TLX271P

POWERED LOUDSPEAKER

SERVICE MANUAL

JBL Incorporated
250 Crossways Park Dr.
Woodbury, New York 11797

REV 0 5/00

TABLE OF CONTENTS

Specifications

JBL TLX-271P 100w Powered Loudspeaker

LINE VOLTAGE	Yes/No	Hi/Lo Line	Nom.	Unit	Notes
US 120vac/60Hz	Yes	108-132	120	Vrms	Normal Operation
EU 230vac/50-60Hz	Yes	207-264	230	Vrms	Normal operation, MOMS required

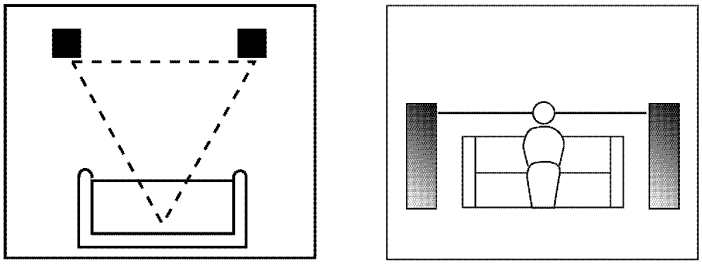
Parameter	Specification	Unit	QA Test Limits	Conditions	Notes
Amp Section					
Type (Class AB, D, other)	AB	--	n/a		Sink required for Class AB
Load Impedance (speaker)	4	Ohms	n/a	Nominal	Z-curve required
Rated Output Power	100	Watts	100	1 input driven	
THD@ Rated Power	0.07	%	0.5	22k filter	
THD @ 1 Watt	0.28	%	1	22k filter	
DC Offset	1	mV-DC	20	@ Speaker Outputs	
Damping factor	>200	DF	n/a		
Input Sensitivity					
Input Frequency	50	Hz	50	Nominal Freq.	1 input driven
Line Input	158	mVrms	±2dB	To Rated Power	1 input driven
Speaker/Hi Level Input	4.9	Vrms	±2dB	To Rated Power	(-30dB below Line In)...1 input driven
Signal to Noise					
SNR-A-Weighted	82.4	dBA	80	rel. to rated power	A-Weighting filter
SNR-weighted	67.9	dBr	65	rel. to rated power	22k filter
SNR @ 1W-unweighted	48	dBr	n/a	rel. to 1W Output	22k filter
Residual Noise Floor	1	mVrms	5	Volume @max, using RMS reading DMM/VOM (or A/P)	
Residual Noise Floor	0.8	mVrms(max)	4	Volume @max, w/ A/P Swept Bandpass Measurement (Line freq.+ harmonics)	
Input Impedance					
Line Input	10K	ohms	n/a	Nominal	
Speaker/Hi Level Input	1K	ohms	n/a	Nominal	
Filters					
Low Pass (fixed or variable)	fixed				
Low Pass filter (point or rang	87	Hz	±2dB	-3dB Point	
Slope	18	dB/Octave	--		
Q	--	Damping	--		
Subsonic filter (HPF)	47	Hz	±2dB	-3dB Point	
Slope	18.7	dB/Octave	--		
Q	--	Damping	--		
Features	--				
Volume pot Taper (lin/log)	log	--	functional		
Input Configuration	--	--			
Line In (L,C,R,AC3,Mono)	AC3(flat),and Mono	--	functional	Line/Spkr Input Select Switch	
Spkr/Hi Level In (L,C,R,mono)	Mono	--	functional	Line/Spkr Input Select Switch	
Signal Sensing (ATO)			--		
Auto-Turn-On (yes/no)	yes		functional		
ATO Input Frequency	100	Hz	functional		
ATO Level	3	mV	functional	1kHz into Line Input w/ 1 ch. driven	
ATO Bandwidth	5k	Hz	functional	ATO-LPF for noise immunity	
ATO Turn-on time	2	ms	functional	Amp connected and AC on, then input signal applied	
Auto Mute/ Turn-OFF Time	17	minutes	n/a	T before muting, after signal is removed	
Power on Delay time	3	sec.	<4	Input driven, or trigger enabled	
Transients/Pops					
ATO Transient	5	mV-peak	n/a	@ Speaker Outputs	
Turn-on Transient	50	mV-peak	n/a	@ Speaker Outputs	AC Line cycled from OFF to ON
Turn-off Transient	50	mV-peak	n/a	@ Speaker Outputs	AC Line cycled from ON to OFF
Efficiency					
Stand-by Input Power	8	Watts	15	@ nom. line voltage	
AC Power Cons.@1W	29	Watts	n/a	@ nom. line voltage	Informational
Power Cons.@rated power	200	Watts	n/a	@ nom. line voltage	215W if Class D (@70% efficiency)
Protection					
Short Circuit Protection	yes		functional	Direct short at output	
Thermal Protection	yes		functional	@1/8 max unclipped Power	
DC Offset Protection	yes		functional	DC present at Speaker Out leads	Relay or crowbar (for driver/fire protection)
Line Fuse Rating	3A	Amps	functional	Type-T or Slo Blo	External fuse with UL/SEMKO rated holder

68000

Speaker Connections/Operation

One. Speaker Placement

TLX271P



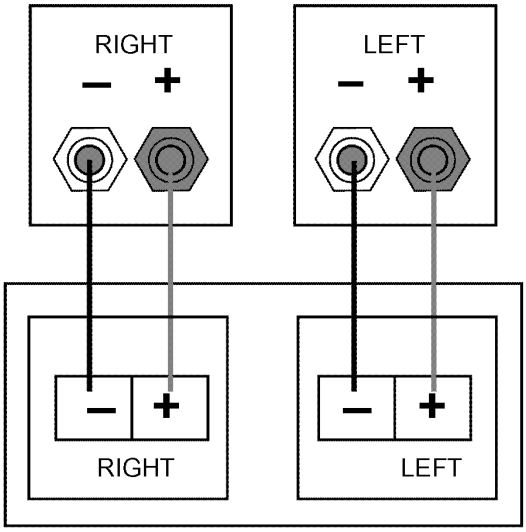
Tweeters should be at ear level

Two. Speaker Connections

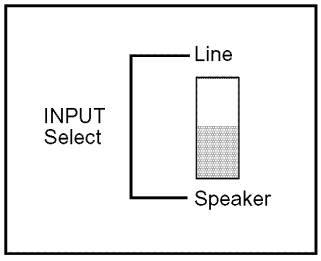
Connection Tips

Speakers and electronics terminals have corresponding (+) and (-) terminals. It is important to connect both speakers identically: (+) on the speaker to (+) on the amplifier and (-) on the speaker to (-) on the amplifier. Wiring "out of phase" results in thin sound, weak bass and a poor stereo image.

