

X2 Data Logger – Quick Start Guide

The NexSens X2 Environmental Data Logger offers the latest in real-time monitoring technology with wireless communication, large plug-and-play sensor library, and ultra-low power consumption. The unit includes Integral Wi-Fi and smartphone connectivity with options for radio, cellular & satellite options. WQData LIVE web datacenter provides instant access on any web browser.

What's Included:

- (1) X2 environmental data logger
- (3) Sensor port plugs
- (1) Power port plug
- (1) Magnetic screwdriver
- (1) Quick start guide
- (1) Wireless antenna (telemetry units only)



X2 Data Logger – Communication Options

The NexSens X2 Data Logger is available with various modes of wireless communications:

X2 Data logger wireless communication options	
X2	Direct connect
X2-C-VZ4G	X2 environmental data logger with Verizon 4G LTE cellular telemetry
X2-C-AT4G	X2 environmental data logger with AT&T 4G LTE cellular telemetry
X2-I	X2 environmental data logger with Iridium satellite telemetry
X2-R-DG	X2 environmental data logger with 900 MHz radio telemetry
X2-RC-DG-VZ4G	X2 environmental data logger with 900 MHz radio to Verizon 4G LTE cellular telemetry
X2-RC-DG-AT4G	X2 environmental data logger with 900 MHz radio to AT&T 4G LTE cellular telemetry

X2 Data Logger – Accessories

The NexSens X2 Data Logger has the following accessories:

X2 Data logger common accessories	
VZ-25MB-M	Verizon cellular data service with 25 MB monthly allowance & static IP address, priced per month
VZ-25MB-Y	Verizon cellular data service with 25 MB monthly allowance & static IP address, priced per year
PM2	X2 pole and wall mount kit, 1.5" to 2" diameter
MAST	2" NPT threaded aluminum pipe assembly for hardware mounting, 24" length
UW6-USB-485	Direct connect USB PC cable, X2/V2
UW6-PW	AC power adapter, X2/V2
UW6-FL1	UW 6-pin plug to flying lead cable, 1m
SP6	Solar power pack, 6-watt. Includes solar panel, regulator, 6 A-Hr battery & pole mount weather tight enclosure
UW-FL1	UW plug to flying lead cable, 1m
UW-FWP	UW plug terminal for flying lead sensor interface
UW-FWP-V	UW plug terminal for vented flying lead sensor interface

X2 Pre-deployment Testing

Perform system tests

Important: **Never** deploy the measurement system without first performing system tests in a lab or office. This guide assume cellular communication. If you are setting up a different method of data transmission see one of the following:

- [X2 direct connect](#)
- [X2 Iridium satellite connect](#)
- [X2 radio connect](#)



