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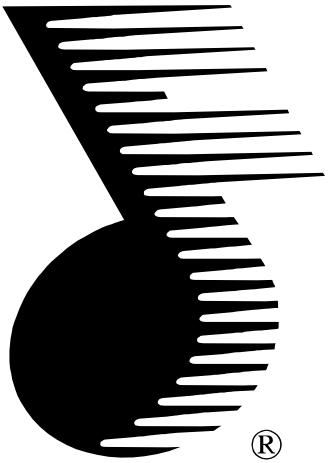

Ad Lib
MultiMedia

ASB 16
Special Edition

The Ad Lib 16 Bit Audio System

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AdLib MultiMedia Inc., 24 Month Limited Warranty

Ad Lib MultiMedia Inc. (Ad Lib) warrants to the Purchaser that Ad Lib's hardware is free from defects in workmanship or material under normal use and service. This warranty commences on the date of purchase and is limited to the original purchaser of the product and is not transferable.

During the 24 month warranty period, Ad Lib agrees to repair or replace, at its sole option, without charge to the purchaser, any defective component part of the hardware. To obtain service, purchaser must return the hardware to the company where the product was purchased or the nearest authorized company distributor (the company). The shipping and insurance charges incurred in shipping to the company will be paid by the purchaser. Upon receipt, the company will promptly repair or replace the defective unit, and then return said unit to the purchaser, postage and insurance prepaid. Repair elements may be reconditioned or like new parts or units, at its sole option, when repairing any hardware. Any claim under the warranty must include a dated proof of purchase or invoice. In any event, the company's liability for defective hardware is limited to repairing or replacing the hardware.

This warranty is contingent upon proper use of the hardware by the purchaser and does not cover: expendable component parts such as tapes and the like; or if damage is due to accident, unusual physical, electrical or electromechanical stress, neglect, misuse, failure of electric power, air conditioning, humidity control, transportation, operation with media not approved by Ad Lib, or tampering with or altering the hardware.

In any case, Ad Lib shall not be liable to you for loss of data, loss of profits, lost savings, special, incidental, consequential, indirect or other similar damages arising from breach of warranty, breach of contract, negligence, or other legal theory even if Adib or its agent has been advised of the possibility of such damages, or of any claim by an other party.

Ad Lib MultiMedia Inc.,
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QUÉBEC (Québec) -Canada G1R 2K2
Fax: (418) 522-4919 BBS (418) 522-6099

Introduction

The Ad Lib ASB 16 Special Edition Audio System's
Windows™ 95 is becoming the standard platform for PC mainboards replacing Windows™ 3.X. Plug and Play and Native Audio offered by Intel™ and Microsoft™ are getting forcefully more popular.

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Plug and Play specifications by Microsoft™ and Intel™ for simplified installation and set-up are supported by the new generation of Ad Lib ASB Audio Systems as well as Intel™ Native Audio for enabling the Intel™ PENTIUM Processor to perform real-time multimedia audio and video tasks. The ASB Audio System is compatible with Windows™ 3.X, Windows™ 95, Microsoft™ Windows™ sound system specifications, Full MPC Level 2, OS/2 Warp™ and Sound Blaster ™ Pro (for games).

The ASB 16 is a complete 16-bit audio system with a built-in Yamaha OPL3™ FM sound synthesis that fits into an 8 bit slot allowing it's installation in portable computers. The ASB 16 SE in combination with the CyberWave (wavetable upgrade) are capable of playing a MIDI file using the full potential of the Dream wavetable and the Yamaha OPL3™ FM synthesizer simultaneously. One of the main features of the AbLib ASB Audio System is the single and dual DMA support for simultaneous recording and playback from 5.5KHZ to 48KHz in stereo or mono. Another great feature is its Multi output connector for auto-detecting powered or non-powered speakers or headphones. When powered speakers are connected, the ASB Multi-output connector sends a clean signal for best quality; when regular speakers or headphones are connected, the ASB sends 500 mW per channel to produce great sound. The ASB input connector with the correct jumper setting will record in stereo, mono right, mono left or both channels. Ad Lib made the installation and configuration of the ASB Audio System using software so easy that even a child can install it.

Full Duplex and real time compressing and decompressing are features that allow the end users to use the Ad Lib Cyber Comm or other Fax/Modem with voice for standard or ISD lines. Now the end user can save money while making international phone calls by using the internet or other similar services.

The Ad Lib Media Connector (AMC) is a new standard in the market from Ad Lib that allows users to upgrade any Ad Lib ASB Audio System to CyberComm for telephony (fax/modem with voice) or CyberISDN. This feature connector is the best way to expand the capabilities of the Audio System to whatever the market may bring, saving your investment for the longest time possible.

For the wavetable solutions, Adlib has built 2 additional wavetable upgrade daugther cards: CyberWave and CyberWave Pro with 4Mbit RAM for downloadable wavetable. Downloadable wavetable will be the standard in the future for application softwares and games. Every day that passes, the world of multimedia gets more sophisticated. Games, multimedia presentations, musicians, etc. are all demanding to have more control of the sounds they want to play. The gamers, using downloadable wavetable, can experience the maximum sounds of the games by making them more real. For the expert and novice musicians, this technology allows to download any sample set or sound into RAM and play it as they wish.

General Board Specifications

Features:

- Crystal™ Chip set CS4232-KQ
- Ad Lib FM sound synthesis with 20 voices and 4 operators
- Playback MIDI files with wavetable and FM synthesis simultaneously
- 64X oversampling combined Delta Sigma DAC/ADC
- 16-bit and 8-bit digital sound in stereo and mono
- Record and Playback 5.5KHz-48KHz in stereo or mono
- ADPCM (m-law/µ-law hardware compression/decompression)
- Ultra high quality CODEC for ultimate sound performance
- CODEC capable of signal to noise ratio exceeding 85db
- Single and Dual DMA support for simultaneous recording and playback
- Multi-output (line and headphones output)
- Stereo microphone (standard or line powered)
- SB Wave Header for CyberWave and CyberWave Pro
- AMC Ad Lib Media Connector (for CyberComm and CyberISDN Add-On Boards)

Compatible with:

- AdLib MSC
- Microsoft™ and Intel™ true Plug and Play specifications
- Intel™ Native Signal Processing (NSP)
- Windows™ 95
- OS/2™ Warp
- Microsoft™ Windows Sound System Version 2.0
- Full MPC Level 3
- Sound Blaster™ Pro (for games)
- Standard dual Game and MIDI Port (MPU-401 UART)

Mixing:

- DOS and Windows Mixing utilities
- Playback mixing: Digitized audio, MIDI, CD Audio, line in, stereo or mono microphone, Multi line out for powered - non-powered speakers.

