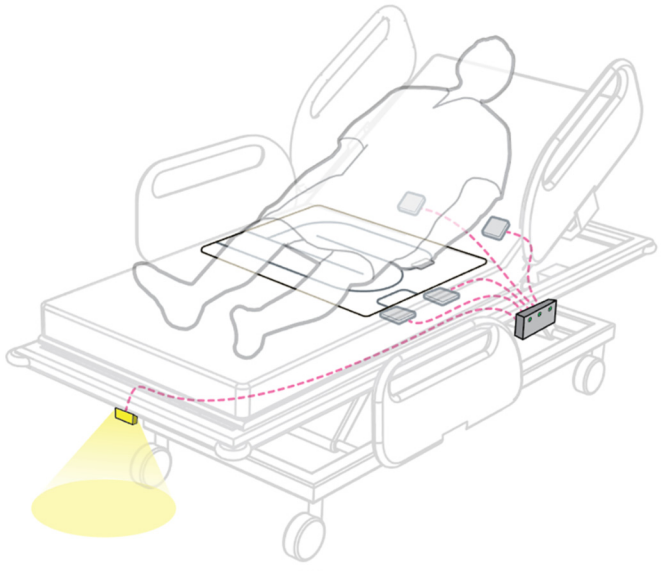
DRAFT 11-DEC-2017

WatchCare™ Incontinence Management System

User and Service Manual

Product No. P006979



196414 REV 1

Enhancing outcomes for patients and their caregivers.

Hill-Rom

REVISION

Distributed by:

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The WatchCare™ Incontinence Management System product may be covered by one or more patents. For a list of applicable patents, go to www.hill-rom.com/patents. The Hill-Rom companies are the proprietors of European, US, and other patents and pending patent applications.

This product may contain software known as "free" or "open source" software (FOSS). Hill-Rom uses and supports the use of FOSS. We believe that FOSS makes our products more robust and secure, and gives us and our customers greater flexibility. To learn more about FOSS that may be used in this product, please visit our FOSS website at www.hill-rom.com/opensource. Where required, a copy of FOSS source code is available on our FOSS website.

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Replace this manual (196414) if it is damaged and/or can not be read.

For product support or to order additional copies of this manual (196414), contact your local Hill-Rom representative or go to www.hill-rom.com.

Reference Documents

VersaCare® Bed User Manual (USR119 (A through J models); 161956 (K model and newer))

Progressa® Bed User Manual (171528)

VersaCare® Bed Service Manual (MAN333 (A through J models); 161955 (K model and newer))

Progressa® Bed Service Manual (171748)

Table of Contents

INTENDED USE

The Incontinence Monitor is intended to detect and provide a timely alert when the patient's skin is exposed to incontinence (both urine and liquid fecal).

INTRODUCTION

The WatchCare™ Incontinence Management System (system) provides a discreet visual alert and an optional nurse call alert after moisture is detected on the WatchCare™ smart pad.

This system is designed to discreetly alert the caregiver of an incontinence event and in doing so, may prevent prolonged exposure to moisture against the skin.

This system is most applicable in the critical care and medical/surgical settings, but it may be used in other clinical areas as well.

Before you operate the system, make sure that you read and understand in detail the contents of this manual. It is important that you read and obey the aspects of the safety content 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 system has been designed and tested for compatibility with the hospital beds shown below. To determine if the system can be used on a hospital bed not listed, contact Hill-Rom.

- The Progressa® Hospital Bed
- The VersaCare® Hospital Bed

NOTE:

The system is installed by Hill-Rom representatives to receive its power from the bed.

SYMBOLS

DOCUMENT SYMBOLS

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

- Standard text—used for regular data.
- **Boldface text**—emphasizes a word or phrase.
- **NOTE:**—sets apart special data or important instruction clarification.
- WARNING 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
	WatchCare™ indicator light
	Wireless indicator—identifies the connection status of the system to the facility wireless network
	Connected indicator—identifies the connection status of the system to the NaviCare® SmartSync® System
	Location indicator—identifies the connection status of the Location feature
	Manufacturer

Symbol	Description
	Model or type reference
	Serial number
	Manufacture date
	ATTENTION: Consult accompanying documents
	Federal Communications Commission
	Degree of protection against Ingress of Water
	Type B applied part according to IEC 60601-1
	Medical - General Medical Equipment as to Electrical Shock, Fire and Mechanical Hazards only in accordance with ANSI/AAMI ES60601-1 (2005) + AMD 1 (2012), CAN/CSA-22.2 No. 60601-1 (2014)
	Do not dispose as Unsorted Municipal Waste

SAFETY INSTRUCTIONS

WARNING:

Obey these safety instructions to help prevent injury and/or equipment damage:

- **Warning—**Read and understand all warnings in this manual and on the unit itself prior to use with a patient.
- **Warning—**The potential for electrical shock exists with electrical equipment. Failure to follow facility protocols may cause death or serious injury.
- **Warning**—The system is to be installed only by Hill-Rom representatives.
- **Warning**—To avoid risk of electrical shock, this equipment must only be connected to supply mains with protective earth.
- **Warning**—The system is not suitable for use in an oxygen-enriched environment.
- **Warning**—The system has no user serviceable parts. Only facility-authorized service persons should service the system.
- **Warning**—With the exception of the WatchCare® smart pads, do not discard components of the system as unsorted municipal waste. See your local distributor for collection and /or recycling systems available in your country.
- **Warning**—Do not modify the system.
- **Warning**—This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

CAUTION:

Caution—Make sure the position of the bed is such that you can quickly, without obstruction, unplug the power cord from the main power supply if necessary.

FCC GUIDANCE

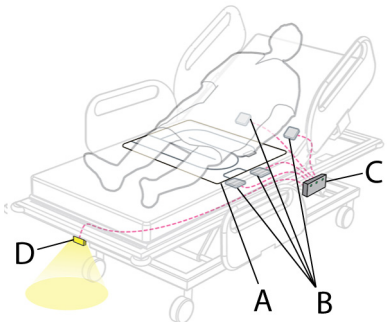
Pursuant to FCC 15.21 of the FCC rules, changes not expressly approved by Hill-Rom might cause harmful interference and void the FCC authorization to operate this product.

NOTE:

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an output on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

QUICK VIEW™ LIST OF FEATURES



Item	Feature
A	WatchCare™ smart pad
B	WatchCare™ antennas
C	WatchCare™ reader
D	WatchCare™ indicator light

STANDARD FEATURES

A	**WatchCare™ smart pad** The WatchCare™ smart pad (smart pad) detects moisture to notify the WatchCare™ reader of an incontinence event.

B	**WatchCare™ Antennas** There are four WatchCare™ antennas (antenna(s)) located under the mattress. They identify that a smart pad is present and send a signal to the WatchCare™ reader.
C	**WatchCare™ Reader** The WatchCare™ reader (reader) is located on the left side of the bed near the seat section. The reader sends a signal prompting the WatchCare™ indicator light as to the smart pad's status.
D	**WatchCare™ Indicator Light** The WatchCare™ indicator light (indicator light) is located on the foot end of the bed. The indicator has multi-color (green, amber, and white) lights that indicate the system status as identified in the table that follows.

Indicator Light—Visual Identification

Status	Indicator Light
Solid green light—identifies that a smart pad is present and is being monitored. No moisture is detected at this time.	
Flashing amber light—identifies that the smart pad is wet. This visual alert will project on the floor.	
Solid white light—identifies that the monitor system is on, but the reader does not detect any smart pads on the bed.	
Alternating white and green light—identifies that the monitor system can not operate effectively because more than four smart pads are detected.	

Status	Indicator Light
No light—the monitor system is not active. Make sure the bed is plugged into a power outlet.	

PREPARE THE SYSTEM FOR USE

WARNING:

Warning—Failure to keep cables out of the patient foot fall area could cause injury or equipment damage.

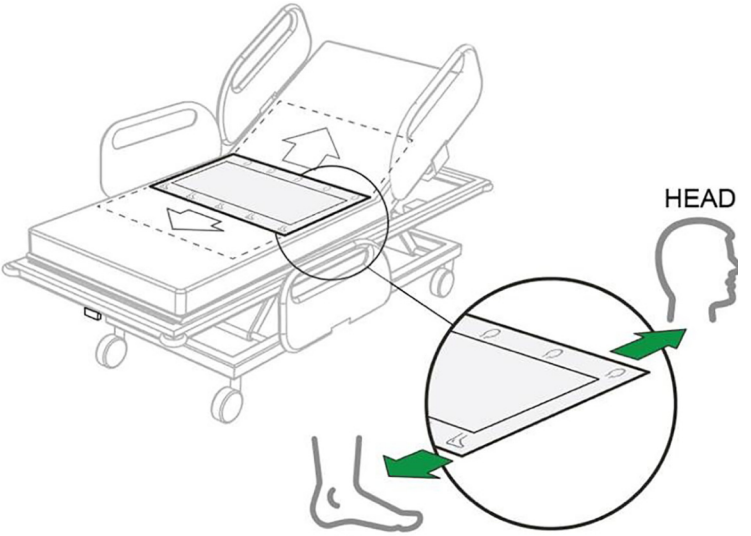
1. Make sure the bed's power cord is plugged into a power outlet.

