VuLink CI
Quick Start Guide

In-Situ

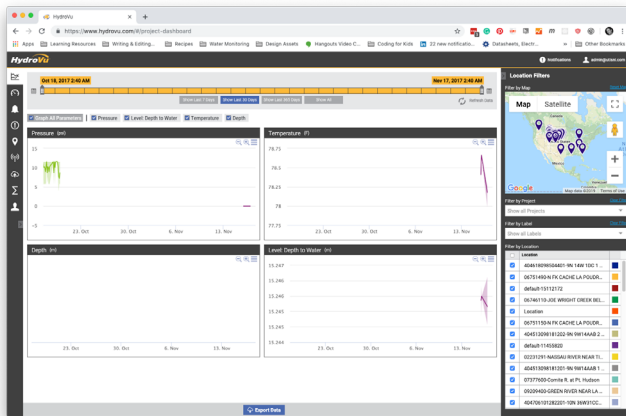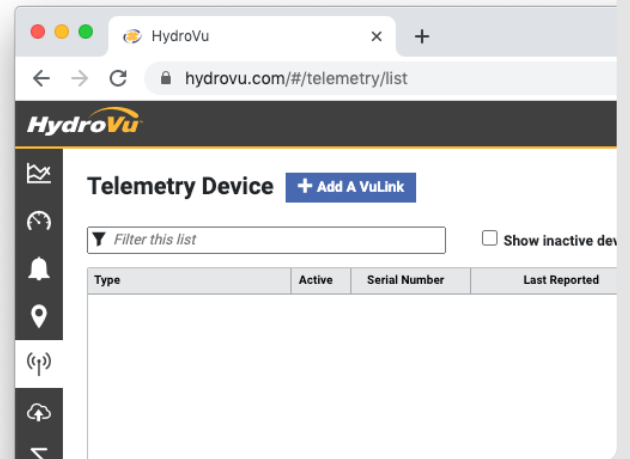
1 Create a HydroVu account

Visit hydrovu.com and create an account.

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2 Go to the telemetry page

Click the telemetry page link in the menu on the left side of the page. Then click **Add a VuLink**.

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3 Scan the QR code on your VuLink

VuLink Satellite (SI)
P/N: 0094840 S/N: 123456
IMEI: 12 345678 901234 5
Contains FCC ID: R17ME910C1WW and QOQBGM113
IC: 5131A-ME910C1WW and 5123A-BGM113
Registration Code: **T5S MPX NBM 572 K**

or

Add New Device
Registration Code: [ ]
📷 Open Camera

Cancel   Register Device

Open your web camera and scan the QR code on your device, or type the registration code into the provided field.

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4 Attach antenna and connect instrument

click

Connect the external or on-board antenna and the instrument. View the instructions on the next pages of this Quick Start Guide for more details.

✅ You can find additional setting in the VuSitu mobile app. Download it from your device's app store.

2025-06-06 | 0094848

Setting Up Vulink

1 Attach the antenna and install batteries

Check that antenna is connected with a clear view of the sky.

Remove the battery cover by twisting it counter-clockwise and pulling down.

Install Li-MnO$_2$ batteries for best performance, or remove the yellow tab to use alkaline batteries.

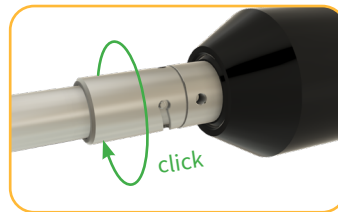Press the button. All LEDs turn on. Each LED changes color according to device status.

⚠ Never mix old and new batteries, or Lithium and alkaline batteries. Make sure all three batteries are installed in the same orientation. See **Power and Battery Information** to learn more.
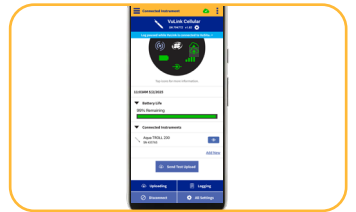

2 Connect an Instrument

Align the flat edge of the connector with the flat edge inside the cable.

Twist the cable until it clicks into the secure postion.

