**Hill-Rom Compella Bariatric User Manual**
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# Compella™ Bariatric Bed System

## User Manual

Product No. P7800A



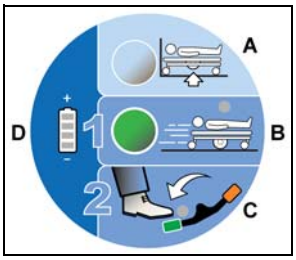

178951 REV 1

Enhancing outcomes for patients and their caregivers.
Hill-Rom

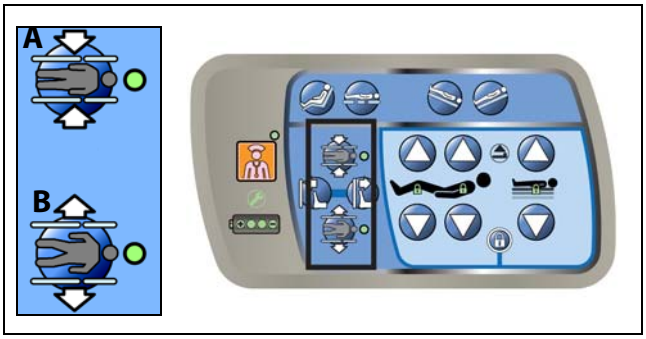
# QUICK VIEW™ LIST OF FEATURES

For more information about a feature, go to the page number shown for the feature in the tables below.

## INTELLIDRIVE® XL TRANSPORT SYSTEM—TRANSPORT POD

| Item | Feature | | Page |
|---|---|---|---|
| A | **Disengage Transport Position**—press this control to raise the drive wheels off the ground. |  | 42 |
| B | **Transport Position**—press this control to lower the bed to the transport position. Press and hold this control until the control's indicator is green and you hear a single beep. | | |
| C | **Steer Pedal indicator**— when this indicator is green, the bed is in steer mode and can be moved. | | |
| D | **Battery Charge indicator** | | |

## POWERED WIDTH CONTROLS

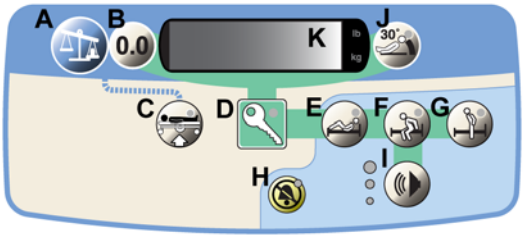



| Item | Feature | Page |
|---|---|---|
| A | **Retract**—with the siderails raised, press and hold this control to retract the width of the bed. Press and hold the control until the control's indicator is green and you hear a single beep. | 39 |
| B | **Extend**—press and hold this control to extend the width of the bed. Press and hold the control until the control's indicator is green and you hear a single beep. | 39 |

## CAREGIVER CONTROL POD

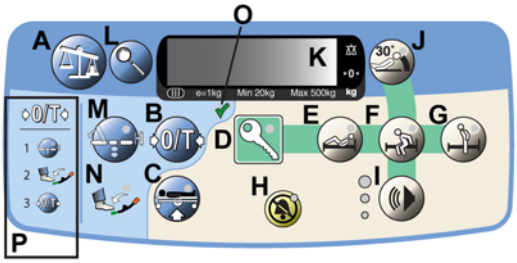
**NOTE:**
There are two scale systems available for the bed, refer to the images and page numbers shown below to determine which instructions apply to your scale system:

**Scale A**




Refer to page 51.

**Scale B**



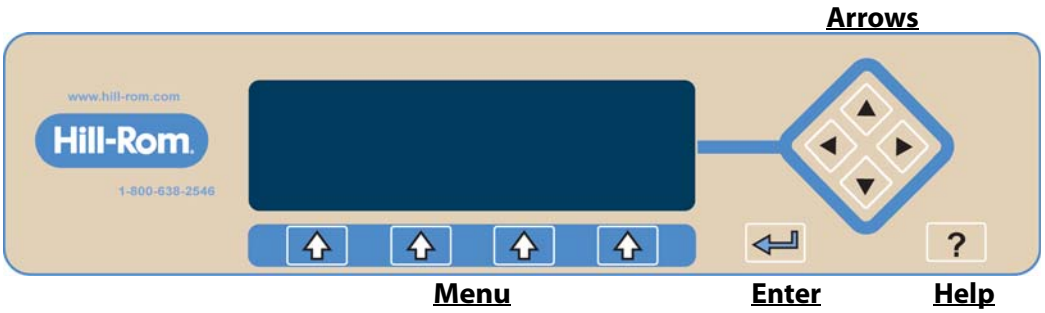

Refer to page 54.

| Item | Feature | Page |
|---|---|---|
| A | **Weigh**—press this control to take a weight reading. | 53 or 56 |
| B | **Zero**—with the Enable key active, press this control to zero the bed. | 52 or 55 |
| C | **Raise the Bed**—the indicator on this control flashes when you attempt to use a scale control while the bed is in transport position (power drive wheels on the ground). Press and hold the control until the bed is no longer in the transport position (the indicator will turn off, and you will hear a single beep). | 52 or 54 |
| D | **Enable key**—when active lets you zero the bed, set the Bed Exit alert, set the 30° Head Angle alert, and adjust the alert volume and tone. | 53 |
| E | **Bed Exit: Patient Position mode**—with the Enable key active, press this control to set the Bed Exit alert to notify you when the patient begins to move. | 60 |
| F | **Bed Exit: Bed Exiting mode**—with the Enable key active, press this control to set the Bed Exit alert to notify you when the patient attempts to get out of the bed. | 60 |
| G | **Bed Exit: Out-of-Bed mode**—with the Enable key active, press this control to set the Bed Exit alert to notify you when the patient has left the bed. | 57 or 60 |
| H | **Alert Silence**—when a Bed Exit alert is armed, press this control to stop monitoring the patient movement temporarily (30 seconds). | 58 or 60 |
| I | **Alert Volume**—with the Enable key active, a patient on the bed, and a Bed Exit mode armed, press and release this control to adjust the volume of the alert. | 59 or 62 |
| J | **30° Head Angle Alert**—with the Enable key active, press this control to be notified when the bed's head section goes below 30°. | 38 |
| K | **Digital display**—shows the head section angle or patient weight. | 51 or 54 |

| Item | Feature | Page |
|---|---|---|
| L | **Magnification (Mag) mode**—shows the weight in the nearest 0.5 kg. | 56 |
| M | **Frame Setup**—puts the bed in the correct position to zero the scale or weigh the patient. | 54 |
| N | **Release Brake**—this indicator flashes if the brakes are set and you attempt to zero the scale.The brakes need to be released to accurately zero the scale. | 54 |
| O | **Scale Reference**—this indicator comes on solid when the bed is correctly in the Scale Reference Position. | 54 |
| P | **Zero instructions**—shows the sequential steps to zero the scale. | 55 |

## AIR SUPPLY UNIT

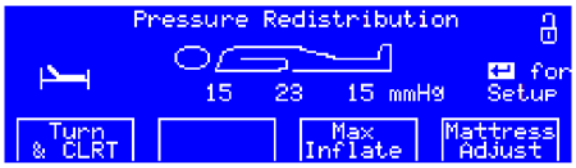
The air supply unit has these controls:




- **Menu**—selects the **Menu** options.
- **Enter**—moves to and from the **Patient Setup** screen.
- **Help**—shows the **Help** screen.
- **Arrows**—select settings on the **Patient Setup** screen.

## Set Up the Air Surface for the Patient (Refer to page 70)

1. At the Pressure Redistribution screen, press **Enter.**




2. Use the arrow keys on the right-side of the display to select **Height** or **Weight**.

3. Press **Increase** or **Decrease** as applicable to enter the correct height or weight.




4. The unit automatically adjusts the pressures for the set height and weight. If necessary, use the arrow keys to move the cursor to the applicable pressure setting: head, seat, or foot, and use the Increase and Decrease controls to adjust the settings. To **return** all pressure settings to the pressures automatically set by the unit for the set height and weight, press **Default**.

5. Press **Enter** to save the pressure settings and return to the Pressure Redistribution screen.

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CNPJ: 04.718.143/0001-94

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**Reference Documents**

*Compella™ Bariatric Bed System Service Manual* (178952)

*Compella™ Bariatric Bed Unpacking Instructions* (187122)

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# INTENDED USE

**WARNING:**
Do **not** use the Compella™ Bariatric Bed System with patients who weigh less than 113 kg (250 lb) or more than 454 kg (1000 lb). Patient injury or equipment damage could occur.

**WARNING:**
**CONTRAINDICATION**: Use of powered air surfaces for patients with unstabilized spinal cord injury could cause serious injury to the patient.

The Compella™ Bariatric Bed System is for bariatric patients of all age groups with varying medical and physical conditions. The Compella™ Bariatric Bed System is intended to be used to treat or prevent pulmonary or other complications associated with immobility; to treat or prevent pressure ulcers; or for any other use where medical benefits may be derived from Continuous Lateral Rotation Therapy (CLRT). The bed has an expandable surface and supports patient weights between 113 kg and 454 kg (250 lb and 1000 lb).

The intended users of the Compella™ Bariatric Bed System are healthcare employees who have the physical strength and cognitive skills to operate and control the bed. Follow facility safety protocols if an intended user does not have the physical strength or cognitive skills to operate and control the bed.

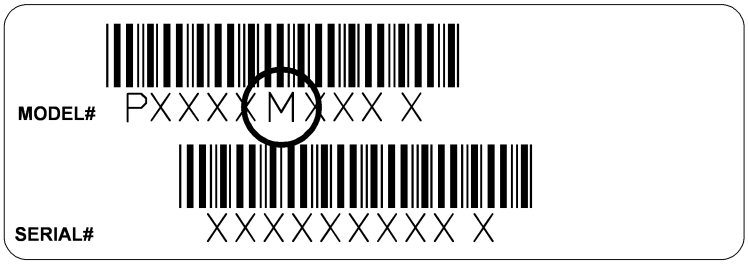
This manual contains information necessary for normal operation of the Compella™ Bariatric Bed, Compella™ Therapy Surface, and Compella™ Foam Surface from Hill-Rom. Before you operate the bed, make sure you read and understand in detail the contents of this manual. It is important that you read and obey the aspects of safety contained in this manual.

Any reference to a side of the bed is from the patient's view lying in the bed on his or her back.

The bed is equipped with a scale intended to weigh the patient in the bed.

To identify which model of bed you have, look at the serial number label. The label is under the foot end of the bed.

For example, PXXXXMXXXX identifies an M model bed.



## SYMBOLS

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

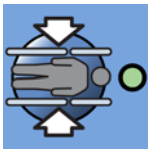
- Standard text—used for regular data.
- **Boldface text**—emphasizes a word or phrase.
- **NOTE:**—sets apart special data or important instruction clarification.
- WARNING or CAUTION

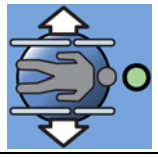
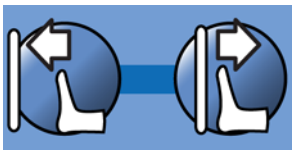
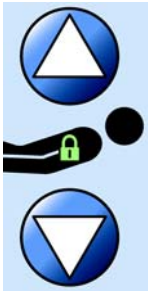
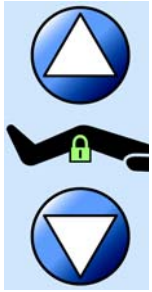


  - A WARNING identifies situations or actions that may have an effect on patient or user safety. To ignore a warning could cause patient or user injury.
  - A CAUTION identifies special procedures or precautions that persons must obey to help prevent equipment damage.

## PRODUCT SYMBOLS

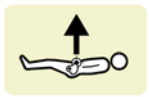
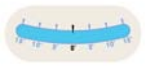
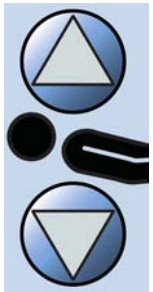
| Symbol | Description |
|---|---|
| **CPR** | |
|  | **CPR** instruction label—shows how to operate the CPR function on the air supply unit (1) and bed frame (2) (page 25) |
|  | **CPR** mechanism label for the **air surface**—shows the direction to turn the CPR mechanism to deflate the surface (page 25) |
|  | **CPR** control label for the **bed frame**—shows how to operate the CPR control to lower the head section (page 25) |

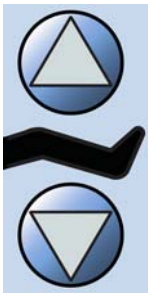
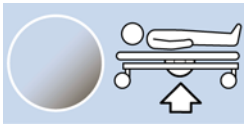
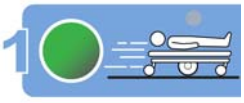
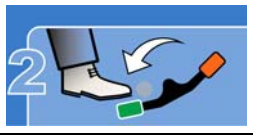
| Symbol | Description |
|---|---|
| **Caregiver Control Panel** | |
|  | Nurse Call control (page 63) |
|  | Service Required indicator (page 23) |
|  | Bed battery charge status (page 23) |
|  | Chair position control (page 34) |
|  | Bed flat control (page 34) |
|  | Tilt control (page 33) |
|  | Reverse tilt control (page 33) |
|  | Width retract control and indicator (page 39) |

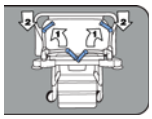
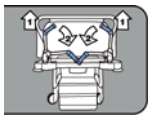
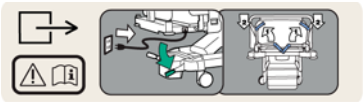
| Symbol | Description |
|---|---|
|  | Width extend control and indicator (page 39) |
|  | FlexAfoot™ bed length adjustment (page 41) |
|  | Bed Up and Down controls (page 32) |
|  | Bed Not Down indicator—comes on when the upper frame is not in the lowest position (page 24) |
|  | Head Up and Down controls (page 33) |
|  | Knee Up and Down control (page 33) |

| Symbol | Description |
|---|---|
|  | Lockout control—Lock out articulation controls (page 31) |
| **Caregiver Control Pod** | |
|  | Scale Weigh control (page 53 and page 56) |
|   | Zero control (page 52) |
|   | Zero control—Scale B (page 55) |
|  | Magnification Mode control—Scale B (page 56) |
|  | Frame Setup control and indicator—Scale B (page 54) |
|  | Raise Bed control and indicator—Scale B (page 54) |
|  | Scale Reference indicator—Scale B (page 54) |

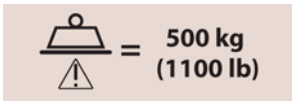
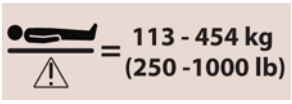
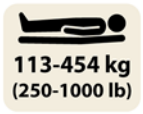
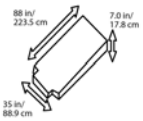
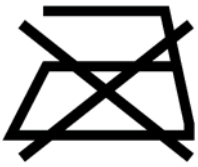
| Symbol | Description |
|---|---|
|  | Release Brake indicator—Scale B (page 54) |
|   | 30° Head Angle Alert control (page 38) |
|  | Raise Bed control and indicator (page 52) |
|  | Alert Silence control and indicator (page 58 and page 60) |
|  | Enable key (page 51, page 57, and page 60) |
|  | Bed Exit Alert System—Patient Position mode (page 60) |
|  | Bed Exit Alert System—Bed Exiting mode (page 60) |
|  | Bed Exit Alert System—Out-of-Bed mode (page 57 and page 60) |

| Symbol | Description |
|---|---|
|  | Bed Exit Alert System Volume and Tone Control (page 59 and page 62) |
| **Indicators on the Siderails** | |
|  | Hip Position Locator (page 24) |
|  | Tilt/Reverse Tilt angle (page 24) |
|  | Head angle (page 24) |
| **Patient Controls** | |
|  | Nurse Call control (page 63) |
|  | Head Up and Down controls (page 33) |

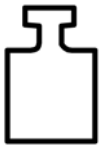
| Symbol | Description |
|---|---|
|  | Knee Up and Down controls (page 33) |
|  | Nurse Call Voice indicator (page 63) |
|  | Nurse Call Listening indicator (page 63) |
| **IntelliDrive® XL Transport System Transport Pod** | |
|  | IntelliDrive Battery Charge indicator (page 42) |
|  | Disengage Transport Position control—raises the bed so the drive wheels raise off the ground (page 42) |
|  | Transport Position control and indicator—lowers the bed to the transport position (the drive wheels are on the ground) (page 42) |
|  | Steer pedal indicator (page 42) |

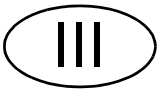
| Symbol | Description |
|---|---|
| **Bed Frame** | |
|  | Shows how to raise the push handles (page 42 or 48) |
|  | Shows how to stow the push handles (page 42 or 48) |
|  | Before Transport sequence (page 42) |
|  | After Transport sequence (page 42) |
|  | Identifies the manual width adjustment control (page 40) |
|  | Identifies patient restraint location—chest (page 36) |
|  | Identifies patient restraint location—waist/wrist (page 36) |
|  | Identifies patient restraint location—ankle (page 36) |
|  | Head-end brake pedal (page 35) |
|  | Head-end steer pedal (page 35) |

| Symbol | Description |
|---|---|
|  | Do not use the IV pole in this location |
|  | Do not store cords here |
|  | Crush warning: must consult accompanying documents |
|  | Identifies battery installation location |
|  | Identifies mains fuse |
|  | Refer to the bed manufacturer's user manual for compatible support surfaces (page 64) |
|  | Warning: No equipment storage |
|  | Do Not Use with Oxygen Tents (green background - North America; blue background - International) |

| Symbol | Description |
|---|---|
|  | Identifies the bed power cord (North America) |
|  | Identifies the bed power cord (International) |
|  | No Equipment Zone |
|  | Safe Working Load for the bed (this includes the weight of the patient, support surface, and accessories that are on the bed) |
|  | Patient minimum and maximum weight range |
|  | Patient minimum and maximum weight range |
|  | Total bed weight (including the safe working load) (the bed weight excluding the safe working load is 450 kg (992 lb) minimum) |
| **Support Surface** | |
|  | Shows the support surface dimensions |
|  | Do not iron |

| Symbol | Description |
|---|---|
|  | Hand wash only |
|  | Bleach with specification |
|  | Bleach as needed |
|  | Do not dry clean |
|  | Do not tumble dry |
|  | Tumble dry no heat |
|  | Drip dry |
|  | Machine wash |

| Symbol | Description |
|---|---|
|  | Safe working load |
| **Air Supply Unit** | |
| CLRT | Identifies the unit as a continuous lateral rotation therapy unit (page 70) |
|  | Air supply unit controls (page 69) |
|  | Alarm paused |
|  | Product weight |
| **Other** | |
| REF | Model number |
| SN | Serial number |
| EC REP | Authorized representative in the European Community |
| CE 0086 | (Therapy surface and air supply unit only) Conforms to European Medical Device Directive (The BSI CE mark was first applied in 2015) |

| Symbol | Description |
|---|---|
|  | (Compella™ Bariatric Bed System) Conforms to European Medical Device Directive 93/42/EEC (The UL CE mark was first applied in 2015) |
|  | Conforms to European Medical Device Directive 93/42/EEC (NAWI EN45501scale) (XX identifies the date of manufacture) (The CE mark was first applied in 2015) |
|  | **Black** M on **green** background—signifies the scale (NAWI EN45501 only) is certified to weigh in approved positions) |
|  | Scale class identifier—identifies the scale as EN45501 Class III |
|  | (Bed only) Medical Electrical Equipment Classified By Underwriters Laboratories Inc. with respect to Electric Shock, Fire, Mechanical and other specified Hazards only in accordance with ES60601-1, IEC/EN60601-1, IEC/EN60601-2-52, and CAN/CSA C22.2 No. 60601-1 |
|  | (Therapy surface and air supply unit only) Medical Electrical Equipment Classified By Underwriters Laboratories Inc. with respect to Electric Shock, Fire, Mechanical and other specified Hazards only in accordance with ES60601-1, IEC/EN60601-1, and CAN/CSA C22.2 No. 60601-1 |
|  | Type B applied part according to IEC 60601-1 |
|  | (Support surface only) Type BF applied part |

| Symbol | Description |
|---|---|
| IPX4 | (Bed and patient pendant only) According to IEC 60529, Rating for protection against fluid ingress and identified as equipment that is protected against spraying and splashing water |
| IP20 | (Therapy surface and air supply unit only) According to IEC 60529, Rating for protection against access to hazardous parts by a finger |
|  | ATTENTION: Consult accompanying documents |
|  | Manufacturer |
|  | Do not dispose as Unsorted Municipal Waste |
|  | WARNING (yellow and black) |
|  | CAUTION (white and black) |
|  | Must consult the accompanying documents |

| Symbol | Description |
|---|---|
|  | Alternating current |
|  | Dangerous voltage |
|  | Equipment emits electromagnetic energy |
|  | Protective Earth |
|  | Equipotentiality |

## ACRONYMS

| Acronym | Description |
|---|---|
| BSI | British Standards Institute |
| CLRT | Continuous Lateral Rotation Therapy |
| CPR | Cardio Pulmonary Resuscitation |
| EPA | Environmental Protection Agency |
| HOB | Head of Bed |
| IFP | Interface Pressure (between surface and patient) |
| LAL | Low Airloss |
| NAWI | Non-Automatic Weighing Instrument |
| PM | Preventive Maintenance |
| RoHS | Hazardous Substances Regulation |
| SWL | Safe Working Load |
| UL | Underwriter's Laboratories, Inc. |
| WEEE | Waste Electrical and Electronic Equipment |

## SAFETY INFORMATION

For additional warnings and cautions in regard to the therapy surface and air supply unit, see "Surface Features and Controls" on page 64.

