

# SENSORY SENTINEL

TURNER SCIENTIFIC 

## SET UP GUIDE



US Patent No 12,317,865

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## COMPONENTS

- 1 | Power cable
- 2 | Accelerometer
- 3 | Microphone calibrator
- 4 | Sensor cable bundle
- 5 | 6ft cable extensions
- 6 | Combined temp, humidity and light sensor
- 7 | Microphone
- 8 | Sensory Sentinel module

## ACCESSORIES

- 1 | Mounting bracket, allen wrench, and two extended bolts
- 2 | Very special pen
- 3 | Magnet kit
- 4 | Super special mug

\*For Purchased Systems





# INITIAL SETUP



**STEP ONE** After opening your Sensory Sentinel™ box, take the tablet out of the protective foam it arrived in and flip it onto its back.



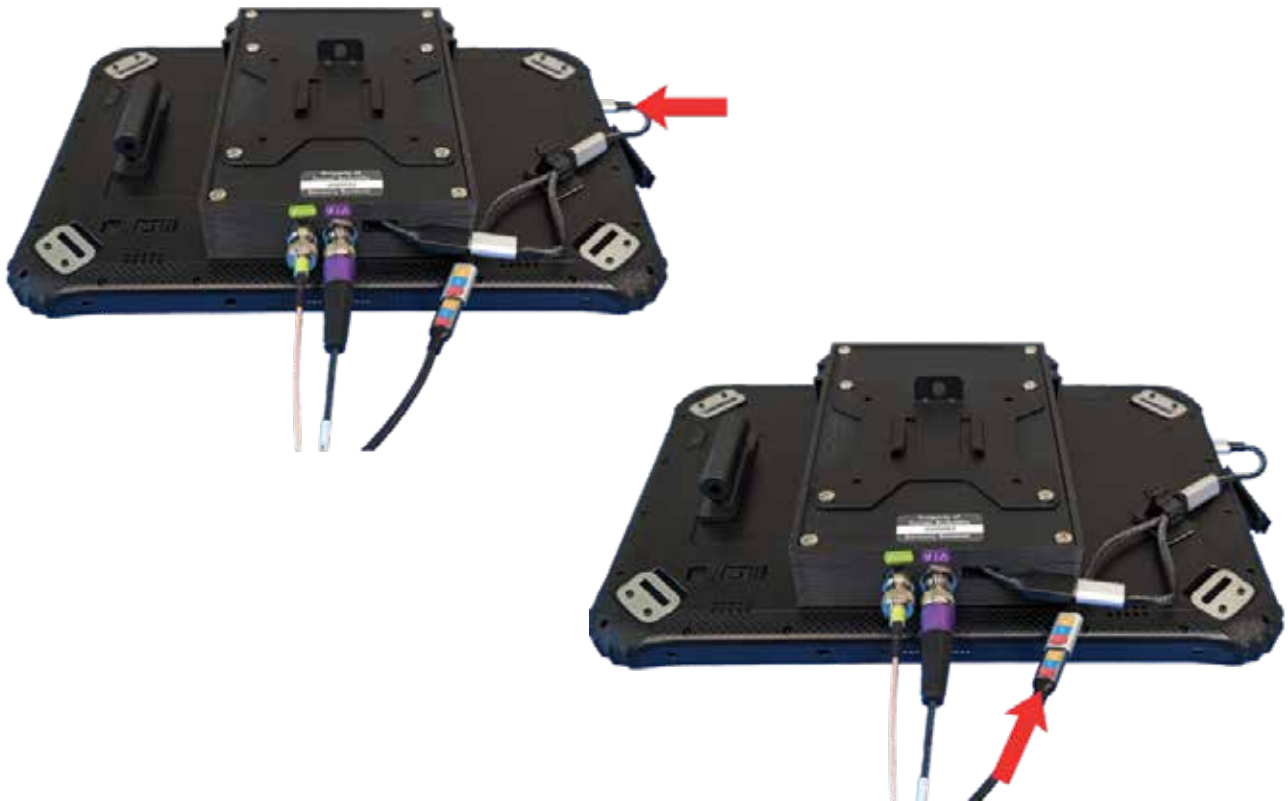


**STEP TWO** Find the USB-C, accelerometer and microphone 3ft tablet cable bundle. Then locate and prepare the tablet-side connectors of the cable.

*Note: the optional 6ft extension bundle, if needed, plugs directly into the tablet first, then the 3ft bundle connects to the 6ft extension.*



**STEP THREE** Connect the purple accelerometer cable to the purple input labeled "VIB" on the back of the Sensory Sentinel module. Press and turn clockwise until the connector clicks into place. Repeat this with the green microphone cable.



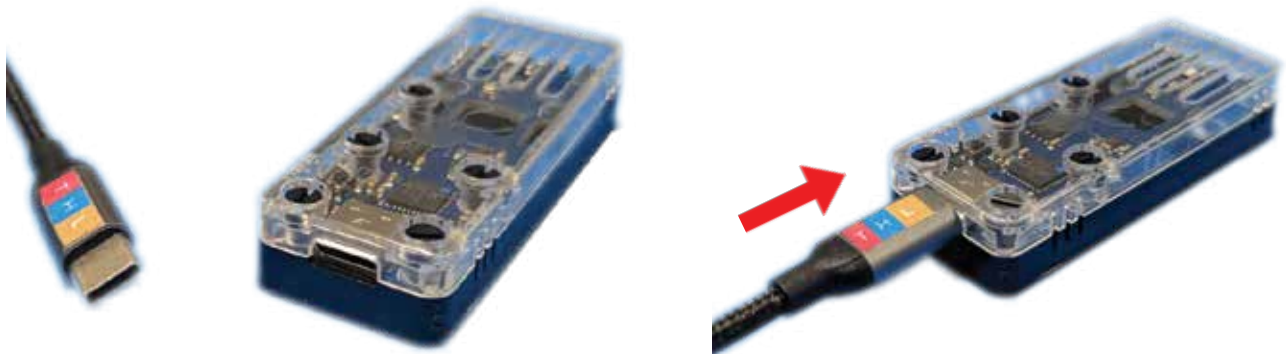
**STEP FOUR** Connect the combined temp, humidity and light sensor USB-C cable from the cable bundle to the "THL" USB-C splitter. Connect the blank USB-C cable on the back of the system to the top right USB-C input on the tablet.



**STEP FIVE** Connect the Accelerometer to the Accelerometer Cable by screwing the connector clockwise onto the threaded portion of the accelerometer.



