



USB MIXING STUDIO

MV12

OWNER'S MANUAL

BEDIENUNGSANLEITUNG

MODE D'EMPLOI

MANUAL DE INSTRUCCIONES



EN
DE
FR
ES

IMPORTANT NOTICE FOR THE UNITED KINGDOM Connecting the Plug and Cord

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

BLUE : NEUTRAL
BROWN : LIVE

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

The wire which is coloured 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.

Making sure that neither core is connected to the earth terminal of the three pin plug.

- This applies only to products distributed by Yamaha-Kemble Music (U.K.) Ltd. (2 wires).

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 : USB MIXING STUDIO
Model Name : MW12

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following conditions:

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

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

(FCC DoC)

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

* This applies only to products distributed by YAMAHA CORPORATION OF AMERICA. (class B)

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

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

WARNING

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

Power supply/Power cord

- Only use the voltage specified as correct for the device. The required voltage is printed on the name plate of the device.
- Use only the specified AC power adaptor (PA-20 or an equivalent recommended by Yamaha).
- Do not place the power cord near heat sources such as heaters or radiators, and do not excessively bend or otherwise damage the cord, place heavy objects on it, or place it in a position where anyone could walk on, trip over, or roll anything over it.

Do not open

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

Water warning

- Do not expose the device to rain, use it near water or in damp or wet conditions, or place containers on it containing liquids which might spill into any openings.
- Never insert or remove an electric plug with wet hands.

If you notice any abnormality

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

CAUTION

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

Power supply/Power cord

- Remove the electric plug from the outlet when the device is not to be used for extended periods of time, or during electrical storms.
- When removing the electric plug from the device or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.
- To avoid generating unwanted noise, make sure there is 50 cm or more between the AC power adaptor and the device.
- Do not cover or wrap the AC power adaptor with a cloth or blanket.

Location

- Before moving the device, remove all connected cables.
- Avoid setting all equalizer controls and faders to their maximum. Depending on the condition of the connected devices, doing so may cause feedback and may damage the speakers.
- Do not expose the device to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.
- Do not place the device in an unstable position where it might accidentally fall over.
- Do not use the device in the vicinity of a TV, radio, stereo equipment, mobile phone, or other electric devices. Doing so may result in noise, both in the device itself and in the TV or radio next to it.

Connections

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

Handling caution

- Do not insert your fingers or hands in any gaps or openings on the device.
- Avoid inserting or dropping foreign objects (paper, plastic, metal, etc.) into any gaps or openings on the device. If this happens, turn off the power immediately and unplug the power cord from the AC outlet. Then have the device inspected by qualified Yamaha service personnel.
- Do not use the device or 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.
- Do not rest your weight on the device or place heavy objects on it, and avoid use excessive force on the buttons, switches or connectors.

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

Insert TRS phone jacks are wired as follows: sleeve: ground, tip: send, and ring: return.

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

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

Even when the power switch is in the "STANDBY" position, 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.

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

SPECIAL NOTICES

- This owner's manual is the exclusive copyrights of Yamaha Corporation.
- The supplied software is the exclusive copyrights of Steinberg Media Technologies GmbH.
- Use of the supplied software and this manual is governed by the license agreement which the purchaser fully agrees to upon breaking the seal of the software packaging. (Please read carefully the Software Licensing Agreement at the end of this manual before installing the application.)
- Copying of the supplied software or reproduction of this manual in whole or in part by any means is expressly forbidden without the written consent of the manufacturer.
- Yamaha makes 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.
- The supplied disk is a CD-ROM. Do not attempt to play the disk on an audio CD player. Doing so may result in irreparable damage to your audio CD player.
- Visit the web address below for the latest information on supplied software and operating system requirements.
<<http://www.yamahasynth.com/>>
- The screen displays as illustrated in this owner's manual are for instructional purposes, and may appear somewhat different from the screens which appear on your computer.
- The illustrations as shown in this owner's manual are for instructional purposes only, and may appear somewhat different from those on your device.

This product incorporates and bundles computer programs and contents in which Yamaha owns 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.

This device is capable of using various types/formats of music data by optimizing them to the proper format music data for use with the device in advance. As a result, this device may not play them back precisely as their producers or composers originally intended.

- Windows is the registered trademarks of Microsoft® Corporation.
- Apple and Macintosh are trademarks of Apple Computer, Inc., registered in the U.S. and other countries.
- Steinberg and Cubase are the registered trademarks of Steinberg Media Technologies GmbH.
- The company names and product names in this Owner's Manual are the trademarks or registered trademarks of their respective companies.

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

Foreword

Thank you for choosing a Yamaha MW12 USB Mixing Studio. The MW12 includes an audio mixer equipped with a USB interface for digital audio data transfer, and Cubase LE DAW (Digital Audio Workstation) software for Windows® and Macintosh® computer operating systems. With the MW12 USB Mixing Studio and your personal computer you have the basic elements of a high-performance computer recording system that is easy to set up and operate.

In order to take full advantage of the many features and capabilities provided by the MW12, we urge you to read this owner's manual thoroughly before using your MW12 system, and keep the manual in a safe, accessible location for future reference.

Features

Connect To Your Computer via a Single USB Cable (page 7)

The MW12 mixer connects to your computer via the supplied USB cable. Stereo audio data is transferred in both directions—from the mixer to the computer, and vice-versa—via the USB connection (44.1 kHz or 48 kHz sampling frequency).

No Driver Installation Required (page 7)

The MW12 system uses the standard drivers included in your computer's operating system, so there's no need to install any extra driver software.

Cubase LE DAW Software Supplied (page 7)

Cubase LE software, included in the MW12 package, offers versatile, high-performance hard-disk recording capability.

3-Band EQ On Each Channel (page 15)

Each channel of the MW12 mixer features full 3-band equalization, providing broad, musical response-shaping capability.

Mixer Functions (page 19)

The MW12 mixer can handle up to 12 simultaneous inputs, mixing them to stereo or group outputs. You could connect four microphones and four stereo sources, or six microphones and two stereo sources, for example. AUX SEND connectors are provided for convenient connection to external signal processors or other equipment.

48V Phantom Power (page 18)

A PHANTOM switch supplies +48V phantom power to the mixer's microphone inputs, so you can use high-quality phantom-powered condenser microphones for superior recording quality.

Contents

Foreword	5
Features	5
Contents	5
Before Turning on the Mixer	6
Turning the Power On/OFF	6
Computer System Requirements	6
Cubase LE System Requirements	6
Quick Guide	7
1. Installing Cubase LE	7
2. Connections	7
3. Powering Up the System.....	8
4. Adjusting Level and Equalization	9
5. Recording with Cubase LE.....	10
6. Mixing with Cubase LE.....	13
Front & Rear Panels	15
Channel Control Section	15
Master Control Section	17
Rear Input/Output Section	19
Setting Up	21
Setup Procedure	21
Setup Examples	21
Rack Mounting	22
Troubleshooting	23
Appendix	25
Specifications	25
Dimensional Diagrams	27
Block Diagram and Level Diagram	28
SOFTWARE LICENSE AGREEMENT	29

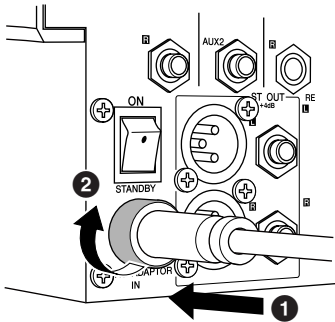
Before Turning on the Mixer

1 Be sure that the mixer's power switch is in the STANDBY position.



Use only the PA-20 adaptor included with this mixer. Use of a different adaptor may result in equipment damage, overheating, or fire.

2 Connect the power adaptor to the AC ADAPTOR IN connector (1) on the rear of the mixer, and then turn the fastening ring clockwise (2) to secure the connection.



3 Plug the power adaptor into a standard household power outlet.



- Be sure to unplug the adaptor from the outlet when not using the mixer, or when there are lightning storms in the area.
- To avoid generating unwanted noise, make sure there is 50 cm or more between the power adaptor and the mixer.

Turning the Power On/OFF

Press the mixer's power switch to the ON position. When you are ready to turn the power off, press the power switch to the STANDBY position.



Note that trace current continues to flow while the switch is in the STANDBY position. If you do not plan to use the mixer again for a long while, please be sure to unplug the adaptor from the wall outlet.

NOTE

To prevent loud pops and noises, turn on the power to your sound gear starting with the sources (instruments, CD players, etc.) and ending with the power amplifier or powered speakers.

Example: Instruments, microphones, and CD players first, then the mixer, and finally the power amplifier or powered speakers.

When turning off the power to the system, reverse the order described above.

Computer System Requirements

Windows

Computer	Windows-based computer with built-in USB interface
OS	Windows XP
CPU	750MHz or higher Intel Pentium/Celeron processor
Memory	More than 96MB (128MB or more recommended)

Macintosh

Computer	Macintosh computer with built-in USB interface
OS	MacOS X 10.3.3 or higher
CPU	Macintosh G3 processor 300MHz or higher
Memory	More than 128MB

Cubase LE System Requirements

Windows

OS	Windows XP
CPU	500 MHz or higher Pentium III or AMD K7 (1GHz or more recommended Pentium III/Athlon)
Memory	More than 256MB (512MB or more recommended)
Hard Disk	1GB or more

Macintosh

OS	MacOS X 10.3.3 or higher
CPU	Macintosh G4 processor 450MHz or higher
Memory	More than 256MB (512MB or more recommended)
Hard Disk	1GB or more

Quick Guide

This quick setup and operation guide covers everything from installing the Cubase LE software to using Cubase LE for recording and mixdown. While going through this section you might find it useful to also refer to the “Front and Rear Panels” section on page 15, as well as the pdf manual supplied with the Cubase LE software.

Step

1 Installing Cubase LE

- 1 Turn the computer on.
- 2 Insert the supplied CD-ROM into the computer’s CD-ROM drive.
- 3 Follow the on-screen instructions to install the Cubase LE software.

The serial number is printed on the sheet located inside the CD-ROM envelope.

- NOTE**
- Please install Cubase LE while connected to the internet.
 - Please enter all required items during installation.
 - For Macintosh computers double-click the “Cubase LE.pkg” icon.

Step

2 Connections

1 Connect the MW12 to the Computer.

Connect the MW12 mixer to your computer using the supplied USB cable.

USB Connection Precautions

Be sure to observe the following points when connecting to the computer’s USB interface. Failure to observe these rules can result in computer freezes/hang-ups and possibly data loss or corruption.

If the computer or MW12 does stop operating properly, turn the power off and then on again, and restart the computer.



- Be sure to wake the computer from sleep/suspended/standby mode before making a connection to the computer’s USB connector.
- Connect the MW12 to the computer before turning the MW12 power on.
- Always quit all applications running on the computer before turning the MW12 power on or off, or connecting or disconnecting the USB cable.
- Wait at least 6 seconds between turning the MW12 on or off, and between connecting or disconnecting the USB cable.

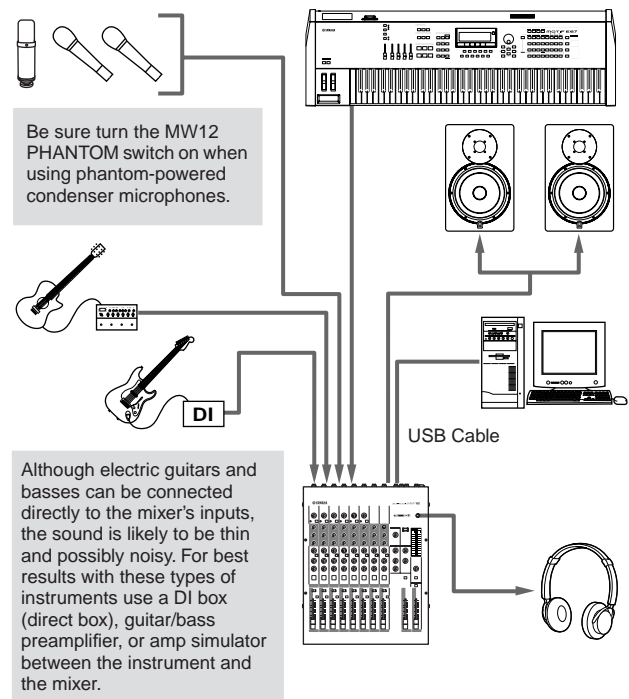


When connecting or disconnecting the USB cable be sure to turn the 2TR IN/USB control all the way down.

- NOTE** Disconnect the USB cable before you use the computer without the MW12.

2 Connecting Microphones and/or Instruments.

For details on making connections refer to the “Rear Input/Output” section on page 19, and the “Setting Up” section on page 21.



Balanced Cables and Unbalanced Cables

Two types of cables can be used to connect microphones, electronic instruments, and other audio sources to the mixer's inputs, as well as to connect the mixer's outputs to a power amplifier or related gear: balanced or unbalanced. Balanced cables are highly resistant to noise, and are the best choice for low-level signals such as the output from microphones, as well as for long cable runs. Unbalanced cables are generally used for short runs from line-level sources such as synthesizers.

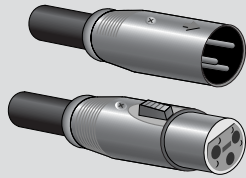
Cable Guidelines

Microphone cable: Balanced is best.
 Short line-level cables: Unbalanced cable is fine in a relatively noise-free environment.
 Long line-level cables: Balanced is best.

Connector Types

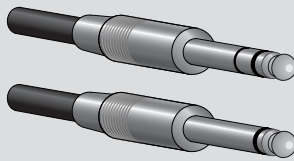
XLR Connectors

This 3-pin connector is resistant to externally induced noise, and is used primarily for balanced connections. With properly designed receiving circuitry cables with this type of connector can also be used for unbalanced signals. XLR type connectors are the standard for microphone connections as well as most professional audio gear.



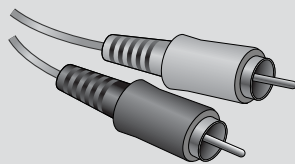
Phone Connectors

Phone connectors are available in mono and stereo versions. Stereo types are also known as "TRS" connectors (Tip-Ring-Sleeve), and are used for stereo headphone jacks, insert jacks, and also to carry balanced signals in many cases. Unbalanced types are used for mono signals—guitar cables are a common example.



RCA Pin Connectors

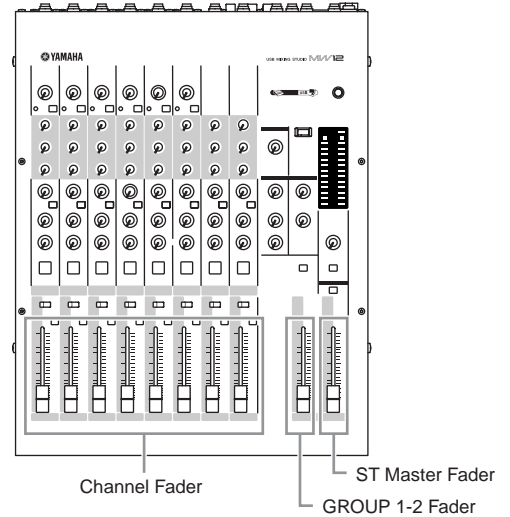
This type of unbalanced connector is most commonly found on home audio and video equipment. RCA type pin jacks are often color coded: white for left audio channel and red for right audio channel, for example.



Step

3 Powering Up the System

1 Turn the power to all gear that is to be connected to the MW12 off/standby (except the computer), and set the channel faders, ST master fader, and GROUP 1-2 fader to their minimum settings.



2 To prevent loud pops and noises, turn on the power to your sound gear starting with the sources (instruments, CD players, etc.) and ending with the power amplifier or powered speakers.

Example: Instruments, microphones, and CD players first, then the mixer, and finally the power amplifier or powered speakers.



Observe the following precautions when turning on phantom power.

- Make sure that the PHANTOM switch is off when phantom power is not needed.
- Make sure that no equipment other than phantom-powered microphones is connected to the XLR type inputs when turning phantom power on. Applying phantom power to equipment other than phantom-powered microphones can damage the equipment. The exception to this rule is balanced dynamic microphones, which can safely be left connected while phantom power is applied to the XLR inputs.
- To minimize the possibility of speaker damage, turn phantom power on ONLY while your power amplifier or powered speakers are switched off. It's also a good idea to turn the mixers output controls—the ST and GROUP 1-2 faders—all the way down when turning phantom power on.