If your receiver does not have a subwoofer output:



SPEAKER OUTPUTS

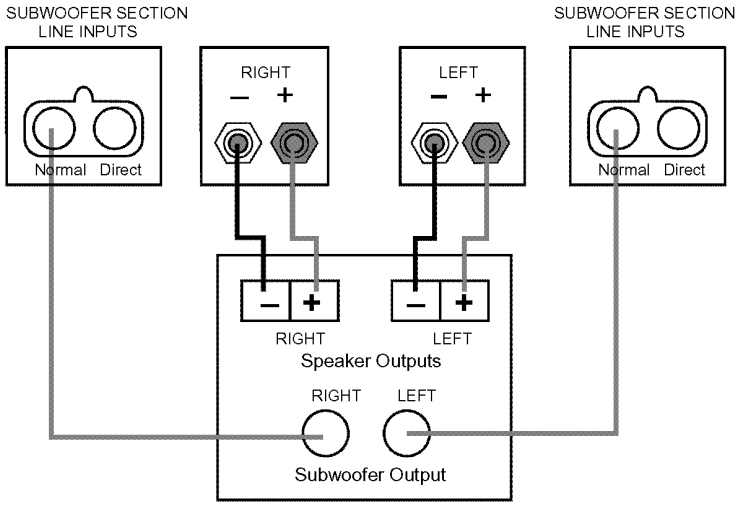


Set Input Select switch to Speaker

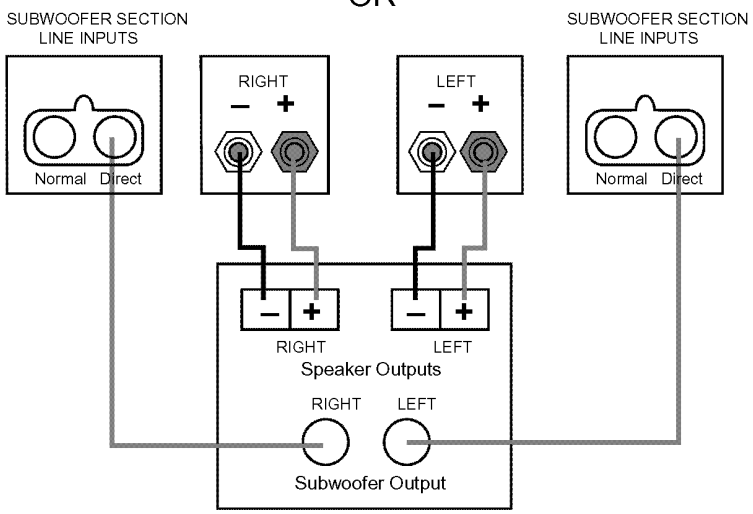
00083

Speaker Connections/Operation (Cont.)

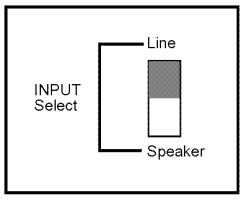
The TLX271P incorporates two different types of line-level inputs that allow you to optimize the loudspeaker's performance in your system.
If your receiver/processor's subwoofer output is already low-passed filtered, meaning the high frequencies have been removed by the receiver, use the subwoofer input labeled **Direct**.
If your receiver/processor's subwoofer output is full range, meaning the high frequencies have not been removed by the receiver, use the subwoofer input labeled **Normal**.
If you are unsure as to which type of wubwoofer output your receiver/processor contains, please consult your receiver/processor owner's manual or contact the manufacturer.
Do not hook up both inputs. Doing so will adversely affect the performance of the system.



OR



Set Input Select switch to "Line."



Note: Some receivers/amplifiers have a single (mono) subwoofer output. In this case, it is necessary to use a "Y"-connector (not included) to properly hook up the speakers using this method.

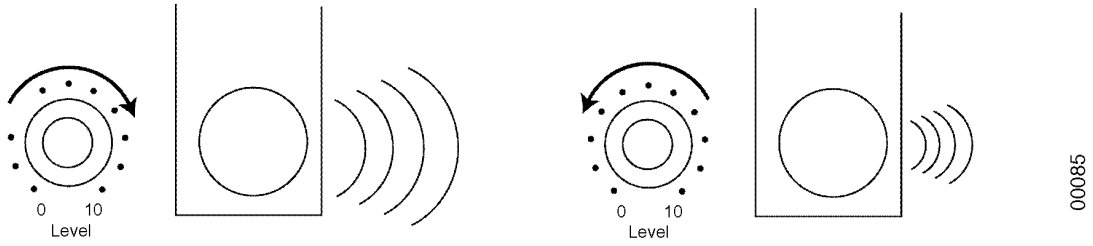
00084

Speaker Connections/Operation (Cont.)

Three. Operation

Mode	Procedure	LED Status
Off	Receiver/amplifier off	Red
On	Receiver/amplifier on and playing program material	Green
Standby	Simply turn off your receiver/amplifier. The speaker will turn off after approximately five minutes. The speaker will turn on when your receiver/amplifier begins playing again.	Red

Level



Trouble Shooting

If there is no sound from any of the speakers, check the following:

- Receiver/amplifier is on and a source is playing.
- Review proper operation of your receiver/amplifier

If there is no sound coming from one speaker, check the following:

- Check the "Balance" control on your receiver/amplifier.
- Check all wires and connections between receiver/amplifier and speakers.
- Make sure all wires are connected. Make sure none of the speaker wires are frayed, cut or punctured.

If the system plays at low volumes but shuts off as volume is increased, check the following:

- Check all wires and connections between receiver/amplifier and speakers.
- Make sure all wires are connected. Make sure none of the speaker wires are frayed, cut or punctured.
- If more than one pair of main speakers is being used, check the minimum impedance requirements of your receiver/amplifier.

If there is low base output, check the following:

- Make sure the polarity (+ and -) of the left and right "Speaker Inputs" are connected properly.

If you used the high-level (speaker) inputs only and there is no sound from any of the speakers, check the following:

- Reciever/amplifier is on and a source is playing.
- TLX271P is plugged in.
- Check all wires and connecttions between receiver/amplifier and speakers. Make sure all wires are connected. Make sure none of the speaker wires are frayed, cut or punctured.
- Review proper operation of your receiver/amplifier.

If there is low bass output, check the following:

- Make sure the connections to the left and right "Speaker Inputs" have the correct polarity (+and -).
- Make sure that the TLX271P is plugged into an active electrical outlet.

If you used the line-level inputs and there is no sound from the subwoofer, check the following:

- Receiver/amplifier is on and a source is playing.
- TLX271P is plugged in.
- Check all wires and connections between receiver/amplifier and speakers. Make sure all wires are connected. make sure none of the wires are frayed, cut or punctured.
- Review proper operation of your receiver/amplifier.

00085B

Service Bulletin

Service Bulletin JBL9810 - September 1998 — This is considered a Minor repair

To: All JBL Service Centers

Model: TLX 271P

Subject: LED Color Cycling incorrectly

Ordinarily, the LED status in the TLX271P loudspeaker functions as follows:

Receiver/Amplifier Off.....Red
Receiver/Amplifier On and playing program material.....Green
Receiver/Amplifier On, no program material after a 5 minute delay (Standby).....Red

In the event that you receive a TLX271P loudspeaker with the complaint "the LED color is cycling the opposite way it's supposed to", perform the following modification:

The problem can be solved by reversing the LED in its plug.

1) Remove the front grille and the 8" subwoofer.
2) CAREFULLY extract the LED and its plastic housing out of the front baffle with a blunt knife blade or similar tool; take care not to mar the front baffle surface.
3) Before removing the LED completely out of the cabinet and its plug, reach into the woofer opening and hold the plug in place to prevent the plug from falling back into the cabinet.
4) Pull the LED completely out; turn it 180 degrees and re-insert back into the plug, still holding onto the plug from inside the cabinet.
5) Insert LED and plastic housing back into the front baffle until it's fully seated.
6) Replace the woofer and grille.
7) Test unit to assure that LED colors now cycle correctly .

