

Professional Series

Model 5302

Mixer/Preamplifier

8 inputs (6 microphone; 2 line level)
+18 dBm output at less than 0.2% THD
Separate monitor amplifier
Cue in/out switch
Switchable input pads



The JBL 5302 is a versatile, solid-state mixer/preamplifier capable of combining two line and six microphone inputs. Each of the microphone inputs is designed to accept an unbalanced, high impedance signal. These inputs may be converted to accept balanced, low impedance microphones by inserting accessory transformers in the sockets provided for that purpose. One of the microphone inputs may be internally switched to RIAA phono characteristics, and a pair of RCA-type jacks on the rear panel permits a stereo source to be fed to this input. The two line inputs are also wired for unbalanced, high impedance operation. Optional accessory transformers may be used to convert these to balanced high or low impedance inputs.

For maximum flexibility, the 5302 is equipped with individual input level controls, a master gain control, and a monitor

level control. Separate high and low frequency rotary tone controls affect output above 2.5 kHz and below 400 Hz, respectively.

A monitor Cue In/Out switch permits mixer output to be switched off, allowing full use of the mixer for cueing. The monitor output, available at the phone jack on the front panel, can be used for headphones or to drive an auxiliary amplifier. For balanced 600 Ω output, an optional accessory output transformer is available.

The mixer, including accessories, can be mounted in three standard EIA rack spaces.

Architectural Specifications

The mixer shall be a solid-state unit capable of combining six microphone and two line-level inputs and shall be capable of delivering +18 dBm with less than 0.2% THD. It shall have a frequency response of 20 Hz - 20 kHz, ± 1 dB, at +18 dBm or less.

Each of the six microphone inputs shall accommodate an unbalanced high impedance microphone or a balanced low impedance microphone. The microphone circuits shall be equipped with sockets for mounting optional plug-in transformers to permit the use of low impedance microphones. Three-pin female XL-type receptacles shall be provided for the microphone channels. Each microphone input shall be equipped with an input pad switch on the front panel, selectable for 0, 15, or 30 dB of attenuation.

The two line-level inputs shall accommodate an unbalanced high impedance input or a balanced high or low impedance input. The line-level inputs shall be equipped with sockets for mounting accessory transformers. A four-terminal screw terminal board shall be provided for connecting each line input.

One microphone input shall alternatively accommodate a magnetic phono cartridge input. A dual RCA-type phono jack shall be provided to allow program input from a stereo source.

The mixer shall have individual low and high frequency tone controls. The low frequency control shall affect output below 400 Hz and the high frequency control shall modify output above 2500 Hz.

A 6.3 mm ($\frac{1}{4}$ in) phone jack shall be provided on the face panel to allow headset monitoring or connection to an auxiliary amplifier. The monitor output shall be affected by the tone controls and shall be provided with a separate gain control. A Cue In/Out switch shall be provided to allow the mixer output to be switched off.

For balanced 600-ohm output, an optional accessory output transformer shall be available.

The mixer shall occupy three standard EIA rack spaces and shall operate on 120/240 V AC, 50/60 Hz.

The mixer shall be the JBL Model 5302.

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Professional Division

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Specifications

Gain	
Microphone	60 dB high Z unbalanced; switchable pad: 0 dB, -15 dB, -30 dB 80 dB low Z balanced with JBL 5901 transformer
Line	29 dB high Z unbalanced 28 dB high Z balanced bridging with JBL 5195 transformer
Phono	53 dB @ 1 kHz, 47 k Ω input Z
Output Level	+18 dBm maximum
Output Impedance	Unbalanced, < 120 Ω Balanced with transformer, < 150 Ω source
Frequency Response	20 Hz - 20 kHz, ± 1 dB, with transformer
Total Harmonic Distortion	< 0.2%, 20 Hz - 20 kHz, +18 dBm
Intermodulation Distortion (SMPTE)	< 0.03%
Equivalent Input Noise	-124 dBm, 20 kHz equivalent noise bandwidth
Microphone Input Overload	+10 dBm, high Z, 30 dB pad
Input Impedance	
Microphone	510 k Ω , high Z 800 Ω , low Z with JBL 5901 transformer
Line	15 k Ω , balanced or unbalanced
Phono	47 k Ω
Headphone Output	+14 dBm
Controls	
Power	On-off pushbutton
Microphone (6)	Audio taper
Line (2)	Audio taper
Master Level	Audio taper
Monitor Level	Audio taper
Tone Controls	
Bass	± 14 dB @ 50 Hz
Treble	± 10 dB @ 10 kHz
Cue	On-off pushbutton
Microphone Pads (6)	3-position slide switch
VU Meter Range	3-position slide switch
Indicators	Power on VU meter
Connectors	
Monitor Headphone	6.3 mm ($\frac{1}{4}$ in) phone jack
Microphone Input (6)	XL-type, female
Line Input (2)	Screw-terminal strip
Phono Input	Dual RCA-type jack
Line Output	Screw-terminal strip
Power Requirement	120 V AC, 50/60 Hz
Dimensions	
Front Panel	483 mm x 133 mm (19 in x 5 $\frac{1}{4}$ in)
Depth of Controls	19 mm ($\frac{3}{4}$ in)
Depth Behind Panel	217 mm (8 $\frac{5}{16}$ in)
Mounting	3 EIA standard rack spaces
Panel Finish	Semi-gloss baked enamel, dark gray
Net Weight	7.2 kg (15 $\frac{3}{4}$ lb)
Shipping Weight	9 kg (20 lb)
Accessories	Model 5195 Matching/Bridging Transformer Model 5901 Microphone Input Transformer

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