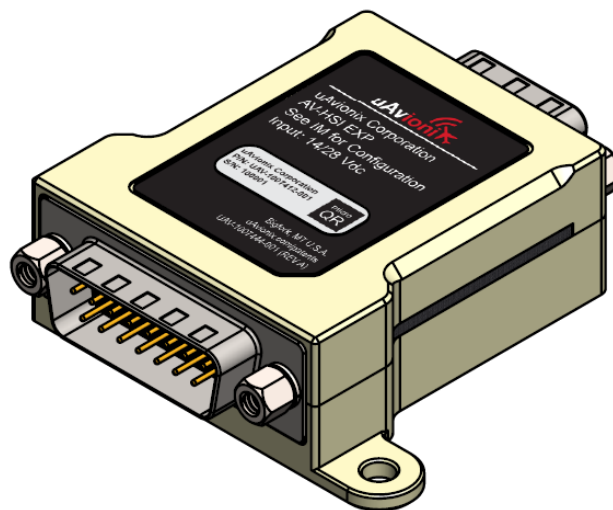




## AV-HSI-E

## Service Bulletin

## Software Upgrade to 1.0.0



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Patent [uavionix.com/patents](http://uavionix.com/patents)

# 1 Revision History

Revision	Date	Comments
A	1/8/2025	Initial release

## **2 Warnings / Disclaimers**

uAvionix is not liable for damages arising from the use or misuse of this product.

This equipment is classified by the United States Department of Commerce's Bureau of Industry and Security (BIS) as Export Control Classification Number (ECCN) 7A994.

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations.

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## 5 Planning Information

### 5.1 Distribution / Eligibility

There are no distribution or eligibility restrictions for the instructions in this document.

### 5.2 Applicability

This Service Bulletin applies to the AV-HSI-E (also referred to as AV-HSI EXP) accessory with operating software release 0.1.3 or previous. Use Table 5-1 Applicability to determine applicability of the software update.

*Table 5-1 Applicability*

Hardware P/N Marking	Applicability
UAV-1007444-001	Verify by procedure

Parts identified above as “Verify by procedure” may have software release 0.1.3 or previous installed. To determine what version of software is installed:

1. With your AV-HSI-E connected to an AV-30-E running software version 3.0.1 or newer, enter installation mode on the AV-30-E by holding down the center knob while power on.
2. Press the left button three times on the AV-30-E to access the installation menu.
3. Turn the AV-30-E center knob clockwise until you reach a menu item “AVHSI SW VER”. Your software version will be listed below.
4. If your AV-HSI-E displays version 0.1.3 or earlier, proceed with this Service Bulletin.

Note: AV-HSI-E software version 1.0.0 is intended for use with AV-30-E 3.0.1 or newer. Refer to <https://uavionix.com/support/av-30-e-support/> for the relevant AV-30-E service bulletin. This AV-HSI-E service bulletin may be performed before or after the AV-30-E service bulletin.

### 5.3 Description

This Service Bulletin provides instructions for loading uAvionix AV-HSI-E UAV-1007444-001 with updated software release 1.0.0.

This release includes the following changes:

- Ability to concurrently connect a NMEA GPS and a Serial VOR/ILS receiver.
- Enables ARINC 429 autopilot heading, course, and set altitude without requiring Advanced Autopilot Unlock. The Advanced Autopilot Unlock is now limited to unlocking GPSS processing.
- Update attitude comparison algorithm to prevent false alerts.

### 5.4 Time Required

For field software update, up to 30 minutes is required to perform this update procedure.

### 5.5 Weight and Balance

No change.

### 5.6 Electrical Load Data

No change.

### 5.7 Applicable Publications

The following documents are applicable to the software release 1.0.0.

*Table 5-2 AV-30-E Documents*

<b>Title</b>	<b>Part Number</b>	<b>Revision</b>
AV-30-E Installation Manual	UAV-1004234-001	K
AV-30-E Pilot's Guide	UAV-1004233-001	L



## 6 Required Items

Download the software update file below.

