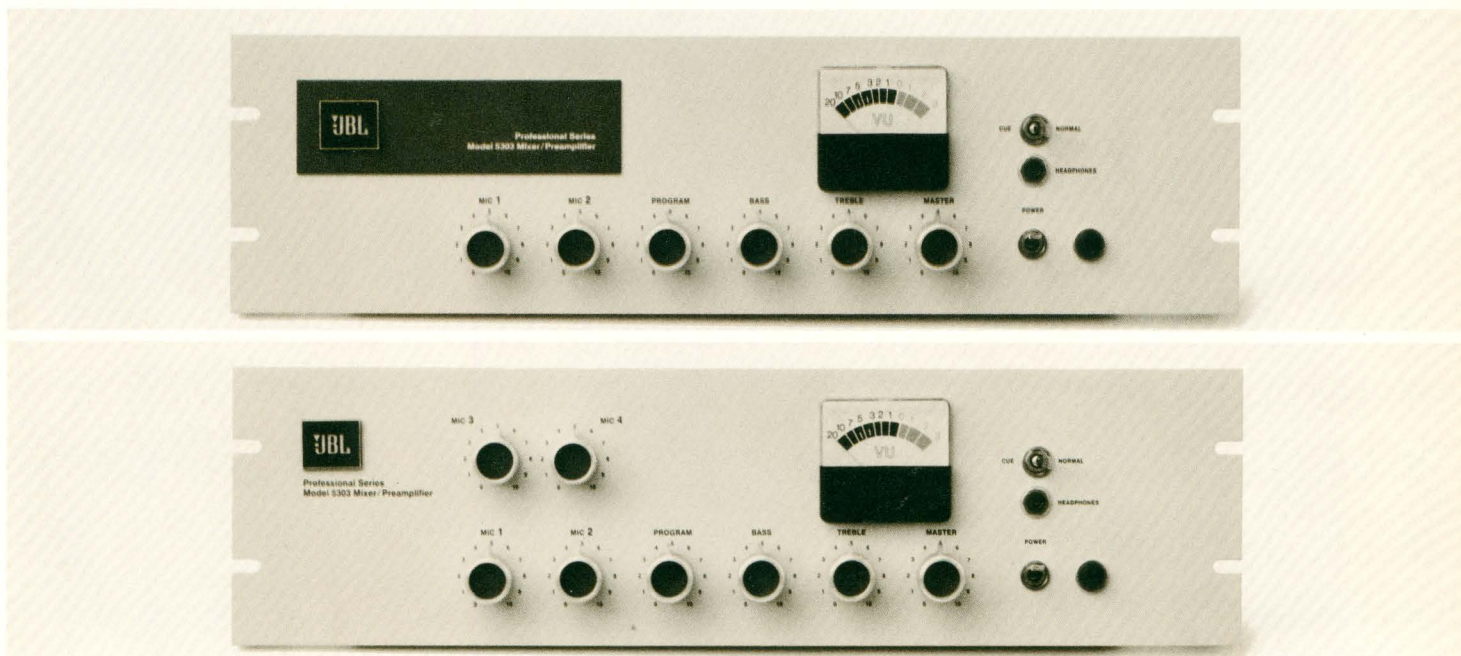


Professional Series Model 5303 Mixer/Preamplifier

3 channel (expandable to 5) mixer
FET microphone preamplifiers
VU meter standard
+8dBm output @ less than .25% THD
.5% IM distortion
-122dBm equivalent input noise

Professional audio consultants and engineers are invited to compare the JBL 5303 with comparable electronics on the basis of features, electronic measurements and extended listening tests.



The JBL 5303 is a solid-state mixer/preamplifier that provides an output of +8dBm with low noise and distortion (+18dBm available with internal connection). It is designed for professional sound engineering applications where a high level of reliability and performance is required.

The inputs and outputs have been designed for a high degree of flexibility to enable the user to incorporate this mixer in a variety of professional sound applications.

The 5303 normally has two microphone channels and one high level input with provision for adding two more microphones by use of the 5190 Microphone Preamp Expander Module.

The two microphone channels as well as the two accessory channels have been factory wired to accept an unbalanced high impedance input. XLR type connectors have been provided for making the microphone connections. This input may be converted to balanced low impedance by using the 5901 plug-in transformer.

The program channel is 50,000 ohms unbalanced input. The program input will also accept a phono cartridge, tapehead, tuner or other similar program source by simply installing the proper plug-in accessory.



Model 5303 – Mixer/Preamplifier

Architectural Specifications

The mixer shall have an output of +8dBm with less than .25% THD and have a frequency response of 20-20,000 Hz ± 1 db (+18dBm with internal connection). The microphone circuits shall be provided with sockets to accommodate plug-in transformers to permit the use of high or low impedance microphones. XLR-type connectors shall be provided for connecting the microphones. The high impedance program input shall be provided with a socket to accommodate all the accessories so that the input can accept magnetic phono, tapehead, tuner, bridge or match a telephone line.