X2 Pre-deployment Testing

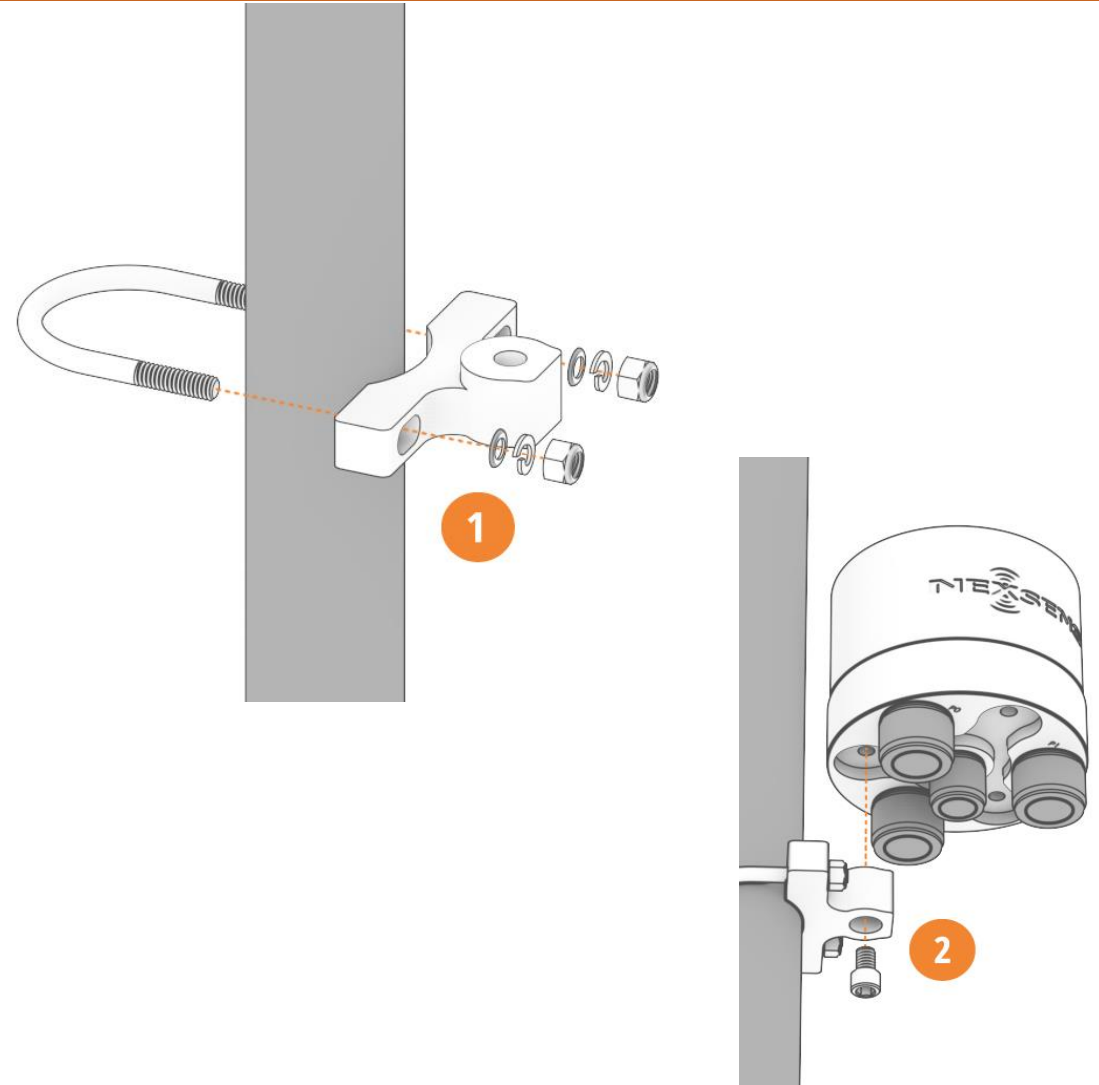
Attaching the X2 to a mast

For testing purposes, the equipment can be setup on a bench or installed on a NexSens MAST or equivalent 2" NPT pipe using the PM2 pole/wall mount kit.

Mount the X2 Data Logger.

1 Attach the bracket to a pole using the included U-Bolt, flat washers, lock washers, and nuts. Tighten with a 1/2" socket driver or wrench.

2 Use the socket head cap screw to attach the mounting bracket to the bottom of the X2 with a 5/16" hex driver.



X2 Pre-deployment Testing

Attaching the SP6 to a mast

The SP6 Solar Power Pack includes a battery, solar panel and charge regulator and provides 12VDC power. It is a common choice to power most X2 based measurement systems.

Mount the SP6 Data Logger.

