



USER MANUAL

2018

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

TABLE OF CONTENTS

1.0 INTRODUCTION TO AUDACY® WIRELESS CONTROLS	3	CONFIGURE	17
2.0 GATEWAY – PROXY - AUDACY SERVER COMMUNICATIONS OVERVIEW	4	7.0 SYSTEM CONFIGURATION	18
INSTALL	5	7.1 ASSOCIATING DEVICES.....	18
3.0 SYSTEM SETUP	6	7.2 ADJUSTING ROOM SETTINGS.....	19
3.1 MUST READ: SYSTEM INSTALLATION GUIDELINES	6	7.3 CONFIGURING SCENES	19
3.1.1 Serial Number Device Tracking Requirement	6	CONTROL	20
3.2 PHYSICAL INSTALLATION	6	8.0 SYSTEM CONTROL AND OPERATION	21
3.2.1 Gateway Installation	6	8.1 CREATING A ROOM GROUP	21
3.2.2 Luminaire Controller Installation	7	8.2 ADDING AUTHORIZED USERS	21
3.2.3 Plug Load Controller Installation	7	8.3 PROGRAMS.....	22
3.2.4 Switch and Sensor Installation	8	8.4 UPLOADING FLOOR PLANS.....	23
3.2.5 Wall-Mount and Scene Switches.....	8	8.5 ASSIGNING ROOMS TO FLOOR PLANS	24
3.3 PROXY SOFTWARE INSTALLATION	9	8.6 CONTROLLING LIGHTS	24
3.4 GATEWAY SETUP	9	8.6.1 Within the Space	24
3.4.1 Static IP Address Setup	10	8.6.2 From AudacyControls.com and App	24
3.4.2 DHCP Address Setup.....	10	9.0 CONSUMPTION REPORTS	25
3.4.3 Adding a Gateway to AudacyControls.com	10	9.1 OVER TIME	25
4.0 SETTING UP AUDACYCONTROLS.COM	11	9.2 BY AREA	25
4.1 WEB APPLICATION	11	9.3 EXPORTING CONSUMPTION DATA	25
4.1.1 Login to Web Application	11	9.4 BUILDING AUTOMATION INTEGRATION.....	26
4.1.2 Adding an Administrator.....	11	APPENDIX	26
4.2 MOBILE APPLICATION	12	A. SAFETY AND REGULATORY INFORMATION ..	27
4.2.1 Login to Mobile Application	12	B. PRE-COMMISSIONING CHECKLIST	28
4.2.2 Adding an Administrator.....	12	C. POST-COMMISSIONING APPROVAL	29
5.0 CREATING ROOMS	13	D. DEFAULT SETTINGS	30
6.0 ADDING DEVICES INTO THE SYSTEM	14	E. LUMINAIRE CONTROLLER REQUIREMENTS	30
6.1 MOBILE INSTALLATION METHOD (RECOMMENDED)	14	F. DEVICE LAYOUT RECORD	31
6.1.1 Scanning Devices via the Audacy App	14-15		
6.2 AUDACYCONTROLS.COM INSTALLATION METHOD	16		

1.0 INTRODUCTION TO AUDACY® WIRELESS LIGHTING CONTROLS

The Audacy Wireless Controls system from IDEAL can bring advanced solutions to any commercial lighting application. Its simple installation, configuration, and operation allows any user to achieve significant energy savings without the usual complications.

The Audacy Wireless Controls system brings you tried-and-true lighting control strategies, including:

- Occupancy
- Vacancy
- Daylight Harvesting
- Scheduling
- Scene Control
- Remote System Control
- Automatic Demand Response (ADR)

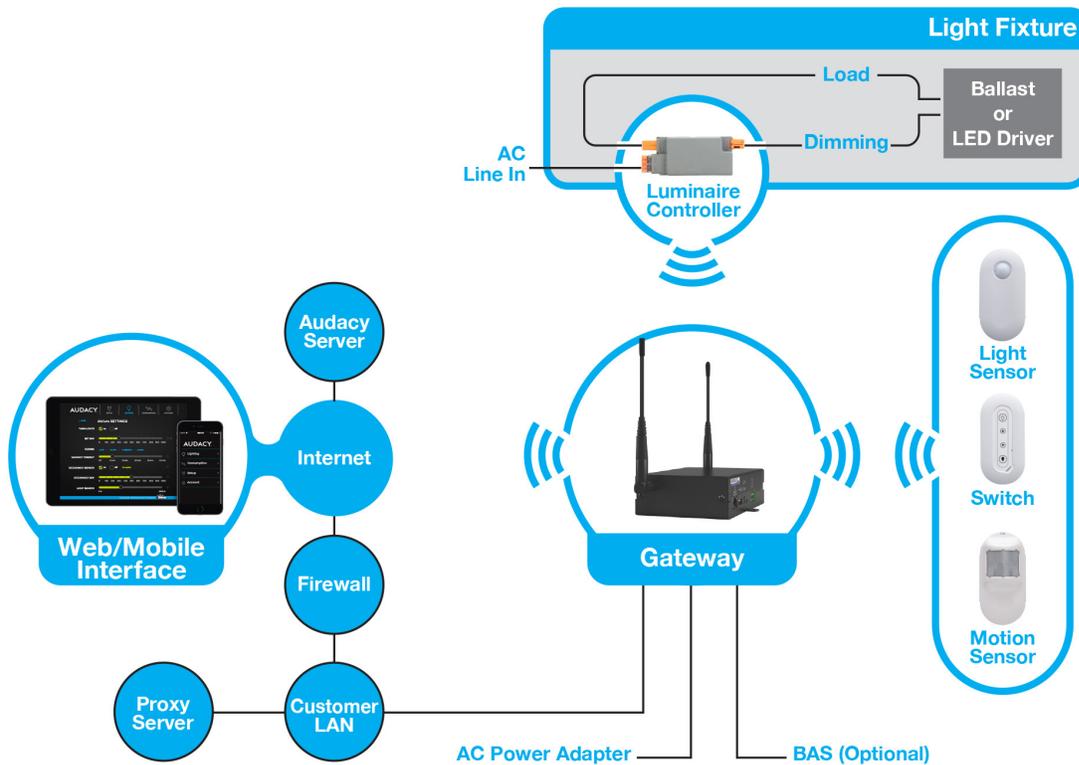
The system revolves around wireless Luminaire Controllers, wireless sensors and switches, and wireless Gateways that can interface with Building Automation Systems using industry-standard protocols such as BACnet, Lonworks, and Modbus.

The sensors and switches are completely wireless devices and have a 25-year battery life. Sleek and stylish, they can be placed anywhere you need coverage and are easily added, configured, or modified.

Audacy Luminaire Controllers are capable of controlling 0-10V dimming LED drivers and fluorescent ballasts, ELV or MLV/line dimming luminaires.

Tying everything together is AudacyControls.com. Accessed through a web browser or mobile device, you can control your lighting network from anywhere with an Internet connection. Controlling lights, making configuration changes, or providing energy consumption reports are all part of AudacyControls.com. Just like the rest of the system, AudacyControls.com is designed to be simple, intuitive, and user-friendly, while providing the maximum amount of flexibility and control.

AUDACY SYSTEM ARCHITECTURE



2.0 GATEWAY - PROXY - AUDACY®

SERVER COMMUNICATIONS OVERVIEW

To enable the Audacy Wireless Controls system for website control and configuration or an iOS app, a proxy is required to provide a secure connection to the Audacy Server. The proxy is a reverse type of server and runs behind the user's firewall. The proxy will manage requests from the Internet toward the Gateways located on the user's internal network. It secures, routes and manages the traffic from the Internet to the user's internal network where the Audacy Gateways reside. It protects the internal network from externally perpetrated attacks. The proxy will only allow the Audacy Server to access and manage the Audacy Gateways located on the internal network.

The proxy will require the user's firewall to allow outgoing messages on port 993 from the proxy machine's IP address. The connection between the proxy and the Audacy server is 2048-bit SSL encrypted. The proxy can be installed on Windows, Linux or Mac devices.

HARDWARE & SOFTWARE REQUIREMENTS

- ALWAYS ON PC or virtual machine to install proxy SW
- Windows 7 or better (2008+)
- 2 Ghz CPU
- 2 GB RAM
- 10Mbps network Interface
- Login information for proxy installation
- Extracted file from proxy download
- Gateway Installation information:
 1. IP address (static or DHCP)
 2. Netmask
 3. IP Gateway
 4. DNS addresses

Above PC must be on same network as Audacy Gateways so the proxy is able to connect to Gateways over network. Gateways and proxy server machine must be behind the customer firewall to provide for adequate security (recommendation: an isolated VLAN should be set up for Audacy equipment).

Open Port 993 to IP address 54.172.131.103 for outgoing connections from the IP address of the PC or virtual machine on which the proxy is running.



INSTALL

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

3.0 SYSTEM SETUP

3.1 MUST READ: SYSTEM INSTALLATION GUIDELINES

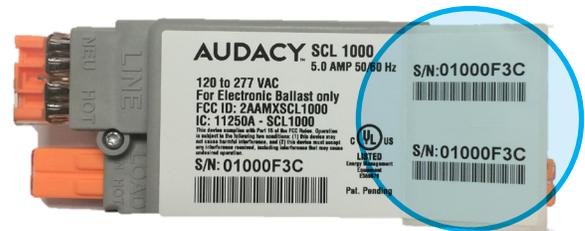
There are a number of ways to install an Audacy® Wireless Controls system, and covered in this User Manual is the *RECOMMENDED* approach. The following points are important to remember during the installation process:

1. All Audacy devices have an associated barcode. These barcodes are located on the back of all devices, and are used to recognize a device on AudacyControls.com. It is important to keep track of where these devices are installed so that AudacyControls.com is an accurate reflection of the actual installation of the system.
2. Before electronically tracking devices, YOU MUST INSTALL THE PROXY (FOR THE GATEWAY), SETUP THE GATEWAY AND CREATE ROOMS (sections 3.3, 3.4 and 5.0 of this manual). The scanning feature on the Audacy iOS app automatically adds devices into rooms that exist. Devices cannot be added prior to room creation.
3. The bar codes can also be entered into the system via the scanning feature on the Audacy iOS app.

3.1.1 SERIAL NUMBER DEVICE TRACKING REQUIREMENT

It is highly recommended to keep close track of all device barcodes. Instructions for ways to track are listed here:

- Remove the 2 tear-away stickers that contain the serial number (see image below).
- Apply these to a drawing of the space containing the fixture or a tracking sheet to identify the serial number and its location in the room (tracking sheet available in Appendix, p. 47).
- If these tear away labels are missing, please write down the serial number of the Luminaire Controller in a safe place.
- These serial numbers are required in order to have a fully functioning Audacy Wireless Controls system.