**WARNING:**
Obey all warnings and cautions throughout the manual and also the safety information below to help prevent injury and/or equipment damage:

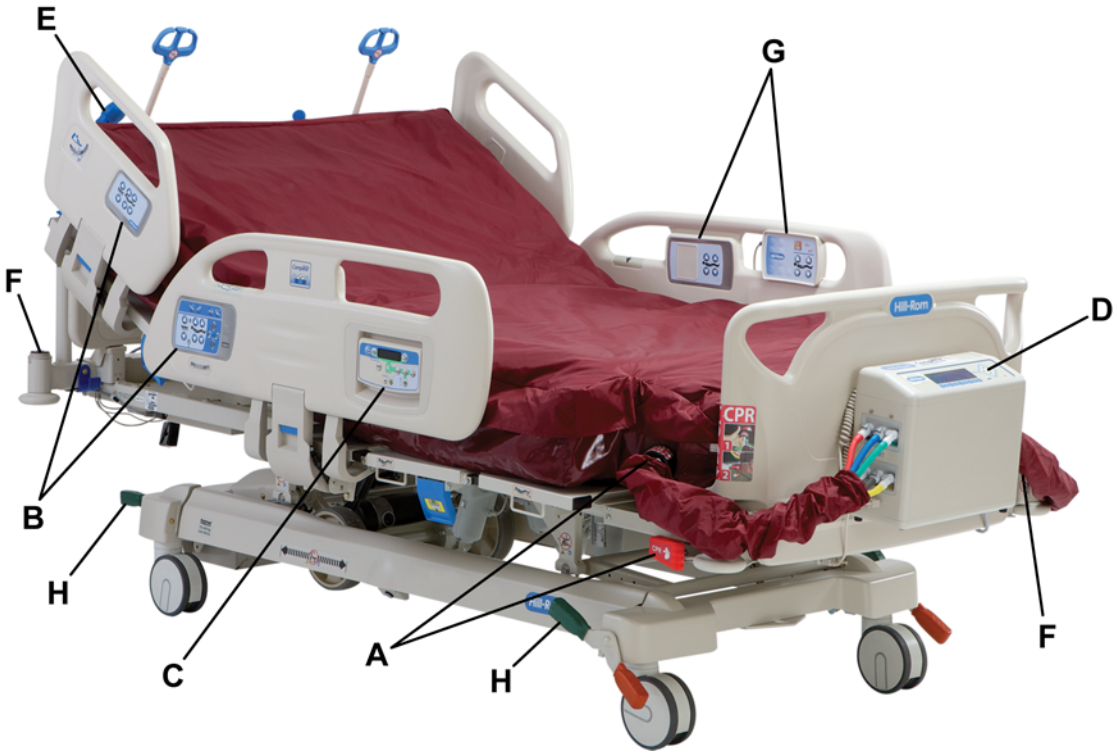
- Read and understand the instructions and safety precautions in this manual and on the unit itself prior to use with a patient.
- **CONTRAINDICATION**: Use of active therapy surfaces for patients with unstabilized spinal cord injury could cause serious injury to the patient.
- Monitor the patient and the patient's skin condition at regular intervals according to established clinical assessment protocols.
- A sound risk assessment and protocol is necessary to determine the appropriate surface for the patient's condition.
- Do **not** use the bed with patients who weigh more than 454 kg (1000 lb) or are wider than the fully-extended surface width. Injury or damage could occur.
- Air pressure in the support surface is controlled automatically and may adjust without notice. Use care when you perform medical procedures on the patient.
- Do not use the support surface on a bed frame other than the Compella™ Bed frame. The surface may not fit as intended and could cause a risk of patient entrapment.
- The hose sleeve on the air supply unit is a safety feature. Do not operate the device without the hose sleeve installed.
- There is a risk of entanglement that could cause risk of asphyxiation if the hose sleeve is removed from the hoses.
- Do not transfer the patient from one bed frame to another using the support surface with a patient on it.
- Use a minimum of two caregivers to transfer a patient on to the support surface. The caregivers must be in positions where they can control the patient's position.
- When you put a patient on to the support surface, make sure that the opposite siderails are raised or that another caregiver is present on the opposite side.
- Do not operate the bed in the presence of flammable gas or vapors.
- Do not operate the bed in the presence of flammable anesthetics or nitrous oxide.
- Do not use the bed in an oxygen rich environment or with oxygen tents.
- Operate the bed within the stated environmental conditions; see "Environmental Conditions for Use" on page 105.
- Use care when you handle or transport the air supply unit. If the unit is dropped or receives a sudden impact, equipment damage could occur.

- After exposure to extreme high or low temperatures, let the air supply unit equilibrate for at least one hour before use.
- The air supply unit circulates room air when it operates. Exposure to smoke may cause the unit to fail. Do not permit patients or visitors to smoke cigarettes or other substances while using this device.
- Make sure that the area around the device is free from pests that could cause damage to the device.
- Do not put objects on the surface of the air supply unit.
- The device is not compatible for use in Magnetic Resonance Imaging (MRI).
- The power cord for the air supply unit is equipped with magnets to hold the cord in position on the bed frame. Exposure to magnetic fields may alter the functioning of implanted devices such as pacemakers and defibrillators.
- The air supply unit must be plugged in to provide therapy. If power is lost, the Pressure Redistribution and Low Airloss therapies will stop, but the surface will stay inflated. Make sure that the power ratings of the AC power supply are sufficient to power the air supply unit.
- To help prevent the risk of hospital bed fires, make sure facility persons follow the safety tips in the *FDA Public Health Notification: Safety Tips for Preventing Hospital Bed Fires.* (US only)
- The potential for electrical shock exists with electrical equipment. Failure to follow facility protocols may cause death or serious injury.
- Before you plug the power cords in, make sure they are not damaged (cuts, exposed wires, worn insulation, etc.). If either power cord is damaged, do not use the bed. Contact your facility-authorized maintenance person or Hill-Rom Technical Support.
- Connect the power cords to hospital grade receptacles only.
- To avoid the risk of electrical shock, connect the bed system to a supply mains with protective earth.
- Make sure the power cords are in a location where they will not cause trip or strangulation hazards and in locations where they can be easily disconnected from the power supply.
- Incorrect use or handling of the power cords may cause damage to the power cords. If damage has occurred to either power cord or any of its components, immediately **remove** the bed from service, and contact your facility-authorized maintenance person or Hill-Rom Technical Support.
- Fluid spills on to the bed electronics could cause a hazard. If such a spill occurs, unplug the bed and remove it from service. When fluid spills occur outside that seen in normal use, immediately do as follows:
  a. Unplug the bed from its power source.
  b. Remove the patient from the bed.
  c. Clean the fluid spill from the bed system.
  d. Have maintenance examine the system completely.

e. Do not put the bed back into service until it is completely dry, tested, and found to be safe to operate.

- If the battery backup does not operate correctly (the bed does not articulate when you press an articulation control), plug the bed into AC power so that you can use the bed controls if necessary.
- Do not connect the power cord to an extension cord or multiple outlet strip. There is a risk of overheating and fire may cause injury or damage.
- Whenever a bed is being cleaned or serviced, it should be unplugged from its power source.
- Use only parts and accessories from Hill-Rom. Do not modify or change the bed system without approval from Hill-Rom.
- The bed has no user serviceable parts. Only authorized maintenance persons should service the bed system.
- Connect only items that have been specified as part of the device or compatible with the device.
- The communication cable connection on the patient-right side of the air supply unit is to be used to connect to a Compella™ Bariatric Bed frame only. Connecting any other device could cause patient or operator injury and/or cause severe damage to the air supply unit as well as any other incompatible device.
- Report to bed authorized maintenance persons any unusual sounds, burning odors, or movement deviations observed in the controls, motors, or limit switch functions.
- Consult your local regulations to safely discard or recycle electronic equipment and batteries.
- Do not discard as unsorted municipal waste. See your local distributor for collection and/or recycling systems available in your country.

# QUICK VIEW™ LIST OF BED FEATURES




| Item | Feature | Page | Item | Feature | Page |
|---|---|---|---|---|---|
| A | CPR frame and surface controls | 25 | E | IntelliDrive® XL Transport System transport pod | 42 |
| B | Caregiver controls | 30 | F | Equipment sockets | 37 |
| C | Scale, bed exit, and head of bed alert controls | 51, 57, 60, 38 | G | Patient controls | 29 |
| D | Surface controls | 64 | H | Brake and steer controls | 35 |

The Compella™ Bariatric Bed System has these features:

- CPR controls at patient right foot
- Powered width adjustment (with manual override)
- Integrated scale
- Foot section length adjustment
- Battery backup
- Central braking with heavy duty 6" (15 cm) casters
- Integrated caregiver and patient siderail controls
- One-button cardiac chair position
- Bed exit alert
- Four corner bumpers
- Head angle indicators
- Patient restraint and drainage bag holders
- Night light

## INFORMATION INDICATORS

The Information Indicators provide the caregiver with audible indicators and these visual indicators: Battery Status, Service Required, Bed Not Down, Hip Position Locator, Head Section Angle, and Lift Position Locator.

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

## AUDIBLE INDICATORS

A single beep will sound when an activity is successful.

A triple beep will sound when there is an error or caregiver attention is needed.

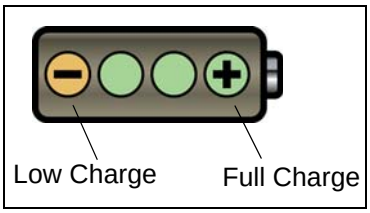
### Brake Not Set

The Brake Not Set is an audible alert only. When the bed is plugged into AC power, and you release the brakes, the alert will sound. To silence the alert, either unplug the bed (for transport) or set the brakes.

**WARNING:**
Unless you are to transport a patient, always set the brakes when the bed is occupied. Make sure the brakes are set before any patient transfer on to or off the bed. Failure to do so may cause patient or caregiver injury.

## VISUAL INDICATORS

### Battery Charge Indicator (for Bed Frame Articulations)




This indicator is on the caregiver control panel.

**Charged**—the Charged (+) indicator comes on when the battery is charged.

**NOTE:**
To activate the battery when the bed is unplugged from AC power, press and hold any articulation control until the articulation starts. There will be a delay of 1-2 seconds before the articulation control activates the battery.

**Low**—the Low (-) indicator flashes when the battery is low. An intermittent tone sounds every 2 minutes when the battery reaches a low charge and the bed is unplugged from AC power.

**Off**—no lights will show on the indicator if the battery charge is too low to operate the bed.

**NOTE:**
There will be a **double** beep if the battery has gone to sleep and you press a bed articulation control. This is the only time you will hear a **double** beep.

**CAUTION:**
For transport, a fully-charged battery is preferred; however, if the battery charge is low, before you unplug the bed, put the bed in the correct position before any transport, and connect the bed to AC power as soon as possible.

If the Battery Indicator changes from Charged to Low consistently within four hours of being disconnected from AC power, replace the battery.

While on battery power, the bed will operate as follows:

- All of the bed functions will operate except for width adjustment. For manual width adjustment, see "Manual Width Control" on page 40.
- The integrated air surface will stay inflated, but it will not adjust pressures.
- The Bed Exit and Scale functions will **not** operate.

### Service Required



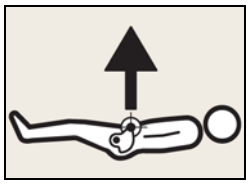
The Service required indicator, on the caregiver control panel, flashes when the bed detects a malfunction. Contact your facility-authorized maintenance person or Hill-Rom Technical Support for assistance.

## Bed Not Down

When the bed is not in its lowest position, the **Bed Not Down** indicator comes on.



## Hip Position Locator



The hip position label on the intermediate siderails identifies the correct position of the patient's hips while on the bed.

Correct placement of the patient increases the effectiveness of the SlideGuard® Technology. This is designed to minimize patient migration to the foot end of the bed when you raise the head section.

## Line-of-Site® Head Angle Indicator



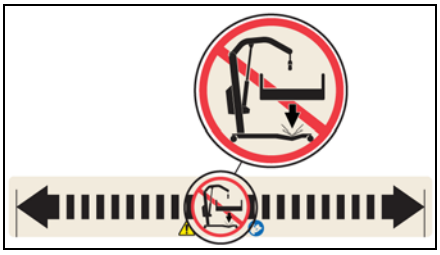

The head angle indicators on the outside of the head siderails mechanically show the approximate angle of the head section from -8° to +56° with respect to the floor. The degree where the indicator ball rests is the approximate angle.

## No Equipment Zone

**WARNING:**
Do not put equipment in the No Equipment Zone area. Equipment damage could occur when the power drive wheels lower into the Transport position. The damaged equipment could cause the patient to be injured.

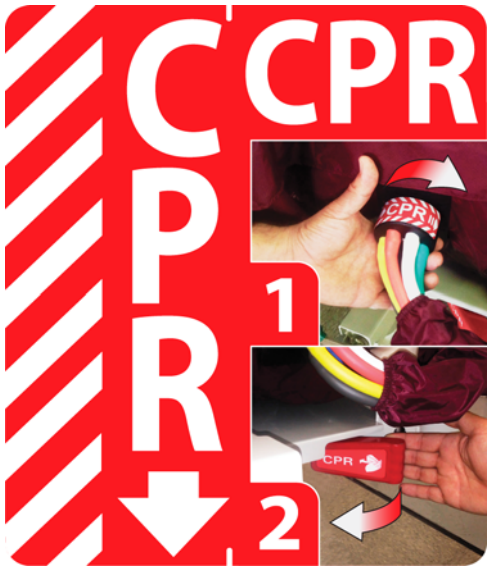
The **no equipment zone** label identifies the location to avoid when you put equipment, such as a patient lift device or overbed table, under the bed.

Refer to this label to make it easier to put the legs of the equipment under the bed.



# STANDARD FEATURES

## CPR CONTROLS




**NOTE:**
CPR is a two-step process if the bed is equipped with an **air** surface.

There is a CPR label on the patient right-hand side of the footboard that shows the locations of the CPR controls for the air surface and the bed frame.

1. The **air surface** CPR mechanism is on the patient right-hand side of the surface at the foot end.

2. The **bed frame** CPR control is a **red** handle that is under the sleep deck on the patient right-hand side of the bed at the foot end.

The CPR controls for the bed and air surface can be activated without AC or battery power.

When CPR is activated, any controls that are locked out will become unlocked.

**NOTE:**
With the **foam** surface, the use of a CPR board may increase the effectiveness of the CPR.

### Use the CPR Controls

**WARNING:**
Failure to start the deflation of the surface before you start CPR could cause CPR to be ineffective.

#### To Deflate an Air Surface

Turn the air surface CPR mechanism **clockwise** until it stops and you hear air being released. The surface will start to deflate.

**NOTE:**
When the **air** surface is completely deflated, the bed's sleep deck can be used as a backboard.

#### To Lower the Head of the Bed

**Pull** and **hold** the **red** CPR handle until the head section is in a **flat position.** You must hold the CPR handle until the head section reaches the flat position. If you release the handle during its operation, the head section will stop lowering. The rate of descent

depends on the weight of the patient, but on average it takes approximately 5 to 10 seconds for the head section to lower.

**NOTE:**
The headboard and/or patient helper can be removed for patient access for patient intubation or to insert a central line.

### To Inflate the Air Surface after CPR

1. Turn the air surface CPR mechanism counter-clockwise until it locks into position.
2. On the air supply unit, press **Max Inflate** to quickly inflate the surface.
3. After the surface is fully inflated, press **Max Inflate** again to toggle it off.

**NOTE:**
If the CPR mechanism is not fully closed when the unit is in Max Inflate mode, an alert will sound to let you know of the air loss through the CPR valve.

## POWER CORDS

There are two power cords:

- The power cord on the patient-right side of the bed supplies power to the bed frame articulation controls and charges the built-in battery back-up and IntelliDrive® XL Transport System batteries.



North America

**NOTE:**
The bed power cord should be plugged into AC power whenever possible to help keep the batteries charged.


International

- The power cord on the patient-left side of the bed is attached to the air supply unit and supplies power to the air surface. The air surface does not operate on battery power.

## CORD HOOKS

There are two blue hooks on the inside of the head-end frame to stow the power cords for transport. Wrap the cords around the hooks so that they do not drag on the floor.



## HEAD AND INTERMEDIATE SIDERAILS




**WARNING:**
Evaluate patients for entrapment and fall 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 persons determine the correct methods necessary to make sure a patient stays safely in bed.

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

## Line-of-Site® Angle Indicators

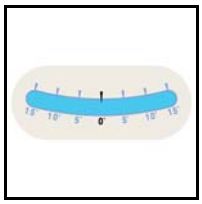
1. The Line-of-Site® **Head Angle** Indicators on the head siderails mechanically show the approximate angle of the head section from -8° to +56° with respect to the floor. The degree where the indicator ball rests is the approximate angle.




2. The **digital head angle** display on the control pods that are on the intermediate siderails gives a more accurate degree of head elevation.

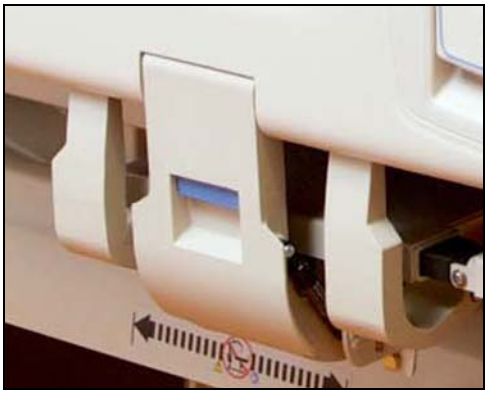



3. The Line-of-Site® **Tilt/Reverse Tilt Angle** Indicators on the intermediate siderails give an estimated degree of bed tilt.



## To Lower a Siderail

Lift up on the recessed blue release handle that is on the lower part of the main siderail support. The siderail has a dampening mechanism that slowly lowers the siderail.



**NOTE:**
Gently leaning into the siderail may make it easier to latch and unlatch in some situations. For example, this may be helpful immediately after you have fully retracted the bed width.

## To Raise a Siderail

1. Pull the siderail up, and push it in until it latches into the locked position. You will hear a **click** when the siderail latches into the locked position.

2. After you hear the **click**, gently pull on the siderail to make sure it is latched correctly.

**NOTE:**
Because siderails are reinforced for the patient environment, the intermediate siderail may seem heavy.

**⚠ CAUTION:**
Do not use the siderails to move the bed. Always push or pull from the headboard or footboard. Otherwise, equipment damage could occur.

# POINT OF CARE® BED CONTROLS

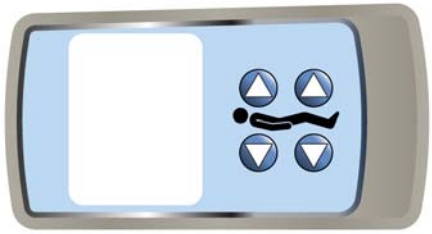
**WARNING:**
Follow these safety instructions when you use the bed articulation controls; otherwise, personal injury or equipment damage could occur:

- Mechanical parts under the bed pose a risk of serious injury. Exercise control over visitors, especially children, to keep people out from under the bed and prevent unauthorized access to the bed articulation controls.
- Before you press a bed articulation control, make sure that objects and devices are away from the bed's articulating sections.
- Make sure to always lock out the articulations controls during traction.

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

**NOTE:**
During bed articulation, a static buildup may occur.

## Standard Patient Controls



The patient controls are on the patient side of the intermediate siderails.

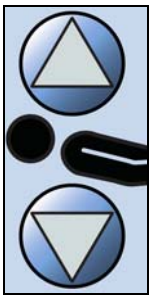
The standard patient controls include: Head Up/Down and Knee Up/Down.

**NOTE:**
The patient head up/down control includes the **Auto Contour™** feature. When the patient raises or lowers the head section, the head and knee sections raise or lower at the same time to help prevent the patient from sliding down in the bed.

The Auto Contour™ feature does not activate when both the head section and the knee section are locked out. If only the head section is locked out, you can use the patient control to adjust the knee section. If only the knee section is locked out, you can use the patient controls to adjust the head section.

If the bed is equipped with Nurse Call, the patient can use these controls to call the nurse.

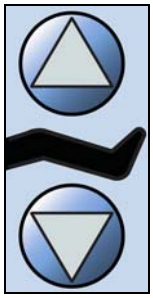
### Head Up/Down



**To raise**—press and hold the **Head Up** control until the bed is at the desired height.

**To lower**—press and hold the **Head Down** control until the bed is at the desired height.

## Knee Up/Down



**To raise**—press and hold the **Knee Up** control until the bed is at the desired height.

**To lower**—press and hold the **Knee Down** control until the bed is at the desired height.

**NOTE:**
If the caregiver has locked out a bed function, that same function is locked out on the patient controls.

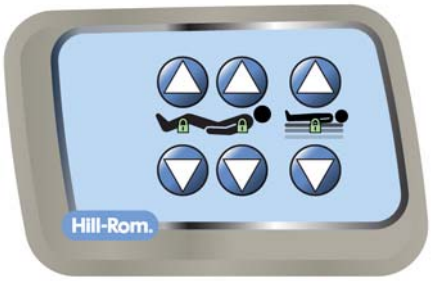
**NOTE:**
The caregiver should take time to familiarize the patient with the correct use of the controls.

## Standard Caregiver Controls on the Siderails

Caregiver controls are on the outside of the head and intermediate siderails.

There are three sets of controls:

1. The bed position control panel on the head siderail includes: bed up/down, head up/down, and knee up/down.



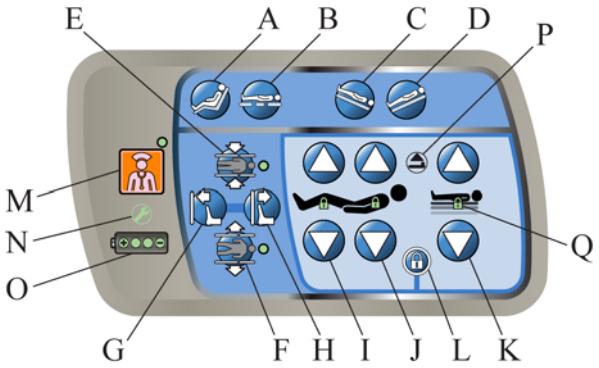

2. The bed position control panel on the intermediate siderail includes: bed up/down, head up/down, and knee up/down, tilt/reverse tilt, bed flat, chair, foot length adjust, width adjust, and nurse call.



3. The second set of controls on the intermediate siderail are on a flip-up control pod. The pod includes controls for Scale, Three-Mode or Single Mode Bed Exit Alert System, Head-of-Bed Alert and Alert Silence, and alert volume.




