

EWS Quick-Start

DVWT Device.



Environment • Water • Geotechnical • Data

Your EWS DVWT Device

Your **EWS DVWT** is a powerful yet compact multi-communication enabled IoT Device designed specifically for remote geotechnical monitoring applications. Your EWS DVWT Device is compatible with most vibrating wire geotechnical sensor types and has inputs for 2 sensors.



Your Device will be either Iridium Satellite or 4G LTE transmission type and either rechargeable or non-rechargeable battery type depending on what you have ordered.

Iridium transmission type can be visually identified by the presence of a sticker indicating Iridium with the Device IMEI number on the side of the Device opposite the push button. Devices that are 4G LTE transmission type have a sticker indicating Cellular with the Device IMEI number on the side.

DVWT Devices that are rechargeable battery type can be visually identified by having a flat lid profile. Devices that are non-rechargeable battery type can be identified having a slightly raised lid profile.

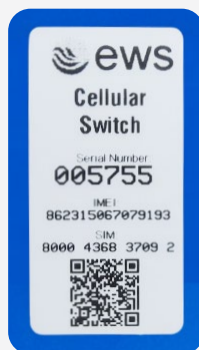
Rechargeable DVWT Device



Iridium Satellite transmission type



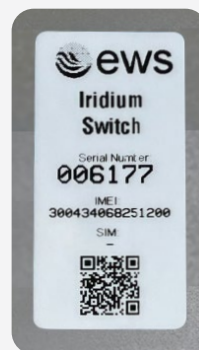
4GLTE transmission type



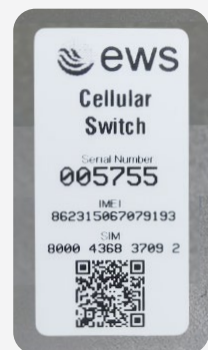
Non-rechargeable DVWT Device



Iridium Satellite transmission type



4GLTE transmission type



Wiring and Sensor inputs.

The **EWS DVWT** Device has two sensor input leads labelled **S1** and **S2** and one power input lead (power input on rechargeable Device type only). S1 and S2 input leads are for the vibrating wire sensors - wiring is indicated below in the pinout tables.

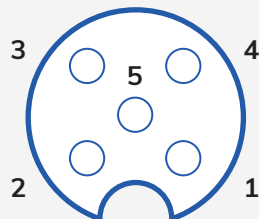
The two sensor leads S1 and S2 are terminated with standard female 5-Pin M12 connector plugs. The power input lead (on the rechargeable Device type) is terminated with a standard male end 3-Pin M8 connector plug.

Sensor 1 (S1)



PIN	Function
PIN 1	Vibrating Wire +ve
PIN 2	Vibrating Wire -ve
PIN 3	Temperature
PIN 4	Temperature
PIN 5	Shield/Bare wire

Sensor 1 Plug Diagram

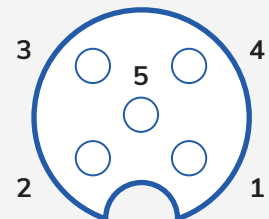


Sensor 2 (S2)



PIN	Function
PIN 1	Vibrating Wire +ve
PIN 2	Vibrating Wire -ve
PIN 3	Temperature
PIN 4	Temperature
PIN 5	Shield/Bare wire

Sensor 2 Plug Diagram



Getting started.

1



Press button **once** to wake up the Device

Your **EWS DVWT** Device comes delivered in **Transportation Mode** to conserve battery life until installation. To wake up your Device, simply press button once.

2



Press button **twice** to activate Bluetooth

To activate **Bluetooth**, press twice - your Device LED's should be blinking Blue and Green indicating it is ready to be paired with **EWS SwitchComm** mobile configuration App.

If you wish to place the Device back into **Transportation Mode**, simply press and **hold button for 10 seconds**, once button is released, LED's will blink fast red then stop, indicating Device has successfully re-entered Transportation Mode. The Device will cease all functions until taken out of this mode - this is used for transport or when Devices are in storage and not being used.

EWS SwitchComm Mobile App.

The **EWS SwitchComm App** is freely available on both iOS and Android App stores. The App is an easy on-site tool for configuring your Device and checking for successful sensor connection.

Ensure mobile phone Bluetooth is on and Device Bluetooth is active, open the App and your Device will connect automatically.



