

FIRESTATION

Yamaha mLAN Tutorial for Windows XP Users

Part 1

This Tutorial will serve as a useful guide for users to understand what you will see and do during the installation and setup process.

Please don't panic if you see window message boxes popping up about the drivers not digitally signed and any other default window error boxes. When this happens, simply choose continue anyway and keep moving along.

If you have undeterminable problems please contact tech support @

WWW.PRESONUS.COM

BRICHARD@PRESONUS.COM

EXT-117

SHARRELL@PRESONUS.COM

EXT-129

PHONE NUMBER: 1-800-750-0323

INTERNATIONAL: (225) 216 -7887

The installer version 1.1 installs automatically. Be patient and allow it it's time to install. Then choose the appropriate commands when prompted.

When installing from .zip file, extract files to a folder you create and double click on the Firestation.exe.

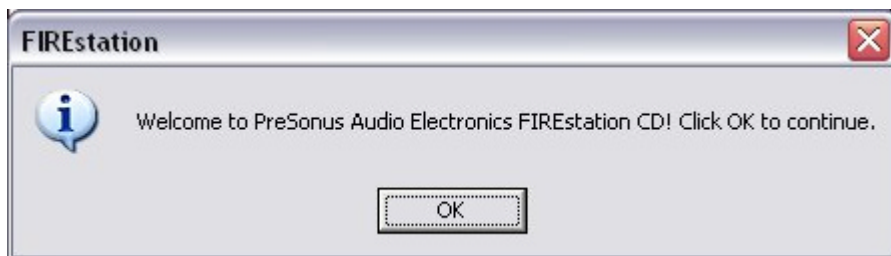


Its icon is a red book with a CD.

When installing from disc, the installer should auto-run.

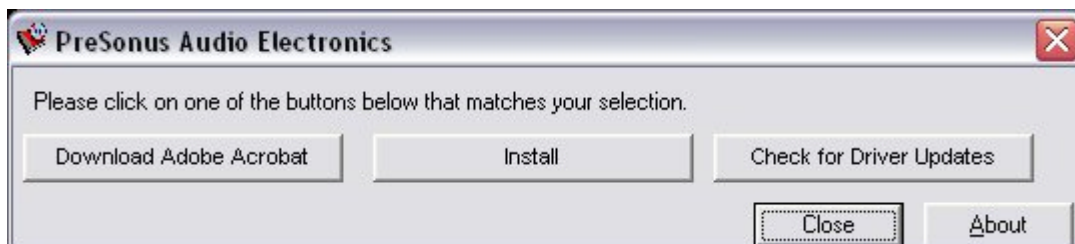
The following applies when installing from CD-ROM or from downloadable .zip file.

First you will see the Firestation welcome window.



Click "OK" as prompted.

Next, you'll see a window that gives you a few choices. Typically you need only be concerned with the installation.



Click "Install".

After you click “Install”, you will see the Presonus splash screen and at the bottom right hand corner of your screen, the Yamaha welcome window.

Here it gives you some general pre-installation suggestions.

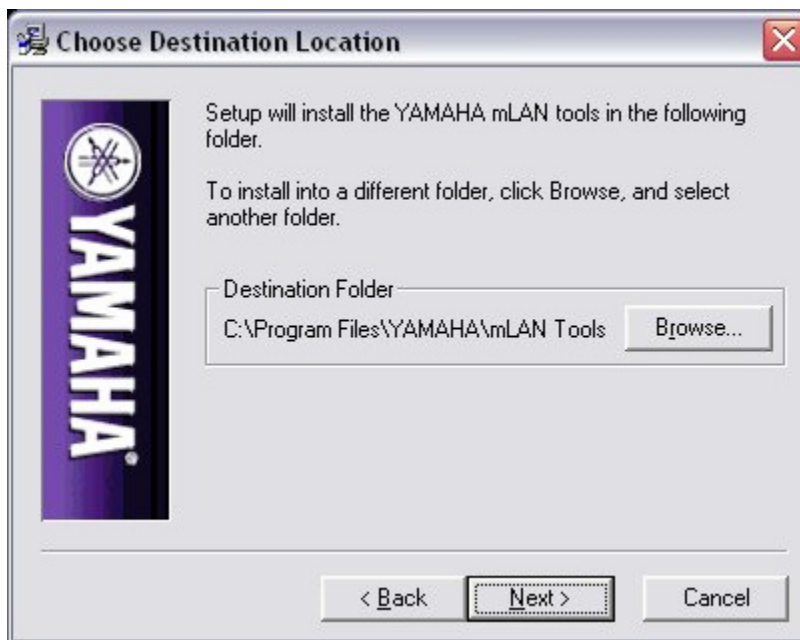


Click “Next”.