**STEP SIX** Connect the microphone to the microphone cable by turning it clockwise until it clicks into place.



**STEP SEVEN** Connect light, humidity and temperature sensor by plugging in the male USB-C from the cable bundle.

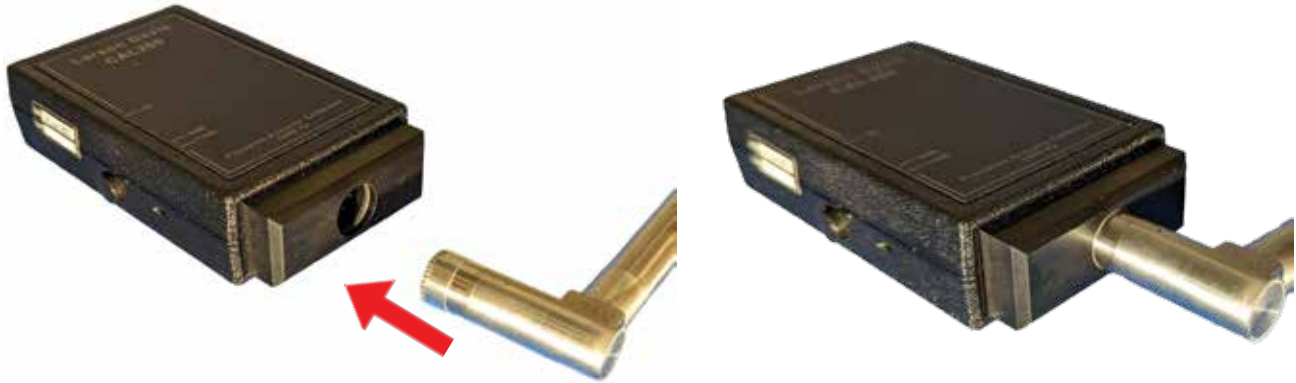


**CONGRATULATIONS!**

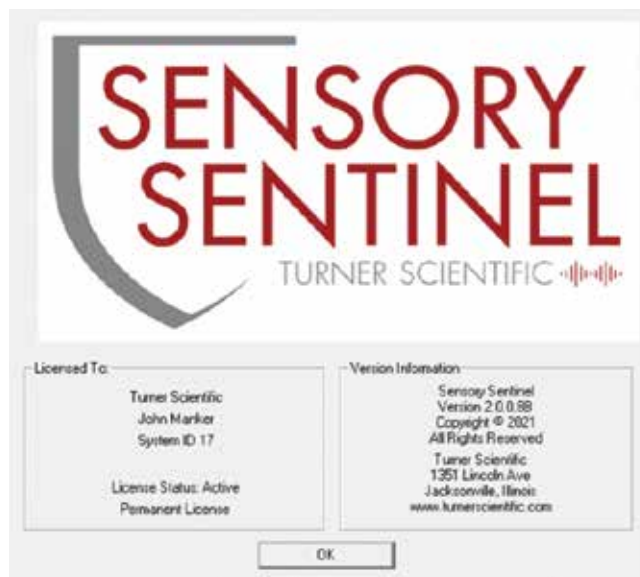
The initial device setup is complete!  
*Now, lets calibrate the device...*



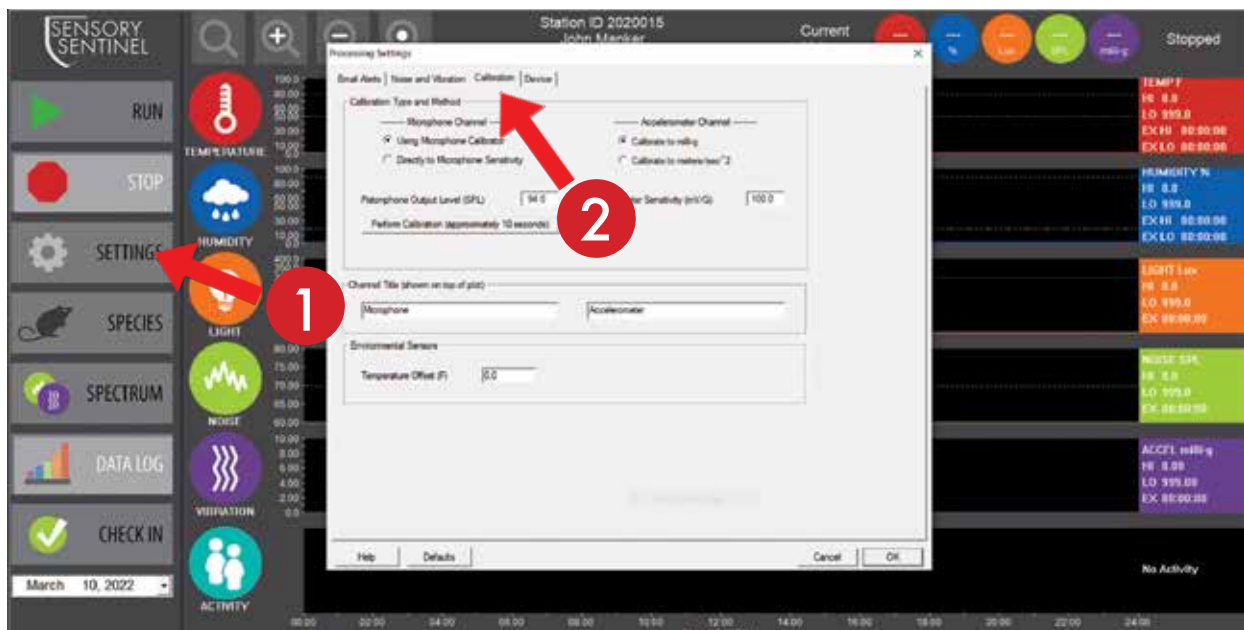
# CALIBRATION



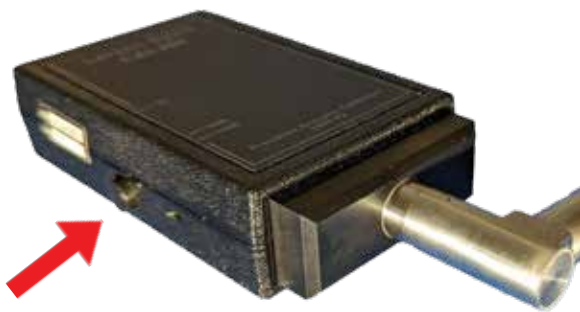
**STEP ONE** Fully insert the microphone into the opening on the bottom of the acoustic calibrator. Light pressure may be required to seat the microphone. The microphone will not click into place.



