



The Leading Enterprise Internet of Things Solution



ALTA Wireless Sensor Adapter & Cradlepoint Router

User's Guide

For Use With iMonnit Online Software

Before You Do Anything Else:

- Unpack the contents of your kit(s) and become familiar with the types of sensors that were included and double check that all components are included.
- Before connecting the ALTA Wireless Sensor Adapter, you will need to create a Monnit account, add the sensor adapter and any wireless sensors to your account, install drivers for your Router via Cradlepoint's Net Cloud Account, connect the two systems and verify the connection.
- DO NOT install batteries in sensors until directed

System Requirements

- · ALTA Wireless Sensor Adaper
- ALTA Wireless Sensors
- A Supported, & updated, Cradlepoint Wireless Router, with correct drivers.

(1)

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1. Create an iMonnit User Account and Setup a Sensor Network

If this is your first time using the iMonnit online system site, you will need to create a new account. If you have already created an account you can skip to the "Logging into the Online System" section. The following instructions will guide you through the account creation process.

- 1. In a web browser, navigate to https://www.imonnit.com.
- 2. Click the "Create Account" button to create an account.



- 3. Follow the on-screen instructions to enter your account and contact information.
- 4. After entering your account and contact information, you will have a network created for you by default. This network will have no sensors and no gateway until you add them in the following steps. You can later change the name of this network.
- 5. Add the information from your wireless device then click the "Submit" button.



6. Confirmation Message.

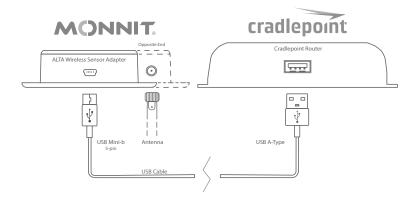
When you have finished adding the device, you will see a confirmation message that shows and image and information for the device that was added.

7. Repeat this process to add all of your ALTA wireless gateways and sensors before moving on to the next step.

2. Using a Monnit Wireless Sensor Adapter with a Cradlepoint Router

- 1. Connect both devices to power
- 2. Connect Your ALTA Wireless Sensor Adapter to you Cradlepoint Router

Connect both devices with the USB Cable as shown. The ALTA Wireless Sensor Adapter uses a USB Mini-b (5-pin) connection, while Cradlepoint Routers use the standard USB-A Type connection.



In the iMonnit Gateway application, click on "Start Local Service". The network status in the software should change to "Active" shortly (~30 seconds) after starting the service. The LED on the ALTA sensor adapter will also illuminate green when the radio is active and ready to accept sensor transmissions.

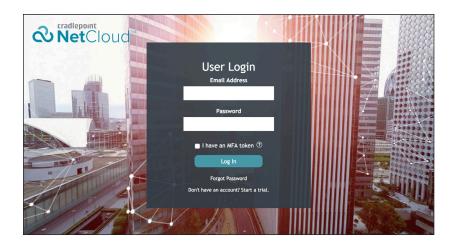
Setting Up the Cradlepoint Router and Cradlepoint Net Cloud Account

1. Visit Cradlepoint's website



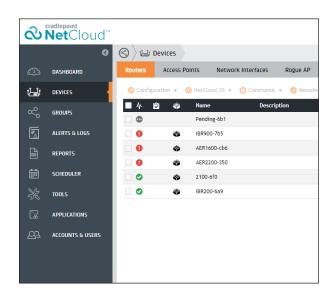
https://accounts.cradlepointcm.com

2. Click the "Get Started Here" button to create an account.



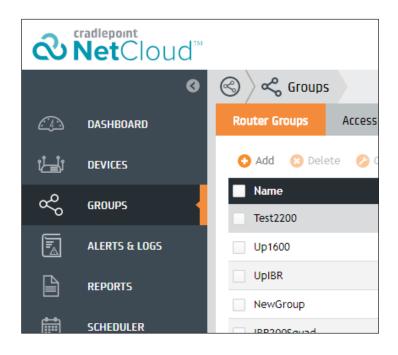
3. Navigate to the "Devices" tab.

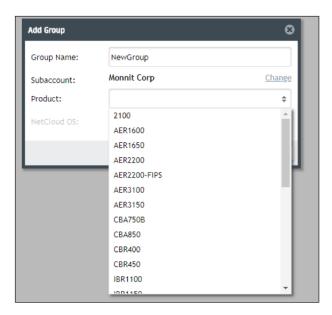
Ensure the device is present in this list, IF NOT, add it to the list



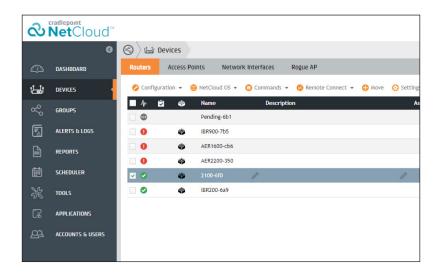
4. Navigate to the "Groups" tab

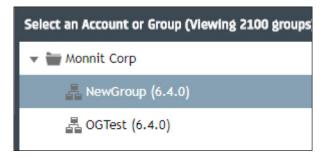
Add a group that has the Cradlepoint Router you want to use with its current firmware version.



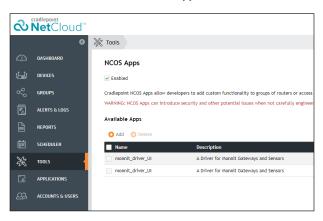


5. Go back to the Device tab and move the desired router to the Group you want.



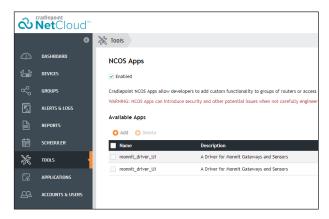


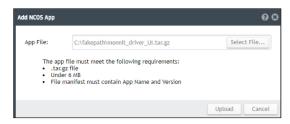
6. Navigate to the "Tools" tab. Ensure NCOS apps are enables



7. Download the "app" file to your computer so you can use it. Download the Cradlepoint ALTA Sensor Adapter file from http://downloads.imonnit.com/ and save it to a convenient location.

