the foot of the bed.

Symbols	Button features.
	**[Enable] button:** To activate and navigate the panel and all its functions, push the enable button and a selected function button simultaneously. This is a safety feature to avoid unintended usage.
	**[Accuracy] button:** By default, the system is set to 500g accuracy, but by activating this button the accuracy changes to 100g. The approval covers 500g as default. 100g only serves as a guidance (not approved according to EN45501). The LED above the button will light when 100g accuracy is chosen by pressing the button. The 0.1 status automatically times out and changes to 500g default indication after 5 sec. (the time out setting is required by the test house!). Toggling the accuracy to 0.1 (100g) guiding measure can only take place when a stable load is present (when the display is no longer flashing).
	**[Scale] button:** To measure the weight, push the enable button and the scale button simultaneously. The maximum measurement area is 0 - 460 kg. The scale system calculates the maximum weight according to the following formula: Weight max = SWL - Auto Compensation - Zeroing = Actual weight of the patient on the display. • SWL = max 460 kg • Auto compensation range = 0 - 100 kg • Zeroing range = 0 - 50 kg Example of display indication: Max. patient weight = 460 kg - 100 - 40 = 320 kg. I.e. Max. 320 kg can be measured The LED above the button will light-up when the button is activated. ***Never exceed the loading capacity of the bed even if the scale has a higher capacity.***

	**[Auto] button (Auto compensation):** With the patient already is in the bed, this feature enables the staff to add or remove items from the bed (e.g. a pillow) without any influence on the weight of the patient. Max. auto compensate range is +/- 100kg. Auto compensation can be reset by unplugging the mains (back to default) or zeroing the bed. *Compensation procedure:* 1. At first activation of buttons "Enable + Auto Compensation" the current weight is saved. The display says "AUTO" – and the LED for the button 'Auto Compensation' is flashing. When the LED stops flashing the weight is stable and the objective to compensate for can be added or removed. 2. Repeating the activation of the buttons will compensate for the added/removed load. When the LED is no longer flashing, the procedure is finished, and the display is empty. By renewed activation of the "Enable + Scale" buttons the display will show the weight measured before the compensation was done - which equals the weight of the patient. If 'AUTO' compensation is enabled the "AUTO" LED will light when making a measurement via the "Enable + Scale" button. ***To benefit from auto-compensation it is important that this button is activated each time weight is added or removed from the bed.***
	**Reset/Zero button - MUST be carried out before the patient enters the bed:** To reset the scale, push this button. I.e. if a mattress is put in the bed, but you do not want to measure it is weight, you can reset the scale after the mattress has been put into the bed. Limit of zeroing is 50 kg. See example at "SCALE" button above. If "AUTO" compensation is enabled, it will be cancelled after a reset has been carried out.
	**[Unit] button - Kg/Lbs:** The measure can be set in Kilo/Kg or in Pounds/ Lbs

Display:
To display the weight and the system information, the screen is indicating the data. The LED light illuminates for the unit chosen.

NOTE about all buttons on the scale display:

• When calculation or adjustment of weight is on-going, the display indication will be flashing until e.g. the weight calculation is stable. Approx. 20 sec. after the display shows a stable value it will turn-off.
• The LED above a button will illuminate when the chosen button is activated.
• Activation of any button on the SCO will result in a beep, if the CB had a fatal error previously. The beep sound has no influence on the measuring result, i.e. the SCALE system is independent of fatal errors on the control box.

Warning on accuracy of the scale

• Scales integrated to bed should always be use as a reference only and is not meant to be use for medical treatment.
• Weight display by the scale system could vary from real weight of the patient. The precision of the integrated scale system is of ± 2% + 1 kg (2%+ 2 lb). The caregivers must consider this precision.
• It is recommended to keep de 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.

3.16 Bed exit detection system (option)

The bed exit detection system is optional. Your bed may not be equipped with this system
or have the basic one (1) zone system.

3.16.1 *System calibration*

This new bed exit detection system does not require any calibration. It is calibrated at the factory to effectively meet the various configurations you may require. The system runs with loading cells just like electronic scales for hospital beds.

The user must be in bed when activating this system.

3.16.2 *Buttons identification*

Only one (1) button per zone is required for the functioning of the bed exit detection system.

Zone 1 : Bed exit detection. The system will notify that the patient has left the bed or is leaving the bed when a significant decrease of weight on the bed is detected.

Zone 2 : Pre-egress detection. The system will notify that the patient is attempting to leave the bed when it will detect a significant move from the patient toward the outside of the bed. Be advised that this option may cause false alarms if the patient is agitated or moving in bed while he sleeps.

Also, when activating the Zone 2, make sure that the patient is lying in the middle of the bed to minimize the false alarms and increase the system's precision.

The Zone 1 button is also used to activate the bed exit alarm system because the Zone 2 is optional.

The activation of Zone 2 automatically includes the Zone 1 to maximize the activation of the alarms in case of bed exit attempts.

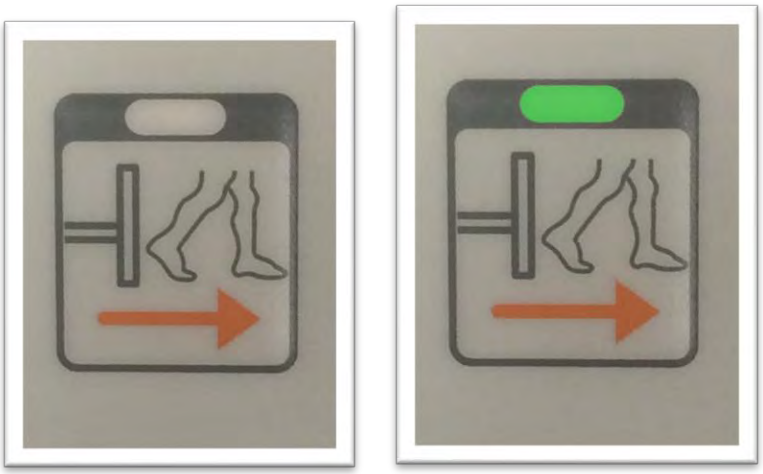
3.16.3 *Bed exit detection system utilisation*

The bed exit detection system is easy to use.

The system is activated by an independent control which has one (1) or two (2) buttons located on the foot section.

When the GREEN indicator is illuminated, the function is ACTIVATED.

When the GREEN indicator is **off,** the function is DESACTIVATED.



Ensure that the patient is lying in the middle of the bed when activation this system.

3.16.4 *Alarm options*

The system has two (2) types of basic alarms: *audible indication* and *visual indication*.

The audible warning will make a sound when the system will detect a bed exit or bed exit attempts (if option 2 zone is chosen). You may activate or deactivate this audible warning according to yours needs. To do so, press and hold the activating button of the zone 1 of the bed exit alarm system until you hear one of the following audible signals:

1 beep: audible warning **deactivated** 3

beeps: audible warning **activated**

The visual indication will be notified with an indicator light located on each side of the foot of the bed. A **red** indicator shows that the system is activated. This indicator will flash if the system detects a bed exit or a bed exit attempt (if option 2 zone is chosen).

See image below:

3.16.5 *Connection options to the nurse call system*

The system is equipped with a junction box that may be connected to the nurse call system. To connect it, your nurse call system must be able to interface with a DB37 connexion.

This is a standard type of connexion in the industry. The receptacle is located under the top section of the bed structure at the end of the head section, right behind the trapeze bar receptacle. If another type of junction is required, please contact us for available options.

3.16.6 *Caution*

This apparatus 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 stops 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 utilisation. 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 devise provides the warnings as soon as a patient leaves the bed. It does not prevent from falls. The alarm may not activate if the utilisation 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 utilisation 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.

4 Maintenance

4.1 Cleaning

Here are the precautions to consider when cleaning the device:

- 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;
- Can be washed with steam, but do not use high pressure jet;
- Do not wash with high pressure water jet. Ultrasonic and immersion of the various parts of the bed are not recommended;
- Be sure that the cleaned parts are clean and dry before using the bed;

WARNING ABOUT THE 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;
- (If applicable) 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 one's;
- 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.

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 Innova Care Concepts 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 battery from the device and take all necessary steps to return it 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

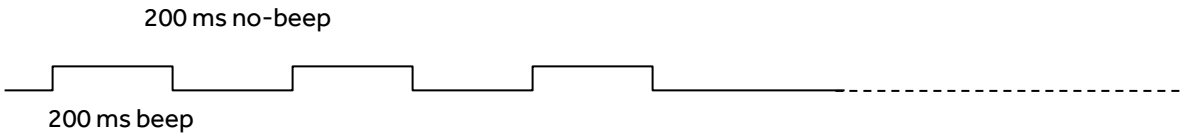
If any problems arise with the bed or one of its components, refer to the guide below. If the following or additional problems persist, do not hesitate to contact one of our technicians.

4.4.1 *Verifications*

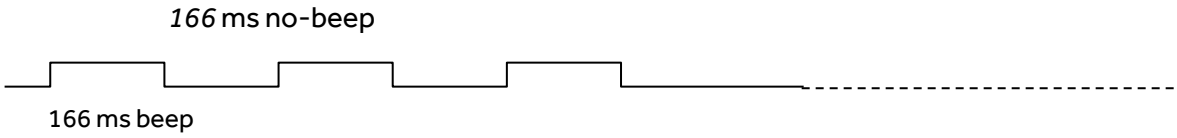
PROBLEMS	VERIFICATIONS
None of the functions of the remote control or the nurse control are working.	✓ Is the power cord properly plugged in? ✓ Is the power cord damaged?If so, replace it. ✓ Verify all connections.
None of the functions on the remote control are working.	✓ Is the nurse control activated? ✓ Is the remote control wire properly plugged in? ✓ Is the remote control wire damaged? If so replace it.
One or many functions of the remote control are not working.	✓ Verify the above-mentioned. ✓ Is the nurse control activated for these functions?If not, are the nurse control functions working?If so, have the remote control inspected. ✓ Verify the above-mentioned. ✓ Is the nurse lock activated for these functions?
The bed runs very slowly.	✓ Is the power cord properly plugged in? ✓ Is the power cord damaged? Is so, replace it.
Device emits one or several audible BIP	✓ Refer to section 4.4.2 about acoustical signal explanation

4.4.2 *Explanation of acoustical signals*

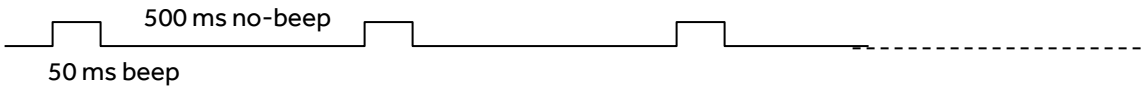
Position Lost:



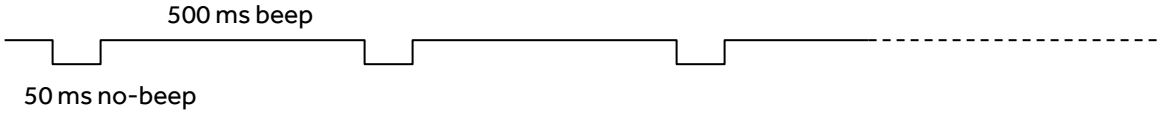
OOBD Alarm:



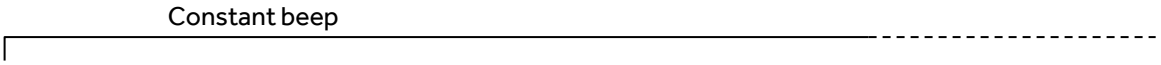
Fatal error:



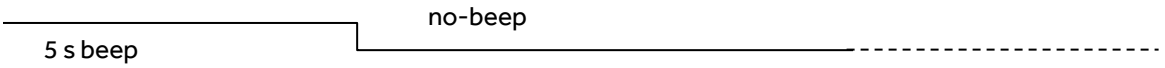
Fatal error reset:



Hoot:



Over-heating:



4.4.3 *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 is 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.

5 WARRANTY AND RETURN POLICY

5.1 *Limited warranty*

Innova Care Concepts warranty to the original purchaser of the Interlude 500 bed, 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 Innova Care Concepts is authorized to change this warranty in any way whatsoever. **This warranty does not cover damages caused by negligence or inappropriate use. Innova Care Concepts will not be held responsible for any other warranty offered by any person, firm or company, to the exclusion of the one stipulated above.** Innova Care Concepts 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 Innova Care Concepts. Use only replacement parts supplied by Innova Care Concepts.

For further information, contact our technical services. Our hours of operation are from Monday to Friday from 8:00 to 17:00.

WARNING ON WARANTY

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

5.2 Return policy

5.2.1 *Non-compliant product*

If an Innova 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 Innova Care Concepts' expense and will be made as soon as possible, following the notification of the non-compliancy.

5.2.2 *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**. Innova Care Concepts must be informed of the situation within 24 hours of receipt of goods in order to notify the carrier as soon as possible. If Innova Care Concepts 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.

5.2.3 *Return product*

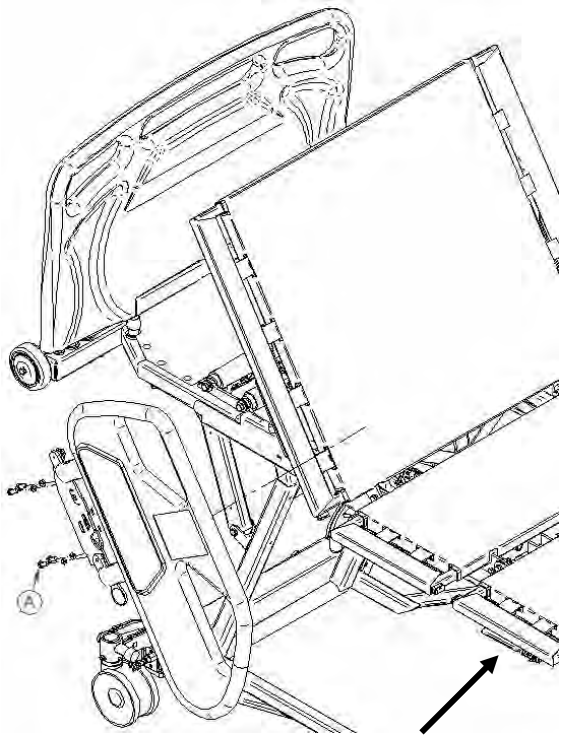
Returned goods require a RGA number and are subject to a 25% restocking fee. Furthermore, the customer must pay the transport charges. For more information, please contact our customer service.