Alternately, or if the LED seems irremovable in the front baffle:

1) Remove the 8" subwoofer.
2) Locate and cut the two LED wires at about their midway point.
3) Strip all four wire ends and re-connect with the opposite polarity, i.e. *black* to *white* wire connections.
4) The wires should be soldered and protected by heat shrink tubing or electrical tape, or small "wire nut" insulators can be used.

JBL Incorporated 250 Crossways Park Dr. Woodbury, New York 11797 (516) 496-3400 00087

Components, Aural Specs, Wiring, Passive Schematic Diagrams

ACOUSTIC & ELECTRICAL SPECIFICATIONS

- Nominal Impedance 8 ohms
- Max Amp Power 150 watts
- Frequency Response 30Hz - 25kHz
- Sensitivity 90 dB SPL, 1 watt @ 1 meter
- Crossover Frequency 120 Hz, 600 Hz, 4000 Hz
- Subwoofer Amplifier 100 watts

SYSTEM COMPONENTS:

- Cabinet TLX271p (not For Sale)
- Grille 334508-001
- Low Frequency Transducer 8" Woofer (332246-001)
  DC Resistance 4.2 ohms ±10%
- Mid Frequency Transducer 4" Midrange (974305 or 332764-001)
  DC Resistance 4.6 ohms ±10%
- Mid-Bass Transducer 6 1/2" Mid-Bass Coupler (76474-01)
  DC Resistance 8.9 ohms ±10%
- High Frequency 10 mm Titanium Composite (974301 or 302343-001)
  DC Resistance 5.8 ohms ±10%
- Crossover Network 334509-001

AURAL SWEEP TEST SPECIFICATIONS:

- System Aural Sweep Test 5.0V Input 50 Hz to 20 kHz
- L.F. Aural Sweep Test 5.0V Input 50 Hz to 500 Hz
- Mid-Bass Aural Sweep Test 4.0V Input 100 Hz to 1kHz
- M.F. Aural Sweep Test 4.0V Input 500 Hz to 5kHz
- H.F. Aural Sweep Test 2.83V Input 3 kHz to 20 kHz

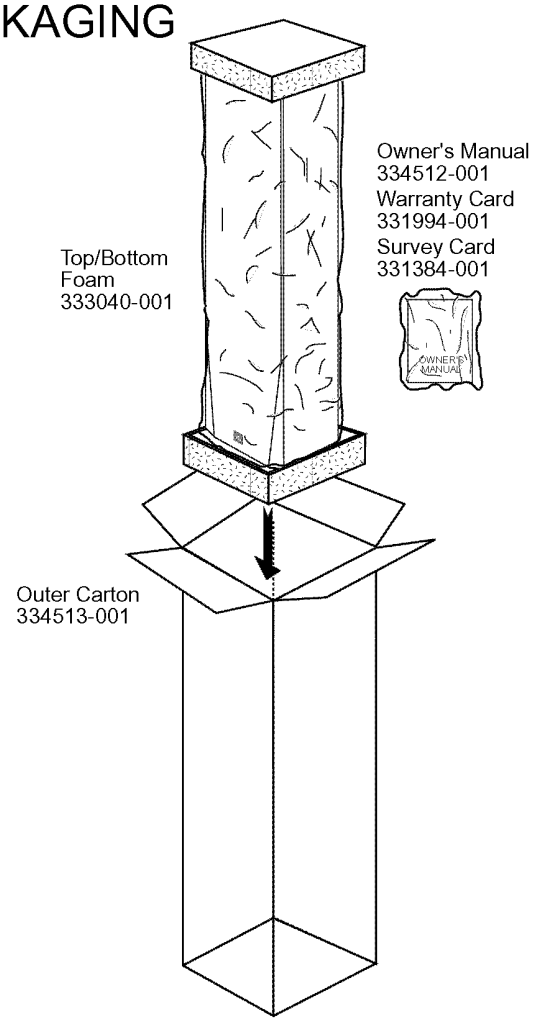
PHYSICAL SPECIFICATIONS

- Enclosure dimensions: 35 7/8" x 10 1/4" x 11 3/4" (H x W x D) (911 x 260 x298mm)
- Weight 55 lbs. (25 kg) Each

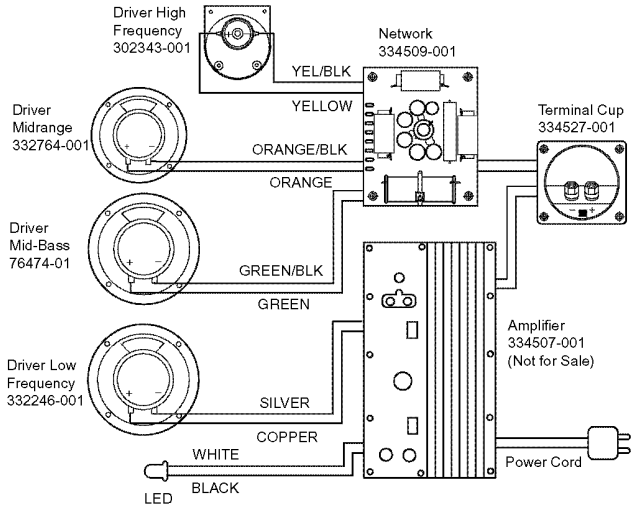
WARRANTY:

- Refer to Warranty Statement packed with each product.

