



YAMAHA CORPORATION OF AMERICA

Product Archive

This product is discontinued and may not be available at all dealer locations.

MX12/4



12 Input 4 Bus Mixing Console

Start With a Clean Signal

The highest gain in any mixing console is in the "head amplifiers" (the first-stage amps that amplify the received microphone or line signal to workable levels). Unless they're designed with extra care, head amplifiers can be a major source of noise and distortion. Then there's inter-stage matching, internal impedance, circuit layout, grounding, component selection, and a veritable plethora of other factors that affect performance and the mixer's overall "sound".

Yamaha Technology Makes a Real Difference

Here's where Yamaha technology makes a real difference. Whether you're using microphone or line input, Yamaha's high-performance head amplifiers give you an exceptionally clean, quiet signal to start with. Then you can equalize, route, adjust and mix the individual sources to your heart's content and still have a clean, precise signal at the outputs.

Flexibility and Creativity Go Hand-in-Hand

A good mixer must do more than just mix. Signal-routing and patching flexibility is essential. The MX12/4's four independent group busses are a big plus. So are the flexibility of its monitoring and effects send/return systems. Little extras like insertion patch points also help. A really good mixer will let you do everything you need to do in just about any situation. That's asking a lot, but the Yamaha MX12/4 responds with ease and grace that are rare in this class.

RF Rejection – Another Yamaha Strength

RF (Radio Frequency) noise can make the cleanest, quietest circuitry virtually worthless. Radio frequencies aren't only generated by radio stations, either; motors, video monitors, and digital equipment of almost any kind are just a few

common sources. The MX12/4 boasts outstanding RF noise rejection, so you can use it just about anywhere without picking up unwanted interference that can degrade your signal.

Yamaha Extras Make Life Easier

Yamaha's broad background in the sound reinforcement, musical instrument, professional audio, and related fields usually leads to innovative features that significantly enhance performance and/or versatility. The MX12/4's built-in digital reverb system or the 7-band graphic equalizer, are examples. Neither feature is common in this class, but both give the MX12/4 an important advantage in terms of controllability and convenience.

Rugged and Reliable

From connectors to controls to chassis, the MX12/4 is built to last. "Portable" is really a synonym for "will probably be thrown around" (although we don't recommend it), so extra care was taken to ensure that the MX12/4 will stand up to even the roughest conditions on the road. Your sound depends on it.

Specs You Can Trust

Yamaha never has "tweaked" specifications. Never will. It's amazing how mediocre specs can be made to look impressive by simply optimizing test conditions. The electrical specifications we publish are all brutally honest, measured under the stated and/or industry-standard conditions. When in doubt, we urge you to use the most sensitive sound measurement devices available; your own ears. They'll tell you who you can trust.

Gain Trim

Gain trim controls with a 44-dB range and LED peak indicators on all mono and stereo inputs facilitate optimum level matching with a wide range of sources.

3-Band Channel EQ

3-band equalization on each input channel can be used to bring out the best in the sound of individual instruments or voices, emphasize a channel in relation to others, blend the sound of several channels, create special effects, reduce noise, and much more.

Monitor and Effects Send

Independent monitor and effect send controls on each channel provide considerable signal-routing flexibility. The effect send output can be switched to function as a second distributed monitor output while the effect send controls feed the MX12/4's internal digital signal processor system.

4-Group Assignments, Panning, and Channel Faders

Smooth, noise-free linear faders make it easy to set up the optimum balance between channels, while odd/even bus assign switches with pan controls allow the input channel signals to be assigned to any or all of the mixer's four group busses. Each group buss has its own linear fader and group output.

Inputs and Level Matching

The MX12/4 has 8 mono input channels with both balanced XLR-type microphone inputs and balanced/unbalanced TRS phone jack line inputs. Switchable phantom power for all balanced inputs provides direct compatibility with high-performance phantom-powered condenser microphones. Stereo line

sources can be directly connected to either of 2 stereo channels to be used for mono signals.

Channel Insertion

Insert send/return patch points are included on channels 1 through 4 for convenient insertion of compressor/limiters (a must for top quality vocal sound), equalizers, or any other outboard equipment you might need to apply to individual channels.

Built-In Digital Effect

Yamaha is a major name in professional digital signal processing. The same type of technology is packed into the MX12/4 for fuss-free convenience. An internal digital signal processor provides a choice of three high-quality reverb effects – VOCAL, LARGE HALL, and SMALL HALL – so no outboard signal processing equipment is required if all you need is basic reverb.

7-Band Graphic Equalizer

A feature that will be particularly appreciated in sound-reinforcement applications is 7-band graphic equalization on the stereo outputs. Not only does this allow detailed overall response shaping, but it also makes it easy to identify and cut feedback frequencies for effective feedback control.

