

# Delta 1000

## Ultra Light Plus, Semi Electric Bed

Item # 15030

### Owner's Assembly And Operating Manual



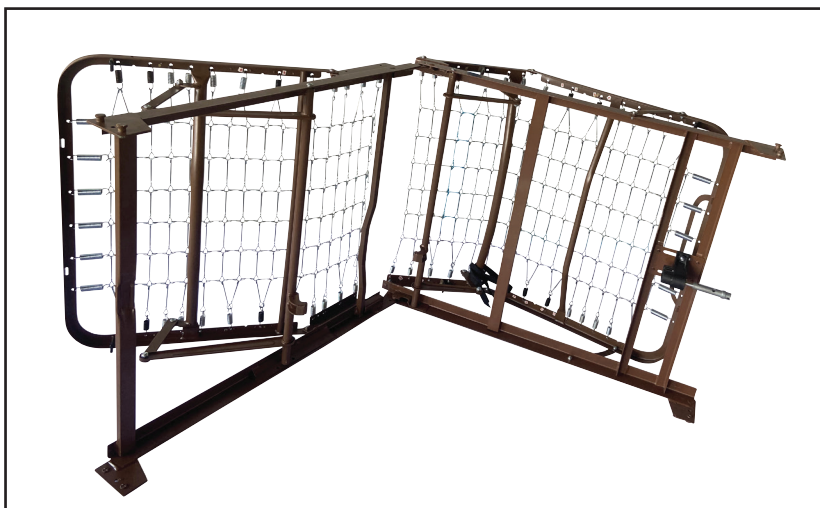
# Assembly Instructions

Confirm that all parts are present.

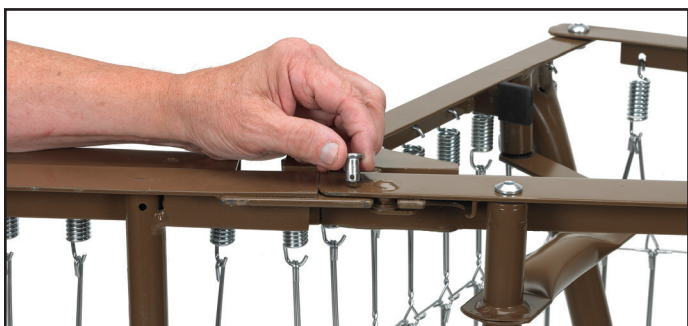
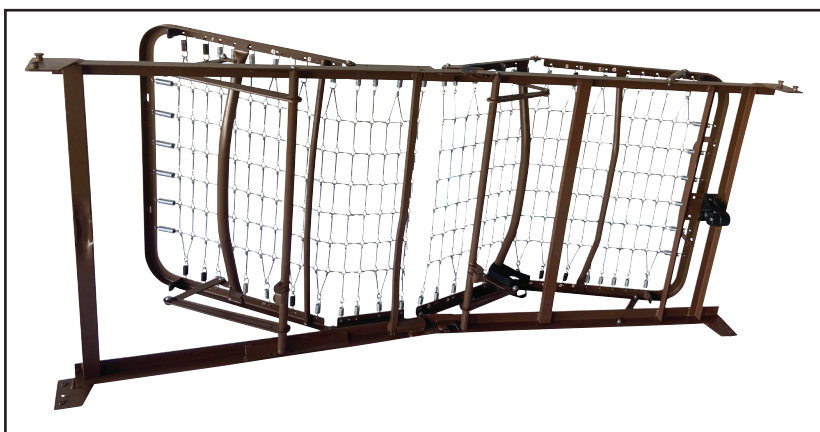
- A. Foot Spring
- B. Head Spring
- C. Head Board
- D. Foot Board
- E. Hi/Low Shaft
- F. Locking Pins
- G. Motor
- H. Hand Crank (attached to foot board for shipping)
- I. Casters (4) - 2 locking, 2 non-locking
- J. Spring Clips (2)
- K. Hand Pendant
- M. Motor Transport Straps



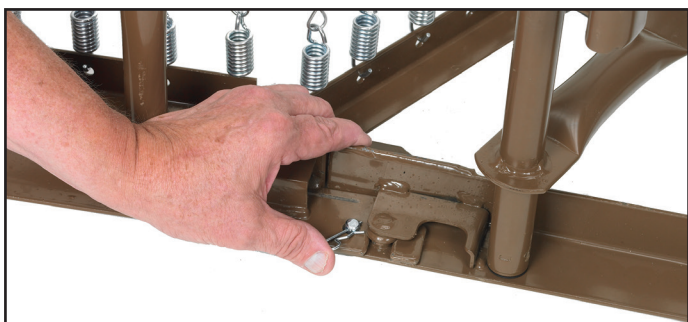
## Assembly Instructions Cont.



3. Connect the head spring by aligning with foot spring and swinging both ends away from each other. (Continued on next page)



4. Insert lock pin through connected sleep surface and secure with spring clip.



## Assembly Instructions Cont.



- 4A. Connect head section and foot section by squeezing together and attaching with spring links. Pull up the head section and foot section to release tension between the springs.



### HAND CONTROL

The Delta bed comes with a hand control that will illuminate when the bed is plugged into a grounded or polarized wall outlet, or with 9V battery (sold separately) installed in the hand control. The hand control will illuminate as long as the wall or battery has power. With this battery installed, the motor can be operated to return the sleep surface to the horizontal position in the event of a power failure.



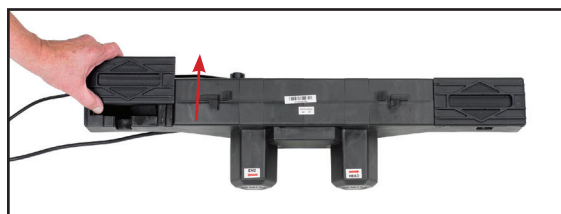
**NOTE:** Before installing motor, plug hand pendant cable into motor as shown



## Assembly Instructions Cont.



5. Connect the 9V battery (sold separately) to the battery clip on the motor. It is stored in the recess under the motor cover. With this battery installed, the motor can be operated to return the sleep surface to the horizontal position in the event of a power failure.



