

Behringer DEQ2496

Behringer Ultracurve Pro DEQ2496 User Manual

Ultra-High Precision 24-Bit/96 kHz Equalizer and Mastering Processor

1. INTRODUCTION

The BEHRINGER ULTRACURVE PRO DEQ2496 is a state-of-the-art digital 24-bit/96 kHz EQ/RTA mastering processor. It is engineered for both demanding live sound environments and critical audiophile mastering applications, offering unparalleled control and sonic optimization. This manual provides essential information for setting up, operating, and maintaining your DEQ2496.

Key features include ultra-high resolution 24-bit/96 kHz A/D and D/A converters with 113 dB dynamic range, and powerful 32/40-bit floating-point DSP technology. It integrates four concurrently selectable EQ modules, a 61-band real-time FFT analyzer with auto EQ, and comprehensive dynamics processing tools.

2. SETUP

2.1 Unpacking and Inspection

Carefully unpack your DEQ2496 and inspect it for any signs of damage that may have occurred during transit. If damage is found, contact your dealer immediately. Ensure all components listed in the packaging are present. The package should include the DEQ2496 Digital Mastering Processor.

2.2 Connections

The DEQ2496 offers a variety of input and output options for versatile integration into your audio setup. All connections are designed for optimal signal integrity.

- **Audio Inputs/Outputs:** Utilize the balanced inputs and servo-balanced outputs with gold-plated XLR connectors for main audio signals. A stereo auxiliary output is also provided.
- **Digital Connections:** AES/EBU and S/PDIF inputs and outputs are available via XLR and optical connectors for digital audio routing.
- **RTA/Mic Input:** A separate mic/line input with phantom power is included for Real-Time Analyzer (RTA) and Auto-EQ applications, allowing for precise room and loudspeaker equalization.
- **Control Connections:** Professional Wordclock input ensures synchronization in complex digital setups. MIDI connections (IN, OUT, THRU) enable full remote control, preset dumps, and future system updates.

3.5 RTA/SPL/FFT Analyzer with Auto EQ Function

The DEQ2496 features a 61-band FFT real-time analyzer for precise graphic display of frequency content. It can monitor main or digital inputs/outputs, AUX/digital out, or a feed from an RTA microphone. The user-definable Auto EQ function allows for automatic analysis and adjustment of your system's frequency response, ideal for initial room adjustments.

3.6 User Memories and Presets

The unit supports 64 user memories for complete setups or individual module configurations. Presets can be saved, recalled, dumped, and loaded via MIDI. Individual modules (e.g., DEQ, PEQ, WIDTH, DYN) can also be saved and recalled independently, allowing for flexible adjustments without creating entirely new presets.

4. MAINTENANCE

To ensure the longevity and optimal performance of your DEQ2496, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Avoid abrasive cleaners or solvents that could damage the finish or controls.
- **Ventilation:** Ensure adequate ventilation around the unit to prevent overheating. Do not block the ventilation openings.
- **Software Updates:** The DEQ2496 features an open architecture that allows for future software updates via MIDI. Check the Behringer website periodically for available firmware updates and instructions.
- **Storage:** When not in use for extended periods, store the unit in a cool, dry place, protected from dust and extreme temperatures.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your DEQ2496.

5.1 No Power

- **Check Power Cable:** Ensure the power cable is securely connected to the unit and a working power outlet.
- **Power Button:** Verify the POWER button on the front panel is pressed in.
- **Power Source:** Confirm the power outlet is active by testing it with another device.

5.2 No Audio Output

- **Input/Output Connections:** Double-check all audio cables (XLR, optical, S/PDIF) are correctly connected to the DEQ2496 and your other audio equipment.
- **Signal Levels:** Ensure input signal levels are adequate and output levels are not set too low. Check the multi-functional level meters.
- **Bypass Mode:** Verify the unit is not in bypass mode. The BYPASS button should not be illuminated if you want processing.
- **Preset Settings:** Some presets might have extreme EQ or dynamics settings that could mute or significantly attenuate the signal. Try recalling a default or flat preset.