Table 6-1 Software Update Files

Filename	Version	SW Part Number	SHA1 Hash	App CRC
UAV-1007513-003-AV-HSI-E-1_0_0-dc4e8a3.uav	1.0.0	UAV-1007513-003	a62856cb673b3fe47fe8befa465de8609a6f10c9	0xCE397B5C

uAvionix software update files are available for download from the uAvionix Support website at no charge, at:

<https://uavionix.com/av-hsi-e-service-bulletin-software-upgrade-1-0-0/>

Click on the link in the section **AV-HSI-E v1.0.0 Firmware** and save it to your PC or mobile device.

Ensure the software has been downloaded prior to visiting the aircraft. An internet connection is required to download the software and application. An internet connection is not required to perform the update.

### 6.1 Items Required for Over-The-Air Update

The following items are required to perform the update:

Quantity	Description
1	Windows PC running Windows 7 or later or iOS® device
1	802.11 Wi-Fi interface
1	A Supported computing platform with Web Browser. The following combinations are recommended <ul style="list-style-type: none"> <li>• Windows PC with Google Chrome</li> <li>• Windows PC with Microsoft Edge</li> <li>• Windows PC with Internet Explorer</li> <li>• iPhone® with Safari® (must be in airplane mode with Wi-Fi on)</li> <li>• iPad® with Safari® (must be in airplane mode with Wi-Fi on)</li> </ul>
1	AV-HSI-E Software as shown in <i>Table 6-1 Software Update Files</i> .
1	AV-Link-E running software version 0.3.5 or later

## 6.2 Items Required for Update Over Serial

The following items are required to perform the update:

Quantity	Description
1	Windows PC running Windows 7 or later
1	Available serial port or appropriate USB to RS-232 converter Examples: FTDI, Parallax 28030, Sabrent CB-DB9P or similar (See <a href="https://uavionix.com/support/av-30-e-support/">https://uavionix.com/support/av-30-e-support/</a> for the recommended USB to Serial Cable)
1	PingBootFlasher (UAV-1002813-001) v2.12 or greater
1	AV-HSI-E Software as shown in <i>Table 6-1 Software Update Files</i> .

## **7 Update Notes**

All AV-HSI-E configuration settings will be preserved during the update procedure. However, please take note of all settings before performing the update, and verify settings are correct after the update has been applied.

Ensure you are running a previous version of AV-HSI-E software. Specifically, your AV-HSI-E should be running 0.1.3 or earlier.

## 8 AV-HSI-E Update Procedure

The AV-HSI-E may be updated over a wireless network connection or a wired serial connection. Section 8.1 describes the process for an update over a wireless network connection, and Section 8.2 describes the process for an update over a wired serial connection.

These instructions assume a valid installation as described in the applicable documentation listed in Table 5-2 AV-30-E Documents.

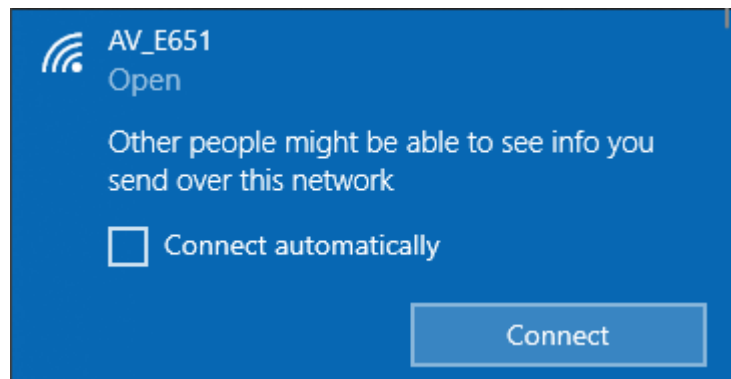
The following illustrations and procedures show the update procedure when using a Windows PC. Apply the same procedures, modified as necessary, when using an iPhone® or iPad®.

### 8.1 Over-The-Air Update

The AV-Link-E acts as a Wi-Fi hotspot to which your PC will connect. If you are using a phone or a tablet, put it in airplane mode first, then enable Wi-Fi to avoid being connected to multiple networks at once.

**NOTE:** An AV-Link-E will disable its Wi-Fi network after 5 minutes if it is not connected to an AV-30 configured for an AV-Link and no clients have connected. If this occurs, cycle power to the unit.

1. Apply power to the AV-HSI-E and AV-Link-E.  
Do not interrupt power during the update process.
2. Connect a PC to the AV-Link-E Wi-Fi Network.  
This will be displayed as AV-#### where #### will be 4 random characters ranging from 0-8 and A-F.