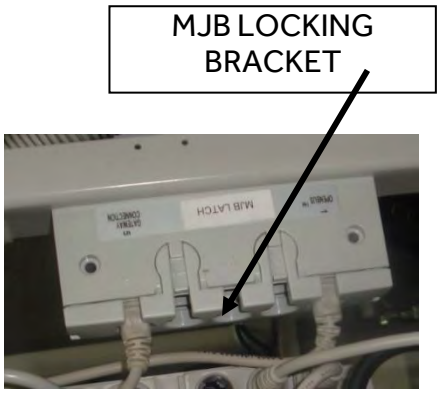
6 REPAIR PROCEDURES

6.1 Siderail assembly replacement

Tools required:

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



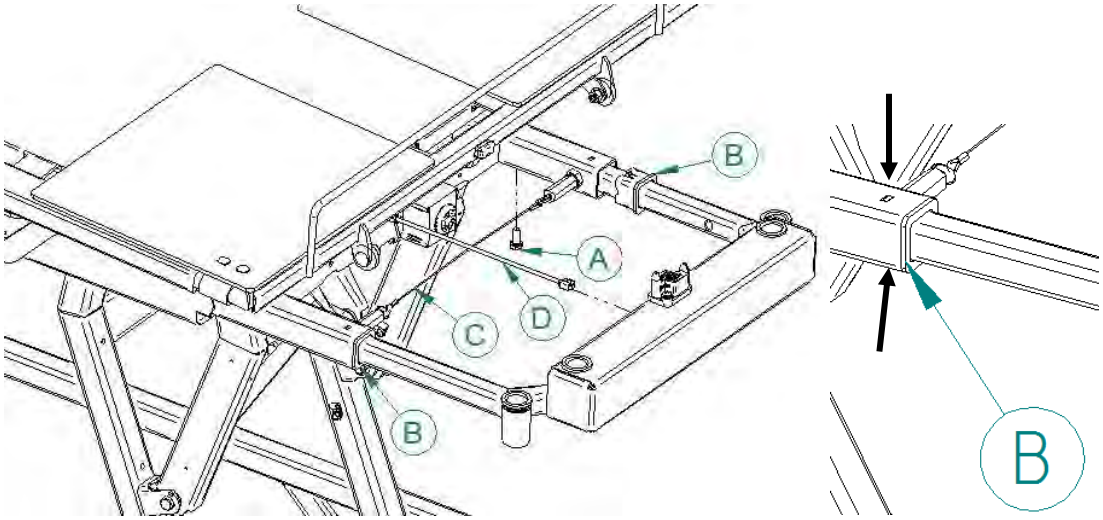


Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Raise the backrest to the highest position (If command doesn't respond, use the CPR handle and raise it up manually) and raise the side rail.
3. Unplug the power cord of the bed from the wall outlet.
4. Remove MJB locking bracket and unplug the wire related to the side rail under bed.
5. With a cutting plier, remove the tie wrap of the side rail's wire related to the bed.
6. With a 3/8" drive ratchet and a ½" socket, remove the four (4) bolts (A) fixing the siderail to the structure of the platform. Make sure to hold the side rail wild removing the bolts, preventing the side rail from falling to the ground.
7. Reverse the above steps to install the new siderail assembly.
8. Test the siderail movement before returning the bed to service.

6.2 **Top frame extension replacement** Tools required:

- Slotted Screwdriver
- ½" Combination Wrench



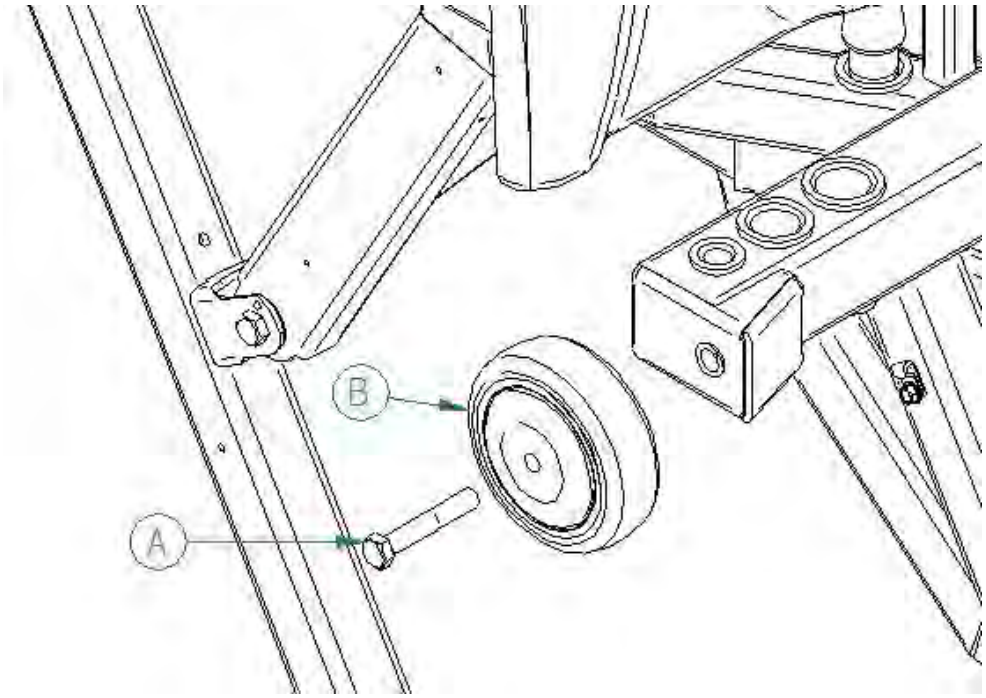
Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Raise the foot section platform to his highest position.
3. Extend the top frame extension by pulling on the red cable (C).
4. Unplug the power cord of the bed from the wall outlet.
5. Unplug the cable connection (D) from the top extension.
6. Remove the nut (A) with a ½" Combination Wrench. Keep it for later.
7. Push on the locking strip from the plastic bushing (B) with a slotted screwdriver and drag it out. Repeat the process for the same bushing (B) on the other side of the bed. Remove the top frame extension.
8. Reverse the above steps to install the new top extension.
9. Test the new top frame extension's movement and all the control buttons on the footboard before returning the bed to service.

6.3 *Replacement of a wall bumper*

Tools required:

• 9/16" Combination Wrench



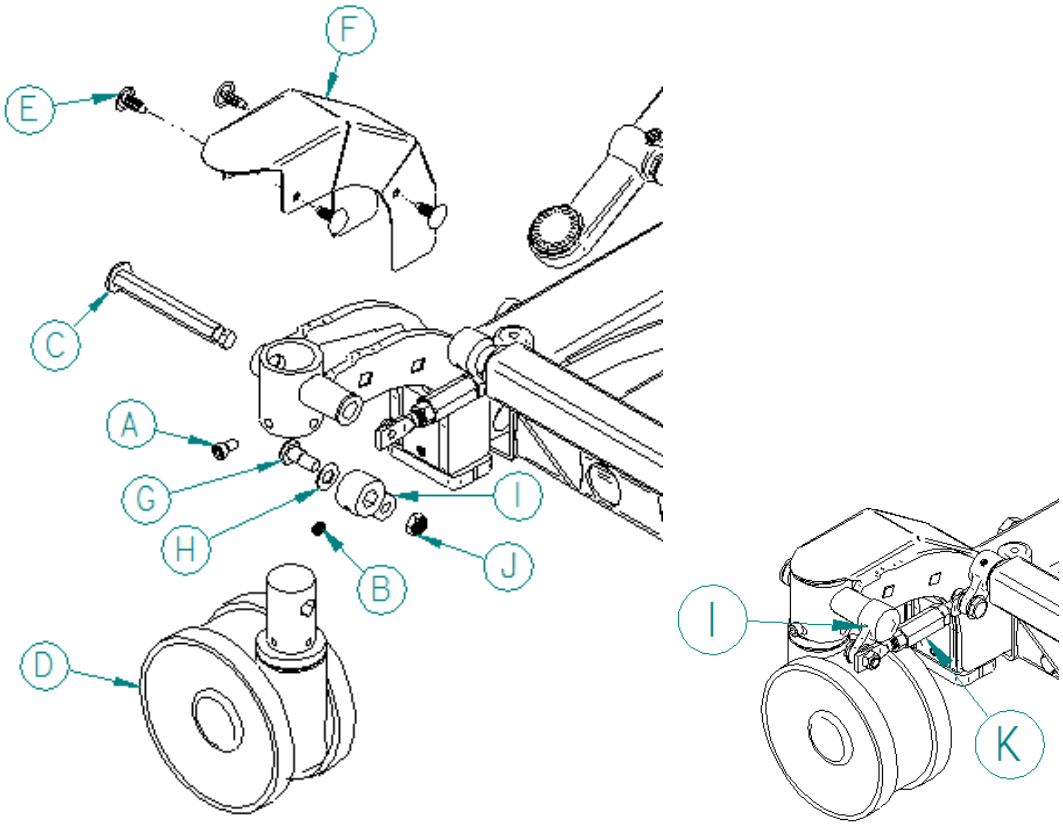
Procedure:

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

6.4 *Bed caster replacement*

Tools required:

- 9/16" Combination Wrench
- ½" Combination Wrench
- Trim clip removal tool
- #3 Allen Wrench
- #4 Allen Wrench
- #5 Allen Wrench
- Axle stands (2)

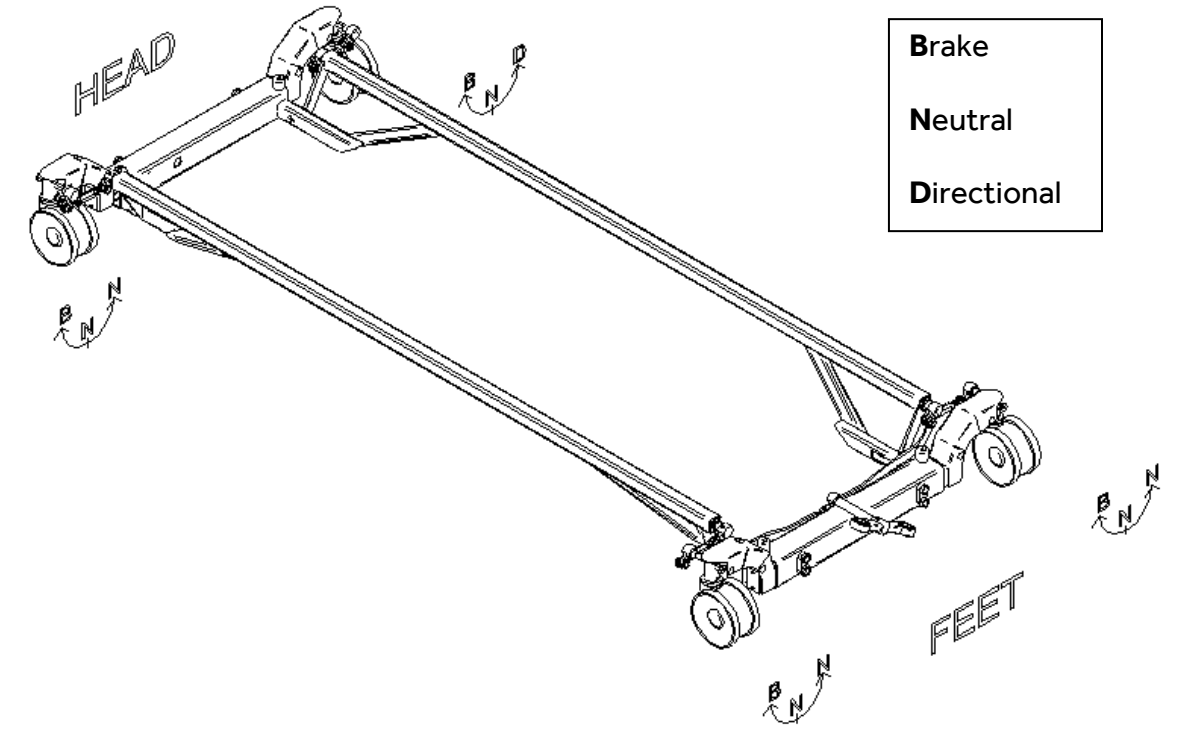


Procedure:

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. Remove the four (4) plastics rivets (E) from the cover (F) with a Trim clip removal tool.
6. Remove the socket head screw (B) with a #3 Allen Wrench and remove the lever (I) from the hexagonal rods (C).
7. Remove the hexagonal rods (C).
8. Remove the socket head screw (A) with a #5 Allen Wrench and remove the defective caster.

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



9. Reverse the above steps to install the new caster.

10. Verify that the new caster is working properly before getting back the bed to service.

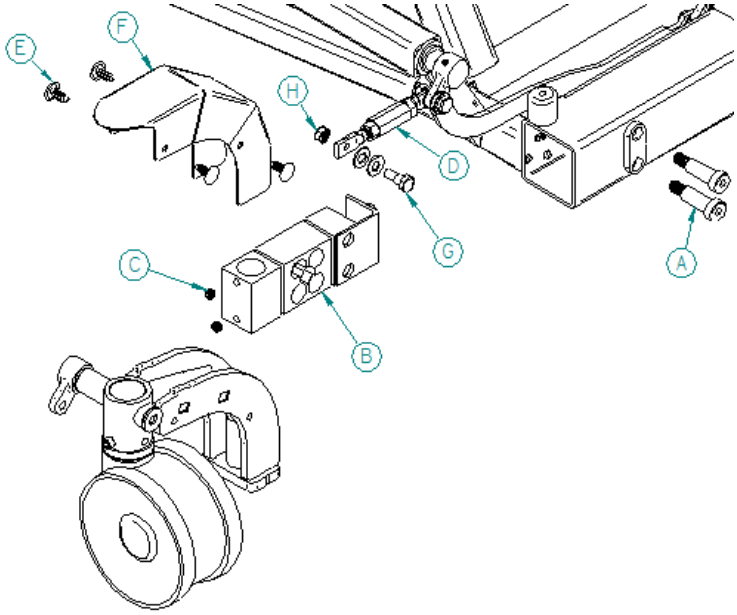
Notice: *if the new caster doesn't brake correctly, there is an adjustment under the caster*

11. 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).

6.5 Load cell replacement

Tools required:

- 9/16" Combination Wrench
- 1/2" Combination Wrench
- Trim clip removal tool
- #4 Allen Wrench
- 1/4" Allen Socket
- 3/8" Drive Ratchet
- Axle stands (2)



Procedure:

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

6. Hold the hexagonal shoulder bolt (G) with a 9/16" combination wrench and use a 1/2" combination wrench to remove the nut (H).
7. Remove the four (4) plastics rivets (E) from the cover (F) with a Trim clip removal tool.
8. Remove the socket head shoulder bolt (A) with a 1/4" Allen socket and the 3/8" drive ratchet.
9. Slowly remove the load cell with the bed caster support until the load cell connectors are available and then unplug it. The load cell with the bed caster support should be free from the base frame now.
10. Remove the set screw (C) with a #4 Allen wrench and remove the load cell from the bed caster support.
11. Reverse the above steps to install the new load cell.

