INSPIRE
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User's Manual
Version 1.0

PreSonus Audio Electronics, Inc., © 2005

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PreSonus Limited Warranty

PreSonus Audio Electronics Inc. warrants this product to be free of defects in material and workmanship for a period of one year from the date of original retail purchase. This warranty is enforceable only by the original retail purchaser. To be protected by this warranty, the purchaser must complete and return the enclosed warranty card within 14 days of purchase. During the warranty period PreSonus shall, at its sole and absolute option, either repair or replace, free of charge, any product that proves to be defective on inspection by PreSonus or its authorized service representative. To obtain warranty service, the purchaser must first call or write PreSonus at the address and telephone number printed below to obtain a Return Authorization Number and instructions of where to return the unit for service. All inquiries must be accompanied by a description of the problem. All authorized returns must be sent to the PreSonus repair facility postage prepaid, insured and properly packaged. PreSonus reserves the right to update any unit returned for repair. PreSonus reserves the right to change or improve the design of the product at any time without prior notice. This warranty does not cover claims for damage due to abuse, neglect, alteration or attempted repair by unauthorized personnel, and is limited to failures arising during normal use that are due to defects in material or workmanship in the product. Any implied warranties, including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this limited warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. In no event will PreSonus be liable for incidental, consequential or other damages resulting from the breach of any express or implied warranty, including, among other things, damage to property, damage based on inconvenience or on loss of use of the product, and, to the extent permitted by law, damages for personal injury. Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. This warranty only applies to products sold and used in the United States of America. For warranty information in all other countries please refer to your local distributor.

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1.1 INTRODUCTION

Thank you for purchasing the PreSonus INSPIRE 1394. PreSonus Audio Electronics has designed the INSPIRE 1394 utilizing high-grade components to insure optimum performance that will last a lifetime. The INSPIRE 1394 is very powerful, small footprint recording interface with the ability to record and playback four inputs and two stereo outputs simultaneously at a 24-bit/96K sample rate. With two PreSonus microphone preamplifiers and two instrument inputs on the front panel, as well as one stereo phono input and two stereo analog outputs on the back panel, the INSPIRE 1394 is ready to go out of the box for quality computer recording with Cubase LE 48-track recording software included. For further flexibility, the INSPIRE 1394 can be bus-powered by a six-pin 1394 connector or externally powered by the included power supply. The INSPIRE 1394 gives you the power to make quality recordings in the palm of your hand.

We suggest that you use this manual to familiarize yourself with the features, applications and correct connection procedure for your INSPIRE 1394 before trying to connect it to your computer. This will hopefully alleviate any unforeseen issues that you may encounter during installation and set up.

There is also a Glossary of Terms located in the back of this manual. Most of the technical terms in this manual are defined in the Glossary for quick reference.

Thank you, once again, for buying our product and we hope you enjoy your INSPIRE 1394!

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1.2 WHAT IS IN THE BOX

Your INSPIRE 1394 package contains the following:

• INSPIRE 1394 Interface

• CD-ROM containing driver software and user manual in PDF form.

• 1 6' 6-pin to 6-pin IEEE 1394 (FireWire) cable

• 16VAC 1A Power Supply

• Warranty Card

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1.3 FRONT AND BACK PANEL LAYOUT

Front Panel

Your INSPIRE 1394 is equipped with two custom designed, digitally controlled, solid state preamplifiers that can accept XLR microphone or 1/4" instrument inputs. For each preamplifier, either the XLR or 1/4" input may be used at a given time.

a. XLR Microphone Input.   The XLR connector on channels 1 and 2 are for use with most condenser and dynamic microphones.

b. 1/4" Instrument Inputs (Channels 1 and 2): The 1/4" TRS connector on channels 1 and 2 are for use with an instrument (guitar, bass, etc.).

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c. Red-Blue Power/Sync Light. This light is a driver sync indicator, and lets you know if your unit is receiving driver sync correctly. Proper driver sync prevents digital interfaces from having pops, clicks, or distortion in the audio signal.

Blue – solid sync
Red – sync not present.

