



EON10 **G2**

G E N E R A T I O N 2

Technical Service Manual



Rev. A

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Product Overview

The new EON10 G2 compact powered speaker features a 10" woofer, increased power and a three input mini-mixer. The EON10 G2 is ideal for AV applications, smaller musical and spoken word performances and, when combined with the new EONSUB G2 powered subwoofer, provides a full range sound system for small and medium sized events.

The first generation EON10 was very popular, not only with musicians, but with hotels, meeting planners, AV companies and just about any application where portable compact sound reinforcement was needed. Its successor, EON10 G2 offers more power, more flexibility and a refined appearance that will make it even more appropriate for its many types of users.

The EON10 G2 has more power than the first generation EON10, with 125 watts for low frequencies and 50 watts for the highs. The 10" Differential Drive low frequency driver uses a neodymium magnet for light weight and reduced distortion. The one-inch JBL 2412 compression driver for the high frequencies includes a titanium diaphragm and ferro-fluid cooling.

The EON10 G2 shares the same appearance improvements with its larger companion EON15 G2, including new black exterior material and a mini-mixer with three inputs. An additional XLR output allows EON Speakers to be daisy-chained together. As with other EON G2 speakers, the EON10 G2 is kept cool, not by heatsinks or fans, but by JBL's Thermomaster Total Thermal Management System.

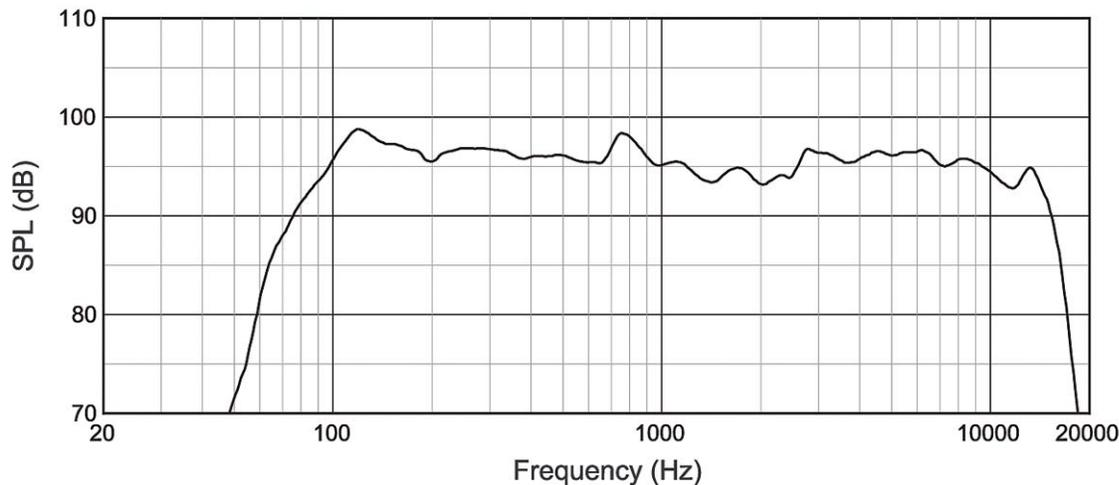
With its versatile cabinet design, the EON10 G2 can be used in several different ways. As a front of house speaker, the EON10 G2 can sit on a flat horizontal surface or be raised in the air using standard tripod speaker stands.

The cabinet has also been designed to let the EON10 G2 be snugly placed atop the EONSUB G2 for added volume and extended bandwidth. In addition, the angled back of the speaker allows its use as a vocal or instrument monitor on stage.

Specifications

Freq. Range (-10 dB):	65 Hz - 18 kHz	65 Hz - 18 kHz
Freq. Response (± 3 dB):	90 Hz - 16 kHz	90 Hz - 16 kHz
Horiz. Coverage (-6 dB):	90° nominal	
Vert. Coverage (-6 dB):	60° nominal	
Rated Maximum SPL:	117 dB, @ 1 m (3.3 ft)	
Dimensions (H x W x D):	493 mm x 356 mm x 307 mm	(19.4 in x 14.0 in x 12.1 in.)
Net Weight:	10.4 kg (23 lbs.)	
LF Driver:	Integral frame with one 10" (254 mm) driver, dual neodymium magnet, 1.5" Differential-Drive® voice-coil.	
HF Driver:	JBL2412 1" (throat diameter) compression driver with titanium diaphragm. Ferro-fluid cooled.	
Amplifier Power LF:	125 watts @ low-frequency driver impedance.	
Amplifier Power HF:	50 watts @ high-frequency driver impedance.	
Input 1 Sensitivity:	-48 dBu to 0 dBu for rated output (Mic/Line switch in MIC position) -6 dBu to +20 dBu for rated output (Mic/Line switch in LINE position)	
Input 2 & 3 Sensitivity:	-12 dBu to +20 dBu for rated output	
Output Level:	+26 dBu (peak), Loop/Mix switch in MIX position	
Audio Connectors Input 1:	XLR/F, balanced	
Audio Connectors Input 2 & 3:	Single TRS 1/4" Phone	
Crossover Freq:	2.7 kHz	
Loop/Mix Out:	XLR/M, balanced.	
AC Input:	110 - 230 VAC, 50 - 60 Hz, 100 watts rating per UL, detachable IEC power cable	

Frequency Response



Notes:

JBL Professional is continually engaged in research activities to enable further product improvement. New materials, production methods and design refinements are instituted into the existing product without notification and, therefore, the information contained within this manual is subject to change without notice. Rest assured that your JBL Professional equipment will always equal or exceed the published design specifications unless otherwise stated.

Connectors

INPUT 1

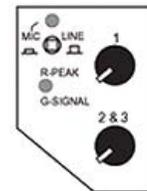
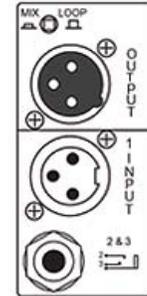
This balanced input accepts a standard XLR (female) connector. A broad range of signals from microphones (-48 dBu to 0 dBu nominal), audio mixing consoles, and electronic musical instruments may be connected here. When using a single audio input to the speaker, this is the input to use. The sensitivity of this input is controlled by the MIC/LINE SWITCH and the INPUT 1 rotary control.

INPUT 2 & 3

This 1/4" jack can accommodate one or two channels of audio. When a two-channel source is connected by means of a TRS 1/4" plug, both channels are summed to mono. A single channel source may also be connected here with a standard 1/4" TS plug. This input is intended for use with audio devices including cassette tape, CD, MP3 players, computer sound-card outputs, electronic keyboards, and electric/acoustic musical instruments. The level of INPUTS 2 & 3 is controlled by the INPUT 2 & 3 rotary control. See the APPLICATION EXAMPLES and CABLES AND CONNECTORS sections of this guide for details on how this input may be used.

OUT

This XLR (male) output connector works with the MIX/LOOP SWITCH (see below) to provide a method of sending audio from your EON10 G2.



Switches

MIC/LINE

The MIC/LINE switch effects only INPUT 1. It selects between two sensitivity ranges. This switch is used to match the input sensitivity of the EON10 G2 with the output level of the device connected to INPUT 1. Depressing the MIC/LINE switch selects MIC (most sensitive) and causes the MIC/LINE LED to illuminate.

CAUTION: Before adjusting this switch, be certain to rotate the INPUT 1 control fully counter clockwise. After the MIC/LINE switch has been adjusted, slowly rotate the INPUT 1 control clockwise until the desired volume has been reached.

- Use the MIC position (depressed) when a microphone is connected to INPUT 1.
- Use the LINE position (disengaged) when a line level source such as an audio mixing console, audio playback device, or electronic musical instrument is connected to INPUT 1.

MIX/LOOP

This switch selects the source of the signal for the OUT connector.

CAUTION: Before adjusting this switch, be certain to set the input level control of any equipment connected to this output to its minimum gain (least sensitive) setting.

- In the disengaged position, only the signal from the INPUT 1 connector is routed directly to the OUT connector. Changing the other settings on the audio panel will not effect the OUT signal. The INPUT 2 & 3 inputs will not be present at the OUT connector. Use this setting when you want to feed multiple EON powered speakers the same signal.
- In the MIX position (depressed), a blend of all inputs to the speaker (INPUT 1 and 2 & 3) will be sent to the OUT connector. Any changes to input level settings will affect the OUT signal. See the APPLICATION EXAMPLES section for details on how this mode may be used.

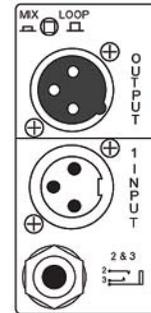
Indicators

PEAK / SIGNAL

The PEAK / SIGNAL LED (Light Emitting Diode) is a two-color device. Red indicates that the system is approaching clipping. The threshold for this light is actually about 2 dB below clipping. An occasional flicker of the red LED on the loudest peaks is acceptable. If this LED remains red for more than the duration of brief dynamic peaks, the system is being overdriven. Continuously over driving the system will result in unpleasant and fatiguing distortion and may lead to premature failure of your speaker system.

If the red LED illuminates excessively:

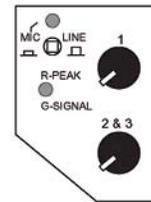
- Reduce INPUT 1 and INPUT 2 & 3.
- Reduce the output level of the mixer, musical instrument, or other source to the speaker.



Green indicates a usable signal is present at INPUT 1 and/or INPUT 2 & 3.

MIC

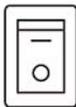
This LED illuminates to indicate that the MIC/LINE switch is in the MIC (depressed) position.



VOLTAGE SELECTION AND FUSES

Changing Voltage

Your EON10 G2 will typically be set at the factory to accommodate the power mains voltage in your area. Before you set up your EON10 G2 for the first time it is a good idea to verify that the setting of the selector is appropriate for the power in your area. Directly above the power switch you will see a seal that indicates the factory setting for the voltage. If the voltage indicated is correct for your area, go ahead and power up your EON10 G2.



In the event that you do need to change the voltage selection:

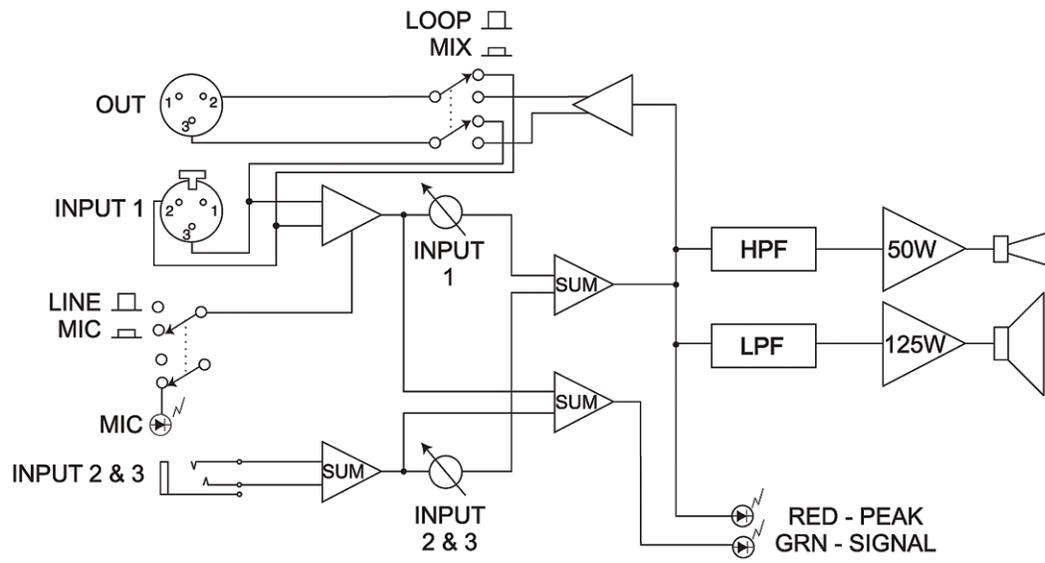
- Make sure that the AC is disconnected from the speaker.
- Directly above the power switch on the speaker is a voltage selector. Peel off the factory-applied seal.
- Set the voltage selector switch to the 115V or 230V setting as required for your area.
- After having reconfirmed that the correct voltage is selected, connect the AC (IEC connector) and power the unit up.

DO NOT UNDER ANY CIRCUMSTANCES OPERATE THE UNIT WITH THE WRONG VOLTAGE SELECTED. DOING SO MAY RESULT IN SERIOUS DAMAGE TO YOUR SPEAKER SYSTEM WHICH WILL NOT BE COVERED BY WARRANTY.

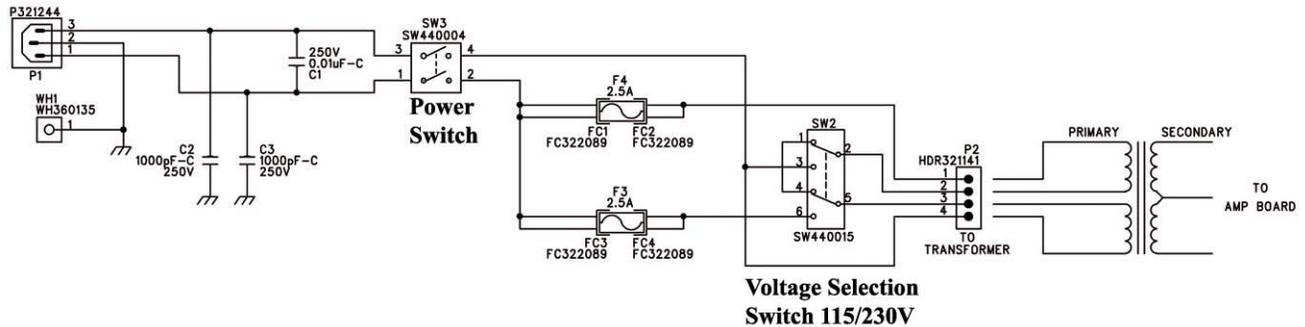
Fuse Replacement

The EON10 G2 has no user-serviceable fuses. Failure of fuses is most frequently a symptom of problems requiring service by a competent technician.

Block Diagram



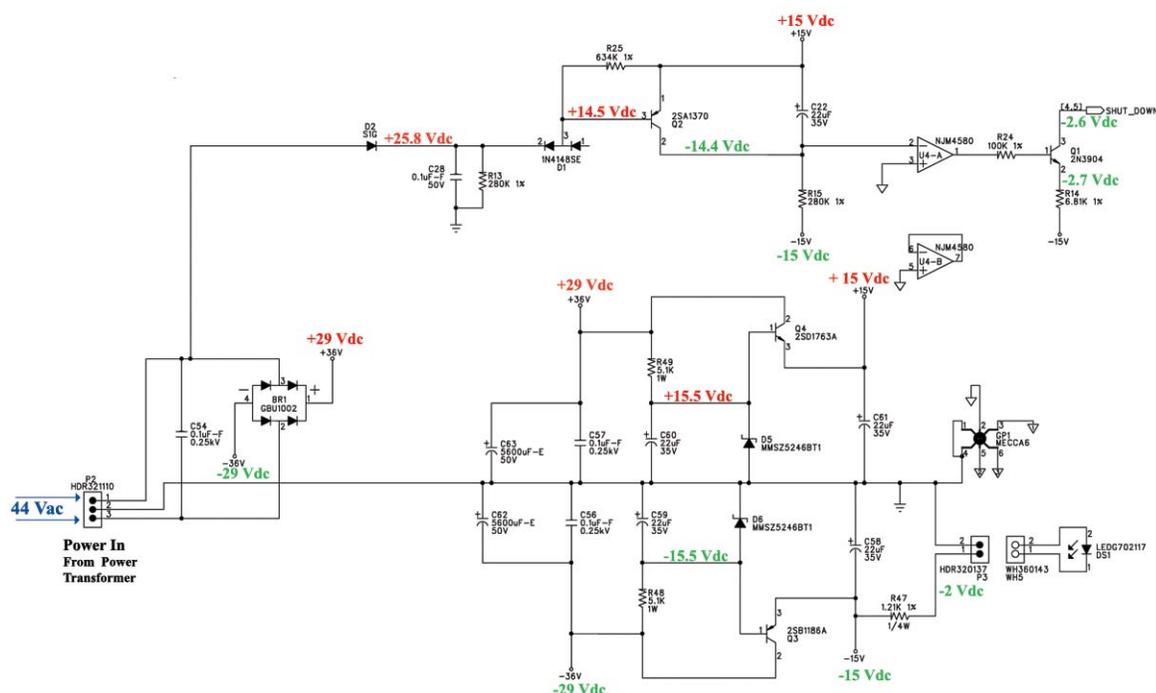
AC Input PCB



The line voltage of 117 Vac is connected at input jack P1 on the ac input PCB. Shunting capacitor C1 reduces the probability of electronic damage that could occur should any abnormalities exist on the input voltage. Capacitors C2 and C3 work in conjunction with C1 to help stabilize this input voltage and reduce the instantaneous line voltage spikes that could cause noise especially in the high frequency range. Pin 2, the neutral, is connected to ground. Both lines of input voltage are directly connected to the 2-pole 2-position power switch.

The operational idle current will be below the rated 2.5 amp fuses to protect the user from fire. If the amplifier is consistently overdriven or an abnormality does exist with the equipment, the fuses will open and current will cease to flow. After the fuses, the voltage travels to the manually operated voltage selection switch. It is important to power down the equipment when this switch is used to avoid possible driver damage. The switch, essentially, determines which transformer primary is utilized. We will assume that the input voltage is 115 Vac for this circuit description. The toroidal transformer output would then deliver 44Vac to the power supply connector P2 on the main amplifier PCB.

Power Supply



This is the power supply circuit of the EON 10-G2. Operational voltages, necessary of the main amplifier and processing circuits, are created on this PCB. The schematic, shown above, contains three individual circuits: the signal shutdown, the main rectification and low voltage power supply circuits.

