



AV-30-E

Service Bulletin

Software Upgrade to 3.1.1



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uAvionix Corporation

Bigfork, MT

www.uavionix.com

support@uavionix.com

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Patents:

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1. Revision History

Revision	Date	Comments
A	7/1/2025	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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4. Planning Information

4.1. Applicability

This Service Bulletin applies to uAvionix AV-30-E UAV-1004035-001, UAV-1004035-002, and UAV-1004035-003 with operating software release 3.0.1 or earlier.

Use Table 1 to determine applicability of the software update.

Hardware P/N Marking	Applicability
UAV-1004035-001	Verify by procedure
UAV-1004035-002	Verify by procedure
UAV-1004035-003	Verify by procedure

Table 1: Applicability

Parts identified above as “Verify by procedure” may have software release 3.0.1 or previous installed. To determine what version of software is installed:

1. Push and hold center rotary knob while powering up unit until the uAvionix startup screen appears.



2. Release the button once the uAvionix startup screen appears.

3. Push and release the left button under the MENU until the "INSTALL / ROT TO SEL" appears.
4. Rotate knob until you see "SW VERSION"
5. If the version displayed is 3.0.1 or earlier proceed with this Service Bulletin.

4.2. Description

This Service Bulletin provides instructions for loading uAvionix AV-30-E UAV-1004035-001, UAV-1004035-002 and UAV-1004035-003 with updated software release 3.1.1.

Pitot and static pneumatic lines must be connected if not already connected. This Service Bulletin does not describe or provide authority for that work.

This software release (3.1.1) has the following changes:

- Added echoESX and tailBeaconX transponder configuration menu
- Added wind vector graphical and textual indicators
- Added audio alerts for Set Altitude
- Added flight plan to the traffic display page
- Improved Angle of Attack indication, now works for slanted panels
- Added Carbon Monoxide alerts to the CDI page
- Added partial auto-detection of AV-Mag installation orientation
- Added device ID to simplify AV-Link operation in multi-unit installations
- Added QR code for capturing configuration values with a smart phone
- Streamlined ICAO entry
- Modified screen brightness menu behavior

- Fixed an issue with airspeed trim in kph or mph
- Added check of calibration values on startup
- Improved NMEA message integrity checks
- Minor changes to the attitude indicator algorithm
- Minor changes to DEMO mode
- Various graphical and textual appearance improvements

4.3. Time Required

For software only update in the field, up to 90 minutes is required to perform this update procedure. Additional time may be required if pitot and static connections are not installed.

4.4. Weight and Balance

No change

4.5. Electrical Load Data

No change

4.6. Applicable Publications

The following documents are applicable to the software release 3.1.1.

Title	Part Number	Revision
AV-30-E Installation Manual	UAV-1004234-001	L
AV-30-E Pilot's Guide	UAV-1004233-001	M

Table 2: Applicable documents

5. Required Items

There are two methods available to perform the update. The first involves a Windows PC and serial port, the second uses the optional AV-Link device over Wi-Fi.

Both methods require you to download the software update file below.

Filename	Version	SW Part Number	Checksum	SHA1 Hash
UAV-1004037-014-av30e-3_11-06c5895.bin	3.1.1	UAV-1004037-014	80EEF885	02c7f1f2be644abf571bb625a97224057f1b176e

Table 3: Software Update Files

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

<https://uavionix.com/av-30-e-service-bulletin-software-upgrade-3-1-1/>

Click on the link in the section **AV-30-E v3.1.1 Firmware** and save it to your PC or mobile device.

Ensure the software and any necessary update tools have 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.

5.1. Windows PC with Serial Port

The following items are required to perform the update when using a Windows PC with serial cable:

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 SBT-USC6K or similar (See https://uavionix.com/support/av-30-e-support/ for the recommended USB to Serial Cable)
1	Female DB-9 with solder or crimp terminals
2	Female terminals suitable for the installed DB-15
4'	22-24 AWG wire
1	uAvionix AV Update Tool: UAV-1005199-001 (Windows application) version 2.0.1 or newer
1	AV-30-E Software as shown in Table 3

The uAvionix AV Update Tool is available to download alongside the 3.1.1 Firmware, or is available to download directly at

https://uavionix.com/downloads/AV-20-E/UAV-1005199-001-AvUpdate-2_0_1-signed.exe.

Download it to your PC.

