

Sieltec Battery Monitor Firmware Update Guide

Introduction

This guide describes the procedure for updating the firmware in a Sieltec Battery Monitor using ESP Web Tools and the supplied Sieltec programming cable. This updates firmware to V3.0 or above, after which simpler WIFI updates can be achieved.

Before commencing, ensure you have received the correct firmware (.bin) file from Sieltec.

Equipment Required

- Sieltec Battery Monitor
- PH2 Phillips Screwdriver
- Supplied Sieltec USB Programming Cable
- Computer with Internet access
- Google Chrome or Microsoft Edge web browser
- Firmware (.bin) file supplied by Sieltec

Firmware Update Procedure

Step 1 - Open the Firmware Update Website

1. Open Google Chrome or Microsoft Edge.
2. Navigate to the Firmware Update webpage, <https://esptool.spacehuhn.com/>.
3. Confirm that the ESP Web Tools home screen appears.
4. Click the green **CONNECT** button.

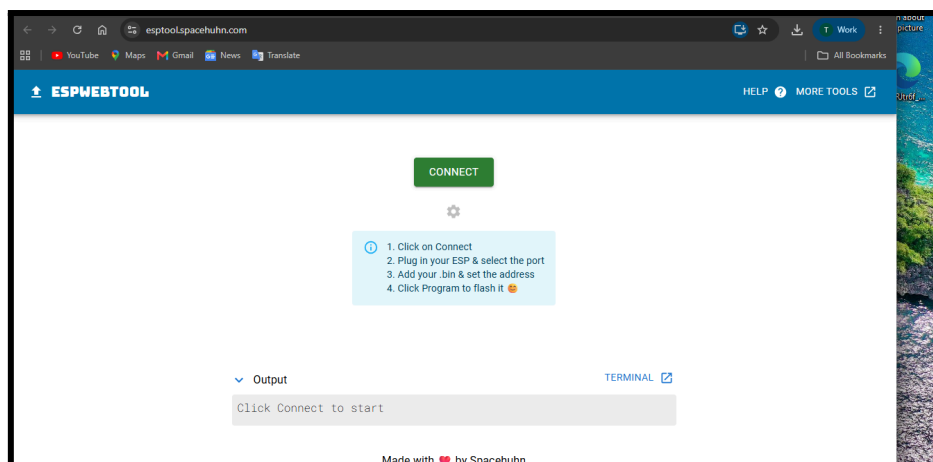
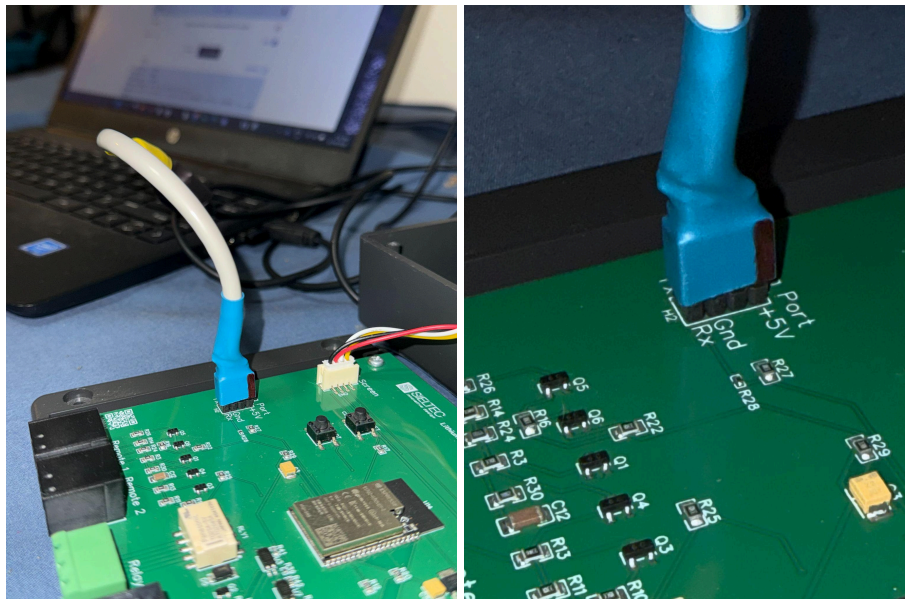


Figure 1. - ESP Web Tools Home Screen

Step 2 - Connect the Programming Cable

1. After removing the 4 screws on the base of the Battery Monitor, carefully separate the enclosure halves and connect the supplied Sieltec programming cable to the Battery Monitor programming connector.
2. Ensure the red stripe on the connector aligns with the **+5V** marking on the BattMON circuit board.
3. Connect the USB end of the cable to the computer.
4. The Battery Monitor can either be powered normally or it can draw power from the USB connector for the programming process.

