



Remote Monitoring for Business

iMONNIT™ EXPRESS

iMonnit Express USER GUIDE



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I. ABOUT iMONNIT EXPRESS

[iMonnit Express™](#) puts sensor management on a secure standalone PC application without the need for an Internet connection and now it's also in the palm of your hand. Express is built for our IoT customers who require up to date sensor readings down to the second. Our software has been redesigned to present a faster, user friendly experience for small sensor networks. Your dashboard is accessible from any mobile device and PC, including Mac and Linux. The latest version supports up to 100 wireless sensors and is capable of sending notifications via email when sensor thresholds have been met or exceeded.

FEATURES

- Basic Configurations
- Advanced Configurations
- History Reports *
- Calibration
- USB Gateway Support
- Ethernet Gateway Support
- Cellular Gateway Support **
- Off-Line Access
- Email Alerts **
- In-App Alerts
- 1-Second Heartbeats
- Up to 100 wireless sensors
- Mobile App Support

* Basic-3 months, Express-5,000 data points, Enterprise-depends on your server configurations.

** Depends on your personal firewall & server setup.



BASIC	PREMIERE		EXPRESS	ENTERPRISE
ALWAYS FREE	STARTING @ \$39	PRICE	STARTING @ \$79	Call for Pricing
	✓	BASIC CONFIGS	✓	✓
✓	✓	ADVANCED CONFIGS	✓	✓
✓	✓	HISTORY REPORTS	✓	✓
✓	✓	VISUAL CHARTS		✓
✓	✓	DATA EXPORT		✓
✓	✓	CALIBRATION	✓	✓
✓	✓	USB GATEWAY	✓	✓
✓	✓	ETHERNET GATEWAY	✓	✓
✓	✓	CELL GATEWAY	**	✓
✓	✓	WIFI SENSORS		✓
✓	✓	INTERNET ACCESSIBLE	**	✓
		OFF-LINE ACCESS	✓	✓
✓	✓	ALERT HISTORY		✓
	✓	>1 ALERT RECIPIENTS		✓
✓	✓	GROUP CONFIGS	✓	✓
	✓	ACCESS CONTROL	✓	✓
✓	✓	EMAIL ALERTS		✓
✓	✓	SMS ALERTS		
✓	✓	VOICE CALLS		
✓	✓	IN-APP ALERTS	✓	✓
	✓	SENSOR MAPPING		✓
	✓	AUTOMATED REPORTING		
2 hours	10 minutes	HEARTBEAT MIN.	1 second	1 second
1	20	# OF NETWORKS	1	Unlimited
500 per Network	500 per Network	# OF SENSORS	Up to 100	500 Per Network
100	1,000	# OF GATEWAYS	10	Unlimited
1	Unlimited	# OF USERS	Multiple	Unlimited
45 Days	Unlimited	SAVED HISTORY	5,000 records	Unlimited
Online Only	Online Only	SUPPORT	Online Only	Online, Phone

* Basic three months, Express-5,000 data points, Enterprise-depends on your server configurations.

** Depends on your personal firewall & server set-up.



II. GETTING STARTED

PURCHASING iMONNIT EXPRESS

iMonnit Express 4.0 is a premium software application that can be purchased from Monnit. There are three options available:

- iMonnit Express for up to 10 sensors
- iMonnit Express for up to 25 sensors
- iMonnit Express for up to 100 sensors

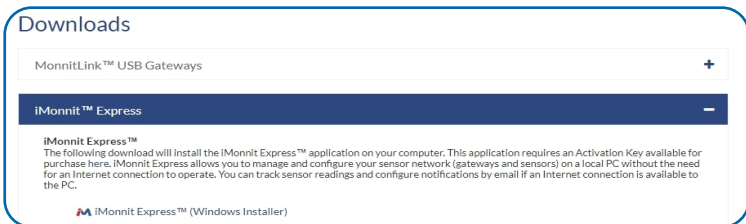
You must purchase a plan that will support a number of sensors greater than those on the software application.

iMonnit Express notifications require setting up an SMTP Server.

DOWNLOADING iMONNIT EXPRESS

iMonnit Express 4.0 can be downloaded from Monnit's website. Just click the following link: <https://www.monnit.com/support/downloads/>

Find the second section of the drop-down options and select the iMonnit Express Installer.



The file will download directly to your computer.

Follow the on-screen instructions to install iMonnit Express on your desktop.

