

# mLAN

mLAN AUDIO/MIDI PROCESSOR

**mLANBP**

**Owner's manual**  
**Bedienungsanleitung**  
**Mode d'emploi**

English

Deutsch

Français

# SPECIAL MESSAGE SECTION

This product utilizes batteries or an external power supply (adapter). DO NOT connect this product to any power supply or adapter other than one described in the manual, on the name plate, or specifically recommended by Yamaha.

**WARNING:** Do not place this product in a position where anyone could walk on, trip over, or roll anything over power or connecting cords of any kind. The use of an extension cord is not recommended! IF you must use an extension cord, the minimum wire size for a 25' cord (or less) is 18 AWG. NOTE: The smaller the AWG number, the larger the current handling capacity. For longer extension cords, consult a local electrician.

This product should be used only with the components supplied or; a cart, rack, or stand that is recommended by Yamaha. If a cart, etc., is used, please observe all safety markings and instructions that accompany the accessory product.

## SPECIFICATIONS SUBJECT TO CHANGE:

The information contained in this manual is believed to be correct at the time of printing. However, Yamaha reserves the right to change or modify any of the specifications without notice or obligation to update existing units.

This product, either alone or in combination with an amplifier and headphones or speaker/s, may be capable of producing sound levels that could cause permanent hearing loss. DO NOT operate for long periods of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.

**IMPORTANT:** The louder the sound, the shorter the time period before damage occurs.

Some Yamaha products may have benches and / or accessory mounting fixtures that are either supplied with the product or as optional accessories. Some of these items are designed to be dealer assembled or installed. Please make sure that benches are stable and any optional fixtures (where applicable) are well secured BEFORE using. Benches supplied by Yamaha are designed for seating only. No other uses are recommended.

## NOTICE:

Service charges incurred due to a lack of knowledge relating to how a function or effect works (when the unit is operating as designed) are not covered by the manufacturer's warranty, and are therefore the owners responsibility. Please study this manual carefully and consult your dealer before requesting service.

## ENVIRONMENTAL ISSUES:

Yamaha strives to produce products that are both user safe and environmentally friendly. We sincerely believe that our products and the production methods used to produce them, meet these goals. In keeping with both the letter and the spirit of the law, we want you to be aware of the following:

## Battery Notice:

This product MAY contain a small non-rechargeable battery which (if applicable) is soldered in place. The average life span of this type of battery is approximately five years. When replacement becomes necessary, contact a qualified service representative to perform the replacement.

This product may also use "household" type batteries. Some of these may be rechargeable. Make sure that the battery being charged is a rechargeable type and that the charger is intended for the battery being charged.

When installing batteries, do not mix batteries with new, or with batteries of a different type. Batteries MUST be installed correctly. Mismatches or incorrect installation may result in overheating and battery case rupture.

## Warning:

Do not attempt to disassemble, or incinerate any battery. Keep all batteries away from children. Dispose of used batteries promptly and as regulated by the laws in your area. Note: Check with any retailer of household type batteries in your area for battery disposal information.

## Disposal Notice:

Should this product become damaged beyond repair, or for some reason its useful life is considered to be at an end, please observe all local, state, and federal regulations that relate to the disposal of products that contain lead, batteries, plastics, etc. If your dealer is unable to assist you, please contact Yamaha directly.

## NAME PLATE LOCATION:

The name plate is located on the bottom of the product. The model number, serial number, power requirements, etc., are located on this plate. You should record the model number, serial number, and the date of purchase in the spaces provided below and retain this manual as a permanent record of your purchase.

Model \_\_\_\_\_

Serial No. \_\_\_\_\_

Purchase Date \_\_\_\_\_

# PLEASE KEEP THIS MANUAL

92-BP (bottom)

# PRECAUTIONS

## PLEASE READ CAREFULLY BEFORE PROCEEDING

\* Please keep these precautions in a safe place for future reference.



### WARNING

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

- Do not open the instrument or attempt to disassemble the internal parts or modify them in any way. The instrument contains no user-serviceable parts. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified Yamaha service personnel.
- Do not expose the instrument to rain, use it near water or in damp or wet conditions, or place containers on it containing liquids which might spill into any openings.
- If the AC adaptor cord or plug becomes frayed or damaged, or if there is a sudden loss of sound during use of the instrument, or if any unusual smells or smoke should appear to be caused by it, immediately turn off the power switch, disconnect the adaptor plug from the outlet, and have the instrument inspected by qualified Yamaha service personnel.
- Use the specified adaptor (PA-5C or an equivalent recommended by Yamaha) only. Using the wrong adaptor can result in damage to the instrument or overheating.
- Before cleaning the instrument, always remove the electric plug from the outlet. Never insert or remove an electric plug with wet hands.
- Check the electric plug periodically and remove any dirt or dust which may have accumulated on it.



### CAUTION

Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, or damage to the instrument or other property. These precautions include, but are not limited to, the following:

- Do not place the AC adaptor cord near heat sources such as heaters or radiators, and do not excessively bend or otherwise damage the cord, place heavy objects on it, or place it in a position where anyone could walk on, trip over, or roll anything over it.
- When removing the electric plug from the instrument or an outlet, always hold the plug itself and not the cord.
- Do not connect the instrument to an electrical outlet using a multiple-connector. Doing so can result in lower sound quality, or possibly cause overheating in the outlet.
- Unplug the AC power adaptor when not using the instrument, or during electrical storms.
- Before connecting the instrument to other electronic components, turn off the power for all components. Before turning the power on or off for all components, set all volume levels to minimum. Also, be sure to set the volumes of all components at their minimum levels and gradually raise the volume controls while playing the instrument to set the desired listening level.
- Do not expose the instrument to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.
- Do not use the instrument near other electrical products such as televisions, radios, or speakers, since this might cause interference which can affect proper operation of the other products.
- Do not place the instrument in an unstable position where it might accidentally fall over.
- Before moving the instrument, remove all connected adaptor and other cables.
- When cleaning the instrument, use a soft, dry cloth. Do not use paint thinners, solvents, cleaning fluids, or chemical-impregnated wiping cloths. Also, do not place vinyl, plastic or rubber objects on the instrument, since this might discolor the panel or keyboard.
- Do not rest your weight on, or place heavy objects on the instrument, and do not use excessive force on the buttons, switches or connectors.
- Do not operate the instrument for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing in the ears, consult a physician.

#### ■ SAVING USER DATA

- Save all data to your computer using the included application software, in order to help prevent the loss of important data due to a malfunction or user operating error.

Yamaha cannot be held responsible for damage caused by improper use or modifications to the instrument, or data that is lost or destroyed.

Always turn the power off when the instrument is not in use.

# Introduction

Thank you for purchasing the Yamaha mLAN8P. The mLAN8P is an interface unit that supports “mLAN,” a digital network for music which employs a high-performance serial bus “IEEE1394.” The mLAN8P enables you to configure audio and MIDI signal networks easily now without repeatedly re-making complicated connections.

You can quickly configure a system that contains currently-used audio and MIDI devices and future devices that support “IEEE1394” or “mLAN.” In addition, the mixer function of the mLAN8P is very useful in music production applications.

Please read this manual to make the best use of mLAN8P’s excellent features, and keep the manual in a safe place so that you can refer to it any time you have questions.

## Package Contents

- mLAN8P unit
- PA-5C AC Adaptor\*
- mLAN Tools (CD-ROM)
- IEEE1394 cable (2.0m)
- Owner’s manual (this document)
- mLAN Guide Book
- mLAN Tools Installation Guide

\* May not be included in your area. Please check with your Yamaha dealer.

### Included Software

The mLAN8P comes with a CD-ROM containing application software that is helpful for using the mLAN8P. The CD-ROM includes “mLAN Patchbay,” which is used on a personal computer to set the routing of audio and MIDI signals that are transmitted between the devices connected to the mLAN8P. The CD-ROM also includes “mLAN Mixer,” which enables you to control the mLAN8P mixer and effect functions from a personal computer. For more information, please refer to the “mLAN Tools Installation Guide.”

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The illustrations and LCD screens shown in this Owner's Manual are for instructional purposes only, and may appear somewhat different from those on your device.

The company names and product names in this Owner's Manual are the trademarks or registered trademarks of their respective companies.

# Features

## ■ Fast data transfer via mLAN

“mLAN” is a digital network designed for music applications. It uses and extends the industry standard “IEEE1394” high performance serial bus. You can now configure more advanced systems much more easily. Please refer to the separate “mLAN Guide Book” for more information on mLAN.

## ■ Converting MIDI and audio signals into the mLAN format

You can connect MIDI or audio devices that do not support mLAN to an mLAN system. The following conversion is possible:

- mLAN MIDI signal to/from MIDI signal
- mLAN audio signal to/from analog audio signal
- mLAN audio signal to/from digital audio signal
- analog audio signal to/from digital audio signal

## ■ 12-channel mixer function

The mLAN8P provides various functions as a 12-channel digital audio mixer, as well as an interface unit.

**NOTE** You cannot change the mLAN8P's settings using the controls on the unit while the mLAN Mixer is operating.

## ■ Versatile internal digital effects

The mLAN8P is equipped with a high-quality internal effect processor<sup>\*1</sup> essential for music production.

