



NUAGE

| | |
|-------------------------|---------------------------------------|
| NUAGE I/O (16D) | AUDIO INTERFACE Nio500-D16 |
| NUAGE I/O (16A) | AUDIO INTERFACE Nio500-A16 |
| NUAGE I/O (8A8D) | AUDIO INTERFACE Nio500-A8D8 |

Operation Manual
Benutzerhandbuch
Fonctions Détaillées
Manual de Operaciones
Manuale Operativo
Руководство пользователя
使用说明书
オペレーションマニュアル

EN
DE
FR
ES
IT
RU
ZH
JA

English

Deutsch

Français

Español

Italiano

Русский

中文

日本語

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)

COMPLIANCE INFORMATION STATEMENT (DECLARATION OF CONFORMITY PROCEDURE)

Responsible Party : Yamaha Corporation of America
Address : 6600 Orangethorpe Ave., Buena Park, Calif. 90620
Telephone : 714-522-9011
Type of Equipment : Audio Interface
Model Name : Nio500-D16/Nio500-A16/Nio500-A8D8

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- 1) this device may not cause harmful interference, and
- 2) this device must accept any interference received including interference that may cause undesired operation.

See user manual instructions if interference to radio reception is suspected.

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

(FCC DoC)

이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

(class b korea)

IMPORTANT NOTICE FOR THE UNITED KINGDOM

Connecting the Plug and Cord

WARNING: THIS APPARATUS MUST BE EARTHED IMPORTANT. The wires in this mains lead are coloured in accordance with the following code:

| | |
|------------------|-----------|
| GREEN-AND-YELLOW | : EARTH |
| BLUE | : NEUTRAL |
| BROWN | : LIVE |

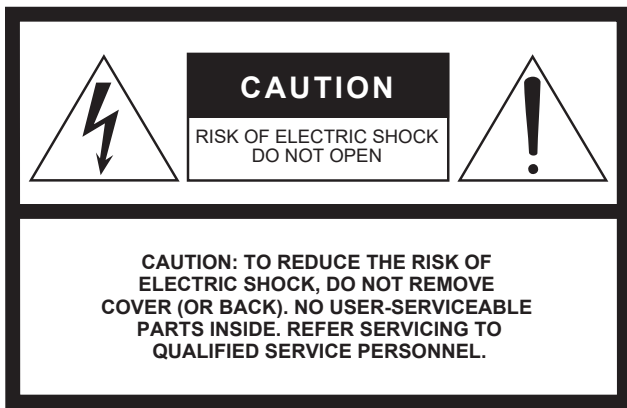
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured GREEN-and-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol  or colored GREEN or GREEN-and-YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

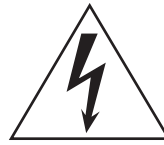
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

(3 wires)



The above warning is located on the top of the unit.

Explanation of Graphical Symbols



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

IMPORTANT SAFETY INSTRUCTIONS

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.
- 12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

(UL60065_03)

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| GNU GENERAL PUBLIC LICENSE | at the end of the book |

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

* Please keep this manual 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:

Power supply/Power cord

- Do not place the power 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.
- Only use the voltage specified as correct for the device. The required voltage is printed on the name plate of the device.
- Use only the supplied power cord/plug.
If you intend to use the device in an area other than in the one you purchased, the included power cord may not be compatible. Please check with your Yamaha dealer.
- Check the electric plug periodically and remove any dirt or dust which may have accumulated on it.
- Be sure to connect to an appropriate outlet with a protective grounding connection. Improper grounding can result in electrical shock.

Do not open

- This device contains no user-serviceable parts. Do not open the device or attempt to disassemble the internal parts or modify them in any way. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified Yamaha service personnel.

Water warning

- Do not expose the device to rain, use it near water or in damp or wet conditions, or place on it any containers (such as vases, bottles or glasses) containing liquids which might spill into any openings. If any liquid such as water seeps into the device, turn off the power immediately and unplug the power cord from the AC outlet. Then have the device inspected by qualified Yamaha service personnel.
- Never insert or remove an electric plug with wet hands.

Fire warning

- Do not put burning items, such as candles, on the unit. A burning item may fall over and cause a fire.

If you notice any abnormality

- When one of the following problems occur, immediately turn off the power switch and disconnect the electric plug from the outlet. Then have the device inspected by Yamaha service personnel.
 - The power cord or plug becomes frayed or damaged.
 - It emits unusual smells or smoke.
 - Some object has been dropped into the instrument.
 - There is a sudden loss of sound during use of the device.



CAUTION

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

Power supply/Power cord

- When removing the electric plug from the device or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.
- Remove the electric plug from the outlet when the device is not to be used for extended periods of time, or during electrical storms.

Location

- Do not place the device in an unstable position where it might accidentally fall over.
- Do not block the vents. This device has ventilation holes at the sides to prevent the internal temperature from becoming too high. In particular, do not place the device on its side or upside down. Inadequate ventilation can result in overheating, possibly causing damage to the device(s), or even fire.
- Do not place the device in a location where it may come into contact with corrosive gases or salt air. Doing so may result in malfunction.
- Before moving the device, remove all connected cables.

- When setting up the device, make sure that the front-panel power switch can be easily turned ON/OFF. If some trouble or malfunctions occurs, immediately turn off the power switch and disconnect the plug from the outlet.
- If the device is mounted in an EIA standard rack, carefully read the section "Precautions for Rack Mounting" on page 8. Inadequate ventilation can result in overheating, possibly causing damage to the device(s), malfunction, or even fire.

Connections

- Before connecting the device to other devices, turn off the power for all devices. Before turning the power on or off for all devices, set all volume levels to minimum.

Maintenance

- Remove the power plug from the AC outlet when cleaning the device.

Handling caution

- Do not insert your fingers or hands in any gaps or openings on the device (vents, etc.).
- Avoid inserting or dropping foreign objects (paper, plastic, metal, etc.) into any gaps or openings on the device (vents, etc.) If this happens, turn off the power immediately and unplug the power cord from the AC outlet. Then have the device inspected by qualified Yamaha service personnel.
- Do not rest your weight on the device or place heavy objects on it, and avoid use excessive force on the buttons, switches or connectors.

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

European Models

Inrush Current based on EN 55103-1:2009

2.0 A (on initial switch-on)

2.0 A (after a supply interruption of 5s)

Conforms to Environments: E1, E2, E3 and E4

The model number, serial number, power requirements, etc., may be found on or near the name plate, which is at the top of the unit. You should note this serial number in the space provided below and retain this manual as a permanent record of your purchase to aid identification in the event of theft.

Model No.

Serial No.

NOTICE

To avoid the possibility of malfunction/ damage to the product, damage to data, or damage to other property, follow the notices below.

Handling and Maintenance

- Do not use the device in the vicinity of a TV, radio, stereo equipment, mobile phone, or other electric devices. Otherwise, the device, TV, or radio may generate noise.
- Do not expose the device to excessive dust or vibration, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day), in order to prevent the possibility of panel disfiguration, unstable operation, or damage to the internal components.
- Do not place vinyl, plastic or rubber objects on the device, since this might discolor the panel.
- When cleaning the device, use a dry and soft cloth. Do not use paint thinners, solvents, cleaning fluids, or chemical-impregnated wiping cloths.
- Condensation can occur in the device due to rapid, drastic changes in ambient temperature — when the device is moved from one location to another, or air conditioning is turned on or off, for example. Using the device while condensation is present can cause damage. If there is reason to believe that condensation might have occurred, leave the device for several hours without turning on the power until the condensation has completely dried out.
- Always turn the power off when the device is not in use.

Information

About copyrights

Copying of the commercially available musical data including but not limited to MIDI data and/or audio data is strictly prohibited except for your personal use.

About this manual

- The illustrations and LCD screens as shown in this manual are for instructional purposes only, and may appear somewhat different from those on your device.
- Windows is a registered trademark of Microsoft® Corporation in the United States and other countries.
- Apple, Mac and Macintosh are trademarks of Apple Inc., registered in the U.S. and other countries.
- The company names and product names in this manual are the trademarks or registered trademarks of their respective companies.
- To view PDF files, you will need to install Adobe Reader on your computer. You can download the latest Adobe Reader at the following website.
<http://www.adobe.com>

About this product

The input/output level (Max. before clip) specification can be customized to +22dBu, +20dBu, +18dBu, +15dBu. (A fee will be charged for this procedure.) For details, contact your Yamaha dealer.

Introduction

A Message from the Development Team

Thank you for choosing a NUAGE series NUAGE I/O unit.

The NUAGE series is a professional music and sound production system based around Steinberg Nuendo digital audio workstation software.

Over the 20 years that have elapsed since Yamaha began offering DM and O series digital consoles and other equipment for post production and music production, work schedules have become notably tighter with less time available for individual projects. The NUAGE series was created to respond to the deadline crunch with an optimized working environment that provides unprecedented efficiency as well as final quality.

The core of the system is Steinberg Nuendo, a DAW that is acclaimed for its outstanding workflow efficiency and sonic quality. The NUAGE MASTER (Ncs500-CT control surface) and NUAGE FADER (Ncs500-FD control surface) units were specifically developed to support and enhance Nuendo operability. NUAGE MASTER provides a comprehensive concentration of post production controls in an efficient, easy-access layout. NUAGE FADER integrates seamlessly with the Nuendo mixer window, providing an intuitive hands-on extension to the software.

And then there's the sound. NUAGE I/O audio interface units have been designed to deliver the superior Nuendo sound without compromise. Three models are currently available: the Nio500-D16 with 16 channels of AES/EBU input and output, the Nio500-A16 with 16 channels of analog input and output, and the Nio500-A8D8 with a combination of 8 channels of analog and 8 channels of AES/EBU input and output. The NUAGE I/O units connect to computers running Nuendo via the highly expandable Dante digital audio protocol, allowing multiple NUAGE I/O units to be flexibly incorporated in a wide variety of system configurations. Monitoring latency is near zero for comfortable, stress-free monitoring while recording, even when multiple I/O units are used with cascaded monitor buses. The development team was adamant that near-zero latency would be essential to allow musicians and artists to deliver their full creative and performance potential.

Stability and dependability are essential in any professional working environment. In addition to minimizing latency, the DANTE ACCELERATOR (AIC128-D audio interface card) used in conjunction with the NUAGE I/O units offers stable, reliable communication between I/O units and computer while allowing fast recovery from any problems that do arise. You can concentrate on the job at hand, secure in the knowledge that you'll be able to deliver great results on time.

Thanks to experience with the DM and O series, intensive research, and invaluable feedback from our users, it is our great pleasure to be able to deliver a new level of production support in the NUAGE series. Our technology is there to give you unrestricted creative freedom, and we sincerely hope that the NUAGE series plays a role in your growth and continued success.

The Yamaha NUAGE series development team.

Included Accessories

- **Power cable**
- **Ferrite core**
- **Rubber stoppers (4)**
- **Operation Manual (this book)**

NOTE

- Attach the ferrite core to prevent electromagnetic interference when using the [CASCADE] connector. Fasten it to the Ethernet cable near the [CASCADE OUT] connector.
- When using the unit on a slippery surface, attach the rubber stoppers to the specified location on the bottom panel of this device to prevent sliding.

Items to Have Ready

- **Gigabit Ethernet Switch**

A network switch that features various functions for controlling and monitoring the network (such as QoS, the ability to assign priority to data flows — e.g., clock synchronization or audio transmission on certain data circuits — and IGMP Snooping, the ability to filter unnecessary multi-cast traffic) is recommended.

