# **Deutsch**

-rançais

한국어

L2 SWITCH

# **SWR2310-28GT SWR2310-18GT SWR2310-10G**

Owner's Manual Bedienungsanleitung Mode d'emploi Manual de instrucciones Manual de instruções Manuale di istruzioni Руководство пользователя 使用说明书 사용설명서

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CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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



#### ATTENTION:

POUR RÉDUIRE LES RISQUES D'ÉLECTROCUTION, NE PAS RETIRER LE CAPOT (OU LE DOS). NE CONTIENT PAS DE PIÈCES NÉCESSITANT L'INTERVENTION DE L'UTILISATEUR. POUR TOUTE INTERVENTION, FAIRE APPEL À DES PROFESSIONNELS QUALIFIÉS.

L'avertissement ci-dessus est situé sur le dessus de l'unité.

### Explanation of Graphical Symbols Explication des symboles



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. L'éclair avec une flèche à l'intérieur d'un triangle équilatéral est destiné à attirer l'attention de l'utilisateur sur la présence d'une « tension dangereuse» non isolée à l'intérieur de l'appareil, pouvant être suffisamment élevée pour constituer un risque d'électrocution.



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.

Le point d'exclamation à l'intérieur d'un triangle équilatéral est destiné à attirer l'attention de l'utilisateur sur la présence d'instructions importantes sur l'emploi ou la maintenance (réparation) de l'appareil dans la documentation fournie.

## 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
- 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 groundingtype 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.

#### PRÉCAUTIONS CONCER-NANT LA SÉCURITÉ

- 1 Lire ces instructions.
- Conserver ces instructions.
- 3 Tenir compte de tous les avertissements.
- 4 Suivre toutes les instructions.
- Ne pas utiliser ce produit à proximité d'eau.
- Nettoyer uniquement avec un chiffon propre et sec.

  Ne pas bloquer les orifices de ventilation. Installer l'appareil
- 7 Ne pas bloquer les orifices de ventilation. Installer l'appareil conformément aux instructions du fabricant.
- 8 Ne pas installer l'appareil à proximité d'une source de chaleur comme un radiateur, une bouche de chaleur, un poêle ou tout autre appareil (y compris un amplificateur) produisant de la chaleur.
- 9 Ne pas modifier le système de sécurité de la fiche polarisée ou de la fiche de terre. Une fiche polarisée dispose de deux broches dont une est plus large que l'autre. Une fiche de terre dispose de deux broches et d'une troisième pour le raccordement à la terre. Cette broche plus large ou cette troisième broche est destinée à assurer la sécurité de l'utilisateur. Si la fiche équipant l'appareil n'est pas compatible avec les prises de courant disponibles, faire remplacer les prises par un électricien.
- 10 Acheminer les cordons d'alimentation de sorte qu'ils ne soient pas piétinés ni coincés, en faisant tout spécialement attention aux fiches, prises de courant et au point de sortie de l'appareil.
- 11 Utiliser exclusivement les fixations et accessoires spécifiés par le fabricant.
- 12 Utiliser exclusivement le chariot, le stand, le trépied, le support ou la table recommandés par le fabricant ou vendus avec cet appareil. Si l'appareil est posé sur un chariot, déplacer le chariot avec précaution pour éviter tout risque de chute et de blessure.
- 13 Débrancher l'appareil en cas d'orage ou lorsqu'il doit rester hors service pendant une période prolongée.
- 14 Confier toute réparation à un personnel qualifié. Faire réparer l'appareil s'il a subi tout dommage, par exemple si la fiche ou le cordon d'alimentation est endommagé, si du liquide a coulé ou des objets sont tombés à l'intérieur de l'appareil, si l'appareil a été exposé à la pluie ou à de l'humidité, si l'appareil ne fonctionne pas normalement ou est tombé.

#### **AVERTISSEMENT**

POUR RÉDUIRE LES RISQUES D'INCENDIE OU DE DÉCHARGE ÉLECTRIQUE, N'EXPOSEZ PAS CET APPAREIL À LA PLUIE OU À L'HUMIDITÉ.

### **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 equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual. may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

(class A)

# **COMPLIANCE INFORMATION STATEMENT** (Supplier's declaration of conformity procedure)

Responsible Party: Yamaha Corporation of America Address: 6600 Orangethorpe Ave. Buena Park CA90620

Telephone: 714-522-9011

Type of Equipment: L2 SWITCH

Model Name: SWR2310-28GT, SWR2310-18GT, SWR2310-10G

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:

- 1) this device may not cause harmful interference, and
- 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.

(FCC SDoC)

### **PRECAUTIONS**

# PLEASE READ CAREFULLY BEFORE PROCEEDING

Please keep this manual in a safe place for future reference.

This product is an intelligent L2 switch with optimal functionality for Dante.

Do not use for any purposes other than the one intended. Those who are unfamiliar with handling or those who can not handle according to this manual such as children, should be supervised by responsible persons to ensure safety.



#### **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:

#### If you notice any abnormality

- If any of the following problems occur, immediately turn off the power switch and disconnect the electric plug from the outlet.
  - The power cord or plug becomes frayed or damaged.
  - Unusual smells or smoke are emitted.
  - Some object, or water has been dropped into the product.
  - There is a sudden loss of sound during use of the product.
  - Cracks or other visible damage appear on the product.

Then have the product inspected or repaired by qualified Yamaha service personnel.

#### 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 product. The required voltage is printed on the name plate of the product.
- Use only the supplied power cord/plug.
   If you intend to use the product 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.
- Make sure to fully insert the electric plug to prevent electric shocks or fire.
- When setting up the product, make sure that the AC outlet you are using is easily accessible.
  - If some trouble or malfunction occurs, immediately disconnect the plug from the outlet. As long as the power cord is not unplugged from the wall AC outlet, the product will not be disconnected from the power source.
- Remove the electric plug from the outlet when the product is not to be used for extended periods of time.
- Do not touch the product or the electric plug during an electrical storm.
- Be sure to connect to an appropriate outlet with a protective grounding connection. Improper grounding can result in electrical shock, fire, or damage.

#### Do not open

 This product contains no user-serviceable parts. Do not attempt to disassemble the internal parts or modify them in any way.

#### Water warning/Fire warning

- Do not expose the product 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.
- Never insert or remove an electric plug with wet hands.
- Do not place any burning items or open flames near the product, since they may cause a fire.



### **CAUTION**

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

#### Power supply/power cord

 When removing the electric plug from the product or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.

#### Location and connection

- Do not place the product in an unstable position or a location with excessive vibration, where it might accidentally fall over and cause injury.
- Keep the device and small parts out of reach of children, to keep them from putting their fingers into openings on the product and accidentally being injured.
   This product is not suitable for use in locations where children are likely to be present.

- Do not block the vents. This product has ventilation holes at the top (SWR2310-10G only)/sides to prevent the internal temperature from becoming too high. In particular, do not place the product on its side or upside down. Inadequate ventilation can result in overheating, possibly causing damage to the product(s), or even fire.
- When installing the product:
  - Do not cover it with any cloth.
  - Do not install it on a carpet or rug.
  - Make sure the top or side surface faces up; do not install on its front, rear, or upside down.
  - Do not use the product in a confined, poorly-ventilated location.

Inadequate ventilation can result in overheating, possibly causing damage to the product(s), or even fire.

- When using the separately sold WK-SWR wall mount accessory, do not install the SWR2310-18GT, SWR2310-10G on a wall or ceiling that is more than 2 meters high. The product might fall, causing malfunction or injury.
- If the product is mounted in an EIA standard rack, carefully read the section "Please read before mounting the unit into a rack" on page 20. Inadequate ventilation can result in overheating, possibly causing damage to the product(s), malfunction, or even fire.
- Do not place the product in a location where it may come into contact with corrosive gases or salt air. Doing so may result in malfunction.
- Before moving the product, remove all connected cables.
- Always consult qualified Yamaha service personnel if the product installation requires construction work, and make sure to observe the following precautions.
  - Choose mounting hardware and an installation location that can support the weight of the product.
  - Avoid locations that are exposed to constant vibration.
  - Use the required tools to install the product.
  - Inspect the product periodically.