6. To install motor, remove locking caps on top of the motor.

## Assembly Instructions Cont.

There are two methods for the installation of the motor

### **Method A**

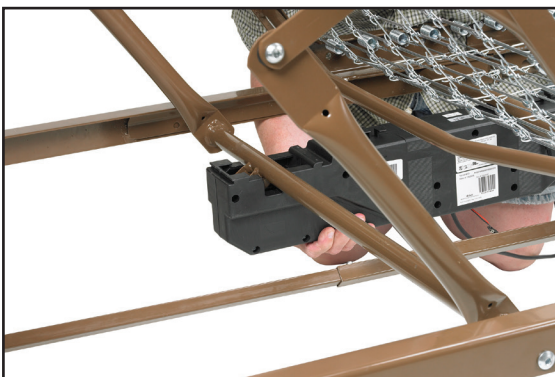
The motor is installed on the bed frame when the frame is standing on its side.



Installation instructions can be found on pages 8-9.

### **Method B**

The motor is installed from underneath the bed frame (horizontal to the ground)



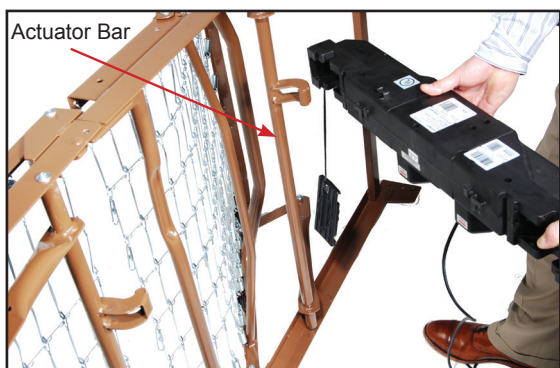
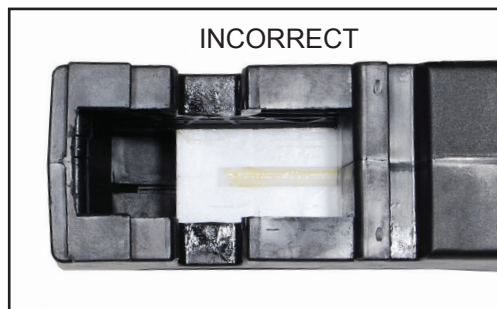
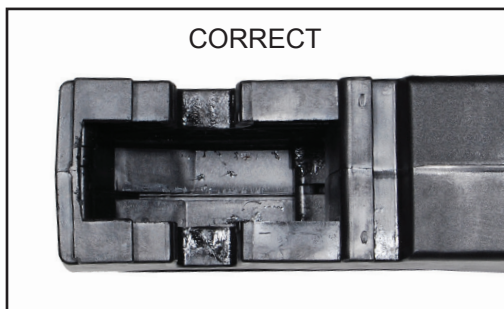
Installation instructions can be found on pages 10-11.

## Assembly Instructions Cont.

### Method A

### Installation of the motor when bed frame is on its side

A1. Prior to installation, make sure that the 2 white motor blocks are in the retracted position.



A2. Align the opening on the head end of the motor with the flange on the head section of the bed and insert the flange into the motor compartment.



A3. With the palm of your hand, snap the motor flush to the actuator bar.



A4. Align the opening on the foot end of the motor with the flange on the foot section of the bed and insert the flange into the motor compartment.

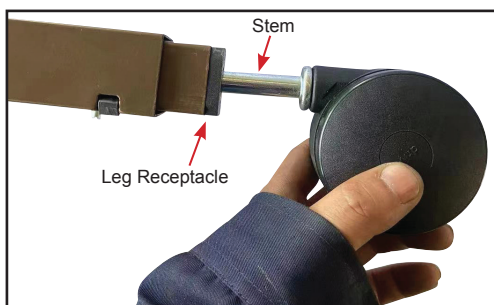
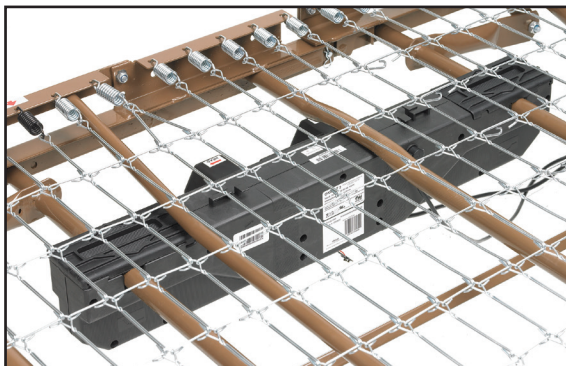
## Assembly Instructions Cont.

### Method A (Continued)



- A5. With the palm of your hand, snap the motor flush to the actuator bar.

- A6. After the motor is installed, slide locking covers back on motor.



- A7. Install the casters by inserting the stem of the caster into the leg receptacle. It is recommended to install 1 locking caster and 1 non-locking caster on each bed end. The locking casters should be installed diagonally from each other.



- A8. Attach the foot board and head board as shown.

- a. NOTE: Head and Foot boards are the same height. Note position of the embossed "HEAD" and "FOOT" labels on top and sides of the bed ends for proper assembly. The head and foot boards are interchangeable with each other, with all other Drive, and other manufacturers head and foot boards.