You may need to restart your computer after the installation process is complete. If you prefer not to reboot your computer, you can locate the service "iMonnit Express" inside your service manager console and start the service manually.

ACCESSING iMONNIT EXPRESS FOR THE FIRST TIME

Once the installation is complete, the icon will appear on your desktop.



Selecting the desktop icon will open iMonnit Express in a browser window.

Next, you'll be asked to input the activation code received following purchase of iMonnit Express. This information can be found on your invoice for the product.

Creating an iMonnit Express Account

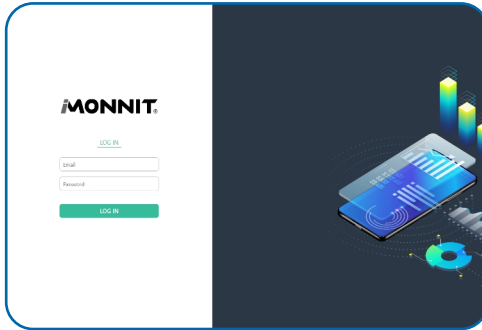
After inputting the activation code, the application will prompt you to create an account.

Enter an Email and a Password for the account. Then click the create button. The page will refresh and prompt you to log in with the Email and Password combination for the first time.



LOGGING INTO THE ONLINE SYSTEM

1. Open iMonnit Express in your browser by selecting the icon on the desktop.
2. Enter your Email and Password.

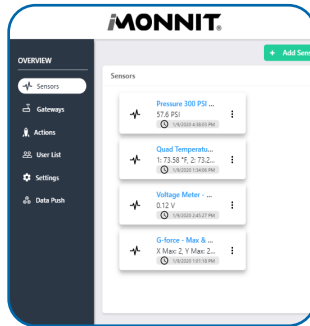


3. Select the "Login" button.

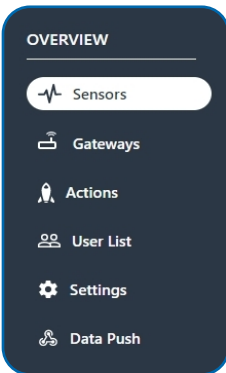


III. THE SENSORS PAGE (HOMEPAGE)

From the iMonnit Express homepage you can view how many active and/or alerting sensors and gateways, along with a complete list of networks on your account. Check this page regularly to make sure that your system is functioning properly.



MAIN NAVIGATION MENU



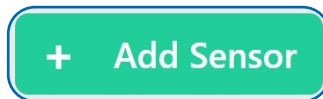
The main navigation menu is the primary resource you will refer to for information regarding your devices and settings.

- **Sensors** - (Homepage) View and modify sensors on your account.
- **Gateways** - Adjust settings for your gateways.
- **Actions** - Create and edit actions for your sensors.
- **User List** - Modify all permissions and settings for users on your account.
- **Settings** - Adjust account settings for your SMTP Server.
- **Data Push** - Choose from two types of MQTT Data Push types.

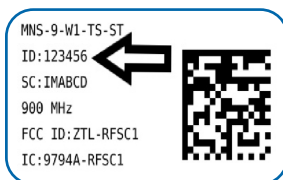
Each of these options are covered in their own user guide sections. Read on for more information on these various pages.

ADDING A SENSOR

Sensors can be added on the sensor page by clicking the Add Sensor button.



A box will pop-up prompting the entry of the Device ID and Security Code. These can be found on the label of your device. On sensors, this label is typically located on the side of the device. The **Device ID** consists of numbers. The **Security Code** is a set six capital letters.



Device ID:

Security Code:

Add Device

Select the Add Device button.

The sensor will appear on the list included on the Sensors Page.

SENSOR SETTINGS

Selecting your sensor from the list will open a page with all the current readings of your sensor.

Adjust settings for your sensor by clicking the Sensor Edit button.



A page to modify the operational settings for the sensor will load. Be sure to click the Save button after making any changes. Consult the user guides or video tutorials for your sensor for a definition of settings and instructions for mounting the device.