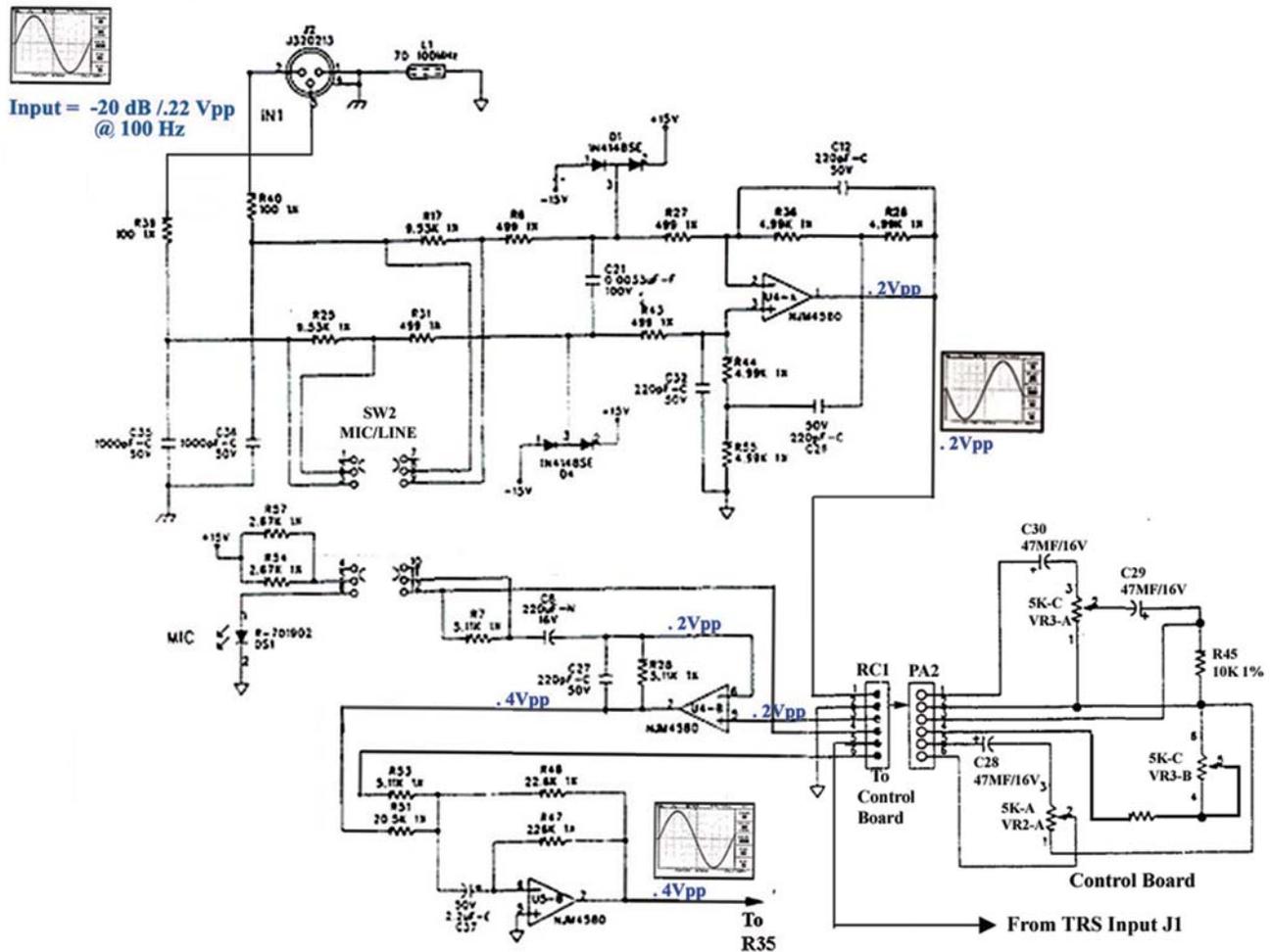
Note: Voltages documented minimally differed from published results and are attributable to component tolerance variations.

Voltage rectification by BR1 modifies the 44Vac delivered by the toroidal power transformer at P2 into the positive and negative 29 volts. This voltage feeds the main amplifiers and the positive and negative 15 volt power supplies used for signal processing. C63 and C62 filter this rectified voltage, respectively.

In the second circuit, Zener diodes D5 and D6 clamp the positive and negative 29 Vdc so that voltage regulators Q3 and Q4 output positive and negative 15 Vdc. Further filtering of this voltage occurs by C61 and C58. An LED, D51, is serially connected with R47 to negative 15 Vdc and functions as the pilot lamp.

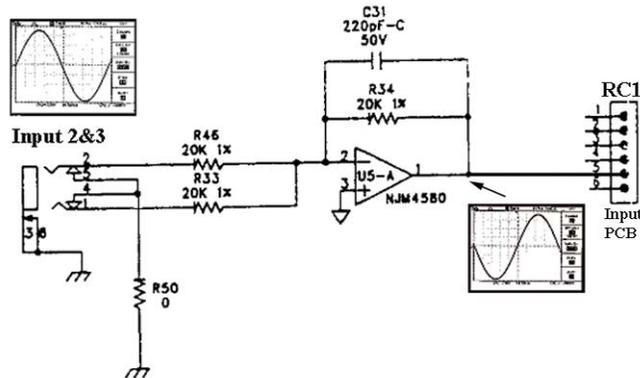
The third circuit, the signal shutdown circuit, monitors several different parameters: the presence of ac voltage, the presence of the low voltage supplies and the output transistor temperature. Absence of any voltage or excessive temperature detected will cause comparator U4 to trigger Q1 resulting in muting of the audio output. The time constant of C22/R15 provides the initial speaker delay time upon power up.

Signal Input Circuitry



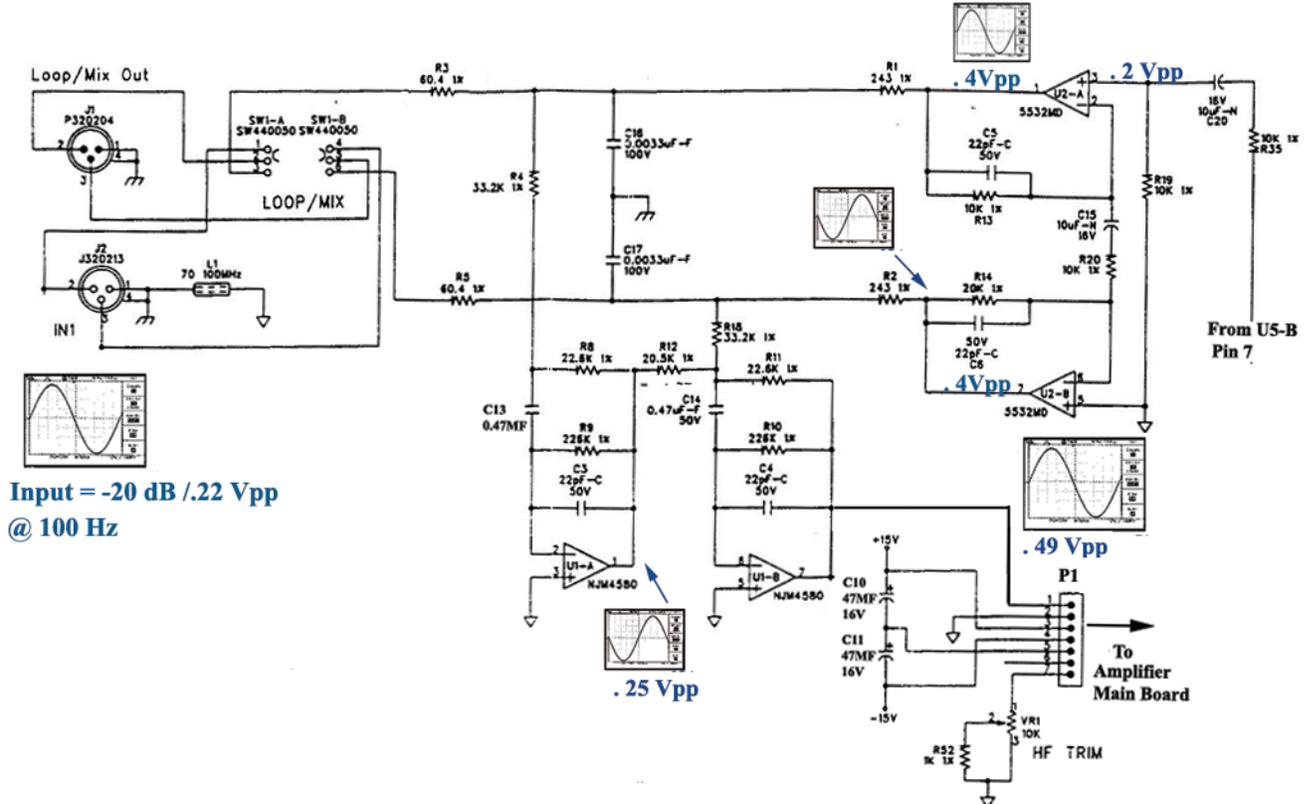
The above is the XLR line input circuitry for the EON 10-G2. The balanced signal from pins 2,3 of J2 is attenuated by R40 and R39. Signal overload is contained by the signal-limiting diodes, D4 and D1, preventing possible internal IC damage by clamping them to the ± 15 Vdc supplies. This will provide a maximum of 30 volts of signal voltage swing between the inputs of isolation IC U4A. The output signal of this IC, pin 1, is passed through connectors RC1, and PA2 to the volume control PCB. Coupling capacitors C28, C29, and C30 prevent dc circuit interaction but allow signal throughput to VR2 and VR3. Once the signal is returned to the input PCB at pin 3 of RC1, it enters the switchable-gain/sensitivity IC U4B at pin 5. When the mic/line switch, SW2, is toggled from mic to line input, resistors, R25/R17, are serially added to R31/R6, which increases the input impedance at J2 input thereby decreasing the signal delivered to U4A. This action corrects the level for proper signal amplification. The opposite occurs when SW2 is toggled in the reverse direction. Output of U4B on pin 7 enters pin 6 of summing IC U5 via R51 and C37. The output of this IC feeds the Loop/mix circuitry IC

Tip Ring Sleeve Input Circuitry



Above is the Tip Ring Sleeve jack input circuitry. The input signals are attenuated by R33 and R46 before reaching isolation IC U5A. Multi-path feedback is used to decrease the distortion and increase the stability of the amplifier. The output signal on pin 1 of U5 connects to pin 5 of connector RC1 where volume control, VR2, (not shown) can control the amplitude delivered to loop/mix summing amplifier, U5B (not shown).

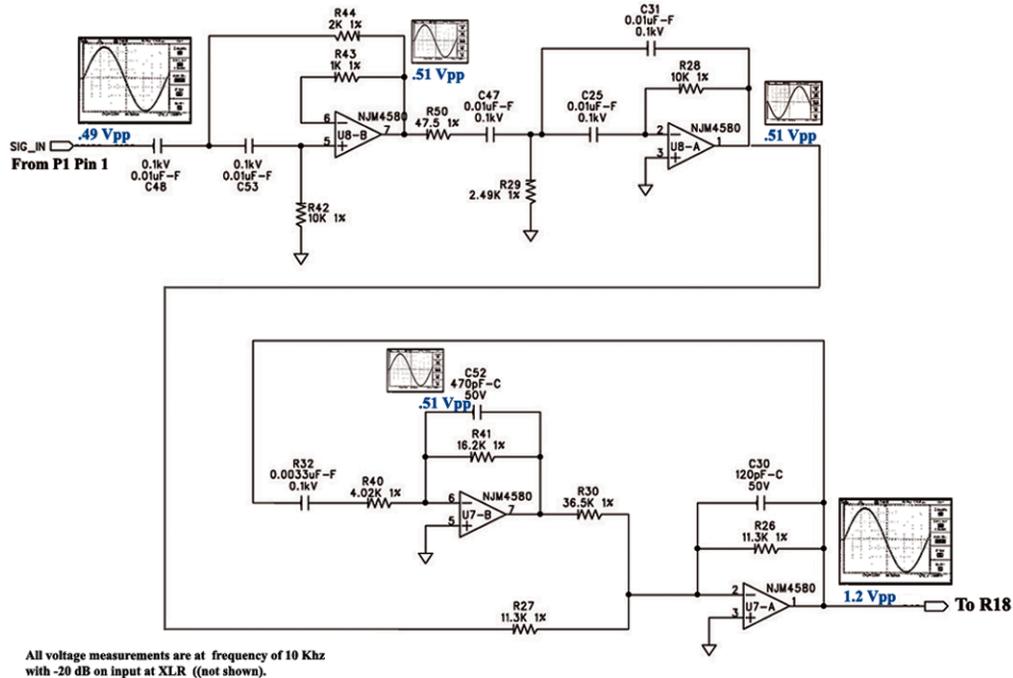
Loop/Mix Input Circuitry



The loop/mix circuitry, shown above, is another feature that makes the EON 10-G2 so versatile. The user can decide which signal is output to extension male XLR jack J1. SW1 switches between the XLR input signal only or a mixture of the Tip Ring Sleeve and the XLR input signals for increased sound reinforcement. In the “loop” or up position, the incoming signal on XLR jack J2 is sent directly to the extension XLR jack J1. When the switch is toggled, a mixture of the Tip Ring Sleeve and XLR line inputs are sent to the jack. In either case, this allows the user to connect XLR cable to J1 and send audio signal to other equipment.

Initially, the processed XLR input signal is summed with the TRS (Tip Ring Sleeve) ¼” jack input signal at U5 via R31/R33 (not shown). Signal output from U5, located on pin 7, passes through components C20, R35, R39, and enters the non-inverting inputs of U2A and U2B. The bridge configuration of IC U2 allows for an increase in the voltage level while providing a balanced output format. R3 and R5 in conjunction with C18 and C17 attenuate electrostatic transients that could possibly be further amplified. The resultant signal branches to SW1 where the looping option of connecting to the respective pins of XLR output jack J1 for external amplification. Multiple feedback circuits of U1A and U1B provide necessary isolation between the internal or main circuitry and externally connected equipment. This configuration also prevents an increase in distortion and loading that could be induced by external circuitry. Output of U1B is connected to pin1 of P1 for internal amplification on the main PCB. C10 and C11 provide additional filtering of cable-induced transients on the ±15 Vdc power supply lines.

HF Processing

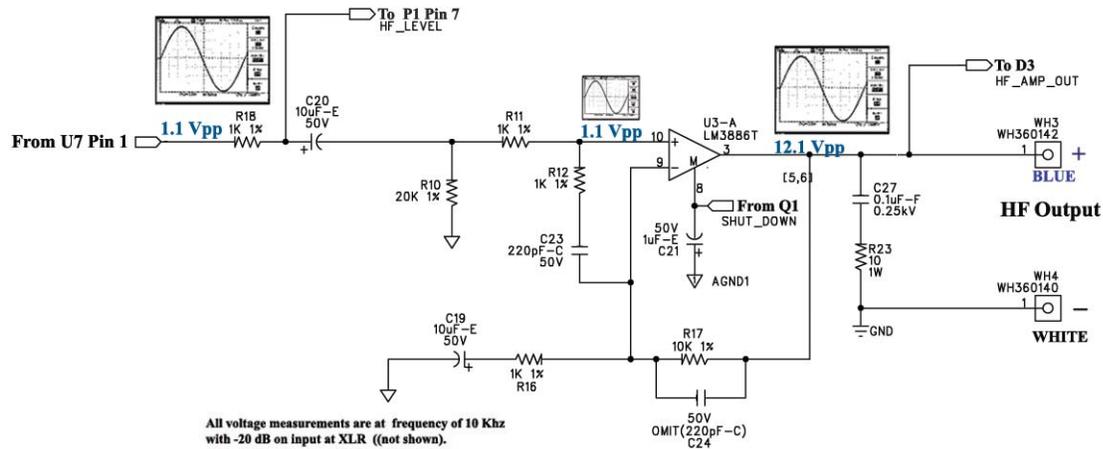


The EON 10G2 utilizes bi-amplification topology to actively filter and separate the high frequency signal from the low frequency signal. Consequently, the low frequency processing circuits are similar. These frequency separation characteristics allow usage of independent, dedicated components for accurate signal reproduction.

In the above circuit, the low frequency component of the input signal is effectively attenuated by the 3-pole Butterworth filters consisting of U8B and U8A while the high frequency signal is enhanced. Capacitive coupling is used throughout. These filters effectively eliminate the low frequencies (from dc to about 1khz.) in a cascaded component configuration. Signal level increases at +60db per decade beginning at the lower critical frequency of 1.3 kHz. U7-A and B are used as signal integrators to increase the level to a useful level for power amplification. Distortion and extraneous noise is almost nonexistent due to the feedback loops associated with this circuitry. Thus, the output on pin 1 of IC U7 of 1.2Vpp is sent to the high frequency power amplifier.

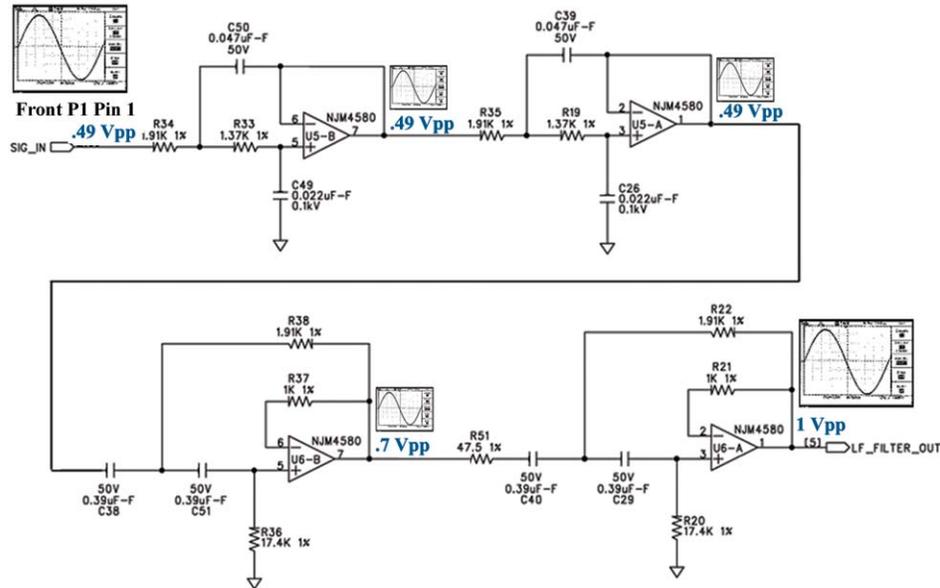
Troubleshooting would best be accomplished by verifying signal waveforms at the input /output of key IC's using the oscilloscope. Further signal tracing from IC to IC noting the individual voltage and signal levels at each pin. Any measurements that drastically differ from the referenced documentation point to a defective stage or would at least indicate the need for further examination.

