YAMAHA

mLAN Driver/mLAN Tools for Mac OS X Installation Guide

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What is mLAN Driver/mLAN Tools?

The mLAN Driver/mLAN Tools enable you to use the mLAN devices such as 01X, i88X, mLAN16E, mLAN16E2, MY16-mLAN and n8/n12 connected to your computer via a FireWire (IEEE1394) cable. The following items are included in the mLAN Driver/mLAN Tools.

mLAN Driver

mLAN Connection Manager for n8/n12/mLAN16E2

mLAN Auto Connector for 01X/i88X/mLAN16E/MY16-mLAN

mLAN Graphic Patchbay

mLAN Manager

NOTE

• The MOTIF XS8 is equipped with the mLAN16E2 as standard.

To use mLAN, it is necessary to make a connection between the virtual Audio/MIDI terminals of the mLAN devices and enable synchronization between the mLAN devices. Such a setup is referred to as "mLAN connection" in this Installation Guide.

The following three applications are available for establishing an mLAN connection. Select the appropriate one as desired.

• **mLAN Connection Manager**

    Use this when you want to connect a single n8/n12 or mLAN16E2 to the computer.

• **mLAN Auto Connector**

    Use this when you want to connect a single 01X, i88X, mLAN16E, or MY16-mLAN to the computer.

• **mLAN Graphic Patchbay**

    Use this when you want to connect multiple mLAN devices to the computer, or establish a complex or large-scale mLAN connection which cannot be set with the mLAN Connection Manager and mLAN Auto Connector.

Note that only one of the applications listed above can be used at any time. If you start another application when another application is already running, the application started most recently cannot recognize the connected mLAN devices.

Make sure to turn off the mLAN Connection Manager if you want to start the mLAN Auto Connector or mLAN Graphic Patchbay. The mLAN Connection Manager will be turned off automatically if you start the mLAN Auto Connector or mLAN Graphic Patchbay from the menu of the mLAN Manager.

When the mLAN Driver is used with DAW software, leave the mLAN Connection Manager on or leave the mLAN Auto Connector or mLAN Graphic Patchbay active to maintain the mLAN connection settings. Make sure to establish the mLAN connection before starting the DAW software.

Precautions when using the mLAN connection

• Never execute the following operations while the mLAN Driver is being used with application software (such as a DAW). Doing so may produce distorted sound, damage the MIDI data, and cause the DAW software to close unexpectedly. Quit the application software then follow the instruction steps below.
  Do not:
  - Turn the mLAN Connection Manager on or off.
  - Start or quit the mLAN Auto Connector on or off.
  - Start or quit the mLAN Graphic Patchbay on or off.
  - Turn the power to the mLAN devices on/off, or connect/disconnect the FireWire (IEEE1394) cable.
• When using the mLAN connection, make sure to disable any energy saving features on the computer (such as Suspend, Sleep, Standby or Pause).
• When connecting the S200 mLAN devices such as the Presonus FIREstation, the data rate of the entire mLAN connection system may be S200 (200Mbps). Please check the data rate of each mLAN device, S200 or S400 by referring to the rear panel or the manual of each mLAN device.
• It is recommended that the S200 mLAN device is connected at the last point in your mLAN connection chain, such as "computer (S400) – 01X (S400) – FIREstation (S200)".

System Requirements

The system requirements below are necessary for using mLAN Driver/mLAN Tools.

NOTE

- The system requirements below may differ slightly depending on the particular operating system.
- For details on system requirements for other DAW software, refer to the respective owner's manual.
- For information about the system requirements and latest information of mLAN Driver/mLAN Tools, check the web site below.
  http://www.yamahasynth.com/

OS: Mac OS X 10.4.x, Mac OS X 10.5.x
Hard Disk: Free disk space of 150 MB or more; high-speed hard disk

Recommended system requirements (*)
- **Connecting a single mLAN device to a computer peer-to-peer**
  CPU: G5 2.3 GHz Dual (or higher), or Core Duo 1.83 GHz (or higher)
  Memory: 1 GB or more

- **Connecting a computer and three mLAN devices in an mLAN network:**
  CPU: Core 2 Duo 2.2 GHz or higher
  Memory: 1 GB or more

Minimum system requirements (*)
  CPU: G4 1 GHz or higher
  Memory: 512 MB or more

* The recommended/minimum system requirements listed here apply when playing the audio/MIDI data described below on a typical DAW. This may differ depending on the particular DAW you are using.

Recommended system requirements
(Connecting a single mLAN device to a computer peer-to-peer)
  Sampling rate/resolution of 44.1kHz/24-bit
  16 audio playback tracks
  1 audio recording track
  18 MIDI playback tracks
  MIDI Remote Control / Automation
  3 Sends for Plug-in Software Effects
  9 Inserts for Plug-in Software Effects
  2 channels for the Plug-in Software Synthesizer
  Latency of about 5 msec

Recommended system requirements
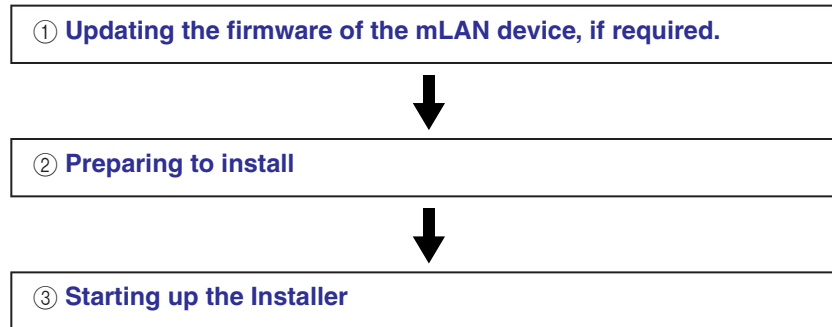(Connecting a computer and three mLAN devices)
  Sampling rate/resolution of 44.1kHz/24-bit
  Audio Driver 32In/32Out (total)
  MIDI Driver 5In/5Out (total)
  16 audio playback tracks
  1 audio recording track
  18 MIDI playback tracks
  MIDI Remote Control / Automation
  3 Sends for Plug-in Software Effects
  9 Inserts for Plug-in Software Effects
  2 channels for the Plug-in Software Synthesizer
  Latency of about 5 msec

Minimum system requirements
  Sampling rate/resolution of 44.1kHz/24-bit
  15 audio playback tracks
  MIDI Remote Control / Automation
  3 Sends for Plug-in Software Effects
  9 Inserts for Plug-in Software Effects
  No Plug-in Software Synthesizer
  Latency of about 50 msec

Installation of mLAN Driver/mLAN Tools

Follow the steps below to connect the mLAN device to the computer.

