YAMAHA

MIXING CONSOLE
MGP Series
MGP12X MGP16X

MIXING CONSOLE
MG Series

MG102C MG124C MG166C MG206C
MG82CX MG124CX MG166CX
MG166C-USB MG166CX-USB MG206C-USB
MG24/14FX MG32/14FX

Digital Heart. Analog Soul.

It has been 40 years since the release of Yamaha's first professional analog mixing console in 1972, the PM200. This year also marks the 25th anniversary of the landmark release of our first ever digital mixer, the DMP7. It is no mere coincidence that, during this momentous occasion, we are introducing a ground-breaking new product that represents a new paradigm for compact professional mixing consoles: the MGP Series.

Drawing from our decades of experience crafting innovative, premium analog gear, we originally developed our new discrete Class-A microphone preamps for professional use in our high-end recording equipment. Utilizing an inverted Darlington circuit design, our newly-refined D-PRE mic preamps deliver a fat, rich, smooth tone that gives the MGP Series a significant advantage over any other mixer in its class.

With Yamaha's proprietary X-pressive EQ we've managed to capture ultimate analog authenticity by unlocking the mysterious secret behind the expressive sound shaping capabilities of sought-after classic EQ modules.

At the heart of the MGP's compact configuration, we've taken an innovative new approach to the utilization of digital technology in an analog mixer; adding high-resolution effects, iPod/iPhone integration and the superb functionality of our new Stereo Hybrid Channel to the warmth and musicality of premium analog sound. The MGP Series represents the ultimate balance of the converging technologies that are the heart and soul of Yamaha's extraordinary achievements in professional audio.

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MGP12X MGP16X

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MG102C MG124C MG166C MG206C
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MG24/14FX MG32/14FX

The Evolution of Analog

When it comes to audio engineering and sound reinforcement, the verdict is in—nothing beats the warmth and musicality of analog sound. By incorporating state-of-the-art digital technologies into the development process of our premium professional analog equipment, the MGP is the next step in the evolution of compact professional mixers.

D-PRE   D-PRE. Defies. Description.

The preamp is where sound creation begins, and ultimately determines the character and quality of your overall mix. The importance of this critical first step inspired us to develop the most fat and warm sounding preamps possible—our newly refined D-PRE mic preamps. Initially intended for use with Yamaha's high-end recording gear, these studio-grade, discrete Class-A mic preamps employ an inverted Darlington circuit design that features multiple circuitry elements in a multi-layered configuration in order to deliver more power with lower impedance. This means all the character, depth and feel of your original signal will be delivered with fat, natural sounding bass and smooth, soaring highs. Rediscover a favourite mic or trusted instrument by capturing the full range of your musical expression with sound that you don't hear, so much as feel. With 48V phantom power for each channel and a sound that is incomparable in a compact mixer today, these studio-grade discrete Class-A mic preamps set the MGP apart, clearly defining a class all its own.

inverted
Darlington circuit
☐ HOT ☐ Cold
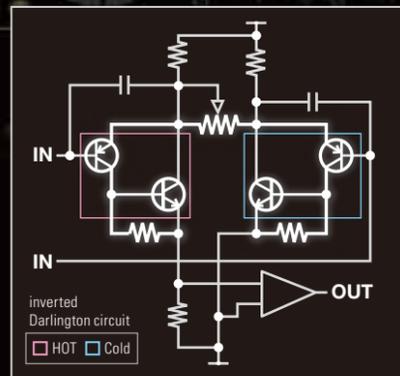
X-pressive EQ   X Marks the Spot

Everyone knows vintage EQ sounds great—but not everyone knows why. Throughout the development of the innovative VCM (Virtual Circuit Modeling) effects used in our high-end professional digital mixers, we became increasingly focused on reproducing the warmth and musicality of classic vintage EQs. It was through our precise modeling of the original circuitry of some of the most sought-after EQ modules from the past that we discovered a characteristic "X-shape" of the frequency curves that was unique to these units— and would ultimately prove essential to unlocking real vintage authenticity. More than just a means of tweaking your mix, the precise response and very steep shelving of the high and low frequencies make the X-pressive EQ a powerful sound-shaping tool that essentially redefines the role that EQ plays in sound reinforcement. Never before has an audio engineer's contribution to the overall sound been so significant, with X-pressive EQ providing complete control of every aspect of your sonic palette.

X-pressive EQ [eg. Low Shelf]

— X-pressive EQ
— Typical EQ

100kHz   1kHz
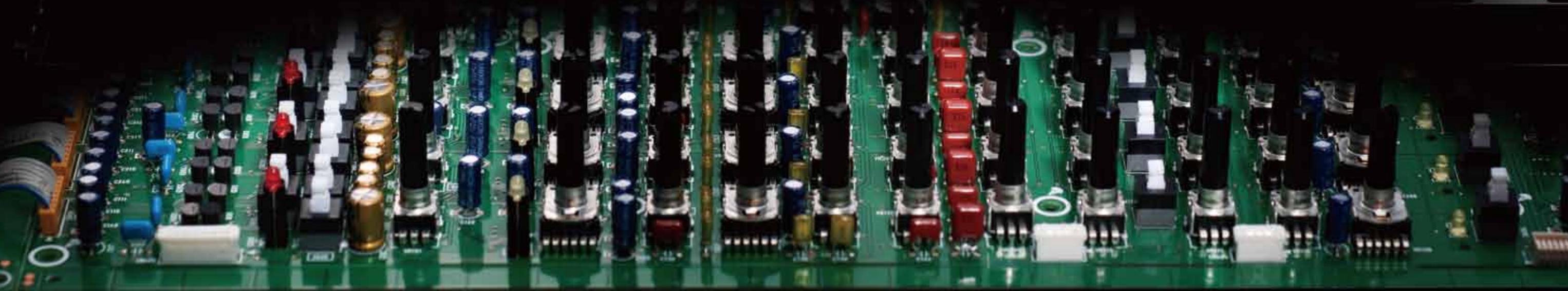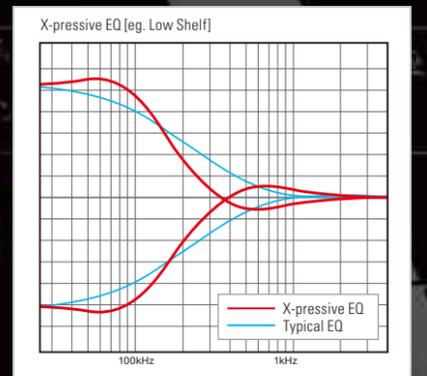
1-Knob Compressors ▶▶▶

Originally a Yamaha innovation, 1-knob compression is now a popular feature on an increasing number of compact mixing consoles with good reason. These intelligent compressors add optimally set compression to a wide variety of input sources with the touch of a single control—minus the hassle of setting up and configuring complex outboard gear. The MGP features our newly upgraded 1-knob compressors that feature LED indicators allowing you to visually monitor when the compression "kicks in" on each channel.

COMP COMP COMP COMP COMP

Metal Chassis ▶▶▶

Durability is simply not an issue with the MGP. With a rugged, impact-resistant, powder-coated steel chassis, the MGP is more than ready for the rigours of road abuse. The sleek design of the chassis is contoured for optimal convection cooling, further extending the lifetime of the components inside, while the internal layout separates the power supply from the analog circuitry for superior noise reduction. What's more, knob control placement above the surface of the chassis ensures that any impact or pressure on the knobs will be absorbed by the chassis and not the circuit board or potentiometers underneath.

Integrated Rack Ears ▶▶▶

With integrated rack ears, the MGP easily meets the demands of both installed and portable applications providing safe, stable protection for your console. Extremely durable, their sleek, attractive design instantly gives you the option of a rack-mounted or desk-top configuration, with hassle-free setup saving you time and effort.

Internal Universal Power Supply ▶▶▶

You can plug in with confidence in any region with 100V- 240V power thanks to our highly-efficient internal universal power supply. With its multi-voltage design, the MGP ensures worry-free operation in potentially damaging environments with fluctuating power levels. An Internal power supply also simplifies rack mounting of the console at installed applications, with no use for a bulky adapter or additional connections.

A Revolution in Digital

The MGP is the realization of a new approach towards the utilization of digital technologies in a mixer, offering simple, analog-style control of sophisticated DSP functions. One of the most compelling features of analog gear is the direct, hands-on, intuitive operation that unites the operator with the console. The MGP sought to keep this feel consistent throughout the design to offer a wealth of functionality, yet with a simple, familiar touch.

More Than Just Digital... it's Hybrid.
Hybrid Channel

40 years of experience working with professional mixers has led Yamaha to offer a new way of approaching sound reinforcement in the digital age: the Stereo Hybrid Channel. Beneath the analog-style knobs and encoders of MGP Series mixing consoles lies a sophisticated digital control system—a fusion that combines traditional analog feel with the functionality that only digital technology can offer. The MGP Series utilizes a powerful, proprietary DSP to provide three essential features that are staples of both installed and live sound applications. In keeping with the theme of analog simplicity found throughout the MGP Series design, each of these functions is readily accessible and available at the touch of a button. Featuring a mid-sweep, three-band EQ for nuanced sound control and high-performance onboard A/D and D/A converters, the Stereo Hybrid Channel offers unique functionality with superior sound.

Priority Ducker ▶▶

An invaluable feature for applications that require both public-speaking and background music, Priority Ducker allows a microphone to take priority over another sound source automatically, just by speaking into the mic. Stop talking and the other sound source is brought back to its original level, therefore no console operator is required for this simple yet valuable function. You can even adjust the ducker attenuation of sound source depending on your preferences.

