

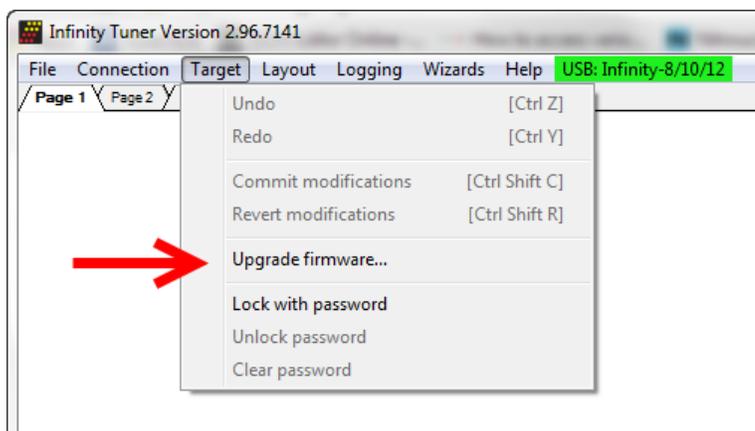
### Hardware

**BEFORE beginning the update process, be sure to have a saved copy of your tuned session file (if needed). If a power failure occurs during the update process, this is the only way to ensure that the calibration data is not lost. A power failure at certain critical points in this process could render the ECU inoperative, requiring return and repair at AEM. Ensure the PC has a full battery charge and/or is connected to AC power. This process can take UP TO 4 MINUTES to complete, especially if the peripheral microcontroller is updated at the same time.**

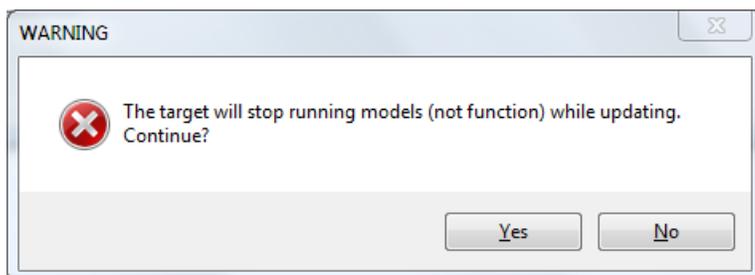
**If the firmware version on the ECU is older than the version supported by your current version of Infinity Tuner, a firmware upgrade will be required when you connect. Otherwise, follow the procedure outlined below.**

**Note: The firmware update utility is periodically revised and may not match the descriptions below. In the event of a conflict, please follow the instructions provided in the dialog windows themselves or supplemental instructions provided by AEM.**

- 1) Connect to Infinity Tuner.
  - a. Plug the USB cable from the ECU into your computer USB port and key ignition ON.
  - b. Open Infinity Tuner.
- 2) Click the ECU drop-down list and select “Upgrade firmware...”



- 3) The ECU should not be running an engine at this time. Select “Yes” when the warning message appears.



