AS372

7.1 USB High Definition Audio BOX

User's Manual

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FCC and CE Radiation Norm

FCC

This equipment has been tested and found to comply with limits for a Class B digital device pursuant to Part 15 of Federal Communication Commission (FCC) rules.

CE

This equipment has been tested and found to comply with the limits of the European Council Directive on the approximation of the law of the member states relating to electromagnetic compatibility (89/336/EEC) according to EN 55022 class B.

FCC and CE Compliance Statement

These limits are designed to provide reasonable protection against frequency interface in residential installation. This equipment generates uses and can radiate radio frequency energy, and if not installed or used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connect to

CAUTION!

The Federal Communication Commission warns the user that changes or modifications to the unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Overview

AS372 is a portable multi-channel device with USB AUDIO 2.0 compliance. It has built-in real 7.1 output channels and every channel can support 24-bit/192kHz, 100dB SNR high quality audio. With supporting of the highest playback audio specification from Blu-ray disc, it lets audiophiles enjoy the amazing audio when they are watching the best videoes. AS372 comes with Line-in, standalone Microphone Input, Headphone Output, Optical Input and Output. Users can use it as a portable USB AUDIO DAC to upgrade notebook audio quality anytime and anywhere!

Package Contents

- AS372 7.1 USB HD Audio
- USB 2.0 Cable (mini USB to Type A USB)
- Audio Cable (Stereo RCA to Stereo 3.5mm Jack)
- Quick Installation Guide
- Installation CD
  - ◆ USB Audio 2.0 drivers for Windows 7/Vista/XP
  - ◆ English User's Manual

System Requirements

- Compatible with Microsoft ® Windows ® 7, Windows Vista ®, Windows XP, Mac and Linux
- Intel ® Core™ 2 Duo or AMD ® equivalent processor, 2.2 GHz or faster
- Available USB port
- 10MB Hard Disk space
- 1GB System Memory
- Available CD-ROM or DVD-ROM Drive

Figure of AS372 and Connections

Connections

Most of the audio devices, such as Speakers, Headphones and Hi-Fi Amplifier can be connected to the connectors of AS372. Below table shows the connectors and their descriptions:

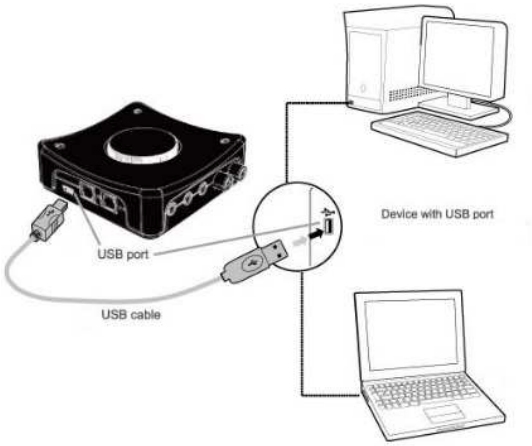
Connector	Connections
Phone Out (3.5mm)	to stereo Headphones
Line In (3.5mm)	to MP3 player or any audio players
Mic In (3.5mm)	to Microphones
Line Out (RCA Left)	to RCA connector of Speaker (Left Channel)
Line Out (RCA Right)	to RCA connector of Speaker (Right Channel)
Rear Out (3.5mm)	to Rear Left and Right Speakers
C/Sub Out (3.5mm)	to Center and Subwoofer Speakers
Side Out (3.5mm)	to Side Left and Right Speakers
S/PDIF Output (Optical)	to the optical input of Digital Amplifier or Decoder
S/PDIF Input (Optical)	to the optical output of Digital Player
Mini USB	to the USB port of PC/NB System

Hardware Installation

Install AS372 7.1 USB HD Audio Box

First, make sure that Windows 7, Vista and XP in your system is running properly. Then follow the following steps while installing your AS372:

1. Plug AS372 into any free USB port of the computer with the bundled USB cable.



2. Wait for OS to process the identification process. If you are running Windows System, please refer to the “Software Installation and Removal” section to install the drivers.

Adjust volume

Rotate the wheel to adjust volume, clockwise to increase volume, and counterclockwise to decrease volume. Pushing the button down can mute the audio output, pushing down again can restore the volume.

Software Installation and Removable

1

Notice:

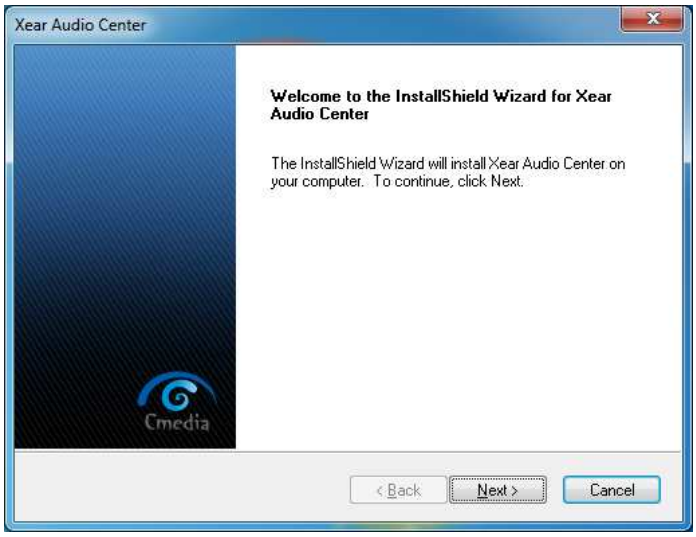
Ensure that you have plugged-in the USB HD Audio before installing the USB 2.0 High-Speed True HD Audio driver. Otherwise, driver installation error may occur.

Before installing/Uninstalling, you should close all audio programs to avoid the driver installation failure.

❖ Please make sure your USB 2.0 High-Speed True HD Audio hardware device is plugged-in and then double click the setup.exe file.

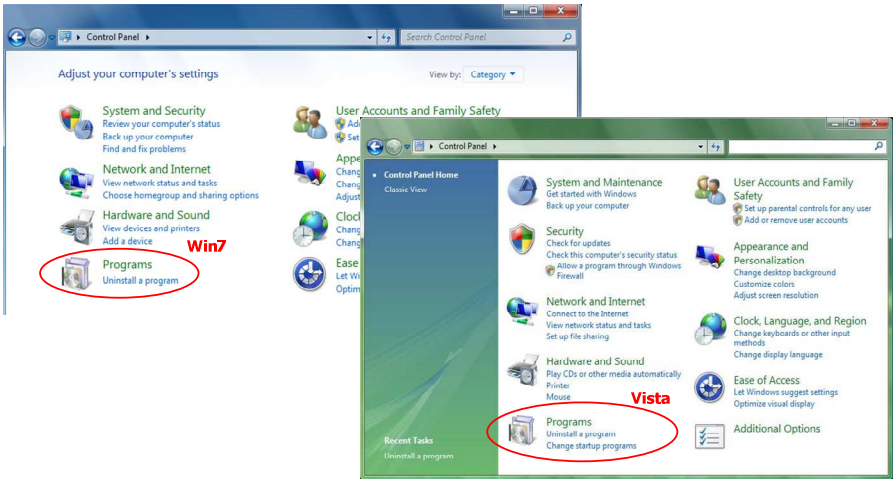
Installation

❖ Start Driver installation, you can see a welcome window. Press “Next” button and follow the instruction of the popped windows until the end. Allow Computer restart to activate the driver.