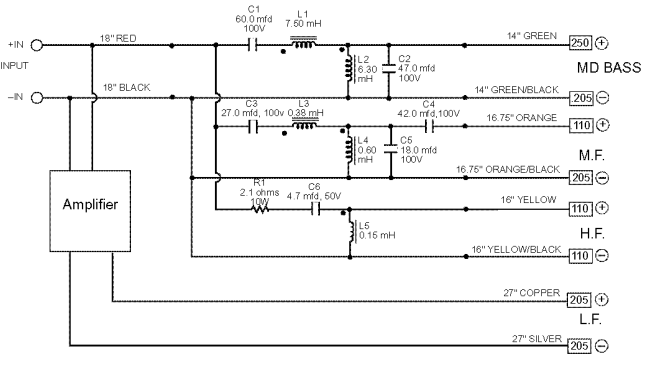
PACKAGING



WIRING DIAGRAM



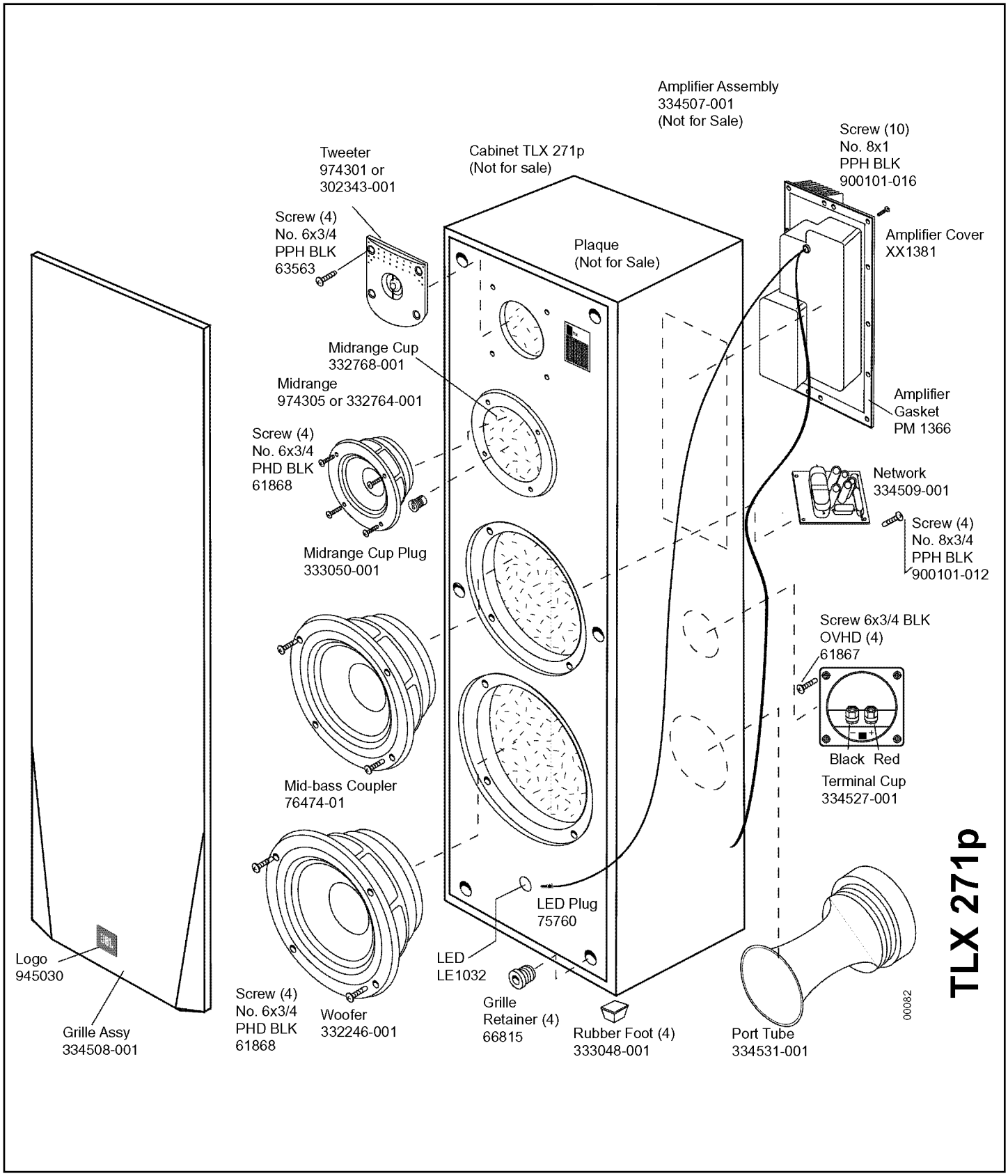
SCHEMATIC TLX 271p



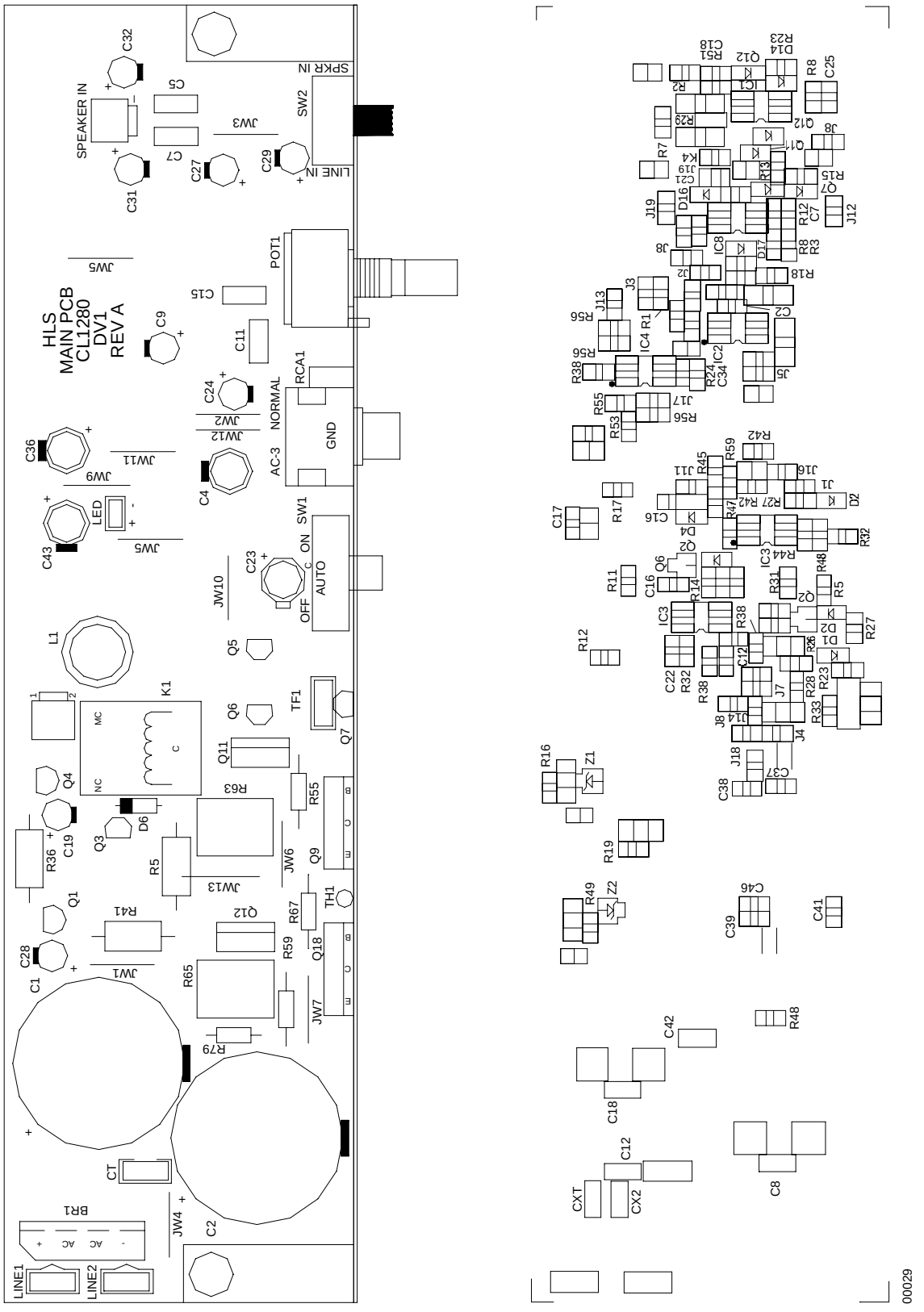
TLX 271p

00076

Exploded View



Circuit Board



Electrical Parts List

Part#	Description	Ref Designator	Quantity
	CAPACITOR		
CP1545	CAP ALUM ELECT 4700uF 20%	C1,2	2.0 EA
CP1426	SMD CAP 0.1uF 20% 50V Z5U	C14,16,25,30,35,41,50,51	8.0 EA
CP1473	SMD Cap 220pF 10% 50V NPO	C20	1.0 EA
CP1478	SMD Cap 330pF 5% 100v NPO	C21	1.0 EA
CP1552	SMD Cap .1uF 20% 100v Z5U	C8,10,13,42,C1P,C4P	6.0 EA
CP1563	SMD Cap 150pF 5% 50v NPO	C22	1.0 EA
CP1417	Cap Alum El. 22uF 20% 16	C9,27,29	3.0 EA
CP1579	Cap Al El 33uF 20% 16V NP	C5P,C6,C17	3.0 EA
CP1645	Cap Al El 22uF 20% 63V 85	C19,28,36,43	4.0 EA
CP1177	Cap Poly Film 0.22uF 5% 6	C5,7,11	3.0 EA
CP1855	CAP POLY FILM 0.01uF 5%	C15	1.0 EA
CP1415	Cap Alum El. 2.2uF 20% 50	C24,31,32	3.0 EA
CP1411	Cap Alum El. 100uF 20% 16	C4,23	2.0 EA
CP1438	SMD CAP 820pF 5% 100V NPO	C2P,C3P,C6P,C7P,C37,38,39,40	8.0 EA
CP1480	SMD Cap 470pF 5% 100V NPO	C3,12,26	3.0 EA
CP1496	SMD CAP 100pF 10% 50V X7R	C18,34	2.0 EA
CP1844	SMD CAP CERAMIC 0.01uF	CX1,2	2.0 EA
CP1566	SMD CAP 47nf 10% 50v X7R	C33	1.0 EA
	DIODE		
DI1150	SMD Zener 15v 5% CP Pkg.	Z1,2	2.0 EA
DI1132	SMD Diode Swch RLS4148	D1,2,3,4,5,7,8,11,12,13,14,16,17	13.0 EA
DI1099	DI, Bridge Power 600V/4A	BR1	1.0 EA
DI1010	Diode Fast Rect. 1A/100v	D6	1.0 EA
LE1032	Led Bicolor Red/Green 5mm	LED1	1.0 EA
	INTEGRATED CIRCUIT		
IC1041	IC SMD DUAL J-FET TL072	IC1,2,3,4,5,6	6.0 EA
	RESISTOR		
