
USER MANUAL and Assembly Instructions

Hill-Rom® 100 Low Bed



Product No. P3930

147730 REV 2

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Manufactured by:

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To order additional copies of this manual (147730), refer to the back cover for contact information. For countries not listed on the back cover, contact your distributor.

NOTE:

The back cover is a comprehensive list of Technical Support contact information for Hill-Rom. The product discussed in this manual may not be available in all of the countries listed.

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Table of Contents

Document Symbols	1
Intended Use	2
Introduction	2
Features	2
Mattresses	3
Accessories	3
Patient Characteristics	4
Bed Setup	4
Instructions for Use	4
Siderails	4
Short Locking Siderail	5
Full Length Locking Siderail	5
Removable Non-Locking Siderail	6
Manual Foot Gatch	6
Control Pendant	6
Install the Pendant into the Short Siderail	7
Remove the Pendant from the Short Siderail	7
Raise or Lower the Bed	7
Auto Contour	8
Raise or Lower the Knee Section	8
Raise or Lower the Head Section	8
Lock Out the Pendant Controls	8
Bed End Panels	9
Brakes	9
Caster Brake	9
Patient Restraint Straps and Drainage Bags	10
Battery Backup	10
Battery Disposal	10
CPR	10
Trendelenburg	10
Mattress	11
Cleaning	12
General Cleaning	12
Steam Cleaning	12
Cleaning Hard to Clean Spots	12

Disinfecting	12
Inspection	13
Bed Disposal	13
Transfer of Ownership	13
Safety Tips	14
Bed Position	14
Siderails	15
Patient Restraints	16
Brakes	16
Electrical Safety	17
Battery Backup	17
Mattresses	17
Replacement Parts	18
Troubleshooting	18
General Problems	18
Product Symbols	21
Technical Specifications	22
Electromagnetic Interference	24
Unpacking and Assembly Instructions	27
Setup	27
Assembly Procedure	30
Final Steps	39

Document Symbols

This manual contains different typefaces and symbols to make the content easier to read and understand:

- Standard text—used for regular data.
- **Boldface text**—emphasizes a word or phrase.
- **NOTE:**—sets apart special data or important instruction clarification.
- WARNING, RELATIVE CONTRAINDICATION, or CAUTION



- A WARNING identifies situations or actions that may have an effect on patient or user safety. To ignore a warning could cause patient or user injury.
 - A RELATIVE CONTRAINDICATION identifies situations or actions that may have an effect on patient safety.
 - A CAUTION identifies special procedures or precautions that persons must obey to help prevent equipment damage.
- CAUGHT HAZARD WARNING



- CHEMICAL HAZARD WARNING



- ELECTRICAL SHOCK HAZARD WARNING



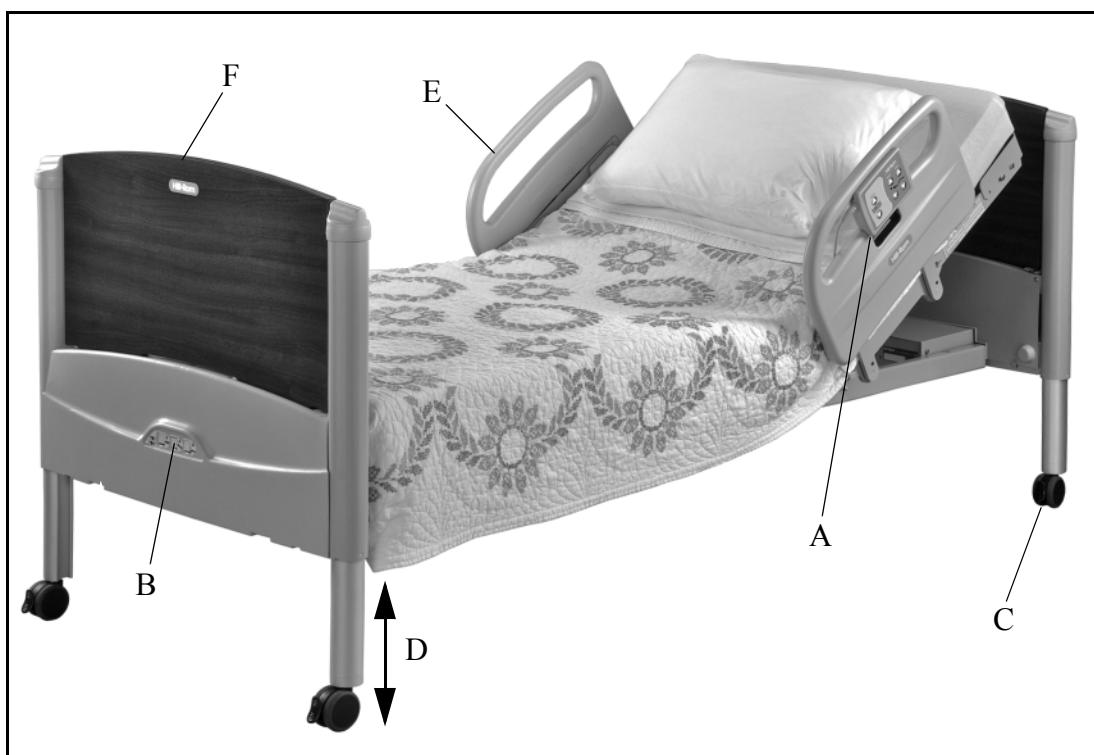
Intended Use

The Hill-Rom® 100 Low Bed is a general-purpose bed for use with low to medium acuity patients in long-term care and home care environments.

Introduction

This manual gives instructions for normal operation of the Hill-Rom® 100 Low Bed. Before you operate the bed, be sure that you have read and understood in detail the contents of this manual. It is important that you read and obey the aspects of safety in this manual. Any reference to a side of the bed is from the patient's view lying in the bed on his or her back.

Features



Item	Description
A	Control pendant
B	Lockout controls
C	Four individually braking casters
D	Low deck height—9" (23 cm)
E	Clocking siderails (full length clocking and removable non-clocking also available)
F	Removable headboard and footboard

The Hill-Rom® 100 Low Bed also has these features:

- Battery backup function
- Complete bed articulation: Hi/Low, head and knee up/down, and auto contour
- Shearless Pivot® Patient Position Mechanism
- Ability to move the bed at any height
- Choice of 80" or 84" sleep surface length
- Manual foot gatch
- Standard color scheme from Hill-Rom
- Service contract available

⚠ WARNING:

The use of unapproved items/accessories not identified in this manual (traction frames, IV poles, etc.) could cause injury or equipment damage.

Mattresses

The Hill-Rom® 100 Low Bed is compatible with these Hill-Rom® mattresses, overlays, and their control boxes, and have been tested to meet the FDA Guidelines to Reduce Entrapment (HBSW):

- FLEXICAIR ECLIPSE® Low Air Loss Therapy Unit
- PRIMA® Prevention Mattress Series, which includes:
 - PRIMA SHEAR-LESS® Prevention Mattress (NOTE: does not meet zone 3 of the HBSW guidelines with the removable non-clocking siderail)
 - PRIMA SHEAR-LESS PLUS® Prevention Mattress
- SimpliMATT® MR High Density Foam Mattress
- Silkair® MRS Low Air Loss Therapy System and Overlay

NOTE: This list may not be complete, as we regularly approve additional mattresses for use with this bed. Contact Hill-Rom Technical Support or your account representative for the latest offerings.

Accessories

The Hill-Rom® 100 Low Bed can be used with these items and accessories:

- Urinal devices
- Sling scale devices
- Foley-type bags
- Hoists or lifts
- Overbed tables

Other accessories will become available for the Hill-Rom® 100 Low Bed. Contact your account representative for the latest available accessories.

Patient Characteristics

WARNING:

Do not use the product outside the recommended patient characteristics. Patient injury or equipment damage could occur.

Height—4' 10" to 6' 2" (147 cm to 188 cm)

Width—up to 36" (91 cm)

Safe working load—**450 lb** (204 kg) maximum, which **includes patient weight**, mattress, IV pumps, poles, bags, and such.

Bed Setup

Refer to “Unpacking and Assembly Instructions” on page 27.

Instructions for Use

Siderails

WARNING:

Evaluate patients for entrapment risk, and watch patients as necessary. Make sure all siderails are fully latched when in the raised position. Failure to do so could cause serious injury or death.

NOTE:

Siderails are intended to be a reminder to the patient of the unit's edges and as an aid for getting in and out of bed. Siderails are **not** a patient-restraining device. When appropriate, Hill-Rom recommends that medical personnel determine the proper methods necessary to make sure a patient remains safely in bed.

WARNING:

If the bed has an wide mattress that fits very close to the siderail, the siderail may appear to be latched in the up position, but is actually being supported by the mattress. Make sure the siderail is latched. Failure to do so could cause injury.

WARNING:

Use of a mattress overlay reduces the effective height of the siderails above the sleep surface. If you use a mattress overlay, evaluate the patient for the risk of falls, and take measures. Failure to do so could cause injury. For home care situations, consult your healthcare professional for advice.

Short Clocking Siderail

⚠ WARNING:

Keep fingers and feet from between the siderail and the bed frame or floor. Always hold the clocking siderail when you lower it to avoid uncontrolled release. Failure to do so could cause foot or finger pinch or crush.