Next, you will see the License Agreement window. Click “Next”.



Destination Location window, typically you will just hit "Next". If you wish to choose a different location, choose "Browse".



You will always want to install mLAN on the drive that contains your operating system (XP).

Once done, the applications will install themselves. You will see a window with the installation percentage bars.

This will typically install very quick.

Next, you will see a window appear in the middle of your screen asking you to complete a “Hardware Wizard” and if it completed successfully.



The “Hardware Wizard” should appear within 10 seconds so be patient and wait for it.

When it appears, it will pop up in the upper left hand corner of your screen. It will be a “Hardware Wizard” to install the mLAN Bus.



(Note)

This Wizard will automatically proceed through many instances where you would normally click the “Next” button. This wizard may get stuck in a loop trying to proceed. Just be ready to manually click the “Next” button when selectable.

When it begins installing, you will see a window telling you that this has not passed windows logo testing. Do not be concerned with this.



Click “Continue Anyway” and the installation will proceed.

Once the Wizard has finished you will see the Yamaha mLAN Installation window again. If you saw the previous “Hardware Wizard” install, click “Yes”.



(Note)

If you did not see the “Hardware Wizard” install, then click “Yes” anyway and continue through the installer. You may still be able to manually update the driver within the Device Manager.

At this stage you will now see the Patchbay Initialization window appear at the bottom right hand corner of your screen.



You do not want to click “Next” quite yet.

Assuming that the previous Wizard installed successfully, in a few seconds you should now see “Hardware Wizard’s” appearing in the upper left hand corner of your screen to install the Yamaha mLAN MIDI In Port and the Yamaha mLAN MIDI Out Port.

While they are installing, you may see the windows telling you that it has not passed windows logo testing.

Click “Continue Anyway” and proceed.





If you are performing a reinstallation you may also see the “Hardware Wizard” for the Yamaha mLAN Audio Port.



Click “Next”, “Continue Anyway” and “Finished” when prompted.

If this is the first time that you are installing mLAN, do not be surprised if you do not see this yet. When you enable WDM sequences for the first time this Wizard will appear. (See Part 2)

Once the “Hardware Wizard’s” have finished installing, the only window remaining should be the Patchbay Initialization window.



In the Patchbay Initialization window, it gives you the option of launching the Patchbay. This will launch, connect and apply the patchbay at the end of the installation.

(Note)

This will only work if you have already had a previous installation of mLAN on your computer. Your computer will contain a Patchbay prefetch file that this function will use to make the connections automatically.

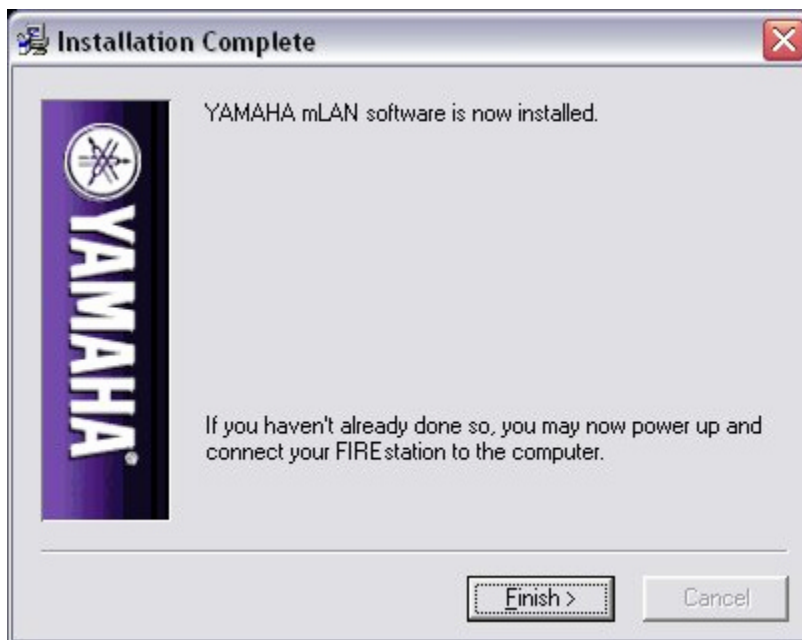
So if you are performing an update from an older version of mLAN software or you are re-installing, then check the “Launch Patchbay” box and then click “Next”.

If you are installing mLAN for the first time, leave the “Launch Patchbay” box unchecked and click “Next”.