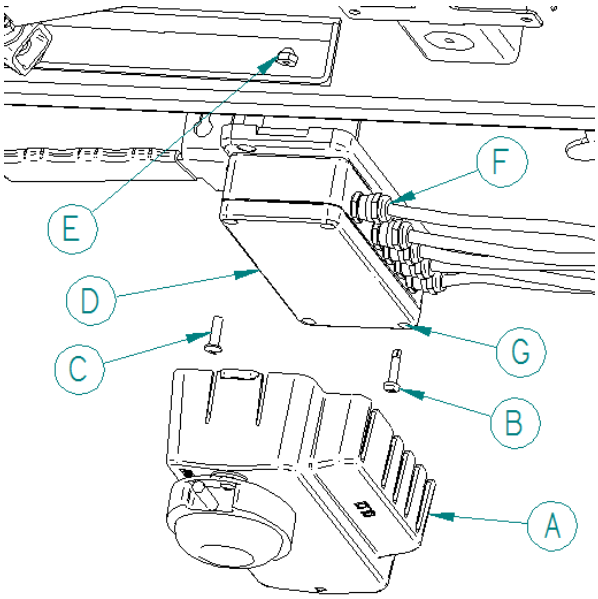
Notice:	*When installing the new load cell, be careful to not squeeze the wire between* the load cell and *the frame of the bed.* *Before tightening the screw (A) completely, remove the axle stands and put the bed on the ground in order to remove the gaps created by the assembly without load.*

12. Verify that the new load cell is working properly before getting back the bed to service.

6.6 QLCI replacement

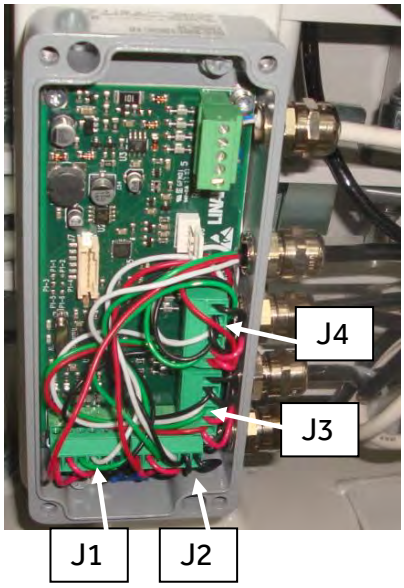
Tools required:

- 3/8" Combination Wrench
- #2 Robertson Screwdriver
- Regular Slotted Screwdriver
- Cutting plier
- #2 Phillips Screwdriver
- #3 Small Slotted Screwdriver

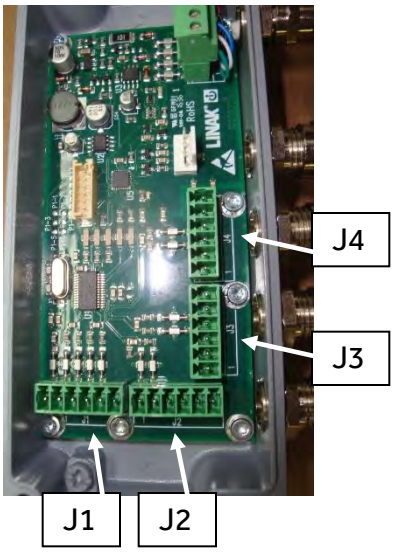


Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Unplug the power cord of the bed from the wall outlet.
3. Remove the cover (A) with a regular slotted screwdriver.
4. Use a 3/8" combination wrench to hold the nut (E) and remove the screw (C) with a #2 Robertson screwdriver.
5. Remove the screw (B) with a #2 Robertson screwdriver.
6. Follow the QLCI cable (F) and cut the cable ties holding it to the bed frame.
7. Unplug the QLCI cable (F) from the QLCI.
8. Remove the four (4) screws (G) from the cover with a #2 Phillips screwdriver.

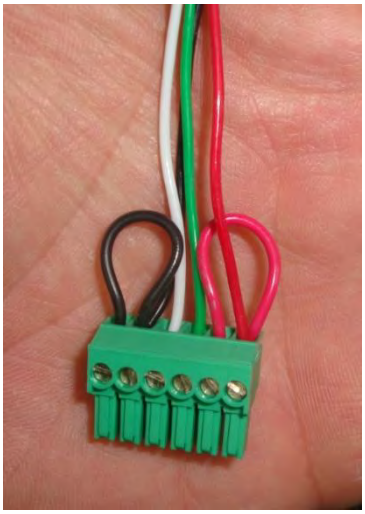


9. Unplug the wires from terminals J1, J2, J3, J4.

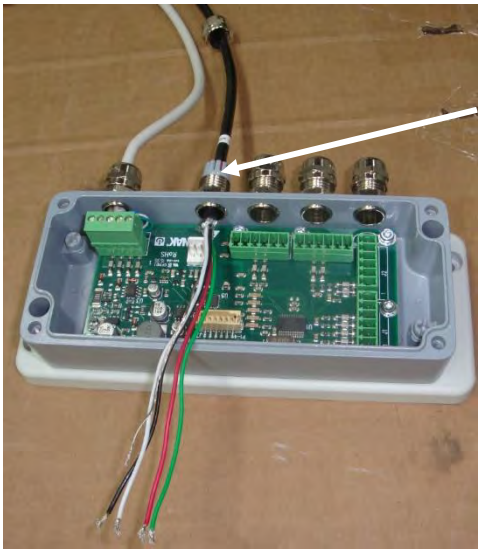


Notice: *Be careful. Each load cell cable has a predefined position (cable 1 with J1, cable 2 with J2, cable 3 with J3 and cable 4 with J4).*

10. Unscrew all cable holder screws with a #3 small slotted screwdriver.



11. Remove all the wires from the QLCI cell.



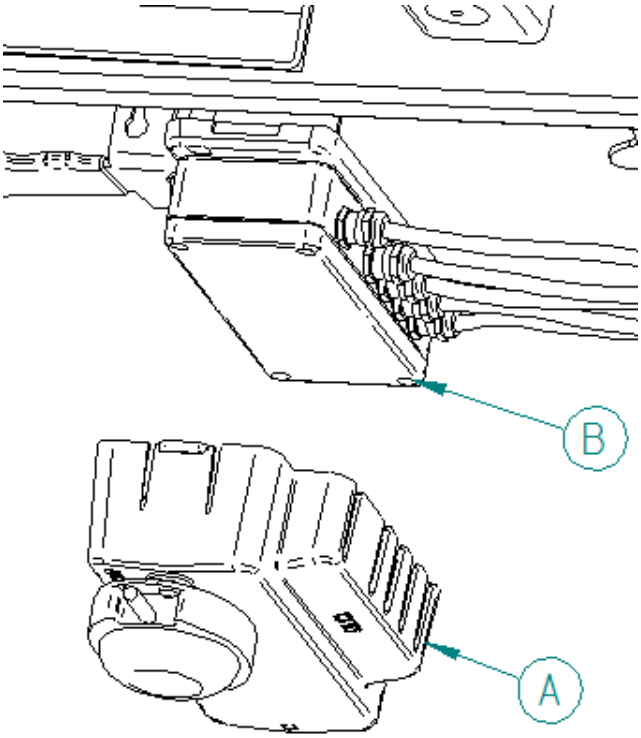
12. Reverse the above steps to install the new QLCI.
13. Verify that the new QLCI is working properly before getting back the bed to service.

Notice: *Be careful to put the plastic bushing in the good way.*

6.7 Load cell cable replacement

Tools required:

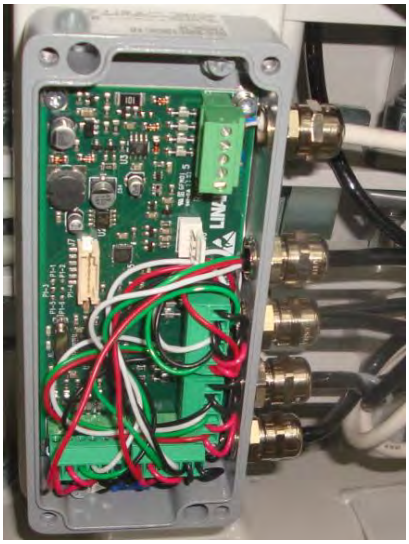
- Regular Slotted Screwdriver
- #3 Small Slotted Screwdriver
- #2 Robertson Screwdriver
- 1/2" Combination Wrench
- 1/4" Allen Socket
- 5/16" Socket
- #2 Phillips Screwdriver
- Cutting plier
- 9/16" Combination Wrench
- Trim clip removal tool
- 3/8" Drive Ratchet
- Axle stands (2)



Procedure:

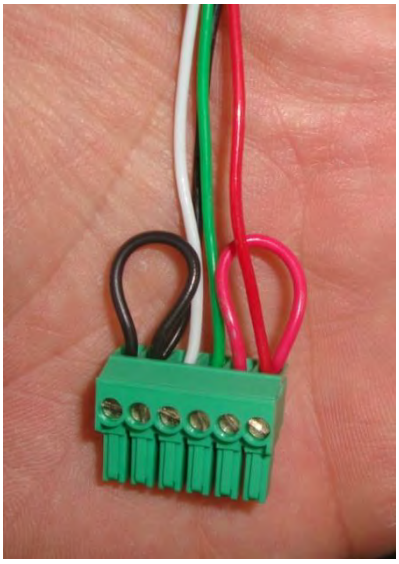
1. Raise the bed to its highest position and apply the brakes.
2. Unplug the power cord of the bed from the wall outlet.
3. Remove the cover (A) with a regular slotted screwdriver.
4. Remove the four (4) screws (B) of the cover with a #2 Phillips screwdriver.

5. Unplug the defective connector.



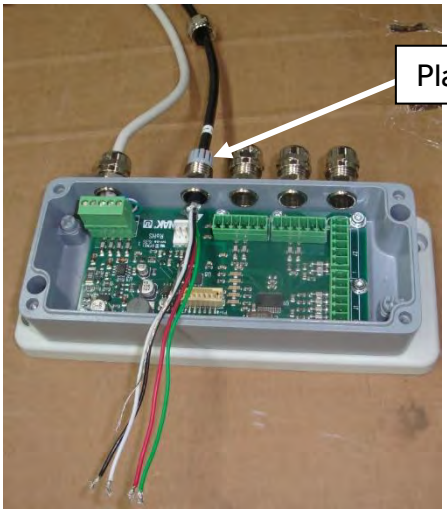
Notice:	*Be careful. Each load cell cable has a predefined position. (cable 1 with J1, cable 2 with J2, cable 3 with J3 and cable 4 with J4)*

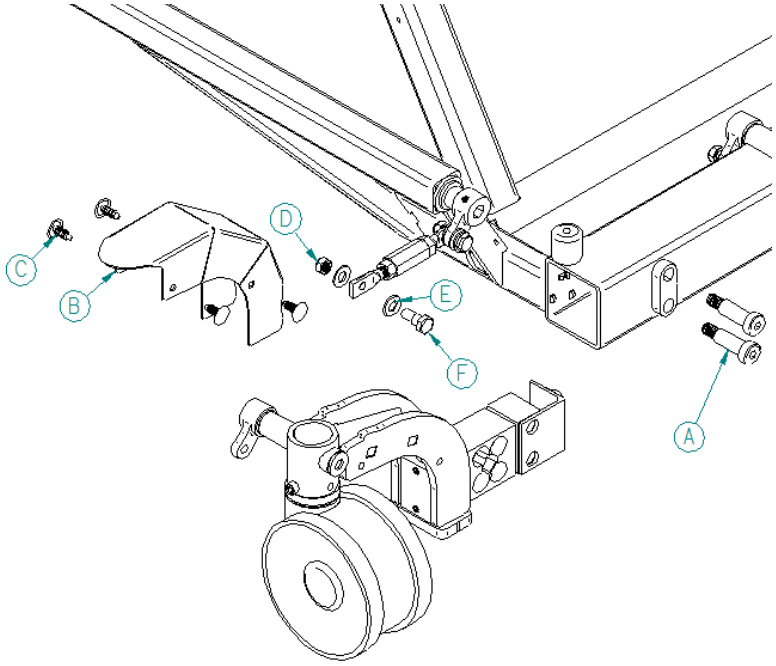
6. Unscrew all cable holder screws with a #3 small slotted screwdriver.



7. Remove the defective cable from the QLCI.

8. Follow the defective load cell cable and remove the cable ties and the screws holding it to the bed frame with a cutting plier and a #2 Robertson screwdriver.
9. Position the brake pedal to neutral.
10. Put the axle stands under the bed frame beside the defective load cell.
11. Lower the bed until the caster of the defective load cell stops touching the ground.





12. Use a 9/16" combination wrench to hold the bolt (F) and use a 1/2" combination wrench to remove the nut (D). Then remove the bolt (F) from the turn buckle.
13. Remove the socket head shoulder bolt (A) with a 1/4" Allen Socket and a 3/8" drive ratchet.
14. Slowly remove the load cell with the bed caster support until the load cell connectors are available and then unplug it. The defective load cell cable should be now free to remove from the bed frame.
15. Reverse the above steps to install the new load cell cable.
16. Verify that the new load cell is working properly before getting back the bed to service.

