



FREQUENTLY ASKED
QUESTIONS
2018

AUDACY[®]
WIRELESS LIGHTING CONTROL
YOUR WORLD IN A BETTER LIGHT

GENERAL

Q: IS AUDACY MADE IN THE USA?

A: YES: Made in the USA from US and Global Components.

Q: WHERE DID THIS TECHNOLOGY COME FROM?

A: The core technology was pioneered by Pittsburgh, PA-based Powercast Corporation. It has been in use in the HVAC industry since 2007. IDEAL formed a partnership with Powercast in 2013 and acquired the exclusive rights to the technology. It is now in use in lighting and HVAC installations across the country.

Q: WHAT IS THE WARRANTY FOR AUDACY PRODUCTS?

A: The Audacy products have a 5-year warranty in the U.S. and Canada.

Q: WILL WIFI INTERFERE WITH THE AUDACY SYSTEM?

A: The Audacy system operates via a proprietary wireless protocol in the highly-reliable 915 MHz spectrum, unlike WiFi, Blue-tooth, or Zig-bee, which all operate at 2.4 GHz. This means little to no interference with other building networks

Q: WHY IS THE SYSTEM LOCATED ON A 915 MHZ FREQUENCY?

A: The 915 MHz spectrum has less loss than the 2.4GHZ spectrum. This allows for easier radio transmission through walls, concrete, etc. which increases range of the Audacy system.

Q: WHAT SYSTEMS DOES AUDACY INTEGRATE WITH?

A: Stand alone or integrates with Building Automation Systems (BAS) via BACNet®, LonWorks®, Metasys®, or MODBUS®.

Q: WHAT SECURITY PRECAUTIONS ARE IN PLACE FOR THE SYSTEM?

A: System security is achieved via a proprietary wireless protocol, SSL certificates, and 2048-bit encryption, in addition to login and password authentication.

Q: IS AUDACY ACCESSIBLE VIA A MOBILE APP?

A: Yes, mobile applications exist for the iOS platform. Search for Audacy in the Apple App Store and the app will be under the name of Audacy Lighting Controls.

Q: HOW MUCH INSTALLATION TIME DOES AUDACY SAVE VS. WIRED SYSTEMS?

A: The Luminaire Controller for the Audacy Wireless Controls System can be installed into an existing fixture in less than 3 minutes, versus up to 20 minutes for some wired systems.

Q: WHAT CAN BE VIEWED/CONTROLLED THROUGH A BAS CONNECTION?

A:

Field	Control	Description
Occupied	Read Only	Status of current occupancy state of room
Timeout	Read/Write	Sets the amount of time after which the room is considered unoccupied
State	Read/Write	Sets the light level in the room. Value: 0-100 (dim level); 0 = relay off
Scene	Write Only	Sets the scene for a room
Switch	Read/Write	Read Battery voltage, read/set state. Value: 0-100 (dim level); 0 = relay off
Motion Sensor	Read Only	Battery Voltage
Light Sensor	Read Only	Lux Level, Battery Voltage

Q: CAN THE LIGHT STATES ON A ROOM GROUP LEVEL BE CONTROLLED USING THE BAS CONNECTION?

A: A room group cannot be controlled via the BAS connection. Room groups are controlled by the cloud server and are not defined in the Gateway. The cloud server sends individual commands to each room within a group to the Gateway to make changes to the group. A BAS could conceivably do the same thing.

Q: DOES THE END USER HAVE CONTROL OF DIMMING?

A: Dimming is controlled via a switch in the space or via a Light Sensor that commands a lower light level in the space. Dimming can also be controlled through the Audacy Interface via the website (Audacycontrols.com), or the mobile app.

Q: DOES THE AUDACY SYSTEM WARN THE END USER WHEN THE LIGHTS ARE ABOUT TO TURN OFF?

A: Yes, there will be a 60 second warning where the lights quickly dim and return to normal level.

Q: WHICH HAS THE HIGHER PRIORITY; USER INPUT OR A PROGRAMS SCHEDULE?

A: The user input from a switch,web Interface, or app command will override the Programs.

Q: ARE THE AUDACY COMPONENTS ROHS COMPLIANT?

A: Yes

Q: ARE THE AUDACY COMPONENTS MANUFACTURED AT AN ISO-9000 CERTIFIED PLANT?

A: Yes

Q: HOW DOES AUDACY WORK WITH EMERGENCY FIXTURES?

A: This will depend on the type of emergency fixture, battery or generator backup. Local codes regarding emergency fixtures may also have an impact on the functionality of the Audacy system in these situations. Contact Audacy support (contactus@audacywireless.com) for more information on a specific application.