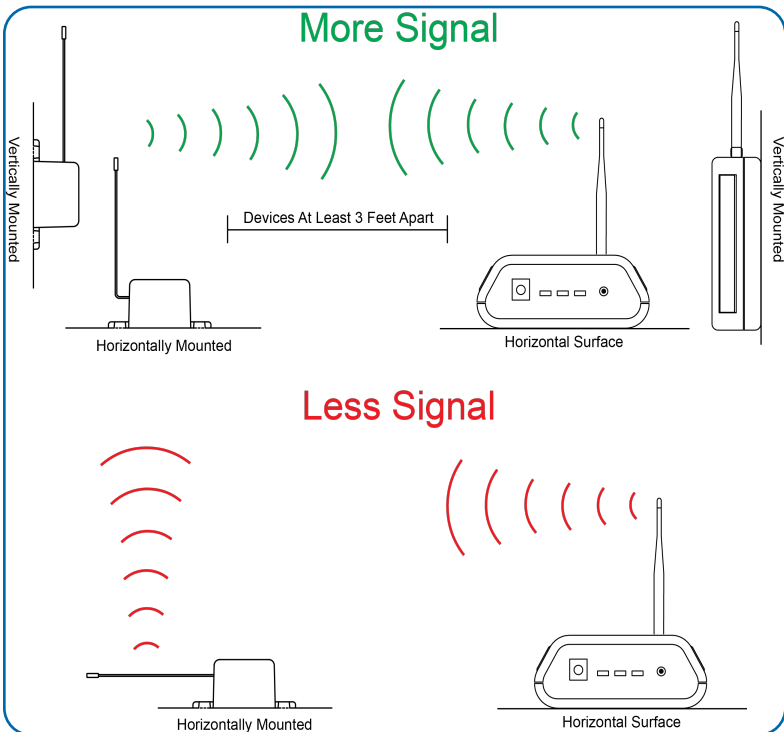
IV. GATEWAY OVERVIEW

HOW GATEWAYS WORK

A [gateway](#) is the device that manages communication between your sensors and servers. On startup, the gateway will periodically transmit a heartbeat, checking in with the servers to make sure it is still receiving an active signal. Sensors also have heartbeats and will relay information to the gateway, which then forwards the data to the server. There are four different types of gateways:

- **Cellular Gateways:** Uses cell towers to facilitate communication between gateways and the monitoring system.
- **Ethernet Gateways:** Requires an ethernet cable to establish a connection between your gateway and Monnit Servers using an IEEE 802.3 network.
- **USB Gateways:** Uses an existing Internet connection on a PC to facilitate communication with the Monnit servers.
- **Serial Modbus Gateway:** Acts as a data concentrator for Monnit wireless sensor networks.

In order for your wireless sensors to work optimally, you should orient all antennas for your sensor(s) and gateway(s) the same direction (typically vertical).



OVERVIEW

 Sensors

 Gateways

 Actions

 User List

 Settings

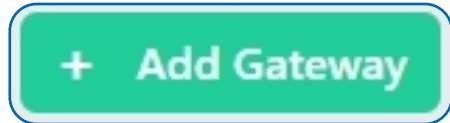
 Data Push

On iMonnit Express, find **Gateways** in the main navigation menu to start modifying your gateway settings.

A list of all the gateways registered to your account will display. There should be at least one gateway registered to your account in order for your sensors to be active.

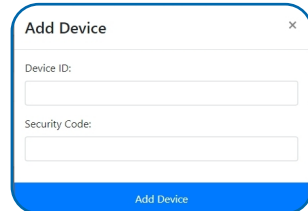
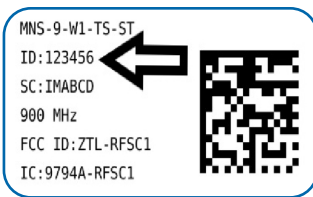
ADDING A GATEWAY

Gateways can be added on the gateway page by clicking the Add Gateway button.



A box will pop-up prompting the entry of the Device ID and Security Code. These can be found on the label of your device. On gateways, this label is typically located

on the bottom of the device. The **Device ID** consists of numbers. The **Security Code** is a set six capital letters.

A blue-bordered pop-up box titled "Add Device" with a close button (X) in the top right corner. It contains two input fields: "Device ID:" and "Security Code:". Below the fields is a blue button labeled "Add Device".

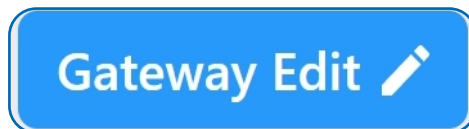
Select the Add Device button.

The gateway will appear on the list included on the Gateway Page.

