RadioRA2 One-Way Transmitter Frequency Changing Procedures

Rev. F 11/17/2014

Why?

The first question that would come to mind when seeing this document is to ask why it is necessary to change the frequency of devices in the system manually. Certain devices in the RadioRA2 product family are one way transmitters (OWT). In other words, they do not receive wireless commands from other devices in the system and can only transmit or send commands to system devices.

In a two Main Repeater system, the two Main Repeaters will not communicate wirelessly together. Instead they communicate back and forth over IP, connected to the same network via a router or switch. The two Main Repeaters essentially choose different RF channels to operate at, creating a system that is comprised of two different subnets.

To communicate the new RF channel to the devices within its subnet, each Main Repeater will send this information to the system devices activated to it. Devices that can hear the command will automatically change their channels from the default 434.7MHz. Devices that do not receive and can only transmit need to be manually configured to the necessary RF channel in order to operate within the subnet.

These procedures will need to be followed when placing OWTs on both Main Repeaters or having sensors designed to the second subnet (the second Main Repeater to go through activation) of the system. The first Repeater through activation will retain the default frequency and thus not require these procedures.

All of the following procedures must always be completed with the system in device Activation mode.

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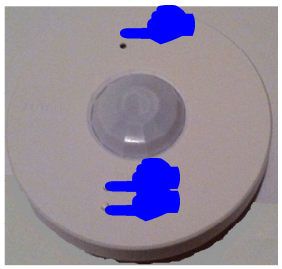
1st and 2nd Generation Ceiling Mount Sensors

LRF2-xCRB

x = O for Occupancy; V for Vacancy



1. Remove the battery from the sensor by pulling on the small tab next to the battery compartment and hold in the Test, Lights ON, and Lights OFF buttons.

2. Continue to hold all three buttons while pushing the battery back into place. After inserting the battery, continue holding the three buttons for about 3 seconds until the dome LED flashes rapidly.

3. Press the Lights ON button to try the next RF channel (15 total). Press the Lights OFF button to try the previous channel. Press the Test button to repeat the current channel.

4. Continue to cycle through the RF channels until you hear the Main or Aux Repeater beep. The beep indicates that the proper RF channel has been identified. At this point stop pressing any of the buttons that change the sensor's RF channel!

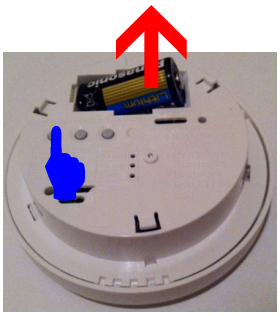
5. Hold in the Test, Lights ON, and Lights OFF buttons for about 3 seconds until the dome LED stops flashing.

Now that the frequency has been matched up to the Main Repeater, proceed with device activation as specified in the RadioRA2 Programming Utility.

3rd Generation Ceiling Mount Sensors

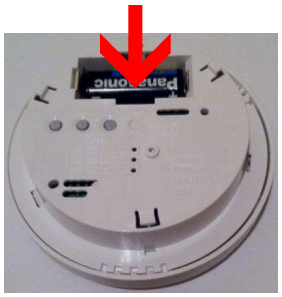
LRF2-xCR2B

x = O for Occupancy; V for Vacancy



1. Remove the battery from the sensor.

2. Hold in the button, Test button, and one of the three buttons on the back of the sensor.



3. Continue to hold all three buttons while pushing the battery back into place. After inserting the battery, continue holding the three buttons for 6 seconds until the dome LED flashes rapidly.

4. Press the Test button to cycle through each RF channel (15 total). Press the button to resend the association message at the currently selected channel.

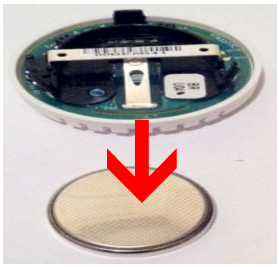
5. Continue to cycle through the RF channels until you hear the Main or Aux Repeater beep. The beep indicates that the proper RF channel has been identified. At this point stop pressing any of the buttons that change the sensor's RF channel!

6. Hold in the Button and Test button For 6 seconds until the dome LED stops rapid flashing.

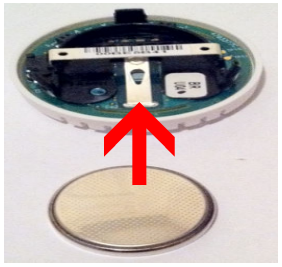
Now that the frequency has been matched up to the Main Repeater, proceed with device activation as specified in the RadioRA2 Programming Utility.

Temperature Sensors

LRF2-TWRB



1. Remove the battery from the sensor and hold in the Test and Link buttons.



2. Continue to hold both buttons while sliding the battery back into place. After inserting the battery, continue holding both buttons for about 6 seconds until the LED flashes rapidly.

3. Press the Test button to try the next RF channel (15 total). Press the Link button to repeat the current channel.

4. Continue to cycle through the RF channels until you hear the Main or Aux Repeater beep. The beep indicates that the proper RF channel has been identified. At this point stop pressing any of the buttons that change the sensor's RF channel!

