USB Audio Filter Driver Installation

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1 Introduction

The USB Audio Filter Driver has been developed to address the problem 2.1, *1kHz Noise During Recording*, described in the PCM290x Errata sheet (SLAZ036). This installation guide helps you install the USB Audio filter software driver for the PCM290x, USB Audio CODEC from Texas Instruments. This document describes:

- Hardware and software requirements
- Organization of the installation CD kit / downloaded files
- Procedure to install the USB Audio Filter Driver
- Procedure to uninstall the USB Audio Filter Driver
- Troubleshooting procedures

2 Hardware and Software Requirements

The USB Audio Filter Driver works using specific PC hardware, operating systems, and selected USB Stereo Audio Codecs furnished by Texas Instruments. Table 1 describes the installation environment requirements.

Table 1. Hardware and Software Requirements

Environment Area	Specifications
Operating Systems	• Windows 2000 Professional • Windows XP • Windows Vista
PC Hardware	Recommended PC Hardware running the operating systems • 32-bit (x86) PC • 64-bit PC (Intel64 or AMD64) Note: IA-64 is not supported
Application Software	Nothing Note: Need for Windows pre-installed drivers for the USB Audio Device to work correctly.
USB Port	Host Controller: UCHI/OHCI/EHCI compliant) on PC Host
Application Hardware	USB Stereo Audio Codecs • PCM2900, PCM2902 (See data sheet SLES035) • PCM2901, PCM2903 (See data sheet SLES034) • PCM2904, PCM2906 (See data sheet SLES042)

3 Installation CD Kit / Downloaded Files Organization

Within the Audio Filter Driver Installation CD / download files, the installation software is organized according to Table 2.

Table 2. Installation Software Organization on CD/Downloaded Files

SubFolder	File Name	Description
i386	Setup.exe	32 bit OS Driver installer
x64	Setup64.exe	64-bit Intel64/AMD64 installer

4 Installing the USB Audio Filter Driver

For the instructions provided in this section, the driver installation procedure uses:

- Windows XP (32-bit version) English version
- The driver letter **X** to stand for the local PC drive (installation folder) or the CD device letter
- PCM2902 Stereo Audio Codec With USB Interface, Single-Ended Analog Input/Output and S/PDIF

Prior to starting the installation you must have:

q A computer user ID that has *Administrator* privileges.
q A PCM290x Codec device (or related product) ready to connect to the PC.

1. Connect PCM290x (or product using PCM290x to PC).
2. Use the **Device Manager** to display the *USB Audio CODEC* hardware under the *Sound, video and game controllers* area. Ensure the connection is working correctly (Figure 1) .
3. Insert the installation CD and display the CD folders (Table 2) or display a downloaded version of the installation folders.

4. Display the *X:\i386* folder and double-click the *Setup.exe* filename for Intel computers. For Intel64 or AMD64-based computers, display the *X:\x64* folder and double-click *Setup64.exe* filename to start the installation.
5. When the **Choose Setup Language** dialog (Figure 2) displays, select the language (*English* or *Japanese*) from the drop-down list and click **OK**.
6. When the **InstallShield Wizard** (Figure 3) displays, click **Next**.
7. When the **License Agreement** (Figure 4) displays, read the software agreement carefully, select the *I accept the term of license agreement* option, and click **Next**.
8. When the **Ready to Install the Program** (Figure 5) dialog displays, click **Install**. As the installation proceeds, a **Status** progress bar (Figure 6) displays
9. When the **InstallShield Wizard Completed** (Figure 7) dialog displays, click **Finish**.
10. After the installation completes, display the **Device Manager** (Control panel) and expand the *Sound, video and game controllers* area.
11. To verify a successful installation, ensure that no icon with an **!** or **X** error mark displays (Figure 8) beside the *USB Audio Filter Driver (PCM290x)* item.