Back Panel

a. 16VAC Power Adaptor Input. This is where you plug the provided power supply into the INSPIRE 1394. Please check the power supply to ensure that it is the correct voltage and plug type for your country. Note that you can also power your INSPIRE 1394 with a six-pin 1394 port from your computer instead of using the external power supply.

b. 1394 (FireWire) Ports. There are two 1394 ports on the back of the INSPIRE 1394. Both 1394 ports are standard 6 pin connectors. If your computer has a six-pin 1394 port you can power your INSPIRE 1394 from the 1394 connector. If your computer has a 4 pin 1394 connector, then you

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will need to get a single 4 to 6 pin 1394 cable to connect your INSPIRE 1394 to your computer, and use the external power supply. (Refer to section 4.2 for Multiple Unit Support)

c. Headphone Symbol and 1/8" / 3.5mm Jack. Headphone output. This is where you connect your headphones.

d. Speaker Symbol and 1/8" / 3.5mm Jack. Unbalanced line level output. This is where you connect your computer speakers.

e. RCA Line Outputs. Unbalanced line level outputs. This stereo output can be used to connect to your speakers or another device.

f. RCA Line Inputs (3 and 4). Unbalanced line level / phono inputs. This stereo input is used to connect a turntable, keyboard, etc.

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1.4 QUICK START UP GUIDE

We recommend you familiarize yourself with the entire INSPIRE 1394 user manual, however, follow these instructions if you want to just dive in:

PC:

1.) Insert the INSPIRE 1394 Driver/Software CD in the CD drive of the computer. The installer should auto-run. (If installation does not begin, browse the contents of the CD and run setup.exe)

2.) Follow the instructions in the installer closely, and when directed, connect your INSPIRE 1394 to your computer via a 1394 cable.

3.) You should see a blue sync light on the front panel of the INSPIRE 1394 at this point.

4.) Finish the installation as directed.

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5.) Click on the Start Menu to navigate to All Programs / PreSonus INSPIRE 1394, and click on Control Panel. This will open the INSPIRE 1394 Control Panel, from which you can digitally control your INSPIRE 1394.

6.) If you intend to use Cubase LE, refer to the Cubase LE section below.

MAC:

1.) Connect the INSPIRE 1394 to your computer via a 1394 cable.

2.) You should see a blue sync light on the front panel of the INSPIRE 1394 at this point.

3.) Insert the INSPIRE 1394 Driver/Software CD in the CD drive of the computer.

4.) Browse the contents of the CD to find and copy the folder named 'Macintosh' to your hard drive.

5.) Find the 'Macintosh' folder you copied from the INSPIRE 1394 driver CD. Look for the Control Panel icon and double-click on it. This will open the INSPIRE 1394 Control Panel, from which you can digitally control your INSPIRE 1394.
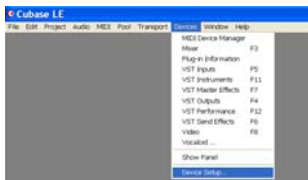
6.) If you intend to use Cubase LE, refer to the Cubase LE section below.

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CUBASE LE :

Once you have installed the INSPIRE 1394 drivers, if you plan on using the CUBASE LE software included with your INSPIRE 1394, insert the INSPIRE 1394 Driver/Software CD and run the Cubase LE Installer. Make sure to keep your CD sleeve handy to reference the serial number during installation. Then, launch Cubase LE.

1.)To select the INSPIRE 1394 in Cubase LE, go to Devices -> Device Setup.

2.) Select VST multi-track.
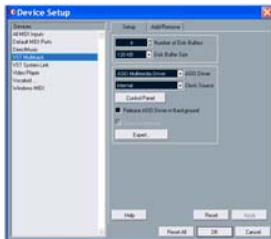
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3.) ASIO Driver (pull down menu) – select PreSonus
ASIO Driver.