① **Updating the firmware of the mLAN device, if required.**

② **Preparing to install**

③ **Starting up the Installer**

Updating the firmware of the mLAN device

Please check with the hardware manufacturer as to whether or not: 1) your mLAN device supports Mac OS X 10.4 or later, 2) it can be used with mLAN Driver/mLAN Tools, and 3) its firmware must be updated.

For Yamaha 01X, i88X, mLAN16E, MY16-mLAN, no firmware update is required.

For the Yamaha n8/n12 and mLAN16E2, you will need to update the IEEE1394 Firmware built into these models to version 1.02 or later. Please download the latest version of the IEEE1394 Firmware from the following site.
http://www.yamahasynth.com/download/

Preparing to install

1 **Make sure that the power to the mLAN device is turned off.**

2 **Disconnect all MIDI cables connecting MIDI devices to the MIDI IN/OUT of the mLAN device.**

3 **Using an IEEE1394 cable, connect the mLAN device directly to the FireWire connector of the computer (without using a hub), and disconnect all other FireWire-connected devices from the computer.**

4 **Start the computer and log on to the Administrator account.**

5 **Exit any open applications and close all open windows.**

Starting up the Installer

6 **After the downloaded compressed file is properly extracted, double-click the "mLAN Tools.mpkg" file.**

> **NOTE**
>
> • If the computer OS does not satisfy the system requirements, the dialog box appears indicating that this software cannot be installed on your computer.

7 **If a dialog box appears asking if you want to install the software, click [Continue].**

The "Welcome…" window appears.
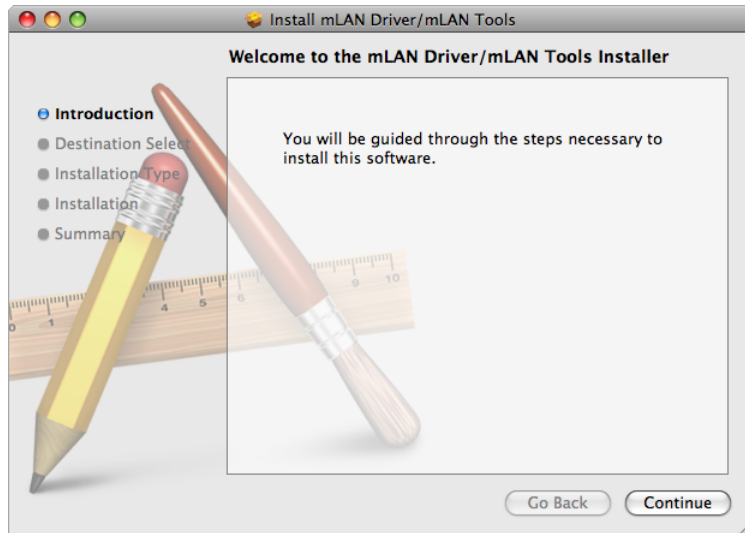
8 **Click [Continue].**

The "Select a Destination" window appears.

> **NOTE**
>
> • This step may not be necessary depending on the particular version of the operating system.
> • Only the boot disk can be selected for the installer.

9 **Click [Continue].**

The "Installation Type" window appears.

10 **Click [Install].**

The "Authenticate" window appears.

11 **Enter the Administrator name and password, then click [OK].**

A message appears prompting you to restart the computer after the installation.

12 **Click [Continue Installation].**

The "Install" window appears indicating the installation progress. When the installation is complete, the "Finish Up" or "Summary" window appears.

> **NOTE**
>
> • Installation cannot be canceled after clicking [Continue Installation].

13 **Click [Restart] to restart the computer.**

When canceling the installation

If you've cancelled an installation before it is complete, the software may not have been installed properly. To install the software properly, resume the procedure from Step **6**.

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14 After you restart the computer, the mLAN Driver icon appears on the menu bar and the following window appears.
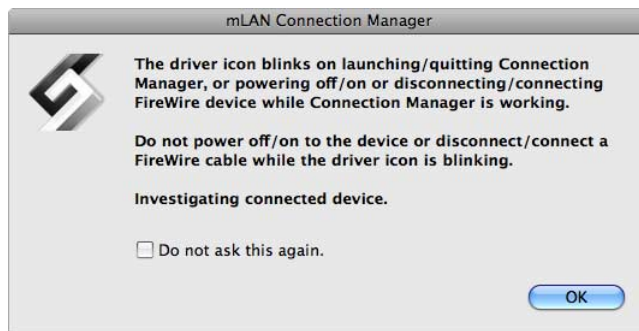
From this window, select the appropriate item then click [OK].

When "n series or MOTIF XS series" is selected, the mLAN Connection Manager (page 9) will be set to on then started.

When any of the other items is selected, the mLAN Connection Manager will be set to off.

When "n series or MOTIF XS series" is selected:

15 After the following window appears, click [OK].

NOTE
• This window appears every time the mLAN Connection Manager starts. If you do not want to call up this window next time, click the checkbox at the right of "Do not ask this again" then click [OK].

16 Turn on the power of the n8, n12 or the instrument equipped with the mLAN16E2.

The mLAN Connection Manager enables an mLAN connection.
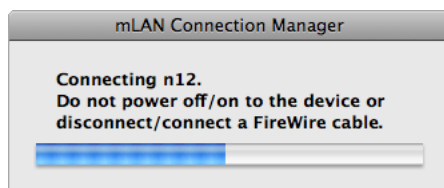
17 Make the necessary settings after the mLAN connection is completed.

For instructions on setting, refer to "Confirming and Setting up After Completing the mLAN Connection" on page 16.

NOTE
• When the mLAN Connection Manager (page 9) is turned on (available), the mLAN Connection Manager establishes the mLAN connection automatically as soon as the n8/n12 or mLAN16E2 is connected to the computer. The driver icon (page 8) flashes while the mLAN connection is being established. Please wait until the icon stops blinking then lights (meaning that the mLAN connection is completed).
• When connecting the n8/n12 or mLAN16E2 to the computer for the first time or connecting a different device from that connected previously, a window indicating that the mLAN connection is being established will be shown on the computer.

⚠ *CAUTION*
• While the driver icon is flashing, the mLAN Connection Manager is checking whether a FireWire (IEEE 1394) device is connected to the computer or not. In this situation, never attempt to turn on/off the power of the FireWire (IEEE 1394) device or connect/disconnect its cable.