System-Software:

- Ad Lib Audio Rack
- Dos Driver-Software incl. CD-ROM-Player and DOS Diagnostic's.
- Windows 95™ Driver-Software
- OS/2™-Warp Driver-Software
- Windows™ 3.x Driver- Software
-

Bundled Software:

- Easy Keys Lite, from Blue Ribbon™ Inc.
- Super Jam Preview, from Blue Ribbon™ Inc.
- Score Screen Saver, from Blue Ribbon™ Inc.
- Sound Track Preview, from Blue Ribbon™ Inc.

Hardware

The ASB 16 SE has four connectors on the right side of the board, a microphone jumper JP4, wave connector, Ad Lib Media Connector and CD audio-input. To see the Connector's location, see the Board layout on the back of the manual.

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Board Description

1- Stereo/mono Microphone: Stereo or mono, dynamic or electret. (Line powered).
2- Line audio input: External devices such as Audio sound system, Cassette-Deck, MPEG card, etc.
3- Line output: For Headphones and powered or small non-powered speakers.
4- Joystick and MIDI port: Standard Single or Dual Joystick and MPU 401 (UART mode) MIDI port.
5- SB Wave Header: Wavetable feature connector.
6- Microphone jumper settings: Refer to microphone installation
7- IDE CD Audio: Connector to all IDE CD-ROM audio.
8- Sony™ CD Audio: Connector to Sony™ CD-ROM audio.
9- Panasonic™ CD Audio: Connector to Panasonic™ CD-ROM audio.
10- Mitsumi™ CD Audio: Connector to Mitsumi™ CD-ROM audio.
11- (AMC) AdLib Media connector: For Ad Lib add-on boards (Do not remove the jumper unless you add an Ad Lib upgrade board)

System requirements

The following equipment is required in order to operate the Ad Lib ASB 16 SE Audio System.

1. IBM™/full compatible 386 or higher
2. Monitor
3. Ad Lib ASB 16SE Audio System board
4. Stereo headphones or speakers
5. DOS 5.0 or higher or
6. MS Windows™ 3.x or
7. MS Windows™ 95 or
8. OS/2™ - Warp

Microphone Installation

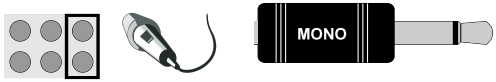
Because there are a variety of different microphones available from both computer & audio accessory dealers, AdLib decided to put a configuration jumper on the ASB 16 series of sound boards, to enable the consumer the widest possible choice of microphones. In brief, there are 5 major types of microphones available. The following is a list of these types with an explanatory drawing to help you choose the correct setup for each type of microphone. The microphone jumper (JP4) is located in the upper right corner of the card (see the board description layout section) and the pin 1 is the bottom left of JP4, 2 is tup left, 3 is middle bottom ans so on.

Definition of microphone Jumper JP4:

Type (a) Mono Dynamic or Self-Powered Condenser Type
This is the standard microphone most of us have seen or used, usually large and heavy, similar to the ones used by DJ's or TV interviewers.

- the tip of the connector is always the signal pin on this type of microphone.
Please leave the jumper on the default setting i.e Pin 2 - 4

Type (b) Mono Condenser or Mono Electret Requiring Power
This microphone is usually light and small, similar to the ones used by recording Walkman's or Clip on microphones.



- the tip of the connector is always the combined power & signal on this type of mic.
Please place the jumper on the apply primary power setting i.e Pin 5 - 6

Type (c) Stereo Dynamic or Self-Powered Stereo Condenser
This microphone is very similar to type (a). It is usually large and heavy, similar to the ones used as Desktop microphones.

- the tip of the connector is usually the Left signal pin on this type of microphone.
Please leave the jumper on the default setting i.e. Pin 2 - 4 to record in stereo

Please leave the jumper on the mix L&R setting i.e. Pin 3-4 to record in mono.

Please leave the jumper on the mix L&R setting i.e Pin 3 - 4 to record in mono.

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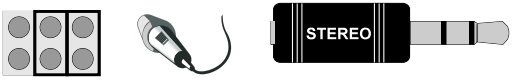
Type (d) Stereo Condenser or Stereo Electret

This is the other standard microphone most of us have seen or used, usually light and small, similar to the ones used by Camcorder's.

- the tip of the connector is the combined Left signal & main power on this type of micro.
Please put the jumper on the apply power to tip setting i.e Pin 5 - 6 to record in stereo.



Please put the jumper on the apply power to tip setting i.e Pin 5-6, 3-4 to record in mono.

Type (e) Dual Mono Condenser or Dual Mono Electret

This is the last type of standard microphone, usually a double version of type (b), similar to the ones used by recording walkman's or TIE microphone, put into an adapter before the sound card.

- the tip of the connector is the combined power & Left audio signal, and the other is the combined power and Right audio signal.
Please place the jumper on the apply secondary power setting i.e Pin 1 - 2
Please place the jumper on the apply primary power setting i.e pin 5 - 6
This will give full stereo recording.

Please place the jumper on the apply secondary power setting i.e Pin 1 - 2
Please place the jumper on the stereo/mono mix jumper setting i.e Pin 3 - 4
Please place the jumper on the apply primary power setting i.e pin 5 - 6
This will give mono recording.

Summary :

JP4 pin 5-6: Primary Power to connect the tip for electret or condenser microphone.

JP4 pin 3-4: Stereo to mono microphone mixer (ONLY USE WITH STEREO PLUGS)

JP4 pin 1-2: Secondary Power to connector ring 1 for electret or condenser microphone

JP4 pin 2-4: default, dummy jumper setting

Installing the ASB 16 SE Audio System

Installing the audio card into your system is very simple. However, to prevent any damage to your equipment, please read the following instructions very carefully:

1.) Turn off your computer and all other peripheral devices. Do not disconnect the power cable, this will keep your computer grounded.
2.) Discharge any static electricity that might come from you by touching a metal plate on your computer to avoid damaging your equipment.
3.) Remove the cover of your computer and set the screws aside (if any.) Find a free 8-bit expansion slot in your system and remove the metal plate from the slot.
4.) Insert the audio card gently into the expansion slot. Do not force.
5.) Fasten the audio card to your computer with the screw you removed from the metal plate.
6.) Replace the cover of your computer and replace the screws you have removed (if any.)
7.) Connect your speakers or audio equipment to the ASB 16 SE sound card and turn on your computer.

DOS Utilities and Drivers Installation

To install your ASB 16 board with DOS 5.0 or greater, you first have to run DOSINST.EXE installation program. Check you system configuration to see which letter correspond to your CD ROM drive. Be sure that you have your AdLib CDROM is in your drive then:

At the DOS prompt:

1. Type D:\ and press Enter (Assuming that your CDROM drive is “D”)
2. Type CD\DOS ans press Enter
3. Type DOSINST and press Enter
4. Choose the language of your choice
5. Choose the drive where you want the installation software.
6. Follow the instructions

When the DOS Installation is finished, your system will re-boot automatically and the programs and drivers of your ASB 16 SE will be installed in the directory of: C:\ADLIB\

Testing your sound board

Run the ASB 16 DOS Software Menu, change to the directory you specified when you first installed the ASB 16 DOS installation I.E. CD \ADLIB\ and Enter, then type ASBMENU and Enter. You will see the following menu: (see ASB DOS MENU on figure 1 below.)