Instruct visitors not to operate the caregiver controls. They may assist the patient with the patient controls.

| Caregiver Controls on the Intermediate Siderail | | |
|---|---|---|
|  | **Controls** | |
| | **A** | Chair |
| | **B** | Bed flat |
| | **C** | Tilt |
| | **D** | Reverse tilt |
| | **E** | Width retract with indicator |
| | **F** | Width extend with indicator |
| | **G** | Foot longer |
| | **H** | Foot shorter |
| | **I** | Knee up/down with lockout indicator |
| | **J** | Head up/down with lockout indicator |
| | **K** | Bed up/down with lockout indicator |
| | **L** | Lockout |
| | **Indicators** | |
| | **M** | Nurse call |
| | **N** | Service required |
| | **O** | Battery charge level |
| | **P** | Bed not down |
| | **Q** | Lockout indicators |

## Lockout



The Lockout control (padlock icon) disables the bed articulating function (for both patient and caregiver). The lockout of any bed articulating function will also lock out the Chair control and the Bed Flat control. The Tilt and Reverse Tilt controls and the Transport Pod hi/lo controls are locked out if the bed up/down control is locked out.

**To activate**—at the same time, press the **Lockout** control and the **Up** or **Down** control of the applicable function. Both patient and caregiver controls are locked out. A single beep sounds and the applicable indicator light comes on to let you know that the function is locked out.

**NOTE:**
If you press the Lockout control and do not press an Up or Down control within a few seconds, or if you do not complete the lockout procedure correctly, the bed will sound a triple beep to let you know that the function is not locked out.

**To deactivate**—at the same time, press the **Lockout** control and the **Up** or **Down** control of the applicable function. Both patient and caregiver controls are unlocked. A single beep

sounds and the applicable indicator light turns off to let you know that the function is no longer locked out.

**NOTE:**
If you attempt to use a locked-out control, a triple beep will sound to notify you to check the lockouts.

When the bed CPR is activated, any controls that are locked out will become unlocked.

Follow your facility's protocols for lockouts to reduce the likelihood of unauthorized use of the bed controls.

## Bed Up/Down

**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:**
Make sure no person or stored equipment is under the bed when you lower it. Failure to do so could cause the person or equipment to be crushed.



The caregiver can adjust the bed height from a low position for patient exit to a high position for examination.



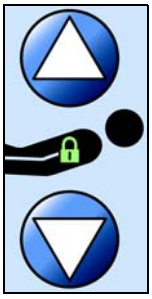
**To raise**—press and hold the **Bed Up** control until the bed is at the desired height. You will hear a single beep when the bed is at its highest position.

**To lower**—press and hold the **Bed Down** control until the bed is at the desired height. You will hear a single beep when the bed is at its lowest position.

**NOTE:**
The **Bed Not Down** indicator comes on when the bed is not at the lowest bed height.



## Head Up/Down



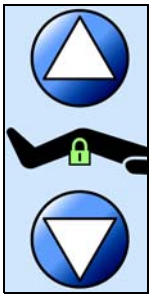
The caregiver can adjust the head section to specific angles. The maximum travel for the head section is 50°.

**To raise**—press and hold the **Head Up** control until the bed is at the desired height.

**To lower**—press and hold the **Head Down** control until the bed is at the desired height.

**NOTE:**
The Auto Contour™ feature is not active when you use the caregiver controls; it is **only** active when you use the patient controls. See "Standard Patient Controls" on page 29.

## Knee Up/Down



The caregiver can raise or lower the knee section. The knee section has a maximum travel of 30°.

**To raise**—press and hold the **Knee Up** control until the bed is at the desired height.

**To lower**—press and hold the **Knee Down** control until the bed is at the desired height.

**NOTE:**
To put the bed in an auto contour position, press the Head Up and Knee Up controls at the same time.

## Tilt and Reverse Tilt



Tilt



Reverse Tilt

You can use the Tilt and Reverse Tilt controls at any bed height. These controls are on the control panel that is on the intermediate siderails.

**For head -down Tilt**—press and hold the **Tilt** control until the foot end of the bed raises relative to the head end.

**For head-up Reverse Tilt**—press and hold the **Reverse Tilt** control until the head end of the bed raises relative to the foot end.

**NOTE:**
If the bed is locked in the lowest height position, the Tilt or Reverse Tilt control will not operate.

**To return to the flat position**—press the opposite control, **Tilt** or **Reverse Tilt**, or press the **Bed Flat** control (see below) until the bed is at the desired position.

## Bed Flat



The 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. The Bed Flat control is on the control panel that is on the intermediate siderails.

**To activate**—press and hold the **Bed Flat** control until the system stops its articulations. When all sections are flat and the bed is level, the system stops and sounds one beep.

**NOTE:**
If any frame function is locked, the Bed Flat control will not operate.

## Cardiac Chair



**CAUTION:**
Do not transport a patient with the bed in the Chair position. Equipment damage could occur.

The caregiver can adjust the bed to a cardiac chair position. When you press the chair positioning control, the bed will articulate the head section to its highest position, the thigh section to its highest position, and the reverse tilt to its limit.

**NOTE:**
The bed will not articulate into chair position if any of the articulation controls are locked out.

**To Activate**

1. Set the brake.

2. Press and hold the **Chair** control. The patient deck transitions into the chair position.

To further adjust the chair position for dining or patient comfort, use the Head, Knee, or Foot Shorter controls.

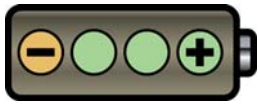
# Battery Back-Up

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 (except for powered width adjustment) to be engaged from any of the caregiver siderail controls except the Lockout control. The battery also powers the nurse call function.

**NOTE:**
The battery does **not** support these: powered width adjustment, Scale, Bed Exit Alert System, Head of Bed Alert, or the air support system. For manual width adjustment of the bed, see "Manual Width Control" on page 40.

The battery stays engaged for 1 minute after the last control is pressed, then goes to 'sleep.'

The battery back-up indicator shows the battery status:



- All lights on GREEN = 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.

**NOTE:**
To activate the battery, **press and hold any function control until the function starts**. There will be a delay of 1-2 seconds before the function control activates the battery.

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 AC power outlet whenever possible.

## Brake and Steer Controls

**WARNING:**
Unless you are to transport a patient, always set the brakes when the bed is occupied. Make sure the brakes are set before any patient transfer on to or off the bed. Failure to do so may cause injury or equipment damage.

The Point-of-Care® brake and steer controls are above both foot-end casters and at the head-end of the bed. There is a label for the Brake and Steer mechanism at the head-end of the bed. There are three brake positions for beds without the Power Drive system: Brake, Steer, and Neutral.

**Brake**—to prevent the bed from moving, step down on the **orange** brake pedal until it is in the full downward position.

**Steer**—to move the bed in a straight line and guide it through hallways, step down on the **green** steer pedal until it is in the full downward position.

**Neutral**—to move the bed in any direction, move the pedal to the **level** position. The neutral position helps with sideway movements in a room or a small enclosed area, or to align the bed with another surface.

## To Activate



Head-End Pedals




Foot-End Pedals

**Brake (orange pedal)**
Step down on the orange brake pedal until it stops.

**Neutral**
Move the brake or steer pedal to the level position.
.

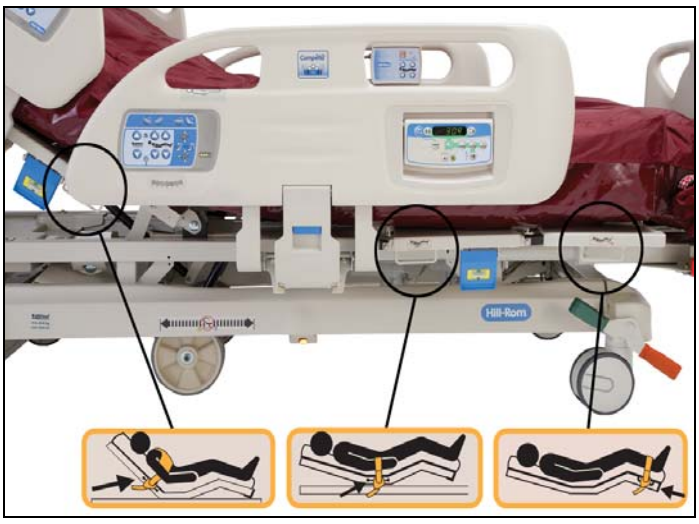
**Steer (green pedal)**
Step down on the green steer pedal until it stops.

**NOTE:**
If the bed has the powered drive option and is in the **Transport Mode**, the drive wheels will be on the ground and you will not be able to use the neutral position. To make small lateral movements or to get around tight corners, raise the bed so that the drive wheels are off the floor.

When the bed is plugged into AC power, and you release the brakes, the **Brake not Set** alert will sound to let you know that the bed is in an unsafe position. To silence the alert, either unplug the bed (for transport) or set the brakes.

## Patient Restraint and Drainage Bag Holders

### Patient Restraints




**WARNING:**
Restraints must be attached to the articulating sections of the bed at the correct attachment points. Otherwise, patient injury could occur.

**WARNING:**
Do not adjust the width of the bed while restraints are in use. To do so could cause patient injury.

The bed facilitates the use of ankle, waist/wrist, and chest restraints.

Hill-Rom makes no recommendation in regard to the use of physical restraints. Users should refer to legal restrictions and appropriate facility protocols before physical restraints are used.

## Drainage Bag Holders

**WARNING:**
Use caution when you position the drainage bag tubing. Keep it away from moving parts. Otherwise, injury or equipment damage could occur.

**CAUTION:**
Do not hang drainage bags on the siderails during transport.

The ankle restraint holders at the foot end of the bed can be used as drainage bag holders.

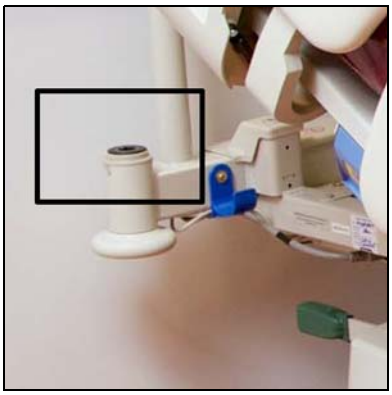


The holders accommodate any combination of the following drainage devices:

- Fecal incontinence bag
- 250/2000 ml Foley collection bag
- Chest drainage device on foot-end holders

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 and oxygen tank holders.

**NOTE:**
Everything on or attached to the bed will be included in the scale reading. This includes IV poles and items attached to the poles; pumps and drainage bags; the patient helper/trapeze; and items attached to the headboard, footboard, and siderails.

For use with the International accessories, remove the black plastic inserts—pry or slide the inserts out of the socket.

## Night Light



The night light is on the base frame, near the hip section. There is one night light on each side of the bed.

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

## Head Angle Digital Display




When the bed is plugged into AC power, the head angle display is always on. It shows the head angle of the bed unless a weight reading is being taken.

## 30° Head Angle Alert




The Head Angle Alert 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 alert will come on.
- The alert indicator will flash.

### Set the Alert

1. Raise the head section to the applicable position **above** 30°.
2. Press the **Enable** key.
3. Press the **Alert** control. The alert indicator will come on and you will hear a single beep.






**NOTE:**
When the bed operates on battery power the display will be off and the alert disabled.

### Respond to the Alert

Raise the head section above 30° or deactivate the alert through the control pod.

### Deactivate the Alert

1. Press the **Enable** key.



2. Press the **Al**ert control. The alert indicator will go off and you will hear a single beep.



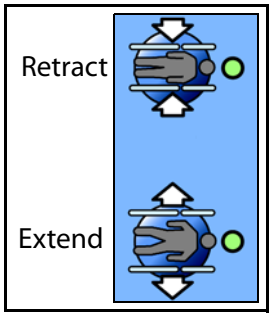

## Bed Width Adjustment

When plugged into AC power, the sleep deck width can be adjusted to either 40"or 50" (102 cm or 127 cm). This automated adjustment control adjusts both the bed frame and the surface. The communication cable that connects the air supply unit to the bed frame must be fully connected and the four thumbscrews tightened for the powered width controls to operate. See “Install the Surface and Air Supply Unit” on page 66.

**WARNING:**
Make sure there are no objects or devices near or under the bed, especially when the bed width is extended, that may interfere with or contact the bed when lowering. Injury or damage may occur.

**WARNING:**
Keep the patient within the surface perimeter during width adjustments. Otherwise, injury could occur.

### Powered Width Controls




**To retract the patient surface and bed frame**—raise the siderails. Press and hold the width retraction control until the motors stop. You will hear a single beep, and the indicator will turn green.

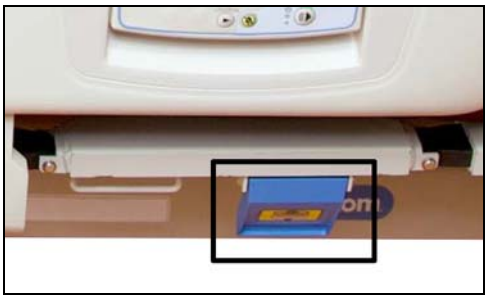
**To extend the patient surface and bed frame**—press and hold the width extend control until the motors stop. You will hear a single beep, and the indicator will turn green.

If the bed does not reach the fully extended or retracted position, these will occur:

- Both indicators next to the Retract and Extend controls will flash amber until the bed is fully extended or retracted.
- A continuous triple beep will sound until the bed is adjusted to the fully extended or retracted position.
- Once the bed is fully extended or retracted, the control’s indicator will come on green and a single beep will sound.

**NOTE:**
If the bed is not fully retracted or extended, you will not be able to raise the head of the bed; you will only be able to lower it.

## Manual Width Control



The bed width can be adjusted manually when the bed is not connected to AC power, such as during a transport. Each siderail has its own blue release lever to use to manually adjust the bed width.

**To manually retract the bed**—do these steps **in this order**:

1. If the air supply unit **is connected** to AC power, you can use the controls on the air supply unit to deflate the side bolsters:
   - Therapy surface—see "Deflate and Inflate the Side Bolsters and Foot Section" on page 76.
   - Foam surface—see "Deflate and Inflate the Side Bolsters and Foot Section" on page 79.
2. If the air supply unit **is not connected** to AC power, manually release air from the surface **before** you adjust the siderails.
   - Therapy surface—use the **CPR** deflate mechanism to release enough air from the surface to retract the side bolsters.
   - Foam surface—disconnect the air hoses from the air supply unit to release enough air from the side bolsters.
3. Pull the release lever below the **head siderail** toward you as you push **inward** on the head siderail until it stops.
4. Pull the release lever below the **intermediate siderail** toward you as you push **inward** on the intermediate siderail until it stops.
5. Repeat steps 2 and 3 on the other side of the bed.

**NOTE:**
After you have manually retracted the bed width, gently pull on each siderail to make sure that the slide plates are locked in position.

**To manually extend the bed**—do these steps **in this order:**

**CAUTION:**
Immediately after you manually extend the bed width, use the air supply unit to **inflate** the side bolsters to fill in the gap between the siderails and the surface. See "Deflate and Inflate the Side Bolsters and Foot Section" on page 76.

1. Pull the release lever below the **intermediate siderail** toward you as you pull **outward** on the intermediate siderail as far as it will go.

2. Pull the release lever below the **head siderail** toward you as you pull **outward** on the head siderail as far as it will go.

3. Repeat steps 1 and 2 on other side of bed.

**NOTE:**
After you have manually extended the bed width, gently push each siderail inward to make sure that the slide plates are locked in position.

If power is restored to the bed, and you have not completed **all** width adjustments, these will occur:

- Both indicators next to the Retract and Extend Width controls will flash if the bed is not in the correct position and will continue to flash until the bed is fully extended or retracted.
- A triple beep will sound every 10 seconds until the bed is adjusted to the fully extended or retracted position.
- If after 2 minutes the bed width has not been fully adjusted, a continuous triple beep will sound until the bed reaches the fully extended or retracted position.
- Once the bed is fully extended or retracted, the indicator will come on solid and a single confirmation beep will sound.

**NOTE:**
If the bed is not fully retracted or extended, you will not be able to raise the head of the bed; you will only be able to lower it.

**NOTE:**
When power is restored, you can use the powered width controls to make the final adjustments.

## FlexAfoot™ Bed Length Adjustment

**CAUTION:**
When you lengthen or shorten the foot end of the bed, make sure that the magnets on the surface power cord do not interfere with the movement. Equipment damage could occur.

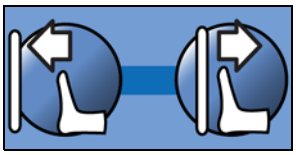
**CAUTION:**
Do not adjust the bed length when traction equipment is in use. To do so could cause equipment damage.

The caregiver can lengthen the foot section approximately 7" (18 cm) to accommodate various patient heights.

During adjustment, the foot section can be stopped in the fully retracted or extended position, or at any distance between the two.

**To lengthen the foot section**—press and hold the **Foot Longer** control until the foot section is at the desired length.

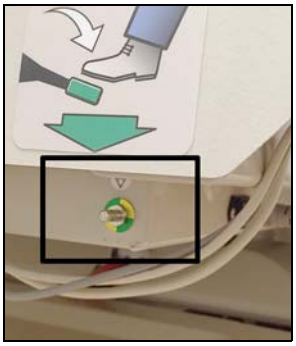
**To shorten the foot section**—press and hold the **Foot Shorter** control until the foot section is at the desired length.



Foot Longer  Foot Shorter

## Equipotential Ground

The Equipotential Ground is at the head end of the bed, near the bed power cord.



# PATIENT TRANSPORT

## INTELLIDRIVE® XL TRANSPORT SYSTEM

The IntelliDrive® XL Transport System option is a permanently attached power driven mechanism built into the bed. This mechanism deploys or stows based on the bed height. The system is activated when the bed brake is set to steer, the bed is disconnected from AC power, the bed is in Transport mode, and the caregiver presses an enable switch and applies pressure to the push handles that are at the head end of the bed. This allows the caregiver to propel the bed during patient transport with minimally applied force.

For beds without the powered transport option, see “Non-Powered Transport” on page 48.

## TRANSPORT POD

The Transport Pod is at the head end of the bed, on the right-side push handle. The battery charge indicator on the transport pod is **on** when the battery is charged. The indicator flashes when the battery is low. The indicator will be **off** if the battery is too low to operate the drive system.

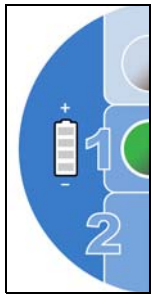


**WARNING:**
To help prevent personal injury or equipment damage, follow these warnings and cautions when you use the IntelliDrive® XL Transport System:

- Do not use the powered drive system if the bed moves forward or reverse when one of these occur. Contact your facility-authorized maintenance person or Hill-Rom Technical Support.
  - 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.
- If the bed is stopped on a ramp, set the brake to avoid unwanted bed movement.
- Do not transport a patient with the bed in the Chair position. Equipment damage could occur.
- The powered transport system is intended for indoor use only. Outdoor use may cause temporary or permanent damage to the powered drive mechanism.
- Before you transport the bed, make sure that the power cord, hoses, and other equipment are correctly stowed.
- For transport, a fully-charged **bed** battery is preferred; however, if the bed battery charge is low, put the bed in the correct position before any transport, and connect the bed to AC power as soon as possible.

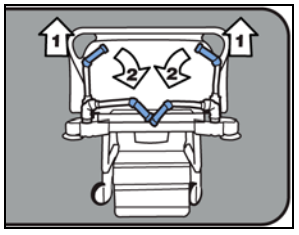


- Do not attempt a transport unless there is a minimum of a single bar on the battery indicator that is on the Transport Pod.Do not push or pull the bed by IV poles, siderails, or other equipment. Use the push handles, headboard, or footboard. Failure to do so could cause equipment damage.

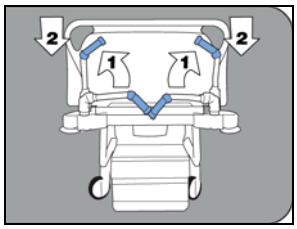



There are push handles at the head end of the bed that can be used during transport. These handles can be stowed when they are not in use.

**To stow the push handles**—pull the them upward to unlock them, and then swing them inward (toward center of bed) into the stowed position.



**To use the push handles for transport**—lift the handles up, and drop them into the locked position.




Before transport, make sure that the Bed Up/Down controls are not locked out and operate correctly. You will need to use these controls when the transport is complete.

In the event that the system loses power during a transport, do as follows:

1. Set the brake.
2. Get additional persons to help manually transport the bed.
3. Use the **Bed Up** control to raise the bed so that the drive wheels are off the floor.
4. Continue with the transport.

**NOTE:**
Additional people are recommended for transport when the powered drive system is not used.

## To Prepare the Bed for Transport

1. Raise all four siderails to the up and locked position.
2. With the bed still connected to AC power, press and hold the powered **Width Retract** control until you hear the single confirmation beep to indicate that the retracted position has been reached. Refer to "Bed Width Adjustment" on page 39 for additional information.
3. If you need to shorten the length of bed, press and hold the **Foot Shorter** control until the foot section is at the desired length.

**CAUTION:**
When you lengthen or shorten the foot end of the bed, make sure that the magnets on the surface power cord do not interfere with the movement. Equipment damage could occur.

**NOTE:**
The powered width adjustment control does **not** operate on battery power. Refer to "Manual Width Control" on page 40 to adjust the width of the bed if AC power is not available.

**NOTE:**
It takes approximately 2 minutes for the side bolsters to deflate. There must be power to the bed and surface during this time.

4. When the side bolsters have deflated, turn the air supply unit **off**.

**NOTE:**
The air surface will stay inflated during transport. To help with lateral transfers, **Max Inflate** the surface before you disconnect it from the AC power; the surface will then stay firm.

**CAUTION:**
Before you transport the bed, make sure to remove the air supply unit from the footboard. Failure to do so could cause equipment damage.

5. Unplug the power cord from the air supply unit.

6. Attach the magnet that is closest to the plug end of the cord on to the equipment socket to keep the cord off the floor.

7. Disconnect the three color-coded air hoses from the patient left-hand side of the air supply unit.

8. Lift the unit and its hoses over the footboard, and set the unit and hoses on the foot or side section of the bed.

9. At the head end of the bed, unplug the power cords for **both** the bed and the air supply unit. Use the **blue** cord hooks at the head section to store cords during transport.

10. Adjust the head position to make sure the view is not obstructed from the head end of the bed.

11. Secure all equipment being transported with the bed such as monitors, oxygen tanks, and IV poles.

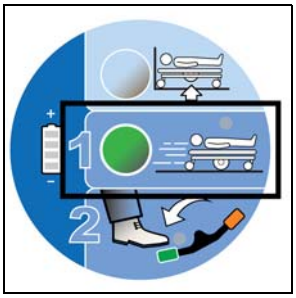
12. Make sure the push handles are up and locked in position.

