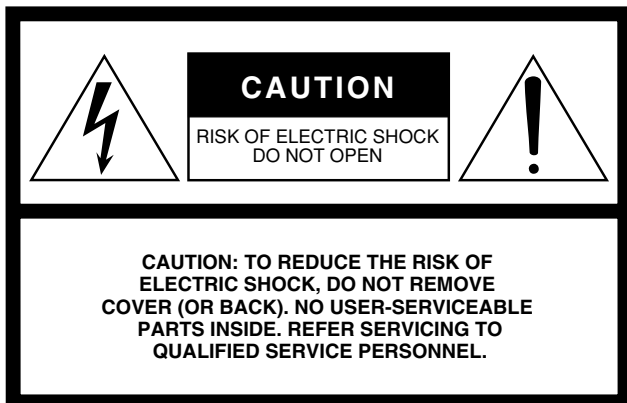


POWERED SPEAKER

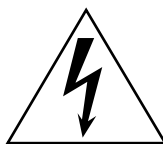
# MSR400

Owner's Manual  
Bedienungsanleitung  
Mode d'emploi  
Manual de instrucciones  
使用说明书  
取扱説明書



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

## Explanation of Graphical Symbols



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



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

## IMPORTANT SAFETY INSTRUCTIONS

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



### WARNING

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

(98-6500)

### IMPORTANT NOTICE FOR THE UNITED KINGDOM


#### Connecting the Plug and Cord

#### WARNING: THIS APPARATUS MUST BE EARTHED

IMPORTANT. The wires in this mains lead are coloured in accordance with the following code:

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

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

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

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

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

• This applies only to products distributed by Yamaha-Kemble Music (U.K.) Ltd.

(3 wires)

Thank you for purchasing the Yamaha MSR400 powered speaker system. The development of this powered speaker is a natural extension of Yamaha's extensive experience and knowledge of PA devices. The MSR400 faithfully reproduces sound for a wide range of applications. Please read this owner's manual thoroughly to make the best use of the MSR400 for the longest possible period of time. Keep the manual in a safe place for future reference.

# PRECAUTIONS

## PLEASE READ CAREFULLY BEFORE PROCEEDING

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



### WARNING

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

#### Power supply/Power cord

- 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 included 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.

#### Do not open

- Do not open the device or attempt to disassemble the internal parts or modify them in any way. The device contains no user-serviceable parts. 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 containers on it containing liquids which might spill into any openings.
- Never insert or remove an electric plug with wet hands.

#### If you notice any abnormality

- If the power cord or plug becomes frayed or damaged, or if there is a sudden loss of sound during use of the device, or if any unusual smells or smoke should appear to be caused by it, immediately turn off the power switch, disconnect the electric plug from the outlet, and have the device inspected by qualified Yamaha service personnel.
- If this device should be dropped or damaged, immediately turn off the power switch, disconnect the electric plug from the outlet, and have the device inspected by qualified Yamaha service personnel.



### CAUTION

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

#### Power supply/Power cord

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

#### Location

- Always consult qualified Yamaha service personnel if the device installation requires construction work, and make sure to observe the following precautions.
  - Choose mounting hardware and an installation location that can support the weight of the device.
  - Avoid locations that are exposed to constant vibration.
  - Inspect the device periodically.
- When transporting or moving the device, always use two or more people. Attempting to lift the device by yourself may damage your back, result in other injury, or cause damage to the device itself.
- Before moving the device, remove all connected cables.

- Do not use the device in a confined, poorly-ventilated location. If this device is to be used in a small space other than an EIA-standard rack, make sure that there is adequate space between the device and surrounding walls or other devices: at least 30cm at the sides, 30cm behind and 30cm above. Inadequate ventilation can result in overheating, possibly causing damage to the device(s), or even fire.
- Do not use the speaker's handles for suspended installation. Doing so can result in damage or injury.
- Do not expose the device to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.
- Do not place the device in an unstable position where it might accidentally fall over.