Operating the DIAGNOSTICS Program

The diagnostics program provides an end-user system functional test/diagnostic. ASBMENU.EXE queries Plug & Play information to locate the ASB 16 Audio System, if available. If the Plug & Play data is not available, the diagnostic will use ASB_16.INI to configure the CODEC. If the Plug & Play data and the ASB_16.INI files are not found, ASBDIAGS.EXE will display an error message, indicating a problem found. An example display of the ASB-DIAGS.EXE is shown below:

figure 1.

The DMA, IRQ and I/O settings are not selectable from the ASBDIAGS.EXE. The user can move between fields using the TAB, arrow keys or mouse clicks. When '<Test>' is selected for a device, i.e., CODEC, the diagnostics will run a series of tests to verify the correct operation of the selected device.
On completion of the test, the field between I/O and <Test> will change to reflect pass or fail. In the case of a failure, the failing item will be highlighted.
The Joystick interface test will require a joystick to be attached in order to perform the test. If the test is attempted with no joystick-equivalent device attached, the Escape key can be use to abort the test. The joystick test field will be highlighted to indicate the test failure.

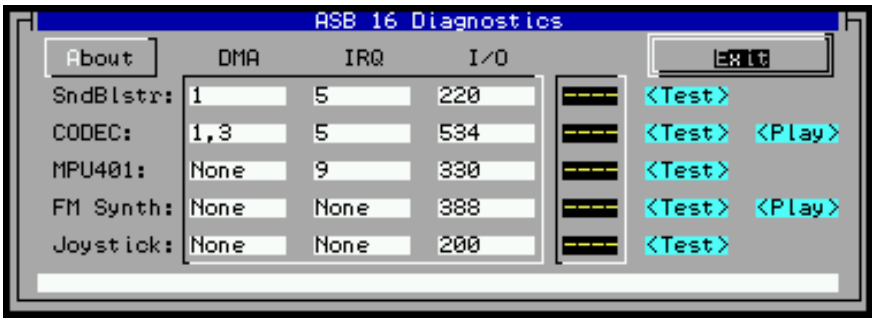


figure 2.

DOS Mixer

The MIXER program (figure 3) allows end-user to adjust the volume level of various audio channels in the ASB 16 SE card. The following are the descriptions of each channel control:

- Master: Main volume control of the ASB 16 SE board
- Wave: Volume control when playing wave files
- Line: Volume control for the Line-in when playing from an outside source like Audio sound system, Cassette-Deck, MPEG card, etc. either to record or playback.
- Mic: Volume control for the microphone when recording
- FM: Volume control when playing MIDI files
- CD: Volume control when playing a music CD on the CD-ROM

The Gang option can be chosen for modifying the left and right volume of each audio channel simultaneously. After modifying the volume of each channel, use the OK button to apply the new values to the ASB 16 SE.

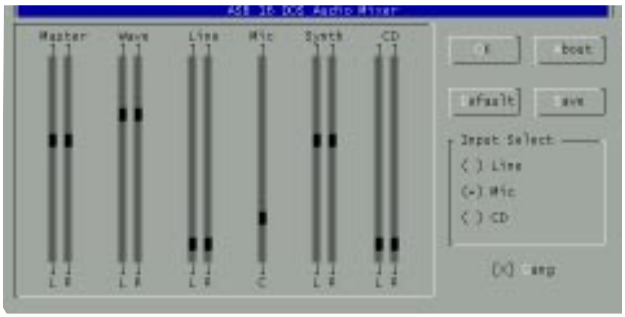


figure 3.

DOS CD-ROM Player

The CD-ROM Player (fig. 4), is the program to control the CD-ROM drive to play music CD under DOS.

figure 4.

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THE ASB 16 SE CONFIGURATION PROGRAM

If you discover any problems during the DOS installation you will find in the directory C:\ADLIB\ the configuration program ASBCNFG.EXE

The ASB 16 Configuration Program (figure 5) can run under DOS or Windows environment. This program allows you to change the configuration program where ever you are with the same screen setup. The settings in figure 5 are the factory settings. You can change the settings by clicking your mouse on the box to the right of the chosen parameter (box with the down arrow) and click on the value you want to change to. You can change the other device connected to the ASB 16 as well by clicking on the top of the file name. After you have customized the above settings, click on the <OK> box and the program will modify the environment string and start-up files for your dos and Windows programs automatically.

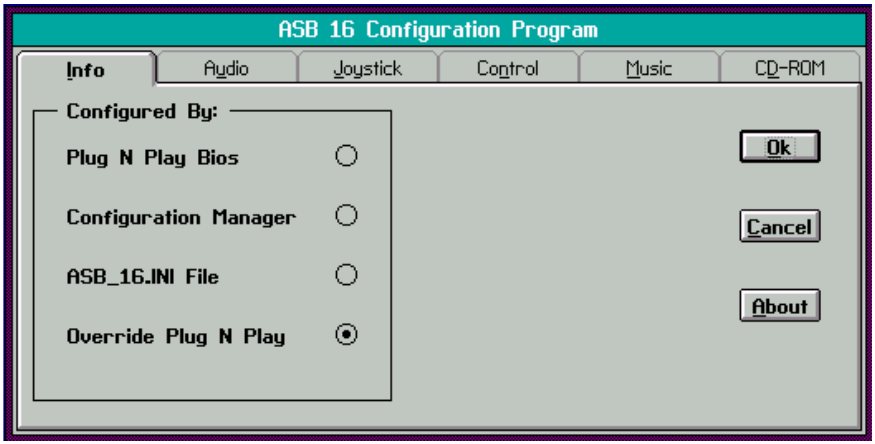

figure 5

OS/2™ Warp Installation

Please read the README.TXT file on the CDROM to get informations of the latest driver situation for OS/2™ Warp.

Native Audio Installation

Please read the README.TXT file on the CDROM to get informations of the latest driver situation for NSP.

Windows™ 3.1X Installation

To install your ASB 16 SE board with Windows™ 3.1 or greater, you first have to run the ASB 16 installation program. Be sure that you have your AdLib CDROM disk in your drive.

Start Windows™ 3.1 or 3.11 and:

1. Select "File"
2. Choose "Run"
3. Type D:\SETUP (You can use the browse button, where "D" stands for your CDROM drive)
4. Click "OK"
5. Follow the screen instructions

Configuring the Software

After the setup program copies the audio files onto the hard disk drive, the setup program diplays the configuration screen (figure 6). This screen allows you to select the DMA Duplex mode, the DMA Capture/Playback Channel, The I/O base address and the IRQ, according to the desired configuration for the sound card. The following screen only applies to non- Plug and Play systems.

