

CM108AH

USB PnP Sound Device

Advanced Driver Software Architecture TM

Software User Manual for XP

Rev. 0.5
Jun. 05, 2012

Revision History

Revision	Date	Description
0.1	2010/02/02	First release
0.2	2010/02/11	Modified
0.3	2010/09/01	Add Appendix A - Multi-Lingual Supporting List
0.4	2011/12/26	P31 Updated Multi-language descrption
0.5	2012/06/05	1. Updated C-Media UI Logo 2. Updated Sound effect license logo 3. Add “Mix With Wave” function (P22)

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SECTION 1 Installing the Software of CM108AH

Ensure that you have plug-in the USB audio card before installing CM108AH USB PnP Sound Device driver. Otherwise, driver installation error may occur.

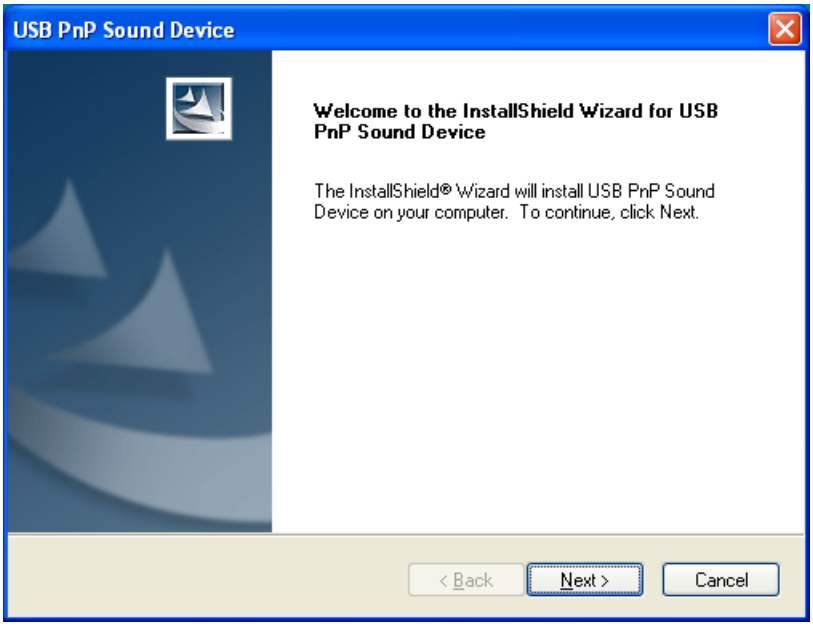
❖ Please make sure your CM108AH USB PnP Sound Device is plug-in. Otherwise you will see follow dialog.



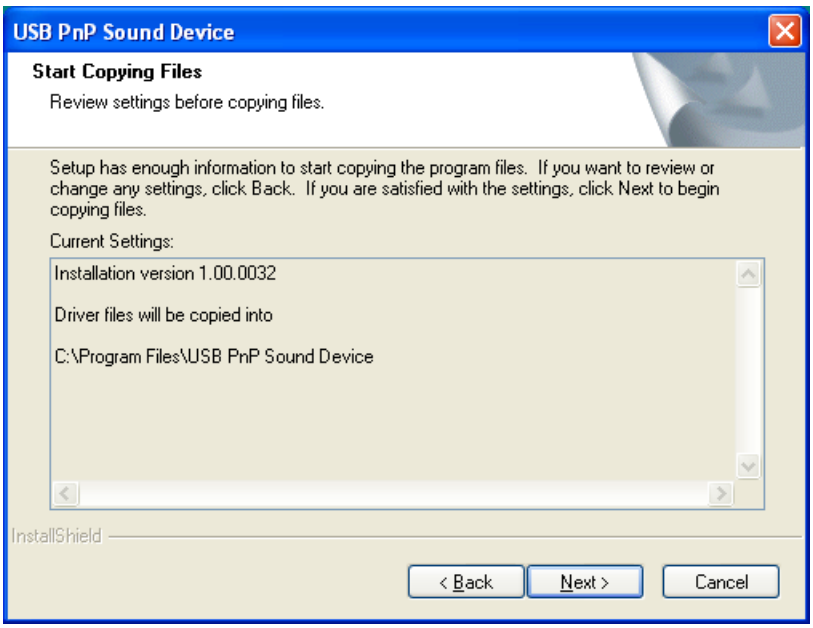
1.1 Installation

❖ Insert C-Media CM108AH USB PnP Sound Device driver CD. Double click the setup.exe file if auto run is disabled. Press “Cancel” if you want to quit installation.

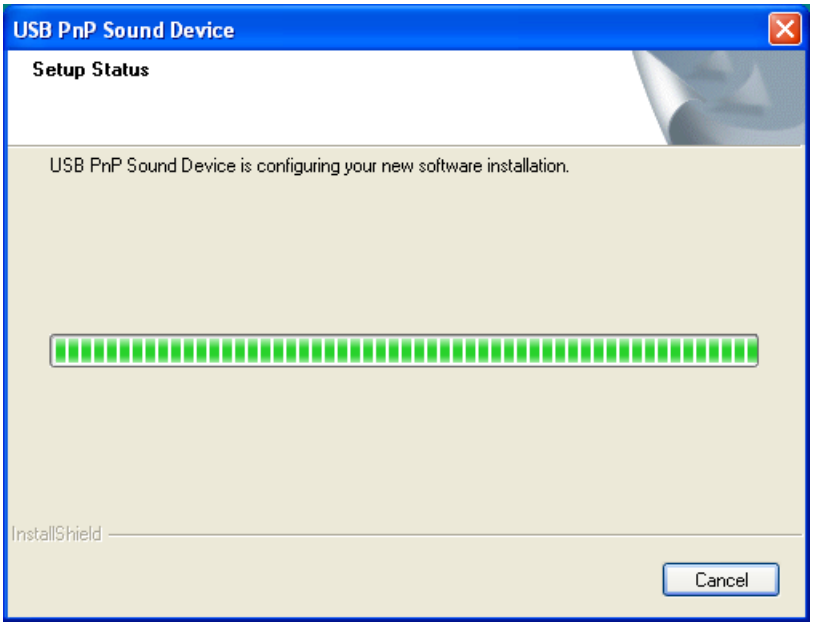
❖ Start Driver installing, please press “Next” button to next step as following diagram.

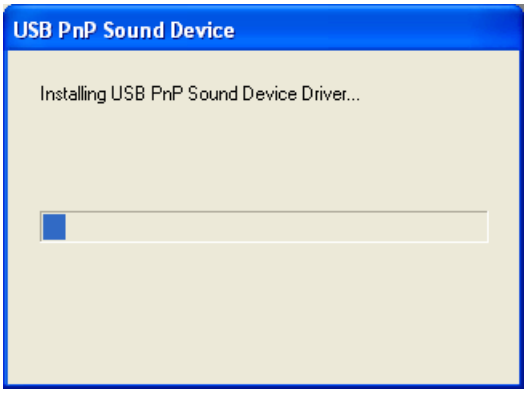


❖ Please press “Next” button to next step as following diagram.



❖ Install Program will automatic run following processes.



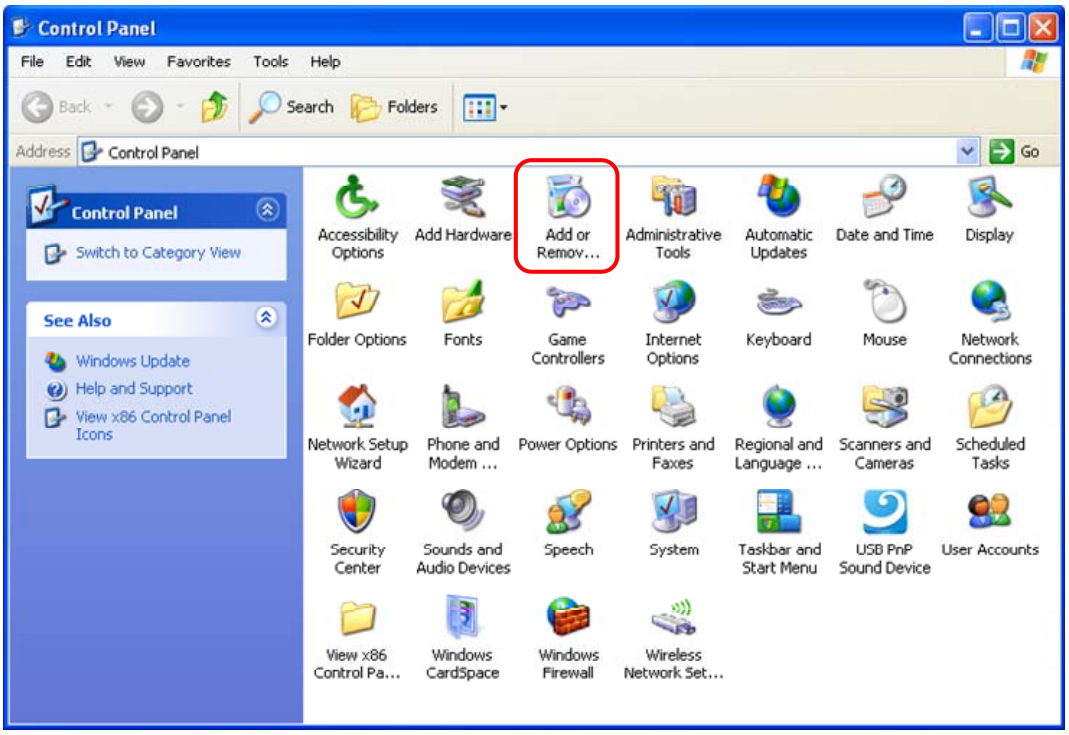


❖ Install complete. It is recommended that you restart your computer.

