



**R/C Models Like You've Never Heard Them Before!**

**How To Update the Firmware  
for the ShockWave2 Sound Module  
using the PIC32 Bootloader**

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## UPDATING THE FIRMWARE IN THE SHOCKWAVE2 MODULE

Firmware is the program code that runs in the processor chip on the **ShockWave2** module. The **ShockWave2** module features a **USB Bootloader** program that is a separate small program that runs in a protected area of the microcontroller's FLASH program memory. This program is entered when you power up the **ShockWave2 module while pressing BUTTON2 on the module.**

If you have not done so already, install the PIC32Bootloader program using the PIC32BootloaderSetup.exe installer program in the root folder of the micro-SD card. Copy the PIC32BootloaderSetup.exe from the micro-SD card to a location on your hard drive. Then double click on the PIC32BootloaderSetup.exe name of the copy to run the installer. Follow the prompts to complete the installation.

Then launch the Firmware Update Form by selecting the **PIC32HIDBootloader** link in the Windows Start Menu. It should be at : **Start Menu->Model Sounds Inc->PIC32Bootloader**

Once in the **PIC32HIDBootloader** Form, follow this procedure to re-program the firmware into the sound module.

1. If you haven't done so already, remove all power from the ShockWave2 sound module, then press and hold **BUTTON2** while inserting the mini-B USB plug into the sound module's USB connector.
2. Click the **"Connect"** button.
3. Click the **"Load Hex File"** button and select the hex file you wish to update the ShockWave2 module with.
4. Click the **"Update ShockWave2 Firmware"** button.

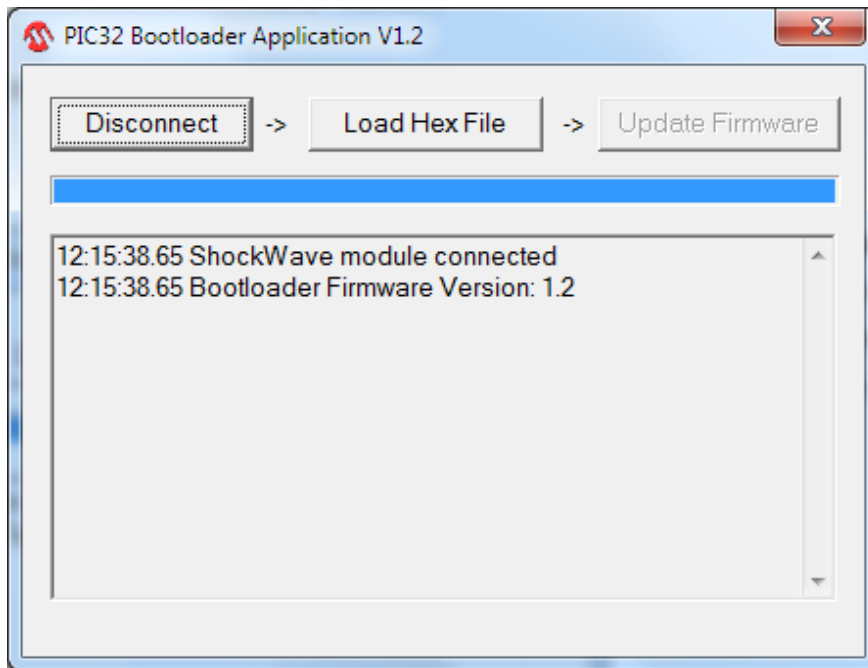
These steps are shown in the following screen shots on the next page ...