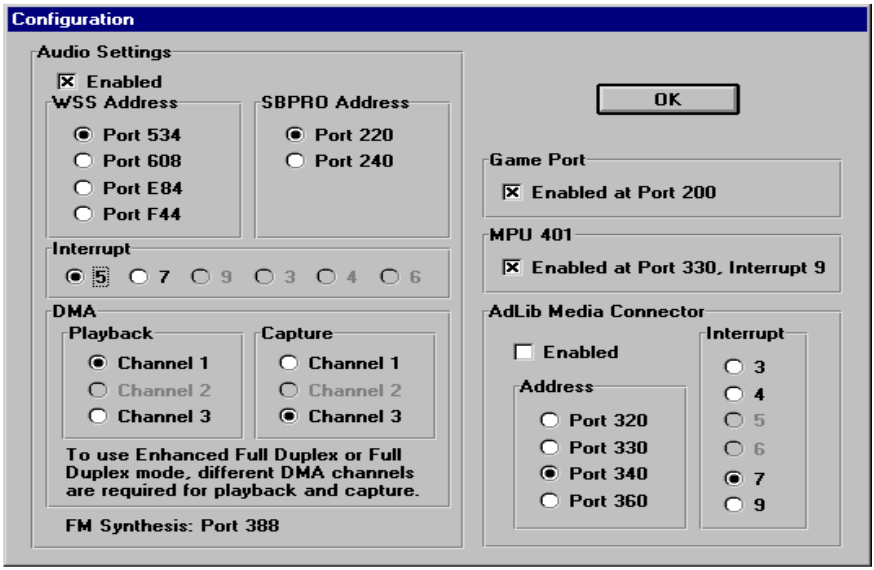

figure 6.

We recommend that you install the ASB 16 SE with the current default specified on your screen by the installation program. If you wish to change the current default go ahead and do so. To ensure proper configuration, determine the direct-memory access (DAM) settings, I/O address settings, and interrupt request (IRQ) settings for the other devices in your systems such as network , fax/modem, SCSI cards, etc.

To configure the ASB 16SE correctly perform the following steps.

1. Select the appropriate data transfer mode.

Half Duplex allows you to capture and play back audio signals at separate times. Full Duplex allows simultaneous capture and playback of audio signal at the same sample rate. Enhanced Full Duplex allows simultaneous capture and playback of any combination of 11, 22.05 or 48.00 KHz sample rates.

2. Select the appropriate input/output (I/O) address.

The default for the driver is 530h. If this address conflicts with the address of another device in your system, select alternative setting for the driver or the device. Otherwise, use the default setting.

3. Select the appropriate DMA playback and capture channels.

The selections for your system depend on the sound card installed.
If the default settings for the DMA channel conflict with another device in your computer, it is recommended that you try to change the setting for the other device. However, if you need to change the ASB 16 DMA setting make sure that you change it by trying different combinations until your card is installed properly.

4. Select the appropriate IRQ setting.

The default for the IRQ is 5. If this IRQ conflicts with the IRQ for another device in your system, select an alternate for the driver or the device.

The Installation will ask if you want to install the Bundle software. To read more about the Bundle software read the README file displayed at the end of the installation.

If you encounter any problems, please refer to the troubleshooting section of the manual. After the Windows installation is completed the Windows program will be restarted for the setup to take effect. The AdLib Audio Rack Items will be created in the Ad Lib Program Group. (figure 7)

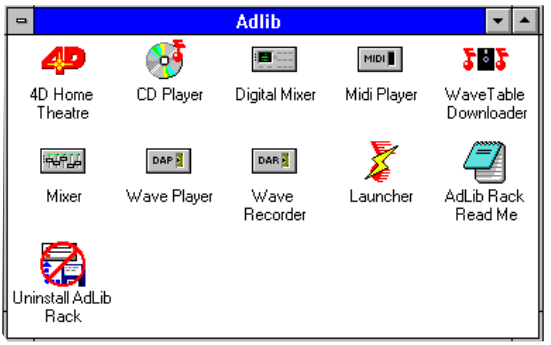

figure 7.

Windows 95™ Installation

We recommend that you fully install Windows 95™ BEFORE installing the AdLib ASB 16 SE Audio Card. This will enable you to take advantage of the completely automatic installation routines offered by Windows 95™.

As you can see from figure 8, Windows 95™ automatically finds the AdLib ASB 16 SE Audio Card, and prompts you to make a selection. Please choose the 'Driver disk provided' option and click 'OK'.

Next, insert the Ad Lib CDROM into your disk drive. If your drive is drive 'D' please type in D:\WIN95 and press 'OK'. See figure 9.

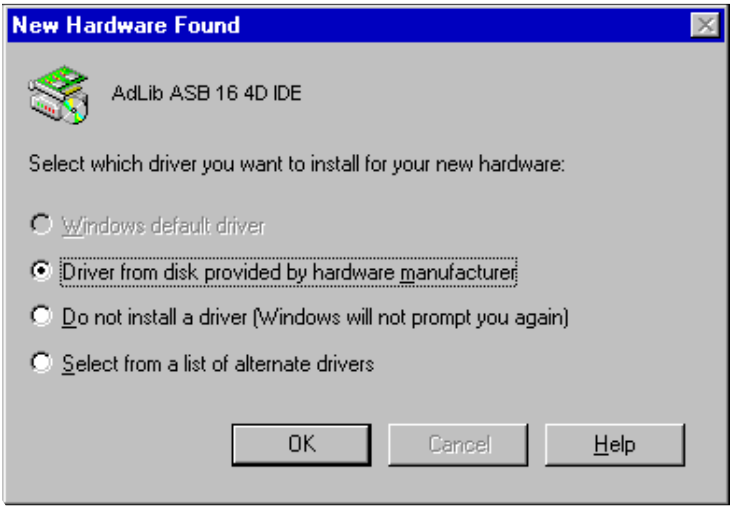

figure 8

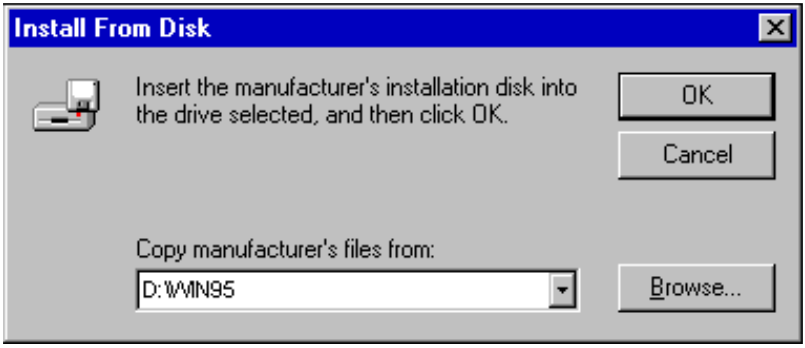

figure 9

figure 10

When the files have been copied from your AdLib CDROM, Windows 95™ will prompt you with figure 10. Select "Yes" and your machine will now reboot. The remaining devices on the AdLib ASB Audio Card will be configured automatically by Windows 95™ when your machine restarts.
If you would like to install the applications that are supplied by ourselves, please run the setup program that is on the \BUNDLED directory. You can do this easily in Windows 95™ by opening the control panel, and 'double clicking' on "Add/Remove Programs." See figure 11.

