
User Manual

WRC - Wireless Relay Controller

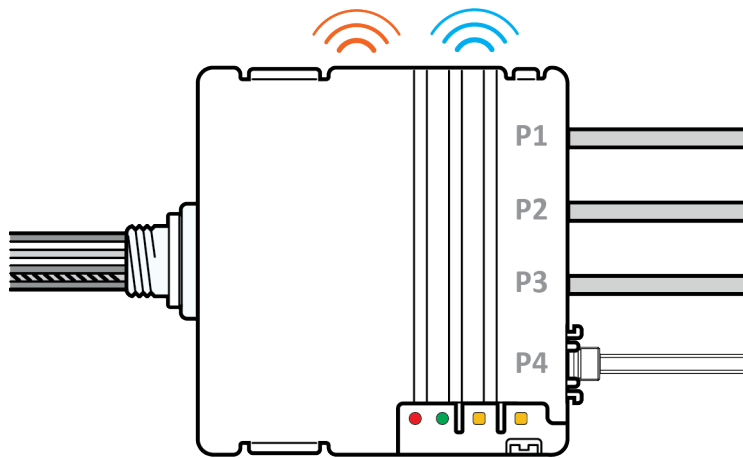


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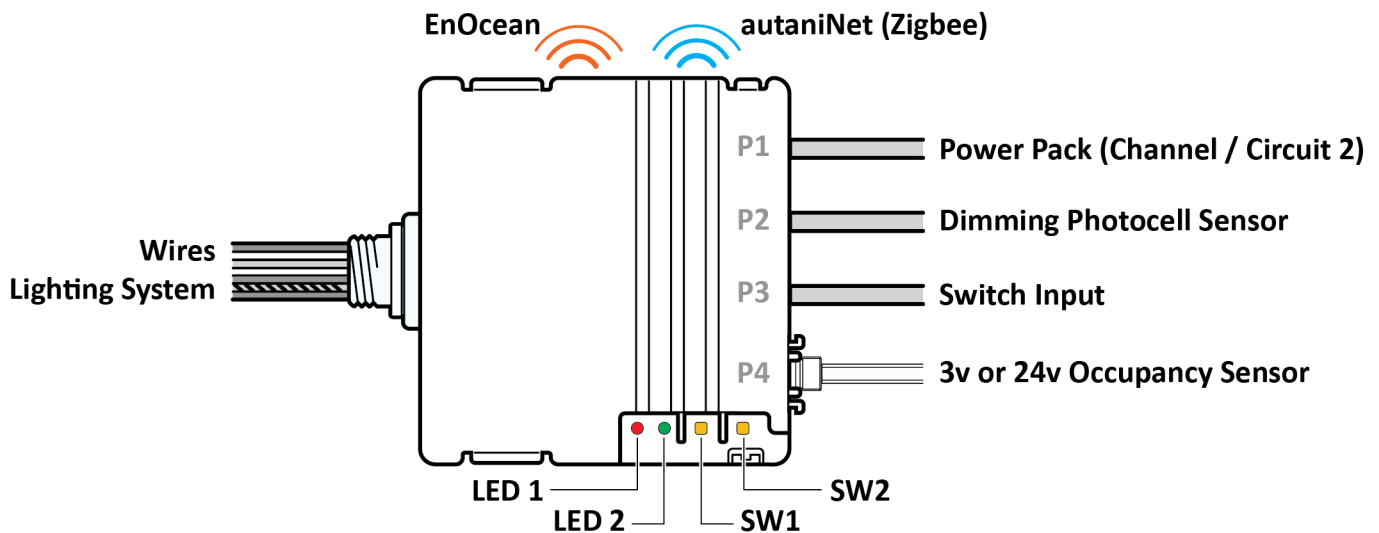
1. WRC Overview

The **WRC (Wireless Relay Controller)** is a wirelessly managed area controller for lighting applications. The WRC can be operated in stand-alone mode, or as part of an EnergyCenter® integrated Lighting Management System using the autaniNet wireless mesh network. The primary differentiator of the WRC is its ability to interface with wireless or wired accessories. This manual only covers configuring the WRC through EnergyCenter® software. For configuring a WRC in standalone mode, refer to the WRC QIS document available in the Autani website.

Following are the major features of WRC in controlling the lighting applications.

- Switching (ON / OFF)
- Dimming (0-10V) and Daylight Harvesting
- Occupancy Sensing
- Scheduling
- Multiple Circuit configurations
- Supports EnOcean and third party devices.
- Energy Estimation
- Load Shedding.... etc.,

In general, the **WRC** will receive inputs from multiple sensors and then trigger the lighting system as required. The **WRC** also allows lighting devices to connect to the Autani Manager’s EnergyCenter® software, via autaniNet wireless network. The EnergyCenter® software can configure the devices connected and generate reports for the same.



1.1. Specifications

ELECTRICAL

- Operating Voltage: 100 to 277VAC
- Operating Current: 15mA typ. / 75mA max. @ 120VAC
- DC Output (25°C): 24VDC typ., 100mA (Class 2)
- Switching Capacity: 20A max. (resistive load)

INTERNAL RELAY (25°C)

- Max. Switching Power: 8310VA
- Max. Switching Voltage: 277VAC
- Max. Switching Current: 30A

EXTERNAL RELAY

- See third party manufacturers’ documentation

I/O PORTS

- Total power budget for all I/O ports is 120mA
- Power Pack
- DC Output: 24VDC typ., 100mA
- Contact: 24VDC typ., 100mA
- Sensor: 3.0VDC for Autani MINI Wired Sensor, 24VDC for 3rd party sensors
- 0-10V input channel for photocell
- (2) 0-10V output channels: Up to 20mA source current

LOCAL CONTROL INPUTS

- Wall Switch: (2) dry contact closures
- Sensor: Up to (10) Autani MINI Wired Sensors

RADIO NETWORK (autaniNet)

- IEEE 802.15.4-2003 2.4GHz ISM
- Range: Approx. 600’ LOS transmit/ receive

REGULATORY APPROVALS

- UL 916
- CSA C22.2 No. 205
- UL 2043 Plenum Rated
- Contains FCC Module FCC ID: V8NWAT1000153; IC: 7737A-WAT1000153

ENVIRONMENTAL

Test condition of all ratings 25°C

- Operating Temperature: 0° to 60°C
- Storage Temperature: -25° to 80°C
- Rated for indoor use only

PHYSICAL

- Dimensions (HxWxD): 3.75 x 3.93 x 1.19in
- Color: White
- Weight/ Shipping Weight: <10oz / <1lb

1.2. Safety Information



- Risk of Electrical Shock. Turn power off at the circuit breaker before installing or servicing the sensor.
- Sensor must be installed and used in accordance with appropriate electrical codes and regulations.
- Installation by a qualified electrician is recommended.
- If you are not sure about any part of these instructions, consult an electrician.
- Indoor use only.

1.3. Ordering Information

SKU	Description
A02-01-1160-01	WRC, 2 Wall Switch
A02-01-1160-02	WRC, 2 Wall Switch, Conformal Coated
A02-01-1160-03	WRC, 2 Wall Switch, w/902MHz Module
A02-01-1160-04	WRC, 2 Wall Switch, w/902MHz Module, Conformal Coated

Contact Information

Phone: 443.320.2233

Address: 7001 Columbia Gateway Drive, Suite 210, Columbia, MD 21046 USA

General Inquiries: information@autani.com

Support: support@autani.com

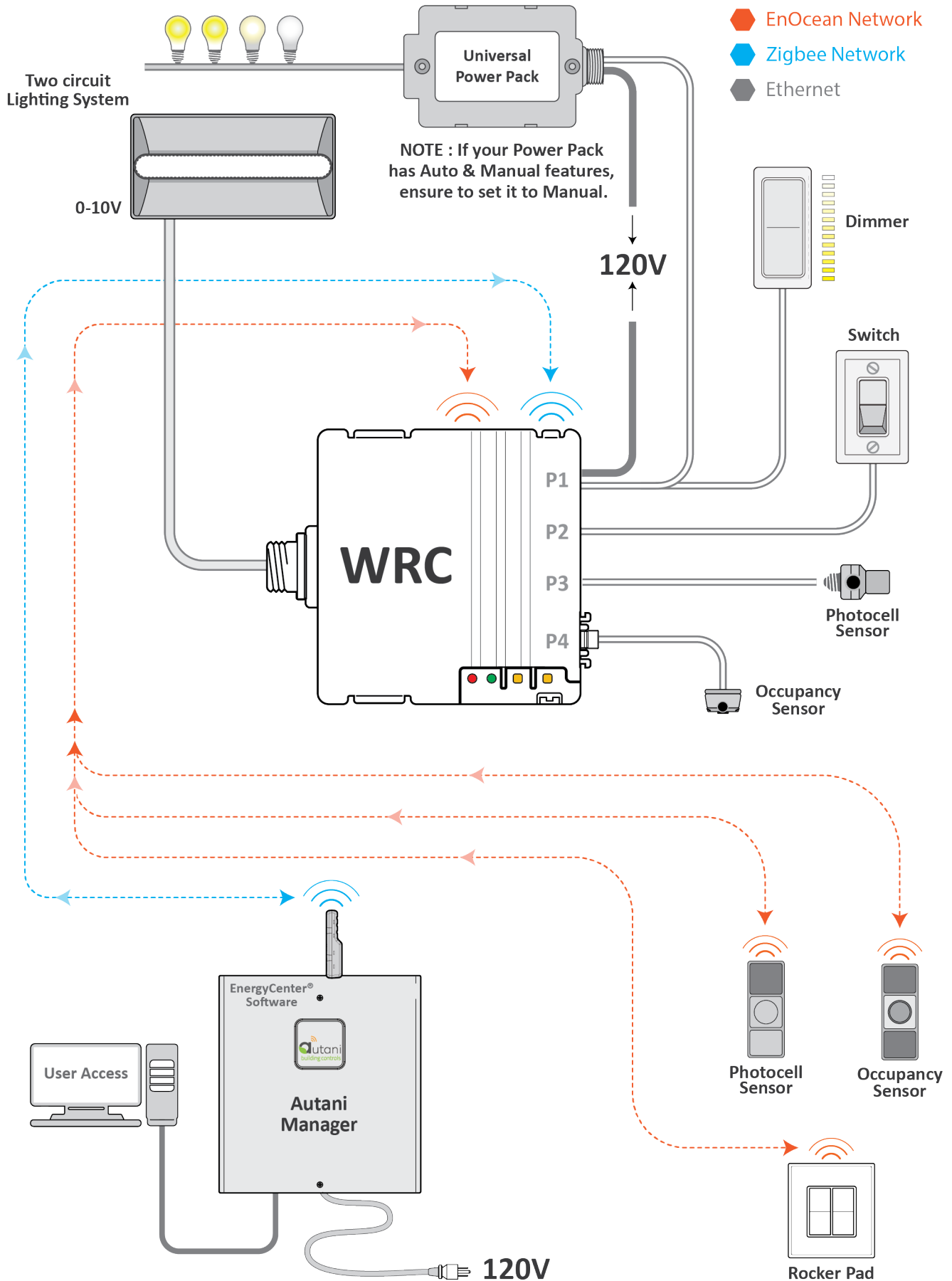
Sales/Quotations: sales@autani.com, quotes@autani.com

Working Hours: Monday to Friday, 9am to 5pm, Eastern Standard Time.

1.4. Product Warranty

Three years limited warranty from Autani. For further information please refer to terms and condition on www.autani.com.

2. System Overview



3. Basic Interface - EnergyCenter® Software

EnergyCenter® is a software application that manages the WRC along with other Autani devices. The software is web based and accessed using a web browser, preferably Chrome/Firefox. The main interface of the software is shown below.

The screenshot shows the EnergyCenter software interface in a web browser. The browser address bar displays "https://www.autani.net/em-proxy/62808832-9388-50". The page title is "EnergyCenter BY AUTANI" and "Remote Access Enabled" is visible in the top right. The interface features a left sidebar with navigation options: Devices, Groups, Automation, Energy Alerts, Analysis, Settings, Help, and Log Off. The main content area has a top navigation bar with tabs: Dashboard, Thermostats, Lighting, HVAC, and Extenders. The "Sub Sections/Tabs" label points to this navigation bar. Below the navigation bar, the "Status" section displays various system metrics: Wireless Network (green), Thermostats: 2 (2 Active), Lights: 4 (4 Active), Computers: 0, Devices: 35, Fans: 0, Sensors: 25 (25 Active), Loads: 0, Locations: 5, Meters: 0, Plugs: 2 (2 Active), and VFDs: 0. The "Lighting" section shows an Occupancy Rate of 60% and Lights On at 29%. The "HVAC" section displays Heating: 0, Cooling: 1, Fan: 0, Idle: 1, Idle: 50%, Fan On: 50%, Supplemental HVAC: 0%, Keypad Locked: 0%, High Indoor Temperature: 75°, Low Indoor Temperature: 67°, and Average Indoor Temperature: 71°. The "Content of Sub Section" label points to the HVAC data.

The screenshot shows the EnergyCenter software interface with a configuration window open. The window title is "Setup Thermostat: Default ((SMT-131) Wireless Thermostat - AU164610031)". The window has three tabs: General Settings, Thermostat Configuration, and Relay Outputs. The "General Settings" tab is active, showing various configuration options: Cool Span (*): 1, Cool Interval (secs): 80, Cool Minimum Voltage (V): 0, Heat Span (*): 2, Heat Interval (secs): 80, Heat Minimum Voltage (V): 0, High Temp Limit (*): 86, Low Temp Limit (*): 41, Internal Calibration (*): 0, Belimo Mode: Off, Temp Display: Fahrenheit, and Temp Display (LCD): Display Set and Space Temps. The "Windows / Popups" label points to the configuration window. At the bottom of the window, there are buttons for Save, Cancel, Apply, and Apply to... The footer of the window displays "Copyright © 2018 Autani, LLC. All Rights Reserved."

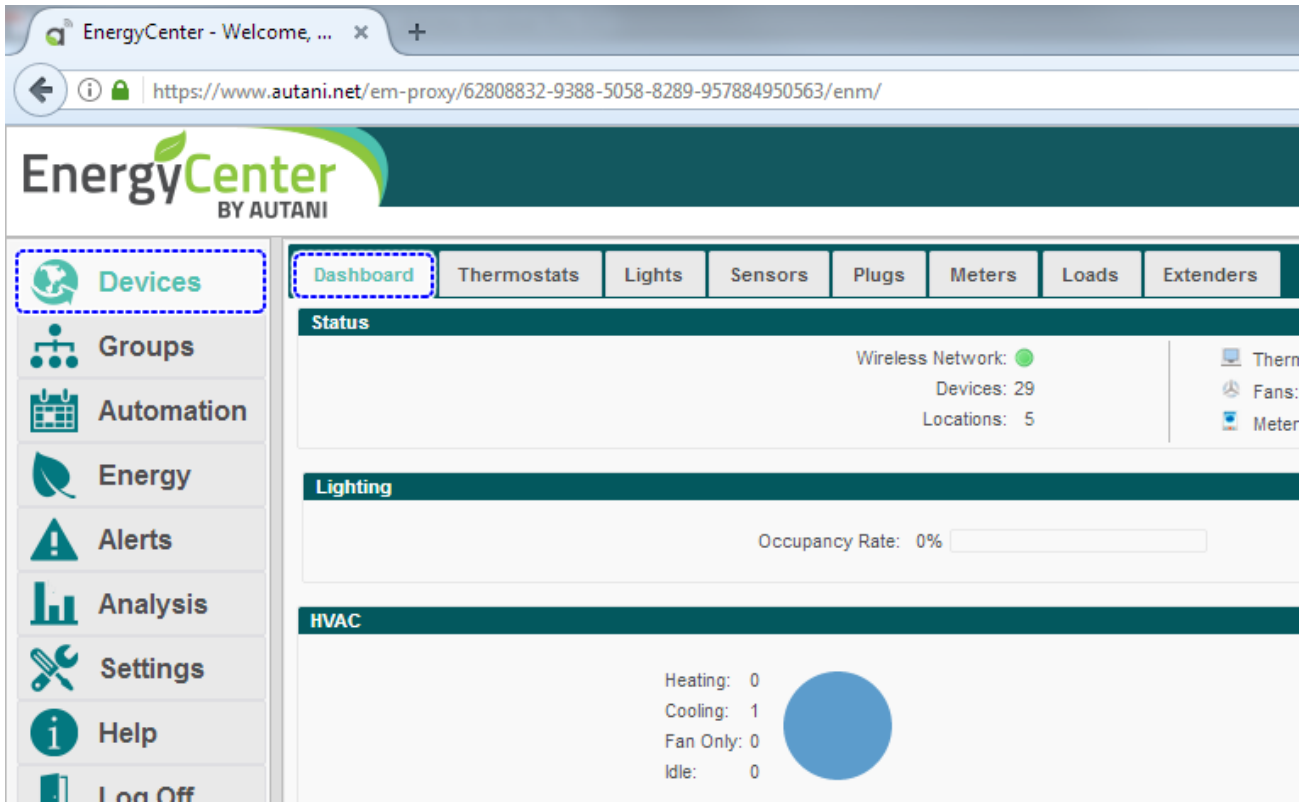
NOTE: The **Save** button will save and close the window, whereas the **Apply** button will save, but keep the window open for further configurations.

For more information on the user interface refer to the documents available in the **Help** section of EnergyCenter® software.

4. Adding WRC to EnergyCenter®

To add a **WRC** to the Autani Manager and configure it through **EnergyCenter®** software, proceed as follows:

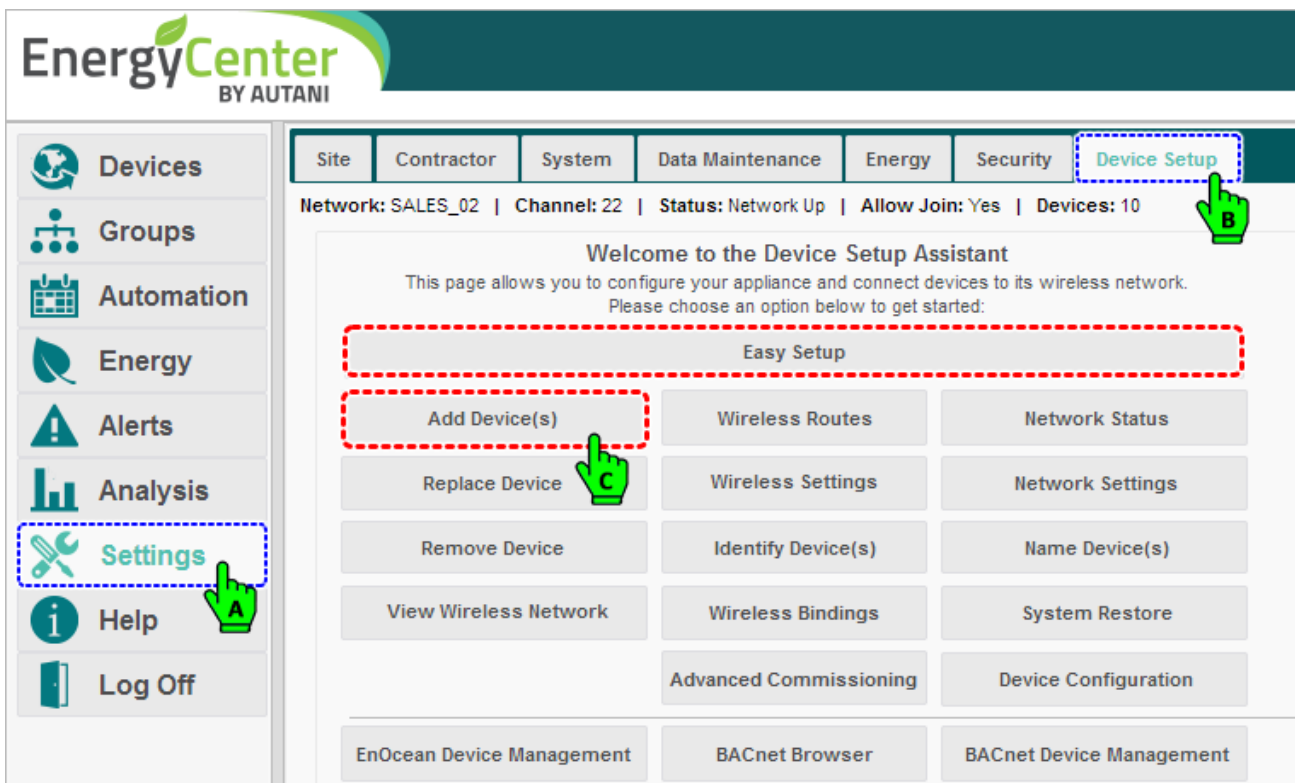
1. Log on to **EnergyCenter®** using the credentials provided.
2. By default, the browser will load the **Device** page with the **Dashboard** data.



The screenshot shows the EnergyCenter web interface. The browser address bar displays the URL: <https://www.autani.net/em-proxy/62808832-9388-5058-8289-957884950563/enm/>. The page features a navigation menu on the left with options: Devices, Groups, Automation, Energy, Alerts, Analysis, Settings, Help, and Log Off. The main content area has a top navigation bar with tabs: Dashboard, Thermostats, Lights, Sensors, Plugs, Meters, Loads, and Extenders. The 'Dashboard' tab is active, showing a 'Status' section with 'Wireless Network: [green dot]', 'Devices: 29', and 'Locations: 5'. Below this is a 'Lighting' section with 'Occupancy Rate: 0%' and an input field. The 'HVAC' section shows 'Heating: 0', 'Cooling: 1', 'Fan Only: 0', and 'Idle: 0' next to a blue circular gauge.

3. Click **Settings > Device Setup > Add Device(s)**.

NOTE: If the **Add Device(s)** button is not available, proceed with the **Easy Setup** wizard.



The screenshot shows the EnergyCenter 'Device Setup Assistant' page. The left navigation menu has 'Settings' highlighted with a red dashed box and a green hand icon labeled 'A'. The top navigation bar has 'Device Setup' highlighted with a red dashed box and a green hand icon labeled 'B'. The main content area displays 'Welcome to the Device Setup Assistant' and 'This page allows you to configure your appliance and connect devices to its wireless network. Please choose an option below to get started:'. A red dashed box highlights the 'Easy Setup' section, which contains a grid of buttons: 'Add Device(s)', 'Wireless Routes', 'Network Status', 'Replace Device', 'Wireless Settings', 'Network Settings', 'Remove Device', 'Identify Device(s)', 'Name Device(s)', 'View Wireless Network', 'Wireless Bindings', 'System Restore', 'Advanced Commissioning', and 'Device Configuration'. A green hand icon labeled 'C' points to the 'Add Device(s)' button. At the bottom, there are three buttons: 'EnOcean Device Management', 'BACnet Browser', and 'BACnet Device Management'.

4. The **Add Device(s)** page loads with a list of nearby devices available. Select your **WRC** from the list and click **Next**.
NOTE: The system may need a few seconds to discover the nearby devices.

EnergyCenter
BY AUTANI

Site Contractor System Data Maintenance Energy Security **Device Setup**

Network: SALES_02 | Channel: 22 | Status: Network Up | Allow Join: Yes | Devices: 10

Add Device(s) Step 1: Add New Devices Step 2: Review Step 3: Finish

Select the devices to add to your network.

Please be patient while new devices are discovered. It may take several minutes for a device to appear in the list.

<input type="checkbox"/>	Type	Model	Serial Number	MAC Address	Last Repo
<input type="checkbox"/>	SMT-131 Thermostat	1000141-02	AU115110126	00:0D:6F:00:01:A7:9A:40	2018-03-12 0
<input checked="" type="checkbox"/>	Wireless Relay Controller	1000159-02	AU162020786	00:0D:6F:00:04:4C:97:83	2018-03-12 0
<input type="checkbox"/>	Serial Gateway	1000140-06	AU160210310	00:0D:6F:00:0A:A3:10:98	2018-03-12 0

Note: Your appliance has 40 registered devices and is licensed to support up to 1000.

< Back **Next >** Cancel

5. The next screen allows the user to **Review** the selected device. Review the selection and click **Next** to proceed.
6. The last screen confirms the addition of the WRC to the system. Click the **Finish** button to complete the process.

EnergyCenter
BY AUTANI

Site Contractor System Data Maintenance Energy Security **Device Setup**

Network: SALES_02 | Channel: 22 | Status: Network Up | Allow Join: Yes | Devices: 10

Add Device(s) Step 1: Add New Devices **Step 2: Review** Step 3: Finish

The list below contains each device that has been added to your network.
It may take several minutes to add all of your devices.

Click Finish to go back to the main setup page.

Added	Type	Model	Serial Number	MAC Address
<input checked="" type="checkbox"/>	Wireless Relay Controller	1000159-02	AU162020786	00:0D:6F:00:04:4C:97:83

Note: Your appliance has 40 registered devices and is licensed to support up to 1000.

< Back **Finish** Cancel

5. Configuring Lights

This document will describe how to use the WRC to control two-circuit lighting. This is the most common application of the WRC and can be configured to use accessories like occupancy sensors, photocell sensors, switches, dimmers, etc., along with software features such as scheduling.

There are three major profiles for configuring and controlling applications using a WRC:

- Level Control (Dimming)
- ON/OFF
- Load Control
- Mixed profiles of the above three

5.1. Using “Device Configuration” to setup WRC

The **Device Configuration**’s page will allow you to configure the **endpoints** for the WRC. The following sub-sections will explain the basic instructions needed to configure lights.

5.1.1. Searching a Device in “Device Configuration”

1. Select **Settings > Device Setup > Device Configuration**.

The screenshot displays the EnergyCenter BY AUTANI web interface. The top navigation bar includes tabs for Site, Contractor, System, Data Maintenance, Energy, Security, and Device Setup. The Device Setup tab is highlighted with a green hand icon labeled 'B'. Below the navigation bar, the network status is shown as: Network: SALES_02 | Channel: 22 | Status: Network Up | Allow Join: Yes | Devices: 10. The main content area is titled "Welcome to the Device Setup Assistant" and provides instructions: "This page allows you to configure your appliance and connect devices to its wireless network. Please choose an option below to get started:". Under the "Easy Setup" section, there are several buttons: Add Device(s), Replace Device, Remove Device, View Wireless Network, Wireless Routes, Wireless Settings, Identify Device(s), Wireless Bindings, Network Status, Network Settings, Name Device(s), System Restore, Advanced Commissioning, and Device Configuration. The Device Configuration button is highlighted in orange and has a green hand icon labeled 'C' pointing to it. On the left sidebar, the Settings menu item is highlighted with a dashed blue box and a green hand icon labeled 'A'.

- The **Device Configuration** page appears. The top section shows the list of Devices available, and the bottom section shows the list of endpoints for the selected device.

Device Configuration

Please select a device and configure the device's endpoints.

Name	Product
Relay	
Conference Room - Wireless Relay Controller - AU162020786	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020792	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020800	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller with EnOcean

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Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005

Location	Name	Description
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-2 for On/Off Light-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-3 for On/Off Light-2
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-4 for Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-5 for Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-2
Default	Wireless Relay Controller with EnOcean - AU154320005	Occupancy Sensing-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Occupancy Sensing-2

- Search for the applicable **WRC** by name or serial number, and select it from the search results. The endpoints for the selected WRC will be displayed in the lower section.

Device Configuration

Please select a device and configure the device's endpoints.

Name	Product
Relay	
Conference Room - Wireless Relay Controller - AU162020786	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020792	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020800	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller with EnOcean

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Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005

Location	Name	Description
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-2 for On/Off Light-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-3 for On/Off Light-2
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-4 for Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-5 for Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-2

5.1.2. Available Endpoints for a WRC

1. Following are the list of endpoints available for a **WRC**. There are both wired and wireless endpoints available, to configure (Level) Dimming and ON/OFF for a circuit.

Endpoints for Device: <u>Wireless Relay Controller with EnOcean - AU154320005</u>				
Location	Name	Description	Device Type	Channel
Default	Wireless Relay Controller w/ EnOcean-AU15...	EnOcean Gateway	EnOcean Gateway	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-1	Illuminance Level Sensing	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-2 for On/Off Light-1 (EnOcean)	Illuminance Level Sensing	2
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-3 for On/Off Light-2 (EnOcean)	Illuminance Level Sensing	3
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-4 for Level Control-1(EnOcean)	Illuminance Level Sensing	4
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-5 for Level Control-2(EnOcean)	Illuminance Level Sensing	5
Default	Wireless Relay Controller w/ EnOcean-AU154: Level Control-1		Level Control	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-2	Level Control	2
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-1	Occupancy Sensing	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-2	Occupancy Sensing	2
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-3 for On/Off Light-1 (EnOcean)	Occupancy Sensing	3
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-4 for On/Off Light-2 (EnOcean)	Occupancy Sensing	4
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-5 for Level Control-1 (EnOcean)	Occupancy Sensing	5
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-6 for Level Control-2 (EnOcean)	Occupancy Sensing	6
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-1	Low End Cutoff	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-2	Low End Cutoff	2
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-1	On/Off Switch	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-2	On/Off Switch	2
Setup				
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-1	On/Off Light	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-2	On/Off Light	2
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Load-1	Load Control	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Load-2	Load Control	2
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-1	Contact Sensor	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-2	Contact Sensor	2

- There are endpoints mapped within other endpoints. For example, the endpoint **Level Sensing-2 for ON/OFF Light-1** has a mapped endpoint **ON/OFF Light-1** to configure a relay for Low End Cutoff.
- The channel set with **Low End Cutoff** endpoint, can be set to any of the following types (marked in red):
 - Low End Cutoff
 - ON/OFF Light
 - ON/OFF Load
- The channel set with **ON/OFF Switch** endpoint, can be set to any of the following types (marked in green):
 - ON/OFF Switch
 - Contact Sensor (typically used for door or window contact applications)

5.1.3. Show, Hide or Edit Endpoints for a WRC

- Search for and select a **WRC** in the Device Configuration page (select **Settings > Device Setup > Device Configuration** to reach the search page). The **endpoints** related to the selected device are displayed in the **Endpoints** section.
 - In the **Actions** column, click **Edit** to modify an endpoint to be modified. You can edit multiple endpoints together.

Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005							
Location	Name	Description	Device Type	Channel	Display	Actions	
Default	Wireless Relay Controller w/ EnOcean-AU15...	EnOcean Gateway	EnOcean Gateway	1	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-1	Illuminance Level Sensing	1	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-2 for On/Off Light-1 (EnOcean)	Illuminance Level Sensing	2	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-3 for On/Off Light-2 (EnOcean)	Illuminance Level Sensing	3	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-4 for Level Control-1(EnOcean)	Illuminance Level Sensing	4	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-5 for Level Control-2(EnOcean)	Illuminance Level Sensing	5	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU154:	Level Control-1	Level Control	1	<input checked="" type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-2	Level Control	2	<input type="checkbox"/>	Click A	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-1	Occupancy Sensing	1	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-2	Occupancy Sensing	2	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-3 for On/Off Light-1 (EnOcean)	Occupancy Sensing	3	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-4 for On/Off Light-2 (EnOcean)	Occupancy Sensing	4	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-5 for Level Control-1 (EnOcean)	Occupancy Sensing	5	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-6 for Level Control-2 (EnOcean)	Occupancy Sensing	6	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-1	Low End Cutoff	1	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-2	Low End Cutoff	2	<input type="checkbox"/>	Click B	

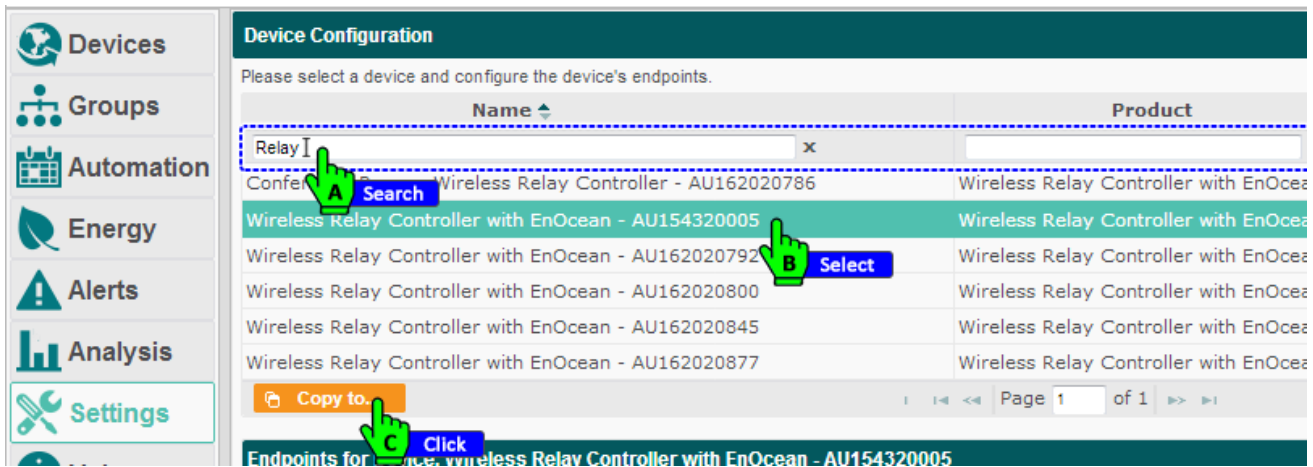
- Note that all the fields (except for the **Channel** column) will now be in editable mode for the selected endpoint.

Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005							
Location	Name	Description	Device Type	Channel	Display	Actions	
Default	Wireless Relay Controller w/ EnOcean-AU15...	EnOcean Gateway	EnOcean Gateway	1	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-1	Illuminance Level Sensing	1	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-2 for On/Off Light-1 (EnOcean)	Illuminance Level Sensing	2	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-3 for On/Off Light-2 (EnOcean)	Illuminance Level Sensing	3	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-4 for Level Control-1(EnOcean)	Illuminance Level Sensing	4	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-5 for Level Control-2(EnOcean)	Illuminance Level Sensing	5	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controll I	Level Contr I	Level Control	1	<input checked="" type="checkbox"/>	Save Cancel	
Conf. Room	Wireless Relay Controller w/ EnOcean-AU15...	Level Control	Level Control	2	<input type="checkbox"/>	Click E Click F Click	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-1	Occupancy Sensing	1	<input type="checkbox"/>	Click D Select	
First Floor Lobby	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-2	Occupancy Sensing	2	<input type="checkbox"/>	Click A Select	
Parking Lot	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-3 for On/Off Light-1 (EnOcean)	Occupancy Sensing	3	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-4 for On/Off Light-2 (EnOcean)	Occupancy Sensing	4	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-5 for Level Control-1 (EnOcean)	Occupancy Sensing	5	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-6 for Level Control-2 (EnOcean)	Occupancy Sensing	6	<input type="checkbox"/>	Edit	
Default	Wireless Relay Controller w/ EnOcean-AU154320005	On/Off Light-1	Low End Cutoff		<input type="checkbox"/>	Save Cancel	
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-2	Low End Cutoff	2	<input type="checkbox"/>	Click F Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-1	On/Off Switch	1	<input type="checkbox"/>	Click Edit	
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-2	On/Off Switch	2	<input type="checkbox"/>	Edit	

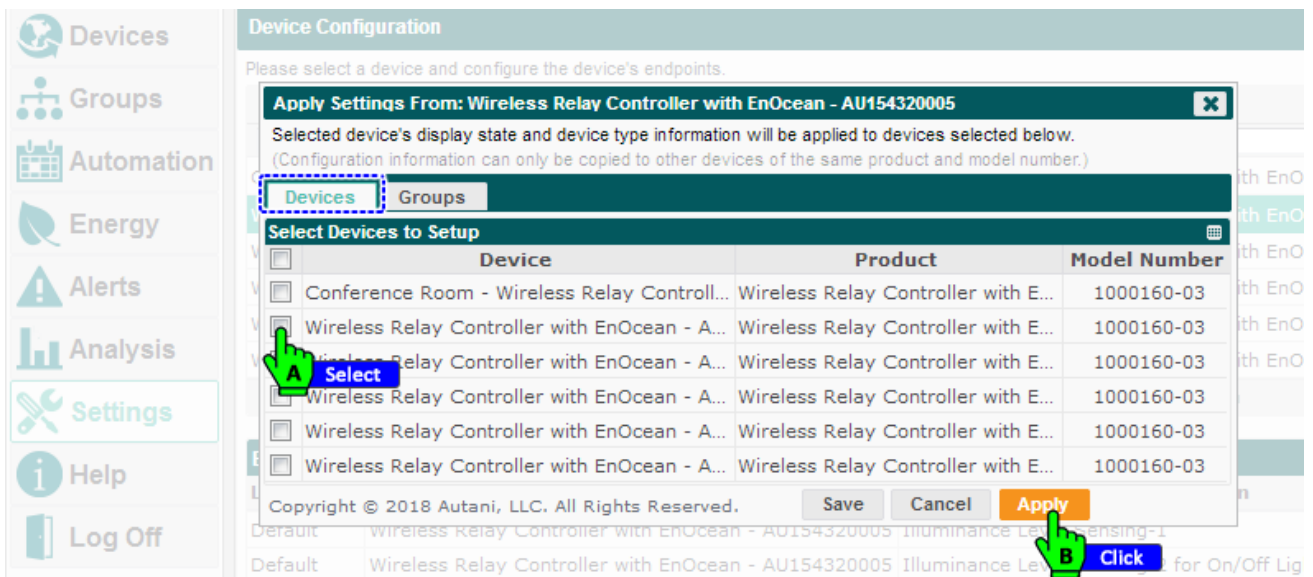
- Choose a location for the **endpoint** in the **Location** column.
- To edit the name or description of an endpoint, edit the fields in **Name** and **Description** columns respectively.
- There are endpoints to which a device type can be defined using **Device Type** column.
- To Hide or Show an **endpoint** to a WRC, check or uncheck the **Checkbox** in the **Display** column.
- In the **Actions** column, click **Save** to accept the changes or click **Cancel** to undo the changes.

