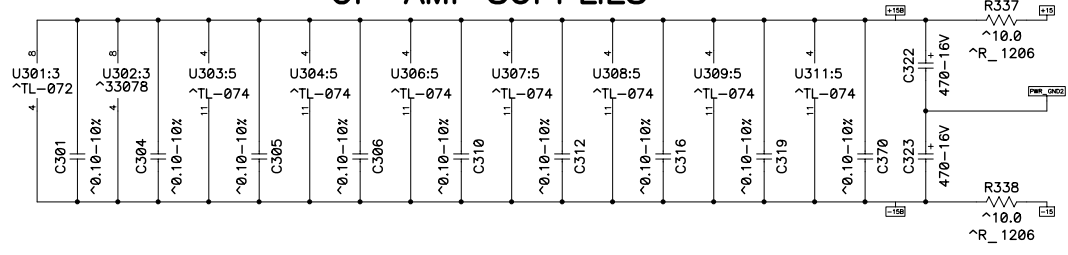
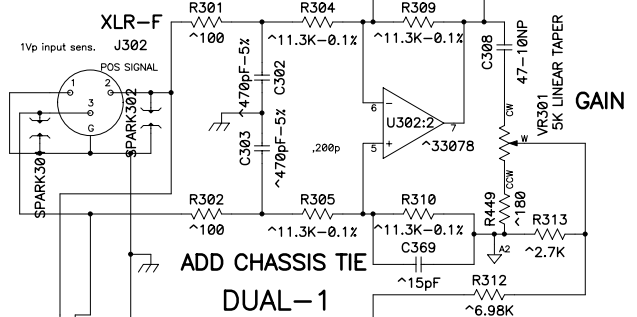


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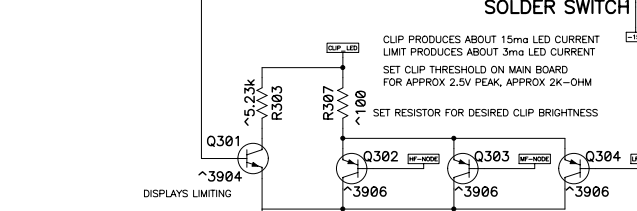
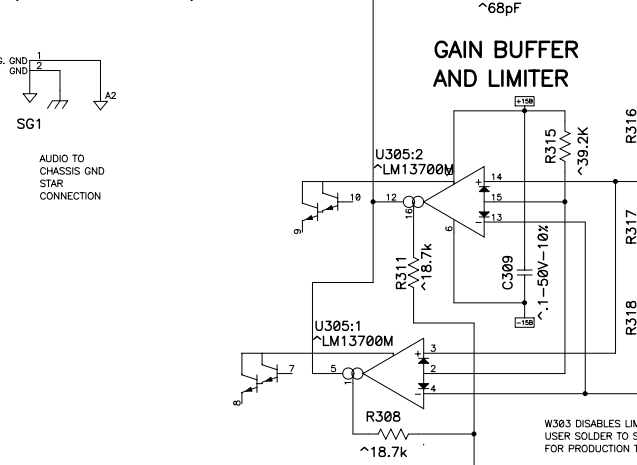
### OP-AMP SUPPLIES



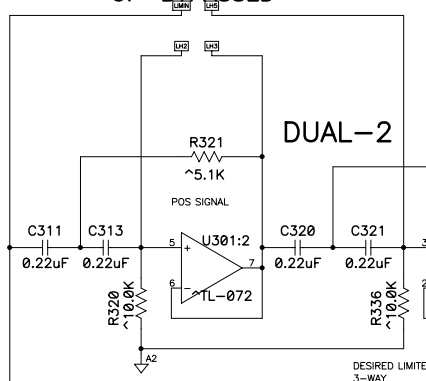
HIGH PERFORMANCE BALANCED INPUT  
0.775V (+0dBu, 1Vp) FOR  
FULL POWER OUTPUT AT 12 O'CLOCK  
0.1% LINE INPUT  
XLR-FEM



LINE OUTPUT  
XLR-MALE  
(USE VERT TYPE)

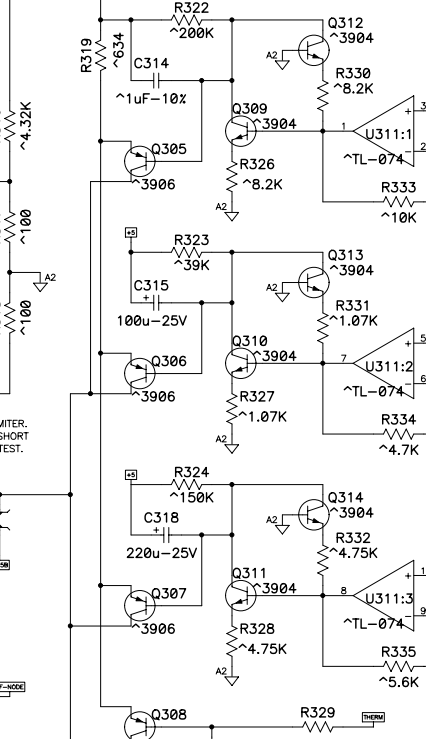


### SWITCHABLE 4TH ORDER HP-100Hz UP=BYPASSED

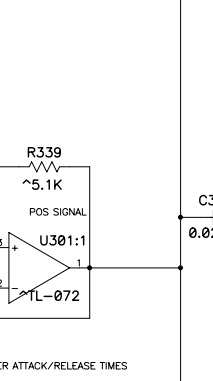


DESIRED LIMITER ATTACK/RELEASE TIMES  
3-WAY  
\*LF ATTACK - 2.76S, RELEASE - 4.76S  
\*MF ATTACK - 232ms, RELEASE - 521ms  
\*HF ATTACK - 22ms, RELEASE - 32ms  
2-WAY  
\*LF ATTACK - 3S, RELEASE - 4.7S  
\*HF ATTACK - 21ms, RELEASE 32ms  
1% SUB  
\*ATTACK - 300ms, RELEASE - 475ms  
1% SUB  
\*ATTACK - 300ms, RELEASE - 560ms

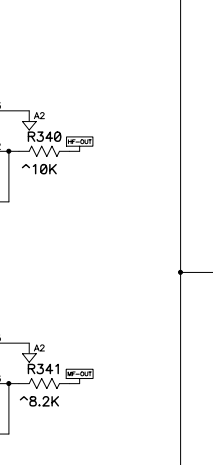
### LIMITER CONTROL PROCESSING



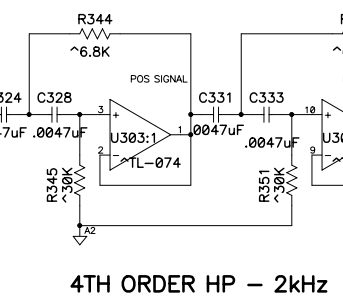
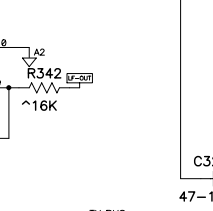
### 4TH ORDER HP-600Hz



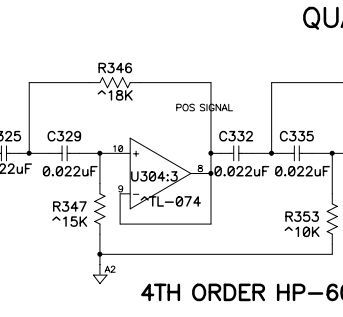
### 4TH ORDER HP-40Hz



### TO FRONT MOUNTED LED (SWITCHABLE)

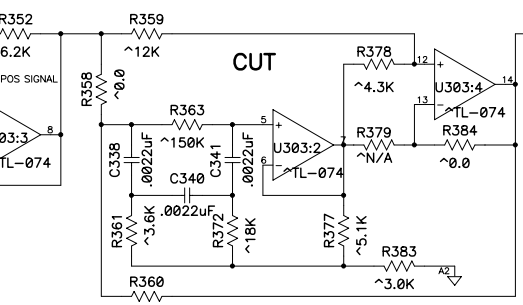
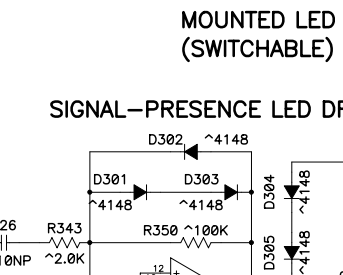
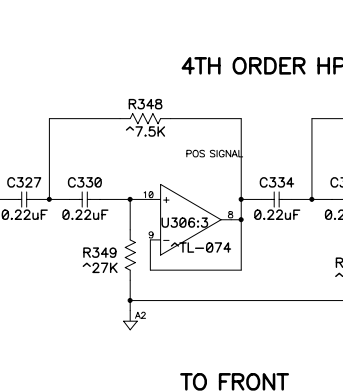