Raise

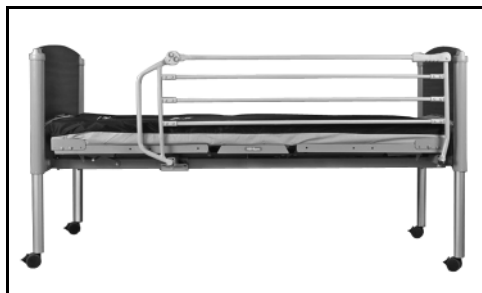
1. Hold the top of the siderail.
2. Rotate the siderail up to the raised position until a click is heard.
3. Tug on the siderail to make sure it is securely latched.

Lower

1. Pull up on the release lever.
2. Hold the siderail to control its descent, and rotate the siderail down to the lowered position.



Full Length Clocking Siderail



Raise

1. Hold the upper rail.
2. Rotate the siderail up to the raised position until a click is heard.
3. Pull on the siderail to make sure it is tightly latched.

Lower

1. Push the **1** and **2** buttons on the release knob.
2. Rotate the siderail down to the lowered position.

Removable Non-Clocking Siderail

Install

1. Align the two posts in the adapter.
2. Push down until a click is heard.

Remove

1. Push on the release pin on the side of the post insert.
2. Pull the siderail up and out of the bracket.



Manual Foot Gatch

Raise

1. Lift the foot end of the sleep surface.
2. Hold the foot gatch crossbar and guide it to the upper part of the curved slot.
3. Make sure the crossbar is in place before you let go of the sleep surface.



Lower

1. Lift and support the foot end of the sleep surface.
2. Guide the foot gatch down, around, and into the slot that extends toward the foot of the bed.
3. Lower the sleep surface to the flat position.

Control Pendant

The control pendant can be installed in the short siderail only (**not** a full-length siderail), from both the inside and outside.

You can also hang the control pendant on the headboard or full-length siderail with an optional clip.

Pendant controls include:

- Hi/Low Up/Down
- Head Up/Down
- Knee Up/Down

If a caregiver has locked out a bed function at the foot end, that same function is locked out on the control pendant.



Install the Pendant into the Short Siderail

1. Put the pendant next to the opening in the siderail.
2. Put the top edge of the pendant into the siderail so the rounded indent aligns with the upper handle section.
3. Push the lower edge of the pendant in until it **clicks** into position inside the siderail.

Remove the Pendant from the Short Siderail

Gently pull on the lower edge of the pendant until it comes out of the siderail.

To move the control pendant from one siderail to the other, move the pendant and cable under the bed to the other side.



⚠ CAUTION:

Use care when you place or move the cable for the control pendant. Make sure the cable is not between moving parts or areas where it could be pinched. Equipment damage could occur.

⚠ WARNING:

Mechanical parts under the bed create a risk of serious injury. Make sure visitors, especially children and pets, stay out from under the bed, and keep them away from the bed positioning controls. Failure to do so could cause death, injury, or equipment damage.



Raise or Lower the Bed

⚠ WARNING:

Before you lower the bed, look to make sure there are no obstructions, children, or pets under the bed. Failure to do so could cause death, serious injury, or equipment damage.

Press and hold the **Hi/Low Up** or **Down** control to adjust the bed to the correct height, based on patient/caregiver needs:

- Lower—for nighttime or extended times when the patient is unattended.
- Mid-range—for patient entry and exit.
- Higher—for examination or better caregiver access to the patient.



⚠ WARNING:

Use caution when you lower the bed. To prevent injury, keep extremities (arms, legs, and head) from under the bed frame and head/footboard while it comes down. Keep feet from under the end panels to avoid possible foot crush.

NOTE:

If the bed is not occasionally raised or lowered completely, over time it may become out of level. If the bed is not level, raise or lower it fully to level the bed.

Auto Contour

The Auto Contour™ feature raises and lowers the head and knee sections at the same time to help keep the patient from sliding to the foot end of the bed. When you use the **Head Up** or **Head Down** control, the knee section automatically rises or lowers.



You can override the Auto Contour feature, as described in the text below.

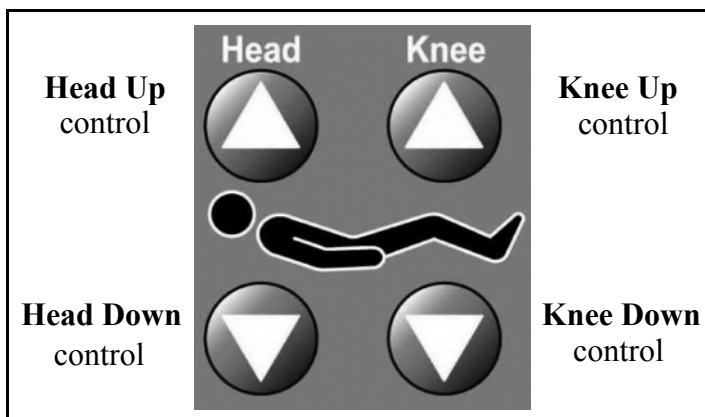
Raise or Lower the Knee Section

To adjust the knee section independently of the head, press and hold the **Knee Up** or **Knee Down** control to raise or lower the knee section to the correct position. The knee section can rise to 20°.

Raise or Lower the Head Section

Press and hold the **Head Up** or **Head Down** control to adjust the head to the correct position. The head section can rise to 60°.

To raise the head independently of the knee, press the **Knee Down** and **Head Up** controls at the same time.

**Lock Out the Pendant Controls****⚠ WARNING:**

Electrical component failure may cause the bed to move without any controls being operated. Lock out the patient controls to reduce the possibility of unintentional movement. If a patient's condition is such that injury could occur from unintentional movement, lock out the patient controls. Failure to do so could cause injury or equipment damage.

Use the lockout controls on the foot-end control panel to help keep the patient from operating the head, knee, or hi/low functions. When necessary, use the lockout controls for patient safety. When a control is locked out, its button will be noticeably depressed.

NOTE:

The knee will still move when the head section is locked out.

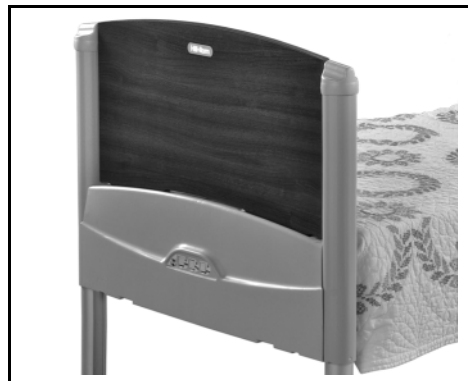


Bed End Panels

The Hill-Rom® 100 Low Bed has slot mountings for the bed end panels.

To install a bed end panel, fit it in the two mounting slots between the end posts.

To remove a bed end panel, pull it up and out of the mounting slots.



Brakes

Caster Brake

The brake casters are at the four corners of the bed.

To set the brake, step on the lower end of the brake lever to lock the caster.

To release the brake, step on the upper end of the brake lever to push it forward and unlock the caster.



⚠ WARNING:

Always set the brakes when the unit is occupied, except for occasional local movement for cleaning, access, etc. Failure to do so may cause injury or equipment damage.

⚠ WARNING:

Make sure the brakes are set before any patient transfer, and make sure all hoses and IV lines are secured and out of the way. Failure to do so may cause injury or equipment damage.

⚠ WARNING:

The Hill-Rom® 100 Low Bed is **not** a transport device. Do not move the bed from room to room with a patient on the bed. Injury or equipment damage could occur.

Patient Restraint Straps and Drainage Bags

WARNING:

Patient restraints are not intended as substitutes for good nursing practices. Make sure that restraints are attached to the same section of the sleep surface, as bed articulation (head up, knee up, etc.) could put excessive stress on incorrectly attached straps. Physical restraints, even correctly installed, can cause entanglement, physical injury, and death, especially with agitated and disoriented patients. Keep a close watch on patients when you use physical restraints, in accordance with legal requirements and physician advice.

Patient restraint straps and drainage bags can be attached to the sleep surface frame on both sides of the bed, near the siderails. For restraining devices, consult the restraint manufacturer's instructions for use to make sure of the correct application of each restraining device.

Battery Backup

The Hill-Rom® 100 Low Bed has a battery backup as a standard feature. The battery lets the hi/low, foot, and head motors continue limited operation when AC power is not available.

NOTE:

If the battery is completely discharged, it may take up to 18 hours to recharge.

CAUTION:

If the bed will not be used for an extended period of time, disconnect or remove the battery (refer to the Service Manual). Failure to do so could shorten the life of the battery or damage the bed.

To make sure the battery is always charged, keep the bed plugged in whenever possible.

Battery Disposal

The battery backup power comes from a gel-cell lead acid battery. Hill-Rom recommends you replace the battery **every two years**. Do not put batteries in your household trash. Dispose of or recycle the battery correctly and according to your local regulations. For assistance in disposal of the battery, contact your local authorities or Hill-Rom. Use the contact information supplied on the back cover.

CPR

If the patient needs Cardiopulmonary Resuscitation (CPR), make sure the bed is flat. If you cannot lower the head section of the bed, transfer the patient to the floor to do CPR.

Trendelenburg

The Hill-Rom® 100 Low Bed does **not** have Trendelenburg or Reverse Trendelenburg functions. To simulate a Trend position, you can lift the manual foot gatch to raise the feet relative to the head (see “Manual Foot Gatch” on page 6).