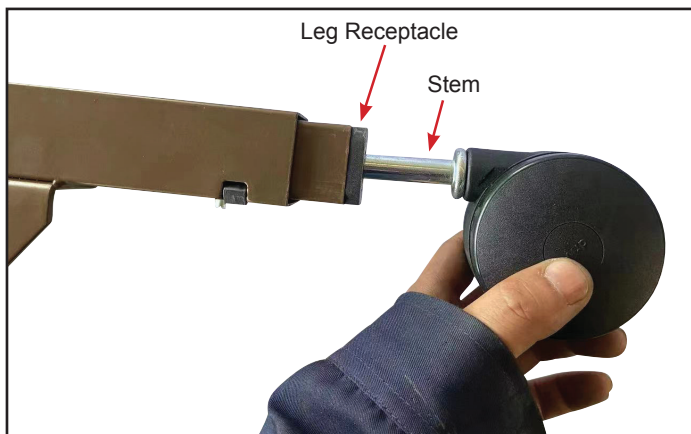
**End Method A**  
Go To Page 11, Step 7



## Assembly Instructions Cont.

### Method B

### Installation of the motor from underneath the frame



- B1. Install the casters by inserting the stem of the caster into the leg receptacle. It is recommended to install 1 locking caster and 1 non-locking caster on each bed end. The locking casters should be installed diagonally from each other.

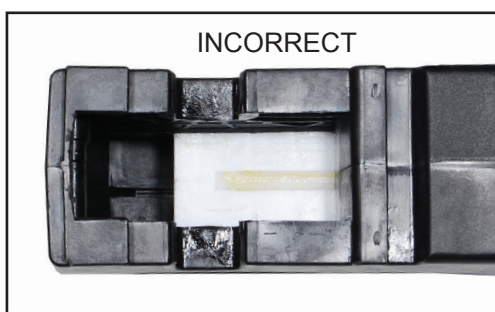
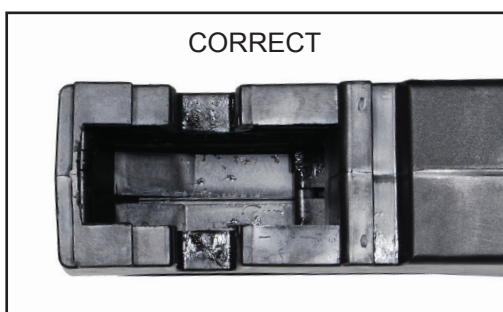


- B2. Attach the foot board and head board as shown.

- a. NOTE: Head and Foot boards are the same height. Note position of the embossed "HEAD" and "FOOT" labels on top and sides of the bed ends for proper assembly. The head and foot boards are interchangeable with each other, with all other Drive, and other manufacturers head and foot boards.

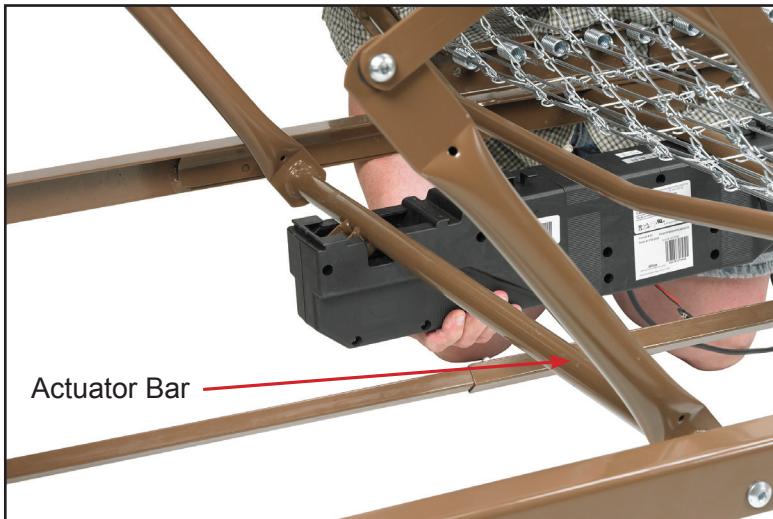


- B3. Prior to installation, make sure that the 2 white motor blocks are in the retracted position.



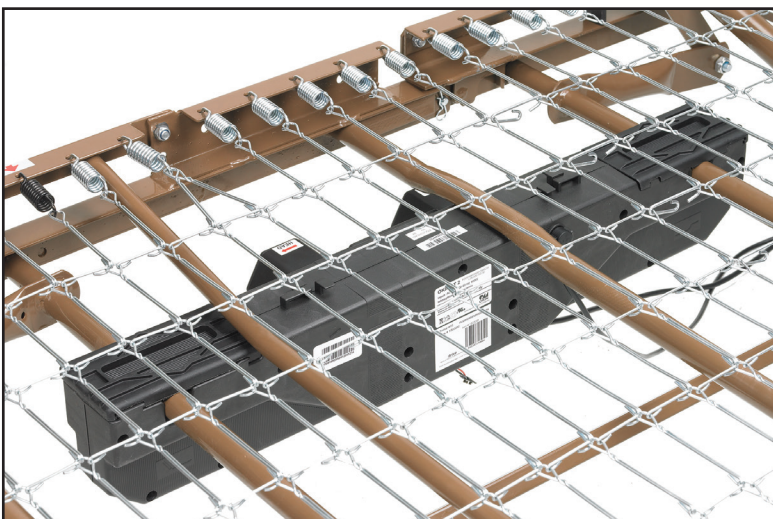
## Assembly Instructions Cont.

### Method B (Continued)



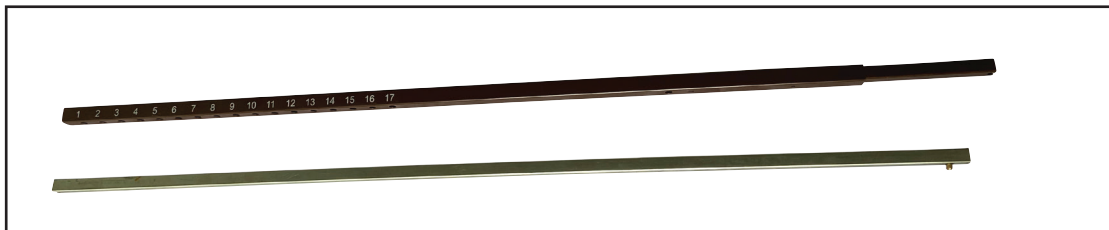
- B4. With the motor orientated properly with the bed (head to head, foot to foot), align the motor with actuator bar and lift the head spring to the highest position. The motor will automatically be pulled towards the bed and lock onto the actuator. Once the head side of the motor is attached to the head section of the bed, return the head section to the flat position. Once flat, attach motor cover to the head section of the motor. Repeat for foot section.

