

# Bond Lite

## User Instructions



**Ramblegard**<sup>®</sup>  
stay a step ahead



# Contents

<b>1. PRODUCT OVERVIEW</b>	<b>5</b>
<b>1.1</b> System Layout	<b>5</b>
<b>1.2</b> Compatible Equipment	<b>5</b>
<b>1.2.1</b> Future Compatibility	<b>8</b>
<b>1.3</b> General Operation	<b>8</b>
<b>2. USER INTERFACE</b>	<b>9</b>
<b>2.1</b> Home Screen	<b>9</b>
<b>2.2</b> Alarm Screen	<b>10</b>
<b>2.2.1</b> Display Details	<b>11</b>
<b>2.2.2</b> Admin Reset	<b>12</b>
<b>2.2.3</b> Dongle Error	<b>12</b>
<b>2.3</b> Device Management	<b>13</b>
<b>2.3.1</b> Add New Device	<b>13</b>
<b>2.3.2</b> Device Location	<b>15</b>
<b>2.3.3</b> Delete Device	<b>16</b>
<b>2.4</b> Event Log	<b>17</b>
<b>2.5</b> Settings	<b>18</b>
<b>2.5.1</b> Change Setting	<b>18</b>
<b>2.5.2</b> Export Log	<b>19</b>
<b>3. INSTALLING BOND LITE</b>	<b>19</b>
<b>3.1</b> Call Points	<b>20</b>
<b>3.2</b> Indication Lights	<b>21</b>
<b>3.3</b> Bed Monitors	<b>24</b>
<b>3.4</b> Door Monitors	<b>25</b>
<b>3.5</b> Wall-mounting the Panel	<b>25</b>
<b>3.6</b> Maintaining BondLite	<b>26</b>
<b>4. TROUBLESHOOTING</b>	<b>27</b>

***BondLite is a wireless nurse call system designed for ease of programming, installation and use. This allows rapid deployment of a low-cost call system during influenza season when hospital resources are stretched, or permanent installation for a long-term care facility or hospital ward looking for a reliable call solution.***

***BondLite works using a 10" Android tablet for the display. The tablet comes with a protective folio for placement on a desk, or can be wall-mounted with the use of an optional bracket.***

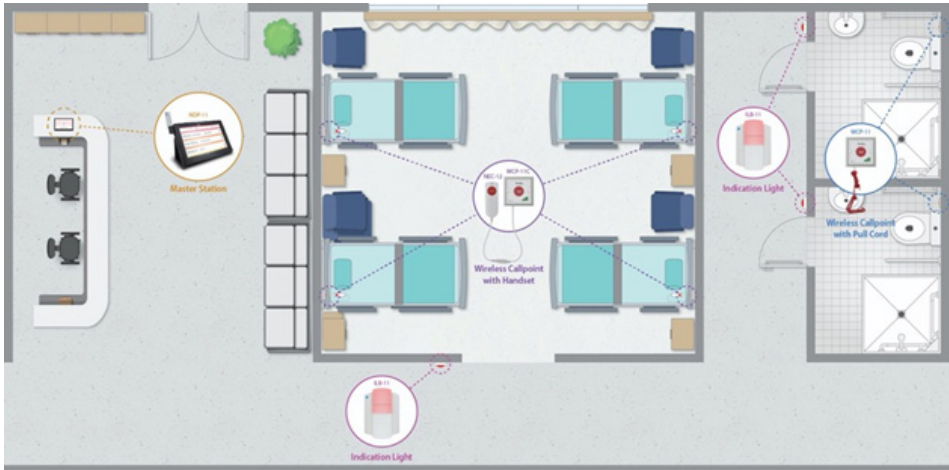
***Up to three calls can be displayed on the screen, with higher priority calls automatically moved to the top of the alarm display. Alarm priority levels are Emergency, Bath, and standard Call. If more than three calls happen to be active at the same time, BondLite will display the three highest priority events, and additional calls will display as the priority events are reset. All events are logged with a record of event location, call type, time of trigger and duration before reset.***

***Indication lights placed throughout the ward or building will show if there is an active call in the area. Each light has an internal buzzer with adjustable volume, and can repeat the signal to the display panel to greatly extend range and improve the reliability of wireless coverage.***