### 4TH ORDER HP - 2kHz

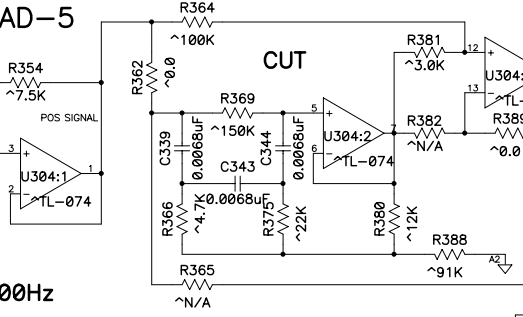


### MID FREQ PROCESSING

### LOW FREQ PROCESSING

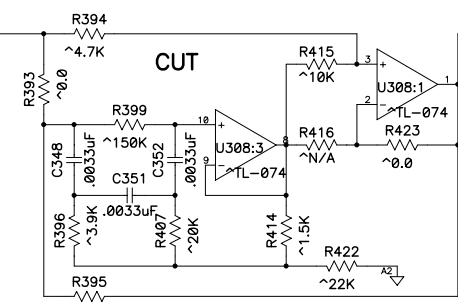
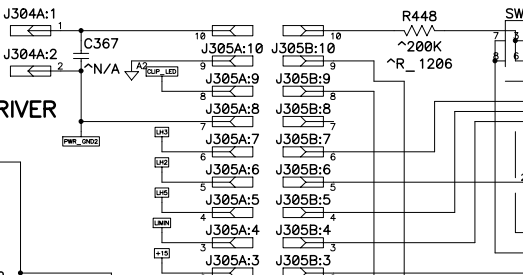
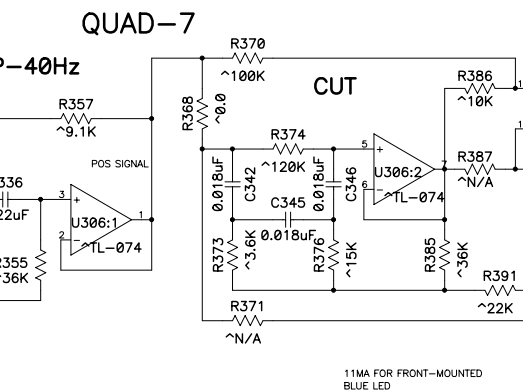


### HIGH FREQ PROCESSING

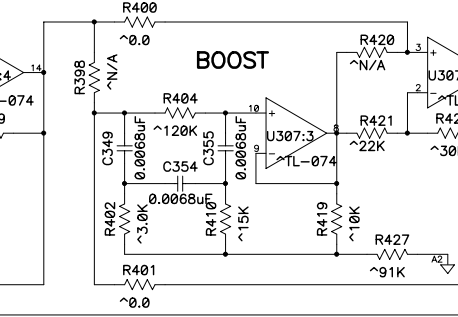
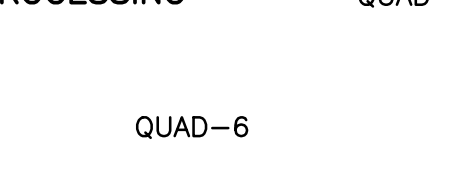


### LOW FREQ PROCESSING

### 4TH ORDER LP - 2kHz

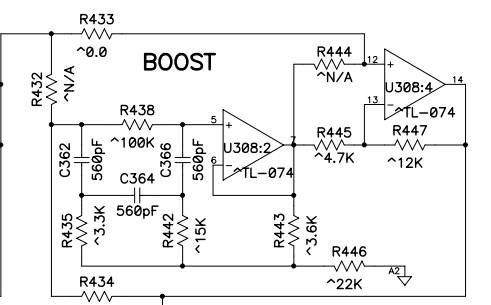
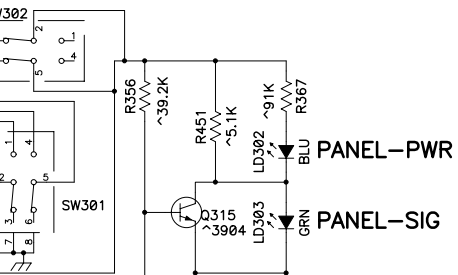
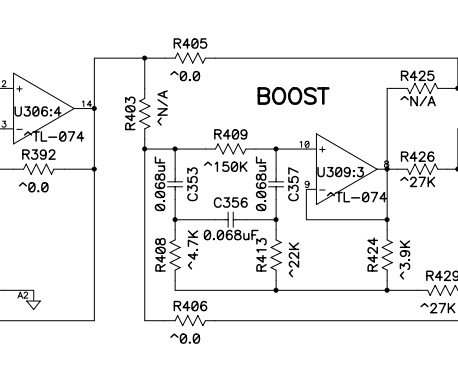


### HIGH FREQ PROCESSING

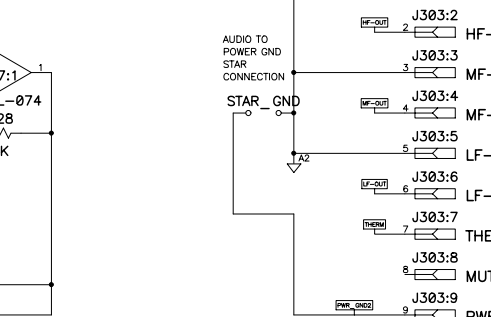
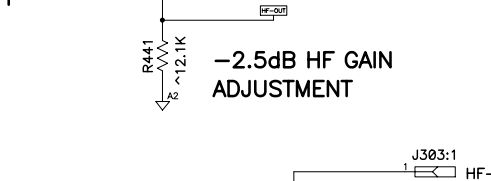


### LOW FREQ PROCESSING

### 4TH ORDER LP - 600Hz

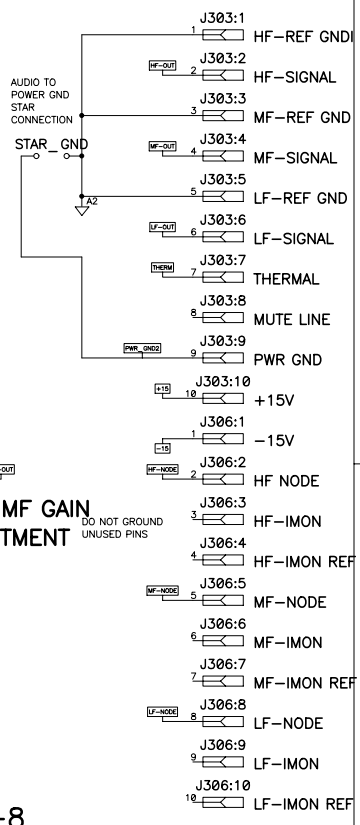
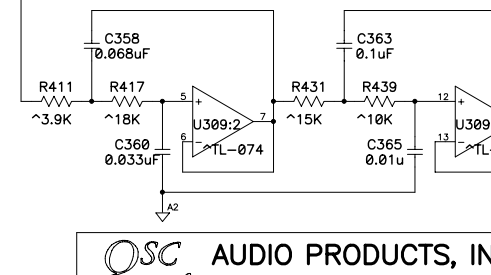
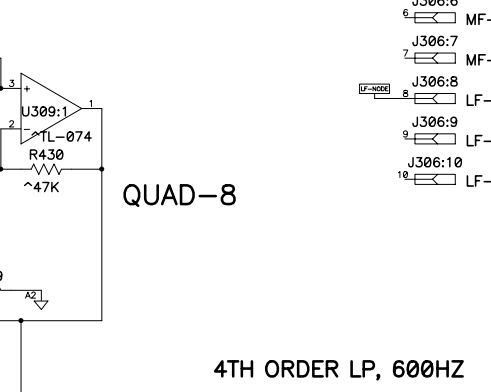


### BOOST



### LOW FREQ PROCESSING

### 4TH ORDER LP - 600Hz



QSC AUDIO PRODUCTS, INC.  
COSTA MESA, CALIFORNIA

## HPR153F INPUT BOARD

SIZE	FSCM NO.	DWG NO.	REV
D		SH-000937-00	13
SCALE	CAD FILE NO.	SHEET	1

DO NOT RENUMBER !! STARTS 301

SH-000937-00 DWG NO. 13 REV 1 5/11

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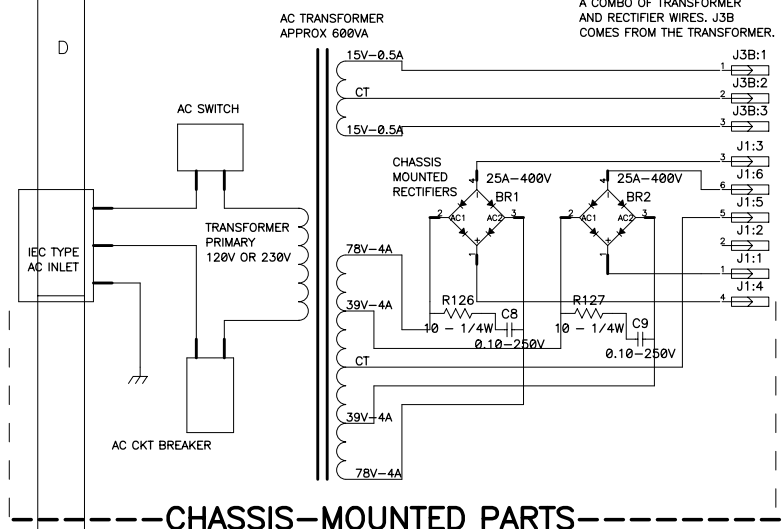
J1 AND J3B ARE CONNECTORS ON LEADS THAT MATE WITH J2 AND J3, RESPECTIVELY. J1 IS A COMBO OF TRANSFORMER AND RECTIFIER WIRES. J3B COMES FROM THE TRANSFORMER.

