



LBT7174 / LBT7174 LIBERTY BED OPERATING MANUAL

ETL/UL APPROVED
UL60601-1
IEC 60601-2-38

SAVE THIS MANUAL FOR FUTURE USE.

This service manual covers the following Liberty Models:

76" and 80" Full Electric with Standard Caster System and Grid Decks: LBT7174;
76" and 80" Full Electric with Locking Caster System and Grid Decks: LBTL7174

To order a Liberty bed,
contact a GF Health Products, Inc. sales representative
at 770-368-4700

IMPORTANT NOTICE

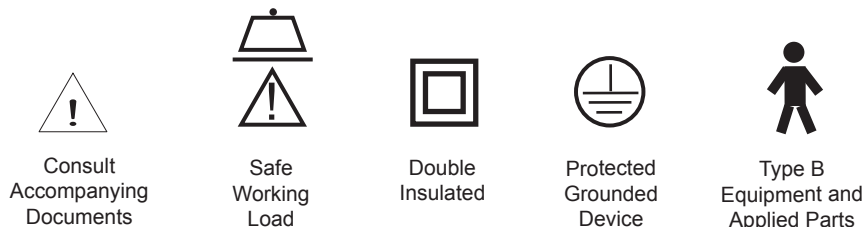
GF Health Products, Inc. ("GF") is not responsible for typographical errors.
All illustrations, specifications, packaging, and warranties contained in this Service Manual
are based on the latest product information available at the time of printing.
The most current product information can be found online at www.grahamfield.com.

Check all parts for shipping damage and test before using.
In case of damage, DO NOT USE.

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LABEL SYMBOL DEFINITIONS



IMPORTANT SAFETY AND WARNING INFORMATION



This product is a variable height, adjustable mattress platform, which will provide comfort and convenience for residents/patients and caregivers in long term care settings.



The MAXIMUM SAFE WORKING LOAD for the Liberty Bed with weight evenly distributed, including bedding, resident/patient, support surface, and all accessories, is 450 lb.



NEVER operate the bed if a Power Cord or Plug is damaged or not working properly. Contact qualified Service Personnel for examination and repair. **ALWAYS** unplug the Power Cord before performing maintenance on the bed.



DO NOT open assemblies such as the Actuators, Hand Control Pendant, or Control Box. If unauthorized personnel perform work on these components, the manufacturer's warranty becomes void.



DO NOT use unauthorized parts, accessories, or adapters other than those specified/authorized by GF Health Products, Inc.



When operating the bed's HI / LO, Knee, or Back Functions, **ALWAYS** ensure the confined individual is positioned properly within the confines of the bed. **DO NOT** let any extremities protrude over the side or between the bed rails when performing these functions.



DO NOT lower the bed when objects are beneath it. Failure to inspect under the bed can result in personal injury or property damage.



The bed's Hand Control Pendant Cable **MUST BE ROUTED AND SECURED PROPERLY** to ensure it does not become entangled and eventually severed during use. Also ensure electrical cords **DO NOT** get tangled around the bed, side rails, or legs during transport or normal operation of the bed.



When using nasal-type or masked-type administering equipment, all oxygen or air tubing **MUST BE ROUTED AND SECURED PROPERLY** to ensure the tubing does not become entangled and eventually severed during the normal operation of the bed.



Keep all moving parts free of obstructions (i.e. blankets/sheets, heating blankets/pads, wiring, etc.).



The bed should **ALWAYS** be left in the lowest position when unattended to reduce the risk of injury during patient entry and exit.



Beds manufactured by Basic American Medical Products are designed for use within an institutional healthcare environment (i.e. assisted living, skilled nursing, transitional care, rehabilitation care, etc.).



DO NOT use the assist devices as push handles for moving the bed. Assist devices can be deformed or broken if excessive side pressure is exerted. Assist devices are not meant for patients considered high risks for entrapment (i.e. patients with pre-existing conditions such as confusion, restlessness, lack of muscle control, altered mental status, either organic or medicinal, or a combination thereof). Additional safety measures should be considered for such high-risk patients.



NEVER permit more than one person on/in the bed at any time.



Body weight should be evenly distributed over the sleeping surface of the bed. **DO NOT** allow the patient to lie, sit, or lean in such a way that their entire body weight is placed only on the raised head or foot section of the bed. This especially applies when repositioning or transferring a patient in or out of the bed. Increased risk may occur when the patient's size and/or weight are inappropriate for the bed's dimensions or weight capacity.



Risk of entanglement or injury may occur if the mattress used with mattress retainers does not fill the entire width between stops or which compresses to less than 1.50 inches under user's weight.



Mattress must be properly sized to fit the mattress support platform and must remain centered on the support platform relative to State and Federal guidelines. Recommended minimum dimensions of mattress are 35 inches wide and 6 inches deep. Length should match the mattress support platform. Use of an improperly fitted mattress could result in injury or death.



IMPORTANT: Powered air mattress surfaces may pose a risk of entrapment. Prior to use, ensure the therapeutic benefits outweigh the risk of entrapment.



The bed is intended for use within a temperature range of 10°C to 40°C. It has a water resistance rating of IPX4 and IS NOT to be power washed or submerged.



The head / back and knee / foot decks can be lifted freely by hand for easy cleaning access when patients are not in the bed. If you lift the head/back or knee/foot deck for any reason, take great care when lowering back down to the prone position - ensure all body parts are clear of the space between the deck and the bed prior to slowly lowering any deck manually. To avoid injury, **DO NOT LET DECKS FALL FREELY FROM ANY ANGLE.**



Proper routing and tie-off of electrical cabling, especially the power cord, is essential for proper operation and to ensure safety from electrical shock. In the event you are replacing any electrical cabling on your bed, you must ensure the cables are free from pinch points, obstructions, or stretched so tight that they may come loose or become damaged. In addition, cables should be tied off in such a way to secure them and keep them free from tangling on any part of the bed during normal operation. Refer to your service manual's electrical section for proper cable routing.

ENTRAPMENT AND COMPLIANCE INFORMATION

On April 10, 2006, the FDA (U.S. Food and Drug Administration) released long-awaited guidelines for reducing the risk of bed entrapment: "Hospital Bed System Dimensional and Assessment Guidance to Reduce Entrapment". The new Guidance identifies potential entrapment areas and those body parts most at risk for entrapment; provides design criteria for manufacturers of new hospital/convalescent beds; recommends particular test methods to assess the conformance of existing hospital/convalescent bed systems; and answers frequently-asked questions about entrapment issues.

The new Guidance was a result of a long-standing collaboration between the FDA and the Hospital Bed Safety Workgroup (HBSW), formed in 1999. GF Health Products, Inc.'s Long Term Care Bed division: Basic American Medical Products, is an HBSW charter member. As a result of our commitment to product safety, **all our current long-term care beds have been strictly tested and conform to the new FDA Guidance.**

The guidelines set forth by the FDA Guidance layout specific dimensional limitations on potentially injury-threatening gaps and spaces that can occur between bed system components, such as rails, when not properly installed. GF Health Products, Inc. and Basic American Medical Products have conformed to these guidelines from a manufacturing aspect. However, entrapment issues can often arise when a healthcare provider/facility has not correctly assembled the components on a bed. It is essential that the provider/facility fully understand their responsibility in complying to the guidelines set forth by the FDA in order to avoid injury. To that end, we have provided the FDA's web address at right as a resource for understanding and following these guidelines for the safety of patients/residents.

It is also essential to have the correct bed components/accessories that correspond with the needs of the patient/resident and the particular bed you have purchased. Matching the correct bed component that correlates with the regulatory guidelines can be a daunting task. Our sales team at GF Health Products, Inc. and our friendly Customer Service Representatives at Basic American Medical Products can help you sift through the wide array of compliance and bed options. We will help you determine which bed/bed part is best for the patient's/resident's particular needs and help you with any compliance issues.

The Liberty Bed and accessories listed in this manual are in full compliance with FDA guidelines for reducing the risk of bed entrapment: "Hospital Bed System Dimensional and Assessment Guidance to Reduce Entrapment".

Details can be found at www.fda.gov.

RECOMMENDED MAINTENANCE

Regular maintenance of the Long Term Bed is necessary to ensure continuing proper and safe operation. Read and observe the following recommended maintenance schedule.

ITEM	RECOMMENDED INSPECTION PERIODS		
	Inspect on Receipt	Every 3 Months	Every 6 Months
Maintenance Inspection of All Components at Receipt of Shipment			
Ensure all parts/components are included (see "Unpacking The Bed").	X		
Check all bed components for obvious damage.	X		
Inspect the power cord for any cuts and/or damage.	X		
Check to see all actuator/motor cables are routed and connected properly to the control box.	X		
Mechanical Inspection of Assemblies			
Inspect all welds on the sleeping surface, frame, and base assemblies for stress fractures.			X
Inspect all fasteners for wear and looseness.			X
Mechanical Inspection of Casters and Pedal Locking Mechanism			
Check the pedal locking mechanism to ensure it engages and disengages properly.		X	
Check the casters and stationary foot pads on both the head end and foot end for any damage, wear, or debris. Replace if needed.		X	
Check all rolling casters to ensure that they roll properly and are unobstructed.		X	
Electrical Inspection of Control Box, Hand Control Pendant, and Staff Control			
Check the external power cord that plugs into the control box for any chafing, cuts, or wear. Replace if damaged.		X	
Ensure all attaching hardware is securely tightened.		X	
Check all electrical connections for wear or fractures.		X	
Check the external backup battery (if you have one). Replace if needed.		X	
Check the hand control pendant cable for chafing, cuts, or wear.		X	
Check all hand control pendant functions - check to ensure each button and associated function work properly (i.e. head section rises when the HEAD UP button is activated).		X	
Electrical Inspection of Actuators/Motors			
Check the actuator/motor cables for any chafing, cuts, or wear.		X	
Check the range of movement on all motors to ensure they do not bind in the Full Up or Full Down positions.		X	

The following warning labels have been placed on the bed to help protect you and the bed from damage. Do not remove any labels from the bed.

WARNING!

DO NOT LOWER BED WHEN OBJECTS ARE BENEATH BED. FAILURE TO INSPECT UNDER BED CAN RESULT IN DAMAGE TO PROPERTY OR PERSONAL INJURY.

ATTENTION:

S'assurer de ne pas faire descendre le lit lorsque des objets se trouvent sous le lit. Ne pas inspecter le dessous du lit pourrait entraîner des dommages matériels et des risques de blessures.

CAUTION

THIS BED IS SUITABLE FOR USE ONLY WITH OXYGEN ADMINISTERING EQUIPMENT OF THE NASAL OR MASK TYPE OR A TENT COVERING ONLY THE UPPER HALF (HEAD END) OF THE BED. OXYGEN TENT CANOPIES SHOULD NOT EXTEND BELOW BED SPRING LEVEL. LOCK HAND CONTROL AT FOOT OF BED WHEN USING OXYGEN ADMINISTERING EQUIPMENT.

ATTENTION:

CE LIT PEUT ETRE UTILISE UNIQUEMENT AVEC UN EQUIPMENT DESTINE A L'ADMINISTRATION D'OXYGENE DE TYPE NASAL OU MASQUE OU AVEC UNE TENTE RECOUVRANT SEULEMENT LA MOTTIE AVENT (TETE) DU LIT. LES COTES DE LAS TENTE OXYGENE NE DOIVENT PAS SE PROLONGER PLUS DAS QUE LA SOMMIER DU LIT.



WARNING!

DO NOT LOWER BED WHEN OBJECTS ARE BENEATH BED. FAILURE TO INSPECT UNDER BED CAN RESULT IN DAMAGE TO PROPERTY OR PERSONAL INJURY.

ENVIRONMENTAL SPECIFICATIONS AND RFI INFORMATION

OPERATING CONDITIONS	
Ambient Temperature	10°C to 40°C
Relative Humidity	30% to 75% Non-Condensing
Atmospheric Pressure	700 to 1060 hPa
Protected Against Splashing Water	IPX4

STORAGE AND TRANSPORT CONDITIONS	
Temperature	-40°C to 70°C
Relative Humidity	10% to 100%
Atmospheric Pressure	500 to 1060 hPa

RFI (RADIO FREQUENCY INTERFERENCE)

RFI influences most electronic equipment. Caution should be exercised with regard to the use of portable communications equipment in the area around such equipment. If RFI causes erratic behavior, shut the bed off immediately. Leave it off while the transmission is in progress.

DISPOSAL OF EQUIPMENT AND ACCESSORIES



Follow local governing ordinances and recycling plans regarding disposal of the device or components normally used in operation. The device does not generate waste or residue in operation. Any accessories not part of the device MUST be handled in accordance with the individual product marking for disposal.

SECTION A: BED SETUP INSTRUCTIONS

UNPACKING THE BED

- Ensure all parts/components are included.
- Check all bed components for obvious damage.
- Inspect the Power Cord for cuts or damage.
- Ensure all actuator/motor cables are routed and connected properly to the control box.

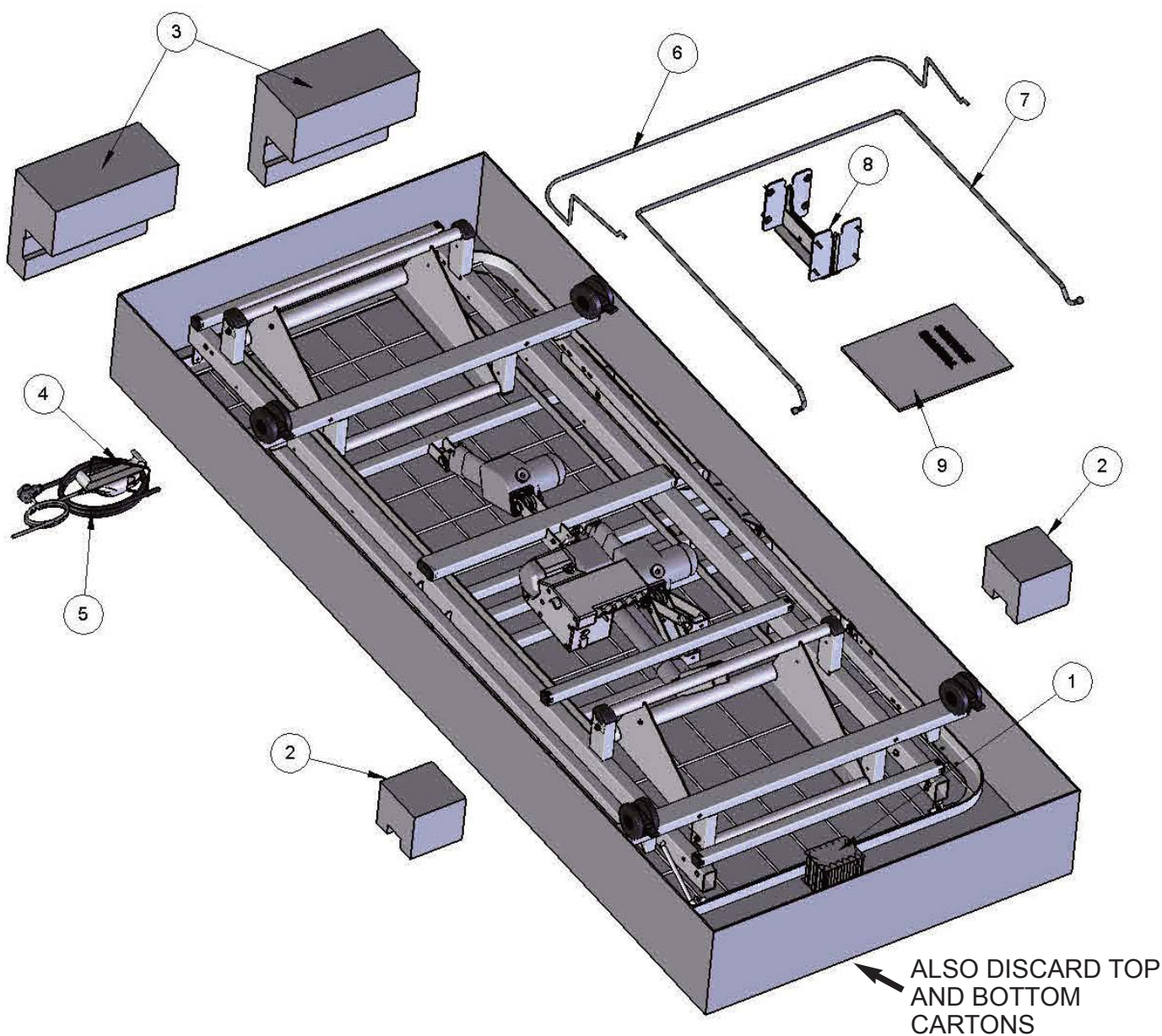
DISCARD

1. Cardboard Block
2. Notched Leg Foam
3. Large Blocks
4. Large Cable Tie - CUT

KEEP

5. Hand Control Pendant, Pendant Holster, and Coiled Power Cord *
6. One Mattress Retainer
7. One Wireform Wallsaver
8. Panel Mounting Brackets and Hardware to attach Headboard and Footboard

* NOTE: HAND CONTROL PENDANT, PENDANT HOLSTER, AND COILED POWER CORD ARE CABLE-TIED TO HEAD DECK GRID WIRE — CUT AND DISCARD THIS CABLE TIE WHEN YOU UNPACK THE BED.

