

## XMC-1 USB Firmware Update

**October 30, 2014**

## USB Firmware Update

October 30, 2014

### ***Applies to:***

XMC-1; Units shipped before October 20, 2014.

### ***Purpose:***

Enables 24/192k UAC2 operation of the USB Stream Input.

### ***Level of Importance:***

Optional; Recommended.

### ***Details:***

Due to an interaction between the hardware and firmware that control the rear-panel USB Stream Input port on the XMC-1, the USB Stream Input on XMC-1's with the old firmware will only accept high-resolution digital audio at speeds up to and including 24/96k.

The firmware for the USB Stream port on the XMC-1 is *NOT* part of the main system firmware, and can *ONLY* be updated directly via a computer connected to the USB port itself. Therefore, this *ONE TIME* update *MUST* be installed from a computer connected directly to the rear-panel USB Stream Input of your XMC-1. You cannot install this update using the standard XMC-1 firmware update procedure.

You *ONLY* need to apply this update if your XMC-1 was shipped prior to the end of October 2014 *AND* you want to play high resolution digital audio files via the USB Stream Input at 24/176k or 24/192k.

This update *ONLY* affects the USB Stream Input on the XMC-1.

# ***Official XMC-1 USB Firmware Update***

---

## ***IMPORTANT NOTE:***

This update ***MUST*** be installed from a computer running Microsoft Windows. We have tested the firmware updater program and found it to work with Windows XP, Windows 7, and Windows 8.1; it should also work with Windows Vista. We were ***UNABLE*** to get the updater to work with Windows 7 under Boot Camp.

**WE STRONGLY RECOMMEND THAT YOU USE WINDOWS 7 TO APPLY THE UPDATE IF YOU HAVE ACCESS TO A COMPUTER WITH WINDOWS 7 INSTALLED.**

## ***IMPORTANT NOTE:***

If your XMC-1 has the ***OLD*** USB firmware, the USB Stream Input will only accept digital audio at sample rates up to and including 96k.

Once your XMC-1 has the new/current USB firmware, the USB Stream Input will accept digital audio at sample rates up to and including 192k (including 88k and 176k).

## ***IMPORTANT NOTE:***

In order to play high-resolution digital audio files at sample rates up to 192k via the USB Stream Input on the XMC-1, your computer must have the appropriate drivers installed.

Modern Apple computers have the appropriate drivers installed as part of their operating system, so you do ***NOT*** need to install drivers on your Apple computer.

Microsoft Windows does ***NOT*** include the correct (UAC2) drivers, so you ***MUST*** install drivers on your Windows computer to use it with the XMC-1's USB Stream Input.

If you already have the drivers for our XDA-2 or DC-1 on your computer, those drivers will work with the XMC-1, and you won't need to update them. (The same drivers work for the XDA-2, the DC-1, and the XMC-1.) However, if you need to install or re-install the drivers, you must use the new v1.11 drivers.

**TO INSTALL NEW DRIVERS ON YOUR WINDOWS COMPUTER TO WORK WITH YOUR XMC-1, YOU MUST USE THE NEW DRIVERS: "Emotiva Unified Drivers v1.11".**

These new drivers can be obtained from the bottom of the product pages for the XDA-2, the DC-1, and the XMC-1, and will install and work with all three products. (The package includes drivers for Windows XP, Windows 7, Windows 8, and Windows 8.1; these drivers should also work with Windows Vista.)

# Official XMC-1 USB Firmware Update

---

## ***Installing the USB Firmware Update***

To install the update you will need a standard “USB A-B” cable to connect your computer to your XMC-1. This is what most people refer to as a “printer cable”, and is the same cable you will need to play music through the USB Stream Input of your XMC-1. We recommend using a good quality commercial cable two meters or shorter in length.

The USB firmware update has been provided in the form of a single archive file containing both the firmware updater program and the updated firmware file it will be installing.

The firmware updater application does *NOT* have to be installed on your computer. Most people will be able to simply extract the files into a folder or onto a USB thumb drive and run the updater from there. (On some computers you may be able to run the updater directly from a USB thumb drive; on others, it will only run from a folder on the hard drive.) You will *NOT* have to install the updater into Windows (so you can simply delete it when you’re done).

The entire update process should take less than five minutes.

