

SIGNAL PROCESSOR

Getting Started Einführung Prise en Main Cómo Empezar Introdução Guida Introduttiva Приступая к работе セットアップガイド English

ΕN

DE

FR

ES

ΡΤ

IT

RU

JA

FCC INFORMATION (U.S.A.)

- 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 with FCC

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

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 : Signal processor Model Name : MMP1

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

 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.

NEDERLAND / THE NETHERLANDS

- Dit apparaat bevat een lithium batterij voor geheugen back-up.
- This apparatus contains a lithium battery for memory back-up.
- Raadpleeg uw leverancier over de verwijdering van de batterij op het moment dat u het apparaat ann het einde van de levensduur of gelieve dan contact op te nemen met de vertegenwoordiging van Yamaha in uw land.
- For the removal of the battery at the moment of the disposal at the end of life please consult your retailer or Yamaha representative office in your country.
- · Gooi de batterij niet weg, maar lever hem in als KCA.
- Do not throw away the battery. Instead, hand it in as small chemical waste.

(lithium disposal)

(FCC DoC)

This product contains a battery that contains perchlorate material. Perchlorate Material—special handling may apply, See www.dtsc.ca.gov/hazardouswaste/perchlorate.

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

(Perchlorate)

- In Finland: Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan.
- In Norway: Apparatet må tilkoples jordet stikkontakt.
- In Sweden: Apparaten skall anslutas till jordat uttag.

(class I hokuo)

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.

(class B)

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

(class b korea)

OBSERVERA!

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

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

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

(standby)

ADVARSEL!

Lithiumbatteri—Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandoren.

VARNING

Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

(lithium caution)



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

Explanation of Graphical Symbols Explication des symboles

ATTENTION RISQUE DE CHOC ELECTRIQUE-NE PAS OUVRIR **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.



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

- Read these instructions. 1
- 2 Keep these instructions.
- 3 Heed all warnings.
- Follow all instructions. 4
- Do not use this apparatus near water. 5
- 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)

PRÉCAUTIONS CONCER-NANT LA SÉCURITÉ

- Lire ces instructions. 1
- 2 Conserver ces instructions.
- Tenir compte de tous les avertissements. 3 4
- Suivre toutes les instructions.
- Ne pas utiliser ce produit à proximité d'eau. 5
- Nettoyer uniquement avec un chiffon propre et sec. Ne pas bloquer les orifices de ventilation. Installer l'appareil
- conformément aux instructions du fabricant.
- 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.
- 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. 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.

Contents

PRECAUTIONS
NOTICE
Information7
1. Welcome
1-1. Intended user8
1-2. Intended usage8
1-3. Included accessories8
1-4. Documentation8
1-5. Nomenclature used in this book8
1-6. Applications8
1-7. Firmware updates8
2. Names and Functions9
2-1. Front panel9
2-2. Rear panel10
3. Location and Connections12
3-1. Connection example12
3-2. Before connecting12
3-3. Precautions for rack mounting13
3-4. Power supply13
3-5. About Dante13
3-6. Notes regarding the use of network switches13
3-7. Dante network settings and audio routing
4. Installing Applications14
4-1. MMP1 Editor14
4-2. MMP1 Controller14
5. Troubleshooting15
5-5. Restoring factory settings15
6. Specificationsat the end of the book
6-9. General specificationsat the end of the book
6-10. Pin assignmentat the end of the book
6-11. Dimensions at the end of the book
7. Software Licenses and Copyrights at the end of the book

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

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

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.
- When setting up the device, make sure that the AC outlet you are using is easily accessible. If some trouble or malfunction occurs, immediately turn off the power switch and disconnect the plug from the outlet, and also disconnect the connected power supply from the [BACKUP DC INPUT] connector. Even when the power switch is turned off, as long as the power cord is not unplugged from the wall AC outlet, the device will not be disconnected from the power source.
- Remove the electric plug from the outlet when the device is not to be used for extended periods of time, or during electrical storms.
- Be sure to connect to an appropriate outlet with a protective grounding connection.

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, and also disconnect the connected power supply from the [BACKUP DC INPUT] connector. Then have the device inspected by qualified Yamaha service personnel.
- Never insert or remove an electric plug with wet hands.

Hearing loss

- Before connecting the device to other devices, turn off the power for all devices. Failing to do so may result in hearing loss, electric shock, or device damage.
- When turning on the power in your audio system, always turn on the power amplifier LAST, to avoid hearing loss and speaker damage. When turning the power off, the power amplifier should be turned off FIRST for the same reason.

Fire warning

• Do not place any burning items or open flames near the device, since they may cause a fire.

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 and also disconnect the connected power supply from the [BACKUP DC INPUT] connector.
 - The power cord or plug becomes frayed or damaged.
 - Unusual smells or smoke are emitted.
 - Some object has been dropped into the device.
 - There is a sudden loss of sound during use of the device.
 - Cracks or other visible damage appear on the device. Then have the device inspected or repaired by qualified Yamaha service personnel.
- If this device or the power supply should be dropped or damaged, immediately turn off the power switch, disconnect the electric plug from the outlet and also disconnect the connected power supply from the [BACKUP DC INPUT] connector, and then have the device inspected by qualified Yamaha service personnel.



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.
- To disconnect the device from the mains, unplug both power cords.

Location

- Do not place the device in an unstable position where it might accidentally fall over and cause injuries.
- 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.
- If the device is mounted in an EIA standard rack, carefully read the section "Precautions for rack mounting" on page 13. Inadequate ventilation can result in overheating, possibly causing damage to the device(s), malfunction, or even fire.

Maintenance

 Remove the power plug from the AC outlet and also disconnect the connected power supply from the [BACKUP DC INPUT] connector when cleaning the device.

Handling caution

- Avoid inserting or dropping foreign objects (paper, plastic, metal, etc.) into any gaps or openings on the device (vents). If this happens, immediately turn off the power and then unplug the power cord from the AC outlet, and have the device inspected by qualified Yamaha service personnel.
- Do not rest your weight on the device or place heavy objects on it. Avoid applying excessive force to the buttons, switches or connectors to prevent injuries.
- Avoid pulling the connected cables to prevent injuries or damage to the device.

Backup battery

 Do not replace the backup battery by yourself. Doing so may cause an explosion and/or damage to the device(s).
 When the backup battery needs to be replaced, the error icon will appear on the menu bar of the MMP1 Editor while the MMP1 is connected to the MMP1 Editor. In this case, 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 device, 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 use the device in the vicinity of a TV, radio, AV 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 chemicalimpregnated 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.
- The rubber feet included in this package can be attached to the device to prevent slippage when it is to be used on a slippery surface.
- Always turn the power off when the device is not in use.
- Even when the both (^(d)) [MAIN] switch and (^(d)) [BACKUP] switch are in standby status (power indicators are off), electricity is still flowing to the instrument at the minimum level. When you are not using the instrument for a long time, make sure you unplug the power cord from the wall AC outlet, and also disconnect the connected power supply from the [BACKUP DC INPUT] jack.

Saving data

This device has a built-in backup battery that maintains data in internal memory even when the device's power is switched off. The backup battery will eventually become depleted, however, and when that happens the contents of the internal memory will be lost.* To prevent loss of data be sure to replace the backup battery before it becomes fully depleted. When the remaining capacity of the backup battery becomes so low that it needs to be replaced, the error icon will appear on the menu bar of MMP1 Editor while the MMP1 is connected to the MMP1 Editor. If either of these messages appears do not turn off the power and immediately transfer any data you want to save to a computer or other external storage device, then have gualified Yamaha service personnel replace the backup battery. The average life of the internal backup battery is approximately five years, depending on operating conditions.