3. In the Web Browser navigate to the AV-Link-E homepage via the following URL:

[192.168.5.1](http://192.168.5.1)

A page like the one shown on the right should appear.

4. The AV-Link-E **MUST** be running software version 0.3.5 or newer to be able to perform AV-HSI-E updates. If the Software listing at the top of this webpage isn't 0.3.5 or newer, please visit <https://uavionix.com/support/av-30-e-support/> for the latest AV-Link-E Service bulletin. Apply it **BEFORE** proceeding.

5. If the AV-Link-E was not previously configured to interface with the AV-HSI-E, configure it by clicking on Wi-Fi Settings and setting the AV-HSI Connected Device to reflect an AV-HSI connected with or without an AV-30 connected to COM 4 (Pins 8 and 15) of the AV-HSI. See the AV-30-

The screenshot shows the AVLink Main Device Page in a web browser. The browser address bar shows 'AVLink Main Device Page' and the URL '192.168.5.1'. The page content includes:

- Settings** section:
 

Software	<a href="#">UAV-1007753-001-0.3.5-AVLink</a>	
AV-Link SSID	AV_D7D5	
Clients	1	
ADS-B Receiver	<a href="#">Not assigned</a>	Waiting to scan
- Status** section:
 

ICAO Address	000000
Callsign	-----
GPS Fix	None
GPS Satellites	0
Position	---
Altitude (GNSS)	---
Altitude (Baro)	---
- Device Information** section:
 

Hardware	Version	Serial Number
AV-Link	<a href="#">0.3.5</a>	194279037130709
AV-30	<a href="#">3.0.1</a>	3544984960994980409
AV-HSI	<a href="#">0.1.3</a>	3688818647418011734
- At the bottom, there are links for [Wi-Fi Settings](#), [Statistics](#), [AV Display Software Update](#), and [AV-HSI Update](#). A red arrow points to the 'Wi-Fi Settings' link.

**ADS-B Receiver Settings**

SSID:   Auto Connect

Password:

Port:

Status: Waiting

**AV-HSI Settings**

Connected Devices: 

- None
- AV-HSI without AV-30 on COM4**
- AV-HSI with AV-30 on COM4

Buttons: Save, Cancel, Defaults

E Installation manual for more details.

6. At the bottom of the page, click the link named *AV-HSI Update* or the version number of the AV-HSI in the Device Information table.

The screenshot shows a web browser window titled "AVLink Main Device Page" with the address bar displaying "192.168.5.1". The page content includes three tables and a navigation menu at the bottom.

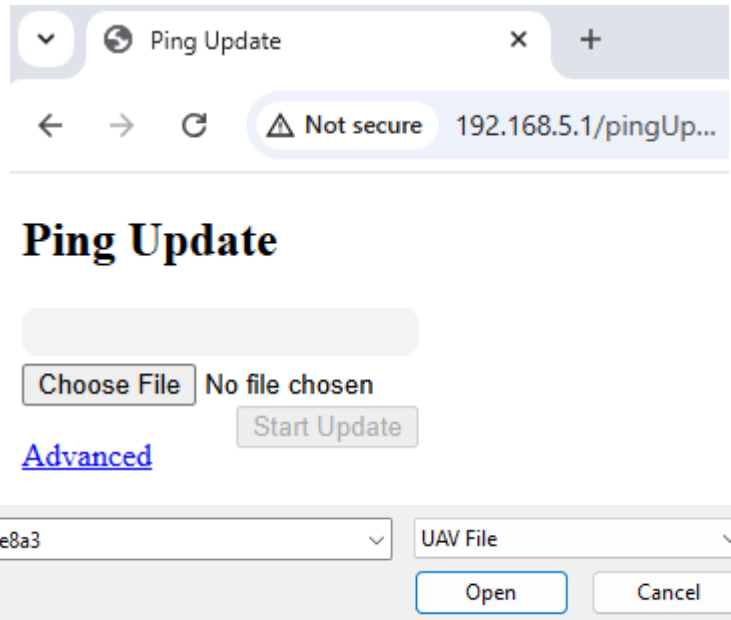
Settings	
Software	<a href="#">UAV-1007753-001-0.3.5-AVLink</a>
AV-Link SSID	AV_D7D5
Clients	1
ADS-B Receiver	<a href="#">Not assigned</a> Waiting to scan