## ■ Internal sampling rate converter

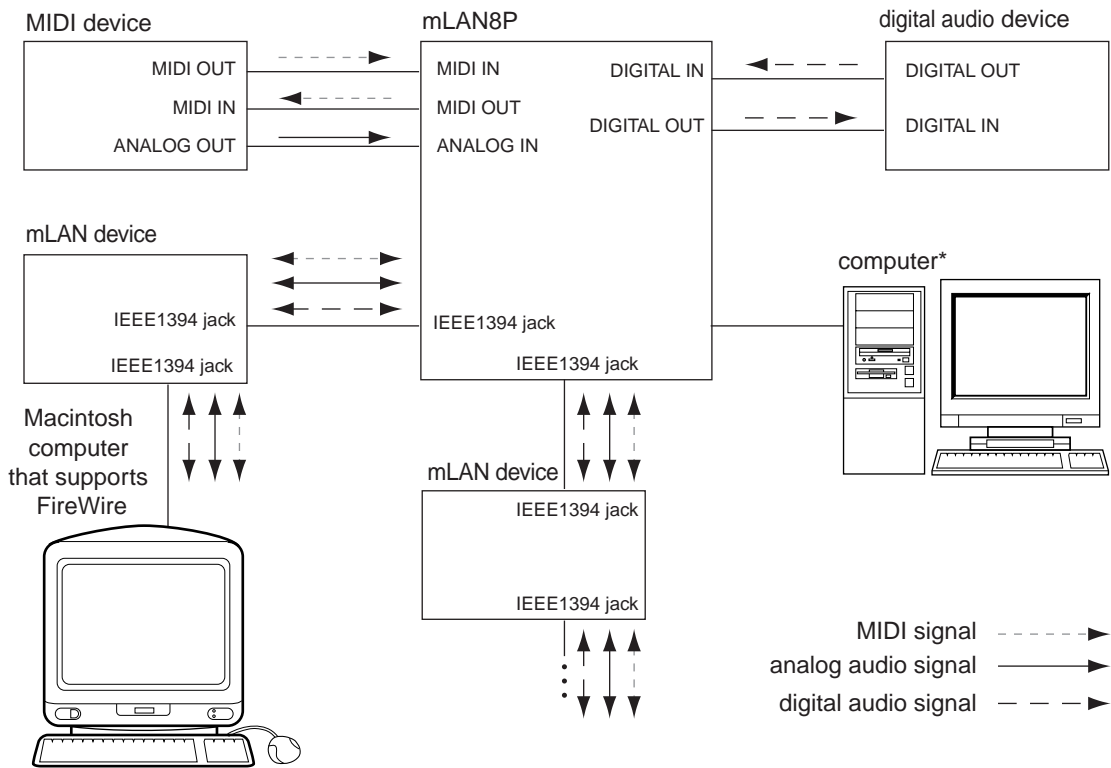
The mLAN8P's internal sampling rate converter enables data transfer between devices with different sampling frequencies<sup>\*2</sup>, such as DAT and CD players.

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\*1. Use the included application software “mLAN Mixer” to set the internal effect processor parameters. For more information, refer to the mLAN Mixer Owner's Manual (electronic file).

\*2. The mLAN8P supports sampling frequencies of 48kHz and 44.1kHz.

## ■ Basic concept of mLAN8P



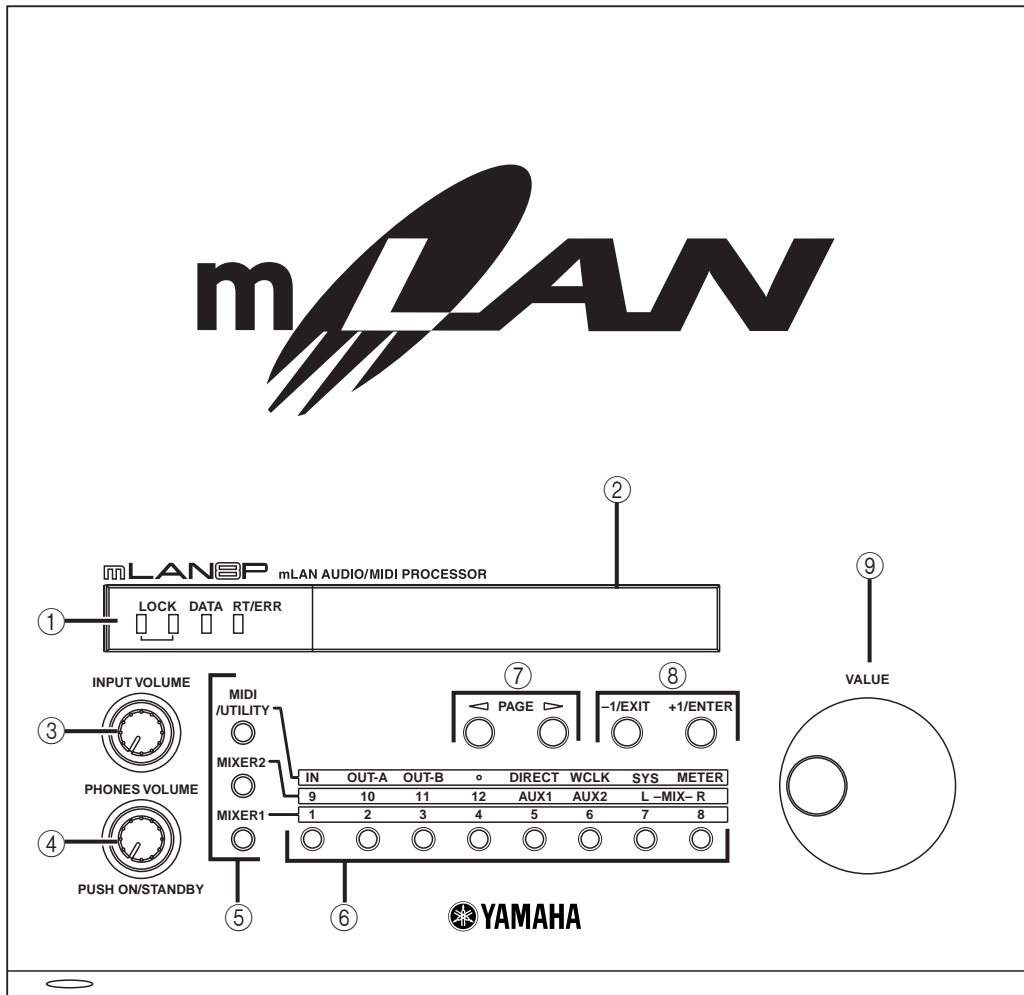
The diagram shown above illustrates the signal flow through each device connected via the mLAN8P. You can set the input source and output destination of audio and MIDI signals of the various devices via the mLAN8P. Specifically, signals can be input from and output to any mLAN device via a single IEEE1394 cable. You can also make and change the connections of these devices in any order without re-patching the cables.

**(NOTE)** There is a certain restriction regarding the operation of the mLAN8P. You cannot set up the transmission of MIDI signals between the mLAN devices using the mLAN8P. You need to set this from the personal computer using the included “mLAN Patchbay” software.

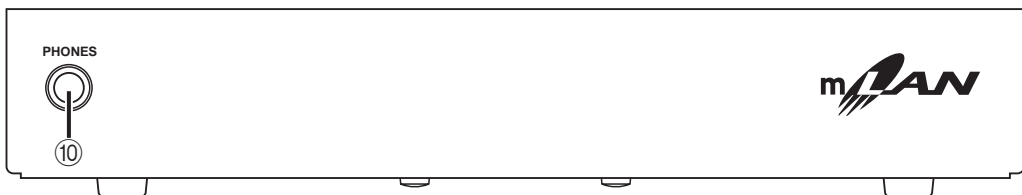
\* Make this serial connection when using the included software on Windows. To use the included application software on a Macintosh, connect the mLAN8P’s mLAN jack and the Macintosh’s FireWire port using an IEEE1394 cable. (See “Connecting an mLAN device” on page 13.)

# Names and Functions

## Top panel



## Front panel





① **LEDs**

The LED lights up to indicate the status of the unit as follows:

**[LOCK]**

The condition in which the mLAN8P receives word clock from another device correctly is called "lock." The left LOCK LED indicates the status of signals input at Digital In. The right LOCK LED indicates the status of mLAN signals.

green : Lock  
off : Unlock (A cable is not connected or word clock is not received correctly.)

**[DATA]**

green : Normal status  
red : Sound is interrupted due to connection or removal of a device on the bus, changes to the connection, out of word clock sync, etc.

**[RT/ERR]**

green : The mLAN8P is a "root."  
red : An error has occurred.  
off : Status other than above.

\* This LED is also located on the right end of the rear panel.

**(NOTE)** Refer to "LED/LCD Messages" on page 37 for information on the error indication.

② **LCD (Liquid Crystal Display)**


The LCD displays various data and information.

③ **INPUT VOLUME**

This knob is used to adjust the volume level of audio signals input from the ANALOG IN jacks.

④ **ON/STANDBY, PHONE VOLUME**

Press this knob to switch the power on and standby (off). Turn the knob to adjust the headphone volume level.

 Even when the switch is in the "STANDBY" position, electricity is still flowing to the instrument at the minimum level. When you are not using the mLAN8P for a long time, make sure you unplug the AC power adaptor from the wall AC outlet.

⑤ **Mode buttons**

These buttons, combined with the channel/function buttons, are used to select the setting parameters.

⑥ **Channel/function buttons**

These buttons, combined with the mode buttons, are used to select the setting parameters.

**[MIDI] mode**

[IN] [OUT-A] [OUT-B] : Settings for the connection destination of the devices connected to the MIDI terminals

**[UTILITY] mode**

[DIRECT] : Direct out settings  
[WCLK] (WORD CLOCK) : Word clock-related settings  
[SYSTEM] (SYSTEM) : System settings  
[MTER] (METER) : Level meter indications

**[Mixer 1] mode**

[1] - [8] : Settings for the input channels of the mixer input section

**[Mixer 2] mode**

[9] [10] : Settings for the input channels routed from Digital In.  
[11] [12] : Settings for the input channels routed from A/D In.  
[AUX1] [AUX2] : Settings for AUX 1/2  
[L] [R] : Settings for the output destination

⑦ **◀ PAGE ▶ button**

These buttons are used to navigate back and forth through the parameters.

⑧ **+1/ENTER and -1/EXIT buttons**

These buttons are used to increment or decrement the parameter value by one. Press and hold down one of these buttons to change the value continuously. While the mLAN8P displays the confirmation dialog for an edited settings, these buttons are used to execute (ENTER) or cancel (EXIT) the operation.