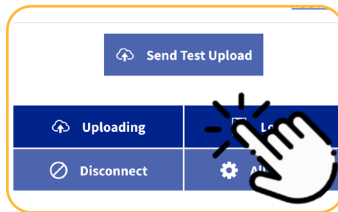Connect the cable to your instrument and press the VuLink button.

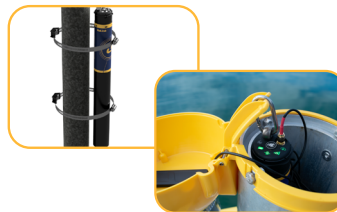Connect to the VuSitu mobile app to add the instrument to VuLink.

3 Finish and Deploy

Connect the next instrument, then add it in VuSitu. Repeat to add up to 8 instruments.

Set up instrument settings and VuLink log in VuSitu.

Secure VuLink and instruments in the final deployment location.

Check that the antenna has a clear view of the sky or is placed as high as the location allows.

Understanding the LEDs

✅ All five LEDs illuminate when VuLink is powered on. The color of an LED indicates status.

Cycling Through All LEDs

All LEDs cycling

VuLink is reading the active log. You can push the button or connect to VuSitu when the process is complete.

Bluetooth Connection Status

Blinking blue

Ready to connect

Solid blue

Bluetooth connected

Battery Status

Solid green

Battery power is at least 75%.

Blinking green

Battery power is between 50% and 75%.

Blinking red

Battery power is between 25% and 50%.

Solid red

Battery power is less than 25%

Blinking red and green

⚠️ A blinking red and green LED indicates a problem with the batteries. Do not deploy the VuLink in this condition. Check batteries and reinstall as necessary.

Instrument Connection Status

Blinking green

Searching for an instrument

Solid green

Connected to instrument

Blinking red

New instrument not found

Solid red

No instruments connected to VuLink

Network Connection Status

Blinking green

Attempting to connect to network

Solid green

Connected to network

Solid red

Unable to connect to network

Cloud Connection Status

Blinking green

Connecting and uploading data to HydroVu

Solid green

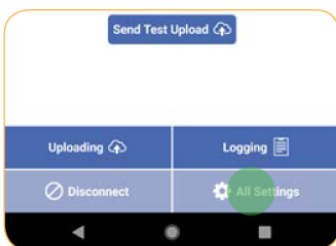Upload successful

Blinking red

Unclaimed device

Solid red
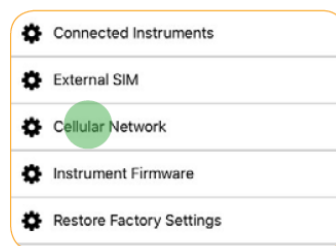
Failed to connect to HydroVu.com
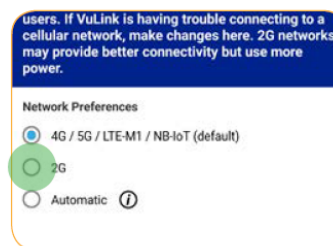
Troubleshooting Network Connectivity

✅ If VuLink has trouble connecting to a 4G network, switching to 2G may help. Launch VuSitu and follow the instructions below. Contact your cellular provider for coverage details.

Press the **All Settings** button at the bottom of the screen.

Tap **Cellular Network** on the Settings screen.

Tap **2G** to change VuLink's network settings. Press **Save**.

VuLink should now connect to a network and sync with HydroVu

✅ Connecting to a cellular network can take up to 10 minutes the first time VuLink powers up or when VuLink hasn't been powered up in several weeks or months.

Power and Battery Information

Battery Types

⚠️ Only the battery types listed below are compatible with VuLink. Attempting to install other battery types in VuLink can result in data loss or serious safety hazards.
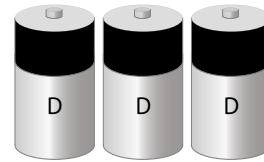
LITHIUM (Li-MnO$_2$)

Best suited for most deployments across a broad range of conditions. You can purchase recommended batteries from the In-Situ website.

ALKALINE

Included with every VuLink so you can collect data and test your setup right out of the box. May work as a cost-effective solution for simple or short-term deployments.