Handy Rec Outputs and Tape Inputs

Rec outputs provide a line-level stereo output for convenient recording of the main program, while tape inputs with a level control allow the output from a recorder or other line-level source to be added to the console's stereo signal.

Stereo Fader and Balanced Stereo Outputs

A separate stereo fader and balanced stereo outputs can be switched to receive signal either from the odd/even groups or groups 3 and 4 only, according to individual grouping and signal routing requirements.

Master Monitor/Effect Send and Return

The master control section includes master monitor and effect send and return level controls. Stereo external effect return inputs are provided for compatibility with stereo-output effect units. The external effect send and returns can be used at the same time as the internal digital reverb system. In fact, the internal reverb has its own return level controls; one feeding the stereo line and one feeding the monitor bus for "wet" monitoring.

Control Room and Phone Out Level Control

Group Fader

1 ~; 4

Flexible Monitoring and Metering

Convenient monitoring is provided by control-room monitor and phone output jacks, with an independent level control, which can be switched to monitor the signal from the stereo outputs, the monitor1 and effect/monitor2 outputs, or the tape inputs. 12-segment peak-reading level meters provide accurate visual monitoring of the signal appearing at the CR monitor and phones outputs.

Specifications:

Frequency Response	20Hz ~ 20kHz +1dB, -2dB @ +4dB* (Input Gain control at minimum level) (ST OUT, GROUP OUT, MONITOR OUT, EFFECT OUT @ 600Ω)
Total Harmonic Distortion	< 0.1% @ 14dB* 20 ~ 20kHz (ST OUT, GROUP OUT, MONITOR OUT, EFFECT OUT @ 600Ω)
Hum and Noise (Rs = 150Ω, 20 ~ 20kHz)	-128dB* Equivalent Input Noise; -95dB* Residual Output Noise (ST OUT, GROUP OUT, MONITOR OUT, EFFECT OUT @ 600Ω); -87dB* (ST OUT, GROUP OUT) St Master/Group fader at nominal level and all channel fader at minimum; -64dB* (68dB S/N) (ST OUT) St Master fader and 1 Group fader and 1 channel fader at nominal level. And 1 channel Gain control at maximum; -64dB* (68dB S/N) (GROUP OUT) Group fader and 1 channel fader at nominal level. And 1 channel Gain control at maximum; -80dB* (MONITOR1 OUT, EFFECT/MONITOR 2 OUT) Master level control at nominal level and all channel level controls at minimum; -64dB* (68dB S/N) (MONITOR 1 OUT, EFFECT/MONITOR2 OUT) Master level control, 1 channel fader and level control at nominal level. Add 1 channel Gain control at maximum.
Maximum Voltage Gain	84dB: MIC IN to GROUP OUT; 58dB: LINE IN to GROUP OUT; 90dB: MIC IN to EFFECT/MONITOR2 OUT; 80dB: MIC IN to MONITOR1 OUT
Crosstalk at 1kHz	70dB adjacent input; 70dB input to output
MIC IN Gain Control	44dB variable
Input Channel Equalization	plus or minus 15dB Maximum: HIGH 12kHz shelving; MID 2.5kHz peaking; LOW 80Hz shelving (Turn over/ Rolloff frequency of shelving: 3dB below maximum variable level)
Meters	12 points LED meter
CH Peak Indicators	Red LED on each channel turns on when PRE EQ, POST EQ and POST FADER signal reaches the level -3dB below clipping.
Graphic Equalizer	7 band (125,250,500, 1k, 2k, 4k, 8kHz); plus or minus 12dB Maximum
Internal Digital Effect	3 kinds (Vocal, Large Hall, Small Hall)
Phantom Power	+48V is supplied to electrically balanced inputs for powering condenser microphones via 6.8kΩ current limiting/isolation resistors.
MX12/4 INPUT Terminals	MIC. INPUT (1-8); LINE INPUT (1-8); ST INPUT (9-12); RETURN TAPE IN (l/r) CH INSERT IN (1/4)
MX12/4 OUTPUT Terminals	ST OUT (L/R); GROUP OUT (1-4); MONITOR 1 OUT; EFFECT/MONITOR2 OUT; C/R MONITOR OUT; REC OUT (L/R); HEAD PHONE; CH INSERT OUT (1/4)
Power Requirement	UL/CSA model: 120V AC 60Hz 30W; GENERAL model: 230V AC 10Hz 40W
Dimensions (HxDxW)	Height 83.1mm (3-1/4"), Depth 401.2mm (15-3/4"), Width 436.2mm (17-1/8")
Weight	7.0kg (15.4 lbs.)

Accessories:

Optional:

RK124	Rack Ear
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