USER MANUAL

VersaCare® Bed

From Hill-Rom

Product No. P3200 and P3201
(K model and newer)

161956 REV 2

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To order additional copies of this manual (161956), refer to the back cover for contact information. For countries not listed on the back cover, contact your distributor.

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

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Document Symbols

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

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

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

Intended Use

The VersaCare® Bed System is intended to provide a patient support suited to be used in healthcare environments. The VersaCare® Bed may be used in such settings as acute care, step down/progressive care, medical/surgical, high acuity sub-acute care, post anesthesia care unit (PACU), and sections of the emergency department (ED).

The intended users of this product are healthcare employees and patients (use of patient controls only) who have the physical strength and cognitive skills to operate and control the product. Follow facility safety protocols if an intended user does not have the physical strength or cognitive skills to operate and control the product safely.

Introduction

This manual is for K model and newer beds only.

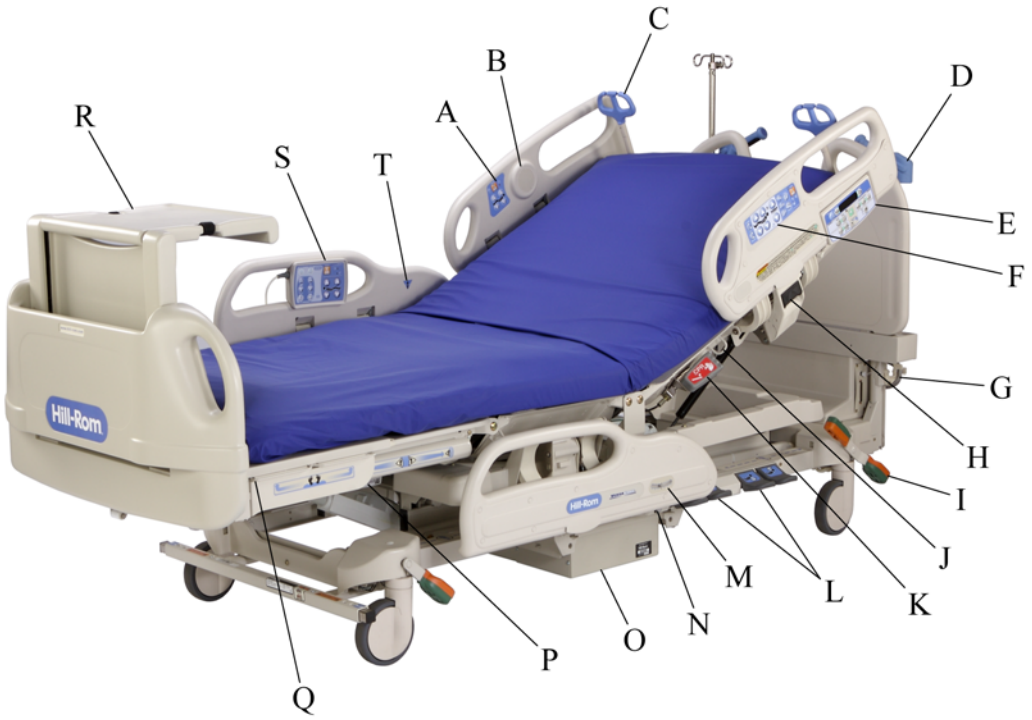
This manual supplies information necessary for normal operation of the VersaCare® Bed from Hill-Rom. Before you operate the VersaCare® Bed, make sure you read and understand in detail the contents of this manual. It is important that you read and strictly obey the aspects of safety contained in this manual. Any reference to a side of the bed is from the patient's view lying in the bed on his or her back.

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

In this manual, there are references to different bed models. To identify which model of bed you have, look at the serial number label. The label is on the right side of the weigh frame, under the patient's shoulder. For example, P3200AXXXX identifies an A model bed.

NOTE:
Throughout this manual, we identify mains power as AC power.

Features



Item	Description	Item	Description
A	Patient Siderail Control Panel	K	CPR/Emergency Trendelenburg Release Mechanism
B	Speaker	L	Caregiver Foot Controls
C	Line Manager (standard on some configurations)	M	Line-of-Site® Trendelenburg Angle Indicator
D	Transport/Push Handle (shown with optional integrated IV holder)	N	Night Light
E	Control Pod (optional)	O	IntelliDrive® Transport System (optional)
F	Point-of-Care® Siderail Controls	P	FlexAfoot™ Retractable Foot Mechanism
G	Cord Wrap Clips with IV Pole Storage	Q	Drainage Bag Holder
H	OneStep® Siderail Release Mechanism	R	Integrated Transport Shelf (standard on some configurations)
I	Point-of-Care® Brake and Steer System	S	Patient Pendant (optional)
J	Patient Restraint Point	T	Patient Hip Position Indicator

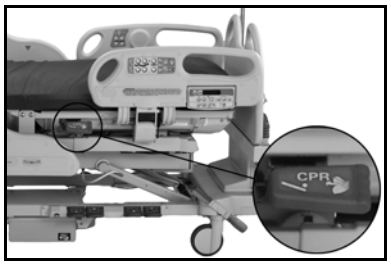
Standard Features

Emergency CPR

When activated, the CPR release decouples the head section actuator so that the head section may lower to the horizontal position. This function is gas-assisted to cushion the movement and can be used when power is not available. If a treatment/therapy surface is installed and the bed has AC power, the surface will go into Max-Inflate to support a CPR board. After 30 minutes of Max-Inflate, the surface will go into Normal mode.

NOTE:
The surface will not go into Max-Inflate if the bed is being powered by the battery back-up.

The emergency CPR controls are handles located under the sleep deck, between the head and intermediate siderails on both sides of the bed. The headboard can be used as a CPR board.



To Activate

1. Pull and hold the handle.
2. Hold the handle until the head and knee sections come to a stop in the flat position and the foot section stops raising.

NOTE:
There must be power to the bed for the knee and foot sections to operate.

3. Release the handle.

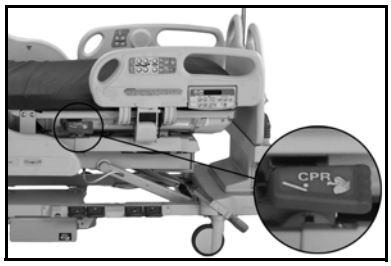
NOTE:
During activation, releasing the CPR control handle will cause the head section to stop lowering.

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

Emergency Trendelenburg

The emergency Trendelenburg allows the head end of the bed to lower to a maximum inclination of 15°.

The emergency Trendelenburg controls are handles located under the sleep deck, between the head and intermediate siderails on both sides of the bed. They are the **same** controls as the emergency CPR.



NOTE:
The emergency Trendelenburg control works **only** when the bed is connected to AC power or when battery power is enabled.

To Activate

1. Make sure the bed is plugged into AC power or the battery is enabled.

NOTE:
To enable the battery, press any of the caregiver controls except the Lockout control.

2. Pull the CPR control handle with one hand.
3. Hold the handle until the head and knee sections come to a stop in the flat position, if not currently in the flat position.
4. Continue to hold the CPR control handle until the desired angle is reached.

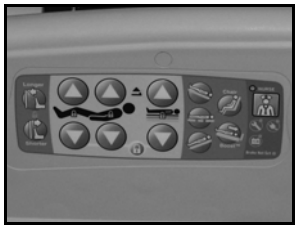
The head section actuator is automatically re-enabled after the CPR control handle is released.

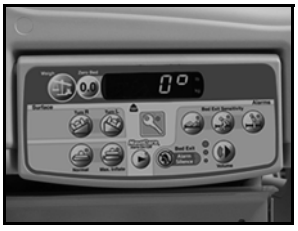
Caregiver Siderail Controls

The Caregiver Siderail controls are located on the outside of each head-end siderail.

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, treatment/therapy surface, and the Bed Exit Alarm System.

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



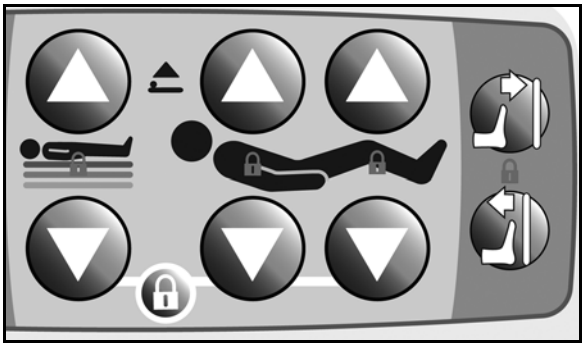


Enable

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.

Lockout

The Lockout control on the caregiver siderail control panel disables the bed articulating functions.



To Activate

Simultaneously press the Lockout control and either direction control of the applicable function. Both patient and caregiver controls are locked out. A tone will sound and the applicable indicator will come on to let you know the lockout is activated.

NOTE:
When you activate the lockout for either the Knee Up/Down or Foot Longer/Shorter control, both knee up/down **and** foot longer/shorter functions will be locked out.

To Deactivate

Simultaneously press the Lockout control and the applicable function control. A tone will sound and the applicable indicator will turn off to let you know the lockout is deactivated.

NOTE:
The Lockout control disables all articulation controls except for the emergency CPR.

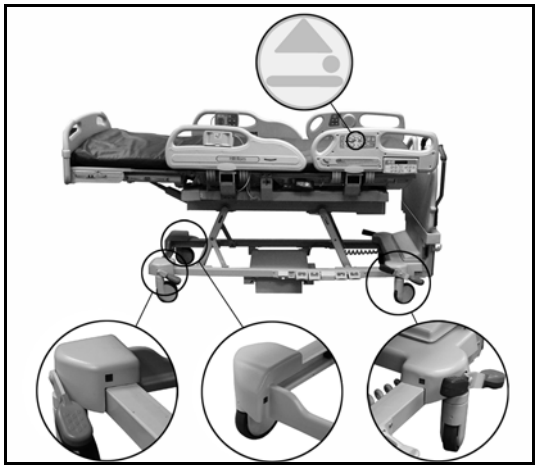
Bed Up/Down

The VersaCare® Bed adjusts in height from a low position for patient exit to a high position for examination. The Bed Up/Down controls are located on the head-end siderails.

To Activate

1. Press and hold the Bed Up control to raise the bed. When the desired height is reached, release the control.
2. Press and hold the Bed Down control to lower the bed. When the desired height is reached, release the control.
3. To disable the Bed Up/Down control, activate the Bed Up/Down Lockout control (see “Lockout” on page 6).

Obstacle Detect™ System



The VersaCare® Bed is equipped with the Obstacle Detect™ System that runs along the three open sides of the base frame. This system senses objects that are between the upper frame and the base frame.

If the system senses an object, the Bed Not Down indicator on both siderails will flash, and you will not be able to lower the sleep deck.

If the system senses an object while the bed sleep deck is lowering, the bed will stop lowering, and then raise automatically for 2 seconds. The Bed Not Down indicator on both siderails will flash.

Head Up/Down

Using the Head Up/Down controls, the caregiver can adjust the head section to specific angles. There are Line-of-Site® Angle Indicators located in the head-end siderails to show the position of the head section.

NOTE:
Some bed models may have the digital Head Angle Display instead of the Line-of-Site® Angle Indicators. For those bed models, 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.

The maximum travel for the head section is 65°.

To Activate

1. Press and hold the Head Up control to raise the head section. When the desired position is reached, release the control.
2. Press and hold the Head Down control to lower the head section. When the desired position is reached, release the control.

The Auto Contour™ feature is not active when using the caregiver controls, it is **only** active with the patient controls. See "Auto Contour™ Feature" on page 25.

Knee Up/Down

Using the Knee Up/Down control, the caregiver can raise or lower the knee section.

The knee section has a maximum travel of 16°.

To Activate

1. Press and hold the Knee Up control to raise the knee section. Release the control when the desired position is reached.
2. Press and hold the Knee Down control to lower the knee section. Release the control when the desired position is reached.

Trendelenburg and Reverse Trendelenburg

The VersaCare® Bed is capable of 15° Trendelenburg and 10° Reverse Trendelenburg. The Trendelenburg and Reverse Trendelenburg controls can be activated at any bed height.

The Trendelenburg and Reverse Trendelenburg Line-of-Site® Angle Indicators are located in the intermediate siderails.

Trendelenburg

⚠ WARNING:
Observe lines closely during articulations. Always use good line management techniques, particularly as the head section rises. Failure to do so could cause patient injury or equipment damage.

To Activate

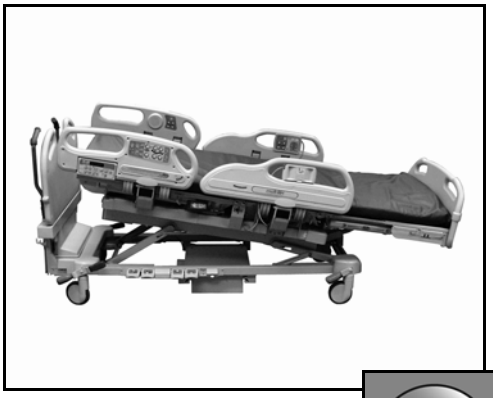
1. For Trendelenburg, press and hold the Trendelenburg control until the foot end of the bed raises relative to the head end.

   or

   For Reverse Trendelenburg, press and hold the Reverse Trendelenburg control until the head end of the bed raises relative to the foot end.

NOTE:
If the obstacle detection system detects an obstruction, the bed will not lower.

2. To return to the flat position, press the opposite control (Trendelenburg or Reverse Trendelenburg) or press the Bed Up/Down control until the bed reaches the full up or full down position.



Reverse Trendelenburg

Vascular Position

The vascular position allows the caregiver to place the patient's legs above the level of the patient's sternum.

To Activate

1. Lower the head section to the desired position.
2. Raise the knee section to the desired position.
3. Use the Trendelenburg control to position the sleep deck in the desired position.

To Return to the Flat Position

1. Use the Reverse Trendelenburg control to return the bed frame to the horizontal position.
2. Use the Bed Flat control to return the sleep deck to the flat position.

Bed Flat

The Bed Flat control is provided so that a caregiver can easily return the sleep deck and bed to the flat and level position (head and knee section down, and foot section up if it is down) from any articulated position.

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

Chair Positioning

⚠ WARNING:
Make sure the area below the foot section, especially if the footboard is removed, is clear of equipment and persons before you operate the chair control. Failure to do so can cause injury or equipment damage.

⚠ WARNING:
Do not use mattress overlays while in the chair position. Patient injury or equipment damage may occur.

⚠ WARNING:
Check periodically to make sure that the patient remains in the proper position. The use of pillows can help maintain a side-to-side position. Failure to do so may cause patient injury.

When activated, the chair positioning control will articulate the bed to a maximum of 65° for the head section, 16° for the knee section, and -27° for the foot section.