⚠ **Important:** The connector to the programming header must be installed in the correct orientation. The red stripe must align with the **+5V** marking shown on the circuit board.



Step 3 - Select the Programming Port

1. After clicking **CONNECT**, a serial port selection window will appear.
2. Select the USB serial port associated with the supplied Sieltec programming cable.

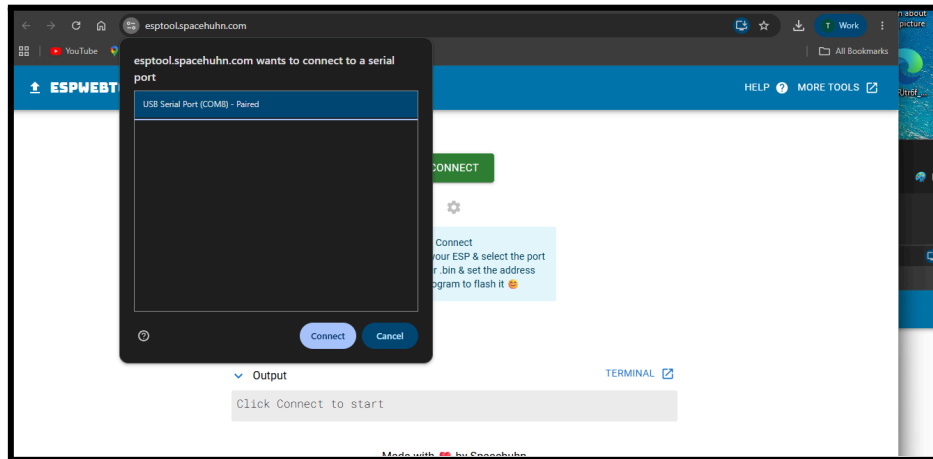


Figure 3. - Serial Port Selection Window

Note: The COM port number shown on your computer may differ from the example shown in this guide

Step 4 - Place the Battery Monitor into Programming Mode

1. Press and hold the **RESET** button.
2. While holding the **RESET** button, press and hold the **BOOT** button.
3. Release the **RESET** button.
4. Continue holding the **BOOT** button.
5. Click **Connect** in the serial port window.
6. Once the Battery Monitor has been detected and the programming screen appears, release the **BOOT** button.

If successful, the firmware programming screen will be displayed.

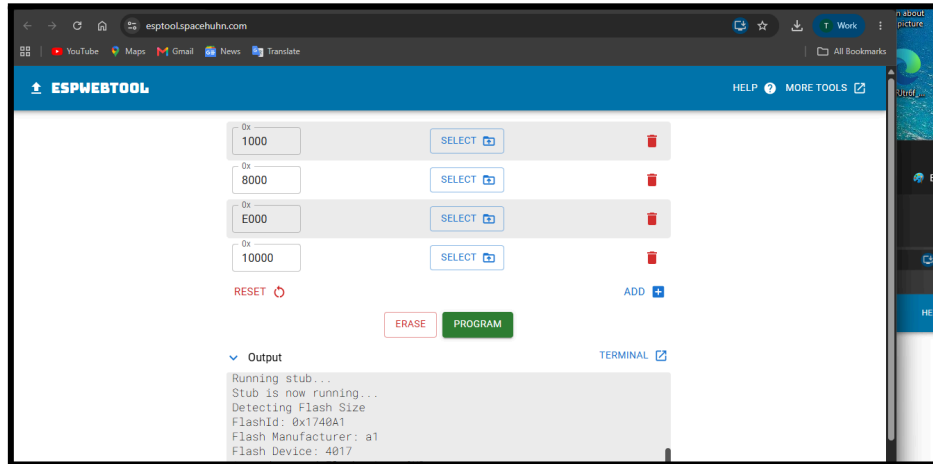


Figure 4. - Screen when connection is made

Step 5 - Select the Firmware File

1. Locate the row labelled **0x10000**.
2. Click the **SELECT** button beside the **0x10000** address.
3. Browse to the firmware file supplied by Sieltec.
4. Select the required **.bin** file.

⚠ **Important:** For normal firmware updates, only use the row labelled **0x10000**.