Status	
ICAO Address	000000
Callsign	-----
GPS Fix	None
GPS Satellites	0
Position	---
Altitude (GNSS)	---
Altitude (Baro)	---

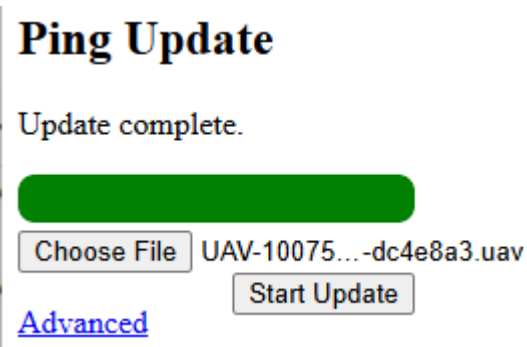
Device Information		
Hardware	Version	Serial Number
AV-Link	<a href="#">0.3.5</a>	194279037130709
AV-30	<a href="#">3.0.1</a>	3544984960994980409
AV-HSI	<a href="#">0.1.3</a>	3688818647418011734

At the bottom of the page, there is a navigation menu with the following links: [Wi-Fi Settings](#), [Statistics](#), [Software Update](#), and [AV-HSI Update](#). A red arrow originates from the "0.1.3" version number in the AV-HSI row of the Device Information table and points to the "AV-HSI Update" link.

7. On the Ping Update page, click *Choose File* then select the previously downloaded AV-HSI-E V1.0.0 software.



8. Once the file has been selected click Start Update. Wait for “Update complete” to be displayed.



- Return to the home page if not redirected automatically. Verify that the AV-HSI is displayed with the new version number in the Device Information table. Power cycling the AV-Link and AV-HSI may be required to indicate the new version.

The screenshot shows a web browser window titled "AVLink Main Device Page" with the address bar displaying "192.168.5.1". The page content is as follows:

**Settings**

Software	<a href="#">UAV-1007753-001-0.3.5-AVLink</a>	
AV-Link SSID	AV_D7D5	
Clients	1	
ADS-B Receiver	<a href="#">Not assigned</a>	Scanning

**Status**

ICAO Address	000000
Callsign	-----
GPS Fix	None
GPS Satellites	0
Position	---
Altitude (GNSS)	---
Altitude (Baro)	---

**Device Information**

Hardware	Version	Serial Number
AV-Link	<a href="#">0.3.5</a>	194279037130709
AV-SS	<a href="#">3.0.1</a>	3544984960994980409
AV-HSI	<a href="#">1.0.0</a>	3688818647418011734

At the bottom of the page, there are four links: [Wi-Fi Settings](#), [Statistics](#), [AV Display Software Update](#), and [AV-HSI Update](#). A red arrow points to the "1.0.0" version number for AV-HSI in the Device Information table.