Leveler ▶▶▶

This intelligent compressor "auto levels" different tracks from a sound source that vary in volume, providing a more pleasurable listening experience. Ideal for small events with un-manned operation of your console, Yamaha's proprietary DSP algorithm allows for extended play time without the worry of fluctuating volume levels distracting your listeners.

Stereo Image ▶▶

The Stereo Image function seamlessly narrows the pan balance of the stereo sound source so that audiences spread over a wide area can enjoy a comfortably blended mix. This is particularly helpful for installed sound applications that requires background music. Using either of the two optimized settings—MONO and BLEND— Stereo Image ensures that everyone is in the "sweet spot" by providing a more optimally mixed sound to the entire space.
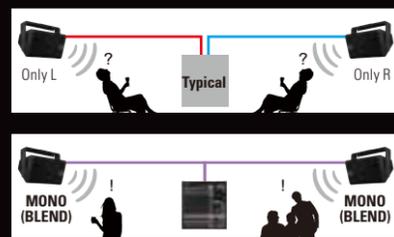
Advanced REV-X and Classic SPX
Dual Digital Effects

MGP Series mixing consoles offer two separate studio-grade effects processors for ultimate enhancement of your sound, with simple intuitive control. Yamaha's high-end REV-X reverb offers three very musical and natural high-resolution reverb effects: Hall, Room and Plate—a first for any Yamaha analog mixer. For more sound-shaping possibilities, Yamaha's renowned SPX digital multi-effect processor provides a useful selection of 16 advanced digital effects with editable parameters. Both processors can be used simultaneously, giving you a vast array of tools to colour your sound.

Integrate Your Apple Devices into Your MGP Sound Experience
Digital Connectivity for Your iPod/iPhone

In response to the growing demand for compatibility with iDevices, iPod/iPhone integration with the MGP offers much more than simple playback. With a single connection your Apple device is transformed into a flexible controller, giving you more detailed control of your MGP console.

MGP Editor ▶▶

MGP Editor is a free software application that gives you additional control of your console's DSP settings via your iPod/iPhone. With a simple and intuitive graphic display, MGP Editor gives you additional, detailed control of your REV-X and SPX effects parameters—as well as Hybrid Channel's Priority Ducker, Leveler and iPod/iPhone's playback settings.

Available on the App Store

High-Quality Digital Playback ▶▶

The MGP Series mixers feature a built-in USB port to connect and charge your iPod or iPhone for seamless playback with a single connection. A direct digital connection offers a much higher level of quality with more detail and clarity than typical analog inputs can provide.

* MGP Editor can be downloaded from Apple's App Store at no charge.
* Apple, iPhone and iPod are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc.

*Appearance may differ in final version

Fill Your Space with Premium Sound

Not just for live bands and DJ's, the MG Series mixing consoles can easily adapt to a truly impressive range of applications from portable PA to fixed installation. Now with the newly added digital functions and superior sound of the MGP, the possibilities are endless.

MIXING CONSOLE
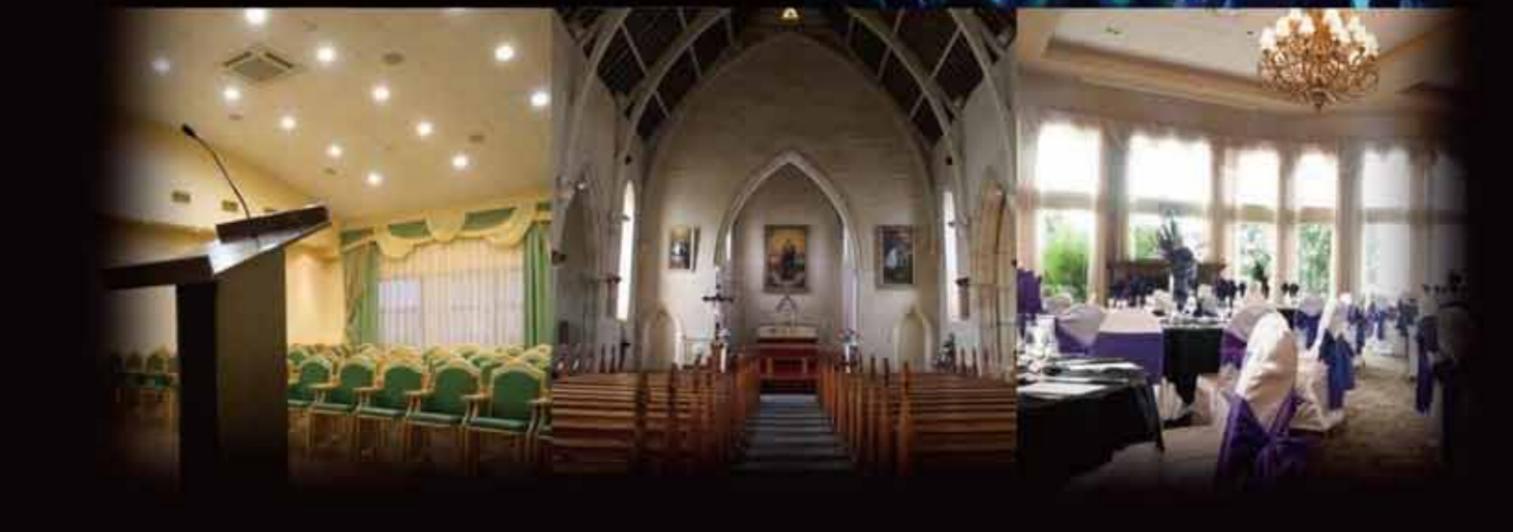
MGP Series

MGP12X MGP16X

In addition to the complete redesign of the internal circuitry—from the mic preamps to the power supply—we also took a new, more intuitive approach to the knob design and control surface of the MGP Series consoles. The new color coordinated design is not only attractive but also functional, naturally guiding the console operator's hands to the intended functions.

MIXING CONSOLE
MGP Series

From the preamps, EQ and effects to the Hybrid Channel functions and iPod/iPhone connectivity—every aspect, every feature, every sound, establishes the MGP as a premium mixing console in a class of its own.

Main Features ▶▶▶

D-PRE	X-pressive EQ	1-knob comp	Rev-X	DIGITAL MULTI EFFECT PROCESSOR
Priority Ducker	Leveler	Stereo Image	MGP Editor	**Hybrid** Channel
Metal Chassis	Integrated Rack Ears	Universal Power Supply		

■ Studio-grade Discrete Class A "D-PRE" Mic Preamps with an Inverted Darlington Circuit
■ Musical X-pressive EQ based on Yamaha's famed VCM Technology
■ Professional 1-knob Compressors with LED Indicators
■ High-grade Dual Digital Effects Processors: Advanced REV-X and Classic SPX
■ Stereo Hybrid Channels utilizing a Powerful, Proprietary DSP
■ Digital Connectivity for iPod/iPhone
■ MGP Editor for Detailed Control of the Console's DSP settings via iPod/iPhone
■ Rugged, Impact-resistant, Powder-coated Metal Chassis
■ Integrated Rack-ears for Easy Rack Mounting
■ Internal Universal Power Supply for World-wide Use

Mono Input Channel

Stereo Input Channel

Hybrid Channel
(MGP12X:9/10,11/12 MGP16X:13/14,15/16)

Master Section

MGP12X
12-Channel Premium Mixing Console

■ 6 Mic Inputs with 48V Phantom Power and HPF per Channel
■ 12 Line Inputs (4 mono and 4 stereo)
■ Additional 2TR Inputs Provided to Accept the Output from Analog Devices or iPod/iPhone
■ 2 AUX Sends + 2 FX Sends
■ 4 GROUP Buses + ST Bus

348(13 3/4″) 146(5 3/4″) 143(5 5/8″) 478(18 7/8″) 495(19 1/2″)
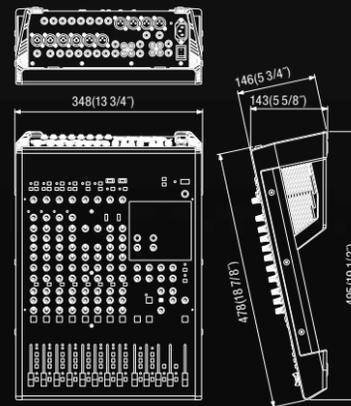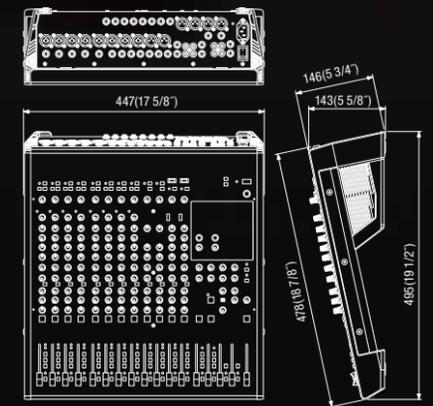
MGP16X
16-Channel Premium Mixing Console

■ 10 Mic Inputs with 48V Phantom Power and HPF per Channel
■ 16 Line Inputs (8 mono and 4 stereo)
■ Additional 2TR Inputs Provided to Accept the Output from Analog Devices or iPod/iPhone
■ 2 AUX Sends + 2 FX Sends
■ 4 GROUP Buses + ST Bus

447(17 5/8″) 146(5 3/4″) 143(5 5/8″) 478(18 7/8″) 495(19 1/2″)

Rear Panel ▶▶▶

MGP12X

MGP16X

MIXING CONSOLE
MG Series

MG102C MG124C MG166C MG206C
MG82CX MG124CX MG166CX
MG166C-USB MG166CX-USB MG206C-USB
MG24/14FX MG32/14FX

Whether you have a mixing application that involves only a few channels, or up to 32 inputs with a need for flexible signal routing, Yamaha's MG Series offers a console that will give you the capacity, control, and performance you deserve. All models are remarkably compact and lightweight for superior handling and portability, but absolutely no compromises have been made in terms of features, performance, or durability.