⚠️ To maintain a stable connection and ensure data is collected, you must use Li-MnO$_2$ Batteries in deployments with temperatures below 5° C (41° F) or above 40° C (104° F), radar level instruments, or SDI-12 instruments from other manufacturers.
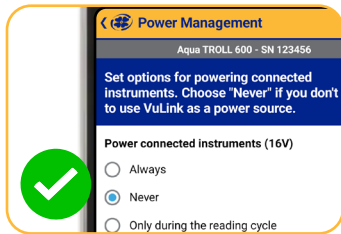
Installation Considerations

For best battery life, install Li-MnO$_2$ batteries purchased from In-Situ. Alkaline batteries are intended only for simple, short-term deployments at moderate temperatures.

Mount the antenna as high as possible and outside of metal enclosures to maximize signal strength. Frequent network retries can drain the batteries faster.
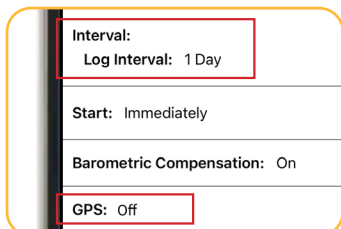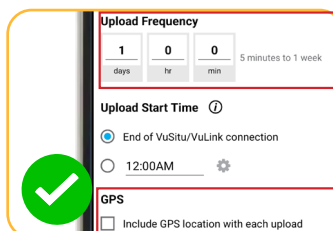
Connected Instrument Power

By default, VuLink is set to power connected instruments with every reading. Go to **Power Manamgement** and change this setting to **Never** if the instrument has its own power. Some instruments or complex networks require more power and may result in shorter battery life. These include:

- Radar level instruments
- Instruments with a wiper
- Multiple instrument networks
- SDI-12 or Pulse instruments (refer to manufacturer specs)
- Long cables (>60 m or 200 ft)

Log and Upload Settings

When programming a log, only select GPS if required. GPS significantly reduces battery life. Use the lowest read rate that suits your monitoring needs.

When choosing upload settings, use the lowest upload rate your application requires. Frequent network connection will drain the batteries faster. Only select GPS if required.

Battery Voltage

✅ You can monitor Battery Voltage as a parameter in HydroVu or in the VuLink log and add an alarm for low battery. For Li-MnO$_2$ batteries, replace the batteries when they are near the minimum operating voltage of 6 V.

Battery Life for Common Applications with In-Situ Instruments

APPLICATION	GROUNDWATER	LAKES/RIVERS/ COASTAL CONTINUOUS WATER QUALITY	HAB EVENTS	STORM SURGE
Instrument	Level TROLL	Aqua TROLL 600	Aqua TROLL 700	Level TROLL NC
Deployment Temperature	25° C	25° C	25° C	25° C
Read Rate	60 minutes	15 minutes	5 minutes	1 minute
Upload Rate	Daily	1 hour	30 minutes	15 minutes
BATTERY LIFE*	10.5 YEARS	1.5-2 YEARS	4-6 MONTHS	17 DAYS

*with Li-MNO$_2$ batteries and strong LTE-m network connection @ 25° C. Field results may vary based on site conditions.

Battery Life for Common SDI-12 Instruments

APPLICATION/ INSTRUMENT	PRESSURE TRANSDUCER	WATER QUALITY SONDE	WEATHER STATION
Deployment Temperature	25° C	25° C	25° C
Read Rate	60 minutes	15 minutes	60 minutes
Upload Rate	Daily	1 hour	12 hours
BATTERY LIFE*	10 YEARS	1-3 MONTHS	1.5 YEARS

*with Li-MNO$_2$ batteries and strong LTE-m network connection @ 25° C. Field results may vary based on site conditions.

Safety Information

Using VuLink Correctly

⚠️ Read these instructions carefully before using VuLink. Don't use VuLink in any manner not specified in the manual or quickstart guide. Follow all safety warnings.

Installing and Replacing Batteries

⚠️ Never mix old and new batteries, or Lithium and alkaline batteries. Make sure all three batteries are installed in the same orientation. Use only In-Situ recommended Lithium batteries for longest battery life.

⚠️ A blinking red and green battery LED indicates a problem with the batteries. Do not deploy the VuLink in this condition. Check batteries and reinstall as necessary.

Installing the Antenna

⚠️ Use only In-Situ recommended cellular antennas. Maintain a safe distance of at least 14 cm from the antenna and VuLink when the device is in operation.