- **Ethernet cable**

A straight type (STP) of CAT5e or better is recommended.

- **TOOLS for NUAGE**

TOOLS for NUAGE is a software program which is necessary when connecting the device to a computer. When you install TOOLS for NUAGE, NUAGE Workgroup Manager, NUAGE Extension, and NUAGE PT Bridge (Mac only) will be installed. NUAGE Workgroup Manager is an application that allows control over the devices and DAW software applications as a Workgroup on NUAGE system. NUAGE Extension is a program that allows you to link the device with Nuendo (for versions which support the link function). NUAGE PT Bridge is a program that allows you to control Pro Tools (Mac only) using NUAGE FADER and NUAGE MASTER (with the exception of certain functions).

TOOLS for NUAGE is available on the following website.
<http://www.yamahaproaudio.com/downloads/>

Precautions for Rack Mounting

This unit is rated for operation at ambient temperatures ranging from 0 to 40 degrees Celsius. When mounting the unit with other device(s) in an EIA standard equipment rack, internal temperatures can exceed the specified upper limit, resulting in impaired performance or failure. When rack mounting the unit, always observe the following requirements to avoid heat buildup:

- When mounting the unit in a rack with devices such as power amplifiers that generate a significant amount of heat, leave more than 1U of space between NUAGE I/O and other equipment. Also either leave the open spaces uncovered or install appropriate ventilating panels to minimize the possibility of heat buildup.
- To ensure sufficient airflow, leave the rear of the rack open and position it at least 10 centimeters from walls or other surfaces. If the rear of the rack can't be left open, install a commercially available fan or similar ventilating option to secure sufficient airflow. If you've installed a fan kit, there may be cases in which closing the rear of the rack will produce a greater cooling effect. Refer to the rack and/or fan unit manual for details.

Connection between the Device and a Computer

The device can be connected to a computer in one of two ways: with or without the DANTE ACCELERATOR. Using the DANTE ACCELERATOR gives you the added advantages of lower latency, using more channels, and utilization of a redundant network. The descriptions in this manual assume you are using the DANTE ACCELERATOR.

To connect the device and a computer with the DANTE ACCELERATOR, install the Dante Controller to the computer. Dante Controller is a software application that allows configuration and audio routing of the Dante network.

When not using the DANTE ACCELERATOR, install the Dante Controller and DVS (Dante Virtual Soundcard). Dante Controller is a software application that allows configuration and audio routing of the Dante network. DVS is a software application that uses the computer as a Dante-enabled device.

Dante Controller is available on the following website.

<http://www.yamahaproaudio.com/>

DVS is commercially available on the following website.

<http://www.audinate.com/>

For details on Dante Controller and DVS, refer to the respective manuals.

How to Read the Manual

Conventions

• Brackets and quotation marks

Brackets ([]) and quotation marks (" ") around names and phrases in this manual are used to indicate the following.

| Mark | Indication target |
|------|--|
| [] | <ul style="list-style-type: none"> • Buttons, switches, indicators, terminals, etc. on the device. • Keys on a computer keyboard. |
| " " | <ul style="list-style-type: none"> • Menus, buttons, tabs, areas, windows, etc. on a computer window or software window. • Excerpts of messages, function names, terms in the manual, etc. |

• Windows or Mac

When the procedures or explanations are specific to only one of the platforms, Windows or Mac, this is properly indicated in the manual. When the platforms do not appear, procedures or explanations are for both Windows and Mac.

• Procedures

"→" appears on some procedures in the manual. For example, the string "Devices" → "Device Setup" → "Control Panel" indicates that you should perform the procedures in the following order.

1. Click the "Devices" menu.
2. Select the "Device Setup" option.
3. Click the "Control Panel" button.

• Keyboard Shortcuts

[Windows modifier key]/[Mac modifier key]+[key] shows the shortcut keys. For example, [Ctrl]/[command]+[Z] means "press [Ctrl] under Windows or [command] under Mac, then press [Z]."

• Screens

This manual predominantly uses screenshots of Windows. However, Mac screenshots are used when instructions of the function apply only to the Mac. Also, this manual uses screenshots of Nuendo 6. If you are using another version of Nuendo, the actual screenshots might not be the same. For details, refer to the Nuendo manuals (PDF) opened from the "Help" menu.

Nuendo References

For brevity, the descriptions of Nuendo functions in this manual have been kept simple and basic. For details on Nuendo functions, refer to the Nuendo manuals (PDF) opened from the "Help" menu.

About Dante

Overview

This product features Dante technology as a protocol to transmit audio signals. Dante is a network protocol developed by Audinate. It is designed to deliver multi-channel audio signals at various sampling and bit rates, as well as device control signals over a Giga-bit Ethernet (GbE) network. Dante also offers the following benefits:

- It transmits up to 512 in/512 out, for a maximum total of 1024 audio channels over a GbE network. (The NUAGE I/O series can accommodate up to eight devices, 128 in/128 out with a 24-bit resolution on a NUAGE system.)
- Dante-enabled devices will automatically configure their network interfaces and find each other on the network. You can label Dante devices and their audio channels with names that make sense to you.
- Dante uses high accuracy network synchronization standards to achieve sample-accurate playback with extremely low latency and jitter.
- Dante supports redundant connections via primary and secondary circuits to defend against unforeseen difficulties.

By taking advantages of these benefits, you can skip any complicated procedures to automate connections and setups of Dante-enabled devices, remotely control I/O racks or amplifiers from a mixing console, or make multi-track recordings to a DAW, such as Nuendo, installed on a computer in the network. Visit Audinate website for more details on Dante.

<http://www.audinate.com/>

More information on Dante-enabled devices are also posted on the Yamaha Pro Audio website:

<http://www.yamahaproaudio.com/>

Connection with Dante Enabled Devices

To connect with Dante enabled devices, use a star connection or a daisy chain connection (enabled devices only).

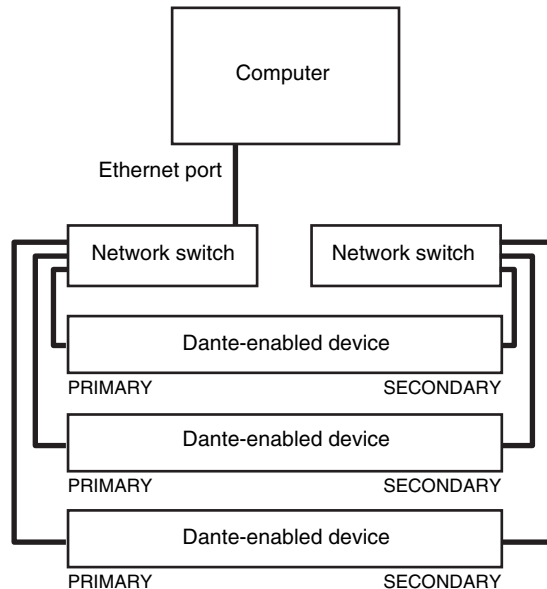
Star Connection

In a star connection, each device is connected to a central network switch. Using a GbE-compatible network switch enables you to configure a wide-band, large-scale network. We recommend a network switch that features various functions to control and monitor the network (such as Qos, the ability to assign priority to data flows — e.g., clock synchronization or audio transmission on certain data circuits.)

With this topology, it is common to configure a redundant network so that an unexpected network problem will not affect any audio or otherwise stable communications.

Redundant Network

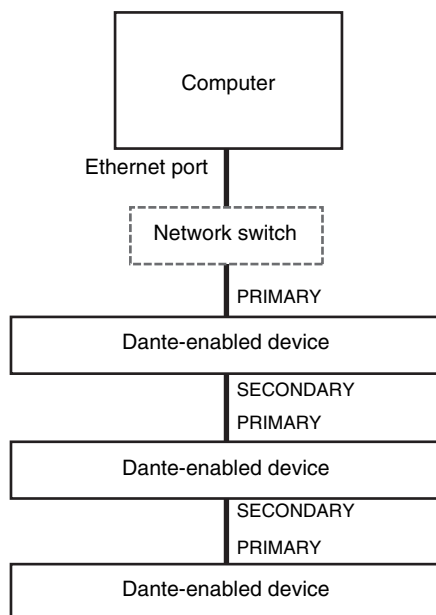
A redundant network consists of two circuits, a primary circuit and a secondary circuit. Normally, the network operates on the primary circuit. However, if the primary connection is broken, the secondary circuit will automatically take over communications. Therefore, using a redundant network with a star topology would increase communication stability relative to a daisy chain network.



Daisy Chain Connection (enabled devices only)

A daisy chain is a wiring scheme in which multiple devices are connected together in sequence. This connection method is suitable for a simple system with a small number of devices.

However, if a large number of devices are connected, the latency value must be increased. Also, if a connection is broken in a daisy chain network, the signal flow is interrupted at that point and no signal will be transferred beyond that point.



Setup

Overall Process

This section explains how to set up the device for use with the DANTE ACCELERATOR. Before setting up, make sure that the following conditions are met.

- The DANTE ACCELERATOR installed to the computer works properly.
- The Dante Controller has already been installed.

For details, refer to the DANTE ACCELERATOR manual.

- 1. Connect the device to a computer with a Ethernet cable. → “Connection between the Device and a Computer” (page 10)**
- 2. Connect the power cable then turn the power on. → “Setting up the Power Supply” (page 11)**
- 3. Configure the audio routing of the Dante network with the Dante Controller. → “Configuring the Audio Routing of the Dante Network” (page 11)**
- 4. Install TOOLS for NUAGE. → “Installing TOOLS for NUAGE” (page 11)**
- 5. Configure the Workgroup on NUAGE with the NUAGE Workgroup Manager. → “Configuring the Workgroup on NUAGE” (page 11)**

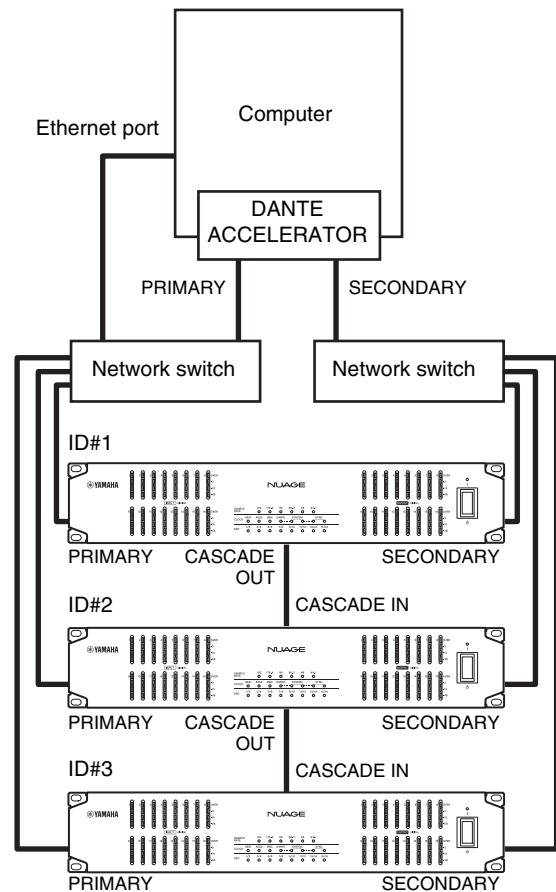
Connection between the Device and a Computer

Connect the devices and computer by using a star connection or a daisy chain connection.

Star Connection

This section explains the connections when configuring a redundant network.