5.1.4. Copy a Device Configuration to Another Device

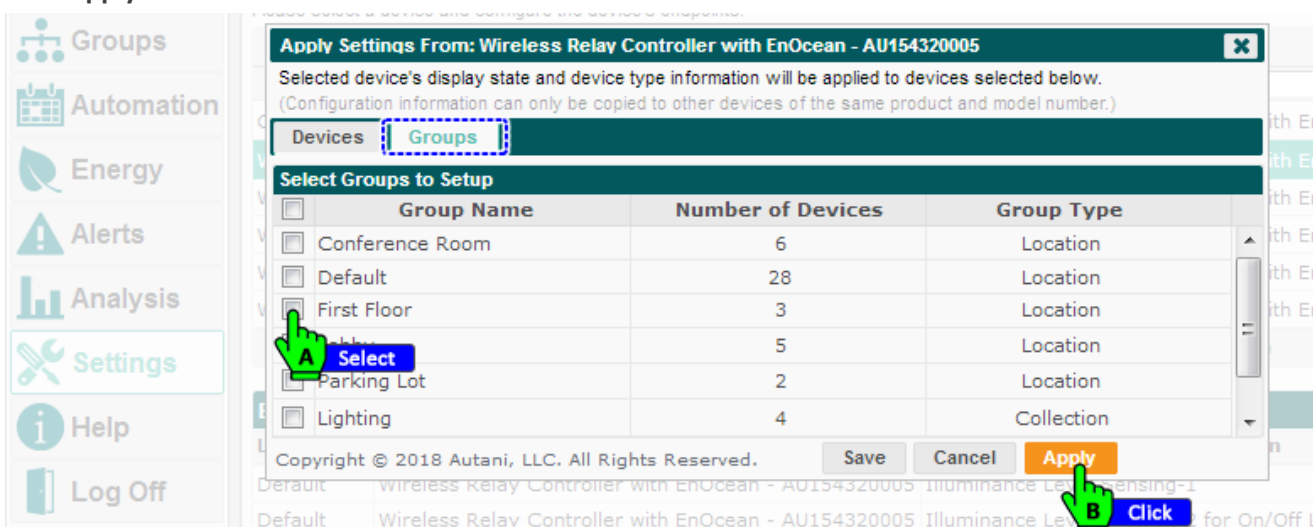
1. Search for and select a **WRC** in the Device Configuration page (select **Settings > Device Setup > Device Configuration** to reach the search page) and click **Copy to...** to copy the configuration of the selected device to another device.



2. The **Apply Settings From** window appears, with the **Devices** tab selected by default. Select one or more devices to apply the copied settings to and click **Apply**.



3. Click on the **Groups** tab and select one or more groups from the list to apply the copied settings. The settings will affect the same type of devices only (e.g., changes made to a WRC will not affect a thermostat in the same group). Click **Apply**.



5.1.5. Copy Endpoint Configuration to other Devices

1. Search for and select a **WRC** in the Device Configuration page (select **Settings > Device Setup > Device Configuration** to reach the search page). Select an endpoint (**Level Control-1**) from the list in endpoints section. Click **Setup**.

The screenshot shows the 'Device Configuration' page. On the left is a navigation menu with 'Settings' selected. The main area has a search bar with 'Relay I' entered. A table lists search results for 'Wireless Relay Controller' devices. A 'Search' button is highlighted with a green 'A' and a hand cursor. The second row is highlighted in green, and a 'Select' button is highlighted with a green 'B' and a hand cursor. Below the table is a section titled 'Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005'. This section contains a table with columns 'Location', 'Name', and 'Description'. The row for 'Level Control-1' is highlighted in green, and a 'Select' button is highlighted with a green 'C' and a hand cursor. At the bottom of this section is a 'Setup' button highlighted with a green 'D' and a hand cursor.

2. The **Setup** window appears. Make changes as necessary across the tabs, and click **Apply to...**

The screenshot shows the 'Setup' window for the 'Level Control-1' endpoint. The window title is 'Setup Light: Default (Wireless Relay Controller with EnOcean - AU154320005 - Level Control-1)'. It has several tabs: 'General Settings', 'Sensor/Dimmer', 'Sensor Inputs', 'EnOcean Dimmers', 'Power-On State', and 'Switch Outputs'. The 'General Settings' tab is active. It contains several input fields: 'Min Dim Level (%)' set to 0, 'Max Dim Level (%)' set to 100, 'Low End Cutoff Relay' set to 'On/Off Light-1', and 'Low End Cutoff (%)' set to 7. There are also 'Deadband Threshold (%)' and 'Apply to...' buttons. A 'Click' label with a hand cursor points to the 'Apply to...' button. At the bottom of the window, there are 'Save', 'Cancel', 'Apply', and 'Apply to...' buttons. The background shows the 'Device Configuration' page with the 'Level Control-1' endpoint selected.

- The **Apply Settings From** window appears, with the **Devices** tab selected by default. Select one or more devices to copy the settings to and click **Apply**.

Device Configuration

Please select a device and configure the device's endpoints.

Apply Settings From: Wireless Relay Controller with EnOcean - AU154320005

Selected device's display state and device type information will be applied to devices selected below.
(Configuration information can only be copied to other devices of the same product and model number.)

Devices | Groups

Select Devices to Setup

<input type="checkbox"/>	Device	Product	Model Number
<input type="checkbox"/>	Conference Room - Wireless Relay Controll...	Wireless Relay Controller with E...	1000160-03
<input type="checkbox"/>	Wireless Relay Controller with EnOcean - A...	Wireless Relay Controller with E...	1000160-03
<input type="checkbox"/>	Wireless Relay Controller with EnOcean - A...	Wireless Relay Controller with E...	1000160-03
<input type="checkbox"/>	Wireless Relay Controller with EnOcean - A...	Wireless Relay Controller with E...	1000160-03
<input type="checkbox"/>	Wireless Relay Controller with EnOcean - A...	Wireless Relay Controller with E...	1000160-03
<input type="checkbox"/>	Wireless Relay Controller with EnOcean - A...	Wireless Relay Controller with E...	1000160-03

Copyright © 2018 Autani, LLC. All Rights Reserved. Save Cancel **Apply**

- Click on the **Groups** tab and select one or more groups from the list to apply the copied setting. Click **Apply**.

Apply Settings From: Wireless Relay Controller with EnOcean - AU154320005

Selected device's display state and device type information will be applied to devices selected below.
(Configuration information can only be copied to other devices of the same product and model number.)

Devices | **Groups**

Select Groups to Setup

<input type="checkbox"/>	Group Name	Number of Devices	Group Type
<input type="checkbox"/>	Conference Room	6	Location
<input type="checkbox"/>	Default	28	Location
<input type="checkbox"/>	First Floor	3	Location
<input type="checkbox"/>	Parking Lot	2	Location
<input type="checkbox"/>	Lighting	4	Collection

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5.2. Level Control (Dimming Configuration)

5.2.1. Light Setup Configuration

The following procedures are common for both **Level Control-1** and **2** channels (two channels to control two line of circuits of light system). The **Light Setup** can be performed through either of the following sections using **EnergyCenter®** software. The **setup** screen will be the same in both sections.

- **Settings > Device Setup > Device Configuration**
- **Devices > Lights**

1. Select **Settings > Device Setup > Device Configuration**.

The screenshot shows the EnergyCenter software interface. On the left is a navigation menu with icons and labels for: Devices, Groups, Automation, Energy, Alerts, Analysis, Settings (highlighted with a dashed blue box and a green hand cursor labeled 'A'), Help, and Log Off. The main content area has a top navigation bar with tabs: Site, Contractor, System, Data Maintenance, Energy, Security, and Device Setup (highlighted with a dashed blue box and a green hand cursor labeled 'B'). Below the tabs, the network information is displayed: Network: SALES_02 | Channel: 22 | Status: Network Up | Allow Join: Yes | Devices: 10. The main content area is titled "Welcome to the Device Setup Assistant" and contains a grid of buttons for "Easy Setup" (Add Device(s), Wireless Routes, Network Status, Replace Device, Wireless Settings, Network Settings, Remove Device, Identify Device(s), Name Device(s), View Wireless Network, Wireless Bindings, System Restore) and "Advanced Commissioning" (Device Configuration, highlighted with a green hand cursor labeled 'C'). At the bottom, there are three buttons: EnOcean Device Management, BACnet Browser, and BACnet Device Management.

2. The **Device Configuration** page appears with the list of devices in the top section and a list of endpoints for the selected device (WRC) in the lower section.

The screenshot shows the EnergyCenter software interface with the "Device Configuration" page. The left navigation menu is the same as in the previous screenshot, with "Settings" highlighted. The main content area has a title bar "Device Configuration" and a subtitle "Please select a device and configure the device's endpoints." Below this is a table of devices with columns "Name" and "Product". The table is highlighted with a dashed red box and labeled "Devices". The table contains the following data:

Name	Product
Relay	
Conference Room - Wireless Relay Controller - AU162020786	Wireless Relay Controller
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller
Wireless Relay Controller with EnOcean - AU162020786	Wireless Relay Controller
Wireless Relay Controller with EnOcean - AU162020786	Wireless Relay Controller
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller

Below the table is a "Copy to..." button and a pagination control showing "Page 1 of 1". Below the table is another table titled "Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005" with columns "Location", "Name", and "Description". This table is highlighted with a dashed red box and labeled "End-points". The table contains the following data:

Location	Name	Description
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-2 for Cr
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-3 for Cr
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-4 for Le
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-5 for Le
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-1

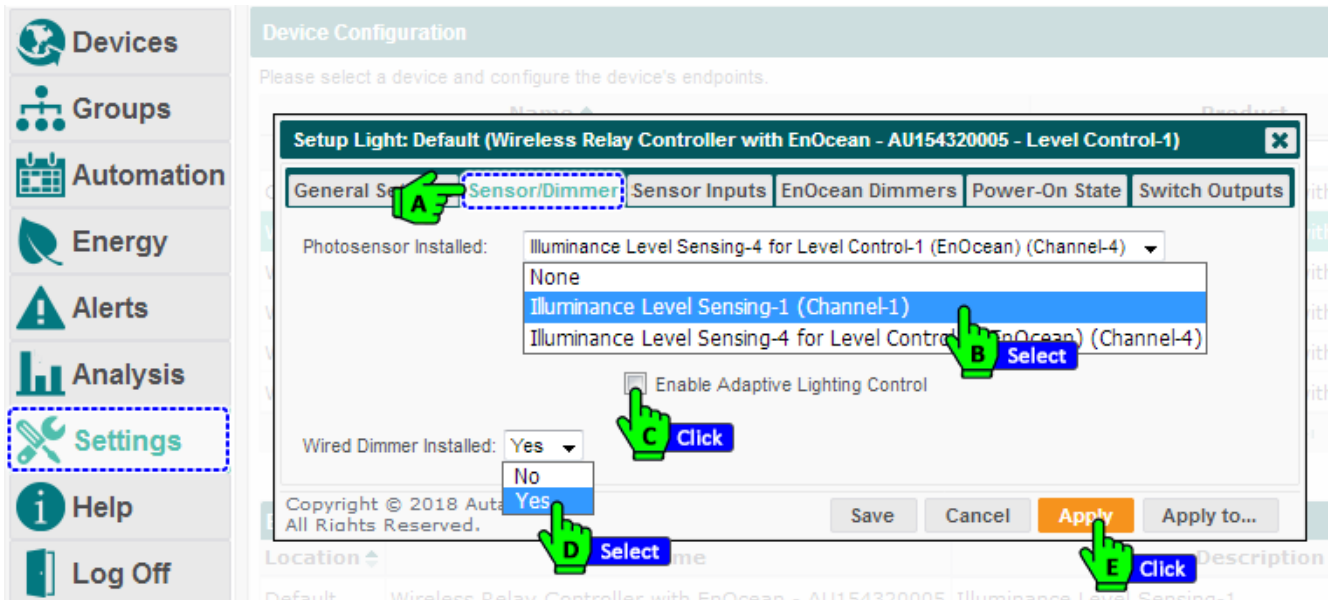
- Search for the applicable **WRC** by name or serial number, and select it from the search results. Select the endpoint **Level Control-1** from the list in the endpoints section. Click **Setup**.

The screenshot shows the 'Device Configuration' page. On the left is a navigation menu with 'Settings' highlighted. The main area has a search bar with 'Relay' entered. A table lists search results for 'Wireless Relay Controller' devices. A 'Search' button is next to the search bar. Below the table, a 'Setup' button is visible. A second table, 'Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005', lists various endpoints. The 'Level Control-1' endpoint is highlighted, and a 'Select' button is next to it. A 'Click' button is also present at the bottom of the endpoint table.

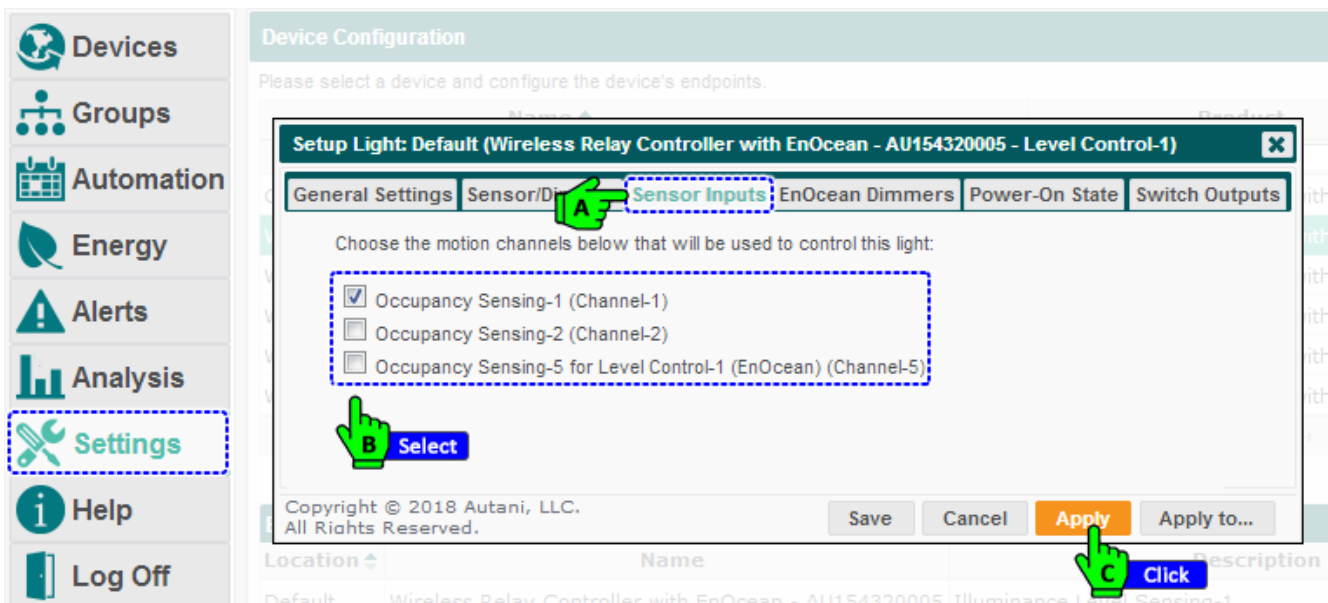
- The **Setup Light** window appears with the tab **General Settings** selected by default. Here you can configure the Dimming Level for the chosen **Level Control-1**.
 - Set the Min & Max Dim Levels (%) to declare the range for Dimming Level, usually 0-100%.
 - Even though the Min value for Dimming Level is set to 0%, the lights will be still ON at 1% with less luminance. To overcome this, choose a Low End Cutoff Relay and set the Low End Cutoff (%) to the required %. (Example: if the Low End Cutoff (%) is set to 7%, the selected relay will switch OFF the lights when Dim Level crosses below 7%. If your fixtures can “dim to off” then the Low End Cutoff is not required.)
 - Set the Deadband Threshold (%) for the photocell sensors used for daylight harvesting, usually 5%.

The screenshot shows the 'Setup Light: Default (Wireless Relay Controller with EnOcean - AU154320005 - Level Control-1)' window. The 'General Settings' tab is selected. The window contains several input fields: 'Min Dim Level (%)' set to 0, 'Max Dim Level (%)' set to 100, 'Low End Cutoff Relay' set to 'On/Off Light-1', and 'Low End Cutoff (%)' set to 7. A 'Deadband Threshold (%)' field is set to 5. There are 'Edit' buttons next to the Min Dim Level, Max Dim Level, and Deadband Threshold fields. A 'Select' button is next to the Low End Cutoff Relay dropdown menu. At the bottom, there are 'Save', 'Cancel', 'Apply', and 'Apply to...' buttons. A 'Click' button is also present at the bottom of the window.

5. Select the next tab **Sensor/Dimmer** to configure the sensors and dimmers for Level Control-1.
 - Select a **Photosensor** from the dropdown; there may be both wired and wireless sensors installed. Select the sensor based on the profile chosen. Select the wired **Illuminance Level Sensing-1** for Level Control-1, or select **None** if no sensors are installed. (**NOTE:** Wireless sensors will show up only if they are already mapped.)
 - If you have a photosensor installed, click on **Enable Adaptive Lighting Control**. The photocell sensors will read the light level from ambient and outside light to maintain the desired light level. (Example: if your physical dimmer is at 70% and it is really bright outside, lights will be dimmed to maintain an ambient light level of 70%.)
 - On the **Wired Dimmer Installed** dropdown, select **Yes** if one is installed or **No** if one is not installed.



6. Select the next tab **Sensor Inputs** to choose which occupancy sensors to control the lights. There are three channels available; you can choose single or multiple channels.
 - The first channel **Occupancy Sensing-1 (Channel-1)** is aligned with 3V RJ11 Connector.
 - The second channel **Occupancy Sensing-2 (Channel-2)** is aligned with 24V RJ11 Connector.
 - The third channel **Occupancy Sensing-5 for Level Control-1 (EnOcean) (Channel-5)** is the wireless EnOcean sensor. It should already be configured before enabling it here. (Refer to section 8.3 *Configuring Wireless Motion Sensors*).



7. Select the next tab **EnOcean Dimmers** to configure the EnOcean Rocker Pads for Level Control-1. Double and single Rocker pads are supported.
 - Enter the Rocker Pad ID in the fields provided. You can configure up to five IDs (identifiers). When configuring a double Rocker Pad enter the ID of one side into a field, and in the next empty field enter '10' + ID for the other side of the Rocker Pad.

The screenshot shows the 'Device Configuration' page. On the left sidebar, the 'Settings' icon is highlighted with a dashed blue box. The main content area displays a 'Setup Light: Default (Wireless Relay Controller with EnOcean - AU154320005 - Level Control-1)' dialog box. The 'EnOcean Dimmers' tab is selected and highlighted with a dashed blue box and a green arrow labeled 'A'. Below the tab, there are five input fields for EnOcean device identifiers. The first field contains 'XXXXXX' and is being pointed to by a green arrow labeled 'B'. The second field contains '0' and is also being pointed to by a green arrow labeled 'B'. Below the input fields, there is a 'Type' button. At the bottom right of the dialog box, the 'Apply' button is highlighted with a green arrow labeled 'C'. Below the dialog box, a table of device configurations is visible, with the 'Apply' button also being pointed to by a green arrow labeled 'D'.

8. Select the next tab **Power-On State** to choose how lights behave when they are switched ON and specify the duration for the chosen state.
 - There are three states available. Choose a state, enable the duration checkbox, and enter the duration for the state.

The screenshot shows the 'Device Configuration' page. On the left sidebar, the 'Settings' icon is highlighted with a dashed blue box. The main content area displays a 'Setup Light: Default (Wireless Relay Controller with EnOcean - AU154320005 - Level Control-1)' dialog box. The 'Power-On State' tab is selected and highlighted with a dashed blue box and a green arrow labeled 'A'. Below the tab, there are three radio button options for lighting states. The first option, 'Revert to the previous state before losing power', is selected and highlighted with a dashed blue box and a green arrow labeled 'B'. Below this option, there is a checkbox for 'Lighting should maintain previous state for:' followed by a dropdown menu showing '1' and '(minutes)', which is also highlighted with a dashed blue box and a green arrow labeled 'C'. Below the other two radio button options, there are similar checkboxes and dropdown menus. At the bottom right of the dialog box, the 'Apply' button is highlighted with a green arrow labeled 'D'. Below the dialog box, a table of device configurations is visible, with the 'Apply' button also being pointed to by a green arrow labeled 'D'.

9. Select the next tab **Switch Outputs** to calculate energy estimation for the lighting system.
 - Start by enabling the feature **Compute energy usage...** and enter the values in the **Lighting output** fields to calculate the energy consumption. The **Energy Usage Rate** will be displayed.
 - For more information on this topic refer to section *12 Energy Estimation*.

Device Configuration

Please select a device and configure the device's endpoints.

Setup Light: Default (Wireless Relay Controller with EnOcean - AU154320005 - Level Control-1)

General Settings | Sensor/Dimmer | Sensor Inputs | EnOcean Dimmers | Power-On | **Switch Outputs**

Compute energy usage rate based on values below

Lighting output

Number of fixtures: 0

Number of lamps per fixture: 0

Wattage of a single lamp: 0 W

Energy Usage Rate: ***** kWh


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Save Cancel **Apply** Apply to...

Location	Name	Description
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-1

5.2.2. Light Detail Configuration

The following procedures are for both **Level Control-1** and **2** profiles.

1. Select **Devices > Lights** and search for a **WRC** by name or serial number. Select a WRC from the search results, and click on **Details**. The icon for the Level Control is .

Dashboard | Thermostats | **Lights** | Sensors | Plugs | Meters | Loads | Extenders

Display Energy Usage from: 05/22/2018 to: 05/29/2018

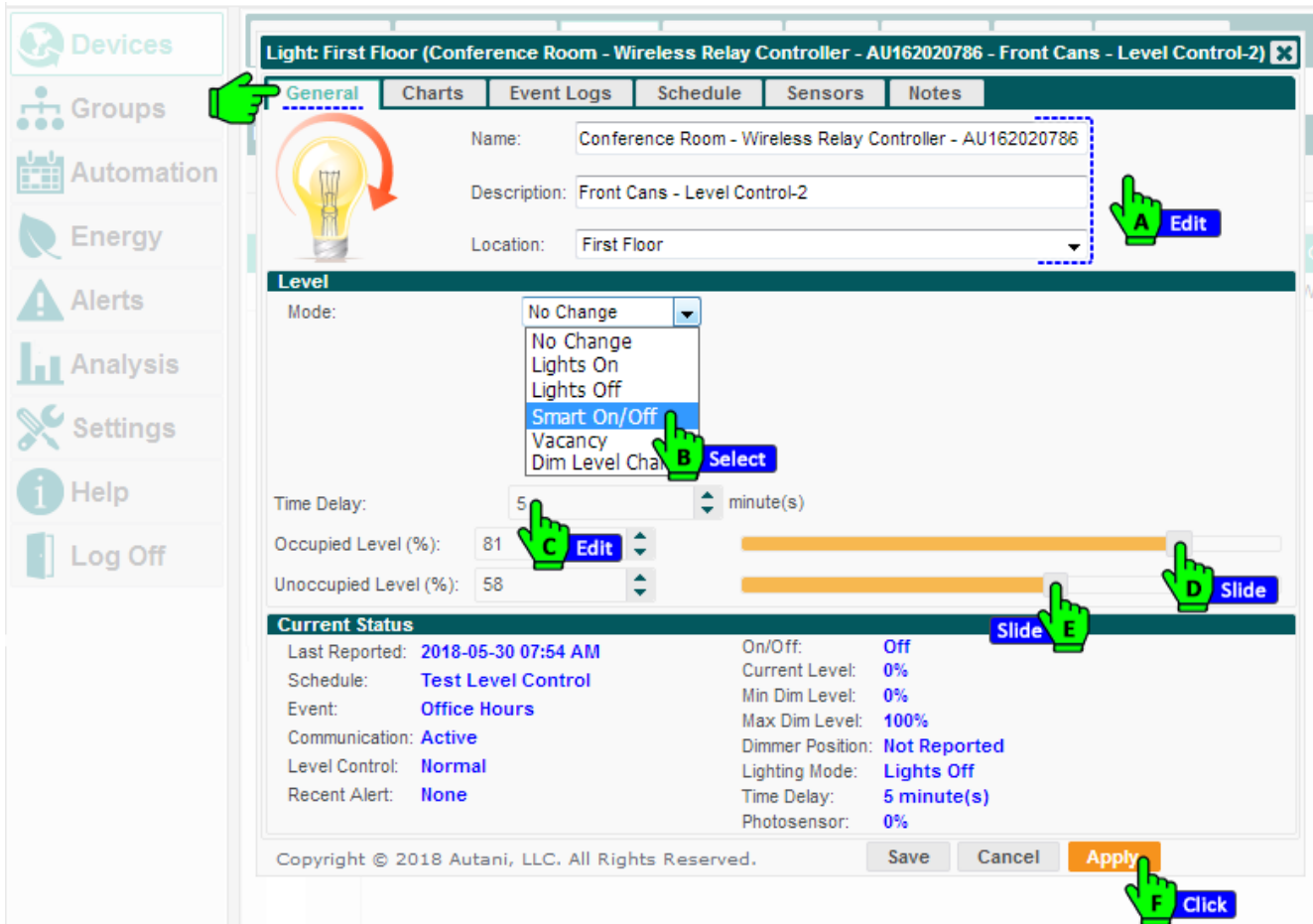
Lights

Status	Location	Light
Active	First Floor	Conference Room-Wireless Relay Controller-AU162020786
Active	First Floor	Conference Room-Wireless Relay Controller-AU162020786

Setup **Details** Hide Unhide

Page 1 of 1 80

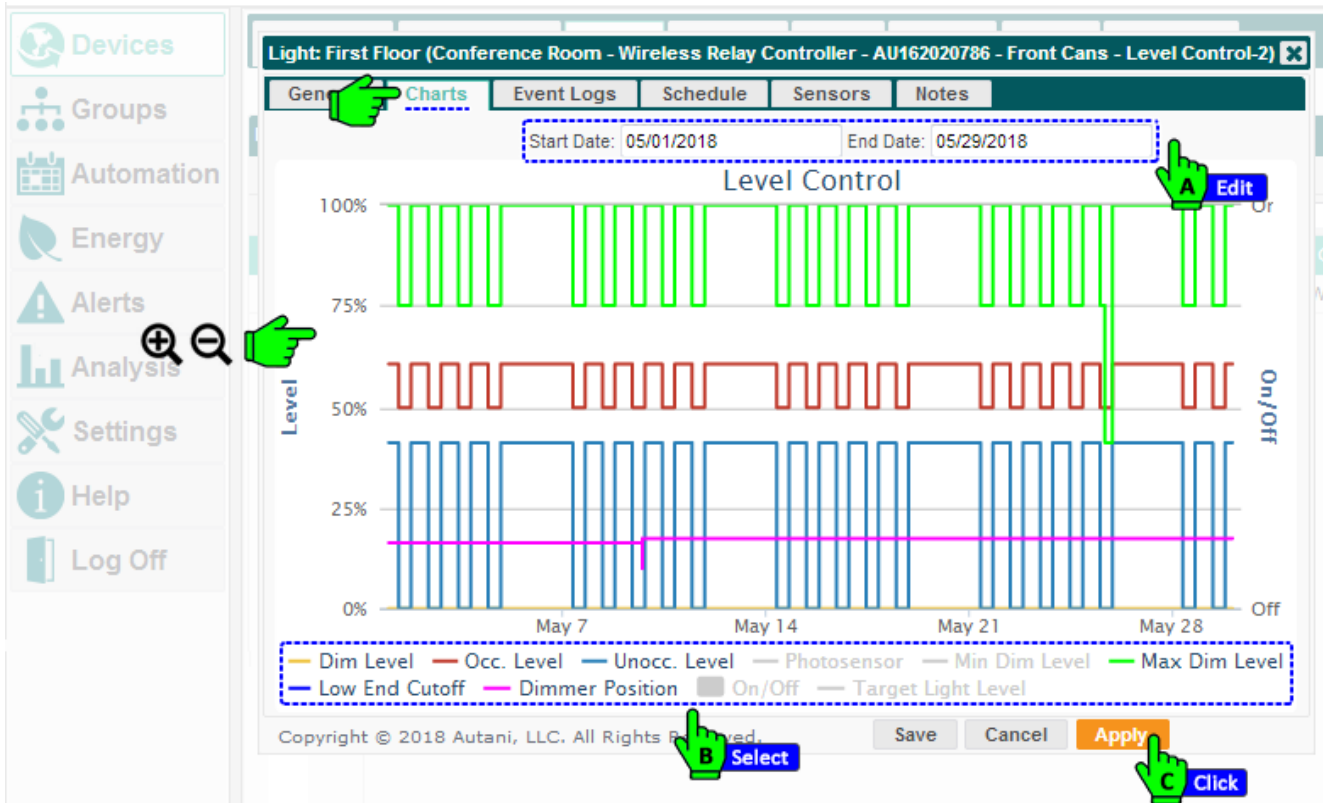
2. The **Light** window appears with the **General** tab selected by default. Here users can make on-demand changes to the attributes of a light.
- The top section of the window allows users to edit the Name, Description, and Location of the lights.
 - The **Level** section allows the users to choose a **Mode** and set the **Time Delay** and **Occupancy Level**.
 - **NOTE:** The occupancy based modes (**Smart On/Off** and **Vacancy**) will only be available if they are already associated with the WRC.



- The lower section of the window has details on the **Current Status** of a light's attributes.
 - Last Reported:** Time and Date information of last communication made by device with the Autani Manager.
 - Schedule:** Name of the schedule currently assigned to the light from the **Schedule** tab.
 - Event:** Name of the currently running event within a **Schedule** chosen.
 - Communication:** The status of the communication between the device and network. (Active/Error)
 - Level Control:** Displays the current status of Level Control. (Normal/Unknown)
 - Recent Alert:** Description of the recent alert (None / Error / Warning).
 - ON/OFF:** Displays current status of the light. (ON/OFF)
 - Current Level:** The Current Level of the Light in percentage (0-100%).
 - Min Dim Level:** Displays Minimum Dim Level value. (Dim Level is set through Lights>Setup>General Settings.)
 - Max Dim Level:** Displays Maximum Dim Level value. (Dim Level is set through Lights>Setup>General Settings.)
 - Dimmer Position:** The dimmer position is shown here if a physical dimmer is connected.
 - Lighting Mode:** Displays the Mode set in **Level** section.
 - Time Delay:** Displays the Time Delay for a Mode, set in **Level** section.
 - Photosensor:** Photosensor readings are displayed here if photosensor is connected and configured.

3. Select the next tab **Charts** to see the **Level Control** performances for the light attributes.
 - Choose a date range and click on any attribute to see the performance chart.

NOTE: You can select multiple attributes; each will be displayed in different color. The chart also has a feature to zoom IN and OUT.



4. Select the next tab **Event Logs** to see all logged information about the attributes of a light. The log information can be seen for a specific date range. The list can be refreshed, and users can navigate between pages as needed.

Start Time	Duration	Description
2018-05-29 06:02:06 PM	14:00:17	Unoccupied Level: 40%
2018-05-29 06:02:06 PM	14:00:17	Occupied Level: 60%
2018-05-29 06:02:06 PM	14:00:17	Max Dim Level: 100%
2018-05-29 08:02:10 AM	09:59:55	Unoccupied Level: 0%
2018-05-29 08:02:10 AM	09:59:55	Occupied Level: 50%
2018-05-29 08:02:10 AM	09:59:55	Max Dim Level: 75%
2018-05-28 06:02:19 PM	13:59:51	Unoccupied Level: 40%
2018-05-28 06:02:19 PM	13:59:51	Occupied Level: 60%
2018-05-28 06:02:19 PM	13:59:51	Max Dim Level: 100%
2018-05-09 03:57:20 PM	20 days 15:54:11	Dimmer Position 18%

- Select the next tab **Schedule** to view or disable a schedule for the light and to verify the assigned events associated with this light.

NOTE: It is not recommended to create or edit schedules here. Any changes made here will be overridden by schedules created through the **Automation** section. (Refer to section 10 *Configuring Schedules.*)

- Select the next tab **Sensors** to virtually associate a standalone sensor or a sensor from other device(s) to the selected light and affect the behavior of the light. (Considering both wired and wireless sensors are already configured through Light Setup.)

- Select a standalone sensor or a sensor from other device(s) in the system and click **Apply**.

NOTE: The physically wired sensors are selected and grayed out if they have already mapped from within the setup screen.

NOTE: There is NO limit on the number of sensors that can be virtually associated with the current device.

NOTE: The virtual association will not work if the software and the Manager are not functioning.

7. Select the next tab **Notes** to leave a note for other users to refer. (Example: The WRC was installed on XX.XX.XXXX date, and the last service was done on XX.XX.XXXX date, etc.) Click within the text box to create a note, and click **Apply** to save the note.

Light: First Floor (Conference Room - Wireless Relay Controller - AU162020786 - Front Cans - Level Control-2) X

General Charts Event Logs Schedule Sens **Notes**

The WRC was installed on 01-05-2018.
The WRC was Serviced on 01-06-2018.

A Edit

Copyright © 2018 Autani, LLC. All Rights Reserved. Save Cancel **Apply**

B Click

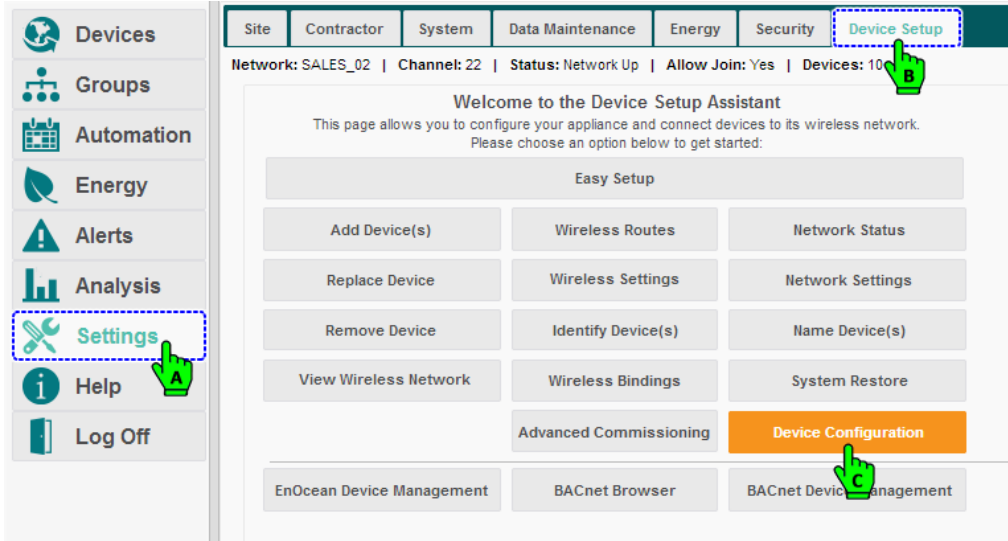
5.3. ON/OFF Light Configuration

5.3.1. Light Setup

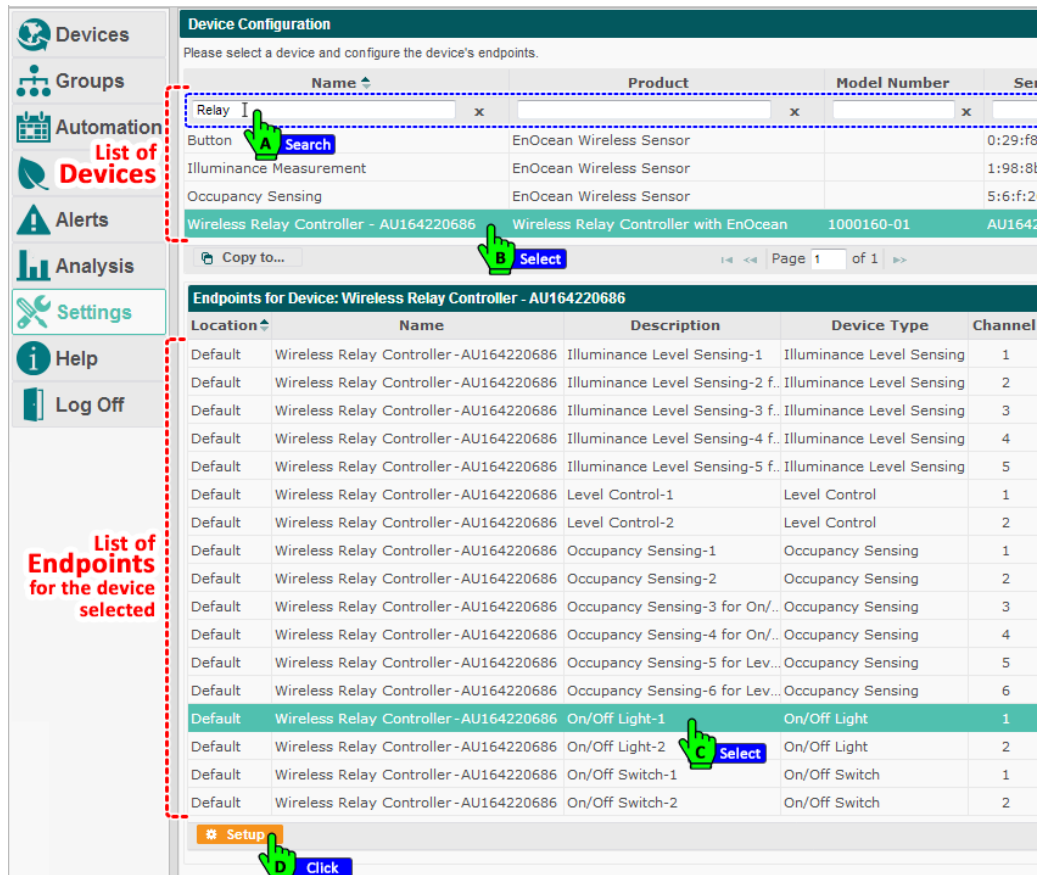
The following procedures are the same for both **ON/OFF-1** and **2** configurations. **Light Setup** can be carried out through either of the following sections within **EnergyCenter®** software. The **setup** screen will be the same in both sections.

- **Settings > Device Setup > Device Configuration** (Here you will directly select the **endpoint ON/OFF-1** of WRC.)
- **Devices > Lights** (Here you will select a **profile** of WRC with ON/OFF feature. The ON/OFF endpoint is enabled through Device Configuration for a WRC. Refer to **Show, Hide or Edit Endpoints for a WRC.**)

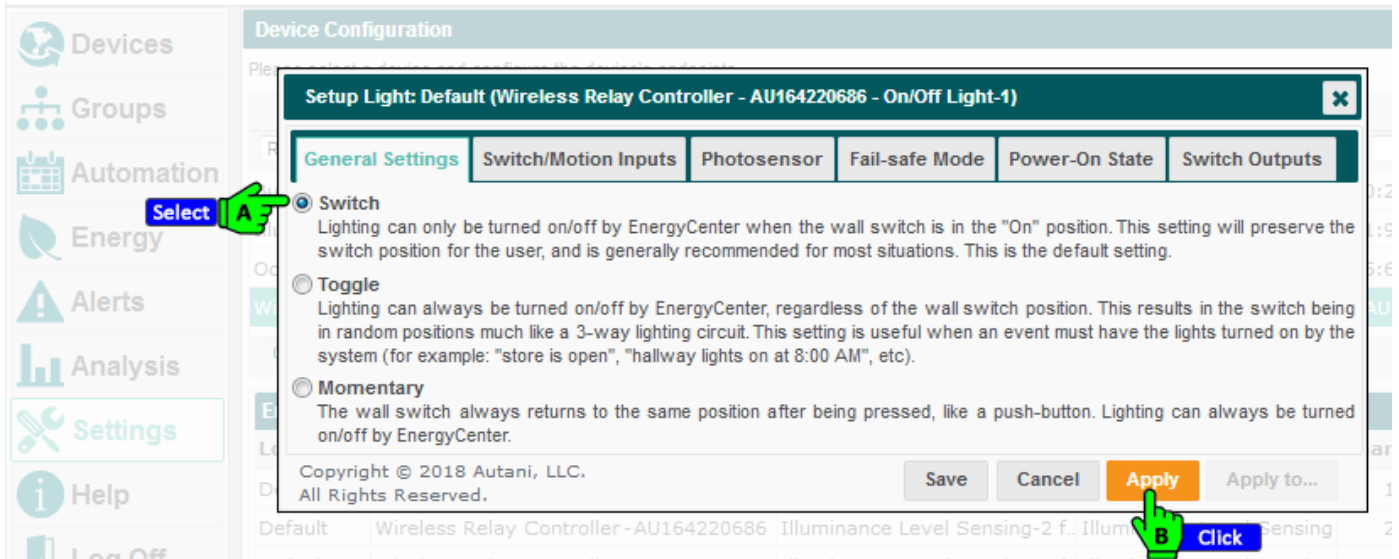
1. Select **Settings > Device Setup > Device Configuration**.