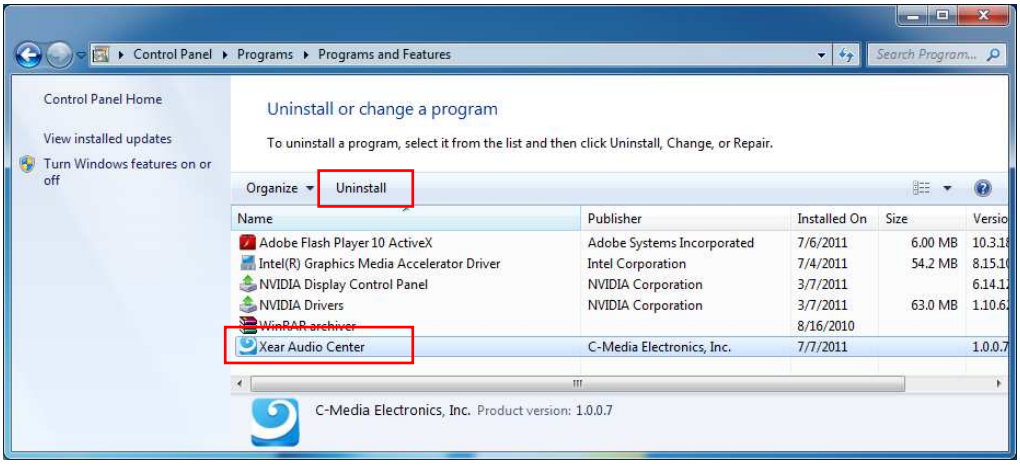


Un-Installation

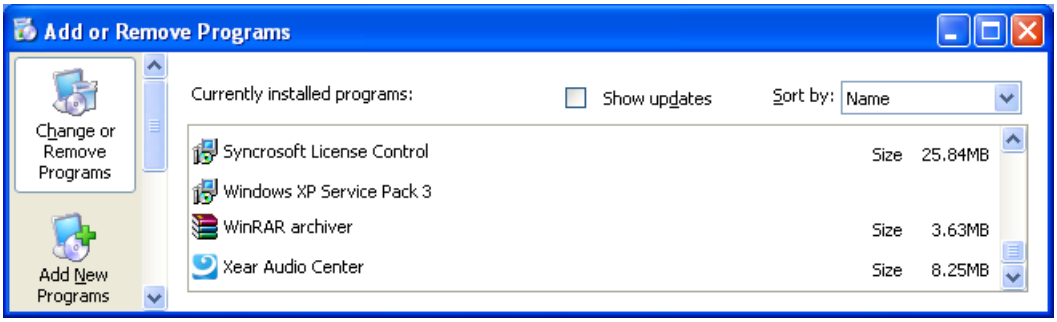
❖ Close all audio programs. Double click the “Programs/Uninstall a program” item from Windows Control Panel.



❖ Select “Xear Audio Center” item, then click the “Uninstall” button. **Win7/Vista.** Follow the instructions of the popped windows until the uninstallation finishes. Restart your computer to completely remove driver.



Windows XP



Xear Audio Center Introduction

Open USB Audio Device Software CPL

After the driver is installed and the system is rebooted, you will find the USB Advanced Audio Device CPL (Xear Audio Center) icon on the system tray bar.

❖ Double-clicking on the icon to open CPL software.

Win7/Vista Tray Icon

XP Tray Icon

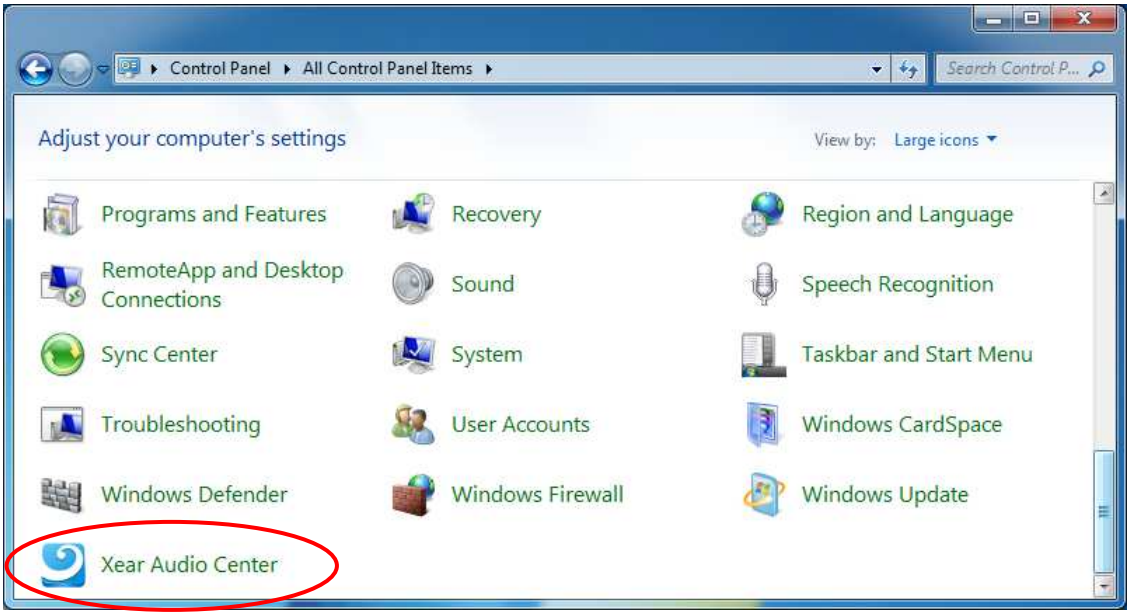
❖ The first time Xear Audio Center is opened, you can see a message as shown below. You can get the information about how to use Xear Audio Center.

If you don’t want to see this window next time, check the “Don’t show this message again” option.

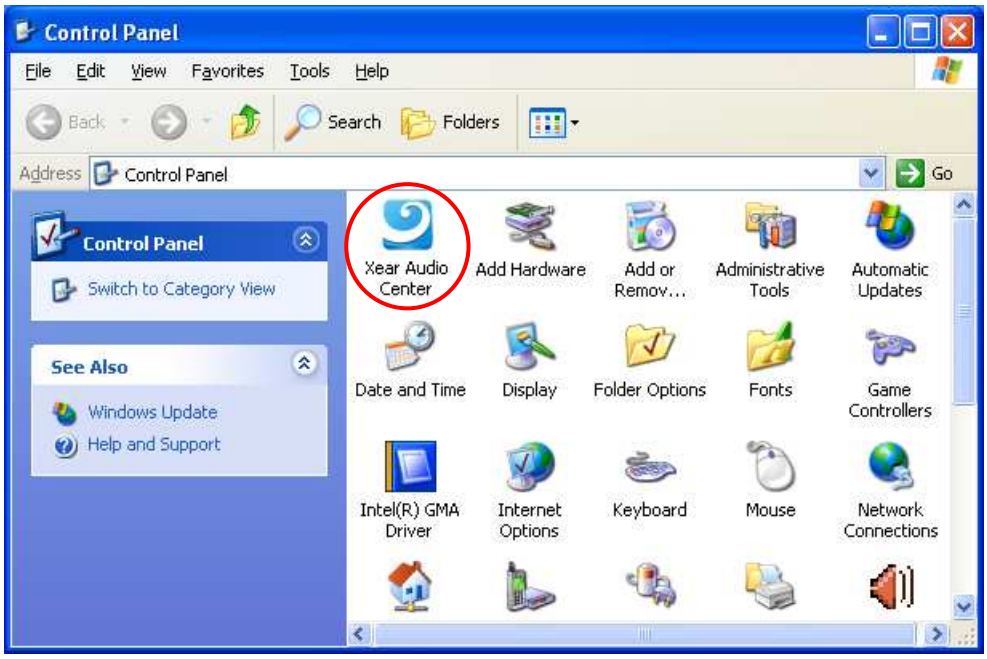
❖ The “Xear Audio Center” will appear as the below diagram.

