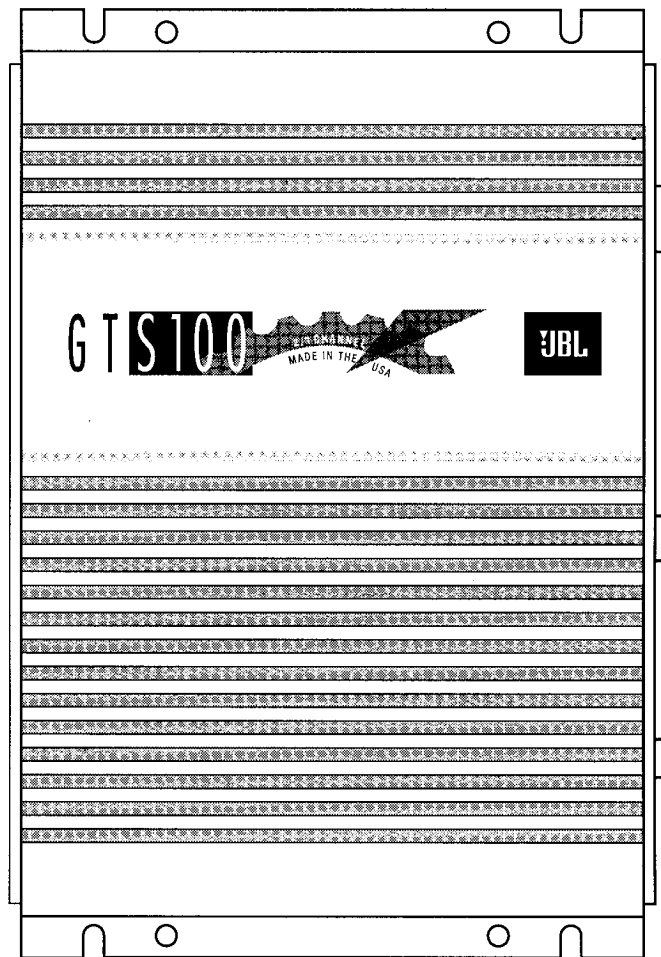


GTS100

2/1 CHANNEL AUTOMOTIVE POWER AMPLIFIER

TECHNICAL MANUAL



JBL Consumer Products Inc.
80 Crossways Park West
Woodbury, N.Y. 11797
1-800-336-4JBL in the USA

H A Harman International Company

Part No.: GTS100SM Rev A

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GTS100 Nominal Specifications

Continuous Power Output (20Hz - 50kHz, 14.4V Battery Voltage, 80 kHz filter)	35 watts x 2 (4 Ohms, 0.05% THD) 50 watts x 2 (2 Ohms, 0.08% THD) 100 Watts x 1 (4 Ohms, 0.08% THD)
Signal to Noise Ratio	100dBA
Frequency Response	10Hz - 50kHz (+0 - 1dB) 20Hz - 20kHz (+0 - 0.1dB)
Damping Factor	>200
Line Level Input Sensitivity (for rated power)	100mV - 4V RMS (500mV nominal)
Line Level Input Impedance	10k Ohms
Speaker Level Input Impedance	15 Ohms
Speaker Level Input Sensitivity	200mV - 8V RMS (1V nominal)
Preamp Output Sensitivity	2V Out for 4V Speaker Level Input
Minimum Speaker Impedance Single Ended, Non-Bridged Bridged	2 Ohms 4 Ohms
Built-In Electronic Crossover Frequency and Slope	80Hz, 18dB per octave Low Pass Filter 100Hz, 18dB per octave High Pass Filter
Power Requirement	11 to 16V DC Negative Ground
Fuse Size	20 Amp ATC Type Fuse
Size (L x W x H)	6-5/8" x 9-1/4" x 2" (168.3mm x 235.0mm x 50.8mm)
Weight	4lbs. 3oz. (1.90kg)
Speaker Input / Output Mating Connector	Molex Mini-Fit Jr. # 39-01-2040 Metal Pins: 39-00-0038
Power Mating Connector	Plastic Housing: AMP #1-480700-0 Metal Pins for Ground & +12V:AMP # 350923-3 Metal Pins for Rem. In: AMP # 350536-1

Features

- Bridgeable 2/1 Channel Operation
- Simultaneous Stereo + Mono Operation
- Built-in Staggered 18dB/Octave 100Hz High-Pass and 80Hz Low-Pass Crossover
- No Current Limiting
- Oversized Floating Rail MOSFET Switch-Mode Power Supply
- Common Sense 2-way Turn-on
- Stealth Remote Silent Turn-On Circuitry with Power-On Indicator
- Continuously Adjustable Gain Controls
- Capable of Single-Ended Operation Into 2-ohm Loads.
- Fully Complementary, Direct-Coupled, Discrete Power Amplifier Circuitry
- Gold Plated RCA Input Connectors
- Preamp Output Capability
- Convenient Easy-Disconnect Power and Speaker Connections
- Third Order (18dB per Octave), Capacitive/Inductive Power-Supply Filtering
- Input Mode Switching
- Made in USA

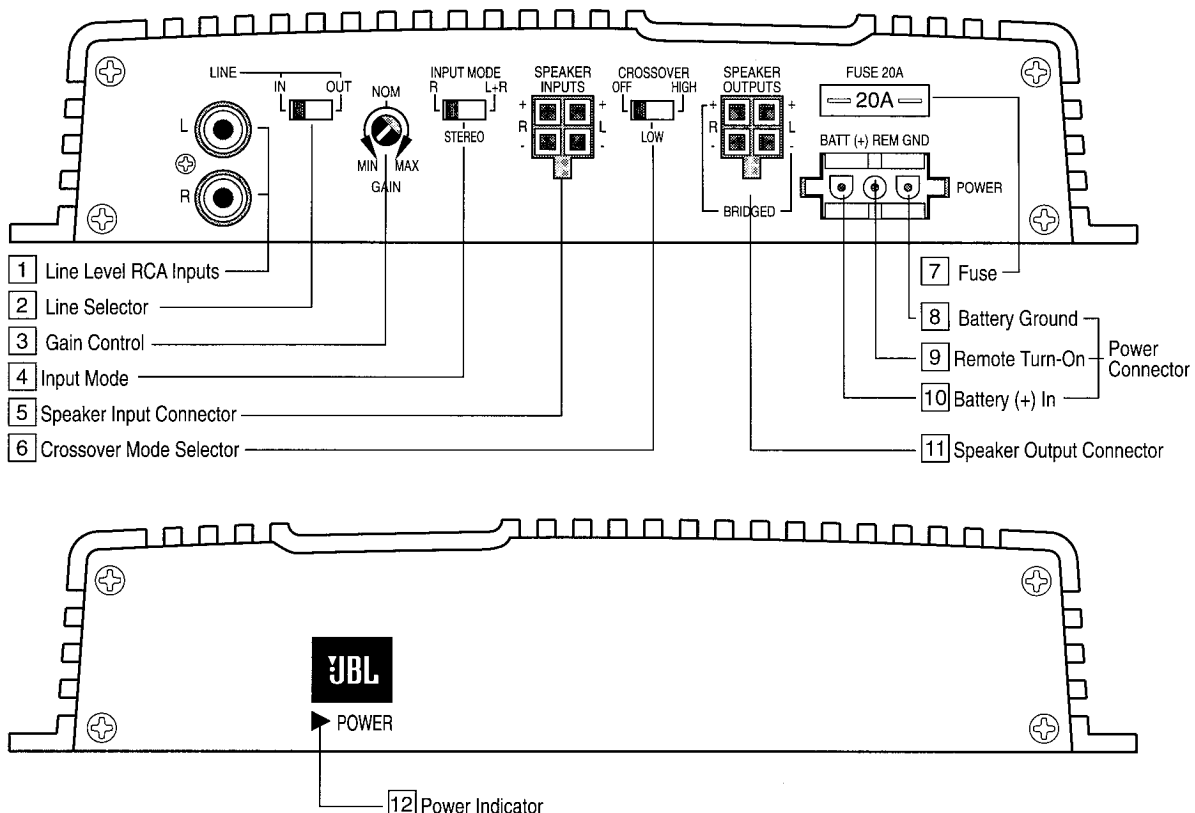
Controls and Connectors

1. **Line Level RCA Inputs** - Use these connectors for line (preamp) level input to the amplifier. When speaker inputs are used, this connector can be converted for use as a line-level output by setting the "Line" switch to "out".

2. **Line Selector** - This switch sets the line level connectors for either input or output. Set switch to "In" for normal line level input operation. Set the switch to "Out" to use the line level connector for line level outputs to drive other amplifiers or signal processors when using the speaker level inputs.

3. **Gain Control** - Use this control to adjust the input sensitivity of the amplifier. See the "Gain Adjustments" section for tips on proper setup.

