

How to update firmware on a Davis weather station

Firmware is a type of software that lets the devices (in the case of a weather station, this is the UV sensors, rain measurement tools, gateway, etc.) run properly and communicate with other devices. Davis writes updated firmware when improvements are needed. On occasion, it will need to up-date the firmware on both the EnviroMonitor (gateway) and the nodes to keep the weather station functioning correctly. To perform these steps, you will need a mobile device with the Davis EnviroMonitor application installed on it. You will also need to be within 5 feet of your gateway or node, depending on which you are updating. If the gateway needs updated firmware, there is a good chance that the nodes will also have an update available.

UPDATING THE ENVIROMONITOR GATEWAY

1. If it is not already, install the Davis EnviroMonitor application on your phone. (<https://www.davisinstruments.com/pages/download-apps>) (NOTE: This is a separate application from the Davis WeatherLink app.) The login information is the same information used to sign in-to WeatherLink.
2. Head out to the Davis EnviroMonitor gateway - the large white box with the solar panel on the front. (Figure 1 – left-hand image). Open the gateway by unclipping the two clasps on the right-hand side (Figure 1 – right-hand image).

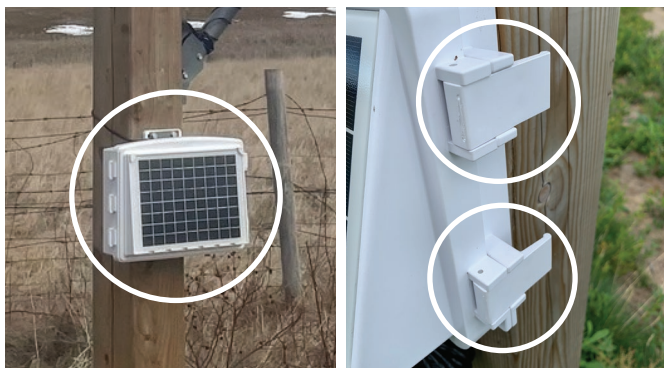


Figure 1: Davis Vantage Pro 2 Gateway, with clasps on the right-hand side

3. On your phone, open the Davis EnviroMonitor application (Figure 2). Sign into your account with your login information.

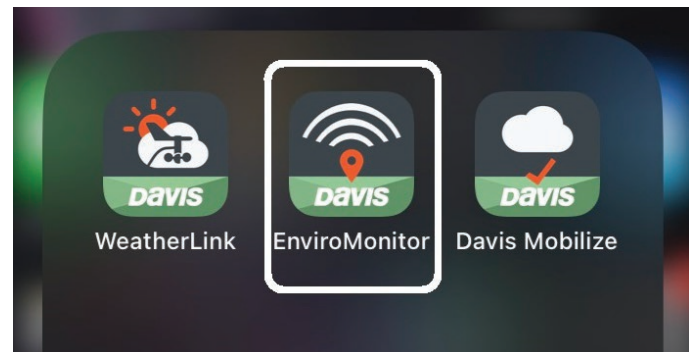


Figure 2: Davis EnviroMonitor app icon

4. Find and select your weather station from the list (Figure 3). If you have multiple stations, you may need to scroll down.

