# Welcome



Lightcloud®

### Sensor

LCSENSE (Sensor) LCSENSE/HB (High Bay Sensor)

WE'RE HERE TO HELP:

### 1(844) LIGHTCLOUD

1 (844) 544-4825 support@lightcloud.com

# Hello

The Lightcloud Sensor is a remotely-configurable passive infrared occupancy sensor that can switch and dim both hardwired circuits and remote circuits using Lightcloud Controllers.

#### **Product Features**

Passive Infrared Sensing

Secure Cloud Control & Configuration

Retrofit-Friendly Local Control

Light Sensor

Power Monitoring

0-10V Dimming

Patented

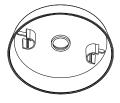
### Contents

Lightcloud Sensor or High Bay Sensor



Wire nuts & Screws



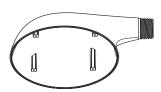




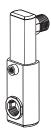


### Accessories (optional)

Arm (optional, includes 2 screws and 1 locknut)



Height Adjuster (optional, must use in conjunction with Arm)



## Specifications

#### PART NUMBER

LCSENSE (Sensor)
LCSENSE/HB (High Bay Sensor)

#### INPUT

120-277VAC, 50/60Hz, <1W (Standby) – 2W (Active)

#### MAXIMUM SWITCHED LOAD RATINGS

Incandescent: 220VAC, 3000W Magnetic Ballast: 277VAC, 1200W Electronic Ballast: 277VAC, 3300W Dimming: 0-10V (Class 2) Patented

#### **OPERATING TEMPERATURE**

-20°C to 40°C

#### OVERALL DIMENSIONS

4 3/8" Diameter, 1 9/16" Height

#### WIRELESS RANGE

Line-of-Sight: 1000 feet Obstructions: 100 feet

#### RATINGS

Indoor and Outdoor Rated Wet and Damp Location

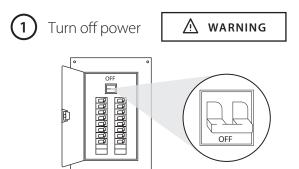
# What you need



### **Lightcloud Gateway or Hub**

A Lightcloud installation requires at least one Lightcloud Gateway or Hub to manage your devices.

# Setup & Installation

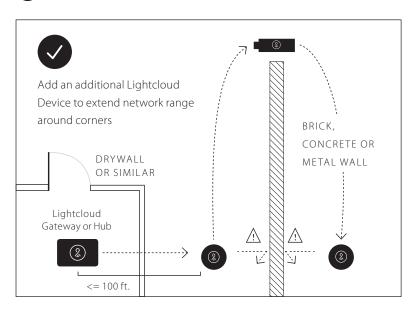


### 1a Find a Suitable Location

Use these guidelines when installing devices:

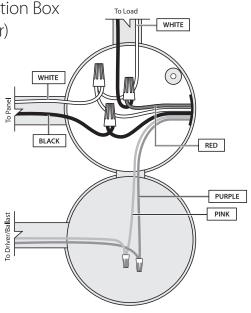
- If there is a clear line of sight between two Lightcloud devices, they can be placed up to 1000 feet apart.
- If the two devices are separated by ordinary drywall construction, try to keep them within 100 ft. of each other.
- Brick, concrete and steel construction may require additional Lightcloud devices to go around the obstruction.

### 1a Find a Suitable Location (cont'd)



2 Install your Lightcloud Sensor at a Junction Box (Indoor/Outdoor)

The Sensor can control other Lightcloud devices, wirelessly. If you don't need to hard-wire a switched circuit to the Sensor, no problem—just cap off any unused wires.

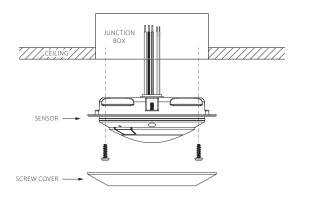


Any wires not in use must be capped off or otherwise insulated. This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.

