Lightcloud™

RAB®

Manual

Device Specifications

PRODUCT

LC**GATEWAY**

ELECTRICAL

The Lightcloud Gateway is designed to be hard-wired to AC power by a qualified electrician.

NOMINAL INPUT VOLTAGE

120-277 VAC, 50/60 Hz

BATTERY

Li-ion battery. Contact RAB only for replacement batteries.

CAUTION! RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO LOCAL LAWS.

Some communities offer recycling or collection of rechargeable batteries—contact your local government for disposal practices in your area.

DISCONNECT

An external readily accessible disconnect device, such as a circuit breaker, is required.

Custom manufactured in China

Contents

Welcome to lighting control that just works.

Lightcloud is a cloud-based wireless lighting control system that makes it easy to take charge of your lighting—from sensing to dimming, schedules to scenes, and everything in between. Control and configure your system remotely using the Lightcloud Application, or call RAB to have our experts set up your system just how you need it.

System Overview

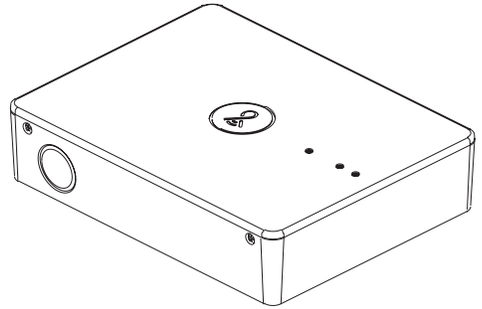
An individual Lightcloud installation, or Site, requires at least one Lightcloud Gateway depending on the environment and usage. Your Lightcloud devices communicate with each other and the Gateway via a wireless mesh network, which allows site layout to be flexible and robust.

The Lightcloud Gateway and Devices require a subscription to function beyond the installation period. Call RAB at **1 (844) LIGHTCLOUD** or visit lightcloud.com to set up your account. Your Lightcloud subscription gets you these state-of-the-art features:

- Online control & configuration at control.lightcloud.com
- Device commissioning
- Free support
- Telephone concierge
- Energy monitoring

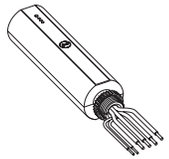
Lightcloud Gateway

The Gateway connects your system to our secure, private server via a cellular signal, so you don't have to worry about providing your own internet connection. With the Gateway powered and connected, your Lightcloud site is at your command with the Lightcloud Application. For maximum security, the Gateway isn't exposed to the internet at all, and for maximum reliability, the Gateway contains an Uninterruptible Power Supply (UPS) that will maintain power for up to 2 hours. When the Gateway is not powered or available, switching devices such as the Controller will fall back to a configurable emergency mode, such as turning on to full brightness.



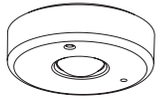
Lightcloud Devices

LIGHTCLOUD DEVICES THAT CONNECT TO THE GATEWAY



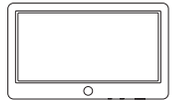
Lightcloud Controller

The Controller switches circuits up to 20A as well as provides a 0-10V dimming interface for dimmable drivers and ballasts.



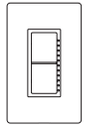
Lightcloud Ceiling Sensor

The Ceiling Sensor is an intelligent passive infrared motion sensor that can be configured for both occupancy and vacancy sensing. Switches up to 15A and provides 0-10V dimming.



Lightcloud Daylight

The Daylight is an innovative, self-powered daylight harvesting sensor that measures available light and adjusts your lighting automatically.



Lightcloud Dimmer

The Wall Dimmer puts advanced control at your fingertip. Configure via the Lightcloud App to switch & dim a zone or change scenes.

Learn more about Lightcloud Devices at lightcloud.com

Finding a Suitable Location

The Gateway should be installed in a dry or non-condensing damp environment only.