RS1794	POTENTIOMETER 50Kohm 20%	POT1	1.0 EA
RS1868	RES CER 0.1 ohm 5% 5W	R65,66,R1P,R2P	4.0 EA
RS2180	RES M/O F/P 470 ohm 5% 1W	R36,41	2.0 EA
RS1700	SMD RES 1Kohm 5% 1/8W	R7,31	2.0 EA
RS1702	SMD RES 100Kohm 5% 1/8W	R2,4,46,57,58,63	6.0 EA
RS1703	SMD RES 2.2Kohm 5% 1/8W	R37	1.0 EA
RS1705	SMD RES 4.7Kohm 5% 1/8W	R22,33,34	3.0 EA
RS1711	SMD RES 220 ohm 5% 1/8W	R30	1.0 EA
RS1717	SMD RES 100 ohm 5% 1/8W	R26,28	2.0 EA
RS1722	SMD RES 470 ohm 5% 1/8W	R56	1.0 EA
RS1767	SMD RES 1 Mohm 5% 1/8W	R47,55	2.0 EA
RS1779	SMD RES ZERO ohm 5% 1/8W	J1,2,3,4,5,6,7,8,9,10,11,12 J13,14,16,17,18,19	18.0 EA
RS1829	SMD RES 160 ohm 5% 1/8W	R20,40	1.0 EA
RS1831	SMD RES 7.5Kohm 5% 1/8W	R25	1.0 EA
RS1883	SMD RES 1.5Kohm 5% 1/8W	R17	1.0 EA
RS1912	SMD RES 11Kohm 5% 1/8W	R35	1.0 EA
RS1245	RES C/F 220 ohm 5% 1/4W	R7P,R67	2.0 EA
RS1916	RES C/F 5.1 ohm 5% 1/4W	R68,69,R5P,R6P	4.0 EA
RS1994	RES C/F 100 ohms 5% 1/4W	R70,R3P,R4P	3.0 EA
RS1704	SMD RES 22Kohm 5% 1/8W	R24	1.0 EA
RS1706	SMD RES 47Kohm 5% 1/8W	R12,59	2.0 EA
RS2179	SMD RES 27.4Kohm 1% 1/8W	R9	1.0 EA
RS2525	SMD RES 68.1Kohm 1% 1/8W	R10	1.0 EA
RS2447	SMD RES 3.65Kohms 1% 1/8W	R29	1.0 EA
RS2526	SMD RES 56.2Kohm 1% 1/8W	R51	1.0 EA
RS1701	SMD RES 10Kohm 5% 1/8W	R1,3,5,11,13,14,15,18,21,27,32,38,39,41,45 R50,52,53,54,60,61,62	22.0 EA
RS1710	SMD RES 3.3Kohm 5% 1/8W	R8,16,23,42,48,49	6.0 EA
RS1968	SMD RES 2.2Mohm 5% 1/8W	R43,44	2.0 EA
	W/BRACKET F-SHAFT	POT1	1.0 EA
RS2422	RES M/O F/P 100 ohm 5% 1W	R6,19	2.0 EA
RS1878	SMD RES 10 ohm 5% 1/8W	R18	1.0 EA

00160A

Electrical Parts List (Cont.)