If a patient goes in to shock, immediately call you local emergency responders.

Mattress

WARNING:

Mattresses that are too small for the frame can create a gap between the mattress and the siderails, which increases the risk for patient entrapment or suffocation. Evaluate patients for vulnerability, and keep watch over patients. Do not use mattresses that have not been tested to meet the FDA Guidance to Reduce Entrapment. Failure to do so could cause injury or death. For home care situations, consult your healthcare professional for advice.

WARNING:

Even when the surface is the correct size for the frame, therapy surfaces, like air mattresses, can be very soft and permit a patient to sink in. This can increase the risk of suffocation, especially where the mattress meets the siderail. If a vulnerable patient is put on a therapy surface, take extra precautions to help prevent entrapment. If you can not keep a constant watch over the patient, you may want to lower the siderails to eliminate the entrapment area. If you do lower the siderails, lower the bed, and put a mat on the floor to soften the impact if the patient falls from the bed. Failure to do so could cause death or injury. For home care situations, consult your healthcare professional for advice.

WARNING:

If the patient stays in the bed when the bedding is changed, do **not** pull on the bedding with excessive force. Patient injury could occur.

WARNING:

Do not permit patients to smoke in bed. Sheets and pillows generally do not have flame-resistant properties. Injury or equipment damage could occur.

CAUTION:

Only control boxes of powered mattresses listed in the “Mattresses” section are recommended to be hung on the footboard. If you hang other accessories on the headboard or footboard, equipment damage could occur.

Cleaning

WARNING:

Follow the cleaning product manufacturer's instructions. Failure to do so could cause injury or equipment damage.



SHOCK HAZARD:

Unplug the unit from its power source. Failure to do so could cause injury or equipment damage.



SHOCK HAZARD:

Do not expose the unit to excessive moisture. Injury or equipment damage could occur.

CAUTION:

Do not use harsh cleansers/detergents, such as scouring pads, and heavy duty grease removers, or solvents, such as toluene, xylene, and acetone. Equipment damage could occur.

General Cleaning

If there is no visible soil with possible body fluids, we recommend that you clean the unit with a mild detergent and warm water. Do not use excessive liquid or harsh cleansers.

Steam Cleaning

Do not use any steam cleaning device on the unit. Excessive moisture can damage mechanisms in this unit.

Cleaning Hard to Clean Spots

To remove difficult spots or stains, we recommend that you use standard household cleansers and a soft bristle brush. To loosen heavy, dried-on soil, you may first need to saturate the spot.

Disinfecting

When there is visible soil and also between different patient use, we recommend that you disinfect the unit with an EPA registered (US only), tuberculocidal, disinfectant, or a weak household bleach solution. Dilute and use the disinfectant as specified on the manufacturer's label.

Inspection

Do a periodic inspection to make sure all bed functions operate correctly, especially the safety features. Safety features include, but are not limited, to these:

- Connectors where the bed sections bolt together; tighten as necessary
- Siderail latching mechanisms
- Caster braking systems

WARNING:

We do not recommend the use of extension cords with the Hill-Rom® 100 Low Bed. To do so could cause death, injury, or equipment damage.

- Electrical cords and components
- Control function operation
- Lockout function operation
- Battery backup
- Surface damage

For specific problems or issues not included here, refer to “Troubleshooting” on page 18 or the *Hill-Rom® 100 Low Bed Service Manual* (147731).

WARNING:

Only authorized persons should service the Hill-Rom® 100 Low Bed. Service by unauthorized persons could cause injury or equipment damage, and may void the warranty.

Bed Disposal

When the Hill-Rom® 100 Low Bed has reached the end of its usable life, discard it according to local and federal standards (If the bed is paid for by Medicare, check with them for their reimbursement requirements or restrictions before you do this.). Remove the batteries, and recycle as much as possible (motors, cables, etc.). See “Battery Backup” on page 10 for information on battery disposal.

Transfer of Ownership

If you sell or donate the bed to others, do as follows:

- Clean and disinfect the bed thoroughly to prevent cross-contamination.
- Tell about any defects or non-operational functions.
- If the bed is disassembled, include all attaching parts and give them to the new owner.
- Give this document to the new owner.
- If new documentation is necessary, call Hill-Rom Technical Support. Use the contact information supplied on the back cover.

Safety Tips

Bed Position

WARNING:

The Hill-Rom® 100 Low Bed is **not** a transport device. Do not move the bed from room to room with a patient on the bed. Injury or equipment damage could occur.

WARNING:

We recommend that the unit be in the low position when the patient is unattended. This may reduce the severity of any resultant injuries from patient falls.

WARNING:

When a patient's condition (such as disorientation due to medication or clinical condition) could lead to patient entrapment, the sleep deck should be left in the flat and lowest position while unattended (except when required otherwise by medical staff for special or particular circumstances). If you lower the siderails, put a mat on the floor to soften the impact if the patient falls from the bed. Failure to do so could cause injury or death. For home care situations, contact your healthcare professional for advice.

WARNING:

Use caution when you lower the bed frame. To help prevent injury, keep extremities (arms, legs, and head) from under the bed frame and head/footboard while it comes down. Keep feet from under the end panels to avoid possible foot crush.

WARNING:

Before you lower the bed, look under the bed to make sure there are no obstructions, children or pets under the bed. Failure to do so could cause death or serious injury or equipment damage.

WARNING:

When you change bed positions, make sure hands, feet, and equipment are away from the frame assemblies. Failure to do so could cause injury.

WARNING:

Mechanical parts under the bed create a risk of serious injury. Make sure visitors, especially children and pets, stay out from under the bed, and keep them away from the bed positioning controls. Failure to do so could cause death, injury, or equipment damage.

WARNING:

Electrical component failure may cause the bed to move without any controls being operated. Lock out the patient controls to reduce the possibility of unintentional movement. If a patient's condition is such that injury could occur from unintentional movement, lock out the patient controls. Failure to do so could cause injury or equipment damage.

⚠ WARNING:

The Hill-Rom® 100 Low Bed is not designed for use with oxygen tents and their accessories. Injury or equipment damage could occur. Use oxygen administering equipment of the nasal, mask, or ventilator type only. Do not hang oxygen tanks or accessories on the bed frame or headboard/footboard.

⚠ WARNING:

Approved accessories, such as overbed tables, drainage bags, sling scales, or hoyer lifts, should not be used when the bed is in its lowest position. Injury or equipment damage could occur.

⚠ WARNING:

The use of unapproved items/accessories (not identified in this manual) could cause injury or equipment damage.

Siderails

⚠ WARNING:

Evaluate patients for entrapment risk, and monitor patients appropriately. Make sure all siderails are fully latched when in the raised position. Failure to do so could cause serious injury or death.

NOTE:

Siderails are intended to be a reminder to the patient of the unit's edges and as an aid for getting in and out of bed. Siderails are **not** a patient-restraining device. When appropriate, Hill-Rom recommends that medical personnel determine the proper methods necessary to make sure a patient remains safely in bed.

⚠ WARNING:

Do not let children or pets to climb on the siderails. Injury or equipment damage could result.

⚠ WARNING:

Use of a mattress overlay reduces the effective height of the siderails above the sleep surface. When you use a mattress overlay, evaluate the patient for the risk of falls, and take measures. Failure to do so could cause injury. For home care situations, consult your healthcare professional for advice.

⚠ WARNING:

If the bed has an wide mattress that fits very close to the siderail, the siderail may appear to be latched in the up position, but is actually being supported by the mattress. Make sure the siderail is latched. Failure to do so could cause injury.

To make sure the siderails are latched, give the siderails a gentle pull in a downward direction.

Patient Restraints

⚠ WARNING:

Patient restraints are not intended as substitutes for good nursing practices. Make sure that restraints are attached to the same section of the sleep surface, as bed articulation (head up, knee up, etc.) could put excessive stress on incorrectly attached straps. Physical restraints, even correctly installed, can cause entanglement, physical injury, and death, especially with agitated and disoriented patients. Keep a close watch on patients when you use physical restraints, in accordance with legal requirements and physician advice.

- If used in an extended care facility, explain the reasons for the restraint devices to families or guardians.
 - a. Create guidelines for all caregivers that show:
 - Which patients may need to be restrained and the correct restraint to use.
 - The correct method to monitor a patient, whether restrained or not; include how often, visual check of restraint, and such.
 - b. Create training programs for all caregivers about the correct use and application of restraints.
- If used in the home, consult with medical persons or a physician before you use restraints.
- Keep the bed at its lowest position whenever a caregiver is not in the room.

For restraining devices, see the restraint manufacturer's instructions for use to make sure of the correct application of each restraining device, and the correct use of restraints when used with other accessories such as fracture frames.

Brakes

⚠ WARNING:

Always set the brakes when the unit is occupied, except for occasional local movement for cleaning, access, etc. Failure to do so may cause injury or equipment damage.

⚠ WARNING:

Make sure the brakes are set before any patient transfer, and make sure all hoses and IV lines are secured and out of the way. Failure to do so may cause injury or equipment damage.

Patients often use the bed for support when they exit the bed and could be injured if the bed unexpectedly moves. After you set the brakes, push and pull the bed siderails to make sure the bed does not move.

Electrical Safety



CAUGHT HAZARD:

Electrical beds have greater risks for electrical shock hazards. Whenever a bed is being serviced, unplug it from its power source, disconnect the battery backup, and add supports if you must work under the bed. Failure to do so could cause death, injury or equipment damage.