NOTE

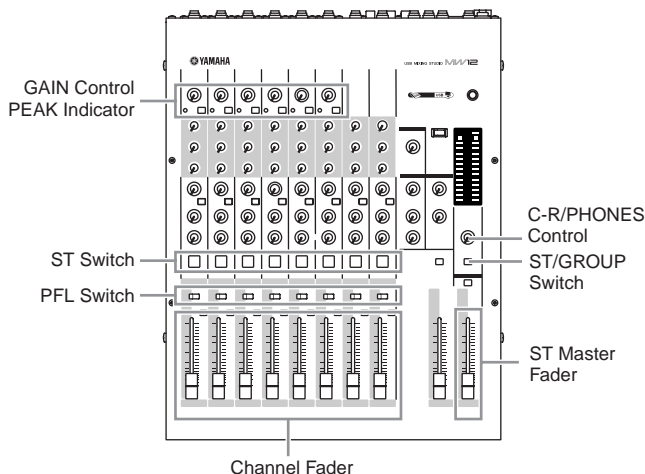
The first time you connect to the computer's USB connector, or change the connection to a different USB port, a driver installation display may appear. If this occurs, wait until the installation is complete before proceeding.

Step

4 Adjusting Level and Equalization

Level Adjustment

- 1** The first step in adjusting levels is to set the level controls on all instruments and other sources appropriately.
- 2** Adjust the channel GAIN controls so that the corresponding peak indicators flash briefly on the highest peak levels (GAIN controls are not provided on the stereo channels—9/10 and 11/12).
- 3** Turn the ST switches for channels you want to record ON.
- 4** Make sure that the PFL switch is off, and that the ST/GROUP switch is set to ST.
- 5** Raise the master fader to the “0” position.
- 6** Set the channel faders to create the desired initial balance while monitoring via headphones or monitor speakers. The overall headphone level is adjusted by the C-R/PHONES control.



EQ Adjustment

The MW12 mixer's 3-band equalizers with independent HIGH, MID, and LOW bands make it easy to shape the tone of independent channels to achieve the best possible mix.

Use the High-pass Filter for Microphone Input

As the name implies, a “high-pass filter” allows only signals above a certain frequency to pass. Conversely, signals below that “cutoff frequency” are attenuated. When an MW12 high-pass filter is turned on, signals below 80 Hz are attenuated. This can be useful for minimizing low-frequency breath noise from a vocalist, as well as handling noise, or rumble transmitted via the microphone stand. It is generally a good idea to turn the high-pass filter on for microphone channels.

Equalizer Tips

The best advice that can be given regarding equalization while recording is simply to use as little equalization as possible. If you want a little more presence you can turn the HIGH end up a bit. Or you can boost the bass a little if you feel the low end is lacking. During recording it's better to use EQ sparingly for compensation only.

Step 5 Recording with Cubase LE

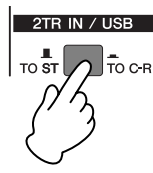
This section describes the procedure for recording via the MW12 mixer to the Cubase LE software we installed earlier.

NOTE For details on operation of the Cubase LE software refer to the pdf-format manual provided with the software.

Cubase LE Setup

1 To prevent the playback sound from Cubase LE from being directly re-recorded, press the MW12 2TR IN/USB (ST/TO C-R) switch so that it's in the on (TO C-R) position.

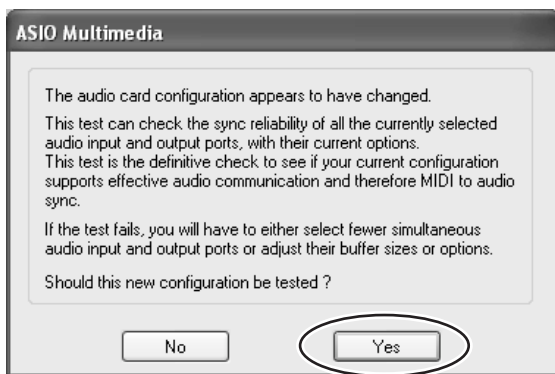
With the setting the playback sound can be monitored via the C-R OUT connectors as well as the PHONES jack.



2 Launch Cubase LE.

Windows:

Click [Start] → [All Programs] → [Steinberg Cubase LE] → [Cubase LE] to launch the program. If the ASIO Multimedia dialog window appears, click [Yes].



Macintosh:

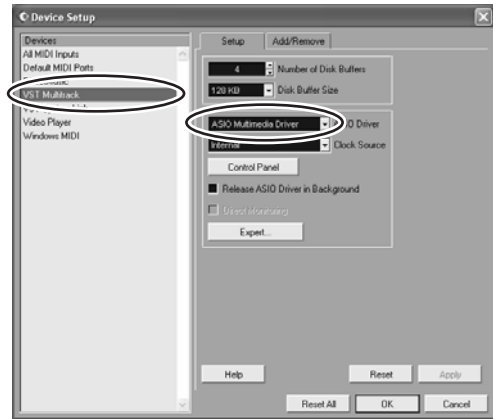
Double click the [Cubase LE] icon in your "Applications" folder, or single-click the [Cubase LE] icon in the dock if it has been placed there.

- NOTE**
- If you specified a file destination when installing the Cubase LE software, launch the application from that location.
 - Create a Cubase LE shortcut or Alias on your desktop so you can easily launch the program when required.

3 Select [Device Setup] from the [Devices] menu to open the Device Setup window.

Windows:

Select [VST Multitrack] in the [Devices] field on the left side of the window. Select [ASIO Multimedia Driver] in the [ASIO Driver] field on the right side of the window, and click [Apply] or [OK].

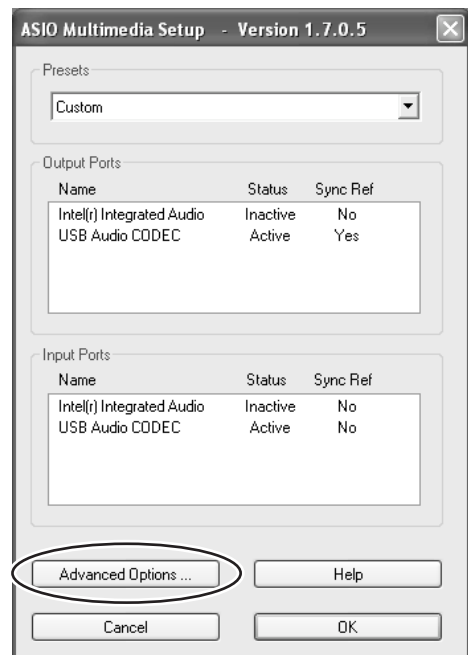


Macintosh:

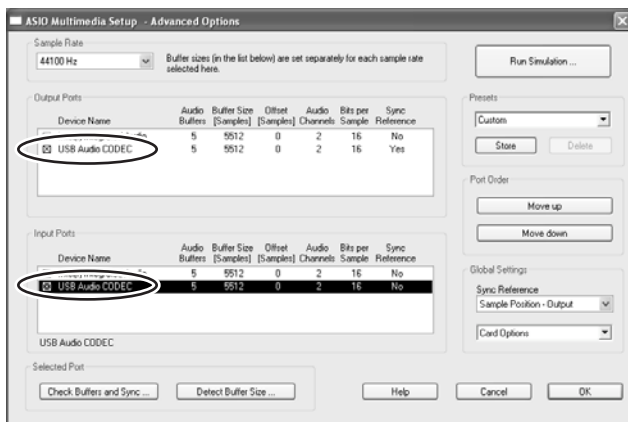
Select [VST Multitrack] in the [Device] field on the left side of the window. Select [USB Audio CODEC (2)] in the [ASIO Driver] field on the right side of the window, and click [OK]. Skip ahead to step 7, below.

NOTE Under Mac OS X you can select either [USB Audio CODEC (1)] or [USB Audio CODEC (2)] in the [ASIO Driver] driver field. Normally you should select or [USB Audio CODEC (2)], but if you will only be playing back and mixing previously recorded data you can select [USB Audio CODEC (1)] to lighten the load on the computer's CPU.

4 On a Windows computer click [Control Panel] in the Device Setup window. The ASIO Multimedia Setup dialog window will appear. Click [Advanced Options].



- 5** The ASIO Multimedia Setup – Advanced Options window will appear. Check only the input port and output port [USB Audio CODEC] checkbox.



- 6** Click [OK] in the ASIO Multimedia Setup – Advanced Options, ASIO Multimedia Setup, and Device Setup dialog windows to close the windows.

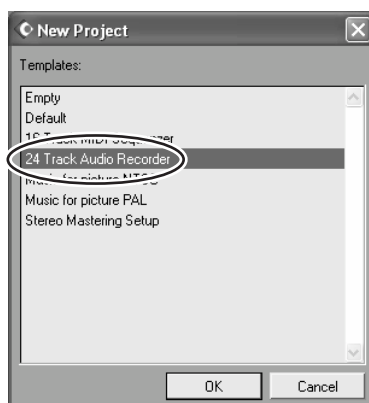
- 7** Select [VST Inputs] in the [Devices] menu. The VST Inputs window will open. Engage the Port [USB Audio CODEC] Active button (⏻), and close the VST Inputs window.



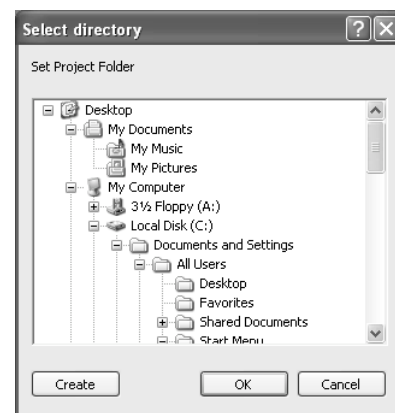
- 8** Select [New project] from the [File] menu to create a new project file.

The New Project dialog window will open. For this example select [24 Track Audio Recorder] and click [OK].

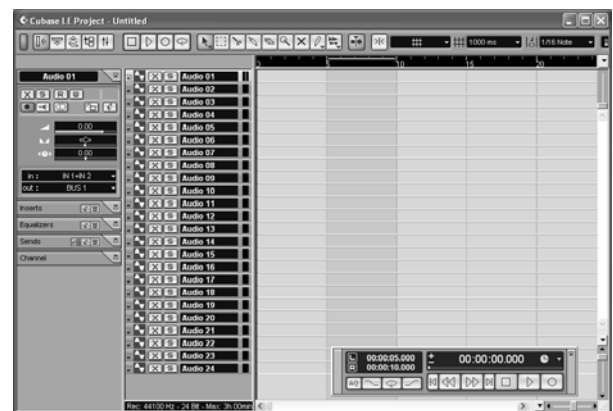
NOTE Recorded Cubase LE data is stored as a “project file” for each song.



- 9** When the directory selection dialog window appears, select the folder to which the project and audio files for the project are to be stored, and click [OK].



An empty 24-audio-track project window will appear.

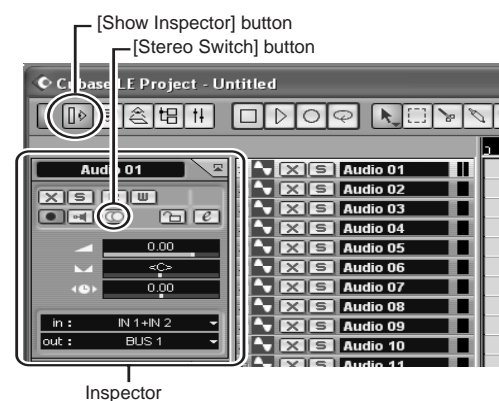


Preparing to Record

- 1** Click in the track list (the area in which the track names are displayed) to select a track to record on.

For this example select [Audio 01]. The various settings for the selected track are available in the Inspector on the left side of the display.

NOTE If the Inspector is not showing, click the [Show Inspector] button (⏻) in the upper left area of the project window.

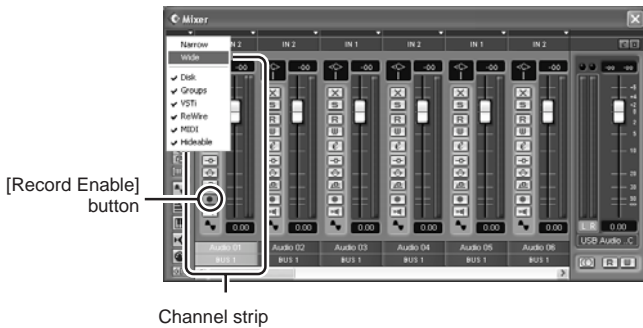


2 Use the [Stereo Switch] buttons in the Inspector to select stereo or monaural operation for the track: (◻) for stereo operation and (◻) for monaural.

For the example select the stereo mode. You will normally use a monaural track when recording vocals or guitar, and a stereo track when recording synthesizers with stereo outputs, for example. You might want to use a stereo track to record a guitar processed through a preamplifier or amp simulator with stereo outputs.

3 Select [Mixer] from the [Devices] menu to open the mixer window.

Click the arrow in the upper left corner of the mixer window and select [Wide] to increase the width of the mixer's channel strips. Leave the mixer window open until you have finished recording for easy access.



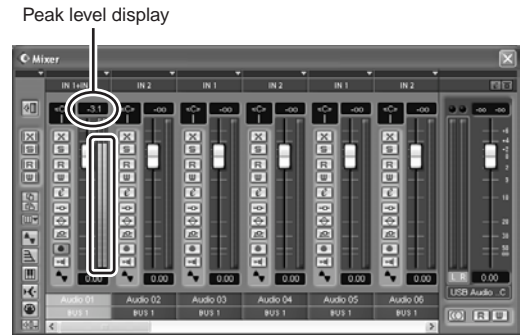
4 Make sure that the [Record Enable] button (◻) on the left side of the channel strip is on.

If the [Record Enable] button is off (◻), click it to turn it on. The input signal level will be displayed on the channel strip level meter while the [Record Enable] button is on.

5 Play the instrument to be recorded and, while watching the mixer window level meter, adjust the MW12 GAIN control and channel fader so that the meter never goes above 0.0 dB.

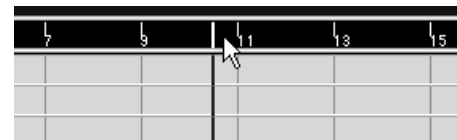
- The MW12 ST master fader does not affect the output level sent to the computer.
- The Cubase LE channel strip fader only affects the playback output level from Cubase LE.

The maximum level encountered is displayed numerically in the peak level display at the top of the channel strip.



6 Specify the point at which you want to start recording via the ruler at the top of the project window.

Click the black area of the ruler to move the project cursor (the vertical black line) to that position.



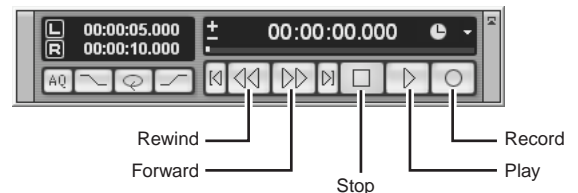
7 Open the [Transport] menu and turn [Start Record at Left Locator] off.

Recording and Playback

1 Click the Transport panel [Record] button to begin recording.

When recording is started the project cursor will begin moving to the right and a box that displays the recording results will be created.

Transport panel



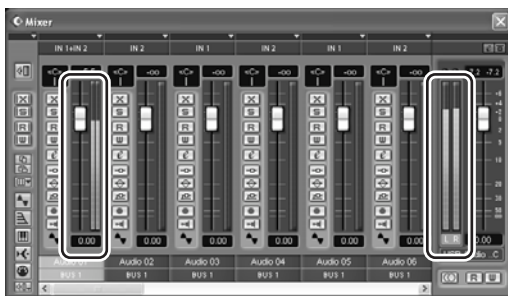
2 Play the part.

3 When you have finished recording the track, click the Transport panel [Stop] button.

- 4** To hear playback of the track you have just recorded, use either the Transport panel [Rewind] button or the ruler to rewind to the beginning of the recorded section, then click the Transport panel [Play] button.

The playback level will be displayed via the master section level meter on the right side of the Mixer window. The channel strip level meters will become active when you turn the channel strip [Record Enable] button off.

NOTE When a pair of headphones are plugged into the MW12 PHONES jack, you can adjust the headphone listening level via the MW12 C-R/PHONES control and the 2TR IN/USB control.



- 5** To save the project file select [Save] from the [File] menu and enter a file name before actually saving the file.
Save your project frequently to insure against losing large amounts of data if a problem occurs.
- 6** Repeat steps 1 through 5 to record further material on the same track.
- 7** To record additional material on a different track, select a new track and repeat the same record procedure.

Step

6 Mixing with Cubase LE

In this section we'll try mixing down multiple recorded audio tracks to stereo, and creating a wave file. Mixes can be stored as WAV or AIFF files, which can then be recorded to audio CDs.

- 1** Launch Cubase LE and open a project file.
- 2** Select [Mixer] from the [Devices] menu to open the mixer window.
- 3** Turn the [Record Enable] buttons for all recorded tracks off in order to display the corresponding levels via the channel-strip levels meters.
- 4** Click the Transport panel [Play] button.
- 5** Drag the channel strip faders up and down while listening to playback to adjust the mix as required.

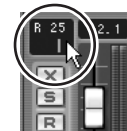
The master gain fader on the right side of the window can also be used to adjust the overall level.