Part#	Description	Ref Designator	Quantity
	TRANSISTOR		
TR1057	NPN Pwr Xstr 25A/100v TO-TIP35C	Q9,Q1P	2.0 EA
TR1061	PNP Pwr Xstr 25A/100v TO-TIP36C	Q10,Q2P	2.0 EA
TR1183	NPN Pwr Xstr 3A/100v/40W TIP31C	Q12,Q4P	2.0 EA
TR1184	PNP Pwr Xstr 3A/100v/40W TIP32C	Q11,Q3P	2.0 EA
TR1108	SMD Xstr NPN 50V/150mA CP 2SC2412K	Q2	1.0 EA
TR1131	SMD Xstr NPN 50v/100mA 10 DTC114TK	Q6	1.0 EA
TR1063	NPN Xstr 40v/600mA TO-92 MPS2222A	Q7	1.0 EA
TR1166	PNP Xstr 150v/600mA TO-92 2N5401	Q3,8	2.0 EA
TR1254	PNP XSTR 80V/500mA TO-237 MPSW56	Q1	1.0 EA
TR1167	NPN Xstr 160v/600mA TO-92 2N5551	Q5	1.0 EA
TR1253	NPN XSTR 80V/500mA TO-237 MPSW06	Q4	1.0 EA
	MISC		
MI1129	Air Core Inductor 1.8uH	L1	1.0 EA
HA1101	Power Cord BASS20		1.0 EA
XX1174	AC CORD DOMESTIC 6 FT		1.0 EA
TY1001	Triac 200V 25A TO-220	TRIAC1	1.0 EA
FH1009	FUSEHOLDER 1/4x1-1/4		1.0 EA
FS1063	Fuse Fast Blow 3A 250V 3A	F2	1.0 EA
HS1198	HEATSINK TLX/HLS/RS-8		1.0 EA
MI1128	Bass15 Transformer, 115 V	T1	1.0 EA
RE1026	RELAY PC MOUNT 24V @ 6A	K1	1.0 EA
CO1076	RCA Jack Dual Gold Red/Wh	RCA1	1.0 EA
FS1074	Fuse Slow Blow 6.3A 250V	F1	1.0 EA
SA1982	LED ASSY		1.0 EA
BR1187	Alum. Bar 4.8mmx12.7mmx40		1.0 EA
BR1395	Bracket Pwr Support Bass5	SUPPORT BOARD	2.0 EA
NU1057	Hex Nut Keps 6-32 Zinc Fs	BRACKET SUPPORT	2.0 EA
PM1366	Gasket for BASS20/16		1.0 EA
SC1192	Sc 6-32x3/4 Cutt-Thr Hex		1.0 EA
SC1194	Sc 6-32x3/8 Tapt-Thr Hex	TRANSFORMER & BRACKET SUPPORT	4.0 EA
SC1215	Sc M3x1.25x10 Plas-Thr Pa	RCA	1.0 EA
SC1286	SC 6-32X1/2 MACH-THR PAN	BRACKET SUPPORT	2.0 EA
SP1073	Sil Pad TO-3P 1.0" x 0.75		2.0 EA
SP1082	SPONGE W/ADHESIVE		2.0 EA
WA1032	Washer Plain #6 Zinc Fini		2.0 EA
WA1049	Washer Ext. Tooth #6 Zinc		3.0 EA
XX1250	Strain Relief SPT-1 Black		1.0 EA
XX1381	PLASTIC COVER TLX/HLS/RS8		1.0 EA
HA1091	Green Wire Assy.		1.0 EA
TE1110	Terminal Pocket		2.0 EA
WI1615	WIRE 18AWG 16x30 UL1007		0.8 FT
HA1092	Blue Wire Assy.		1.0 EA
TE1110	Terminal Pocket		2.0 EA
WI1628	Wire #22 7x30 UL1007 Blue		0.8 FT
HA1093	Gray Wire Assy.		1.0 EA
TE1110	Terminal Pocket		2.0 EA
WI1627	Wire #22 7x30 UL1007 Gray		0.8 FT
HA1094	Black Wire Assy.		2.0 EA
TE1110	Terminal Pocket		4.0 EA
WI1629	Wire #22 7x30 UL1007 Blac		1.5 FT
HA1095	White Wire Assy.		1.0 EA
TE1110	Terminal Pocket		2.0 EA
WI1613	Wire #18 16x30 UL1007 Whi		0.8 FT
HA1096	Purple Wire Assy.		1.0 EA
TE1110	Terminal Pocket		2.0 EA
WI1638	Wire #20 10x30 UL1007 Pur		0.8 FT
HA1097	Red/ Black Wire Assy.		1.0 EA
TE1110	Terminal Pocket		2.0 EA
WI1657	Wire #18 16x30 Red/Black		0.5 FT
HA1098	Red Wire Assy.		1.0 EA
TE1110	Terminal Pocket		2.0 EA
WI1671	Wire #18 16x30 UL1007 Red		0.5 FT
CO1305	Housing 2-Pos 0.079"		2.0 EA
TE1173	Crimp Terminal 22-30 AWG		4.0 EA
WI1654	Wire #26 7x34 UL1007 Whit		3.5 FT

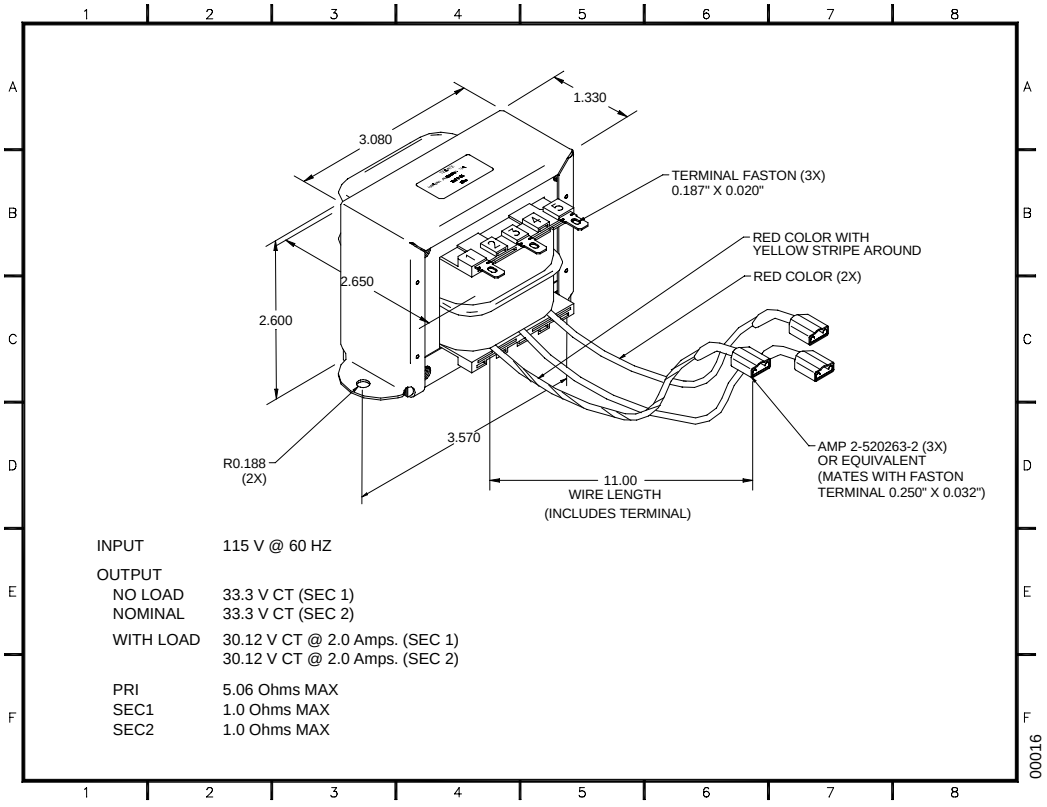
00160B

Electrical Parts List (Cont.)

