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› Yamaha MG16XU 16-Input 6-Bus Mixer with SPX Digital Effects and USB Interface User Manual

Yamaha MG16XU

Yamaha MG16XU 16-Input 6-Bus Mixer User Manual

Model: MG16XU

INTRODUCTION

This manual provides comprehensive instructions for the Yamaha MG16XU 16-Input 6-Bus Mixer, featuring SPX digital effects and a USB audio interface. The MG Series embodies Yamaha's commitment to design excellence, incorporating technologies from high-end professional consoles, including studio-quality preamps, powerful digital processing, and a rugged, reliable construction. This guide will assist you in setting up, operating, maintaining, and troubleshooting your mixer to ensure optimal performance.



Figure 1: Front view of the Yamaha MG16XU Mixing Console.

FEATURES

- 16-Channel mixer with USB audio interface and SPX digital effects.
- Studio-grade discrete Class-A D-PRE preamps with inverted Darlington circuit for natural-sounding audio.
- 3-band EQ and high-pass filters for precise sound control and noise reduction.
- 1-Knob compressors for easy dynamic control, enhancing various audio sources.
- Rugged, impact-resistant, powder-coated metal chassis for durability.

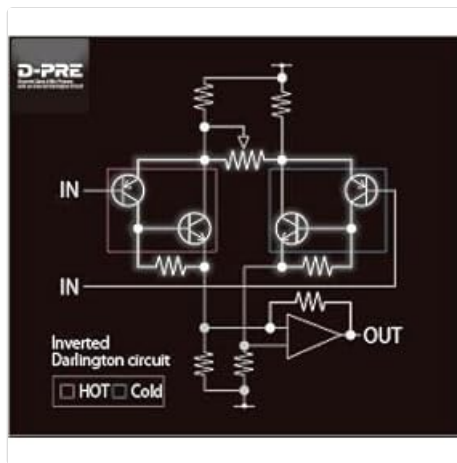


Figure 2: Diagram illustrating the D-PRE preamp circuit with inverted Darlington configuration.

SETUP

- Power Connection:** Connect the supplied AC power adapter to the 'AC ADAPTOR IN' port on the rear panel of the mixer. Ensure the power switch is in the OFF position before connecting.
- Input Devices:** Connect microphones, instruments, and other audio sources to the appropriate input channels. XLR inputs support phantom power (+48V) for condenser microphones.
- Output Devices:** Connect your main speakers to the STEREO OUT (XLR or 1/4-inch TRS) jacks. Monitor speakers or headphones can be connected to the MONITOR OUT and PHONES jacks, respectively.
- USB Audio Interface:** For computer recording or playback, connect a USB cable (sold separately) from the mixer's USB 2.0 port to your computer. Ensure your computer meets the system requirements (2 GB RAM, 4 GB free HDD space, 1280x800 display resolution, internet connection).



Figure 3: Rear panel connections, including AC power input and USB port.

OPERATING INSTRUCTIONS

Channel Controls

- **GAIN Knob:** Adjusts the input sensitivity for each channel. Set it so the PEAK indicator flashes only occasionally.
- **PAD Switch:** Attenuates input signals by 26dB for high-output sources.
- **HPF (High-Pass Filter) Switch:** Cuts frequencies below 80Hz to reduce unwanted low-end noise.
- **COMP (Compressor) Knob:** Adjusts the compression applied to the channel.
- **EQ (Equalizer) Knobs:** Adjust HIGH (10kHz), MID (2.5kHz), and LOW (100Hz) frequencies for tone shaping.
- **FX Knob:** Controls the amount of effect sent from the channel to the SPX digital effects processor.
- **PAN/BAL Knob:** Adjusts the stereo position of the channel.

- **ON Switch:** Turns the channel on or off.
- **LEVEL Fader:** Adjusts the output volume of the channel.



Figure 4: Detailed view of individual channel controls, including gain, EQ, and compressor knobs.

SPX Digital Effects

- **PROGRAM Knob:** Selects one of the 24 built-in SPX digital effects (e.g., Reverb, Delay, Chorus, Flanger, Distortion).
- **PARAMETER Knob:** Adjusts specific parameters of the selected effect.
- **FX ON Switch:** Activates or deactivates the effects processor.
- **LEVEL FX RTN Knob:** Controls the overall return level of the effects to the main stereo mix.



Figure 5: SPX digital multi-effect processor section with program and parameter controls.

Master Controls

- **STEREO Fader:** Controls the overall output level of the main stereo mix.
- **GROUP Faders (1-2, 3-4):** Control the output levels of the assigned groups.
- **MONITOR LEVEL Knob:** Adjusts the volume for monitor outputs.
- **PHONES Knob:** Adjusts the volume for headphone output.