Notice:	*Be careful to put the plastic bushing in the right way.* *Went installing the load cell to the base frame, be careful to not squeeze the new cable between the load cell and the base frame* *Put the bed caster back on the ground by removing the axle stands before tighten completely the socket head shoulder bolt (A).*

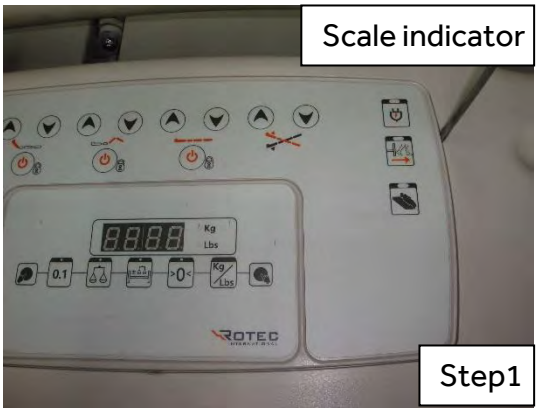
6.8 Scale indicator replacement

Tools required:

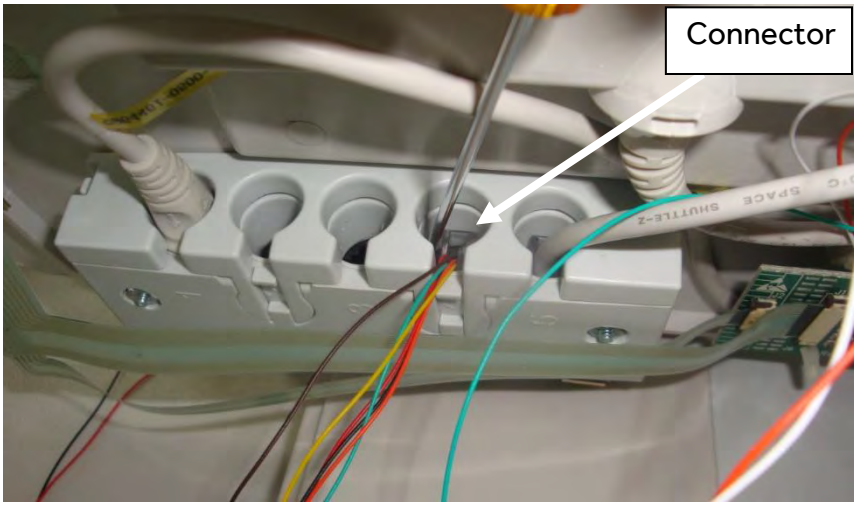
- Regular Slotted Screwdriver

Procedure:

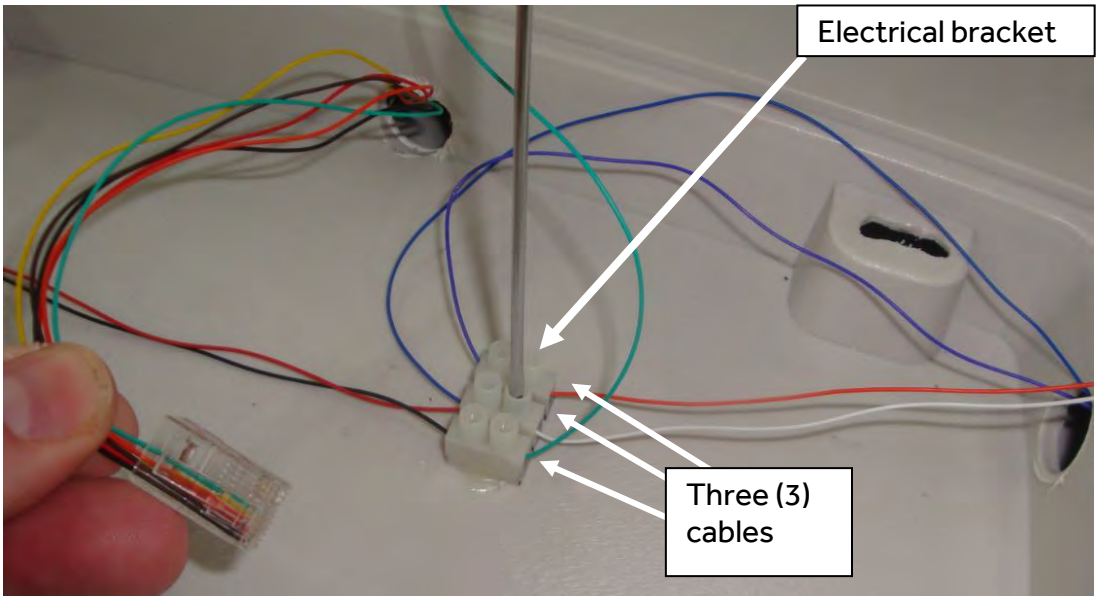
1. Raise the bed to its highest position and apply the brakes.
2. Unplug the power cord of the bed from the wall outlet
3. Remove the foot board panel.
4. Remove the scale indicator with a regular slotted screwdriver.



5. Push on the connector's locking strip with the regular slotted screwdriver and remove the connector.



6. Remove the three (3) cables from the junction box with the slotted screwdriver.



7. Reverse the above steps to install the new scale indicator.

Notice: *The cable's colour can change but they must stay in the same position.*

8. Verify that the scale indicator is working properly before returning the bed back to service.

6.9 Bed exit light replacement

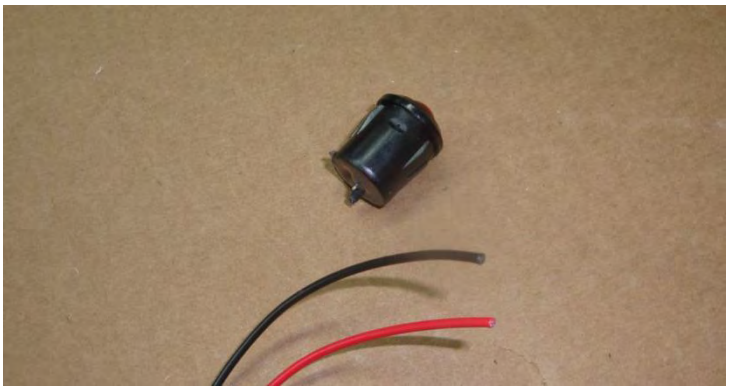
Tools required:

- Regular Slotted Screwdriver
- Adhesive LOCTITE 414
- Cutting plier
- Isolated adhesive tape

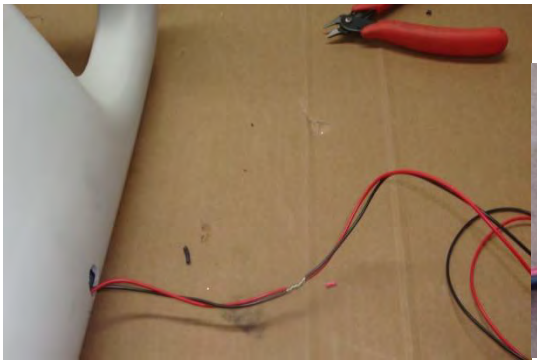
Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Unplug the power cord of the bed from the wall outlet
3. Remove the light from its socket on the foot board with a slotted screwdriver.

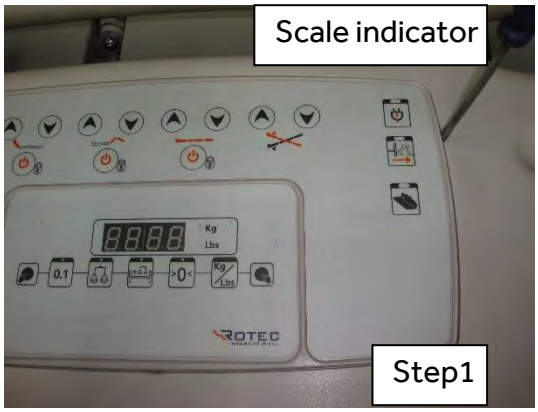
4. Cut the wires and let them in place.



5. Fix the end of the wires of the new light to the old wires already in place with isolated adhesive tape.

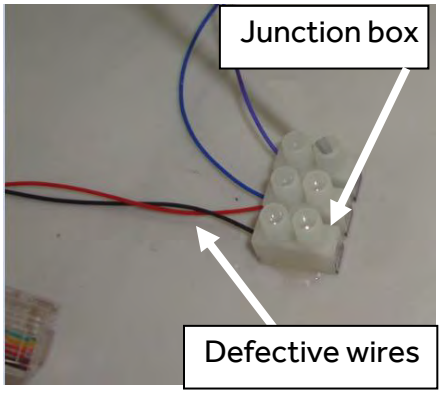


6. Remove the scale indicator with a regular slotted screwdriver.



7. Pull on light's wires to return the light in its socket.

8. Remove defective wires with a regular slotted screwdriver and connect the new one to the junction box.



Notice: *Connector's colour can change.*

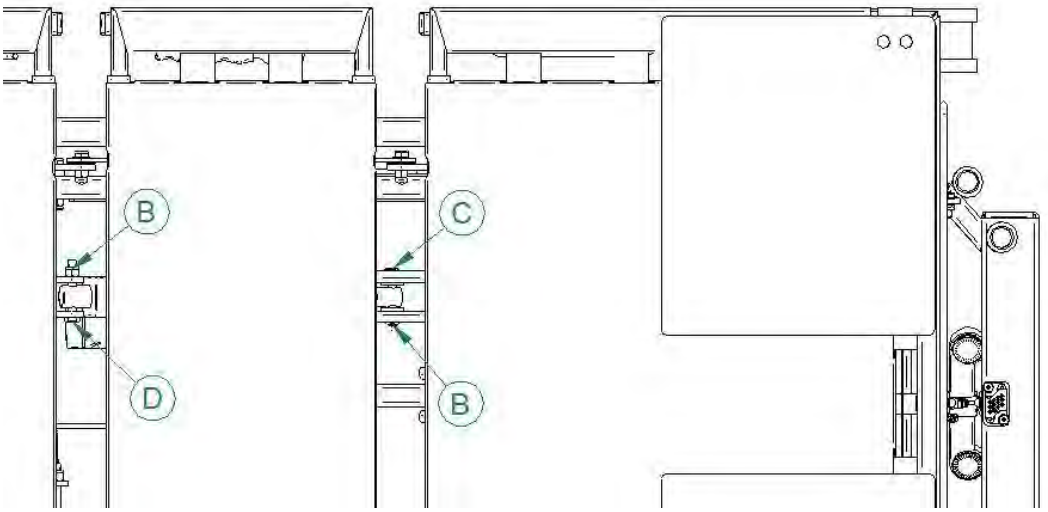
9. Use a LOCTITE 414 glue to affix the new light.

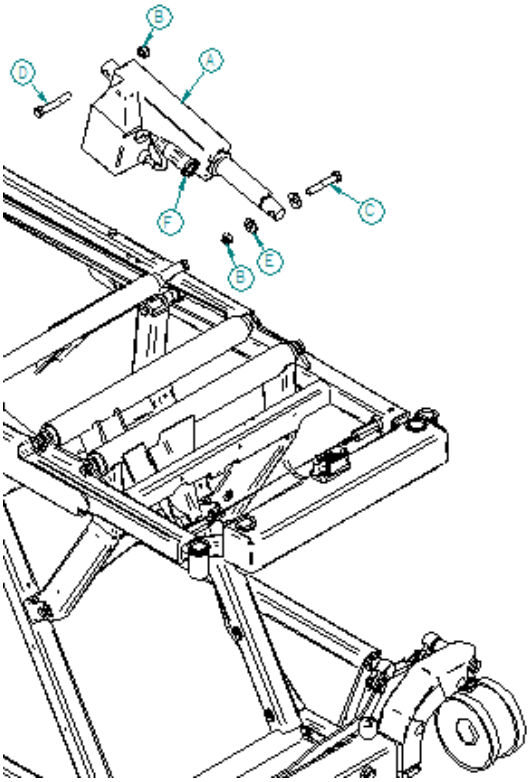
10. Verify that the new exit light is working properly before returning the bed back to service.

6.10 Motor replacement of the leg section

Tools required:

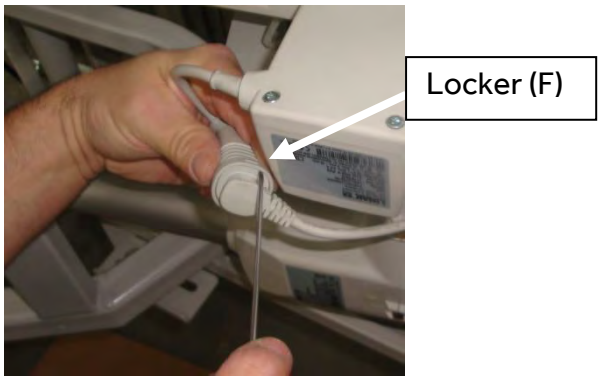
- 9/16" Combination Wrench
- Regular Slotted Screwdriver
- Cutting Plier





Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. 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.



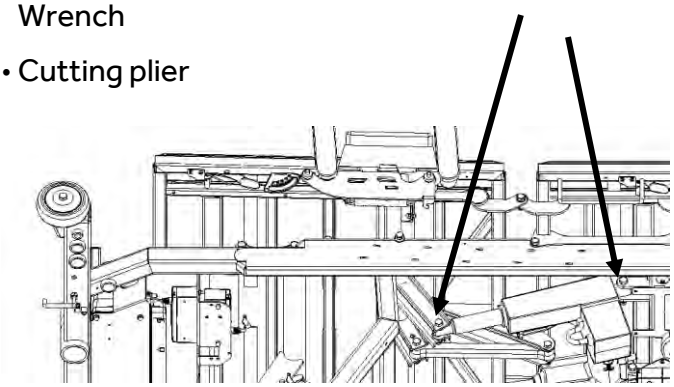
6. Remove the bolts (C and D) by holding them with a 9/16" Combination Wrench and remove the nut (B) associate with it with another 9/16" Combination Wrench.
7. Reverse the above steps to install the new motor to the leg section mechanism.
8. Verify that the new motor is working properly before returning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

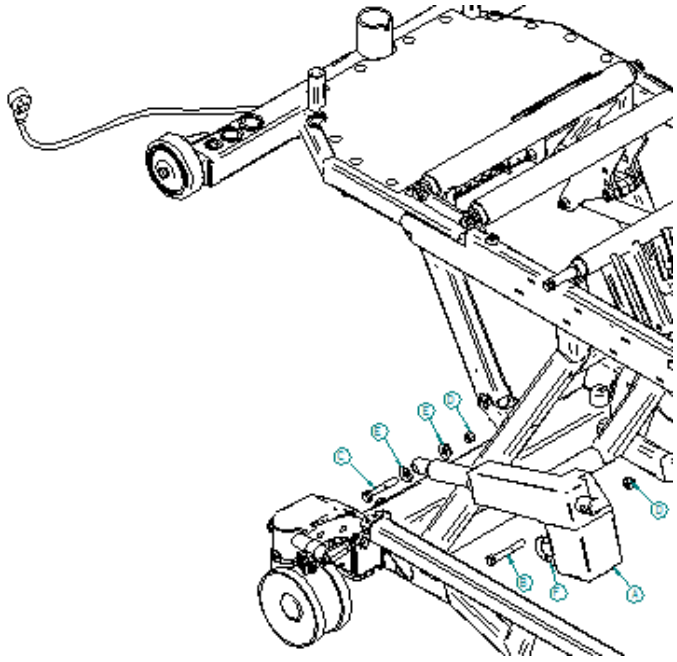
6.11 Motor replacement of the backrest section

6.11.1 *Without CPR*

Tools required:

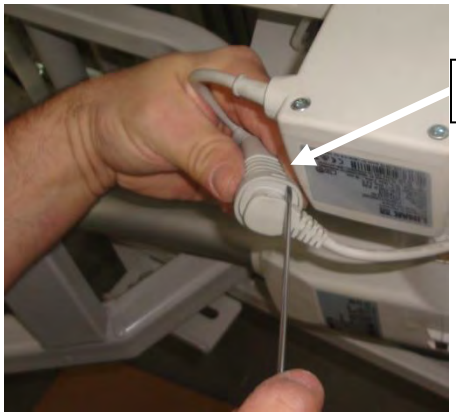
- 9/16" Combination Wrench
- Regular Slotted Screwdriver
- Cutting plier





