

PS-M01A

6-ch

Sound Manual

ATTACHED
WINDVD SOFTWARE



FC CE

V1.0

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FCC Compliance

Federal Communications Commission Statement

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning !

The use of shielded cables for the connection of the monitor to the graphics card is required to assure compliance with FCC regulations changes or modifications to this authority to operate this equipment.

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Chapter 1

Introduction

1-1 Summary

Thank you for purchasing the PS-M01A sound card based on CMI-8738 audio processing chip. The CMI-8738/PCI-6CH-LX audio processing chip supports separated 6-ch output function to make a consummate combination of the computer application and household electrical appliances. It adopts C3DX orientation technique; supports A3D and DS3D interfaces, DVD Dolby 5.1 Ch、AC-3 Digital coding output. You may gain audio orientation effect by collocating 5.1 6-ch or 4.1 5-ch speaker and by cooperating DVD playing program to form an integrated pint-size home-cinema, no need of expensive external hardware AC-3 decoder. The high capacity PS-M01A is designed for you and delivers articulate timbre, high purity, excellent game compatibility, splendid overall environment effect and also unprecedented exciting impact.

1-2 Key Features

- ❖ Adopts C-media 8738-6CH-LX chip
- ❖ Supports audio orientation technique of 3D based on HRTF
- ❖ Supports wavetable–DLS Based, Direct Sound 3D, A3D™ and EAX™ interfaces
- ❖ 32-bit PCI bus, 6-ch 16-bit DAC
- ❖ Signal Noise Ratio>85dB
- ❖ Supports Kara OK
- ❖ Supports 6-ch output and analog AC-3 to 6-ch output
- ❖ Built-in chip 16-bit Full Duplex Speaker CODEC samples and codes the sound signals (A/D translation or D/A translation)

- ❖ Supports microphone reverberation
- ❖ All-purpose 128-bit MIDI sound resource
- ❖ Audio output: front out / rear out / center / bass out
- ❖ Audio input: stereo linearity、 microphone、 CD and AUX input
- ❖ Built-in interface: MPU-401 MIDI / joystick

1-3 System Requirements

- * Pentium 233MMX and IBM compatibility processor or higher
- * 32MB system memory
- * One available PCI slot
- * Windows 95/98 or NT4.0, Linux, DOS
- * CD-ROM