You will have to manually make your settings and connections for the mLAN Control Panel and the mLAN Patchbay. (see Part 2)

You will now see the Installation Complete window appear in the same position. It will prompt you to power up the Firestation and connect it via firewire cable.

Just make sure you set CLOCK to EXT and toggle the LED to mLAN.



Click "Finish" to finalize the installation.

Lastly, if you checked the "Launch Patchbay" box, after you click "Finish", the Patchbay will run and then you will see a window appear that may not make much sense.



This roughly means that the mLAN Patchbay found and used the patch file necessary to automatically make the connections.

Don't worry about the exclamation (!).

Click "OK"

At this stage your mLAN LED under CLOCK on the front of the Firestation should now be solid.

If it isn't then you will need to manually make your settings and connections for the mLAN Control Panel and the mLAN Patchbay. (see Part 2)

Proceed to Part 2

FIRESTATION

Yamaha mLAN Tutorial for Windows XP Users

Part 2

This Tutorial will serve as a useful guide for users to understand what you will see and do during the installation and setup process.

Please don't panic if you see window message boxes popping up about the drivers not digitally signed and any other default window error boxes. When this happens, simply choose continue anyway and keep moving along.

If you have undeterminable problems please contact tech support @

WWW.PRESONUS.COM

BRICHARD@PRESONUS.COM

EXT-117

SHARRELL@PRESONUS.COM

EXT-129

PHONE NUMBER: 1-800-750-0323

INTERNATIONAL: (225) 216 –7887

After the installation, your Device Manager should look like this.



(Note)

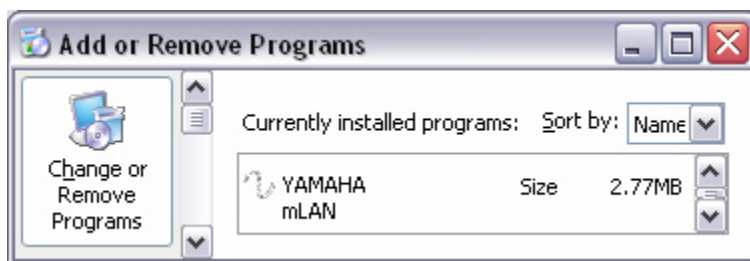
Don't worry about the yellow ! by the 61883 Class Bus Device. This is normal and should be here. This is a firewire data stream standard. There is a yellow ! by it because Windows thinks it needs a driver. It doesn't because the mLAN protocol is using it to stream data.

(Note)

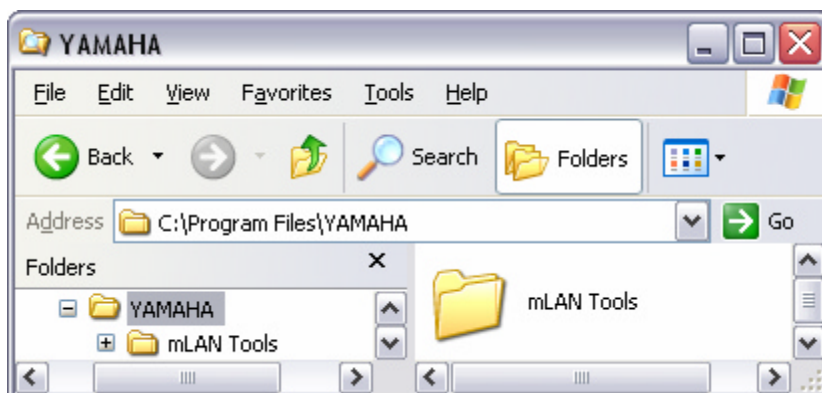
After the first installation if you need to re-install again it is ok to keep the Firewire connected to the Firestation.

To re-install, you must first remove mLAN that is currently installed. Please do as follows.