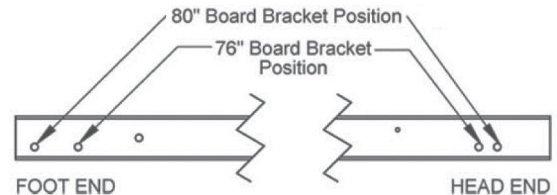
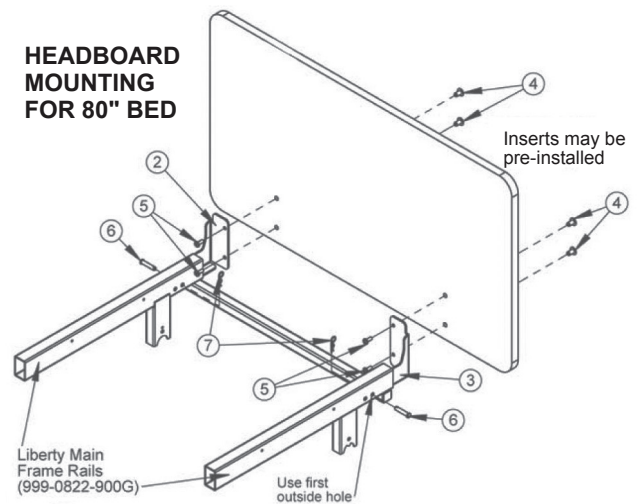


HEADBOARD AND FOOTBOARD ASSEMBLY/INSTALLATION

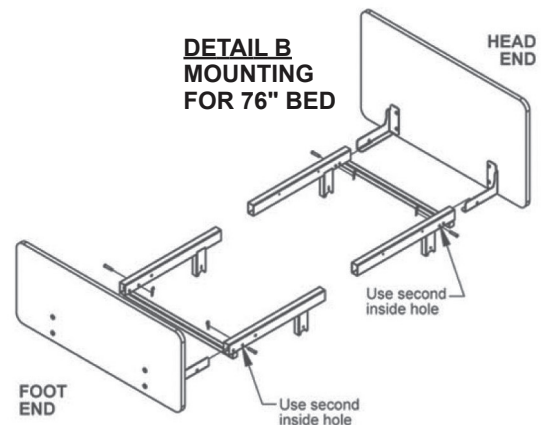
HEADBOARD INSTALLATION

1. The headboard may come with four pre-installed inserts - if not already installed, assemble the four inserts (#4) into the outside of the headboard as shown at right.
2. Position a right (#2) and left (#3) mounting bracket on the inside of the headboard with tubes facing inward as shown below.
3. Align the bracket top holes with the headboard top holes.
4. Insert a socket head cap screw (#5) through each of the top holes and bottom holes and screw into each insert. Tighten with the hex key included in the kit.
5. At the head deck end, slide the bracket tubes into the main frame rail hollow ends.
6. FOR 80" BEDS: Slide the mounting tubes in until the bracket tube hole aligns with the first rail hole as shown at right.
7. FOR 76" BEDS: Slide the mounting tubes in until the bracket tube hole aligns with the second rail hole as shown at right.

NOTE: To order a new Headboard Panel Mounting Kit, use Part # 999-0822-000. Kit includes right and left Mounting Brackets, 8 Socket Head Cap Screws, 4 Clevis Pins, 4 Hair Pin Clips, and 1 Hex Key. Headboard and Footboard kits are sold separately.



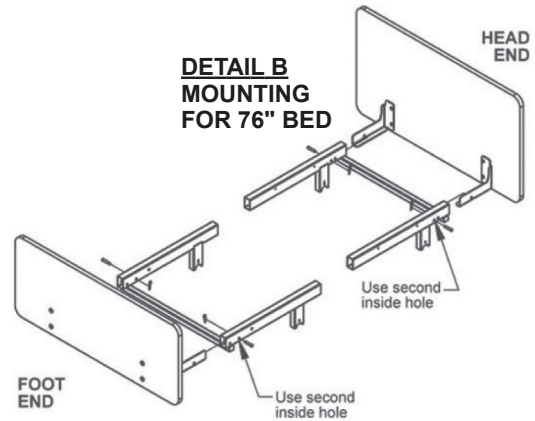
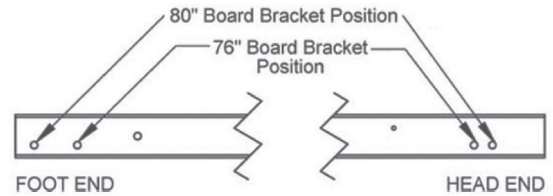
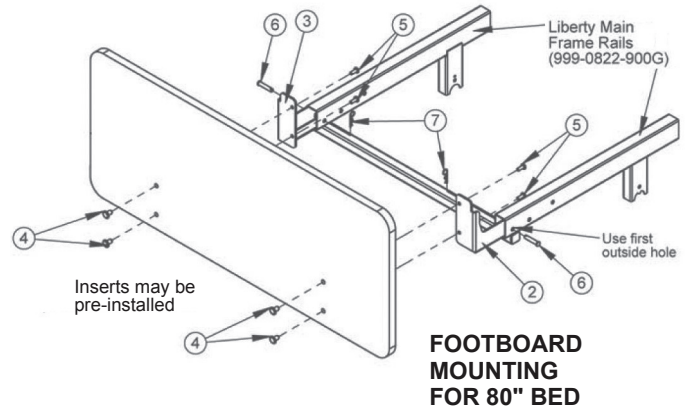
DETAIL A
MOUNTING POSITIONS



FOOTBOARD INSTALLATION

1. The footboard may come with four pre-installed inserts - if not already installed, assemble the four inserts (#4) into the outside of the footboard as shown at right.
2. Position a right (#2) and left (#3) mounting bracket on the inside of the footboard with tubes facing inward as shown below.
3. Align the bracket top holes with the footboard top holes.
4. Insert a socket head cap screw (#5) through each of the top holes and bottom holes and screw into each insert. Tighten with the hex key included in the kit.
5. At the foot deck end, slide the bracket tubes into the main frame rail hollow ends.
6. **FOR 80" BEDS:** Slide the mounting tubes in until the bracket tube hole aligns with the first rail hole as shown at right.
7. **FOR 76" BEDS:** Slide the mounting tubes in until the bracket tube hole aligns with the second rail hole as shown at right.

NOTE: To order a new Footboard Panel Mounting Kit, use part # 999-0822-000. Kit includes right and left Mounting Brackets, 8 Socket Head Cap Screws, 4 Clevis Pins, 4 Hair Pin Clips, and 1 Hex Key. Headboard and Footboard kits are sold separately.

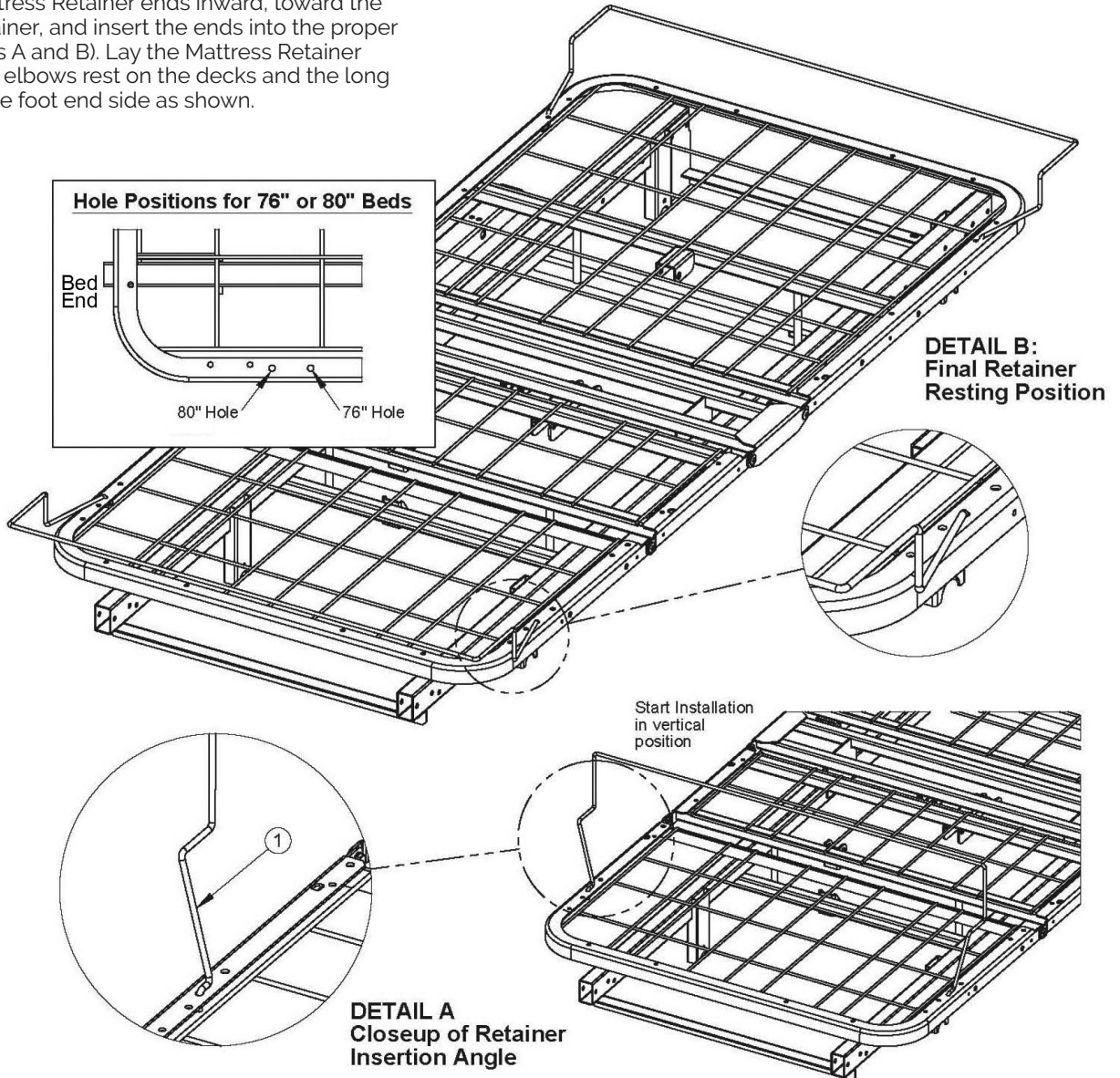


STANDARD MATTRESS RETAINER INSTALLATION (USING 2 RETAINERS 999-0844-124)

The Liberty Bed mattress retainer was designed to span the width of the sleeping surface. One retainer is shipped with your bed and is typically placed at the foot end, although it will fit on either end.

1. Determine if you need to position your bed in an 80" or 76" configuration (80" length bed = outside holes; 76" length bed = inside holes - see insert below).
2. If installing mattress retainer on the foot end, carefully squeeze the Mattress Retainer ends inward, toward the center of the retainer, and insert the ends into the proper holes (see Details A and B). Lay the Mattress Retainer down so that the elbows rest on the decks and the long cross rod is on the foot end side as shown.

3. If installing mattress retainer on the head end, carefully squeeze the Mattress Retainer ends inward, toward the center of the retainer, and insert the ends into the proper holes (see Details A and B). Lay the Mattress Retainer down so that the elbows rest on the decks and the long cross rod is on the foot end side as shown.



Be sure to use a mattress that is properly sized to fit the sleep deck, which will remain centered on the deck relative to State and Federal Guidelines. Use of an improperly fitted mattress could result in injury or death.



Use a properly sized mattress in order to minimize the gap between the side of the mattress and assist devices. This gap must be small enough to prevent resident/patient from getting their head or neck caught in this location.

STANDARD WIREFORM WALLSAVER INSTALLATION

WALLSAVER ASSEMBLY

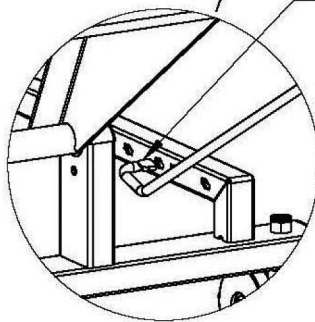
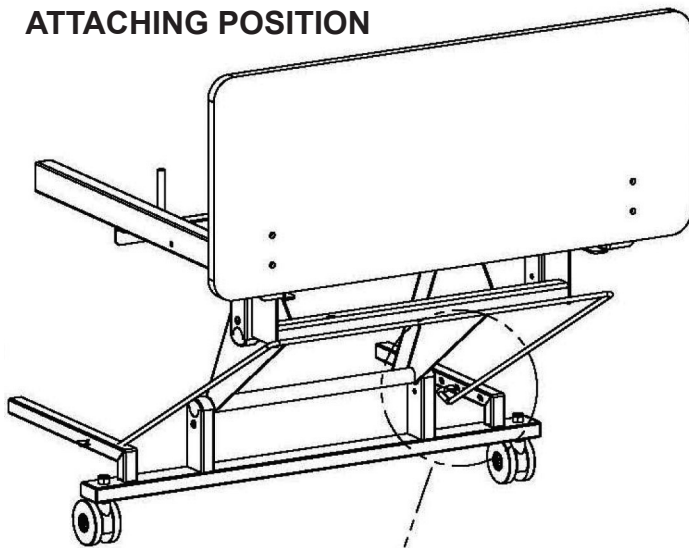
The Liberty Bed is shipped with a wireform wallsaver for the head end of the bed. No hardware is necessary to attach this multi-positional accessory.