Note: Be sure the head section is attached first.



**End Method B**

## Assembly Instructions Cont.



7A. The Hi/Low shaft consists of two sections that are shipped unassembled. The inner shaft has a positioning spring button, and the outer shaft has positioning holes that are labeled with various bed model numbers.



7B. Insert the inner Hi/Low shaft section into the outer Hi/Low shaft section.



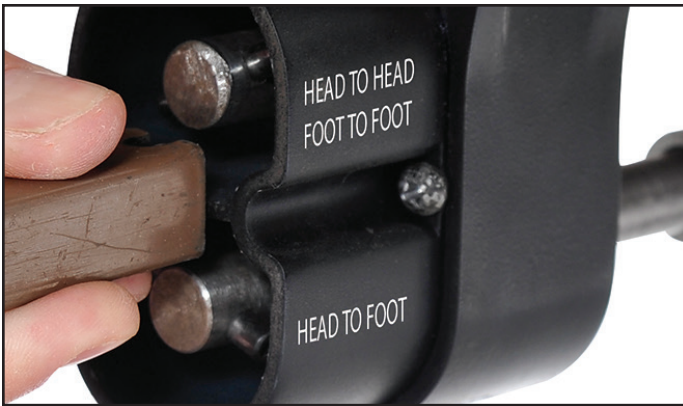
7C. Locate the positioning hole labeled 15030, and adjust the positioning spring button until it lines up with the 15030 positioning hole.



7D. The Hi/Low shaft is now assembled and ready for to be attached to the bed frame.



## Assembly Instructions Cont.



8. Install Hi/Low shaft to the foot section of the bed by inserting the spring loaded side of the shaft to the bottom receptacle as shown.

- 8A. Based on the bed end configuration, install the shaft into the proper port to ensure correct bed hi/low function.



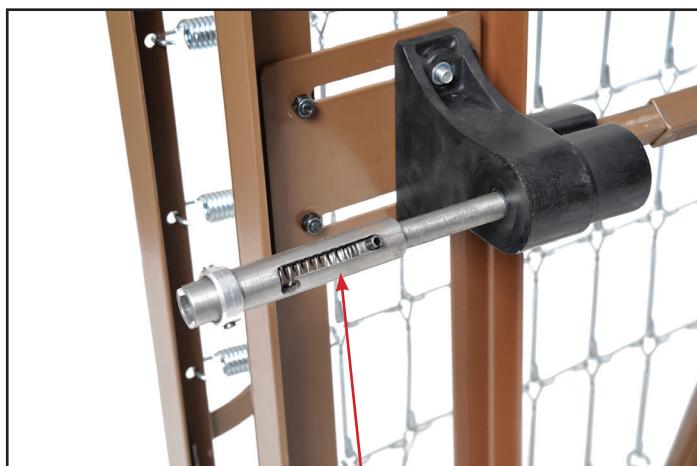
9. Install the head end of the shaft as shown.



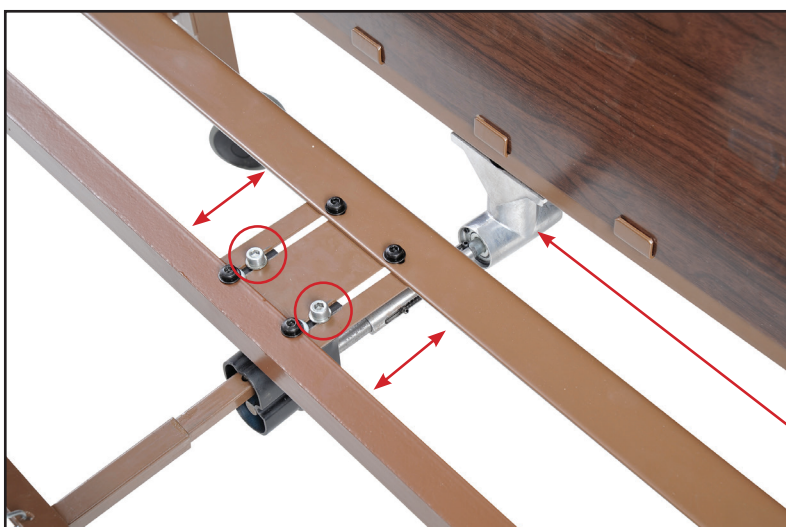
## Assembly Instructions Cont.



10. Release the spring loaded shaft on the transition box at the foot end of the spring and insert the shaft into the transition box on the footboard.



Spring Loaded Shaft

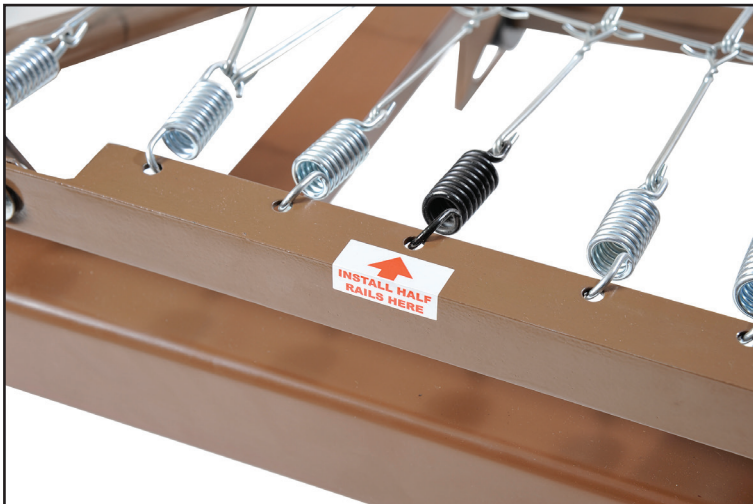


NOTE: Transition box is pre-set from factory but if using a non-Drive head or foot board, and the shaft that extends from the crank housing is too long or short, the transition box can be adjusted with a 6mm allen key.