5.2. AV-Link

The following items are required to perform the update when using AV-Link over Wi-Fi:

Quantity	Description
1	PC or mobile device
1	uAvionix AV-Link-E (UAV-1004413-001) or AV-Link-C (UAV-1004414-001) running software version 0.3.5 or later.
1	AV-30-E Software as shown in Table 3

AV-Link-C (certified) or AV-Link-E (experimental) may be used to perform this service bulletin. If using an AV-Link-E, the AV-Link-E must be removed from the aircraft upon completion of the service bulletin.

AV-Link software version 0.3.5 is required. If using an AV-Link with version 0.3.4 or earlier, please upgrade your AV-Link prior to performing this service bulletin.

Version 0.3.5 software update files are available for download from the uAvionix Support website at no charge.

For AV-Link-C, follow the instructions in *AV-Link-C Service Bulletin Upgrade to 0.3.5 UAV-1008457-001 Rev A.pdf*, available at: <https://uavionix.com/av-link-c-service-bulletin-software-upgrade-0-3-5/>

For AV-Link-E, follow the instructions in *AV-Link-E Service Bulletin Upgrade to 0.3.5 UAV-1006731-006 Rev A.pdf*, available at: <https://uavionix.com/av-link-e-service-bulletin-software-upgrade-0-3-5/>

6. Update Notes

All AV-30-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.

If pitot and static lines were not previously connected, ensure appropriate approval and connect the lines now to ensure full performance and functionality.

Ensure you are running a previous version of AV-30-E software. Specifically, your AV-30-E should currently be running 3.0.1 or earlier. If updating from a version prior to 3.0.1 it is not necessary to apply all prior updates in sequence. This update can be used from any prior version.

There are two approved methods for update of the AV-30-E. The AV-30-E can be updated using either a traditional direct serial connection or the AV-Link can be used to update the AV-30-E via wireless interface. Either method is suitable, the choice is installer preference or equipment availability. If the AV-Link installation is not approved, it must be used only for the update and removed after.

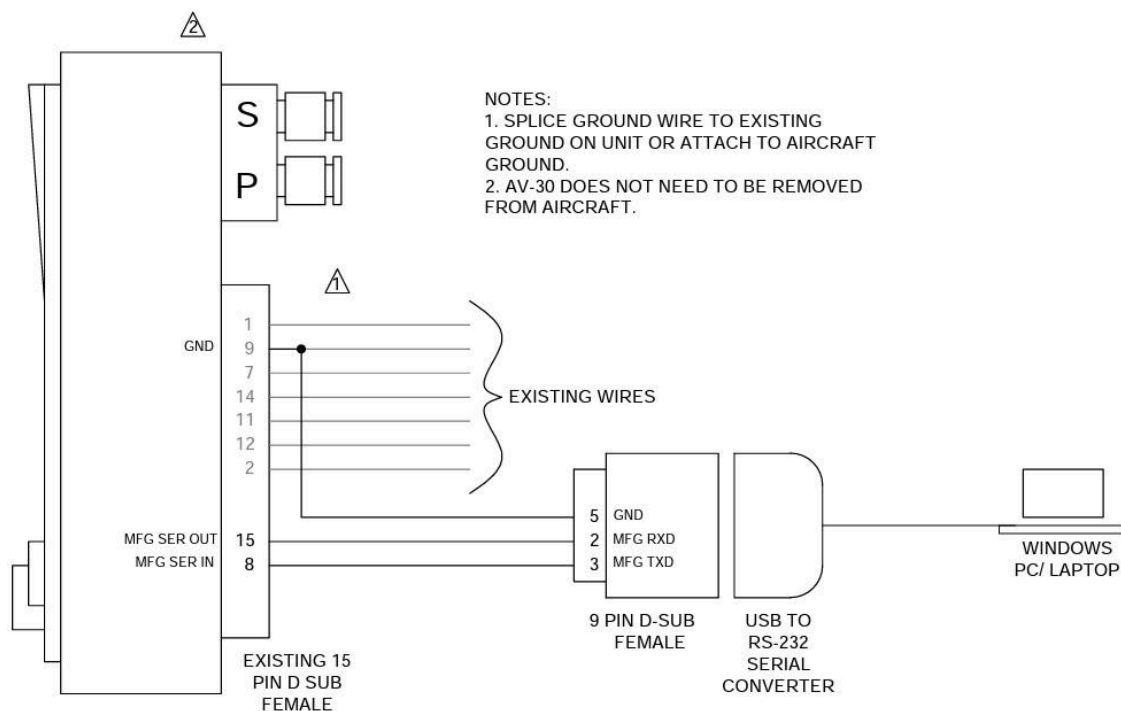
If performing the update using PC serial connection, proceed to Section 7.