High-Performance Mic Preamps with Phantom Power

The mic preamps built into the MG Series mixers inherit technology from Yamaha's high-end professional consoles and are designed to deliver superior sonic performance. All mic preamps also feature switchable 48V phantom power so you can take advantage of the natural extended response of high-quality condenser microphones.

1-Knob Compressors

Yamaha was the first to implement this innovative technology into small format mixers offering a simple and instantaneous advantage in achieving great sound on each individual track. Conventional compressors tend to be quite complex and can require significant expertise and time to use effectively, but our 1-knob compressors are optimally set to add flexibility to your sound with a single control. It has since become a standard feature on an increasing number of other manufactures' consoles. One listen however and it becomes abundantly clear that no one else has actually perfected it as we have.

Lightweight Portable Design

The Yamaha design team went through a painstaking process of detailed material and structural analysis, and extensive testing to ensure that each model of the MG series matched its exceptional performance with superior manageability. The smaller models are lightweight and portable enough to pop into a briefcase or backpack, while the larger models easily fit under your arm making it no trouble at all to transport. The MG Series may be lightweight but their performance is anything but.

Built-In SPX Digital Effects

There's a tremendous amount of signal processing power packed into the compact chassis of the MG Series CX/FX mixers. They incorporate a versatile digital effect processor that provides a range of reverb, delay, modulation, and distortion effects that you can use to color and refine your sound. Each of the 16 effect programs has a number of editable parameters as well as effect on/off switching capability and return level control.

MIXING CONSOLE
MG82cx

1-knob comp | **SPX DIGITAL MULTI EFFECT PROCESSOR**

Extraordinary sonic quality plus digital effects in a small-but-powerful utility mixer.

MIXING CONSOLE
MG102c

1-knob comp

Extraordinary sonic quality plus channel compressors in a small-but-powerful utility mixer.

MIXING CONSOLE
MG124cx

1-knob comp | **SPX DIGITAL MULTI EFFECT PROCESSOR**

A versatile all-in-one console that can handle up to 12 inputs with internal effects.

MIXING CONSOLE
MG124c

1-knob comp

Stunning MG Series sound plus and extra margin of inputs and signal-routing capacity.

Feature ▶▶▶

- 4 Mic Inputs with Switchable 48V Phantom Power
- 8 Line Inputs (2 mono and 3 stereo)
- 2 I/O Insert
- 1 Stereo Out
- 1 FX Send
- 2 Compressors
- SPX Digital Multi Effect

Feature ▶▶▶

- 4 Mic Inputs with Switchable 48V Phantom Power
- 10 Line Inputs (2 mono and 4 stereo)
- 2 I/O Insert
- 1 Stereo Out
- 1 AUX Send
- 2 Compressors

Feature ▶▶▶

- 6 Mic Inputs with Switchable 48V Phantom Power
- 12 Line Inputs (4 mono and 4 stereo)
- 4 I/O Insert
- 1 Stereo Out
- 1 AUX Send ＋ 1 FX Send
- 2 Group Out
- 4 Compressors
- SPX Digital Multi Effect

Feature ▶▶▶

- 6 Mic Inputs with Switchable 48V Phantom Power
- 12 Line Inputs (4 mono and 4 stereo)
- 4 I/O Insert
- 1 Stereo Out
- 2 AUX Sends
- 2 Group Out
- 4 Compressors

Dimensions MG82cx / MG102c

62.2(2 1/2″)
55.2(2″)
2(1/8″)
256.6(10 1/8″)
300(11 3/4″)
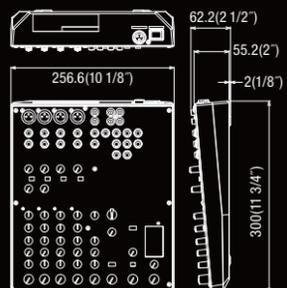
Option

BMS-10A
Mic Stand Adapter

MG102c

Both the MG82CX and MG102C can be mounted on a microphone stand for optimal positioning and easy access using the optional BMS-10A Mic Stand Adaptor. This can be particularly handy when using one of them as a sub-mixer for drums or as a cue box in recording situations.

Dimensions MG124cx / MG124c

86.1(3 3/8″)
79.6(3 1/8″)
2(1/8″)
346.2(13 5/8″)
433.9(17 1/8″)
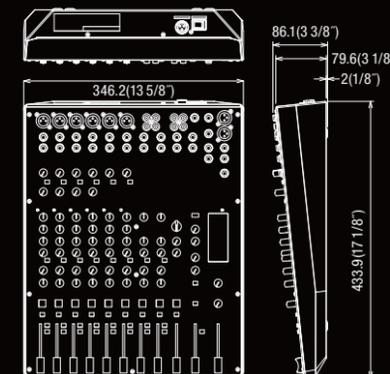
Option

RK-MG102
Rack Mount Kit

RK-MG124
Rack Mount Kit

The MG102C, MG82CX, MG124C and MG124CX can be rack-mounted using an optional rack-mounting kit for optimum integration with any system or installation.

MIXING CONSOLE

MG166CX

16 channels, 6 buses, and all the outstanding SPX digital effects you'll need built in.

Feature ▶▶▶

- 10 Mic Inputs with Switchable 48V Phantom Power
- 16 Line Inputs (8 mono and 4 stereo)
- 8 I/O Insert
- 1 Stereo Out
- 2 AUX Sends + 1 FX send
- 4 Group Out
- 6 Compressors
- SPX Digital Multi Effect
- Rack Mountable

MIXING CONSOLE

MG166C

A 6-bus format offers extra options for monitoring.

Feature ▶▶▶

- 10 Mic Inputs with Switchable 48V Phantom Power
- 16 Line Inputs (8 mono and 4 stereo)
- 8 I/O Insert
- 1 Stereo Out
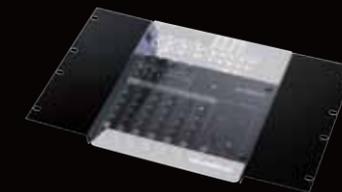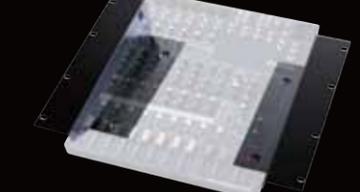- 3 AUX Sends
- 4 Group Out
- 6 Compressors
- Rack Mountable

MIXING CONSOLE

MG166CX-USB

Harness the power of Cubase AI as well as an outstanding selection of SPX digital effects.

Feature ▶▶▶

- 10 Mic Inputs with Switchable 48V Phantom Power
- 16 Line Inputs (8 mono and 4 stereo)
- 8 I/O Insert
- 1 Stereo Out
- 2 AUX Sends + 1 FX Send
- 4 Group Out
- 1 USB I/O
- 6 Compressors
- SPX Digital Multi Effect
- Rack Mountable

◀ CUBASE AI

MIXING CONSOLE

MG166C-USB

Direct digital recording capability with the supplied Cubase AI software.

Feature ▶▶▶

- 10 Mic Inputs with Switchable 48V Phantom Power
- 16 Line Inputs (8 mono and 4 stereo)
- 8 I/O Insert
- 1 Stereo Out
- 3 AUX Sends + 1 FX Send
- 4 Group Out
- 1 USB I/O
- 6 Compressors
- Rack Mountable

◀ CUBASE AI

MIXING CONSOLE

MG206C

Extended capacity, versatility and control for stage with 16 microphone inputs.

Feature ▶▶▶

- 16 Mic Inputs with Switchable 48V Phantom Power
- 20 Line Inputs (12 mono and 4 stereo)
- 12 I/O Insert
- 1 Stereo Out
- 4 AUX Sends
- 4 Group Out
- 8 Compressors
- Rack Mountable

MIXING CONSOLE

MG206C-USB

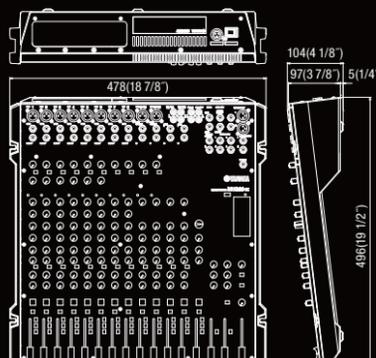**Advanced digital live recording capacity and capability**

Feature ▶▶▶

- 16 Mic Inputs with Switchable 48V Phantom Power
- 20 Line Inputs (12 mono and 4 stereo)
- 12 I/O Insert
- 1 Stereo Out
- 4 AUX Sends
- 4 Group Out
- 1 USB I/O
- 8 Compressors
- Rack Mountable

◀ CUBASE AI

Dimensions MG166CX / MG166C / MG166CX-USB / MG166C-USB
MG206C / MG206C-USB

104(4 1/8")
478(18 7/8")
97(3 7/8") 5(1/4")
496(19 1/2")

◀ CUBASE AI

With Cubase, Steinberg has essentially redefined music production software in their pursuit to provide users with the most advanced, comprehensive DAW software available. The MG series comes with the latest version of Cubase AI to give you a flexible, intuitive platform to realize your full creative potential. With Cubase AI you get a stripped-down version of the Steinberg Cubase advanced music production system, using the same core technologies and interface that have won this series worldwide acclaim. Together with the MG series, both MAC and Windows PC users will have access to a full system solution with all the tools they need for composing, recording, editing and mixing studio-quality music whether you're in the studio or not.