Information

About functions/data bundled with the product

 This product uses Dante Brooklyn II. Refer to the Audinate website (English) for details on the open source licenses for the particular software. <u>https://www.audinate.com/software-licensing</u>

About this manual

- The illustrations and screens as shown in this manual are for instructional purposes only.
- Yamaha Corporation make no representations or warranties with regard to the use of the software and documentation and cannot be held responsible for the results of the use of this manual and the software.
- Windows is a registered trademark of Microsoft[®]
 Corporation in the United States and other countries.
- Mac and iPad 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.
- Software may be revised and updated without prior notice.

European models

Purchaser/User Information specified in EN55103-2:2009. Conforms to Environments: E1, E2, E3 and E4

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)

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)

1. Welcome

Thank you for choosing the Yamaha signal processor MMP1. In order to take full advantage of the MMP1 functionality and enjoy years of trouble-free use, please read this manual. After you have read the manual, keep it in a safe place for your future reference.

1-1. Intended user

This product was designed for users who have basic knowledge and skills related to post-production, audio recording, or broadcasting.

1-2. Intended usage

- This product was designed to be used to improve the monitoring and communication environment during studio recording with a DAW.
- This product was designed to be used to mix multiple audio sources, and routing audio signals in broadcasters.

1-3. Included accessories

- Getting Started (this book)
- Power cord
- Rubber stoppers (×4)

1-4. Documentation

The MMP1 has the following two separate manuals.

Getting Started (this book)

This manual primarily explains operations in setting up this product for use, such as installation and connection.

Operation Manual (PDF; available as download)

This manual explains operations of the product when used with a dedicated application. You can download the Operation Manual from the Yamaha Pro Audio website:

http://www.yamahaproaudio.com/

NOTE

The Operation Manual is an electronic manual in PDF format. You can download the latest Adobe Acrobat Reader DC required to read the PDF file from the website listed below: https://www.adobe.com/

1-5. Nomenclature used in this book

In order to distinguish between the controls on the MMP1 unit and the controls on the screen, control names are written in the following manner:

- Actual buttons on the unit are called **keys**, and virtual buttons on the screen are called **buttons**.
- Keys, switches, indicators, jacks, etc. located on the unit are enclosed in **[square brackets]**. For certain controls, the name of the section appears before the brackets (e.g., the SCENE [1] key).
- Menus, buttons, tabs, windows, etc. displayed on the screen are enclosed in "quotation marks." (e.g., the "MUTE" button)

1-6. Applications

To operate MMP1, use the following applications:

• MMP1 Editor (Windows, Mac)

This application allows you to control all functions of the MMP1.

• MMP1 Controller (iPad)

This application is designed for easy operation of the MMP1, with a limited set of controllable functions. Before using the MMP1 Controller, you will need to make initial settings to your MMP1 using the MMP1 Editor.

For details of these applications, refer to the MMP1 Operation Manual, downloadable from the Yamaha Pro Audio website:

http://www.yamahaproaudio.com/

1-7. Firmware updates

You can update the unit firmware to improve operation, add functions, and correct possible malfunctions. Details on updating the firmware are available on the Yamaha Pro Audio website:

http://www.yamahaproaudio.com/

For information on updating the firmware, refer to the firmware update guide available on the website.

NOTE

To maintain compatibility between Dante-compatible devices, updating of multiple Dante-compatible devices may be needed. For details, refer to the firmware compatibility information available on the Yamaha Pro Audio website: http://www.yamaharroa.udio.com/

http://www.yamahaproaudio.com/

2. Names and Functions

2-1. Front panel



1 SCENE [1] – [5], [RECALL] keys

Used to recall previously stored Scenes in the unit. When pressing one of the [1] - [5] keys, the key flashes for about 10 seconds. (If a Scene corresponding to the key is not stored, the key doesn't flash.) When pressing the [RECALL] key while one of the [1] - [5] keys are flashing, the Scene is recalled, and the key is lit continuously. Use the MMP1 Editor to store Scenes.

NOTE

You can set the [1] key as the all mute key. For details, refer to the MMP1 Operation Manual.

2 SAMPLE RATE indicators

Indicate the current sample rate being used by the unit. The indicator which synchronizes with the word clock source lights up. If the unit cannot synchronize with the word clock source, one of these indicators flashes slowly.

CLOCK indicators

Indicate a word clock source. When the word clock source is not connected to the unit or the word clock source has any problems, one of these indicators flashes slowly.

4 SYNC indicators

Indicate the sync status between the Dante network and the unit.

Green (lit continuously)	The unit is working as a clock slave on the Dante network.
Green (flashing slowly)	The unit is working as the clock master on the Dante network.
Green (off) Orange (lit continuously)	Synchronization with the Dante network is in progress.
Orange (flashing slowly)	In communication with the secondary line of a redundant network.
Orange (flashing twice)	An error has occurred on the secondary line of a redundant network.

5 SYSTEM indicators

Indicate the operating status of the unit.

Green (lit continuously) Red (off)	The unit is working properly.
Green (flashing slowly)	The firmware is being updated.
Red (lit continuously)	An error has occurred in the memory of the unit. If the issue is still not solved even when following the "Restoring factory settings" instructions on page 15, please contact your Yamaha dealer.
Red (flashing slowly)	An error has occurred in the Dante module of the unit.
Red (flashing rapidly)	The backup battery voltage is reduced. Please contact your Yamaha dealer and have qualified Yamaha service personnel replace the backup battery.

6 0 [BACKUP] power switch and indicator

Turns the DC power of the unit to on (-) or sets it to standby (-). When the DC power unit is turned on, the indicator lights up.

NOTICE

Even when the power switch is in the standby position (\blacksquare), a small amount of current is flowing through the unit. When you are not using the unit for a long time, make sure to disconnect the power supply from the [BACKUP DC INPUT] connector.

NOTE

Setting the unit to on and standby in rapid succession can cause it to malfunction. After setting the unit to standby, wait for at least 6 seconds before turning it on again.

• U[MAIN] power switch and indicator

Turns the AC power of the unit to on (__) or sets it to standby (**I**). When the AC power unit is turned on, the indicator lights up.

When both the $\mathbf{\Phi}$ [MAIN] power switch and $\mathbf{\Phi}$ [BACKUP] power switch are on (_), only AC power is supplied to the unit

NOTICE

Even when the power switch is in the standby position (\blacksquare), a small amount of current is flowing through the unit. When you are not using the unit for a long time, make sure to unplug the power cord from the AC outlet.

NOTE

Setting the unit to on and standby in rapid succession can cause it to malfunction. After setting the unit to standby, wait for at least 6 seconds before turning it on again.

2-2. Rear panel

8 Vent

This unit is equipped with cooling fans. These vents let warm air out from the unit. Please make sure that you do not block the vents with any object.





• AC power input socket

For connecting the supplied AC power cord. First, connect the AC power cord to this unit, and then insert the power cord plug into an appropriate AC outlet. Make sure to insert the cord plugs all the way until they lock in place securely. The supplied AC power cord features a V-lock mechanism with a latch, which prevents the power cord from being accidentally disconnected.



CAUTION

Be sure to set to standby the power of the unit before connecting or disconnecting the power cord. To disconnect the power cord, hold down the latch on the plug while removing it.



[BACKUP DC INPUT] connector

For connecting the external DC power unit (+12 V, 45 W) for backup of AC power supply. The connector type is XLR-4-32. Refer to "Specifications" for pin assignments.

