

# 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.



**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 datacenter. 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 orings
- (1) Power port plug, spare oring
- (1) Oring grease
- (16) Duracell D-cell alkaline batteries
- (1) 3/16" Hex driver
- (1) Quick start guide

- ① To get started:
  - a. Go to [WQDataLIVE.com](http://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. 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.
  - a. [nexsens.com/x2apn](http://nexsens.com/x2apn)
- ⑥ Use the CONNECT software to ensure the proper scripts are enabled for each sensor.
  - a. [nexsens.com/conncss](http://nexsens.com/conncss)
- ⑦ 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.*

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

- 9 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.
- 10 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](https://nexsens.com/x2apn)
- 11 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	Beep Type	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	Detection completed successfully <sup>1</sup>

<sup>1</sup>WQData LIVE setup is automatically done after sensor detection.

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

[nexsens.com/x2sdlkb](https://nexsens.com/x2sdlkb)