



POWERED MIXER

EMX 2 Owner's Manual

Introduction

Thank you and congratulations on your purchase of the Yamaha Powered Mixer EMX2. Please read this manual thoroughly to get the most out of the product and ensure longterm, trouble-free use. After reading this manual, keep it readily available for future reference

* Please read the "Precautions" on the back.

Main Features

- 500-watt power amplifier for versatility in a wide variety of performance applications
- 10-channel mixer with four mono mic/line and three stereo line input channels, supporting
- Yamaha's high-quality SPX reverb, providing optimum processing for instruments or
- Feedback Suppressor, which automatically cuts and prevents undesirable feedback noise
- Independent three-band equalizer on each channel for tonal adjustment and sound

Accessories (Please check that they are included with your powered mixer.)

- AC power cord (2 m)
- Technical Specifications (English only): Includes general specifications, input/output characteristics, a block diagram, dimensions, and a jack and plug list.
- Owner's Manual (this leaflet)

QuickStart(Guide

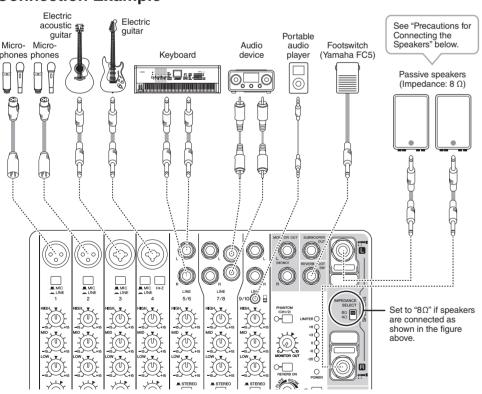
Setup

1 Make sure that all switches, including the mixer's power switch

Connecting speakers, microphones, instruments, and audio devices

2 Refer to the connection example in the illustration below.

Connection Example



■ Precautions for Connecting the Speakers

• You must set the [IMPEDANCE SELECT] switch correctly according to the connection method and number of speakers. Be sure that the impedance of your speakers is no less than the impedance that you set on the mixer. Setting this switch incorrectly could result in damage to the mixer/your speakers.

Actual speaker impedance*	[IMPEDANCE SELECT] switch
4 Ω to less than 8 Ω	Set to "4Ω."
8 Ω and over	Set to "8Ω."
If you are unsure of the impedance of the connected speakers	Set to " 4Ω ."

* For parallel connections: synthetic impedance

- Make sure to insert the speaker cables all the way inside until secure. Failure to do so may result in damage to your
- Use speaker cables with an insulated-housing connector.

Getting sound to the speakers

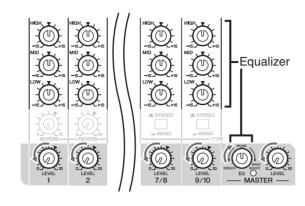
3 Connect the included power cord.

First, connect it to the mixer's [AC IN] jack, then to a power outlet.

NOTE Reverse the order when removing the power cord.



4 Turn the mixer's [LEVEL] controls (white knobs) and [MASTER LEVEL] control (red knob) to the minimum (zero). Also, set the equalizer controls (green knobs) to the center "▼" or "MUSIC" position.



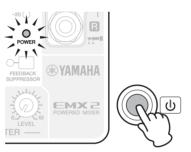
5 Set the [MIC/ LINE] switch to the " MIC" position for microphone connection, and to the "_ LINE" position for connection of an instrument or audio device.

> **NOTE** If you are using condenser microphones, turn on the [PHANTOM (CH1/2)] switch.

Turn on the power of the connected sound source (if applicable), then the mixer. The [POWER] LED lights.



To avoid any loud, unexpected noise from the speaker, first turn off the power to the mixer, then the connected sound source (such as an instrument or audio device).



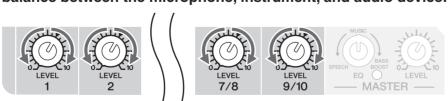
7 For channels to which a microphone, instrument, or audio device is connected, set [LEVEL] to the "▼" position.



While outputting sound from the microphone, instrument, or audio device, slowly turn the [MASTER LEVEL] to the right until you reach the optimal volume.