To attach: bend in the tabbed ends into the slots in the carriage rails and lock down into place. There is even a position if you choose to install an optional trapeze support at the head end of the bed. (See page 21 for Trapeze Support installation in the Assist Devices section of this manual.)

WALLSAVER REMOVAL

1. To remove or move the wallsaver to a new position, raise the wallsaver off the floor until the end tabs are horizontal.
2. Squeeze the ends toward the center of the wallsaver until the end tabs slide out of the caster base holes.

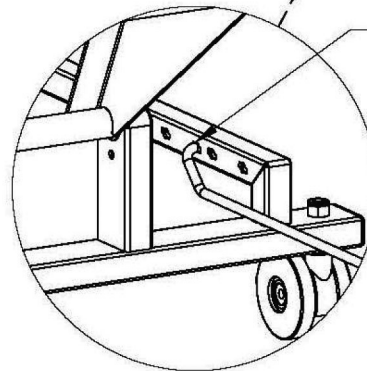
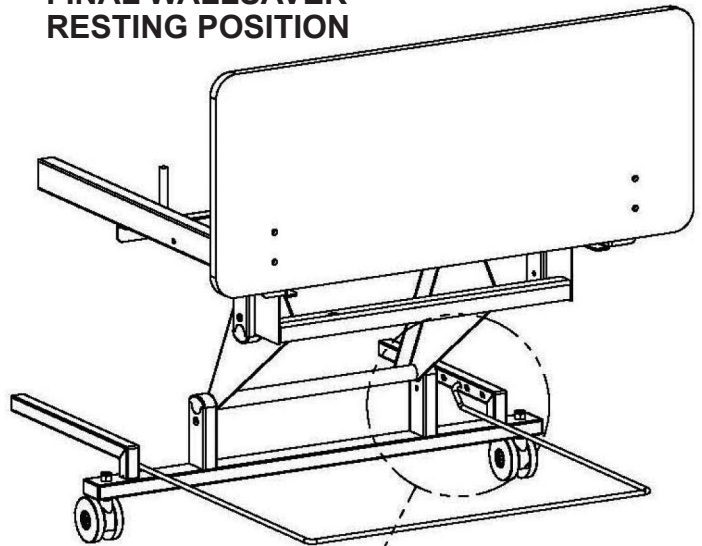
WALLSAVER ATTACHING POSITION



INSERT FLAT TAB SO THAT IT IS PARALLEL WITH CASTER CARRIAGE RAIL SLOT

DETAIL A
Illustrates starting angle of flat insert tab - moved to left for clarity

FINAL WALLSAVER RESTING POSITION

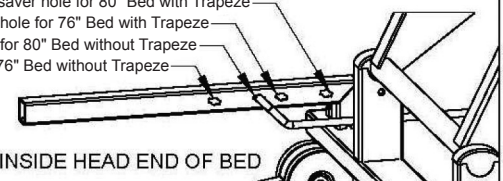


TO LOCK FLAT TAB INTO CARRIAGE RAIL, TURN TAB IN SIDE HOLE UNTIL WALLSAVER RESTS ON CROSSBRACE

DETAIL B
Illustrates final angle of flat insert tab - rests on caster carriage cross brace

WALLSAVER POSITIONING CHART

- Wallsaver hole for 80" Bed with Trapeze
- Wallsaver hole for 76" Bed with Trapeze
- Wallsaver hole for 80" Bed without Trapeze
- Wallsaver hole for 76" Bed without Trapeze



VIEWED FROM INSIDE HEAD END OF BED

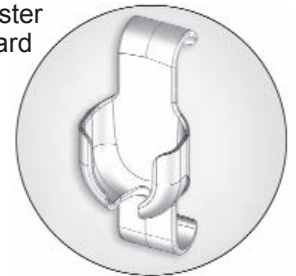
OPERATION— HAND CONTROL PENDANT

The Liberty Bed is equipped with a Hand Control Pendant. Every control function (head/back, knee, and foot) has two easily recognizable switches for up and down movement. The pendant can be easily disconnected to deactivate the patient control functions. To operate the Hand Control Pendant, press the appropriate button to activate the desired function as shown in chart below.



HAND CONTROL PENDANT OPERATION	
1	HEAD DECK ANGLE UP BUTTON
2	HEAD DECK ANGLE DOWN BUTTON
3	HI/LO UP BUTTON (RAISE ENTIRE BED)
4	HI/LO DOWN BUTTON (LOWER ENTIRE BED)
5	KNEE AND FOOT DECK ANGLE UP BUTTON
6	KNEE AND FOOT DECK ANGLE DOWN BUTTON

The Hand Control Pendant Holster 999-0791-000SP comes standard with the Liberty Bed.



HAND CONTROL PENDANT

The Liberty Bed comes with a Hand Control Pendant. To order a replacement Hand Control Pendant, see page 26.

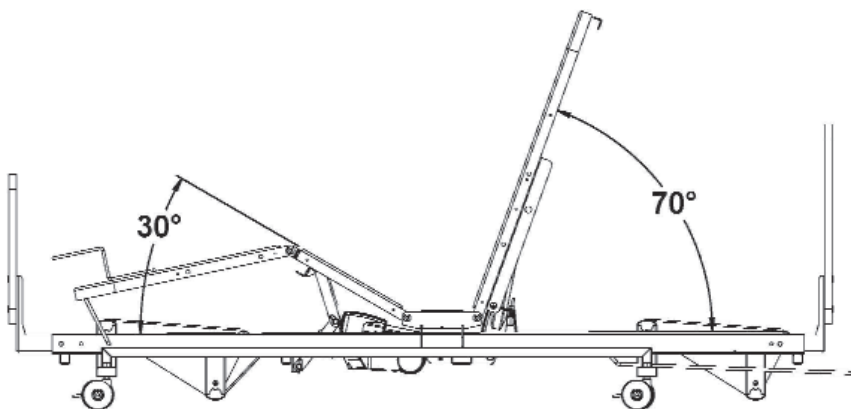
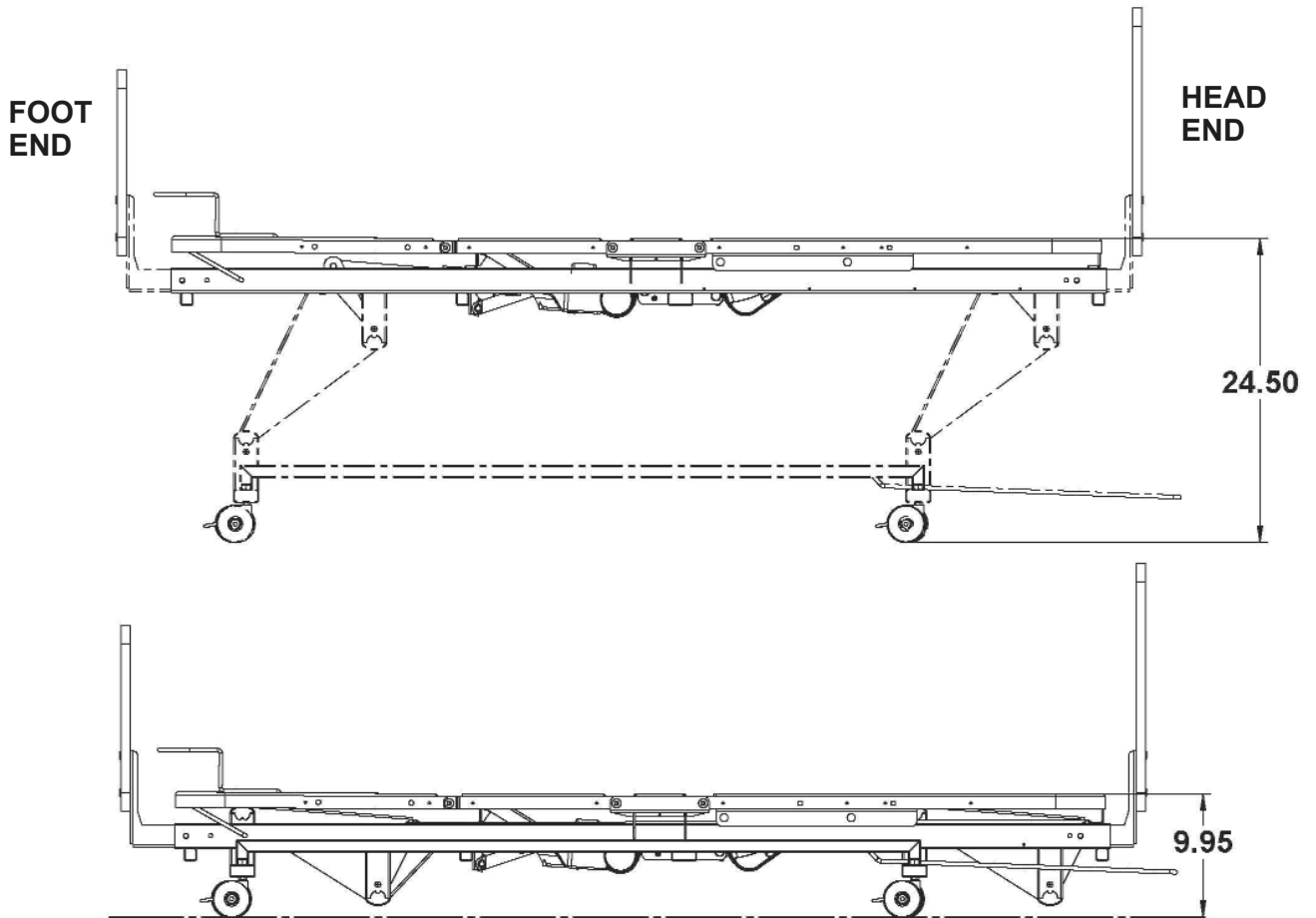


The Hand Control Pendant Cable has a phone jack connector.

NOTE: The easiest way deactivate the Hand Control Pendant function for patient use is to unplug the power cord from the wall socket or other power supply when the patient is left alone in the bed. When you need to use the Hand Control Pendant function to raise or lower the bed or decks, replug the power cord into the power outlet.

OPERATION—HI / LO AND DECK POSITIONS

The Liberty Bed has a variety of positions to increase patient comfort and practitioner/caregiver access during procedures and transfers. The correct placement of the bed is essential for the patient's safety. The bed should always be set to its lowest position when the resident/patient is left unattended. The head/back and foot/knee functions allow the resident/patient to comfortably raise their head or legs. In the event of a power outage, it is preferred that the knee and head/back sections be lowered using an emergency battery pack.



QUICK REFERENCE

Bed Height - floor to sleep deck top
MAXIMUM (High Position) = 24.50"
MINIMUM (Low Position) = 9.95"

Head Deck to Sleep Surface
MAXIMUM (Head Angle) = 70°

Knee Deck to Sleep Surface
MAXIMUM (Knee Angle) = 30°

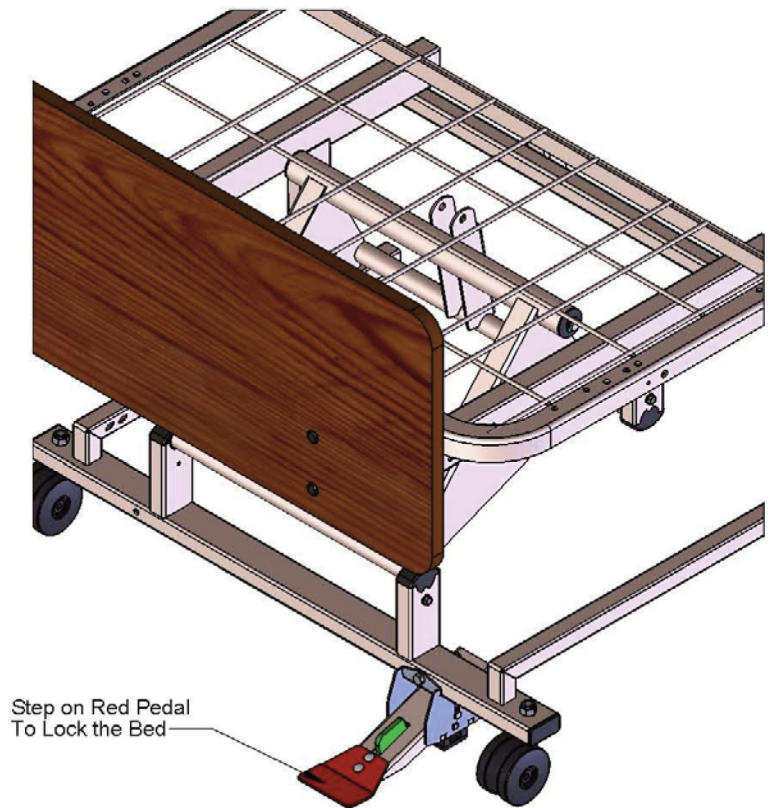
Knee Deck to Foot Deck
MAXIMUM (Knee/Foot Angle) = 45°

OPERATION—OPTIONAL PEDAL LOCK ONE-STEP LOCKING MECHANISM

Liberty Bed Locked Position

To lock the foot end of the Liberty bed, step on the red pedal until the lock engages. The green release lever will show through the slot in the top of the locking mechanism.

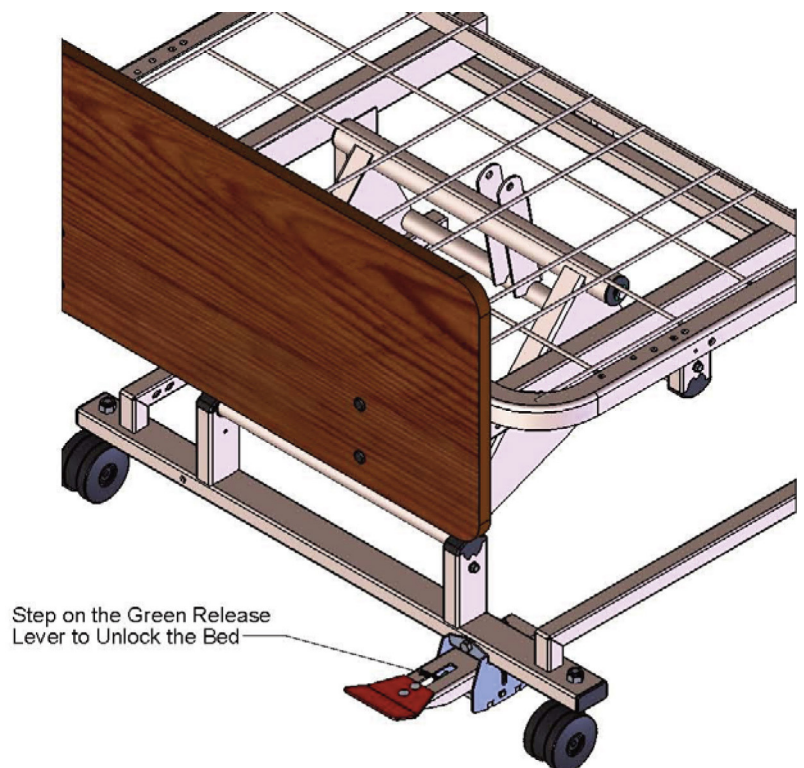
To fully lock the bed, ensure the caster keepers at the head of the bed are both in their down positions.



