

### MIXING CONSOLE

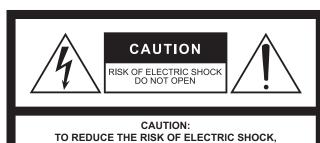
# MG10XUF

**Owner's Manual** 

PRECAUTIONS pages 4 to 6

Quick Start Guide pages 9 to 11

Troubleshooting pages 18 to 20



DO NOT REMOVE COVER (OR BACK).

NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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



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

#### Explanation of Graphical Symbols Explication des symboles



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

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



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

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

# IMPORTANT SAFETY INSTRUCTIONS

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with 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

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

#### **AVERTISSEMENT**

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

(UL60065\_03)

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

- 1. IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!
  - This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.
- 2. IMPORTANT: When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.
- 3. NOTE: This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices. Compliance with FCC regulations does not guarantee that interference will not occur in all

installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

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

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

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

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

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

(class B)

## COMPLIANCE INFORMATION STATEMENT (DECLARATION OF CONFORMITY PROCEDURE)

Responsible Party: Yamaha Corporation of America

Address: 6600 Orangethorpe Ave., Buena Park, Calif. 90620

Telephone: 714-522-9011
Type of Equipment: Mixing Console
Model Name: MG10XUF

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1) this device may not cause harmful interference, and

2) this device must accept any interference received including interference that may cause undesired operation.

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

(FCC DoC)

#### 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)

### **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/AC power adaptor

- 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 the specified adaptor only. Using the wrong adaptor can result in damage to the device or overheating.
- 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. 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.

#### Do not open

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

#### Water warning

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

#### **Hearing loss**

 Avoid setting all equalizer controls and faders to their maximum. Depending on the condition of the connected devices, doing so may result in feedback that can cause hearing loss and damage the speakers.

- Do not use headphones 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.
- Before connecting the device to other devices, turn off the power for all devices. Also, before turning the power of all devices on or off, make sure that all volume levels are set to the minimum. Failing to do so may result in hearing loss, electric shock, or device damage.
- When turning on the AC 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
  - 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 AC power adaptor 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.



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/AC power adaptor

- Do not cover or wrap the AC power adaptor with a cloth or blanket.
- 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

- Do not place the device in an unstable position where it might accidentally fall over and cause injuries.
- 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.

#### Maintenance

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

#### **Handling caution**

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

#### **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 chemical-impregnated wiping cloths.
- Condensation can occur in the device due to rapid, drastic changes in ambient temperature—when the device is moved from one location to another, or air conditioning is turned on or off, for example. Using the device while condensation is present can cause damage. If there is reason to believe that condensation might have occurred, leave the device for several hours without turning on the power until the condensation has completely dried out.
- To avoid generating unwanted noise, make sure there is adequate distance (50cm or more) between the AC adaptor and the device.
- Do not apply oil, grease, or contact cleaner to the faders. Doing so may cause problems with electrical contact or fader motion.
- Always turn the power off when the device is not in use.
- Even when the power switch is in standby status, electricity is still flowing to the device at the minimum level. When you are not using the device for a long time, make sure you unplug the power cord from the wall AC outlet.

#### **■** Connectors

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

#### Information

#### ■ About copyrights

- Copying of the software or reproduction of this manual in whole or in part by any means is expressly forbidden without the written consent of the manufacturer.
- This product incorporates and bundles computer programs and contents in which Steinberg Media Technologies GmbH and Yamaha Corporation own copyrights or with respect to which it has license to use others' copyrights. Such copyrighted materials include, without limitation, all computer software, style files, MIDI files, WAVE data, musical scores and sound recordings. Any unauthorized use of such programs and contents outside of personal use is not permitted under relevant laws. Any violation of copyright has legal consequences. DON'T MAKE, DISTRIBUTE OR USE ILLEGAL COPIES.

#### ■ About this manual

- The illustrations as shown in this manual are for instructional purposes only.
- Steinberg Media Technologies GmbH and 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.
- iPhone and iPad are trademarks of Apple Inc., registered in the U.S. and other countries.
- IOS is a trademark or registered trademark of Cisco in the U.S. and other countries and is used under license.
- · Steinberg and Cubase are registered trademarks of Steinberg Media Technologies GmbH.
- 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.

#### ■ About disposal

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

European models

Purchaser/User Information specified in EN55103-2:2009.

Conforms to Environments: E1, E2, E3 and E4

The model number, serial number, power requirements, etc., may be found on or near the name plate, which is at the rear 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.

(rear\_en\_01)

#### ORSEDVEDAL

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)

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

(class b korea)

Thank you and congratulations on your purchase of the Yamaha MG10XUF mixing console. This product is a mixing console for adjusting the balance of multiple sound sources. This manual explains, for users who may not be familiar with mixers, how to mix multiple sound sources during live performances by a band or in other events. Please read this manual thoroughly to get the most out of the product and ensure long-term, trouble-free use. After reading this manual, please keep it available for future reference.

### **Contents**

PRECAUTIONS	4
Contents	7
Main Features	8
Quick Start Guide STEP 1 Connecting external devices, such as speakers, microphones and instruments STEP 2 Getting sound to the speakers	9
Controls and Functions	.12
Top panel Channel section Master section Internal effect section	14
Rear panel USB section	16
Applying Effects	.17
Troubleshooting	18

Technical Specifications	21
General Specifications	21
Analog Input Characteristics	22
Analog Output Characteristics	22
Digital Input / Output Characteristics	22
Jack and Connector List	23
Connector Types	23
Block and Level Diagrams	24
Dimensions	25

### **Main Features**

### **D-PRE and High-Quality Operational Amplifiers**

Mono input channels are equipped with "D-PRE" Class-A discrete microphone preamplifiers. The D-PRE head amplifier features an inverted Darlington circuit used in high-end audio devices. This circuit uses multi-stage amplifying elements to ensure high current and low impedance, for an audio texture with crispness and richness in the low and mid frequencies. Combined with the specially-designed "MG01" operational amp, the overall result is full-bodied reproduction of low frequencies as well as sustained high frequencies. Input channels feature combo jacks, which can accept both XLR and TRS connectors. In addition, PAD circuitry allows line level input, to accommodate a wide variety of instruments.

### 24 High-Quality Digital Effects

MG10XUF features 24 built-in effects that are based on SPX algorithms used by professionals. In particular, the high-quality reverb and delay expand the spatial quality of the sound with remarkable realism and naturalness.

#### 24-bit/192 kHz USB Audio Interface

MG10XUF features a USB 2.0 audio interface capable of 24-bit/192 kHz sound quality. With the audio interface you can play back music from your computer, or use DAW software such as Cubase AI to record the mixer output. The XU models support USB Audio Class 2.0 so you can use them with USB Audio Class 2.0 compliant tablets and other devices, without the need to install drivers. The USB protocol uses asynchronous data transfer. Audio data is transferred based on a highly precise audio clock signal from the MG, for high quality recording and playback.

### MG Rec & Play

The MG Rec & Play software application enables recording to an iPhone/iPad connected to MG10XUF, as well as play-back of songs and sounds from an iPhone/iPad. This application can be used for a wide range of purposes, such as recording live gigs, providing background music for entertainment events, or sound effects for parties.

#### **NOTE**

iOS applications may not be supported in your area. Please check with your Yamaha dealer.

### **Cubase AI, Cubasis LE**

The MG10XUF comes with the Steinberg DAW software "Cubase AI" and supports the DAW software "Cubasis LE" for iPad.