Crank Housing

# Bed Rail Installation

**NOTE: USE DRIVE APPROVED RAILS ONLY**



## 11. Attaching Bed Rails

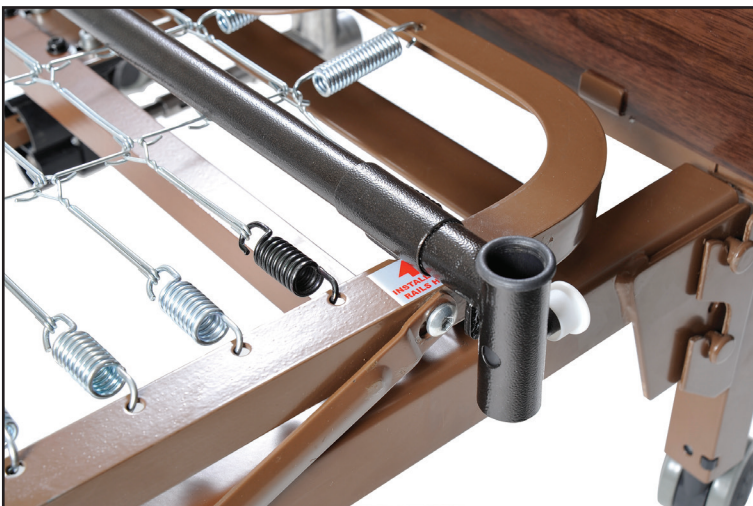
### a. Half rails

- The head section features labels on the frame marked, "INSTALL HALF RAILS HERE" and black springs for proper placement.



### b. Full Rails

- The foot and head section have color coded springs, labels and notches in the frame.
- Install the cross brace between the black springs for proper rail placement.



## Height Adjustment



12. To raise the height of the bed, remove the crank that is attached to the bottom of the foot board.



13. Insert into the receptacle.



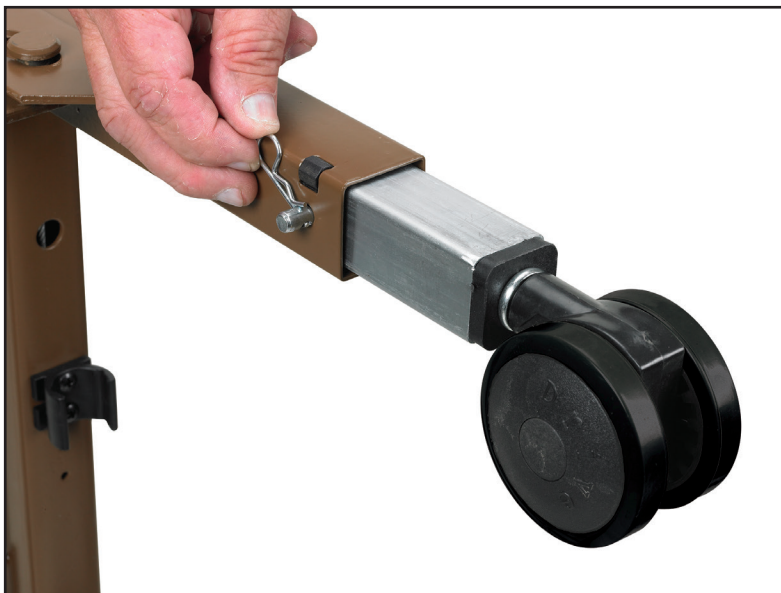
14. Turn clockwise to raise the height of the bed, counter clockwise to lower the height of the bed. Re-attach the crank to the bracket on the bottom of the foot board when not in use.



## Optional Fixed Height Adjustment



15. Optional fixed height adjustment with lock pins



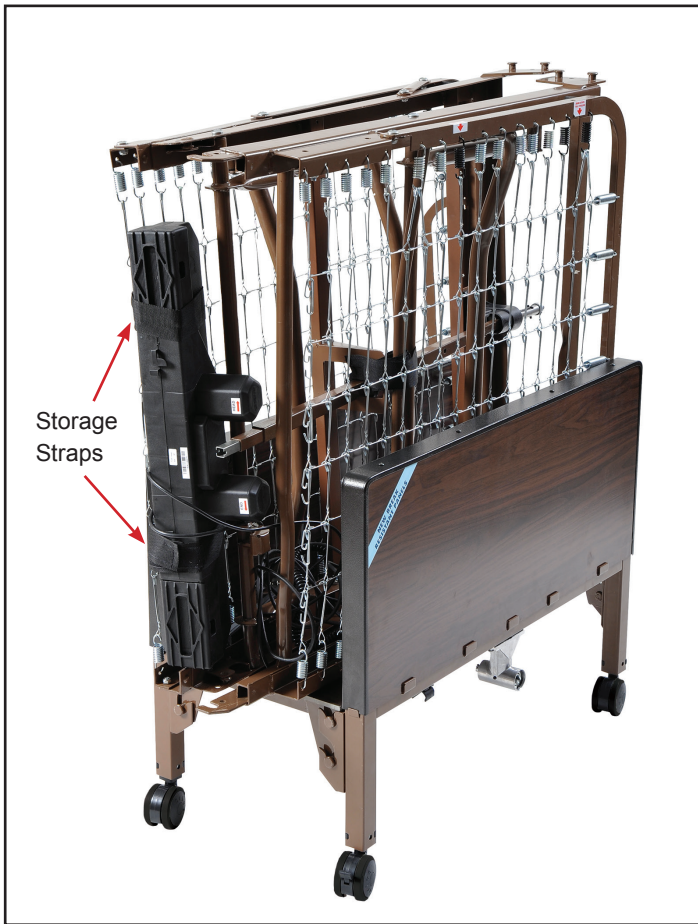
16. The four large pins are used if the height of the bed is to be locked at a set height. Set the height of the bed so that the hole in the leg is aligned with the hole in the bed end outer leg. Insert the pin through each of the four legs and install the spring clip on each.