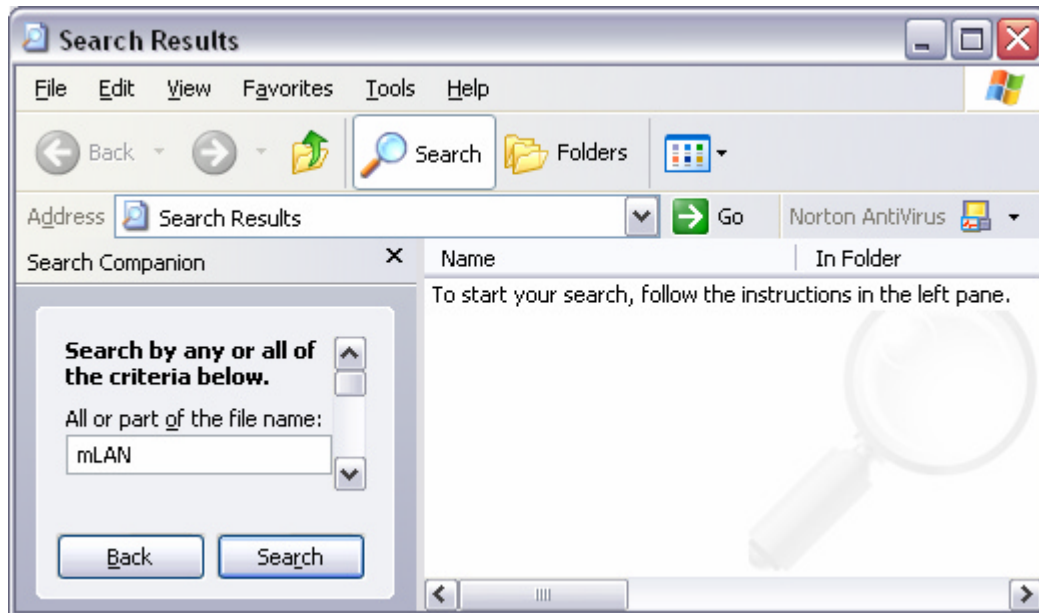
1. Use the UNINSTALLER.EXE located in the programs menu within the YAMAHA MLAN TOOLS.
2. Go into ADD AND REMOVE PROGRAMS and delete the YAMAHA MLAN BUS listed in there, if present.



3. Right click on the Start menu and click Explore. Go into program files and into the Yamaha folder. In the Yamaha folder you will have an mLAN Tools folder. Delete this folder and all of its contents.



4. Next if you want to be on the safe side, do a file SEARCH located in the START menu. In there choose ALL FILES AND FOLDERS and type a search for mLAN.

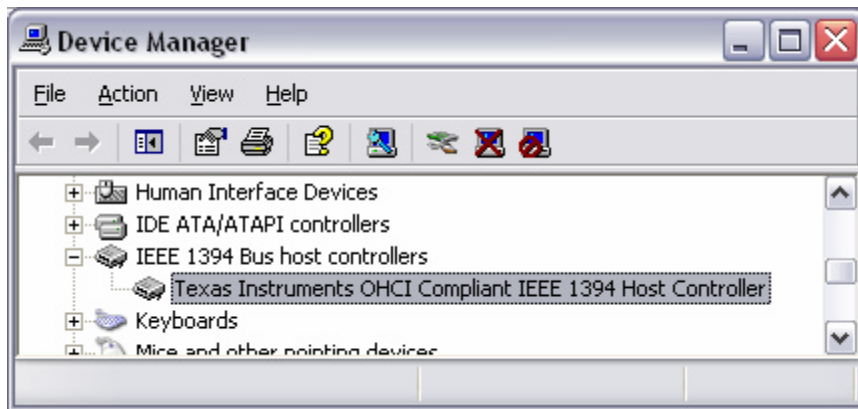


Here you want to delete anything mLAN related. Be careful not to delete things that are not. You may see some files like “mlang.dll” and “ATMLANE.EXE”.

DO NOT delete these.

5. Once this is done go into the DEVICE MANAGER. If you're not sure how to navigate to here do as follows. Right click on MY COMPUTER, click properties, click HARDWARE tab, and click the DEVICE MANAGER button.

Here, double click IEEE 1394 Bus host controllers. Then you want to RIGHT CLICK and UNINSTALL your firewire cards driver.



6. Now restart your computer.

(Note)

Doing this will not mess anything up, it will refresh with a new driver once you restart the computer. Doing this just ultimately verifies that we fully get rid of the mLAN bus that was installed.

The mLAN Control Panel

mLAN Control Panel

1394 Adapter Card: 00107460 00009470

Sample Rate: 44100

☒ Send

Isosynchronous Ch.: 0

Audio Sequences: 8

MIDI Sequences: 1

Buffers: 5

Buffer Length: 7 millisec.

WDM Sequences: 8

Audio Type:
☒ Raw Audio
☐ IEC60958

☒ Receive

Isosynchronous Ch.: 16

Audio Sequences: 8

MIDI Sequences: 1

Buffers: 5

Buffer Length: 7 millisec.

Fit Sequences

Receive Status

Sample: 44100


IEC60958: 00000000-

Raw Audio: -----

MIDI: -----o

Unknow: -----

Revert Set



At the top you have your firewire cards identification and your current sample rate. This is where you will ultimately select which sample rate you wish to record with.