HF Amplifier Stage



After the increase in signal level from U7 pin 1 to 1.1Vpp, the signal enters the monolithic power amplifier IC, U3, at pin 10 via R18, C20 and R11. R12/C23 at the inputs avoid the possibility of phase distortion in the rated 50 Watt output and effectively makes use of common mode rejection to eliminate any induced noise within the audio range. This also prevents any ultra-high frequency oscillation that could cause premature IC failure. C21 adds stability to the mute line and avoids any erroneous triggering from Q1. Connecting P1 pin 7 at junction R18/C20 activates the user adjustable trim potentiometer, VR1 on the input PCB, for a more custom sound. Also, the output of U3 pin 3 is connected to P1 pin 6 and transferred to the peak/signal detection and indicator circuitry on the input/output PCB.

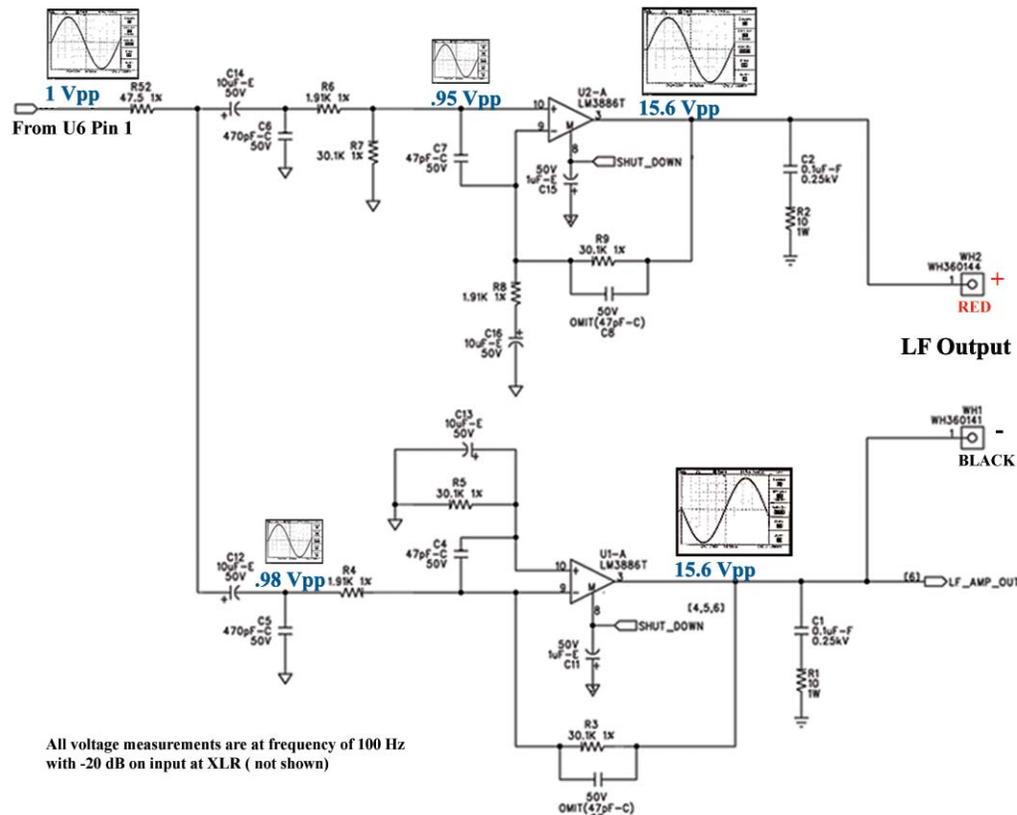
LF Processing



All voltage measurements are at frequency of 100 Hz
with -20 dB on input at XLR (not shown)

The input signal of magnitude of $.49 \text{ Vpp}$ from P1 at pin 1 from the input/output PCB enters the first stage of the low frequency filtering circuits at R34. The two pole Butterworth filter is used as the active filter configuration due to its flat frequency response. Unity gain to prevent signal distortion with concise filtration characteristics begins at about the 3 kHz cutoff frequency at a rate of -60 dB/decade . U5B performs the first order filtering while U5A continues with second order filtering to provide total low pass filtering of -80 dB/decade . The low noise NJM4580, U6A and B, provide a signal gain of two to increase the signal level necessary to interface with the low frequency power amplifier without adding distortion.

LF Amplifier Stage



This is the low frequency amplifier. The bridged mode configuration using two LM3886T monolithic amplifiers, U1 and U2, enable twice the output voltage capability than if one IC were driven alone. **Therefore, it is strongly recommended this unit be connected to the ac mains through an isolation transformer for safety purposes during the servicing of the amplifier/ output stage. This will separate the grounds from interacting with the test equipment, the unit under test and the technician.**

A 1Vpp level output from U6 pin 1 from the low frequency processing circuits is input at R52 and branches to each amplifier by passing through coupling capacitors C12 and C14. Each leg carries this signal to the inverting and non-inverting inputs whereby IC's U1 and U2 increase the signal level to 15.6 volts.

Each audio output IC at pin 8 is connected to the detection circuit driver, Q1 (not shown here—but located in the power supply section) for temperature, voltage and current abnormalities. Before replacing both the output IC's to correct a unit with a 'no sound' problem, check to verify that this muting line is not detecting a fault elsewhere (--for normal operation it should be a negative low).

EON10-G2 Troubleshooting Guide

The purpose of this troubleshooting guide is to enable the experienced service technician to quickly become familiar with the operating characteristics of the unit and to accurately diagnose the associated symptoms of malfunctioning circuitry to their root causes. In addition, this guide will facilitate the timely repair of the malfunctioning equipment so that it can be returned to a satisfied owner. Since the total 'repair time' equals the sum of the 'diagnoses' time plus the 'circuitry repair' time, and the 'circuitry repair' time is standard, the only other factor that can impact this total 'repair time' is the diagnoses time. Therefore, the successful technician, must be time efficient with respect to diagnosing and repairing malfunctioning equipment.

Isolation of the defective circuitry can be accomplished by utilizing this guide and the circuit descriptions found on the previous pages. Generalized faults of current, voltage and signal irregularities will constitute the bulk of the repairs necessary to the EON 10-G2.

- Visually inspect product. Many times a customer's problem with a unit can be located just by visually inspecting the product for gross faults. This visual inspection can also determine if the internal damage is related to equipment abuse.
- Verify the fault that the customer is experiencing. If unable to reproduce the customer's complaint, notify the customer of your findings and obtain more information about the complaint.
- It is suggested to always use the original JBL replacement components that are listed in the master parts list to insure the maximum performance of JBL equipment. More information can be obtained at the website www.JBLPRO.com.

Troubleshooting The EON 10-G2

Excessive current draw problems (shorted component)

Shorted output IC's

U1, U2, U3

Shorted Power supply components

C62, C63, BR1, Q3, Q4, D5 and D6

XFRMR primary/secondary shorted together

No voltage/missing voltage/low voltage problems (open/shorted component)

Verify proper a.c. input voltage.

If all internal voltages are absent,

Check that fuses F3 and F4 are ok? Should be 2.5amp 2AG.

If ok, check if transformer is open? Transformer should have continuity in primary and secondary windings. Unplug Secondary from Main PCB and verify a.c. output voltage. At pins 1&3 on P2, it should read 44Vac.

Power supply ok? $\pm 29\text{Vdc}$ at C62, C63?

$\pm 15\text{Vdc}$ at C61, C58?

Supply voltages at all 3 output IC's on Pins 1,5 and Pin 4

If not ok, repair, verify and continue.

Verify $\pm 15\text{V}$ at P1 pins 3& 4 on Main PCB and to P1 on input/output PCB

If absent, locate, repair and continue.

No sound (possible missing control voltage)

Verify $\pm 15\text{Vdc}$ at P1 pins 3 & 4 on input/output PCB

No sound (voltages are okay),

The quickest way to isolate this problem to a specific PCB is to start with a known good input /output PCB. Most failures are related the main amplifier or to components under the most stress.

If problem exists on the input PCB,

Verify signal input to unit at J2 pin 2.

Verify signal output at pin 1 of P1

If no signal then verify output signal on U4 , U5, U2, U3.

Signal trace PCB accordingly using circuit descriptions.

If problem exists on main amplifier board,

Verify input signal to Main Amplifier PCB at pin 1 of P1

If no input signal at P1, replace 8-pin cable assembly

Measure dc offset on output of IC's U1, U2, U3

If more than 2Vdc, replace defective output IC

If dc offset is ok, continue to verify input at pin 10 of remaining output IC's

if ok, verify status of mute pin 8 on output IC.

If mute pin 8 reads near 0 volts, change IC.

If mute pin 8 of any/all output IC's reads close to -15 volts, recheck above results and signal trace PCB. If the unit measures positive or close to zero the unit is detecting a fault or there exists a problem with the fault detection circuitry. Signal and voltage trace accordingly using circuit description.

Low output power problems

Verify proper level input at pin 10 of output IC's

If level ok, replace IC (U1, U2—Low Frequency amplifiers
U3—High Frequency amplifier)

If not ok, signal trace back to fault using circuit descriptions, repair and continue check out

No power On LED indicator operation

Verify -15 volt at Q3 and leg of R47

Verify -2V on opposite end of R47

If absent, change LED

No input signal indication

Verify operating voltage of $\pm 15V$ on U3 of input/output PCB

Verify input signals from the low and high frequency outputs at D6 and D7

Verify C55 charging and discharging.

Verify threshold voltages by inputting external voltage to inverting pin of U3 on Input/output PCB

At 0 volts--no illumination

Below 0 volts to -3.1 volts—green illumination

At/below -3.1 Volts—red illumination

If above is ok, replace IC U3 (TLO74)

No microphone LED indication

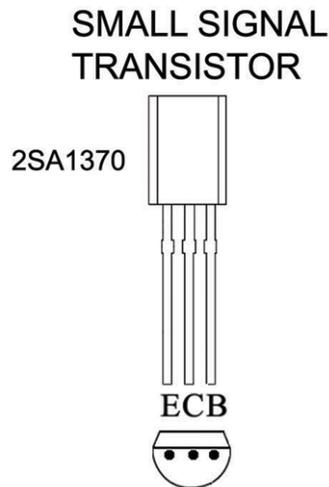
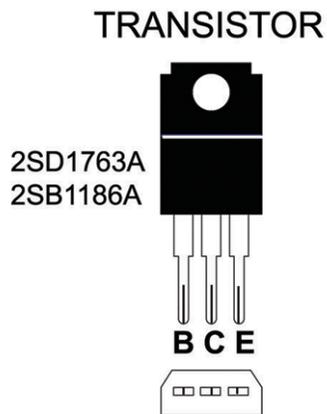
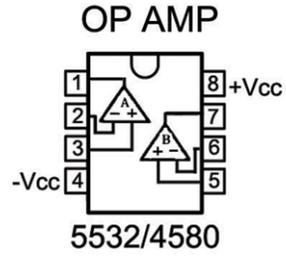
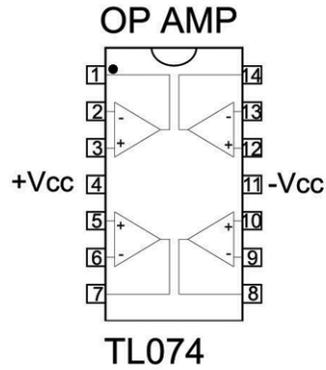
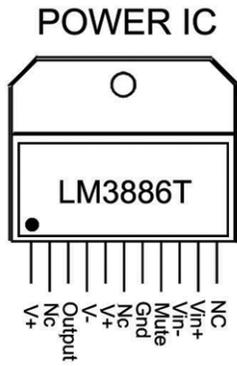
Verify 15 Volts at junction of R57/R54

Verify audio ground on cathode of DS1

Verify LED element operation. If defective replace LED.

Verify continuity of SW2 contacts

Semiconductors Diagrams



EON10-G2 Final Test Procedure

INITIAL POWER UP TEST

Setup—Serially connect a variac, isolation transformer and ammeter. Connect unit under test to variac. Mic /Line switch should be Line position. Volume control at fully CCW position and no load.

- Slowly increase the variac output voltage monitoring for excessive current usage
- Idle current should be less than .5 amps
- Power Green light (FP) should be illuminated

GAIN TEST

Setup---Monitor LF and HF output on oscilloscope with 8 Ohm load, volume CCW

- Apply -20 dB at 80 Hz sine wave from generator to the “ XLR” input 1.
- Increase volume control fully CW. **LF Output** signal should be 24 dB, ± 1 Db.
- Change sine wave frequency to 10 kHz. **HF Output** signal should be 14 dB, ± 1 dB.

INPUT 2 & 3

Setup---Monitor HF output on oscilloscope with 8 Ohm load, volume CCW

- Apply -20 dB at 10KHz sine wave from generator to the “ 1/4” Jack input 2
- Rotate the volume control (VR2&3) and verify smooth level change with no intermittent output.
- Repeat test for input 3

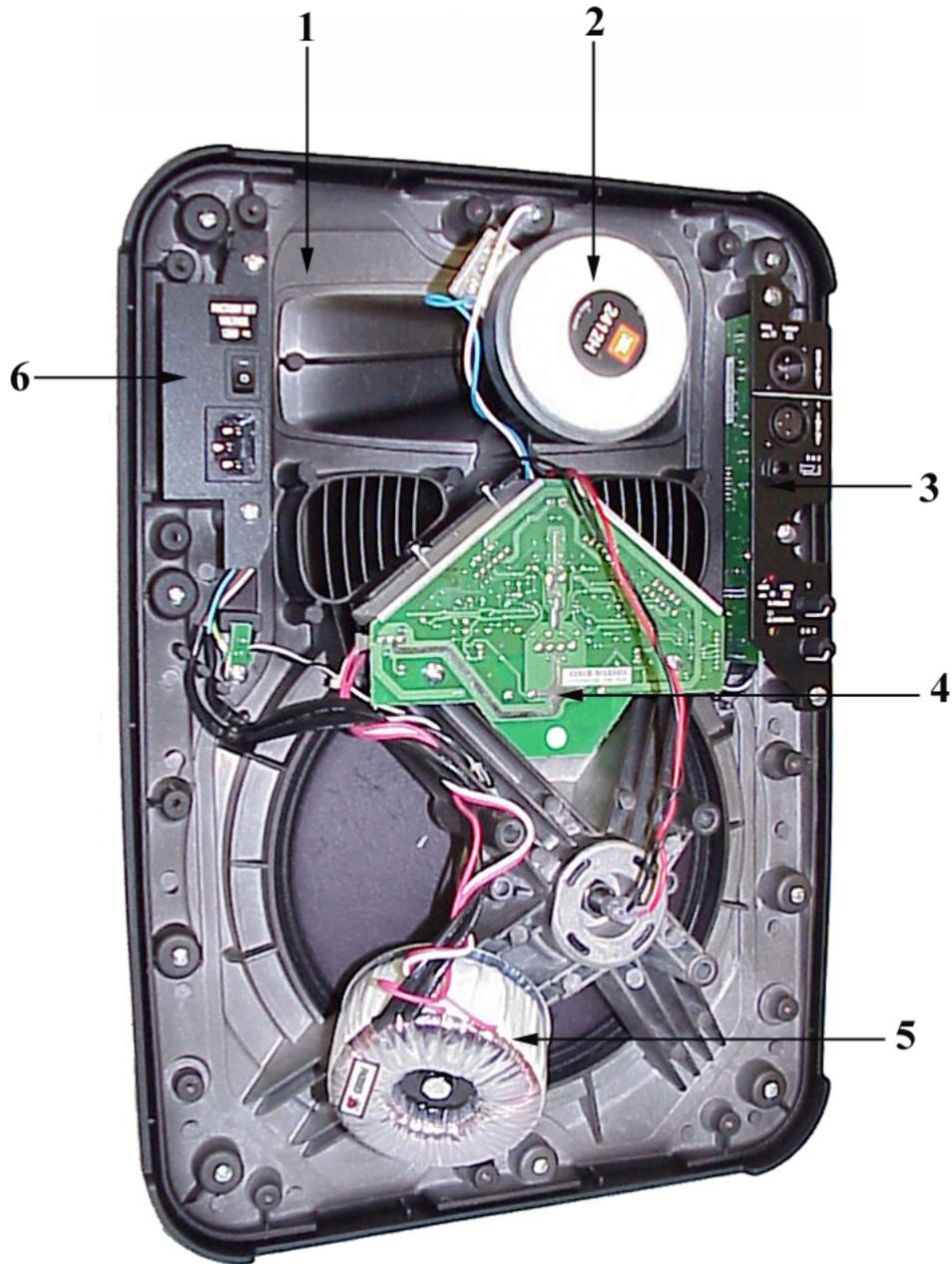
OUTPUT POWER TEST

Setup---Monitor **LF Output**

- Apply 80 HZ to input 1 and increase gain from generator until the peak LED begins to illuminate.
- The output voltage, at this point, should be approximately 16 Volts (AC).
- Perform the same test for “**HF**” **Output** with 10Khz on input 1.
- The output voltage, should be approximately 6.5 Volts (AC).