4. **Input Mode Selector** - This switch is used to set the input mode for both preamp and speaker-level inputs. Set this switch to Stereo for normal operation using both left and right inputs. Set this switch to R to drive both the left and right channels with only a single input on the right channel. Set this switch to "L+R" to sum the left and right inputs for a mono output on both amplifier channels.



5. **Speaker Input Connector** - Use this connector for speaker level input signals. A wire harness is supplied for this connector. This input also includes JBL's Common Sense input circuitry which turns the amplifier on as soon as a high powered head unit connected to this input is turned on.

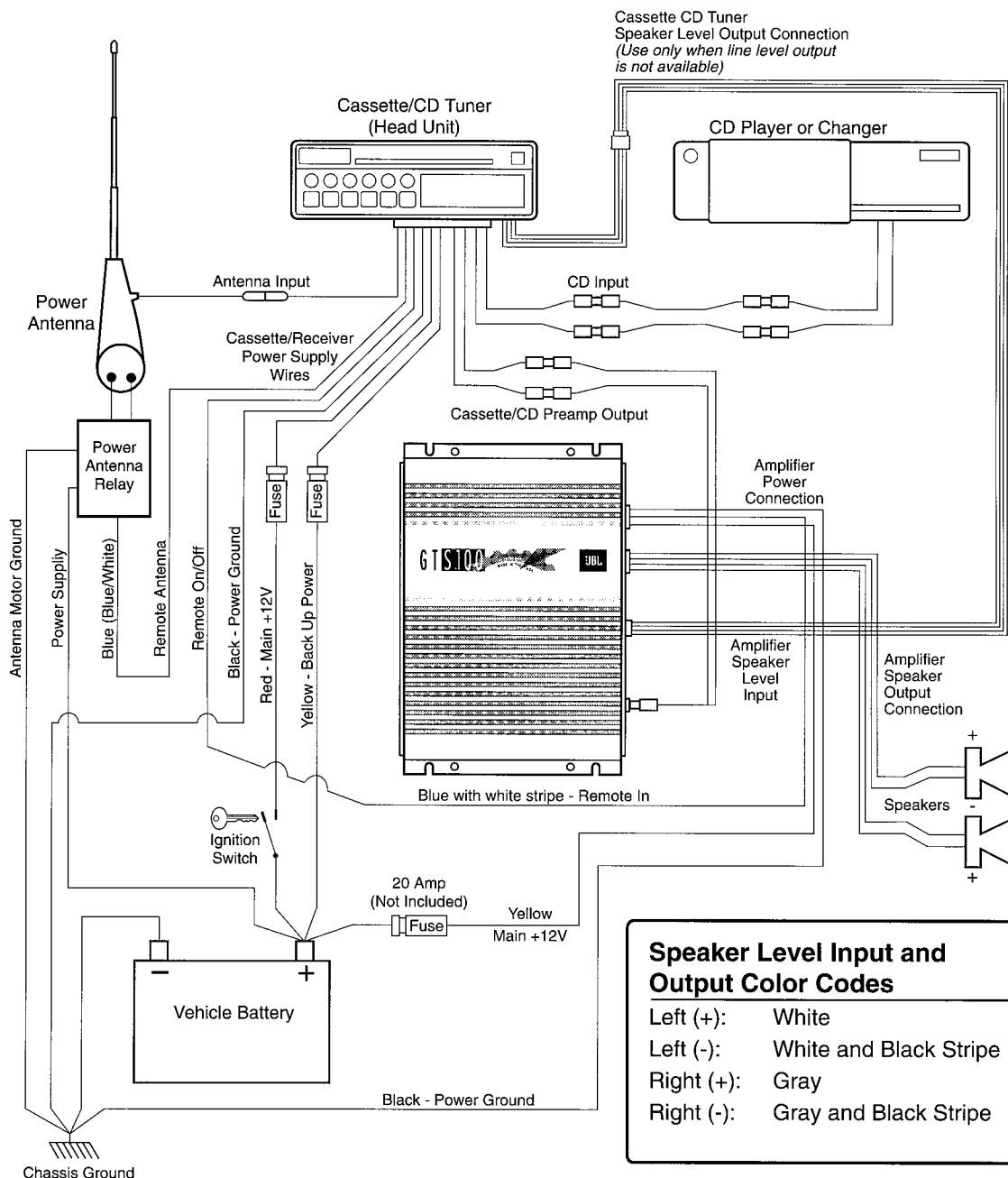
6. **Crossover Mode Selector** - This switch controls the built in crossover. Set the switch to "Off" for full band operation. Set the switch to "Low" to activate the 80Hz low pass filter on the amplifier (for subwoofer use). Set the switch to "High" to activate the 100Hz high pass filter for use with satellite speakers. Note that the filter does not affect the line level outputs on the amplifier.

7. **Fuse** - 20 Amp ATC type Fuse. 8., 9., 10. **Power Connector** - Connection for included power wire harness.

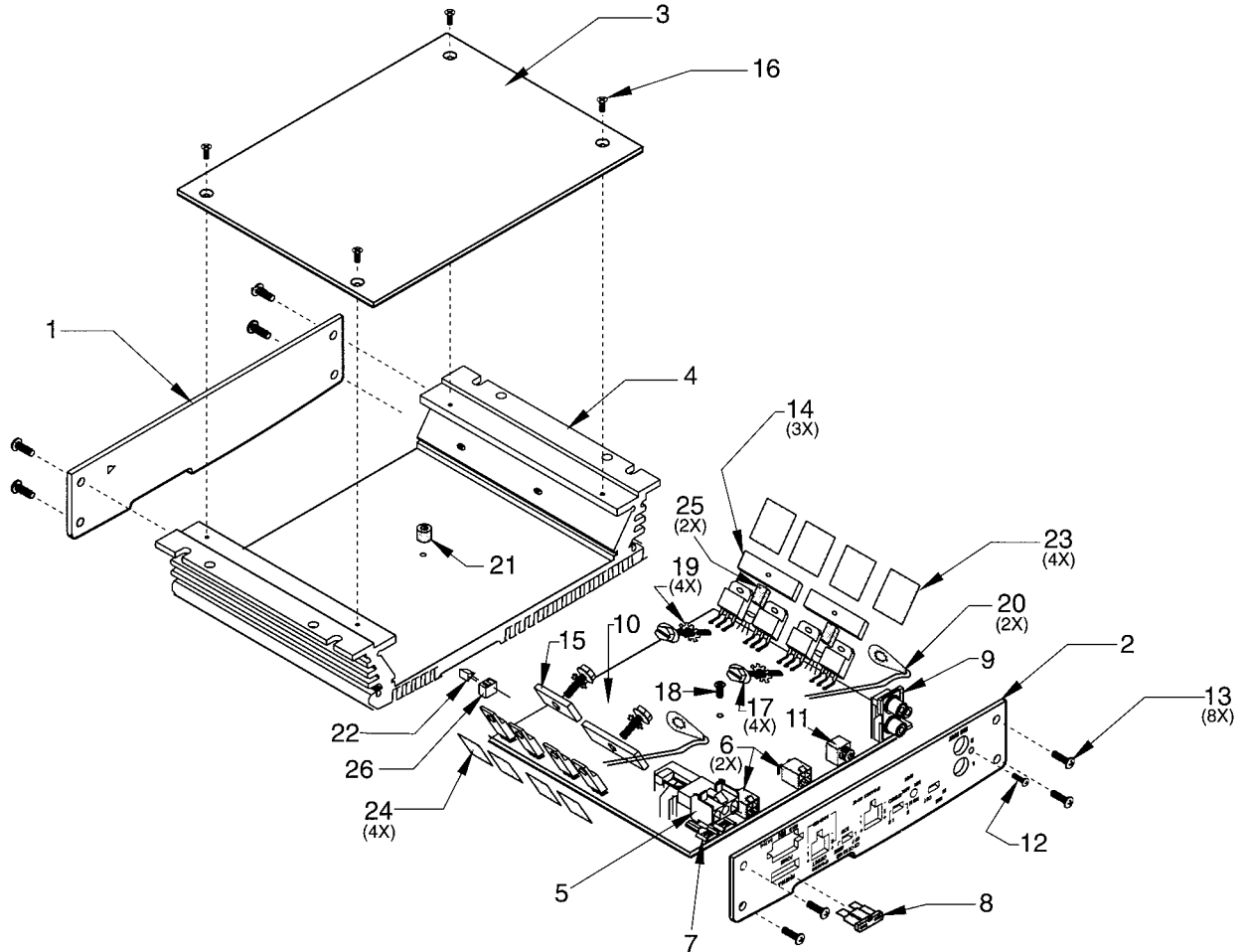
11. **Speaker Output Connector** - Connection for included speaker output harness. See "Typical System Configuration" for information on wire color codes.

