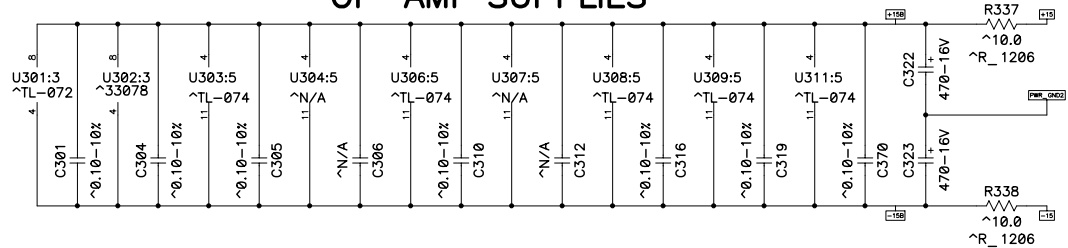
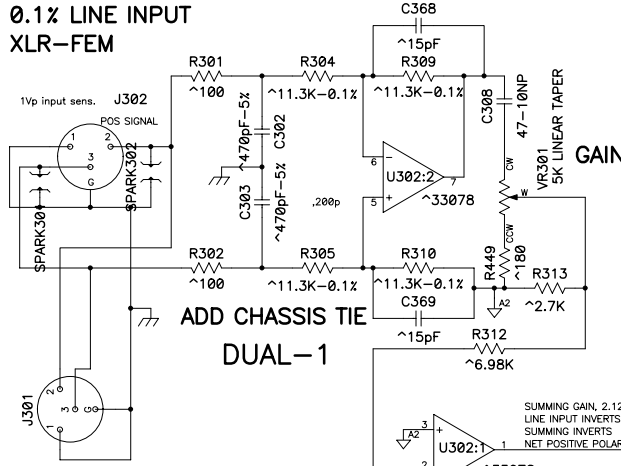


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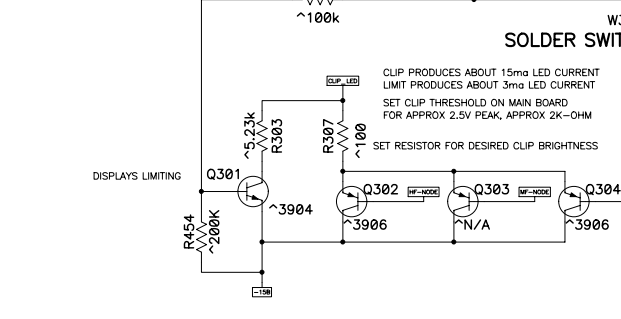
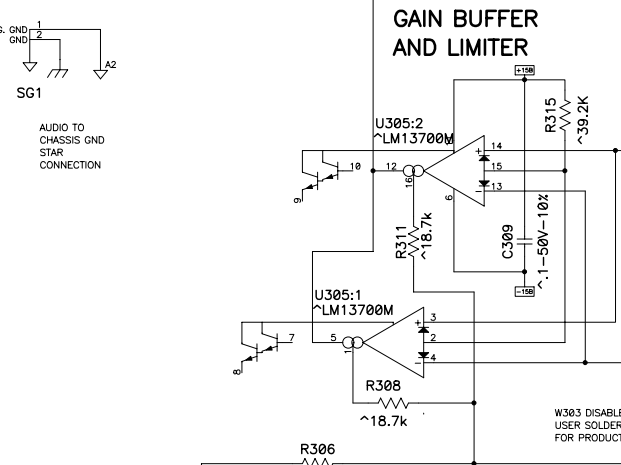
OP-AMP SUPPLIES



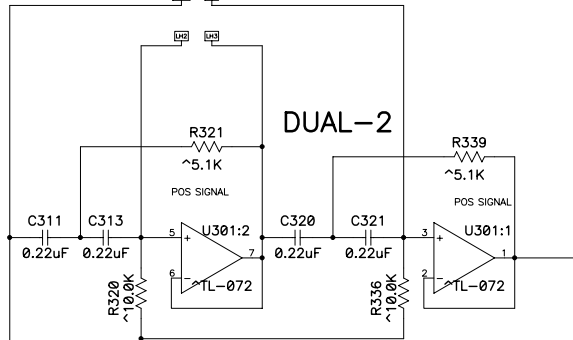
HIGH PERFORMANCE BALANCED INPUT
0.775V (+0dBu, 1Vp) FOR
FULL POWER OUTPUT AT MAX GAIN
0.1% LINE INPUT
XLR-FEM



LINE OUTPUT
XLR-MALE
(USE VERT TYPE)

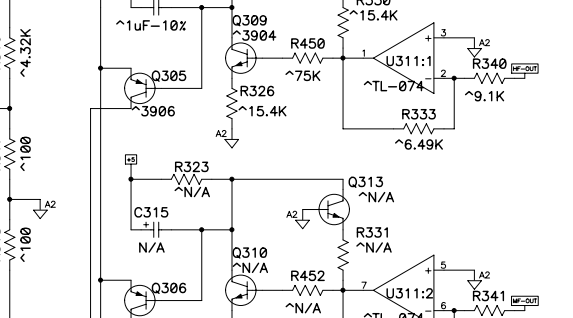


SWITCHABLE 4TH ORDER HP-100Hz UP=BYPASSED

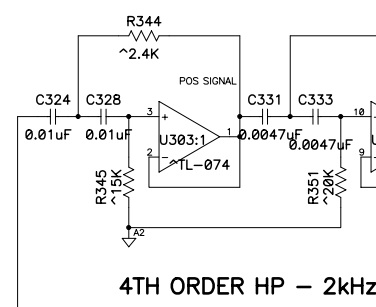
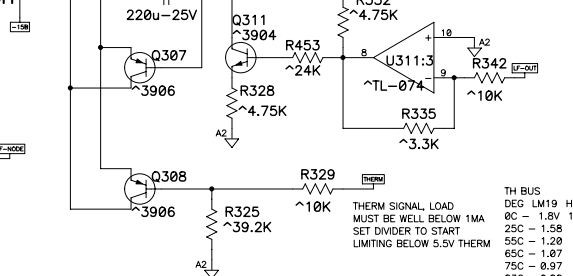