# 1.0 Product Overview





## 1.1 System Layout





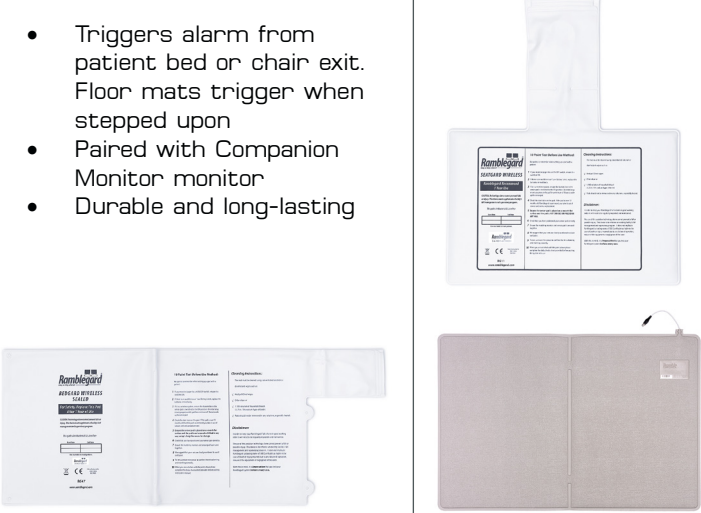
## 1.2 Compatible Equipment

Model	Description	
<b>R26-0001</b>	<b>10" Android Tablet with dongle (shown)</b> <ul style="list-style-type: none"> <li>• Touch screen user interface</li> <li>• Call, Bath, and Emergency priority levels</li> <li>• Customisable displays</li> <li>• Event log with location, call type and response time</li> <li>• Includes folio for use on desktop</li> <li>• US, EU, and UK power plugs included</li> </ul>	
<b>R26-0006A</b>	<b>Receiver dongle for smaller areas (433MHz)</b>	
<b>R26-0006L</b>	<b>Receiver dongle for large areas (LoRa)</b>	

## 1.2 Compatible Equipment (cont.)

Model	Description	
	<p><b>Wall-mount bracket for NDP-11</b></p> <ul style="list-style-type: none"> <li>• Durable acrylic design</li> <li>• Includes mounting screws</li> <li>• Available in black or white</li> </ul>	
<p><b>R18-0001</b></p>	<p><b>Wireless patient handset</b></p> <ul style="list-style-type: none"> <li>• Call and reset buttons</li> <li>• Includes wall-mount bracket and screws</li> <li>• Uses 2 x AAA alkaline batteries</li> <li>• Low battery alert</li> </ul>	
<p><b>R18-0002</b></p>	<p><b>Patient lanyard with man-down alert</b></p> <ul style="list-style-type: none"> <li>• Mobile call button for active residents</li> <li>• Anti-ligature point</li> <li>• Man-down alert in case of falls</li> <li>• Uses CR2477 lithium battery</li> <li>• Low battery alert</li> <li>• Rated IP67</li> </ul>	
<p><b>R26-0004</b></p>	<p><b>Indication light</b></p> <ul style="list-style-type: none"> <li>• Dual-color LED light – shows RED for normal call devices or WHITE for bath units</li> <li>• Call forward function to extend range</li> <li>• Includes wall-mount bracket and screws</li> <li>• Uses 6 x C-type alkaline batteries</li> <li>• Low battery alert</li> </ul>	

## 1.2 Compatible Equipment (cont.)

Model	Description	
<b>R11-0002</b>	<p><b>Door Sensor</b></p> <ul style="list-style-type: none"> <li>• Triggers audible and visual alert when at-risk patient approaches a protected doorway</li> <li>• Configurable with door lock to restrict access</li> <li>• Allows caregivers to escort patients</li> </ul>	
<b>Companion Monitor</b>	<p><b>Bed monitor</b></p> <ul style="list-style-type: none"> <li>• Room controller for integrated falls management system</li> <li>• Pause &amp; Reset alarms</li> <li>• Works with bed/chair/floor sensor mats</li> <li>• Uses 3 x AA alkaline batteries</li> <li>• Low battery alert</li> </ul>	
<b>R09-0007</b>	<p><b>Sensorpads</b></p> <ul style="list-style-type: none"> <li>• Triggers alarm from patient bed or chair exit. Floor mats trigger when stepped upon</li> <li>• Paired with Companion Monitor</li> <li>• Durable and long-lasting</li> </ul>	

## **1.2.1 Future Compatibility**

Ramblegard plans to expand the compatibility of BondLite for a number of additional products.

These include:

- Protektor Network for large buildings
- Motion/door sensors for activity detection
- Android smartphones for messaging caregivers
- LoRa pagers to receive/reset calls
- Remote Android displays using LoRa link

## **1.3 General Operation**

BondLite follows generally accepted principles of a nurse call system as described in the UL and HTM-08 standards. Patient calls should be reset at location by the nurse or caregiver as soon as can reasonably be achieved.



## 2. User Interface

BondLite was designed with a streamlined user interface for ease of use. The app is navigated similar to how you use a smartphone, using taps and swipes for general options. A virtual keyboard will pop up when entering text or where an access PIN is required.

Icons at the top show the various screens of BondLite: Home, Alarm, Device Management, Event Log, and Settings.

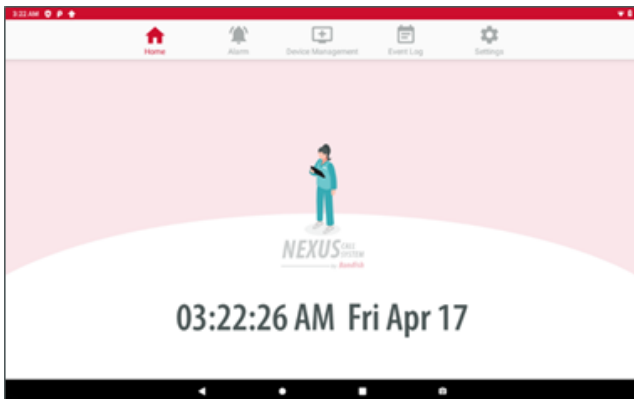
A company name can be configured to display on the home screen, and alarm displays are fully customisable according to user preferences. BondLite prioritises alarms in three levels of importance, and there is a built-in record of events to aid management if there is an adverse event or response times are tracked over time.

