# Innoband SC00

# Innoband Sense Commander

## (Z-Wave / Ethernet Wireless Gateway)

# User Manual

# User Manual
# Innoband SC00

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# Table Content

# Getting started

## Unpacking

Check the contents of the package against the pack contents checklist below. If any of the items is missing, then contact the dealer from whom the equipment was purchased.

- Main Sense Commander Unit
- Mounting Screws (2x)
- Quick Start Guide
- AD/DC Power Adapter
- Ethernet Cable

## Overview

Innoband's Z-Wave Sense Commander gateway connects to an Ethernet router to allow users to control a Z-Wave based sensor network.
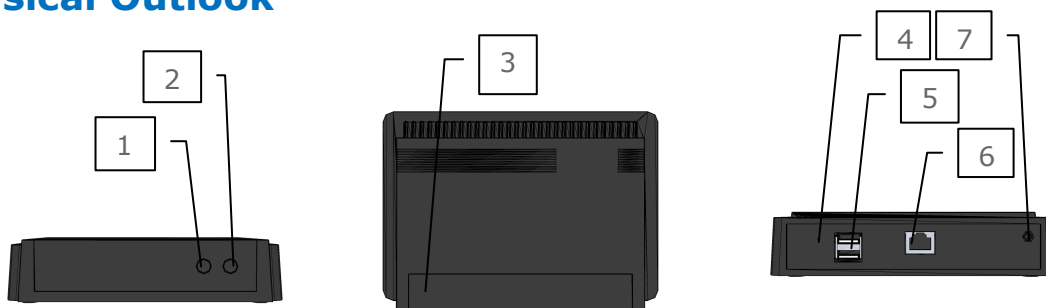
The sensor network may include Z-Wave security devices such as door/window sensors, motion detectors, sirens, and door locks. The network may also includes home automation and energy monitoring devices such as appliance on/off switches, light socket on/off adapters, light dimmers, thermostats, and irrigation controller.

This Sense Commander is designed to control the Z-Wave devices when it's properly connected to an Ethernet network. This Ethernet network can be a LAN (local area network) or WAN (wide area network). Users can then access the WSN Controller through LAN or WAN using web browsers on PCs, Mac's, tablets, or mobile devices such as smart phones.

## Specifications

| Model Name | Innoband Sense Commander |
|---|---|
| Model No | SC00 |
| Part No | 250-I-SC00-00 |
| Power Adapter | 12V DC/1A |
| Operating Frequency | 908.42 MHz |
| Battery Type (Optional) | AAA x 4 |
| Operating Range | Up to 30 meters line of sight (indoor) |

# Physical Outlook



Front View                    Top View                    Rear View

| ① Inclusion Button | ⑤ USB Ports (reserved) |
| --- | --- |
| ② Exclusion Button | ⑥ Ethernet Network Jack |
| ③ LED Indicators (x4) | ⑦ DC Power Jack |
| ④ Recessed Reset Button | |

# About Z-Wave$^{TM}$

Z-Wave$^{TM}$ is a wireless communications protocol designed to remotely control applications in residential and commercial environments.

Each Z-Wave$^{TM}$ network is identified by a Network ID, and each device is further identified by a Node ID.  A device must be "included" to the Z-Wave$^{TM}$ network before it can be controlled via Z-Wave$^{TM}$.

This 'Inclusion" process (also known as "pairing" and "adding") is achieved by pressing a sequence of buttons on the controller and the device being added to the network. This sequence only needs to be performed once, after which the device is always recognized by the controller. Devices can be removed from the Z-Wave$^{TM}$ network by a similar "Exclusion" process of button strokes.

Summary:

| Function | Description |
| --- | --- |
| Inclusion | Add a Z-Wave device (e.g. Dimmer) to Z-Wave network |
| Exclusion | Remove a Z-Wave device (e.g. Dimmer) from Z-Wave network |
| Reset | Restore Sense Commander to factory default |

# LED Descriptions (TBD)

The table below provides a summary of LED functions.  Please refer to applicable user's guides on applicable Z-Wave™ devices for inclusion and exclusion procedures.

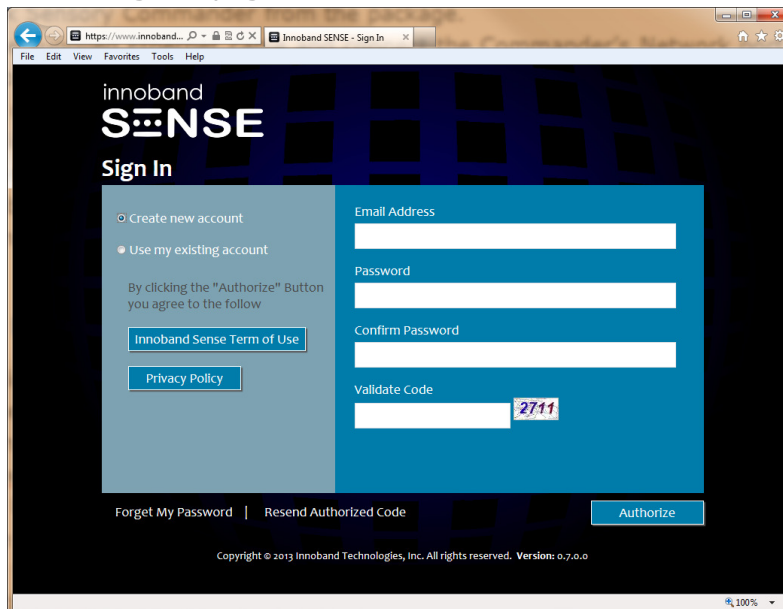| Function | Description | LED & Siren Status |
|---|---|---|
| Power | Indicate if the unit is properly powered | LED: solid green |
| Ethernet | Indicate if the unit is connected to an Ethernet network | LED: blinking green |
| Inclusion | 1. Configure the Z-Wave Controller into inclusion mode.<br>2. Press the Inclusion button until In/exclusion LED start to blink in red.<br>3. The blinking LED stops if a Z-Wave sensor is discovered and paired with the Commander.<br>4. The inclusion mode times out in 30 seconds if nothing is discovered. | LED: blinking red |
| Exclusion | 1. Configure the Z-Wave Controller into exclusion mode.<br>2. Press the Exclusion button until In/exclusion LED start to blink in red.<br>3. The blinking LED stops if a Z-Wave sensor is discovered and excluded with the Commander.<br>4. The exclusion mode times out in 30 seconds if nothing is discovered. | LED: blinking red |
| Z-Wave | Indicate if Z-Wave communication is working properly. | LED: n/a |