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

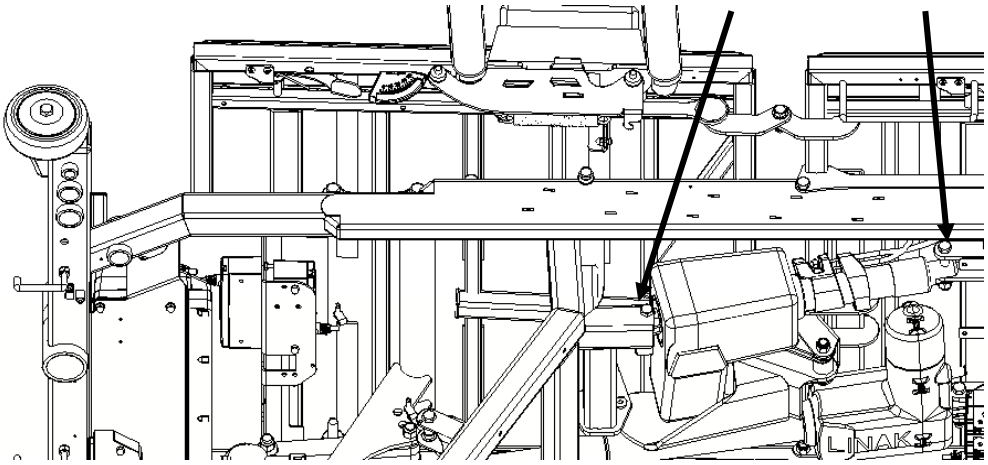


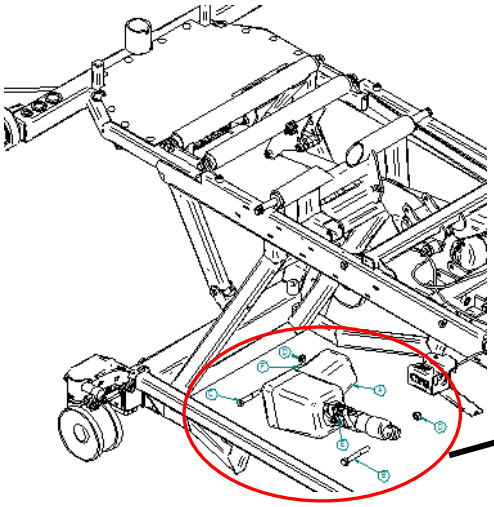
6. Remove the bolts (C and D) by holding them with a 9/16" Combination Wrench and remove the nut (B) associate with it with another 9/16" Combination Wrench.
7. Reverse the above steps to install the new motor to the backrest section mechanism.
8. Verify that the new motor is working properly before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

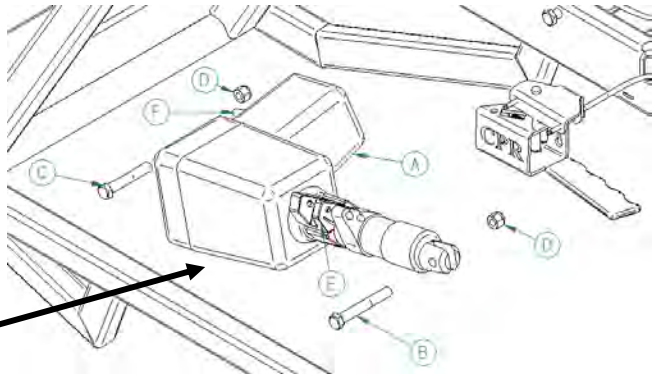
6.11.2 *With CPR*

Tools required:

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





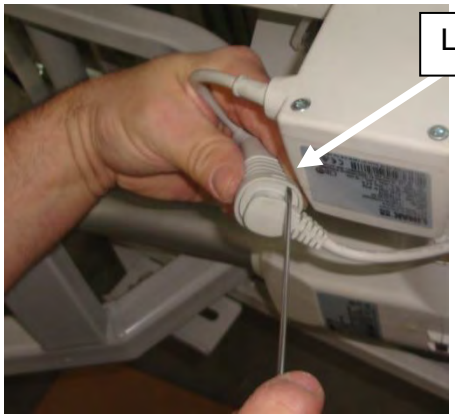


Procedure:

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 (A).

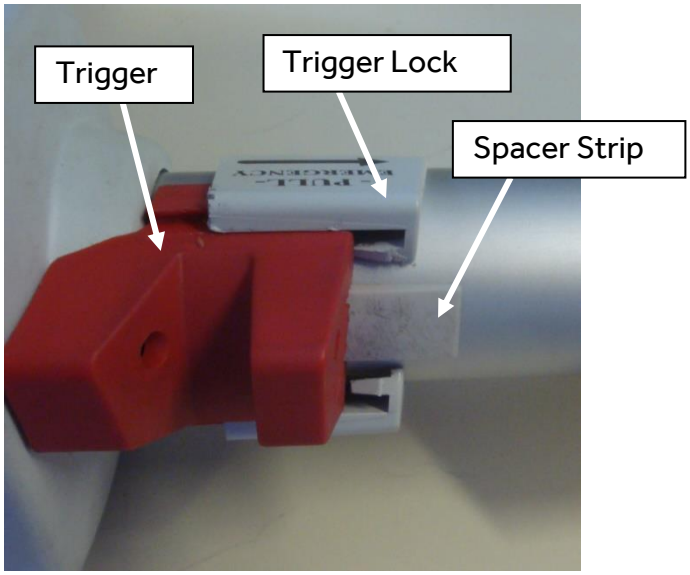
5. Unplug the cable from the motor

   (A) by removing the locker (F) from the connector with a slotted screwdriver.

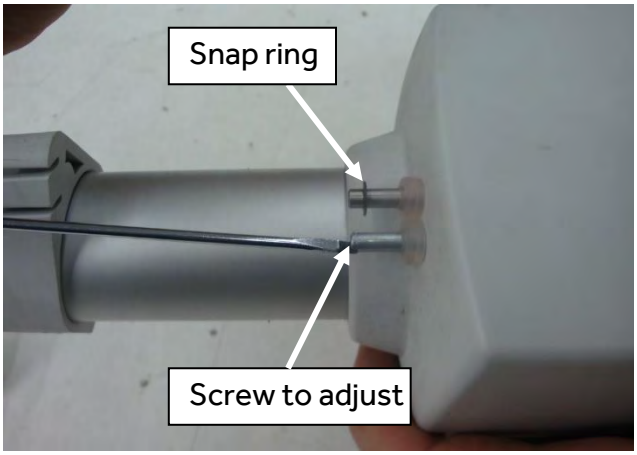


6. Unlock the trigger lock with a regular slotted screwdriver by pushing straight on it.

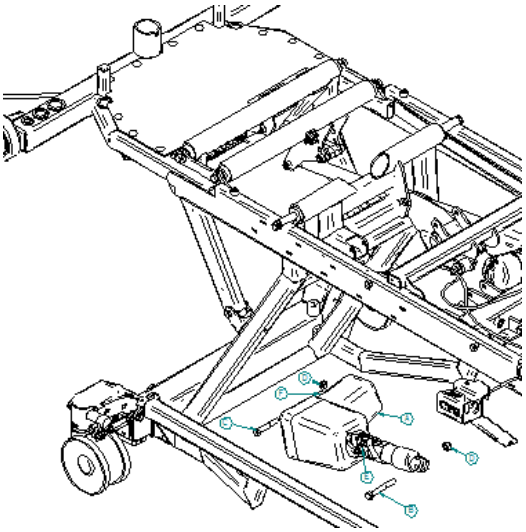
7. Remove the trigger lock, the trigger and the spacer strip.



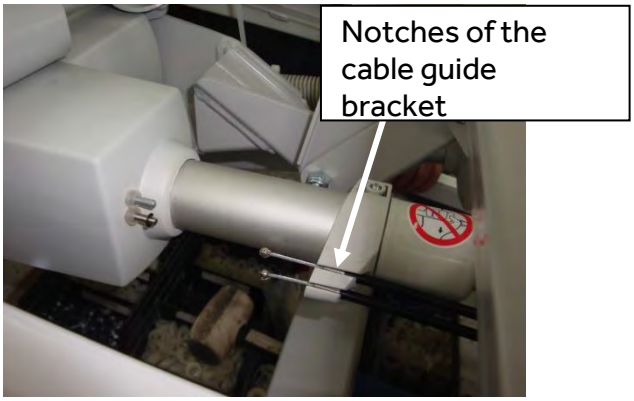
8. Adjust the screw to the same length as the rod with the snap ring.



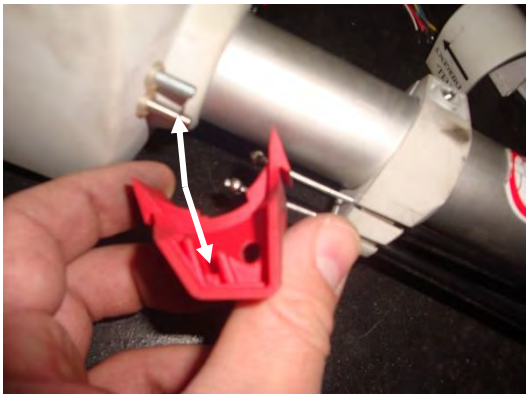
9. Remove the bolts (B and C) by holding them with a 9/16" Combination Wrench and remove the nut (D) associate with it with another 9/16" Combination Wrench. The motor should now be free to remove from the bed frame. Reverse this step to assemble the new motor in place.

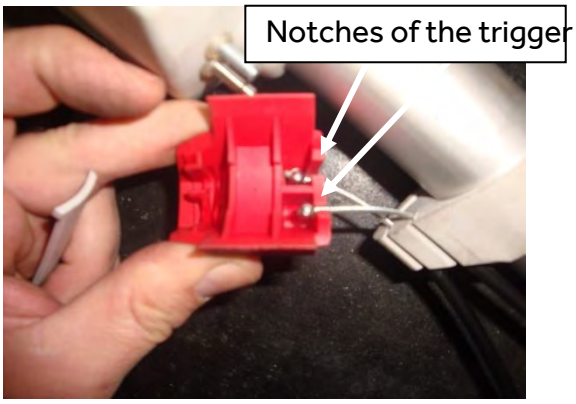


10. Put the cables in the notches of the cable guide bracket.



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

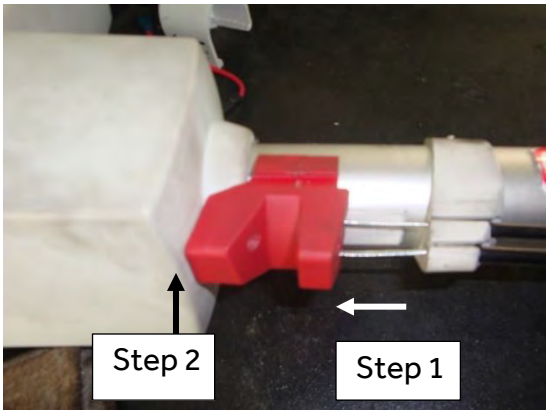




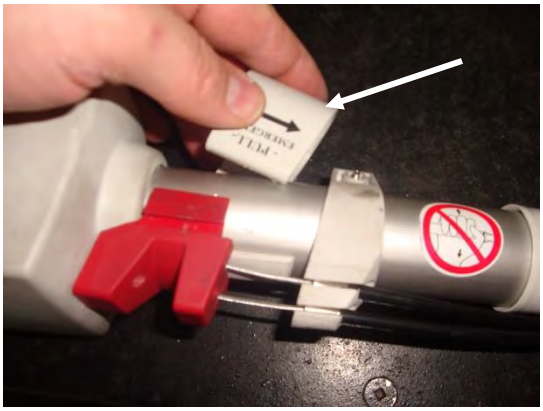
11. Put the cables end in the notches of trigger.

12. Install the spacer strip.

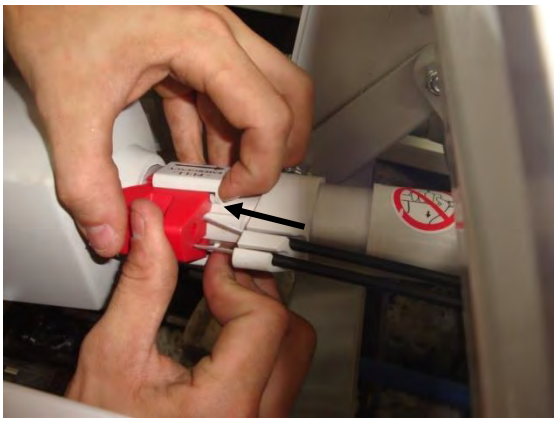
13. Put the trigger on the motor and drag it to the snap ring.



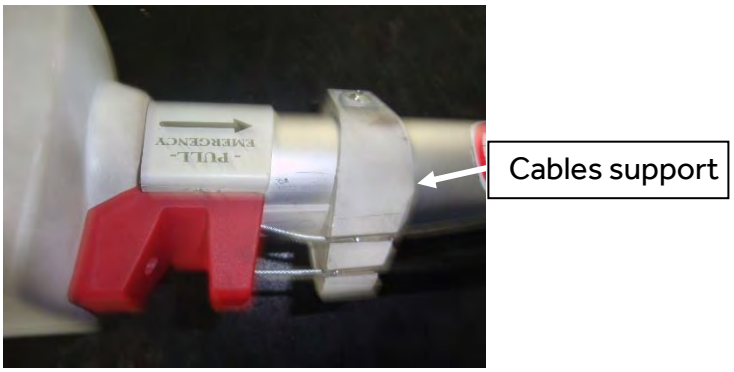
14. Insert the trigger lock.



15. Drag the trigger lock in the notches.



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

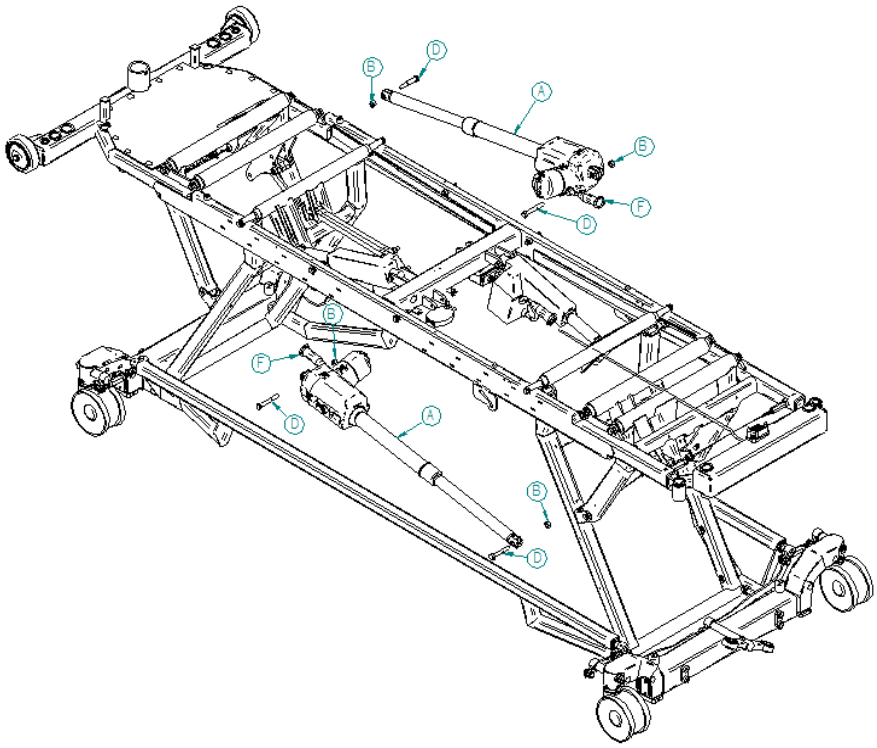


17. Attach the cables as it was with new cable ties
18. Verify that the new motor is working properly before returning the bed back to service.