17. Before a mattress is laid on the bed, flip up the mattress guard to reduce the movement of the mattress.



## Storage



18. Shown on Bed Storage Transporter (model # 15060) with motor attached with storage straps (included).

## Maintenance & Safety Checks

Drive recommends the following maintenance and cleaning procedures be conducted between users.

### **WEIGHT LIMITATIONS**

- The total weight limit of the Drive 36-inch wide Manual/Electric bed (including accessories, mattress, occupant and any other person/object positioned on the bed) is 450 lbs;
- Body weight should be evenly distributed over the surface of the manual/electric bed. DO NOT lay, sit or lean in such a way that your entire body weight is placed only on raised head or foot sections of the bed. This includes when repositioning or transferring in or out of bed.
- DO NOT permit more than one person on/in a 36-inch bed at any time.

### **ELECTRONICS**

- Check all controls to make sure all functions work properly.
  - Foot control
  - Head control
  - Hi/Lo
- Check all cables for damaged or frayed wires.
  - Power cord
  - Pendant cord
- Check to make sure all plugs are fully inserted or attached.
- Check 9V battery on motor and replace annually.

### **BED FRAME & SLEEPING SURFACE**

- Visually check all welds.
  - Head section
  - Foot section
  - Main Frame
- Check joints between sleeping surface sections for loose fasteners.

### **CLEANING**

- The metal parts of the bed are covered with a powder coating. Clean all coated parts with mild detergent and warm water. Periodically raise head and feet sections of the bed and remove dust from frame. Also, periodically remove mattress and clean mattress deck.

### **LUBRICATION & MECHANICAL**

- Lightly grease all actuator screw threads with white lithium grease.
- Lubricate all caster roller and swivel bearings with light machine oil.
- Check all bolts and tighten as needed.

### **WARRANTY**

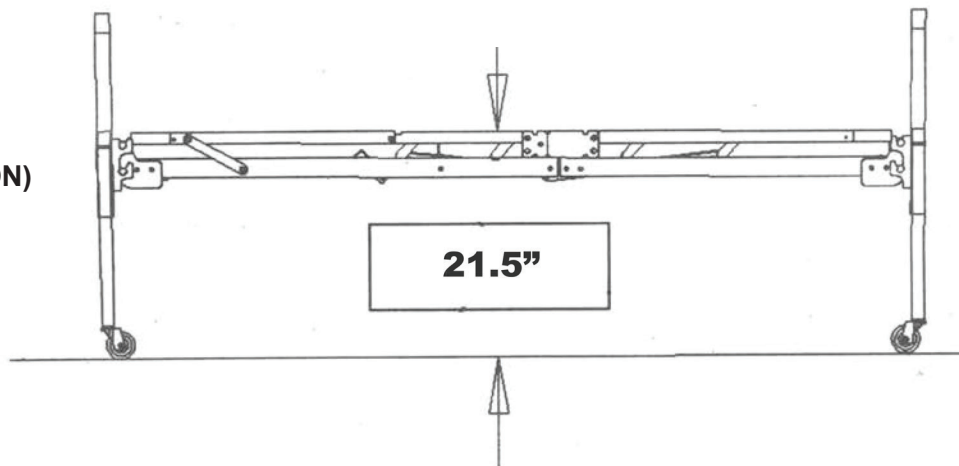
- Lifetime warranty on welds.
- 5 year warranty on frame.
- 5 year warranty on motor.
- 5 year on hand control.
- 1 year warranty on all other parts and components.

During the warranty period, defective items will be repaired or replaced at Drive's option at no charge.

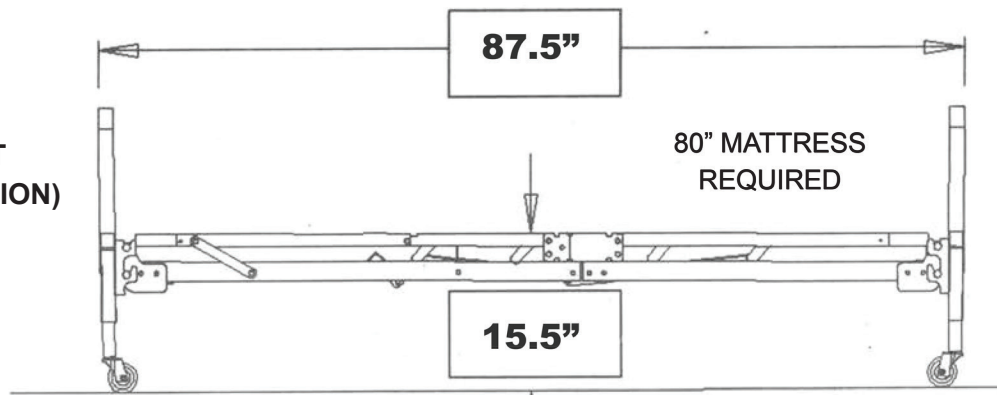
# Specifications

## DECK HEIGHT

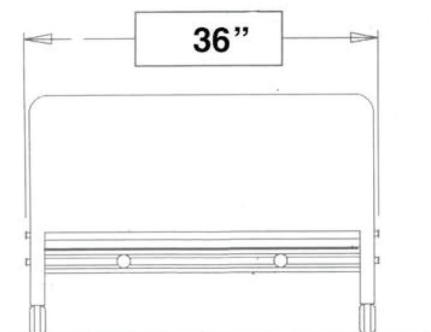
### BED HEIGHT (HIGH POSITION)



### BED HEIGHT (LOW POSITION) LENGTH



## DECK WIDTH



## ELECTRICAL

- Motor is UL approved.

## WEIGHT

- Normal operating conditions: 450 lbs evenly distributed.

## CONSTRUCTION

- Frame: 11ga (.120) hot rolled steel (rolled formed).
- Sleeping surface: Zinc plated steel wire and coils.

## FINISH

- Durable Powder Coating.