❖ If the tray icon does not appear in your system tray, please go to the Windows control panel and double click the “Xear Audio Center” CPL icon to open it.

For Win7 / Vista



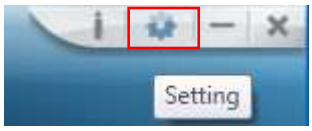
For XP


Control Panel
File Edit View Favorites Tools Help
Back Search Folders
Address Control Panel
Go
Control Panel
Switch to Category View
See Also
Windows Update
Help and Support
Xear Audio Center
Add Hardware
Add or Remov...
Administrative Tools
Automatic Updates
Date and Time
Display
Folder Options
Fonts
Game Controllers
Intel(R) GMA Driver
Internet Options
Keyboard
Mouse
Network Connections

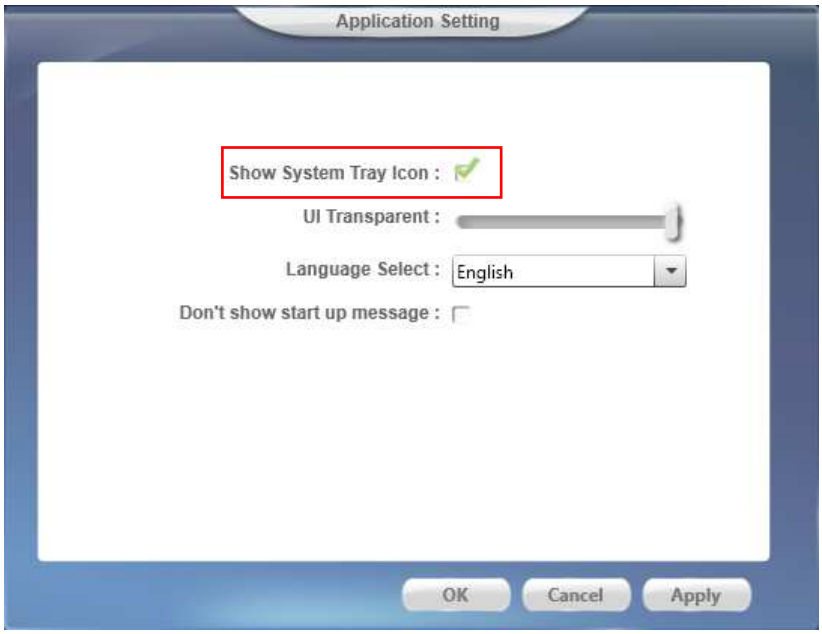
❖ How to make CPL icon visible in the system tray?

1. Open Xear Audio Center

2. Click on the “setting” button to open the setting window.



3. Check “Show System Tray Icon”. The Xear Audio center icon will be shown in the system tray.



Xear Audio Center Function Introduction

You can control the USB Audio device configuration as shown in the diagram below.

Selecte a Default Device

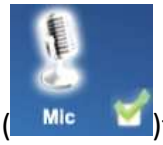
Before the Audio device playback or recording operation starting, it needs to select a device as the default device. Windows OS will assign the system resource to the default device.

■ Set Default Output Device (Speaker)

Click mouse left button on the **check box** (

) of the **speaker device icon** to set the default device is “Speakers”.

■ Set Default Input Device (Mic)

Check on the **check box** (

)to set the default device in “Mic”.

■ Function Behavior

- Only one **audio output device** (Speaker or SPDIF-Out) can be set as the default audio output device.

- There is only one **audio Input device** (Mic-in, Line-in, SPDIF-In or Stereo Mix) can be set as the default audio input device.

Master Volume / Mute & Un-Mute

■ Volume Adjusting

You can increase or decrease the volume of 

device by this master volume bar ().

■ Mute/ Un-Mute the volume

You can mute/un-mute volume of default output device by the mute () or Un-mute button ().

SVN (Smart Volume Normalizer)

■ Function Introduction

When click on the SVN button, the SVN function is activated. SVN (Smart Volume Normalization) normalizes the volume of all audio sources into a constant level and also enhances your 3D sound listening range that advantages to gaming.

Function Pop Menu

Xear Audio Center provides several sound effects. Each output/input device comes with a pop menu and you can enter into the sound effect page to enjoy your music, movies and gaming.

How to open the pop menu:

I. Double click left mouse button on the Device Icon.

II. One click right mouse button on the Device Icon.

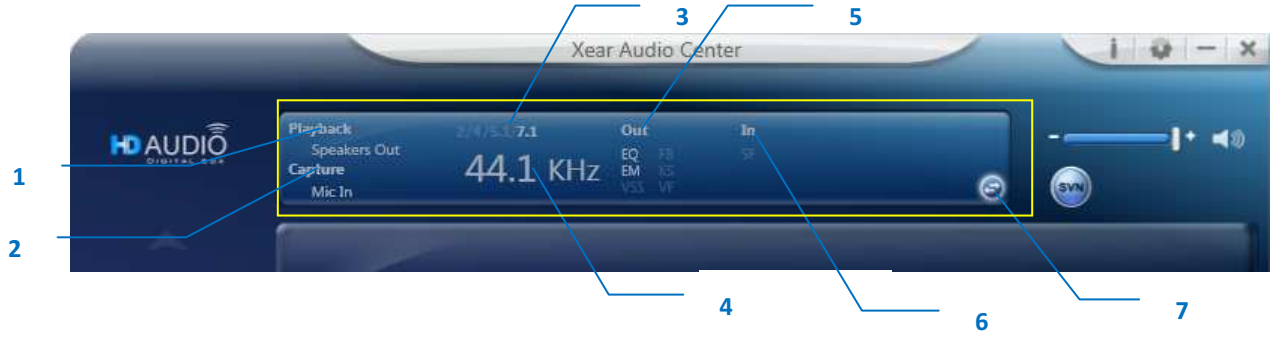
Function Page Area

When you click one of the function items in a pop menu, a function page as below will be shown as below.

Choose the Equalizer Page

Pop up the Equalizer Function Page

Audio Status Panel



1. Playback (Speakers Out)

It indicates that Speaker is the output default device.

2. Capture (Mic In)

It indicates that Mic In is the input default device.

3. Speaker Numbers (2)

It indicates the speaker numbers (for Speaker device only).

4. Sample Rate

It indicates the Playback sample rate for default output device.