3.2 PHYSICAL INSTALLATION

3.2.1 GATEWAY INSTALLATION

1. The Audacy Gateway has two mounting flanges that can be used to mount it to a wall or other surface using screws. (Before installation, note and record the Mac Address and Serial Number on the underside of the gateway for future reference).
2. For optimal performance, the antennas should be placed in a vertical orientation.



3.2.2 LUMINAIRE CONTROLLER INSTALLATION

Luminaire Controllers are easily installed modules that can turn on/off and dim fixtures and are available as internal or external mount to allow for junction box or fixture installation. For maximum flexibility each fixture can be controlled by a single Luminaire Controller or a Luminaire Controller can control multiple fixtures as a zone (see Appendix p. 33 for maximum fixtures per Luminaire Controller).

As a reminder, keep track of serial numbers as described in Section

3.1.1.

Refer to Appendix p. 34 for Luminaire Controller one line drawings and p. 31 for device information.

3.2.3 PLUG LOAD CONTROLLER INSTALLATION

The Plug Load Controller is a 20-Amp rated wireless switch to control power to a typical outlet. This product requires wiring to be performed per the NEC and local codes dictated by the AHJ.

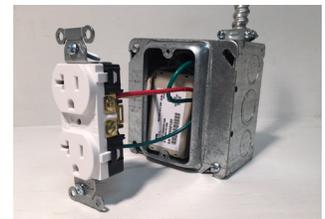
WARNING: Before working on any circuits, verify that Power is turned OFF to the branch circuit coming into the outlet box being updated.

Retrofit Installation (For Single Outlet in Box)

1. Remove the old device and disconnect the Line and Neutral wires from device. Keep the ground wire attached.
2. Disconnect the Line and Neutral wires that were coming to the device from their pigtail connections.
3. Connect the Plug Load Controller LINE (black) and NEUTRAL (white) wires to the pigtails that were connected to the device that was just removed. These wires are on the side of the device which will face the box.
4. Re-connect the device to the SWITCHED HOT (red) and NEUTRAL (white) coming out of the Plug Load Controller. This side is facing out towards the device.
5. Terminate the wires to the device as required per the device installation instructions.
6. **IMPORTANT:** Position the Plug Load Controller into the junction box so the serial number label is facing toward the outlet.
7. Place “Controlled outlet” sticker on the face of the outlet.
8. Or use a “Controlled Device” outlet that is properly marked for this application.



Device side wiring



Plug Load Label Facing Outlet



As a reminder, keep track of serial numbers as described in Section 3.1.1.

Retro-fit Installations (for single outlet plus branch circuit run continuing from box)

1. Follow same instruction as above, but pigtail the red hot wire to the run traveling to other devices on the same circuit.
2. You may run 2 separate runs that have 1 always HOT and 1 Switched Hot if so desired to the next run on the circuit.

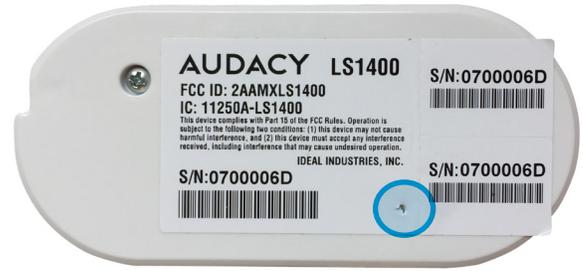
3.2.4 SWITCH AND SENSOR INSTALLATION

Motion Sensors and the Remote Switch require no wiring and detect occupancy/vacancy. Light Sensors also require no wiring and are used for daylight harvesting. These devices are engineered to provide maintenance-free battery life.

1. As switches and sensors are installed remove one of the labels with the unique serial number and attach it to the Device Tracking Form included in the Appendix to record the location of each device.
2. The sensor must be activated by pressing a small button underneath the label on the back side of the sensor.
 - This can be accomplished by using a paperclip, the screw that is included with the sensor, or similar object to push through the label and depress the switch.
3. Find a suitable location for the sensor based on the specifications shown in the sensor coverage pattern in the Appendix p. 42-46.

For optimal performance:

- Make sure the sensor has a line of sight to the occupant in the space.
 - Plan on a 8' radius of coverage when mounted on a 9' ceiling (extended coverage for high bay or wide range versions).
4. Mount the cradle in the desired location via screws, ceiling tile wire (included) or double-sided tape.
 5. Insert the sensor into the cradle.
 - If desired, the sensor can be secured to the cradle by aligning the holes on the sensor and cradle and inserting the screw provided through the cradle and into the sensor.



Note: When the sensor hasn't detected motion for the time specified in "vacancy timeout" the lights will flash 60 seconds prior to turning off as a warning.

As a reminder, keep track of serial numbers as described in Section 3.1.1.

3.2.5 WALL-MOUNT AND SCENE SWITCHES

Wall-Mount and Scene Switches fit into decorator-style faceplates and can be used to replace an existing switch.

1. As switches are installed remove one of the labels with the unique serial number and attach it to the Device Tracking Form included in the Appendix to record the location of each device.
2. The switch must be activated by pressing a small button recessed on the back side of the switch.
 - This can be accomplished using a paper clip or similar object.
3. Remove existing switch and properly terminate any pre-existing wires.
4. Use screws to secure the flush-mounted switch to the electrical box.
5. Cover with a decorator style faceplate.



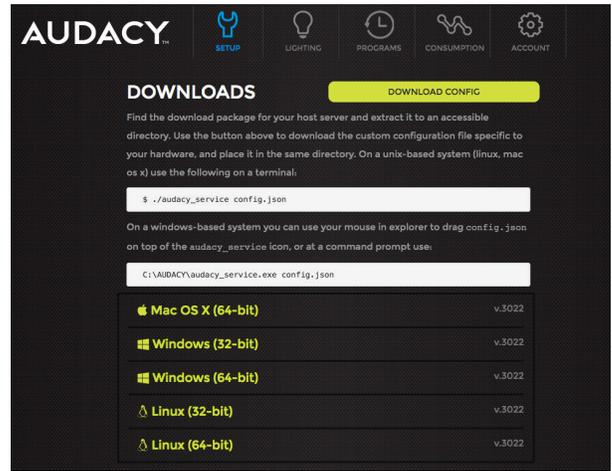
As a reminder, keep track of serial numbers as described in Section 3.1.1.

3.3 PROXY SOFTWARE INSTALLATION

AudacyControls.com utilizes a software application known as a proxy that resides behind the client firewall on a host server. The host server is a PC or server dedicated to running the proxy software.

To install the proxy on the host server:

1. Verify that you have obtained the Admin login information from Audacy® Customer Support; if you have not received this, contact Audacy Customer Support at 800-273-9989.
2. From the host server login to AudacyControls.com with your Admin account.
3. Select the appropriate Audacy service package for your host server.
4. Once the compressed file has been downloaded, be sure to extract/unzip the “audacy_service” file to an accessible directory.
5. Click DOWNLOAD CONFIG and save the file “config.json” to the same directory as the “audacy_service” file downloaded in step 4.
6. Run the “audacy_service” file.



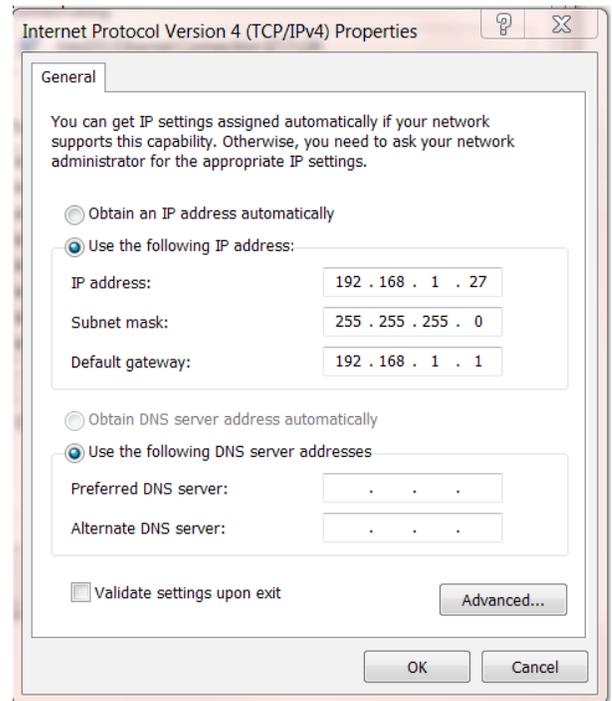
WARNING: THIS APPLICATION MUST REMAIN RUNNING AT ALL TIMES! If closed, the Audacy Wireless Controls system will be unaffected, but will lose ability to control from AudacyControls.com and Consumption Reporting for that time period may be inaccurate.

3.4 GATEWAY SETUP

Each Gateway on AudacyControls.com must be given an internal/local IP address in order for the proxy to coordinate traffic from each Gateway to and from the Audacy server in the cloud. Before configuring the Gateway, obtain the following information from your IT network administrator for each Audacy Gateway that will be on the Audacy Wireless Controls system.

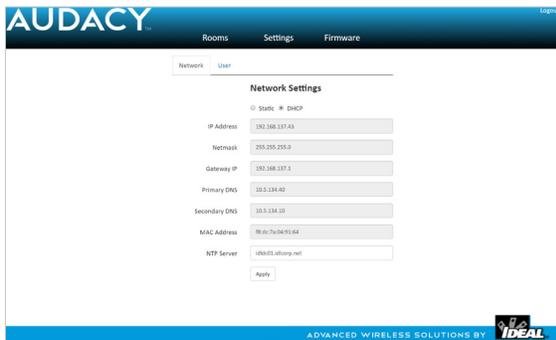
Before you can connect your PC to the Gateway for configuration you must assign your PC an IP address with the same subnet as the Gateway. The instructions below are specific to Windows 7 but the same settings can be used with any OS.

1. Go to Control > Network and Sharing > Change Adapter Settings.
2. Right click on Local Area Connection and select Properties.
3. Click on Internet Protocol Version 4 (TCP/IPv4) and click on Properties.
4. Setup the PC network interface to the following:
 - IP Address: 192.168.1.27
 - Subnet Mask: 255.255.255.0
 - Default Gateway: 192.168.1.1
5. Click OK.