2. The **Device Configuration** page displays the list of available **devices** in top section and **endpoints** for the selected device in the lower section. Search for the applicable WRC by name or serial number, and select it from the search results. Next, select the endpoint **On/Off Light-1** from the list of endpoints. Click **Setup**.

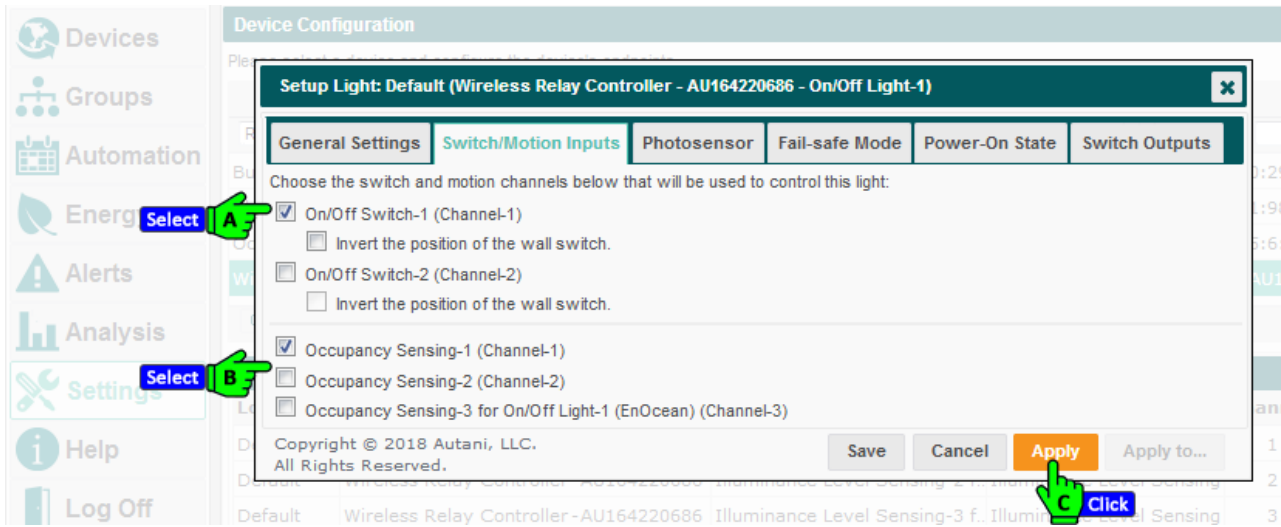


3. The **Setup Light** window appears with the **General Settings** tab selected by default. This tab contains three available modes for light switch behavior. Choose a mode and click **Apply**.

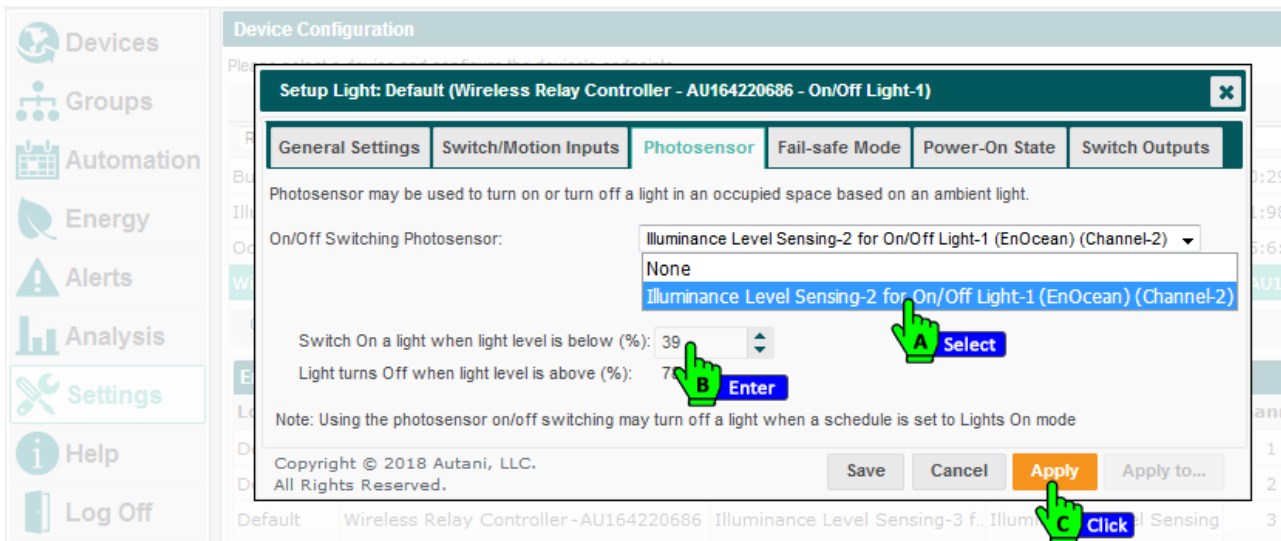


- **Switch** mode: This is the default mode in which the switch works as a maintain switch, where UP is ON and DOWN is OFF.
 - In this mode, if the switch is in the ON position, EnergyCenter® can turn ON/OFF the lighting.
 - If the switch is in the OFF position, EnergyCenter® and the occupancy sensor will not have control to turn ON the lighting until the motion matter bit resets (motion is detected) or the user puts back the switch back to the ON position.
- **Toggle** mode: The switch also works as a maintain switch with a small difference compared to Switch mode.
 - **NOTE:** The main reason to consider this mode is for a three-way switch configuration, where two maintain switches are being used to control the same circuit.
 - In this mode, if the switch is in the ON position, the EnergyCenter® can turn ON/OFF the lighting.
 - If a switch is in the OFF position, EnergyCenter® can turn ON/OFF the lighting, but the occupancy sensor will not have control to turn ON the lighting until the motion matter bit (motion is detected) resets or the user puts the switch back to the ON position.
- **Momentary** mode: The switch works like a push button. One push will turn ON lights, and a second push will to turn OFF lights.
 - The light can always be turned ON/OFF by EnergyCenter®.
 - The first push will turn ON the light if it was previously OFF (press and release).
 - The second push will turn the light OFF if it was previously ON (press and release).

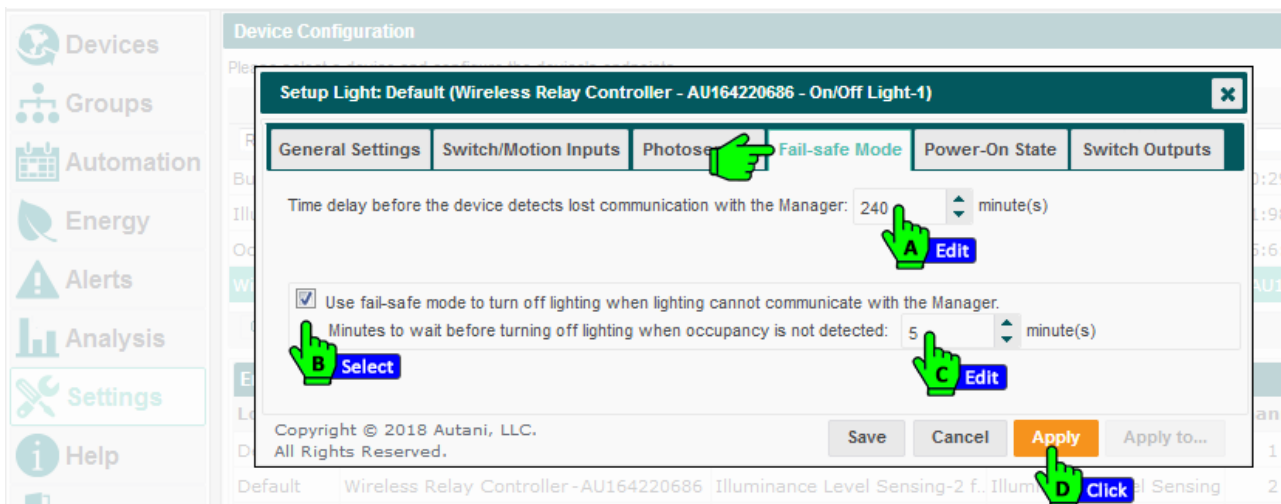
- Select the next tab **Switch/Motion Inputs** and to choose the **Switch** and **Motion** channels to control the light.
NOTE: You can choose both switch channels and multiple sensors to control the light, and this change will also be reflected if dimmable/level configuration is used.



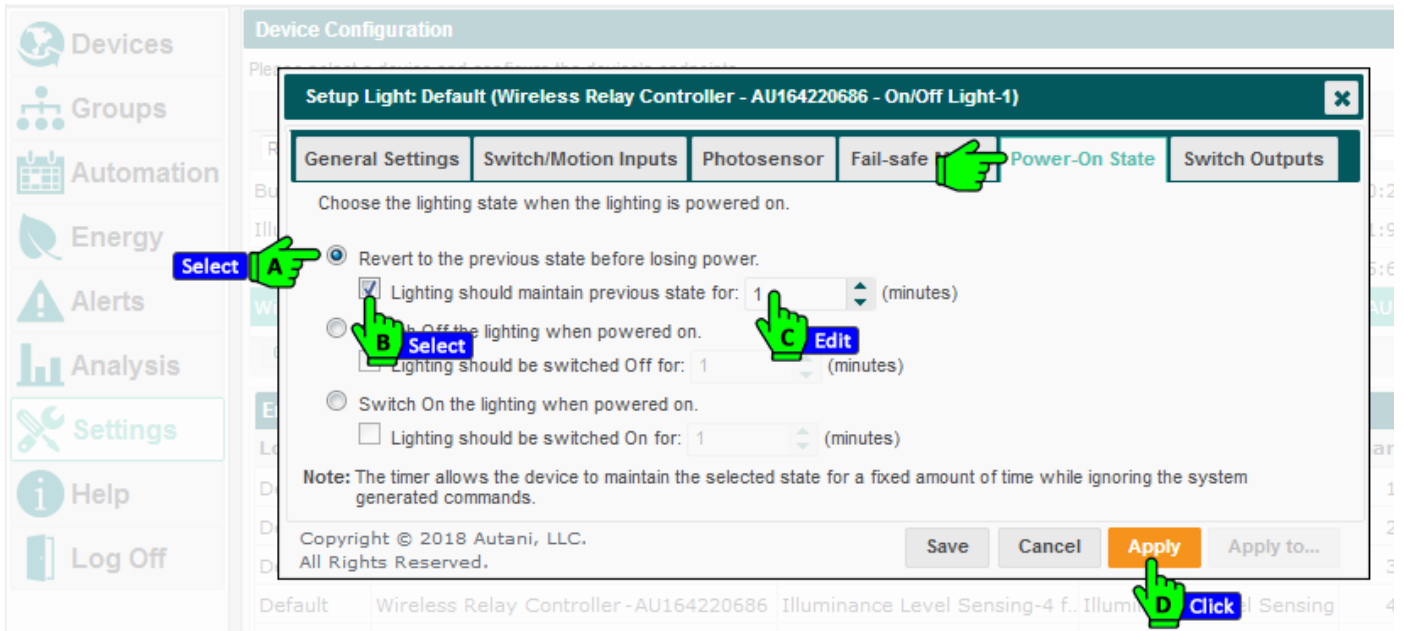
- Select the next tab **Photosensor**. Choose the **photosensor** from the dropdown menu. Set the low luminance level for the light to turn ON, or choose **None** if you do not want to use a photosensor for ON/OFF switching.
NOTE: The high luminance level cannot be edited here.
NOTE: Using the Photosensor ON/OFF switching may turn OFF a light when a schedule is set to lights ON mode.



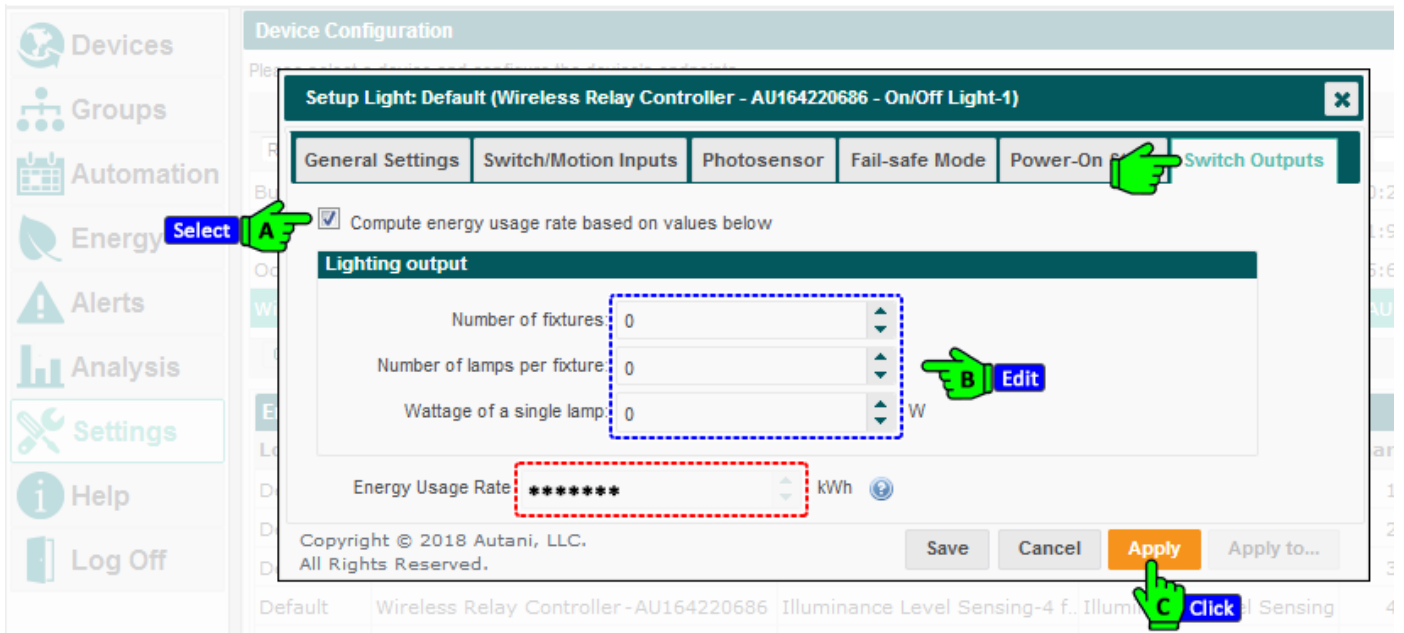
- Select the tab **Fail-safe Mode** to set the time delay for light behavior, if communication with the Manager is lost.



- Select the next tab **Power-On State** to choose a state for lights when they are switched ON. There are three states available. Choose a state and enable the checkbox to enter the duration the light remains in that state.



- Select the next tab **Switch Outputs** to estimate energy use for the lighting system.
 - Start by enabling the feature **Compute energy usage...** and enter the values in the **Lighting output** fields to calculate the energy consumption. The **Energy Usage Rate** will be displayed.
 - For more information on this topic refer to section 12. *Energy Estimation*.

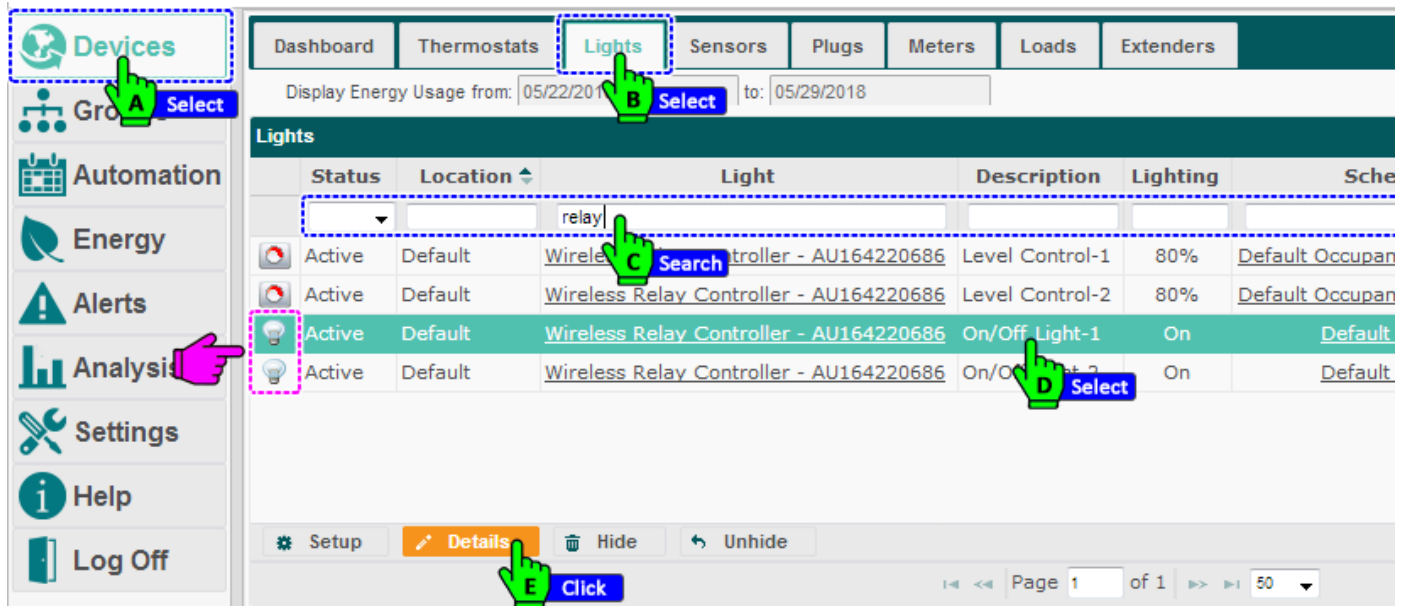


5.3.2. Light Detail

The following procedures are the same for both **On/Off Light-1** and **2** profiles.

1. Select **Devices** > **Lights**. Within the header fields, search for a **WRC** by name or serial number and select an ON/OFF light from the search results. With the device still selected, click on the **Details** button.

NOTE: The icons for the ON/OFF lights are displayed as a bulb .



The screenshot shows the main interface with the following elements:

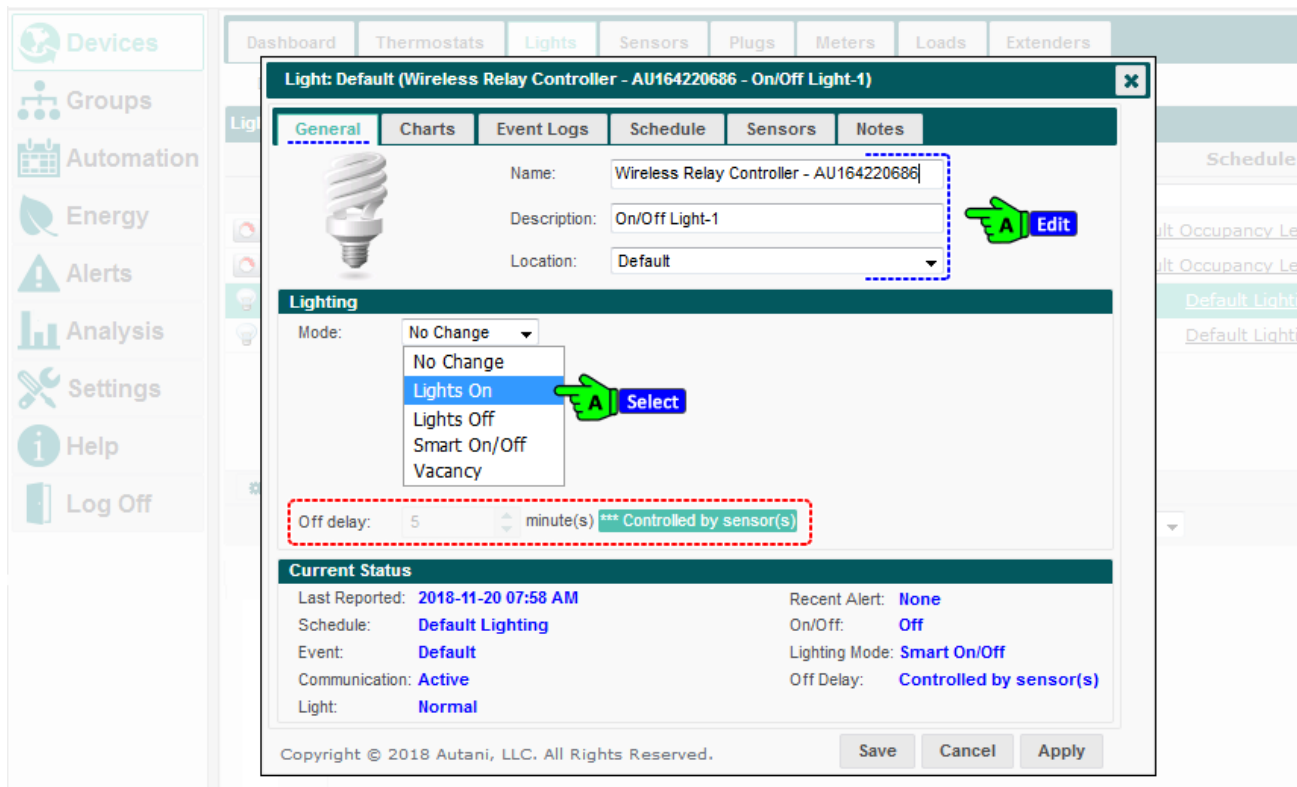
- Navigation:** A sidebar on the left contains 'Devices', 'Automation', 'Energy', 'Alerts', 'Analysis', 'Settings', 'Help', and 'Log Off'. The 'Devices' menu is highlighted with a green box and a hand icon labeled 'A Select'.
- Header:** A top navigation bar includes 'Dashboard', 'Thermostats', 'Lights', 'Sensors', 'Plugs', 'Meters', 'Loads', and 'Extenders'. The 'Lights' tab is selected and highlighted with a green box and a hand icon labeled 'B Select'.
- Search:** A search bar contains the text 'relay', highlighted with a green box and a hand icon labeled 'C Search'.
- Table:** A table lists light profiles. The row for 'On/Off Light-1' is highlighted in green, with a hand icon labeled 'D Select' pointing to its 'Lighting' column.
- Buttons:** At the bottom of the table, there are buttons for 'Setup', 'Details', 'Hide', and 'Unhide'. The 'Details' button is highlighted with a green box and a hand icon labeled 'E Click'.

2. The **Light** window appears with the **General** tab selected by default. Here the user can make on-demand changes to the attributes of the light.

- The top section of the window will allow the user to edit the **Name**, **Description** and **Location** of the lights.
- The **Lighting** section will allow the user to choose a lighting **Mode**.

NOTE: The occupancy-based modes (**Smart On/Off** and **Vacancy**) will only be available if they are already associated with the WRC. Refer to section 8. *Configuring Motion Sensors*.

- Set the **OFF delay** timing for the lights to go OFF. This feature is available for all modes except for Lights ON.



The screenshot shows the configuration window for a light profile with the following sections:

- General:** Fields for 'Name' (Wireless Relay Controller - AU164220686), 'Description' (On/Off Light-1), and 'Location' (Default). A hand icon labeled 'A Edit' points to the description field.
- Lighting:** A dropdown menu for 'Mode' is open, showing options: 'No Change', 'Lights On', 'Lights Off', 'Smart On/Off', and 'Vacancy'. A hand icon labeled 'A Select' points to 'Lights On'.
- Off delay:** A field set to '5 minute(s)' with a note '*** Controlled by sensor(s)'.
- Current Status:** A summary of the light's state, including 'Last Reported: 2018-11-20 07:58 AM', 'Schedule: Default Lighting', 'Event: Default', 'Communication: Active', 'Light: Normal', 'Recent Alert: None', 'On/Off: Off', 'Lighting Mode: Smart On/Off', and 'Off Delay: Controlled by sensor(s)'.

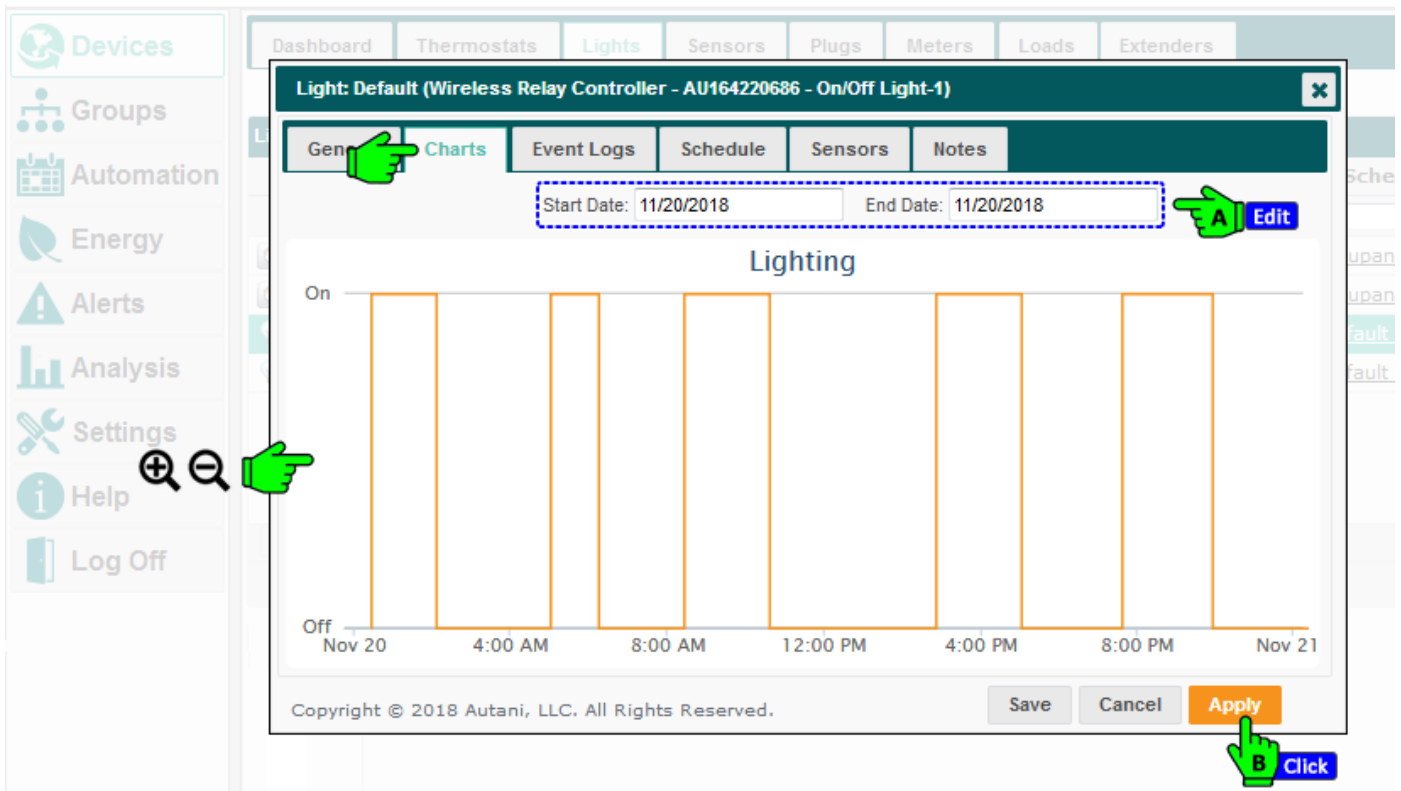
At the bottom of the window are 'Save', 'Cancel', and 'Apply' buttons.

- The lower section of the window has details on the **Current Status** of the attributes of an endpoint:
 - Last Reported:** Time and date information of last communication made by the device with the Autani Manager.
 - Schedule:** Name of the schedule currently assigned to the device from the **Schedule** tab.
 - Event:** Name of the currently running event out of the events in the **Schedule** chosen.
 - Communication:** The status of the communication between the device and network (Active/Error).
 - Light:** Normal / Unknown
 - Recent Alert:** Description of the recent alert (None / Error / Warning)
 - On/Off:** Current status of the device (WRC)
 - Lighting Mode:** Displays the mode set in the **Level** section.
 - Off Delay:** Displays the time delay for a mode, set in the **Lighting** section.

3. Select the next tab **Charts** to see the ON/OFF performance within a chosen date range.

- Choose a date range to see the performance chart.

NOTE: The chart also has a feature to zoom IN and OUT.



- Select the next tab **Event Logs** to see all logged information about the attributes of a light. The log information can be seen for a specific date range. The list can be refreshed, and users can navigate between pages as needed.

Light: Default (Wireless Relay Controller - AU164220686 - On/Off Light-1)

General | **Event Logs** | Schedule | Sensors | Notes

Start Date: 11/20/2018 End Date: 11/20/2018 **Edit**

Recent Events

Start Time	Duration	Description
2018-11-21 06:59:34 AM	00:16:24	Off
2018-11-21 06:36:55 AM	00:22:38	On
2018-11-20 07:37:47 PM	10:59:08	Off
2018-11-20 07:02:50 PM	00:34:57	On
2018-11-20 06:57:56 PM	00:04:54	Off
2018-11-20 05:42:53 PM	01:15:02	On
2018-11-20 05:25:54 PM	00:16:58	Off

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- Select the next tab **Schedule** to view, verify and disable a schedule for the light.
NOTE: It is not recommended to create or edit schedules in this screen. Any changes made here will be overridden by the schedules created through the **Automation** section. (Refer to section 10 *Configuring Schedules.*)

Light: Default (Wireless Relay Controller with EnOcean - AU162020800 - On/Off Light-1)

General | Charts | Event Logs | **Schedule** | Sensors | Notes

Name: Default Lighting **Edit**

Description: This schedule template defines default lighting events.

Disable this schedule

Events for Schedule: Default Lighting

Name	Lighting Mode	M	T	W	T	F	S	S	Time
Default	Turn lights off after 20 minutes of inactivity	✓	✓	✓	✓	✓	✓	✓	03:00 AM

+ New Copy Edit Delete

Copyright © 2018 Autani, LLC. All Rights Reserved. Save Cancel **Apply**

- Select the next tab **Sensors** to view occupancy sensors that are mapped to the selected ON/OFF light channel. Select the required occupancy sensors and click **Apply**.

NOTE: The physically wired sensors are selected and grayed out if they have already been mapped from within the setup screen.

- The list contains sensors from the currently selected WRC, sensors from other WRCs, and sensors from other devices. The occupancy sensors from different devices can also be mapped to the light via virtual association.

Light: Default (Wireless Relay Controller - AU164220686 - On/Off Light-1)

General Charts Event Logs Schedule **Sensors** Notes

Select the sensors that provide inputs to control this device

Location	Sensor	Description	Type
<input type="checkbox"/> Default	Occupancy Sensing	EnOcean Occupancy Se...	Autani
<input checked="" type="checkbox"/> Default	Wireless Relay Controller - AU164220686	Occupancy Sensing-1	Autani
<input checked="" type="checkbox"/> Default	Wireless Relay Controller - AU164220686	Occupancy Sensing-2	Auto
<input type="checkbox"/> Default	Wireless Relay Controller - AU164220686	Occupancy Sensing-5 fo...	Auto
<input type="checkbox"/> Default	Wireless Relay Controller - AU164220686	Occupancy Sensing-6 fo...	Autani
Conference Room	Occupancy Sensing - 019FF914	EnOcean Occupancy Sensor	Autani
<input type="checkbox"/> Default	Wireless Relay Controller - AU164220687	Occupancy Sensing-1	Autani
<input type="checkbox"/> Default	Wireless Relay Controller - AU164220687	Occupancy Sensing-2	Autani

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NOTE: There is NO limit on the number of sensors that can be virtually associated with the light.

NOTE: The virtual association will not work if the software and the Manager are not functioning.

- Select the next tab **Notes** to leave a Note for other users to refer. (Example: The WRC was installed on XX.XX.XXXX date, and the last service was done on XX.XX.XXXX date, etc.) Click within the text box to create a note, and click **Apply** to save the note.

Light: Default (Wireless Relay Controller with EnOcean - AU162020800 - On/Off Light-1)

General Charts Event Logs Schedule **Notes**

The WRC was Installed on 01-05-2018.
The WRC was Serviced on 01-06-2018.
The WRC was Serviced on 20-11-2018.

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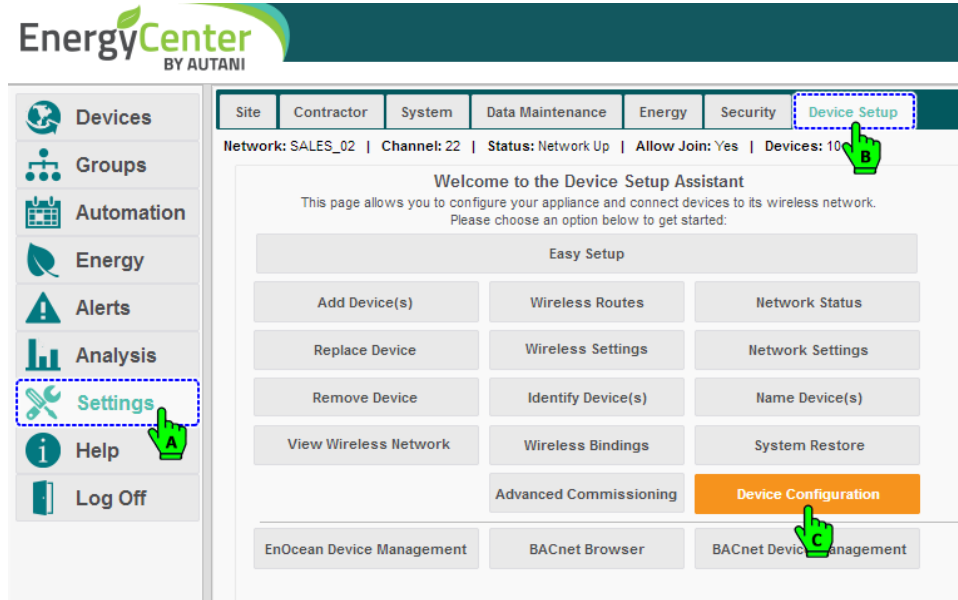
5.4. ON/OFF Load Configuration

5.4.1. ON/OFF Load Setup

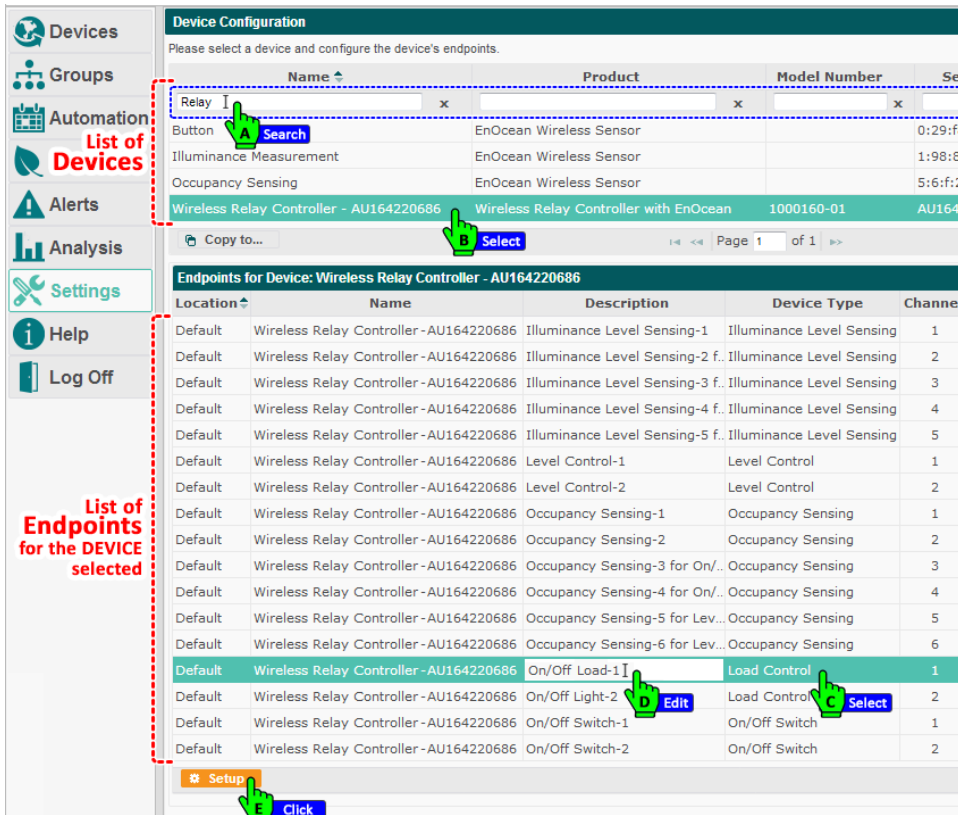
The following procedures are the same for both **Load ON/OFF-1** and **2** configurations. The **Load Setup** can be done through either of the following sections in **EnergyCenter®** software. The **setup** screen will be the same in both sections.