## Engage Transport Mode



1. Access the Transport Pod at the patient head-right corner of the bed.

2. Adjust the transport pod into a position for easy access.




3. Press the green **Transport** control (**1**) to lower the bed to the transport position (the power drive wheels on the ground). When the bed reaches the Transport position, you will hear a single beep, and the amber **Transport** indicator on the transport pod will turn green.

**NOTE:**
If the Bed Up/Down function is locked out, you will hear a triple beep. Deactivate the lockout so that you can lower the bed height from the transport pod.




4. Step down on the green Steer pedal to release the brake and activate **steer**. The amber brake/steer pedal indicator (**2**) on the transport pod will turn green.

## Transport

**WARNING:**
To help prevent personal injury or equipment damage, follow these warnings and cautions when you transport the bed:

- When you transport the bed without the IntelliDrive® XL Transport System engaged, make sure the bed is at a sufficient height for the drive wheels to clear ramps and inclines that are greater than 3°.
- During the transport, use caution so that the bed does not tip or overbalance.

1. Grip one or both of the push handles that are at the head end of the bed.

2. Press and hold at least one of the enable switches that are on the **underside of the blue push handles**.
   - When pressed, the enable switch prepares the transport system to move the bed when pressure is applied to the handles.
   - The bed will not move until pressure is applied to the handles.



3. To move the bed, push the push handles forward to start forward movement or pull them backward to start reverse movement:
   - 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. Increasing the reverse applied pressure will move the bed in reverse faster.
   - A gradual decrease of pressure on the push handles will **slow** the bed.

**NOTES:**

- When the bed is moving at full speed, a sudden release of the enable switches will cause the bed to stop abruptly.
- A sudden change in direction of the push handles (push/pull; forward/backward) will cause the bed to stop abruptly.
- If the bed is difficult to move, it may be that the powered drive system is not correctly engaged. Make sure that the bed has been completely lowered into the transport position, the brake pedal is in steer, and the battery indicator has a minimum of one (1) bar.
- If you need to align the bed into position with fine, small side-to-side movements, raise the bed so that the drive wheels are no longer on the ground. Once the bed is in the correct position, set the brakes.

## Disengage Transport Mode

After the transport, do as follows:

1. Press the **Disengage** control at the top of the transport pod to raise the bed out of the transport position. The drive wheels will raise off the ground. The bed will stop moving, and you will hear a single beep to confirm that the process is complete.




**NOTE:**
You can also use the **Bed Up** control on any siderail to raise the bed out of the transport position or higher.

2. Move the bed sideways in the room, if necessary.

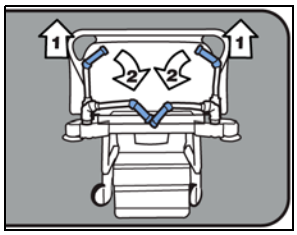
3. When the bed is in the correct position, set the brake.

4. Plug the power cords for both the bed **and** air supply unit into AC power.

5. Replace the air supply unit:
   a. Move the unit from the foot end of the bed to the footboard.
   b. Connect the power cord and air hoses. Use the magnets on the power cord to keep the power cord attached to the metal frame of the bed and off the floor. Make sure that the magnets will not interfere with the movement of the foot end section when the foot section is lengthened or shortened.
   c. Turn the unit **on**.

6. After the transport, adjust the bed width and length as necessary for patient comfort and safety.

7. Optional: To stow the push handles, pull them upward to unlock them, and then swing them inward (toward the center of the bed) into the stowed position.




**NOTE:**
The batteries get charged **only** when the bed power cord is plugged into an AC power outlet; therefore, we recommend that you plug the bed into a power outlet whenever possible.

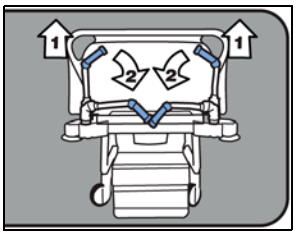
## NON-POWERED TRANSPORT

**WARNING:**
To help prevent personal injury or equipment damage, follow these warnings and cautions when you transport the bed:

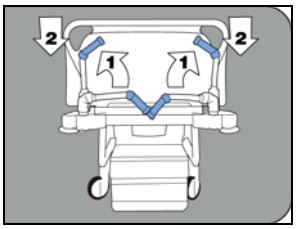
- Use care when you move the bed on to or off of inclines or ramps above 3°. The bed is heavy and may not move correctly.
- During the transport, use caution so that the bed does not tip or overbalance.
- Before you transport the bed, make sure that the power cord, hoses, and other equipment are correctly stowed.
- Do not transport a patient with the bed in the Chair position.
- When you lengthen or shorten the foot end of the bed, make sure that the magnets on the surface power cord do not interfere with the movement.
- Do not push or pull the bed by IV poles, siderails, or other equipment. Use the push handles, headboard, or footboard.

There are push handles at the head end of the bed that can be used during transport. These handles can be stowed when they are not in use.

**To stow the push handles**—pull the them upward to unlock them, and then swing them inward (toward center of bed) into the stowed position.




**To use the push handles for transport**—lift the handles up, and drop them into the locked position.




**NOTE:**
Additional persons are recommended for transport when the bed does not have a powered transport system.

## Transport a Patient

1. Adjust the bed height to a comfortable height for transport.
2. Adjust the patient's position for transport as required.
3. Retract the width extensions fully (see "Bed Width Adjustment" on page 39).

**CAUTION:**
When you lengthen or shorten the foot section of the bed, make sure that the magnets on the surface power cord do not interfere with the movement. Equipment damage could occur.

4. Shorten the foot section as necessary (see "FlexAfoot™ Bed Length Adjustment" on page 41).

**CAUTION:**
Before you transport the bed, remove the air supply unit from the footboard. Failure to do so could cause equipment damage.

5. Turn the air supply unit **Off**.
6. Unplug the air supply unit from the AC power source.

**NOTE:**
The air surface will stay inflated during transport. To help with lateral transfers, **Max Inflate** the surface before you disconnect it from the AC power; the surface will then stay firm.

7. Unplug the power cord from the **air supply unit**.
8. Use the magnets on the power cord to keep the power cord attached to the metal frame of the bed and off the floor.

**NOTE:**
Make sure that the magnets do not interfere with the movement of the foot end section when the foot section is lengthened or shortened.

9. Disconnect the three color-coded air hoses from the patient left-hand side of the air supply unit.

10. Lift the unit and its hoses over the footboard, and set the unit and hoses on the foot or side section of the bed.

11. At the head end of the bed, unplug the power cords for **both** the bed and the air supply unit. Use the **blue** cord hooks at the head section to store cords during transport.

12. Put the brake/steer pedals in the **Steer** or **Neutral** position as necessary.

13. Transport the patient.

**After the transport**, do as follows:

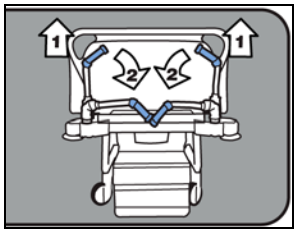
1. When the bed is in the correct position, set the brake.

2. Plug the power cords for both the bed **and** air supply unit into AC power.

3. Replace the air supply unit:
   a. Move the unit from the foot or side section of the bed to the footboard.
   b. Connect the power cord and air hoses. Use the magnets on the power cord to keep the power cord attached to the metal frame of the bed and off the floor. Make sure that the magnets will not interfere with the movement of the foot end section when the foot section is lengthened or shortened.
   c. Turn the unit **on**.

4. After the transport, adjust the bed width and length as necessary for patient comfort and safety.

5. Optional: To stow the push handles, pull them upward to unlock them, and then swing them inward (toward the center of the bed) into the stowed position.



## SCALE SYSTEMS

There are two scale systems available for the bed (see the images below). Scale System **A** has an accuracy of 0.99 kg (2.2 lb) or 1% of the patient weight, whichever is greater. Scale System **B** has an accuracy of 0.5 kg. The operating range for both scale systems is 0 kg to 454 kg (0 lb to 1000 lb). The display and controls for the scale systems are on the flip-up control pod on the intermediate siderails.

Refer to the images and page numbers shown below to determine which instructions apply to your scale system:

**Scale A**




Refer to page 51.

**Scale B**




Refer to page 54.

**NOTE:**
**Everything** on or attached to the bed will be **included in the scale reading**. This includes items on the headboard, footboard, siderails, IV poles, and drainage bag/restraint holders.

## SCALE "A" 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.

**NOTE:**
Unless you activate a scale function, the display continuously shows the head angle of the bed.

## Bed Setup

**NOTE:**
**Everything on or attached to the bed will be included in the scale reading**. This includes IV poles and items attached to the poles; pumps and drainage bags; the patient helper/trapeze; and items attached to the headboard, footboard, and siderails.

1. Make sure the bed is plugged into AC power.
2. Put all standard linens, blankets, and pillows on the bed. A list of these items posted near the bed may be helpful for future reference.
3. The scale is very sensitive. Make sure the bed is not touching anything that could affect the patient weight (other beds or carts, headwall, miscellaneous drainage lines, etc.).

The scale system is now ready for you to zero the scale or weigh the patient.

**WARNING:**
Zero the scale **before** a new patient is put on the bed. Make sure to include standard linens on the bed during the zero process. Failure to do so could cause an inaccurate weight reading; patient injury could occur.

**NOTE:**

- If the bed is equipped with the IntelliDrive® XL Transport System, you **can not** zero the scale or weigh a patient when the bed is in **Transport Mode** because the weigh frame will be off-loaded by the drive wheels making contact with the floor.
- If you attempt to use the scale while the bed is in **Transport Mode,** the **Raise Bed** control indicator on the control pod will flash 5 times and you will hear a triple beep. To raise the bed, press and hold the **Raise Bed** control until its indicator turns off and you hear the single confirmation beep.



### To Zero the Scale

1. Press the **Enable** key.
2. Press and hold the **Zero** control until **00.0** shows on the display (HOLD will show until 00.0 shows).
3. Release the control when **00.0** shows.
4. After you release the Zero control, the display will flash **CALC**. Do **not** touch the bed until the display stops flashing **CALC** and shows **00.0**. You will hear a single beep when the zero process is complete.





**NOTE:**
If you attempt to zero the scale, but do not press the Enable key, you will hear a triple beep and the Enable key indicator will flash 5 times.

## Weigh the Patient

Before you weigh the patient, make sure of these:

- All items on the list defined in the "Bed Setup" section are accounted for (see "Bed Setup" on page 52).
- Remove drainage bags, excess linens, and equipment that has been added since the scale was zeroed.
- The patient is lying still and is centered on the support surface.
- The bed is **not** in Transport Mode.

**To weigh**—press and release **Scale Weigh**. On release of the Weigh control, the bed gets the current patient weight. The default configured is to show kg.



**NOTE:**
The scale display will flash if the maximum weight is exceeded.

## Changing the Scale Units

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

1. Make sure the **Enable** key 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** or **kg**.




3. Press and release the **Scale 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 Scale 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.

## SCALE "B" DISPLAY




## Bed Setup

**NOTE:**
**Everything on or attached to the bed will be included in the scale reading.** This includes IV poles and items attached to the pole; pumps and drainage bags; the patient helper/trapeze; and items attached to the headboard, footboard, and siderails.

1. Make sure the bed is plugged into AC power.

2. Put all standard linens, blankets, and pillows on the bed. A list of these items posted near the bed may be helpful for future reference.

3. Make sure the bed is not touching anything that could affect the patient weight (other beds or carts, headwall, miscellaneous drainage lines, etc.).

## Scale Reference Position




**WARNING:**
Before you weigh the patient or zero the scale, make sure the bed is in the **Scale Reference position** as defined below. Failure to do so could cause an inaccurate weight reading; patient injury could occur.

1. Press and hold the **Frame Setup** control until you hear a single beep. These will occur:
   a. The head section will flatten.
   b. The foot section will fully lengthen.
   c. The bed will lower to its lowest position.



2. Release the brake. The **Brake Not Set** alert will sound, so we recommend that you do this step last to minimize the alert sound.



When the bed is correctly in the Scale Reference position, the **Scale Reference** indicator will come on solid.



If you attempt to **zero** the scale when the bed is not in the **Scale Reference position**, you will hear a triple beep to let you know that the bed is not in the correct position. Look for a flashing **Frame Setup** or **Release Brake** indicator. Repeat step 1 or 2 as identified by the flashing indicator.

**NOTE:**
If the **Brake Not Set alert** is sounding, you **will not** hear the triple beep, so we recommend that you release the brake last.

The scale system is now ready for you to zero the scale or weigh the patient.

**WARNING:**
Zero the scale **before** a new patient is put on the bed and whenever additional equipment is added to the bed. Make sure to include standard linens on the bed during the zero process. Failure to do so could cause an inaccurate weight reading; patient injury could occur.

**NOTE:**

- If the bed is equipped with the IntelliDrive® XL Transport System, you **can not** zero the scale or weigh a patient when the bed is in **Transport Mode** because the weigh frame will be off-loaded by the drive wheels making contact with the floor.
- If you attempt to use the scale while the bed is in **Transport Mode,** the **Raise Bed** control indicator on the control pod will flash 5 times and you will hear a triple beep. To raise the bed, press and hold the **Raise Bed** control until its indicator turns off and you hear the single confirmation beep.



## To Zero the Scale






1. Press the **Enable** key.
2. Make sure that the bed is in the **Scale Reference** position (see "Scale Reference Position" on page 54). When you release the brake for this position, the **Brake Not Set** alert will sound and the **Scale Reference** indicator will come on solid.
3. Press and hold the **0/T** control; **Hold** will show on the display.
4. Release the control when **00.0** shows.
5. After you release the control, the display will flash **CALC.** Do **not** touch the bed until the display stops flashing **CALC**.

When **CALC** stops flashing, you will see **0.0** on the display, the **0/T** control indicator will be green, and you will hear a single beep. The zero process is complete. You can engage the brake at this time.

## Weigh the Patient

Before you weigh the patient, make sure of these:

- All items on the list defined in the "Bed Setup" section are accounted for (see "Bed Setup" on page 52).
- Remove drainage bags, excess linen, and equipment that has been added since the scale was zeroed.
- The patient is lying still and is centered on the support surface.
- The bed is **not** in Transport Mode.
- The bed is in the **Scale Reference** position (see "Scale Reference Position" on page 54).

**NOTE:**
For maximum scale accuracy when you weigh the patient, the bed should be in the **Scale Reference** position; however, if necessary, you can weigh the patient when the bed in not in this position.

**To weigh**—press and release the **Scale** control. On release of the Scale control, the display shows the current patient weight in kilograms. At this time, you may set the **Brake**.



## Magnification (Mag) Mode

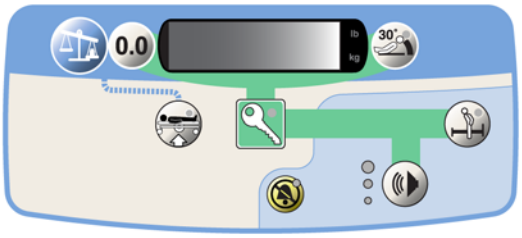


As a reminder, when you a weigh a patient, the weight is shown in increments of 1 whole kilogram. If you need to see the weight to the nearest 0.5 kg (half kilogram), press the **Mag Mode** control. An indicator will come on to let you know that the **Mag Mode** is active and the previous weight will now be shown to the nearest 0.5 kg. The **Mag Mode** is only active for 5 seconds; after which time, the indicator will turn off and the weight display will show its original value.

## Unstable Weight

If the patient starts to move after a weight is shown, the weight on the display may adjust up or down and will flash. This indicates that the weight readout is unstable. Once the patient lies still, the weight will stabilize and the weight shown on the display will no longer flash.

## SINGLE MODE BED EXIT ALERT SYSTEM







**NOTE:**
The Bed Exit Alert System should be used in conjunction with a sound falls-risk assessment and facility approved protocol.

The Bed Exit Alert System controls are on the flip-up control pod that is on each intermediate siderail.

If your bed is equipped with the Compella™ Low Air Loss Surface with Turn Assist and CLRT (Continuous Lateral Rotation Therapy), Bed Exit should be used in the Normal mode only. It should not be used with the CLRT mode active as it may cause false alerts.

**NOTE:**
If the bed is in **Transport Mode** (the power drive wheels are on the ground), and you attempt to arm the Bed Exit system, the **Raise Bed** control indicator on the control pod will flash 5 times and you will hear a triple beep. To remove the bed from the **Transport Mode**, press and hold the **Raise Bed** control until its indicator turns off and you hear a single beep; the bed is ready to arm Bed Exit.



The Single Mode Bed Exit System has only one mode: Out-of-Bed.

**Out-of-Bed Mode**—this mode sounds an alert when the patient's weight shifts significantly off the frame of the bed. This mode is most useful when a caregiver wants the patient to move freely within the bed, but to be notified when the patient leaves the bed.

When the system is armed and it detects an Out-of-Bed alert condition, the following occur even if the patient returns to the bed:

- An audible alert comes on.
- The indicator for the Out-of-Bed mode flashes.
- A priority nurse call is sent to the nurses station (for beds equipped with Nurse Call).

## TO ACTIVATE THE BED EXIT ALERT SYSTEM

1. Make sure the patient is centered on the bed.
2. Make sure the bed is **not** in the **Transport Mode**.

3. Press the **Enable** key until its indicator comes on.



4. Press the **Out-of-Bed** 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 Out-of-Bed mode indicator will flash. This means the patient weighs less than 113 kg (250 lb) or more than 454 kg (1000 lb), the patient is not in the correct position, or the system has malfunctioned.

**NOTE:**
It is important to remember that the patient needs to be in the center of the bed; otherwise, when the bed re-arms itself, the system may sound an alert.

**NOTE:**
If the Bed Exit mode was not deactivated before the bed was put into Transport Mode, upon restoring power after the transport, the previously-set Bed Exit mode will re-arm.

## TO SILENCE THE BED EXIT ALERT SYSTEM WITHOUT DEACTIVATING THE SYSTEM

When a Bed Exit mode is armed, you can silence the alert system. During this Silence Mode, the system stops monitoring the patient movement; therefore, **the system does not turn on the audible alert or send a nurse call** alert. While the system is in the Silence Mode, you can change the position of the patient or assist the patient out of the bed. Alert Silence can be used during Turn Assist.



- **To silence the alert system before it sounds**—press the **Enable** key until its indicator is on solid, and then press the **Alert Silence** control until its indicator is on solid.
- **To silence the alert system after it sounds**—press the **Alert Silence** control until its indicator is on solid.



Once the alert silence is activated, you have 30 seconds to either have the patient exit the bed or return to the correct position for Bed Exit to arm.

- If the patient does not exit the bed, the patient must be returned to the correct position for the Bed Exit mode to re-arm.
- If the patient exits the bed, the alert will not sound. The Bed Exit mode will not re-arm until the patient returns to the bed.
- After the patient has returned to the bed, the patient must be returned to the correct position for the Bed Exit mode to re-arm. If the patient is not in the correct position, the system will sound an alert.

## TO DEACTIVATE THE BED EXIT ALERT SYSTEM

Press the **Enable** key until its indicator is on solid, and then press **Out-of-Bed** control until the indicator goes off.



## TO ADJUST THE ALERT VOLUME

1. The patient must be on the bed.
2. The system must be armed.
3. Press the **Enable** key until its indicator is on solid.
4. Press and release the **Volume** control until the indicator that is next to the desired volume setting comes on.



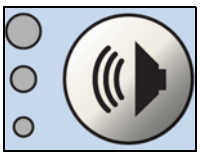
## TO CHANGE THE ALERT TONE

**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.

**NOTE:**
To activate a Bed Exit mode, a minimum of 113 kg (250 lb) must be on the bed.

2. Activate the alert by having the caregiver exit the bed.
3. Press and hold the Volume control.



4. While you press 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 alert condition.

## THREE-MODE BED EXIT ALERT SYSTEM







**NOTE:**
The Bed Exit Alert System should be used in conjunction with a sound falls-risk assessment and facility approved protocol.

The Bed Exit Alert System controls are on the flip-up control pod that is on the intermediate siderails.

If your bed is equipped with the Compella™ Low Air Loss Surface with Turn Assist and CLRT (Continuous Lateral Rotation Therapy), Bed Exit should be used in the Normal mode only. It should not be used with the CLRT mode active as it may cause false alerts.

**NOTE:**
If the bed is in **Transport Mode** (the power drive wheels are on the ground) and you attempt to arm the Bed Exit system, the **Raise Bed** control indicator on the control pod will flash 5 times and you will hear a triple beep. To remove the bed from the Transport Mode, press and hold the **Raise Bed** control until its indicator turns off and you hear a single beep; the bed is ready to arm Bed Exit.



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

- **Patient Position Mode**—this mode sounds an alert when the patient moves towards either siderail, moves away from the head section, or sits up in bed. This mode should be used when a caregiver wants to be notified when the patient begins to move.



- **Bed Exiting Mode**—this mode sounds an alert 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 notified when a potential egress is attempted.



- **Out-of-Bed Mode**—this mode sounds an alert 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 notified when the patient leaves the bed.



When the system is armed and it detects an alert condition for the set Bed Exit mode, the following occur even if the patient returns to the bed:

- An audible alert comes on.
- The indicator for the applicable Bed Exit mode flashes.
- A priority nurse call is sent to the nurses station (for beds equipped with Nurse Call).

## TO ACTIVATE THE BED EXIT ALERT SYSTEM

1. Make sure the patient is centered on the bed.
2. Make sure the bed is **not** in the Transport Mode.
3. Press the **Enable** key until its indicator comes on.
4. Press the desired Bed Exit 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 113 kg (250 lb) or more than 454 kg (1000 lb), the patient is not correctly positioned, or the system has malfunctioned.

**NOTE:**
It is important to remember that the patient needs to be in the center of the bed; otherwise, when the bed re-arms itself, the system may sound an alert.

**NOTE:**
If the Bed Exit mode was not deactivated before the bed was put into Transport Mode, upon restoring power after the transport, the previously-set Bed Exit mode will re-arm.

## TO SILENCE THE BED EXIT ALERT SYSTEM <u>WITHOUT</u> DEACTIVATING THE SYSTEM

When a Bed Exit mode is armed, you can silence the alert system. During this Silence Mode, the system stops monitoring the patient movement; therefore, **the system does not turn on the audible alert or send a nurse call** alert. While the system is in the Silence Mode, you can change the position of the patient or assist the patient out of the bed. Alarm Silence can be used during Turn Assist.