6-PIN MATE-N-LOK 2 X 3 PATTERN HAND-SOLDERED TO SOLDER-SIDE OF POWER PCB

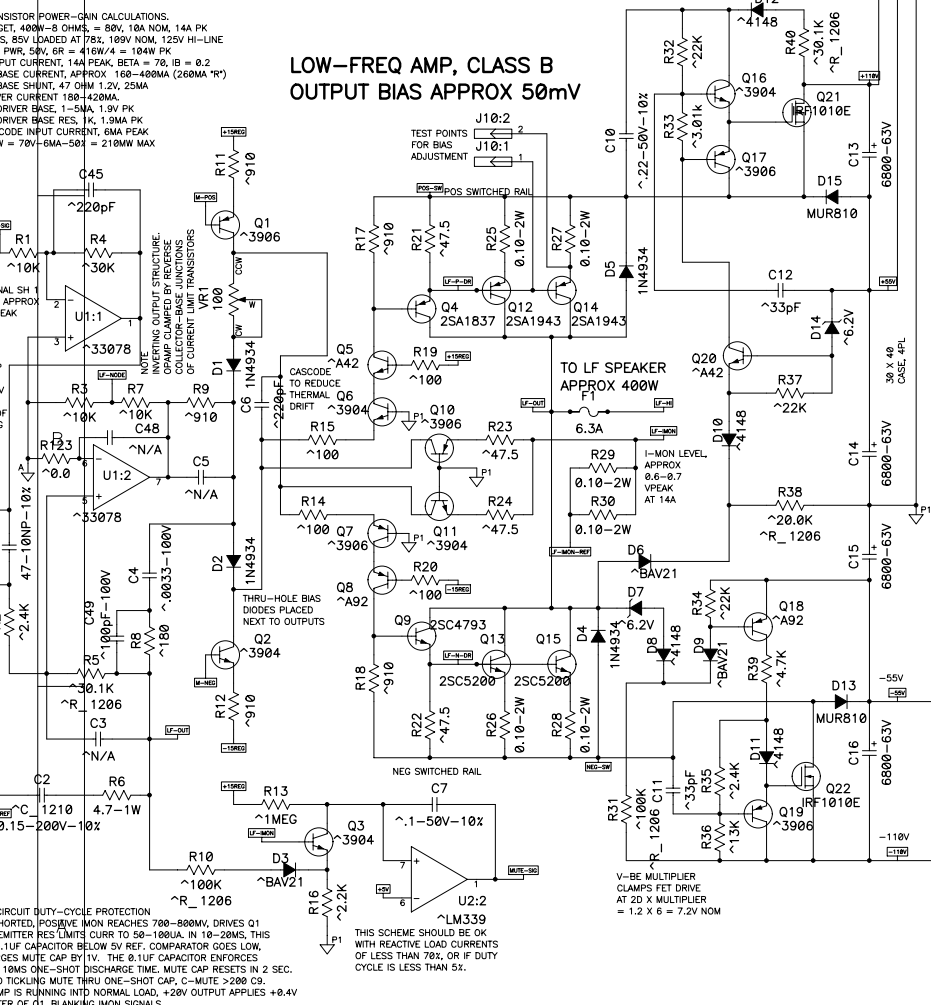
RAIL CURRENT REQUIREMENTS:  
18.1I-872 GRAMP SECTIONS AT 2MA = 28MA  
5532 AT 10MA, PLUS DRIVE CURRENTS 18MA  
=40MA OR SO, AT APPROX 20V = 0.8W PER REGULATOR

REV10, 2005-08-19  
PILOT REVISION  
\*R48 ~6.49K, WAS ~7.5K  
\*R124, R125 ~0.0, WAS ~33  
CHANGE BIAS ADJUST NOTES  
MOVED THERMAL LIMIT AND BIAS ADJUSTMENT TO COMPENSATE FOR THE RELOCATION OF U4

REV9, 2005-JULY-18  
\*ADD AUXILIARY SNUBBER FOR EMC  
ADD C50 0805 ~0.1uF  
ADD R128 ~10 SERIES W/ C50  
\*UPDATED AUXILIARY RECTIFIERS W/ SMT  
D16, D17, D18, D19, D36, D37



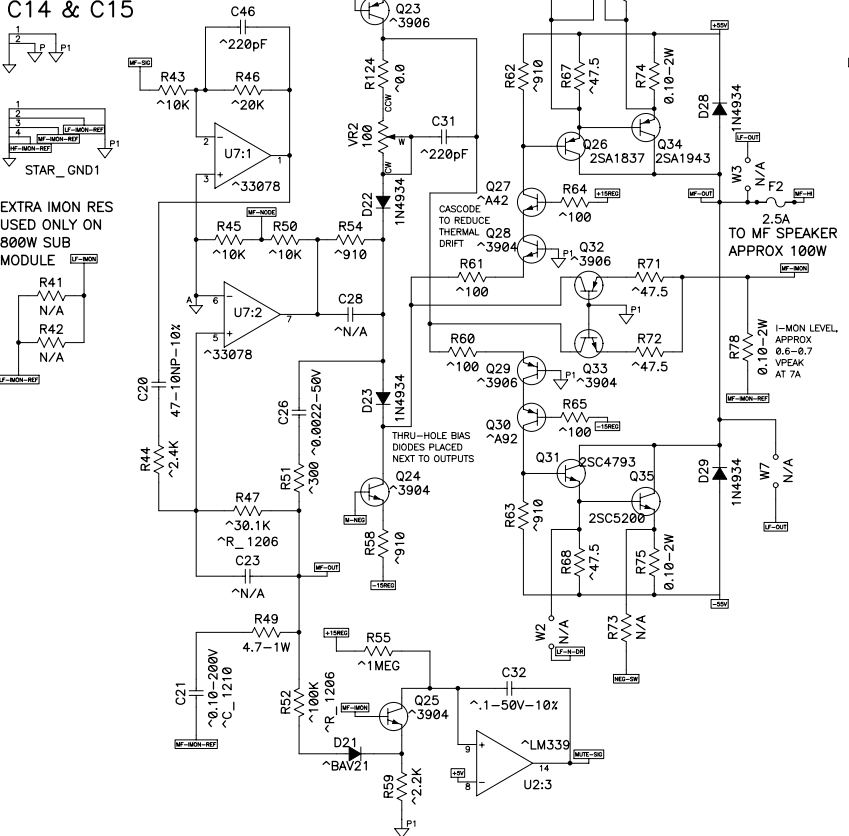
LOW-FREQ AMP, CLASS B  
OUTPUT BIAS APPROX 50mV



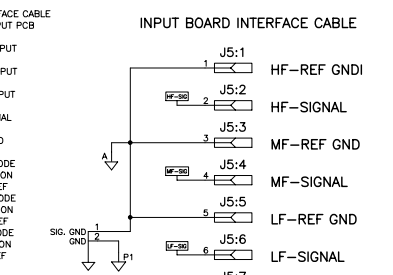
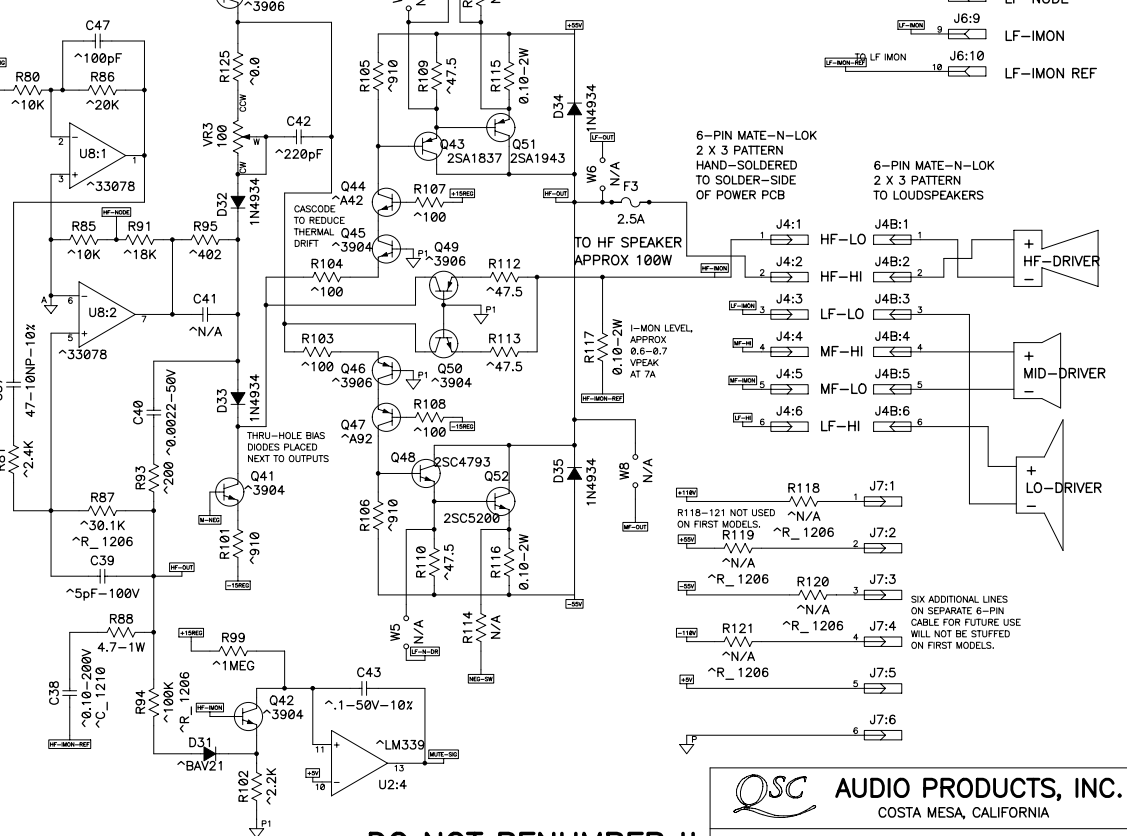
OUTPUT FUSE SCHEDULE  
SUB,  
400W MAX-4 OHM = 10A  
FAULT CURRENT = 20A  
2-WAY AND 3-WAY  
200W MAX, LF, BR = 5A,  
FAULT CURRENT = 10A  
50W MAX, MF-HF BR = 2.5A  
FAULT CURRENT = 5A