Start with the Featured Part

You can start working on a mix from almost any part, but it makes the most sense to start with the main instrument or vocal. Set up an initial level for the main part, and then build the rest of the mix around it.

For example, if you're mixing a piano trio with a vocalist, begin by setting the level of the vocal track at around the nominal level, and then gradually add the other instruments. Your choices will also be influenced by the type of music you are working on. If the song is a ballad you might want to add the piano to the mix after the vocal, and then add the bass and drums. If it's a more rhythmically oriented piece you could add the bass and drums first, and then the piano. Whatever best serves the music is right.


- 6** Drag the Pan controls on the left side of the channel strips left and right to set the stereo position of each track.



Pan Effectively

"Panning" creates the illusion of stereo space by changing the relative levels of each track's signal sent to the left and right speakers. If a signal is sent only to the left speaker, the sound will appear to come from the far left side of the stereo sound field. If it sent with equal level to both left and right speakers our ears tell us the sound is located in the center of the stage. Judicious panning can also help to create cleaner-sounding mixes by spreading the instruments out across the sound stage so that they don't "get in each other's way." There are no hard and fast rules, but the bass and kick drum are usually placed in the center of the mix, as is the lead instrument or vocal. Other instruments should be evenly balanced throughout the sound stage in a well-balanced manner.

7 At this point you can begin to use EQ to refine your mix, and add effects.

As an example let's try adding reverb. Click the [Edit VST channel] button () on the left side of the channel strip to open the VST Channel Settings window. Click No Effect → Reverb → Reverb B.

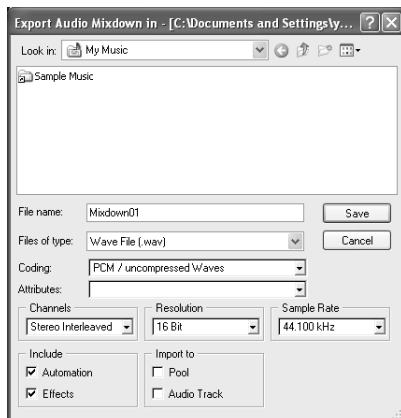
NOTE For further details refer to the pdf manual provided with the Cubase LE software.



It's a good idea to lower the channel fader a bit before adding an effect, since the effect can cause an increase in the overall channel level.



8 When the final adjustments have been made to the mix, go to the [File] menu and select [Export] → [Audio Mixdown].



9 Enter a file name and select a file type.

If you intend to use the file to create an audio CD, select the WAV file type (AIFF on a Macintosh), Stereo Interleaved, 16 bit, and 44.1 kHz.

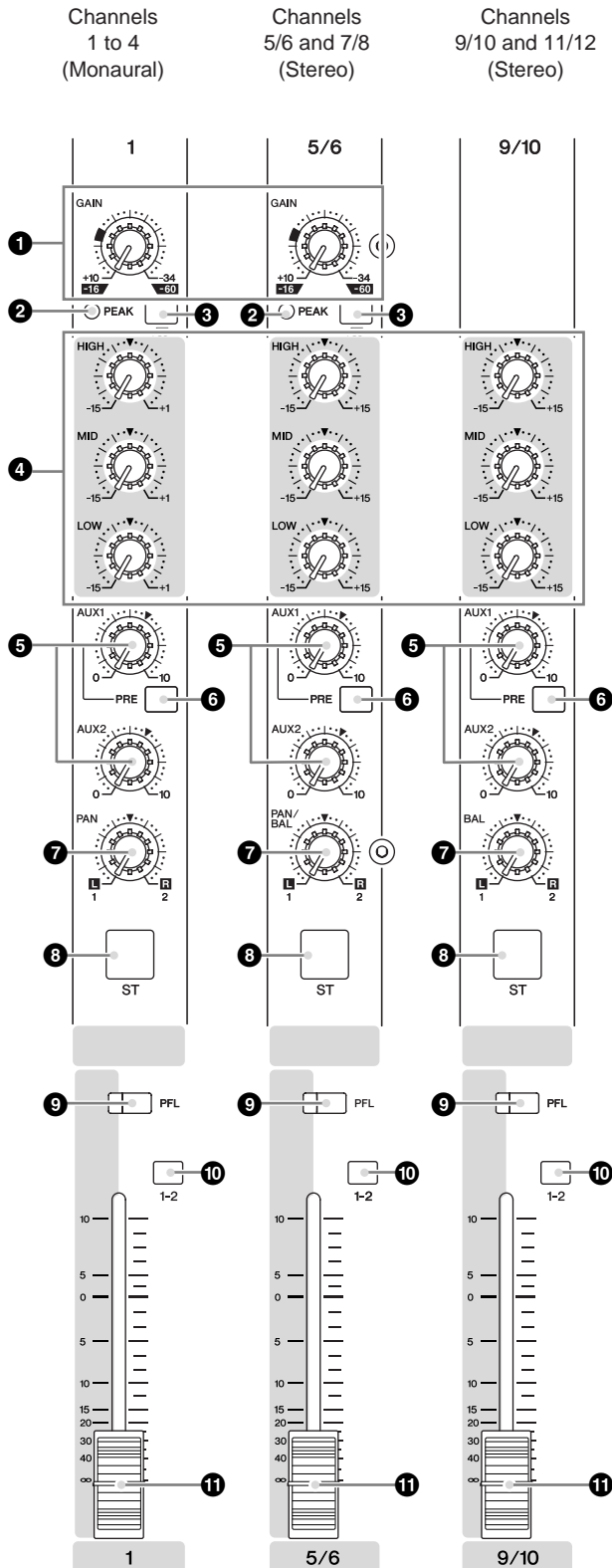
10 Click [Save].

Progress of the mixdown operation will be shown in a progress window. When the progress window closes the mixdown is complete.

NOTE Wave files created by mixdown can be directly playback back using the Windows Media Player or iTunes on a Macintosh computer.

Front & Rear Panels

Channel Control Section



1 GAIN Control

Adjusts the input signal level.

To get the best balance between the S/N ratio and the dynamic range, adjust the level so that the PEAK indicator (2) comes on only at about maximum input level.


The -60 to -16 scale indicates the MIC input adjustment level. The -34 to +10 scale indicates the LINE input adjustment level.

2 PEAK Indicator


Detects the peak level of the post-EQ signal, and lights up red when the level reaches 3 dB below the clipping level. For XLR-equipped stereo input channels (5/6 and 7/8), detects both post-EQ and post-mic-amp peak levels, and lights red if either of these levels reaches 3 dB below the clipping level.

NOTE When the level of an input signal exceeds the level that can be handled by the mixer's head amp or equalizer, distortion and noise will result. The PEAK indicators are used to visually check the signal level to ensure no overload occurs.

3 $\sqrt{80}$ Switch (High Pass Filter)

This switch toggles the HPF on or off. To turn the HPF on, press the switch (). The HPF cuts frequencies below 80 Hz. (But note that regardless of the switch setting, the mixer does not apply this HPF to the line inputs of stereo input channels.)

4 Equalizer (HIGH, MID, and LOW)

This three-band equalizer adjusts the channel's high, mid, and low frequency bands. Setting the knob to the  position produces a flat frequency response. Turning the knob to the right boosts the corresponding frequency band, while turning to the left attenuates the band. The following table shows the EQ type, base frequency, and maximum cut/boost for each of the three bands.

Band	Type	Base Frequency	Maximum Cut/Boost
HIGH	Shelving	10 kHz	±15 dB
MID	Peaking	2.5 kHz	
LOW	Shelving	100 Hz	

NOTE The equalizer can be used to boost or cut specific frequency bands, allowing the tone of the sound to be shaped as required by the mix.

5 AUX1 and AUX2 Controls

Sends the channel signal to the AUX 1 or AUX 2 bus. The AUX buses are normally used to feed external signal processing gear or a monitor system. The knob should generally be set close to the ▼ position.

If you are using stereo channels, the signals from the L (odd) and R (even) channels are mixed and sent to the AUX1 and AUX2 buses.

NOTE Allows you to output the signal to the buses regardless of the setting of the ST switch (8).

6 PRE Switch

Selects whether the pre-fader or the post-fader signal is fed to the AUX1 bus. If you set the switch on (■), the mixer sends the pre-fader signal (the signal prior to passage through channel fader 11) to the AUX1 bus, so that AUX1 output is not affected by the fader. If you set the switch off (■) the mixer sends the post-fader signal to the AUX1 bus.

Note that this switch applies to AUX1 only. The signal to the AUX2 bus always passes through the channel fader first.

7 PAN Control (1 to 4) PAN/BAL Control (5/6 and 7/8) BAL Control (9/10 and 11/12)

The PAN control determines the positioning of the channel's signal on the Group 1 and 2 buses or on the Stereo L and R buses.

The BAL control knob sets the balance between left and right channels. Signals into to the L input (odd channel) feed to the Group 1 bus or to the Stereo L bus; signals into the R input (even channel) feed to the Group 2 bus or the Stereo R bus.

NOTE On channels where this knob provides both PAN and BAL controls (5/6 and 7/8), the knob operates as a PAN control if you are inputting through the MIC jack or into the L (MONO) input only, and operates as a BAL control if you are inputting into both L and R inputs.

8 ST Switch

This switch sends the signal from the corresponding channel to the mixer's stereo L-R bus. When this switch is on the signal is sent both to the stereo L-R bus and the computer via the USB interface. The switch glows orange when it is turned on.

9 PFL (Pre-Fader Listen) Switch

This switch lets you monitor the channel's pre-fader signal. To set the switch on, press it in (■) so that it lights up. When the switch is on, the mixer outputs the channel's pre-fader signal to the PHONES and C-R OUT jacks, for monitoring.

10 GROUP Switch

Use this switch to assign the channel's signal to the Group output. Press the switch in (■) to output the signal to the Group 1 and 2 buses.

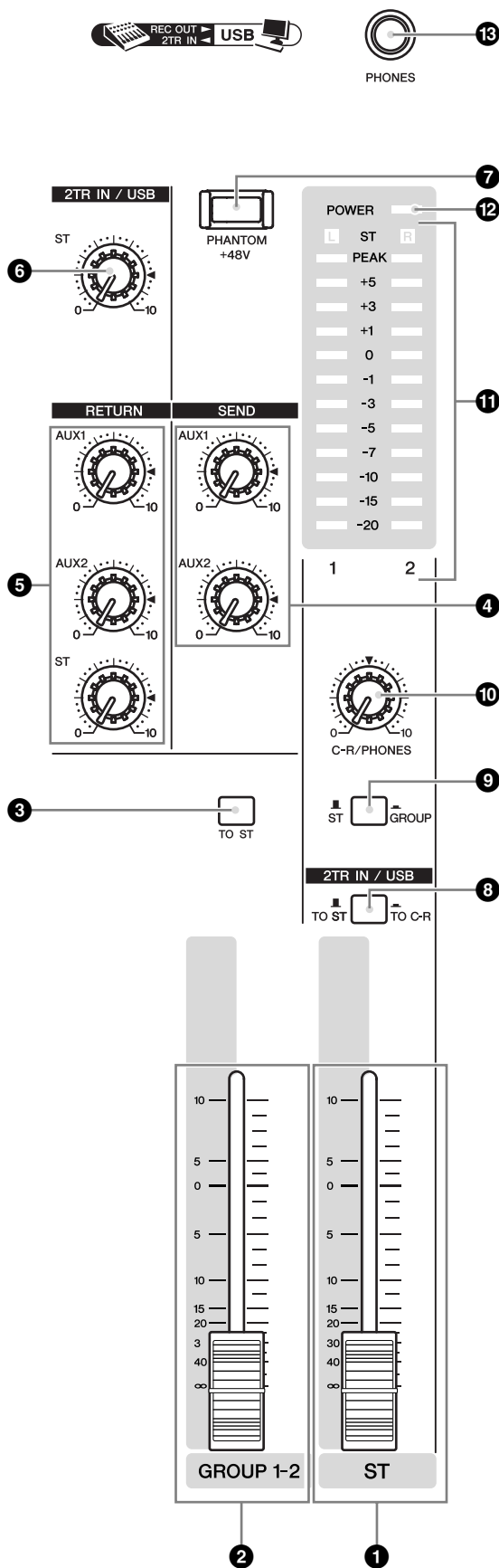
NOTE Allows you to output the signal to the buses regardless of the setting of the ST switch (8).

11 Channel Fader

Adjust the level of the signal output from the corresponding input channel. The channel faders are mainly used for setting up the desired level balance between channels. The channel faders also adjust the level of the signals sent to the computer via the USB interface.

NOTE To reduce noise, set the fader sliders for unused channels all the way down.

Master Control Section



1 ST Master Fader

Adjusts the signal level to the ST OUT jacks.

NOTE The stereo master fader has no effect on the signal being sent to the computer via the USB interface.

2 GROUP 1-2 Fader

Adjusts the signal level to the GROUP OUT 1 and GROUP OUT 2 jacks.

3 TO ST Switch

If this switch is on (—), the mixer sends the signals processed by the GROUP 1-2 fader (2) onto the Stereo bus. The Group 1 signal goes to Stereo L and the Group 2 signal goes to Stereo R.

4 Master SEND

• Master AUX 1/2 Control

Adjusts the signal level, respectively. These are the signals that are output to the AUX1 and AUX2 SEND jacks.

5 RETURN

• AUX 1/2 Control

Adjust the level of the mixed L/R signal sent from the RETURN jacks (L (MONO) and R) to the AUX1 and AUX2 buses.

• ST Control

Adjust the level of the signal sent from the RETURN jacks (L (MONO) and R) to the Stereo bus.

NOTE If you supply a signal to the RETURN L (MONO) jack only, the mixer outputs the identical signal to both the L and R Stereo buses.

6 2TR IN/USB Control



Adjusts the level of signals received via 2TR IN, as well as the level of signals received by the MW12 from the computer via the USB interface.

7 PHANTOM +48 V Switch

This switch toggles phantom power on and off. If you set the switch on, the mixer supplies power to all channels that provide XLR mic input jacks (CHs 1–4, 5/6, 7/8). Set this switch on when using one or more condenser microphones.

NOTE When this switch is on, the mixer supplies DC +48 V power to pins 2 and 3 of all XLR-type MIC INPUT jacks.



- Be sure to leave this switch off () if you do not need phantom power.
- When tuning the switch on (), be sure that only condenser mics are connected to the XLR input jacks (CHs: 1 to 7/8). Devices other than condenser mics may be damaged if connected to the phantom power supply. Note, however, that the switch may be left on without problem when connecting to balanced dynamic microphones.
- To avoid damage to speakers, be sure to turn off amplifiers (or powered speakers) before turning this switch on or off. We also recommend that you turn all output controls (ST master fader, GROUP 1-2 fader, etc.) to minimum settings before operating the switch, to avoid risk of loud noises that could cause hearing loss or device damage.

8 2TR IN/USB Switch (TO ST/TO C-R)

Determines whether the stereo signal received via the 2TR IN connectors and USB interface is sent to the stereo bus or the C-R OUT connectors and PHONES jack (level meter). When the 2TR IN/USB switch is set to TO C-R, the signal is sent to the C-R OUT connectors and the PHONES jack.

9 ST/GROUP Switch

Determines whether the stereo bus or group bus signal is sent to the C-R OUT connectors and PHONES jack (level meter).

10 C-R/PHONES Control

Controls the level of the signal output to the PHONES jack and the C-R OUT L and R jacks.

11 Level Meter

This LED meter displays the level of the signal selected by the PFL, ST/GROUP, and 2TR IN/USB switches. The “0” LED corresponds to nominal level. The PEAK LED will flash red when the signal level approaches clipping level.

12 POWER Indicator

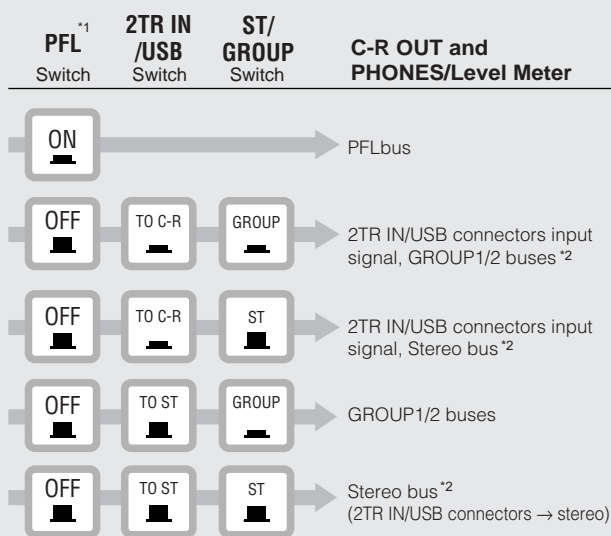
This indicator lights up when the mixer’s power is ON.

13 PHONES Jack

Connector for headphones. This is a stereo phone-type output jack. The PHONES jack outputs the same signal that is output via the C-R OUT connectors.