- **Settings > Device Setup > Device Configuration** (Here you will directly select the endpoint Load of WRC.)
- **Devices > Lights** (Here you will select a profile of WRC with ON/OFF feature. The ON/OFF endpoint is enabled through Device Configuration for a WRC. Refer to **Show, Hide or Edit Endpoints for a WRC.**)

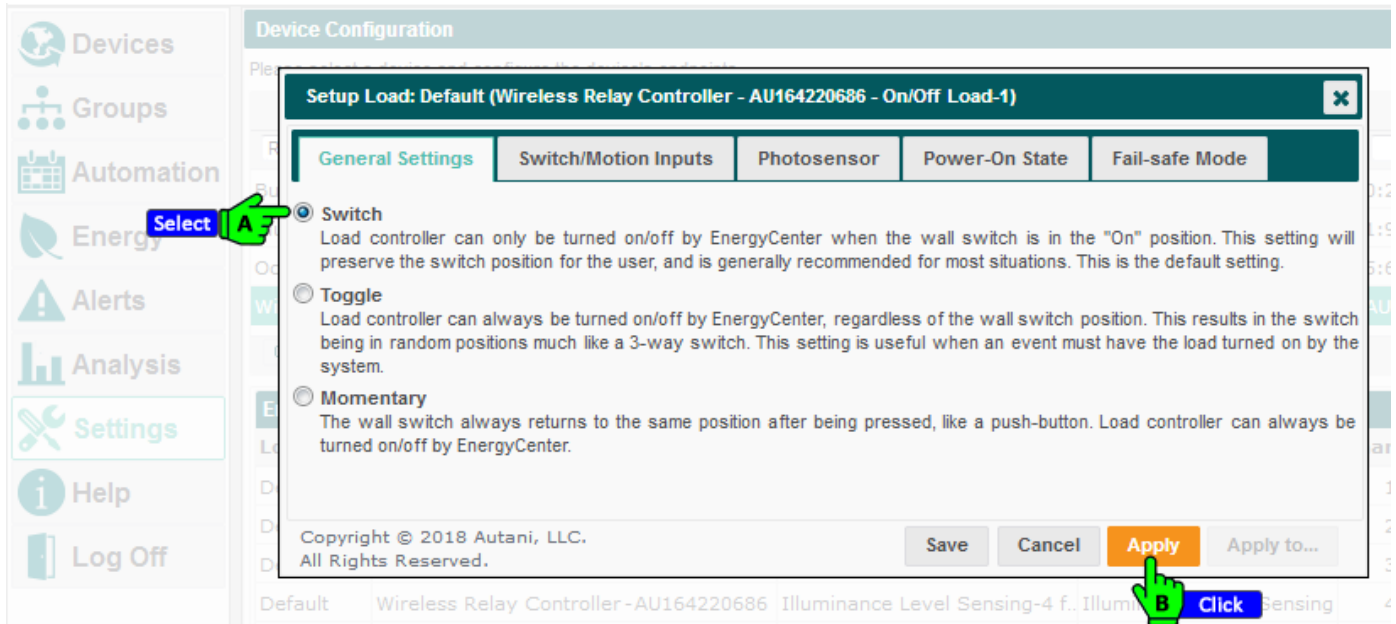
1. Select **Settings > Device Setup > Device Configuration**.



2. The **Device Configuration** page displays the list of available **Devices** on the top section and **Endpoints** for the selected device in the lower section. Search for the applicable **WRC** by name or serial number, and select it from search results. Next select the endpoint **Load Control** from the list of endpoints. Click **Setup**.

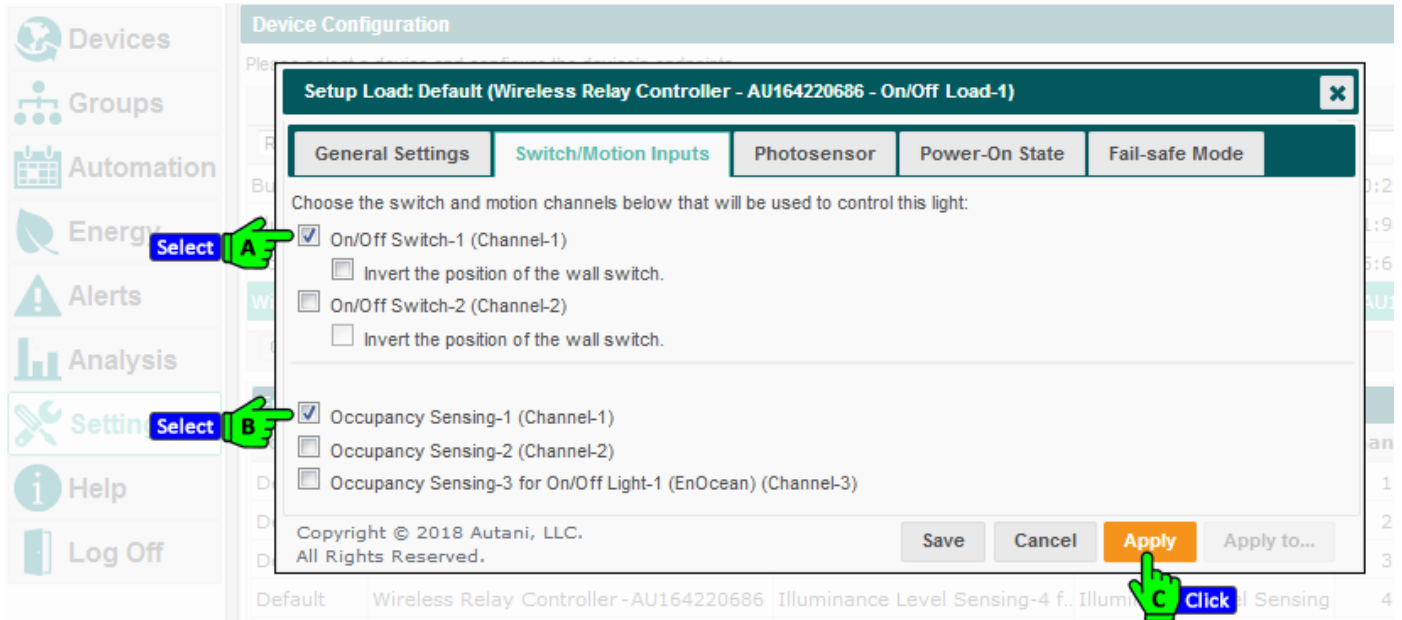


3. The **Setup Load** window appears with the **General Settings** tab selected by default. This tab contains three modes for a switch behavior. Choose a mode and click **Apply**.

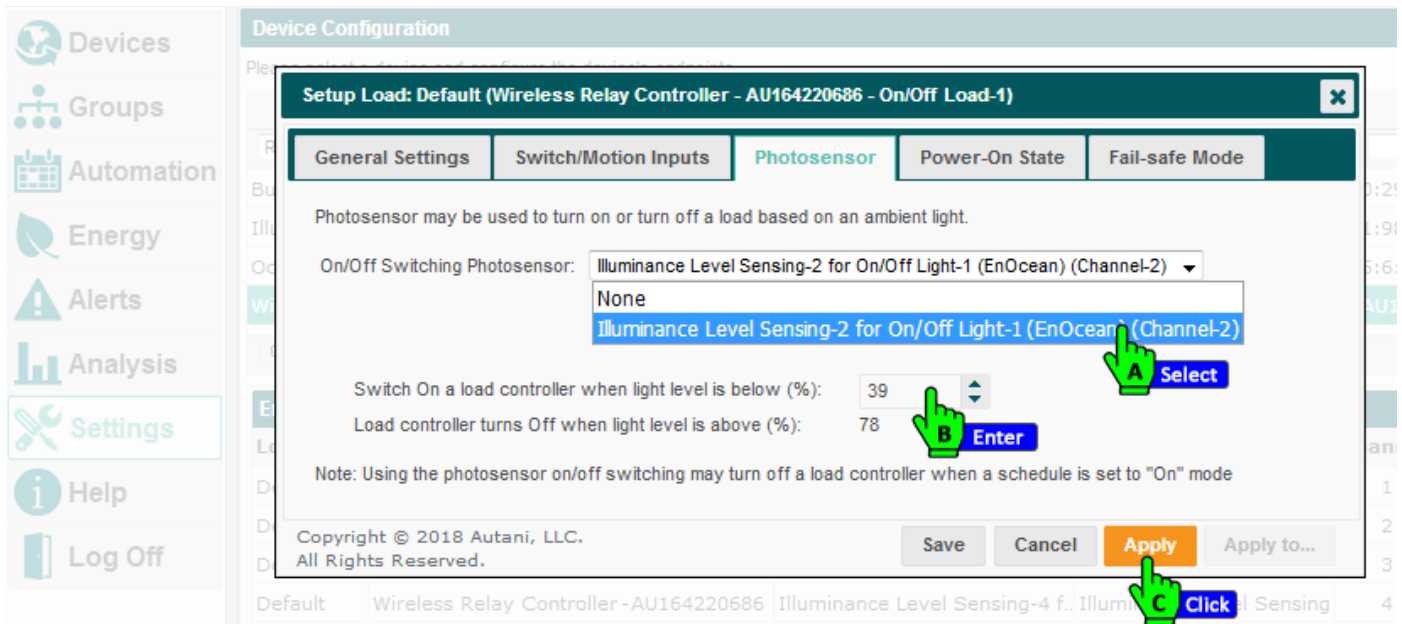


- **Switch** mode: This is the default mode which works as a maintain switch, where UP is ON and DOWN is OFF.
 - In this mode, if the switch is in the ON position, the EnergyCenter® can turn ON/OFF the Load.
 - If the switch is in the OFF position, EnergyCenter® and the occupancy sensor will not have control to turn ON the Load until the motion matter bit resets (motion is detected) or the user puts the switch back to the ON position.
- **Toggle** mode: The switch works as a maintain switch with a small difference compared to Switch mode.
 - **NOTE:** The main reason to consider this mode is for a three-way switch configuration, where two maintain switches are being used to control the same circuit.
 - In this mode, if the switch is in the ON position, EnergyCenter® can turn ON/OFF the Load.
 - If the switch is in the OFF position, EnergyCenter® can turn ON/OFF the Load, but the occupancy sensor will not have control to turn ON the Load until the motion matter bit resets or the user puts the switch back to the ON position.
- **Momentary** mode: The switch works like a push button. One push will turn ON Load, and a second push will turn OFF Load.
 - The Load can always be turned ON/OFF by EnergyCenter®.
 - The first push will turn ON the Load if it was previously OFF (press and release).
 - The second push will turn the Load OFF if it was previously ON (press and release).

4. Select the next tab **Switch/Motion Inputs** and choose the **switch** and **motion** channels to control the load.
NOTE: You can choose both switch channels and multiple sensors to control the load.



5. Select the next tab **Photosensor**. Choose a **photosensor** from the drop-down menu. Set the low luminance level for the light to turn ON, or choose **None** if you do not want to use a photosensor for ON/OFF switching.
NOTE: The high luminance level cannot be edited here.
NOTE: Using the Photosensor ON/OFF switching may turn OFF a load controller when a schedule is sent to ON mode.



6. Select the next tab **Power-On State** to choose how the load behaves when powered ON and set the duration for the chosen state. There are three states available. Choose a state and enable the checkbox (for previous state duration) to enter the duration the load remains in that state.

The screenshot shows the 'Device Configuration' interface with the 'Power-On State' tab selected. The window title is 'Setup Load: Default (Wireless Relay Controller - AU164220686 - On/Off Load-1)'. The tabs are 'General Settings', 'Switch/Motion Inputs', 'Photosensor', 'Power-On State', and 'Fail-safe Mode'. The 'Power-On State' tab is active, showing three radio button options: 'Revert to the previous state before losing power.' (selected), 'Maintain previous state when powered on.', and 'Switch On the load when powered on.'. Each option has a checkbox for 'Load should be switched [On/Off] for: 1 (minutes)'. A green hand icon labeled 'A' points to the 'Revert' radio button, 'B' points to the 'Maintain' radio button, and 'C' points to the '1' in the 'Load should be switched Off for' field. At the bottom, a green hand icon labeled 'D' points to the 'Apply' button. The left sidebar contains 'Devices', 'Groups', 'Automation', 'Energy', 'Alerts', 'Analysis', 'Settings', 'Help', and 'Log Off'. The bottom of the window shows 'Copyright © 2018 Autani, LLC. All Rights Reserved.' and buttons for 'Save', 'Cancel', 'Apply', and 'Apply to...'.

7. Select the next tab **Fail-safe Mode** to set the time delay for the load, if communication with the Manager is lost.

The screenshot shows the 'Device Configuration' interface with the 'Fail-safe Mode' tab selected. The window title is 'Setup Load: Default (Wireless Relay Controller - AU164220686 - On/Off Load-1)'. The tabs are 'General Settings', 'Switch/Motion Inputs', 'Photosensor', 'Power-On State', and 'Fail-safe Mode'. The 'Fail-safe Mode' tab is active, showing a 'Time delay before the device detects lost communication with the Manager: 240 minute(s)'. Below this is a checkbox 'Use fail-safe mode to turn off load controller when the load controller cannot communicate with the Manager.' which is checked. Underneath is a field 'Minutes to wait before turning off load controller when occupancy is not detected: 5 minute(s)'. A green hand icon labeled 'A' points to the '240' value, 'B' points to the checked checkbox, and 'C' points to the '5' in the 'Minutes to wait' field. At the bottom, a green hand icon labeled 'D' points to the 'Apply' button. The left sidebar contains 'Devices', 'Groups', 'Automation', 'Energy', 'Alerts', 'Analysis', 'Settings', 'Help', and 'Log Off'. The bottom of the window shows 'Copyright © 2018 Autani, LLC. All Rights Reserved.' and buttons for 'Save', 'Cancel', 'Apply', and 'Apply to...'.

5.4.2. ON/OFF Load Detail

The following procedures are the same for both **ON/OFF Load-1** and **2**.

1. Select **Devices > Loads**. Within the header fields, search for a device (**WRC**) by name or serial number. Select **ON/OFF Load-1** from the search result. With the device still selected, click on **Details** button.
NOTE: The **Loads** tab will not be visible in **Devices** section until an endpoint is set for Load Control within the Device Configuration section. (Refer to section 5.1.2 Available Endpoints for a WRC.)
NOTE: The icons for the ON/OFF loads are displayed as a ⚡.

The screenshot shows the 'Loads' section of the interface. The left sidebar has 'Devices' selected. The top navigation bar has 'Loads' selected. A search bar contains 'relay'. The table below shows two load entries:

Status	Location	Load	Description
⚡ Active	Default	Wireless Relay Controller - AU164220686	On/Off Load-1
⚡ Active	Default	Wireless Relay Controller - AU164220686	On/Off Load-2

Buttons for 'Setup', 'Details', 'Hide', and 'Unhide' are visible at the bottom. The 'Details' button is highlighted with a green arrow labeled 'E Click'.

2. The **Load** window appears with the **General** tab selected by default. Here the user can make on-demand changes to the attributes of a load.

The screenshot shows the 'Load: Default (Wireless Relay Controller - AU164220686 - On/Off Load-1)' window. The 'General' tab is selected. The fields are:

- Name: Wireless Relay Controller - AU164220686
- Description: On/Off Light-1
- Location: Default

The 'Load' section shows 'Change State' set to 'On'.

The 'Off delay' is set to 5 minute(s) *** Controlled by sensor(s).

The 'Current Status' section shows:

- Last Reported: 2018-11-28 07:02 AM
- Recent Alert: None
- Schedule: Empty
- Current State: Off
- Event: Not Found
- Load Mode: Smart On/Off
- Communication: Active
- Off Delay: Controlled by sensor(s)
- Load: Normal

Buttons for 'Save', 'Cancel', and 'Apply' are visible at the bottom. The 'Apply' button is highlighted with a green arrow labeled 'C Click'.

- The top section of the window will allow the user to edit the Name, Description and Location of the load.
- The **Load** section will allow the user to choose a load control **Mode**.
- Set the **Off delay** time for the load to go OFF. **NOTE:** This feature is available for all modes except for ON mode.
- **NOTE:** The occupancy-based modes (**Smart On/Off** and **Vacancy**) will only be available if they are already associated with the WRC. (Refer to section 8. *Configuring Motion Sensors*).
- The lower section of the window has details on the **Current Status** of the attributes of an endpoint.

Last Reported: Time and date information of last communication made by device with the Autani Manager.

Schedule: Name of the schedule currently assigned to the device from the **Schedule** tab.

Event: Name of the currently running event from the events in the **Schedule** chosen.

Communication: The status of the communication between the Device and network (Active/Error).

Load: Normal/Unknown

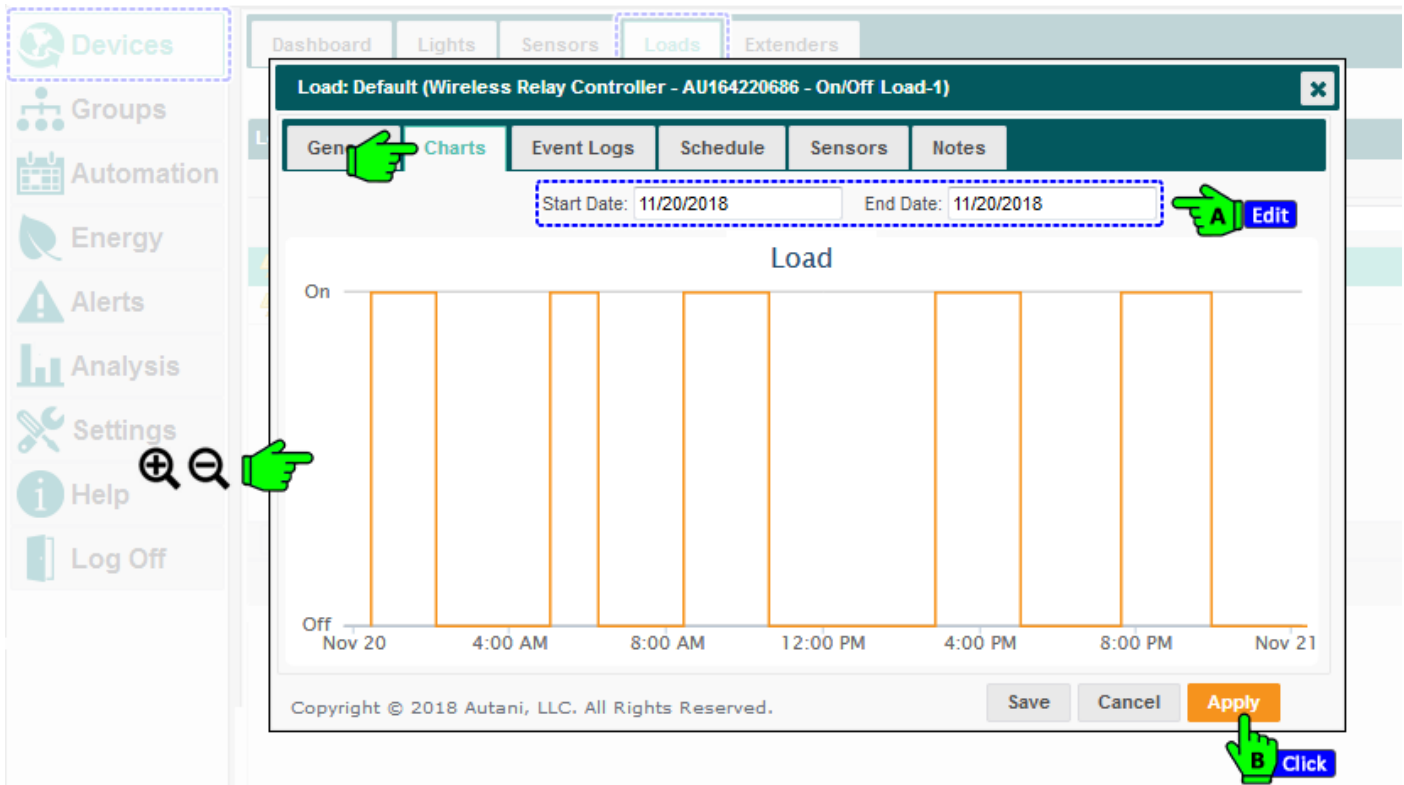
Recent Alert: Description of the recent alert (None/Error/Warning)

Current State: Current state of the load (ON/OFF).

Load Mode: Displays the Mode selected in the **Load** section.

Off Delay: Displays the time delay for a load mode selected in the **Load** section.

3. Select the next tab **Charts** to see the ON/OFF performance of a load. Choose a date range to see the performance chart for that period. The chart has a feature to zoom IN and OUT.



- Select the next tab **Event Logs** to see all logged information about the attributes of a load. The log information can be seen for a specific date range. The list can be refreshed, and users can navigate between pages as needed.

Load: Default (Wireless Relay Controller - AU164220686 - On/Off Load-1)

General | Charts | **Event Logs** | Schedule | Sensors | Notes

Start Date: 11/20/2018 End Date: 11/20/2018 **Edit**

Start Time	Duration	Description
2018-11-21 06:59:34 AM	00:16:24	Off
2018-11-21 06:36:55 AM	00:22:38	On
2018-11-20 07:37:47 PM	10:59:08	Off
2018-11-20 07:02:50 PM	00:34:57	On
2018-11-20 06:57:56 PM	00:04:54	Off
2018-11-20 05:42:53 PM	01:15:02	On
2018-11-20 05:25:54 PM	00:16:58	Off

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- Select the next tab **Schedule** to view, verify and disable a schedule for the load.
NOTE: It is not recommended to create or edit schedules in this screen. Any changes made here will be overridden by the schedules created through the **Automation** section. (Refer to section 10. *Configuring Schedules*).

Load: Default (Wireless Relay Controller with EnOcean - AU162020800 - On/Off Load-1)

General | Charts | Event Logs | **Schedule** | Sensors | Notes

Name: Default Load **Edit**

Description: This schedule template may be used to disable load events.

Disable this schedule

Verify

Name	Lighting Mode	M	T	W	T	F	S	S	Time
Default	Turn load off after 20 minutes of inactivity	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	03:00 AM

+ New Copy Edit Delete

Copyright © 2018 Autani, LLC. All Rights Reserved. Save Cancel **Apply** **Click**

6. Select the next tab **Sensors** to view a list of occupancy sensors that can be mapped to a selected ON/OFF load channel.

NOTE: The physically wired sensors are selected and grayed out if they are already been mapped from within the setup screen.

- The list contains sensors from the currently selected WRC, sensors from other WRCs, and sensors from other devices. These occupancy sensors from different devices can also be mapped to the load via virtual association.
- Select the required occupancy sensors and click **Apply**.

Light: Default (Wireless Relay Controller - AU164220686 - On/Off Load-1)

General Charts Event Logs Schedule **Sensors** Notes

Select the sensors that provide inputs to control this device

Location	Sensor	Description	Type
<input type="checkbox"/> Default	Occupancy Sensing	EnOcean Occupancy Se...	Autani
<input checked="" type="checkbox"/> Default	Wireless Relay Controller - AU164220686	Occupancy Sensing-1	Autani
<input checked="" type="checkbox"/> Default	Wireless Relay Controller - AU164220686	Occupancy Sensing-2	Auto
<input type="checkbox"/> Default	Wireless Relay Controller - AU164220686	Occupancy Sensing-5 fo...	Auto
<input type="checkbox"/> Default	Wireless Relay Controller - AU164220686	Occupancy Sensing-6 fo...	Autani
<input type="checkbox"/> Conference Room	Occupancy Sensing - 019FF914	EnOcean Occupancy Sensor	Autani
<input type="checkbox"/> Default	Wireless Relay Controller - AU164220687	Occupancy Sensing-1	Autani
<input type="checkbox"/> Default	Wireless Relay Controller - AU164220687	Occupancy Sensing-2	Autani

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Save Cancel **Apply**

NOTE: There is NO limit on the number of sensors that can be virtually associated with the load.

NOTE: The virtual association will not work if the software and the Manager are not functioning.

7. Select the next tab **Notes** to leave a note for other users to refer. Click within the text box to create a note, and click **Apply** to save the note.

Load: Default (Wireless Relay Controller with EnOcean - AU162020800 - On/Off Load-1)

General Charts Event Logs Schedule Sensors **Notes**

The WRC was Installed on 01-05-2018.
The WRC was Serviced on 01-06-2018.
The WRC was Serviced on 20-11-2018.

Edit

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Save Cancel **Apply**

5.5. Mixed Profile Configuration

The WRC can support mixed profile configurations. This section will show an example of a mixed profile using two different channels of the WRC: **Level Control-1** and **On/Off Light-2**. As this document is covering two-circuit configurations, we will keep Level Control-1 as is for Dimmable Control and replace the Level Control-2 with On/Off Light-2.

1. To define the Level Control and ON/OFF Light channels, select **Settings > Device Setup > Device Configuration**.

The screenshot shows the web interface with a sidebar on the left containing menu items: Devices, Groups, Automation, Energy, Alerts, Analysis, Settings (highlighted with a dashed blue box and a green hand cursor labeled 'A'), Help, and Log Off. The main content area has a top navigation bar with tabs: Site, Contractor, System, Data Maintenance, Energy, Security, and Device Setup (highlighted with a dashed blue box and a green hand cursor labeled 'B'). Below the tabs, the network information is displayed: Network: SALES_02 | Channel: 22 | Status: Network Up | Allow Join: Yes | Devices: 10. The main content area is titled 'Welcome to the Device Setup Assistant' and contains a grid of buttons for 'Easy Setup' and 'Advanced Commissioning'. The 'Device Configuration' button in the 'Advanced Commissioning' section is highlighted with a dashed blue box and a green hand cursor labeled 'C'.

2. The **Device Configuration** page displays the list of available devices on the top section and endpoints for the selected device in the bottom section. Search for the applicable WRC by name or serial number, and select it from the search results. At present we have two circuits of control, assigned to Level Control-1 and Level Control-2.

The screenshot shows the 'Device Configuration' page. At the top, there is a header 'Device Configuration' and a sub-header 'Please select a device and configure the device's endpoints.' Below this is a table of available devices with columns: Name, Product, Model Number, and Serial Number. The 'Search' button is highlighted with a dashed blue box and a green hand cursor labeled 'A'. The 'Select' button is highlighted with a dashed blue box and a green hand cursor labeled 'B'. Below the table of devices is a table of endpoints for the selected device: 'Wireless Relay Controller with EnOcean - AU154320005'. This table has columns: Location, Name, Description, Device Type, Channel, Display, and Actions. The table is highlighted with a dashed blue box.

Name	Product	Model Number	Serial Number
Relay	rela		
Conference Wireless Relay Controller - AU162020786	Wireless Relay Controller with EnOcean	1000160-03	AU162020786
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller with EnOcean	1000160-03	AU154320005
Wireless Relay Controller with EnOcean - AU162020792	Wireless Relay Controller with EnOcean	1000160-03	AU162020792
Wireless Relay Controller with EnOcean - AU162020800	Wireless Relay Controller with EnOcean	1000160-03	AU162020800
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller with EnOcean	1000160-03	AU162020845
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller with EnOcean	1000160-03	AU162020877

Location	Name	Description	Device Type	Channel	Display	Actions
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-1	Illuminance Level Sensing	1	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-2 for On/Off Light-1 (EnOcean)	Illuminance Level Sensing	2	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-3 for On/Off Light-2 (EnOcean)	Illuminance Level Sensing	3	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-4 for Level Control-1(EnOcean)	Illuminance Level Sensing	4	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-5 for Level Control-2(EnOcean)	Illuminance Level Sensing	5	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-1	Level Control	1	<input checked="" type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-2	Level Control	2	<input checked="" type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-1	Occupancy Sensing	1	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-2	Occupancy Sensing	2	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-3 for On/Off Light-1 (EnOcean)	Occupancy Sensing	3	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-4 for On/Off Light-2 (EnOcean)	Occupancy Sensing	4	<input type="checkbox"/>	Edit

- We will keep Level Control-1 as is for dimming and replace Level Control-2 with On/Off Light-2. With the WRC still selected, click **Edit** on the endpoints **Load Control-2** and **Low End Cutoff**.

Device Configuration

Please select a device and configure the device's endpoints.

Name	Product	Model Number	Serial Number
Relay	rela		
Confere Wireless Relay Controller - AU162020786	Wireless Relay Controller with EnOcean	1000160-03	AU162020786
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller with EnOcean	1000160-03	AU154320005
Wireless Relay Controller with EnOcean - AU162020792	Wireless Relay Controller with EnOcean	1000160-03	AU162020792
Wireless Relay Controller with EnOcean - AU162020800	Wireless Relay Controller with EnOcean	1000160-03	AU162020800
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller with EnOcean	1000160-03	AU162020845
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller with EnOcean	1000160-03	AU162020877

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Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005

Location	Name	Description	Device Type	Channel	Display	Actions
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-1	Illuminance Level Sensing	1	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-2 for On/Off Light-1 (EnOcean)	Illuminance Level Sensing	2	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-3 for On/Off Light-2 (EnOcean)	Illuminance Level Sensing	3	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-4 for Level Control-1(EnOcean)	Illuminance Level Sensing	4	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-5 for Level Control-2(EnOcean)	Illuminance Level Sensing	5	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-1	Level Control	1	<input checked="" type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-2	Level Control	2	<input checked="" type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-1	Occupancy Sensing	1	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-2	Occupancy Sensing	2	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-3 for On/Off Light-1 (EnOcean)	Occupancy Sensing	3	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-4 for On/Off Light-2 (EnOcean)	Occupancy Sensing	4	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-5 for Level Control-1 (EnOcean)	Occupancy Sensing	5	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-6 for Level Control-2 (EnOcean)	Occupancy Sensing	6	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-1	Low End Cutoff	1	<input checked="" type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-2	Low End Cutoff	2	<input checked="" type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-1	On/Off Switch	1	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-2	On/Off Switch	2	<input type="checkbox"/>	Edit

- Hide **Level Control-2** by un-checking the display button. Click **Save**. Change the Low End Cutoff to On/Off Light and click **Save**.

Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005

Location	Name	Description	Device Type	Channel	Display	Actions
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-1	Illuminance Level Sensing	1	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-2 for On/Off Light-1 (EnOcean)	Illuminance Level Sensing	2	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-3 for On/Off Light-2 (EnOcean)	Illuminance Level Sensing	3	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-4 for Level Control-1(EnOcean)	Illuminance Level Sensing	4	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-5 for Level Control-2(EnOcean)	Illuminance Level Sensing	5	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-1	Level Control	1	<input checked="" type="checkbox"/>	Edit
Default	Wireless Relay Controller with EnOcean - AU1543...	Level Control-2	Level Control	2	<input type="checkbox"/>	Save/Cancel
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-1	Occupancy Sensing	1	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-2	Occupancy Sensing	2	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-3 for On/Off Light-1 (EnOcean)	Occupancy Sensing	3	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-4 for On/Off Light-2 (EnOcean)	Occupancy Sensing	4	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-5 for Level Control-1 (EnOcean)	Occupancy Sensing	5	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-6 for Level Control-2 (EnOcean)	Occupancy Sensing	6	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-1	Low End Cutoff	1	<input checked="" type="checkbox"/>	Edit
Default	Wireless Relay Controller with EnOcean - AU154...	On/Off Light-2	On/Off Light	2	<input checked="" type="checkbox"/>	Save/Cancel
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-1	On/Off Switch	1	<input type="checkbox"/>	Edit
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-2	On/Off Switch	2	<input type="checkbox"/>	Edit

Setup

5. Select **Devices** > **Lights**. Within the header fields, search for the **WRC** with serial number (the one configured in previous steps). The two channels **Level Control-1** and **On/Off Light-2** are now listed.

Dashboard Thermostats **Lights** Sensors Plugs Meters Loads Extenders

Display Energy Usage from: 05/22/2018 to: 05/29/2018

Lights

Status	Location	Light	Description	Lighting	Sc
Active	Default	Wireless Relay Controller - AU15432005	Level Control-1	80%	Default Occup
Active	Default	Wireless Relay Controller - AU15432005	On/Off Light-2	Off	Defau

Setup Details Hide Unhide

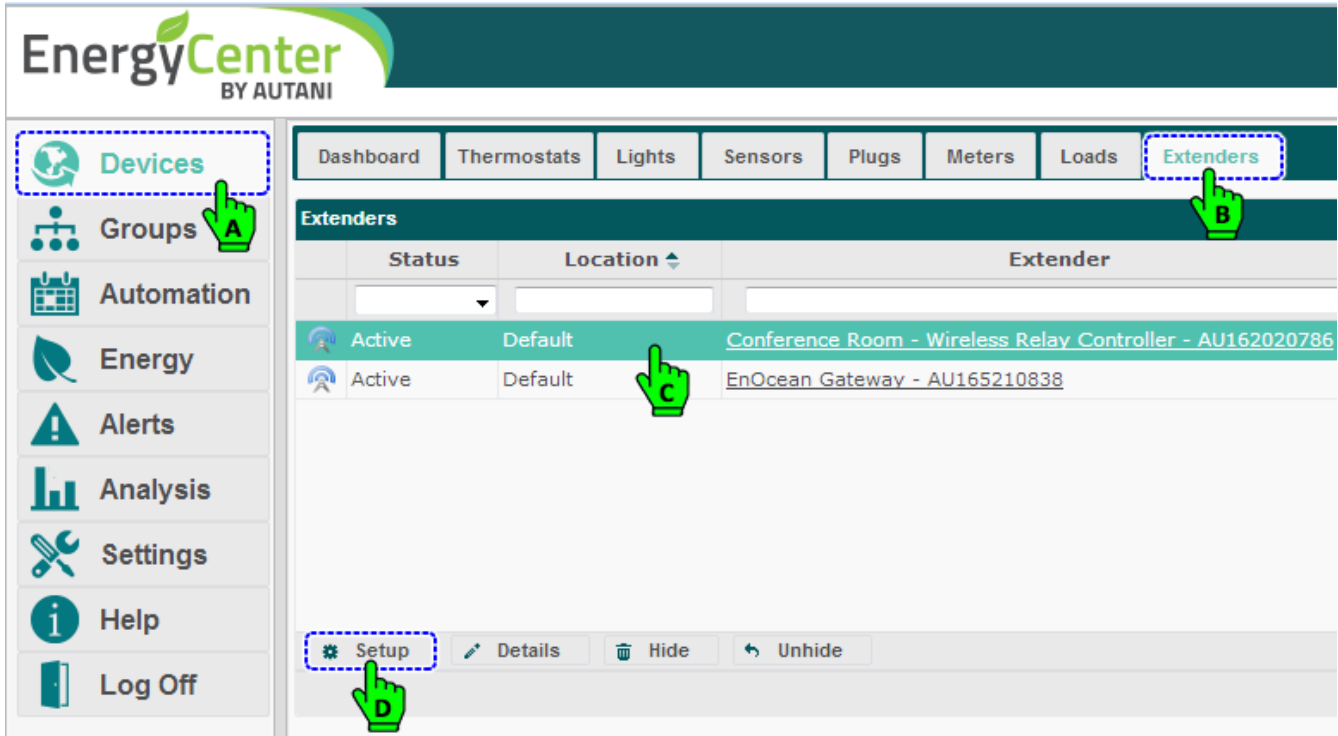
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6. To configure Level Control-1, refer to **Level Control (Dimming Configuration)**
7. To configure On/Off Light-2, refer to **ON / OFF Light Configuration**

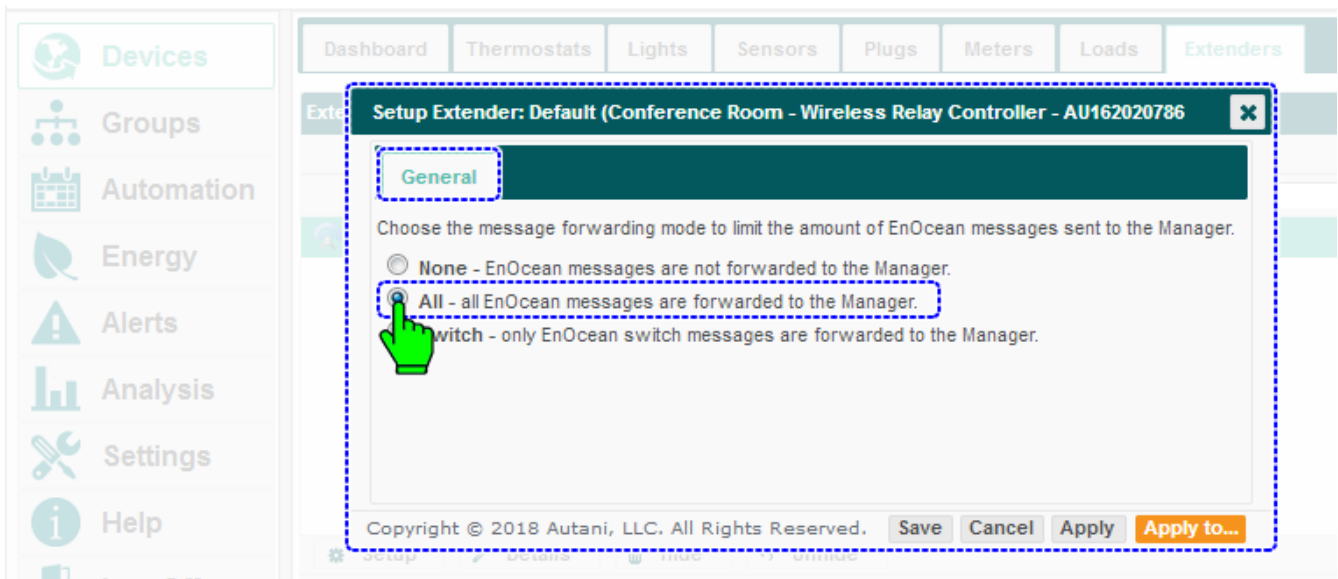
5.6. Passthrough Feature

Another major functionality of the **WRC** is the General Pass-through feature, where in the sensor readings received by the WRC are directly transmitted to the Autani Manager's EnergyCenter® Software, via the autaniNet wireless network. The pass-through application can also be used with other select EnOcean sensors that Autani has certified capability with.

1. The **WRC** is available inside the **Devices** section under the **Extenders** tab. Proceed further to commission the device.
2. Click **Devices > Extenders** tab, select your **Wireless Relay Controller** from the list, and click **Setup** to configure.



3. The **Setup Extender** pop-up menu appears with three options for the Passthrough feature. The user can choose to limit the amount of EnOcean messages sent to the Autani Manager.
 - Select the option **All - all EnOcean messages are forwarded to the Manager** to forward all the messages. **Save & Apply** the settings.



4. The user can add EnOcean accessories through **Settings > Device Setup > Add Devices** if the given EnOcean device is within 80-100 feet line of sight to the WRC.

6. Configuring Switches

6.1. Configuring Wired Switches for Low End Cutoff

1. To configure wired switches, select **Settings > Device Setup > Device Configuration**.

The screenshot shows the left-hand navigation menu with 'Settings' highlighted. The main content area displays the 'Device Setup' tab, which includes a 'Welcome to the Device Setup Assistant' message and a grid of options. The 'Device Configuration' button is highlighted in orange.

Site: SALES_02 | Channel: 22 | Status: Network Up | Allow Join: Yes | Devices: 10

Welcome to the Device Setup Assistant
This page allows you to configure your appliance and connect devices to its wireless network.
Please choose an option below to get started:

Easy Setup

Add Device(s)	Wireless Routes	Network Status
Replace Device	Wireless Settings	Network Settings
Remove Device	Identify Device(s)	Name Device(s)
View Wireless Network	Wireless Bindings	System Restore
Advanced Commissioning		Device Configuration
EnOcean Device Management	BACnet Browser	BACnet Device Management

2. In the Device Configuration page, search for the applicable **WRC** by name or serial number, and select it from the search result. Select the endpoint **Low End Cutoff** in the lower section, and click **Setup**.