If performing the update using the AV-Link, first verify that the AV-Link is running software version 0.3.5 or later then proceed to Section 8. If the AV-Link is running version 0.3.4 or earlier, update the AV-Link to version 0.3.5 before proceeding. Refer to section 5.2 for links to AV-Link version 0.3.5 upgrade files.

7. PC Serial Update

7.1. Serial Update Preparation

1. Add wires to pins 8 and 15 to the AV-30-E harness if not already connected. Add an additional ground wire to either the existing ground from the AV-30-E harness or ground the new wire directly to aircraft ground.
2. Connect the new wires to the DB-9 connector as shown below. Upon completion of wiring, connect the new assembly to an available serial port or USB serial adapter.

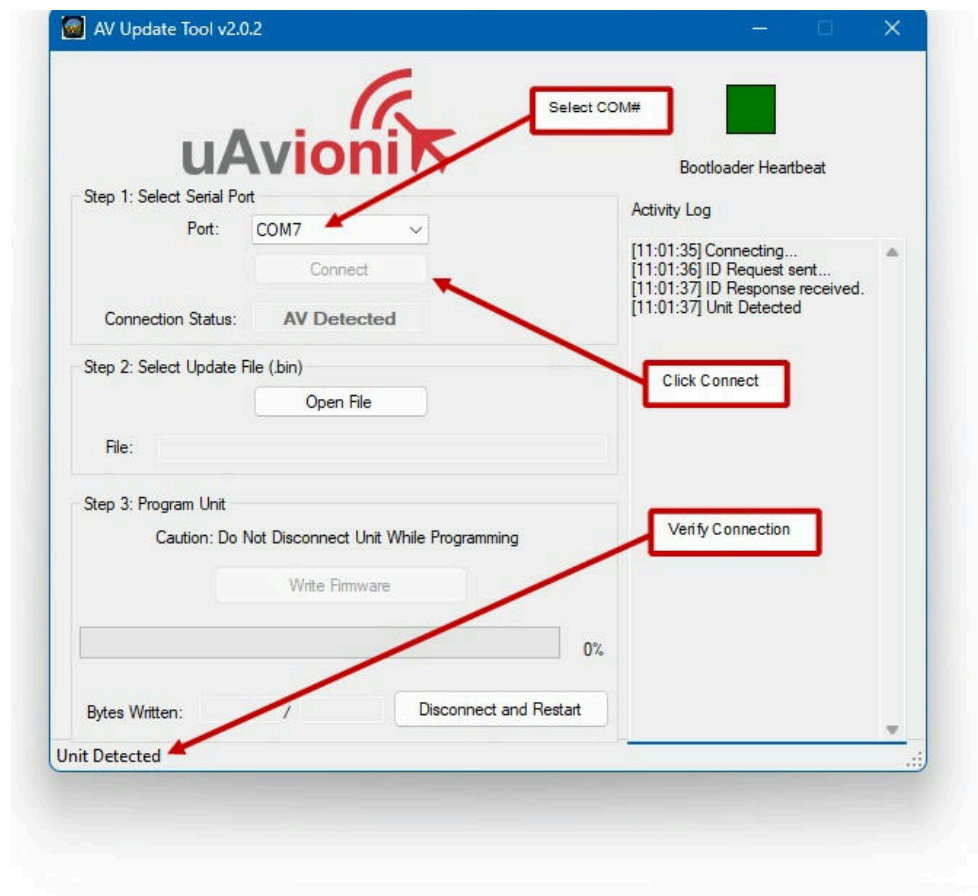


Note: AV-Link must not be installed if performing an update using the PC serial update procedure.