PA11-2/4

#### Maintenance

 Remove the power plug from the AC outlet when cleaning the product.

#### **Handling caution**

- Do not insert your fingers or hands in any gaps or openings on the product (vents, ports, panel, etc.).
- Do not rest your weight on the product or place heavy objects on it.
- Do not look into the optical emitter when a separately sold SFP module (SFP-SWRG-SX, SFP-SWRG-LX) and/or SFP+ module (SFP-SWRT-SR, SFP-SWRT-LR) is installed. The separately sold SFP/SFP+ modules are class 1 laser devices. They may emit laser beams invisible to the eye. If the laser beam enters your eye, your eyesight might be damaged.

#### **Backup battery**

 Do not replace the backup battery by yourself. Doing so may cause an explosion and/or damage to the product(s).

When the backup battery needs to be replaced, contact your Yamaha dealer and have qualified Yamaha service personnel replace the backup battery.

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

### **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 touch the interior of a port with your fingers or any metallic object. Doing so might cause malfunctions.
- Do not use the product in a location exposed to direct sunlight (such as in a car during the day), in a location of extreme heat such as near a stove, in a location of extreme cold, or in a location of excessive dust or vibration. Failure to observe this precaution could cause the product's panel to deform, its interior components to malfunction, or its operation to become unstable.
- Do not place vinyl, plastic or rubber objects on the product, since this might cause alteration or discoloration of the panel.
- When cleaning the product, use a dry and soft cloth. Do not use paint thinners, solvents, cleaning fluids, or chemicalimpregnated wiping cloths, since this might cause alteration or discoloration.
- Condensation can occur in the product due to rapid, drastic changes in ambient temperature—when the product is moved from one location to another, or air conditioning is turned on or off, for example. Using the product while condensation is present can cause damage. If there is reason to believe that condensation might have occurred, leave the product for several hours without turning on the power until the condensation has completely dried out.
- Drain all static electricity from your clothing and body before handling this product. Static electricity can damage this product. Touch an exposed metal part of the host device or other grounded object beforehand.
- Do not install the product in a location where magnetic fields are strong.
   Otherwise, it might cause the product to malfunction.

- Do not connect any noise generating devices on the same power line as the product. Failure to observe this precaution could result in a malfunction or damage to the product.
- Do not locate any connected LAN cables close to the power cord. Otherwise, high voltage might be induced, resulting in malfunction.
- A 1000BASE-T connection will require an Enhanced Category 5 (CAT5e) or better LAN cable.
- Do not install any SFP module other than the separately sold SFP-SWRG-SX or SFP-SWRG-LX in an SFP port. Operation cannot be guaranteed if any SFP module other than the above is installed.
- Do not install any SFP+ module other than the separately sold SFP-SWRT-SR or SFP-SWRT-LR, any SFP module other than the SFP-SWRG-LX or SFP-SWRG-SX, or any direct attach cable other than the DAC-SWRT-3M or DAC-SWRT-1M in an SFP+ port. Operation cannot be guaranteed if any module or cable other than the above is installed.
- Attach the dust cover to SFP/SFP+ ports that are not in use. Failing to do so could allow foreign objects to enter, causing malfunctions. Keep the dust cover in a safe place so that it is not lost.
- The rubber feet included in this package can be attached to the product to prevent slippage when it is to be used on a slippery surface.
- Do not connect this product to public Wi-Fi and/or Internet directly. Only connect this product to the Internet through a router with strong password-protections. Consult your router manufacturer for information on security best practices.

#### Saving data

• This unit has a built-in backup battery that maintains time information for the data. When the backup battery runs down, the time information will be initialized, causing incorrect time information to be recorded in the log. If this occurs, contact your dealer or a Yamaha customer service center to have the backup battery replaced. The life span of the backup battery is approximately 10 years, but this may vary depending on the conditions of use. Set the clock after replacing the battery.

### Functions/data bundled with the product

 This is a class A product. Operation of this product in a residential environment could cause radio interference.

#### About disposal

 This product contains recyclable components. When disposing of this product, please contact the appropriate local authorities.

#### About this manual

- The illustrations and screens as shown in this manual are for instructional purposes only.
- Windows is a registered trademark of Microsoft<sup>®</sup> Corporation in the United States and other countries.
- The company names and product names in this manual are the trademarks or registered trademarks of their respective companies.
- Software may be revised and updated without prior notice.

### Open source software used in this product

 Please refer to the Yamaha Pro Audio website for the licensing terms. http://www.yamaha.com/proaudio/

#### **Warning: Fiber Optic Port Safety**

This product is intended to be installed in an UL certified Optical Transceiver Module, rated 3.3V, Laser Class 1, if need further assistance, please contact Yamaha Corporation for further information.

#### Conventions in this document

Company names and product names in this document are abbreviated as follows.

- Yamaha SWR2310-28GT, SWR2310-18GT, or SWR2310-10G L2 switch: this product
- 10BASE-T/100BASE-TX/1000BASE-T cable: LAN cable
- SEP-SWRT-SR or SEP-SWRT-LR: SEP+ module
- SFP-SWRG-SX or SFP-SWRG-LX: SFP module
- DAC-SWRT-3M or DAC-SWRT-1M: direct attach cable

#### Icons

Information that applies to the SWR2310-28GT, SWR2310-18GT, or SWR2310-10G is indicated by the following icons.

#### SWR2310-28GT

Indicates information that applies only to the SWR2310-28GT.

#### SWR2310-18GT

Indicates information that applies only to the SWR2310-18GT.

#### SWR2310-10G

Indicates information that applies only to the SWR2310-10GT.

#### Memo

An icon is not shown for information that is common to all models.

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### Introduction

Thank you for purchasing the Yamaha SWR2310-28GT, SWR2310-18GT, or SWR2310-10G intelligent L2 switch.

This product is an intelligent L2 switch with optimal functionality for Dante. This owner's manual is intended for installers and facility designers, and explains installation methods and settings. Please be sure to read this manual before you start using the product to take full advantage of its features. Please retain this manual in a safe location for future reference.

#### Included items

Verify that the following included items are present.

- Owner's manual (this document)
- Power cord
- Power cord clamp (used only for the included dedicated power cord)
- Legs (rubber feet) (4 pcs.)
- 19-inch rack mount hardware and screws (hardware: 2 pcs., screws: 8 pcs.)

#### SWR2310-28GT / SWR2310-18GT

These are required when installing this product in a 19-inch rack (1U size). For details on installation, refer to "Installing in a 19-inch rack" SWR2310-28GT / SWR2310-18GT (page 23) in "Installation."

#### **Features**

- This product makes it easy to specify the recommended settings for stable operation of a Dante network (such as QoS, EEE, and IGMP Snooping).
- Multiple switches connected as a stack can be operated as a single virtual switch. The SWR2310-28GT is equipped with stack functionality.
- This product can ease your daily network maintenance and operation responsibilities.
   You can use Yamaha LAN Monitor (application) to ascertain the network structure that is connected to this product and to monitor and manage the devices.
  - This product also supports performance management and damage management. All models regularly monitor the memory and CPU usage and the bandwidth usage of each port. The monitored data can be viewed in the Web GUI or backed-up to an SD card (sold separately).
  - The live/dead status of a network-connected terminal connected below this product can also be monitored using only this product.
- This product can operate in cooperation with an authentication server to authenticate terminals within the network.

This allows invalid terminals to be eliminated from the network.

#### Separately sold items

RK-SWR rack mount accessory:

This is required when installing the SWR2310-10G in a 19-inch rack.

· WK-SWR wall mount accessory:

This is required when installing the SWR2310-10G or SWR2310-18GT on a wall or ceiling 2 m or less in height.

SFP-SWRG-SX or SFP-SWRG-LX SPF module:

This is required when transmitting via 1000BASE-SX or 1000BASE-LX.