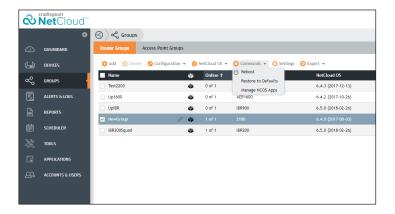
8. Click "Add" and select the file mentioned above from where you saved it.





9. Return to the "Groups" tab.

Select Commands > Manage NCOS Apps

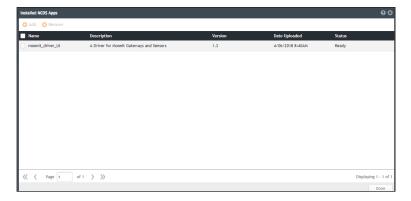


10. Select the desired group and add the App to the group.

After selecting the file, click done.

This will install the App on the Cradlepoint Router.

This process can take upto 10 mins or more. Be Patient.



11. The LED on the ALTA Sensor Adapter should turn on

When the LED turns on you will know the process has been successful.

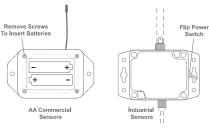
You should now see the Adapter connect in the iMonnit Portal.

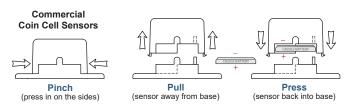
3. Insert Batteries Into Wireless Sensors



Important: Make sure your sensors are at least 3ft. away from the wireless sensor adapter.

Insert batteries into commercial type sensors or use switch on industrial type sensors to power them on.





The sensor will power on within 10-20 seconds. Once online, your sensor is ready to be deployed. If you wish to change a sensor configuration, change the parameter in the software. The new parameters will be transmitted to the sensor on the next heartbeat. If you need a more immediate response from the sensor, power cycle the sensor by removing, then re-inserting the batteries or using the power switch to cycle the power.



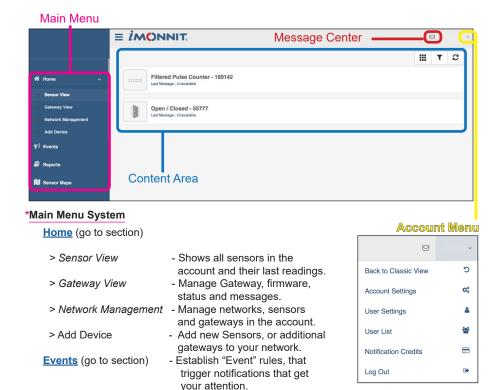
Notes:

- If the sensor status indicator does not change or if a sensor becomes unresponsive at any time during it's use, reset the sensor by removing the battery.
- Wait 60 seconds then re-insert the battery.
- When inserting batteries into coin cell type sensors, make sure to push the battery all the way in.
- Note the proper orientation of batteres.

4. Using the NEW iMonnit® Online Wireless Sensor System

1. Understanding The Online Interface

When you log into the online system, the default view shows all of your sensors last recorded data.



Reports (go to section)
Sensor Maps (go to section)

- Printable account and sensor network reports.
- Visual maps to help you track sensor placement.

*Content Area

Displays sensors on your account with their last reading and status information. Clicking on a sensor icon displays the "Sensor Detail View" allowing you to view detailed information for the selected sensor

*Message Center

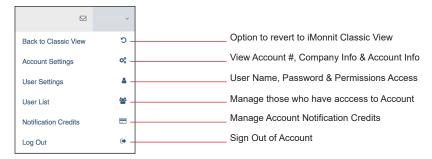
From this location you will be able to view any "Event Notifications" triggered by event rules you have established. We will cover the creation of "Events" shortly.

In this example there are no current notifications available, instead you have the option to view all extablished "Events" and be taken to where you can create "Events".



*Account Menu

The "Secondary Menu" is where you can access various administrative functions pertaining to your iMonnit account.



1. iMonnit Home

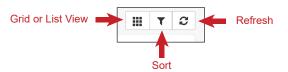
1. Sensor View

As mentioned in the previous section, when you log into the online system, the default view you are presented with is "Sensor View". This shows all of your sensors and their last recorded data. Monnit offers more than 50 different types of sensors.



Network Selector - Allows the user to chose the Network, whose Sensors and Gate ways you would like to view. This optionn will only be visible if you have added more than one Network previously.

View Sort and Refresh - These 3 options allow you to chose your personally prefered way to view your system information.





Sensor List & Grid - The view below is demonstrating the Sensor View in List view.

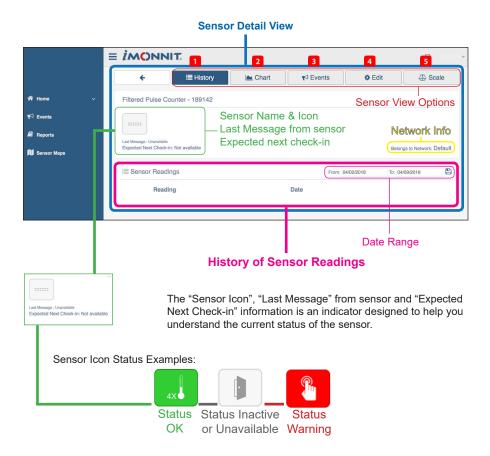
- In order to see further detail on any of these listed Sensors, "click" on the desired sensors tile as shown below



- Additional information is presented on this screen as shown below in the example.
 - Sensor Name
 - 2 Last message when it was sent and recorded last
 - Sensor Reading(s)
 - 4 Signal Strength
 - Battery Strength



Sensor Detail View - Having now "clicked" into the "tile" for the sensor, you are presented with the following info.





Note: The data shown on the chart, notification, history and export tabs is based on the **date range** indicated on the upper right side of the sensor detail information. To change the date range, click inside the date box.