7.2. Serial Update Procedure

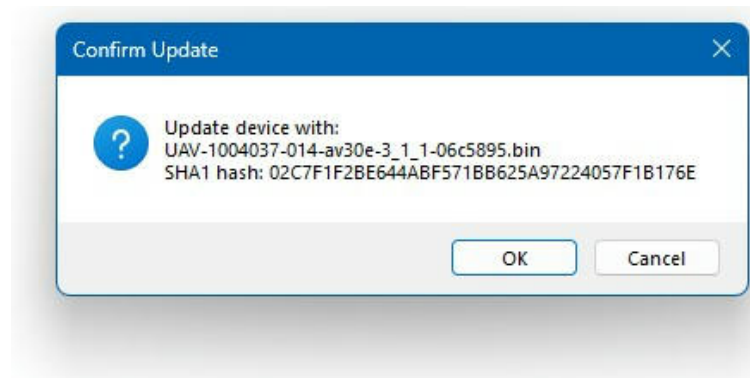
1. Connect the AV-30-E to the Windows PC through the DB-9 connection previously installed in Section Section 7.1.

2. Apply power to the AV-30-E. Do not interrupt power during the update process.
3. Launch the previously downloaded AV Updater application.
4. On the AV Updater tool, select the appropriate COM Port from the dropdown menu and click "Connect".

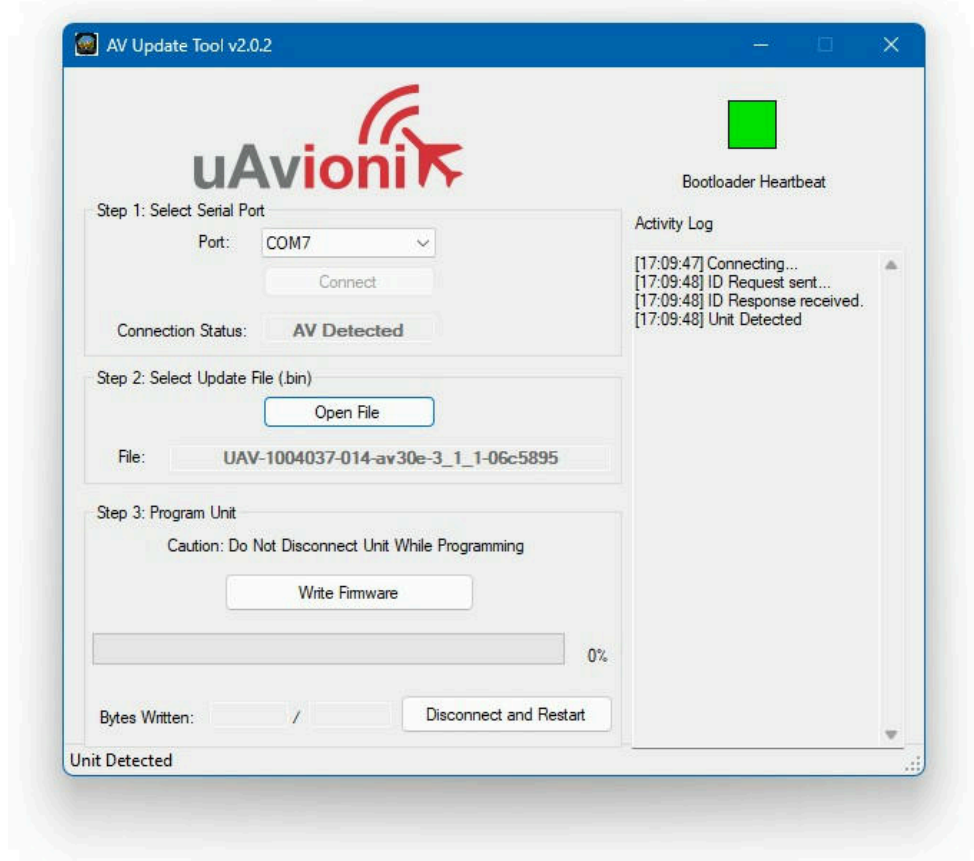


5. Proper connection has been made when the message "Unit Detected" has appeared on the bottom left corner of the AV Updater Tool. The screen on the AV-30-E will go black for the remainder of this procedure.
6. If "Unit Detected" does not appear, contact uAvionix Support for additional guidance.
7. Once proper connection has been made, select the firmware file to upload to the AV-30-E by clicking "Open File" and selecting the

previously downloaded firmware file as identified in Table 3. A confirmation dialog will appear with the filename and a calculated SHA1 hash. To confirm integrity of the file, compare the displayed SHA1 hash to that in Table 3. Note that the hash is not case sensitive.