- **To silence the alert system <u>before</u> it sounds**—press the **Enable** key until its indicator is on solid, and then press the **Alert Silence** control until its indicator is on solid.



- **To silence the alert system <u>after</u> it sounds**—press the **Alert Silence** control until its indicator is on solid.



Once the alert silence is activated, you have 30 seconds to either have the patient exit the bed or return to the correct position for Bed Exit to arm.

- If the patient does not exit the bed, the patient must be returned to the correct position for the Bed Exit mode to re-arm.
- If the patient exits the bed, the alert will not sound. The Bed Exit mode will not re-arm until the patient returns to the bed.
- After the patient has returned to the bed, the patient must be returned to the correct position for the Bed Exit mode to re-arm. If the patient is not in the correct position, the system will sound an alert.

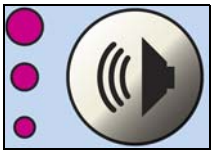
## TO DEACTIVATE THE BED EXIT ALERT SYSTEM

Press the **Enable** key until its indicator is on solid, and then press any Bed Exit mode control until the indicator goes off.

## TO ADJUST THE ALERT VOLUME

1. The patient must be on the bed.
2. The system must be armed.
3. Press the **Enable** key until its indicator is on solid.
4. Press and release the **Volume** control until the indicator that is next to the desired volume setting comes on.





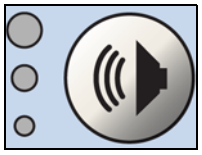
## TO CHANGE THE ALERT TONE

**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.

**NOTE:**
To activate a Bed Exit mode, a minimum of 113 kg (250 lb) must be on the bed.

2. Activate the alert by having the caregiver exit the bed.
3. Press and hold the Volume control.



4. While you press 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 alert condition.



## SIDECOM® COMMUNICATION SYSTEM

The SideCom® Communication System provides a control for Nurse Call.

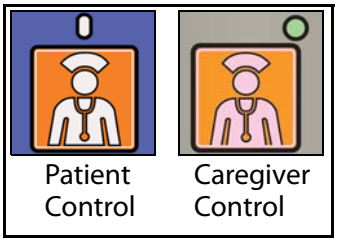
The SideCom® Communication System connector is on the left side of the bed at the head end.



SideCom Connector

## NURSE CALL CONTROL

A Nurse Call control is on the caregiver and patient control panels and the patient pendant (if installed).



Patient Control | Caregiver Control

When a Nurse Call control is activated, a signal is sent to the nurses' station. Voice communication is provided through a speaker/microphone that is 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 come on.



- The Voice indicator on the patient pendant will come on. The nurses' station is ready for you to speak.
- When the call is acknowledged, the Nurse Call indicator on the patient pendant is amber. The Nurse Call indicator on the caregiver control panel is off.



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

When the Listening indicator comes on, the nurses' station is speaking.



**NOTE:**
The Nurse Call controls are always active and their indicators are green when a Nurse Call has not been initiated. The Nurse Call controls can not be locked out.

## SURFACE FEATURES AND CONTROLS

The therapy surface and air supply unit are manufactured by Tridien Medical, and BSI is the notified body for these components of the Compella™ Bariatric Bed System.

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## SAFETY INFORMATION

**WARNING:**
Obey all warnings and cautions throughout the manual and also the safety information below to help prevent injury and/or equipment damage:

### General

- Use of the therapy surface and air supply unit with a bed frame other than the Compella™ Bariatric Bed could substantially reduce the effectiveness of the safety features incorporated into the system. Patient injury could occur.
- Evaluate patients for entrapment risk according to facility protocol, and monitor patients appropriately. Failure to do so could result in serious injury or death
- Children, pets, and pests may damage the device and may cause bodily harm to themselves and/or the patient. Keep children, pets, and pests away from this device.
- The system is design and intended to be used with a specific Compella™ Bariatric Bed frame. Using the air supply unit or the support surface on any other frame could result in patient or operator injury.

### Support Surface

- To avoid risk of severe injury, properly secure mattress to the frame according to the instruction for use.
- Risk of asphyxiation due to entanglement with hoses. Make sure the hose sleeve is correctly installed.
- Support surface handles are **not** intended to be used to carry patients. Using the handles in such a manner could result in serious injury or death.
- To avoid risk of entrapment, use a correctly sized support surface for the bed frame.
- The hose sleeve is a risk mitigation, do not operate equipment without it in place.
- Make sure that all siderails are fully latched when the bed is in the raised position. Failure to do this could result in serious injury or death including patient falls.

**NOTE:**
Siderails are intended to be a reminder to the patient of the unit's edges, not a patient restraining device.

- Smoking or improper use of radiant heaters may result in a mattress fire and injury to the patient.
- Caregivers should be instructed to avoid punctures caused by incorrect use of x-ray cassette holders, mobile CT, and/or needle sticks. Failure to do so could cause cross-infection and injury.
- Examine the support surface and optional topper for damage such as punctures, rips, or tears between patients and during cleaning cycles.
- Do not use surfaces (mattresses), mattress overlays, mattress replacements, or specialty mattress products that have not been designed by Hill-Rom for the Compella™ Bariatric Bed System. Use of surface products other than those designed for the Compella™ Bariatric Bed System could substantially reduce the effectiveness of the safety features incorporated into the system. Patient injury could occur.

**Air Supply Unit**

- There is a risk of asphyxiation due to entanglement with cords. Route the power cord under the bed frame.
- There are no user serviceable parts inside. Service is to be done by facility-authorized maintenance persons only.
- To avoid risk of electric shock use an approved power cord only.
- To avoid risk of electric shock, examine the product for damage prior to use.
- To avoid risk of burns or asphyxiation, Do **not** use the device in a flammable anesthetic, $O_2$, or $NO_2$ environment.
- AC mains power must be active to provide therapy. If power is lost, the therapy provided will be reduced.
- To avoid risk of injury, do not place objects on the air supply unit.
- Power cord may cause tripping hazard. Route the cord under bed frame.
- Pressure in the mattress is under automated control and may adjust without notice. Use care when performing medical procedures on a patient.
- Failure to clean the filter may result in inadequate therapy causing harm to the patient or damage to the unit.
- To avoid unintended changes to the device settings, visitors should be made aware that changes made to the settings may cause harm to the patient.
- Only connect the air supply unit to an approved support surface.
- To avoid the risk of electric shock, the air supply unit must only be connected to a supply mains with protective earth.
- If the unit displays unintelligible information, stop using the device immediately and call for service. May cause patient injury.
- During CLRT and Turn Assist, risk of a patient fall is present if the siderails are retracted. Carefully monitor the patient when siderails are retracted.
- The power cord for the air supply unit is equipped with magnets to hold the cord in position on the bed frame. Exposure to magnetic fields may alter the functioning of implanted devices such as pacemakers and defibrillators.

- Do not use device in conjunction with flammable agents.
- Do not connect the power cord to an extension cord or multiple outlet strip. There is a risk of overheating and fire may cause injury or damage.
- Only connect items that have been specified as part of the device or specified as being compatible with the device.
- Check that the power ratings of the supply mains are sufficient to power the air supply unit.
- Use of accessories, transducers, and cables other than those specified, with the exception of transducers and cables sold by the manufacturer of the device as replacement parts for internal components, may result in increased emission and/or decreased immunity of the device.
- Observe precautions regarding EMC; install and put into service according to the EMC information provided in the accompanying documents.

## SUPPORT SURFACE OPTIONS

The bed has two support surface options:

- Compella™ Therapy Surface with Turn Assist or Turn Assist with CLRT (see "Compella™ Therapy Surface" on page 70)—the therapy surface system consists of the air supply unit, therapy surface, power cord, and communication cable
- Compella™ Foam Surface with inflatable side bolsters and foot section (see "Compella™ Foam Surface with Inflatable Side Bolsters" on page 79)—the foam surface system consists of the air supply unit, foam surface, power cord, and communication cable

For assistance with setup, use, or maintenance of the support surface and air supply unit or to report issues with the system, contact your facility authorized maintenance person or Hill-Rom Technical Support.

## INSTALL THE SURFACE AND AIR SUPPLY UNIT




**WARNING:**
Make sure the surface is correctly connected to the bed frame. Otherwise, patient injury could occur.

1. Raise the head end of the bed to approximately 30°.
2. Turn the surface so that the hoses are at the foot end of the bed.

3. Use the surface straps on the bottom of the surface to attach the surface to the mounting slots at the head, seat, and foot sections of the bed frame. Make sure the mounting brackets correctly attach the surface straps to the mounting slots.

4. Raise the siderails, and then gently pull on the siderails to make sure they are fully latched in position. Make sure there are no gaps between the surface and the siderails.

**CAUTION:**
When you hang the air supply unit on the footboard, make sure that the mounting bracket is installed on the footboard correctly. Otherwise, equipment damage could occur if the air supply unit becomes dislodged.

5. Hang the air supply unit on the mounting bracket on the footboard.

**CAUTION:**
Make sure that the surface being connected is correctly matched to the air supply unit to make sure that all functions operate correctly.

6. For a **therapy surface**, connect the hoses from the surface to their respective color-coded connectors on both sides of the air supply unit:
   - On the **patient right-hand** side of the air supply unit, connect the **red**, **blue**, **green**, **white**, **black**, and **yellow** hoses.
   - On the **patient left-hand** side of the air supply unit, connect the **white**, **black**, and **yellow** hoses.




**NOTE:**
The **yellow** hose on the left-hand side is the low airloss hose from the top cover of the surface.

7. For a **foam surface**, connect the **white**, **black**, and **red** hoses from the surface to the color-coded connectors on the **patient right-hand** side of the air supply unit.

**WARNING:**
Incorrect use or handling of the power cord may cause damage to the power cord. If damage has occurred to the power cord, immediately remove the bed from service, and contact your facility-authorized maintenance person or Hill-Rom Technical Support. Failure to do so could cause injury or damage.

8. At the foot end of the bed, connect the surface communication cable to the air supply unit and to the bed.





9. Connect the power cord to the patient left-hand side of the air supply unit.

10. Use the magnets to attach the power cord to these locations along the bed and to a correctly grounded AC power outlet:
    - Under the patient left-foot corner of the bed.
    - Along the side of the intermediate frame on the patient left-hand side of the bed.
    - At the patient head-left corner of the bed.

11. Plug the air supply unit power cord into the AC power outlet. Do not put the air supply unit in a position that makes it difficult to unplug the power cord.

**NOTE:**
The **Power** switch on the caregiver's right-side of the air supply unit turns the unit **On** and **Off**.

12. At the same time, press and hold the **Help (?)** control and the **Power** switch. Listen for a notification tone to make sure the audio alarm system is operating correctly. If you do not hear a tone, do not use the air supply unit.

13. The **Select Attached Mattress Model** screen shows. Select the correct surface.




**With CLRT**




**Without CLRT**

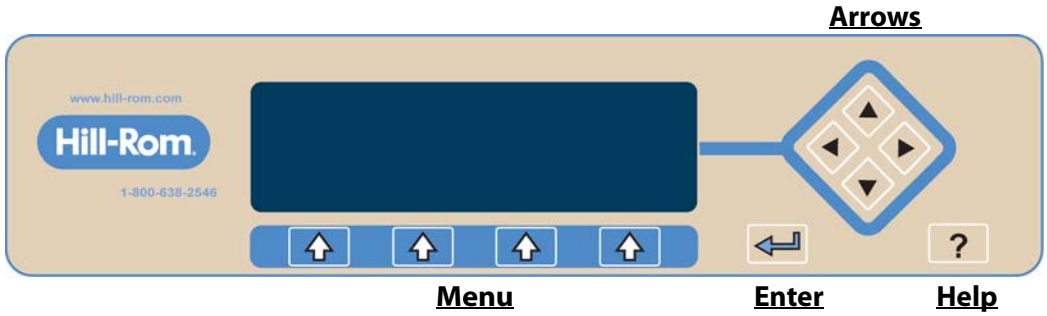
14. For an **air surface**, set up the unit for the patient (see page 70).

## AIR SUPPLY UNIT

For air surfaces, the air supply unit shows a *real-time* display of air pressure for the head, seat, and foot sections of the surface assembly.

For a **Compella™ Therapy Surface**, the amount of pressure to support a patient is based on the patient's height and weight that is entered during setup. This provides custom weight-based pressure redistribution. All settings are stored in non-volatile memory. If power is interrupted, the air supply unit automatically returns to the previous settings when the power returns.

The air supply unit has these controls:




- **Menu**—selects the **Menu** options.
- **Enter**—moves to and from the **Patient Setup** screen.
- **Help**—shows the **Help** screen.
- **Arrows**—selects settings on the **Patient Setup** screen.

## COMPELLA™ THERAPY SURFACE

The Compella™ Therapy Surface is a therapeutic system that supplies three zone, constant pressure redistribution, microclimate management, Turn Assist and Continuous Lateral Rotation Therapy (CLRT). The Compella™ Bariatric Therapy Surface consists of either:

- Therapy Surface with Turn Assist
- Therapy Surface with Turn Assist and CLRT

The Compella™ Therapy Surface supports a patient weight up to 454 kg (1000 lb). The air supply unit has a maximum weight input of 455 kg or 995 lb.

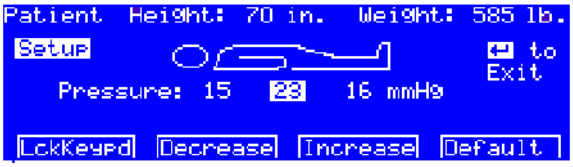
**NOTE:**
The weight is entered in 5 kg or 5 lb increments.

### Set Up the Unit for the Patient

1. At the Pressure Redistribution screen, press the **Enter** control on the air supply unit. The **Patient Setup** screen shows.




2. Enter the patient's height and weight as follows:
   a. Use the arrow keys on the right-side of the display to select **Height** or **Weight**.




   b. Enter the patient's height and weight as follows:
      - To increase the shown height or weight, press **Increase**.
      - To decrease the shown height or weight, press **Decrease**.

3. The unit automatically adjusts the pressures for the set height and weight. If necessary, use the arrow keys to move the cursor to the applicable pressure setting: head, seat, or foot, and adjust the settings as follows:
   - To **increase** the pressure, press **Increase**.
   - To **decrease** the pressure, press **Decrease**.
   - To **return** all pressure settings to the pressures automatically set by the unit for the set height and weight, press **Default**.

**NOTE:**
To make sure that the patient is getting the proper therapy, periodically check that the support surface is properly inflated for patient support.

4. Press **Enter** to save the pressure settings and return to the Pressure Redistribution screen.

**NOTE:**
If you do not press **Enter**, the settings will not be saved.

## Surface Options

### Max Inflate Mode

Max Inflate mode inflates the surface assembly to its maximum pressures.

**NOTE:**
The surface goes into Hyper-Inflate mode to inflate the surface after Seat Deflate and Bed Deflate modes; it does **not** go into Max Inflate mode.

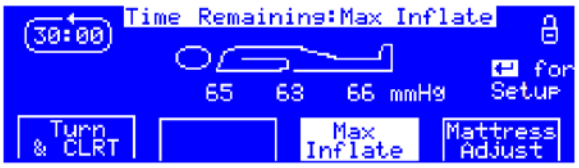
To turn Max Inflate mode on, do as follows:

1. At the Pressure Redistribution screen, press **Max Inflate**:

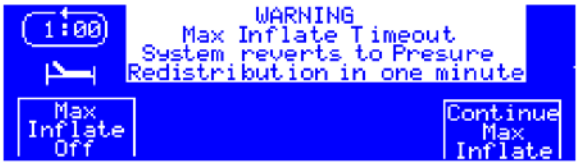
   The **Max Inflate (65 mm Hg)** screen shows the 30-minute countdown.




2. To turn Max Inflate mode off when it has been on for **less than** 30 minutes, press **Max Inflate** again.

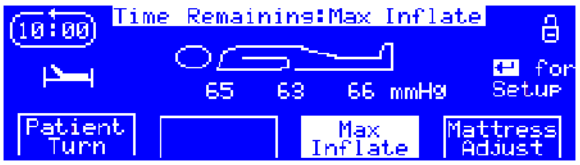



If the unit is in Max Inflate mode for 29 minutes, the alarm sounds, and the 1-minute countdown screen shows:




- Press **Max Inflate Off** to stop Max inflate mode.
- Press **Continue Max Inflate** to continue Max Inflate mode for 10 minutes.
- Do nothing—Max Inflate mode ends at the end of the 1-minute countdown and the surface returns to the previous mode.

If the 10-minute extension is selected, then a 10-minute counter screen shows:




- Press the highlighted **Max Inflate** option to stop Max inflate mode immediately.
- Select any of the other options.

### Fowler Boost Mode

When the unit is turned on, it automatically defaults to **Fowler Boost** mode. For patients in an inclined position, **Fowler Boost** mode increases support in the seat zone.



**NOTE:**
When the unit is in Fowler Boost mode, the **Fowler Boost** indicator is on.

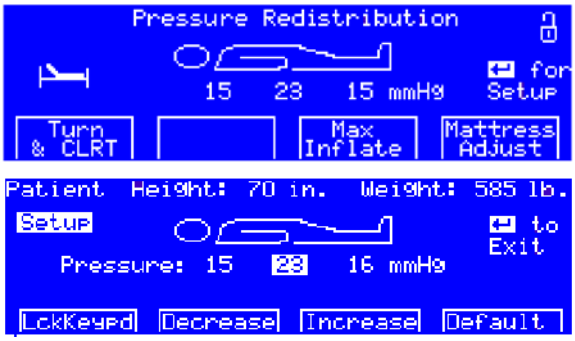
To turn Fowler Boost mode on or off, do as follows:

1. At the Pressure Redistribution screen, press **Mattress Adjust**. The **Mattress Adjustments** screen shows.
2. Press **Fowler Adjust**. The **Fowler Boost** screen shows.
3. Press **On/Off** to turn Fowler Boost mode **On** or **Off**.
4. If necessary, adjust the setting as follows:
   - To increase the pressure, press **Increase**.
   - To decrease the pressure, press **Decrease**.
   - Press **Default** to return to the standard Fowler Boost setting of **30%** more than the seat section's set pressure.
5. Press **Enter** to return to the previous therapy screen.




## Lock or Unlock the Control Panel

1. At the Pressure Redistribution screen, press **Enter**. The **Patient Setup** screen shows.
2. Press **Lck Keypd**. The control panel's lockout status changes, and the previous therapy screen shows.



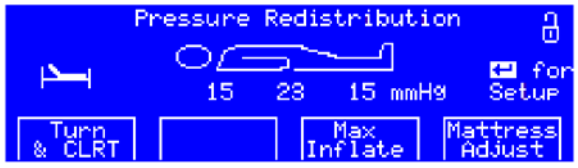

**NOTE:**
When the control panel is locked, the **Lockout** indicator shows in the upper right-hand corner of the screen.



## Turn Assist Mode

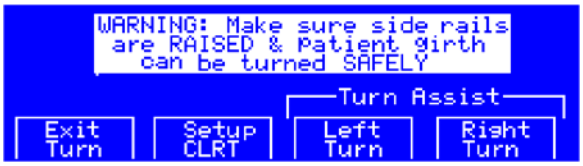
Turn Assist mode helps the caregiver to turn the patient to the left or the right.

To start the Turn Assist mode, do as follows:



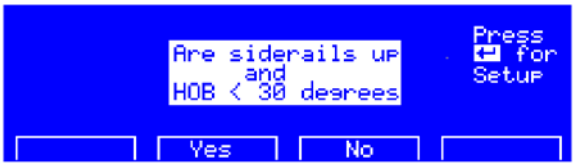

1. At the Pressure Redistribution screen, press **Turn & CLRT**.

2. The next screen shows the **Turn Assist Left Turn**, **Right Turn** or **Exit Turn** options. Select one.




**WARNING:**
Do not start a turn in either of these instances: the head section (HOB) angle is greater than 30°; the siderails are not in the Up position. To do so could cause patient injury.

3. At the Turn Assist Warning screen, make sure the siderails are in the up position and the head section is less than 30°.




4. Press **Yes**.

5. The selected turn starts and a 30-minute countdown screen shows with two menu options:




   - **Pause Turn**—this option stops the turn at the current angle. **Pause** will then change to **Resume**, which permits the turn to continue until completion, as indicated by one long beep.
   - **Exit Turn**—this option brings the patient back to a flat position.

**NOTE:**
If you retract or extend the bed width during the Turn Assist mode, the **Pause** function will activate to permit the bolsters to deflate or inflate, then the Turn Assist mode will resume.

6. 1 minute before the Turn mode times out, an audible alarm sounds with menu options to **Exit** the turn and thus return the patient to a flat position, or **Extend** the turn for another 30 minutes.

7. When the 30 minutes lapse, the patient returns to the flat position and the display goes back to the Main screen.

## Deflate and Inflate the Seat Section for Patient Exit or Entry

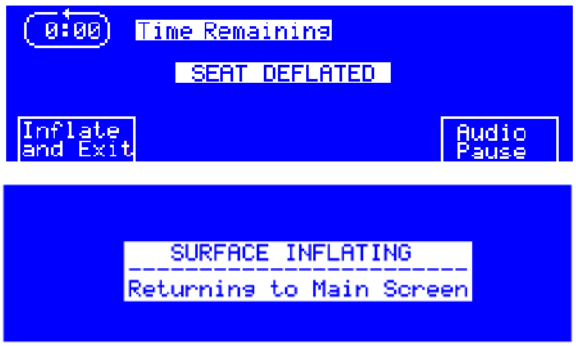
1. At the Pressure Redistribution screen, press **Mattress Adjust**.

2. At the Mattress Adjust screen, press **Deflate Seat**. The **Do you want to deflate seat section?** screen shows.

3. Press **Yes**. The seat section fully deflates within 4 minutes as shown on the **Seat Deflating** countdown screen.




4. If the seat section is deflated for 30 minutes, the alarm sounds. To continue with the Deflate Seat mode, press **Audio Pause** to mute the alarm for 10 minutes.



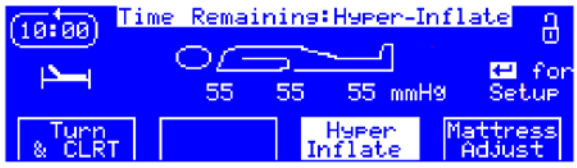

To inflate the seat section and exit the Deflate Seat mode, do as follows:

1. Press **Inflate and Exit**. The **Surface Inflating** screen flashes for 10 seconds.




2. The unit goes into **Hyper-Inflate** mode to inflate the surface to 55 mm Hg for 10 minutes:

   If the unit is in Pressure Distribution mode, the **Hyper-Inflate** screen shows and highlights **Hyper Inflate**.