DESIRED LIMITER ATTACK/RELEASE TIMES
3-WAY
*LF ATTACK - 2.76S, RELEASE - 4.76S
*MF ATTACK - 232ms, RELEASE - 521ms
*HF ATTACK - 22ms, RELEASE - 32ms
2-WAY
*LF ATTACK - 3S, RELEASE - 4.7S
*HF ATTACK - 21ms, RELEASE 32ms
1% SUB
*ATTACK - 300ms, RELEASE - 475ms
18% SUB
*ATTACK - 300ms, RELEASE - 560ms

LIMITER CONTROL PROCESSING



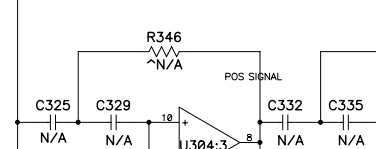
TO FRONT MOUNTED LED (SWITCHABLE)



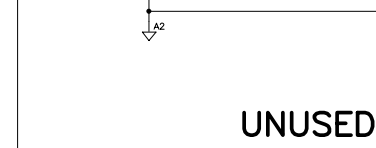
4TH ORDER HP - 2kHz



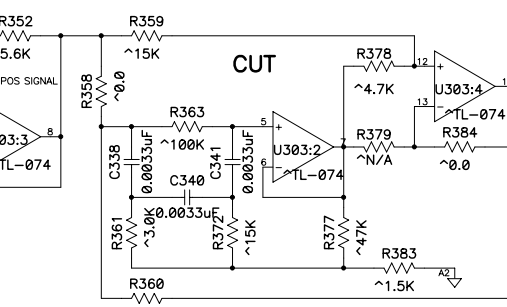
QUAD-5



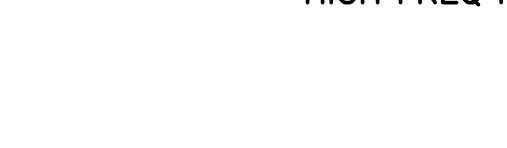
4TH ORDER HP-40Hz



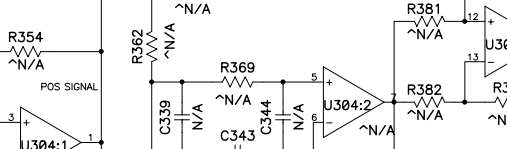
QUAD-9



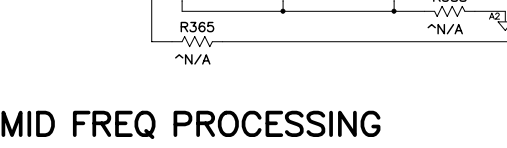
QUAD-3



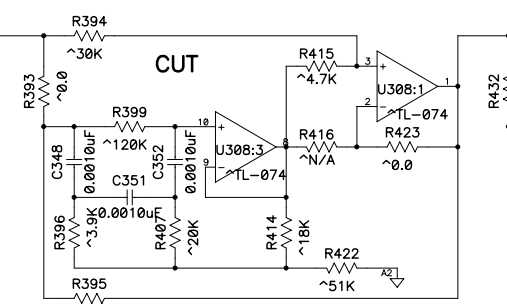
QUAD-5



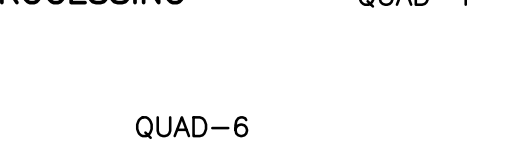
QUAD-7



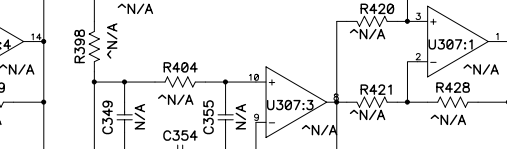
QUAD-9



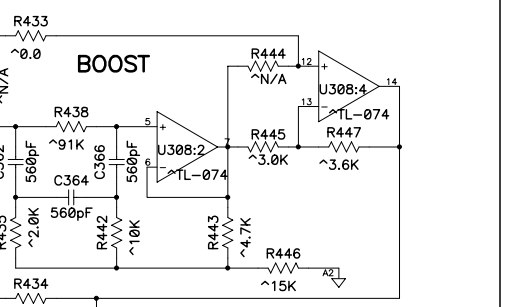
QUAD-4



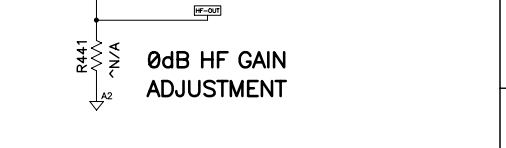
QUAD-6



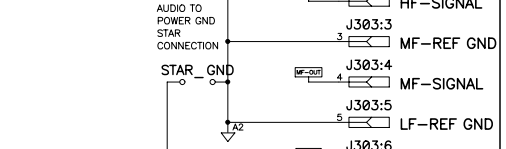
QUAD-8



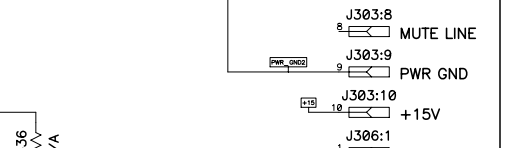
BOOST



QUAD-10



QUAD-12



4TH ORDER LP, 2kHz

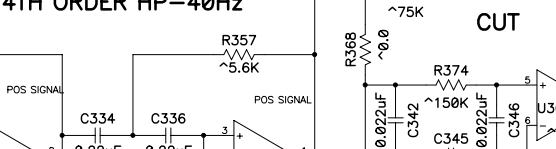
UNUSED MID FREQ PROCESSING



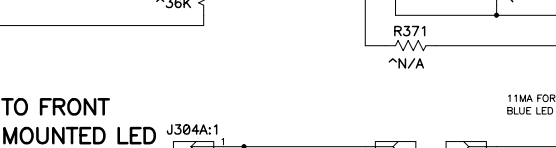
LOW FREQ PROCESSING



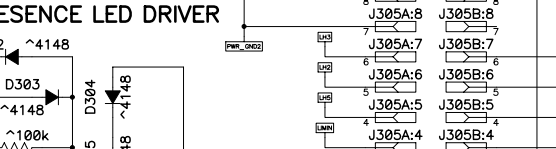
TO FRONT MOUNTED LED (SWITCHABLE)