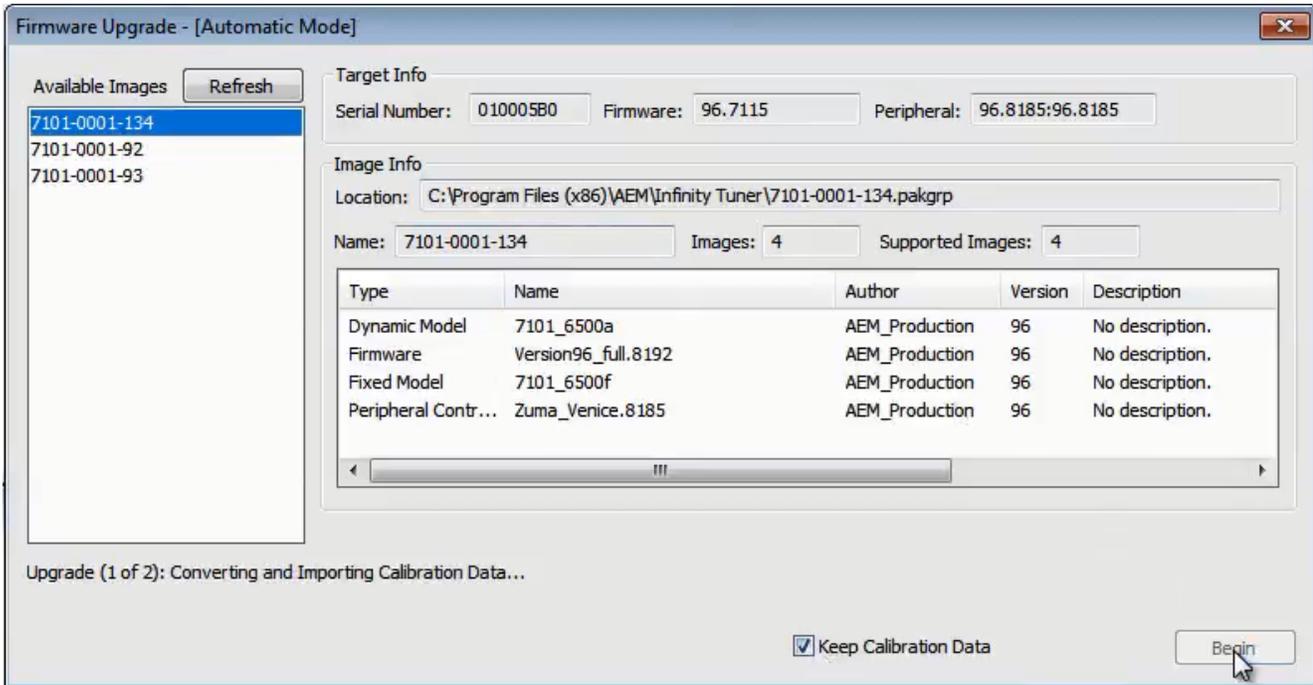
- Begin the Firmware Upgrade process.
- a. Select the desired Configuration “Image” on the left.

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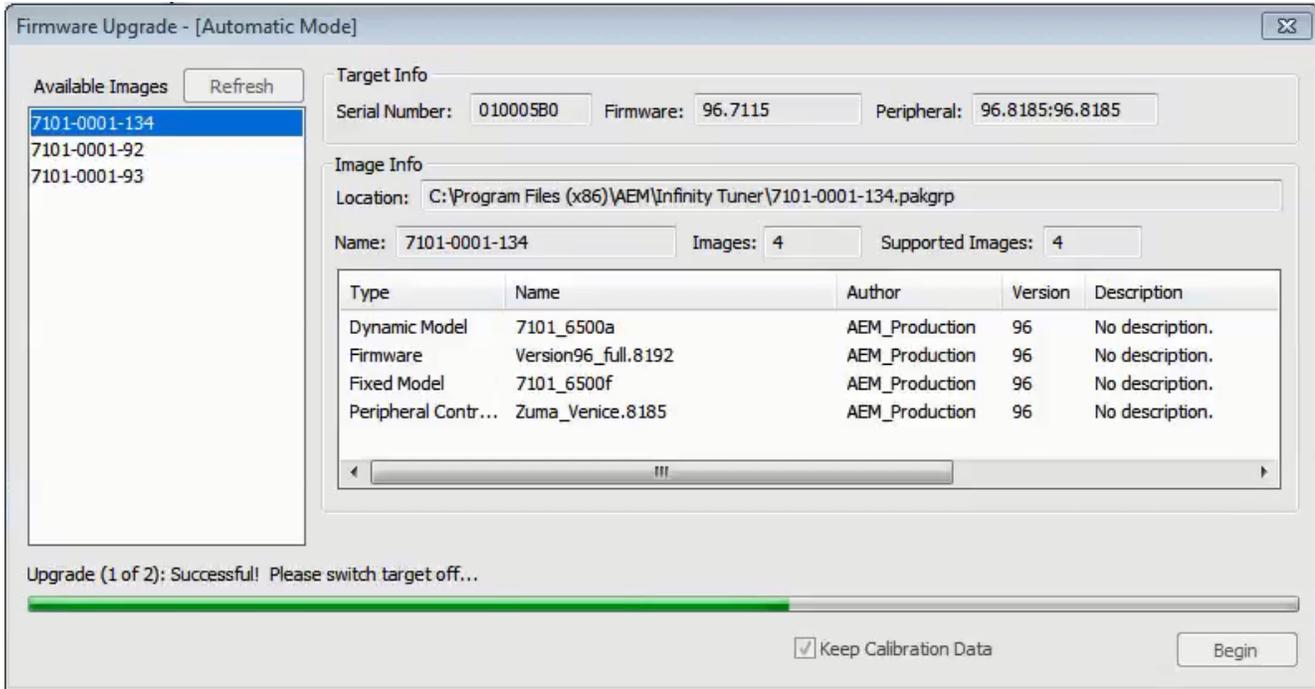
- i. If no images are present check C:\Program Files (x86)\AEM\Infinity Tuner\ and verify .pakgrp file is there. If not, visit <http://www.aeminfinity.com>, log in, and download appropriate file.
- b. Ensure "Keep Calibration Data" check-box is marked, to save current calibration.
- c. Click the "Begin" button to start the upgrade process.