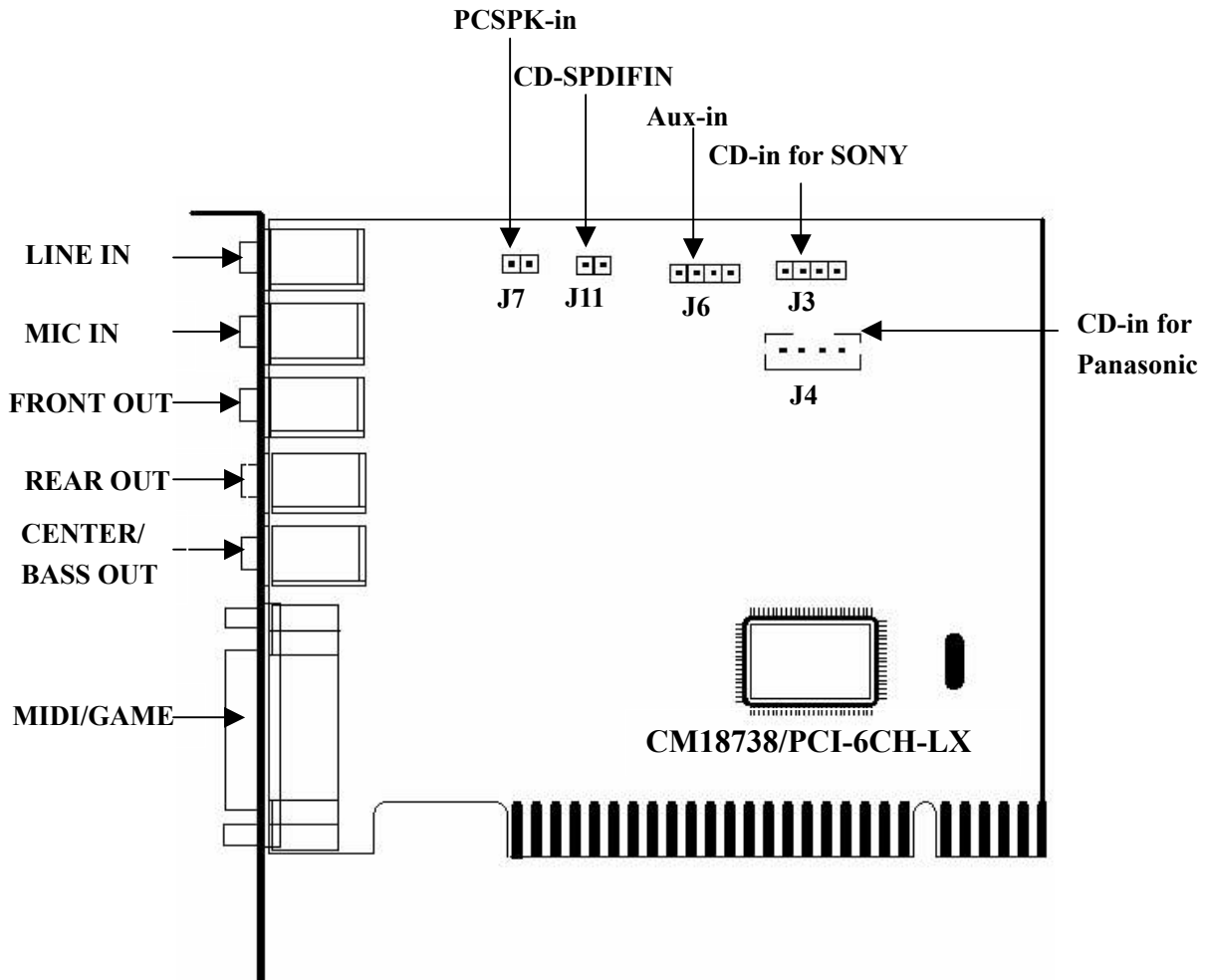
1-4 Packing List

This sound card package includes the following items:

- ◇ One PS-M01A sound card
- ◇ One driver and applications CD
- ◇ One WinDVD CD
- ◇ One user's manual

If any item damaged or neglected, please query your vendor or our business representative.

1-5 Sound Card Board Layout



★ Warning:

Owing to the damages to electronic components by static, you are suggested to take action to prevent it, for example: touch the computer metal shell to eliminate static or hold the edge instead of contacting the circuit when fetching the sound card.

Chapter 2

Hardware Installation

This field gives you detailed methods of hardware and external devices installation or connection. Please read it carefully before installation.

2-1 Uninstall Quondam Sound Card

- Skip this step if you are installing a vacant computer.
- Uninstall quondam sound card if you want to install a new one.
- Enter the BIOS setting menu before installing if the built-in AC'97 is under using. The introduced settlement is to disable the AC'97 by setting "OnChip Sound" in "Standard CMOS Feature" to "Disabled".

2-2 Install Sound Card

Please refer to the below procedure:

1. Open up the computer shell and select one PCI expansion slot. Better to use PCI-1 or PCI-2 because the Windows 98 operating system has better capacity to identify the sound card inserted into PCI-1 or PCI-2 slot.
2. Insert the card. Earth yourself then take the card out of static bag. Aim at the PCI slot and insert the card. Pay attention to the slot direction and avoid the damage to mainboard and sound card.
3. Replace the computer shell.

2-3 Audio Cable Connection**2-3.1 Audio Output Port****● FRONT OUT**

Connect the AUDIO-In interface of earphone or front speaker to this J8 pin by audio cable.

● REAR OUT

Connect the AUDIO-In interface of rear speaker to this J9 pin by audio cable when 4-ch or 6-ch is available.

● CENTER / BASS OUT

Connect the AUDIO-IN interface of center speaker / bass sound resource to this J12 pin by audio cable when 6-ch is available.

2-3.2 MIDI /GAME Interface

The MIDI and joystick interface is 15-pin D type, which may connect joystick, analog steering wheel. It also can connect the electrophone's MIDI interface to realize the beeline transfer for MIDI sound signals.

2-3.3 Audio Input Port**● Line-In Port**

Line-In port (J1) delivers good quality sound, music signals to audio processing chip and records them to a file by computer control. The Line-Out port of sound devices (decompressing card, CD, and color TV etc.) could be connected to this pin.

● Mic-In Port

Mic-In port (J10) is used to connect microphone. The basic "Kara OK" function will be enabled by recording your voice. The voice recording and

recognizing will apply by the control of other softwares (IBM ViaVoice, etc.)

- **CD-In Port**

It can connect CD-ROM audio interface by audio cable. When playing CDs, the signals received by sound card are not analog ones any more, but digital ones sent directly by CD-ROM. This results in more fair-sounding musics. There are two 4-pin CD-In ports on this card. One is for Sony CD-ROM (J3), the other is for Panasonic CD-ROM (J4) and you can select one according to your CD-ROM type.

Sony CD-In Interface

Pin	Description
1	Left channel
2	Ground
3	Ground
4	Right channel

Panasonic CD-In Interface

Pin	Description
1	Ground
2	Right channel
3	Ground
4	Left channel

- **AUX-In Port**

The card provides a 4-pin AUX-In port (J6) to connect the audio interface of DVD card.

Pin	Description
1	Left channel
2	Ground
3	Ground
4	Right channel

- **PCSPK-In Port**

The PC speaker interface cable is connected from chassis to this 2-pin port (J7).

Chapter 3

Driver and Applications Installation

3-1 Installation for Windows 98-SE

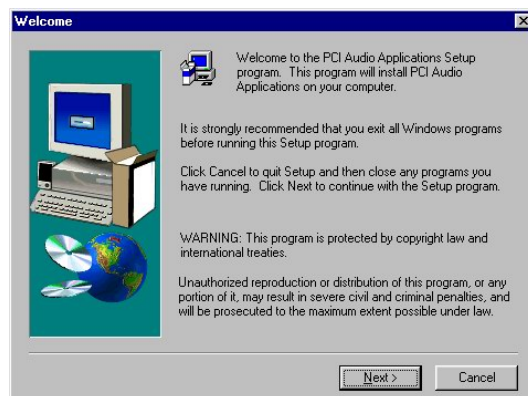
1. Put sound card drive CD into CD-ROM, Run CD-ROM: \cmi8738\setup.exe, click “OK”.