1394 Adapter Card 00107460 00009470

Sample Rate 44100

Next we have the Data channels bar and here...

1. Send and Receive must both be checked.
2. Raw Audio must be selected.
3. The Isochronous Ch. are firewire ID numbers that are automatically assigned by the computer. You will never change these. Send will always be 0 and Receive will be 16 or above.
4. Audio sequences must both be set to 8.
5. MIDI sequences both need only be 1.



☒ Send

Isochronous Ch. 0

Audio Sequences 8

MIDI Sequences 1

Audio Type

☒ Raw Audio

☐ IEC60958

☒ Receive

Isochronous Ch. 16

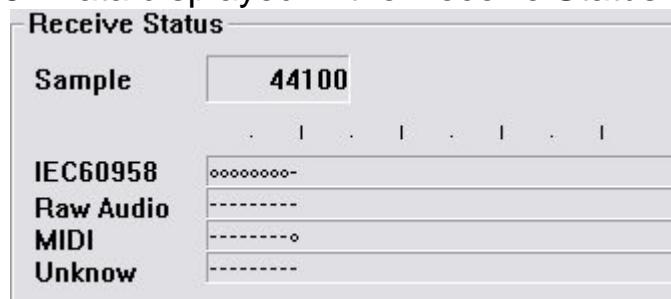
Audio Sequences 8

MIDI Sequences 1

Fit Sequences

Also when all settings are made and the Patchbay is applied, you will ultimately know that you have a “solid sync” when:

1. Your Status Lights are bright green for the Send and Receive sides.
2. The mLAN LED on the Firestation goes solid and remains that way.
3. Data displayed in the Receive Status area.



Receive Status

Sample 44100

IEC60958

Raw Audio

MIDI

Unknown

(Note)

If it does not remain solid, then many things could be causing this instability. Please call Techsupport in this event.

Buffer Settings Section



The image shows two identical screenshots of a software interface. Each screenshot displays two settings: 'Buffers' with a spinner set to the value 5, and 'Buffer Length' with a spinner set to the value 7, followed by the text 'millisec.'.

Buffers and how fast your particular computer can process are completely relative to how much latency you will have. They equate as follows: if you have 5 buffers at 7 ms of length EACH, then you effectively have 35 ms of latency per side.

When adjusting buffers you have 2 stages. First and foremost is the mLAN Control panel. It's where data is processed first and processed last. Send (Playback) and Receive (Input) respectively.

Here, go as low as you can, but try to find a happy middle ground leaving a bit of headroom.

The second stage is your recording program itself. Your recording program has its own settings which are relative to the mLAN Control Panel. Here you want them set at least equal to what the mLAN Control Panel is set to. You may need to adjust them slightly more as your music project grows.

(Note)

These buffer settings are only an example. There is no standard as to what these should be set to. It's relative to your particular computers processing abilities and how much is being processed at one time.

You can enable up to a maximum of 8 WDM sequences in pairs.



The image shows a screenshot of a software interface with the title 'WDM Sequences'. Below the title is a spinner control set to the value 8.

When all WDM sequences are disabled to 0 then you will be using 8 ASIO channels.

Which driver you will need to use depends on your particular recording program.

Additional mLAN Control Panel Notes

1. Generally the only settings you will adjust will be drivers and buffer settings.
2. Always remember that anytime you change drivers or buffer settings, you must hit the SET button. (In doing so the Receive side will disconnect. Simply run the Patchbay, make your channel connections if necessary and hit APPLY.)
3. If you cannot see the Revert-SET button you must change your monitor viewing properties or auto-hide your taskbar.
4. When you enable WDM sequences for the first time, you will get a "Found New Hardware Wizard" to install the Yamaha mLAN Audio Ports. The Yamaha mLAN Audio Ports are the WDM drivers.



This should appear 2 times. Click "Next", "Continue Anyway" and then "Finished" to proceed.