#### Connections

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

**Handling caution**

- When turning on the AC power in your audio system, always turn on the device LAST, to avoid speaker damage. When turning the power off, the device should be turned off FIRST for the same reason.
- Do not insert your fingers or hands in any gaps or openings on the device (ports, etc.).
- Avoid inserting or dropping foreign objects (paper, plastic, metal, etc.) into any gaps or openings on the device (ports, etc.) If this happens, turn off the power immediately and unplug the power cord from the AC outlet. Then have the device inspected by qualified Yamaha service personnel.

- Do not use the device for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing in the ears, consult a physician.
- Do not operate the device if the sound is distorting. Prolonged use in this condition could cause overheating and result in fire.
- Do not rest your weight on the device or place heavy objects on it, and avoid use excessive force on the buttons, switches or connectors.

XLR-type connectors are wired as follows (IEC60268 standard): pin 1: ground, pin 2: hot (+), and pin 3: cold (-).

**Interference From Cell Phones**

Using a cell phone near the speaker system can induce noise. If this occurs, move the cell phone further away from the speaker system.

Yamaha cannot be held responsible for damage caused by improper use or modifications to the device.

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

The performance of components with moving contacts, such as switches, volume controls, and connectors, deteriorates over time. Consult qualified Yamaha service personnel about replacing defective components.

- \* Illustrations in this manual are for explanatory purposes only, and may not match the actual appearance of the product during operation.
- \* Company names and product names used in this Owner's Manual are trademarks or registered trademarks of their respective owners.

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

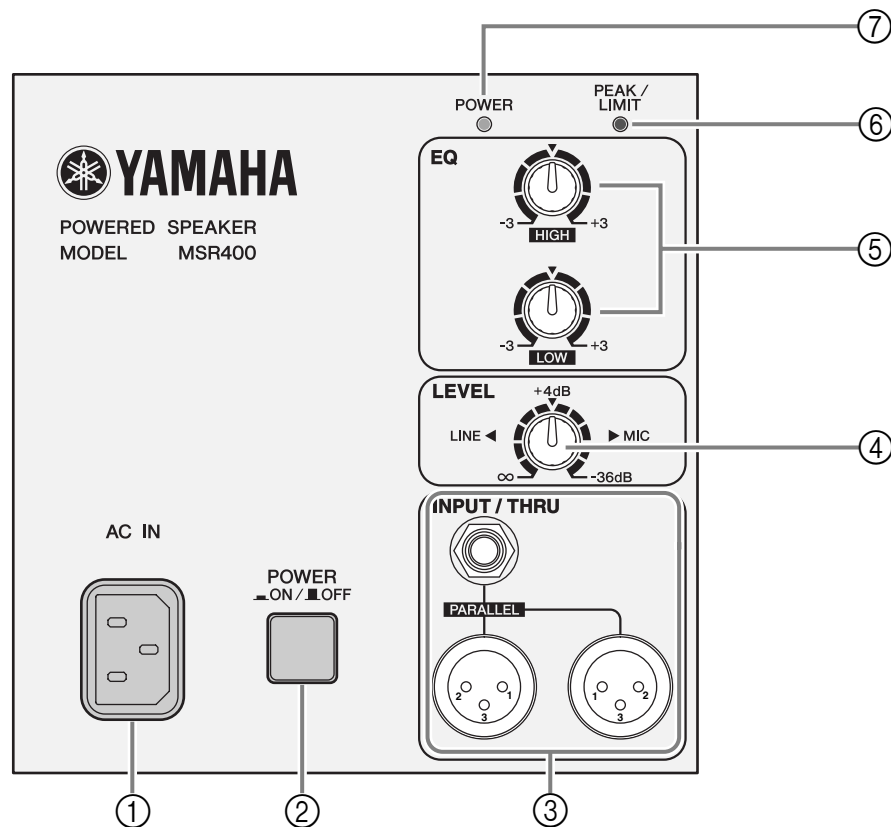
European Models

Purchaser/User Information specified in EN55103-1 and EN55103-2.

Inrush Current: 15A

Conforms to Environments: E1, E2, E3 and E4

# Rear Panel



## ① AC IN connector

Connect the included power cord here. First, connect the power cord to the MSR400, then insert the power cord plug into the AC outlet.

## ② POWER switch

This switch turns the power to the MSR400 on and off. When you turn this switch on, the POWER indicator (⑦) lights up green.