5. Hold in the Test and Link buttons for about 6 seconds until the LED stops flashing.

Now that the frequency has been matched up to the Main Repeater, proceed with device activation as specified in the RadioRA2 Programming Utility.

Wall Mount Sensors

LRF2-xyLB

x = O for Occupancy; V for Vacancy
y = K for Corner; H for Hallway; W for flat Wall

1. Remove the battery from the sensor and hold in the Sensor, Lights ON, and Lights OFF buttons.

2. Continue to hold all three buttons while pressing the battery back into place. After inserting the battery, continue holding all three buttons for about 3 seconds until the LED flashes rapidly.

3. Press the LIGHTS ON button to try the next RF channel (15 total). Press the LIGHTS OFF button to try the previous RF channel. Press the TEST button to repeat the current channel.

4. Continue to cycle through the RF channels until you hear the Main or Aux Repeater beep. The beep indicates that the proper RF channel has been identified. At this point stop pressing any of the buttons that change the sensor's RF channel!

5. Hold in the Test, Lights ON, and Lights OFF buttons for about 3 seconds until the dome LED stops flashing.

Now that the frequency has been matched up to the Main Repeater, proceed with device activation as specified in the RadioRA2 Programming Utility.

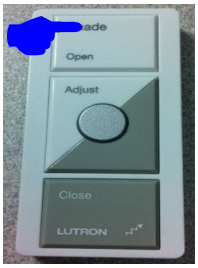
1st Generation Pico Wireless Controls

RRD-P3BRL-x

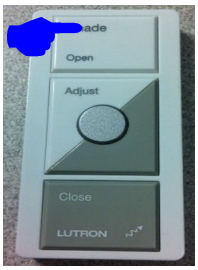
x = L for Lights; S for Shades

1. Remove the battery from the Pico and hold in the Open/On, Preset, and Close/ Off buttons.

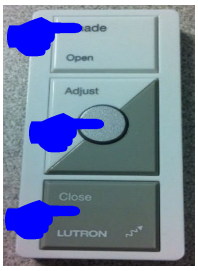
2. Continue to hold all three buttons while pressing the battery back into place. After inserting the battery, continue holding all three buttons for about 3 seconds until the LED flashes about once per second.



3. Press the Open/On button to try the next RF channel (15 total). Press the Close/Off button to try the previous channel. Press the preset button to repeat the current channel



4. Continue to cycle through the RF channels until you hear the Main or Aux Repeater beep. The beep indicates that the proper RF channel has been identified. At this point stop pressing any of the buttons that change the sensor's RF channel!



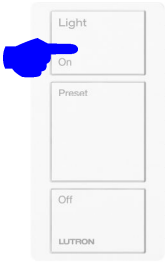
5. Hold in the Open/On, Preset, and Close/ Off buttons for about 3 seconds until the LED stops flashing.

Now that the frequency has been matched up to the Main Repeater, proceed with device activation as specified in the RadioRA2 Programming Utility.

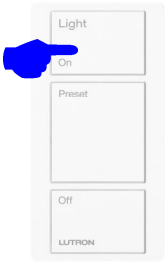
2nd Generation Pico Wireless Controls

PJ-xB, PJ-xBRL, PJ2-xB, PJ2-xBRL, PJN-xB, and PJN-xBRL

x = 2 for two button; 3 for three button



1. Triple tap and hold the On/Open button (top button) of the Pico. Hold the button for at least 15 seconds. The Main and Aux Repeaters will beep to let you know that the Pico is now in Frequency Changing Mode.



2. Press the On/Open (top) or Off/Close (bottom) buttons to cycle through the 15 RF frequencies. Cycle through until you hear the Main or Aux Repeaters beep. Once you hear the beep, that means that the proper RF channel has been identified. At this point stop pressing any of the buttons that change the sensor's RF channel!

3. Press and hold the On/Open (top) and Off/Close (bottom) buttons for at least 3 seconds to exit Frequency Changing Mode. The Main and Aux Repeaters will beep once the Pico successfully exits the Mode.

Now that the frequency has been matched up to the Main Repeater, proceed with device activation as specified in the RadioRA2 Programming Utility.

4 Button Pico Wireless Controls

PJ2-4B

1. Triple tap and hold the top button of the Pico. Hold the button for at least 15 seconds. The Pico status LED will blink once per second to let you know that the Pico is now in Frequency Changing Mode.

2. Press the top or bottom buttons to cycle through the 15 RF frequencies. Cycle through until you hear the Main or Aux Repeaters beep. Once you hear the beep, that means that the proper RF channel has been identified. At this point stop pressing any of the buttons that change the sensor's RF channel!

3. Press and hold the top and bottom buttons for at least 3 seconds to exit Frequency Changing Mode. The Main and Aux Repeaters will beep once the Pico successfully exits the Mode.

Now that the frequency has been matched up to the Main Repeater, proceed with device activation as specified in the RadioRA2 Programming Utility.