SHOCK HAZARD:

The potential for electrical shock exists with electrical equipment. Failure to follow electrical safety practices may cause death or serious injury.



WARNING:

If you use or handle the power cord incorrectly you may damage it. If the power cord is damaged, immediately remove the bed from service. Failure to do so could cause injury or equipment damage.



WARNING:

Do not use the bed when condensation is present. Put the bed in a dry area and allow sufficient time for the condensation to evaporate before you operate the bed. Failure to do so could cause injury or equipment damage.

Battery Backup



CAUTION:

If the bed will not be used for an extended length of time, disconnect or remove the battery (refer to Service Manual). Failure to do so could shorten the life of the battery or damage the bed.

The battery backup power comes from a gel-cell lead acid battery, which must be discarded correctly and according to your local regulations. If you need to discard the battery and need help or advice, contact your local authorities or Hill-Rom. Use the contact information supplied on the back cover.

Mattresses



WARNING:

Mattresses that are too small for the frame can create a gap between the mattress and the siderails, which increases the risk for patient entrapment or suffocation. Evaluate patients for vulnerability, and keep watch over patients. Do not use mattresses that have not been tested to meet the FDA Guidance to Reduce Entrapment. Failure to do so could cause injury or death. For home care situations, consult your healthcare professional for advice.

⚠ WARNING:

Even when the surface is the correct size for the frame, therapy surfaces, like air mattresses, can be very soft and permit a patient to sink in. This can increase the risk of suffocation, especially where the mattress meets the siderail. If a vulnerable patient is put on a therapy surface, take extra precautions to help prevent entrapment. If you can not keep a constant watch over the patient, you may want to lower the siderails to eliminate the entrapment area. If you do lower the siderails, lower the bed, and put a mat on the floor to soften the impact if the patient falls from the bed. Failure to do so could cause death or injury. For home care situations, consult your healthcare professional for advice.

Without precautions, the area between the mattress and the siderails may create a gap in which highly vulnerable patients may become entrapped and suffocate:

- Mattresses that are undersized for the frame may create a gap and increase the risk for entrapment.
- Evaluate patients for vulnerability, and monitor patients as necessary.
- For home care situations, contact your healthcare professional for advice.

⚠ WARNING:

If the patient stays in the bed when the bedding is changed, do **not** pull on the bedding with excessive force. Injury could occur.

⚠ CAUTION:

Only control boxes of powered mattresses listed in the “Mattresses” section are recommended to be hung on the footboard. If you hang other accessories on the headboard or footboard, equipment damage could occur.

⚠ WARNING:

Do not permit patients to smoke in bed. Sheets and pillows generally do not have flame-resistant properties. Injury or equipment damage could occur.

Replacement Parts

⚠ WARNING:

Use only authorized Hill-Rom replacement parts for the 100 Low Bed. Failure to do so could cause injury or equipment damage, and will void your warranty.

Troubleshooting

General Problems

If the bed functions become erratic, or you experience unusual noises or odors, call Hill-Rom Technical Support. Use the contact information supplied on the back cover.

WARNING:

Only authorized persons should service the Hill-Rom® 100 Low Bed. Service by unauthorized persons could cause injury or equipment damage, and may void the warranty.

The Hill-Rom® 100 Low Bed motors are thermally protected against overload. To help make sure thermal overload does not occur, do as follows:

- Do **not** run the motors more than necessary.
- Do **not** run more than two functions at once.









For other problems, refer to the Troubleshooting Table before you call Technical Support.

Troubleshooting

Problem	Possible Cause(s)
Nothing works; no power.	<ul style="list-style-type: none">• The bed is unplugged from the wall socket and battery is either not charged, or the battery fuse is blown.• A facility or home circuit breaker is tripped.• The control pendant is unplugged from the bed.• All foot-end lockouts are engaged.• The internal controller fuse (not repairable) is blown.
Bed does not lower completely.	<ul style="list-style-type: none">• An obstruction is under the bed.
Head, knee, or foot section does not raise or lower, or partially operates.	<ul style="list-style-type: none">• One or more lockout(s) engaged at the foot end of the bed.• A cable is unplugged from the controller.• An obstruction under the frame, or bedding or hoses are tangled within the bed frame.• The foot gatch is in place.
Bed does not operate on battery power alone.	<ul style="list-style-type: none">• The internal battery needs to be charged.• The battery fuse is blown.• The battery needs to be replaced.
Siderail binds or does not lock in the up position.	<ul style="list-style-type: none">• Bedding or hose interference.• Siderail is damaged.

Problem	Possible Cause(s)
Bed surface is not level.	<ul style="list-style-type: none"> • The bed is overloaded at one end. • There is an obstruction under the frame, or bedding or hoses are tangled within the bed frame. • There has been a long period of inactivity, or many partial raisings and lowerings of the bed: Fully raise and lower the bed to re-establish a level surface.
Bed stops working after a long time of operation	<ul style="list-style-type: none"> • A facility or home circuit breaker is tripped. • Thermal overload. Do as follows: <ul style="list-style-type: none"> – Unplug the bed. – Do not operate for 20 minutes. – Plug in the bed. – Fully raise, then lower to make sure it is operating correctly and level. • If the problem persists, call Hill-Rom Technical Support. Use the contact information supplied on the back cover of this manual.

Product Symbols

Symbol	Description
	Type B equipment according to EN 60601-1.
IPX 4	According to IEC 60529, rating for protection against fluid ingress and identified as equipment that is protected against unpressurized spraying and splashing water.
	CAUTION: Consult accompanying documents.
	Do Not Use with Oxygen Tents—shows that oxygen tents are not to be used. Use oxygen administering equipment of the nasal, mask, or ventilator type only.
	Alternating current
	Safe Working Load—450 lb (204 kg) maximum, including patient weight, mattress, siderails, IV pumps, poles, bags, and such.
	Recycle in accordance with local regulations
	Functional earth (ground)
	<p>Manufacturer or distributor complies with the Waste Electric and Electronic Equipment Directive 2002/96/EC.</p> <p>Recycle the item in accordance with local regulations.</p>

Technical Specifications

Product Identification

Product Number	Description
P3930	Hill-Rom® 100 Low Bed

Dimensions

Feature	Dimension
Length—with standard sleep deck	93.25" (236.86 cm)
Length—with extended sleep deck	97.25" (247.02 cm)
Sleep deck length—adjustable	80" (203 cm) to 84" (213 cm)
Maximum width—with siderails	40" (102 cm)
Sleep deck width Standard Narrow	35.5" (90.2 cm) 33.8" (85.9 cm)
Maximum height (including headboard, but without other accessories)	60" (152 cm)
Minimum underbed clearance	5.5" (13.9 cm)
Wheel base Standard length Extended length	87.25" (221.62 cm) 91.25" (231.78 cm)
Caster size	3" (8 cm)
Power cord length	98.4" (249.9 cm)
Total weight (depending on surface, options or accessories)	approximately 300 lb (136 kg)

Specifications

Feature	Dimension
Head section inclination (maximum)	60°
Knee section inclination (maximum)	20°
Sleep deck height range	9" to 26" (23 cm to 66 cm)
Bed lift capacity (maximum safe working load)	450 lb (204 kg)
Headboard/footboard weight	15 lb (7 kg)

Environmental Conditions for Transport and Storage

Condition	Range
Temperature	-40°F to 158°F (-40°C to 70°C)

Condition	Range
Relative humidity (RH)	10% to 95%
Pressure	500 hPa to 1060 hPa

Environmental Conditions for Use

Condition	Range
Temperature	50°F to 104°F (10°C to 40°C) ambient
Relative humidity (RH)	10% to 95%, non-condensing
Atmospheric pressure	700 hPa to 1060 hPa

Mains Power Requirements

Condition	Range
Rated voltage	120 V AC single phase
Current draw (maximum)	3 A
Frequency	60 Hz
Duty Cycle	3 minutes ON—27 minutes OFF NOTE: Normal duty cycle can be expected in temperatures up to 97°F (36°C). If you operate the bed at higher ambient temperatures, a limited duty cycle may result (for example, thermal cutoff may occur during operation). Refer to “Troubleshooting” on page 18.

Battery Specifications

Condition	Range
Maximum battery life, with no functions operated and the bed unplugged from its power source	24 hours minimum
Time necessary to recharge a fully discharged battery	18 hours maximum
Battery Fuse Replacement	10 A, 32 V DC

Classification and Standards

The Hill-Rom® 100 Low Bed is designed and manufactured according to these equipment classifications and standards:

Technical and Quality Assurance Standards	UL 60601-1 CAN/CSA® ^a C22.2 No. 60601-2-38 IEC 60601-2-38, including amendment 1 EN60601-1 EN ISO 9002
Equipment classification per EN 60601-1	Class II equipment, internally powered equipment
Degree of protection against electric shock per ZEC 60601-1	Type B
Classification according to Directive 93/42/EEC	Class I
Degree of protection against the presence of flammable anaesthetic mixtures	Not for use with flammable anaesthetics.
IPX classification	IPX4—According to IEC 60529, rating for protection against fluid ingress and identified as equipment that is protected against unpressurized spraying and splashing water.
Hazardous Materials	WEEE label for electronic equipment per EU Directive 2002/96/EC

a. CSA® is a registered trademark of Canadian Standards Association, Inc.