To Activate

1. Set the brake.
2. Press the Chair control. The patient deck transitions to the chair position.

If additional chair inclination is required, use the reverse Trendelenburg control to provide an additional 10° of forward chair movement.

Foot Section Controls

⚠ WARNING:

The retractable foot section provides multiple patient benefits. However, a shorter foot section may increase the risk of patient entanglement between the siderails and footboard for certain patients. If a potential for entanglement exists, such as with patients who are agitated or disoriented, or who lack the physical strength to extract themselves should they become entangled, the foot section should be left fully lengthened when the patient is not under direct supervision.

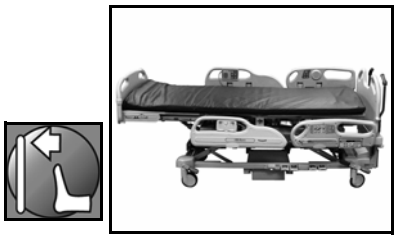
The Foot Longer control allows the foot section to lengthen approximately 12" (30 cm) to accommodate various patient heights.

To Lengthen the Foot Section

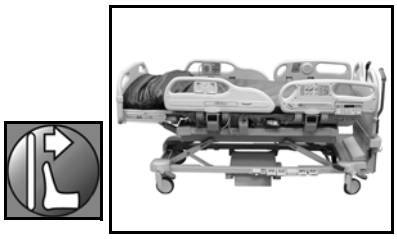
Press and hold the Foot Longer control until the applicable position is reached.

To Shorten the Foot Section

Press and hold the Foot Shorter control until the applicable position is reached.



Fully lengthened



Fully shortened

Safety and Information Indicators

NOTE:
There must be power to the bed, either AC or battery, for the indicators to operate.

Safety and information indicators give the caregiver visual and audio indications about Brake Status, AC Power, and Service Required.

Disconnected from AC Power

If the bed is disconnected from AC power, the plug indicator flashes.

Service Is Required

When the system determines the bed operation is not correct, the wrench tool indicator comes on. Contact your facility-authorized maintenance person.

Battery Charge is Required

When the battery charge is low, the Battery indicator flashes. The bed should be connected to AC power as soon as possible.

Brake Not Set

⚠ WARNING:
The Brake Not Set alarm operates only when the bed is connected to AC power. Except for patient transport, always set the brakes when the bed is occupied. Make sure the brakes are set before any patient transfer. Failure to do so may result in injury or equipment damage.

If the bed is connected to AC power, and the brake is not engaged, the Brake Not Set indicator flashes and a continuous alarm comes on. Set the brake to stop the alarm.

Battery Back-Up

⚠ CAUTION:
Remove the battery if the bed will not be in service for extended periods of time. Failure to do so could cause damage to the life of the battery, or damage to the bed. Contact the applicable maintenance person, and refer to the *VersaCare® Bed Service Manual* (161955).

The bed has an automatic battery back-up feature. When AC power is **not** being supplied to the bed and there is sufficient battery power, the battery permits the bed articulation functions to be engaged from any of the caregiver siderail controls except the Lockout control. The battery also powers the nurse call function, but it does not power any other bed functions, such as the optional air support system.

The battery back-up indicator shows the battery condition:

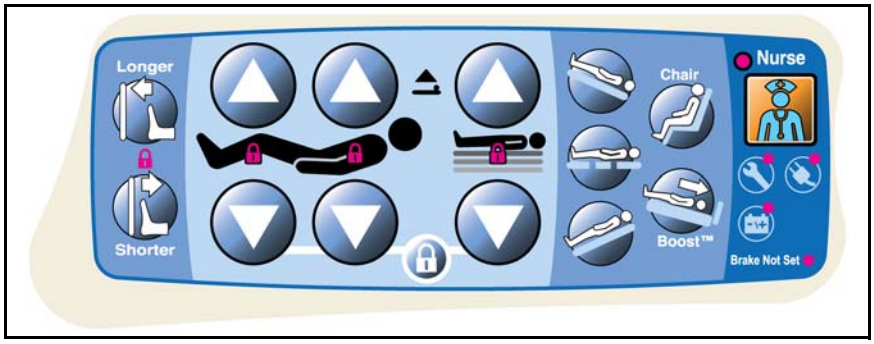
- ON = Battery is engaged.
- FLASHING = Battery needs to be charged.
- OFF = Battery is not engaged or is discharged below the level necessary to operate the motors.

If the battery has been completely discharged, it may take up to 24 hours to charge to operational status.

To make sure the battery is always charged, plug the bed into an applicable power source whenever possible.

To Engage the Battery Back-Up Operation

Press any of these controls except the Lockout control:



NOTE:
The battery stays engaged for one minute after the last control is pressed.

Point-of-Care® Brake and Steer Control

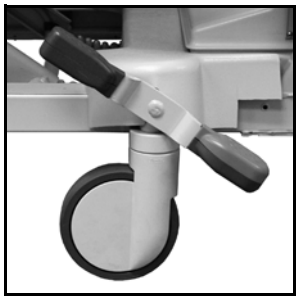
⚠ WARNING:

Unless transporting the patient, always set the brakes when the bed is occupied. Make sure the brakes are set before any patient transfer. Failure to do so may result in injury or equipment damage.

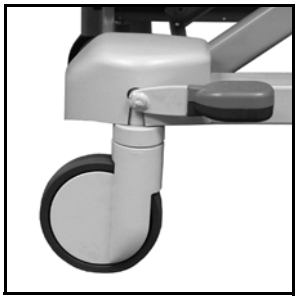
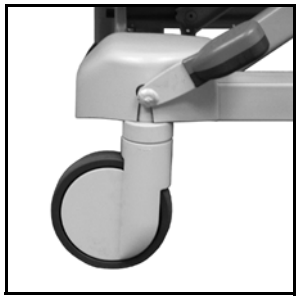
The Point-of-Care® Brake and Steer controls are located on the four corners of the bed frame. There are three positions: Brake, Steer, and Neutral. The brake position keeps the bed from moving. The steer position helps move the bed in a straight line. The neutral position allows the bed to be moved sideways in rooms or small enclosed areas.

The head-end brake and steer control is a butterfly styled control. Stepping down on either side of the control will activate a brake or steer function. The foot-end brake and steer control is a single sided control. Pressing down or lifting up the control will activate a brake or steer function.

To Activate



Head-End Control

Foot-End Control

Brake (orange control)
Step down on the brake and steer control until it stops.

Neutral
Use your foot to lift or press the brake and steer control until it travels to the middle detent.

Steer (green control)
Use your foot to lift or press the brake and steer control to the full up position.

Head and Intermediate Siderails

⚠ 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 result in serious injury or death.

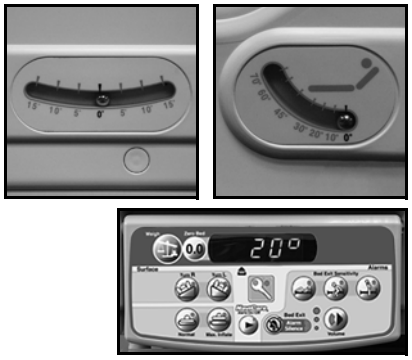
NOTE:
Siderails are intended to be a reminder to the patient of the bed's edges, not a patient-restraining device. When appropriate, Hill-Rom recommends that medical personnel determine the proper methods necessary to make sure a patient remains safely in bed.

The VersaCare® Bed siderails have been designed with the OneStep® Siderail Release Mechanism 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 down position, below the patient surface, make a patient’s entry or exit from the bed easier. This design feature also makes it easier for the caregiver to have unobstructed access to the patient.

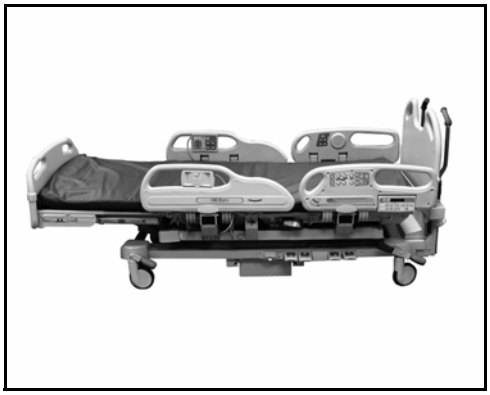
The head-end siderails contain the Line-of-Site® Head Angle Indicators. The intermediate siderails contain the Line-of-Site® Trendelenburg/Reverse Trendelenburg Angle Indicators.



NOTE:
Some bed models with the caregiver pod do not have the Line-of-Site® Head Angle Indicators. For those beds, the head angle continuously shows on the digital display.

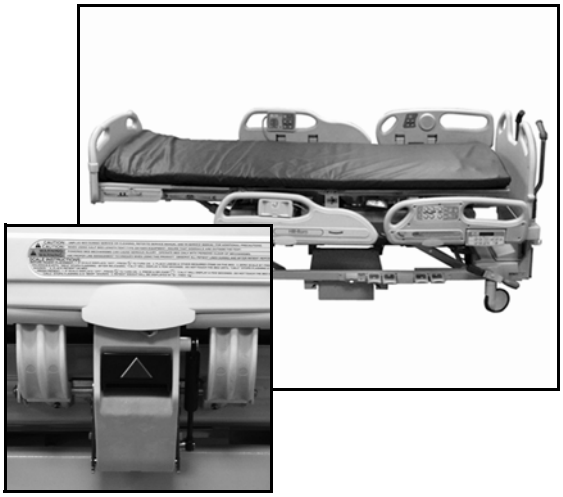
To Raise a Siderail

1. Pull the siderail up, and push it in until it latches into the locked position. A **click** will be heard when it latches into the locked position.
2. Once the **click** is heard, gently pull on the siderail to make sure it is latched properly.



To Lower a Siderail

Grasp the release handle and pull out. The siderail automatically lowers below the sleep surface perimeter.



Sleep Surfaces

These sleep surfaces can be used on the VersaCare® Bed:

- VersaCare® Bed P500 Surface (P500)
- Active Integrated Response® Treatment Surface (A.I.R.)
- AccuMax Quantum™ VPC
- AccuMax Quantum™ Convertible
- NP200
- Tempur-Pedic® Mattress
- NP100 Prevention Foam Surface (NP100)

These sleep surfaces are uniquely designed to match the contours of the bed frame during all bed functions.

NOTE:
For the latest list of mattresses recommended for use on the VersaCare® Bed, contact Hill-Rom.

It is recommended to use 84" (213 cm) fitted sheets with the sleep surfaces for the VersaCare® Bed.

⚠ WARNING:
Some safety features of the VersaCare® 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 operate properly with the replacement surface. Failure to do so could result in serious injury or damage to equipment.

NOTE:
Hill-Rom recommends the use of Hill-Rom® surfaces that have been designed and tested specifically for the VersaCare® Bed. Customers electing to purchase replacement surfaces from other manufacturers should confirm that the replacement surface, when used in conjunction with the VersaCare® 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.

Surfaces with nano Ag+® Technology with SmartSilver® Ions

The use of nano Ag+® Technology with SmartSilver® Ions supplies surface protection as an antimicrobial that kills > 99.8% of stain and odor causing bacteria on the surface. 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.

Handle surfaces with nano Ag+® Technology as you would other surfaces; there are no known concerns for handling, discarding, toxicity, or allergic reactions.

The nano Ag+® Technology with SmartSilver® Ions is available on all VersaCare® Bed surfaces. This technology does not affect the operation of the surface.

X-Ray Cassette Sleeve

An x-ray cassette sleeve is available on some surfaces and permits a 17" x 14" x-ray cassette to be inserted from either side of the coverlet. Before you put an x-ray cassette in the sleeve, put the x-ray cassette in a pillow case. When the cassette sleeve is not in use, keep the sleeve openings closed.

NP100

The NP100 accommodates a patient weight up to 500 lb (227 kg), a width up to 35" (89 cm), and a height between 57" and 84" (145 cm to 213 cm).

The NP100 consists of two parts: the upper section and the lower section. The lower section shortens and lengthens with the bed and helps to prevent pressure ulcers on the patient's heels. To achieve heel relief, position the patient, then activate the Foot Longer/Shorter caregiver control until the heels are properly aligned.

Treatment/Therapy Surfaces—A.I.R. and P500

⚠ RELATIVE CONTRAINDICATION:
Use of active therapy surfaces with patients with unstabilized spinal cord injury could cause serious injury to the patient.

⚠ WARNING:
The surface is not a substitute for good nursing practices. The surface should be used in conjunction with a good risk assessment and protocol.

⚠ WARNING:
Sleep surface impermeability and pressure relief capabilities can be affected by needle sticks or other bladder punctures and can cause the air system to fail (the wrench indicator flashes). Caregivers should be instructed to **prevent** bladder punctures caused by **needle sticks** and incorrect use of x-ray cassette holders.

Examine the surface for needle sticks or other bladder punctures.

⚠ WARNING:
Patients with body weight or length near the recommended limits should be monitored more frequently for good results. It may be necessary to lower the head section for better pressure performance.

The treatment/therapy surfaces accommodate a patient weight up to 500 lb (227 kg), a width up to 35" (89 cm), and/or a height between 57" and 84" (145 cm to 213 cm). These surfaces effectively redistribute pressure for patients weighing up to 500 lb (227 kg).

The P500 uses Advanced Microclimate® Technology (AMT) (next-generation Low Air Loss). AMT operates continuously while the patient is on the bed and helps decrease localized heat and moisture buildup that occurs between the patient and the surface. The minimum patient weight for AMT to operate as intended is 65 lb (29 kg).

NOTE:
The P500 should always be used with the AMT coverlet installed.

NOTE:
We recommend that you do not use accessories such as plastic underpads with the P500. Such products can prevent the flow of moisture from the patient's skin to the microclimate management coverlet.

The treatment/therapy surfaces consist of three air zones and one foam zone. The three air zones control interface pressure in the head and torso, seat, and heel areas of the patient to help prevent pressure ulcers. The foam zone, located between the seat and heel zones, retracts and extends with the bed. The treatment/therapy surfaces have six modes: Normal, Max-Inflate, Right/Left Turn Assist, Sleep, and Off.

The treatment/therapy surfaces supply interface pressure relief during the Normal and Turn Assist modes. Interface pressure relief is not supplied during the Max-Inflate mode.

The Normal mode is always active unless one of these occur:

- Max-Inflate mode is active.
- AC power is disconnected, or a power failure has occurred.
- There is a surface malfunction.

For the P500 Surface, the AMT therapy is always active unless one of these occur:

- AC power is disconnected, or a power failure has occurred.
- There is less than 65 lb (29 kg) of weight on the bed.
- The surface is in one of these modes: CPR, Turn Assist, Boost® Position, or Max-Inflate.