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3.) Click Switch to save PreSonus Driver Selection

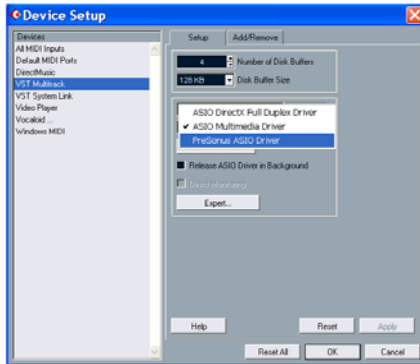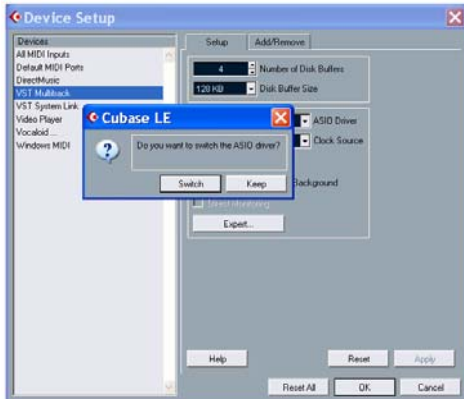4.) You are now ready to use the INSPIRE 1394 with Cubase LE. Refer to the Cubase LE operation manual (press F1 on your keyboard) for any information regarding this software.

INSTALLATION

2.1 COMPUTER REQUIREMENTS

The INSPIRE 1394 is a self contained 1394 audio interface- just add a computer with a 1394 port, and your recording setup is complete (no other device, such as an internal sound card, is needed). Below are the required computer system specs for your INSPIRE 1394:

Windows

- OS: Microsoft Windows XP Service Pack 1 or later

- Computer: Windows compatible computer with 1394 port (PCI or built-in).

- CPU/Clock: Pentium, with 900Mhz or higher (2.4 GHz recommended)

- Memory(RAM): 256 MB (512 MB or more recommended)

Macintosh

- OS: MacOS X 10.3.7 or later

- Computer: Apple Macintosh series with 1394 port (PCI or built-in).

- CPU/Clock: PowerPC G4/800Mhz or higher

- Memory(RAM): 256 MB (512 MB or more recommended)

Note that the speed of your processor, amount of RAM and size and speed of your hard drive will greatly affect the overall performance of your recording system.

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2.2 INSTALLATION OF INSPIRE 1394 DRIVERS AND SOFTWARE

Windows XP:

1.) Insert the INSPIRE 1394 Driver/Software CD in the CD drive of the computer. The installer should auto-run. (If installation does not begin, point the computer to your CD drive and run setup.exe)

2.) Follow the instructions in the installer closely, and when directed, connect your INSPIRE 1394 to your computer via a 1394 cable.

Note: If at any point during installation a "Software Installation" message appears from Windows regarding Windows Logo testing click "Continue Anyway" to continue installation.

3.) You should see a blue sync light on the front panel of the INSPIRE 1394 at this point.

4.) Finish the Installation as directed.

5.) Click on the Start Menu to navigate to All Programs / PreSonus INSPIRE 1394, and click on Control Panel. This will open the INSPIRE 1394 Control Panel, from which you can digitally control your INSPIRE 1394.

Note: If you are you connecting the INSPIRE 1394 via a standard 6-pin 1394 cable, power for the unit will be supplied via the 1394 cable. If you are using a 4 to 6-pin 1394 cable, you will need to connect the included external power supply to power the INSPIRE 1394.

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Macintosh OSX (10.3.7 or later):

The audio drivers for the INSPIRE 1394 are included in CORE AUDIO for Macintosh OSX 10.3.7 and later.

Once you have verified that you are running OSX 10.3.7 or later, connect your INSPIRE 1394 to a 1394 port on your computer (power for the unit will be supplied via the 1394 cable). Your INSPIRE 1394 sync light should flash red and then stay blue to indicate that your INSPIRE 1394 is properly sync'd to your computer.

Once you have connected the INSPIRE 1394, follow these instructions to install the software:

1.) Insert the INSPIRE 1394 Driver/Software CD in the CD drive of the computer.

2.) Browse the contents of the CD to find and copy the folder named 'Macintosh' to your hard drive.

3.) Find the 'Macintosh' folder you copied from the INSPIRE 1394 driver CD. Look for the Control Panel icon and double-click on it. This will open the INSPIRE 1394 Control Panel, from which you can digitally control your INSPIRE 1394.

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3.1 CONTROL PANEL OPERATION

Once you have successfully installed your audio drivers, launch the INSPIRE 1394 Control Panel.

PC: The INSPIRE 1394 Control panel ICON will be in the quicklaunch area of the taskbar, and your programs list.