#### NOTE

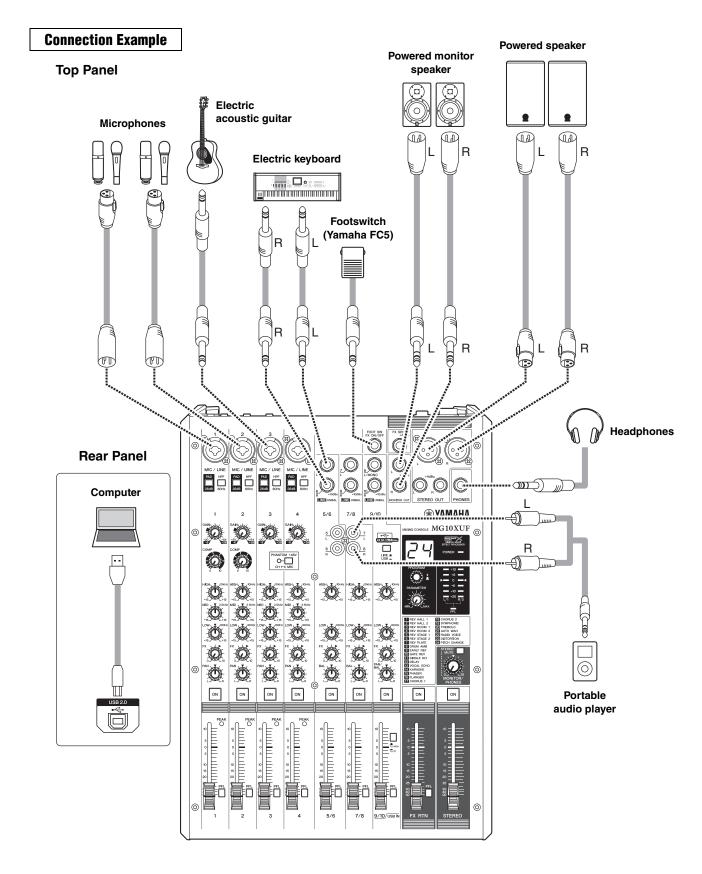
For details on MG Rec & Play, Cubase AI, and Cubasis LE, visit the Yamaha website at: http://www.yamahaproaudio.com/mg\_xu

#### Accessories (Please check that they are included with your mixing console.)

- AC Adaptor
- Cubase Al Download Information
- Owner's Manual (this book)

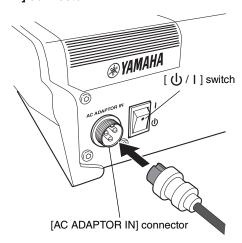
# STEP 1 Connecting external devices, such as speakers, microphones and instruments

- 1. Make sure that all devices to be connected to the unit are turned off.
- 2. Connect speakers, microphones and instruments referring to the connection example below.

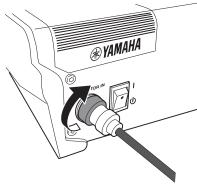


### **STEP 2 Getting sound to the speakers**

- 1. Make sure that the  $[\ \ \ \ \ \ \ ]$  switch at the rear panel is set to the  $[\ \ \ \ \ ]$  position (power off).
- 2. Connect the supplied AC adaptor.
  - ① Connect the power adaptor with the gap of the plug facing up, aligning it to the [AC ADAPTOR IN] connector.



② Turn the fastening ring clockwise to secure the connection.



- 3 Plug the power adaptor into a standard household power outlet.
- 3. Make sure that all switches on the unit are not engaged ( ...).
- **4.** Turn on ( \_\_\_ ) the [PFL] switches for each channel you are using.

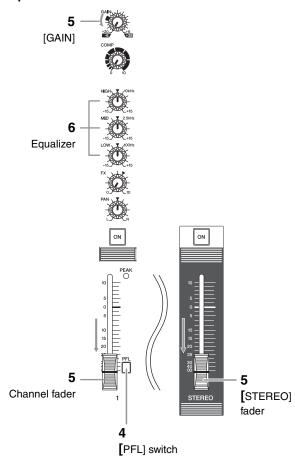
#### NOTE

When you turn on the [PFL] switch for a channel, you can monitor the signal for that channel through headphones connected to the [Phones] jack. The level of the signal is also shown on the level meter indicator, allowing you to more accurately check signal levels. After checking levels, turn the [PFL] switches off.

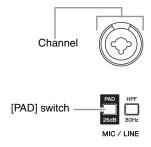
#### NOTE

When a [PFL] switch is turned on, the [PFL] indicator below the level meter flashes.

- 5. Turn all the level control knobs fully to the left (minimum) and lower all the faders fully. These include the [GAIN] knobs (white), channel fader (white), and [STEREO] fader (red).
- Set the equalizer knobs (green) to the center "▼" position.



7. If you connect a device with high output level, such as a CD player or an electric keyboard, to one of the channels 1 to 4, turn on (\_\_\_) the [PAD] switch of the corresponding channel\*.



#### NOTE

If you are using condenser microphones, turn on ( — ) the [PHANTOM +48V] switch.



- **8.** Make sure that the volume of a powered speaker or amplifier is set to the minimum.
- 9. Turn on the power to the connected devices in the following order: (microphone), (instrument), (audio device) ⇒ [ () / | ] (this unit) ⇒ (speakers).

#### NOTICE

Follow this order to prevent any loud, unexpected noise from the speakers. Reverse the order when turning the power off.

10. While playing your instrument or speaking into a microphone, adjust the input signal with the [GAIN] knob until it goes past the "0" (◄) position on the level meter only occasionally.



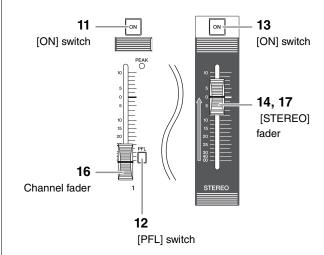


#### NOTE

If you connect a portable audio player, synthesizer, or other equipment to a stereo input channel that has no [GAIN] knob, adjust the output level on the connected device.

- 11. Turn on ( \_\_\_ ) the [ON] switches for each channel you are using.
- 12.Turn off ( ) all [PFL] switches.
- **13.**Turn on ( \_\_\_ ) the [ON] switch for the [STEREO] master.

**14.**Raise the [STEREO] master fader to the "0" position.



15. While playing your instrument or speaking into the microphone, raise the volume of the powered speaker or amplifier until the desired volume is reached.

#### NOTE

If the sound is not heard or the sound is distorted, follow the instructions on page 18.

- 16.Set the channel faders to create the desired initial balance.
- 17. Adjust the overall volume of the [STEREO] master fader.

This completes the STEP 2 instructions.

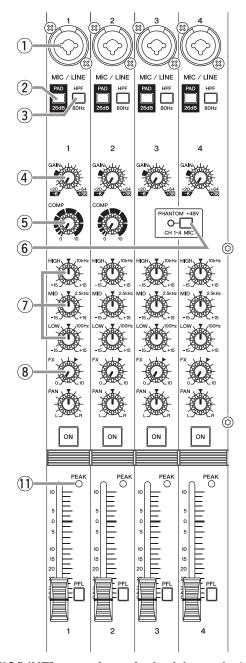
#### NOTE

The volume can be adjusted by using three functions; [PAD], [GAIN], and channel fader. Once you set the [PAD] switch and the [GAIN] knob, avoid adjusting those controls as much as possible. Instead normally use the channel fader to adjust the volume. For details about each function, see the "Controls and Functions" section.

### **Controls and Functions**

### **Top panel**

### **Channel section (Input: 1) to 16)**



#### ① [MIC/LINE] mono input jacks (channels 1-4)

For connecting a microphone, instrument, or audio device (CD player, etc.) to the unit. These jacks support both XLR and phone plugs.

#### 2 [PAD] switches

Turning the switch on ( \_\_\_ ) will attenuate the sound input to the unit. If you hear distortion or the [PEAK] LED ① lights, turn the switch on ( \_\_\_ ).