Figure 1. Windows Device Manager - USB Audio Codec Connected

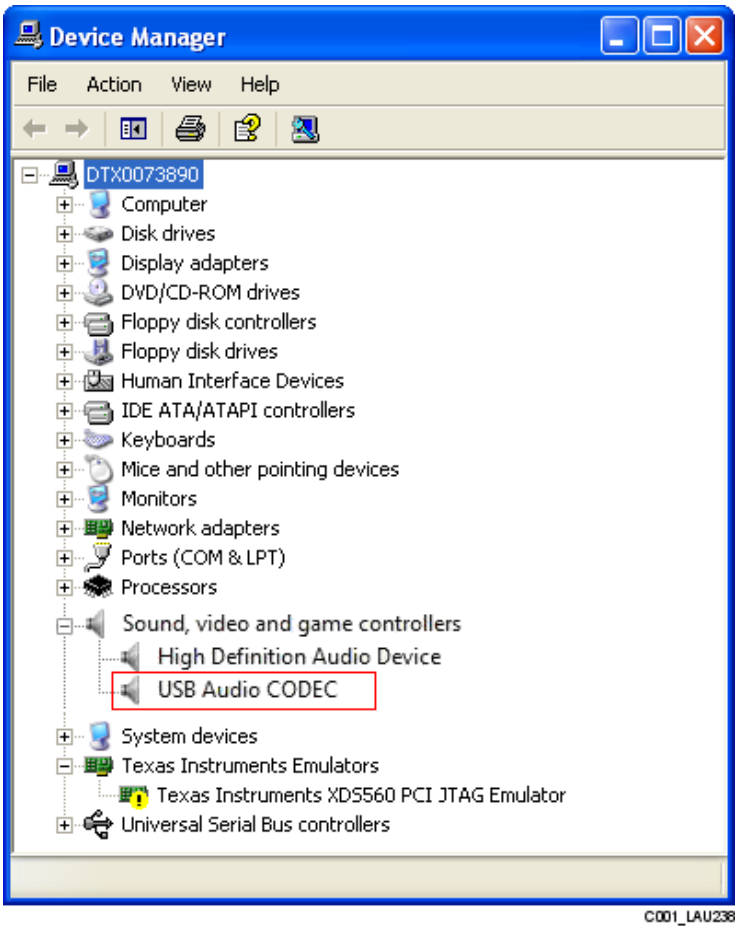


Figure 2. Choose Setup Language

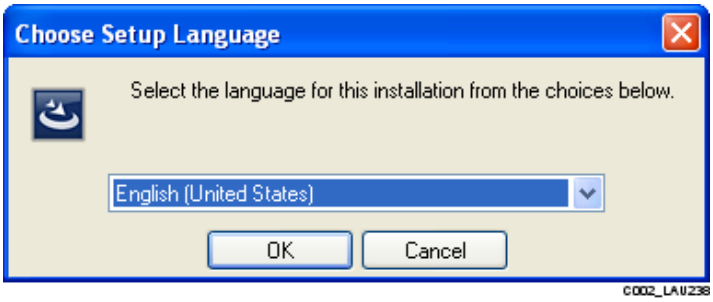


Figure 3. InstallShield Wizard

Figure 4. License Agreement

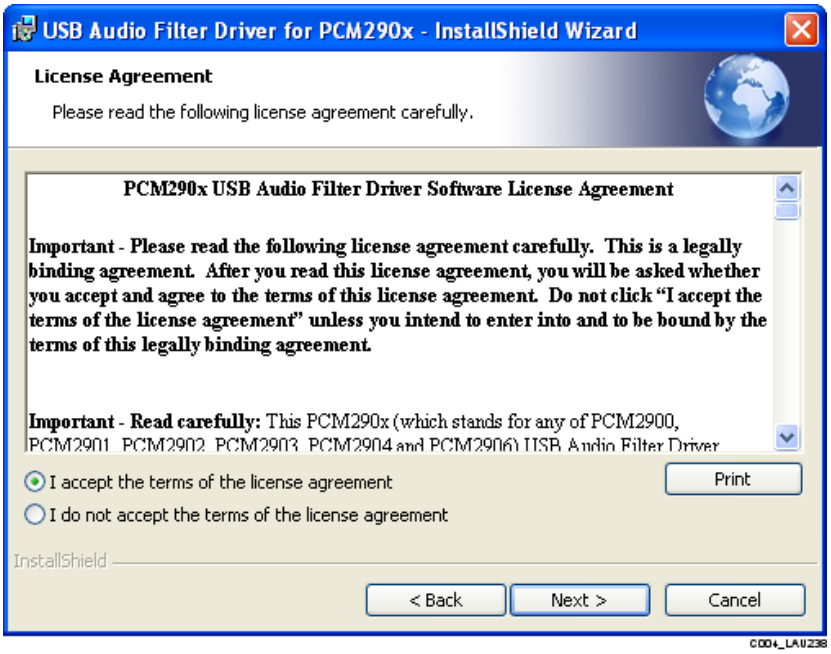


Figure 5. Ready to Install the Program

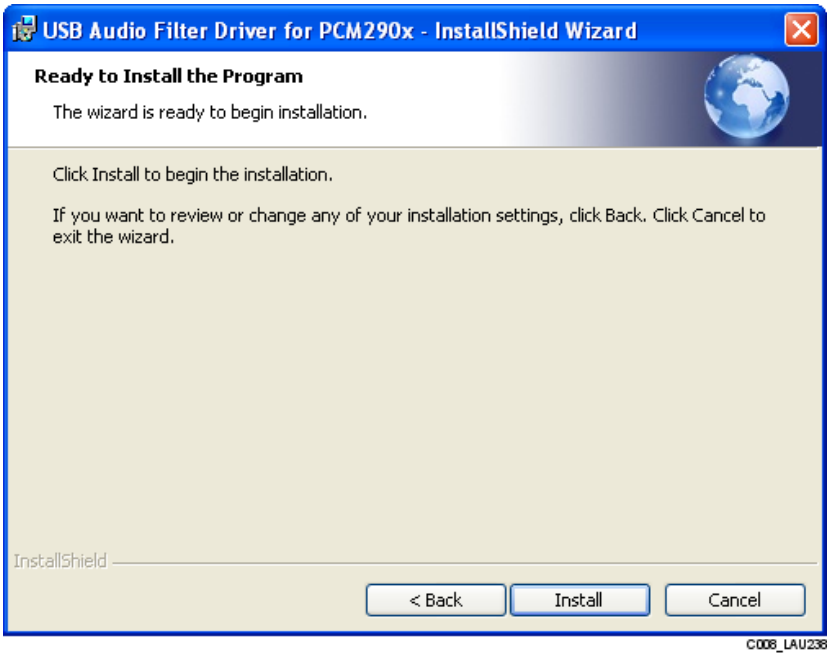


Figure 6. Installing the USB Audio Filter Driver for PCM290x