When an item different from "n series or MOTIF XS series" is selected:

15 Start the mLAN Auto Connection or mLAN Graphic Patchbay then make an mLAN connection.

For information about the mLAN connection using the mLAN Auto Connector, refer to "Using the mLAN Auto Connector" on page 10.

For information about the mLAN connection using the mLAN Graphic Patchbay, refer to "Using the mLAN Graphic Patchbay" on page 15.

16 Make the necessary settings after the mLAN connection is completed.

For instructions on setting, refer to "Confirming and Setting up After Completing the mLAN Connection" on page 16.

mLAN Manager

The mLAN Manager is the application software which provides you the menus for setting the mLAN Connection Manager and starting the mLAN Auto Connector or mLAN Graphic Patchbay. You can call up the menu of the mLAN Manager by clicking the mLAN Driver icon( ) which can be found on the menu bar after you complete the installation then restart the computer.

NOTE

• When mLAN Connection Manager is disabled, the driver icon is white. When mLAN Connection Manager is enabled, the driver icon is blue. While mLAN Connection Manager is checking a FireWire (IEEE1394) device that is connected to the computer, the driver icon flashes.
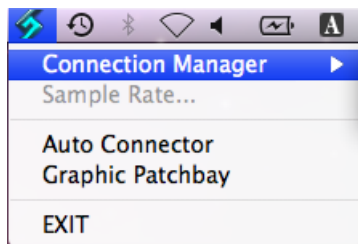
• **Connection Manager**
Enables/disables (On/Off) mLAN Connection Manager.

• **Sample Rate…**
Calls up the dialog for setting the Sample Rate when the mLAN connection is performed via the mLAN Connection Manager.

• **Auto Connector**
Starts mLAN Auto Connector.

• **Graphic Patchbay**
Starts mLAN Graphic Patchbay.

• **EXIT**
Exits mLAN Manager, then removes the driver icon from the menu bar. To display the driver icon on the menu bar again, from the hard disk to which OS X is installed (usually Macintosh HD) double-click [Application] → [mLAN Tools] → [mLAN Manager]. mLAN Connection Manager will start in the same condition (enabled/disabled) when the icon is removed.

NOTE

• Note that only one of the mLAN connection applications can be used at any time. If you start another application when another application is already running, the application started most recently cannot recognize the connected mLAN devices.
Make sure to turn off the mLAN Connection Manager if you want to start the mLAN Auto Connector or mLAN Graphic Patchbay. The mLAN Connection Manager will be turned off automatically if you start the mLAN Auto Connector or mLAN Graphic Patchbay from the menu of the mLAN Manager.
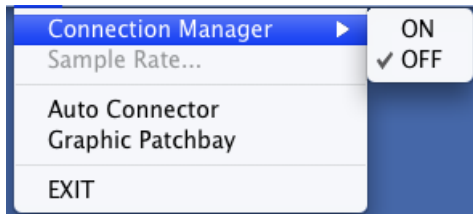
Using the mLAN Connection Manager

If the mLAN Connection Manager is turned on, you can make an mLAN connection between a Macintosh computer and an mLAN device just simply by connecting them.

Turning the mLAN Connection Manager On/Off

Follow the operation below to turn the mLAN Connection Manager on or off.

1 Click the driver icon on the menu bar then select "Connection Manager."


2 Select "ON" or "OFF" as desired.

When "ON" is selected, the mLAN Connection Manager is available and the driver icon is colored in blue. When "OFF" is selected, the mLAN Connection Manager is not available and the driver icon is colored in white.

Changing the Sample Rate

Follow the operation below to change the Sample Rate.

1 Click the driver icon on the menu bar then select "Sample Rate..."

The following dialog appears.
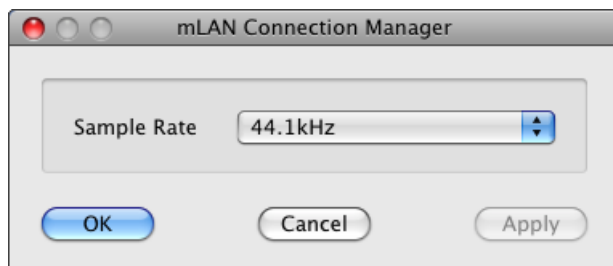
2 From this dialog, select the Sample Rate by clicking the pop up button.

3 Click [OK].

The selected Sample Rate is applied and the dialog closes. You can apply the selected Sample Rate also by clicking [Apply]. In this case, the dialog does not close. Please note that a message is shown while the Sample Rate is actually being changed.

> **NOTE**
> • When using the n8/n12, the [COMP] LED lamp lights while the Sample Rate is being changed.

Using the mLAN Auto Connector

The mLAN Auto Connector enables you to make or change mLAN connections between a Macintosh computer and an mLAN device just simply by selecting a desired device from the Devices menu then executing the Connect to Mac command.

1 **Power on the mLAN device or devices, then make the necessary settings.**

Please keep in mind that only the Macintosh computer can be the wordclock master.

Yamaha 01X:

(1) Press the [UTILITY] button on the panel of the 01X.

(2) Press knob [3] ("W.CLK" menu).

(3) Press knob [1] ("Enable") then press knob [8] ("Yes").

Yamaha MY16-mLAN (installed in the DM2000, DM1000, 02R96 and 01V96):

Make the setup on the display of the mLAN device so that Card slot to which the MY16-mLAN is inserted is set to the wordclock master. For details, refer to the manual of each device.
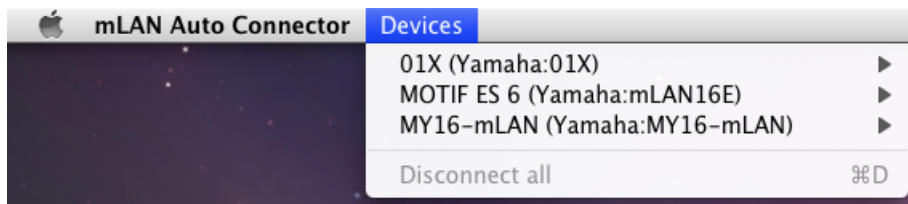
2 **Start the mLAN Auto Connector.**

This can be done in one of two ways, as described below.
• From the hard disk to which OS X is installed (usually Macintosh HD), click [Applications] → [mLAN Tools], then double-click [mLAN Auto Connector].
• Click the driver icon of the menu bar then select "Auto Connector."

The following menu appears as soon as the mLAN Auto Connector starts.