## ③ INPUT/THRU connectors

These are XLR-3-31 (female), XLR-3-32 (male) and balanced phone jack connectors, and they accept input from mic-level to line-level sources. They are all connected in parallel and can also be used as output jacks.

## ④ LEVEL control

This control enables you to adjust the level of signal input from the INPUT/THRU connectors (③).

## ⑤ EQ control

**HIGH:** Determines the level of the high frequency band (1.6 kHz and higher). Turn the control clockwise to boost and counterclockwise to cut over a range of  $\pm 3$  dB. Setting the knob to the optimum ▼ position produces a flat frequency response.

**LOW:** Determines the level of the low frequency band at a center frequency of 55 Hz. Turn the control clockwise to boost and counterclockwise to cut over a range of  $\pm 3$  dB. Setting the knob to the optimum ▼ position produces a flat frequency response.

## ⑥ PEAK/LIMIT indicator

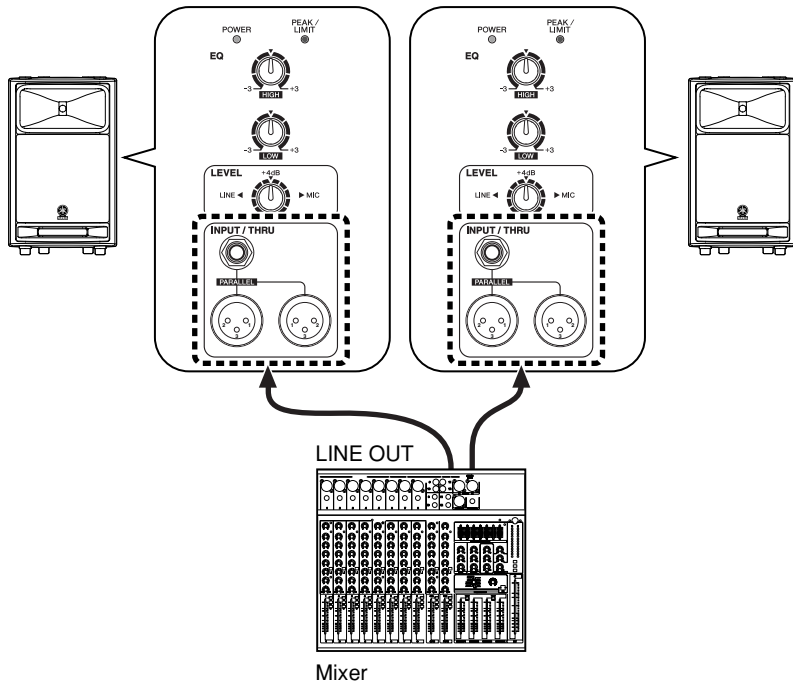
This indicator lights up red if the output level is too high. In this case, lower the level using the LEVEL control (④) or lower the input level.

## ⑦ POWER indicator

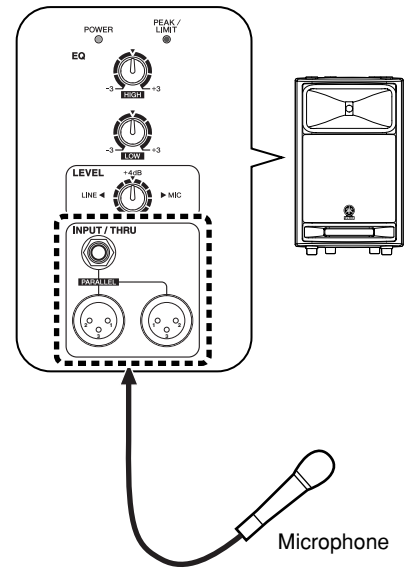
When you turn the power on, this indicator lights up green.