MID-FREQ AMP,  
CLASS AB  
OUTPUT BIAS APPROX 100mV

STAR GROUND SHOULD BE AT POWER SUPPLY CENTER, BTWN C14 & C15



HI-FREQ AMP,  
CLASS AB  
OUTPUT BIAS APPROX 100mV



CAPACITORS, ~VALUE INDICATES SURFACE MOUNT, 0805 UNLESS SHOWN  
DIODES AND TRANSISTORS, ~VALUE INDICATES SMT, SOT-23 PACKAGE  
IC'S, ~VALUE INDICATES SMT, MINI-DIP PACKAGE  
RESISTORS, ~VALUE INDICATES SURFACE MOUNT, 0805 UNLESS NOTIFIED  
RESISTORS, ~VALUE INDICATES THRU-HOLE, WATTAGE AS MARKED, DIA LESS THAN 0.18 INCHES

FOR 800W SUBWOOFER MODEL  
IN MF-AMP SECTION,  
INSTALL ONLY W1, W2, W3, W7, R69, R72, Q34, Q35  
FOR 3-WAY USE, OMIT W3, W2, W3, W7, R69, R72

FOR 800W SUBWOOFER MODEL  
IN HF AMP SECTION,  
INSTALL ONLY W4, W5, W6, W8, R110, R113, Q51, Q52  
FOR 3-WAY USE, OMIT W4, W5, W6, W8, R110, R113.

DO NOT RENUMBER !! HPR153F 3-CH AMPLIFIER

QSC AUDIO PRODUCTS, INC.  
COSTA MESA, CALIFORNIA

10 1 SH-000941-00

Part Number	Description	Qty	Ref Des
CA-005001-GP	5P, +0.25P, 100V, CTC, 0805, 0/30	1	C39
CA-015005-GP	15PF, 5 PCNT, 50V, CERAMIC, 0805,	2	C368, C369
CA-033003-GP	33PF, 5%, 50V, CC, 0805, 1.2X	2	C11, C12
CA-068003-GP	68PF, 5%, , CTC, 0805, 0/30	1	C307
CA-110005-GP	CC 50V 100PF 5% 0805 1.2	1	C47
CA-110007-GP	100P, 5%, 100V, CTC, 0805, 0/30	1	C49
CA-122005-GP	CC 50V 220PF 5% 0805	5	C31, C42, C45, C46, C6
CA-147006-GP	470PF 5% 50V CER NPO	2	C302, C303
CA-156002-GP	560P, 5%, 50V, CM, , RLT P5.0	3	C362, C364, C366
CA-222014-GP	2200P, 5%, 63V, CM, , RBT	3	C338, C340, C341
CA-222015-GP	2200P, 5%, 50V, CTC, 0805, 0/30	2	C26, C40
CA-233009-GP	3300P, 5%, 100V, CTC, 1206, 0/30	1	C4
CA-233010-GP	3300P, 5%, 63V, CM, , RBT, 7.5X	3	C348, C351, C352
CA-247005-GP	.0047UF, 5 PCNT, 50V, FILM, DIPPED,	4	C324, C328, C331, C333
CA-268002-GP	6800P, 5%, 63V, CM, , RBT	7	C339, C343, C344, C349, C354, C355, C361
CA-310010-GP	0.01U, 5%, 63V, CM, , RBT 7.5X	2	C350, C365
CA-318002-GP	0.018U, 5%, 63V, CM, , RBT	3	C342, C345, C346
CA-322011-GP	0.022U, 5%, 63V, CM, , RBT	6	C325, C329, C332, C335, C347, C359
CA-333001-GP	0.033UF, 5%, 63V, CM, , RB, 7.5	1	C360
CA-368006-GP	.068UF, 5 PCNT, 50V, FILM, ,	4	C353, C356, C357, C358
CA-410014-GP	0.1UF 10% 50V CER X7R 0805	21	C17, C22, C27, C29, C301, C304, C305, C306, C309, C310, C312, C316, C317, C319, C32, C33, C34, C370, C43, C50, C7
CA-410018-GP	CM 250V .1UF 5% RL	2	C8, C9
CA-410023-GP	0.1UF, 5%, 63V, CM, , RBT, 7.5X6	1	C363
CA-410024-GP	CC 200V 0.1U 5% 1210	2	C21, C38
CA-415006-GP	.15UF, 5 PCNT, 200V, CC, 1210,	1	C2
CA-422010-GP	0.22U, 10%, 50V, CC, 0805,	2	C10, C30
CA-422011-GP	0.22U, 5%, 63V, CM, , RBT, 7.5X	8	C311, C313, C320, C321, C327, C330, C334, C336
CA-510016-GP	1U, 10%, 25V, CC, 0805,	1	C314
CA-510017-GP	1UF, 20 PCNT, 50V, CC, SMT, 1210	2	C24, C25
CA-610009-GP	CE 35V 10UF 20% RL 5 X 11	1	C35
CA-622010-GP	22UF, 20%, 35V, CE, , RLT, 5x11	1	C36
CA-647006-GP	CE 16NP 47UF 20% RL	6	C1, C20, C308, C326, C337, C37
CA-710014-GP	100U, 20%, 25V, CE, , RLT, 6X11	1	C315
CA-722007-GP	220UF, 20 PCNT, 25V, CE, RL,	1	C318
CA-747009-GP	470UF, 20%, 16V, CE, , RLT	2	C322, C323
CA-810007-GP	1000UF, 20%, 25V, CE, , RLT	2	C18, C19
CA-868002-GP	6800UF, 20 PCNT, 63V, CE, RL,	4	C13, C14, C15, C16
CH-000173-GP	COVER, XFMR, STEEL, LARGE	1	
CH-000423-GP	PANEL-INPUT, BLACK 153, , HPR,	1	
CH-000425-GP	PANEL-LEFT (AC), BLACK, , HPR,	1	
CH-000489-GP	PLATE-SPRING STEEL, , , ,	5	
CH-000490-GP	HEATSINK, 381X189.2X38.1, , HPR,	1	
CO-000058-GP	XLR, CONNECTOR, 3PM, , ,	1	J301
CO-000204-GP	CONN XLR F VERT PLASTIC	1	J302
CO-000211-GP	AC INLET 250V 15A	1	
CO-000213-GP	CONN 2 PIN STRAIGHT WAFER	1	J304A
CO-000214-GP	CONN 3 PIN STRAIGHT WAFER	1	J3
CO-000281-GP	HDR 6.3MM CNTR 6P(2X3)MALE	2	J2, J4
CO-000349-GP	WIRE HOLDER, RIBBON CABLE, 10 POS, FEMALE,	3	J303, J305B, J306
CO-000350-GP	WIRE TRAP, RIBBON CABLE, 10 POS, FEMALE, RELEASEABLE	3	J305A, J5, J6
HW-000075-GP	FUSE HOLDER, , , , ,	3	F1, F2, F3
HW-000102-GP	BRASS POST, D6X10, , , ,	3	
HW-000103-GP	BRASS POST, D6X8, , , ,	4	
IC-000075-GP	IC VOLTAGE REG, +5, LM78L05, SMT,	1	U310
IC-000076-GP	IC LM339, SMD COMPARATORS, , ,	1	U2
IC-000077-GP	IC LM13700M, , , SMT,	1	U305
IC-000078-GP	IC LM19, THERMAL SENSOR, , TO-92,	1	U4
IC-000079-GP	IC MC33078, OP-AMP, , SMT,	4	U1, U302, U7, U8
IC-000377-GP	IC 7805, REGULATOR, 5V, , ,	1	U3
IC-000378-GP	IC LM7915CT, REGULATOR, -15V, ,	1	U6
IC-000379-GP	IC LM7815CT, REGULATOR, 15V, ,	1	U5
IC-000380-GP	IC TL072, OPAMP, DUAL, SO-8,	1	U301
IC-000381-GP	IC TL074CD-SO14, OPAMP, QUAD, SO-14,	7	U303, U304, U306, U307, U308, U309, U311
LB-000530-GP	PC INLAY, WARNING LABEL, , ,	1	
MS-000070-GP	2.5A, FAST ACT 5X20, , , ,	2	F2, F3
MS-000073-GP	FUSE, FAST, ACTING 5A, SMT, 1206,	2	F4, F5
MS-000292-GP	FUSE, 6.3A, 5 X 20MM, FAST,	1	F1
NW-000002-GP	SPRING WASHER, 3M, , , , , , , ,	4	
NW-000069-GP	SPRING WASHER, M4X1X7, BZ, ,	2	
NW-000070-GP	M3, NUT, , , , ,	7	
NW-000071-GP	M4, NUT, , BLACK, ,	2	
NW-000072-GP	NUT, HEX, M4, ,	1	
NW-000073-GP	FLAT WASHER, M4X0.8X9.7, , , ,	4	
NW-040002-GP	SPRING WASHER M4 X 7	1	
NW-040003-GP	I/T WASHER M4X0.4X8, YZ	1	
PC-001534-00	PCB MAIN, HPR, ,	1	
PC-001535-00	PCB, INPUT, HPR, , FULL RANGE	1	
PL-000066-GP	EVA GASKET, 5X500, , , ,	3	
PL-000152-GP	CABLE TIE, ISA	4	
PL-000327-GP	PAD, XFMR, EPDM 40A, 1/8" THK, BLACK,	2	
PL-000391-GP	KNOB, GAIN, HPR SERIES, , ,	1	
PL-000454-GP	INSULATION SHEET IC, , , SILPAD 800, ,	5	
PL-000455-GP	LED HOLDER, LED3-11, , , , ,	3	LD301-1, LD302-1, LD303-1
PL-000456-GP	SPRINGSEAT, TRANSISTOR, HPR, NYLON, ,	5	
PL-000457-GP	SPACER, L=4.0, ELM 3, , , ,	1	U4
PL-000458-GP	SPONGE CUSHION, , , , , ,	2	
PT-110002-GP	TRIM, 100, 20 PCNT, 0.15W, , , ,	3	VR1, VR2, VR3
PT-250003-GP	VR 5K, XVB12111NPNV25F, , , , ,	1	VR301
QD-000201-GP	DIODE LL4148 SM	15	D10, D11, D12, D20, D24, D25, D27, D30, D301, D302, D303, D304, D305, D38, D8
QD-000204-GP	XISTOR NPN 60V 200MA 3904 SOT-23	23	Q11, Q16, Q2, Q24, Q25, Q28, Q3, Q301, Q309, Q310, Q311, Q312, Q313, Q314, Q315, Q33, Q37, Q38, Q41, Q42, Q45, Q50, Q6