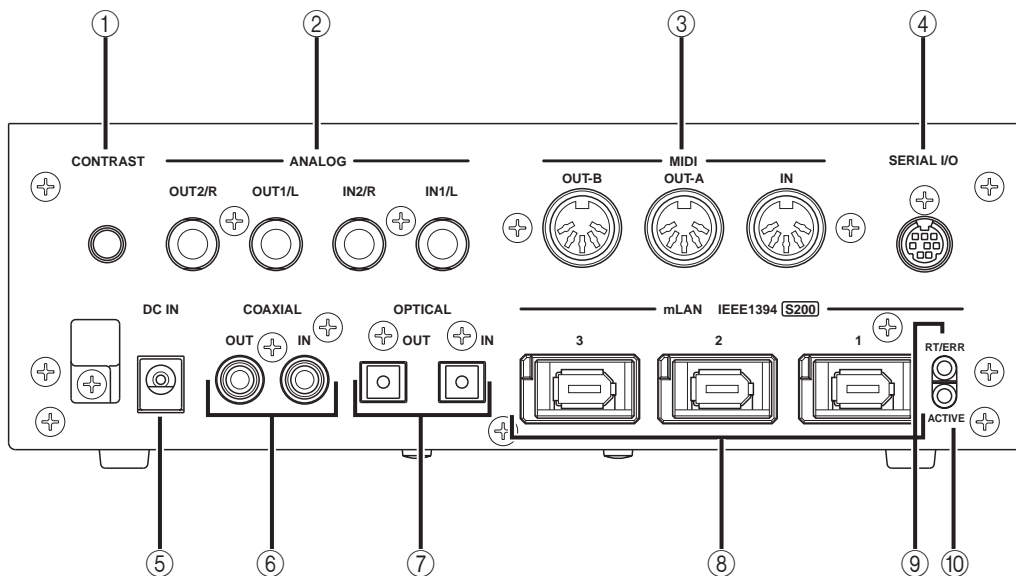
⑨ **VALUE dial**

This dial is used to increase or decrease a parameter value continuously. It is useful when you wish to change a value significantly.

⑩ **PHONES jack**

Connect a pair of stereo headphones here. The signals routed to ANALOG OUT 1/L and 2/R are also output here.

## Rear Panel



### ① CONTRAST

This knob is used to adjust the contrast of the LCD on the top panel.

### ② ANALOG IN/OUT jacks

These jacks are used to input and output analog audio signals. They are also called A/D In and D/A Out respectively, since signals input at ANALOG IN are digitally processed.

### ③ MIDI IN/OUT terminals

These terminals are used to connect MIDI devices and transmit and receive MIDI information.

### ④ SERIAL I/O jack

This jack is used to connect the mLAN8P directly to a personal computer via a serial cable. Use this jack to connect the mLAN8P and the computer when you are using the mLAN Patchbay and mLAN Mixer on Windows. This is not used to input or output MIDI and audio signals. Refer to page 13 for more information on the connections.

### ⑤ DC IN jack

This jack is used to connect the included power supply adaptor (PA-5C).



Do not attempt to use an AC adaptor other than the Yamaha PA-5C or an equivalent recommended by Yamaha. The use of an incompatible adaptor may cause irreparable damage to the mLAN8P, and may even pose a serious shock hazard! ALWAYS UNPLUG THE AC ADAPTOR FROM THE AC POWER OUTLET WHEN THE mLAN8P IS NOT IN USE.


**⑥ COAXIAL IN/OUT jacks**

These jacks are used to input and output digital audio signals via digital audio pin cables.

**(NOTE)** Select either the COAXIAL IN jacks or OPTICAL IN jacks. (page 33.) These jacks, along with the OPTICAL IN/OUT jacks ⑦ are also called "DIGITAL IN/OUT."

**⑦ OPTICAL IN/OUT jacks**

These jacks are used to input and output digital audio signals via optical fiber cables.

 The OPTICAL connectors are protected by plastic covers. You must remove the cover before connecting the cable. Please remember to replace the cover when you disconnect the cable.

**(NOTE)** Select either the COAXIAL IN jacks or OPTICAL IN jacks. (page 33.) These jacks, along with the COAXIAL IN/OUT jacks ⑥ are also called "DIGITAL IN/OUT."

**⑧ mLAN (IEEE1394) jacks**

These jacks are used to connect mLAN devices or IEEE1394-compatible devices via IEEE1394 standard (6-pin) cables. Each jack has an LED in the upper left corner to indicate the following statuses.

green : The mLAN8P or connected device is a "leaf" node.

off : Not connected.

red : Sound somewhere other than the connected device is interrupted when you remove the cable.

**⑨ RT/ERR LED**

This LED indicates the following statuses.

green : The mLAN8P is a "root."

orange : An error has occurred. (IEEE1394 bus-related)

red : An error has occurred. (Other errors)

off : Status other than above.

\* The same LED is located on the top panel.

**(NOTE)** Refer to "LED/LCD Messages" on page 37 for information on the error indication.

**⑩ ACTIVE LED**

This LED indicates the following statuses.

blue : The relay function is active.

off : The relay function is disabled.

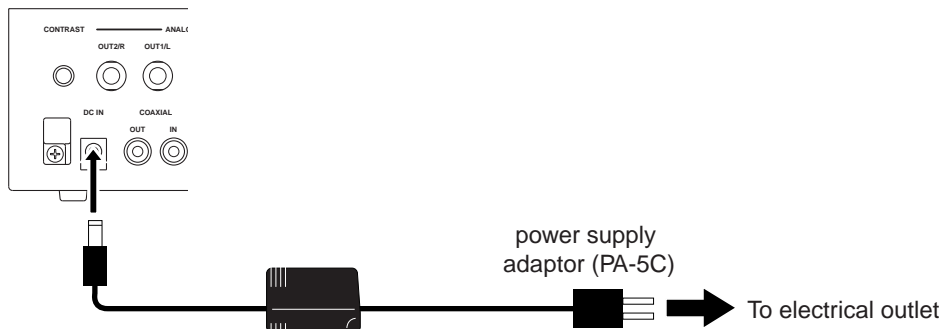
**(NOTE)** Since the mLAN8P does not function as a bus relay when the power is turned off, the active LED also indicates whether the power to the unit is on (blue) or off.

# Connections

This section explains how to connect mLAN and MIDI devices (such as tone generators and keyboards) to a personal computer via the mLAN8P.

## (1) Connecting the power supply adaptor

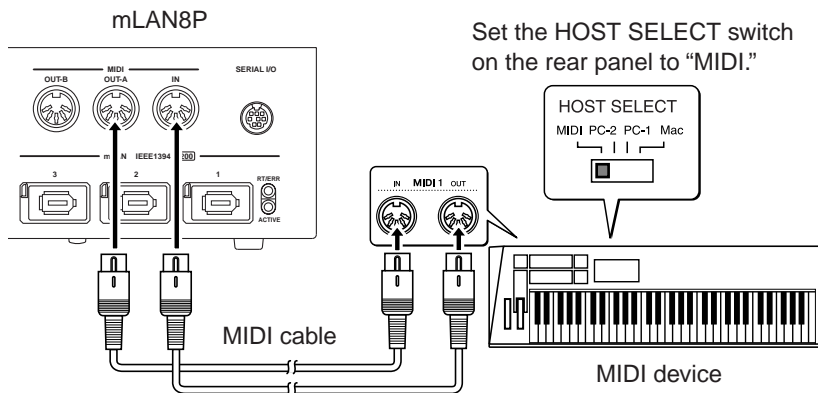
Connect the plug of the included power supply adaptor (PA-5C) to the DC IN jack on the rear panel of the mLAN8P, and connect the adaptor part to an AC outlet. Be sure to turn the power switch off (standby) on the unit before disconnecting the power adaptor cable.



**!** Do not attempt to use an AC adaptor other than the Yamaha PA-5C or an equivalent recommended by Yamaha. The use of an incompatible adaptor may cause irreparable damage to the mLAN8P, and may even pose a serious shock hazard! ALWAYS UNPLUG THE AC ADAPTOR FROM THE AC POWER OUTLET WHEN THE mLAN8P IS NOT IN USE.

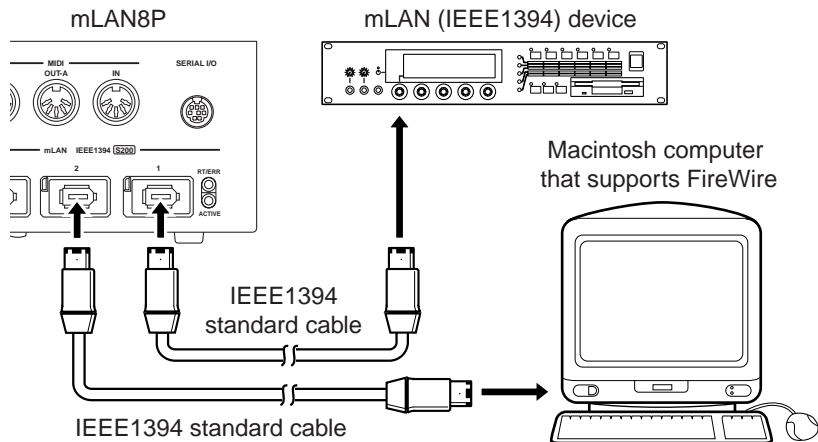
## (2) Connecting a MIDI device

Use optional MIDI cables to connect the MIDI device's MIDI IN terminal to the mLAN8P's MIDI OUT jack, and the MIDI device's MIDI OUT jack to the mLAN8P's MIDI IN terminal. Set the HOST SELECT switch on the MIDI device to "MIDI."



### (3) Connecting an mLAN (IEEE1394) device

Use an IEEE1394 standard (6-pin) cable to connect the mLAN (IEEE1394) jack on the mLAN (IEEE1394) device to the mLAN (IEEE1394) jack on the mLAN8P. At this time, you do not have to turn off the power to either device.