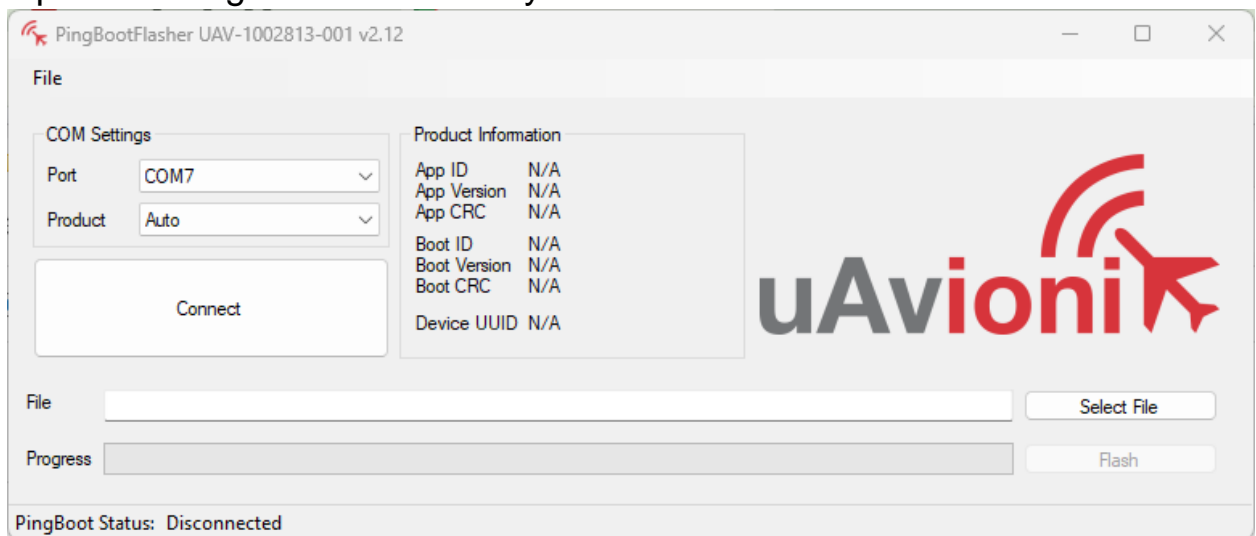


## 8.2 Update Over Serial

The PingBootFlasher utility can be used to update an AV-HSI over a wired serial connection. If an AV-Link-E is installed with the AV-HSI, it does NOT need to be removed in order to update the AV-HSI-E over serial.

**Prerequisite:** COM4 of the AV-HSI-E (pins 8 and 15) must be accessible and have a female DB9 connector attached. See the AV-30-E Installation manual for more details. If an AV-30-E is connected to COM4, disconnect it from the AV-HSI-E harness before continuing.

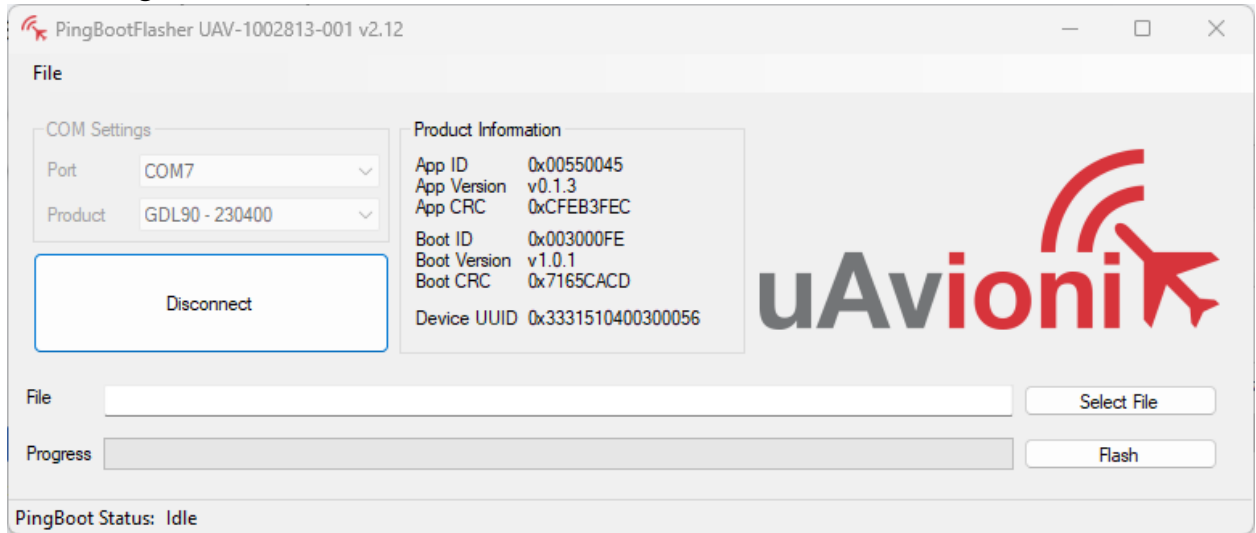
1. Open the PingBootFlasher utility.