Liberty Bed Unlocked Position

To unlock the foot end of the Liberty bed, step on the green release pedal until the lock disengages. The green release lever will disappear through the slot in the top of the pedal locking mechanism and the red pedal will raise.

To fully unlock the bed, ensure the caster keepers at the head of the bed are both in their up positions.



SECTION B: ASSIST DEVICES

OPTIONAL ASSIST BAR INSTALLATION – HEAD END ONLY (KIT ZA80300: INCLUDES ONE ASSIST BAR AND HARDWARE)

Installation – Bracket

With the Assist Bar (#1) bracket facing inward toward the bed as shown below, align the two large bracket holes with the two head deck mounting bracket holes.

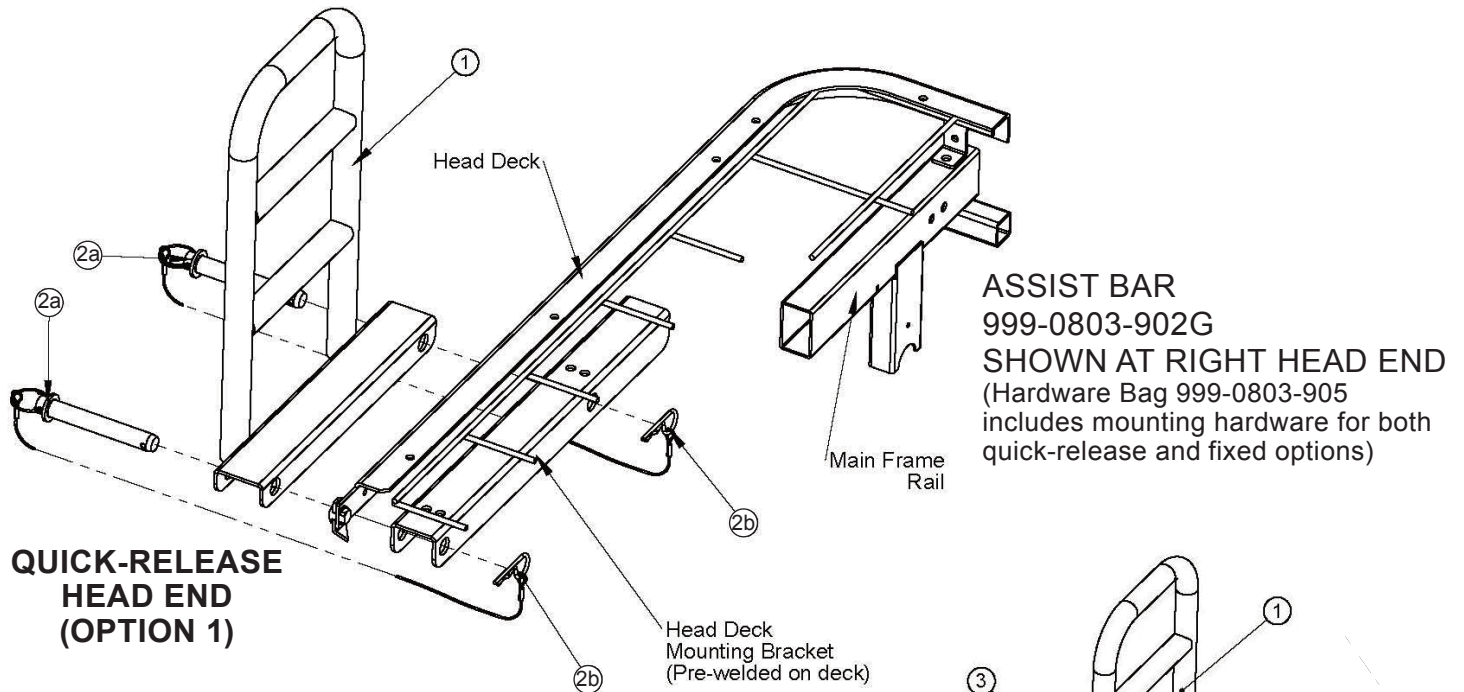
Installation – Quick-Release Head End Assist Bar (Option 1)

1. Insert the two Lanyard Assembly Clevis Pins (#2a) from the outside through the Assist Bar bracket and mounting bracket holes.

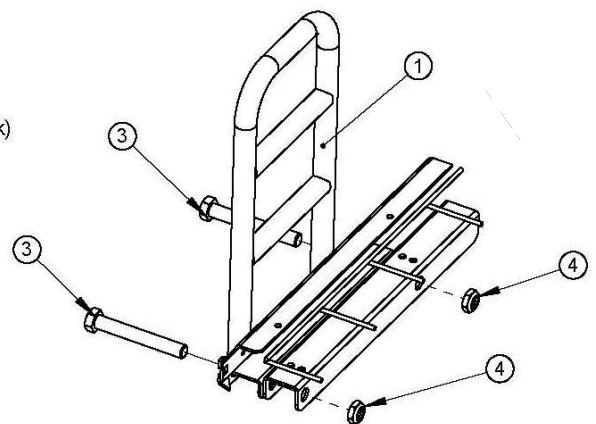
2. Insert the Hair Pins on the opposite end of the Lanyard Assemblies (#2b) into the small holes at the ends of the clevis pins.

Installation – Fixed Attachment Head End Assist Bar (Option 2)

1. Insert the two cap screws (#3) from the outside through the Assist Bar bracket and mounting bracket holes.
2. Secure screws by attaching two Thin Nylon Lock Nuts (#4) and tighten using two 13/16 wrenches.



QUICK-RELEASE HEAD END (OPTION 1)

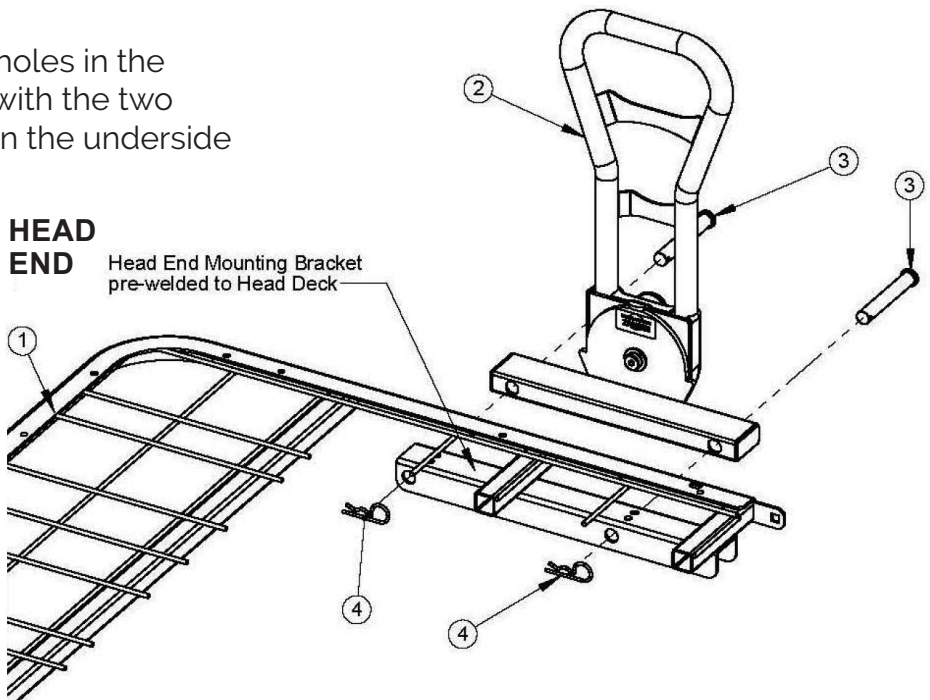


WARNING: When assessing the Risk of Entrapment, consider the bed, mattress, headboard, footboard, assist devices (i.e. rails and assist bars) and other accessories as an entire system. All bed systems are evaluated for full compliance to the FDA/CDRH “Hospital Bed System Dimensional and Assessment Guidance to Reduce Entrapment” guidelines.

OPTIONAL PIVOT ASSIST BAR INSTALLATION—HEAD END ONLY (KIT ZA85500: INCLUDES ONE ASSIST BAR AND HARDWARE)

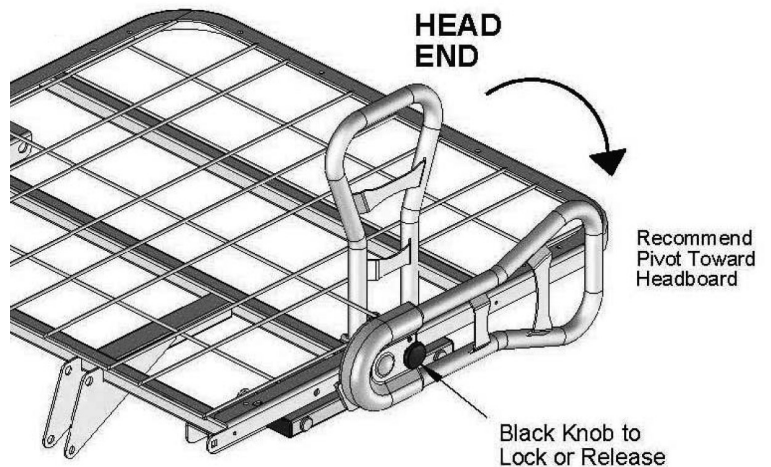
Installation

1. On the head end, align the two holes in the Pivoting Assist Bar (#2) bracket with the two holes in the mounting bracket on the underside of the Head Deck (#1).
2. From the outside, insert the two 4.00" Clevis Pins (#3) through the holes in the Pivoting Assist Bar bracket and Head Deck mounting bracket.
3. From the inside, insert a 2.375" Hair Pin Clip through the small holes at the ends of each of the Clevis Pins to secure.



Operation

1. To release the Pivoting Assist Bar from its vertical lock position, hold onto the top of the bar with one hand and slightly pull out the black knob on the outside of the assembly with the other hand to release the locking mechanism. For your safety, make sure your fingers are not near the pivot assembly when pivoting the rail. For ease of patient access, it is recommended that you pivot the rail toward the headboard until it stops and rests in place.
2. To set the assist bar back to its upright locked position, grab the top of the assist bar with one hand and pivot the assembly upward until the black knob mechanism snaps into place, locking the assist bar vertically.



! TO AVOID PINCHING FINGERS, ENSURE FINGERS ARE CLEAR OF SIDES OR UNDERSIDES OF THE PIVOTING ASSEMBLY WHEN POSITIONING THE ASSIST BAR UP OR DOWN.

! TO AVOID PERSONAL INJURY, ENSURE THE PIVOTING ASSIST BAR IS ALWAYS IN THE FULL, VERTICAL, LOCKED POSITION WHENEVER RESIDENT/PATIENT IS LEFT UNATTENDED.

! POWERED AIR MATTRESS SURFACES MAY POSE A RISK OF ENTRAPMENT. PRIOR TO USE, ENSURE THE THERAPEUTIC BENEFITS OUTWEIGH THE RISK OF ENTRAPMENT.

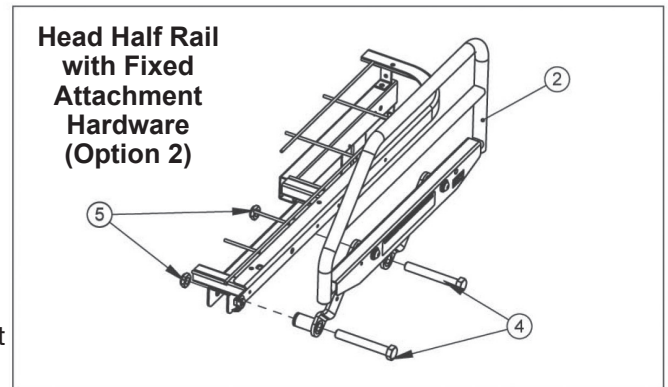
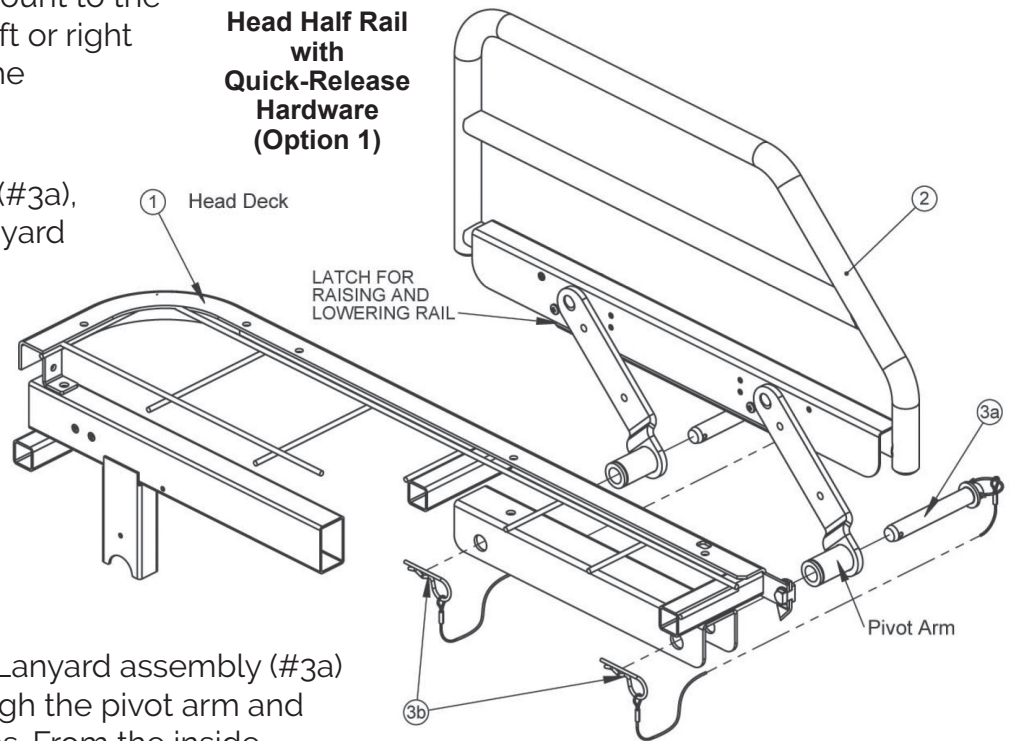
OPTIONAL HALF RAIL INSTALLATION—HEAD END ONLY (KIT ZA82800; INCLUDES HALF RAIL AND HARDWARE)

NOTE: Kit ZA82800, for both 80" and 76" length beds, includes attachment hardware for both Option 1 and Option 2 below.

IMPORTANT: Lubricate all pivot joints as needed with Aerosol White Lithium Grease.

