HomeWorks QS
One-Way Transmitter Frequency Changing Procedures

Rev. B   11/17/2014

Overview

Certain RF devices in the HomeWorks QS 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. Pico wireless controls, wireless occupancy/vacancy sensors, Light Sensors and wireless temperature sensors are all considered one-way devices in a HomeWorks QS system.

The default channel (frequency) for all one-way and two-way RF devices, as well as in the HomeWorks QS software, is 0x1A (433.6 MHz). If you are using multiple RF links or QSMs on the same project, or if there is a neighboring system within range on the same channel, you will want to change the channel of the devices in the system in order to eliminate any sort of RF device activation or transfer issues.

Changing the channel on each RF Link is done in the HomeWorks QS software on the Link Assignment screen. Changing the channel received by a QSM is done in the Properties window in Design > Controls. After selecting the new channel in the software, you must activate at least one wired Hybrid Repeater on each RF link in order to communicate on the new channel. After at least one wired Hybrid Repeater has been activated on each RF link with the new channel, all other two-way devices (including additional repeaters) will communicate on the new channel once activated since two-way devices can both send and receive commands. (Note: if all of the two-way devices on the link have previously been activated on another channel, you will need to factory default, or out-of-box, all two-way devices before attempting to activate again using the new channel). The QSM(s) will need to be activated to a Wired Link prior to activating Pico or Sensor devices to it.

All one-way devices in the system will need to have their channels changed manually since one-way devices can only send commands but not receive them. To manually change the channel on all one-way devices, follow the steps called out in this document or follow the steps listed in the HomeWorks QS software on the Device Activation screen.

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

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

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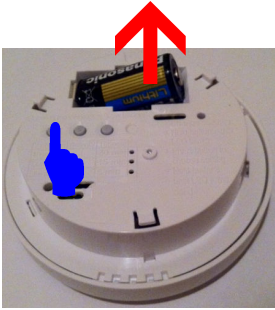
5. Hold in the Test, Lights ON, and Lights OFF buttons for about 3 seconds until the dome LED stops flashing.

Now that the frequency has been matched up to the Hybrid Repeater, you may now proceed with device activation.

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

5. Continue to cycle through the RF channels until you hear the Hybrid 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!

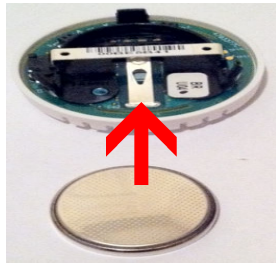6. Hold in the 💡 Button and Test button For 6 seconds until the dome LED stops rapid flashing.

Now that the frequency has been matched up to the Hybrid Repeater, you may now proceed with device activation.

Temperature Sensors
LRF2-TWRB
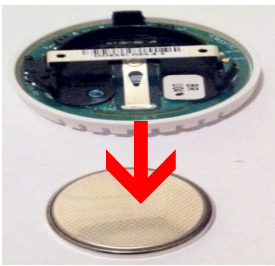
1. Remove the battery from the sensor and hold in the Test and Link buttons.

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 Hybrid 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 Hybrid Repeater, you may now proceed with device activation.

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 Hybrid 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 Hybrid Repeater, you may now proceed with device activation.

1st Generation Pico Wireless Controls
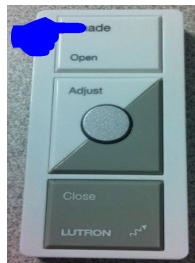
QSR4P-3R-Exx

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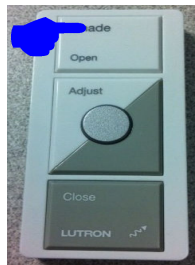
4. Continue to cycle through the RF channels until you hear the Hybrid Repeater beep. The beep indicates that the proper RF channel has been identified. At this point stop pressing any of the buttons that change the sensor's RF channel!
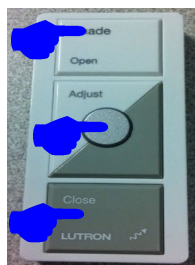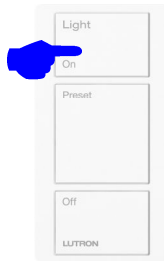

5. Hold in the Open/On, Preset, and Close/Off buttons for about 3 seconds until the LED stops flashing.
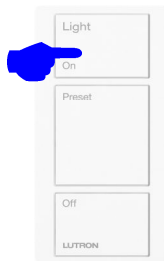
Now that the frequency has been matched up to the Hybrid Repeater, you may now proceed with device activation.
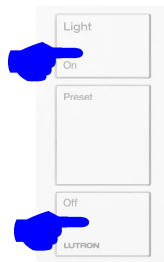
2nd Generation Pico Wireless Controls
PJ, PJ2, and PJN Models

1. Triple tap and hold the On/Open button (top button) of the Pico. Hold the button for at least 15 seconds. The Hybrid Repeater 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 Hybrid Repeater 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 Hybrid Repeater will beep once the Pico successfully exits the Mode.

Now that the frequency has been matched up to the Hybrid Repeater, you may now proceed with device activation.

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 Hybrid Repeater 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!
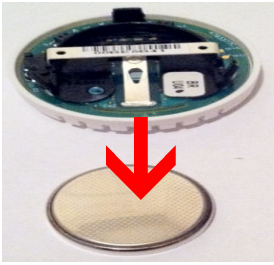
3. Press and hold the top and bottom buttons for at least 3 seconds to exit Frequency Changing Mode. The Hybrid Repeater will beep once the Pico successfully exits the Mode.
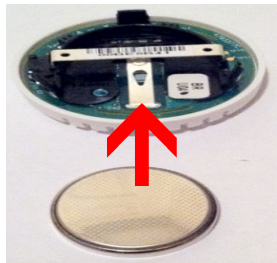
Now that the frequency has been matched up to the Hybrid Repeater, you may now proceed with device activation.

Light Sensors
LRF2-SSW and LRF2-SSM (SSM shown)

1. Remove the battery from the sensor and hold all three 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 Setup button to try the next RF channel (15 total). Press the Test button to repeat the current channel.

4. Continue to cycle through the RF channels until you hear the QSM 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 all three buttons for about 6 seconds until the LED stops flashing.

Now that the frequency has been matched up to the QSM, you may now proceed with device activation.