2. Select appropriate language (default Chinese), click “Ok”.



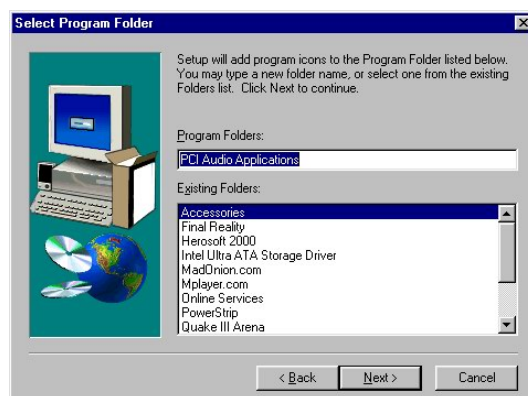
3. Click "Next".



4. Select "Browse" to set object position (the default value is recommended), click "Next" to go on.



5. Input new folder name (the default value is recommended), click "Next" to go on.



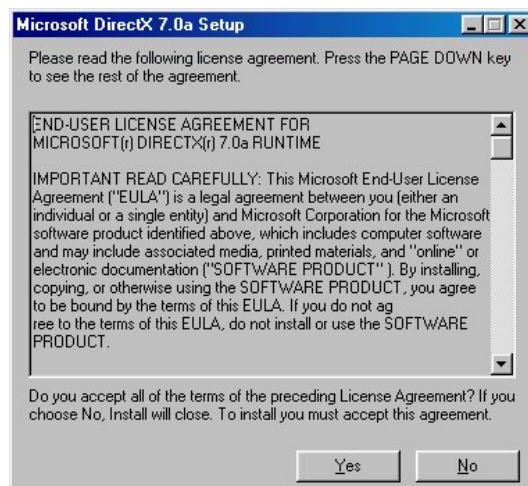
6. Click "Finish" to go on.



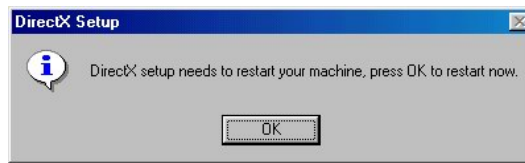
7. If you have not installed DirectX7.0, click "Yes" to go on. Otherwise it will skip to the ninth step automatically.



8. Click "Yes" to go on.



9. Click “OK” to restart the computer.



10. DirectX Media installation interface appears and the installation of DirectX Media components starts.



11. Click “OK” to restart the computer, and the installation finishes.



3-2 Installation for Windows 2000

3-2.1 Driver Installation

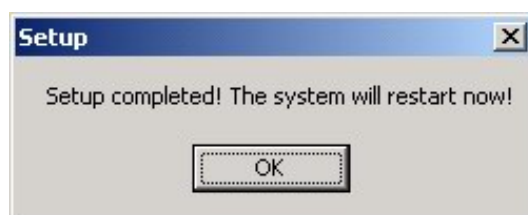
1. Put sound card driver CD into CD-ROM, run CD-ROM: \cmi8738\W2KSetup.exe, select “Install Device Driver”, then click “OK” to go on.



2. Click "Yes" to go on.



3. Click "OK" to restart the computer.



3-2.2 Applications Installation

1. Run CD-ROM: \cmi8738\W2KSetup.exe, select "Install Device Driver" then click "OK" to go on.



2. Select appropriate language (default Chinese), click "OK".



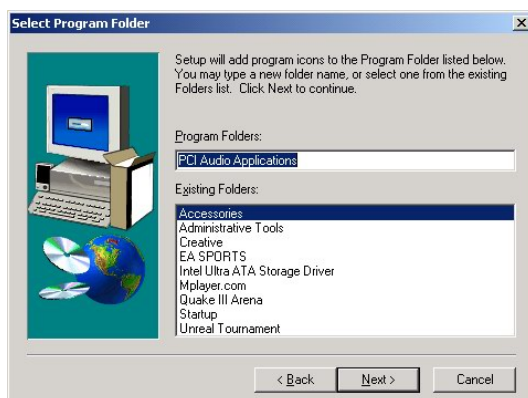
3. Click "Next" to go on.



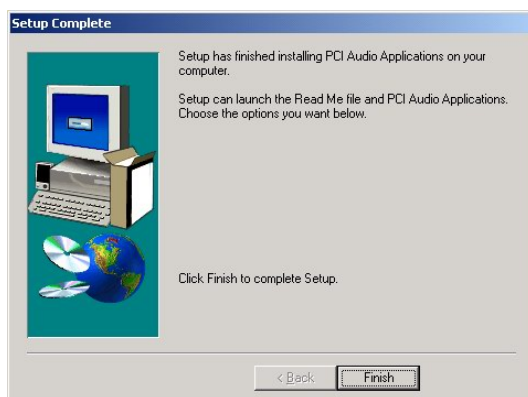
4. Select “Browse” to set object position (the default value is recommended), click “Next” to go on.