### 2a Flush mount sensor to ceiling

Sensor attached to wired junction box

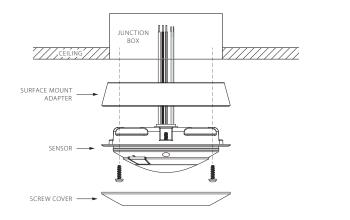




### 2b Surface mount adapter to ceiling

Sensor attached to wired junction box through surface mount adapter





Any wires not in use must be capped off or otherwise insulated. This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.

Arm:
mount sensor to
fixture using ½" NPS
threaded nipple

SET SCREW

LOCKNUT

ARM

#### Height Adjuster:

**SENSOR** 

adjust height by loosening set screw, moving sensor up or down along extruded tube, then tightening set screw. Ensure Sensor lens is not blocked by any part of the fixture.

1/2" NPS THREADS

## (4) Labeling your device

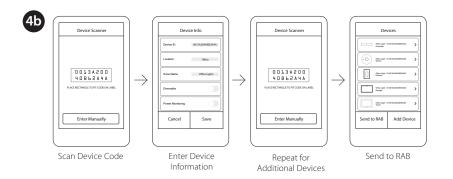
When installing devices, it's important to keep track of their Device IDs, installation locations, panel/circuit #s, dimming function, and any additional notes. To organize this information, use the Lightcloud Installer Application (A) or Device Table (B).

### 4a Lightcloud Installer Application

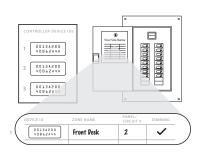
**Install the LC Installer Application:** LC Installer is available for iOS and Android.

**Scan & Install Lightcloud Devices:** Scan each device and assign to a room. It's recommended that each device is scanned just before or just after being wired so no devices are missed. The more notes that are given, the easier it is to commission the system.

**Send to RAB:** Once all of the devices have been added and organized, submit the information for commissioning. Send all documents to support@lightcloud.com.



### **4c** Device Table



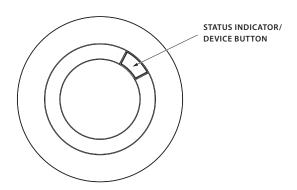
For setup and maintenance, we provide two Lightcloud Device Tables with the Gateway or Hub: one that you can attach to your panel and one to hand off to a building manager. Attach the Device Identification stickers included with each device to a row, then write in additional information, such as Zone name, Panel/Circuit Number, and whether or not a zone uses dimming.

### **5** Power up

To add new devices to your Lightcloud network, contact RAB:

### 6 Verify power and local control

Confirm status indicator LED (see below) is blinking red. If the Sensor is wired for local control, double press the device button to toggle the load on and off. Double press and hold the device button to dim the load. If the status indicator isn't blinking red or the load isn't functioning properly, turn off power at the breaker and check your wiring.



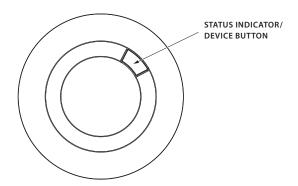
### (7) Commission & Configure Your Devices

All Lightcloud products can be commissioned and configured by:

- · Logging on to control.lightcloud.com
- · Calling RAB at 1 (844) LIGHTCLOUD
- · Emailing us at support@lightcloud.com

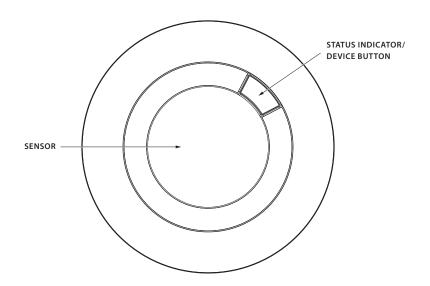
### (8) Confirm Device Connectivity

Confirm status indicator LED (see below) is solid green. If it is not, make sure your device is within range of another Lightcloud AC-powered device.



# Functionality

### Overview



The Device Button also lights up and acts as a Status Indicator.