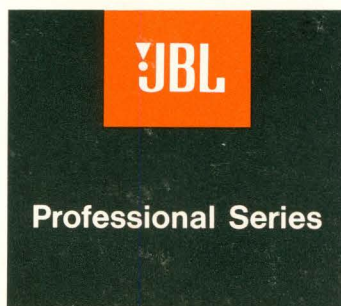
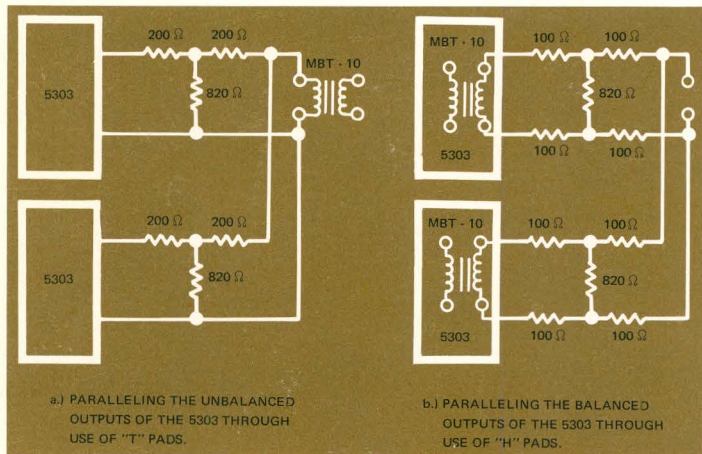
The mixer shall have a program input and two microphone inputs standard. It shall also have provision for accepting the 5190 accessory which provides two additional microphone inputs. All microphone inputs, including the accessory, shall be identical.

The mixer shall be designed so that two or more units can be used simultaneously, feeding the same load.

The mixer shall have an unbalanced 600 ohm output (+8dBm) on a phono jack and provide a socket for accommodating a plug-in output transformer. Three screw terminals shall be provided to accommodate the balanced output and ground connections when the output transformer is installed. With the output transformer installed, the unbalanced output shall automatically and without the use of accessories become an unbalanced bridging output of +8dBm with minimum recommended load impedance of 10K ohms.

The performance specifications shall be listed under SPECIFICATIONS and shall be met or exceeded.

The mixer shall be listed by the Underwriters' Laboratories, Inc.



Specifications

Gain (w/master gain fully clockwise)	Microphone channel 83dB (5901) Program channel 26dB (50K ohms unbalanced) 30dB (5195 wired for bridging) 44dB (5195 wired for matching)
Output Level	+8dBm min. @ 600 ohms balanced +8dBm min. @ 600 ohms unbalanced w/5195 plug-in transformer (+18dBm with internal connection)
Frequency Response	(Mics & program) 20-20,000 Hz ± 1 dB
THD (Mics & program)	.25% max. at +18dBm
IM Distortion (Mics & program)	.5% at +1dBm
Output	600 ohms balanced (5195) 600 ohms unbalanced
Microphone Overloading	-27dBm for 5% THD
Interchannel Crosstalk	60dB min. at any frequency
Tone Controls	Bass (± 10 dB at 50 Hz) Treble (± 10 dB at 10,000 Hz)
Noise	Output (basic): -85dB min. Program: 74dB min. (w/Master-gain referenced) Microphones: Unweighted noise: -122dBm Weighted noise: -124dBm (Weighted noise bandwidth: dc-20kHz)
Inputs	Program: 50K ohms unbalanced (.4 volts) Lines: 15K ohms balanced w/plug-in 5905 transformer; 600 ohms balanced w/plug-in 5195 transformer Phono Magnetic w/plug-in 5191 Tape head 3% or 7 1/2 IPS w/plug-in 5191
Microphones	High Z unbalanced (1 megohm) Low Z balanced (50, 150-250, 600 ohms) w/plug-in 5109 transformer (-61 dBm for +18dBm out) Microphones can be converted to 50K ohms unbalanced programs by use of plug-in 5904 Two additional microphone channels can be added by using plug-in 5190
Sensitivity	Microphone channels: -61dBm for +8dBm Program channel: .4 volt max. across 50,000 ohms
Controls	Microphones #1 & 2 Program Bass & treble boost & cut (± 10 dB) Master gain Power on-off switch Two additional microphone controls if 5190 expander module is used
Indicators	On-off neon pilot light VU meter (broadcast ballistics)
Monitors	Headphone jack VU meter Cueing switch (to check output)
Power Supply	120V AC, 50/60 Hz, 10W, fused
Semiconductors	All silicon, 2 FET, 6 transistors, 2 diodes, 1 zener
Dimensions	Standard rack mount: 19" x 5 1/4" (3 panel spaces) x 10" deep
Shipping Weight	8 1/2 lbs
Finish	Non-glare baked enamel, light gray
Warranty	Two years
Listings	Underwriters' Laboratories, Inc.