5. Input new folder name (the default value is recommended), click “Next” to go on.



6. Click “Finish” to go on.



7. Click "OK" to end the installation.



Chapter 4

Attached Software Installation

WinDVD 2000 Installaion

1. Put the attached WinDVD CD into CD-ROM, Click “Install Software” to begin.



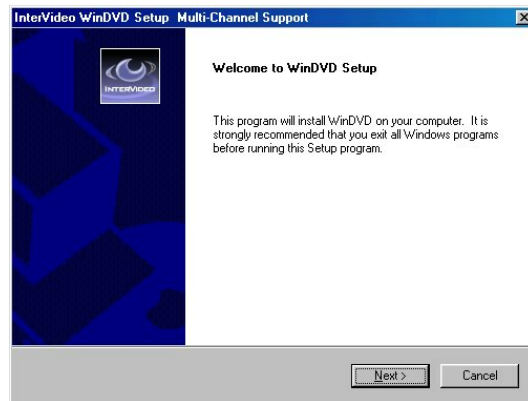
2. Click “WinDVD” to go on.



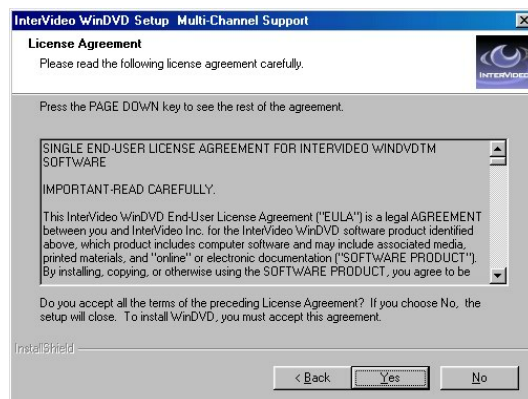
3. Click "Install Now" to go on.



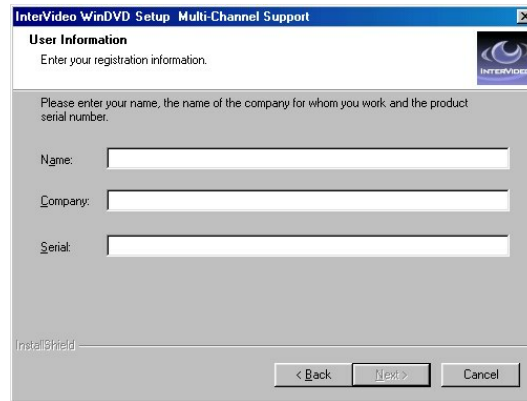
4. Click "Next" to go on.



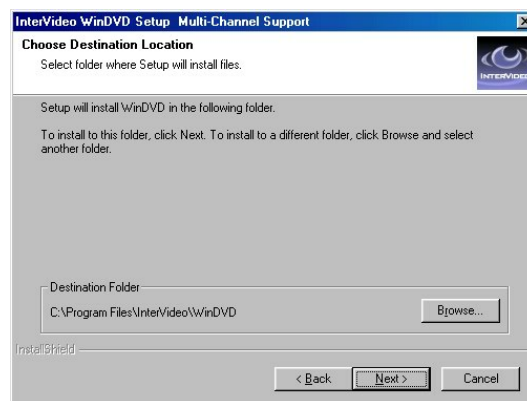
5. Click "Yes" to go on.



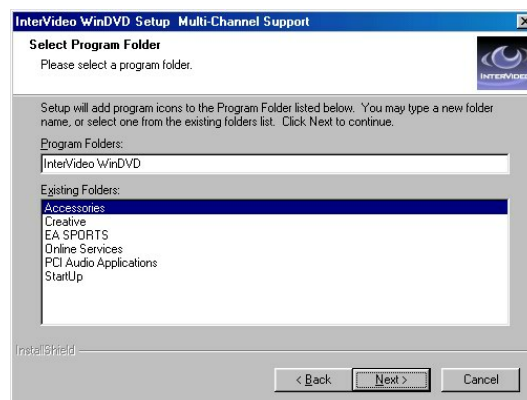
6. Input the names of yourself and your company and the software sequence number (on the copyright label which lies on the back of CD bag), then click “Next” to go on



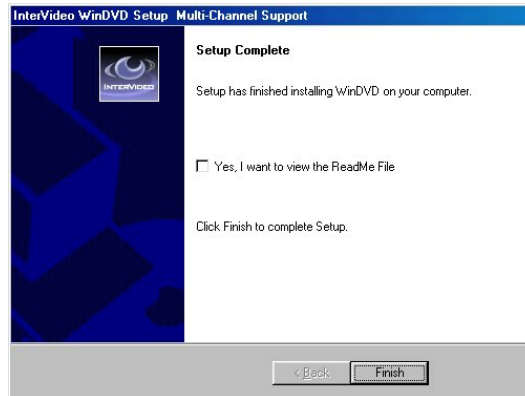
7. Click “Browse” to set object position (the default value is recommended), then click “Next” to go on.



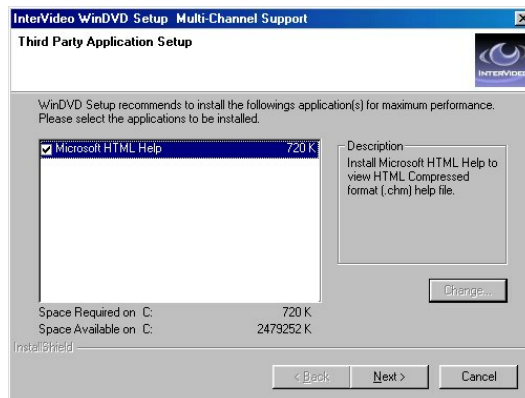
8. Input new folder name (the default value is recommended) to folder textbox, then click “Next” to go on.