# Install your new device

Innoband's SC00 Sense Commander gateway is designed for dry indoor environment only. Please follow these steps below to properly set up the unit.

## Install the Hardware

1. Unpack Sense Commander from the package.
2. Use the supplied Ethernet cable and connect the Commander's Network port to an available port on the home network's Ethernet Router.
3. Power on the Sense Commander using the supplied power adapter.
4. Wait about 60 seconds until the flashing red In/Exclusion LED goes off, and the Power LED is solid green, while the Ethernet LED blinks in green steadily.
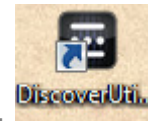
## Create User Account at Sense Cloud

1. If applicable, turn on a computer that is wire or wirelessly connected to the same Ethernet router.
2. Launch a web browser (such as Internet Explorer, Google Chrome, Apple Safari, FireFox) on the computer.
3. In the URL field, enter www.innobandsense.net.
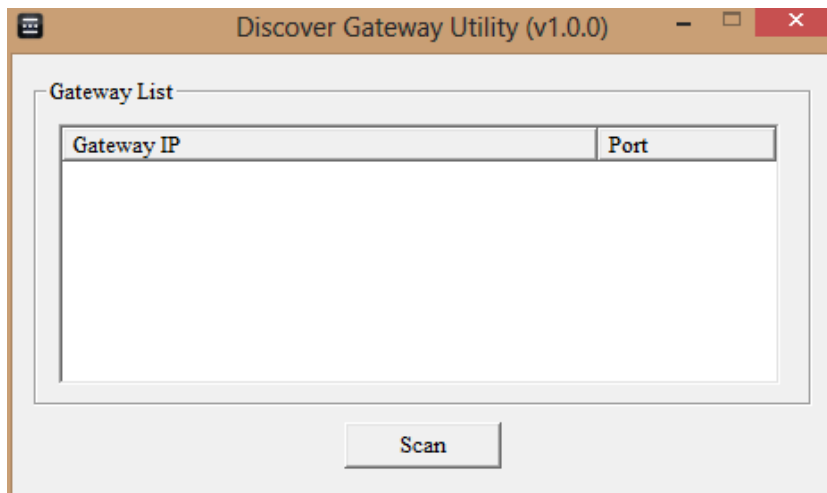4. On the Sign In page, select Create new account.



5. Follow the screen instructions, enter the desired email address, password, and validation code and click 'Authorize'.
6. An automated email will be sent to the email address entered earlier.
7. Retrieve the email (check your SPAM folder if necessary) and click on the validation link in the email message.
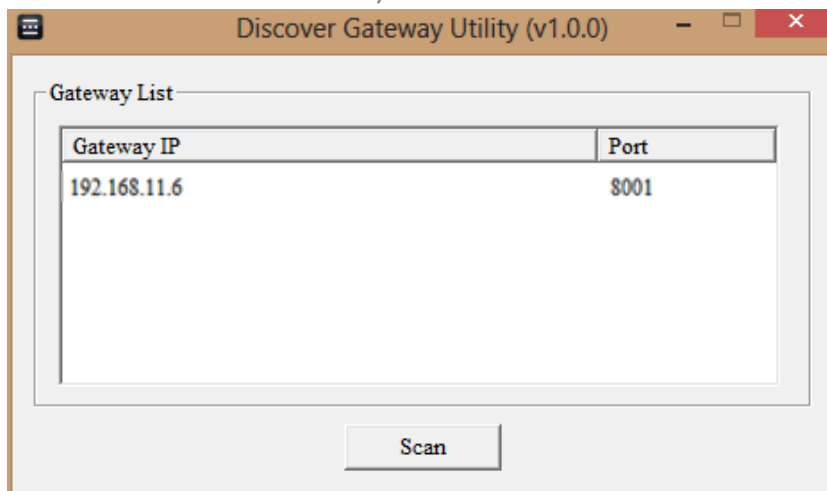
# Log Into Sense Commander

1. If applicable, turn on a computer that is wire or wirelessly connected to the same Ethernet router.
2. Download the gateway discovery utility application at: http://www.innobandsense.com/images/SenseDiscovery.rar or http://www.innobandsense.com/images/SenseDiscovery.zip.
3. Open the downloaded file, run Setup.exe to install the application on the computer.
4. Upon completion, look for the "DiscoverUtility" program shortcut on the computer's desktop.