# WARNINGS

## GENERAL WARNINGS

**DO NOT** use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as owner's manuals, service manuals or instruction sheets supplied with this product or optional equipment. If you are unable to understand the warnings, cautions or instructions, contact a healthcare professional, dealer or technical personnel before attempting to use this equipment - otherwise, injury or damage may occur.

Read all the instructions before using the bed.

Refer to the owner's manuals for beds and rails for additional product and safety information.

After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely.

After the bed has been assembled, always test to make sure that all sections of the bed are properly and securely in place before using.

**ALWAYS** use caster locks except when moving the bed.

Body weight should be evenly distributed over the surface of the bed. **DO NOT** lay, sit or lean in such a way that your entire body weight is placed only on raised head or foot sections of the bed. This includes when assisting the user in repositioning or transferring in or out of bed.

Check all parts for shipping damage and test before using. In case of damage, **DO NOT** use. Contact a qualified technician for further instruction.

Close supervision is necessary when this bed is used by or near children or people with disabilities.

**DO NOT** let any individual underneath the bed or in between the raised bed frame components at anytime.

**DO NOT** permit more than one person on/in the bed at any time.

**DO NOT** use outdoors.

**DO NOT** use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as owner's manuals, service manuals or instruction sheets supplied with this product or optional equipment. If you are unable to understand the warnings, cautions or instructions, contact a healthcare professional, dealer or technical personnel before attempting to use this equipment - otherwise, injury or damage may occur.

For Dealers Only - Set-up and Assembly Instructions are in the rear of this manual. These procedures must be performed by a qualified technicians only.

The March 2006 version of the FDA's bed safety guidelines are published by Hospital Bed Safety Workgroup. The latest revision of this document is available at <http://www.fda.gov>.

If the unit is not working properly, call a qualified technician to examine the unit and repair it.

Drive Medical products are specifically designed and manufactured for use in conjunction with Drive Medical accessories. Accessories designed by other manufacturers have not been tested by Drive Medical and are not recommended for use with Drive Medical products.

Keep all moving parts, including the main frame, mattress deck (head and foot springs/sections) and all drive shafts free of obstruction (i.e. blankets/sheets, heating blankets/pads, tubing, wiring, etc. and other types of products using electric cords which may get tangled around the bed, side rails or legs) during operation of the bed.

## WARNINGS

Keep the product a minimum of 12 inches away from any direct heat source.

Make sure head and foot springs/sections are connected securely to the universal bed ends before use.

Physically challenged individuals who cannot prevent themselves from rolling/climbing out of the this bed may require alternative safe means of restraint.

Procedures other than those described in this manual must be performed by a qualified technician. Risk of injury to persons - **DO NOT** place video equipment such as televisions or computer monitors on bed.

**NEVER** allow patients to use trapeze or traction units as a total individual weight support.

Trapeze units are to be used only for assisting the patient in repositioning or transferring into or out of bed.

Trapeze units must be positioned on a universal bed end as near as possible to the center point of the bed end.

The bed is not designed to be used as a patient transport. When transporting a patient, use an approved patient transport. Otherwise, injury or damage may result.

The bed may be equipped with locking casters. When transferring into or out of the bed, always lock the locking caster(s). Inspect for correct locking action on caster locks before using bed. Even with casters properly locked, some flooring surfaces such as tile or wood, will allow the bed to move under some conditions. Use on surfaces such as these must be evaluated by the care provider. The initial set up of this bed must be performed by a qualified technician.

The total weight limit of the Drive Medical 36-inch (91.4 cm) wide Manual/Electric bed (including accessories, mattress, occupant and any other person/object positioned on the bed) is 450 pounds (204 kg.); 350 pounds (158 kg) patient weight.

Use this bed only for its intended use as described in these instructions. **DO NOT** use attachments not recommended by the manufacturer.

After raising/lowering the head/foot end of the bed, check the distance between the bottom of the bed rail and the mattress. If there is excessive distance between the bottom of the bed rail and the mattress in which individuals may become entangled, adjust the height of the bed rail (if applicable), or provide alternative means of patient protection.

Once patient assessment concludes that the patient's condition increases the chance of entrapment, the bed **MUST** be in the flat position when left unattended.

Proper patient assessment and monitoring, and proper maintenance and use of equipment is required to reduce the risk of entrapment. Variations in bed rail dimensions, and mattress thickness, size or density could increase the risk of entrapment. Visit the FDA website at <http://www.fda.gov> to learn about the risks of entrapment.

Replacement mattresses and bed side rails with dimensions different than the original equipment supplied or specified by the bed frame manufacturer are not interchangeable. Variations in bed side rail design, width and thickness or firmness of the mattress could cause/contribute to entrapment. Use only authorized Drive Medical replacement parts and/or accessories otherwise the warranty is void. Drive Medical will not be responsible for any damage or injury that may result.

To reduce the risk of entrapment make certain that the bed rail cross braces **DO NOT** exceed the width of the mattress. Mattress **MUST** fit bed frame and

## WARNINGS

side rails snugly to reduce the risk of entrapment.

When operating this bed, **ALWAYS** ensure that the individual utilizing the bed 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.

Drive Medical recommends that the mattress be centered on the bed frame. Otherwise, individuals may become entangled between the bed rail and the bed frame.

Mattress **MUST** fit bed frame and assist rails snugly to reduce the risk of entrapment.

### SAVE THESE INSTRUCTIONS

**NOTE:** Updated versions of this manual are available on [www.Drive Medical.com](http://www.Drive Medical.com).

### BED RAIL WARNINGS

Although bed rails are not rated to any specific weight limitation, the bed rails may become deformed or broken if excessive side pressure is exerted on the bed rails. The bed rail is not an assist rail for getting into or out of bed. **DO NOT** use the bed rails as push handles when moving the bed.

Always test to make sure that the side rails are properly and securely in place before using the bed.

**DO NOT** install the optional bed rails without reading and understanding all of the instructions in the instruction sheet that accompanies the bed rail kit.

**DO NOT** use the side rails as push handles for moving the bed.

These bed rails are intended to prevent an individual from inadvertently rolling out of bed. **DO NOT** use for restraint purposes.