5. Audio Output effect indicator

It indicates the playback sound effect status.

Abbreviation	Sound effect
EQ	Equalizer
EM	Environment Effects
VSS	7.1 Virtual Speaker Shifter
FB	Flex Bass II
KS	Xear SingFX → Key Shifting
VF	Xear SingFX → Vocal Fading

6. In effect indicator

It indicates the playback sound effect status.

Abbreviation	Sound effect
SF	Xear SingFX → Microphone Echo
SF	Xear SingFX → Magic Voice

7. Switch to Profile Panel button

Click on this button will switch status bar to Profile panel.

(Refer to 2.1.7 Profile Panel)

Profile Panel

This is the profile for sound effect setting; it has the preset mode and the user define mode. The user define mode can be customized.

1. **Profile Mode:**
   You can set the preset profile mode by these profile buttons. When the preset mode is active, there is a Green-check symbol shown on the right-down corner.

2. **Add Profile:**
   You can adjust specific sound effects (Ex: EQ, EM etc…) settings and click this “+” add profile button to name and to create a user-define mode.

3. **Delete Profile:**
   You can click this “-“ button to delete the user-define mode.

4. **Switch Button:**
   This switches the Profile panel to Audio Status Panel.

Speaker Device function introduction

Volume control Page

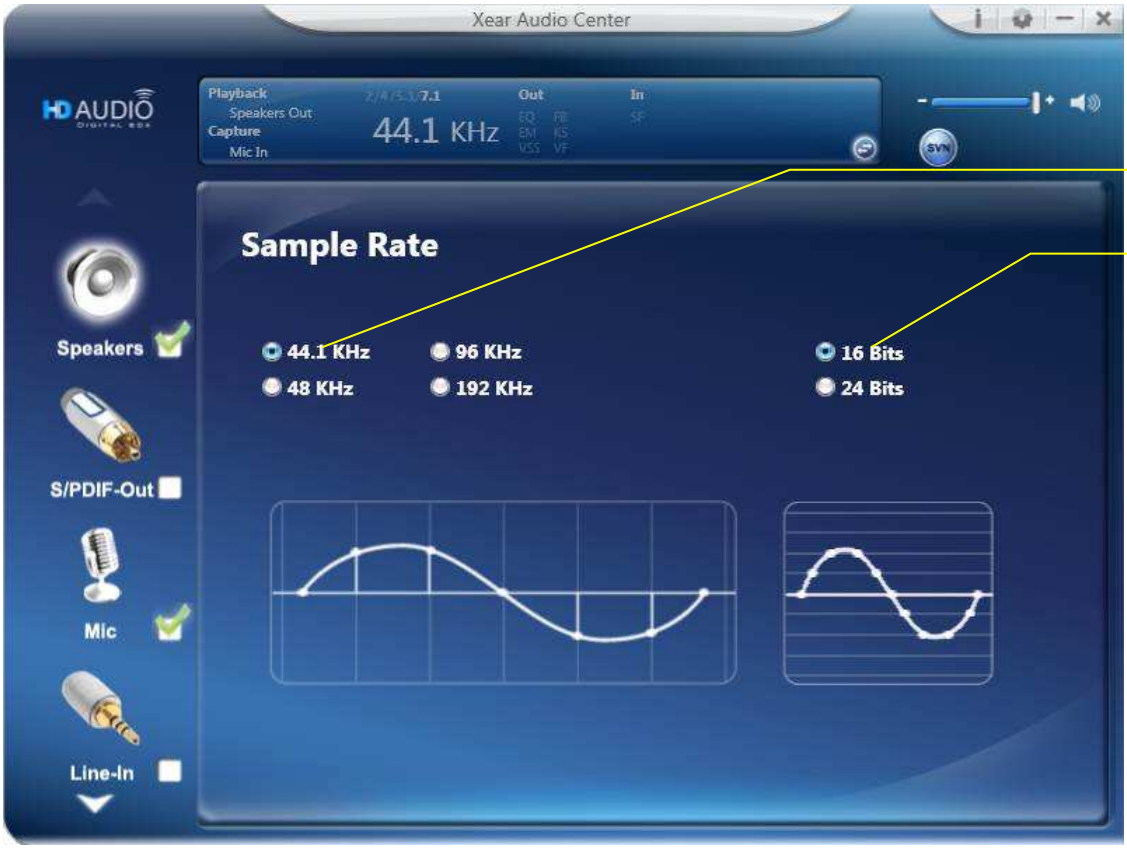
❖ Function Introduction

This function page provides a volume control for Speaker device.

1. **Volume control bar:**
   Master – It can adjust volume level for all channels.
   Front - It can adjust volume level for front channel.
2. **Left/ Right Channel Lock (Front, Cen/LFE, Rear, Side):**
   Clicking on the lock/ un-lock button can sync left-channel and right-channel.
3. **Mute / Un-mute:**
   Clicking on the mute/ un-mute button can mute all channels.
4. **dB Input Area (Front, Cen/LFE, Rear, Side):**

You can directly fill-in a dB value into this text box to set the volume level.

Sample Rate Page



❖ Function Introduction

This function page provides a sample rate setting for Speaker device.

1. Sample Rate button

44.1 KHz - set playback sample rate to 44.1K

48 KHz - set playback sample rate to 48K

96 KHz - set playback sample rate to 96K

192 KHz - set playback sample rate to 192K

2. Bit Depth button

16bit - set playback bit depth to 16bit

24bit - set playback bit depth to 24bit

Equalizer

❖ Function Introduction

It provides a 10-band EQ function; you will be able to adjust the EQ band manually and create customized preset items or click on the preset EQ mode.

1. **EQ enable/disable switch**
   Click this check box to enable/disable EQ

2. **Preset mode**
   Select a pre-set mode of the equalizer that is designed accordingly. There are 12 preset modes such as Bass, Treble, Live, Rock, Jazz, etc.

3. **EQ band controller**
   You can change the gain setting for each band (30/ 60/ 120/ 250/ 500/ 1K/ 2K/ 4K/ 8K/ 16K)

4. Manual mode

You can change the gain setting for each band and then give it a name in the “A. Input Field” and then click “  ” to add your new setting into the “B. Manual Mode List”. Click “  ” to delete settings.

Environment Effect

❖ Function Introduction

It provides 28 special environment emulations; you can hear different sound reflection and reverberation.

1. **Environment Effect enable/disable switch**
   Click on this check box to enable/disable Environment Effect.

2. **Environment Effect mode**
   Click on an Environment effect button or pull the dropdown list to choose an Environment effect.

3. **Zoom Size**
   You can change the “Room Size” to simulate a larger or smaller space.

Virtual Speaker Shifter

❖ Function Introduction

You can use this page to simulate the speaker direction and distance.

1. **7.1 Virtual speaker shifter enable/disable switch**
   Click on this check box to enable/disable 7.1 Virtual Speaker.

2. **Auto Rotation Mode**
   The virtual speakers rotate clockwise or counterclockwise slowly.

3. **Manually Rotation Mode**
   Use mouse to rotate the virtual speakers on the screen manually.

4. **Manual Shifting (Free Moving Mode)**
   Use pointer and click-and-drag to move the locations of the

individual virtual speakers.

