

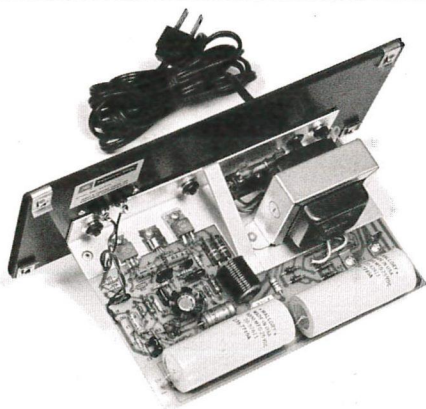
**JBL
4301E
INSTALLATION
AND SERVICE
MANUAL**

The JBL 4301E is a self-contained amplifier/monitor loudspeaker system, compact in size and designed for mobile recording, broadcasting, editing applications, or wherever space is a premium.



Loudspeaker Specifications

Frequency Response	
Sine Wave, On-axis	45 Hz to 15 kHz \pm 3 dB
$\frac{1}{3}$ -Octave Band (400 Hz reference)	-3 dB @ 50 Hz 0 dB @ 1.2 kHz +2 dB @ 12 kHz
Polar Response	No less than -6 dB @ 90° horizontal and vertical to 10 kHz.
Crossover Frequency	2.5 kHz



Amplifier Specifications

Input Sensitivity	0.5 V rms
Power Output	10 W continuous sine wave (8- Ω load)
THD: @ Rated Output @ 1 W	0.05% or less. 0.02% or less
S/N @ Rated Output	better than 90 dB
Frequency Response	10 Hz to 15 kHz \pm 0.5 dB
Power Supply	120 V AC, 50/60 Hz
Input Impedance	25 k Ω

Installation

Placement

Locating the system so that the high frequency unit is near ear level gives the best results. For best stereo imaging, the listening position should be between the two systems at the apex of an angle of 40°

Connecting the System

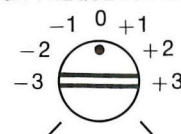
Loudspeaker connections are made at the two screw terminals located on the back of the enclosure. Maintain consistent polarity when connecting the loudspeaker systems.

CAUTION The amplifier power must be disconnected when making or breaking audio connections to the system. Making or breaking connections while the amplifier is operating could seriously damage the loudspeaker and void the warranty.

Adjusting the System

A continuously variable high frequency level control adjusts the output of the high frequency loudspeaker to compensate for room acoustics. The control scale is marked with 0 representing uniform response in a reverberation-free environment; special settings can be logged and easily reset when needed.

HIGH FREQUENCY LEVEL



Maintenance

The grille is secured to the enclosure by dowel pins located near the corners of the enclosure. To remove the grille, grasp it by the top and bottom corners of the enclosure and pull gently. To replace it, reposition it on the dowel pins and press lightly.

The grille cloth is a double-knit polyester fabric selected for acoustic transparency, beauty, strength, color fastness and soil resistance. It can be cleaned by gently dusting it with a vacuum cleaner. Stains may be removed by using aerosol cleaners such as Texize K2r, Goddard's DRY CLEAN, or Pen Champ QUICK 'N EASY, according to the manufacturer's directions.

CAUTION The use of cleaning fluids or other solvents will result in permanent discoloration of the grille fabric.

Occasional dusting with a clean, soft cloth will maintain the finish of the enclosure. Because the oiled walnut surface is moisture resistant, a damp cloth will remove most stains. Conventional furniture waxes or polishes should not be used, but the enclosure may be treated with a wax specially formulated for such surfaces.

