

FAAST™ Firmware Update Procedure



Please follow the steps below to upload the latest firmware version to your device.

1. Review the Firmware Release notes and verify that the release you wish to apply is relevant for your device
2. Verify your device's firmware version
 - a. Connect to the device using PipelQ
 - b. Right-click on the device in the tree view and select 'Device Information'
 - c. Click on the 'Diagnostics' tab
 - d. Look at the 'Main Board Revision' value under the *Firmware Revision* heading
3. Download the new firmware file from www.systemsensor.com/faast.
 - a. For Users of PipelQ 1.x or earlier: Download the firmware with the extension .mot using the PipelQ 1.x or earlier link.
 - b. For Users of PipelQ 2.x or greater: Download the firmware upgrade file with the extension .zip using the PipelQ 2.X or greater link.
4. Connect your computer directly to the FAAST device. Using PipelQ, connect to the FAAST unit in Administrator Mode. Note: Please power the computer from an AC power source to prevent the computer from entering a low power or a hibernation state during the firmware upgrade.
5. Right click on the device in the tree view and select 'Upgrade Firmware'
6. In the dialog box that appears, click 'Browse' and select the firmware file from the appropriate folder
 - a. For Users of PipelQ 1.x or earlier: select the file S04-xxxx-xxx_FIRMWARE_UPGRADE_PipelQ-1X.mot
 - b. For Users of PipelQ 2.x or greater: select the file S04-xxxx-xxx_FIRMWARE_UPGRADE_PipelQ-2X.zip
7. Click 'OK'
8. The device will shut down and restart in firmware upgrade mode.

The front display LED(s) will begin to blink and the device will automatically begin to download the new firmware. The progress is shown in PipelQ, and the progress is shown on the particulate graph on the device's user interface. This process will take approximately 5 minutes with an Ethernet connection. You will be notified in PipelQ when the process is complete.
9. Once the firmware upgrade is complete, the device will reset and return to operating as normal.
10. It is recommended to test the system following the firmware upgrade to ensure that the device is operating as expected. If the operation fails, please see the troubleshooting section below.

Firmware Upgrade Troubleshooting

A device that fails a firmware upgrade it will indicate its state by illuminating the green power LED and flashing on or more flow bar indicators green or yellow. In the event this occurs, follow the steps below to retry the firmware upgrade.

1. Connect to the device
 - a. For Users of PipeIQ 1.x and earlier: when Connecting to the FAAST device in PipeIQ as an administrator, select the *Connect via Firmware Upgrade Mode* checkbox and enter the Administrator Password. Note: This option should only be checked for units that have failed a previous attempt at the firmware upgrade.
 - b. For Users of PipeIQ 2.x and greater: When Connecting to the FAAST device in PipeIQ as an administrator, select the *Bootloader Mode* checkbox and enter the Administrator Password. Note: This option should only be checked for units that have failed a previous attempt at the firmware upgrade.
2. Once connected in Firmware Upgrade Mode (or Bootloader Mode), right click on the FAAST device and select *Upgrade Firmware*.
3. The device should not restart, and the firmware upgrade process should begin almost immediately. Allow the firmware upgrade process to proceed. After the new firmware has been applied, the device will reset and then operate as normal.
 - a. In some version of PipeIQ 1.x, a message may pop up indicating that the firmware upgrade has failed, however if the device has restarted and is operating normally the operation was successful.
 - b. Verify the new firmware version with the steps listed under
 - c. **Review the Firmware Release** notes and verify that the release you wish to apply is relevant for your device
 - d. Verify your device's firmware version in the previous section.
 - e. Should the upgrade operation fail again, the device will display its state as described previously. In this case, repeat starting at Step 1 or call support services for assistance.