A future update is planned to enable messaging and staff acknowledgement of alarms using mobile devices running Android OS.

### 2.1 Home Screen

This is the default view of the application, and BondLite will return to this screen after alarms have been reset. The name of the organisation can be configured in the Settings menu (See Section 2.5) to appear above the nurse in the image above.

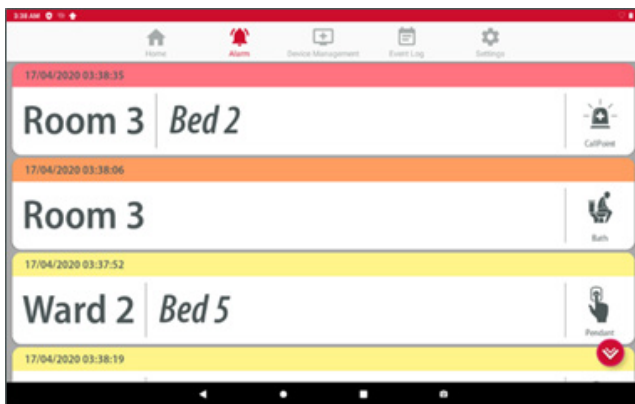
Date and time will automatically match your device.



## 2.2 Alarm Screen

The alarm screen will pop up when any event requires a response. If you tap on this icon when no alarms are present, the screen will be greyed out, and automatically return to the Home tab after several seconds. Up to three alarms can be displayed on the screen at once, however additional active alarms are indicated by the red arrow below and can be viewed by scrolling down the screen.

Alarms are ordered top to bottom by priority, with older alarms listed first.



## 2.2.1 Display Details

Includes time of the event with priority level, location, and type of alarm. When all alarms have been reset, BondLite will automatically revert to the Home Screen after several seconds.

**Colour band** – this indicates the alarm priority, with a time stamp shown on the left side.

Emergency – RED band, rapid beeping










Bathroom – AMBER band, 4s beep interval

Standard Call – YELLOW band, 10s beep interval

**Location 1** – this is typically a room or ward number, though is fully customisable

**Location 2** – this is typically a bed or bathroom number, though it can be left blank.

### Call Types & Priority

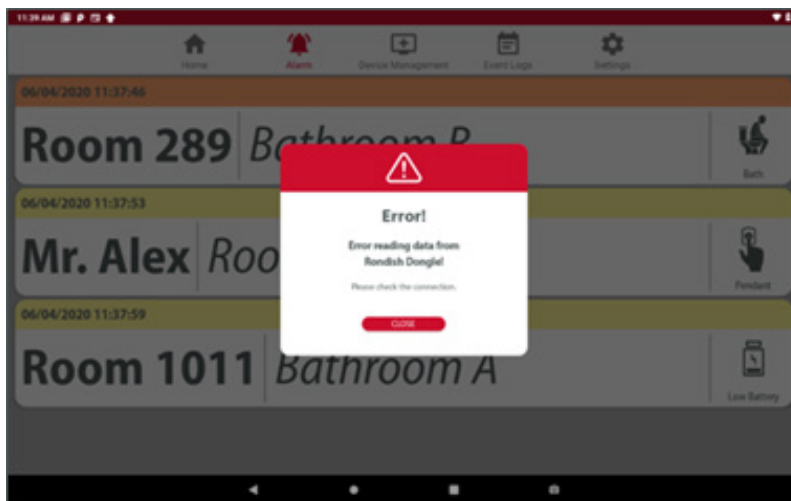
Emergency		Priority 1
Man-down		Priority 1
Bath		Priority 2
Bed		Priority 2
Chair		Priority 2
Door		Priority 2
Pendant		Priority 3
Call point		Priority 3
Cord remove		Priority 3
Low battery		Priority 4

## 2.2.2 Admin Reset

There may be times when an event needs to be cleared from the central display panel. This can be achieved by a long-press on the event and entering the Admin PIN that has been assigned for the system.

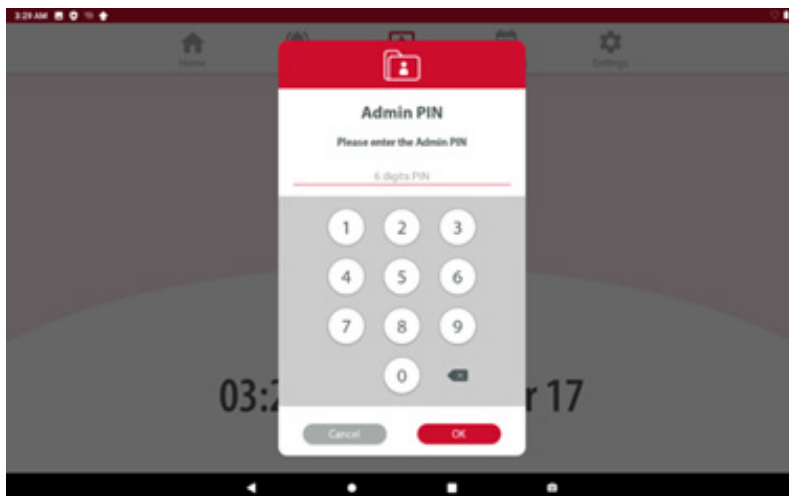
## 2.2.3 Dongle Error

An error message will display if the receiver dongle is removed or loses connection while BondLite is active. Your system cannot function without this receiver connected, so BondLite will prompt you to resolve this before any further action can be taken.