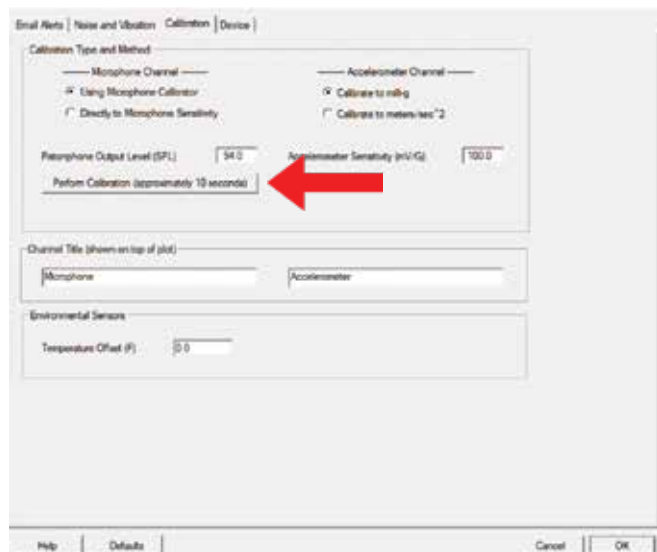
**STEP TWO** Run the Sensory Sentinel software. A window will pop up stating the Sensory Sentinel has been detected. The program will run automatically once the hardware has been detected.



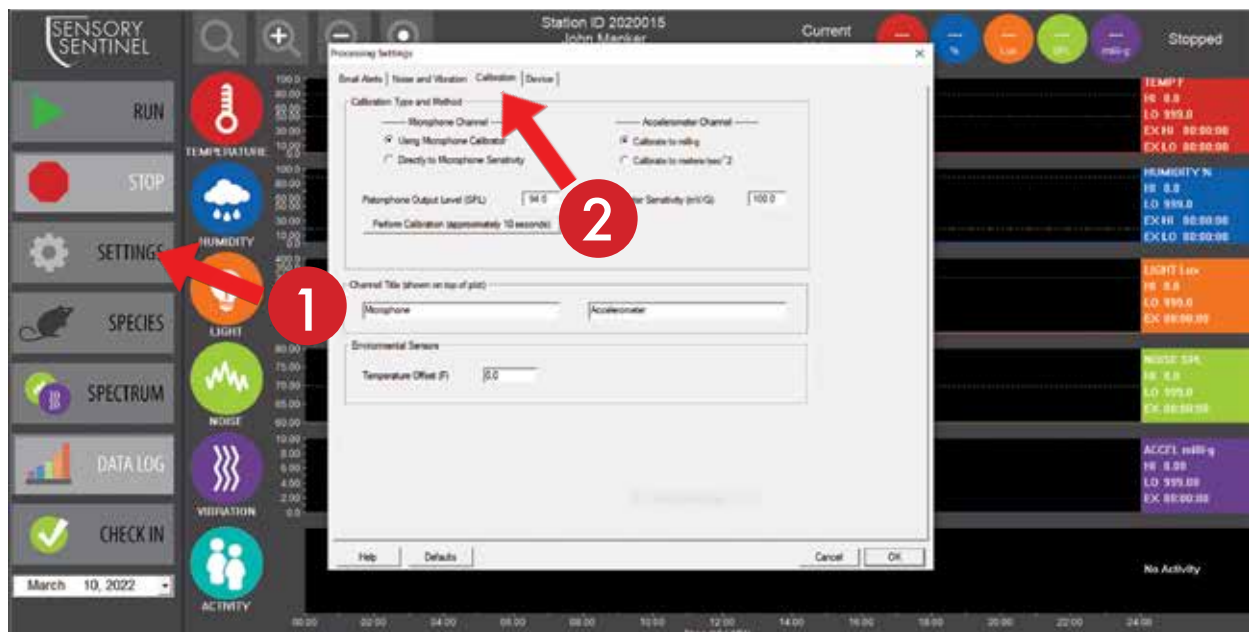
**STEP THREE** Select **Settings** on the left panel.  
In the pop-up menu, select the **Calibration** tab.



**STEP FOUR** Set the  
switch on the side of the  
calibrator to **94 dB**  
and press the on button.



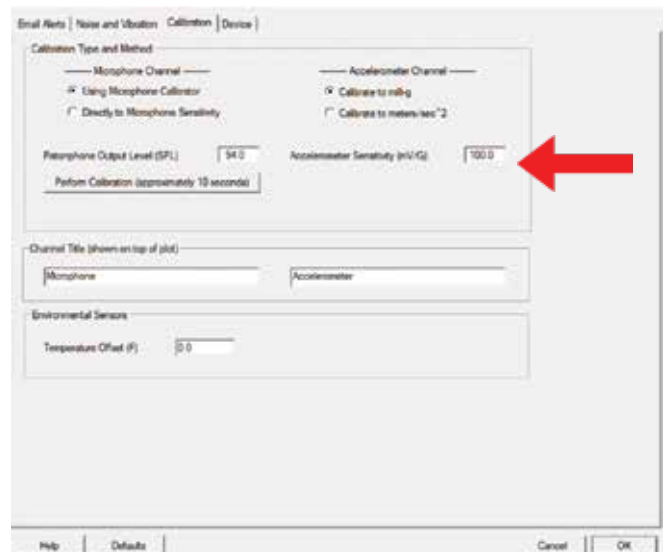
**STEP FIVE** Click **Perform Calibration (approximately 10 seconds)**. You should be prompted with a message reading **Calibration Successful!**