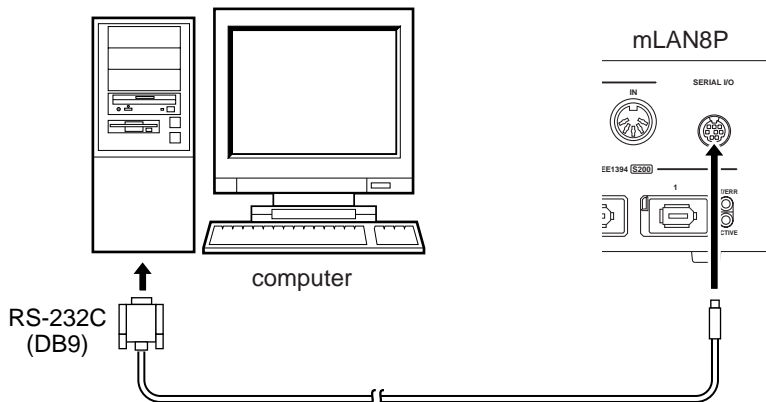


### (4) Connecting a Windows computer (serial connection)

Use a serial cable to connect the computer's RS232C jack to the mLAN8P's SERIAL I/O jack. At this time, make sure that the power to the computer and the mLAN8P is turned off.

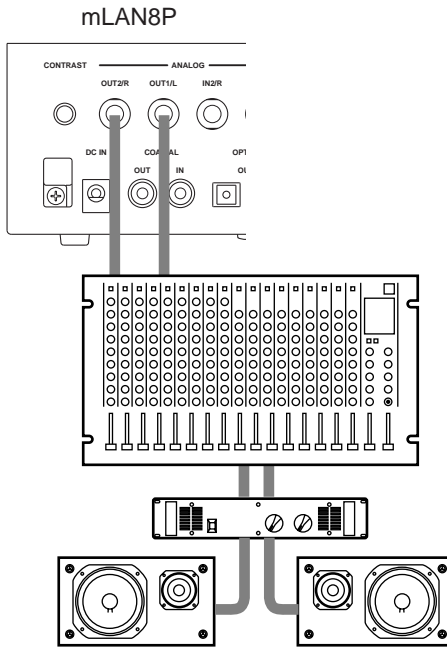
**(NOTE)** Make this serial connection when using the included software on Windows. To use on a Macintosh, connect the mLAN8P's mLAN jack and the Macintosh's FireWire port using an IEEE1394 cable. (See "Connecting an mLAN device.")

Use a standard D-SUB 9P → MINI DIN 8P cable



### (5) Connecting analog audio devices (amplifier, speakers, mixer, etc.)

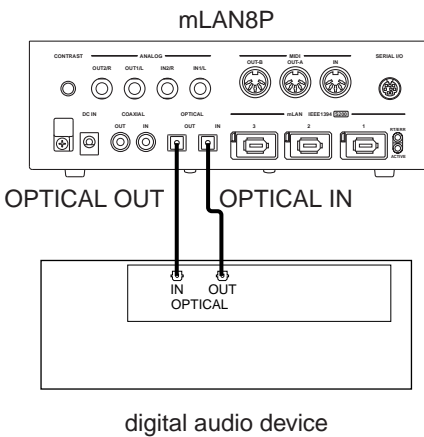
Connect ANALOG OUT 1/L and 2/R to two channels on the mixer.



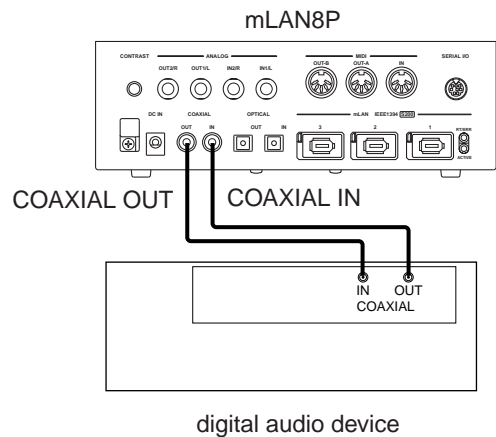
### (6) Connecting a digital audio device

Use digital audio cables to connect a digital audio device, such as a CD player or MD player, to the mLAN8P's digital in/out.

- Using OPTICAL jacks



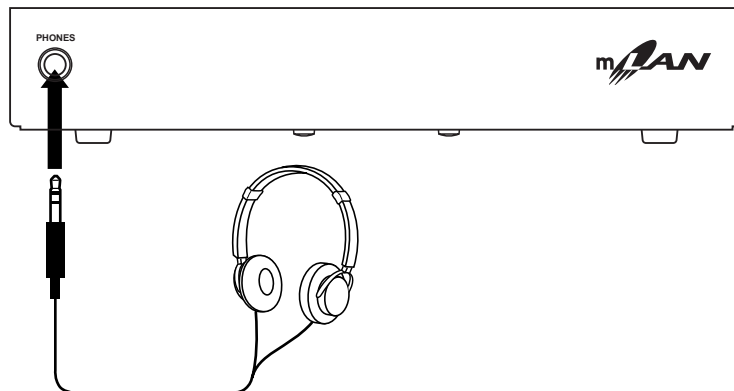
- Using COAXIAL jacks



**(NOTE)** Select COAXIAL IN jacks or OPTICAL IN jacks. (page 33.)

### (7) Connecting a pair of headphones

Connect a pair of headphones to the PHONES jacks on the front panel of the mLAN8P to monitor the signal output at ANALOG OUT 1/L and 2/R (Stereo Mix).

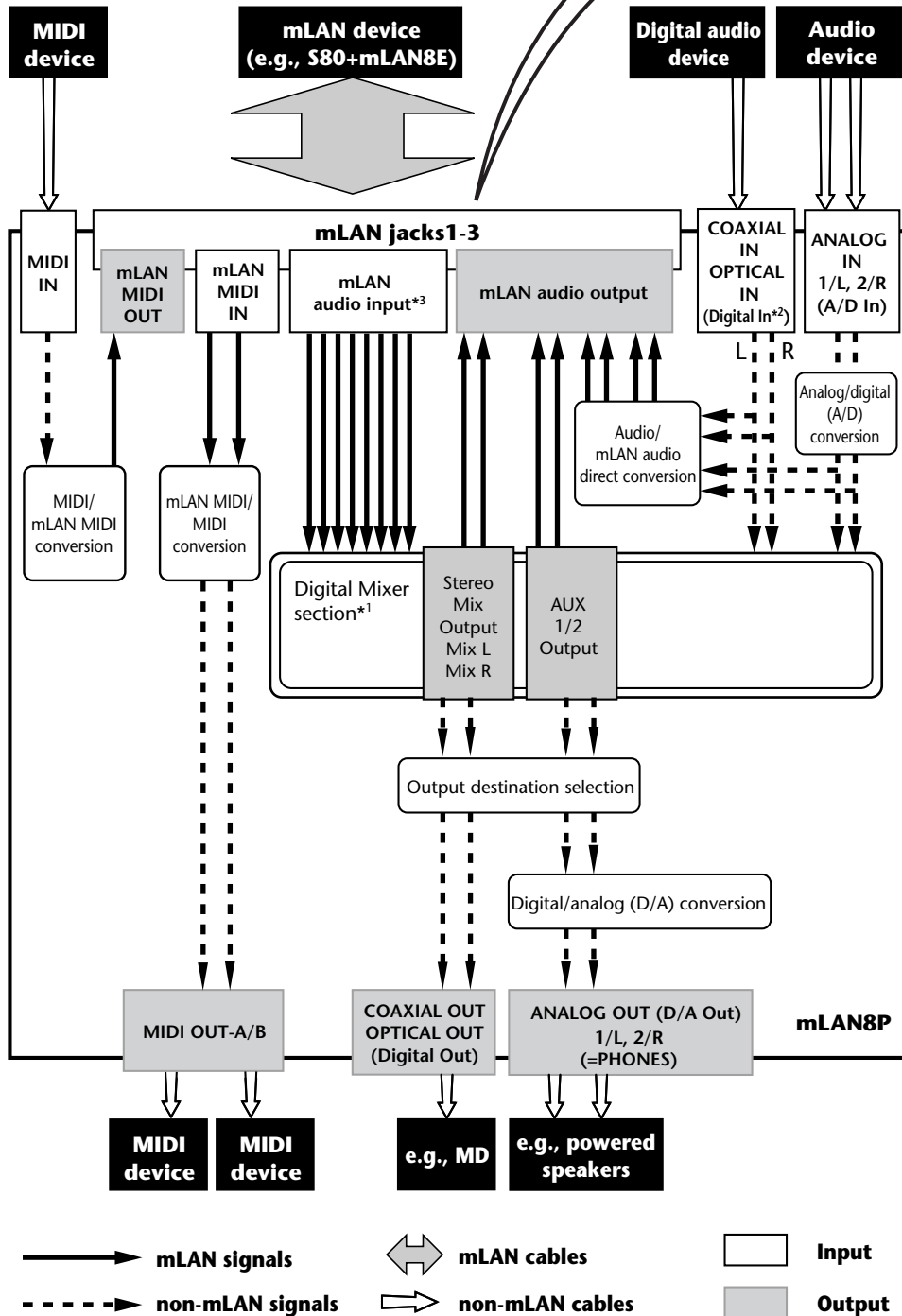


## Turning the Power On/Off

### Power-On Sequence for Connected Devices

When you finish connecting the mLAN8P and necessary devices, make sure that the volume level of the mLAN8P and the audio equipment is set to minimum (0), then turn on the power to the MIDI transmit device, MIDI receive device, and audio equipment (mixer, then amplifier) in this order. To turn off the power to the devices, first lower the level of the audio equipment, then reverse this order. If the devices are connected via mLAN, you do not have to follow the order of turning the power on and off.