12. **Power Indicator LED** - Power indicator light glows for normal operation when the amplifier is activated by either the remote or common sense turn-on circuits.

Typical System Configuration



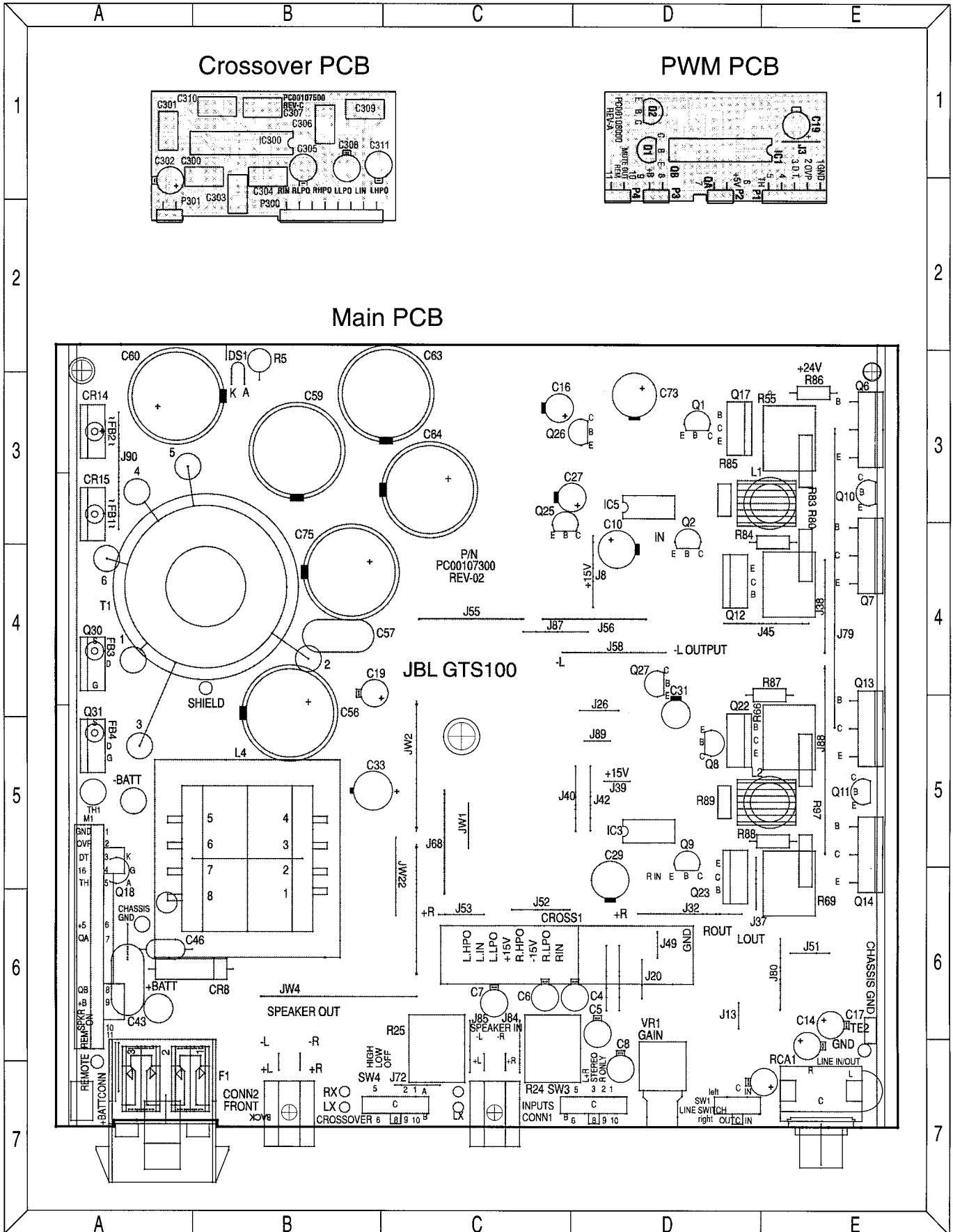
Mechanical Exploded View



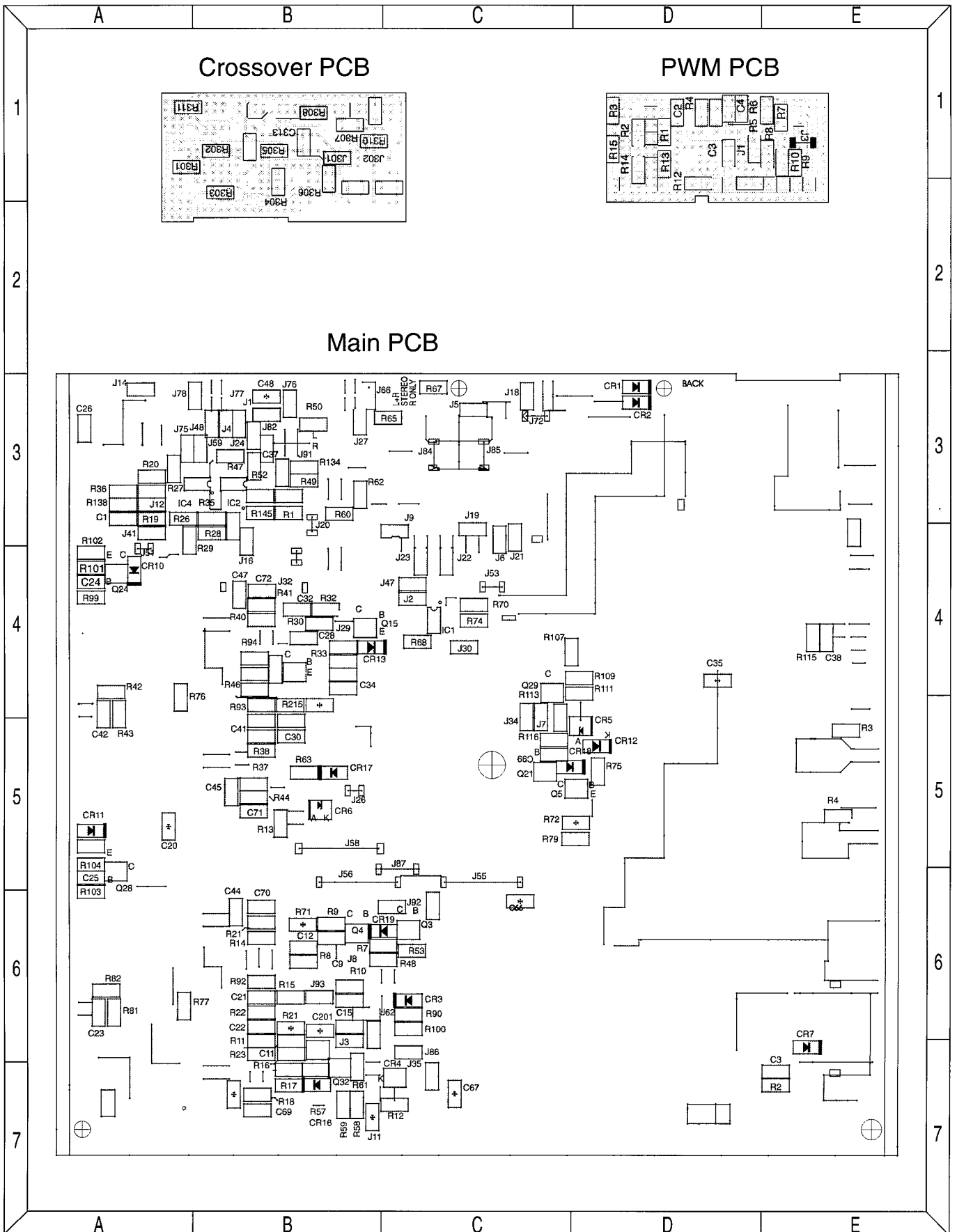
GTS100 Unit Mechanical Parts

REF. No.	DESCRIPTION	PART No.	QNTY.			
1	FRONT BRACKET FOR GTS100	BR1181	1	17	SC 6-32x 3/4 CUTT-THR, HEX FOR ALUMINUM BAR WASHER HEAD, POINT F, ZINC F.	SC1192 4
2	REAR BRACKET FOR GTS100	BR1179	1.	18	SC 6-32x 3/8 TAPTITE, HEX BOARD SPACER WASHER HEAD, ZINC FSH	SC1194 1
3	BOTTOM PLATE FOR GTS100 CRS 3mm TKS	BR1180	1	19	WASHER EXTERNAL TOOTH FOR #6 ALUMINUM BARS SCREW ZINC FINISH	WA1049 4
4	HEATSINK FOR GTS100	HS1071	1	20	HARNESS GROUND	XX1198 2
5	POWER HARNESS	XX1197	1	21	1/4 ROUND SWAGE SPACER PCB-HEATSINK SPACER	ST1018 1
6	RIGHT ANGLE HEADER	C01075	2	22	LED RED TRIANGLE	LE1029 1
7	FUSE RECEPTACLE	TE1153	1	23	SIL PAD INSULATOR TO-220 WITH ADHESIVE 0.750" x 0.500"	SP1072 4
8	FUSE AUTO 20A	FS1053	1	24	SIL PAD INSULATOR TO-3P WITH ADHESIVE 1.000" x 0.750"	SP1073 4
9	RCA CONNECTOR	CO1076	1	25	SILICONE FOAM WITH ACRYLIC TO-92's & TH1 PRESSURE SENSITIVE ADHESIVE 3/8"Lx1/4"W,GRAY,(3/16" T)	SP1020 3
10	MAIN BOARD ASSY	UA0008	1	26	HARNESS FOR LED LED RED DIFUSED (TRIANGLE HARNESS 2-WIRE SHAPE)	XX1192 1 LE1029 1
11	RES. POT.	RS1227	1		SILICONE SPONGE WITH ACRYLIC PRESSURE SENSITIVE ADHESIVE (1"x1/2"x1/8") ORANGE	SP1076 3
12	SC M3x1.25x10 PLAS-THR, PAN RCA JACK PHI HEAD, NICKEL FSH	SC1189	1			
13	SC 6-32x 1/2 TAPT-THR, PAN FRONT AND REAR PANELS	SC1187	8			
14	ALUMINUM BAR 4.8x12.7x40mm	BR1187	3			
15	ALUMINUM BAR 4.8x12.7x25.4 MM HOLDS POWER SEMICONDUCTORS TO-220	BR1240	1			
16	SC 4-40x 5/16 TAPT-THR, FLAT BOTTOM PLATE PHI HEAD, ZINC FSH	SC1188	4			

GTS100 PCB's (top side viewing traces through the board)



GTS100 PCB's (bottom Trace side viewed through board)



GTS100 Electrical Parts List

GTS100 MAIN PCB ASSY. (UA008)

REFERENCE DESIGNATOR	DESCRIPTION	PART NUMBER	QNTY.					
FB1, 2, 3, 4	FERRITE BEAD	CC1028	4		CR14	DUAL RECTIFIER 100V 16A *(G . I . FEP16BT/CT), (D . I . SF162C)	DI1053	1
	CONNECTOR CAP., 3 CIRCUITS	CO1073	1		CR15	DUAL RECTIFIER 100V 16A *(G . I . FEN16BT/CT), (D . I . SF162A)	DI1054	1
CONN 1, 2	5569-N RIGHT ANGLE HEADER WITH MTG. PEGS. 94V-2, 4 CIRCUITS	CO1075	2		INTEGRATED CIRCUITS			
RCA1	RCA PHONO JACK PCB MOUNTED, DUAL GOLD PLATED RED TOP, WHITE BOTTOM, VERTICAL	CO1076	1		IC1, IC2, IC4	IC DUAL LOW-NOISE JFET-INPUT OP-AMP. 0° TO 70°C, SMD SO-8 OR DMP-8 PKG. TAPE & REEL PIN-1 SIDE ON FEED HOLE SIDE *(T . I . TL072CDR), (SGS TL072CDT)	IC1041	3
CAPACITORS					IC3, 5	HIGH PERFORMANCE OP-AMP *(SGS LM318N), (T . I . LM318P)	IC1040	2
C1,13, 36, 44, 45, 47	CAP. CERAMIC 100.00 pF ±10% 50V X7R T/R 1206	CP1496	6.		RESISTORS			
