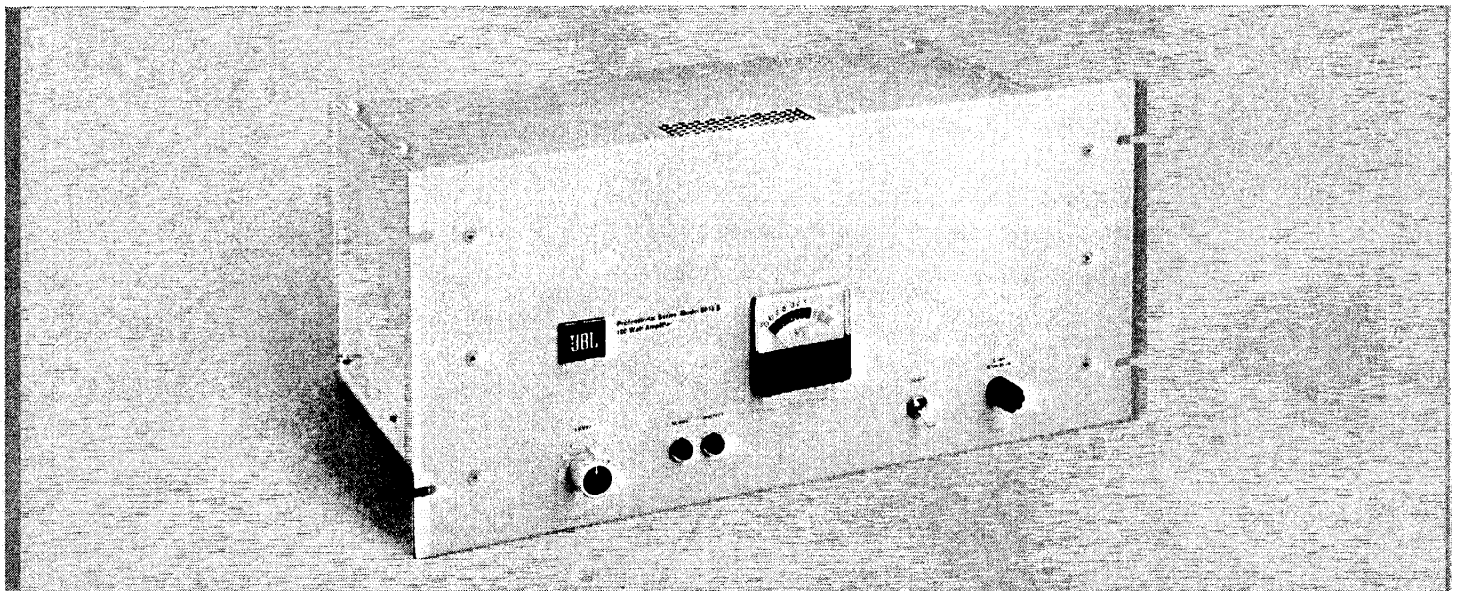


# Professional Series Model 6010 B Power Amplifier

100 watts @ less than  
1.0% THD 40-12 kHz  
85 dB signal to noise ratio  
Power output meter  
Forced air cooled



The JBL 6010B is a highly reliable, conservatively rated amplifier, designed for professional sound engineering applications where a high degree of performance is required.

The circuitry has been carefully designed to reduce the possibility of failure within the specified environmental and electrical conditions. A protective circuit is utilized in this amplifier which makes it virtually impossible to damage it under any conditions of overload, including shorted or grossly mismatched load, inductive load at low frequencies, capacitive load at high frequencies, excessive input signal, white noise or installation errors.

The JBL 6010B can be overdriven by at least ten times normal input voltage, from 40-12 kHz, and eventually produces square waves increasing in RMS value up to about 160W at which point the output actually begins to decrease.

The DC fuse is intended as a protective device for the power supply in the event of output stage malfunction. It is not intended to protect the output transistors which are guarded by the special circuitry provided. As an indication of high frequency stability, the JBL 6010B

draws only 30% more power from the AC line at 12 kHz, 100W, than at 1 kHz for at least one hour without malfunction or entering the "protect" mode.

In the event of fan failure, the thermal switch will activate if the heat sink temperature exceeds 200° F. The hum and noise level is extremely low—at least 85 dB below maximum output.