Built-in SPX Digital Effects

There's an astonishing amount of signal processing power packed into the compact chassis of the MG "CX" mixers. They incorporate a versatile digital multi-effect processor that provides a range of reverb, delay, modulation, and distortion programs you can use to refine and define your sound. Each of the 16 effect programs has a number of editable parameters as well as effect on/off switching capability and return level control. You can even blend the effects into the aux sends for "wet" monitoring, so the performers can hear the effects too. If you need to keep both hands free to play an instrument or perform other operations, an optional footswitch can be connected to the mixer's effect footswitch jack for convenient on/off switching.

No.	Program	Parameter	No.	Program	Parameter
1	REVERB HALL 1	REVERB TIME	9	KARAOKE ECHO	DELAY TIME
2	REVERB HALL 2	REVERB TIME	10	VOCAL ECHO	DELAY TIME
3	REVERB ROOM 1	REVERB TIME	11	CHORUS 1	LFO Frequency
4	REVERB ROOM 2	REVERB TIME	12	CHORUS 2	LFO Frequency
5	REVERB STAGE 1	REVERB TIME	13	FLANGER	LFO Frequency
6	REVERB STAGE2	REVERB TIME	14	PHASER	LFO Frequency
7	REVERB PLATE	REVERB TIME	15	AUTO WAH	LFO Frequency
8	DRUM AMBIENCE	REVERB TIME	16	DISTORTION	DRIVE

Serious Capacity for Live Sound & Installations

MIXING CONSOLE

MG24/14 FX

Feature ▶▶▶

- 16 Mic Inputs with Switchable 48V Phantom Power
- 24 Line Inputs (16 mono and 4 stereo)
- 16 I/O Insert
- 6 AUX Sends (4 AUX sends + 2FX sends)
- 4 Group Out
- 1 Mono Out
- 1 Stereo Out
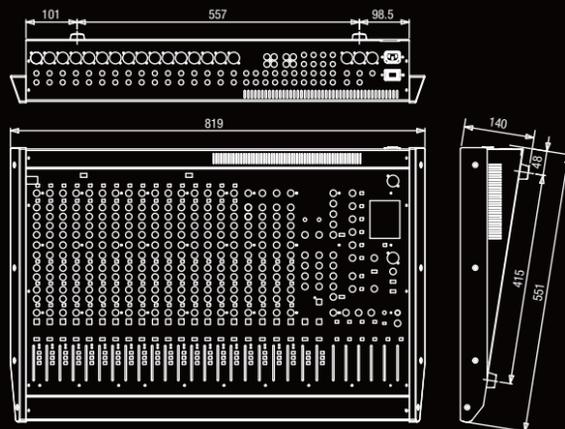- 2 SPX Digital Multi Effect

MIXING CONSOLE

MG32/14 FX

Feature ▶▶▶

- 24 Mic Inputs with Switchable 48V Phantom Power
- 32 Line Inputs (24 mono and 4 stereo)
- 24 I/O Insert
- 6 AUX Sends (4 AUX sends + 2FX sends)
- 4 Group Out
- 1 Mono Out
- 1 Stereo Out
- 2 SPX Digital Multi Effect

Dimensions   MG24/14FX

MG32/14FX
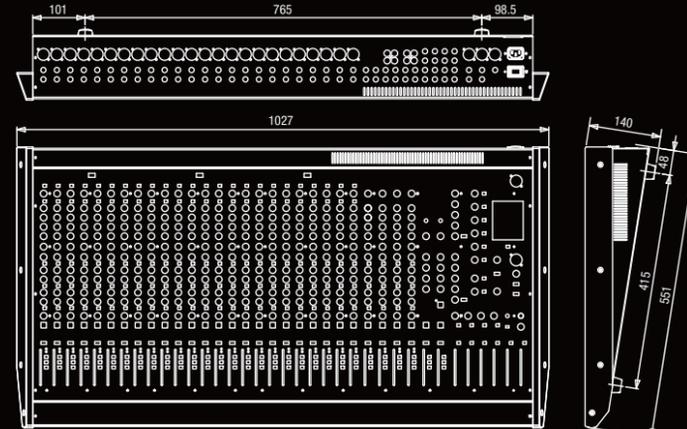
Dual SPX Digital Effects

In the MG24/14FX and MG32/14FX you have not one, but two high- performance digital signal processing stages, fed by separate effect buses, so you can enhance your mix with two separate effects at the same time. And the effects are provided by the very latest Yamaha DSP technology—you know you're getting the best. Each stage provides a selection of 16 professional- quality SPX digital effects, including reverb, delay, pitch change, chorus, phasing, vocal doubling, distortion, and more. Parameter controls that can be adjusted to tailor the effects to your sonic requirement are also provided and Tap delay makes it easy to produce tempo- synchronized delays.

	EFFECT 1			EFFECT 2	
No.	Program	Parameter	No.	Program	Parameter
1	REVERB HALL	Reverb time			
2	REVERB ROOM	Reverb time			
3	REVERB PLATE	Reverb time			
4	REVERB VOCAL	Reverb time			
5	REVERB VOCAL 2	Reverb time			
6	VOCAL ECHO	Delay time			
7	VOCAL ECHO 2	Delay time			
8	DELAY	Delay time			
9	DELAY 2	Delay time			
10	MOD. DELAY	Delay time	10	EARLY REF.	Room size
11	REVERB	Room size	11	GATE REVERB	Room size
12	PITCH	Pitch	12	VOCAL	Pitch fine
13	CHORUS	Depth	13	SYMPHONIC	Depth
14	PHASER	Modulation frequency	14	FLANGE	Modulation frequency
15	RADIO VOICE	Drive	15	DISTORTION	Drive
16	TREMOLO	Modulation frequency	16	TAP DELAY	Feedback gain / Delay time