9 Adjust [LEVEL] on each channel as necessary to set the volume balance between the microphone, instrument, and audio device.



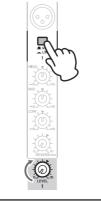
Making optimum volume settings

When the volume is too loud

Turn the [LEVEL] control to the minimum (zero). Set the ■ MIC/■ LINE] switch to the "■ LINE" position, then slowly raise the [LEVEL] control until the desired volume is reached.



Turn the [LEVEL] control to the minimum (zero). Set the [■ MIC/■ LINE] switch to the "■ MIC" position, then slowly raise the [LEVEL] control until the desired volume is reached.



Applying Reverb

The EMX2 features a built-in reverb processor that is in the same league as our famed SPX effect processor series. This reverb lets you simulate the acoustics of different performance environments, such as concert halls and small clubs, and add warm, natural ambience to your vocals or instrument performance.

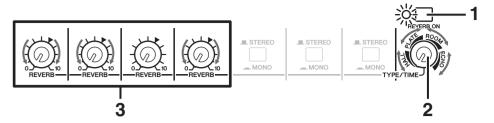
- 1 Press the [REVERB] button to turn it on. The LED lights when REVERB is on.
- 2 Turn the REVERB [TYPE/TIME] control to the desired reverb type and time (length).

Turning the control to the right lengthens the time of the selected reverb type.

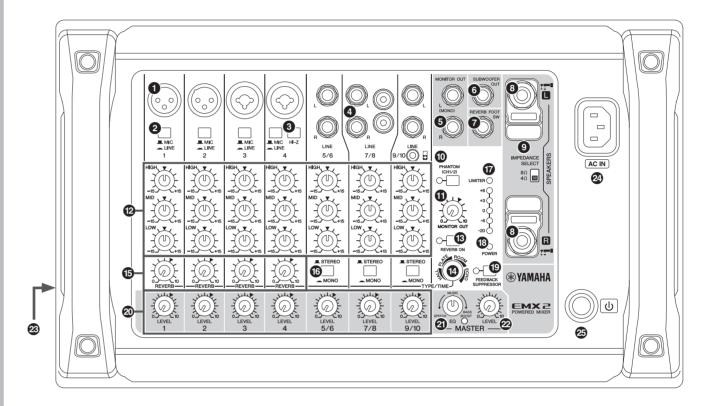


3 Use the [REVERB] control to adjust the reverb amount of the corresponding channel.

If necessary, repeat steps 2 and 3 to determine the optimum reverb setting.



Controls and Functions



Mic/Line input jacks (channels 1–4) Connect microphones, guitars, electronic musical instruments or audio devices. Channels 3 and 4 provide combo jacks that support both XLR and phone plugs





2 [■ MIC/_ LINE] switches (channels 1-4) For low-level signals (including microphones), set the switch to the "

MIC" position. For high-level signals (including electronic instruments and audio devices), set the switch to the "_ LINE" position.

3 [Hi-Z] switch (channel 4)

This switch is used when connecting a device directly to the mixer without a DI (direct injection box) — for example, instruments with passive pickups, such as an acoustic-electric guitar or electric bass without battery. This function is effective only for the phone jack input.

4 [LINE] input jacks (channels 5/6, 7/8, 9/10) Connect line-level devices such as electronic instruments, acoustic-electric guitars. CD players, and portable audio players. These jacks support phone, RCA-pin, and stereo-mini





NOTE For the channel 7/8 input, if both phone and RCA-pin jacks are used at the same time, the phone jack will take priority. For the channel 9/10 input, if both phone and stereo-mini jacks are used at the same time, the stereo-mini jack will take priority. The signal from the device connected to another jack will be

5 [MONITOR OUT] jacks

These are for connection to a powered speaker for monitoring purposes, and output a mix of the signals from channels 1 to $9/10.\, You$ can adjust the output level using the [MONITOR OUT] control 10. If only the [L (MONO)] jack is used, the signals from the L and R channels are mixed and output.

6 [SUBWOOFER OUT] jack

This is for connection to a powered subwoofer, and outputs a mono signal. If this jack is in use, the low frequencies below 120 Hz to the [SPEAKERS L/R] jacks will be cut. The output level is linked to that of the [MASTER LEVEL] control (2).