5. Launch the application by double clicking the desktop shortcut.
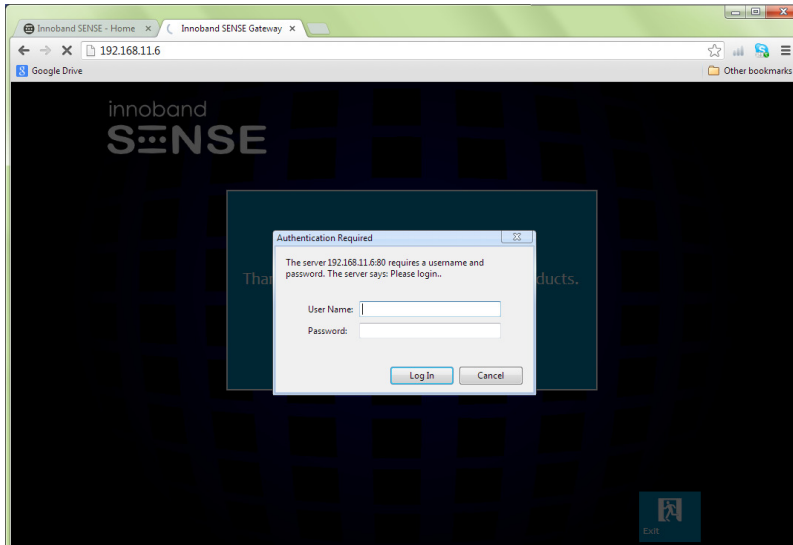6. Click on the "Scan" button.



7. An IP address will be shown under "Gateway IP". Make a note of the Gateway IP address shown in the "Gateway List".
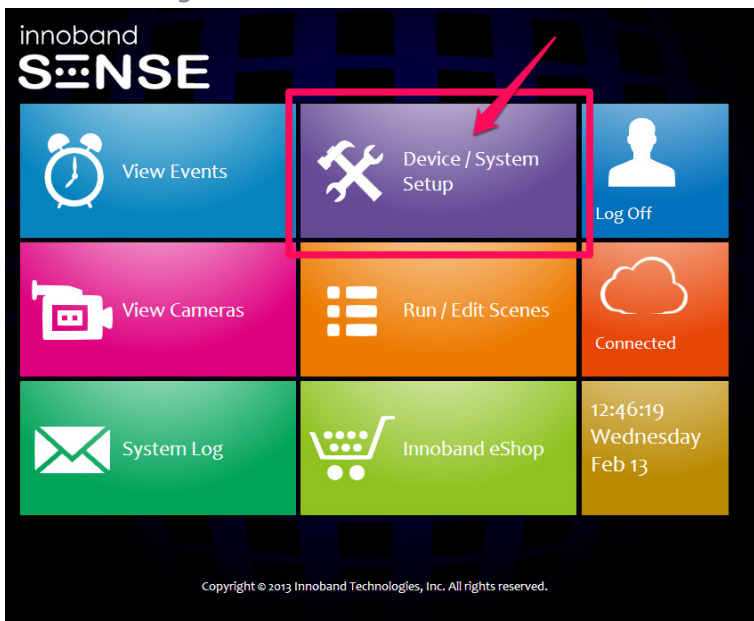8. Double click on the Gateway IP address.



9. A browser session will automatically be launched. (Alternatively, launch a web

browser (such as Internet Explorer, Google Chrome, Apple Safari, FireFox) on the computer. In the URL field, enter the Gateway IP address found using the utility above.)
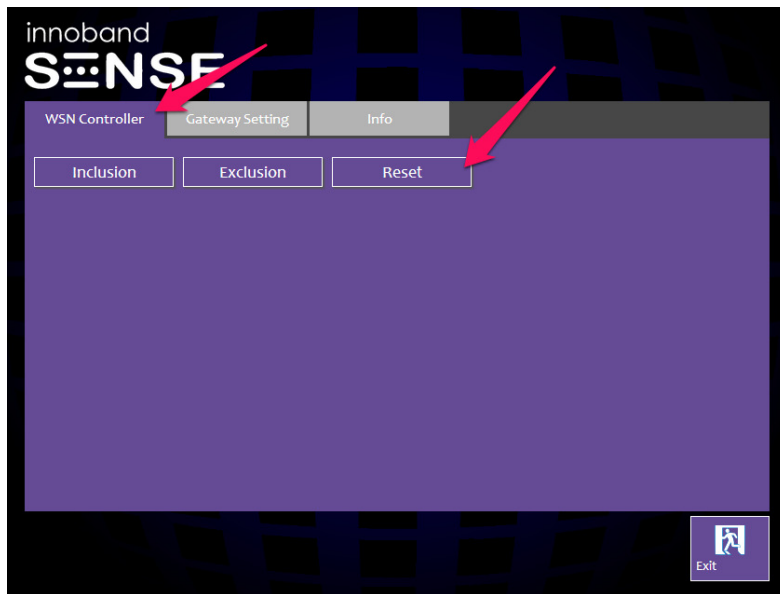
10. When prompted, enter 'admin' as the User Name and leave the Password field blank, and click on 'Log In".
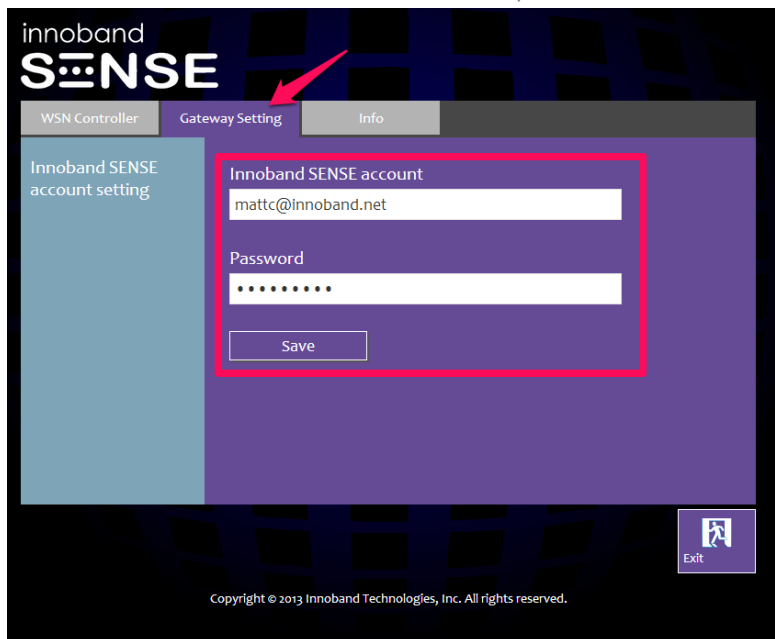