Q: HOW DOES AUDACY HANDLE SITUATIONS WHERE THE EMERGENCY LIGHTS NEED TO BE TURNED OFF?

A: Audacy has the ability to drive the E/M to one of the following two modes when the regular lights are off. In both modes the E/M fixture is controlled via the dimming lines from a fixture in the same “zone”. If the regular power goes away then the dimming voltage goes away also and the E/M fixture will be turned full ON.

“Night Light mode” (default): E/M fixtures are full ON when regular lights are OFF in the zone. The dimming lines will appear open when the fixture is commanded to turn OFF and the E/M fixture will be full brightness.

“Daylight mode”: E/M fixtures are OFF when regular lights are OFF in the zone. The dimming lines will have a “0 volt” output and the E/M fixture will be OFF. This mode can only be changed via the Gateway Interface and is not available via the web Interface. Can be set on a per Luminaire Controller basis by selecting “Invert Relay Off Dimming”.

GATEWAY

Q: IS THE GATEWAY PLENUM RATED?

A: Yes. The Gateway is Plenum Rated, however it does not meet the more stringent Plenum Rating of Chicago, IL.

Q: WHAT IS THE MAXIMUM NUMBER OF DEVICES PER GATEWAY?*

A: 250 Luminaire Controllers, 100 Plug Load Controllers, 381 (125 physical and 256 virtual) switches, 100 Motion Sensors and 25 Light Sensors.

* Per GW-1100 Gateway

Q: HOW FAR CAN THE GATEWAY COMMUNICATE?

A: The typical range within line of sight between the Gateway and the furthest device is about 300 ft. In installation environments with walls and/or metal structure barriers, the range is less. A repeater function can be enabled on the Luminaire Controllers to extend the range to meet difficult RF environments. We recommend limiting the maximum number of repeaters tied to a Gateway to 5.

Q: CAN THE PROXY RUN ON A VIRTUAL MACHINE?

A: Yes

Q: CAN THE PROXY BE SET TO START AUTOMATICALLY AFTER A REBOOT?

A: Yes, but currently only on 64 bit Windows machines. Contact Audacy support for more information.

Q: WHAT DEVICES/FEATURES WILL CONTINUE TO WORK IF THE GATEWAY LOSES FUNCTION?

A: All switches (Wall-Mount, Scene, Remote), will continue to function without the Gateway. If occupancy was configured and the room was unoccupied when the Gateway lost function the Motion Sensor will turn the lights on. Vacancy won't function and the lights will remain on unless manually turned off from a switch. Daylighting, web/iOS control, ADR events and schedules won't function without the Gateway. Consumption will continue to be calculated based on the last known state of the fixtures.

Q: WHAT DOES THE RECESSED BUTTON ON THE FRONT OF THE GATEWAY CONTROL?

A: Pressing this button will reset the IP address back to default. No device configuration will be lost. Make sure the Gateway has been powered up for at least one minute prior to pressing this button and wait at least one minute after pressing the button before trying to connect.

Q: WHAT ARE THE DEFAULT SETTINGS FOR THE GATEWAY LOGIN?

A: The Field Support Engineer helping to Commission the system will provide this information.

Q: WHAT DOES THE RED LIGHT BY THE “!” ON THE GATEWAY INDICATE?

A: The battery in the Gateway is discharged. Leave the Gateway plugged in to charge the battery. The Gateway will not boot up until the battery is sufficiently charged. Depending upon the charge state of the battery this may take an hour or more. Long term storage or frequently unplugging the Gateway can discharge the battery. The battery provides enough power for the Gateway to properly shut down after a power loss.

Q: HOW DO SCHEDULES FROM THE GATEWAY OPERATE IN THE EVENT OF A POWER FAILURE?

A: If the Gateway loses power in the outage, the event that would turn the lights on would not happen. If the Gateway has a UPS or other power backup and only the Controllers lose power, the Gateway will put the Controllers at the correct level when they regain power.

Q: CAN ROOM GROUPS WORK ACROSS MULTIPLE GATEWAYS ON THE SAME ACCOUNT?

A: Yes

Q: HOW ARE MULTIPLE-GATEWAY ACCOUNTS DISPLAYED ON THE INTERFACE?

A: All rooms from all Gateways would be presented together as one system. The fact that the rooms are distributed between multiple Gateways is transparent to the user.

Q: WHY IS A DEVICE ADDED VIA THE GATEWAY NOT VISIBLE VIA AUDACYCONTROLS.COM?

A: To see devices the user must go into the SETUP tab on audacycontrols.com, open the Gateway and select “Reload Rooms and devices from Gateway”.

DEVICES

Q: WHAT IS THE MAXIMUM NUMBER OF DEVICES PER ROOM?