If multiple mLAN devices are connected in daisy-chain fashion via IEEE1394 cables, you can find the list of these mLAN devices by clicking the "Devices" menu as shown below.
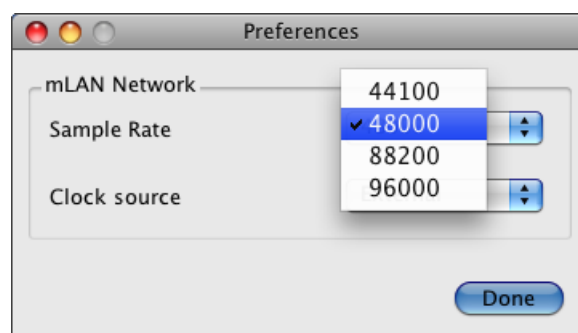
Preferences Menu

3 **Select "Preferences" from the mLAN Auto Connector menu, then set the Sample Rate of the mLAN Driver.**
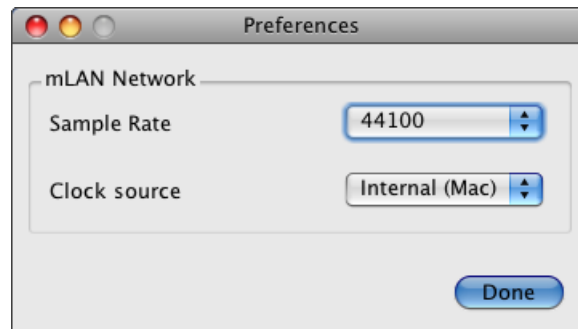
You can select the desired Sample Rate from the pop-up menu as illustrated below.

NOTE

- For information about the available Sample Rate, please refer to the manual for your mLAN device.
- When connecting the multiple mLAN devices, only the Sample Rates supported by all the mLAN devices can be selected.

4 **Set the Clock source of the mLAN network.**

You can select Clock source from the pop-up menu, and specify the computer or an mLAN device as the wordclock master. For example, when setting the mLAN device as the wordclock master, set the Clock source to "External".
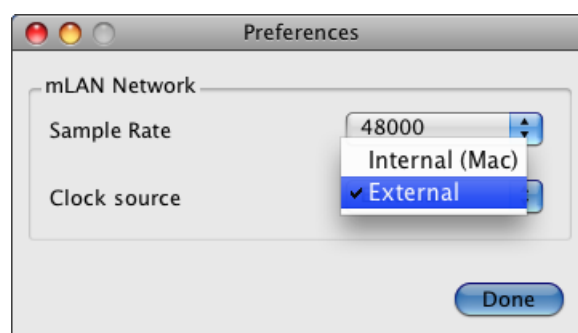
Devices Menu

5 **After selecting [Device] menu, select the desired mLAN device then [Properties].**

The following dialog appears, letting you set the amount of audio channels for the mLAN device. Depending on your mLAN device, the special menu (like "Enable Monitoring Channels" below) may be indicated in the dialog.
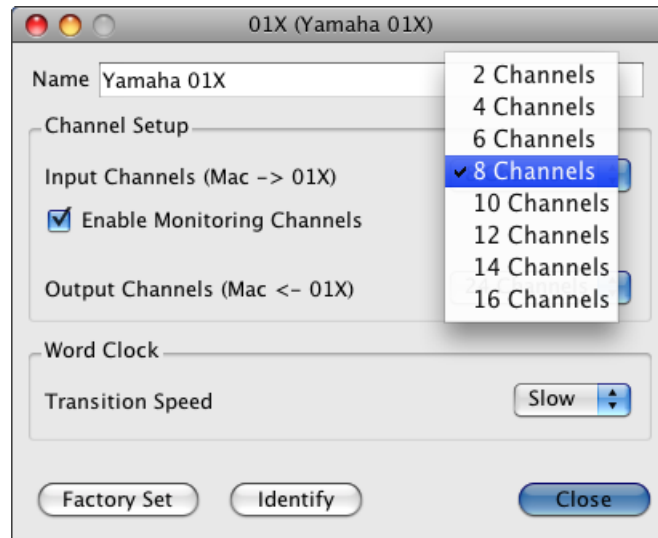
When using the Yamaha 01X, for example, the parameters on the dialog box work as follows:

- **Input Channels (Mac → 01X)**
  Determines the amount of audio channels transmitted from the computer to the 01X.
- **Enable Monitoring Channels**
  Determines whether or not the audio signal is transmitted to the mLAN stereo/monitor channel of the 01X.
- **Output Channels (Mac ← 01X)**
  Determines the amount of audio channels transmitted from the 01X to the computer.

When setting the Input Channels to "8 Channels" and setting the Enable Monitoring Channels to "On" with the 01X, Channels 1 – 8 of audio signals from the computer will be connected to the mLAN Input channels 1 – 8 of the 01X and channels 9 and 10 of audio signals from the computer will be connected to the mLAN Stereo In (Monitor In) of the 01X.

**6** **Select "Connect to Mac" from the Devices menu.**

This completes the mLAN connection between the selected mLAN device and the computer, letting you transfer audio signals and MIDI messages between them.

Also, once the above instructions are completed, the mLAN Driver is made active on the Core Audio/Core MIDI system of the computer.

NOTE

- If the setting of the sampling late or clock source on the "Preference Menu" is different from the setting of the mLAN device, a message dialog will pop up when selecting the "Connect to Mac". Make sure that the setting on the "Preference Menu" is the same as the setting of the mLAN device, then select the "Connect to Mac" again.
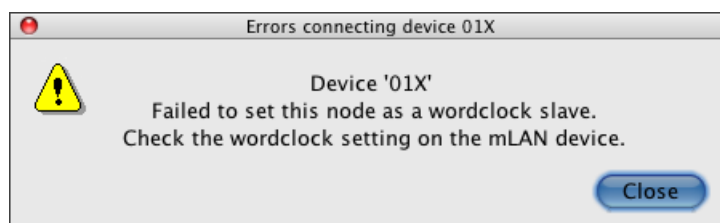
Saving/Recalling the setup with the mLAN Auto Connector

The connection setup in the mLAN Auto Connector will be saved automatically without any specific operation. When using the next time, you can recall the connection setup just only by starting the mLAN Auto Connector (without the specific operation like "Connect to Mac").

NOTE

- The connection setup in the mLAN Auto Connector will be saved (or overwritten) automatically as the two files listed below. These files can be deleted if you want to set up connection from scratch.

    /User/(Account name)/mLAN/mainsave.mlc
    /User/(Account name)/mLAN/backupsave.mlc
    ("(Account name)" indicates the account name when installed.)