3.4.1 STATIC IP ADDRESS SETUP

1. Apply power to the Audacy® Gateway and allow approximately 1 minute for the boot cycle (Plug in the power supply into any 120V outlet).
2. Insert an Ethernet cable into the Ethernet port on the Gateway and directly into your PC.
 - a. Access the Gateway configuration menu from a web browser by entering the Gateway Static IP address “192.168.1.47” into the address bar.
 - b. The default login information is:
User = admin
Password = testpassword01
 - c. From the Audacy Gateway’s home page select the Settings tab.
 - d. Select Static and enter the desired network settings and when finished click APPLY.
 - e. Gateway IP address must be known to add to AudacyControls.com.
 - f. For security, it is recommended you change the Username and Password via the User tab under Settings.
 - g. Click SAVE.
 - h. Power down the Gateway.
 - i. Place the Gateway in desired location and connect to the local area network and power up.

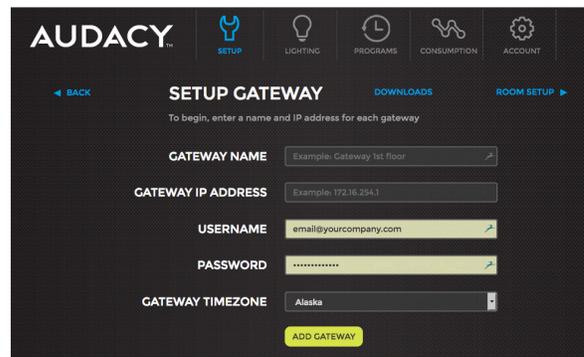


3.4.2 DHCP ADDRESS SETUP

1. Apply power to the Audacy Gateway and allow approximately 1 minute for the boot cycle (plug in the power supply into any 120V outlet).
2. Insert an Ethernet cable into the Ethernet port on the Gateway and directly into your PC.
 - a. Access the Gateway configuration menu from a web browser by entering the Gateway Static IP address “192.168.1.47” into the address bar.
 - b. The default login information is:
User = admin
Password = testpassword01
 - c. From the Audacy Gateway’s home page select the Settings tab.
 - d. Select DHCP and enter the desired network settings and when finished click APPLY.
 - e. Gateway IP address must be known to add to AudacyControls.com.
 - f. If a User Name and password change is desired continue with steps below, otherwise skip to ‘h’ below.
 - g. User Name and Password can be changed by clicking the Settings tab and then User tab. When changes are complete, click APPLY.
 - h. Power down the Gateway.
 - i. Place the Gateway in desired location and connect to the network and power up.
 - j. Gateway should be available at the IP address provided by your IT department.

3.4.3 ADDING A GATEWAY TO AUDACYCONTROLS.COM

1. Once configured, remove the Ethernet cable from your PC and connect it to your Local Area Network and install the Gateway.
2. Login to AudacyControls.com.
3. Click SETUP.
4. If another Gateway is already configured you will have to Click SETUP GATEWAY otherwise skip to step 5.
5. Enter a Gateway name, the static or DHCP Reservation IP address, the username and password as set-up previously, timezone of the Gateway and then Click ADD GATEWAY.



4.0 SETTING UP AUDACYCONTROLS.COM

AudacyControls.com can be accessed via a web browser or a mobile device.

4.1 WEB APPLICATION

4.1.1 LOGIN TO WEB APPLICATION

1. Navigate to AudacyControls.com from your web browser.
2. Sign in to the Audacy® Wireless Controls system using the credentials provided by Audacy Sales or Customer Support Team when the product was purchased. If you need assistance with your credentials, please contact Audacy Customer Support at 800-273-9989 or contactus@audacywireless.com

4.1.2 ADDING AN ADMINISTRATOR

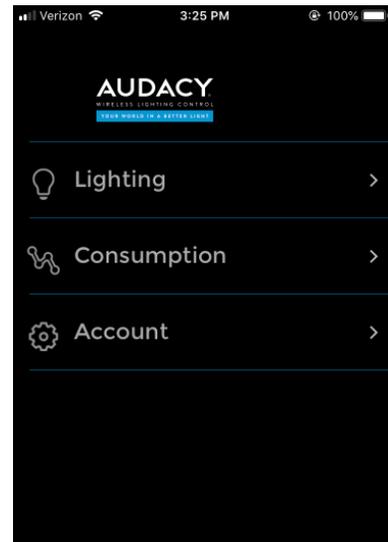
An administrator has full access to AudacyControls.com including SETUP, LIGHTING, PROGRAMS, CONSUMPTION and ACCOUNT menus for all rooms and room groups.

1. Click ACCOUNT.
2. Click ADD ADMINISTRATOR.
3. Fill in the e-mail address of the Administrator you would like to add.
4. Click ADD ADMINISTRATOR.
5. For information on adding Authorized Users, go to Section 8.2.

4.2 MOBILE APPLICATION

4.2.1 LOGIN TO MOBILE APPLICATION

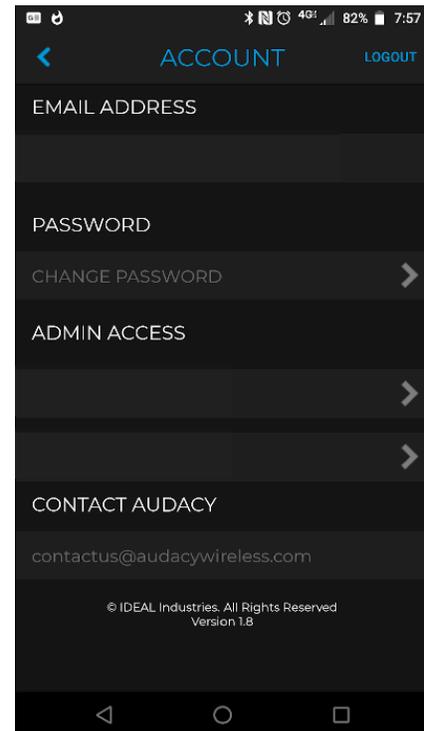
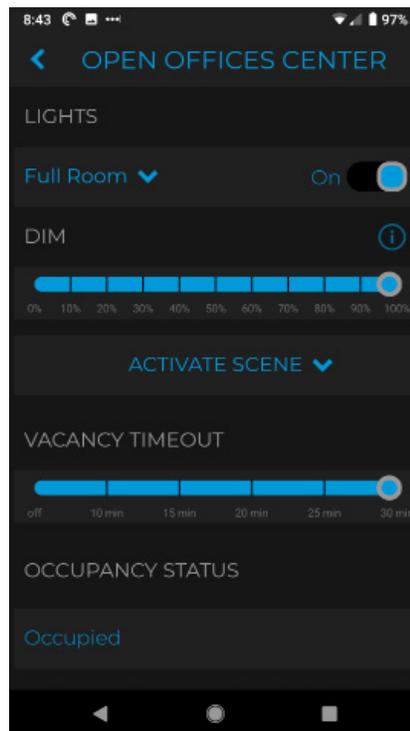
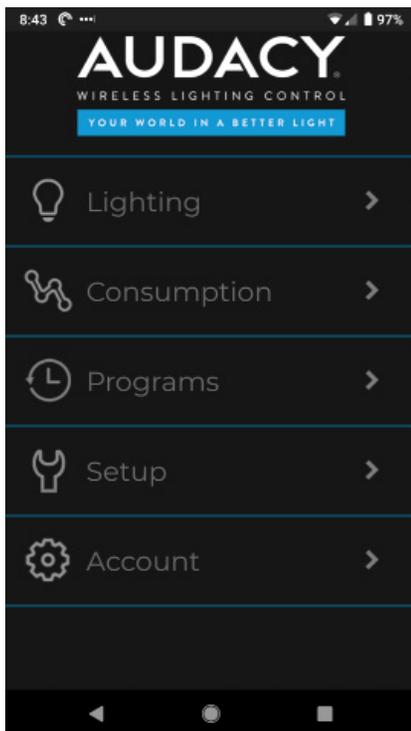
1. Download the Audacy Wireless Lighting Controls iOS® mobile app from the App Store for an Apple® iOS device or the Google Play Store for an Android device.
2. Open the app on the mobile device.
3. Sign in to the Audacy Wireless Controls system with credentials provided.



4.2.2 ADDING AN ADMINISTRATOR

An administrator has full access to AudacyControls.com including LIGHTING, CONSUMPTION, PROGRAMS, SETUP and ACCOUNT access for all rooms and room groups.

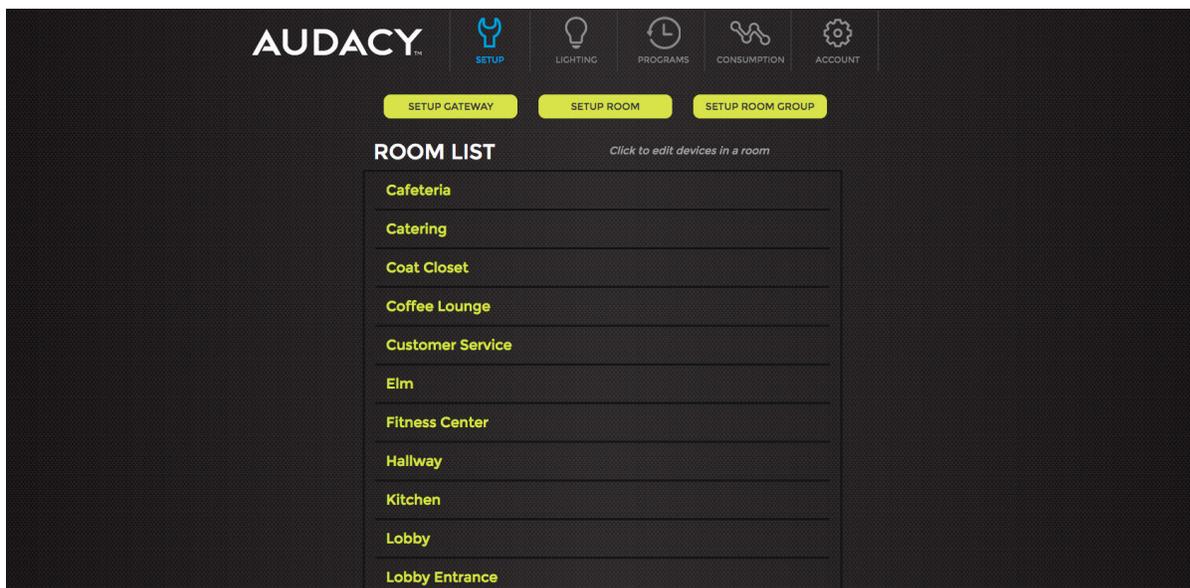
1. Click ACCOUNT.
2. Select account under ADMIN ACCESS.
3. Fill in the e-mail address of the Administrator you would like to add.
4. Click SAVE.