C2, 4, 5, 6, 7, 8, 14, 27, 17	CAP. ALUM EL. 22.00 μF ±20% 10V 85°C A/P RADIAL LEAD 5 X 7 T/R LS=1.5mm, F=2.5mm	CP1417	9		R1, 36	RES. F/CHIP 330.00 Ω 5% 1/8W T/R 1206 PKG.	RS1731	2
C3, 12, 15, 20, 23-26, 32, 34, 35, 38, 42, 66, 67, 69-72, 99, 201, 202	CAP. CERAMIC 0.10 μF ±20% 50V Z5U T/R 1206 PKG	CP1426	22		R2, 20, 27, 50, 100, 145	RES. F/CHIP 2.20 KΩ 5% 1/8W T/R 1206 PKG.	RS1703	6
C9, 11, 21, 22, 28, 30, 40, 41	CAP. CERAMIC 33.00 pF ± 5% 50V NPO T/R 1206	CP1475	8.		R3, 4	RES. F/CHIP 100.00 Ω 5% 1/8W T/R 1206 PKG.	RS1717	2
C10, 29, 33, C73	CAP. ALUM EL. 100.00 μF ±20% 16V 85°C A/P RADIAL LEAD 6.3 X 7 T/R LS=2.0mm F=2.5mm	CP1411	4		R5	RES. M/O 3.30 KΩ 5% 1 W AXIAL T/R	RS1260	1
C16, 31	CAP. ALUM EL. 10.00 μF ±20% 16V 85°C A/P RADIAL LEAD 4 X 7 T/R LS= 1.5mm F=2.5mm	CP1424	2		R6, 7, 10, 12, 13, 33, 47, 58, 115, 213, 215	RES. F/CHIP 1.00 KΩ 5% 1/8W T/R 1206 PKG.	RS1700	11
C19	CAP. ALUM EL. 2.20 μF ±20% 50V 85°C A/P RADIAL LEAD 4 X 7 T/R LS= 1.5mm, F=2.5mm	CP1415	1		R8, 19, 30, 49, 134, 138,	RES. F/CHIP 22.00 KΩ 5% RMC1/8-22K-5% 1/8W T/R 1206 PKG.	RS1704	6
C37, 48	CAP. CERAMIC 10.00 pF ± 5% 50V NPO T/R 1206	CP1542	2		R9, 11, 26, 28, 29, 32, 34, 35, 48, 51, 52, 53, 60, 62, 68, 70, 72, 74, 75, 79, 91-94, 102, 105, 113, 116,	RES. F/CHIP 10.00 KΩ 5% 1/8W T/R 1206 PKG.	RS1701	28
C43, 46,	CAP. POLY FIL 0.10 μF ± 5% 50V 85°C T/R RADIAL LEAD LS=0.200inch	CP1441	2		R15, 16, 38, 39	RES. F/CHIP 15.00 KΩ 5% 1/8W T/R 1206 PKG.	RS1725	4
C56, 59, 60, 63, 64, 75	CAP. ALUM EL. 2200.00 μF ±20% 25V 105°C RADIAL LEAD	CP1355	6		R17, 14, 37, 40	RES. F/CHIP 680.00 Ω 5% 1/8W T/R 1206 PKG.	RS1709	4
C57	CAP. POLY FIL 1.00 mF ±10% 50V RADIAL T/R LS=5.0 mm	CP1126	1		R18, 21, 41, 44	RES. F/CHIP 160.00 Ω 5% 1/8W T/R 1206	RS1829	4
DIODES					R22, 23, 45, 46, 59 71, 107, 109,	RES. F/CHIP 47.00 KΩ 5% 1/8W T/R 1206 PKG.	RS1706	8
CR1, 2, 3, 7, 10, 11, 12, 13, 16, 17, 18, 19	DI,RECTIF SWCH 80V/15mA MELF OR LL-34 PKG. T/R CATHODE ON HOLE SIDE 2500 PCS/REEL (SMD) *(SANYO LFB01-CT1), (ROHM RLS4148-TE11)	DI1132	12		R24, 25	RES.WIRE WO. 15.00 5 % 5.0W WELDED CONSTRUCTION, RADIAL LS=0.200 BULK	RS1869	2
CR4, 6	DI,ZENER 15V/200mW/ 5% CP OR SOT-23 PKG. T/R 1-PIN SIDE ON FEED HOLE SIDE (SMD) *(SANYO DZD15-TB), (KEC Z02W15-RTR)	DI1150	2		R31, 54, 61, 111	RES. F/CHIP 100.00 KΩ 5% 1/8W T/R 1206 PKG.	RS1702	4
CR5	DI,ZENER 16V/200mW/ 5% CP or SOT-23 PKG. T/R 1-PIN SIDE ON FEED HOLE SIDE (SMD) *(SANYO DZD16-TB), (Z02W16-RTR)	DI1167	1		R42, 82, 101, 104	RES. F/CHIP 4.30 KΩ 5% 1/8W T/R 1206	RS1877	4
CR8	RECTIFIER DIODE 3A/200V MAX, 100V MIN, T/R AXIAL TAPE SPACE= 52.4mm *(GI 1N5401), (TAITRON 1N5401)	DI1005	1		R43, 81,	RES. F/CHIP 7.50 KΩ 5% 1/8W T/R 1206	RS1831	2
					R55, 64, 66, 69	RES. WIRE WO. 0.10 Ω 5% 5.0W RADIAL LS=5mm	RS1868	4
					R63, 57	RES. F/CHIP 33.00 KΩ 5% 1/8W T/R 1206 PKG.	RS1716	2
					R65, 67	RES. F/CHIP 200.00 Ω 5% 1/8W T/R 1206	RS1830	2
					R76, 77	RES. F/CHIP 10.00 Ω 5% 1/8W T/R 1206	RS1878	2