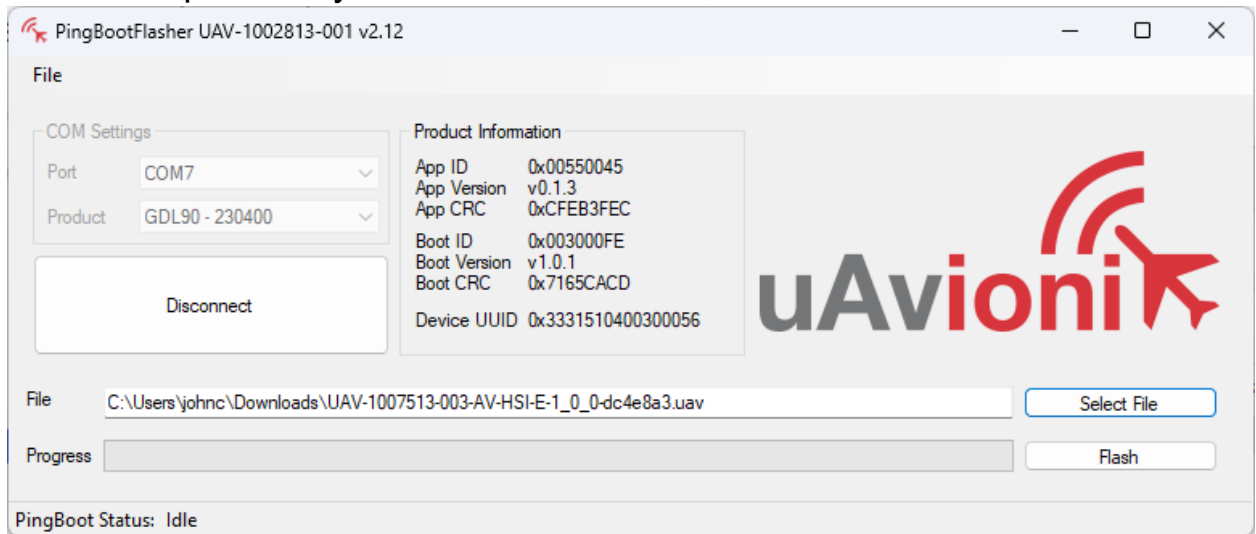
2. Connect the PC to Serial Port 4 of the AV-HSI-E using the serial data cable.
3. Identify which of the PC's serial ports is assigned to the serial connection with the AV-HSI-E and select it under "COM Settings -> Port."
4. Refer to the following table to select the appropriate option for "COM Settings -> Product." You can check the "AV-Link-E AV-HSI Setting" on the AV-Link's web interface at <http://192.168.5.1/settings> while connected to its Wi-Fi network.

AV-Link-E Present?	AV-Link-E AV-HSI Setting?	Product Protocol
No	N/A	GDL90 230400
Yes	AV-HSI with AV-30 on COM4	GDL90 230400
Yes	AV-HSI without AV-30 on COM4	GDL90 115200
Yes	None	(invalid; change AV-Link settings)

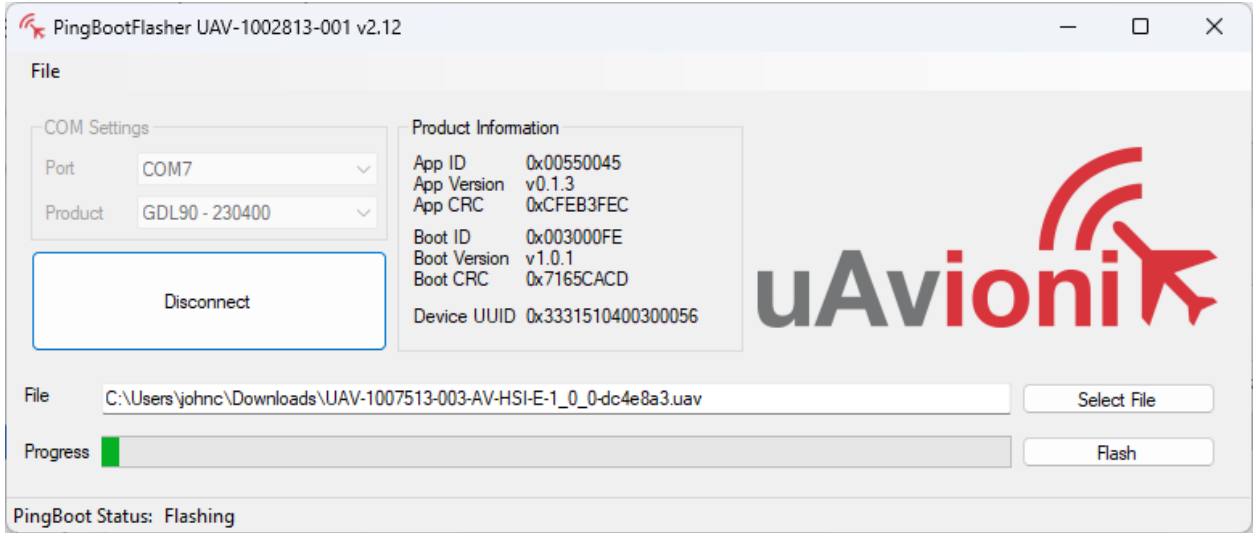
5. Click “Connect,” then wait for “Product Information” to populate and the “PingBoot Status” banner at the bottom to read “Idle.”



