Advanta™ 2 Bed

User Manual

Product No. P1190

157722 REV 2

Enhancing outcomes for patients and their caregivers.

Hill-Rom

Manufactured by:
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Replace this manual (157722) if it is damaged and/or can not be read.

For product support or to order additional copies of this manual (157722), contact your distributor, local Hill-Rom representative, or go to www.hill-rom.com.

Reference Documents

Advanta™ 2 Bed Service Manual (157723)

Table of Contents

Document Symbols

This manual contains different typefaces and icons designed to improve readability and increase understanding of its content. For a list of symbols used on the product, see “Product Symbols” on page 44.

Note the following examples:

- Standard text—used for regular information.
- **Boldface text**—emphasizes a word or phrase.
- **NOTE:**—sets apart special information or important instruction clarification.
- The symbol below highlights a WARNING or CAUTION:

Warning and Caution

  - A WARNING identifies situations or actions that may affect patient or user safety. Disregarding a warning could cause patient or user injury.
  - A CAUTION points out special procedures or precautions that personnel must follow to avoid equipment damage.
- The symbol below highlights a CAUGHT HAZARD WARNING:

Caught Hazard Warning

- The symbol below highlights a CHEMICAL HAZARD WARNING:

Chemical Hazard Warning

- The symbol below highlights an ELECTRICAL SHOCK HAZARD WARNING:

Electrical Shock Hazard Warning

Intended Use

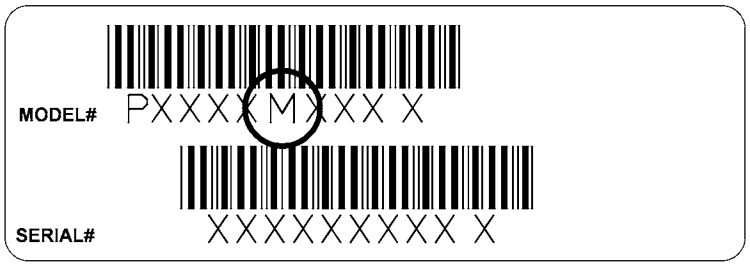
The Advanta™ 2 Bed is intended for low to moderate acuity patients in the medical/surgical area of the hospital.

Introduction

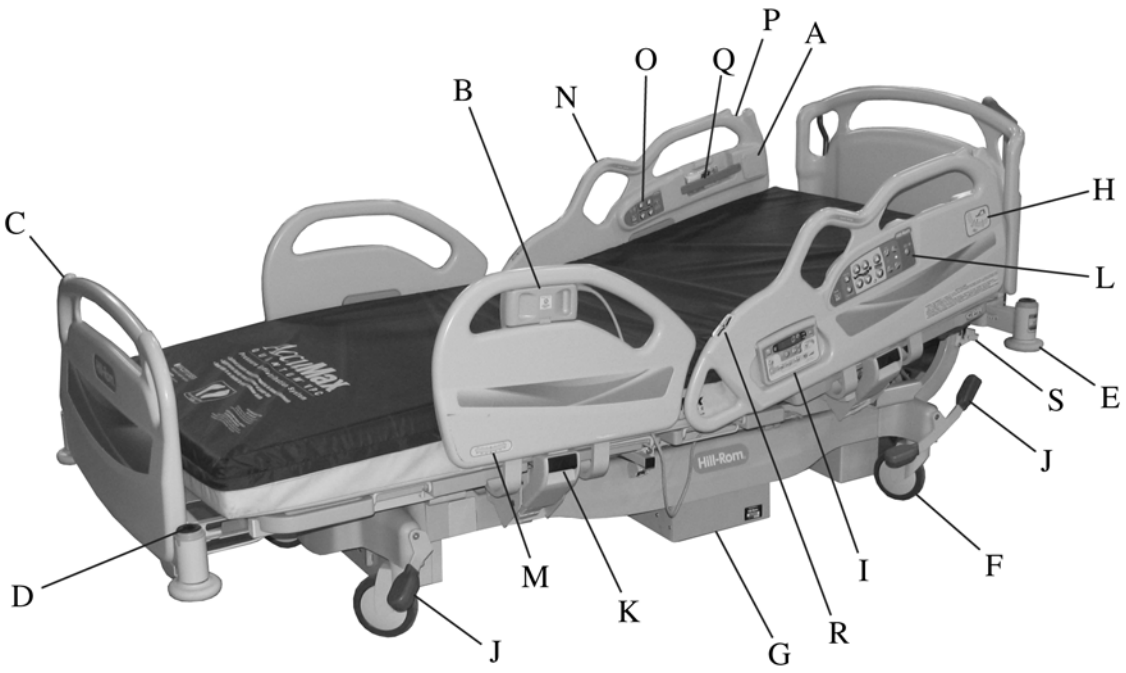
This manual provides the information required for normal operation of the Advanta™ 2 Bed from Hill-Rom. Before you operate the bed, be sure to read and understood the contents of this manual. It is important that you read and obey the aspects of safety contained in this manual. Any reference to a side of the bed is from the view of the patient lying in the supine position.

Some configurations of the bed may be equipped with an integral scale intended to weigh the patient in the bed.

This manual includes the different features and models of the Advanta™ 2 Bed; some features may not apply to your model bed. To identify which model of bed you have, look at the serial number label. The label is on the inside of the head-end cross bar, near the right-side bumper. For example, PXXXX**M**XXXX identifies an M model bed.



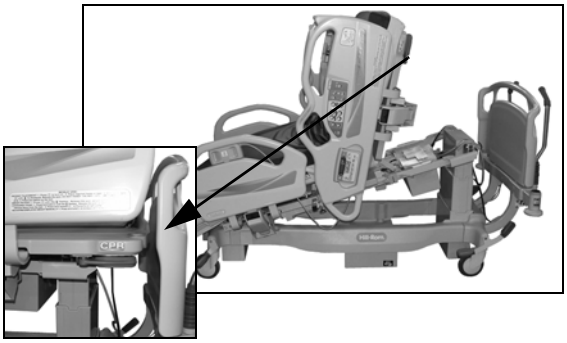
Features



Item	Description	Item	Description
A	Speaker	J	Brake/steer pedals
B	Patient control pendant	K	Siderail release mechanism
C	Footboard	L	Caregiver siderail controls
D	Equipment socket	M	Trendelenburg/Reverse Trendelenburg Line-of-Site® Indicator
E	Wall guard	N	Care Grip Hand Hold
F	6" (152 mm) caster	O	Patient siderail controls
G	5th wheel **or** IntelliDrive® Transport System (optional)	P	Line Manager
H	Line-of-Site® Head Angle Indicator	Q	Patient personal storage
I	Scale, Bed Exit, Head of Bed alarm control pod	R	Patient Position Indicator
		S	IV pole storage/cord wrap

Standard Features

Emergency CPR Control



The Emergency CPR control handles are located at the head end of the bed, under each corner of the sleep deck.

When activated, the CPR release allows the head section to lower. The CPR release function is gas-assisted to cushion the movement and can be used when power is not available.

To Activate

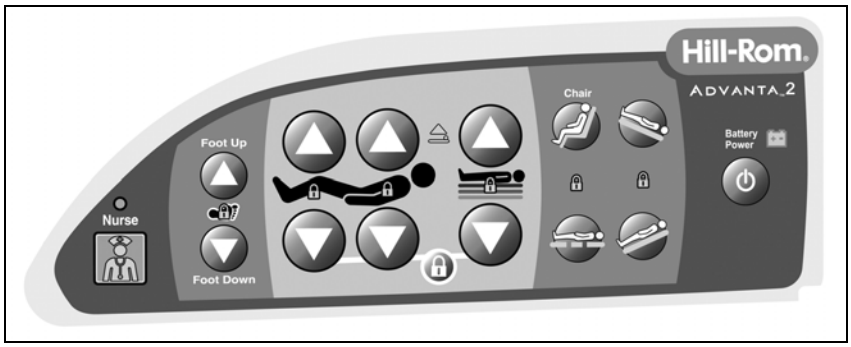
- Pull, and hold, the CPR control handle with one hand.
- Let the head section come to a stop in the flat position.
- Release the CPR control handle when the head section is flat.

The head section actuator is automatically re-enabled after the CPR control handle is released.

Caregiver Siderail Controls

The caregiver siderail controls are located on the outside of the head siderails.

There are two sets of Caregiver Siderail controls. The first set is mounted on the outside of both siderails and control the bed position functions. The second set, for the **optional** bed functions, is mounted on a flip-up control pod in the head-end siderails. The second set of controls is for the scale, Head of Bed alarm, the Bed Exit Alarm System, and NaviCare® System.



Lockout Control

The Lockout control, located on the caregiver siderail control panel, disables the bed articulation functions.

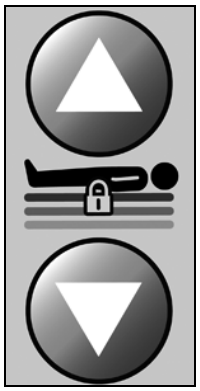
To Activate—press and hold the **Lockout** control, and then press the applicable control. Both patient and caregiver controls are locked out. An LED on the control panel comes on when a lockout is activated.

- The **Bed Up/Down** lockout also locks out the Trendelenburg and Reverse Trendelenburg controls.
- The **Head** or **Knee** lockout also locks out the Chair and Bed Flat controls.
- The **Knee** lockout also locks out the Foot controls.

Deactivate—press and hold the **Lockout** control, and then press the applicable locked out control.

The Lockout control disables only **articulation** controls, not Nurse Call. No movement of the unit is allowed, except for emergency CPR.

Bed Up/Down Control

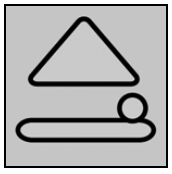


The Bed Up/Down controls are on the head siderails.

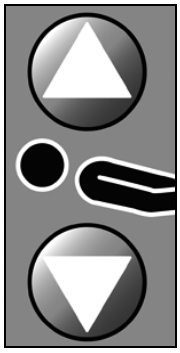
To Raise or Lower the bed

- Press and hold the **Bed Up** or **Bed Down** control to raise or lower the bed.
- To disable the **Bed Up/Down** control, activate its **Lockout**.

NOTE:
When the bed is **not** in the low-low position, an indicator next to the Up/Down control illuminates.



Head Up/Down Control

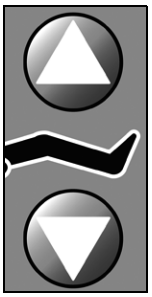


The Head Up/Down controls are on the head siderails. The Line-of-Site® Angle Indicators are located on the head siderails.

To Activate—press and hold the **Head Up** or **Head Down** control to raise or lower the head section.

NOTE:
The bed is equipped with an automatic contour feature. This function only works with the **patient** controls.

Knee Up/Down Control

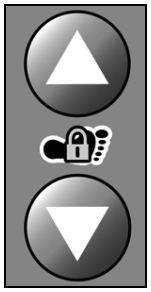


The Knee Up/Down controls are on the head siderails. The knee section has a maximum travel of 36°.

To Activate—press and hold the **Knee Up** or **Knee Down** control to raise or lower the knee.

The automatic contour feature does not work when using only the Knee Up/Down controls.

Foot Up/Down Control



The Foot Up/Down controls are on the head siderails. The foot section has an inclination of 23°.

To Activate—press and hold the **Foot Up** or **Foot Down** control to raise or lower the foot.

If the knee section is raised, you can press the **Knee Up** control to keep the knee up while you lower the foot section.

Trendelenburg and Reverse Trendelenburg Controls

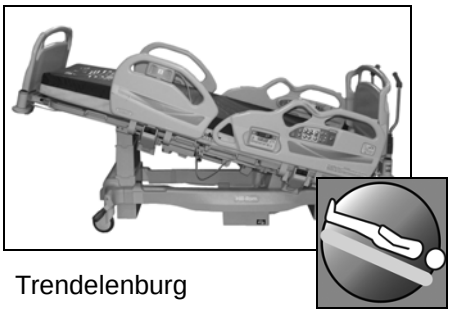
The controls are on the head siderails. The Trendelenburg and Reverse Trendelenburg Line-of-Site® Angle Indicators are in the foot-end siderails. The controls can be activated at any bed height.