Even when the $\mathbf{\Phi}$ [BACKUP] power switch is in the standby position, standby current is discharged. For this reason, Yamaha does not guarantee the use of batteries.



CAUTION

Before connecting or disconnecting the external power supply, you must set to standby the power of this unit and the power of the external power supply. Malfunctions or electrical shock may occur if you fail to observe this caution.

NOTICE

When connecting an external DC power supply, please make sure that it has a sufficient power supply rating. If it has an insufficient power supply rating, the inrush current when the unit is turned on may lead to unstable operation or cause a malfunction. In order to prevent malfunction due to the inrush current when the unit is turned on, please turn on the unit via the \bigcirc [MAIN] power switch, rather than the \bigcirc [BACKUP] power switch.

NOTE

- AC power is supplied to the unit when both the ϕ [MAIN] and **Φ** [BACKUP] power switches are turned on.
- When both power supplies are turned on, it automatically switches to the external DC power supply if a malfunction causes the AC power supply to be interrupted.

[UNIT ID] rotary switch

Determines the ID that identifies this device on the Dante network. If there are multiple Dante-compatible devices from Yamaha that require an ID setting connected to the same network, set a different ID for each device.

NOTE

The ID setting while the power-on will be applied the next time you turn the power on.

DIP switches

Used to change settings on the unit. Refer to the sections "Before connecting" on page 12 and "Restoring factory settings" on page 15.

NOTE

The setting while the power is on will be applied the next time you turn the power on.

B GPI [INPUT]/[OUTPUT] connectors

For connecting GPI-equipped devices. The connector type is D-Sub 25-pin female. Use the MMP1 Editor for detailed GPI settings of the unit. Refer to "Specifications" for current and voltage of each pin, and for pin assignments.

Dante [LINK/ACT]/[1G] indicators

Display the communication status of the Dante [PRIMARY] and the [SECONDARY] connectors.

LINK/ACT	These indicators flash rapidly if the Ethernet cables are connected properly.
1G	These indicators are lit when the Dante network is functioning as Giga-bit Ethernet.

Dante [PRIMARY]/[SECONDARY] connectors

For connecting to the Dante network. The connector type is etherCON (RJ-45). A connector can transfer up to 64 channels (in/out) of audio.

NOTE

- Use an STP (Shielded Twisted Pair) cable of CAT5e standard or better 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.
- For connecting only Dante-compatible devices or GbEcompatible devices (including a computer).

WORD CLOCK [IN]/[OUT] connectors

For connecting devices to receive or transmit word clock signals. The connector type is BNC. The WORD CLOCK [IN] connector is internally terminated by a 75 ohm resistor.

ANALOG [INPUT 1-8]/[OUTPUT 1-8] connectors

For connecting devices to transmit or receive analog audio signals. The connector type is 25-pin D-Sub (balanced). A connector can transfer up to eight channels (in/out) of audio.

[AES/EBU 1-8]/[AES/EBU 9-16] connectors

For connecting devices to transmit or receive AES/EBU format digital audio signals. The connector type is 25-pin D-Sub. A connector can transfer up to eight channels (in/ out) of audio.

NOTE

Use a shielded cable to prevent electromagnetic interference. Make sure that the metal parts of the plugs are electrically connected to the cable shield by conductive tape or comparable means.

3. Location and Connections

3-1. Connection example



3-2. Before connecting

Make various settings of the unit in advance.

3-2-1. UNIT ID

- 3-2-2. How to connect to the Dante network
- 3-2-3. IP address

Any settings you change while the power is on will be retained and applied the next time you turn the power on.

3-2-1. UNIT ID

Determines the ID for identifying each device on the Dante network. For this setting, use the rotary switch on the rear panel of the unit. The UNIT ID must be a unique number in the network.

3-2-2. How to connect to the Dante network

The unit can be connected to the Dante network in one of two ways: Star (Redundant) and Daisy Chain. For this setting, use the DIP switch 1 on the rear panel of the unit.



3-2-3. IP address

Determines the IP address for identifying this unit from a computer. For this setting, use the DIP switch 7 and 8 on the rear panel of the unit.

Auto IP



DIP switch 7 and 8 **up**. An IP address is automatically set in the range of from 169.254.0.1 to 169.254.254.254 (default).

DHCP



DIP switch 7 **down** and 8 **up**. An IP address is assigned by the DHCP server.



DIP switch 7 **up** and 8 **down**. The IP address is set to 192.168.0.xx (xx is the UNIT ID).

Static IP (Manual)

Static IP (Auto)

ł									
ē	1	2	3	4	5	6	7	8	

DIP switch 7 and 8 **down**. Set the IP address using the MMP1 Editor.

3-3. Precautions for rack mounting

This unit is rated for operation at ambient temperatures ranging from 0 to 40 degrees Celsius. If you mount this unit along with other MMP1 unit(s) or other device(s) in an EIA standard equipment rack, temperatures inside the rack may rise, possibly resulting in impaired performance. 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 1U space or more between the MMP1 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 cannot be left open, install a commercially-available fan or similar ventilating option to ensure sufficient airflow. If you have 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.

3-4. Power supply

3-4-1. Connecting the AC power cord

- Make sure that the ^(b) [MAIN] power switch and the ^(b) [BACKUP] power switch are in the standby position (▲).
- 2. Connect the supplied power cord to the AC power input socket of the unit.
- 3. Connect the other end of power cord to an AC outlet.

NOTE

- To disconnect the power cord, remove the cable in the order of steps 1 → 3 → 2 in the procedure described above.

WARNING

latch on the plug.

To disconnect the power cord,

remove it while holding down the

Use only the supplied AC power cord. Using other cables may lead to overheating or electric shock.



CAUTION

Be sure to set to standby the power to the unit before connecting or disconnecting the power cord.

NOTICE

Even when the power switch is in the standby position (\blacksquare) , a small amount of current is flowing through the unit. If you plan not to use the unit for a long period of time, be sure to remove the power cord from the AC outlet.

3-4-2. Turning the power on and set to standby

When you turn on the power to the unit, be sure to turn on the power to the power amplifiers and/or powered speakers last to avoid speaker damage. Before you set to standby the power of the unit, first turn off the power to the power amplifiers and/or powered speakers.

3-5. About Dante

Dante is a network audio 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.

Visit the Audinate website for more details on Dante: https://www.audinate.com/

More information on Dante is also posted on the Yamaha Pro Audio website:

http://www.yamahaproaudio.com/

3-6. Notes regarding the use of network switches

Do not use the EEE functionality (*) of network switches on a Dante network.

Although mutual power consumption settings between switches that support the EEE functionality are adjusted automatically, there are some switches for which such mutual settings are not adjusted correctly.

This may cause EEE to be enabled in Dante networks when it is not appropriate, resulting in poor synchronization performance and occasional dropouts. Therefore we strongly recommend the following.

- If you use managed switches, please disable the EEE functionality. Do not use switches that prevent EEE functionality from being disabled.
- When using unmanaged switches, do not use switches that support EEE functionality. EEE functionality cannot be disabled for such switches.
- * EEE (Energy Efficient Ethernet) is a technology that reduces switch power consumption during periods of low network traffic. It is also referred to as Green Ethernet and IEEE802.3az.

3-7. Dante network settings and audio routing

With the Dante network, you can route the audio input and output of multiple Dante devices in any way you like. This requires you to set which channel signals are sent to which inputs.

Use Dante Controller to configure the audio routing of the Dante network.