NOTE The signal monitored by these jacks is selected by the settings of the ST-GROUP toggle switch, the 2TR IN/USB switch, and the PFL switches on the input channels.

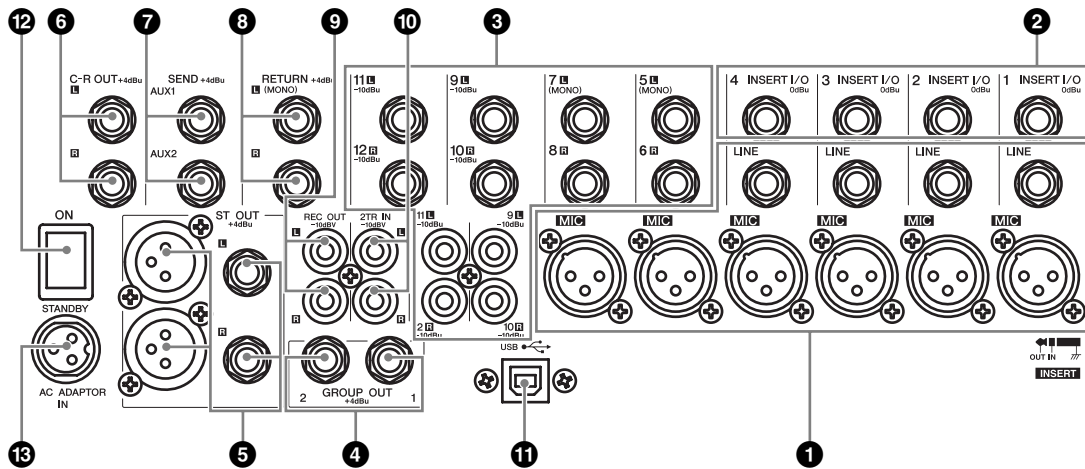
Switch combinations and the resulting signals sent to the C-R OUT connector and PHONES connector (level meter)



*1 The PFL signal takes priority when a PFL switch is on.

*2 The signal is a mix of the signals received via the 2TR IN/USB connector and the group or stereo bus.

Rear Input/Output Section



1 Channel Input Jacks

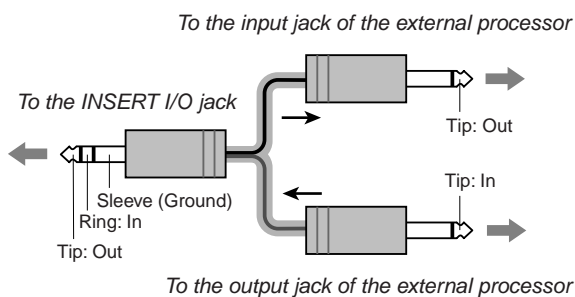
- **MIC jacks (CHs 1 to 4, 5/6, 7/8)**
These are balanced XLR-type microphone input jacks (1:Ground; 2:Hot; 3:Cold).
- **LINE jacks (CHs 1 to 4)**
These are balanced TRS phone-type line input jacks (T:Hot; R:Cold; S:Ground). You can connect either balanced or unbalanced phone plugs to these jacks.

NOTE Where an input channel provides both a MIC INPUT jack and a LINE INPUT jack, you may use either one of these jacks but you may not use both at the same time. Please connect to only one of these jacks on each channel.

2 INSERT I/O Jacks

Each of these jacks is positioned between the equalizer and fader of the corresponding input channel (CHs 1 to 4). These jacks can be used to independently connect these channels to devices such as graphic equalizers, compressors, and noise filters. These are TRS (tip, ring, sleeve) phone jacks that support bidirectional operation.

NOTE Connection to an INSERT I/O jack requires a special separately-sold insertion cable such as illustrated below.



NOTE The signal output from the INSERT I/O jacks is reverse-phased. This will not be a problem if connecting the jack to an effector. If using the jack to output to an external device, however, please be aware of possible phase conflicts with other signals.

3 Channel Input Jacks

These are unbalanced stereo line input jacks. Two jack types are provided: phone type (CHs 5/6 to 11/12) and RCA pin type (CHs 9/10, 11/12).

NOTE Where a channel provides both phone jacks and RCA pin jacks, you may use either one of these jacks but you may not use both at the same time. Please connect to only one of these jacks on each channel.

4 GROUP OUT (1, 2) Jacks

These are impedance-balanced phone-type output jacks that output the Group 1-2 signals. Use these jacks to connect to the input jacks of an MTR, external mixer, or other such device.

5 ST OUT (L, R) Jacks

These jacks deliver stereo output of the mixed signal. You use these jacks, for example, to connect to the power amplifier driving your main speakers. You also use these jacks when you wish to record the signal utilizing the level control applied by the ST Master fader in the Master Control section.

- **XLR jacks**
XLR-type balanced output jacks.
- **LINE jacks**
TRS phone-type balanced output jacks.

6 C-R OUT (L, R) Jacks

These are impedance-balanced phone-type output jacks. You use these jacks, for example, to connect to the monitor system.

NOTE The signal monitored by these jacks is selected by the settings of the ST-GROUP toggle switch, the 2TR IN /USB switch, and the PFL switches on the input channels.

7 SEND Jacks

AUX1 and AUX2 jacks

These are impedance balanced phone-type output jacks.

These jacks output the signals from the AUX1 and AUX2 buses, respectively. Use these jacks to output these signals to an effector or to a cue box or other such monitoring system.

8 RETURN L (MONO), R Jacks

These are unbalanced phone-type line input jacks. The signal received by these jacks is sent to the Stereo bus and the AUX1 and AUX2 buses. These jacks are typically used to receive a return signal from an external effector (reverb, delay, etc.).

NOTE These jacks can also be used as an auxiliary stereo input. If you connect to the L (MONO) jack only, the mixer will recognize the signal as monaural and will propagate the identical signal on both L and R jacks.

9 REC OUT (L, R) Jacks

By connecting these jacks to an external DAT recorder or cassette recorder, you can record the same signal that is being output from the ST OUT jacks.

- NOTE**
- The mixer's ST Master Fader has no effect on the signal output from these jacks. Be sure to make appropriate level adjustments at the recording device side.
 - These connectors output the same signal that sent to the computer via the USB interface.

10 2TR IN Jacks

These RCA pin jacks input a stereo sound source. Use these jacks when you want to connect a CD or DAT directly to the mixer for monitoring.

- NOTE**
- Level is controlled via the master section 2TR IN/USB control.
 - When a signal is being received both via the 2TR IN connectors and the USB interface, the received signals are mixed.

11 USB Connector

Connects to the computer via the supplied USB cable.



When connecting or disconnecting the USB cable be sure to turn the 2TR IN/USB control all the way down.

12 POWER Switch

Use this switch to set mixer power to ON or STANDBY.



Note that trace current continues to flow while the switch is in the STANDBY position. If you do not plan to use the mixer again for a long while, be sure to unplug the adaptor from the wall outlet.

13 AC ADAPTOR IN Connector

Connects to the included PA-20 power adaptor (see page 6).



Use only the PA-20 adaptor included with this mixer. Use of a different adaptor may result in fire or electric shock.

Connector Polarities

		INPUT	OUTPUT
MIC INPUT, ST OUT	Pin 1: Ground Pin 2: Hot (+) Pin 3: Cold (-)		
LINE INPUT (monaural channels), GROUP OUT, ST OUT, C-R OUT AUX1, AUX2*	Tip: Hot (+) Ring: Cold (-) Sleeve: Ground		
INSERT I/O	Tip: Output Ring: Input Sleeve: Ground		
PHONES	Tip: L Ring: R Sleeve: Ground		
RETURN LINE INPUT (stereo channels)	Tip: Hot Sleeve: Ground		

*These jacks will also accept connection to monaural phone plugs. If you use monaural plugs, the connection will be unbalanced.

Setting Up

Setup Procedure

- 1** Before connecting to microphones and instruments, be sure that all devices are turned off. Also be sure that all of the mixer's channel faders and master control faders are set all the way down.
- 2** For each connection, connect one end of the cable to the relevant microphone or instrument and connect the other end to the appropriate input jack on the mixer.

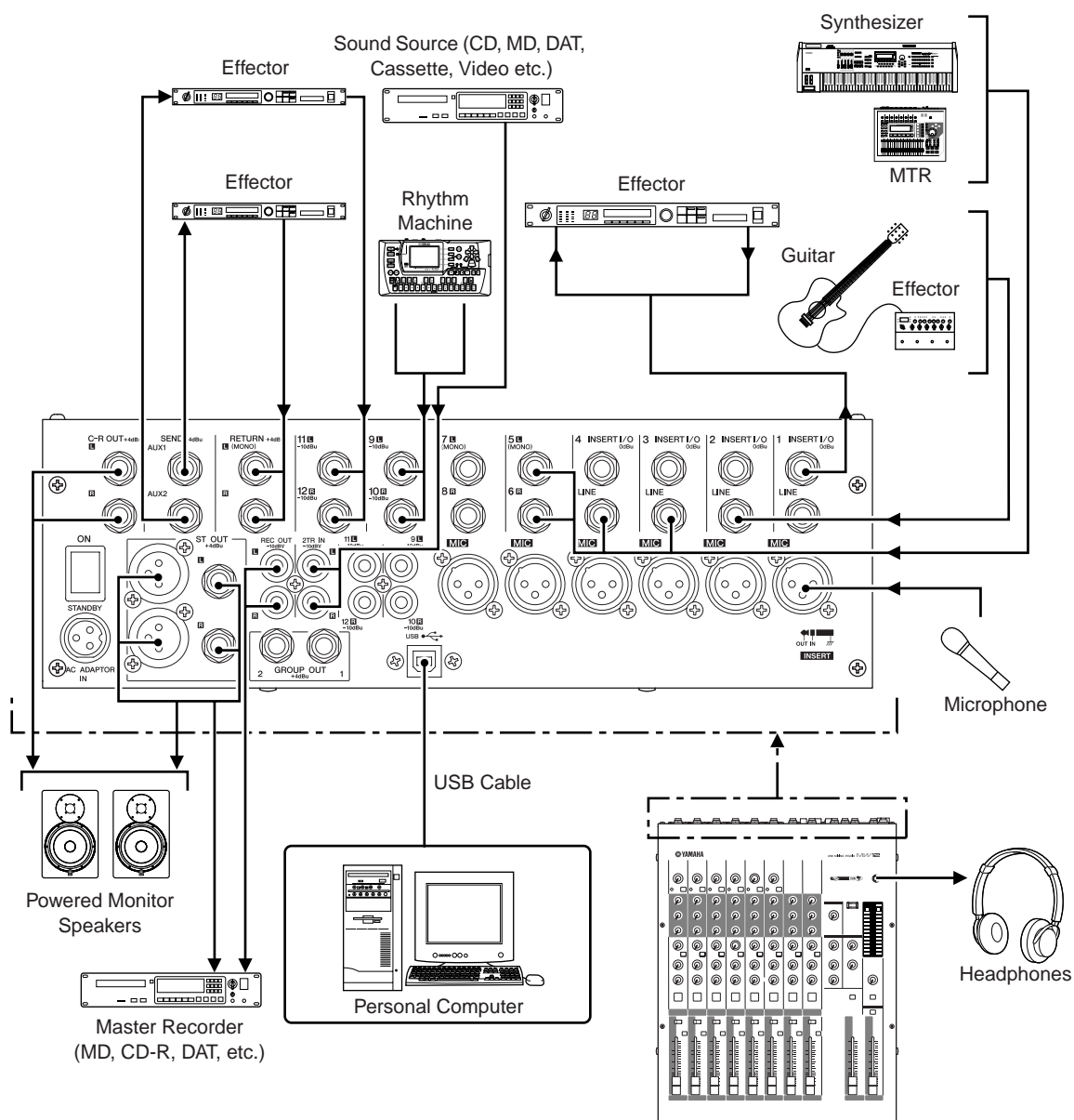
NOTE Where an input channel provides both a MIC INPUT jack and a LINE INPUT jack, you may use either one of these jacks but you may not use both at the same time. Please connect to only one of these jacks on each channel.

- 3** To avoid causing damage to speakers, power up the devices in the following order: **Peripheral devices → mixer → power amps (or powered speakers).**

NOTE When shutting the system down, turn off the power in the opposite order: Power amps (powered speakers) → mixer → peripheral devices.

Setup Examples

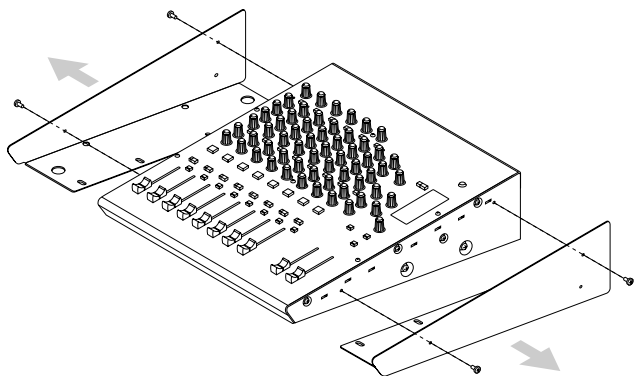
■ Home Recording



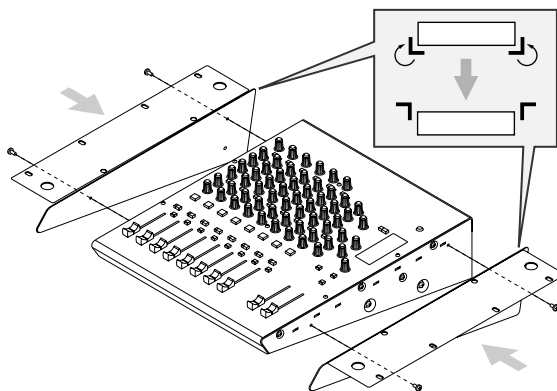
Rack Mounting

■ Mounting the MW12

- 1** Two metal rack-mount supports are screwed onto the unit. Use a screwdriver to remove these supports.



- 2** Turn the supports over, and fasten them into place again using the same screws.



- 3** Mount the unit into the rack, and fasten it into place.



Do not install the mixer near power amps or other heat-generating devices.

Troubleshooting

The MW12 mixer won't turn on.

- Is the supplied power adaptor properly plugged into both the mixer and an appropriate AC wall outlet?

The system doesn't work properly.

- Are the USB cable and all necessary audio cables properly connected?
- Are you using a USB hub?
USB hubs can interfere with proper operation, so try connecting the MW12 directly to a USB port on the computer. If the computer has multiple USB ports, try a different USB port.
- Are you using other USB devices at the same time?
If so, try removing the other device(s) and connecting only the Yamaha USB device.

No sound.

- Are your speaker cables connected properly, or are they shorted?
- Are the volume controls of your sources, audio devices, applications software, computer operating system, etc., set at appropriate levels?
- Is the output of your computer operating system muted?
- Do you have several applications running at the same time?
Be sure to quit all applications you are not using.
- Is the sound output of your computer operating system assigned properly?

Windows:

- 1 From the [Start] menu click [Control Panel], then double-click "Sounds and Audio Devices" icon to open the "Sounds and Audio Devices Properties" dialog window.
- 2 Click the "Audio" tab.
- 3 Set "Sound playback: Default device" and "Sound recording: Default device" to "USB Audio CODEC."
- 4 Click [OK].

Macintosh:

- 1 Select [System Preferences ...] from the Apple menu and then select "Sound" to open the "Sound" dialog window.
 - 2 Click the "Input" tab and under "Choose a device for sound input" select "USB Audio CODEC."
 - 3 Click the "Output" tab and under "Choose a device for sound output" select "USB Audio CODEC."
- Is the sound output of the Cubase LE application assigned properly?
For setup details refer to page 10 of the Quick Guide.

The recorded sound is too low in level.

- Is the computer's output level setting too low?
We recommend that you set the computer output to the maximum level.

Windows:

- 1 From the [Start] menu click [Control Panel], then double-click "Sounds and Audio Devices" icon to open the "Sounds and Audio Devices Properties" dialog window.
- 2 Double click the "Volume" tab.
- 3 Set "Device volume" to "High."

Macintosh:

- 1 Select [System Preferences ...] from the Apple menu and then select "Sound" to open the "Sound" dialog window.
 - 2 Click the "Output" tab and set the volume slider at the bottom of the window to its maximum level.
- Have you connected or disconnected the USB cable while Cubase LE is running?
Doing so can sometimes cause the Windows output level to be reset to its default level. Check and raise the output level if necessary.

The sound is intermittent or distorted.

- Is the PEAK indicator flashing red?
You might have to lower GAIN control or channel fader levels to avoid distortion.
- Does the computer you are using meet the listed system requirements?
Refer to "System Requirements" on page 6 for details.
- Are any other applications, device drivers, or USB devices (scanners, printers, etc.) running at the same time?
Be sure to quit all applications you are not using.
- Are you playing back a large number of audio tracks?
The number of tracks you can play at the same time will depend on the performance of the computer you are using. You may experience intermittent playback if you exceed your computer's capabilities.