Trendelenburg—the foot end of the bed raises relative to the head end.

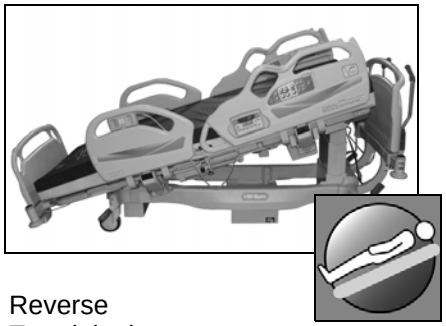
Reverse Trendelenburg—the head end of the bed raises relative to the foot end.

To Activate—press and hold the **Trendelenburg** or **Reverse Trendelenburg** control to go into the applicable position.

Deactivate—press the opposite control to return to the level position **or** raise or lower the bed fully.



Trendelenburg



Reverse Trendelenburg

Bed Flat Control

The Bed Flat control is provided so that a caregiver can easily return the **sleep deck** to a flat position (head and knee section down and foot section up) from any articulated position. The Bed Flat control only returns the sleep deck to a flat position, it **does not** change the angle of the bed.

To Activate—press and hold the **Bed Flat** control. When all sections are flat, the system stops.

Dining Chair® Position

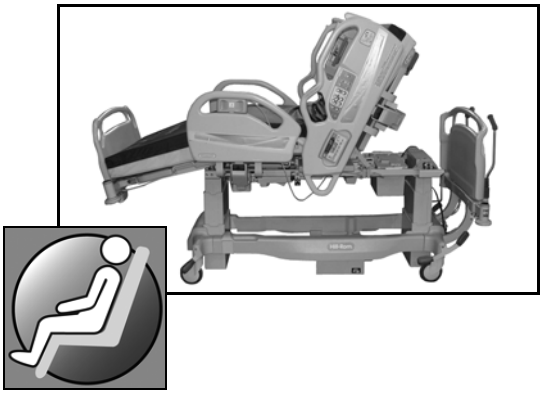
The Dining Chair® Position control allows the caregiver to put the bed in an upright position.

The controls are located on the head siderails. When activated, the bed will articulate to a maximum of 65° for the head section, 19° for the knee section, and -12° for the foot section.

⚠ WARNING:
Check at regular times to make sure the patient remains correctly positioned. The use of pillows can help maintain side-to-side positioning. Injury to the patient may result from improper positioning.

To Activate

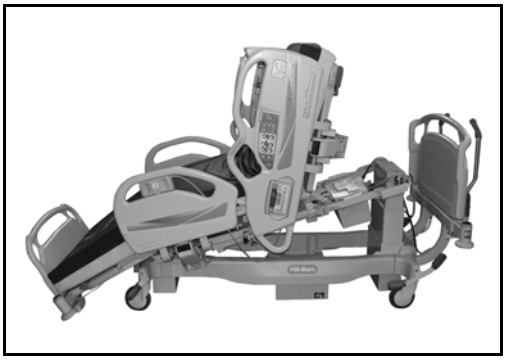
- Set the brake.
- Press the **Dining Chair® Position** control. The patient deck moves to the chair position.



To Return to Flat Position

Press the **Bed Flat** control to return the sleep deck to the flat position.

FullChair® Patient Positioning Mechanism



The FullChair® Patient Positioning Mechanism allows the caregiver to place the patient in a fully seated position without having to remove the patient from the bed.

⚠ WARNING:
Check at regular times to make sure the patient remains correctly positioned. The use of pillows can help maintain side-to-side positioning. Injury to the patient may result from improper positioning.

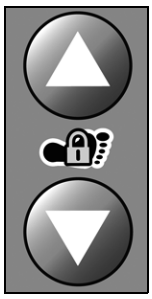
To Activate

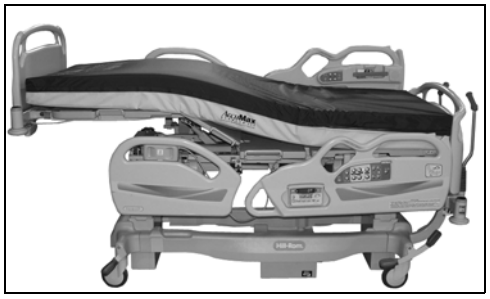
- Set the brake.
- Press the **Dining Chair® Position** control. The patient deck transitions to the chair position.
- Once the bed has finished traveling, press the **Reverse Trendelenburg** control until the applicable position is reached.

To Return to Flat Position

- Press the **Bed Flat** control to return the sleep deck to the flat position.
- Press the **Trendelenburg** control to return the bed frame to the level position **or** fully lower the bed.

Vascular Position





The Vascular Position allows the caregiver to place the patient's legs above the level of the patient's sternum without placing the bed in the Trendelenburg position.

To Activate—press the **Foot Up** control.

To Return to Flat Position—press the **Foot Down** control.

Battery Control

The battery function is available only when the bed is **not connected** to AC power.

To Activate—press the **Battery** control. The battery indicator comes on. All bed controls are available. Battery operation is automatically stopped 30 seconds after the end of the last movement.

When the battery charge level is low and an electrical function is activated, an alarm will sound that indicates the battery needs to be charged. The ongoing bed movement will be completed.

Plug the bed into an applicable power source to automatically charge the battery.

NOTE:
If the Lockouts were not activated when AC power was removed, and the lockout LEDs are on when the bed is connected to AC power, there is a battery problem. Contact facility maintenance to correct the problem.

⚠ WARNING:
The bed must remain connected to the mains power supply until the charge LED turns on (recharge time is approximately 10 hours for a completely discharged battery). Failure to do so could cause the bed to not operate when power is unavailable.

If the bed is connected to AC power: the indicator flashes to indicate a low battery, and that it is charging; if the indicator is off, the battery is fully charged.

If the bed is disconnected from AC power: the indicator is off, and the battery is not turned on; if the indicator is on and solid, the battery is turned on; if the indicator flashes, and an alarm sounds during bed articulation, the battery is low.

Brake and Steer Control

⚠ WARNING:
Unless transporting the patient, always set the brakes when the bed is occupied. Reconfirm that the brakes are set before any patient transfer. Failure to do so may cause injury or damage.

The brake and steer controls are located on the four corners of the bed frame. There are three positions: Brake, Neutral, and Steer. The brake position keeps the bed from moving. The neutral position allows the bed to be moved sideways. The steer position allows the bed to be moved in a straight line.

When the bed is plugged into AC power and the brakes are not set, an alarm sounds until the brakes are set or AC power is removed.

Brake
Use your foot to step down on the **orange** end of the brake/steer pedal until it stops.

Neutral
Use your foot to step on the green, or orange, end of the brake/steer pedal until it travels to the **middle** detent.

Steer
Use your foot to step on the **green** end of the brake/steer pedal until it stops.

Head and Foot Siderails

⚠ WARNING:

Evaluate patients for entrapment risk according to facility protocol, and monitor patients appropriately.

⚠ WARNING:

Evaluate patients for entrapment risk according to facility protocol, and monitor patients appropriately. Make sure that all siderails are fully latched when in the raised position. Failure to do either of these could cause serious injury or death.

NOTE:
Siderails are intended to be a reminder to the patient of the unit's edges, 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.

The siderails have been designed for one-step operation.

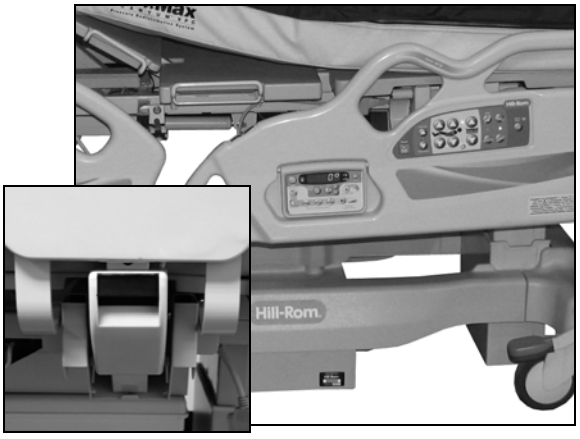
Siderails in the raised position are intended to make the patient aware of the proximity of the edge of the sleep surface and to assist in patient entry and exit.

Siderails in the lowered position, below the patient surface, facilitate a patient’s entry or exit from the bed. This design feature also facilitates unobstructed access to the patient.

To Raise

- Grasp the siderail by the **top,** not by the latch area.
- Pull the siderail up until it latches into the locked position. A **click** will be heard when it latches into the locked position.
- Once the **click** is heard, gently pull on the siderail to make sure it is latched correctly.

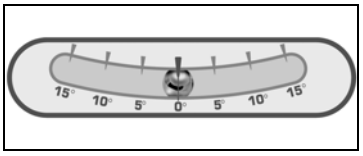
To Lower



- Make sure there is no weight against the siderail.
- Grasp the release handle and pull up. The siderail lowers automatically.

Angle Indicators

The head siderails contain the Head Angle Line-of-Site® Angle Indicators and the foot siderails contain the Trendelenburg Line-of-Site® Angle Indicators. The angle is read from the center of the ball. Beds with the 30 degree head angle alarm will also display the angle on the flip-up control pod on the head siderails.



⚠ WARNING:

Failure to make sure the head section is at the correct angle for the patient's care could cause patient injury.

When the angle of the head section is critical to the patient's care, do not depend on the head angle display only. Look to make sure the head section is at the correct angle. If the angle does not look correct, contact your facility-authorized maintenance person.

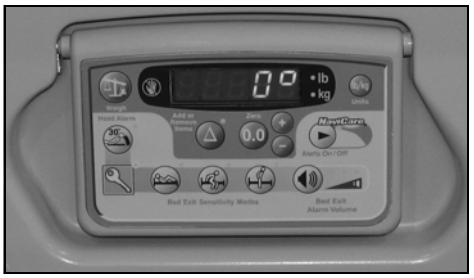
On beds with the control pod and head angle display options, the display is always on and shows the head angle of the bed unless a weight reading is being taken.

30° Head Angle Alarm

The Head Angle Alarm control is on the caregiver pod next to the display. When set, if the head section goes below 30°, these will occur:

- The display will flash continuously.
- An audible alarm will come on.
- The alarm indicator will flash.
- If installed, the SafeView® Alerts lights will flash yellow.

NOTE:
The display on the caregiver pod continuously shows the angle of the head section. Whenever the head section goes below 30°, the display flashes five times.



Set the Alarm

1. Raise the head section to the applicable position above 30°.
2. Press the **Enable** control.
3. Press the **Alarm** control. The alarm indicator will come on.

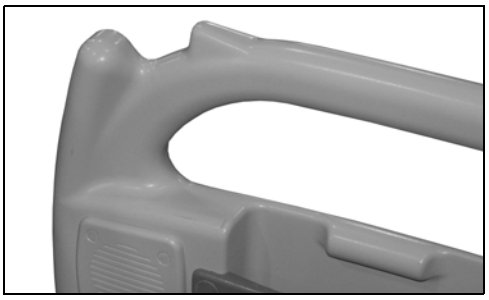
NOTE:
When the bed operates on battery power the display will be off and the alarm will not work.

Turn Off the Alarm—raise the head section above 30°.

Deactivate the Alarm

1. Press the **Enable** control.
2. Press the **Alarm** control. The alarm indicator will go off

Line Manager



⚠ WARNING:
Do not use the Line Manager for ventilator circuits. To do so could cause patient injury.

⚠ WARNING:
When you use the Line Manager, make sure the lines are not pinched or kinked and there is sufficient slack in the lines for bed articulations and patient movement. Failure to do so could cause injury or equipment damage.

⚠ WARNING:
Failure to keep aseptic lines separate from non-aseptic lines may cause cross contamination.

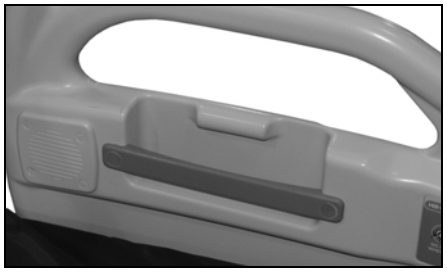
⚠ WARNING:
Failure to remove lines from the Line Manager before you transfer the patient could cause patient injury or equipment damage.