When the bed is connected to AC electrical power, the system automatically puts the treatment/therapy surface into Normal mode and adjusts the air pressure in the zones according to the patient's weight and the head section elevation. The controls are on the left and right siderail flip-up control pods.

Surface Controls

It is necessary to activate the Enable control to use the surface controls.

Normal

To Activate

1. Press the Enable control.
2. Press and release the Normal control. An indicator will illuminate when the mode is active.

Max-Inflate

Max-Inflate mode causes the sleep surface to become very firm. This mode should be used for short periods of time such as bed entry, bed exit, or meals. This mode is automatically activated whenever the Emergency CPR or the Boost® Position is activated or when the Max-Inflate control is activated. After 30 minutes, if no other mode is selected, the Normal mode activates automatically.

To Activate

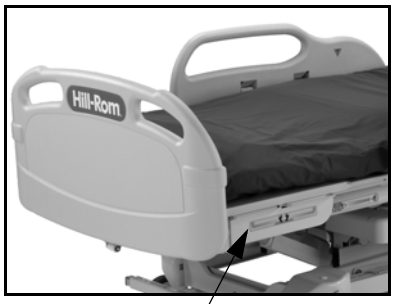
1. Press the Enable control.
2. Press and release the Max-Inflate control. An indicator will illuminate when the mode is active.

To Deactivate

1. Press the Enable control.
2. Press the Normal control.

Heel Relief

Heel Relief is achieved by lengthening or shortening the bed foot section to align the patient's heels in the heel relief zone.



Heel relief zone

The foot section controls are on the caregiver control panel.

To Activate

1. Press and hold the Foot Longer/Shorter control to move the foot section in or out as required.

Turn Assist

Turn Assist mode is used to assist caregivers in turning the patient left or right. When this mode is activated, the head and seat bladders will be adjusted. An internal air bladder will inflate to start the turning process. After the patient reaches approximately 20°, it will stabilize for 10 seconds. After the 10 seconds, an alarm will sound and the bladder will quickly deflate. Turn Assist mode assists the caregiver in turning the patient for linen changes, dressing changes, bed panning, back care, or other nursing procedures.

The siderails on the side that the patient is turning toward **must be in the up position**. For instance, if turning the patient right, the right siderails (both head and intermediate) must be up and locked.

To Activate

1. Make sure the head angle is **below** 25°.
2. Make sure the siderails are in the **up and locked position** on the side the patient is turning toward. Turn assist will not start until the siderails are up.

NOTE:
If the siderails are not in the correct position or the head section is not below 25°, an indicator will flash and an alarm will sound.


Siderail Not Up

3. Press the Enable control.
4. Press and release the Left/Right Turn Assist control. The indicator will illuminate.
5. The turn assist bladder will inflate and rotate the patient approximately 20°, which takes about 30 seconds. The system will hold the pressure for **ten seconds**. After ten seconds, an alarm sounds, then the turn assist bladder deflates and returns to Normal mode.


Right Turn


Left Turn

NOTE:
If the surface is in the Turn Assist mode and a siderail is lowered, a brief alarm will sound to indicate that the patient is at risk of rolling out of the bed.


Normal

To Deactivate Turn Assist

1. Press the Enable control.
2. Press and release the opposite Turn Assist control, Normal control, or Max-Inflate control.


Max-Inflate

Sleep Mode

The Sleep Mode is used to temporarily disable the air system to allow patients who are sensitive to sleep surface movement to sleep. The air pressure in the mattress is monitored, but the air pump does not run unless the air pressure falls below or raises above a preset level. After eight hours, the Normal mode reactivates.

To Activate

1. Press the Enable control.
2. Simultaneously press the Left and Right Turn Assist controls and hold for 5 seconds. After 5 seconds, the Left and Right Turn Assist indicators will illuminate.

To Deactivate

The bed will automatically go into Normal mode after eight hours or if the mattress pressure requires adjustment.

or

1. Press the Enable control.
2. Press any surface control. The appropriate control will illuminate.

Off Mode

⚠ WARNING:
Do not use the Off Mode when a patient is on the bed. Using the Off Mode with a patient on the bed could result in patient injury.

The Off Mode disables the air system to allow for cleaning or maintenance. The Off Mode should not be used with a patient on the bed.

To Activate

1. Press the Enable control on the flip-up control pod.
2. Simultaneously press the Max-Inflate control and Normal control for 5 seconds. After 5 seconds all surface indicators will go off.

NOTE:
When the Off mode is activated, after five minutes, the system does a self check to determine if a treatment/therapy surface is on the bed. If one of these surfaces **is** on the bed, the system will go into Normal mode. If one of these surfaces is **not** on the bed, the system will stay in Off mode until you deactivate it and a treatment/therapy surface is put on the bed.

To Deactivate

1. Press the Enable control.
2. Press any surface control. The appropriate control will illuminate.

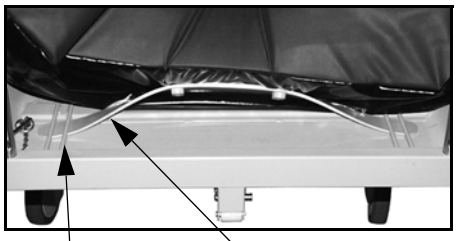
Sleep Surface Removal and Installation

To Remove the Sleep Surfaces

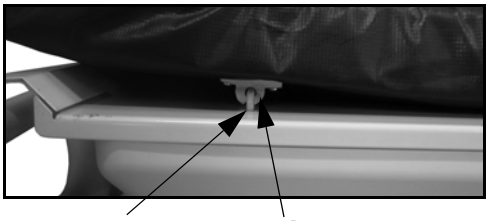
1. Remove the footboard (see “Footboard” on page 23).
2. Lift up on the foot end of the mattress.
3. Slide the mattress to one side or the other.

⚠ WARNING:
Use extreme care when removing the mattress retaining strap. Failure to do so can cause injury as the strap snaps out of the retainers.

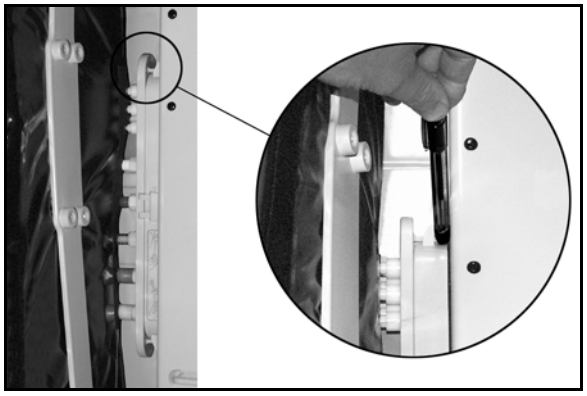
4. Carefully remove one side of the mattress retaining strap from the retainer.
5. Remove the opposite side of the mattress retaining strap from the retainer.
6. Remove the headboard (see “Headboard” on page 23).



7. For a **Tempur-Pedic®Mattress with clip attachments**, disconnect the clips from the retainers.



8. For other mattresses, do as follows:
   a. Carefully remove one side of the mattress retaining strap from the retainer.
   b. Remove the opposite side of the mattress retaining strap from the retainer.
9. For foam sleep surfaces, remove the mattress.
10. For a **treatment/therapy surface**, do the following:
    - Insert a small screwdriver between the surface hose connector and the bed hose connector latch tabs on each end of the connector. The end of the surface hose connector will pop out of the bed hose connector.



    - **P500 only**—disconnect the AMT blower hose from its bed frame connector.
    - Remove the surface from the bed.

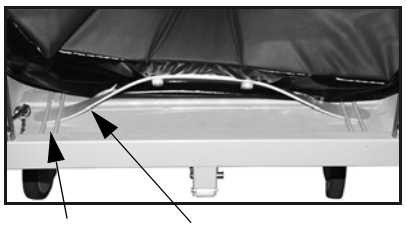
To Install The Sleep Surfaces

⚠ WARNING:

Treatment/therapy surface—make sure the surface is installed properly. Failure to do so could cause the air system to improperly operate and thus not support the patient, possibly resulting in patient injury.

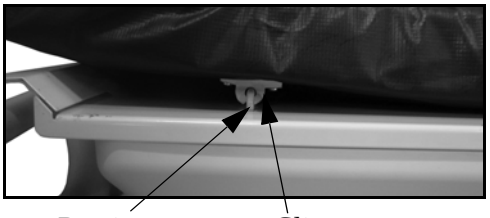
When installing a treatment/therapy surface, make sure it is fully seated within the frame of the bed and in the correct position (head to foot). Make sure all mattress interface connectors are fully engaged with the mating connectors at the top of the head deck section. Make sure the retaining strap under both ends of the mattress is secured in the head and foot section retainers.

1. Place the surface on the bed.
2. At the foot end, install one side of the mattress retaining strap into the retainer.
3. Install the opposite side of the mattress retaining strap into the retainer.
4. At the head end, do these as applicable:
   - **Mattress with the retaining strap**—do the following:
     a. Install one side of the mattress retaining strap into the retainer.



b. Install the opposite side of the mattress retaining strap into the retainer.

- **Tempur-Pedic® Mattress with clip attachments**—align each clip with its retainer, and press down on the mattress to attach the clip to the retainer.



- **Treatment/therapy surface**—make all hose connections to the bed frame.

NOTE:
After installing a new **treatment/therapy surface**, it is recommended to run the Max-Inflate mode for 3 to 5 minutes or until the air bladders fill.

Surface Overlays

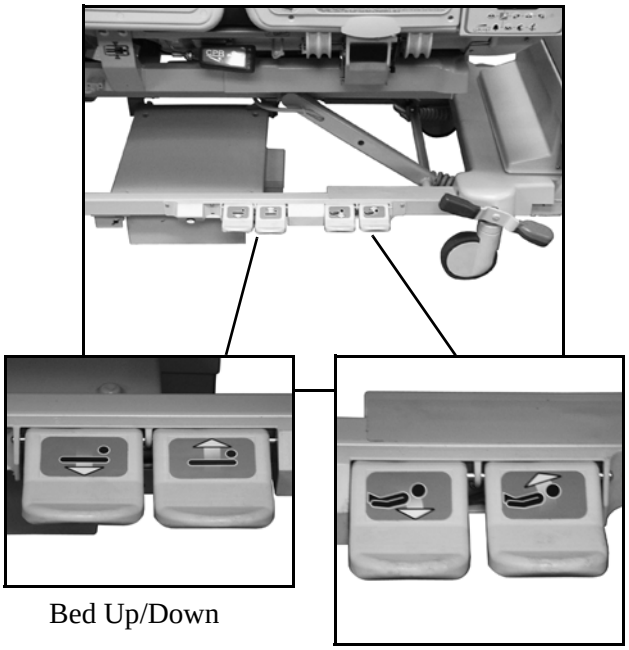
⚠ WARNING:
Do not use mattress overlays while in the chair position. Patient injury or equipment damage may occur.

The recommended overlay for the VersaCare® Bed with a prevention foam surface is the ACUCAIR® Continuous Airflow System. For operating instructions, refer to the instructions on the ACUCAIR® Continuous Airflow System control unit.

Foot Controls

The foot controls are pedals located on each side of the base frame. The foot controls let the caregiver raise and lower the bed, and raise and lower the head section of the bed without using the siderail controls.

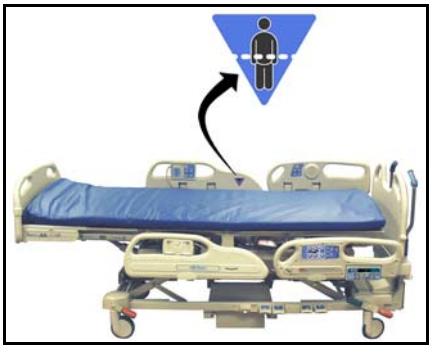
The foot controls have a built-in Enable control that requires activation before operation. This Enable control **does not** enable the siderail controls, only the foot controls.



To Activate

1. Step down on any pedal (Head Up, Head Down, Bed Up, or Bed Down) for 1 to 3 seconds.
2. Release the pedal.
3. Step down on the pedal of the desired function until the desired position is reached.

Patient Hip Position Indicator



The patient hip position indicator is located on the inside of the intermediate siderails. The indicator is used to help make sure the patient is in the most ergonomic position.

Headboard

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

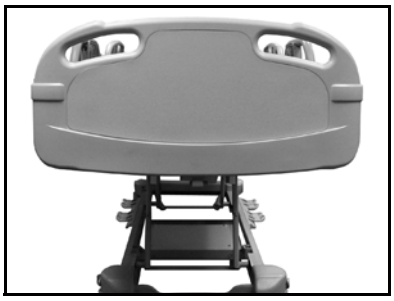
The headboard can be removed for increased access to the patient's head. The headboard can be used as a CPR board.

A caregiver can quickly remove or attach the headboard in a single step without the use of tools.

To Remove and Install

- To remove, grasp the headboard and lift straight up.
- To install, position the headboard pins over the sockets in the frame and then lower the headboard into the sockets. Push the headboard down until the bottom rests on the frame.

Footboard



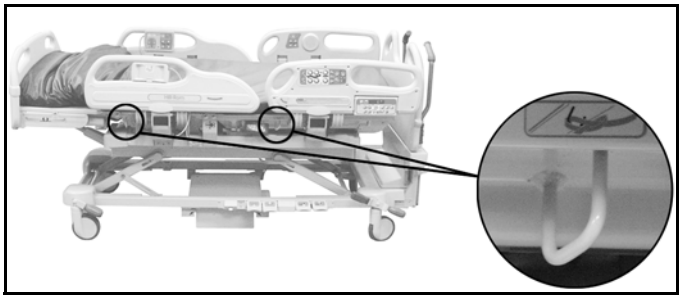
The footboard is located at the foot end of the bed. It attaches to the articulating foot section and remains perpendicular to the surface of the foot section at all times. The footboard protects the patient during transport and room docking.

A caregiver can quickly remove or attach the footboard without the use of tools.

To Remove and Install

- To **remove**, grasp the footboard and lift straight up.
- To **install**, insert the pins of the footboard into the sockets in the articulating frame and then push the footboard down until the bottom rests on the deck.

Patient Restraints



⚠ WARNING:

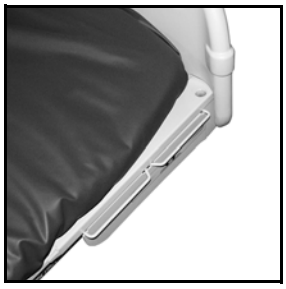
Patient restraints are not intended as substitutes for good nursing practices. Physical restraints, even properly installed, can result in entanglement, physical injury, and death, particularly with agitated and disoriented patients. Monitor patients when using physical restraints in accordance with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

⚠ WARNING:

Restraints must be attached to the articulating sections of the bed at the correct attachment points. Failure to do so may result in patient injury.