Electromagnetic Interference

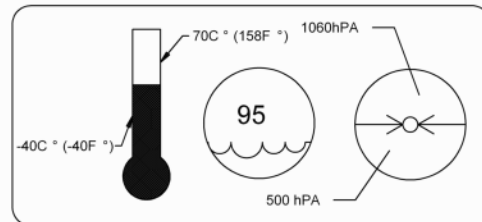
Check the Hill-Rom® 100 Low Bed for proper operation when it is used near other electronic devices. Portable and mobile radio frequency (RF) communications equipment can affect medical electrical equipment.

Warning and Caution Labels

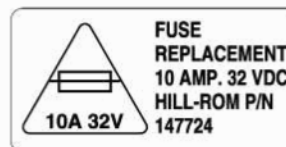


WARNING

REMOVE PENDANT WHEN NOT
IN USE AND STORE OUT OF
THE REACH OF CHILDREN



⚠ WARNING	⚠ CAUTION
<ul style="list-style-type: none"> Consult the User Manual before operating the bed. Consult the User Manual for recommended mattresses. Do not allow children or pets to go underneath bed or climb on the siderails. Do not use bed with a full oxygen tent or in an oxygen - enriched environment. 	<ul style="list-style-type: none"> Consult the User Manual for installation and set up instructions.
	Contact Hill-Rom for additional User Manuals



147730_1_042

Unpacking and Assembly Instructions

Tools required:	Drill or 3/8" drive w/socket adapter	13 mm box end wrench
	13 mm deep well socket	5 mm Allen™ ¹ wrench
	#30 Torx® ² bit or driver	Standard screwdriver
	Safety knife (box opener)	Wire cutter–diagonal
	Pliers (optional)	#10 Torx® bit (optional)

Reference documents: *Hill-Rom® 100 Low Bed User Manual (147730)*

Setup

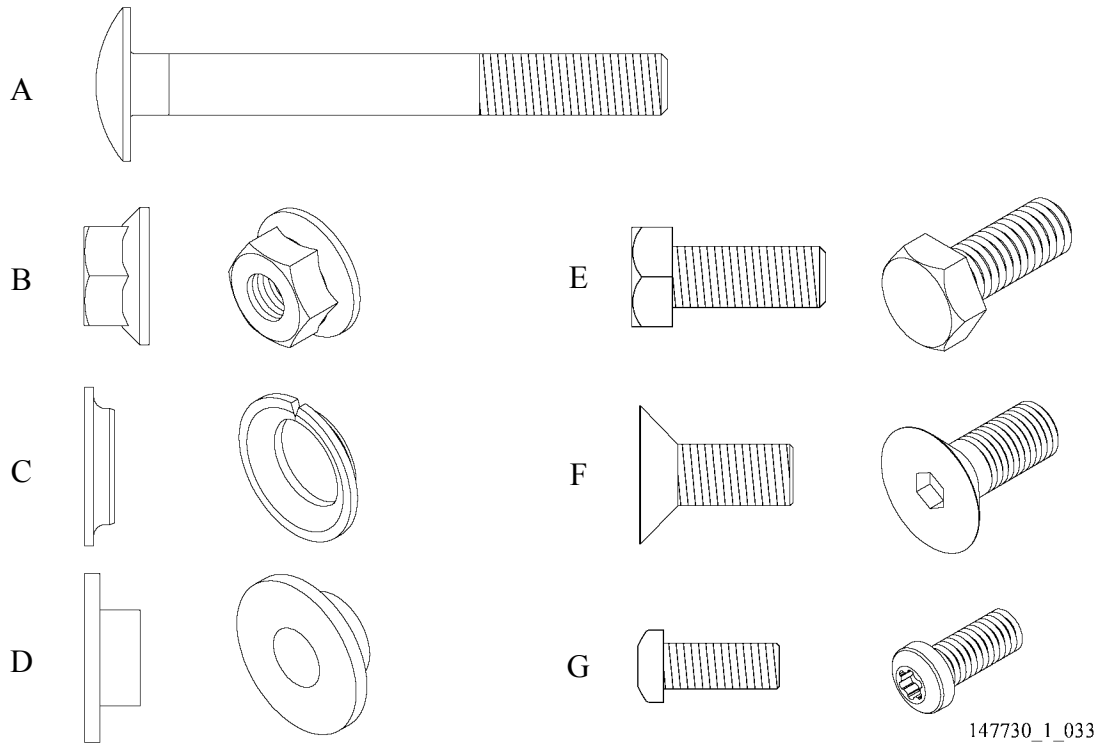
Before you begin, do as follows:

- Read and understand all of these instructions.
- Make sure you have all of the packing containers shown on your packing list.
- Make sure you have sufficient free and level space to assemble the bed **in the room where it will be used**, as the bed may not fit through doors after it is assembled.
- Remove each assembly from its packing container. **Make sure every box is completely empty.**
- Examine each assembly for damage. If there is damage or missing assemblies, call Hill-Rom Technical Support.
- Collect the parts bags and compare them to the instructions to make sure you have all attaching hardware (see figure on page 28).

1. Allen™ is a trademark of Industrial Fasteners, Inc.

2. Torx® is a registered trademark of Acument Intellectual Properties, LLC.

Attaching Parts



Attaching Parts

Item	Description	Quantity
A	Frame bolt	8
B	Nut	20 minimum; 24 with removable non-clocking or full-length clocking siderail
C	Snap ring	10
D	Bushing	12
E	Deck bolt	12 minimum; 16 with full-length siderail
F (optional)	Short clocking siderail bolt	4
G	Finial/cover screw	4

Refer to the attaching parts list above when they are referenced in this procedure.

NOTES:

Assembly Procedure

1. Put the base frame (H) on the floor. To verify the frame is right side up, check to make sure the cable channel (I) sits on top of the frame.
2. Get some of the loose, white styrofoam blocks from the base frame packing container and put them under the base frame (H) to lift it off the floor.
3. Remove the plastic cable ties from the base frame (H).
4. Put the head tower (J) at the head end of the base frame (H) and slide the base frame on to the outer edges of the head weldment (K).

NOTE:

The head weldment contains the controller box, which extends out from the front of the weldment.

5. Put the foot tower (L) at the foot end of the base frame (H), and slide the base frame on to the outer edges of the foot weldment (M).
6. Connect the wiring harness (N) to the connectors on the head-end control box (K). Match the color on the cable to the color on the control box connector.
7. Install the strain relief (O) over the wires, and snap it in place.
8. Connect the wiring harness (N) to the connectors on the foot-end control box (M). The two 9-contact plugs are interchangeable; the others will connect only with their matching connectors.
9. Attach the pendant (P) to the bed.

⚠ WARNING:

We do not recommend the use of extension cords with the Hill-Rom® 100 Low Bed. To do so could cause death, injury, or equipment damage.

10. Plug the bed into a standard wall socket.
11. Lock the casters.
12. Raise the bed to a comfortable working height.
13. To attach the base frame to the towers, do as follows at both ends:

NOTE:

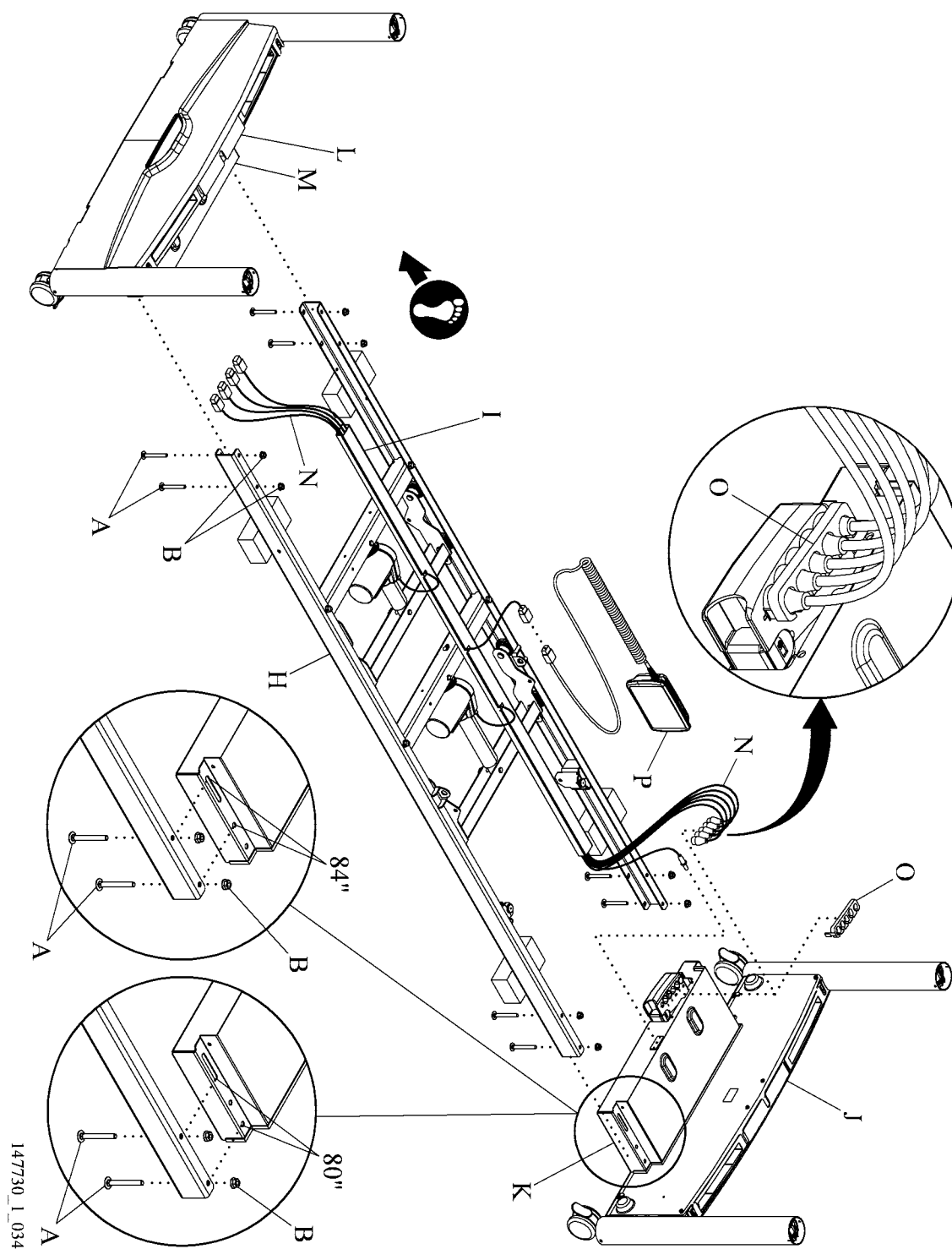
If the bed comes with a full-length siderail, install, but do not tighten the head-end frame bolts at this time.