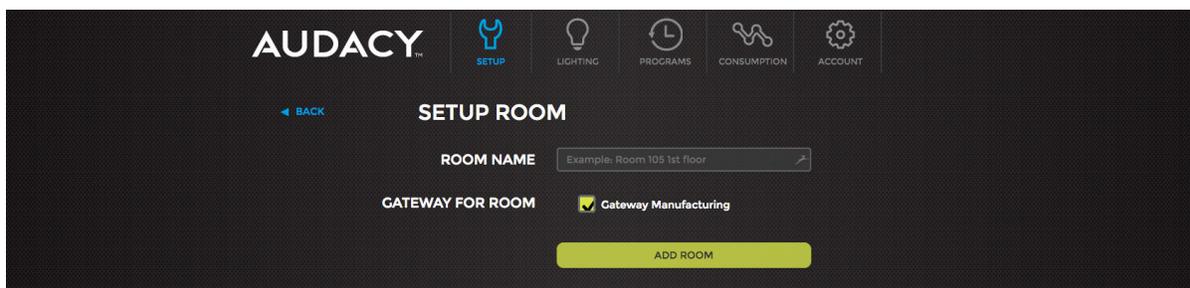
5.0 CREATING ROOMS

In the Audacy® Wireless Controls system, a “Room” is the lowest level to which a given space can be assigned control over a set of devices. A Room can be a physical room, or it can simply be a way to create zones within a space.

TO CREATE A ROOM



1. Click SETUP.
2. Click SETUP ROOM.



3. Type in a unique room name.
4. Select the Gateway to which you want the room assigned.
5. Click ADD ROOM.

6.0 ADDING DEVICES INTO THE SYSTEM

Devices must be added to the system and assigned to the appropriate room according to the lighting design plan. A device can be physically installed either before or after being added to the system.

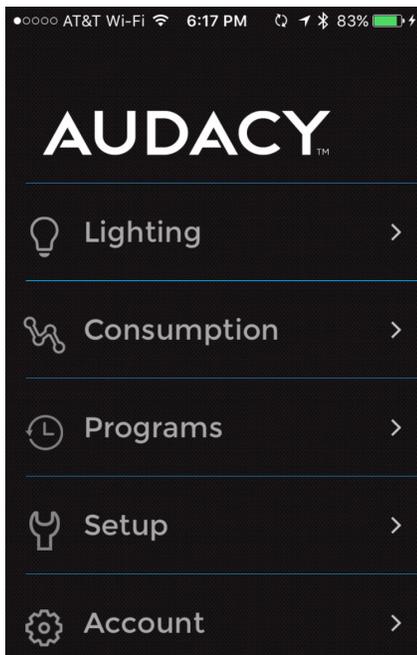
There are two ways to add devices into the system: via the mobile app or via audacitycontrols.com website. While the simplest method is via the mobile app, both methods are shown below for clarity and completeness.

6.1 ADDING DEVICES VIA MOBILE APP

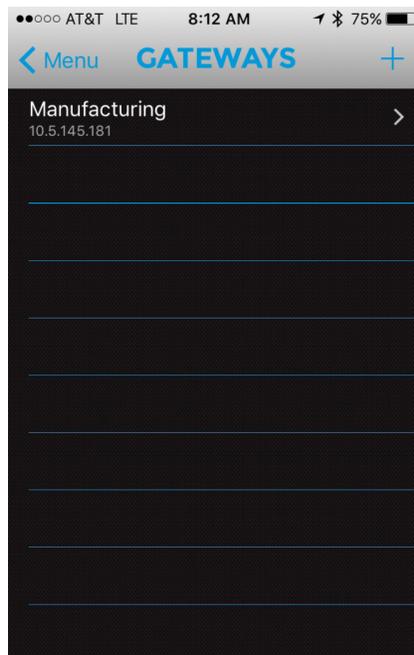
6.1.1 SCANNING DEVICES VIA THE AUDACY® MOBILE APP

The Audacy mobile app includes a function to allow device serial numbers to be quickly populated into the Audacy Wireless Controls system by scanning the bar code on the device.

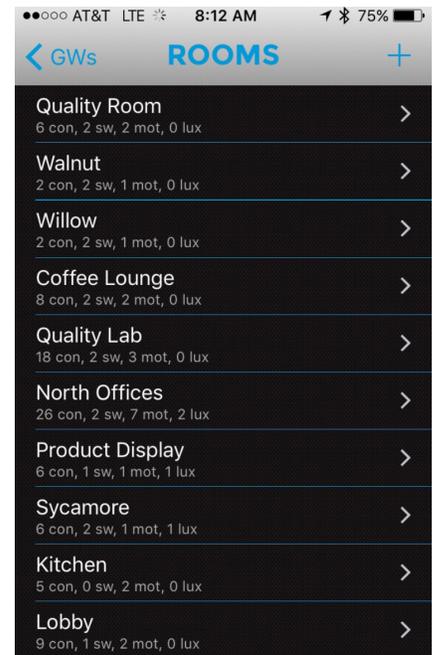
Note: Prior to scanning serial numbers, a room must be created in order to associate devices to that specific room (See Section 5.0).



1. Open the Audacy mobile app on your Apple® or Android device.
2. Click SETUP.



3. Select the target Gateway.

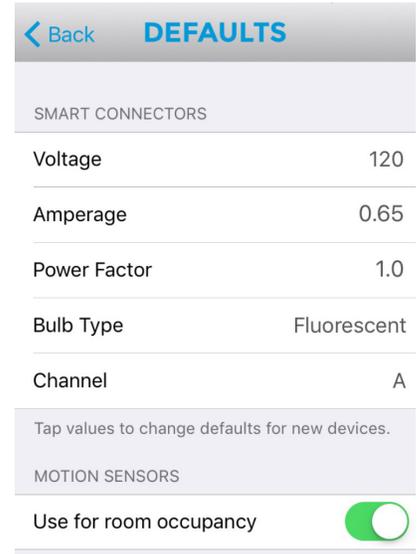
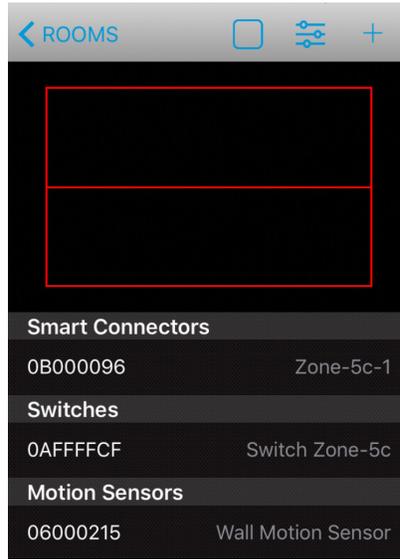


4. Select the target Room.

6.1.1 SCANNING DEVICES VIA THE AUDACY® MOBILE APP (CONT.)

- In order to provide accurate consumption data, it is critical to make sure the values of all Luminaire Controllers are set based on the fixture type that they support. Press  to adjust the default values; these values will be applied to each device (in a specific room) that is scanned into AudacyControls.com.

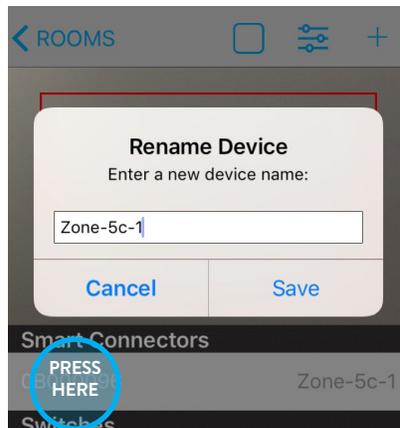
Note: When wiring multiple fixtures to a single Luminaire Controller, multiply the nominal ampere draw for a single fixture by the number of fixtures on that Luminaire Controller (i.e. 5 fixture x .2 Amps = 1.0 Amp Draw).



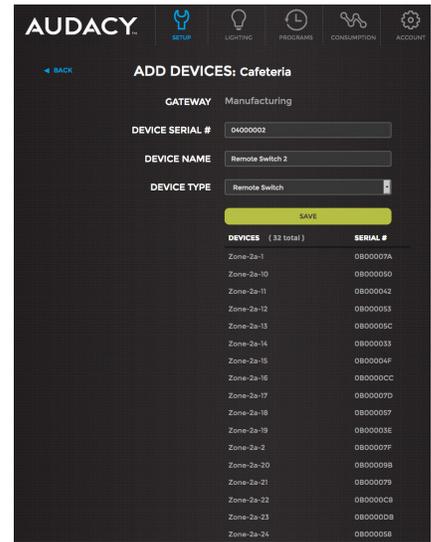
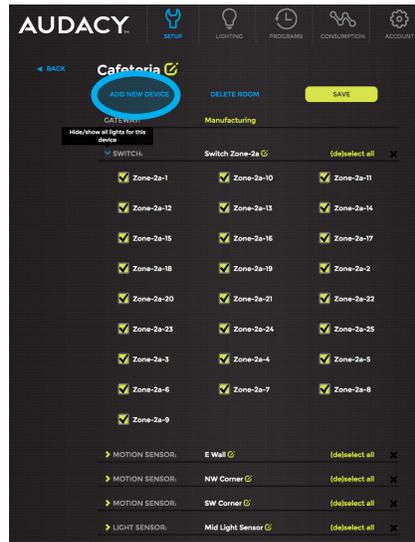
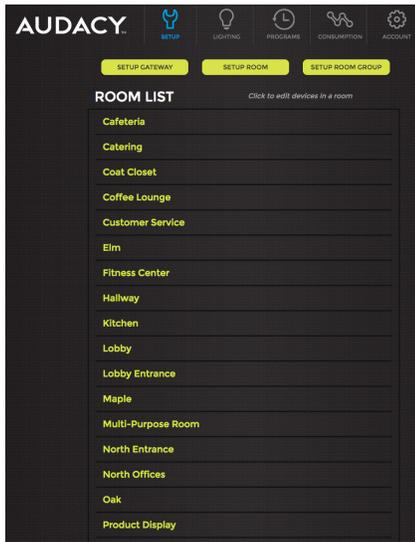
- Within the app, utilize the mobile device's camera to scan in the serial number of the device you want to add to the system.



- Press and hold the default device ID name in order to rename.



6.2 ADDING DEVICES VIA AUDACYCONTROLS.COM



1. Click SETUP.
2. Select the room to add the device to from the Room List.
3. Click ADD NEW DEVICE.
4. Input Device Serial Number.
5. Click DEVICE NAME to rename device from default device ID.