SIGNAL-PRESENCE LED DRIVER



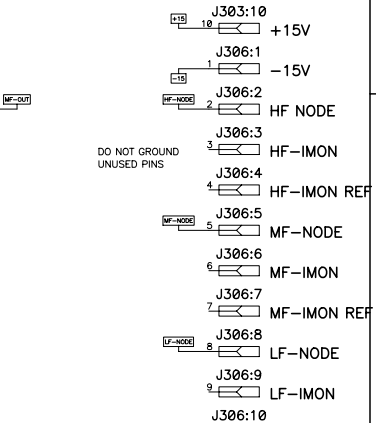
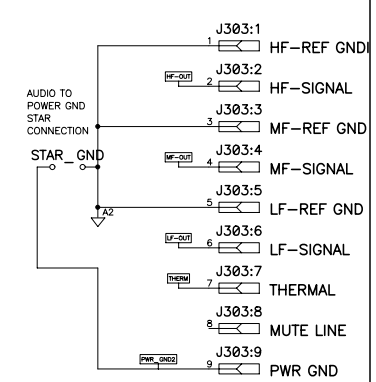
UP=BYPASSED SWITCHABLE 4TH ORDER HP



PANEL-PWR PANEL-SIG PANEL-CLIP-LIM



0dB HF GAIN
ADJUSTMENT



DO NOT RENUMBER !! STARTS 301

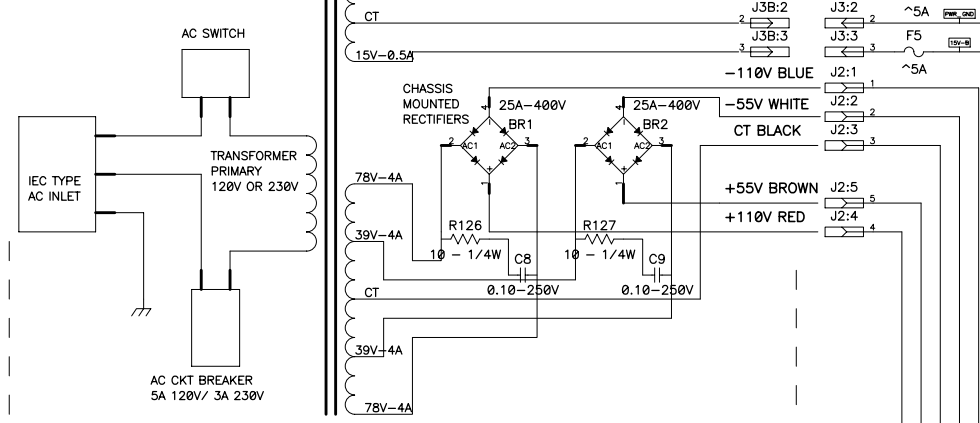
| | | | |
|-------|--------------|--------------|-----|
| SIZE | FSCM NO. | DWG NO. | REV |
| D | | SH-152002-00 | A |
| SCALE | CAD FILE NO. | SHEET | 1 |

A REV 2 SH-152002-00 DWG NO.

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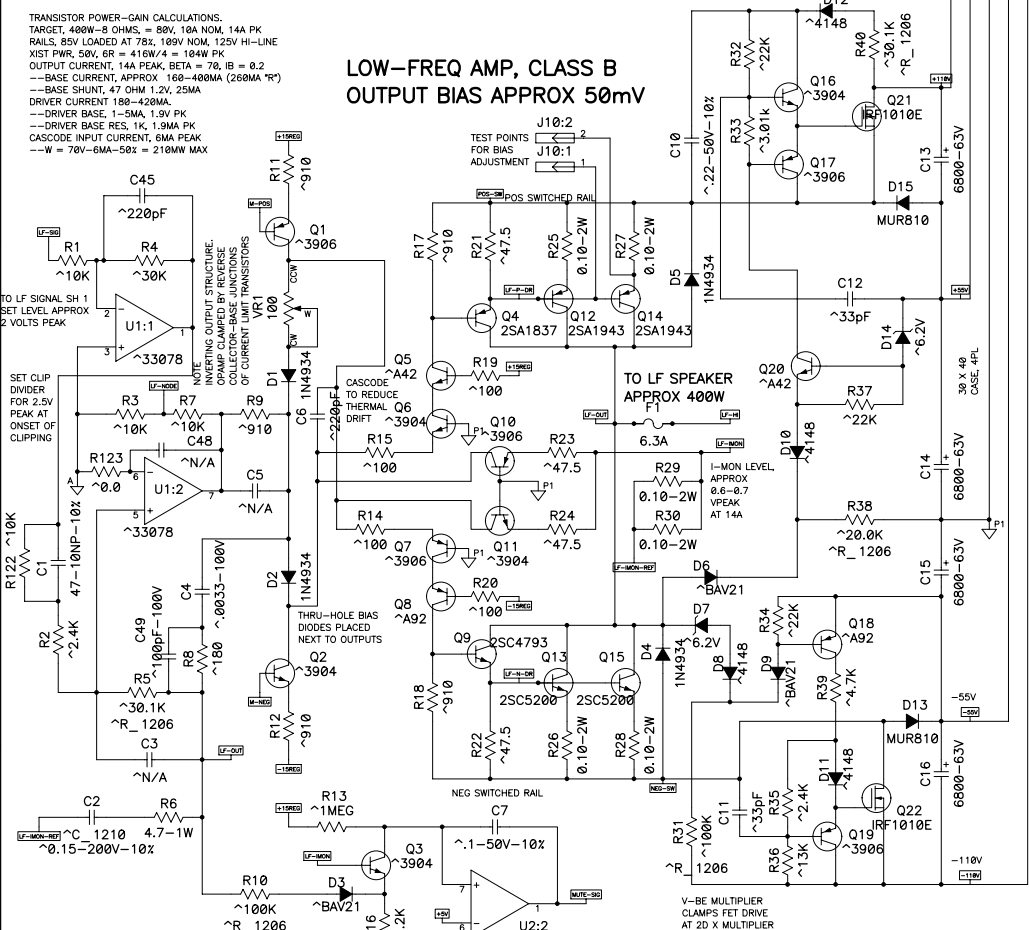
AC TRANSFORMER
NEW 500W DESIGNS
XF-000295-GP 100V/120V 60HZ
XF-000296-GP 230V 50HZ

TRANSFORMER CT WIRE AND RECTIFIER WIRES CONNECT DIRECTLY TO J2. J3B COMES FROM THE TRANSFORMER.