The screenshot shows the 'Device Configuration' page. A search for 'Relay' has been performed, resulting in a list of 'Wireless Relay Controller with EnOcean' devices. The device with serial number 'AU154320005' is selected. Below the search results, the 'Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005' are listed. The 'Low End Cutoff' endpoint is highlighted, and the 'Setup' button is visible at the bottom.

Device Configuration
Please select a device and configure the device's endpoints.

Name	Product	Model Number	Serial Number
Relay I	x rela		
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller with EnOcean	1000160-03	AU15432
Wireless Relay Controller with EnOcean - AU162020786	Wireless Relay Controller with EnOcean	1000160-03	AU16202
Wireless Relay Controller with EnOcean - AU162020792	Wireless Relay Controller with EnOcean	1000160-03	AU16202
Wireless Relay Controller with EnOcean - AU162020800	Wireless Relay Controller with EnOcean	1000160-03	AU16202
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller with EnOcean	1000160-03	AU16202
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller with EnOcean	1000160-03	AU16202

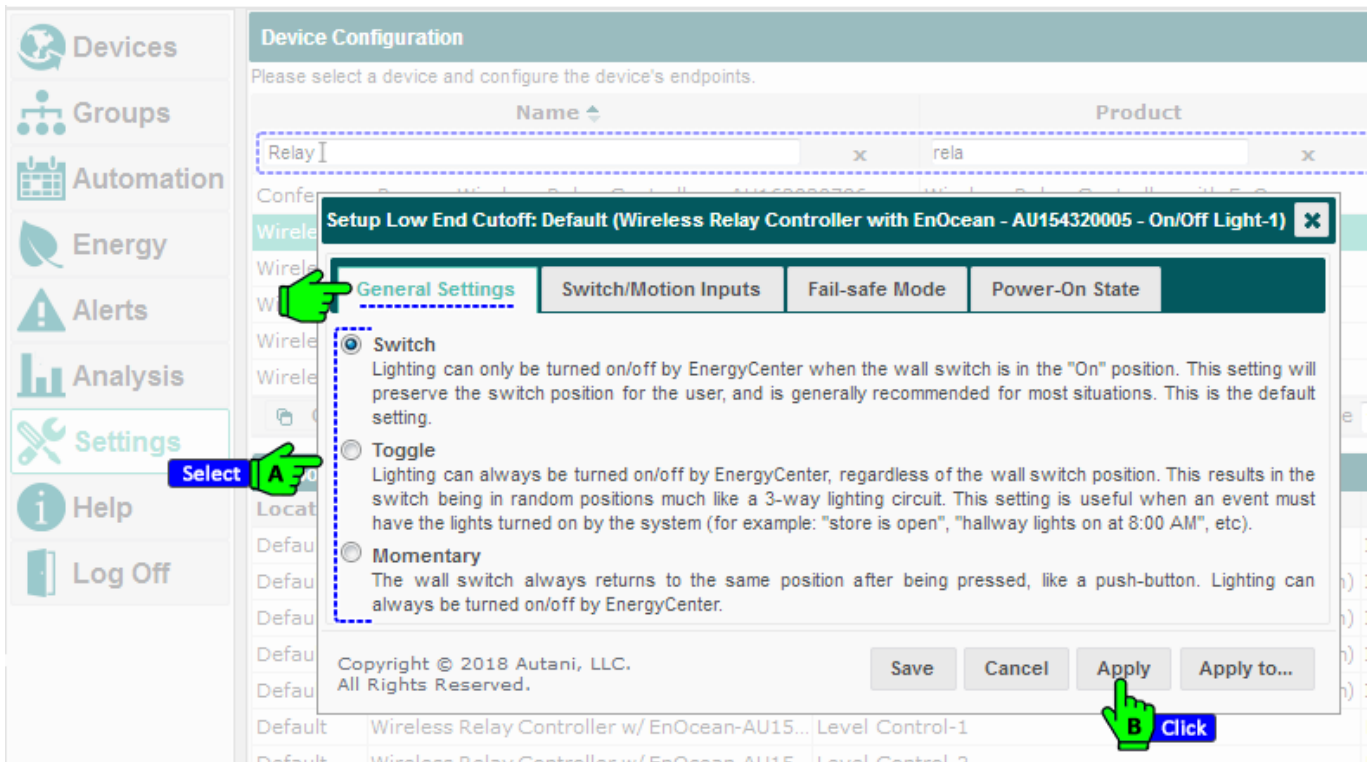
Copy to... Page 1 of 1

Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005

Location	Name	Description	Device Type	Channel
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-1	Illuminance Level Sensing	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-2 for On/Off Light-1 (EnOcean)	Illuminance Level Sensing	2
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-3 for On/Off Light-2 (EnOcean)	Illuminance Level Sensing	3
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-4 for Level Control-1(EnOcean)	Illuminance Level Sensing	4
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-5 for Level Control-2(EnOcean)	Illuminance Level Sensing	5
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-1	Level Control	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-2	Level Control	2
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-1	Occupancy Sensing	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-2	Occupancy Sensing	2
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-3 for On/Off Light-1 (EnOcean)	Occupancy Sensing	3
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-4 for On/Off Light-2 (EnOcean)	Occupancy Sensing	4
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-5 for Level Control-1 (EnOcean)	Occupancy Sensing	5
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-6 for Level Control-2 (EnOcean)	Occupancy Sensing	6
Default	Wireless Relay Controller w/ EnOcean-AU154...	On/Off Light-1	Low End Cutoff	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-2	Low End Cutoff	2
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-1	On/Off Switch	1
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-2	On/Off Switch	2

Setup Click

3. The **Setup** window appears for the **Low End Cutoff** endpoint, displaying the **General Settings** tab by default. This tab contains three modes for how a switch will behave. Choose one of the switch mode, click **Apply**.



- **Switch** mode: This is the default mode in which the switch works as a maintain switch, where UP is ON and DOWN is OFF.
 - In this mode, if the switch is in the ON position, EnergyCenter® can turn ON/OFF the lighting.
 - If the switch is in the OFF position, EnergyCenter® and the Occupancy Sensor will not have control to turn ON the lighting until the motion matter bit resets (motion is detected) or the user puts the switch back to the ON position.
- **Toggle** mode: The switch works as a maintain switch with a small difference compared to Switch mode.
 - **NOTE:** The main reason to consider this mode is for a three-way switch configuration, where two maintain switches are being used to control the same circuit.
 - In this mode, if the switch is in the ON position, EnergyCenter® can turn ON/OFF the lighting.
 - If a switch is in the OFF position, EnergyCenter® can turn ON/OFF the lighting, but the occupancy sensor will not have control to turn ON the lighting until the motion matter bit (motion is detected) resets or the user puts the switch back to the ON position.
- **Momentary** mode: The switch works like a push button. One push will turn ON lights, and a second push will turn OFF lights.
 - The light can always be turned ON/OFF by EnergyCenter®.
 - The first push will turn ON the light if it was previously OFF (press and release).
 - The second push will turn the light OFF if it was previously ON (press and release).

6.2. Enable/Disable the Wired Switches

4. Select the next tab **Switch/Motion Inputs** to bind the switch and motion channels to the circuit.

NOTE: This is where you enable or disable the wired switches. There are two switch channels available. By default the working channel is selected. Enable or disable the relevant channel(s) for the circuit you are working with. If required, select the option **Invert the position of the wall switch** for the selected channel.

The screenshot shows the 'Device Configuration' page with a modal dialog titled 'Setup Low End Cutoff: Default (Wireless Relay Controller with EnOcean - AU154320005 - On/Off Light-1)'. The dialog has four tabs: 'General Settings', 'Switch/Motion Inputs', 'Fail-safe Mode', and 'Power-On State'. The 'Switch/Motion Inputs' tab is active, showing options to select switch channels and invert wall switch positions. A green hand icon labeled 'A' points to the 'Switch/Motion Inputs' tab, and another green hand icon labeled 'B' points to the 'Apply' button. A blue callout box labeled 'Select / Deselect' is positioned over the 'Settings' menu item in the left sidebar.

5. The next tab **Fail-Safe Mode** is not applicable for this endpoint **Low End Cutoff**. (Applicable for **On/Off Endpoint**).
6. The last tab is the **Power-On State**, which is not configured here. If this endpoint **Low End Cutoff** is being configured for Level Control endpoint, the Power-On State will be configured within Level Control configuration. (See 5.2. *Level Control (Dimming Configuration)*.)

6.3. Mapping Wireless Switches for On/Off Switch

1. To configure the wireless switches, select **Settings > Device Setup > Device Configuration**.

The screenshot shows the 'Device Setup Assistant' page. The 'Device Setup' menu item in the left sidebar is highlighted with a blue dashed box and a green hand icon labeled 'A'. The 'Device Setup' tab in the top navigation bar is also highlighted with a blue dashed box and a green hand icon labeled 'B'. The main content area displays a grid of options for device configuration, with 'Device Configuration' highlighted in orange and a green hand icon labeled 'C' pointing to it.

- In the Device Configuration page, search for a **WRC** in the header fields provided. Select the applicable WRC from the search results, and then select the endpoint **On/Off Switch** in the lower section. Click **Setup**.

The screenshot shows the 'Device Configuration' page. On the left is a navigation menu with 'Settings' highlighted. The main area has a search bar containing 'Relay'. Below the search bar is a table of search results for 'Wireless Relay Controller' devices. A green hand icon labeled 'A' points to the search bar, and another labeled 'B' points to a device entry. Below this is a table of endpoints for the selected device. A green hand icon labeled 'C' points to the 'On/Off Switch-1' endpoint, which is highlighted in green. At the bottom left, a green hand icon labeled 'D' points to the 'Setup' button.

Name	Product	Model Number
Relay	rela	
Conference Room - Wireless Relay Controller - AU162020786	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU162020792	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU162020800	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller with EnOcean	1000160-03

Location	Name	Description	Device Type
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-1	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-2 for On/Off Light-1 (EnOcean)	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-3 for On/Off Light-2 (EnOcean)	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-4 for Level Control-1(EnOcean)	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-5 for Level Control-2(EnOcean)	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-1	Level Control
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-2	Level Control
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-1	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-2	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-3 for On/Off Light-1 (EnOcean)	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-4 for On/Off Light-2 (EnOcean)	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-5 for Level Control-1 (EnOcean)	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-6 for Level Control-2 (EnOcean)	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-1	Low End Cutoff
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-2	Low End Cutoff
Default	Wireless Relay Controller w/ EnOcean-AU154:	On/Off Switch-1	On/Off Switch
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-2	On/Off Switch

- The **Setup Switch** window appears with the **EnOcean Switch** tab selected. Enter the EnOcean switch IDs into the fields provided. Up to five EnOcean switches can be configured. Click **Apply**.

The screenshot shows the 'Setup Switch' dialog box. The title bar reads 'Setup Switch: Default (Conference Room - Wireless Relay Controller - AU162020786 - On/Off Switch-1)'. The dialog has a tab labeled 'EnOcean Switch'. Below the tab, there is a text prompt: 'EnOcean switches may be used to control a light. Please enter up to 5 EnOcean device identifiers:'. There are five input fields, each containing '0'. A green hand icon labeled 'A' points to the first field. At the bottom right, there are three buttons: 'Save', 'Cancel', and 'Apply'. A green hand icon labeled 'B' points to the 'Apply' button.

6.4. Mapping Wireless Switches for Level Control

1. After configuring the wireless switches in the previous section, they can now be mapped to Level Control. Search for the applicable **WRC** by name or serial number, and select it from the search result. Then select the endpoint **Level Control-1** in the lower section, and click **Setup**.

The screenshot shows the 'Device Configuration' page. On the left is a navigation menu with 'Settings' highlighted. The main area contains a search bar with 'Relay' entered. A search button is labeled 'A Search'. Below the search bar is a table of search results. The second row is highlighted in green and labeled 'B Select'. Below the table is a section titled 'Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005'. This section contains a table with columns 'Location', 'Name', and 'Description'. The row for 'Level Control-1' is highlighted in green and labeled 'C Select'. Below this table is a 'Setup' button labeled 'D Click'.

Name	Product
Relay	
Conf...	Wireless Relay Controller - AU162020786
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020792	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020800	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller with EnOcean

Location	Name	Description
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-2 for On/Off Lig
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-3 for On/Off Lig
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-4 for Level Cor
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-5 for Level Cor
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-2

2. The **Setup Light** window appears. Select the **EnOcean Dimmers** tab and enter the EnOcean switch IDs into the fields provided. Click **Apply**. Up to five EnOcean switches can be configured.

The screenshot shows the 'Setup Light' window titled 'Setup Light: Default (Wireless Relay Controller with EnOcean - AU154320005 - Level Control-1)'. The window has several tabs: 'General Settings', 'Sensor/Dimmer', 'Sensor', 'EnOcean Dimmers', 'Power-On State', and 'Switch Outputs'. The 'EnOcean Dimmers' tab is selected and labeled 'A Type'. Below the tabs, there is a text prompt: 'EnOcean dimmers may be used to control this light. Please enter up to 5 EnOcean device identifiers:'. There are five input fields, the first of which contains 'XXXXXX' and is labeled 'A Type'. At the bottom of the window, there are 'Save', 'Cancel', 'Apply', and 'Apply to...' buttons. The 'Apply' button is labeled 'B Click'.

7. Configuring Wired Dimmers

7.1. Enable/Disable Wired Dimmers for Level Control

1. To configure wired dimmers, select **Settings > Device Setup > Device Configuration**.

Site Contractor System Data Maintenance Energy Security **Device Setup**

Network: SALES_02 | Channel: 22 | Status: Network Up | Allow Join: Yes | Devices: 10

Welcome to the Device Setup Assistant

This page allows you to configure your appliance and connect devices to its wireless network. Please choose an option below to get started:

Easy Setup

Add Device(s) Wireless Routes Network Status

Replace Device Wireless Settings Network Settings

Remove Device Identify Device(s) Name Device(s)

View Wireless Network Wireless Bindings System Restore

Advanced Commissioning **Device Configuration**

EnOcean Device Management BACnet Browser BACnet Device Management

2. Search for the applicable **WRC** by name or serial number, and select it from the search results. Then select the endpoint **Level Control-1** from the list of endpoints in the lower section. Click **Setup**.

Device Configuration

Please select a device and configure the device's endpoints.

Name	Product
Relay	
Confere Wireless Relay Controller - AU162020786	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020792	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020800	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller with EnOcean

Copy to... Page 1 of 1

Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005

Location	Name	Description
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-2 for On/Off L
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-3 for On/Off L
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-4 for Level Co
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-5 for Level Co
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-2

Setup Click

- The **Setup Light** window appears with the **General Settings** tab selected by default. Click on the **Sensor/Dimmer** tab. From the **Wired Dimmer Installed** dropdown, select **Yes** to enable or **No** to disable the dimmer. Click **Apply**.

The screenshot shows the 'Setup Light' configuration window for a device named 'Wireless Relay Controller with EnOcean - AU154320005'. The 'Sensor/Dimmer' tab is active. The 'Wired Dimmer Installed' dropdown menu is open, showing 'Yes' selected. The 'Apply' button is highlighted. A sidebar on the left contains navigation options: Devices, Groups, Automation, Energy, Alerts, Analysis, Settings, Help, and Log Off.

7.2. Enable/Disable Wired Dimmers in a Schedule

Wired dimmers can be disabled for a specific duration by modifying a schedule.

- Select **Automation** > **Lights**, select a schedule template for level control, then select an Event of the Schedule and click **Edit**.

The screenshot shows the 'Automation' > 'Lights' configuration page. The 'Default Level Control' template is selected. The 'Events for Schedule Template: Default Level Control' table is shown, with the 'Office Hours' event selected. The 'Edit' button is highlighted. A sidebar on the left contains navigation options: Devices, Groups, Automation, Energy, Alerts, Analysis, Settings, Help, and Log Off.

Name	Level	Max	Mode	M	T	W	T	F	S	S
Office Hours	80%	100%	Lights On	✓	✓	✓	✓	✓	✓	✓
Non-Office Hou...	60%	100%	Lights Off	✓	✓	✓	✓	✓	✓	✓

2. The **Edit Event** window appears. Select the **Disable dimmer** checkbox to disable the dimmer. Click **Apply**.

The screenshot shows the 'Edit Event: Office Hours' window. The left sidebar contains navigation options: Devices, Groups, Automation, Energy, Alerts, Analysis, Settings, Help, and Log Off. The main window has tabs for '24/7 Schedules', 'Calendar', and 'Advanced'. The 'Edit Event: Office Hours' window is open, showing the following settings:

- Name: Office Hours
- Level Control Behavior:
 - Type: Dim Level
 - Level (%): 80
 - Max Dim Level (%): 100
 - Ramp Rate (seconds): 1
 - Mode: Lights On
 - Disable dimmer
 - Off delay: 20 (minutes)
 - Blink 0 minute(s) before turning lights off
- Effective Days:
 - Monday, Tuesday, Wednesday, Thursday, Friday (checked)
 - Saturday, Sunday (checked)
 - Buttons: Weekday, Weekend, All
- Effective Time:
 - Start: Scheduled Time
 - 06 : 00 AM
 - End: Next Event

At the bottom of the window are buttons for 'Save', 'Cancel', and 'Apply'. A green hand cursor labeled 'A' points to the 'Disable dimmer' checkbox, and another green hand cursor labeled 'B' points to the 'Apply' button.

8. Configuring Motion Sensors

Both wired and wireless motion sensors can be configured for a WRC. The following is a list of occupancy sensor endpoints that are available.

- Wired occupancy sensor channels
 - Occupancy Sensing-1
used for Autani Mini Wired Sensor, low volts or 3 volts
 - Occupancy Sensing-2
used for Third-Party Sensor, 24 volts
- Wireless occupancy sensor channels
 - Occupancy Sensing-3 for On/Off Light-1 (EnOcean)
 - Occupancy Sensing-4 for On/Off Light-2 (EnOcean)
 - Occupancy Sensing-5 for Level Control-1 (EnOcean)
 - Occupancy Sensing-6 for Level Control-2 (EnOcean)

8.1. Configuring Wired Motion Sensors

1. To configure wired motion sensors, select **Settings > Device Setup > Device Configuration**.

The screenshot displays the 'Device Setup Assistant' interface. On the left is a navigation menu with options: Devices, Groups, Automation, Energy, Alerts, Analysis, Settings (highlighted with a dashed blue box and a green hand cursor), Help, and Log Off. The main content area has a top navigation bar with tabs: Site, Contractor, System, Data Maintenance, Energy, Security, and Device Setup (highlighted with a dashed blue box and a green hand cursor labeled 'B'). Below the tabs, the network status is shown: 'Network: SALES_02 | Channel: 22 | Status: Network Up | Allow Join: Yes | Devices: 10'. The main heading is 'Welcome to the Device Setup Assistant' with the text: 'This page allows you to configure your appliance and connect devices to its wireless network. Please choose an option below to get started:'. Under the heading is an 'Easy Setup' section with a grid of buttons: Add Device(s), Wireless Routes, Network Status, Replace Device, Wireless Settings, Network Settings, Remove Device, Identify Device(s), Name Device(s), View Wireless Network, Wireless Bindings, System Restore, Advanced Commissioning, and Device Configuration (highlighted in orange with a green hand cursor labeled 'C'). At the bottom are three buttons: EnOcean Device Management, BACnet Browser, and BACnet Device Management.

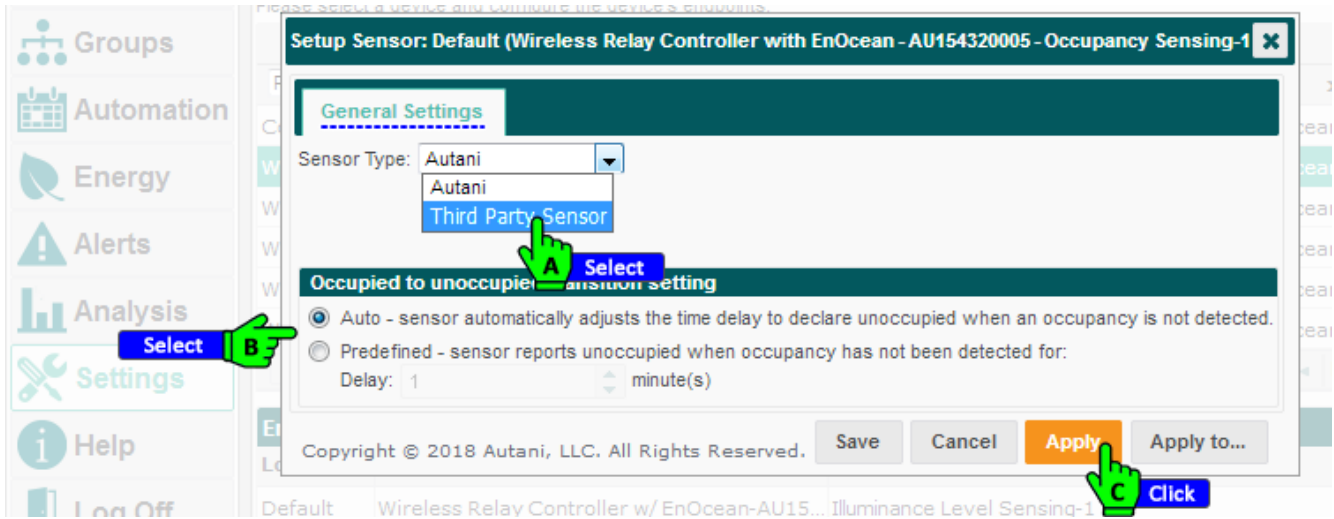
2. Search for the applicable **WRC** by name or serial number, and select it from the search result. Then select **Occupancy Sensor-1** from the list of endpoints. Click **Setup**.

The screenshot shows the 'Device Configuration' page. On the left is a navigation menu with options: Devices, Groups, Automation, Energy, Alerts, Analysis, Settings, Help, and Log Off. The main content area has a header 'Device Configuration' and a sub-header 'Please select a device and configure the device's endpoints.' Below this is a table with columns 'Name' and 'Product'. A search bar at the top left of the table contains the text 'Relay'. A green hand icon labeled 'A' points to the search bar, and a blue box labeled 'Search' is next to it. The table lists several 'Wireless Relay Controller' entries. A green hand icon labeled 'B' points to one of the entries, and a blue box labeled 'Select' is next to it. Below the table is a section titled 'Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005'. This section contains a table with columns 'Location', 'Name', and 'Description'. The row 'Occupancy Sensing-1' is highlighted in green. A green hand icon labeled 'C' points to this row, and a blue box labeled 'Click' is next to it. At the bottom of this section is an orange button labeled 'Setup'. A green hand icon labeled 'D' points to this button, and a blue box labeled 'Click' is next to it.

3. The **Setup Sensor** window appears with the **General Settings** tab selected. From the “Sensor Type” dropdown, select **Autani** or **Third Party Sensor**.
 - Select **Autani** if an Autani sensor is being used. The “Occupied to unoccupied transition setting” will be disabled as Autani sensors have predefined reporting intervals.

The screenshot shows the 'Setup Sensor: Default (Wireless Relay Controller with EnOcean - AU154320005 - Occupancy Sensing-1)' dialog box. The 'General Settings' tab is selected. The 'Sensor Type' dropdown menu is open, showing 'Autani' and 'Third Party Sensor' options. A green hand icon labeled 'A' points to the 'Autani' option, and a blue box labeled 'Select' is next to it. Below the dropdown is a section titled 'Occupied to unoccupied transition setting'. The 'Auto' radio button is selected, and the text 'Disabled' is next to it. A green hand icon labeled 'B' points to the 'Apply' button at the bottom right of the dialog box, and a blue box labeled 'Click' is next to it. The background shows the same 'Device Configuration' interface as the previous screenshot.

- OR, select **Third Party Sensor** if a third party sensor is being used. The **Occupied to unoccupied transition setting** options will be enabled, allowing the user to choose either **Auto** or **Predefined** settings.
 - Choose **Auto** to receive a message immediately when the sensor detects no occupancy.
 - Choose **Predefined** to add a delay typically 30 minutes for third party sensors.
- NOTE:** This delay is stacked on the schedule delay.

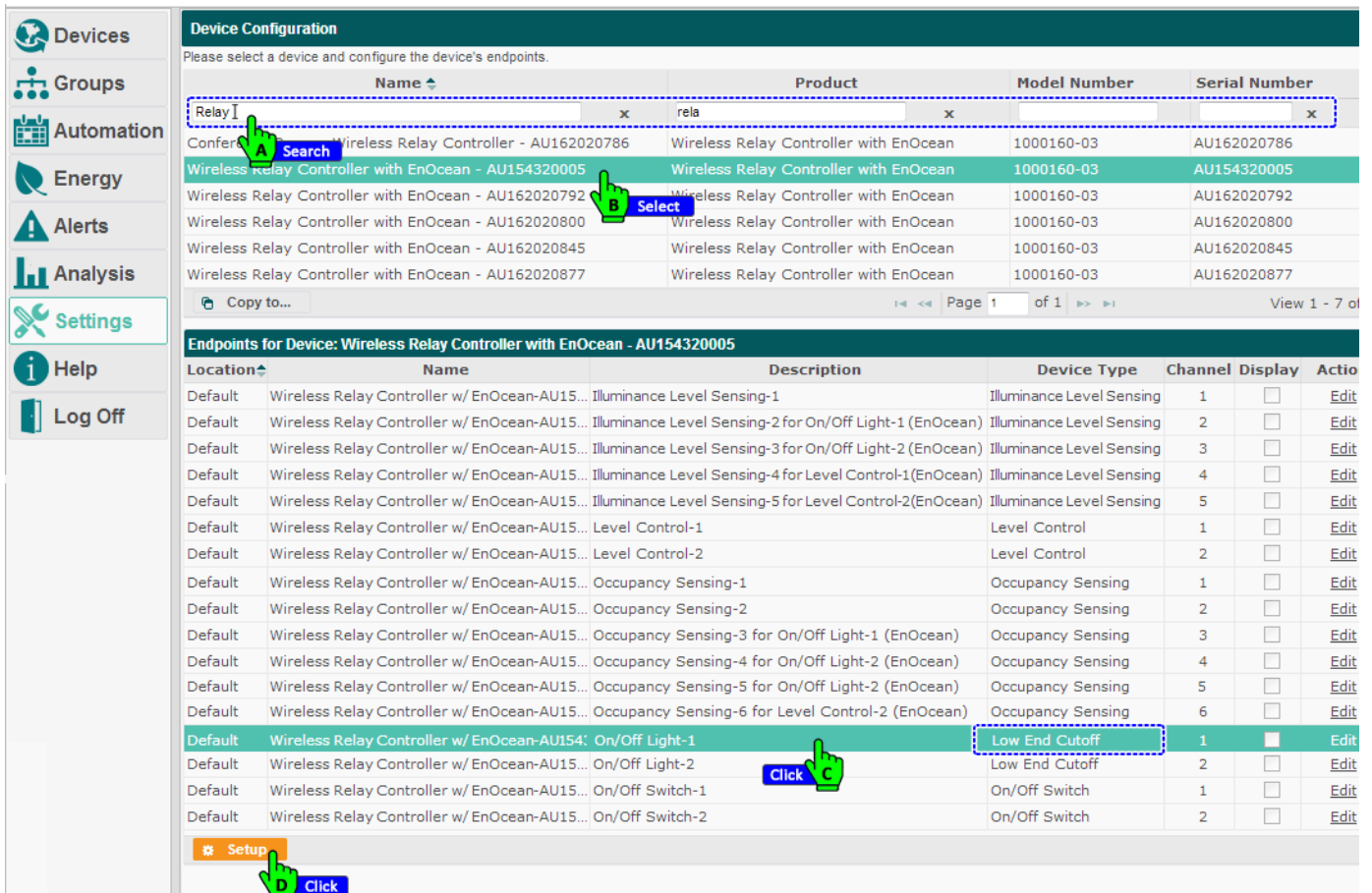


8.2. Mapping Wired Motion Sensors to other Endpoints

Once the wired motion sensors are configured as described in the above section, they are ready to be mapped to the **Low End Cutoff** or **Level Control** endpoints.

8.2.1. Mapping Wired Motion Sensors to “On/Off” Endpoint

4. In the Device Configuration page, search for the applicable **WRC** by name or serial number, and select it from the search results. Then select the endpoint **Low End Cutoff** in the lower section and click **Setup**.



- The **Setup** window appears for the **Low End Cutoff** endpoint, displaying the **General Settings** tab by default. Select the next tab **Switch/Motion Inputs** to configure the wired motion sensors.
 - From the lower section of the window select **Occupancy Sensing-1** and click **Apply**.

Device Configuration

Please select a device and configure the device's endpoints.

Name	Product
Relay I	rela

Setup Low End Cutoff: Default (Wireless Relay Controller with EnOcean - AU154320005 - On/Off Light-1)

General | **Switch/Motion Inputs** | Fail-safe Mode | Power-On State

Choose the switch and motion channels below that will be used to control this light:

- On/Off Switch-1 (Channel-1)
 - Invert the position of the wall switch.
- On/Off Switch-2 (Channel-2)
 - Invert the position of the wall switch.
- Occupancy Sensing-1 (Channel-1)
- Occupancy Sensing-2 (Channel-2)
- Occupancy Sensing-3 for On/Off Light-1 (EnOcean) (Channel-3)

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Save Cancel **Apply** Apply to...

8.2.2. Mapping Wired Motion Sensors to “Level Control” Endpoint

- In the Device Configuration page, search for the applicable **WRC** by name or serial number, and select it from the search results. Then select the endpoint **Level Control-1** in the lower section and click **Setup**.

Device Configuration

Please select a device and configure the device's endpoints.

Name	Product
Relay I	
Wireless Relay Controller - AU162020786	Wireless Relay Controller with EnOcean - AU162020786
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller with EnOcean - AU154320005
Wireless Relay Controller with EnOcean - AU162020792	Wireless Relay Controller with EnOcean - AU162020792
Wireless Relay Controller with EnOcean - AU162020800	Wireless Relay Controller with EnOcean - AU162020800
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller with EnOcean - AU162020845
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller with EnOcean - AU162020877

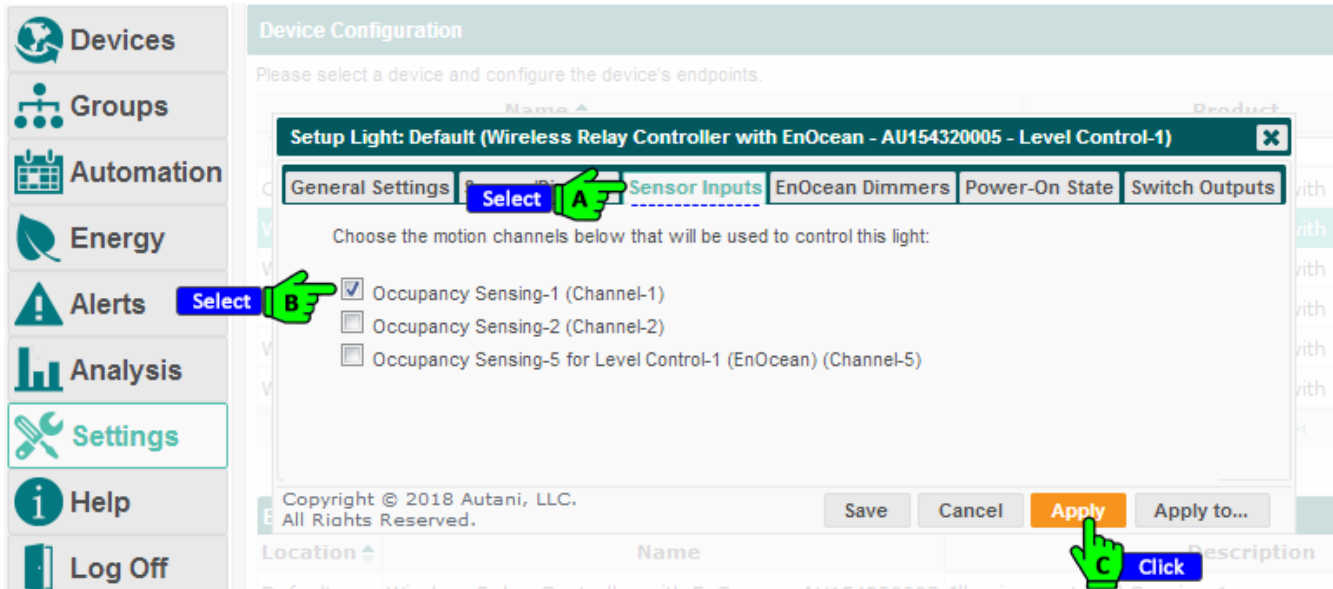
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Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005

Location	Name	Description
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-2 for On/Off Light-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-3 for On/Off Light-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-4 for Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-5 for Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-2

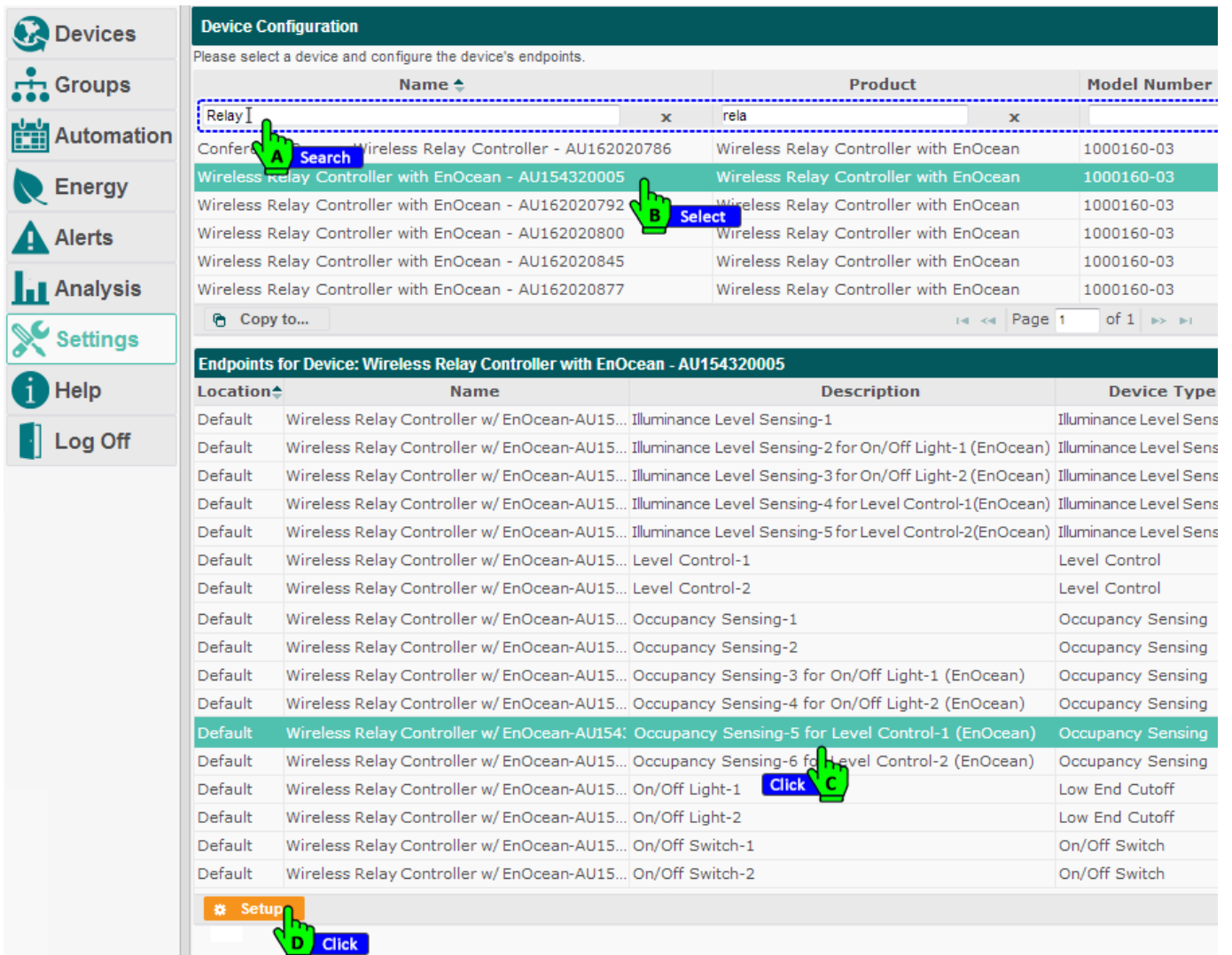
Setup

- The **Setup Light** window appears with the **General Settings** tab selected by default. Select the tab **Sensor Inputs**, and then select the first option **Occupancy Sensing-1 (Channel-1)** and click **Apply**.

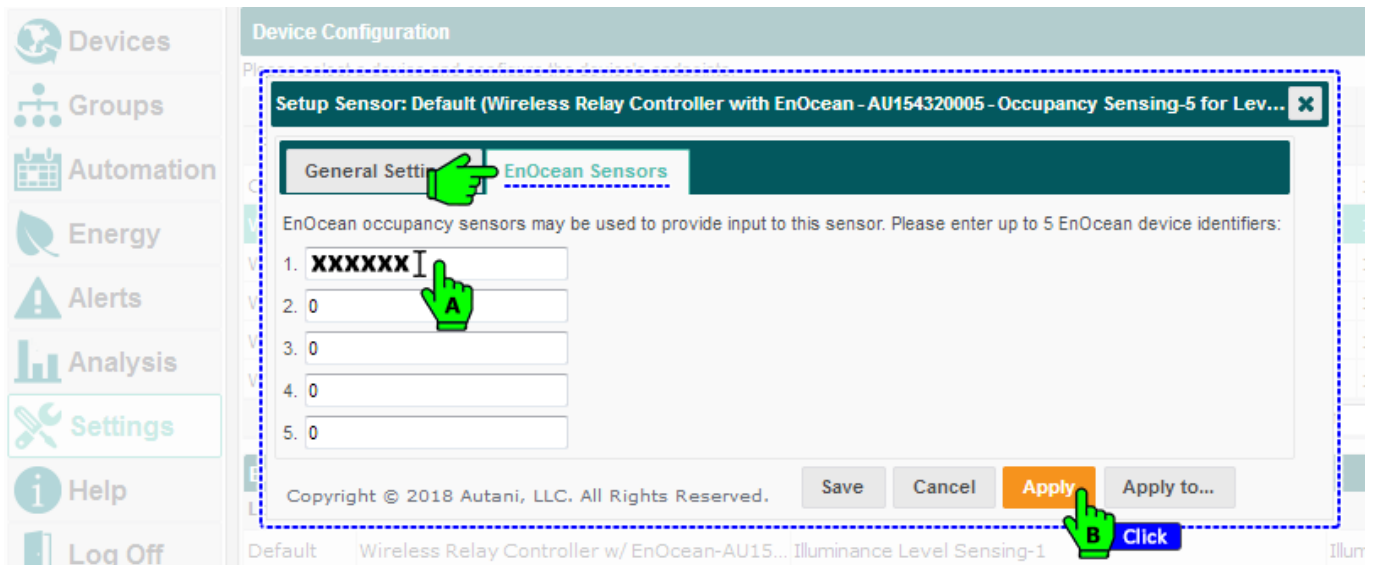


8.3. Configuring Wireless Motion Sensors

- In the Device Configuration page, search for the applicable **WRC** by name or serial number, and select it from the search results. Then select the endpoint **Occupancy Sensing-5 for Level Control-1** and click **Setup**.



