

The Panorama 2 software is segregated into 3 main parts – the microcontroller, the DSP and the HDMI. The following instructions detail how to update the microcontroller and HDMI software in the device.

***The microcontroller update will require:***

- You have downloaded and saved the latest firmware update files from Bowers & Wilkins to your computer.
- A Windows-compatible PC with a serial port, or using a USB-to-Serial adapter.
- A serial cable (wired for straight-through operation).
- The Panorama 2 RS232 Interface module.

***The HDMI update will require:***

- A CD, DVD, or Blu-Ray player connected via the optical input to the Panorama 2.
- An upgrade CDR that has either been supplied by Bowers & Wilkins, or created by burning a blank CDR with the supplied audio upgrade file from Bowers & Wilkins.
- The infrared remote control for the Panorama 2.

**Note:** The Panorama 2 RS232 Interface Module is an optional accessory that is not shipped with the product. If you do not have this item, please contact your local dealer or Bowers & Wilkins distributor for information on obtaining one.

**Note:** If burning a CDR for the HDMI upgrade, please verify any volume-normalizing settings are disabled on the CD writing program.

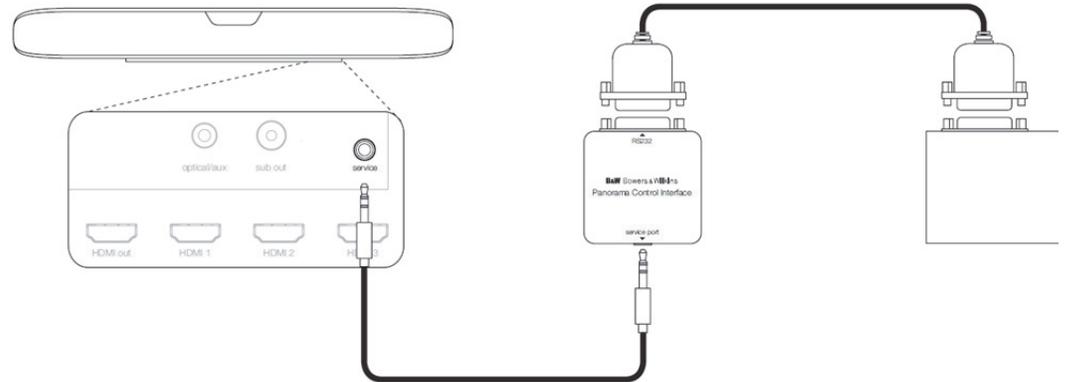
For Windows Media Player 12, click “More burn options”, and uncheck “Apply volume leveling across tracks” if it is checked.

For iTunes, confirm “Sound Check” is not enabled when burning the disc.

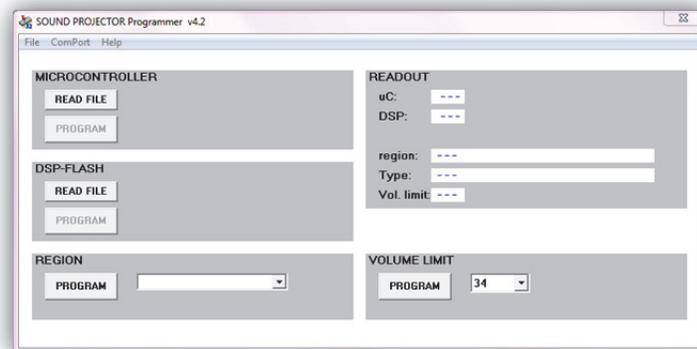
For Roxio Creator, in the “Burn Audio CD” section click “Options”, then “Audio EQ” and uncheck “Normalize tracks to a consistent level” and “Reduce background noise using pre-emphasis” if they are checked.

## Updating the Microcontroller Software

1. Connect the Service Port output of RS232 Interface Module to the mini port labeled 'Service' on the rear panel of the Panorama 2.
2. Connect the RS232 connection on the RS232 Interface Module to the serial port or USB-to-Serial adapter of the PC using a serial cable.



3. Open the provided software update file named 'Panorama 2 Software Update'. Follow the prompts to extract the files included in this update to your PC. The default extraction location is the same folder the Panorama 2 Software Update file is located in, and should create a folder named 'Panorama 2 Software Update'.
4. Open the 'Panorama 2 Software Update' folder and open the program named 'Panorama 2 Programmer'.