Installation

1. Left and right Half Rails mount to the bed in a similar fashion; left or right designation is based on the patient's orientation while occupying the bed.
2. Insert the two Clevis Pins (#3a), with Circle Cotter and Lanyard Cable, into the two Half Rail arms.
3. Attach the Half Rail to the Head Deck's welded mounting bracket by aligning the arms (with Clevis Pins) to the bracket holes.
4.
 - a. For Quick Release (Option 1), insert the Clevis Pin ends of the Lanyard assembly (#3a) from the outside through the pivot arm and mounting bracket holes. From the inside, secure with Hair Pin Clips on the other side of the Lanyard Assembly (#3b).
 - b. For Fixed Position (Option 2), insert the 5/8-11 x 4.50" Cap Screws (#4) from the outside through the rail and bracket holes. From the inside, secure the screws with 5/8-11 Nylock Nuts (#5).



WARNING: When assessing the Risk of Entrapment, consider the bed, mattress, headboard, footboard, assist devices (i.e. rails and assist bars) and other accessories as an entire system. All bed systems are evaluated for full compliance to the FDA/CDRH "Hospital Bed System Dimensional and Assessment Guidance to Reduce Entrapment" guidelines.

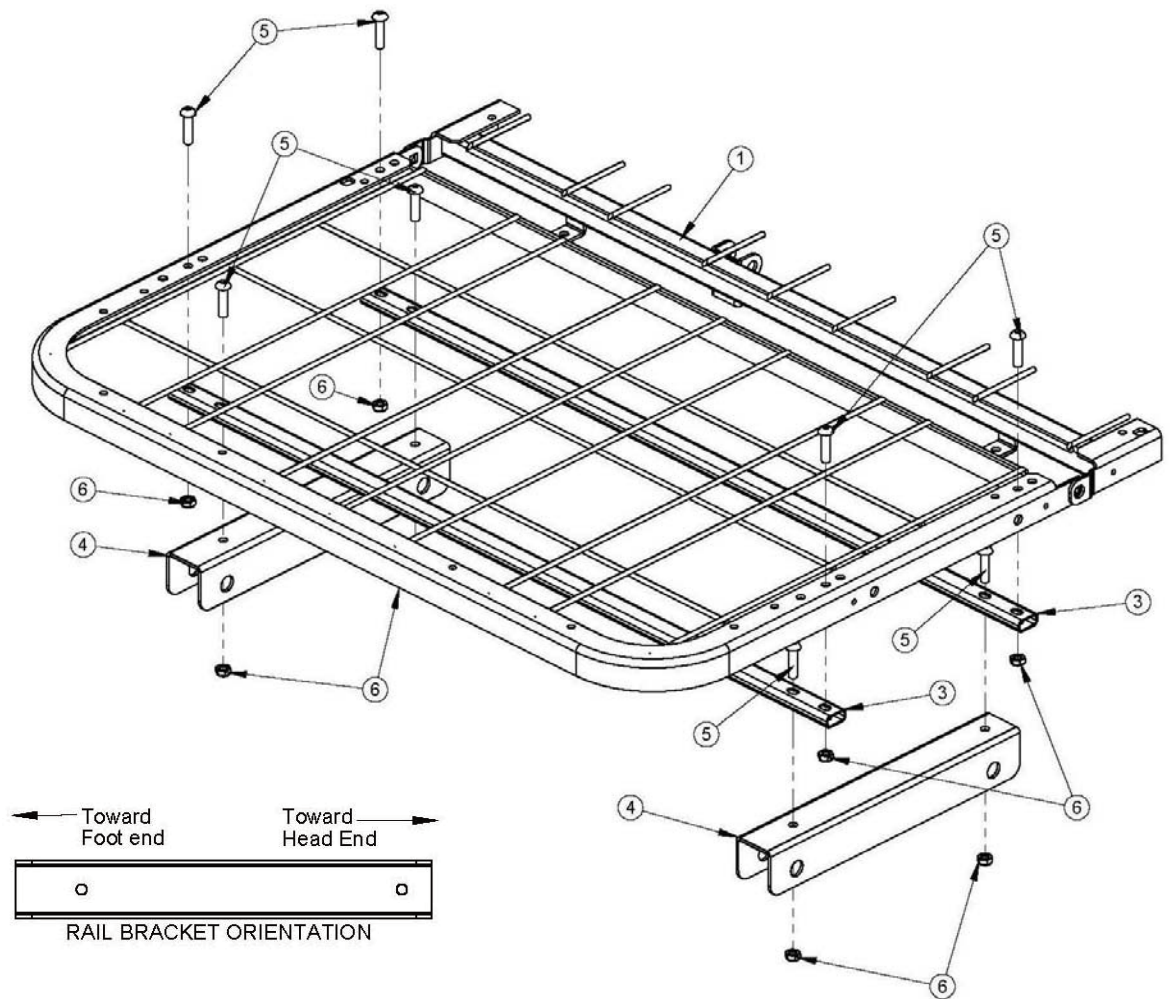


WARNING: It is extremely important to review the resident/patient's physical and mental condition and initiate an appropriate individual care plan to address any entrapment risks. See page 5 for further information.

FOOT-END MOUNTING BRACKET AND CROSTUBE INSTALLATION FOR OPTIONAL FOOT-END ASSIST DEVICES

(KIT ZA82900; INCLUDES TWO CROSTUBES, TWO MOUNTING BRACKETS, AND HARDWARE)

1. Locate the two Crosstubes (#3) in your kit. Align the outside oblong holes with the appropriate foot deck holes—fourth and seventh holes from the foot deck foot end.
2. From the top, insert a 5/16-18 x 1.75" Button Head Machine Screw (#5) from your kit through each of the holes in both the deck and the deck tubes.
3. From the bottom, secure the screws to the tubes using four 5/16-18 Thin Nylock Nuts (#6). Hand tighten.
4. Locate the two long U-shaped Rail Mounting Brackets (#4) in your kit. The brackets should be oriented so that the top hole closest to the edge of the bracket is furthest away from the foot end of the bed. With the open end facing downward as shown, align the top holes with the inside oblong holes on the underside of the crosstubes.
5. From the top, insert a 5/16-18 x 1.75" Button Head Machine Screw (#5) from your kit through each of the holes in both the deck and the deck tubes.
6. From the bottom, secure the screws to the tubes using four 5/16-18 Thin Nylock Nuts (#6).
7. Tighten all hardware using a 1/2" wrench and 3/16" hex key.



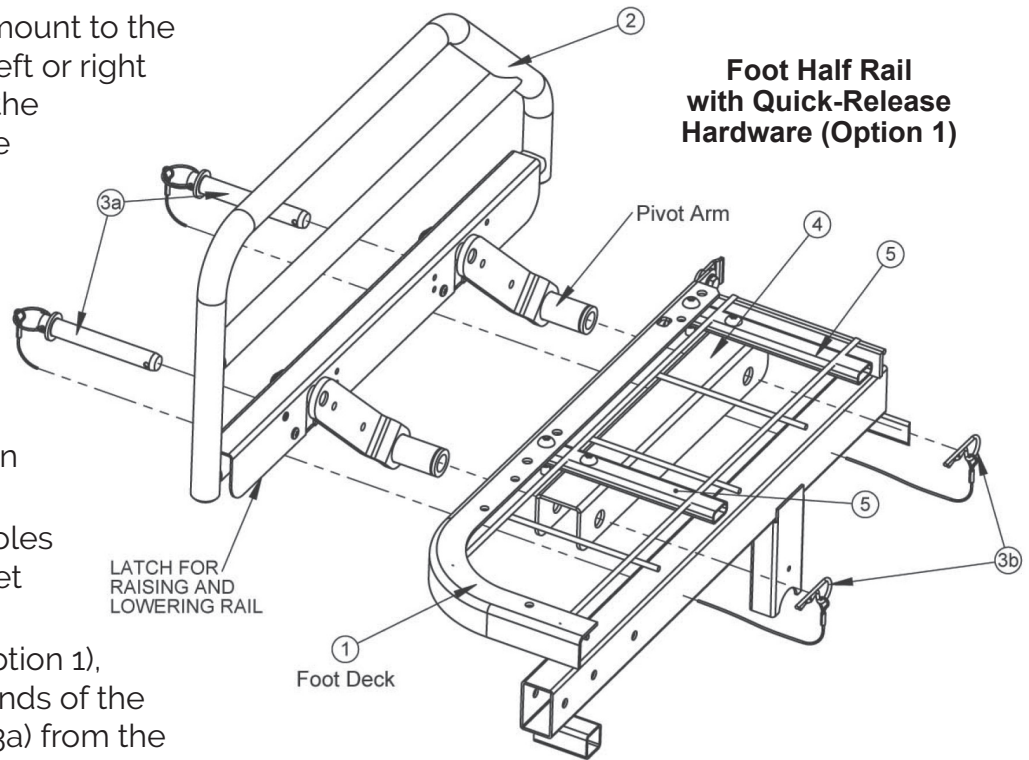
OPTIONAL HALF RAIL INSTALLATION – FOOT END (KIT ZA82900; INCLUDES TWO HALF RAILS, TWO CROSTUBES, TWO MOUNTING BRACKETS, AND HARDWARE)

NOTE: Kit ZA82900, for both 80" and 76" length beds, includes attachment hardware for both Option 1 and Option 2 below.

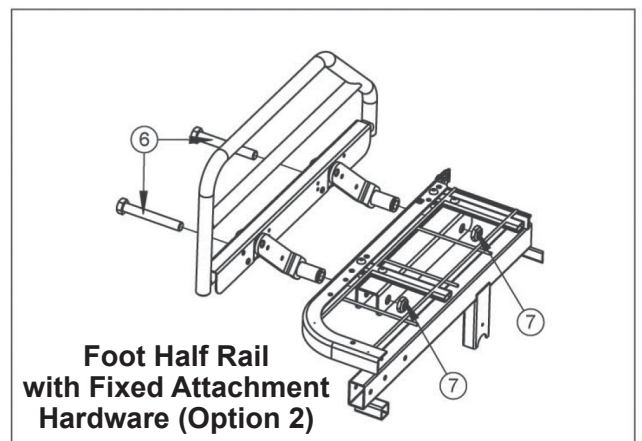
IMPORTANT: Lubricate all pivot joints as needed with Aerosol White Lithium Grease.

Installation

1. Left and right Half Rails mount to the bed in a similar fashion; left or right designation is based on the patient's orientation while occupying the bed.
2. To mount the half rails to the bed foot end, you must first attach two rail brackets (#4) and crosstubes (#5) to the foot deck; see installation instructions on page 19.
3. Align the rail pivot arm holes with the mounting bracket holes as shown.
4. a. For Quick Release (Option 1), insert the Clevis Pin ends of the Lanyard assembly (#3a) from the outside through the pivot arm and mounting bracket holes. From the inside, secure with the Hair Pin Clips on the other side of the Lanyard Assembly (#3b).
- b. For Fixed Position (Option 2), insert the 5/8-11 x 4.50" Cap Screws (#6) from the outside through the rail and bracket holes. From the inside, secure the screws with 5/8-11 Nylock Nuts (#7).



Foot Half Rail with Quick-Release Hardware (Option 1)



Foot Half Rail with Fixed Attachment Hardware (Option 2)



WARNING: When assessing the Risk of Entrapment, consider the bed, mattress, headboard, footboard, assist devices (i.e. rails and assist bars) and other accessories as an entire system. All bed systems are evaluated for full compliance to the FDA/CDRH "Hospital Bed System Dimensional and Assessment Guidance to Reduce Entrapment" guidelines.

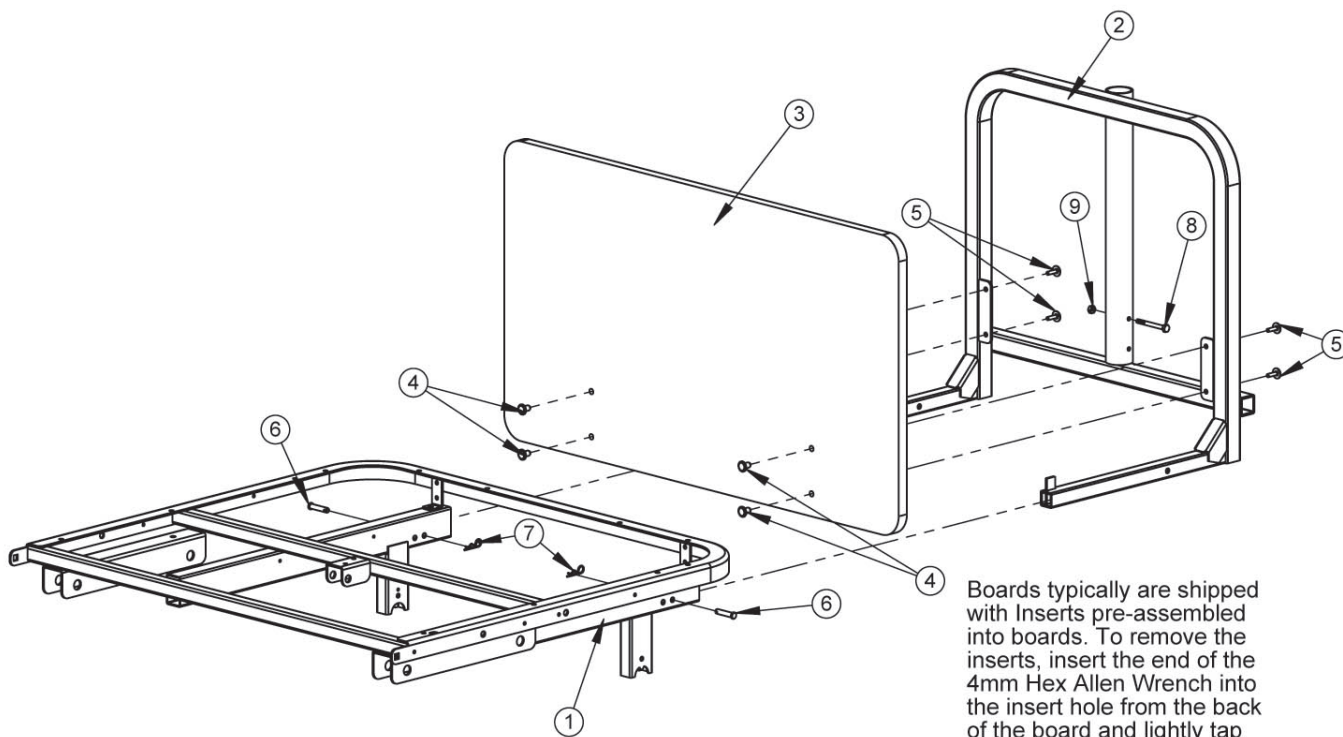


WARNING: It is extremely important to review the resident/patient's physical and mental condition and initiate an appropriate individual care plan to address any entrapment risks. See page 5 for further information.