6. If the device is a Luminaire Controller you have the option to “Show advanced controller settings” to add fixture details.

Device Type – Type will automatically populate.

Select Channel – Channel A should be used in most configurations; Channel B should be used if the Luminaire Controller is being used as a repeater or when there is more than 1 Gateway being used in the same vicinity.

Voltage Rating – Set according to fixture; used to calculate consumption data.

Ampere Draw – Set according to fixture; if multiple fixtures are controlled by the same Luminaire Controller the Amperage draw should be the total of all fixtures controlled. Used to calculate consumption data.

Power Factor – Set according to fixture; used to calculate consumption data.

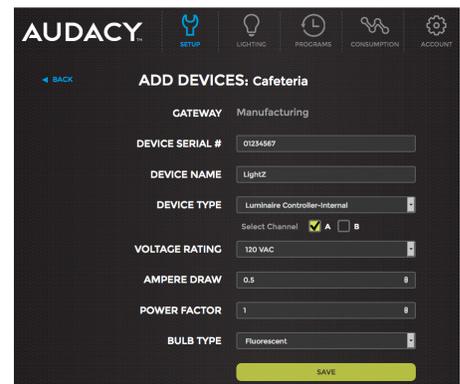
Note: Modifying the default value of 1 is typically not needed due to the high power factor for most lighting systems.

Bulb Type – Set according to fixture.

Note: Incorrect data could result in inaccurate consumption reporting.

Once devices have been added to a room, they can then be associated to one another to produce the desired functionality for a given space (see Section 7).

7. Click SAVE.





CONFIGURE

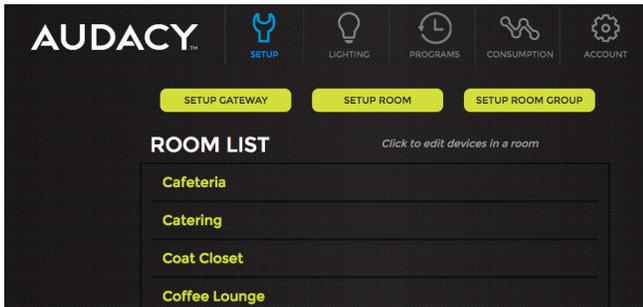
AUDACY
WIRELESS LIGHTING CONTROL
YOUR WORLD IN A BETTER LIGHT

7.0 SYSTEM CONFIGURATION

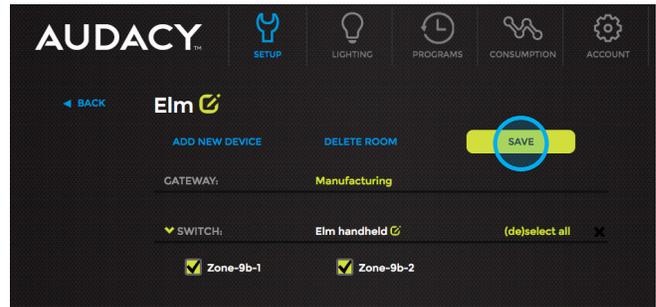
Configuration of the Audacy Wireless Lighting Control system is to be performed by an Audacy Field Support Engineer or a certified installer that has completed system training led by a Field Support Engineer.

7.1 ASSOCIATING DEVICES

Once all the devices are assigned to a room, the control devices such as switches, light sensors* and motion sensors need to be associated with the Luminaire Controllers they will control.



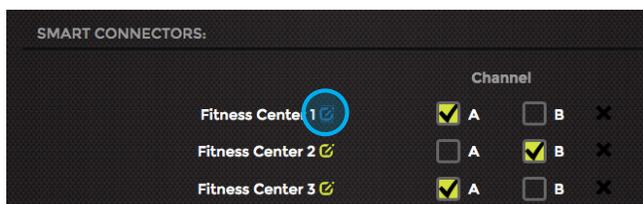
1. Click SETUP.
2. Select the desired room in which devices need to be associated.



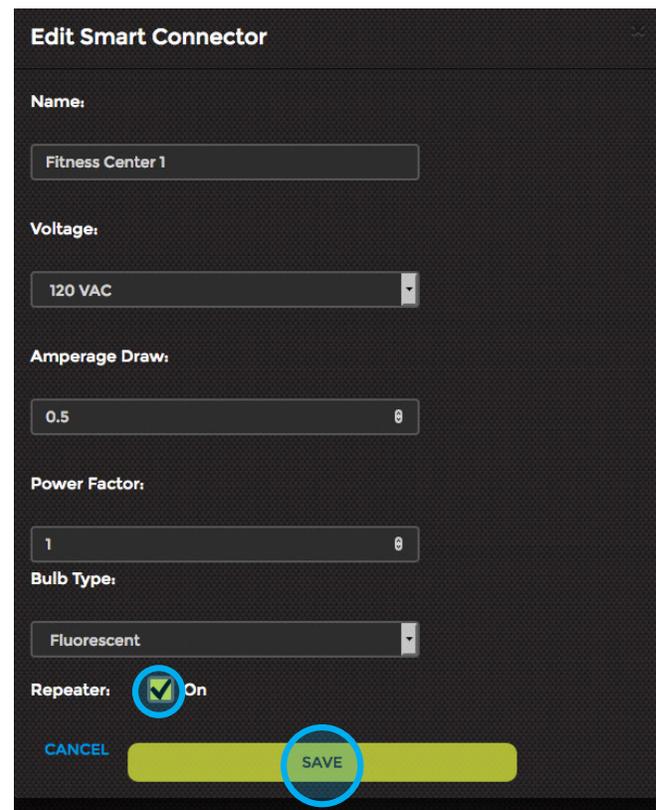
3. For each control device in the room, place a checkmark next to each Luminaire Controller you want that device to control (for example in the image above, “Elm Handheld” is configured to control Fixture Zone-9b-1 and Zone-9b-2).
4. Click SAVE.

*NOTE: Once a minute, the Light Sensor will send a light level reading to the Gateway. The Gateway will process the reading and if it is within the acceptable window of upper and lower light levels as indicated by the slider setting on the Audacy Interface, no change will happen. Once light in the space, due to daylighting, moves above or below these set points the Luminaire Controller in the space will adjust the lights accordingly. If current light level is above the daylight upper limit, then the controller will reduce the lighting in the space, and when the light level is below the daylight lower limit, the controller will increase the lighting in the space. The lighting will adjust in 5% increments (or 20 steps from 100% to 0%) at each minute while the light level is outside the desired lighting band.

5. In certain situations, it may be necessary to enable the repeater function on selected Luminaire Controllers to extend the wireless range of your Audacy Wireless Controls system. In order to do so, perform the following steps.
 - a. Select room in which the desired Luminaire Controller will be enabled as repeater.
 - b. Select the Luminaire Controller.
 - c. Click to access settings and enable repeater.



NOTE: It is not recommended to enable the repeater function on all Luminaire Controllers. Enabling more repeaters than necessary may have a negative impact on system performance. A maximum of 5 repeaters may be enabled per Gateway.



7.2 ADJUSTING ROOM SETTINGS

SCHEDULE – Sets the occupied state of the room according to a recurring weekly schedule.

TURN LIGHTS – ON, Lights turn on, OFF, Lights turn off.

SET DIM - Set the dim level of lights. 10% = minimum light, 100% = maximum light.

DIM MAXIMUM – Sets the maximum true dim level of the lights.

SCENES – Customizable settings to enable one-touch lighting changes.

VACANCY TIMEOUT – Sets the amount of time after which lights turn off when room is vacant.

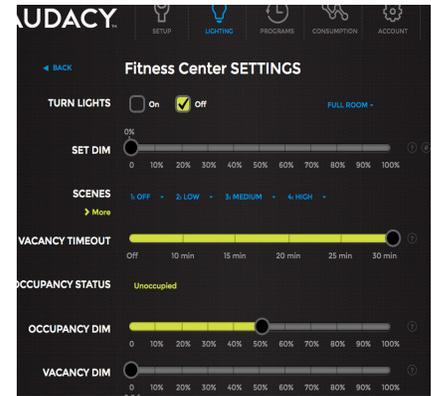
OCCUPANCY STATUS – Shows when a room is occupied or not.

OCCUPANCY DIM – Set the default occupied dim level of the lights. 10% = minimum light, 100% = maximum light. Lights will turn on with motion to specified dim level.

VACANCY DIM – Set the default vacancy dim level of the lights. 0% = minimum light, 100% = maximum light. Lights will turn on when room is vacant to the specified dim level.

LIGHT SENSOR – Set desired light level of room including all light sources*.

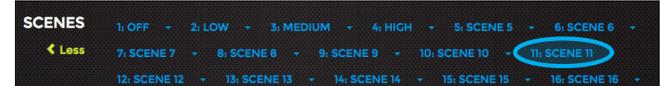
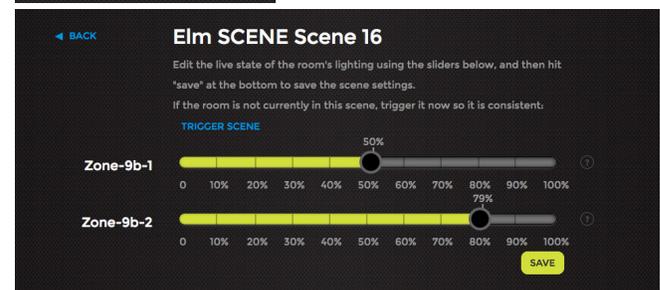
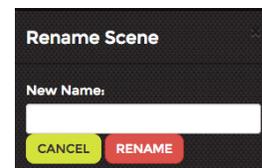
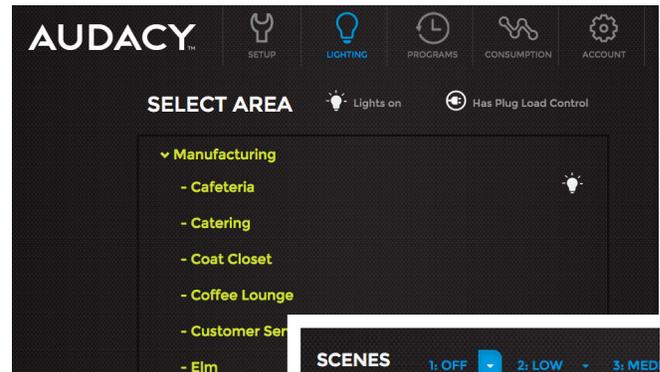
***Note: while increments shown on Interface are 10%, adjustments can be made in 1% increments**