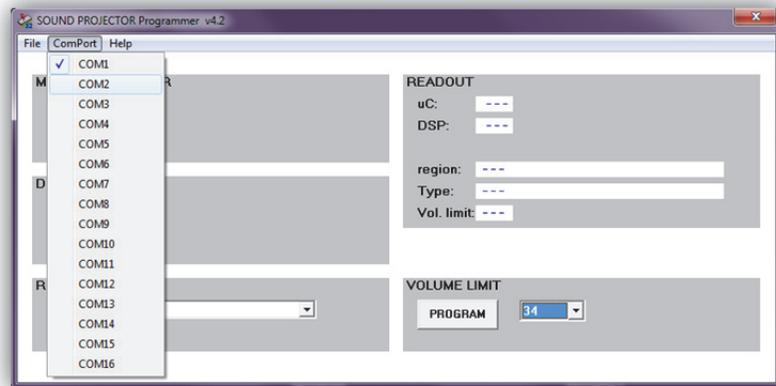


**Note:** If an error message such as 'Component 'COMDLG32.OCX' or one of its dependencies not correctly registered...' appears when attempting to run the program, right click on the program and choose 'Run as Administrator'.

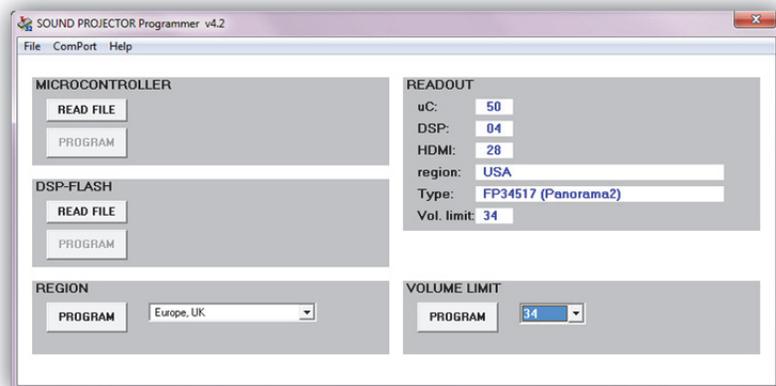
5. Click the 'ComPort' option and choose the appropriate Com port for the PC's serial port.

If you are not certain which Com port to use, this can be found by looking in Device Manager under the section labeled 'Ports (COM & LPT)'.

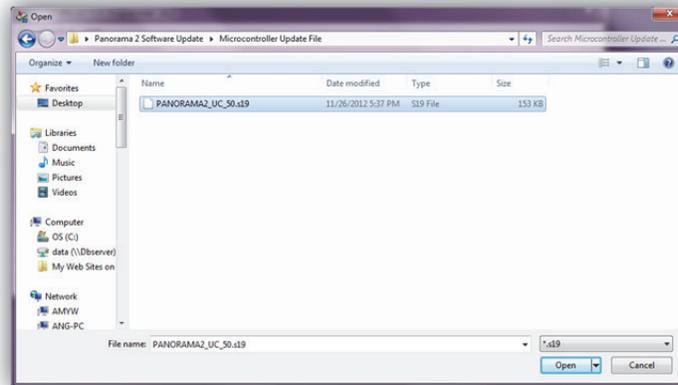
**To open Device Manager:** On the computer, if there is a desktop icon labeled "Computer", right click on this and select "Properties". If there is no icon labeled "Computer", click "Start", then right click on the "Computer" selection on the right side of the Start menu and select "Properties". From the System window that opens, click "Device Manager".



