Grace Design / Massdrop m9XX

Instructions for Device Firmware Upgrade (DFU)

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1. DFU is only possible using the 3rd party USB 2 Driver installed on a Microsoft Windows PC. Download the driver here: http://www.gracedesign.com/support/support.htm

   Select: m9XX XMOS Stereo USB Audio Class2 Driver

   Download and install the driver as per its instructions

2. Connect the m9XX USB 2.0 port to the PCs USB 2.0 host port.

3. If your m9XX is set to USB 1 mode, you must change it to USB 2. First enter the m9XX setup menu by pressing and holding the rotary encoder for 2 seconds. Rotate the encoder until U1 is displayed. Press the encoder momentarily. The display will change to U2 and then the m9XX will reboot after a second.

4. Navigate with Windows File Explorer to the directory:

   C:\Program Files\XMOS\USBAudioStDriver_306A

   Double-click **xmosusbaudiost306A_dfuapp.exe** to launch the DFU application.

   Device information including the current firmware version should be displayed in the top portion of the DFU application window.

5. In the DFU application, click Browse to select the new firmware binary image: m9XX_0x*XXXX*_DFU.bin

6. Click Start to begin programming the m9XX with the new firmware. If the DFU operation is interrupted or fails for some reason, the m9XX will revert to its original factory firmware version.

7. Upon successful completion of the DFU operation, the m9XX will reboot and the new firmware version will be displayed in the DFU application window.

8. If the DFU operation is unsuccessful, close the DFU application and begin again at step 4.

Firmware Release Notes

Version: 1.00
Date: 11/11/2015

New Features / Changes:

1. Initial Release

Known Issues:

1. Left and Right channels are reversed for USB DSD playback.
2. Power supply synchronization is not halted during DFU operation. As a result, DFU operation may sometimes fail. User must repeat DFU operation until successful. Subsequent releases have fixed this problem.
3. USB 1.0 descriptors indicate 32 bit data only. This reveals a problem in Microsoft Windows. The Sound Properties window in Control Panel indicates 96kHz as the only available sampling frequency. All 4 USB 1.0 sampling frequencies work correctly with OSX.

Version: 1.01
Date: 1/14/2016

New Features / Changes:

1. Internal Release
2. This firmware revision was programmed as the factory image in most units that shipped in February, 2016. They were upgraded to version 1.02 before shipping. For these units, if a future DFU operation fails, the unit will revert to version 1.01.

Known Issues:

1. Changing between USB and TOSLINK more than once results in corrupt audio only for TOSLINK input. This is only corrected by power cycle or by changing sample rate from the USB interface.

Version: 1.02
Date: 1/28/2016

New Features / Changes:

1. Fixes issues 1 and 2 found in version 1.00 as well as issue 1 in version 1.01.

Known Issues:

1. Issue 3 of version 1.00 remains.

Version: 2.01
Date: 4/25/2017

New Features / Changes:

1. Added DSD256 support

Known Issues:

1. Issue 3 of version 1.00 remains but only for some versions of Windows. Note that all 4 sample rates are available to be selected via WASAPI.