

HAWK SENSOR

Quick Reference Guide

Version 1.0

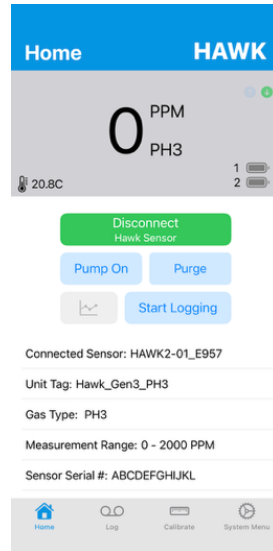


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Powering On the Hawk Sensor



When the Hawk sensor is completely powered off, it cannot be detected or connected to via the Hawk App, and it will not broadcast its Bluetooth identification.

Follow the steps below to power on the sensor:

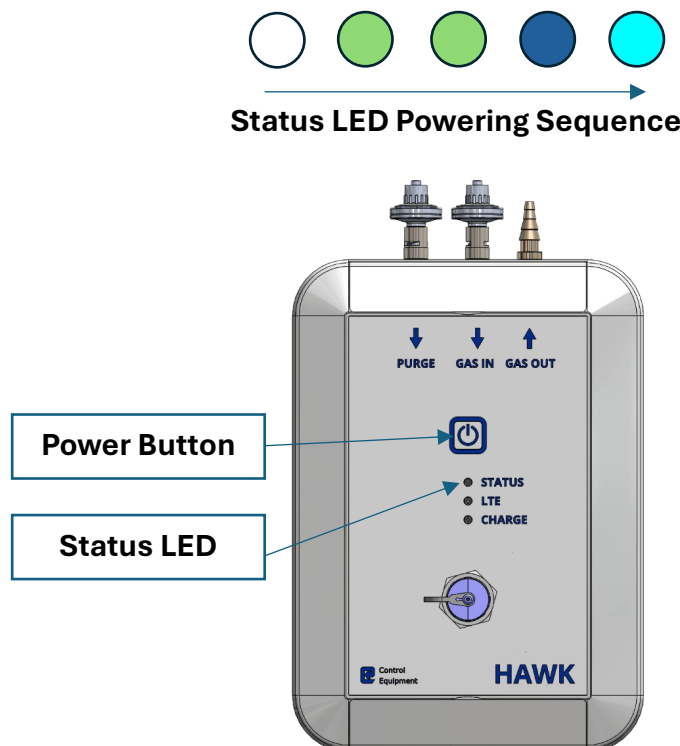
1. **Press and hold the Power Button.**
2. **Observe the Status LED:** it will illuminate **white**.
3. **Release the Power Button.**

The Status LED will blink **green** twice, then change to **blue**, indicating that the Hawk is initiating its boot sequence.

During the boot process, the Status LED remains **blue**.

When startup is complete, the Status LED will turn **cyan** for several seconds before switching **off**. At this point, the Hawk enters **Sleep Mode**.

While in Sleep Mode, the Hawk sensor begins **Bluetooth advertising** and can now be detected and connected to using the **Hawk App**.



Follow the link below to view the video demonstration of the power-on sequence:

<https://youtu.be/uy-El6uiM3M?si=h4j98JWPPNeKQGwG>

Powering Off the Hawk Sensor

Follow the steps below to safely power off the Hawk sensor.

1. Disconnect from the App (if connected).

- If the Hawk sensor is currently connected to the **Hawk App**, disconnect it first.
- After disconnection, the Hawk will automatically enter **Sleep Mode**.
- If the Hawk was not connected to the app but is powered on, it is already in **Sleep Mode**.

2. Wake the Hawk Sensor.

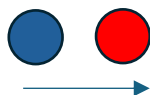
- Press and release the **Power Button** once to wake the device.
- The **Status LED** will flash **blue** several times, followed by a short **beep**, indicating that the sensor is now awake.
- The Hawk will begin attempting a **cellular (LTE) connection**. During this process, the **LTE LED** turns red, and changes to **cyan** once a successful connection is established.
- You may proceed to the next step without waiting for the LTE connection to complete.

3. Initiate Power-Off.

- Press and hold the Power Button. The Status LED will first turn blue, then change to red.

4. Confirm Power-Off.

- Release the Power Button once the LED turns red.
- The Hawk sensor is now **powered off**.



Status LED Powering Off Sequence

Follow the link below to view the video demonstration of the power-off sequence:

https://youtu.be/8DrJA_t4tww?si=4Xcd1UlnyneRirTz

Hawk Companion App Capabilities



The **Hawk Companion App** provides a range of functions for configuration, measurement, and data management:

- **Sensor Configuration:**

Configure and adjust Hawk sensor settings directly from the app.

- **Spot Measurements and Local Logging:**

Perform spot measurements and store the results on the device.

(These logs are local and not associated with data uploaded to the cloud.)

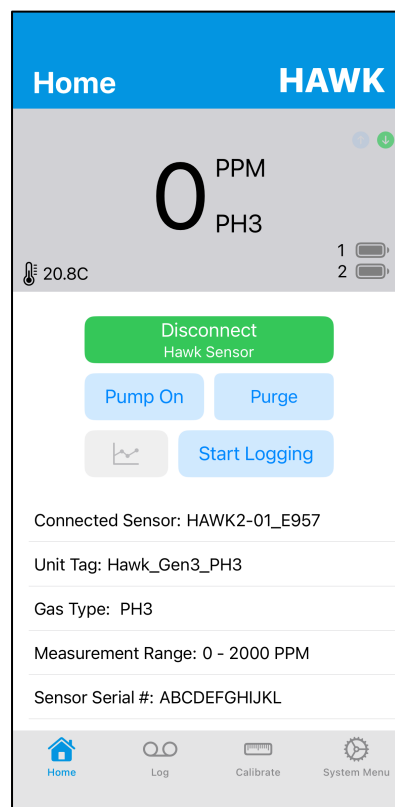
- **Data Visualization and Sharing:**

View and share spot measurement data within the app.