Mac: The INSPIRE 1394 Control Panel will be in your applications folder, and an ICON will be on your desktop.

The Control Panel is the interface from which you will digitally control your INSPIRE 1394. This user interface is comprised of many components which correspond to the interface itself: Inputs 1 and 2, Stereo Input 3/4, Headphones Level, Control Panel, Speaker Out Level, Unit Select, and the Mixer. These components have been designed to be as intuitive to use as possible.

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General Controls:

Knobs: To control any knob, click and drag your mouse in a circular motion around the knob. The further out you drag the mouse from the knob, the finer the control over the knob will be. If you RIGHT-CLICK on PC, or OPTION-CLICK on Mac, on any blank area on the Control Panel, you can choose to have the knob control move in a linear motion (move the mouse up and down).

Buttons: To engage or disengage any button, simply click on it.

Faders: To control a fader or panner, click and drag your mouse on it. (Pictured Left: Faders are white and move up or down, and panners are blue and move left or right).

Drop Down Menus: To make a selection within a drop down menu, click and drag up or down, then release the click on the item you wish to select. (Pictured Right)
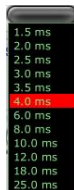
Double-click on any control to return it to its default state.

Load/Save: You can save your settings for the INSPIRE 1394 Control Panel to be recalled at any time. Simply click on Save, and name the file. To recall your settings, click on load and choose a file.

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Control Panel Window Controls:

In the upper right corner of the Control Panel Window, you will notice several controls:

Always on Top: This engages a mode in which the Control Panel window will no longer get pushed behind another application's window when you click outside of the Control Panel window.

Win Shade: This engages the Win Shade View (see section 3.2).

Minimize and Close: These buttons will function in the same way they do for any window on your computer. The close button will not exit the Control Panel, it simply closes the window.

The following section will describe each component of the INSPIRE 1394 Control Panel, and how they are controlled.

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Inputs 1 and 2: These inputs are on the front of your INSPIRE 1394.

Gain: This knob will control the gain of your preamplifier.

48V: This button will turn 48 Volt Phantom Power on/off.

Limit: This button will turn the preamplifier's limiter on/off.

Boost: This button will turn the preamplifier's +20dB boost on/off.

Stereo Input 3/4: This RCA stereo input is on the back of your INSPIRE 1394.

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Level Control: This is a dual concentric knob (two knobs stacked one on top of the other). The inside (with white indicator) knob controls the level of the left channel, and the outside (with red indicator) knob controls the level of the right channel. Click on the white or red indicator to grab the knob to ensure proper movement of the knob. On PC ALT-CLICK and on Mac OPTION-CLICK the top or bottom knob to control the left or right level independently.

The ability to control the level of each side of the stereo input can be necessary if the stereo input is not correctly balanced.

Phono: If you input a turntable into Stereo Input 3/4, engage this button to put the input in phono mode (the button will turn red when engaged). Phono Mode will engage the RIAA filter used by all phono preamplifiers to compensate for filters used in the production of the vinyl disk.

Output Controls:

The audio output of your INSPIRE 1394 will be the result of your settings in the Control Panel / Monitor Mixer (refer to section 3.3 for information on Mixer Operation).

Headphones: This knob will control the output level to your headphones.

Speaker Out: This fader will control the output level to your speakers.

**Mute:** Engage this button to mute the speaker output.

You can use the MUTE button to quickly silence all output to your speakers in case your levels suddenly jump too high.

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Control Panel (PC only):

Sample Rate: This refers to the number of samples per second you are recording of the waveform (eg; 44,100 samples per second). Drop down the menu in the Control Panel to select the sample rate of the INSPIRE 1394 – 44.1, 48, 88.2, 96k. This must be set to the same sample rate in your recording software.

Latency: Sets the amount of delay for your INSPIRE 1394 (1.5ms – 24ms). Latency is the time it takes for the computer to process audio. Lower latency settings demand more CPU resources. If you experience inconsistent audio, (i.e. drop outs, pops and clicks, digital distortion, etc) we recommend a setting of 10ms or higher.
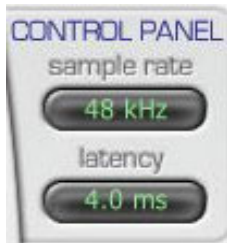
Changing Sample Rate on a Mac:

You will not see the Control Panel on a Mac- you can change the sample rate in the Audio Midi Setup application in your Applications/Utilities Folder. Look at the Properties for the INSPIRE 1394, then select a sample rate under Format.