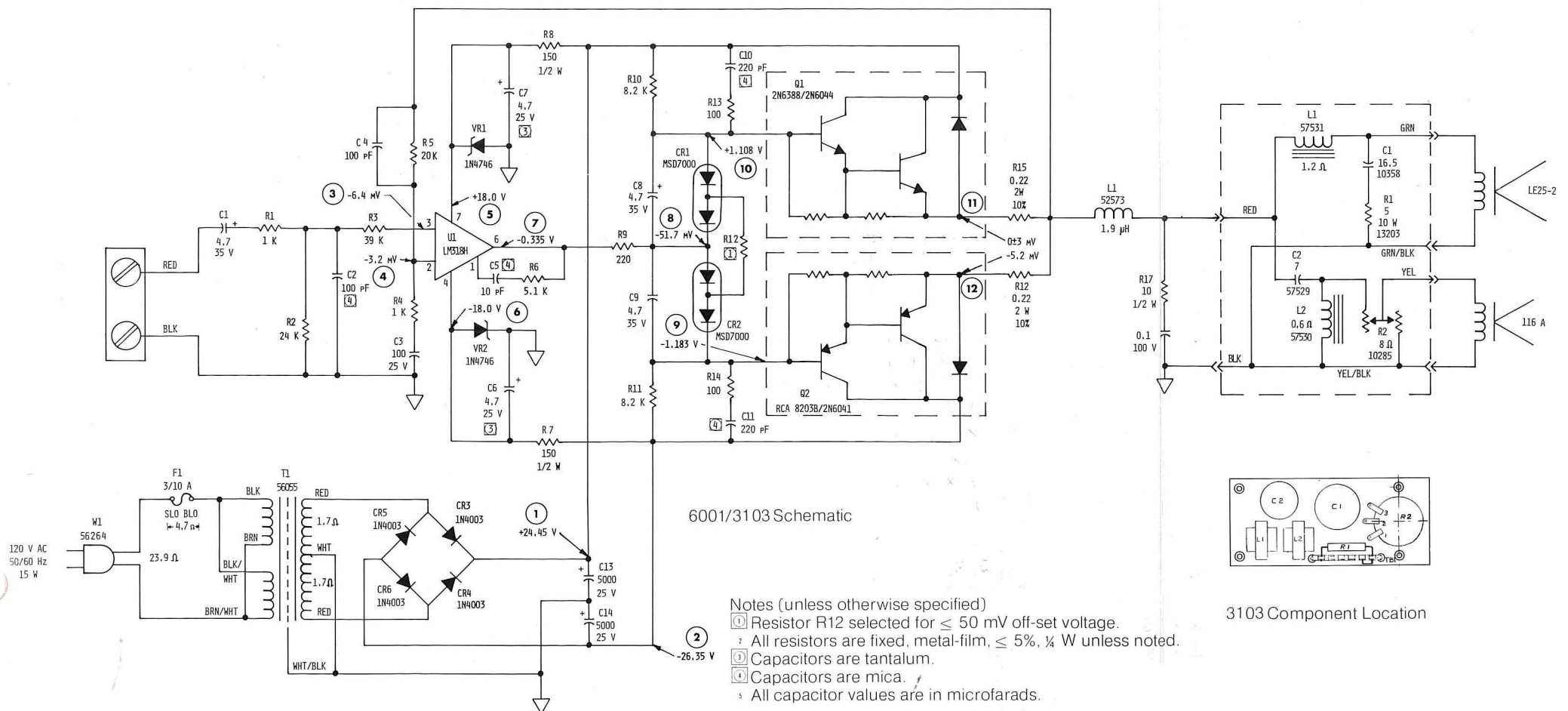
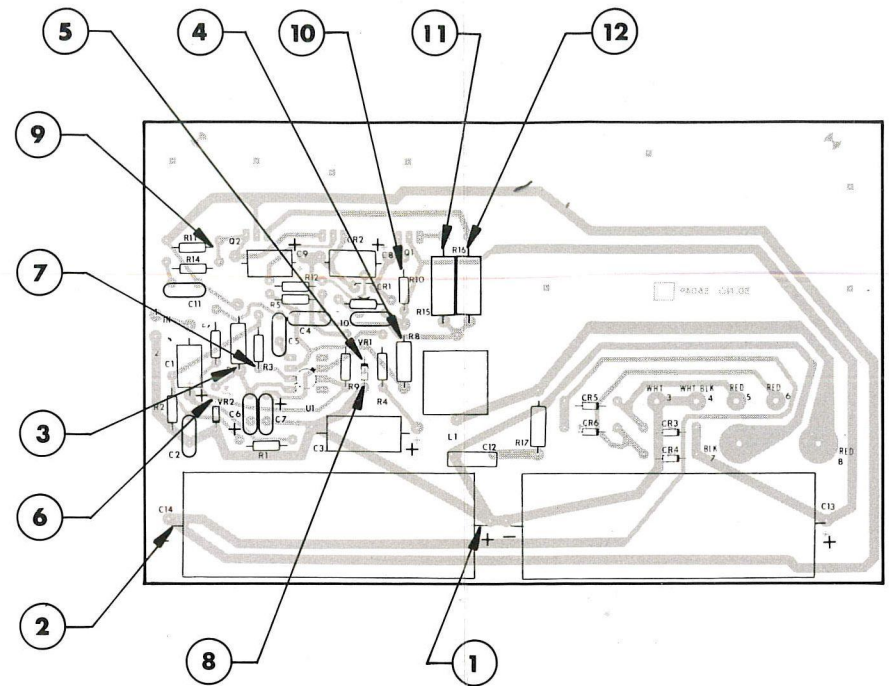
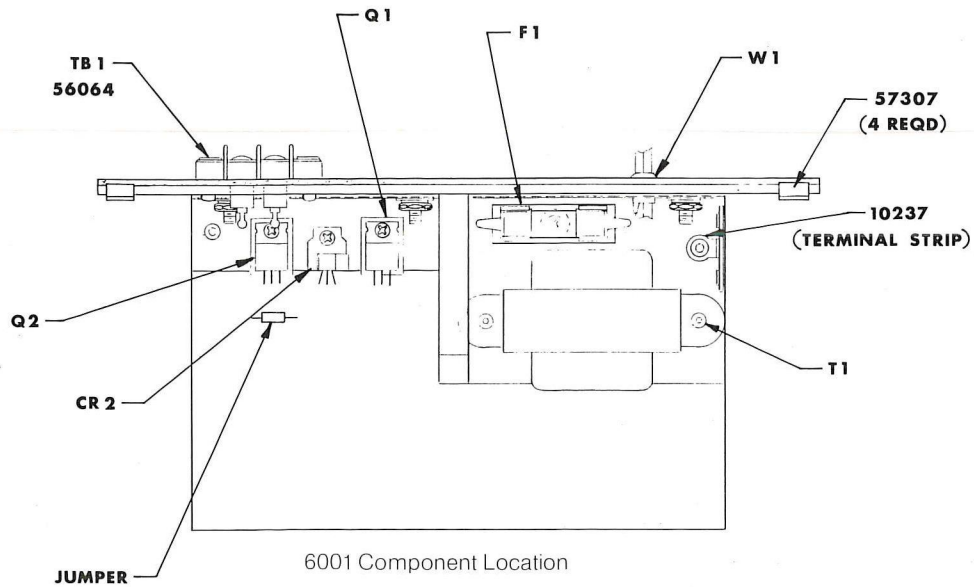
The walnut finish may appear to dry out as the oil penetrates deeper into the veneer. Many owners therefore re-oil the enclosure from time to time. With each application of oil the beauty of the finish will be enhanced and a rich, warm patina will eventually appear.