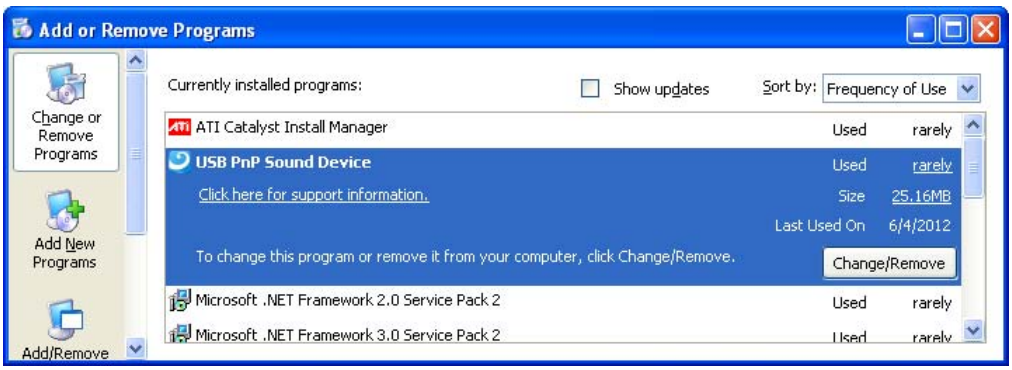


1.2 Un-Installation

❖ Double click “Add or Remove Programs” icon from Windows XP Control Panel.



❖ Select “USB PnP Sound Device” item, and then click “Change/Remove” button.



❖ Please press “OK” button to Uninstall C-Media CM108AH USB Advance Audio Device driver



❖ Uninstall driver successfully, it is recommend restarting your computer to completely remove driver.

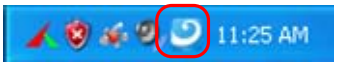


SECTION 2 Driver Control Panel (CPL) Introduction

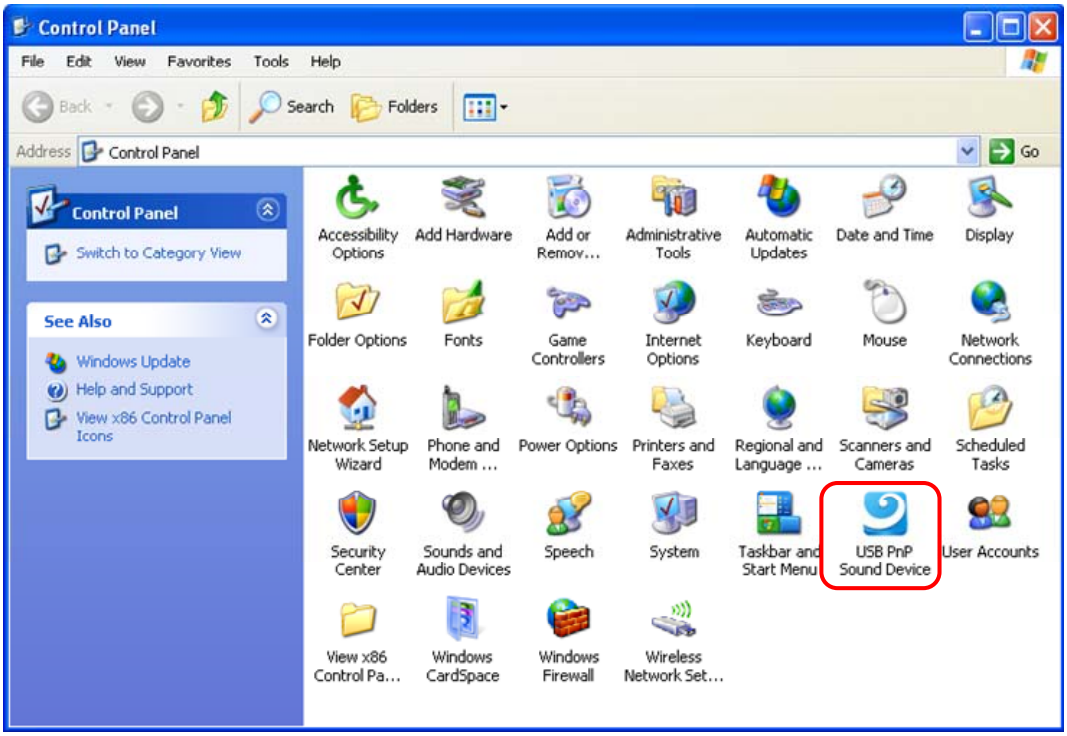
2.0 Open CM108AH USB PnP Sound Device Software CPL

After the driver installing and rebooting, you will find the CM108AH PnP Sound Device software CPL icon on the system tray bar.

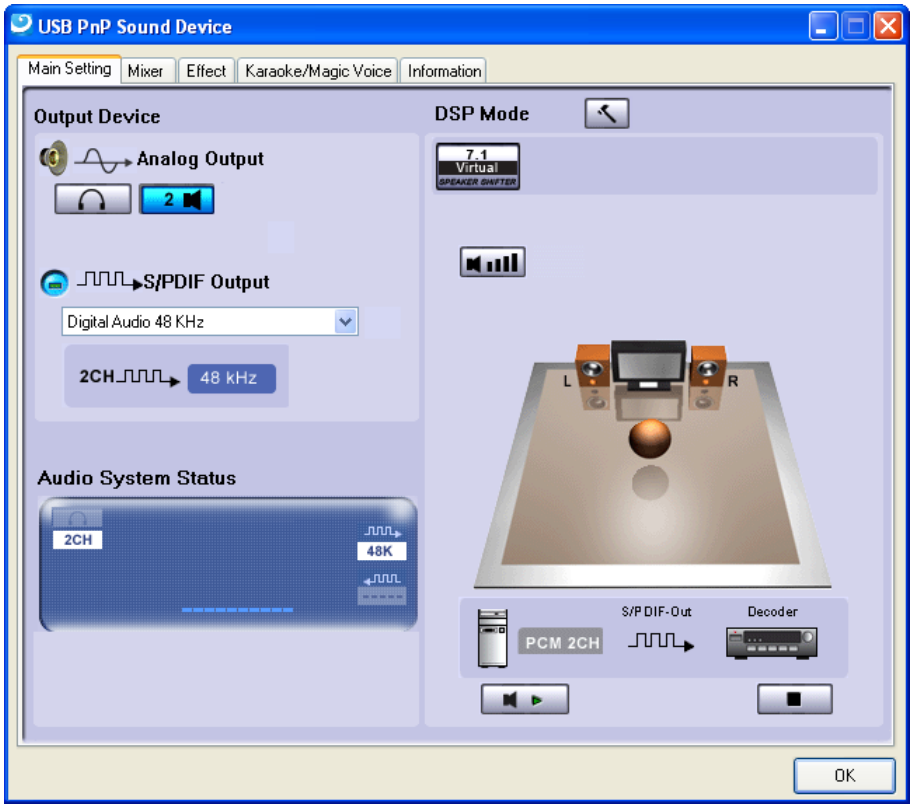
❖ You are able to open the CPL by double-clicking on the icon as following diagram.



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



❖ The CM108AH USB PnP Sound Audio Device CPL will appear as below diagram.