Unit Select: If you are using more than one INSPIRE 1394, you can choose which unit you wish to control in the Control Panel by clicking on it in the Unit Selector. Any settings you make for each unit will remain as you switch from unit to unit. (*refer to section 4.2 on renaming each unit in the Unit Selector.*)

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3.2 WIN SHADE VIEW

Win Shade View: Pictured above is a smaller version of the INSPIRE 1394 Control Panel called the Win Shade Mode. All of the controls in this mode function in the same way as the controls in the regular Control Panel view. To switch between the views, click on the Win Shade button (shown in Chapter 3.1).

When the Win Shade View is used in combination with the Always on Top function, you can keep your essential INSPIRE 1394 controls readily available for quick adjustment, without taking up too much screen space. This way, you can navigate your multi-track software (Cubase LE, etc.) and control your INSPIRE 1394 without needing to minimize or maximize any windows.

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3.3 MONITOR MIXER

Pictured above is the INSPIRE 1394 Monitor Mixer, which is located within the Control Panel. This Monitor Mixer allows for flexible routing of your audio inputs before it reaches your software program. This is helpful in monitoring your live input without having to hear a delay resulting from the time it takes to process your audio in and out of the computer to your audio output device- called latency.

The Monitor Mixer will not affect the audio for each input going to your software, as it is strictly for monitoring purposes. The Monitor Mixer will allow you to mix all inputs going into your INSPIRE 1394 with the stereo playback from your software for zero latency monitoring while recording.

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Inputs 1-4: Each input channel on this Monitor Mixer includes controls for Level (fader), Pan (panner), and Mute (button), and a high resolution meter. Any input into the INSPIRE 1394 will correspond to the same number channel in the Monitor Mixer.

We recommend that you mute any input that is not in use. This will cut down on the overall noise level you hear.

Stereo Switch: When the Stereo Switch above input channel pairs 1/2 and 3/4 is engaged, the respective two channels will become a single stereo channel with the left channel panned hard left and the right channel panned hard right, and the fader and mute controls will become linked. When the Stereo Switch is disengaged, the respective channels will return to the settings they held before the switch was engaged.

Playback Channel: This channel's input is your software's output. Whatever is playing back from your software (Cubase LE, Windows Media Player, iTunes, etc) will be input into the INSPIRE 1394 Monitor Mixer here on this channel. You can mix the playback from your software (recorded material) with your live input so you can hear both simultaneously with zero latency.

Zero Latency Monitoring is very useful while recording in multi-track software. It allows you to listen to both what you have already recorded and what you are currently recording (called 'overdubbing' or 'multitracking'), without having to worry about the two recordings not lining up due to the delay resulting from the processing time it takes to get audio in and out of the computer. It can also be used to audition something to be overdubbed, which can be a valuable writing/production tool.

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Mixer Bypass: When the Mixer Bypass is engaged, all of its controls are bypassed, input channels 1-4 are bypassed, and the software playback channel will be routed straight to the outputs of the INSPIRE 1394. Only the software playback channel will be heard. When the Mixer Bypass is disengaged, the Monitor Mixer will return to the settings it held before the Mixer Bypass was engaged.