MLAN PATCHBAY

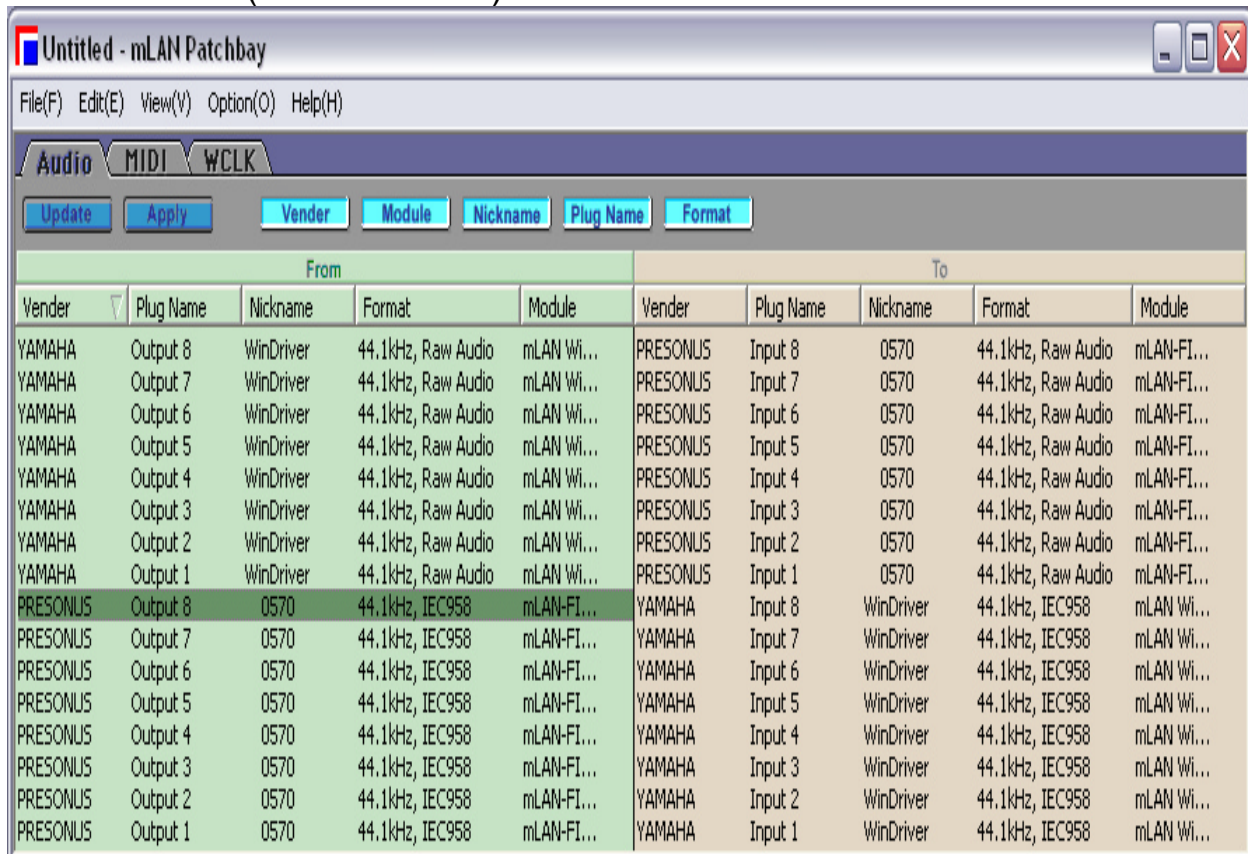
ALWAYS CLICK APPLY AFTER MAKING ANY CHANGES

THE APPLY BUTTON APPLIES ALL SECTIONS AUDIO--- MIDI ----WCLK

Quick key to help with making your connections: **CTRL/SHIFT**

By holding these two keys down continuously while right clicking on a name, all 8 inputs will connect together. This quick key will allow only the right choice to be highlighted. So don't worry; use this quick key, it will make connecting the patch bay a breeze.

Audio section (CONNECTED)