- 1. Connect the Ethernet cable as shown below.**



- 2. Set the [UNIT ID rotary switch] on the rear panel to a unique ID.**
- 3. Turn on (down) the [Dip switch] No.1 on the rear panel.**

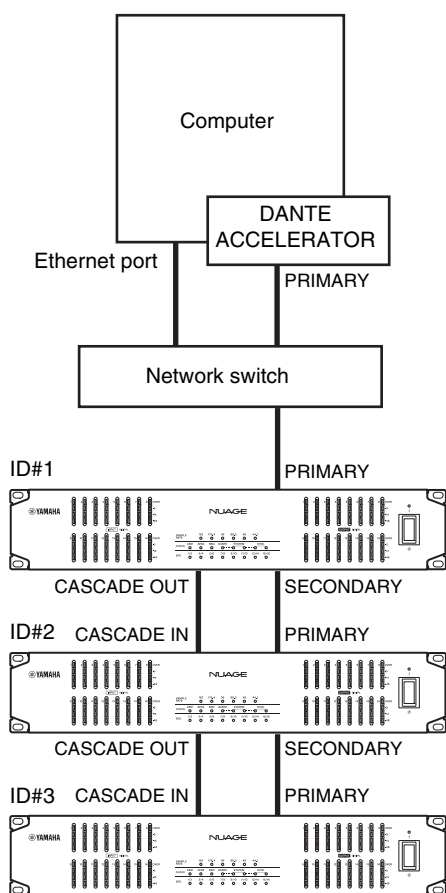
NOTE

Redundant network operation may not be available on the DANTE ACCELERATOR depending on its firmware version. Make sure that the firmware version currently on the DANTE ACCELERATOR supports a redundant network by checking the following website.

<http://www.yamahaproaudio.com/>

Daisy Chain Connection

1. Connect the Ethernet cable as shown below.



2. Set the [UNIT ID rotary switch] on the rear panel to a unique ID.
3. Turn off (up) the [Dip switch] No.1 on the rear panel.

Setting up the Power Supply

1. Insert one plug of the power cable into the [AC IN] terminal on the device.
2. Insert the other plug of the power cable into a proper AC wall outlet.
3. Turn on (I) the power.

WARNING

Only use the included power cable (or an equivalent recommended by Yamaha). Using the wrong cable can result in damage to the device or overheating.

CAUTION

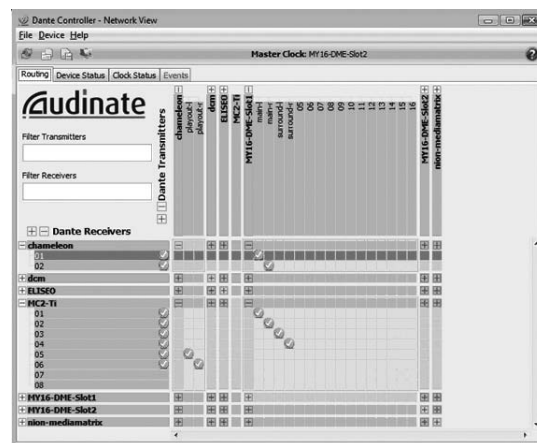
Remove the plug of the power cable from the outlet when the device is not be used for extended periods of time, or during electrical storms.

Configuring the Audio Routing of the Dante Network

1. Launch Dante Controller.
2. In the “Routing” tab on the “Network View” window, set the audio routing by placing a check mark at the intersection of the desired devices.

To use the link function with Nuendo, set up as follows.

- Set the sample rate and pull-up/pull-down parameters on NUAGE I/O and DANTE ACCELERATOR to the same settings.
- Join the inputs and outputs in the matrix. For example, set channels 1 through 16 on NUAGE I/O to channels 1 through 16 on DANTE ACCELERATOR.



NOTE

For details on the Dante Controller, refer to the Dante Controller manual.

Installing TOOLS for NUAGE

To install TOOLS for NUAGE, double-click the installer file you have downloaded from the website. For details, refer to the TOOLS for NUAGE installation guide.

Configuring the Workgroup on NUAGE

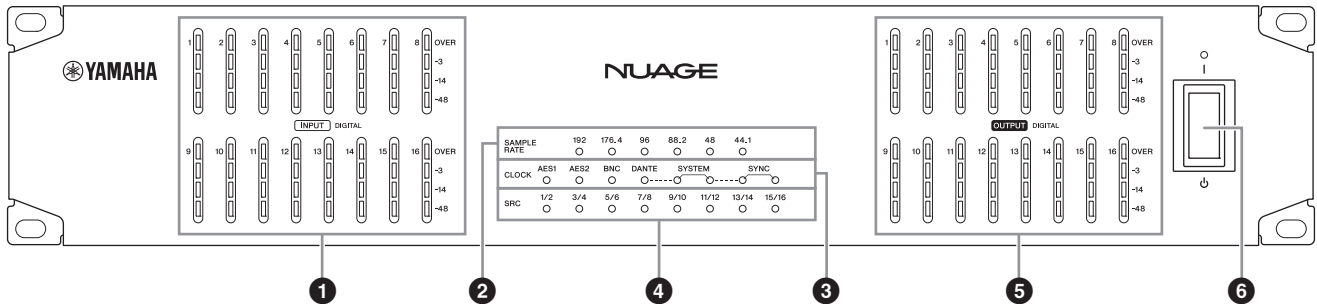
To configure the Workgroup, open the NUAGE Workgroup Manager then register the devices and DAW software applications to the Workgroup. For details, refer to the NUAGE Workgroup Manager manual (PDF). To open the NUAGE Workgroup Manager manual, double-click the NUAGE Workgroup Manager icon on the task tray (Windows) or menu bar (Mac) for opening the window, then click the “Manual” icon.

The setup is now completed.

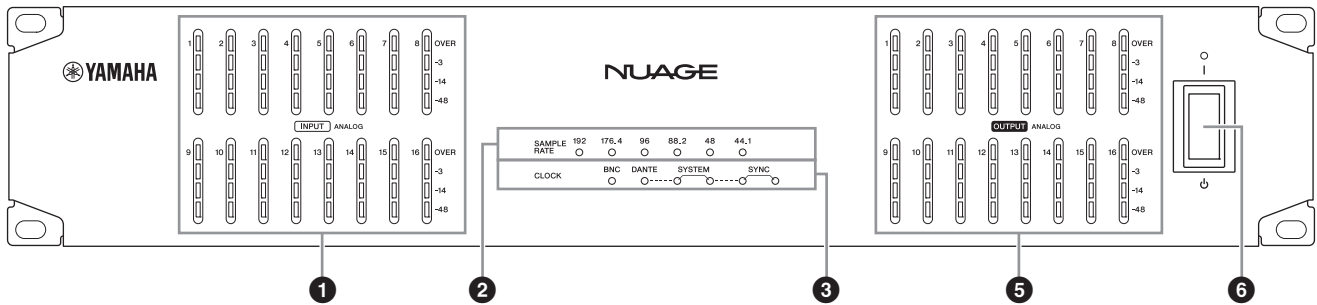
Description of the Device

Front Panel

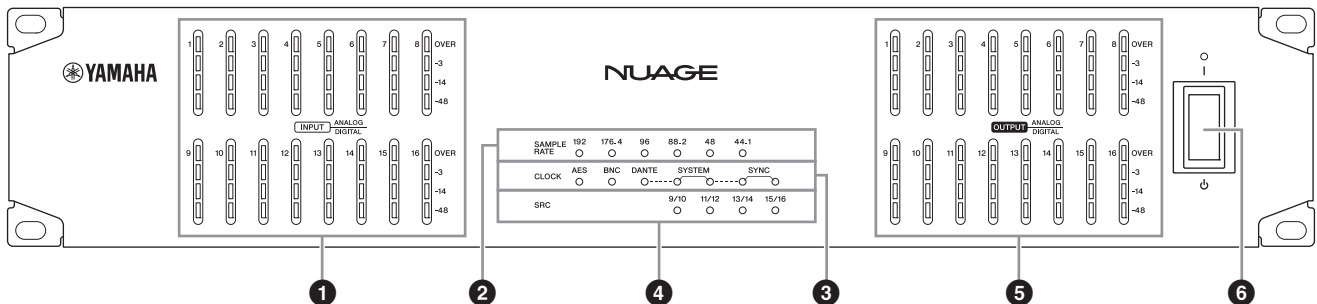
NUAGE I/O (16D)



NUAGE I/O (16A)



NUAGE I/O (8A8D)



1 [INPUT level meter]

Indicates the input signal level of [ANALOG INPUT] (page 16) or [AES/EBU] (page 16) on the rear panel.

| Lamp | Lighting level |
|-----------------|------------------|
| Top (red) | 0 dBFS |
| Second (orange) | -3 dBFS or more |
| Third (orange) | -14 dBFS or more |
| Bottom (green) | -48 dBFS or more |

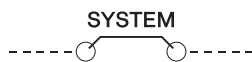
2 [SAMPLE RATE indicator]

Indicates the sample rate of the device. To select the sample rate of the device, use the NUAGE Workgroup Manager (page 19).

3 [CLOCK indicator]

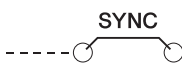
Indicates the word clock source of the device. To select the word clock source of the device, use the NUAGE Workgroup Manager (page 19).

The [SYSTEM indicator] indicates the system status of the device on the Dante network.



| Lamp | Status | Description |
|--------------|------------------------|--|
| Left (green) | Lit | The device is working properly. |
| Left (green) | Flashes (every second) | The firmware updating is in progress. |
| Right (red) | Lit | The memory on the device does not work properly. |
| Right (red) | Flashes (every second) | The CPU on the device does not work properly. |

The [SYNC indicator] indicates the synchronization status of the device on the Dante network.



| Lamp | Status | Description |
|----------------|------------------------|---|
| Left (green) | Lit | The device is working as the slave on the Dante network. |
| Left (green) | Flashes (every second) | The device is working as the master on the Dante network. |
| Right (orange) | Lit | Synchronization with the Dante network is in progress. |
| Right (orange) | Flashes (every second) | The device is not synchronized with the Dante network. |

4 [SRC indicator]

Indicates the status of the SRC (sample rate converter), on (lit) or off (unlit).

When you turn SRC on, even if the sample rate at which the device is operating differs from the sample rate of the audio signal input to the device, the SRC function automatically converts the rate of the signal so that playback will be correct. SRC is available on every two adjacent channels. To turn SRC on/off, use the NUAGE Workgroup Manager (page 19).

5 [OUTPUT level meter]

Indicates the output signal level of [ANALOG OUTPUT] (page 16) or [AES/EBU] (page 16) on the rear panel.

| Lamp | Lighting level |
|-----------------|------------------|
| Top (red) | 0 dBFS |
| Second (orange) | -3 dBFS or more |
| Third (orange) | -14 dBFS or more |
| Bottom (green) | -48 dBFS or more |

6 [Power switch]

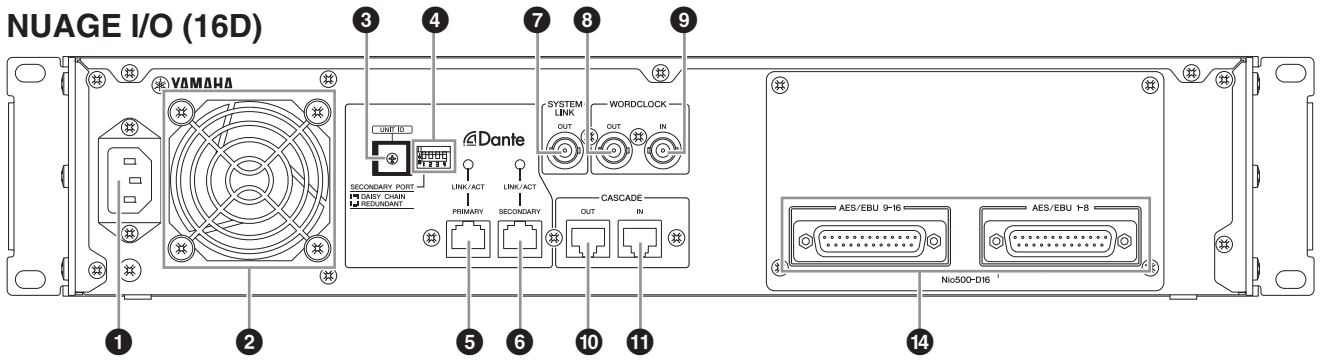
Turns the power on (I) and off (⏻). The lamp lights when the power is on, and is unlit when the power is off.