MGP & MG Series Specifications

General Specifications

	MGP12X	MGP16X	MG82CX	MG102C	MG124CX	MG124C	MG166CX	MG166C	MG166CX-USB	MG166C-USB	MG206C	MG206C-USB	MG24/14FX	MG32/14FX
Total Harmonic Distortion 20Hz–20kHz@ +14dBu	0.02%		Less than 0.1 %										Less than 0.1% @+14 dBu 20Hz – 20kHz, 600Ω (with gain control at maximum level)	
Frequency Response	+0.5/-1.0dB 20Hz - 20kHz, refer to the nominal output level @1kHz		+1/-3db 20 Hz – 20 kHz @ +4 dBu (ST OUT)										20Hz – 20kHz +1dB, –3dB@+4dBu, 600Ω (with gain control at minimum level)	
Noise	-128 dBu Equivalent Input Noise/ -102 dBu Residual Output Noise 20 Hz – 20 kHz Rs = 150Ω Input Gain = Maximum		-128dBu Equivalent Input Noise/ -100dBu Residual Output Noise 20Hz – 20kHz Rs = 150Ω Input Gain = Maximum		-128dBu Equivalent Input Noise/ -98dBu Residual Output Noise 20Hz – 20kHz Rs = 150Ω Input Gain = Maximum								–128dBu Equivalent input noise (CHs 1 to 24 (MG32/14FX)/CHs 1 to 16 (MG24/14FX)) –99dBu Residual output noise (ST, MONO OUT, AUX, EFFECT, GROUP OUT) –83dBu (87dB S/N) ST, MONO, GROUP Master fader at nominal level; all Ch assign switches off. –78dBu (82dB S/N) AUX master control at nominal level; all channel mix controls at minimum level. –64dBu (68dB S/N)ST, GROUP Master fader and one Ch fader at nominal level. (CHs 1 to 24 (MG32/14FX)/CHs 1 to 16 (MG24/14FX))	
INPUT Connectors	MIC: 6 LINE: 4 mono + 4 stereo CH INSERT IN: 4 RETURN: 1 stereo – 2TR IN: 1 stereo	MIC: 10 LINE: 8 mono + 4 stereo CH INSERT: 8 RETURN: 1 stereo – 2TR IN: 1 stereo	MIC: 4 LINE: 2 mono + 3 stereo CH INSERT IN: 2 RETURN: 1 stereo – 2TR IN: 1stereo	MIC: 4 LINE: 2 mono + 3 stereo CH INSERT IN: 2 RETURN: 1 stereo – 2TR IN: 1stereo	MIC: 6 LINE: 4 mono + 4 stereo CH INSERT IN: 4 RETURN: 1 stereo – 2TR IN: 1		MIC: 10 LINE: 8 mono + 4 stereo CH INSERT IN: 8 RETURN: 1 stereo – 2TR IN: 1				MIC: 16 LINE: 12 mono + 4 stereo CH INSERT IN: 12 RETURN: 2 stereo – 2TR IN: 1		MIC: 16 LINE: 16 mono + 4 stereo CH INSERT IN: 16 RETURN: 2 stereo – 2TR IN: 1	MIC: 24 LINE: 24 mono + 4 stereo CH INSERT IN: 24 RETURN: 2 stereo – 2TR IN: 1
OUTPUT Connectors	STEREO OUT: 1 AUX SEND: 2 – CH INSERT OUT: 4 REC OUT: 1 MONITOR OUT: 1 GROUP OUT: 4 – – PHONES: 1	STEREO OUT: 1 AUX SEND: 2 – CH INSERT OUT: 8 REC OUT: 1 MONITOR OUT: 1 GROUP OUT: 4 – – PHONES: 1	STEREO OUT: 1 – EFFECT SEND: 1 CH INSERT OUT: 2 REC OUT: 1 MONITOR OUT: 1 – – – Phone: 1	STEREO OUT: 1 AUX SEND: 1 – CH INSERT OUT: 2 REC OUT: 1 MONITOR OUT: 1 – – – Phone: 1	STEREO OUT: 2 AUX SEND: 2 EFFECT SEND: 1 CH INSERT OUT: 4 REC OUT: 1 MONITOR OUT: 1 GROUP: 2 – – Phone: 1	STEREO OUT: 2 AUX SEND: 2 – CH INSERT OUT: 4 REC OUT: 1 MONITOR OUT: 1 GROUP: 2 – – Phone: 1	STEREO OUT: 2 AUX SEND: 2 EFFECT SEND: 1 CH INSERT OUT: 8 REC OUT: 1 MONITOR OUT: 1 GROUP: 4 – – Phone: 1	STEREO OUT: 2 AUX SEND: 3 – CH INSERT OUT: 8 REC OUT: 1 MONITOR OUT: 1 GROUP: 4 – – Phone: 1	STEREO OUT: 2 AUX SEND: 2 EFFECT SEND: 1 CH INSERT OUT: 8 REC OUT: 1 MONITOR OUT: 1 GROUP: 4 – – Phone: 1	STEREO OUT: 2 AUX SEND: 3 – CH INSERT OUT: 8 REC OUT: 1 MONITOR OUT: 1 GROUP: 4 – – Phone: 1	STEREO OUT: 2 AUX SEND: 4 – CH INSERT OUT: 12 REC OUT: 1 MONITOR OUT: 1 GROUP: 4 – – Phone: 1		STEREO OUT: 1 AUX SEND: 6 – CH INSERT OUT: 16 REC OUT: STEREO 1 STEREO SUB OUT: STEREO 1 GROUP OUT: 4 GROUP INSERT OUT: 4 ST INSERT OUT: 1 Phone: 1	STEREO OUT: 1 AUX SEND: 6 – CH INSERT OUT: 24 REC OUT: STEREO 1 STEREO SUB OUT: STEREO 1 GROUP OUT: 4 GROUP INSERT OUT: 4 ST INSERT OUT: 1 Phone: 1
Crosstalk	-74dB @ 1kHz		-70dB @ 1kHz										–70dB between input channels –70dB between input/output channels (CH INPUT)	
Phantom Power	48V phantom power per channel		Switchable 48V phantom power										+48V DC supply to balanced inputs. Can be switched ON/OFF in groups of eight channels.(One switch for every eight channels.)	
Input HPF	MIC INPUT 100Hz 12dB/oct		CH1-2 and CH 3/4-5/6 80Hz 12dB/oct		CH1-4, CH 5/6-7/8 80Hz 12dB/oct		CH1-8, CH9/10-11/12 80Hz 12dB/oct				CH1-12, CH 13/14-19/20 80Hz 12dB/oct		MIC INPUT 80Hz 12dB/oct	
CH EQ (MONO) ±15 dB (Max.) High / Mid / Low	8kHz: shelving 250Hz-5kHz: peaking(MGP12X: CH1-4,9-12 MGP16X: CH1-8,13-16) 125Hz: shelving		10kHz: shelving 2.5kHz: peaking 100Hz: shelving		10kHz: shelving 2.5kHz: peaking 100Hz: shelving		10kHz: shelving 250Hz-5kHz: peaking 100Hz: shelving						10kHz: shelving 250Hz–5kHz: peaking 100Hz: shelving	
CH EQ (STEREO) ±15 dB (Max.) High / Mid / Low	8kHz: shelving 2.5kHz: peaking(MGP12X: CH5-8 MGP16X: CH9-12) 125Hz: shelving		10kHz: shelving – 100Hz: shelving		10kHz: shelving – 100Hz: shelving		10kHz: shelving 2.5kHz: peaking 100Hz: shelving						10kHz: shelving HI-MID 3kHz: peaking, LO-MID 800Hz: peaking 100Hz: shelving	
Compressor (COMP)	CH1-4 control x 1 (Gain/Threshold/Ratio)	CH1-8	CH1,2 control x 1 (Gain/Threshold/Ratio)		CH1-4 control x 1 (Gain/Threshold/Ratio)		CH 1-6				CH 1-8		– –	
Internal Digital Effect FX1:REV-X	8 PROGRAM, PARAMETER control		16 PROGRAM, PARAMETER control Foot Switch (Digital Effect, on/off)	–	16 PROGRAM, PARAMETER control Foot Switch (Digital Effect, on/off)	–	16 PROGRAM, PARAMETER control Foot Switch (Digital Effect, on/off)	–	16 PROGRAM, PARAMETER control Foot Switch (Digital Effect, on/off)	–	–	–	Effect 1: 16 programs parameter control	
Internal Digital Effect FX2:SPX	16 PROGRAM, PARAMETER control		–	–	–	–	–	–	–	–	–	–	Effect 2: 16 programs parameter control	
LED Level Meter Pre MONITOR Level	2 x 12points LED meter (PEAK, +10, +6, +3, 0, -3, -6, -10, -15, -20, -25, -30dB) PEAK lights if the signal comes within 3dB of the clipping level.		2 x 7 points LED meter (PEAK, +6, +3, 0, -5, -10, -20dB) PEAK lights if the signal comes within 3dB of the clipping level.		2 x 12 points LED meter (PEAK, +10, +6, +3, 0, -3, -6, -10, -15, -20, -25, -30dB) PEAK lights if the signal comes within 3dB of the clipping level.								4 x 12-point LED meters [Stereo (L, R), PFL/AFL, GROUP (1-4)] (PEAK, +5, +3, +1, 0, -1, -3, -5, -7, -10, -15, -20 dB) PEAK lights if the signal comes within 3dB of the clipping level.	
Signal Indicator	PEAK indicator (red), SIG indicator (green) Peak lights if the signal comes within 3dB of the clipping level.		Red LED turns on when post EQ (ST CH: or post Mic HA) signal reaches -3dB below clipping (17dBu).										Mono/Stereo Input Peak Indicator One red LED per channel. Comes on when post-EQ signal level reaches +17dBu. Mono/Stereo Input Signal Indicator One green LED per channel. Comes on when post-EQ signal level reaches –10dBu.	
USB Audio USB IN/OUT	iPod, iPhone exclusive		–	–	–	–	–	–	Sampling Frequency = 44.1kHz or 48kHz (depend on the application of PC)	–		Sampling Frequency = 44.1kHz or 48kHz (depend on the application of PC)	–	
Power Supply Adapter	–		PA-10: AC 38VCT, 0.62A Cable Length = 3.6m		PA-20: AC 35VCT, 0.94A Cable Length = 3.6m		PA-30: AC 35VCT, 1.4A						–	
Power Supply	100-240V 50Hz/60Hz		–										USA and Canada: 120V AC, 60Hz / Korea: 220V AC, 60Hz / Others: 230V AC, 50Hz	
Power Consumption	45W max	55W max	21W		30W		35W	30W	35W	30W	40W		100W	120W
Dimensions (W × H × D)	348 x 143 x 495 mm	447 x 143 x 495 mm	256.6 x 62.2 x 302.5 mm		346.2 x 86.1 x 436.6 mm		478 x 105 x 496 mm						819 × 140 × 551 mm	1027 × 140 × 551 mm
Net Weight	7.5kg	9.0kg	1.6kg	1.5kg	3.2kg	3kg	5.5kg	5.3kg	5.5kg	5.3kg	6.0kg		18.5kg	22 kg
Options	–	–	Microphone Stand Adaptor (BMS-10A) Foot Switch(FC-5), RK-MG102	Microphone Stand Adaptor (BMS-10A) RK-MG102	Foot Switch (FC-5) RK-MG124	RK-MG124	Foot Switch (FC-5)	–	Foot Switch (FC-5)	–	–		Foot Switch (FC-5)	

MGP12X, MGP16X

ANALOG INPUT CHARACTERISTICS

Connections	PAD	GAIN	Actual load impedance	For use with nominal	Input level Sensitivity*2	Input level Nominal	Input level Max. before clip	Connector
MONO CH INPUT MGP12X:1~4 MGP16X:1~8	0	-60dB	3kΩ	50-600Ω Mics	-80dBu	-60dBu	-40dBu	Combo Jack*3
		-16dB			-36dBu	-16dBu	+4dBu	
	26	-34dB		600Ω Lines	-54dBu	-34dBu	-14dBu	
		+10dB			-10dBu	+10dBu	+30dBu	
STEREO CH INPUT MGP12X:5~8 MGP16X:9~12	—	-60dB	3kΩ	50-600Ω Mics	-80dBu	-60dBu	-40dBu	XLR-3-31 type*4
		-16dB			-36dBu	-16dBu	-6dBu	
	—	-34dB	10kΩ	600Ω Lines	-54dBu	-34dBu	-14dBu	Phone Jack*6
		+10dB			-10dBu	+10dBu	+30dBu	
STEREO CH INPUT MGP12X:9~12 MGP16X:13~16	—	-34dB	10kΩ	600Ω Lines	-54dBu	-34dBu	-14dBu	Phone Jack*6
		+10dB			-10dBu	+10dBu	+30dBu	RCA Pin Jack
MONO CH INSERT IN MGP12X:1~4 MGP16X:1~8	—	—	10kΩ	600Ω Lines	-20dBu	0dBu	+20dBu	Phone Jack (TRS)*7
RETURN (L, R)	—	—	10kΩ	600Ω Lines	-12dBu	+4dBu	+24dBu	Phone Jack*6
2TR IN (L, R)	—	—	10kΩ	600Ω Lines	-26dBV	-10dBV	+10dBV	RCA Pin Jack

