User Guide–KI-2206

Responder® IV Wireless Bed Interface User's Guide

Rauland-Borg Corporation
Issued: 11/28/2006

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1: General Information

Because all hospital beds currently connect to a wall with a damage-prone 37-pin connector, and because that damage results in all types of bed and Nurse-Call system malfunctions, the Rauland-Borg Corporation has developed and is now selling Stryker and Hill-Rom-compatible versions of a Wireless Bed Interface. The Interface provides Bed Exit, Nurse Call, Bed Out, and Call Assurance functions without cable connection or system programming. (The unit does not, however, provide TV/lighting controls or TV/intercom audio. Those may, however, still be provided by optional Entertainment Speakers.)

Wireless connectivity is accomplished by using two devices, one that plugs and securely screws into a bed ("Bed Unit") and one that plugs and securely screws into the wall ("Wall Unit"). Each unit is equipped with a single button that serves to connect and/or disconnect the bed from the wall, and a simple linking procedure allows one to roll a bed into a room and be set to go in moments.

When you enter a room, you will find a Generic Wall Unit (model 30110) and one of the two (2) model-specific Bed Units, the 301200 Hill-Rom Bed Unit (with a socket connector) or the 301210 Stryker Bed Unit (with a plug connector).

Revision History

This is the first release of this manual. Should other versions be released, we will use this section to track and highlight changes.

Scope of This Guide

Read this document if your responsibilities include operating the Wireless Bed Interface.

Customer Connection/Extranet

You can use Rauland's secure Customer Connection site to find, view, and/or download many support documents—including manuals, drawings, and reports. To request an account, follow the online instructions at: http://customerconnection.rauland.com.

Related Documents

Related information can be found in the following documents:

- ✓ *Responder® IV Wireless Bed Interface*—Installation (KI-2207)
- ✓ *Responder® IV Wireless Bed Interface Quick Guide* (KI-2208)

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2: Linkage

In order to use the Wireless Bed Interface, you'll need to link the Bed and Wall Units. The procedure for linking the Generic Wall Unit with either of the Bed Units is identical.

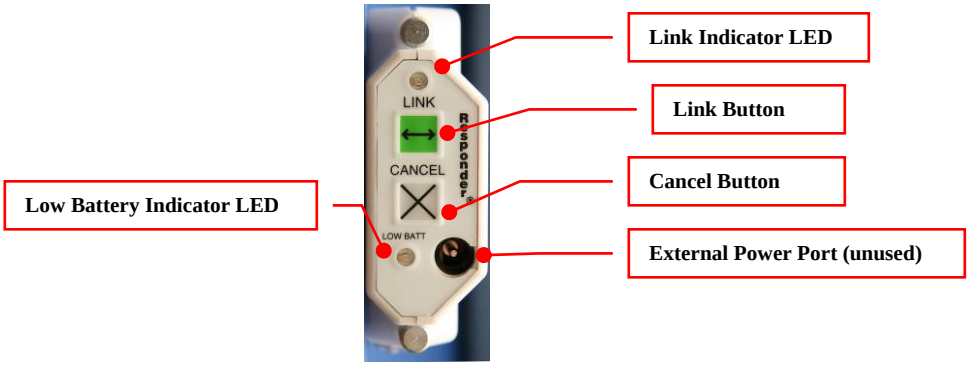

Figure 1: Generic Wall Unit

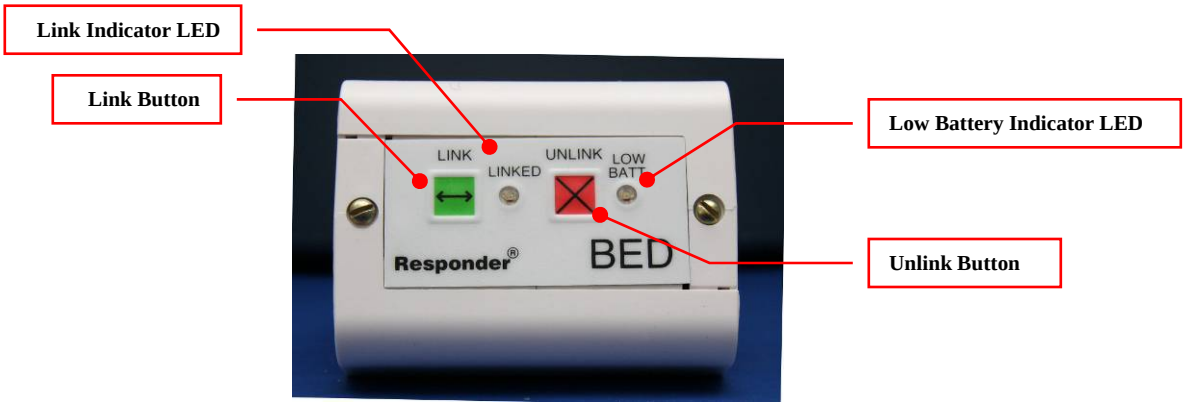

Figure 2: Bed Unit (represents both models)

Linking Bed and Wall Units

Here are some basic things to bear in mind:

- ✓ A linked Bed Unit **may not** operate when positioned more than 35 feet (10 meters) from its companion Wall Unit.

- ✓ It does not matter which LINK button is pressed first to initiate the linking process. You'll then have five (5) seconds to press the LINK button on the companion unit once you've initiated the linking process.
- ✓ During the linking process, the green LINKED indicator on both units will flash.
- ✓ The LINK indicator on the Wall Unit will light steadily if properly linked.
- ✓ Test each link after it has been established.
- ✓ In the unlikely event that linking does not occur after you engage in the following steps, the Bed Unit and/or the Wall Unit will emit a continuous tone for about ten (10) seconds.