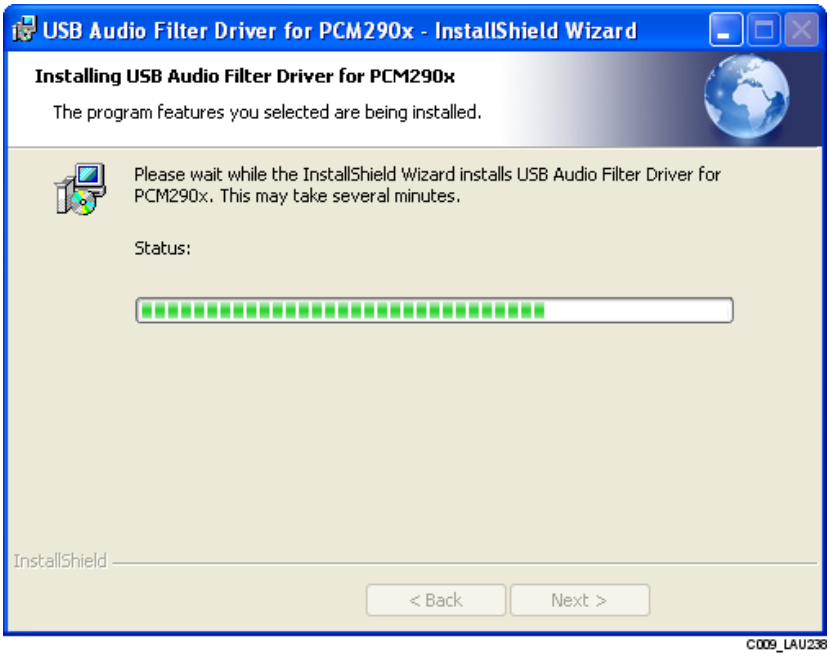


Figure 7. USB Audio Filter Driver Installation Complete

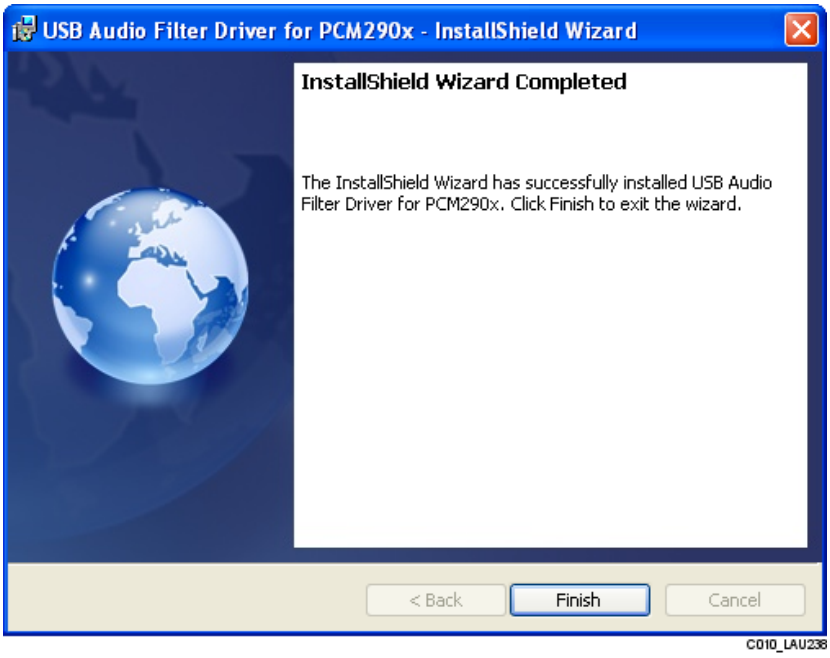
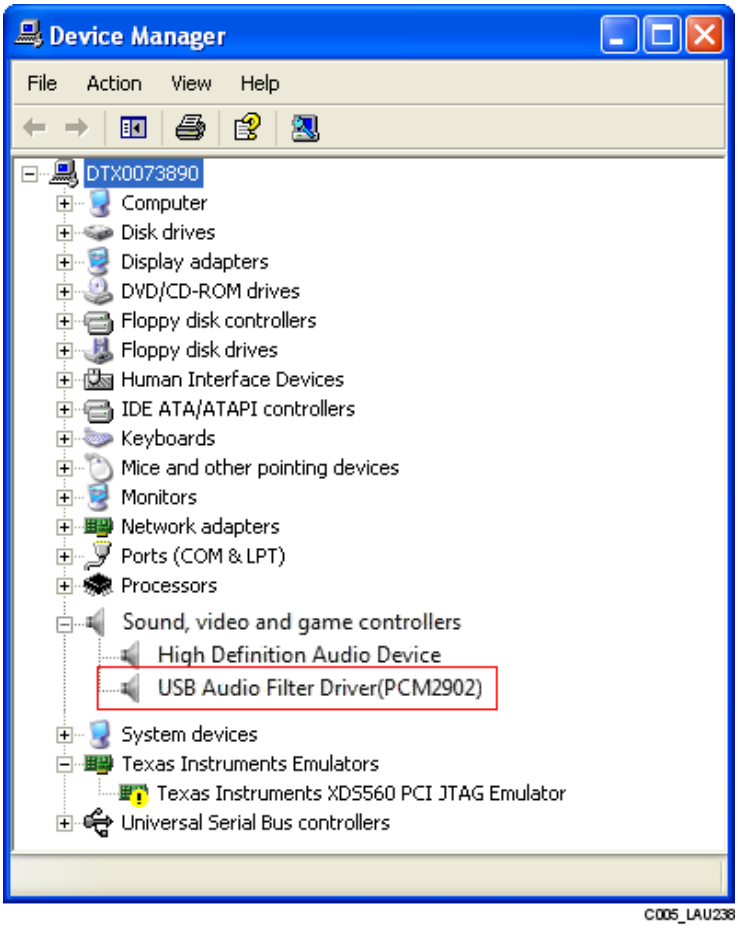


Figure 8. Verify Installation - Device Manager Displays USB Audio Filter Driver



5 Uninstalling the USB Audio Filter Driver

For the instructions provided in this section, the software uninstall procedure uses:

- Windows XP (32-bit version) English version
- The driver letter **X** to stand for the local PC drive (installation folder) or the CD device letter
- PCM2902 Stereo Audio Codec With USB Interface, Single-Ended Analog Input/Output and S/PDIF

CAUTION

This uninstall procedure only applies for installations done using the instructions found in the Installing the USB Audio Filter Driver section. If you use Driver Update function, please follow its instruction for uninstalling the software.