#### NOTE

Lower the channel faders completely before toggling the [PAD] switch on ( \_\_\_\_) and off ( \_\_\_\_). Otherwise, noise may be produced.

#### 3 [HPF] (High-Pass Filter) switches

Turning the switch on ( — ) will apply a high-pass filter that attenuates frequencies below 80 Hz. When speaking into the microphone, you may want to turn this switch on ( — ), in order to reduce unwanted vibration and wind sound received by the microphone.

#### 4 [GAIN] knobs

Determines the basic volume for each of the channels 1 to 4. Adjust these so that the corresponding [PEAK] LEDs ① flash briefly when singing or playing the loudest.

#### 5 [COMP] knobs

Adjusts the amount of compression applied to the channel. As the knob is turned to the right, the threshold, the ratio, and the output level are adjusted at the same time.

- Threshold: +22 dBu to -8 dBu
- Ratio: 1:1 to 4:1
- Output level: 0 dB to +7 dB
- · Attack time: approx. 25 msec
- Release time: approx. 300 msec

#### 6 [PHANTOM +48V] switch/LED

When this switch is on ( \_\_\_), the LED lights indicating that the unit supplies DC+48 V phantom power to the XLR plugs of the [MIC/LINE] mono input jacks ①. Turn this switch on when using a phantom-powered condenser microphone.

#### **NOTICE**

Be sure to leave this switch off ( \_\_\_\_) if you do not need phantom power. Follow the important precautions below, in order to prevent noise and possible damage to external devices as well as the unit when you operate this switch.

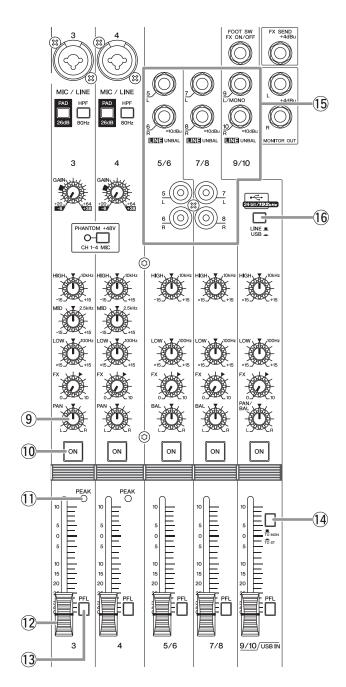
- Be sure to leave this switch off when connecting a microphone or other device that does not require phantom power to channels 1 to 4.
- Do not connect/disconnect a cable to/from channels 1 to 4 while this switch is on.
- Fully lower the faders for channels 1 to 4 before operating this switch.

#### ② Equalizer (EQ) knobs

Adjust the sound quality by using the [HIGH] (high frequency band), [MID] (middle frequency band), and [LOW] (low frequency band) knobs. If you do not need to adjust the sound quality, set the knob to the " $\nabla$ " (flat) position.

#### 8 [FX] (effect) knobs

Adjusts the volume sent from each channel to the internal effect and the [FX SEND] jack.



#### (9) [PAN] knobs (channels 1 to 4) [BAL] knobs (channels 5/6 and 7/8) [PAN/BAL] knobs (channels 9/10)

[PAN]: Adjusts the volume balance of each channel sent to the stereo bus, and determines the positioning of the sound image between left and right (stereo L/R). When the knob is located at the 12 o'clock position, the channel's sound will be sent to the stereo bus channels (L and R) at the same volume. In this case, the sound image is positioned at the center.

[BAL]: Determines the volume balance of the stereo channels (5/6 to 7/8) (L/R) sent to the stereo bus. When the knob is located at the 12 o'clock position, the sound of the stereo channels will be sent to the stereo bus channels (L and R) at the same volume respectively.

**[PAN/BAL]:** Provides both [PAN] and [BAL] functions. You can use this as a [PAN] control when sound is input to the [LINE] (L/MONO) jack, and as a [BAL] control when sound is input to both [LINE] (L) and [LINE] (R) jacks.

#### 10 [ON] switch

Turn this switch on ( \_\_\_ ) to send the respective channel's signal to the buses. The switch lights when on. When this switch is off ( \_\_\_ ), the respective signal input is not sent to the FX bus.

#### NOTE

- Even if the [ON] switch is off, the PFL signal from each channel can still be monitored via the [PHONES] jack.
- To minimize noise, turn the [ON] switch off for any unused channels.

#### 11 [PEAK]LED

Lights when the volume of input and/or post-equalizer sound is too high (when reaching 3 dB below clipping). If it is lit frequently, turn the [GAIN] knob ④ to the left to lower the volume.

#### (12) Channel faders

For adjusting the volume balance among the channels. Generally, set this to the "0" position.

#### (13 [PFL] (Pre-fader Listen) switch

When the [PFL] switch is on ( \_\_\_), the channel prefader signal is output to the [MONITOR OUT] and [PHONES] jacks for monitoring.

#### 14 [TO MON \_\_/TO ST \_\_]switch

For selecting the output destination of the input sound to channels 9/10. Normally set this switch to [TO ST \_\_\_]. When you use the unit with a computer connected to the [USB 2.0] terminal, toggle this switch according to your specific application, referring to the chart in "Rear panel USB section."

#### (15) [LINE] stereo input jacks (channels 5/6 to 9/10)

For connecting line-level devices such as an electric keyboard or an audio device. These jacks support phone plugs and RCA-pin plugs.

#### **NOTE**

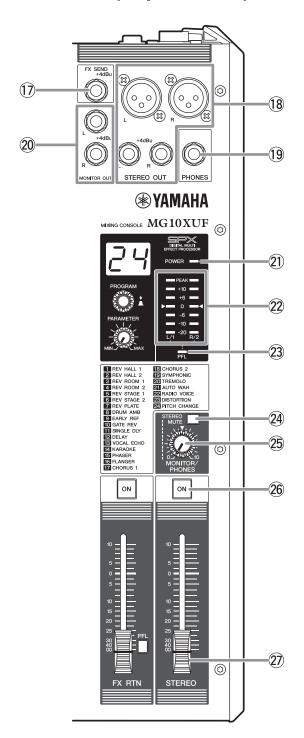
Regarding input to channels 5/6 and 7/8, if both phone and RCA-pin jacks are used at the same time, the phone jack will take priority.

#### 16 [LINE \_\_/USB \_\_] switch

Toggles the sound source input to channels 9/10. When the switch is set to [LINE \_\_\_], the source will be the [LINE] stereo input jack (\$\overline{1}\$, and when set to [USB \_\_\_], the source will be the [USB 2.0] terminal.

### **Top panel**

### Master section (Output: 17 to 27)



#### 17 [FX SEND] jack

For connecting an external effects unit or a monitor system for players. This phone-plug jack outputs the sound adjusted with the [FX] knob respectively.

#### (18) [STEREO OUT] jacks

For connecting a powered speaker or amplifier. These jacks support both XLR and phone plugs.

#### 19 [PHONES] output jack

For connecting a set of headphones. This jack supports a stereo phone plug.

#### NOTE

When the [PFL] indicator ② is flashing, the signal for channels where the [PFL] switch ③ is pressed is output.

#### ② [MONITOR OUT] jacks

For connecting a monitor system for operators. These jacks support phone plugs.

#### **NOTE**

The [MONITOR OUT] jacks outputs the same signal as The [PHONES] jack. When the [PFL] indicator 3 is flashing, the signal for channels where the [PFL] switch 3 is pressed is output.

#### 21 [POWER] LED

Lights when the  $[\begin{tabular}{c} \begin{tabular}{c} \begin{tabula$ 

#### 22 Level meter

The L and R meters show the level (volume) of the signal output from the [STEREO OUT] jacks by seven steps; "PEAK" (+17), "+10", "+6", "0", "-6", "-10", and "-20" dB. If the "PEAK" lamp continuously lights in red, turn the [STEREO LEVEL] knob to the left to lower the volume.