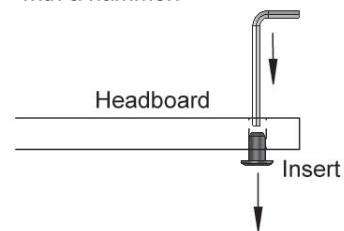
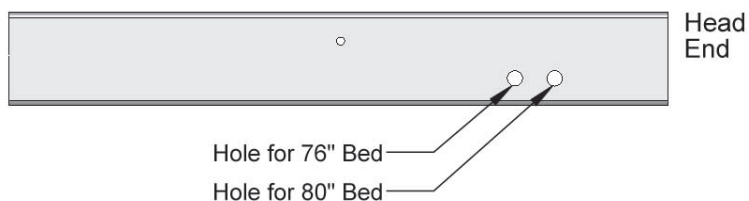
OPTIONAL TRAPEZE SUPPORT INSTALLATION

(KIT ZA83000; ATTACHES TO THE HEAD SECTION OF THE BED)

1. Remove the headboard panel assembly (#3), if previously assembled to the bed, by pulling out the two Clevis Pins and Hair Pin Clips that attach the main frame tubes to the headboard mounting brackets. Set hardware aside for later use.
2. Detach the headboard panel from the mounting tubes by removing the four 1/4-20 JCB Bolts (#5) from the brackets using the M4 hex key included in your kit. Remove the four 1/4-20 Inserts (#4) from the board by inserting the opposite end of the hex key into the hole and lightly tap with a hammer. Reinstall the inserts into the four holes on the wood grain side of the board.
3. Position the headboard so that the wood grain finish is facing inward toward the head deck. Align the headboard holes with the Trapeze Support (#2) bracket holes.
4. From the back, insert the four JCB Bolts (#5) you removed in step 2 through the Trapeze Support brackets into the headboard—they will thread into the 1/4-20 inserts. Tighten all JCB bolts with the hex key. DO NOT OVERTIGHTEN.
5. Assemble the Trapeze Support with headboard attached to the main frame rails by inserting the support's tubes into the rails. The support tube end vertical stops will help keep the trapeze support level.
6. The Liberty Bed features two positions for the Trapeze Support depending on the length of bed you have (see Detail A below).
7. Secure the Trapeze Support to the rails using the Clevis Pins (#6) and Hair Pin Clips (#7) you removed in step 1.

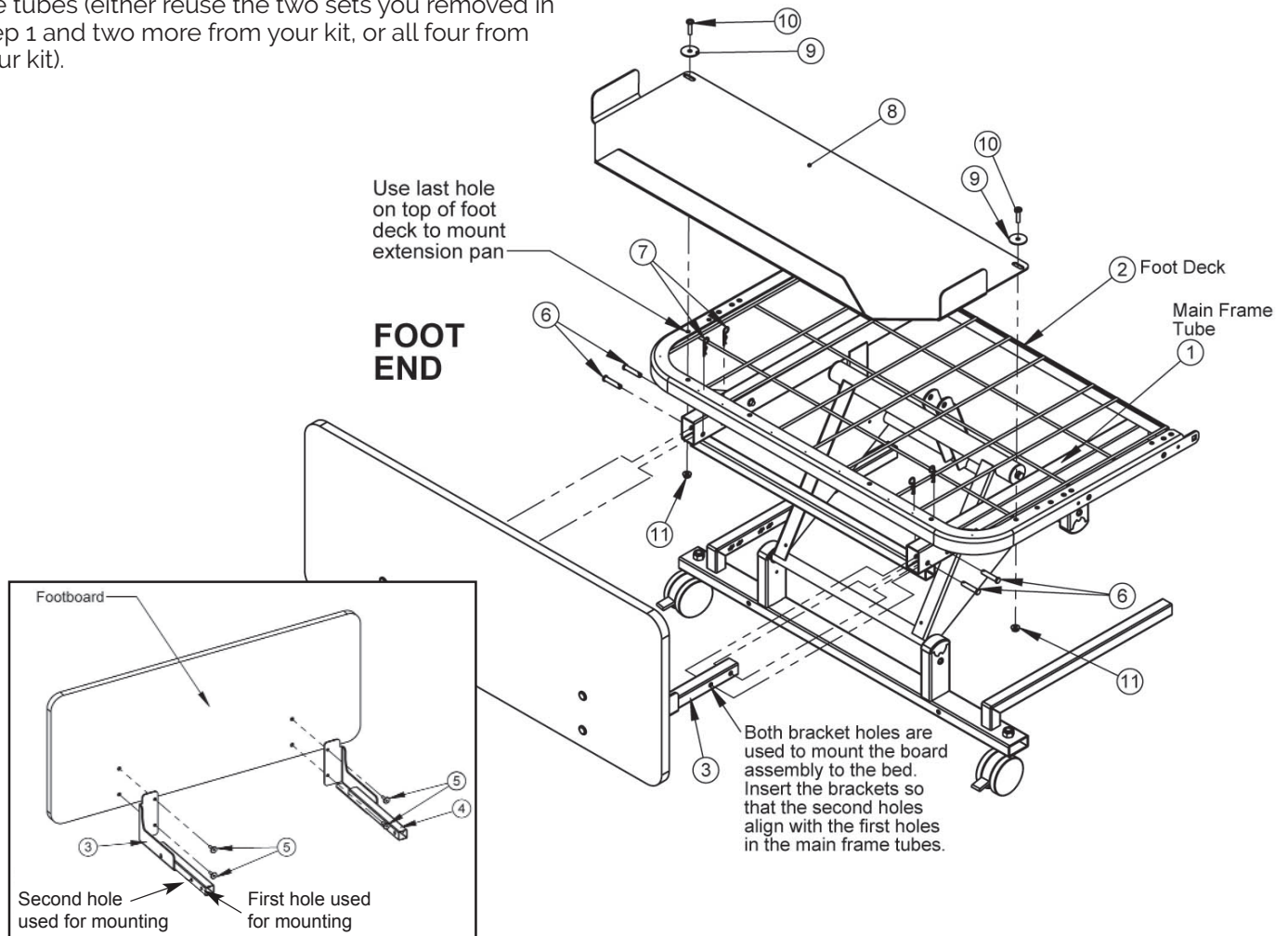


DETAIL A: TRAPEZE SUPPORT TO MAIN FRAME RAIL HOLE POSITIONS

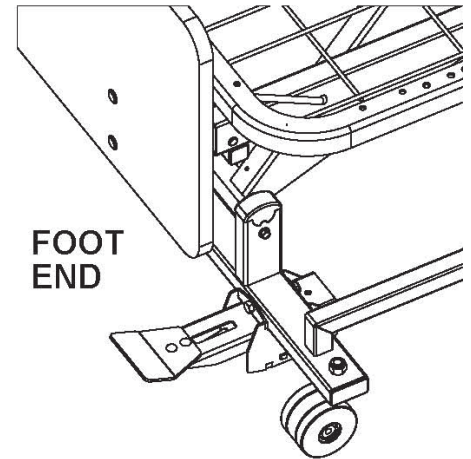
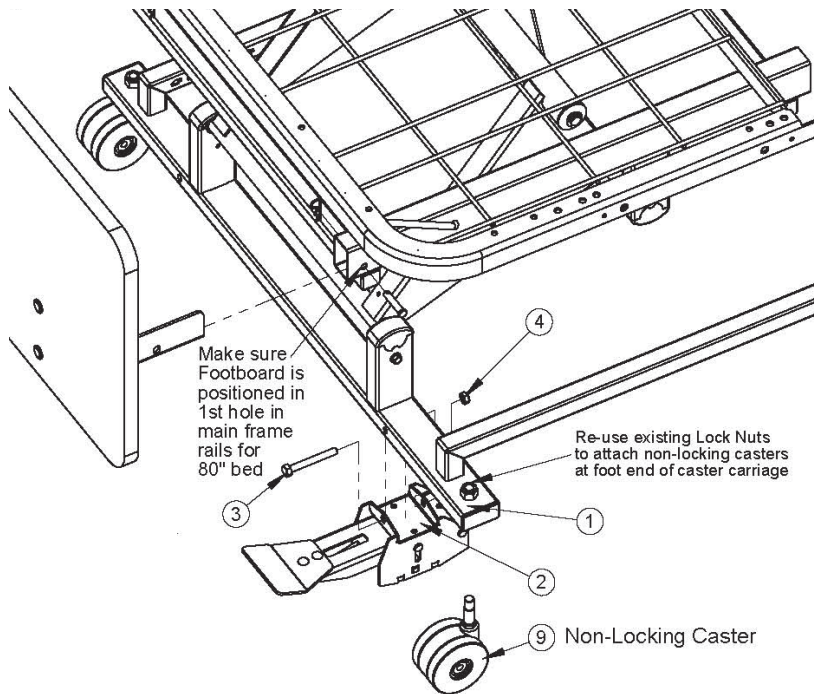


OPTIONAL 4" EXTENSION PAN INSTALLATION (KIT LBT83300)

1. The Extension Pan kit includes two footboard mounting brackets that are used to extend the footboard to accommodate the pan. If you already have a Liberty bed and have purchased the 4.00" Extension Kit, first remove your existing footboard assembly from the bed.
2. Remove the two hair pin clips (one on each side) from the clevis pins that attach the brackets to the main frame tubes—detach the brackets from the footboard by removing the four 1/4-20 x 20mm bolts from the bracket insides. Retain the bolts for the next step. Discard the old brackets if you do not need them for future use.
3. Attach both the left bracket (#3) and right bracket (#4) to the inside of the footboard, reusing the four bolts (#5) you removed in step 2.
4. Slide the new footboard assembly into the main frame tubes so that the bracket second holes align with the tube first holes. Use four clevis pins (#6) and four hair pin clips (#7) to secure the brackets to the tubes (either reuse the two sets you removed in step 1 and two more from your kit, or all four from your kit).
5. Attach the extension pan to the foot deck—lay the pan on top of the foot deck so that the three bent sides face upward and the side without any bends is oriented toward the head end as shown.
6. Position the two oval holes at the end of the pan so that they align with the last holes in the foot deck (nearest the curved ends).
7. Insert a Washer (#9) onto each of the two Phillips Pan Head Machine Screws (#10). From the top, insert the screws and washers through the holes. From the bottom, screw on two Flange Lock Nuts (#11) to secure. Tighten the nuts with a 7/8" wrench.

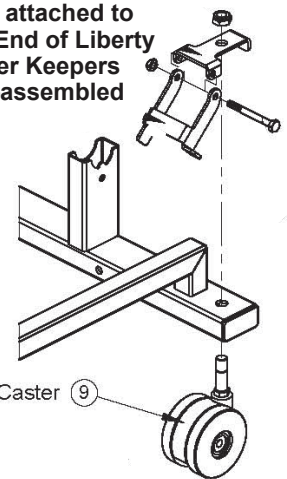


ONE-STEP LOCKING MECHANISM INSTALLATION—MODEL LBTL7174 (KIT LBTL83200; INCLUDES PEDAL LOCK, CASTER KEEPERS, FOUR NON-LOCKING CASTERS, AND HARDWARE)



View of Pedal Lock Attached to the Foot End of Liberty Bed.

View of Caster Keeper Assembly attached to the Head End of Liberty Bed. Caster Keepers come pre-assembled in kit.



1. Position the Locking Pedal Assembly (#2) so that the mounting bracket is on top and the red pedal is facing outward, away from the carriage.
2. Align the bracket holes with the pre-drilled crossbrace holes.
3. From the outside, insert a 5/16-18 x 2.50" Hex Head Bolt (#3) through both bracket and crossbrace holes.
4. From the inside, secure the bolt to the assembly using a 5/16-18 Thin Nylock Nut (#4). Tighten with two 1/2" wrenches. (If you already have a lock mechanism system on your Liberty bed and are attaching a second Pedal Lock you are done and can skip steps 5 - 8.)
5. Remove the two locking casters at the foot end of the carriage and replace them with two non-locking casters (#9) from your kit. Use the same Locking Nuts to secure.
6. Remove the two locking casters at the head end of the carriage. Discard the nuts and locking casters. From the bottom, insert the stems from the last two non-locking casters from your kit into the carriage holes.

7. Position the pre-assembled Caster Keepers (bent arm outward and toward the foot end) onto the exposed ends of each caster stem. The brackets should rest securely on the carriage cross brace. Secure the brackets to the carriage using two new 7/16-14 Thin Nylock Nuts from your kit.

**NOTE: A Second Locking Mechanism can be attached to the opposite side—
Order part # 999-0832-980SP.**

SECTION C: MECHANICAL AND ELECTRICAL INFORMATION

LIBERTY BED MECHANICAL

NOTE: ALL DIMENSIONS ARE ±.25 INCHES




- Overall Bed Length (with boards and wallsaver) 83"/86"
- Overall Bed Width (with boards) 36.00"
- Maximum Height* 24.50"
- Minimum Height* 9.95"
- Maximum Head/Back Deck Angle 70°
- Maximum Knee/Foot Deck Angle 30°
- Maximum Safe Working Load 450 lb
WITH WEIGHT EVENLY DISTRIBUTED
- includes bedding, resident, support surface,
and all accessories
- Mass of bed (without assist devices or boards) =
182 lb

* Bed height calculated from floor surface to top of sleep deck.

LIBERTY BED ELECTRICAL (Manufactured After September 1, 2011; Serial Numbers ≥ SN12020004096)

- Power/Frequency 120 Volt/ 50/60 Hz
- Output Rating 24V IPX4
- Overall Movement Draw 2.00 Amps
- Classification Class 1, Type B
- Power (Electrical) Cord #18 AWG 3 Conductor
..... Type SJT
- Mode of Operations 10% Max. Duty Cycle
..... (2 minutes on/18 minutes off)

TYPICAL LIBERTY BED IDENTIFICATION LABELS with Ilcon Electronics - LBT7174 or LBTL7174 (Models Manufactured after September 1, 2011; Serial Numbers ≥ SN12020004096)

 GF HEALTH PRODUCTS, INC. ATLANTA, GA 30360	MODEL NO 701-0000-000000								
	MFG. DATE 09/01/11								
DUTY CYCLE - 2 min Continuous/18 min MODE OF OPERATION - Intermittent	<table border="1"> <tr> <th>VOLT</th> <th>HZ</th> <th>AMP</th> <th>TYPE</th> </tr> <tr> <td>120</td> <td>50/60</td> <td>2</td> <td>AC</td> </tr> </table>	VOLT	HZ	AMP	TYPE	120	50/60	2	AC
VOLT	HZ	AMP	TYPE						
120	50/60	2	AC						
 = 450 lbs SAFE WORKING LOAD	SERIAL NO 000000000000								
IPX4  									

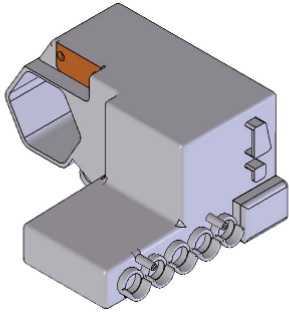
Bed labels are an important part of identifying the bed's make and model when ordering replacement parts. The Serial Number is essential if you are claiming parts or service under warranty. These helpful labels can be located on the main frame rails, immediately below the sleep decks on either side of the bed.

LBT7174	LIBERTY 701 SERIES PATENT PENDING LIBERTY 7174	SERIAL LBT7  000000000000
MODEL NO. 701-0000-000000	MFG DATE 09/01/11	
 LBT7174		

Have this IMPORTANT information ready when calling our Customer Service or Technical Support staff at 770-368-4700; it will allow us to better assist you and quickly answer your questions and concerns.

