

SERVICE MANUAL

V3001 Plus

MODEL NO.: V3001 Plus

Contents

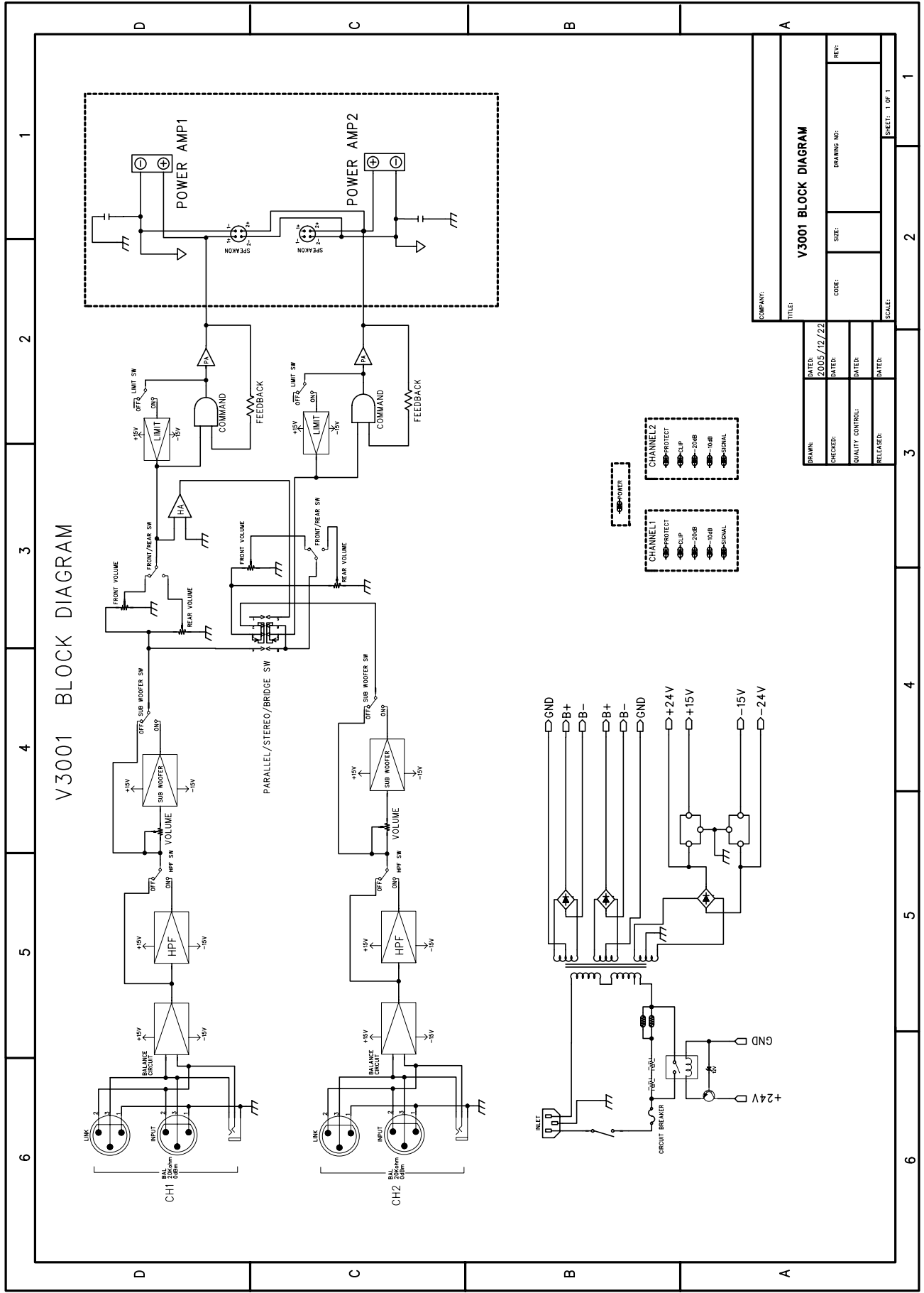
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General Specification