GATEWAY SETTINGS

Selecting your gateway from the list will open a page with all the current readings of your sensor.

Adjust settings for your gateway by clicking the Gateway Edit button.



A page to modify the operational settings for the sensor will load. Be sure to click the Save button after making any changes.

Consult the user guide or video tutorial for your gateway for a list of settings and mounting procedure.



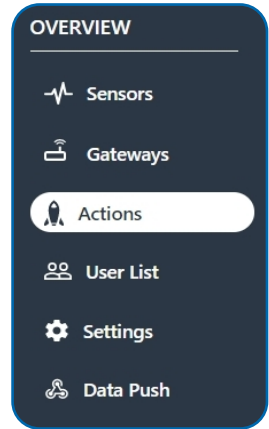
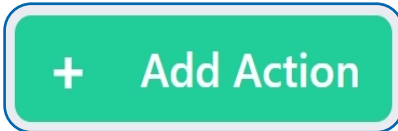
V. ACTIONS OVERVIEW

Select Actions from the Main Menu to set actions for your devices.

Actions are triggers or alarms set to let you know when a sensor reading identifies that immediate attention is needed. Types of actions include sensor readings or low battery. Any one of these can be set to send a notification or trigger an action in the system.

CREATING AN ACTION

Select the Add Action button.

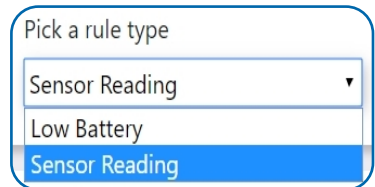


Step 1: Create a rule for your action?

- Choose a name for your action.
- The drop-down menu will have the following options for Rule Types:

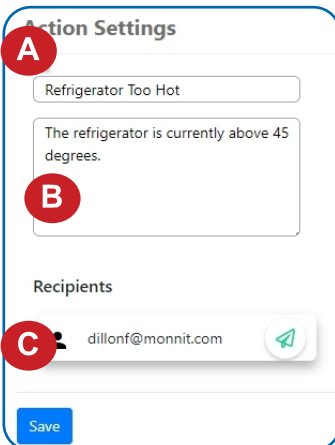
Sensor Reading: Set actions based on sensor activity or reading.

Low Battery: This is where you can set to be notified when the battery level drops below a percentage.



This example will cover how to create a Sensor Reading action.

- Select **Sensor Reading** from the drop-down menu.
- A second drop-down menu will appear. From here, you will be able to see a list of the different type of sensors registered to your account.
- Next, you will be asked to input the trigger settings.
- Press the "Save" button.



Step 2: What happens when this rule is met?

A. Here you will be asked to specify the Email contents. Include a subject line for the notification.

B. Next, enter content that the notified user will see when they receive this notification.

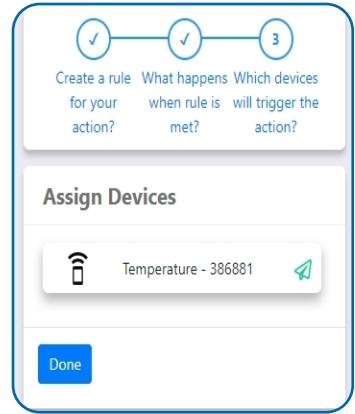
C. Select recipients for the notification by clicking the paper airplane icon next to the recipient's name. The icon will turn green.

Be sure to select the Save button before moving on.

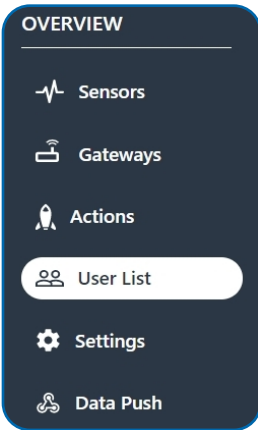
Step 3: Which devices will trigger the action?

Choose which devices to attach to the action by selecting the  icon.

Once completed, select the **Done** button.



VI. USER LIST OVERVIEW

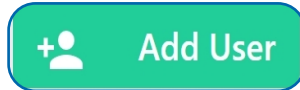


The user list page can be accessed through the main menu. The user list will display all users who have access to your account.

Having additional users on an account gives you the chance to act as an administrator. This can be extremely helpful for a large company and several people need access to Monnit sensors in the event of an emergency.

ADDING A USER

To add a user on iMonnit Express 4.0, select the Add User button.