6.12 High/Low motor replacement

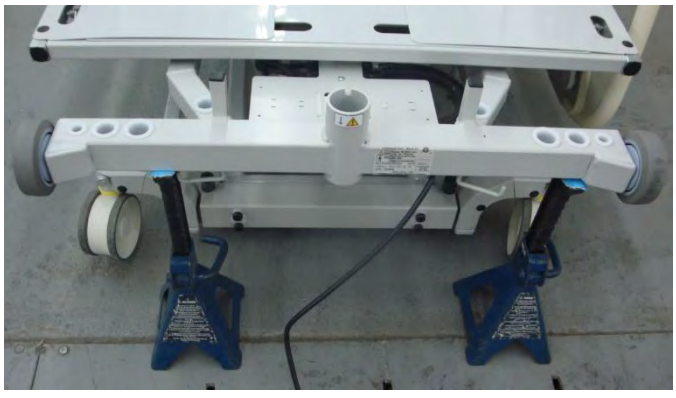
Tools required:

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



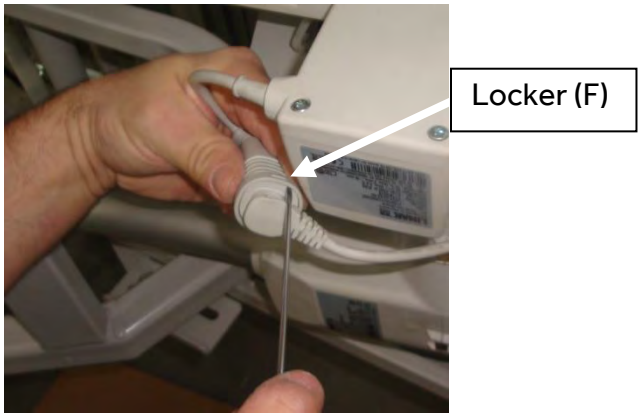
Procedure:

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. 2021-09-03

4. Unplug the power cord of the bed from the wall outlet.
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

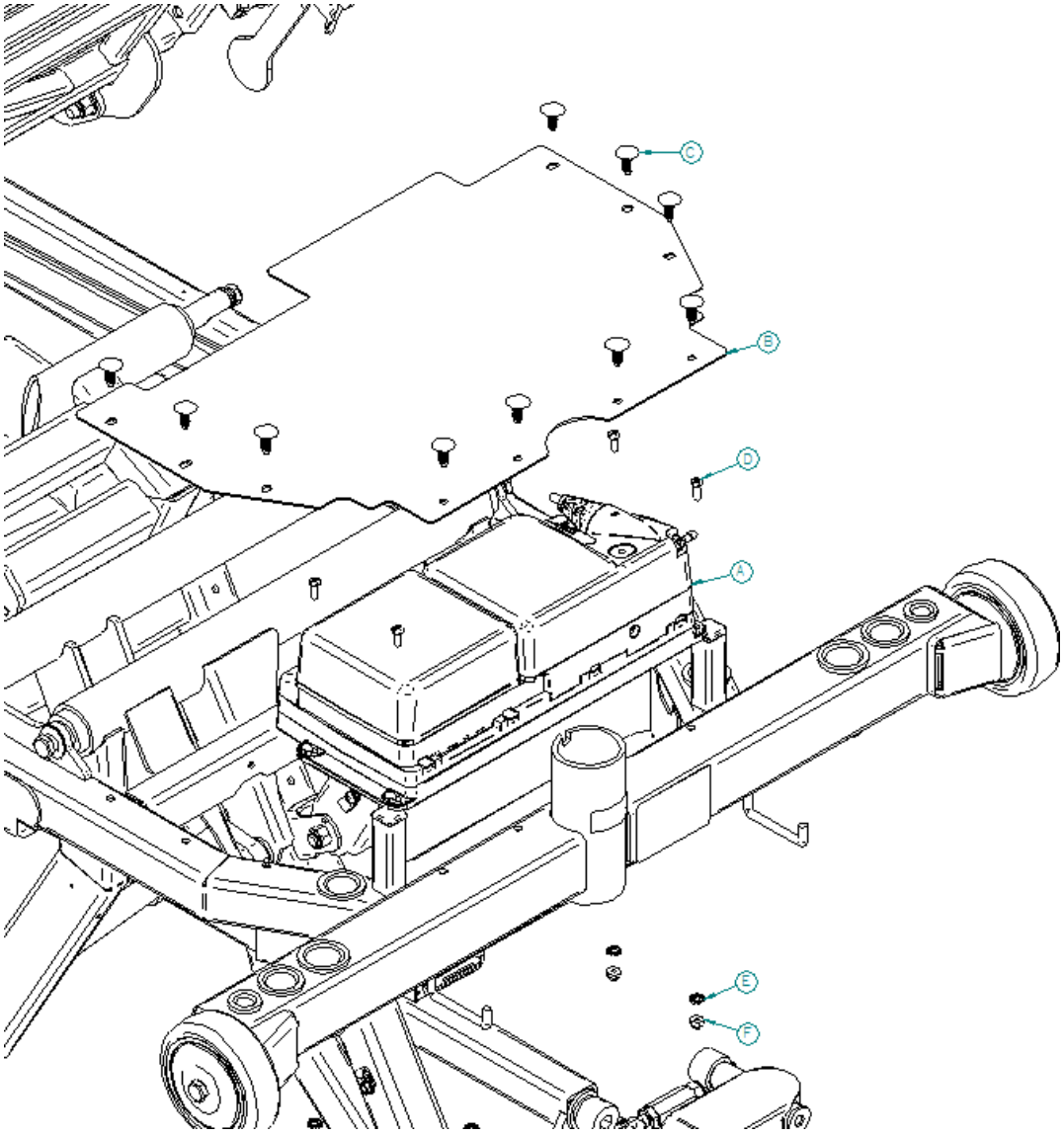
WARNING REMOVE THE BOLTS CAREFULLY. THE BASE FRAME WILL GO DOWN. HOLD IT.

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.

6.13 Control box replacement

Tools required:

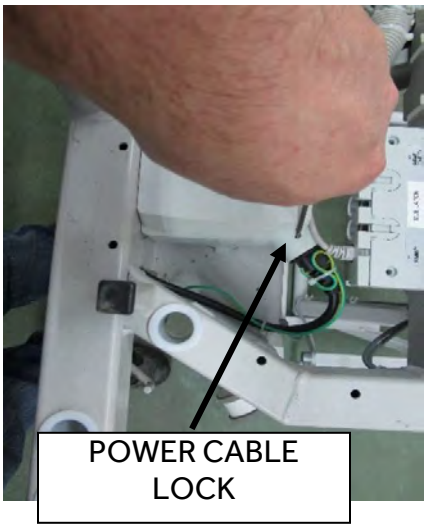
- Cutting Pliers
- Crowbar end screwdriver
- Small flat Screwdriver

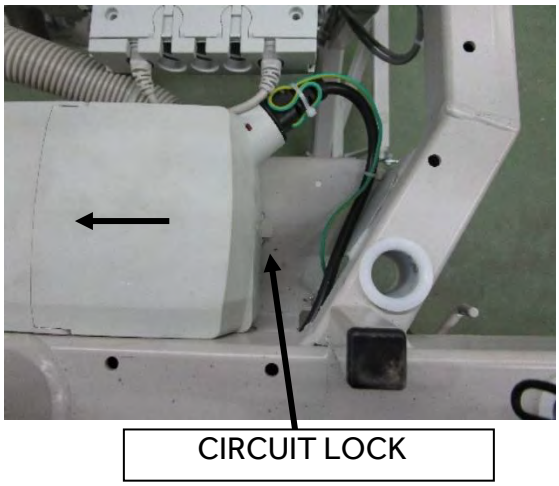


Procedure:

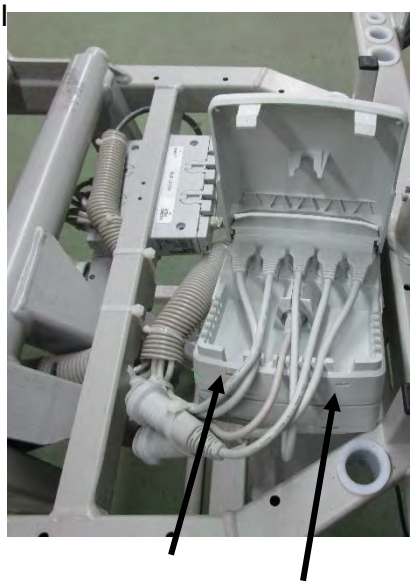
1. Raise the bed to its highest position and apply the brakes.
2. Raise the backrest to its highest position and remove the headboard.
3. Unplug the power cord of the bed from the wall outlet.
4. Using the crowbar end screwdriver remove the plastic rivets and the protection plate.

5. Using the small flathead screwdriver, press on the power cable lock to remove it.
6. Press on the circuit lock and move it left to remove it.





7. Open the circuit door using the small flathead screwdriver and disconnect all cables from the circuit. Note the connections to re-plug them correctly. If necessary, cut tie-wraps using the pliers.

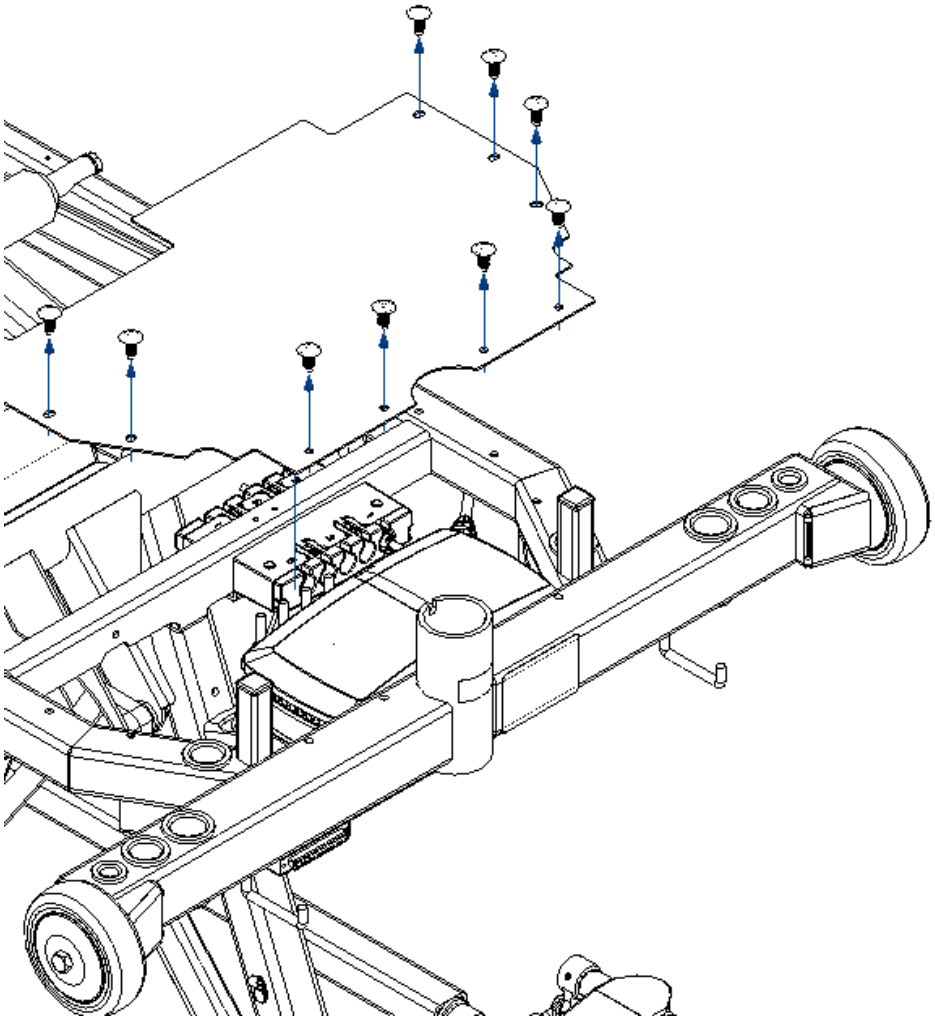


8. Remove the circuit
9. Install the new circuits doing these steps in reverse order.
10. Ensure all interfaces are working properly before putting the device back into use.

6.14 **Battery replacement**

Tools required:

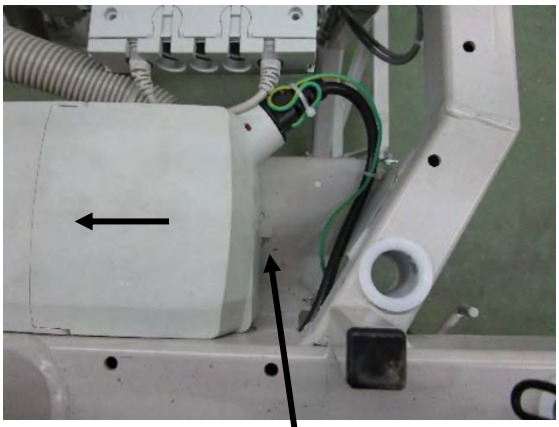
- Cutting Pliers
- Crowbar end screwdriver
- Small flat Screwdriver



Procedure:

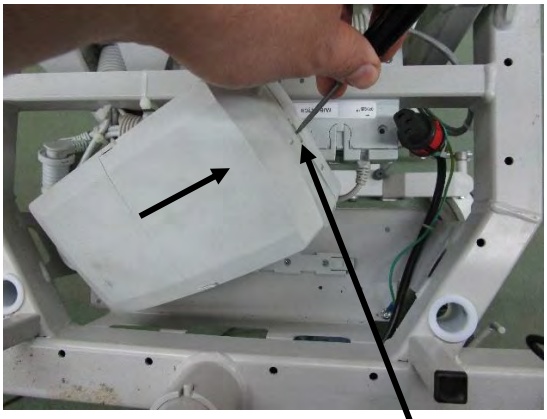
1. Raise the bed to its highest position and apply the brakes.
2. Raise the backrest to its highest position and remove the headboard.
3. Unplug the power cord of the bed from the wall outlet.
4. Using the crowbar end screwdriver remove the plastic rivets and the protection plate.

