

X2 - WI-FI DATA LOGGER

QUICK START GUIDE

IMPORTANT - BEFORE FIELD DEPLOYMENT: Completely configure new X2 systems with sensors and a web connection in a nearby work area. Operate the system for several hours and ensure correct sensor readings. Use this test run to become familiar with the features and functions.



Figure 1: X2 Environmental Data Logger

Overview

The X2 with integral Wi-Fi includes an embedded Wi-Fi hotspot for smartphone, tablet, or PC connection. Three sensor ports provide industry standard protocols including SDI-12, RS-232, and RS-485. The center port offers direct communication (serial to PC) and power input.

Data is accessed and stored on the WQData LIVE web datacenter. An easy-to-use dashboard and built-in sensor library automatically facilitate setup and configuration.

What's Included?

- (1) X2 data logger
- (1) X2 grounding kit
- (3) Sensor port plugs, spare orings
- (1) Power port plug, spare oring
- (1) Oring grease
- (1) Screwdriver with magnet tip
- (1) Quick start guide

Wi-Fi Specifications

Note: The X2 embedded web does not support 5GHz networks. Connect the X2 Wi-Fi to a 2.4GHz network.

Wi-Fi Communications: 802.11b/g/n (Direct to X2 or Connect X2 to an existing network)

Wi-Fi Range: 250 ft. maximum¹

¹Range varies based on many factors including obstructions, other wireless signals in the area, elevation change, and more.

X2 Embedded Wi-Fi user guide link below:
nexsens.com/x2eweb

- 1 To get started:
 - a. Go to WQDataLIVE.com
 - b. Create a new account or sign into an existing account.
 - c. Choose or create the project that will contain the data logger by selecting the Projects link from the bottom right footer of the page.
 - d. Open the project and go to the ADMIN tab located at the top of the project dashboard and click Settings.
- 2 From there, choose the Project/Site pull down menu and select the site for the new data logger.
 - a. If a site has not been created, select New Site.
- 3 Enter the claim code listed below into the space provided under Assigned Devices.
- 4 Click Add Device.
 - a. The new device should be visible in the Assigned Devices list.
- 5 Remove the center power plug and required outer port plugs (1 for each sensor to connect).
- 6 If ports are labelled, match and connect the sensors with the proper outer ports (8 pin).
 - a. If the X2 and sensors were integrated at NexSens, the sensors must be connected to the same port for proper communication.
 - b. If connecting a new sensor, use the included USB cable and the CONNECT software to ensure the sensor script is enabled. The article below describes this process.
 - nexsens.com/conncss
- 7 Connect power (5 to 24VDC) to the center port (6 pin).
 - a. Place the X2 Wi-Fi in an area with adequate Wi-Fi connection to the configured network.

- 8 Using a PC or mobile device, connect to the X2's Wi-Fi network.
 - a. If the X2 network is not visible, disconnect and re-apply power to the logger and refresh the PC or mobile device's network list.
- 9 Navigate to **192.168.1.1** with a web browser to connect with the X2 embedded web.
 - a. Access the **Main Menu** (Three horizontal bars at the top left of the interface)
 - b. Go to **Settings | Network**
- 10 Toggle the Wi-Fi mode to Network and in the spaces provided enter:
 - a. Local network SSID (case sensitive)
 - b. Network security settings
 - c. Network password

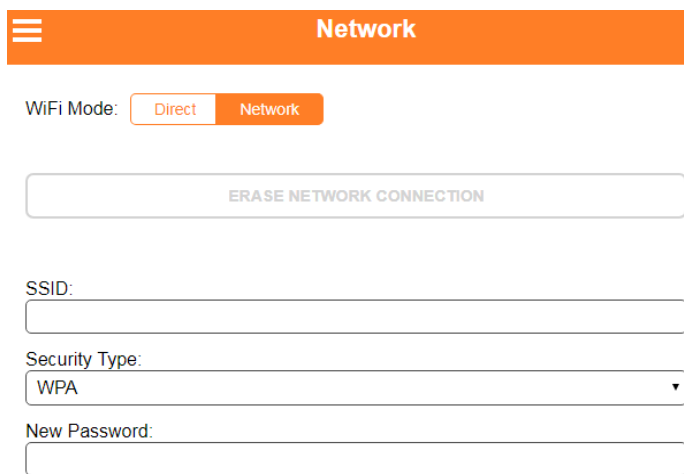


Figure 2: X2 embedded web network settings.

- 11 Click **Save Settings**.
 - a. Reset the Wi-Fi using the magnet swipe.

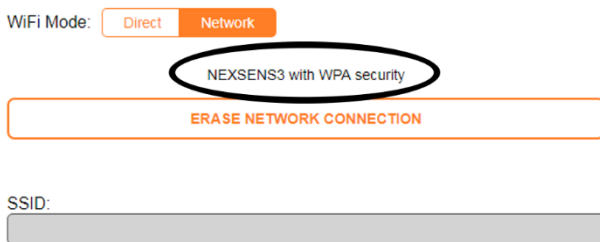


Figure 3: Successfully saved network settings.

- 12 Disconnect from the logger network and allow up to 15 minutes for sensor detection and data acquisition.
 - a. At this time the updated X2 Wi-Fi profile is sent to WQData LIVE.
 - b. At the next 10-minute transmit interval, refresh WQData LIVE and confirm all sensor parameters are shown and valid sensor readings appear.

LED Light Indicators



Figure 4: X2 LED light indicators located above the X2 logo on the clear top lid.

Table 1: X2 Wi-Fi Data Logger LED Indicators.

LED Color	1 Second Interval	3 Second Interval	5 Second Interval	3 Blinks Per 5 Seconds	Solid
Green	Primary power heartbeat	Secondary power heartbeat	Backup power heartbeat	N/A	N/A
Blue	N/A	N/A	Weak/No cell signal	Strong radio signal	WQData LIVE setup successful ¹
Yellow	N/A	N/A	Data acquisition in progress	N/A	Sensor calibration in progress
Red	Significant system error ²	N/A	N/A	N/A	N/A

¹WQData LIVE setup is automatically done after sensor detection.

²System errors can result from internal sensors detecting high current, humidity, or pressure. These errors can be indicative of a leak or other major problem with the system that requires attention.

For additional information, please reference the X2 Resource Library on the NexSens Knowledge Base.

nexsens.com/x2kb