ANALOG OUTPUT CHARACTERISTICS

Connections	Actual Source Impedance	For Use With Nominal	Output level Nominal Level	Output level Max. before clip	Connector
STEREO OUT (L, R)	75Ω	600Ω Lines	+4dBu	+24dBu	XLR-3-32 type*4 Phone Jack*7
GROUP OUT (1~4)	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone Jack*5
AUX SEND (1, 2)	75Ω	600Ω Lines	+4dBu	+24dBu	XLR-3-32 type*4
FX SEND (1, 2)	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone Jack*7
MONO CH INSERT OUT MGP12X:1~4 MGP16X:1~8	150Ω	10kΩ Lines	0dBu	+20dBu	Phone Jack*7
REC OUT (L, R)	600Ω	10kΩ Lines	-10dBV	+10dBV	RCA Pin Jack
MONITOR OUT (L, R)	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone Jack*5
PHONES	100Ω	40Ω Phones	3mW	75mW	Stereo Phone Jack

DIGITAL INPUT CHARACTERISTICS

Terminal	Format	Connector
USB	iPod, iPhone exclusive	USB A type

MG166C, MG166CX, MG166C-USB, MG166CX-USB

ANALOG INPUT CHARACTERISTICS

Connections	GAIN	Actual load impedance	For use with nominal	Input level Sensitivity*2	Input level Nominal	Input level Max. before clip	Connector
CH IN MIC (1-8)	-60dB	3kΩ	50-600Ω Mics	-80dBu	-60dBu	-40dBu	XLR-3-31 type*4
	-16dB			-36dBu	-16dBu	+4dBu	
CH IN LINE (1-8)	-34dB	10kΩ	600Ω Lines	-54dBu	-34dBu	-14dBu	TRS phone jack*5
	+10dB			-10dBu	+10dBu	+30dBu	
ST CH MIC IN (9/10, 11/12)	-60dB	3kΩ	50-600Ω Mics	-80dBu	-60dBu	-40dBu	XLR-3-31 type*4
	-16dB			-36dBu	-16dBu	-6dBu	
ST CH LINE IN (9/10, 11/12)	-34dB	10kΩ	600Ω Lines	-54dBu	-34dBu	-14dBu	Phone jack*6
	+10dB			-10dBu	+10dBu	+30dBu	
ST CH IN (13/14, 15/16)	—	10kΩ	600Ω Lines	-30dBu	-10dBu	+10dBu	Phone jack*6 RCA pin jack
CH INSERT IN (1-8)	—	10kΩ	600Ω Lines	-20dBu	0dBu	+20dBu	TRS phone jack*7
RETURN [L,R]	—	10kΩ	600Ω Lines	-12dBu	+4dBu	+24dBu	Phone jack*6
2TR IN [L,R]	—	10kΩ	600Ω Lines	-26dBV	-10dBV	+10dBV	RCA pin jack

ANALOG OUTPUT CHARACTERISTICS

Connections	Actual Source Impedance	For Use With Nominal	Output level Nominal Level	Output level Max. before clip	Connector
STEREO OUT [L,R]	75Ω	600Ω Lines	+4dBu	+24dBu	XLR-3-32 type*4 TRS phone jack*5
GROUP OUT [1-4]	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone jack*9
AUX SEND (1-3) (EFFECT SEND)	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone jack*9
CH INSERT OUT (1-8)	75Ω	10kΩ Lines	0dBu	+20dBu	Phone jack*7
REC OUT [L, R]	600Ω	10kΩ Lines	-10dBV	+10dBV	RCA pin jack
MONITOR OUT [L, R]	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone jack*9
PHONES OUT	100Ω	40Ω Phones	3mW	75mW	Stereo phone jack

MG166C-USB, MG166CX-USB

DIGITAL INPUT/OUTPUT CHARACTERISTICS

Terminal	Format Data	length	Connector
USB	USB AUDIO 1.1	16 bit	USB B type

MG82CX, MG102C

ANALOG INPUT CHARACTERISTICS

Connections	GAIN	Actual load impedance	For use with nominal	Input level Sensitivity*2	Input level Nominal	Input level Max. before clip	Connector
CH IN MIC (1, 2)	-60dB	3kΩ	50-600Ω Mics	-72dBu	-60dBu	-40dBu	XLR-3-31 type*4
	-16dB			-28dBu	-16dBu	+4dBu	
CH IN LINE (1, 2)	-34dB	10kΩ	600Ω Lines	-46dBu	-34dBu	-14dBu	TRS phone jack*5
	+10dB			- 2dBu	+10dBu	+30dBu	
ST CH MIC IN (3/4, 5/6)	-60dB	3kΩ	50-600Ω Mics	-72dBu	-60dBu	-40dBu	XLR-3-31 type*4
	-16dB			-28dBu	-16dBu	-6dBu	
ST CH LINE IN (3/4, 5/6)	-34dB	10kΩ	600Ω Lines	-46dBu	-34dBu	-14dBu	Phone jack*6
	+10dB			- 2dBu	+10dBu	+30dBu	
ST CH IN (7/8, 9/10)	—	10kΩ	600Ω Lines	-22dBu	-10dBu	+10dBu	Phone jack*6 RCA pin jack
CH INSERT IN (1, 2)	—	10kΩ	600Ω Lines	-12dBu	0dBu	+20dBu	TRS phone jack*7
RETURN [L,R]	—	10kΩ	600Ω Lines	- 8dBu	+4dBu	+24dBu	Phone jack*6
2TR IN [L,R]	—	10kΩ	600Ω Lines	-22dBV	-10dBV	+10dBV	RCA pin jack

ANALOG OUTPUT CHARACTERISTICS

Connections	Actual Source Impedance	For Use With Nominal	Output level Nominal Level	Output level Max. before clip	Connector
STEREO OUT [L,R]	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone jack*9
AUX SEND	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone jack*9
CH INSERT OUT (1-2)	75Ω	10kΩ Lines	0dBu	+20dBu	Phone jack *7
REC OUT [L, R]	600Ω	10kΩ Lines	-10dBV	+10dBV	RCA pin jack
MONITOR OUT [L, R]	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone jack*9
PHONES OUT	100Ω	40Ω Phones	3mW	75mW	Stereo phone jack

MG206C, MG206C-USB

ANALOG INPUT CHARACTERISTICS

Connections	GAIN	Actual load impedance	For use with nominal	Input level Sensitivity*2	Input level Nominal	Input level Max. before clip	Connector
CH IN MIC (1-12)	-60dB	3kΩ	50-600Ω Mics	-80dBu	-60dBu	-40dBu	XLR-3-31 type*4
	-16dB			-36dBu	-16dBu	+4dBu	
CH IN LINE (1-12)	-34dB	10kΩ	600Ω Lines	-54dBu	-34dBu	-14dBu	TRS phone jack*5
	+10dB			-10dBu	+10dBu	+30dBu	
ST CH MIC IN (13/14-19/20)	-60dB	3kΩ	50-600Ω Mics	-80dBu	-60dBu	-40dBu	XLR-3-31 type*4
	-16dB			-36dBu	-16dBu	-6dBu	
ST CH LINE IN (13/14, 15/16)	-34dB	10kΩ	600Ω Lines	-54dBu	-34dBu	-14dBu	Phone jack*6
	+10dB			-10dBu	+10dBu	+30dBu	
ST CH LINE IN (17/18, 19/20)	—	10kΩ	600Ω Lines	-30dBu	-10dBu	+10dBu	Phone jack*6 RCA pin jack
CH INSERT IN (1-12)	—	10kΩ	600Ω Lines	-20dBu	0dBu	+20dBu	TRS phone jack*7
RETURN [L,R]	—	10kΩ	600Ω Lines	-12dBu	+4dBu	+24dBu	Phone jack*6
2TR IN [L,R]	—	10kΩ	600Ω Lines	-26dBV	-10dBV	+10dBV	RCA pin jack

ANALOG OUTPUT CHARACTERISTICS

Connections	Actual Source Impedance	For Use With Nominal	Output level Nominal Level	Output level Max. before clip	Connector
STEREO OUT [L,R]	75Ω	600Ω Lines	+4dBu	+24dBu	XLR-3-32 type*4, Phone jack*5
GROUP OUT [1-4]	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone jack*9
AUX SEND (1-4)	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone jack*9
CH INSERT OUT (1-12)	75Ω	10kΩ Lines	0dBu	+20dBu	Phone jack*7
REC OUT [L, R]	600Ω	10kΩ Lines	-10dBV	+10dBV	RCA pin jack
MONITOR OUT [L, R]	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone jack*9
PHONES OUT	100Ω	40Ω Phones	3mW	75mW	Stereo phone jack