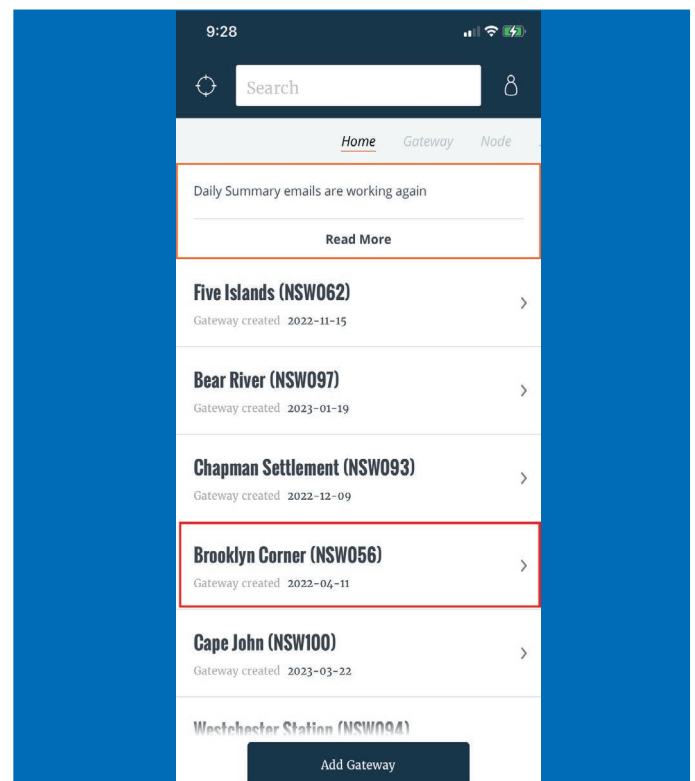


Figure 3: First screen after login. Select your station.

5. Select the menu icon with the three lines in the top right of the screen (Figure 4).

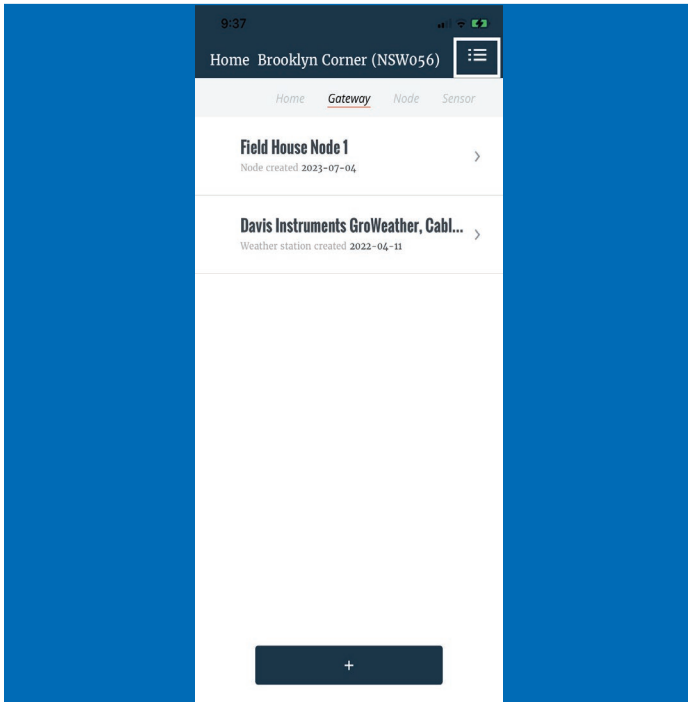


Figure 4: Menu icon

6. Select the Firmware Update option (Figure 5).

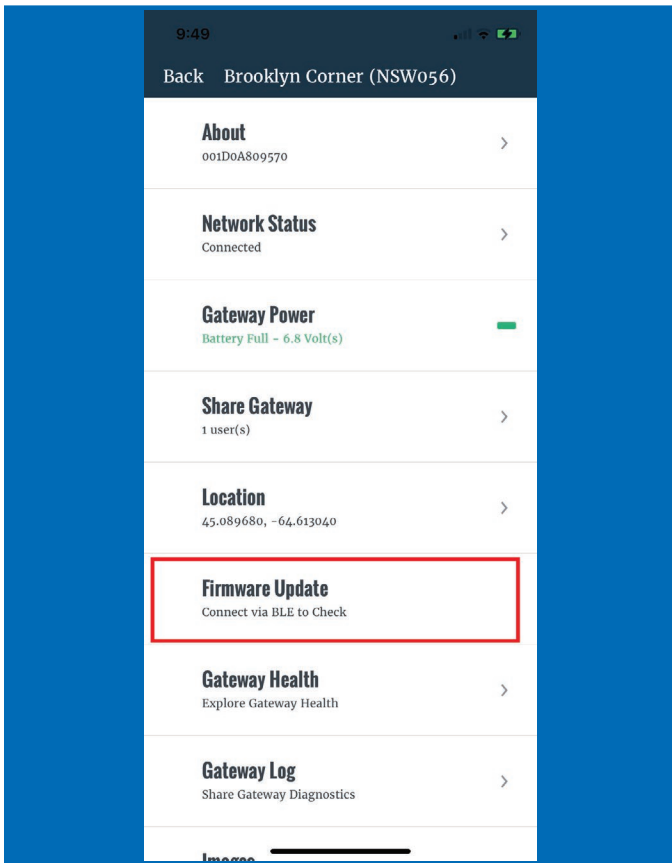


Figure 5: Firmware update option

7. Check the light pattern on the board inside the selected gateway. The BLE light should be flashing blue. If it is not, press the blue button on the left-hand side of the board (Figure 6 – lefthand top image). If you have a model with silver panels instead of the blue button, press the panel above the BLE status light (Figure 6 – lefthand bottom image). Once the blue light is flashing, press Connect in your app (Figure 6 righthand image)



Figure 6: Right - inside of gateway. Left - Connect option in app.