- The **Setup Sensor** window appears, with the **General Settings** tab selected by default. Select the **EnOcean Sensors** tab, enter the Sensor IDs in the fields provided, and then click **Save/Apply**. Up to five sensors can be mapped.

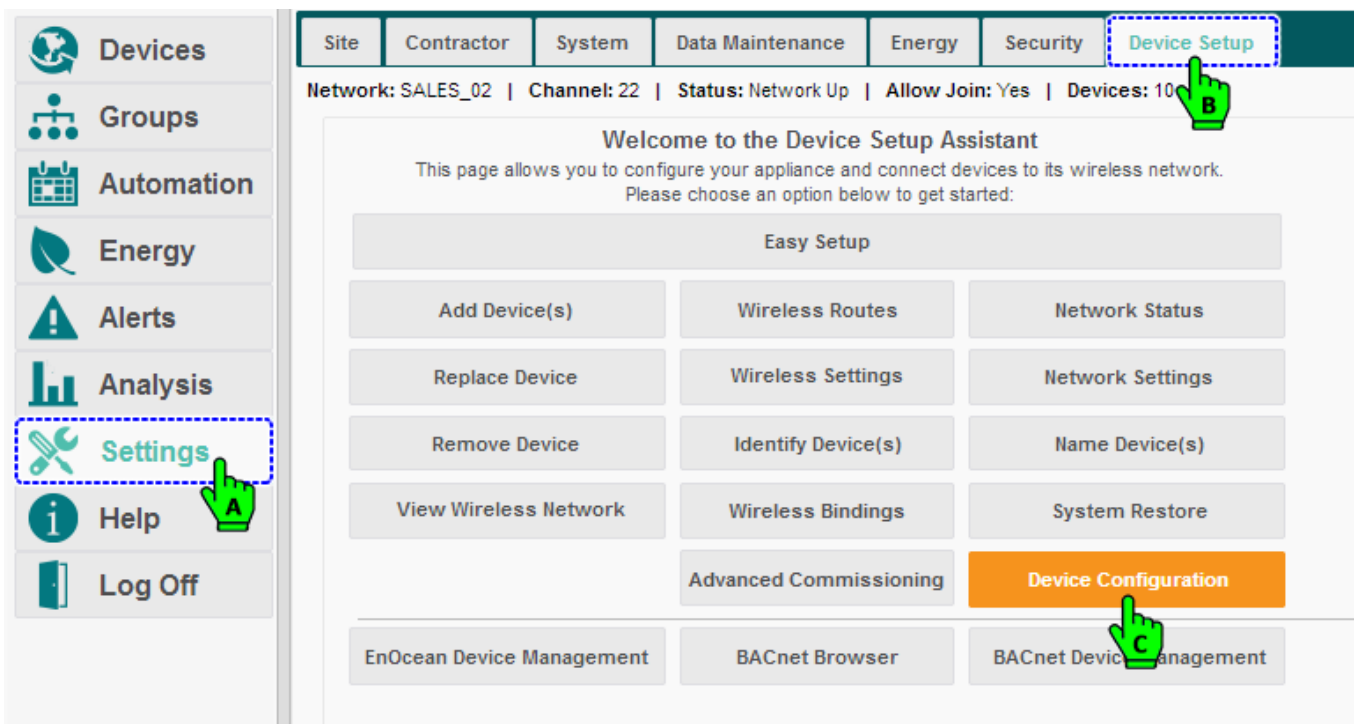


8.4. Mapping a Wireless Motion Sensors to Endpoints

Once the wireless motion sensors are configured as described in the above section, they are ready to be mapped to the **On/Off Light** or **Level Control** endpoints.

8.4.1. Mapping Wireless Motion Sensors to “On/Off Light” Endpoint

- The wireless motion sensors are configured from the Device Configuration page. Select **Settings > Device Setup > Device Configuration**.



- In the Device Configuration page, search for the applicable **WRC** by name or serial number, and select it from the search results. Then select the endpoint **On/Off Switch** in the lower section and click **Setup**.

The screenshot shows the 'Device Configuration' page. On the left is a navigation menu with options: Devices, Groups, Automation, Energy, Alerts, Analysis, Settings, Help, and Log Off. The main content area is titled 'Device Configuration' and contains a search bar and a table of devices. A search for 'Relay I' has been performed, showing several 'Wireless Relay Controller' entries. A green hand icon labeled 'A' points to the search bar, and another labeled 'B' points to the selected device row. Below the device list, there is a section for 'Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005'. This section contains a table with columns: Location, Name, Description, and Device Type. The row for 'On/Off Switch-1' is highlighted in green, and a green hand icon labeled 'C' points to the 'On/Off Switch' device type. Below this table, there is a 'Setup' button with a green hand icon labeled 'D' pointing to it.

Name	Product	Model Number
Relay I	rela	
Conference Room - Wireless Relay Controller - AU162020786	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU162020792	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU162020800	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller with EnOcean	1000160-03

Location	Name	Description	Device Type
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-1	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-2 for On/Off Light-1 (EnOcean)	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-3 for On/Off Light-2 (EnOcean)	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-4 for Level Control-1(EnOcean)	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-5 for Level Control-2(EnOcean)	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-1	Level Control
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-2	Level Control
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-1	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-2	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-3 for On/Off Light-1 (EnOcean)	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-4 for On/Off Light-2 (EnOcean)	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-5 for Level Control-1 (EnOcean)	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-6 for Level Control-2 (EnOcean)	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-1	Low End Cutoff
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-2	Low End Cutoff
Default	Wireless Relay Controller w/ EnOcean-AU154: On/Off Switch-1		On/Off Switch
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-2	On/Off Switch

- The **Setup Switch** window appears with the **EnOcean Switch** tab selected. Enter the EnOcean switch IDs into the fields provided. Up to five EnOcean switches may be configured.

The screenshot shows the 'Setup Switch' window. The window title is 'Setup Switch: Default (Conference Room - Wireless Relay Controller - AU162020786 - On/Off Switch-1)'. The window has a tab labeled 'EnOcean Switch'. Below the tab, there is a text prompt: 'EnOcean switches may be used to control a light. Please enter up to 5 EnOcean device identifiers:'. There are five input fields, each containing '0'. A green hand icon labeled 'A' points to the first field, which also contains 'xxxxxx'. At the bottom of the window, there are three buttons: 'Save', 'Cancel', and 'Apply'. A green hand icon labeled 'B' points to the 'Apply' button.

8.4.2. Mapping Wireless Motion Sensor to “Level Control” Endpoint

- There are two places to map wireless occupancy sensor for Level Control.
- The first place to map the sensor is through the **Device Configuration** page.
 - In the Device Configuration page, search for the applicable **WRC** by name or serial number, and select it from the search results. Then select the endpoint **Level Control-1** in the lower section and click **Setup**.

The screenshot shows the 'Device Configuration' page. On the left is a navigation menu with 'Settings' highlighted. The main area has a search bar with 'Relay' entered. A 'Search' button is highlighted with a green 'A' and a blue 'Click' label. Below the search results, a row for 'Wireless Relay Controller with EnOcean - AU154320005' is highlighted in green, with a green 'B' and a blue 'Select' label. Below this is a table of endpoints for the selected device. The row for 'Level Control-1' is highlighted in green, with a green 'C' and a blue 'Select' label. At the bottom of the table, a green 'D' and a blue 'Click' label point to the 'Setup' button.

Name	Product
Relay	
Wireless Relay Controller - AU162020786	Wireless Relay Controller with EnO
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller with EnO
Wireless Relay Controller with EnOcean - AU162020792	Wireless Relay Controller with EnO
Wireless Relay Controller with EnOcean - AU162020800	Wireless Relay Controller with EnO
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller with EnO
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller with EnO

Location	Name	Description
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-2 for On/Off Lig
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-3 for On/Off Lig
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-4 for Level Con
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-5 for Level Con
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-2

- The **Setup Light** window appears with the **General Settings** tab selected by default. Select the tab **Sensor Inputs**, and then select the option **Occupancy Sensing-5 for Level Control-1 (EnOcean) (Channel-5)**. (NOTE: The wireless occupancy sensing channel-5 is already listed matching the Level Control-1 channel-1.) Click **Apply**.

The screenshot shows the 'Setup Light' dialog box. The 'Sensor Inputs' tab is selected, highlighted with a green 'A' and a blue 'Click' label. Below the tabs, the text says 'Choose the motion channels below that will be used to control this light:'. There are three checkboxes: 'Occupancy Sensing-1 (Channel-1)', 'Occupancy Sensing-2 (Channel-2)', and 'Occupancy Sensing-5 for Level Control-1 (EnOcean) (Channel-5)'. The third checkbox is checked, highlighted with a green 'B' and a blue 'Click' label. At the bottom of the dialog, a green 'C' and a blue 'Click' label point to the 'Apply' button.

2. The second way to map the sensor is through virtual association.

- Select **Devices > Lights**. Search for the applicable **WRC** by name or serial number, and select it from the search results. Click **Details**.

The screenshot shows the EnergyCenter BY AUTANI interface. The left sidebar has 'Devices' selected. The top navigation bar has 'Lights' selected. Below the navigation bar, there is a date range selector for energy usage. The main content area is titled 'Lights' and contains a table with columns for Status, Location, and Light. A search box with the text 'relay' is positioned above the table. Two rows are visible in the table, both with a status of 'Active' and a location of 'First Floor'. The first row is highlighted in green. Below the table, there are buttons for 'Setup', 'Details', 'Hide', and 'Unhide'. The 'Details' button is highlighted with a green hand icon.

- The **General** tab is selected by default. Select the **Sensors** tab and then select the previously mapped sensor to virtually associate with the selected WRC. Click **Apply**.
- **NOTE:** If the sensor is not visible here, go to the Device Configuration page to enable the sensor, and then return here to complete the virtual association.

The screenshot shows the 'Sensors' tab for a selected device. The title bar reads 'Light: First Floor (Conference Room - Wireless Relay Controller - AU162020786 - Front Cans - Level Control-2)'. Below the title bar, there are tabs for 'General', 'Charts', 'Event Logs', 'Sensors', and 'Notes'. The 'Sensors' tab is active. Below the tabs, there is a text prompt: 'Select the sensors that provide inputs to control this device'. A table with columns for Location, Sensor, and Description is displayed. The first row is checked and highlighted in green. Below the table, there are buttons for 'Save', 'Cancel', and 'Apply'. The 'Apply' button is highlighted with a green hand icon.

9. Configuring Photocell Sensors

Wired and wireless photocell sensors can be configured for a WRC. The following are photocell sensor endpoints that are available.

- Wired Photocell Sensor channel:
 - Illuminance Level Sensing-1
used for Autani Mini Wired Sensor, low volts or 3 volts
- Wireless Photocell Sensor channels:
 - Illuminance Sensing-2 for On/Off Light-1 (EnOcean)
 - Illuminance Sensing-3 for On/Off Light-2 (EnOcean)
 - Illuminance Sensing-4 for Level Control-1 (EnOcean)
 - Illuminance Sensing-5 for Level Control-2 (EnOcean)

9.1. Configuring Wired Photocells

The wired photocell sensor does not have a configuration option available. Proceed to map the wired photocell sensors for **Level Control** and **On/Off Switch**.

9.2. Mapping Wired Photocells to Level Control

1. Select **Settings > Device Setup > Device Configuration**. Search for a **WRC** by name or serial number, and select it from the search results. Then select the endpoint **Illuminance Level Sensing-1 for Level Control-1**, and click **Setup**.

The screenshot shows the 'Device Configuration' interface. On the left is a navigation menu with 'Settings' highlighted. The main area shows a search for 'Relay' with a 'Search' button (A). Below the search results is a table of devices. The first device, 'Wireless Relay Controller with EnOcean - AU154320005', is selected (B). Below this is a table of endpoints for the selected device. The endpoint 'Level Control-1' is selected (C). At the bottom, a 'Setup' button (D) is highlighted with a 'Click' label.

Device Configuration		
Please select a device and configure the device's endpoints.		
Name	Product	
Relay		x
Confel	Wireless Relay Controller - AU162020786	Wireless Relay Controlle
Wireless Relay Controller with EnOcean - AU154320005		Wireless Relay Controlle
Wireless Relay Controller with EnOcean - AU162020792		Wireless Relay Controlle
Wireless Relay Controller with EnOcean - AU162020800		Wireless Relay Controlle
Wireless Relay Controller with EnOcean - AU162020845		Wireless Relay Controlle
Wireless Relay Controller with EnOcean - AU162020877		Wireless Relay Controlle

Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005		
Location	Name	Description
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-2 for
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-3 for
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-4 for
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-5 for
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-2

- The **Setup Light** window appears with **General Settings** tab selected by default. Select the next tab **Sensor/Dimmer**.
 - From the **Photosensor Installed** dropdown select **Illuminance Level Sensing-1 (Channel-1)**.
 - Click the box to enable the **Adaptive Lighting Control**, and click **Apply**.

The screenshot shows the 'Setup Light: Default (Wireless Relay Controller with EnOcean - AU154320005 - Level Control-1)' window. The 'Sensor/Dimmer' tab is active. The 'Photosensor Installed' dropdown menu is open, with 'Illuminance Level Sensing-1 (Channel-1)' selected. The 'Enable Adaptive Lighting Control' checkbox is checked. The 'Apply' button is highlighted. A sidebar on the left contains navigation options: Devices, Groups, Automation, Energy, Alerts, Analysis, Settings, Help, and Log Off.

9.3. Configuring Wireless Photocells

- The wireless photocells sensors are configured through the Device Configuration page. Select **Settings > Device Setup > Device Configuration**. (**NOTE:** All four sensors are configured the same way, as detailed in this section.)

The screenshot shows the 'Device Setup Assistant' page. The 'Settings' menu item is highlighted in the sidebar. The 'Device Setup' tab is selected in the top navigation bar. The 'Device Configuration' button is highlighted in the main content area. The page displays a grid of options for configuring wireless devices, including 'Add Device(s)', 'Wireless Routes', 'Network Status', 'Replace Device', 'Wireless Settings', 'Network Settings', 'Remove Device', 'Identify Device(s)', 'Name Device(s)', 'View Wireless Network', 'Wireless Bindings', 'System Restore', 'Advanced Commissioning', 'Device Configuration', 'EnOcean Device Management', 'BACnet Browser', and 'BACnet Device Management'.

- Search for the applicable device **WRC** by name or serial number, and select it from the search results. Then select the endpoint **Illuminance Level Sensing-2 for On/Off Light-1 (EnOcean)** from the list of endpoints. Click **Setup**.

The screenshot shows the 'Device Configuration' page. On the left is a navigation menu with options: Devices, Groups, Automation, Energy, Alerts, Analysis, Settings, Help, and Log Off. The main content area has a header 'Device Configuration' and a sub-header 'Please select a device and configure the device's endpoints.' Below this is a search bar with 'Relay I' entered. A green hand icon labeled 'A' points to the search bar, and a blue 'Search' button is highlighted. The search results table has columns 'Name' and 'Product'. The second row is highlighted in green, and a green hand icon labeled 'B' points to a blue 'Select' button next to it. Below the search results is a section titled 'Endpoints for Device: Wireless Relay Controller with EnOcean - AU154320005'. This section contains a table with columns 'Location', 'Name', and 'Description'. The second row is highlighted in green, and a green hand icon labeled 'C' points to a blue 'Select' button next to it. At the bottom of this section is an orange 'Setup' button with a gear icon, and a green hand icon labeled 'D' points to a blue 'Click' button next to it.

- The **Setup Sensor** window appears with the **EnOcean Sensors** tab. Enter the EnOcean wireless photocell sensor ID in the field provided and click **Apply**.

The screenshot shows the 'Setup Sensor' window overlaid on the 'Device Configuration' page. The window title is 'Setup Sensor: Default (Conference Room - Wireless Relay Controller - AU162020786 - Illuminance Level Sensi...'. The window has a tab labeled 'EnOcean Sensors'. Below the tab is a sub-header 'Please enter an EnOcean device identifier that provides input to this sensor:'. There is a list with one item: '1. xxxxxx', where a green hand icon labeled 'A' points to the input field. At the bottom of the window are three buttons: 'Save', 'Cancel', and 'Apply'. A green hand icon labeled 'B' points to the 'Apply' button. The background shows the same 'Endpoints for Device' table as in the previous screenshot.

9.4. Mapping Wireless Photocells to Level Control

1. Select **Settings > Device Setup > Device Configuration**. Search for the applicable **WRC** by name or serial number, and select it from the search results. Select the Endpoint **Level Control-1**, and click **Setup**.

The screenshot shows the 'Device Configuration' page. On the left is a navigation menu with 'Settings' highlighted. The main content area has a search bar with 'Relay I' entered. A 'Search' button is highlighted with a green arrow labeled 'A'. Below the search bar is a table of search results for 'Wireless Relay Controller - AU162020786'. A green arrow labeled 'B' points to the 'Select' button for the first result. Below this is a table of endpoints for the selected device. A green arrow labeled 'C' points to the 'Select' button for the 'Level Control-1' endpoint. At the bottom, a 'Setup' button is highlighted with a green arrow labeled 'D'.

Name	Product
Relay I	
Wireless Relay Controller - AU162020786	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020792	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020800	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller with EnOcean
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller with EnOcean

Location	Name	Description
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-2 for On/Off Lig
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-3 for On/Off Lig
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-4 for Level Cor
Default	Wireless Relay Controller with EnOcean - AU154320005	Illuminance Level Sensing-5 for Level Cor
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-1
Default	Wireless Relay Controller with EnOcean - AU154320005	Level Control-2

2. The **Setup Light** window appears with the **General Settings** tab selected by default. Select the tab **Sensor/Dimmer**.
 - From the **Photosensor Installed** dropdown, select **Illuminance Level Sensing-4 for Level Control -1 (EnOcean) (Channel-4)**.
 - Click the box to enable **Adaptive Lighting Control**, and click **Apply**.

The screenshot shows the 'Setup Light' dialog box for 'Default (Wireless Relay Controller with EnOcean - AU154320005 - Level Control-1)'. The 'Sensor/Dimmer' tab is selected. A green arrow labeled 'A' points to the 'Sensor/Dimmer' tab. The 'Photosensor Installed' dropdown is open, showing 'Illuminance Level Sensing-4 for Level Control-1 (EnOcean) (Channel-4)' selected, with a green arrow labeled 'B' pointing to it. The 'Enable Adaptive Lighting Control' checkbox is checked, with a green arrow labeled 'C' pointing to it. The 'Apply' button is highlighted with a green arrow labeled 'D'.

Tab
Sensor/Dimmer
Sensor Inputs
EnOcean Dimmers
Power-On State
Switch Outputs

Photosensor Installed: Illuminance Level Sensing-1 (Channel-1)
None
Illuminance Level Sensing-1 (Channel-1)
Illuminance Level Sensing-4 for Level Control-1 (EnOcean) (Channel-4)

Enable Adaptive Lighting Control

Wired Dimmer Installed: Yes

9.5. Mapping Wireless Photocells to On/Off Switch

1. Select **Settings > Device Setup > Device Configuration**. Search for the applicable **WRC** by name or serial number, and select it from the search results. Select the endpoint **On/Off Switch**, and click **Setup**.

The screenshot shows the 'Device Configuration' page. On the left is a navigation menu with 'Settings' highlighted. The main area has a search bar with 'Relay I' entered. Below the search bar is a table of search results for 'Wireless Relay Controller' devices. A green hand icon labeled 'A' points to the search bar, and another labeled 'B' points to the selected device row. Below the table is a table of endpoints for the selected device. A green hand icon labeled 'C' points to the 'On/Off Switch-1' endpoint, which is highlighted in green. A 'Setup' button is at the bottom left, and a 'Click' label with a green hand icon points to it.

Name	Product	Model Number
Relay I	rela	
Conference Room - Wireless Relay Controller - AU162020786	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU154320005	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU162020792	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU162020800	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU162020845	Wireless Relay Controller with EnOcean	1000160-03
Wireless Relay Controller with EnOcean - AU162020877	Wireless Relay Controller with EnOcean	1000160-03

Location	Name	Description	Device Type
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-1	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-2 for On/Off Light-1 (EnOcean)	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-3 for On/Off Light-2 (EnOcean)	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-4 for Level Control-1(EnOcean)	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Illuminance Level Sensing-5 for Level Control-2(EnOcean)	Illuminance Level Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-1	Level Control
Default	Wireless Relay Controller w/ EnOcean-AU15...	Level Control-2	Level Control
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-1	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-2	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-3 for On/Off Light-1 (EnOcean)	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-4 for On/Off Light-2 (EnOcean)	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-5 for Level Control-1 (EnOcean)	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	Occupancy Sensing-6 for Level Control-2 (EnOcean)	Occupancy Sensing
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-1	Low End Cutoff
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Light-2	Low End Cutoff
Default	Wireless Relay Controller w/ EnOcean-AU154...	On/Off Switch-1	On/Off Switch
Default	Wireless Relay Controller w/ EnOcean-AU15...	On/Off Switch-2	On/Off Switch

2. The **Setup Switch** window appears with **EnOcean Switch** tab selected. Enter the EnOcean Switch IDs into the fields provided. Up to five EnOcean switches may be configured.

The screenshot shows the 'Setup Switch' dialog box. The 'EnOcean Switch' tab is selected. The dialog contains a text area with the instruction: 'EnOcean switches may be used to control a light. Please enter up to 5 EnOcean device identifiers:'. Below this are five input fields. The first field contains 'xxxxxx' and has a green hand icon labeled 'A' pointing to it. The other four fields contain '0'. At the bottom right are 'Save', 'Cancel', and 'Apply' buttons. A green hand icon labeled 'B' points to the 'Apply' button.

10. Configuring Schedules

The purpose of a schedule is to trigger the lighting devices to function on a time basis.

NOTE: It is always recommended to configure a schedule through the **Automation** section. Schedule modifications made through any other section will be overridden by changes made in the Automation section.

10.1. Configuring a Schedule

- To configure a schedule, select **Automation** from the main menu. The **24/7 Schedules** tab is selected by default. It contains the sub-tabs for different categories of devices. Select the **Lights** tab to see the list of default templates. Select a template to see the list of events associated with it.

EnergyCenter BY AUTANI

24/7 Schedules | Calendar | Advanced

Thermostats | Lights | Plugs | Loads

Default Templates

Template Name	Description	Last C
Default Level Control	This schedule template defines default level control events.	2015-08-
Default Lighting	This schedule template defines default lighting events.	2015-08-
Default Occupancy Level...	This schedule template defines occupied and unoccupied level control events.	2017-12-
Default Outdoor Level C...	This schedule template d	2015-08-
Empty Level Control	This schedule template may be used to disable level control events.	2015-08-

Assign to Devices / Groups | Save as New Template | Edit | Delete

List of Events for selected Schedule

Name	Level	Max	Mode	M	T	W	T	F	S	S
Office Hours	80%	100%	Lights On	✓	✓	✓	✓	✓	✓	✓
Non-Office Hours	60%	100%	Lights Off	✓	✓	✓	✓	✓	✓	✓

+ New | Copy

- NOTE:** How the endpoints for a WRC are configured will determine which template is used. If the WRC is configured for On/Off endpoints, select a lighting template listed with the **ICON** light bulb. If the WRC is configured for Level Control endpoints, select a Level Control template with the **ICON** dial.

- Double click a schedule to change the **Template Name** and **Description**.

- To ensure that you are using the right template, select a template and click **Assign to Device/Groups**.

EnergyCenter BY AUTANI

24/7 Schedules | Calendar | Advanced

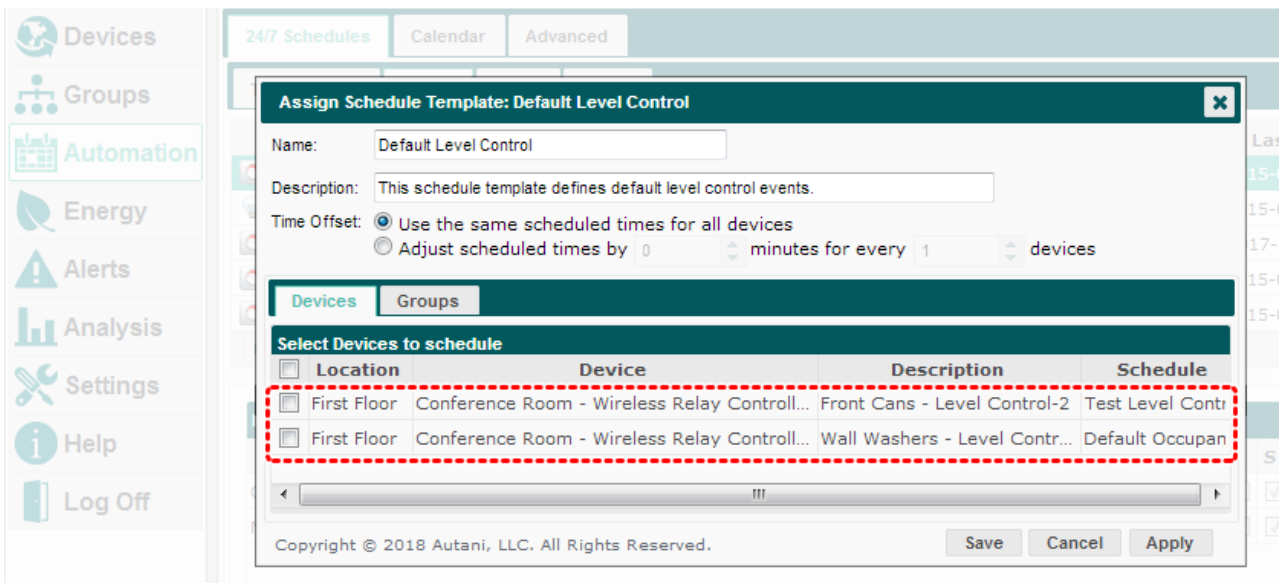
Thermostats | Lights | Plugs | Loads

Default Templates

Template Name	Description	Last C
Default Level Control	This schedule template defines default level control events.	2015-08-
Default Lighting	This schedule template defines default lighting events.	2015-08-
Default Occupancy Level...	This schedule template defines occupied and unoccupied level control events.	2017-12-
Default Outdoor Level C...	This schedule template defines outdoor level control events.	2015-08-
Empty Level Control	This schedule template may be used to disable level control events.	2015-08-

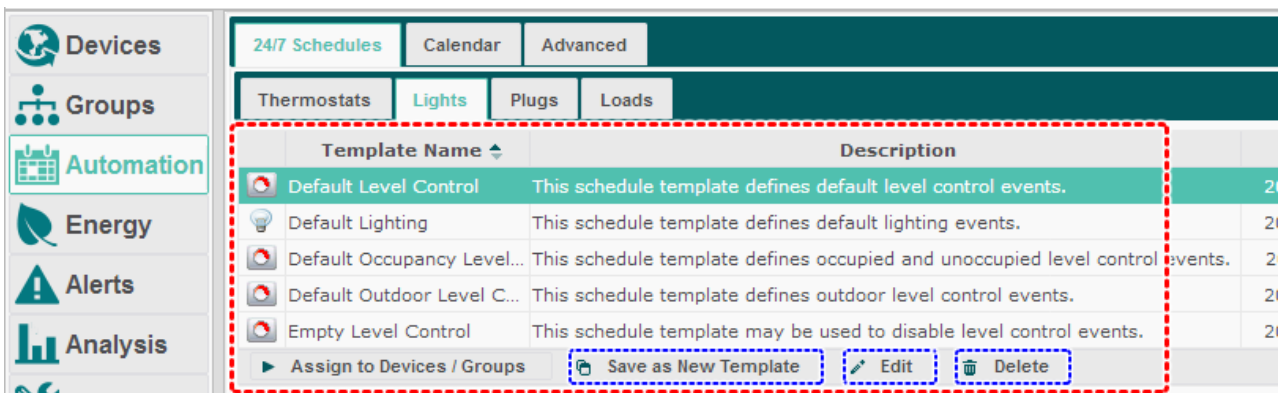
Assign to Devices / Groups | Save as New Template | Edit | Delete

- The **Assign Schedule Template** window appears with the list of devices. Check for WRC endpoints listed.



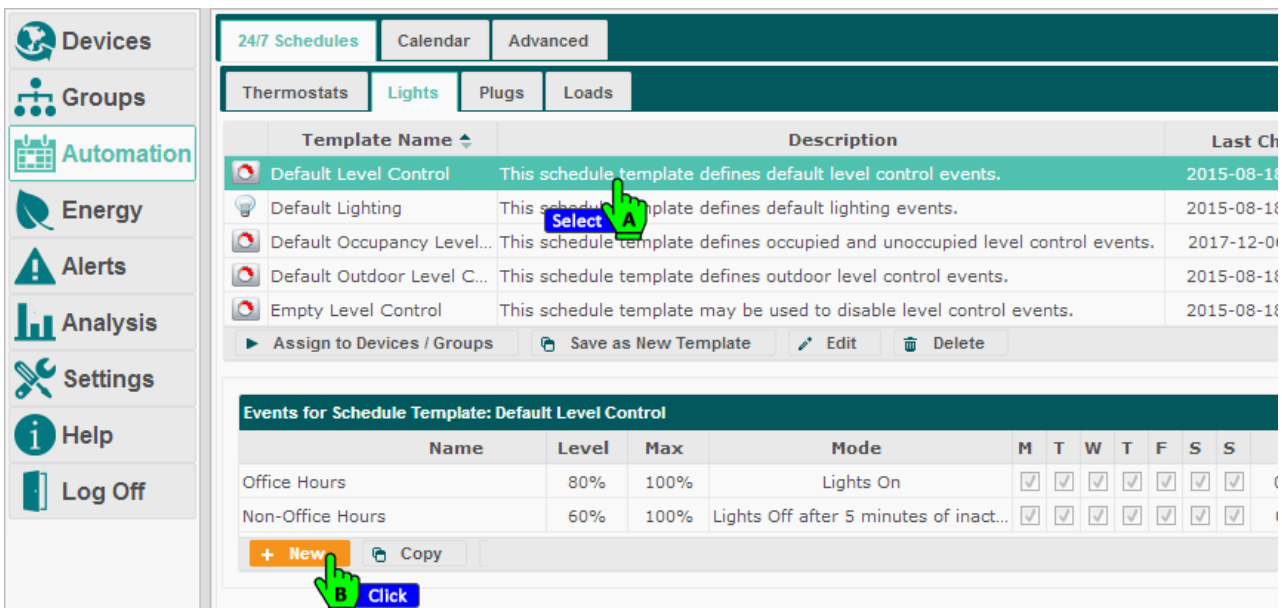
3. There are three more options in **24/7 Schedules > Lights** tab:

- Select a template and click **Save as New Template** to create a new template based on the selection.
- Select a template and click **Edit** to edit the template.
- Select a template and click **Delete** to delete the template.

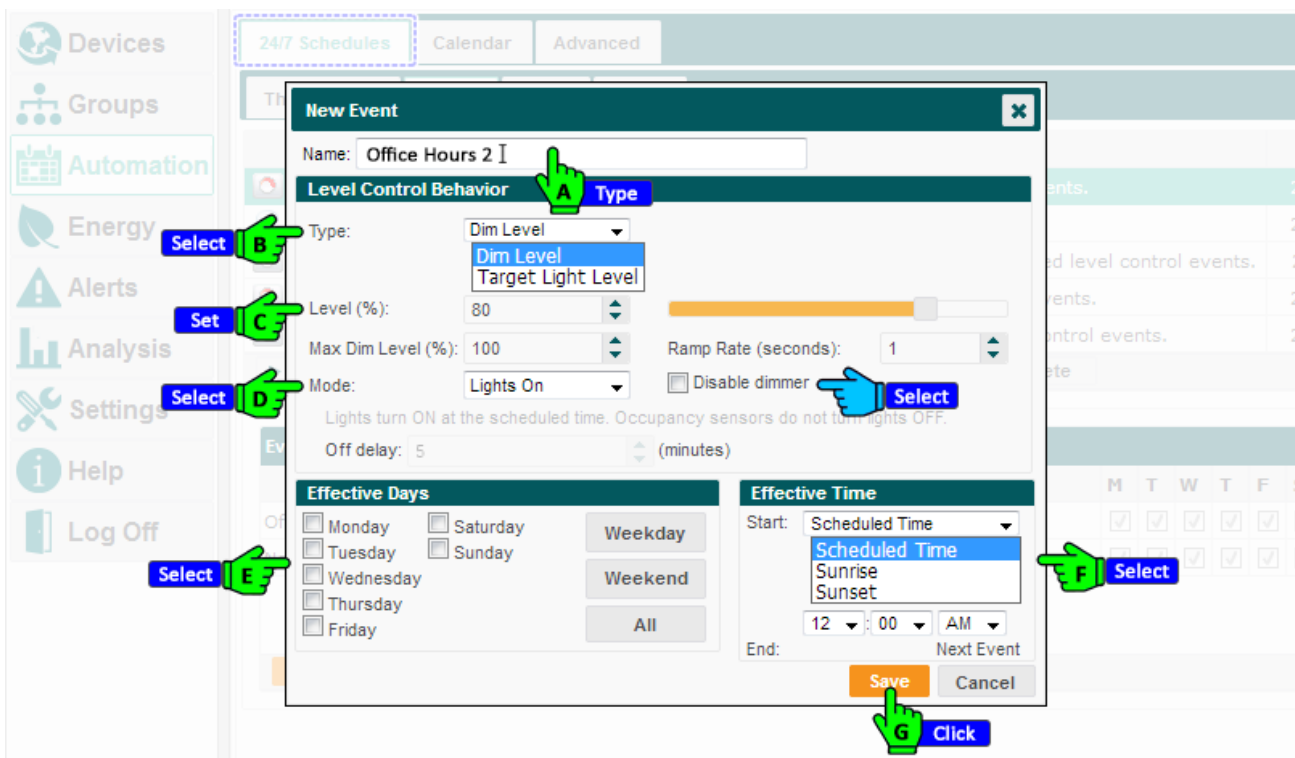


10.1.1. Configuring Events for a Schedule

4. To create a **New Event** for a schedule, select a schedule from the list of templates. Then click **New** in the **Events** section.



- The **New Event** window appears. (**NOTE:** This window is for Level Control per the schedule template selected. It will be different if the schedule template selected is for Lights On/Off)
 - Enter a **Name** for the new event in the name field.
 - From the **Type** dropdown, select a level mode.
 - Set the **Level (%)** of the light.
 - From the **Mode** dropdown, select a light mode.
NOTE: The Lights On/Off control is different for each mode. Read the conditions below each dropdown.
NOTE: The OFF delay can be used for all modes except the “Lights On” option.
 - Set the **Ramp Rate**. This is the amount of time takes to change the dim level.
 - If needed, click the box to disable the **Dimmer**.
NOTE: This is specific to a physical dimmer, not the EnOcean Rocker Pad.
 - Under **Effective Days**, select the box for each day the schedule should be in effect.
 - Under **Effective Time**, select the time the schedule should begin and end. Schedules can be based on Sunrise or Sunset if the ZIP code is entered into the system.



NOTE: After creating a new event for a schedule, the schedule needs to be assigned to a device. Refer to the section **Assigning an Event to a Schedule** for more information.

6. Additional **Event** configurations are below.

- Select an event and click **Copy** to copy the settings to another event.
- Select an event and click **Edit** to edit the event. (**NOTE:** After editing an event in a schedule, it is mandatory to reassign the schedule to a device or group for the changes to be applied. Refer to the section **Assigning an Event to a Schedule** for more information.)
- Select an event and click **Delete** to delete the event.

The screenshot shows the 'Automation' section of a control system interface. On the left is a navigation menu with options: Devices, Groups, Automation (selected), Energy, Alerts, Analysis, Settings, Help, and Log Off. The main content area has tabs for '24/7 Schedules', 'Calendar', and 'Advanced'. Below these are sub-tabs for 'Thermostats', 'Lights', 'Plugs', and 'Loads'. A table lists schedule templates with columns for 'Template Name' and 'Description'. The 'Default Level Control' template is highlighted. Below the table is a table of events for this template with columns: Name, Level, Max, Mode, M, T, W. The 'Office Hours' and 'Non-Office Hours' events are listed. At the bottom are buttons for '+ New', 'Copy', 'Edit', and 'Delete'. Green callouts 'A' and 'B' point to the 'Select' button on the 'Default Level Control' template and the 'Select' button on the 'Non-Office Hours' event, respectively.

Template Name	Description
Default Level Control	This schedule template defines default level control events.
Default Lighting	This schedule template defines default lighting events.
Default Occupancy Level...	This schedule template defines occupied and unoccupied level control ev
Default Outdoor Level C...	This schedule template defines outdoor level control events.
Empty Level Control	This schedule template may be used to disable level control events.

