DSD MK2 Firmware Upgrade Guide

What You Need to Start

1. USB thumb drive
2. The `DirectStream_DAC_MK2_v3.2.1 with_Blue Sky.zip` file from the PS Audio website
3. Ensure your DSD MK2 is plugged in during the upgrade

Choose How to Update

1. Method 1 (Automatic): This method can be used with any firmware
2. Method 2 (Manual): This is a more powerful method that requires version 3.1.0 or newer be already installed. If you do not have 3.1.0 or newer, you cannot use this method

Method 1: Automatic Update

Prepare the USB drive

1. On your PC or Mac, **unzip** the downloaded filed (see **How to Unzip Files** below).
2. Copy all the files from the unzipped folder to your USB drive.

Update the Firmware

o Plug the USB stick into the FW slot on the back of the DSD MK2.
o Press the **Logo LED** button on the front panel to put the unit in standby.
o Using the switch in the back of the unit, power the unit off, then power it back on.
o The Logo will blink 25-30 times, then stop.
o The unit will boot and automatically update the FPGA, if the installed version is different.
o Wait for the update to finish and follow any on-screen instructions.
o The update is complete. It is safe to remove the USB drive.

Method 2: Manual Update- FW Update through the System Menu

This method can only be used if you are running 3.1.0 or above. It can be used to put multiple versions on a zip file and upgrade and downgrade between them. When initially updating to v3.1.0, Method 1 must be used.

Prepare the USB drive

1. On your PC or Mac, **unzip** the downloaded filed (see instructions below).
2. The files for manual update are located in the `Manual Update Files` sub-folder.
   - Copy whatever files from the `Manual Update Files` to the root directory of the USB drive.
3. You can have multiple versions of the main code on the USB drive. They must all start with `dsd_mk2_` and have the version specified as `vX.Y.Z` as in the example above.
4. You can also copy multiple versions of Mountaintop releases to the USB drive. These should be named `fpga1_<ver>_<name>.bin`. For example, Blue Sky is named `fpga1_239_BlueSky.bin`.
5. If you don't want to automatically update the main firmware or FPGA, then you must delete any `image.bin` or FPGA files that end with `_auto.bin` from the root directory of the USB drive.

Update the Firmware

- Plug the USB stick into the FW slot on the back of the DSD MK2.
- After the unit has fully booted, enter the menus (long press the menu button).
- Scroll right to the System sub-menu.
- Press the center nav button to enter the System sub-menu.
  - Scroll right to the FW Update sub-menu.
  - Press the center nav button to enter the FW Update sub-menu.
  - You will see the FPGA Load screen.
  - Scroll right to go to the FW Update screen.
- Scroll up/ down to select the version on the USB drive you want to update to.
- Press the center nav button to select the file.
- A status screen will appear with details of the FW Update process.
- The unit will reboot
- The Logo blink 25-30 times, then stop.

Update the FPGA to Blue Sky

- After the unit has fully booted, enter the menus (long press the menu button).
- Scroll right to the System sub-menu.
- Press the center nav button to enter the System sub-menu.
  - Scroll right to the FW Update sub-menu.
  - Press the center nav button to enter the FW Update sub-menu.
  - You will see the FPGA Load screen.

- Press the center nav button to select `fpga1_239_BlueSky.bin` file (or whichever FPGA release you choose).
- A status screen will appear with details of the FPGA load process.

Finish and Reboot
- Reboot the unit when prompted.
- Check the **Version** screen to confirm the new software.

How to Unzip Files

On a Mac
1. Find the zip file in your Downloads folder (or where you saved it).
2. Double-click the zip file to unzip it.
3. Open the new folder. If there's another zip file, double-click it to unzip as well.

On Windows
1. Locate the zip file in your Downloads folder (or where you saved it).
2. Right-click the zip file and choose "Extract All...".
3. Follow the prompts to unzip the file. If there's another zip file inside, right-click it and repeat.

Now you're ready to copy the files to your USB drive

Troubleshooting
- If the unit freezes on the PS Audio splash screen, remove the USB drive 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.
- Make sure the USB drive is formatted for FAT32. not EXFAT.
- If nothing appears in the FW Update menu, try power cycling the unit with the USB drive already inserted.