Use these guidelines when installing additional Lightcloud devices:

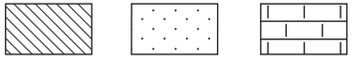
- If there is a clear line of sight between two devices, they can be placed up to 1000 feet apart.
- If the two devices are separated by ordinary drywall construction, try to keep them within 100 feet of each other.
- Brick, concrete and steel construction may require additional devices to go around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

Best Practices

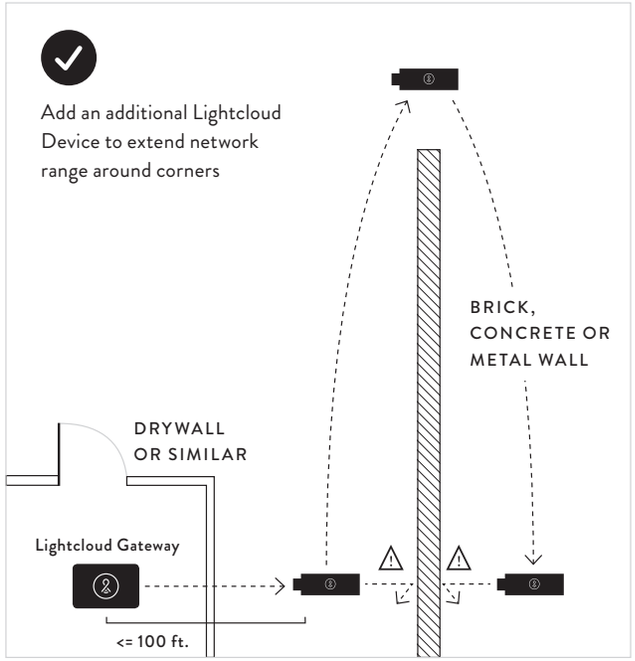
Unlike an ordinary WiFi router, where all devices must be within range of the router, hard-wired Lightcloud devices extend the range of the network—so as long as each device is within range of another, you'll have a strong, reliable system.

NOTE: *Lightcloud Daylight devices do not extend the range of a Lightcloud network.*

PROBLEM MATERIALS



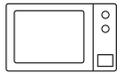
Large amounts of metal, concrete and brick are bad news for radio signals; in some cases, you'll have to go around these obstacles with additional AC-powered Lightcloud devices.

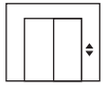


Best Practices (Continued)

Lastly, consider sources of invisible interference. Avoid placing Lightcloud devices near microwaves, motors (especially elevator mechanical rooms) or any other radio amplifiers and antennas.