9. Select in the choice box to read Read Me files otherwise select “Finish” to go on.



10. Click “Next” to install “HTML Help”, otherwise click “Cancel”.



11. Click “Finish” to end the installation.



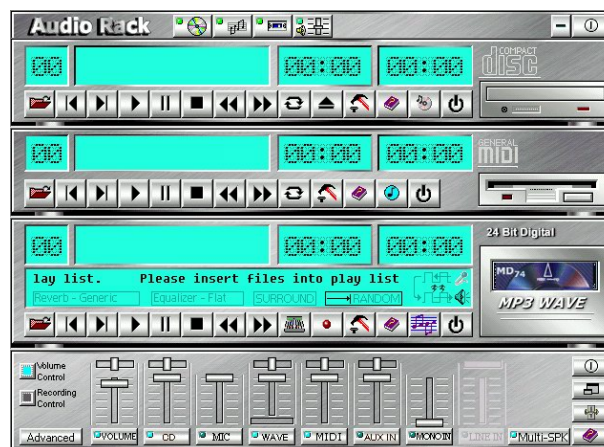
Chapter 5

Software Application

Audio application is an audio media playing software configured by this card, with the help of which you may adjust sound effect and test 3D performance.

5-1 Audio Rack

In Windows interface, click “Audio Rack” icon from Start Menu\Program\PCI Audio Applications\Audio Rack. The audio rack is made up of CD player, MIDI player, MP3/WAV player, Mixer. It supports CD, MIDI, MP3, WAV and MPEG-1 files and audio control.



The CD player, MIDI player, Mixer player and MP3 player can also be enabled by clicking their icons from Start Menu\Program\PCI Audio Applications\Audio Rack

5-1.1 Control Center

It consists of several major components.



- **CD Player** can play standard audio CDs, and allow you to create your own playlist.
- **MIDI Player** can play MIDI files, and allow you to create your own playlist.
- **MP3 Player** can play MP3, Wave, and MPEG-1 files. It provides EAX and equalizer to improve the sound effect when playtracking the audio files. If you want to sing a song, MP3 player also provides a Kara Ok function and records audio signals to save it as a file.
- **Mixer** controls the volume level of your audio input and output.

5-1.2 CD Player



5-1-2.1 It consists of several major components.

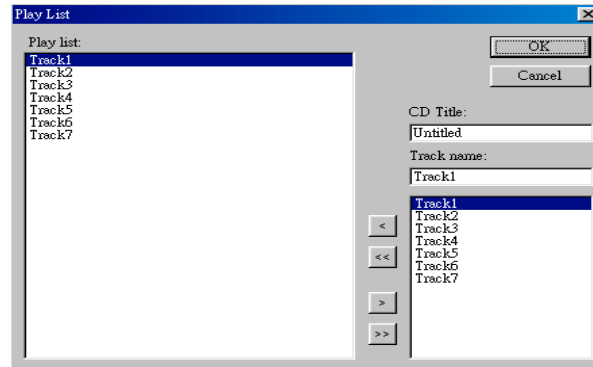
- **Current track field** shows the code of the currently selected track.
- **CD title and track name field** shows CD title and track names. You can modify their names in playlist.
- **Total length field** displays the total length of the selected tracks in minutes and seconds.
- **Play time field** displays the current track's play time.










5-1-2.2 Button Function



Playlist: You can select or move tracks of audio CD from and into the playlist. The title of CD and the names of tracks can be modified

as well. Playlist dialog will save and show them automatically when you want to play the same CD.



-  **Previous song:** Loads the previous track of playlist.
-  **Next song:** Loads the next track of playlist.
-  **Play:** Starts to play the current track, and the button turns to green.
-  **Pause:** Pauses the current track, and if press again the play is go on.
-  **Stop:** Stops play.
-  **Playback backward for 10 seconds:** Playbacks the current to 10 seconds before.
-  **Playback forward for 10 seconds:** Playbacks the current to 10 seconds after.
-  **Loop:** Playbacks the tracks over and over again.
-  **Eject:** Opens the CD-ROM drive to change the audio CD.



Setting: Selects the CD-ROM drive CD. If the CD-ROM does not connect with sound card, the below item should be selected, then click “OK”.



Help: Shows the help dialog box for detailed button function descriptions.



About: Shows software version and copyright information.



Exit: Stops and exits CD player.


5-1.3 MIDI Player




5-1-3.1 It consists of the following components:


- **Current file field** shows the code of the currently selected MIDI file
- **File name field** shows the file name.
- **Total length field** displays the total length of the selected file in minutes and seconds.
- **Playback time field** displays the current playback time.

5-1-3.2 Button Function


 **Playlist:** allows you to insert, remove, and record the MIDI files into and from the playlist. You can save the playlist as a file as well.





 **Previous song:** Loads the previous MIDI file of playlist. If current file is the first MIDI file, the last one will become the current selection.


 **Next song:** Loads the next MIDI file of playlist. If current file is the last one, the first file will become the current selection.