1. Insert the installation CD and display the CD folders (Table 2) or display a downloaded version of the installation folders.
2. Display the *X:\i386* folder and double-click the *Setup.exe* filename for Intel computers. For Intel64 or AMD64-based computers, display the *X:\x64* folder and double-click *Setup64.exe* filename to start the installation.
3. When the **InstallShield Wizard** (Figure 3) displays, click **Next**.
4. When the **Program Maintenance** (Figure 9) dialog displays, select the **Remove** option and click **Next**.
5. When the **Remove the Program** (Figure 10) dialog displays, click **Remove**. As the uninstall proceeds, a **Status** progress bar (Figure 11) displays.
6. When the **InstallShield Wizard Completed** (Figure 12) dialog displays, click **Finish**.
7. After the installation completes, disconnect the PCM290x-related product from PC.
8. Display the **Device Manager** (Control panel) and expand the *Sound, video and game controllers* area.
9. To verify that you successfully uninstalled the driver, ensure that no icon with an **!** or **X** error mark displays (Figure 13) beside the *USB Audio CODEC* item.

Figure 9. Program Maintenance

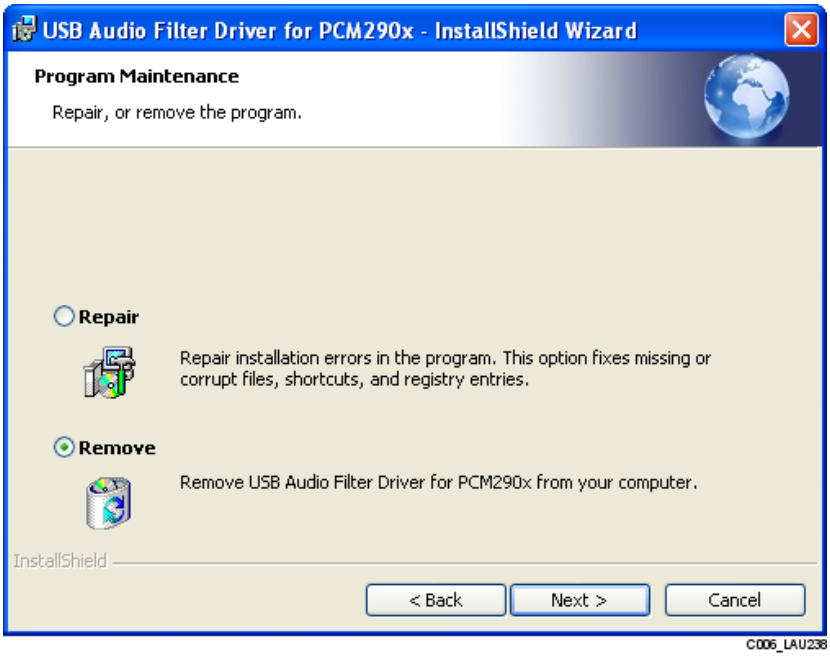


