

NEXSENS X2-SDL Cellular Data Logger User Guide

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NEXSENS X2-SDL 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.

Getting Started

- 1. Go to WQDataLIVE.com
- 2. Create a new account or sign in to an existing account.
- 3. Choose or create the project that will contain the data logger by selecting the Projects link from the bottom right footer of the page.
- 4. Go to the ADMIN tab located at the top of the project dashboard and click Settings.
 - If a site has not been created, select New Site. Create and save the site before entering the claim code.
 From there, choose the Project/Site pull-down menu and select the site for the new data logger. Figure 1:
 X2-SDL Submersible Data Logger.
- 5. Enter the claim code listed below into the space provided under Assigned Devices.
- 6. Click Add Device.
 - The new device should be visible in the Assigned Devices list.
- 7. Use the CONNECT software to ensure the proper scripts are enabled for each sensor.
- 8. Remove one blank sensor plug from an 8-pin port (i.e., P0, P1, or P2) for each sensor.
 - Connect all sensors to the desired ports. Note: Ensure that all SDI-12 and RS-485 sensors have unique addresses.
- 9. Remove the white battery lid using the included 3/16 hex driver and install the (16) D-cell alkaline batteries.
 - Warning: Ensure to follow the polarity labels located inside each battery tube. Polarity for all (4) batteries within each individual tube should be in the same orientation.
- 10. Reinstall the white battery lid.
 - The device will beep once when the metal plate on the bottom of the lid makes contact with the batteries.
 - Fully thread on the battery lid until it is flush with the top of the SDL tube.
- 11. Wait up to 60 seconds for the system to check cellular coverage.
 - Two consecutive beeps = adequate signal
 - Three consecutive beeps = no signal
- 12. After 20 minutes, refresh WQData LIVE and confirm all sensor parameters are shown.

Overview

The X2-SDL 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. The X2-SDL can be powered autonomously by (16) D-cell alkaline batteries housed in a waterproof battery compartment. Smartphones and tablets connect via

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

What's Included?

• (1) X2-SDL data logger

- (1) Pre-installed antenna
- (1) Removable battery lid
- (2) Elastomer bumpers
- (3) Sensor port plugs, spare rings
- (1) Power port plug, spare oring
- (1) Oring grease
- (16) Duracell D-cell alkaline batteries
- (1) 3/16 Hex driver
- (1) Quick start guide

Note: For detailed information on how to set up the cell modem, visit the article link below: nexsens.com/x2apn

Product Usage Instructions

- 1. Configure the X2 system with sensors and a web connection in a nearby work area before field deployment.
- 2. Go to WQDataLIVE.com and create a new account or sign in to an existing account.
- 3. Choose or create a project that will contain the data logger by selecting the Projects link from the bottom right footer of the page.
- 4. Go to the ADMIN tab located at the top of the project dashboard and click Settings.
- 5. From there, choose the Project/Site pull-down menu and select the site for the new data logger. If a site has not been created, select New Site. Create and save the site before entering the claim code.
- 6. Enter the claim code listed below into the space provided under Assigned Devices and click Add Device. The new device should be visible in the Assigned Devices list.
- 7. Use the CONNECT software to ensure the proper scripts are enabled for each sensor.
- 8. Remove one blank sensor plug from an 8-pin port (i.e., P0, P1, or P2) for each sensor and connect all sensors to the desired ports. Note: Ensure that all SDI-12 and RS-485 sensors have unique addresses.
- 9. Remove the white battery lid using the included 3/16 hex driver and install the (16) D-cell alkaline batteries. Warning: Ensure to follow the polarity labels located inside each battery tube. Polarity for all (4) batteries within each individual tube should be in the same orientation.
- 10. Reinstall the white battery lid. The device will beep once when the metal plate on the bottom of the lid makes contact with the batteries. Fully thread on the battery lid until it is flush with the top of the SDL tube.
- 11. Wait up to 60 seconds for the system to check cellular coverage. Two consecutive beeps indicate an adequate signal, while three consecutive beeps indicate no signal.
- 12. After 20 minutes, refresh WQData LIVE and confirm all sensor parameters are shown.

Figure 1: X2-SDL Submersible Data Logger.



Overview

The X2-SDL 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. The X2-SDL can be powered autonomously by (16) D-cell alkaline batteries housed in a waterproof battery compartment. Smartphones and tablets connect via WiFi.

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

What's Included?

- X2-SDL data logger
- Pre-installed antenna
- · Removable battery lid
- Elastomer bumpers
- · Sensor port plugs, spare rings
- Power port plug, spare oring
- · Oring grease
- Duracell D-cell alkaline batteries (1) 3/16" Hex driver
- · Quick start guide

To get started:

- Go to WQDataLIVE.com
- create a new account or sign in to an existing account.
- Choose or create the project that will contain the data logger by selecting the Projects link from the bottom right footer of the page.
- To the ADMIN tab located at the top of the project dashboard and click Settings.
- From there, choose the Project/Site pull-down menu and select the site for the new data logger.
- f a site has not been created, select New Site. Create and save the site before entering the claim code.
- Enter the claim code listed below into the space provided under Assigned Devices.

Click Add Device

- The new device should be visible in the Assigned Devices list.
- If cellular service is not purchased through NexSens, visit the article link below for steps on how to set up the cell modem.

- nexsens.com/x2apn
- Use the CONNECT software to ensure the proper scripts are enabled for each sensor.
- nexsens.com/conncss
- Remove one blank sensor plug from an 8-pin port (i.e., P0, P1, or P2) for each sensor.
- Connect all sensors to the desired ports.

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

• Remove the white battery lid using the included 3/16" hex driver and install the (16) D-cell alkaline batteries.

Warning: Ensure to follow the polarity labels located inside each battery tube. Polarity for all (4) batteries within each individual tube should be in the same orientation.

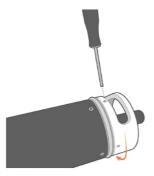


Figure 2: Remove the white battery lid.



Figure 3: Install the (16) D-cell alkaline batteries.

Reinstall the white battery lid.

- The device will beep once when the metal plate on the bottom of the lid makes contact with the batteries.
- Fully thread on the battery lid until it is flush with the top of the SDL tube.

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

- Two consecutive beeps = adequate signal
- Three consecutive beeps = no signal
- If three beeps are heard, move the X2-SDL into an area with strong cellular coverage.
- Check cellular coverage through CONNECT using the link: nexsens.com/x2apn After 20 minutes, refresh WQData LIVE and confirm all sensor parameters are shown and valid sensor readings appear.
- The device will beep for a duration of three seconds when detection is complete.

Buzzer Pattern Indicators

Table 1: X2-SDL Buzzer Pattern Indicators.

| Buzzer Event | Веер Туре | Status |
|-----------------------------|-------------------------------|---|
| When power is applied | One short beep | System boot successful |
| During telemetry connection | Two short beeps | Connection successfully established |
| During telemetry connection | Three short beeps | No signal/connection failed |
| During sensor detection | Three second beep duration | WQData LIVE Setup Successfully ¹ |

For additional information, please reference the X2-SDL Resource Library on the NexSens Knowledge Base. nexsens.com/x2sdlkb

Documents / Resources



NEXSENS X2-SDL Cellular Data Logger [pdf] User Guide X2-SDL Cellular Data Logger, X2-SDL, Cellular Data Logger, Data Logger, Logger

References

- NexSens Configure Sensor Scripts NexSens
- Enable Cellular Communication on an X-Series Data Logger Using CONNECT NexSens
- NexSens
- WQData LIVE
- NexSens Technology Inc. Better Data. It's what we do

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