You can download Dante Controller from the following website:

https://www.audinate.com/products/software/dantecontroller?lang=en

Refer to the Dante Controller owner's manual (available from the same website) for details about Dante Controller.

4. Installing Applications

4-1. MMP1 Editor

The MMP1 Editor is an application for operating the MMP1. It is compatible with Windows and Mac.

- **1.** Login with administrative privileges to your computer to install the MMP1 Editor.
- 2. Download the MMP1 Editor (installer) from the Yamaha Pro Audio website: http://www.yamahaproaudio.com/
- 3. Decompress the downloaded file.
- 4. Double-click the installer in the decompressed folder to start installation. The installer name is "setup.exe" (for Windows), "Yamaha MMP1 Editor Vx.x.x.pkg" (for Mac). The characters "x.x.x" indicate the version of the MMP1.

5. Follow the onscreen instructions.

NOTE

- In Windows, when the "User Account Control" dialog box appears, click [Continue] or [Yes].
- To uninstall the MMP1 Editor Windows: In Control Panel, click [Programs and functions] or [Uninstall a program], then select the MMP1 Editor, and click [Uninstall or change].

Mac: double-click the "Uninstall Yamaha MMP1 Editor.app," and then follow the instructions on screen.

4-2. MMP1 Controller

MMP1 Controller is an application for iPad to operate MMP1. This application is designed to operate MMP1 intuitively by limiting controllable functions compared to MMP1 Editor.

- **1.** Search the "MMP1 Controller" at the App Store.
- 2. Tap the "MMP1 Controller" to display details.
- 3. Tap "Free" button.
- 4. Tap "Install" button.
- 5. Follow the instructions on screen.

5. Troubleshooting

In addition to referring to this list of common problems/ solutions, visit the Yamaha Pro Audio website for an FAQ list (Frequently Asked Questions). http://www.yamahaproaudio.com/

5-1. MMP1 could not be found from a computer or iPad

- Make sure that a unique UNIT ID has been set, when working within the same Dante network.
- Make sure that the network switch is working properly. The problem may be solved by turning the network switch off and on again.
- Make sure that the cable is not damaged. The problem may be solved by replacing the cable.
- Make sure that the IP address of the computer and the IP address of the unit are set properly.

5-2.No sound

When the device is connected to the Dante network, make sure that patching within the Dante network is set up correctly with the Dante Controller.

For details, refer to the Dante Controller User Guide available on the website.

https://www.audinate.com/products/software/dantecontroller?lang=en

5-3. How to update the firmware

Details on updating the firmware are available on the following Yamaha Pro Audio website: http://www.yamahaproaudio.com/

5-4. An internal error message (such as "firmware mismatch") appears on the device connected to the MMP1

Make sure that each device has a compatible version. For details, refer to the firmware compatibility information available on the website.

http://www.yamahaproaudio.com/

5-5. Restoring factory settings

Follow the steps below to initialize the internal memory of the unit to the factory programmed settings.

- **1.** Set the unit to standby.
- 2. Turn on DIP switch 2 (DOWN), and turn the unit on again.

All front panel indicators (except the power indicator) flash, indicating all parameters have been restored to the factory settings.



- 3. Set the unit to standby.
- 4. Turn off DIP switch 2 (UP), and turn the unit on again.



6. Specifications

6-1. ELECTRICAL CHARACTERISTICS

Sampling Frequency	Internal	44.1kHz/48kHz/88.2kHz/96kHz/176.4kHz/192kHz		
Sampling Frequency	External	44.1kHz/48kHz/88.2kHz/96kHz/176.4kHz/192kHz, ±200ppm		
	Frequency Response	-1/0.5 dB, 20Hz – 20kHz		
Analog Input/Output	THD+N 0.0036%, +4dB@20Hz – 20kHz, GAIN: 0dB, Fs=192kHz			
	Dynamic Range	110dB, A-weighted		
	Crosstalk@1kHz	-100dB		

6-2. ANALOG INPUT CHARACTERISTICS

Input	Actual Load	For Use with	Input level		Connector	Balanced /
Terminals	Impedance	Nominal	Nominal	Max. before clip	Connector	Unbalanced
ANALOG INPUT	20kΩ	150Ω Lines	+4dB (1.23 V)	+24dBu (12.28V)	D-SUB Connector 25P	Balanced
1 – 8	10kΩ	600Ω Lines	-10dBV (0.32 V)	+10dBV (3.16V)	(Female)	Unbalanced

6-3. ANALOG OUTPUT CHARACTERISTICS

Output	Actual Source	For Use with	Output level		Connector	Balanced /
Terminals	Impedance	Nominal	Nominal	Max. before clip	Connector	Unbalanced
ANALOG	75Ω (BAL)	10kΩ Lines	+4dBu (1.23 V)	+24dBu (12.28V)	D-SUB Connector 25P	Balanced
OUTPUT 1 – 8	7312 (DAL)	TUK12 LITIES	-2dBu (0.62V)	+18dBu (6.16 V)	(Female)	DalailCeu

6-4. DIGITAL INPUT CHARACTERISTICS

Terminal	Format	Data length	Level	Connector	Balanced / Unbalanced
AES/EBU 1 – 16	AES/EBU	24bit	RS422	D-SUB Connector 25P (Female)	Balanced

6-5. DIGITAL OUTPUT CHARACTERISTICS

Terminal	Format	Data length	Level	Connector	Balanced / Unbalanced
AES/EBU 1 – 16	AES/EBU	24bit	RS422	D-SUB Connector 25P (Female)	Balanced

6-6. DIGITAL INPUT & OUTPUT CHARACTERISTICS

Terminal	Format	Data length	Level	Audio	Connector
Primary/Secondary	Dante	24bit	1000Base-T	64ch Input 64ch Output	etherCON x 2

6-7. CONTROL I/O CHARACTERISTICS

Tern	ninal	Format	Level	Connector	Balanced / Unbalanced
GPI	IN	_	_	D-SUB Connector	
GFI	OUT			25P (Female)	
WORD CLOCK	IN		TTL/75Ω terminated	BNC	
WORD CLOCK	OUT	—	TTL/75Ω	BINC	

• GPI inputs ch1-12: optically isolated. Load current = 3 mA (typical). See figure 1.

• GPI inputs ch13-16: optically isolated. IN+ input voltage range = 5 V to 24 V, Load current = 2 mA @5 V or 10 mA@24 V (typical). See figure 2.

• GPI outputs ch1-10: Open collector outputs. Maximum current draw 75 mA (per channel). Withstand a voltage of 12 V. See figure 3.

• GPI +5 V outputs: Output voltage = 5 V +/- 0.25 V, Maximum surpply current in total = 300 mA. See "6-10. Pin assignment / GPI [OUTPUT] connector."