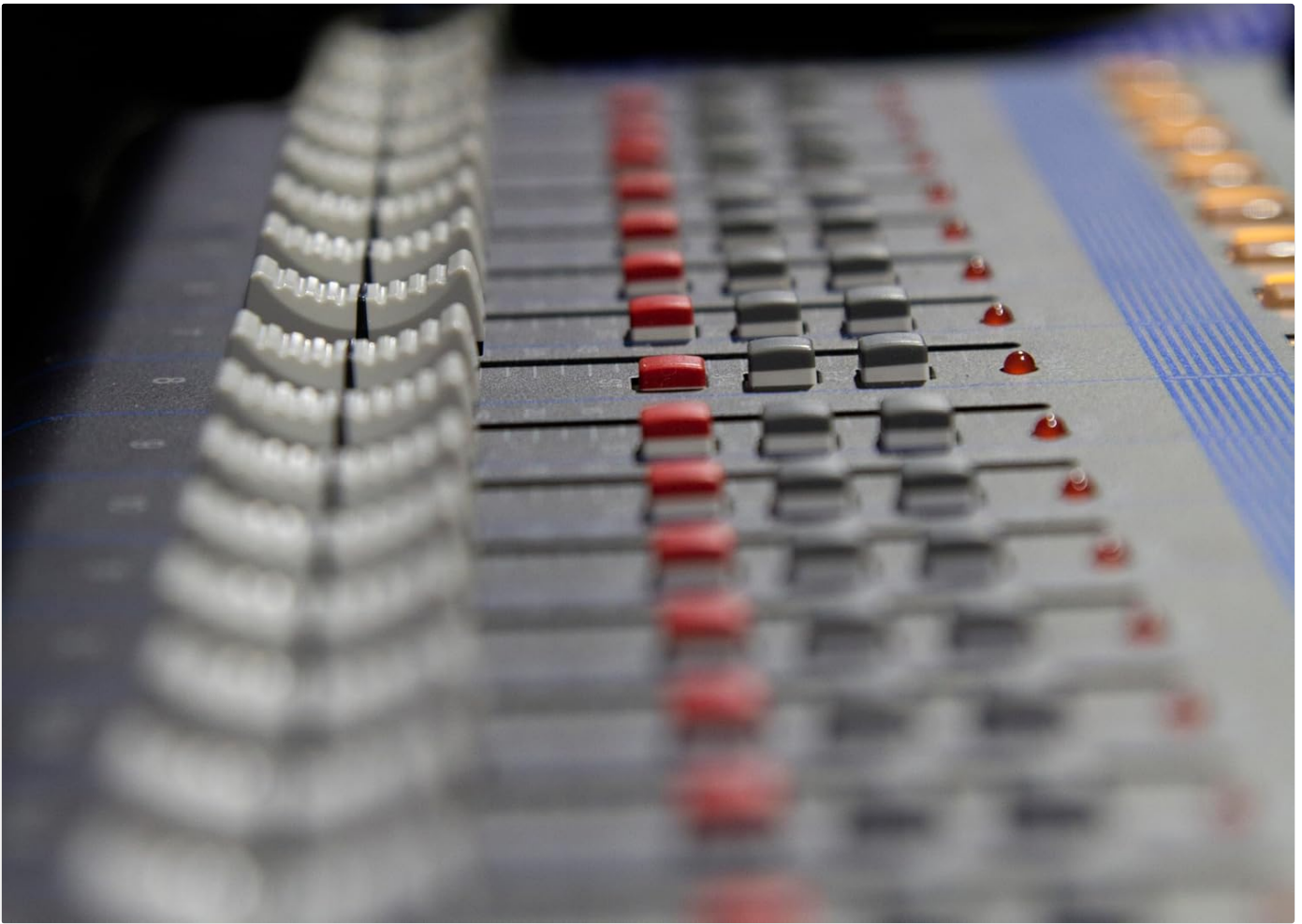


Figure 6: Master faders for stereo and groups, along with monitor and headphone level controls.

MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the mixer's surface. Avoid abrasive cleaners or solvents.
- **Storage:** Store the mixer in a cool, dry place away from direct sunlight and extreme temperatures.
- **Ventilation:** Ensure proper ventilation around the mixer to prevent overheating.
- **Cable Management:** Organize cables to prevent strain on connectors and accidental disconnections.

TROUBLESHOOTING

- **No Power:** Ensure the power adapter is securely connected to both the mixer and a working AC outlet. Check the power switch position.
- **No Sound:** Verify all input and output cables are correctly connected. Check that channel ON switches are engaged and faders/knobs are set to appropriate levels. Ensure connected speakers or amplifiers are powered on.
- **Sound is Faint, Distorted, or Noisy:** Adjust GAIN and LEVEL knobs to prevent clipping (PEAK LEDs should not be constantly lit). Check for damaged cables. Ensure PAD switches are used for high-output sources. Adjust EQ and HPF settings to eliminate unwanted frequencies.
- **No Effects Applied:** Verify the FX ON switch is engaged and the PROGRAM knob has an effect selected. Check the FX knob on individual channels and the LEVEL FX RTN knob.
- **USB Audio Issues:** Ensure the USB cable is properly connected and the LINE/USB switch is set to USB. Check your computer's audio settings and drivers.

SPECIFICATIONS

Item Weight	14.99 pounds (6800 Grams)
Product Dimensions	20.59 x 8.39 x 22.01 inches
Item Model Number	MG16XU
Hardware Interface	USB
Size	16-input
Power Source	Corded Electric
Voltage	48 Volts
Wattage	30 watts
Number of Channels	16
Connectivity Technology	16 Line Inputs, Max 10 Mic inputs (8 Combo jacks + 2 XLR inputs)

WARRANTY AND SUPPORT

For detailed warranty information, product registration, and technical support, please visit the official Yamaha website or contact their customer service. Keep your purchase receipt for warranty claims.

Official Yamaha Website: www.yamaha.com