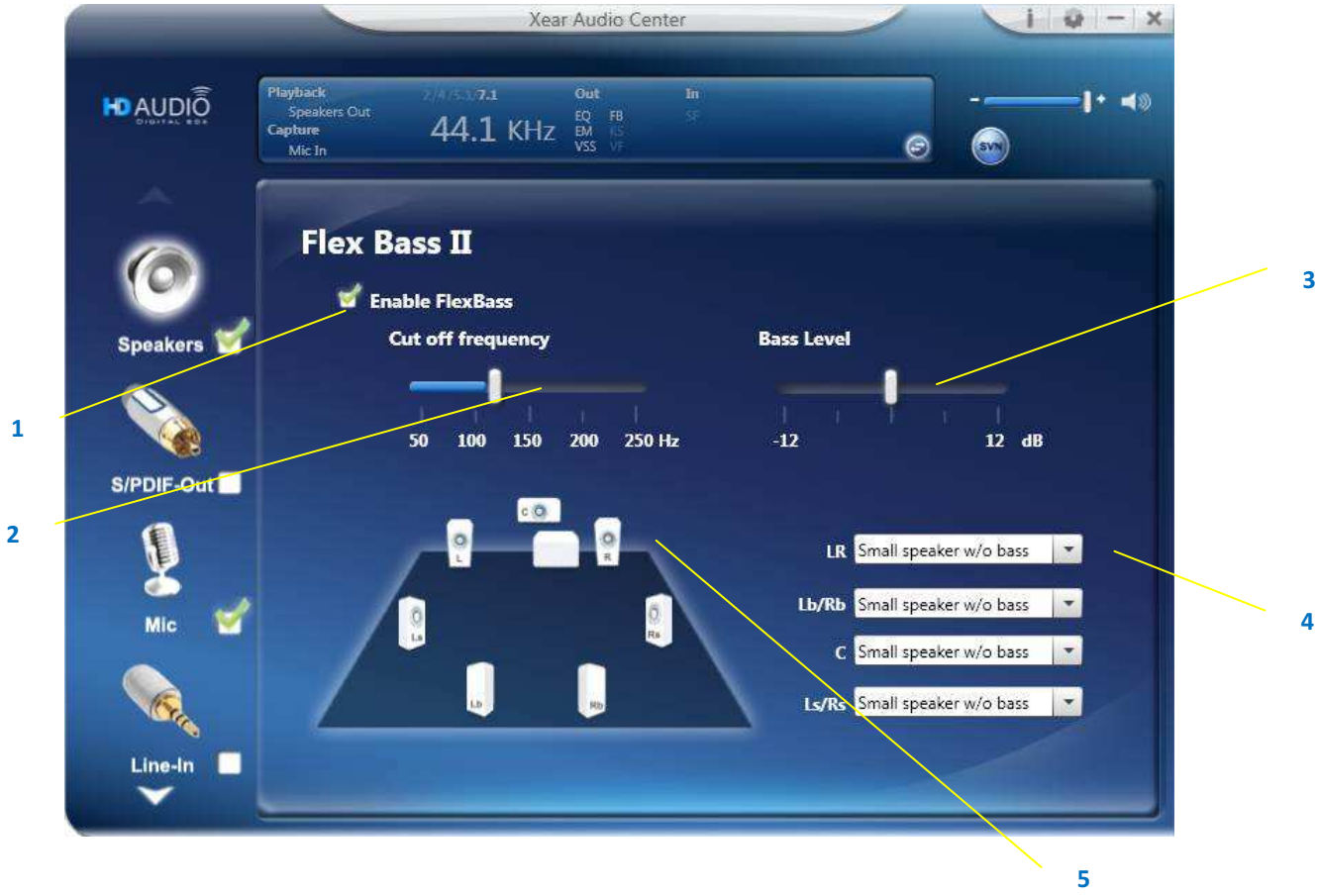
5. **Reset**
   Reset the location of virtual speakers / virtual listener to default.

6. **Virtual Speaker (L/R/Ls/Rs/Lb/Rb/C/W)**
   Each virtual speaker virtualizes one channel of the 7.1 channel speakers in the real world.

7. **Volume Control**
   Each virtual speaker virtualizes one channel of the 7.1 channel speakers in the real world.

8. **Volume indicator**
   Indicates the value for each channel.

Flex Bass II



❖ Function Introduction

You can use this function to increase/decrease the LFE strength. This function can cut the low frequency band (50~250Hz) of stereo music content (ex. Mp3, WMA, CD Audio) and transfer to subwoofer or each speaker.

1. **Flex Bass II enable/disable switch**
   Click on this check box to enable/disable Flex Bass II.

2. **Cut Off Frequency:**
   The cutting range of low frequency is from 50Hz to 250Hz.

3. **Bass Level:**
   The bass level range is from -12 to 12dB.

4. Speaker Size (L/R/Ls/Rs/Lb/Rb/C/W)

Small Speaker w/o bass

When the speaker size is set to small, you can hear the sound resonance more obvious and reverberation from subwoofer.

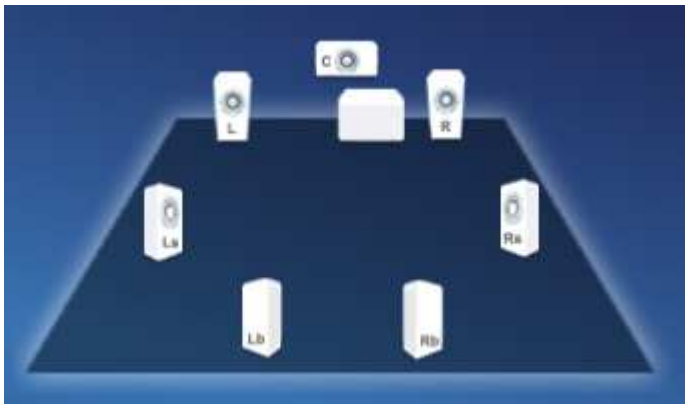
Large Speaker w/ bass:

When the speaker size is setting to large, you can hear the sound resonance more obvious and reverberation from itself.

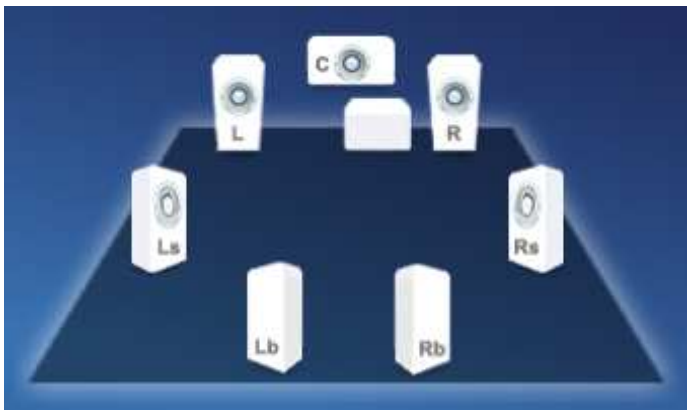
5. Speaker Diagram

You also can check the speaker size from this home theater diagram.

Small Speaker



Large Speaker



Xear SingFX

❖ Function Introduction

Xear SingFX page provides 2 features for karaoke application.