CHASSIS-MOUNTED PARTS

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



SHORT CIRCUIT DUTY-CYCLE PROTECTION
WHEN SHORTED, POSITIVE IMON REACHES 700-800mV, DRIVES Q1 WHOSE EMITTER RES LIMITS CURR TO 50-100uA. IN 10-20MS, THIS PULLS 0.1uF CAPACITOR BELOW 5V REF. COMPARTOR GOES LOW, DISCHARGES MUTE CAP BY IV. THE 0.1uF CAPACITOR ENFORCES APPROX 10MS ONE-SHOT DISCHARGE TIME. MUTE CAP RESETS IN 2 SEC. TO AVOID TICKLING MUTE THRU ONE-SHOT CAP, C-MUTE >200 C9. WHEN AMP IS RUNNING INTO NORMAL LOAD, +20V OUTPUT APPLIES +0.4V TO EMITTER OF Q1, BLANKING IMON SIGNALS.

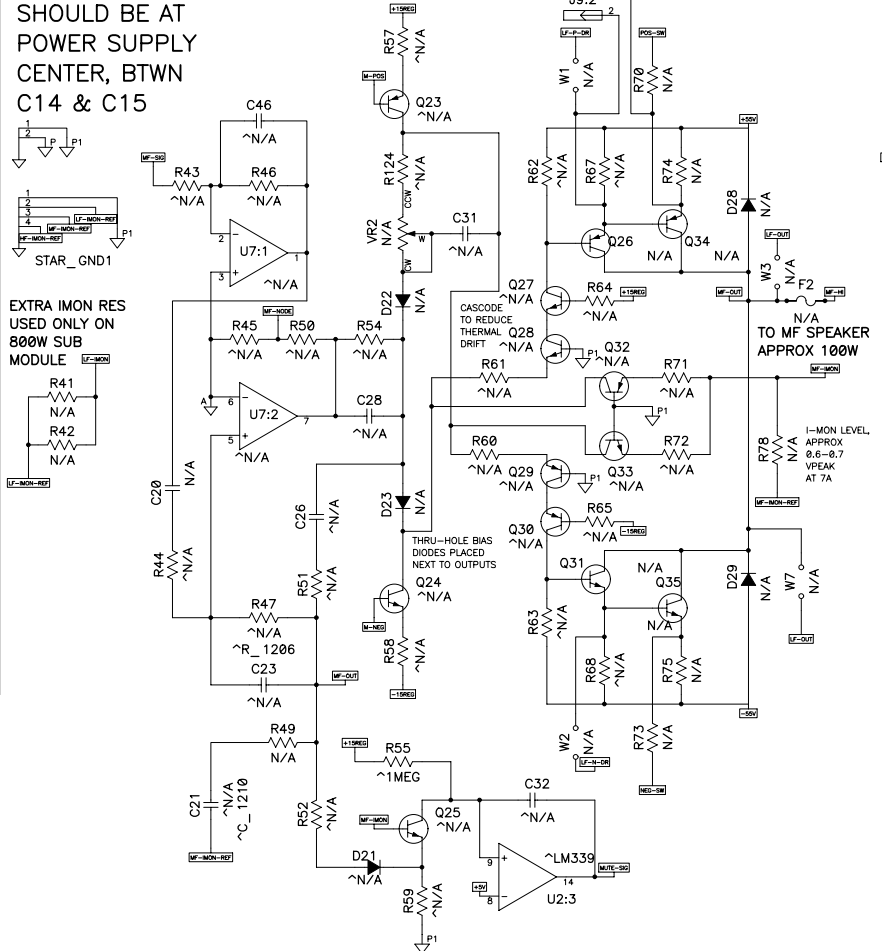
THIS SCHEME SHOULD BE OK WITH REACTIVE LOAD CURRENTS OF LESS THAN 70A, OR IF DUTY CYCLE IS LESS THAN 5%.

OUTPUT FUSE SCHEDULE
SUB.
400W MAX-4 OHM = 10A
FAULT CURRENT = 20A
2-WAY AND 3-WAY
200W MAX, LF, 8R = 5A,
FAULT CURRENT = 10A
50W MAX, MF-HF 8R = 2.5A
FAULT CURRENT = 5A