## 2.3 Device Management

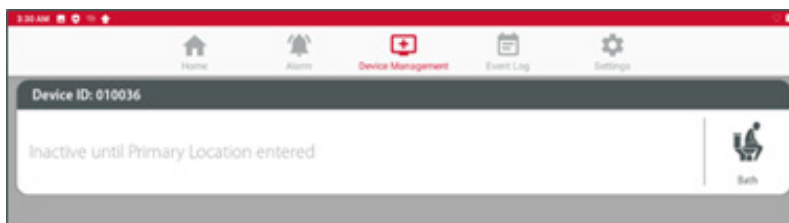
This tab is where you add/delete devices from BondLite, and define how each should display when an alarm is triggered. Entering this tab requires inputting a 6-digit Admin PIN to access. If you have not set a PIN the default is 123456.



### 2.3.1 Add New Device

From this screen, triggering a device can have two effects:

If BondLite does not already have this device in memory it will create a new entry with the 6-digit device ID, device type and notification that new hardware has been detected.

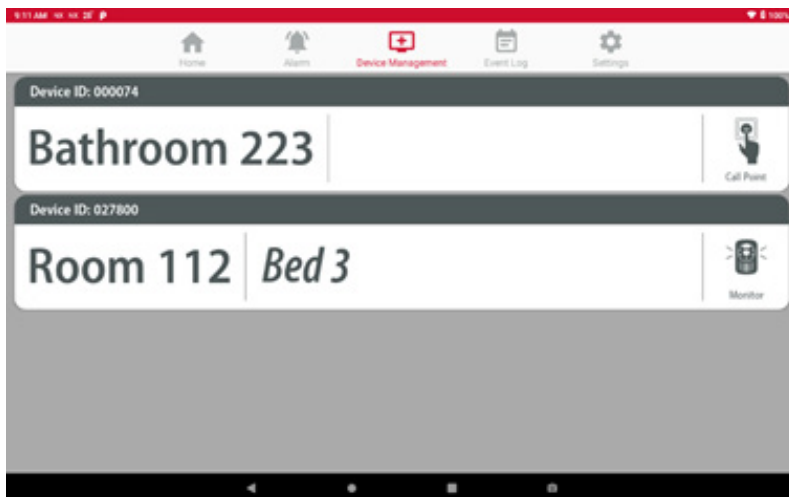


If BondLite already recognizes a device that is triggered while in Device Management, it will exit to the Alarm Screen as if a patient has normally triggered an alarm. This ensures the call system continues to function if a patient needs help.

## 2.3.1 Device Management (cont.)

### Bed Alarms

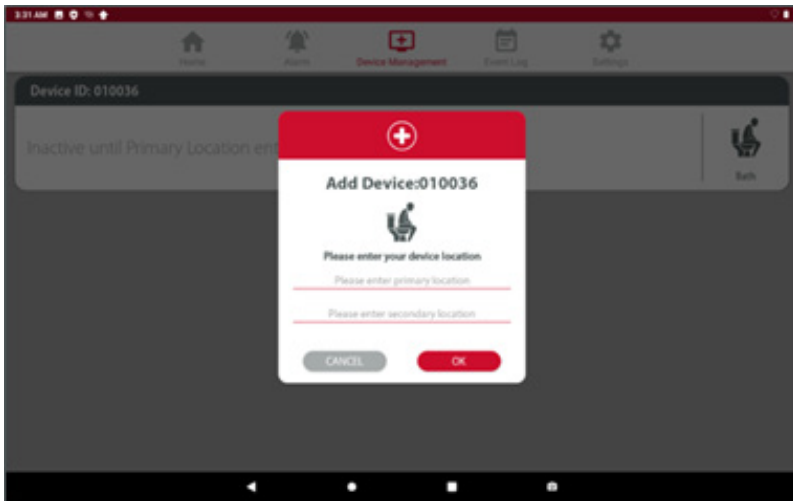
To add a monitor for a bed or chair sensorpad, check that the Companion Monitor settings are configured properly. It should be set to T1 and F1 for most convenient operation. From the Device Management tab, press Reset to pair with BondLite, and then assign display details. It should appear similar to below:



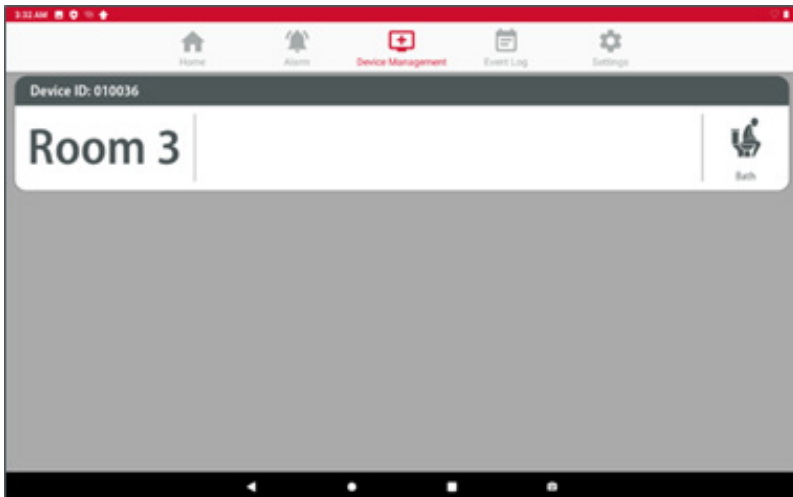
Once the monitor has been paired with BondLite, you can then sync either a bed or chair sensorpad with the monitor. BondLite will display the selected location with either a Bed or Chair alarm when the patient exits.

## 2.3.2 Device Location

Tapping on the Device you have just added will bring up the screen below, prompting you to enter a Primary and Secondary location. The text you enter here will display when this device is in alarm state.



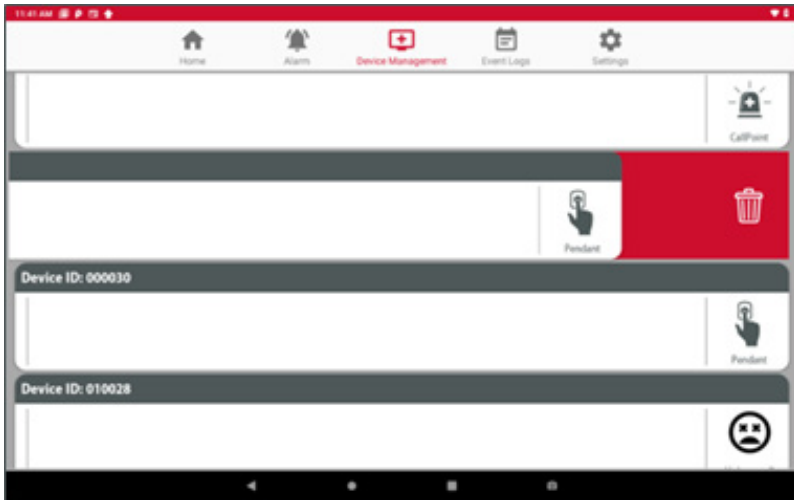
Click OK to confirm the location details, and these will now display on the Device Management screen.



If you want to change how the alarm is displayed you can just tap on the entry again to make amendments.

### 2.3.3 Delete Device

If you need to remove something from memory, swipe over the device.

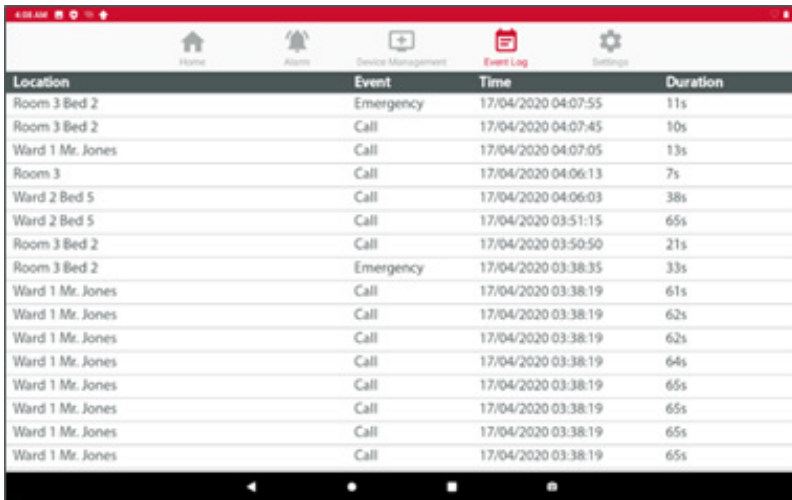


BondLite will prompt you to confirm or cancel the device removal.



## 2.4 Event Log

The Event Log will show the location, event type, time of initiation and duration of all events from the previous 24 hours. Alarms prior to the previous 24 hours will be stored in a data file that can be accessed by exporting and opening using Excel. Your response time is logged as the duration between an alarm triggering and being reset. Refer to Section 2.5.2 for instruction on how to export the data log.



The screenshot shows a mobile application interface with a red header bar. Below the header is a navigation bar with five icons: Home, Alarm, Device Management, Event Log (highlighted in red), and Settings. The main content area displays a table with the following columns: Location, Event, Time, and Duration. The table contains 16 rows of event data.