# Connection Examples

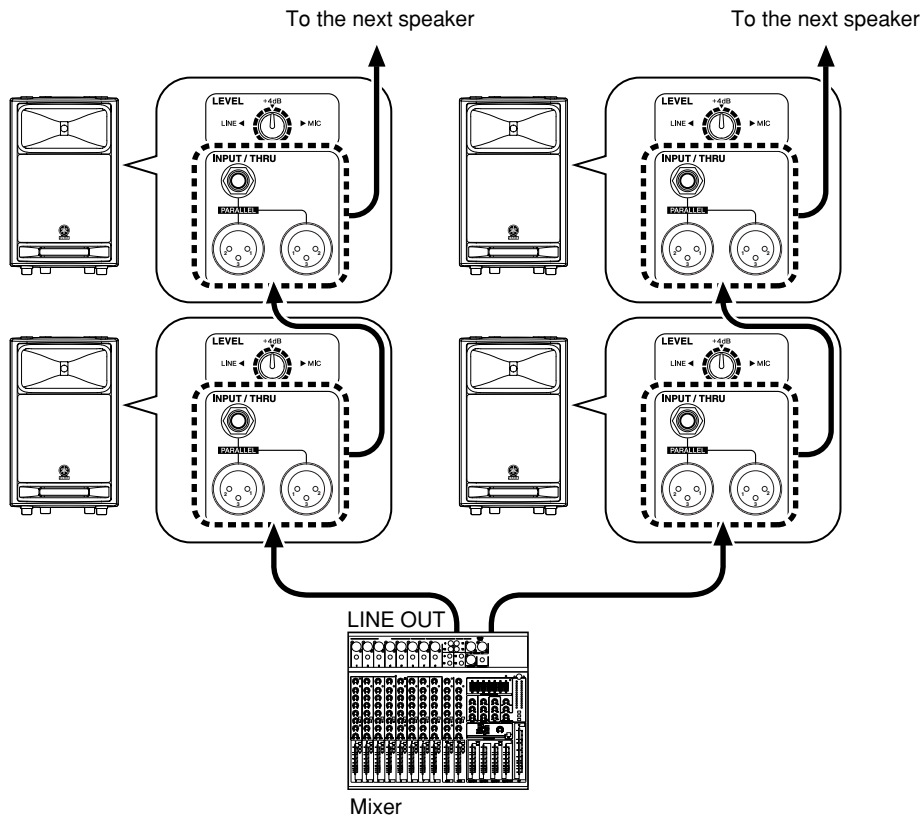
## Stereo setup



## Connect a microphone



## Daisy chain



# Specifications

## ■ General specifications

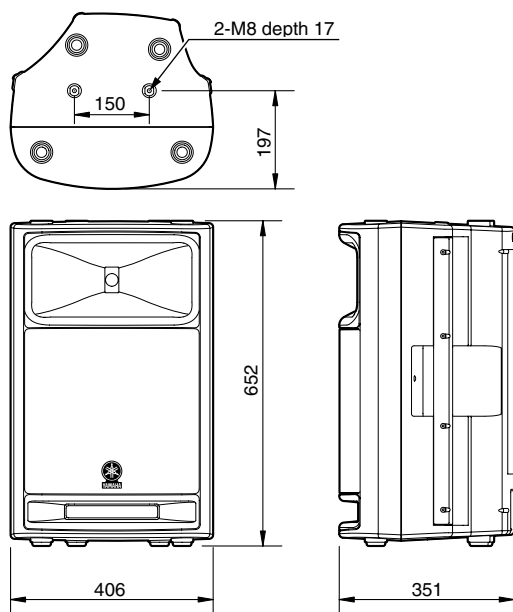
Type.....	Bi-Amp 2-way powered speaker
Speaker unit.....	LF : 30 cm cone HF : 4.4 cm Voice coil compression driver
Frequency Range.....	50 Hz–20 kHz (–10 dB)
Maximum Output Level .....	121 dB (1m on Axis)
Directional angle .....	90° (H)/40° (V)
Dimension (W × H × D) .....	406 × 652 × 351 mm
Weight .....	23 kg
Color .....	Black
Tripod pole diameter .....	35–36 mm
Included Accessories .....	Power cord (AC inlet type, 2.5 m), Owner's Manual

## ■ Amp.unit

Maximum Output Power.....	LF : 225 W at 500 Hz, THD=1%, RL=4 Ω HF : 75 W at 5 kHz, THD=1%, RL=16 Ω
Crossover frequency .....	1.6 kHz (30 dB/oct.)
Input Sensitivity .....	MIC/LINE –36 dB/+4 dB
Input impedance .....	10 kΩ
Controls.....	LEVEL Control EQ. LOW : ±3 dB at 55 Hz HIGH : ±3 dB (HF) POWER Switch (ON/OFF)
Input/Output Connectors (all balanced) .....	XLR-3-31, XLR-3-32, PHONE (They are all connected in parallel and can be used as line outputs.)
Indicators .....	POWER Indicator : Green LED PEAK/LIMIT Indicator : Red LED
Power Consumption .....	110 W

