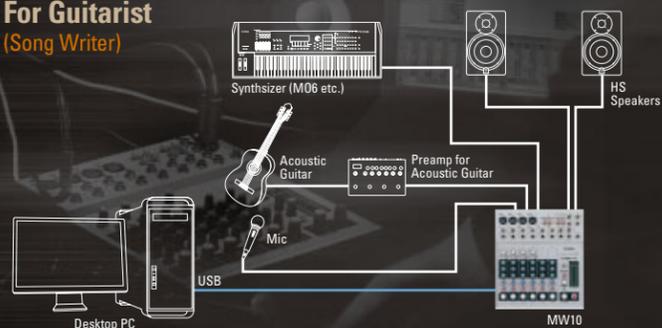




System Examples

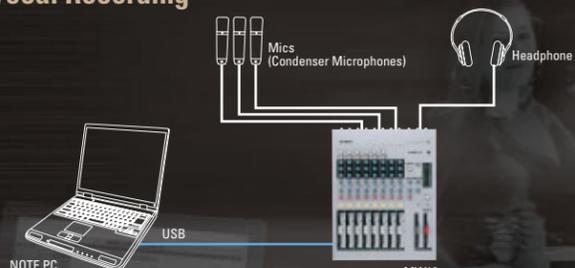
For Guitarist (Song Writer)



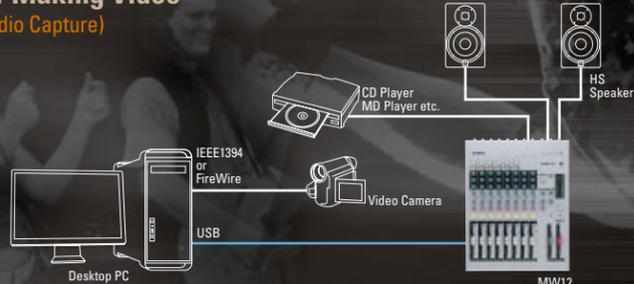
For DJ Mixing and Podcasting



For Vocal Recording



For Making Video (Audio Capture)



Specifications

Electrical Characteristics

	MW10	MW12	UNIT
Total Harmonic Distortion		0.1	%
Frequency Response	20Hz-20kHz (ST Out)		
Hum & Noise	-3 (MIN), 0 (TYP), 1 (MAX)		
Equivalent Input Noise (CH IN /MIC)		-128	dBu
Residual Output Noise (ST OUT)		-100	dBu
Hum & Noise Res=150 ohms, Gain=Maximum (CH INPUT 1-2), Hum & Noise are measured with a 45 dB/octave filter @12.7 kHz, equivalent to a 20 kHz filter with infinite dB/octave attenuation.			
ST master control at nominal level and all channel LEVEL controls at minimum level. (ST OUT)	-87	-88	dBu
All channel AUX controls at minimum level. (AUX SEND)	-85	-81	dBu
ST master control and one channel LEVEL control at nominal level. (CH INPUT 1, 2) (ST OUT)		-64	dBu
Maximum Voltage Gain		60	dB
1 kHz, 10k ohms PAN/BAL, panned hard left or hard right.			
MIC to CH INSERT OUT			
MIC to ST OUT, GROUP OUT	76	84	dB
MIC to ST OUT, GROUP OUT	-	94	dB
MIC to REC OUT	64.2	62.2	dB
MIC to AUX SEND (PRE)	70	76	dB
MIC to AUX SEND (POST)	76	86	dB
LINE to ST OUT, GROUP OUT	50	58	dB
LINE to AUX SEND (PRE)	70	76	dB
LINE to AUX SEND (POST)	47	57	dB
LINE to ST OUT (MW10: CH7/8, 9/10) (MW12: CH10, 11, 12)	26	34	dB
RETURN to ST OUT	12	16	dB
RETURN to AUX SEND	-	9	dB
2TR IN to ST OUT	23.8	27.8	dB
Crosstalk		-70	dB

General Specifications

	MW10	MW12
High Pass Filter	80kHz, 12dB/Octave	
CH EQ	±15dB	
(CH INPUT 1-11/12 to ST OUT, GROUP OUT, AUX SEND, C-R OUT, REC OUT)	HIGH: 10kHz (shelving) MID: 2.5kHz (peaking) LOW: 100Hz (shelving)	
Phantom Power	+48V	
Power Adaptor	PA-10	PA-20
Power Consumption	19 W	29 W
Dimensions (W x H x D)	251 mm x 65 mm x 290.5 mm	322 mm x 108 mm x 416.6 mm
Net Weight	1.8 kg	5 kg
Temperature Range	Operating temperature: 0 to 40 °C, Storage temperature: -20 to 60 °C	
Digital Input/Output	USB Audio1.1, 44.1/48kHz, 16bit, USB B type	
Other	Included Rack mount Ears	