#### STATUS INDICATOR/BUTTON:

- Solid GREEN when connected to your Lightcloud network.
- Blinking RED when not connected. The device will automatically continue trying to connect to a network in Setup Mode.
- When the Device Button is pressed once, the indicator blinks BLUE a number of times equal to the signal strength (from 1 to 3).
- · Signal Strength: 3 Best signal
  - 2 Acceptable signal
  - 1 Unacceptable signal

Consult the "Finding a Location" section for more information.

• When the Device Button is pressed twice, the attached load toggles on/off. When the device button is pressed twice and held, the attached load dims up/down.

#### DEVICE BUTTON:

- Press once to highlight this device in the Lightcloud Application (pressing once also enables display of the Signal Indicators)
- Press twice to toggle circuit on and off
- Press twice and hold to set dim level
- Press and hold for 10 seconds to remove this device from a Lightcloud network

#### MOTION INDICATION:

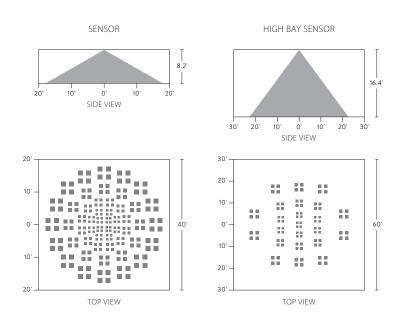
When motion is detected, the lens area will flash GREEN.

#### SENSOR:

Passive-infrared motion sensor

# Functionality (cont'd)

### Features: Passive Infrared Motion Detection



#### **Features**

#### OCCUPANCY & VACANCY SENSING:

The Lightcloud Sensor can operate in either Occupancy or Vacancy Sensor modes, selectable via the Lightcloud application. In Occupancy mode, the attached circuit will be switched on when motion is detected, and off (or dimmed) when the timeout expires. In Vacancy mode, the attached circuit will be turned off when the motion timeout expires, but will only be turned on via the Lightcloud application, Lightcloud Wall Switch, or similar. Motion detection and timeout can still be used via Lightcloud Automations to control other devices.

#### CONTROLLER MODE:

In Controller Mode, the attached circuit is controllable as an independent zone in the Lightcloud application. Motion detection and timeout can still be used via Lightcloud Automations to control other devices.

### **Features**

#### 0-10V DIMMING:

0-10V is a common method of low-voltage control of dimmable drivers and ballasts. Purple: 0-10V positive | Gray or Pink: 0-10V common

Note: The National Electrical Code requires that low-voltage wiring used in the same enclosure as high voltage wiring have an equal or better insulation rating. You may need to complete your low-voltage wiring in another enclosure or use a partition.

#### DEVICE IDENTIFICATION:

For help with installation, there are two ways to identify this device:

- Pressing the Device Button on the actual product will produce a message in the Lightcloud application indicating which device you are working with.
- Pressing the "Indicate" button in the Lightcloud application will cause the device's Status Indicator to blink green. This will also switch the device's relay on and off repeatedly, allowing you to quickly identify which circuit it is.

#### POWER MEASUREMENT:

The Lightcloud Sensor is capable of measuring the power usage of the attached circuit.

#### POWER LOSS DETECTION:

If power to the Sensor is lost, the device will detect this and alert the Lightcloud application.

#### EMERGENCY DEFAULT:

If communication is lost, the Sensor may optionally fall back to a specific state, such as turning the attached circuit on. This may be configured via the Lightcloud application or by calling RAB.

#### FCC Information:

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.

Note: This device has been tested and found to comply with the limits for Class B digital devices pursuant to Part 15 Subpart B, of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, 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 and 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.
- $\cdot \textit{Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. } \\$
- Consult the dealer or an experienced radio/TV technician for help.

To comply with the FCC's RF exposure limits for general population / uncontrolled exposure, this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

CAUTION: Changes or modifications to this equipment not expressly approved by RAB Lighting may void the user's authority to operate this equipment.



Lightcloud is a commercial wireless lighting control system. It's powerful and flexible, yet easy to use and install.

Learn more at lightcloud.com

1 (844) LIGHTCLOUD 1 (844) 544-4825 support@lightcloud.com