Monitor Mixer Signal Flow:
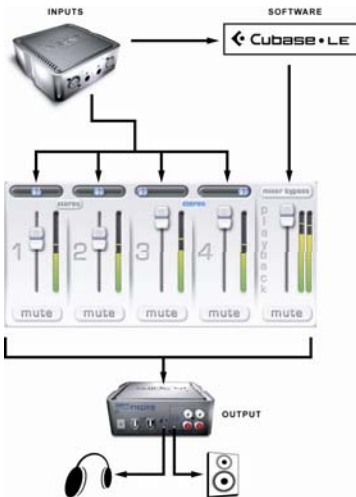
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4.1 SAMPLE HOOK UP DIAGRAM
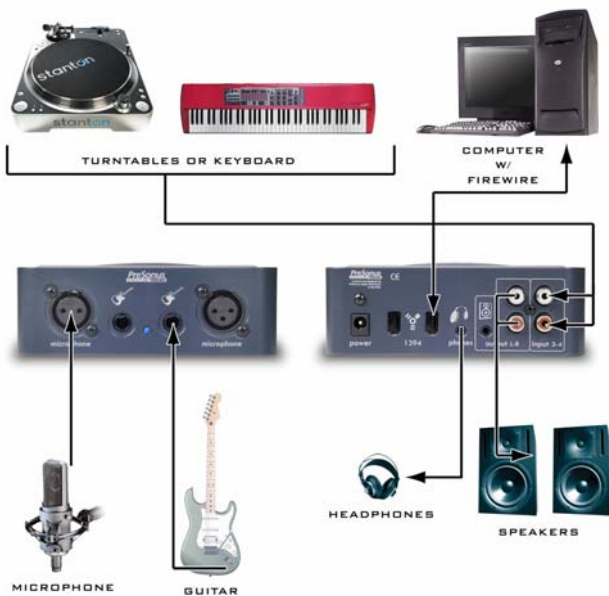
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4.2 MULTIPLE UNIT SUPPORT

It is possible to chain up to four INSPIRE 1394's to allow for more input/output capability in your DAW software. Install one INPIRE 1394 and give it a new name in the Control Panel's Unit Selector (click on the name and type a new name) so you can identify it, then, follow these steps to install more units:

PC:

1.) Chain another INSPIRE 1394 via a 1394 cable to the available 1394 port on the existing INSPIRE 1394. (Connect the power supply if not using buss power)

2.) An installer window will pop up that says INSPIRE 1394 WDM Driver. Follow the instructions for this installer to complete the installation of the new device.

3.) Once the installer is finished, you should have a blue sync light on both of the INSPIRE 1394's connected.

4.) Open the INSPIRE 1394 Control Panel and look at the Unit Selector. You should now be able to rename the new device so you can identify it (click on the name to type a new name).

5.) Repeat steps 1-4 to add up to two more INSPIRE 1394's.

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<u>Mac:</u>

1.) Chain another INSPIRE 1394 via a 1394 cable to the available 1394 port on the existing INSPIRE 1394.

2.) You should have a blue sync light on both of the INSPIRE 1394's connected.

3.) Open the INSPIRE 1394 Control Panel and look at the Unit Selector. You should now be able to rename the new device so you can identify it.

4.) Repeat steps 1-3 to add up to two more INSPIRE 1394's.

Note that you can rename each unit, using up to six characters per name. The names you give each unit will remain until changed again, even if the units are connected to another computer.

TESTING

5.1 TESTING

You should test your INSPIRE 1394 as soon as possible to insure it is in proper working order and there are no compatibility issues with your computer, as most retailers require that exchanges/returns occur within a certain time period from the date of purchase.

In order to test your INSPIRE 1394, follow the next 6 quick steps:

1.) Launch Cubase LE and make sure that you have selected the PreSonus INSPIRE 1394 ASIO driver as described above in Section 1.4.

2.) Create a new project, choose the 'Empty' Template.

3.) Create one new audio track within your new project by clicking on Project ->Add Track-> Audio (or you can right click (ctrl-click for Mac) in the track space within a blank space in the project)

4.) Record enable the track by pressing the record enable button.

5.) Plug an instrument or microphone into channel one and turn on 48V phantom power in the Control Panel if needed for the microphone. Turn up the channel 1 gain control in the Control Panel of the INSPIRE 1394 while playing the instrument or speaking into the microphone. You should see the input meter in the Cubase LE track info react to your input. Adjust the channel 1 gain so that the input level on the meter is at its maximum without clipping.

6.) Click the monitor button in Cubase LE for Audio 01 to arm the track's monitoring. Then, connect a set of headphones or speakers to the INSPIRE 1394 headphone output or speaker output. Make sure the level in the Control Panel for your headphones or speaker output is high enough for you to hear the output. You should now hear your live input into the INSPIRE 1394 through Cubase LE. If you do hear your input, you are ready to record.