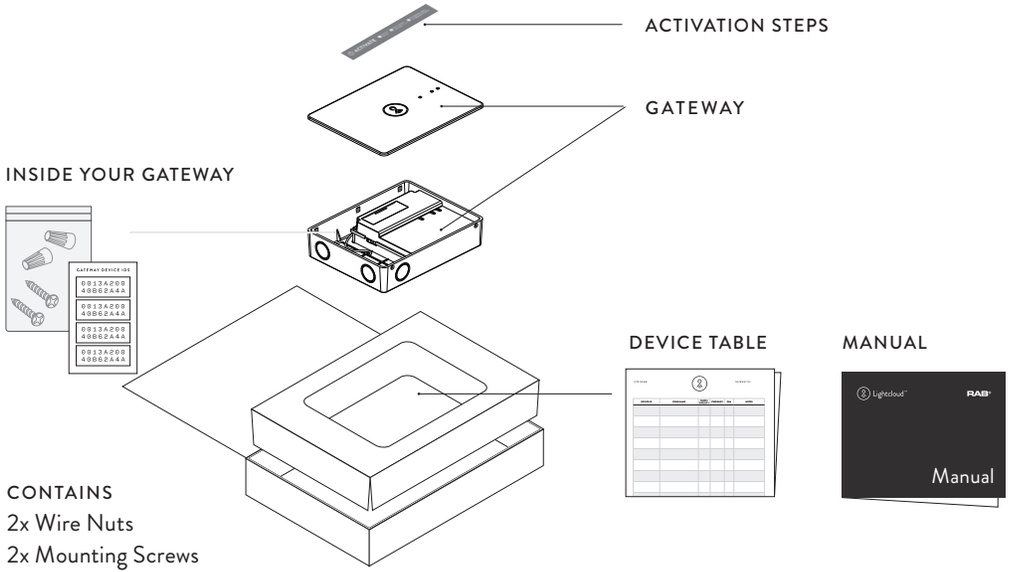
PROBLEM DEVICES & SIGNALS


MICROWAVES


ELEVATOR MECHANICAL ROOMS


AMPLIFIERS & ANTENNAS

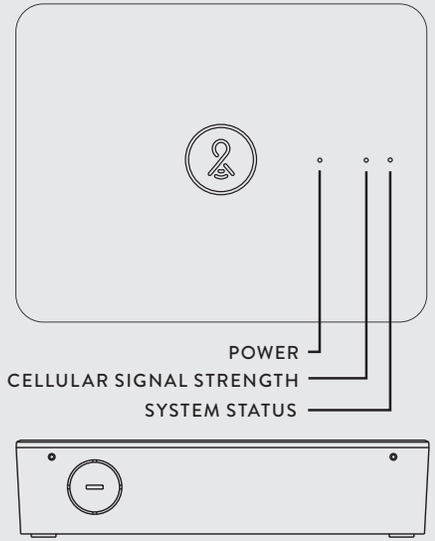
Getting Started



CONTAINS
2x Wire Nuts
2x Mounting Screws
4x Device ID Labels

Installation

The Lightcloud Gateway is rated 120-277VAC and contains an integral junction box for hard-wired installation by a qualified electrician.



LED Indicators

POWER
Green: Fully powered

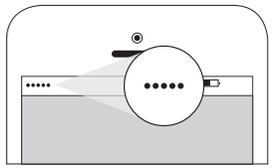
CELLULAR
Off: No or poor cellular signal. You must move the Gateway to a location with better cellular signal.
Solid Yellow: Adequate cellular signal. This signal strength works for most applications, but if possible, move to a location with better signal.
Solid Green: Good cellular signal.

SYSTEM STATUS
Blinking Yellow: Initializing
Solid Yellow: Error: Cannot reach Lightcloud service. Check Cellular Signal Strength and call RAB for technical support.
Blinking Green: Ready to connect with new Lightcloud devices
Solid Green: Normal operation

Installing the Lightcloud Gateway

Follow instructions and steps to successfully install your Gateway.

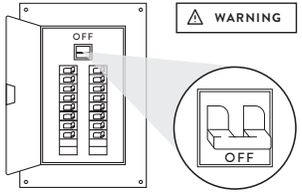
1 STEP ONE



Choose a location with good cellular signal. Check your phone's signal for reference.

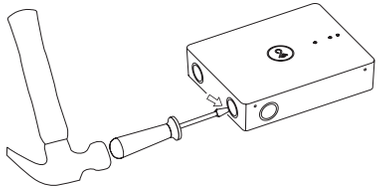
NOTE: *Locations with significant concrete and brick construction, or underground locations, are not recommended.* ***Do not install inside metal enclosures.***

2 STEP TWO



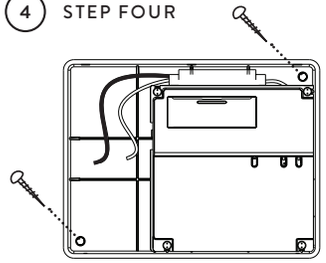
Turn off the breaker and prepare the circuit you'll use to power the Gateway. A dedicated circuit is recommended.

3 STEP THREE



Remove a knockout (KO) from the Gateway using a flat-blade screwdriver and hammer. Place the screw-driver blade at the edge of the KO, then tap the screwdriver with the hammer to weaken the attachment. Work your way around the edge of the KO until it breaks away.

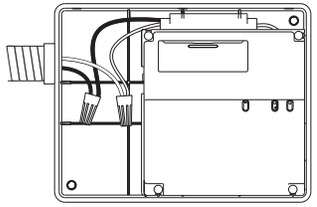
4 STEP FOUR



Mount the Gateway to the installation surface using size 10 screws appropriate for the surface material. For direct installation onto an external junction box, use the junction box's included screws.

