Jetlun Zigbee Occupy Sensor User Guide

User Guide
rev 1.0

http://www.jetlun.com

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1.0   ABOUT THIS GUIDE

1.1   Becoming familiar with this User Guide

1.1   Quick Reference

The Jetlun Occupancy Sensor (RD77760) User Guide describes the following:

Table 1: Where to find information in this User Guide

Planning and Installing the Jetlun Occupy Sensor	Chapter 2 and 3

1.2   Icon Descriptions

While reading through the User Guide, you may see various icons that call attention to specific items. Below is a description of these icons:

Table 2: Icon descriptions

	NOTE: This mark indicates that there is a note of interest and is something that you should pay attention to while using the product.
	IMPORTANT: This mark identifies an indication that you should watch for, or reiterates something that you should always keep in mind.
	WARNING: This exclamation point indicates that there is a caution or warning and may be something that could damage your property or project.

1.3   Getting Additional Help

To get information or assistance for problems that you encounter, please contact Jetlun Technical Support by emailing support@jetlun.com.
Please always include with all inquiries the following information:

- Product name, model number, part number (if applicable) and serial number
- A description of the devices connected to your Gateway or a system configuration
- The circumstances surrounding the error or failure
- A detailed description of the problem and what has been done to try to resolve it

1.4   Sending Feedback regarding this Documentation

We welcome your feedback on Jetlun Gateway documentation. This includes feedback on the structure, content, accuracy, or completeness of our documents, and any other comments you may have. Please send your comments to docs@jetlun.com.

2.0   PRODUCT OVERVIEW

Thank you for choosing the Occupancy Sensor (RD77760). The Occupancy Sensor is designed to communicate with JIM Gateway via Radio Frequency (RF) to provide remote control of your zigbee-enalbe device such as appliance module.

The Occupancy Sensor is a Zigbee® enable device. In the Zigbee® network, the Occupy Sensor is designed to act as enddevice. Set a chain of events using the status of occupy sensor to control groups of zigbee-enalbe devices in the gateway network. It also can alert through email or SMS when battery volume is low.

It has the features as following:

- Join/Leave Network LED
- Power LED
- Occupy/Unoccupied LED
- This is a Zigbee® controller
- Two way communication
- RF Reliability
- Compatible with other Zigbee enabled devices

2.1   Package Contents

When you first open the box, please check and confirm that the following items are all included:

- 1x Occupancy Sensor RD77760
- 1x Quick Installation Guide

Contact the retailer where you made your purchase if any of these parts are incorrect, missing or damaged. Keep the carton, including the original packaging materials in case you need to return the unit for repair.

2.2   Front Panel
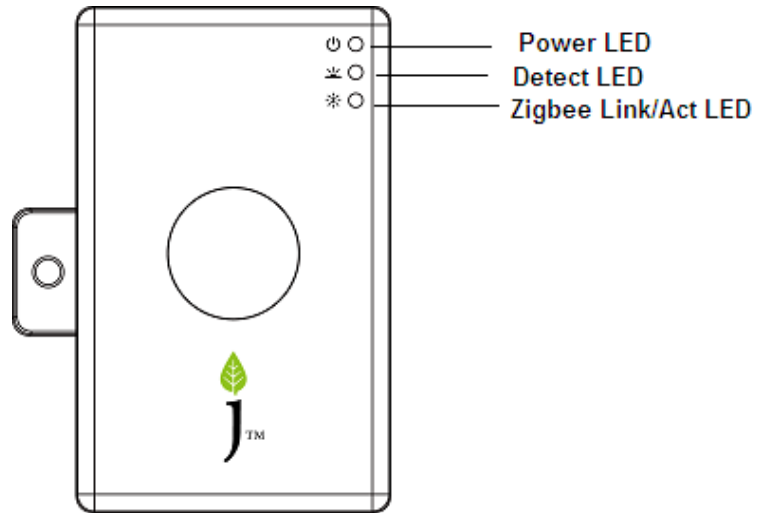
Figure 1: Front Panel of the Occupy Sensor

	⏻	The Power LED lights up RED when the battery volume is low.
	☀	The Detect LED lights up Green when some one stands in front of sensor.
	Z	The Zigbee ACT LED blinks green when Occupancy senseor receives/sends the data. The Zigbee ACT LED is solid green for 300 seconds when Occupancy sensor joins the zigbee network.