2/1 CHANNEL AUTOMOTIVE POWER AMPLIFIER

JBL GTS100

R84, 86-88	RES. C/F 5.10 Ω 5% 1/4W T/R AXIAL OR AMMOPACK 1/4W / 5% / 5.10 OHM	RS1916	4
R85, 89	ES. C/F 68.00 Ω 5% 1/4W T/R OR AMMOPACK 1/4 W/ 5% / 68 OHM	RS1385	2
R90, 114	RES. F/CHIP 4.70 KΩ 5% RMC1/8-4.7K-5% 1/8W T/R 1206 PKG.	RS1705	2
R99, R103	RES. F/CHIP 3.30 KΩ 5% 1/8W T/R 1206 PKG.	RS1710	2
J1-J7, 9, 11, 18, 19, 21-24, 27, 30, 34, 35, 41, 47, 48, 59, 62, 66, 75-78, 82, 86, 91-93	RES. F/CHIP 0.00 Ω 5% 1/8W 1206 T/R	RS1779	34
J10, 12, 14, 16, 17, 29	RES. F/CHIP 0.00 Ω 5% 1/8W 1206 T/R	RS1779	6
VR1	RES.POT.100.00 KΩ DUAL GANG DETENT AT CENTER-15K, A TAPER, SHAFT LENGHT=8mm DIA.=3mm SLOT STYLE,BUSHING=6mm; WITHOUT TAP	RS1227	1
SWITCHES			
SW1	NON SHORTING HORIZONTAL MICRO- SLIDE SWITCH, 2P2T, 3.5mm MTG. HEIGHT, 2.5mm TERMINAL LENGTH *(PANASONIC ESD11H220)	SW1011	1
SW3, 4	NON SHORTING HORIZONTAL MICRO- SLIDE SWITCH, 2P3T, 3.5mm MTG. HEIGHT, 2.5mm TERMINAL LENGTH. *(PANASONIC ESD-11H230)	SW1013	2
TRANSISTORS			
Q1, Q8	PNP SIGN 150V/600mA/ 625mW TO-92 T/R *(MOTOROLA 2N5401RLRA), (NATIONAL 2N5401RA(TR)	TR1166	2
Q2, 9	NPN SIGN 160V/60mA/ 625mW TO-92 T/R *(MOTOROLA 2N5551RLRA), (NATIONAL 2N5551RA(TR)	TR1167	2
Q4, 5, 15, 20, 29, 33,	NPN SWCH 50V/100mA 10K— CP OR SMT T/R 2-PIN SIDE ON FEED HOLE SIDE *(SANYO 2SC3859-TA), (ROHM DTC114TK-T147)	TR1131	6
Q6, 13	NPN TRANSISTOR 15A 70V *(SGS TIP3055), (MOSPEC TIP3055)	TR1041	2
Q7, 14	PNP TRANSISTOR 15A 70V *(SGS TIP2955), (MOSPEC TIP2955)	TR1048	2
Q10, 11, 26	NPN SIGN 40V/600mA TO-92 T/R 1W *(MOTOROLA MPS2222ARLRA), (NATIONAL PN2222ARA)	TR1063	3
Q12, 23	PNP POWR 100V/ 3A/ 40W TO-220 *(MOSPEC TIP32C), (SGS TIP32C)	TR1228	2
Q17, 22	NPN POWR 100V/ 3A/ 40W TO-220 *(MOSPEC TIP31C), (SGS TIP31C)	TR1227	2
Q18	SCR TO 92 PACKAGE T/R *(MOTOROLA MCR22-2 RLRA), (MOTOROLA MCR22-2)	TY1000	1
Q21, Q3, Q32	PNP AF 30V/150mA CP OR SOT-23 OR SMT 200≤ B ≤ 400 2PIN SIDE ON FEED HOLE SD(SMD) *(SANYO 2SA1781-6-TA), (PHILIPS BC858B)	TR1125	3

Q24, 28	PNP AF 30V/ 150mA CP OR SMT 200≤ B ≤ 400 T/R 2-PIN SIDE ON FEED HOLE SIDE (SMD) (SANYO 2SC4639-6-TA), (ROHM 2SC2412K-T147Q/R)	TR1108	2
Q25	NPN TRANSISTOR T/R TO-92 *(MOTOROLA 2N3904RLRA), (NATIONAL 2N3904RA)	TR1002	1
Q27	PNP SIGN 40V/600mA TO-92 T/R GENERAL PURPOSE LS=5.0mm *(MOTOROLA MPS2907ARLRA), (NATIONAL PN2907ARA)	TR1010	1
Q30, Q31	FET POWR 60V/35A/0.028 OHM TO-220 PKG. *(I . R . IRFZ44), (MOTOROLA IRFZ44)	TR1157	2

INDUCTORS

L1, L2	INDUCTOR AIR CORE 0.38uH	UA0087	2
L4	COMMON MODE INDUCTOR FOR GTS100 ASSY	UA0083	1
T1	POWER TRANSFORMER FOR GTS100	UA0084	1

MISCELLANEOUS

F1	FUSE AUTO 20A/32V	FS1053	1
F1	AUTO FUSE PCB MOUNTABLE RECEPTACLE 0.205"x 0.025" BULK	TE1153	2
TH1	NTC THERMISTOR 10K OHM @ 25°C RADIAL. *(FENWAL 142-103LAG-RB1), (BETATHERM 10.K3A2)	TH1006	1
	BLANK PCB MAIN FOR GTS100 38.35 SQ.IN. CEM-1 1-SIDED	PC1073	1
+BATT	YELLOW WIRE AWG14 WITH PIN TERMINAL	UA0139	1
REM	BLUE WIRE AWG18 WITH PIN TERMINAL	UA0140	1
GND	BLACK WIRE AWG14 WITH PIN TERMINAL	UA0141	1
J8, 13, 20, 26, 32, 37, 39 40, 42, 45, 49, 51, 52, 53, 58, 61, 63, 72, 80, 84, 85, 87, 89	WIRE AWG22, SOLID,ELECTROLYTIC, SOFT DRAWN AND ANNEALED TIN-PLATED COPPER.	WI1553	4 Ft.
JW1, 22	WIRE AWG22, SOLID, ELECTROLYTIC,SOFT DRAWN AND ANNEALED TIN-PLATED COPPER.	WI1553	0.33 Ft.
RX	WIRE #22 SOLID UL VW-1 BLACK PVC INSULATED, UL1007.	WI1562	0.125 Ft.
LX	WIRE #22 SOLID UL VW-1 WHITE PVC INSULATED, UL1007	WI1564	0.125 Ft.
JW2, 3, 4, 55, 38, 56, 68, 79, 88, 90,	WIRE #16 SOLID INSULATED BLACK UL1007 300V 80 DEG C	WI1586	1.4 Ft.
DS1	HARNESS 2-WIRE FROM MAIN PC BOARD TO LED	XX1192	1
CHASSIS GND	HARNESS GROUND	XX1198	2

CROSSOVER MODULE FOR GTS (MA0003)

REFERENCE DESIGNATOR	DESCRIPTION	PART NUMBER	QNTY.
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CAPACITORS

C300, 303, 306, 309	CAP. POLY FIL 0.22 μ F 5% 63V 85 DEG C T/R RADIAL METALLIZED LS=5mm	CP1177	4
C301, 304, 307, 310	CAP. POLY FIL 0.022 μ F 5% 63V 85 DEG C T/R RADIAL LEAD METALLIZED LS=5mm	CP1178	4
C302, 305, 308, 311	CAP. ALUM EL. 2.20 μ F \pm 20% 50V 85°C A/P RADIAL LEAD 4 X 7 T/R LS= 1.5mm F=2.5mm	CP1415	4
C312, 313	CAP. CERAMIC 0.10 μ F \pm 20% 50V Z5U T/R 1206 PKG.	CP1426	2

INTEGRATED CIRCUIT

IC300	IC OP-AMP QUAD TL074 LOW NOISE JFET INPUT *(T.I. TL074CP),(MOTOROLA TLO74CP))	IC1052	1
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RESISTORS