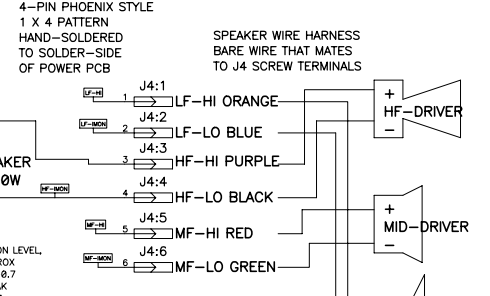
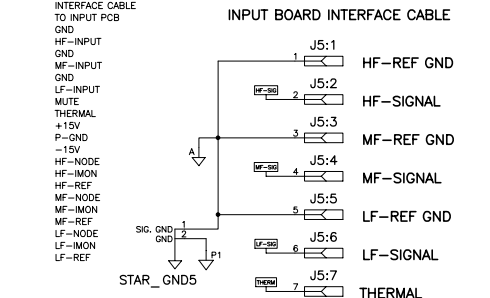
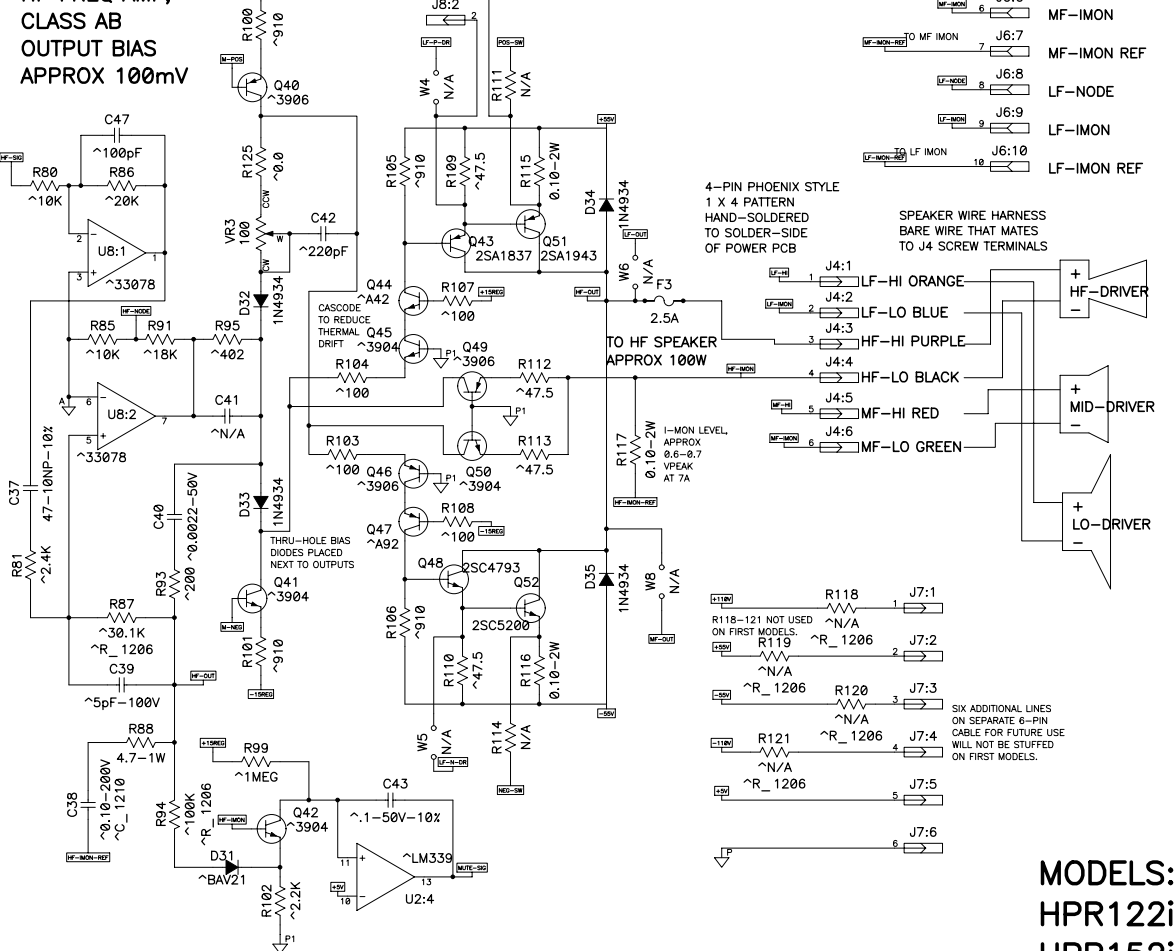
STAR GROUND SHOULD BE AT POWER SUPPLY CENTER, BTWN C14 & C15

EXTRA IMON RES USED ONLY ON 800W SUB MODULE

MID-FREQ AMP,
NOT USED FOR 2-WAY



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



MODELS:
HPR122i
HPR152i

NOTES: UNLESS OTHERWISE SPECIFIED

| | | | |
|-------|--------------|--------------|-----|
| SIZE | FSCM NO. | DWG NO. | REV |
| D | | SH-122001-00 | A |
| SCALE | CAD FILE NO. | SHEET | 2 |

| 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 | 3 | C11, C12, 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 | 3 | C42, C45, 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-210016-GP | 0.001U, 5%, 63V, CM, , RBT 7.5 | 3 | C348, C351, C352 |
| CA-222015-GP | 2200P, 5%, 50V, CTC, 0805, 0/30 | 1 | C40 |
| CA-233009-GP | 3300P, 5%, 100V, CTC, 1206, 0/30 | 1 | C4 |
| CA-233010-GP | 3300P, 5%, 63V, CM, , RBT, 7.5X | 3 | C338, C340, C341 |
| CA-247005-GP | .0047UF, 5 PCNT, 50V, FILM, DIPPED, | 3 | C331, C333, C365 |
| CA-310010-GP | 0.01U, 5%, 63V, CM, , RBT 7.5X | 5 | C324, C328, C353, C356, C357 |
| CA-315001-GP | 0.015U, 5%, 63V, CM, , RBT | 1 | C360 |
| CA-322011-GP | 0.022U, 5%, 63V, CM, , RBT | 5 | C342, C345, C346, C358, C363 |
| CA-410014-GP | 0.1UF 10% 50V CER X7R 0805 | 17 | C17, C22, C27, C301, C304, C305, C309, C310, C316, C317, C319, C33, C34, C370, C43, C50, C7 |
| CA-410018-GP | CM 250V .1UF 5% RL | 2 | C8, C9 |
| CA-410024-GP | CC 200V 0.1U 5% 1210 | 1 | 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 | 5 | C1, C308, C326, C337, C37 |
| 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-000489-GP | PLATE-SPRING STEEL, , , , | 4 | |
| CH-000490-GP | HEATSINK, 381X189.2X38.1, , HPR, | 1 | |
| CH-000546-GP | PANEL, INPUT, , HPR152i, | 1 | |
| CH-000550-GP | PANEL, AC, , HPRI, | 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-000347-GP | TERMINAL BLOCK, 5MM, 5POS(1X5), FEMALE, RIGHT ANGLE | 1 | J2 |
| 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 |
| CO-000351-GP | TERMINAL BLACK, 5MM, 4POS(1X4), FEMALE, RIGHT | 1 | J4 |
| HW-000075-GP | FUSE HOLDER, , , , , | 2 | F1, F3 |
| HW-000102-GP | BRASS POST, D6X10, , , , | 3 | |
| 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, | 3 | U1, U302, 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, | 5 | U303, U306, U308, U309, U311 |
| LB-000627-GP | LABEL, WARNING, TOP BOX, HPRi, | 1 | |
| MS-000070-GP | 2.5A, FAST ACT 5X20, , , | 1 | 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-000070-GP | M3, NUT, , , , | 3 | |
| NW-000072-GP | NUT, HEX, M4, , | 1 | |
| NW-040002-GP | SPRING WASHER M4 X 7 | 1 | |
| NW-040003-GP | I/T WASHER M4X0.4X8, YZ | 1 | |
| PC-122001-00 | PCB, MAIN, HPR122i, , , | 1 | |
| PC-122002-00 | PCB, INPUT, HPR151i, , , | 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, , | 4 | |
| PL-000455-GP | LED HOLDER, LED3-11, , , , | 3 | LD301-1, LD302-1, LD303-1 |
| PL-000456-GP | SPRINGSEAT, TRANSISTOR, HPR, NYLON, , | 4 | |
| PL-000457-GP | SPACER, L=4.0, ELM 3, , , | 1 | U4 |