⑦ [REVERB FOOT SW] jack

This is for connection to an unlatched-type footswitch such as the Yamaha FC5 — useful for solo performers, since you can toggle the reverb on and off as needed with your foot.

(B) [SPEAKERS L/R] jacks

Use commercially available speaker cables to connect the speakers.

[IMPEDANCE SELECT] switch

Set this switch to match the impedance of the connected speakers. If you are unsure of the impedance of the connected speakers, set this switch to " 4Ω ". Changing this setting changes the maximum output from the amp and changes the conditions for which the [LIMITER] LED comes on.

- Make sure the power switch is off before changing the setting of this
- · Setting this switch incorrectly could result in damage to the mixer/your

[PHANTOM (CH1/2)] switch/LED

When this switch is on, the LED lights indicating that phantom power is available for channels 1 and 2. Turn this switch on to supply power to condenser microphones or a DI (direct injection box).

Follow the important precautions below, in order to prevent noise and possible damage to external devices and the mixer when you operate

- Be sure to leave this switch off if you do not need phantom power, or when you connect a device that does not support phantom power to channels 1 and 2.
- Do not connect/disconnect a cable to/from channel 1 or 2 while this switch is on.
- Turn the [LEVEL] control of channels 1 and 2 to the minimum before operating this switch

(MONITOR OUT) control

Determines the signal level output from the [MONITOR OUT] jacks (5). The [MASTER LEVEL] control does not affect the [MONITOR OUT] signal.

Equalizer controls [HIGH, MID, LOW]

The equalizer shapes the [HIGH], [MID], and [LOW] audio frequencies. Turning the control to the right amplifies (boosts) the corresponding frequency band, while turning it to the left attenuates (cuts) the band. Setting the control to the "▼" position produces a flat response in the corresponding band.

(B) [REVERB] button/LED

When this button is on, the LED lights indicating that you can apply reverb. This button is off when you turn on the mixer. (Unlike other switches, this button cannot be locked.)

⚠ REVERB [TYPE/TIME] control

Determines the reverb type and its length. Turning the control to the right lengthens the time of the selected reverb type.

"HALL": Simulated reverb of a large space, such as a

"PLATE": Simulated metal plate reverb, producing a more hard-edged and bright sound.

"ROOM": Simulated acoustic ambience of a small room. "ECHO": Echo effect suitable for vocals.

(channels 1–4)

Determines the amount of reverb for each channel when the [REVERB] button (13) is on.

16 [■ STEREO / MONO] switches

(channels 5/6, 7/8, 9/10)

Setting the switch to ". STEREO" will assign the signals from the L and R channels to each left and right speaker and output each signal. Setting the switch to "

MONO" will mix the output of different L and R sources to output the same signal to both the left and right speakers. For keyboards with mono output, guitars, or other non-stereo sound sources, when the switch is set to "__ MONO", the stereo jacks can be conveniently used as multiple mono jacks.

Level meter

The level meter shows the level of output signal from the [SPEAKERS L/R] jacks.

If used at a high volume so that the [LIMITER] LED flashes continuously, the internal power amplifier section is being excessively overloaded and may malfunction. Reduce the output level with the [MASTER LEVEL] control so that the indicator flashes only briefly on the highest transient

[POWER] LED

This LED lights when the power is turned on by pressing the power switch.

[FEEDBACK SUPPRESSOR] switch/LED

When this switch is on, the LED lights indicating that feedback is automatically suppressed. (This utilizes a seven-band notch filter. When this switch or the power switch is off, the notch filter

@ [LEVEL] controls

Use these controls to adjust the volume for each channel. To reduce noise, set any [LEVEL] controls on unused channels to the minimum.

[MASTER EQ] control

Use this control to adjust the overall sound frequency balance. The center position "MUSIC" is a basic setting and if you turn the control to the left, this creates an optimum setting for speech, cutting unneeded low range frequencies. If you turn the control to the right, it creates an optimum setting for playback of sound sources, since the low range is boosted. If you turn the control further to the right, the [BASS BOOST] LED lights indicating that the bass boost function is active, giving you an even more powerful bass tone.