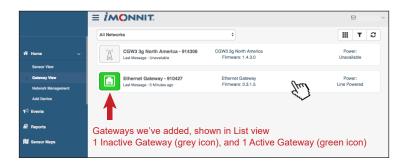
- History
- 2 Chart
- 11
- The view shown above is the sensor History view
 - Clicking on the "Chart" tab within the sensor detail panel allows you to view the sensor's data history in a graphical chart format.
- 3 Events See the Events section for more info
- Edit Gives the ability to "Edit" the given sensor settings
- 5 Scale and Calibrate for sensors that support this feature

2. Gateway View

Monnit offers multiple types of Gatways to meet the needs of customers.

- Wireless Sensor Adapter & USB Pro Gateways
- 2 Cellular Gateways North American, International, 2G, 3G
- Wireless Ethernet Gateway

When viewing your personal list of available Gateways, "click" on the specific tiles for each to enter into Detail View for them individually.





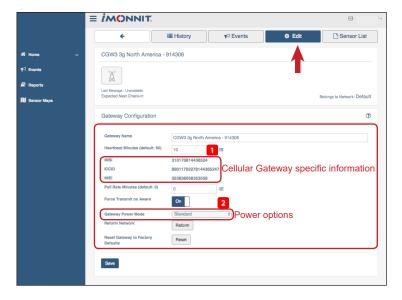
From within Gateway Detail View you are presented with options similar to Sensor Detail view as mentioned earlier, namely; *History, Events, Edit and the Sensor List for the given Gateway*.



OF NOTE is the "Edit" tab, which houses unique Gateway Settings and Preferences visible ONLY to the particular type of Gateway you are using. We will call out the unique options of each,

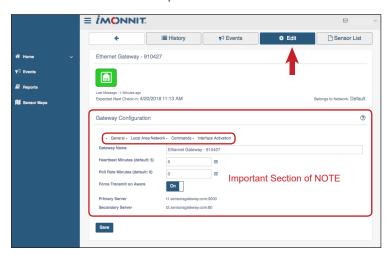
Cellular Gateways - North American, International, 2G, 3G, 4G LTE

- General options
- Local Area Network options



Wireless Ethernet Gateway

- General options
- Local Area Network options
- Commands
- Interface Activation options



Each of the Tab highlight below houses unique system configuration options tied to the type of Gateway you are using. We will also share what each of these sections looks like.

General options



2 Local Area Network options



Commands

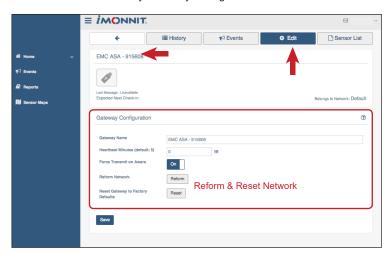


4 Interface Activation options



Wireless Sensor Adapters & USB Pro Gateways

Reform Network - drops all existing sensors and forces them to rejoinReset Gateway to factory settings



2. Network Management

From the Network Management tab within the Main Menu, you can;

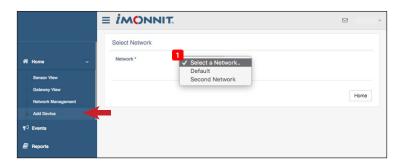
- Add a New Network
- View Existing Networks
- Edit Existing Networks
- Sort and Refresh



3. Adding a Device (Sensor or Gateway) on Desktop and Mobile

Located in the Main Menu, the Add Device tab makes it possible to add either Sensors or Gateways to your account and system.

1 On Desktop first you will be asked to select the applicable network



- 2 At this point you can follow the directions on <u>"Page 3"</u> of this document to finish adding a new device on Desktop.
- 3 Adding via the iMonnit App, Android & iOS, is identical to using the Desktop version of iMonnit. The differences include the view you are presented with being scaled responsively for the size of your screen, and the ability to use the devices camera to automatically enter the Device ID and Security Code.



3. Events

The Events tab is the key location for taking full advantage of the capabilities of your Monnit Sensors and iMonnit Online Portal.

From here Notifications for a single sensor can be created, deleted or edited, or Notifications can be edited in bulk for multiple sensors at once. You can also decide how you'd like to recieve notifications, such as through email, text message or inside the iMonnit system.





Note: In order to create "Events" you have 2 options on how to navigate to the correct location.

Option 1:

Home > Click on the Sensor > Events > Click "here" link shown below



Option 2:

Home > Events > Add Event



The two locations above will direct you to this page:



1. Adding a New Event,, Viewing & Editing its Information

Select Event Type



There are 5 different categories of "Event" types to chose from;

- Sensor Readings
- 2 Battery Level
- Device Inactivity
- 4 Advanced
- 5 Scheduled

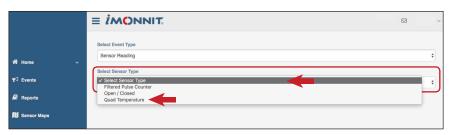


NOTE: The following sections break down the use of each of the 5 Event types from adding a new Event, through setting Triggers and Actions, giving you usable Events when completed.

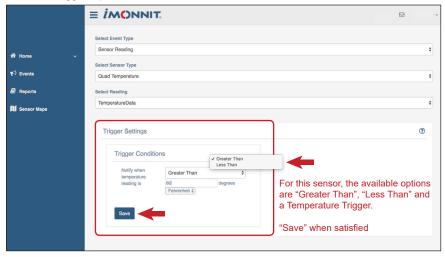
Sensor Reading

Reading notifications are sensor specific (i.e. water sensor = trigger alert when water present, temp sensor = trigger alert when temp is above 70F, etc.). When creating a sensor reading notification, you will need to choose the sensor type you are creating the alert for. The select box will only show sensor types that are currently being used on your sensor network.

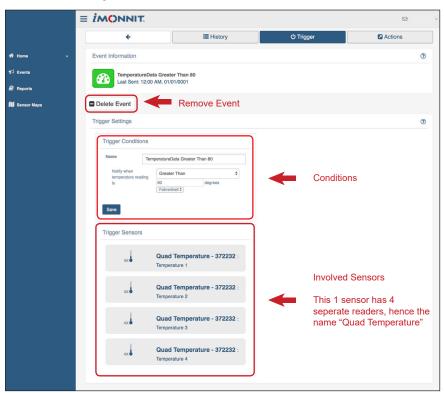
Choose the sensor for which you want to create an "Event"



Next, depending on the sensor you have selected, you will see the available "Trigger" options and can set them as desired.