LIBERTY BED ELECTRICAL COMPONENTS

(Manufactured After September 1, 2011)



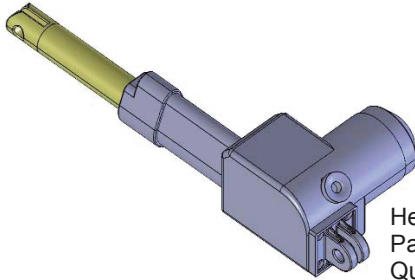
Control Box
Part # 999-0848-300SP
Quantity = 1

Power Cord is not detachable (hardwired into side of Control Box)



VENDOR MODEL HB00
HAND CONTROL PENDANT
Part # 999-0808-305SP
Quantity = 1

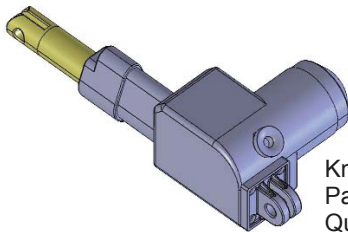
Bed also includes
Pendant Holster
Part # 999-0791-000SP
Quantity = 1



Head Motor/Actuator
Part # 999-0844-052SP
Quantity = 1



Adapter Cable to connect Hand Control Pendant Cable to Control Box
Part # 999-0848-200SP
Quantity = 1

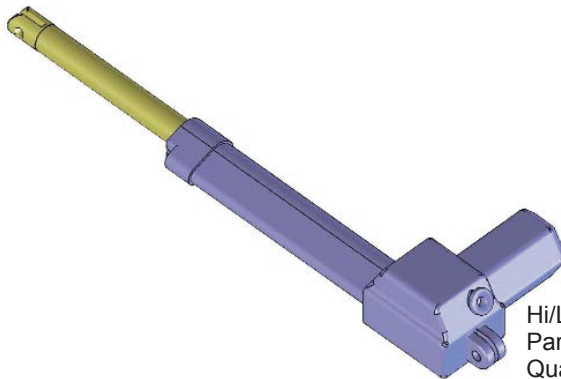


Knee/Foot Motor/Actuator
Part # 999-0844-053SP
Quantity = 1

NOTE :

MOTOR CABLES AND POWER CORD ARE NOT DETACHABLE.

MOTOR CABLES ARE HARD WIRED DIRECTLY INTO MOTORS; POWER CORD IS HARDWIRED DIRECTLY INTO CONTROL BOX.



Hi/Lo Motor/Actuator
Part # 999-0848-051SP
Quantity = 1



DO NOT use unauthorized parts, accessories, or adapters other than those specified/authorized by GF Health Products, Inc. **DO NOT** open assemblies such as the Actuators, Hand Control Pendant, or Control Box. If unauthorized personnel perform work on these components, the manufacturer's warranty becomes void. **NEVER** operate the bed if a Power Cord or Plug is damaged or not working properly. Contact qualified Service Personnel for examination and repair.

ALWAYS UNPLUG THE POWER CORD BEFORE PERFORMING MAINTENANCE ON THE BED.

SECTION D: SERVICE/REPLACEMENT PARTS

SERVICE/REPLACEMENT PART RECORD WITH ILCON ELECTRONICS

(Page 1)

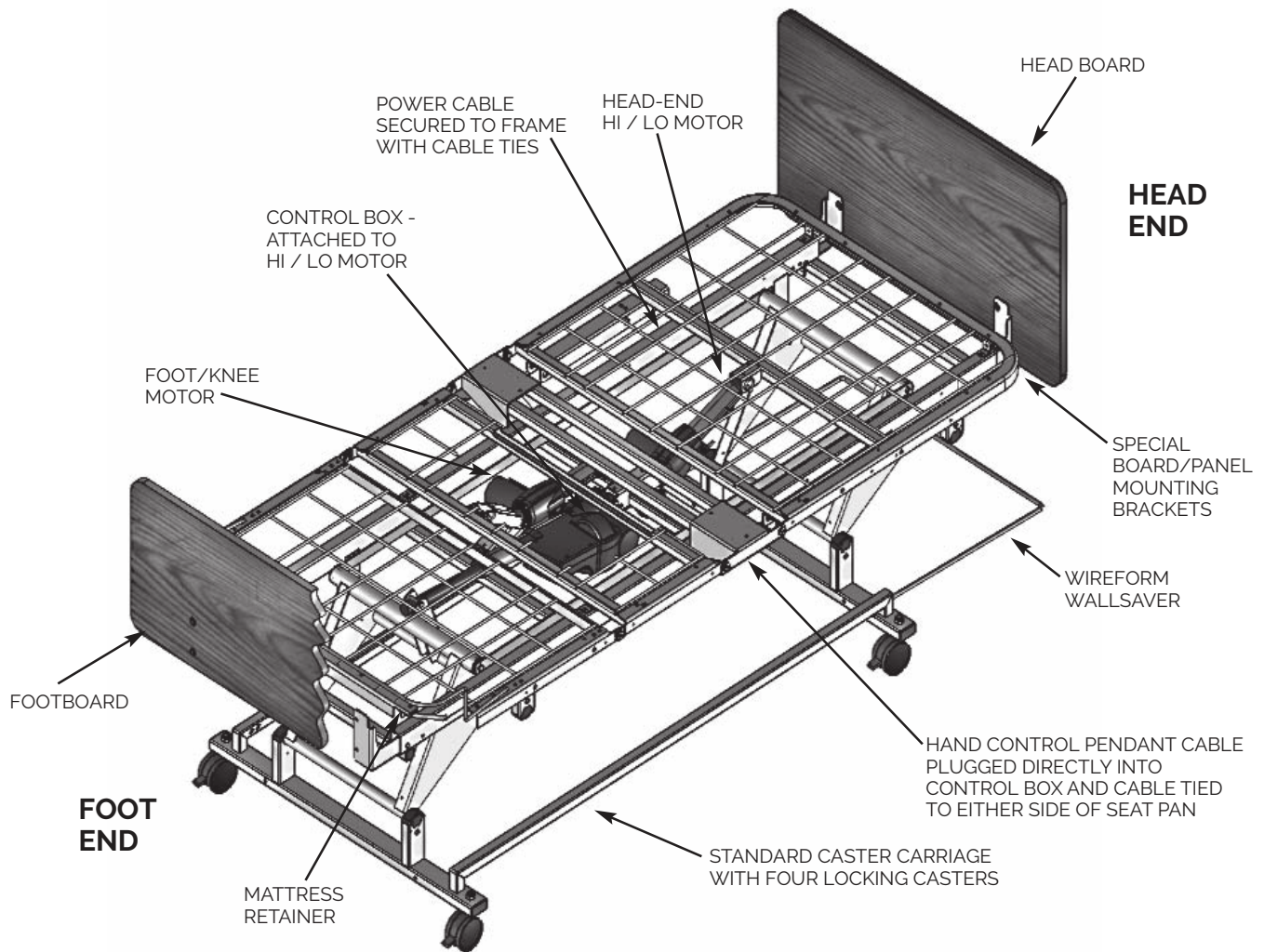
DECKING					
Part Number	Description		QTY	Order Date	Price
999-0844-920SP	Head/Back Deck and Hardware Pack		1 Deck		
999-0844-930SP	OR - Foot Deck and Hardware Pack		1 Deck		
999-0844-940SP	OR - Knee Deck and Hardware Pack		1 Deck		
	Deck Hardware Pack - INCLUDES . . .		1 Pkg		
	4	Clevis Pins			
	5	5/16" Retaining Rings (Deck Brackets)			
	2	12mm Retaining Ring (Cntrl Arms to Decks)			
	1	Installation Instruction Sheet			
MOTORS (ACTUATORS)					
Part Number	Description		QTY	Order Date	Price
999-0848-051SP	Hi/Lo Motor (Cable hard-wired) and Hardware Pack		1 Motor		
999-0844-052SP	OR - Head Motor (Cable hard-wired) and Hardware Pack		1 Motor		
999-0844-053SP	OR - Foot Motor (Cable hard-wired) and Hardware Pack		1 Motor		
	Motor Hardware Pack - INCLUDES . . .		1 Pkg		
	2	12mm Retaining Rings			
	2	Hair Pin Clips			
	2	Snap Rings			
	8	Standard Cable Ties			
	1	Installation Instruction Sheet			
CONTROL BOX AND POWER CABLES					
Part Number	Description		QTY	Order Date	Price
999-0848-300SP	Linak Control Box and Clip		1 Box		
	No Detachable Power Cord Available (Cord hard-wired to CB)				
HAND CONTROL PENDANT					
Part Number	Description		QTY	Order Date	Price
999-0808-305SP	Hand Control Pendant (Standard Model)		1 Pendant		
999-0848-200SP	Pendant Adapter Cable		1 Cable		
999-0791-000SP	Pendant Holster (Standard for all pendants)		1 Holster		

SERVICE/REPLACEMENT PART RECORD WITH ILCON ELECTRONICS

(Page 2)

MISCELLANEOUS SERVICE BED PARTS				
Part Number	Description	QTY	Order Date	Price
999-0822-012	Spanner Plates	1 Plate		
999-0822-031	Pivot Channels	1 Unit		
999-0822-036	Leveler Rods	1 Rod		
100-8050-008	1/2" E-Style Retaining Rings (for Leveler Rods)	1 Ring		
999-0822-001SP	Mattress Retainer	1 Unit		
999-0822-180SP	Wireform Wallsaver	1 Unit		
999-0822-083	18GA Ground Wire	1 Wire		
100-5710-019	#10-24 x .375" HWHTC Ground Screws TYP23	1 Screw		
100-1100-018	Standard Cable Ties	1 Tie		
100-1100-060	Wing-Tip Cable Ties	1 Tie		
CASTER CARRIAGE				
Part Number	Description	QTY	Order Date	Price
999-0822-905G	Caster Carriage Weldment	1 Unit		
100-6330-062SP	3" Twin Locking Caster with 7/16-14 Stems (LBT7174)	1 Caster		
100-6330-061SP	3" Twin Non-Locking Caster with 7/16-14 Stems (LBTL7174)	1 Caster		
999-0832-980SP	One-Step Locking Mechanism (LBTL7174)	1 Unit		
100-6744-001	7/16-14 Nylon Lock Nuts (secure caster stems to frame)	1 Nut		
CAPS AND PLUGS				
Part Number	Description	QTY	Order Date	Price
NOTE: CAPS AND PLUGS CAN ONLY BE PURCHASED IN SETS OF 12				
100-4700-015PK	1.00" x 1.00" Square Caps Pack	12/pkg		
100-4700-017PK	1.00" x 2.00" Rectangular Caps Pack	12/pkg		
999-0822-041PK	Black Tube Pivot Caps	12/pkg		
FOR GENERAL CAP DIAGRAMS PLEASE SEE PAGES 30 AND 31				

SERVICE/REPLACEMENT PARTS DIAGRAM - ELECTRONICS



- **TO ORDER A REPLACEMENT HI/LO MOTOR USE SERVICE PACK 999-0848-051SP** (Includes motor, mounting hardware, and installation instruction sheet).
- **TO ORDER A REPLACEMENT HEAD MOTOR USE SERVICE PACK 999-0844-052SP** (Includes motor, mounting hardware, and installation instruction sheet).
- **TO ORDER A REPLACEMENT FOOT MOTOR USE SERVICE PACK 999-0844-053SP** (Includes motor, mounting hardware, and installation instruction sheet).
- **TO ORDER A REPLACEMENT CONTROL BOX USE PART NO. 999-0848-300SP** (Includes control box and mounting clip).
- **TO ORDER A REPLACEMENT MATTRESS RETAINER USE PART NO. 999-0822-001SP.**
- **TO ORDER A REPLACEMENT WALLSAVER USE PART NO. 999-0822-180SP.**

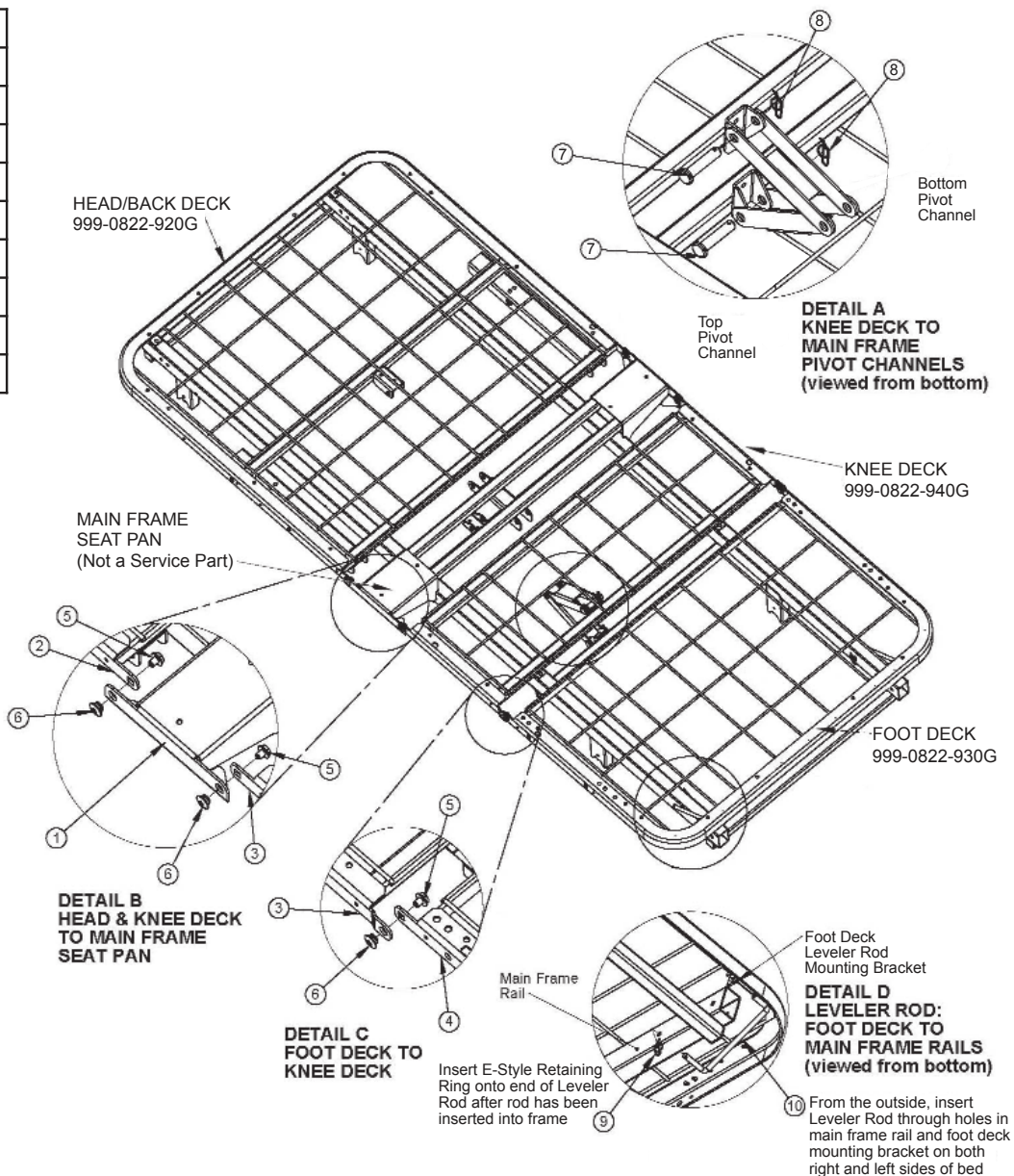
FOR ALL OTHER SERVICE/REPLACEMENT PARTS, SEE PAGES 26 AND 27.