## **DOWNLOAD AND EXTRACT THE FIRMWARE UPDATE**

1) Download the firmware update files from the Resources tab on the XMC-1 product page of the Emotiva website. The following files are available for download:

- The firmware update package: **XMC-1\_USB\_FIRMWARE\_UPDATE.ZIP**
- These instructions: **XMC-1\_USB\_FIRMWARE\_UPDATE.PDF**

2) If you plan to use the same computer to apply the update as you’re using to download the update, then simply extract the contents of the ZIP archive into a temporary folder. (Pick a name that’s easy to remember, like C:\XMCUPDATE.) If you plan to use a different computer, then extract the files onto a USB thumb drive, and either run the updater from there or copy the files onto the hard drive of the computer you plan to use for the update. The updater consists of several files - contained in one main folder with several sub-folders inside it. All of the files, including those inside the sub-folders, must be present for the updater to work.

***Note: The update may be applied from any computer connected to the XMC-1 USB Stream Input port. The computer you use to apply the update does NOT have to have the XMC-1 USB driver installed on it (you may use a computer with the driver already installed - it won’t hurt anything), and does not have to be the same computer you plan to use to play music with.***

***Note: The updater consists of a main folder with several files and folders inside it. You may be required to tell your archive extractor to “preserve folders” or “extract folders”; this setting is the default for most modern archive programs.***

# Official XMC-1 USB Firmware Update

---

Once you've extracted the archive, you should have the following:

- A folder named **XMC-1\_USB\_UPDATE**
- Two folders inside this folder named: **Driver** and **Sys**  
(each with several files and folders inside it)
- A file inside this folder named: **FWUpdate.EXE**  
(the icon for this file looks like three building blocks; Windows may hide the EXE extension)
- A file inside this folder named: **XMC-1\_USB\_Update.hex**  
(this is the actual firmware update file)
- A file inside the folder named: **XMC-1\_USB\_FIRMWARE\_UPDATE.PDF**  
(a copy of these instructions)

## CONNECT YOUR COMPUTER TO YOUR XMC-1

If you haven't already, connect your computer to the USB Stream Input on the rear of your XMC-1. At this point you should also turn your XMC-1 fully On. (The Standby button should be illuminated blue, and the Info screen should be visible on the front panel.)

**Note: The USB Stream Input is the square connector directly above the Left Subwoofer outputs on the rear of your XMC-1. This input is NOT the same as the other USB connections on the front and rear of the XMC-1.**

## RUN THE UPDATER

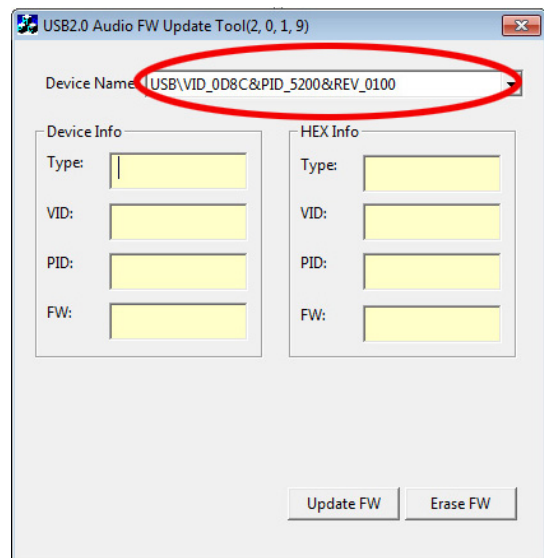
**Note: During the update procedure, you will be asked to RUN and CLOSE the updater application, and to disconnect and reconnect the USB cable between your computer and your XMC-1. Please follow these instructions exactly (there are reasons for the particular sequence we're using).**

1) To run the updater, double click on **FWUpdate.EXE** (the icon that looks like three blocks).

When the updater runs, you should see a screen like the one to the right (your PID and REV will be different than those shown).

The circled numbers show the current USB firmware revision of your XMC-1. There may also be numbers filled in under Device Info and Hex Info - which you can ignore.

**Note: If you see "PID\_0004&REV\_0102" then your XMC-1 ALREADY HAS THE CURRENT USB FIRMWARE AND SO DOES NOT NEED TO BE UPDATED.**



# Official XMC-1 USB Firmware Update

## ERASE THE CURRENT USB FIRMWARE

In order to install the new firmware, we must first erase the current (old) USB firmware.

1) Click the button labelled **Erase FW**.

At this point, the updater will prompt you for authorization to **Start to Erase Firmware?**

2) Click on the **OK** button.

After a second or two, you should see a message indicating **Firmware Erase Finished**.

3) Click the **OK** button.