The 6010B amplifier is designed for maximum flexibility in varying input and output arrangements. A standard unbalanced 50K input is provided which can be converted to balanced line bridging or matching with the installation of the accessory 5195 transformer. A low cut filter switch reduces the possibility of damaging horns. All the power outputs are balanced and the bridging output unbalanced.

**JBL**

# Model 6010B—Power Amplifier

## Architectural Specifications

The amplifier shall be capable of delivering an output of 100W RMS with less than 1.0% THD, 40-12,000 Hz, and 150W RMS from 50 to 8000 Hz with less than 4% THD.

The high impedance program input shall be provided with a socket to accommodate a balanced line with isolation. Matching and bridging inputs shall be available. Screw type terminal board shall be provided for the balanced line inputs as well as for the high impedance unbalanced input. In addition, a phono plug shall be provided for the high impedance input. A low frequency filter switch shall be provided.

The amplifier shall have balanced 8-ohm, 16-ohm and 70.7-volt outputs on a screw type terminal board listed by Underwriters' Laboratories, Inc. for class 2 wiring.

The amplifier shall be equipped with a protective circuit which will prevent damage due to overload. A power output meter shall be standard equipment.

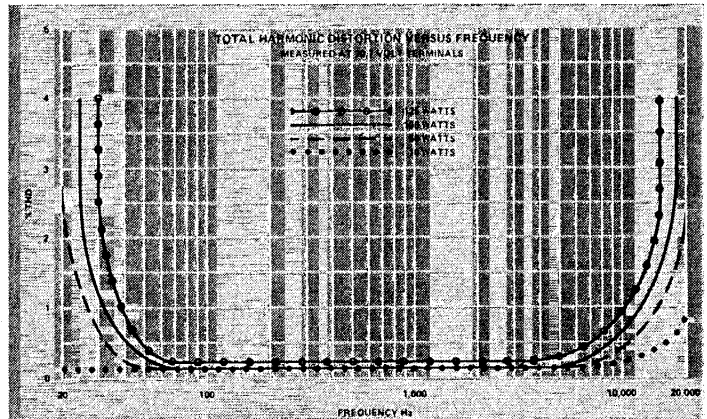
The amplifier shall operate on 120/240 VAC, 50/60 Hz power source.

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

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

The amplifier shall be JBL Model 6010B.

Specifications	
Power Gain	70 dB
Input Sensitivity	
Unbalanced HI-Z (50,000 ohms)	0.7 volts
Balanced Bridging, with 6195 Transformer (15,000 ohms)	0.383 volts
Balanced Matching, with 6195 Transformer (600 ohms)	0.077 volts
Power Output	100 Watts at less than 1.0% THD, 40 to 12,000 Hz 150 Watts at less than 4% THD, 50 to 8000 Hz
Power Bandwidth (At Rated Power)	40 to 12,000 Hz
Total Harmonic Distortion	Less than 1.0%
Intermodulation Distortion (SMPTE Standard)	
Full Power	Less than 2.0%
10 Watts RMS	Less than 1.0%
0.15 Watts RMS	Less than 1.0%
Frequency Response (Measured at 1 Watt)	20 to 20,000 Hz, $\pm 2$ dB
Load Impedance	
Transformer Isolated	8, 16 or 50 ohms
Unbalanced Direct Output	4 Ohms
Load Voltage (Full Power)	
8-ohm output	20.0 volts
16-ohm output	28.3 volts
40-ohm output	40.0 volts
70.7-volt output	70.7 volts
Output Regulation	Better than 15%
Signal/Noise Ratio	Better than 85 dB below full power
Low Cut Filter (Rear Panel Slide Switch)	6 dB/octave below 250 Hz
Front Panel Controls	
Power	Toggle
Level	Continuous
Indicators	
Normal	Red
Protect	Green
Level Meter	80 Watts output at "0"
Power Supply	120/240 VAC, 50/60 Hz
Power Consumption	
Quiescent	35 Watts
33% Output	138 Watts
Full Power	226 Watts
Fuse	5-amp, slow-blow, 3AG
Maximum Ambient Operating Temperature	140° F    60° C
Special Features	Overload protection circuit Forced air cooling AC convenience outlet (unswitched)
Dimensions	
Including Controls	9-3/4" x 19" x 11-5/8" deep 22.2 x 48.3 x 29.5 cm deep
Depth Behind Panel	10-3/4"    27.3 cm
Mounting	6 EIA standard rack spaces
Panel Finish	Semi-gloss baked enamel, dark gray
Net Weight	46 lbs    21 kg
Shipping Weight	52 lbs    24 kg
Warranty	2 years
Liting	Underwriters' Laboratories, Inc.
Accessory	6195 Matching/Bridging Transformer