2.3 Side Panel （Right）
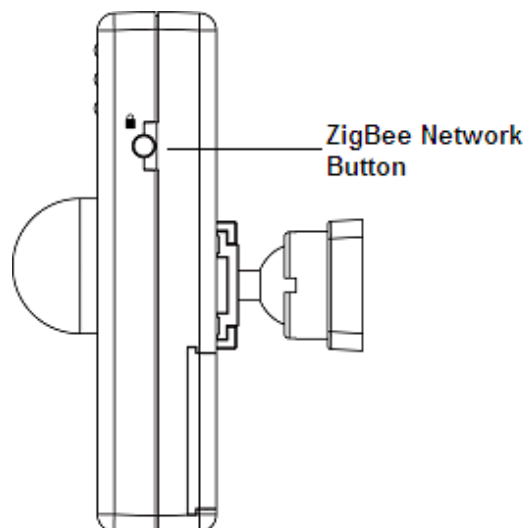
Figure 2: Right Side Panel of the Occupancy Sensor

Table 3: Back Panel of the Occupancy Sensor Description

🔒	The Zigbee Network button is applied for the Occupancy Sensor to join or leave the network. Press the Zigbee Network button once to join the network if the sensor is not in the network. To remove the sensor from the network, press the Zigbee Network button once to leave the network.

2.4 Side Panel (Left)
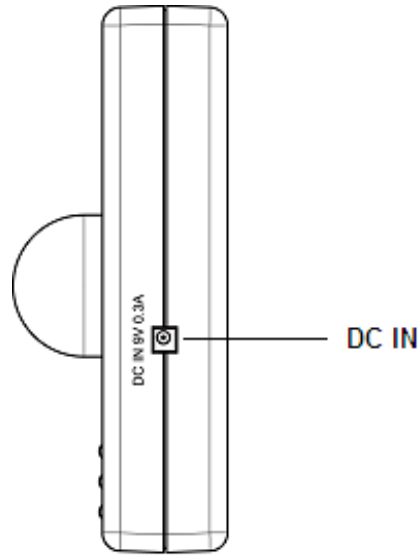
Figure 3: Left Side Panel of Occupy Sensor

Table 4: Back Panel of the Occupancy Sensor Description

DC IN	The DC IN is used to provide the power for Occupancy by DC adapter when no battery in the sensor. The output voltage for adapter is 9V, output current is 0.3A

3.0   INSTALLING THE JETLUN OCCUPY SENSOR

Follow these quick steps to install your Jetlun Zigbee Occupy Sensor.

3.1   Install the Occupy Sensor

#### *3.1.1 Join the Network*

➲ STEP 1: Press the Zigbee network button for 3-5 seconds and release the button. The Zigbee Act LED is blinking.

➲ STEP 2: The Occupancy Sensor will join the network within 1 minute. The Zigbee ACT LED should be solid green for 300 seconds.

	NOTE: If the Occupancy Sensor fails to join the ZigBee network, please enter the Gateway utility web interface and check the following items: 1. The Zigbee network is formed. 2. The Zigbee network allows the Zigbee device to join the network. Retry Step 1

3.1.2 Leave the network

➲ STEP 1: Press and hold the Zigbee network button for 8 -10 seconds then release the button. The Zigbee Act LED is blinking for about 3 seconds and then it is off.

➲ STEP 2: The Occupancy Sensor leaves the network successfully when the link LED is off.