WARNING:

Connect the 1/4" nurse call cable into an equipment alert jack only. Patient injury could occur if the nurse call system is not operational.

2. If you are using a **nurse call system**, make sure the 1/4" nurse call cable that connects the bed to the facility network is plugged into an equipment alert jack.
3. With the smart pads stored at least 2 feet from the bed, make sure the indicator light at the foot end of the bed is white. This could take up to 2 minutes. If the light is off after two minutes have passed, make sure the bed is plugged into a power outlet that is receiving power.
4. Put one to four smart pads in the middle of the bed with the head icon toward the head end of the bed and foot icon toward the foot end (see"smart pad Placement" on page 8).
5. Make sure you hear a beep and the indicator light is green. This should occur within 10 seconds to let you know the smart pad is detected. If more than one smart pad is put on the bed, a beep will sound as each additional smart pad is detected (up to four).

smart pad Placement



CAUTION:

Caution—To safely stop the operation of the system, unplug the bed and/or the external power supply from the power outlet.

NOTES:

- If the indicator light does not operate as specified, see "Indicator Light—Visual Identification" on page 6 and/or "Troubleshooting" on page 13.
- The WatchCare™ Incontinence Management System can monitor up to four WatchCare™ smart pads on a bed at one time; however, Hill-Rom recommends to use the minimum number of smart pads to minimize the risk of skin breakdown (refer to www.hill-rom.com, Hill-Rom® Safe Skin® Program).

Replace the WatchCare™ smart pad

The indicator light will flash amber to indicate an incontinence event. If you are using a nurse call system, an alert can be sent to these:

- The nurses station
- The nurse call light over the door outside the patient's room
- The applicable mobile devices available at your facility

1. Remove the soiled smart pad(s), and discard the pad(s) at least 2 feet from the bed so that the reader no longer detects the soiled pad(s).

2. Put a new smart pad on the bed, and listen for the single beep to make sure the new pad is being monitored.
    - If there is no beep, look at the indicator light. If the light is white, the smart pad is not detected.
    - If you are using more than one smart pad, make sure the indicator light is green after the soiled pad is removed.

TRANSPORT THE BED

1. Prepare the bed for transport per the bed's user manual.
2. Unplug the 1/4" nurse call cable from the equipment alert jack either at the wall or the head end of the bed.
3. Transport the bed per facility protocol.

CLEANING AND DISINFECTING

NOTE:

This section does not apply to the smart pads. The smart pads are intended for single use only. Discard a soiled smart pad at least 2 feet from the bed so that the reader no longer detects the soiled pad.

WARNING:

To help prevent injury and/or equipment damage, obey these **warnings**:

- **Warning**—The potential for electrical shock exists with electrical equipment. Failure to follow facility protocol could cause death or serious injury.
- **Warning**—Do not reuse wiping material for multiple steps or on multiple products.
- **Warning**—Harmful cleaning solutions may cause skin rash and/or irritation upon contact. Follow the manufacturer's instructions found on the product label and Safety Data Sheet (SDS).
- **Warning**—Lift and move items correctly. Do not twist, and seek assistance when necessary. Make sure the bed is at a correct height to lift items off the bed.
- **Warning**—Fluid spills on to the system's electronics could cause a hazard. If such a spill occurs, unplug the bed and remove it from service. When fluid spills occur outside of what is 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 system.
d. Have maintenance examine the system completely.
e. Do not use the system until it is completely dry, tested, and found to be safe to operate.

CAUTION:

To help prevent equipment damage, obey these **cautions**:

- **Caution**—Do not steam clean or power wash the system. Pressure and excessive moisture can damage the protective surfaces of the system and its electrical components.
- **Caution**—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).
- **Caution**—Do not use bleach as your primary everyday cleaner/disinfectant.

RECOMMENDATIONS

For proper cleaning and disinfection, staff members should be trained.

The **trainer** should carefully read the instructions and follow them when the **trainee** is being trained. The trainee should:

- Be given time to read the instructions and to ask any questions.
- Clean and disinfect the product while the trainer supervises. During, and/or after this process, the trainer should correct the trainee of any differences from the instructions for use.

The trainer should supervise the trainee until the trainee can clean and disinfect the system without any differences from the instructions for use.

Hill-Rom recommends to clean and disinfect the system's components between patient use and regularly during extended patient stays.

Cleaning and disinfection is a 3-step process as outlined below.

For effective cleaning and disinfection, **all** 3 steps must be performed.

Step 1: **Spot clean** with an approved cleaner/disinfectant when a system component becomes soiled. This includes the prompt, initial cleaning steps to prevent the drying of and removal of soil and contaminants.

Step 2: **Clean** all components of the system.

Step 3: **Disinfect** all components of the system to kill microorganisms.

Table 1 below summarizes the approved cleaners/disinfectants for use with the associated contact time for disinfection.

Table 1: Approved Cleaners/Disinfectants

Cleaner/ Disinfectant	Recommended for Routine Cleaning and Disinfection	Recommended for Disinfection against Clostridium Difficile (C.Diff)	Maintain Wetness (Disinfection Contact Time)
Wex-Cide™ Germicidal Detergent ready-to-use	Yes	No	10 minutes
Virex® II 256	Yes	No	10 minutes
OxyCide® Daily Disinfectant Cleaner	Yes	Yes	3 minutes
Clorox HealthCare® Bleach ready-to-use	**No***	Yes	5 minutes
Clorox HealthCare® Bleach Wipes	**No***	Yes	3 minutes

*Bleach is not recommended as the primary cleaner/disinfectant.

Remove any disinfectant residue prior to and after the use of bleach with a new microfiber cloth soaked in tap water. When you perform the detailed cleaning steps, please note the following:

- A microfiber cloth or the Clorox HealthCare® Bleach Wipe is recommended as the wiping cloth.
- Always replace the wiping cloth when visibly soiled.
- Always replace the wiping cloth between steps (spot clean, clean, and disinfect).
- Always use Personal Protective Equipment (PPE).

Prepare for Cleaning and Disinfecting

a. Unplug the bed.

b. Remove the mattress (to get access to the antennas). Refer to the bed's service manual.

STEP 1: Spot Clean

Remove visible soil from the reader, indicator light, and antennas using a wiping cloth soaked with an approved cleaner/disinfectant (see "Table 1: Approved Cleaners/Disinfectants" on page 11).

- A soft bristle brush may be used to loosen hardened soil.
- Use as many wiping cloths as needed to remove the soil.

STEP 2: Clean

With a new wiping cloth soaked in an approved cleaner/disinfectant, use firm pressure to wipe all surfaces of the reader, indicator light, and antennas. Use a new wiping cloth as often as necessary.

STEP 3: Disinfect

a. With a new wiping cloth soaked in an approved cleaner/disinfectant, use light pressure to wipe all exterior surfaces of the reader, indicator light, and antennas.

b. Make sure all surfaces **remain wet with the cleaner/disinfectant** for the **specified contact time**. **Re-wet** surfaces with a new wiping cloth as necessary. See "Table 1: Approved Cleaners/Disinfectants" on page 11 for the contact time.

NOTE:
If bleach is used with another cleaner/disinfectant, use a new microfiber cloth soaked in tap water to remove any disinfectant residue prior to and after the bleach application.

Prepare for Use

a. Install the mattress. Refer to the bed's service manual.

b. Plug the bed into an applicable power outlet.

PREVENTIVE MAINTENANCE

The WatchCare™ System does not require preventive maintenance.

STORAGE AND HANDLING

Store the WatchCare™ smart pads in a dry location that is at least 2 feet from a bed with the WatchCare™ System.

EXPECTED LIFE

The expected life of the WatchCare™ System hardware is 10 years. The smart pads are intended for single use only.

TROUBLESHOOTING

WARNING:

Warning—Only facility-authorized persons should service the system. Service by unauthorized persons could cause injury or equipment damage.

If the trouble shooting information below does not correct the problem, contact Hill-Rom.

NOTE:

Do step 1 of the Solution first, and then if necessary, do step 2, and so on until you have fixed the problem.

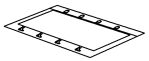
Problem	Solution
The LEDs on the reader do not flash at power up and the indicator light is off (the reader is not receiving power).	**Caregiver** 1. Make sure the bed is plugged into an appropriate power outlet. 2. Unplug the bed, and then plug the bed in to power to reset the bed. 3. Contact your facility-authorized service persons. **Service Person Only** 1. Make sure the reader power cable is not damaged and it is fully connected to the reader and the UCB or Logic Control P.C. board. 2. Replace the reader (see page 21).