When you "Save" your Trigger settings you will the be taken to the Trigger Settings page where you can view the settings, change them if desired, and even delete the Event all together.



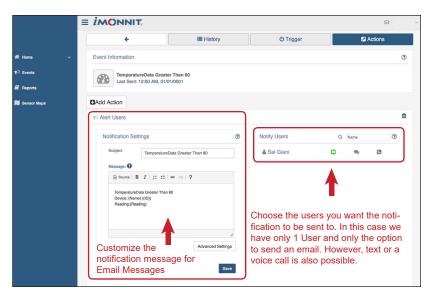
After creating an "Event" and "Trigger", you should now create an "Action". To do this, click on the "Trigger" link in the menu. This will allow you create a next step in the "Event" so you can be notified or cause something to happen.



Click "Add Action" and choose the type you'd like to implement, either a "Sent Notification" or a "System Action"



If you choose "Send Notification" you will be presented with the following options:



Additionally, the list of Users on the left shows all those available on the account. You can type into the search box to filter large lists of users. Select the user(s) to receive the notification and click the arrow button to add them to the recipient list. By default, email notifications are active but you also have the option to turn on SMS Text or Voice Calls.

Clicking the notification delivery method icon toggles them on and off (green is on, grey is off as in our exmple above). If the user should receive text message or call notifications, click on the icon to turn it green.

Notification Messages for both SMS Text and Voice Message can be customized under the "Advanced" button, click "Save" to apply your customizations.



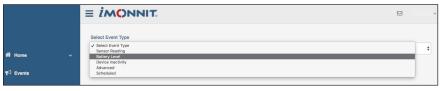


Note: In order to add, edit or remove notification methods follow these steps:

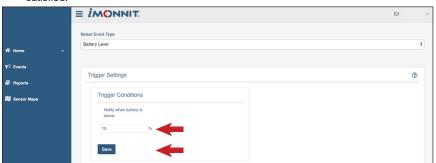
- Navigate to the following location:
 Secondary Menu > User Settings > Notification Settings
- 2. Enter the User contact info you desire and save

Battery Notification

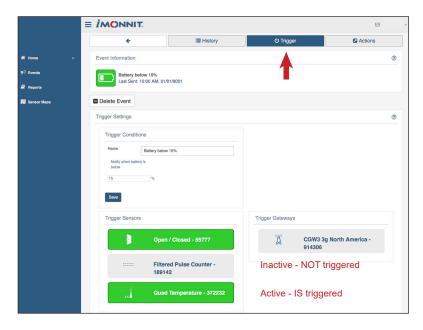
Allows users to define a battery power percentage level that will trigger an alert from the system, warning them to replace batteries.



Once viewing the Battery Notification settings, you can choose the remaining battery percentage level at which you would like to be notified. Save your options once satisfied.



Having saved your battery notification levels, you will be taken to the "Trigger Settings" for the Event you just created. Here you can see the Sensors and Gateways that this particular "Event" applies to, shown in Green, and those not effected by this "Event", shown in Grey. Click on the sensors you wish to include in the Event and deselect those you do not.



Now you will determine HOW you would like to be notified. This is done by moving to the "Actions" tab in the center menu, and from there you will click "Add Action" and choose the type of "Action" to be notified through.

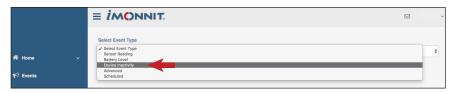
In the previous section, "Sensor Reading", we walked you through selecting "Send Notification" as an option. Here, we will walk you through choosing "System Action" as the Notification method.

System Actions give you the ability to force the occurance of Events by the Sensor and iMonnit system. These options include Acknowledge (used with a Local Alert Device with LCD Screen and ability to "dismiss", or "Acknowledge" the Alert.



Inactivity Notification

Set-up "Inactivity" notifications to alert you when your sensors have stopped communicating with the iMonnit system. Failure to set up an "Inactivity" notification will result in no email/SMS text Notifications being sent should your sensors stop communicating with the system.



As in the other type of Events, you will follow these steps-

- Select "Device Inactivity" as your Event type
- Set your "Trigger Conditions", in this case, after how long a period of time of Device Inactivity do you want a notification
- Save
- Activate the Sensors and Gatways you want triggered by this Event
- · Add Action to chose the desired Notification method "Sent" or "System"
- Enjoy your iMonnit Sensor Event Notification

4 Advanced Notifications

Allows the user to set notifications based on advanced rules, such as comparing past data points with the current one to determine if a notification should be sent.



Thanks to "Advanced Notifications", users of the iMonnit system and sensors have the ability to truly customize the monitering of their things.



Each of the Advanced Notification options is explained bellow:

Notify after aware period -

This notification is triggered based on the aware state of the sensor, not the specific sensor reading. To configure how the sensor enters the aware state see the advanced setting in the sensor edit page. (Overview > select desired sensor > Choose the Edit Tab)

| Alert After | |
|-------------|---------|
| | Minutes |

How Does the "Notify After Aware Period" Notification Works?

When the server receives a message from the sensor, it looks for notifications assigned to the sensor. If the server determines there is an active "Notify After Aware Period" notification, it takes the current data just sent to it and checks it against the parameters of the notification. At that time the server calculates, based on current message received, if the sensor is in aware state. Next, it compares previous messages to determine how long the sensor has been in the aware state. If it has been aware for more than the time set to "Alert After" then the notification is sent.

Aware messages trigger communication at the gateway while standard (Non Aware) messages do not. The server knows within a couple of seconds that the sensor has delivered an aware message but if the sensor has returned to a normal state the message doesn't get delivered until the regular heartbeat. Because the message is a non-aware message, it gets queued on the gateway and doesn't get delivered right away. Due to this the server doesn't know if the sensor is still in aware mode or not. It has to wait for the next message from the sensor to know that it is still in aware mode.