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

Drainage Bag Holders



There are two drainage bag holders mounted on the foot end of the bed. The safe working load is 5.5 lb (2.5 kg).

⚠ CAUTION:

Do not exceed the 5.5 lb (2.5 kg) weight capacity. If the holder is overloaded, injury or equipment damage could occur.

⚠ WARNING:

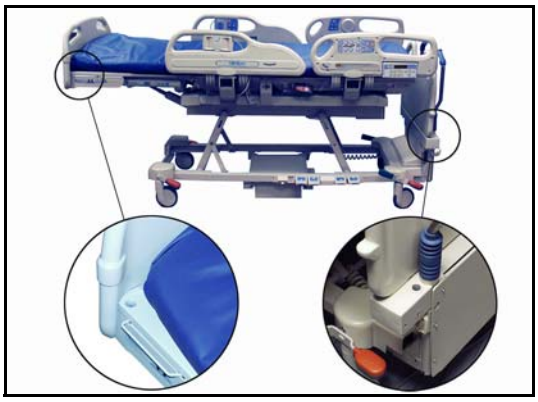
Do not tie restraints to the primary drainage bag holders. Patient injury could occur.

The holders accommodate any combination of the following drainage devices:

- Fecal incontinence bag
- 250/2000 ml Foley collection bag
- PLEUR-EVAC® on foot-end holders (during transport only)

When the bed is docked, place the PLEUR-EVAC® device or other chest drainage devices on the floor, clear of the bed to allow space for bed articulation. Make sure drainage bags and hoses are placed so they will not touch the floor during bed articulations.

Equipment Sockets



There are four equipment sockets for the attachment of accessories. They are at each corner of the bed.

The equipment sockets can be used to mount IV poles, ISS poles, and oxygen tank holders.

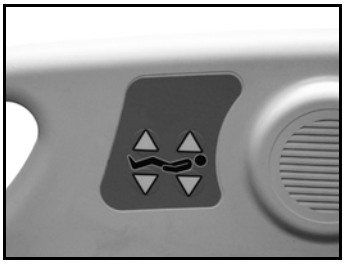
NOTE:
The head-end equipment sockets do not move up and down with the bed frame.

Night Light

The night light is located on the base frame, next to the foot controls. There is one night light on each side of the bed.

The light is on continuously when the bed is plugged into electrical power.

Standard Patient Controls



The patient controls are located in the head-end siderails.

The standard patient 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 panel.

NOTE:
The caregiver should take time to familiarize the patient with the proper usage of the controls.

Auto Contour™ Feature

The Auto Contour™ feature (automatic comfort level positioning) is activated by using the **patient** Head Up controls.

The Auto Contour™ feature raises the head section and the knee section simultaneously to help prevent the patient from sliding down in the bed. The knee section maximum travel is 16°; the head section maximum travel is 65°.

The Auto Contour™ feature is only available when both the head section and knee section are not locked out. If only the head section is locked out, the knee section can still be activated by the patient control. If only the knee section is locked out, the head section can still be activated by the patient control.

Additional Features

NOTE:
The features shown below are standard on some bed configurations and optional on others.

Boost® Position System

⚠ WARNING:
Do not use the Boost® function if there are concerns of spinal instability. To do so could cause patient injury.

The Boost® Position System makes it easier for the caregiver to move the patient toward the head end of the bed. The Boost® Position control is located on the caregiver control panel.

NOTE:
The Boost® Position System lets you adjust the bed height while and after the bed moves to the Boost® Position.

⚠ WARNING:
Observe lines closely during articulations. Always use good line management techniques, particularly as the head section rises. Failure to do so could cause patient injury or equipment damage.

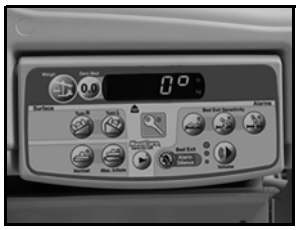
1. Press and hold the Boost® Position control on the siderail until the bed is at the applicable Trendelenburg position.

NOTE:
If the bed has a treatment/therapy surface, the surface will go into Max-Inflate for 30 minutes unless the Boost® function is deactivated.

2. Move the patient to the head of the bed as necessary.
3. To deactivate the Boost® function, press any of the bed function controls **except** these: Boost® Position, Bed Up/Down, or Trendelenburg.

NOTE:
We do **not** recommend that you transport the patient when the bed is in the Boost® Position. See “Transport” on page 56 and “Transport Position and Stability” on page 57.

Head Angle Display



⚠ WARNING:
Failure to make sure the head section is at the correct angle for the patient’s care could cause patient injury.

NOTE:
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 five times.
- An audible alarm will come on.
- The alarm indicator will flash.

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. However, if the alarm is set and the head section goes below 30°, an audible alarm will come on and the alarm **indicator** will flash.

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:
Do not hang cords on the Line Manager. To do so could cause injury or equipment damage.

⚠ 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 side of the head end of the bed. The Line Manager helps to keep lines (such as IV fusion lines, suction lines, oxygen lines, etc.) together and away from the articulating frame. The flexibility of the Line Manager lets you bend it in any direction.

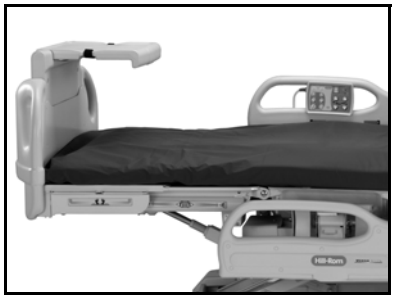
Cord Wrap Clips with IV Pole Storage

There are two clips mounted on the head end of the bed that can be used to store the power cord or the IV pole.

Integrated Transport Shelf

⚠ WARNING:
Do not exceed the safe working load of the transport shelf. Injury or equipment damage could occur.

⚠ WARNING:
Failure to use the straps to hold equipment on the shelf could cause injury or equipment damage.



Correct shelf position

⚠ WARNING:
Failure to adjust the shelf to a height sufficient for patient movement could cause injury or equipment damage.

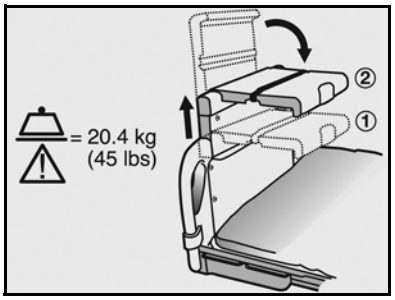
⚠ WARNING:
Do not lower the foot section when the shelf is in use. Injury or equipment damage could occur.

The Transport Shelf is a height-adjustable shelf that can be used to hold small equipment during patient transfer and as a writing surface. The shelf has a vertical load capacity of 45 lb (20 kg).

When not in use, the shelf can be stowed in the footboard.

NOTE:
The transport shelf can not be used when Buck's Traction is in use.

To Remove from the Stowed Position



1. Pull the shelf out from the footboard, and up to the applicable height. Make sure there is sufficient space for the patient's foot movement.
2. Turn the shelf horizontally so it is above the foot section of the sleep surface.

To Stow

1. Make sure the shelf is empty.
2. Attach any loose strap to itself.
3. Turn the shelf up and away from the sleep surface to the vertical position.
4. Slide the shelf into the opening in the footboard.

Integrated IV Transport Handle

⚠ WARNING:
During transport, make sure the casters on the bed and the casters on the IV stand do not make contact. Also, make sure your feet do not make contact with the base of the portable IV stand. Failure to do so could cause injury or equipment damage.

⚠ WARNING:
During transport, make sure to maintain control of the IV stand. Failure to do so could cause injury or equipment damage.

The head-end push handles have an integrated IV transport handle. This lets the caregiver move an IV stand at the same time as the bed and yet keep both hands on the bed.

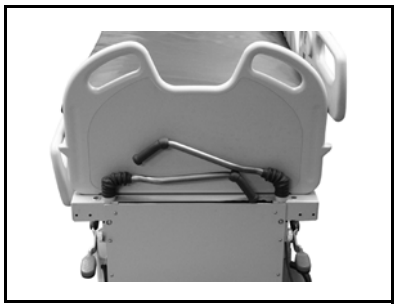
The handles fold down for storage.

Move an IV Stand along with the Bed

1. Put the IV stand in the socket area on the transport handle.
2. Put your hand around the handle so it is next to the IV pole.
3. Move the bed as necessary.

Optional Features

Push Handles



The push handles are available as an option.

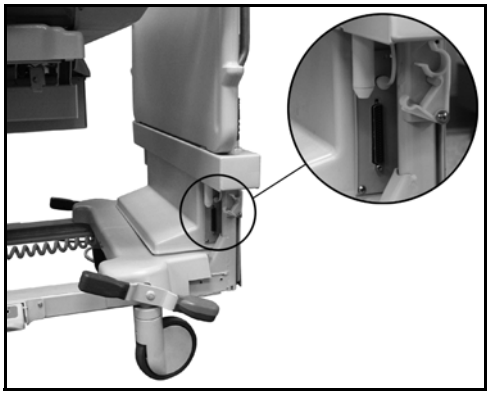
Remove from the Stowed Position

Pull the push handles upward until they lock in position.

Stow

1. Lift up on the push handles to unlock them.
2. Move the push handles in toward the center of bed to the stowed position.

SideCom® Communication System



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

The SideCom® Communication System connector is located on the left side of the bed at the head end.

Nurse Call Control

Patient Control

Caregiver Control

The Nurse Call control is located on the caregiver control panel, the patient controls, and the patient pendant.

When a Nurse Call control is activated, a signal is sent to the nurses station. Voice communication is provided through a speaker/microphone located on the inside of both head-end siderails.

To Activate

Press a Nurse Call control. When the nurses station acknowledges the call, these will occur:

- The Nurse Call indicator on the caregiver control panel will illuminate.

- The Voice indicator on the patient controls will illuminate. The nurses station is ready for you to speak.

NOTE:
If the Voice indicator or Nurse Call indicator is flashing, the Nurse Call has not yet been acknowledged.

When the Listening indicator illuminates, the nurses station is speaking.

NOTE:
The Nurse Call controls are always active. The Nurse Call controls cannot be locked out.

Patient Pendant

To Install the Pendant into the Siderail

1. Position the pendant next to the opening in the intermediate siderail or head-end siderail, depending on the cable length.
2. Insert the top edge of the pendant into the siderail so it engages the upper section of the siderail.
3. Rotate the lower edge of the pendant in until it **clicks** into position inside the siderail.

To Remove the Pendant from the Siderail

1. Gently pull on the lower edge of the pendant until it pops out of the siderail.
2. Remove the pendant from the siderail.

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

Patient Controls

The Head Up/Down and Knee Up/Down controls are standard on the patient pendant. These functions **do not** require the bed to be connected to a SideCom® Communication System. However, the optional controls that follow **do** require the bed to be connected to a SideCom® Communication System.

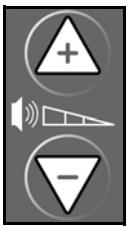
NOTE:
The caregiver should take time to familiarize the patient with the correct use of the controls.

- **Nurse Call**—sends a Nurse Call to the nurses station (see “Nurse Call Control” on page 30).

- **Room Light**—turns the room light off and on.

- **Reading Light**—turns the reading light off and on.

- **Volume Control**—adjusts the volume of the television or radio in the room.



- **Channel Control**—changes channels on the television or stations on the radio in the room.

- **Music Control**—turns the radio on and off. The volume and station are controlled by the Volume and Channel controls.

- **Television Control**—turns the television on and off. The volume and channel are controlled by the Volume and Channel controls.

- **Closed Captioning—**turns the closed captioning option of the television on and off (if the television is closed captioning capable).

Scale System

The scale system for the VersaCare® Bed has an accuracy of 1% and an operating range of 0 lb to 500 lb (0 kg to 227 kg). The scale display and controls are located on the flip-up control pod on the head-end siderails.

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. Anything that affects the weight on the bed even slightly will cause an incorrect weight to appear on the display.

Scale Display

The scale system continuously weighs the patient; however, the weight does not continuously show on the display. You must press the Weigh control to view the patient's weight.

Unless a scale function is activated, the display shows 4 dashes "----" when the Enable control is active and "OFF" when the control is inactive.

NOTE:
On bed models that have the Head Angle Display option, the display continuously shows the head angle of the bed unless a scale function is activated.

Changing the Scale Units

The default units shown on the scale display is both pounds (lb) and kilograms (kg). To change the units to lb or kg only, do as follows:

1. Make sure the Enable control indicator is off.
2. Press and hold the Zero control. After approximately five seconds, as you continue to press the Zero control, press and hold the Weigh control. When you hear a beep, release both controls. The display will be in configuration mode with the current unit setting highlighted: lb only, kg only, or lb/kg.

3. Press and release the Weigh control to move through the settings. When you reach the applicable setting, release the control and wait until you hear a beep (approximately ten seconds). The display will store the new configuration and exit the configuration mode.

NOTE:
If you do not press the Weigh control within ten seconds, you will hear a beep to let you know that the selected configuration will be stored and the display is exiting configuration mode.

Bed Setup

For best results, do the following before placing 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 “Zeroing the Scale” on page 34.

The scale system is now ready to weigh.

Zeroing the Scale

The bed must be zeroed before the patient is put on the bed. Be sure to put **all** linens, pillows, and equipment on the bed before zeroing.

To Activate

1. Press the Enable control.
2. Press and hold the Zero control until 00.0 is shown (HOLD will be displayed until 00.0 is displayed), and then release the control.

NOTE:
After releasing the Zero control, the scale display will show “CALC.” Do not touch the bed until the display stops flashing “CALC” and shows “0.0.”

The maximum displayed weight of 500 lb (227 kg) will be reduced if more than 20 lb (9 kg) of equipment is zeroed on the bed. If 50 lb (22.7 kg) is on the bed when zeroed, the maximum displayed weight will be 450 lb (204.1 kg). The scale display will blink the bed weight when the maximum weight is exceeded.

Weighing the Patient

Before weighing the patient, make sure of the following:

- All items on the list defined in the “Bed Setup” section are accounted for (see “Bed Setup” on page 34).
- No drainage bags or equipment has been added.
- The patient is lying still and is centered on the mattress.

To Activate—press the Weigh control.

NOTE:
On release of the Weigh control, the bed gets the current patient weight. If the units are configured for both lb and kg, the weight will show lb for 10 seconds, kg for 5 seconds, and then repeats.

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 (Bed Exit) control is located on the flip-up control pod on the outside of the head-end siderails.

Bed Exit should be used with the treatment/therapy surface in the Normal or Sleep mode only. It should not be used with the Max-Inflate, Turn Assist, or Off modes.

Bed Exit has three modes: Patient Position, Bed Exiting, and Out-of-Bed.

- **Patient Position Mode**—this 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.