Problem	Solution
The indicator light is off even though the LEDs on the reader flash at power up.	**Caregiver** 1. Unplug the bed, and then plug the bed in to power to reset the bed. 2. Contact your facility-authorized service persons. **Service Person Only** 1. Make sure the indicator light is not damaged. 2. Make sure the LED cable is not damaged and it is fully connected to the reader and the indicator light P.C. board. 3. Replace the indicator light assembly (see page 28). 4. Replace the LED cable (see page 31).
One or more of the indicator light colors do not come on.	**Caregiver** 1. Unplug the bed, and then plug the bed in to power to reset the bed. 2. Contact your facility-authorized service persons. **Service Person Only** 1. Make sure the indicator light is not damaged. 2. Make sure the LED cable is not damaged and it is fully connected to the reader and the indicator light P.C. board. 3. Replace the indicator light assembly (see page 28). 4. Replace the LED cable (see page 31).

Problem	Solution
A nurse call event does not get sent.	**Caregiver** 1. Make sure the 1/4" nurse call cable that is between the bed and wall is not damaged and it is fully connected to the equipment alert jack and the nurse call connector cable. Replace the 1/4" nurse call cable that is between the bed and wall as necessary. 2. Unplug the bed, and then plug the bed in to power to reset the bed. 3. Contact your facility-authorized service persons. **Service Person Only** 1. Make sure the nurse call connector cable that connects to the reader is not damaged and the cable is fully connected to the reader. 2. Replace the nurse call connector cable as necessary (see page 41).
A new smart pad is not detected.	**Caregiver** 1. Make sure the pad is in the correct orientation. 2. Try a different pad. 3. Unplug the bed, and then plug the bed in to power to reset the bed. 4. Contact your facility-authorized service persons. **Service Person Only** 1. Make sure the antenna cables are not damaged and are fully connected to the antenna-reader cables. 2. Make sure the antenna-reader cables are not damaged and are fully connected to the reader. 3. Use the antenna tool to make sure that each antenna is functional. Replace an antenna that does not operate correctly (see page 35).

REPLACEMENT PARTS

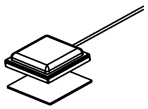
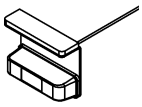
EXPENDABLE PARTS

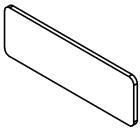
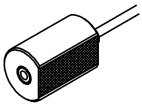
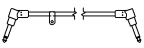
Item	P/N	Description	Qty	Page
	P006980	Smart pad	As required	8

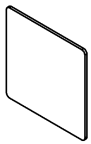
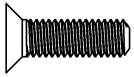
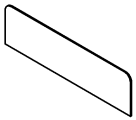
SERVICE PARTS

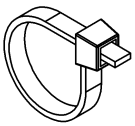
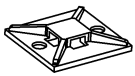
WARNING:

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

Item	P/N	Description	Qty	Page
	201480	Antenna assembly (includes gasket and antenna-reader cable)	1	35
	205378	Antenna assembly (includes gasket)	1	35
	200859	Reader assembly (includes gasket), VersaCare® Bed (A - J models)	1	21
	205375	Reader assembly (includes gasket), VersaCare® Bed (K and newer models)	1	21
	205377	Reader assembly (includes gasket), Progressa® Bed	1	21
	201009	Indicator light with LED cable assembly	1	28

Item	P/N	Description	Qty	Page
	199673	Reader gasket	1	44
	197328	Screw, reader housing	6	21, 28
	198945	Nurse call cable	1	41
	203101	1/4" nurse call cable	1	41
	201582	Power cable, VersaCare® Bed (A - J models)	1	21
	198184	Power cable, VersaCare® Bed (K and newer models) and Progressa® Bed	1	21
	197285	Antenna-Reader cable	1	35

Item	P/N	Description	Qty	Page
	199672	Antenna gasket	1	38
	199273	Screw, lens cover	2	28
	199674	Indicator light adhesive	1	28
	206911	Graphic, head section, Progressa® Bed	1	38
	206912	Graphic, seat section, Progressa® Bed	1	38
	206913	Graphic, thigh section, Progressa® Bed	1	38
	206914	Graphic, deck filler	1	

Item	P/N	Description	Qty	Page
	198343	Indicator light label	1	34
	207082 (need image)	Antenna tool	As required	13
	19124	Cable tie	As required	
	64565	Cable tie mount	As required	

SERVICE PART REPLACEMENT PROCEDURES

Tools: Wire cutters, Alcohol-based cleaner, Soft cloth, Antistatic strap, T10, T20, and T25 Torx® screwdrivers, Tape measure, Dry smart pad

SETUP

WARNING:

To help prevent injury and/or equipment damage, obey these **warnings**:

- **Warning**—Only facility-authorized persons should service the system.
- **Warning**—Do not replace service parts while a patient is on the bed.
- **Warning**—With the exception of the WatchCare™ smart pad, before you remove and replace components of the system, make sure to unplug the bed.

- **Warning**—Make sure that hands, arms, legs, and feet are not under the bed or between the sleep deck sections as they move.
- **Warning**—Recycle or discard no longer used parts in accordance with local regulations.

1. Make sure the brake is set.
2. Remove the sleep surface. Refer to the service manual.
3. Raise the bed to its highest position.
4. Raise the siderails.

WARNING:

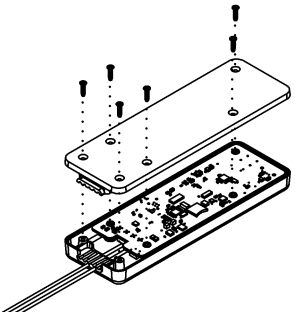
Warning—Failure to unplug the bed and the optional auxiliary outlet from their power sources could cause injury or equipment damage.

5. Unplug all bed power cords.
6. Go to the applicable procedure:
   - "Reader Replacement" on page 21
   - "Power Cable Replacement" on page 23
   - "Antenna-Reader Cable Replacement" on page 26
   - "Indicator Light Assembly Replacement" on page 28
   - "LED Cable Replacement" on page 31
   - "Indicator Light Label Replacement" on page 34
   - "Antenna Assembly Replacement" on page 35
   - "Progressa® Bed—Graphic Replacement" on page 38
   - "Nurse Call Cable Replacement" on page 41

1.1 Reader Replacement

1. Make sure the bed is unplugged and you have done the steps for "Setup" on page 19.
2. Remove the reader from the bed.

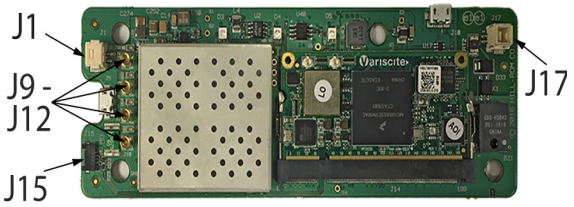
3. Remove the six screws that attach the back cover to the reader.



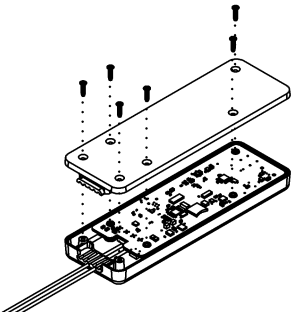
CAUTION:

Caution—Failure to wear an antistatic strap could cause equipment damage.

4. Put on the antistatic strap.
5. Remove the P.C. board from the reader.
6. Disconnect all cables except the ANT 1 reader cable from the P.C. board.
7. If the back cover is installed on the **new** reader, remove the cover.
8. Remove the P.C. board from the **new** reader.
9. Connect the cables to the P.C. board (the connectors on the P.C. board are specific to the cables):
   - **J1**— Power
   - **J9**, **J10**, **J11**, and **J12**—Antennas (the connectors for the antenna cables are not specific to the antennas)
   - **J15**—LED cable
   - **J17**—Nurse Call connector



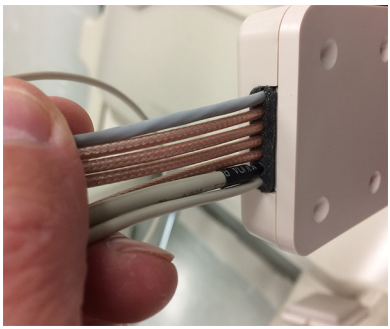
10. Install the P.C. board in the reader.



WARNING:

Warning—Failure to correctly align the gaskets on the covers of the reader could permit fluids to get into the enclosure. Injury or equipment damage could occur.

11. Install the back cover on to the reader. **Make sure the gasket inserts are correctly aligned.**

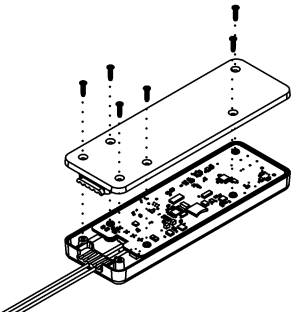


12. Install the six screws to attach the back cover to the reader.
13. Go to "Service Part Replacement—Final Steps" on page 44.