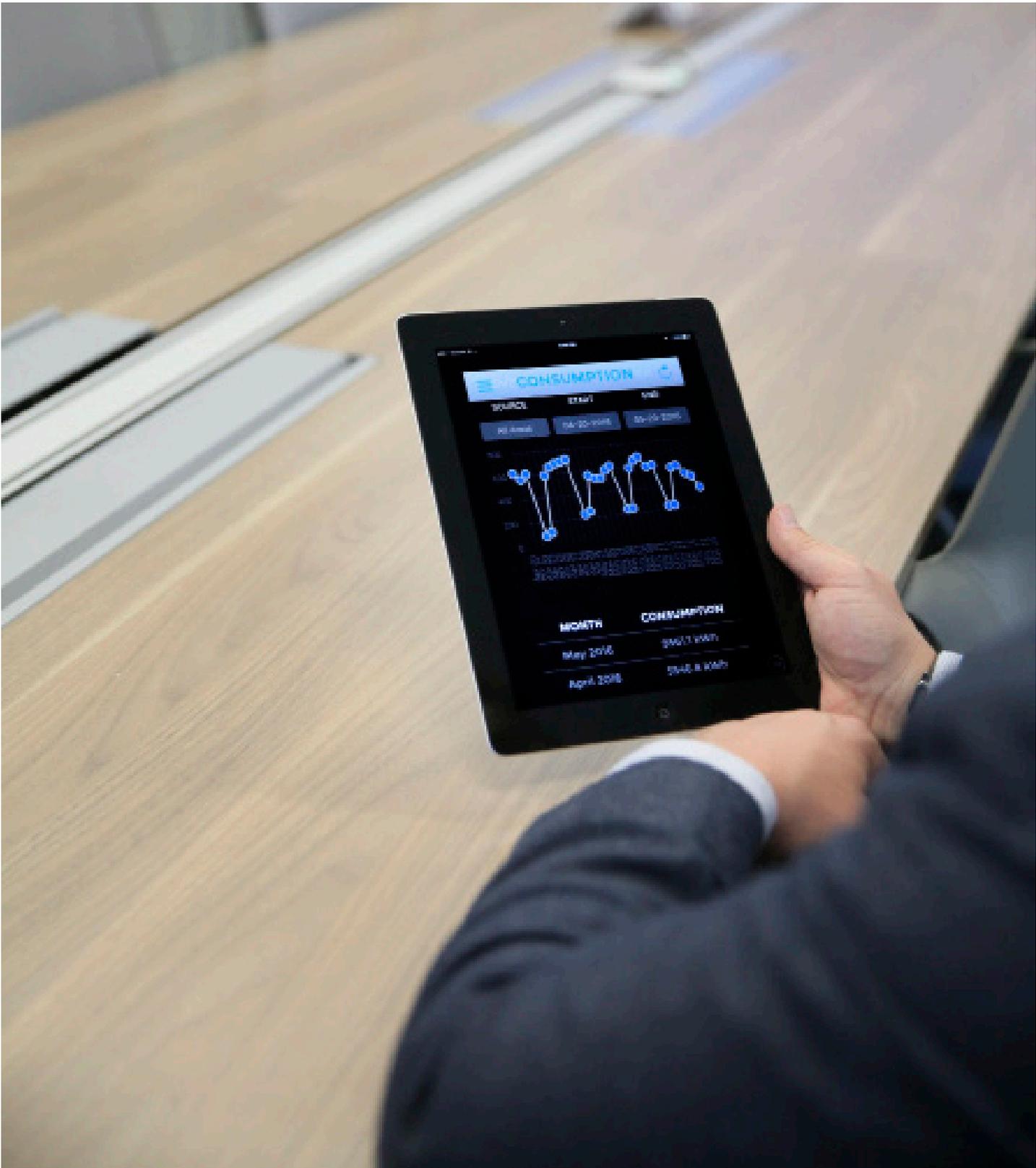


7.3 CONFIGURING SCENES

The Scenes feature provides the ability to create and easily switch between 16 custom lighting configurations within a room. A Scene configuration is easily created by setting the lights to the desired settings and then saving the scene.

- From the Lighting menu, select the room to which a scene will be saved.
- Select the dropdown arrow next to the scene number in order to:
 - Save Current Scene** – Saves scene to current light level in the room.
 - Rename Scene** – Customize name of scene.
 - Open **Advanced Scene Editor** – Enables configuration of scenes at the light fixture level for additional customization of scene settings.
- To rename the Scene, select the dropdown arrow next to the scene number you want to rename and click Rename Scene and type in desired name.
- With the Advanced Scene Editor, you can adjust settings at a Luminaire Controller level to set scenes. Use the slider bar to set the desired light level of a Luminaire Controller in the room. The “NOW” indicator on each slider shows the current level for each Luminaire Controller. Click TRIGGER SCENE to preview the scene that is being configured in the space. Then click SAVE.
- To activate any scene, click on the name of the scene.





CONTROL

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

8.0 SYSTEM CONTROL AND OPERATION

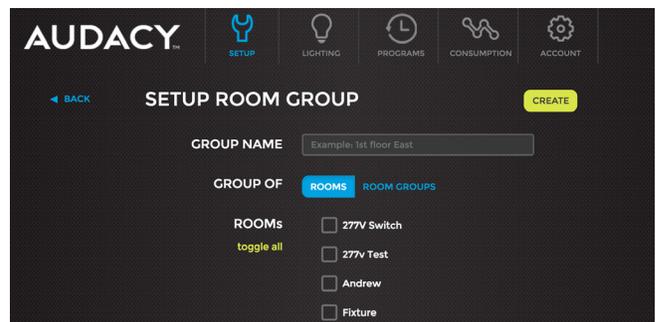
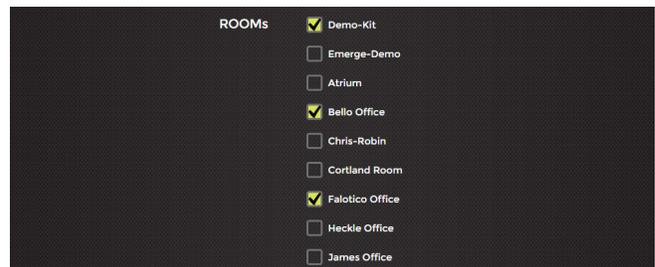
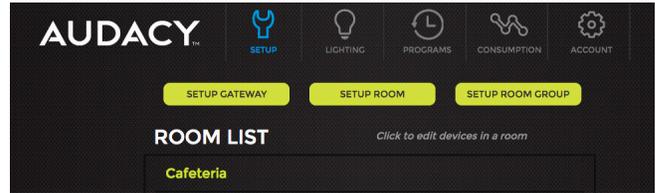
8.1 CREATING A ROOM GROUP

When two or more Rooms are tied together, a “Room Group” is created. While it is not necessary to create Room Groups in an Audacy® Wireless Controls system, controlling a Room Group allows a user to turn on, off and dim more than one Room simultaneously. Greater levels of control can be found at the Room level only.

Some examples of typical Room Groups include:

- A particular floor on a multi-story building
- Several Rooms in a given portion of a building, e.g., “West side”

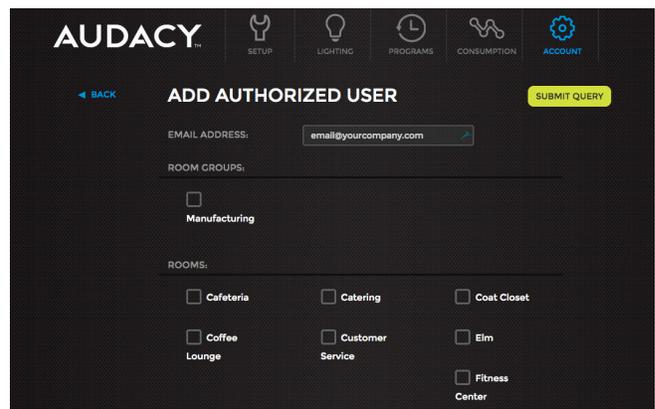
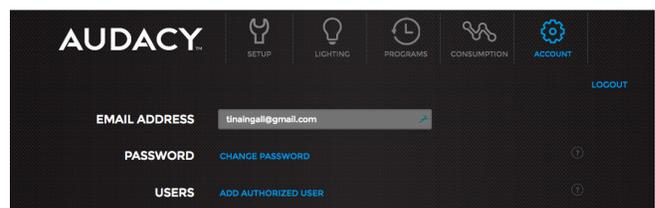
1. From the Setup menu click SETUP Room Group.
2. Enter a name for the Room Group.
3. Select Rooms to include in the Room Group and click CREATE to save the Room Group.
4. Groups of Room Groups may also be setup. Click Room Groups and select from list of Room Groups previously created.



8.2 ADDING AUTHORIZED USERS

An authorized user has access to the LIGHTING and CONSUMPTION menus of AudacyControls.com but access is limited to the assigned Rooms and Room Groups only. ACCOUNT access is limited to CHANGE PASSWORD but SETUP access is restricted.

1. Click ACCOUNT.
2. Click ADD AUTHORIZED USER.
3. Fill in the email address of the Authorized User.
4. Select the Room Group(s) and Room(s) to which you want to assign control.
5. Click SUBMIT.
6. The User will receive an email with a temporary password.
(Be sure to add “no-reply@audacycontrols.com” to your email’s safe sender list)



8.3 ADVANCED SCHEDULING (PROGRAMS)

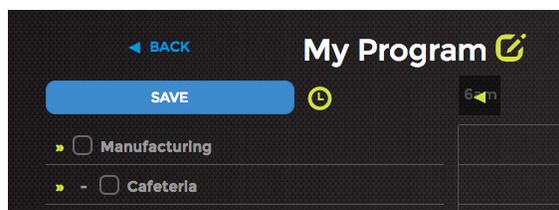
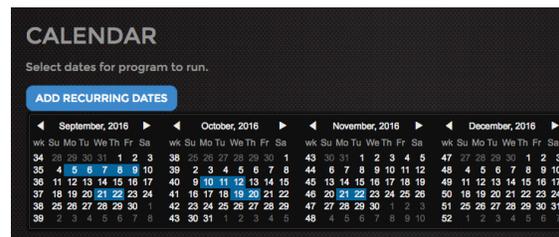
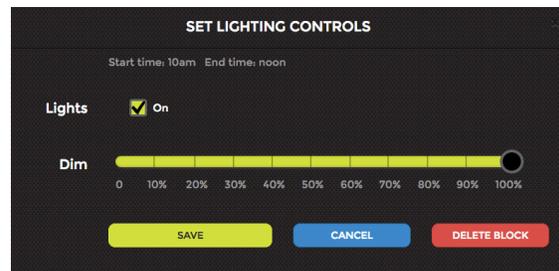
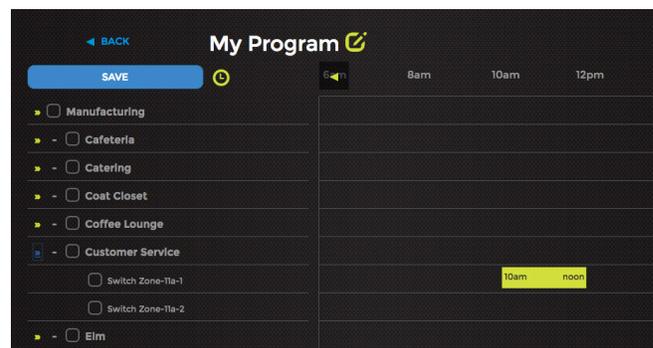
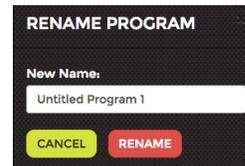
The Advanced Scheduling feature provides more granular control over scheduling the lighting system. You can set schedules across multiple Room Groups and/or Rooms, as well as schedule lighting parameters such as on/off, dim, and scenes. You can also program multiple schedules, such as a day schedule and night schedule, that can be implemented on specific dates or recurring days of the week.