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6.1 GLOSSARY

1/4" - This is the type of connector commonly used for instrument cables. The jack itself has a ¼" diameter. There are two types of these connectors: TRS (Tip Ring Sleeve) Balanced and TS (Tip Sleeve) unbalanced. Cables using TRS connectors feature hum and noise cancellation properties, whereas TS connectors do not. Cables with TS connectors are primarily used with unbalanced instruments (guitar, bass, etc), and TRS connectors are used with balanced devices (speakers, dynamics processors, etc). There are two ¼" unbalanced connectors on the front panel of your INSPIRE 1394.

1/8" / 3.5mm – This is the type of connector commonly used for connecting headphones or speakers. Like 1/4" connectors, these connectors can be TRS or TS. The TRS type should be used to connect headphones or speakers to your INSPIRE 1394 (exactly like picture shown), in order to provide a stereo signal. Note that despite the common name for this connector, the actual size is 3.5mm.

48V (Phantom Power)- 48 Volt Phantom Power is a source of power required for some microphones (typically Condenser Microphones). This power is sent through an XLR cable to the microphone, and is used to electrify the capsule of the microphone, creating a current that can then be interrupted by small changes in the air created by sound waves.

Make sure your XLR cable is connected at both ends before engaging Phantom Power, and that you disengage Phantom Power before disconnecting your microphone. We recommend that you check your microphone's documentation for specific instructions regarding Phantom Power, as applying Phantom Power can cause damage to some microphones, such as ribbon microphones.

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Amplitude- The volume of a signal, usually measured in decibels (dB).

Boost- A +20dB boost is built into each preamplifier, allowing you to amplify a low level input signal enough to be recorded. You should have the gain knob turned completely to the left when you engage the boost, and then adjust the gain higher from there. Exercise caution when engaging the boost, as your input will be much louder with the +20dB boost engaged.

Clip, Clipping- Clipping occurs when an input level exceeds the maximum level allowed by the preamp. This is heard as harsh distortion and should be avoided as it can sometimes cause damage to speakers or headphones. A limiter can be used to aid in preventing clipping (see Limit).

Feedback- This is commonly the result of an input being fed into itself, as with the case of a microphone placed in front of the speakers it is outputting from. This creates a loud, uncontrolled signal, often very high pitched, and can cause damage to your ears as well as your speakers or headphones. Be very careful to avoid creating feedback when using microphones near any output device.

Gain- Increasing gain will amplify your input signal. The goal should be to set the gain as high as possible without clipping the preamplifier or the input in your software. Look at the meters in your software while adjusting gain to be sure that you are not clipping the input. Using a limiter will sometimes assist in this process (see Limit).

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Latency- This is the time it takes to process your input into or back from the computer, measured in milliseconds. The lower the latency, the lower the processing time and the harder the computer must work. Once there is a certain amount of latency, you may hear an audible delay between your input and output, which can make multitracking difficult. You can use the zero latency Monitor Mixer of your INSPIRE 1394 to mix your live input (before it goes into the computer) with the output of your software to avoid monitoring with latency.

Limit- This button will engage a limiter for the respective preamp (input 1 or 2). A limiter quickly decreases the amplitude of an audio signal to avoid clipping the preamp, then slowly increases the level back to normal.

When working with high output sources, or at high gain levels, you should have the limiter engaged to prevent clipping.

Mute- This button will instantly silence the respective channel so it is not heard at all. This is often used to isolate channels or to quickly silence a channel that is feeding back (see Feedback). There is a mute button on each channel of the INSPIRE 1394 Monitor Mixer, as well as the Speaker Output channel.

Pan- The pan of an audio signal refers to its position as it is heard in the stereo field, which is the result of the amplitude of the signal sent to the left and right side of a stereo output. When a signal is panned center, it will be heard equally through the left and right output. There is a panner on each channel of the INSPIRE 1394 Monitor Mixer.

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RCA- This type of connector usually comes in colored stereo pairs, where the white connector is the left side and the red connector is the right side. These are commonly used for connecting to speakers or unbalanced devices. There are two sets of RCA connectors on your INSPIRE 1394, one for speaker outputs and another for inputs 3/4.

Sample Rate- This refers to the number of samples per second you are recording of the waveform (eg; 44,100 samples per second). You will notice an increase in audio fidelity the higher the sample rate is set. This must match the sample rate setting in your recording software.