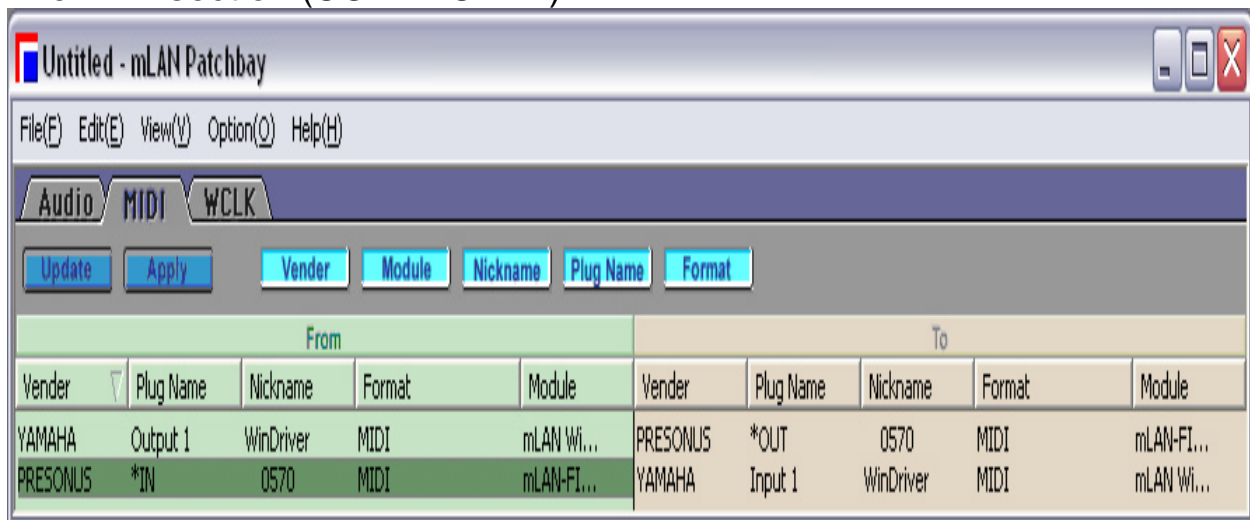


The screenshot shows the 'mLAN Patchbay' application window. The 'Audio' tab is selected, and the 'Apply' button is highlighted. The interface displays a table of connections between two sets of modules: 'From' (left) and 'To' (right).

From					To				
Vender	Plug Name	Nickname	Format	Module	Vender	Plug Name	Nickname	Format	Module
YAMAHA	Output 8	WinDriver	44.1kHz, Raw Audio	mLAN Wi...	PRESONUS	Input 8	0570	44.1kHz, Raw Audio	mLAN-Fi...
YAMAHA	Output 7	WinDriver	44.1kHz, Raw Audio	mLAN Wi...	PRESONUS	Input 7	0570	44.1kHz, Raw Audio	mLAN-Fi...
YAMAHA	Output 6	WinDriver	44.1kHz, Raw Audio	mLAN Wi...	PRESONUS	Input 6	0570	44.1kHz, Raw Audio	mLAN-Fi...
YAMAHA	Output 5	WinDriver	44.1kHz, Raw Audio	mLAN Wi...	PRESONUS	Input 5	0570	44.1kHz, Raw Audio	mLAN-Fi...
YAMAHA	Output 4	WinDriver	44.1kHz, Raw Audio	mLAN Wi...	PRESONUS	Input 4	0570	44.1kHz, Raw Audio	mLAN-Fi...
YAMAHA	Output 3	WinDriver	44.1kHz, Raw Audio	mLAN Wi...	PRESONUS	Input 3	0570	44.1kHz, Raw Audio	mLAN-Fi...
YAMAHA	Output 2	WinDriver	44.1kHz, Raw Audio	mLAN Wi...	PRESONUS	Input 2	0570	44.1kHz, Raw Audio	mLAN-Fi...
YAMAHA	Output 1	WinDriver	44.1kHz, Raw Audio	mLAN Wi...	PRESONUS	Input 1	0570	44.1kHz, Raw Audio	mLAN-Fi...
PRESONUS	Output 8	0570	44.1kHz, IEC958	mLAN-Fi...	YAMAHA	Input 8	WinDriver	44.1kHz, IEC958	mLAN Wi...
PRESONUS	Output 7	0570	44.1kHz, IEC958	mLAN-Fi...	YAMAHA	Input 7	WinDriver	44.1kHz, IEC958	mLAN Wi...
PRESONUS	Output 6	0570	44.1kHz, IEC958	mLAN-Fi...	YAMAHA	Input 6	WinDriver	44.1kHz, IEC958	mLAN Wi...
PRESONUS	Output 5	0570	44.1kHz, IEC958	mLAN-Fi...	YAMAHA	Input 5	WinDriver	44.1kHz, IEC958	mLAN Wi...
PRESONUS	Output 4	0570	44.1kHz, IEC958	mLAN-Fi...	YAMAHA	Input 4	WinDriver	44.1kHz, IEC958	mLAN Wi...
PRESONUS	Output 3	0570	44.1kHz, IEC958	mLAN-Fi...	YAMAHA	Input 3	WinDriver	44.1kHz, IEC958	mLAN Wi...
PRESONUS	Output 2	0570	44.1kHz, IEC958	mLAN-Fi...	YAMAHA	Input 2	WinDriver	44.1kHz, IEC958	mLAN Wi...
PRESONUS	Output 1	0570	44.1kHz, IEC958	mLAN-Fi...	YAMAHA	Input 1	WinDriver	44.1kHz, IEC958	mLAN Wi...