There is a reference video that illustrates the entire setup process on AudacityControls.com for visual reference.

1. Click PROGRAMS.
2. Click NEW PROGRAM in the upper right hand corner.
3. To rename a program, click on the EDIT icon next to the program title (the default title is “Untitled Program”). A RENAME PROGRAM dialog box will appear. Enter your desired name and click RENAME.
4. In the left hand column you will see a list of all Room Groups. Click the small yellow drop-down triangles on the left to expand the group and see Rooms contained within the group. Individual Rooms can also be expanded to see switches within the Room. Once you have located the Room Group, Room, or switch for which you would like to schedule lighting, click and drag in the timeline area on the right to create a time block.
5. You can modify the time block by performing the following actions:
 - a. Extend the beginning or ending time by clicking and dragging on either end of the time block.
 - b. Move the time block by clicking and holding the center of the block, and then drag to the desired position.
 - c. Click once on the time block to open lighting control options. If you are editing a Room, you will be able to control the dim setting or set the lighting to a scene. If you are editing a switch, you will be able to control the dim settings. Click SAVE to confirm your changes. You are also able to remove the time block from this dialog box by clicking DELETE BLOCK.
6. Once all the desired lighting schedules are created, scroll to the bottom of the page to access the calendar. Select all the dates on which you would like the program to run. You can also schedule the program to run on recurring days of the week by clicking ADD RECURRING DATES.
7. Click SAVE in the upper left hand corner to save the program. You'll be taken back to the program list page.

NOTE: This schedule will be effective for 12 months from the date you start.

NOTE: Programs can be created to set Scenes at sunrise and sunset using an Astronomical Time Clock.



8.3 PROGRAMS (CONT.)

- The program settings can be changed at any time by clicking on the program title. Additionally you can extend or remove upcoming dates directly from the program list view (NOTE: only the 3 upcoming dates are displayed in the program list view.)
 - To remove a date, click REMOVE – located to the right of the date.
 - To extend a date, click EXTEND. The EXTEND PROGRAM dialog box will appear. Enter the amount of time you would like to extend in format HH:MM (1:30 is 1 hour and 30 minutes). By default, this time will be applied to the end of the schedule. So, if the schedule was originally going to end at 7:15pm, an extension value of “1:30” will ensure the schedule lasts until 8:45pm. If you would like to extend the program start in order to start the program early, click the checkbox EXTEND START. Click SAVE EXTENSION.
- To delete the program, click on the program title, then scroll to the bottom of the page and click DELETE PROGRAM. You must confirm the deletion before the program is removed.
- To duplicate a program, click on the program title, then scroll to the bottom of the page and click DUPLICATE PROGRAM. Once this button is clicked, you will immediately be taken to the duplicated program where you can make any desired modifications. To avoid confusion, make sure to rename the program by scrolling to the top of the page and clicking the edit icon next to the program title.

PROGRAMS NEW PROGRAM

My Program

SCHEDULE:	Start Time: 8:00am	End Time: 12:00pm
UPCOMING DATES:	Monday 10/10/16	extend remove
	Tuesday 10/11/16	extend remove
	Wednesday 10/12/16	extend remove
	see full schedule	

Watch a [demo](#) of the Program Editor feature.

EXTEND PROGRAM

Extend by:

Extend start (default adds to end)

[CANCEL](#) [SAVE EXTENSION](#)

[DUPLICATE PROGRAM](#) [DELETE PROGRAM](#)

8.4 UPLOADING FLOOR PLANS

Uploading a floor plan image is the first step to enable an interactive floor plan. The floor plan can be in PDF, JPEG, or PNG format.

- Click SETUP.
- Scroll down the page to FLOOR PLANS and click UPLOAD.
- Select the file of the image of your floor plan and click OPEN.

AUDACY SETUP LIGHTING PROGRAMS CONSUMPTION ACCOUNT

Utility Closet

Walnut

Willow

ROOM GROUPS Click to edit areas in a room group

Manufacturing (27 rooms)

FLOOR PLANS

Upload floor plan image/s (pdf, jpeg, or png) to begin creating an interactive floor plan. [UPLOAD](#)

NOTIFICATIONS Receive email alerts for device issues

[ADD](#)

8.5 ASSIGNING ROOMS TO FLOOR PLANS



1. Click on the newly uploaded image within the FLOOR PLANS box in the SETUP menu.

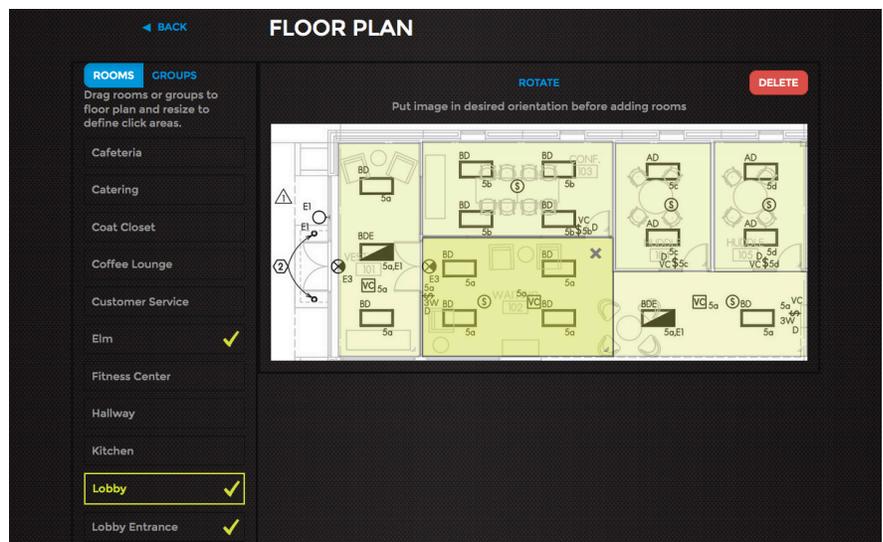


2. All defined Rooms will be listed on the left hand side of the screen. Click on a Room and drag it to the appropriate location on the floor plan.



3. Once it is in the proper location you can click on an edge or corner of the Room to size it appropriately.

4. Repeat until all Rooms have been added to the floor plan.
5. To edit a Room click on the Room and move it or resize it.
6. To remove a Room from the floor plan click on the Room and then click the "X".
7. To delete the entire floor plan click DELETE in the upper right hand corner.



8.6 CONTROLLING LIGHTS

8.6.1 WITHIN THE SPACE

Press the up or down arrow on any switch to adjust the brightness or the ON or OFF button to control the light fixtures assigned to it. Pressing the up arrow while the lights are off will turn the lights on at the lowest DIM setting.



8.6.2 FROM AUDACYCONTROLS.COM & APP

You can also control your light fixtures from a computer, tablet or smart phone using AudacyControls.com or the Audacy Lighting Controls iOS® or Android app. AudacyControls.com and the app enable control of turning light fixtures ON/OFF, setting the DIM level or selecting a customizable SCENE.

9.0 CONSUMPTION REPORTS

Energy consumption is calculated using the data you provided during Luminaire Controller configuration. Load data is pulled from the Gateway, the driver/ballasts, and sensors/switches. Click CONSUMPTION from the main AudacyControls.com menu.



There are multiple options available to utilize the consumption data and consumption data is stored indefinitely within the system. The user can input voltage, amperage and power factor of the driver - the system will calculate energy consumption via an internal lookup table.

9.1 OVER TIME

This report allows you to view a historical record of consumption that can be broken down to a specific date range, room and time period.

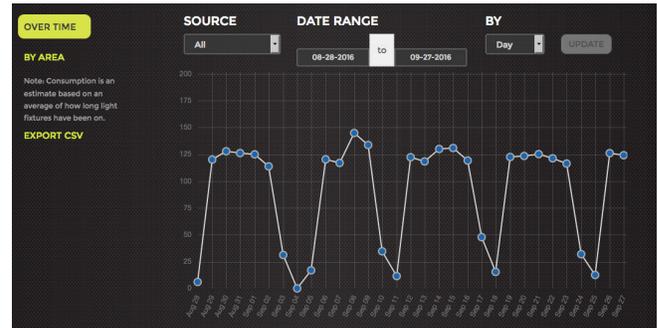
Note: You must click **UPDATE** to refresh the graph after the desired data is selected.

SOURCE – Choose to view the consumption of all rooms or select a specific room to view.

DATE RANGE – Select a start and an end date to view the consumption data between those dates.

BY – Select the time period each data point on the graph will represent: Day, Week or Month.

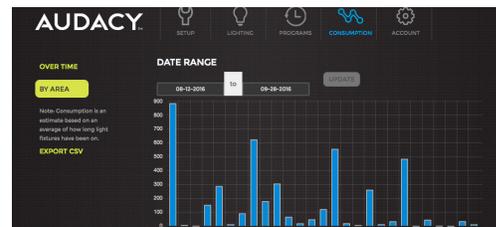
Note: Power Consumption is a calculated value based on the duration that the light fixtures are on. Other factors like dim levels set and the values input for voltage, power factor and Ampere draw will affect calculations (see section 6.2.6). Fluorescent lamp power consumption data uses a modified 0-10V dimming curve that reflects a typical non-linear characteristic. For typical LED fixtures, a linear 0-10V dimming curve is used. Data is recorded down to .1A and samples are gathered every 5 minutes, are averaged and reported every 24 hours.