- For a standard 80" mattress size, put the four long frame bolts (A)—from below the frame with threads up—into the last two sets of holes on the weldment (closest to the inside of the tower), install the nuts (B) and tighten.

or

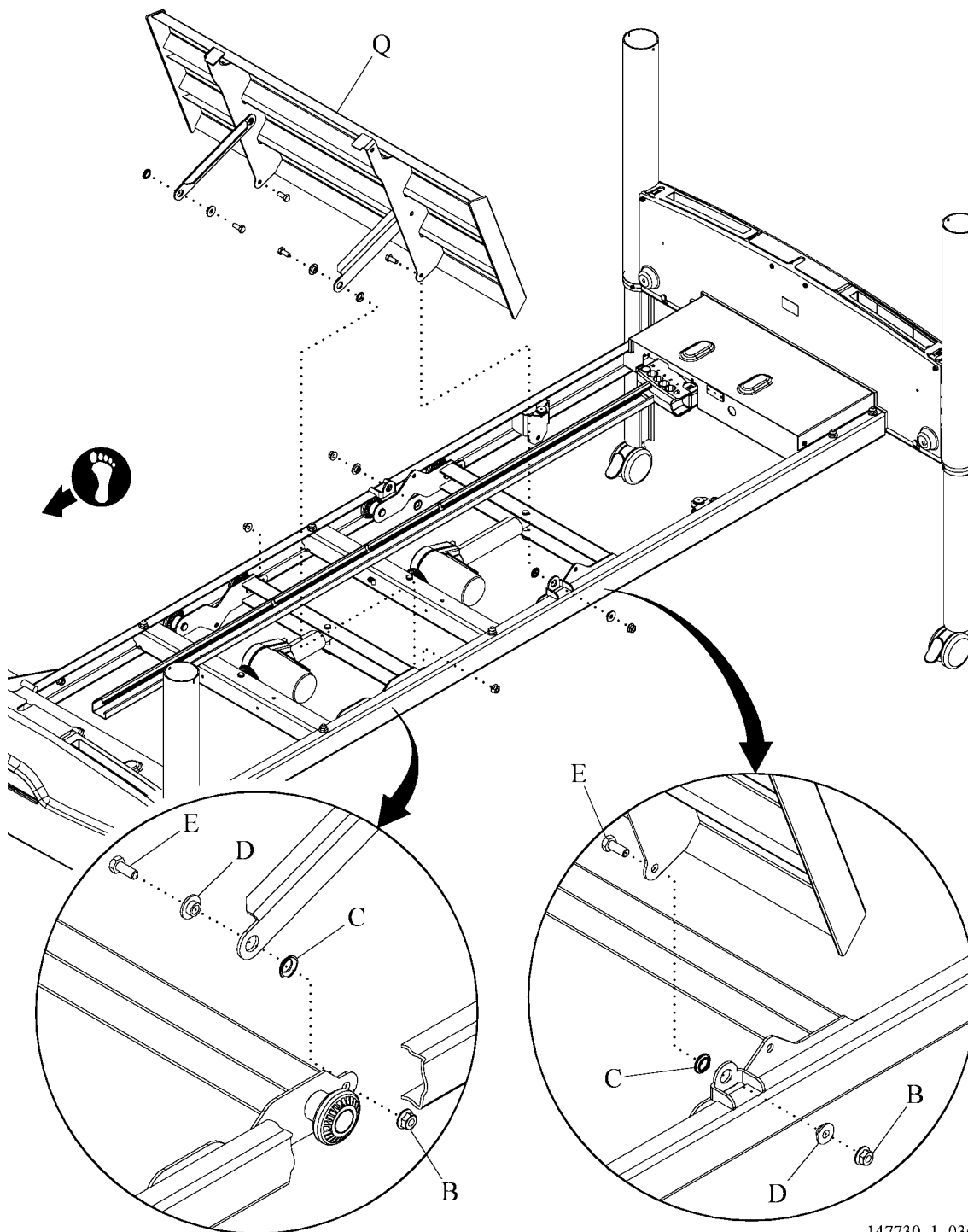
- For an 84" mattress size, put the four long frame bolts (A)—from below the frame with threads up—into the outer two sets of holes, install the nuts (B) and tighten.

Base Frame and Towers



14. Press the Knee Up button on the control pendant until the rollers stop moving.
15. Attach the thigh section (Q) with the bolts (E), snap rings (C), bushings (D), and nuts (B), and tighten.

Thigh Section

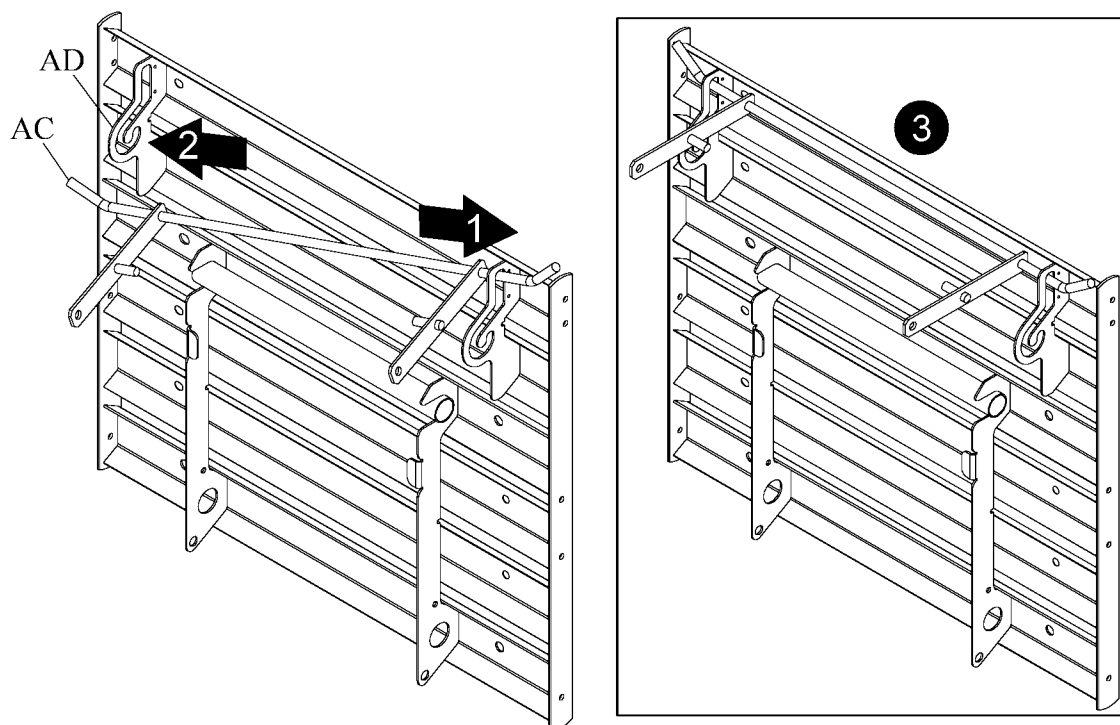


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16. Attach the foot gatch to the sleep deck foot section as follows:

- a. Slide one end of the gatch (AC) through the bracket (AD) on one side of the sleep deck foot section.
- b. Push the gatch as far as it will go through one side, then put the gatch through the bracket on the other side of the sleep deck foot section.
- c. Center the foot gatch (AC) between the two brackets (AD).