(This functionality applies only to locally stored data, not cloud data.)

- **Backup Data Access:**

Access, download, and share backup logs of data that have been uploaded to the cloud and stored on the Hawk sensor



Connecting the Hawk App to the Sensor



The Hawk App can connect to the sensor in two different ways, depending on how many Hawk units are actively advertising Bluetooth identification information.

1. Single Hawk Advertising

When only one Hawk sensor is advertising its Bluetooth ID:

- **Short press** the **Connect** button in the Hawk App.
- The app will automatically connect to the available Hawk sensor.

Follow the link below to view a video demonstration of connecting to a single Hawk sensor.

<https://youtu.be/yptWU9-l4EY?si=TWEUwvdjApDgaxrv>

2. Multiple Hawks Advertising

When more than one Hawk sensor is advertising:

- **Long press** the **Connect** button in the Hawk App.
- A selection window will appear showing a list of available Hawk sensors.
- Select the desired Hawk unit from the list to establish a connection.

Follow the link below to view a video demonstration of connecting to multiple Hawk sensors:

https://youtu.be/ecwb48ZHbag?si=HML_Mjcu2_ztn8ug

How To Take a Spot Measurement



In addition to its automatic measurement cycle—where the Hawk sensor wakes at predefined intervals, takes a reading, and uploads data to the cloud—the **Hawk Companion App** also allows you to perform **spot measurements** manually.

Using the app, you can initiate an on-demand (spot) measurement and store the results directly on your mobile device.

These spot measurement results can be **viewed, visualised, and exported as a .CSV file** for further analysis.

How to Perform Spot Measurement

Follow the steps below to perform a manual (spot) measurement using the **Hawk Companion App**:

1. **Ensure Connection:**

Confirm that the app is connected to the Hawk sensor via Bluetooth.

2. **Start Measurement:**

Tap the **Pump On** button to begin the measurement process.

The sensor will start sampling gas.

3. **Wait for Stable Results:**

Allow the readings to stabilise before recording or saving the data.



4. **Purge the Sensor:**

Once the measurement is complete, tap the **Purge** button to flush the sensor and clear any remaining target gas.

The purge cycle will run for a **predefined duration** (typically around **30 seconds**).

After the purge is complete, the **pump will automatically stop**, indicating that the sensor is ready for the next operation or can be safely put back to sleep mode or powered down.

Follow the link below to view a video demonstration of connecting to perform spot measurement:

<https://youtu.be/XZ2c-AWA04g?si=eK8zEuWhedfpUarZ>

How to Perform Spot Measurement and Log the Data

Follow the steps below to perform a manual (spot) measurement, log data and visualize using the **Hawk Companion App**:

1. **Ensure Connection:**

Confirm that the app is connected to the Hawk sensor via Bluetooth.

2. **Initiate Data Logging**

Tap on the **Log** button to begin saving the measurement data on mobile device.



By default, the Hawk Companion App automatically names each log file using a combination of the date and time at which the log was initiated.

3. **Start Measurement:**

Tap the **Pump On** button to begin the measurement process.
The sensor will start sampling gas.

4. **Visualise the data:**

Tap on the **Plot** button to open a chart showing live measurement results.

5. **Stop Data Logging:**

Tap the **Stop Logging** button to end the data logging session.
Once stopped, the Hawk Companion App will save the recorded data on your mobile device for later viewing, visualisation, or export.



6. **Purge the Sensor:**

Once the measurement is complete, tap the **Purge** button to flush the sensor and clear any remaining target gas.
The purge cycle will run for a **predefined duration** (typically around **30 seconds**).
After the purge is complete, the **pump will automatically stop**, indicating that the sensor is ready for the next operation or can be safely put back to sleep mode or powered down.

Follow the link below to view a video demonstration of performing spot measurement and logging the data on mobile device:

https://youtu.be/tEdvKElAYZI?si=JZS_8Xkb_eXCzRdA

How to Visualize and Share Spot Measured Logged Data



When **data logging** is enabled, the **Hawk Companion App** automatically stores all spot measurement data on the connected mobile device. The recorded data can be **visualised within the app** or **exported as a .CSV file** for further analysis or sharing.

Previously logged spot measurement data can be accessed **even when the app is not connected** to the Hawk sensor.



Note:

Spot measurement data logged on the mobile device is **separate** from the data uploaded to the cloud during the Hawk's **long-term periodic wake-up measurement cycle**.

1. **Open the Log Tab.**

Navigate to the **Log** tab in the Hawk Companion App.

2. **Select a Data Log.**

Choose a log entry from the list of available data logs.

3. **Visualise the Data.**

Tap the **Plot** button to display the measurement data graphically.

Follow the link below to view a video demonstration visualise the logged data:

https://youtu.be/dAL8HXUBRZE?si=Bo0qrZKI_qkaw34i

4. **Close the Plot Screen.**

Dismiss the plot screen once you've reviewed the data.

5. **Share the Data.**

Tap the **Share** icon located in the **top-right corner** of the Log tab.

6. **Choose a Sharing Method.**

Select your preferred app or method (e.g., email, messaging, or cloud storage) to share the exported **.CSV file**.

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