EON10-G2

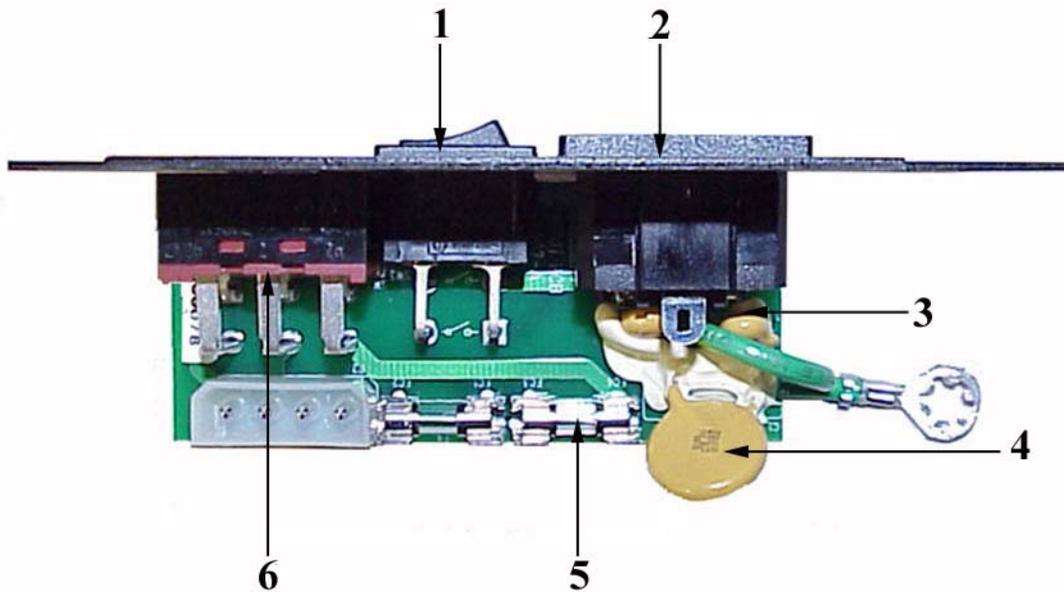
Pictorial Of Complete Amplifier Assembly



Component Parts List

Item	Part No.	Qty	Description
1	EON10-G2LF	1	Baf/Cone Assy
2	125-10000-00X	1	Driver High Freq
3	271-00002-00	1	Signal Input Assy
4	251-00002-00	1	Main Amp Board Assy
5	562-00041-00	1	Transformer
6	250-00002-00	1	AC Power Assy

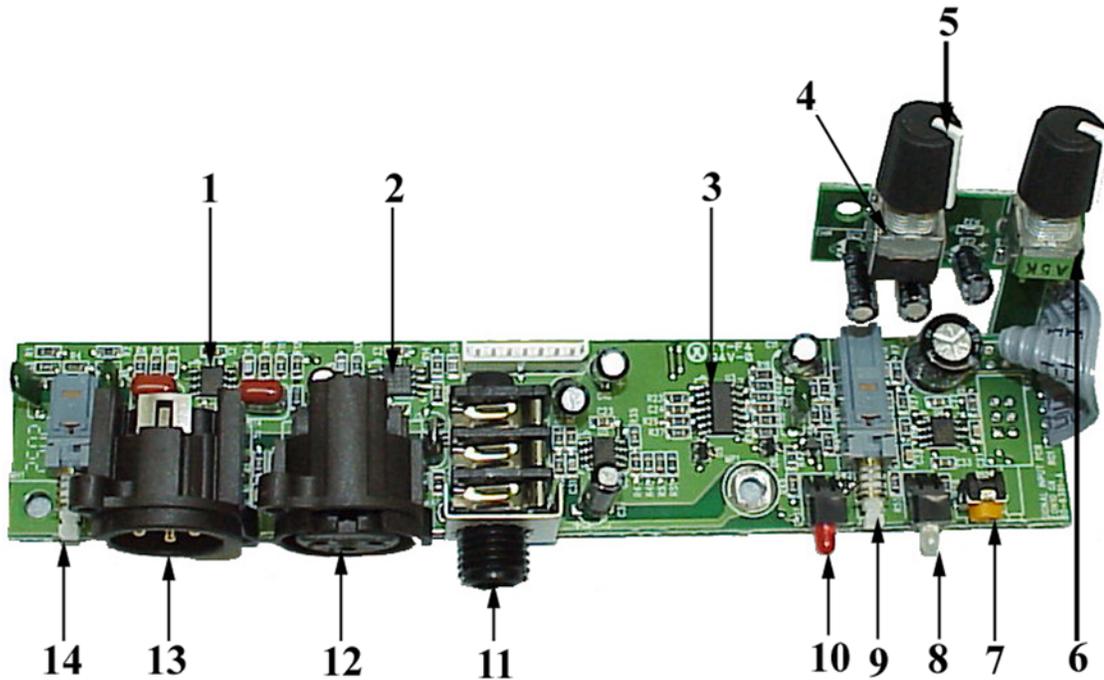
Pictorial Of Power Input PCB Assembly



Component Parts List

Item	Part No.	Qty	Description	Ref.Des
1	44-0004	1	Switch Power	SW3
2	32-1244	1	Con Plug AC Receptacle 3 Pin	P1
3	62-0049	2	Cap 1000 pf Cer 250 V 20%	C2,C3
4	62-0048	1	Cap 0.01 Mf Cer 250V 20%	C1
5	32-3189	2	Fuse 2.5A Time Lag AV 2AG	F3,F4
6	44-0015	1	Switch Voltage Select 115V /230V	SW2

Pictorial Of Input PCB Assembly

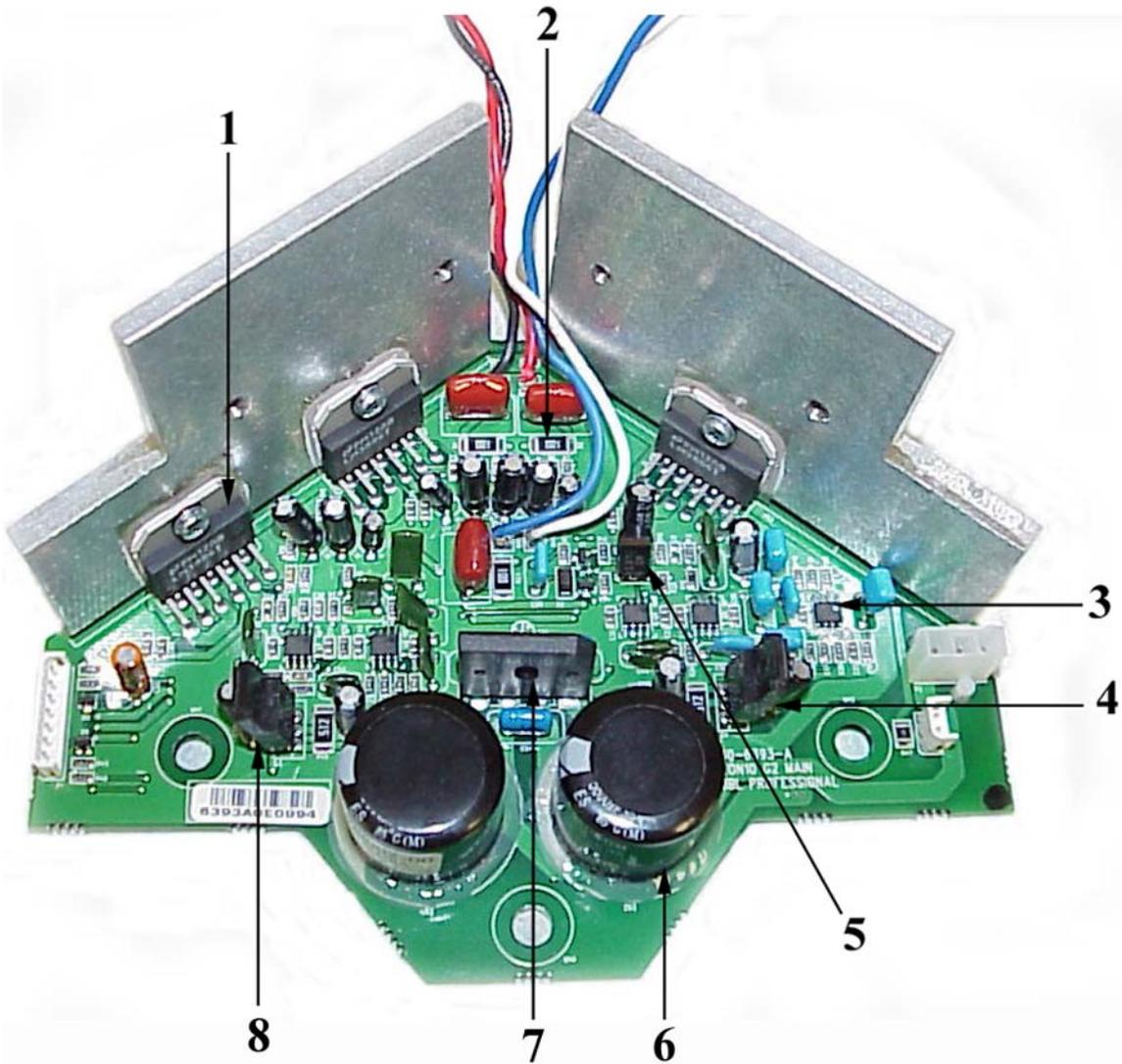


Component Parts List

Item	Part No.	Qty.	Description	Ref.Des.
1	72-1480	3	IC NJM 4580 SM	U1,U4,U5
2	72-1439	1	IC 5532 SM	U2
3	72-1450	1	IC TL074 SM	U3
4	40-0083	1	Pot 5k C 9mm Hor 15mm	VR3
5	34-0043	2	Knob	
6	40-0082	1	Pot 5K A 9mm Rot 12.5 mm	VR2
7	42-0006	1	Pot 10K Side Adjust BK	VR1

Item	Part No.	Qty.	Description	Ref.Des.
8	70-1911	1	LED Multi-color Red/Grn	DS2
9	44-0051	1	Switch 4 PDT , 12 Pin E switch	SW2
10	70-1902	1	LED Red	DS1
11	32-0119	1	Con,Jack ¼ Phone	J3
12	32-213	1	Con Jack XLR R/A PCA A Series	J2
13	32-0204	1	Con, Plug XLR	J1
14	44-0050	1	Switch DPDT , 6 Pin	SW1

Pictorial Of Main Amplifier PCB Assembly



Component Parts List

Item	Part No.	Qty.	Description	Ref.Des.
1	72-0015	3	IC LM 3886T	U3,U1,U2
2	50-0057	3	Res 10 Ohm 5% SM	R1,R2,R23
3	72-0148	5	IC NJM 4580	U4-U8
4	70-0034	1	XSTR 2SD1763A NPN	Q4

Item	Part No.	Qty.	Description	Ref.Des.
5	70-0037	1	XSTR 2SA1370 PNP	Q2
6	60-0003	2	Cap 5600 MF 50V 20%	C62,C63
7	70-0094	1	Diode Bridge Rect 200V 10A	BR1
8	70-0033	1	XSTR 2SB1186A PNP	Q3

Click here to view the JBL Limited Warranty Statement

<http://www.jblpro.com/pub/technote/warranty.pdf>

Click here for the Systems Exploded View / Mechanical Assembly Drawings

<http://www.jblproservice.com/pdf/EON-G2%20Series/EON10G2.pdf>

Click here to view the JBL Professional QA Codes

<http://www.jblproservice.com/protected/Domestic%20pdf/Electronic%20QA%20Codes.pdf>

<http://www.jblproservice.com/protected/Domestic%20pdf/Loudspeakers%20and%20Loudspeaker%20System%20QA%20Codes.pdf>

Click here for the Main Board Schematics

<http://www.jblproservice.com/pdf/EON-G2%20Series/EON10-G2%20Main%20Amp%20Schematics.pdf>

Click here for the Main Board Parts List

<http://www.jblproservice.com/pdf/EON-G2%20Series/EON10-G2%20Main%20Amp%20Parts%20List.pdf>

Click here for the A/C Input Board Schematic

<http://www.jblproservice.com/pdf/EON-G2%20Series/EON10-G2%20AC%20Input%20Schematic.pdf>

Click here for the Signal Input Board Schematic

<http://www.jblproservice.com/pdf/EON-G2%20Series/EON10-G2%20Signal%20Input%20Schematic.pdf>

Click here for the A/C & Signal Input Board Parts List

<http://www.jblproservice.com/pdf/EON-G2%20Series/EON10-G2%20AC%20and%20Signal%20Input%20Parts%20List.pdf>

Click here for the Input/Output Board Schematics

<http://www.jblproservice.com/pdf/EON-G2%20Series/EON10-G2%20Input-Output%20Board%20Schematic.pdf>

Click here for the Control Board Schematic

<http://www.jblproservice.com/pdf/EON-G2%20Series/EON10-G2%20Control%20Board%20Schematic.pdf>

Click here for the Input/Output/Control Board Parts List

<http://www.jblproservice.com/pdf/EON-G2%20Series/EON10-G2%20Input-Output-Control%20Board%20Parts%20List.pdf>

Limited Warranty

The JBL Warranty on professional loudspeaker products (except for enclosures) remains in effect for five years from the date of the first consumer purchase. JBL amplifiers are warranted for three years from the date of original purchase. Enclosures and all other JBL products are warranted for two years from the date of original purchase.

Who is Protected by This Warranty?

Your JBL Warranty protects the original owner and all subsequent owners so long as: A.) Your JBL product has been purchased in the Continental United States, Hawaii or Alaska. (This Warranty does not apply to JBL products purchased elsewhere except for purchases by military outlets. Other purchasers should contact the local JBL distributor for warranty information.); and B.) The original dated bill of sale is presented whenever warranty service is required.

What is Covered by the JBL Warranty?

Except as specified below, your JBL Warranty covers all defects in material and workmanship. The following are not covered: Damage caused by accident, misuse, abuse, product modification or neglect; damage occurring during shipment; damage resulting from failure to follow instructions contained in your Instruction Manual; damage resulting from the performance of repairs by someone not authorized by JBL; claims based upon any misrepresentations by the seller; any JBL product on which the serial number has been defaced, modified or removed.

Who Pays for What?

JBL will pay all labor and material expenses for all repairs covered by this warranty. Please be sure to save the original shipping cartons because a charge will be made if replacement cartons are requested. Payment of shipping charges is discussed in the next section of this warranty.

How to Obtain Warranty Performance

If your JBL product ever needs service, write or telephone us at JBL Incorporated (Attn: Customer Service Department), 8500 Balboa Boulevard, P.O. Box 2200, Northridge, California 91329 (818/893-8411). We may direct you to an authorized JBL Service Agency or ask you to send your unit to the factory for repair. Either way, you'll need to present the original bill of sale to establish the date of purchase. Please do not ship your JBL product to the factory without prior authorization.

If transportation of your JBL product presents any unusual difficulties, please advise us and we may make special arrangements with you. Otherwise, you are responsible for transporting your product for repair or arranging for its transportation and for payment of any initial shipping charges. However, we will pay the return shipping charges if repairs are covered by the warranty.

Limitation of Implied Warranties

ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.

EXCLUSION OF CERTAIN DAMAGES

JBL'S LIABILITY IS LIMITED TO THE REPAIR OR REPLACEMENT, AT OUR OPTION, OF ANY DEFECTIVE PRODUCT AND SHALL NOT INCLUDE INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

NOTE: There may be a difference between this Warranty and the Warranty in your Instruction Manual. In the event of a difference, this Warranty will prevail.