- **Bed Exiting Mode**—this mode alarms 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.

- **Out-of-Bed Mode**—this mode alarms 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 an alarm condition for the set Bed Exit mode, these occur:

- An audible alarm comes on. The alarm sound continues until you press the Alarm Silence control or you deactivate Bed Exit, even if the patient lies down on the bed.
- The indicator for the applicable Bed Exit mode flashes. The flashing indicator continues until you deactivate Bed Exit, even if the patient lies down on the bed.
- A priority nurse call is sent.

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 illuminates.
3. Press the desired 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.

If the system does not arm, the system will beep rapidly for a few seconds and the selected mode indicator will flash. This means the patient weighs less than 50 lb (23 kg) or more than 500 lb (227 kg), the patient is not correctly positioned, or the system has malfunctioned.

To Silence the Bed Exit Alarm System without Deactivating the System

When a Bed Exit mode is armed, you can silence the alarm system. During this Silence mode, the system stops monitoring the patient movement; therefore, **the system does not turn on the audible alarm or send a nurse call alarm**. While the system is in Silence mode, you can change the position of the patient or assist the patient out of the bed. After the system has been in Silence mode for 30 seconds, the system will try to arm itself for the previously-set Bed Exit mode.

- **To silence the alarm system before it alarms**—press the Enable control until its indicator is on solid, and then press the Alarm Silence control until its indicator is on solid.
- **To silence the alarm system after it alarms**—press the Alarm Silence control until its indicator is on solid.

To Exit the Silence Mode

- **Automatically**—after the system has been in Silence mode for 30 seconds, the system will try to arm itself for the previously-set Bed Exit mode as follows:
  - **When you change the patient's position in the bed**—the system will arm in the previously-set Bed Exit mode if the patient is in the correct position on the bed during the subsequent 30 seconds. Otherwise, the system will alarm.
  - **When you assist the patient out of the bed**—the system will arm in the previously-set Bed Exit mode if the patient is in the correct position within 30 seconds of returning to the bed. Otherwise, the system will alarm.
- **Manually**—press the Alarm Silence control. The system will exit the Silence mode and arm in the previously-set Bed Exit mode if the patient is in the correct position on the bed. Otherwise, the system will alarm.

NOTE:
For more information about the Bed Exit modes, see page 35.

To Deactivate the Bed Exit Alarm System—press the Enable control until its indicator is on solid, and then press any Bed Exit mode control until the indicator goes off.

To Adjust the Alarm Volume

1. The patient must be on the bed.
2. The system must be armed.
3. Press the Enable control until the indicator illuminates.
4. Press and release the Volume control until the desired indicator illuminates next to the volume setting.

To Change the Alarm Tone

NOTE:
We recommend that you use the same tone on all beds of a particular unit or floor, and do not change the tone without facility authorization.

1. Activate one of Bed Exit modes. It is recommended to use another caregiver instead of a patient to activate the Bed Exit mode.
2. Activate the alarm by having the caregiver exit the bed.
3. Press and hold the Volume control.
4. While pressing the Volume control, press the Out-of-Bed control.
5. Press and release the Out-of-Bed control until the desired tone is reached.
6. Clear the alarm condition.

Zeroing Bed Exit

Bed Exit must be zeroed before you put the patient on the bed. Also, if all three bed exit mode indicators are flashing, zero Bed Exit.

To Zero

1. Make sure the patient is **not** on the bed.
2. Put **all** the usual linens, pillows, and equipment on the bed.
3. Press the Enable control.
4. Press and hold the Zero (0.0) control for 1 second. Release the control and the control pod. When the system beeps, it is zeroed.

Scale Beds

Non-Scale Beds

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 result in 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 result in 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. Adjust the head position to make sure the view is unobstructed from the head end of the bed.
3. Secure all equipment being transported with the bed such as monitors, oxygen tanks, and IV poles.
4. Make sure the transport handles are up and locked in position.

To Activate

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

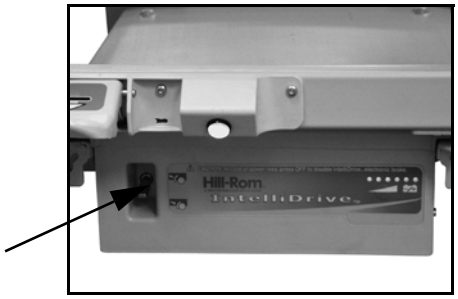
NOTE:
Unplugging the bed and putting it in steer mode will automatically deploy the drive wheel, but not power the powered drive system.

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

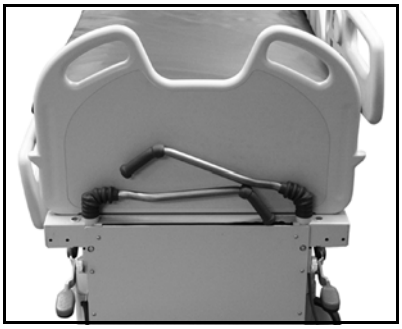
- Set the brake/steer control to neutral or brake.

  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.

Auxiliary AC Receptacle Option (120 V version only)

⚠ WARNING:

Electrical Shock Hazard. Servicing by qualified personnel only. This bed is provided with two power cords. Unplug all power cords before servicing Bed Electrical Enclosure or Auxiliary Receptacle Enclosure.

⚠ WARNING:

No battery back-up. For non-life support medical equipment only. Auxiliary receptacle ground separated from bed ground.

⚠ WARNING:

Do not use oxygen enriched sources near the auxiliary receptacle. Failure to do so could cause personal injury or equipment damage.

⚠ WARNING:

Do not plug both power cords into the same wall receptacle. Plug the power cords into different receptacles on separate circuits. Failure to do so can result in equipment damage or tripping of facility power breakers.

The auxiliary receptacle option is a convenient source of AC power for non-life support medical equipment only. It is located near the left intermediate siderail.

The auxiliary receptacle provides up to 8 A of AC current. VersaCare® Beds that have this option are equipped with two power cords, one for the auxiliary receptacle and one for the VersaCare® Bed. The receptacle is separated from the bed system's AC supply. The auxiliary receptacle power cable is white and the bed power cable is gray.

The auxiliary receptacle is protected by a resetable circuit breaker. When the circuit breaker is tripped, the white button will be popped out. Press the white button to reset the circuit breaker.

NaviCare® System

The NaviCare® System 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® System, refer to the *NaviCare® System User Manual* (P004447).

The system's Alerts feature is configured from the NaviCare® System 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

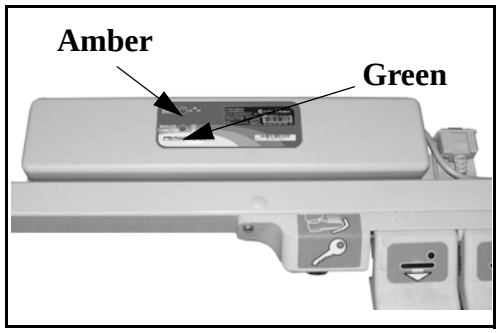
To Activate

1. Press the Enable control.
2. Press the Alerts control until the indicator comes on.

To Deactivate

1. Press the Enable control.
2. Press the Alerts control until the indicator goes off.

Wireless Interface Unit



The wireless interface unit (WIU) permits the bed and surface data to be sent through the NaviCare® System without a communication cable.

⚠ WARNING:
A communication cable **must** be used for beds that have Nurse Call. Failure to do so could cause patient injury.

For beds that have nurse call systems, a communication cable **must** be connected between the bed and facility communication system.

The WIU will only work when the bed is connected to AC power; it does **not** work on battery power.

When the bed is plugged in, a green LED on the WIU will flash 3 short and 1 long. When the green LED is steady, the WIU has connected to the facility. When the amber LED comes on and stays steady, it has connected to the NaviCare® System. If the amber LED does not come on, the WIU is unable to connect to the NaviCare® System **or** the bed is connected to the NaviCare® System with the standard communication cable. If the facility does not have wireless capability, the green LED will be off. If the amber LED flashes, the WIU has an error which will cause the WIU to reset.

NOTE:
It may take up to 2 minutes to connect to the facility wireless system.

For specifications, see “Wireless Interface Unit” on page 84.

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 optional on beds that have the optional Bed Exit Alarm System and SideCom® Communication System installed.

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 Bed Exit 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 show a steady green when Bed Exit 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-end siderails and possibly one or both intermediate siderails. The factory configuration is that both head-end siderails must be up. The system may be configured so that one or both of the intermediate siderails must also be up. To change the configuration to include one or both intermediate siderails, see “Configure the Siderails for the Safe Bed Condition” on page 43.
- The brake is set.

NOTE:
If the optional head angle alarm is installed **and** it is active, it is included in the safe condition requirements. If the alarm is not active, it is not included in the safe condition requirements.

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

Alerts Flash Yellow—

- Bed Exit is active, and one or more of the conditions shown above are not met.
- Bed Exit is not active, the optional head angle alarm is active, and the head section goes below the specified angle.
- Bed Exit is in Silence mode.

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

NOTE:
If Bed Exit **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. If the bed has the optional head angle alarm and all of the conditions below occur at the same time, the Alerts will flash yellow and green, but a nurse call will **not** be sent to the nurses station:

- Bed Exit is **not** active.
- The head section goes below the specified head angle.
- A technical problem occurs with the Alerts.

Alerts Are Off—the Alerts are off when Bed Exit 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 Bed Exit, but do not want the Alerts on, do as follows:

1. Make sure Bed Exit 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. Bed Exit will be active, and the Alerts will be off.

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

NOTE:
If the Alerts are deactivated on a bed with the optional head angle alarm that is active, the Alerts will **not** flash yellow if the head section goes below the specified angle.

Configure the Siderails for the Safe Bed Condition

There are three siderail configurations for the Alerts:

- The head siderails up.
- The head siderails and one intermediate siderail up.

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

- All siderails up.

1. To configure the system, put the siderails in one of the configurations shown above.
2. Press these controls at the same time for five seconds: **Knee Up**, **Knee Down**, **Bed Up**, and **Bed Down**. The lights will flash green for three seconds to let you know the configuration is set.
3. To change the configuration so that only the two head-end siderails must be up, do step 2 with only the two head-end siderails up.
4. Make sure the Alerts operate as configured:
    a. Put the siderails in the applicable configuration.
    b. Make sure the Alerts are on green.
    c. One at a time, lower and then raise each configured siderail. Make sure the Alerts flash yellow when one of the configured siderails is lowered, and the Alerts are on green when all configured siderails are up.

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

Accessories

Part Number	Description
P2217	IV Pole
P158	Infusion Support System Transfer Pole
P158A01	Infusion Support System Transfer Pole Assembly
P276	Vertical Oxygen Tank Holder, E-size
P844G48	Patient Helper Adapter Bracket
P844G01/02	Patient Helper Adapter Bracket
P3212A	Patient Helper Sleeve
P3211B	Fracture Frame Adapter Bracket
P2222A	Permanent IV Pole
P855E7	Siderail pads (set of four)
P855E7H	Siderail pads (set of two—head end only)
P417A	Utility shelf
P923200HA	VIP headboard (LibertyHill™)
P923200FA	VIP footboard (LibertyHill™)
P933200HA	VIP headboard (FreedomHill™)
P933200FA	VIP footboard (FreedomHill™)
P004943	Continuous Passive Motion (CPM) support
P3214A	Siderail extension assembly
P3204A01	Siderail-mounted wipe dispenser
P3204A02	Siderail-mounted personal effects holder

IV Pole (P2217)

⚠ WARNING:
Do not exceed the load capacity of the IV pole. If the IV pole is overloaded, personal injury or equipment damage may occur.

⚠ WARNING:
If the IV pole is installed at the foot end of the bed, make sure the Knee Up/Down controls are locked out. Failure to do so can result in personal injury or equipment damage.

⚠ 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 result in patient injury.

⚠ CAUTION:

When lowering the upper section of an IV pole, always grasp and hold the upper section of the pole before pulling the release knob. Failure to do so may cause equipment damage.

NOTE:
Make sure when you mount infusion pumps on an IV pole that they do not interfere with the head section articulation.

The IV pole is a removable, telescopic pole that installs in any of the sockets at any of the four corners of the bed. The IV pole has a safe working load of 25 lb (11 kg).

To install the IV pole, insert the pole into any of the four sockets. Rotate the pole a quarter turn to lock it into position. Removal is opposite of installation.

NOTE:
Added height recommended for gravity drain applications.

Infusion Support System (P158 and P158A01)

⚠ WARNING:

If the Infusion Support System (ISS) pole is installed at the foot end of the bed, make sure the Knee Up/Down controls are locked out. Failure to do so can result in personal injury or equipment damage.

⚠ 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 result in patient injury.

⚠ WARNING:

Do not exceed the load capacity of the ISS pole. If the ISS pole is overloaded, personal injury or equipment damage could occur.

⚠ CAUTION:

When lowering the upper section of an ISS pole, always grasp and hold the upper section of the pole before pulling the release knob. Equipment damage could occur.

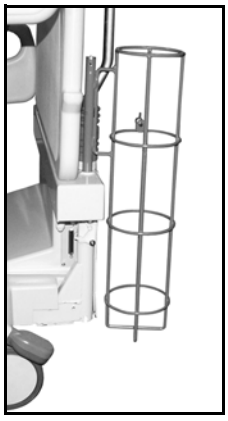
NOTE:
Make sure when you mount infusion pumps on an IV pole that they do not interfere with the head section articulation.

The 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 P158A01 is only removed with the use of tools. The ISS pole has a safe working load of 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.

Before installing the ISS pole (P158), it is necessary to install the P163 adapter bracket. The P158A01 has the P163 adapter installed.

Oxygen Tank Holder, E-Size (P276)



⚠ 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 result in 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 base frame in a vertical position. The oxygen tank holder accommodates one **E** size oxygen tank with a regulator. The mounting points are located to let the affixed oxygen tank holder pivot. The safe working load of the oxygen tank holder is 30 lb (14 kg).

To Install

1. 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 installing at the foot end.
2. Place the tank in the holder, and tighten the holder thumbscrew. The thumbscrew keeps the oxygen tank from rotating in the holder.

To Remove

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

Patient Helper Adapter Bracket (P844G48)

The patient helper adapter bracket (P844G48) is for use with the patient helper available from Orthopedic Systems, Inc.

The P844G48 has the support tube built into the frame assembly.

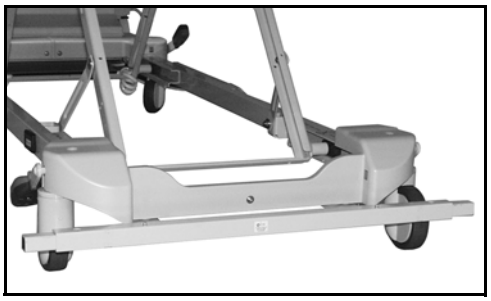
Refer to the equipment manufacturer's instructions for installation procedures.