1. **Key Shifting switch**
   It provides the key change function, there are 4 shifting-up steps and 4 shifting-down steps, you can use slide bar to change the key level.

2. **Vocal Fading:**
   It provides the vocal removal function for any stereo music content (ex. Mp3、WMA、CD), you can use slider bar to change the vocal fading level.

SPDIF-Out Device function introduction

Volume control Page

❖ Function Introduction

This function page provides a volume control for SPDIF-Out device.

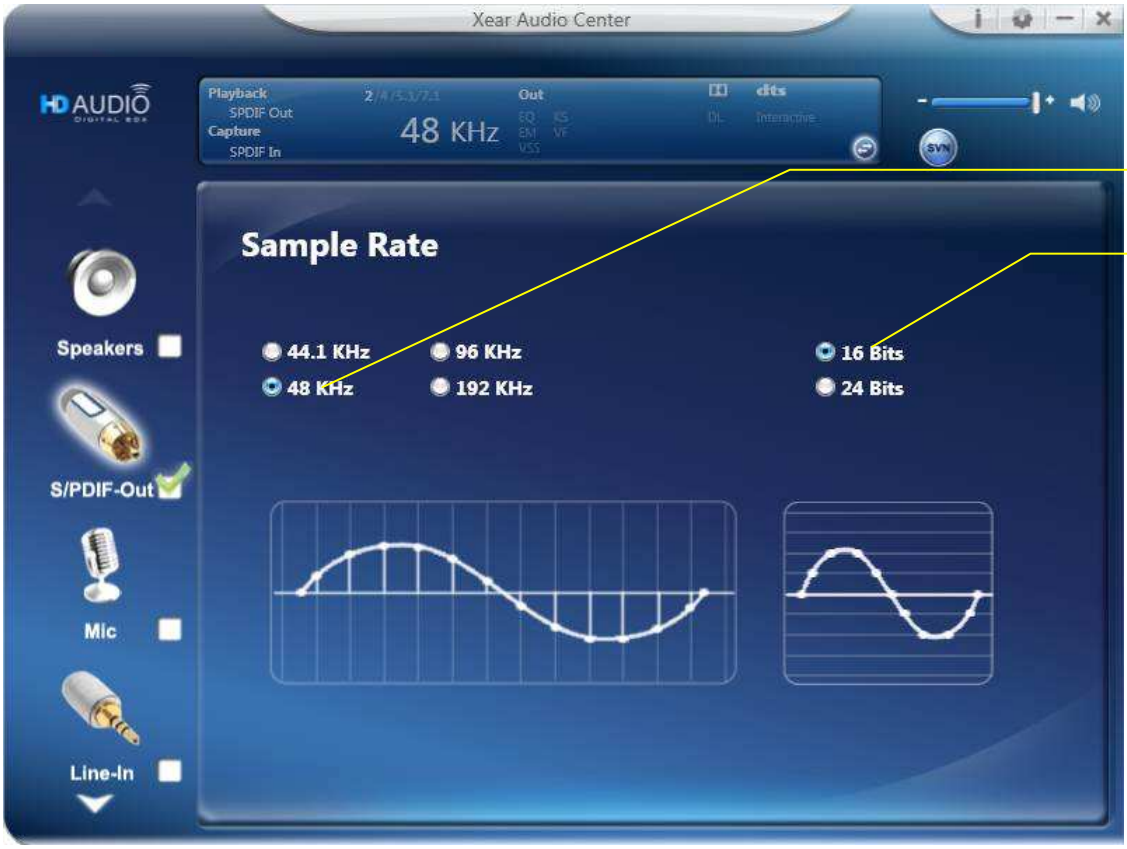
1. **Volume control bar:**
   SPDIF-Out – You can use this bar to increase/decrease volume level.

2. **Left/ Right Channel Lock:**
   Clicking on the Lock/ Un-Lock button can sync the left-channel and right-channel volume.

3. **dB Input Area:**
   You can directly fill-in a dB value into this text box to set the volume level.

4. **Mute / Un-mute:**
   Clicking on the mute/ un-mute button can mute SPDIF-Out.

Sample Rate Page



❖ Function Introduction

This function page provides a sample rate setting for SPDIF-Out device.

1. **Sample Rate button**
   44.1 KHz - set playback sample rate to 44.1K
   48 KHz - set playback sample rate to 48K
   96 KHz - set playback sample rate to 96K
   192 KHz - set playback sample rate to 192K

2. **Bit Depth button**
   16bit - set playback bit depth to 16bit
   24bit - set playback bit depth to 24bit

Mic、Line-in Device function introduction

Volume control Page

❖ Function Introduction

This function page provides the recording volume and monitor the volume control of Microphone device. (Same as Line-in device.)

1. **Volume control bar:**
   Mic-In – It can adjust the volume level of recording.
   Monitor- It can adjust the volume level of Mic-in monitor.
2. **Left/ Right Channel Lock:**
   Clicking on the Lock/ Un-Lock button can sync the left-channel and right-channel volume.
3. **Mute / Un-mute:**
   Clicking on the Mute/ Un-Mute button can mute all channels.
4. **dB Input Area**
   You can directly fill-in a dB value into this text box to set the volume level.

Sample Rate Page

❖ Function Introduction

This function page provides a sample rate setting for Microphone device.

1. **Sample Rate button**

   44.1 KHz - set Mic recording sample rate to 44.1K

   48 KHz - set Mic recording sample rate to 48K

2. **Bit Depth button**

   16bit - set playback bit depth to 16bit

   24bit - set playback bit depth to 24bit

Xear Magic Voice Page (Microphone device only)

❖ Function Introduction

When you are talking to your friends over the network like messenger, VOIP, online game applications, you can use “Magic Voice” effects to simulate some funny voice. Only one voice type can be chosen at one time.

1. **Microphone Echo,**
   Click this check box to enable the Microphone echo effect; you can use the slide bar to change the echo level.

2. **Magic Voice mode (Monster/Carton/Male/Female)**
   Click this check box to enable the Magic Voice effect; you can click on the any button to select the magic voice mode.

SPDIF-In、Stereo Mix Device function introduction

Volume control Page

❖ Function Introduction

This function page provides the adjustment of recording volume of SPDIF-In device. (Same as Stereo Mix device.)

1. **Volume control bar:**
   SPDIF-In – It can adjust volume level for recording.
2. **Left/ Right Channel Lock:**
   Clicking on the Lock/ Un-Lock button can sync the left-channel and right-channel volume.
3. **dB Input Area**
   You can directly fill-in a dB value into this text box to set the volume level.
4. **Mute / Un-Mute:**
   Clicking on the mute/ un-mute button can mute all channels.

Sample Rate Page

❖ Function Introduction

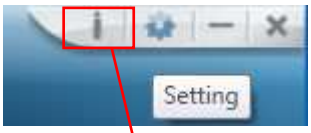
This function page provides a sample rate setting.