Technical Manual



JBL EON10-G2

SPECIFICATIONS

ACOUSTIC & ELECTRICAL SPECIFICATIONS:

- Amplifier Power LF: 125 Watts @ Low Frequency
Driver Impedance.
- Amplifier Power HF: 50 Watts @ High Frequency
Driver Impedance
- Frequency Range: 65 Hz – 18 kHz (± 10dB)
- Frequency Response: 90 Hz – 16 kHz (± 3 dB)
- Horizontal Coverage: 90° Nominal
- Vertical Coverage: 60° Nominal
- Rated Maximum SPL: 117 dB, @ 1 M
- Crossover Frequency: 2.7 kHz

SYSTEM COMPONENTS:

- Low Frequency Transducer: Integral Frame with one 10" (254 mm) Driver, Neodymium Magnet, 1.5" Differential-Drive Voice Coil
- DC Resistance: 5.4 ohm ±10%
- High Frequency Transducer: JBL 2412H 1" Compression Driver, Titanium Diaphragm, Ferro-fluid Cooled, 8 ohm
- DC Resistance: 4.3 ohm ±10%

SYSTEM COMPONENTS: (CONT'D)

- Input 1 Sensitivity: -48 dBu to 0 dBu for Rated Output (Mic/Line Switch in Mic Position)
-6 dBu to +20 dBu for Rated Output (Mic/Line Switch in Line Position)
- Input 2 & 3 Sensitivity: -12 dBu to +20 dBu for Rated Output
- Output Level: +26 dBu (Max), Loop/Mix Switch in Mix Position

AURAL SWEEP TEST SPECIFICATIONS:

- A. System Aural Sweep Test: 250 MV Input RMS, Pot at 1/2, Tone flat, Way 20 Hz to 20 kHz
- B. L.F. Aural Sweep Test: 4.0V Input, 20 Hz to 4 kHz
- C. H.F. Aural Sweep Test: 2.5V Input, 500 Hz to 20 kHz

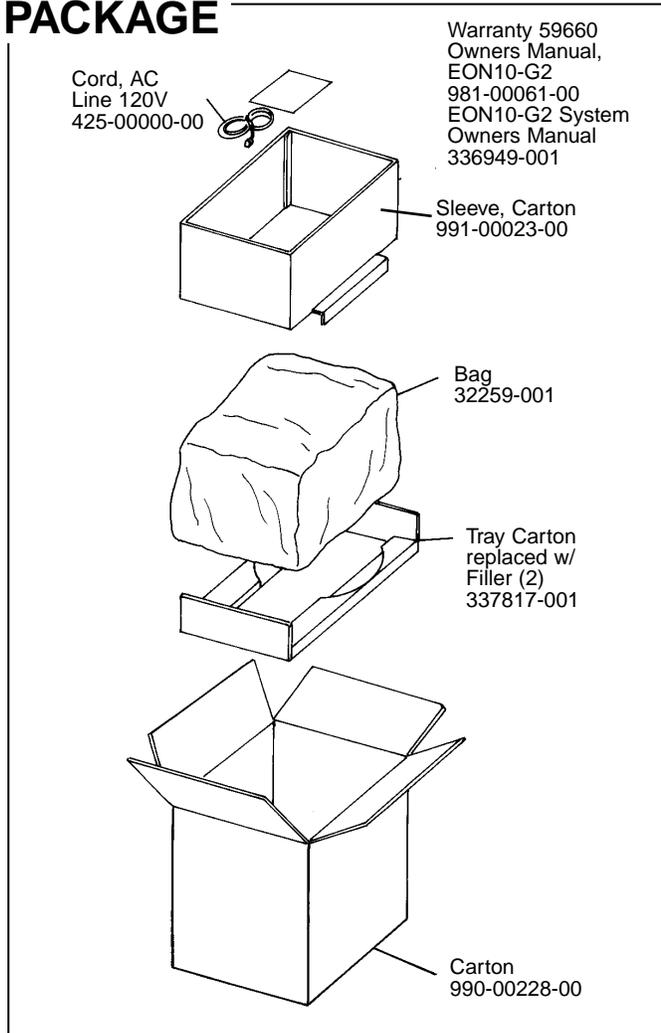
PHYSICAL SPECIFICATIONS:

- Enclosure Dimensions: 493mm x 356mm x 307mm D (19.4 x 14.0 x 12.1 in. D)
- Shipping Weight: 26 lbs. (11.8 kg.)

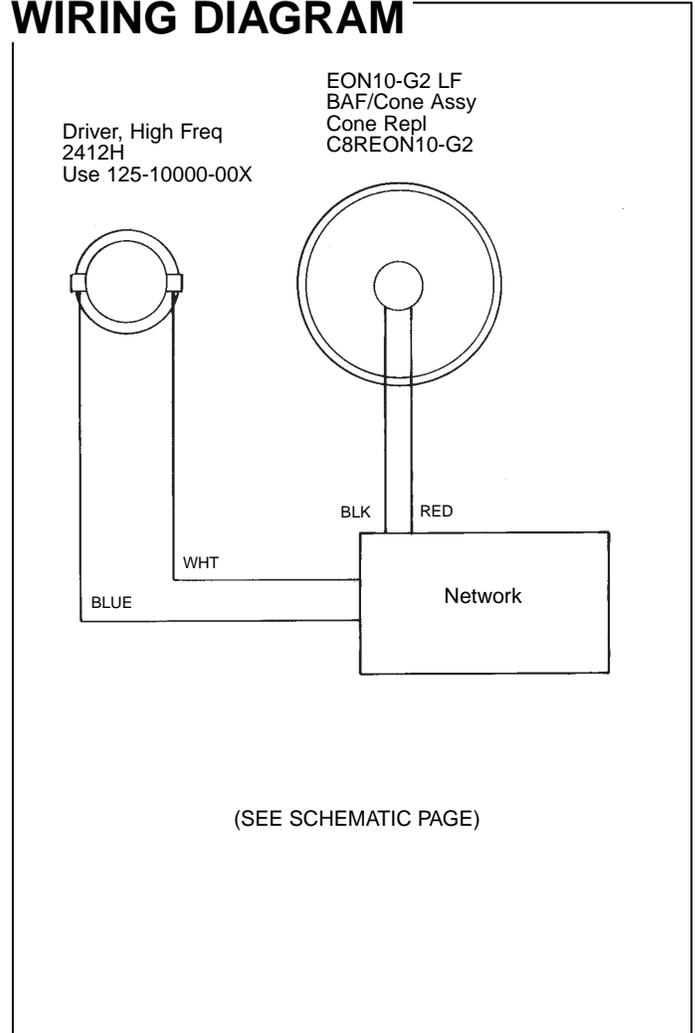
WARRANTY INFORMATION:

- Refer to Warranty Statement packed with each product.

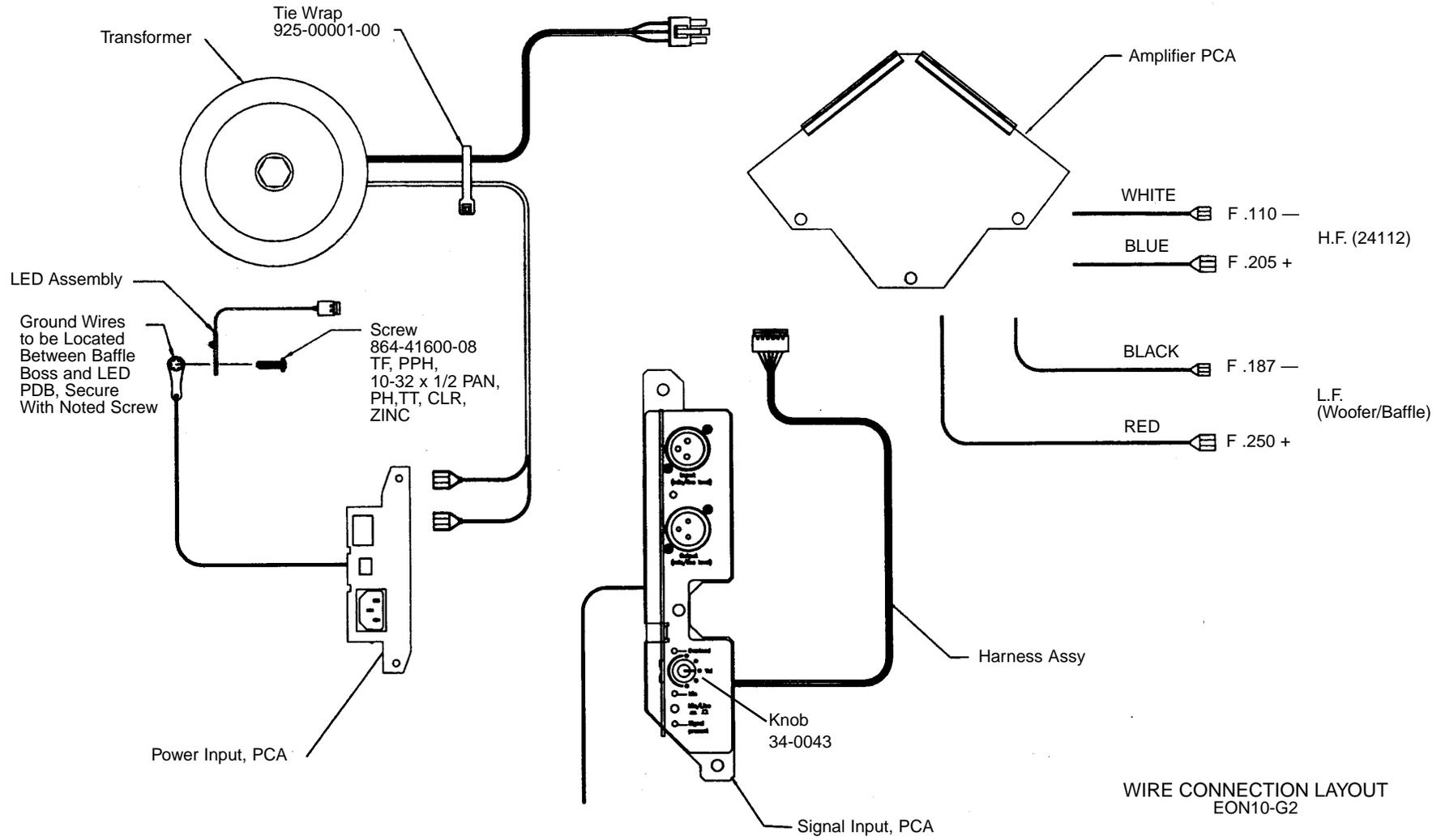
PACKAGE



WIRING DIAGRAM



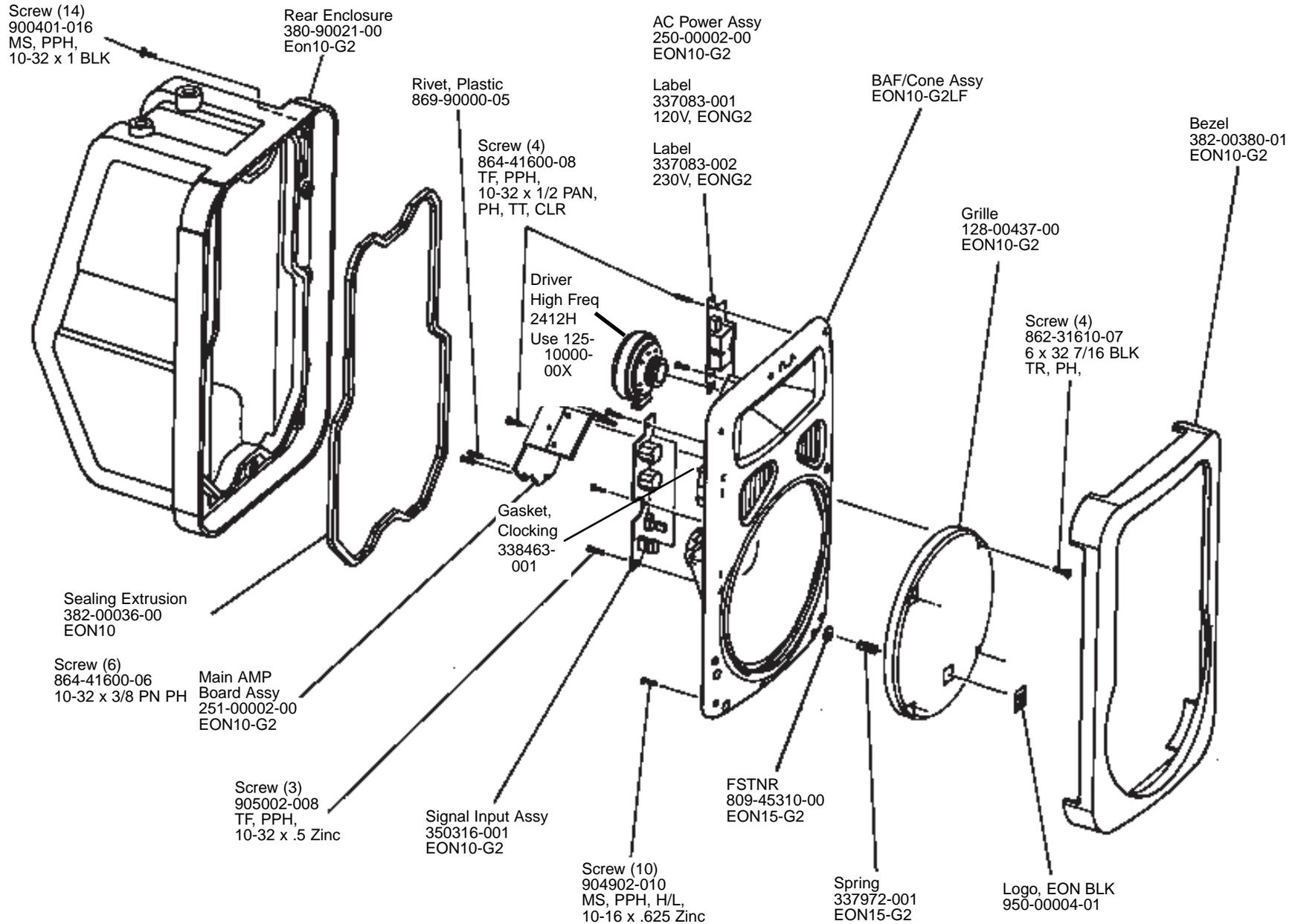
JBL EON10-G2



JBL EON10-G2

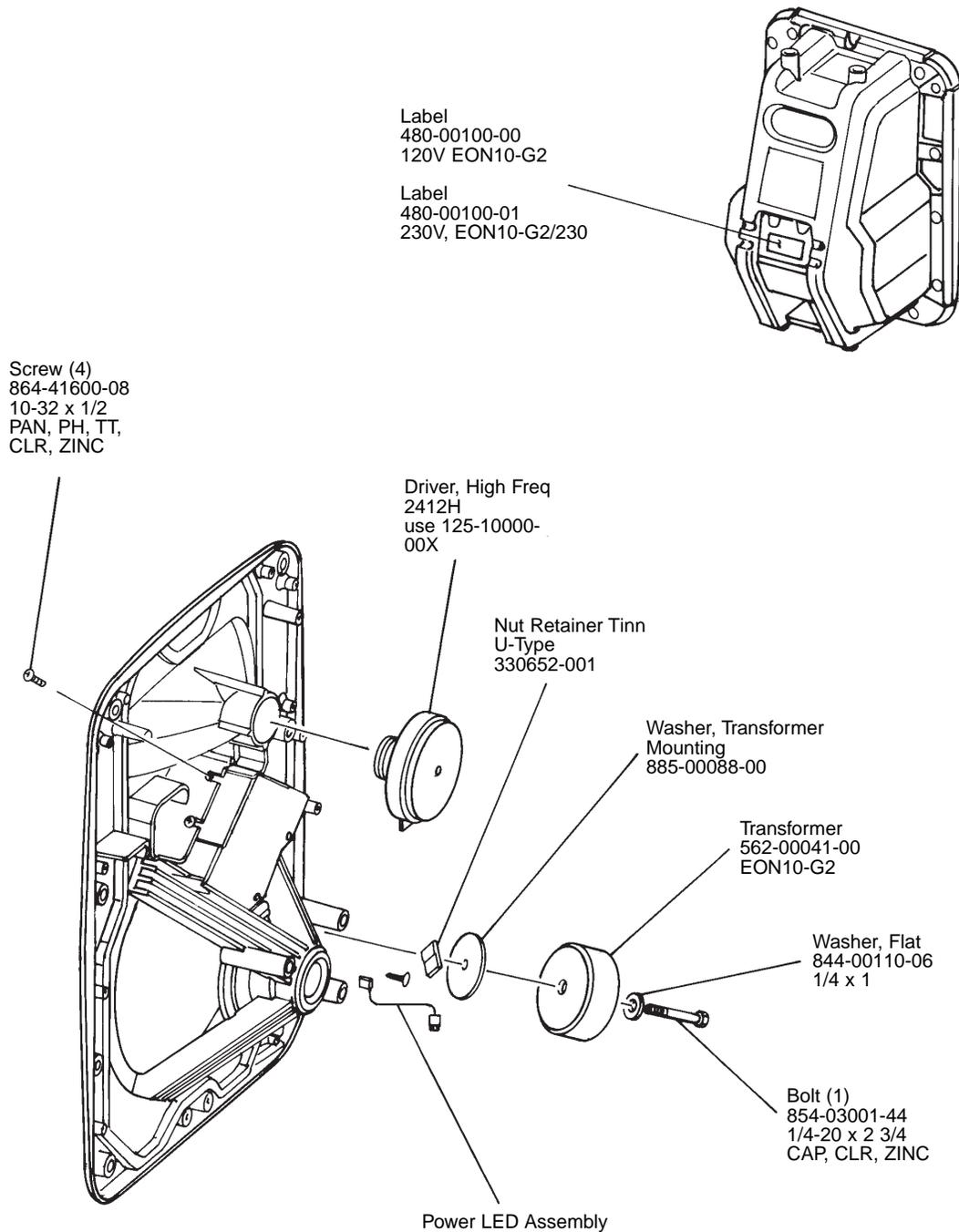
COMPONENT EXPLODED VIEW

JBL EON10-G2



JBL EON10-G2

COMPONENT EXPLODED VIEW



JBL EON10-G2



JBL PROFESSIONAL

SERVICE PROCEDURES

July 1, 1998

ELECTRONIC FAILURE CODES

The following codes are an expanded version of the existing electronic failure codes. These codes should be used for all electronics excluding networks in speaker enclosures. Network failures should continue to use the transducer failure codes. Please utilize these codes on every warranty claim submitted to JBL Professional. Exclusion of these codes will result in the return of warranty claims.

We have designed these codes to be as simple and self-explanatory as possible. The failures are categorized by component, of which there is a heading. The actual failures are listed under the headings, and that is the code that should be used. Should you have problems deciding which code to use, please contact JBL Professional Technical department.



