AirLens Firmware Upgrade Guide

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Types of Firmware

The AirLens has two types of firmware, the Main Firmware and the Streamer Firmware.

- Main Firmware – This firmware initializes the unit and controls the button, leds and update process.
- Streamer Firmware – This firmware connects to the internet and your PC to provide streaming services.

What You Need to Start

- o AirLens connected to a wireless or Etherent network
  -or-
- o USB thumb drive
  - o If using a thumb drive, you will need the *airlens_vX.Y.Z.zip* file from the PS Audio website for the version you want to upgrade to

Ensure your AirLens is plugged in during the upgrade.

⚠️ There are two methods to update the Main Firmware. The first method allows you to update over the air (Ethernet or WiFi). The second method, allows you put a specific version on the thumb drive and update to that version.

The Streamer Firmware can only be updated over the air (Ethernet or WiFi).

Checking firmware versions

Before and after updating firmware, you may want to verify the firmware you already have loaded. Follow these steps to check the firmware version of your AirLens.

- Turn DIP Switch 7 to the OFF position.
- Press and release the WPS button
- The status light will blink a code for the firmware version:
    - green - The number of green blinks is the AirLens firmware major version
    - orange - The number of orange blinks is the AirLens firmware minor version
    - red   - The number of red blinks is the streamer module firmware version
- Turn DIP Switch 7 back to the ON position.

Update Main FW with USB thumb drive – Method 1

To update the user firmware, you will need a thumb drive to insert into the back of the unit.

Prepare the thumb drive
- On your PC or Mac, unzip contents of the _airlens_vX.Y.Z.zip_ file and copy the _image.bin_ file to your USB thumb drive. The X.Y.Z is the version of the software, for example, _airlens_v2.6.2.bin_
- Remove the thumb drive from your computer.
- Place the thumb drive in the back of the AirLens, in the slot marked FW.
- Using the switch in the back of the unit, power off the unit and then power it back on.
- The Logo LED will turn on solid blue for a few seconds.
- The Logo LED will begin to blink rapidly. It should blink around 25 to 30 times.
- The update will complete and the unit will immediately initialize.

In some cases, the unit may not be responsive. If this happens, remove the USB drive from the back of the unit and power cycle the unit again as in step 3.

Note that if you update the firmware and leave the USB thumb drive in the unit, the firmware will *not* be updated again if you were to power off from the back panel. The unit will detect the firmware is the same and skip the update. However, PS Audio recommends that the USB thumb drive be removed during normal operation of the device.

Update Main Firmware Over the Air (Ethernet or WiFi) – Method 2

Before attempting to update the AirLens firmware, be sure the following conditions are met:

- The unit should be connected to the internet with a reliable connection. A bad or slow connection may cause the update to take a very long time. No internet connection will cause the update to fail immediately.
- WiFi can be used for updates, but PS Audio recommends to use an Ethernet connection for firmware updates whenever possible. Once the update is complete, the user may return to using WiFi for normal operation.
- Power *MUST* not be removed from the unit during the update process. Be sure you have a reliable power source.
- It is recommended to place the unit in a position where the backpanel is accessible and the user can see the status LED on the back panel to monitor udpate progress.

Once these conditions are met, do the following steps.

- Verify DIP Switch 7 is set to the ON position.
- Press and hold the WPS button for 15 seconds.
- The status light will blink orange while the unit checks for new firmware
  - UPDATE AVAILABLE: If new firmware is available, the status LED will blink green while it downloads the new firmware. In addition, the front Logo LED will also blink rapidly. The status led will blink a medium fast green while downloading the software, then a fast green while programming the flash. The unit may reboot several times.
    - ⚠ **If power is removed while it is blinking fast green, the flash programming will fail and the unit will need to be update via the USB FW port.**
  - NO UPDATE AVAILABLE: If the unit is already up to date, the unit will blink slow green for five seconds to indicate that no new firmware is available. The update process will end and the status LED will return to solid green. No update has occurred.
  - UPDATE ERROR: If the unit can't contact the update server, or the update fails for any reason, the status LED will blink red for five seconds. The update process will end and the status LED will return to solid green. No update has occurred.
- Once the process is complete, the status LED will start blinking orange.
- The unit will reboot, but it's recommended to power cycle the unit from the back to fully reset the unit.

Update Streamer Firmware

The streamer module firmware can only be update over the air (OTA).

⚠ **Once the streamer firmware update process starts, it must not be interrupted. Loss of the power to the unit will cause the update to fail and the unit will be unresponsive. If this happens, the unit must be returned to PS Audio to be repaired.**

Before attempting to update the streamer firmware, be sure the following conditions are met:

- The unit should be connected to the internet with a reliable connection. A bad or slow connection may cause the update to take a very long time. No internet connection will cause the update to fail immediately.
- WiFi can be used for updates, but PS Audio recommends to use an Ethernet connection for streamer module firmware updates whenever possible. Once the update is complete, the user may return to using WiFi for normal operation.
- Power *MUST* not be removed from the unit during the update process. Be sure you have a reliable power source.
- It is recommended to place the unit in a position where the backpanel is accessible and the user can see the status LED on the back panel to monitor udpate progress.

Once these conditions are met, do the following steps.

- Turn DIP Switch 7 to the OFF position.
- Press and hold the WPS button for 15 seconds.
- The status light will blink orange while the unit checks for new firmware
    - UPDATE AVAILABLE: If new firmware is available, the status LED will blink green while it downloads the new firmware. In addition, the front Logo LED will also blink rapidly. The status led will blink a medium fast green while downloading the software, then a fast green while programming the flash.

      ❗ **If power is removed while it is blinking fast green, the flash programming will fail and the unit will need to be returned to PS Audio for repair.**
    - NO UPDATE AVAILABLE: If the unit is already up to date, the unit will blink slow green for five seconds to indicate that no new firmware is available. The update process will end and the status LED will return to solid green. No update has occurred.
    - UPDATE ERROR: If the unit can't contact the update server, or the update fails for any reason, the status LED will blink red for five seconds. The update process will end and the status LED will return to solid green. No update has occurred.
- Once the process is complete, the status LED will start blinking orange.
- Turn DIP Switch 7 back to the ON position.
- The unit must be power cycled from the back for the streamer to reset and the new streamer firmware to properly load.

Troubleshooting

➢ In some cases, the unit may freeze or be inactive for a period of time. If this happens, remove the USB drive from the back of the unit and power cycle the unit, then replace the USB drive if necessary.

➢ It is okay to leave the thumb drive in the unit. The unit will detect the firmware is the same and skip the update. However, PS Audio recommends that the USB thumb drive be removed during normal operation of the device.

➢ For Mac users, if the unit doesn't recognize your thumb drive, be sure to format it for FAT32 and not EXFAT.

➢ If nothing appears in the FW Update menu, try powering the unit off in the back, inserting the USB stick, then powering it back on and returning to the menu.