1.2 Power Cable Replacement

1. Make sure the bed is unplugged and you have done the steps for "Setup" on page 19.
2. Remove the reader from the bed.

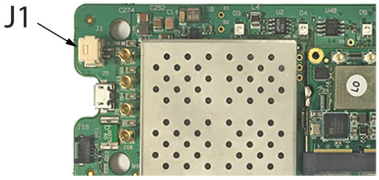
3. Remove the six screws that attach the back cover to the reader.



CAUTION:

Caution—Failure to wear an antistatic strap could cause equipment damage.

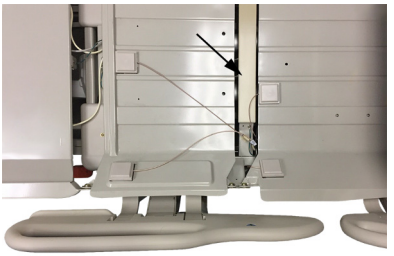
4. Put on the antistatic strap.
5. Remove the reader P.C. board from the reader.
6. Disconnect the power cable from J1 on the reader P.C. board.



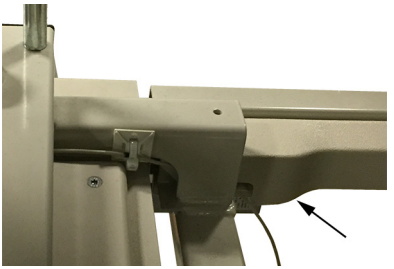
7. Get access to the Logic Control P.C. board (VersaCare® Bed, A through J model bed) or upper control board (UCB) (VersaCare® Bed, K or newer model bed and Progressa® Bed). Refer to the bed's service manual.
8. Make a note of the power cable connections on the Logic Control P.C. board or UCB, and then disconnect the power cable from the Logic Control P.C. board or UCB.
9. Connect the **new** power cable to the connectors on the Logic Control P.C. board or UCB.
10. Make a note of the power cable routing from the Logic Control P.C. board or UCB to the reader, and then use the same routing for the **new** power cable. Remove and install cable ties as necessary.

NOTES:

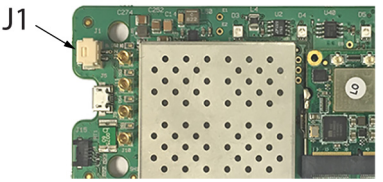
- **VersaCare® Bed**—you will need to remove the cable channel cover to remove the cable from the channel.



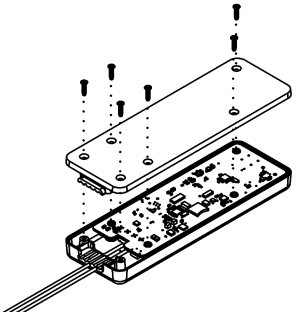
- **Progressa® Bed**—you will need to remove the screw that attaches the hose cover, and then remove the cover.



11. Remove the old power cable from the bed.
12. Connect the **new** power cable to J1 on the reader P.C. board.



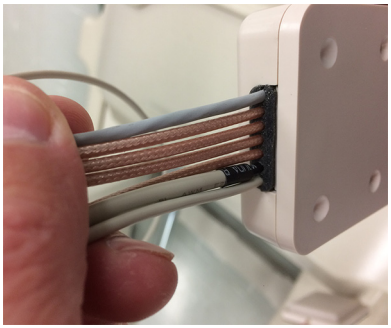
13. Install the P.C. board in the reader.



WARNING:

Warning—Failure to correctly align the gaskets on the covers of the reader could permit fluids to get into the enclosure. Injury or equipment damage could occur.

14. Install the back cover on to the reader. **Make sure the gasket inserts are correctly aligned.**

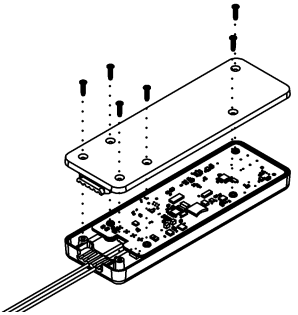


15. Install the six screws to attach the back cover to the reader.
16. Go to "Service Part Replacement—Final Steps" on page 44.

1.3 Antenna-Reader Cable Replacement

1. Make sure the bed is unplugged and you have done the steps for "Setup" on page 19.
2. Remove the reader from the bed.

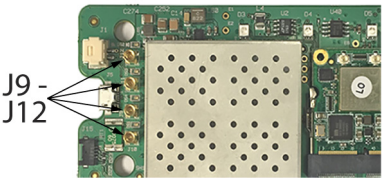
3. Remove the six screws that attach the back cover to the reader.



CAUTION:

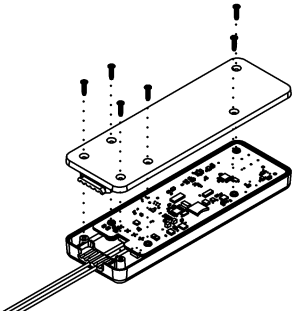
Caution—Failure to wear an antistatic strap could cause equipment damage.

4. Put on the antistatic strap.
5. Remove the reader P.C. board from the reader.
6. Disconnect the applicable antenna-reader cable from the reader P.C. board. (Connectors J9, J10, J11, and J12 are for the antennas.)



7. Remove the heat shrink from the antenna-reader cable to antenna cable connection.

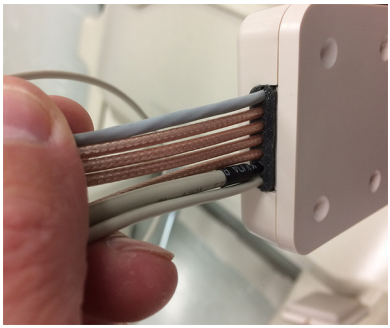
8. Disconnect the antenna-reader cable from the antenna cable.
9. Put the heat shrink on the **new** antenna-reader cable, and connect the antenna-reader cable to the antenna cable.
10. Put the heat shrink over the cables connection, and install cable ties to hold the heat shrink in position.
11. Connect the **new** antenna-reader cable to the reader P.C. board.
12. Install the P.C. board in the reader.



WARNING:

Warning—Failure to correctly align the gaskets on the covers of the reader could permit fluids to get into the enclosure. Injury or equipment damage could occur.

13. Install the back cover on to the reader. **Make sure the gasket inserts are correctly aligned.**

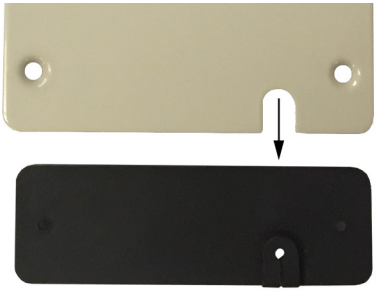


14. Install the six screws to attach the back cover to the reader.
15. Go to "Service Part Replacement—Final Steps" on page 44.

1.4 Indicator Light Assembly Replacement

1. Make sure the bed is unplugged and you have done the steps for "Setup" on page 19.
2. Remove the two screws that attach the indicator light cover to the indicator light assembly, and then remove the cover.

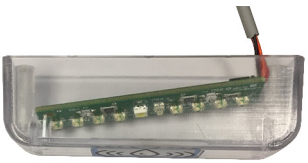
3. Remove the gasket from the indicator light assembly.



CAUTION:

Caution—Failure to wear an antistatic strap could cause equipment damage.

4. Put on the antistatic strap.
5. Remove the P.C. board from the indicator light cover, and then disconnect the LED cable from the P.C. board.

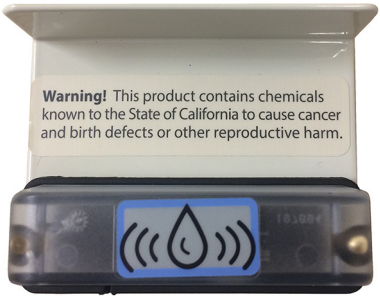


6. Remove the indicator light assembly from the bed.

WARNING:

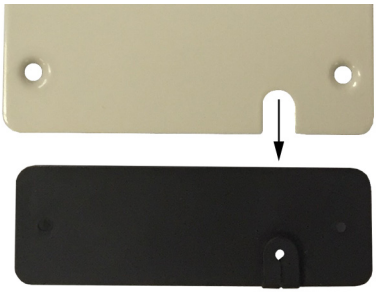
Warning—Alcohol-based cleaners are flammable and toxic to skin, eyes, and respiratory tract. Do not use near an open flame. Do not use in confined areas. Injury could occur.

7. If the indicator light is being replaced on a bed in the state of California, clean and let dry the area above the light where the prop 65 label is to be installed.
8. Install the label.



