X2 - CELLULAR 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 cellular telemetry includes an integrated modem. 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. Smartphones and tablets connect via WiFi.

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) Antenna with angle adapter
- (1) Quick start guide

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. Create and save the site before entering the claim code.

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 If cellular service is not purchased through NexSens, visit the article link below for steps on how to setup the cell modem.

nexsens.com/x2apn

6 Rotate the antenna clockwise onto the threads of the 90 degree angle adapter.

Figure 2: Step 6 - Antenna connection.

7. Use the CONNECT software to ensure the proper scripts are enabled for each sensor.

nexsens.com/conncss

8. Remove one blank sensor plug from an 8-pin port (i.e., P0, P1, or P2) for each sensor.

   a. Connect all sensors to the desired ports.

   Note: Ensure that all SDI-12 and RS-485 sensors have unique addresses.

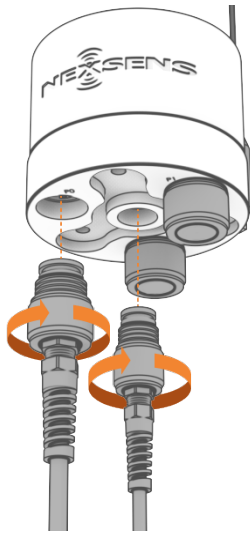9. Connect power (5 to 24VDC) to the center port (6 pin).

Figure 3: Steps 8 & 9 - Sensor and power connection.

10. Wait up to 60 seconds for the system to check cellular coverage.

   a. If the blue LED repeatedly blinks three times, the cellular strength is sufficient to connect the X2 with WQData LIVE.

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

11. After 20 minutes, refresh WQData Live and confirm all sensor parameters are shown and valid sensor readings appear.

   a. The blue LED will be on (solid) when setup is complete.

LED Light Indicators

Figure 4: X2 LED light indicators.

Table 1: X2 Environmental 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

[1]WQData LIVE setup is automatically done after sensor detection.

[2]System 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