• SFP-SWRT-SR or SFP-SWRT-LR SFP+ module:

This is required when transmitting via 10GBASE-SR or 10GBASE-LR.

DAC-SWRT-3M or DAC-SWRT-1M direct attach cable:

These are direct attach cables that provide SFP+ modules and copper cable in a single unit. By directly connecting between SFP+ ports, these allow a 10 gigabit Ethernet system to be constructed inexpensively, although with limited distance.

#### Related software and documents

· Yamaha LAN Monitor/Yamaha LAN Monitor user guide

This is a PC application used to monitor this unit's information and the entire network including all Dante devices on the Dante network, and the user guide for this application.

 Yamaha network device USB serial driver / Yamaha network device USB serial driver installation guide

This is a Windows driver that allows communication when the mini-USB CONSOLE port is connected via a USB cable to a computer, and the installation guide for this driver.

Command reference

This explains the commands used when using the command line to make settings from a computer.

· Technical reference

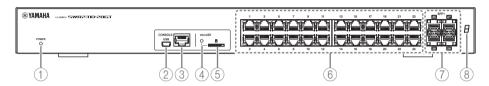
This describes details of this product's functions.

This software and these documents can be downloaded from the following website. http://www.yamahaproaudio.com/

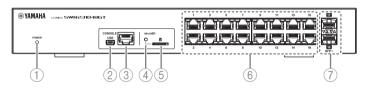
### **Controls and Connectors**

#### **Front Panel**

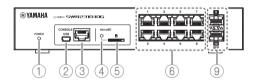
#### SWR2310-28GT



#### SWR2310-18GT



#### SWR2310-10G



#### 1 POWER indicator

Lights when power is provided to the unit.

POWER indicator	Status	
Unlit	Power off	
Flashing (green)	Power on, starting up	
Lit (green)	Power on, normal	
Lit (orange)	Power on, error occurred	



#### Caution

When an abnormal temperature is detected inside this product, the POWER indicator is lit orange. Reconsider the environment in which this unit is installed, and correctly install this unit so that its internal temperature is appropriate. You can also check this from Yamaha LAN Monitor or the Web GUI.

#### 2 mini-USB CONSOLE port

This is a mini-USB port for making settings. Use a USB cable to connect it to the USB port of a computer. Use a USB cable equipped with a USB Type A connector and a USB mini-B (5-pin) connector.

#### Memo

Use a cable that supports data transfer. Charge-only cables cannot be used.

#### ③ RJ-45 CONSOLE port

This is an RJ-45 port for making settings. Use an RJ-45/DB-9 console cable to connect it to the RS-232C connector (COM port) of the computer.

#### (4) microSD indicator

Indicates the connection and usage status of the microSD card.

microSD indicator	Status	
Unlit	A microSD card is not inserted in the slot.	
Flashing green	The microSD card is being accessed.	
Lit green	A microSD card is inserted.	



#### Caution

Do not remove the microSD card if this indicator is flashing green.

#### (5) microSD slot

A microSD card can be inserted in this slot.

#### (6) LAN ports

These ports support T10BASE-T, 100BASE-TX, and 1000BASE-T.

#### (7) SFP+ ports SWR2310-28GT / SWR2310-18GT

These ports support T10GBASE-SR, 10GBASE-LR, 1000BASE-SX, and 1000BASE-LX. Install an SFP+ module or SFP module sold separately by Yamaha. For the SWR2310-28GT or SWR2310-18GT, install a direct attach cable (DAC-SWRT-3M or DAC-SWRT-1M). For details on installing an SFP+ or SFP module, refer to "Installing an SFP module" (page 30) in "Connections." For details on installing a direct attach cable, refer to "Installing a direct attach cable" SWR2310-28GT / SWR2310-18GT (page 32). These ports can also be used for stack connection. For details on stack connection, refer to "Making stack connections" SWR2310-28GT (page 33).

#### (8) Stack ID indicator SWR2310-28GT

This is a 7-segment display that indicates the stack ID when stack connection is used.

#### 9 SFP ports SWR2310-10G

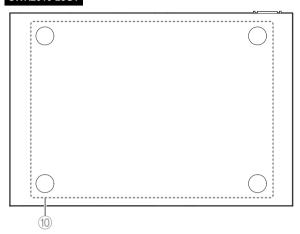
These ports support 1000BASE-SX and 1000BASE-LX. Install an SFP module sold separately by Yamaha.

For details on installing an SFP module, refer to "Installing an SFP module" (page 30) in "Connections"

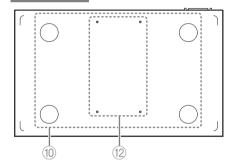
### Bottom panel / rear panel / side panel / top panel

#### ■ Bottom panel

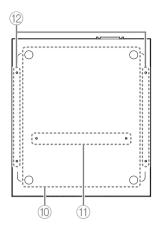
#### SWR2310-28GT



#### SWR2310-18GT



#### SWR2310-10G



#### 10 Leg attachment guides

These indicate the locations at which the included legs are to be attached when the unit is installed in a level location. For details on installation, refer to "Attaching the legs" (page 20) in "Installation."

- (1) Rack mount accessory attachment holes SWR2310-10G

  Use these holes to attach the RK-SWR rack mount accessory. For details on installation, refer to "Installing in a 19-inch rack" SWR2310-10G (page 21) in "Installation."
- (2) Wall mount accessory attachment holes SWR2310-18GT / SWR2310-10G
  Use these holes to attach the WK-SWR wall mount accessory.

  For details on installation, refer to "Installation on a wall or ceiling" SWR2310-18GT / SWR2310-10G (page 24).

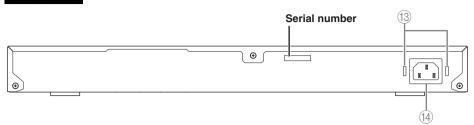
#### Notice

Magnet sheets are not supported, and should not be used.

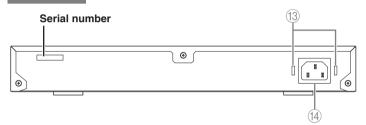
#### **Controls and Connectors**

#### ■ Rear panel

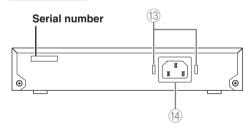
#### SWR2310-28GT



#### SWR2310-18GT



#### SWR2310-10G



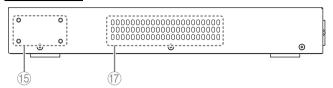
#### 13 Power cord clamp attachment holes

The included power cord clamp (C-shaped) can be attached here. For details on installation, refer to "Turning the power on" (page 33) in "Connections."

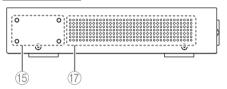
(4) Power supply inlet (three-pin connector, C14 type) Insert the included power supply cord here.

#### ■ Side panel

#### SWR2310-28GT



#### SWR2310-18GT

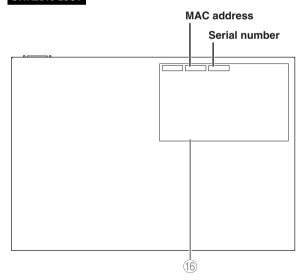


#### SWR2310-10G



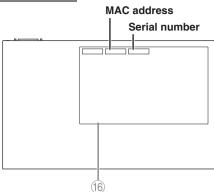
#### ■ Top panel

#### SWR2310-28GT



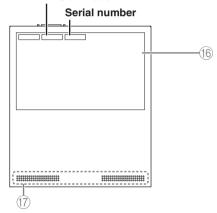
#### **Controls and Connectors**

#### SWR2310-18GT



#### SWR2310-10G





- (15) Rack mount accessory attachment holes SWR2310-28GT / SWR2310-18GT These are used when installing this product in a 19-inch rack (1U). For details on installation, refer to "Installing in a 19-inch rack" SWR2310-28GT / SWR2310-18GT (page 23) in "Installation."
- **16 Product label**

This lists the model name, serial number, and MAC address etc. of this unit.