9. Clean and let dry the area where the indicator light was installed.
10. Remove the adhesive covering from the top of the **new** indicator light, and install the indicator light so the label on the indicator light is toward the outside of the bed. Firmly press the indicator light into position for 10 seconds with approximately 75 lb (34 kg) of force.
11. Remove the two screws that attach the indicator light cover to the **new** indicator light assembly, and remove the cover.

12. Remove the gasket from the **new** indicator light assembly.

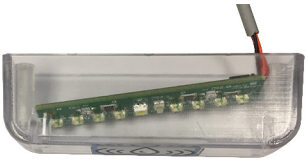


CAUTION:

Caution—Failure to wear an antistatic strap could cause equipment damage.

13. Put on the antistatic strap.

14. Remove the P.C. board from the **new** indicator light cover, and disconnect the LED cable from the P.C. board. Then, connect the **old** LED cable to the P.C. board.



15. Install the P.C. board on to its mount in the cover, and then put the LED cable through its opening in the gasket.

16. Install the indicator light cover on to the gasket. Make sure the cover is completely inside the rim of the gasket.

17. Put the indicator light cover with gasket into position on the indicator light assembly.

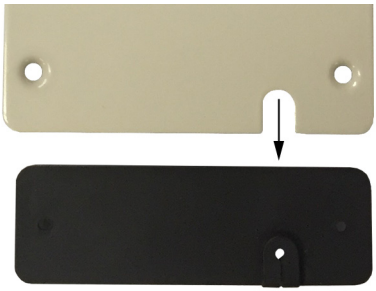
18. Install the two screws to attach the cover to the assembly.

19. Go to “Service Part Replacement—Final Steps” on page 44.

1.5 LED Cable Replacement

1. Make sure the bed is unplugged and you have done the steps for "Setup" on page 19.
2. Remove the two screws that attach the indicator light cover to the indicator light assembly, and then remove the cover.

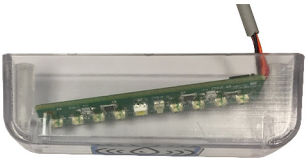
3. Remove the gasket from the indicator light assembly.



CAUTION:

Caution—Failure to wear an antistatic strap could cause equipment damage.

4. Put on the antistatic strap.
5. Remove the P.C. board from the indicator light cover, and then disconnect the LED cable from the P.C. board.



CAUTION:

Caution—The foot section of the bed must be extended for the cable routing. Otherwise, equipment damage could occur.

6. Extend the foot section.

7. Remove the LED cable from its cable tie(s).

NOTE:
The VersaCare® Bed has two cable ties, and the Progressa® Bed has one cable tie.

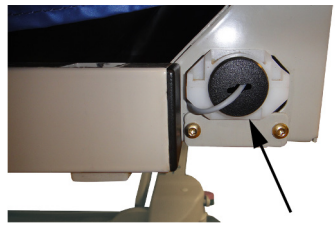
VersaCare® Bed

Progressa® Bed

8. Do as applicable:

VersaCare® Bed

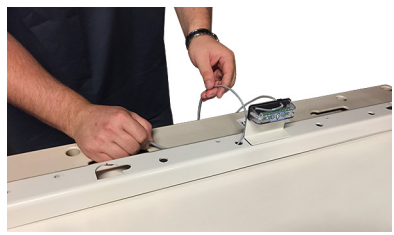
a. Remove the plug from the foot end of the sliding foot tube.



b. Remove the screw and end cap from the fixed foot section.

Progressa® Bed

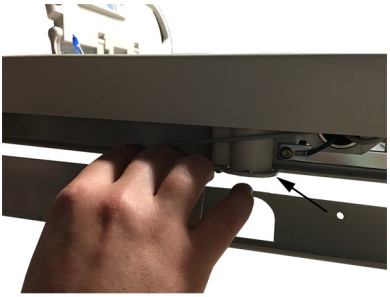
a. Remove the four screws that attach the end cover to the bed.
b. Remove the end cover, and lay it on the bed.



9. Get access to the P.C. board in the reader. Refer to "Reader Replacement" on page 21. Then, disconnect the LED cable from the reader P.C. board.
10. Pull the cable free from the bed.
11. Do Step 7 through Step 9 in reverse order to install the **new** cable.

NOTE:

For the Progressa® Bed, make sure the cable is routed around the boss in the foot-end cover so that the cable does not get pinched.



12. Go to "Service Part Replacement—Final Steps" on page 44

1.6 Indicator Light Label Replacement

1. Remove the current label, if installed.

WARNING:

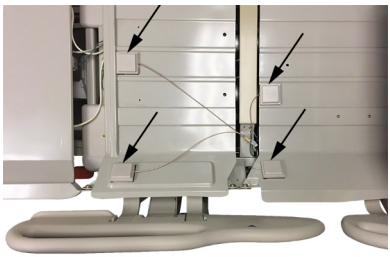
Warning—Alcohol-based cleaners are flammable and toxic to skin, eyes, and respiratory tract. Do not use near an open flame. Do not use in confined areas. Injury could occur.

2. Clean and let dry the area where the label was installed.
3. Install the **new** label, and make sure that it fully bonds to its location.

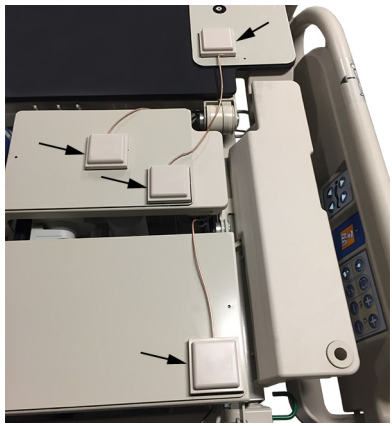
1.7 Antenna Assembly Replacement

1. Make sure the bed is unplugged and you have done the steps for "Setup" on page 19.
2. Make a note of the location and cable routing of the antenna. The location and orientation of the antenna is very important for the operation of the system.

VersaCare® Bed



Progressa® Bed



3. Remove the antenna from the sleep deck, and set the antenna aside.

WARNING:

Warning—Alcohol-based cleaners are flammable and toxic to skin, eyes, and respiratory tract. Do not use near an open flame. Do not use in confined areas. Injury could occur.

4. Clean and let dry the area where the antenna was removed.

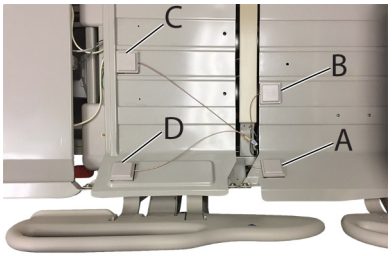
CAUTION:

Caution—Make sure to install the new antenna in the correct orientation and location. Otherwise, the antenna may not operate as intended.

5. Remove the adhesive covering from the gasket on the bottom of the antenna(s), and then install the antenna(s) in the correct orientation and location on the sleep deck. Firmly press the antenna into position for 10 seconds with approximately 75 lb (34 kg) of force.

VersaCare® Bed

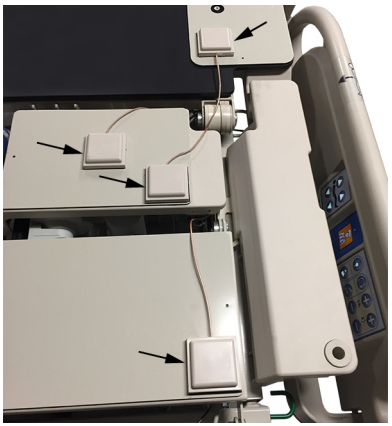
- One antenna (A) is to be installed on the side of the head deck. The antenna is to be centered vertically on the side, with the cable side of the antenna aligned with the deck's foot-end edge.



- One antenna (B) is to be installed between the first two raised sections on the head deck, with the cable side of the antenna aligned with the deck's foot-end edge.
- One antenna (C) is to be installed on the second raised section of the seat deck, with the cable side toward the head end of the deck and foot-end edge of the antenna aligned with the channel edge.
- One antenna (D) is to be installed on the raised section that is on the side of the seat deck. The antenna is to be centered between the top and bottom of the raised section, with its foot-end edge aligned with the foot-end edge of the raised section.

Progressa® Bed

- Install the applicable antenna so that it is centered over the blue antenna outline on the graphic.

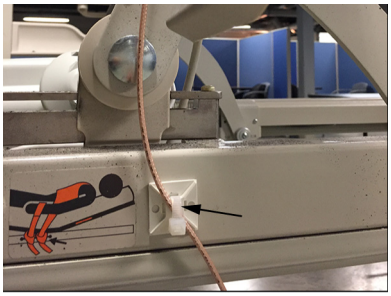


6. Remove the **old** antenna cable(s) from the cable tie(s).

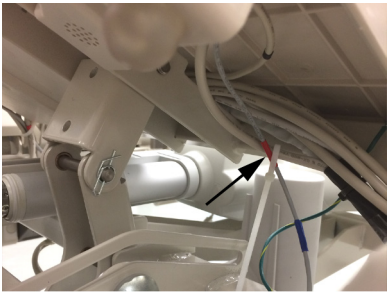
- **VersaCare® Bed**—remove the cable(s) from the cable tie on the weigh frame top cap.