#### 23 [PFL] indicator

When the [PFL] switch is on, the indicator flashes.

#### 24 [STEREO MUTE] switch

Turning the switch on ( ) will mute the sound of stereo bus from the output of [MONITOR OUT] jacks or [PHONES] jack. In this state, when setting the [TO MON ] /TO ST ] switch (4) for channels 9/10 to [TO MON ], you can hear the sound only from channels 9/10. For details about the switch, see the "Rear panel USB section" on page 16.

#### 25 [MONITOR/PHONES] knob

Adjusts the volume output to the [MONITOR OUT] jacks and the [PHONES] jack.

#### 26 [ON] switch

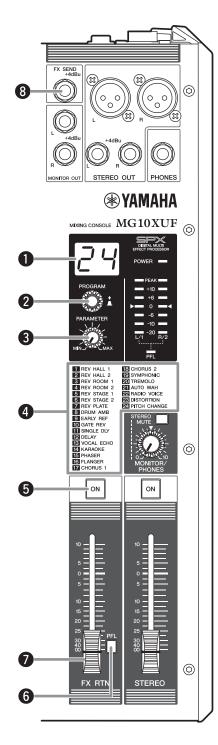
Turn this switch on ( \_\_\_ ) to activate the [GROUP] fader. The switch lights when on.

#### 27 [STEREO] fader

Adjusts the overall volume output from the [STEREO OUT] jacks.

### **Top panel**

### Internal effect section (Output: 10 to 20)



#### Display

Indicates the effect program number selected with the [PROGRAM] knob ②. The number flashes during selection; however, if several seconds pass without a selection being made, the program returns to the last number selected.

#### **②** [PROGRAM] knob

Selects one of the 24 internal effects from 1-24. Turn the knob to select the desired effect program, and then press the knob to actually set it. For instructions on how to apply the effect, see the section "Applying Effects" on page 17.

#### NOTE

Turning the knob while pressing it down also allows you to simultaneously select and set the effect program (without needing to press the knob finally to set it).

#### **③** [PARAMETER] knob

Adjusts the parameter (depth, speed, etc.) for the selected effect. The last value used with each effect program is saved. For details about the parameter, see the "Effect Programs" list on page 17.

#### NOTE

When you change to a different effect program, the unit automatically restores the value that was previously used with that program (regardless of the current position of the [PARAME-TER] knob). Once you turn the [PARAMETER] knob, the value of current knob position will become valid.

#### 4 Effect program list

This is the list of the internal effect programs. For details about the programs, see the "Effect Programs" list on page 17.

#### 6 [ON] switch

When the switch is turned on ( ), the switch lights indicating the internal effect is active. If you turn off the internal effect with the foot switch when the switch is on ( ), the LED of the switch flashes.

#### **6** [PFL](Pre-fader Listen) switch

When the [PFL] switch is on ( \_\_\_\_), the [FX RTN] prefader ② signal is output to the [MONITOR OUT] ② and [PHONES] jack ③ for monitoring.

#### **1** [FX RTN] fader

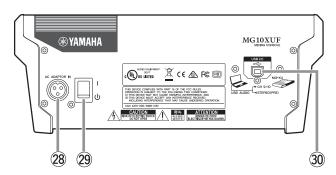
Adjusts the volume of the internal effect sound.

#### [FOOT SW] jack

For connecting an optionally available unlatched type footswitch, such as the Yamaha FC5. When the [ON] switch **5** is turned on ( , ), the internal effects can be toggled on/off with the footswitch as needed with your foot. This jack supports a phone plug.

### **Rear panel**

### USB section (28 to 30)





#### Caution

The unit may heat up by as much as 15 to 20°C while the power is on. This is normal. Please note that since the panel temperature may exceed 50°C in ambient temperatures higher than 30°C, you should exercise caution to prevent burns.

#### 28 [AC ADAPTOR IN] connector

For connecting the supplied AC adaptor.

#### 29 [ U / I ] switch

For turning the power of the unit to standby ( U ) and on ( I ). The [POWER] LED ② on the top panel lights when the switch is set to on ( I ).

#### NOTE

Rapidly switching the unit between on and standby in succession can cause it to malfunction. After setting the unit to standby, wait for about six seconds before turning it on again.

#### NOTICE

Even when the switch is in the standby ((j)) position, electricity is still flowing to the unit. If you do

not plan to use the unit for a while, be sure to unplug the AC adaptor from the outlet.

#### **30** [USB 2.0] terminal

For connecting to a computer via a commercially available USB 2.0 cable. (This product does not come with a cable.) The sound of the stereo bus is output to the computer. (The [STEREO] fader ② does not affect the sound.) For inputs and outputs to/from the computer, you may need a dedicated USB driver. Check and download the driver at the following Yamaha web site and install it to the computer before use. The cable should be no more than 3 meters long. http://www.yamahaproaudio.com/mg\_xu/

#### Using the unit connected to a computer

Set the [LINE \_\_\_\_,/USB \_\_\_\_] switch (§) of channels 9/10 to [USB \_\_\_\_]. Depending on your particular application, you can specify the output destination and monitoring sound by selecting the settings of the [TO MON \_\_\_\_/TO ST \_\_\_\_] switch (§) for channels 9/10 and the [STEREO MUTE] switch (§). For details, see the chart below.

#### Adjusting the playback volume from a computer (Attenuator)

- 1. Press the [PROGRAM] knob five times consecutively to display the attenuation value (dB).
- 2. Turn the [PROGRAM] knob to set it between -24 dB to 0 dB (minus sign is not displayed).
- 3. Press the [PROGRAM] knob again to exit the setting. When the attenuator is enabled, the dot lights at the lower right of the display.

#### **Output Destinations and Monitoring Sound**

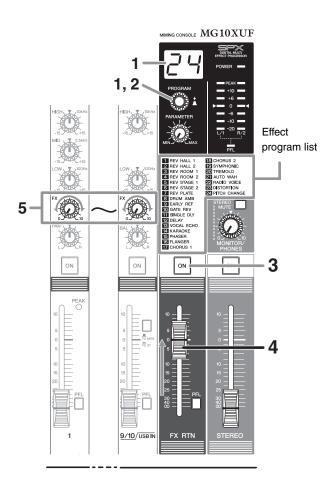
Application		e output destination channels 9/10	Selection of the monitoring sound with the headphones/monitor speaker		
Аррисации	[TO MON/TO ST] switch			Monitoring sound	
When recording with DAW software while lis-	[TO MON <b>▲</b> ]*1	[MONITOR OUT] jack*2	On ( 🛋 )	The direct sound (of the instrument) input to the MG10XUF will be muted, allowing you to hear the playback sound only from the DAW. (Direct monitoring: Off )	
tening to the playback sound from a computer.		[PHONES] jack*2	Off ( 💻 )	You can hear the mixed sound of the direct instrument sound input to the MG10XUF and the playback sound from the DAW.(Direct monitoring : On)	
When playing back sound from a computer. For example: BGM play- back, Internet broad- casting	[TO ST]	Stero bus → [STEREO OUT] jack	Normally set to Off( 1	You can hear the mixed sound of the instrument sound input to the MG10XUF and the playback sound from a computer.	

<sup>\*1</sup> NOTICE: If you set the switch to [TO ST \_\_\_] when you use the DAW software, a loop may be produced, possibly resulting in feedback

<sup>\*2</sup> The audio signal cannot be sent to the computer because it does not pass through the stereo bus.