Figure 1: GPI Inputs ch1-12

Figure 2: GPI Inputs ch13-16



Figure 3: GPI outputs

6-8. EXTERNAL DC INPUT CHARACTERISTICS

IN+

IN-

 \cap

Terminal	Connector
BACKUP DC INPUT	XLR-4-32 type

6-9. General specifications

Power Requirements (wattage)	45W					
Power Requirements for MAIN AC INPUT (voltage and hertz)	US/Canada: 120V 60Hz Japan: 100V 50/60Hz China: 110 – 240V 50/60Hz Korea: 220V 60Hz Other: 110 – 240V 50/60Hz					
Power Requirements for BACKUP DC INPUT	12V-14.8V, 4A					
Temperature Range	Operating temperature range: 0 – 40°C Storage temperature range: -20 – 60°C					
Dimensions (W x H x D)	480 x 88 x 368 mm (18-7/8" x 3-1/2" x 14-1/2")					
Net Weight	7.0 kg (15.43 lb)					
Included Accessories	Power cable, Ferrite core, Getting Started, Rubber stoppers (4)					

6-10. Pin assignment

ANALOG [INPUT] connector



Sig	anal				Inpu	ıt Ch				Open	GND	
Signal		1	2	3	4	5	6	7	8	Open	GND	
Pin	Hot	24	10	21	7	18	4	15	1	13	2, 5, 8, 11, 16, 19, 22, 25	
FIII	Cold	12	23	9	20	6	17	3	14	15		

ANALOG [OUTPUT] connector



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

[AES/EBU] connectors



			Data	In Ch			Data (Dut Ch				
Signal		1-2	3-4	5-6	7-8	1-2	3-4	5-6	7-8	Open	GND	
		9-10	11-12	13-14	15-16	9-10	11-12	13-14	15-16			
Pin	Hot	1	2	3	4	5	6	7	8	0.11	10, 12, 13, 22, 23, 24,	
F111	Cold	14	15	16	17	18	19	20	21	9,11	25	

[BACKUP DC INPUT] connector



Signal	Open	GND	+12V
Pin	2, 3	1	4

GPI [INPUT] connector



Signal		GPI Input Channel												Open	GND				
3	ignai	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Open	GND
Din	IN, IN+	1	14	2	15	3	16	4	17	5	18	6	19	20	21	22	23	13	11, 12
Pin	IN+													7	8	9	10	13	24, 25

GPI [OUTPUT] connector



S	Signal				GP	l Outpu	ut Chan	nel				Open	GND	+5V
Signai		1	2	3	4	5	6	7	8	9	10	Open	GND	τJV
Pin	OUT	1	2	3	4	5	6	7	8	9	10	13	11	12
FIII	СОМ	14	15	16	17	18	19	20	21	22	23	13	24	25

6-11. Dimensions



The contents of this manual apply to the latest specifications as of the publishing date. To obtain the latest manual, access the Yamaha website then download the manual file.

Der Inhalt dieser Bedienungsanleitung gilt für die neuesten technischen Daten zum Zeitpunkt der Veröffentlichung. Um die neueste Version der Anleitung zu erhalten, rufen Sie die Website von Yamaha auf und laden Sie dann die Datei mit der Bedienungsanleitung herunter.

Le contenu de ce mode d'emploi s'applique aux dernières caractéristiques techniques connues à la date de publication du manuel. Pour obtenir la version la plus récente du manuel, accédez au site Web de Yamaha puis téléchargez le fichier du manuel concerné.

El contenido de este manual se aplica a las últimas especificaciones según la fecha de publicación. Para obtener el último manual, acceda al sitio web de Yamaha y descargue el archivo del manual.

O conteúdo deste manual se aplica às especificações mais recentes a partir da data de publicação. Para obter o manual mais recente, acesse o site da Yamaha e faça o download do arquivo do manual.

Il contenuto del presente manuale si applica alle ultime specifiche tecniche a partire dalla data di pubblicazione. Per ottenere la versione più recente del manuale, accedere al sito Web Yamaha e scaricare il file corrispondente.

В содержании данного руководства приведены последние на момент публикации технические характеристики. Для получения последней версии руководства посетите веб-сайт корпорации Yamaha и загрузите файл с руководством.

本書は、発行時点での最新仕様で説明しています。最新版は、ヤマハウェブサイトからダウンロードできます。

7. Software Licenses and Copyrights

GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
- b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
- c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

- a) Accompany it with the complete corresponding machinereadable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machinereadable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those

countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the program's name and a brief idea of what it does.>

Copyright (C) <year> <name of author>

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version. This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author

Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type 'show w'. This is free software, and you are welcome to redistribute it under certain conditions; type 'show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program `Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989

Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License.

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute

such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machinereadable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
- b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
- c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
- d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
- e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute. 7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
- b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTISS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and an idea of what it does.>

Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990

Ty Coon, President of Vice

That's all there is to it!

Note on source code distribution

For three years after the final factory shipment, you may request from Yamaha the source code for any portions of the product which are licensed under the GNU General Public License and the GNU Lesser General Public License by writing to the following address:

Product Planning Group, Business Development Department, Commercial Audio Business Division, YAMAHA Corporation 10-1 Nakazawa-cho, Naka-ku, Hamamatsu, 430-8650, JAPAN

The source code will be provided at no charge; however, we may require you to reimburse Yamaha for the cost of delivering the source code to you.

- Note that we shall bear no responsibility whatsoever for any damage arising from changes (additions/ deletions) made to the software for this product by a third party other than Yamaha (or party authorized by Yamaha).
- Note that re-use of source code released to the public domain by Yamaha is unguaranteed, and Yamaha shall not bear any responsibility whatsoever for the source code.
- The source code can be downloaded from the following address: http://yamahaproaudio.com/

Hinweis für den Zugriff auf Quellcode

In einem Zeitraum von bis zu drei Jahren nach endgültiger Auslieferung können Sie von Yamaha den Quellcode für alle Teile des Produkts anfordern, die der GNU General Public License und der GNU Lesser General Public License unterliegen, indem Sie ein Schreiben an folgende Adresse richten:

Product Planning Group, Business Development Department, Commercial Audio Business Division, YAMAHA Corporation 10-1 Nakazawa-cho, Naka-ku, Hamamatsu, 430-8650, JAPAN

Der Quellcode wird kostenlos zur Verfügung gestellt; es kann jedoch sein, dass wir Sie bitten, Yamaha für die durch die Lieferung entstandenen Kosten zu entschädigen.

- Bedenken Sie bitte, dass wir keine Verantwortung für Schäden übernehmen, die aus Änderungen (Hinzufügung/Löschung) an der Software für dieses Produkt entstehen, die von Dritten außer Yamaha selbst (oder von Yamaha hierfür autorisierten Parteien) vorgenommen wurden.
- Bedenken Sie, dass die Wiederverwendung von Quellcode, der von Yamaha an die Public Domain übergeben wurde, keiner Garantie unterliegt und dass Yamaha keine Verantwortung für den Quellcode übernimmt.
- Der Quellcode kann von der folgenden Adresse heruntergeladen werden: http://yamahaproaudio.com/

Note concernant la distribution du code source

Au cours des trois années qui suivent la sortie d'usine de l'appareil, vous pouvez demander à Yamaha le code source de toute partie du produit fournie sous licence dans le cadre d'une licence GNU General Public License ou GNU Lesser General Public License en envoyant un courrier à l'adresse suivante :

Product Planning Group, Business Development Department, Commercial Audio Business Division, YAMAHA Corporation 10-1 Nakazawa-cho, Naka-ku, Hamamatsu, 430-8650, JAPAN

Le code source vous sera fourni gratuitement. Nous pouvons toutefois vous demander de rembourser à Yamaha les frais d'expédition du code.