⚠ WARNING:

Do not exceed the load capacity of the Patient Helper Adapter Bracket. If the Patient Helper Adapter Bracket is overloaded, personal injury or equipment damage could occur.

The safe working load of the Patient Helper Adapter Bracket is 165 lb (75 kg).

Fracture Frame Adapter Bracket (P3211B)



⚠ WARNING:

The sleep deck moves independently of bed frame. Failure to account for the sleep deck movement when using fracture frames and/or traction equipment can cause serious injury or death.

The fracture frame adapter bracket (P3211B) is for use when setting up fracture frame traction equipment.

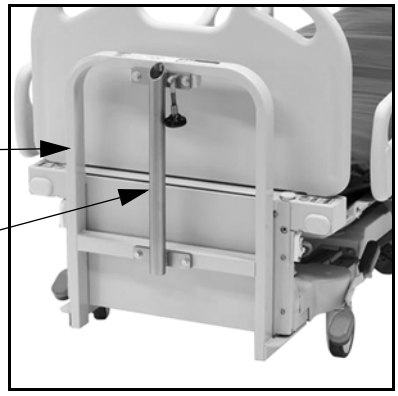
For safe installation and operation, refer to the equipment manufacturer's installation and operation instructions.

⚠ WARNING:

Do not exceed the load capacity of the Fracture Frame Adapter Bracket. If the Fracture Frame Adapter Bracket is overloaded, personal injury or equipment damage may occur.

The safe working load of the Fracture Frame Adapter Bracket is 200 lb (90 kg).

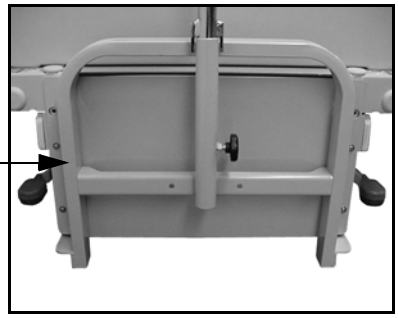
Patient Helper Adapter Bracket (P844G01/02) and (P3212A)



The patient helper adapter bracket (P844G01) is for use with patient helper sleeves from traction equipment manufacturers.

The patient helper sleeve (P3212A) must be installed before the adapter bracket is installed on the bed. Refer to the equipment manufacturer's instructions for installation procedures. The P3212A patient helper sleeve is for use with the Orthopedic Systems, Inc. patient helper.

NOTE:
The P844G02 is for Canadian applications.



NOTE:
When installed, these accessories will add length to the bed as follows:

- P844G01 adds 2.25" (5.72 cm)
- P844G01 with the P3212A installed adds 4.25" (10.80 cm)
- P844G02 adds 4.25" (10.80 cm)

⚠ WARNING:
Do not exceed the load capacity of the Patient Helper Adapter Bracket. If the Patient Helper Adapter Bracket is overloaded, personal injury or equipment damage could occur.

The safe working load of the Patient Helper Adapter Bracket is 200 lb (90 kg).

Permanent IV Pole (P2222A)

The Permanent IV Pole option consists of one IV pole that supports up to two IV pumps plus bags. The IV pole is attached to the bed frame near the corner of the headboard. The IV pole can support up to 40 lb (18 kg).

NOTE:
This IV Pole is recommended for beds that will be used in Progressive Care or Step Down settings.

⚠ CAUTION:
Do not exceed the 40 lb (18 kg) IV pole weight capacity.

⚠ 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 result in patient injury.

NOTE:
Make sure when you mount infusion pumps on an IV pole that they do not interfere with the head section articulation.

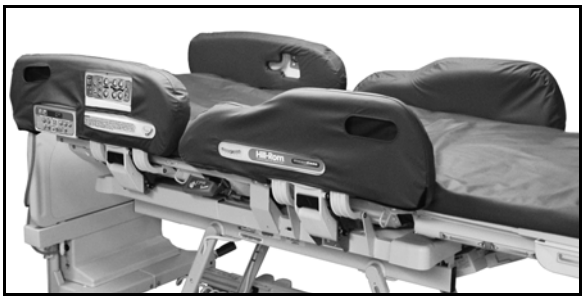
To Deploy

1. Lift the IV pole from its stored position behind the headboard and position it straight up.
2. Make sure that the pole drops and locks into position.
3. Raise the upper section of the pole to the desired height. The IV pole is ready for use.

To Store

1. Grasp and hold the upper section of the IV pole. Push the upper collar down, and lower the upper pole section into the lower pole section.
2. Lift the lower section of the IV pole up, and lower the pole down to the stored position behind the headboard. The pole should rest in the storage slot provided on the bed frame.

Siderail Pads (P855E7 and P855E7H)



⚠ WARNING:

When the siderail pads are installed, a caregiver's line of sight is greatly impaired. Caregivers should periodically check patients in accordance with facility protocols. Failure to do so could cause patient injury.

⚠ WARNING:

Although siderail pads have been designed to reduce the risk of patient injury, the potential exists for patient entanglement, particularly in agitated or disoriented patients, as well as patients who lack the physical strength to extract themselves if they become entangled. Caregivers should carefully evaluate the need for siderail pads and periodically check patients in accordance with facility protocols for safe positioning.

The siderail pads cover the siderails, but not the siderail controls. The pads are not to be used as restraining devices.

After the siderail pads are installed, the bed scale **must** be zeroed.

Utility Shelf (P417A)

⚠ WARNING:
Do not exceed the 45 lb (20.4 kg) utility shelf weight capacity. If the utility shelf is overloaded, personal injury or equipment damage could occur.

The utility shelf can be installed at the foot end of the bed. The utility shelf measures 15" by 33" (38 cm x 84 cm), and can hold up to 45 lb (20.4 kg) of equipment.

Installation: Insert the ends of the utility shelf supports into the IV pole support holes at the foot end of the bed. Push down firmly to ensure the utility shelf is fully seated.

Removal: Remove any equipment from the utility shelf. Grasp the sides firmly and lift the utility shelf and supports out of the IV pole support holes.

VIP Headboard and Footboard

NOTE:
The VIP headboards and footboards are available on medical/surgical beds only.

The VIP headboards and footboards are available in two styles: FreedomHill™ and LibertyHill™.

The VIP headboards and footboards are installed and removed the same way as the regular headboards and footboards (see “Headboard” on page 23 and see “Footboard” on page 23).

FreedomHill™

LibertyHill™

Continuous Passive Machine Support (P004943)

⚠ WARNING:
Do not exceed the 50 lb (22.7 kg) safe working load of the CPM support. If the support is overloaded, personal injury or equipment damage could occur.

The continuous passive machine (CPM) support can be installed at the foot end of the bed. The CPM support can hold up to 50 lb (22.7 kg) of equipment.

Prior to installing the CPM shelf, make sure the length of the bed is properly adjusted for the height of the patient.

To Install: Insert one of the posts on the CPM support into an IV pole support hole at the foot end of the bed. Push down firmly to make sure the CPM support is fully installed. The other post will sit on the sleep deck.

To Remove: Remove any equipment from the CPM support. Hold the sides of the support firmly, and lift up to remove the support post out of the IV pole support holes.

Siderail Extension Assembly (P3214A)

⚠ WARNING:
When you raise a siderail on a bed with a therapy surface and siderail extension assemblies installed, more force may be necessary to latch the siderail. After you raise the siderail, gently pull on it to make sure it latched correctly. Failure to do so could cause patient injury.

The siderail extension assemblies are installed on all four siderails. The extensions increase the height of the siderails by 3" (7.62 cm).

To Install:

1. With the release pins toward the outside of the bed, put the extension on top of the siderail.

NOTE:
The head-end extensions are marked for the correct siderail. The intermediate extensions can mount on either siderail.

2. Pull the release pins.
3. Push down on the extender until it stops, and then push in the release pins.
4. Pull up on the extender to make sure the pins keep the extender in position.

Siderail-Mounted Wipe Dispenser (P3204A01)

For installation, refer to the instructions included with the dispenser.

Siderail-Mounted Personal Effects Holder (P3204A02)

For installation, refer to the instructions included with the holder.

Safety Tips

Bed Positions

⚠ WARNING:

It is recommended that the bed 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 result in 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 result in patient injury.

⚠ WARNING:

Sleep deck moves independently of bed frame. Failure to account for the sleep deck movement when using fracture frames and/or traction equipment can cause serious injury or death.

Brakes

⚠ WARNING:

Unless transporting the patient, always set the brakes when the bed is occupied. Make sure the brakes are set before any patient transfer. Failure to do so may result in personal injury or equipment damage.

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

Siderails/Restraints/Patient Monitoring

⚠ 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 result in serious injury or death.

NOTE:
Siderails are intended to be a reminder to the patient of the bed'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 exit assist, and access to caregiver controls 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 VersaCare® 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. Once the **click** is heard, gently pull on the siderail to make sure it is latched in position.

⚠ 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.

⚠ WARNING:
When you raise a siderail on a bed with a therapy surface and siderail extension assemblies installed, more force may be necessary to latch the siderail. After you raise the siderail, gently pull on it to make sure it latched correctly. Failure to do so could cause patient injury.

⚠ WARNING:
Patient restraints are not intended as substitutes for good nursing practices. Physical restraints, even properly installed, can result in 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, and such.
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.

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

Electricity

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 back-up. Refer to the *VersaCare® Bed Service Manual* (161955).

⚠ WARNING:
The potential for electrical shock exists with electrical equipment. Failure to follow facility protocol could result in death or serious injury.

⚠ WARNING:
Significant fluid spills onto the bed electronics can result in a hazard. If such a spill occurs, unplug the bed, and remove it from service. Thoroughly clean the bed and allow it to dry; then have the bed checked by service personnel.

⚠ CAUTION:
Before transporting the bed, make sure that the power cord, hoses, and other equipment are properly stowed. Failure to do so could result in equipment damage.

⚠ WARNING:
If the electrical ground on the outlet or the plug is in doubt, use battery power to operate the bed. Failure to do so could result in personal injury.

⚠ WARNING:
Improper use or handling of the power cord may result in damage to the power cord. If damage has occurred to the power cord, immediately remove the bed from service, and contact the appropriate maintenance personnel. Failure to do so could result in injury or equipment damage.

Auxiliary Receptacle

⚠ WARNING:
Electrical Shock Hazard. Servicing by qualified personnel only. This bed is provided with two power cords. Unplug all power cords before servicing the Bed Electrical Enclosure or Auxiliary Receptacle Enclosure.

⚠ WARNING:
Do not plug both power cords into the same wall receptacle. Plug the power cords into different receptacles on separate circuits. Failure to do so can result in equipment damage or tripping of facility power breakers. **Do not use the auxiliary receptacle for life support equipment. Plug life support equipment directly into facility power supply.**

⚠ WARNING:

Do not use oxygen enriched sources near auxiliary receptacle. Failure to do so could cause personal injury or equipment damage.

⚠ WARNING:

No battery back-up. For non-life support medical equipment only. Auxiliary receptacle ground separated from bed ground.

Parts and Accessories

Use only Hill-Rom parts and accessories. 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 result in personal injury or equipment damage.

⚠ WARNING:

Use oxygen administering equipment of the nasal, mask, or ventilator type only or oxygen tents that can be contained inside the siderails. Failure to do so could result in personal injury or equipment damage.

⚠ WARNING:

During articulation of the bed functions, a static buildup may occur.

⚠ WARNING:

Operate the bed within the stated environmental conditions, see “Environmental Conditions for Use” on page 78. Failure to do so could result in patient injury or equipment damage.

Transport

⚠ CAUTION:

Before transporting the bed, make sure that the power cord, hoses, and other equipment are properly stored. Failure to do so could result in equipment damage.

⚠ CAUTION:

Do not push or pull the bed by IV poles, siderails, or other equipment. Use the push handles, headboard, or footboard only. Failure to do so could result in equipment damage.

The VersaCare® 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 exists. Use only the headboard, transport handles (if installed) or the footboard to move the bed.

Make sure the patient, equipment, and all lines are securely placed within the perimeter of the bed for intra-hospital transport. The VersaCare® Bed is not intended to be used to transport a patient in the Chair or Boost® positions.

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

After transport make sure that the Nurse Call system cables are properly connected.

Transport Position and Stability

⚠ WARNING:

During transport, use caution so the bed does not tip or overbalance. Failure to do so may cause injury or equipment damage.

NOTE:

We recommend that you do not transport a patient when the bed is in the Chair or Boost® positions. And, use caution if you transport a patient when the bed is in the Trendelenburg or Reverse Trendelenburg positions.

Generally, as the load increases, the risk of instability goes up.

Lower the foot section and head section to increase stability.

Lower the bed height to increase stability.

Use and position of accessories may affect stability. Do not overextend IV poles or similar accessories and do not overload accessories. If multiple accessories are in use, distribute them evenly from side to side or head to foot.

For inclines or thresholds, approach them as you move forward or backwards, rather than sideways.

To help prevent overbalance or collision with hidden objects or people, do not make sharp corners and do not turn the bed at high speeds.

Sleep Surface/Mattress

⚠ RELATIVE CONTRAINDICATION:

Use of active therapies with patients with unstabilized spinal cord injury could cause serious injury to the patient.

⚠ WARNING:

Some safety features of the VersaCare® 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 operate properly with the replacement surface. Failure to do so could result in 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 VersaCare® Bed. Customers electing to purchase replacement surfaces from other manufacturers should confirm that the replacement surface, when used in conjunction with the VersaCare® 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:

Do not use mattress overlays while in the chair position. Patient injury or equipment damage may occur.

⚠ WARNING:

Sleep surface impermeability could be affected by needle sticks. Caregivers should be instructed to **avoid** punctures caused by improper use of x-ray cassette holders and/or needle sticks. Failure to do so could result in cross-infection and patient injury.

The sleep surface should be regularly inspected for punctures, rips, tears, or other such damage. Replace the surface as necessary.

Flammability

To help prevent the risk of hospital bed fires, make sure facility personnel follow the safety tips in the *FDA Public Health Notification: Safety Tips for Preventing Hospital Bed Fires.* (US only)

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

⚠ WARNING:

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

Bed Articulations

⚠ WARNING:
Observe lines closely during articulations. Always use good line management techniques, particularly as the head section rises. Failure to do so could cause patient injury or equipment damage.

Do not operate bed controls until all persons and equipment are clear of mechanisms. To stop a function, release the control, and/or activate the opposite function, and/or immediately unplug the AC power cord.

Chair Positioning

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

Make sure equipment and personnel are clear of the foot end of the bed especially if the footboard is removed.

Bed Transportation Mode

This mode prevents the bed from articulating during bed transport. Use this mode if the bed is to be moved to or from the facility.