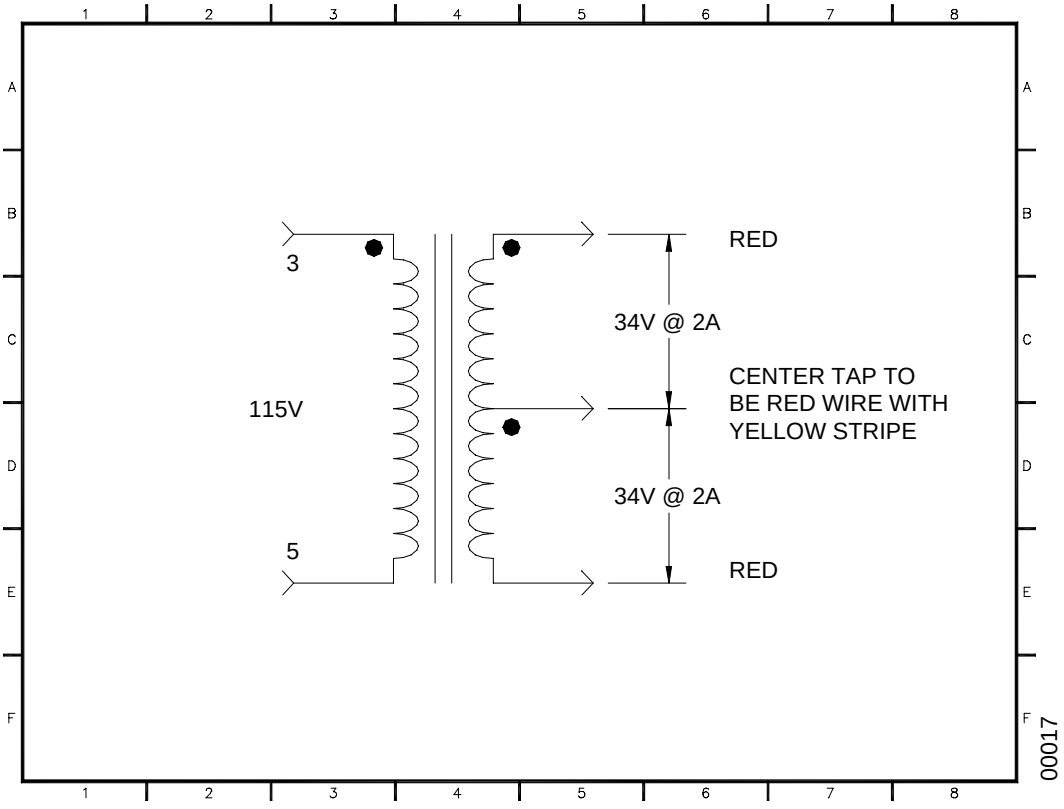
Part#	Description	Ref Designator	Quantity
WI1655	Wire #26 7x34 UL1007 Blac		3.5 FT
CO1304	Header Stght 2-Pos 0.079"	CONN4	1.0 EA
WI1598	Wire #18 Magnet Heavy Red		0.0 LB
MS1065	Nylon Cable Tie 3"L Nat.		3.0 EA
WI1615	WIRE 18AWG 16x30 UL1007		0.5 FT
TE1002	Terminal Ring		1.0 EA
SW1070	Switch Slide SP3T Right A	SW1	1.0 EA
TE1175	TERMINAL MALE TAB 0.250"	CT,LINE1,LINE2,TF1,SPK(+)	5.0 EA
TH1006	NTC THERMISTOR 10Kohm @	TH1	1.0 EA
XX1297	Fuse Clip 5x20 PC Mount		2.0 EA
CL1268	CLUSTER TLX271P/RS8		1.0 EA
WI1553	Wire #22 Bare Solid Tinne	JW1,2,3,4,5,6,7,8,9,10,11,12,13	2.5 FT
SW1084	SWITCH SLIDE DPDT R/A	SW2	1.0 EA
CO1343	Strght Sq Hdr 0.156"Cente	CONN	1.0 EA
TE1187	TERM MALE TAB 0.187"	SPK OUT (-)	1.0 EA
XX1385	STRAIN RELIEF BLK 6P3-4	PLASTIC COVER	1.0 EA
HA1100	Jumper 0.187" / Stripped	XMER FUSEHHOLDER	1.0 EA
TE1125	Terminal Ultra Fast Ins.		1.0 EA
WI1637	Wire #18 7x26 UL1015 Blue		0.3 FT
TE1125	Terminal Ultra Fast Ins.		1.0 EA
BR1625	BRACKET, SHIELD		1.0 EA
SC1194	Sc 6-32x3/8 Tapt-Thr Hex		2.0 EA
WA1049	Washer Ext. Tooth #6 Zinc		2.0 EA
XX1395	GASKET 2.0 x 0.38 x 0.063		1.0 EA
XX1396	PLASTIC KNOB W/POSITION		1.0 EA
HA1230	HARNESS COPPER WIRE 34"	SPK OUTPUT	1.0 EA
TE1050	Terminal Ultra Fast Ins.		2.0 EA
WI1674	Wire Speaker Copper Singl		2.8 FT
HA1231	HARNESS SILVER WIRE 34"	SPK OUTPUT	1.0 EA
TE1125	Terminal Ultra Fast Ins.		2.0 EA
WI1675	Wire Speaker Silver Singl		2.8 FT
HA1236	HARNESS SPKR INPUT RS8	SPK INPUT	1.0 EA
TE1125	Terminal Ultra Fast Ins.		1.0 EA
TE1050	Terminal Ultra Fast Ins.		1.0 EA
CO1344	HOUSING 2-POSITION 0.156"		1.0 EA
TE1188	TERMINAL CRIMP 18-24AWG		2.0 EA
WI1629	Wire #22 7x30 UL1007 Blac		2.3 FT
WI1669	Wire #22 7X30 UL1007 Red		2.3 FT