To re-oil the enclosure, use any of several clear oil finishing preparations available at furniture or hardware stores. Apply a liberal amount of the oil over the entire surface of the veneer. After 15 minutes, wipe the surface with a clean, soft, dry cloth.

Small surface scratches can usually be removed by gently rubbing them out with a #4/0 steel wool and applying oil to the whole panel. When using steel wool, press very lightly and rub only in the direction of the grain. Deep scratches or serious damage should be repaired only by a qualified furniture refinisher.

WARNING

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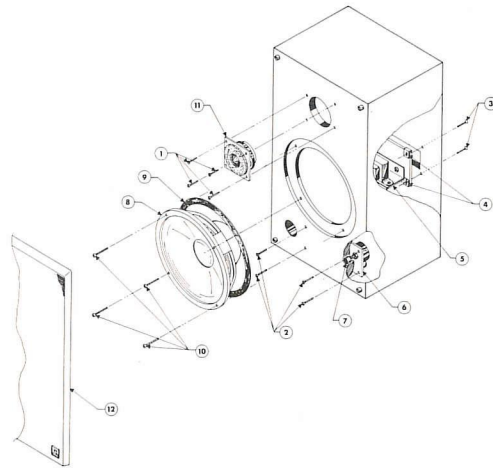
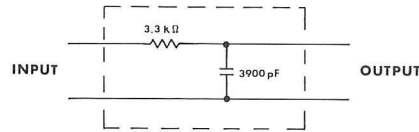
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RECOMMENDED TEST EQUIPMENT

Instrument Type	Required Characteristic	Recommended Instrument
Distortion Analyzer	Measurable to 0.002%	Sound Technology Model 1700A
Output Load Resistor	12.5 W, 8 Ω, Non-inductive type, 1%	Dale NH-12.5
Resistor Decade Box	1 Ω - 1 kΩ min. EIA Standard	
Variable Autotransformer	Capable of supplying 25 W over a range of 90 - 136 V. 1. If autotransformer does not have an AC voltmeter, monitor the output voltage with either the multimeter indicated below, or an AC voltmeter with a range of 90 - 136 V AC. 2. If the autotransformer does not have a watt meter, a watt meter capable of indicating 25 watts will be required.	GenRad W5MT3AW
Multimeter	Accuracy: ± 0.1% reading + 1 count DC Range: ± 199.9 mV to ± 1199.0 V AC Range: 0.2 V AC to 1200 V AC Input Resistance: 10 MΩ	

20 kHz Equivalent Bandwidth Filter



Item	JBL Part No.	Qty.	Description
1	51517	4	6 x 3/4 x 1 oval head, crossed-recessed sheet metal screw
2	52014	4	8-32 x 1 1/4 flat head, crossed-recessed machine screw
3	58397	4	10 x 1 x 1/4 flat head, crossed-recessed sheet metal screw
4	57307	4	No. 10 speednut
5	6001	1	amplifier
6	3103	1	crossover network
7	52192	1	knob
8	116A	1	
9	52671	1	rear gasket
10	33841	4	10-32 x 1 flat head, crossed-recessed machine screw
11	LE 25-2	1	
12	56355	1	grille assembly



Professional Division

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