[MASTER LEVEL] control

Determines the volume of the signal output from the [SPEAKERS L/R] and [SUBWOOFER OUT] jacks. This allows you to adjust the overall volume without changing the relative volume balance among the various channels.

Wents

There are vents located on both sides of the mixer, and a cooling fan is installed on the exhaust side. Do not block the vents on either side when using the mixer.

② [AC IN] jack Connect the included power cord here.

② [山] (Power) switch

For turning the power of the mixer on (**_**) and off (**_**).

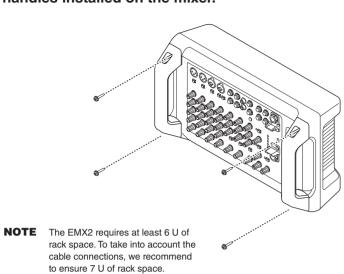
Rapidly turning the mixer on and off in succession can cause it to

malfunction. After turning the mixer off, wait for about 10 seconds before turning it on again.



RackMounting

1 Use a screwdriver to loosen and remove the screws (4) on the handles installed on the mixer.

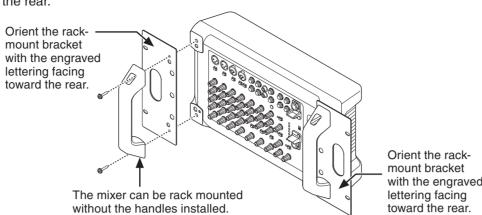


■ Precautions for Rack Mounting

This mixer is rated for operation at ambient temperatures ranging from 0 to 40 degrees Celsius. If you install this mixer along with other devices in a poorly ventilated EIA standards rack, the ambient temperature inside the rack may rise, resulting in inefficient performance. Be sure to rack-mount in the following conditions so the mixer does not overheat.

2 Use the screws you removed in Step 1 to securely install the RK-EMX2 Rack-Mount Kit (sold separately) on the mixer.

Orient the RK-EMX2 rack-mount brackets with the engraved lettering facing toward the rear



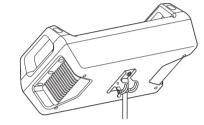
NOTICE

Be sure to use the screws removed in Step 1. Using other screws can cause damage.

- NOTE Separate screws for mounting the mixer in a rack are not included with the mixer.
- . When mounting the mixer in a rack with devices such as power amplifiers that generate a significant amount of heat, leave more than 1U of space between it and other equipment. Also, either leave the open spaces uncovered or install appropriate ventilating panels to minimize the
- To ensure sufficient airflow, leave the rear of the rack open. If you've installed a fan kit in the rack, 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 kit manual for details.

Mounting to a Microphone Stand

The mixer can be mounted onto a microphone stand as illustrated at right, by using the optionally available Yamaha BMS-10A Mic Stand Adaptor. For instructions on mounting. refer to the BMS-10A Owner's Manual.



Troubleshooting

Check the following items before contacting a Yamaha dealer If the symptoms are not improved, contact your nearest Yamaha dealer.

Power does not come on.

the power cord?

☐ Did you firmly and securely connect

Power shuts down suddenly.

☐ Are the vents of the mixer blocked? Since inadequate ventilation can result in overheating the mixer, the power may be turned off automatically to prevent overheating. Ensure proper ventilation for cooling, and then turn on the power again.

No sound is heard.

- ☐ Did you connect the mixer's [SPEAKERS L/R] jacks and the speakers' input jacks using the proper speaker cables?
- ☐ Did you firmly and securely connect the speaker cables?
- ☐ Is the [POWER] LED flashing at intervals?
- There may be a short in the speaker cable or the connection may be faulty. Check that the speaker cable is not scratched and is connected properly to the mixer, and then turn the power on again.
- $\ \square$ For channels 7/8, are both phone and RCA-pin jacks connected at the same time? Or, for channels 9/10, are both phone and stereo-mini jacks connected at the same time?

The phone jack has priority for channels 7/8 and the stereo-mini jack has priority for channels 9/10.

☐ Is the [POWER] LED flashing continuously?

If the internal power amplifier section is excessively overloaded, the amplifier will be muted for protection. The mixer will automatically reset itself after a while.

Sound is distorted or noise is produced.