11. You're now accessing the web server inside the Commander's flash memory.
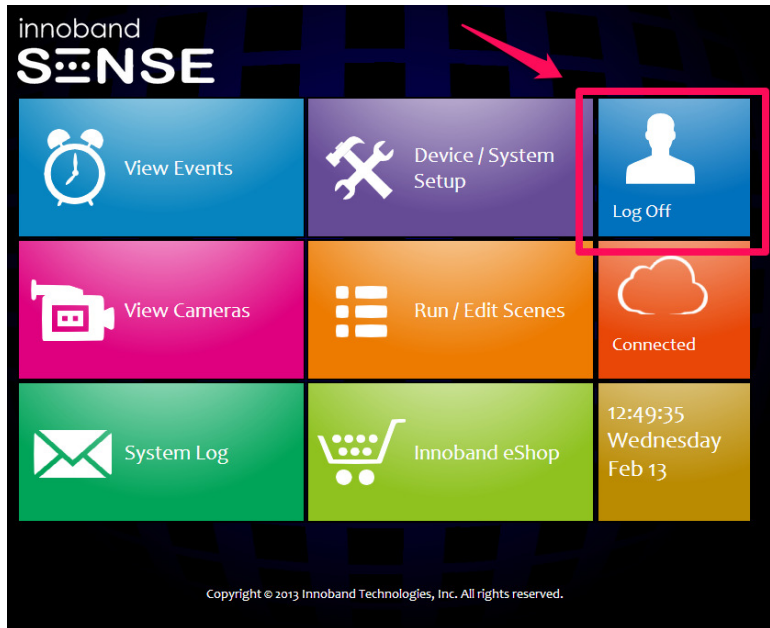12. Select "Configuration Devices".



13. Select "WSN Controller".
14. Select "Gateway Setting".

15. Click the "Reset" button and proceed with resetting the gateway. Wait until it's completed.
16. Click on the "Gateway Setting" tab.
17. Replace the default account and password with the New Account created earlier at www.innobandsense.net. Click 'Save', and then 'Exit'.
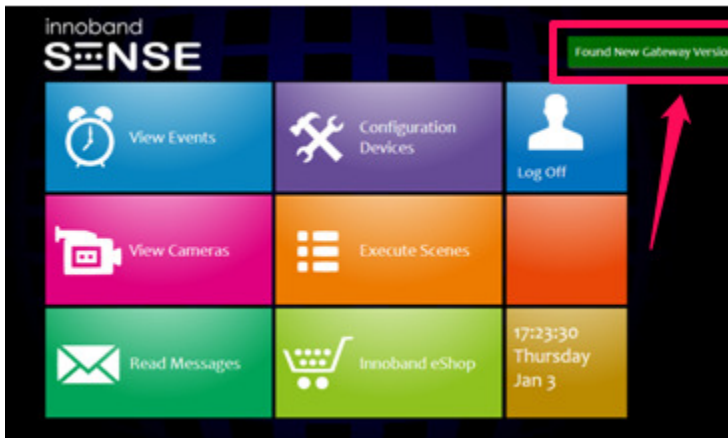


18. Go back to the Device / System Setup, and click the WSN Controller tab.
19. Click 'Log off'.

## Log Into Sense Cloud Server
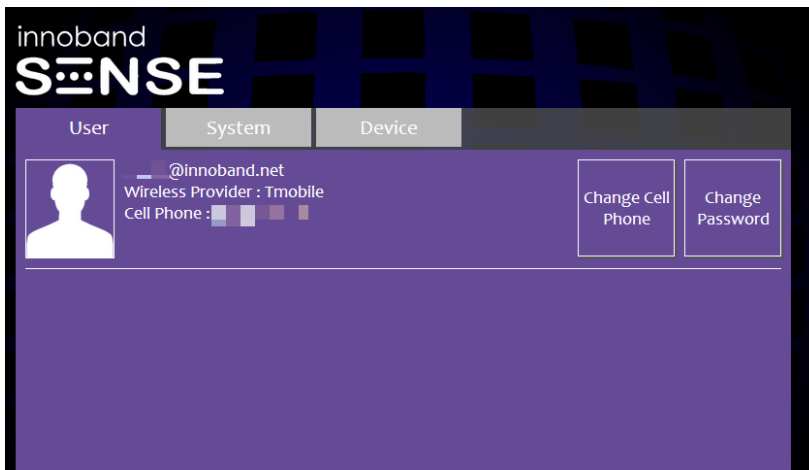
1. Launch a new browser session on the computer.
2. In the URL field, enter www.innobandsense.net.
3. On the Sign in page, select 'Use existing account' and enter the new account's information, click 'Log in'.



4. If a green "Found New Gateway Version" banner is displayed on the upper right of the screen, a newer firmware is available for download and installed on Sense Commander.