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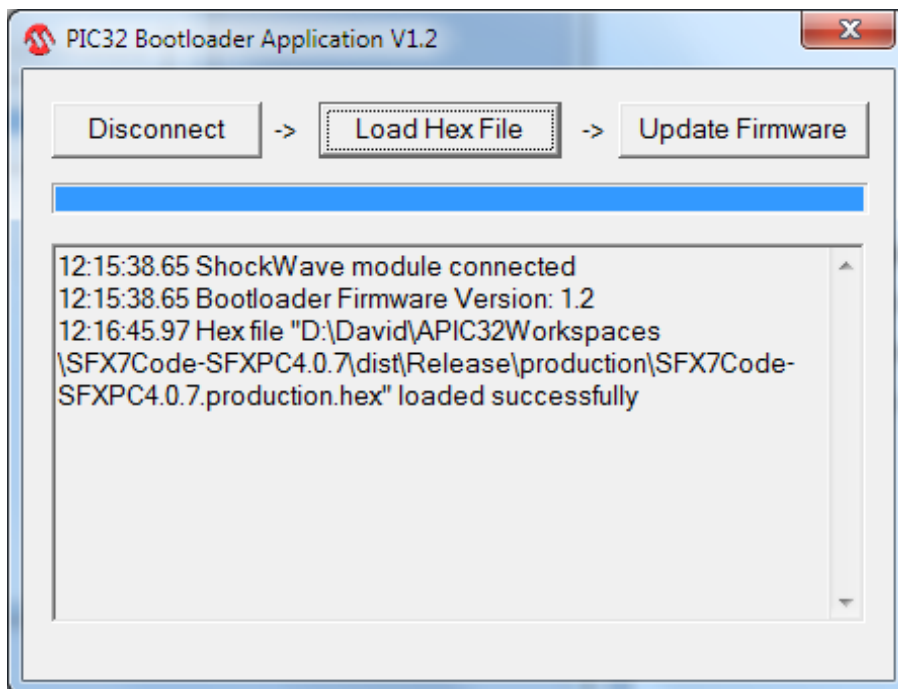


Figure 1: Firmware Update Form - Start Point



Use the **“Connect”** button to establish a USB connection with the ShockWave2 module in firmware update mode.

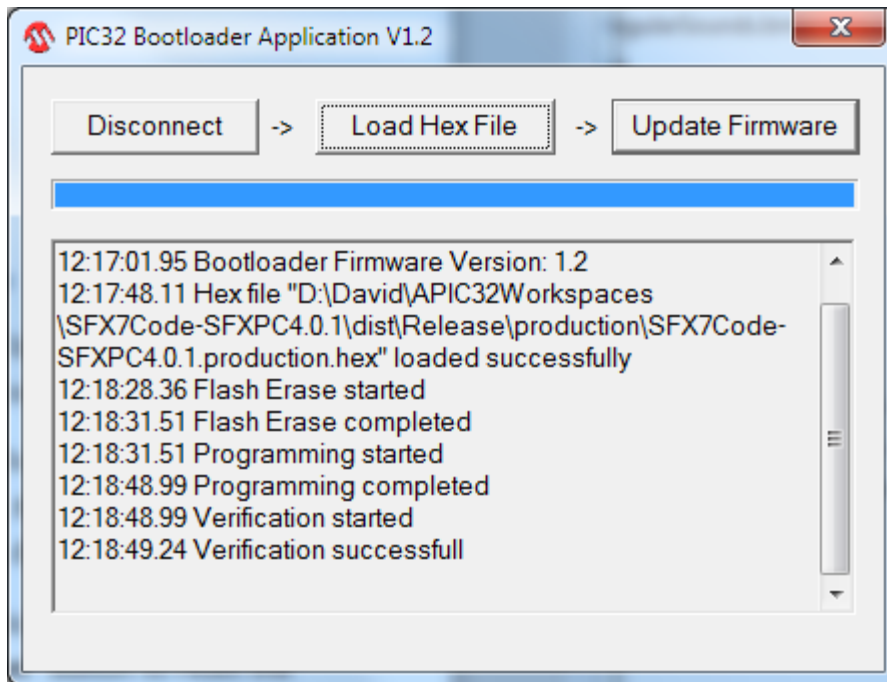
Figure 2: Firmware Update Form – Load Hex File



Click the **“Load Hex File”** button and select the firmware hex file you wish to update the ShockWave2 module with.



Figure 3: Firmware Update Form – Update ShockWave2 Firmware



Click the “Update Firmware” button to complete the process.

After the Firmware Update is Complete, the ShockWave2 module remains in Bootloader mode.

Power it down and power up again to resume normal playback operation.

If you do not see these messages please contact our Technical Support at :  
[contactus@modelsoundsinc.com](mailto:contactus@modelsoundsinc.com).