**STEP SIX** Select **Settings** on the left panel. In the pop-up menu, select the **Calibration** tab.

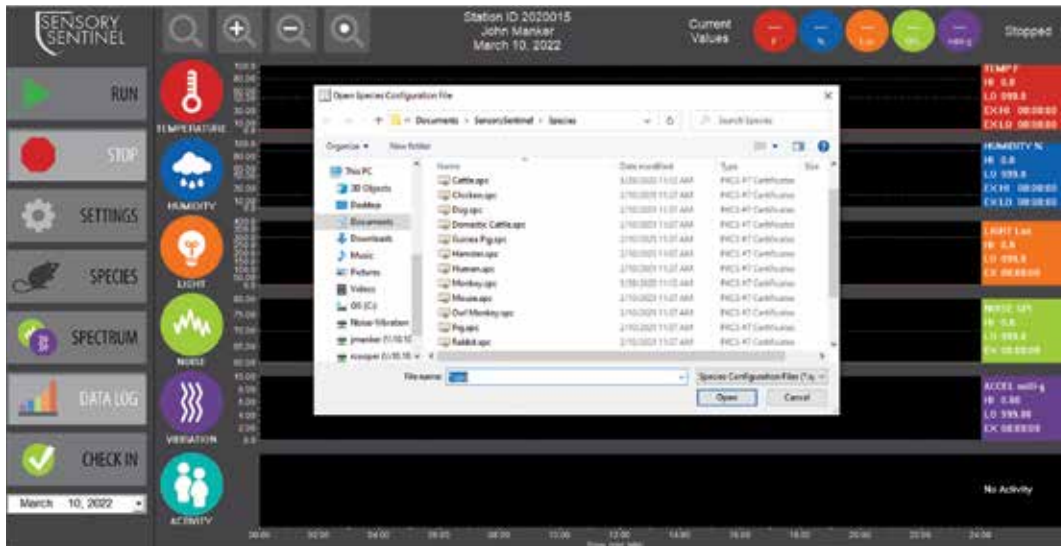


**STEP SEVEN** Look for the calibration data card within the accelerometer box.

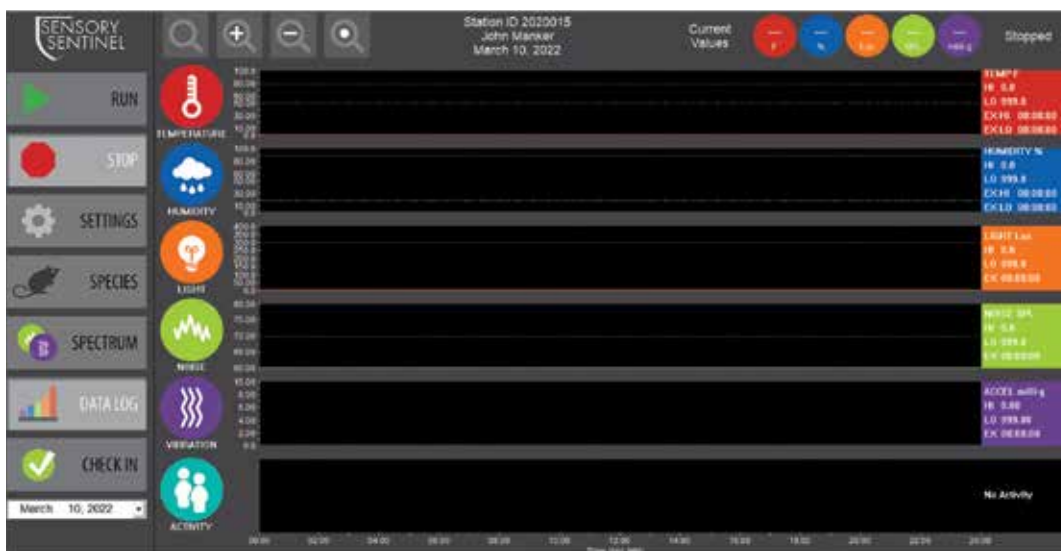


**STEP EIGHT** Input the sensitivity found on the calibration data card then click **OK** on the bottom right to confirm sensitivity.

# SENSORY SENTINEL PROGRAM GUIDE

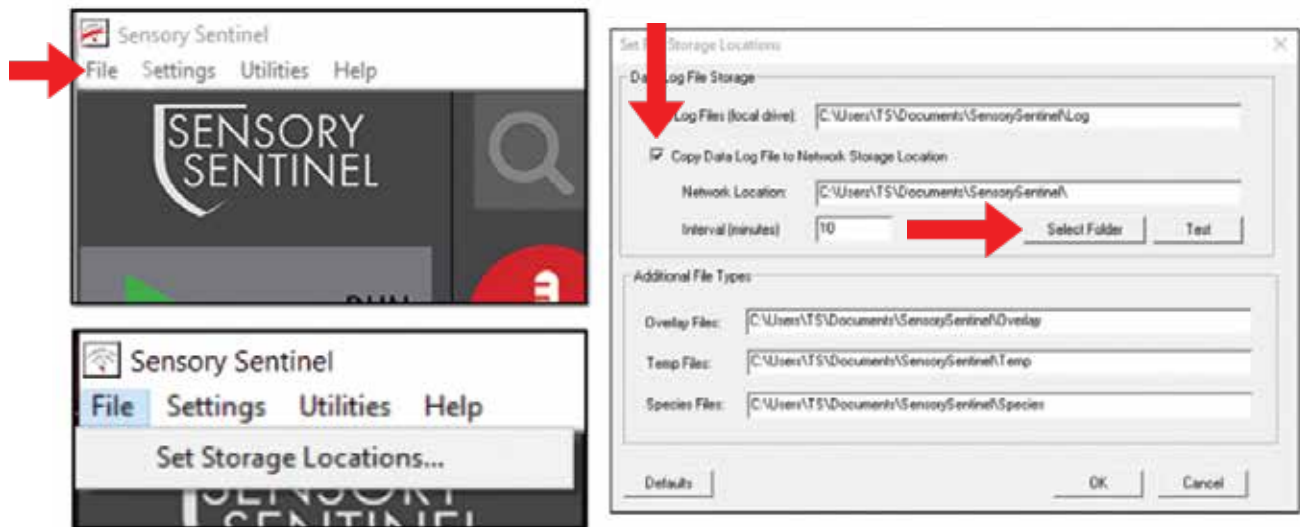


**STEP ONE** To load a species, click on the **Species** button and choose the corresponding file. This automatically sets the frequency range being recorded and loads the audiogram for the species.

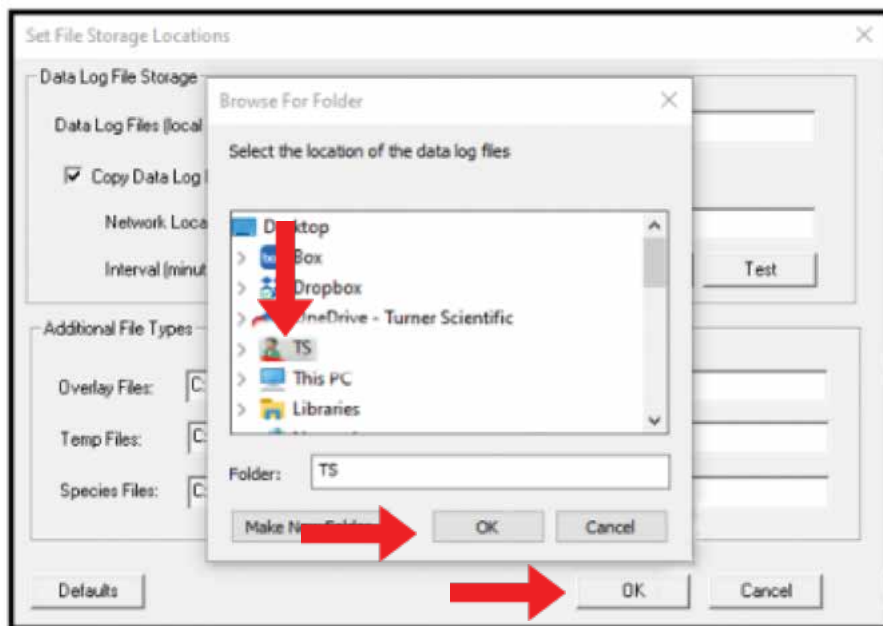


**STEP TWO** To begin logging data, click **Run** on the left panel. The **Current Values** will be displayed in the top right corner when the system is running.