**17** Cooling vents

The holes in this product are cooling vents for intake of external air.

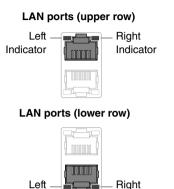


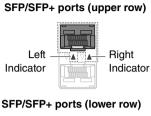
#### Warning

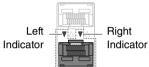
**Do not block the cooling vents or place objects near them.** Doing so could cause fire or malfunctions.

#### Port indicators

These are indicators for the LAN ports and SFP/SFP+ ports, and indicate the state of each port in each mode.







The indicators show the link status and connection speed of the LAN port or SFP/SFP+ port.

Indicator

#### LAN ports

Indicator

Left indicator	Link status		
Unlit	The link is lost. (unavailable)		
Lit (green)	A link is established. (available)		
Flashing (green)	Data is flowing.		

Right indicator	Connection speed
Unlit	Not connected. Alternatively, connected by 10BASE-T.
Lit (orange)	Connected by 100BASE-TX.
Lit (green)	Connected by 1000BASE-T.

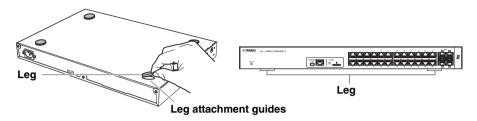
#### SFP/SFP+ ports

o , o po o			
Left indicator	Link status		
Unlit	The link is lost. (unavailable)		
Lit (green)	A link is established. (available)		
Flashing (green)	Data is flowing.		

Right indicator	Connection speed	
Unlit	Not connected.	
Lit (green)	Connected by 1000BASE-SX/LX or 10GBASE-SR/LR. If using the DAC-SWRT- 3M or DAC-SWRT-1M, connected at 10 Gbps.	

### Attaching the legs

As shown in the illustration, attach the included legs in the positions of the leg attachment guides, and place the unit on a level location such as a desk.



### Installation in a rack

#### Please read before mounting the unit into a rack

- This unit is warrantied to operate in an ambient temperature range of 0–50 °C. If you install this unit along with other devices into an EIA-standard or JIS-standard rack, the temperature inside the rack may rise due to heat released from the other devices, resulting in poor performance of the unit. To prevent the temperature inside the unit from rising, mount the unit in the rack in accordance with the requirements below.
- If you plan to rack-mount the unit along with a device that tends to generate heat, such as an amplifier (excluding an XMV series), be sure to leave a gap of 1U or more from such devices. Also, be sure to maintain sufficient ventilation in this space by installing a ventilation panel or leaving it open.
- Open the rear panel of the rack, and place the rack at least 10cm (about four inches) away from the walls and ceiling to ensure sufficient ventilation. If you cannot open the rear panel of the rack, install a commercially-available forced ventilation device, such as a fan kit. If you install a fan kit, closing the rear panel may work better for heat dissipation purposes. For more information, refer to the owner's manual for the rack and/or fan kit.



#### Caution

If you plan to relocate the rack, be sure to first remove this unit from the rack.

If you move the unit while it is still installed in the rack, vibration or physical shock might deform or damage the rack mount accessory or rack mount hardware, causing injury. There is also a possibility that this unit might malfunction.

#### ■ Installing in a 19-inch rack SWR2310-10G

The SWR2310-10G is installed using an RK-SWR rack mount accessory sold separately by Yamaha.

#### Installation

This section explains how to attach the unit in the middle block of a rack mount panel. Even if you plan to attach the unit in the left or right block, follow the procedure below.

#### Notice

If the supplied feet have already been attached to the unit, remove them.

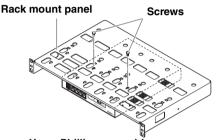
#### 1. Attaching the rack mount panel to the unit

Use the two screws supplied with the rack-mount accessory, attach the rack mount panel to the bottom panel of the unit.



#### Warning

When attaching this unit to the separately sold RK-SWR rack mount accessory, you must use the specified screws that are included with the rack mount accessory. If the unit falls, injury or damage might occur. This could also cause electric shock or malfunctions

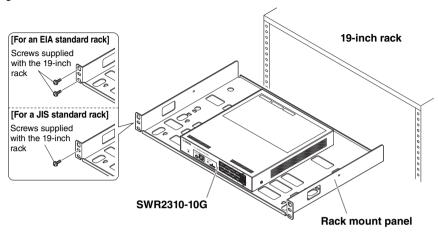


Use a Phillips screwdriver to firmly fasten the screws.

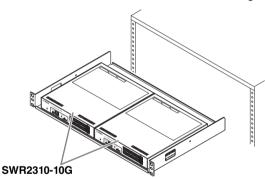
#### Installation in a rack

#### 2. Install the rack mount panel to the 19-inch rack.

Using the screws that are included with the 19-inch rack (EIA standard 4 pcs., JIS standard 2 pcs.), fasten this unit to the 19-inch rack. Be sure to tighten the screws so that they will not get loosened.



You can also mount two SWR2310-10G units as shown in the figure below.



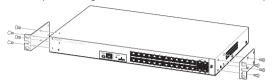


#### Caution

So as not to obstruct the cooling vents on the top panel of this unit, leave a gap when installing it in a 19-inch rack.

#### ■ Installing in a 19-inch rack SWR2310-28GT / SWR2310-18GT

The SWR2310-28GT and SWR2310-18GT fit in a 19-inch rack mount 1U size. When installing them in a 19-inch rack, attach the included rack mount hardware (2 pcs.) using the included screws (8 pcs.). Here we explain using the SWR2310-28GT as an example.



Use a Phillips screwdriver to firmly fasten the screws.



#### Warning

You must use the included rack mount hardware and screws.

If the unit falls, injury or damage might occur. This could also cause electric shock or malfunctions.

#### Notice

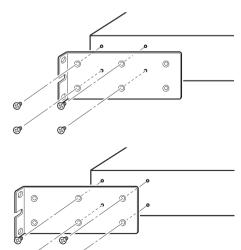
- If the rack cabinet has a door, take care that it will not interfere with communication cables or the power cord after this unit is installed.
- So as not to obstruct the cooling vents on the side panels of this unit, leave a gap when installing it in a 19-inch rack.

#### Memo

Using the screws that are included with the 19-inch rack (EIA standard 4 pcs., JIS standard 2 pcs.), fasten this unit to the rack

The rack mount hardware can be attached to this unit using either of the following two methods.

Method A: Attach the rack mount hardware so that its rack screw surface is flush with the front panel of this unit



### Method B: Install the unit 4 cm deeper than method A (recessed)

If the 19-inch rack cabinet has a door, use this method of attachment. Install the unit in a recessed position so that cables inserted in the front panel of the unit do not contact the door of the rack.

(B)

(F)

# Installation on a wall or ceiling

SWR2310-18GT / SWR2310-10G

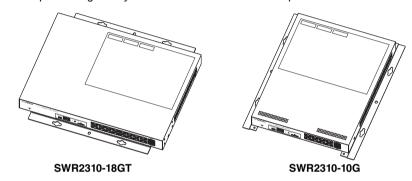
Use the separately sold WK-SWR wall mount accessory to install the unit.

If attaching this unit to a ceiling, invert the top and bottom of the unit.

You will need to obtain six screws that fit the holes described in step 1 and are appropriate for the material and thickness of the wall or ceiling.

Carry out the installation completely, all the way to step 7.

Here we explain using mainly the SWR2310-10G as an example.





#### Caution

- Do not attach this unit to a wall or ceiling that is higher than 2 meters. If the unit falls, injury or damage might occur.
- When attaching or removing this unit, you must disconnect the unit's power plug from the power outlet.

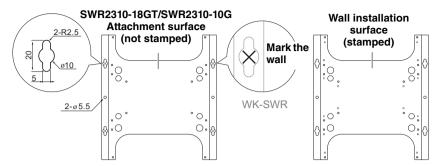
Failing to do so could cause electrical shock or malfunctions.