> For PC: Drop down the sample rate menu in the INSPIRE 1394 Control Panel to select the sample rate– 44.1, 48, 88.2, 96k.

> For Mac: Open AMS and look at the properties for the INSPIRE 1394. Change the format to select the sample rate– 44.1, 48, 88.2, 96k.

XLR -This is the type of connector commonly used with microphones and other balanced devices (all XLR cables are balanced and have hum cancellation properties). The female connector will typically connect to a microphone and the male connector will typically connect to a preamp. There are two XLR inputs on the front panel of your INSPIRE 1394.

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6.2 TROUBLESHOOTING

Please note that many technical issues can arise when converting a standard computer into a DAW (Digital Audio Workstation). PreSonus will only provide support for issues that directly relate to the INSPIRE 1394 interface. It may be necessary to contact the manufacturer of the computer, operating system and/or software to obtain additional technical support. PreSonus does not provide support for issues in regards to operating systems, additional hardware or software.

Please check our website, www.presonus.com regularly for software information and updates, firmware updates, and technical support. Also, technical assistance may be received by calling PreSonus at 225-216-7887 between the hours of 10 am and 8 PM Central Standard Time.

Pops and Clicks
This light is a driver sync indicator, and lets you know if your unit is receiving driver sync correctly. Proper driver sync prevents digital interfaces from having pops, clicks, or distortion in the audio signal (due to mismatched digital audio transmission). If the symbol is solid blue, this indicates that your unit is in sync with the computer. If the light is solid red, this indicates that the INSPIRE 1394 does not have sync from the computer and that the unit might not be connected properly. Here are the two different light modes broken down again:

> Blue – solid sync
> Red – sync not present.

Pops and clicks can also occur with high CPU loads (ie; running a large number of plug-ins, etc) at low latency. Try increasing your latency settings in the INSPIRE 1394's hardware control panel (PC only), as well as any buffer settings in your software.

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No Sync (<u>Red</u>) – Macintosh Users –Open Audio MIDI Setup and change the Format sample rate speed to anything different. This will re-establish synchronization and the Blue sync light will turn on. Once you have the blue sync light you can then reset the Format sample rate to your desired setting.

Audio Drop Outs – Can occur when the speed of your processor cannot buffer audio fast enough. Windows XP – Try lowering your INSPIRE 1394's CPU to a lower setting, by right clicking on the INSPIRE 1394 control panel icon in your system tray.

Preamplifier
<u>Q</u>: I have a microphone plugged into channel one (or two) but I am not getting any signal.

Possible Solutions:
1. Check your mic cable.

2. Make sure the microphone does not require phantom power. If it does press the 48v button.

Power Issues
<u>Q</u>: I just bought a INSPIRE 1394 from (dealer name goes here) in (city and state go here) and I live outside of the United States. I need to service my unit- what do I do?
<u>A</u>: PreSonus has a distributor in almost every country. Therefore, PreSonus does not authorize or condone exportation of any of our products by US dealers. If you have done this and your product has been damaged (more than likely due to voltage irregularities) then you will need to return the unit to the dealer in the United States. The dealer can then return it to PreSonus for a non-warranty repair. After the unit is repaired, the dealer will be billed accordingly and the unit will be returned to the dealer.

Cubase LE
For help with Cubase LE press F1 while running Cubase LE to open the operation manual.

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6.3 INSPIRE 1394 SPECIFICATIONS

Preamp Bandwidth.. 10Hz to 50kHz
Preamp Input Impedance .... 900 Ohms
Instrument Input Impedance.. 500k Ohms
Preamp THD .... <0.01%
Line Input Impedance... 47.5k Ohms
RCA/3.5mm Output Impedance... 51 Ohms
Headphone Output 150mW/Ch 20Hz-20kHz
Phantom Power .... 48V +/- 2V
Power Supply.. Ext line Transformer, Internal Switching
Bus Power .... Six-pin 1394 Port
ADC .... 24-bit / up to 96khz
ADC Dynamic Range...102db
DAC .... 24-bit / up to 96kHz
DAC Dynamic Range...108db
IEEE 1394 Speed...400Mbps

As a commitment to constant improvement, PreSonus Audio Electronics, Inc. reserves the right to change any specification stated herein at any time in the future without notification.