5. Press on the circuit lock and move it left to remove it.



CIRCUIT LOCK

6. Press on the battery lock and move the battery right to remove it as in step 5.
7. Open the battery box by pressing the flathead screwdriver in the openings and disconnect the cable.



BATTERY LOCK

BATTERY BOX LOCK

8. Remove the battery.
9. Install the new battery doing these steps in reverse order.
10. Ensure all interfaces are working properly before putting the device back into use.

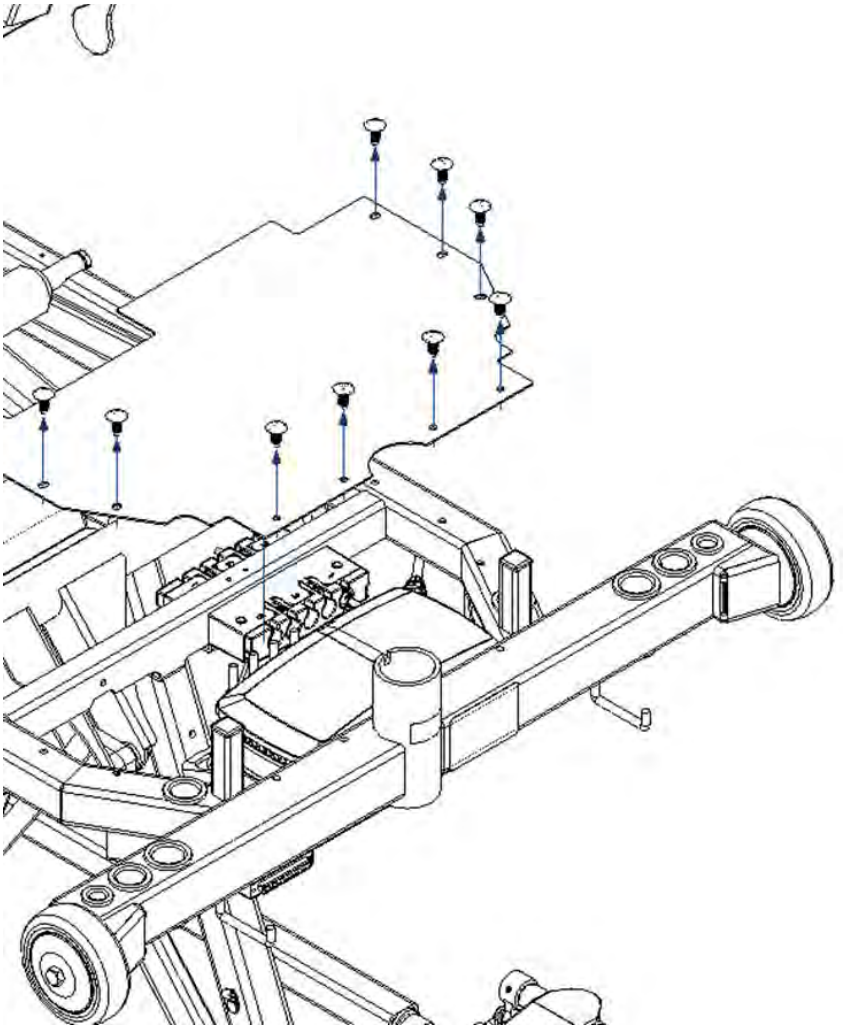
WARNING ON BATTERY DISPOSAL

- Remove the battery and dispose of it using the necessary measures at the appropriate facility.

6.15 Power cord replacement

Tools required:

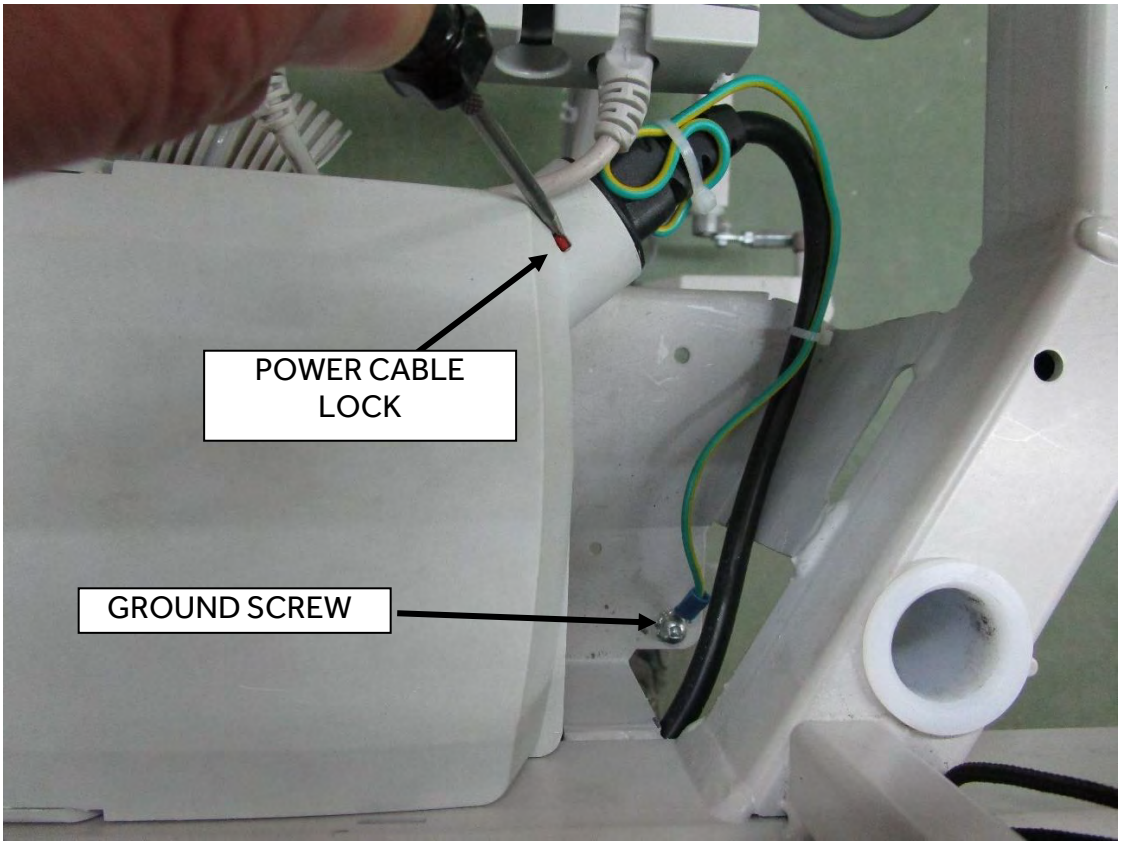
- Trim clip removal tool
- Square head screwdriver #2
- Cutting Plier
- Small flathead screwdriver
- 3/8" Wrench



Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Raise the backrest to its highest position and remove the headboard.
3. Unplug the power cord of the bed from the wall outlet.
4. Using the crowbar end screwdriver remove the plastic rivets and the protection plate.
5. Using the cutting pliers, remove the tie-wraps securing the cable to the frame.

6. Using the screwdriver and the 3/8" wrench, loosen the ground screw,
7. Using the small flathead screwdriver, press on the power cable lock to remove it from the socket.

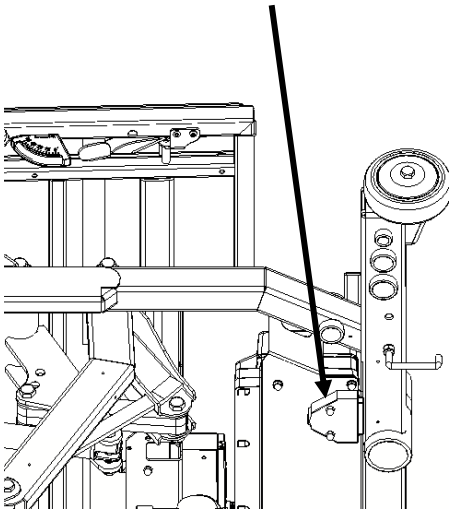


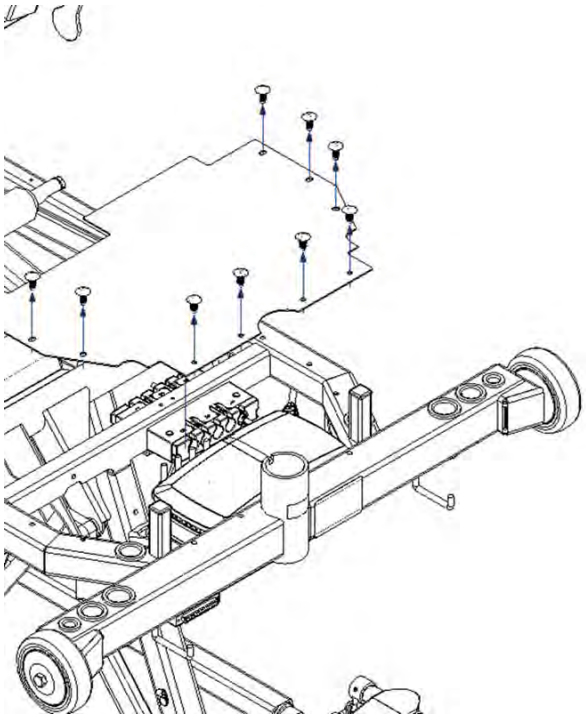
8. Remove the power cable.
9. Do the above steps in reverse order to install the new power cable
10. Ensure all interfaces are working properly before putting the device back into use.

6.16 **Nurse Call replacement**

Tools required:

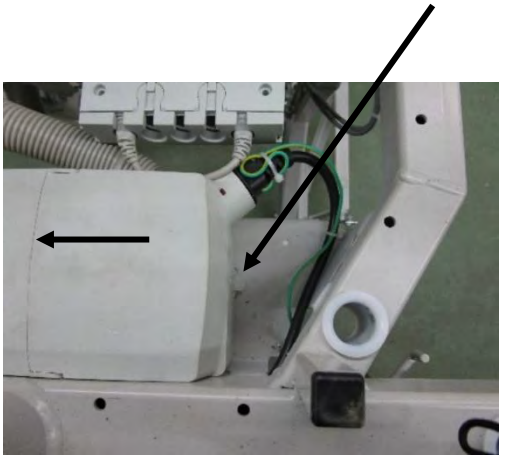
- Phillips Screwdriver
- 5/16" Combination Wrench
- 3/8" Combination Wrench
- Trim clip removal tool
- Cutting Plier





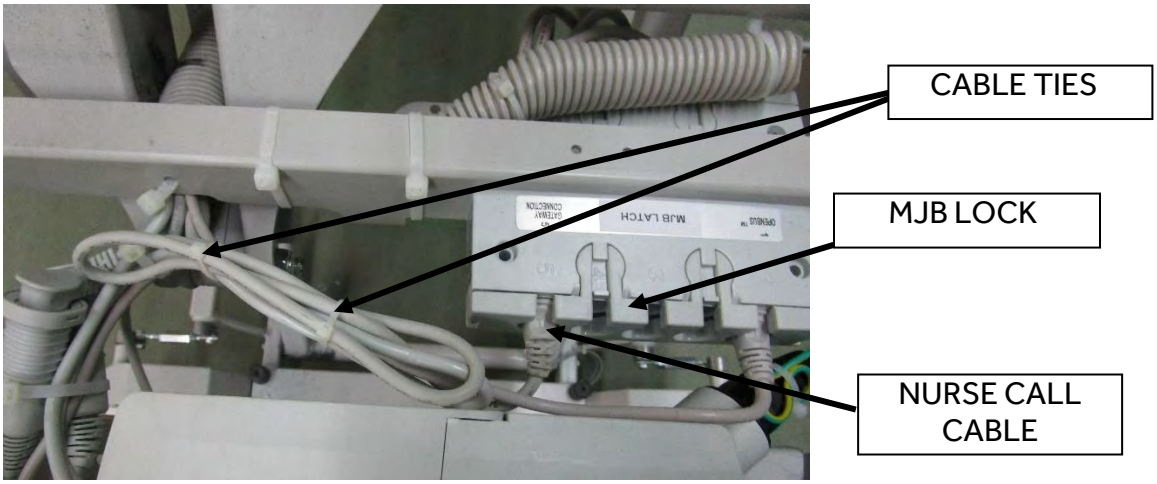
Procedure:

1. Raise the bed to its highest position and apply the brakes.
2. Raise the backrest to its highest position and remove the headboard.
3. Unplug the power cord of the bed from the wall outlet.
4. Using the rim clip removal tool, remove the plastic rivets and the protection plate.
5. Using the cutting pliers, remove the tie-wraps securing the nurse call cable to the frame.
6. Press on the circuit lock and move the circuit left to remove it.



7. Using the Phillips screwdrive and the 5/16 wrench, remove the two bolts securing the cable to the frame.

8. Using the cutting pliers, remove the ties securing the flexible cladding and remove the cladding.



9. Using the cutting pliers, remove the cable ties and unwrap the cable.
10. Remove the MJB lock and disconnect the cable.
11. Reverse the above steps to install the new nurse call device.
12. Ensure all interfaces are working properly before putting the device back into use.

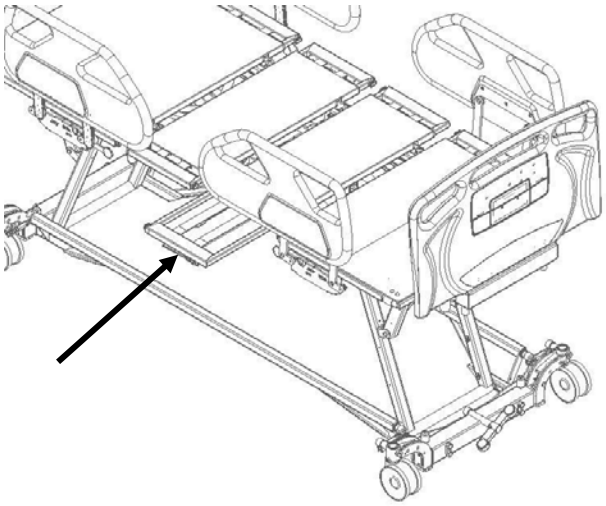
6.17 CPR handle replacement

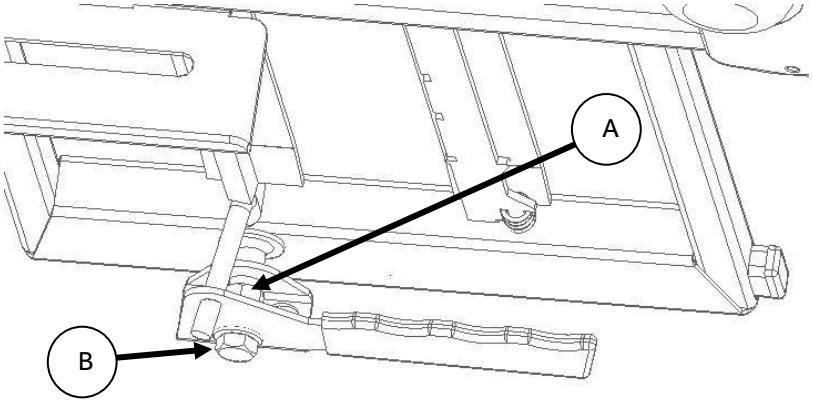
Tools required:

- #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 max length.
3. Unplug the power cord of the bed from the wall outlet.