8. When confirmed, press OK and the main dialog will re-appear.



9. Select "Write Firmware" and then "OK" to begin the upload.

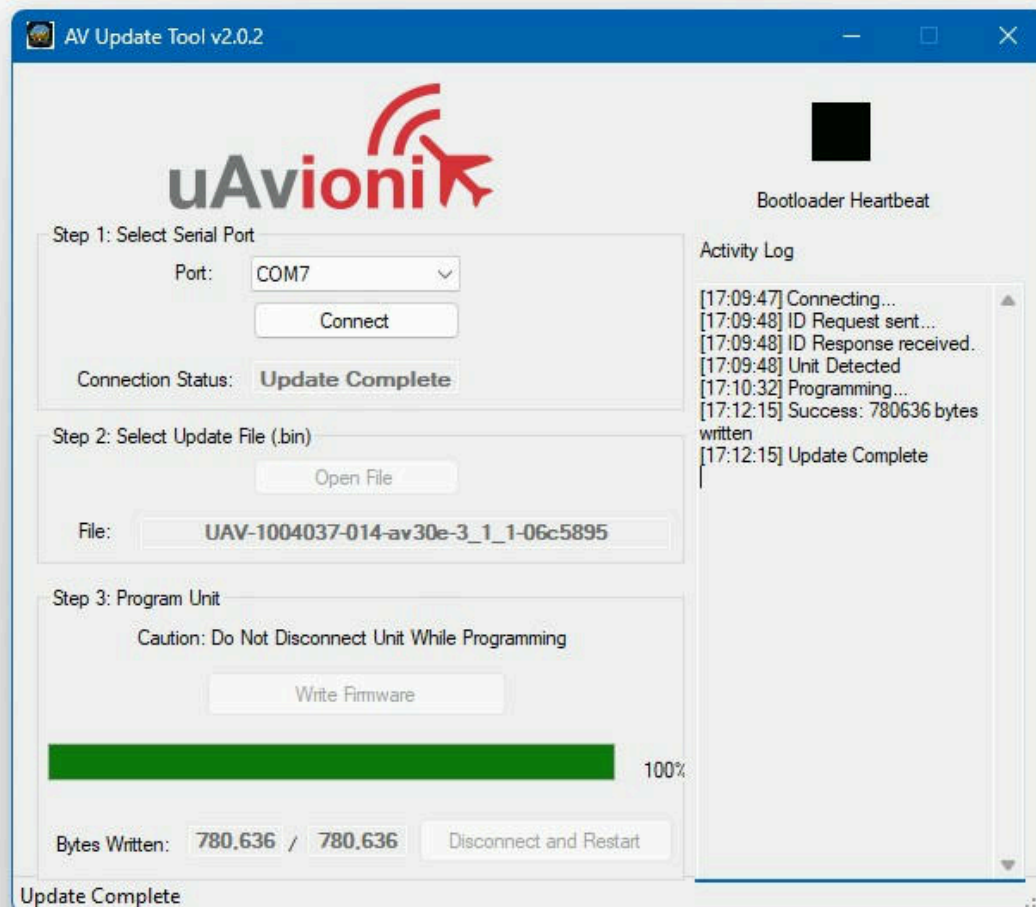


DO NOT POWER OFF THE AV-30-E OR CLOSE THE UPDATER TOOL UNTIL THE UPDATE IS COMPLETE



THE SCREEN OF THE AV-30-E WILL GO BLACK DURING THE UPDATE. THIS BEHAVIOR IS NORMAL AND THE STARTUP SCREEN WILL APPEAR AFTER REBOOTING.

10. When the AV Update Tool displays "100%" and the lower status reads "Update Complete" the process is complete.



11. The unit will automatically restart. Upon restart of the unit, verify the startup screen indicates the updated software version.
12. If the unit was removed to perform the update it can now be reinstalled as per the installation manual.
13. Any new wiring added for the update process should be properly secured.
14. Following the completion of the update, follow Section 9 to perform required post-installation procedures.

8. Update via AV-Link

The AV-Link is a wireless bridge that extends the functionality of the AV-30-E. One of the functions AV-Link provides is the ability to update software on the AV-30-E through a web interface.

AV-Link software version 0.3.5 is required for this update. Before proceeding, verify that the AV-Link is running software version 0.3.5 or later. If the AV-Link is running version 0.3.4 or earlier, do not proceed. Update the AV-Link to version 0.3.5 according to the instruction links in Section 5.2.