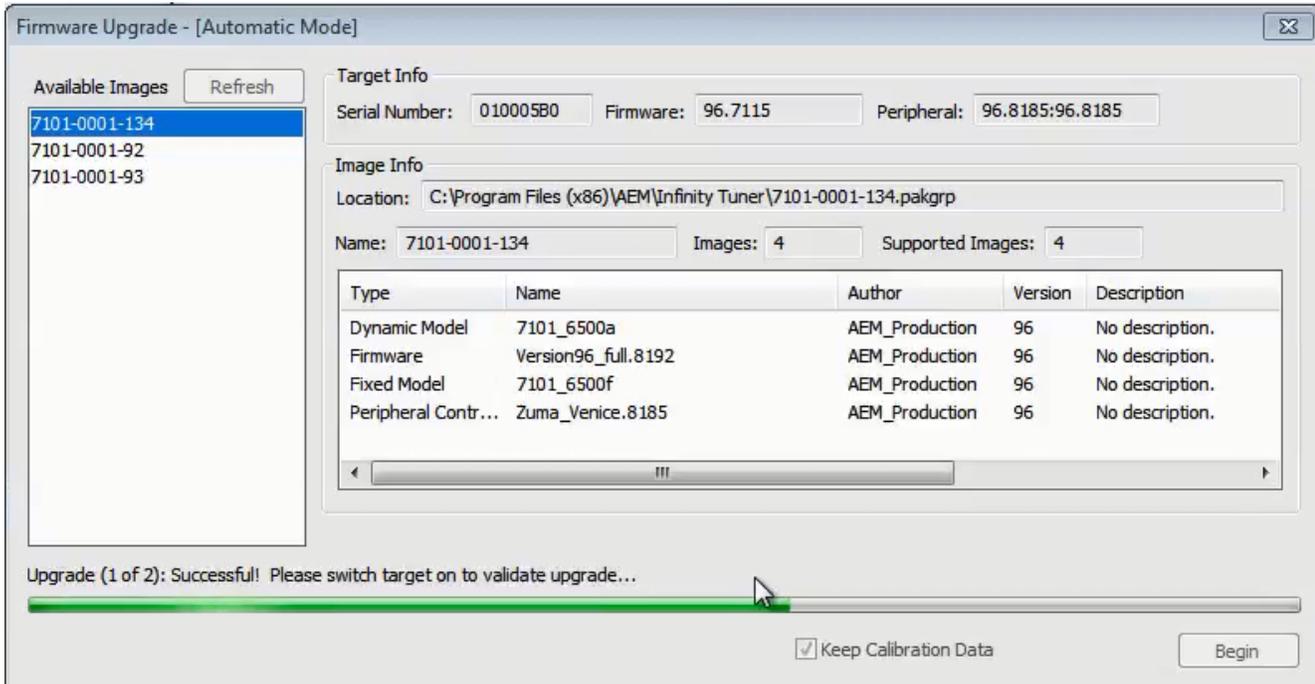
- 4) Follow the message at the bottom, and turn the ignition switch OFF when instructed to do so.