- Notez que nous déclinons toute responsabilité pour les dommages résultant de modifications (ajouts/suppressions) apportées au logiciel de ce produit par un tiers autre que Yamaha (ou une partie autorisée par Yamaha).
- Notez que la réutilisation du code source distribué dans le domaine public par Yamaha n'est pas garantie et que Yamaha décline toute responsabilité pour le code source.
- Vous pouvez également télécharger le code source à l'adresse suivante : http://yamahaproaudio.com/

Nota sobre la distribución del código fuente

Hasta tres años después de la salida final de fábrica, puede solicitar a Yamaha el código fuente de cualquier parte del producto para el que se conceda licencia según la Licencia Pública General de GNU y la Licencia Pública General Reducida de GNU, enviando solicitud escrita a:

Product Planning Group, Business Development Department, Commercial Audio Business Division, YAMAHA Corporation 10-1 Nakazawa-cho, Naka-ku, Hamamatsu, 430-8650, JAPAN

El código fuente se proporcionará sin cargo alguno; sin embargo, Yamaha podría solicitar el reembolso del coste de envío.

- Debe tenerse en cuenta que no admitiremos responsabilidad alguna por cualesquiera daños que puedan derivarse de los cambios (adiciones o eliminaciones) realizados en el software de este producto por un tercero que no sea Yamaha (o alguien autorizado por Yamaha).
- Asimismo, debe tenerse en cuenta que la reutilización del código fuente que Yamaha hace de dominio público no tiene garantía alguna, y Yamaha no asumirá responsabilidad respecto a este código.
- El código fuente se puede descargar de la siguiente dirección: http://yamahaproaudio.com/

Observação sobre a distribuição do códigofonte

Por três anos após a expedição final da fábrica, você pode solicitar à Yamaha o código-fonte de quaisquer partes do produto que estejam licenciadas sob a Licença Pública Geral GNU e a Licença Pública Geral GNU Lesser escrevendo para o seguinte endereço:

Product Planning Group, Business Development Department, Commercial Audio Business Division, YAMAHA Corporation 10-1 Nakazawa-cho, Naka-ku, Hamamatsu, 430-8650, JAPAN

O código-fonte será fornecido sem custos, porém, podemos solicitar que você reembolse a Yamaha pelos custos de envio.

- Observe que não nos responsabilizamos de forma alguma por quaisquer danos decorrentes de alterações (adições/subtrações) feitas no software para este produto por terceiros externos à Yamaha (ou por partes autorizadas pela Yamaha).
- Observe que a reutilização do código-fonte liberado ao domínio público pela Yamaha não tem garantia e a Yamaha não assume qualquer responsabilidade, de qualquer forma, pelo código-fonte.
- O código-fonte pode ser baixado no seguinte endereço: http://www.yamahaproaudio.com/

Note sulla distribuzione del codice sorgente

Entro tre anni dalla consegna di fabbrica finale è possibile richiedere a Yamaha il codice sorgente di qualsiasi parte del prodotto fornita con licenza GNU General Public License e licenza GNU Lesser General Public License scrivendo al seguente indirizzo:

Product Planning Group, Business Development Department, Commercial Audio Business Division, YAMAHA Corporation 10-1 Nakazawa-cho, Naka-ku, Hamamatsu, 430-8650, JAPAN

Il codice sorgente verrà fornito senza spese, tuttavia Yamaha richiederà un rimborso per i relativo costi di spedizione.

- Yamaha non si assume alcuna responsabilità per eventuali danni derivanti da modifiche (aggiunte/eliminazioni) effettuate al software di questo prodotto da terze parti diverse da Yamaha (o da terze parti autorizzate da Yamaha).
- Il riutilizzo del codice sorgente rilasciato come dominio pubblico da parte di Yamaha non è garantito e Yamaha non si assume alcuna responsabilità relativa al codice sorgente.
- È possibile scaricare il codice sorgente dal seguente indirizzo: http://yamahaproaudio.com/

Замечание о распространении исходного кода

В течение трех лет после отгрузки с завода можно запросить в компании Yamaha исходный код для любой категории программных продуктов, на которые распространяется Универсальная общественная лицензия GNU и Универсальная общественная лицензия ограниченного применения GNU, обратившись по следующему адресу:

Product Planning Group, Business Development Department, Commercial Audio Business Division, YAMAHA Corporation 10-1 Nakazawa-cho, Naka-ku, Hamamatsu, 430-8650, JAPAN

Исходный код поставляется бесплатно, однако вас могут попросить возместить корпорации Yamaha расходы по его пересылке.

- Следует отметить, что корпорация не несет ответственности за любой ущерб, возникший в результате изменений (дополнений/ удалений), произведенных в программном обеспечении для данного продукта третьими лицами, не имеющими отношения к корпорации Yamaha (или не являющимися уполномоченными представителями корпорации Yamaha).
- Также следует отметить, что вторичное использование исходного кода, выпущенного для публичного использования корпорацией Yamaha, не является предметом гарантии и что Yamaha не несет ответственности за любое использование такого исходного кода.
- Исходный код можно загрузить с веб-сайта по адресу: http://yamahaproaudio.com/

ソースコード配布について

本製品の最終出荷日から3年間は、製品のソースコードのうちGNU General Public LicenseとGNU Lesser General Public Licenceに 基づいてライセンス供与された部分については、ソースコードを配 布させていただきます。以下の住所にお問い合わせください。

〒430-8650 浜松市中区中沢町10-1 ヤマハ株式会社

音響事業統括部 事業開発部 商品企画グループ

ソースコードの配布自体は無償ですが、ソースコードの送料につき ましてはご負担いただきます。

- ・弊社(または弊社認定の関係者)以外の第三者による、この製品のソフトウェアに対する変更や追加、削除などによって発生したいかなる損害に対しても、弊社は一切責任を負いません。
- ・弊社により一般に公開されたソースコードの再利用は保証されて おりません。ソースコードに関して弊社は一切責任を負いません。
- ・また、ソースコードは以下のURLでも配布しております。 http://www.yamahaproaudio.com/japan/