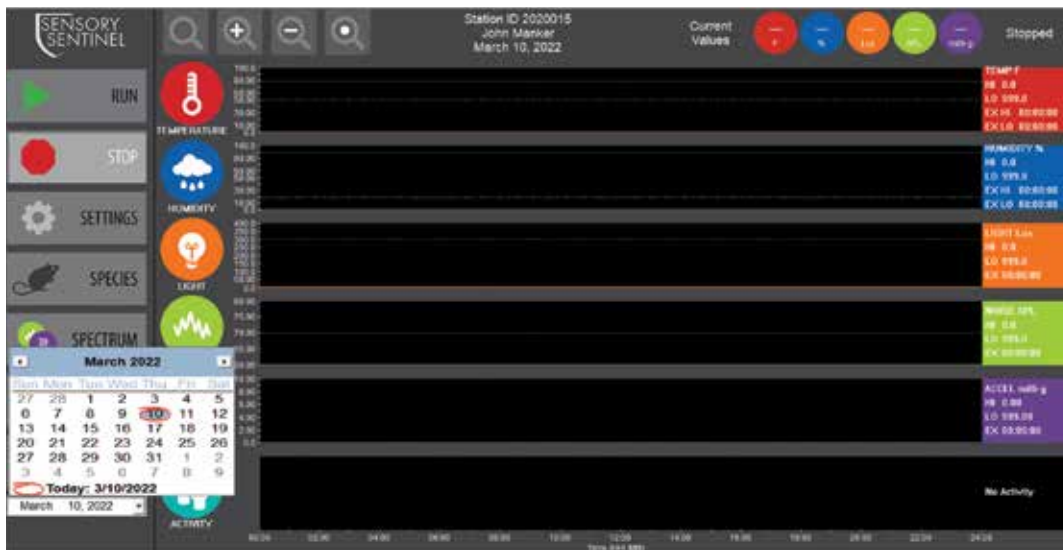




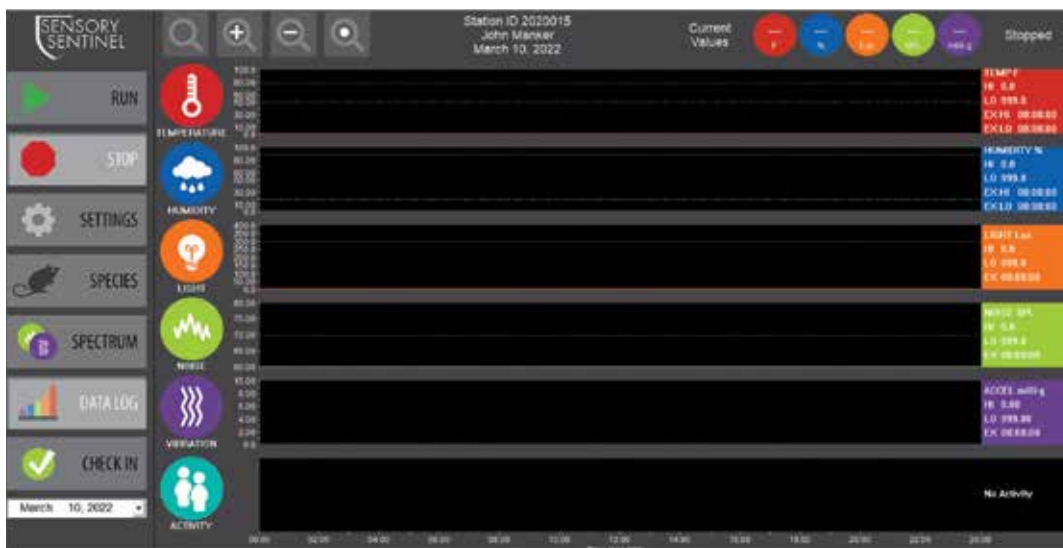
**STEP THREE** To automatically copy data into a second storage, go to **File**, then **Set Storage Locations**, then choose **Copy Data Log File to Network Storage Location**. Then, press **Select Folder**.



**STEP FOUR** Choose your second storage location or cloud storage folder you want the data to be copied to. Data will automatically update to the chosen drive every 10 minutes by default, with a minimum of every 1 minute.



**STEP FIVE** To load previous days of data, click on the drop-down tab on the calendar and select the appropriate date.



**STEP SIX** To change the view to the **Check In** screen, select the check in box.



**STEP SEVEN** To begin recording human activity, select the icon related to the activity being performed. To end recording human activity, select the icon again.

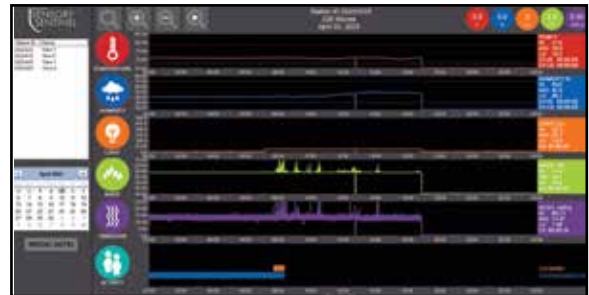


**STEP EIGHT** To return to the data logging screen, select the icon in the top right corner.

Clipboard      Organize      New      Open      Select				
This PC > Documents > SensorySentinel > Log				
Name	Date modified	Type	Size	
System_2020010_Date_2020_11_27.csv	11/28/2020 1:59 AM	Microsoft Excel Co...	3,317 KB	
System_2020010_Date_2020_11_28.csv	11/29/2020 1:59 AM	Microsoft Excel Co...	3,471 KB	
System_2020010_Date_2020_11_29.csv	11/30/2020 1:59 AM	Microsoft Excel Co...	3,461 KB	
System_2020010_Date_2020_11_30.csv	11/30/2020 9:42 AM	Microsoft Excel Co...	3,288 KB	
System_2020010_Date_2020_12_16.csv	12/16/2020 9:20 AM	Microsoft Excel Co...	3,221 KB	

**STEP NINE** The data can be found under the file path **This PC > Documents > SensorySentinel > Log**. Select the appropriate files and upload them to a flash drive. A flash drive may be inserted in the USB slot on the side of the system. Note: the primary files for the data logging screen will begin with "System" or "Station."

## LET'S LOOK AT THE DATA!



Now that your tablets and sensors are up and running, it's time to dive into your data! Here's how to get started:

### 1. Get the Software

Head over to **www.turnerscientific.com** and navigate to the Monitoring menu. Click on "Downloads" to find the latest version of Station Viewer software.