To Link the Units:

1 Position the bed in a location near the Wall Unit, but where you can easily gain access to both the Wall Unit and Bed Unit

- During the linkage process and thereafter, the Bed Unit must be no more than 35 feet away from its companion Wall Unit.

2 Initiate the linking process by pressing the green LINK button on each Unit within five (5) seconds of each other.

Figure 3: Green Link Button

- Each LINK button will emit a confirmation beep once pressed.
- The green LINK indicators on both Units will begin to flash.
- A double beep indicates a successful linkage.
- A successfully linked Bed Unit's green LINKED indicator will flash for a few seconds before turning off.
- A successfully linked Wall Unit's green LINKED indicator will flash for a few seconds, but then remain **on**.
- If the link attempt is unsuccessful for any reason, the Bed Unit and/or the Wall Unit will sound a continuous tone for about ten (10) seconds. To immediately silence the tone(s) manually, press the gray CANCEL button on the Wall Unit and the red UNLINK button on the Bed Unit. As soon as the tones are canceled, you can repeat step 2 (above) to attempt relinking.

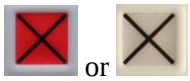
or

Figure 4: Unlink/Cancel Buttons

Link Reminder Chirp

The Units are equipped with a Link Reminder feature. In the event that an unlinked Bed Unit and an unlinked Wall Unit are within proximity of each other for about two (2) minutes, a short chirp will sound at the unlinked Bed Unit. This chirp reminds staff that the Bed Unit is not paired with a nearby *unlinked* Wall Unit(s); however, should you wish that a Bed Unit not be linked, you'll want to silence this reminder chirp. Do so by pressing the red UNLINK button on the Bed Unit. The reminder chirps will return after an hour. If the bed is moved, and is left in proximity of other unlinked Wall Units for a few minutes, the

chirp will return. Again, the Bed Unit should either be linked, or the UNLINK button pushed to silence it.

Testing the Bed-to-Wall Link

Once the link has been established, you'll want to test it by placing a Normal and Bed-Exit call as follows.

To Test the Link:

1 Place a call from the Bedside Rails.
- The Call Assurance light on the associated Bed Station should light without delay.
- The Call Assurance light on the Bedside Rails should begin to flash briefly once every two (2) seconds.
- A Normal (routine) call should appear at the Console.

2 Cancel the call at the Bed Station.
- All annunciations should cease.

3 Activate the bed's Bed-Exit function.
- The Call Assurance light on the associated Bed Station should light.
- The Call Assurance light on the Bedside Rail should begin to flash once every two (2) seconds.
- A Bed-Exit call should appear at the Console.

4 Cancel the Bed-Exit call at the Bed Station.
- All annunciations should cease.

Remedying Link Failures

Link failures may occur for a variety of reasons. Typically, failures occur because a bed is moved beyond acceptable range (35 feet/10 meters).

When a link failure occurs:
- The Wall Unit will place a Bed-Out call.
- The Wall Unit's green LINK indicator will fast flash continuously.
- To reestablish a link, cancel the Bed-Out call at the Bed Station and then repeat the linking process above.

Should you **not** want the Units linked, you may press the CANCEL button on the Bed Unit, and cancel the Bed-Out call at the Bed Station.

Terminating a Link

Should you ever wish to terminate a link between a Bed and Wall Unit, here's how it's done.

To Terminate a Link:

1) Press the red UNLINK button on the Bed Unit.

Figure 5: Unlink Button

- The Unit will sound a single confirmation beep.
- The green LINK indicator will flash momentarily and then extinguish.
- A Bed-Out call will be placed by the associated Bed Station.

2 Cancel the Bed-Out call at the Bed Station.

Low Battery Alert

The Units are equipped with low battery indicators (LOW BATT). Low Batteries should be replaced as soon as possible by trained personnel.

Here's what else you need to know about low battery conditions:

- ✓ In the event battery power is running low within the Bed Unit, the Bed Station will place a Bed-Out call, and the Wall Unit will flash its red LOW BATT indicator continuously.
- ✓ Alert the staff responsible for replacing the batteries.
- ✓ The batteries will last for about two weeks following the first low battery alert.
- ✓ The Bed Unit will flash its red LOW BATT indicator only once per minute (to conserve battery power).
- ✓ The Bed-Out call will reoccur once every minute until the Wall Unit's gray CANCEL button is pressed.

Figure 6: Cancel Button

- ✓ Pressing the CANCEL button will silence the alert for four (4) hours. If the condition is not corrected within that time, the alert process will begin again.
- ✓ After the batteries have been replaced and the Bed Unit returned to service, the Units must be relinked.

A

Appendix A: FCC and IC Compliance

Compliance Statement (Part 15.19)

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1) This device may not cause harmful interference, and

2) This device must accept any interference received, including interference that may cause undesired operation.

Warning (Part 15.21)

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Warning

These devices (WBU and WWU) must not be collocated or operating in conjunction with any other antenna or transmitter.

FCC Interference Statement

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 of the following measures:

Reorient or relocate the receiving antenna.

1) Increase the separation between the equipment and receiver.

2) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

3) Consult the dealer or an experienced radio/TV technician for help.

This portable transmitter with its antenna complies with FCC's RF exposure limits for general population / uncontrolled exposure.

Industry Canada Statement per Section 4.0 of RSP-100

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

Section 7.1.5 of RSS-GEN

Operation is subject to the following two conditions:

1) this device may not cause harmful interference, and

2) this device must accept any interference received, including interference that may cause undesired operation.