- Installation must be performed by a qualified installer.
   During installation, pay attention to the following points.
  - Choose hardware and a location that is well able to support the weight of this unit
  - · Avoid locations that are subject to sustained vibration
  - · You must use the specified installation accessory
  - Perform periodic maintenance checks

#### Notice

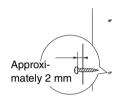
- The mounting accessory has a surface to which the SWR2310-18GT/SWR2310-10G must be attached and a surface that must be attached to the wall or ceiling.
   If these two surfaces are confused, it will not be possible to attach the mounting accessory to the SWR2310-18GT/SWR2310-10G. To distinguish the surfaces, refer to the illustrations for step 1 and step 3.
- The position of the unit relative to the mounting accessory differs by 90 degrees between the SWR2310-18GT and the SWR2310-10G.

#### Place the mounting accessory against the wall or ceiling, and mark the installation location.



2. Provisionally attach four commercially available screws to the locations that you marked in step 1.

At this time, leave approximately 2 mm between the head of the screw and the surface of the wall or ceiling, allowing room for the mounting accessory to engage the screws (illustration at right).





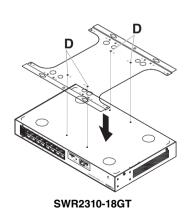
#### Warning

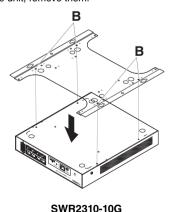
You must use screws that are appropriate for the material of the wall or ceiling. If the unit falls, injury or damage might occur.

3. Align the unit with the mounting accessory (illustration below).

#### Notice

If the supplied feet have already been attached to the unit, remove them.





#### Installation on a wall or ceiling

4. Using four screws included with the mounting accessory, attach it to the SWR2310-18G/SWR2310-10G.

Fasten it securely.



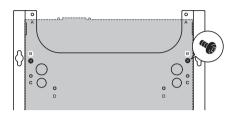
#### Warning

Use only the specified screws that were included.

If the unit falls, injury or damage might occur. This could also cause electric shock or malfunctions.

 Take care when letting your hand or finger contact the corners of the mounting accessory.

Inattention might cause injury.



#### Notice

The screw holes to use are stamped with a "D" (SWR2310-18GT) or "B" (SWR2310-10G) on the mounting accessory.

The screws to use are the small black M3 × 4 screws for the metal chassis.

5. Engage the assembled mounting accessory onto the commercially available screws that you provisionally attached in step 2, and slide it to the side.



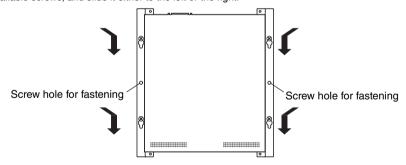
#### Warning

#### Do not drop the unit.

If the unit falls, injury or damage might occur.

#### Notice

When installing the unit sideways, engage the mounting accessory onto the commercially available screws, and slide it either to the left or the right.



- 6. Further tighten the commercially available screws that you provisionally attached in step 2, fastening the mounting accessory.
- Install two commercially available screws in the fastening screw holes (two locations) of the mounting accessory.



#### Warning

You must use screws that are appropriate for the material of the wall or ceiling. If the unit falls, injury or damage might occur.

### **Settings**

Settings for this unit can be made in the following ways.

- · Make settings using the Web GUI
- Make settings from the command line using the CONSOLE port
- Make settings from the command line using Telnet
- · Make settings from the command line using SSH

This document explains "Make settings using the Web GUI" (page 27) and "Making settings from the command line using the CONSOLE port" (page 28).

You can log in to this unit either as a standard user or as an administrative user. This document explains how to log in as an administrative user.

For details on the commands used by this unit, refer to the command reference.

The command reference is available on the Yamaha website.

http://www.yamaha.com/proaudio/

#### Make settings using the Web GUI

Here we explain the procedure for logging in to this unit using the Web GUI.

You will use Yamaha LAN Monitor to log in to the Web GUI, so install Yamaha LAN Monitor before you continue.

Before you log in, connect your computer to the same network.

For details on supported web browsers, refer to the Yamaha website.

http://www.yamaha.com/proaudio/

#### Logging in to this unit using a web browser

- 1. Start Yamaha LAN Monitor.
- 2. Select the device for which you want to make settings, and click the Web GUI button in the "Device Details" view.

When access is successful, a dialog box appears where you can enter a user name and password.

If you are making settings ahead of time, enter the user name and password, and click the "log in" button.

With the factory settings, the user name and password are not specified, so it is not necessary to enter a user name and password.

# Making settings from the command line using the CONSOLE port

Here we explain the cable, driver, software, and settings that are necessary in order to use the CONSOLE port.

#### ■ Preparing a console cable

- Connect the computer to the CONSOLE port of this unit using a USB cable or an BJ-45/DB-9 console cable.
- As the USB cable connected to the mini-USB CONSOLE port, use a USB cable that is equipped with a USB Type A connector and a USB mini-B (5-pin) connector, and that supports data communication. Charge-only cables cannot be used.

#### ■ Installing the USB serial driver

- In order to use the mini-USB CONSOLE port, the USB serial driver must first be installed in the computer.
- For details on installing the USB serial driver, refer to the "Yamaha Network Device USB Serial Driver Installation Guide."

The Yamaha Network Device USB Serial Driver Installation Guide and the installer can be downloaded from the Yamaha website.

http://www.yamaha.com/proaudio/

#### ■ Preparing the computer

You will need terminal software that controls the serial (COM) port of the computer. Set the parameters of the terminal software as follows.

Parameter	Value
Data transmission speed	9600 bps
Character bit length	8
Parity check	None
Number of stop bits	1
Flow control	Xon/Xoff

If the computer is connected to both the RJ-45 CONSOLE port and the mini-USB CONSOLE port, only the terminal software that uses the mini-USB CONSOLE port can make settings.

The messages that are output from this unit are output to both CONSOLE ports.

#### ■ Logging in from a computer connected to the CONSOLE port

#### 1. Using a console cable, connect this unit to the computer.

Connect the computer to the CONSOLE port of this unit using a USB cable or an RJ-45/DB-9 console cable.

#### Notice

- The LAN ports and the RJ-45 CONSOLE port all use the same 8-pin connector. If you connect these wrongly, hardware damage or malfunction might occur.
   Take care when making connections.
- If you use the mini-USB CONSOLE port, do not use a USB hub. If multiple Yamaha switches are connected to one computer, the COM port numbers assigned to the connection might be inadvertently exchanged. Take care that you are not changing the settings of an unintended unit.

#### 2. Check the power supply of this unit.

If this unit is not powered-on, turn on the power as described in "Turning the power on" (page 33). When this unit powers-on and the command line is usable, a startup message appears in the console screen of the computer.

If the power is already on, a startup message does not appear.

```
SWR2310 Rev.2.04.01 (Mon Sep 4 16:28:06 2018)
Copyright (c) 2020 Yamaha Corporation. All Rights
Reserved.
```

#### 3. Press the <Enter> key.

The system waits for a user name to be entered.

If a user name has already been specified, enter the user name.

When the unit is shipped from the factory, a user name has not been specified, so it need not be entered.

Username:

#### 4. Press the <Enter> key.

The system waits for a password to be entered.

If a password has already been specified, enter the password.

When the unit is shipped from the factory, a password has not been specified, so it need not be entered.

Password:

#### 5. Press the <Enter> key.

If password authentication is successful, the command prompt appears, allowing you to enter commands.

For details on the commands, refer to the command reference.

SWR2310>

### **Connections**

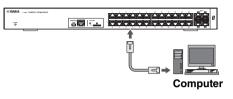
#### Connecting to a network device or a computer

#### Notice

Do not connect this product to public Wi-Fi and/or Internet directly.

Only connect this product to the Internet through a router with strong password-protections.

Consult your router manufacturer for information on security best practices.



Using LAN cables, connect the LAN port of the network device or computer to the LAN ports of this unit. If using fiber optic cables to make connections, install an appropriate SFP module or SFP+ module in an SFP/SFP+ port.