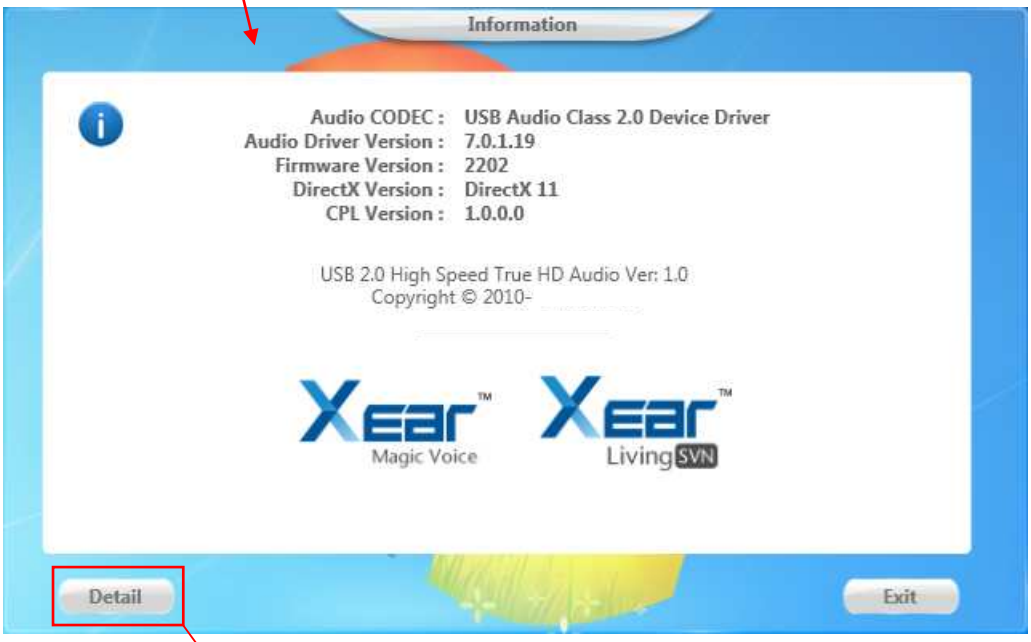
1. **Sample Rate button**
   44.1 KHz - set recording sample rate to 44.1K
   48 KHz - set recording sample rate to 48K

2. **Bit Depth button**
   16bit - set recording bit depth to 16bit
   24bit - set recording bit depth to 24bit

Information Page Introduction

This page lists the driver information and the technology trademark logo. You can get both hardware/software details and also the legal information references.

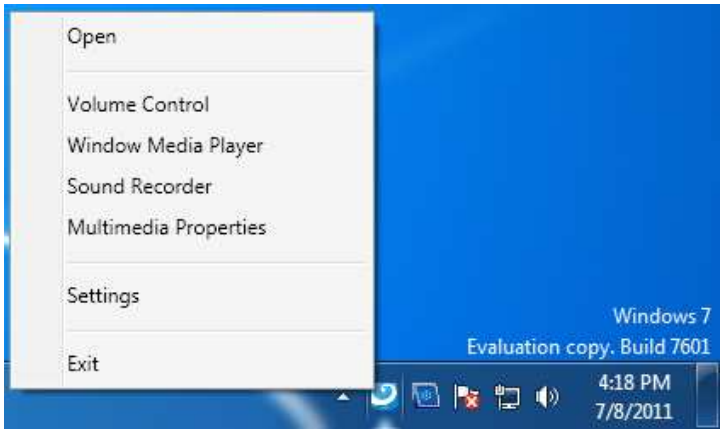




Detail:

Tray Icon Function Introduction

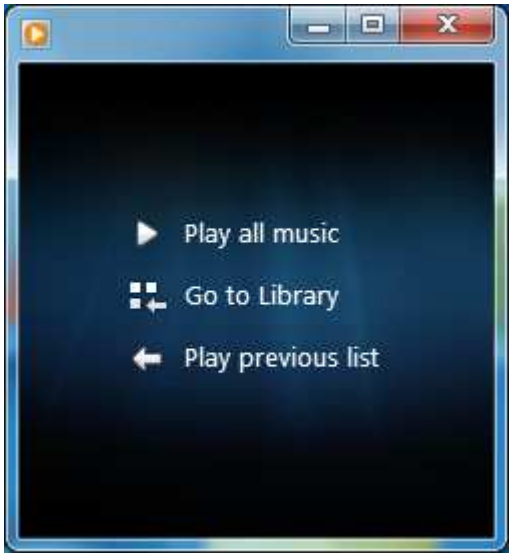
Open the “CPL Tray Icon Function List” by right-clicking the tray Icon on system tray.



1. **Open:**
   Clicking the “Open” item will restore the USB Audio Software CPL.

2. **Volume Control:**
   Clicking the “Volume Control” item will open the Volume Mixer of Windows OS. If you want to separately control the volume of your speakers and other sound devices or programs, use this Volume Mixer.

3. **Windows Media Player:**
   Clicking the “Windows Media Player” item will open the Microsoft Windows Media Player.

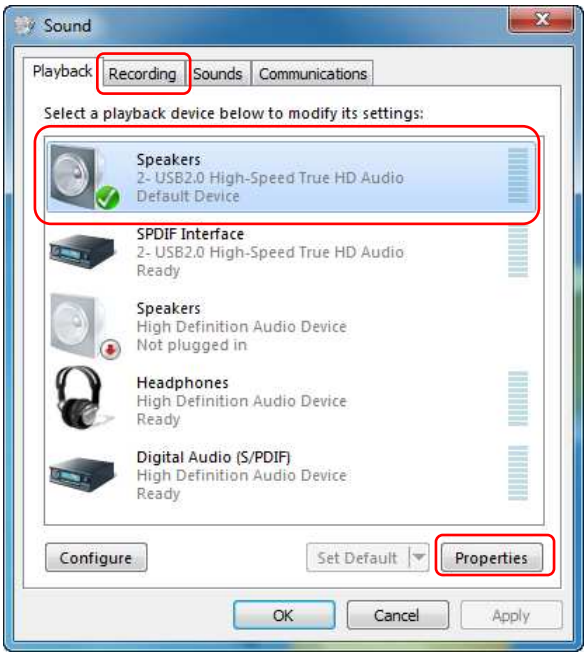


4. **Sound Recorder:**
   Click the “Sound Recorder” item to open the Windows Sound recorder.

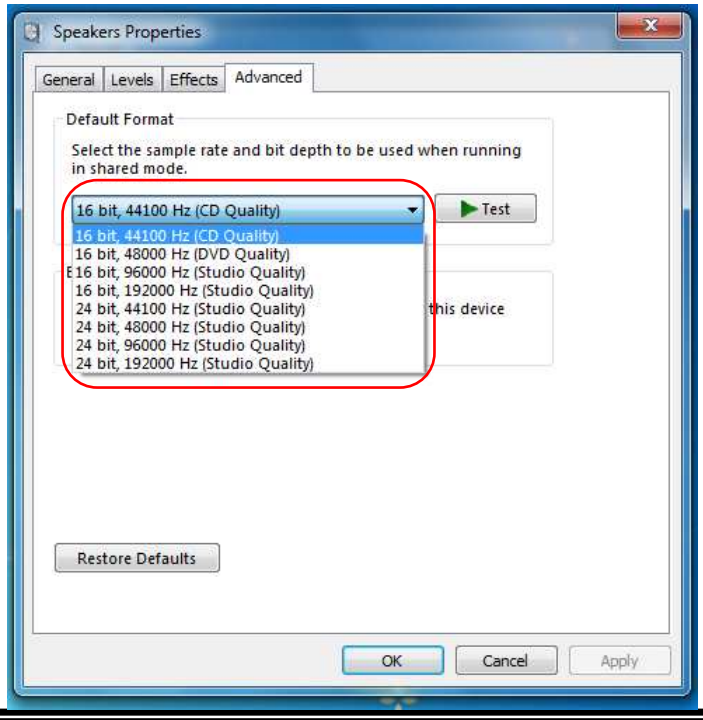
5. Multimedia Properties:

Open the Multimedia Properties page of Windows OS, you can select the working sample rate & bit rate.