5. Click on the green "Found New Gateway Version" banner. Click 'Yes' to proceed and upgrade the gateway firmware.
6. Look for the count down on the screen to complete.
7. At the completion of the count down, your Sense Commander gateway will be up to date.  Click on 'Back to Home' to return to the main menu.
8. If text message notification is desired, configure the mobile phone number associated with the user account by clicking 'Device / System Setup'.  Click on the 'User' tab.  Click on the 'Cell Phone Number' button to configure mobile phone number associated with the account.
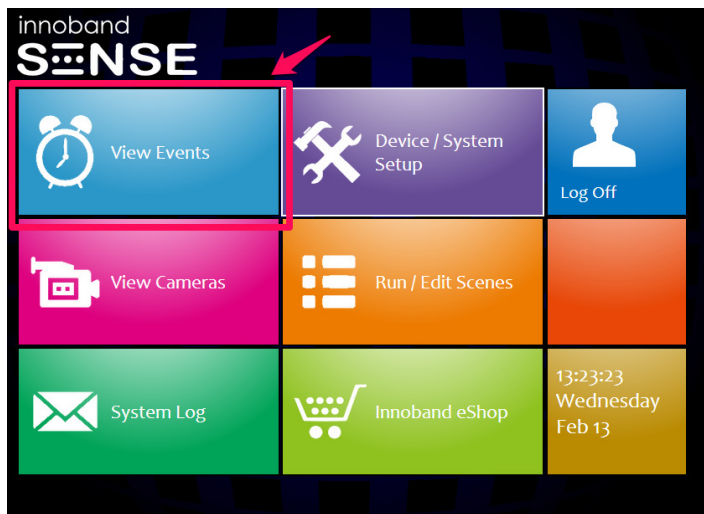


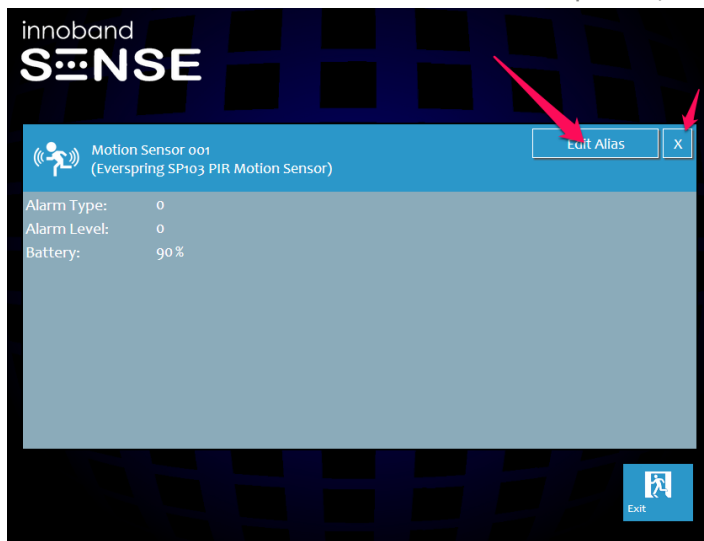# Perform Z-Wave<sup>TM</sup> Device Inclusion

1. Install the batteries into the Z-Wave device, or connect it to a wall outlet.
2. Make sure the Z-Wave device to be paired with the Sense Commander is no more than 3 feet from the Commander.  (The Z-Wave device can be moved to its permanent location after the 'inclusion' pairing procedure with the gateway is completed.)
3. Refer to the user's guide on the Z-Wave device and look for the programming / inclusion / tamper switch on the Z-Wave device.
4. When the Z-Wave device is ready (programming / inclusion / tamper switch is found),

press and hold the Inclusion button (item #1 on page 5) on the Commander until the In/Exclusion LED start blinking in red.  This allows the Commander to enter into "inclusion mode" for 30 seconds.

5. Secondly, on the Z-Wave device, configure the device into 'inclusion mode' by pressing and releasing the programming / inclusion / tamper switch quickly 3 consecutive times.

6. If the device is successfully paired with the Commander, the In/Exclusion LED will stop blinking in red.

7. Return to the main menu, and click on 'View Events', the newly added device will be shown.



8. To rename the device to give it a more meaningful name (i.e. Lobby Motion Sensor), click on the 'Edit Alias' button.  When completed, click on the 'X' to exit.



9. If necessary, repeat Step 2~8 above to include additional Z-Wave devices.

10. If inclusion attempt failed, please perform the exclusion procedure in the following section.  Then, repeat Step 2~8 above again to include the Z-Wave device.
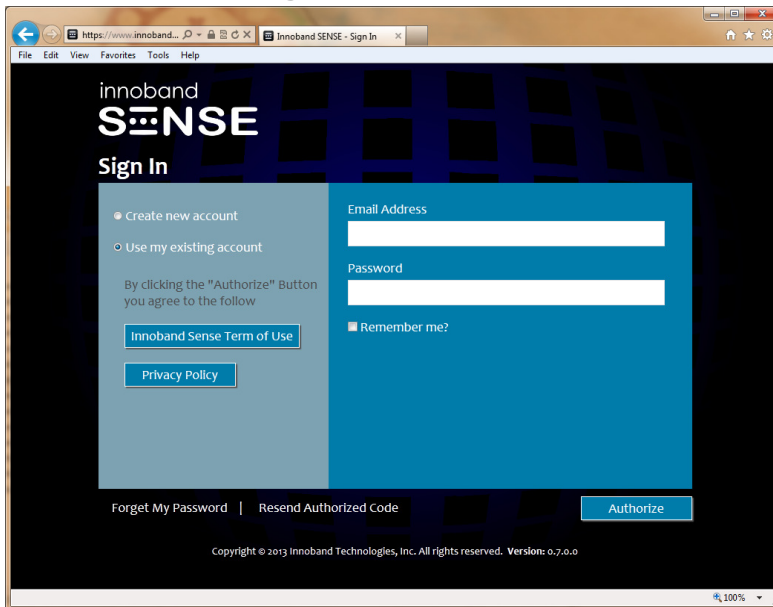
# Perform Z-Wave<sup>TM</sup> Device Exclusion