 **Play:** Starts to play the current MIDI file.


 **Pause/Restart:** Pauses or restarts the current play action.

 **Stop:** Stops play


 **Playback Backward for 10 seconds:** Playback the current to 10 seconds before.


 **Playback Forward for 10 seconds:** Playback the current to 10 seconds after.


 **Loop:** Playbacks the MIDI files of the playlist over and over again.

 **Setting:** Selects the output device you want to use to playback the MIDI files.



 **Help:** Shows the help dialog box for detailed button function descriptions.

 **About:** Shows software version and copyright information.

 **Exit:** Stops and exits the MIDI player.

5-1.4 MP3 Player




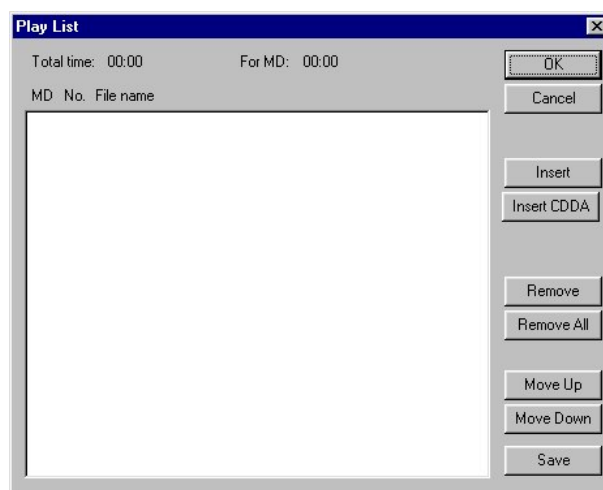
5-1-4.1 MP3 player consists of the following components:


- **Current track field:** displays the code of current track.
- **Frequency display field** shows the frequency distribution.
- **Total length field** displays the total length of the currently selected file in minutes and seconds.
- **Play time field** shows the play time of current track.


- **File name and status field** displays the current file name, audio format, sound effect selection, play mode, Kara Ok mode, and SPDIF status.

5-1-4.2 Button Function


 **Playlist:** Playlist allows you to insert, remove, and record the audio files into and from the playlist. The audio files include wave, MP3, and MPEG-1 encoding files.





 **Previous song:** Loads the previous audio file of playlist. If current file is the first file, the last one will become the current selection.


 **Next song:** Loads the next audio file of playlist. If current file is the last one, the first file will become the current selection.


 **Play:** Starts to play the current audio file.

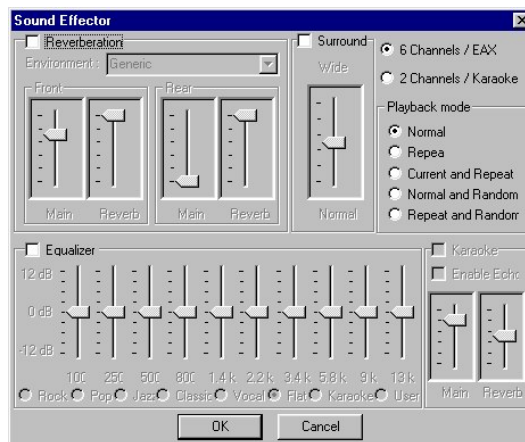
 **Pause/Restart:** Pauses or restarts the current play action.


 **Stop:** Stops play

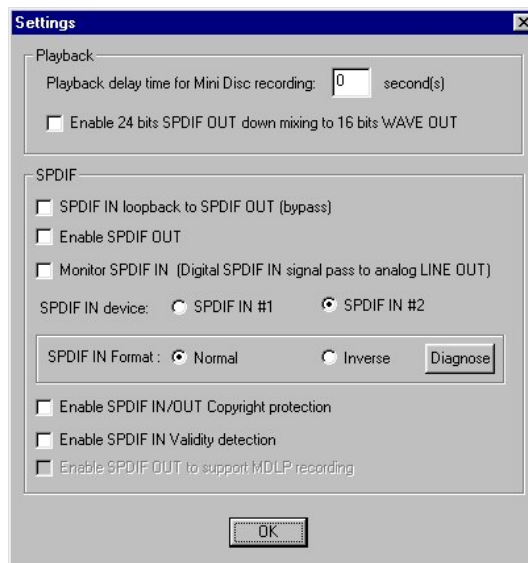
 **Playback backward for 10 seconds:** Playback the current to 10 seconds before.


 **Playback forward for 10 seconds:** Playback the current to 10 seconds after.

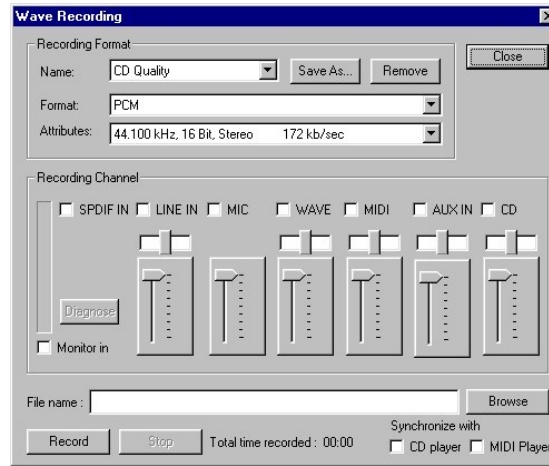
 **Sound effector:** You can use this function to modify the special effect of the song being played. Currently, these effectors can only be used for 44.1 KHz, 16-bit format.