8. The app will check for the latest updates. If any are available, it will ask to confirm that you want to in-stall. Click to install, and make sure your phone stays within 5 feet of the gateway while the update is completed. This may take several minutes.
9. Once the update is complete, close the gateway and latch the clips on the right-hand side (Figure 1). The gateway is now up to date!

UPDATING THE NODES

1. Head out to the Davis weather station node (Figure 7 – lefthand image). Nodes are the boxes that connect to the soil/leaf sensors, feeding data through the main weather station to Davis WeatherLink. They may be near the primary Davis Weather Station and gateway or distributed throughout the field. Open the node by undoing the two clasps on the righthand side (Figure 7 – righthand image). If there is more than one node, the firmware will need to be updated on each one, one at a time.

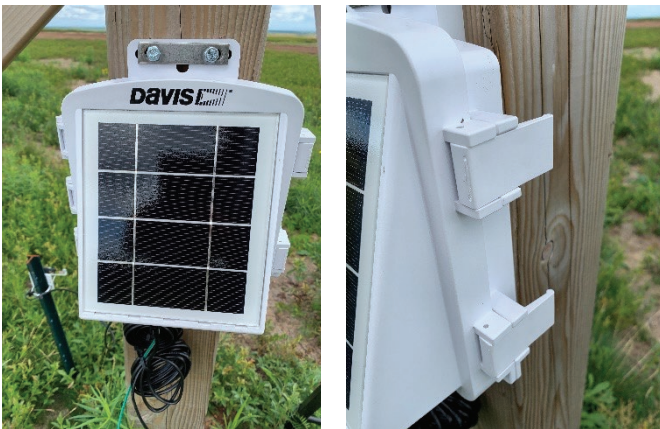


Figure 7: Davis node with clasps on righthand side

2. On your phone, open the Davis EnviroMonitor app (Figure 2). (<https://www.davisinstruments.com/pages/download-apps>) Sign into your account with your login information (same as Davis WeatherLink).
3. Make sure the blue BLE light inside the node is flashing (Figure 8). If it is not, completely close the node door and reopen it to activate.

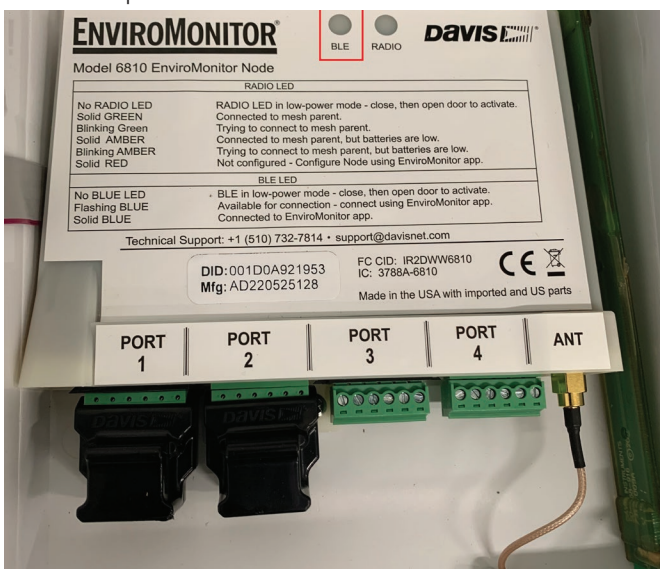


Figure 8: BLE light inside the node.

4. Find and select your weather station from the list (Figure 3). If you have multiple stations, you may need to scroll down.
5. Select your node (Figure 9). If you have multiple nodes, be sure to select the correct one from the list.