# Internal Configuration of the mLAN8P





### mLAN plugs

**mLAN output plugs (Indicated in the “From” field in mLAN Patchbay.)**

#### mLAN audio

St Mix L (stereo mix L)  
 St Mix R (Stereo mix R)  
 AUX1  
 AUX2  
 \*Dig In L (Digital In L)  
 \*Dig In R (Digital In R)  
 \*A/D In L (ANALOG In L)  
 \*A/D In R (ANALOG In R)

#### mLAN MIDI

\*IN (MIDI IN)

**mLAN input plugs (Indicated in the “To” field in mLAN Patchbay.)**

#### mLAN audio

Input1  
 Input2  
 Input3  
 Input4  
 Input5  
 Input6  
 Input7  
 Input8

#### mLAN MIDI

\*OUT-A (MIDI OUT-A)  
 \*OUT-B (MIDI OUT-B)

#### About the name of mLAN plugs:

Some mLAN plug names start with an asterisk (\*). This means that they are directly connected to the rear panel connectors of the mLAN8P. For example, “\*IN (MIDI IN)” plug outputs signals input at the MIDI IN terminal (on the rear panel of the mLAN8P) to the mLAN bus. This plug is regarded as an mLAN output plug, but the name includes “\*IN” since it outputs signals input at the MIDI IN terminal. In the same way, “\*OUT-A (\*MIDI OUT-A)” plug is an mLAN input plug, but the name includes “\*OUT-A” since it inputs signals output at MIDI OUT-A on the rear panel.

The diagram on the left illustrates the entire signal flow.

You can set the input source and output destination for audio and MIDI signals of the various devices after they are connected to the mLAN8P. The mLAN8P, especially with its 12-channel digital mixer function, supports a broad range of applications, serving as the core of a music production studio.

You can set the input source and output destination for various signals and use the mixer function not only from the mLAN8P of the mLAN8P, but also from a computer by using the included mLAN Tools.

**(NOTE)** The mLAN8P mixer section features Direct mode and Mixer mode. When the mLAN Mixer is not being used, the unit is in Direct mode, in which signals are input and output directly. When the mLAN Mixer is being used, the unit enters Mixer mode. The default setting (when you turn on the power to the unit) is Direct mode.

- \*1 Built-in effect processor. (Use the included application software “mLAN Mixer” to set the effect parameters.) For more information on the effect processor, refer to the Data List in the mLAN Mixer Instruction Manual (PDF file). For more information on the structure of the digital mixer section, refer to the Block Diagram in the mLAN Mixer Owner’s Manual.
- \*2 Specify which digital jack is used, COAXIAL IN or OPTICAL IN. (page 33.)
- \*3 For mLAN audio inputs, you can select from any 8 channels on the bus (system).

# Function Trees

## ■ Mixer input section (mLAN Audio 1-8 Ch)

Mode button	Channel button	Page button to navigate	[+1/ENTER] [-1/EXIT] button and [VALUE] dial to set	Reference page
[MIXER 1]	[1]-[8]	Input Device/Nickname	Selects the input source (mLAN audio output plug).	24
		Audio In Plug		25
		Link	Assigns the same value for each pair (1&2, 3&4... 11&12).	25
		Gain	Adjusts the input level.	25
		AUX1	Adjusts the AUX 1 send level.	26
		AUX2	Adjusts the AUX 2 send level.	26
		Ch (Channel On/Off)	Turns the channel function on and off.	26
		Pan (Balance)	Sets the stereo position (or balance when Link switch is ON).	26
		Level	Sets the volume level.	26

## ■ Mixer input section (Digital Audio 9-10 Ch, Analog Audio 11-12 Ch)

### ■ Mixer output section (mLAN Audio output)

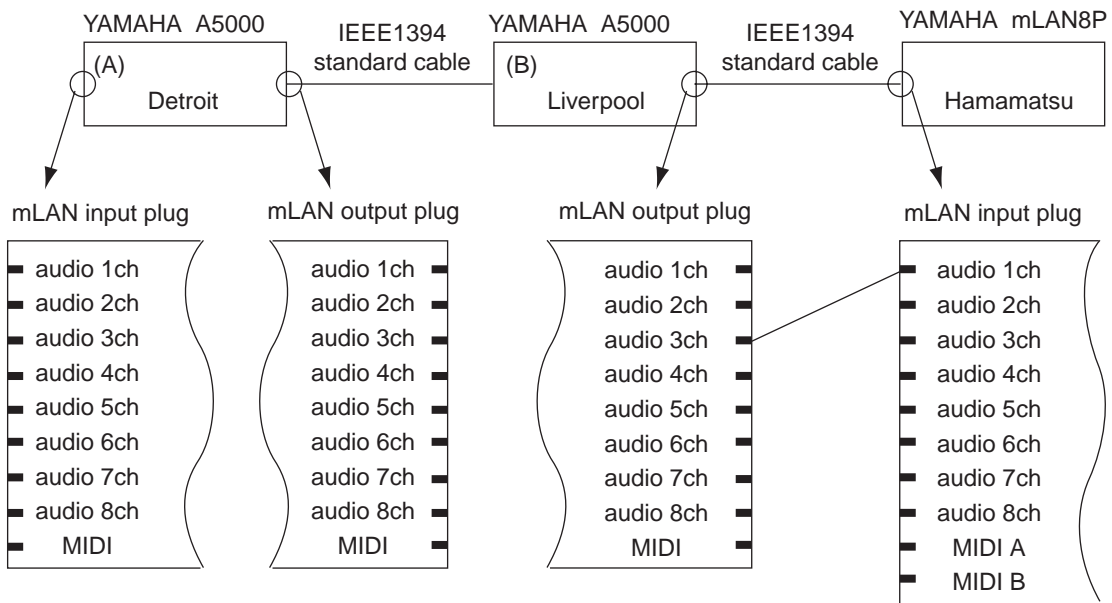
Mode button	Channel button	Page button to navigate	[+1/ENTER] [-1/EXIT] button and [VALUE] dial to set	Reference page
[MIXER 2]	[9]/[10]	Optical (Coaxial) Input L/R	Only for display purpose	24
		Link	Assigns the same value for each pair (1&2, 3&4... 11&12).	25
		Gain	Adjusts the input level.	25
		AUX1	Adjusts the AUX 1 send level.	26
		AUX2	Adjusts the AUX 2 send level.	26
		Ch (Channel On/Off)	Turns the channel function on and off.	26
		Pan (Balance)	Sets the stereo position (or balance when Link switch is ON).	26
		Level	Sets the volume level.	26
	[11]/[12]	Analog Input L/R	Only for display purpose	24
		Link	Assigns the same value for each pair (1&2, 3&4... 11&12).	25
		Gain	Adjusts the input level.	25
		AUX1	Adjusts the AUX 1 send level.	26
		AUX2	Adjusts the AUX 2 send level.	26
		Ch (Channel On/Off)	Turns the channel function on and off.	26
		Pan (Balance)	Sets the stereo position (or balance when Link switch is ON).	26
		Level	Sets the volume level.	26
	[AUX 1 (A1)] [AUX 2 (A2)]	AUX Out Device/Nickname	Selects the output destination (mLAN audio input plug).	27
		AUX Out Plug		27
		Link	Assigns the same value for AUX 1 and 2.	27
		Level	Sets the volume level.	28
	[MIX L] [MIX R]	Mix Out Device/Nickname	Selects the output destination (mLAN audio input plug).	28
		Mix Out Plug		28
		Balance	Sets the Stereo Mix Out balance.	29
		Level	Sets the volume level.	29

- MIDI section
- DIRECT OUT
- Word Clock
- System section
- Level meters

Mode button	Channel button	Page button to navigate	[+1/ENTER] [-1/EXIT] button and [VALUE] dial to set	Reference page
[MIDI/UTILITY]	[IN]	MIDI In Device/Nickname	Selects the output destination of the signal input at MIDI IN on the rear panel (mLAN MIDI input plug).	29
		MIDI In Plug		30
	[OUT-A]	MIDI Out A Device/Nickname	Selects the input source of the signal output from MIDI OUT-A on the rear panel (mLAN MIDI output plug).	30
		MIDI Out A Plug		30
	[OUT-B]	MIDI Out B Device/Nickname	Selects the input source of the signal output from MIDI OUT-B on the rear panel (mLAN MIDI output plug).	30
		MIDI Out B Plug		30
	[DIRECT]	Digital In L Device/Nickname	Digital In Plug	31
				31
		Digital In R Device/Nickname	Digital In Plug	31
				31
		A/D In L Device/Nickname	A/D In Plug	31
				31
	A/D In R Device/Nickname	A/D In Plug	31	
			31	
	[WCLK]	Wordclock Source	Sets the type of word clock.	32
		Group1 Wordclock Master	Sets the word clock master.	32
	[SYS]	Digital Input Source	Selects "Optical" or "Coaxial."	33
		Digital Output Source	Selects the signal output from DIGITAL OUT on the rear panel.	33
		Analog Output Source	Selects the signal output from ANALOG OUT on the rear panel.	33
		Set Nickname	Edits the nickname.	34
		Select Device/Nickname	Selects a device for which the nickname is edited.	34
		Set Nickname	Sets the nickname.	34
		Set Root	Sets the mLAN8P as a "root."	35
		Net Traffic	Displays the amount of data traffic on the network.	35
		Factory Set	Resets the mLAN8P to its factory default settings.	35
		Confirmation	Selects the requirement for connection.	35
	[METER]	All Ch	Displays the level meter for all channels.	36
		Ch1-8, Opti (Coax) L/R, A/D L/R	Displays the input signal level meter.	36
St Mix L/R, AUX 1/2		Displays the output signal level meter.	36	
MIDI IN, OUT-A, OUT-B		Displays whether or not the MIDI signal is input or output.	36	

# Routing I/O signals between mLAN devices

After connecting the mLAN8P to each device via cables, you can easily route and connect I/O signals between the devices without re-patching the cables. An operation common to both input and output connections is performed.



The diagram above illustrates an example of routing the output signal from audio channel 3 on a Yamaha A5000 (B) to audio channel 1 (Input 1) on the mLAN8P. Each device has a nickname, "Detroit," "Liverpool," and "Hamamatsu" from left to right.

Follow the steps below to configure this connection on the mLAN8P. For more information on other connections, refer to the notes in the steps.