We recommend having the Notify After timer set just shorter than the Aware State Heartbeat so that when the second message comes in the timer has already elapsed.

Back Online -

This notification is triggered once the sensor comes back online, after being offline. For example, if the sensor is moved out of range of the gateway, it will lose connection and become offline. Once the sensor has moved back into range, the notification is triggered.

Gateway On Battery -

This notification is triggered once the gateway has lost line power and switched to the battery backup. For this notification to properly work you will need to be using a Battery Backup Gateway.

Frequent Aware Message -

This notification is triggered after X amount of aware messages have been triggered over a certain amount of time. To configure how the sensor enters the aware state see the advanced setting in the sensor edit page.

(Overview > select desired sensor > Choose the Edit Tab)

| Time Frame | |
|---------------|--|
| Message Count | |

First Aware Message -

If a customer knows they will get multiple notifications due to a sensor going into an aware state and staying there then they can set this to alert them to only the first one in the series. It will not resend if the sensor stays in that same aware state. For example this can be used to make sure lights stay on all day in a restaurant. When they arrive, they turn on the lights and the customer gets notified, but then doesn't need to know all day that the lights are on – they only want to know when it happened initially.

<u>First Non-Aware Message</u> -

Exact reverse of "First Aware Message" – If a sensor goes into and aware state, then goes out of the aware state, the notification will trigger once, to let the customer know that the sensor is now out of the aware state and as long as the sensors remain in this state, the notification will not send again.

Aware State Changed -

Sensors have different aware states, this option will notify you if the sensors either exceed the threshold or once exceeded comes back into tolerance. This is for when the customer wants to know when a sensors goes from one state to the next, but is only interested in the actual change time.

Gateway Switched to Line Power -

This notification is triggered once the gateway has connected to line power and is no longer using the battery backup. For this notification to properly work you will need to be using a Battery Backup Gateway.

Notify after not aware period -

This will trigger and send when a sensor has both been in an aware state and has also surpassed a customer-set time frame. Usually used for things like defrost cycles when the customer will know that every day, a sensor is going to be out of tolerance for, say, 20 minutes. They can set the notification to only trigger after 30 minutes out of tolerance.

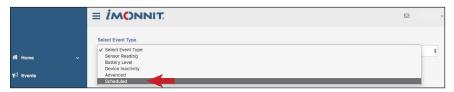
Assigned sensors meet aware threshold -

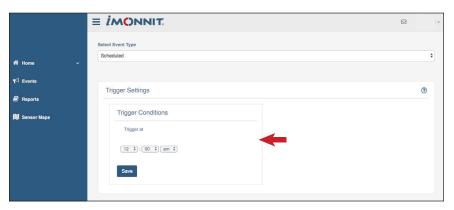
This notification is triggered based off the threshold of the assigned sensors in the chosen state are above or below the designated percentage.

| Percentage % (ie: 50) Trigger when defined % | Are Aware ♣ |
|--|-------------|
| Key Sensor (Optional) | |

5 Scheduled Notifications

This type of notification allows you to set a specific time, at which you can set a trigger, action and notification to occur.







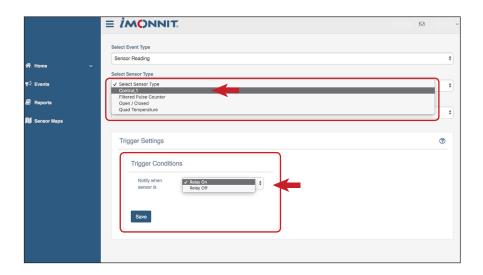
NOTE: Other Sensor Events and Actions

There are a few types of sensors that have unique and special capabilities. Specifically, we want to call attention to "Control Units" and "Local Alert Devices"

· Control Unit -

ALTA Wireless Control allows a user to control two separate power relays, all through the iMonnit online sensors portal. Automatically control motors or electrical devices when a condition is detected by a sensor or group of sensors. Relays can also be controlled manually through the online portal or mobile app.

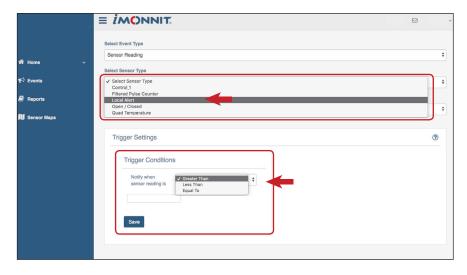
The Control Unit's two relays can be controlled via sensor notifications which allows more than one sensor to trigger a particular relay. Once you have set a notification to control a relay based on an event or measurement, any sensor assigned to the notification can trigger the relay. The sensor will send a reading to the notification server engine which sends the command to the control unit. Your sensors and control unit must be on the same network in your iMonnit account and if your sensor and control unit are also communicating with the same gateway, the control commands will be sent within a couple of seconds. If the sensor and control unit are not communicating to the same gateway, then the notifications will be sent based on the poll interval of the gateway to which the control unit is communicating.



Local Alert Device -

The Monnit Wireless Local Alert provides an additional way to receive critical notifications and sensor readings through your iMonnit network. Upon receiving a notification the Local Alert can flash an LED, sound an audible alarm, and display critical notification information. The Local Alert can also be used to display sensor readings from any sensor on the same account.

When choosing to send a notification to the Local Alert, the user can choose what the device should do when it receives the notification. A notification can be programmed to flash the LED light, sound an audible alarm, display text on the LCD screen, or any combination of these features.