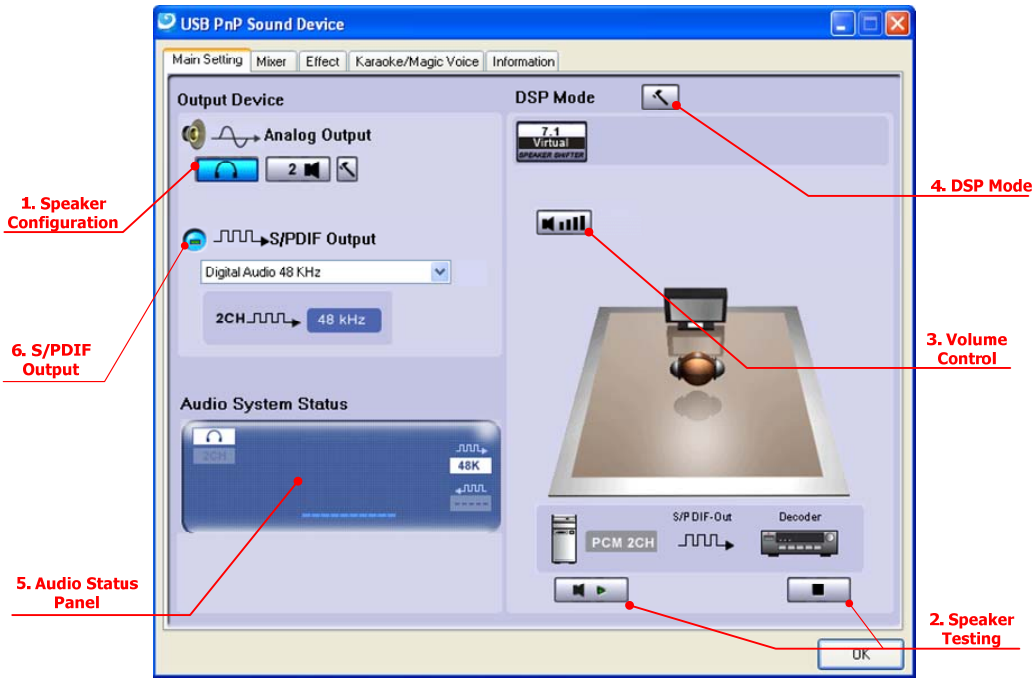
❖ How to make CPL icon visible in the system tray?

1. Open CM108AH PnP Sound Device software control panel.
2. Go to “Information” page.
3. Check “Show the audio configuration icon in the system tray.”



2.1 "Main Setting" Page Function Introduction

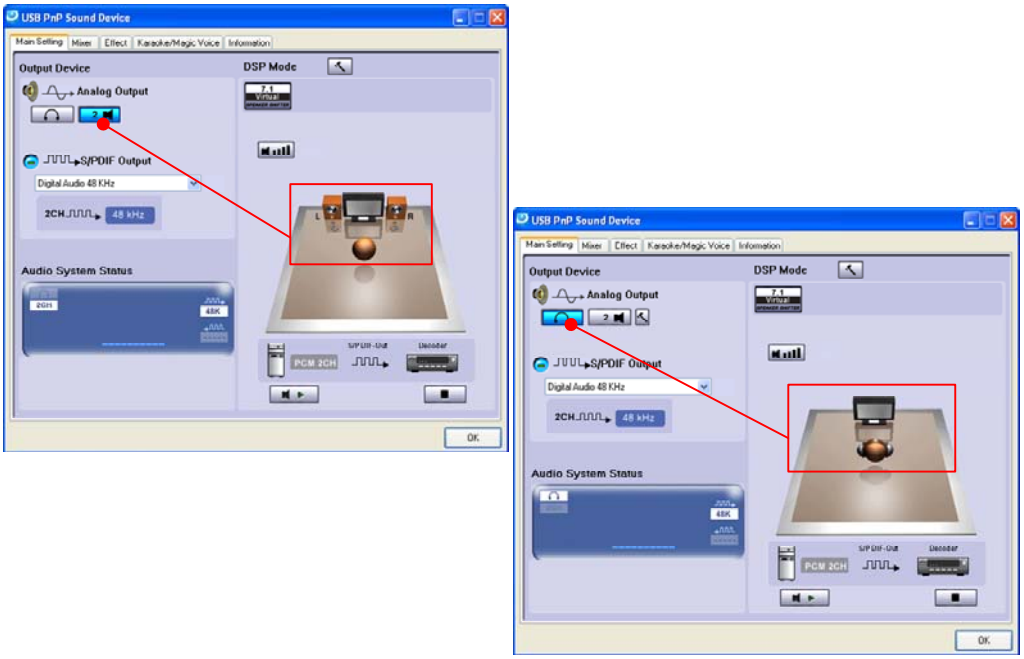
You can control the USB Audio various playback device configuration as below diagram.



1. Analog Output – Speaker/Headphone Configuration. (Please refer to 2.1.1)
2. Analog Output – Speaker Testing. (Please refer to 2.1.2)
3. Analog Output – Volume Control. (Please refer to 2.1.3)
4. Analog Output – DSP Mode. (Please refer to 2.1.4)
5. Display – Audio System Status. (Please refer to 2.1.5)
6. S/PDIF Output – S/PDIF Output Switch (Please refer to 2.1.6)

2.1.1 Analog Output – Speaker/Headphone advanced setting

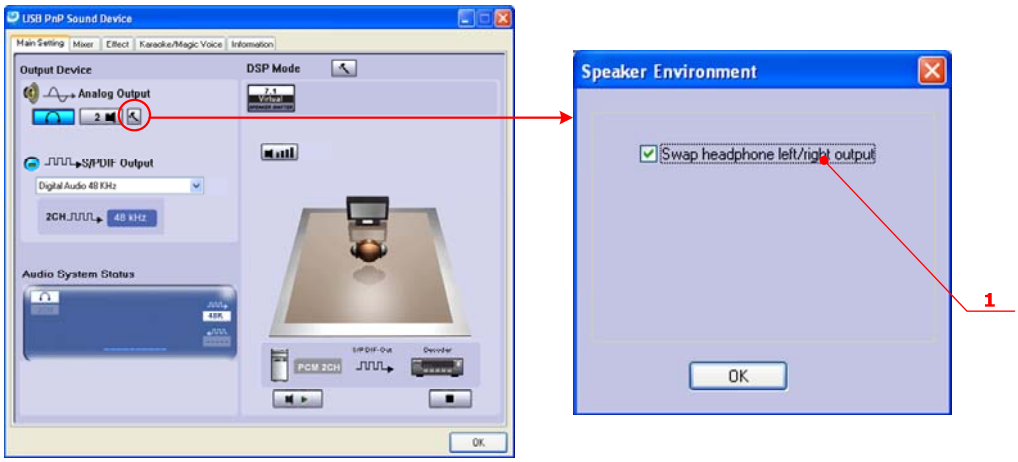
CM108AH PnP Sound Device support stereo Headphone and 2CH Speaker analog output.



❖ Click the Advanced settings button ( ) to set the advanced speaker setting.