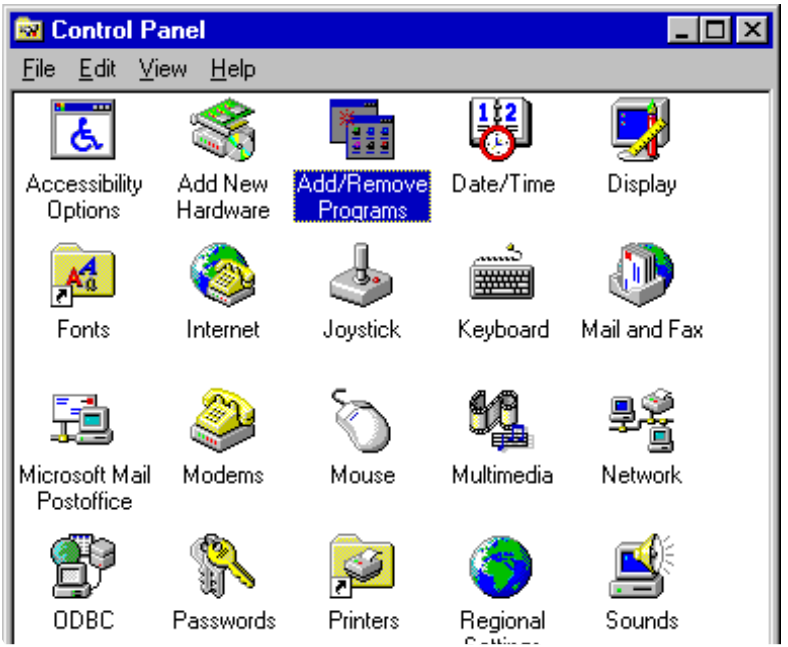

figure 11

When you 'double click' on this icon, it will bring up the applications installer applet, see figure 12.

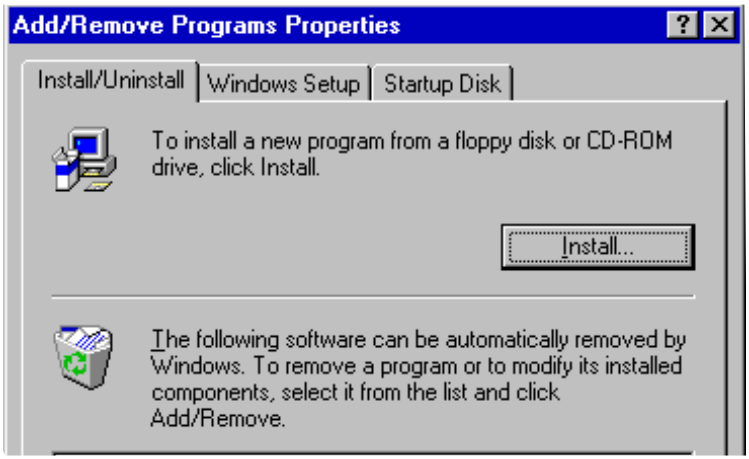

figure 12

Please press the “Install” button. This will then ask you to put the AdLib CDROM in your disk drive, see figure 13. After you have placed the CDROM in the drive and pressed “Next”, please follow the installation instructions on the screen.

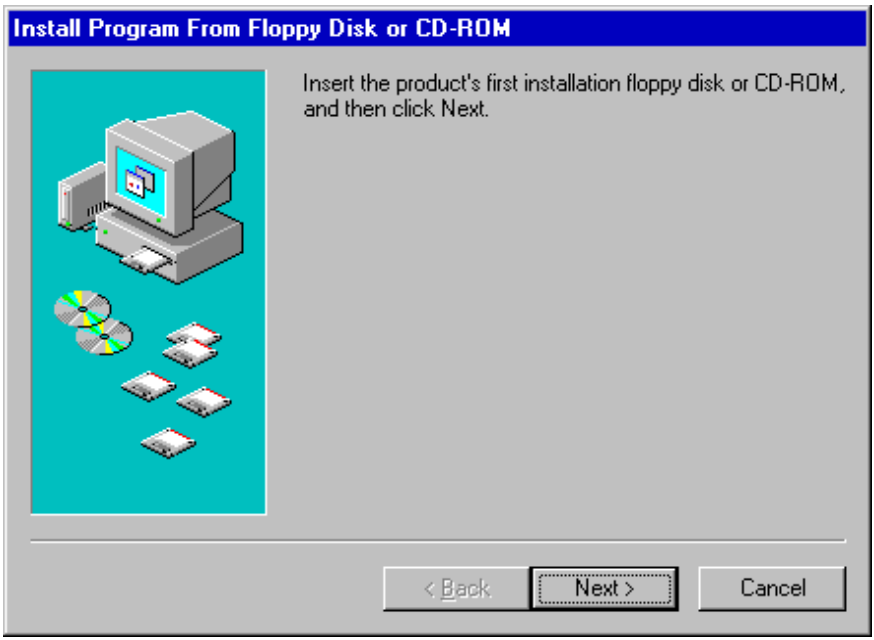

figure 13

The installation program will automatically detect that you are running Windows 95™, and prevent you installing drivers or programs designed for other versions of Microsoft Windows.

Well done! You have now installed your Ad Lib ASB 16 SE Audio Card. Please refer to the Windows 95™ manuals for further instructions on using the Microsoft supplied multimedia applications.

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If you have purchased an AdLib add-on 'WaveTable product '. Please read the following.

During the AdLib ASB 16 installation, Windows 95™ automatically installed an MPU401 Driver. This driver allows you to use your 'Wave' card as a General Midi instrument. However before you can use the superb sounds available, you must first tell Windows 95™ to use the device. From the 'Control Panel' in Windows 95™, see figure 11, 'double click' on the "Multimedia" icon. This will activate the multimedia control applet, see figure 14.