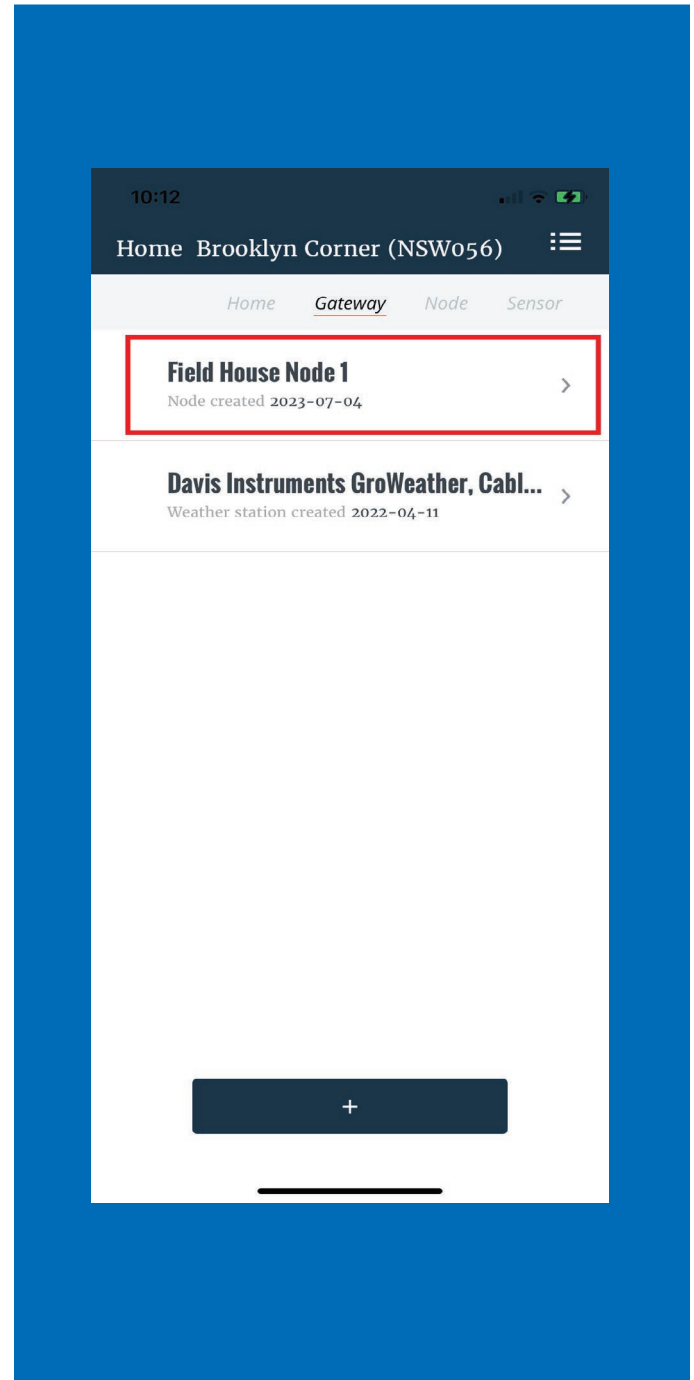


Figure 9: Select the correct node

6. Select the menu icon at the top right (Figure 10).

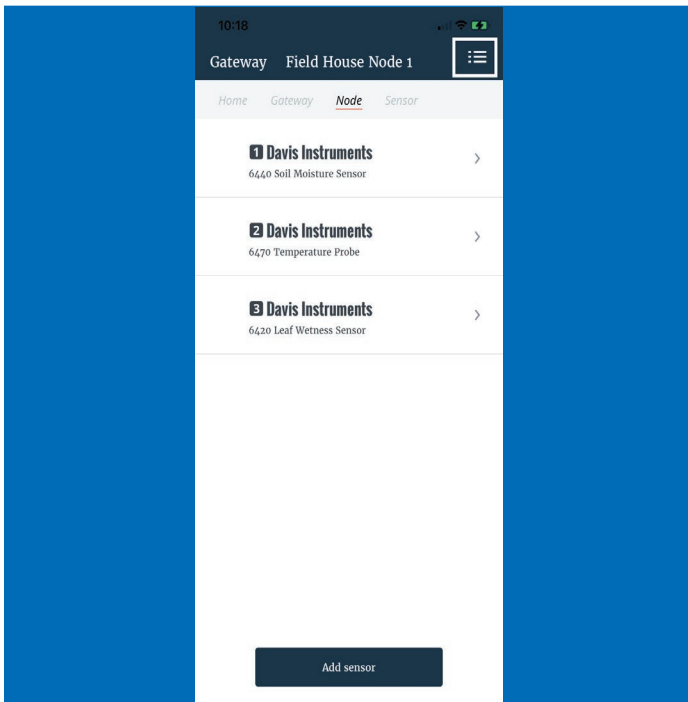


Figure 10: Menu icon

7. Select the Firmware Update option (Figure 11).

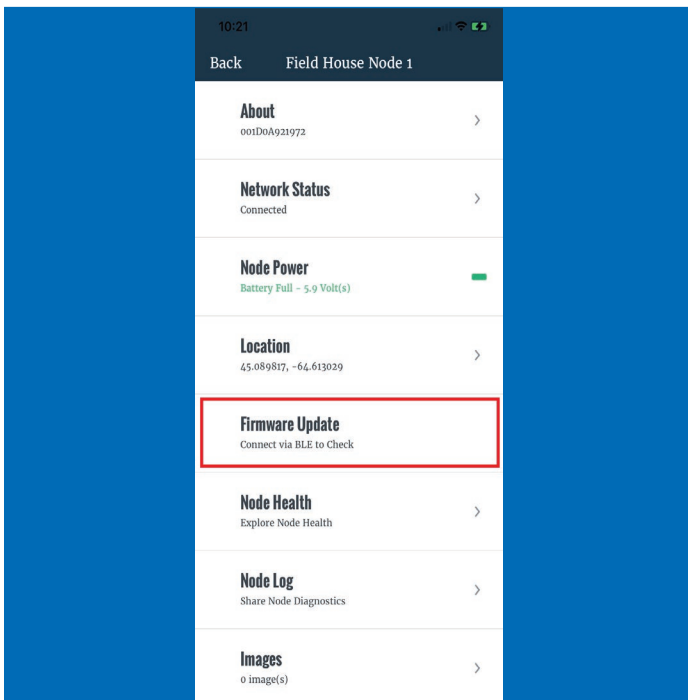


Figure 11: Firmware Update option

8. Press Connect (Figure 12). If there is new firmware available for the node, the