- **Are you recording or playing long continuous sections of audio?**

The audio data processing capabilities of your computer will depend on a number of factors including CPU speed and access to external devices.

On Windows computers, changing some settings as outlined below can improve performance.

- 1** Click [Control Panel] from the [Start] menu, and double click the "Sounds and Audio Devices" icon to open the "Sounds and Audio Devices Properties" dialog.
- 2** Click the "Volume" tab and click [Advanced] in "Speaker Settings." The "Advanced Audio Properties" dialog will open.
- 3** Click the "Performance" tab. Set "Hardware Acceleration" to "Full," and "Sample Rate Conversion Quality" to "Good."

Don't change these settings if you are not familiar with your computer's operating system.

Check that the file system is set properly, and make sure that you have a plenty of free memory (more than 128 MB). If the wave files you are recording or playing are not too large, changing the virtual memory settings can sometimes improve audio performance. In some cases it might be necessary to update your hard disk controller, device drivers, or BIOS. Refer to your computer's support center or support page on the web for more information.

- **Try adding memory.**

Adding more RAM memory can significantly increase your computer's audio performance. Refer to your computer's owner's manual for information on installing and setting up extra memory.

There is a delay when playing a software synthesizer via a MIDI keyboard (latency).

- Check the URL listed below for the latest information.
<http://www.yamahasynth.com/>

Appendix

Specifications

■ Electrical Characteristics

	Conditions	MIN	TYP	MAX	UNIT
Total Harmonic Distortion (MIC to ST OUT)	(THD+N) 20 Hz-20 kHz @ +14 dBu 600 ohms, GAIN controls at minimum level, all faders at nominal level			0.1	%
Frequency Response (CH INPUT 1-11/12 to ST OUT, GROUP OUT, AUX SEND, C-R OUT, REC OUT)	20 Hz-20 kHz, nominal output level@1kHz, 600 ohms (ST OUT), 10 k ohms (GROUP OUT, AUX SEND, C-R OUT, REC OUT), GAIN controls at minimum level (CH INPUT 1-7/8), all faders at nominal level	-3	0	1	dB
Hum & Noise Rs=150 ohms, Gain=Maximum, Hum & Noise are measured with a -6 dB/octave filter @12.7 kHz; equivalent to a 20 kHz filter with infinite dB/octave attenuation.	Equivalent Input Noise (CH INPUT 1-4 MIC)			-128	dBu
	Residual Output Noise 600 ohms (ST OUT)			-100	dBu
	ST, GROUP master faders at nominal level and all channel GROUP switches and ST switches are off. (ST, GROUP OUT)			-88 (92 dB S/N)	dBu
	AUX master control at nominal level and all channel mix controls at minimum level. (AUX SEND)			-81 (85 dB S/N)	dBu
Maximum Voltage Gain (1 kHz) PAN/BAL: panned hard left or hard right.	CH INPUT 1-4 MIC to CH INSERT OUT (10 k ohms), Rs=150 ohms, GAIN controls at maximum level		60		dB
	CH INPUT 1-7/8 MIC to ST OUT (600 ohms), GROUP OUT (10 k ohms), Rs=150 ohms, GAIN controls at maximum level		84		dB
	CH INPUT 1-7/8 MIC to ST OUT (600 ohms), GROUP to ST, Rs=150 ohms, GAIN controls at maximum level		94		dB
	CH INPUT 1-7/8 MIC to REC OUT (10 k ohms), Rs=150 ohms, GAIN controls at maximum level		62.2		dB
	CH INPUT 1-4 MIC to AUX SEND (10 k ohms), Rs=150 ohms, GAIN controls at maximum level, PRE		76		dB
	CH INPUT 1-4 MIC to AUX SEND (10 k ohms), Rs=150 ohms, GAIN controls at maximum level, POST		86		dB
	CH INPUT 5/6-7/8 LINE to ST OUT (600 ohms), GROUP OUT (10 k ohms), Rs=150 ohms, GAIN controls at maximum level		58		dB
	CH INPUT 5/6-7/8 LINE to AUX SEND (10 k ohms), Rs=150 ohms, GAIN controls at maximum level, PRE		47		dB
	CH INPUT 5/6-7/8 LINE to AUX SEND (10 k ohms), Rs=150 ohms, GAIN controls at maximum level, POST		57		dB
	CH INPUT 9/10-11/12 to ST OUT (600 ohms), GROUP OUT (10 k ohms), Rs=150 ohms, GAIN controls at maximum level		34		dB
	RETURN to ST OUT (600 ohms), Rs=150 ohms		16		dB
	RETURN to AUX SEND(10 k ohms), Rs=150 ohms		9		dB
	2TR IN to ST OUT (600 ohms), Rs=600 ohms		27.8		dB
	Crosstalk (1 kHz)	Adjacent inputs			-70
input to output				-70	dB

Where 0 dBu = 0.775 Vrms

Output impedance of signal generator: 150 ohms

■ General Specifications

Monaural/Stereo CH High Pass Filter	80 Hz 12 dB/octave
Monaural/Stereo CH Equalization Turn over/roll-off frequency of shelving, 3 dB below maximum variable level	±15 dB (Max. Variation) HIGH: 10 kHz (shelving) MID: 2.5 kHz (peaking) LOW: 100 Hz (shelving)
Phantom Power	Supplied when Phantom +48 V switch is ON. (XLR-type input jacks)
Monaural/Stereo Input PEAK Indicator	On each channel: red indicator lights if post-EQ signal (on ST channels, if either post-EQ signal or post-mic-amp signal) comes within 3 dB of the clipping level.
USB Audio	Input/Output: 44.1/48 kHz
Included Accessories	Power adaptor (PA-20), CD-ROM, USB cable, Owner's Manual
Power Consumption	29 W
Dimensions (W × H × D)	322 mm × 108 mm × 416.6 mm
Net Weight	5 kg
Temperature Range	Operating temperature: 0 to 40 °C, Storage temperature: -20 to 60 °C

■ Analog Input Specifications

Input Connectors	Gain	Input Impedance	Appropriate Impedance	Sensitivity*	Nominal Level	Max. Before Clipping	Connector Specifications
MIC INPUT (CHs 1 to 4)	-60	3 k ohms	50 – 600 ohms mic	-80 dBu (0.078 mV)	-60 dBu (0.775 mV)	-40 dBu (7.75 mV)	XLR-3-31 type (balanced)
	-16			-36 dBu (12.3 mV)	-16 dBu (123 mV)	+4 dBu (1.23 V)	
LINE INPUT (CHs 1 to 4)	-34	10 k ohms	600 ohms line	-54 dBu (1.55 mV)	-34 dBu (15.5 mV)	-14 dBu (155 mV)	Phone jack (TRS) (balanced [T: hot; R: cold; S: ground])
	+10			-10 dBu (245 mV)	+10 dBu (2.45 V)	+30 dBu (24.5 V)	
ST CH MIC INPUT (CH5(L)/CH6(R), CH7(L)/CH8(R))	-60	3 k ohms	50 – 600 ohms mic	-80 dBu (0.078 mV)	-60 dBu (0.775 mV)	-40 dBu (7.75 mV)	XLR-3-31 type (balanced)
	-16			-36 dBu (12.3 mV)	-16 dBu (123 mV)	-10 dBu (245 mV)	
ST CH LINE INPUT (CH5(L)/CH6(R), CH7(L)/CH8(R))	-34	10 k ohms	600 ohms line	-54 dBu (1.55 mV)	-34 dBu (15.5 mV)	-14 dBu (155 mV)	Phone jack (unbalanced)
	+10			-10 dBu (245 mV)	+10 dBu (2.45 V)	+30 dBu (24.5 V)	
ST CH INPUT (CH9(L)/CH10(R), CH11(L)/CH12(R))		10 k ohms	600 ohms line	-30 dBu (24.5 mV)	-10 dBu (245 mV)	+10 dBu (2.45 V)	Phone jack (unbalanced); RCA pin jack
CH INSERT IN (CHs 1 to 4)		10 k ohms	600 ohms line	-20 dBu (77.5 mV)	0 dBu (0.775 V)	+20 dBu (7.75 V)	Phone jack (TRS) (unbalanced [T: out; R: in; S: ground])
RETURN (L, R)		10 k ohms	600 ohms line	-12 dBu (195 mV)	+4 dBu (1.23 V)	+24 dBu (12.3 V)	Phone jack (unbalanced)
2TR IN (L, R)		10 k ohms	600 ohms line	-26 dBV (50.1 mV)	-10 dBV (316 mV)	+10 dBV (3.16 V)	RCA pin jack

Where 0 dBu=0.775 Vrms and 0 dBV=1 Vrms

* Input sensitivity: the lowest level that will produce an output of +4 dBu (1.23V) or the nominal output level when the unit is set to maximum gain. (All faders and level controls are maximum position.)

■ Analog Output Specifications

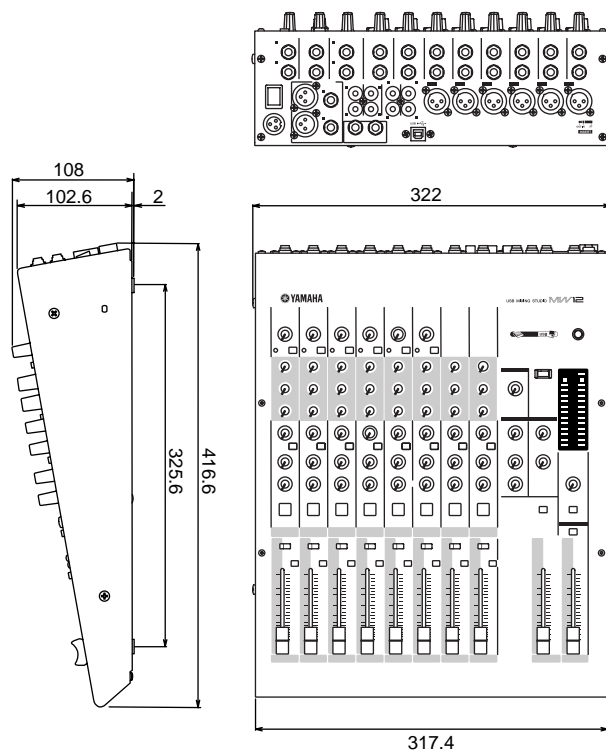
Output Connectors	Output Impedance	Appropriate Impedance	Nominal Level	Max. Before Clipping	Connector Specifications
ST OUT (L, R)	75 ohms	600 ohms line	+4 dBu (1.23 V)	+24 dBu (12.3 V)	XLR-3-32 type (balanced) Phone jack (TRS) (balanced [T: hot; R: cold; S: ground])
GROUP OUT (1-2) AUX SEND (1, 2)	150 ohms	10 k ohms line	+4 dBu (1.23 V)	+20 dBu (7.75 V)	Phone jack (TRS) (impedance balanced [T: hot; R: cold; S: ground])
CH INSERT OUT (CHs 1 to 4)	150 ohms	10 k ohms line	0 dBu (0.775 V)	+20 dBu (7.75 V)	Phone jack (TRS) (unbalanced [T: out; R: in; S: ground])
REC OUT (L, R)	600 ohms	10 k ohms line	-10 dBV (316 mV)	+10 dBV (3.16 V)	RCA pin jack
C-R OUT (L, R)	150 ohms	10 k ohms line	+4 dBu (1.23 V)	+20 dBu (7.75 V)	Phone jack (TRS) (impedance balanced [T: hot; R: cold; S: ground])
PHONES	100 ohms	40 ohms phone	3 mW	75 mW	Stereo phone jack

Where 0 dBu=0.775 Vrms and 0 dBV=1 Vrms

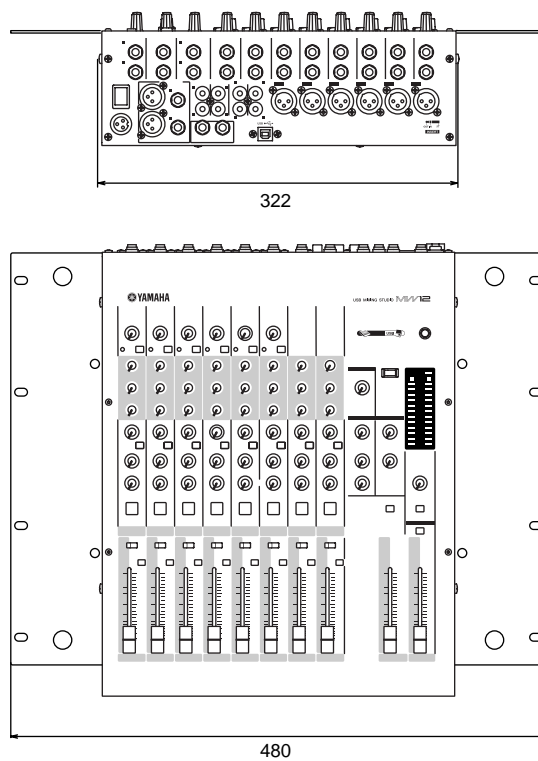
■ Digital Input/Output Specifications

Connector	Format	Data Length	Connector Specification
USB	USB Audio 1.1	16 bit	USB B type

Dimensional Diagrams



When mounted on rack



Unit: mm

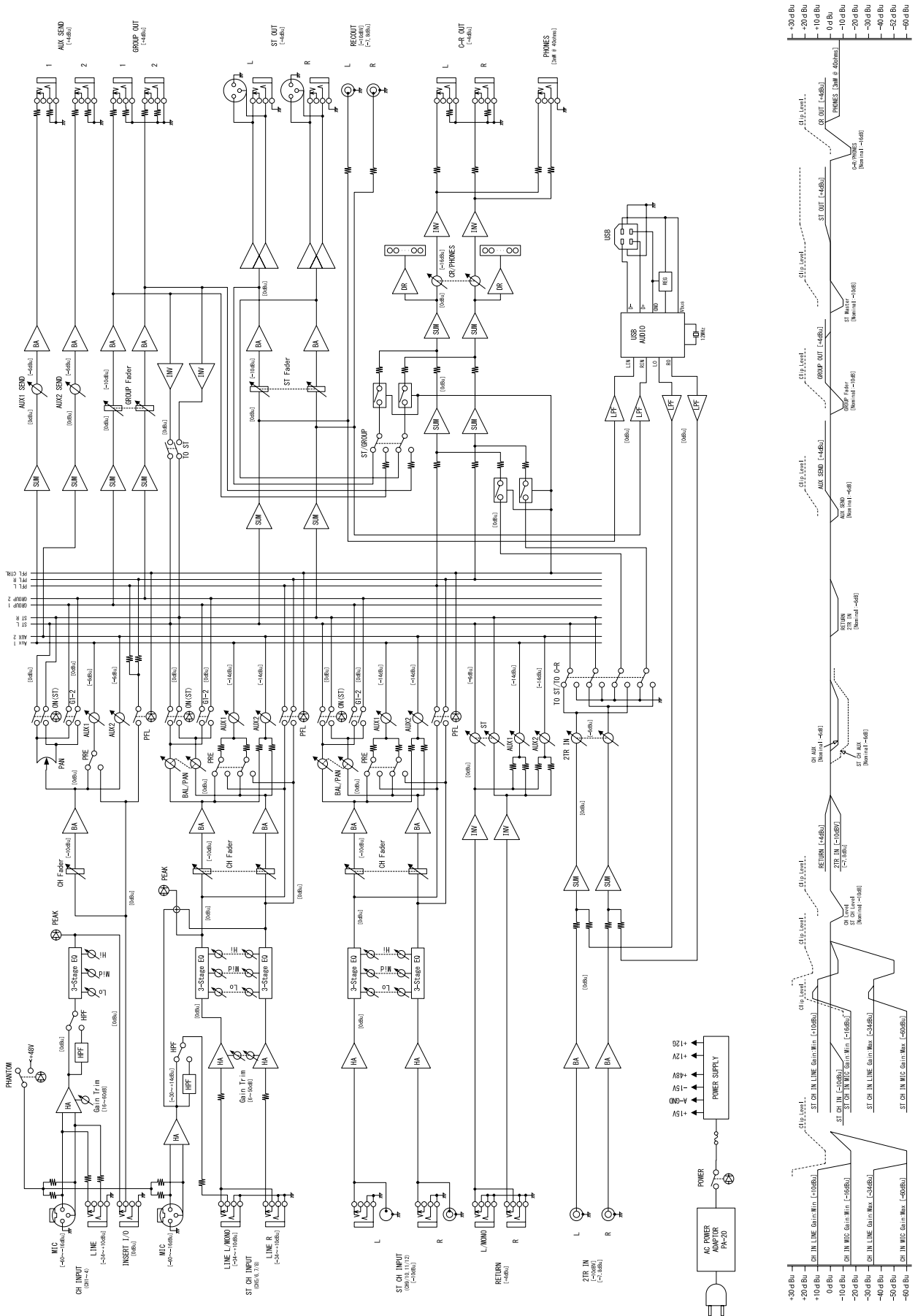
English

Deutsch

Français

Español

Block Diagram and Level Diagram



English

Deutsch

Français

Español

ATTENTION

SOFTWARE LICENSE AGREEMENT

PLEASE READ THIS SOFTWARE LICENSE AGREEMENT (“AGREEMENT”) CAREFULLY BEFORE USING THIS SOFTWARE. YOU ARE ONLY PERMITTED TO USE THIS SOFTWARE PURSUANT TO THE TERMS AND CONDITIONS OF THIS AGREEMENT. THIS AGREEMENT IS BETWEEN YOU (AS AN INDIVIDUAL OR LEGAL ENTITY) AND YAMAHA CORPORATION (“YAMAHA”).