NOTICE

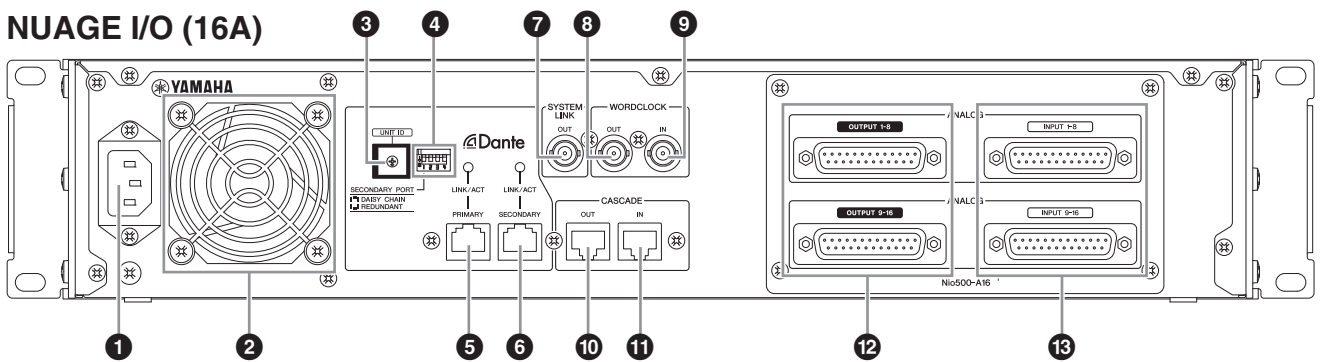
Rapidly turning the unit on and off in succession can cause it to malfunction. After turning the unit off, wait for at least 6 seconds before turning it on again.

Rear Panel

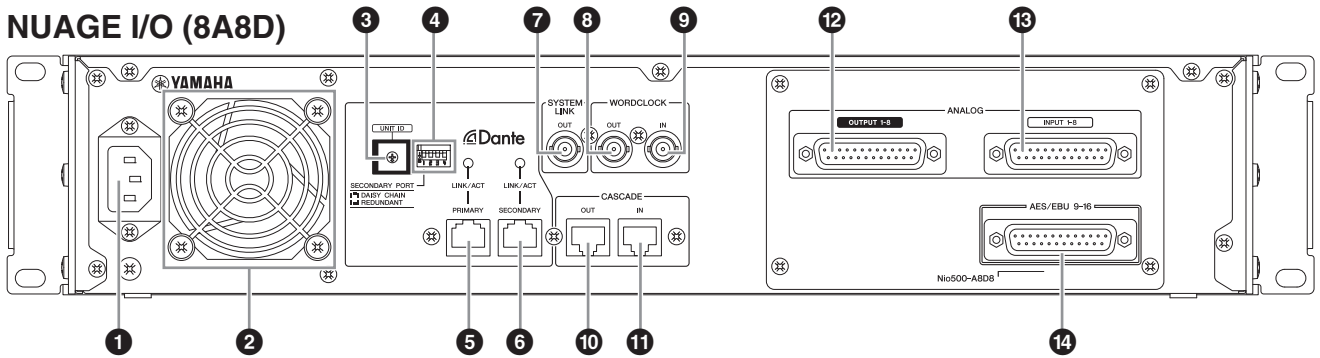
NUAGE I/O (16D)



NUAGE I/O (16A)



NUAGE I/O (8A8D)



1 [AC IN]

For connection to the power cable.

2 [Fan]

The electric fan for expelling heat and cooling the unit.

3 [UNIT ID rotary switch]

Sets the device ID on the Dante network. When connecting multiple devices, set the ID on each device to a different number. Note that you can only select the device ID while the power is off. If you change this while the power is on, the new device ID will not be applied.

4 [Dip switch]

Sets the device settings or initializes them. Note that you can only select [Dip switch] while the power is off. If you change this while the power is on, the settings will not be applied.

[Dip switch] Description

| | |
|---|---|
| 1 | Selects whether [SECONDARY] (page 15) will operate as a redundant network (page 9) or daisy chain connection (page 9). [SECONDARY] will operate as a redundant network when you turn this on (down), and daisy chain connection when you turn this off (up). |
| 2 | Initializes the device settings. Follow the steps below. <ol style="list-style-type: none"> 1. Turn the power of the device off. 2. Turn [Dip switch 2] on (down). 3. Turn the power of the device on, then wait for the [OUTPUT level meter] of the 16 channels to flash at intervals. 4. Turn the power of the device off. 5. Turn [Dip switch 2] off (up). 6. Turn the power of the device on. |
| 3 | Not used. Turn it off (up) at any time. |
| 4 | Not used. Turn it off (up) at any time. |

5 [PRIMARY] (RJ-45 connector)

For connection to the Ethernet cable (CAT5e or better recommended). This connector is for construction of the Dante network, and is capable for input/output of sixteen channels of audio. For details on how to connect the devices, refer to “Setup” (page 10).

The lamp on this connector lights when the device is communicating with the Dante network.

NOTE

- Use STP (shielded twisted pair) cable to prevent electromagnetic interference. Make sure that the metal parts of the plugs are electrically connected to the STP cable shield by conductive tape or comparable means.
- Connect only Dante-compatible devices or GbE-compatible devices (including a computer).

6 [SECONDARY] (RJ-45 connector)

The same as [PRIMARY]. However, the connection configuration varies depending on the settings of [Dip switch] (page 15). For details on how to connect the devices, refer to “Setup” (page 10).

7 [SYSTEM LINK OUT] (BNC connector)

For connection to the BNC coaxial cable. When connecting this connector to NUENDO SyncStation, Nuendo and the devices maintain accurate synchronization with each other.

8 [WORDCLOCK OUT] (BNC connector)

For connection to the BNC coaxial cable. This connector outputs the word clock signal.

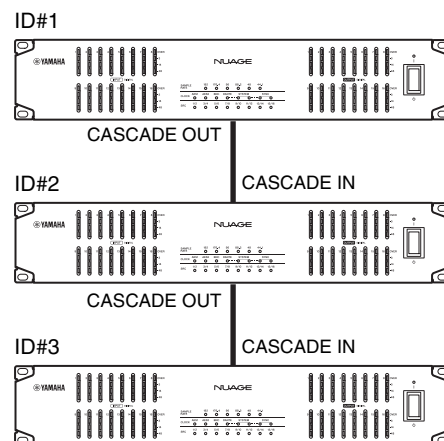
9 [WORDCLOCK IN] (BNC connector)

For connection to the BNC coaxial cable. This connector receives the word clock signal.

10 [CASCADE OUT] (RJ-45 connector)

For connection to the Ethernet cable (CAT5e or better recommended). This connector inputs and outputs sixteen channels of audio for the direct monitoring. This is useful when outputting the audio signal to another device with near-zero latency. You can use this function with Nuendo.

When connecting multiple devices, connect this to the [CASCADE IN] terminals on other devices as shown.



Up to eight devices can be connected in this way.

NOTE

- Use a straight type (STP) cable of less than 3 meters.
- To use direct monitoring, complete “Setup” (page 10) then turn on “Direct Monitoring” in the “Device Setup” menu on Nuendo.
- The device can input and output audio signals for direct monitoring when the sample rate setting on the device is 96 kHz or lower. Direct monitoring is not supported for settings of over 96 kHz.

11 [CASCADE IN] (RJ-45 connector)

Refer to [CASCADE OUT].

12 [ANALOG OUTPUT] (D-sub 25-pin connector)

For connection to a 25-pin D-sub analog cable. This connector outputs eight channels of audio.

13 [ANALOG INPUT] (D-sub 25-pin connector)

For connection to a 25-pin D-sub analog cable. This connector inputs eight channels of audio.

14 [AES/EBU] (D-sub 25-pin connector)

For connection to a 25-pin D-sub digital cable. This connector inputs and outputs eight channels of audio.

Description of the Software Programs

NUAGE I/O Setup



Overview

This software is for configuring the settings of the device from Nuendo. To open this window, click the Nuendo menu “Device” → “NUAGE I/O Setup.”

NUAGE I/O Setup has the following two windows.

- Bass Management window
- ATT & Delay window

In the Bass Management window, you can separately adjust the bass sound of the output signal from the device in surround sound applications. In the ATT & Delay window, you can adjust the level and delay of the output signal from the device. To select the windows, click the tabs on the upper side of the NUAGE I/O Setup window.

When you press the NUAGE Workgroup Manager button on the upper right of the window, you can open the device settings window opened from the NUAGE Workgroup Manager. However, this is only available when launching the NUAGE Workgroup Manager on the same computer.

NOTE

- To use these functions, complete “Setup” (page 10).
- To use the Bass Management function, create a surround output bus (such as 5.1 channels) in the Nuendo menu “Devices” → “VST connection.” Also, assign the ports in one NUAGE I/O to the ports of this output bus.

Controls and Functions

Bass Management Window



1 On/Off

Turns Bass Management on and off.

2 Presets

For selecting, storing, and deleting the preset.

The following presets are available in the default settings.

| Preset | HPF 1/2/3/4 | LPF1 | LPF2 | ATT 1/2 | AMP |
|----------------|-------------|--------|-------|---------|-----|
| DVD LFE80Hz | 80-12 | 80-24 | 80-24 | 0 | +10 |
| DVD LFE120Hz | 80-12 | 120-42 | 80-24 | 0 | +10 |
| Movie LFE80Hz | 80-12 | 80-24 | 80-24 | -3 | +10 |
| Movie LFE120Hz | 80-12 | 120-42 | 80-24 | -3 | +10 |
| Bypass | THRU | THRU | MUTE | 0 | 0 |

3 HPF1/2/3/4

Selects the type of high pass filter for each channel.

| Option | Description |
|--------|--|
| THRU | The filter is not applied. |
| 80-12 | A Butterworth filter with a cutoff frequency of 80 Hz and -12 dB of attenuation. |
| 80-12L | A Linkwitz filter with a cutoff frequency of 80 Hz and -12 dB of attenuation. |
| 80-24 | A Butterworth filter with a cutoff frequency of 80 Hz and -24 dB of attenuation. |
| 80-24L | A Linkwitz filter with a cutoff frequency of 80 Hz and -24 dB of attenuation. |

4 LPF1

Selects the type of low pass filter for the LFE channel.

| Option | Description |
|--------|---|
| THRU | The filter is not applied. |
| 80-24 | A Butterworth filter with a cutoff frequency of 80 Hz and -24 dB of attenuation. |
| 80-24L | A Linkwitz filter with a cutoff frequency of 80 Hz and -24 dB of attenuation. |
| 120-42 | A Butterworth filter with a cutoff frequency of 120 Hz and -42 dB of attenuation. |

5 LPF2

Selects the type of low pass filter for the LFE channel which is sent the signal from each channel.

| Option | Description |
|--------|--|
| THRU | The filter is not applied. |
| 80-24 | A Butterworth filter with a cutoff frequency of 80 Hz and -24 dB of attenuation. |
| 80-24L | A Linkwitz filter with a cutoff frequency of 80 Hz and -24 dB of attenuation. |
| MUTE | The filter is muted. |

6 ATT1/2

Sets the attenuator for each channel. The setting range is from 0 dB to -12 dB.