## **Applying Effects**

The MG10XUF features high-quality built-in signal processing effects that are in the same league as our famed SPX effect processor series. Applying effects (as described below) allows you to simulate the acoustics of different performance environments.



1. Turn the [PROGRAM] knob to select a desired effect program number from the effect program list.

The currently selected effect program number flashes on the display.

#### **NOTE**

For details about the effect programs, refer to the "Effect Programs" list on the right side.

- **2.** Press the [PROGRAM] knob to actually select it. The desired effect program is selected.
- 3. Turn on ( \_\_\_ ) the [ON] switch.
- 4. Set the [FX RTN] fader to the "0" position.
- Turn the [FX] knob of the channel to which you want to apply the effect to adjust the effect amount.

#### **Effect Programs**

No.	Program	Parameter	Description
1	REV HALL 1	Reverb Time	Reverb simulating a large space
2	REV HALL 2	Reverb Time	such as a concert hall.
3	REV ROOM 1	Reverb Time	Reverb simulating the acoustics
4	REV ROOM 2	Reverb Time	of a small space (room).
5	REV STAGE 1	Reverb Time	
6	REV STAGE 2	Reverb Time	Reverb simulating a large stage.
7	REV PLATE	Reverb Time	Simulation of a metal-plate reverb unit, producing a more hard-edged reverberation.
8	DRUM AMB	Reverb Time	A short reverb that is ideal for use with a drum kit.
9	EARLY REF	Room Size	An effect which isolates only the early reflection components from reverberation, creating a 'flashier' effect than conventional reverb.
10	GATE REV	Delay Time	An effect which cuts halfway the tail-end of the reverberation, making a more powerful sound.
11	SINGLE DLY	Delay Time	An effect which repeats the same sound only once. Shortening the delay time produces a doubling effect.
12	DELAY	Delay Time	Feedback delay adding multiple delayed signals.
13	VOCAL ECHO	Delay Time	Echo designed for conventional vocals.
14	KARAOKE	Delay Time	Echo designed for karaoke (sing-along) applications.
15	PHASER	LFO* Freq	Cyclically changes the phase to add modulation to the sound.
16	FLANGER	LFO* Freq	Adds modulation to the sound, producing an effect similar to the rise and fall sound of a jet engine.
17	CHORUS 1	LFO* Freq	Creates a thicker ensemble-like
18	CHORUS 2	LFO* Freq	sound by adding the multiple sounds with different delay times.
19	SYMPHONIC	LFO* Depth	Multiplies the sound for thicker texture.
20	TREMOLO	LFO* Freq	An effect which cyclically modulates the volume.
21	AUTO WAH	LFO* Freq	A wah-wah effect with cyclical filter modulation. The [PA-RAM-ETER] knob adjusts the speed of the LFO* that modulates the "wah" filter.
22	RADIO VOICE	Cutoff Offset	Recreates the lo-fi sound of an AM radio. The [PARAMETER] knob adjusts the frequency band to be emphasized.
23	DISTORTION	Drive	Adds a sharp-edged distortion to the sound.
24	PITCH CHANGE	Pitch	An effect which changes the pitch of the signal.

<sup>&</sup>quot;LFO" stands for Low Frequency Oscillator. An LFO is normally used to periodically modulate another signal, using different waveform shapes and modulation speeds.

## **Troubleshooting**

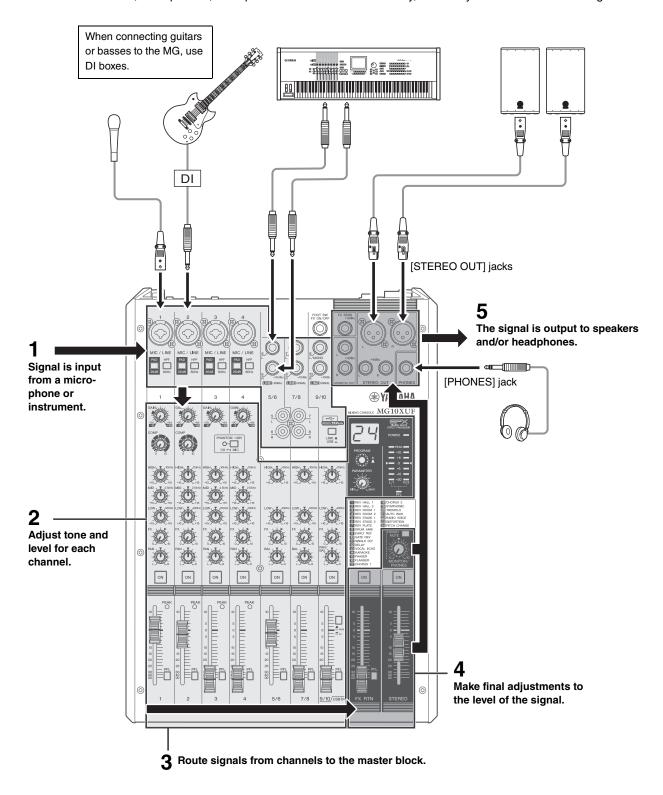
### When No Sound Is Output

Refer to this section when no sound is output or the volume is very low. This information is for when sound is output from the [STEREO OUT] jacks or the [PHONES] jack.

For details about these functions, see "Controls and Functions" on pages 12 – 16.

### **STEP 1** Connections and Signal Flow

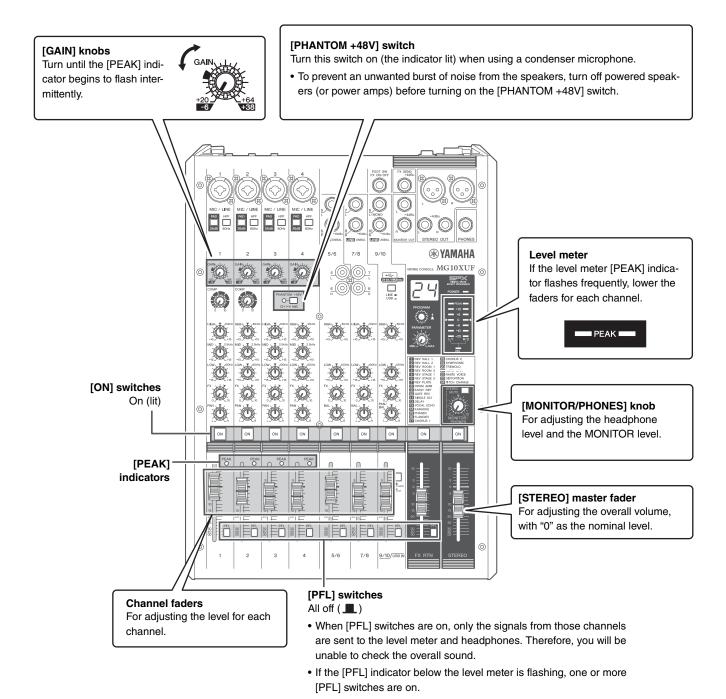
Check if the instruments, microphones, and speakers are connected correctly, and if any of the cables are damaged.



### **STEP 2** Setting Switches and Controls

#### Check the overall balance

Use the settings shown in the illustration to check the overall balance from speakers or headphones.



#### To monitor the signal of each channel

You can use the level meter and headphones to check the pre-fader signal for each channel.

• [PFL] switches: Turn on ( — ) for the channel(s) you want to check.