A Line Manager is on each head siderail. The Line Manager helps to keep lines (such as IV fusion lines, suction lines, oxygen lines, etc.) together and away from the articulating frame.

Observe lines closely during articulations. Always use good line management techniques, particularly as the head section rises.

Patient Personal Storage

Each head siderail has an area in the siderail for the patient to store items.



Care Grip Hand Hold

Each head siderail has an ergonomically designed hand hold to assist the patient during ingress and egress, and to position themselves in the bed.

Headboard

The headboard is located at the head end of the bed and attaches to the head end of the frame. It **does not** articulate with the sleep deck.

To Remove

Grasp the headboard, and lift it straight up.

To Install

- Put the headboard pins over the sockets in the frame.
- Lower the headboard into the sockets.
- Push the headboard down until the bottom rests on the frame.

Headboard position label

Footboard

The footboard is located at the foot end of the bed. It attaches to the articulating foot section and remains perpendicular to the surface of the foot section at all times. The footboard protects the patient during transport and room docking.

To Remove

Grasp the handles on the footboard, and lift it straight up.

To Install

- Put the pins of the footboard into the sockets in the articulating frame.
- Push the footboard down until it rests on the deck.

Patient Position Indicator

The Patient Position Indicator is located on the top of the head siderails. The indicator is used to help provide optimal, ergonomic patient positioning.

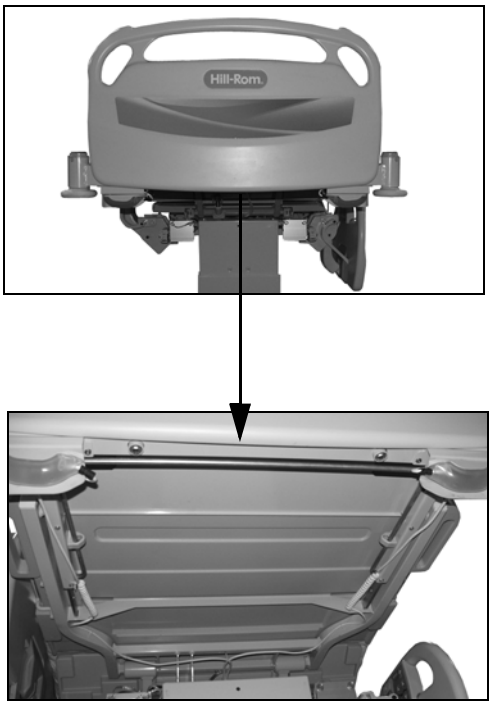
Equipment Sockets

There are four equipment sockets, one at each corner, for the attachment of accessories.

The equipment sockets can be used to mount IV poles, ISS poles, traction equipment, and oxygen tank holders. The foot-end equipment sockets should **not** be used for full traction equipment, but can be used with Buck's traction.

NOTE:
The ISS poles require an adapter to be installed before use. See "Accessories" on page 28.

Foot Extension



The foot extension allows the foot section to extend 3" (7.6 cm).

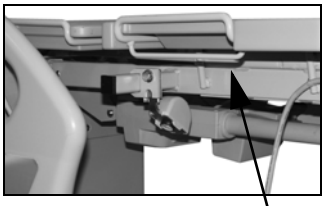
To Extend the Foot Section

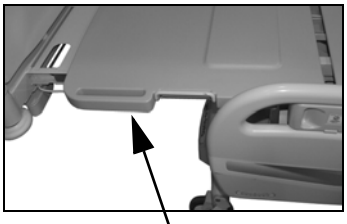
- Grasp the control bar located under the bed frame, below the footboard.
- Push up on the control bar.
- Pull the foot section out, then release the control bar.
- Continue to pull on the foot section until it locks into position.
- When the foot section is extended, insert the mattress foot extender pad between the mattress and the footboard.

To Retract the Foot Section

- Remove the mattress foot extender pad.
- Grasp the control bar located under the bed frame, below the footboard.
- Push up on the control bar.
- Push the foot section in, then release the control bar.
- Continue to push the foot section in until it locks into position.

Drainage Bag Holders





⚠ WARNING:
Do not tie restraints to the primary drainage bag holders.

There are two drainage bag holders mounted on each side of the bed, just under the sleep deck surface.

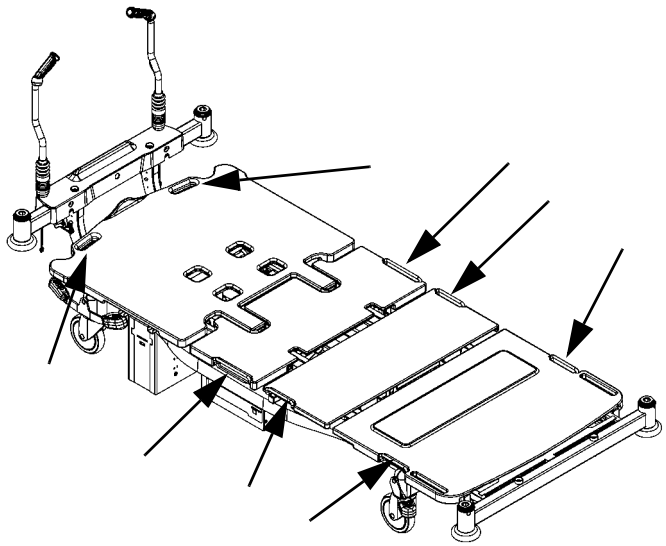
⚠ WARNING:
Caregivers should select drainage system components that can be safely used within infection control and other therapeutic guidelines. Failure to do so could cause patient injury.

The holders accommodate any combination of the following drainage devices:

- Fecal incontinence bag
- 250/2000 ml Foley collection bag
- Chest Drainage devices (on foot end holders during transport only)

When the bed system is docked, place the chest drainage devices on the floor, clear of the bed system to allow space for articulation.

Patient Restraint



The bed facilitates the use of vest, wrist, waist, and ankle restraints. Hill-Rom makes no recommendation regarding the use of physical restraints. Caregivers should refer to legal restrictions and appropriate facility protocols before physical restraints are used.

⚠ WARNING:
Patient restraints are not intended as substitutes for good nursing practices. Physical restraints, even properly installed, can cause entanglement, physical injury, and death, particularly with agitated and disoriented patients. Monitor patients when using physical restraints in accordance with legal requirements and facility protocol.

⚠ WARNING:
Restraints must be attached to the articulating sections of the system at the proper attachment points to prevent injury to the patient.

⚠ WARNING:
Do not use ankle restraints in a chair position. Doing so may cause patient injury or equipment damage.

Standard Casters

The bed is equipped with 6" (15 cm) dual locking, single wheel casters.

Standard Patient Controls

There are two sets of patient controls: pendant and siderail.

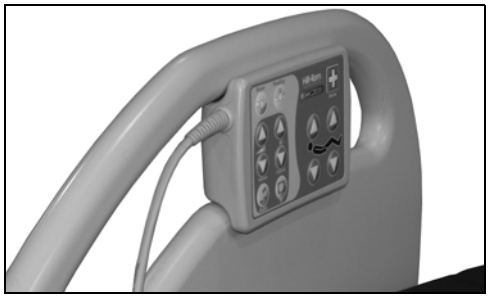
The pendant controls are located on the patient pendant, which can be housed in any siderail.

The standard controls include: Head Up/Down and Knee Up/Down. They operate in the same manner as the caregiver siderail controls.

If the caregiver has locked out a bed function, that same function is locked out on the patient control and pendant controls.

Pendant Controls

To Install the Pendant into the Siderail



⚠ WARNING:
Follow facility protocol for use of patient pendants.

⚠ WARNING:
Make sure the pendant is installed in a location to allow the patient to use all of the functions.

⚠ WARNING:
Only install the pendant in a siderail on the same side as the cable mount is located. Failure to do so could cause patient injury.

The pendant should only be installed in the siderail that the cable mount is located.

- Put the pendant next to the opening in the siderail.
- Insert the top edge of the pendant into the siderail so it engages the upper section of the siderail.
- Rotate the lower edge of the pendant in until it **clicks** into place inside the siderail.

To Remove the Pendant from the Siderail

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

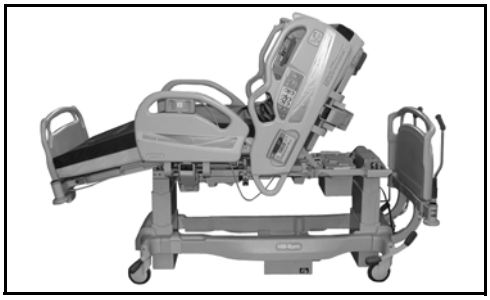
To move the pendant from one side of the bed to the other, the control cable mount must be moved from one side of the bed to the other. It is recommended to have facility maintenance personnel do this procedure.

Siderail Controls

The siderail controls are mounted inside the head-end siderails.

The standard controls include: Head Up/Down and Knee Up/Down. They operate in the same manner as the caregiver siderail controls.

Automatic Contour Feature



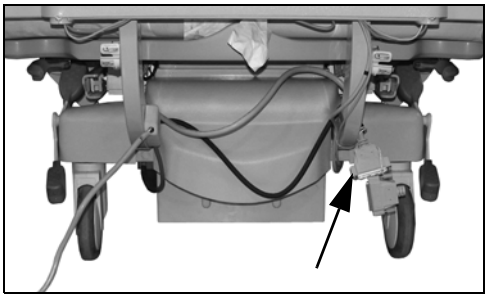
The automatic contour feature (automatic comfort level positioning) is activated with the **patient** Head Up/Down control.

The automatic contour feature raises the head section and the knee section simultaneously and helps keep the patient from sliding down in the bed.

The automatic contour feature is active only when both the head section and knee section are not locked out. When the head section is locked out, the knee section can be raised or lowered by using the Knee Up/Down control.

Optional Features

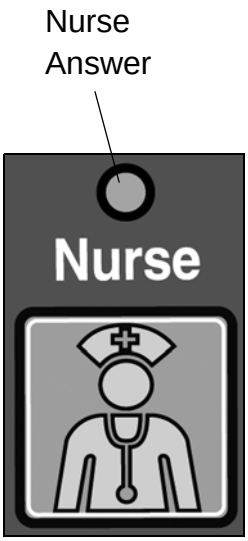
SideCom® Communication System



The SideCom® Communication System provides the following controls: Nurse Call, Entertainment, and Lighting.

The SideCom® Communication System connector is located at the head end of the bed. When not connected to the facility, install the dummy plug onto the bed SideCom® Communication System cable.

Nurse Call Control



The Nurse Call control is located on the outside and inside of the head siderails and on the patient pendant.

When the Nurse Call control is activated, and connected to the facility, a signal is sent to the nurses station, and the *Nurse Call* LED comes on. Voice communication is provided through a speaker/microphone mounted on the inside of both head siderails.

To Activate

- Press any **Nurse Call** control.
- When the nurses station acknowledges the nurse call, the *Nurse Answer* LED comes on.
- Speak into the speaker/microphone located on the inside of the head siderails.

NOTE:
The Enable control **does not** need to be activated prior to pressing a Nurse Call control. The Nurse Call controls are always active. The Nurse Call controls cannot be locked out.

Enable Control

The Enable control is located on the optional flip-up control pod. The Enable control deters unauthorized operation of certain caregiver controls. With the exception of the Weigh control, the Enable control must be activated before the caregiver controls on the pod will operate. When activated, the Enable indicator stays on for 60 seconds. During this time, the caregiver can use any caregiver controls on the pod.

To Activate—press the **Enable** control. An indicator comes on and the Enable control is active for 60 seconds.

During the 60-second period, press the desired caregiver control. The 60-second period starts over when another control is pressed.

Bed Exit Alarm System

⚠ WARNING:

The Bed Exit Alarm System is not intended as a substitute for good nursing practices. The Bed Exit Alarm System must be used in conjunction with a sound risk assessment and protocol.