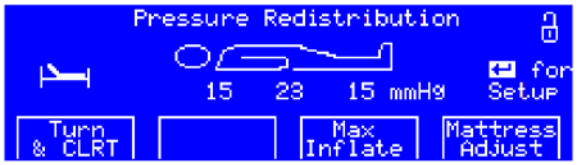



## Continuous Lateral Rotation Therapy (CLRT) Mode

The rotation mode provides gentle, side-to-side, continuous lateral rotation therapy (CLRT) to help prevent and treat pulmonary complications related to immobility. Patients can be positioned laterally on the right or left side with varying amounts of turn and pause times to match each individual patient's condition. Pressure relief is provided when the rotation mode is active.

To start **CLRT** mode, do as follows:

1. At the Pressure Redistribution screen, press **Turn & CLRT.**



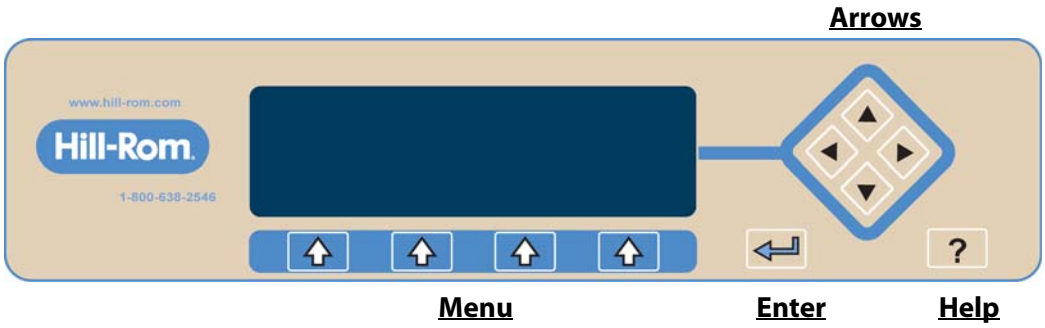

2. Make sure the siderails are raised. Press **Setup CLRT**.




3. At the Setup CLRT screen, use the **Decrease** and **Increase** buttons to increase or decrease the highlighted % of turn (10% increments) or hold times (30-second increments).



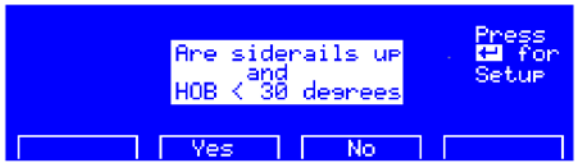

**NOTE:**
Use the arrow keys on the right side of the control panel (inside the diamond) to highlight what you need to adjust.




4. After the parameters are set, press the **Enter** key to continue.

**WARNING:**
Do not start a turn in either of these instances: the head section (HOB) angle is greater than 30°; the siderails are not in the Up position. To do so could cause patient injury.

5. At the Siderail warning screen, press **Yes** or **No**.




6. The CLRT Mode screen shows.

7. CLRT begins. During therapy you have the option to **Exit CLRT, Pause**, or **Max Inflate**.




**NOTE:**
If you retract or extend the bed width during CLRT, the **Pause** function will activate to permit the bolsters to deflate or inflate.

8. If **Pause** is selected, the patient will stop rotating and stay at the current angle for 10 minutes and then resume. From **Pause** you can **Exit CLRT** and return to the Pressure Redistribution screen or **Resume CLRT**.



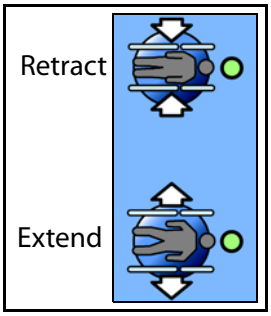

9. If **Max Inflate** is selected, the patient is centered and cushions inflated to maximum pressure. From there you can **Exit CLRT** and return to the main screen or you can **Resume CLRT**.




10. If **Exit CLRT** is selected, the patient is centered, CLRT stops and the surface goes into pressure redistribution mode. The main screen appears.

## Deflate and Inflate the Side Bolsters and Foot Section

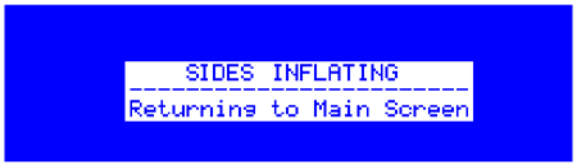
### Automatically (using the Caregiver Width Adjust controls)



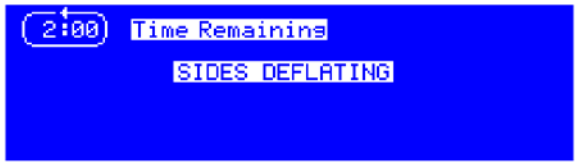

The side bolsters and foot section automatically adjust to the frame width and/or length as long as the bed is plugged into AC power and the air supply unit is correctly connected to the frame (see "Bed Width Adjustment" on page 39).

#### Side Bolsters

- The side bolsters will inflate anytime the frame width extensions are all fully extended.




- The side bolsters will deflate for 2 minutes anytime some or all of the frame width extensions are partially or fully retracted.




#### Foot Section

The foot section will automatically inflate or deflate sufficiently to accommodate any adjustment to the foot extension of the frame.

### Manually (using the Air Supply Unit)

The side bolsters and foot section can be operated manually **only** when the frame is disconnected from AC power **or** the air supply unit loses communication with the frame.

### Side Bolsters

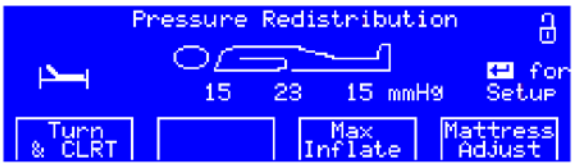
To deflate the side bolsters, do as follows:

1. At the Pressure Redistribution screen, press **Mattress Adjust**.

2. Press **Deflate Sides**. The **Sides Deflating** screen shows.

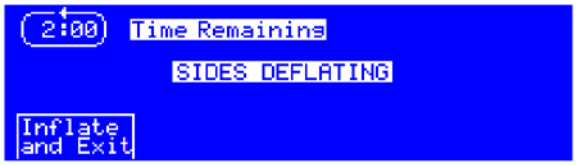
**NOTE:**
During the Deflate Sides mode, you may use Seat Deflate mode, Foot Deflate mode, Max Inflate mode, or Transport Deflate mode as necessary.

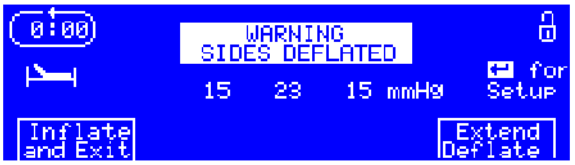
3. If the side bolsters are deflated for 30 minutes, an alarm sounds, and the **Warning: Sides Deflated** screen shows:
   - To mute the alarm for 10 minutes, press **Extend Deflate**.
   - The Side Deflate, 10-minute countdown screen shows.

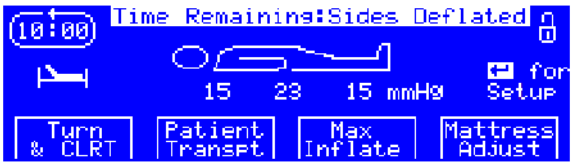








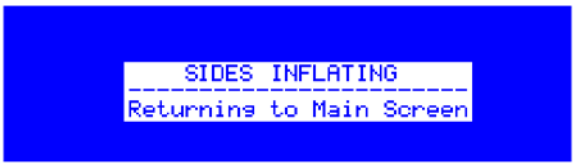




To inflate the side bolsters, do as follows:

1. At the **Side Deflate** screen, press **Mattress Adjust**. The **Mattress Adjustments** screen shows.

2. Press **Inflate Sides**. The side bolsters inflate, and the unit goes into Pressure Redistribution mode in 10 seconds.

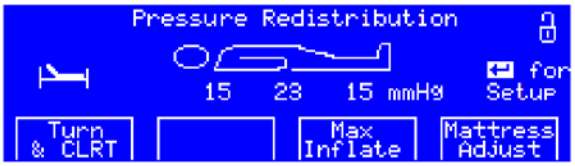



### Foot Section

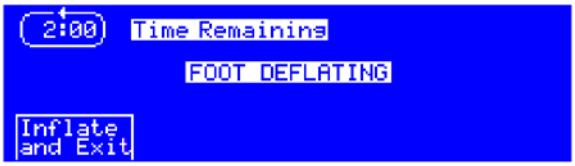
To deflate the foot section, do as follows:

1. At the Pressure Redistribution screen, press **Mattress Adjust**. The **Mattress Adjustments** screen shows.

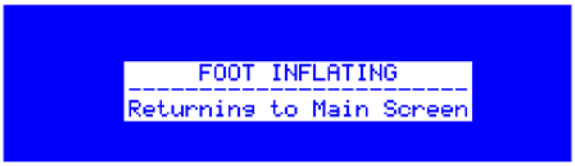




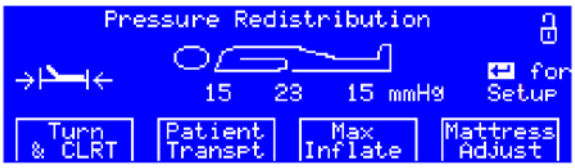

2. Press **Deflate Foot**. The foot section deflates, the **Foot Deflating** screen shows for 2 minutes, and then the main therapy screen shows.




To cancel **Foot Deflate** prior to completion press **Inflate** and **Exit**. The foot section inflates, the **Foot Inflating** screen flashes for 10 seconds, and then the main therapy screen shows.




After the foot section has been deflated, the **Deflated Foot** indicator shows on the main therapy screen. To inflate the foot section, do as follows:




1. Press **Mattress Adjust**. The **Mattress Adjustments** screen shows.




2. Press **Inflate Foot**. The foot section inflates, the **Foot Inflating** screen flashes for 10 seconds, and then the main therapy screen shows.

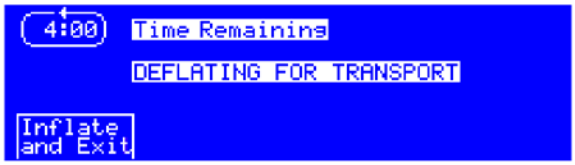
## Deflate the Side Bolsters and Foot Section for Patient Transport

To deflate the side bolsters and foot section for patient transport, do as follows:

1. At the Pressure Redistribution screen, press **Patient Transpt**. The **Do you want to deflate for transport?** screen shows.

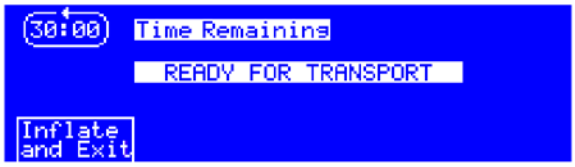



2. Press **Yes**. The side bolsters and foot section of the surface start to deflate, and the **Deflating for Transport** screen shows.

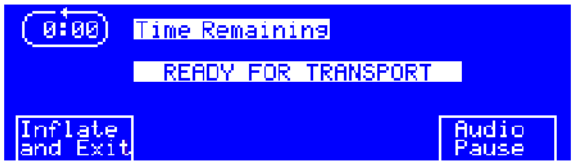



**NOTE:**
If you press **No**, the display returns to the main therapy screen.

3. When the side bolsters and foot section are deflated, the **Ready for Transport** screen shows.




4. If the surface is deflated for more than 30 minutes, the alarm sounds. To mute the alarm for 10 minutes, press **Audio Pause**.




To inflate the side bolsters and foot section, press **Inflate and Exit**. The **Surface Inflating** screen flashes, the side bolsters and foot section inflate, and the unit goes into Pressure Distribution mode in 10 seconds.




## COMPELLA™ FOAM SURFACE WITH INFLATABLE SIDE BOLSTERS

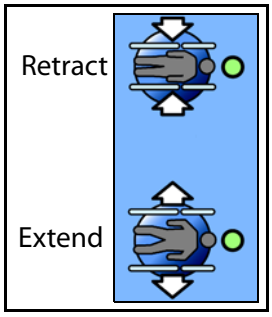
The foam surface with inflatable side bolsters and foot section is for patient weights up to 454 kg (1000 lb). The width of the foam surface is adjustable from 40" to 50" (102 cm to 127 cm).




## Deflate and Inflate the Side Bolsters and Foot Section

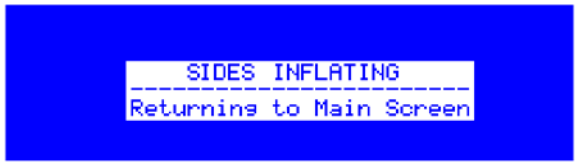
### Automatically (using the Caregiver Width Adjust controls)

The side bolsters and foot section automatically adjust to the frame width and/or length as long as the bed is plugged into AC power and the air supply unit is correctly connected to the frame (see "Bed Width Adjustment" on page 39).

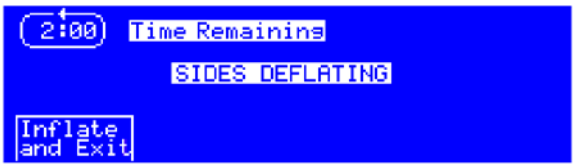



**Side Bolsters**

- The side bolsters will inflate any time the frame width extensions are all fully extended.




- The side bolsters will deflate for 2 minutes any time some or all of the frame width extensions are partially or fully retracted.



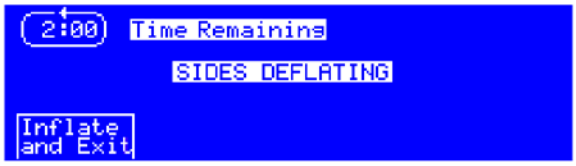

### Manually (using the Air Supply Unit)

The side bolsters and foot section can be operated manually **only** when the frame is disconnected from AC power **or** the air supply unit loses communication with the frame.

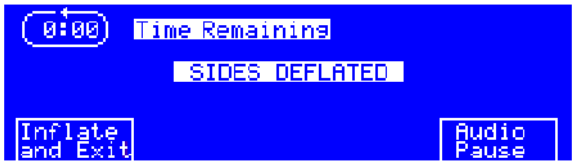
### Side Bolsters

To deflate the side bolsters, do as follows:

1. At the Foam Mattress screen, press **Deflate Side Bolsters**. The **Sides Deflating** screen shows, a 2-minute countdown starts, and the side bolsters deflate.

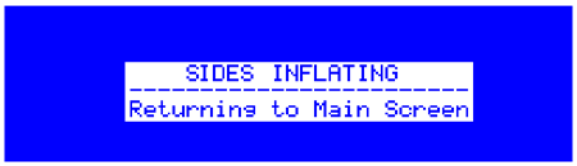



2. If the side bolsters remain deflated for 30 minutes, an alarm sounds. To mute the alarm for 10 minutes, press **Audio Pause**.




To inflate the side bolsters on the foam surface, do as follows:

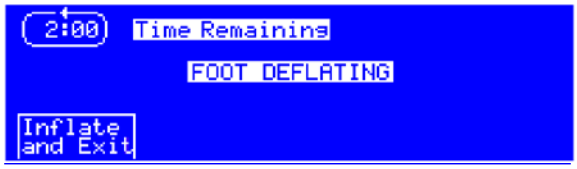
At the **Deflate Sides** screen, press **Inflate and Exit**. The **Sides Inflating** screen shows, the side bolsters inflate, and then the **Foam Mattress** screen shows.




### Foot Section

To deflate the foot section of the surface, do as follows:

At the **Foam Mattress** screen, press **Deflate Foot Section**. The foot section deflates, and the **Foot Deflating** screen shows for 2 minutes.

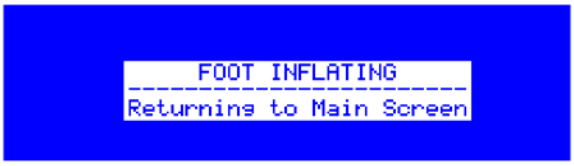



**NOTE:**
After 2 minutes of Deflate Foot mode, the **Foam Mattress** screen shows.




To inflate the foot section, do as follows:

If the Deflate Foot mode has been on for **less than** 2 minutes, press **Inflate and Exit** at the **Foot Deflating** screen.
**or**
If the Deflate Foot mode has been on for **more than** 2 minutes, press **Inflate Foot Section** at the **Foam Mattress** screen.

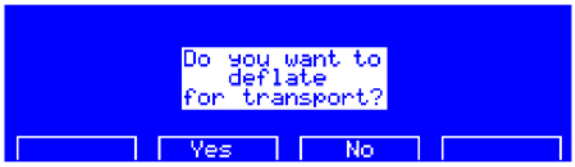



The **Foot Inflating** screen shows, the foot section inflates, and then the **Foam Mattress** screen shows.

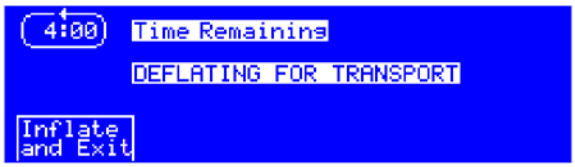
## Deflate and Inflate the Side Bolsters and Foot Section for Patient Transport

To deflate the side bolsters and foot section for patient transport, do as follows:

1. At the **Foam Mattress** screen, press **Deflate for Transpt**. The **Do you want to deflate for transport?** screen shows.




2. Press **Yes**. The side bolsters and foot section of the surface start to deflate, and the **Deflating for Transport** screen shows.



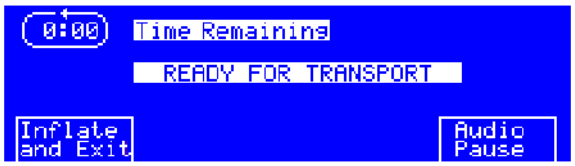

**NOTE:**
If you press **No**, the display shows the **Foam Mattress** screen.




3. When the side bolsters and foot section are deflated, the **Ready for Transport** screen shows.

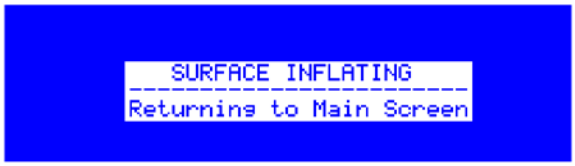



4. If the surface is deflated for more than 30 minutes, the alarm sounds. To mute the alarm for 10 minutes, press **Audio Pause**.




To inflate the side bolsters and foot section, do as follows:

Press **Inflate and Exit**. The **Surface Inflating** screen flashes, the side bolsters and foot section inflate.




## Air Supply Unit—Informational Tones

The unit generates informational tones to let the caregiver know the system status during its operation. This includes single beeps that let the caregiver know these:

- Input is necessary to change the functionality of the system.
- A full turn has been completed.
- Communications with the bed frame has been lost.

# ACCESSORIES

**WARNING:**
Zero the scale **before** a new patient is put on the bed and whenever additional equipment is added to the bed. Failure to do so could cause an inaccurate weight reading; patient injury could occur.

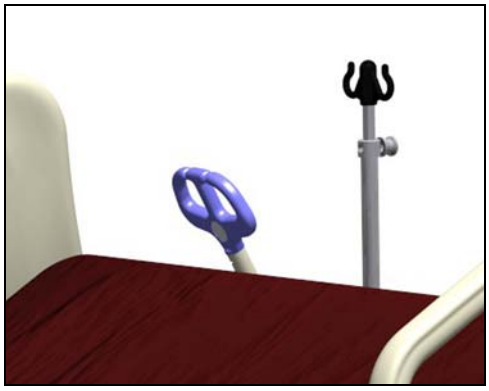
After you install an accessory on the bed, zero the scale. See "Scale Systems" on page 51.

| Part Number | Description |
|---|---|
| **Accessories for North America** | |
| P2217A | IV Pole |
| P27601 | Oxygen tank holder, vertical |
| P7802A | Patient Helper |
| P7803A01 | Pendant |
| P7803A02 | Pendant, with Nurse Call |
| P3670A01 | Respiratory circuit holder |
| P3670A05 | Pressure transducer holder |
| P158A[a] | Infusion Support System (ISS) |
| P163 | ISS socket adapter |
| P7801A01 | Headboard, capital |
| P7512A | Line Managers |
| **Accessories for International** | |
| 71438 | Adapter, IV pole |
| AC959A | Oxygen tank holder 150 mm |
| AD101A | Oxygen tank holder 110 mm (D size) |
| AD102A | Oxygen tank holder 110 mm (E size) |
| AC962A | Pivoting 3-liter cylinder holder |
| AD148A | Telescopic IV pole |
| AD165A | Telescopic IV pole |
| AC963A | Syringe-driver holder |

a. Adapter bracket P163 must be installed for use of P158A.

# ACCESSORIES FOR NORTH AMERICA

## IV Pole (P2217A)



**WARNING:**
To help prevent personal injury or equipment damage, follow these warnings and cautions:

- Do not exceed the 11 kg (25 lb) load capacity of the IV pole.
- Correctly attach the IV pole; otherwise, it may fall.
- Uneven loading of the IV pole could cause the contents to fall.
- When you lower the upper section of an IV pole, always hold the upper section of the pole before you pull the release knob.
- Install the IV pole in an equipment socket only. See "Equipment Sockets" on page 37.

The IV pole is a removable, telescopic pole that installs in any of the equipment sockets.

### To Install

Insert the IV pole vertically into any of the equipment sockets at either the head end or foot end of the bed.

### To Remove

Pull the IV pole out from the equipment socket.

## Oxygen Tank Holder, Vertical (P27601)

**WARNING:**
Failure to correctly attach the oxygen tank holder could cause it to drop. Injury or equipment damage could occur.

The oxygen tank holder holds one **E** size oxygen tank with a regulator. The mount location lets the affixed oxygen tank holder pivot. The safe working load of the oxygen tank holder is 14 kg (30 lb).

### To Install

1. Install the mounting bar vertically into any of the equipment sockets at either the head end or foot end of the bed.

2. Put the oxygen tank in the oxygen tank holder.

3. Tighten the holder thumbscrew to keep the oxygen tank in position.

**NOTE:**
Make sure that when you put an oxygen tank in the holder that the tank does not interfere with the head section articulation.