- If the FireWire (IEEE1394) cable was disconnected or the power was turned off during the previous session, the message shown below may appear meaning that the previous connection setup cannot be recalled. When this occurs, click [Close] then select [01X] → [Connect to Mac] from the Devices menu in the mLAN Auto Connector.
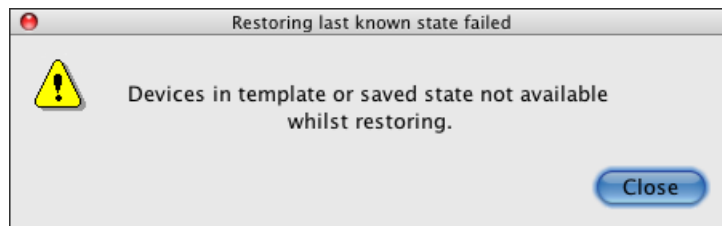

Model Nickname

The Properties dialog of each mLAN device lets you change the model nickname. You can assign any nickname (up to 32 characters) to distinguish the selected device from the other devices. You cannot use two-byte characters (such as Japanese or Chinese characters).
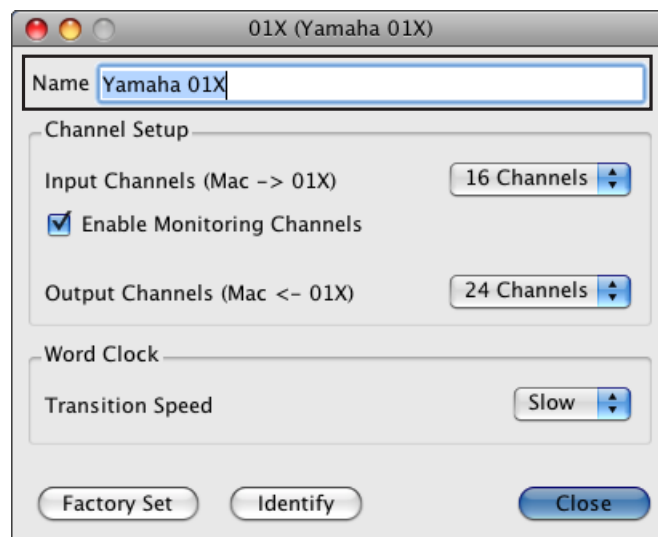
Device Identification

The Properties dialog of each mLAN device features the [Identify] button that enables you to identify the device. Click and hold [Identify] to flash the mLAN LED on the device so that you can identify the device. This can be useful in studio situations in which you have more than one instance of a similar device.
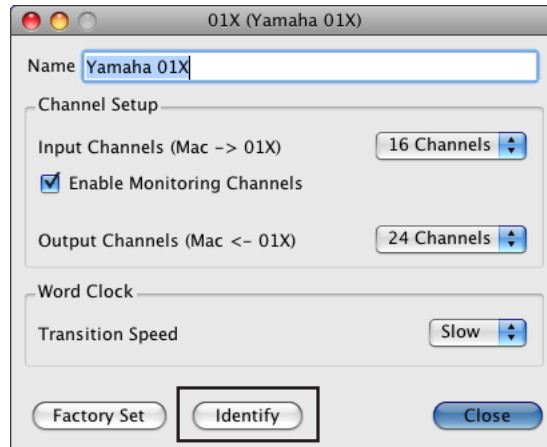
Factory Set

The Properties dialog of each mLAN device features the Factory Set function, letting you reset the mLAN setup of the selected device back to the default factory settings. This can help you to resolve issues that prevent you from connecting a device to the Mac after the device was previously connected to another computer, or where a device connection has become corrupted via software.

NOTE

• If the computer enters an energy saving mode (sleep or suspend mode) while connected to the mLAN device, the Factory Set may not work properly. If such a case occurs, restart the computer, start the mLAN Auto Connector, execute the Connect to Mac function then execute Factory Set again.

Transition Speed

The Properties dialog of each mLAN device features the Transition Speed parameter, letting you control how the wordclock frequency of the mLAN device (as slave) is synchronized with that of the mLAN device (as master) when the wordclock frequency of the master device is changed.

Slow: When this is selected, the wordclock frequency of the slave mLAN device will be slowly changed to the same wordclock frequency as that of the master mLAN device.

Fast: When this is selected, the wordclock frequency of the slave mLAN device will be quickly changed to the same wordclock frequency as that of the master mLAN device. The drawback to this is that even though response to the frequency change is quick, noise may be produced.

Using the mLAN Graphic Patchbay

Graphic Patchbay enables you to use a graphic user interface (GUI) to establish mLAN channel connections between a Macintosh and multiple mLAN devices.

⚠ *CAUTION*

• After completing setup and before exiting the mLAN Graphic Patchbay, make sure to save the connection setup of the mLAN devices as a file. When starting the mLAN Graphic Patchbay next time, you can recall the previously last setup of connection by opening the file.
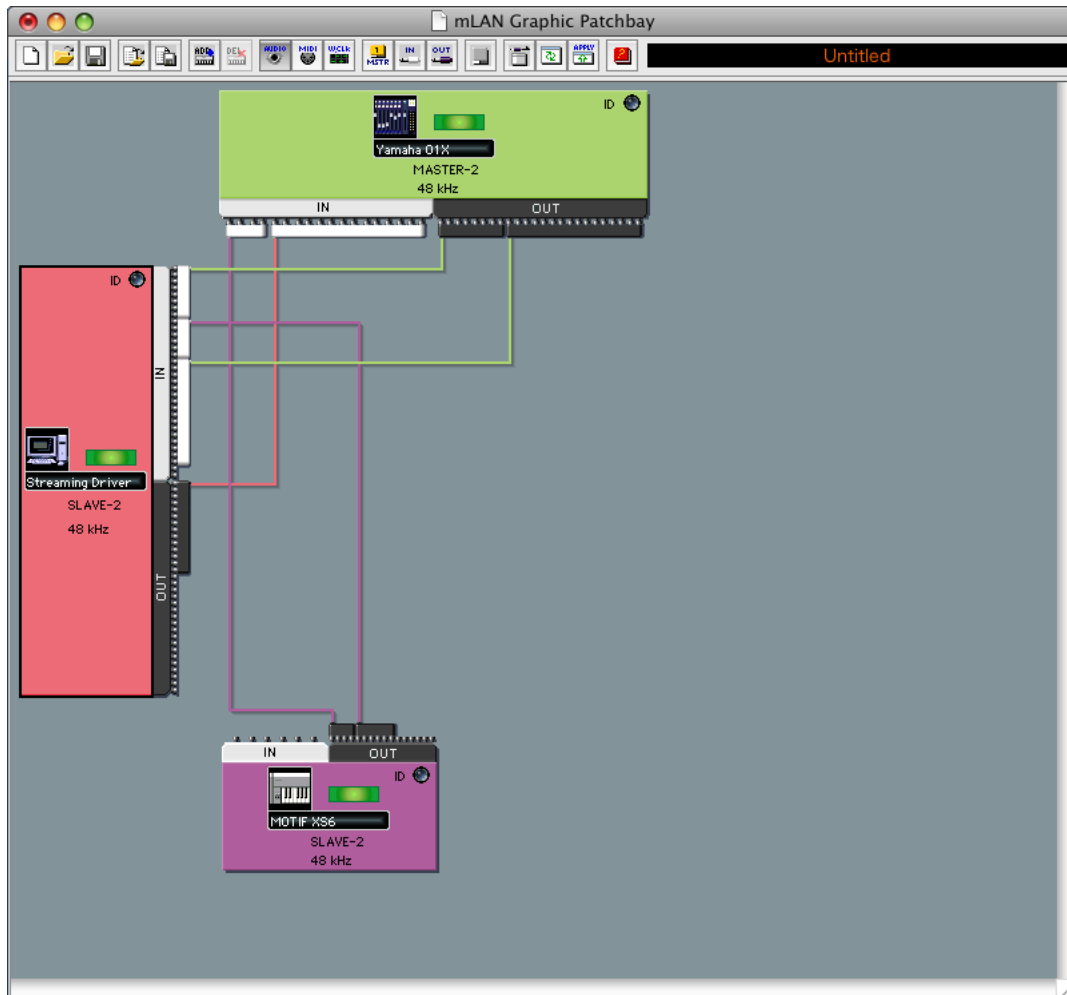
Screen sample of mLAN Graphic Patchbay