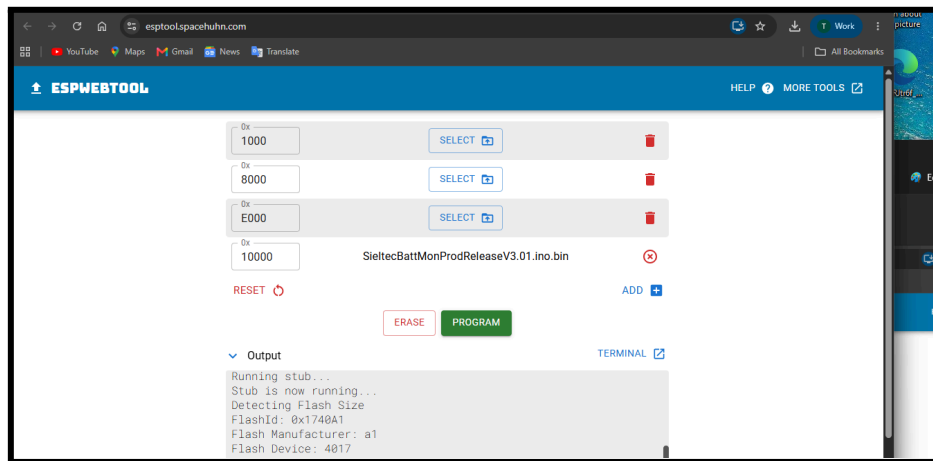


Figure 5. - Firmware File Selection

Step 6 - Program the Battery Monitor

1. Confirm the firmware filename appears beside the **0x10000** address.
2. Click the green **PROGRAM** button.
3. If prompted, enable the verification checkbox.
4. Wait while the firmware is transferred to the Battery Monitor.

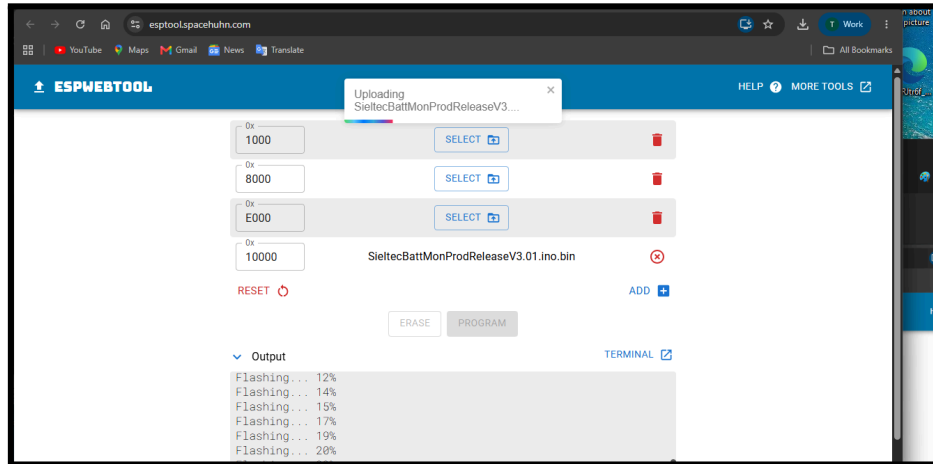


Figure 6. - Start Upload

Step 7 - Complete the Update

1. Wait until the programming progress reaches **100%**.
2. Confirm that the output window displays **Done!**
3. Press the **RESET** button on the Battery Monitor.
4. When the Battery Monitor boots with a battery attached, the new Sieltec Software version number is shown on the first screen.

The Battery Monitor will restart and begin operating with the newly installed firmware.

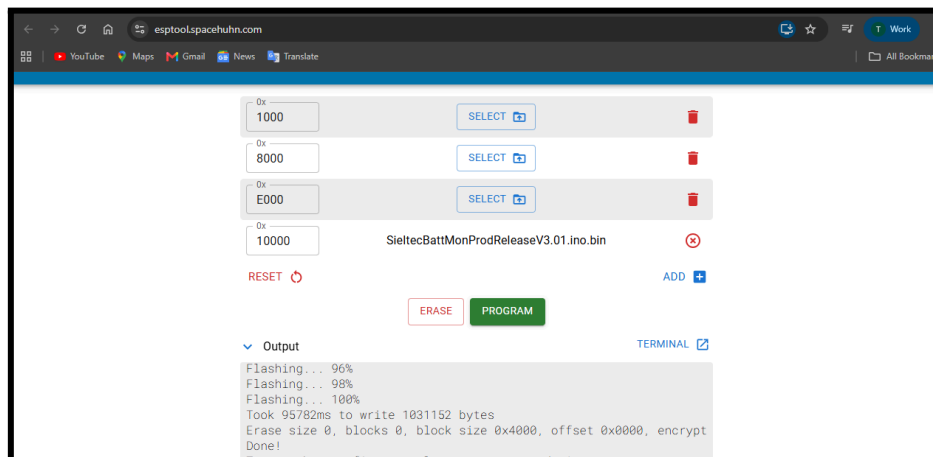


Figure 7 - Upload finished

Troubleshooting

Battery Monitor Not Detected

- Confirm the programming cable is connected correctly.
 - Verify the red stripe aligns with the **+5V** marking on the Battery Monitor Board.
 - Repeat the programming mode procedure.
 - Disconnect and reconnect the USB cable.
 - Refresh the browser page and try again.
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