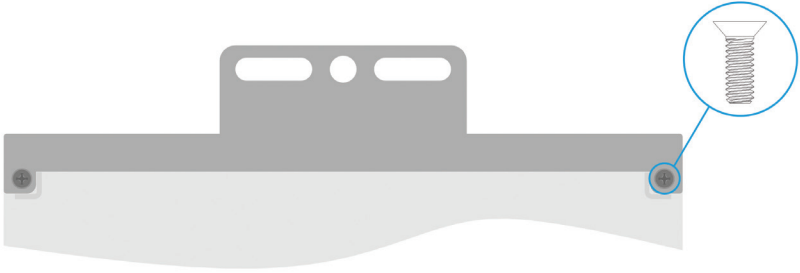


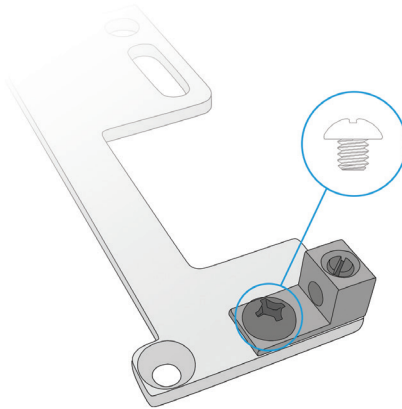
## Assembly

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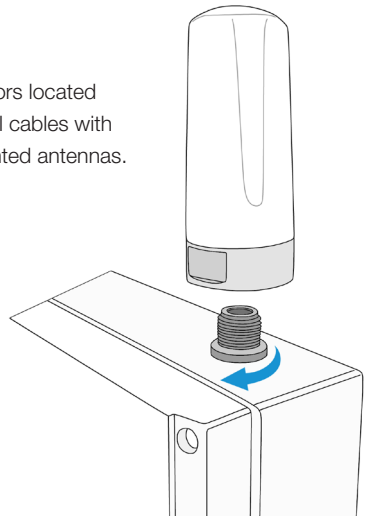
- 1 Attach the mounting brackets to the back of the THREAD using the four (4) provided 18-8 Stainless Steel Phillips Flat Head Screws.



- 2 Attach the grounding lug to the mounting bracket using the provided 1/4"-20 screw.



- 3 Screw provided antennas onto the N-type connectors located on the top of the THREAD. Alternatively, use coaxial cables with N-type connectors for attachment to external mounted antennas.



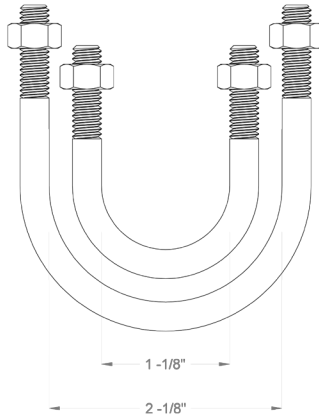
## Installation

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- 1 The THREAD mounting brackets will accommodate the following fasteners.

### Pole-mount

U-bolts of 5/6" diameter, ranging from 1" dia SCH40 pipe to 2" dia SCH40 pipe. Clamping u-bolts are recommended.



### Wall-mount

3/8" dia self-tapping machine screws, or  
3/8" dia lag bolts



- 2 Install the THREAD enclosure in a vertical orientation with the device ports facing down to minimize water intrusion.
- 3 Connect power supply (Solar panel or AC transformer) with 3-pin power connector to the PWR port. The connector will provide a light tactical feedback when a solid connection is made. Please attempt to pull the connector lightly to ensure that the lock is engaged.

**IMPORTANT:** If you desire to use a third-party power supply to the THREAD, please contact sensemetrics support prior to connecting to verify compatibility. Damage to the sensemetrics device caused by third-party power supplies is not covered under warranty.

- 4 Connect the grounding lug to a verified ground source using a 14AWG cable, no longer than 30ft in length.

## Connect

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### 1 POWER ON GATEWAY THREAD

Any THREAD will operate in the role of a **gateway** when it has a directly wired Internet connection. Additionally, all XC models will prioritize use of cellular connection, and fall back to wired Internet in the event cellular connectivity is disrupted. THREAD devices operating in the role of a **gateway** will serve as a wireless access point for any THREAD devices in proximity that do not have direct Internet access, and have a compatible active wireless mesh transceiver.