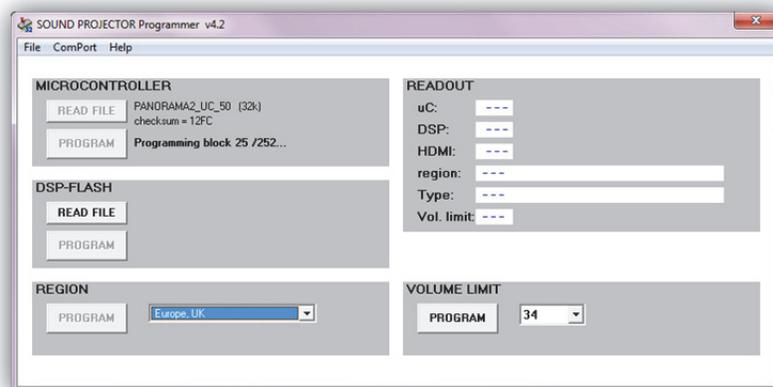
6. Once the program connects, it should automatically update the Readout section of the program with the current settings from the Panorama 2.



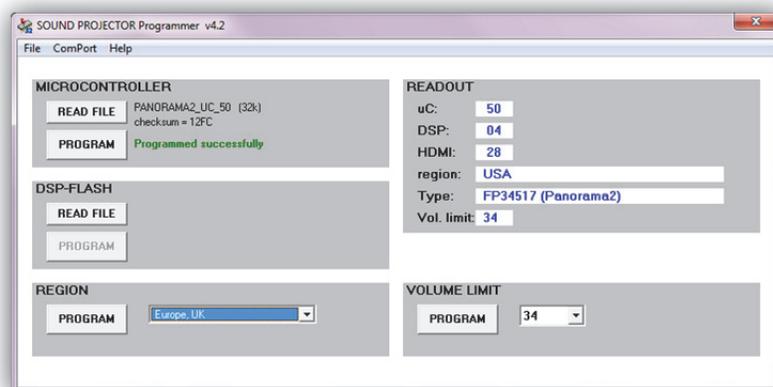
7. Load in the Microcontroller update file by clicking the 'Read File' button under the 'Microcontroller' section. Browse to the folder labeled 'Microcontroller Update File', located in the same folder the Panorama 2 programmer was extracted to. The file name to upload should look something like 'PANORAMA2\_UC\_50.S19'.



8. Once the file has been selected, press the 'Program' button. The update process should take about 1 minute to complete.



9. Upon successful completion of the upgrade, the field labeled 'uC' on the 'Readout' section should now display the current Microcontroller version: 50.



## Updating the HDMI Software

1. If an upgrade CDR has been provided by Bowers & Wilkins, proceed to step 2. Otherwise, to create an upgrade CDR, burn the file labeled 'AB-2SoundBar-280.wav' to a blank CDR as an audio disc. This will create an audio CD with a single 39 second track. The file is located in the folder labeled 'HDMI Update File for CD'.

**Note:** If burning a CDR for the HDMI upgrade, please verify any volume-normalizing settings are disabled on the CD writing program.

2. Connect the optical digital output of a CD, DVD, or Blu-Ray player to the 'Optical/Aux' input on the rear panel of the Panorama. If using a standard Toslink cable, use the provided Toslink to mini-Toslink adapter for the connection.
3. Make sure the disc player that is connected to the optical input is powered on but not playing. All other connected HDMI sources should be either off or not currently playing.
4. Disconnect the main AC power from the Panorama 2 and wait until all LEDs have gone out on the display.
5. Press and hold the front panel Standby button, then reconnect AC power while continuing to hold the Standby button. As soon as the display on the Panorama 2 illuminates, let go of the Standby button and press the OSD button on the remote control (this is the button in the center of the blue circle on the remote).  
**Note:** The OSD button needs to be pressed within 4 seconds of releasing the Standby button.
6. If done successfully, all of the LEDs on the front panel of the Panorama 2 should now be lit, and the red Standby LED should be flashing slowly. If it is not, please repeat from Step 3 onward.
7. Insert the upgrade CD and press play on the CD/DVD/Blu-Ray player to play the disc. It should play back as an audio CD track of 39 seconds. The red standby LED should continue to flash during this process.
8. Once the track has finished the Panorama 2 should go into Standby mode automatically.

**Note:** If during this process the Standby LED goes solid red and the unit does not go into Standby upon completion of the track, this indicates the upgrade CDR may not be correct. Please try another copy of the disc or contact Bowers & Wilkins to obtain an upgrade CDR.

9. Once the update has completed the software version can be checked using the Panorama 2 Programmer software program used for the Microcontroller update. The 'HDMI' field of the 'Readout' section should now display the current HDMI software version: 28.