Part Number	Description	Qty	Ref Des
QD-000205-GP	XISTOR PNP 40V 0.2A TR3906 SOT-23	20	Q1, Q10, Q17, Q19, Q23, Q29, Q302, Q303, Q304, Q305, Q306, Q307, Q308, Q32, Q36, Q39, Q40, Q46, Q49, Q7
QD-000206-GP	DIOD RECT FAST, IN4934 AT	12	D1, D2, D22, D23, D28, D29, D32, D33, D34, D35, D4, D5
QD-000208-GP	XISTOR PNP 230V 15A 2SA1943	4	Q12, Q14, Q34, Q51
QD-000209-GP	XISTOR NPN 230V 15A 2SC5200	4	Q13, Q15, Q35, Q52
QD-000227-GP	BRIDGE RECT 400V 25A	2	BR1, BR2
QD-000260-GP	MOSFET, N-CH, 60V, 52A, 52N06V	2	Q21, Q22
QD-000300-GP	LED SC, 2.9 X 5.4 XL 0.5 BL, , , , ,	1	LD302
QD-000301-GP	LED, 3MM, GREEN SP, , , ,	1	LD303
QD-000302-GP	LED SP, 2.9 X 5.4 XL 0.5 RED, , , , ,	1	LD301
QD-000303-GP	DIODE, BAV21WS 250V, , , , ,	5	D21, D3, D31, D6, D9
QD-000304-GP	DIODE, MUR810 RL 8A, , , , ,	2	D13, D15
QD-000305-GP	DZ 1/2W, 6.2VB RLZ6.2B, , , , SMT,	2	D14, D7
QD-000306-GP	DZ 1/2W, 7.5VB RLZ7.5B LL, , , , SMT,	1	D26
QD-000307-GP	SMD DIODE, ISR154-400, , , , ,	6	D16, D17, D18, D19, D36, D37
QD-000308-GP	TR MMBA42 NPN SMD, , , , , SOT-23,	4	Q20, Q27, Q44, Q5
QD-000309-GP	TR 2SA1837, 100-320 RL, , , , ,	3	Q26, Q4, Q43
QD-000310-GP	TR 2SC4793, 100-320-RL, , , , ,	3	Q31, Q48, Q9
QD-000311-GP	TR MMBA92 SOT 23 KEC, , , , ,	4	Q18, Q30, Q47, Q8
RE-01002-GP	0.1R, 5 PCNT, 2W, RMF, ATS METAL,	12	R115, R116, R117, R25, R26, R27, R28, R29, R30, R74, R75, R78
RE-47006-GP	RMF, 1W, 4R7, 5%, AT,	3	R49, R6, R88
RE-000003-GP	RMG 1/10W 0 OHM 5% 0805	17	R103, R124, R125, R358, R362, R368, R384, R389, R392, R393, R400, R401, R405, R406, R423, R433, R434
RE-001009-GP	10 1% 1/8W THK FLM 1206	2	R337, R338
RE-001012-GP	10OHM, 1/4W, 1%, AT, RMF,	2	R126, R127
RE-001013-GP	10, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R128
RE-004753-GP	RMG 1/10W 47.5 OHM 1% 0805	13	R109, R110, R111, R112, R113, R21, R22, R23, R24, R67, R68, R71, R72
RE-010011-GP	100 1% 1/10W THK FLM 0805 100V	17	R103, R104, R107, R108, R14, R15, R19, R20, R301, R302, R307, R317, R318, R60, R61, R64, R65
RE-018001-GP	180R, 1 PCNT, 1/10W, RMG, 0805,	2	R449, R8
RE-020003-GP	200 1% 1/10W THK FLM 0805 100V	1	R93
RE-030006-GP	300 OHM, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R51
RE-040200-GP	402R, 1 PCNT, 1/10W, RMG, 0805,	2	R436, R95
RE-047012-GP	470, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R77
RE-063405-GP	634 OHMS 1% 1/10W 0805	1	R319
RE-091002-GP	910R, 1 PCNT, 1/10W, RMG, 0805,	14	R100, R101, R105, R106, R11, R12, R17, R18, R54, R57, R58, R62, R63, R9
RE-110702-GP	1.07K, 1 PCNT, 1/10W, RMG, 0805,	2	R327, R331
RE-115008-GP	1.5K, 1 PCNT, 1/10W, THK FLM, 0805, 100V	2	R414, R440
RE-120004-GP	RMG 1/10W 2K 1% 0805	1	R343
RE-122010-GP	2.2K 1% 1/10W THK FM 0805 100V	3	R102, R16, R59
RE-124001-GP	2.4K, 1 PCNT, 1/10W, RMG, 0805,	4	R2, R35, R44, R81
RE-127001-GP	2.7K, 1 PCNT, 1/10W, RMG, 0805,	1	R313
RE-130006-GP	3K, 1 PCNT, 1/10W, THICK FILM, 0805,	3	R381, R383, R402
RE-130103-GP	RMG 1/10W 3.01K 1% 0805	1	R33
RE-133008-GP	3.3K, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R435
RE-136003-GP	3.6K, 1 PCNT, 1/10W, RMG, 0805,	3	R361, R373, R443
RE-139006-GP	3.9K, 1 PCNT, 1/10W, THICK FILM, 0805,	3	R396, R411, R424
RE-143001-GP	4.3K, 1 PCNT, 1/10W, RMG, 0805,	1	R378
RE-143202-GP	4.32K, 1 PCNT, 1/10W, RMG, 0805,	1	R316
RE-147002-GP	4.7K 1% 1/10W THK FLM 0805	11	R334, R366, R39, R394, R408, R412, R445, R56, R66, R79, R97
RE-147506-GP	4.75K, 1 PCNT, 1/10W, THICK FILM, 0805,	2	R328, R332
RE-151006-GP	5.1K, 1 PCNT, 1/10W, THICK FILM, 0805,	4	R321, R339, R377, R451
RE-152302-GP	5.23K, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R303
RE-156004-GP	5.6K, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R335
RE-159003-GP	5.9K 1% 1/10W THK FLM 0805	2	R96, R98
RE-162001-GP	6.2K, 1 PCNT, 1/10W, RMG, 0805,	1	R352
RE-164901-GP	6.49K, 1 PCNT, 1/10W, RMG, 0805,	1	R48
RE-168007-GP	6.8K, 1 PCNT, 1/10W, RMG, 0805,	1	R344
RE-169802-GP	6.98K, 1 PCNT, 1/10W, THK FLM, 0805, 100V	1	R312
RE-175004-GP	7.5K 1% 1/10W THK FM 0805 100V	4	R348, R354, R390, R397
RE-182007-GP	8.2K, 1 PCNT, 1/10W, THICK FILM, 0805,	4	R326, R330, R341, R418
RE-191001-GP	9.1K, 1 PCNT, 1/10W, RMG, 0805,	1	R357
RE-210007-GP	10K 1% 1/10W THK FLM 0805	20	R1, R122, R3, R320, R329, R333, R336, R340, R353, R386, R415, R419, R43, R437, R439, R45, R50, R7, R80, R85
RE-211305-GP	11.3K .1% 1/10W RMG 0805	4	R304, R305, R309, R310
RE-212003-GP	12K 1% 1/10W THK FLM 0805 100V	3	R359, R380, R447
RE-212004-GP	12K, 1 PCNT, 1/8W, THICK FILM, 1206,	1	R448
RE-212105-GP	12.1K, 1 PCNT, 1/10W, RMG, 0805,	1	R441
RE-213005-GP	13K, 1 PCNT, 1/10W, RMG, 0805,	3	R36, R89, R90
RE-215003-GP	15K, 1 PCNT, 1/10W, RMG, 0805,	5	R347, R376, R410, R431, R442
RE-216001-GP	16K, 1 PCNT, 1/10W, RMG, 0805,	1	R342
RE-218006-GP	18K, 1 PCNT, 1/10W, THICK FILM, 0805,	4	R346, R372, R417, R91
RE-218702-GP	18.7K, 1 PCNT, 1/10W, THICK FILM, 0805,	2	R308, R311
RE-220005-GP	RMG 1/10W 20K 1% 0805	3	R407, R46, R86
RE-220006-GP	20K, 1 PCNT, 1/10W, THICK FILM, 1206,	1	R38
RE-222001-GP	22K 1% 1/10W 0805	9	R32, R34, R37, R375, R391, R413, R421, R422, R446
RE-227001-GP	27K 1% 1/10W 0805	3	R349, R426, R429
RE-230006-GP	30K, 1 PCNT, 1/10W, THICK FILM, 0805,	4	R345, R351, R4, R428
RE-230104-GP	30.1K 1% 1/8W RMG 1206	4	R40, R47, R5, R87
RE-230105-GP	30.1K, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R53
RE-236001-GP	36K, 1 PCNT, 1/10W, RMG, 0805,	2	R355, R385
RE-239003-GP	39K, 1 PCNT, 1/10W, MET FLM, 0805, 100V	1	R323
RE-239204-GP	39.2K, 1 PCNT, 1/10W, THICK FILM, 0805,	3	R315, R325, R356
RE-247006-GP	47K 1% 1/10W THK FLM 0805 100V	3	R430, R69, R76
RE-275005-GP	75K, 1 PCNT, 1/10W, RMG, ,	1	R314
RE-291001-GP	91K, 1 PCNT, 1/10W, RMG, 0805,	3	R367, R388, R427
RE-310007-GP	100K 1% 1/10W THK FLM 0805	5	R306, R350, R364, R370, R438
RE-310008-GP	100K 1% 1/8W THK FLM 1206	6	R10, R31, R52, R83, R92, R94
RE-312006-GP	120K 1% 1/10W RMG 0805	2	R374, R404
RE-315006-GP	150K, 1 PCNT, 1/10W, THICK FILM, 0805,	5	R324, R363, R369, R399, R409
RE-320006-GP	200K, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R322
RE-349901-GP	499K 1% 1/8W THICK FILM 1206	1	R82
RE-410003-GP	1M 1% 1/10W RMG 0805	4	R13, R55, R84, R99
SC-000079-GP	SCREW, MACH, M4X19, , , BLACK, ZN	2	