### To Remove

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

## Patient Helper (P7802A)



**WARNING:**
To help prevent personal injury or equipment damage, follow these warnings and cautions:

- Do not exceed the 227 kg (500 lb) load capacity of the Patient Helper arm assembly.
- Correctly attach the Patient Helper arm assembly; otherwise, it may fall.
- Do not remove or install the Patient Helper arm assembly while it is in a position over a patient.
- For use, the Patient Helper trapeze must be locked in the center position.



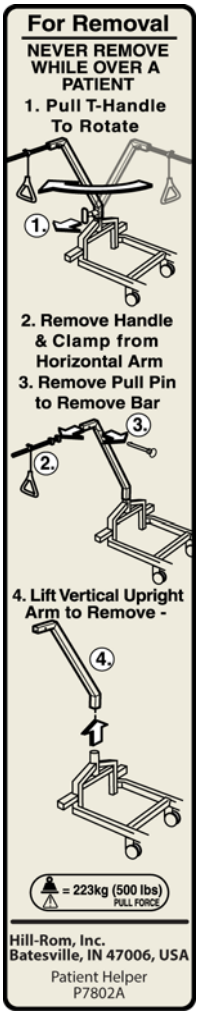

- The complete Patient Helper weighs 21 kg (46.3 lb). Use correct lifting techniques and/or ask for assistance when you install or remove the Patient Helper.




The Patient Helper can be used to help assist patients with mobility. It can be rotated to either the left or right for better access to the patient during nursing care, or for positioning an X-Ray machine over the patient.

**To rotate the arm**, pull the T-handle that is on the Patient Helper mount while you turn the arm assembly to the left or right.

## To Install




1. Remove the cover from the Patient Helper mount on the bed. Keep the cover.
2. Turn the arm assembly so that it is towards the left or right side of the bed, and install the arm assembly into the Patient Helper mount.
3. Pull the T-handle that is on the Patient Helper mount until the arm assembly lowers into position.
4. Install the horizontal arm into the arm assembly, and insert the pull pin to hold the horizontal arm in position.
5. Install the clamp of the trapeze handle assembly on to the horizontal arm, and tighten the clamp to attach the trapeze handle assembly to the horizontal arm.
6. Turn the arm weldment so the trapeze handle is centered over the bed and the T-handle locks into position.

## To Remove

1. Pull the T-handle that is on the Patient Helper mount, and turn the arm assembly so that the trapeze handle is over the side of the bed.
2. Loosen the clamp that attaches the trapeze handle assembly to the horizontal arm, and remove the trapeze handle assembly from the horizontal arm.
3. Remove the pull pin and horizontal arm from the arm assembly.
4. Remove the arm assembly from the Patient Helper mount.
5. Install the cover on to the Patient Helper mount.

## Patient Pendant (P7803A01/02)




## To Install

1. Put the pendant into position in the opening from the patient side of a head-end siderail.
2. Set 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 inward until it clicks into position inside the siderail.

When the pendant is not in use, we recommend that you keep it stored in its slot in the siderail.

## To Remove

Gently pull the pendant out from the siderail.

## Pressure Transducer Holder (P3670A05) and Respiratory Circuit Holder (P3670A01)



**WARNING:**
To help prevent personal injury or equipment damage, follow these warnings and cautions:

- After you raise or lower the head section, make sure the holder is in the correct position.
- When the holder is installed, use caution when you move around the bed, move the bed, or transfer a patient in or out of the bed.
- Use the holder for medical equipment only.
- During rotation, monitor the patient rotation angle and make sure that the patient stays centered on the surface with shoulders correctly aligned, and that there is sufficient slack in lines for patient movement and surface rotation.
- Do not attach height sensitive devices or transducers with drainage capacity.
- Do not exceed the 2.2 lb (1 kg) load capacity of each holder.
- Do not use a holder to move the bed.

The pressure transducer holder and respiratory circuit holder are used to hold respiratory ventilator circuits and pressure transducers and keep them in position. The P3670A01 is the tube holder configuration, and the P3670A05 is the transducer configuration. The holders can be mounted on either or both corners of the head section. Refer to the manufacturer's instructions for operation.

## To Install

1. Loosen the knob on the bottom of the holder bracket.
2. Slide the holder bracket on to the bed mount bracket until it stops.
3. Tighten the knob.
4. Put the holder in the applicable position.

## Infusion Support System (P158A)



**WARNING:**
To help prevent personal injury or equipment damage, follow these warnings and cautions:

- Do not exceed the 9 kg (20 lb) load capacity of the infusion support system (ISS) pole.
- When you lower the upper section of an ISS pole, always hold the upper section of the pole before you pull the release knob.

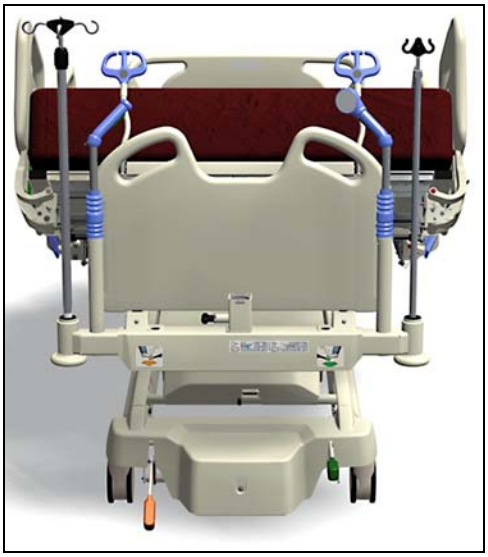
**NOTE:**
Make sure when you mount infusion pumps on an IV pole that they do not interfere with the head section articulation.

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

Before you install the ISS pole (P158A), it is necessary to install the P163 ISS socket adapter.

## Headboard (P7801A01)



The headboard is available with or without a user manual holder.

The headboard attaches to the head end of the frame.

The headboard can be removed for increased access to the patient's head.

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

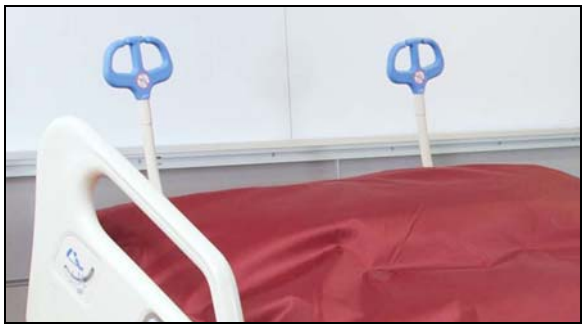
### To Remove

Lift the headboard straight up.

### To install

Align the headboard pins with the sockets in the frame and then lower the headboard into the sockets. Push the headboard down until the bottom rests on the frame.

## Line Managers (P7512A)



**WARNING:**
To help prevent personal injury or equipment damage, follow these warnings and cautions:

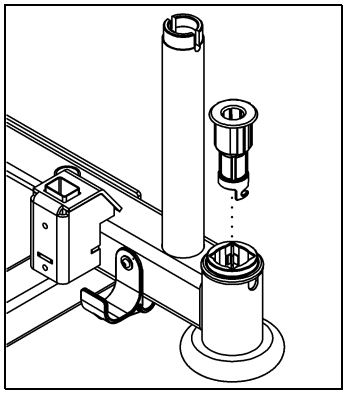
- Do **not** use the line managers to secure ventilator tubing; use only approved ventilator tubing devices.
- Do **not** wrap power cords around the line managers.

The line managers help keep lines such as IVs, suction tubing, and monitor cables together and away from the articulation of the frame.

## ACCESSORIES FOR INTERNATIONAL

### IV Pole Adapter (71438)

The IV pole adapter needs to be removed from the equipment sockets so that the International accessories fit into the sockets.



### Oxygen Tank Holders (AC959A, AD101A, and AD102A)

**WARNING:**
Do not exceed the load capacity of the oxygen tank holders; refer to the value shown on the holder. To do so could cause personal injury or equipment damage.

The oxygen tank holders are designed to hold an oxygen tank. Each holder is designed to hold a specific-sized oxygen tank and must never be used with a different size oxygen tank.

When you use one of the oxygen tank holders, follow these recommendations:

- Make sure that the oxygen tank holder is correctly inserted into one of the equipment sockets at any of the four corners of the bed.
- Make sure that the oxygen tank is correctly inserted in the holder.
- Do not use a different oxygen tank model from the model specified. The tank could fall or interfere with other operations.
- Make sure that the holder is in a safe position before you adjust the tilt of the bed or lower the bed.
- If the holder does not permit the bed to pass through a doorway, adjust the holder so that it is at the front of the bed or put the holder and cylinder on the bed (remember to return the holder to its normal location after the transport).

## Pivoting 3-Liter Cylinder holder (AC962A)

We recommend that you install the cylinder holder at the foot end of the bed.

**WARNING:**
Do not exceed the load capacity of the cylinder holder; refer to the value shown on the holder. To do so could cause personal injury or equipment damage.

When you use the cylinder holder, follow these recommendations:

- Make sure that the holder is correctly inserted in either equipment socket at the foot end of the bed.
- Make sure that the 3-liter cylinder is correctly inserted in the holder.
- Do not use a different sized cylinder from the size specified. The cylinder could fall or interfere with other operations.
- Make sure that the holder is in a safe position before you adjust the tilt of the bed or lower the bed.
- If the holder does not permit the bed to pass through a doorway, adjust the holder so that it is at the foot of the bed or put the holder and cylinder on the bed (remember to return the holder to its normal location after the transport).

## Telescopic IV Poles (AD165A and AD148A)

**WARNING:**
To help prevent personal injury or equipment damage, follow these warnings and cautions:

- Do not exceed the load capacity of the IV poles; refer to the value shown on the IV pole.
- Make sure the IV pole is installed so that it is toward the bed and not outward.

### To Use the IV Pole with Four Hooks (AD165A)

1. Insert the IV pole vertically into any of the equipment sockets at either the head end or foot end of the bed.
2. To adjust the height of the pole, do these:
   a. Loosen the knob on the pole as you hold the lower section of the pole.
   b. Hold the upper section of the pole, just below the plastic sleeve.
   c. Push the sleeve upwards, and adjust the pole to applicable height.
   d. Tighten the knob.
3. To adjust the angle of the pole, do these:
   a. Loosen the knob on the pole as you hold the lower section of the pole.
   b. Adjust the upper section of the pole to the applicable angle. Make sure that the pole is in a safe position.
   c. Tighten the knob.

### To Use the IV Pole with Two Hooks (AD148A)

1. Insert the IV pole vertically into any of the equipment sockets at either the head end or foot end of the bed.
2. To adjust the height or angle of the pole, do these:
   a. Loosen the knob on the pole as you hold the upper section of the pole.
   b. As you hold the lower section of the pole, adjust the pole to the applicable height or angle. Make sure that the pole is in a safe position.
   c. Tighten the knob.

## Syringe-Driver Holder (AC963A)

**WARNING:**
To help prevent personal injury or equipment damage, follow these warnings and cautions:

- Do not exceed the load capacity of the syringe-driver holder; refer to the value shown on the holder.
- Do not install the holder so that it is towards the bed. To do so could cause interference with the bed and siderail articulations.

The holder is designed to hold syringe-drivers and is to be installed in the equipment sockets on either side of the head end of the bed.

### To Adjust the Holder Position

1. Hold the table as you loosen the knob.
2. Adjust the table as applicable, and then tighten the knob.

## CLEANING/DISINFECTING

**WARNING:**
When you clean and disinfect the bed, air supply unit, and support surface, follow these safety instructions; otherwise, personal injury or equipment damage could occur:

- Hill-Rom recommends that you clean and disinfect the bed, air supply unit, and support surface between patient use and when servicing.
- The potential for electrical shock exists with electrical equipment. Failure to follow facility protocol could cause death or serious injury.
- Always follow the cleaning product manufacturer's instructions.
- Do not steam clean or power wash the bed, air supply unit, or support surface. Pressure and excessive moisture can damage the protective surfaces and electrical components.
- **Do not** autoclave the air supply unit or the hose assembly.
- Do not use harsh cleansers/detergents, heavy duty grease removers, solvents such as toluene, xylene, or acetone, and do not use scouring pads (you may use a soft bristle brush).
- Do **not** use high temperatures to dry the topper. Air dry or select a low or non-heat dry cycle such as air fluff. High temperatures could impact the impermeability of the topper.
- Do **not** spray disinfectant directly on the air supply unit, or immerse the air supply unit in any type of liquid.
- Do not put the support surface on the bed until the surface and bed are completely dry.
- Keep the air filters clean. See "Clean the Air Supply Unit Filters" on page 95.

## SUPPORT SURFACE COMPONENT IDENTIFICATION

| Term | Description |
|---|---|
| Topper | Advanced MicroClimate® Technology or low airloss surfaces (mattresses) have a topper. The topper zips on to the top of the surface above the cover. The topper is wipeable and machine washable. |

| Term | Description |
|---|---|
| Cover | This is the top cover of the surface: low airloss or foam. This layer encases the internal components of the support surface and is directly under the topper. Although you may remove the cover to examine the internal components of the support surface, it is recommended that you wipe the cover and do not launder it by machine. |
| Mattress/Surface | These terms are used interchangeably and are used to describe the complete support surface/mattress assembly. |

## RECOMMENDATIONS

Hill-Rom recommends cleaning and disinfecting the bed, air supply unit, and support surface between patient use and regularly during extended patient stays. Refer to your facility's cleaning and disinfection policies, as well as the recommendations below.

- Wipe up fluid spills as soon as possible. Always unplug the unit from its power sources before you clean up major fluid spills. Some fluids used in the hospital environment, such as iodophor and zinc oxide creams, can cause permanent stains. Remove temporary stains by wiping vigorously with a lightly-dampened sponge or cloth.
- Use an EPA registered hospital-grade disinfectant and a soft bristle brush to remove difficult spots or stains.
- Follow facility protocols in regard to patient allergies to cleaning and disinfectant solutions.
- Follow facility protocols for the use of personal protective equipment when cleaning and disinfecting the system.
- If there are **no** signs of heavy soil such as body fluids and/or substances, use a mild detergent and warm water to clean the bed or support surface. For disinfection, we recommend that you use a tuberculocidal disinfectant. See the cleaning and disinfectant solutions in the table below. (For customers in the US, use a hospital-grade disinfectant that is registered with the Environmental Protection Agency.) Refer to the manufacturer's label for use instructions.

| Chemical Class | Active Ingredient |
|---|---|
| Quaternary ammonium chloride | Didecyl dimethyl ammonium chloride<br>Alkyl dimethyl benzyl ammonium chloride |
| Quaternary ammonium chloride | Alkyl dimethyl benzyl ammonium chloride<br>Alkyl dimethyl ethylbenzyl ammonium chloride |

| Chemical Class | Active Ingredient |
|---|---|
| Phenolic | Ortho-Phenylphenol<br>Ortho-Benzyl-para-Chlorophenol |
| Chlorine releasing agent | Hypochlorite |
| Alcohol | Isopropyl alcohol |
| Quaternary ammonium | n-Alkyl dimethyl benzyl ammonium chlorides<br>n-Alkyl dimethyl ethylbenzyl ammonium chlorides |

## CLEAN AND DISINFECT THE BED, AIR SUPPLY UNIT, AND SUPPORT SURFACE

1. Unplug the bed and air supply unit.
2. Remove all linens.
3. If it is necessary to remove the support surface, go to "Install the Surface and Air Supply Unit" on page 66, and do the installation steps in reverse order.
4. Use these to clean the bed:
   - A soft cloth soaked with warm water and a mild detergent. Make sure the cloth is not so wet as to cause the solution to pool or flood the support surface or other bed components.
   - A soft bristle brush to remove stains and resistant soil. Do not use harsh or abrasive cleansers, solvents, or scouring pads.
5. Clean the air supply unit (include the power cord and hose assembly) and bed. Give special attention to these areas:
   - Headboard and footboard—thoroughly clean as these are high-touch areas
   - Siderails—thoroughly clean the high-touch areas (such as the upper and under sides of siderail releases, pendants, and patient controls) and the latch areas and latch pins of the mount brackets
   - Bed frame
   - Casters
   - Fully-extended IV pole
   - Bed accessories
   - All other bed components
6. Disinfect the air supply unit (include the power cord and hose assembly) and bed—wipe down all surfaces with an EPA registered hospital-grade 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, and head and footboards.

7. Wipe down the support surface and topper with chlorine bleach (50 ppm to 150 ppm) or a recommended cleaning solution and warm water followed by an EPA registered hospital-grade disinfectant. (2.5 oz of bleach per 10 gal of water is approximately 100 ppm of available chlorine.)

**NOTE:**
The topper can be either wiped down or machine washed. For machine washing, see "Machine Wash the Topper" on page 94.

**NOTE:**
If you turn the surface to clean it, make sure the cleaner/disinfectant solution does not pool or flow on to the other side or edges of the surface. This may permit fluid to get into the surface air outlets and zipper closures that ordinarily are protected by flaps.

8. Let the bleach or disinfectant remain in contact with the surface as instructed in the manufacturer's instructions.

9. Remove the bleach or disinfectant, and rinse with warm water.

10. Let the surface and topper completely air dry.

11. Examine the condition of the surface. If there are holes, tears, or other signs of damage or deterioration, replace the surface.

12. Make sure the bed frame is dry, and if the surface was removed, install it on the bed. See "Install the Surface and Air Supply Unit" on page 66.

13. Put the linens on the bed.

14. Plug the bed into an applicable power outlet.

## MACHINE WASH THE TOPPER

For a lightly soiled topper, you may wipe it clean as described above. However, when there are signs of heavy soil such as body fluids and/or substances, machine wash the topper as follows:

1. Remove the topper from the support surface.

2. Machine wash the topper with chlorine bleach (50 ppm to 150 ppm) or detergent and an EPA registered hospital-grade disinfectant solution. (2.5 oz of bleach per 10 gal of water is approximately 100 ppm of available chlorine.) The topper can be washed at a maximum water temperature of 90°C (194°F).
   - 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 topper in the disinfectant or bleach.
   - Let the topper rinse thoroughly in clean water.

3. Either air dry the topper, or use the **lowest** temperature setting of the dryer to dry the topper; do **not** exceed 70°C (158°F).

## CLEAN THE AIR SUPPLY UNIT FILTERS




For correct operation of the Compella™ Therapy Surface, keep the filters clean. After 800 hours of operation, when the air supply unit is turned on, the **Replace Filter** screen shows as a reminder to replace the filters. To replace the filters later, press **Remind me later**. When the air supply unit is turned on again, the **Replace Filter** screen will show.

1. Unplug the air supply unit from its power source.

2. At the bottom of the air supply unit, open the two filter grill covers, and remove the filters. Do **not** unscrew the filter assembly from the air supply unit.

**NOTE:**
The **white** filter housing is the air intake filter. The **black** filter housing is the cooling fan filter.

3. Wash the filters in mild detergent, and let them air dry.

4. If the filters **can not** be cleaned, or if the filters are damaged, replace them.

5. Set the clean or new filters in the filter housings, and close the filter grill covers.

6. Install the **white** filter housing under the side with **three** connectors.

7. Install the **black** filter housing under the side with **six** connectors.

8. If you have replaced the filters, press **Filter has been replaced.** This resets the filter counter for another 800 hours.



# PREVENTIVE MAINTENANCE

**WARNING:**
Only facility-authorized persons or Hill-Rom service technicians should service the Compella™ Bariatric Bed System. Service by unauthorized persons could cause injury or equipment damage.

The Compella™ Bariatric Bed System requires an effective maintenance program. We recommend that you do **annual** preventive maintenance (PM) for Joint Commission certification. PM not only meets Joint Commission requirements but can help make sure of a long, operative life for the Compella™ Bariatric Bed System. PM will help minimize downtime due to excessive wear. For a preventive maintenance schedule, refer to the *Compella™ Bariatric Bed System Service Manual* (178952).

For service and/or technical information other than that specified in this manual, including fuse replacement, circuit diagrams and isolation of mains power, refer to the *Compella™ Bariatric Bed System Service Manual* (178952).

Do annual preventive maintenance procedures to make sure the Compella™ Bariatric Bed System operates as originally designed. The procedures include examinations of these:

- Overall condition
- Siderails
- Controls and motors
- Battery Backup
- Brakes and casters
- Electrical checks
- Scale system
- Head angle display
- Communication system
- Transport system
- Transport system batteries
- Air supply unit
- Support surface
- Accessories

## BATTERIES

**NOTE:**
The expected life of the batteries is 3 years.

Refer to the *Compella™ Bariatric Bed System Service Manual* (178952) for battery replacement procedures.

Consult your local regulations to safely discard or recycle the batteries.

### Bed Frame

Replace the batteries if any of these conditions occur (refer to the *Compella™ Bariatric Bed System Service Manual*):

- The battery indicator does not come on within 3 minutes of bed connection to AC mains.
- The battery indicator does not stop flashing (low condition) within 12 hours of bed connection to AC mains.
- Successive transports of 4 hours or less cause the batteries to discharge to low condition as indicated by a flashing battery indicator.

### IntelliDrive® XL Transport System

Contact your facility-authorized maintenance person or Hill-Rom Technical Support if the transport system automatically shuts down power before the final battery charge indicator flashes. The batteries will need to be replaced.

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

## AIR SUPPLY UNIT—FILTERS REPLACEMENT

**WARNING:**
Failure to clean the filters may cause damage to the air supply unit which could prevent the unit from supplying the correct support surface pressures. Patient injury could occur




Excessive lint, dust, and/or smoke can clog the filter. To keep the air supply unit operating at its best, good filter maintenance is critical. After 800 hours of operation, when the air supply unit is turned on, the **Replace Filter** screen shows as a reminder to replace the filters. To replace the filters later, press **Remind me later**. When the air supply unit is turned on again, the **Replace Filter** screen will show.

For filter replacement and cleaning, see “Clean the Air Supply Unit Filters” on page 95.

# TROUBLESHOOTING

**WARNING:**
Only facility-authorized persons or Hill-Rom service technicians should service the bed. Service done by unauthorized persons could cause injury or equipment damage.

**NOTE:**
If the troubleshooting information shown below does not fix the problem, contact your facility-authorized maintenance person or Hill-Rom Technical Support.