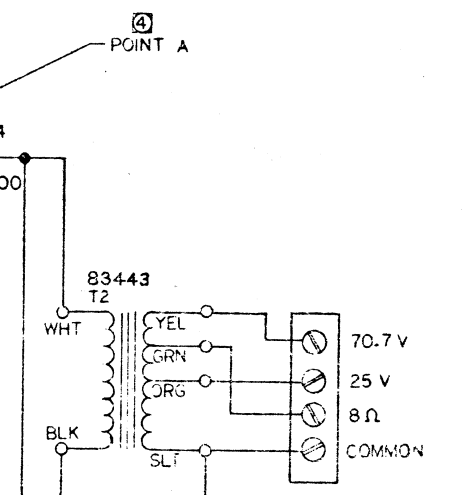
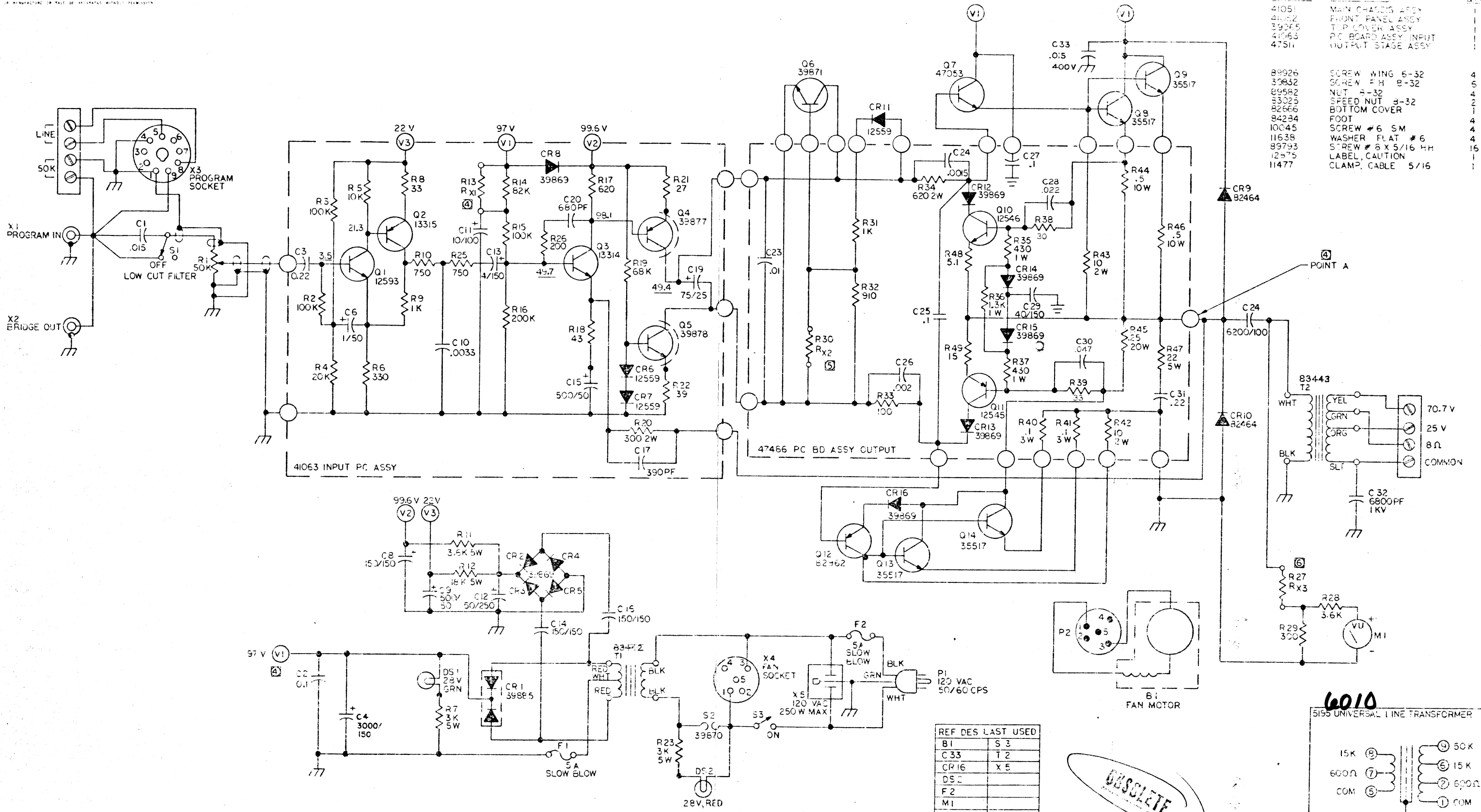
Professional Series  
Professional Division