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

mportant 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 (Printa t our website) or contact the Yamaha representative office for your country. * EEA: European Economic Area	English ble file is availabl
Vichtiger Hinweis: Garantie-Information für Kunden in der EWR* und der Schweiz ür nähere Garantie-Information über dieses Produkt von Yamaha, sowie über den Pan-EWR*- und Schweizer Garantieservice, besuchen Sie bitte entweder die folgend angegeb eine druckfähige Version befindet sich auch auf unserer Webseite), oder wenden Sie sich an den für Ihr Land zuständigen Yamaha-Vertrieb. *EWR: Europäischer Wirtschaftsra	
Remarque importante: informations de garantie pour les clients de l'EEE et la Suisse our 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, consu l'adresse ci-dessous (le fichier imprimable est disponible sur notre site Web) ou contactez directement Yamaha dans votre pays de résidence. * EEE : Espace Econ	
Belangrijke mededeling: Garantie-informatie voor klanten in de EER* en Zwitserland /oor gedetailleerde garantie-informatie over dit Yamaha-product en de garantieservice in heel de EER* en Zwitserland, gaat u naar de onderstaande website (u vi estand op onze website) of neemt u contact op met de vertegenwoordiging van Yamaha in uw land. * EER: Europese Economische Ruimte	Nederlands nd een afdrukbaa
viso importante: información sobre la garantía para los clientes del EEE* y Suiza ara 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 ab rchivo 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 ajo (la version de
vviso importante: informazioni sulla garanzia per i clienti residenti nell'EEA* e in Svizzera er 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 al i seguito (è disponibile il file in formato stampabile) oppure contattare l'ufficio di rappresentanza locale della Yamaha. * EEA: Area Economica Europea	Italiano l'indirizzo riportat
viso importante: informações sobre as garantias para clientes da AEE* e da Suíça ara 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 pa isponível no nosso site) ou entre em contato com o escritório de representação da Yamaha no seu país. * AEE: Área Econômica Européia	Português ra impressão es
ημαντική σημείωση: Πληροφορίες εγγύησης για τους πελάτες στον ΕΟΧ* και Ελβετία ια λεπτομερείς πληροφορίες εγγύησης σχετικά με το παρόν προϊόν της Yamaha και την κάλυψη εγγύησης σε όλες τις χώρες του ΕΟΧ και την Ελβετία, επισκεφτι στοσελίδα (Εκτυπώσιμη μορφή είναι διαθέσιμη στην ιστοσελίδα μας) ή απευθυνθείτε στην αντιπροσωπεία της Yamaha στη χώρα σας. * ΕΟΧ: Ευρωπαϊκός Οικονομικό	
fiktigt: Garantiinformation för kunder i EES-området* och Schweiz ör detaljerad information om denna Yamahaprodukt samt garantiservice i hela EES-området* och Schweiz kan du antingen besöka nedanstående webbaddress (ε nns på webbplatsen) eller kontakta Yamahas officiella representant i ditt land. * EES: Europeiska Ekonomiska Samarbetsområdet	Svenska
/iktig 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 nettadressen nedenfor (utsl å våre nettsider) eller kontakte kontakte Yamaha-kontoret i landet der du bor. *EØS: Det europeiske økonomiske samarbeidsområdet	Norsk kriftsversjon finne
rigtig 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 an ndes en fil, som kan udskrives, på vores websted), eller ved at kontakte Yamahas nationale repræsentationskontor i det land, hvor De bor. * EØO: Det Europæiske Øko	
rärkeä ilmoitus: Takuutiedot Euroopan talousalueen (ETA)* ja Sveitsin asiakkaille ämän Yamaha-tuotteen sekä ETA-alueen ja Sveitsin takuuta koskevat yksityiskohtaiset tiedot saatte alla olevasta nettiosoitteesta. (Tulostettava tiedosto saataviss oitte myös ottaa yhteyttä paikalliseen Yamaha-edustajaan. *ETA: Euroopan talousalue	Suomi sa sivustollamme
Vażne: Warunki gwarancyjne obowiązujące w EOG* i Szwajcarii by dowiedzieć się więcej na temat warunków gwarancyjnych tego produktu firmy Yamaha i serwisu gwarancyjnego w całym EOG* i Szwajcarii, należy odwiedzić wskazaną poniże plik gotowy do wydruku znajduje się na naszej stronie internetowej) lub skontaktować się z przedstawicielstwem firmy Yamaha w swoim kraju. * EOG – Europejski Obszar Go	
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 o vebových stránkách) nebo se můžete obrátit na zastoupení firmy Yamaha ve své zemí. * EHS: Evropský hospodářský prostor	Česky lostupný na naši
iontos figyelmeztetés: Garancia-információk az EGT* területén és Svájcban élő vásárlók számárka i jelen Yamaha termékre vonatkozó részletes garancia-információk, valamint az EGT*-re és Svájcra kiterjedő garanciális szolgáltatás tekintetében keresse fel webh ímen (a webhelven nyomtatható fájlt is talál), vagy pedig lépien kapcsolatba az országában működő Yamaha képviseleti irodával. * EGT: Európai Gazdasági Térsér	
Dluline märkus: Garantiiteave Euroopa Majanduspiirkonna (EMP)* ja Šveitsi klientidele äpsema teabe saamiseks selle Yamaha toote garantii ning kogu Euroopa Majanduspiirkonna ja Šveitsi garantiiteeninduse kohta, külastage palun veebisaiti alljärgnev aidil on saadaval prinditav fail) või pöörduge Teie regiooni Yamaha esinduse poole. * EMP: Euroopa Majanduspiirkond	Eesti keel
Svarīgs paziņojums: garantijas informācija klientiem EEZ* un Šveicē ai saņemtu detalizētu garantijas informāciju par šo Yamaha produktu, kā arī garantijas apkalpošanu EEZ* un Šveicē, lūdzu, apmeklējiet zemāk norādīto tīmekļa vietr ietnē ir pieejams drukājams fails) vai sazinieties ar jūsu valsti apkalpojošo Yamaha pārstāvniecību. * EEZ: Eiropas Ekonomikas zona	Latviešu nes adresi (tīmek
Démesio: informacija dėl garantijos pirkėjams EEE* ir Šveicarijoje ei reikia išsamios informacijos apie šį "Yamaha" produktą ir jo techninę priežiūrą visoje EEE* ir Šveicarijoje, apsilankykite mūsų svetainėje toliau nurodytu adre pausdintinas failas) arba kreipkitės į "Yamaha" atstovybę savo šaliai. *EEE – Europos ekonominė erdvė	Lietuvių kall su (svetainėje y
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 uveden vebovej stránke je k dispozícii súbor na tlač) alebo sa obráťte na zástupcu spoločnosti Yamaha vo svojej krajine. * EHP: Európsky hospodársky priestor	Slovenčina ej nižšie (na naš
Verbovej stranke je k dispozicii subor na tiac) alebo sa obratte na zastupcu spolocnosti Yamana vo svojej krajine. "EIP: Europsky hospodarsky priestor Vomembno obvestilo: Informacije o garanciji za kupce v EGP* in Švici (a podrobnejše informacije o tem Yamahinem izdelku ter garancijskem servisu v celotnem EGP in Švici, obiščite spletno mesto, ki je navedeno spodaj (natisljiva dato ašem spletnem mestu), ali se obrnite na Yamahinega predstavnika v svoji državi. * EGP: Evropski gospodarski prostor	Slovenščin teka je na voljo r
Зажно съобщение: Информация за гаранцията за клиенти в ЕИП* и Швейцария На подробна информация за гаранцията за този продукт на Yamaha и гаранционното обслужване в паневропейската зона на ЕИП* и Швейцария или посетете посо	
айт (на нашия уеб сайт има файл за печат), или се свържете с представителния офис на Yamaha във вашата страна. * ЕИП: Европейско икономическо пространс Iotificare 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 disponib au contactati biroul reprezentantei Yamaha din tara dumpeavoastă* SEE: Spatiul Economic European	Limba româ
au contactați biroul reprezentanței Yamaha din țara dumneavoastră. * SEE: Spațiul Economic European /ažna obavijest: Informacije o jamstvu za države EGP-a i Švicarske 2a detaljne informacije o jamstvu za ovaj Yamahin proizvod te jamstvenom servisu za cijeli EGP i Švicarsku, molimo Vas da posjetite web-stranicu navedenu u nasta	Hrvatski

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

NORTH AMERICA

CANADA

Yamaha Canada Music Ltd. 135 Milner Avenue, Toronto, Ontario, M1S 3R1, Canada Tel: +1-416-298-1311

U.S.A.

Yamaha Corporation of America 6600 Orangethorpe Avenue, Buena Park, CA 90620, U.S.A.

Tel: +1-714-522-9011

CENTRAL & SOUTH AMERICA

MEXICO

Yamaha de México, S.A. de C.V. Av. Insurgentes Sur 1647 Piso 9, Col. San José Insurgentes, Delegación Benito Juárez, México, D.F., C.P. 03900, México Tel: +52-55-5804-0600

BRAZIL

Yamaha Musical do Brasil Ltda. Rua Fidêncio Ramos, 302 – Cj 52 e 54 – Torre B – Vila Olímpia – CEP 04551-010 – São Paulo/SP, Brazil Tel: +55-11-3704-1377

ARGENTINA

Yamaha Music Latin America, S.A., Sucursal Argentina Olga Cossettini 1553, Piso 4 Norte, Madero Este-C1107CEK, Buenos Aires, Argentina Tel: +54-11-4119-7000

PANAMA AND OTHER LATIN AMERICAN COUNTRIES/ CARIBBEAN COUNTRIES

Yamaha Music Latin America, S.A. Edif. Torre Banco General, Piso 7, Urbanización Marbella, Calle 47 y Aquilino de la Guardia, Ciudad de Panamá, República de Panamá Tel: +507-269-5311

EUROPE

THE UNITED KINGDOM/IRELAND Yamaha Music Europe GmbH (UK) Sherbourne Drive, Tilbrook, Milton Keynes, MK7 8BL, U.K.

