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

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

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

<table>
<thead>
<tr>
<th>SubFolder</th>
<th>File Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>i386</td>
<td>Setup.exe</td>
<td>32 bit OS Driver installer</td>
</tr>
<tr>
<td>x64</td>
<td>Setup64.exe</td>
<td>64-bit Intel64/AMD64 installer</td>
</tr>
</tbody>
</table>

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:

- A computer user ID that has Administrator privileges.
- 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
Installing the USB Audio Filter Driver

Figure 2. Choose Setup Language

Choose Setup Language

Select the language for this installation from the choices below.

[Dropdown menu with option: English (United States)]

[OK] [Cancel]

Figure 3. InstallShield Wizard

USB Audio Filter Driver for PCM290x - InstallShield Wizard

Welcome to the InstallShield Wizard for USB Audio Filter Driver for PCM290x

The InstallShield(R) Wizard will install USB Audio Filter Driver for PCM290x on your computer. To continue, click Next.

WARNING: This program is protected by copyright law and international treaties.
Figure 4. License Agreement

License Agreement

Please read the following license agreement carefully.

PCM290x USB Audio Filter Driver Software License Agreement

Important: Please read the following license agreement carefully. This is a legally binding agreement. After you read this license agreement, you will be asked whether you accept and agree to the terms of this license agreement. Do not click “I accept the terms of the license agreement” unless you intend to enter into and to be bound by the terms of this legally binding agreement.

Important: Read carefully. This PCM290x (which stands for any of PCM2900, PCM2901, PCM2902, PCM2904 and PCM2904) USB Audio Filter Driver

☐ I accept the terms of the license agreement
☐ I do not accept the terms of the license agreement

Figure 5. Ready to Install the Program

Ready to Install the Program

The wizard is ready to begin installation.

Click Install to begin the installation.

If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
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

[Image: Device Manager window showing the USB Audio Filter Driver listed under Sound, video and game controllers]
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**

![Program Maintenance](image.png)
Figure 10. Remove the Program

Remove the Program
You have chosen to remove the program from your system.

Click Remove to remove USB Audio Filter Driver for PCM290x from your computer. After removal, this program will no longer be available for use.
If you want to review or change any settings, click Back.

Figure 11. Uninstalling the USB Audio Filter Driver for PCM290x

Uninstalling USB Audio Filter Driver for PCM290x
The program features you selected are being uninstalled.

Please wait while the InstallShield Wizard uninstalls USB Audio Filter Driver for PCM290x. This may take several minutes.

Status:

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</table>

InstallShield

< Back Save Next >
Uninstalling the USB Audio Filter Driver

Figure 12. USB Audio Filter Driver Uninstall Complete

The InstallShield Wizard has successfully uninstalled USB Audio Filter Driver for PCM290x.

Please detach it once when the device is connected.

Click Finish to exit the wizard.

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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