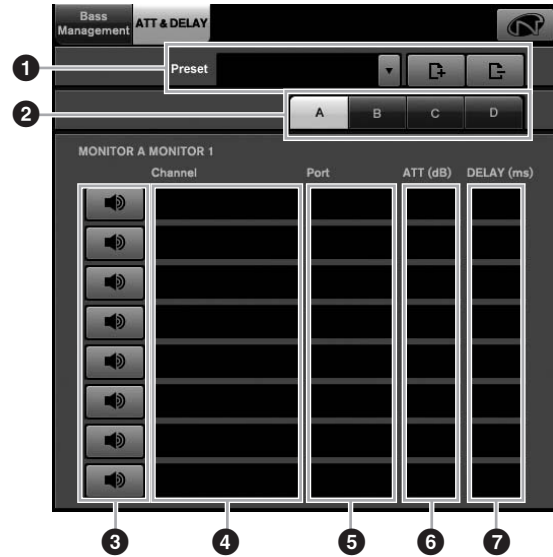
7 AMP

Sets the amplifier for the LFE channel. The setting range is from 0 dB to +12 dB.

8 Block diagram

Indicates the position of each parameter in Bass Management.

ATT & Delay Window



1 Presets

For selecting, storing, and deleting the preset.

2 Monitor

Selects the monitor for configuring the settings.

3 Mute on/off

Turns muting of the channel on and off.

4 Channel

Displays the channel.

5 Port

Displays the channel port.

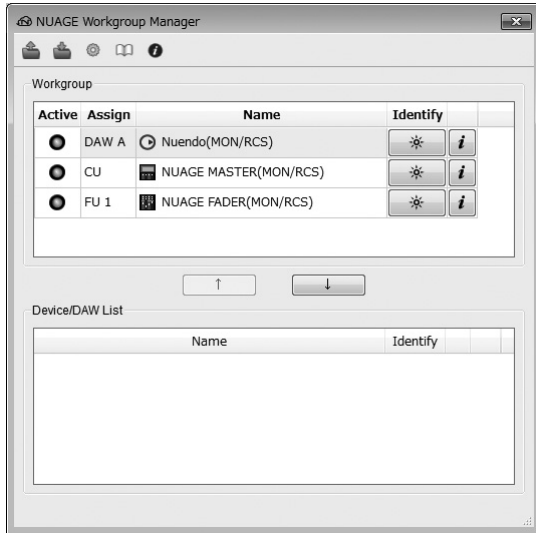
6 ATT(dB)

Sets the attenuator/gain for speaker 1 and 2. The setting range is from 0 dB to -12 dB, and the smallest unit is 0.1 dB.

7 DELAY(ms)

Sets the delay for the channel. The setting range is from 0 to 30 milliseconds, and the smallest unit is 0.02 milliseconds.

NUAGE Workgroup Manager



Overview

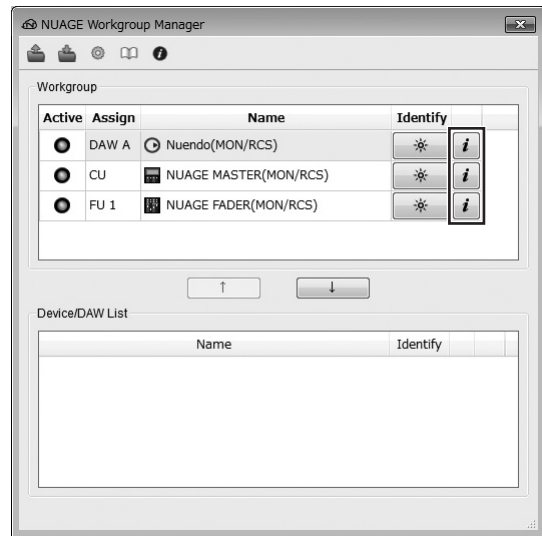
This is a software application that allows control over the devices and DAW software applications as a Workgroup on NUAGE system. To open this window, double-click the NUAGE Workgroup Manager icon on the task tray (Windows) or menu bar (Mac).

This section provides only the descriptions regarding the device settings on the NUAGE Workgroup Manager. For details on the NUAGE Workgroup Manager, refer to the corresponding manual (PDF) which can be opened from the “Manual” icon.

You can configure the following device settings in the NUAGE Workgroup Manager. However, the setting menu will differ depending on the particular devices being used.

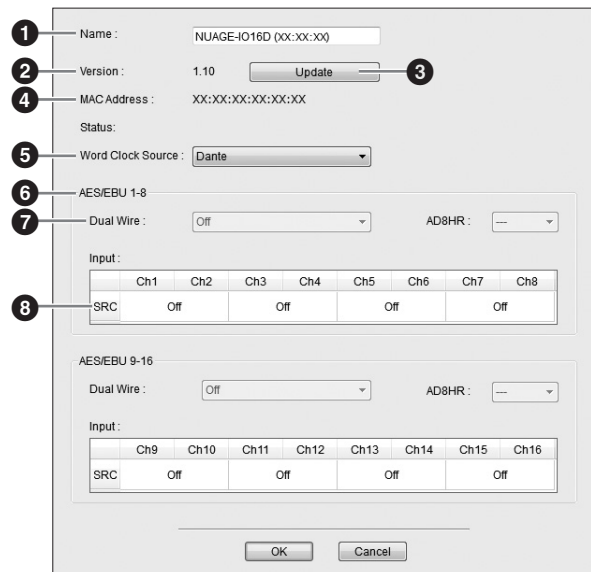
- Adjusting the trim of the analog input and output signals.
- Selecting the level of the analog input signal.
- Selecting the word clock source.
- Turning the SRC (sample rate converter) of the digital input signal on and off.
- Turning the dual wire on and off.

To configure these settings, use the “Property Window” opened by clicking “Property” on the Workgroup area in the Main window.

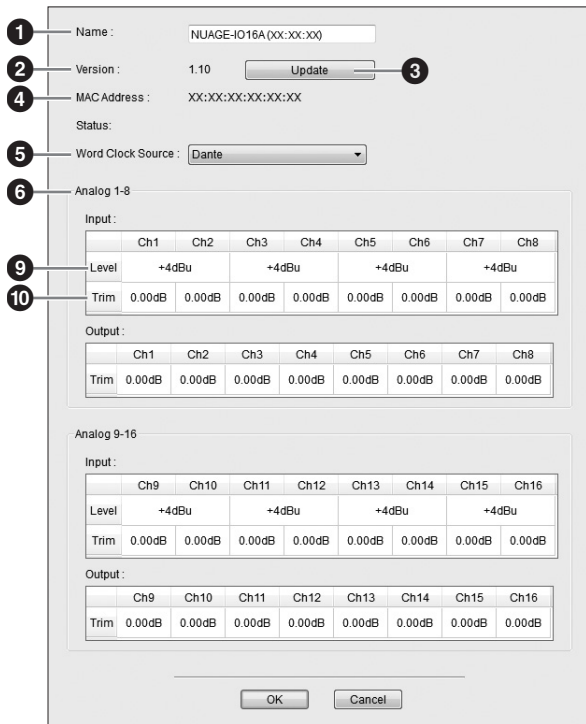


Controls and Functions

NUAGE I/O (16D)



NUAGE I/O (16A)



3 Update

Update the device's firmware. For details, refer to the NUAGE Firmware Update Guide.

4 MAC Address

Displays the MAC Address.

5 Word Clock Source

Selects the word clock source.

6 Input and output

Displays the input and output.

7 Dual Wire

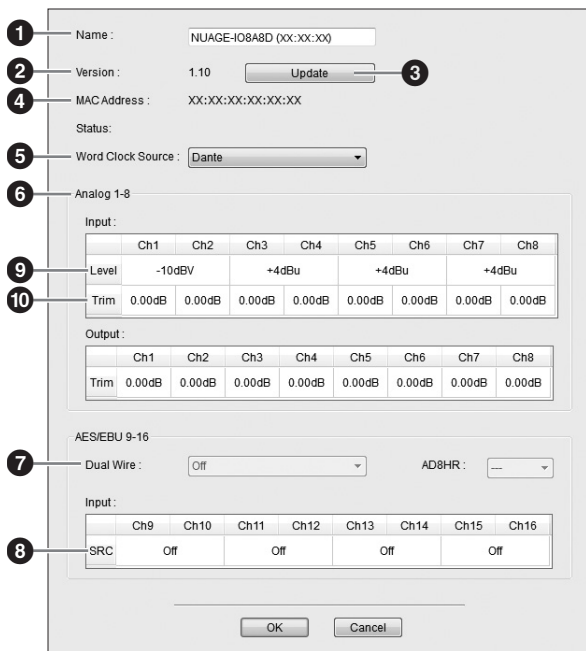
Turns the Dual Wire function on and off. You can turn on and off the Dual Wire by eight channels.

This function is available when the sample rate is set to 88.2, 96, 176.4, and 192 kHz, and also the SRC is turned off.

8 SRC

Turns the sample rate converter on and off. This function is only available when the Dual Wire is turned off.

NUAGE I/O (8A/8D)



9 Level

Selects the input level.

10 Trim

Adjusts the trim.

1 Name

Displays the name of the device or DAW software. To change this name, click "Property" on the Workgroup area in the Main window.

2 Version

Displays the version. You can confirm the firmware version in case of devices, or the version of NUAGE Extension in the case of Nuendo, or the version of NUAGE PT Bridge in the case of Pro Tools.

Troubleshooting

Power does not turn on.

- Is [Power switch] turned on?
- Is the power cable connected to a proper AC outlet?
- Is the power cable plug inserted all the way?

If the power still does not turn on, contact your Yamaha dealer.

Device is not communicating with Nuendo

- Is the Ethernet cable connected properly?
- Has “Installing TOOLS for NUAGE” (page 11) already been completed?
- Has “Configuring the Workgroup on NUAGE” (page 11) already been completed?
- Has “Configuring the Audio Routing of the Dante Network” (page 11) already been completed?
- In case of connecting multiple devices, has the [UNIT ID rotary switch] been set to a unique ID?
- Have the fire wall settings been set property?

Appendix

Firmware Updates

This product enables you to update the unit firmware to improve operations, add functions, and correct possible malfunctions. The following two types of firmware are available for the unit.

- Unit's firmware
- Dante module firmware

You must update each type of firmware separately. Details on updating the firmware are available on the following website:

<http://www.yamahaproaudio.com/>

For information on updating and setting up the unit, please refer to the firmware update guide available on the website.

NOTE

When you update Dante firmware on the unit, be sure to update Dante firmware on other Dante-compatible devices connected to the NUAGE I/O.