PROFESSIONAL

JBL PROFESSIONAL

ELECTRONIC FAILURE Q.A. CODES

July 1, 2004

Page 1

Q.A. CODE	DESCRIPTION OF DEFECT	WARRANTY STATUS	Q.A. CODE	DESCRIPTION OF DEFECT	WARRANTY STATUS
10.010	IC (Specify)		10.052	Capacitor - Burned due to Workmanship/Design	IN
10.011	IC - Open	IN	10.053	Capacitor - Shorted	IN
10.012	IC - Burned due to Workmanship/Design	IN	10.054	Capacitor - Thermally Sensitive	IN
10.013	IC - Shorted	IN	10.055	Capacitor - Noisy	IN
10.014	IC - Thermally Sensitive	IN	10.056	Capacitor - Leaky	IN
10.015	Noisy	IN	10.057	Capacitor - Dried Up	IN
10.016	Not Secured to Heat Sink	IN	10.058	Capacitor - Value Changed	IN
10.017	IC - Wrong Part (installed at factory)	IN	10.059	Capacitor - Broken	IN
10.018	IC - Burned	OUT	10.0591	Capacitor - Burned	OUT
10.020	TRANSISTOR (Specify)		10.060	DIODE/RECTIFIER/BRIDGE (Specify)	
10.021	Transistor - Open	IN	10.061	Open	IN
10.022	Transistor - Burned Due to Workmanship/Design	IN	10.062	Burned due to Workmanship/Design	IN
10.023	Transistor - Shorted	IN	10.063	Shorted	IN
10.024	Transistor - Thermally Sensitive	IN	10.064	Thermally Sensitive	IN
10.025	Transistor - Noisy	IN	10.065	Wrong Part (installed at factory)	IN
10.026	Transistor - Not Secured to Heat Sink	IN	10.066	Burned	OUT
10.027	Transistor - Wrong Part	IN			
10.028	Transistor - Burned	OUT	10.070	INDUCTOR (Specify)	
			10.071	Inductor - Open	IN
10.030	FET (Specify)		10.072	Inductor - Burned	IN
10.031	FET - Open	IN			
10.032	FET - Burned due to Workmanship/Design	IN	10.080	LED/LCD/VU METER (Specify)	
10.033	FET - Shorted	IN	10.081	No Characters/Missing	IN
10.034	FET - Thermally Sensitive	IN	10.082	No Back Light	IN
10.035	FET - Noisy	IN	10.083	Broken	IN
10.036	FET - Not Secured to Heat Sink	IN	10.084	Meter - Defective	IN
10.037	FET - Wrong Part	IN	10.085	Bezel - Broken	IN
10.038	FET - Burned	OUT			
			10.090	RELAY (Specify)	IN
10.040	RESISTOR (Specify)		10.091	Relay - Intermittent	IN
10.041	Resistor - Open	IN	10.092	Relay - Will Not Engage	IN
10.042	Resistor - Burned due to Workmanship/Design	IN	10.093	Relay - Pitted Contacts	IN
10.043	Resistor - Shorted	IN			IN
10.044	Resistor - Thermally Sensitive	IN	10.100	POTENTIOMETER (Specify)	
10.045	Resistor - Noisy	IN	10.101	Potentiometer - Dirty / Scratchy	IN
10.046	Resistor Pack Cracked	IN	10.102	Potentiometer - Open	IN
10.047	Resistor - Wrong Part	IN	10.103	Potentiometer - Broken, Cracked	IN
10.048	Resistor - Burned	OUT	10.104	Potentiometer - Wrong Part (installed at factory)	IN
10.050	CAPACITOR (Specify)		10.110	SWITCH (Specify)	
10.051	Capacitor - Open	IN	10.111	Switch - Intermittent	IN
			10.112	Switch - Broken	IN



JBL PROFESSIONAL

ELECTRONIC FAILURE Q.A. CODES

July 1, 2004
Page 2

Q.A. CODE	DESCRIPTION OF DEFECT	WARRANTY STATUS	Q.A. CODE	DESCRIPTION OF DEFECT	WARRANTY STATUS
10.113	Switch - Will Not Close	IN	10.172	Transformer - Burned due to Workmanship/Design	IN
10.114	Switch - Noisy	IN	10.173	Transformer - Noisy	IN
			10.175	Transformer - Shorted	IN
10.120	FUSE (Specify)		10.174	Transformer - Shorted	IN
10.121	Fuse - Open	IN	10.175	Transformer - Loose	IN
10.122	Fuse - High Resistance	IN	10.176	Transformer - Burned	OUT
10.123	Fuse - Wrong	IN			
10.124	Fuse - Loose	IN	10.180	CRYSTAL (Specify)	
			10.181	Crystal - Dead	IN
10.130	CONNECTOR (Specify)		10.182	Crystal - Wrong Frequency	IN
10.131	Connector - Intermittent	IN	10.183	Crystal - Thermally Sensitive	IN
10.132	Connector - Broken	IN			
10.133	Connector - Missing Pins	IN	10.190	CABLES (Specify)	
10.134	Connector - Installed Backwards	IN	10.191	Cables - Open	IN
10.135	Connector - Loose	IN	10.192	Cables - Noisy	IN
			10.193	Cables - Cut - Partially Open	IN
10.140	PCB (Specify)		10.194	Cables - Connector Installed Wrong	IN
10.141	PCB - Broken Trace	IN	10.195	Cables - Burned	IN
10.142	PCB - Burned Trace	IN			
10.143	PCB - Cracked	IN	10.200	Components/Touching Shorted	
10.144	PCB - Bad Feedthrough/via	IN			
10.145	PCB - Chemical Damage	IN	10.300	SOLDER PROBLEMS (Specify)	
10.146	PCB - Exchange Amp Board	IN	10.301	Cold Solder	IN
10.147	PCB - Exchange Signal Input Board	IN	10.302	No Solder	IN
10.148	PCB - Exchange DSP Board	IN	10.303	Splashes	IN
10.149	PCB - Exchange A/C Input Board	IN			
10.1491	PCB - Burned	OUT	10.400	MECHANICAL - (Specify)	
			10.401	Broken Binding post	IN
10.150	REGULATORS - (Specify)		10.402	Broken Fuse Holder	IN
10.151	Regulators - Open	IN	10.403	Open Line Cord	IN
10.152	Regulators - Burned due to Workmanship/Design	IN	10.404	Broken/Missing Knob	IN
10.153	Regulators - Shorted	IN	10.405	Dented Chassis	OUT
10.154	Regulators - Thermally Sensitive	IN	10.406	Damaged Front Panel	OUT
10.155	Regulators - Noisy	IN	10.407	Broken Fan	IN
10.156	Regulators - Broken	IN	10.408	Stopped/ Slow Fan	IN
10.157	Regulators - Out of Regulation	IN	10.409	Packing	IN
10.158	Regulators - Wrong Part	IN	10.410	Noisy Fan	OUT
10.159	Regulators - Burned	OUT			
			10.500	SOFTWARE (Specify)	
10.160	BULB/LAMP - (Specify)		10.510	Upgrade Software	IN
10.161	Open	IN	10.520	Upgrade Hardware	IN
			10.530	Reset to Factory Software	IN
10.170	TRANSFORMER - (Specify)				
10.171	Transformer - Open	IN	10.600	ADJUSTMENT (Specify)	
			10.601	Adjust Voltage	IN



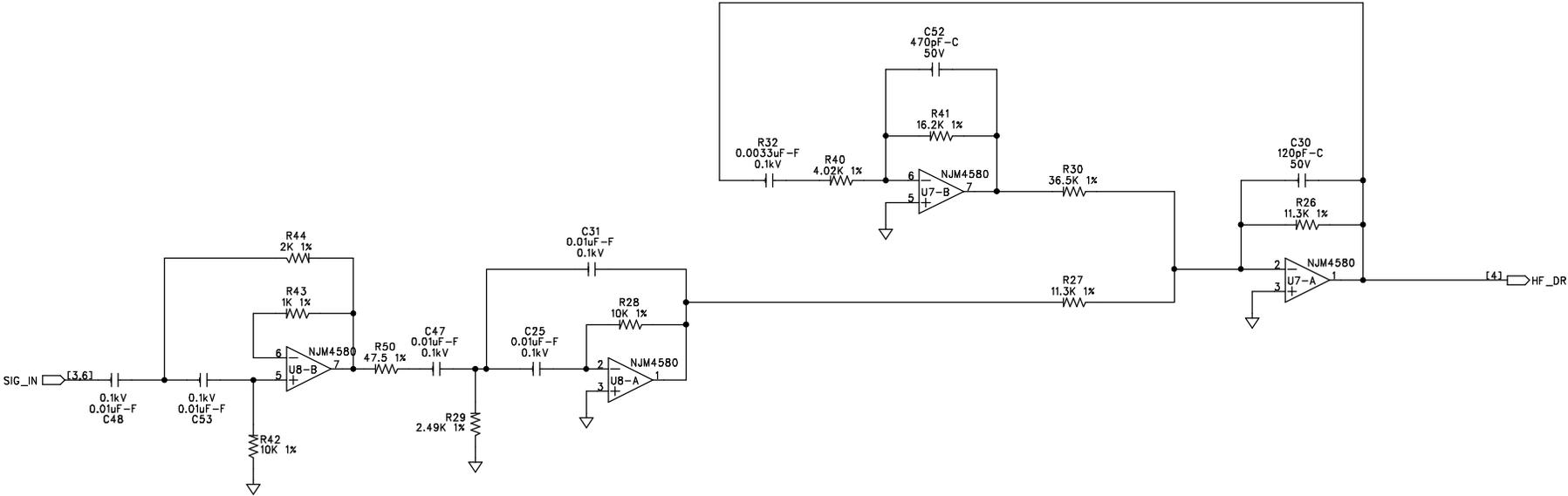
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LOUDSPEAKERS AND LOUDSPEAKER SYSTEM Q.A. CODES

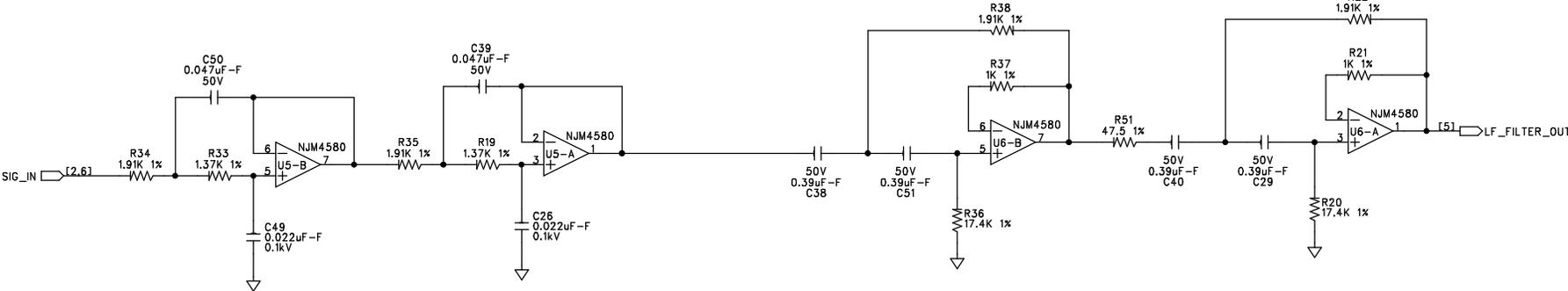
July 1, 2004

Page 1

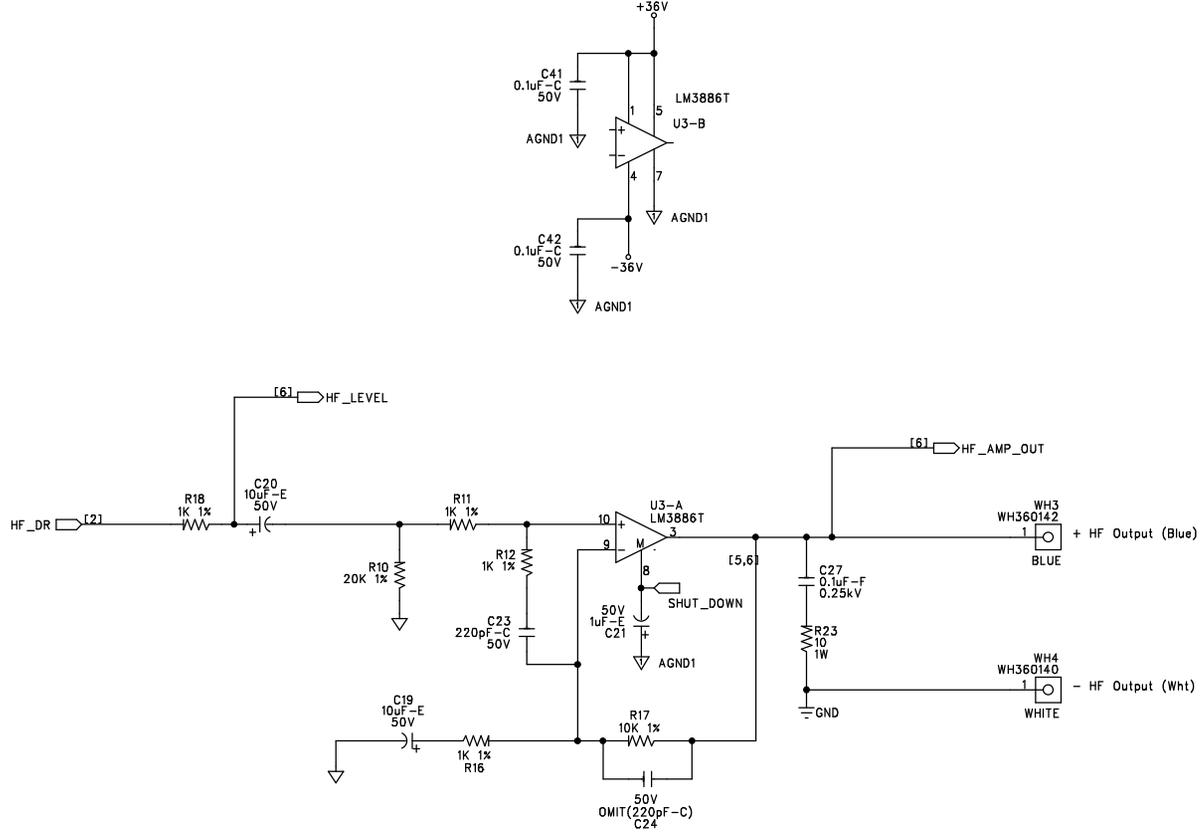
Q.A. CODE	DESCRIPTION OF DEFECT	WARRANTY STATUS	Q.A. CODE	DESCRIPTION OF DEFECT	WARRANTY STATUS
0.0	No Defects - Definition		3.11	Open - Break at Eyelet	IN
0.1	No Defects - Unclassified		3.12	Open - Solder Joint at Eyelet	IN
0.2	No Defects - Standard		3.13	Open - Solder Joint at Terminal	IN
0.3	No Defects - Non Standard		3.14	Open - Loose Terminal	IN
0.4	No Defects - Retrofit		3.15	Open - Voice Coil Pulled Loose	IN
0.5	No Defects - Not Accepted		3.16	Open - Voice Coil Driven Out of Gap	OUT
			3.17	Open - Voice Coil Burned (indicate burn type)	OUT
1.1	Rubbing - Unclassified (Specify)		3.18	Open - Voice Coil Burned at Crossover	OUT
1.2	Rubbing - High Wire	IN	3.19	Open - Voice Coil Inside - Bubbled Support	IN
1.3	Rubbing - Voice Coil Pulled Loose	IN	3.20	Open - Burned Lead	OUT
1.4	Rubbing - Crossover Lead	IN	3.21	Open - Tinsel Lead	IN
1.5	Rubbing - Excess Glue	IN	3.22	Open - Tinsel Lead Oxidized	OUT
1.6	Rubbing - Sunken Spider	IN	3.23	Open - Diaphragm Overdriven (indicate damage to diaphragm)	OUT
1.7	Rubbing - Cone Fatigue	OUT	3.24	Open - Beryllium Copper Lead (indicate location break)	IN
1.8	Rubbing - Torn Cone	IN	3.25	Open - Voice Coil Lead	IN
1.9	Rubbing - Torn Cone at Compliance	IN	3.28	Open - Ferro Fluid Drift	IN
1.10	Rubbing - Spider Loose at Frame	IN			
1.11	Rubbing - Spider Loose at Cone	IN	4.1	Shorted - Unclassified (Specify)	
1.12	Rubbing - Dented Dome	OUT	4.2	Shorted - Voice Coil Turns	IN
1.13	Rubbing - V.C. Driven Out of Gap *	OUT	4.2	Shorted - Voice Coil Turns: Rubbing	IN
1.14	Rubbing - Off Center Spider	IN	4.4	Shorted - Voice Coil to Pot Frame	IN
1.15	Rubbing - Chips in the Gap	IN	4.5	Shorted - Tinsel Leads (touching)	IN
1.16	Rubbing - Voice Coil Out of Round	IN	4.6	Shorted - Voice Coil to Crossover Lead	IN
1.17	Rubbing - Voice Coil Inside - Bubbled Support	IN			
1.18	Rubbing - Voice Coil Burned (indicate type of burn)	OUT	5.1	Defective Bond - Unclassified (Specify)	
1.19	Rubbing - Torn Spider	IN	5.2	Defective Bond - Voice Coil Support to Diaphragm	IN
			5.3	Defective Bond - Dome	IN
2.1	THRU		5.4	Defective Bond - Compliance (include CT)	IN
2.18	SAME AS ABOVE FOR RUBBING		5.5	Defective Bond - Lansaloy	IN
2.1	WITH PRESSURE		5.6	Defective Bond - Spider Inside	IN
			5.7	Defective Bond - Spider Outside	IN
3.1	Open - Unclassified (Specify)		5.8	Defective Bond - Compliance at Cone	IN
3.2	Open - Break at Crossover Lead	IN	5.9	Defective Bond - Compliance Deterioration	OUT
3.3	Open - Break at Weld	IN	5.10	Defective Bond - Cone	IN
3.4	Open - Internal Break in Voice Coil	IN	5.11	Defective Bond - (Loose/Shifted) Magnet	IN
3.5	Open - Break at Start Winding Bend	IN	5.12	Defective Bond - Loose Voice Coil Mass Ring	IN
3.6	Open - Break at Finish Winding Bend	IN			
3.7	Open - Break at V.C. Tube Inside	IN	6.1	External Damage - Unclassified (Specify)	OUT
3.8	Open - Break at V.C. Tube Outside	IN	6.2	External Damage - Dome	OUT
3.9	Open - Break at Cone Collar	IN	6.3	External Damage - Cone	OUT
3.10	Open - Break at Cone Collar Finish Lead	IN	6.4	External Damage - Frame Broken	OUT