Analog Input Specifications

	Input Imp., Appropriate Imp	MW10	MW12	UNIT
MIC INPUT GAIN		-60 ~ -16		
MIC INPUT SENSITIVITY to MAX	3k ohms, 50-600 ohms mic	-72 ~ -4	-80 ~ -4	dBu
LINE INPUT GAIN		-34 ~ +10		
LINE INPUT SENSITIVITY to MAX	10k ohms, 600 ohms line	-46 ~ +30	-54 ~ +30	dBu
ST MIC INPUT GAIN		-60 ~ -16		
ST CH LINE INPUT SENSITIVITY to MAX	3k ohms, 50-600 ohms mic	-72 ~ -10	-80 ~ -10	dBu
ST CH LINE INPUT GAIN		-34 ~ +10		
ST CH LINE INPUT SENSITIVITY to MAX	10k ohms, 50-600 ohms line	-46 ~ +30	-54 ~ +30	dBu
ST CH MIC INPUT GAIN		-60 ~ -16		
ST CH MIC INPUT SENSITIVITY to MAX	3k ohms, 50-600 ohms mic	-72 ~ -10	-80 ~ -10	dBu
ST CH LINE INPUT GAIN		-34 ~ +10		
ST CH LINE INPUT SENSITIVITY to MAX	10k ohms, 600 ohms line	-46 ~ +30	-54 ~ +30	dBu
ST CH INPUT		-22 ~ +10		
CH INSERT IN		-12 ~ +20		
RETURN (L, R)	10k ohms, 600 ohms line	-8 ~ +24	-12 ~ +24	dBu
2TR IN		-22 ~ +10	-26 ~ +10	dBu

Analog Output Specifications

	Input Imp., Appropriate Imp	MW10	MW12	UNIT
ST OUT (L, R)		+4		
Normal	150 ohms, 10k ohms line (MW10)			
Max	75 ohms, 600 ohms line (MW12)	+20	+24	dBu
AUX SEND		+4		
Normal	150 ohms, 10k ohms line			
Max		+20		dBu
GROUP OUT		+4		
Normal	150 ohms, 10k ohms line			
Max		+20		dBu
CH INSERT OUT		0		
Normal	150 ohms, 10k ohms line			
Max		+20		dBu
C-R OUT		+4		
Normal	150 ohms, 10k ohms line			
Max		+20		dBu
Rec OUT		+10		
Normal	600 ohms, 10k ohms line			
Max		+10		dBu
PHONES		3		
Normal	100 ohms, 40 ohms phone			
Max		75		dBu

*All specifications are subject to change without notice.
*All trademarks and registered trademarks are property of their respective owners.



USB MIXING STUDIO
MW10
MW12



For details please contact:

YAMAHA
YAMAHA CORPORATION
P.O. BOX 1, Hamamatsu Japan
www.yamahasyth.com



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[LCK-0511] Printed in Japan



Cubase LE

Step 1

Setting up for the first time

After you've installed and launched Cubase LE for the first time, you'll need to make a few configuration settings—such as selecting the audio driver, enabling inputs and outputs within Cubase LE, etc. Once you've done this, the MW can be used for recording every time you open Cubase LE.

Step 2

Getting ready to record

Open a new project in Cubase LE, and set up for recording. Select or create an audio track (stereo or mono), open the Mixer window, and turn Click on (for a metronome guide). Set the start point for recording, too.

Everything connected? You're almost ready... Turn Record Enable on, and check the levels while you adjust the Gain and Master Level controls on the MW.

Step 3

Recording and playback

Now start recording (from the Transport panel), play or sing the part, and stop when you're finished. Play it back and add other parts to it as needed, building up a complete song part-by-part.

Step 4

Mixing your song

Once you have several different parts—all on different tracks—call up the Mixer window. Use the faders in the Mixer to control the balance of the parts, and use the Pan controls and EQ processing to adjust the sound as needed.

TIP – Use your favorite outboard gear

If you're recording vocals, you can insert your favorite outboard compressor or EQ into the signal path before recording, by using the MW's rear-panel INSERT jacks. Guitarists can plug in their stomp boxes to record the exact sound they want.