■ Advanced settings – Headphone

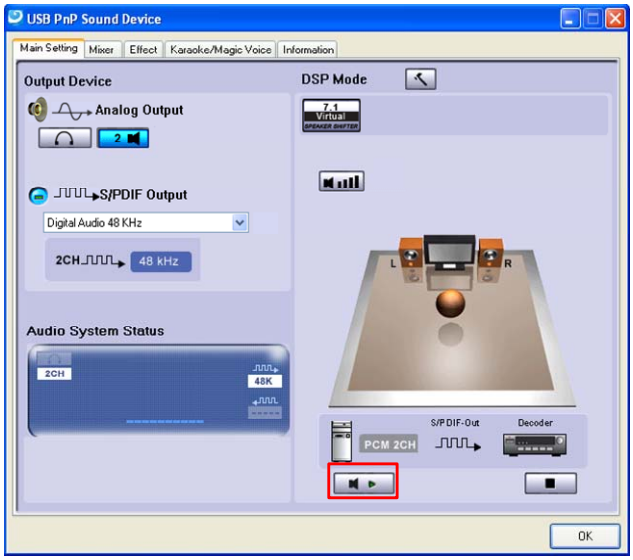
1. Swap headphone left/right output



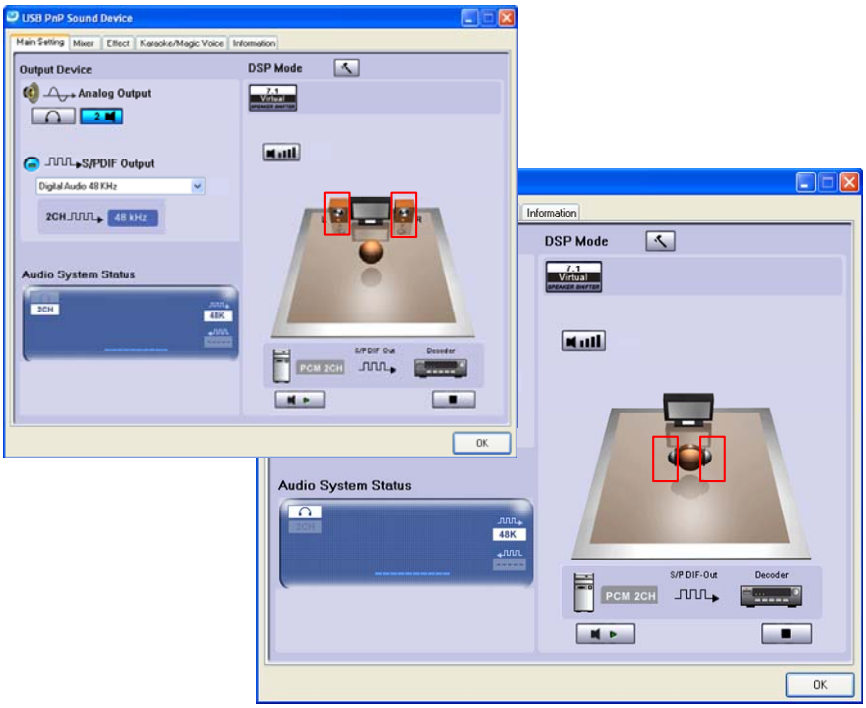
2.1.2 Analog Output – Speaker/Headphone Sound Testing

User can test Speaker/HP sound output by automatic or manual.

1. Automatic Speaker/Headphone Testing:
   Click the auto testing button (), CPL will auto testing every speaker in turn.



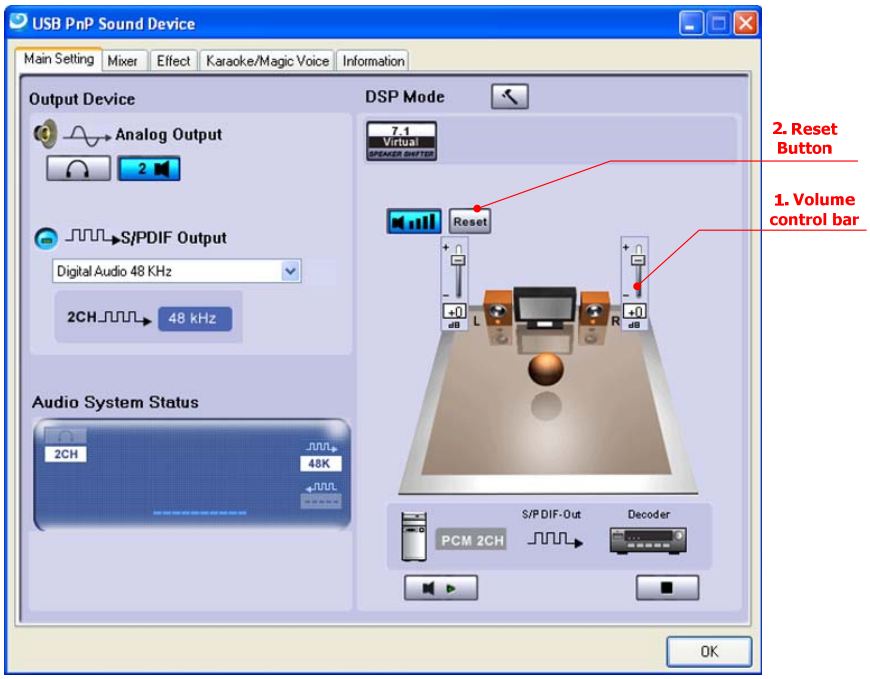
2. Manual Speaker/Headphone Testing:
   Click the single Headphone/Speaker diagram to test speaker output sound by manual.



2.1.3 Analog Output – Volume Control

CM108AH USB PnP Sound Device CPL provides the volume control function, Click the "Digital Volume" Button () to enable the volume control bar as following diagram.

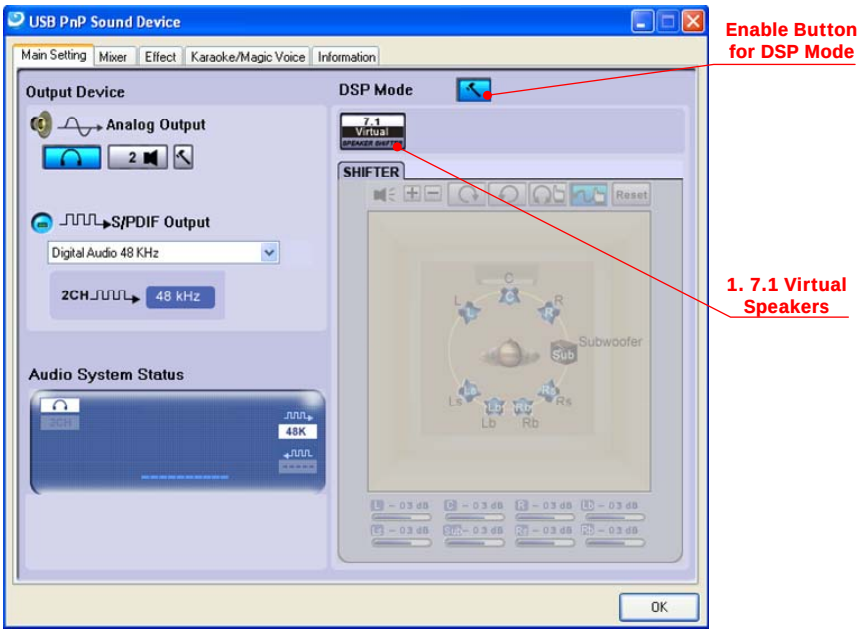
1. Volume Control Bar:
   Use the volume control bar to adjust sound value for Speaker/Headphone left/right channel.
2. Reset Button:
   Click the "Reset" Button to return all speaker sound value to default setting.



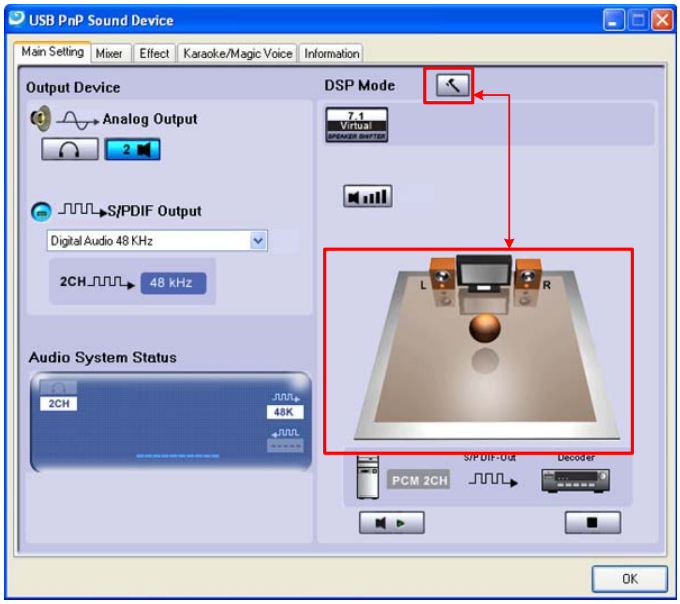
2.1.4 Analog Output - DSP Mode

CM108AH USB PnP Sound Device CPL provides a DSP mode.

❖ The button () allows users switch DSP Effect Advanced Setting on or off. When the DSP Mode is turned on, users can see the DSP working layout to the right.