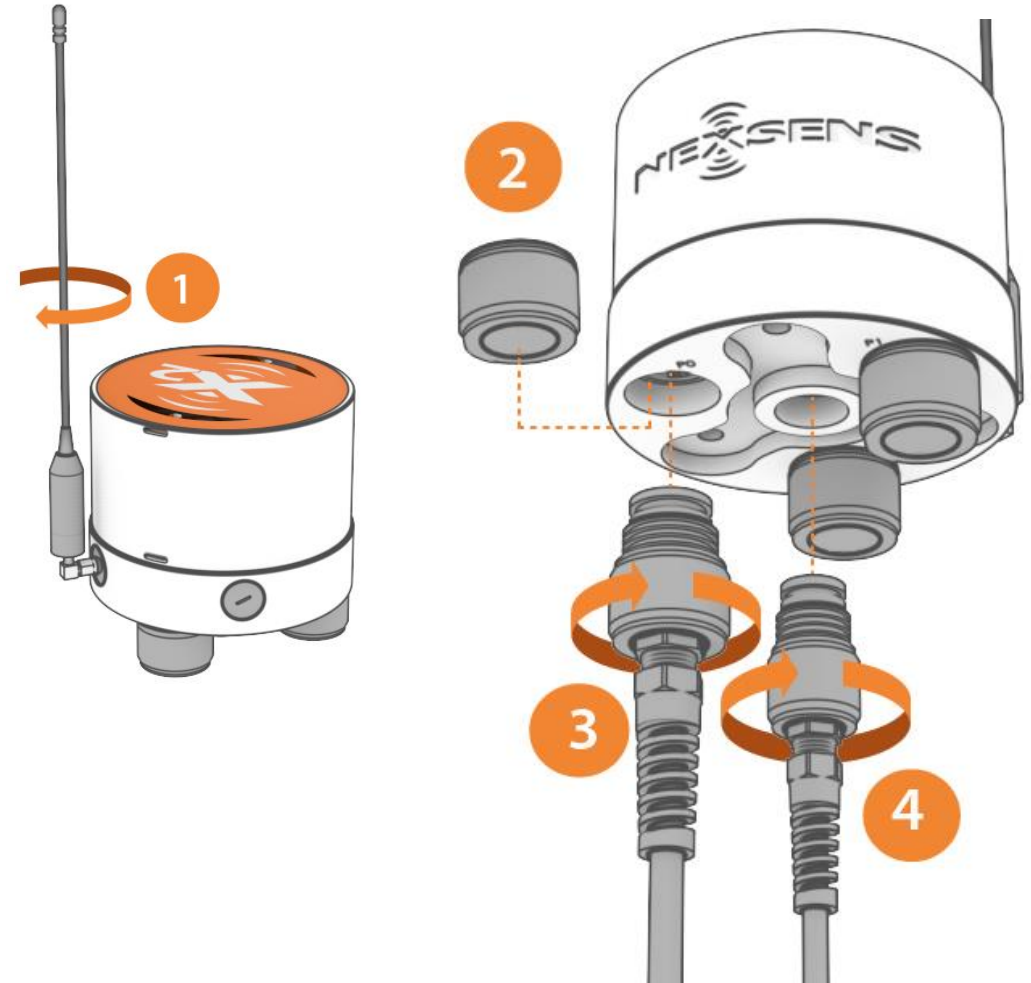
- 1 Attach the bracket to a pole using the included U-Bolts, flat washers, lock washers, and nuts. Tighten with a 1/2" socket driver or wrench.
- 2 Angle adjust the panel for best solar energy.



X2 Pre-deployment Testing

Attaching the antenna, power and sensors to the X2

- 1 Place the X2 in an area with strong cellular coverage and connect the antenna.
- 2 Remove the center power plug and required outer port plugs (1 for each sensor to connect)
- 3 Connect sensors to any outer port (8 pin), see [X2 sensor connect](#) for details.
- 4 Connect power (5 to 24VDC) to the center port (6 pin)

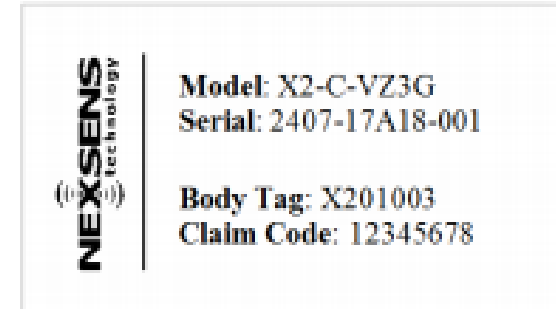


X2 Pre-deployment Testing

Connecting to WQData Live

The X2 sends data to the cloud where it can be viewed and processed.

- 1 Create a [new account](#) or sign into an [existing account](#) and enter the Claim Code found on the serial label to access the device's data



X2 Pre-deployment Testing

Preparing the X2 for data transmission

1 On power-up, wait up to 60 seconds for the blue cellular status LED to turn on

Note: If the blue LED repeatedly blinks once, cell coverage is low. Move the X2 to a location with better cell coverage and cycle power

Note: If the blue LED repeatedly blinks three times, the cellular strength is sufficient

2 Allow up to 5 minutes for sensor detection and data acquisition.

3 The detected X2 profile is sent to WQData LIVE along with new data

Note: The blue LED will be on (solid) when setup is completed

4 Refresh the web browser and confirm that all connected sensors and their parameters are displayed on WQData LIVE