\* 0 dB=0.775 V

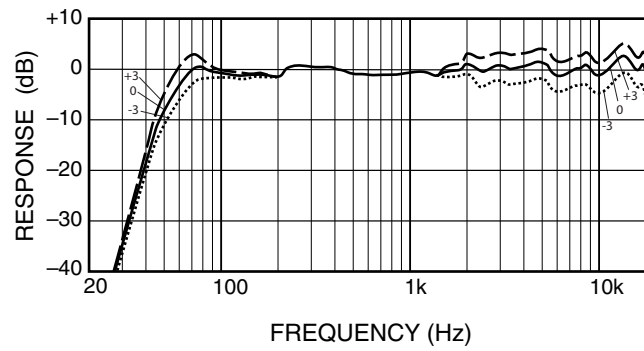
# Dimensions



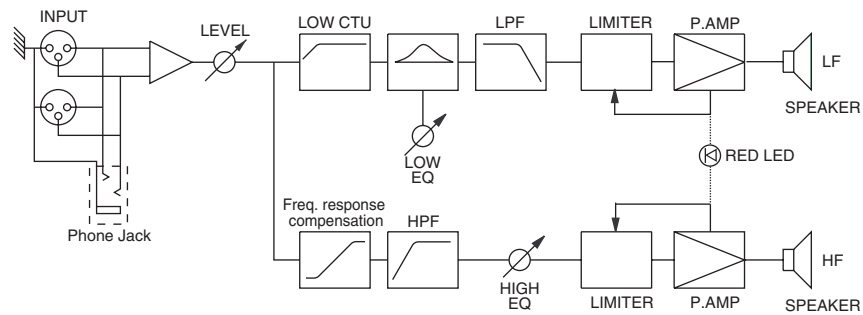
Unit : mm

# Performance graph

## Standard Frequency Response



## Block Diagram



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Tel: 1-4371-7021

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Calle 47 y Aquilino de la Guardia,  
Ciudad de Panamá, Panamá  
Tel: +507-269-5311

## EUROPE

### THE UNITED KINGDOM

**Yamaha-Kemble Music (U.K.) Ltd.**  
Sherbourne Drive, Tilbrook, Milton Keynes,  
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Tel: 01908-366700

### GERMANY

**Yamaha Music Central Europe GmbH**  
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Tel: 04101-3030

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Tel: 91-639-8888

### SWEDEN

**Yamaha Scandinavia AB**  
J. A. Wettergrens Gata 1  
Box 30053  
S-400 43 Göteborg, Sweden  
Tel: 031 89 34 00

### DENMARK

**YS Copenhagen Liaison Office**  
Generatorvej 6A  
DK-2730 Herlev, Denmark  
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**Norsk filial av Yamaha Scandinavia AB**  
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**Yamaha Music Central Europe GmbH**  
Siemensstraße 22-34, 25462 Rellingen, Germany  
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## AFRICA

**Yamaha Corporation,**  
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Tel: 02-3770-0660

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Tel: 02-215-2626

### OTHER ASIAN COUNTRIES

**Yamaha Corporation,**  
**Asia-Pacific Music Marketing Group**  
Nakazawa-cho 10-1, Hamamatsu, Japan 430-8650  
Tel: +81-53-460-2317

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Level 1, 99 Queensbridge Street, Southbank,  
Victoria 3006, Australia  
Tel: 3-9693-5111

### COUNTRIES AND TRUST TERRITORIES IN PACIFIC OCEAN

**Yamaha Corporation,**  
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Nakazawa-cho 10-1, Hamamatsu, Japan 430-8650  
Tel: +81-53-460-2313

**HEAD OFFICE** Yamaha Corporation, Pro Audio & Digital Musical Instrument Division  
Nakazawa-cho 10-1, Hamamatsu, Japan 430-8650  
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