3.3 TROUBLESHOOTING

1 Q: The Occupancy Sensor is failed to join the network?

A: Check the configuration of Gateway or RD75613 and assure that the network is formed. Then refer to the *3.1.1 join the network part* to retry join the network

2 Q: The Power LED is solid red or blinking red?

A: The volumne of battery is low and you should change the battery.
Change out battery procesure:
➲ STEP 1: Screw out the screw in the bottom panel using screwdriver
➲ STEP 2: Open the bottom panel.

➲ STEP 3: Use the new battery instead the old one
➲ STEP 4: Close the bottom panel and screw the screw.

3 Q: Join the Occupancy sensor to the Gateway Zigbee network through RD75613?

 A: The procedure is following:
➲ STEP 1: Form the Zigbee Network through the RD75613.
1. Enter the Gateway utility web Home Area Network > Control interface
2. Select the RD75613 (Appliance module) whose Zigbee network the Occupancy sensor will join and click the button
3. Enter the Zigbee network button, and enter the Chanel ID, Power Level and Pan ID. (If the Zigbee network is formed, you can directly jump to item 5.)

Channel ID is digit from 11 to 26
Power Lever is digit from 1 to 3
Pan ID must be 4 bits Hex

4. Click the Form button. When the network is formed, the name of Form button is changed to "Leave".
5. Select the Permit join choice and click Execute button.
Explain of permit join choices:
 Deny: No sensors can join the network
 Join any time: All sensors can zigbee network at any time.
Permit join for XX seconds: Sensors can join the network within XX seconds.

	NOTE: Permit join setting should be reset when the appliance module is rebooting.

➲ STEP 2: Occupancy sensor joins the network
1. Press and release the Zigbee network button once. The Zigbee ACT LED should be blinking.
2. The occupancy Sensor will join the network within 1 minute. The Zigbee ACT LED should be solid green for 300 seconds

	NOTE: If the Occupancy Sensor fails to join the ZigBee network, please enter the Gateway utility web home area network > Control > Zigbee network interface (Refer the Step 1) and check the following items: 1. The Zigbee network is formed. 2. The Zigbee network allows the Zigbee device to join the network. 3. Retry this procedure

➲ STEP 3: Occupancy sensor leaves the network
1.   Press and hold the Zigbee network button for 3-5 seconds.
2.   The Occupancy Sensor has left the network successfully when the ACT LED is off.

4.0   TECHNICAL SPECIFICATIONS

Part Number	RD77760
Product Name	Jetlun Zigbee Occupancy Sensor
Description	An integrated Zigbee motion detector
Standard Compliance	Zigbee Smart Energy or Home Automation Profile IEEE 802.15.4 for Zigbee
Frequency Band	Zigbee: 2.4 GHz
Transport Mode	Zigbee: Up to 200 kbps
Range	Zigbee: Up to 100 ft (30 m)
LEDs	Power,Zigbee Act/Link/Security LED, Signal LED
Detection distance	Max 16 ft
Operating Temp	-32ºF to 113ºF (0ºC to 45ºC)
Operating Humidity	10 to 85% non-condensing
Storage Temp	-4ºF to 176ºF (-20ºC to 80ºC)
Storage Humidity	5 to 95% non-condensing
Dimensions	90x56 x 21mm (L x W x H)
Weight	0.099kg (0.21 lbs)
Operating Voltage	9V DC / 9V battery
Safety and EMI	FCC/UL/cUL/CE Zigbee SE/HA certification
WEEE	RoHS Compliant

● FCC Notices

1. The manufacturer is not responsible for any radio or TV interference caused by unauthorized
modifications to this equipment. Such modifications could void the user's authority to operate
the equipment.

2. This device complies with Part 15 of the FCC Rules. (1) This device may not cause harmful
interference, and (2) this device must accept any interference received, including interference
that may cause undesired operation.

3. This equipment complies with FCC RF radiation exposure limits set forth for an
uncontrolled environment. This equipment should be installed and operated with
a minimum distance of 20 centimeters between the radiator and your body.

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 outlet on a circuit different from that to which the receiver is
connected.
—Consult the dealer or an experienced radio/TV technician for help.

Notes

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