- ☐ Are the [LEVEL] controls of all relevant control set too high?
- ☐ Is the [■ MIC/_ LINE] switch of the corresponding channel set to "■ MIC"?
- If the input level from the source is high, setting the [MIC/ LINE] switch to "MIC" may result in distorted sound. Set
- to the mixer too high?
- ☐ Is the speaker cable or power cord located near the input cables? Please keep speaker cables and the power cord away from the input cables.

☐ Is the [■ MIC/— LINE] switch of the corresponding channel set to "__ LINE"?

Turn the [LEVEL] control to the minimum (zero). Next, set the switch to the " MIC" position, and then slowly raise the [LEVEL]

- $\ \square$ Is the volume of the device connected to the mixer too low? Raise the volume of the external device.
- ☐ Is the [PHANTOM (CH1/2)] switch set to on when using a microphone that requires phantom power?

The high sounds and low sounds are unbalanced.

☐ Are the equalizer controls raised or lowered too much? Set the equalizer controls to the center

- channels and/or the [MASTER LEVEL]

- the switch to the "_ LINE" position ☐ Is the volume of the device connected
- Lower the volume of the external device

Sound is not loud enough.

- Are the [LEVEL] controls of all relevant channels and/or the [MASTER LEVEL] control set too low?

- - Use only the supplied power cord/plug.

General Specifications

Maximum Output Power (1 kHz)	THD+N<10% 250 W + 250 W (4 Ω), 170 W + 170 W (8 Ω) THD+N<1% 110 W + 110 W (4 Ω), 110 W + 110 W (8 Ω)
Input Channels	10 channels (Mono (MIC/LINE): 4, Stereo (LINE): 3) CH4: Hi-Z input supported
Output Channels SPEAKERS (L, R): 1 MONITOR OUT(L, R): 1 SUBWOOFER OUT	
Bus Stereo: 1, Effect: 1	
	HIGH: 8 kHz ±15 dB
Input Channel Equalization	MID: 2.5 kHz ±15 dB
	LOW: 100 Hz ±15 dB
Level Meter	6 points (-20, -6, 0, +3, +6, LIMITER)
Phantom Power Voltage	+30 V (CH1, 2)
Built-in SPX Effect Algorithm	4 programs
REVERB FOOT SW	Effect Mute on/off
DSP Processing	FEEDBACK SUPPRESSOR, MASTER EQ
Protection	Load Protection: DC-fault Amplifier Protection: Over heat protection, Over current protection
Power Requirements	AC 100-240 V, 50 Hz/60 Hz
Power Consumption 35 W (Idle) / 90 W (1/8 Power)	
Dimensions (W × H × D) 375 mm × 147 mm × 220 mm (14.8" × 5.8" × 8.7")	
Net Weight 4.2 kg (9.3 lbs)	
Optional Accessory Foot Switch: FC5, Rack-Mount Kit: RK-EMX2, Mic Stand Adaptor: BMS	
Operating Temperature 0 to +40°C	

For other specifications, see the included "Technical Specifications."

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

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
- 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 and each jack periodically, and remove any dirt or dust which may have accumulated. Failure to do so may cause electrical shock, short-circuiting
- 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.
- 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. Improper grounding can result in electrical shock, damage to the device(s), or even

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 inspected by qualified Yamaha service personnel.

Hearing loss

 Avoid setting all equalizer and level controls to their hearing loss and damage the speakers.

- Remove the electric plug from the outlet when the device is Disposal of Old Equipment

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

Never insert or remove an electric plug with wet hands.

maximum. Depending on the condition of the connected devices, doing so may result in feedback that can cause

device: at least 30cm above, 30cm at the sides and 30cm speaker damage. When turning the power off, the device should be turned off FIRST for the same reason.

• Do not use speakers for a long period of time at a high or uncomfortable volume level, since this can cause

• When turning on the AC power in your audio system,

or ringing in the ears, consult a physician

device, since they may cause a fire.

If you notice any abnormality

- Unusual smells or smoke are emitted.

Yamaha service personnel.

Yamaha service personnel.

⚠ CAUTION

Power supply/power cord

by the cord can damage it.

device(s), or even fire.