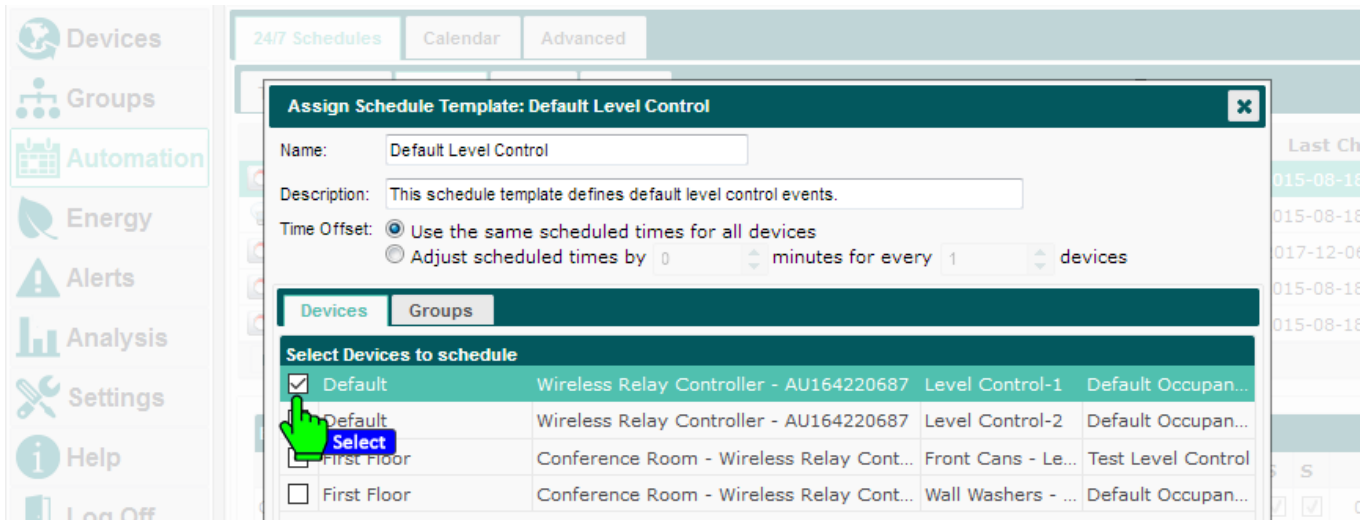
Name	Level	Max	Mode	M	T	W
Office Hours	80%	100%	Lights On	✓	✓	✓
Non-Office Hours	60%	100%	Lights Off after 5 minutes of inact...	✓	✓	✓

10.1.2. Assigning an Event to a Schedule

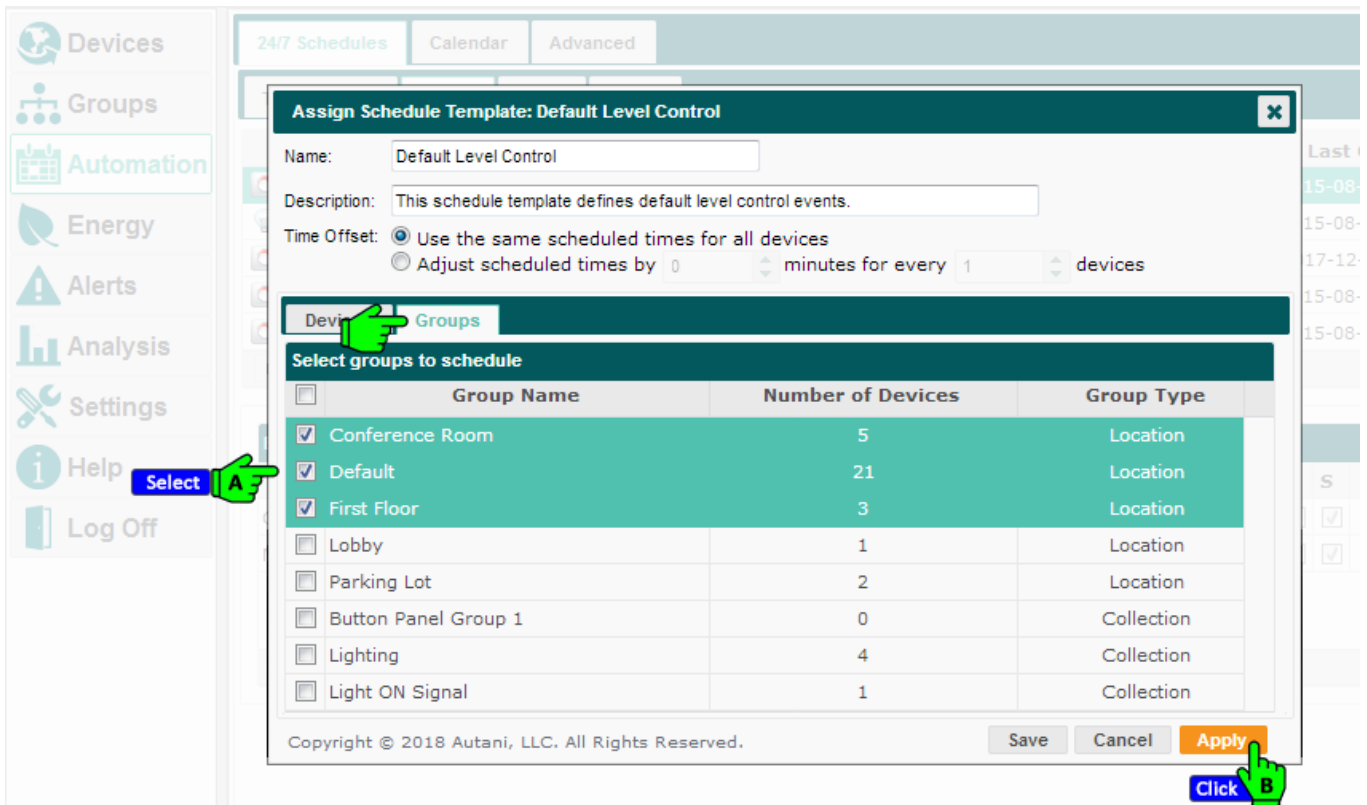
1. After **creating a new event** or after **editing an event**, the schedule needs to be assigned/reassigned to devices or groups. Select a schedule template and click **Assign to Device/Groups**.

This screenshot is similar to the previous one, showing the 'Automation' interface. The 'Default Level Control' template is highlighted. The 'Assign to Device/Groups' button is now highlighted in orange. A green callout 'A' points to the 'Select' button on the 'Default Level Control' template, and a green callout 'B' points to the 'Assign to Device/Groups' button.

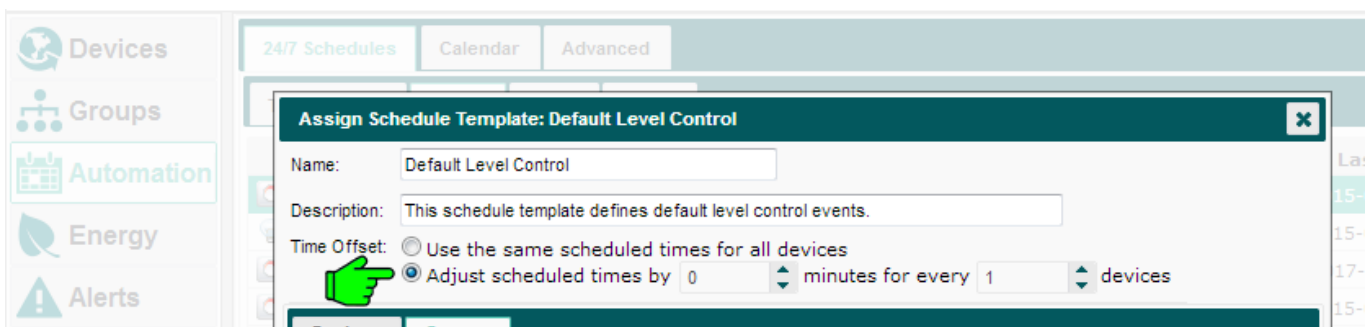
- The **Assign Schedule Template** window appears with the **Devices** tab selected by default. Select one or more WRCs with relevant endpoints from the list of available devices.



- Select the next tab **Groups**. Choose the required group(s) from the list and click **Apply**.



- The **Time Offset** feature is typically used in HVAC applications. Device start times can be staggered to mitigate traffic on the system.



10.2. Configuring a Schedule Override

Schedule Overrides are used to make an on-demand change in the lighting system during certain events. The process to create a schedule override is explained below.

- A. Create an Event Rule
- B. Associate the Event Rule to an Override
- C. Schedule an Override in Calendar

10.2.1. Create an Event Rule

1. To create an event rule, select **Automation > Advanced**. The **Event Rules** tab is selected by default, displaying the list of existing event rules. Click **New** to create a new event rule.

List of existing Event Rules

Name	State	Last Executed	Rule Template
Early Dismissal	Enabled	2018-07-27 12:00 PM	Occupancy based dimmable device level ...
Engage Test Event	Enabled	2018-01-04 11:54 AM	Event based on/off control.
Engage Test ProRule	Enabled	2018-01-04 01:41 PM	Custom script executed as an event.
Lighting Holiday Schedule	Enabled	2017-11-25 11:00 AM	Occupancy based dimmable device level ...
Load Control 2	Enabled	Never	Event based thermostat setting changes.
Load Control 1	Enabled	Never	Event based thermostat setting changes.
Parent Teacher Meetings	Enabled	Never	Event based zone control thermostat setti...
TANG Copy Button 1 ON	Enabled	2018-05-31 01:52 PM	Event based dimmable device level control.
TANG Copy ProRule	Enabled	2018-05-31 01:51 PM	Custom script executed as an event.
test	Enabled	2018-01-04 02:19 PM	Custom script executed as an event.
WRC Example Event Rule - All On	Enabled	Never	Occupancy based dimmable device level ...

Buttons: + New, Edit, Execute, Copy, Delete

2. The **New Event Rule** window appears with the **General** tab selected by default. Type a **name** for the new event rule, and select a **rule template** from the dropdown, and click **Next**.

New Event Rule

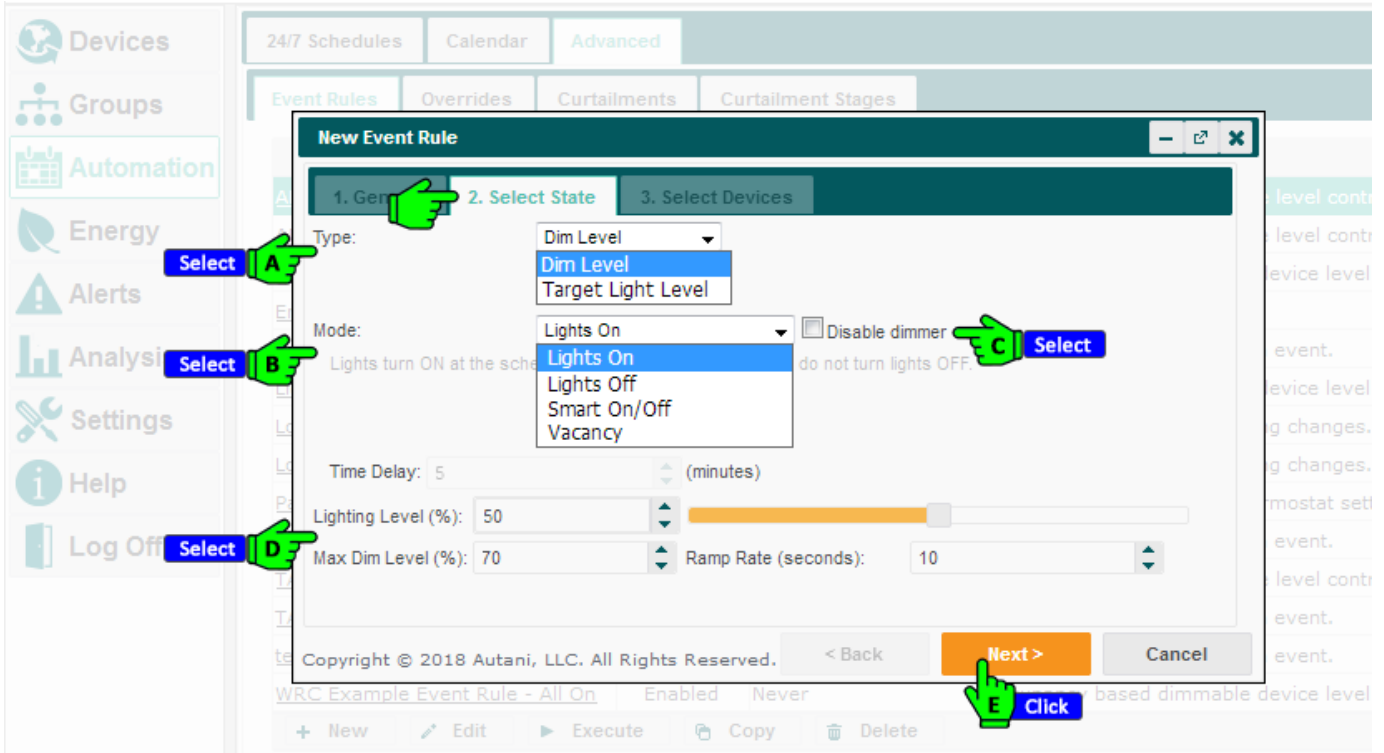
1. General | 2. Select State | 3. Select Devices

Type a name for the rule:
WRC Level Control - Test I

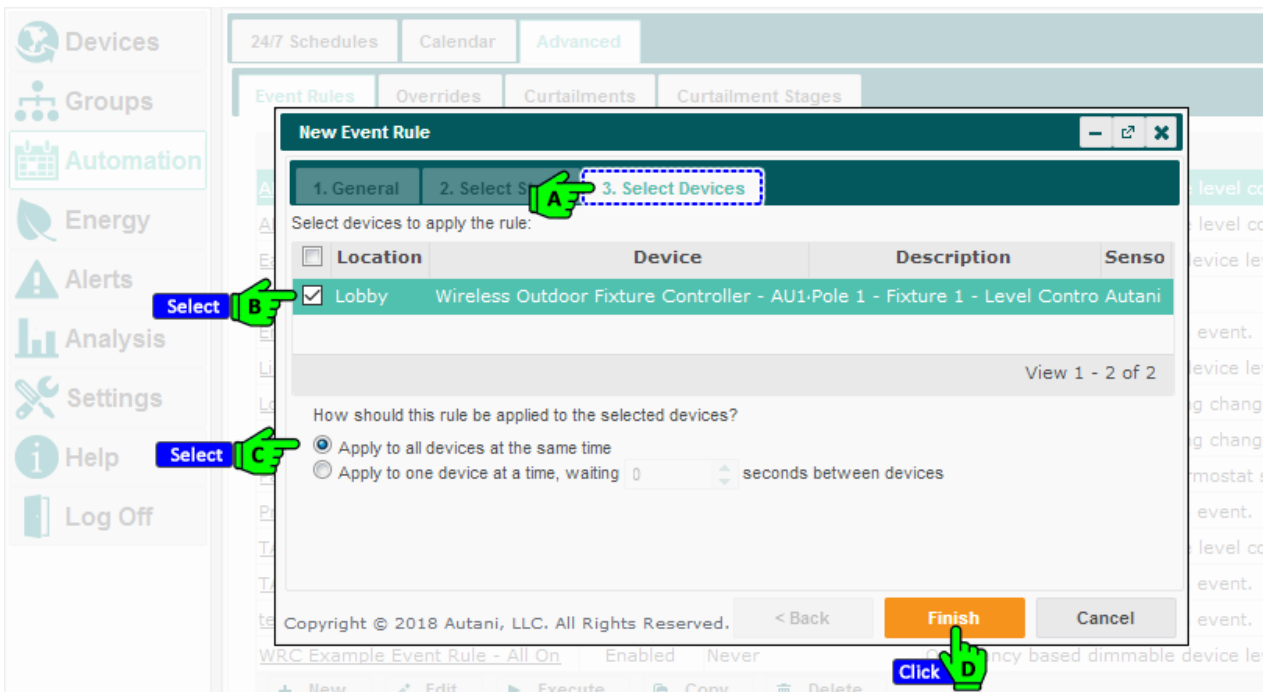
Select one of the following rule templates:
Event - Dimmable Device Control

Buttons: < Back, Next >, Cancel

3. Select the next tab **Select State** which has the settings for the **rule template** that was selected in the General tab. (**NOTE:** The setting details will differ for each type of rule template selected in the General tab.)
 - From the **Type** dropdown, select a **Level Mode**.
 - From the **Mode** dropdown, select a **Light Mode**.
NOTE: The Lights On/Off control is different for each mode. Read the conditions below each dropdown. The OFF delay can be used for all modes except the **Lights On** option.
 - If needed, click the box to disable the **Dimmer**. **NOTE:** This is specific to a physical dimmer, not the EnOcean Rocker Pad.
 - Set the **Lighting Level %** and click **Next**.



4. Select next tab **Select Devices**. Select the devices for which the new event rule will be applied to. Click **Finish** to end the creation process.



5. **NOTE:** The major advantage of an **event rule** is that they can be executed **on demand**. For example, if you have a facility with 100 WRCs and you want to turn ON all of them at the same time, you would build an event rule and then click **execute** to make an on-demand change.

Name	State	Last Executed	Rule Template
Early Dismissal	Enabled	2018-07-27 12:00 PM	Occupancy based dimmable device level ...
Engage Test Event	Enabled	2018-01-04 11:54 AM	Event based on/off control.
Engage Test ProRule	Enabled	2018-01-04 01:41 PM	Custom script executed as an event.
Lighting Holiday Schedule	Enabled	2017-12-25 12:00 AM	Occupancy based dimmable device level ...
Load Control 2	Enabled	Never	Event based thermostat setting changes.
Load Control I	Enabled	Never	Event based thermostat setting changes.
Parent Teacher Meetings	Enabled	Never	Event based zone control thermostat setti...
TANG Copy Button 1 ON	Enabled	2018-05-31 01:52 PM	Event based dimmable device level control.
WRC Example Event Rule - All On	Enabled	Never	Occupancy based dimmable device level ...
WRC Level Control - Test	Enabled	Never	Event based dimmable device level control.

10.2.2. Create a New Override and Associate an Event Rule

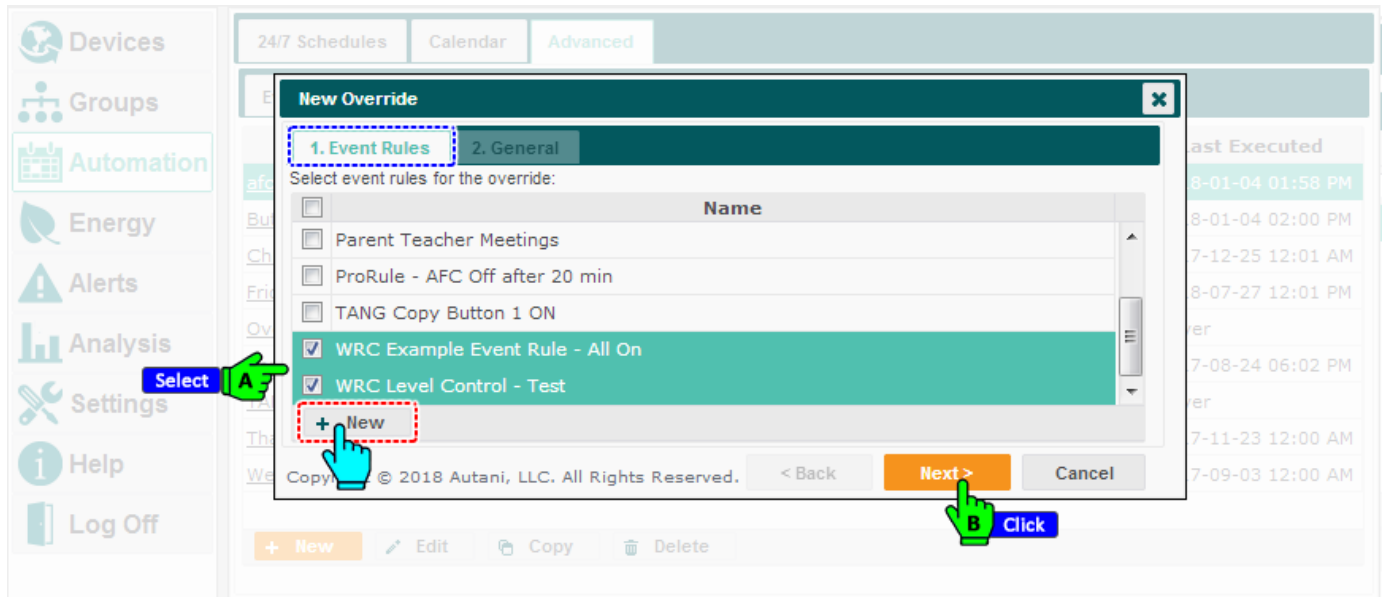
A new override can be created from either the **Calendar** or **Advanced** tabs in the Automation section. The process will be the same for both.

1. To create a new **override**, select **Automation > Advanced > Overrides**. The existing overrides are listed. Click **New**.

Name	Priority	State	Preset	HVAC	Lighting	Other	Last Executed
WRC off	Triggered Normal (5...	Enabled	No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2018-01-04 01:58 PM
Button One On	Triggered Highest (9...	Enabled	No	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2018-01-04 02:00 PM
Christmas	Triggered Normal (5...	Enabled	No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2017-12-25 12:01 AM
Friday Early Dismissal	Triggered Normal (5...	Enabled	No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2018-07-27 12:01 PM
Override All On @ 100%	Triggered Normal (5...	Enabled	No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Never
parent teacher	Triggered Normal (5...	Enabled	No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2017-08-24 06:02 PM
TANG: Enable ProRule	Standing Highest (1...	Enabled	No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Never
Thanksgiving	Triggered Normal (5...	Enabled	No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2017-11-23 12:00 AM
Weekend	Triggered Normal (5...	Enabled	No	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2017-09-03 12:00 AM

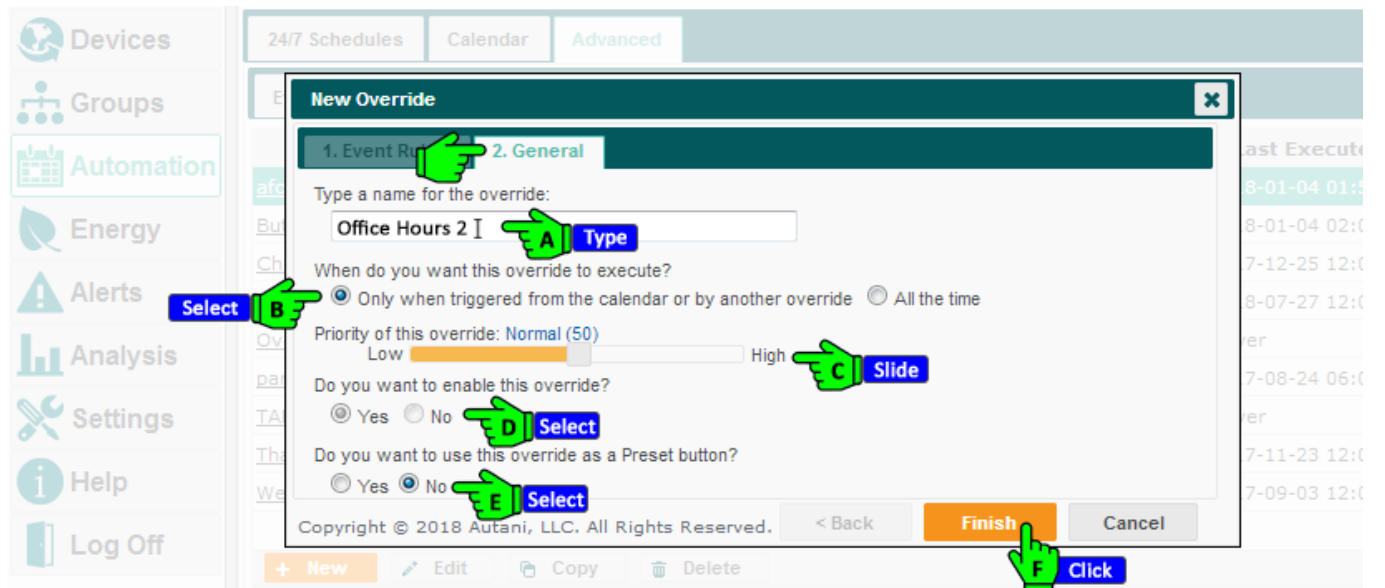
2. The **New Override** window appears with the **Event Rules** tab selected by default. The list of existing event rules is displayed. Select the event rule(s) to associate with the new override and click **Next**.

NOTE: There is an option to create a **New** event rule within this window if one was not created earlier.



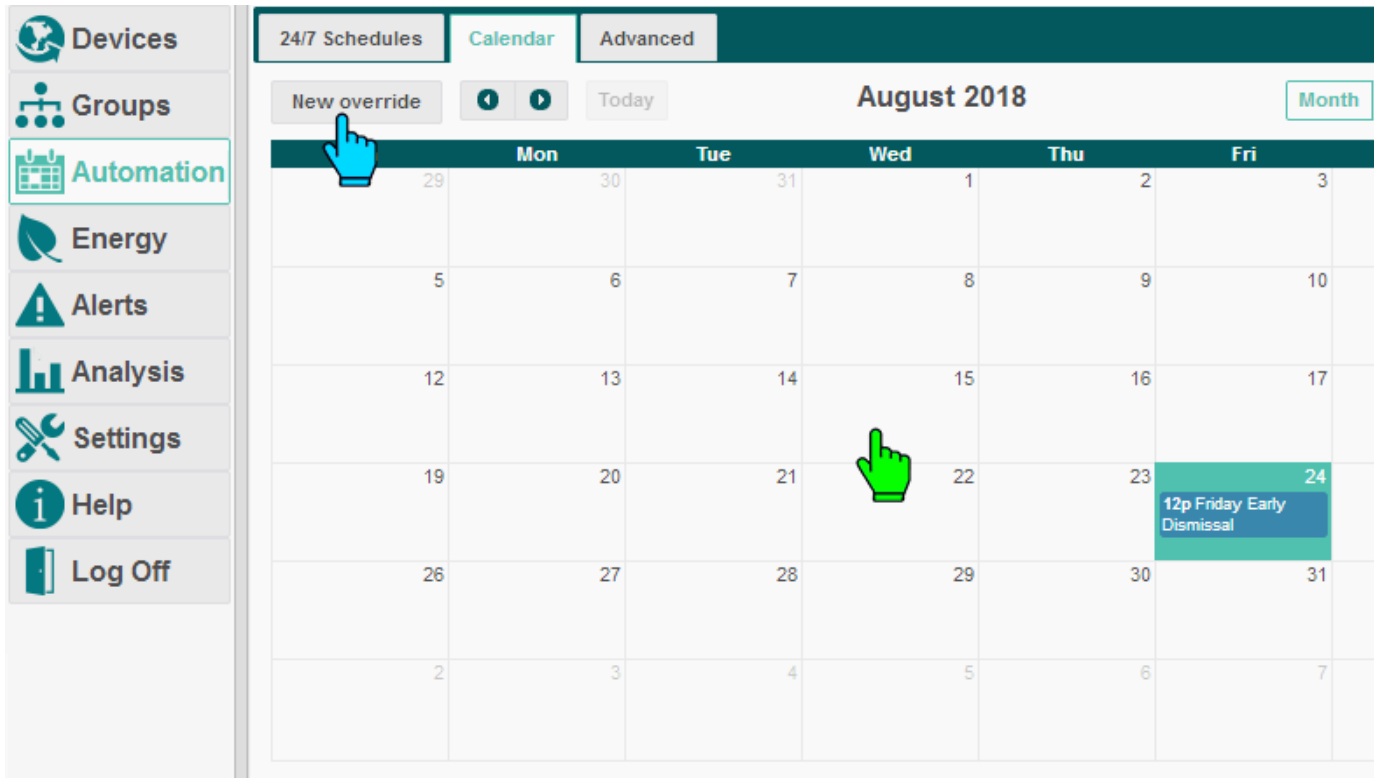
3. Select the next tab **General**, where the new override can be configured.

- Enter a **name** for the new override.
- Select the **condition** to execute the override (only when triggered, or all the time).
- Set the **priority** for the override.
- Choose whether to **enable or disable** this override.
- Choose whether to use this override as a **Preset** button. This preset button will be available inside **Settings > System > Presets**.
- Click **Finish**.

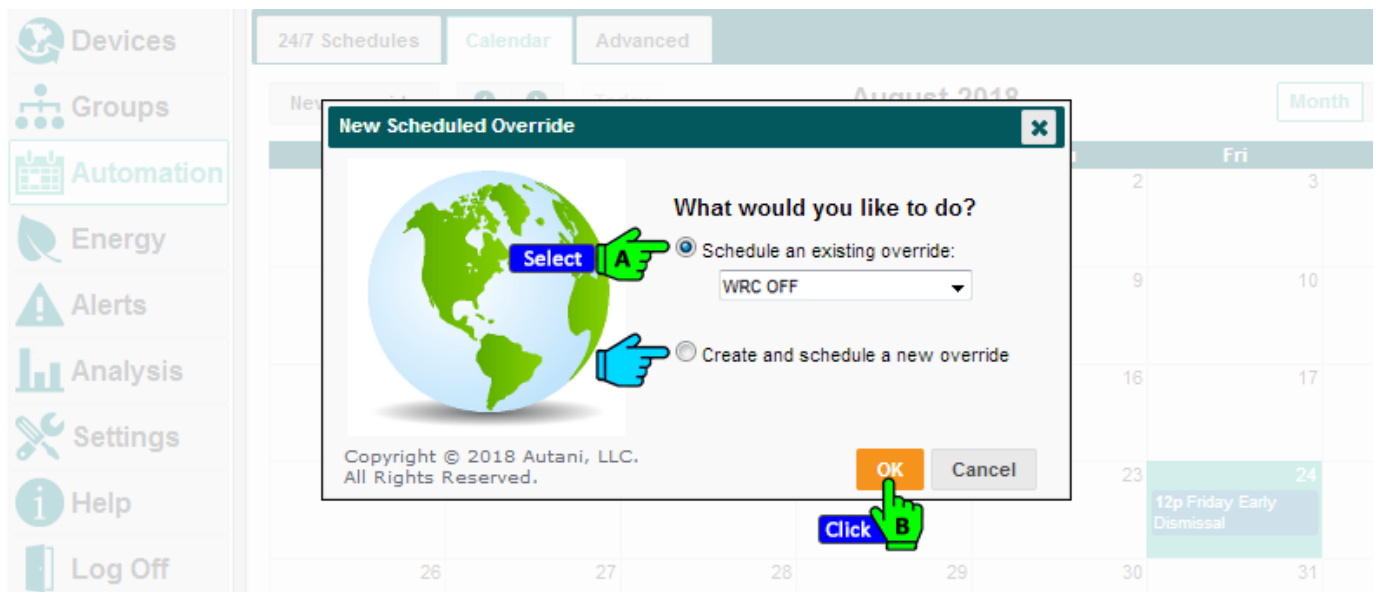


10.2.3. Schedule an Override in Calendar

1. To schedule an override through the calendar, select **Automation > Calendar**. The calendar screen will load. Click on any **day** of the calendar or click the **New override** button above the calendar.

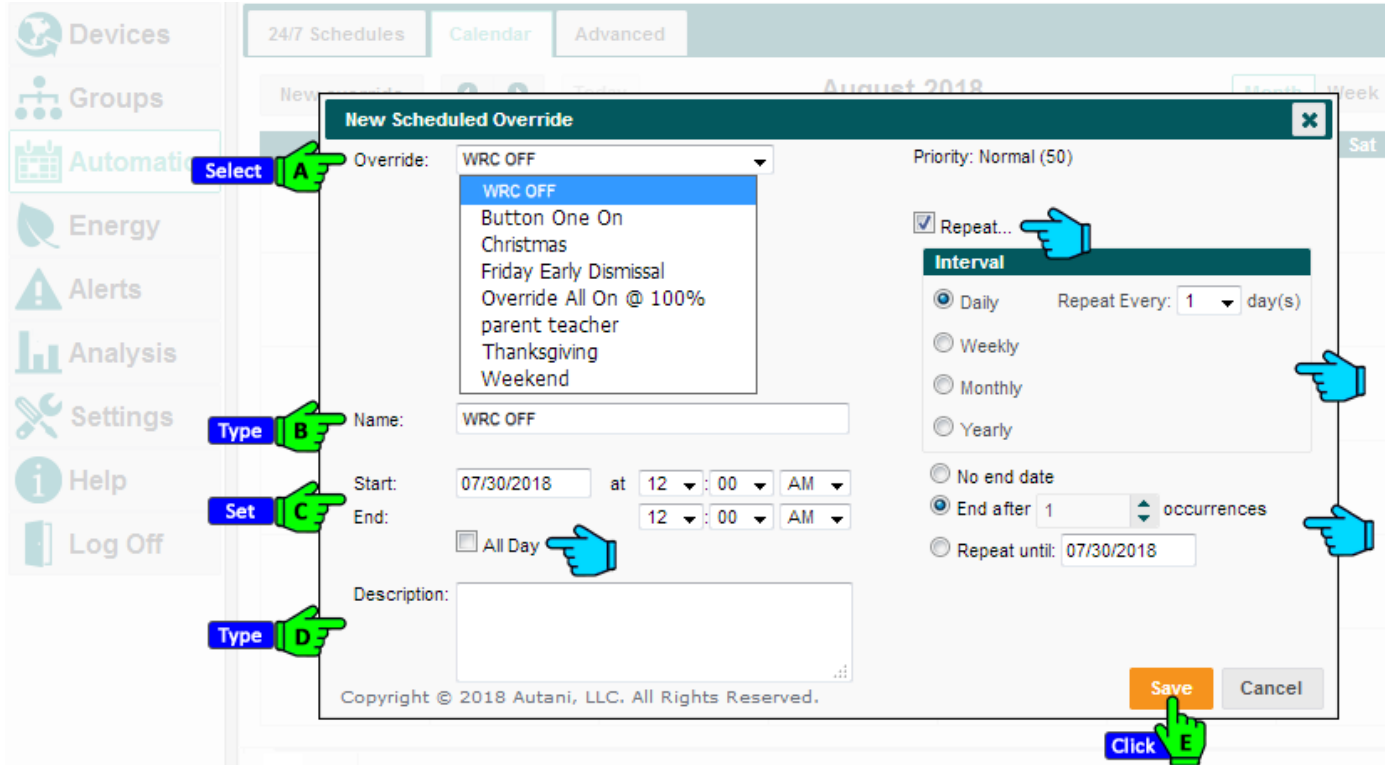


2. The **New Scheduled Override** window appears. Select **Schedule an existing override** and click **OK**.
NOTE: There is another option, **Create and schedule a new override**, where new override can be created scheduled.



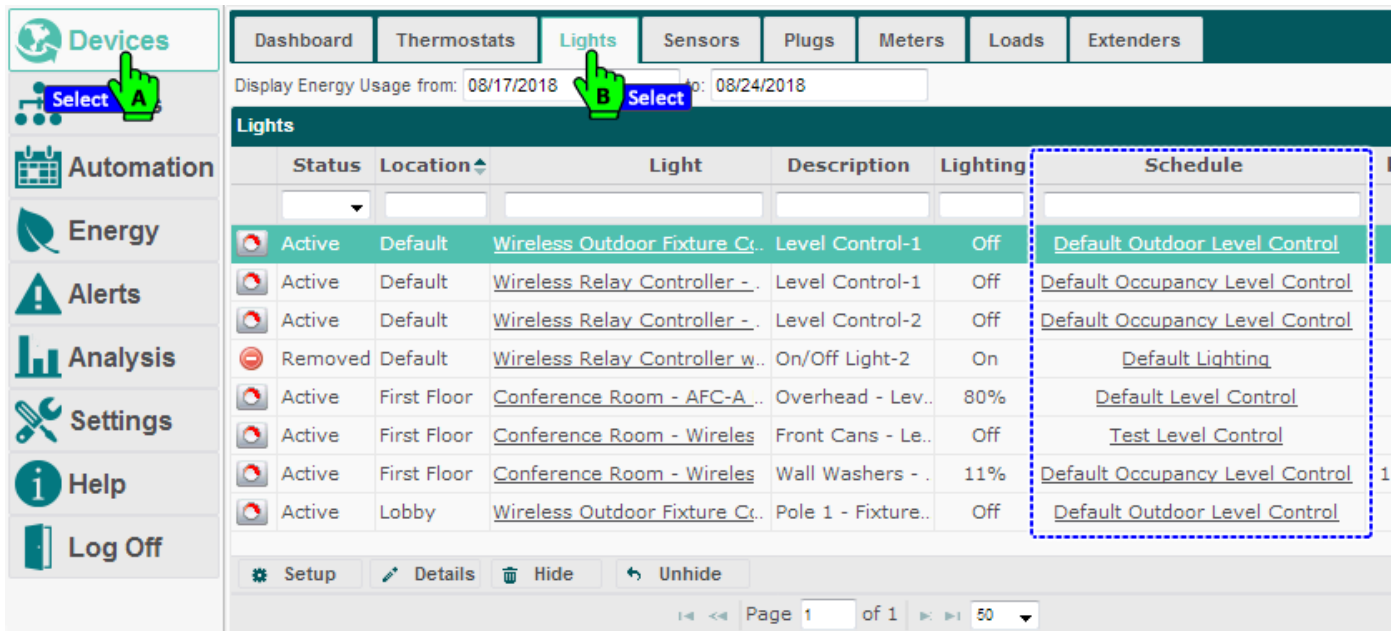
3. Another **New Scheduled Override** window appears.

- Select an **Override** from the dropdown. (**NOTE:** The priority level set in the previous section is displayed here.)
- Type a **Name** for the schedule override.
- Set a **Start** and **End** time for a day or select **All Day**.
- Type a **Description** of the scheduled override.
- If required, select the **Repeat** option and set the interval to repeat the schedule override. Overrides can also repeat for a set number of occurrences or until a specific date.



10.3. Verifying a Schedule (Viewing Schedule in Another Section)

The schedules assigned to a lighting system can be viewed/verified through the **Devices > Lights** section. From the **Schedule** column, click on any of the schedules to view and verify.



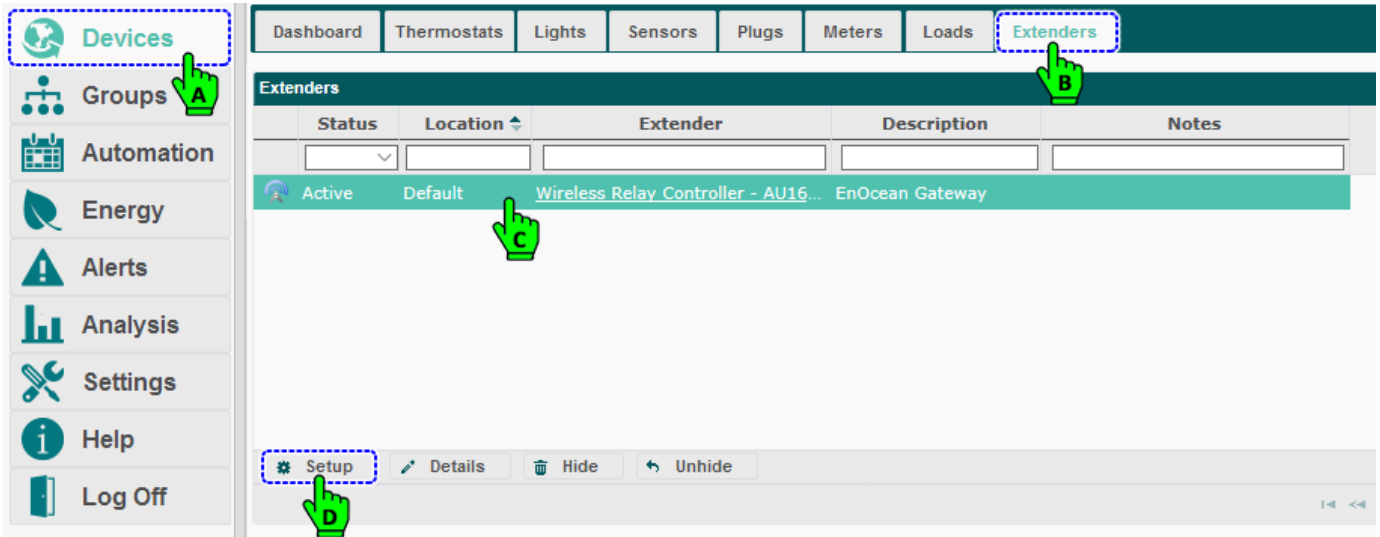
11. Configuring an EnOcean Gateway

The EnOcean Gateway can be configured in two places, detailed below. The process will be same in both places.