Part Number	Description	Qty	Ref Des
SC-000080-GP	METAL SCREW, M4*14, TTP/B, , ,	16	
SC-000081-GP	T3X8MM, SELF TAPPING, , , ,	2	
SC-000082-GP	SCREW, BIND, HEAD, M3.2 X 8, , B-TITE,	6	
SC-000083-GP	SCREW, BIND, HEAD, M3.5 X 16, , B-TITE,	10	
SC-000084-GP	SCREW, BIND, SERRATED HEAD, M4X25, B-TITE,	4	
SC-000085-GP	SELF SCREW, 3X8, WITH, SERRATED HEAD, , ,	2	
SC-000086-GP	SCREW, M8X101.5, BZ, , , ,	1	
SC-030002-GP	M3 B-TITE FLAT-CS	2	
SC-030004-GP	M3 X 8 BLK MACHINE	6	
SC-030008-GP	SCREW M3X6 BLK TAP	4	
SW-000088-GP	ROCKER POWER SWITCH	1	
SW-000093-GP	CIRCUIT BREAKER, 5 AMP, ,	1	
SW-000119-GP	CIRCUIT BREAKER, 3A, 230V, HPR,	1	
SW-000122-GP	SWITCH, 1P2T, ,	1	SW302
SW-000123-GP	SWITCH, 2P2T, ,	1	SW301
WC-000188-GP	SLEEVE, PVC, 5MM ID, BLK	0	
WC-000410-GP	UL1672, AWG#18, BROWN, , , , ,	0	
WC-000411-GP	UL1672, AWG#18, BLUE, , , , ,	0	
WC-000412-GP	GRND WIRE, UL1015 #14, , , , ,	1	
WC-000413-GP	WIRE-FLAT, 10P P1.5 #26, , , , ,	3	J303, J305B, J306
WC-000423-GP	SHRINKAGE TUBE, ID=6MM, UL, , , , ,	0	
XF-000293-GP	POWER TRANSFORMER, 120V, , , , HPR SERIES, ,	1	