System Action -

When adding actions to a given device, this option of "System Action" enables you to create interaction between multiple events, have the iMonnit system "Acknowledge" Event Notifications for you and/or create a chain of connected custom events





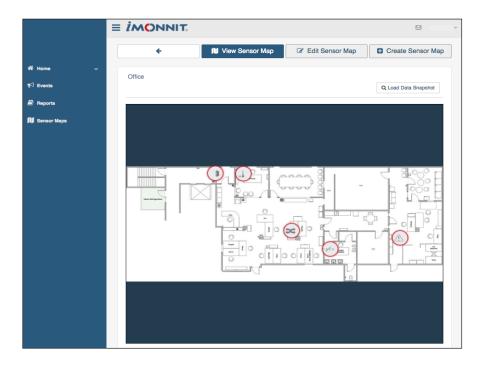
4. Reports

iMonnit software allows users to access and view past reports. The accessibility to these reports depends on the software version your company has, but even at the lowest level, sensor records are available for 3 months after initial reading. Monnit does keep a record of sensor data for up to one year as a standard service in our iMonnit Premier software. Users are able to export this information to an excel file for further analysis. Should your company require older data, Monnit has the ability to pull that data as well, there is just not an option to do so in our software. You would have to contact Monnit directly to receive those custom reports.

To put it simply, Monnit wireless sensors are able to give you 100% accurate readings, but our software has limitations when it comes to compiling specific industry reports. The best way to import sensor data to your company's application or record tracking system would be through Monnit MINE™. Monnit MINE™ is an open software platform that provides the ability to integrate Monnit wireless sensors and gateways with your own software system. Monnit wireless gateways can be unlocked, allowing them to be directed to a custom host or IP address, where an installation of Monnit MINE™ works as a translation application between Monnit wireless sensors networks and existing or custom software applications. This would allow any company to use the data generated by Monnit wireless sensors to populate information fields for any specific reports you would like to run. Contact a sales rep or our software team directly to further discuss this option and see how simple the integration is.

5. Sensor Maps

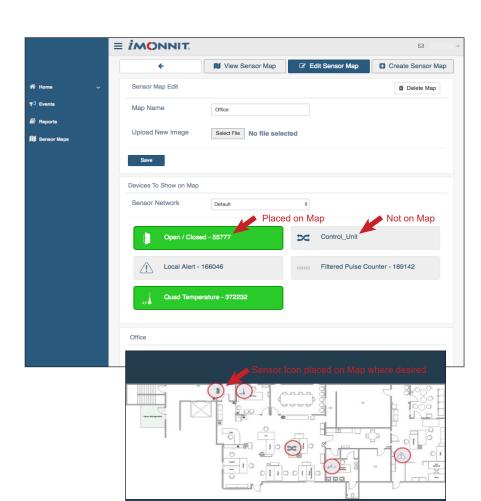
This feature make it possible for you to create a custom visual map of the location you monitor, with each sensor labled visually for quick reference.



To do this follow these steps;

- 1 Click on "Sensor Maps" in the "Main Menu"
- Click "Create Sensor Map"
- Name Your Map
- 4 Upload a floor plan for your location
- Click "Create Map"

From this new screen you will be able choose the Sensors you want to add to the map. When you do, you will see a Sensor Icon appear on the map which you can move to the location it occupys in reality.

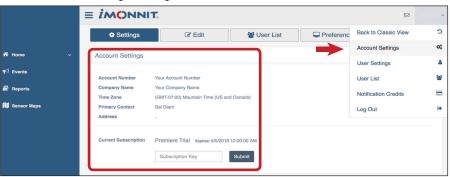


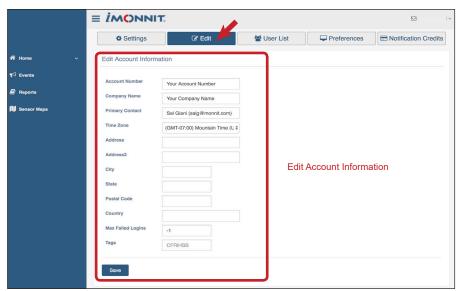
5. Account Menu

The "Account Menu" is where you can access various administrative functions pertaining to your iMonnit account.



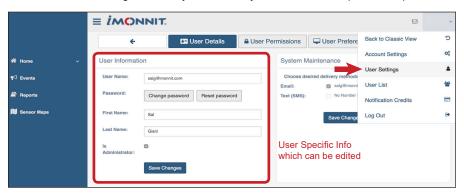
1. Account Settings, and high level Account Information

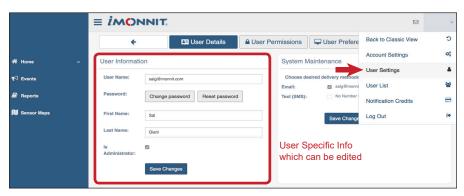


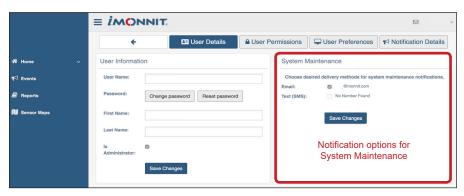


2. User Settings

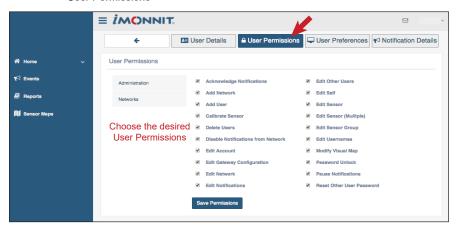
User Settings - 1allows you access to your username, and password options







User Permissions



User Preferences

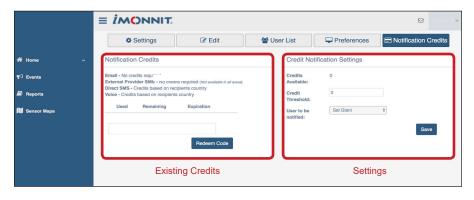


Notification Credits - This feature will be explained on section below

3. User List



4. Notification Credits



Error Reporting, Troubleshooting and Support

For technical support and troubleshooting tips please visit our support library online at http://www.monnit.com/support/. If you are unable to solve your issue using our online support, email Monnit support at support@monnit.com with your contact information and a description of the problem, and a support representative will call you within one business day.

For error reporting, please email a full description of the error to support@monnit.com.