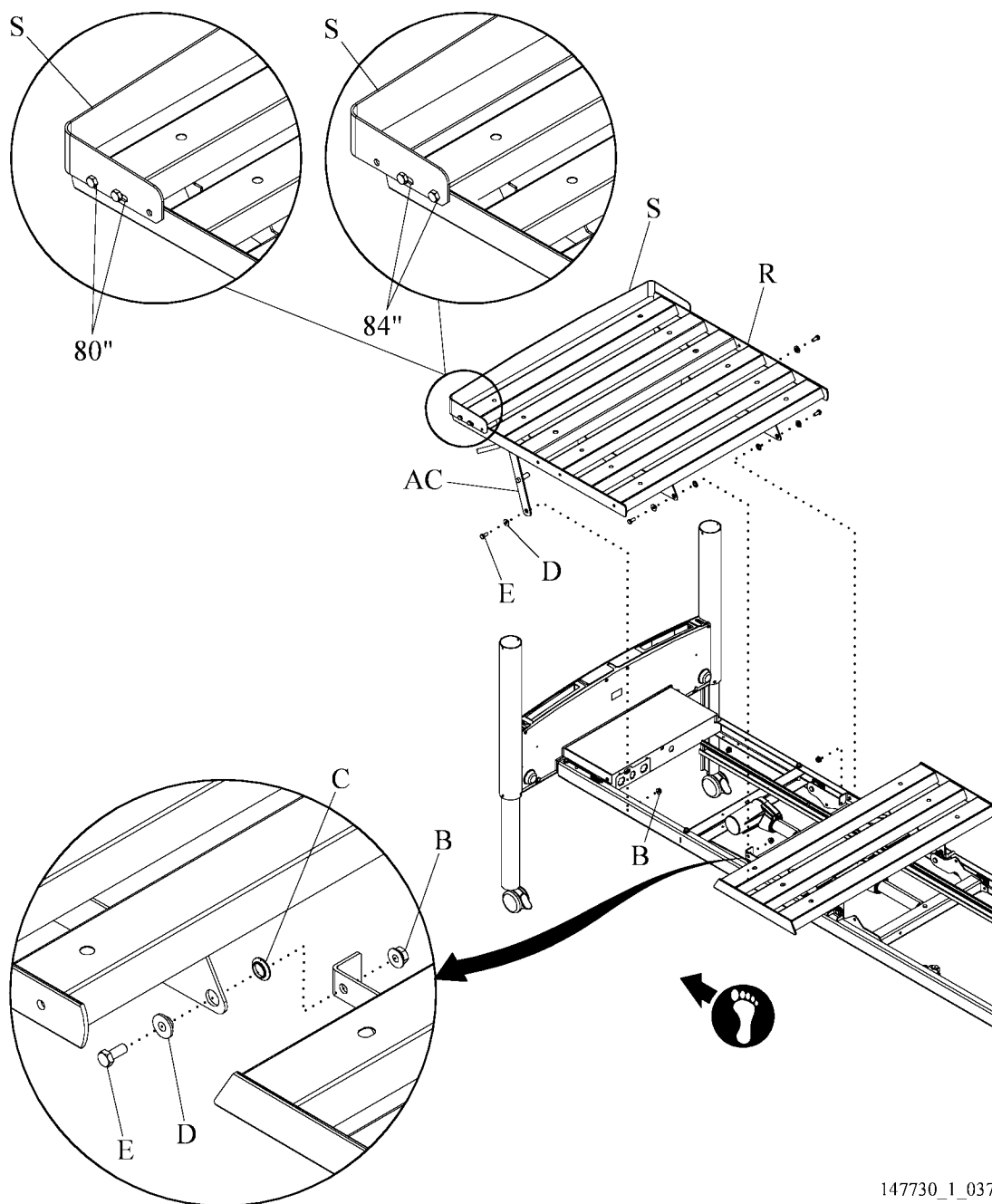
Foot Gatch



147730_1_041

17. Attach the sleep deck foot section (R) with the bolts (E), snap rings (C), bushings (D), and nuts (B), and tighten.
18. Install two bolts (E), bushings (D), and nuts (B) to attach the foot gatch bracket (AC) to the outside of the frame rails.
19. If you assembled the base frame for an 84" mattress (see step 13), remove the mattress stop (S), slide it to align with the outer mounting holes, and re-attach. If not, go to the next step.

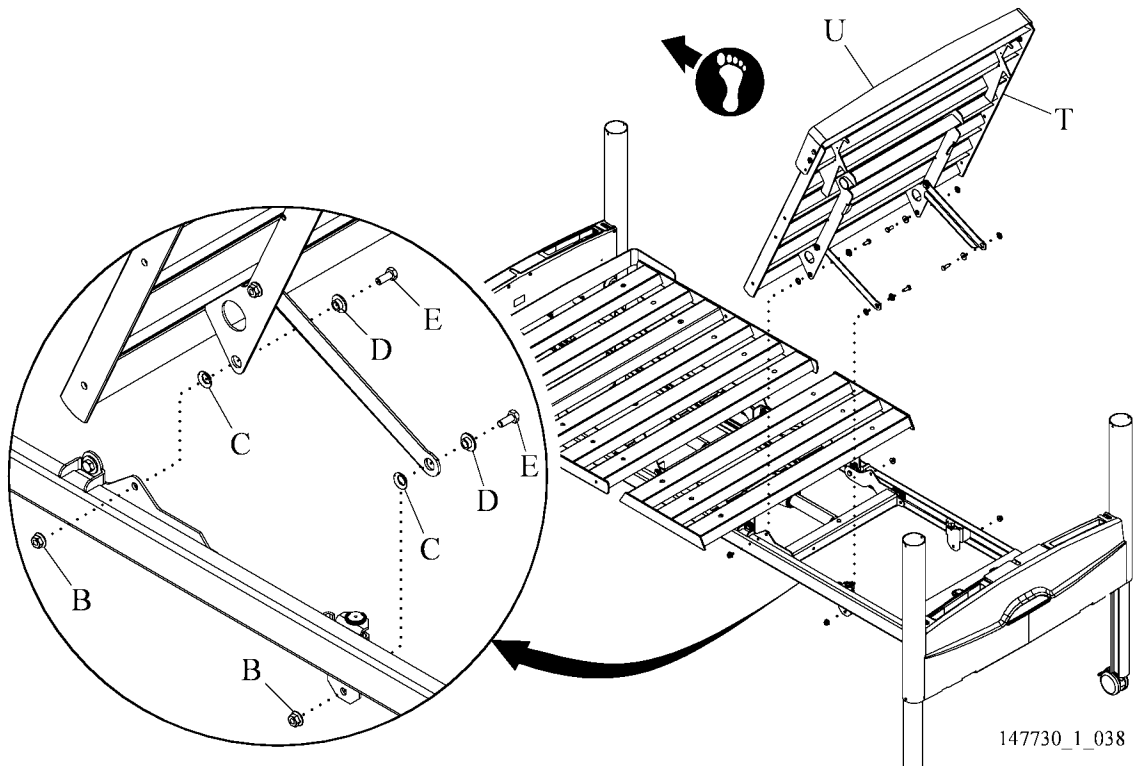
Foot Section



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20. Press the Knee Down button on the control pendant to lower the foot section.
21. Attach the sleep deck head section (T) with the bolts (E), snap rings (C), bushings (D), and nuts (B) (see figure 1 on page 35), and tighten.
22. If you assembled the base frame for an 84" mattress (see step 13), remove the mattress stop (U), slide it to align with the outer mounting holes, and re-attach (same as the foot section—see figure on page 34). If not, go to the next step.