- **Progressa® Bed**—remove the cable(s) from the cable tie(s) on the weigh frame (head section antenna) and/or the thigh cross tube (seat and thigh antennas).

Weigh Frame



Thigh Cross Tube



7. Install a **new** cable tie(s) to hold the cable(s) for the **new** antenna(s) to the cable tie mount(s).

NOTE:

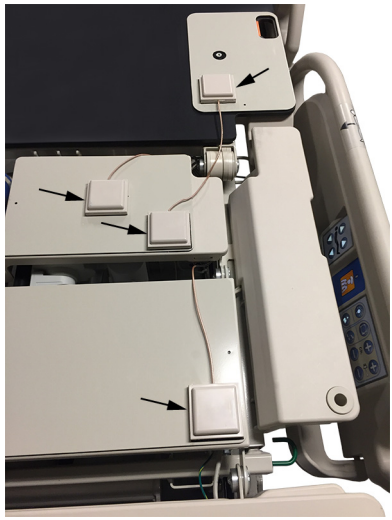
Progressa Bed—for the head section antenna, **loosely** secure the cable tie to allow cable movement.

8. Remove the heat shrink from the old antenna cable, and disconnect the cable from the reader-antenna cable connector. Recycle or discard the old antenna and its cable.

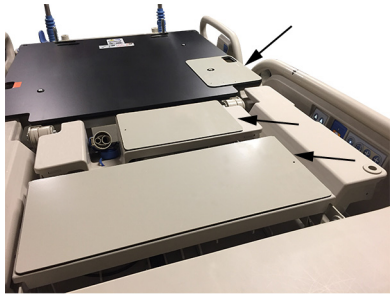
9. Put the **new** heat shrink on the **new** antenna cable, and connect the antenna cable to the antenna-reader cable.
10. Put the heat shrink over the cables connection, and install cable ties to hold the heat shrink in position.
11. Go to "Service Part Replacement—Final Steps" on page 44.

1.8 Progressa® Bed—Graphic Replacement

1. Make sure the bed is unplugged and you have done the steps for "Setup" on page 19.
2. **Head, seat, or thigh section graphic**—remove the antenna(s) from the applicable graphic.



3. Remove the graphic from the sleep deck.



WARNING:

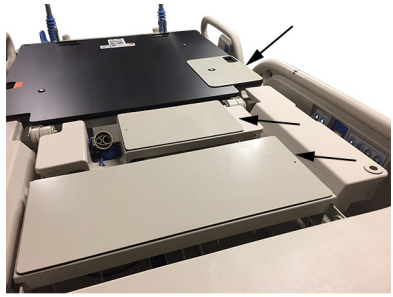
Warning—Alcohol-based cleaners are flammable and toxic to skin, eyes, and respiratory tract. Do not use near an open flame. Do not use in confined areas. Injury could occur.

4. Clean and let dry the area where the graphic was removed.

CAUTION:

Caution—Make sure to install the new graphic in the correct orientation and location. Otherwise, the antenna (when installed) may not operate as intended.

5. Remove the adhesive covering from the bottom of the graphic, and then install the graphic in the correct orientation and location on the sleep deck.

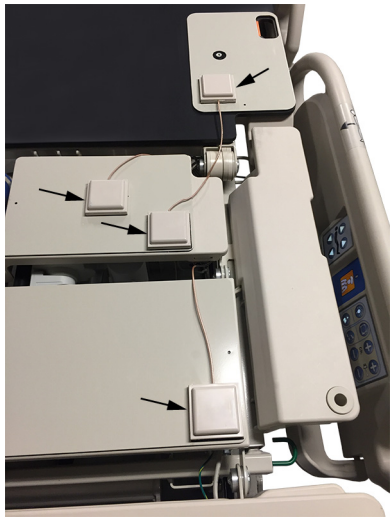


6. Clean and let dry the area where the antenna(s) is to be installed.
7. Remove the gasket and any tape residue from the bottom of the antenna(s).
8. Clean the bottom of the antenna(s), and let it dry.
9. Remove the adhesive covering from the **new** antenna gasket, and install the gasket on the bottom of the antenna.

CAUTION:

Caution—Make sure to install the antenna in the correct orientation and location. Otherwise, the antenna may not operate as intended.

10. Remove the other adhesive covering from the new antenna gasket. Make sure the antenna is in the correct orientation and location on the graphic.



11. Go to “Service Part Replacement—Final Steps” on page 44.

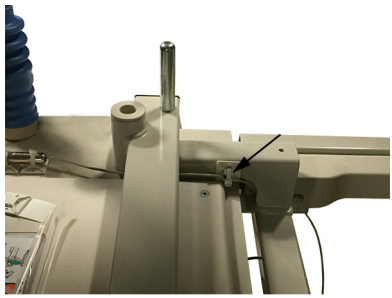
1.9 Nurse Call Cable Replacement

1. Make sure the bed is unplugged and you have done the steps for "Setup" on page 19.
2. Disconnect the 1/4" nurse call cable from the equipment alert jack and from the reader nurse call cable.
3. Remove the nurse call cable from its cable tie(s).

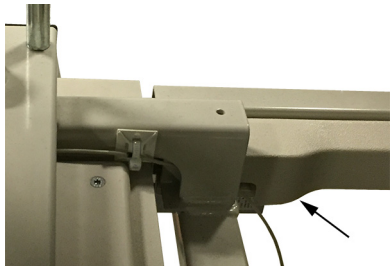
NOTE:
VersaCare® Bed—if the bed has the auxiliary outlet option, there will be cable ties that hold the nurse call cable and auxiliary outlet cable together.

VersaCare® Bed

Progressa® Bed



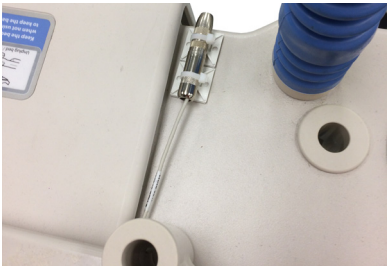
4. For a VersaCare® Bed, go to Step 5. For a Progressa® Bed, do as follows:
   a. Remove the screw that attaches the hose cover to the bed, and then remove the hose cover.
   b. Remove the Nurse Call cable from the cable ties that secure the cable with the Power cable and air hose.



5. Remove the nurse call cable connector from the bed.

VersaCare® Bed

Progressa® Bed



6. Get access to the P.C. board in the reader. Refer to “Reader Replacement” on page 21.
7. Disconnect the nurse call cable from J17 on the reader P.C. board.

8. Remove the nurse call connector with cable from the bed.

WARNING:

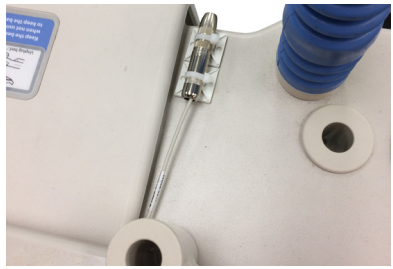
Warning—Alcohol-based cleaners are flammable and toxic to skin, eyes, and respiratory tract. Do not use near an open flame. Do not use in confined areas. Injury could occur.

9. Clean and let dry the area where the nurse call cable connector was removed.
10. Install the nurse call cable connector as follows:
    a. Remove the adhesive covering from the nurse call cable connector.

b. Make sure the connecting pins are away from the bed. Then, firmly press the connector into position for 10 seconds with approximately 75 lb (34 kg) of force.

VersaCare® Bed

Progressa® Bed



11. Install new cable ties to hold the nurse call cable on to the bed.
12. Connect the nurse call cable to J17 on the reader P.C board.

13. Go to "Service Part Replacement—Final Steps" on page 44.

1.10 Service Part Replacement—Final Steps

1. Make sure the WatchCare™ smart pad(s) is at least 2 feet from the bed, and then plug the bed in.
2. At the indicator light, make sure the white light comes on solid. This could take up to 2 minutes. If the white light does not come on, check the cable connections. (For more information about the indicator light, see “Indicator Light—Visual Identification” on page 6.)
3. Use the dry pad as follows to make sure the system operates correctly:
   a. Install the sleep surface on the bed. Refer to the bed’s service manual.
   b. Put the dry pad on the bed in the correct location and orientation (see “Prepare the System for Use” on page 7), and make sure you hear a beep and the indicator light is solid green. This could take up to 10 seconds.

NOTE:
If the indicator light does not operate as specified, see “Troubleshooting” on page 13.

4. Unplug the bed.
5. If covers were removed for access to the Logic Control P.C. board (VersaCare® Bed A through J model) or the UCB (VersaCare® Bed K or newer model and Progressa® Bed), install the covers. Refer to the bed’s service manual.
6. If the reader was removed from the bed, go to Step 7. Otherwise, if the reader was not removed, go to Step 9.