WP-152001-00 120V Rev. A

| Part Number | Description | Qty | Ref Des |
|--------------|---|-----|--|
| PL-000458-GP | SPONGE CUSHION, , , , | 2 | |
| PT-110002-GP | TRIM, 100, 20 PCNT, 0.15W, , | 2 | VR1, VR3 |
| PT-250003-GP | VR 5K, XVB12111YNPVB25F, , , , | 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 | 17 | Q11, Q16, Q2, Q3, Q301, Q309, Q311, Q312, Q314, Q315, Q37, Q38, Q41, Q42, Q45, Q50, Q6 |
| QD-000205-GP | XISTOR PNP 40V 0.2A TR3906 SOT-23 | 15 | Q1, Q10, Q17, Q19, Q302, Q304, Q305, Q307, Q308, Q36, Q39, Q40, Q46, Q49, Q7 |
| QD-000206-GP | DIOD RECT FAST, IN4934 AT | 8 | D1, D2, D32, D33, D34, D35, D4, D5 |
| QD-000208-GP | XISTOR PNP 230V 15A 2SA1943 | 3 | Q12, Q14, Q51 |
| QD-000209-GP | XISTOR NPN 230V 15A 2SC5200 | 3 | Q13, Q15, 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, , , , , | 4 | 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, | 3 | Q20, Q44, Q5 |
| QD-000309-GP | TR 2SA1837, 100-320 RL, , , , , | 2 | Q4, Q43 |
| QD-000310-GP | TR 2SC4793, 100-320-RL, , , , , | 2 | Q48, Q9 |
| QD-000311-GP | TR MMBTA92 SOT 23 KEC, , , , , , | 3 | Q18, Q47, Q8 |
| RE-.01002-GP | 0.1R, 5 PCNT, 2W, RMF, ATS METAL, | 9 | R115, R116, R117, R25, R26, R27, R28, R29, R30 |
| RE-47006-GP | RMF, 1W, 4R7, 5%, AT, | 2 | R6, R88 |
| RE-000003-GP | RMG 1/10W 0 OHM 5% 0805 | 13 | R123, R125, R358, R368, R384, R392, R393, R403, R423, R430, R433, R434, R440 |
| 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 | 8 | R109, R110, R112, R113, R21, R22, R23, R24 |
| RE-010011-GP | 100 1% 1/10W THK FLM 0805 100V | 13 | R103, R104, R107, R108, R14, R15, R19, R20, R301, R302, R307, R317, R318 |
| 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-040200-GP | 402R, 1 PCNT, 1/10W, RMG, 0805, | 1 | 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, | 9 | R100, R101, R105, R106, R11, R12, R17, R18, R9 |
| RE-110013-GP | RMG 1/10W 1K 1% 0805 | 1 | R334 |
| RE-115008-GP | 1.5K, 1 PCNT, 1/10W, THK FLM, 0805, 100V | 1 | R383 |
| RE-120004-GP | RMG 1/10W 2K 1% 0805 | 2 | R343, R435 |
| RE-122010-GP | 2.2K 1% 1/10W THK FM 0805 100V | 2 | R102, R16 |
| RE-124001-GP | 2.4K, 1 PCNT, 1/10W, RMG, 0805, | 4 | R2, R344, R35, R81 |
| RE-127001-GP | 2.7K, 1 PCNT, 1/10W, RMG, 0805, | 2 | R313, R385 |
| RE-130006-GP | 3K, 1 PCNT, 1/10W, THICK FILM, 0805, | 2 | R361, R445 |
| RE-130103-GP | RMG 1/10W 3.01K 1% 0805 | 1 | R33 |
| RE-133008-GP | 3.3K, 1 PCNT, 1/10W, THICK FILM, 0805, | 2 | R335, R408 |
| RE-136003-GP | 3.6K, 1 PCNT, 1/10W, RMG, 0805, | 4 | R411, R424, R425, R447 |
| RE-139006-GP | 3.9K, 1 PCNT, 1/10W, THICK FILM, 0805, | 2 | R373, R396 |
| RE-143001-GP | 4.3K, 1 PCNT, 1/10W, RMG, 0805, | 1 | R417 |
| RE-143202-GP | 4.32K, 1 PCNT, 1/10W, RMG, 0805, | 1 | R316 |
| RE-147002-GP | 4.7K 1% 1/10W THK FLM 0805 | 8 | R378, R39, R415, R443, 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, | 3 | R321, R339, 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, | 2 | R352, R357 |
| 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 | R348 |
| RE-164901-GP | 6.49K, 1 PCNT, 1/10W, RMG, 0805, | 2 | R333, R48 |
| RE-169802-GP | 6.98K, 1 PCNT, 1/10W, THK FLM, 0805, 100V | 1 | R312 |
| RE-191001-GP | 9.1K, 1 PCNT, 1/10W, RMG, 0805, | 1 | R340 |
| RE-210007-GP | 10K 1% 1/10W THK FLM 0805 | 11 | R1, R122, R3, R320, R329, R336, R342, R442, 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 | 1 | R431 |
| RE-212004-GP | 12K, 1 PCNT, 1/8W, THICK FILM, 1206, | 1 | R448 |
| RE-213005-GP | 13K, 1 PCNT, 1/10W, RMG, 0805, | 3 | R36, R89, R90 |
| RE-215003-GP | 15K, 1 PCNT, 1/10W, RMG, 0805, | 7 | R314, R345, R359, R372, R429, R439, R446 |
| RE-215402-GP | 15.4K, 1 PCNT, 1/10W, RMG, 0805, | 2 | R326, R330 |
| RE-218006-GP | 18K, 1 PCNT, 1/10W, THICK FILM, 0805, | 4 | R391, R413, R414, 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 | 4 | R351, R376, R407, R86 |
| RE-220006-GP | 20K, 1 PCNT, 1/10W, THICK FILM, 1206, | 1 | R38 |
| RE-222001-GP | 22K 1% 1/10W 0805 | 3 | R32, R34, R37 |
| RE-224001-GP | 24.0K 1% 1/10W THK FLM 0805 | 1 | R453 |
| RE-227001-GP | 27K 1% 1/10W 0805 | 1 | R349 |
| RE-230006-GP | 30K, 1 PCNT, 1/10W, THICK FILM, 0805, | 2 | R394, R4 |