The EWS SwitchComm Mobile App is available to download from:

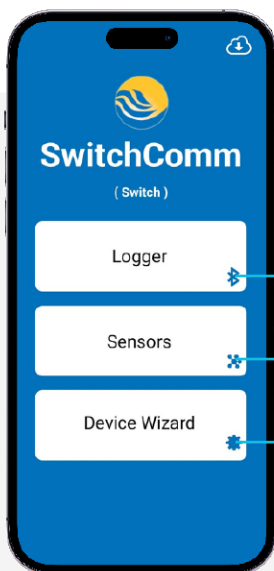


Basic Configuration and Sensor Check.



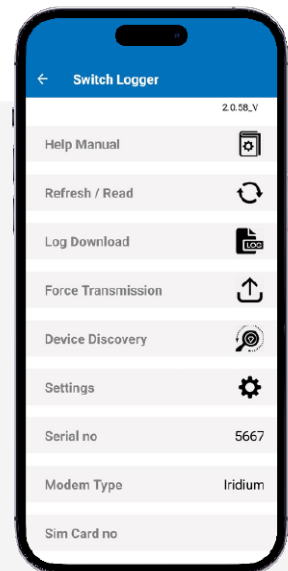
It is important to note that **EWS DVWT** Devices generally come pre-configured out of the box for plug and play pairing with sensors as requested on purchase - so minimal programming should be required.

Check with EWS or EWS distribution partner first before altering programming.



Solid blue icons indicate you are connected to your Switch Device

When connected to the **EWS SwitchComm App** the **icons should show solid blue**. You are now ready to configure Device and check sensors.



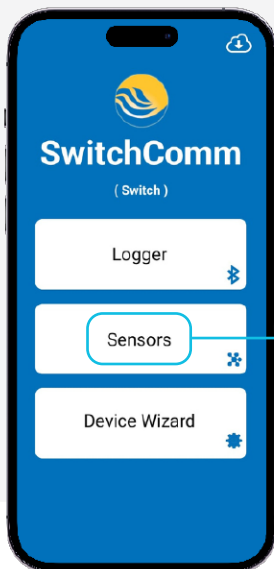
Logger tab is where you can change Device transmission intervals under **Settings** sub-tab, download Log files under **Log Download** sub-tab, **force a transmission** and find other general Device information such as firmware version IMEI number, Devices internal battery voltage.

Sensor Check and Measurement Interval.

To check sensors are connected and reading correctly:

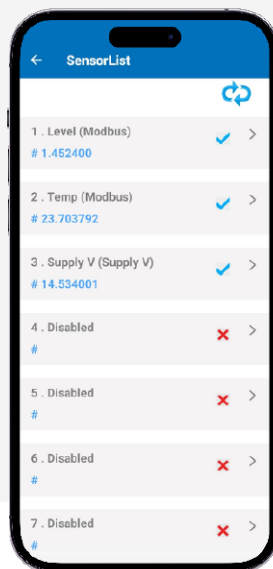
1

Navigate to Sensors tab.



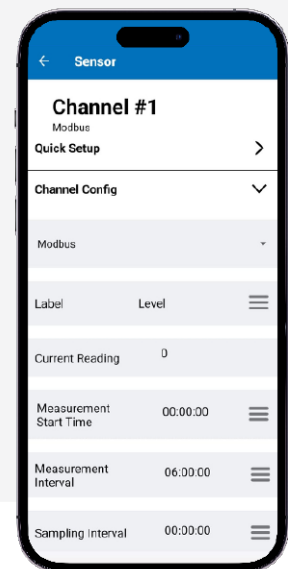
2

Press blue refresh button. Device will cycle through all configured channels.



3

Check readings are as expected.



To change channel configuration or measurement interval – navigate into each channel and change as required.



Troubleshooting.

If readings show **Error** – Troubleshoot first by checking sensor wiring, referring to the pinout information at the beginning of this guide. If incorrect wiring is ruled out as the cause of error readings, further configuration and programming checks will need to be carried out to ensure Device has been setup correctly for the sensor being used.

Powering your EWS Switch Device.

If you have received your EWS Switch Device with no batteries included, you can source the Device specific batteries at your local battery specialist store.

Simply remove the Device lid and insert batteries ensuring they go in at the correct orientation.

EWS DVWT Rechargeable Type



Specified Battery (or equivalent)

- 2 x Samsung INR18650-30Q Li-ion Lithium 3000mAh 3.7V HIGH DRAIN 15Ah Discharge Rate Rechargeable Battery - (Flat Top)



EWS DVWT Non-Rechargeable Type



Specified Battery (or equivalent)

- 1 x Fanzo ER34615M D size 3.6V 14000Ah Lithium Thionyl Chloride Battery - Spiral Wound Type



Warning.

Incorrectly orientated batteries can permanently damage the Device.

Contact us

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