8.1. Preparation for Update via AV-Link

If AV-Link is already installed in the aircraft, proceed to Section 8.2.

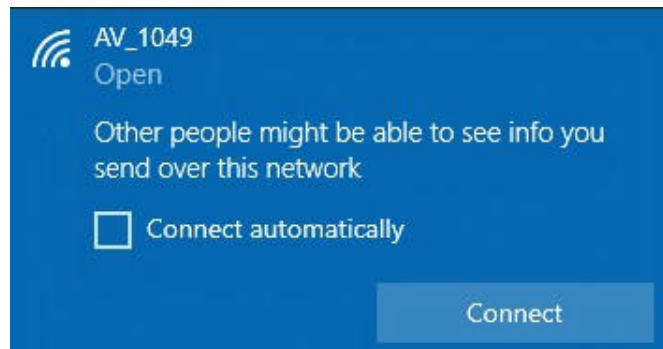
If AV-Link is available but not installed, follow the installation procedure as described in *AV-30-E Installation Manual UAV-1004234-001 Rev. L* (or newer), Section 11.1.

8.2. Procedure for Update via AV-Link

After the AV-Link and AV-30-E have been installed, AV-30-E firmware updates can be performed using the AV-Link web interface. The web interface is accessible through any PC or mobile device. Ensure the PC or device has the AV-30-E software listed in Table 3 are downloaded and available.

The following instructions show the update procedure when using a Windows PC. Apply the same procedures, modified as necessary, when using an alternate installation PC or device.

1. Apply power to the AV-30-E and AV-Link. Do not interrupt power during the update process.
2. If using an Apple iPhone or iPad, you must put the device into Airplane Mode, then turn on Wi-Fi only.
3. Connect a PC to the AV-Link Wi-Fi Network. This will be displayed as AV_#### where #### will be 4 random characters ranging from 0-8 and A-F.