| Part Number | Description | Qty | Ref Des |
|--------------|---|-----|-------------------------|
| RE-230104-GP | 30.1K 1% 1/8W RMG 1206 | 3 | R40, 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, | 1 | R355 |
| 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 | R377, R69, R76 |
| RE-251001-GP | 51K, 1 PCNT, 1/10W, RMG, 0805, | 1 | R422 |
| RE-275005-GP | 75K, 1 PCNT, 1/10W, RMG, , | 3 | R370, R405, R450 |
| RE-291001-GP | 91K, 1 PCNT, 1/10W, RMG, 0805, | 2 | R367, R438 |
| RE-310007-GP | 100K 1% 1/10W THK FLM 0805 | 4 | R306, R350, R363, R409 |
| RE-310008-GP | 100K 1% 1/8W THK FLM 1206 | 5 | R10, R31, R83, R92, R94 |
| RE-312006-GP | 120K 1% 1/10W RMG 0805 | 2 | R386, R399 |
| RE-315006-GP | 150K, 1 PCNT, 1/10W, THICK FILM, 0805, | 2 | R324, R374 |
| RE-320006-GP | 200K, 1 PCNT, 1/10W, THICK FILM, 0805, | 2 | R322, R454 |
| 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-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, | 8 | |
| 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-040001-GP | SCREW M4-18 X 10MM, BLK ZN | 2 | |
| SW-000088-GP | ROCKER POWER SWITCH | 1 | |
| SW-000093-GP | CIRCUIT BREAKER, 5 AMP, , | 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-000295-GP | XFMR, POWER, , 60HZ, TORIODAL, 500W, , HPR 2-WAY, 120V, | 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 | 3 | C11, C12, 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 | 3 | C42, C45, 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-210016-GP | 0.001U, 5%, 63V, CM, , RBT 7.5 | 3 | C348, C351, C352 |
| CA-222015-GP | 2200P, 5%, 50V, CTC, 0805, 0/30 | 1 | C40 |
| CA-233009-GP | 3300P, 5%, 100V, CTC, 1206, 0/30 | 1 | C4 |
| CA-233010-GP | 3300P, 5%, 63V, CM, , RBT, 7.5X | 3 | C338, C340, C341 |
| CA-247005-GP | .0047UF, 5 PCNT, 50V, FILM, DIPPED, | 3 | C331, C333, C365 |
| CA-310010-GP | 0.01U, 5%, 63V, CM, , RBT 7.5X | 5 | C324, C328, C353, C356, C357 |
| CA-315001-GP | 0.015U, 5%, 63V, CM, , RBT | 1 | C360 |
| CA-322011-GP | 0.022U, 5%, 63V, CM, , RBT | 5 | C342, C345, C346, C358, C363 |
| CA-410014-GP | 0.1UF 10% 50V CER X7R 0805 | 17 | C17, C22, C27, C301, C304, C305, C309, C310, C316, C317, C319, C33, C34, C370, C43, C50, C7 |
| CA-410018-GP | CM 250V .1UF 5% RL | 2 | C8, C9 |
| CA-410024-GP | CC 200V 0.1U 5% 1210 | 1 | 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 | 5 | C1, C308, C326, C337, C37 |
| 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-000489-GP | PLATE-SPRING STEEL, , , , | 4 | |
| CH-000490-GP | HEATSINK, 381X189.2X38.1, , HPR, | 1 | |
| CH-000546-GP | PANEL, INPUT, , HPR152i, | 1 | |
| CH-000550-GP | PANEL, AC, , HPRi, | 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-000347-GP | TERMINAL BLOCK, 5MM, 5POS(1X5), FEMALE, RIGHT ANGLE | 1 | J2 |
| 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 |
| CO-000351-GP | TERMINAL BLACK, 5MM, 4POS(1X4), FEMALE, RIGHT | 1 | J4 |
| HW-000075-GP | FUSE HOLDER, , , , , | 2 | F1, F3 |
| HW-000102-GP | BRASS POST, D6X10, , , , | 3 | |
| 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, | 3 | U1, U302, 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, | 5 | U303, U306, U308, U309, U311 |
| LB-000627-GP | LABEL, WARNING, TOP BOX, HPRI, | 1 | |
| MS-000070-GP | 2.5A, FAST ACT 5X20, , , | 1 | 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-000070-GP | M3, NUT, , , , | 3 | |
| NW-000072-GP | NUT, HEX, M4, , | 1 | |
| NW-040002-GP | SPRING WASHER M4 X 7 | 1 | |
| NW-040003-GP | I/T WASHER M4X0.4X8, YZ | 1 | |
| PC-122001-00 | PCB, MAIN, HPR122i, , , | 1 | |
| PC-122002-00 | PCB, INPUT, HPR151i, , , | 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, , | 4 | |
| PL-000455-GP | LED HOLDER, LED3-11, , , , | 3 | LD301-1, LD302-1, LD303-1 |