WHEN ORDERING REPLACEMENT PARTS FROM CUSTOMER SERVICE, HAVE THE BED SERIAL NUMBER AVAILABLE TO CONFIRM WHETHER THE PART IS COVERED UNDER WARRANTY. (SEE PAGE 24 FOR LOCATION OF SERIAL NUMBER ID LABEL.)

SECTION E: DECK/MECHANICAL SERVICE PARTS

SERVICE/REPLACEMENT PARTS DIAGRAM - DECKING

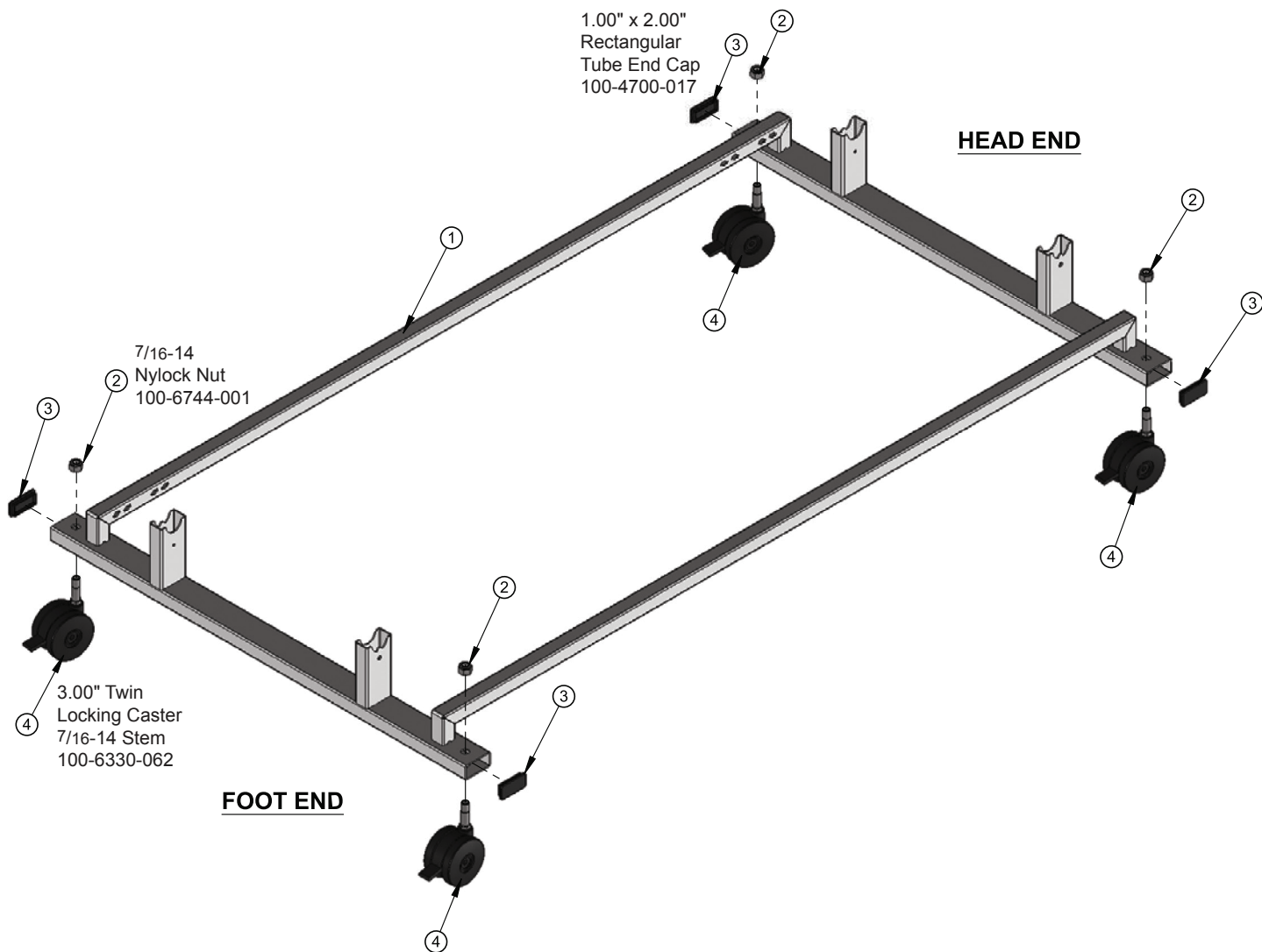
1	Main Frame Seat Pan
2	Head Deck Flange
3	Knee Deck Flange
4	Foot Deck Flange
5	5/16-18 Machine Screws
6	Self-Wrenching Nuts
7	Clevis Pins
8	Circle Cotters
9	E-Style Retaining Rings
10	Leveler Rods



- **TO ORDER A REPLACEMENT HEAD DECK USE SERVICE PACK 999-0822-920SP** (includes deck, mounting hardware, and installation instructions).
- **TO ORDER A REPLACEMENT KNEE DECK USE SERVICE PACK 999-0822-940SP** (includes deck, mounting hardware, and installation instructions).
- **TO ORDER A REPLACEMENT FOOT DECK USE SERVICE PACK 999-0822-930SP** (includes deck, mounting hardware, and installation instructions).
- **MISCELLANEOUS PARTS:** a) Leveler Rod 999-0822-036, b) Retaining Ring 100-8031-001, c) Machine Screw 100-5431-002, d) Self Nut 999-0032-010, e) Clevis Pin 999-0808-455, f) Circle Cotter 100-7518-001

WHEN ORDERING REPLACEMENT PARTS FROM CUSTOMER SERVICE, HAVE THE BED SERIAL NUMBER AVAILABLE TO CONFIRM WHETHER THE PART IS COVERED UNDER WARRANTY. (SEE PAGE 24 FOR LOCATION OF SERIAL NUMBER ID LABEL.)

SERVICE/REPLACEMENT PARTS DIAGRAM - CASTER CARRIAGE CAPPING AND CASTER PARTS—MODEL LBT7174



CAPS AND PLUGS ARE NOT COVERED UNDER WARRANTY
(PACKS OF 12 CAN BE ORDERED IN THE EVENT YOU DAMAGE OR LOSE
ANY BED CAPS OR PLUGS - SEE BOTTOM OF PAGE 30 FOR ORDER NUMBERS)

SECTION F: TROUBLESHOOTING

ELECTRONIC TROUBLESHOOTING QUICK REFERENCE

The Liberty Bed uses a 3-motor system with ILCON electronics (after September 1, 2011). To troubleshoot the Liberty Bed, follow the steps below in the order shown.

NO POWER

1. Verify that there is power in the wall outlet.
2. Unplug Power Cord and check the following:
 - a. Check Power Cord for damage or pinching.
 - b. Check short black Control Box Cable for damage or pinching.
 - c. If any cables are damaged - replace immediately.

HAND CONTROL PENDANT DOESN'T WORK

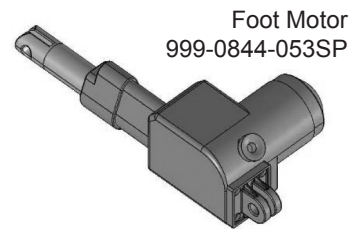
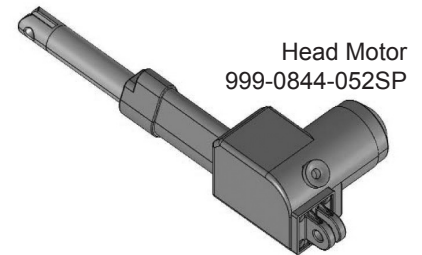
1. Check All Pendant and Cable connections and retest.
2. Unplug Power Cord.
3. Unplug Hand Control Pendant from the Adapter Cable. Use a new Adapter Cable you know works from another bed. Plug in the power cord and test:
 - a. If Pendant works - replace Adapter Cable.
 - b. If Pendant does not work - unplug the Pendant from Control Box. Use a new Pendant you know works from another bed. Plug in the power cord and test:
 - i. If Pendant works - replace old Pendant.
 - ii. If Pendant does not work - replace Control Box.



ELECTRONIC TROUBLESHOOTING QUICK REFERENCE

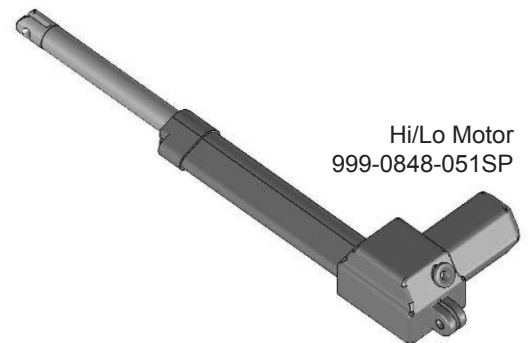
HEAD OR FOOT MOTOR MALFUNCTIONS (DECK DOES NOT GO UP AND/OR DOWN)

1. Check all Motor Cable connections.
2. Check Motor condition - cracked housing, scratches, bent shaft, etc.
3. Hi/Lo and Foot work, but Head does not:
 - a. Unplug Power Cord.
 - b. Switch Head and Foot Motor Cables at the Control Box.
 - c. Replug Power Cord and test.
4. Hi/Lo and Head work, but Foot does not:
 - a. Unplug Power Cord.
 - b. Switch Foot and Head Motor Cables at the Control Box.
 - c. Replug Power Cord and test.
5. Motor grinds loudly - replace Motor.



HI/LO MOTOR MALFUNCTIONS (ENTIRE BED DOES NOT GO UP AND/OR DOWN)

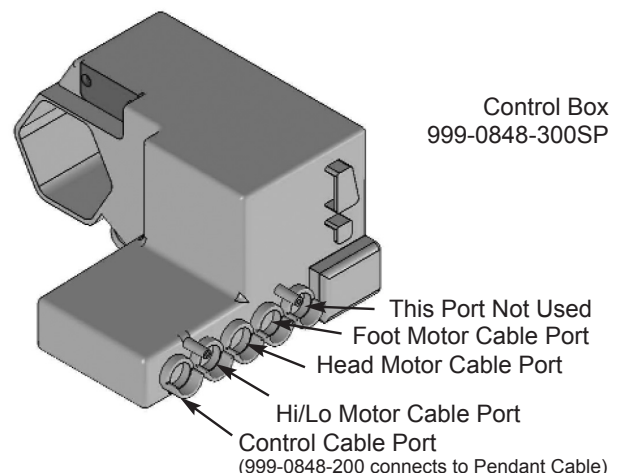
1. Check All Motor Cable connections.
2. Check Motor condition - cracked housing, scratches, bent shaft, etc.
3. Head and Foot Motor work, but Hi/Lo does not:
 - a. Unplug Power Cord.
 - b. Unplug Hi/Lo Cable at Control Box, and plug into Head port.
 - c. Replug Power Cord and test.
4. If Hi/Lo works - replace Control Box.
5. If Hi/Lo doesn't work, or grinds - replace Hi/Lo Motor.



CONTROL BOX MALFUNCTIONS

1. Check all Motor Cables and Power Cord connections.
2. Hi/Lo Motor works, but Head or Foot does not (see Head & Foot Motor Troubleshooting above). If determined that port is bad, replace Control Box.
3. Head and Foot Motors work, But Hi/Lo does not (see Hi/Lo Motor Troubleshooting above). If determined that port is bad, replace Control Box.

If the problem continues, contact Technical Support at 770-368-4700.



LIMITED WARRANTY
SCOPE OF WARRANTY

GF Health Products, Inc. ("GF") warrants to the Original Purchaser only that it will replace or repair components, at GF's sole discretion, that are defective in material or workmanship under normal use and service. All warranties are conditioned upon the proper use of the products strictly in accordance with good commercial practice and applicable GF instructions and manuals, including proper use and maintenance. To the extent that a third party warrants a component, GF conveys all of its rights under that warranty to the Original Purchaser, to the extent permitted. Original Purchaser is one who purchases this product new and unused from GF or a Certified GF Dealer/Distributor.

This limited warranty shall only apply to defects that are reported in accordance with the provisions set forth in this warranty document, within the applicable warranty period and which, upon examination by GF or its authorized representative, prove to be a warranty item. (See Obtaining Warranty Service below) This limited warranty is not transferable.

The warranted components and time periods are set forth below:

- Main Frame:..... 10 (ten) years
- Control Box and Actuators:..... 2 (two) years
- Hand Control Pendant, Staff Control, and Cabling:..... 1 (one) years
- Assist Devices:..... 2 (two) years
- All other durable components not listed above:..... 2 (two) years

- * Labor is not included in the warranty.
 - ‡ The warranty period is as designated above. If a part is replaced under warranty, the original warranty period will not be affected. All other replacement parts will be subject to the warranty period specified.
- The applicable warranty period shall commence from date of shipment to the Original Purchaser, unless there is an expiration date on the component in which case the warranty shall expire on the earlier of warranty period or the expiration date.

OBTAINING WARRANTY SERVICE

Contact the Dealer/Distributor from whom the product was purchased. If there is not a Dealer/Distributor, you must contact GF directly by calling (678) 291-3200 or by e-mailing a request to cs@grahamfield.com. The Customer Service Representative will provide specific directions. Failure to abide by the specific directions will result in denial of the warranty claim.

The warranty does not cover and GF shall not be liable for the following:

- 1) Defects, damage, or other conditions caused, in whole or in part, by misuse, abuse, negligence, alteration, accident, freight damage, tampering or failure to seek and obtain repair or replacement in a timely manner;
- 2) Products which are not installed, used, or properly cleaned and maintained as required in the official manual for the applicable product;
- 3) Products considered to be of a non-durable nature including, but not limited to: filters, fuses, gaskets, lubricants, and charts;
- 4) Accessories or parts not provided by GF;
- 5) Matching of color, grain or texture except to commercially acceptable standards;
- 6) Changes in color caused by natural or artificial light;
- 7) Charges by anyone for adjustments, repairs, replacement parts, installation or other work performed upon or in connection with such products which are not expressly authorized in writing, in advance, by GF;
- 8) Any labor or shipping charges incurred in the replacement part installation or repair;
- 9) Costs and expenses of regular maintenance and cleaning; and
- 10) Representations and warranties made by any person or entity other than GF.

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For additional information on this product or this warranty, please contact a GF Customer Service Representative.

NOTES:

- 1) Additional terms and conditions may apply. See GF's General Terms and Conditions on its website: www.grahamfield.com.
- 2) Freight claims must be notated on the appropriate shipping documents and must be made with immediacy. International, federal and state regulations govern specific requirements for freight claims. Failure to abide by those regulations may result in a denial of the freight claim. GF will assist you in filing the freight claim.
- 3) Claims for any short shipment must be made within three (3) days of the invoice date.



Manufactured By:
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Made in U.S.A.

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