For the installation procedure, refer to "Installing an SFP module" (page 30).



#### Caution

The LAN ports and the RJ-45 CONSOLE port all use the same 8-pin connector. If you connect these wrongly, hardware damage or malfunction might occur. Take care when making connections.

#### ■ Installing an SFP module

- SFP ports ( SWR2310-10G ): SFP module (SFP-SWRG-SX,SFP-SWRG-LX)
- SFP+ port (SWR2310-28GT / SWR2310-18GT): SFP+ module (SFP-SWRT-SR, SFP-SWRT-LR), SFP module (SFP-SWRG-SX, SFP-SWRG-LX)

Supported SFP modules and SFP+ modules are collectively referred to here as SFP modules.

 Remove the dust cover that is affixed to this unit's SFP/SFP+ port, and insert the SFP module.

#### Memo

Since this unit supports hot-swapping, an SFP module can be installed without turning the power off.

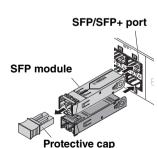
2. Remove the protective cap from the SFP module.



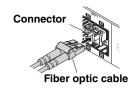
#### Caution

Do not look into the optical emitter when the SFP module is installed.

The SFP modules separately sold by Yamaha are class 1 laser devices. They may emit laser beams invisible to the eye. If the laser beam enters your eye, your eyesight might be damaged.



3. To the connector, connect a fiber optic cable that is suitable for each module.

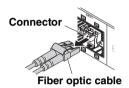


#### ■ Removing an SFP module

Secure this unit so that it will not move, and while grasping the lever of the SFP module, pull it slowly toward yourself to remove the module from the SFP/SFP+ port.

Supported SFP modules and SFP+ modules are collectively referred to here as SFP modules.

1. Detach the fiber optic cable.



2. If the SFP module is connected to the upper row of ports, lower the SFP module's lever.

If it is connected to the lower row of ports, raise the lever.





#### Caution

Do not look into the optical emitter when the SFP module is installed.

The SFP modules separately sold by Yamaha are class 1 laser devices. They may emit laser beams invisible to the eye. If the laser beam enters your eye, your eyesight might be damaged.

3. Grasp the lever and pull out the SFP module.

#### Memo

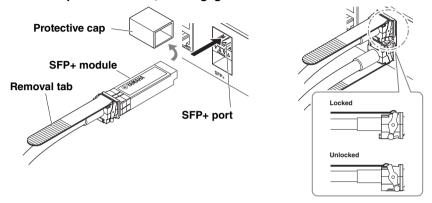
Since this unit supports hot-swapping, an SFP module can be removed without turning the power off.



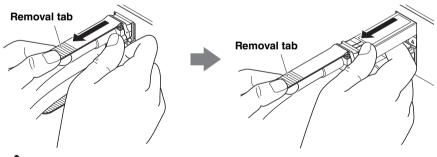
■ Installing a direct attach cable SWR2310-28GT / SWR2310-18GT

A direct attach cable (DAC-SWRT-3M, DAC-SWRT-1M) can be installed in an SFP+ port of the SWR2310-28GT or SWR2310-18GT.

- Remove the protective cap from the SFP+ module section of the direct attach cable, and remove the dust cover from the SFP+ port of this unit.
- 2. Grasp the SFP+ module section of the direct attach cable, insert it firmly into the SFP+ port of this unit, and engage the lock.



- Removing a direct attach cable SWR2310-28GT / SWR2310-18GT
  - 1. While using one hand to push the SFP+ module section inward, use the other hand to pull the removal tab toward yourself, disengaging the lock.
  - 2. When the lock disengages, continue pulling the removal tab and slowly pull out the SFP+ module section.





#### Caution

- Do not grasp the cable of the direct attach cable when disconnecting it. Doing so might cause malfunctions.
- Do not disconnect the cable by pulling only the removal tab. Doing so might cause malfunctions.
- First verify that the lock is disengaged, and then disconnect the cable. Forcibly
  disconnecting the cable will damage the direct attach cable or cause this unit to
  malfunction.

#### ■ Making stack connections SWR2310-28GT

Attach a direct attach cable or an SFP+ module (SFP-SWRT-SR or SFP-SWRT-LR) to an SFP+ port of the SWR2310-28GT. If using an SFP+ module, you must additionally provide a fiber optic cable that is suitable for the SFP+ module.

For details on installing or removing a direct attach cable, refer to "Installing a direct attach cable"

SWR2310-28GT / SWR2310-18GT (page 32) and "Removing a direct attach cable"

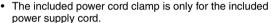
SWR2310-28GT / SWR2310-18GT (page 32)

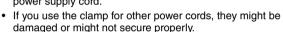
For the procedure of installing an SFP+ module, refer to "Installing an SFP module" (page 30). For details on stack connections, refer to the SWR2310 series "Technical Reference."

#### ■ Turning the power on

#### 1. Attach the included power cord clamp.

To prevent accidental disconnection of the power cord, insert the included power cord clamp ("included clamp" in the illustration at right) into the power cord clamp holes of the unit ("holes in the unit" in the illustration at right) and secure the power cord.







Insert the included clamp into the holes of the unit.

#### 2. Connect the included power cord to the power inlet, and secure it with the clamp.



1 Raise the clamp.

2 Connect the power cord.

③ Press down on the clamp to secure the power cord.

#### 3. Connect the power cord to an electrical outlet.

The POWER indicator flashes green, and after startup is completed, is lit green.



#### Caution

If the POWER indicator is lit orange, the temperature inside the unit is abnormal. Reconsider the environment in which this unit is installed, and correctly install this unit so that its internal temperature is appropriate.

#### 4. Check the port indicators.

If the left indicator (LINK/ACT) of ports connected to a network device or a computer is lit green or flashing green, the status is normal.

[If the left indicator of the port (LINK/ACT) is not lit green or flashing green]

Check whether the cable is correctly connected to the port, and whether the connected network device or computer is powered-on.

For details on the connection status, refer to "Port indicators" (page 19).

### **Initialization**

This unit can be restored to its factory-set state in the following ways.

- Using the Web GUI to restore the factory settings (page 34)
- Using the cold start command to restore the factory settings (page 35)
- Entering the [I] (uppercase I) key during startup to restore the factory settings (page 35)

#### Notice

When restoring the factory settings, note the following points.

- · All communication is halted immediately after execution.
- When you execute this, the settings will also return to their factory-set state. If necessary, use external memory to save the settings before you proceed with initialization. For details on how to export settings to external memory, refer to the SWR2310 series "Technical Reference."

#### ■ Using the Web GUI to restore the factory settings

This unit can be restored to its factory-set state by making settings from the Web GUI. Log in to the Web GUI from Yamaha LAN Monitor.

- Choose "Administration" tab "Maintenance" "Restart or Initialize."
   The "Restart or Initialize" screen appears.
- 2. In the "Initialize" section, click the "Proceed" button.
  The "Initialize" screen appears.
- 3. Enter the administrative password, and click "Confirm."

The "Confirm execution" screen appears.

4. Verify the content, and click the "Execute" button.

The unit is returned to its factory-set state. Also, the "Initialization" dialog box appears, and the unit restarts.

5. After this unit has finished restarting, access the Web GUI once again from Yamaha LAN Monitor.

#### NOTE

During restart, the computer on which the Web GUI is open will be unable to communicate with the unit (the status indication of the computer's network adapter will be "Network cable is not connected"), but the communication status will recover when restart is completed. After this unit's POWER indicator has finished flashing, verify that communication has been restored for the computer on which the Web GUI is open, and then click the Web GUI button in the "Device Details" view.

#### ■ Using the cold start command to restore the factory settings

You can return the unit to its factory settings by using a command line setting via the CONSOLE port, Telnet, or an SSH client.

Here we assume that you are logged in as described in "Logging in from a computer connected to the CONSOLE port" (page 29).

#### 1. Enter enable, and press the <Enter> key.

You are now in privileged EXEC mode.