### **Other**

■ The power does not come on.	☐ Is the mixer connected to an independent power source (generator, etc.) or a power strip with switches?  Check that the power of that device is turned on.
■ No sound is output.	<ul> <li>□ Are external instruments (including microphones) and speakers connected correctly?</li> <li>□ Are your cables shorted?</li> <li>□ Are the [GAIN] knobs for each channel, channel faders, [STEREO] master fader adjusted to appropriate levels?</li> <li>□ Are the [LINE/USB] switch set appropriately?</li> </ul>
■ No sound is output from the [STE-REO OUT] jack.	☐ Is the [STEREO] master [ON] switch turned on?
■ No sound is output from the [MON-ITOR OUT] jack or [PHONES] jack.	☐ Are the [PFL] switches for the channels you are not using turned on?  Turn the [PFL] switches off.
■ The sound is low, distorted, or noisy.	<ul> <li>□ Is the microphone connected to a [MIC/LINE] jack?</li> <li>□ When using a condenser microphone, is the [PHANTOM +48V] switch turned on?</li> <li>□ Is the [PAD] switch on?         <ul> <li>Turn this switch off for sources with low output levels, such as microphones.</li> <li>□ Is the output signal level for the instrument connected to the mixer appropriate?</li> <li>□ When connecting an instrument with an output level of +4 dBu, either turn on the [PAD] switch on a mono input channel or use a stereo input channel.</li> <li>□ Where an input channel provides both a XLR input jack and a phone input jack, or a phone input jack and an RCA pin jack, are there connections made at both jacks?             <ul></ul></li></ul></li></ul>
■ Effects are not applied.	☐ Are the [FX] knobs for each channel adjusted to appropriate levels? ☐ Is the [ON] switch for [FX RTN] turned on? ☐ Are the [PARAMETER] knob and [FX RTN] fader adjusted to appropriate levels?
■ Speaking voices are not clear.	☐ Is the [HPF] switch turned on? ☐ Is the equalizer ([HIGH]/[MID]/[LOW]) adjusted appropriately?
■ No mixer monitor signal is output.	☐ Are powered speakers connected to the [MONITOR OUT] jacks?  Use the [MONITOR/PHONES] knob to adjust the signal output from the [MONITOR OUT] jacks.
■ Left and right levels are different for a stereo signal input.	<ul> <li>□ Is [PAN] set to the center?</li> <li>If panned to the center, try reversing the left and right input connections. If, after switching the left and right connections, the side with the low volume level also switches, check the instrument or device that is the source of the signal.</li> <li>□ Are you using the same type of cable to connect both the left and right input signals?</li> <li>Cables with built-in resistors will attenuate the signal.</li> </ul>
■ The sound level is unstable and inconsistent.	☐ Is the compressor level set too high?  Use the [COMP] knob to lower the level.
■ The volume of audio play-back from a computer need to be adjusted.	☐ Use the "Attenuator Function". For details, see page 16.

If any specific problem should persist, please contact your Yamaha dealer.

## **Technical Specifications**

### **General Specifications**

0 dBu = 0.775 Vrms, Output impedance of signal generator (Rs) = 150 $\Omega$  All level controls are nominal if not specified.

Frequency Response	Input to STEREO OUT	+0.5 dB/-1.5 dB (20 Hz to 48 kHz) , refer to the nominal output level @ 1 kHz, GAIN knob: Min			
Total harmonic distortion (THD+N)	Input to STEREO OUT	0.03 % @ +14dBu (20 Hz to 20kHz), GAIN knob: Min 0.005 % @ +24dBu (1kHz), GAIN knob: Min			
Hum & Noise *1	Equivalent Input Noise	-128 dBu (Mono Input Channel, Rs: 150Ω, GAIN knob: Max)			
(20 Hz to 20 kHz)	Residual Output Noise	-102 dBu (STEREO OUT, STEREO master fader: Min)			
Crosstalk (1 kHz) *2		-83 dB			
Input channels		10 channels: Mo	ono [MIC/LINE]: 4, Stereo [LINE]: 3		
Output channels		STEREO OUT:	2, PHONES: 1, MONITOR OUT: 1, FX SEND: 1		
Bus		STEREO: 1, FX	61		
	PAD	CH 1 – CH 4	26 dB		
	HPF	CH 1 – CH 4	80 Hz, 12 dB/oct		
Input Channel Function	COMP	CH 1, CH 2	1-knob compressor (Gain/Threshold/Ratio) Threshold: +22 dBu to -8 dBu Ratio:1:1 to 4:1, Output level: 0 dB to 7 dB Attack time: approx. 25 msec Release time: approx. 300 msec		
	EQ	CH 1 – CH 4	HIGH: Gain: +15 dB/-15 dB, Frequency: 10 kHz shelving MID: Gain: +15 dB/-15 dB, Frequency: 2.5 kHz peaking LOW: Gain: +15 dB/-15 dB, Frequency: 100 Hz shelving		
		CH 5/6 – CH 9/10	HIGH: Gain: +15 dB/-15 dB, Frequency: 10 kHz shelving LOW: Gain: +15 dB/-15 dB, Frequency: 100 Hz shelving		
	PEAK LED	CH 1 – CH 4	LED turns on when post EQ signal reaches 3 dB below of the clipping level.		
Level Meter	Pre Monitor LEVEL	2x7 -segment L	ED meter [PEAK, +10, +6, 0, -6, -10, -20 dB]		
Built-in Effect	SPX Algorithm	24programs, PA	RAMETER control:1, FOOT SW:1 (FX RTN CH on/off)		
USB Audio	2 IN / 2 OUT		ss 2.0 compliant lency: Max 192 kHz, Bit Depth: 24-bit		
Phantom Power Voltage		+48 V			
Power Requirements		PA-10 (AC 38 VCT, 0.62A, Cable length = 3.6 m) or equivalent recommended by Yamaha			
Power Supply adaptor		22.9 W			
Dimensions (W×H×D)		275 mm × 110 mm × 390 mm (10.8" × 4.3" × 15.4")			
Net Weight		3.3 kg (7.3 lbs)			
Included Accessory		Owner's Manual, AC Adaptor, Cubase Al Download Information			
Optional Accessory		Foot Switch: FC5			
Operating Temperature		0 to +40°C			

<sup>\*1</sup> Noise is measured with A-weighting filter.

<sup>\*2</sup> Crosstalk is measured with 1 kHz band pass filter.

### **Analog Input Characteristics**

0 dBu = 0.775 Vrms

Input	PAD	GAIN Trim	Actual Load Impedance	For Use with Input Level		Connector			
Terminals	26 dB	Position		Nominal	Sensitivity *1	Nominal	Max. before clip	Connector	
MIC/LINE 1 - 4	OFF	+64 dB	- 3kΩ		-80 dBu (0.077 mV)	-60 dBu (0.775 mV)	-40 dBu (7.75 mV)		
		+20 dB		50–600Ω	-36 dBu (12. 3 mV)	-16 dBu (122.8 mV)	+4 dBu (1.228 V)	Combo jack *2	
	ON -	+38 dB -6 dB		Mics/Lines	Mics/Lines	-54 dBu (1.55 mV)	-34 dBu (15.46 mV)	-14 dBu (154.6 mV)	(Balanced)
					-10 dBu (245 mV)	+10 dBu (2.451 V)	+30 dBu (24.51 V)		
LINE		— 10kΩ		10kΩ 6					Phone jack *3
LINE 5/6, 7/8					600Ω Lines	-30 dBu (24.5 mV)	-10 dBu (245 mV)	+10 dBu (2.451 V)	RCA pin (Unbalanced)
LINE 9/10					(24.5 1114)	(240 IIIV)	(2.301 V)	Phone jack *3 (Unbalanced)	

<sup>\*1</sup> Sensitivity is the lowest level that will produce an output of +4dBu (1.228V) or the nominal output level when the unit is set to maximum gain. (All level controls are maximum position.)