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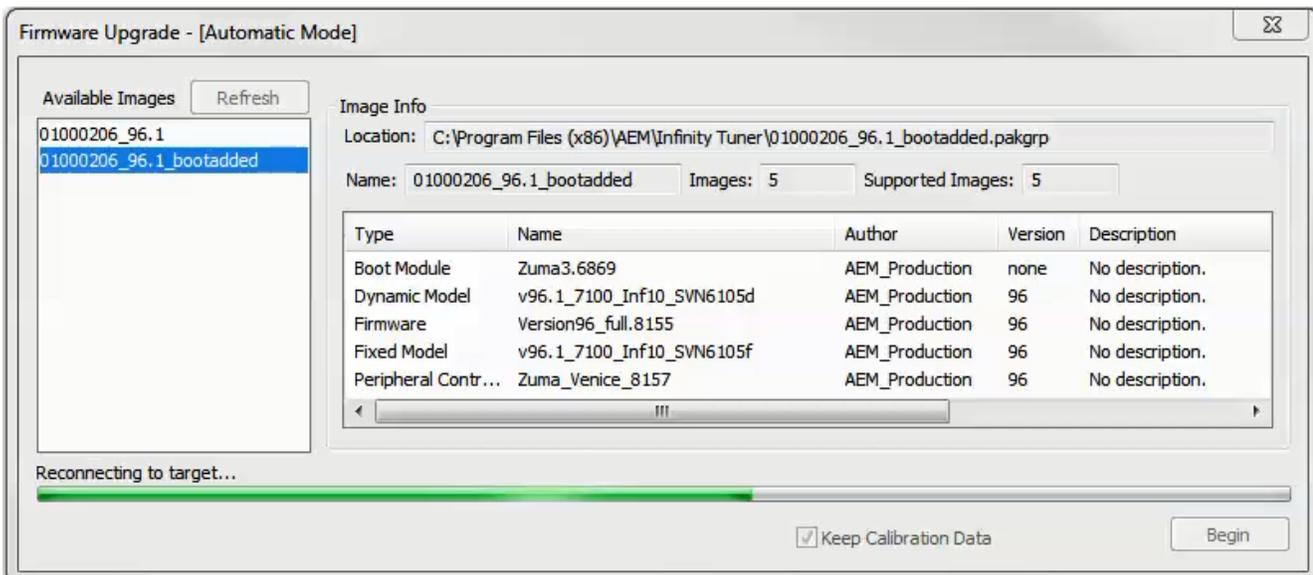
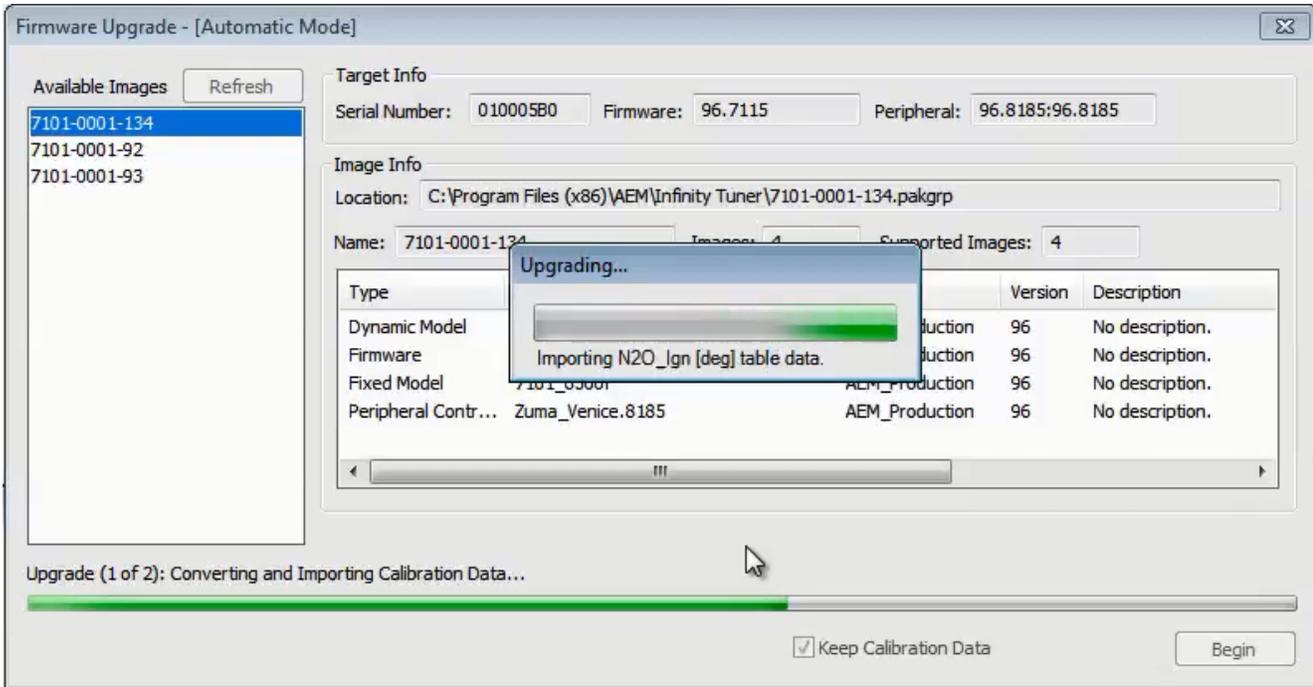
5) Follow the message at the bottom, and turn the ignition switch back ON when instructed to do so.