The Add User box will pop-up. Enter the Email and Password for the new user. Then click the Admin check-box if you wish to add them as an administrator on the account. Finish by clicking the Add User button.

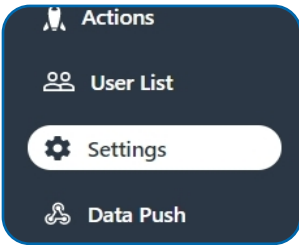
Users who are not administrators only have permission to view devices and actions on the account. They do not have the ability to add or delete new users and devices or make any other modifications.

A white pop-up form titled 'Add User' with a close button (X) in the top right corner. It contains three input fields: 'Email:', 'Password:', and 'Admin:'. The 'Admin:' field has a checkbox. At the bottom is a blue button labeled 'Add User'.

The user will be added to the list of users on the account.



VII. SETTINGS OVERVIEW



iMonnit Express notifications require setting up an SMTP Server. You can set and make adjustments to your SMTP credentials on the Settings Page. This is accessible by clicking “Settings” in the main menu.

SMTP stands for Simple Mail Transfer Protocol. This is a communication protocol for electronic mail transmission. This must be set up for communication with iMonnit Express to be established and for the application to work properly.

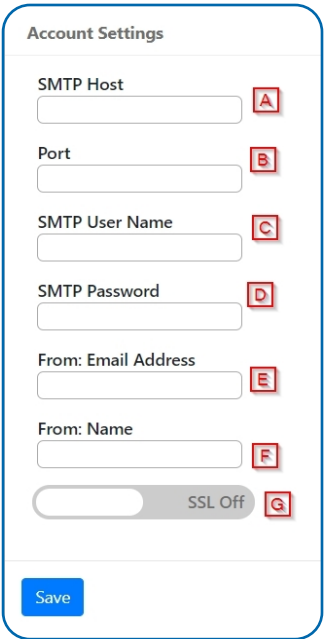
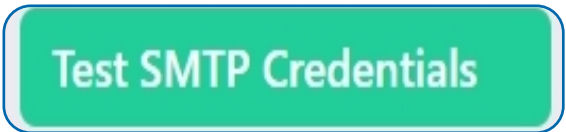
ACCOUNT SETTINGS

When opening the settings page, the account settings will be the first page you see.

- A. SMTP Host** - The url address for the server host.
- B. Port** - The number for where the server data from the gateway is received.
- C. SMTP User Name** - The user name assigned to the SMTP server.
- D. SMTP Password** - The password for the SMTP server.
- E. From: Email Address** - The email address associated with the server.
- F. From: Name** - The name associated with the SMTP server.
- G. SSL** - Switch to trigger the SSL (Secure Sockets Layer) ON or OFF.

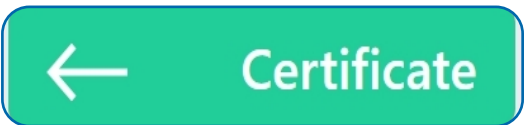
Select the Save button after making any changes.

Test the SMTP Credentials by clicking the button.

A screenshot of the 'Account Settings' form. It contains several input fields: 'SMTP Host', 'Port', 'SMTP User Name', 'SMTP Password', 'From: Email Address', and 'From: Name'. Each field has a red lettered box (A through F) to its right. Below these is an 'SSL Off' toggle switch with a red lettered box (G) to its right. At the bottom left is a blue 'Save' button.

CREATING AN SSL CERTIFICATE

To create an SSL Certificate, select the Certificate button.



Enter the Certificate File Password and upload a new SSL Certificate file.

You will have to restart the application to implement the new certification.

SSL Certificate

You will have to restart the application to implement the new certification.

Certificate File Password

Certificate File

Choose File

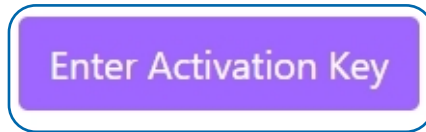
No file chosen

Save

Press the Save button after making any changes.

ENTERING A NEW ACTIVATION KEY

If you have a new activation key, click the Enter Activation Key button.



You will be logged out of the application and prompted to enter the Activation Key number.