### 2. Install on Your Computer

Download Station Viewer to your office computer or laptop.

### 3. Need Help? We've Got You!

Our team is here to assist with installation, and training on how to view and understand your data. Reach out to us anytime at **info@turnerscientific.com** to set up a virtual setup session or training.

How does this all look?





# CAGE SET UP



**STEP ONE** Locate the magnet kit that came with the Sensory Sentinel. Included are:

- ① Six magnet plates
- ② One accelerometer magnet
- ③ One microphone magnet clip

Magnet plates have a protective clear film over metal on one side, and adhesive on the other.

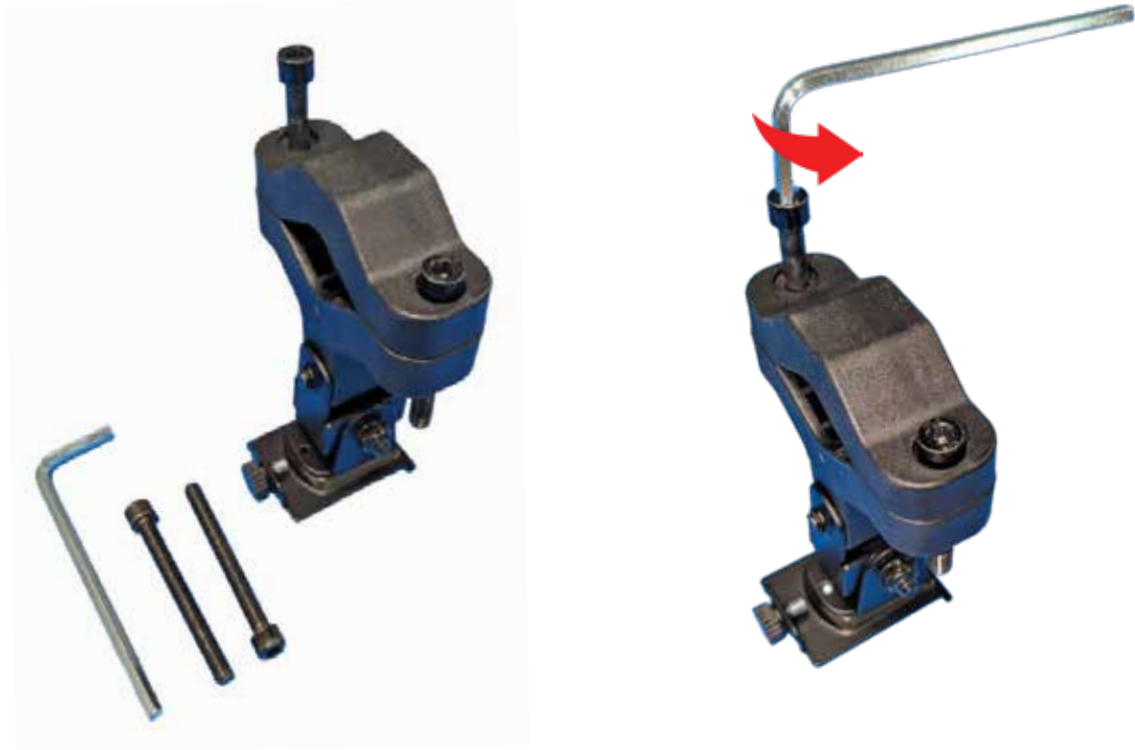


**STEP TWO** Peel off the adhesive to the magnet plates and place two on the bottom of the cage, and one on the side. Then place the accelerometer magnet and microphone magnet on the bottom plates. Place the THL sensor directly on the side plate, as it has a built-in magnet.

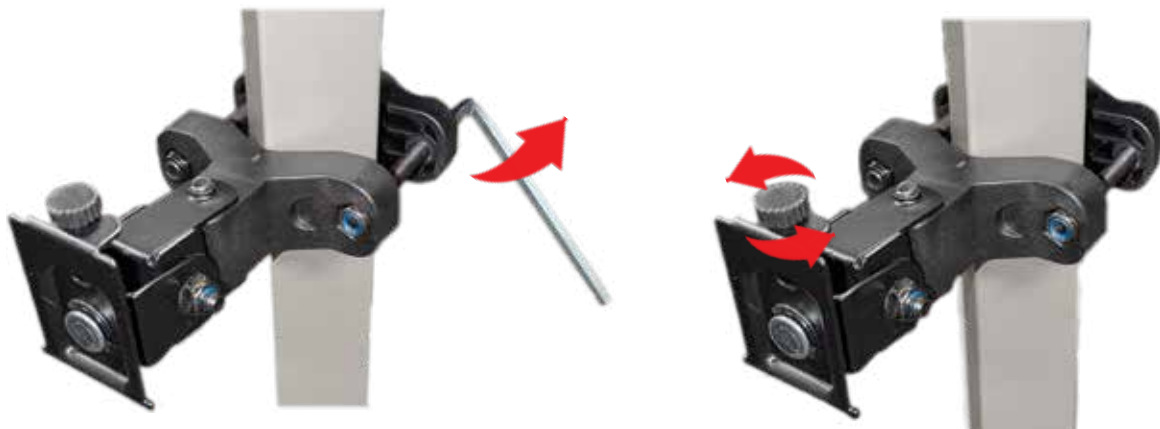


**STEP THREE** Screw the accelerometer onto the accelerometer magnet, place the microphone into the clamp on the mic magnet. Then, push the Sensory Sentinel cables through a water hole/drilled hole and connect them to the sensors. Remove auto water valve if necessary. Place cage in rack normally.

# RACK SET UP



**STEP ONE** Find the mounting bracket and allen wrench. Included with the mounting bracket are two extended bolts for thicker rack support bars. Unscrew one bolt from the mounting bracket to prepare it to mount on a rack.



**STEP TWO** Secure the mounting bracket to a rack support beam by tightening the mount bolts with the nut and allen wrench. Unscrew the black thumb screw on the top of the mount to allow the system to slide onto the bracket.



**STEP THREE** Find the mounting bracket and allen wrench. Included with the mounting bracket are two extended bolts for thicker rack support bars. Unscrew one bolt from the mounting bracket to prepare it to mount on a rack.



**STEP FOUR** Secure the mounting bracket to a rack support beam by tightening the mount bolts with the nut and allen wrench. Unscrew the black thumb screw on the top of the mount to allow the system to slide onto the bracket.