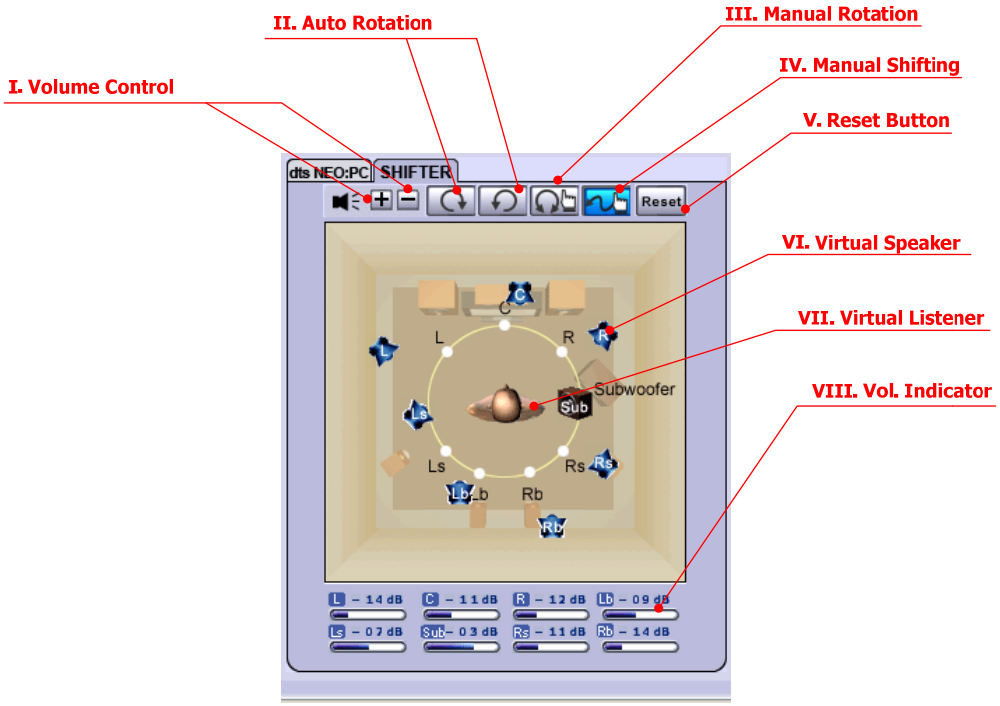


❖ When the DSP Mode is off (), the standard speaker test mode will be resumed.



1. C-Media 7.1 Virtual Speaker Shifter:

   Click the "7.1 Virtual Speaker button" () to enable the DSP Effect. When enabled, the icon will be displayed in the DSP Effect section to the right.

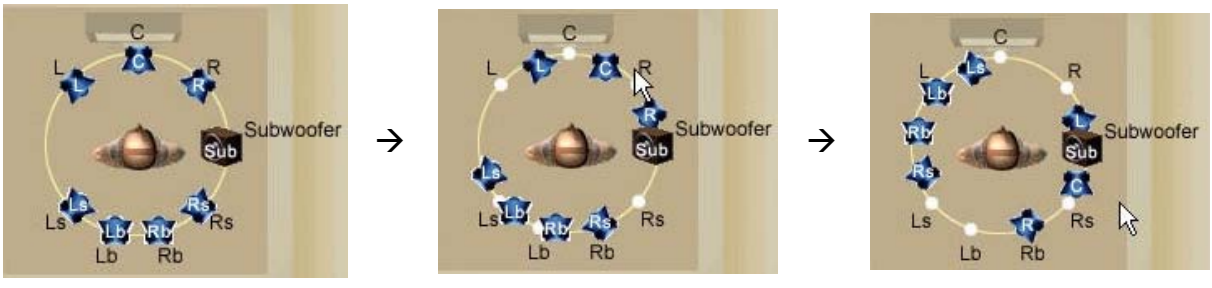


I. Volume Control:

Increase / decrease the volume of all channels by 1 dB for one step. (+4dB~-17dB)

II. Auto Rotation Mode:

The virtual speakers rotate clockwise or counterclockwise slowly. For example, if clockwise is selected:



T=0 T=0.25 sec T= 1 sec

III. Manually Rotation Mode:

Use mouse to rotate the virtual speakers on the screen manually.

IV. Manual Shifting (Free Moving Mode):

Use pointer and click-and-drag to move the location of individual virtual speakers.

V. Reset:

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

VI. Virtual Speaker:

Each virtual speaker virtualizes one channel of the 7.1 channel speakers in the real world.

VII. Virtual Listener:

The virtual listener virtualizes your position.

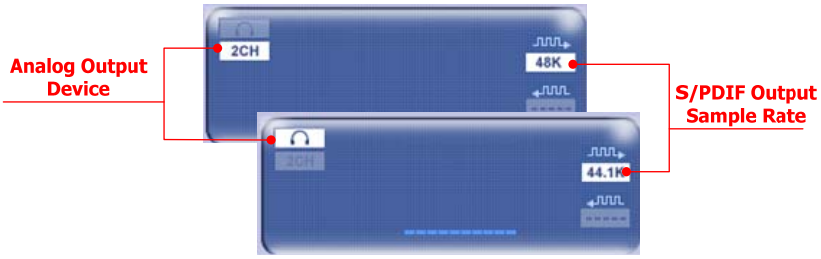
VIII. Volume indicator:

Indicate value for each channel.

2.1.5 Audio System Status Panel

CM108AH USB PnP Sound Device CPL provides a panel to indicate the Audio system status.

- ❖ Analog Output Device
- ❖ S/PDIF Output Sample Rate



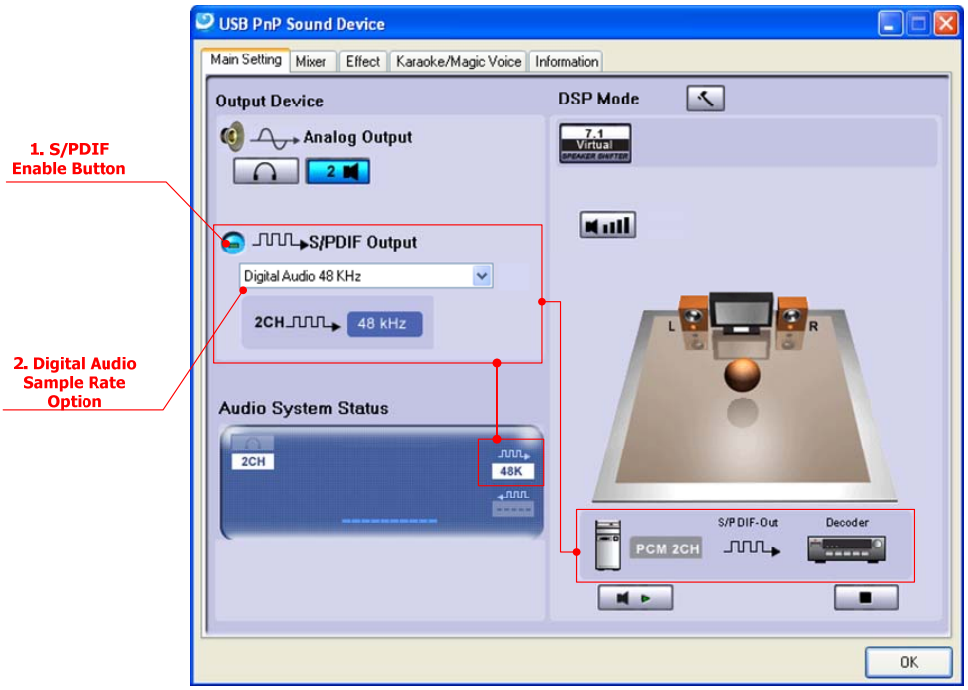
- ❖ Peak Meter



2.1.6 S/PDIF Output – S/PDIF Output Device Options.

CM108AH USB Multi-Channel Audio Device supports the Digital Output. Click "S/PDIF Enable button" ( ) to enable it.