TIP – Dig into your mic closet

The MW also has 48V phantom power, so you can use high-quality condenser or ribbon microphones and get pro-quality sound for your vocals and acoustic instruments.

TIP – Plug-in effects

Cubase LE also has a wide variety of plug-in effects—including reverbs, delays, distortion, and more—you can use to enhance or alter the sound of each track as desired.

Tip – Cut out the Latency problem!

If you require to use the VST instruments with MIDI controller and you need a low latency. No problem! You can download ASIO low latency audio driver at www.yamahasynt.com

Scene 1 Laying down tracks for solo musicians, producers, small project studios

Inspiration can come at any time. But it can also leave—if you have to spend too much time fiddling with your equipment. Not so with the MW. With the included Cubase LE software, the MW gives you a simple yet comprehensive system for recording all your musical ideas to computer—and recording your moments of inspiration before they have a chance to leave!

Plug in a guitar, a microphone, a keyboard, even a CD player. Use the three-band EQ to tweak your sound, and connect your favorite effect device to the send/return jacks for further processing. The familiar mixer layout lets you stay in your comfort zone and work efficiently. Recording to Cubase LE is a breeze, too—especially with the downloadable low-latency ASIO driver, which lets you use your plug-in software synths and effects in real time.

The MW is also ideal for collaborating with others. Just bring it along with your laptop and guitar, and you've got a complete, portable mobile studio—ready to go anywhere and record with anyone.

Scene 2 Capturing the moment for recording backup singers, multi-instrument parts

Music is a succession of magic moments—made even more magical and exciting when you get several musicians and singers together. The MW lets you capture those moments, mixing down the performance of several backup singers or instrumentalists and recording them directly to a two-channel stereo track in Cubase LE.

With the MW and a laptop, the whole world becomes your personal recording studio. Portable, self-contained, flexible, comprehensive—the MW mixers give you virtually everything you need to make great recordings. Since Cubase LE gives you 48 tracks of audio to work with, you can build up songs part-by-part and easily create professional sounding arrangements.

Use the MW as a keyboard submixer when you play live, or use it as a utility mixer for events, gatherings and small rehearsals—and even record these events direct to stereo on your computer.



Scenes

Scene 3 Enjoying total control for club music, DJ work, mixing straight to CD

If you're a DJ and have a standard two-turntables-and-a-microphone setup, the MW can help keep your beats flowing. The MW has enough connectors for bigger live rigs as well—letting you add a couple of synths and a CD player, and still have room for more.

The big-brother MW12 is even more capable, handling up to 12 simultaneous inputs. It features a paired bus (Group 1/2) for assigning channels to a separate grouped output. There's also a PFL (Pre-Fader Listen) switch that lets you conveniently cue up tracks—so you can monitor the sound of a source through your headphones before letting your audience hear it.

At home, use the MW with Cubase LE to record your personal mixes, then burn them to CDs for your friends and fans. This system is perfect for creating custom remixes, too. With the full audio editing capabilities of Cubase LE—including automatic tempo matching and stretching of audio parts—plus multitrack recording of up to 48 tracks, you've got all you need to record, edit and mix your musical masterpieces.





USB MIXING STUDIO MW10



USB MIXING STUDIO MW12

Yamaha MW10 and MW12 USB Mixing Studio

Getting the music that's in your head out into the real world doesn't have to be difficult. In fact, with Yamaha's new MW10 and MW12 USB Mixing Studio, making great music is easier than ever before. Combined with the powerful Cubase LE audio/MIDI sequencing software, the MW Mixer provides a comprehensive tabletop studio setup for the solo recording musician and for the travelling producer/arranger.

High-quality multitrack mixing/recording systems don't get any simpler than this. Along with its versatile mixing functions, the MW features a true plug-and-play USB audio interface—giving you a fast, no-nonsense way to get quality audio tracks into your computer. With Cubase LE, it's also an advanced, all-in-one solution that turns any computer into a complete, top-flight recording system.



MW10



MW12

USB Studio

Connect the MW to a USB terminal on your laptop or desktop computer, and you've got an instant, high-quality audio recording studio in-a-box.

The MW delivers true plug-and-play USB audio input/output interfacing, and lets you easily mix your audio sources down to two-track stereo for recording to computer.