MG206C-USB

DIGITAL INPUT/OUTPUT CHARACTERISTICS

Terminal	Format Data	length	Connector
USB	USB AUDIO 1.1	16 bit	USB B type

MG124C, MG124CX

ANALOG INPUT CHARACTERISTICS

Connections	GAIN	Actual load impedance	For use with nominal	Input level Sensitivity*2	Input level Nominal	Input level Max. before clip	Connector
CH IN MIC (1-4)	-60dB	3kΩ	50-600Ω Mics	-80dBu	-60dBu	-40dBu	XLR-3-31 type*4
	-16dB			-36dBu	-16dBu	+4dBu	
CH IN LINE (1-4)	-34dB	10kΩ	600Ω Lines	-54dBu	-34dBu	-14dBu	TRS phone jack*5
	+10dB			-10dBu	+10dBu	+30dBu	
ST CH MIC IN (5/6,7/8)	-60dB	3kΩ	50-600Ω Mics	-80dBu	-60dBu	-40dBu	XLR-3-31 type*4
	-16dB			-36dBu	-16dBu	-6dBu	
ST CH LINE IN (5/6,7/8)	-34dB	10kΩ	600Ω Lines	-54dBu	-34dBu	-14dBu	Phone jack*6
	+10dB			-10dBu	+10dBu	+30dBu	
ST CH IN (9/10,11/12)	—	10kΩ	600Ω Lines	-30dBu	-10dBu	+10dBu	Phone jack*6 RCA pin jack
CH INSERT IN (1-4)	—	10kΩ	600Ω Lines	-20dBu	0dBu	+20dBu	TRS phone jack*7
RETURN [L,R]	—	10kΩ	600Ω Lines	-12dBu	+4dBu	+24dBu	Phone jack*6
2TR IN [L,R]	—	10kΩ	600Ω Lines	-26dBV	-10dBV	+10dBV	RCA pin jack

ANALOG OUTPUT CHARACTERISTICS

Connections	Actual Source Impedance	For Use With Nominal	Output level Nominal Level	Output level Max. before clip	Connector
STEREO OUT [L, R]	75Ω	600Ω Lines	+4dBu	+24dBu	XLR-3-32 type*2, Phone jack*4
GROUP OUT [1, 2]	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone jack*5
AUX SEND[1, 2] (EFFECT SEND)	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone jack*5
CH INSERT OUT (1-4)	75Ω	10kΩ Lines	0dBu	+20dBu	Phone jack*6
REC OUT [L, R]	600Ω	10kΩ Lines	-10dBV	+10dBV	RCA pin jack
MONITOR OUT [L, R]	150Ω	10kΩ Lines	+4dBu	+20dBu	Phone jack*5
PHONES OUT	100Ω	40Ω Lines	3mW	75mW	Stereo phone jack

MG24/14FX, MG32/14FX

ANALOG INPUT CHARACTERISTICS

Connections	PAD	GAIN	Actual load impedance	For use with nominal	Input level Nominal	Input level Max. before clip	Connector
CH INPUT [A, B] *10	0	-60dB	3kΩ	50-600Ω Mics 600Ω Lines	-60 dBu	-40 dBu	A: XLR-3-31type *4 B: Phone Jack(TRS) *13
	26				-34 dBu	+14 dBu	
	0	-16dB			-16 dBu	+4 dBu	
	26				+10 dBu	+30 dBu	
ST CH INPUT *11 *12		-34dB	10kΩ	600Ω Lines	-34 dBu	-14 dBu	TRS phone Jack*10*11*12 RCA Pin Jack*12
		+10dB			+10 dBu	+30 dBu	
CH INSERT IN *10			10kΩ	600Ω Lines	0 dBu	+20 dBu	TRS phone Jack *5
GROUP INSERT IN (1-4)			10kΩ	600Ω Lines	0 dBu	+20 dBu	
SUB IN (1, 2) [L, R]			10kΩ	600Ω Lines	+4 dBu	+24 dBu	TRS phone Jack*9
TB IN			10kΩ	50-600Ω Mics	-50 dBu	-30 dBu	XLR-3-31type *14
2TR IN [L, R]			10kΩ	600Ω Lines	-10 dBV	+10 dBV	RCA Pin jack

ANALOG OUTPUT CHARACTERISTICS

Connections	Actual Source Impedance	For Use With Nominal	Output level Nominal Level	Output level Max. before clip	Connector
ST OUT [L, R] MONO OUT	150Ω	600Ω Lines	+4dBu	+24dBu	XLR-3-32 type *4
GROUP OUT (1-4) AUX OUT (1-6)	150Ω	600Ω Lines	+4dBu	+20dBu	TRS phone Jack *9
ST SUB OUT [L, R]) EFFECT OUT (1, 2)	150Ω	10kΩ Lines	+4dBu	+20dBu	TRS phone Jack *9
CH INSERT OUT *1 GROUP INSERT OUT (1-4) ST INSERT OUT [L, R]	150Ω	10kΩ Lines	0 dBu	+20dBu	TRS phone Jack *5
REC OUT [L, R]	600Ω	10kΩ Lines	-10 dBV	+10 dBV	RCA Pin jack
PHONES OUT	100Ω	40Ω Phones	3mW	75mW	Stereo Phone Jack

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*1 0 dBu is referenced to 0.775 Vrms. 0 dBV is referenced to 1 Vrms.
*2 Sensitivity is the lowest level that will produce an output of +4 dBu (1.23 V), or the nominal output level when the unit is set to maximum level. (all faders and level controls are at maximum position.)
*3 Combo jacks are blanced (1&Sleeve=GND, 2&Tip=HOT, 3&Ring=COLD)
*4 XLR-3-31/32 type connectors are balanced. (1=GND, 2=HOT, 3=COLD)
*5 Phone Jacks are balanced. (Tip=HOT, Ring=COLD, Sleeve=GND)

*6 Phone Jacks are unbalanced.
*7 Phone Jacks are unbalanced. (Tip=Out, Ring=In, Sleeve=GND)
*8 ST CH IN 9/10 exists only in MG102C
*9 Phone Jacks are impedance balanced. (Tip=HOT, Ring=COLD, Sleeve=GND)
*10 MG24/14FX: CH1-16, MG32/14FX: CH1-24
*11 MG24/14FX: CH17 (L)/18 (R), CH19 (L)/20 (R), MG32/14FX: CH25 (L)/26 (R), CH27 (L)/28 (R)
*12 MG24/14FX: CH21 (L)/22 (R), CH23 (L)/24 (R), MG32/14FX: CH29 (L)/30 (R), CH31 (L)/32 (R)