Tel: +44-1908-366700

GERMANY

Yamaha Music Europe GmbH Siemensstrasse 22-34, 25462 Rellingen, Germany Tel: +49-4101-303-0

SWITZERLAND/LIECHTENSTEIN Yamaha Music Europe GmbH, Branch Switzerland in Thalwil Seestrasse 18a, 8800 Thalwil, Switzerland Tel: +41-44-3878080

AUSTRIA/BULGARIA/ CZECH REPUBLIC/HUNGARY/

ROMANIA/SLOVAKIA/SLOVENIA Yamaha Music Europe GmbH Branch Austria

Schleiergasse 20, 1100 Wien, Austria Tel: +43-1-60203900

POLAND

Yamaha Music Europe GmbH Sp.z o.o. Oddział w Polsce

ul. Wielicka 52, 02-657 Warszawa, Poland Tel: +48-22-880-08-88

MALTA

Olimpus Music Ltd. Valletta Road, Mosta MST9010, Malta Tel: +356-2133-2093

PA53

NETHERLANDS/BELGIUM/ LUXEMBOURG Vamaba Musia Europa Branch B

Yamaha Music Europe Branch Benelux Clarissenhof 5b, 4133 AB Vianen, The Netherlands Tel: +31-347-358040

FRANCE

Yamaha Music Europe 7 rue Ambroise Croizat, Zone d'activités de Pariest, 77183 Croissy-Beaubourg, France Tel: +33-1-6461-4000

ITALY

Yamaha Music Europe GmbH, Branch Italy Via Tinelli N.67/69 20855 Gerno di Lesmo (MB), Italy

Tel: +39-039-9065-1

SPAIN/PORTUGAL Yamaha Music Europe GmbH Ibérica, Sucursal en España

Ctra. de la Coruña km. 17,200, 28231 Las Rozas de Madrid, Spain Tel: +34-91-639-88-88

GREECE

Philippos Nakas S.A. The Music House 19th klm. Leof. Lavriou 190 02 Peania – Attiki, Greece Tel: +30-210-6686168

Tel: +30-210-6686168

SWEDEN/FINLAND/ICELAND Yamaha Music Europe GmbH Germany filial

Scandinavia

JA Wettergrensgata 1, 400 43 Göteborg, Sweden Tel: +46-31-89-34-00

DENMARK

Yamaha Music Denmark, Fillial of Yamaha Music Europe GmbH, Tyskland Generatorvej 8C, ST. TH., 2860 Søborg, Denmark Tel: +45-44-92-49-00

NORWAY

Yamaha Music Europe GmbH Germany -Norwegian Branch Grini Noringgogle 1, 1222 (Actores Norwey

Grini Næringspark 1, 1332 Østerås, Norway Tel: +47-6716-7800 **CYPRUS**

Yamaha Music Europe GmbH

Siemensstrasse 22-34, 25462 Rellingen, Germany Tel: +49-4101-303-0

RUSSIA

Yamaha Music (Russia) LLC. Room 37, entrance 7, bld. 7, Kievskaya street, Moscow, 121059, Russia Tel: +7-495-626-5005

OTHER EUROPEAN COUNTRIES Yamaha Music Europe GmbH

Siemensstrasse 22-34, 25462 Rellingen, Germany Tel: +49-4101-3030

AFRICA

Yamaha Music Gulf FZE JAFZA-16, Office 512, P.O.Box 17328, Jebel Ali FZE, Dubai, UAE Tel: +971-4-801-1500

MIDDLE EAST

TURKEY

Yamaha Music Europe GmbH Merkezi Almanya Türkiye İstanbul Şubesi Mor Sumbul Sokak Varyap Meridian Business 1.Blok No:1 113-114-115 Bati Atasehir Istanbul, Turkey Tel: +90-216-275-7960

OTHER COUNTRIES

Yamaha Music Gulf FZE JAFZA-16, Office 512, P.O.Box 17328, Jebel Ali FZE, Dubai, UAE Tel: +971-4-801-1500

ASIA

THE PEOPLE'S REPUBLIC OF CHINA Yamaha Music & Electronics (China) Co.,Ltd.

2F, Yunhedasha, 1818 Xinzha-lu, Jingan-qu, Shanghai, China Tel: +86-400-051-7700

INDIA

Yamaha Music India Private Limited P-401, JMD Megapolis, Sector-48, Sohna Road, Gurugram-122018, Haryana, India Tel: +91-124-485-3300

INDONESIA

PT. Yamaha Musik Indonesia (Distributor) Yamaha Music Center Bldg, Jalan Jend. Gatot Subroto Kav. 4, Jakarta 12930, Indonesia Tel: +62-21-520-2577

KOREA

Yamaha Music Korea Ltd.

IIF, Prudential Tower, 298, Gangnam-daero, Gangnam-gu, Seoul, 06253, Korea Tel: +82-2-3467-3300

MALAYSIA

Yamaha Music (Malaysia) Sdn. Bhd. No.8, Jalan Perbandaran, Kelana Jaya, 47301 Petaling Jaya, Selangor, Malaysia Tel: +60-3-78030900

SINGAPORE

Yamaha Music (Asia) Private Limited Block 202 Hougang Street 21, #02-00, Singapore 530202, Singapore Tel: +65-6740-9200

TAIWAN

Yamaha Music & Electronics Taiwan Co.,Ltd. 2F., No.1, Yuandong Rd., Banqiao Dist., New Taipei City 22063, Taiwan (R.O.C.) Tel: +886-2-7741-8888

THAILAND

Siam Music Yamaha Co., Ltd. 3, 4, 15, 16th Fl., Siam Motors Building, 891/1 Rama 1 Road, Wangmai, Pathumwan, Bangkok 10330, Thailand Tel: +66-2215-2622

VIETNAM

Yamaha Music Vietnam Company Limited 15th Floor, Nam A Bank Tower, 201-203 Cach Mang Thang Tam St., Ward 4, Dist.3, Ho Chi Minh City, Vietnam Tel: +84-8-3818-1122

OTHER ASIAN COUNTRIES http://asia.yamaha.com/

OCEANIA

AUSTRALIA

Yamaha Music Australia Pty. Ltd. Level 1, 80 Market Street, South Melbourne, VIC 3205, Australia Tel: +61-3-9693-5111 COUNTRIES AND TRUST

TERRITORIES IN PACIFIC OCEAN http://asia.yamaha.com/

Head Office/Manufacturer: Yamaha Corporation 10-1, Nakazawa-cho, Naka-ku, Hamamatsu, 430-8650, Japan (For European Countries) Importer: Yamaha Music Europe GmbH Siemensstrasse 22-34, 25462 Rellingen, Germany

Yamaha Pro Audio global website http://www.yamahaproaudio.com/

Yamaha Downloads https://download.yamaha.com/ Manual Development Group © 2017 Yamaha Corporation Published 06/2019 MW-W-B0