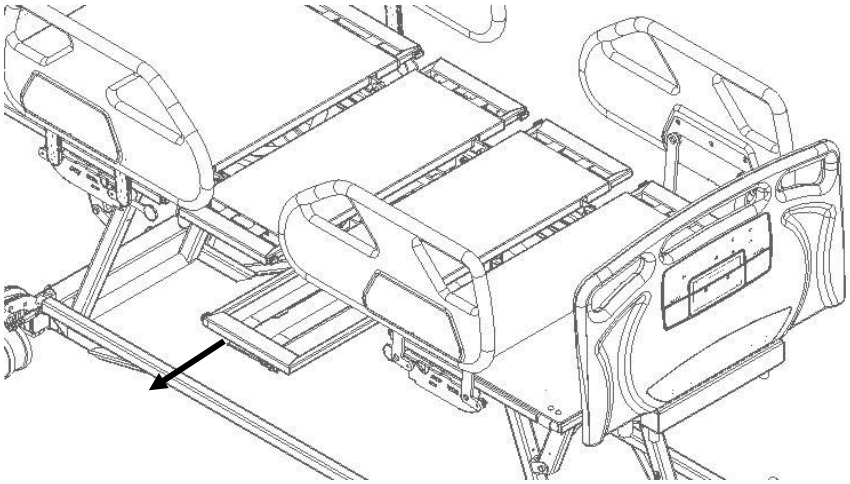
4. With a 9/16'' combination wrench, unscrew the counter-nut (A) and then unscrew completely the screw (B).
5. Replace the broken handle by the new one.
6. Reverse the above steps to fix the new handle in place
7. Verify that the CPR is working properly before returning the bed back to service.

6.18 **CPR control cable replacement**

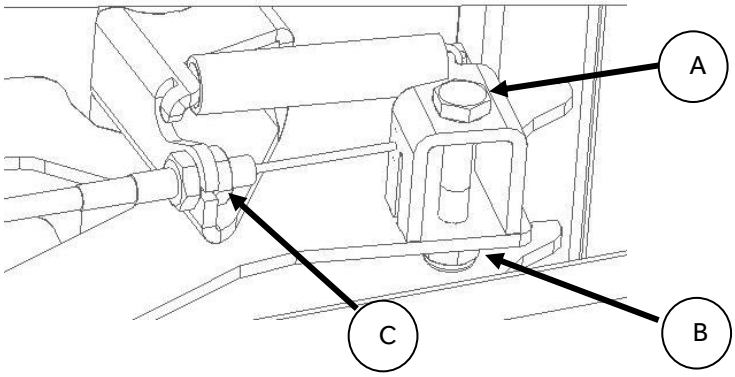
Tools required:

• Two 7/16" Combination Wrench

Procedure:



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)

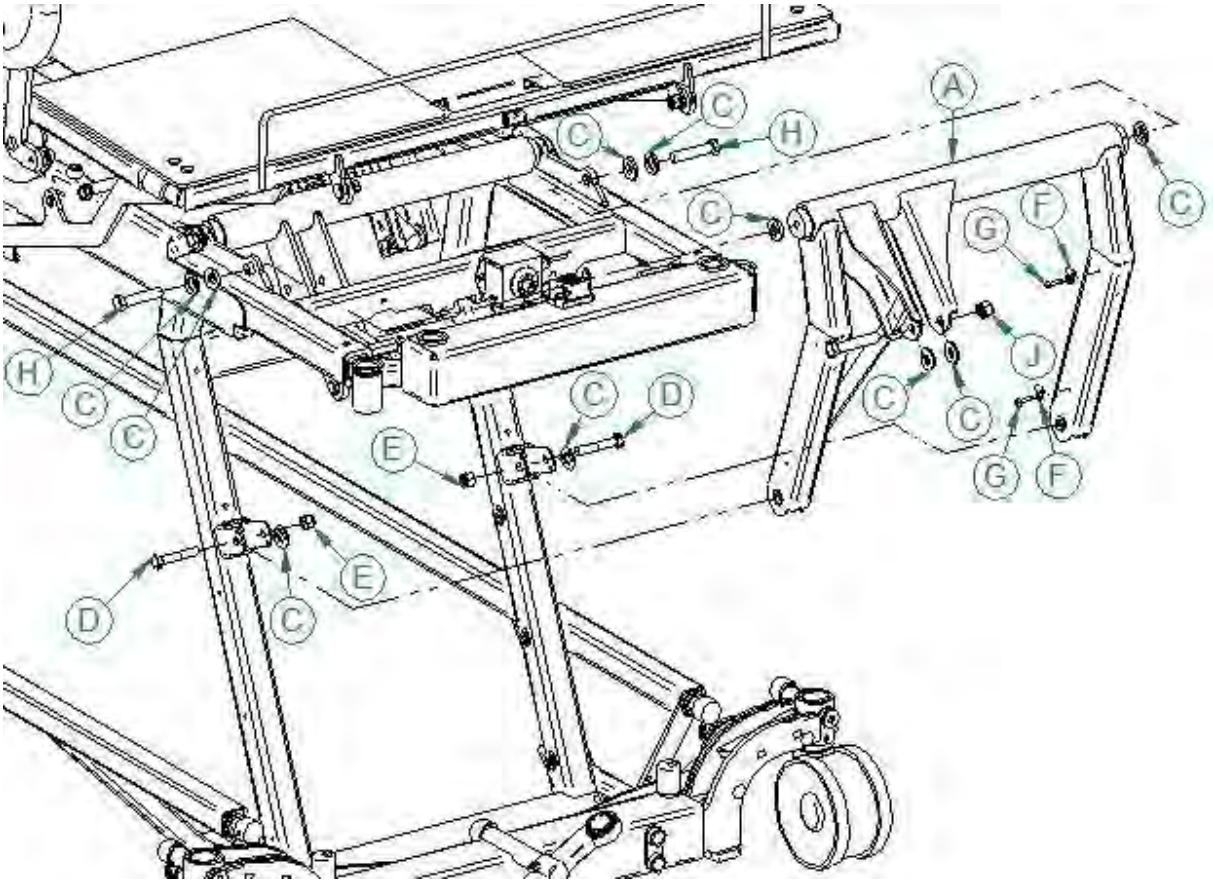


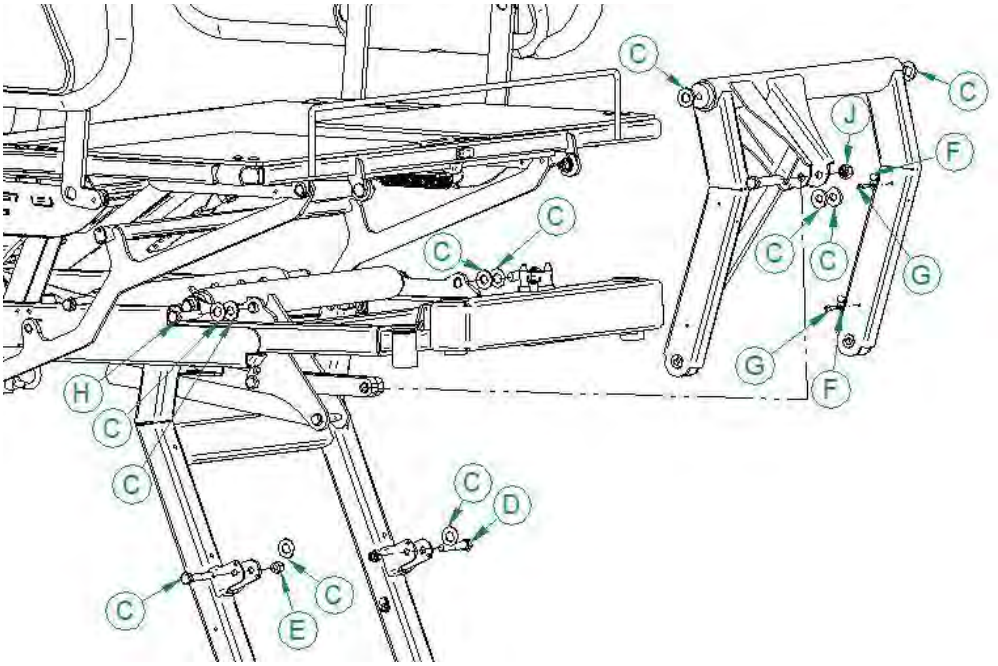
5. The extension spring, the spacer and the locking bracket should fall apart with the screw and the nut. Make sure to keep them safe for the reassembly.
6. With the two 7/16'' combination wrench, unscrew completely the counter-nut (C) and remove the cable from its support.
7. For the instruction about removing and installing the other end of the control cable, see the section 6.11.2
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.

6.19 High/low motor lever replacement (foot 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. 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.

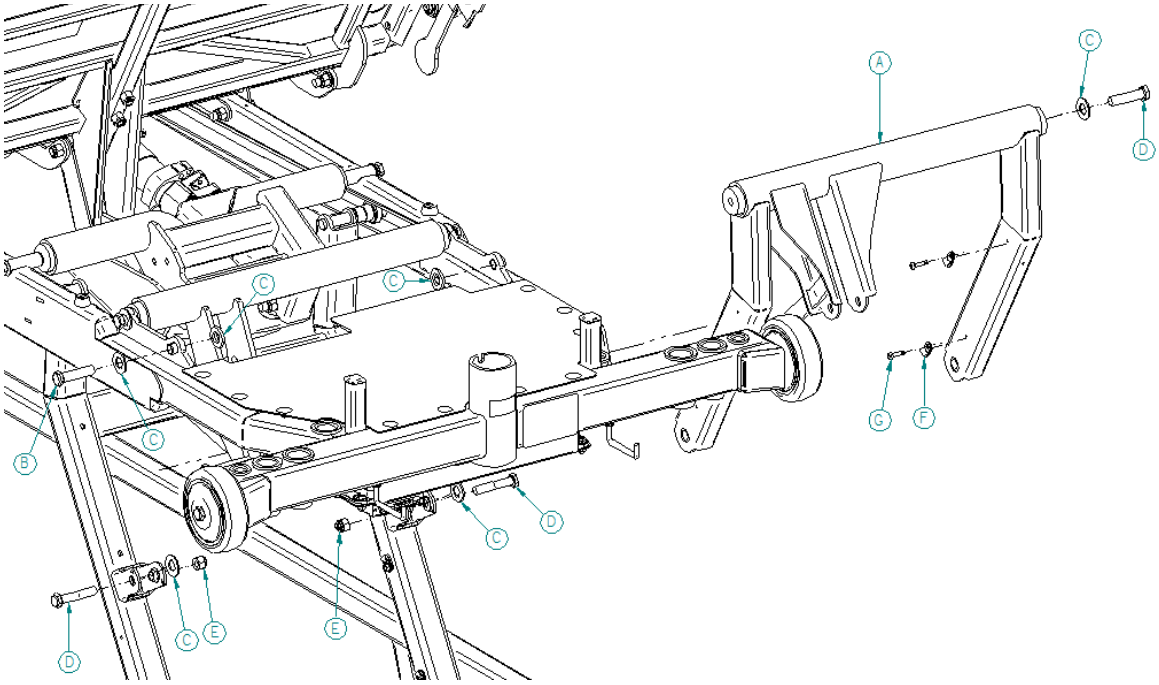
WARNING REMOVE THE BOLTS CAREFULLY. THE BASE FRAME WILL GO DOWN. HOLD IT.

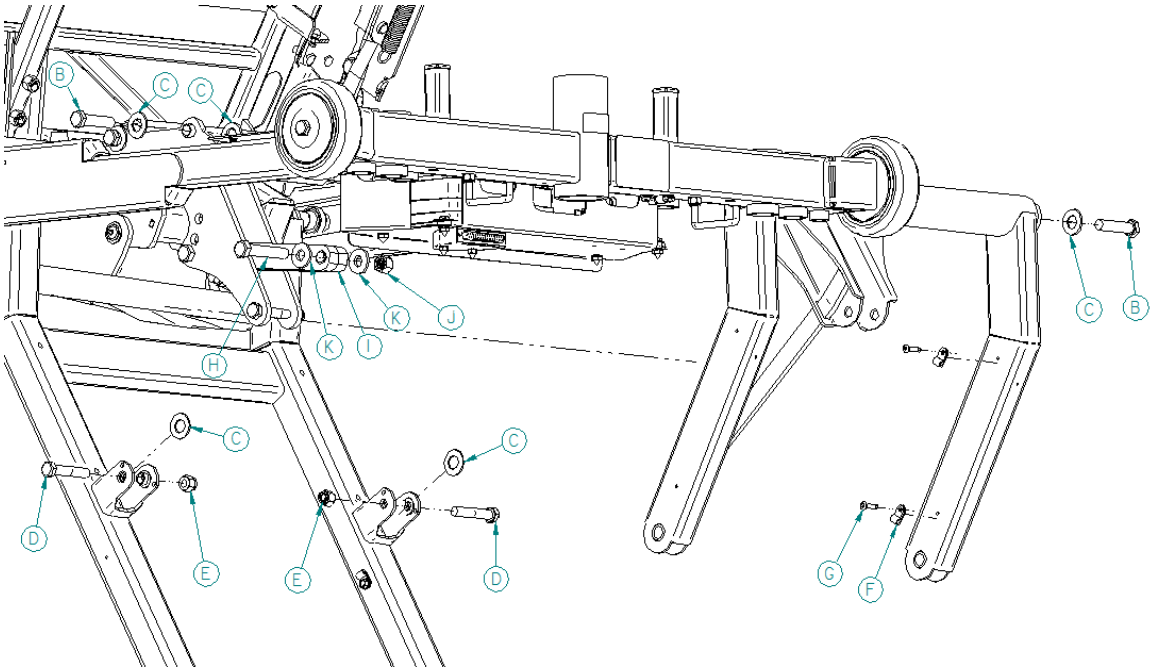
9. With the 3/8" drive ratchet and the 5/8" socket, remove the bolts (B) fixing the high/low motor lever to the top frame. Hold the assembly while removing the last bolt so it won't fall. Remember the location of the Nylon washers (C).
10. Reverse the above steps to install the new foot section.
11.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

6.20 **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.

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.