Warranty Information

(a) Monnit warrants that Monnit-branded products will be free from defects in materials and workmanship for a period of one (1) year from the date of delivery with respect to hardware and will materially conform to their published specifications for a period of one (1) year with respect to software. Monnit may resell sensors manufactured by other entities and are subject to their individual warranties; Monnit will not enhance or extend those warranties. Monnit does not warrant that the software or any portion thereof is error free. Monnit will have no warranty obligation with respect to Products subjected to abuse, misuse, negligence or accident. If any software or firmware incorporated in any Product fails to conform to the warranty set forth in this Section, Monnit shall provide a bug fix or software patch correcting such non-conformance within a reasonable period after Monnit receives from Customer (i) notice of such non-conformance, and (ii) sufficient information regarding such non-conformance so as to permit Monnit to create such bug fix or software patch. If any hardware component of any Product fails to conform to the warranty in this Section, Monnit shall, at its option, refund the purchase price less any discounts, or repair or replace nonconforming Products with conforming Products or Products having substantially identical form, fit, and function and deliver the repaired or replacement Product to a carrier for land shipment to customer within a reasonable period after Monnit receives from Customer (i) notice of such non-conformance, and (ii) the non-conforming Product provided; however, if, in its opinion, Monnit cannot repair or replace on commercially reasonable terms it may choose to refund the purchase price. Repair parts and replacement products may be reconditioned or new. All replacement products and parts become the property of Monnit. Repaired or replacement products shall be subject to the warranty, if any remains, originally applicable to the product repaired or replaced. Customer must obtain from Monnit a Return Material Authorization Number (RMA) prior to returning any Products to Monnit. Products returned under this Warranty must be unmodified.

Customer may return all Products for repair or replacement due to defects in original materials and workmanship if Monnit is notified within ninety (90) days of customer's receipt of the product. Monnit reserves the right to repair or replace products at its own and complete discretion. Customer must obtain from Monnit a Return Material Authorization Number (RMA) prior to returning any products to Monnit. Products returned under this Warranty must be unmodified and in original packaging. Monnit reserves the right to refuse warranty repairs or replacements for any products that are damaged or not in original form. For products outside the ninety-day warranty period repair services are available at Monnit at standard labor rates for a period of one year from the Customer's original date of receipt.

- (b) As a condition to Monnit's obligations under the immediately preceding paragraphs, Customer shall return Products to be examined and replaced to Monnit's facilities, in shipping cartons which clearly display a valid RMA number provided by Monnit. Customer acknowledges that replacement products may be repaired, refurbished or tested and found to be complying. Customer shall bear the risk of loss for such return shipment and shall bear all shipping costs. Monnit shall deliver replacements for Products determined by Monnit to be properly returned, shall bear the risk of loss and such costs of shipment of repaired products or replacements, and shall credit Customer's reasonable costs of shipping such returned Products against future purchases.
- (c) Monnit's sole obligation under the warranty described or set forth here shall be to repair or replace non-conforming products as set forth in the immediately preceding paragraph, or to refund the documented purchase price for non-conforming Products to Customer. Monnit's warranty obligations shall run solely to Customer, and Monnit shall have no obligation to customers of Customer or other users of the Products.

Limitation of Warranty and Remedies.

THE WARRANTY SET FORTH HEREIN IS THE ONLY WARRANTY APPLICABLE TO PRODUCTS PURCHASED BY CUSTOMER. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. MONNIT'S LIABILTY WHETHER IN CONTRACT, IN TORT, UNDER ANY WARRANTY, IN NEGLIGENCE OR OTHERWISE SHALL NOT EXCEED THE PURCHASE PRICE PAID BY CUSTOMER FOR THE PRODUCT. UNDER NO CIRCUMSTANCES SHALL MONNIT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES. THE PRICE STATED FOR THE PRODUCTS IS A CONSIDERATION IN LIMITING MONNIT'S LIABILITY. NO ACTION, REGARDLESS OF FORM, ARISING OUT OF THIS AGREEMENT MAY BE BROUGHT BY CUSTOMER MORE THAN ONE YEAR AFTER THE CAUSE OF ACTION HAS ACCRUED.

IN ADDITION TO THE WARRANTIES DISCLAIMED ABOVE, MONNIT SPECIFICALLY DISCLAIMS ANY AND ALL LIABILITY AND WARRANTIES, IMPLIED OR EXPRESSED, FOR USES REQUIRING FAIL-SAFE PERFORMANCE IN WHICH FAILURE OF A PRODUCT COULD LEAD TO DEATH, SERIOUS PERSONAL INJURY, OR SEVERE PHYSICAL OR ENVIRONMENTAL DAMAGE SUCH AS, BUT NOT LIMITED TO, LIFE SUPPORT OR MEDICAL DEVICES OR NUCLEAR APPLICATIONS. PRODUCTS ARE NOT DESIGNED FOR AND SHOULD NOT BE USED IN ANY OF THESE APPLICATIONS.

Certifications

United States FCC

This equipment has been tested and found to comply with the limits for a Class B digital devices, 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 instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of more of the following measures:

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

Warning: Changes or modifications not expressly approved by Monnit could void the user's authority to operate the equipment.

RF Exposure



WARNING: To satisfy FCC RF exposure requirements for mobile transmitting devices, the antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.

Monnit and ALTA Wireless Sensors, Wireless Sensor Adapters and Ethernet Gateways:

This equipment complies with the radiation exposure limits prescribed for an uncontrolled environment for fixed and mobile use conditions. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and the body of the user or nearby persons.

All Monnit Wireless Sensors and Gateways Contain FCC ID: ZTL-RFSC1.

Approved Antennas

The following antennas are approved for use with Monnit devices (required antenna impedance is 50 ohms.)

- Hyperlink HG905RD-RSP (5.1 dBi Rubber Duck)
- Pulse W1063 (3.0 dBi Rubber Duck)
- ChangHong GSM-09 (2.0 dBi Rubber Duck)
- Specialized Manufacturing MC-ANT-20/4.0C (4" whip)

All ALTA Wireless Sensors and Gateways Contain FCC ID: ZTL-G2SC1.