4) Now **UNPLUG** the USB cable between your computer and XMC-1, and wait a few seconds for the display on the updater showing the PID and REV to go blank.

**Note: If the display continues to show a PID and REV with the cable unplugged, close and re-start the updater program.**

5) Now **RECONNECT** the USB cable.

The display in the updater program should now update to show **PID\_5200&REV\_0100**, which indicates that the FW Erase has completed successfully.

## UPDATE THE USB FIRMWARE

1) Click the button labelled **Update FW**.

Once you click the button, a standard Windows file dialog box will open. This box will be configured to only show valid firmware update files. You must use this to "point to" the firmware update file: **XMC-1\_USB\_Update.hex**. This file should be in the same folder as the one from which you ran FWUpdate.EXE.

Once you have selected the firmware update file, you will be prompted to proceed with the update.

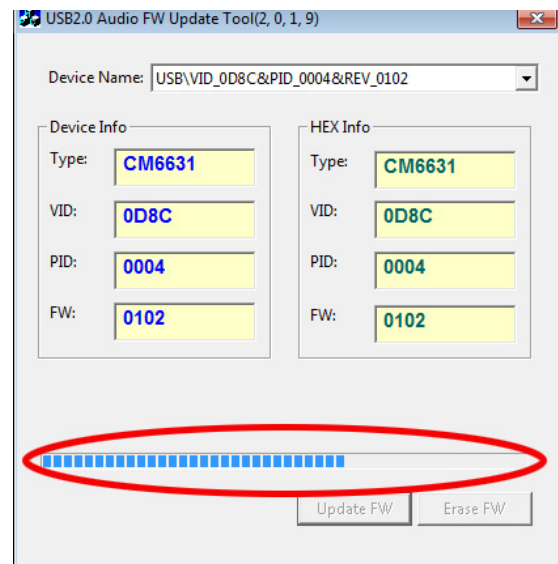
2) Click **OK** to proceed with the update.

When the update starts, you should see the status bar (shown at right) appear and slowly move from left to right across the screen.

The status bar should take between ten seconds and one or two minutes to complete (depending on your computer). When it has completed, you should see a message stating **FW Update Completed**.

**IF THE STATUS BAR FAILS TO APPEAR AT ALL, OR IF THE STATUS BAR JUMPS DIRECTLY TO THE RIGHT, THEN THE UPDATE HAS FAILED. THIS IS NO CAUSE FOR ALARM, BUT THE UPDATE MUST BE REPEATED.**

**SEE THE NOTE BELOW.**



## **Official XMC-1 USB Firmware Update**

---

3) Once the status bar has traversed the screen and you receive the FW Update Complete message, your update is finished.

You may follow the instructions and unplug, then re-plug your XMC-1 to confirm that your firmware now shows: **PID\_0004&REV\_0102**

**4) REBOOT YOUR XMC-1 to complete the update**  
(turn the power Off and back On using the rear panel power switch).

**Congratulations, the USB Stream Input on your XMC-1 has been successfully updated.**

### **IMPORTANT NOTE:**

The program used to update the USB firmware on the XMC-1 was designed by C-Media to be used in a production environment, where the configuration of the computer on which it is run can be carefully controlled. Since home computers encompass a huge range of hardware and configuration options, the updater may not perform as consistently on a home computer as it does on an optimally configured production workstation. If irregularities occur, they will typically manifest as either the status bar either jumping directly to the end, or the status bar simply failing to appear at all. If either of these occurs, simply close the updater program and run it again.

We have also noted that sometimes, on certain computers, the updater may not operate as intended when certain USB devices (besides the XMC-1) are connected to the computer. Therefore, if the updater refuses to run, please try unplugging any USB thumb drives or other USB devices from your computer, and running the updater directly from the hard drive.

**REST ASSURED THAT, WHEN THE UPDATE COMPLETES SUCCESSFULLY, WITH THE STATUS BAR MOVING GRADUALLY ACROSS THE SCREEN AS IT SHOULD, AND THE PROGRAM REPORTING SUCCESSFUL COMPLETION OF THE UPDATE, YOUR UPDATE WILL HAVE BEEN PERFORMED RELIABLY AND CORRECTLY.**

As always, if you have any problems applying the update, please call Emotiva Technical Support and we'll be glad to help you complete the update. (Tell our receptionist that you need help updating the USB Stream Input firmware on your XMC-1 and she'll be glad to route your call to an expert.) Of course, if you simply can't get the update to work with your computer, we'll also be glad to update your XMC-1 for you.