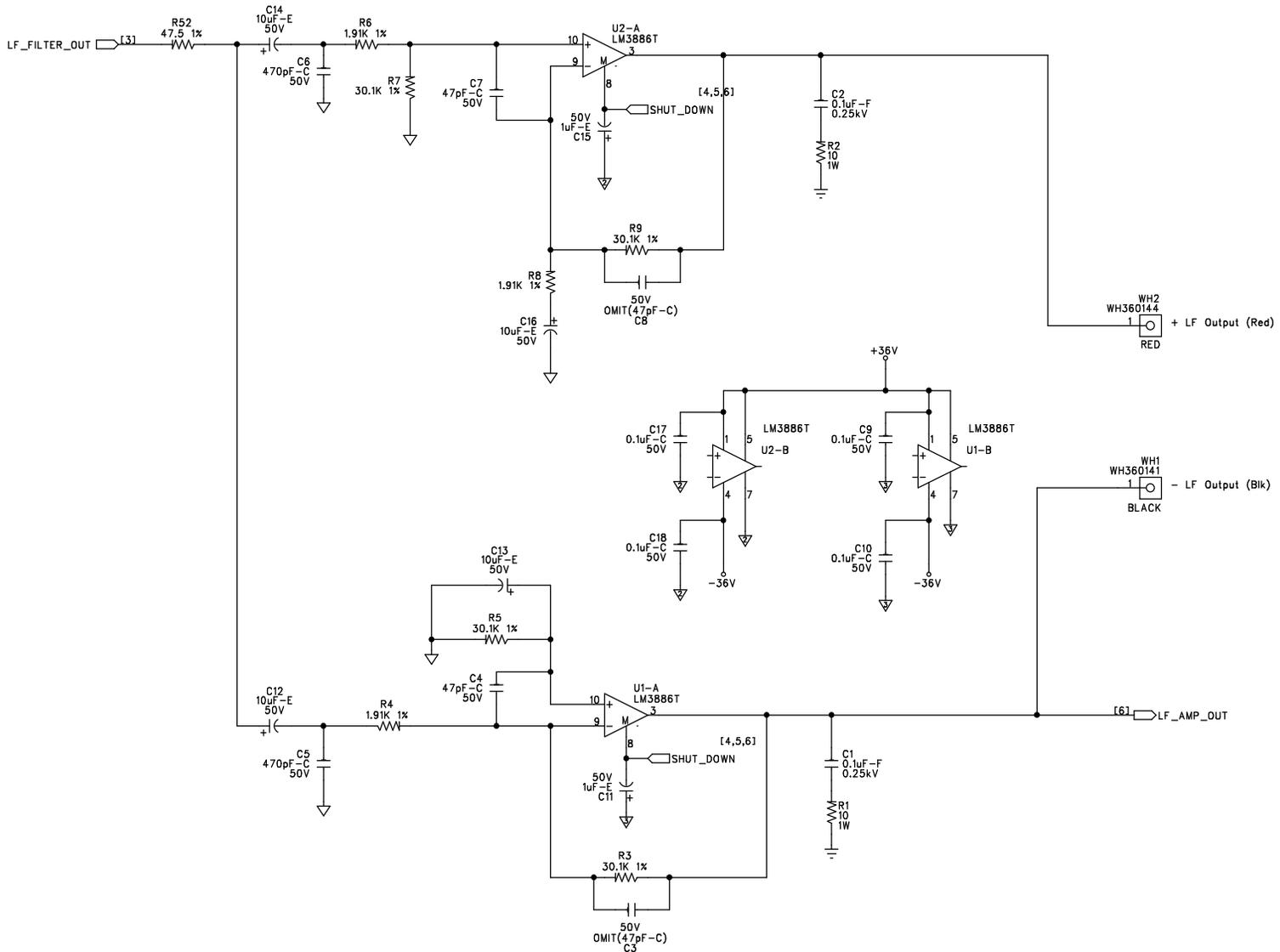
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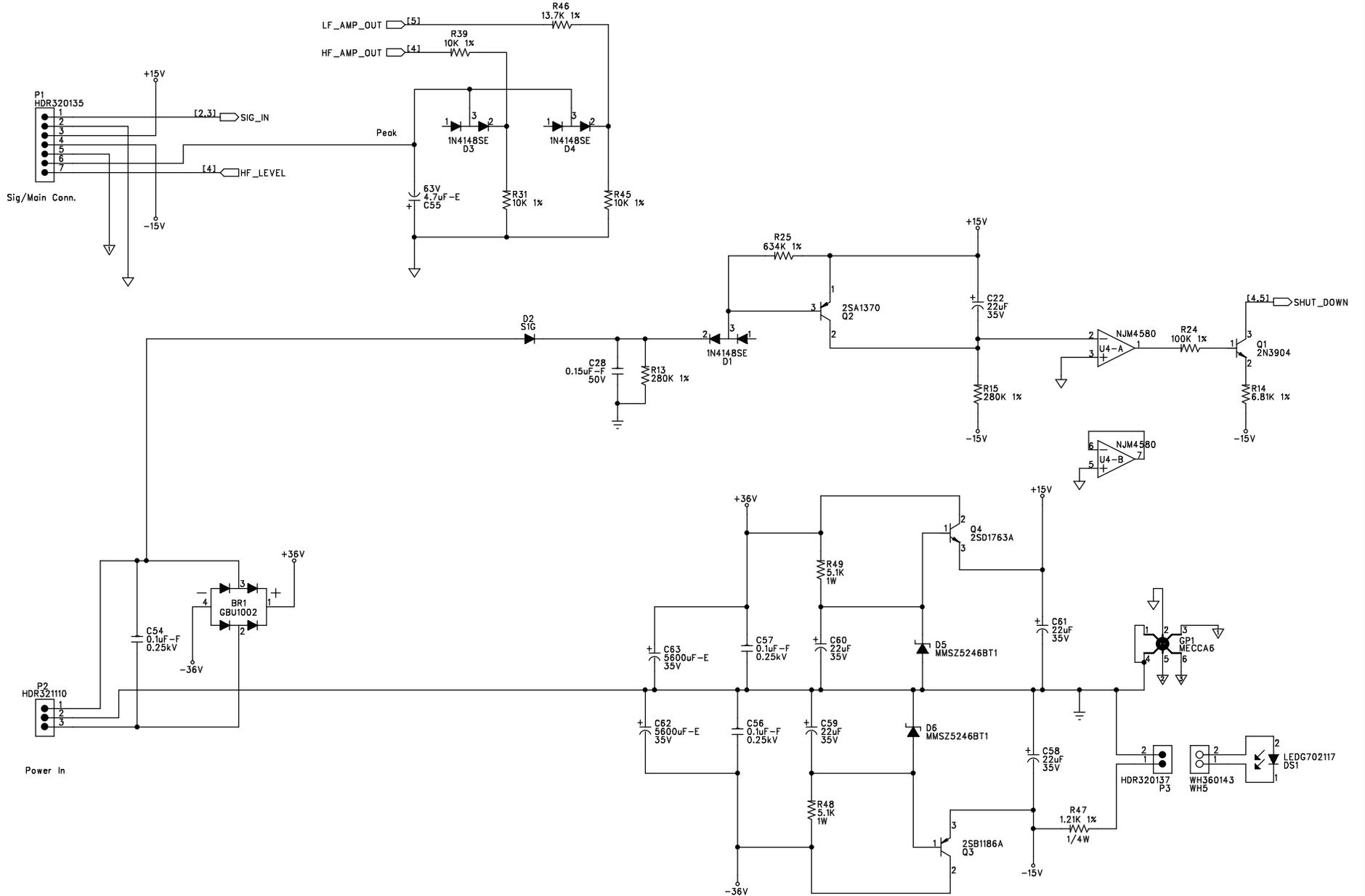
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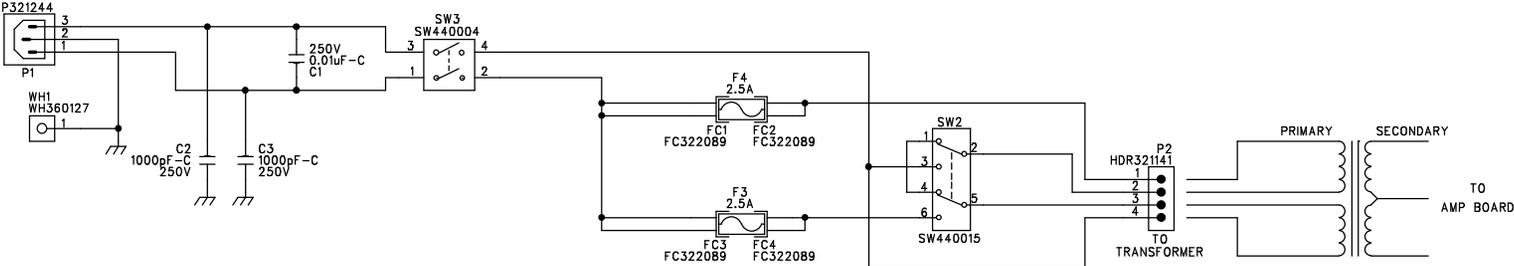
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Bill Of Materials for 056393b0.sch on Tue Jun 19 14:03:50 2001

Qty	Reference	HMG#	Description	Audit	Schematic Part	PCB Decal
1	PCB1	80-6393	PCB 80-6393 EON10 GII Main Board	PT2044	80XXXXXY	BARCODE
1	BR1	70-0094	DIO BRGE RECT 200V 10A BK	PT2308	BR700094	BRIDGE4
41	A1-41	NON-PART	NON-PART, PCB ONLY, BREAKOFF PART	PT1481	BRKOFF	BRKOFF
1	R32	56-0003	CAP, 0.0033uF, FILM, 100V, 5%, RFCC200, AMMO	PT1103	C0.0033UF100JR	RFCC200
5	C25 C31 C47-48 C53	56-0006	CAP, 0.01uF, FILM, 100V, 5%, RFDD200, AMMO	PT1379	C0.01UF100JR	RFDD200
2	C26 C49	56-0008	CAP, 0.022uF, FILM, 100V, 5%, RFED200, AMMO	PT1399	C0.022UF100JR	RFED200
2	C39 C50	56-0010	CAP, 0.047uF, FILM, 50V, 5%, RFEC200, AMMO	PT1002	C0.047UF50JR	RFEC200
1	C28	56-0013	CAP, 0.15uF, FILM, 50V, 5%, RFEC200, AMMO	PT1199	C0.15UF50JR	RFEC200
16	C9-10 C17-18 C32-37 C41-46	62-3139	CAP, 0.1uF, CER, 50V, 20%, 0805, T&R	PT1087	C0.1UC50M0805	0805
3	C54 C56-57	62-0076	CAP 0.1uF FILM 250V 5% BULK	PT2143	C0.1UF250JR	RFMF300
3	C1-2 C27	62-0056	CAP 0.1uF FILM 250V 10% BK	PT2140	C0.1UF250KR1	RFNJ400
4	C29 C38 C40 C51	56-0040	CAP, 0.39uF, FILM, 50V, 5%, RFEE200, AMMO	PT1078	C0.39UF50JR	RFEE200
6	C12-14 C16 C19-20	60-1074	CAP 10uF ELEC 50V 20% 105C 5 X 11 TA	PT1972	C10UE50MR1	REE200P
1	C30	62-3135	CAP, 120pF, CER, 50V, 5%, 0805, T&R	PT1440	C120PC50J0805	0805
3	C11 C15 C21	60-0044-01	CAP, 1uF, ELEC, 50V, 20%, RED200P, AMMO	PT1079	C1UE50MR	RED200P
1	C23	62-3138	CAP, 220pF, CER, 50V, 10%, 0805, T&R	PT1286	C220PC50K0805	0805
1	C24	OMIT	OMIT, CAP, 220pF, CER, 50V, 10%, 0805, T&R, (62-3138)	PT1452	C220PC50K0805O	0805
5	C22 C58-61	60-0010	CAP 22uF ELEC 35V 20% AMMO	PT2110	C22UE35MR	REE200P
1	C55	60-0404	CAP, 4.7uF, ELEC, 63V, 20%, REE200P, AMMO	PT1105	C4.7UE63MR	REE200P
3	C5-6 C52	62-3133	CAP, 470pF, CER, 50V, 10%, 0805, T&R	PT1086	C470PC50K0805	0805
2	C4 C7	62-3132	CAP, 47pF, CER, 50V, 5%, 0805, T&R	PT1085	C47PC50J0805	0805
2	C3 C8	OMIT	OMIT, CAP, 47pF, CER, 50V, 5%, 0805, T&R, (62-3132)	PT1575	C47PC50J0805O	0805
2	C62-63	60-0004	CAP 5600uF ELEC 35V 20% 25X25 BK	PT2454	C5600UE35MR	REZ400P
3	D1 D3-4	70-0113	DIO, MMBD4148SE, DUAL DIODE, 75V, 600mA, SOT-23, T&R	PT1326	D1N4148SE-S	SOT-23
2	D5-6	70-0154	DIO MMSZ5246BT1 ZENER 16V SOD-123 TA	PT2082	DMMSZ5246BT1-S	SOD-123
1	D2	70-3203	DIO SIG RECT 400V 1.0A SMA TA	PT2081	DS1G-S	DO-214AC/SMA
2	A42-43	NON-PART	NON-PART, FIDUCIAL, TARGET FOR AUTO INSERTION	PT1271	FIDUCIAL	FIDUCIAL
1	P1	32-0135	HDR 7 PIN .098 SPC 7X1 SHD VERT	PT2089	HDR320135	HC71V98SP
1	P3	32-0137	HDR 2 PN 0.098 SPC 2X1 SHR VRT MT	PT1854	HDR320137	HC21V98SP
1	P2	32-1110	HDR, 3 PIN, 0.165" SPC, 1 X 3, LCK, SHD, POL, VERT, MALE	PT1337	HDR321110	HC3LSP
1	HS2	14-6292	HSK EXTRUSION EON10 G2 LEFT	PT2358	HS146292	HS146292
1	HS1	14-6293	HSK EXTRUSION EON10 G2 RIGHT	PT2359	HS146293	HS146293
3	INS1-3	70-0054	INSULATOR MICA FOR TO-3P BK	PT1995	INS700054	PCBNUL
1	DS1	70-2117	LED, GRN, W/ SPACER, T1, RLD100, AMMO	PT1231	LEDG702117	RLD100
1	GP1	NON-PART	NON-PART MECCA GND/PWR TIE POINT 6 POS	PT2323	MECCA6	MECCA6
1	MH3	NON-PART	NON-PART MOUNTING HOLE 0.200" NON-PLATED	PT2132	MH200	MH200
7	MH1-2 MH4 MH7-10	NON-PART	NON-PART MOUNTING HOLE 0.250" NON-PLATED	PT2133	MH250	MH250
2	MH5-6	NON-PART	NON-PART, TOOLING PIN HOLE, 156MIL HOLE	PT1416	MH156-TOOL	MH156-TOOL
1	Q1	70-1058	XSTR, 2N3904, NPN, SOT-23, T&R	PT1203	Q2N3904-S	SOT-23
1	Q2	70-0037	XSTR 2SA1370 PNP 200V 100mA TA	PT2088	Q2SA1370	TO92(ECB)-V
1	Q3	70-0033	XSTR 2SB1186A PNP 1.5A 20W BK	PT2079	Q2SB1186A	TO220FP(BCE)-V
1	Q4	70-0034	XSTR 2SD1763A NPN 1.5A 20W BK	PT2080	Q2SD1763A	TO220FP(BCE)-V
1	R47	52-0332	RES 1.21K 1% 1/4W SM 1210 TA	PT2096	R1.21KE1-1210	1210
2	R19 R33	52-4519	RES 1.37K 1% 1/10W SM 0805 TA	PT2112	R1.37KC1-0805	0805
7	R4 R6 R8 R22 R34-35 R38	52-0316	RES 1.91K 1% 1/10W SM 0805 TA	PT2067	R1.91KC1-0805	0805
3	R1-2 R23	50-0057	RES 10 5% 1W SM 2512 TA	PT1866	R10-G5-2512	2512
1	R24	52-1010	RES 100K 1% 1/10W SM 0805 TA	PT2014	R100KC1-0805	0805
6	R17 R28 R31 R39 R42 R45	52-4500	RES 10K 1% 1/10W SM 0805 TA	PT1034	R10KC1-0805	0805
2	R26-27	52-4493	RES 11.3K 1% 1/10W SM 0805 TA	PT2166	R11.3KC1-0805	0805
1	R46	52-0308	RES 13.7K 1% 1/10W SM 0805 TA	PT2018	R13.7KC1-0805	0805
1	R41	52-4528	RES 16.2K 1% 1/10W SM 0805 TA	PT2111	R16.2KC1-0805	0805
2	R20 R36	52-3237	RES 17.4K 1% 1/10W SM 0805 TA	PT1705	R17.4KC1-0805	0805
7	R11-12 R16 R18 R21 R37 R43	52-4505	RES 1K 1% 1/10W SM 0805 TA	PT1037	R1KC1-0805	0805
1	R29	52-0307	RES 2.49K 1% 1/10W SM 0805 TA	PT2019	R2.49KC1-0805	0805
1	R10	52-4501	RES 20K 1% 1/10W SM 0805 TA	PT1035	R20KC1-0805	0805