1. Press [MIXER 1] to enter MIXER 1 mode. The mLAN8P displays the channel parameter in the mode previously selected.



**(NOTE)** For any cases other than the example described above, select one of the following modes, according to the desired mLAN input source or output destination. For more information, refer to the Function Tree table on pages 18 and 19.

### Input to the mLAN8P

- Input1–8...[MIXER1]
- Input9–12...[MIXER2]
- MIDI Out A/B...[MIDI/UTILITY]

### Output to other mLAN devices

- AUX1 (A1), AUX2 (A2), Mix Out L (L), Mix Out R (R)...[MIXER2]
- Digital In L, Digital In R, A/D In L, A/D In R, MIDI In...[MIDI/UTILITY]

2. To set the signal input at the mLAN8P's channel 1 (Input 1), press channel button [1].



**(NOTE)** For any cases other than the example described above, use the appropriate channel/function buttons, according to the desired input source or output destination. For more information, refer to the Function Tree table on pages 18 and 19.

3. Press the [◀ PAGE] button until the Input Device, Input Nickname, or Input Device/Nickname page appears.



**(NOTE)** The combination of “Vendor (provider)” and “Module (model)” are used to specify a “Device.” (The Vendor name may sometimes be omitted.)

### Displaying the Device/Nickname

Press the currently selected mode button repeatedly to switch the display for Device and Nickname as follows:

- Device/Nickname
- Device
- Nickname

**(NOTE)** To set the output destination (mLAN input plug) for the audio signals input to the rear panel, use the [◀ PAGE ▶] buttons to select the input source. This step is not necessary for MIDI signals.

## Connecting I/O signals between mLAN devices

- 4-1. In the “From:” field, use the [+1/ENTER] and [-1/EXIT] buttons or the [VALUE] dial to select the desired device to connect to Channel 1 on the mLAN8P. The Device/Nickname of the selected device flashes.

```

/ Input Device
/ [ ]From:YAMAHA/A5000
  
```

**(NOTE)** If you are setting the output destination, the “To:” field appears instead of the “From:” field.

- 4-2. If multiple units of the same model are connected (as in this example), both “Device” fields display “YAMAHA/A5000,” but does not indicate which is A or B. In this case, press the mode button to display the Nickname of the selected device.

**(NOTE)** First, you need to specify a Nickname for each device (page 34).  
A temporary Nickname has been set at the factory. The last three digits of the alphanumeric number (hexadecimal) indicate the device’s unique ID number.

```

/ Input Nickname
/ [ ]From:Detroit
  
```

5. Select “Liverpool (or A5000/Liverpool)” and press the [PAGE ▷] button. The mLAN8P displays the Audio In Plug page.

```

/ Audio In Plug
/ [ ]From:Unconnected
  
```

6. In the “From:” field, use the [+1/ENTER] and [-1/EXIT] buttons or the [VALUE] dial to select the desired mLAN plug to connect to Channel 1 on the mLAN8P. In this example, select “Channel 3 (AS3).”

**(NOTE)** If you are setting the output destination, the “To:” field appears instead of the “From:” field.

- The mLAN plug name flashes a few times, then the mLAN8P displays a confirmation screen for the connection changes.  
Press [ENTER] to confirm the changes.

```
 / Connection was modified
 / Press "ENTER" Key
```

- NOTE** To cancel the changes, press [EXIT].
- NOTE** If the UTILITY Confirmation is set to “Off,” a confirmation screen will not appear. Instead, the mLAN plug name flashes a few times, then the mLAN8P automatically executes the connection changes.

Now the connection is complete.

- NOTE** To specify multiple output destinations (mLAN input plug), press the [PAGE ▷] button and repeat the steps described above.
- NOTE** Using the included mLAN Patchbay enables you to make connections visually using the drag-and-drop function.
- NOTE** You can set either the “Device” parameter or the “Nickname” parameter first.

# Mode Functions

## Settings for the Mixer Input Section: [Mixer 1/2] [1] - [12]

This section explains how to route mLAN audio input signals from connected devices to the mLAN8P and how to set the Mixer function parameters.

Assign any of eight channel signals from the connected devices to channels [1] - [8], Digital In signals to channels [9] and [10], and A/D In signals to channels [11] and [12].

**(NOTE)** Use [UTILITY] mode to select Optical or Coaxial for the Digital In connection (P.33).

1. Press the [Mixer 1] or [Mixer 2] button, depending on the target channel.
2. Press the channel button that corresponds to the channel number you wish to set. You can select channels [1] - [8] for [Mixer 1] and channels [9] - [12] for [Mixer 2].
3. Use the [◀ PAGE ▶] button to select a parameter you wish to set. (Move the cursor "█" to the parameter.)

**(NOTE)** Repeatedly pressing the channel button for the currently-selected channel will switch pages (except for the [Input Device/Nickname] and [Audio In Plug] parameters.)

4. Use the [+1/ENTER] and [-1/EXIT] buttons or the [VALUE] dial to select the names of the devices and parameter values.

### [Input Device/Nickname]

Use the [Device/Nickname] parameter to specify the name of the device on the mLAN you wish to connect to the channel selected via the channel button. If you are not connecting any devices, select "Unconnected."

**A5000 (Nickname=Liverpool) is connected.**

```
 / Input Device/Nickname
 / [█]From: A5000/Liverpool
```

**No device is connected.**

```
 / Input Device/Nickname
 / [█]From: Unconnected
```

The screen is different for [Mixer 2] channels [9] - [12] (Digital In, A/D In).

**Display for A/D Input L ([Mixer 2] channel [11])**

```
 / / Analog Input L Channel
 / / [█]
```



[Audio In Plug]

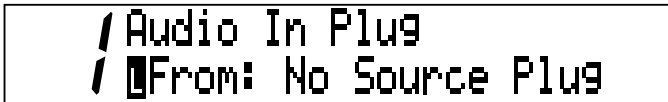
Select an input “Plug” for connection from the mLAN Plugs (virtual plugs) on the selected device. If the device does not have an appropriate mLAN Plug, “No Source (Destination) Plug” appears.

This screen does not appear for [Mixer 2] channels [9] - [12] (Digital In, A/D In).

A5000’s “Assignable 1” is connected.



No appropriate Plug was found.



[Link (Link Switch)]

When this parameter is turned on, all channels are paired using combinations of 1&2, 3&4, 5&6, 7&8, 9&10, and 11&12. Both channels of each pair will have the same parameter settings, except for the [Input Device/Nickname] and [Audio In Plug] parameters.

Value: On, Off



**(NOTE)** The parameter value of the channel for which the Link Switch is turned on will be applied to both channels. When the Link Switch is On, the Pan parameter changes to the Balance parameter.

[Gain]

This parameter enables you to adjust the input signal level in 6dB steps.

Value: -6dB, 0dB, +6dB, +12dB, +18dB, +24dB



## Mode Functions

### [Aux 1/2]

This parameter enables you to set the volume level of the input audio signal that is sent to AUX 1 and 2. The signal sent to AUX 1 and 2 can be assigned to any channel on the mLAN.

**Value:**  $-\infty$  dB (minimum send level) - +6 dB (maximum send level)

/	▶Aux1	Aux2
/	+ 5.8dB	+ 6.0dB

### [Ch (Channel On/Off)]

This parameter turns channels On and Off. With the Off setting, the corresponding channels will be muted.

**Value:** On, Off

/	▶Ch	Pan	Level
/	On	Center	- 4.6dB

### [Pan/Balance]

This parameter enables you to set the stereo image of each channel. When you raise the L value, the stereo position shifts to left. When you raise the R value, the stereo position shifts to right.

If the Link Switch is turned On, this parameter becomes the Balance parameter and both odd and even channels have the same value.

**Value:** L63 - R63 (for both Pan and Balance)

/	Ch	▶Pan	Level
/	On	Center	- 4.6dB

When the Link Switch is turned On:

/	Ch	▶Balance	Level
/	On	Center	- 4.6dB

### [Level]

This parameter enables you to set the volume level of the input signal that is sent to the output.

**Value:**  $-\infty$  dB (minimum send level) - 0 dB (maximum send level)

/	Ch	Pan	▶Level
/	On	Center	- 4.6dB

## Settings for the Mixer Output Section: [Mixer 2] - [AUX 1/2]

You can assign the AUX 1/2 signals (routed in the Mixer Input section) to any mLAN channel.

1. Press the [Mixer 2] button.
2. Press the [AUX 1] or [AUX 2] button.
3. Use the [◀ PAGE ▶] button to select a parameter you wish to set.
4. Use the [+1/ENTER] and [-1/EXIT] buttons or the [VALUE] dial to select the names of the devices and parameter values.

### [AUX Out Device/Nickname]

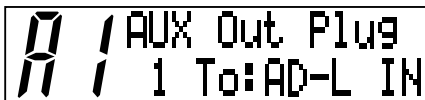
Use the [AUX Out Device/Nickname] parameter to specify the name of the device you wish to assign as the destination of the AUX signals. If you are not connecting any devices, select "Unconnected."



A 1 AUX Out Device/Nickname  
1 To: A5000/Liverpool

### [AUX Out Plug]

Select an AUX send "Plug" from the mLAN Plugs (virtual plugs) on the selected device. If the device does not have an appropriate mLAN Plug, "No Source (Destination) Plug" appears.



A 1 AUX Out Plug  
1 To: AD-L IN

**(NOTE)** You can select multiple destinations. If multiple devices are connected to the network, the [Device/Nickname] and [Plug] parameter screens indicate the number of connected devices in the lower left corner of the display. When you press the [PAGE ▶] button repeatedly, this number increments and the parameter setting changes accordingly.



A 2 AUX Out Device/Nickname  
2 To: Unconnected

### [Link (Link Switch)]

When this switch is turned on, the level settings for AUX 1 and AUX 2 become the same. The parameter value of the channel for which the Link Switch is turned on will be applied to the other channel.

When the Link Switch is turned on, "☐" appears in the lower left corner of the display.

