DRIVER PACKAGE - Emotiva XDA-2 Unified Windows USB Drivers

(current as of December 12, 2012)

The drivers in this package are the most current drivers from C-Media for the high-speed USB interface in the XDA-2 (the XDA-2 uses the C-Media CM6631 USB chip). This package includes drivers for Windows XP, and both the 32 bit and 64 bit versions of Windows Vista, Windows 7, and Windows 8. We are currently in the process of testing these drivers with the various versions of Windows. In the interest of making the functionality available to our customers as soon as possible, we're going to provide the entire driver set for your use while testing is completed.

NOTE: Even drivers that have been thoroughly tested may offer slightly different options on different computers. Some factors that may affect this include: the specific version of Windows you are running, other programs and/or drivers installed on your computer, sound cards or other audio devices installed in your computer, other devices (especially DACs) that you have connected externally, and your computer hardware itself.

NOTE: If you have installed previous XDA-2 drivers, and they are working on your system, then there is no specific reason to update your drivers (they sound the same).

The following table lists the current status of each driver in this set, and will be updated in later versions of this document (and the driver set) as testing progresses:

Operating System	Status
Windows XP SP3 (32 bit)	**TESTED: OK**
Windows XP Pro (32 bit)	**TESTED: OK**
Windows Vista (32 bit)	not tested yet
Windows Vista (64 bit)	not tested yet
Windows 7 SP1 (32 bit)	**TESTED: OK**
Windows 7 SP1 (64 bit)	**TESTED: OK**
Windows 8 (32 bit)	not tested yet
Windows 8 (64 bit)	not tested yet

These drivers work with all XDA-2 units.

With the current version of firmware, all drivers tested so far support the following sample rates (up to 24/192):

Supported rates: 44.1k, 48k, 88.2k, 96k, and 192k
Supported bit depths: 16 bits and 24 bits

Later in this document you will find some notes about each operating system...
These notes will be updated as we go along.

Installing The Drivers

Installing the drivers is simple (but please read all the notes so you know what to expect):

1) UnZip the driver file into a folder using your favorite archiver program.

2) Connect the XDA-2 to your computer.

3) Run SETUP.EXE in the main folder of the driver package.

4) Follow the on-screen prompts.

NOTE: You MAY install the drivers from a USB stick or shared network drive.

NOTE: When you first connect your XDA-2 to your computer, Windows may attempt to install default drivers, and may even connect to the Internet (Microsoft Update) to do so. You may also see messages indicating that the process was NOT completed successfully; simply ignore them and close any dialog boxes that prompt for a response. You may allow this process to complete, but, even if it completes successfully, it does NOT eliminate the need to install the drivers in this package. (The default Windows drivers will NOT work properly with the XDA-2).

NOTE: In an ideal world, a computer used as an audio player would have a totally new copy of Windows installed on it, and no other software; this would ensure the fewest interactions, and the least processing delay, and so the best audio performance. Likewise, there are whole websites dedicated just to the best way to optimize Windows for playing computer audio - and many others dedicated to choosing and configuring a player program. (This isn't practical for most people, but the fewer other programs you have running, and the fewer other devices and drivers you use, the more likely you are to have good audio performance and avoid problems.)

NOTE: If your computer already has drivers installed for other audio devices that use the C-Media CM6631 interface chip, those drivers may work with the XDA-2, or they may produce unpredictable results. We cannot provide support for issues you have with drivers not provided by Emotiva.

NOTE: The C-Media driver installer will usually prompt you to reboot your computer as part of the install process. We therefore suggest that you close any other programs you may have running before installing the drivers.

NOTE: The C-Media driver installer usually (depending on the operating system and other factors) requires that the XDA-2 be connected, turned on, and set to the USB input while the drivers are installed.

NOTE: If you are updating a previous version of the drivers, or if you have CM6631 drivers from another DAC already installed on your computer, the driver installer may prompt you to "Remove" them, and then reboot your computer. Do so when prompted, and then, after the old drivers are removed and your computer is rebooted, run the driver installer again to install your new drivers.

NOTE: If your installed drivers ever become corrupted or damaged for any reason, simply use the driver installer to remove and reinstall them. (We do NOT recommend using he "Remove Programs or Drivers" option in Windows because it may not remove all traces of the driver.)

Notes: Windows XP

Windows XP works well as an audio server, and may even give you satisfactory results on slow or underpowered computers. It does, however, have limited audio setup options.

FooBar2000 (a popular free audio player) works well on Windows XP, and we recommend it as an option in this situation. (FooBar lacks most "pretty" interface options, but offers lots of more technical options, and is very flexible. Although we can't provide support for FooBar, there are all sorts of support and discussion groups dedicated to it.)

Even though the current firmware and drivers on the XDA-2 are NOT specified to support the 176k sample rate, it does work on some Windows XP installations. Feel free to try this, but it doesn't work properly on most computers, and we cannot support it. (On some installations, it appears to play at the proper sample rate, while on others it doesn't play at all, or re-samples the audio output to 44k.)

Also note that, if you do choose to use FooBar2000, FooBar in particular sometimes has an odd problem in Windows XP. If you play files with different sample rates one after the other, without closing FooBar between them, sometimes FooBar will switch to the sample rate of the first file you play, and then resample all subsequent files to that sample rate. If this happens on your system, when you want to play a file of a different sample rate, you will have to close and re-open FooBar.

NOTE: The display on the XDA-2 ALWAYS displays the actual, physical sample rate of the audio it is receiving. If what you see on the display disagrees with what you expect to see based on your settings in Windows, then trust the XDA-2's display

Notes: Windows 7

Windows 7 works well as an audio player, but is slightly more demanding in terms of your computer hardware. (If you play audio on a PC with Windows 7 and too little memory, or too little processing power, or too many other programs running, you may experience audio dropouts. This happens more with certain players than others, and is dependent on the specific combination of hardware and software in your PC, and on which output mode you choose.

In specific, WASAPI modes tend to require more resources, and so are more likely to have problems on older PCs. If your player program offers the option, you may be able to reduce or eliminate these problems by adjusting your buffer settings. (Neither lower or higher is necessarily "better", so simply try until you find the one that works best on your computer.)

Different players also have wildly differing resource demands, so some players will work well on almost any machine, while some are very particular, and so difficult to get to run without problems.

NOTE: By default, Windows 7 will use Direct Sound mode (kernel streaming), which will re-sample any audio files you play to the default sample rate (as set under the Advanced Properties dialog under Sound Devices in Control Panel). In this case, your player program will display the sample rate of the actual file, but the XDA-2 will display the sample rate of the audio it receives (the two will be different since Windows is re-sampling the audio); both are correct. If you don't want Windows to re-sample your files, you must choose a player program that supports WASAPI or some other "bit-perfect" mode, and select it in your player's configuration. Certain of the C-Media drivers will offer ASIO mode on some computers; whether this works well on your computer will depend on your player software (the setup options are rather complicated, and you'll have to ask your software vendor for details about how to configure them for optimum performance).

Notes: General

On some operating systems, and with some player programs, you may get an error stating that "there is no output device connected" when you start playing audio, especially if you haven't played audio for several minutes. This is a minor Windows issue (Windows occasionally "forgets" USB devices and this seems to confuse some players; if it happens, first try simply playing the file again, which will often work. If not, disconnect the XDA-2, wait a few seconds for the bee-boop USB disconnect tone, reconnect the XDA-2, wait for the tone indicating it is again recognized, and everything should work fine.