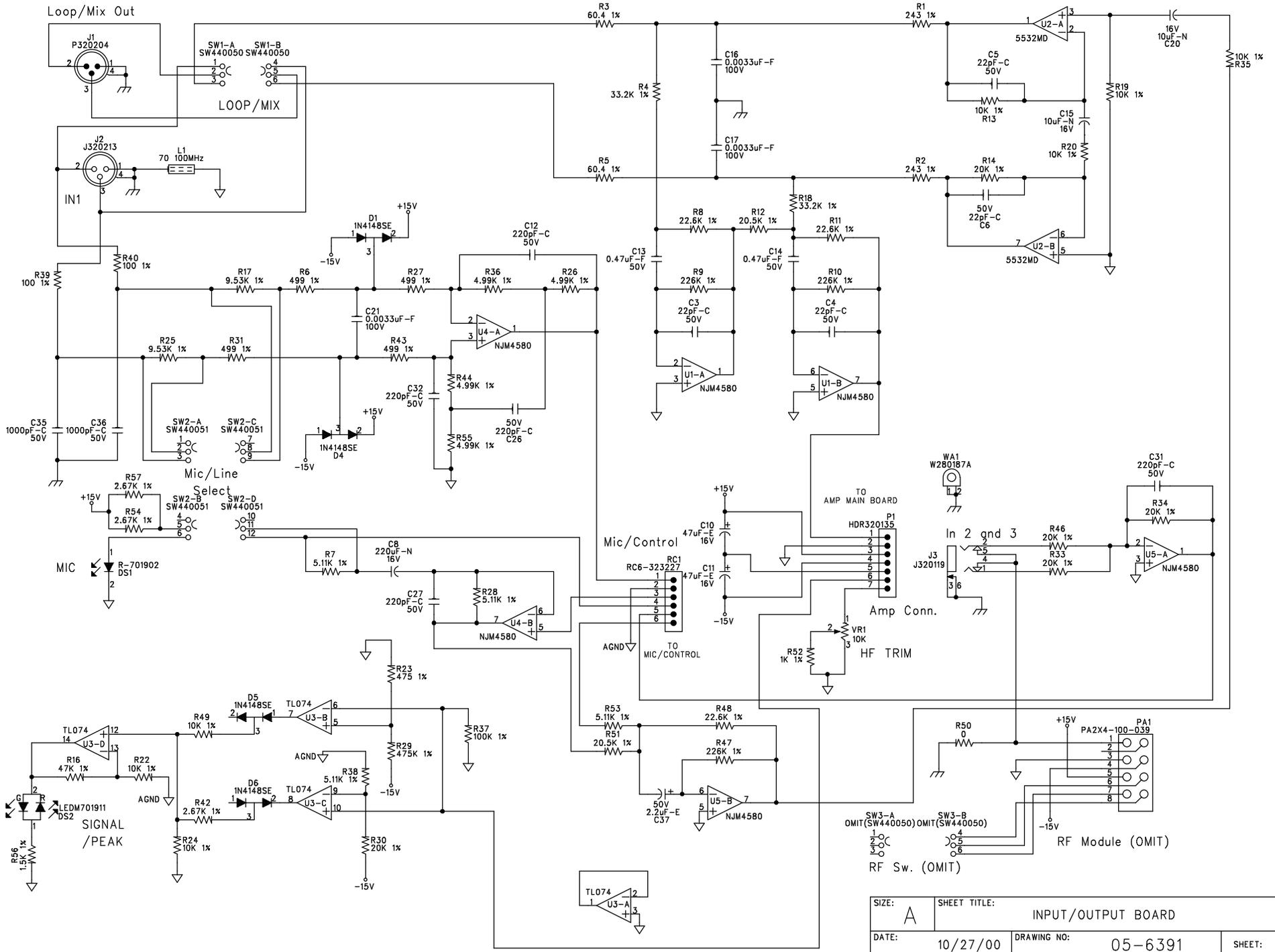
2	R13 R15	52-3242	RES 280K 1% 1/10W SM 0805 TA	PT1696 R280KC1-0805	0805
1	R44	52-4506	RES 2K 1% 1/10W SM 0805 TA	PT1038 R2KC1-0805	0805
4	R3 R5 R7 R9	52-3220	RES 30.1K 1% 1/10W SM 0805 TA	PT1721 R30.1KC1-0805	0805
1	R30	52-4492	RES 36.5K 1% 1/10W SM 0805 TA	PT2160 R36.5KC1-0805	0805
1	R40	52-4524	RES 4.02K 1% 1/10W SM 0805 TA	PT1838 R4.02KC1-0805	0805
3	R50-52	52-4553	RES 47.5 1% 1/10W SM 0805 TA	PT1819 R47.5-C1-0805	0805
2	R48-49	50-3603	RES 5.1K 5% 1W SM 2512 TA	PT2059 R5.1KG5-2512	2512
1	R14	52-4515	RES 6.81K 1% 1/10W SM 0805 TA	PT1281 R6.81KC1-0805	0805
1	R25	52-3213	RES 634K 1% 1/10W SM 0805 TA	PT1728 R634KC1-0805	0805
3	SR1-3	28-0015	SCREW 4-40 W/SQ CONE WASHER PAN PH	PT2147 SR280015	PCBNULL
3	U1-3	72-0015	IC LM3886T PWR AMP W/MUTE 68W	PT2095 ULM3886T	TO220(11)-V
5	U4-8	72-1480	IC, NJM4580, DUAL OP-AMP, SO8	PT1374 UNJM4580-S	SO8
3	WA1-3	28-0023	WASHER #4 SHLDER BLK NYLON .031 HEIGHT	PT2171 WA280023	PCBNULL
1	WH4	36-0140	HRN 1CND 18AWG WHT 8" W/ FSTON	PT2318 WH360140	PA1X1-000-100
1	WH1	36-0141	HRN 1CND 18AWG BLK 10" W/ FSTON	PT2319 WH360141	PA1X1-000-100
1	WH3	36-0142	HRN 1CND 18AWG BLU 8" W/ FSTON	PT2320 WH360142	PA1X1-000-100
1	WH5	36-0143	HRN 2CND 24AWG WHT/BLK 10"	PT2321 WH360143	WH360143
1	WH2	36-0144	HRN 1CND 18AWG RED 10" W/ FSTON	PT2322 WH360144	PA1X1-000-100



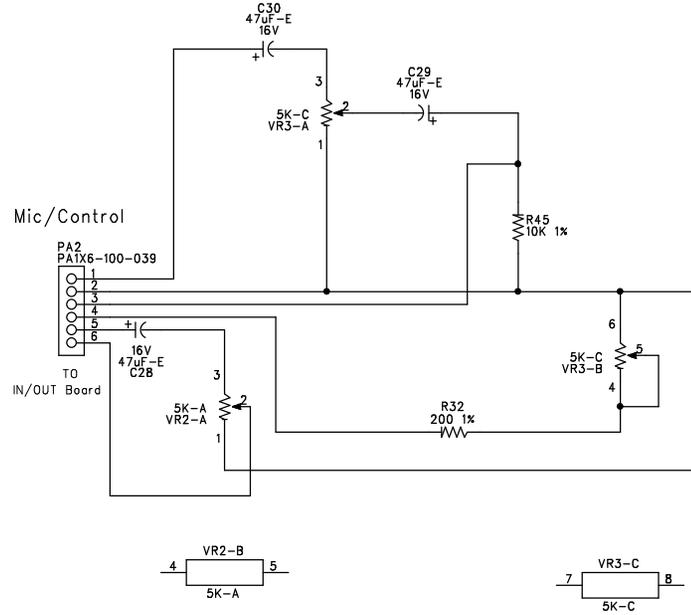
SIZE: A	SHEET TITLE: AC Input PCB	REVISION: A1
DATE: 10/27/00	DRAWING NO: 05-6392	SHEET: 2 OF 2

Bill Of Materials for 056392a1.sch on Mon Feb 05 17:09:00 2001

Qty	Reference	HMG#	Description	Audit	Schematic Part	PCB Decal
1	PCB1	80-6392	PCB 80-6392 JBL EON AC INPUT PCB	PT2044	80XXXXXY	BARCODE
1	BK1	10-6392	BKT JBL EON10 GII INPUT POWER P&S	PT2336	BK106392	PCBNUL
1	BK2	14-6392	BKT JBL EON10 GII INPUT POWER RAW	PT2354	BK146392	PCBNUL
1	C1	62-0048	CAP 0.01uF CER 250V 20% BK	PT1939	C0.01UC250MR	RCWI400
2	C2-3	62-0049	CAP 1000pF CER 250V 20% BK	PT2046	C1000PC250MR	RCFI300
2	F3-4	32-3189	FUSE 2.5A 250V TIME LAG AX 2AG	PT2334	F2.5A323189	FUSE4
4	FC1-4	32-2089	FUSE CLIP, FOR 2AG OR 5mm DIA.	PT1336	FC322089	FCLIP1-5X20
1	P2	32-1141	HDR 4 PIN 0.2" SPC 1 X 4 SH VRT M	PT2048	HDR321141	HC41V200SPM
1	P1	32-1244	CON PLUG R/A PC MT AC RECEPTACLE 3 PIN	PT2061	P321244	ACPLUG-2
1	SW3	44-0004	SWITCH PWR ROCKER DPST DA250VAC	PT2335	SW440004	SW440004
1	SW2	44-0015	SWITCH DPDT VOLTAGE SELECT 115V/230V	PT2047	SW440015	SW440015
1	WH1	36-0127	WIRE HAR 1 C 18AWG GRN 8 " W/ LUG	PT2437	WH360127	PA1X1-000-100



SIZE: A	SHEET TITLE: INPUT/OUTPUT BOARD	REVISION: A0
DATE: 10/27/00	DRAWING NO: 05-6391	SHEET: 2 OF 3



SIZE: A	SHEET TITLE: CONTROL BOARD	REVISION: A0
DATE: 10/27/00	DRAWING NO: 05-6391	SHEET: 3 OF 3

Bill Of Materials for 056391A0.SCH on Mon Nov 13 11:01:02 2000

Qty	Reference	HMG#	Description	Audit	Schematic Part	PCB Decal
1	PCB1	80-6391	PCB 80-6391 EON10 SIGNAL BOARD	PT2044	80XXXXYY	BARCODE
1	A3	NON-PART	NON-PART, PCB ONLY, BREAKOFF PART	PT1481	BRKOFF	BRKOFF
3	C16-17 C21	56-0003	CAP, 0.0033uF, FILM, 100V, 5%, RFCC200, AMMO	PT1103	C0.0033UF100JR	RFCC200
10	C1-2 C18-19 C22-25 C33-34	62-3139	CAP, 0.1uF, CER, 50V, 20%, 0805, T&R	PT1087	C0.1UC50M0805	0805
2	C13-14	56-0016	CAP, 0.47uF, FILM, 50V, 5%, RFEF200, AMMO	PT1308	C0.47UF50JR	RFEF200
2	C35-36	62-3136	CAP, 1000pF, CER, 50V, 20%, 0805, T&R	PT1109	C1000PC50M0805	0805
2	C15 C20	60-0051-01	CAP, 10uF, ELEC-NP, 16V, 20%, REE200, AMMO	PT1449	C10UN16MR	REE200
1	C37	60-0400	CAP, 2.2uF, ELEC, 50V, 20%, REE200P, AMMO	PT1083	C2.2UE50MR	REE200P
5	C12 C26-27 C31-32	62-3138	CAP, 220pF, CER, 50V, 10%, 0805, T&R	PT1286	C220PC50K0805	0805
1	C8	60-1068	CAP, 220uF, ELEC-NP, 16V, 20%, REM200, BULK	PT1823	C220UN16MR	REM200
4	C3-6	62-3134	CAP, 22pF, CER, 50V, 5%, 0805, T&R	PT1107	C22PC50J0805	0805
5	C10-11 C28-30	60-0054-01	CAP, 47uF, ELEC, 16V, 20%, REE200P, AMMO	PT1108	C47UE16MR	REE200P
4	D1 D4-6	70-0113	DIO, MMBD4148SE, DUAL DIODE, 75V, 600mA, SOT-23, T&R	PT1326	D1N4148SE-S	SOT-23
2	A1-2	NON-PART	NON-PART, FIDUCIAL, TARGET FOR AUTO INSERTION	PT1271	FIDUCIAL	FIDUCIAL
1	P1	32-0135	HDR 7 PIN .098 SPC 7X1 SHD VERT	PT2089	HDR320135	HC71V98SP
1	J3	32-0119	CON, JACK, 1/4 PHONO, FULL NOSE THREAD, SLIMLINE	PT1359	J320119	J320119
1	J2	32-0213	CON JACK XLR R/A PCA A SERIES NON-LOCKING	PT2016	J320213	XLRF-2
1	DS2	70-1911	LED MULTI-COLOR RED/GRN R/A ANTI-TIP	PT2049	LEDM701911	D701902
1	DS1	70-1902	LED, RED, R/A, ANTI-TIP HOUSING	PT1133	LEDR701902	D701902
1	L1	26-0215	IND, FERRITE BEAD, 70 OHM @ 100MHZ, RIC200, AMMO	PT1262	LFB260215	RIC200
2	MH1-2	NON-PART	NON-PART, TOOLING PIN HOLE, 156MIL HOLE	PT1416	MH156-TOOL	MH156-TOOL
1	MP1	NON-PART	NON-PART, MECHANICAL PLATED HOLE, 300 PAD, 156 HOLE, #6	PT1045	MP300H156	MP300H156
1	J1	32-0204	CON, PLUG, XLR, R/A, PCA A SERIES	PT1218	P320204	XLRM-1
1	PA2	NON-PART	NON-PART PAD ARRAY 6 PN 0.1"SPC 0.039" HLE	PT2134	PA1X6-100-039	PA1X6-100-039
1	PA1	NON-PART	NON-PART PAD ARRAY 2 X 4 8 PN 0.1"SPC 0.039" HLE	PT2136	PA2X4-100-039	PA2X4-100-039
1	R50	50-1531	RES 0 5% 1/10W SM 0805 TA	PT1099	R0-C5-0805	0805
1	R56	52-3208	RES 1.5K 1% 1/10W SM 0805 TA	PT1733	R1.5KC1-0805	0805
2	R39-40	52-3235	RES 100 1% 1/10W SM 0805 TA	PT1706	R100-C1-0805	0805
1	R37	52-1010	RES 100K 1% 1/10W SM 0805 TA	PT2014	R100KC1-0805	0805
8	R13 R19-20 R22 R24 R35 R45 R49	52-4500	RES 10K 1% 1/10W SM 0805 TA	PT1034	R10KC1-0805	0805
1	R52	52-4505	RES 1K 1% 1/10W SM 0805 TA	PT1037	R1KC1-0805	0805
3	R42 R54 R57	52-4507	RES 2.67K 1% 1/10W SM 0805 TA	PT1039	R2.67KC1-0805	0805
2	R12 R51	52-4486	RES 20.5K 1% 1/10W SM 0805 TA	PT2159	R20.5KC1-0805	0805
1	R32	52-3224	RES 200 1% 1/10W SM 0805 TA	PT1717	R200-C1-0805	0805
5	R14 R30 R33-34 R46	52-4501	RES 20K 1% 1/10W SM 0805 TA	PT1035	R20KC1-0805	0805
3	R8 R11 R48	52-0314	RES 22.6K 1% 1/10W SM 0805 TA	PT2065	R22.6KC1-0805	0805
3	R9-10 R47	52-4485	RES 226K 1% 1/10W SM 0805 TA	PT2158	R226KC1-0805	0805
2	R1-2	52-4546	RES 243 1% 1/10W SM 0805 TA	PT1809	R243-C1-0805	0805
2	R4 R18	52-3219	RES 33.2K 1% 1/10W SM 0805 TA	PT1722	R33.2KC1-0805	0805
4	R26 R36 R44 R55	52-4511	RES 4.99K 1% 1/10W SM 0805 TA	PT1041	R4.99KC1-0805	0805
1	R23	52-3231	RES 475 1% 1/10W SM 0805 TA	PT1710	R475-C1-0805	0805
1	R29	52-3214	RES 475K 1% 1/10W SM 0805 TA	PT1961	R475KC1-0805	0805
1	R16	52-3207	RES 47K 1% 1/10W SM 0805 TA	PT1734	R47KC1-0805	0805
4	R6 R27 R31 R43	52-4504	RES 499 1% 1/10W SM 0805 TA	PT1102	R499-C1-0805	0805
4	R7 R28 R38 R53	52-3206	RES 5.11K 1% 1/10W SM 0805 TA	PT1735	R5.11KC1-0805	0805
2	R3 R5	52-4503	RES 60.4 1% 1/10W SM 0805 TA	PT1128	R60.4-C1-0805	0805
2	R17 R25	52-4483	RES 9.53K 1% 1/10W SM 0805 TA	PT2155	R9.53KC1-0805	0805
1	RC1	32-3227	RIBBON CABLE 6 CND 0.1" SPC 1.75" LG	PT2137	RC6-323227	PA1X6-100-039
1	SW1	44-0050	SWITCH DPDT MINI IN-OUT 6 PIN E-SWITCH	PT1256	SW440050	SW440050
1	SW2	44-0051	SWITCH, 4PDT, MINI IN-OUT, 12 PIN, E-SWITCH	PT1257	SW440051	SW440051
1	SW3	OMIT	OMIT SWITCH DPDT MINI IN-OUT 6 PIN E-SWITCH (44-0050)	PT2042	SW440050-O	SW440050
1	U2	72-1439	IC, 5532MD, DUAL BIPOLAR OPAMP, SO8-200	PT1306	U5532MD-S	SO8-200
3	U1 U4-5	72-1480	IC, NJM4580, DUAL OP-AMP, SO8	PT1374	UNJM4580-S	SO8
1	U3	72-1450	IC, TL074, OP-AMP, QUAD, JFET, -INPUT, SO14, T&R	PT1049	UTL074-S	SO14
1	VR1	42-0006	POT 10K SIDE ADJUST BK	PT2022	VR10K420006	VRTRIM4
1	VR2	40-0082	POT 5K A 9mm ROT 12.5mm D-SHAFT	PT2119	VR5K400082	VR9-12.5DH
1	VR3	40-0083	POT 5K C 9mm HOR 15mm D-SFT	PT2120	VR5K400083	VR9X2-12.5DH
1	WA1	28-0187-A	WASHER, GROUNDING FOR 32-0118/32-0119	PT1361	WA280187A	WA280187A