BY BREAKING THE SEAL OF THIS PACKAGE YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THIS LICENSE. IF YOU DO NOT AGREE WITH THE TERMS, DO NOT INSTALL, COPY, OR OTHERWISE USE THIS SOFTWARE.

1. GRANT OF LICENSE AND COPYRIGHT

Yamaha hereby grants you the right to use one copy of the software program(s) and data (“SOFTWARE”) accompanying this Agreement. The term SOFTWARE shall encompass any updates to the accompanying software and data. The SOFTWARE is owned by Yamaha and/or Yamaha’s licensor(s), and is protected by relevant copyright laws and all applicable treaty provisions. While you are entitled to claim ownership of the data created with the use of SOFTWARE, the SOFTWARE will continue to be protected under relevant copyrights.

- **You may** use the SOFTWARE on a **single computer**.
- **You may** make one copy of the SOFTWARE in machine-readable form for backup purposes only, if the SOFTWARE is on media where such backup copy is permitted. On the backup copy, you must reproduce Yamaha’s copyright notice and any other proprietary legends that were on the original copy of the SOFTWARE.
- **You may** permanently transfer to a third party all your rights in the SOFTWARE, provided that you do not retain any copies and the recipient reads and agrees to the terms of this Agreement.

2. RESTRICTIONS

- **You may not** engage in reverse engineering, disassembly, decompilation or otherwise deriving a source code form of the SOFTWARE by any method whatsoever.
- **You may not** reproduce, modify, change, rent, lease, or distribute the SOFTWARE in whole or in part, or create derivative works of the SOFTWARE.
- **You may not** electronically transmit the SOFTWARE from one computer to another or share the SOFTWARE in a network with other computers.
- **You may not** use the SOFTWARE to distribute illegal data or data that violates public policy.
- **You may not** initiate services based on the use of the SOFTWARE without permission by Yamaha Corporation.

Copyrighted data, including but not limited to MIDI data for songs, obtained by means of the SOFTWARE, are subject to the following restrictions which you must observe.

- Data received by means of the SOFTWARE may not be used for any commercial purposes without permission of the copyright owner.
- Data received by means of the SOFTWARE may not be duplicated, transferred, or distributed, or played back or performed for listeners in public without permission of the copyright owner.
- The encryption of data received by means of the SOFTWARE may not be removed nor may the electronic watermark be modified without permission of the copyright owner.

3. TERMINATION

This Agreement becomes effective on the day that you receive the SOFTWARE and remains effective until terminated. If any copyright law or provisions of this Agreement is violated, the Agreement shall terminate automatically and immediately without notice from Yamaha. Upon such termination, you must immediately destroy the licensed SOFTWARE, any accompanying written documents and all copies thereof.

4. LIMITED WARRANTY ON MEDIA

As to SOFTWARE sold on tangible media, Yamaha warrants that the tangible media on which the SOFTWARE is recorded will be free from defects in materials and workmanship under normal use for a period of fourteen (14) days from the date of receipt, as evidenced by a copy of the receipt. Yamaha’s entire liability and your exclusive remedy will be replacement of the defective media if it is returned to Yamaha or an authorized Yamaha dealer within fourteen days with a copy of the receipt. Yamaha is not responsible for replacing media damaged by accident, abuse or misapplication. TO THE FULLEST EXTENT PERMITTED BY LAW, YAMAHA EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES ON THE TANGIBLE MEDIA, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

5. DISCLAIMER OF WARRANTY ON SOFTWARE

You expressly acknowledge and agree that use of the SOFTWARE is at your sole risk. The SOFTWARE and related documentation are provided “AS IS” and without warranty of any kind. NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, YAMAHA EXPRESSLY DISCLAIMS ALL WARRANTIES AS TO THE SOFTWARE, EXPRESS, AND IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS. SPECIFICALLY, BUT WITHOUT LIMITING THE FOREGOING, YAMAHA DOES NOT WARRANT THAT THE SOFTWARE WILL MEET YOUR REQUIREMENTS, THAT THE OPERATION OF THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE, OR THAT DEFECTS IN THE SOFTWARE WILL BE CORRECTED.

6. LIMITATION OF LIABILITY

YAMAHA'S ENTIRE OBLIGATION HEREUNDER SHALL BE TO PERMIT USE OF THE SOFTWARE UNDER THE TERMS HEREOF. IN NO EVENT SHALL YAMAHA BE LIABLE TO YOU OR ANY OTHER PERSON FOR ANY DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, EXPENSES, LOST PROFITS, LOST DATA OR OTHER DAMAGES ARISING OUT OF THE USE, MISUSE OR INABILITY TO USE THE SOFTWARE, EVEN IF YAMAHA OR AN AUTHORIZED DEALER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. In no event shall Yamaha's total liability to you for all damages, losses and causes of action (whether in contract, tort or otherwise) exceed the amount paid for the SOFTWARE.

7. THIRD PARTY SOFTWARE

Third party software and data ("THIRD PARTY SOFTWARE") may be attached to the SOFTWARE. If, in the written materials or the electronic data accompanying the Software, Yamaha identifies any software and data as THIRD PARTY SOFTWARE, you acknowledge and agree that you must abide by the provisions of any Agreement provided with the THIRD PARTY SOFTWARE and that the party providing the THIRD PARTY SOFTWARE is responsible for any warranty or liability related to or arising from the THIRD PARTY SOFTWARE. Yamaha is not responsible in any way for the THIRD PARTY SOFTWARE or your use thereof.

- Yamaha provides no express warranties as to the THIRD PARTY SOFTWARE. IN ADDITION, YAMAHA EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, as to the THIRD PARTY SOFTWARE.
- Yamaha shall not provide you with any service or maintenance as to the THIRD PARTY SOFTWARE.
- Yamaha is not liable to you or any other person for any damages, including, without limitation, any direct, indirect, incidental or consequential damages, expenses, lost profits, lost data or other damages arising out of the use, misuse or inability to use the THIRD PARTY SOFTWARE.

8. GENERAL

This Agreement shall be interpreted according to and governed by Japanese law without reference to principles of conflict of laws. Any dispute or procedure shall be heard before the Tokyo District Court in Japan. If for any reason a court of competent jurisdiction finds any portion of this Agreement to be unenforceable, the remainder of this Agreement shall continue in full force and effect.

9. COMPLETE AGREEMENT

This Agreement constitutes the entire agreement between the parties with respect to use of the SOFTWARE and any accompanying written materials and supersedes all prior or contemporaneous understandings or agreements, written or oral, regarding the subject matter of this Agreement. No amendment or revision of this Agreement will be binding unless in writing and signed by a fully authorized representative of Yamaha.

ACHTUNG

SOFTWARE-LIZENZVEREINBARUNG

BITTE LESEN SIE SORGFÄLTIG DIESE LIZENZVEREINBARUNG ("VEREINBARUNG"), BEVOR SIE DIE SOFTWARE BENUTZEN. DER GEBRAUCH DIESER SOFTWARE IST IHNEN NUR GEMÄSS DEN BEDINGUNGEN UND VORAUSSETZUNGEN DIESER VEREINBARUNG GESTATTET. DIES IST EINE VEREINBARUNG ZWISCHEN IHNEN (ALS PRIVATPERSON ODER ALS NATÜRLICHE PERSON) UND DER YAMAHA CORPORATION ("YAMAHA").

DURCH DAS ÖFFNEN DIESER VERSIEGELTEN VERPACKUNG BRINGEN SIE ZUM AUSDRUCK, AN DIE BEDINGUNGEN DIESER LIZENZ GEBUNDEN ZU SEIN. WENN SIE NICHT MIT DEN BEDINGUNGEN EINVERSTANDEN SIND, INSTALLIEREN ODER KOPIEREN SIE DIESE SOFTWARE NICHT, UND VERWENDEN SIE SIE AUF KEINE ANDERE WEISE.

1. GEWÄHRUNG EINER LIZENZ UND COPYRIGHT

Yamaha gewährt Ihnen hiermit das Recht, eine einzige Kopie der mitgelieferten Software-Programme und Daten ("SOFTWARE") zu nutzen. Der Begriff SOFTWARE umfasst alle Updates der mitgelieferten Software und Daten. Die SOFTWARE gehört Yamaha bzw. den Yamaha-Lizenzgebern und ist durch die entsprechenden Copyright-Gesetze und internationalen Abkommen geschützt. Sie haben zwar das Recht, Besitzansprüche auf die durch den Gebrauch der SOFTWARE erstellten Daten zu erheben, doch die SOFTWARE selbst bleibt weiterhin durch das entsprechende Copyright geschützt.

- **Sie dürfen** die SOFTWARE auf **genau einem Computer** verwenden.
- **Sie dürfen** ausschließlich zu Backup-Zwecken eine Kopie der SOFTWARE in maschinenlesbarer Form erstellen, wenn sich die SOFTWARE auf einem Medium befindet, welches eine solche Sicherungskopie erlaubt. Auf der erstellten Backup-Kopie müssen Sie den Urheberrechtshinweis von Yamaha und alle anderen Eigentumsrechte der SOFTWARE betreffenden Hinweise wiedergeben.
- **Sie dürfen** dauerhaft all Ihre Rechte an der SOFTWARE an Dritte übertragen, jedoch nur, falls Sie keine Kopien zurückbehalten und der Empfänger die Lizenzvereinbarung liest und dieser zustimmt.

2. BESCHRÄNKUNGEN

- **Sie dürfen nicht** die SOFTWARE einem Reverse Engineering unterziehen, sie dekompileieren oder auf andere Weise an deren Quell-Code gelangen.
- Es ist Ihnen **nicht gestattet**, die SOFTWARE als Ganzes oder teilweise zu vervielfältigen, zu modifizieren, zu ändern, zu vermieten, zu verleasen oder auf anderen Wegen zu verteilen oder abgeleitete Produkte aus der SOFTWARE zu erstellen.
- **Sie dürfen nicht** die SOFTWARE elektronisch von einem Computer auf einen anderen übertragen oder sie in ein Netzwerk mit anderen Computern einspeisen.
- **Sie dürfen nicht** die SOFTWARE verwenden, um illegale oder gegen die guten Sitten verstoßende Daten zu verbreiten.
- **Sie dürfen nicht** auf dem Gebrauch der SOFTWARE basierende Dienstleistungen erbringen ohne die Erlaubnis der Yamaha Corporation.

Urheberrechtlich geschützte Daten, einschließlich, aber nicht darauf beschränkt, MIDI-Songdateien, die mithilfe dieser SOFTWARE erstellt werden, unterliegen den nachfolgenden Beschränkungen, die vom Benutzer zu beachten sind.

- Die mithilfe dieser SOFTWARE erhaltenen Daten dürfen ohne Erlaubnis des Urheberrechtinhabers nicht für kommerzielle Zwecke verwendet werden.
- Die mithilfe dieser SOFTWARE erhaltenen Daten dürfen nicht dupliziert, übertragen, verteilt oder einem öffentlichen Publikum vorgespielt oder dargeboten werden, es sei denn, es liegt eine Genehmigung durch den Inhaber der Urheberrechte vor.
- Weder darf die Verschlüsselung der mithilfe dieser SOFTWARE erhaltenen Daten entfernt, noch darf das elektronische Wasserzeichen ohne Genehmigung des Inhabers der Urheberrechte verändert werden.

3. BEENDIGUNG DES VERTRAGSVERHÄLTNISSSES

Diese Lizenzvereinbarung tritt am Tag des Erhalts der SOFTWARE in Kraft und bleibt bis zur Beendigung wirksam. Wenn eines der Urheberrechts-Gesetze oder eine Maßgabe dieser Vereinbarung verletzt wird, endet die Vereinbarung automatisch und sofort ohne Vorankündigung durch Yamaha. In diesem Fall müssen Sie die lizenzierte SOFTWARE und die mitgelieferten Unterlagen und alle Kopien davon unverzüglich vernichten.

4. BESCHRÄNKTE GARANTIE AUF MEDIEN

Bezüglich SOFTWARE, die auf physikalischen Medien vertrieben wird, garantiert Yamaha, dass die physikalischen Medien, auf denen die SOFTWARE aufgezeichnet wurde, für einen Zeitraum von vierzehn (14) Tagen nach dem per Kaufbeleg/Lieferschein nachweisbaren Empfangsdatum und bei normalem Gebrauch frei von Herstellungs- und Materialfehlern sind. Der volle Umfang der Verantwortung von Yamaha und Ihre einzige Abhilfemöglichkeit ist der Ersatz des defekten Mediums oder der defekten Medien durch Einsendung an Yamaha oder einen autorisierten Vertragshändler von Yamaha innerhalb von vierzehn Tagen zusammen mit einer Kopie des Kaufbelegs/Lieferscheins. Yamaha ist nicht zum Ersatz von Medien verpflichtet, die durch Unfälle, Misbrauch oder fehlerhafte Anwendung beschädigt wurden. YAMAHA SCHLIESST UNTER MAXIMALER AUSSCHÖPFUNG DES GELTENDEN RECHTS AUSDRÜCKLICH JEGLICHE STILLSCHWEIGENDEN GARANTIEEN AUF PHYSIKALISCHE MEDIEN AUS, EINSCHLIESSLICH STILLSCHWEIGENDER GARANTIEEN FÜR ALLGEMEINE GEBRAUCHSTAUGLICHKEIT ODER DIE TAUGLICHKEIT FÜR EINEN BESTIMMTEN EINSATZZWECK.

5. BESCHRÄNKTE GARANTIE AUF DIE SOFTWARE

Sie erkennen ausdrücklich an, dass der Gebrauch der SOFTWARE ausschließlich auf eigene Gefahr erfolgt. Die SOFTWARE und ihre Anleitungen werden Ihnen ohne Mängelgewähr oder andere Garantien zur Verfügung gestellt. UNGEACHTET DER ANDEREN BESTIMMUNGEN DIESER LIZENZVEREINBARUNG WERDEN VON YAMAHA KEINE AUSDRÜCKLICHEN ODER STILLSCHWEIGENDEN GARANTIE HINSICHTLICH DIESER SOFTWARE ÜBERNOMMEN, EINSCHLIESSLICH, ABER NICHT BESCHRÄNKT AUF STILLSCHWEIGENDE GARANTIE FÜR ALLGEMEINE GEBRAUCHSTAUGLICHKEIT ODER DIE TAUGLICHKEIT FÜR EINEN BESTIMMTEN EINSATZZWECK ODER DIE NICHTVERLETZUNG DER RECHTE DRITTER. BESONDERS, ABER OHNE DAS OBENGENANNT EIZUSCHRÄNKEN, GARANTIERT YAMAHA NICHT, DASS DIE SOFTWARE IHRE ANSPRÜCHE ERFÜLLT, DASS DER BETRIEB DER SOFTWARE OHNE UNTERBRECHUNGEN ODER FEHLERFREI ERFOLGT ODER DASS FEHLER IN DER SOFTWARE BESEITIGT WERDEN.

6. HAFTUNGSBESCHRÄNKUNG

YAMAHA GEHT DIE NACHFOLGEND SPEZIFIZIERTE VERPFLICHTUNG EIN, DIE VERWENDUNG DER SOFTWARE UNTER DEN GENANNTEN BEDINGUNGEN ZU ERLAUBEN. YAMAHA ÜBERNIMMT IHNEN GEGENÜBER ODER GEGENÜBER DRITTEN IN KEINEM FALL DIE HAFTUNG FÜR IRGENDWELCHE SCHÄDEN EINSCHLIESSLICH, JEDOCH NICHT BESCHRÄNKT AUF DIREKT ODER BEILÄUFIG ENTSTANDENE SCHÄDEN ODER FOLGESCHÄDEN, AUFWENDUNGEN, ENTGANGENE GEWINNE, DATENVERLUSTE ODER ANDERE SCHÄDEN, DIE INFOLGE DER VERWENDUNG, DES MISSBRAUCHS ODER DER UNMÖGLICHKEIT DER VERWENDUNG DER SOFTWARE ENTSTEHEN KÖNNEN, SELBST WENN YAMAHA ODER EIN AUTHORIZIERTER HÄNDLER AUF DIE MÖGLICHKEIT SOLCHER SCHÄDEN AUFMERKSAM GEMACHT WURDE. In keinem Fall überschreiten Ihre Ansprüche gegen Yamaha aufgrund von Schäden, Verlusten oder Klageansprüchen (aus Vertrag, Schadensersatz oder anderen) den Kaufpreis der SOFTWARE.