- Devices > Extender
- Settings > Device Setup > Device Configuration

11.1. Setup, EnOcean Gateway

1. Select **Devices > Extenders** tab. Select the **EnOcean Gateway** for the applicable WRC, and click **Setup**.

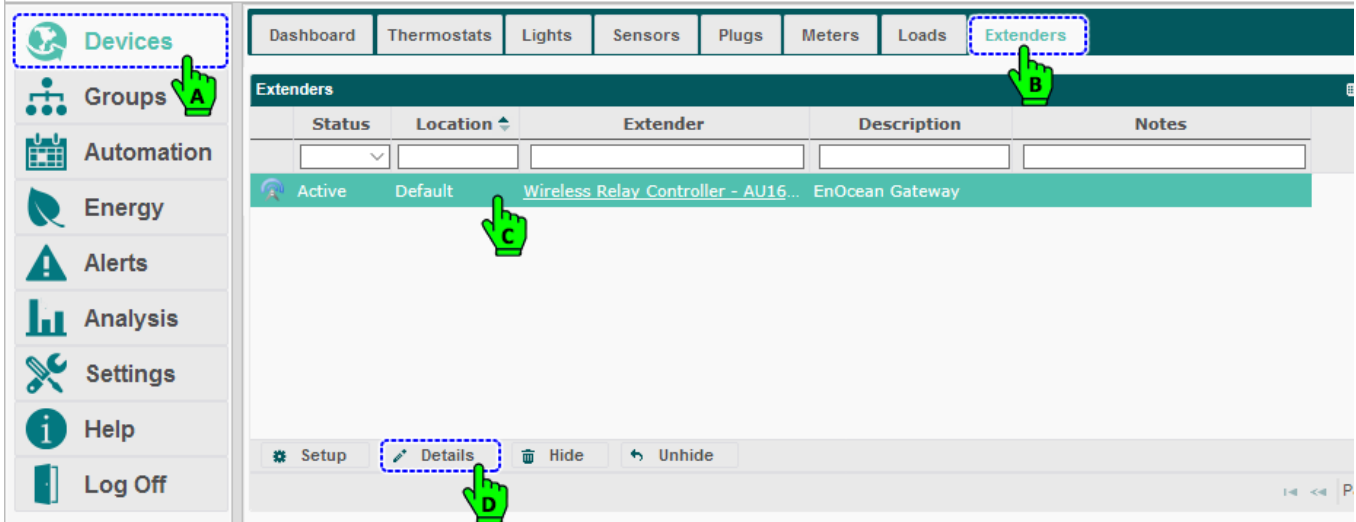


2. The **Setup Extender** window appears with the **General** tab selected. Three pass-through options for the **WRC** are listed. The user can choose which EnOcean messages are sent to the Autani Manager.
- Select the option **All - all EnOcean messages are forwarded to the Manager** to forward all the messages. Click **Save/Apply**.

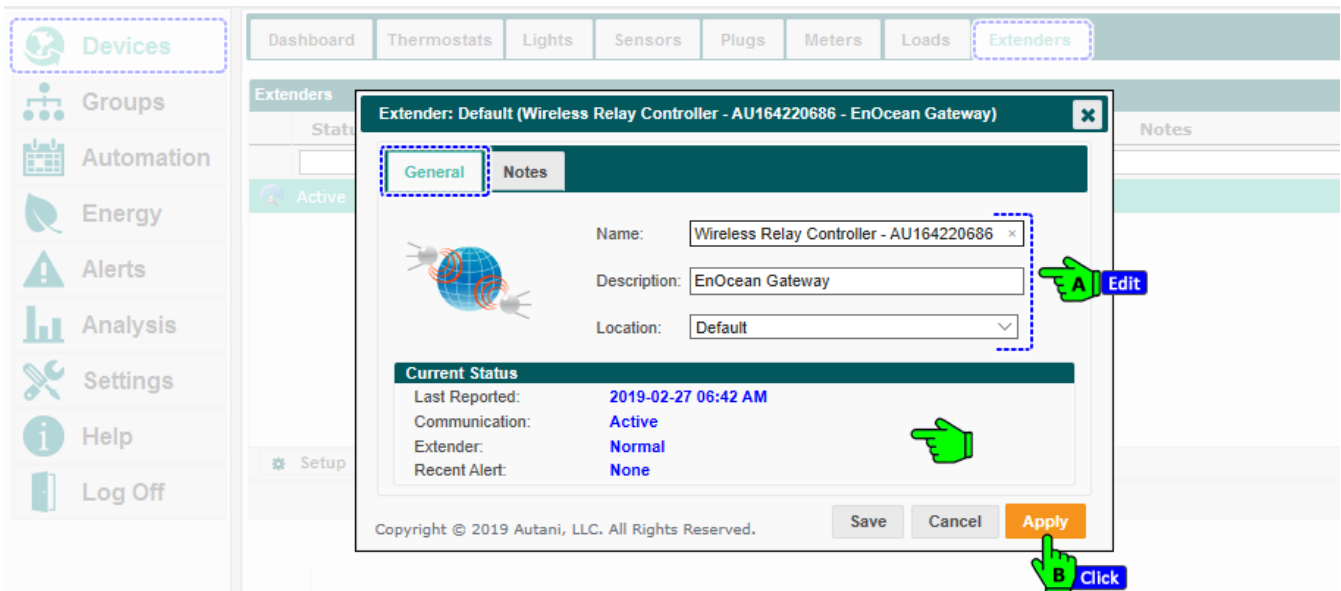


11.2. Details, EnOcean Gateway

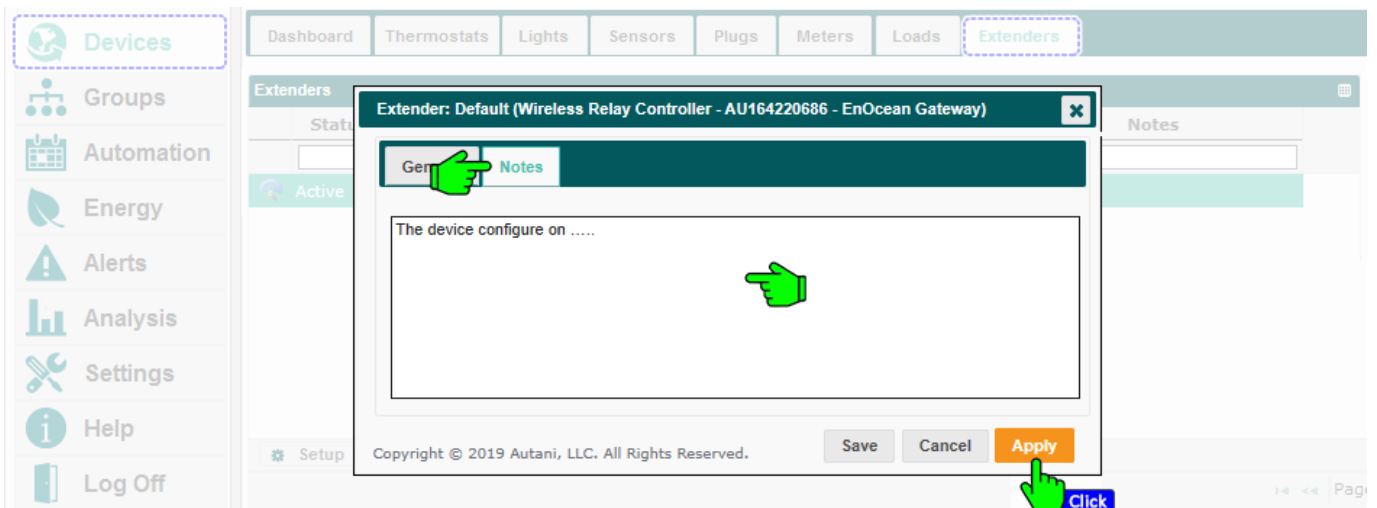
1. Select **Devices** > **Extenders** tab. Select the applicable **EnOcean Gateway** and click **Details**.



2. The **Extender** window appears with the **General** tab selected. The **name**, **description**, and **location** for the Gateway can be modified here. The current status of the Gateway can be viewed in the lower section. Click **Apply** after all changes are made.



3. Select the next tab **Notes** to enter any notes for future reference. Click **Apply**.



12. Energy Estimation

12.1. Configuring a WRC for Energy Estimation

1. To check the energy usage of a **WRC**, it must first be enabled to do the calculation. Select **Devices > Lights**. Select an endpoint for the **WRC** from the list of devices, and click **Setup**.

Dashboard Thermostats **Lights** Sensors Plugs Meters Loads Extenders

Display Energy Usage from: 05/22/2018 to: 05/29/2018

Lights

Status	Location	Light
Active	Default	Wireless Outdoor Fixture Controller - AU162410530
Active	Default	Wireless Relay Controller - AU164220687
Active	Default	Wireless Relay Controller - AU164220687
Removed	Default	Wireless Relay Controller with EnOcean - AU164220174
Active	First Floor	Conference Room - AFC-A Dimming Fixture Controller - AU...
Active	First Floor	Conference Room - Wireless Relay Controller - AU1620207...
Active	First Floor	Conference Room - Wireless Relay Controller - AU1620207... Wa

Setup Details Unhide

Page 1 of 1

2. The **Setup Light** window appears. Select the **Switch Outputs** tab.
 - Click the box to enable **Computer energy usage...** and enter values in the **Lighting output** fields. The **Energy Usage Rate** will be displayed.
 - **OR**, if the Energy Usage Rate is already known, uncheck the **Compute energy usage...** box and enter the energy usage rate directly in the **Energy Usage Rate** field.
 - Click **Apply**.

Dashboard Thermostats **Lights** Sensors Plugs Meters Loads Extenders

Display Energy Usage from: 05/22/2018 to: 05/29/2018

Setup Light: Default (Wireless Relay Controller with EnOcean - AU154320005 - Level Control-1)

General Settings Sensor/Dimmer Sensor Inputs EnOcean Dimmers **Switch Outputs**

Compute energy usage rate based on values below

Lighting output

Number of fixtures: 20

Number of lamps per fixture: 3

Wattage of a single lamp: 28 W

Energy Usage Rate: 1.68 kWh

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Save Cancel **Apply** Apply to...

Setup Details Hide Unhide

Page 1 of 1

12.2. View Energy Consumption from Devices Section

1. Select **Devices > Lights**. Select the applicable light from the list.

Dashboard Thermostats **Lights** Sensors Plugs Meters Loads Extenders

Display Energy Usage from: 05/22/2018 to: 05/29/2018

Status	Location	Light	
Active	Default	Wireless Outdoor Fixture Controller - AU162410530	Level Cont
Active	Default	Wireless Relay Controller - AU164220687	Level Cont
Active	Default	Wireless Relay Controller - AU164220687	Level Cont
Removed	Default	Wireless Relay Controller with EnOcean - AU164220174	On/Off Light
Active	First Floor	Conference Room - AFC-A Dimming Fixture Controller - AU...	Overhead
Active	First Floor	Conference Room - Wireless Relay Controller - AU1620207...	Front Cans
Active	First Floor	Conference Room - Wireless Relay Controller - AU1620207...	Wall Wash

Setup Details Unhide

2. Enter in a **date range** and click on **Show/Hide Energy** on the top right corner. The energy usage chart will be displayed below the list of devices. Multiple endpoints can be selected and viewed in the chart.

Dashboard Thermostats **Lights** Sensors Plugs Meters Loads Extenders

Display Energy Usage from: 08/20/2018 to: 08/27/2018

Click Show/Hide Energy

Status	Location	Light	Description	Lighting	Schedule	kWh	Display
Active	Default	Wireless Outdoor Fixture Controll...	Level Control-1	80%	Default Outdo	0.000	<input type="checkbox"/>
Active	Default	Wireless Relay Controller - AU164...	Level Control-1	Off	Default Occu	0.000	<input type="checkbox"/>
Active	Default	Wireless Relay Controller - AU164...	Level Control-2	Off	Defaul	0.000	<input type="checkbox"/>
Removed	Default	Wireless Relay Controller with En...	On/Off Light-2	On	Default Lighti	0.000	<input type="checkbox"/>
Active	First Floor	Conference Room - AFC-A Dimmi...	Overhead - Level Co...	Off	Default Level	0.000	<input type="checkbox"/>
Active	First Floor	Conference Room - Wireless Rela...	Front Cans - Level C...	Off	Test Level Co	0.000	<input checked="" type="checkbox"/>
Active	First Floor	Conference Room - Wireless Rela...	Wall Washers - Level...	100%	Default Occu	172.166	<input checked="" type="checkbox"/>
Active	Lo...	Wireless Outdoor Fixture Controll...	Pole 1 - Fixture 1 - L...	80%	Default Outdo	0.000	<input type="checkbox"/>

Setup Details Hide Unhide

Page 1 of 1 50 View 1 - 8 of 8

Daily Energy Usage of Selected Lights

Date	kWh
Aug 19	0
Aug 20	16
Aug 21	16
Aug 22	17
Aug 23	16
Aug 24	23
Aug 25	38
Aug 26	22
Aug 27	24
Aug 28	0

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12.3. Viewing Energy Consumption from Groups Section

1. Select **Groups** from the main menu. Select a **group**, enter a **date range**, and then click on **Show/Hide Energy** on the top right corner. The energy usage chart will be displayed below the list of selected groups. Multiple groups can be selected and viewed in the chart.

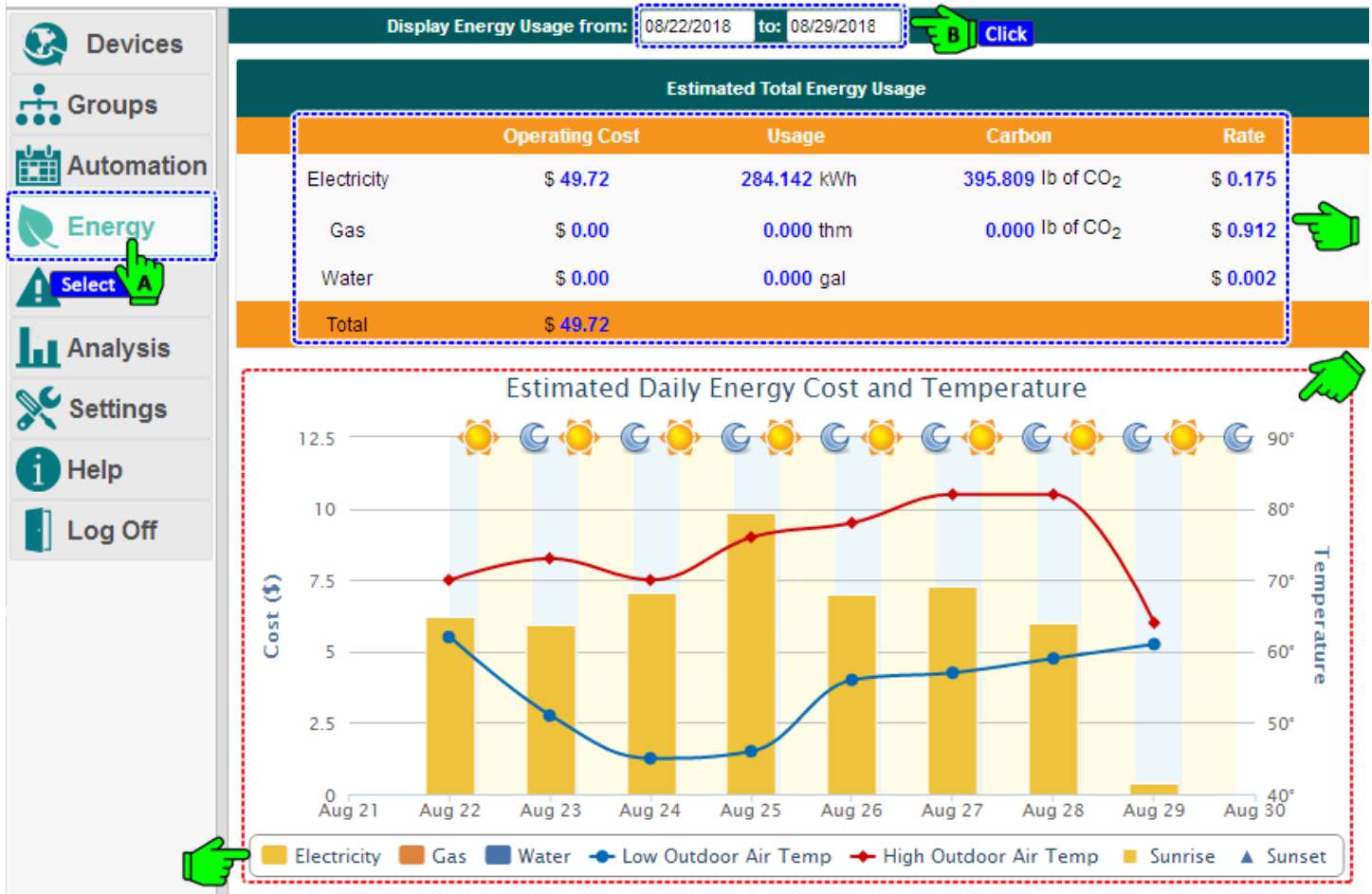
The screenshot displays the 'Groups' section of the energy management system. The sidebar on the left has 'Groups' selected. The main area shows a date range filter for '08/21/2018 to: 08/28/2018' and a 'Show/Hide Energy' button. Below this is a table of groups with columns for Group Name, Number of Devices, Group Type, Total kWh, and Display. A bar chart below the table shows 'Daily Energy Usage of Selected Groups' for Electricity and Gas from Aug 20 to Aug 29.

Group Name	Number of Devices	Group Type	Total kWh	Display
Conference Room	5	Location	0.000	<input type="checkbox"/>
Default	37	Location	132.215	<input type="checkbox"/>
First Floor	3	Location	167.606	<input checked="" type="checkbox"/>
Lobby	1	Location	0.000	<input type="checkbox"/>
Parking Lot	2	Location	0.000	<input type="checkbox"/>
Button Panel Group 1	0	Collection	0.000	<input type="checkbox"/>
Lighting	4	Collection	167.606	<input type="checkbox"/>
Light ON Signal	1	Collection	0.000	<input type="checkbox"/>

The bar chart shows 'Daily Energy Usage of Selected Groups' for Electricity and Gas from Aug 20 to Aug 29. The Y-axis is kWh (0 to 50). The X-axis shows dates from Aug 20 to Aug 29. Electricity usage is shown in yellow bars, and Gas usage is shown in orange bars. The chart shows a peak in electricity usage on Aug 25, reaching approximately 38 kWh.

12.4. Viewing Energy Consumption from Energy Section

1. Select **Energy** from the main menu. Details on cost, usage, carbon and rate will be displayed based on the meter input (revenue or estimate engine). Select a date range to view the usage report. Click any attribute listed at the bottom of the chart to show/hide it in the chart.



12.5. View Meters/Engines for Energy Consumption

1. Select **Settings > System** and scroll down to see the list of available meters/engines.

Settings

System

Email Smart Host: **Select** B smarthost.local

Temperature Display: Fahrenheit

Device Dashboard: Enabled

Device Tabs:

- Thermostats
- Lights
- Sensors
- Plugs
- Meters
- Loads
- Extenders

Refresh Rate: 20 second(s)

Kiosk: Enabled Show Kiosk

Kiosk Panels:

- Customer Logo (must be uploaded)
- Facility Image (must be uploaded)
- Facility Information
- Facility Usage
- Temperatures
- Weather

Kiosk Charts:

- Electricity Usage
- Electricity Production
- Gas Usage
- Water Usage
- Daily Cost
- Occupancy, HVAC, and Max Demand

Presets: Enabled Show Presets

Preset Delay: 5 second(s)

Wired Contacts: Disabled

Watchdog Timers: Enabled

Save Cancel

Choose where the application obtains metering information for total usage graphs and meters.

Select the meter(s) used for application wide usage monitoring

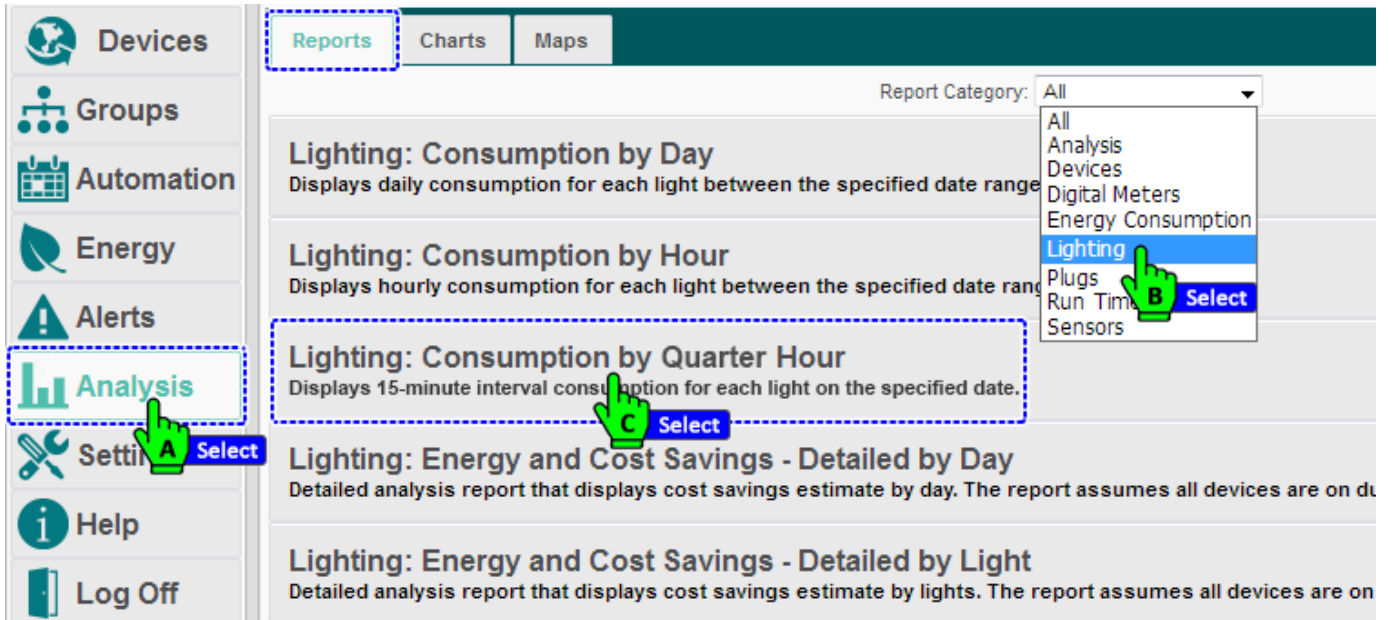
	Device
<input type="checkbox"/>	
<input checked="" type="checkbox"/>	Estimation Engine

Select C

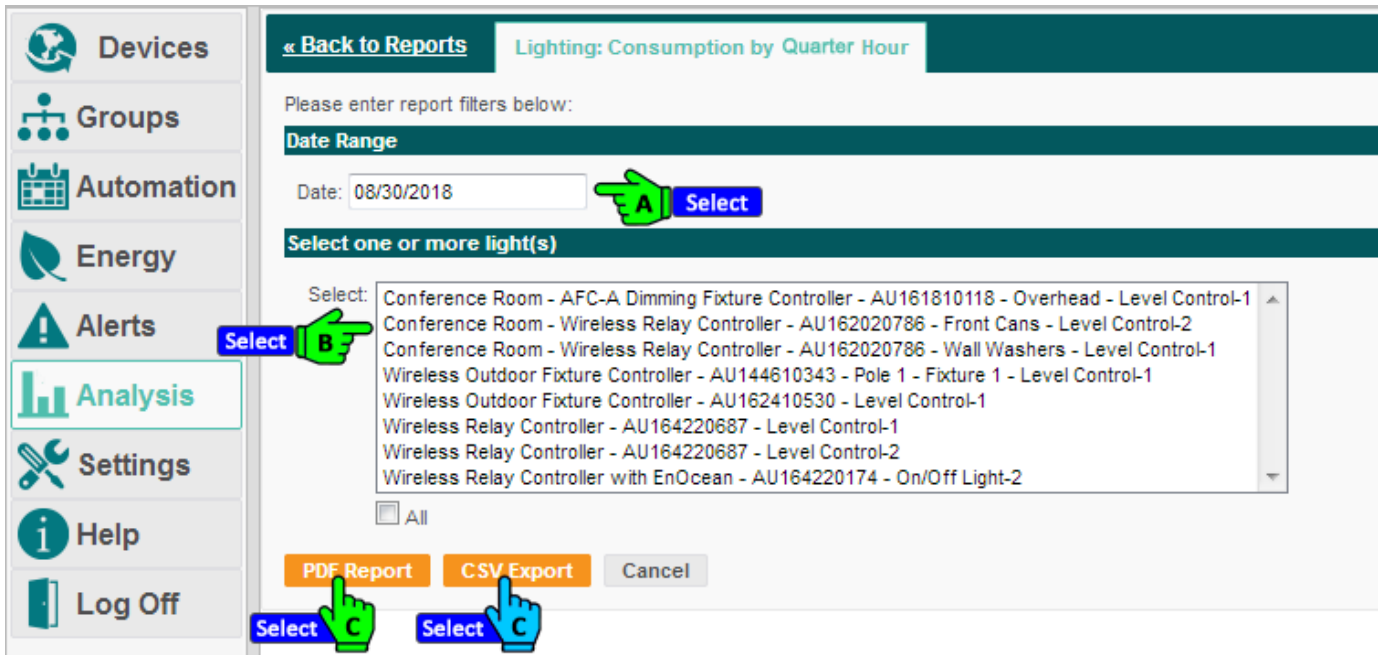
Save Cancel

12.6. Energy Consumption Reports

1. Select **Analysis** from the main menu. The list of available reports is displayed. Select a report to run and export to **PDF** or **CSV** format.
 - Select **Lighting** from the **Report Category** dropdown, and click on a report (for example, **Lighting: Consumption by Quarter Hour**).



2. The **Lighting: Consumption by Quarter Hour** window appears. (**NOTE:** The report window differs for each kind of reports selected.) Select a **Date** and then select one or more **Lights**. Click on **PDF Report** or **CSV Export** to generate the report.



13. Checking the Status of Lighting Devices

The current behavior and status of lighting devices can be checked in different sections of EnergyCenter®.

13.1. Check the Status through Device > Lights

1. Select **Devices > Lights**, The list of available lighting devices is displayed. Select a WRC.

- The **Status** column displays the status of Light (active, error, removed).
- The **Location** column gives information on location of the device.
- The **Light** column provides the device information.
- The **Description** column provides the device type information.
- The **Lighting** column provides information on the status of lighting (off, level on).
- The **Schedule** column provides information on the schedule of the devices.

Status	Location	Light	Description	Lighting
Active	Default	Wireless Outdoor Fixture Controller - AU162410530	Level Control-1	80%
Error	Default	Wireless Relay Controller - AU164220687	Level Control-1	Off
Error	Default	Wireless Relay Controller - AU164220687	Level Control-2	Off
Removed	Default	Wireless Relay Controller with EnOcean - AU164220174	On/Off Light-2	On
Active	First Floor	Conference Room - AFC-A Dimming Fixture Controller - AU16	Overhead - Level Control	Off
Active	First Floor	Conference Room - Wireless Relay Controller - AU162020786	Front Cans - Level Control	Off
Active	First Floor	Conference Room - Wireless Relay Controller - AU162020786	Wall Washers - Level Control	80%
Active	Lobby	Wireless Outdoor Fixture Controller - AU144610343	Pole 1 - Fixture 1 - Level Control	80%

2. The **Light** window appears, displaying the **Current Status** of the light in the lower section.

Light: First Floor (Conference Room - Wireless Relay Controller - AU162020786 - Front Cans - Level Control-2)

General | Charts | Event Logs | Schedule | Sensors | Notes

Name: Conference Room - Wireless Relay Controller - AU162020786

Description: Front Cans - Level Control-2

Location: First Floor

Level

Mode: No Change

Time Delay: 5 minute(s)

Occupied Level (%): 50

Unoccupied Level (%): Off

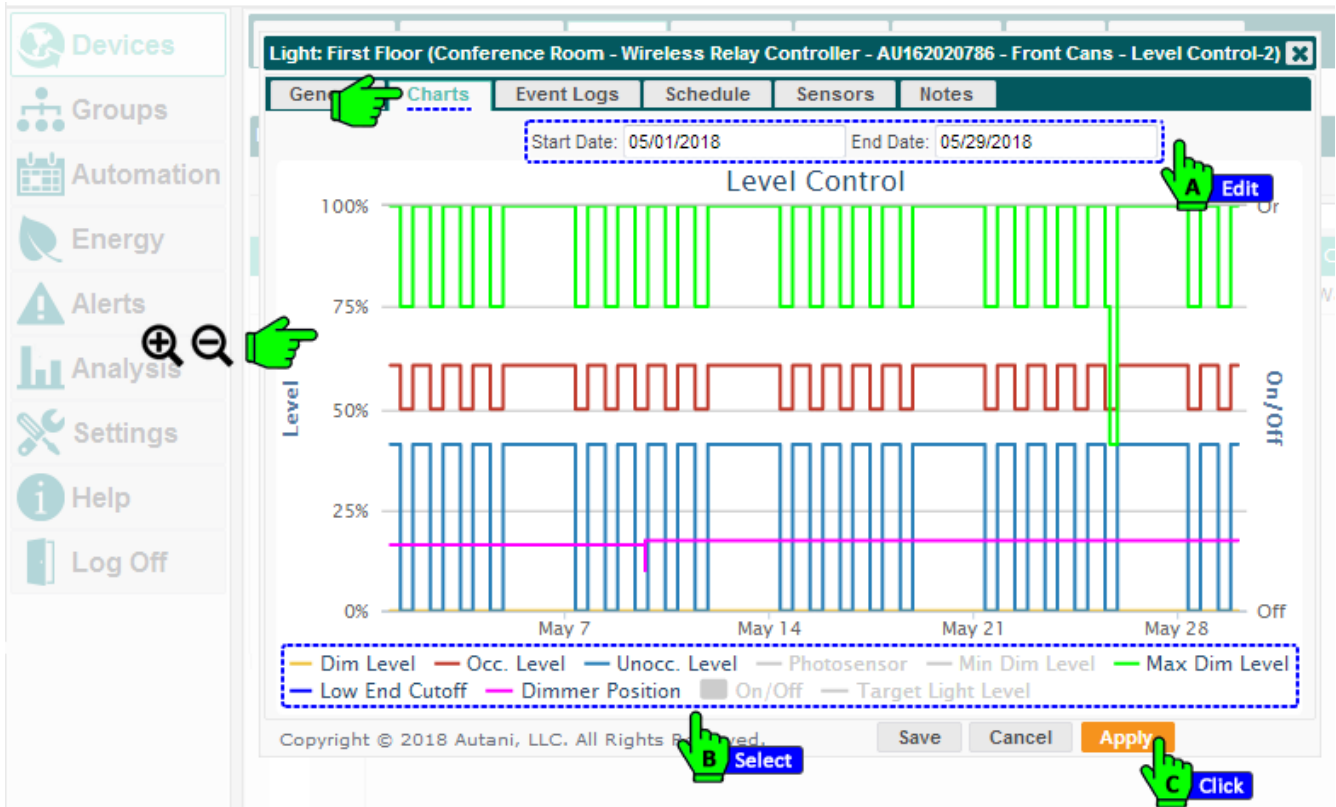
Current Status

Last Reported:	2018-09-06 07:45 AM	On/Off:	Off
Schedule:	Test Level Control	Current Level:	0%
Event:	Office Hours	Min Dim Level:	0%
Communication:	Active	Max Dim Level:	75%
Level Control:	Normal	Dimmer Position:	Not Reported
Recent Alert:	None	Lighting Mode:	Lights Off
		Time Delay:	5 minute(s)
		Photosensor:	0%

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- Select the next tab **Charts** to see the Level Control performance of the light.

- Choose a date range and click on any attributes below the chart to see the performance chart of the light.
- NOTE:** You can select multiple attributes; each will be displayed in different colour. The chart also has a feature to zoom IN and OUT.



- Select the next tab **Event Logs** to see all logged information about the attributes of an endpoint. The log information can be seen for a specific date range. The list can be refreshed, and users can navigate between pages as they needed.

Start Time	Duration	Description
2018-05-29 06:02:06 PM	14:00:17	Unoccupied Level: 40%
2018-05-29 06:02:06 PM	14:00:17	Occupied Level: 60%
2018-05-29 06:02:06 PM	14:00:17	Max Dim Level: 100%
2018-05-29 08:02:10 AM	09:59:55	Unoccupied Level: 0%
2018-05-29 08:02:10 AM	09:59:55	Occupied Level: 50%
2018-05-29 08:02:10 AM	09:59:55	Max Dim Level: 75%
2018-05-28 06:02:19 PM	13:59:51	Unoccupied Level: 40%
2018-05-28 06:02:19 PM	13:59:51	Occupied Level: 60%
2018-05-28 06:02:19 PM	13:59:51	Max Dim Level: 100%
2018-05-09 03:57:20 PM	20 days 15:54:11	Dimmer Position 18%

13.2. Check the Status through Devices > Sensors

- To get information on the current behavior of lighting sensors, select **Devices > Sensors**, The list of available sensors will be displayed with their details. Click on any sensor to check the status, for example: a WRC for **Occupancy Sensing**.

Status	Location	Sensor	Description	Value
Active	Conference Room	Conference Room - Wireless Relay C...	Illuminance Level Sensing-1	3%
Active	Conference Room	EnOcean Temperature & Humidity Me...	EnOcean Humidity Sensor	60%
Active	Conference Room	EnOcean Temperature & Humidity Me...	EnOcean Temperature Sensor	75.2°
Active	Conference Room	Occupancy Sensing - 019FF914	EnOcean Occupancy Sensor	No Motion
Active	Default	Conference Room - Wireless Relay C...	Illuminance Level Sensing-4 for L...	31%
Active	Default	Conference Room - Wireless Relay C...	Occupancy Sensing-6 for Level...	No Motion
Active	Default	Conference Room - Wireless Relay C...	Occupancy Sensing-6 for Level C...	No Motion
Active	Default	Illuminance Measurement	EnOcean Light Sensor	348 lux
Active	Default	(SMT-131) Wireless Thermostat - AU1...	Contact Sensor-1 for Digital Input	Closed
Active	Default	(SMT-131) Wireless Thermostat - AU1...	Contact Sensor-2 for Window Input	Open
Active	Default	(SMT-131) Wireless Thermostat - AU1...	Contact Sensor-3 for Door Input	Closed
Active	Default	Temperature Measurement	EnOcean Temp Sensor	59.4°
Active	Default	Temperature Sensor - AU164510562	Temperature Measurement	79.2°
Active	Default	Wireless Outdoor Fixture Controller - ...	Illuminance Level Sensing-1	0%
Active	Default	Wireless Relay Controller - AU164220...	Illuminance Level Sensing-1	3%
Active	Default	Wireless Relay Controller - AU164220...	Illuminance Level Sensing-2 for ...	0%
Active	Default	Wireless Relay Controller - AU164220...	Illuminance Level Sensing-3 for ...	0%
Active	Default	Wireless Relay Controller - AU164220...	Illuminance Level Sensing-4 for L...	0%

- The **Edit Sensor** window appears with information on the **State** and **Current Status** of the **Occupancy Sensor**.

Edit Sensor: Default (Conference Room - Wireless Relay Controller - AU162020786)

General | Charts | Event Logs | Notes

Name: Conference Room - Wireless Relay Controller - AU162020786

Description: Occupancy Sensing-6 for Level Control-2 (EnOcean - 019FF914)

Location: Default

Occupancy

Current State: **No Motion** | Last Occupancy: **2018-09-07 12:18 PM**

Transitions Today: **0** | Elapsed Time: **13 hour(s) 41 minute(s)**

Current Status

Communication: **Active** | Last Reported: **2018-09-08 01:50 AM**

Sensor: **Normal**

Recent Alert: **None**

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13.3. Check the Light Status through the Analysis Section

- The current behavior of lights can also be checked through the Analysis section. Select **Analysis > Charts**. The list of available devices will appear. One or more devices can be selected for analysis.
 - Select a device from the **Analysis Type** dropdown.
 - Set a date range in the date fields.
 - The header fields can be used to search for and select multiple devices.
 - Click **Analyze**.

The screenshot displays the 'Analysis' section of the software. The 'Charts' tab is active, and the 'Analysis Type' dropdown is set to 'Lights'. The date range is '08/19/2018 to 09/08/2018'. The 'Analyze' button is highlighted. The table below shows 5 selected devices, all of which are 'Active' and 'Default'.

Device	Description
Conference Room - Wireless Relay Controller - AU1620...	Illuminance Level Sensing-1
Conference Room - Wireless Relay Controller - AU1620...	Illuminance Level Sensing-4 for L...
Conference Room - Wireless Relay Controller - AU1620...	Occupancy Sensing-5 for Level C...
Conference Room - Wireless Relay Controller - AU1620...	Occupancy Sensing-6 for Level C...
Wireless Relay Controller - AU164220687	Illuminance Level Sensing-1
Wireless Relay Controller - AU164220687	Illuminance Level Sensing-2 for O...
Wireless Relay Controller - AU164220687	Illuminance Level Sensing-3 for O...
Wireless Relay Controller - AU164220687	Illuminance Level Sensing-4 for L...
Wireless Relay Controller - AU164220687	Illuminance Level Sensing-5 for L...
Wireless Relay Controller - AU164220687	Level Control-1

The 'Lighting Analysis' chart shows data for various devices over time. The chart displays three data series: 'Motion' (blue), 'Occupancy' (yellow), and 'Dim Level' (green). The x-axis shows dates from Aug 20 to Sep 7. The y-axis shows percentages from 0% to 120%. The legend at the bottom identifies the devices:

- Conference Room - AFC-A Dimming Fixture Controller - AU161810118,...
- Wireless Relay Controller - AU164220687, Level Control-1
- Wireless Relay Controller - AU164220687, Illuminance Level Sensin...
- Wireless Relay Controller - AU164220687, Illuminance Level Sensin...
- Conference Room - Wireless Relay Controller - AU162020786, Occupa...



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