### **Analog Output Characteristics**

0 dBu = 0.775 Vrms

Output Terminals	Actual Source	Source For Use with Output Level		Connector	
Output Terminais	Impedance	Nominal	Nominal	Max. before clip	Connector
STEREO OUT [L, R]	75Ω	600Ω Lines	+4 dBu (1.228 V)	+24 dBu (12.28 V)	XLR-3-32 *1 Phone jack *2 (Balanced)
MONITOR OUT [L, R] FX SEND	150Ω	10kΩ Lines	+4 dBu (1.228 V)	+20 dBu (7.750 V)	Phone jack *2 (Impedance Balanced)
PHONES	110Ω	40Ω Phones	3 mW + 3 mW	100 mW + 100 mW	Stereo phone jack

<sup>\*1 1 =</sup> Ground, 2 = Hot, 3 = Cold

### **Digital Input / Output Characteristics**

Terminals	Format	Data Length *1	Fs	Connector
USB	USB Audio Class 2.0	16 /24 bit	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz	USB Standard-B

<sup>\*1</sup> Data length is depend on the using audio format. USB Audio Class2.0: 16 / 24-bit, Yamaha Steinberg USB Driver: 24-bit

<sup>\*2 1&</sup>amp;Sleeve = GND, 2&Tip = HOT, 3&Ring = COLD

<sup>\*3</sup> Tip = Signal, Sleeve = GND

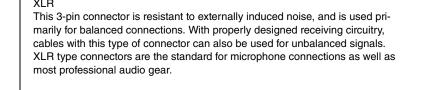
<sup>\*2</sup> Tip = Hot, Ring = Cold, Sleeve = Ground

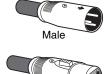
### **Jack and Connector List**

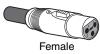
Jacks and Connectors	Polarities	Configurations
MIC/LINE, STEREO OUT	Pin 1: Ground Pin 2: Hot (+) Pin 3: Cold (–)	INPUT OUTPUT  O  O  O  O  O  O  O  O  O  O  O  O  O
MIC/LINE*, AUX SEND, MONITOR OUT, STEREO OUT	Tip: Hot (+) Ring: Cold (-) Sleeve: Ground	Ring
PHONES	Tip: L Ring: R Sleeve: Ground	Sleeve Tip  TRS Phone Connector
LINE (stereo input channels)	Tip: Hot Sleeve: Ground	Sleeve Tip TS Phone Connector

These jacks also can be connected with TS phone connectors. If you use TS phone connectors, the connection will be unbalanced.

### **Connector Types**

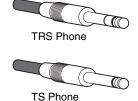






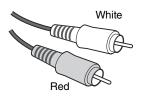
#### Phone

Phone connectors are available in TRS and TS types. TRS types are used for stereo headphone jacks, insert jacks, and also for carrying balanced signals in many cases. TS types are used to carry unbalanced signals -for example, electric guitar cables.

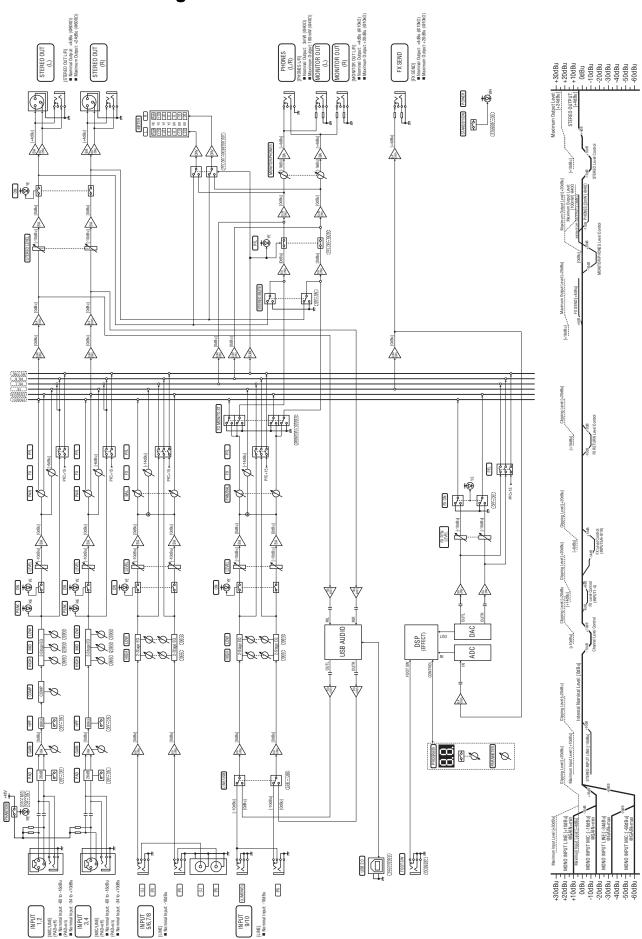


#### RCA Pin

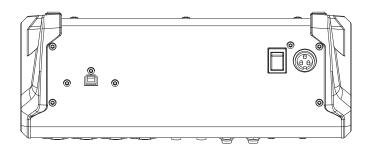
This type of unbalanced connector is most commonly found on home audio and video equipment. RCA type pin jacks are often color coded: white for left audio channel and red for right audio channel, for example.

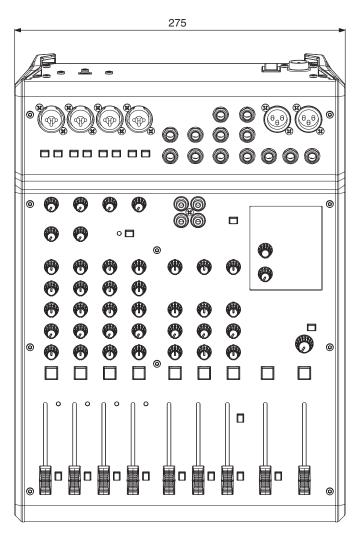


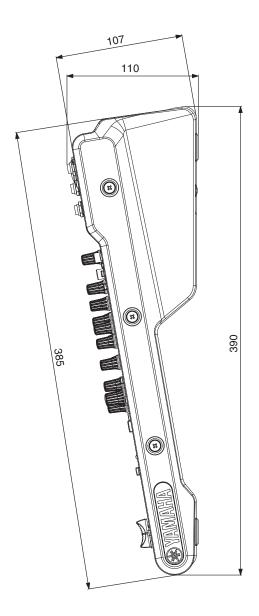
### **Block and Level Diagrams**



### **Dimensions**







Unit: mm

<sup>\*</sup> 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.

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

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

English

For detailed guarantee information about this Yamaha product, and Pan-EEA\* and Switzerland warranty service, please either visit the website address below (Printable file is available at our website) or contact the Yamaha representative office for your country. \* EEA: European Economic Area

#### Wichtiger Hinweis: Garantie-Information für Kunden in der EWR\* und der Schweiz

Für nähere Garantie-Information über dieses Produkt von Yamaha, sowie über den Pan-EWR\*- und Schweizer Garantieservice, besuchen Sie bitte entweder die folgend angegebene Internetadresse (eine druckfähige Version befindet sich auch auf unserer Webseite), oder wenden Sie sich an den für Ihr Land zuständigen Yamaha-Vertrieb. \*EWR: Europäischer Wirtschaftsraum

#### Remarque importante: informations de garantie pour les clients de l'EEE et la Suisse

Pour des informations plus détaillées sur la garantie de ce produit Yamaha et sur le service de garantie applicable dans l'ensemble de l'EEE ainsi qu'en Suisse, consultez notre site Web à l'adresse ci-dessous (le fichier imprimable est disponible sur notre site Web) ou contactez directement Yamaha dans votre pays de résidence. \* EEE : Espace Economique Européen

#### Belangrijke mededeling: Garantie-informatie voor klanten in de EER\* en Zwitserland

Voor gedetailleerde garantie-informatie over dit Yamaha-product en de garantieservice in heel de EER\* en Zwitserland, gaat u naar de onderstaande website (u vind een afdrukbaai bestand op onze website) of neemt u contact op met de vertegenwoordiging van Yamaha in uw land. \* EER: Europese Economische Ruimte