**Value: On, Off**

## Mode Functions

### [Level]

This parameter enables you to set the volume level of the AUX signal sent to the output.

Value: 0dB - -∞ dB



## Settings for the Mixer Output Section: [Mixer 2] - [L] [R]

You can assign audio input signals (routed in the Mixer Input section) to any mLAN channel.

1. Press the [Mixer 2] button.
2. Press the [L] or [R] button.
3. Use the [◀ PAGE ▶] button to select a parameter you wish to set.
4. Use the [+1/ENTER] and [-1/EXIT] buttons or the [VALUE] dial to select the names of the devices and parameter values.

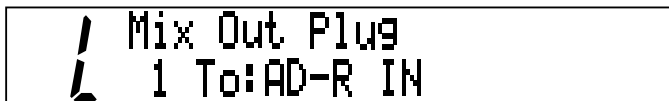
### [Mix Out Device/Nickname]

Use the [Device/Nickname] parameter to specify the name of the module on the mLAN you wish to assign as the destination of the audio signals (routed from the Mixer input section). If you are not connecting any modules, select "Unconnected."



### [Mix Out Plug]

Select a "Plug" from the mLAN Plugs (virtual plugs) on the selected device. If the device does not have an appropriate mLAN Plug, "No Source (Destination) Plug" appears.



**(NOTE)** You can select multiple destinations. If multiple devices are connected to the network, the [Device/Nickname] and [Plug] parameter screens indicate the number of connected devices in the lower left corner of the display. When you press the [PAGE▶] button repeatedly, this number increments and the parameter setting changes accordingly.



**[Balance (Output Balance)]**

This parameter enables you to set the stereo balance of the stereo audio output signal. The default value is 0 (Center).

When you raise the L value, the stereo position shifts to left. When you raise the R value, the stereo position shifts to right. The setting for one channel will also be applied to the other channel.

**Value: L63 - R63**

**[Level]**

This parameter enables you to set the volume level of the stereo output signal.

**Value: 0dB -  $-\infty$  dB**

<b>L</b>	<b>Balance</b>	<b>Level</b>
	<b>Center</b>	<b>-49.3dB</b>

## Settings for the MIDI Section

Follow the steps below to connect the mLAN device and the MIDI device connected to the MIDI IN/OUT terminals on the rear panel of the mLAN8P.

1. Press the [MIDI/UTILITY] button.
2. Press the [IN] or [OUT-A/B] button.
3. Use the [ $\triangleleft$  PAGE  $\triangleright$ ] button to select a parameter you wish to set.
4. Use the [+1/ENTER] and [-1/EXIT] buttons or the [VALUE] dial to select the names of the devices and parameter values.

### ① [MIDI/UTILITY] - [IN]

You can route the MIDI signals from the device connected to the MIDI IN terminal on the rear panel to any channel on the mLAN.

**[MIDI In Device/Nickname]**

Use the [Device/Nickname] parameter to specify the name of the device you wish to assign as the destination of the MIDI signals from the device connected to the MIDI IN terminal. If you are not connecting any devices, select "Unconnected."

<b>MIDI In Device/Nickname</b>
<b>1 To: A5000/Liverpool</b>

## Mode Functions

---

### [MIDI In Plug]

Select a "Plug" (that sends out the MIDI signal) from the mLAN Plugs (virtual plugs) on the selected device. If the device does not have an appropriate mLAN Plug, "No Source (Destination) Plug" appears.

```
MIDI In Plug  
1 To:MIDI IN
```

**(NOTE)** You can select multiple destinations. If multiple devices are connected to the network, the [Device/Nickname] and [Plug] parameter screens indicate the number of connected devices in the lower left corner of the display. When you press the [PAGE▷] button repeatedly, this number increments and the parameter setting changes accordingly.

### ② [MIDI/UTILITY] - [OUT-A/B]

You can route the MIDI signals from any channel on the mLAN to the device connected to the MIDI OUT A/B terminal on the rear panel of the mLAN8P.

### [MIDI Out A/B Device/Nickname]

Use the [Device/Nickname] parameter to specify the name of the device (on the mLAN) that outputs MIDI signals to the MIDI OUT A/B terminals of the mLAN8P. If you are not connecting any devices, select "Unconnected."

```
MIDI Out A Dev/Nickname  
From:A5000/Liverpool
```

### [MIDI Out A/B Plug]

Select a "Plug" (that sends out the MIDI signal) from the mLAN Plugs (virtual plugs) on the selected device. If the device does not have an appropriate mLAN Plug, "No Source (Destination) Plug" appears.

```
MIDI Out A Plug  
From:MIDI OUT
```

## Utility Section

The Utility section enables you to set various parameters for the Digital In/Out, A/D In and D/A Out connections, word clock, and system.

### ① [MIDI/UTILITY] - [DIRECT]

Follow the steps below to route signals from Digital In and A/D In directly to any mLAN channel, while bypassing the Mixer section.

1. Press the [MIDI/UTILITY] button.
2. Press the [DIRECT] button.
3. Use the [◀ PAGE ▶] button to select a parameter you wish to set.
4. Use the [+1/ENTER] and [-1/EXIT] buttons or the [VALUE] dial to select the names of the devices and parameter values.

#### [Digital In (A/D In) L/R Device/Nickname]

Use the [Device/Nickname] parameter to specify the name of the device on the mLAN you wish to assign as the destination of the Digital In and A/D In signals. If you are not connecting any devices, select "Unconnected."

#### [Plug]

Select a "Plug" (that sends out the MIDI signal) from the mLAN Plugs (virtual plugs) on the selected device. If the device does not have an appropriate mLAN Plug, "No Source (Destination) Plug" appears.

**NOTE** You can select multiple destinations. If multiple devices are connected to the network, the [Device/Nickname] and [Plug] parameter screens indicate the number of devices connected in the lower left corner of the display. When you press the [PAGE▶] button repeatedly, this number on the screen increments and the parameter setting changes accordingly.

### ② [MIDI/UTILITY] - [WCLK]

Follow the steps below to make word clock-related settings, which include the word clock type, word clock master and slave, sync frequency (Fs44.1kHz or Fs48kHz) of each node.

1. Press the [MIDI/UTILITY] button.
2. Press the [WCLK] button.
3. Use the [◀ PAGE ▶] button to select a parameter you wish to set.
4. Use the [+1/ENTER] and [-1/EXIT] buttons or the [VALUE] dial to select the names of the devices and parameter values.

## Mode Functions

---

### [Wordclock Source]

This parameter is used to select the method of setting the mLAN8P's word clock. If you have selected "Manual," use the [Device/Nickname] parameter to specify the name of the device (on the mLAN) that you wish to assign as the word clock master.

**Value: Internal 44k, Internal 48k, External Coaxial/Oprical, Auto,  
Group 1 Master, Manual**

When the internal clock (44.1k) is selected:

```

// Wordclock Source
// Internal 44k
  
```

**(NOTE)** The default setting is "Auto." If you have selected "Auto" or "Manual," the name of the master device appears.

The selected value flashes a few times and the system automatically displays the confirmation message.

```

// Are You Sure?
// Press "ENTER" Key
  
```

To confirm the changes, press the [+1/ENTER] button. To cancel the operation, press the [-1/EXIT] button.

### [Group 1 Wordclock Master]

You can assign one device as the word clock master and the rest of the devices as the slaves. Press the [+1/ENTER] or [-1/EXIT] button to select the Device/Nickname of the device (on mLAN) that you wish to assign as the word clock master.

```

// Group1 Wordclock Master
// A5000/Liverpool
  
```

The Device/Nickname of the selected device flashes a few times, then the mLAN8P displays the following confirmation screen.

```

// Are You Sure?
// Press "ENTER" Key
  
```

To confirm the changes, press the [+1/ENTER] button. To cancel the operation, press the [-1/EXIT] button.



## ③ [MIDI/UTILITY] - [SYS]

Follow the steps below to make system-related settings.

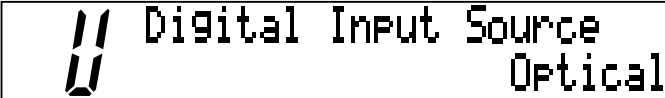
1. Press the [MIDI/UTILITY] button.
2. Press the [SYS] button.
3. Use the [◀ PAGE ▶] button to select a parameter you wish to set.
4. Use the [+1/ENTER] and [-1/EXIT] buttons or the [VALUE] dial to select the names of the devices and parameter values.

**[Digital Input Source]**

This parameter is used to select “Optical” or “Coaxial” on the mLAN8P’s rear panel to input Digital In signals.

**Value:** Optical, Coaxial

**When “Optical” is selected:**



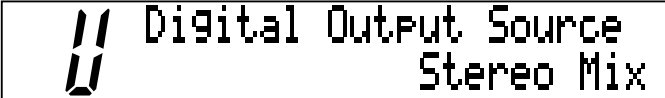
The LCD display shows the parameter name "Digital Input Source" on the top line and the selected value "Optical" on the bottom line. To the left of the text is a vertical bar with two slanted lines, resembling a stylized "U" or a list marker.

**[Digital/Analog Output Source]**

This parameter is used to select signals output to ANALOG OUT and Digital Out on the rear panel.

**Value:** Stereo Mix, AUX 1/2, Digital In, A/D In

**When “Stereo Mix” is selected:**



The LCD display shows the parameter name "Digital Output Source" on the top line and the selected value "Stereo Mix" on the bottom line. To the left of the text is a vertical bar with two slanted lines, resembling a stylized "U" or a list marker.

**(NOTE)** The signal assigned to ANALOG OUT is also output to the headphones (PHONES).

## Mode Functions

---

### [Set Nickname]

#### [Select Device/Nickname]

Press the [+1/ENTER] button in the [Set Nickname] screen to display this parameter. Select the Device/Nickname of the device on the mLAN whose [Nickname] you wish to change.

Use the [+1/ENTER], [-1/EXIT] buttons or the [VALUE] dial to select the Device/Nickname of the device you wish to change. The Device/Nickname will flash.