J301, 302	RES. F/CHIP 0.0 Ω 5% 1/8W 1206 T/R	RS1779	2
R301, 307	RES F/CHIP 9.10 K Ω 5% 1/8W T/R 1206	RS1918	2
R302, 308	RES. F/CHIP 82.00 K Ω 5% 1/8W T/R 1206	RS1914	2
R303, 309	RES F/CHIP 910.00 Ω 5% 1/8W T/R 1206	RS1919	2
R304, 310	RES. F/CHIP 7.50 K Ω 5% 1/8W T/R 1206	RS1831	2
R305, 311	RES F/CHIP 75.00 K Ω 5% 1/8W T/R 1206	RS1915	2
R306, 312	RES F/CHIP 750.00 Ω 5% 1/8W T/R 1206	RS1917	2

MISCELANEOUS

P300	HEADER RIGHT ANGLE 8 POSITIONS (PIN CONNECTOR)	CO1247	1
P301	CONNECTOR SINGLE ROW HEADER RIGHT ANGLE 2-PIN 0.1" CENTERS TIN PLATED OR BETTER	CO1267	1
	BLANK PC BOARD FOR CROSSOVER GTS 1.9665 SQ.IN. CEM-1 1-SIDED	PC10751	

PWM MODULE (MA0007)

REFERENCE DESIGNATOR	DESCRIPTION	PART NUMBER	QNTY.
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M1	MODULE PWM	MA0007	1
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CAPACITORS

C1	CAP. CERAMIC 2700.00 pF \pm 10% 100V X7R T/R 1206 PKG.	CP1434	1
C2, 3, 4	CAP. CERAMIC 0.10 μ F \pm 20% 50V Z5U T/R 1206 PKG	CP1426	3
C19	CAP. ALUM EL. 22.00 μ F \pm 20% 10V 85°C A/P RADIAL LEAD 5 X 11 T/R LS=2.0mm, F=2.5mm	CP1565	1

INTEGRATED CIRCUITS

IC1	PWN CONTROL MODULE 16 PIN DIP *(MOTOROLA TL494CN),(T.I. TL494CN)	IC1002	1
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RESISTORS

R1	RES. F/CHIP 10.00 Ω 5% 1/8W T/R 1206	RS1878	1
R2	RES. F/CHIP 1.00 K Ω 5% 1/8W T/R 1206 PKG.	RS1700	1
R3	RES. F/CHIP 510.00 Ω 5% 1/8W T/R 1206 PKG.	RS1733	1
R4	RES. F/CHIP 6.80 K Ω 5% 1/8W T/R 1206 PKG.	RS1724	1
R5	RES. F/CHIP 100.00 K Ω 5% 1/8W T/R 1206 PKG.	RS1702	1
R6	RES. F/CHIP 4.70 K Ω 5% 1/8W T/R 1206 PKG.	RS1705	1
R7	RES. F/CHIP 12.00 K Ω 5% 1/8W 1206 T/R	RS1783	1
R8	RES. F/CHIP 2.20 K Ω 5% 1/8W T/R 1206 PKG.	RS1703	1
R9, 11	RES. F/CHIP 10.00 K Ω 5% 1/8W T/R 1206 PKG.	RS1701	2
R10	RES. F/CHIP 680.00 Ω 5% 1/8W T/R 1206 PKG.	RS1709	1
R12, 13	RES. F/CHIP 27.00 Ω 5% 1/8W T/R 1206	RS1826	2
R14	RES. F/CHIP 220.00 Ω 5% 1/8W T/R 1206 PKG.	RS1711	1
R15	RES. F/CHIP 4.30 K Ω 5% 1/8W T/R 1206	RS1877	1
J1	RES. F/CHIP 0.05 Ω 5% 1/8W 1206 T/R	RS1779	1

TRANSISTORS

Q1	PNP SIGN 40V/600mA TO-92 T/R GENERAL PURPOSE LS=5.0mm *(MOTOROLA MPS2907ARLRA), (NATIONAL PN2907ARA)	TR1010	1
Q2	NPN SIGN 40V/600mA TO-92 T/R 1W *(MOTOROLA MPS2222ARLRA), (NATIONAL PN2907ARA)	TR1063	1

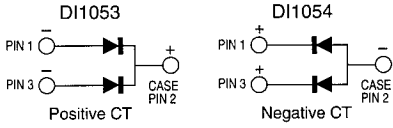
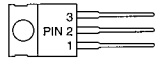
MISCELANEOUS

P1	CONNECTOR SINGLE ROW HEADER RIGHT ANGLE 5-PIN 0.1" CENTERS TIN PLATED OR BETTER.	CO1249	1
P2, 3, 4	CONNECTOR SINGLE ROW HEADER RIGHT ANGLE 2-PIN 0.1" CENTERS TIN PLATED OR BETTER	CO1267	3
	BLANK PC BOARD FOR PWM MODULE 1.4576 SQ.IN. CEM-1 1-SIDED	PC1080	1
J3	WIRE #22 BARE SOLID TIN ELECTROLYTIC,SOFT DRAWN AND TIN-PLATED COPPER.	WI1553	0.041667 FT

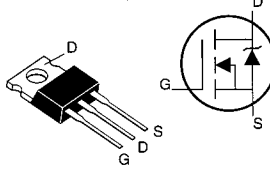
* Manufacturer and Manufacturer's PART NUMBER

IC Voltage Diagrams

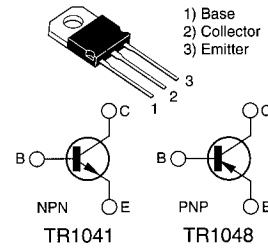
DI1053 (FEP16BT),
DI1054 (FEN16BT)



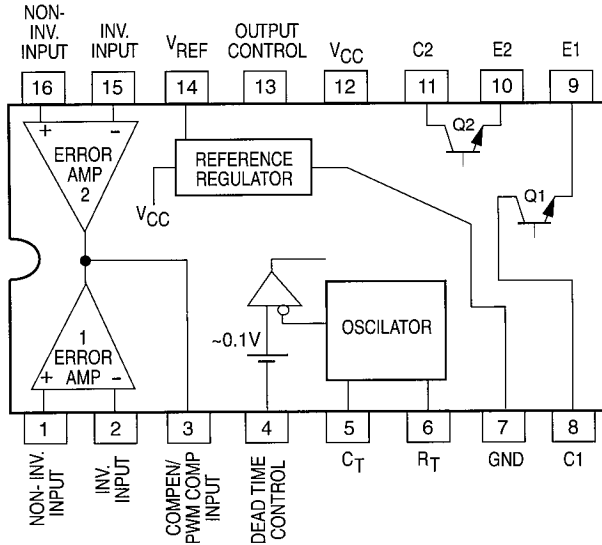
TR1131 (25C3859),
TR1157 (IRFZ44)



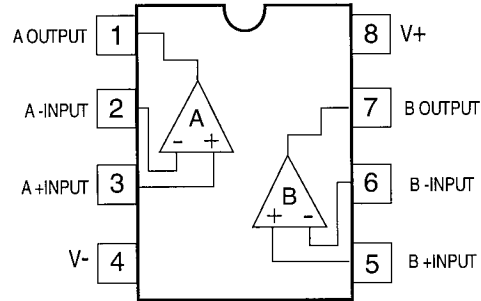
TR1041 (TIP3055),
TR1048 (TIP2955)



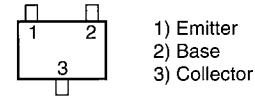
IC1002 (TL494)



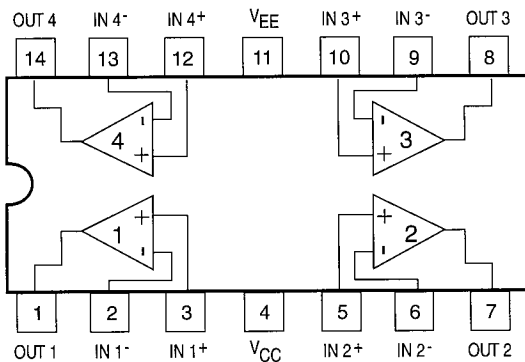
IC1041 (TL072)



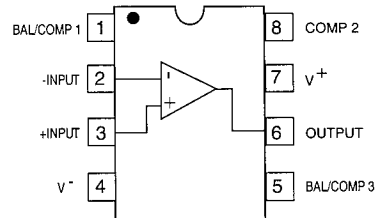
TR1108 (25C4639),
TR1125 (25H1781)



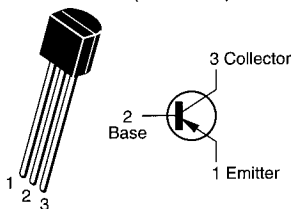
IC1052 (TL074)



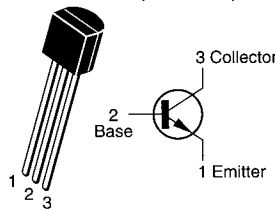
IC1040 (LM318)