WARNING:

Warning—Alcohol-based cleaners are flammable and toxic to skin, eyes, and respiratory tract. Do not use near an open flame. Do not use in confined areas. Injury could occur.

7. Clean and let dry the area where the reader was installed on the bed.
8. Do the steps that apply to the part replacement:

Reader Replaced

a. Remove the adhesive covering from the backside of the reader, and install the reader on the bed so that its label is toward the outside of the bed.

b. Firmly press the reader into position for 10 seconds with approximately 75 lb (34 kg) of force.

Reader Not Replaced

a. Remove any tape residue from the back cover of the reader.

b. Clean the back cover, and let it dry.

c. Remove one side of the adhesive covering from the double-sided tape gasket, and install the gasket on to the back cover.

d. Remove the adhesive covering from the other side of the gasket, and install the reader on the bed so that its label is toward the outside of the bed. Firmly press the reader into position for 10 seconds with approximately 75 lb (34 kg) of force.

9. The replacement is complete. Do the Function Checks in the bed's service manual. As you operate the bed's articulation functions, make sure the cables are not in a location where they could get damaged or pinched.

SPECIFICATIONS

Product Identification

Product Number	Description
P006979	WatchCare™ reader, indicator light, and antennas
P006980	WatchCare™ smart pad

Dimensions

Feature	Dimension
WatchCare™ smart pad	30" x 36" (76.2 cm x 91.4 cm)

Environmental Conditions for Use

Condition	Range
Temperature	50°F to 104°F (10°C to 40°C)
Relative humidity	20% to 85%
Atmospheric pressure	76 kPa to 106 kPa

Environmental Conditions for Transport and Storage

Condition	Range
Temperature	-20°F to 140°F (-29°C to 60°C)
Relative humidity	10% to 95%
Atmospheric pressure	76 kPa to 106 kPa

AC/Mains Power Requirements

Condition	Range
Integrated System	
Rated voltage	24 to 55 V DC
Rated current	0.5 A
Non-Integrated System[a] (not available at this time)	
Rated voltage	24 to 55 V DC
Rated current	0.5 A

a. The non-integrated system uses an XP Power AFM45US24 external power supply that is semi-permanently attached to the bed.

Classifications and Standards

Classification	Standard
Protection against electric shock	Class 1
Mode of operation	Continuous
Ingress protection	IPX4
Applied parts[a]	Type B

a. The WatchCare™ System's applied parts are the reader, indicator light, antennas, and all WatchCare™ System cables.

ELECTROMAGNETIC EMISSIONS GUIDANCE

CAUTION:

To help prevent equipment damage, obey these cautions:

- **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.

- **Caution**—To safely stop the operation of the system, unplug the bed and/or the external power supply from the power outlet.
- **Caution**—If the system is installed on a non-Hill-Rom bed, the system (ME EQUIPMENT) must be connected to the power outlet (AC mains) by the power cord supplied with the system. This power cord is semi-permanently attached to the bed.

WARNING:

Warning—The P006979 (WatchCare™ reader, indicator light, and antennas) should not be used adjacent to or stacked with other electrical equipment. If adjacent or stacked use is necessary, observe the P006979 and the other electrical equipment to make sure they operate as intended.

Make sure the P006979 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 P006979 is intended for use in the electromagnetic environment specified below. The customer or the user of the model P006979 should make sure it is used in such an environment.		
Emissions Test	**Compliance**	**Electromagnetic Environment—Guidance**
RF emissions CISPR 11	Group 1	The P006979 is an intentional radiator of RF energy. Therefore, its RF emissions are low and may cause interference in nearby electronic equipment (see the tables that follow).

Guidance and Manufacturer's Declaration—Electromagnetic Emissions		
The P006979 is intended for use in the electromagnetic environment specified below. The customer or the user of the model P006979 should make sure it is used in such an environment.		
Emissions Test	**Compliance**	**Electromagnetic Environment—Guidance**
RF Emissions CISPR 11	Class A	NOTE: The EMISSIONS characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.
Harmonic Emissions IEC 61000-3-2	Not applicable	
Voltage Fluctuations/ Flicker Emissions IEC 61000-3-3	Not applicable	

ELECTROMAGNETIC IMMUNITY GUIDANCE

Guidance and Manufacturer's Declaration - Electromagnetic Immunity			
The P006979 is intended for use in the electromagnetic environment specified below. The customer or the user of the P006979 should make sure it is used in such an environment.			
Immunity Test	**IEC 60601-1-2 Test Level**	**Compliance Level**	**Electromagnetic Environment—Guidance**
Electrostatic Discharge (ESD) IEC 61000-4-2	± 8 kV Contact ± 2 kV, ± 4 kV, ± 8 kV, and ± 15 kV Air	± 8 kV Contact ± 2 kV, ± 4 kV, ± 8 kV, and ± 15 kV Air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical Fast Transient/Burst IEC 61000-4-4	± 2 kV (100 kHz repetition frequency) for Power Supply Lines	± 2 kV (100 kHz repetition frequency) for Power Supply Lines	Mains power quality should be that of a typical hospital environment.

Guidance and Manufacturer's Declaration - Electromagnetic Immunity			
The P006979 is intended for use in the electromagnetic environment specified below. The customer or the user of the P006979 should make sure it is used in such an environment.			
Immunity Test	**IEC 60601-1-2 Test Level**	**Compliance Level**	**Electromagnetic Environment—Guidance**
Surge IEC 61000-4-5	± 1 kV Line(s) to Line(s) ± 2 kV Line(s) to Ground	± 1 kV Line(s) to Line(s) ± 2 kV Line(s) to Ground	Mains power quality should be that of a typical hospital environment.
Voltage dips IEC 61000-4-11	0% U_T: 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° 0% U_T: 1 cycle and 70% U_T: 30 cycles Single phase: at 0° (See Note)	0% U_T: 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° 0% U_T: 1 cycle and 70% U_T: 30 cycles Single phase: at 0° (See Note)	Mains power quality should be of a typical hospital environment. If the user of the P006979 requires continued operation during power mains interruption, it is recommended that the P006979 be powered from an uninterruptible power supply.
Voltage interruptions IEC 61000-4-11	0% U_T: 300 cycles	0% U_T: 300 cycles	
Power Frequency Magnetic Fields IEC 61000-4-8	30 A/m 60 Hz	30 A/m 60 Hz	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical hospital environment.

Guidance and Manufacturer's Declaration - Electromagnetic Immunity			
The P006979 is intended for use in the electromagnetic environment specified below. The customer or the user of the P006979 should make sure it is used in such an environment.			
Immunity Test	**IEC 60601-1-2 Test Level**	**Compliance Level**	**Electromagnetic Environment—Guidance**
Conducted RF IEC 61000-4-6	3 V 0.15 MHz - 80 MHz 6 V in ISM bands between 0.15 MHz and 80 MHz 80% AM at 1 kHz	3 V 0.15 MHz - 80 MHz 6 V in ISM bands between 0.15 MHz and 80 MHz 80% AM at 1 kHz	
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.7 GHz 80% AM at 1 kHz	10 V/m 80 MHz to 2.7 GHz 80% AM at 1 kHz	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. Interference may occur in the vicinity of equipment marked with this symbol. 
Note: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

Guidance and Manufacturer's Declaration - Electromagnetic Immunity			
The P006979 is intended for use in the electromagnetic environment specified below. The customer or the user of the P006979 should make sure it is used in such an environment.			
Immunity Test	**IEC 60601-1-2 Test Level**	**Compliance Level**	**Electromagnetic Environment—Guidance**
The P006979 is intended for use in the electromagnetic environment specified below. The customer or the user of the P006979 should make sure it is used in such an environment.			

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 P006979 is used exceeds the applicable RF compliance level above, the P006979 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the P006979.

WIRELESS CONNECTIVITY SPECIFICATIONS

NOTE:

The WiFi antenna must be installed so that it is at least 8" (20 cm) from all persons and other antennas.

The Wireless Connectivity module supports these security protocols:

Standards

- Wireless Equivalent Privacy (WEP)
- Wi-Fi Protected Access (WPA)
- IEEE 802.11i (WPA2)

Encryption

The Wireless Connectivity module supports these encryption protocols:

- Wireless Equivalent Privacy (WEP, RC4 Algorithm)
- Temporal Key Integrity Protocol (TKIP, RC4 Algorithm)
- Advanced Encryption Standard (AES, Rijndael Algorithm)
- Encryption Key Provisioning Static (40-bit and 128-bit lengths)
- Pre-Shared (PSK)
- Dynamic 802.1X

Encryption Options

- Off
- On
- Auto
- PSK
- WPA-TKIP
- WPA2-PSK
- WPA2-AES
- CCKM-TKIP
- CCKM-AES
- WPA-PSK-AES
- WPA-AES

Extensible Authentication Protocol Types (EAP Types)

- EAP-FAST
- PEAP-MACHAPv2
- EAP-TLS
- PEAP-TLS
- EAP-TTLS
- LEAP
- PEAP-GTC

Regulatory Information

WARNING:

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

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

USA—Federal Communications Commission (FCC) Radiation Exposure Statement

CAUTION:

The radiated output power of the WatchCare™ reader is far below the FCC radio frequency exposure limits. Nevertheless, the WatchCare™ reader must be used in such a manner that the potential for human contact during normal operation is minimized. To avoid the possibility to exceed the FCC radio frequency exposure limits, you (or any other person) should—

- Keep a distance of at least 8" (20 cm) from the WatchCare™ reader.
- Keep a distance of at least 2.1" (53 mm) from the WatchCare™ antennas.