A: There is no maximum amount of devices. The maximum number allowed per Gateway can be assigned to a single room if needed.

Q: WHAT IS THE BATTERY LIFE OF DEVICES?

A: Our proprietary low-power approach allows us to achieve a 25-year battery life on our battery-powered wireless devices such as switches, Motion Sensors, and Light Sensors.

Q: WHAT IS THE PROCESS FOR ADDING/REPLACING DEVICES?

A: New or replacement devices can be physically installed anywhere due to the wireless nature of the system. Then, devices can be scanned into the system using the Audacy mobile app and the mobile device's camera.

Q: CAN THERE BE MULTIPLE MOTION SENSORS IN A ROOM CONTROLLING DIFFERENT LIGHT FIXTURES?

A: Yes. For occupancy, a Motion Sensor will turn on only the Luminaire Controllers it is associated with. For vacancy, they won't turn off until the entire room is unoccupied. As there is only one vacancy timeout for the entire room all Motion Sensors in the room must see no motion for the room to time out and the lights to be turned off. If both occupancy and vacancy are needed on different light fixtures in a room, the room should be broken down into multiple rooms via the Interface.

Q: HOW DO YOU KNOW IF A DEVICE IS DEFECTIVE?

A: The Audacy system will report three types of errors:

- 1: Lost connectivity with a device
- 2: Low Battery
- 3: Gateway Unresponsive

Q: HOW ARE THE A & B CHANNELS UTILIZED ON DIFFERENT DEVICE TYPES?

A:

Sensors & switches – Transmit on both the A&B channels at all times.

Luminaire Controllers – Transmit and receive on the specified channel only (see below section on Luminaire Controllers)

Gateway – Transmit and receive on both A&B channels at all times.

Q: HOW CAN A SWITCH BE CONFIGURED TO TURN THE LIGHT ON AT A LEVEL OTHER THAN 100% WHEN PRESSING ON?

A: From the Gateway Interface this can be set on a per switch basis by entering the desired level in the field "ON command sets level to..."

Q: WHAT DIMMING/FADE RATE OPTIONS ARE AVAILABLE FOR THE SCENE SWITCH?

A: There are two fade rate settings that can be edited via the Gateway interface.

1. Luminaire Controller: Fade rate applies when controlling the lights from the web/mobile app (except virtual switches). This can be set on each Controller individually from the Gateway or it can also be set to 0-10 sec via the audacycontrols.com website. This equates to the amount of time in seconds it takes to make the change between light levels. For example, if set to 3 seconds it would take 3 seconds to make the change regardless of the dim level change. Therefore, dimming from 0-100% or from 100%-50 % would both take 3 seconds.

2. Switch: Fade rate applies when using a physical or virtual switch. This is how long it takes to change light levels with each button press. If set to 1 second and the raise/lower buttons on the switch are pressed, it will take 1 second to move one step (10%). Longer fade rates are best suited for Scene Switches. Raise/Lower switch fade rates should be kept very short to avoid long delays after a button press and On/Off Switches should be set to 0 to avoid a delay in the fixture turning off when the Off button is pressed.

LUMINAIRE CONTROLLERS

Q: WILL MODIFYING A FIXTURE WITH A LUMINAIRE CONTROLLER VOID THE FIXTURE'S UL WARRANTY?

A: Because the Luminaire Controllers are listed to UL 1598B as a Retrofit Kit, they can be installed in a UL Listed luminaire without affecting the fixture's UL Listing.

Q: WHAT CAN BE CONTROLLED VIA THE BAS CONNECTION FOR AN INDIVIDUAL LUMINAIRE CONTROLLER?

A: From the BAS, light states can be changed at the room and switch leg levels. Any change injected to the BAS port will change the state of all lights in a room or given switch leg. Controlling light states on an individual Luminaire Controller via the BAS can be accomplished by creating a virtual switch and associating it with the desired Controller which can then be controlled via the switch leg. A Scene can also be set for the room over the BAS.

Q: WHEN SHOULD CHANNEL A VS. CHANNEL B BE USED ON A LUMINAIRE CONTROLLER?

A: Leaving the channel set to A is appropriate for most installations. Channel B may be used to optimize packet transmission over the RF Channel in the following scenarios:

- a. In a multiple Gateway system set Luminaire Controllers configured on one Gateway to a different channel than the Luminaire Controllers on a Gateway in an adjacent space.
- b. If there is RF interference on Channel A set Luminaire Controllers to Channel B.
- c. Repeaters can be set up on both Channel A and B to provide redundant communication paths of switches and sensors to the Gateway.

Q: WHAT IS THE CURRENT RATING FOR THE 0-10V DIM CIRCUIT OF A LUMINAIRE CONTROLLER?