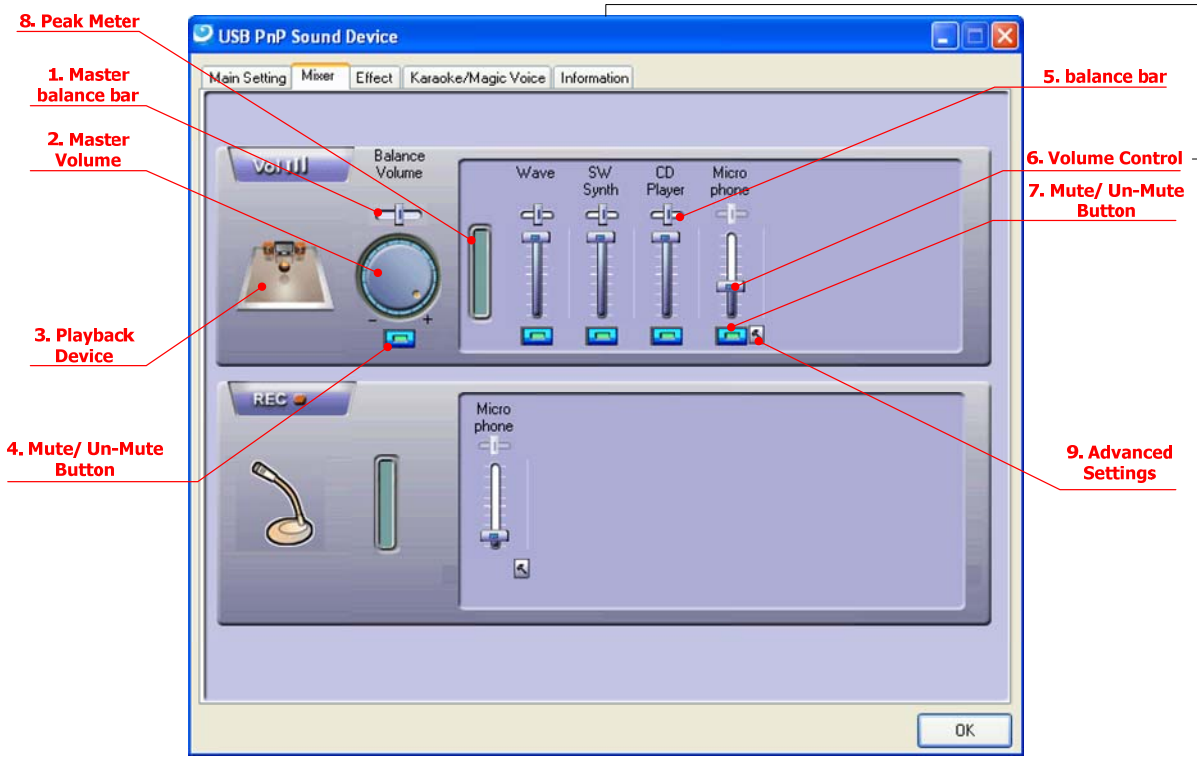
1. S/PDIF Enable Button.
2. Digital Audio Sample Rate Option-48/44.1KHz 2CH digital PCM Data Output.



2.2 "Mixer" Page Function Introduction

The built-in mixer lets users control volume playback / recording / monitoring (A-A Path).

2.2.1 Playback and Monitoring (A-A Path) Mixer

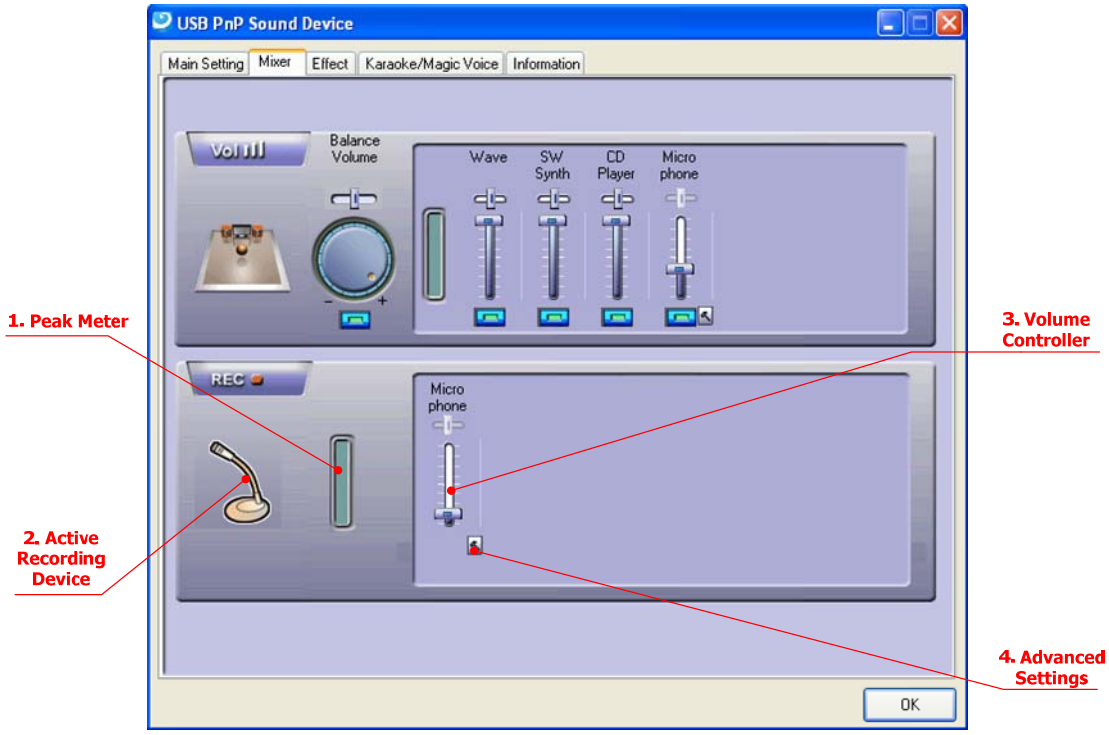


1. Master Volume Controller - Control playback output volume.
2. Master balance Controller - Control playback sound balance.
3. Speaker configuration – Indicate the speaker numbers or Headphone
4. Master Volume Mute / Un-Mute Control – 1. Mute→ Button is un-lighted ( ).
   2. Un-Mute → Button is lighted ( ).
5. Balance Volume - User can control sound output from Left channel or Right Channel by balance controller.
6. Volume Control - Control playback output or A-A path device volume.
7. Mute/ Un-Mute Control - 1. Mute → Button is un-lighted ( ).
   2. Un-Mute → Button is lighted ( ).

8. Peak Meter- Indicate the instantaneous level of an audio signal.
9. Advanced Settings:
   Click Advanced Settings button ( ) and you can find a “Microphone Boost” item, you can check this Microphone Boost item to increase the A-A path of Microphone volume.



2.2.2 Recording Mixer

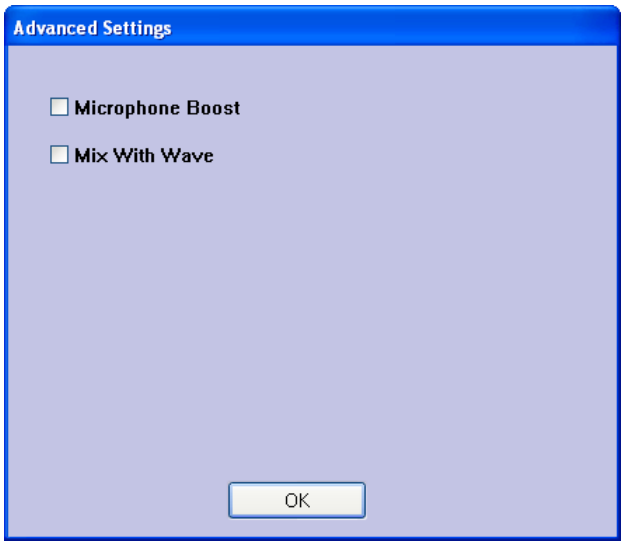


1. Peak Meter:
   Indicate the instantaneous level of an audio signal.
2. Active Recording Device:
   Indicate the recording resource device.
3. Volume Controller:
   User can control recording value by individual recording device.

4. Advanced Settings:

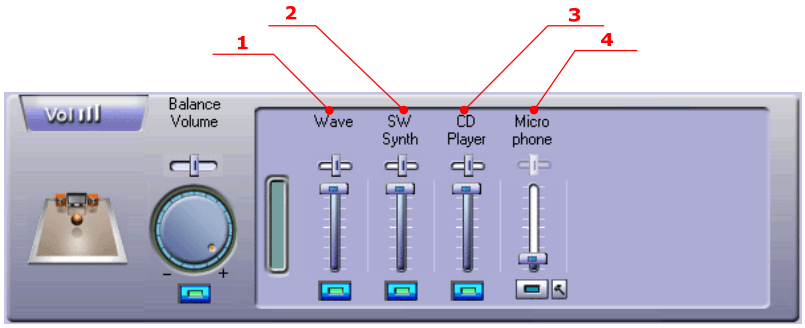
   Click Advanced Settings button ( ), there is a pop windows as below figure:

   - You can check the “Microphone Boost” item to increase the recording of Microphone volume.
   - You can check the “Mix With Wave” item to enable the microphone recording mix with Wave.



2.2.3 Playback Device Introduction

You have several options for controlling volume in this panel, including adjusting the volume level, muting and reducing volume.



1. Wave:

   The volume controlling is for OS system audio volume level.

2. SW Synth:

   The volume controlling is for MIDI music.