*13 CH INPUT XLR type connectors and Phone Jacks (TRS) are balanced. (T: HOT, R: COLD, S: GND)
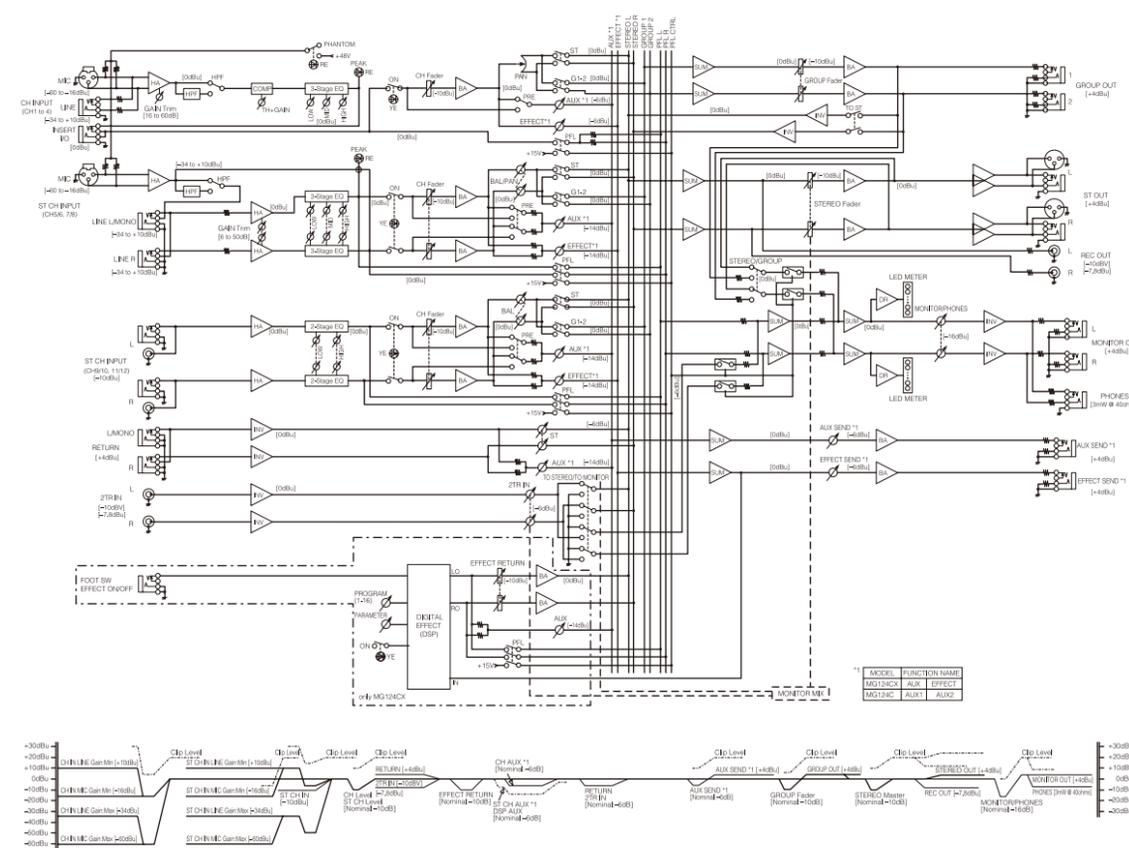*14 TB IN XLR type connector is unbalanced.
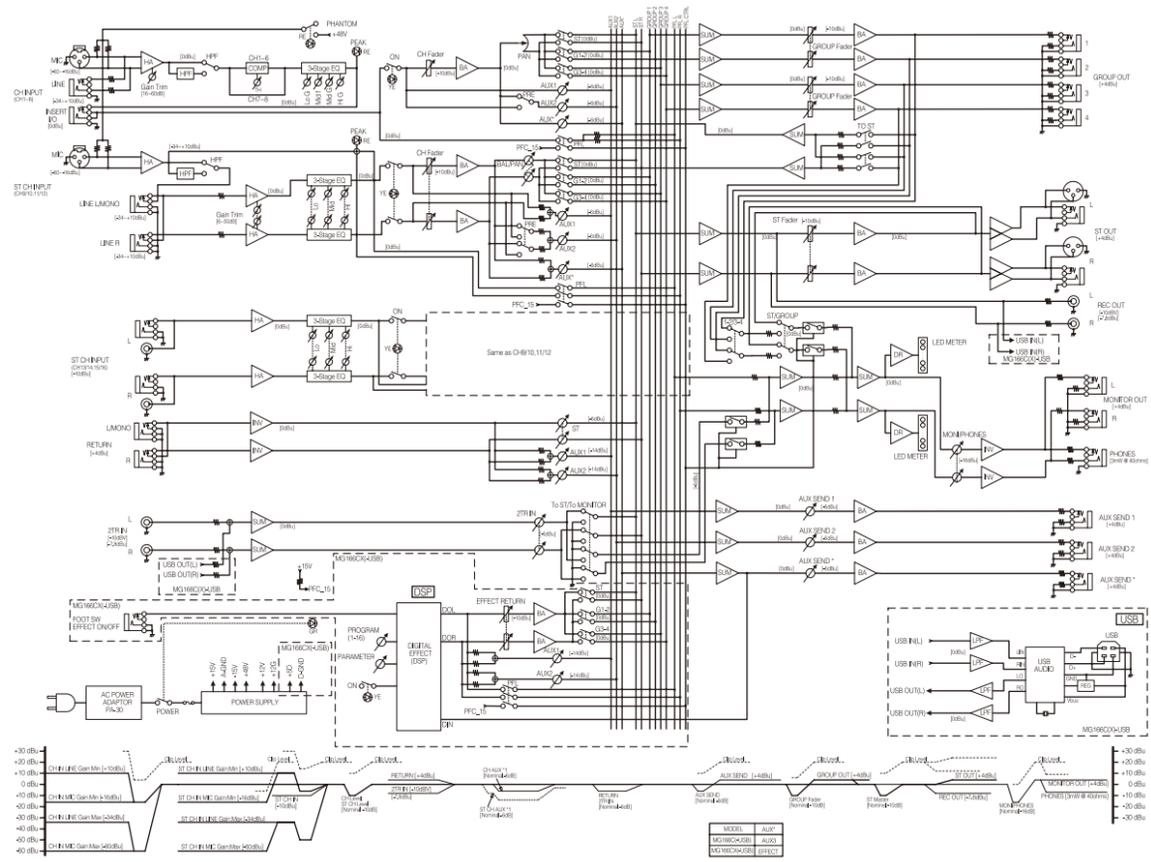
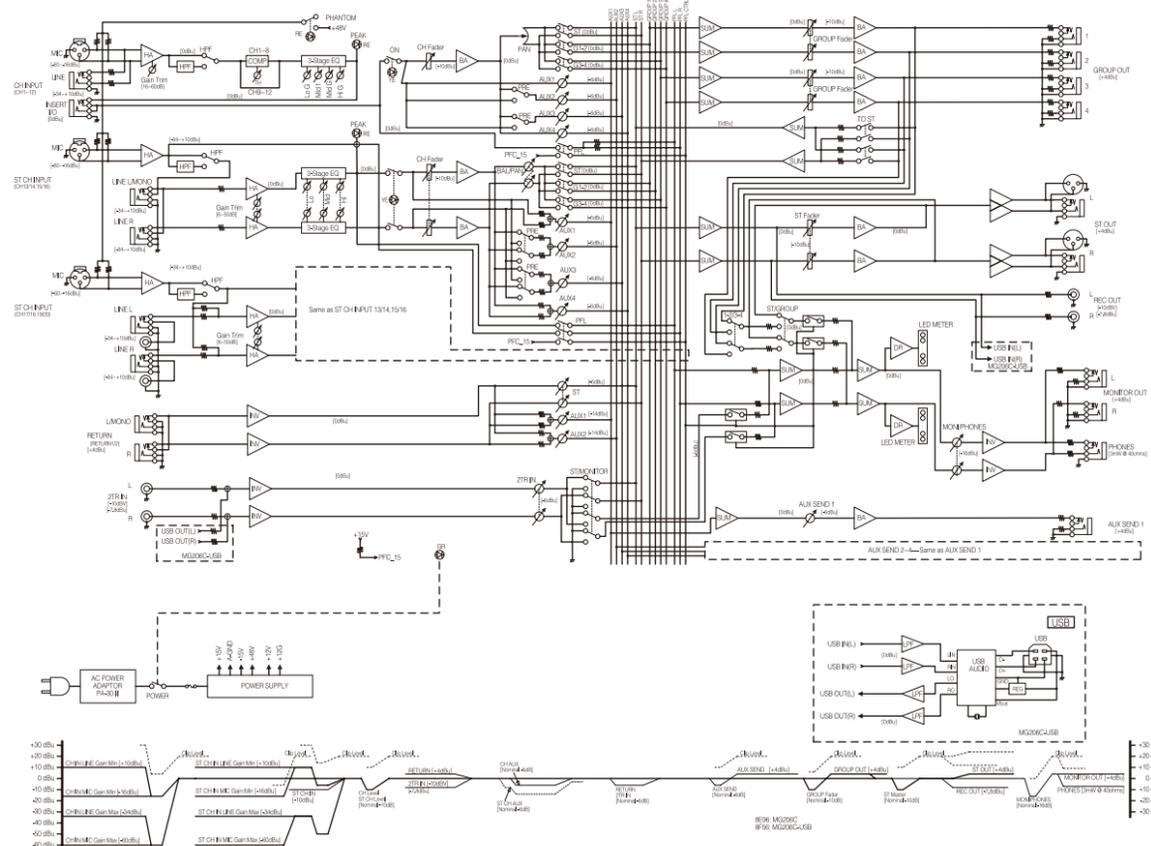## MG82CX, MG102C Block and Level Diagram
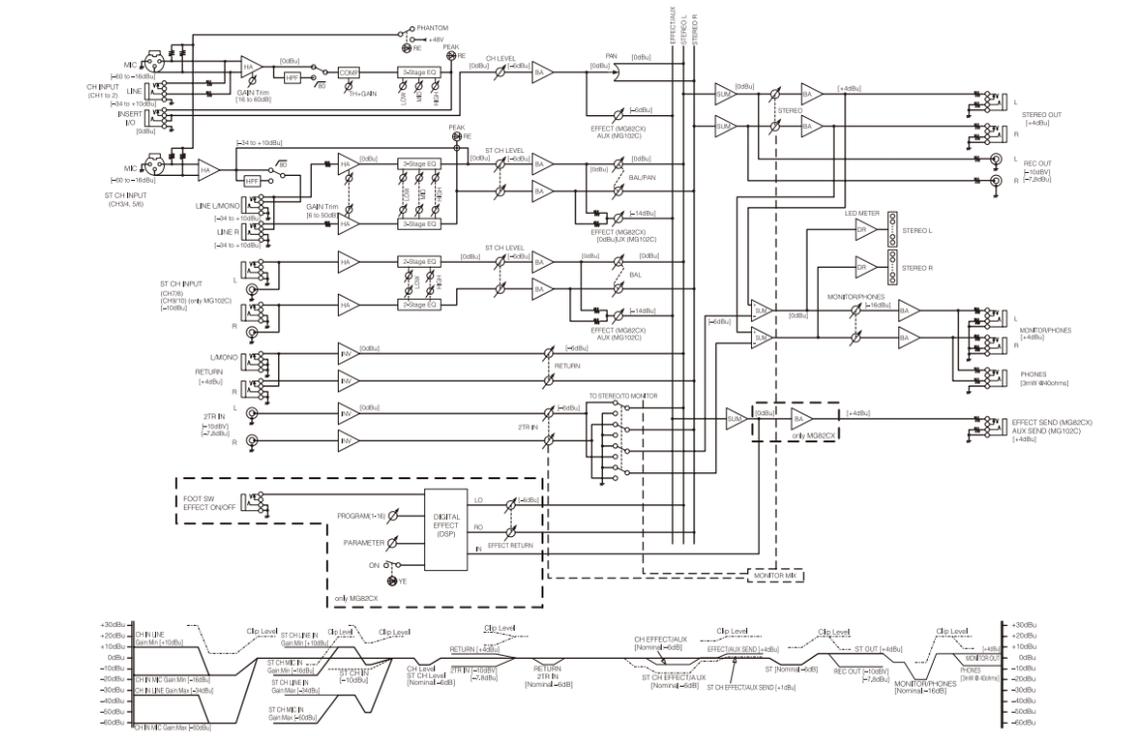
MG124C, MG124CX Block and Level Diagram

MG166C, MG166CX, MG166C-USB, MG166CX-USB Block and Level Diagram

MG206C, MG206C-USB Block and Level Diagram

MG24/14FX, MG32/14FX Block and Level Diagram