Think of the patch scheme like this. You have the Presonus Firestation with it's own respective firewire Outputs and Inputs. You also have the Yamaha drivers acting like a device with it's own respective Outputs and Inputs. We are just patching them together like we would any other pair of hardware devices. The difference is that this is digital and not physical.

The MIDI section (CONNECTED)



MIDI is the same as audio integrally, but you are connecting the physical *IN to the driver Input and the driver Output to the physical *OUT.

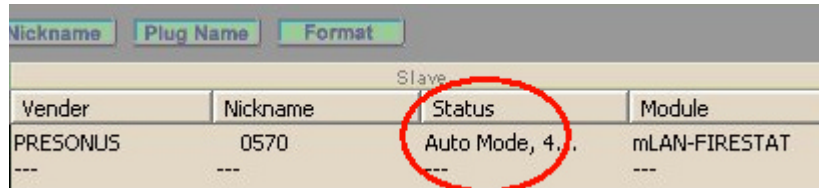
The Word Clock section (CONNECTED)



Notice the blue number just to the left of Yamaha. This reflects the current sample rate that is selected.

Also know that each Firestation unit will have it's own unique ID number. Yours will not be 0570 like the one in this graphic.

Additionally make sure that the Status column in the Slave side displays Auto mode. If not you will need to right click on the Presonus line in the Slave side again and select Auto.

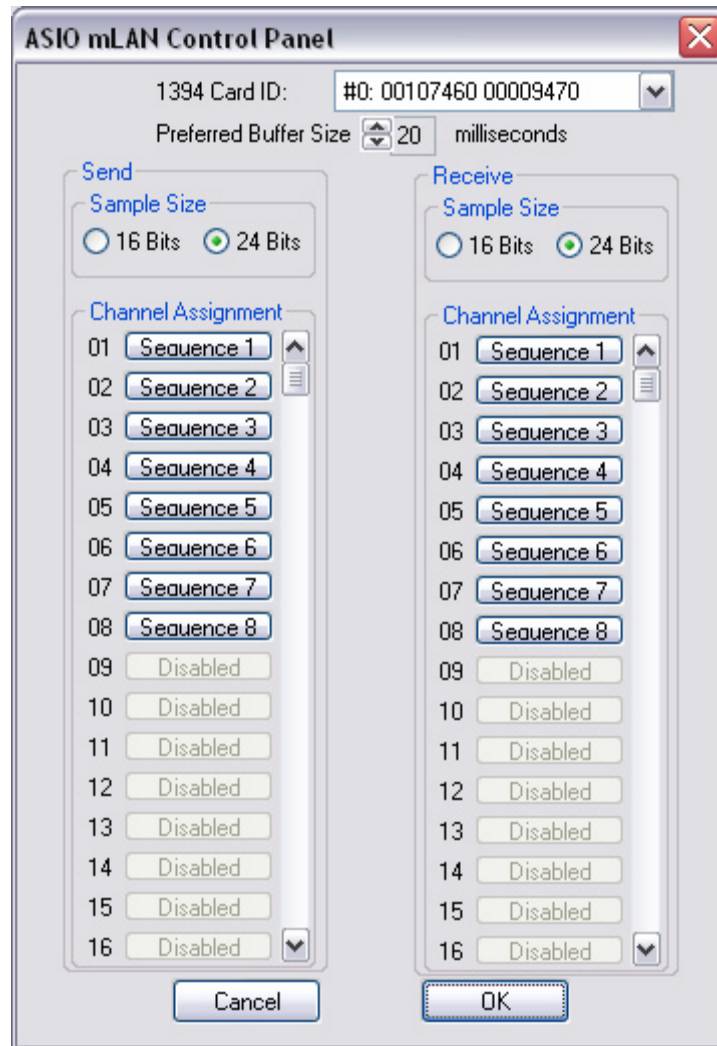


Slave			
Vender	Nickname	Status	Module
PRESONUS	0570	Auto Mode, 4...	mLAN-FIRESTAT
---	---	---	---

Finally and ultimately hit APPLY for all of these settings to take effect.

You can also make a save file of the current configuration. Go to the Patchbay's file menu and select Save As. Give it a name and save it to the desktop. In the future you can double click on this file and it will run the Patchbay and open it with the saved configuration. Then all you will need to do is hit APPLY.

ASIO MLAN CONTROL PANEL



The mlan ASIO control panel is launched from inside of your ASIO based recording software. It controls the setting for your bit depth. It also has its own buffer section. (See buffer settings guide for more information)

The ASIO drivers should install automatically. The ASIO driver will only appear when ASIO based software is present.

Your ASIO channels are available as long as channels 1 to 8 on both sides list their respective sequence as shown.