 **Setting:** You can use this dialog to set the playback parameters and the status of SPDIF IN/OUT.




 **Recording:** You can use this function to record a wave file from any recording channel.



 **Help:** Shows the help screen for detailed button function descriptions.

 **About:** Shows software version and copyright information.

 **Exit:** Stops and leaves the MP3/Wave Player.

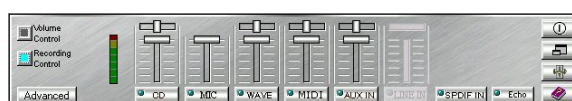
5-1.5 Mixer

5-1-5.1 Volume Control



It can be done by moving the sliders above the audio channels.

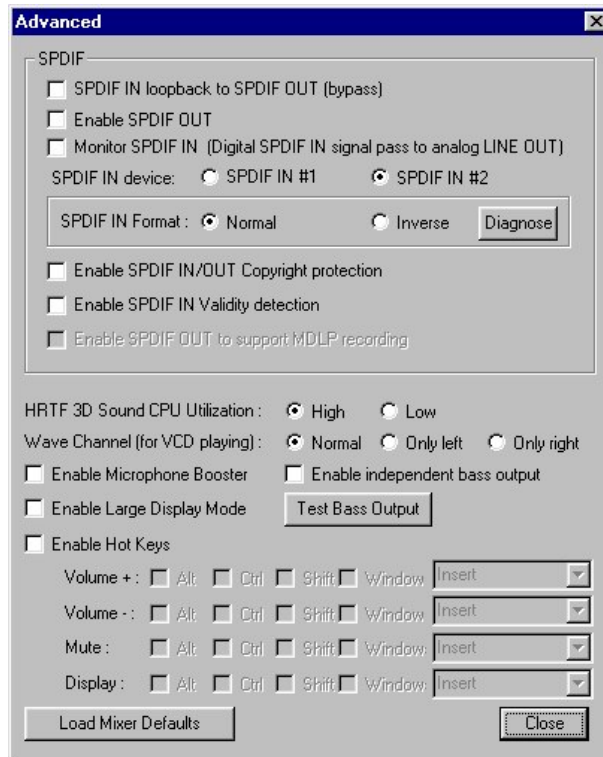
5-1-5.2 Recording Control



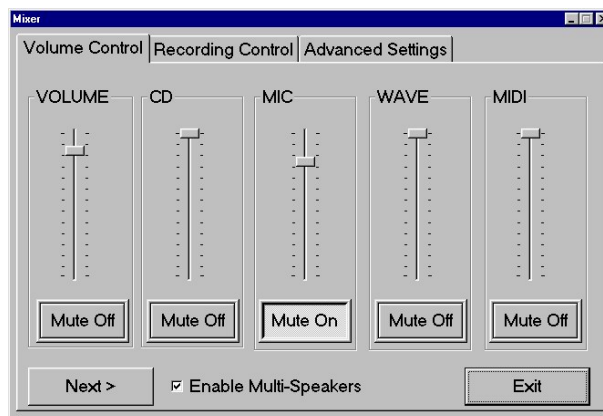
It can be done by moving the sliders above the audio channels.

5-1-5.3 Button Function

- **Advanced setting:** click the “Advanced Setting” button and the default values are recommended.



- **Big-screen Display Mode:** click the button to enable Mixer big-screen display.



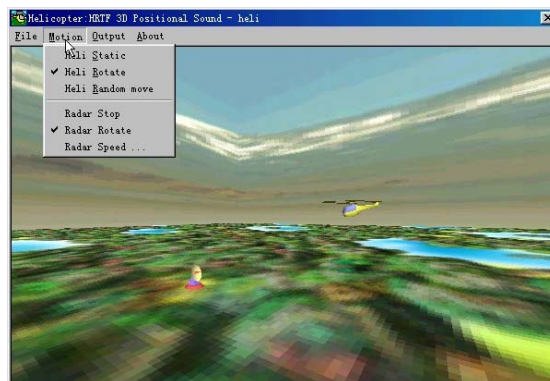
5-2 3D Performance Demo

5-2.1 Helicopter Demonstration

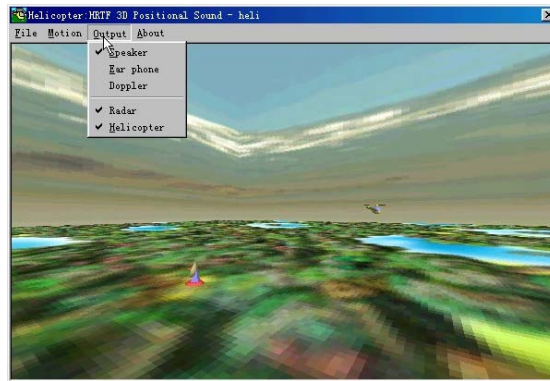
1. In Windows interface, click “Helicopter” icon from Start Menu\Program\PCI Audio Applications\C3D HRTF Positional Audio Demo to display the screen. The 3D orientation effect of your sound card will be satisfied if the sound of helicopter well and truly shows its location.



2. Click “Motion” to set mode and speed of helicopter and radar.



3. Click “Output” to set output device and sound resource.



4. Move mouse to the bottom or top of the screen until it turns to upward or downward arrow. Press the mouse left key to draw the scene distance. Press the mouse right key to reduce/ascend visual angle.