The Bed Exit Alarm System control is on the flip-up control pod on the outside of the head end siderails.

The Bed Exit Alarm System has two configurations:

- Three mode: Patient Position, Bed Exiting, and Out-of-Bed.
- Single mode: Bed exiting only

Patient Position

The Patient Position Mode alarms when the patient moves towards either siderail or moves away from the head section, such as sits up in bed. This mode should be used when a caregiver wants to be alerted when the patient begins to move. (Sometimes this is referred to as Patient Movement Mode.)

When the system is armed and it detects patient movement towards either siderail or away from the head section, these occur:

- An audible alarm comes on.
- The Patient Position Mode indicator flashes.
- A priority nurse call is sent. The light and alarm continue until the system is turned off, even if the patient lies down on the bed.

Bed Exiting

The Bed Exiting Mode alarm comes on when a patient moves away from the center of the bed towards an egress point. This mode should be used when a caregiver wants to be alerted when a potential egress is attempted.

When the system is armed and it detects patient movement towards an exit point, these occur:

- An audible alarm comes on.
- The Bed Exiting Mode indicator flashes.
- A priority nurse call is sent. The light and alarm continue until the system is turned off, even if the patient lies down on the bed.

Out-of-Bed

The Out-of-Bed Mode alarm comes on when the patient's weight shifts significantly off the frame of the bed. This mode should be used when a caregiver wants the patient to move freely within the bed, but to be alerted when the patient leaves the bed.

When the system is armed and it detects movement off the bed, these occur:

- An audible alarm comes on.
- The Out-of-Bed Mode indicator flashes.
- A priority nurse call is sent. The light and alarm continue until the system is turned off, even if the patient lies down on the bed.

To Activate

1. Make sure the patient is centered in the bed and aligned with the hip locator.
2. Press the **Enable** control until the indicator comes on.
3. Press the applicable mode control. When the system beeps one time and the indicator stays on solid, the system is armed.

NOTE:
The indicator flashes until the system is armed.

Enable Control

Patient Position Mode/Patient Movement Mode

Bed Exiting Mode

Out-of-Bed Mode

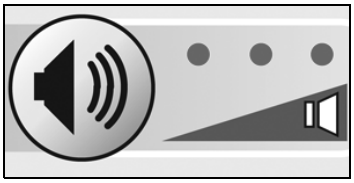
If the system does not arm, the system will beep rapidly for a few seconds and the selected mode indicator will flash. This means one or more of these:

- The patient weighs less than 50 lb (23 kg).
- The patient weighs more than 500 lb (227 kg).
- The patient is not in the correct position.
- The system has malfunctioned.

To Reset or Deactivate

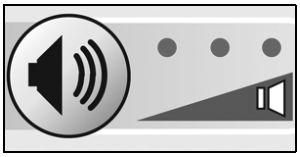
1. Press the **Enable** control until the indicator comes on.
2. Press any mode control until the indicator goes off.

To Adjust the Alarm Volume



1. Make sure the patient is on the bed and the system is armed.
2. Press the **Enable** control until the indicator comes on.
3. Press and release the **Volume** control until the applicable volume indicator comes on.

To Change the Alarm Tone



1. Activate one of the Bed Exit Alarm System Modes. It is recommended to use another caregiver instead of a patient to activate the Bed Exit Alarm System mode.
2. Have the caregiver exit the bed to activate the alarm.
3. Press and hold the **Volume** control.
4. While you press the **Volume** control, press the **Bed Exiting** control.
5. Press and release the **Bed Exiting** control until you reach the desired tone.
6. Clear the alarm condition.

Zero the Bed Exit Alarm System

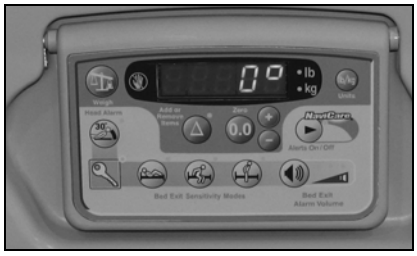
The Bed Exit Alarm System must be zeroed before the patient is put on the bed. Be sure to put **all** linens, pillows, and equipment on the bed before you zero it.

To Zero

1. Make sure the patient is **not** on the bed.
2. Make sure **all** linens, pillows, and equipment are on the bed.
3. Press and hold the **Zero** control until the *Hands Off* indicator flashes, then release the button. The display will show *CALC* or ---- until the zero sequence is complete. Then, The display will show *0.0*.

If all three Bed Exit Alarm System control indicators are flashing, zero the bed exit alarm system.

Scale



The scale system for the bed has an accuracy of 1% or 2.2 lb (1 kg), whichever is greater. The repeatability is 0.2% of the patient weight. The operating range is 0 lb to 500 lb (0 kg to 227 kg).

The scale display and controls are located on head end siderails.

When you attempt to weigh a patient **over** the maximum operating range, the scale will show its maximum 500 lb (227 kg) and flash to indicate the scale capacity has been exceeded.

The scale is very sensitive. The weight reading will be most accurate if the bed is not touching anything. This includes the headwall, lines such as pendant controls, ventilators, or drainage bags.

Bed Setup

For best results, do as follows **before** you put the patient on the bed:

1. Make sure the bed is plugged into electrical power.
2. Put all linens, blankets, pillows, equipment, and other items on the bed. A list of these items posted near the bed may be helpful for future reference.
3. Make sure none of the items on the bed are touching the headboard.
4. Make sure the bed is not touching anything that could affect the patient weight (headwall, lines such as pendant controls, ventilators, or drainage bags).
5. Zero the scale, see “Zero the Scale” on page 20.

Scale Display On/Off

Press the **Weigh** control. The scale display becomes active and weighs the patient. The scale display will automatically show the head angle after 3 minutes of no activity.

Zero the Scale

The bed must be zeroed before the patient is put on the bed.

1. Make sure **all** linens, pillows, and equipment are on the bed.
2. Press and hold the **Zero** control until the *Hands Off* indicator flashes, then release the button. The display will show *CALC* or ---- until the zero sequence is complete. Then, The display will show *0.0.*

Weigh the Patient

1. Make sure of these:
   - All items defined in the “Bed Setup” section are accounted for.
   - No drainage bags or equipment have been added.
   - The patient is lying still and is centered on the mattress.
2. Press the **Weigh** control until the *Hands Off* indicator flashes, then release the button. The weight will show in either pounds (lb) or kilograms (kg).

Changing Items on the Bed

The **Change Items** control lets you add or remove items from the bed. The control is active for 5 minutes once pressed.

1. Press the **Change Items** control until the *Hands Off* indicator flashes, then release the button. The bed takes a reference weight reading.
2. When the *Change Items* indicator flashes, release the button. Then add or remove items as necessary.
3. Press the **Change Items** control after adding or removing the desired items. Release the display pod.

The bed takes a weight reading and adjusts for the items added or removed.

Manual Weight Adjustment

The plus and minus arrows let the caregiver manually put in a weight for the scale system.

Press and hold the **Plus** or **Minus** control to adjust the displayed weight.

Pounds/Kilograms

Press the **lb/kg** control to change the display to show the weight in pounds (lb) or kilograms (kg).

Auxiliary Outlet (120 V Version Only)

SHOCK HAZARD:

This bed has two power cords. Disconnect both power cords before you service the bed electrical enclosure or auxiliary outlet enclosure. Only facility-authorized persons should service the bed electrical enclosure or auxiliary outlet enclosure. Injury or equipment damage could occur.

⚠ WARNING:

The Auxiliary Outlet ground line is separate from the bed ground line. The Auxiliary Outlet does not have battery back-up. Use for non-life support medical equipment only. Failure to do so could cause injury or equipment damage.

⚠ WARNING:

Do not use oxygen enriched sources near the Auxiliary Outlet. Failure to do could cause injury or equipment damage.

⚠ WARNING:

Do not connect both power cords to the same wall outlet. Connect the power cords to different outlets on separate circuits. Failure to do so could cause equipment damage or the facility power breakers to turn off. **Do not use the Auxiliary Outlet for life support equipment. Connect life support equipment directly into the facility power supply.**

The Auxiliary Outlet option is a convenient source of AC power for non-life support medical equipment only. It is located near the left foot-end siderail.

The Auxiliary Outlet supplies up to 8 A of AC current. Beds that have this option are equipped with two power cords, one for the Auxiliary Outlet and one for the bed. The outlet is separate from the bed system's AC supply. The Auxiliary Outlet power cable is white; the bed power cable is black.

The Auxiliary Outlet is protected by a circuit breaker that can be reset. If the circuit breaker gets turned off, the white button will pop out. Press the white button to reset the circuit breaker.

IntelliDrive® Transport System

The IntelliDrive® Transport System option is a permanently attached power driven mechanism built into the bed. This mechanism deploys or stows based on the position of the brake/steer control and AC power availability. It is activated by pressing an enable switch and applying pressure to the transport handles located at the head end of the bed. This allows the caregiver to propel the bed during patient transport with minimally applied force.

⚠ WARNING:

Do not use the IntelliDrive® Transport System if the bed moves forward or reverse when one of these occur: you press one of the enable switches, but do not apply pressure to one of the handles; you apply pressure to one of the handles, but do not press one of the enable switches. Contact your facility-authorized maintenance person. Failure to do so can cause injury or equipment damage.

⚠ WARNING:

If the bed is stopped on a ramp, or a patient is left unattended, set the brake to avoid unwanted bed movement. Failure to do so can cause personal injury or equipment damage.

⚠ WARNING:

Failure to significantly reduce the speed of travel when you transport freestanding equipment such as portable IV poles along with the bed can cause injury or equipment damage.

⚠ CAUTION:

The powered transport system is intended for indoor use only. Outdoor use may cause temporary or permanent damage to the powered drive mechanism and/or drive belt.

To Prepare the Bed for Transport

1. Raise all four siderails to the up and locked position.
2. Put the bed in the low-low position.
3. Adjust the head position to make sure the view is unobstructed from the head end of the bed.
4. Secure all equipment being transported with the bed such as monitors, oxygen tanks, and IV poles.
5. Make sure the transport handles are up and locked in position.

To Activate

1. Unplug the AC power cord from its power source and stow.
2. Set the brake/steer control to steer.

NOTE:
Unplugging the bed and putting it in steer mode will automatically deploy the drive wheel, but not power the powered drive system.

3. Grip one or both of the transport handles located at the head end of the bed.
4. Depress at least one of the enable switches on the inside of the grips of the transport handles.
    - Depressing an enable switch engages the drive wheel on the bed so it can move when pressure is applied to the handles.
    - Depressing the enable switch will not cause the bed to start moving if there is no pressure applied to the handles.
5. Push the transport handles forward to start forward movement or pull them toward you to start reverse movement.
    - Pressure sensors located in the transport handles sense the applied pressure and activate the motor to propel the bed in the direction of the applied pressure.
    - The amount of pressure applied to the handles will regulate the speed of the bed. Increasing the forward applied pressure will move the bed forward faster. Maximum forward speed is between 2.5 mph and 4.0 mph (4.0 km/h to 6.4 km/h) on level flooring. Increasing the reverse applied pressure, will move the bed in reverse faster. Maximum reverse speed is between 1.0 mph and 2.5 mph (1.6 km/h to 4.0 km/h) on level flooring.

6. Decreasing pressure on the transport handles will **slow** the bed.
7. Releasing the enable switch(es) on the transport handles will cause the bed to **stop**.

⚠ WARNING:

In case of battery or motor power loss, toggle the electronic brake switch to OFF. This permits manual movement of the bed with a deployed, unpowered system.

An electronic brake switch is located on the right side of the drive housing. If during a transport, the battery fails or there is a loss of motor power, toggle the electronic brake switch to OFF. This permits manual movement of the bed with the drive mechanism deployed. Reset the switch at the destination, and inform facility maintenance of the condition.

To Deactivate

- Set the brake/steer control to neutral or brake.

  or

- Plug the bed into an appropriate AC power source.

To Stow the Transport Handles

1. Grasp the handles and lift upwards to unlock them.
2. Swing the handles inward toward the center of the bed into the stowed position.