app will ask to confirm that you want to install it. Confirm, and then make sure your phone stays within 5 feet of the node until the update is complete. Close the door using the clasps on the right-hand side. If you have more than one node, repeat this process for each of them.

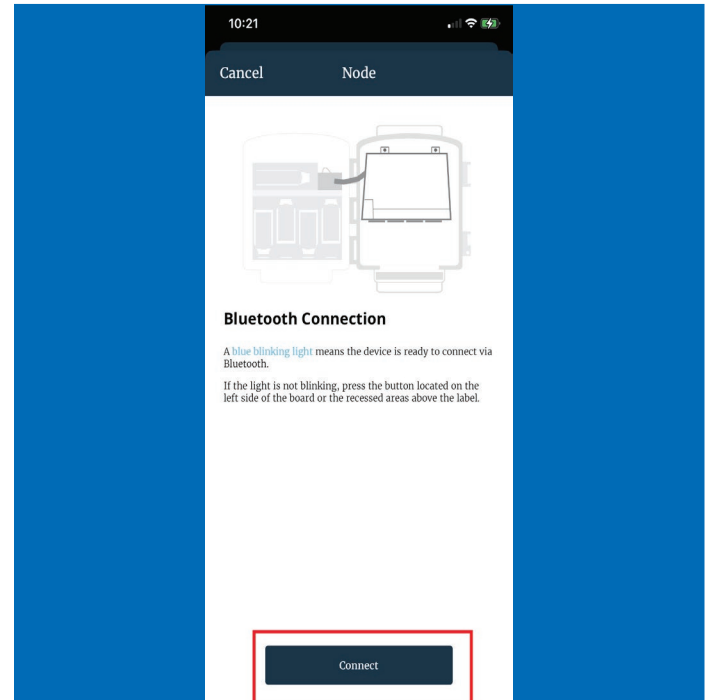


Figure 12: Press Connect

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