Enable

1. Make sure the bed is connected to AC power.
2. Press the Lockout control until the Service Required indicator flashes. This puts the bed in Service mode.
3. On the patient control (inside of the siderail), press the Knee Up and Knee Down controls for five seconds.

Disable

- **Automatically**—the Bed Transportation mode automatically disables after the bed has been connected to AC power for 30 minutes.
- **Manually**—press the Head Up and Head Down controls on the patient control.

NOTE:
If the bed is not connected to AC power, you will need to press the Nurse Call control along with the Head Up and Head Down controls. If the patient control does not have the Nurse Call control, press the location where it would be.

Visitor Notification

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

Clean and Disinfect

We recommend that you clean and disinfect the VersaCare® 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.

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

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

⚠ WARNING:
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) and the latch areas and latch pins of the mount brackets.
    - Bed frame
    - Casters
    - All other bed components
    - Fully-extended IV pole
    - Bed accessories that can be used again such as the mattress (see “Clean the Mattress and the AMT Coverlet” on page 61)

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 air outlets and 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 the Mattress and the AMT Coverlet

NOTE:
We recommend that you wipe down the P500 to clean it. In cases of heavy soil, you can machine wash the coverlet. We also recommend that you clean the P500 every 60 days for patients who are on the mattress longer than 60 days.

Clean and Disinfect an NP100, NP200, A.I.R., or P500 Surface, and AMT Coverlet

1. Make sure the bed is unplugged.
2. If applicable, remove the sleep surface from the bed. Go to “To Remove the Sleep Surfaces” on page 20.

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 and/or coverlet completely air dry.
7. If the sleep surface was removed, install it on the bed. Go to "To Install The Sleep Surfaces" on page 21.

Machine Wash the AMT Coverlet

1. Remove the coverlet.
2. Machine-wash the coverlet with chlorine bleach (50 ppm to 150 ppm) or detergent and an effective intermediate level disinfectant, such as CSI disinfectant cleaner. (For customers in the US, the disinfectant should be registered with the Environmental Protection Agency.)

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

- Use the bleach or disinfectant as instructed in the manufacturer's instructions.
- To determine the amount of bleach or disinfectant to use, determine the amount of water in the washer, and follow the manufacturer's dilution instructions.
- During the wash cycle, soak the coverlet in the disinfectant or bleach.
- Let the coverlet rinse thoroughly in clean water.

⚠ CAUTION:

Do **not** use high temperatures to dry the coverlet. Air dry or select a low or non-heat dry cycle such as air fluff. High temperatures could destroy the coating that makes the coverlet waterproof yet breathable.

3. Use the **lowest** temperature setting of the dryer to dry the coverlet. Do **not** use high temperatures.
4. Put the coverlet on the mattress.

Preventive Maintenance

⚠ WARNING:

Only facility-authorized personnel should service the VersaCare® Bed. Servicing performed by unauthorized personnel could result in personal injury or equipment damage.

The VersaCare® Bed requires an effective maintenance program. We recommend that you perform annual preventive maintenance (PM) and testing for The Joint Commission (formerly JCAHO). PM and testing not only meet Joint Commission requirements but will help make sure of a long, operative life for the VersaCare® Bed. PM will minimize downtime due to excessive wear. For the preventive maintenance schedule, refer to the *VersaCare® Bed Service Manual* (161955).

Perform annual preventive maintenance procedures to make sure all VersaCare® Bed components are functioning 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 fraying, damage, and proper grounding
- All controls return to off or neutral position when released
- Controls or cabling entanglement in system mechanisms or siderails
- Proper operation of the lockout controls
- Integrity of sleep surface ticking
- Actual angle of the head section compared to the degree shown on the display (beds with the Head Angle Display option)

VersaCare® Bed Main Battery

Replace the battery if any of the following conditions exist:

- The battery indicator does not light within 2 hours of bed connection to AC power.
- The battery indicator does not stop flashing (low condition) within 12 hours of bed connection to AC power.

NOTE:
Discard or recycle the batteries in accordance with local regulations.

IntelliDrive® Transport System Batteries

Replace the batteries if the IntelliDrive® Transport System automatically shuts down power before the final battery charge indicator flashes (refer to the *VersaCare® Bed Service Manual* (161955).

After replacing the batteries, charge them for a minimum of 20 hours before use.

NOTE:
Discard or recycle the batteries in accordance with local regulations.

Troubleshooting

⚠ WARNING:

Only facility-authorized persons should service the VersaCare® Bed. Service by unauthorized persons could cause injury or equipment damage.

If the troubleshooting information shown below does not fix the problem, contact your facility-authorized maintenance person.

Bed Functions

The Bed Controls Do Not Work

Make sure of these:

- The bed is plugged into AC power **or** the battery is enabled.
- Make sure the lockouts are deactivated.

NOTE:
If all lockout indicators and the service required indicator are on, contact your facility-authorized maintenance person.

- The bed is not in the Bed Transportation mode. Refer to “Bed Transportation Mode” on page 59 of this document.

The Bed Does Not Lower

Make sure of these:

- The bed is plugged into AC power **or** the battery is active.
- The Bed Down control is not locked out.
- The Bed Not Down indicator is not flashing.
- There is nothing between the upper frame and the base frame.
- There is nothing between the obstacle detect sensors on the base frame.
- The obstacle detect covers, located in the caster covers, are installed correctly.

The Foot Controls Do Not Work

1. Make sure the bed is plugged into AC power **or** the battery is active.
2. Make sure the lockouts are deactivated.
3. Step down on the desired foot control for 1 to 3 seconds.
4. Release the pedal.
5. Step down on the desired foot control until the bed is at the applicable position.

The Display on the Control Pod Is Off

Make sure the bed is plugged into AC power. When the bed operates on battery power, the display will be off.

NOTE:
If the bed has the 30° Head Angle Alarm option and the alarm is set, if the head section goes below 30°, the audible alarm will come on and the Head Angle Alarm indicator will flash.

The Display on the Control Pod Flashes when a Weight Is Taken

The maximum weight the scale will show has been exceeded.

The Head Section Angle Appears to be different than the Head Angle Display Shows

Contact your facility-authorized maintenance person.

The Bed Exit Alarm Does Not Arm and All Three Mode Indicators are Flashing

Remove the patient, and zero the Bed Exit system. See “Bed Exit Alarm System” on page 35.

A Siderail Does Not Latch

Make sure the siderail or siderail mechanism is not blocked by an item such as a bedside cabinet, a hose, a cable, bed linens, or clothing.

Treatment/Therapy Surface Functions

The Surface Does Not Inflate or Does Not Inflate Correctly

Make sure of these:

- The bed is plugged into AC power.
- The Service Required indicator is not flashing.
- You press the Enable control before you press the applicable surface function.
- The mattress hose connections are fully connected to bed frame.
- The mattress retaining straps are installed in their retainers (see “Sleep Surface Removal and Installation” on page 20).
- The surface has been put into Sleep mode; not turned off. If you press the Max-Inflate and the Normal controls at the same time, the surface will turn off. If the surface is off for an extended amount of time, the surface could deflate.

  To Turn the Surface On

  1. Press the Enable control.
  2. Press any surface control. The control’s indicator will come on.

  To Activate the Sleep Mode

  1. Press the Enable control.
  2. Press and hold the Left Turn and Right Turn controls at the same time for 5 seconds. The controls’ indicators will come on when the Sleep mode is active.
- The scale system is used correctly. If the scale is zeroed with a patient and equipment on the bed, and you remove equipment, this will cause a negative weight. If the scale reads a negative weight for an extended amount of time, the surface may go into the non-operational safe mode (see “All Four Surface Mode Indicators are Flashing” on page 66). To make sure the scale system is used correctly, refer to “Scale System” on page 33.

Turn Assist Does Not Work

- Make sure the bed is plugged into AC power.
- Make sure the siderails that the patient is turning toward are in the up and locked position.
- Make sure the head section is below 25°.
- Make sure you press the Enable control before you press the applicable Turn Assist Mode control.

All Four Surface Mode Indicators are Flashing

The surface is in the non-operational safe mode. Patients should **not** be on the surface when all surface control indicators are flashing.

Make sure the surface hose connections are fully connected to the bed frame.

- If the indicators continue to flash **and** the Service Required (wrench) indicator on the caregiver control panel **is** flashing, there is a problem with the surface. Call a facility-authorized maintenance person to fix the problem.
- If the indicators continue to flash and the Service Required (wrench) indicator on the caregiver control panel **is not** flashing, reset the surface as follows:

  1. Press the **Enable** control, and then press the **Normal** mode control. The control's indicator will come on when the Normal mode is active.
  2. If the surface does not reset, unplug the bed, wait 10 seconds, and then plug the bed in. The surface should go into Normal mode.

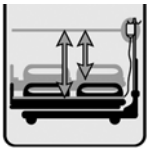
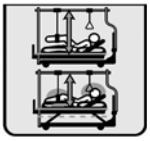
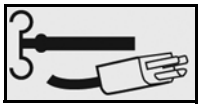
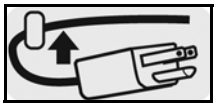
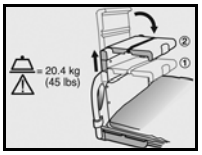
Product Symbols

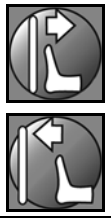
These symbols may or may not be used on your model of the VersaCare® Bed:

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.
	CAUTION: Consult accompanying documents.
	Medical Electrical Equipment Classified By Underwriters Laboratories Inc. with respect to Electric Shock, Fire, and Mechanical Hazards only in accordance with UL60601-1, CAN/CSA C22.2 No. 601.1, IEC/EN60601-1, IEC/EN60601-2-38 and IEC60601-1-4.
	Demko Certified Unit.
	Conforms to the European Medical Device Directive 93/42/EEC for a device that has a measuring function (for beds with scale) or treatment/therapy type surface.*
	Conforms to the European Medical Device Directive 93/42/EEC for a device that has a measuring function (for beds with scale) or treatment/therapy type surface. Beds made after May 1, 2008.*
	Conforms to the European Medical Device Directive 93/42/EEC.*

* The CE mark was first applied in 2004.

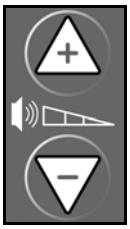
Symbol	Description
	Safe Working Load—indicates the safe working load of the bed.
	Electric shock hazard.
	Alternating current.
	Identifying mains fuse.
	Manufacturer or distributor complies with the Waste Electric and Electronic Equipment Directive 2002/96/EC.
	Patient Hip Position Locator—shows the optimal patient placement on the bed.
	Shows the location to attach patient restraints.
	Shows the zone for the foot section to lengthen and shorten.
	Shows the heel relief zone.
	Indicates the use of oxygen administering equipment of the nasal, mask, or ventilator type only or oxygen tents that can be contained inside the siderails.

Symbol	Description
	Shows there is a pinch point under the foot section.
	Shows that you should not step on this area of the bed.
	Shows the head-end IV poles remain stationary in height when the sleep surface is raised or lowered.
	Fracture frame articulation Warning—the sleep deck moves independently of bed frame. Failure to account for the sleep deck movement when using fracture frames and/or traction equipment can cause serious injury or death.
	Shows that the clips can be used to store an IV pole and the power cord.
	Shows the direction to wrap the power cord around the clip.
	Shows that you should not hang power cords on the Line Managers.
	Shows that there is no battery back-up control. Battery back-up engages automatically when you use one of the blue caregiver controls.
	Shows the safe working load of the Integrated Transport Shelf and how to put the shelf in position for use.

Symbol	Description
	CPR/Emergency Trendelenburg Control—activates the CPR function and the Emergency Trendelenburg position.
	Bed Up/Down control—raises and lowers the bed.
	Head Up/Down control—raises and lowers the head section.
	Knee Up/Down control—raises and lowers the knee section.
	Foot Shorter and Foot Longer controls—shortens and lengthens the foot section.
	Bed Not Down indicator—illuminates when the bed is not in the full down position. Flashes when the obstacle detect system detects an obstacle in the travel path of the upper bed frame.

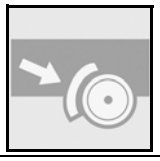
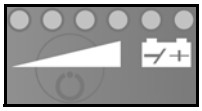
Symbol	Description
	Lockout control—locks out and unlocks bed articulation functions. For all motor lockout, you must press the lockout control and each articulation control.
	Trendelenburg control—activates the Trendelenburg function.
	Reverse Trendelenburg control—activates the Reverse Trendelenburg function.
	Chair control—activates the Chair function.
	Boost® Position control—activates the Boost® function.
	Bed Flat control—puts the sleep deck and bed in the flat and level position.
	Nurse Call control on the Caregiver Control Panel—sends a Nurse Call to the nurses station. The indicator is on when a Nurse Call has been acknowledged.
	Service Required indicator—flashes to indicate a bed malfunction.

Symbol	Description
	Plug indicator—flashes when the bed is disconnected from AC power.
	Battery indicator—is on when the battery is active; flashes when the battery needs charged; is off when the battery is inactive or is discharged below the level necessary to operate the motors.
	Nurse Call control on the patient controls—sends a Nurse Call to the nurses station.
	Listening indicator—is on when the nurses station is speaking; the Nurse Call speaker is active.
	Voice indicator—is on when a Nurse Call has been acknowledged, and the nurses station is ready for you to speak. The Nurse Call microphone is active.
	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 station on and off. (Patient control pendant only)

Symbol	Description
	Television control—turns the television on and off. (Patient control pendant only)
	Closed Captioning control—turns the closed captioning option of a television on or 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)
	Head Up foot control—raises the head section.
	Head Down foot control—lowers the head section.
	Bed Up foot control—raises the bed.
	Bed Down foot control—lowers the bed.
	Bed Exit Alarm System Zero control—zeroes the Bed Exit Alarm System on beds without a scale.

Symbol	Description
	Zero control—zeroes the scale.
	Scale Weigh control—operates the scale feature on the bed. If the scale feature is enabled, the patient weight will show on the display.
	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.
	Siderail Not Up Indicator—flashes when a patient is being turned towards a siderail that is not up.
	Enable control—enables the zero function, bed exit, and surface controls on beds with these options.
	Alerts control—activates and deactivates the Alerts feature of the NaviCare® System. The indicator shows the Alerts status.
	Turn Assist Mode, right—turns the patient onto their right side. (Only available on beds with a treatment/therapy surface)
	Turn Assist Mode, left—turns the patient onto the patient's left side. (Only available on beds with a treatment/therapy surface)

Symbol	Description
	Normal Mode—places the treatment/therapy surface into normal mode. (Only available on beds with a treatment/therapy surface)
	Max-Inflate mode—inflates the treatment/therapy surface into Max-Inflate. (Only available on beds with a treatment/therapy surface)
	Patient Position Mode—alarms when a patient moves towards either siderail or moves away from the head section, such as sits up in bed.
	Bed Exiting mode—alarms when a patient moves away from the center of the bed towards an exit point.
	Out-of-Bed mode—alarms when the patient's weight shifts significantly off the frame of the bed.
	Alarm Silence control—silences the Bed Exit Alarm System without deactivating the system.
	Alarm Volume control—adjusts the local alarm volume level of the Bed Exit Alarm System. Bed Exit Alarm System Tone Control—changes the audible tone of the Bed Exit Alarm System.
	Transport sequence (beds with the IntelliDrive® Transport System) For transport, unplug the bed and release the brakes.