Figure 10. Remove the Program

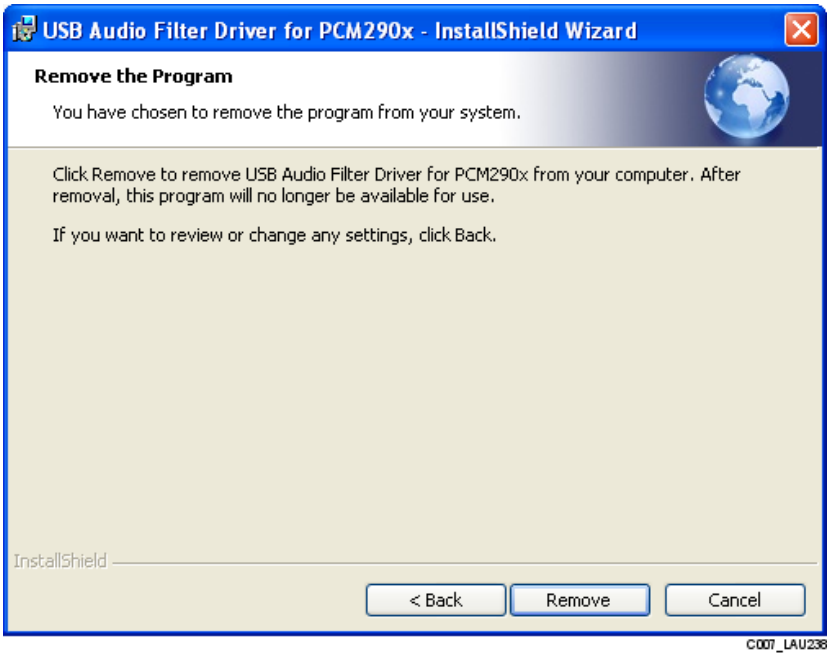


Figure 11. Uninstalling the USB Audio Filter Driver for PCM290x

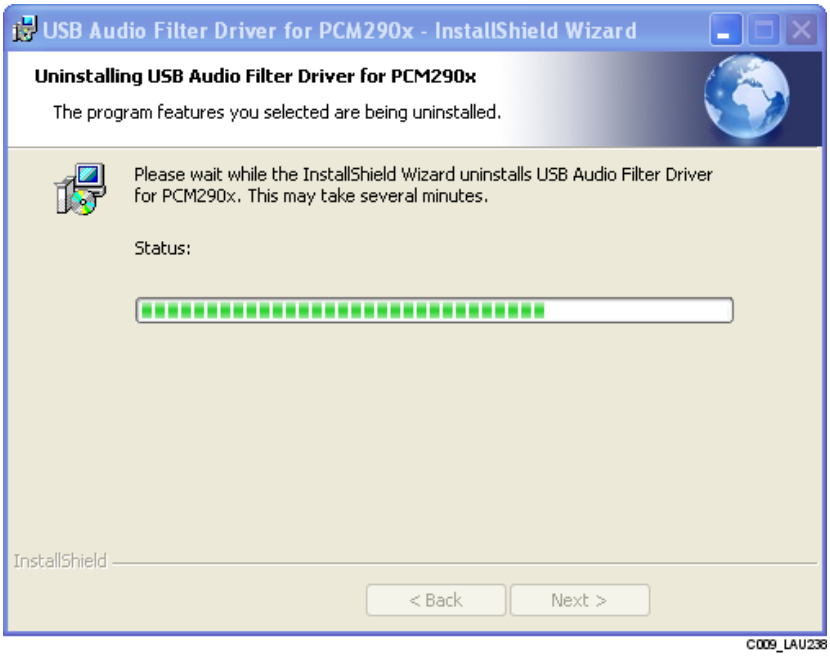


Figure 12. USB Audio Filter Driver Uninstall Complete

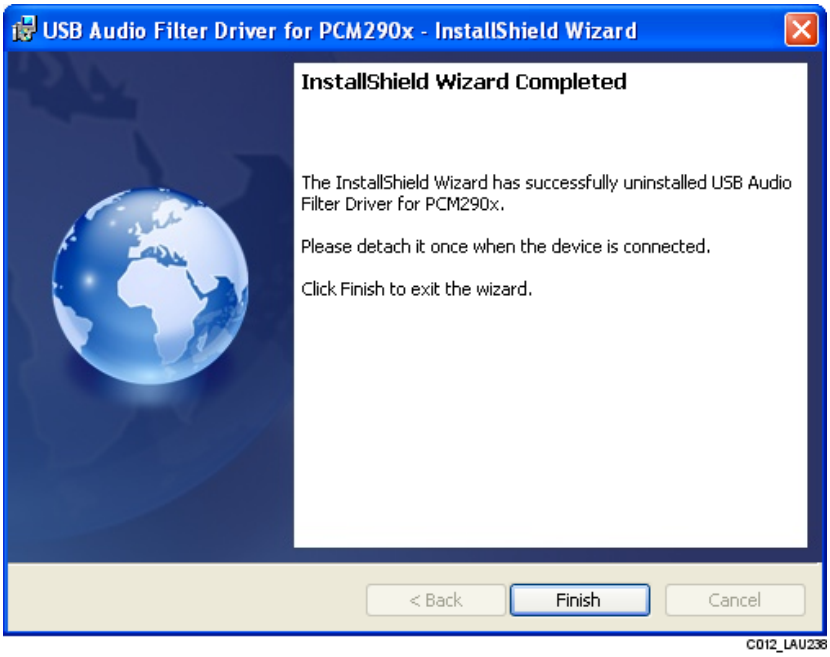
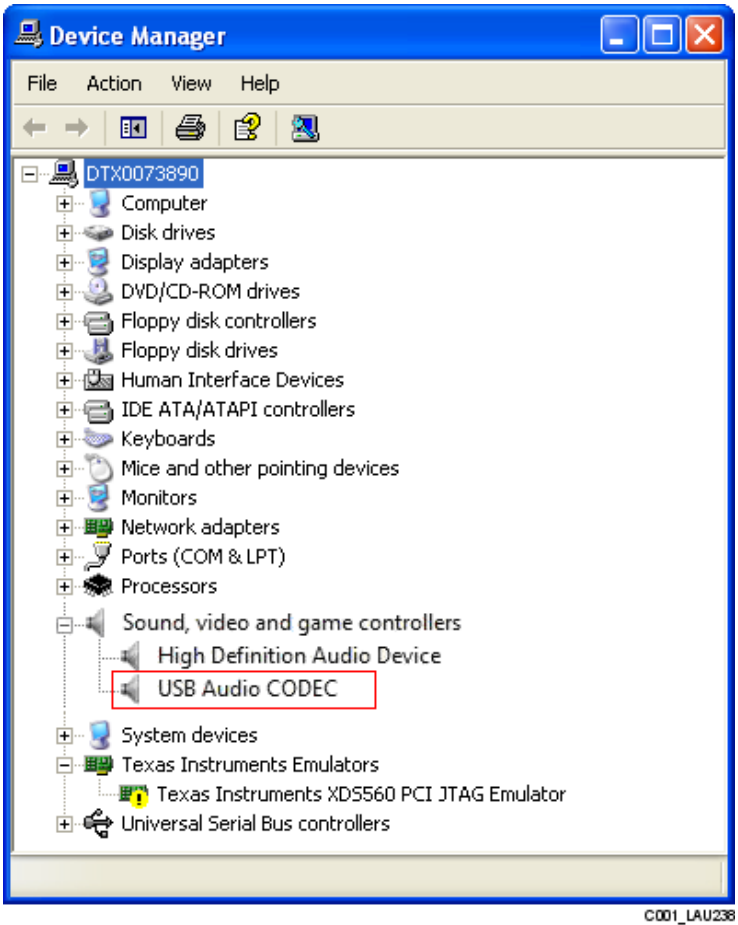


Figure 13. Verify Uninstall - Device Manager Displays USB Audio Codec



6 Troubleshooting procedures

When a difficulty occurs with the USB Audio Codec Filter Software Driver installation procedure, check to see if one of these situations has happened:

1. **Situation:** When you use installation program to install the USB Audio Filter Software Driver, you should perform this installation with the PC ***connected*** to the PCM290x Codec product. Otherwise you can encounter these problems:
   - (Windows 2000) The device name *USB Audio Device* is ***not*** displayed correctly on drop-down selection list of **prioritized device for recording and playback** of the Device Manager (sound and multimedia, audio dialog tab), if you install the filter software driver without connecting the PCM290x device and later connect the device ***after*** the installation.

     Solution: Uninstall the USB Audio Filter driver (Uninstalling the USB Audio Filter Driver) and then perform the driver installation (Installing the USB Audio Filter Driver).

   - (Windows Vista) If you install the filter driver without connecting the device and connect the device after driver installation, the device name *USB Audio Filter Driver (PCM290x)* may not display on the **playback** and **recording** selection lists of the device manager-sound and you can not record or playback.

     Solution: Plug and unplug this device twice. Confirm the device name displays on **playback** and **recording** selection lists correctly.

2. **Situation:** When you attempt to uninstall the software from **Program install and remove** menu and cancel the procedure, you can delete the device driver information file (***.inf**) or a ***.sys** system file. This causes an error when you attempt to install the driver the next time.

   WARNING

   Do not cancel the uninstall procedure for the USB Audio Filter Driver.

   Solution: Run the uninstall procedure. However, this time, select the **Repair** option (Figure 9) to fix the driver installation. Then uninstall the driver according to the procedure in Uninstalling the USB Audio Filter Driver.

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