Approved Antennas

ALTA devices have been designed to operate with an approved antenna listed below, and having a maximum gain of 14 dBi. Antennas having a gain greater than 14 dBi are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

- Xianzi XQZ-900E (5 dBi Dipole Omnidirectional)
- HyperLink HG908U-PRO (8 dBi Fiberglass Omnidirectional)
- HyperLink HG8909P (9 dBd Flat Panel Antenna)
- HyperLink HG914YE-NF (14 dBd Yagi)
- Specialized Manufacturing MC-ANT-20/4.0C (1 dBi 4" whip)

Canada (IC)

English

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

The radio transmitters (IC: 9794A-RFSC1, IC: 9794A-G2SC1, IC: 4160a-CNN0301, IC: 5131A-CE910DUAL, IC: 5131A-HE910NA, IC: 5131A-GE910 and IC: 8595A-2AGQN4NNN) have been approved by Industry Canada to operate with the antenna types listed on previous page with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

French

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Le présent émetteurs radio (IC: 9794A-RFSC1, IC: 9794A-G2SC1, IC: 4160a-CNN0301, IC: 5131A-CE910DUAL, IC: 5131A-HE910NA, IC: 5131A-GE910 et IC: 8595A-2AGQN4NNN) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne figurant sur la page précédente et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement

Japan (ARIB)

All Monnit 920 MHz products have been tested and found to comply with ARIB STD-T108 standards.



European Union - Directive 1999/5/EC

Monnit and ALTA Wireless Sensors, Wireless Ethernet Gateways, Wireless Sensor Adapters and Wireless USB Pro Gateways have been evaluated against the essential requirements of the 1999/5/EC Directive.

Hereby, Monnit Corp., declares that Monnit and ALTA Wireless Sensors, Wireless Ethernet Gateways, Wireless Sensor Adapters and Wireless USB Pro Gateways are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

In order to satisfy the essential requirements of 1999/5/EC Directive, Monnit and ALTA wireless products are compliant with the following standards:

| ETSI EN 60950 1: 2006/A11: 2009/A1: 2010/ A12: 2011/A2:2013 | Electrical Safety RED Article 3.1a |
|--|--|
| ETSI EN 301 489-3 V2.1.1 (2017-03) | EMC / RED Article 3.1b |
| ETSI EN 300 220-2 V3.1.1 (2017-02) | RF spectrum Efficiency RED Article 3.2 |

Monnit and ALTA International 2G, 3G and 4G LTE Cellular Gateways have been evaluated against the essential requirements of the 1999/5/EC Directive.

Hereby, Monnit Corp., declares that Monnit and ALTA International 2G, 3G and 4G LTE Cellular Gateways are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

In order to satisfy the essential requirements of 1999/5/EC Directive, Monnit and ALTA International 2G, 3G and 4G LTE Cellular Gateways are compliant with the following standards:

| EN 60950-1:2006 +A11:2009, +A1:2010, +A12:2011, +A2:2013 / IEC 60950-1:2005 +A1:2009 +A2:2013 + AC2011 | Electrical Safety RED Article 3.1a |
|--|------------------------------------|
| EN 62311:2008 | |

| EN 301 489-1 V1.9.2 (2011-09) EMC / Red Article 3.1b EN 301 489-3 V1.4.1 (2002-08) EN 301 489-7 V1.3.1 EN 301 511 V9.0.2 | EMC / RED Article 3.1b |
|--|--|
| ETSI EN 300 220-2 V3.1.1 (2017-02) | RF spectrum Efficiency RED Article 3.2 |

The conformity assessment procedure referred to in Article 10 and detailed in Annex IV of Directive 1999/5/EC has been followed with the involvement of the following Testing Body.

Testing Body:
NEMKO CANADA INC
303 River Road
Ottawa. ON. Canada

Manufacturer:

Monnit Corp. 3400 South West Temple Salt Lake City. UT 84115

There is no restriction for the commercialisation of Monnit and ALTA 868MHz and 433MHz wireless products in all the countries of the European Union.

SAFETY RECOMMENDATIONS READ CAREFULLY

Be sure the use of this product is allowed in the country and in the environment required. The use of this product may be dangerous and has to be avoided in the following areas:

- Where it can interfere with other electronic devices in environments such as hospitals, airports, aircrafts, etc
- · Where there is risk of explosion such as gasoline stations, oil refineries, etc

It is responsibility of the user to enforce the country regulation and the specific environment regulation.

Do not disassemble the product; any mark of tampering will compromise the warranty validity. We recommend following the instructions of this user guide for correct setup and use of the product.

Please handle the product with care, avoiding any dropping and contact with the internal circuit board as electrostatic discharges may damage the product itself. The same precautions should be taken if manually inserting a SIM card, checking carefully the instruction for its use. Do not insert or remove the SIM when the product is in power saving mode.

Every device has to be equipped with a proper antenna with specific characteristics. The antenna has to be installed with care in order to avoid any interference with other electronic devices and has to guarantee a minimum distance from the body (20 cm). In case of this requirement cannot be satisfied, the system integrator has to assess the final product against the SAR regulation.

The European Community provides some Directives for the electronic equipments introduced on the market. All the relevant information's are available on the European Community website: http://ec.europa.eu/enterprise/sectors/rtte/documents/

The text of the Directive 99/05 regarding telecommunication equipments is available, while the applicable Directives (Low Voltage and EMC) are available at: http://ec.europa.eu/enterprise/sectors/electrical



CAUTION: MONNIT INTERNATIONAL 2G AND 3G CELLULAR GATEWAYS AND ALTA INTERNATIONAL 3G CELLULAR GATEWAYS CONTAINS AN ENCLOSED CR2032 COIN CELL BATTERY. RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Additional Information and Support

For additional information or more detailed instructions on how to use your Monnit Wireless Sensors or the iMonnit Online System, please visit us on the web at http://www.monnit.com/support/.



Monnit Corporation 3400 South West Temple Salt Lake City, UT 84115 801-561-5555 www.monnit.com