5. Move mouse to left or right of screen until it turns to leftward or rightward arrow. Press the mouse left key to turn the scene location right or left. Press the mouse right key to translate scene location.

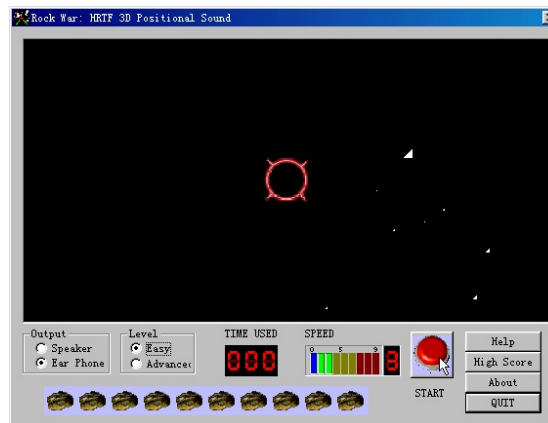


6. Move mouse to the corners of screen until it turns to corresponding moving arrow. Press mouse left key to change scene location and distance synchronously. Press mouse right key to change angles and scene location synchronously.



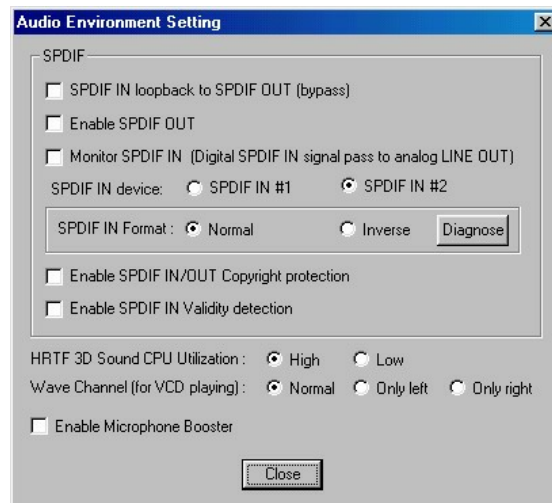
5-2.2 Rock War Game Demonstration

In Windows interface, click “Rock War” icon to display game screen. Click “Start” to begin and “Help” for operating information.



5-2.3 Audio Environment Setting

In Windows interface, click “Audio Environment Setting” icon to display setting interface. The generic default values will do. If SPDIF output is available in your device, it will bring better audio effect.



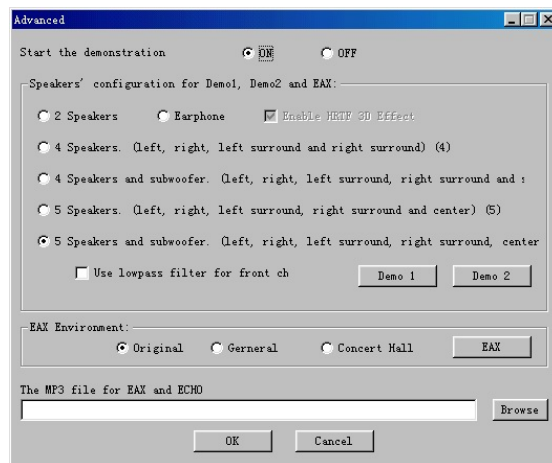
5-2.4 Multi-channel Audio Demo.

It is an excellent demo program to test speaker effect, function setup, behavior capacity of single speaker and to adjust sound system.

1. In Windows interface click “Multi-channel Audio Demo” icon to display analog home-cinema demo interface which provides two examples (Demo1, Demo2), footstep(EAX), Helicopter(HRTF) Echo demo. Click the below yellow words and wait 10 seconds, Demo1, Demo2 will be operated automatically.



2. Move mouse to the upper half of screen (blue words) until it turns to palmation. Click mouse left key to display the advanced setting screen.



- Start the demo.
- Speakers' configuration: It should be selected according to your speaker's configuration. Incorrect selection results in bad sound effect and wrong operation to sound system. What selected in above figure is the standard configuration of home-cinema with 5.1 6-ch. Click "Demo1" or "Demo2" to test effect.
- Use Low pass filter for front CB
- EAX Environment: Three modes are available. Click "EAX" to test effect
- The MP3 file for EAX and Echo: Use MP3 file to test EAX and Echo. Click "Browse" to add MP3 audio files.

3. Move mouse to the bottom half (green words) until it turns to palmation. Click mouse left key. If the monitor glitters and sends out deep voice, the bass is normal.



4. Move mouse to the center speaker on the display screen until the upper light is on and mouse turns to palmation. Click mouse left key, if the light begins to twinkle and gives out easy and chipper laugh, the center is normal.



5. Move mouse to the left unit of front speaker until the light is on and the mouse turns to palmation. Click mouse left key. If the light begins to twinkle and only the left unit sends off fevered sound, the left unit is normal. Go on to test the right unit and rear circle speaker. The best effect will be gained by adjusting the location and volume of speaker according to your needs.



5-2.5 Uninstall Device Driver and Applications

In Windows interface, click “Uninstall Device Driver and Applications” icon. This action should be carefully followed.

P / N: 73-M01A1010-000