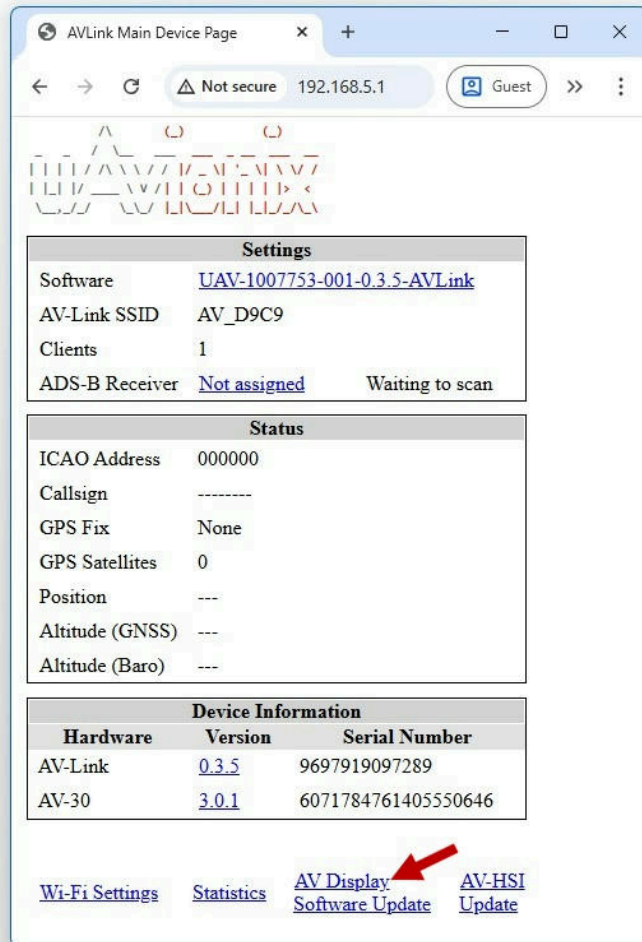


4. In a Web Browser (such as Google Chrome) navigate to the AV-Link home page via the following URL:

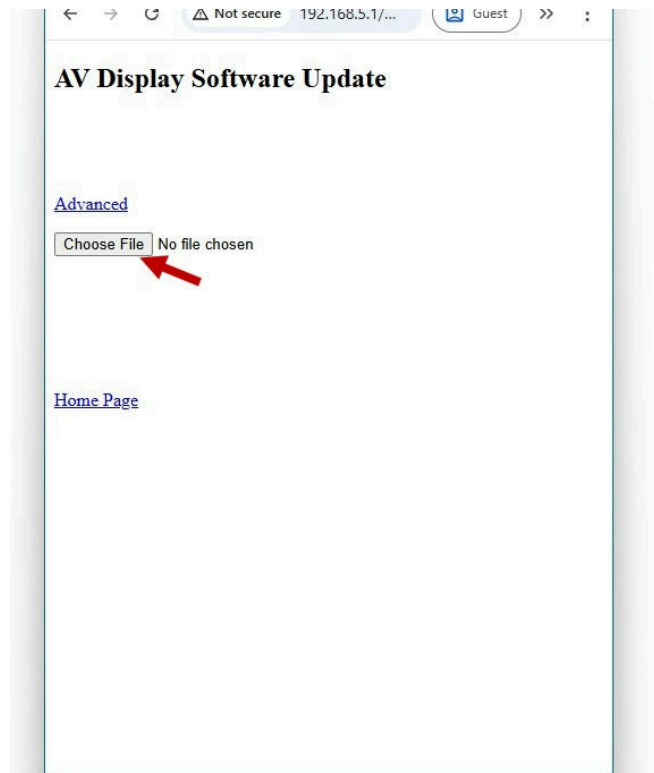
192.168.5.1

A page similar to shown on the right should appear.

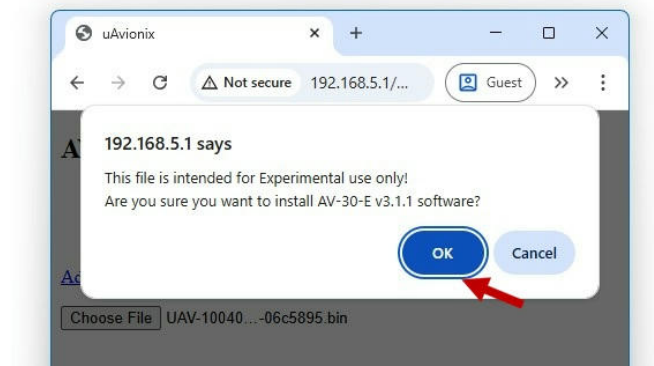
5. At the bottom of the page select *AV Display Software Update*



6. On the AV Display Software Update page select *Choose File* then select the previously downloaded AV-30-E firmware.



7. Once the file has been selected you will be prompted with "Are you sure you want to install AV-30-E v3.1.1 software?" Press *OK* to proceed.



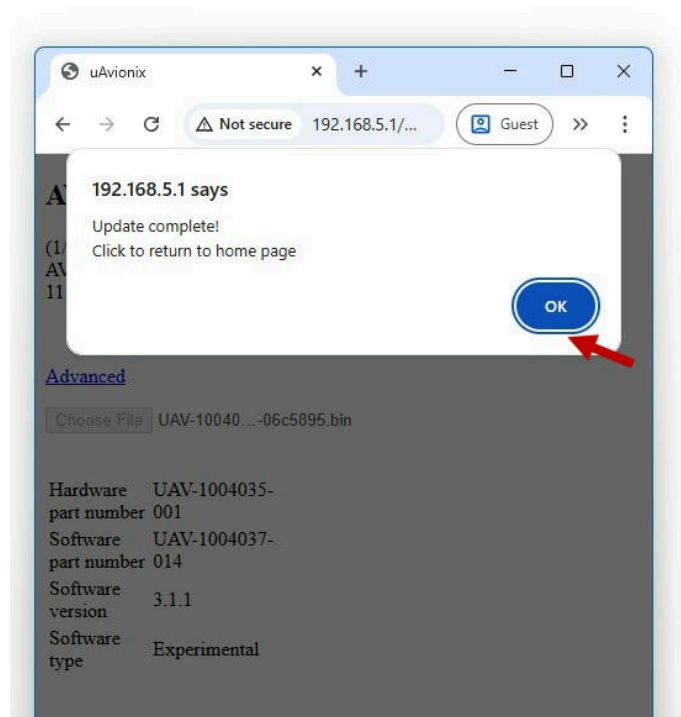
The screen on the AV-30-E will go black during the update.

Apple iPhones and iPads will show 100% on the status bar very quickly but the update is not complete until you see the "Update complete" message.