Figure 1. Head Section

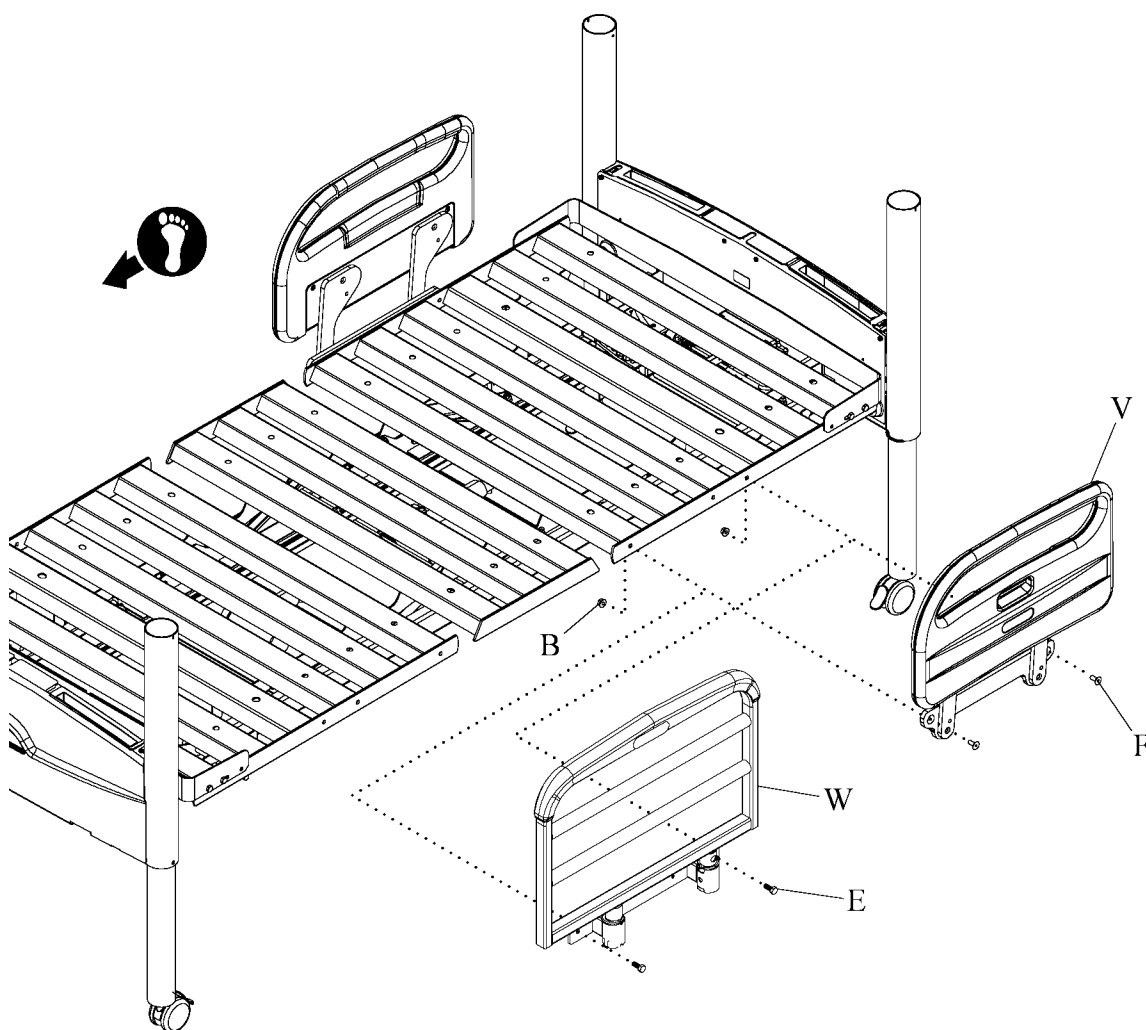


23. If applicable, attach the right and left locking siderails (V) or removable non-clocking siderails (W) with the screws (E or F) and nuts (B), and tighten.

⚠ CAUTION:

Make sure the clocking siderails rotate toward the head of the bed. Failure to do so could cause injury or damage.

Short Siderails



147730_1_039

24. If applicable, attach the right and left full-length clocking siderails (X) as follows:

- d. Remove the bolts (A) and nuts (B) from the head-end rail.
- e. Put the bracket (Y) in position.
- f. Install the bolts (A) and nuts (B), and tighten securely.
- g. Put the bracket (Z) in position.
- h. Install the bolts (E) and nuts (B), and loosely tighten.

⚠ CAUTION:

Install the full-length siderail so that it lowers and rotates toward the foot end of the bed. Failure to do so could cause equipment damage.

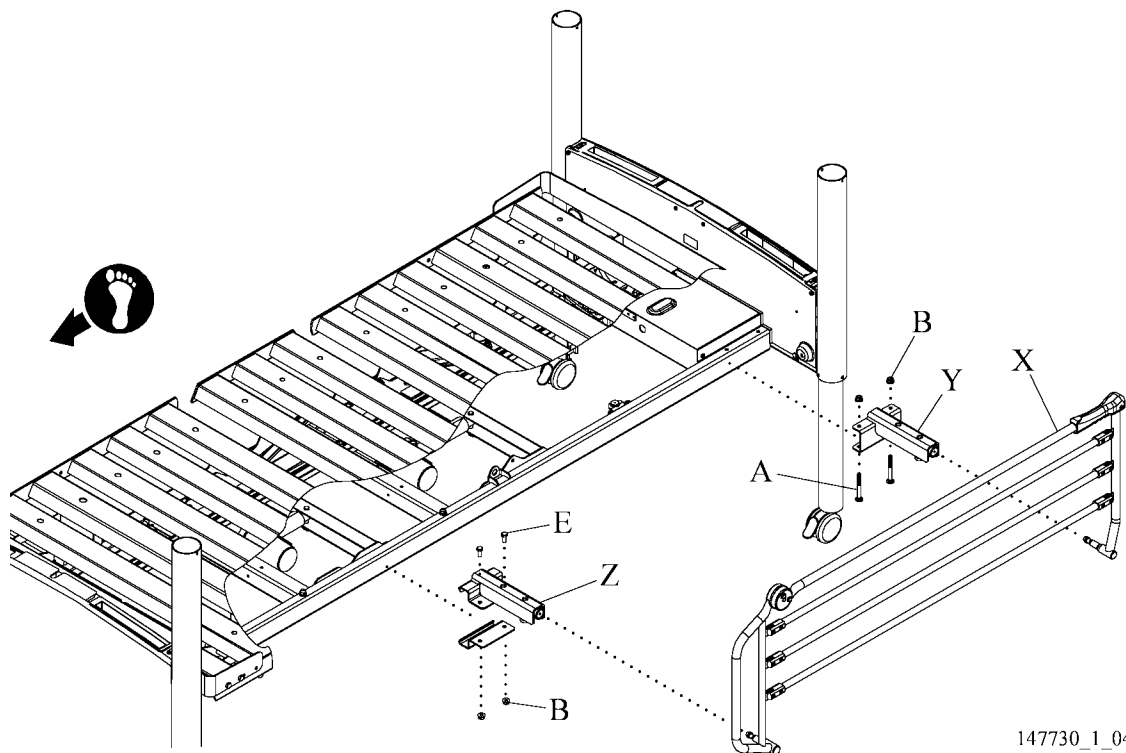
25. Install the siderail (X) into the brackets (move bracket Z if necessary) until you hear a click.

26. Tighten the nuts (B) on the foot-end bracket (Z).

27. Pull on the siderail (X) to make sure it is securely installed in the brackets.

28. To operate the siderail, see (see “Full Length Clocking Siderail” on page 5).

Full-Length Siderail



147730_1_040

⚠ CAUTION:

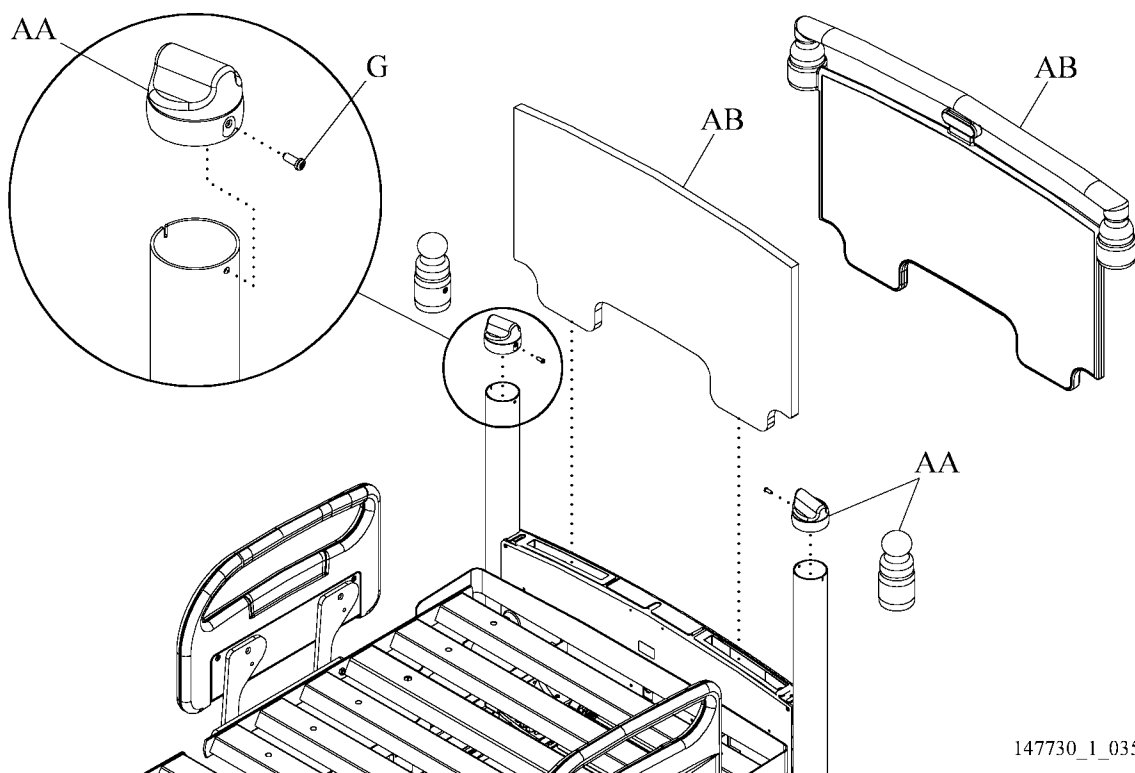
Do not overtighten the finial screws. Damage to the finials could occur.

29. Install the finials (AA) with the screws (G).

30. Install the headboard/footboard (AB).

31. Install the mattress.

Finials and Headboard/Footboard



147730_1_035

Final Steps

WARNING:

Make sure all attaching parts are tight before you use the bed. Failure to do so could cause injury or equipment damage.

1. **Make sure all connections are tight** before you use the bed.
2. Do a check of the bed functions:
 - Use the pendant to fully test the Hi/Low, Head Up/Down and Knee Up/Down.
 - Press each lockout button on the foot section and make sure the applicable function is locked out as selected.

NOTE:

The knee will still move when the head section is locked out.

- If you have any bed function problems, do as follows:
 - Make sure all cables are securely plugged into their correct sockets.
 - Refer to “Troubleshooting” on page 18.
 - Refer to the *Hill-Rom® 100 Low Bed Service Manual* (147731) for additional troubleshooting.
 - If you can not solve the problem, call Hill-Rom Technical Support (see the back cover).
- 3. Install the pendant into the siderail or hanger (see “Control Pendant” on page 6).

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