00160C

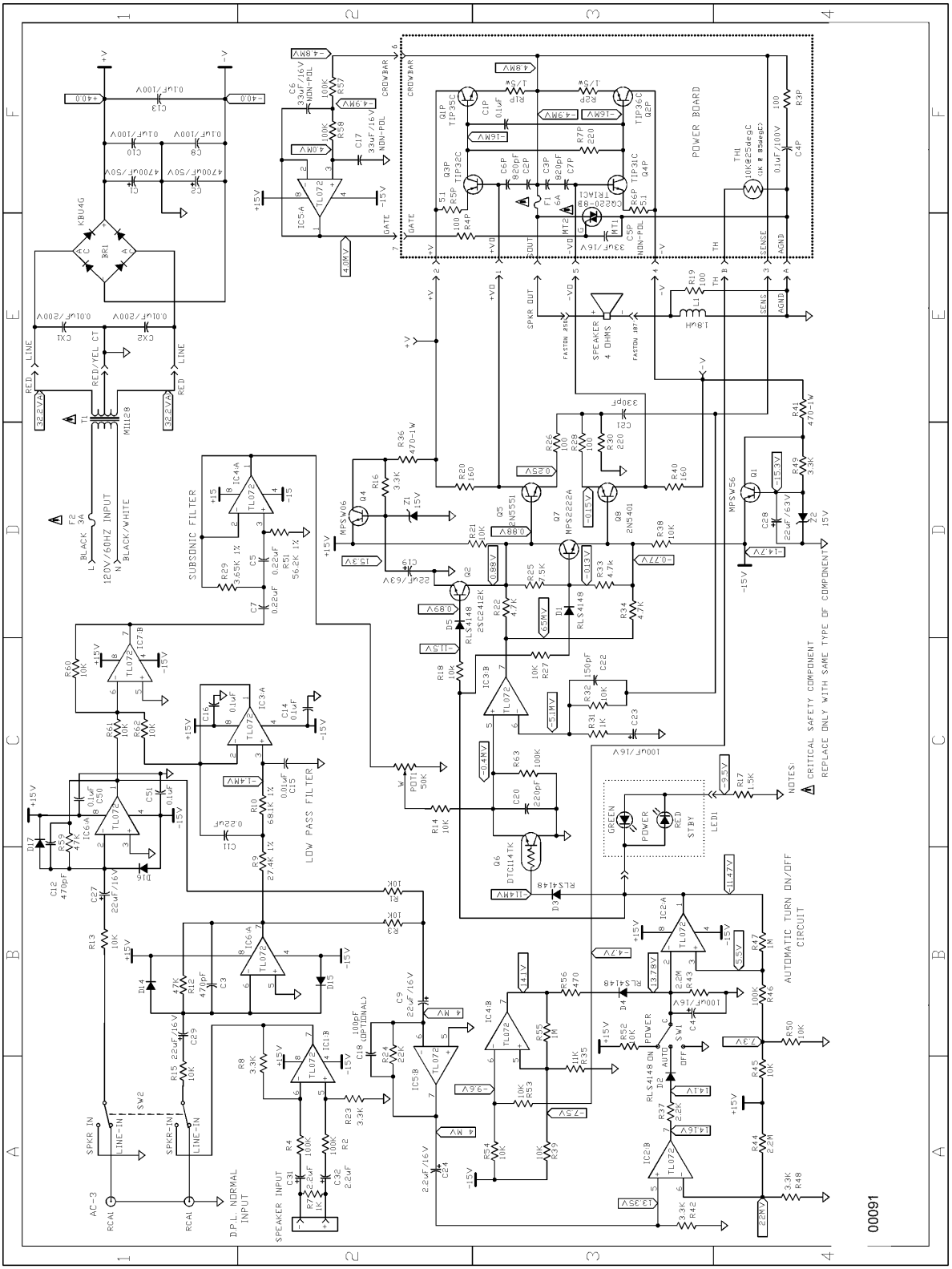
Power Transformer



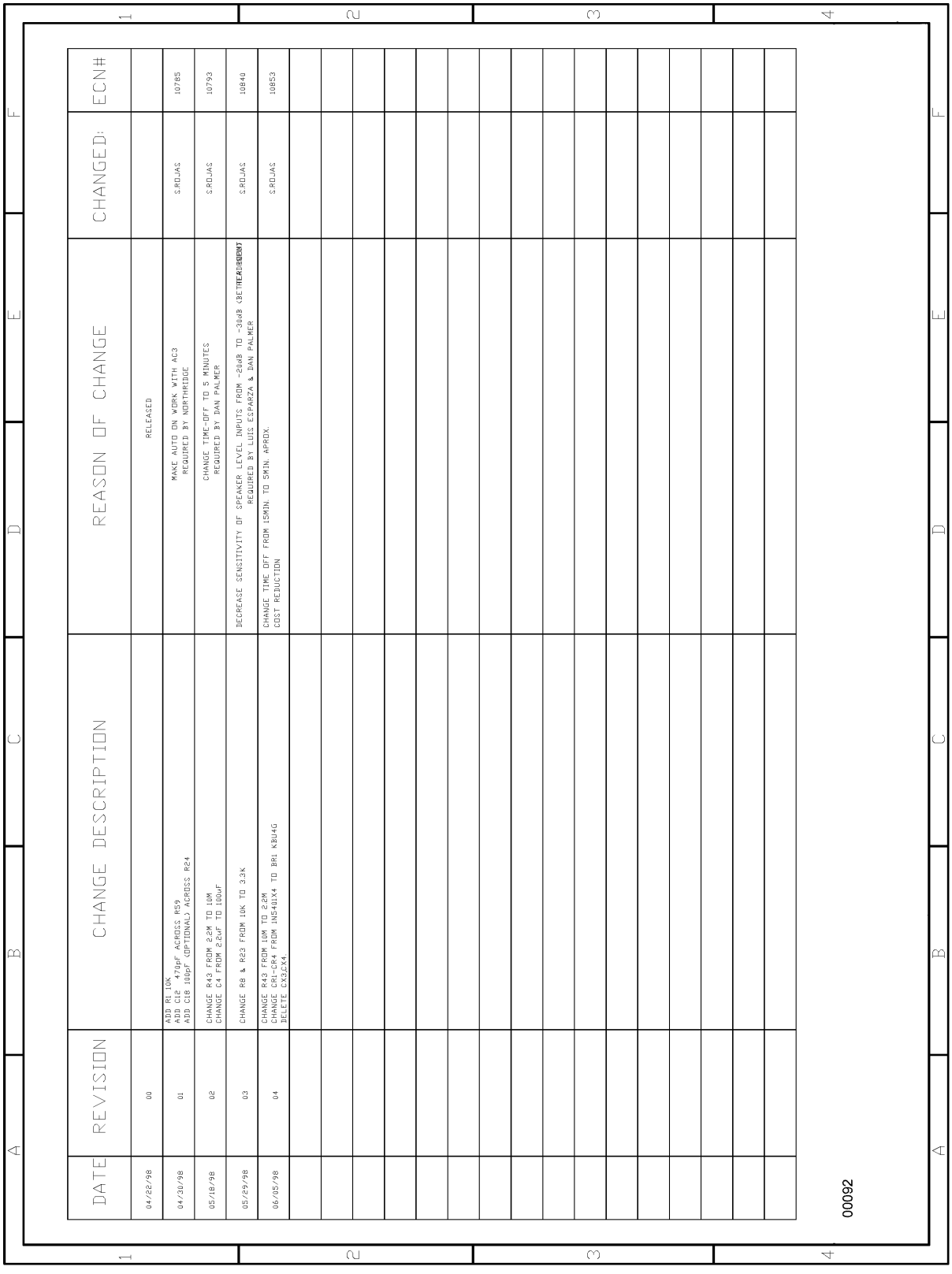
INPUT	115 V @ 60 HZ
OUTPUT	
NO LOAD	33.3 V CT (SEC 1)
NOMINAL	33.3 V CT (SEC 2)
WITH LOAD	30.12 V CT @ 2.0 Amps. (SEC 1) 30.12 V CT @ 2.0 Amps. (SEC 2)
PRI	5.06 Ohms MAX
SEC1	1.0 Ohms MAX
SEC2	1.0 Ohms MAX



Schematic


POWER BOARD
SUBSONIC FILTER
LOW PASS FILTER
AUTOMATIC TURN ON/OFF CIRCUIT
SPEAKER 4 OHMS
120V/60HZ INPUT
LINE-IN
SPKR-IN
SPEAKER INPUT
D.P.L. NORMAL INPUT
NOTES:
CRITICAL SAFETY COMPONENT
REPLACE ONLY WITH SAME TYPE OF COMPONENT
00091

Revision Status



DATE	REVISION	CHANGE DESCRIPTION	REASON OF CHANGE	CHANGED:	ECN#
04/22/98	00		RELEASED		
04/30/98	01	ADD R1 10K ADD C12 47pF ACROSS R59 ADD C18 100pF (OPTIONAL) ACROSS R24	MAKE AUTO ON WORK WITH AC3 REQUIRED BY NORTHRIDGE	S.ROJAS	10785
05/18/98	02	CHANGE R43 FROM 2.2M TO 10M CHANGE C4 FROM 2.2uF TO 100uF	CHANGE TIME-OFF TO 5 MINUTES REQUIRED BY DAN PALMER	S.ROJAS	10793
05/29/98	03	CHANGE R8 & R23 FROM 10K TO 3.3K	DECREASE SENSITIVITY OF SPEAKER LEVEL INPUTS FROM -20dB TO -30dB (BE THE ADJUSTMENT REQUIRED BY LUIS ESPARZA & DAN PALMER	S.ROJAS	10840
06/05/98	04	CHANGE R43 FROM 10M TO 2.2M CHANGE BR1 FROM 1N5401X4 TO BR1 KBU4G DELETE CX3,CX4	CHANGE TIME OFF FROM 15MIN. TO 5MIN. APPROX. COST REDUCTION	S.ROJAS	10853

00092