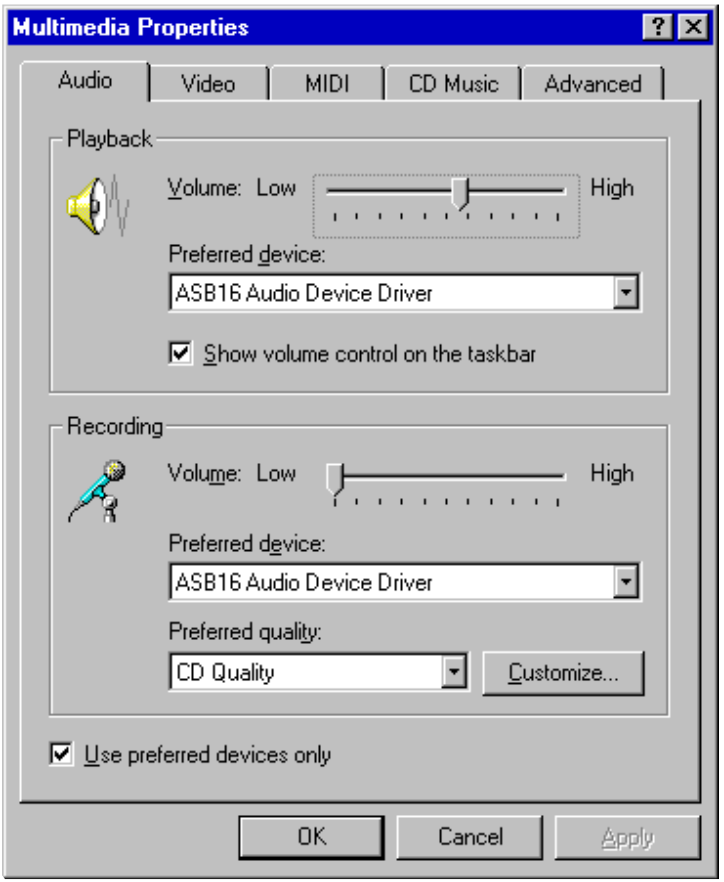

figure 14

Pressing the “MIDI Tab” shows the properties for your computer, and will look like figure 15.

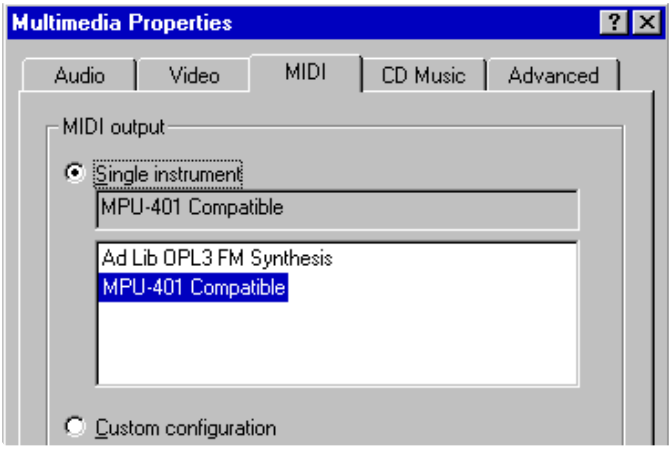

figure 15

Selecting the “Ad Lib OPL3 FM” option will allow Windows 95™ to send MIDI sounds to the Internal FM synthesiser. This is the standard default setting. It allows you to hear the difference your “Wave Table” makes to all MIDI music.

Selecting the “MPU401 Compatible” output allows Windows 95™ to send MIDI data to the ‘Wave Table’ synthesiser.

Please read your Ad Lib ASB 16 or other user guide for more information on MIDI sounds and General MIDI.

The Ad Lib Audio Rack

The Ad Lib Audio Rack is made of a set of modules, like a home sound system, which let you play and record music, as well as adjust sound mixing the way you like. All modules of the Audio Rack, may be launched separately from the Launcher Bar (see figure 16).Click on an icon of the Launcher Bar to launch a module of the Audio Rack. Click again the same icon to close it. Each module may be launched or closed in any order.

figure 16

After the installation, the Launcher needs to be configure. To do so, right click anywhere on the Launcher Bar, an select Configure in the pop-up menu. The Configuration window (figure 17) allow you to customize and set up the Audio Rack, depending on your hardware. Select the type of Ad Lib card you own, and main features of the sound card will be listed. If a modem or a CyberWave header are present on your Ad Lib card, you may as well choose the type.

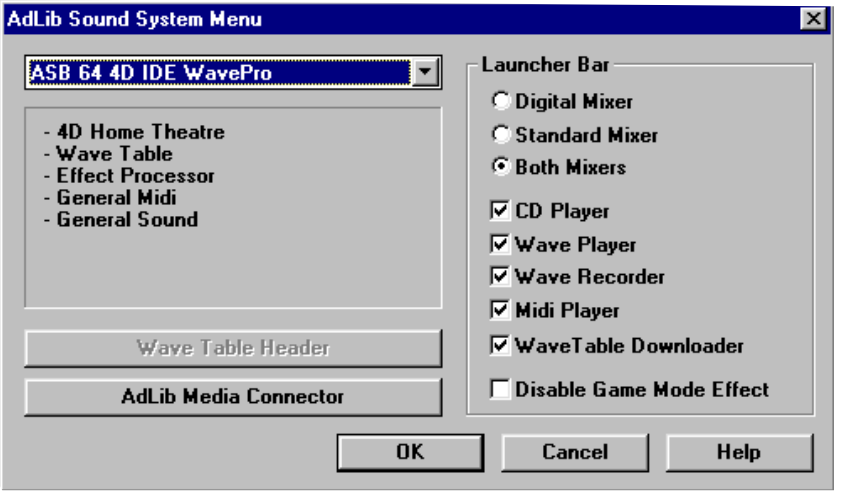

figure 17

Furthermore, you may call any module menu by right-clicking on an unused part of the module, or on the  button. The  button is used to minimize a module and  is the close button.

The Analog Mixer

The Analog mixer (figure 18) let you adjust sound mixing using analog controls: sliders. They set the volume (vertical ones) and panning (horizontal ones) for every sound source. The higher is the slide bar, the louder is the volume. If a slide bar is brought to its minimal level, the corresponding sound source is automatically muted. Inversely, if you select a slide bar, the corresponding source is turned on. In the case of the 4DHT (not avaible on the ASB 16 SE), if the "4DHT" option is selected, the volume level is used as the enhancement level, while it has no effect when set to GAME or normal. To execute the Analog mixer, click on the equivalent icon on the Ad Lib Launcher bar or double click on the Analog mixer icon in the Ad Lib program group

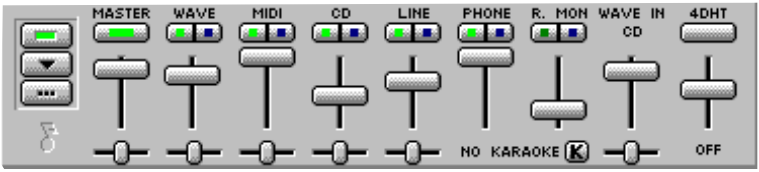

figure 18

You can adjust the Analog mixer Controls as follows:

Master Atten This is the global parameter, applied to the sound output, after mixing has been done according to volume and panning of all sound sources.

Wave Atten Adjust the volume of Digital Audio Recording input.MIDI Atten.

MIDI Output of the MIDI sequencer, which deals with music modules, like files having the ".MID" extension.

CD Atten Adjust the volume of the sound coming from a music compact disk in your CD-ROM drive.

Line Atten Adjust the volume of the Line-in input, which is the main input of you AdLib soundcard.

Phone Atten If your soundcard is equipped with a modem and telephone interface, you may set the volume level of the conversation on the line.