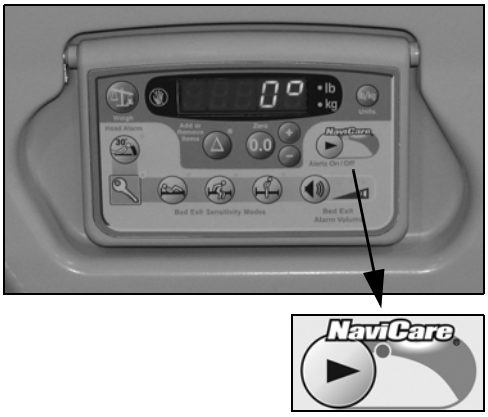
The batteries are charged when the AC power cord is plugged into a wall outlet; therefore, plug the AC power cord into a wall outlet whenever possible.

5th Wheel Assembly

The 5th wheel assembly is controlled by the brake and steer control. When the brake and steer pedal is placed in the **Steer** position, the 5th wheel locks inline with the bed frame. When the brake and steer pedal is placed in the **Neutral** position, the 5th wheel swivels freely to allow the bed to be moved from side to side.

See “Brake and Steer Control” on page 8 for the brake and steer controls.

NaviCare® Patient Safety Module



The NaviCare® Patient Safety Module (PSM) is an enterprise system that connects and monitors Hill-Rom® beds and surfaces. The system sends bed and surface data to network applications for caregivers to view and receive alerts. For complete operational instructions for the NaviCare® PSM, refer to the *NaviCare® Patient Safety Module User Manual* (P004447).

The system's alerts feature is configured from the NaviCare® PSM application. The application is turned on or off at the nurses station; however, the alerts feature can be deactivated and reactivated from the bed.

An indicator on the control pod shows the status of the alerts feature:

- Inactive—indicator is off
- Active—indicator is on

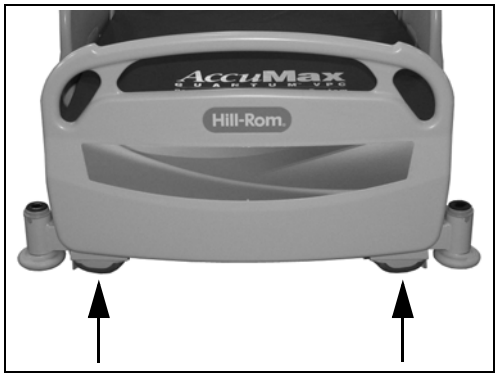
To Activate

Press the **NaviCare** control until the indicator comes on.

To Deactivate

Press the **NaviCare** control until the indicator goes off.

SafeView® Alerts



⚠ WARNING:
Use of the SafeView® Alerts is not a substitute for regular patient observation. Always observe patients in accordance with facility protocol and good nursing practice. Failure to do so could cause patient injury.

The SafeView® Alerts are lights that are on both sides of the foot end of the bed. When the bed is connected to AC power and the Bed Exit Alarm System is active, the Alerts come on to show the safety condition of the bed.

⚠ WARNING:
The SafeView® Alerts operate only when the bed is connected to AC power; the Alerts do **not** operate when the bed is connected to battery power. Always observe patients in accordance with facility protocol and good nursing practice. Failure to do so could cause patient injury.

The SafeView® Alerts only work when connected to AC power. If the facility wants the alerts to work during times of power failure, connect the bed to emergency AC power.

The SafeView® Alerts show a steady green when the Bed Exit Alarm System is active and **all** of the conditions below are met. If one or more of these conditions are not met, the Alerts flash yellow:

- The bed is in the low position.
- The siderails are up: at least the two head siderails and possibly one or both foot siderails. The factory configuration is that both head siderails must be up. The system may be configured so that one or both of the foot siderails must also be up. To change the configuration to include one or both foot siderails, see “Configure the Siderails for the Safe Bed ConditionSafeView® Alerts” on page 25.
- The brake is set.

Alerts are On Green—the Bed Exit Alarm System is active, and the conditions shown above are met.

Alerts Flash Yellow —the Bed Exit Alarm System is active, and one or more of the conditions shown above are not met **or** the 30° Head Angle Alarm is alarming. The 30° Head Angle Alarm will cause the lights to flash yellow even if the SafeView® Alerts are not active.

Alerts Flash Yellow and Green—there is a technical problem with the Alerts. Call your facility-authorized maintenance person.

NOTE:
If the Bed Exit Alarm System **is** active and there is a technical problem, a nurse call will be sent to the nurses station to let you know there is a problem with the Alerts.

Alerts Are Off—the Alerts are off when the Bed Exit Alarm System is not active, the Alerts have been deactivated, the bed operates on battery power, or the bed is disconnected from AC power.

Deactivate the SafeView® Alerts

If you want to activate the Bed Exit Alarm System, but do not want the Alerts on, do as follows:

1. Make sure the Bed Exit Alarm System is not active.
2. Press and release the **Enable** control.
3. Press and hold the applicable **Bed Exit Mode** control.
4. Continue to press the **Bed Exit Mode** control, and press the **Volume** control for approximately three seconds. The Alerts will flash green for three seconds to let you know the configuration is set. The Bed Exit Alarm System will be active, and the Alerts will be off.

NOTE:
The Alerts will stay off until you activate the Bed Exit Alarm System again or you disconnect the bed from AC power and then connect the bed to AC power.

Configure the Siderails for the SafeView® Alerts

At a minimum, the two head siderails must be up for the Alerts to show green.

There are three siderail configurations for the Alerts:

- The head siderails up
- The head siderails and one foot siderail up

NOTE:
The system does not know if the right or left foot siderail is up.

- All siderails up

1. To configure the system, put the siderails in one of the configurations shown above.

2. Press, and hold, these controls at the same time for five seconds: **Knee Up**, **Knee Down**, **Bed Up**, and **Bed Down**. The Alerts will flash green for three seconds to let you know the configuration is set.

To make sure the Alerts operate as configured, do as follows:

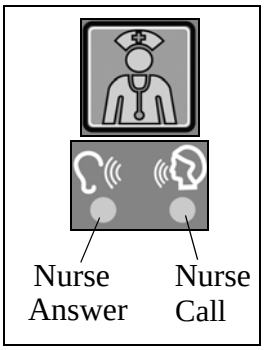
1. Put the siderails in the applicable configuration.
2. Make sure the Alerts are green.
3. Lower one of the configured siderails, and make sure the Alerts flash yellow. Then, raise the same siderail, and make sure the Alerts are green.
4. Repeat step 3 for each of the configured siderails.

NOTE:
If more than the configured siderails are **up**, the system will not alert. It only alerts when the configured siderails are **down**.

Optional Patient Controls

The optional patient controls are located on the patient pendant.

Nurse Call Control



The Nurse Call control is located on the inside of the head siderails and on the patient pendant.

To Activate

- Press any **Nurse Call** control.
- When the nurses station acknowledges the nurse call, the *Nurse Call* LED comes on.
- When the nurses station's communication line is open, the *Nurse Answer* LED comes on.
- Speak into the speaker/microphone located on the inside of the head siderails.

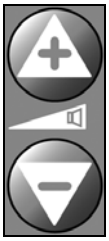
Room Light Control

The room light control allows the patient to turn the room light off and on.

Reading Light Control

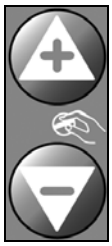
The reading light control allows the patient to turn the reading light off and on.

Volume Control



The volume control allows the patient to adjust the volume of the television or radio in the room.

Channel Control



The channel control allows the patient to change channels on the television or stations on the radio in the room.

Music Control

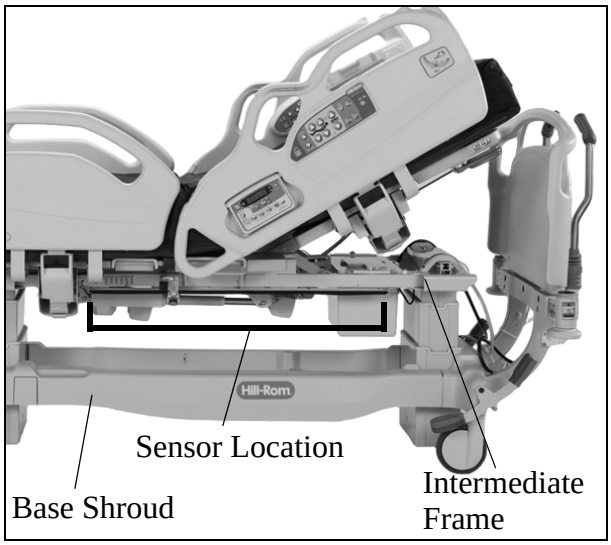
The music control allows the patient to turn on and off the radio in the room.

Television Control

The television control allows the patient to turn on and off the television in the room.

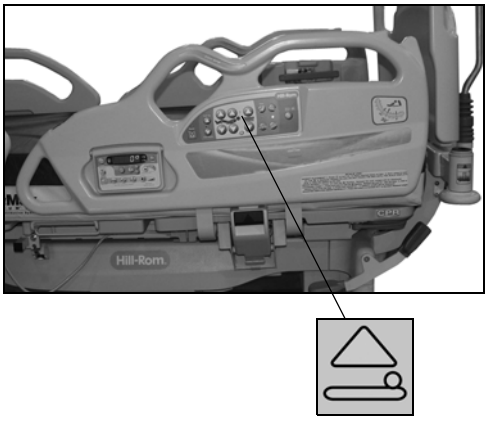
Obstacle Detect® System

The optional Obstacle Detect® System has a sensor that runs along the bottom of the intermediate frame on each side of the bed. When the bed lowers, this system senses objects that are between the intermediate frame and the floor. The sensors are positioned to detect objects outside of and adjacent to the base shroud along the length of the sensor. The sensors are not mounted on the head siderail mount brackets.



If the system senses an object when you press the **Bed Down** control, the *Bed Not Down* indicator on both siderails will flash, and you will not be able to lower the bed. Release the control, remove the object, and lower the bed as applicable.

If the system senses an object while the bed is lowering, the bed will stop lowering, and then raise automatically for 2 seconds. The *Bed Not Down* indicator on both siderails will flash. Release the control, remove the object, then lower the bed as applicable.



If the bed will not lower, do as follows:

1. Make sure the bed is connected to AC power
   or
   the battery is activated.
2. Make sure there is nothing touching the sensors.
3. If the bed still does not lower, contact facility maintenance for further troubleshooting.

Accessories

Part Number	Description
P2217	IV Pole
P736EA1	Mattress foot pad extender
See page 29	Mattress
P158	Infusion Support System (ISS) transfer pole
P27601	Oxygen tank holder, E-size
P163	ISS socket adapter
P1181	Traction frame support
P1191	Patient helper support
P1176	Patient helper, fixed position, kit
P1177A	Patient helper, adjustable position, kit

IV Pole (P2217) and Infusion Support System Transfer Pole (P158)

⚠ CAUTION:

Do not exceed the 25 lb (11 kg) load capacity of the IV pole. If the IV pole is overloaded, personal injury or equipment damage may occur.

⚠ CAUTION:

Do not exceed the 20 lb (9 kg) load capacity of the ISS pole. If the ISS pole is overloaded, personal injury or equipment damage may occur.

⚠ WARNING:

If the IV pole or ISS is placed at the foot end of the bed, make sure the Knee Up/Down controls are locked out. Failure to do so can cause caregiver, patient, or visitor injury if the foot section fully lowers and the IV pole or ISS pole becomes dislodged from the bed.

⚠ WARNING:

The head end equipment sockets do not move up and down with the sleep deck. Use appropriate precautions with gravity-sensitive devices such as ventricular drains or lumbar drains before, during, and after operating bed functions. Make sure flow rates on all gravity-fed IVs are correct after bed height adjustment. Failure to correctly manage patient equipment could cause patient injury.

⚠ CAUTION:

Do not mount infusion pumps on the lower section of an IV pole. Doing so may cause interference with head section articulation.

⚠ CAUTION:

When lowering the upper section of the IV pole, always grasp and hold the upper section of the pole before pulling the release knob.