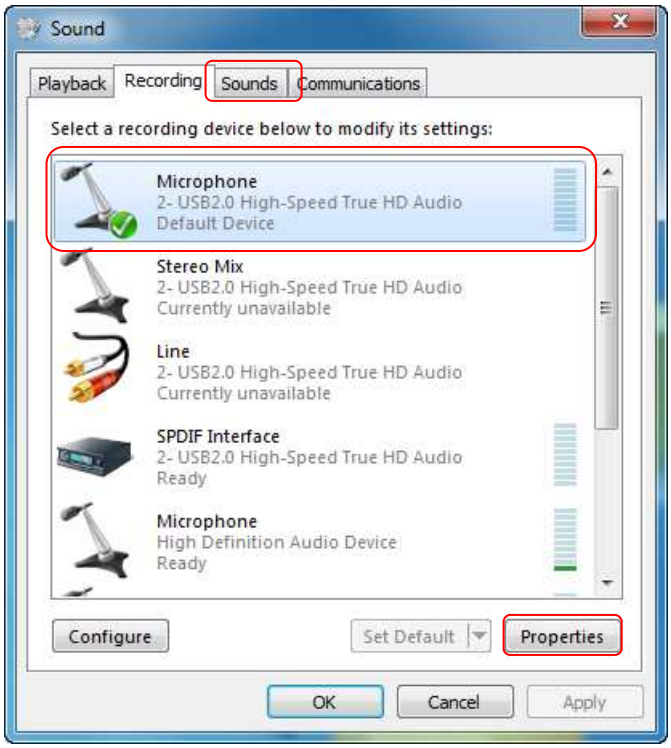
I. Select the “Speakers” device and then click the “properties” button.

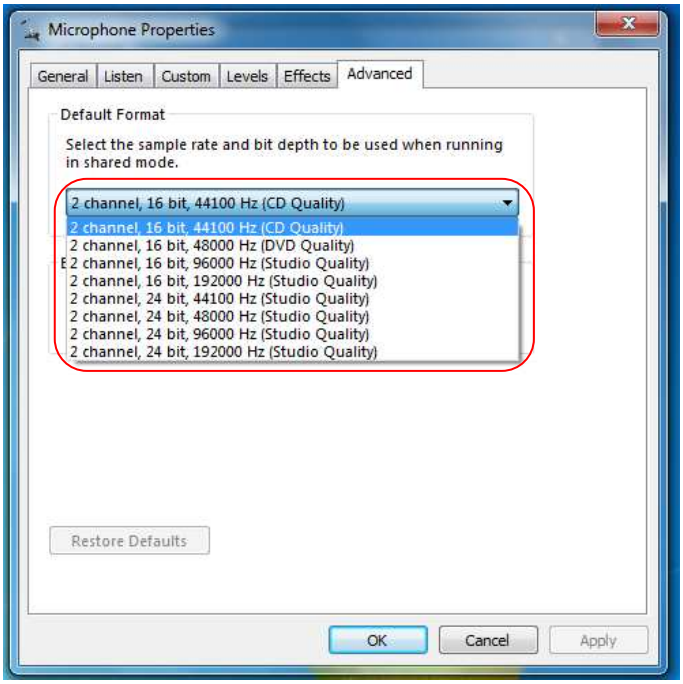


II. Click the “Advanced” tag, enter the advanced page, and pull the dropdown list to open default format support list as shown in the below diagram.



III. Follow the same procedure to change the Sample Rate & Bit Rate of “Microphone” device on recording tag.





6. Setting

Click setting item to open the “Xear Audio Center” setting page as below.

I. Show System Tray Icon – Check “Show System Tray Icon” box, the Xear Audio center icon will be shown in the system tray.

II. UI Transparent – It can adjust transparentness of the UI vision.

III. Language Select – it can change the UI language. (Refer to Appendix A)

IV. Don’t show start up message – it can enable/disable the UI start-up message.

7. Exit:

Clicking the “Exit” item will exit the tray Icon from system tray.

Appendix A - Multi-Lingual Supporting List

AS372 USB HD Audio Driver Multi-Lingual Supporting List

- Support 17 lingual versions:

1 English - English
2 German - Deutsch
3 French - Français
4 Portuguese - Português
5 Spanish - Español
6 Russian - русский язык
7 Italian - Italiano
8 Dutch - Nederlands
9 Indonesian - Bahasa Indonesia
10 Danish - Dansk
11 Chinese - Traditional
12 Chinese - Simplified
13 Korean - 한국어（韓國語）
14 Japanese-日本語
15 Swedish - Svenska
16 Turkish - Türkçe
17 Thai- ไทย

Installing to different country version of operation system can auto detect the language version and show a correct version.

Appendix B – Trouble Shooting

1. Why I cannot enjoy the 24-bit/192kHz high definition audio quality from AS372?
   You may use AS372 under USB Audio mode 1.0, and it only delivers 16-bit/48kHz audio quality. Adjust the slide switch on the bottom of AS372 to U2 position and setup AS372 in USB Audio Device 2.0 mode. Unplug and re-plug AS372 USB cable to computer system.

2. Why I need to install drivers under Windows environment?
   Windows does not have the native drivers for gears which comply with USB Audio device 2.0. Therefore, you have to install the drivers from the bundled installation CD.
   On the other hand, if you are running the latest Mac or Linux OS, they already have built-in native drivers for USB Audio Device 2.0. AS372 is a real plug and play device to execute the drivers automatically.

3. System advises to install Microsoft Frame Network during installation.
   .NET Framework 3.5 builds incrementally on the new features added in .NET Framework 3.0. For example, feature sets in Windows Workflow Foundation (WF), Windows Communication Foundation (WCF), Windows Presentation Foundation (WPF) and Windows CardSpace. In addition, .NET Framework 3.5 contains a number of new features in several technology areas which have been added as new assemblies to avoid breaking changes. You can download it from
   http://www.microsoft.com/download/en/confirmation.aspx?id=25150

4. If I do not install the drivers, can I use AS372 as a multi-channel USB Audio device?
   Yes, you still can use AS372 without any installation. Please switch the button slide switch to U1 and setup AS372 in USB Audio Device 1.0 mode.

5. Why I cannot use my AS372 when it connects to a 4-port USB HUB.?
   AS372 needs fully 500mA from the USB port. The HUB might not provide such big current to AS372. Please connect AS372 to a PC system USB port directly, or connect it to USB HUB that has power adaptor.

6. Does AS372 support ASIO?
   AS372 cannot support ASIO from native driver, but you can still enjoy ASIO performance from 3rd Party software. For example, you may download and install ASIO4ALL to your system. Then you can find out the ASIO drivers from output device list of ASIO supported application.