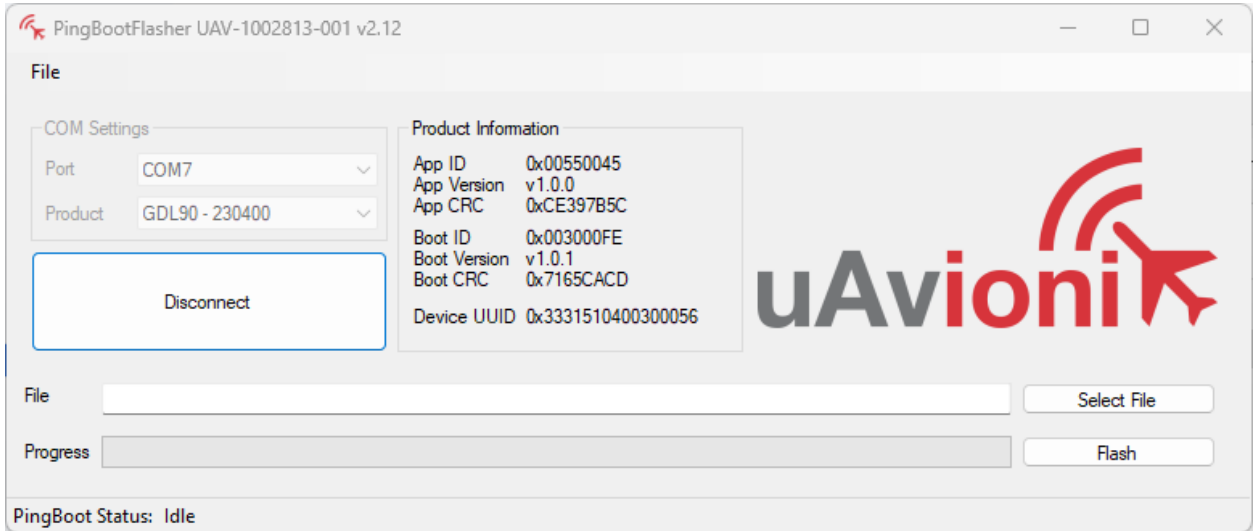
6. Select the previously downloaded .uav file, then click “Flash.”



7. Wait for the progress bar to fill. The utility will automatically disconnect once complete.



8. Verify the update was successful by clicking “Connect” again and ensuring the App Version and App CRC under Product Information match those listed in Table 6-1 Software Update Files.



## **9 Post-Accomplishment Verification and Actions**

Refer to the specific update procedure for verification actions applicable to the update method.

If all fields match, continue with these instructions. Otherwise, contact uAvionix Support.

## **10 System Checkout**

No specific checkout procedure is required.

## **11 Support**

For additional questions or support please visit:

<http://www.uavionix.com/support/>

## 12 Maintenance Record

When post-accomplishment verification and system checkout is completed, make appropriate entries in the Aircraft Maintenance Log Book.

### Maintenance Record

Service Bulletin UAV-1008275-002 Rev A to install software v1.0.0 for AV-HSI-E UAV-1007444-(\_\_\_\_), has been complied with.



**A copy of this form must be submitted by visiting:**

<https://uavionix.com/logbook/>

Date:	By:
Aircraft Information	
Make:	Model:
Serial Number:	Registration Number:
AV-HSI Information	
Serial Number:	
Hardware Part Number:	UAV-1007444-_____
Customer Information	
Name:	
Email:	
Telephone:	