7. SOFTWARE DRITTER

Möglicherweise werden der SOFTWARE Daten und Software Dritter beigefügt ("SOFTWARE DRITTER"). Wenn in der schriftlichen Dokumentation oder der die Software begleitenden elektronischen Daten irgendwelche Software und Daten von Yamaha als SOFTWARE DRITTER bezeichnet wird, erkennen Sie die Bestimmungen aller mit der SOFTWARE DRITTER mitgelieferten Vereinbarungen an und erkennen an, dass der Hersteller der SOFTWARE DRITTER verantwortlich ist für etwaige Garantien oder Haftungen für die SOFTWARE DRITTER. Yamaha ist in keiner Weise verantwortlich für die SOFTWARE DRITTER oder deren Gebrauch durch Sie.

- Yamaha gibt keine ausdrücklichen Zusicherungen und vertraglichen Haftungen bezüglich der SOFTWARE DRITTER. ZUSÄTZLICH VERNEINT YAMAHA AUSDRÜCKLICH ALLE STILLSCHWEIGENDEN GARANTIE, EINSCHLIESSLICH, ABER NICHT BESCHRÄNKT AUF, STILLSCHWEIGENDE GARANTIE AUF ALLGEMEINE GEBRAUCHSTAUGLICHKEIT ODER DIE TAUGLICHKEIT FÜR EINEN BESTIMMTEN ZWECK DER SOFTWARE DRITTER.
- Yamaha bietet Ihnen keinen Service oder Hilfestellung zu der SOFTWARE DRITTER.
- Yamaha übernimmt Ihnen gegenüber oder gegenüber Dritten in keinem Fall die Haftung für irgendwelche Schäden einschließlich, jedoch nicht beschränkt, auf direkt oder beiläufig entstandene Schäden oder Folgeschäden, Aufwendungen, entgangene Gewinne, Datenverluste oder andere Schäden, die infolge der Verwendung, des Missbrauchs oder der Unmöglichkeit der Verwendung der SOFTWARE DRITTER entstehen können.

8. ALLGEMEINES

Diese Vereinbarung ist im Einklang mit dem japanischen Recht zu interpretieren und wird von diesem beherrscht, ohne einen Bezug auf jegliche Prinzipien eines Rechtskonflikts herzustellen. Alle Rechtsstreitigkeiten und -verfahren sind am Tokyo District Court in Japan durchzuführen. Falls aus irgendeinem Grund Teile dieser Lizenzvereinbarung von einem zuständigen Gericht für unwirksam erklärt werden sollten, dann sollen die übrigen Bestimmungen der Lizenzvereinbarung weiterhin voll wirksam sein.

9. VOLLSTÄNDIGKEIT DER VEREINBARUNG

Diese Lizenzvereinbarung stellt die Gesamtheit der Vereinbarungen in Bezug auf die SOFTWARE und alle mitgelieferten schriftlichen Unterlagen zwischen den Parteien dar und ersetzt alle vorherigen oder gleichzeitigen schriftlichen oder mündlichen Übereinkünfte oder Vereinbarungen in Bezug auf diese Thematik. Zusätze oder Änderungen dieser Vereinbarung sind nicht bindend, wenn Sie nicht von einem vollständig autorisierten Repräsentanten von Yamaha unterzeichnet sind.

ATTENTION

CONTRAT DE LICENCE DE LOGICIEL

VEUILLEZ LIRE ATTENTIVEMENT CE CONTRAT DE LICENCE (« CONTRAT ») AVANT D'UTILISER CE LOGICIEL. L'UTILISATION DE CE LOGICIEL EST ENTIEREMENT REGIE PAR LES TERMES ET CONDITIONS DE CE CONTRAT. CECI EST UN CONTRAT ENTRE VOUS-MEME (EN TANT QUE PERSONNE PHYSIQUE OU MORALE) ET YAMAHA CORPORATION (« YAMAHA »).

LE FAIT D'OUVRIER CE COFFRET INDIQUE QUE VOUS ACCEPTEZ L'ENSEMBLE DES TERMES DU CONTRAT. SI VOUS N'ACCEPTEZ PAS LESDITS TERMES, VOUS NE DEVREZ NI INSTALLER NI COPIER NI UTILISER DE QUELQUE AUTRE MANIERE CE LOGICIEL.

1. CONCESSION DE LICENCE ET DROITS D'AUTEUR

Yamaha vous concède le droit d'utiliser un seul exemplaire du logiciel et des données afférentes à celui-ci (« LOGICIEL »), livrés avec ce contrat. Le terme LOGICIEL couvre toutes les mises à jour du logiciel et des données fournis. Ce LOGICIEL est la propriété de Yamaha et/ou du (des) concédant(s) de licence Yamaha. Il est protégé par les dispositions en vigueur relatives au droit d'auteur et tous les traités internationaux pertinents. Bien que vous soyez en droit de revendiquer la propriété des données créées à l'aide du LOGICIEL, ce dernier reste néanmoins protégé par les lois en vigueur en matière de droit d'auteur.

- **Vous pouvez** utiliser ce LOGICIEL sur un **seul ordinateur**.
- **Vous pouvez** effectuer une copie unique de ce LOGICIEL en un format lisible sur machine à des fins de sauvegarde uniquement, à la condition toutefois que le LOGICIEL soit installé sur un support autorisant la copie de sauvegarde. Sur la copie de sauvegarde, vous devez reproduire l'avis relatif aux droits d'auteur ainsi que toute autre mention de propriété indiquée sur l'exemplaire original du LOGICIEL.
- **Vous pouvez** céder, à titre permanent, tous les droits que vous détenez sur ce LOGICIEL, sous réserve que vous n'en conserviez aucun exemplaire et que le bénéficiaire accepte les termes du présent contrat.

2. RESTRICTIONS

- **Vous ne pouvez** en aucun cas reconstituer la logique du LOGICIEL ou le désassembler, le décompiler ou encore en dériver une forme quelconque de code source par quelque autre moyen que ce soit.
- **Vous n'êtes pas en droit** de reproduire, modifier, changer, louer, prêter ou distribuer le LOGICIEL en tout ou partie, ou de l'utiliser à des fins de création dérivée.
- **Vous n'êtes pas autorisé** à transmettre le LOGICIEL électroniquement à d'autres ordinateurs ou à l'utiliser en réseau.
- **Vous ne pouvez** pas utiliser ce LOGICIEL pour distribuer des données illégales ou portant atteinte à la politique publique.
- **Vous n'êtes pas habilité** à proposer des services fondés sur l'utilisation de ce LOGICIEL sans l'autorisation de Yamaha Corporation.

Les données protégées par le droit d'auteur, y compris les données MIDI de morceaux, sans toutefois s'y limiter, obtenues au moyen de ce LOGICIEL, sont soumises aux restrictions suivantes que vous devez impérativement respecter.

- Les données reçues au moyen de ce LOGICIEL ne peuvent en aucun cas être utilisées à des fins commerciales sans l'autorisation du propriétaire du droit d'auteur.
- Les données reçues au moyen de ce LOGICIEL ne peuvent pas être dupliquées, transférées, distribuées, reproduites ou exécutées devant un public d'auditeurs sans l'autorisation du propriétaire du droit d'auteur.
- Le cryptage des données reçues au moyen de ce LOGICIEL ne peut être déchiffré ni le filigrane électronique modifié sans l'autorisation du propriétaire du droit d'auteur.

3. RESILIATION

Le présent contrat prend effet à compter du jour où le LOGICIEL vous est remis et reste en vigueur jusqu'à sa résiliation. Si l'une quelconque des dispositions relatives au droit d'auteur ou des clauses du contrat ne sont pas respectées, le contrat de licence sera automatiquement résilié de plein droit par Yamaha, ce sans préavis. Dans ce cas, vous devrez immédiatement détruire le LOGICIEL concédé sous licence, la documentation imprimée qui l'accompagne ainsi que les copies réalisées.

4. GARANTIE LIMITEE PORTANT SUR LE SUPPORT

Quant au LOGICIEL vendu sur un support perceptible, Yamaha garantit que le support perceptible sur lequel le LOGICIEL est enregistré est exempt de défaut de matière première ou de fabrication pendant quatorze (14) jours à compter de la date de réception, avec comme preuve à l'appui une copie du reçu. Votre seul recours opposable à Yamaha consiste dans le remplacement du support reconnu défectueux, à condition qu'il soit retourné à Yamaha ou à un revendeur Yamaha agréé dans un délai de quatorze jours avec une copie du reçu. Yamaha n'est pas tenu de remplacer un support endommagé à la suite d'un accident, d'un usage abusif ou d'une utilisation incorrecte. **DANS TOUTE LA MESURE PERMISE PAR LA LEGISLATION EN VIGUEUR, YAMAHA EXCLUT EXPRESSEMENT TOUTE RESPONSABILITE IMPLICITE LIEE AU SUPPORT PERCEPTIBLE, Y COMPRIS TOUTE GARANTIE IMPLICITE DE QUALITE MARCHANDE ET D'ADEQUATION A UN USAGE PARTICULIER LE CONCERNANT.**

5. EXCLUSION DE GARANTIE PORTANT SUR LE LOGICIEL

Vous reconnaissez et acceptez expressément que l'utilisation de ce LOGICIEL est à vos propres risques. Le LOGICIEL et la documentation qui l'accompagne sont livrés « EN L'ETAT », sans garantie d'aucune sorte. **NONOBTANT TOUTE AUTRE DISPOSITION DU PRESENT CONTRAT, YAMAHA EXCLUT DE LA PRESENTE GARANTIE PORTANT SUR LE LOGICIEL, TOUTE RESPONSABILITE EXPRESSE OU IMPLICITE LE CONCERNANT, Y COMPRIS, DE MANIERE NON LIMITATIVE, TOUTE GARANTIE IMPLICITE DE QUALITE MARCHANDE, D'ADEQUATION A UN USAGE PARTICULIER ET DE RESPECT DES DROITS DES TIERS. YAMAHA EXCLUT EN PARTICULIER, MAIS DE MANIERE NON LIMITATIVE A CE QUI PRECEDE, TOUTE GARANTIE LIEE A L'ADEQUATION DU LOGICIEL A VOS BESOINS, AU FONCTIONNEMENT ININTERROMPU OU SANS ERREUR DU PRODUIT ET A LA CORRECTION DES DEFAUTS CONSTATES LE CONCERNANT.**

6. RESPONSABILITE LIMITEE

LA SEULE OBLIGATION DE YAMAHA AUX TERMES DES PRESENTES CONSISTE A VOUS AUTORISER A UTILISER CE LOGICIEL. EN AUCUN CAS YAMAHA NE POURRA ETRE TENU RESPONSABLE, PAR VOUS-MEME OU UNE AUTRE PERSONNE, DE QUELQUE DOMMAGE QUE CE SOIT, NOTAMMENT ET DE MANIERE NON LIMITATIVE, DE DOMMAGES DIRECTS, INDIRECTS, ACCESSOIRES OU CONSECUTIFS, DE FRAIS, PERTES DE BENEFICES, PERTES DE DONNEES OU D'AUTRES DOMMAGES RESULTANT DE L'UTILISATION CORRECTE OU INCORRECTE OU DE L'IMPOSSIBILITE D'UTILISER LE LOGICIEL, MEME SI YAMAHA OU UN DISTRIBUTEUR AGREE ONT ETE PREVENUS DE L'EVENTUALITE DE TELS DOMMAGES. Dans tous les cas, la responsabilité entière de Yamaha engagée à votre égard pour l'ensemble des dommages, pertes et causes d'actions (que ce soit dans le cadre d'une action contractuelle, délictuelle ou autre) ne saurait excéder le montant d'acquisition du LOGICIEL.

7. LOGICIELS DE FABRICANTS TIERS

Des logiciels et données de fabricants tiers (« LOGICIELS DE FABRICANTS TIERS ») peuvent être associés au LOGICIEL. Lorsque, dans la documentation imprimée ou les données électroniques accompagnant ce logiciel, Yamaha identifie un logiciel et des données comme étant un LOGICIEL DE FABRICANT TIERS, vous reconnaissez et acceptez que vous avez l'obligation de vous conformer aux dispositions de tout contrat fourni avec ce LOGICIEL DE FABRICANT TIERS, et que la partie tierce fournissant le LOGICIEL DE FABRICANT TIERS est responsable de toute garantie ou responsabilité liée à ou résultant de ce dernier. Yamaha n'est en aucun cas responsable des LOGICIELS DE FABRICANTS TIERS ou de l'utilisation que vous en faites.

- Yamaha exclut toute garantie expresse portant sur des LOGICIELS DE FABRICANTS TIERS. DE SURCROIT, YAMAHA EXCLUT EXPRESSEMENT TOUTE RESPONSABILITE IMPLICITE LIEE AU LOGICIEL DE FABRICANT TIERS, Y COMPRIS, DE MANIERE NON LIMITATIVE, TOUTE GARANTIE IMPLICITE DE QUALITE MARCHANDE ET D'ADEQUATION A UN USAGE PARTICULIER LE CONCERNANT.
- Yamaha ne vous fournira aucun service ni maintenance concernant le LOGICIEL DE FABRICANT TIERS.
- En aucun cas Yamaha ne pourra être tenu responsable, par vous-même ou une autre personne, de quelque dommage que ce soit, notamment et de manière non limitative, de dommages directs, indirects, accessoires ou consécutifs, de frais, pertes de bénéfices, pertes de données ou d'autres dommages résultant de l'utilisation correcte ou incorrecte ou de l'impossibilité d'utiliser le LOGICIEL DE FABRICANT TIERS.

8. REMARQUE GENERALE

Le présent contrat est régi par le droit japonais, à la lumière duquel il doit être interprété, sans qu'il soit fait référence aux conflits des principes de loi. Conflits et procédures sont de la compétence du tribunal de première instance de Tokyo, au Japon. Si pour une quelconque raison, un tribunal compétent décrète que l'une des dispositions de ce contrat est inapplicable, le reste du présent contrat restera en vigueur.

9. CONTRAT COMPLET

Ce document constitue le contrat complet passé entre les parties relativement à l'utilisation du LOGICIEL et de toute documentation imprimée l'accompagnant, et remplace tous les accords ou contrats antérieurs, écrits ou oraux, portant sur l'objet du présent accord. Aucun avenant ni aucune révision du présent contrat n'auront force obligatoire s'ils ne sont pas couchés par écrit et revêtus de la signature d'un représentant Yamaha agréé.

ATENCIÓN

ACUERDO DE LICENCIA DE SOFTWARE

LEA ATENTAMENTE ESTE ACUERDO DE LICENCIA DE SOFTWARE ("ACUERDO") ANTES DE UTILIZAR ESTE SOFTWARE. SÓLO PODRÁ UTILIZAR ESTE SOFTWARE EN VIRTUD DE LOS TÉRMINOS Y CONDICIONES DEL PRESENTE ACUERDO. EL PRESENTE ES UN ACUERDO ENTRE USTED (COMO PARTICULAR O COMO PERSONA JURÍDICA) Y YAMAHA CORPORATION ("YAMAHA").

LA ROTURA DEL SELLO DE ESTE EMBALAJE SUPONE LA ACEPTACIÓN DE LOS TÉRMINOS DE ESTE ACUERDO. SI NO ESTÁ DE ACUERDO CON LOS TÉRMINOS, NO INSTALE, NI COPIE NI UTILICE DE NINGÚN MODO ESTE SOFTWARE.

1. CESIÓN DE LICENCIA Y COPYRIGHT

Por el presente, Yamaha le otorga el derecho a utilizar una copia del programa y de la información de software ("SOFTWARE") que acompañan a este Acuerdo. El término SOFTWARE abarca todas las actualizaciones del software y de la información adjunta. El SOFTWARE es propiedad de Yamaha y/o sus otorgantes de licencia, y se encuentra protegido por las leyes de copyright y todas las provisiones de los tratados correspondientes. Si bien el usuario tiene derecho a declararse propietario de los datos creados mediante el uso del SOFTWARE, dicho SOFTWARE seguirá estando protegido por las leyes de copyright pertinentes.

- **Puede** utilizar el SOFTWARE en un **solo ordenador**.
- **Puede** realizar una copia del SOFTWARE en formato para lectura mecánica exclusivamente con fines de copia de seguridad, si el SOFTWARE se encuentra en soportes en los que dicha copia de seguridad está permitida. En la copia de seguridad, debe reproducirse el aviso de copyright de Yamaha y cualquier otra inscripción de marca que conste en la copia original del SOFTWARE.
- **Puede** transferir de forma permanente a un tercero todos sus derechos del SOFTWARE, siempre y cuando no conserve ninguna copia y el destinatario haya leído y aceptado los términos y condiciones del presente Acuerdo.