Specifications

ELECTRICAL CHARACTERISTICS

| | | | |
|-----------------------------|---------------------------|---|---------|
| Sampling Frequency | Internal | 44.1kHz/48kHz/88.2kHz/96kHz/176.4kHz/192kHz | |
| | External | 44.1kHz +4.1667%/+0.1%/-0.1%/-4.0% | ±200ppm |
| | | 48kHz +4.1667%/+0.1%/-0.1%/-4.0% | ±200ppm |
| | | 88.2kHz +4.1667%/+0.1%/-0.1%/-4.0% | ±200ppm |
| | | 96kHz +4.1667%/+0.1%/-0.1%/-4.0% | ±200ppm |
| | | 176.4kHz +4.1667%/+0.1%/-0.1%/-4.0% | ±200ppm |
| | | 192kHz +4.1667%/+0.1%/-0.1%/-4.0% | ±200ppm |
| Analog Input/ Output | Frequency Response | ±0.5dB, 20Hz – 20kHz, ref to the nominal output level @1kHz, Input&Output Gain: 0dB, Input level +4dBu(typ) | |
| | THD+N^{*1} | Less than 0.005%, input to output, GAIN: 0dB | |
| | Dynamic Range | 120dB typ., ADC 120dB typ., DAC | |
| | Crosstalk@1kHz | -100dB, CH1 – 16 , adjacent inputs | |

ANALOG INPUT CHARACTERISTICS

| Input Terminals | Actual Load Impedance | For Use With Nominal | GAIN | Input level | | Connector in Console |
|-----------------|-----------------------|----------------------|-------|-----------------|------------------|------------------------------|
| | | | | Nominal | Max. before clip | |
| ANALOG INPUT | 20kΩ (BAL) | 150Ω Lines | 0dB | +4dBu (1.23 V) | +24dBu (12.28V) | D-SUB Connector 25P (Female) |
| | | | +12dB | -10dBV (0.32 V) | +10dBV (3.16 V) | |
| | 10kΩ (UNBAL) | 600Ω Lines | 0dB | +4dBu (1.23 V) | +24dBu (12.28V) | D-SUB Connector 25P (Female) |
| | | | +12dB | -10dBV (0.32 V) | +10dBV (3.16 V) | |

The input level (Max. before clip) specification can be customized to +22dBu, +20dBu, +18dBu, +15dBu. (A fee will be charged for this procedure.) For details, contact your Yamaha dealers.

ANALOG OUTPUT CHARACTERISTICS

| Output Terminals | Actual Source Impedance | For Use With Nominal | GAIN | Output level | | Connector in Console |
|------------------|-------------------------|----------------------|------|----------------|------------------|------------------------------|
| | | | | Nominal | Max. before clip | |
| ANALOG OUTPUT | 75Ω (BAL) | 10kΩ Lines | 0dB | +4dBu (1.23 V) | +24dBu (12.28V) | D-SUB Connector 25P (Female) |

The output level (Max. before clip) specification can be customized to +22dBu, +20dBu, +18dBu, +15dBu. (A fee will be charged for this procedure.) For details, contact your Yamaha dealer.

DIGITAL INPUT CHARACTERISTICS

| Terminal | Format | Data length | Level | Connector in Console |
|----------|---------|-------------|-------|------------------------------|
| AES/EBU | AES/EBU | 24bit | RS422 | D-SUB Connector 25P (Female) |

DIGITAL OUTPUT CHARACTERISTICS

| Terminal | Format | Data length | Level | Connector in Console |
|----------|-----------------------------|-------------|-------|------------------------------|
| AES/EBU | AES/EBU Professional use | 24bit | RS422 | D-SUB Connector 25P (Female) |

DIGITAL INPUT & OUTPUT CHARACTERISTICS

| Terminal | Format | Data length | Level | Connector in Console |
|-------------------|--------|-------------|------------|----------------------|
| Primary/Secondary | Dante | 24bit | 1000Base-T | RJ-45 x 2 |
| Cascade | - | 32bit | LVDS*2 | RJ-45 x 2 |

CONTROL I/O CHARACTERISTICS

| Terminal | Format | Level | Connector in Console |
|-----------------|--------|-------------------|----------------------|
| WORD CLOCK | IN | - | TTL/75Ω terminated |
| | OUT | - | TTL/75Ω |
| System Link Out | - | 1.0±0.2Vp-p/75Ω*3 | BNC Connector |

General Specifications

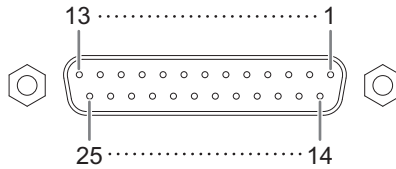
| | |
|---|---|
| Power Requirements (wattage) | Nio500-D16: 51W Nio500-A16: 51W Nio500-A8D8: 51W |
| Power Requirements (voltage and hertz) | US/Canada: 120V 60Hz Japan: 100V 50/60Hz China: 110 – 240V 50/60Hz Korea: 220V 60Hz Other: 110 – 240V 50/60Hz |
| Temperature Range | Operating temperature range: 0 – 40°C Storage temperature range: -20 – 60°C |
| Dimensions (W x H x D) | 480 x 88 x 369 mm |
| Net Weight | Nio500-D16: 6.4kg Nio500-A16: 6.7kg Nio500-A8D8: 6.7kg |
| Included Accessories | Power cable, Ferrite core, Rubber stoppers (4), Operation Manual |

*1 These characteristics are measured with A-weighting filter and/or 30kHz LPF.

*2 Hi Speed CML

*3 AES-3id

Pin Assignment



Analog Input

| Signal | | Input Ch | | | | | | | | Open | GND |
|--------|------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|-----------------------------|
| | | 1 (9) | 2 (10) | 3 (11) | 4 (12) | 5 (13) | 6 (14) | 7 (15) | 8 (16) | | |
| Pin | Hot | 24 | 10 | 21 | 7 | 18 | 4 | 15 | 1 | 13 | 2, 5, 8, 11, 16, 19, 22, 25 |
| | Cold | 12 | 23 | 9 | 20 | 6 | 17 | 3 | 14 | | |

Analog Output

| Signal | | Output Ch | | | | | | | | Open | GND |
|--------|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|-----------------------------|
| | | 1 (9) | 2 (10) | 3 (11) | 4 (12) | 5 (13) | 6 (14) | 7 (15) | 8 (16) | | |
| Pin | Hot | 24 | 10 | 21 | 7 | 18 | 4 | 15 | 1 | 13 | 2, 5, 8, 11, 16, 19, 22, 25 |
| | Cold | 12 | 23 | 9 | 20 | 6 | 17 | 3 | 14 | | |

Digital Input & Output

| Signal | | Data In Ch | | | | Data Out Ch | | | | Open | GND |
|--------|------|---------------|----------------|----------------|----------------|---------------|----------------|----------------|----------------|-------|----------------------------|
| | | 1-2 (9-10) | 3-4 (11-12) | 5-6 (13-14) | 7-8 (15-16) | 1-2 (9-10) | 3-4 (11-12) | 5-6 (13-14) | 7-8 (15-16) | | |
| Pin | Hot | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9, 11 | 10, 12, 13, 22, 23, 24, 25 |
| | Cold | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | | |

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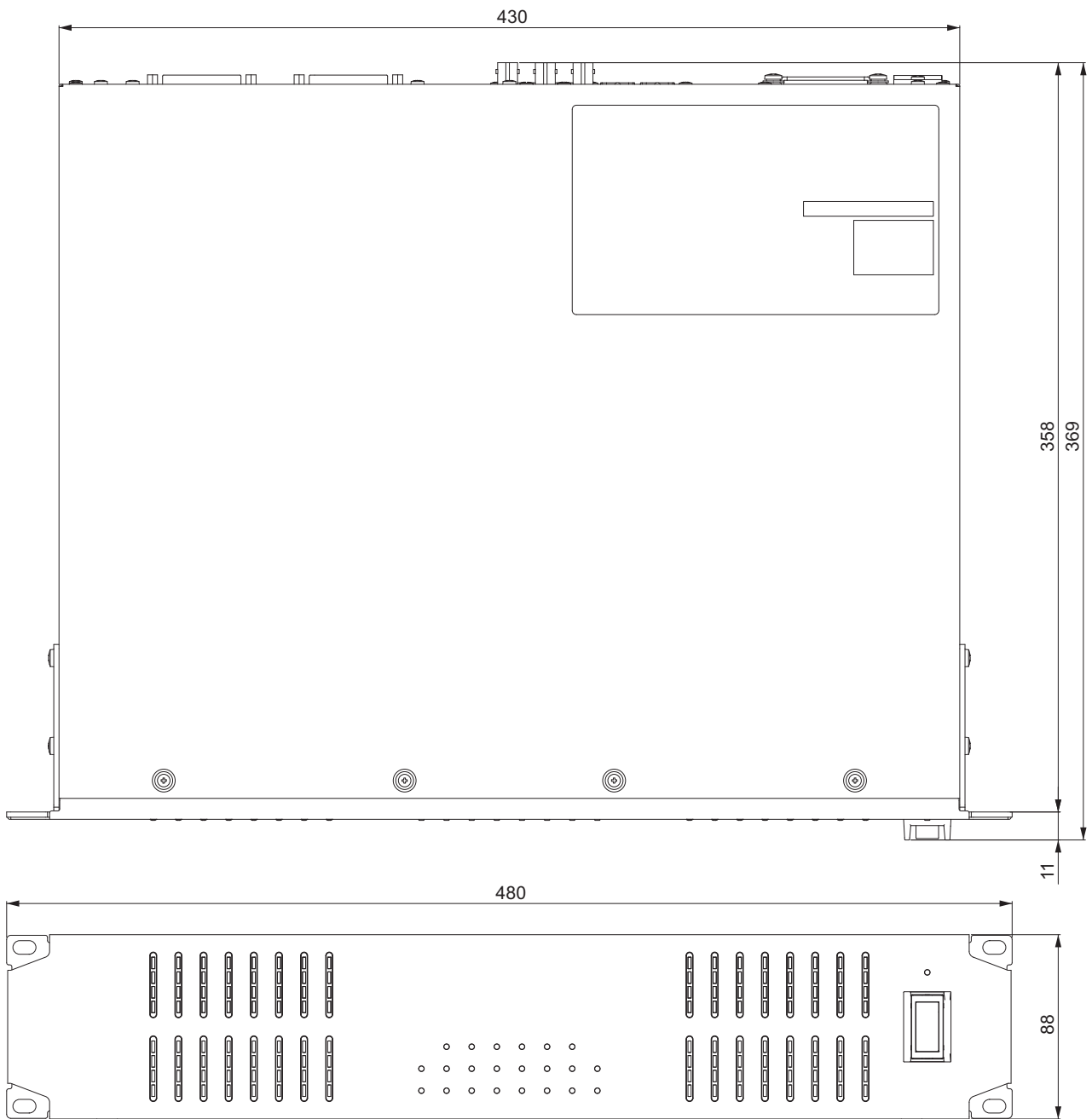
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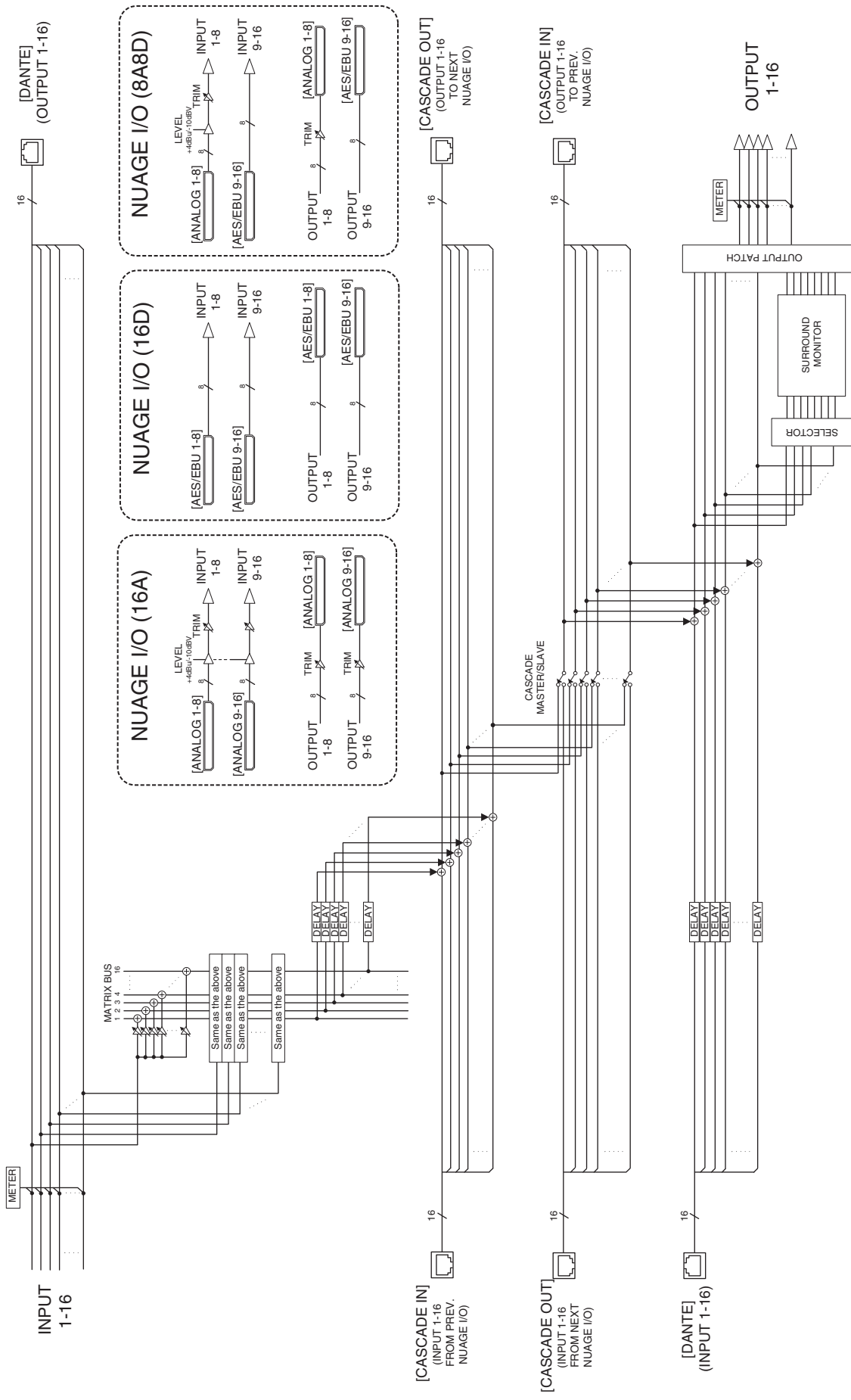
Dimensions