The MW package includes Steinberg's Cubase LE—a cross-platform software that provides a complete audio/MIDI recording solution, along with video playback and music notation capabilities. A low-latency ASIO driver is available for free download at our website, giving you optimum performance and letting you use VST plug-in instruments and effects in real time. Cubase LE has over 40 built-in VST instruments and effects, but you can add more as your needs grow.

Mixer Input Section

The MW10 gives you a total of 10 inputs, including four ultra-low-noise mic preamps. The MW12 has even more—12 inputs, with six mic pre amps. These high-performance balanced inputs also have a phantom power switch, allowing you to take advantage of the superior sonic quality of professional-level condenser microphones.

These mixers accept just about any source you want to plug into them, with a full variety of input connectors—including balanced XLR, 1/4" phone jacks and RCA pin jacks. Comprehensive sound shaping is also onboard with pan controls, 3-band EQ and 80 Hz high-pass filters (to cut hum and low-frequency noise) on each channel strip.



The MW provides insert patch points—for two channels on the MW10, and four on the MW12—letting you put external compressors and EQ into the signal path, and process your vocals or guitar as needed.

Mixer Master Section

These versatile mixers are also fully equipped for your external processing and monitoring needs. Two AUX send/return buses let you apply further signal processing on each channel—for example, with your favorite external reverb and delay units, or other effects devices.

In addition to the main stereo outputs, the MW features separate headphone, control room and recording outputs as well, giving you plenty of options for a wide range of monitoring and recording applications. And visual monitoring of the output level is made accurate and easy with the bright 12-segment level meters.

Exclusive Features of the MW12

The MW12 has all the USB studio features found on the MW10, but packs even more mixing power, control and flexibility into its compact package. Foremost are the 12 inputs, including six balanced XLR inputs (for microphones), and four stereo line input channels. The MW provides separate inserts for Channels 1–4, letting you route the incoming signals through your favorite processors before mixing and recording.

Hardware

The MW12 is also rack-mountable and uses long-throw faders instead of knobs for easy level control. The two AUX Sends each have separate knob controls, and the AUX 1 bus can be configured pre- or post-fader, useful for setting up an independent monitor mix. The MW12 also has Master Send and Return controls for maximum control over the AUX buses.



Separate Group buses 1 and 2 give you further flexibility in creating sub mixes. The MW12 features a convenient PFL (Pre-Fader Listen) switch that lets you monitor an incoming signal (in your headphones, for example) without having to boost the level of the channel, and has independent Stereo switches on all channels, for sending the signal to both the stereo L/R bus and the computer.



Cubase LE



Sample Editor

Cubase LE

Cubase LE is a full-featured music production software based on the award-winning Cubase SX and SL programs. It gives you up to 48 simultaneous audio tracks and 64 MIDI tracks, plus a variety of VST plug-in software synths and effects, as well as full VSTi compatibility, with support for up to eight VST instruments.

Just as the Yamaha MW USB Mixing Studio is your all-in-one solution to mixing and recording tracks to computer, the powerful Cubase LE provides all you need to record, edit, process and mixdown your masterpieces. At the center of Cubase LE is a full-fledged audio/MIDI sequencer, which allows you to record audio (vocals, guitar, etc.) along with MIDI data (from keyboards, synthesizers, etc.) and have everything in perfect sync.

What's more, Cubase LE also includes built-in virtual sound modules, letting you play and record MIDI tracks with software synths. The LM-7 provides drum and percussion kits, while the VB-1 has a variety of bass sounds. And the Universal Sound Module has a comprehensive set of instrument sounds in every category, mapped according to the standard GM format. These VST instruments give you the power to create full arrangements—without the need for external tone generators.

Cubase LE also has a complete set of built-in virtual effects to process your sound—everything from reverb, chorus and delay effects to distortion, rotary speaker, filter and modulation—plus many different and unusual variations within. All of the effects are software based, so you can enhance and transform the sound all inside your computer!



LM-7



VB-1



Universal Sound Module

The editing features of Cubase LE give you further control over your recordings, providing a number of different ways to rearrange your parts and tracks. Use the main Project window to record and do basic work on your tracks (such as cutting, copying and moving sections), and use the other editing windows for more detailed work. The Sample Editor, for example, lets you easily manipulate your audio recordings. For MIDI recordings, there are a variety of options—the Key Editor (in piano roll form), the Drum Editor (with convenient event and drum mapping indications), the Score Editor (for notation based editing), and the detailed List Editor (showing all MIDI events).