1. Install the batteries into the Z-Wave device, or connect it to a wall outlet.
2. Make sure the Z-Wave device to be paired with the Sense Commander is no more than 3 feet from the Commander.  (The Z-Wave device can be moved to its permanent location after the 'inclusion' pairing procedure with the gateway is completed.)
3. Refer to the user's guide on the Z-Wave device and look for the programming / inclusion / tamper switch on the Z-Wave device.
4. When the Z-Wave device is ready (programming / inclusion / tamper switch is found), press and hold the Exclusion button (item #2 on page 5) on the Commander until the In/Exclusion LED start blinking in red.  This allows the Commander to enter into "exclusion mode" for 30 seconds.
5. Secondly, on the Z-Wave device, configure the device into 'exclusion mode' by pressing and releasing the programming / inclusion / tamper switch quickly 3 consecutive times.
6. If the device is successfully excluded with the Commander, the In/Exclusion LED will stop blinking in red.
7. If necessary, repeat Step 2~5 above to exclude additional Z-Wave devices.

# Using Sense Commander

## PC Browser App

1. Launch a new browser session on a computer.
2. In the URL field, enter www.innobandsense.net.
3. On the Sign in page, select 'Use existing account' and enter the account's information, click 'Log in'.
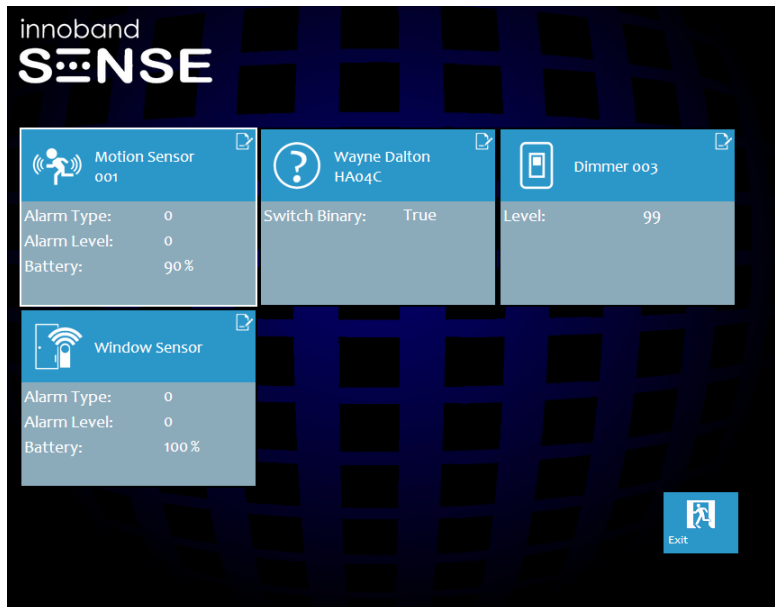


4. On the main menu, select "View Events".  This is where an all-at-a-glance view on the Z-Wave devices included or paired with the Commander is available.
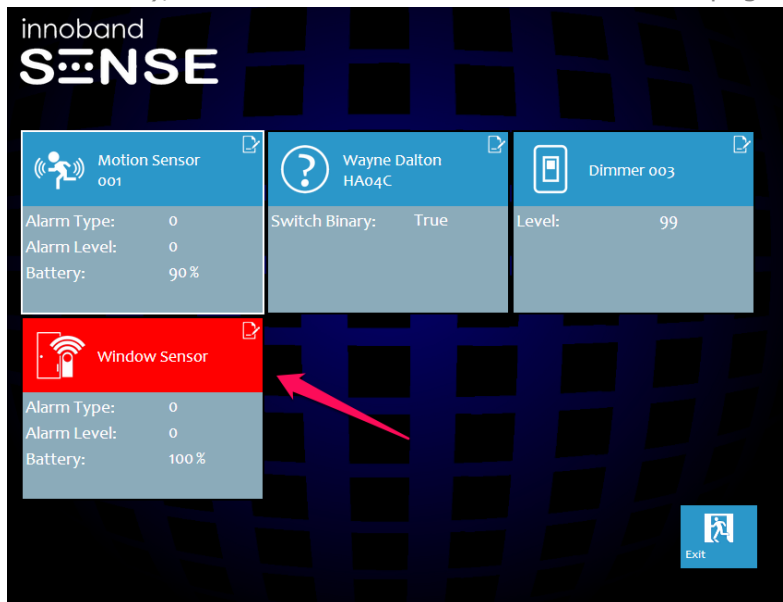


5. To perform device control on applicable devices, click on the device icon, then click on the control tool (i.e. on/off button or the dimmer slider) to make adjustments.

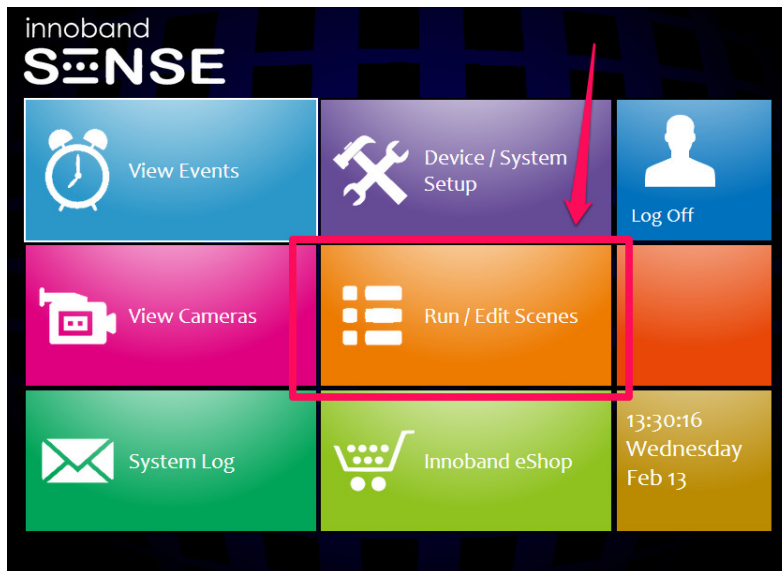When finished, click on 'X' to return to the 'View Events' page.