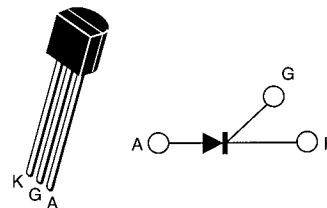
TR1010 (MPS2907),
TR1166 (2N5401)



TR1002 (2N3904),
TR1063 (MPS2222A),
TR1167 (2N5551)



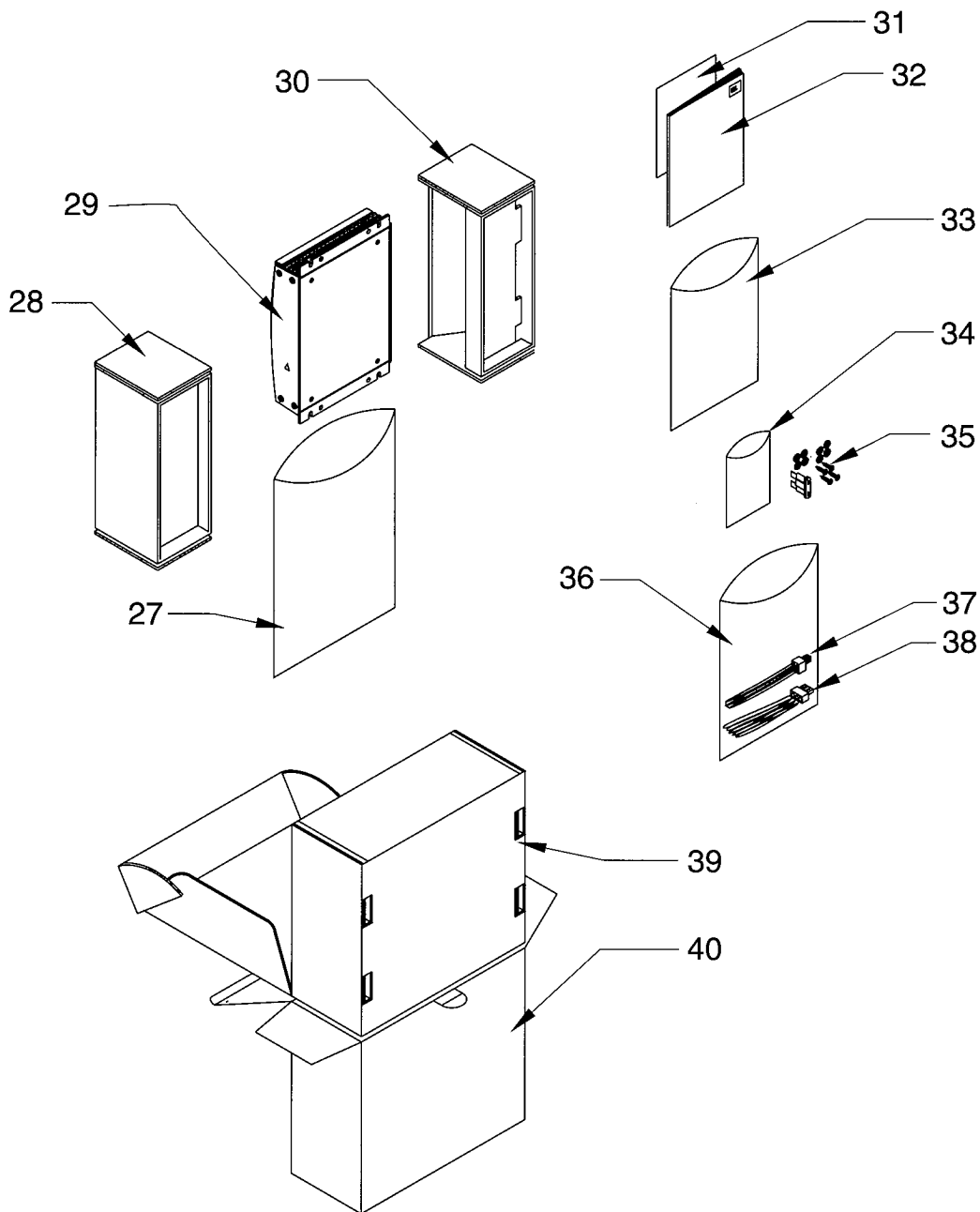
TY1000 (MCR22)



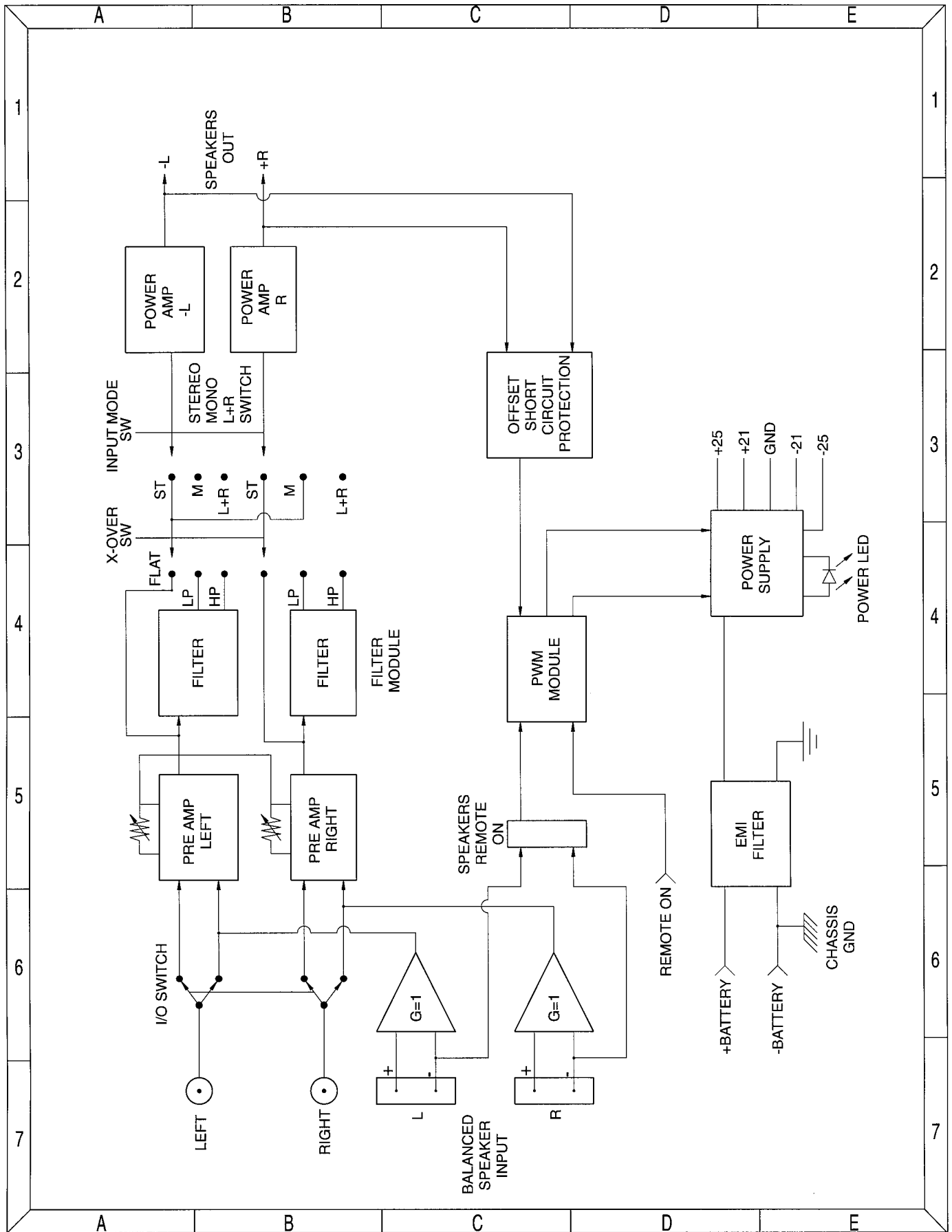
NOTE: Parts in parenthesis are manufacturer's numbers see parts lists for full list of possible manufacturer's part numbers.