The **IV pole** is a removable, telescopic pole that installs in any of the four equipment sockets on the bed. The IV pole can hold 25 lb (11 kg).

To install the standard IV pole or ISS pole, insert the IV pole into any of the four equipment sockets on the bed. Removal is reverse of installation.

NOTE:
Added height is recommended for gravity drain applications.

The **Infusion Support System (ISS)** consists of a movable and adjustable IV pole. The pole supports IV pumps or bags in a vertical orientation and raises or lowers the pumps or bags with respect to the system frame. The ISS pole can hold 20 lb (9 kg).

The head end of the system has attaching points for two mobile ISS. Each ISS can support one infusion pump plus two liters of intravenous solution.

When using the ISS, it is necessary to use the P163 socket adapter before installing the ISS pole.

Mattress Foot Pad Extender

The mattress pad extender is used to fill in the gap between the mattress and the footboard when the foot section is extended to its full length.

To Install: insert the extender between the footboard and mattress after the foot section is extended.

Mattress

We recommend that you use one of these mattresses from Hill-Rom:

- NP50—P50A8
- NP100—P100A5
- NP200—P200A5
- AccuMax® VPC—P005460
- Envision® Low Airloss Therapy Surface—P741A
- V-CUE® Dynamic Air Therapy® Unit—P540A
- Flexicair Eclipse® Low Airloss Therapy—P0800020036
- Powered PrimeAire® Surface—P583EA3
- Synergy® Air Elite Low Airloss Alternating Therapy System—P004651
- TempurPedic® Mattress—P3584EA-1
- ZoneAire® Sleep Surface System—P1410EB04/P46209

Refer to the applicable product documentation for user instructions.

It is recommended to use loose fitting, knitted sheets with the mattresses from Hill-Rom.

Oxygen Tank Holder, E-Size (P27601)

⚠ WARNING:

If the oxygen tank holder is placed at the foot end of the bed, make sure the Knee Up/Down controls are locked out. Failure to do so can cause caregiver, patient, or visitor injury if the foot section fully lowers and the holder becomes dislodged from the bed.

⚠ CAUTION:

Do not exceed the load capacity of the oxygen tank holder. If the oxygen tank is overloaded, personal injury or equipment damage may occur.

The oxygen tank holder attaches to the head end of the articulating frame in a vertical position. The oxygen tank holder accommodates one **E** size oxygen tank with a regulator. The mounting points are located to allow the affixed oxygen tank holder to pivot.

To Install

- Install the mounting bar vertically into a mounting socket at either the head end or foot end of the articulating frame. Make sure the Knee Up/Down control is locked out if installed at the foot end.
- Put the tank in the holder, and tighten the holder thumbscrew. The thumbscrew keeps the oxygen tank from rotating in the holder.

To Remove

- Loosen the thumbscrew that holds the tank in the holder.
- Lift the tank out of the holder.
- Lift up on the tank holder, and remove it from the mounting sockets.

Traction Frame Support (P1181)

The traction frame adapter bracket (P1181) attaches fracture frame equipment to the bed.

⚠ WARNING:

Failure to stow the traction frame support, when not in use, could cause a trip hazard.

Refer to the equipment manufacturer’s instructions for installation procedures.

Patient Helper Support (P1191)

The Patient Helper Support (P1191) is used to attach the patient helper to the bed.

Refer to the equipment manufacturer’s instructions for installation procedures.

Patient Helper (P1176 and P1177A)

The Patient Helper (P1176 and P1177A) installs in the equipment sockets at the **head end** of the bed. The P1176 is a fixed position patient helper and the P1177A is an adjustable position patient helper.

⚠ WARNING:

Do not exceed the load capacity of the Patient Helper (P1176 and P1177A). If the Patient Helper (P1176 and P1177A) is overloaded, personal injury or equipment damage may occur.

The safe working load for the Patient Helper (P1176 and P1177A) is 165 lb (75 kg).

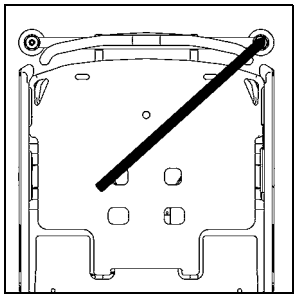
Install the Patient Helper as follows:

1. Remove the black insert.
2. Align the arrow on the bottom of the Patient Helper with the alignment groove on the equipment socket.
3. Install the Patient Helper in to the equipment socket.

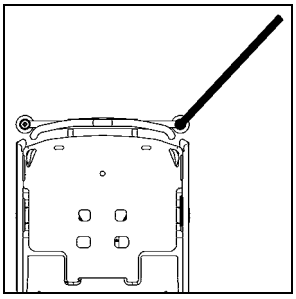
⚠ WARNING:

Do not position the Patient Helper at the outside of the bed. Patient injury or equipment damage could occur.

Put the Patient Helper in the socket so the patient handle is over the bed.



Correct Installation



Incorrect Installation

Patient Helper Positioning (P1177A)

⚠ WARNING:

The Patient Helper in the patient transfer position is designed to help the patient lift some of his/her weight so as to assist the nursing staff with their work. This position is not designed to allow patients to transfer themselves alone. Injury could occur.

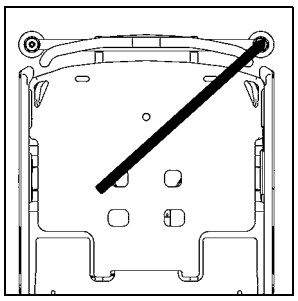
⚠ CAUTION:

If the bed has an IV pole mounted in a head end equipment socket, do not put the Patient Helper in the “tuck-away” position. Interference with the IV pole may occur.

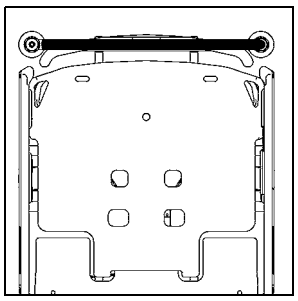
Use the blue knob marked “TURN” to adjust the Patient Helper position.

To adjust the Patient Helper position:

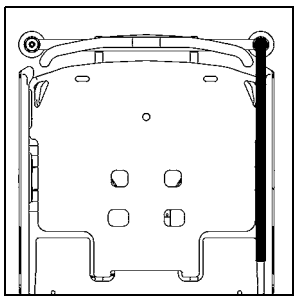
- Turn the blue knob a quarter turn clockwise to unlock the Patient Helper.
- Put the Patient Helper in the required position.
- Turn the knob counterclockwise to lock in position.
- Turn the Patient Helper slightly until it locks into place.
- Pull the Patient Helper to make sure it does not move.



Normal Position



Tuck-away Position



Patient Transfer Position

Do not transport the bed with the patient helper installed. Remove the patient helper or put it in the Tuck-away position when not in use. Remove the handle when not in use or during transport.

VIP Headboard (P921190HA and P931190HA) and Footboard (P921170FA and P931170FA)

The VIP headboards are available in two styles: FreedomHill™ (P931190HA) and LibertyHill™ (P921190HA). The VIP footboards are available in two styles: FreedomHill™ (P931170FA) and LibertyHill™ (P921170FA).

⚠ WARNING:

Install the headboards and footboards correctly. Do not interchange the headboards and footboards, do not mount headboards and footboards inside out. Failure to follow these instructions could cause serious injury or death.

To Remove:

Grasp the headboard/footboard firmly, and lift up.

To Install:

Align the posts on the headboard/footboard with the holes in the bed frame, and lower the headboard/footboard until it rests on the bed frame.

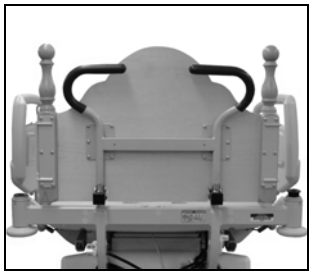
NOTE:
The mount frame for the footboards will face inside the bed. The mount frame for the headboards will face outside of the bed.

If the bed has the IntelliDrive® Transport System installed, the VIP headboards cannot be used.

The P1180 and P1191 patient helper supports can not be used with the VIP headboards.

LibertyHill™ Headboard and Footboard

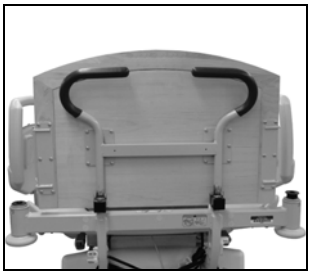
P921190HA



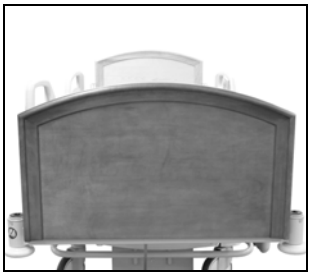
P921170FA

FreedomHill™ Headboard and Footboard

P931190HA



P931170FA



Safety Tips

Bed Positions

⚠ WARNING:
It is recommended 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). Failure to do so could cause patient injury.

⚠ WARNING:
The head end equipment sockets do not move up and down with the sleep deck. Use appropriate precautions with gravity-sensitive devices such as ventricular drains or lumbar drains before, during, and after operating bed functions. Make sure flow rates on all gravity-fed IVs are correct after bed height adjustment. Failure to correctly manage patient equipment could cause patient injury.

⚠ WARNING:
The sleep deck moves independently of fracture frame and traction equipment. Monitor patient position at all times during bed movement to avoid patient injury.

Brakes

⚠ WARNING:
Unless transporting the patient, always set the brakes when the unit is occupied. Reconfirm that the brakes are set before any patient transfer. Failure to do so may cause personal injury or equipment damage.

Brakes should always be set when the bed is occupied and especially when transferring a patient from one surface to another. Patients often use the bed for support when getting in and out of the bed and could be injured if the bed moves unexpectedly. After you set the brakes, push and pull the bed to make sure it is stable.

Siderails/Restraints/Patient Monitoring

⚠ WARNING:
Follow facility protocol for siderail usage.

⚠ WARNING:
Evaluate patients for entrapment risk according to facility protocol, and monitor patients appropriately.

⚠ WARNING:
Evaluate patients for entrapment risk according to facility protocol, and monitor patients appropriately. Make sure that all siderails are fully latched when in the raised position. Failure to do either of these could cause serious injury or death.

NOTE:
Siderails are intended to be a reminder to the patient of the unit's edges, 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.

Siderails may serve several beneficial uses including providing an edge reminder, bed egress assist, and access to caregiver interface and patient controls. The use of siderails also may provide a sense of security. Siderails should always be in the upright and latched position when the bed is in the chair position. The use of siderails in the bed position should be determined according to patient need after assessing any risk factors according to the facility protocols for safe positioning.

When raising the siderails, a **click** indicates that the siderails are completely raised and locked in place. Gently pull on the siderail once the **click** is heard to make sure the siderail is latched in position.

Siderails are intended to be a reminder, not a patient restraining device. Hill-Rom recommends that the appropriate medical personnel determine the level of restraint necessary to make sure a patient will remain safely in bed.

For restraining devices, consult the restraint manufacturer’s instructions for use to verify the correct application of each restraining device.

⚠ WARNING:
Patient restraints are not intended as substitutes for good nursing practices. Physical restraints, even properly installed, can cause entanglement, physical injury, and death, particularly with agitated and disoriented patients. Monitor patients when using physical restraints in accordance with legal requirements and facility protocol.

1. Develop guidelines for all patients that indicate:
   - Which patients may need to be restrained and the appropriate restraint to utilize.
   - The proper method to monitor a patient, whether restrained or not, including time interval, visual check of restraint, etc.
2. Develop training programs for all caregivers concerning the proper use and application of restraints.
3. Maintain the bed at its lowest position whenever a caregiver is not in the room.
4. Clarify the need for restraint devices to families or guardians.

Electricity

SHOCK HAZARD:
The potential for electrical shock exists with electrical equipment. Failure to follow facility protocols may cause death or serious personal injury.

⚠ WARNING:
Do not expose the unit to excessive moisture. Personal injury or equipment damage could occur.

⚠ WARNING:
Improper use or handling of the power cord may cause damage to the power cord. If damage has occurred to the power cord or any of its components, immediately remove the unit from service, and contact the appropriate maintenance personnel. Failure to do so could cause personal injury or equipment damage.