#### Aviso importante: información sobre la garantía para los clientes del EEE\* y Suiza

Españo

Para una información detallada sobre este producto Yamaha y sobre el soporte de garantía en la zona EEE\* y Suiza, visite la dirección web que se incluye más abajo (la version del archivo para imprimir esta disponible en nuestro sitio web) o póngase en contacto con el representante de Yamaha en su país. \* EEE: Espacio Económico Europeo

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

Per informazioni dettagliate sulla garanzia relativa a questo prodotto Yamaha e l'assistenza in garanzia nei paesi EEA\* e in Svizzera, potete consultare il sito Web all'indirizzo riportato di seguito (è disponibile il file in formato stampabile) oppure contattare l'ufficio di rappresentanza locale della Yamaha. \* EEA: Area Economica Europea

#### Aviso importante: informações sobre as garantias para clientes da AEE\* e da Suíça

Para obter uma informação pormenorizada sobre este produto da Yamaha e sobre o serviço de garantia na AEE\* e na Suíça, visite o site a seguir (o arquivo para impressão está disponível no nosso site) ou entre em contato com o escritório de representação da Yamaha no seu país. \* AEE: Área Econômica Européia

#### Σημαντική σημείωση: Πληροφορίες εγγύησης για τους πελάτες στον ΕΟΧ\* και Ελβετία

Ελληνικά

Για λεπτομερείς πληροφορίες εγγύησης σχετικά με το παρόν προϊόν της Yamaha και την κάλυψη εγγύησης σε όλες τις χώρες του ΕΟΧ και την Ελβετία, επισκεφτείτε την παρακάτω ιστοσελίδα (Εκτυπώσιμη μορφή είναι διαθέσιμη στην ιστοσελίδα μας) ή απευθυνθείτε στην αντιπροσωπεία της Yamaha στη χώρα σας. \* ΕΟΧ: Ευρωπαϊκός Οικονομικός Χώρος

#### Viktigt: Garantiinformation för kunder i EES-området\* och Schweiz

För detaljerad information om denna Yamahaprodukt samt garantiservice i hela EES-området\* och Schweiz kan du antingen besöka nedanstående webbaddress (en utskriftsvänlig fil finns på webbplatsen) eller kontakta Yamahas officiella representant i ditt land. \* EES: Europeiska Ekonomiska Samarbetsområdet

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

Detaljert garantiinformasjon om dette Yamaha-produktet og garantiservice for hele EØS-området\* og Sveits kan fås enten ved å besøke nettadressen nedenfor (utskriftsversjon finnes på våre nettsider) eller kontakte kontakte Yamaha-kontoret i landet der du bor. \*EØS: Det europeiske økonomiske samarbeidsområdet

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

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

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

Tämän Yamaha-tuotteen sekä ETA-alueen ja Sveitsin takuuta koskevat yksityiskohtaiset tiedot saatte alla olevasta nettiosoitteesta. (Tulostettava tiedosto saatavissa sivustollamme.) Voitte myös ottaa yhteyttä paikalliseen Yamaha-edustajaan. \*ETA: Euroopan talousalue

#### Ważne: Warunki gwarancyjne obowiązujące w EOG\* i Szwajcarii

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

#### Důležité oznámení: Záruční informace pro zákazníky v EHS\* a ve Švýcarsku

Českv

Podrobné záruční informace o tomto produktu Yamaha a záručním servisu v celém EHS\* a ve Švýcarsku naleznete na níže uvedené webové adrese (soubor k tisku je dostupný na našich webových stránkách) nebo se můžete obrátit na zastoupení firmy Yamaha ve své zemi. \* EHS: Evropský hospodářský prostor

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

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

A jelen Yamaha termékre vonatkozó részletes garancia-információk, valamint az EGT\*-re és Svájcra kiterjedő garanciális szolgáltatás tekintetében keresse fel webhelyünket az alábbi címen (a webhelyen nyomtatható fájlt is talál), vagy pedig lépjen kapcsolatba az országában működő Yamaha képviseleti irodával. \* EGT: Európai Gazdasági Térség

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

#### Svarīgs paziņojums: garantijas informācija klientiem EEZ\* un Šveicē Lai sanemtu detalizētu garantijas informāciju par šo Yamaha produktu, kā arī garantijas apkalpošanu EEZ\* un Šveicē, lūdzu, apmeklējiet zemāk norādīto tīmekļa vietnes adresi (tīmekļa

vietnē ir pieejams drukājams fails) vai sazinieties ar jūsu valsti apkalpojošo Yamaha pārstāvniecību. \* EEZ: Eiropas Ekonomikas zona Dėmesio: informacija dėl garantijos pirkėjams EEE\* ir Šveicarijoje

### Jei reikia išsamios informacijos apie šį "Yamaha" produktą ir jo techninę priežiūrą visoje EEE\* ir Šveicarijoje, apsilankykite mūsų svetainėje toliau nurodytu adresu (svetainėje yra spausdintinas failas) arba kreipkitės į "Yamaha" atstovybę savo šaliai. \*EEE – Europos ekonominė erdvė

Slovenčina Dôležité upozornenie: Informácie o záruke pre zákazníkov v EHP\* a Švajčiarsku Podrobné informácie o záruke týkajúce sa tohto produktu od spoločnosti Yamaha a garančnom servise v EHP\* a Švajčiarsku nájdete na webovej stránke uvedenej nižšie (na našej webovej stránke je k dispozícii súbor na tlač) alebo sa obráťte na zástupcu spoločnosti Yamaha vo svojej krajine. \* EHP: Európsky hospodársky priestor

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

Za podrobnejše informacije o tem Yamahinem izdelku ter garancijskem servisu v celotnem EGP in Švici, obiščite spletno mesto, ki je navedeno spodaj (natisljiva datoteka je na voljo na našem spletnem mestu), ali se obrnite na Yamahinega predstavnika v svoji državi. \* EGP: Evropski gospodarski prostor

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

За подробна информация за гаранцията за този продукт на Yamaha и гаранционното обслужване в паневропейската зона на ЕИП\* и Швейцария или посетете посочения по-долу уеб сайт (на нашия уеб сайт има файл за печат), или се свържете с представителния офис на Yamaha във вашата страна. \* ЕИП: Европейско икономическо пространство

#### Notificare importantă: Informații despre garanție pentru clienții din SEE\* și Elveția

Български език

Pentru informații detaliate privind acest produs Yamaha și serviciul de garanție Pan-SEE\* și Elveția, vizitați site-ul la adresa de mai jos (fișierul imprimabil este disponibil pe site-ul nostru) sau contactați biroul reprezentanței Yamaha din țara dumneavoastră. \* SEE: Spațiul Economic European

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

#### NORTH AMERICA

#### **CANADA**

Yamaha Canada Music Ltd.

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

Yamaha Corporation of America

6600 Orangethorpe Avenue, Buena Park, CA 90620,

Tel: +1-714-522-9011

#### CENTRAL & SOUTH AMERICA

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

#### NETHERLANDS/BELGIUM/ LUXEMBOURG

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,

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 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 Maslak Meydan Sodak, Spring Giz Plaza Bagimsiz Böl. No:3, Sariyer Istanbul, Turkey

Tel: +90-212-999-8010 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, Gurgaon-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.

8F, Dongsung Bldg. 21, Teheran-ro 87-gil, Gangnam-gu, Seoul, 06169, 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/

Yamaha Pro Audio global website: http://www.yamaha.com/proaudio/

Yamaha Downloads: http://download.yamaha.com/

Manual Development Group © 2018 Yamaha Corporation

Published 01/2018 POEM-A0

ZY27750