Rec. Mon Atten When recording, digitized (sampled) sound is also sent back to you so you may hear exactly how it will sound after having been recorded. This sound goes through the Record Monitor so you may set volume level without affecting other input and output used in the recording.

4DHT Atten In the case of the 4DHT mode, controls the sound enhancement level (not avaible on the ASB 16 SE).

The Digital Mixer

The Digital mixer (figure 19) allows you to adjust sound mixing parameters of only one sound source at once. To choose this source, use buttons in the rightmost part of the module. To set parameters, use arrow buttons in the center, as well as mute, solo and effect on the bottom. Of course, when you select any source, parameters of the source you were previously working on are left the way you set them, though they are not visible anymore.To execute the Digital mixer, click on the equivalent icon on the Ad Lib Launcher bar or double click on the Digital mixer icon in the Ad Lib program group

figure 19

You can adjust the Digital mixer Controls as follows

Mute This mutes the selected sound source. Click again on the mute button to turn it back on.

Solo The selected source becomes the only one to remain on and all others are temporary turned off, without affecting their parameters (volume level and panning). Click on the "solo" button again to turn back on every source that was previously on.

Effect This button selects between 4DTH, GAME, or normal modes.

Master This is the global parameter, applied to the sound output, after mixing has been done according to volume and panning of all sound sources.

4DHT This button selects 4DHT as the current source, although it is not really a sound source. You may however adjust the sound enhancement level using volume controls. (not avaible with ASB 16 SE)).

WaveIN Globally affects incoming sound, after all sound inputs (microphone, line-in, CD, etc.) have been mixed.

Line Controls the Line-In, which is the main input of you AdLib soundcard. CD Controls the sound coming from a music compact disk in your CD-ROM drive.

RecMon When recording, digitized (sampled) sound is also sent back to you so you may hear exactly how it will sound after having been recorded. This sound goes through the Record Monitor so you may set volume level without affecting other input and output used in the recording.

Wave Output of digital sound, like .WAV sound files for example.

MIDI Output of the MIDI sequencer, which deals with music modules, like files having the ".MID" extension.

Phone If your soundcard is equipped with a modem and telephone interface, you may set the volume level of the conversation on the line.

CD Player

With the CD player (figure 20), you may enjoy your favorite CD titles using your CD-ROM drive, with the features of a conventional CD player. Insert a CD into your CD-ROM drive, and use the playback control buttons to listen to your favorite songs. To execute the Cd player, click on the equivalent icon on the Ad Lib Launcher bar or double click on the CD player icon in the Ad Lib program group

figure 20

You can adjust the CD player Controls as follows

 Stops the currently playing sequence. If you're within a list of songs, clicking on the "play" button will resume playback with the first sequence in the list.

 Start playing the current sequence. If more than one sequences are selected in the list, playback will continue with following sequences.

 Halts playback of the current sequence. Click on this button again to resume playing. This button is also used to put a module in stand-by when doing synchronous recording.

 Jumps to the previous sequence in the list. If the current sequence was not at its beginning, this button rewinds the current sequence.

 Rewinds the current sequence. Hold the button down to rewind faster.

 Quickly moves forward. Holding the button moves faster.

 Jumps to the beginning of the next sequence in the list.

 Opens the CD-ROM drive door, to insert or change the CD.

 Loop mode, selected sequences, may be played in different ways: one after the other, once or continuously looping, or only one sequence looping indefinitely. Simply click the change mode button to cycle modes. Current mode is shown by indicators in the information display the CD Player module.

The information display informs you on the currently playing song, the time since its beginning, and the song looping mode.

The Digital Audio Player

The Digital Audio Player (figure 21) plays digital sounds, like WAV, that may be from anywhere or like those you may record with the Ad Lib Digital Audio Recorder. Click on the open button  to open the selection window, and use playback control buttons as well as the loop mode button  to listen to the selected sequence the way you like. To execute the Digital Audio Player, click on the equivalent icon on the Ad Lib Launcher bar or double click on the Digital Audio Player icon in the Ad Lib program group.

figure 21

You can adjust the DAP Controls as follows

The playback control of the Digital Audio Player remain the same as the CD player except for the open control describe as follow:

This opens a dialog window where you may choose one or many music files. Use appropriates boxes to navigate through drives and directories to select the desired files. You may also choose between list and single mode.

In the single mode, you may only choose a single file which will beplayed immediately. However, in the list mode, you may define custom lists, which will be kept until you delete them. To do so, click on "New", enter a new list name, and click on "Insert". Every selected file will then be added to this list. To get back a previously built list, select it from the "File lists" box. You may also delete a list by clicking on "Delete".

The information display provides information about the current sound, its name, the elapsed time since it began to play, and other information like sampling rate, sound quality (8 or 16 bits) and the number of used channels (mono or stereo). You'll also find the loop mode.indicators.

The Digital Audio Recorder

The Digital Audio Recorder (figure 22) let you record (sample, digitize) sound in a WAV format from different sources. For complete explanation on how to record, see the Recording topicon the help file. Briefly, to record, choose a recording source, set up sound parameters (sampling rate, quality, etc.). Click on the  button to put the Recorder into Monitor mode. Then start a music playback, or talk into the microphone, and adjust recording volume levels, following the VU-meter. Then click on "pause" button  , to start recording and on "stop"  to stop recording. You may then click on "play"  to listen what you just recorded. Don't forget to click on "Save"  to save your recorded sequence onto your disk.To execute the Digital Audio Recorder, click on the equivalent icon on the Ad Lib Launcher bar or double click on the Digital Audio Recorder icon in the Ad Lib program group.

figure 22

You can adjust the DAR Controls as follows

 Saves the recorded sequence on the disk.

 Opens a dialog window where you may set the number of channels (mono or stereo), sound quality (8 or 16 bits), the sampling rate and sound compression.

 Stops playback or recording.

 Plays back the recorded sequence.

 Click on this button to switch the Recorder into Monitor mode, and eventually to record. See the Recording topic help file for recording instructions.

 Temporarily halts recording or playback. When recording is paused, the Recorder switch to Monitor mode. In this case, nothing is recorded but the VU-meter remains active.

 Rewinds the playback of the recorder sequence. Keep the button down to rewind faster.

 Quickly moves forward the playback of the recorded sequence. Hold the button down to move more quickly.

The information display informs you about the recorded sound, its name, the elapsed time since playback or recording started, as well as other information like sampling rate, sound quality (8 or 16 bits), and number of used channels (mono or stereo). The display also integrate a two lights bars VU meter which shows the volume intensity of the currently playing sound. The VU meter is active only in Monitor mode or when recording, and only is the "VU meter" option of the module menu is set. See the Recording topic for more information on how to use it.

Recording sources

You may choose, for recording, between the following sources:

MIDI: This is the sound produced by a Midi module player (like the AdLib MIDI Player)

CD: To record music from a compact disk.

LINE: This is the main input of the AdLib card, into which you may plug a tape player for example.

MICRO: Selects the microphone as the recording source.