If Keep Calibration Data is checked, the system will upgrade and load all usable calibration data as shown below.

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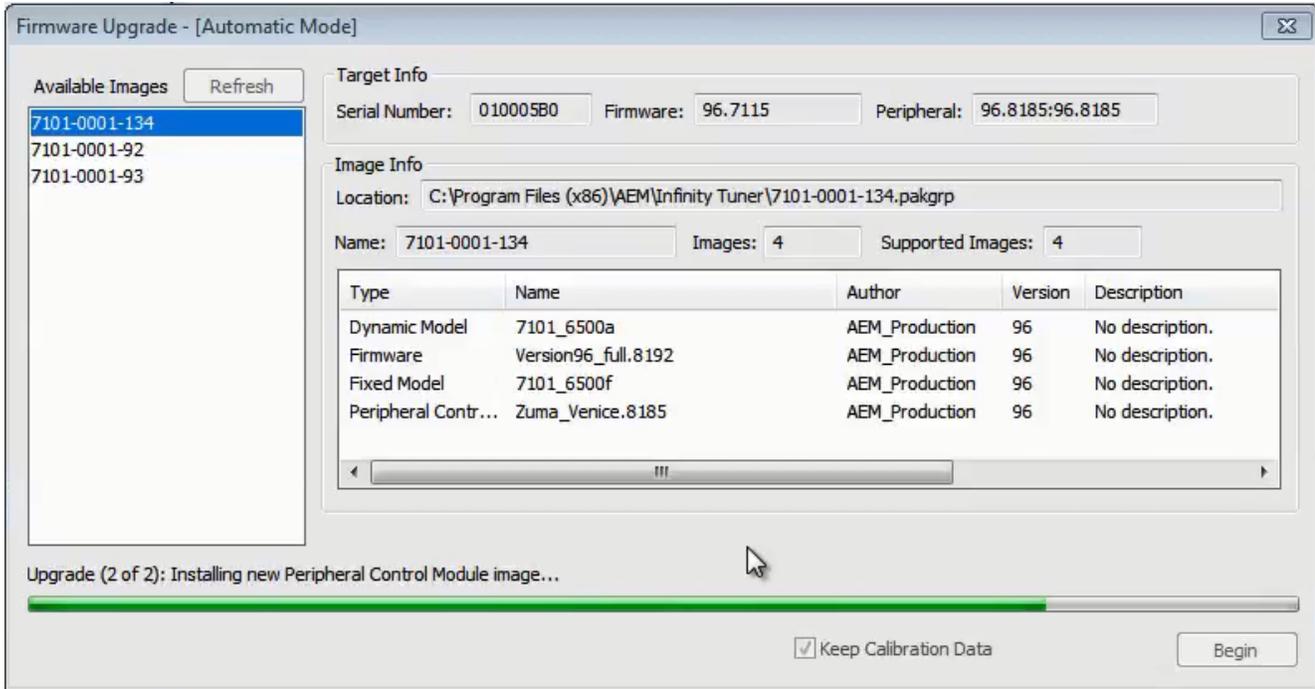
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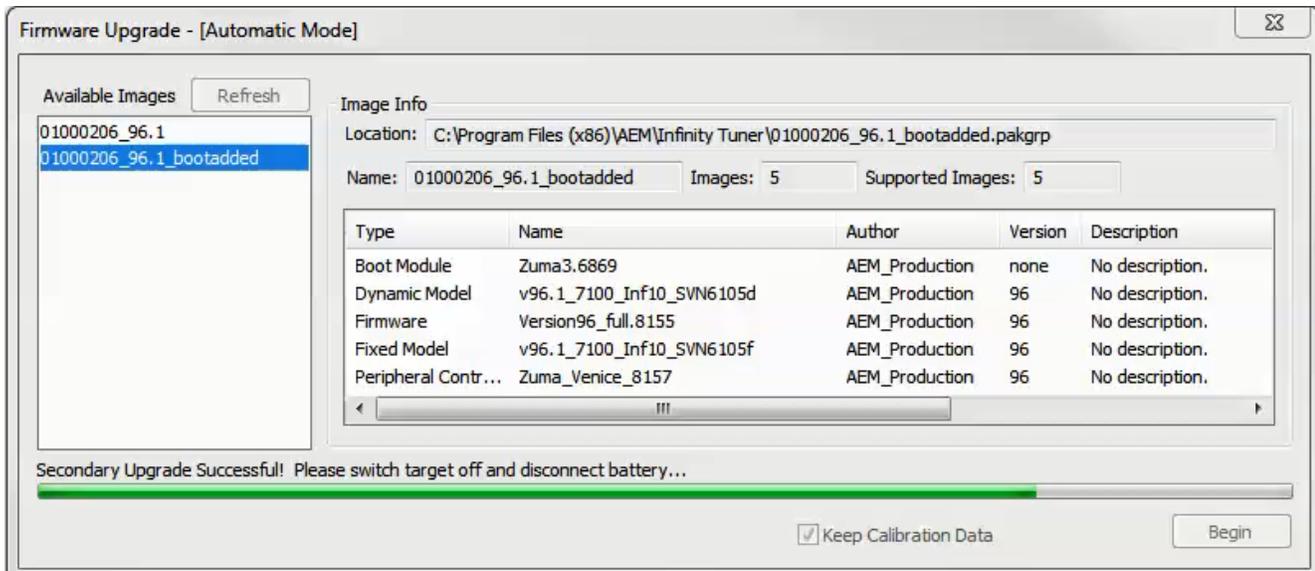
**Note:** at certain points in the process, the Infinity ECU will re-boot and attempt to connect with the PC. The time it takes to connect might vary for different PCs. If the process appears to hang at this stage, simply unplug and replug the USB comms connector. Often this will force the PC to re-enumerate the USB port and connect.