Interference Statement for FCC

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

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

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

NOTE:

The WatchCare™ reader must be installed and used in strict accordance with the manufacturer's instructions as described in the user

documentation that comes with the product. Any other installation or use will violate FCC Part 15 regulations. Modifications not expressly approved by Hill-Rom could void your authority to operate the equipment.

The WatchCare™ reader must not be co-located or operated in conjunction with any other antenna or transmitter.

Wireless System Characteristics

Characteristic	Description
Frequency Band—2.4 GHz	FCC: 2.4 GHz to 2.483 GHzETSI: 2.4 GHz to 2.483 GHzMIC: 2.4 GHz to 2.495 GHzKC: 2.4 GHz to 2.483 GHz
Frequency Band—5 GHz	FCC: 5.15 GHz to 5.35 GHz, 5.725 GHz to 5.825 GHzETSI: 5.15 GHz to 5.35 GHz, 5.47 GHz to 5.725 GHzMIC: 5.15 GHz to 5.35 GHz, 5.47 GHz to 5.725 GHz (W56)KC: 5.15 GHz to 5.25 GHz, 5.725 GHz to 5.825 GHz
Modulation	BPSK @ 1, 6, 6.5, 7.2, and 9 MbpsQPSK @ 2, 12, 13, 14.4, 18, 19.5, and 21.7 MbpsCCK @ 5.5 and 11 Mbps16-QAM @ 24, 26, 28.9, 36, 39, and 43.3 Mbps64-QAM @ 48, 52, 54, 57.8, 58.5, 65, and 72.2 Mbps
Network Standards	IEEE 802.11a, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h, 802.11i, 802.11n
Data Rates Supported	802.11a (OFDM): 6, 9, 12, 18, 24, 36, 48, 54 Mbps802.11b (DSSS, CCK): 1, 2, 5.5, 11 Mbps80211g (OFDM): 6, 9, 12, 18, 24, 36, 48, 54 Mbps802.11n (OFDM, HT20, MCS 0-7): 6.5, 13, 19.5, 26, 39, 52, 58.5, 72.2 Mbps and 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65 Mbps

Characteristic	Description
Transmit Power Settings	802.11a: 6 Mbps 15 dBm54 Mbps 13 dBm (PER - 10%)802.11b: 1 Mbps 16 dBm11 Mbps 16 dBm (PER - 10%)802.11g: 6 Mbps 16 dBm54 Mbps 14 dBm (PER - 10%)802.11n (2.4 GHz): MCS0 Mbps 16 dBmMCS7 Mbps 12 dBm80211n (5 GHz): MCS0 Mbps 15 dBmMCS7 Mbps 12 dBmBluetooth 2 dBm (1.58 mW) (Class 2)

Immunity to Proximity Fields from Radio Frequency Wireless Communications Equipment

In addition to the Radiated RF IEC 61000-4-3 as shown in the table above, the P006979 has been tested as specified in the table below.

Test Frequency (MHz)	Band (MHz)	Service	Modulation
385	380–390	TETRA 400	Pulse modulation 18 Hz
450	430–470	GMRS 460, FRS 460	FM ± 5 kHz deviation 1 kHz sine
710	704–787	LTE Band 13,17	Pulse modulation 217 Hz
745			
780			
810	800–960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz
870			
930			
1720	1700–1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1,3, 4,25; UMTS	Pulse modulation 217 Hz
1845			
1970			

Immunity to Proximity Fields from Radio Frequency Wireless Communications Equipment			
In addition to the Radiated RF IEC 61000-4-3 as shown in the table above, the P006979 has been tested as specified in the table below.			
Test Frequency (MHz)	**Band (MHz)**	**Service**	**Modulation**
2450	2400-2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz
5240	5100–5800	WLAN 802.11 a/n	Pulse modulation 217 Hz
5500			
5785			

RFID Characteristics

Characteristic	Description
Frequency Band	902-928 MHz
Modulation	OOK, frequency hopping amongst 50 channels
Network Standards	EPC Gen 2
Data Rates Supported	400 kBPS

FCC ID

Variscite Module	FCC ID
VS10R5MN5MAEDCL1B	Z64-WL18DBMOD

LIMITED WARRANTY

HILL-ROM COMPANY, INC.
LIMITED WARRANTY

Hill-Rom Company, Inc. (Hill-Rom) has a long tradition of providing superior products and service to our customers. Our goal is "Total Customer Satisfaction". In that spirit, Hill-Rom is proud to offer the following warranty.

GENERAL WARRANTY (APPLICABLE UNLESS A SPECIFIC WARRANTY IS LISTED)

Hill-Rom warrants to the original purchaser that its products and replacement parts shall be free from defects in material and workmanship for a period of one (1) year from date of delivery. Hill-Rom's obligation under this warranty is expressly limited to supplying replacement parts and/or service for, or replacing, at its option, any product which is, in the sole discretion of Hill-Rom, found to be defective. In addition to the foregoing one year warranty, Hill-Rom warrants to the original purchaser that the frame and welds on its products will be free from structural defects for the life of the product. Any product upgrade or modification initiated by Hill-Rom does not affect the original product warranty.

SPECIFIC WARRANTIES

MATTRESS WARRANTIES

Hill-Rom warrants to the original purchaser that its mattress product shall be free from defects in material and workmanship for a period of two (2) years from date of delivery. However, electro mechanical mattress components (compressors, valves, printed circuit boards, hoses, and couplers) are covered by the general one (1) year warranty.

EXPENDABLES WARRANTIES

A sixty (60) day limited warranty from date of delivery applies to expendable parts such as cushions, coverlets, software diskettes, locator badge batteries, dome light incandescent bulbs, overhead fluorescent tubes, heating elements, temperature probes, filter sheets, and microspheres. This warranty is limited to replacement of the parts covered.

TO OBTAIN PARTS AND SERVICE

In the United States, call Hill-Rom Technical Support Department at (800) 445-3720, Monday through Friday. In Canada, call Hill-Rom Technical Support Department at (800) 267-2337, Monday through Friday. Outside the United States and Canada, call your authorized Hill-Rom Distributor. In order to expedite service, we request you furnish the following information: customer identification number, product model number, serial number, and description of problem. A qualified specialist will provide, via telephone (United States and Canada), or FAX (Outside the United States and Canada), troubleshooting assistance for facility personnel and provide necessary parts to make repairs. If troubleshooting determines the need for on-site technical service, a qualified service representative will be dispatched. Replacement of non-technical items will be the responsibility of the customer. If requested by Hill-Rom, products or parts for which a warranty claim is made shall be returned prepaid to Hill-Rom's factory.

OUT OF WARRANTY EXCHANGE POLICY

After the expiration of the original warranty, upon request, Hill-Rom will ship as a replacement, components such as selected: motors and printed circuit boards, for like units returned to Hill-Rom by the original purchaser at a substantial savings. Please call Hill-Rom Technical Support Department for current pricing.

PARTS AVAILABILITY POLICY

Hill-Rom will offer parts for new and remanufactured products for ten (10) years from date of sale; for communications products for five (5) years from date of sale. Note: Some original component parts and assemblies may not be available; functional equivalents may be substituted.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS OF PURPOSE. HILL-ROM'S OBLIGATION UNDER THESE WARRANTIES SHALL NOT INCLUDE ANY LIABILITY FOR LOSS OF PROFITS, DIRECT, INDIRECT OR CONSEQUENTIAL DAMAGES OR DELAYS. Some states, provinces, or countries do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply. Any improper or negligent use, any alterations or repairs not in accordance with Hill-Rom's manuals or performed by others in such manner as in Hill-Rom's sole judgment affects the product materially and adversely, shall void these warranties. These warranties do not cover failures due to misuse, abuse, neglect, or lack of routine maintenance. No employee or representative of Hill-Rom is authorized to change these warranties in any way or grant any other warranty unless in writing and signed by a Hill-Rom officer. These warranties provide specific legal rights; but, there may be other available rights, which vary from state to state, province to province, or country to country.

ADM004 REV 4 July 2010

Hill-Rom Company, Inc., 1069 State Route 46 E, Batesville, IN 47006-9167