Press the [PAGE ▷] button to display the following screen.



```
|| Set Nickname
   "Liverpool█"
```

Use the [◀ PAGE ▷] button to move the cursor and use the [+1/ENTER], [-1/EXIT] buttons or the [VALUE] dial to change the characters.

Move the cursor to the right end and press the [PAGE ▷] button to display the confirmation screen. (This confirmation screen appears regardless of the setting of the Confirmation in Utility mode.)



```
|| Press "ENTER" key
   "Liverpool"
```

Press the [+1/ENTER] button to confirm the nickname.

Press the [-1/EXIT] button to exit the screen without making any changes.

**[mLAN8P Set Root]**

This parameter is used to assign the mLAN8P as the root of the mLAN.

```

  U mLAN8P Set Root
    Press "ENTER" key.
  
```

Press the [+1/ENTER] button to display the screen to confirm the setting.  
 Press the [+1/ENTER] button again to specify the mLAN8P as the root.  
 Press the [-1/EXIT] button to exit the screen without making any changes.

**[Net Traffic]**

This screen indicates the amount of data being handled on the mLAN by a percentage and a graph.

```

  U Net Traffic
    0% |
  
```

**[Factory Set]**

This parameter enables you to reset the settings on the mLAN8P to its factory default settings.

```

  U Factory Set
    Press "ENTER" key.
  
```

Press the [+1/ENTER] button to display the screen to confirm the setting.  
 Press the [+1/ENTER] button again to specify the mLAN8P as the root.  
 Press the [-1/EXIT] button to exit the screen without making any changes.

**(NOTE)** The Nickname setting will not be reset to the factory default.

**[Confirmation]**

This parameter is used to set the requirement for connecting the mLAN8P and I/O signals.

**Value:** On, Off

```

  U Confirmation
                                On
  
```

When it is On, the connection is made when you confirm the destination.  
 When it is Off, the connection is made when you select the destination.

## Mode Functions

### ④ [MIDI/UTILITY] - [METER]

Follow the steps below to display the level meters. The “C” mark appears when the signal clips.

1. Press the [MIDI/UTILITY] button.
2. Press the [METER] button.
3. Use the [◀ PAGE ▶] button to select the level meter group you wish to view (All Ch, Input, Output, MIDI).
4. Use the [+1/ENTER] and [-1/EXIT] buttons or the [VALUE] dial to select the channel to view.

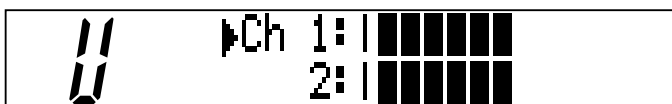
“All Ch” (All Channels) is selected:



You can view all channels simultaneously to see if any signal is input to the Mixer Input section. You can also check the outputs from the Mixer section. The LCD displays Ch1-8 (Input 1-8), Op/Co (Digital In), Ad (A/D In), and Mix/AUX (from left to right). To switch between Mix (Stereo Mix output) and AUX, use the [+1/ENTER] and [-1/EXIT] buttons or the [VALUE] dial.

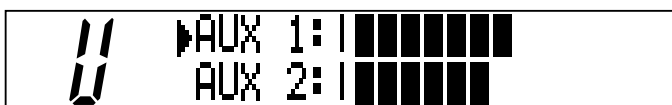
“Input” is selected:

e.g., Ch1 and Ch2

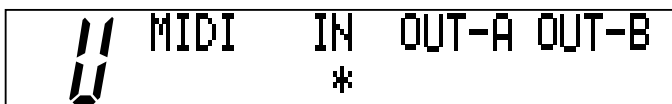


“Output” is selected:

e.g., AUX1/2



“MIDI” is selected:



An asterisk (“\*”) flashes during MIDI signal transmission and reception.

**(NOTE)** If the mLAN8P receives MIDI signals at the MIDI IN terminal on the rear panel, but does not output mLAN MIDI or audio signals to another mLAN device, an asterisk (“\*”) will not appear. On the other hand, if the mLAN8P is a word clock master, an asterisk flashes when the unit receives MIDI signals, regardless of whether it is outputting mLAN MIDI/audio signals.

# LED/LCD Messages

## LED messages

Top panel LED	Function	Status
LOCK (left)	Indicates the "lock" status of the signal input at Digital In.	Green ... Lock, Off ... Unlock
LOCK (right)	Indicates the "lock" status of the mLAN signal.	Green ... Lock, Off ... Unlock
DATA	Reports interruption of the sound due to connection or removal of the device on the bus, changes to the connection, out of word clock sync, etc.	Red ... Sound is interrupted.
RT/ERR	Indicates root and error.	Red/orange ... An error has occurred. Green ... The mLAN8P is a "root."

While the mLAN8P (scanning the connected devices, four LEDs flash in green.

Rear panel LED	Function	Status
mLAN1-3	Indicates if sound from sources other than the device being disconnected is interrupted.	Red ... Sound is interrupted. Green ... Sound is not interrupted. (leaf node)
RT/ERR	Indicates root and error.	Red/orange ... An error has occurred. Green ... The mLAN8P is a "root."
ACTIVE	Indicates the status of the relay function.	Blue ... The relay function is enabled.

## Error messages

Rear panel LED				LCD display	Cause	Action
3	2	1	RT			
		red	orange	1394: Topological Loop	The topology of the connected devices creates a loop.	Check to see if any part of the connection creates a loop.
	red		orange	1394: Cycle Lost	Cycle Start Packet is not transmitted to the bus. (Audio/MIDI data cannot be transmitted.)	Remove the malfunctioning device.
	red	red	orange		A malfunctioning device exists on the bus.	Remove the malfunctioning device.
		green	orange	Over 16 Hops Limit	The number of hops exceeds 16.	Check the number of hops.
	green		orange		The power to the bus is insufficient.	Add a power provider to the bus, or remove a power consumer from the bus.
		red	red	MIDI: Framing Error	MIDI IN transfer rate is not correct.	Check the MIDI transfer rate setting.
	red		red	MIDI: Rx Buffer Full	Data transmission exceeds the MIDI transfer rate.	Check to see if the transmitting device is operating properly.
			red		The sound is interrupted for some reason, or the devices are not syncing.	Check the word clock setting on the mLAN8P and the source.

# Specifications

- mLAN** : IEEE1394 High Performance Serial Bus  
Data Rate S200, Isochronous Resource Manager capable, Bus Manager capable, Connection Manager  
Conforms to IEC61883-6 Audio and Music Protocol  
Digital Audio 8in/8out, MIDI 2in/1out
- Sampling rate** : 44.1kHz, 48kHz
- Analog I/O** : Analog In(A/D Converter)  
Frequency Response : 5Hz-20KHz(fs=44.1KHz), 5Hz-21KHz(fs=48KHz)  
Analog Out(D/A Converter)  
Frequency Response : 5Hz-20KHz(fs=44.1KHz), 5Hz-21KHz(fs=48KHz)  
Dynamic Range 95dB(JIS-C)  
THD Less than 0.003%(0dBm)  
Maximum Output +3dBV(+5dBm)
- Functions** : Mixer Input (x12)  
Link (\*1), ATT, Gain (\*1), Phase, Delay (\*2), EQ(4Band) (\*2), Dynamics (\*2), AUX Send 1, 2 (\*1), Pre/Post 1, 2, Channel on/off (\*1), Meter (\*1), Pan (\*1), Fader (\*1)  
: Output  
Effect Return (level, pan, mute), AUX Master 1, 2 (\*1), AUX Link (\*1), Level (\*1), Balance (\*1)  
: Effect  
Effect type/parameter  
\*1 These parameters can be set on the mLAN8P.  
\*2 Up to eight channels
- Controls** : INPUT VOLUME, power switch (PUSH ON/STANDBY), PHONES VOLUME, Mode buttons (MIDI/UTILITY, MIXER 1 & 2), Channel/Function buttons (x8), PAGE button (◀ / ▶), +1/ENTER button, -1/EXIT button, VALUE dial, CONTRAST knob
- Jacks** : PHONES, ANALOG IN (1/L, 2/R), ANALOG OUT (1/L, 2/R), MIDI IN, MIDI OUT (A, B), COAXIAL IN/OUT, OPTICAL IN/OUT, SERIAL I/O, mLAN IEEE1394 (1, 2, 3), DC IN
- Display**  
Top panel : LCD (24 x 2 lines + 2 digits [7 segments], back-lit), LOCK LED (x2), DATA LED, RT/ERR LED  
Rear panel : mLAN 1/2/3 LED, ACTIVE LED, RT/ERR LED
- Power supply** : Power supply adaptor PA-5C
- Power consumption**  
: 17 W
- Dimensions** : 220(W) x 206(D) x 71(H)[mm]
- Weight** : 2.0kg

Specifications and descriptions in this owner's manual are for information purposes only. Yamaha Corp. reserves the right to change or modify products or specifications at any time without prior notice. Since specifications, equipment or options may not be the same in every locale, please check with your Yamaha dealer.

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## FCC INFORMATION (U.S.A.)

### 1. IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

### 2. IMPORTANT:

When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

### 3. NOTE:

This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices. Compliance with FCC

regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to co-axial type cable.

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact Yamaha Corporation of America, Electronic Service Division, 6600 Orangethorpe Ave, Buena Park, CA90620

The above statements apply ONLY to those products distributed by Yamaha Corporation of America or its subsidiaries.

\* This applies only to products distributed by YAMAHA CORPORATION OF AMERICA.

(class B)

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Apparaten kopplas inte ur växelströmskällan (nätet) så länge som den är ansluten till vägguttaget, även om själva apparaten har stängts av.

**ADVARSEL:** Netspændingen til dette apparat er IKKE afbrudt, så længe netledningen sidder i en stikkontakt, som er tændt — også selvom der er slukket på apparatets afbryder.

**VAROITUS:** Laitteen toisiopiiriin kytketty käyttökytkin ei irroita koko laitetta verkosta.

(standby)

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