# BATTERY REPLACEMENT GUIDE

## Components Needed:



Sensory Sentinel  
Module



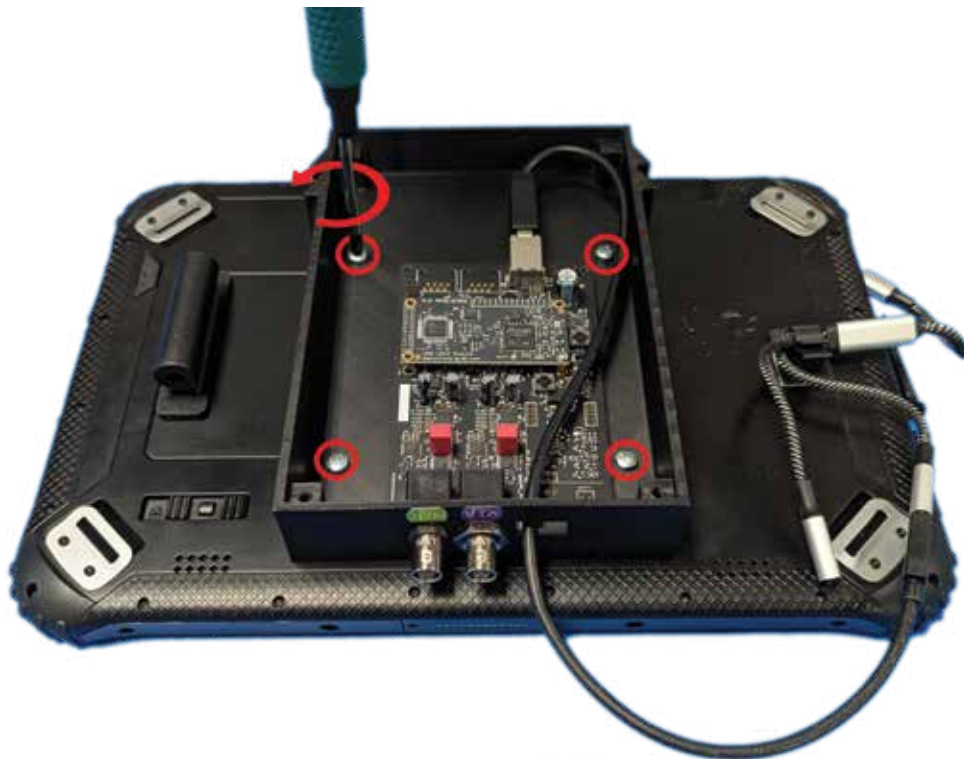
Replacement Battery



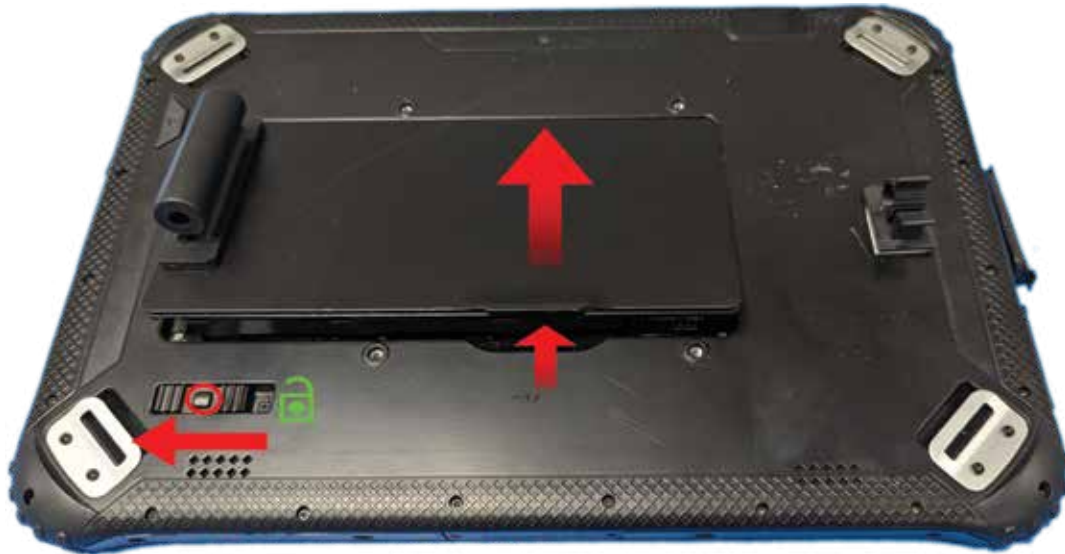
...plus, your favorite  
phillips-head screwdriver



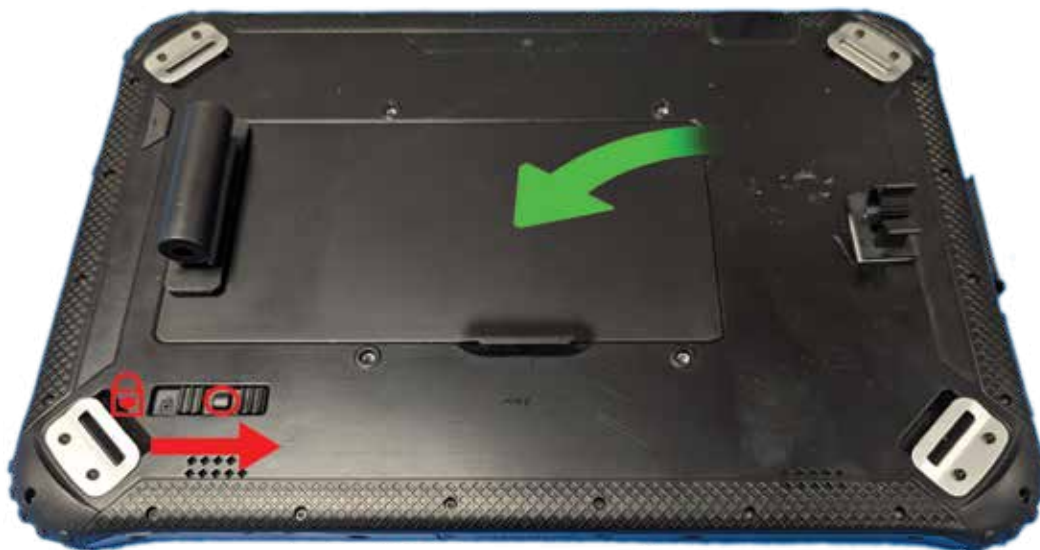
**STEP ONE** Use a Phillips head screwdriver to unscrew the four outer screws. Remove the back plate.