NUAGE I/O (16D) / NUAGE I/O (16A) / NUAGE I/O (8A8D)

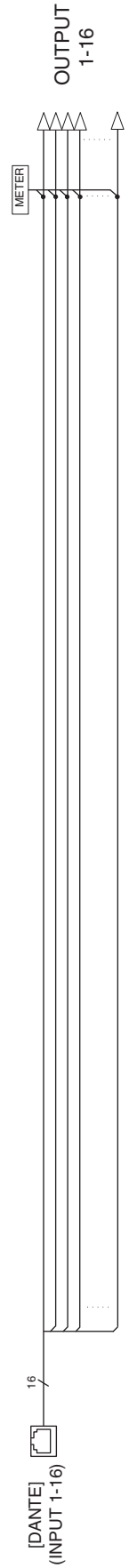
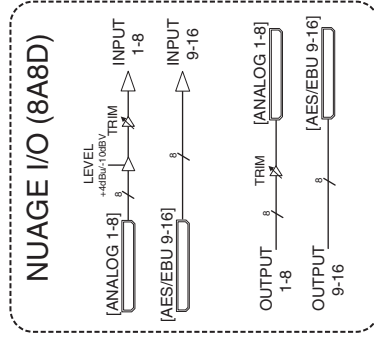
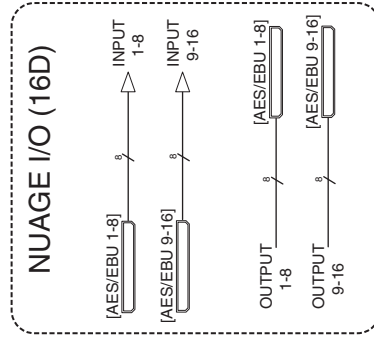
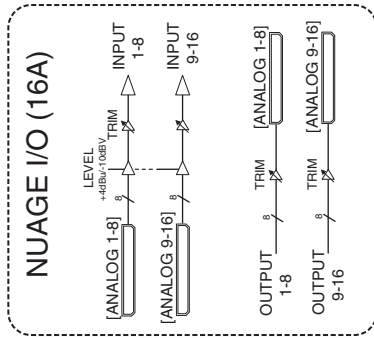
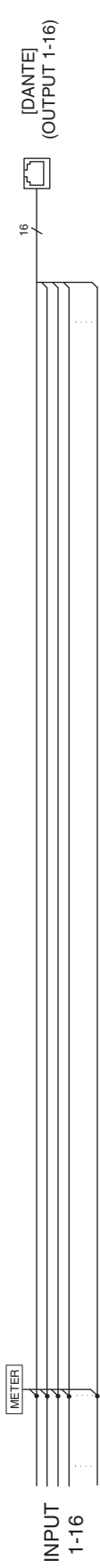


Block Diagrams

NUAGE I/O — 44.1/48/88.2/96kHz



NUAGE I/O — 176.4/192kHz



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(この製品はEUのRoHS指令には適合しています。)

(This product conforms to the RoHS regulations in the EU.)

(Dieses Produkt entspricht der RoHS-Richtlinie der EU.)


(Ce produit est conforme aux réglementations RoHS de l'UE.)

(Este producto cumple con los requisitos de la directiva RoHS en la UE.)



此标识适用于在中华人民共和国销售的电子信息产品。
标识中间的数字为环保使用期限的年数。

Information for Users on Collection and Disposal of Old Equipment



This symbol on the products, packaging, and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.
For proper treatment, recovery and recycling of old products, please take them to applicable collection points, in accordance with your national legislation and the Directives 2002/96/EC.

By disposing of these products correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

[For business users in the European Union]
If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

[Information on Disposal in other Countries outside the European Union]
This symbol is only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

Verbraucherinformation zur Sammlung und Entsorgung alter Elektrogeräte



Befindet sich dieses Symbol auf den Produkten, der Verpackung und/oder beiliegenden Unterlagen, so sollten benutzte elektrische Geräte nicht mit dem normalen Haushaltsabfall entsorgt werden. In Übereinstimmung mit Ihren nationalen Bestimmungen und den Richtlinien 2002/96/EC bringen Sie alte Geräte bitte zur fachgerechten Entsorgung, Wiederaufbereitung und Wiederverwendung zu den entsprechenden Sammelstellen.

Durch die fachgerechte Entsorgung der Elektrogeräte helfen Sie, wertvolle Ressourcen zu schützen, und verhindern mögliche negative Auswirkungen auf die menschliche Gesundheit und die Umwelt, die andernfalls durch unsachgerechte Müllentsorgung auftreten könnten.

Für weitere Informationen zum Sammeln und Wiederaufbereiten alter Elektrogeräte kontaktieren Sie bitte Ihre örtliche Stadt- oder Gemeindeverwaltung, Ihren Abfallentsorgungsdienst oder die Verkaufsstelle der Artikel.

[Information für geschäftliche Anwender in der Europäischen Union]

Wenn Sie Elektrogeräte ausrangieren möchten, kontaktieren Sie bitte Ihren Händler oder Zulieferer für weitere Informationen.

[Entsorgungsinformation für Länder außerhalb der Europäischen Union]

Dieses Symbol gilt nur innerhalb der Europäischen Union. Wenn Sie solche Artikel ausrangieren möchten, kontaktieren Sie bitte Ihre örtlichen Behörden oder Ihren Händler und fragen Sie nach der sachgerechten Entsorgungsmethode.

(weee_eu_de_01)

Information concernant la Collecte et le Traitement des déchets d'équipements électriques et électroniques.



Le symbole sur les produits, l'emballage et/ou les documents joints signifie que les produits électriques ou électroniques usagés ne doivent pas être mélangés avec les déchets domestiques habituels.

Pour un traitement, une récupération et un recyclage appropriés des déchets d'équipements électriques et électroniques, veuillez les déposer aux points de collecte prévus à cet effet, conformément à la réglementation nationale et aux Directives 2002/96/EC.

En vous débarrassant correctement des déchets d'équipements électriques et électroniques, vous contribuerez à la sauvegarde de précieuses ressources et à la prévention de potentiels effets négatifs sur la santé humaine qui pourraient advenir lors d'un traitement inapproprié des déchets.

Pour plus d'informations à propos de la collecte et du recyclage des déchets d'équipements électriques et électroniques, veuillez contacter votre municipalité, votre service de traitement des déchets ou le point de vente où vous avez acheté les produits.

[Pour les professionnels dans l'Union Européenne]

Si vous souhaitez vous débarrasser des déchets d'équipements électriques et électroniques veuillez contacter votre vendeur ou fournisseur pour plus d'informations.

[Information sur le traitement dans d'autres pays en dehors de l'Union Européenne]

Ce symbole est seulement valable dans l'Union Européenne. Si vous souhaitez vous débarrasser de déchets d'équipements électriques et électroniques, veuillez contacter les autorités locales ou votre fournisseur et demander la méthode de traitement appropriée.

(weee_eu_fr_01)

Información para Usuarios sobre Recolección y Disposición de Equipamiento Viejo



Este símbolo en los productos, embalaje, y/o documentación que se acompañe significa que los productos electrónicos y eléctricos usados no deben ser mezclados con desechos hogareños corrientes.

Para el tratamiento, recuperación y reciclado apropiado de los productos viejos, por favor llévelos a puntos de recolección aplicables, de acuerdo a su legislación nacional y las directivas 2002/96/EC.

Al disponer de estos productos correctamente, ayudará a ahorrar recursos valiosos y a prevenir cualquier potencial efecto negativo sobre la salud humana y el medio ambiente, el cual podría surgir de un inapropiado manejo de los desechos.

Para mayor información sobre recolección y reciclado de productos viejos, por favor contacte a su municipio local, su servicio de gestión de residuos o el punto de venta en el cual usted adquirió los artículos.

[Para usuarios de negocios en la Unión Europea]

Si usted desea deshacerse de equipamiento eléctrico y electrónico, por favor contacte a su vendedor o proveedor para mayor información.

[Información sobre la Disposición en otros países fuera de la Unión Europea]

Este símbolo sólo es válido en la Unión Europea. Si desea deshacerse de estos artículos, por favor contacte a sus autoridades locales y pregunte por el método correcto de disposición.

(weee_eu_es_01)

Informazioni per gli utenti sulla raccolta e lo smaltimento di vecchia attrezzatura



Questo simbolo sui prodotti, sull'imballaggio e/o sui documenti che li accompagnano significa che i prodotti elettrici ed elettronici non dovrebbero essere mischiati con i rifiuti domestici generici.

Per il trattamento, recupero e riciclaggio appropriati di vecchi prodotti, li porti, prego, ai punti di raccolta appropriati, in accordo con la Sua legislazione nazionale e le direttive 2002/96/CE.