Symbol	Description
	Transport sequence (beds with the IntelliDrive® Transport System) Transport the patient with the lift arms parallel to the ground or lower. Transport the patient with the foot end of the bed forward. Use only the footboard or push handles to move the bed.
	Shows the OFF position for the IntelliDrive® Transport System. When the system is OFF, the bed can be moved manually.
	Shows the ON position for the IntelliDrive® Transport System.
	Battery charge indicator—shows the amount of battery power available for the IntelliDrive® Transport System.

Specifications

Product Identification

Product Number	Description
P3200 and P3201	VersaCare® Bed

Dimensions

Feature	Dimension
Total Length:	
Foot Section Lengthened	94.5" (240.0 cm) beds without the integrated transport shelf in the footboard 97" (246 cm) beds with the integrated transport shelf in the footboard
Foot Section Shortened	82.5" (210.0 cm) beds without the integrated transport shelf in the footboard 85" (216 cm) beds with the integrated transport shelf in the footboard
Maximum Width (siderails stored)	37" (94 cm)
Maximum Width (siderails up)	40" (102 cm)
Maximum Headboard Height	39.5" (100 cm)
Mattress to Siderail Height	9.5" (24 cm)
Minimum Under-Bed Clearance	3" (8 cm) 1.25" (3.18 cm) for IntelliDrive® Transport System beds
Wheel Base	26.75" x 62" (67.95 cm x 157.48 cm)
Surface Dimensions:	
Surface Width	35.5" (90 cm)
Surface Length	86.4" (219.5 cm)
Surface Mattress Thickness	8" (20 cm) (measured in the center of the mattress)
Surface Weight	25 lb (11 kg) for treatment/therapy, 26 lb (12 kg) for prevention foam
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	5" (13 cm) standard, or 6" (15 cm) for IntelliDrive® Transport System beds
Detachable Power Cord, IEC 320/Interface	USA—84" (213 cm) International—248.9 cm (98")
Total Weight without Surface	495 lb (224 kg)
Head Section Inclination (maximum)	65°
Knee Section Inclination (maximum)	16°
Foot Section Inclination (maximum)	-27°

Feature	Dimension
Bed Height Range, Lowest Position	13" (33.0 cm) (from the floor to the center of the deck) 17" (43.2 cm) (from the floor to the edge of the deck) **NOTE**: The optional IntelliDrive® Transport System or 6" casters add height to these dimensions: IntelliDrive adds 4" (10.2 cm) or 6" casters add 1.5" (3.8 cm).
Bed Height Range, Highest Position	30" (76.2 cm) (from the floor to the center of the deck) 34" (86.4 cm) (from the floor to the edge of the deck) **NOTE**: The optional IntelliDrive® Transport System or 6" casters add 1.5" (3.8 cm) height to these dimensions.
Trendelenburg Position (maximum)	15°
Reverse Trendelenburg Position (maximum)	10°
Bed Lift Capacity (safe working load) (includes patient weight, mattress, IV poles, and such)	550 lb (249 kg)
Siderail Opening Size	3.5" (8.9 cm)

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 Transport and Storage

Condition	Range
Temperature	-40°F to 158°F (-40°C to 70°C)
Relative Humidity	95% non-condensing
Pressure	50 kPa to 106 kPa

Environmental Conditions for Use

Condition	Range
Temperature	50°F to 95°F (10°C to 35°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 (P3200)	60	6.0[a]
100/110/115/120/127 (P3201)	50/60	6.0
220/230/240 (P3201)	50/60	3.0

a. North American power supply configuration.

Auxiliary Outlet Power Specifications (120V Beds Only)

Condition	Range
Auxiliary Receptacle	120V 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 *VersaCare® Bed Service Manual* (161955) for fuse ratings and replacement procedures.

United States and Canadian Flammability Codes

All recommended sleep surface mattresses meet the applicable US and Canadian flammability specifications.

European Mattress Flammability Codes

Condition	Range
P3251A, P3250EA, P3254A2, and P3254A3	BS EN 597-1, Furniture - Assessment of the Ignitability of Mattresses and Upholstered Bed Bases; Part 1: Ignition Source: Smouldering Cigarette **(Surfaces and Siderail Coverings Only)**
	BS EN 597-2, Furniture - Assessment of the Ignitability of Mattresses and Upholstered Bed Bases; Part 2: Ignition Source: Match Flame Equivalent **(Surfaces and Siderail Coverings Only)**

Classification and Standards

The VersaCare® 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/EN 60601-2-38 IEC/EN 60601-1 IEC 60601-1-2 IEC 60601-1-4 EN 13485
Equipment Classification per IEC 60601-1	Class I equipment, internally powered equipment
Degree of Protection Against Electric Shock	Type B
Classification according to Directive 93/42/EEC	Class I, Class IIa for treatment/therapy
Degree of Protection Against Ingress of 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/30 minutes OFF
Sound Level (except alarms) (measured 1 meter from patient's ear)	< 52 dBA < 70 dBA maximum (IntelliDrive® Transport System active) < 78 dBA transients (brake/steer activation; siderail latch and unlatch)

Electromagnetic Emissions Guidance

⚠ CAUTION:

This device meets all 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 always relative, and standards are based on anticipated environments of use. If the user observes unusual device behavior, particularly if such behavior is intermittent and associated with nearby use 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 to move the interfering equipment further from this device.

⚠ WARNING:

The P3200/P3201 should not be used adjacent to or stacked with other electrical equipment. If adjacent or stacked use is necessary, observe the P3200/P3201 and the other electrical equipment to make sure they operate as intended.

Make sure the P3200/P3201 operates correctly when it is used near other electronic devices. Portable and mobile radio frequency (RF) communications equipment can affect electrical equipment.

Medical equipment needs special precautions in regard to electromagnetic compatibility (EMC) and needs to be installed and put into service according to the EMC information supplied in the tables that follow.

Guidance and Manufacturer's Declaration—Electromagnetic Emissions		
The P3200/P3201 is intended for use in the electromagnetic environment specified below. The customer or the user of the model P3200/P3201 should make sure it is used in such an environment.		
Emissions Test	**Compliance**	**Electromagnetic Environment—Guidance**
RF emissions CISPR 11	Group 1	The P3200/P3201 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. (See Note 1.)
RF Emissions CISPR 11	Class A	The P3200/P3201 is suitable for use in all establishments other than domestic establishments 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	Class A	
Voltage Fluctuations/ Flicker Emissions IEC 61000-3-3	Complies	
Note 1: For the P3200 with a Wireless Interface Unit, see “Wireless Interface Unit” on page 84.		

Electromagnetic Immunity Guidance

Guidance and Manufacturer's Declaration - Electromagnetic Immunity			
The P3200/P3201 is intended for use in the electromagnetic environment specified below. The customer or the user of the P3200/P3201 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	± 6 kV Contact ± 8 kV Air	± 6 kV Contact ± 8 kV Air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical Fast Transient/Burst IEC 61000-4-4	± 2 kV for Power Supply Lines ± 1 kV for Input/ Output Lines	± 2 kV for Power Supply Lines ± 1 kV for Input/ Output Lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV Line(s) to Line(s) ± 2 kV Line(s) to Earth	± 1 kV Line(s) to Line(s) ± 2 kV Line(s) to Earth	Mains power quality should be that of a typical commercial or hospital environment.

Guidance and Manufacturer's Declaration - Electromagnetic Immunity			
The P3200/P3201 is intended for use in the electromagnetic environment specified below. The customer or the user of the P3200/P3201 should make sure it is used in such an environment.			
Immunity Test	**IEC 60601 Test Level**	**Compliance Level**	**Electromagnetic Environment—Guidance**
Voltage Dips, Short Interruptions, and 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 of a typical commercial or hospital environment. If the user of the P3200/P3201 requires continued operation during power mains interruption, it is recommended that the P3200/P3201 be powered from an uninterruptible power supply or a battery.
Power Frequency (50/60hz) Magnetic Fields IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Note 1: U_T is the AC mains voltage prior to application of the test level.			

Electromagnetic Immunity Guidance

<table>
<tr><th colspan="4">Guidance and Manufacturer's Declaration - Electromagnetic Immunity</th></tr>
<tr><td colspan="4">The P3200/P3201 is intended for use in the electromagnetic environment specified below. The customer or the user of the P3200/P3201 should make sure it is used in such an environment.</td></tr>
<tr><th>Immunity Test</th><th>IEC 60601 Test Level</th><th>Compliance Level</th><th>Electromagnetic Environment—Guidance</th></tr>
<tr><td></td><td></td><td></td><td>Portable and mobile RF communications equipment should be used no closer to any part of the P3200/P3201, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.

Recommended separation distance</td></tr>
<tr><td>Conducted RF IEC 61000-4-6</td><td>3 Vrms
150 kHz to 80 MHz</td><td>3 V</td><td>$d = 1.2\ \sqrt{P}$</td></tr>
<tr><td>Radiated RF IEC 61000-4-3</td><td>3 V/m
80 MHz to 2.5 GHz</td><td>3 V/m</td><td>$d = 1.2\ \sqrt{P}$ 80 MHz to 800 MHz

$d = 2.33\ \sqrt{P}$ 800 MHz to 2.5 GHz

Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation in metres (m).

Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey[a], should be less than the compliance level in each frequency range[b].

Interference may occur in the vicinity of equipment marked with this symbol.

  </td></tr>
<tr><td colspan="4">Note 1: At 80 MHZ and 800 MHz, the higher the frequency range applies.
Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</td></tr>
</table>

a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the P3200/P3201 is used exceeds the applicable RF compliance level above, the P3200/P3201 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the P3200/P3201.

b. Over the frequency range of 150 kHz to 80 MHz, field strength should be less than 3 V/m.

Recommended Separation Distances between Portable and Mobile RF Communications Equipment and the P3200/P3201 Model

The P3200/P3201 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the P3200/P3201 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the P3200/P3201 as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter, W	Separation distance according to frequency of transmitter, m		
	150 kHz to 80 MHz $d = 1.2\sqrt{P}$	80 MHz to 800 MHz $d = 1.2\sqrt{P}$	800 MHz to 2.5 GHz $d = 2.33\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance ***d*** in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.
NOTE 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.
NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Wireless Interface Unit

The WIU supports the following security protocols:

- WEP (64 and 128 bit)
- WPA - PSK with TKIP
- WPA2 - PSK w/AES
- WPA - 802.1x PEAP MSCHAPv2 w/TKIP
- WPA2 - 802.1x PEAP MSCHAPv2 w/AES

REGULATORY INFORMATION:

Changes and/or modifications not expressly approved by Hill-Rom Co., Inc. could void the user's authority to operate the equipment.

The WIU must be installed and used in accordance with the Hill-Rom user and installation instructions. Hill-Rom is not responsible for any radio or television interference caused by unauthorized modification of the devices included with the Hill-Rom WIU, or the substitution or attachment of connection cables and equipment other than that specified by Hill-Rom Co., Inc. The correction of interference caused by such unauthorized modification, substitution, or attachment is the responsibility of the user. Hill-Rom is not liable for any damage or violation of government regulations that may arise from the user failing to comply with these requirements.

USA—Federal Communications Commission (FCC) Radiation Exposure Statement

⚠ CAUTION:

The radiated output power of the WIU is far below the FCC radio frequency exposure limits. Nevertheless, the Hill-Rom WIU must be used in such a manner that the potential for human contact during normal operation is minimized. To avoid the possibility to exceed the FCC radio frequency exposure limits, you should keep a distance of at least 8" (20 cm) between you (or any other person in the vicinity) and the antenna that is built into the WIU.

Interference Statement for FCC-ID: QDS-BRCM1017

These devices comply with Part 15 of the FCC Rules. Operation of the devices is subject to these two conditions: (1) the devices may not cause harmful interference, and (2) the devices must accept any interference that may cause unwanted operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to supply reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If the equipment is not installed and used in accordance with the instructions, the equipment may cause harmful interference to radio communications. There is no guarantee, however, that such interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception (which can be determined by turning the equipment off and on), the user is encouraged to take one of these measures to try to correct the interference:

- Move this device.
- Increase the separation between the device and the receiver.
- Connect the device to an outlet on a circuit different from that of other electronics.
- Consult the dealer or an experienced radio technician for help.

NOTE:
The Hill-Rom Wireless Interface Unit (WIU) must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. Any other installation or use will violate FCC Part 15 regulations. Modifications not expressly approved by Hill-Rom could void your authority to operate the equipment.

The Hill-Rom WIU device must not be co-located or operated in conjunction with any other antenna or transmitter.

Canada—Industry Canada (IC)

- This device complies with RSS210 of Industry Canada.
- Cet appareil est conforme a la norme RSS210 du Canada.

Operation is subject to these two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, which include interference that may cause unwanted operation of this device.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit étre prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Pour empecher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit etre utilze a l'interieur et devrait etre place lin des fenetres afin de Fournier un ecram de blindage maximal. Si le matriel (ou son antenne d'emission) est installe a l'exterieur, il doit faire l'objet d'une licence.

⚠ CAUTION:

Exposure to Radio Frequency Radiation.
The installer of this radio equipment must make sure the antenna is located or pointed such that it does not emit an RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website http://www.hc-sc.gc.ca/rpb.

WIU Characteristics

Characteristic	Description
Frequency Band	IEEE 802.11b: 2.4 GHz (2400–2500 MHz) IEEE 802.11g: 2.4 GHz (2400–2500 MHz)
Modulation Technique	IEEE 802.11b: Direct sequence spread spectrum (DSSS) • CCK for high and medium transmit rate • DQPSK for standard transmit rate • DBPSK for low transmit rate IEEE 802.11g: Orthogonal frequency division multiplexing (OFDM) • 52 subcarriers with BPSK, QPSK, 16-QAM or 64-QAM • Forward error correction convolutional coding rate: 1/2, 2/3, 3/4
Spreading	IEEE 802.11b: 11-chip Barker sequence
Bit Error Rate (BER)	Better than 10^{-5}
Nominal Output Power	IEEE 802.11b: 19 dBm IEEE 802.11g: 15 dBm

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