Part Number	Description	Qty	Ref Des
CA-005001-GP	5P, +0.25P, 100V, CTC, 0805, 0/30	1	C39
CA-015005-GP	15PF, 5 PCNT, 50V, CERAMIC, 0805,	2	C368, C369
CA-033003-GP	33PF, 5%, 50V, CC, 0805, 1.2X	2	C11, C12
CA-068003-GP	68PF, 5%, , CTC, 0805, 0/30	1	C307
CA-110005-GP	CC 50V 100PF 5% 0805 1.2	1	C47
CA-110007-GP	100P, 5%, 100V, CTC, 0805, 0/30	1	C49
CA-122005-GP	CC 50V 220PF 5% 0805	5	C31, C42, C45, C46, C6
CA-147006-GP	470PF 5% 50V CER NPO	2	C302, C303
CA-156002-GP	560P, 5%, 50V, CM, , RLT P5.0	3	C362, C364, C366
CA-222014-GP	2200P, 5%, 63V, CM, , RBT	3	C338, C340, C341
CA-222015-GP	2200P, 5%, 50V, CTC, 0805, 0/30	2	C26, C40
CA-233009-GP	3300P, 5%, 100V, CTC, 1206, 0/30	1	C4
CA-233010-GP	3300P, 5%, 63V, CM, , RBT, 7.5X	3	C348, C351, C352
CA-247005-GP	.0047UF, 5 PCNT, 50V, FILM, DIPPED,	4	C324, C328, C331, C333
CA-268002-GP	6800P, 5%, 63V, CM, , RBT	7	C339, C343, C344, C349, C354, C355, C361
CA-310010-GP	0.01U, 5%, 63V, CM, , RBT 7.5X	2	C350, C365
CA-318002-GP	0.018U, 5%, 63V, CM, , RBT	3	C342, C345, C346
CA-322011-GP	0.022U, 5%, 63V, CM, , RBT	6	C325, C329, C332, C335, C347, C359
CA-333001-GP	0.033UF, 5%, 63V, CM, , RB, 7.5	1	C360
CA-368006-GP	.068UF, 5 PCNT, 50V, FILM, ,	4	C353, C356, C357, C358
CA-410014-GP	0.1UF 10% 50V CER X7R 0805	21	C17, C22, C27, C29, C301, C304, C305, C306, C309, C310, C312, C316, C317, C319, C32, C33, C34, C370, C43, C50, C7
CA-410018-GP	CM 250V .1UF 5% RL	2	C8, C9
CA-410023-GP	0.1UF, 5%, 63V, CM, , RBT, 7.5X6	1	C363
CA-410024-GP	CC 200V 0.1U 5% 1210	2	C21, C38
CA-415006-GP	.15UF, 5 PCNT, 200V, CC, 1210,	1	C2
CA-422010-GP	0.22U, 10%, 50V, CC, 0805,	2	C10, C30
CA-422011-GP	0.22U, 5%, 63V, CM, , RBT, 7.5X	8	C311, C313, C320, C321, C327, C330, C334, C336
CA-510016-GP	1U, 10%, 25V, CC, 0805,	1	C314
CA-510017-GP	1UF, 20 PCNT, 50V, CC, SMT, 1210	2	C24, C25
CA-610009-GP	CE 35V 10UF 20% RL 5 X 11	1	C35
CA-622010-GP	22UF, 20%, 35V, CE, , RLT, 5x11	1	C36
CA-647006-GP	CE 16NP 47UF 20% RL	6	C1, C20, C308, C326, C337, C37
CA-710014-GP	100U, 20%, 25V, CE, , RLT, 6X11	1	C315
CA-722007-GP	220UF, 20 PCNT, 25V, CE, RL,	1	C318
CA-747009-GP	470UF, 20%, 16V, CE, , RLT	2	C322, C323
CA-810007-GP	1000UF, 20%, 25V, CE, , RLT	2	C18, C19
CA-868002-GP	6800UF, 20 PCNT, 63V, CE, RL,	4	C13, C14, C15, C16
CH-000173-GP	COVER, XFMR, STEEL, LARGE	1	
CH-000423-GP	PANEL-INPUT, BLACK 153, , HPR,	1	
CH-000425-GP	PANEL-LEFT (AC), BLACK, , HPR,	1	
CH-000489-GP	PLATE-SPRING STEEL, , , ,	5	
CH-000490-GP	HEATSINK, 381X189.2X38.1, , HPR,	1	
CO-000058-GP	XLR, CONNECTOR, 3PM, , ,	1	J301
CO-000204-GP	CONN XLR F VERT PLASTIC	1	J302
CO-000211-GP	AC INLET 250V 15A	1	
CO-000213-GP	CONN 2 PIN STRAIGHT WAFER	1	J304A
CO-000214-GP	CONN 3 PIN STRAIGHT WAFER	1	J3
CO-000281-GP	HDR 6.3MM CNTR 6P(2X3)MALE	2	J2, J4
CO-000349-GP	WIRE HOLDER, RIBBON CABLE, 10 POS, FEMALE,	3	J303, J305B, J306
CO-000350-GP	WIRE TRAP, RIBBON CABLE, 10 POS, FEMALE, RELEASEABLE	3	J305A, J5, J6
HW-000075-GP	FUSE HOLDER, , , , ,	3	F1, F2, F3
HW-000102-GP	BRASS POST, D6X8, , , ,	3	
HW-000103-GP	BRASS POST, D6X8, , , ,	4	
IC-000075-GP	IC VOLTAGE REG, +5, LM78L05, SMT,	1	U310
IC-000076-GP	IC LM339, SMD COMPARATORS, , ,	1	U2
IC-000077-GP	IC LM13700M, , , SMT,	1	U305
IC-000078-GP	IC LM19, THERMAL SENSOR, , TO-92,	1	U4
IC-000079-GP	IC MC33078, OP-AMP, , SMT,	4	U1, U302, U7, U8
IC-000377-GP	IC 7805, REGULATOR, 5V, ,	1	U3
IC-000378-GP	IC LM7915CT, REGULATOR, -15V, ,	1	U6
IC-000379-GP	IC LM7815CT, REGULATOR, 15V, ,	1	U5
IC-000380-GP	IC TL072, OPAMP, DUAL, SO-8,	1	U301
IC-000381-GP	IC TL074CD-SO14, OPAMP, QUAD, SO-14,	7	U303, U304, U306, U307, U308, U309, U311
LB-000530-GP	PC INLAY, WARNING LABEL, , ,	1	
MS-000070-GP	2.5A, FAST ACT 5X20, , ,	2	F2, F3
MS-000073-GP	FUSE, FAST, ACTING 5A, SMT, 1206,	2	F4, F5
MS-000292-GP	FUSE, 6.3A, 5 X 20MM, FAST,	1	F1
NW-000002-GP	SPRING WASHER, 3M, , , , , , ,	4	
NW-000069-GP	SPRING WASHER, M4X1X7, BZ, ,	2	
NW-000070-GP	M3, NUT, , , ,	7	
NW-000071-GP	M4, NUT, , BLACK, ,	2	
NW-000072-GP	NUT, HEX, M4, ,	1	
NW-000073-GP	FLAT WASHER, M4X0.8X9.7, , ,	4	
NW-040002-GP	SPRING WASHER M4 X 7	1	
NW-040003-GP	I/T WASHER M4X0.4X8, YZ	1	
PC-001534-00	PCB MAIN, HPR, ,	1	
PC-001535-00	PCB, INPUT, HPR, , FULL RANGE	1	
PL-000066-GP	EVA GASKET, 5X500, , , ,	3	
PL-000152-GP	CABLE TIE, ISA	4	
PL-000327-GP	PAD, XFMR, EPDM 40A, 1/8" THK, BLACK,	2	
PL-000391-GP	KNOB, GAIN, HPR SERIES, , ,	1	
PL-000454-GP	INSULATION SHEET IC, , , SILPAD 800, ,	5	
PL-000455-GP	LED HOLDER, LED3-11, , , , ,	3	LD301-1, LD302-1, LD303-1
PL-000456-GP	SPRINGSEAT, TRANSISTOR, HPR, NYLON, ,	5	
PL-000457-GP	SPACER, L=4.0, ELM 3, , , ,	1	U4
PL-000458-GP	SPONGE CUSHION, , , , , ,	2	
PT-110002-GP	TRIM, 100, 20 PCNT, 0.15W, , ,	3	VR1, VR2, VR3
PT-250003-GP	VR 5K, XVB12111YNPVB25F, , , ,	1	VR301