9.2 BY AREA

This report allows you to view a historical record of consumption that can be broken down by location over a specific date range.

Note: You must click **UPDATE** to refresh the graph after the desired date range is selected



9.3 EXPORTING CONSUMPTION DATA

Click EXPORT CSV on the left hand side of the screen to download a CSV file for the selected Date Range containing the Date, Room Name, and associated Watt Hours.

9.4 BUILDING AUTOMATION INTEGRATION

The Audacy® Wireless Controls system can be tied into a Building Automation System if desired. The Gateway can interface with a wide range of BAS protocols including BACnet®/IP, BACnet®/MSTP, Modbus TCP, Metasys® N2, Modbus RTU and LonWorks®. For specific requirements please call Audacy Customer Service at 800-273-9989 for assistance with integrating Audacy with your BAS.

The BAS controls lights at the room level. The following fields are available to the BAS:

Room:

- Occupancy Status (Read Only)
- Vacancy Timeout (Read Only)
- State (Read and Write)
 - Value 0-100: 0 = relay off, 1-100 = DIM level
 - Scene 1, 2, 3 or 4
- Switch: Battery Voltage (Read Only)
- State (Read and Write)
 - Value 0-100: 0 = relay off, 1-100 = DIM level
- Occupancy Sensor: Battery Voltage (Read Only)
- Light Sensor: Light Level and Battery Voltage (Read Only)



APPENDIX

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

A. SAFETY AND REGULATORY INFORMATION

1.1 UL INFORMATION

- **59-GW1100 (Gateway):** UL 916 (Energy Management Equipment), UL 2043 (Plenum rated)
- **59-SCL1000 (Luminaire Controller, Internal-Mount) and 59-SCC1000 (347V Luminaire Controller, Internal-Mount):**
 - UL 916 (Energy Management Equipment), UL 2459 (Luminaire Disconnect), UL 1598B (Luminaire Retrofit Kit)
- **59-SCD1000 (Luminaire Controller, External-Mount) and 59-SCD1000-EM (120/277V Luminaire Controller, External-Mount):** UL 916 (Energy Management Equipment), UL 1598B (Luminaire Retrofit Kit), UL 2043 tested - "suitable for use in air handling spaces"
- **59-SCDMET1002/-277 (Metal Luminaire Controller, External-Mount), 59-SCLINE1000/-277 (Line Dimming Luminaire Controller), 59-SCELV1000/-277 (ELV Dimming Luminaire Controller) and 59-LCE20A1000 (20A Luminaire Controller):** UL 916 (Energy Management Equipment), CCEA (Chicago Plenum), CAN/ULC-S102.2 (Canada Plenum)
- **59-ESCGRID1000/1001 (LVDC Grid-Mount Luminaire Controller):** UL 2577, UL 2043 (Plenum rated)

1.2 FCC INFORMATION

- 59-GW1100 FCC ID: 2AAMXGW1100B
- 59-SCL1000 FCCID: 2AAMXSCL1000
- 59-SCC1000 FCCID: 2AAMXSCC1000
- 59-SCD1000 FCCID: 2AAMXSCD1000
- 59-SCD1000-EM FCCID: 2AAMXSCD1000EM
- 59-SCDMET1002/-277 FCCID: 2AAMXSCDMET1002 (or SCDMET277)
- 59-SCLINE1000/-277 FCCID: 2AAMXSCLINE1000 (or SCLINE277)
- 59-SCELV1000/-277 FCCID: 2AAMXSCELV1000 (or SCELV277)
- 59-ESCGRID1000/1001 FCCID: 2AAMXESCGRID1000 (or 1001)
- 59-LCE20A1000 FCCID: 2AAMXLCE20A1000
- 59-VSC1300 FCC ID: 2AAMXVSC1300
- 59-VSC1301 FCC ID: 2AAMXVSC1301
- 59-VSW1300 FCC ID: 2AAMXVSW1300
- 59-HBS1302 FCC ID: 2AAMXHBS1302
- 59-RPS2000 FCC ID: 2AAMXRPS2000
- 59-VDT1300 FCC ID: 2AAMXVDT1300
- 59-LS1400 FCC ID: 2AAMXLS1400
- 59-WMS1200/1201 FCC ID: 2AAMXWMS1200/1201
- 59-WSS1200 FCC ID: 2AAMXWSS1200
- 59-SS1200 FCC ID: 2AAMXSS1200
- 59-RS1800 FCC ID: 2AAMXRS1800

1.3 INDUSTRY CANADA INFORMATION

- 59-GW1100 IC: 11250A-GW1100B
- 59-SCL1000 IC: 11250A-SCL1000
- 59-SCL1000 IC: 11250A-SCC1000
- 59-SCD1000 IC: 11250A-SCD1000
- 59-SCD1000-EM IC: 11250A-SCD1000EM
- 59-SCDMET1002/-277 IC: 11250A-SCDMET1002 (or SCDMET277)
- 59-SCLINE1000/-277 IC: 11250A-SCLINE1000 (or SCLINE277)
- 59-SCELV1000/-277 IC: 11250A-SCELV1000 (or SCELV277)
- 59-ESCGRID1000/1001 IC: 11250A-ESCGRID1000 (or 1001)
- 59-LCE20A1000 IC: 11250A-LCE20A1000
- 59-VSC1300 IC: 11250A-VSC1300
- 59-VSC1301 IC: 11250A-VSC1301
- 59-VSW1300 IC: 11250A-VSW1300
- 59-HBS1302 IC: 11250A-HBS1302
- 59-RPS2000 IC: 11250A-RPS2000
- 59-VDT1300 IC: 11250A-VDT1300
- 59-LS1400 IC: 11250A-LS1400
- 59-WMS1200/1201 IC: 11250A-WMS1200/1201
- 59-WSS1200 IC: 11250A-WSS1200
- 59-SS1200 IC: 11250A-SS1200
- 59-RS1800 IC: 11250A-RS1800

B. PRE-COMMISSIONING CHECKLIST

Project Name:

Alternate Account Name:

(As Shown on audacitycontrols.com)

GATEWAY

- Gateway is installed, has power and is accessible
- Ethernet Drop for network connectivity is available for Gateway
- Internal IP address has been assigned for Gateway
 - If a static IP is being used, the appropriate Netmask, Gateway IP and DNS address for Gateway are to be made available prior to commissioning
 - If DHCP is to be used, a MAC reservation must be created prior to commissioning
- User name and password for Gateway have been created and made available
- Advanced scheduling has been set up (optional, requires valid NTP server address)

PROXY

- Server has been selected to host proxy software
 - Windows 7 or better
 - 2GHZ CPU minimum
 - 2GB RAM minimum
 - 10MBPS network interface
 - Mac OS
 - Linux
- Port 993 (outgoing) open to the Internet
- Proxy has network connectivity to all Gateways

PHYSICAL INSTALLATION

- All Luminaire Controllers installed per plan
- All sensors and switches powered on and installed per plan

DATA COLLECTION

- Detachable bar code label from each Luminaire Controller, sensor and switch have been removed and placed on reflected ceiling plan or other document to record location of each device
- Fixture information recorded for accurate consumption reporting
 - Voltage
 - Amp draw
 - Power factor
 - Bulb type

CONFIGURATION

- Desired room names and room groups have been provided
- Floor plan image (PDF, JPEG or PNG) provided for visual room selection (optional)
- Scheduling, Occupancy or Vacancy defined for each room
 - Vacancy timeout
 - Occupancy/Vacancy dim
 - Schedule (if applicable)
- Scenes defined for each room (optional)
 - Scene name
 - Desired light levels for each Luminaire Controller for each scene
- Upper and lower light levels for daylight harvesting areas defined

PERSONNEL AVAILABILITY

- Authorized person available to walk through space to answer questions on configuration and sign off on final commissioning
- Person(s) are available for Audacity system operation training upon completion of commissioning
- Location address:
- On-site contact name:
- On-site contact phone number:
- Is PPE (Personal Protection Equipment) needed? If yes, which types of PPE?

C. POST-COMMISSIONING APPROVAL

PROJECT NAME _____

PROJECT DESCRIPTION _____

Complete

N/A

- User name and password for Gateway created and made available
- Audacy Administrator identified and administrative privileges established
- All switches control desired fixtures
- Fixture information applied to enable accurate consumption data
- Room names configured
- Room groups configured
- Floor plan image uploaded and rooms are “clickable”
- Schedules appropriately created
- Occupancy/Vacancy configured for each room
 - Vacancy timeout
 - Occupancy/Vacancy dim
- Plug Load Control configured
- Scenes configured
- Daylight harvesting configured
- Web/Mobile Interface functioning properly
- Audacy System Operation Overview completed

Outstanding Items/Acceptance Conditions:

FIELD SUPPORT ENGINEER APPROVAL

Signature

Name (Print)

Date

APPROVER

Signature

Name (Print)

Date

Company

Title

D. DEFAULT SETTINGS

- **High End Trim:** 100%
- **Occupancy Dim:** 50%
- **Vacancy Timeout:** 30 minutes
- **Scene 1:** Off, 0%; **Scene 2:** Low, 30%; **Scene 3:** Medium, 60%; **Scene 4:** High, 100%
- **Vacancy DIM:** Off, 0%
- **DIM Maximum:** 100%
- **Switches turn lights on at 100%**
- **Light sensor:** Low Threshold 0FC, High Threshold 230FC
- **Motion sensors:** Vacancy

E. LUMINAIRE CONTROLLER REQUIREMENTS

MAXIMUM FIXTURES PER LUMINAIRE CONTROLLER

The following table can be used to determine the maximum number of fixtures that can be connected to each Luminaire Controller.

Voltage	Maximum Wattage per Luminaire Controller	Maximum Dimming Circuits (Sunked*) per Luminaire Controller	Maximum Dimming Circuits (Sourced*) per Luminaire Controller
120VAC	600W	10	1
240VAC	1200W	10	1
277VAC	1385W	10	1

Refer to your ballast or LED driver specifications

AUDACY[®]

WIRELESS LIGHTING CONTROL

YOUR WORLD IN A BETTER LIGHT

A DIVISION OF  IDEAL INDUSTRIES, INC.

IDEAL INDUSTRIES, INC.
1375 Park Ave. | Sycamore, IL 60178 | U.S.A.
www.audacywireless.com • 800-273-9989
contactus@audacywireless.com