⚠ WARNING:

If the integrity of the external protective earth conductor is in doubt, operate the bed from its internal electrical power source. Failure to do so could cause personal injury.

⚠ CAUTION:

This device meets all applicable requirements for electromagnetic compatibility per IEC 60601-1-2. It is unlikely that the user will encounter problems with this device because of inadequate electromagnetic immunity. However, electromagnetic immunity is relative, and standards are based on anticipated environments of usage. If the user notes unusual device behavior, particularly if such behavior is intermittent and associated with nearby usage of radio or TV transmitters, cell phones, or electro-surgical equipment, this could be an indication of electromagnetic-interference. If such behavior occurs, the user should try moving the interfering equipment further from this device.

⚠ CAUTION:

Before transporting the unit, make sure that the power cord is properly stored. Failure to do so could cause equipment damage.

Policies and procedures must be established to train and educate your staff on the risks associated with electric equipment. It is never prudent or necessary for personnel to place any part of their body under or between moving parts of the bed. Whenever a bed is being cleaned or serviced, it should be unplugged from its power source, and the lockouts should be activated to keep the bed from accidentally operating due to the battery backup.

Electricity—Beds with an Auxiliary Outlet

SHOCK HAZARD:

This bed has two power cords. Disconnect both power cords before you service the Bed Electrical Enclosure or Auxiliary Outlet Enclosure. Only facility-authorized persons should service the Bed Electrical Enclosure or Auxiliary Outlet Enclosure. Injury or equipment damage could occur.

⚠ WARNING:

The Auxiliary Outlet ground line is separate from the bed ground line. The Auxiliary Outlet does not have battery back-up. Use for non-life support medical equipment only. Failure to do so could cause injury or equipment damage.

⚠ WARNING:

Do not use oxygen enriched sources near the Auxiliary Outlet. Failure to do could cause injury or equipment damage.

⚠ WARNING:

Do not connect both power cords to the same wall outlet. Connect the power cords to different outlets on separate circuits. Failure to do so could cause equipment damage or the facility power breakers to turn off. **Do not use the Auxiliary Outlet for life support equipment. Connect life support equipment directly into the facility power supply.**

Parts and Accessories

Only use parts and accessories from Hill-Rom. Do not modify the bed system without authorization from Hill-Rom.

Operating Bed/Surface Precautions

⚠ WARNING:
Do not operate the bed in the presence of flammable gas or vapors. Doing so could cause personal injury or equipment damage.

⚠ WARNING:
Use oxygen administering equipment of the nasal, mask, or ventilator type only. Do not use with oxygen tents. Doing so could cause personal injury or equipment damage.

⚠ WARNING:
Failure to monitor the patient and patient lines when the bed moves could cause injury.

⚠ WARNING:
Deactivate the bed functions by using the lockout control. Movement of a patient or inadvertent activation of the bed functions by untrained individuals could cause personal injury.

Sleep Surface/Mattress

⚠ WARNING:
Some safety features of the bed may not function or may not operate as intended with surfaces manufactured by other companies. Check with the surface manufacturer to determine those safety features of the bed that have been tested and verified to work properly with the replacement surface. Failure to do so could cause serious personal injury or damage to equipment.

NOTE:
Hill-Rom recommends the use of Hill-Rom surfaces that have been designed and tested specifically for the bed. Customers electing to purchase replacement surfaces from other manufacturers should confirm that the replacement surface, when used in conjunction with the bed, meets applicable regulations, regulatory guidance and technical standards and does not create unacceptable risks of injury to patients or caregivers. Specifically, Hill-Rom suggests that surfaces utilize dimensions and construction to minimize gaps where entrapment could occur, provide for sufficient height between the surface and the top of the siderail to prevent accidental roll-over events, provide appropriate firmness at the edges of the surface to facilitate safe transfers into and out of the bed, and do not interfere with the proper operation of siderails.

⚠ WARNING:
Sleep surface impermeability could be affected by needle sticks or punctures caused by improper use of x-ray cassette holders and/or needle sticks. Personal injury or infection could result.

The sleep surface should be regularly inspected for such damage.

Flammability

⚠ WARNING:
Patients should not be allowed to smoke in bed. Sheets and pillows generally do not have flame resistant properties. Personal injury or equipment damage could occur.

Reduce the possibility of fires by observing fire prevention rules and regulations.

Refer to the mattress documentation for all applicable fire codes.

Bed Articulations

Do not operate system controls until all persons and equipment are clear of mechanisms. To stop a function do any or all of the following:

- Release the control.
- Activate the opposite function.
- Immediately unplug the power cord.

Observe lines closely during articulations. Always use good line management techniques, particularly as the head section rises.

Chair Positioning

Always set the brakes before placing the system in a chair position. Observe lines closely during head up/down and chair articulation.

Visitor Notification

Instruct visitors not to attempt operation of the caregiver siderail controls. Visitors may assist the patient with patient controls.

Transport

⚠ WARNING:
When you move the bed through narrow locations, through doorways, or around corners, make sure there is sufficient room for the bed and use appropriate speed.

⚠ WARNING:
Do not store the power cord in the holes in the headboard. Doing so may cause entanglement problems with the headboard while removing the headboard during emergency CPR.

The bed is intended to be used to transport patients with the foot end of the system forward. Prior to transport, properly stow the power cord to prevent tripping. Take care to prevent damage to the AC power cord. An electrical shock hazard could exist if the power cord is damaged and connected to mains power. Use only the headboard or the footboard to move the bed.

Make sure that the patient, equipment, and all lines are securely placed within the perimeter of the bed for intra-hospital transport. The bed is not intended to be used to transport a patient in the Dining Chair® Position or FullChair® Patient position.

Fully extended IV poles could impact doorways or ceiling fixtures. Lower poles prior to patient transport.

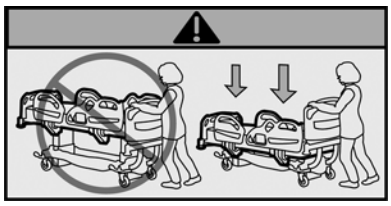
Make sure the Nurse Call system cables are properly connected after transport.

Transport Position

⚠ WARNING:

Put the bed in the lowest position for transportation. Failure to do so could cause injury or damage.

Make sure the bed is in the lowest position before you transport the bed. See “Bed Up/Down Control” on page 5.



Clean and Disinfect

We recommend that you clean and disinfect the Advanta™ 2 Bed between patient use and regularly during extended patient stays. Refer to your facility's cleaning and disinfection policies, and follow the guidelines below.

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

SHOCK HAZARD:
The potential for electrical shock exists with electrical equipment. Failure to follow facility protocol could cause death or serious injury.

SHOCK HAZARD:
Failure to unplug the bed from its power source before you clean or disinfect the bed could cause injury or equipment damage.

SHOCK HAZARD:
Do not expose the bed to excessive moisture. Injury or equipment damage could occur.

⚠ CAUTION:
Do not steam clean or power wash the bed or mattress. Pressure and excessive moisture can damage the mattress and the protective surfaces of the bed and its electrical components.

⚠ CAUTION:
Do not use harsh or abrasive cleansers, solvents, or scouring pads. Equipment damage could occur.

⚠ CAUTION:
Make sure the bed frame and mattress are dry before you put the mattress on the bed. Failure to do so could cause equipment damage.

NOTE:
Clean and disinfect surfaces with nano Ag+® Technology as you would other surfaces. This product is not intended to protect users or others against bacteria, viruses, germs, or other disease organisms. Always disinfect Hill-Rom surfaces thoroughly after each use according to facility protocol.

Clean

1. Unplug the bed.
2. Remove all linens.
3. Use these to clean the bed:
    - A soft cloth soaked with warm water and a facility-approved general cleaning soap/detergent solution. Make sure the cloth is not so wet as to cause the cleaning solution to pool or flood on the mattress or other bed components.
    - A soft brush to remove stains and resistant soil. Do not use harsh or abrasive cleansers, solvents, or scouring pads.

4. Clean the bed. Give special attention to these areas:
    - Headboard—thoroughly clean as this is a high-touch area
    - Footboard—remove from the bed, and thoroughly clean as this is a high-touch area
    - Siderails—thoroughly clean the high-touch areas such as the upper and under sides of the siderail releases, pendants, and patient controls
    - Bed frame
    - Casters
    - All other bed components
    - Fully-extended IV pole
    - Bed accessories that can be used again such as the mattress

NOTE:
If you turn the mattress to clean it, make sure the cleaning solution does not pool or flow on to the other side or edges of the mattress. This may permit fluid to get into the mattress zipper closures that ordinarily are protected by the ticking flaps.

5. Examine the condition of the mattress. If there are holes, tears, or other signs of damage or deterioration of the ticking, replace the mattress.
6. Disinfect the bed (see below).

Disinfect

Wipe down all surfaces with a facility-approved disinfectant, used in accordance with the manufacturer's instructions. Give special attention to high-touch areas such as the siderails, upper and under sides of siderail releases, pendants, patient controls, headboard, and footboard.

Clean and Disinfect a Prevention Foam Mattress

1. Make sure the bed is unplugged.
2. If applicable, remove the sleep surface from the bed.
3. Wipe down the surface with chlorine bleach (50 ppm to 150 ppm) or mild detergent and warm water followed by an approved intermediate level disinfectant, such as CSI disinfectant cleaner.

NOTE:
2.5 oz of bleach per 10 gal of water is approximately 100 ppm of available chlorine.

4. Let the bleach or disinfectant remain in contact with the surface as instructed in the manufacturer’s instructions.
5. Remove the bleach or disinfectant, and rinse with warm water.
6. Let the mattress completely air dry.
7. If the sleep surface was removed, install it on the bed.

Cleaning Wood Headboard and Footboard

The wood headboard and footboard are treated with a resin-based sealer and finish that provide resistance to abrasion, staining, fluids, and fire. Many disinfectant/cleansers have a “softening” effect on any painted or finished surface if used in high concentrations.

Clean the head- and footboards with a soft cloth dampened with a suitable solution, followed by use of a dry cloth. Use diluted ammonia, detergent, and bleach solutions to clean the wood surfaces.

⚠ CAUTION:

Many disinfectant cleaners, if used in high concentrations, will soften a painted or sealed surface. Use of some disinfectant cleaners may damage equipment.

It is recommend to use EPA approved disinfectants, used at the manufacturer’s suggested dilutions or bleach at 1:100 dilution (1/4 cup to 1 gallon water) to clean environmental surfaces. **Do not use cleaning solutions that contain Quaternary ammonium.**

Clean by wiping a soft dampened cloth over the surface, followed by wiping with a dry cloth. At no time should a wet cloth be allowed to lay on the surface. Any liquid spilled on the surface should be wiped up immediately. Any liquid allowed to lay on the surface unattended may damage the finish. For protection of the finish we recommend using a liquid-type furniture polish.

Apply a liquid furniture polish to the wood surfaces for surface protection, and wipe off any excess with a soft dry cloth. Have any nicks or scrapes repaired to prevent water damage.

Preventive Maintenance

⚠ WARNING:

Only facility-authorized personnel should service the bed. Servicing by unauthorized personnel could cause personal injury or equipment damage.

The bed requires an effective maintenance program. We recommend that you do annual preventive maintenance (PM) and testing for Joint Commission on Accreditation of Healthcare Organizations (JCAHO). PM and testing not only meet JCAHO requirements but will help make sure a long, operative life for the bed. PM will minimize downtime due to excessive wear. For preventive maintenance schedule, refer to the *Advanta™ 2 Bed Service Manual* (157723).

Do annual preventive maintenance procedures to make sure all bed components function as originally designed. Pay particular attention to safety features, including but not limited to the following:

- Siderail latching mechanisms
- Caster braking systems
- Electrical system components
- Electrical power cords for frays, damage, and proper grounding
- Leakage current at the Nurse Call system communication connections
- Controls return to off or neutral position when released
- Cables are not tangled in system mechanisms or siderails
- Correct operation of the lockout controls
- Integrity of sleep surface ticking
- Correct operation of the scale and Bed Exit System

The Bed Main Battery

Replace the battery if any of these conditions exist (refer to the *Advanta™ 2 Bed Service Manual* (157723):

- The battery indicator does not stop flashing (low condition) within 12 hours of bed connection to the AC power.
- The battery completely discharges in less than three (3) complete bed up/down cycles with no load on the bed (no patient on the surface).