6. When the sensor status changes (i.e. door is opened, motion sensor detects movement), the devices shown in the 'View Events' page will be shown in red.
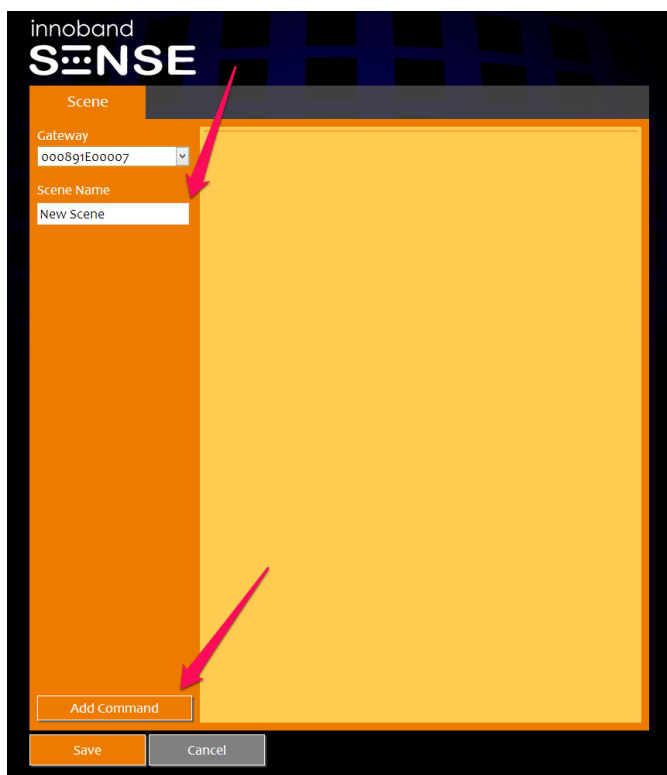


# Run and Edit Scenes

1. Scene is a series of sensor device actions for a desired task or home ambience. For example, you can have a scene for "Movie Night" where a push of a button on the app could dim all the lights connected to dimmers. A scene for "Arriving Home" could open the garage door, turn on the hall lights and disarm the security system. Z-Wave scenes are powerful tools for home control because they let simple user actions control complex events.

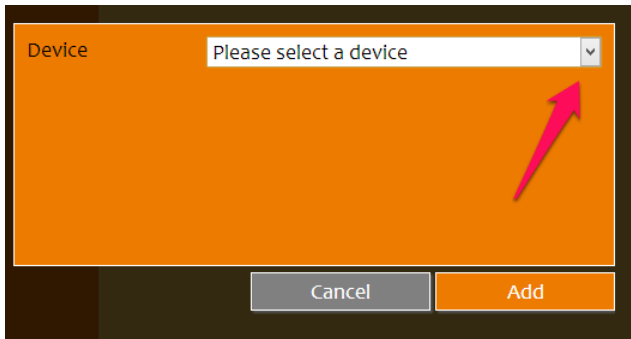2. To program a scene, log into www.innobandsense.net and click on 'Run / Edit Scene' on the main menu.



3. Click on 'Add Scene' button on the lower left.
4. Input the desired name in the 'Scene Name' text box.  Click on the 'Add Command' to add the first sensor action.
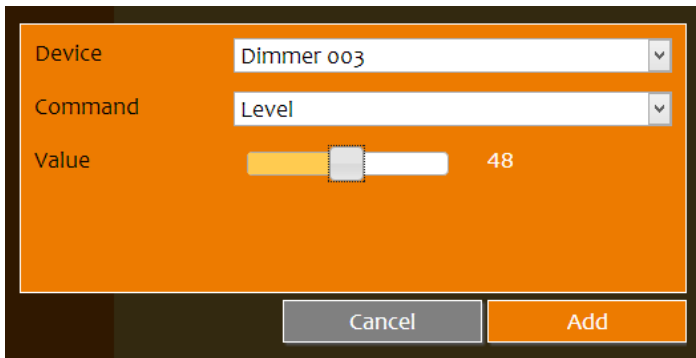


5. Select from the available list of devices.  (Note: Only sensor devices such as dimmers, on/off plugs that can carry out actions will be available on the list.

'Passive' sensor devices such as motion sensor or window sensor will not be shown on the list.)
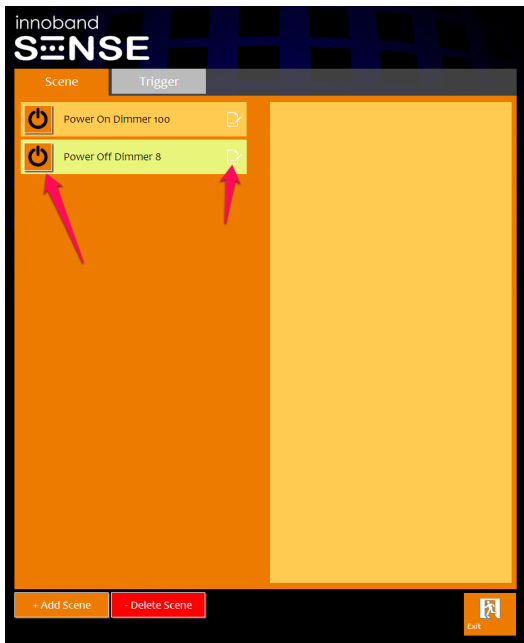


6. Once a device is selected, a list of available commands will be shown.  Select the desired command for the sensor device from the list of commands.
7. Once the command is selected, the available value will be shown.  The image below shows a dimmer is to be set at level 48.