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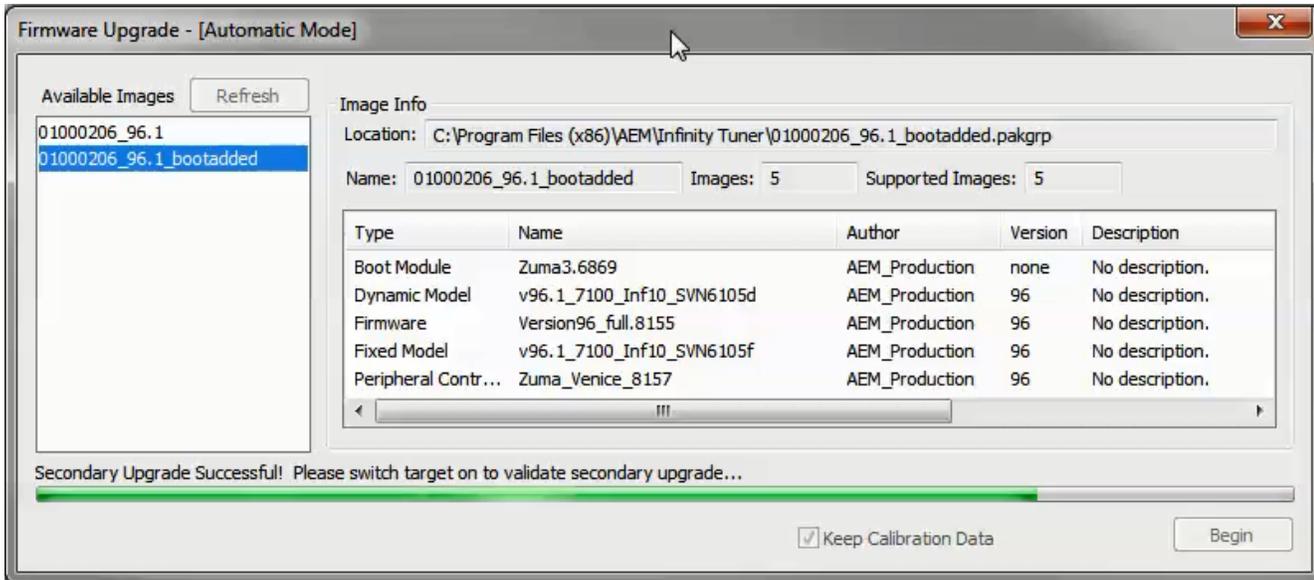
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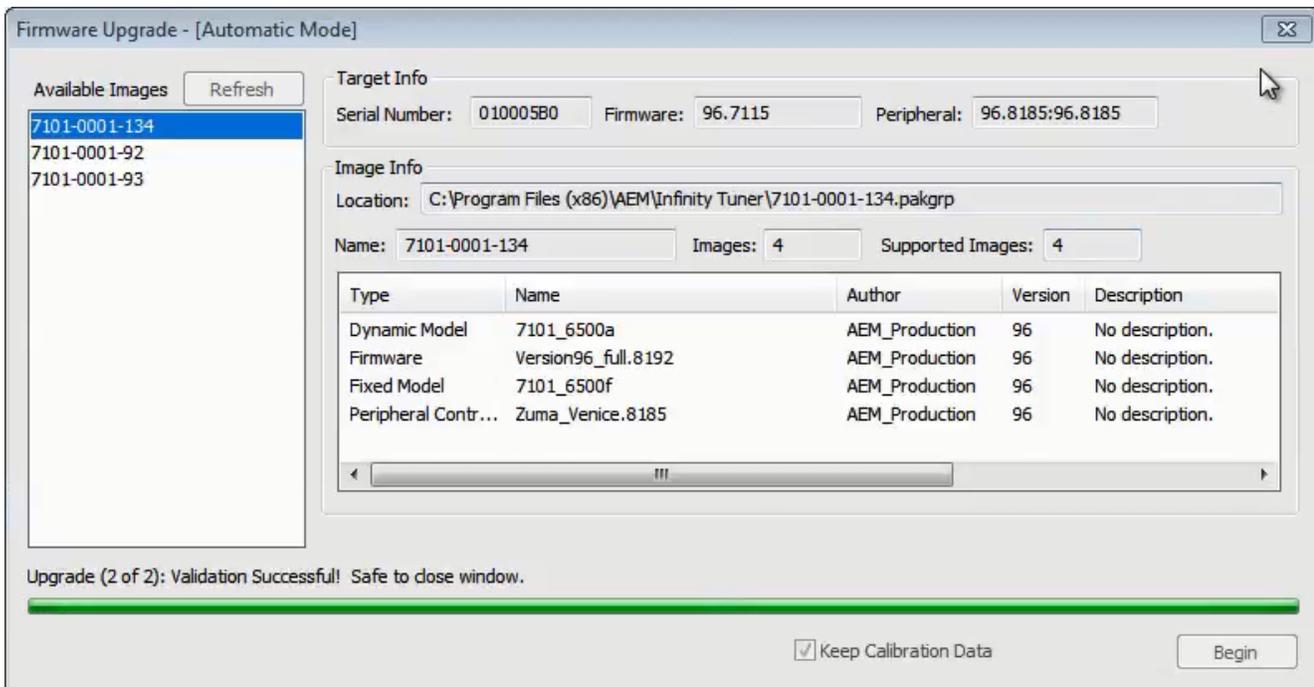
- When the "Peripheral Control Module image" is updated, a full power reset may be required meaning either the battery needs to be disconnected and re-connected or all harness connectors need to be removed from the ECU for at least 5 seconds, then re-connected.



- When the message below is displayed, turn the ignition switch back on.



- When the message at the bottom indicates that it's safe to close the window, click "X" button on the top right of the window.



Once the update is complete, it's good practice to cycle the ignition switch to reset the hardware. Once that is done, you can connect and begin monitoring data and/or tuning again. **For applications that use a stepper motor idle valve, it's important that a full power reset be done prior to starting the engine. Turn the key off and wait at least 20 seconds before starting. This will allow the stepper valve to park and reset.**

**A firmware update will erase the USB log channel list stored in the ECU memory. This channel list will need to be reset before USB logging will function correctly. Go to Logging>USB Logging – Channel Setup.** This dialog allows the user to select channels for USB logging. Manually select channels by left clicking

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on the check box or alternately by using the arrow keys to scroll through the list and the space bar key to select. Logging lists can be saved for later use by using the Save button. The Load button will load previously saved lists of channels. The Append button will append a different list of channels onto the existing list of selected channels. Note that the list of channels for logging is saved in ECU memory. Channels can't be selected offline. They can only be selected when connected to an ECU.