Location	Event	Time	Duration
Room 3 Bed 2	Emergency	17/04/2020 04:07:55	11s
Room 3 Bed 2	Call	17/04/2020 04:07:45	10s
Ward 1 Mr. Jones	Call	17/04/2020 04:07:05	13s
Room 3	Call	17/04/2020 04:06:13	7s
Ward 2 Bed 5	Call	17/04/2020 04:06:03	38s
Ward 2 Bed 5	Call	17/04/2020 03:51:15	65s
Room 3 Bed 2	Call	17/04/2020 03:50:50	21s
Room 3 Bed 2	Emergency	17/04/2020 03:38:35	33s
Ward 1 Mr. Jones	Call	17/04/2020 03:38:19	61s
Ward 1 Mr. Jones	Call	17/04/2020 03:38:19	62s
Ward 1 Mr. Jones	Call	17/04/2020 03:38:19	62s
Ward 1 Mr. Jones	Call	17/04/2020 03:38:19	64s
Ward 1 Mr. Jones	Call	17/04/2020 03:38:19	65s
Ward 1 Mr. Jones	Call	17/04/2020 03:38:19	65s
Ward 1 Mr. Jones	Call	17/04/2020 03:38:19	65s
Ward 1 Mr. Jones	Call	17/04/2020 03:38:19	65s

Event Types:

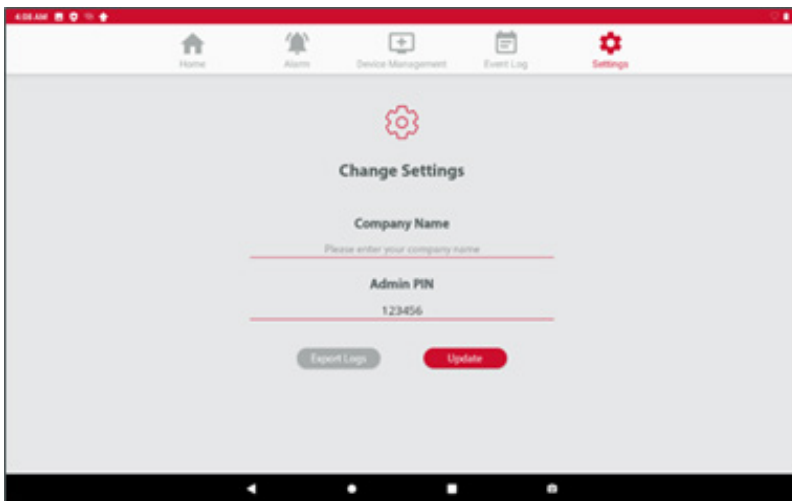
- Call
- Emergency
- Visit
- Bed exit
- Chair exit
- Door exit
- Low battery
- Signal lost
- Acknowledge

## 2.5 Settings

The Settings tab is where you will set the default name to display on the Home screen, change the Admin PIN, or export the data log. Pressing this tab requires inputting a 6-digit Admin PIN to access. If using BondLite for the first time the default code is 123456.

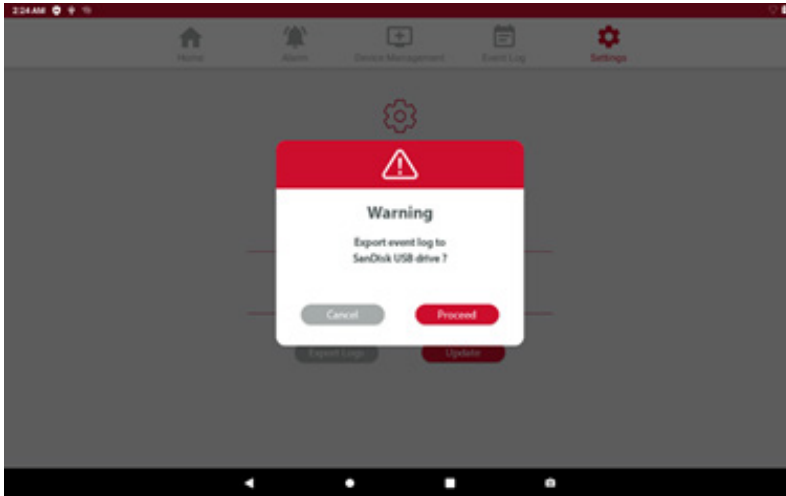
### 2.5.1 Change Settings

This will allow you to add a company name to display on the Home Screen or update the Admin PIN. Press the Update button to make any changes take effect.



## 2.5.2 Export Log

This will allow you to transfer the Event Log to a CSV file that is openable using MS Excel. Insert a USB storage device and tap the Export Log button.



BondLite will prompt you to confirm the data export.

After inserting the USB drive into a PC, the file will be stored in `Android/data/BondLite/events_date`.

## 3. Installing BondLite

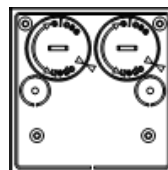
BondLite has been designed for a straightforward installation process that minimises the time your technician will spend on site. Following these steps will have your system up and running in just a few hours:

1. Switch on the tablet and connect the receiver dongle – the application will automatically open to a splash screen displaying the version of BondLite installed on this device
2. Change PIN and enter name of organisation (optional) in the Settings
3. Pair devices with BondLite and define how each should display during a call – refer to Section 2.3 for details of adding and renaming devices.
4. Pair devices with indication lights to extend wireless coverage (optional)
5. Mount indication lights (if used), call buttons and brackets for patient handsets
6. Mount display panel on a wall (wall mount bracket is optional)
7. Test all of the call points three times (call & reset) to ensure that signals are reliably received by the panel. Refer to the Event Log to confirm that each signal was received.