SWR2310>enable SWR2310#

#### 2. Enter the cold start command, and press the <Enter> key.

You will be asked to enter the administrative password.

If a password has already been specified, enter the password.

When the unit is shipped from the factory, a password has not been specified, so it need not be entered.

SWR2310#cold start Password:

#### 3. Press the <Enter> key.

The unit returns to the factory-set state, and then restarts.

### ■ Entering the [I] (uppercase I) key during startup to restore the factory settings

The unit can be restored to its factory settings by entering an uppercase "I" when the unit is starting up. This explanation uses the method of disconnecting and reconnecting the power cord. The procedure is also the same when using the reload command to restart this unit.

#### Notice

Here we assume that you are logged in as described in "Logging in from a computer connected to the CONSOLE port" (page 29).

- 1. Disconnect and then reconnect the power cord of this unit.
- 2. After restart, enter an uppercase "I" within one second after the BootROM Ver (see below) appears on the console screen.

SWR2310 BootROM Ver.1.00

#### Memo

Before the BootROM Ver appears on the console screen, you can press the [Caps Lock] key or hold down the [Shift] key so that you will be ready to enter an uppercase "!" immediately.

When a screen asks you whether to execute initialization, press the <y> key to execute initialization.

Initialize or not ?(y/n)

#### Initialization is executed.

Ready to Initialize

# **Appendix**

### Hardware specifications

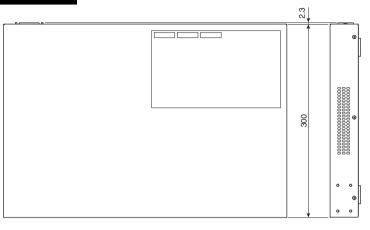
Ite	em	SWR2310-28GT	SWR2310-18GT	SWR2310-10G	
Dimensions (W x D x H units: mm) not including protrusions and feet		440 mm(W) x 300 mm(D) x 44.0 mm(H)	330 mm(W) x 200 mm(D) x 43.5 mm(H)	220 mm(W) x 250 mm(D) x 40.5 mm(H)	
Weight (without included items)		3.9 kg	2.1 kg	1.7 kg	
Power supply voltage and frequency		AC100 – 240V, 50/60 Hz			
Maximum power consumption		25.2 W	19.0 W	11.7 W	
Standard		RS-232C, USB 2.0			
CONSOLE	Connector	RJ-45, USB mini-B (5-pin)			
port	Data transmission speed	9600 bit/s			
	Standard	IEEE802.3 (10BASE-T/100BASE-TX/1000BASE-T)		(1000BASE-T)	
	Number of ports	24	16	8	
LAN ports	Communicati on mode	Auto negotiation			
	Connector	RJ-45			
Polarity		Automatic dete	Automatic detection of straight/cross, or fixed at straight		
SFP+ ports	Standard	IEEE802.3z (1000BASE-SX/ 1000BASE-LX),		_	
SPP+ ports	Number of ports	4	2	_	
SFP ports	Standard		_	IEEE802.3z (1000BASE-SX/ 1000BASE-LX)	
	Number of ports		-	2	

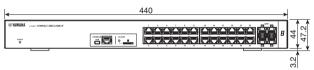
Item		SWR2310-28GT	SWR2310-18GT	SWR2310-10G	
microSD	Standard	microSD/microSDHC (microSDXC is not supported)			
slot	File System	FAT/FAT32			
Indicators		POWER, microSD, STACK ID, LAN port (LINK/ ACT, SPEED), SFP+ port (LINK/ ACT, SPEED)	POWER, microSD, LAN port (LINK/ACT, SPEED), SFP+ port (LINK/ACT, SPEED)	POWER, microSD, LAN port (LINK/ACT, SPEED), SFP port (LINK/ACT, SPEED)	
MAC address		Indicated in product label on top panel of unit			
Operating environment conditions	Ambient temperature	0–50 °C			
	Ambient humidity	15-80% (non-condensing)			
Storage environment	Ambient temperature	-20–60 °C			
conditions	Ambient humidity	10-90% (non-condensing)			
Included items		Owner's manual (this document), power cord (3-prong), power cord clamp, legs			
		19-inch rack mount hardware and screws –			

The explanations in this document use the current specifications as of the date of publication. The latest version can be downloaded from the Yamaha website. http://www.yamaha.com/proaudio/

# Dimensional diagram

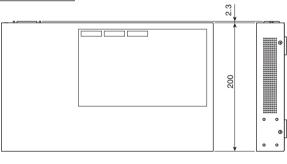
# SWR2310-28GT

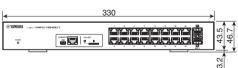




Units: mm

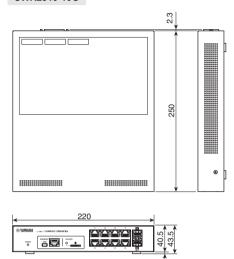
# SWR2310-18GT





Units: mm

#### SWR2310-10G



Units: mm

# RJ-45/DB-9 console cable pin configuration

## Console (RS-232C)

Signal	RJ-45	D-SUB 9
RTS DTR TxD GND GND	1 ——— 2 ——— 3 ——— 4 ——— 5 ———	9 8 6 2 5
RxD	6 ——	3
DSR*	7 —	<del></del> 7
CTS*	8 ——	4 1

\* DSR and CTS signals are not used by the SWR2310 series.

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.

(top en 01)

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# Memo

#### 产品中有害物质的名称及含量

	有害物质					
部件名称	铅(Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
电路板	×	0	0	0	0	0
外壳箱体	0	0	0	0	0	0
线缆	0	0	0	0	0	0
金属配件	0	0	0	0	0	0
塑料配件	0	0	0	0	0	0
标签	0	0	0	0	0	0

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仅适用于海拔 2000m 以下地区安全使用。

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Dan hab yungh youq gij digih haijbaz 2 000m doxroengz haenx ancienz sawjyungh.

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

#### Important Notice: Guarantee Information for customers in EEA\* and Switzerland

English

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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

#### 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 vind een afdrukbaai bestand op onze website) of neemt u contact op met de vertegenwoordiging van Yamaha in uw land. \* EER: Europese Economische Ruimte

#### 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 version del archivo para imprimir esta disponible en nuestro sitio web) o póngase en contacto con el representante de Yamaha en su país. \* EFF: Espacio Económico Europeo

#### Avviso importante: informazioni sulla garanzia per i clienti residenti nell'EEA\* e in Svizzera

Italiano

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Ελληνικό

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#### Viktig merknad: Garantiinformasion for kunder i EØS\* og Sveits

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#### Vigtig oplysning: Garantioplysninger til kunder i EØO\* og Schweiz

De kan finde detaljerede garantioplysninger om dette Yamaha-produkt og den fælles garantiserviceordning for EØO\* (og Schweiz) ved at besøge det websted, der er angivet nedenfor (de findes en fil, som kan udskrives, på vores websted), eller ved at kontakte Yamahas nationale repræsentationskontor i det land, hvor De bor. \* EØO: Det Europæiske Økonomiske Område

#### Tärkeä ilmoitus: Takuutiedot Euroopan talousalueen (ETA)\* ja Sveitsin asiakkaille

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#### Ważne: Warunki gwarancyjne obowiazujące w EOG\* i Szwajcarji

Aby dowledzieć się wiecej na temat warunków gwarancyjnych tego produktu firmy Yamaha i serwisu gwarancyjnego w całym EOG\* i Szwajcarii, należy odwiedzić wskazaną poniżej strone internetowa (Plik gotowy do wydruku znajduje się na naszej stronie internetowej) lub skontaktować się z przedstawicielstwem firmy Yamaha w swoim kraju. \* EOG — Europejski Obszar Gospodarczy

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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

#### Fontos figyelmeztetés: Garancia-információk az EGT\* területén és Svájcban élő vásárlók számára

spausdintinas failas) arba kreipkitės į "Yamaha" atstovybę savo šaliai. \*EEE – Europos ekonominė erdvė