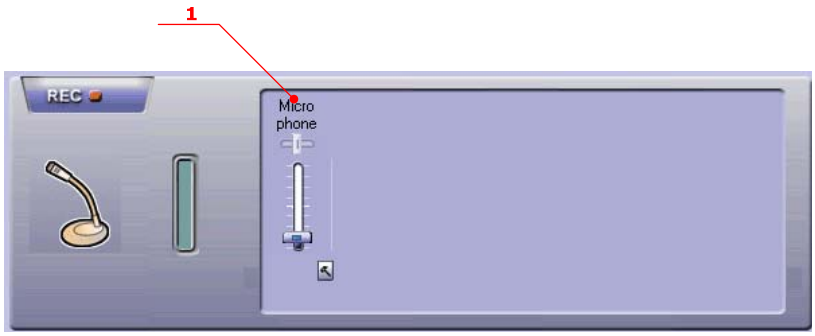
3. CD Player:

   The volume controlling is the CD player, if you play CD audio, you can adjust volume level by this control bar.

4. Microphone:
   The volume controlling is for monitor (A-A path) of “Microphone-in” device. The A-A path is meaning the Microphone-in to Speaker-Out analog loop path.

2.2.4 Recording Device Introduction

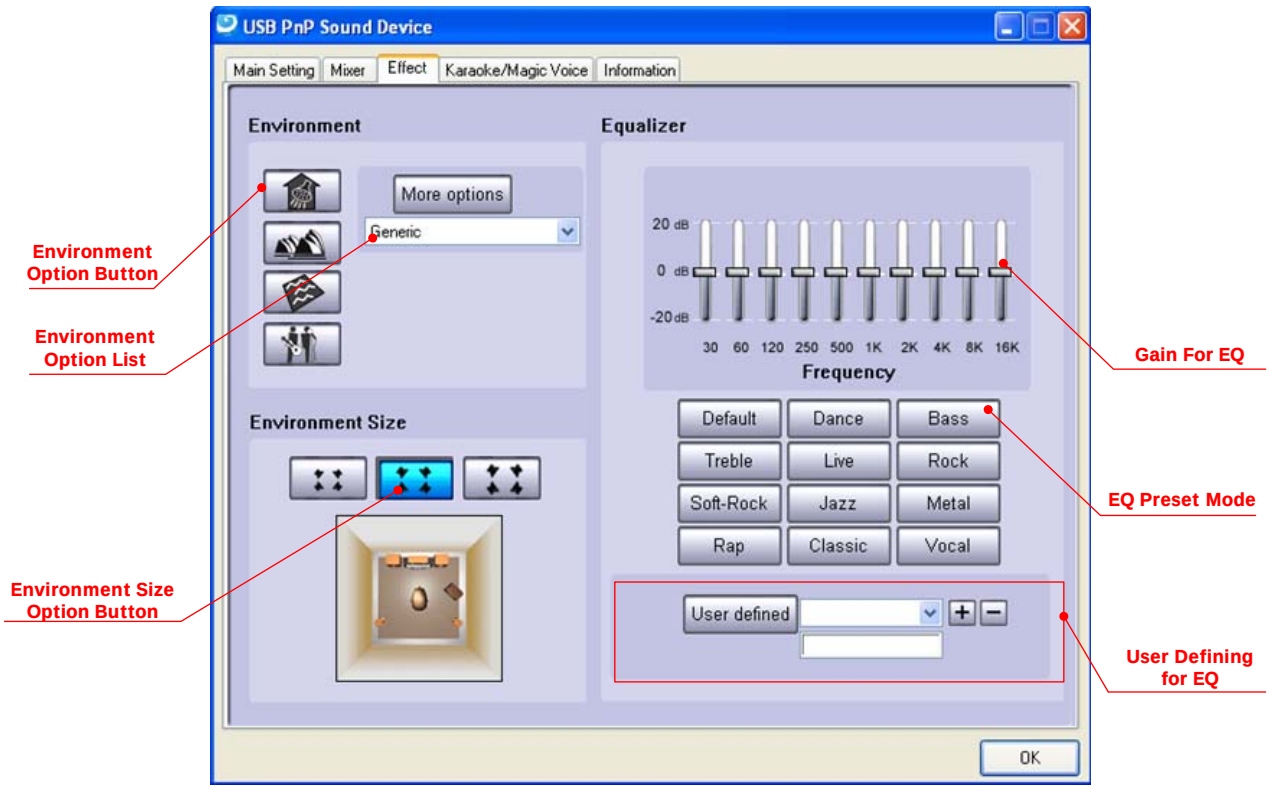
You have several options for controlling volume in this panel, including adjusting the volume level and select the default recording device.



1. Microphone:
   The volume level controlling and default device selector for “Microphone” device.

2.3 "Effect" Page Function Introduction

The features in this page provide various sound effects.



1. Environment

   Select an "Environment option button" or "Environment option List" for emulation that is implemented by producing the sound reflection and reverberation.

2. Environment Size

   You can change the "Environment Size Button" to simulate a larger or smaller space (Default is Medium). You feel the changes of space.

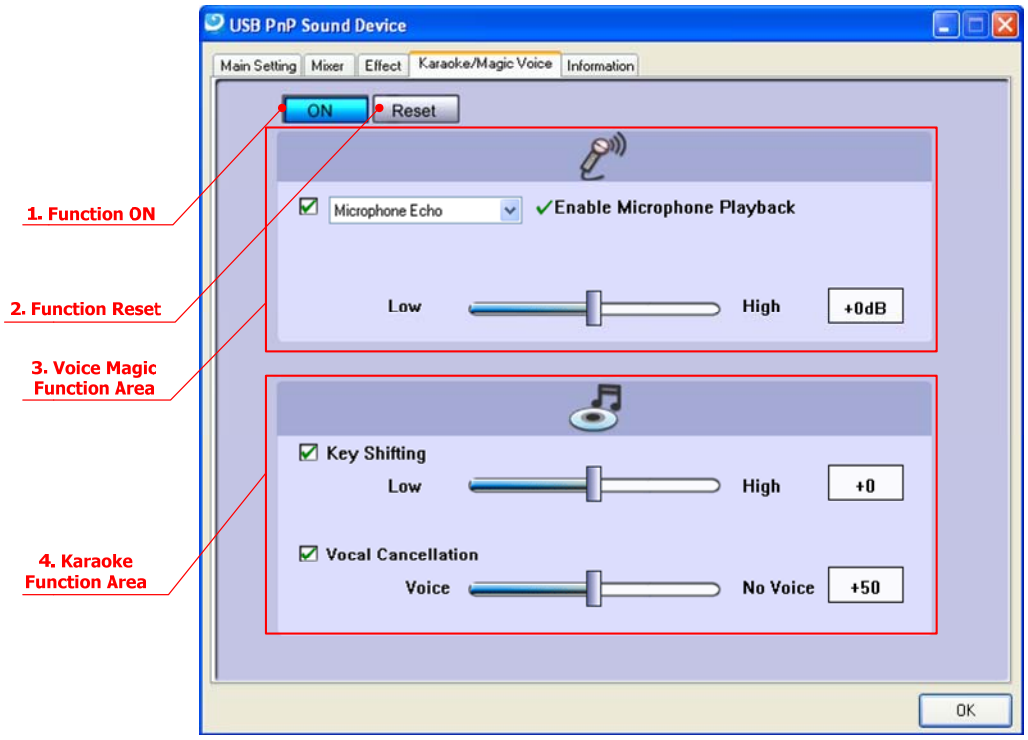
3. Equalizer (EQ) 10-Band

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

   You can change the gain setting for each band and then give it a name in the following blank. Click "+" to add your new setting into the "User Defined" list. Click "-" to delete settings.

2.4 "Karaoke and Magic Voice™" Page Function Introduction

These functions let users experience the voice processing. It is also an interesting feature that can be used on VOIP applications and Karaoke speaker systems.



1. Click "ON" button to turn on the voice processing.
2. Click "Reset" button to return all setting to default volume.
3. Magic Voice Function Area – Provide "Microphone Echo" and "Magic Voice" functions. (Please refer to 2.4.1)
4. Karaoke Function Area - Provide "Key Shifting" and "Voice Cancellation" functions. (Please refer to 2.4.2)

2.4.1 Magic Voice Area

1. Microphone Echo:

When singing a song, you may need the Voice Echo to make the singing more euphonious. You can select “Microphone Echo” to get the effect and adjust the volume of the echo sound. The range is -12dB to +12dB.