A: Luminaire Controller as source: 2mA ; Sinking (ballast as source): 4mA

Q: HOW MANY CYCLES IS THE LUMINAIRE CONTROLLER RATED FOR?

A: The relay has a mechanical endurance of >100,000 operations

Q: WHAT HAPPENS IF THE LOAD & LINES WIRES ON A LUMINAIRE CONTROLLER ARE SWITCHED?

A: The fixture may or may not turn on. Controllers with 0-10V dimming will initially turn on the fixture but once the load is turned off the Controller will cease functioning. ELV and Line Controllers likely won't work at all.

WEBSITE

Q: HOW DOES AUDACY MEASURE CONSUMPTION?

A:

1. Luminaire Controller is installed, nominal operating voltage and Ampere draw is entered into the Audacy Interface.
2. Type of fixture is entered (fluorescent or LED). When a fixture is powered on and set to a specific dim level, the Audacy system calculates the nominal power consumption. This is a calculated value that can later be downloaded as a report.

Q: HOW OFTEN IS ENERGY DATA RETRIEVED FOR CONSUMPTION REPORTING?

A: consumption information is updated every five minutes for each Luminaire Controller for calculation purposes but is only saved as an hourly figure per room.

Q: HOW OFTEN DOES THE OCCUPANCY STATUS ON AUDACYCONTROLS.COM UPDATE?

A: Once per minute.

Q: WHEN USING PROGRAMS, DOES THE VACANCY TIMEOUT HAVE TO EXPIRE BEFORE THE LIGHTS TURN OFF?

A: No. The lights will turn off at the end of the scheduled time. However, if a room is occupied at the expiration of the schedule, occupancy will take over and keep the room from timing out since it isn't vacant.

COMMISSIONING

Q: HOW LONG DOES IT TAKE TO LOAD THE SOFTWARE & PROGRAM DEVICES INTO THE SYSTEM?

A: The Audacy Proxy software takes a few minutes to load.

1. The web Interface is used to enter devices into the Gateway memory.
 - This may take 10 -15 seconds per device.
2. Once all devices have been entered into memory, the rooms and association are created .
 - As an example, a room with 6 fixtures, 1 Occupancy Sensor, 1 Light Sensor and 1 Remote Switch may take up to 5 minutes

Q: WHERE DOES THE PROXY SOFTWARE RESIDE?

A: Audacy Proxy Software must run on a local computer or virtual machine on the premises where it is being installed.

Q: WHAT IS THE MINIMUM VACANCY TIMEOUT THAT CAN BE SET?

A: The minimum vacancy timeout is 10 minutes. If the vacancy timeout is set to less than this threshold the lights will turn off at the end of the timeout period but they may not turn on when occupancy is detected.

Q: HOW ARE VACANCY/OCCUPANCY SETTINGS CONFIGURED?

A: Adding a Motion Sensor to a room will enable the vacancy timeout field for that room. Setting the timeout to anything other than "off" will enable vacancy on all Luminaire Controllers in the room. Associating a Motion Sensor to a Luminaire Controller(s) will enable occupancy for the associated Luminaire Controllers.

Q: WHAT HAPPENS WHEN VACANCY TIMEOUT IS SET TO "OFF"?

A: When vacancy timeout is set to off the lights will not turn off automatically regardless of occupancy status.

Q: WHAT HAPPENS IF THERE ARE MULTIPLE LIGHT FIXTURES AT DIFFERENT DIM LEVELS IN A ROOM & THE BRIGHTNESS IS INCREASED?

A: All fixtures will change by 10% of the current state for each step if using a dimming switch. So if the brightness is turned down one step and one fixture is at 100% and another is at 20% they will go to 90% and 10% respectively. If the brightness is adjusted using the website or app, the entire room, or an individual switch leg, will go to the set level.

Q: IF THE MAXIMUM DIM ON A LUMINAIRE CONTROLLER IS SET AT <100% & A SCENE IS SET AT 100%, WILL SETTING THE SCENE ALLOW THE LUMINAIRE CONTROLLER TO ACHIEVE 100% DIM?

A: No, the maximum dim setting on the Luminaire Controller has ultimate control so the Scene will only go as high as the maximum setting for that Luminaire Controller.

Q: WHAT IS THE AUDACY DEFAULT DURING LOSS OF POWER?

A: All lights will default to ON at 100% upon returning from a power loss. Assuming the Gateway was affected by the power loss as well, it will go through an initialization/discovery phase to determine which rooms are occupied or vacant and shut vacant rooms off.

Q: WILL SCHEDULING WORK WITH LOSS OF AN INTERNET CONNECTION?

A: Yes. The schedule is downloaded from the cloud to the Gateway. However, no changes to the schedule can be made until the Internet connection is restored.

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