• When using the device:

NOTICE

- Do not cover it with any cloth

Do not install it on a carpet or rug.

Location

Fire warning

permanent hearing loss. If you experience any hearing loss

always turn on the device LAST, to avoid hearing loss and

• Do not place any burning items or open flames near the

• If any of the following problems occur, immediately turn off

the power switch and disconnect the electric plug from the

- The power cord or plug becomes frayed or damaged.

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

• If this device should be dropped or damaged, immediately

the outlet, and have the device inspected by qualified

avoid the possibility of physical injury to you or

others, or damage to the device or other property

• When removing the electric plug from the device or an

• Do not place the device in an unstable position where it

• Do not block the vents. This device has ventilation holes at

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

might accidentally fall over and cause injurie

the sides to prevent the internal temperature from

outlet, always hold the plug itself and not the cord. Pulling

These precautions include, but are not limited to, the

turn off the power switch, disconnect the electric plug from

- Some object has been dropped into the device.

• 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

Do not use the device in a confined, poorly-ventilated

Inadequate ventilation can result in overheating, possibly

is to be used in a small space other than an EIA-standard

rack, make sure that there is adequate space around the

causing damage to the device(s), or even fire. If this device

- 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 2. Inadequate ventilation can result in overheating, possibly causing damage to the device(s), malfunction, or even fire

Connections

- Do not use speaker cables with a metal-housing connector. Doing so may result in electrical shock due to differences in voltage. Use speaker cables with a nonmetal-housing connector, or with a insulated-housing connector.
- 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 electric shock, hearing loss, or equipment damage.
- Use only speaker cables for connecting speakers to the speaker jacks. Use of other types of cables may result in

Maintenance

Always follow the basic precautions listed below to • Remove the power plug from the AC outlet when cleaning

Handling caution

- Avoid inserting or dropping foreign objects (paper, plastic, metal, etc.) into any gaps or openings on the device (vents, panel, etc.) If this happens, immediately turn off the power, 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, and avoid use excessive force on the buttons, switches or connectors to prevent injuries.

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

European Models

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

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

Information for Users on Collection and



purchased the items.

This symbol on the products, packaging, and/or accompanying documents means that used electrical and electronic products should not be mixed with general household For proper treatment, recovery and recycling

of old products, please take them to applicable collection points, in accordance with your national legislation and he Directives 2002/96/EC By disposing of these products correctly, you will help to save valuable resources and prevent any potential

which could otherwise arise from inappropriate waste 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

negative effects on human health and the environment

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

the European Union] This symbol is only valid in the European Union. If you

[Information on Disposal in other Countries outside

wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

moved from one location to another, or air conditioning is turned on or off, for example. Using the device while condensation is present can cause damage. If there is reason to believe that condensation might have occurred, leave the device for several hours without turning on the power until the condensation has completely dried out.

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

■ Connectors

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

Information

■ About this manual

- The illustrations as shown in this manual are for
- instructional purposes only. • The company names and product names in this manual are the trademarks or registered trademarks of their

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

NEUTRAL BLUE 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

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.

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

Serial No.

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 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

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.

ribbon lead, change the lead-in to co-axial type cable

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

In Sweden: Apparaten skall anslutas till jordat uttag.

In Finland: Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan. In Norway: Apparatet må tilkoples jordet stikkontakt

For details of products, please contact your nearest Yamaha representative or the authorized distributor listed below

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Philippos Nakas S.A. The Music House 19th klm. Leof. Lavriou 190 02 Peania –

Scandinavia JA Wettergrensgata 1, 421 30 Västra Frölunda,

SWEDEN/FINLAND/ICELAND

NETHERLANDS/BELGIUM/

NORTH AMERICA

CANADA Yamaha Canada Music Ltd.

Tel: +1-416-298-1311 .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

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 Te!: +55-11-3704-1377

Olga Cossettini 1553, Pi Madero Este-C1107CEK Buenos Aires, Argentina Tel: +54-11-4119-7000

VENEZUELA Yamaha Musical de Venezuela, C.A. AV. Manzanares, C.C. Manzanares Plaza, Piso 4, Oficina 0401, Baruta, Caracas, Venez PANAMA AND OTHER LATIN

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Manual Development Departmen