2. RESTRICCIONES

- **No puede** someter el SOFTWARE a tareas de ingeniería inversa con el fin de investigar el secreto de fabricación, ni desmontar, descompilar o derivar de cualquier otra manera un formato de código de origen del SOFTWARE por ningún método.
- **Está prohibida** la reproducción, modificación, cambio, alquiler, préstamo o distribución del SOFTWARE, en parte o en su totalidad, o la creación de trabajos derivados del SOFTWARE.
- **No puede** transmitir electrónicamente el SOFTWARE de un ordenador a otro, ni compartir el SOFTWARE con otros ordenadores conectados a una red.
- **No puede** utilizar el SOFTWARE para distribuir información ilícita o que vulnere la política pública.
- **No puede** iniciar servicios basados en el uso del SOFTWARE sin autorización de Yamaha Corporation.

La información con copyright, que incluye sin limitaciones la información MIDI para canciones, obtenida por medio del SOFTWARE, está sometida a las restricciones que se indican a continuación y que el usuario debe acatar.

- La información recibida mediante el SOFTWARE no podrá utilizarse para fines comerciales sin autorización del propietario del copyright.
- La información recibida mediante el SOFTWARE no puede duplicarse, transferirse ni distribuirse, ni reproducirse ni interpretarse para ser escuchada en público sin autorización del propietario del copyright.
- El cifrado de la información recibida mediante el SOFTWARE no podrá eliminarse ni tampoco podrá modificarse la marca de agua electrónica (watermark) sin autorización del propietario del copyright.

3. FINALIZACIÓN

El presente Acuerdo entrará en vigor el día en que el usuario reciba el SOFTWARE y permanecerá vigente hasta su terminación. En el caso de vulnerarse las leyes de copyright o las provisiones contenidas en el presente Acuerdo, el presente Acuerdo se dará por terminado de forma automática e inmediata, sin previo aviso de Yamaha. Una vez terminado el Acuerdo, el usuario deberá destruir inmediatamente el SOFTWARE adquirido bajo licencia, así como la documentación escrita adjunta y todas sus copias.

4. GARANTÍA LIMITADA DEL SOPORTE

Con respecto al SOFTWARE vendido en un soporte material, Yamaha garantiza que el soporte material en el que está grabado el SOFTWARE no tendrá ningún defecto en cuanto a materiales y fabricación en condiciones normales de uso y por un período de catorce (14) días a partir de la fecha del recibo, como aparece en la copia del recibo. La solución y la responsabilidad de Yamaha será la sustitución del soporte defectuoso si se devuelve a Yamaha o a un distribuidor autorizado de Yamaha dentro del período de catorce días con una copia del recibo. Yamaha no se hará responsable de sustituir el soporte si se ha dañado por accidente, abuso o mal uso. EN LA MEDIDA PERMITIDA POR LA LEY APLICABLE, YAMAHA DENIEGA EXPRESAMENTE TODAS LAS GARANTÍAS IMPLÍCITAS CON RESPECTO AL SOPORTE MATERIAL, INCLUIDAS LAS GARANTÍAS IMPLÍCITAS DE COMERCIABILIDAD E IDONEIDAD PARA UNA DETERMINADA FINALIDAD.

5. DENEGACIÓN DE GARANTÍA DEL SOFTWARE

Usted conviene y acepta expresamente en que utilizará el SOFTWARE por su cuenta y riesgo. El SOFTWARE y la documentación correspondiente se suministran "TAL CUAL" y sin ninguna clase de garantía. SIN PERJUICIO DE CUALESQUIERA OTRA DISPOSICIÓN CONTENIDA EN EL PRESENTE ACUERDO, YAMAHA DENIEGA EXPRESAMENTE TODAS LAS GARANTÍAS CON RESPECTO AL SOFTWARE, EXPRESAS, E IMPLÍCITAS, INCLUIDO SIN LIMITACIONES LAS GARANTÍAS IMPLÍCITAS DE COMERCIABILIDAD, IDONEIDAD PARA UNA DETERMINADA FINALIDAD Y LA NO VULNERACIÓN DE DERECHOS DE TERCEROS. DE MANERA CONCRETA, PERO SIN LIMITACIÓN DE CUANTO ANTECEDE, YAMAHA NO GARANTIZA QUE EL SOFTWARE SATISFAGA SUS REQUISITOS, QUE EL FUNCIONAMIENTO DEL SOFTWARE SE REALICE SIN INTERRUPCIONES NI ERRORES, O QUE LOS DEFECTOS DEL SOFTWARE PUEDAN SER CORREGIDOS.

6. RESPONSABILIDAD LIMITADA

LAS OBLIGACIONES DE YAMAHA EN VIRTUD DEL PRESENTE ACUERDO SERÁN LAS DE PERMITIR EL USO DEL SOFTWARE EN VIRTUD DE LOS TÉRMINOS DEL PRESENTE. YAMAHA NO SE RESPONSABILIZARÁ EN NINGÚN CASO ANTE USTED NI ANTE OTRAS PERSONAS DE DAÑOS, INCLUIDOS SIN LIMITACIONES LOS DIRECTOS, INDIRECTOS, ACCESORIOS O EMERGENTES, NI DE GASTOS, PÉRDIDA DE BENEFICIOS O DE DATOS NI DE CUALESQUIERA OTROS DAÑOS DIMANANTES DEL USO, USO INDEBIDO O IMPOSIBILIDAD DE USO DEL SOFTWARE, INCLUSO SI SE HA ADVERTIDO DE LA POSIBILIDAD DE DICHOS DAÑOS A YAMAHA O A UN DISTRIBUIDOR AUTORIZADO. En ningún caso la responsabilidad total de Yamaha en concepto de todos los daños, pérdidas y derechos de acción (contractuales, torticeras o de cualquier otra índole) podrá superar la suma pagada por el SOFTWARE.

7. SOFTWARE DE OTRAS MARCAS

Es posible adjuntar software e información de otras marcas ("SOFTWARE DE OTRAS MARCAS") al SOFTWARE. Si, en el material impreso o en la información electrónica que acompaña al Software, Yamaha identificase software e información pertenecientes a la categoría de SOFTWARE DE OTRAS MARCAS, usted conviene y acepta en que deberá atenerse a las provisiones contenidas en los Acuerdos suministrados con el SOFTWARE DE OTRAS MARCAS y que la parte proveedora del SOFTWARE DE OTRAS MARCAS se hará cargo de las garantías o asumirá las responsabilidades relacionadas con o dimanantes del SOFTWARE DE OTRAS MARCAS. Yamaha no se hace responsable del SOFTWARE DE OTRAS MARCAS ni del uso que usted haga de él.

- Yamaha no ofrece garantías expresas con respecto al SOFTWARE DE OTRAS MARCAS. ADEMÁS, YAMAHA DENIEGA EXPRESAMENTE TODAS LAS GARANTÍAS IMPLÍCITAS, INCLUIDAS SIN LIMITACIONES LAS GARANTÍAS IMPLÍCITAS DE COMERCIALIZACIÓN E IDONEIDAD PARA UNA FINALIDAD DETERMINADA, con respecto al SOFTWARE DE OTRAS MARCAS.
- Yamaha no prestará ningún servicio ni mantenimiento para el SOFTWARE DE OTRAS MARCAS.
- Yamaha no se responsabilizará ante usted ni ante otras personas de los daños, incluidos sin limitaciones los directos, indirectos, accesorios o emergentes, ni de gastos, pérdida de beneficios o de datos ni de cualesquiera otros daños dimanantes del uso, uso indebido o imposibilidad de uso del SOFTWARE DE OTRAS MARCAS.

8. GENERAL

Este Acuerdo se interpretará y regirá de acuerdo con las leyes japonesas, con independencia de los principios de conflicto de derecho. La vista de los desacuerdos o procedimientos se realizará ante el Tribunal de Distrito de Tokio, Japón. Si alguna de las cláusulas del presente Acuerdo fuese no ejecutoria en virtud del dictamen de un tribunal competente, ello no afectará a las demás cláusulas del Acuerdo y mantendrán plena vigencia.

9. ACUERDO COMPLETO

El presente Acuerdo contiene la totalidad de los acuerdos y pactos entre las partes con respecto al uso del SOFTWARE y de los materiales impresos que acompañan al mismo y sustituye a todos los demás acuerdos o contratos previos o contemporáneos, escritos o verbales, que puedan existir en relación con el contenido del presente Acuerdo. Las modificaciones o revisiones del presente Acuerdo no serán vinculantes a menos que se efectúen por escrito y estén firmadas por un representante autorizado de Yamaha.

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

Pour plus de détails sur les produits, veuillez-vous adresser à Yamaha ou au distributeur le plus proche de vous figurant dans la liste suivante.

Die Einzelheiten zu Produkten sind bei Ihrer unten aufgeführten Niederlassung und bei Yamaha Vertragshändlern in den jeweiligen Bestimmungsländern erhältlich.

Para detalles sobre productos, contacte su tienda Yamaha más cercana o el distribuidor autorizado que se lista debajo.

NORTH AMERICA

CANADA

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

U.S.A.

Yamaha Corporation of America
6600 Orangethorpe Ave., Buena Park, Calif. 90620,
U.S.A.
Tel: 714-522-9011

CENTRAL & SOUTH AMERICA

MEXICO

Yamaha de México S.A. de C.V.
Calz. Javier Rojo Gómez #1149,
Col. Guadalupe del Moral
C.P. 09300, México, D.F., México
Tel: 55-5804-0600

BRAZIL

Yamaha Musical do Brasil Ltda.
Av. Reboucas 2636-Pinheiros CEP: 05402-400
Sao Paulo-SP, Brasil
Tel: 011-3085-1377

ARGENTINA

Yamaha Music Latin America, S.A.
Sucursal de Argentina
Viamonte 1145 Piso 2-B 1053,
Buenos Aires, Argentina
Tel: 1-4371-7021

PANAMA AND OTHER LATIN AMERICAN COUNTRIES/ CARIBBEAN COUNTRIES

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

EUROPE

THE UNITED KINGDOM

Yamaha-Kemble Music (U.K.) Ltd.
Sherbourne Drive, Tilbrook, Milton Keynes,
MK7 8BL, England
Tel: 01908-366700

IRELAND

Danfay Ltd.
61D, Sallynoggin Road, Dun Laoghaire, Co. Dublin
Tel: 01-2859177

GERMANY

Yamaha Music Central Europe GmbH
Siemensstraße 22-34, 25462 Rellingen, Germany
Tel: 04101-3030

SWITZERLAND/LIECHTENSTEIN

**Yamaha Music Central Europe GmbH,
Branch Switzerland**
Seefeldstrasse 94, 8008 Zürich, Switzerland
Tel: 01-383 3990

AUSTRIA

**Yamaha Music Central Europe GmbH,
Branch Austria**
Schleiergasse 20, A-1100 Wien, Austria
Tel: 01-60203900

CZECH REPUBLIC/SLOVAKIA/ HUNGARY/SLOVENIA

**Yamaha Music Central Europe GmbH,
Branch Austria, CEE Department**
Schleiergasse 20, A-1100 Wien, Austria
Tel: 01-602039025

POLAND

**Yamaha Music Central Europe GmbH
Sp.z o.o. Oddział w Polsce**
ul. 17 Stycznia 56, PL-02-146 Warszawa, Poland
Tel: 022-868-07-57

THE NETHERLANDS/ BELGIUM/LUXEMBOURG

**Yamaha Music Central Europe GmbH,
Branch Benelux**
Clarissenhof 5-b, 4133 AB Vianen, The Netherlands
Tel: 0347-358 040

FRANCE

Yamaha Musique France
BP 70-77312 Marne-la-Vallée Cedex 2, France
Tel: 01-64-61-4000

ITALY

**Yamaha Musica Italia S.P.A.
Combo Division**
Viale Italia 88, 20020 Lainate (Milano), Italy
Tel: 02-935-771

SPAIN/PORTUGAL

Yamaha-Hazen Música, S.A.
Ctra. de la Coruna km. 17, 200, 28230
Las Rozas (Madrid), Spain
Tel: 91-639-8888

GREECE

Philippos Nakas S.A. The Music House
147 Skiathou Street, 112-55 Athens, Greece
Tel: 01-228 2160

SWEDEN

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

DENMARK

YS Copenhagen Liaison Office
Generatorvej 6A
DK-2730 Herlev, Denmark
Tel: 44 92 49 00

FINLAND

F-Musikki Oy
Kluuvikatu 6, P.O. Box 260,
SF-00101 Helsinki, Finland
Tel: 09 618511

NORWAY

Norsk filial av Yamaha Scandinavia AB
Grini Næringspark 1
N-1345 Østerås, Norway
Tel: 67 16 77 70

ICELAND

Skifan HF
Skeifan 17 P.O. Box 8120
IS-128 Reykjavik, Iceland
Tel: 525 5000

OTHER EUROPEAN COUNTRIES

Yamaha Music Central Europe GmbH
Siemensstraße 22-34, 25462 Rellingen, Germany
Tel: +49-4101-3030

AFRICA

**Yamaha Corporation,
Asia-Pacific Music Marketing Group**
Nakazawa-cho 10-1, Hamamatsu, Japan 430-8650
Tel: +81-53-460-2312

MIDDLE EAST

TURKEY/CYPRUS

Yamaha Music Central Europe GmbH
Siemensstraße 22-34, 25462 Rellingen, Germany
Tel: 04101-3030

OTHER COUNTRIES

Yamaha Music Gulf FZE
LB21-128 Jebel Ali Freezone
P.O.Box 17328, Dubai, U.A.E.
Tel: +971-4-881-5868

ASIA

THE PEOPLE'S REPUBLIC OF CHINA

Yamaha Music & Electronics (China) Co., Ltd.
25/F., United Plaza, 1468 Nanjing Road (West),
Jingan, Shanghai, China
Tel: 021-6247-2211

HONG KONG

Tom Lee Music Co., Ltd.
11/F., Silvercord Tower 1, 30 Canton Road,
Tsimshatsui, Kowloon, Hong Kong
Tel: 2737-7688

INDONESIA

**PT. Yamaha Music Indonesia (Distributor)
PT. Nusantik**
Gedung Yamaha Music Center, Jalan Jend. Gatot
Subroto Kav. 4, Jakarta 12930, Indonesia
Tel: 21-520-2577

KOREA

Yamaha Music Korea Ltd.
Tong-Yang Securities Bldg. 16F 23-8 Yoido-dong,
Youngdungpo-ku, Seoul, Korea
Tel: 02-3770-0660

MALAYSIA

Yamaha Music Malaysia, Sdn., Bhd.
Lot 8, Jalan Perbandaran, 47301 Kelana Jaya,
Petaling Jaya, Selangor, Malaysia
Tel: 3-78030900

PHILIPPINES

Yupangco Music Corporation
339 Gil J. Puyat Avenue, P.O. Box 885 MCPO,
Makati, Metro Manila, Philippines
Tel: 819-7551

SINGAPORE

Yamaha Music Asia Pte., Ltd.
#03-11 A-Z Building
140 Paya Lebar Road, Singapore 409015
Tel: 747-4374

TAIWAN

Yamaha KHS Music Co., Ltd.
3F, #6, Sec.2, Nan Jing E. Rd. Taipei.
Taiwan 104, R.O.C.
Tel: 02-2511-8688

THAILAND

Siam Music Yamaha Co., Ltd.
891/1 Siam Motors Building, 15-16 floor
Rama 1 road, Wangmai, Pathumwan
Bangkok 10330, Thailand
Tel: 02-215-2626

OTHER ASIAN COUNTRIES

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

OCEANIA

AUSTRALIA

Yamaha Music Australia Pty. Ltd.
Level 1, 99 Queensbridge Street, Southbank,
Victoria 3006, Australia
Tel: 3-9693-5111

NEW ZEALAND

Music Houses of N.Z. Ltd.
146/148 Captain Springs Road, Te Papapa,
Auckland, New Zealand
Tel: 9-634-0099

COUNTRIES AND TRUST TERRITORIES IN PACIFIC OCEAN

**Yamaha Corporation,
Asia-Pacific Music Marketing Group**
Nakazawa-cho 10-1, Hamamatsu, Japan 430-8650
Tel: +81-53-460-2312

HEAD OFFICE Yamaha Corporation, Pro Audio & Digital Musical Instrument Division
Nakazawa-cho 10-1, Hamamatsu, Japan 430-8650
Tel: +81-53-460-2445

Title:	Notes:
Date:	
Place:	

Mixer Setup

Source:	Source:	Source:	Source:	Source:	Source:	Source:	Source:	Source:	Source:	Source:
1	2	3	4	5/6	7/8	9/10	11/12			
1	2	3	4	5/6	7/8	9/10	11/12	GROUP 1-2		ST