5.3 Unwanted Noise or Distortion

- **Cabling:** Use high-quality, shielded cables. Check for damaged cables or loose connections.
- **Ground Loops:** Ensure all equipment in your audio chain is properly grounded. Ground loop isolators may be necessary in some setups.
- **Input Overload:** Reduce the input gain if the input meters are consistently peaking or showing red.
- **Power Supply:** The internal switch-mode power supply is designed for noise-free audio. If noise persists, ensure

the power supply is stable and not affected by other noisy electrical devices.

5.4 Display Issues

- **Brightness:** Check display brightness settings within the utility menu.
- **Firmware:** Ensure the unit has the latest firmware, as display glitches can sometimes be resolved with updates.

6. SPECIFICATIONS


Feature	Specification
Model Name	DEQ2496
Product Dimensions	19 x 1.75 x 8.46 inches
Item Weight	6.73 pounds
Signal-to-Noise Ratio	113 dB
Processor Count	2
Connectivity Technology	Auxiliary, XLR, Optical
Included Components	Digital Mastering Processor
Power Source	Corded Electric (100 - 240 V~)
Audio Output Mode	Stereo
Color	Silver & Black
UPC	616268518166, 689076811583, 210000042539, 411378073686

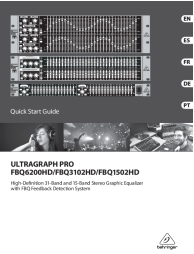
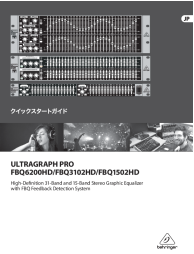
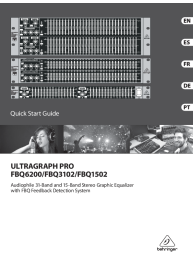

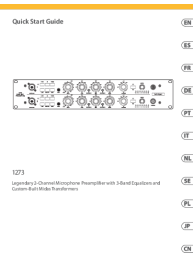
7. WARRANTY AND SUPPORT

For detailed information regarding the product warranty, technical support, and service options, please refer to the official Behringer website or contact your local authorized Behringer dealer. Keep your purchase receipt as proof of purchase for warranty claims.

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Related Documents - DEQ2496

	<p>Quick Start Guide for Behringer ULTRACURVE PRO DEQ2496</p> <p>This guide provides essential safety instructions and an overview of the controls and specifications for the Behringer ULTRACURVE PRO DEQ2496 equalizer and processor.</p>
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	<p>Behringer ULTRAGRAPH PRO FBQ6200HD/FBQ3102HD/FBQ1502HD Quick Start Guide</p> <p>Get started quickly with the Behringer ULTRAGRAPH PRO FBQ6200HD, FBQ3102HD, and FBQ1502HD high-definition stereo graphic equalizers. This guide covers controls, specifications, and important safety information.</p>
	<p>Behringer ULTRAGRAPH PRO FBQ6200HD/FBQ3102HD/FBQ1502HD Quick Start Guide</p> <p>Quick start guide for the Behringer ULTRAGRAPH PRO series graphic equalizers, including models FBQ6200HD, FBQ3102HD, and FBQ1502HD. Covers safety, controls, and technical specifications.</p>
	<p>Behringer ULTRAGRAPH PRO FBQ6200/FBQ3102/FBQ1502 Quick Start Guide</p> <p>This guide provides essential information for setting up and operating the Behringer ULTRAGRAPH PRO series graphic equalizers, including the FBQ6200, FBQ3102, and FBQ1502 models. It covers product overview, safety instructions, controls, features, specifications, and important user information.</p>
	<p>Behringer FBQ2496 Feedback Destroyer Pro Quick Start Guide</p> <p>Get started quickly with the Behringer FBQ2496 Feedback Destroyer Pro. This guide covers essential setup, safety, and operational controls for this automatic feedback suppressor and parametric equalizer.</p>
	<p>Behringer 1273: Quick Start Guide for Legendary 2-Channel Microphone Preamplifier</p> <p>Get started quickly with the Behringer 1273, a legendary 2-channel microphone preamplifier featuring 3-band equalizers and custom-built Midas transformers. This guide provides essential setup and operation information.</p>