At the first time you turn on the function, the driver will select the microphone input as the recording source. Click “OK” to close this window as following.



2. Magic Voice:

When you are talking to your friends over the network like messenger, VOIP, online game applications, you can use “Magic Voice™” effects in the pull-down menu for fun. Only one voice type can be chosen at one time.

When “Magic Voice™” is selected; the layout will be shown as followed. There are five options: Default (None Effect), Monster, and Cartoon, Male, and Female styles.



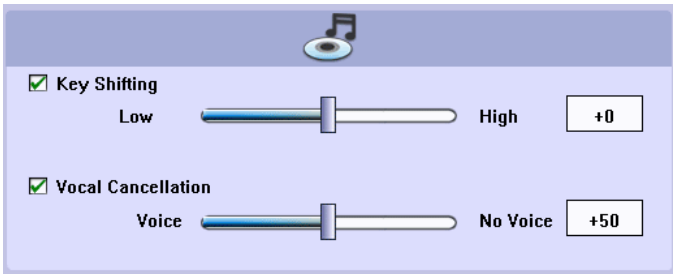
2.4.2 Karaoke Function Area

1. Key-Shifting:

   You can enable Key-Shifting for the Karaoke VCD or the music to make it suitable for your voice pitch. The range is -4 to +4 semitones.

2. Vocal Cancellation:

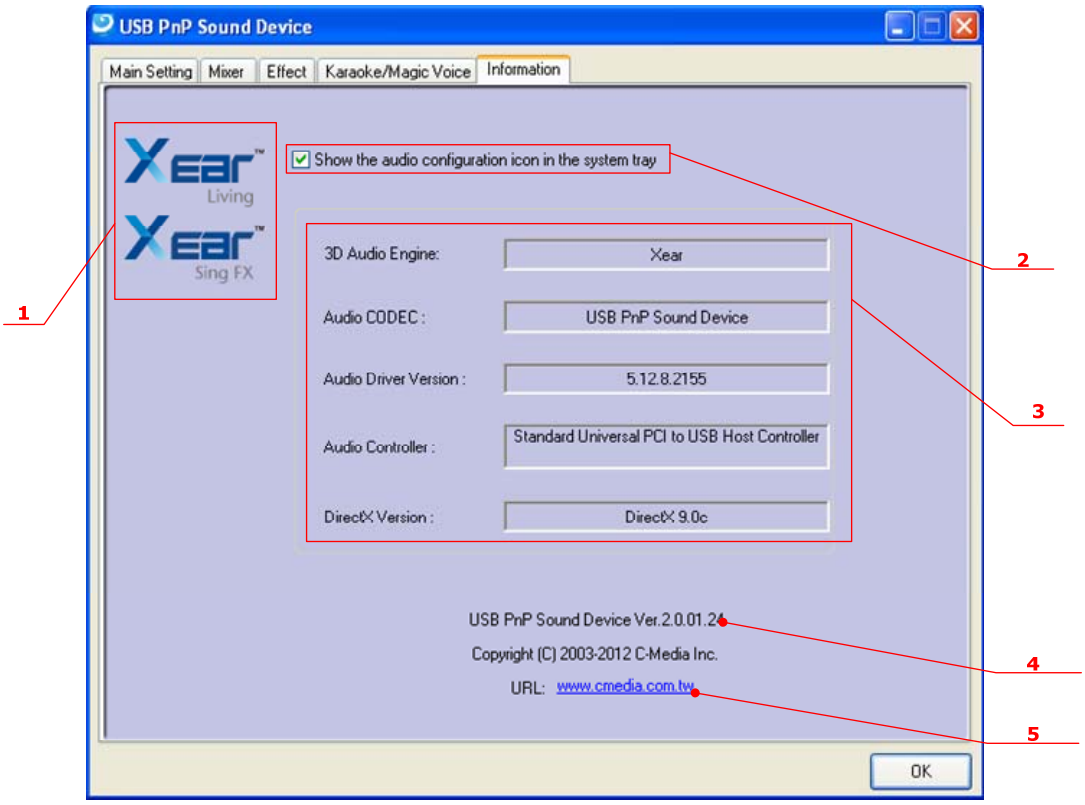
   If the music source includes original singer's voice, try "Vocal Cancellation" function to cancel it (0~100).



However, the effect doesn't always work, and it depends on the recording method of the source. It's usually not needed for Karaoke VCD or CD, which do not have voice inside generally.

2.5 “Information” Page Introduction

This page records the driver information and the technologies’ trademark logo. You can get both hardware/software details and also legal information references here.

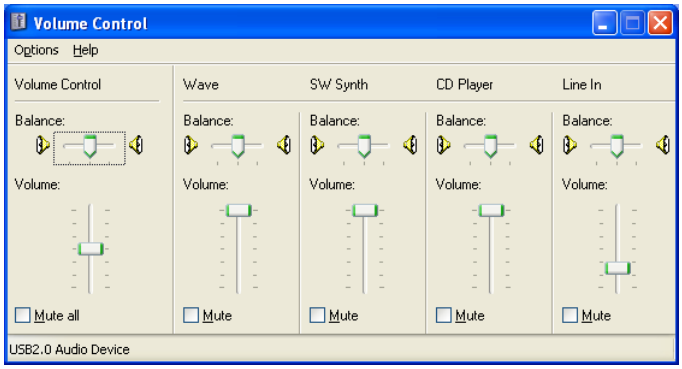


1. Trademark logo placement
2. Show Tray Icon option
3. Hardware and software information
4. Control Panel Version.(Ver.2.0.01.24)
5. C-Media Web Site. (URL:www.cmedia.com.tw)

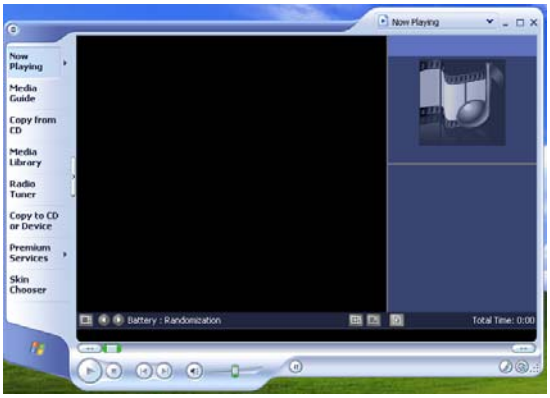
2.6 “Tray Icon” Function Introduction

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

1. Open:
   When click the “Open” item, will restore the CM6620 USB 2.0 High-Speed True HD Audio Software CPL.
2. Volume Control:
   When click the “Volume Control” item, will open the Volume Control of Windows OS as below diagram.



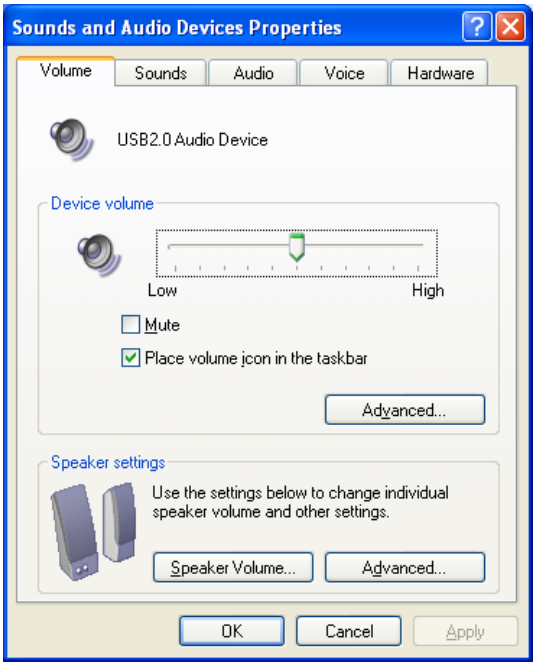
3. Windows Media Player:
   When click the “Windows Media Player” item, will open the Microsoft Windows Media Player.



4. Sound Recorder:
   When click the “Sound Recorder” item, will open the Windows build-in default recording program.



5. Multimedia Properties:
   Open the “Sounds and Audio Devices Properties” of Windows OS, you can set the advanced setting on this page.



Appendix A - Multi-Lingual Supporting List

C-Media USB/PCI Audio Driver Multi-Lingual Supporting List

- Support 17 languages.
- Detail information:

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
14	Japanese -日本語
15	Swedish - Svenska
16	Turkish - Türkçe
17	Thai - ไทย

Install program will install the corresponding language package base on the detected OS language.