The power and versatility of Cubase LE is truly amazing, when you take a look at all the different projects and applications it can handle. If you're into video production, you can easily use Cubase LE to create complex soundtracks and sound effect beds for your projects. Simply import the video (from your camcorder, for example) into Cubase LE and record narration and music on top—and have all your tracks synchronize perfectly with the images. Then creatively enhance your projects with the effects in Cubase LE—making huge explosive sounds with the help of reverb, or using the Vocoder effect for robot-like voices. Since the MW lets you record your analog sources (microphone, etc.) to computer in digital form, this compact setup is perfect for podcasting applications as well. Produce your own Internet radio programs, create custom remixes, and record your own CDs—the possibilities are endless.

Cubase LE is compatible with both the Mac and Windows PC platforms, and since Cubase LE projects are completely upward compatible with the professional level Cubase SX and SL, you can still use your LE songs if and when you decide to upgrade.

Cubase LE is the perfect way to enter the world of computer-based recording, giving you all the tools to produce professional level recordings—quickly and easily—while providing a system that you can expand into the future!

Note: If you want to connect a MIDI keyboard, the optional Yamaha UX16 USB/MIDI interface provides a very simple, inexpensive way to get MIDI data into and out of your computer.

System Requirements

Macintosh	Windows
Power Mac G4 450 MHz	Pentium III 500 MHz or AMD K7 (P III / Athlon 1 GHz or faster recommended)
256 MB RAM (512 MB recommended)	256 MB RAM (512 MB recommended)
1GB of free hard disk space for complete content	1GB of free hard disk space for complete content
OS X Version 10.2 or higher	Windows 2000, Windows XP Home and XP Professional
CoreAudio compatible audio hardware	Windows MME compatible audio hardware ASIO compatible sound card recommended

Rear Panels

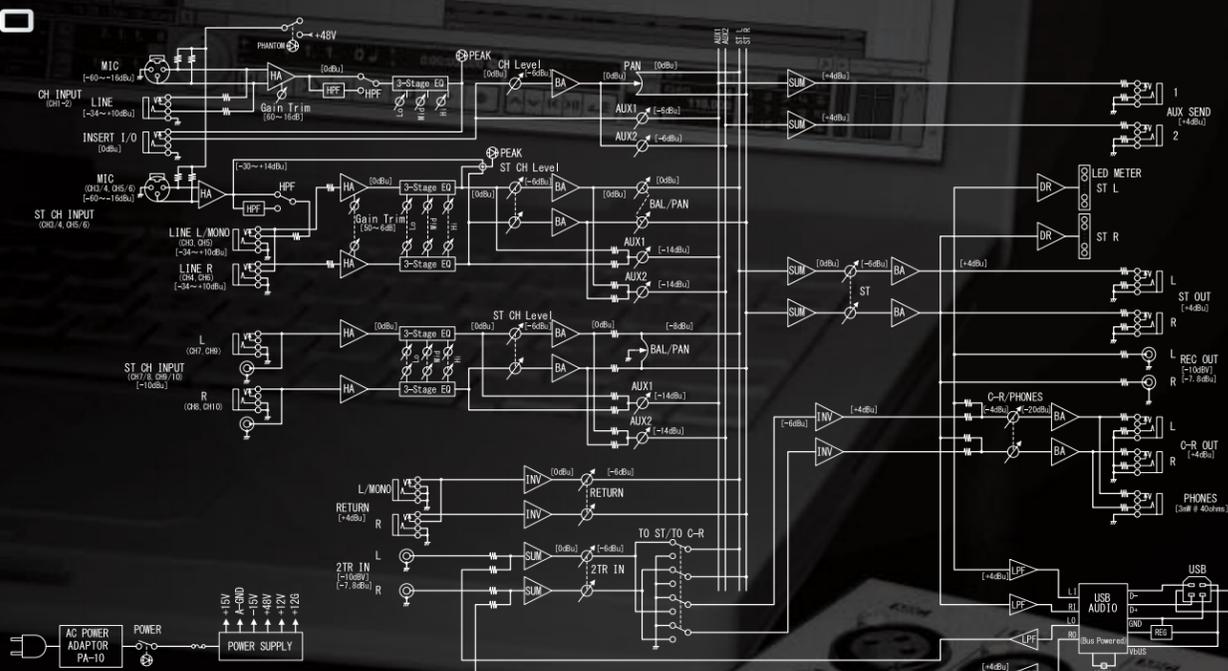


MW10



MW12

MW10



MW12