### 3.1 Call Points

BondLite call points have minimal programming and installation required for a functional call system. Follow the steps below to configure call points:

Step 1: Insert Batteries – BondLite call points come with batteries pre-installed. You will need to change these periodically based on usage. The exception is the NEC-05 handset, which uses 2 x AAA alkaline cells.

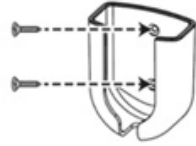


Step 2: Add to BondLite – Refer to Section 2.3 for how to pair and rename a call point.



### 3.1 Call Points (cont.)

Step 3: Mounting – Use the call point to mark the position of the screw holes on the wall. Drill guide holes before screwing the call point into place

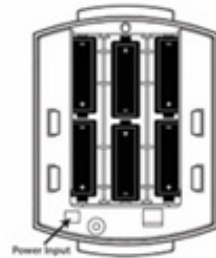


Step 4: Connect Handsets – A similar process can be followed for the handset mounting brackets.

### 3.2 Indication Lights

Corridor lights provide a visual indication when a call is active in the area, a buzzer with adjustable volume for audible indication, and will expand the wireless range of BondLite. Follow the below steps to configure lights with your BondLite system.

**Step 1: Power the light** – Insert 6 x C-type alkaline batteries into the R26-0004. A lead is also provided to connect with a 12V power source if the alarm will be frequently used as a call light with multiple calls a day. In this case, batteries may only last weeks or months, so connecting to a DC supply is recommended.



When used as a bathroom light with infrequent calls (e.g. 1 minute per day), the batteries can last up to 1 year.

Note: Standby battery life (no alarms) is more than 2 years.

## 3.2 Indication Lights (cont.)

**Step 2: Select settings** – Remove front lens using a 2mm flat-head screwdriver and select light settings. The dip switches control whether the R26-0004 will forward alarms to a central monitor unit or as a night light. The buzzer has maximum volume of 108dB, and can be silenced.

Switch 1 – far left: **Call Forward** (On/Off)

- Controls whether alarms are forwarded.

Switch 2 – left centre: **Bed Pad Forward** (On/Off)

- Controls whether signals from cordless sensor pads are forwarded.

Switch 3 – right centre: **Night Light** (On/Off)

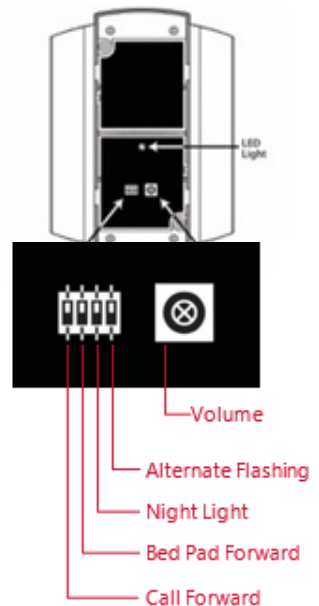
- Controls whether the R26-0004 turn ON when a bed is exited (without any audible alarm) – works with Sensor Pad or PIR.
- Light turns ON for 10mins, then turns off, or will reset when pad is occupied by resident.

Switch 4 – far right: **Alternate Flashing** (On/Off)

- When ON the two segments will alternately flash during alarm.
- When OFF, the Red segment indicates a Call, and White indicates a Bath.

*Volume Dial – adjustable to a maximum 108dB.*

**Step 3: Enter pairing** – Press the Program button on the back of the indication light. The red and white sections will both stay ON to indicate the light is ready for pairing.

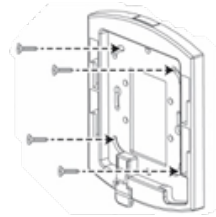


## 3.2 Indication Lights (cont.)

**Step 4: Read-in wireless devices** – Trigger the device you want to add into memory. If the device code is accepted into memory the R26-0004 will beep three times and flash either the red or white section. The WCP-11 call/reset button will flash the white LED to confirm they are paired; other wireless devices will flash the red LED to confirm.

The R26-0004 has memory capacity for 15 devices. In the event the light memory is already full, an attempt to read in another device will result in a long beep to indicate it has not been accepted.

**Step 5: Secure mounting plate** – Screw the plastic mounting plate to the wall where you will want to locate the indication light. Make sure the plate is secured before mounting the light.



**Step 6: Mount the light** – Snap the indication light onto the mounting plate. You will hear a “click” when the light is securely in place.



### 3.3 Bed Monitors

BondLite supports Ramblegard CordFree (Companion Monitor) monitors for a wireless fall management solution.

**Step 1: Power the Device** – Companion Monitor monitors operate on 3 x AA alkaline batteries

**Step 2: Select Settings** – Hold Program + Pause on the Companion Monitor to enter monitor settings. Use the Pause button to highlight the t-setting and use Reset to select t1, then highlight the R-setting and select either F1 or F9. F1 is suitable for single patient use where the monitor may be moved around the facility, and F9 is for multi-patient use, where a single monitor will control several beds.