GTS100 Package Parts List

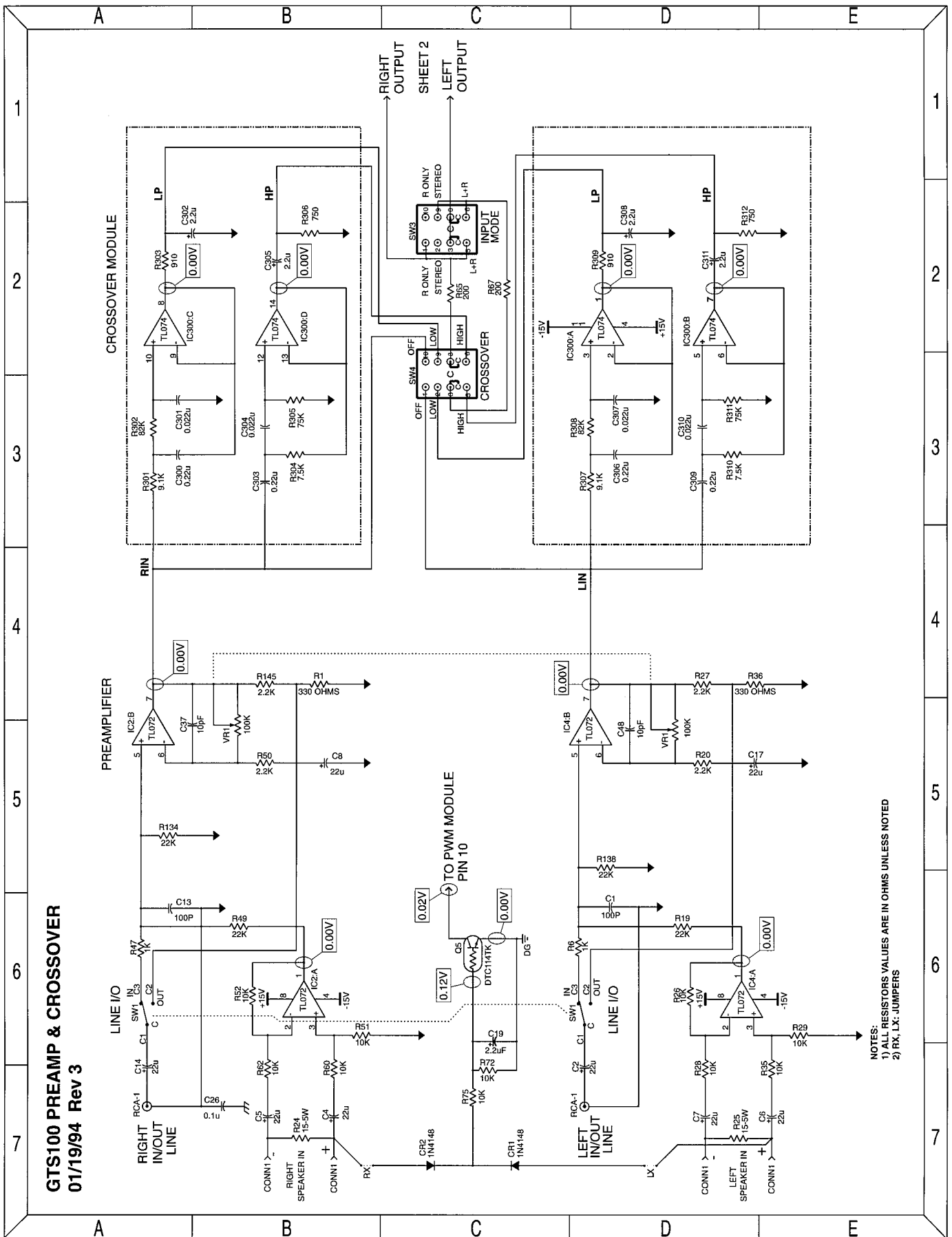
REF. No.	DESCRIPTION	PART No.	QNTY.				
27	PLASTIC BAG 10"L x 12"W x.0015 THICK FOR GTS100 AMPLIFIER	PM1295	1	35	SC #8 x 7/8 THREAD FORMING MOUNTING SCREWS, NICKEL FINISH	SC1208	1
28	LEFT FILLER FOR JBL GTS100	PM1210	1		WASHER PLAIN #8 NYLON	WA1077	1
29	GTS100 UNIT	A002	1		WASHER HELICAL SPRING LOCK #8 NICKEL FINISH	WA1075	1
30	RIGHT FILLER FOR JBL GTS100	PM1206	1		FUSE AUTO 20A/32V	FS1053	1
31	WARRANTY SHEET/ CONSUMER SURVEY CARD	SH1005	1	36	PLASTIC BAG FOR HARNESSES GTS100 7"L X 5"W X 0.0015"T WITH RECYCLABLE LOGO	PM1178	1
32	OWNER'S MANUAL FOR GTS100	SH1004	1	37	SPEAKER HARNESS 4-WIRE 2-ROWS	XX1195	2
33	PLASTIC BAG 9"LX12"WX0.0015"T WITH RECYCLABLE LOGO,BAG FOR OWNERS MANUAL	PM1029	1	38	POWER HARNESS, GTS100	UA0142	1
34	PLASTIC BAG FOR ACCESSORIES 4"L X 4"W X 0.0015" T WITH RECYCLABLE LOGO	PM1221	1	39	CARTON BOX FOR JBL GTS100	PM1205	1
				40	BEAUTY BOX FOR JBL GTS100	PM1215	1



Block Diagram

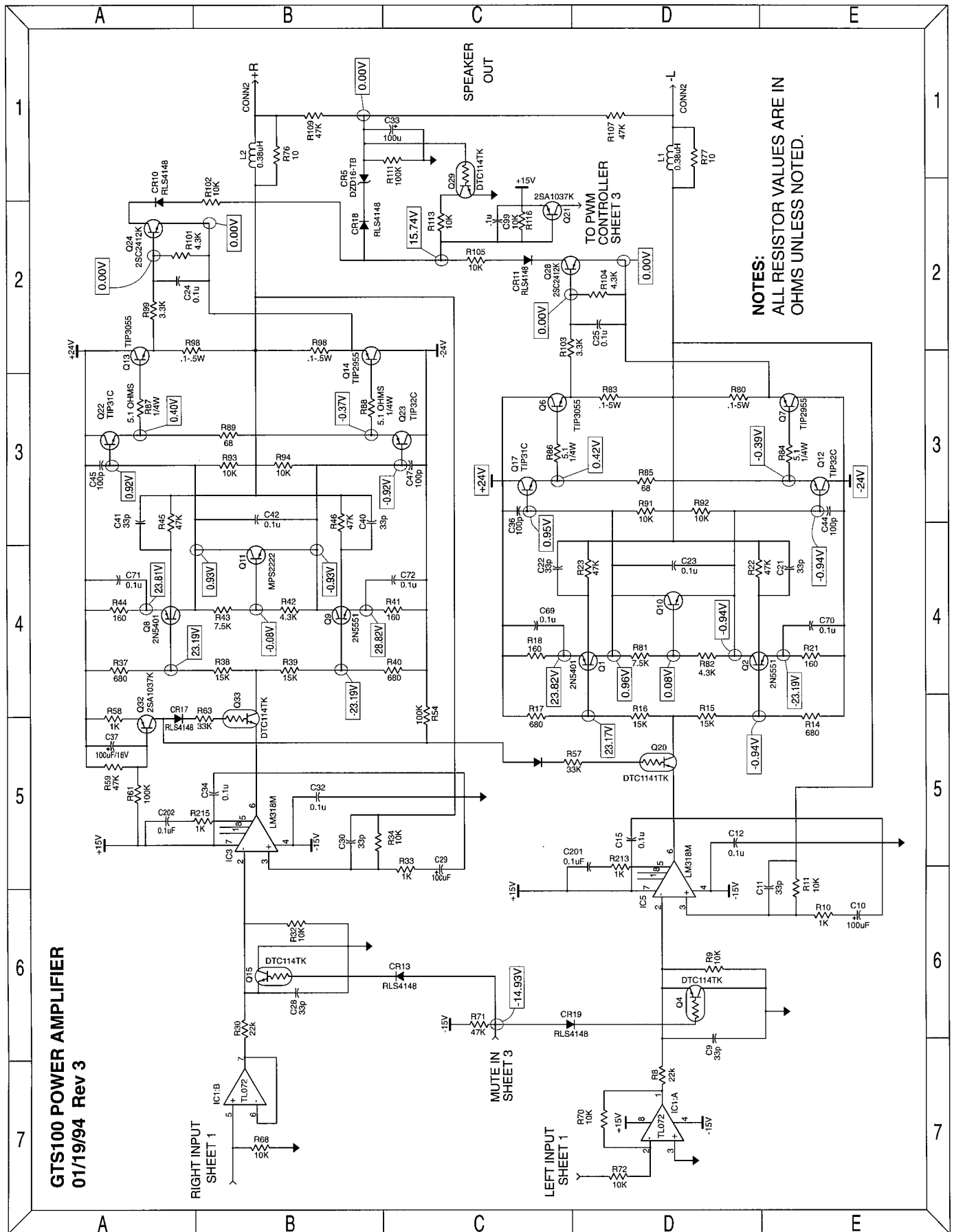


Preamp & Crossover Schematic Diagram



NOTES:
 1) ALL RESISTOR VALUES ARE IN OHMS UNLESS NOTED
 2) RX, LX: JUMPERS

Power Amplifier Schematic Diagram



Power Supply Schematic Diagram