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 fájlt is talál), vagy pedig lépjen kapcsolatba az országában működő Yamaha képviseleti irodával. \* EGT: Európai Gazdasági Térség

#### Oluline märkus: Garantiiteave Euroopa Majanduspiirkonna (EMP)\* ja Šveitsi klientidele

Täpsema teabe saamiseks selle Yamaha toote garantii ning kogu Euroopa Majanduspiirkonna ja Šveitsi garantiiteeninduse kohta, külastage palun veebisaiti alljärgneval aadressil (meie saidil on saadaval prinditav fail) või pöörduge Teie regiooni Yamaha esinduse poole. \* EMP: Euroopa Majanduspiirkond

#### Svarīgs paziņojums: garantijas informācija kļientiem 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 vietne ir pieejams drukājams fails) vai sazinieties ar jūsu valsti apkalpojošo Yamaha pārstāvniecību. \* EEZ: Eiropas Ekonomikas zona

Lietuvių kalba 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

#### Dôježité upozornenie: Informácie o záruke pre zákazníkov v EHP\* a Švaičiarsku

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 obrátte na zástupcu spoločnosti Yamaha vo svojej krajine. \* EHP: Európsky hospodársky priestor

### Pomembno obvestilo: Informacije o garanciji za kupce v EGP\* in Švici

Slovenščina

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

#### Важно съобщение: Информация за гаранцията за клиенти в ЕИП\* и Швейцария

Български език

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

#### 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

#### Važna obavijest: Informacije o jamstvu za države EGP-a i Švicarske

Za detaljne informacije o jamstvu za ovaj Yamahin proizvod te jamstvenom servisu za cijeli EGP i Švicarsku, molimo Vas da posjetite web-stranicu navedenu u nastavku ili kontaktirate ovlaštenog Yamahinog dobavljača u svojoj zemlji. \* EGP: Europski gospodarski prostor

# https://europe.yamaha.com/warranty/

### 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.

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.

(weee eu en 02)

## 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 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\_02)

# Informations 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.

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.

#### Informations sur la mise au rebut 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\_02)

### Información para usuarios sobre la recogida y eliminación de los equipos antiguos



Este símbolo en los productos, embalajes y documentos anexos significa que los productos eléctricos y electrónicos no deben mezclarse con los desperdicios domésticos normales.

Para el tratamiento, recuperación y reciclaje apropiados de los productos antiguos, llévelos a puntos de reciclaje correspondientes, de acuerdo con la legislación nacional.

Al deshacerse de estos productos de forma correcta, ayudará a ahorrar recursos valiosos y a impedir los posibles efectos desfavorables en la salud humana y en el entorno que de otro modo se producirían si se trataran los desperdicios de modo inapropiado.

Para obtener más información acerca de la recogida y el reciclaje de los productos antiguos, póngase en contacto con las autoridades locales, con el servicio de eliminación de basuras o con el punto de venta donde adquirió los artículos.

#### Para los usuarios empresariales de la Unión Europea:

Si desea desechar equipos eléctricos y electrónicos, póngase en contacto con su vendedor o proveedor para obtener más información

#### Información sobre la eliminación en otros países fuera de la Unión Europea:

Este símbolo solo es válido en la Unión Europea. Si desea desechar estos artículos, póngase en contacto con las autoridades locales o con el vendedor y pregúnteles el método correcto.

(weee eu es 02)

# Informações para os utilizadores relativas à recolha e eliminação de equipamentos usados



Este símbolo, presente em produtos, embalagens e/ou incluído na documentação associada, indica que os produtos elétricos e eletrónicos usados não devem ser eliminados juntamente com os resíduos domésticos em geral.

O procedimento correto consiste no tratamento, recuperação e reciclagem de produtos usados, pelo que deve proceder à respetiva entrega nos pontos de recolha adequados, em conformidade com a legislação nacional em vigor.

A eliminação destes produtos de forma adequada permite poupar recursos valiosos e evitar potenciais efeitos prejudiciais para a saúde pública e para o ambiente, associados ao processamento incorreto dos resíduos.

Para mais informações relativas à recolha e reciclagem de produtos usados, contacte as autoridades locais, o serviço de eliminação de resíduos ou o ponto de venda onde foram adquiridos os itens relevantes.

#### Informações para utilizadores empresariais na União Europeia:

Para proceder à eliminação de equipamento elétrico e eletrónico, contacte o seu revendedor ou fornecedor para obter informações adicionais.

#### Informações relativas à eliminação em países não pertencentes à União Europeia:

Este símbolo é válido exclusivamente na União Europeia. Caso pretenda eliminar este tipo de itens, contacte as autoridades locais ou o seu revendedor e informe-se acerca do procedimento correto para proceder à respetiva eliminação.

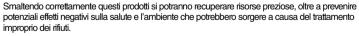
(weee\_eu\_pt\_02)

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



Questi simboli sui prodotti, sull'imballaggio e/o sui documenti che li accompagnano, indicano che i prodotti elettrici ed elettronici non devono essere mischiati con i rifiuti generici.

Per il trattamento, il recupero e il riciclaggio appropriato di vecchi prodotti, si prega di portarli ai punti di raccolta designati, in accordo con la legislazione locale.



Per ulteriori informazioni sulla raccolta e il riciclaggio di vecchi prodotti, si prega di contattare l'amministrazione comunale locale, il servizio di smaltimento dei rifiuti o il punto vendita dove sono stati acquistati gli articoli.

#### Per utenti imprenditori dell'Unione europea:

Se si desidera scartare attrezzatura elettrica ed elettronica, si prega di contattare il proprio rivenditore o il proprio fornitore per ulteriori informazioni.

#### Informazioni sullo smaltimento negli altri Paesi al di fuori dell'Unione europea:

Questi simboli sono validi solamente nell'Unione Europea; se si desidera scartare questi articoli, si prega di contattare le autorità locali o il rivenditore e richiedere informazioni sulla corretta modalità di smaltimento.

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PA53

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Продукция	Коммутатор Второго Уровня SWR2310-28GT Коммутатор Второго Уровня SWR2310-18GT Коммутатор Второго Уровня SWR2310-10G	
Страна происхождения	Китай	
Изготовитель	YAMAHA CORPORATION 10-1 Nakazawa-cho, Naka-ku, Hamamatsu-shi, Shizuoka-ken 430-8650, Япония.	
Номинальное напряжение	100-240 В перем. тока, 50/60 Гц	
Потребляемая мощность	SWR2310-28GT: 25,2 Вт SWR2310-18GT: 19,0 Вт SWR2310-10G: 11,7 Вт	
Дата изготовления	Дата изготовления обозначена в серийном номере, указанном на нижней или задней стороне инструмента.  Ser No. XXX00000AB  Год изготовления  Месяц изготовления  Год изготовления указывается первой из двух последних букв. В 2020 году будет указан буквой «А», а буквой, следующей за английским алфавитом «А», будет указан в следующем году.  Месяц изготовления указан последней буквой. Месяцы с января по сентябрь обозначены буквами от «Н» до «Р», а месяцы с октября по декабрь обозначены буквами от «Х» до «Z».	
Соответствует требованиям	TP TC 004/2011 TP TC 020/2011	
Срок хранения	Срок хранения не установлен.	
Условия для утилизации продуктов	Следуйте местному органу правил утилизации отходов.	
Условия для реализации продуктов	Правила и условия реализации не установлены изготовителем и должны соответствовать национальному и/или местному законодательству страны реализации товара.	
Название и адрес импортера на территории таможенного союза	ООО "Ямаха Мюзик" г.Москва, улица Киевская, дом 7, офис 37	
Условие хранения	Во избежание деформации и, повреждения внутренних компонентов и сбоев в работе не держите оборудовани в помещениях с избыточной вибрацией, а также в местах, где слишком пыльно, холодно или жарко.	



Yamaha Pro Audio global website https://www.yamaha.com/proaudio/ Yamaha Downloads https://download.yamaha.com/

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