The mLAN Graphic Patchbay can be started by either of the following operations.
• From the hard disk to which OS X is installed (usually Macintosh HD), click [Applications] → [mLAN Tools], then double-click [mLANGraphicPatchbay].
• Click the driver icon of the menu bar then select "Graphic Patchbay."

For details, refer to the online manual called up by selecting "Manual" from the help menu of the mLAN Graphic Patchbay.

Confirming and Setting up After Completing the mLAN Connection

Audio MIDI setup (MIDI Devices)

1 **From the hard disk to which OS is installed (usually Macintosh HD), click [Application] → [Utilities] then double-click [Audio MIDI Setup].**

"Audio MIDI Setup" window appears.

2 **Click [MIDI Devices], then confirm that the MIDI Driver is shown as "mLAN Network."**

3 **Double-click [mLAN Network].**

"mLAN Network Properties" window appears.
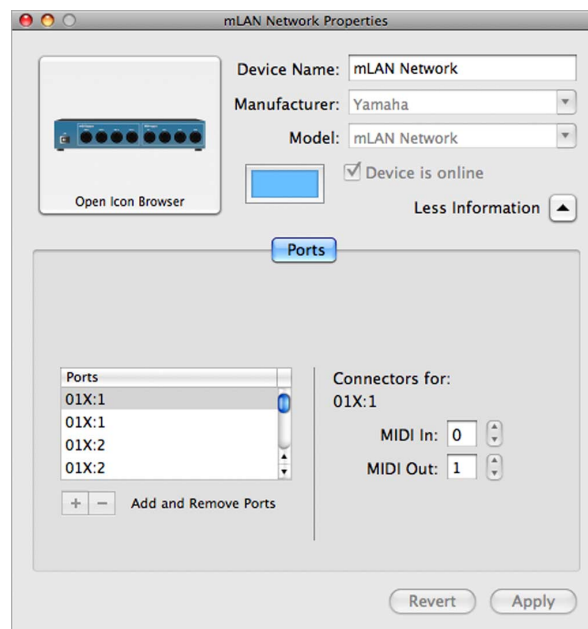
4 **Click [Ports] then confirm the MIDI ports of the mLAN Driver.**

When using the 01X, for example, the window shows the Yamaha 01X as an mLAN Network device with 5 MIDI IN, and 5 MIDI OUT ports. The MIDI ports are named "01X:1, 01X:1, ..."

NOTE

• If updating the mLAN Tools from an older version, it may occur that the previous "mLAN Network" may be dimmed and the separate new "mLAN Network" may appear. If such a case occurs, remove the dimmed "mLAN Network."

For Digital Performer:

Before using the DAW software, make the following settings beforehand.

1 **Select [Application] → [Utilities] → [Audio MIDI Setup] to call up the Audio MIDI Setup window.**

The MIDI Driver is shown as "mLAN Network."

2 **Click [Add Device] icon to add a new external devices to the Audio MIDI Setup window.**

The new external devices require as many MIDI ports as for the device you intend to use.

3 **Connect each MIDI input/output plugs of the MIDI Driver into the input/output plugs of the new external MIDI device.**
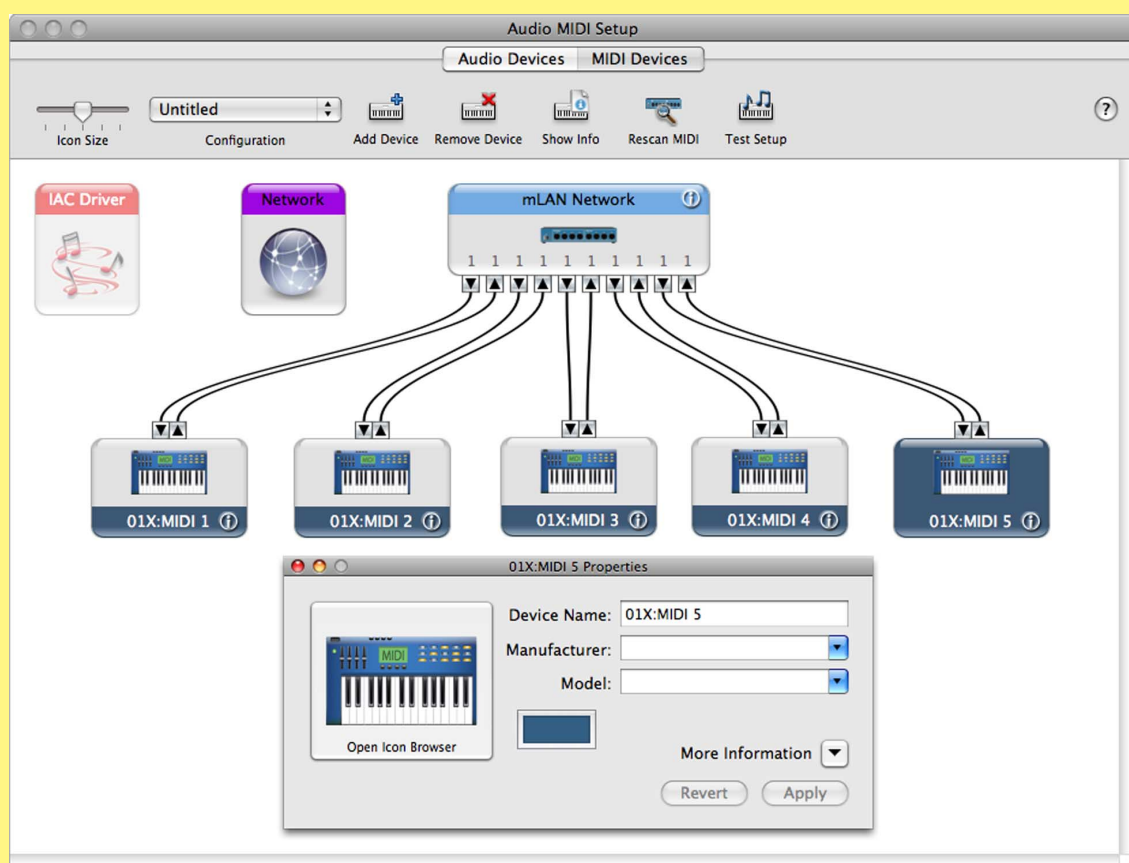
Examples:

|	
Yamaha 01X:	Add five new external devices and connect them to the mLAN Driver.
Yamaha i88X:	Add one new external device and connect it to the mLAN Driver.
Yamaha mLAN16E (MOTIF ES/S90ES):	Add four new external devices and connect them to the mLAN Driver.
Yamaha mLAN16E2 (MOTIF XS/MOTIF-RACK XS):	
	Add three new external devices connect them to the mLAN Driver.
Yamaha MY16-mLAN:	Add one new external device and connect it to the mLAN Driver.
Yamaha n8/n12:	Add two new external devices connect them to the mLAN Driver.

NOTE

• Entering the device name on the Properties of the new external device makes it easy to operate the device with your DAW software.
• This setting may be unnecessary for the latest version of your DAW software.

Audio MIDI setup (Audio Devices)

1 **From the hard disk to which OS is installed (usually Macintosh HD), click [Application] → [Utilities] then double-click [Audio MIDI Setup].**

"Audio MIDI Setup" window appears.

2 **Click [Audio Devices], then select "mLAN Network" from the pull-down menu in [Properties For].**

In the [Audio Input] and [Audio Output] fields, the current audio settings are shown.

> **NOTE**
>
> • By selecting "mLAN Network" for [Default Output] in System Settings, you can output audio signals of the system sound and audio player software (e.g., iTunes, etc.) from the mLAN device.
> • The sampling frequency cannot be changed from the [Audio Devices] window. Change the sampling frequency in the mLAN Connection Manger, mLAN Auto Connector or mLAN Graphic Patchbay.
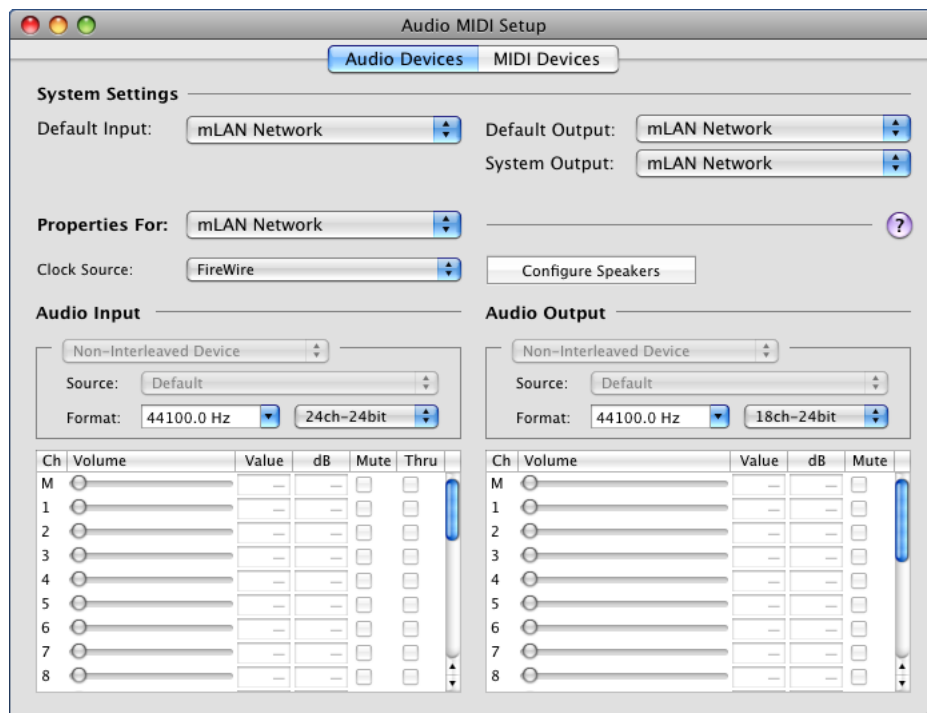
mLAN Audio/MIDI Driver settings on DAW software

In the Audio/MIDI Driver settings of your DAW, select "mLAN Network."

The port of the mLAN MIDI Driver is shown as the port number in the format "model name : port number."

For information about each port, refer to the manual of your mLAN device.

Setting the driver I/O buffer size (latency)

Audio signals may not be played back or recorded properly (for example, noise may be produced) while using the DAW software. Such a problem may be solved by adjusting the audio buffer size which can be adjusted on the Audio Driver window of the DAW.

The higher buffer size reduces the load of the computer CPU but produces latency (time lag) during recording/playback. The smaller buffer size may result in noise or the sound cutting off.

Make sure to set the I/O buffer size to an appropriate value depending on the speed of your computer, the CPU power available in DAW, etc.

Special Note when using the MY16-mLAN

Yamaha MY16-mLAN provides the "01V" mode and "Other" mode. When using the 01V to which the MY16-mLAN installed, make sure to set the MY16-mLAN to "01V" mode. For instructions, refer to the Owner's Manual of the MY16-mLAN. When using any other devices (such as DM2000, DM1000. 02R96, and 01V96), set the MY16-mLAN to the "Other" mode.

Uninstalling the Software

To uninstall mLAN Driver/mLAN Tools, you must remove the following folders and files from the boot disk (usually Macintosh HD).