#### Step 3: Sync Devices

	Procedure for F1 Setting	Procedure for F9 Setting
Sync with Bond Lite	<ol style="list-style-type: none"> <li>1. Enter BondLite Device Management Tab.</li> <li>2. Press Reset button on Companion Monitor to transmit monitor device ID for pairing.</li> <li>3. Rename monitor as desired to display during alarm.</li> <li>4. End.</li> </ol>	<ol style="list-style-type: none"> <li>1. Enter BondLite Device Management Tab.</li> <li>2. Activate Device #1 to transmit device ID into BondLite memory.</li> <li>3. Rename device as desired to display during alarm.</li> <li>4. Activate Devices #2-9 and rename each as required.</li> <li>5. End.</li> </ol>
Sync Devices to Monitor	<ol style="list-style-type: none"> <li>1. Enter programming on Companion Monitor.</li> <li>2. Trigger bed/chair/sensor device to sync with monitor.</li> <li>3. End.</li> </ol>	<ol style="list-style-type: none"> <li>1. Enter programming on Companion Monitor.</li> <li>2. Select display ID (this is the bed#).</li> <li>3. Trigger bed/chair/sensor device to sync with monitor.</li> <li>4. End.</li> </ol>
Moving the Monitor	<ol style="list-style-type: none"> <li>1. Enter BondLite Device Management Tab.</li> <li>2. Rename monitor as desired to display during alarm.</li> <li>3. End.</li> </ol>	Moving the monitor is not recommended in F9 setting. If you must, delete all records in BondLite and re-program from the beginning.

**Step 4: Mount Monitor** – Use the double-sided tape or screw the wall-mount bracket into the wall where you would like the Companion Monitor to be located. The monitor can be located next to the patient bed or by the entrance to allow a caregiver to deactivate alarms while tending the patient.



### 3.4 Door Monitors

DoorWatcher strips can be installed to provide alerts if an at-risk patient attempts to leave the protected area.

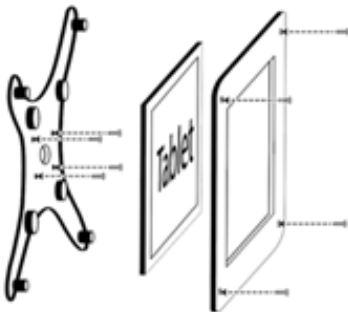
**Step 1:** Connect R11-0002 to power supply. A 12VDC power adapter with changeable country plug is available from Ramblegard on request.

**Step 2:** Mount R11-0002 door sensor next to the door that is to be monitored. Double-sided tape is provided with the sensors.

**Step 3:** Adjust detection distance.

### 3.5 Wall-mounting the Panel

BondLite panels can be wall-mounted through use of an optional bracket. This allows placement in an easily visible location like above a nurse desk or end of a corridor. The panel will need access to a power outlet, so make sure there is access to AC nearby.



### 3.6 Maintaining BondLite

Ramblegard recommends changing batteries on a regular schedule to ensure that BondLite operates at an optimum level. The expected battery life of each component will depend on actual usage – the below table is given below for reference only, assuming each call lasts 1min before reset.

<b>Component</b>	<b>1 Call/Day</b>	<b>5 Calls/Day</b>	<b>10 Calls/Day</b>
R18-0001	18 months	3.8 months	2 months
R17-0002	3+ years	1 year	6 months
R17-0002	3+ years	1 year	6 months
R26-0004*	18 months	10 months	5 months
R18-0002	9 months	4 months	2 months
Companion Monitor*			
R09-00211			

\*Battery life assumes volume set to silent, alarm duration is 1min each, and signal bump function turned ON.

## 4.0 Troubleshooting

The below table addresses a number of possible issues with possible solutions for resolving them.

Symptom	Possible Solutions
No power	Check AC input to BondLite.
Wireless signals not receiving	<ul style="list-style-type: none"> <li>• Check that each device is properly powered.</li> <li>• Move the device closer to the display panel – if this fixes the problem you may need to install a signal repeater to improve wireless coverage.</li> <li>• Check for possible sources of interference.</li> <li>• Consider moving the BondLite tablet to a different location.</li> </ul>
Dongle not receiving - LEDs flash but nothing happens on the screen	<ol style="list-style-type: none"> <li>1. Disconnect and reconnect the dongle.</li> <li>2. Swipe from the top of the screen twice to access the settings menu.</li> <li>3. Click the “settings” icon.</li> <li>4. Click Apps &amp; Notifications.</li> <li>5. Click BondLite.</li> <li>6. Click Force Stop.</li> <li>7. Re-launch the BondLite app.</li> </ol>
Audible alarm not loud enough	Increase volume setting – this can be done on indication lights and/or the BondLite tablet.
Alarms not displaying properly	Make sure you have entered a primary location in the Device Management section.
Unrecognized device in Management tab	BondLite may have received a signal from a 3rd party device while the system was being programmed. Just remove this device from memory.
Forgotten PIN	Contact your distributor for assistance.
Other	<ul style="list-style-type: none"> <li>• Visit <a href="#">YouTube/Ramblegard</a> to view a product tutorial.</li> <li>• Contact your local distributor for assistance.</li> </ul>





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