James B. Lansing Sound, Inc., 8500 Balboa Boulevard, Northridge, California 91329.

PB6010B/6-77

REVISIONS AND THE BATTERY OF PARTS IS SHOWN BY THE  
 NUMBER IN THE CIRCLES AND SMALL LETTERS. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.  
 THE MANUFACTURE OF THIS APPARATUS WITHOUT PERMISSION.

PART NO	DESCRIPTION	QTY
41051	MAIN CHASSIS ASSY	1
41052	FRONT PANEL ASSY	1
39065	TOP COVER ASSY	1
41063	PC BOARD ASSY INPUT	1
47511	OUTPUT STAGE ASSY	1
89926	SCREW WING 6-32	4
39832	SCREW FH 8-32	5
89582	NUT 8-32	4
83023	SPEED NUT 8-32	2
82666	BOTTOM COVER	1
84234	FOOT	4
10045	SCREW #6 SM	4
11638	WASHER FLAT #6	4
89793	SCREW #8 X 5/16 HH	16
12575	LABEL, CAUTION	1
11477	CLAMP, CABLE 5/16	1



REF	DES	LAST USED
B1	S 3	
C33	T 2	
CR16	X 5	
DS1		
F2		
M1		
Q14		
R49		

**OBSCLETE**

SEE DWG 47195 REF FOR TEST SPECIFICATIONS.  
 APPROVED ENG SAMPLE, MODEL 6010, CURRENT REVISION, MAINTAINED IN ENG DEPT.  
 APPLY ZINC OXIDE THERMAL COMPOUND BETWEEN OUTPUT TRANSISTORS (Q7-Q12) AND INSULATOR, AND INSULATOR AND HEAT SINK.  
 ALL GROUND SYMBOLS ARE PHYSICALLY CONNECTED TO ONE COMMON CHASSIS POINT.  
 UNLESS OTHERWISE SPECIFIED.  
 X IS DC VOLTAGE WITH VTVM REFERRED TO CHASSIS GROUND WITH NO SIGNAL.  
 ADJUST R<sub>x2</sub> TO ZERO VU ON THE METER AT ROW OUT.  
 ADJUST R<sub>x2</sub> FOR 21.5 MV MIN, 31.5 MAX ACROSS 3.25Ω COLLECTOR RESISTOR AT THE OUTPUT TRANSISTOR. VOM LEADS MUST BOTH  
 BE AT CHASSIS GND POTENTIAL.  
 ADJUST R<sub>x1</sub> FOR 1/2 OF THAT POINT A.  
 BL RESERVES THE RIGHT TO MAKE MINOR COMPONENT CHANGES WITHOUT NOTICE.  
 CAPACITORS IN MICROFARADS. THOSE OVER 100μF ARE POLARIZED ELECTROLYTICS, POLARITY SHOWN.  
 RESISTORS IN OHMS, 1/2 WATT, 5% EXCEPT AS NOTED.  
 UNLESS OTHERWISE SPECIFIED.

REV	DESCRIPTION	DATE	BY
1	REVISED		
2	REVISED AND REPAWN		
3	CHANGED		

6010

MFD ITEM - 6010

MFD ITEM DWG 41055

SHEET 1 OF 1