/Applications/mLAN Tools/
/System/Library/Extensions/Yamaha1394AudioDriver.kext
/System/Library/Extensions/YamahaOGTAsync.kext
/System/Library/Frameworks/mLANEnablerFramework.framework
/System/Library/Frameworks/mLANQt.framework
/Library/Application Support/mLAN/
/Library/Audio/MIDI Drivers/Yamaha1394MIDI.plugin
/Library/Preferences/com.yamaha.mLAN Manager.plist
/Library/Receipts/01XHAL.pkg
/Library/Receipts/1394AudioDriver.pkg
/Library/Receipts/1394MIDIPlugIn.pkg
/Library/Receipts/i88XHAL.pkg
/Library/Receipts/mLAN16EHAL.pkg
/Library/Receipts/mLANAsyncLibrary.pkg
/Library/Receipts/mLANAutoConnector.pkg
/Library/Receipts/mLANEnablerFramework.pkg
/Library/Receipts/mLANGraphicPatchbay.pkg
/Library/Receipts/mLANManager.pkg
/Library/Receipts/mLANQt.pkg
/Library/Receipts/MY16mLANHAL.pkg
/Library/Receipts/NCP08HAL.pkg
/Library/Receipts/Presets.pkg
/Library/Receipts/YamahaAIDriverHAL.pkg
/User/(Account name)/Library/Preferences/com.yamaha.autoconnector.plist
/User/(Account name)/Library/Preferences/com.yamaha.mLAN.GraphicPatchbay.plist
/User/(Account name)/Library/Preferences/com.yamaha.mLAN Manager.plist
/User/(Account name)/mLAN/

• "(Account name)" indicates the account name when installed.

Troubleshooting

■ No sound is heard, or the sound is too faint.

Settings on the computer
- The volume settings within your application must be set to appropriate levels.
- Make sure that other settings of the mLAN Driver are appropriate. (See "Unable to transfer/receive audio data or MIDI data.")

Setting on the mLAN device and other external devices
- Make sure that the speakers or headphones are connected correctly.
- Make sure that the power to your amplifier and other external devices are turned on.
- The volume of all connected tone generators and playback devices must be set to appropriate levels.
- Make sure that a signal from an external device or the DAW is being sent to the input of the mLAN device.
- Make sure that the cable connecting the mLAN device and the external device is not damaged.

■ The sound is distorted.

Settings on the computer, mLAN device and other external devices
- Make sure that audio was recorded at an appropriate level.
- Make sure that the cable connecting the mLAN device and the external device is not damaged.

■ Noise.

Settings on the computer
- Make sure that your computer satisfies the system requirements. Refer to "System Requirements" (page 4).
- Make sure that the latency setting of the driver is appropriate. Refer to "Setting the driver I/O buffer size (latency)" (page 19).
- Make sure that the sampling frequency is appropriate. A high sampling frequency may be the cause of noise, depending on the computer's capacity and speed. Refer to pages 9, 10 and 15.
- If your computer's hard disk is slow, problems may occur during recording and playback.
- Try increasing the computer's memory capacity.
- Quit all applications that are running in the background, when you use mLAN Driver. If such software is running, driver operation may become unstable and create noise. When you are not using mLAN Driver, you can start up these applications again.

Connecting the mLAN devices
- The FireWire cable may be damaged. Cables that do not satisfy S400 standards may cause noise.
- There may be a noise-inducing device (such as a device containing a power inverter, etc.) near the FireWire cable. Move the cable away from any possible sources of noise.

Setting on the mLAN devices and other external devices
- There may be a noise-inducing device (such as a device containing a power inverter, etc.) near cables connecting the mLAN device or an external device. Move the cables away from any possible sources of noise.

■ The computer processing speed is too slow.
■ The computer's CPU meter indicates a heavy processing load.
■ Playback response is delayed.
■ Insufficient tracks for recording or playback.

Settings on the computer
- Make sure that your computer satisfies the system requirements. Refer to "System Requirements" (page 4).
- If you are not using mLAN Driver, you can reduce the load on the computer by disabling mLAN Connection Manager, mLAN Auto Connector or mLAN Graphic Patchbay. Refer to pages 9, 10 and 15.

■ An application, such as a DAW, fails to recognize mLAN Driver (audio/MIDI).
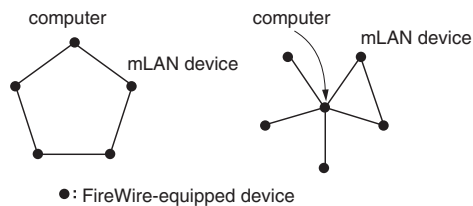## ■ Unable to transfer/receive audio data or MIDI data.

mLAN settings
- Is the mLAN connection established by using the appropriate application? Make sure to use the appropriate application. If you use the mLAN Connection Manager, make sure that the driver icon which is turned on is indicated in blue. If you use the mLAN Auto Connector or mLAN Graphic Patchbay, check the status of mLAN connection for each of them. (Refer to pages 3, 9, 10 and 15.)

Connecting the mLAN device
- Make sure that the FireWire cable is connected properly, and that the power to the mLAN device has been turned on. Disconnect the FireWire cable once, then insert it again.

- There may be a loop connection. Check the cabling to make sure that none of the devices are connected in a loop.
  Example of loop connection

  computer   computer

  mLAN device   mLAN device

  ●: FireWire-equipped device

  If FireWire devices other than the mLAN devices are connected to the computer, disconnect all FireWire devices from your computer, and try connecting a single mLAN device to your computer.

■ Unable to transfer/receive MIDI data or Program changes.

Settings on the computer, mLAN device and other external devices
- In music applications, such as a DAW, make sure the correct MIDI ports have been selected. If you set the MIDI Devices on [Audio MIDI Setup] in Utilities, the MIDI ports will be shown from an application as the name set within [Audio MIDI Setup]. Select the appropriate MIDI ports.
- Make sure the transmission and reception channels of each device or an application (such as a DAW) match.
- Make sure the MIDI settings of the mLAN device are appropriate.
- Make sure that the power to the transmitting and receiving devices is turned on.

Connecting the mLAN device
- Make sure that the FireWire cable is connected properly.
- Make sure that the FireWire cable is not damaged.

■ The driver icon in the menu bar has disappeared.
- Select [Application] → [mLAN Tools], then select mLAN Manager.

■ Cannot use other connected Firewire devices correctly.
- Click the driver icon on the menu bar, then select [Connection Manager] → [OFF] to disable the mLAN Connection Manager (page 9).
- Exit the mLAN Auto Connector or mLAN Graphic Patchbay (pages 10 and 15).

NOTE
- For information on audio problems such as no sound or excess noise, refer to the Troubleshooting in the manual of the mLAN device.