When used with a manual/electrical bed, the bed rails **DO NOT** fall under any weight limitations. Bed rails can be deformed or broken if excessive

side pressure is exerted on the bed rails. These bed rails are used for the purpose of preventing an individual from inadvertently rolling out of bed. The bed rails are **NOT** intended nor may be used for restraint purposes. If an individual is capable of injuring himself/herself, a physician or a healthcare professional should be consulted for alternative means of safe restraint.

### ELECTRICAL WARNINGS

A safety feature of this product includes protection against overheating caused by excessive or extended periods of operation. Depending on the duration, this includes multiple or repeated adjustments or the use of multiple functions at one time. To ensure trouble free operation, always allow a slight pause between multiple adjustments and avoid pressing more than one function button at a time. If thermal protection activation should occur, the bed will not respond to pendant commands. Given this situation, release the pendant button and allow the bed unit to sit for several minutes. This will allow the protection function time to reset and restore bed function. Depending on severity of the initial overheating, this could take up to 30 minutes.

Allow a slight pause between adjustments and avoid pressing multiple buttons at the same time. If pendant buttons are depressed too rapidly or multiple buttons are pressed at the same time, the desired feature may not activate. Simply release the pendant button, permit a slight pause and then activate the next operation.

**ALWAYS** remove manual crank(s) before performing electronic functions. Otherwise, the crank(s) will turn when the motor is on and could cause personal injury or damage to the bed.

Always unplug the bed from the electrical outlet before cleaning.

**DO NOT** open assemblies such as the motors, pendant, junction boxes or gear boxes. No user serviceable parts are inside. Only qualified techni-



# WARNINGS

cians are permitted to repair these parts. If unqualified individuals perform any work on these beds, the warranty is void.

**DO NOT** place pendant under or between objects. This may unintentionally press the buttons and may cause injury or damage.

Electronic equipment may be influenced by Radio Frequency Interference (RFI). Caution should be exercised with regard to the use of portable communications equipment in the area around such equipment. If RFI causes erratic behavior, unplug the electric bed **IMMEDIATELY**. Leave unplugged while transmission is in progress.

Ensure all cables and cords are routed such that they will not become entangled or pinched. Otherwise damage or injury may result.

If a button on the pendant does not release or sticks, the bed spring will not stop moving.

If a liquid is spilled in or around the electric bed, unplug the electric bed before cleaning. Clean up the spill and allow the electric bed or the area around the electric bed to dry thoroughly before using the electric controls again.

Inspect the covering of the bed's control panel and the patient control panel to assure that the covering is not cracked or damaged.

Keep all electrical cords away from heated or hot surfaces.

Keep the cord away from heated surfaces.

**NEVER** operate if the unit has a damaged cord or plug. If it is not working properly, call a qualified technician for examination and repair.

**NEVER** operate this bed if it has a damaged cord or plug, if it is not working properly, if it has been dropped, damaged, or dropped into water. Return

the bed to a service center for examination and repair.

On Full Electric beds, the Hi/Lo crank **MUST** be removed before the bed is used. Failure to remove the crank may cause damage or personal injury.

Refer servicing to qualified personnel only. Grounding reliability depends upon a properly grounded wall outlet.

The pendant and power cords must be routed and secured properly to ensure that the cords **DO NOT** become entangled, pinched and/or severed during operation of the electric bed.

Unplug from the outlet before servicing.

Unplug the power cord from its power source before performing any maintenance on the manual/ electric bed. **DO NOT** unplug the power cord from the junction box. Damage to cord will result.

Use caution when disconnecting the pendant. **DO NOT** press pendant buttons.

When bed is not to be used for an extended period, unplug electric bed from the wall outlet.

When using an extension cord, use only a three wire extension cord having at least 16 AWG (American Wire Gauge) wire and the same or higher electrical rating as the device being connected. Use of improper extension cord could result in a risk of fire and electric shock. Three to two prong adapters should not be used. Use of three prong adapters can result in improper grounding and present a shock hazard to the user.

When using nasal or masked type oxygen administering equipment, the oxygen or air tubing **MUST** be routed and secured properly to ensure that the tubing does not become entangled and/or severed during normal operation of the bed.

## WARNINGS

**DO NOT** use near explosive gases.

Possible fire hazard when used with oxygen administering equipment other than nasal or masked type.

Use masked or nasal type oxygen administering equipment only in conjunction with this bed. The use of **ANY** other type of oxygen administering equipment can result in a fire hazard.

Body weight should be evenly distributed over the surface of the bed. **DO NOT** lay, sit or lean in such a way that your entire body weight is placed only on raised head or foot sections of the bed. This includes when assisting the user in repositioning or transferring in or out of bed.

The Head (Head Spring) and Foot (Foot Spring) sections of the sleep surface must be in the lowered/flat position for entry into the bed. Patients should be slowly lowered into the bed.

**DO NOT** abruptly “drop” patients into the bed. It is not safe to use the Head (Head Spring) or Foot (Foot Spring) sections of the sleep surface to assist in raising or lowering patient for entry or egress

from the bed. This may damage the frame and/or motors and create a danger to the patient.

**DO NOT** attempt to raise the Head (Head Spring) section of the sleep surface while the patient or any other individual is seated or positioned with their weight entirely on the Head (Head Spring) section of the sleep surface.

**DO NOT** attempt to raise the Foot (Foot Spring) section of the sleep surface while the patient or any other individual is seated or positioned with their weight entirely on the Foot (Foot Spring) section of the sleep surface.

**DO NOT** attempt to raise the Head (Head Spring) or Foot (Foot Spring) sections of the sleep surface while more than one person is lying in the bed or when the bed weight limitations have been exceeded.

**DO NOT** sit on the headspring and attempt to raise yourself to a standing position with the remote control



**DO NOT** attempt to raise the headspring while multiple people are laying in the hospital bed



**Notes:**



**Notes:**





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Fax: 516.998.4601  
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