DO NOT power off the unit or close the web browser until the update is complete.

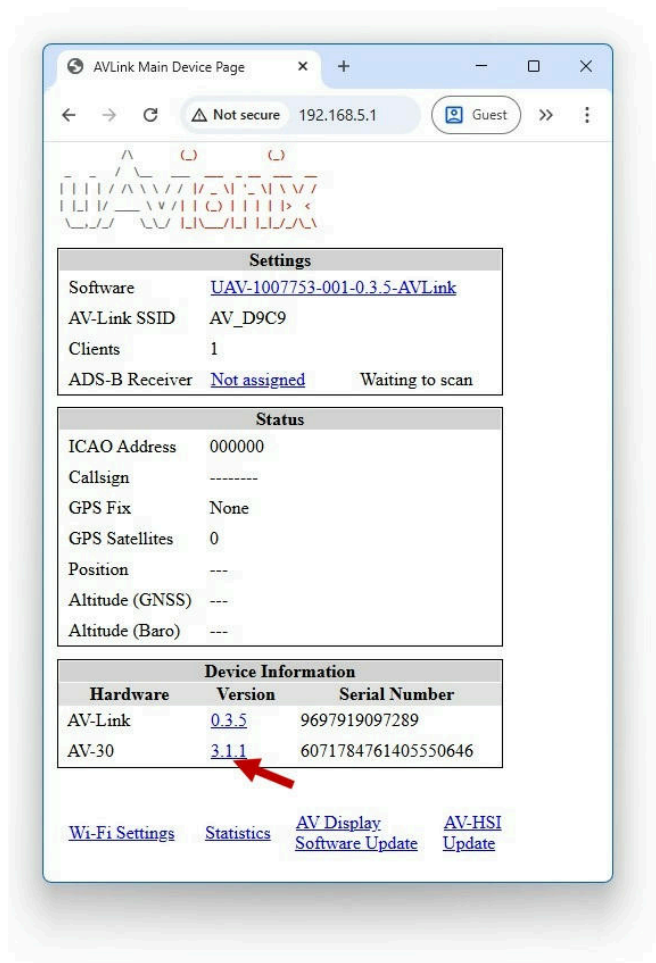
The AV-30-E will restart when complete and the AV-Link home page will be displayed in the web browser.

You should expect the update to take less than 5 minutes. If it takes longer, please call uAvionix technical support for assistance.



8. Power cycle the AV-30-E and AV-Link. Again, navigate to 192.168.5.1.

Verify that the new version (3.1.1) is now displayed.



9. Post-Accomplishment Verification and Actions

9.1. Verify Update Versions

On restart, verify that the startup screen displays the correct version number. Access the Installation Menu to complete post-accomplishment verification steps.

1. To enable access to the Installation Menu, ensure the unit is completely turned off. Push and hold the main control knob in while power is applied.



2. Keep the knob pushed until the startup screen displays, and then release.
3. Ensure the unit is in AI or DG mode; select the mode by pushing and holding the center knob until the mode display changes.
4. In AI or DG mode, push and release the left button under the MENU until the "INSTALL / ROT TO SEL" appears.



5. Rotate the knob until you see "SW PART NUM". Confirm part number matches that shown in Table 3.
6. Rotate the knob until you see "SW VERSION". Confirm version matches that shown in Table 3.
7. Rotate the knob until you see "SW CHECKSUM". Confirm checksum matches that shown in Table 3. Note that the checksum is not case sensitive.

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

10. System Checkout

Perform the System Checkout procedure as described in *AV-30-E Installation Manual UAV-1004234-001 Rev. L* (or latest available) Section 12.2 prior to returning to service.

Version 2.4.1 and greater uses pitot-static data to assist the attitude algorithm and the Angle of Attack algorithm. If updating from a version prior to 2.4.1, run the **Pitot Zero** procedure followed by the **Indicated Airspeed Trim** as detailed in the Installation Manual.

Version 3.0.1 and greater use updated gyro algorithms that require the **Gyro Calibration** procedure found in the installation manual to be performed.

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-1005757-011 Rev A to install software v3.1.1 for AV-30-E UAV-1004035-(), 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-30-E Information	
Serial Number:	
Hardware Part Number:	UAV-1004035-_____
Customer Information	
Name:	
Email:	
Telephone:	