IMPORTANT: Verify compatibility by matching the fourth and fifth attribute in the THREADs' product part number. For example, C01.X.02-900-250 is not compatible with C01.X.02.900-1000.

**Gateways** can host up to 25 wireless endpoint devices depending on many factors, including:

- 1) Distance between **gateway** and endpoint
- 2) Signal strength
- 3) RF noise in proximity
- 4) Sampling frequency
- 5) Configured sensor data rate

Installing additional THREAD devices as **gateways** will automatically provide load balancing and redundancy for proximal THREAD devices operating as endpoints. Additionally, any **gateway** will fall back and operate as an endpoint if Internet uplink is disrupted, and additional **gateways** are operating in proximity.

#### Color spectrum LED: Boot Up

Indicates boot process, from cold start or sleep mode. Process lasts approximately 60 seconds.

CROSS COLOR SPECTRUM MODULATION



#### Green LED: Connected

THREAD is active and operating in high-power mode, and is connected to the cloud.

GREEN PULSE, 3 SECOND FREQUENCY



#### Red LED: Disconnected

THREAD is active and operating in high-power mode, and is NOT connected to the cloud.

RED PULSE, 3 SECOND FREQUENCY



#### Blue LED: Low power mode

THREAD is sleeping to conserve power.

BLUE FLASH, 10 SECOND FREQUENCY



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## 2 POWER ON REMAINING ENDPOINT THREADS

THREAD devices not connected to the Internet using a wired network connection, or internal cellular option, will connect to the cloud through neighboring THREAD devices using active wireless mesh. Endpoints will automatically join a THREAD network - either directly through the closest **gateway** or through other endpoints. Up to three hops can be made to access a **gateway**.

### Color spectrum LED: Boot Up

Indicates boot process, from cold start or sleep mode. Process lasts approximately 60 seconds.

CROSS COLOR SPECTRUM MODULATION



### Green LED: Connected

THREAD is active and operating in high-power mode, and is connected to the cloud.

GREEN PULSE, 3 SECOND FREQUENCY



### Red LED: Disconnected

THREAD is active and operating in high-power mode, and is NOT connected to the cloud.

RED PULSE, 3 SECOND FREQUENCY



### Blue LED: Low power mode

THREAD is sleeping to conserve power.

BLUE FLASH, 10 SECOND FREQUENCY



Once powered and connected, all device configuration is performed using the sensemetrics cloud application.

## 3 LOGIN TO [sensemetrics](https://app.sensemetrics.com)



Cloud application:

<https://app.sensemetrics.com>



New users can register for an account here:

<https://app.sensemetrics.com/#register>


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#### 4 ADD CONNECTION

Navigate to the Network menu. In the left portion of the page is the Connections pane.

Click on 

Select  and enter the Connect Code, which can be found on the back of the THREAD device.

 Unique 6-digit code on the back of each THREAD



#### 5 ADD DEVICE

Plug your device into "Device 1" or "Device 2" on the THREAD using the associated connect cable.



Login to the sensemetrics cloud service at <https://app.sensemetrics.com>, and navigate to the Network menu. In the right portion of the page is the Devices & Sensors pane. Click on the



button and search the name or manufacturer of the device, configure all of the associate device parameters, and click Save to implement the device port configuration.

Note: The device configuration will be transmitted to your THREAD device. This programming can take 5-60 seconds, after which you should see the device added to your listing, along with a green icon indicating an successful configuration and initial measurement.

Please visit our support webpage at [support.sensemetrics.com](https://support.sensemetrics.com) to find additional tutorials, and helpdesk should you experience any difficulties with the initial configuration of your THREAD.

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## Contact Us

sensemetrics provides industry leading support for our products and platform. To begin your support experience, please visit our knowledge base at [support.sensemetrics.com](https://support.sensemetrics.com). There you can access tutorials, sensor quick-start guides, and software features descriptions - as well as initiate a support ticket for immediate response from one of our customer success experts.

### Customer Success

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### Connect



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