## SOLVE A SYSTEM ALARM CONDITION ON A COMPELLA™ THERAPY SURFACE

If the unit detects an alarm condition in the surface, the **System Alarm** screen shows. Solve a system alarm condition as follows:




1. Press **Audio Pause** to mute the alarm for 10 minutes.

2. Refer to the **System Alarm** screen to determine the alarm condition:




**NOTE:**
The **System Alarm** screen shows the extended set of pressures: the patient-right and patient-left side bolsters show in the top row; the head, seat, and foot show in the bottom row.

- If **no** pressures settings are highlighted on the **System Alarm** screen, examine the side bolsters.
- If a pressure setting **is** highlighted, do as follows:
  - Refer to the highlighted pressure on the **System Alarm** screen to determine which section and air cell row of the surface caused the alarm condition.
  - Refer to the table below to find which air cells and hose(s) caused the alarm condition.

**NOTE:**
The air cells are numbered #1 through #22 and start at the head end of the bed.

**Air Cell Connections to Hoses**

| | | Air Supply Unit Right-Hand Side | | | Air Supply Unit Left-Hand Side | | |
|---|---|---|---|---|---|---|---|
| **Top Row** | **Zone** | **Head** | **Left Bolster** | **Left Turn** | **Foot** | **Foot** | **LAL Topper** |
| | **Hose Color** | Red | Blue | Green | White | Black | Yellow |
| | **Air Cells** | 1 - 6 | 1 - 18 | Left Turn Bladder | 15 - 17 | 18 - 20 | Topper |
| **Bottom Row** | **Zone** | **Seat** | **Right Bolster** | **Right Turn** | | | |
| | **Hose Color** | White | Black | Yellow | | | |
| | **Air Cells** | 7 - 14 & Topper | 1 – 18 | Right Turn Bladder | | | |

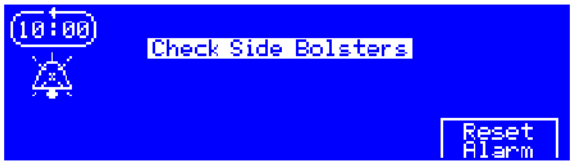
3. Make sure the hoses are firmly connected and the air cells are free from leaks. If necessary, contact your facility-authorized maintenance person or Hill-Rom Technical Support.

4. When the problem is solved, press **Reset Alarm**.

## SOLVE A SYSTEM ALARM CONDITION ON A COMPELLA™ FOAM SURFACE

If the unit detects an alarm condition in the air cells of the surface, an alarm screen shows. Solve a system alarm condition as follows:

1. Press **Audio Pause** to mute the alarm for 10 minutes.




2. Refer to the alarm screen to determine the alarm condition.




3. Make sure the hoses are firmly connected to the air supply unit, and the air cells are free from leaks. If necessary, contact your facility-authorized maintenance person or Hill-Rom Technical Support.

4. When the problem is solved, press **Reset Alarm**.

# SURFACE AND AIR SUPPLY UNIT—POWER FAILURE AND ALARM CONDITIONS

**NOTE:**
The air supply unit **must** be plugged into AC power to operate.

## Power Failure

A power failure can occur under these three conditions:

- The air supply unit power cord was disconnected from the AC power outlet.
- A power outage has occurred.
- A fuse has blown.

During a power failure condition, the display is Off, and the air cells in the support surface will not inflate, but will hold air.

When power is restored, these occur:

- The unit will resume operation in Pressure Redistribution mode.
- The pressure settings that were stored in memory are restored.
- The alarm settings will be restored automatically for a power loss that lasts 30 seconds or less.

**NOTE:**
The states of the Max Inflate, Audio Pause, and Lock buttons are not saved in memory during a power failure.

## Alarm/Alert System

Different alarms are generated by the air supply unit to notify the caregiver of potentially hazardous conditions. The intended position of the caregiver to respond to alarms or alerts is standing in front of the air supply unit at the foot of the bed.

### Notification Priority

Only one alarm will show on the display. The alarm list is processed in the order shown in the table below, and the first active alarm that occurs will show on the display. If more than one alarm condition is active, the highest priority alarm will show on the display. If the alarm conditions present are the same priority, only the first one will show on the display.

- Internal Hardware Failure (medium priority alarm)—upon detection of an internal malfunction, the system will sound an alarm. This may coincide with a visual indication, depending upon the malfunction.
- Max Inflate Timeout (medium priority alarm)—1 minute prior to timing out, the system sounds a warning alarm and shows a message that permits the caregiver to

extend or end the Max Inflate mode. If no action is taken, Max Inflate will automatically revert to the previous selected therapy mode in 1 minute.

- Side Deflate Timeout (medium priority alarm)—the system will sound an alarm if the sides are left deflated for more than 30 minutes. During this alarm, the operator is permitted to extend side deflate or inflate the sides.

**NOTE:**
The Side Deflate Timeout alarm is only operational when the system is operated in manual mode.

- Turn Failed (medium priority alarm)—turns are permitted 5 minutes to complete. If a maximum turn has not been achieved after 5 minutes the system will sound a Turn Failed alarm.
- High Pressure/Low Pressure (medium priority alarm)—if one or more zones fail to maintain pressure for 15 consecutive minutes, the system will sound a Low/High Pressure alarm. The display will show which zone(s) has failed. You can silence this alarm for 10 minutes for troubleshooting.

| Priority | Condition | Indication | Visual Warning | Alarm Condition Delay | Resolution |
|---|---|---|---|---|---|
| 1 | Low/High Pressure Alarm | Pressure Zone(s) failed to reach the target pressure. | Yes, warning on the display. | Occurs after 15 minutes of not achieving the target pressure. | • Examine the surface connections.<br>• Examine for leaks in the failed bladder(s).<br>• Remove from service. |
| 2 | Turn Failed | The turn bladder did not reach the target pressure. | Yes, warning on the display. | Occurs 5 minutes after the turn started. | • Examine the surface connections.<br>• Examine the Turn Bladder for leaks.<br>• Remove from service. |
| 3 | Internal Hardware Failure | Internal malfunction | Yes, if not affected by an internal error. | Immediate | Remove from service. |
| 3 | Max Inflate Timeout | Max Inflate is about to timeout. | Yes, warning on the display. | Occurs 29 minutes after Max Inflate started. | Do one of these:<br>• Extend Max Inflate.<br>• Stop Max Inflate.<br>• Let Max Inflate timeout. |

| Priority | Condition | Indication | Visual Warning | Alarm Condition Delay | Resolution |
|---|---|---|---|---|---|
| 3 | Side Deflate Timeout | The system was left with its sides deflated (Manual mode only). | Yes, warning on the display. | Occurs 30 minutes after Side Deflate completes. | Do one of these:<br>• Extend Side Deflate.<br>• Inflate the sides. |

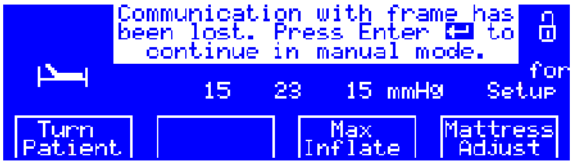
## POWERED WIDTH EXTENSIONS WILL NOT EXTEND OR RETRACT

**NOTE:**
The bed and air supply unit **must** be plugged into AC power for the extensions to operate.

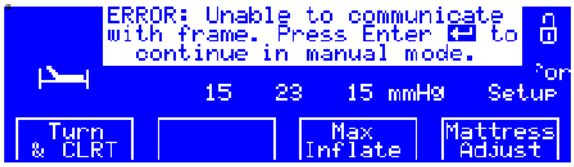
Make sure of these:

- The bed and the air supply unit are plugged into AC power.
- The communication cable is connected to the bed and the air supply unit.
- The air supply unit is turned on.

If the air supply unit is plugged in, but the bed is not plugged in and/or the communication cable is not connected, then the **Communication Lost** message will show to allow you to operate the system in Manual mode until the bed is plugged into AC power and the communication cable is connected.




If the system meets the three bulleted conditions above and the powered width extensions still do not operate, the air supply unit may have an internal communication board error. If so, the **Communication Error** message will show.




If you have pressed the **Enter** button, and you need to see the error message or confirm that there is still an issue, turn the air supply unit off, and then turn it on. If there is still an issue, the **Communication Error** message will show. If there is an internal communication board error, the system will continue to operate in the Manual mode until the air supply unit can be serviced or replaced.

## THE HEAD SECTION WILL NOT RISE OR LOWER

Make sure of these:

- The Head Up and Down controls are not locked out.
- The bed has battery charge or is plugged into AC power.
- The bed CPR release handle is in the fully returned position.
- The bed width extensions are in the fully extended or fully retracted positions.

## THE BED CPR HANDLE DOES NOT RETURN TO THE DISENGAGED POSITION

If the CPR handle does not fully return to the disengaged position, the head section may not rise and hold the patient weight. To return the CPR handle to the disengaged position, make sure of these:

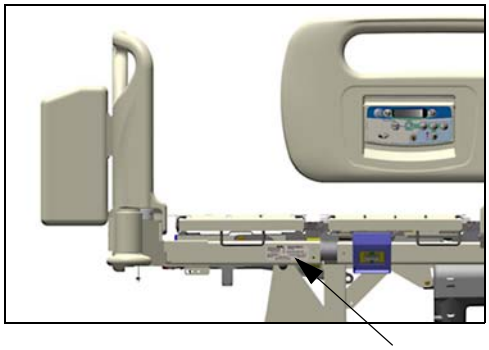
- The CPR handle is free from bed linens and other equipment that could prevent its return.
- The CPR handle is not damaged such that it drags excessively. To determine this, slightly push the handle to see if it completely returns.
- The CPR cable does not have a kink or other damage that may prevent the handle from fully returning. You may need to contact your facility-authorized maintenance person or Hill-Rom Technical Support to do this inspection.

# SERVICE CALLS

**WARNING:**
Only facility-authorized persons or Hill-Rom service technicians should service the bed. Service done by unauthorized persons could cause injury or equipment damage.

When you call Hill-Rom about your unit, be prepared to give the serial number from the product identification label. You will find the serial numbers in these locations:

- Bed—as shown in the illustration
- Air supply unit—on the patient-left side of the unit.
- Therapy surface—on the patient- right foot corner of the cover
  - Topper—on the inside seam, on the patient-right foot corner
- Foam surface—on the bottom of the cover, toward the foot end, in the center.



Bed Serial Number

# SPECIFICATIONS

### Bed Specifications

| Feature | Dimension |
|---|---|
| Overall width[a] | |
| Maximum (width extenders extended) | 53" (135 cm) |
| Minimum (width extenders retracted) | 43" (109 cm) |
| Overall length[a] | |
| Maximum (foot section extended) | 98" (249 cm) |
| Minimum (foot section retracted) | 91" (231 cm) |
| Sleep deck width | 40" to 50" (102 cm to 127 cm) |
| Sleep deck length | 85" to 92" (216 cm to 234 cm) |
| Hi-Lo[b] | |
| Maximum | 26.8" (68 cm) |
| Minimum | 18.5" (47 cm) |
| Transport | 17" (43 cm) |
| Patient weight range | 113 kg to 454 kg (250 lb to 1000 lb) |
| Patient height range | 50" to 78" (127 cm to 198 cm) |
| Safe Working Load (including patient, support surface, and accessories) | 500 kg (1100 lb) |
| Total bed weight (including the Safe Working Load) | 950 kg (2094 lb) |
| Total bed weight (excluding the Safe Working Load) | 380 kg (838 lb), without the IntelliDrive® XL Transport System<br>430 kg (948 lb), with the IntelliDrive® XL Transport System |
| Head section angle | 0° to 50° |
| Knee section angle | 0° to 30° |
| Tilt angle | 0° to 9° |
| Reverse Tilt angle | 0° to 9° |
| Caster size | 6" (15 cm) |
| Roller bumper size | 4" (10 cm) |

a. Measured from the outermost points (bumpers), excluding air supply unit and mounting bracket.
b. Measured from the top of the seat section outer edge to the floor.

### Surface and Air Supply Unit Specifications

| Feature | Dimension |
|---|---|
| Air supply unit model number | P7810 |
| Air supply unit height | 12.1" (30.7 cm) |
| Air supply unit width | 14.5" (36.8 cm) |
| Air supply unit depth | 6.0" (15.2 cm) |

| Feature | Dimension |
|---|---|
| Air supply unit weight | 10 kg (21 lb) |
| Therapy surface model number | P642 |
| Foam surface model number | P641 |
| Surface height—inflated | 8" (20 cm), foam surface<br>8.5" (21.5 cm), therapy surface |
| Surface width | 40" to 50" (102 cm to 127 cm) |
| Surface length—inflated | 80" to 88" (203 cm to 224 cm) |
| Surface weight | 17 kg (38 lb), foam surface<br>23.6 kg (52 lb), therapy surface |
| Latex content | User accessible parts (surface, pumps, and accessories) are not made with natural rubber latex |
| Operating weight range | 113 kg to 454 kg (250 lb to 1000 lb) |
| Operating height range | 50" to 78" (127 cm to 198 cm) |
| Air supply unit—range of pressures shown | 0 to 99 mmHg |
| Accuracy of shown pressures | +/- 2 mmHg |

**Environmental Conditions for Transport and Storage**

| Condition | Range |
|---|---|
| Temperature (**frame** and **surface** only) | -40°F to 158°F (-40°C to 70°C) |
| Temperature (**air supply unit** only) | -4°F to 158°F (-20°C to 70°C) |
| Relative humidity | 10% to 95% non-condensing |
| Pressure | 50 kPa to 106 kPa |

**NOTE:**
We recommend that you fully charge the batteries before the bed is subjected to cold temperature situations. This will help the bed to acclimate more quickly when you prepare it for use. It may take up to 12 hours to fully charge the batteries.

**Environmental Conditions for Use**

| Condition | Range |
|---|---|
| Temperature (**frame** only) | 50°F to 104°F (10°C to 40°C) ambient temperature |
| Temperature (**surface** and **air supply unit** only) | 50°F to 94°F (10°C to 35°C) ambient temperature |
| Relative humidity range | 20% to 85% non-condensing |
| Atmospheric pressure | 70 kPa to 106 kPa |
| Altitude | 3000 m to -330 m (9842.5 ft to -1082.7 ft) |

### Bed and Surface Air Supply Unit AC Power Requirements (120 V Model)

| Condition | Range |
|---|---|
| Rated Voltage | |
| Bed | 100/110/115/120/127 V AC |
| Air supply unit | 110/115/120 V AC |
| Maximum Current | |
| Bed | 12 A |
| Air supply unit | 1.2 A |
| Frequency | |
| Bed | 50/60 Hz |
| Air supply unit | 50/60 Hz |

### Bed and Surface Air Supply Unit AC Power Requirements (230 V Model)

| Condition | Range |
|---|---|
| Rated Voltage | |
| Bed | 220/230/240 V AC |
| Air supply unit | 220/230/240 V AC |
| Maximum Current | |
| Bed | 6 A |
| Air supply unit | 0.6 A |
| Frequency | |
| Bed | 50/60 Hz |
| Air supply unit | 50/60 Hz |

### Air Supply Unit Fuse Specifications[1]

| Fuse | Type |
|---|---|
| 120 V and 230 V models | 3.15 A, 250 V, fast acting |

### Applied Parts (in accordance with IEC 60601-1)

| Applied Parts | |
|---|---|
| Siderail | Headboard |
| Footboard | Patient pendant |
| Sleep deck | Support surface |

1. There are no user accessible fuses for the bed. Refer to the *Compella™ Bariatric Bed System Service Manual* (178952) for fuse ratings and replacement procedures.

## Bed Classification and Standards

| | |
|---|---|
| Technical and quality assurance standards | IEC /EN 60601-1 Ed 3.1<br>CAN/CSA C22.2 No. 60601-1:08<br>IEC /EN 60601-2-52<br>IEC/EN 60601-1-2<br>IEC/EN 60601-1-6<br>EN ISO 9001 and 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 Im for foam surface<br>Class IIa for air surface |
| Degree of protection against ingress of water | IPX4 for the bed and patient pendant |
| Degree of protection against the presence of flammable anesthetic mixtures | Not for use with flammable anesthetics |
| Mode of operation | Continuous operation with intermittent loading, 2 minutes ON / 18 minutes OFF |
| Sound level | ≤ 52 dBA (patient resting continuous operation)—measured from patient's perspective with siderails up<br>≤ 65 dBA (patient alert continuous operation)—measured 1 m (39.4") from the bed centered in a longitudinal direction with siderails up<br>≤ 85 dBA (patient alert short term operation)—measured 1 m (39.4") from the bed centered in a longitudinal direction with siderails up |
| Application environments | Intensive/critical care<br>Acute care<br>Long term care<br>Outpatient/ambulatory care |

### Surface and Air Supply Unit Classification and Standards

| | |
|---|---|
| Technical and quality assurance standards | IEC/EN/ANSI/AAMI ES60601-1<br>IEC/EN 60601-1-2:2007<br>IEC 60601-1-6<br>REACH Directive 1907/2006<br>RoHS Directive 2002/95/EC<br>WEEE Directive 2002/96/EC |
| Degree of protection against electric shock for equipment classification per IEC 60601-1 | Class I |
| Classification according to Directive 93/42/EEC | Class IIa |
| Degree of protection against ingress of water | IP20 for the air supply unit |
| Degree of protection against electric shock for Applied Parts per IEC 60601 | Type BF |
| Degree of protection against the presence of flammable anesthetic mixtures | Not for use with flammable anesthetics |
| Mode of operation | Continuous |
| Sound level | ≤ 62 dBA, alarm signal |

### Flammability Codes—United States, Canada, and Europe

All recommended support surfaces meet the applicable United States, Canadian, and European flammability specifications.

### 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 P7800 should not be used adjacent to or stacked with other electrical equipment. If adjacent or stacked use is necessary, observe the P7800 and the other electrical equipment to make sure they operate as intended.

Make sure the P7800 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 P7800 is intended for use in the electromagnetic environment specified below. The customer or the user of the model P7800 should make sure it is used in such an environment. | | |
| **Emissions Test** | **Compliance** | **Electromagnetic Environment—Guidance** |
| RF emissions<br>CISPR 11 | Group 1 | The P7800 uses RF energy only for its internal functions. Therefore, its RF emissions are low and are not likely to cause any interference in nearby electronic equipment. |
| RF Emissions<br>CISPR 11 | Class A | The P7800 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<br>IEC 61000-3-2 | Class A | |
| Voltage Fluctuations/ Flicker Emissions<br>IEC 61000-3-3 | Complies | |

## Electromagnetic Immunity Guidance

| **Guidance and Manufacturer's Declaration - Electromagnetic Immunity** | | | |
|---|---|---|---|
| The P7800 is intended for use in the electromagnetic environment specified below. The customer or the user of the P7800 should make sure it is used in such an environment. | | | |
| **Immunity Test** | **IEC 60601 Test Level** | **Compliance Level** | **Electromagnetic Environment—Guidance** |
| Electrostatic Discharge (ESD)<br>IEC 61000-4-2 | ± 6 kV Contact<br>± 8 kV Air | ± 6 kV Contact<br>± 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<br>IEC 61000-4-4 | ± 2 kV for Power Supply Lines<br>± 1 kV for Input/ Output Lines | ± 2 kV for Power Supply Lines<br>± 1 kV for Input/ Output Lines | Mains power quality should be that of a typical commercial or hospital environment. |

| Guidance and Manufacturer's Declaration - Electromagnetic Immunity | | | |
|---|---|---|---|
| The P7800 is intended for use in the electromagnetic environment specified below. The customer or the user of the P7800 should make sure it is used in such an environment. | | | |
| **Immunity Test** | **IEC 60601 Test Level** | **Compliance Level** | **Electromagnetic Environment— Guidance** |
| Surge<br>IEC 61000-4-5 | ± 1 kV Line(s) to Line(s)<br>± 2 kV Line(s) to Earth | ± 1 kV Line(s) to Line(s)<br>± 2 kV Line(s) to Earth | Mains power quality should be that of a typical commercial or hospital environment. |
| Voltage Dips, Short Interruptions, and Variations on Power Supply Lines<br>IEC 61000-4-11 | < 5% $U_T$<br>(> 95% dip in $U_T$) for 0.5 cycles<br>40% $U_T$<br>(60% dip in $U_T$) for 5 cycles<br>70% $U_T$<br>(30% dip in $U_T$) for 25 cycles<br>< 5% $U_T$<br>(>95% dip in $U_T$) for 5 seconds<br>(See Note 1) | < 5% $U_T$<br>(> 95% dip in $U_T$) for 0.5 cycles<br>< 40% $U_T$<br>(60% dip in $U_T$) for 5 cycles<br>70% $U_T$<br>(30% dip in $U_T$) for 25 cycles<br>< 5% $U_T$<br>(> 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 P7800 requires continued operation during power mains interruption, it is recommended that the P7800 be powered from an uninterruptible power supply or a battery. |
| Power Frequency (50/60hz) Magnetic Fields<br>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

| **Guidance and Manufacturer's Declaration - Electromagnetic Immunity** | | | |
|---|---|---|---|
| The P7800 is intended for use in the electromagnetic environment specified below. The customer or the user of the P7800 should make sure it is used in such an environment. | | | |
| **Immunity Test** | **IEC 60601 Test Level** | **Compliance Level** | **Electromagnetic Environment—Guidance** |
| Conducted RF IEC 61000-4-6 | 3 Vrms 150 kHz to 80 MHz | 3 V | Portable and mobile RF communications equipment should be used no closer to any part of the P7800, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.<br><br>Recommended separation distance<br><br>$d = 1.2\ \sqrt{P}$ |
| Radiated RF IEC 61000-4-3 | 3 V/m 80 MHz to 2.5 GHz | 3 V/m | $d = 1.2\ \sqrt{P}$ 80 MHz to 800 MHz<br><br>$d = 2.33\ \sqrt{P}$ 800 MHz to 2.5 GHz<br><br>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 meters (m).<br><br>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].<br><br>Interference may occur in the vicinity of equipment marked with this symbol.<br><br> |
| Note 1: At 80 MHZ and 800 MHz, the higher the frequency range applies.<br>Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people. | | | |

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 P7800 is used exceeds the applicable RF compliance level above, the P7800 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the P7800.

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 P7800 Model**

The P7800 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the P7800 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the P7800 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<br>$d = 1.2\sqrt{P}$ | 80 MHz to 800 MHz<br>$d = 1.2\sqrt{P}$ | 800 MHz to 2.5 GHz<br>$d = 2.33\sqrt{P}$ |
| 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 meters (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.

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