Smaltendo correttamente questi prodotti, Lei aiuterà a salvare risorse preziose e a prevenire alcuni potenziali effetti negativi sulla salute umana e l'ambiente, che altrimenti potrebbero sorgere dal trattamento improprio dei rifiuti.

Per ulteriori informazioni sulla raccolta e il riciclaggio di vecchi prodotti, prego contatti la Sua amministrazione comunale locale, il Suo servizio di smaltimento dei rifiuti o il punto vendita dove Lei ha acquistato gli articoli.

[Per utenti imprenditori dell'Unione europea]

Se Lei desidera disfarsi di attrezzatura elettrica ed elettronica, prego contatti il Suo rivenditore o fornitore per ulteriori informazioni.

[Informazioni sullo smaltimento negli altri Paesi al di fuori dell'Unione europea]

Questo simbolo è valido solamente nell'Unione Europea. Se Lei desidera disfarsi di questi articoli, prego contatti le Sue autorità locali o il rivenditore e richieda la corretta modalità di smaltimento.

(weee_eu_it_01)

Important Notice: Guarantee Information for customers in European Economic Area (EEA) and Switzerland

| | |
|--|-----------------------|
| Important Notice: Guarantee Information for customers in EEA* and Switzerland For detailed guarantee information about this Yamaha product, and Pan-EEA* and Switzerland warranty service, please either visit the website address below (Printable file is available at our website) or contact the Yamaha representative office for your country. * EEA: European Economic Area | English |
| Wichtiger Hinweis: Garantie-Information für Kunden in der EWR* und der Schweiz Für nähere Garantie-Information über dieses Produkt von Yamaha, sowie über den Pan-EWR*- und Schweizer Garantieservice, besuchen Sie bitte entweder die folgend angegebene Internetadresse (eine druckfähige Version befindet sich auch auf unserer Webseite), oder wenden Sie sich an den für Ihr Land zuständigen Yamaha-Vertrieb. *EWR: Europäischer Wirtschaftsraum | Deutsch |
| Remarque importante: informations de garantie pour les clients de l'EEE et la Suisse Pour des informations plus détaillées sur la garantie de ce produit Yamaha et sur le service de garantie applicable dans l'ensemble de l'EEE ainsi qu'en Suisse, consultez notre site Web à l'adresse ci-dessous (le fichier imprimable est disponible sur notre site Web) ou contactez directement Yamaha dans votre pays de résidence. * EEE : Espace Economique Européen | Français |
| Belangrijke mededeling: Garantie-informatie voor klanten in de EER* en Zwitserland Voor gedetailleerde garantie-informatie over dit Yamaha-product en de garantieservice in heel de EER* en Zwitserland, gaat u naar de onderstaande website (u vindt een afdrukbaar bestand op onze website) of neemt u contact op met de vertegenwoordiging van Yamaha in uw land. * EER: Europese Economische Ruimte | Nederlands |
| Aviso importante: información sobre la garantía para los clientes del EEE* y Suiza Para una información detallada sobre este producto Yamaha y sobre el soporte de garantía en la zona EEE* y Suiza, visite la dirección web que se incluye más abajo (la versión del archivo para imprimir esta disponible en nuestro sitio web) o póngase en contacto con el representante de Yamaha en su país. * EEE: Espacio Económico Europeo | Español |
| Avviso importante: informazioni sulla garanzia per i clienti residenti nell'EEA* e in Svizzera Per informazioni dettagliate sulla garanzia relativa a questo prodotto Yamaha e l'assistenza in garanzia nei paesi EEA* e in Svizzera, potete consultare il sito Web all'indirizzo riportato di seguito (è disponibile il file in formato stampabile) oppure contattare l'ufficio di rappresentanza locale della Yamaha. * EEA: Area Economica Europea | Italiano |
| Aviso importante: informações sobre as garantias para clientes da AEE* e da Suíça Para obter uma informação pormenorizada sobre este produto da Yamaha e sobre o serviço de garantia na AEE* e na Suíça, visite o site a seguir (o arquivo para impressão está disponível no nosso site) ou entre em contato com o escritório de representação da Yamaha no seu país. * AEE: Área Económica Européia | Português |
| Σημαντική σημείωση: Πληροφορίες εγγύησης για τους πελάτες στον ΕΟΧ* και Ελλάδα Για λεπτομερείς πληροφορίες εγγύησης σχετικά με το παρόν προϊόν της Yamaha και την κάλυψη εγγύησης σε όλες τις χώρες του ΕΟΧ και την Ελλάδα, επισκεφτείτε την παρακάτω ιστοσελίδα (Εκτυπώσιμη μορφή είναι διαθέσιμη στην ιστοσελίδα μας) ή απευθυνθείτε στην αντιπροσωπεία της Yamaha στη χώρα σας. * ΕΟΧ: Ευρωπαϊκός Οικονομικός Χώρος | Ελληνικά |
| Viktigt: Garantiinformation för kunder i EES-området* och Schweiz För detaljerad information om denna Yamahaprodukt samt garantiservice i hela EES-området* och Schweiz kan du antingen besöka nedanstående webbadress (en utskriftsvänlig fil finns på webbplatsen) eller kontakta Yamahas officiella representant i ditt land. * EES: Europeiska Ekonomiska Samarbetsområdet | Svenska |
| Viktig merknad: Garantiinformasjon for kunder i EØS* og Sveits Detaljert garantiinformasjon om dette Yamaha-produktet og garantiservice for hele EØS-området* og Sveits kan fås enten ved å besøke nettstedene nedenfor (utskriftsversjon finnes på våre nettsider) eller kontakte Yamahas kontoret i landet der du bor. *EØS: Det europeiske økonomiske samarbeidsområdet | Norsk |
| Vigtig oplysning: Garantioplysninger til kunder i EØ* og Schweiz De kan finde detaljerede garantioplysninger om dette Yamaha-produkt og den fælles garantiserviceordning for EØ* (og Schweiz) ved at besøge det websted, der er angivet nedenfor (der findes en fil, som kan udskrives, på vores websted), eller ved at kontakte Yamahas nationale repræsentationskontor i det land, hvor De bor. * EØ: Det Europæiske Økonomiske Område | Dansk |
| Tärkeä ilmoitus: Takuutiedot Euroopan talousalueen (ETA)* ja Sveitsin asiakkaille Tämän Yamaha-tuotteen sekä ETA-alueen ja Sveitsin takuuta koskevat yksityiskohtaiset tiedot saatte alla olevasta nettiosoitteesta. (Tulostettava tiedosto saatavissa sivustollamme.) Voitte myös ottaa yhteyttä paikalliseen Yamaha-edustajaan. *ETA: Euroopan talousalue | Suomi |
| Ważne: Warunki gwarancyjne obowiązujące w EOG* i Szwajcarii Aby dowiedzieć się więcej na temat warunków gwarancyjnych tego produktu firmy Yamaha i serwisu gwarancyjnego w całym EOG* i Szwajcarii, należy odwiedzić wskazaną poniżej stronę internetową (Plik gotowy do wydruku znajduje się na naszej stronie internetowej) lub skontaktować się z przedstawicielstwem firmy Yamaha w swoim kraju. * EOG — Europejski Obszar Gospodarczy | Polski |
| Důležité oznámení: Záruční informace pro zákazníky v EHS* a ve Švýcarsku Podrobné záruční informace o tomto produktu Yamaha a záručním servisu v celém EHS* a ve Švýcarsku naleznete na níže uvedené webové adrese (soubor k tisku je dostupný na našich webových stránkách) nebo se můžete obrátit na zastoupení firmy Yamaha ve své zemi. * EHS: Evropský hospodářský prostor | Česky |
| Fontos figyelmeztetés: Garancia-információk az EGT* területén és Svájcban élő vásárlók számára A jelen Yamaha termékre vonatkozó részletes garancia-információk, valamint az EGT*-re és Svájcra kiterjedő garanciális szolgáltatás tekintetében keresse fel webhelyünket az alábbi címen (a webhelyen nyomtatható fájl is található), vagy pedig lépjen kapcsolatba az országában működő Yamaha képviselői irodával. * EGT: Európai Gazdasági Térség | Magyar |
| Oluline märkus: Garantiiteave Euroopa Majanduspiirkonna (EMP)* ja Šveitsi klientidele Täpsemate teabe saamiseks selle Yamaha toote garantii ning kogu Euroopa Majanduspiirkonna ja Šveitsi garantiiteeninduse kohta, külastage palun veebisaiti alljärgneval aadressil (meie saidil on saadaval printitav fail) või pöörduge Teie regiooni Yamaha esinduse poole. * EMP: Euroopa Majanduspiirkond | Eesti keel |
| Svarīgs paziņojums: garantijas informācija klientiem EEZ* un Šveicē Lai saņemtu detalizētu garantijas informāciju par šo Yamaha produktu, kā arī garantijas apkalpošanu EEZ* un Šveicē, lūdzu, apmeklējiet zemāk norādīto tīmekļa vietnes adresi (tīmekļa vietnē ir pieejams drukājams fails) vai sazinieties ar jūsu valsti apkalpojošo Yamaha pārstāvniecību. * EEZ: Eiropas Ekonomikas zona | Latviešu |
| Dėmesio: informacija dėl garantijos pirkėjams EEE* ir Šveicarijoje Jei reikia išsamios informacijos apie šį „Yamaha“ produktą ir jo techninę priežiūrą visoje EEE* ir Šveicarijoje, apsilankykite mūsų svetainėje toliau nurodytu adresu (svetainėje yra spausdintinas failas) arba kreipkitės į „Yamaha“ atstovybę savo šaliai. *EEE – Europos ekonominė erdvė | Lietuvių kalba |
| Dôležité upozornenie: Informácie o záruke pre zákazníkov v EHP* a Švajčiarsku Podrobné informácie o záruke týkajúce sa tohto produktu od spoločnosti Yamaha a garančnom servise v EHP* a Švajčiarsku nájdete na webovej stránke uvedenej nižšie (na našej webovej stránke je k dispozícii súbor na tlač) alebo sa obráťte na zástupcu spoločnosti Yamaha vo svojej krajine. * EHP: Európsky hospodársky priestor | Slovenčina |
| Pomembno obvestilo: Informacije o garanciji za kupce v EGP* in Švici Za podrobnejše informacije o tem Yamahinem izdelku ter garancijskem servisu v celotnem EGP in Švici, obiščite spletno mesto, ki je navedeno spodaj (natisljiva datoteka je na voljo na našem spletnem mestu), ali se obrnite na Yamahinega predstavnika v svoji državi. * EGP: Evropski gospodarski prostor | Slovenščina |
| Важно съобщение: Информация за гаранцията за клиенти в ЕИП* и Швейцария За подробна информация за гаранцията за този продукт на Yamaha и гаранционното обслужване в паневропейската зона на ЕИП* и Швейцария или посетете посочения по-долу уеб сайт (на нашия уеб сайт има файл за печат), или се свържете с представителния офис на Yamaha във вашата страна. * ЕИП: Европейско икономическо пространство | Български език |
| Notificare importantă: Informații despre garanție pentru clienții din SEE* și Elveția Pentru informații detaliate privind acest produs Yamaha și serviciul de garanție Pan-SEE* și Elveția, vizitați site-ul la adresa de mai jos (fișierul imprimabil este disponibil pe site-ul nostru) sau contactați biroul reprezentanței Yamaha din țara dumneavoastră. * SEE: Spațiul Economic European | Limba română |

<http://europe.yamaha.com/warranty/>

ADDRESS LIST

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