VIII. DATA PUSH OVERVIEW

OVERVIEW

 Sensors

 Gateways

 Actions

 User List

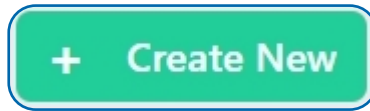
 Settings

 Data Push

Choose Data Push from the main menu to set up an MQTT: Azure IoT or MQTT: AWS IoT data push. MQTT is a widely adopted, lightweight messaging protocol designed for constrained devices.

CREATING A NEW DATA PUSH

To create a new data push, select the Create New button.



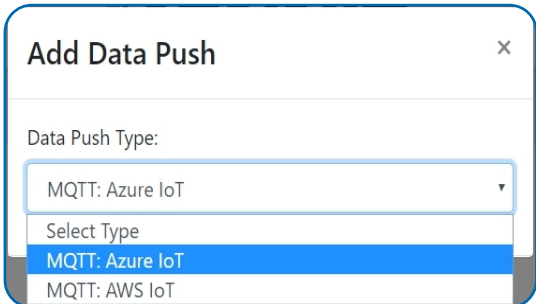
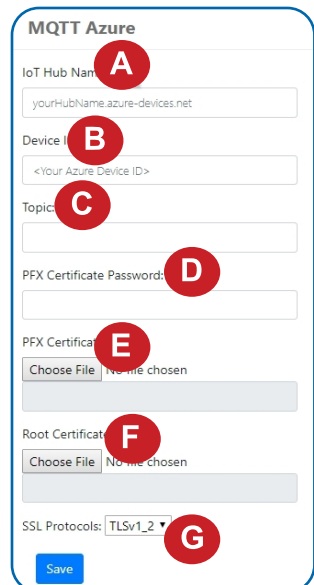
The pop up window will prompt you to choose a Data Push Type. There are two options; MQTT: Azure IoT and MQTT: AWS IoT.

MQTT: Azure IoT

This is a data push messaging protocol that works primarily with Microsoft Azure. If you are using MQTT v3.1.1, that will call from port 8883. If you are using MQTT v3.1.1 over WebSocket, that will call from on port 443. Selecting MQTT: Azure IoT data push type will open the following settings:

- A. IoT Hub Name** - URL address for the IoT hub.
- B. Device ID** - Enter your Azure Device ID.
- C. Topic** - Topic for the message being published.
- D. PFX Certificate Password** - Encryption key for the private SSL certificate.
- E. PFX Certificate** - Upload a private encrypted SSL certificate.
- F. Root Certificate** - Upload a non-encrypted SSL certificate.
- G. SSL Protocols** - Choose from a drop-down list of SSL protocols.

Select the Save button when completed.

A dialog box titled "Add Data Push" with a close button (X) in the top right corner. It contains a label "Data Push Type:" followed by a dropdown menu. The dropdown menu is open, showing three options: "MQTT: Azure IoT" (highlighted in blue), "MQTT: Azure IoT", and "MQTT: AWS IoT".A form titled "MQTT Azure" with several input fields and a "Save" button at the bottom. The fields are labeled with red circles and letters A through G: A. IoT Hub Name (text input), B. Device ID (text input), C. Topic (text input), D. PFX Certificate Password (text input), E. PFX Certificate (Choose File button), F. Root Certificate (Choose File button), and G. SSL Protocols (dropdown menu). The "Save" button is blue.

MQTT: AWS IoT

MQTT AWS

EndPoint: **A**
Example: x00000000000-x00000000000.us-west-2.amazonaws.com

Broker Port: **B**

Client ID: **C**

Topic: **D**

PFX Certificate File Path: **E**

PFX Certificate Password: **F**

Root Certificate Path: **G**

SSL Protocols: TLSv1_2 **H**

Save

AWS is a data push messaging protocol that works primarily with Amazon Web Services.

Selecting MQTT: AWS IoT data push type will open the following settings:

A. EndPoint - Address for your personal AWS IoT endpoint.

B. Broker Port - Number for where the server data from the AWS message broker is received.

C. Client ID - Name associated with the AWS account.

D. Topic - Input the topic for the message being published.

E. PFX Certificate File Path - File path for a private SSL certificate.

F. PFX Certificate Password - Passcode for the private SSL certificate.

G. Root Certificate Path - File path for a typical SSL certificate that is not encrypted.

H. SSL Protocols - Choose from a drop-down list of SSL protocols.

Select the Save button when completed.



SUPPORT

For technical support and troubleshooting tips please visit our support library online at 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 (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 one year 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 one year 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 LIABILITY 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.



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