Dispose of the battery in accordance with local and federal standards.

Troubleshooting

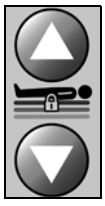
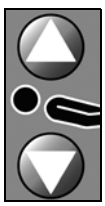
⚠ WARNING:

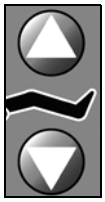
Only facility-authorized personnel should troubleshoot the bed. Troubleshooting by unauthorized personnel could cause personal injury or equipment damage.

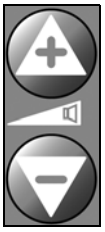
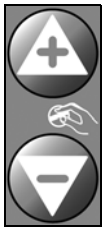
Always check the battery charge status on the siderail. The bed may not be functioning due to the battery being drained and the bed needing to be plugged into an appropriate power source.

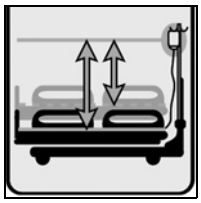
Product Symbols

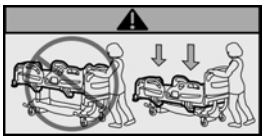
The following symbols are used on the bed:

Symbol	Description
	Type B applied part according to IEC 60601-1 (UL 60601-1).
IPX4	According to IEC 60529, Rating for protection against fluid ingress and identified as equipment that is protected against spraying and splashing water.
	CAUTION: Consult accompanying documents.
ETL CLASSIFIED 	MEDICAL ELECTRICAL EQUIPMENT CONFORMS TO UL Std. 60601-1, IEC 60601-2-38, AND CERTIFIED TO CAN/CSA Std. C22.2 NO. 601.1.
	Electric shock hazard
	Lockout control—Used to lockout or unlock bed functions.
	Bed Up/Down control—Raises and lowers the bed.
	Head Up/Down control—Raises and lowers the head section of the bed.

Symbol	Description
	Knee Up/Down control—Raises and lowers the knee section of the bed.
	Battery control—Activates the battery. Indicates battery charge.
	Enable control—Enables the Bed Exit System control pod functions. (Located on the scale control pod)
	Trendelenburg control—Enables the Trendelenburg function on the bed.
	Reverse Trendelenburg control—Enables the Reverse Trendelenburg function on the bed.
	Nurse Call control—Sends a Nurse Call to the nurses station when activated.
	Patient position indicator—Shows optimal patient placement on the bed.
	Dining Chair® Position control—Enables the Dining Chair® Position function on the bed.
	Bed Flat control—Puts the bed in a flat position.

Symbol	Description
	Foot Up/Down control—Raises or lowers the foot section on the bed.
	Room Light control—Turns the room light on and off. (Patient control pendant only)
	Reading Light control—Turns the reading light on and off. (Patient control pendant only)
	Music control—Turns the radio on and off. (Patient control pendant only)
	Television control—Turns the television on and off. (Patient control pendant only)
	Volume control—Raises or lowers the volume of the television or radio. (Patient control pendant only)
	Channel/Station Up/Down control—Changes the television channel or radio station up or down. (Patient control pendant only)
	Do not store items in this area.

Symbol	Description
	Do Not Use with Oxygen Tents—Indicates that oxygen tents are not to be used. Use oxygen administering equipment of the nasal, mask, or ventilator type only.
	Bed Not Down Indicator—Illuminates when the bed is not in the low-low position.
	Safe Working Load—Indicates the safe working load of the bed.
	Shows the head end IV poles do not change height when the sleep surface is raised or lowered.
	Change Items control—Beds with scale
	Weigh control—Beds with scale
	Plus and Minus arrows—To manually adjust the patient weight.
	Zero control—Beds with scale
	Hands Off indicator—Beds with scale

Symbol	Description
	Patient Position Mode—Comes on when a patient moves towards either siderail or moves away from the head section such as by sitting up in bed.
	Bed Exiting Mode alarm—Comes on when a patient moves away from the center of the bed towards an exit point.
	Out-of-Bed Mode alarm—Comes on when the patient's weight shifts significantly off the frame of the bed.
	Alarm Volume indicator—Shows the local alarm volume level setting of the Bed Exit Alarm System.
	Patient Helper alignment. Align the arrow with the alignment groove on the equipment socket
	NaviCare control—Activates and deactivates the alerts feature of the NaviCare® Patient Safety Module.
	30° Head Angle Alarm control—Sets the alarm. When the head section of the bed goes below 30°, an alarm comes on and the alarm indicator flashes.
	Transport position—Shows the position the bed should be in during transport.

Specifications

Product Identification

Product Number	Description
P1190A	The Advanta™ 2 Bed

Dimensions

Feature	Dimension
Maximum length	100" (254 cm)
Maximum width (siderails stored)	40" (102 cm)
Maximum width (siderails up)	40" (102 cm)
Recommended Mattress dimensions:	
Mattress width	36" (91.4 cm)
Mattress length	84" (213.4 cm)
Mattress thickness	6.0" (15.2 cm)
Alternate mattresses: Recommended height above the mattress at the deck perimeter to the top of the siderail, per IEC 60601-2-38	8.7" (220 mm)
Caster size	6.0" (15.2 cm)
Maximum bed weight	435.0 lb (197 kg) without surface, options, or accessories

Specifications

Feature	Dimension
Head section inclination	65°
Knee section inclination	36°
Foot section inclination	-23°
Maximum height (to top of sleep deck)	32.5" (82.5 cm)
Minimum height (to top of sleep deck)	15.75" (40.00 cm)
Trendelenburg position	16°
Safe working load (safe working load includes: patient, accessories, mattress, and etc.)	500 lb (227 kg)
Siderail opening size	4.34" (11.02 cm)
Distance between siderails	< 2.3" (5.8 cm)

Environmental Conditions for Transport and Storage

Condition	Range
Temperature	-40°F to 158°F (-40°C to 70°C)
Relative humidity	10% to 95%, non-condensing
Pressure	70 kPa to 106 kPa

Nurse Call Connection Requirements

For information about the Nurse Call connection requirements, refer to the *SideCom® Communication System Design and Application Manual* (DS059).

Environmental Conditions for Use

Condition	Range
Temperature	50°F to 104°F (10°C to 40°C) ambient temperature
Relative humidity range	20% to 85%, non-condensing
Atmospheric Pressure	70 kPa to 106 kPa

AC Power Requirements

Nominal Power Distribution Voltage (Volts)	Nominal Power Distribution Frequency (Hertz)	Maximum Equipment Current (Amps)
120	60	6.0[a]
110-120	50/60	7.5
127	50/60	6.0

a. North American power supply configuration.

Auxiliary Outlet Power Specifications (120 V Beds Only) (Beds with the Optional Auxiliary Outlet)

Condition	Range
Auxiliary Outlet	120 V AC, 60 Hz, 8 A outlet, electrically isolated from the bed's mains power. Equipped with an 8 A, single-pole, resetable circuit breaker.

Fuse Specifications

There are no user accessible fuses. Refer to the *Advanta™ 2 Bed Service Manual* (157723) for fuse ratings and replacement procedures.

Classification and Standards

The Advanta™ 2 Bed is designed and manufactured according to the following equipment classifications and standards:

Technical and Quality Assurance Standards	UL 60601-1 CSA® C22.2 No. 601.1 IEC 60601-2-38 IEC 60601-1 IEC 60601-1-2 EN ISO 9001 and EN 13485
Equipment Classification per IEC 60601-1	Class I equipment, internally powered equipment
Classification according to EU Directive 93/42/EEC	Class I
Degree of Protection Against Electric Shock	Type B
Degree of Protection Against Ingress of Water	Protection against spraying or splashing water- IPX4
Degree of Protection Against the Presence of Flammable Anaesthetic Mixtures	Not for use with flammable anaesthetics.
Mode of Operation	Continuous operation with intermittent loading, 3 minutes ON/27 minutes OFF
Sound level (except alarms) (measured 1 meter from patient's ear)	< 60 dBA for normal operation, does not include the IntelliDrive® Transport System or transients < 70 dBA maximum (IntelliDrive® Transport System active) < 78 dBA transients (brake/steer activation, siderail latch and unlatch)

Electromagnetic Emissions Guidance

Guidance and Manufacturer's Declaration—Electromagnetic Emissions		
The Advanta™ 2 Bed model P1190 is intended for use in the electromagnetic environment specified below. The customer or the user of the model P1190 should make sure it is used in such an environment.		
Emissions Test	**Compliance**	**Electromagnetic Environment—Guidance**
RF Emissions CISPR 11	Group 1	The model P1190 uses RF energy only for its internal functions. Therefore, its RF emissions are low and are not likely to cause any interference in nearby electronic equipment.
RF Emissions CISPR 11	Class A	The model P1190 is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic Emissions IEC 61000-3-2	Not Applicable	
Voltage Fluctuations/ Flicker Emissions IEC 61000-3-3	Not Applicable	

Electromagnetic Immunity Guidance

Guidance and Manufacturer's Declaration - Electromagnetic Emissions			
The Advanta™ 2 Bed model P1190 is intended for use in the electromagnetic environment specified below. The customer or the user of the model P1190 should make sure it is used in such an environment.			
Immunity Test	**IEC 60601 Test Level**	**Compliance Level**	**Electromagnetic Environment—Guidance**
Electrostatic Discharge (ESD) IEC 61000-4-2	± 6kV Contact ± 8kV Air	± 6kV Contact ± 8kV Air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Radiated RF IEC 61000-4-3	3 Vrms 80 MHz to 2.5 GHz	3 Vrms 80 MHz to 2.5 GHz	Portable and mobile RF communications equipment should not be used at close distances to the P1190 bed. (See Note 2)
Electrical Fast Transient/Burst IEC 61000-4-4	± 2kV on Power Supply Lines ± 1kV on Input/Output Lines	± 2kV on Power Supply Lines ± 1kV on Input/Output Lines	Mains power quality should be that of a typical commercial or hospital environment
Surge IEC 61000-4-5	± 1kV Differential Mode (Line-Line) ± 2kV Common Mode (Line-Ground)	± 1kV Differential Mode (Line-Line) ± 2kV Common Mode (Line-Ground)	Mains power quality should be that of a typical commercial or hospital environment.
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms 150 kHz to 80 MHz	Portable and mobile RF communications equipment (cell phones) should not be used at close distances to the P1190 bed. (See Note 2)
Power Frequency Magnetic Fields IEC 61000-4-8	3 A/m	3 A/m	The power frequency magnetic field should be measured in the intended installation location to assure it is sufficiently low.
Voltage Dips, Short Interrupts, & Variations On Power Supply Lines IEC 61000-4-11	< 5% U_T (95% dip in U_T for 0.5 cycles) < 40% U_T (60% dip in U_T for 5 cycles) < 70% U_T (30% dip in U_T for 25 cycles) < 5% U_T (95% dip in U_T for 5 seconds) (See Note 1)	< 5% U_T (95% dip in U_T for 0.5 cycles) < 40% U_T (60% dip in U_T for 5 cycles) < 70% U_T (30% dip in U_T for 25 cycles) < 5% U_T (95% dip in U_T for 5 seconds)	Mains power quality should be that of a typical commercial or hospital environment. If operation is required during an extended power outage or interruption, the model P1190 should be switched to operate from the backup battery.
Note 1: U_T is the AC mains voltage prior to application of the test level.			
Note 2: The compliance levels in the ISM frequency range 150 kHz to 2.5 GHz are intended to decrease the likelihood that mobile/portable communications equipment could cause interference if it is inadvertently brought into the patient area. However, emission limits, IEC 60601 test levels, and tests specified in IEC 60601-1-2:2001 do not address electromagnetic compatibility of electrical equipment at very close distances. Care should always be exercised when using any electrical or RF equipment in the immediate patient area.			

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