OUTPUT: The recorded sound will be the output of the mixer (see sound mixing) which is sent back into the sampler. If you wish to record from many sources at once, or if the desired source is not directly available (eg: CD), you must select Master Output.

Note: If you wish to resample digitized sound that is playing in the Wave Player, be sure that the soundcard is configured with "Enhance Full Duplex", or "Full Duplex". However, in this last case, recording parameters (quality, rate, etc.) must be those of the playing sound.

MIDI Player

This module (figure 23) plays MIDI music files. Click on the  button (Edit play list) to select which music you'd like to hear, and use playback control buttons as well as the loop mode button  to listen to the selected sequence the way you like. Furthermore, you may select the MIDI device that will be used to play music by clicking on the  button. To execute the MIDI player, click on the equivalent icon on the Ad Lib Launcher bar or double click on the MIDI player icon in the Ad Lib program group.

figure 23

You can adjust the MIDI player Controls as follows

The playback control of the MIDI Player remain the same as the CD player except for the following control:

This opens a dialog window where you may choose one or many music files. Use appropriates boxes to navigate through drives and directories to select the desired files. You may also choose between list and single mode.

The Ad Lib ASB 16 SE provide many ways for Windows to play MIDI music. You may choose between one of the following:

Midi Mapper: Music processing goes through a Windows utility which allows to redefine instruments and channels configuration. In this case, hardware elements of the soundcard used depend on the Midi Mapper configuration.

Roland MPU-401: Music is played through the MIDI port of the AdLib ASB 16 SE soundcard (avaible only with an add-on board Cyber wave or equivalent).

FM OPL3 Synthesizer: The FM Synthesizer can generate artificial sounds as well as a fairly good imitation of real orchestra instrument.

The Bundled-Software

EasyKeys transforms your PC into a fully-functioning MIDI keyboard for the cost of one music lesson! From the hobbyist to the professional, everyone will enjoy the music they produce using EasyKeys. Choose from one of ten musical styles, add a sound effect, introduction, or ending, and use the one-touch chord playing and automatic melody maker to create your favorite tunes. Control everything from tempo, to musical key, to the instrument playing the melody.

Score Saver

- Watch psychedelic shapes dance to the music
- Choose from 32 different musical styles
- Select from one of 5 graphical elements

SuperJAM! is an automated composition package which allows musicians and non-musicians alike to utilize a set of intelligent band members to quickly generate complete musical compositions in a wide variety of styles from jazz to classical to pop. No prior musical training is required. All scores are copyright-free, and can be saved in standard MIDI file format and exported into other applications.

Soundtrack Express enables the corporate user and home videographer to easily create sophisticated background music for multimedia presentations and videos. Music is created by pushing one button and selecting the musical style, mood, band configuration, and length of performance in minutes and seconds. The user can easily enhance the song by asking for musical accents at specific points in time so that the music complements visual aspects of a presentation. The ability to create unique soundtracks is limitless. Soundtrack Express' OLE 2.0 and MIDI file allow it to work with dozens of multimedia and business presentations packages.

ASB 16 Board Layout

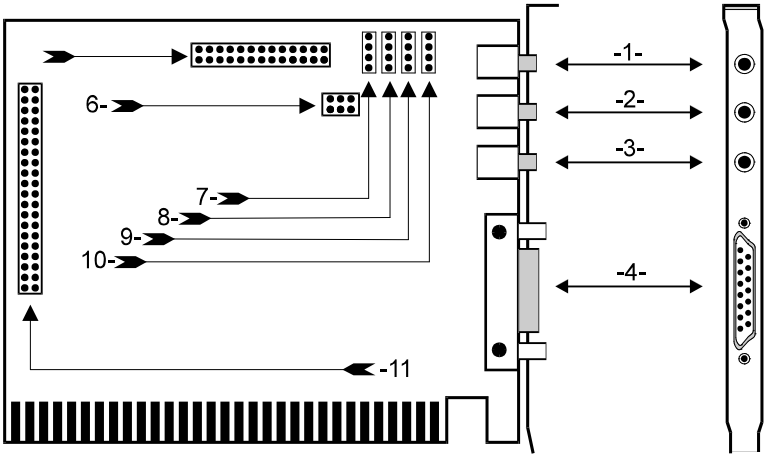

figure 24

1- Microphone input
2- Line in
3- Output
4- Joystick and MIDI port.
5- SB Wave header.
6- Configuration for microphone(JP4).
7- CD Audio IDE.
8- CD Audio Sony.
9- CD Audio Panasonic.
10- CD Audio Mitsumi.
11- AdLib Media Connector

Troubleshooting

- *Question: When the ASB 16 SE card is in the system and the system does not turn on. What should I do?*

Answer: Call your supplier or the nearest authorized distributor or service center.

- *Question: The system reports a Hard Disk Drive Boot failure after the ASB 16 SE installation. What should I do?*

Answer: Call your supplier or the nearest authorized distributor or service center.

- *Question: After installing the ASB 16 DOS drivers, I don't hear the game's music. What should I do?*

Answer: Check to make sure that all the cables are in the proper place as specified in the manual. However, if you do not get any result, make sure that jumpers 1 and 2 on JP1 are closed. This will enable the Yamaha OPL3 synthesizer.

- *Question: The ASB 16 SE has an interrupt problem with another device under Windows. What should I do?*

Answer: Change or remove the other device or you can change the ASB 16 configuration. We recommend that you change the other device first. However, if you do not get results, go to the directory of \ADLIB and run the ASBCNFG.EXE under DOS or Windows to change the configuration of the ASB 16.

- *Question: The ASB 16 SE cannot play MIDI files. What should I do?*

Answer: Check the mixer setting under Windows . If this does not solve the problem, check the MIDI mapper and sequencer for the correct installation. Refer to your Windows manual for more details.

- *Question: The microphone does not work. What should I do?*

Answer: Look at the male connector of your microphone, then refer to the page about the "Microphone installation setup".

- *Question: Windows does not recognize the CD-ROM when it is playing a music CD. What should I do?*

Answer: Make sure that you have a Music CD in your CD-ROM and try it again. If this does not solve the problem, then open the Control Panel and select Drivers. Remove the (MCI) CD AUDIO and add the file (MCI) CD AUDIO again. Close Drivers and quit the Control Panel and try to play the CD-ROM again.

- *Question: The CD-ROM is working but, no sound can be produced. What should I do?*

Answer: Make sure that you connected the CD audio cable in the right connector. Refer to the picture on the back of the SE Box or in the Manual for guidance.

Technical Support

Ad Lib MultiMedia Inc. is firmly committed to provide the highest level of customer service and product support. If you experience any difficulties when using your product, or if it fails to operate as described, we suggest you first consult the User's Guide and then, if you are still in need of assistance, please fax your question to our Technical Support Department at (418) 561-4919 or use our BBS-Support-System: (418) 522-6099.

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This equipment has been tested and found to comply with the limits of 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 instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a practical 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:

-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 connected.
-Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.