8. Click Add to complete the configuration.
9. Click 'Add Command' to add another device action.  Repeat step 5~8 above to complete the configuration.
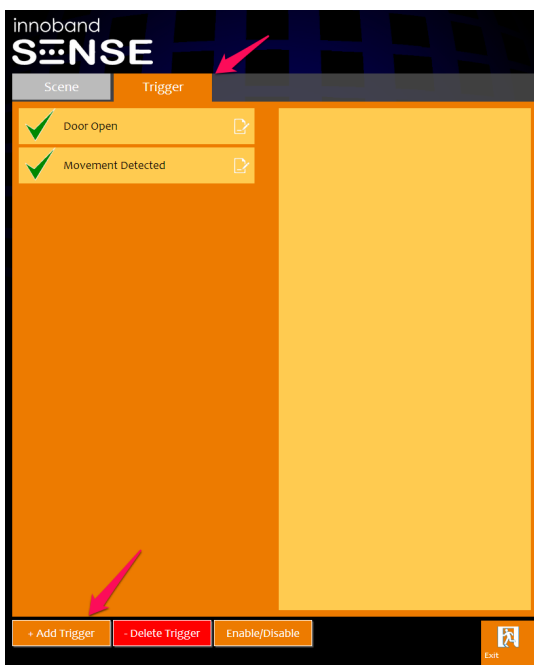10. Click 'Save' to save the settings.

11. To execute the series of sensor commands that were just defined, click the ⏻ button.

12. To edit and make changes to the scene, click on the 📝 to proceed with changes.

# Define and Configure Triggers

1. There are times where a series of commands need to be carried out when a certain 'condition' is met.  For example, the siren should sound when a door is opened, or when movement is detected by the motion sensor.  These conditions can be defined under the 'Trigger' tab.
2. To define a specific condition, click on the Trigger tab.
3. Click 'Add Trigger'.

4. Input the desired name in the 'Trigger Name' text box.
5. Select the desired notification method under the Notify dropdown box.
6. Click on the 'Add Command' to add the first triggering condition.



7. Under the 'When' section, select the desired device, the desired command, and value.
8. Under the 'Do' (actions to be performed) section, select either 1) 'Scene' to execute a series of actions associated a pre-defined scene, or 2) 'Device' to execute an action from an available sensor device.

# Android App

1. Download the Innoband Sense Android app by searching for 'Innoband' in the Google Play Store.
2. Upon installation, launch the Innoband Sense app.
3. Log in using the account created.



4. From the main menu, view device status or control the individual sensor device in the 'View Events' page similar to the browser app.



5. Scenes defined earlier can also be executed from the Innoband Sense Android app under the 'Run Scene' page. (Scene configuration can only be done at the PC browser app.)

# Troubleshooting

| Symptom | Possible Cause | Recommendation |
|---|---|---|
| Device Inclusion cannot be completed | Device has been paired with another gateway. | Perform device exclusion procedure, then repeat the inclusion process again. |
| | The Siren is defective | Contact Innoband for product support and RMA |

# Certifications

## FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.  These limits are designed to provide reasonable protection against harmful interference in a residential installation.  This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.  However, there is no guarantee that interference will not occur in a particular installation.  If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## Warning

RF exposure warning
This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.  Contact your local government for information regarding the collection systems available.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being. When replacing old appliances with new once, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.

# Warranty

Innoband warrants that equipment furnished will be free from defects in material and workmanship for a period of one year from the confirmed date of purchase of the product new from the retail location. Upon written notice of any such defect, the manufacturer will, at its option, repair or replace the defective item under the terms of this warranty, subject to the provisions and specific exclusions listed herein.

This warranty shall not apply to equipment that has been previously repaired or altered outside our facilities in any way, nor will it apply if the equipment has been used in a manner exceeding its specifications or if the serial number has been removed.

We do not assume liability for consequential damages as a result from our product use, and in any event our liability shall not exceed the original selling price of the equipment.

The equipment warranty of Innoband Technologies, Inc. shall constitute the sole and exclusive remedy of any Buyer of the manufacturer's equipment and the sole and exclusive liability of the manufacturer, its successors or assigns, in connection with equipment purchase and in lieu of all other warranties expressed, implied or statutory, including, but not limited to, any implied warranty of merchantability or fitness and all other obligations or liabilities of the manufacturer, its successors, or assigns.

Fill out the next page and mail or fax to Innoband Technologies, Inc. for product registration.

## Registration Card

| Innoband SC00 Registration | |
|---|---|
| Name: | |
| Company: | |
| Address: | |
| City/State/Zip: | |
| Phone: | |
| E-mail: | |
| Serial Number: | |
| Purchased from: | |
| Date of Purchase: | |

Please cut out the above Product Registration Card and send in with a self-addressed stamped envelope to:

Innoband Technologies, Inc.
2526 Qume Dr. Ste 21
San Jose, CA 95131

ATTN: Customer Service

# Contact information

We would more than love to help if you have further technical questions, please visit our Website at http://www.innoband.com or send E-mail to support@innoband.com

**<u>Company Address</u>**
Innoband Technologies, Inc
2526 Qume Dr. Ste 21
San Jose, CA 95131