| Part Number | Description | Qty | Ref Des |
|--------------|---|-----|--|
| PL-000456-GP | SPRINGSEAT, TRANSISTOR, HPR, NYLON, , | 4 | |
| 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, , | 2 | VR1, VR3 |
| PT-250003-GP | VR 5K, XVB12111YNPVB25F, , , , | 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 | 17 | Q11, Q16, Q2, Q3, Q301, Q309, Q311, Q312, Q314, Q315, Q37, Q38, Q41, Q42, Q45, Q50, Q6 |
| QD-000205-GP | XISTOR PNP 40V 0.2A TR3906 SOT-23 | 15 | Q1, Q10, Q17, Q19, Q302, Q304, Q305, Q307, Q308, Q36, Q39, Q40, Q46, Q49, Q7 |
| QD-000206-GP | DIOD RECT FAST, IN4934 AT | 8 | D1, D2, D32, D33, D34, D35, D4, D5 |
| QD-000208-GP | XISTOR PNP 230V 15A 2SA1943 | 3 | Q12, Q14, Q51 |
| QD-000209-GP | XISTOR NPN 230V 15A 2SC5200 | 3 | Q13, Q15, 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, , , , , | 4 | D3, D31, D6, D9 |
| QD-000304-GP | DIODE, MUR810 RL 8A, , , , , | 2 | D13, D15 |
| QD-000305-GP | DZ 1/2W, 6.2VB RL26.2B, , , , SMT, | 2 | D14, D7 |
| QD-000306-GP | DZ 1/2W, 7.5VB RL27.5B 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, | 3 | Q20, Q44, Q5 |
| QD-000309-GP | TR 2SA1837, 100-320 RL, , , , , | 2 | Q4, Q43 |
| QD-000310-GP | TR 2SC4793, 100-320-RL, , , , , | 2 | Q48, Q9 |
| QD-000311-GP | TR MMBTA92 SOT 23 KEC, , , , , , | 3 | Q18, Q47, Q8 |
| RE-.01002-GP | 0.1R, 5 PCNT, 2W, RMF, ATS METAL, | 9 | R15, R116, R117, R25, R26, R27, R28, R29, R30 |
| RE-.47006-GP | RMF, 1W, 4R7, 5%, AT, | 2 | R6, R88 |
| RE-000003-GP | RMG 1/10W 0 OHM 5% 0805 | 13 | R123, R125, R358, R368, R384, R392, R393, R403, R423, R430, R433, R434, R440 |
| 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 | 8 | R109, R110, R112, R113, R21, R22, R23, R24 |
| RE-010011-GP | 100 1% 1/10W THK FLM 0805 100V | 13 | R103, R104, R107, R108, R14, R15, R19, R20, R301, R302, R307, R317, R318 |
| 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-040200-GP | 402R, 1 PCNT, 1/10W, RMG, 0805, | 1 | 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, | 9 | R100, R101, R105, R106, R11, R12, R17, R18, R9 |
| RE-110013-GP | RMG 1/10W 1K 1% 0805 | 1 | R334 |
| RE-115008-GP | 1.5K, 1 PCNT, 1/10W, THK FLM, 0805, 100V | 1 | R383 |
| RE-120004-GP | RMG 1/10W 2K 1% 0805 | 2 | R343, R435 |
| RE-122010-GP | 2.2K 1% 1/10W THK FM 0805 100V | 2 | R102, R16 |
| RE-124001-GP | 2.4K, 1 PCNT, 1/10W, RMG, 0805, | 4 | R2, R344, R35, R81 |
| RE-127001-GP | 2.7K, 1 PCNT, 1/10W, RMG, 0805, | 2 | R313, R385 |
| RE-130006-GP | 3K, 1 PCNT, 1/10W, THICK FILM, 0805, | 2 | R361, R445 |
| RE-130103-GP | RMG 1/10W 3.01K 1% 0805 | 1 | R33 |
| RE-133008-GP | 3.3K, 1 PCNT, 1/10W, THICK FILM, 0805, | 2 | R335, R408 |
| RE-136003-GP | 3.6K, 1 PCNT, 1/10W, RMG, 0805, | 4 | R411, R424, R425, R447 |
| RE-139006-GP | 3.9K, 1 PCNT, 1/10W, THICK FILM, 0805, | 2 | R373, R396 |
| RE-143001-GP | 4.3K, 1 PCNT, 1/10W, RMG, 0805, | 1 | R417 |
| RE-143202-GP | 4.32K, 1 PCNT, 1/10W, RMG, 0805, | 1 | R316 |
| RE-147002-GP | 4.7K 1% 1/10W THK FLM 0805 | 8 | R378, R39, R415, R443, 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, | 3 | R321, R339, R451 |
| RE-152302-GP | 5.23K, 1 PCNT, 1/10W, THICK FILM, 0805, | 1 | R303 |
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| 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 | R348 |
| RE-164901-GP | 6.49K, 1 PCNT, 1/10W, RMG, 0805, | 2 | R333, R48 |
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| 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 | 1 | R431 |
| RE-212004-GP | 12K, 1 PCNT, 1/8W, THICK FILM, 1206, | 1 | R448 |
| RE-213005-GP | 13K, 1 PCNT, 1/10W, RMG, 0805, | 3 | R36, R89, R90 |
| RE-215003-GP | 15K, 1 PCNT, 1/10W, RMG, 0805, | 7 | R314, R345, R359, R372, R429, R439, R446 |
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| RE-218006-GP | 18K, 1 PCNT, 1/10W, THICK FILM, 0805, | 4 | R391, R413, R414, 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 | 4 | R351, R376, R407, R86 |
| RE-220006-GP | 20K, 1 PCNT, 1/10W, THICK FILM, 1206, | 1 | R38 |

| Part Number | Description | Qty | Ref Des |
|--------------|---|-----|-------------------------|
| RE-222001-GP | 22K 1% 1/10W 0805 | 3 | R32, R34, R37 |
| RE-224001-GP | 24.0K 1% 1/10W THK FLM 0805 | 1 | R453 |
| RE-227001-GP | 27K 1% 1/10W 0805 | 1 | R349 |
| RE-230006-GP | 30K, 1 PCNT, 1/10W, THICK FILM, 0805, | 2 | R394, R4 |
| RE-230104-GP | 30.1K 1% 1/8W RMG 1206 | 3 | R40, 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, | 1 | R355 |
| 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 | R377, R69, R76 |
| RE-251001-GP | 51K, 1 PCNT, 1/10W, RMG, 0805, | 1 | R422 |
| RE-275005-GP | 75K, 1 PCNT, 1/10W, RMG, , | 3 | R370, R405, R450 |
| RE-291001-GP | 91K, 1 PCNT, 1/10W, RMG, 0805, | 2 | R367, R438 |
| RE-310007-GP | 100K 1% 1/10W THK FLM 0805 | 4 | R306, R350, R363, R409 |
| RE-310008-GP | 100K 1% 1/8W THK FLM 1206 | 5 | R10, R31, R83, R92, R94 |
| RE-312006-GP | 120K 1% 1/10W RMG 0805 | 2 | R386, R399 |
| RE-315006-GP | 150K, 1 PCNT, 1/10W, THICK FILM, 0805, | 2 | R324, R374 |
| RE-320006-GP | 200K, 1 PCNT, 1/10W, THICK FILM, 0805, | 2 | R322, R454 |
| 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-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, | 8 | |
| 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-040001-GP | SCREW M4-18 X 10MM, BLK ZN | 2 | |
| 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-000296-GP | XFMR, POWER, , 50HZ, TOROIDAL, 500W, , HPR 2-WAY, 230V, | 1 | |