Part Number	Description	Qty	Ref Des
QD-000201-GP	DIODE LL4148 SM	15	D10, D11, D12, D20, D24, D25, D27, D30, D301, D302, D303, D304, D305, D38, D8
QD-000204-GP	XISTOR NPN 60V 200MA 3904 SOT-23	23	Q11, Q16, Q2, Q24, Q25, Q28, Q3, Q301, Q309, Q310, Q311, Q312, Q313, Q314, Q315, Q33, Q37, Q38, Q41, Q42, Q45, Q50, Q6
QD-000205-GP	XISTOR PNP 40V 0.2A TR3906 SOT-23	20	Q1, Q10, Q17, Q19, Q23, Q29, Q302, Q303, Q304, Q305, Q306, Q307, Q308, Q32, Q36, Q39, Q40, Q46, Q49, Q7
QD-000206-GP	DIOD RECT FAST, IN4934 AT	12	D1, D2, D22, D23, D28, D29, D32, D33, D34, D35, D4, D5
QD-000208-GP	XISTOR PNP 230V 15A 2SA1943	4	Q12, Q14, Q34, Q51
QD-000209-GP	XISTOR NPN 230V 15A 2SC5200	4	Q13, Q15, Q35, Q52
QD-000227-GP	BRIDGE RECT 400V 25A	2	BR1, BR2
QD-000260-GP	MOSFET, N-CH, 60V, 52A, 52N06V	2	Q21, Q22
QD-000300-GP	LED SC, 2.9 X 5.4 XL 0.5 BL, , , , ,	1	LD302
QD-000301-GP	LED, 3MM, GREEN SP, , , ,	1	LD303
QD-000302-GP	LED SP, 2.9 X 5.4 XL 0.5 RED, , , , ,	1	LD301
QD-000303-GP	DIODE, BAV21WS 250V, , , , ,	5	D21, D3, D31, D6, D9
QD-000304-GP	DIODE, MUR810 RL 8A, , , , ,	2	D13, D15
QD-000305-GP	DZ 1/2W, 6.2VB RLZ6.2B, , , , SMT,	2	D14, D7
QD-000306-GP	DZ 1/2W, 7.5VB RLZ7.5B LL, , , , SMT,	1	D26
QD-000307-GP	SMD DIODE, ISR154-400, , , , ,	6	D16, D17, D18, D19, D36, D37
QD-000308-GP	TR MMBTA42 NPN SMD, , , , , SOT-23,	4	Q20, Q27, Q44, Q5
QD-000309-GP	TR 2SA1837, 100-320 RL, , , , ,	3	Q26, Q4, Q43
QD-000310-GP	TR 2SC4793, 100-320-RL, , , , ,	3	Q31, Q48, Q9
QD-000311-GP	TR MMBTA92 SOT 23 KEC, , , , ,	4	Q18, Q30, Q47, Q8
RE-01002-GP	0.1R, 5 PCNT, 2W, RMF, ATS METAL,	12	R115, R116, R117, R25, R26, R27, R28, R29, R30, R74, R75, R78
RE-47006-GP	RMF, 1W, 4R7, 5%, AT,	3	R49, R6, R88
RE-000003-GP	RMG 1/10W 0 OHM 5% 0805	17	R123, R124, R125, R358, R362, R368, R384, R389, R392, R393, R400, R401, R405, R406, R423, R433, R434
RE-001009-GP	10 1% 1/8W THK FLM 1206	2	R337, R338
RE-001012-GP	100HM, 1/4W, 1%, AT, RMF,	2	R126, R127
RE-001013-GP	10, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R128
RE-004753-GP	RMG 1/10W 47.5 OHM 1% 0805	13	R109, R110, R111, R112, R113, R21, R22, R23, R24, R67, R68, R71, R72
RE-010011-GP	100 1% 1/10W THK FLM 0805 100V	17	R103, R104, R107, R108, R14, R15, R19, R20, R301, R302, R307, R317, R318, R60, R61, R64, R65
RE-018001-GP	180R, 1 PCNT, 1/10W, RMG, 0805,	2	R449, R8
RE-020003-GP	200 1% 1/10W THK FLM 0805 100V	1	R93
RE-030006-GP	300 OHM, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R51
RE-040200-GP	402R, 1 PCNT, 1/10W, RMG, 0805,	2	R436, R95
RE-047012-GP	470, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R77
RE-063405-GP	634 OHMS 1% 1/10W 0805	1	R319
RE-091002-GP	910R, 1 PCNT, 1/10W, RMG, 0805,	14	R100, R101, R105, R106, R11, R12, R17, R18, R54, R57, R58, R62, R63, R9
RE-110702-GP	1.07K, 1 PCNT, 1/10W, RMG, 0805,	2	R327, R331
RE-115008-GP	1.5K, 1 PCNT, 1/10W, THK FLM, 0805, 100V	2	R414, R440
RE-120004-GP	RMG 1/10W 2K 1% 0805	1	R343
RE-122010-GP	2.2K 1% 1/10W THK FM 0805 100V	3	R102, R16, R59
RE-124001-GP	2.4K, 1 PCNT, 1/10W, RMG, 0805,	4	R2, R35, R44, R81
RE-127001-GP	2.7K, 1 PCNT, 1/10W, RMG, 0805,	1	R313
RE-130006-GP	3K, 1 PCNT, 1/10W, THICK FILM, 0805,	3	R381, R383, R402
RE-130103-GP	RMG 1/10W 3.01K 1% 0805	1	R33
RE-133008-GP	3.3K, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R435
RE-136003-GP	3.6K, 1 PCNT, 1/10W, RMG, 0805,	3	R361, R373, R443
RE-139006-GP	3.9K, 1 PCNT, 1/10W, THICK FILM, 0805,	3	R396, R411, R424
RE-143001-GP	4.3K, 1 PCNT, 1/10W, RMG, 0805,	1	R378
RE-143202-GP	4.32K, 1 PCNT, 1/10W, RMG, 0805,	1	R316
RE-147002-GP	4.7K 1% 1/10W THK FLM 0805	11	R334, R366, R39, R394, R408, R412, R445, R56, R66, R79, R97
RE-147506-GP	4.75K, 1 PCNT, 1/10W, THICK FILM, 0805,	2	R328, R332
RE-151006-GP	5.1K, 1 PCNT, 1/10W, THICK FILM, 0805,	4	R321, R339, R377, R451
RE-152302-GP	5.23K, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R303
RE-156004-GP	5.6K, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R335
RE-159003-GP	5.9K 1% 1/10W THK FLM 0805	2	R96, R98
RE-162001-GP	6.2K, 1 PCNT, 1/10W, RMG, 0805,	1	R352
RE-164901-GP	6.49K, 1 PCNT, 1/10W, RMG, 0805,	1	R48
RE-168007-GP	6.8K, 1 PCNT, 1/10W, RMG, 0805,	1	R344
RE-169802-GP	6.98K, 1 PCNT, 1/10W, THK FLM, 0805, 100V	1	R312
RE-175004-GP	7.5K 1% 1/10W THK FM 0805 100V	4	R348, R354, R390, R397
RE-182007-GP	8.2K, 1 PCNT, 1/10W, THICK FILM, 0805,	4	R326, R330, R341, R418
RE-191001-GP	9.1K, 1 PCNT, 1/10W, RMG, 0805,	1	R357
RE-210007-GP	10K 1% 1/10W THK FLM 0805	20	R1, R122, R3, R320, R329, R333, R336, R340, R353, R386, R415, R419, R43, R437, R439, R45, R50, R7, R80, R85
RE-211305-GP	11.3K .1% 1/10W RMG 0805	4	R304, R305, R309, R310
RE-212003-GP	12K 1% 1/10W THK FLM 0805 100V	3	R359, R380, R447
RE-212004-GP	12K, 1 PCNT, 1/8W, THICK FILM, 1206,	1	R448
RE-212105-GP	12.1K, 1 PCNT, 1/10W, RMG, 0805,	1	R441
RE-213005-GP	13K, 1 PCNT, 1/10W, RMG, 0805,	3	R36, R89, R90
RE-215003-GP	15K, 1 PCNT, 1/10W, RMG, 0805,	5	R347, R376, R410, R431, R442
RE-216001-GP	16K, 1 PCNT, 1/10W, RMG, 0805,	1	R342
RE-218006-GP	18K, 1 PCNT, 1/10W, THICK FILM, 0805,	4	R346, R372, R417, R91
RE-218702-GP	18.7K, 1 PCNT, 1/10W, THICK FILM, 0805,	2	R308, R311
RE-220005-GP	RMG 1/10W 20K 1% 0805	3	R407, R46, R86
RE-220006-GP	20K, 1 PCNT, 1/10W, THICK FILM, 1206,	1	R38
RE-222001-GP	22K 1% 1/10W 0805	9	R32, R34, R37, R375, R391, R413, R421, R422, R446
RE-227001-GP	27K 1% 1/10W 0805	3	R349, R426, R429
RE-230006-GP	30K, 1 PCNT, 1/10W, THICK FILM, 0805,	4	R345, R351, R4, R428
RE-230104-GP	30.1K 1% 1/8W RMG 1206	4	R40, R47, R5, R87
RE-230105-GP	30.1K, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R53
RE-236001-GP	36K, 1 PCNT, 1/10W, RMG, 0805,	2	R355, R385
RE-239003-GP	39K, 1 PCNT, 1/10W, MET FLM, 0805, 100V	1	R323
RE-239204-GP	39.2K, 1 PCNT, 1/10W, THICK FILM, 0805,	3	R315, R325, R356
RE-247006-GP	47K 1% 1/10W THK FLM 0805 100V	3	R430, R69, R76
RE-275005-GP	75K, 1 PCNT, 1/10W, RMG, ,	1	R314
RE-291001-GP	91K, 1 PCNT, 1/10W, RMG, 0805,	3	R367, R388, R427
RE-310007-GP	100K 1% 1/10W THK FLM 0805	5	R306, R350, R364, R370, R438
RE-310008-GP	100K 1% 1/8W THK FLM 1206	6	R10, R31, R52, R83, R92, R94
RE-312006-GP	120K 1% 1/10W RMG 0805	2	R374, R404
RE-315006-GP	150K, 1 PCNT, 1/10W, THICK FILM, 0805,	5	R324, R363, R369, R399, R409

Part Number	Description	Qty	Ref Des
RE-320006-GP	200K, 1 PCNT, 1/10W, THICK FILM, 0805,	1	R322
RE-349901-GP	499K 1% 1/8W THICK FILM 1206	1	R82
RE-410003-GP	1M 1% 1/10W RMG 0805	4	R13, R55, R84, R99
SC-000079-GP	SCREW, MACH, M4X19, , , BLACK, ZN	2	
SC-000080-GP	METAL SCREW, M4*14, TTP/B, , ,	20	
SC-000081-GP	T3X8MM, SELF TAPPING, , , ,	2	
SC-000082-GP	SCREW, BIND, HEAD, M3.2 X 8, , B-TITE,	6	
SC-000083-GP	SCREW, BIND, HEAD, M3.5 X 16, , B-TITE,	10	
SC-000084-GP	SCREW, BIND, SERRATED HEAD, M4X25, B-TITE,	4	
SC-000085-GP	SELF SCREW, 3X8, WITH, SERRATED HEAD, , ,	2	
SC-000086-GP	SCREW, M8X101.5, BZ, , , ,	1	
SC-030002-GP	M3 B-TITE FLAT-CS	2	
SC-030004-GP	M3 X 8 BLK MACHINE	6	
SC-030008-GP	SCREW M3X6 BLK TAP	4	
SW-000088-GP	ROCKER POWER SWITCH	1	
SW-000119-GP	CIRCUIT BREAKER, 3A, 230V, HPR,	1	
SW-000122-GP	SWITCH, 1P2T, , ,	1	SW302
SW-000123-GP	SWITCH, 2P2T, , ,	1	SW301
WC-000188-GP	SLEEVE, PVC, 5MM ID, BLK	0	
WC-000410-GP	UL1672, AWG#18, BROWN, , , , ,	0	
WC-000411-GP	UL1672, AWG#18, BLUE, , , , ,	0	
WC-000412-GP	GRND WIRE, UL1015 #14, , , , ,	1	
WC-000413-GP	WIRE-FLAT, 10P P1.5 #26, , , , ,	3	J303, J305B, J306
WC-000423-GP	SHRINKAGE TUBE, ID=6MM, UL, , , , ,	0	
XF-000294-GP	POWER TRANSFORMER, 230V, , , , HPR SERIES, ,	1	