NOTE: *Conduit must be used to connect to side knockouts.*

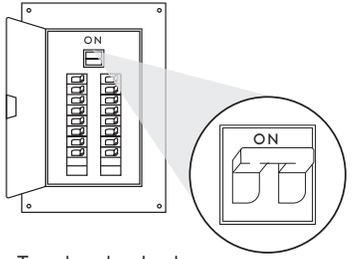
5 STEP FIVE



Install included battery with negative (-) end facing towards junction box area. Call RAB to request replacement rechargeable batteries. Use RAB-provided batteries only.

Connect hot and neutral wires with included wire nuts.

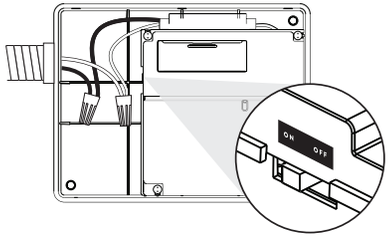
6 STEP SIX



Turn breaker back on.

Installing Lightcloud Gateway (Continued)

7 STEP SEVEN

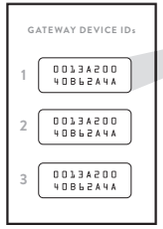


Turn on the Gateway main power switch. Replace outer cover and use included screws to secure.

When all devices are installed and powered, you're ready to call RAB to activate and verify your system, and complete your site's configuration.

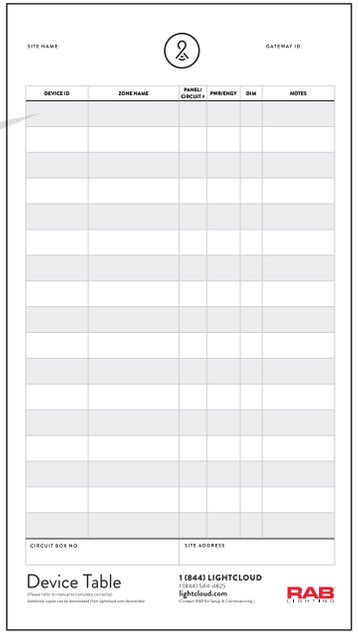
NOTE: *Use only RAB authorized parts.*

8 STEP EIGHT



Place extra Device ID stickers on your Lightcloud Device Table (see page 18) for future reference.

For each device, find the number from the panel board and write it down on the Device Table.



Lightcloud Devices

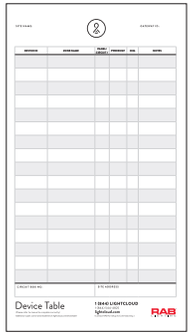
Lightcloud devices that are mains hard-wired powered are designed to be installed on a junction box or similar enclosure, and must be installed by a qualified electrician. Refer to your device's manual for installation considerations and best practices.

TIP: *Use extra Device ID stickers on or near your devices or circuits for easier identification.*

Lightcloud Device Table

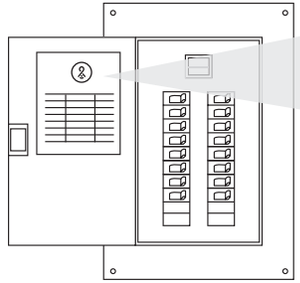
The Device Table is essential for referencing during setup or for troubleshooting—don't forget it! Two copies are provided: one to keep near your Gateway, and one for the building owner or facility manager to file.

IN THE BOX



MOUNT IT

Mount device table to breaker box.



HOW TO USE IT

Place Gateway ID sticker at the top.

PWR/ENGY: if a zone uses the Controller's integrated power monitoring, place a checkmark.

DIM: if a zone uses the Controller's 0-10V dimming wires, place a checkmark here.

Setup

Gateway Activation

When you power your Gateway and it shows sufficient cellular signal (solid yellow or green LED), call **1 (844) LIGHTCLOUD** or 1 (844) 544-4825 to activate it and complete the rest of your site setup.

Network Setup

To add new devices to your Lightcloud network, call RAB at **1 (844) LIGHTCLOUD.**

Software Setup

Lightcloud is cloud-based—no software to install or maintain, ever. Once you have a Lightcloud account, you can login to lightcloud.com at any time to configure and control your system.

Full Service

Need to change something about your system? No need to log in—RAB can do it for you! Call **1 (844) LIGHTCLOUD** and our support specialists will get you where you want to be.

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.

- 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.