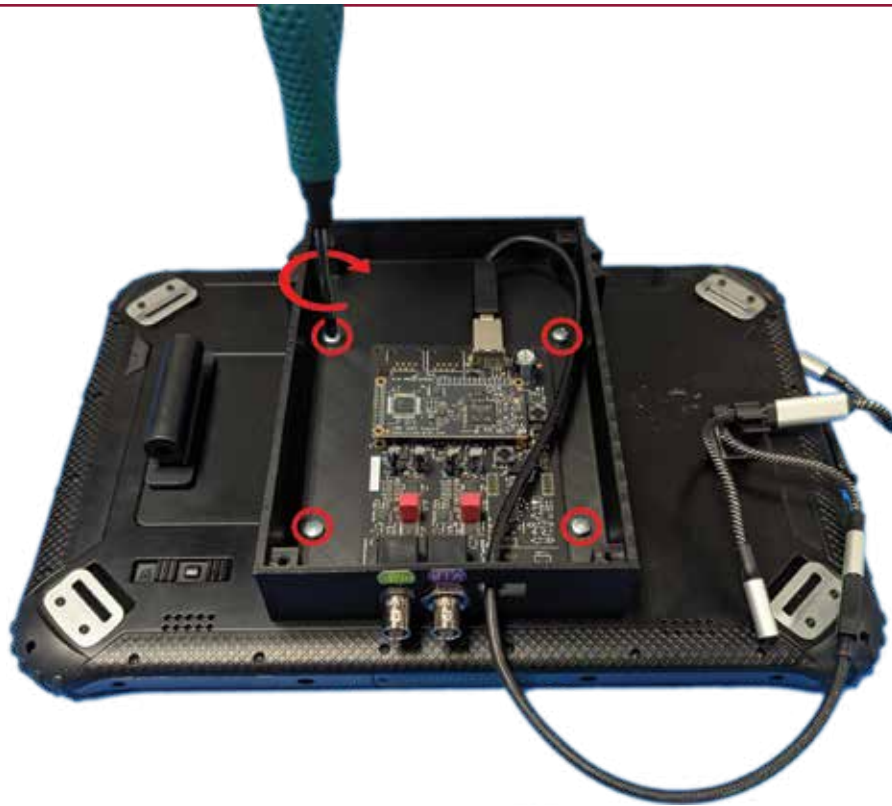
**STEP TWO** Continue to unscrew the four outer screws around the DAQ. Remove the DAQ enclosure from the tablet.



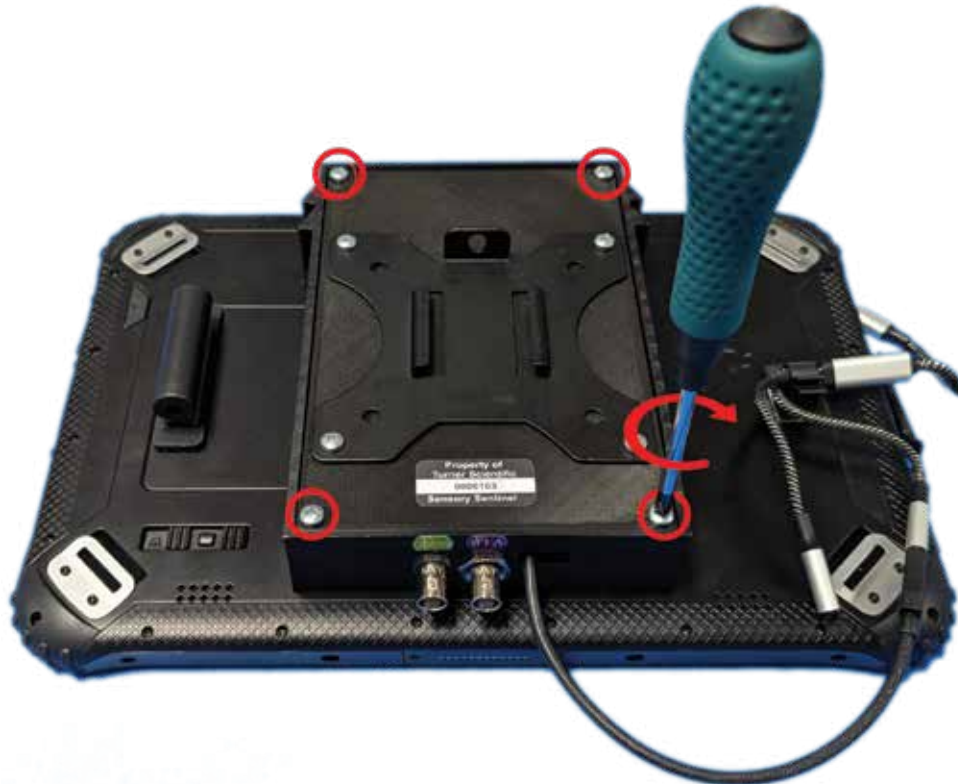
**STEP THREE** After removing the DAQ enclosure, press and slide the battery lock to the left. Check that the battery lock shows an unlocked symbol. Lift under the bottom tab of the battery. The battery should then lift off the tablet.



**STEP FOUR** Place the new battery into the battery slot. Press and slide the battery lock back into its locked position after the battery is secure.



**STEP FIVE** Place the DAQ enclosure back on to the tablet.  
Re-screw the four screws through the enclosure into  
the back of the tablet.



**STEP SIX** Place the back plate on the DAQ enclosure.  
Re-screw the four screws to secure it in place.



# BATTERY STORAGE AND CARE



**NOTE: FAILURE TO FOLLOW GUIDELINES BELOW MAY VOID YOUR WARRANTY**

## Storing for 1-3 Months

*If you have no plans to utilize your tablet for 1-3 Months:*

1. Charge the battery to ~70%
2. Turn the tablet completely OFF and unplug from the charger
3. Store tablet in a cool & dry location

## Storing for 3-6 Months

*If you have no plans to utilize your tablet for 3 months or more:*

1. Charge the battery to ~70%
2. Turn the tablet OFF and REMOVE THE BATTERY from the tablet
3. Store both battery and tablet in a cool & dry location
4. While in storage, the battery should be recharged to ~70% every 3-6 months

## General Battery Care

- Do not use your tablet outside of operating temperature specs or leave/charge in direct sunlight. (-20° C to 60° C)
- Only use chargers that have been delivered with your tablet and/or match the tablet's correct voltage specifications.
- If your tablet is connected to a charger directly for prolonged periods of time, it is best practice to disconnect power at least once a month to discharge the battery. Once the battery is drained or at low power, simply plug in to recharge the battery.
- If the tablet shuts off once the charger is removed, you may need a new battery. Please contact [info@turnerscientific.com](mailto:info@turnerscientific.com) for the correct replacement.

Contact [info@turnerscientific.com](mailto:info@turnerscientific.com) for more information.



For additional information on data logging, overlays, settings, utilities, troubleshooting, updates and other useful features of the Sensory Sentinel software, visit our educational library at

[www.turnerscientific.com](http://www.turnerscientific.com)

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