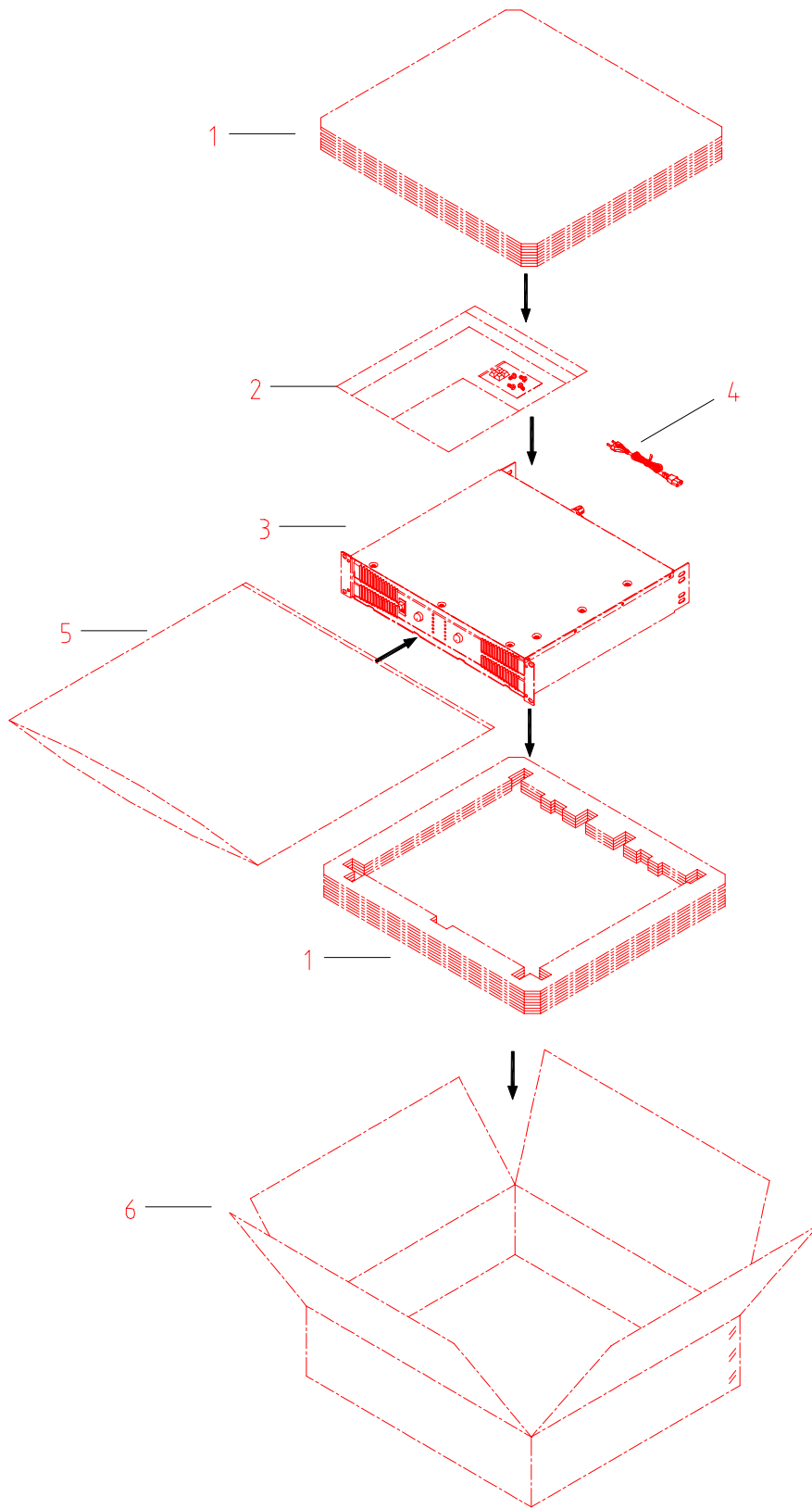
NORMAL

LIMIT

| | NORMAL | LIMIT |
|--|--------|---------------|
| * Rated Output Power(1KHz,THD+N 1%)/BOTH CHANNEL DRIVE (PARALLEL) 8 ohm 1KHz, THD+N 1% | | 350W |
| 4 ohm 1KHz, THD+N 1% | | 600W |
| 2 ohm 1KHz, THD+N 1% | | 900W |
| (BRIDGE MONO) 8 ohm 1KHz, THD+N 1% | | 1200W |
| * THD+N 4 ohm 1KHz, per channel 1/2 rated power,at 1KHz/both drive | | 0.1% |
| * Frequency response 8 ohm 1W, Check point 1KHz, From 20Hz~20KHz | | +0.5/-1dB |
| * Input Sensitivity 8 ohm rated power | 1.24V | 0.992V~1.561V |
| * Input Clipping 8 ohm 1W, Input: 12dB(600 ohm) | | THD+N < 1% |
| * S/N Ratio 4 ohm rated power, audio filter weighted | | 85dB |
| * Crosstalk 4 ohm rated power, "A" weighted | | 70dB |
| * Damping Factor 8 ohm, 400Hz 1W | | >200 |
| * Indicator Senitivity Clip LED(@ 4 ohm 1KHz, Just Light) | | >=0.01% |
| Signal LED(@Audio analyzer 4 ohm Loader,Set No Load, 1KHz ,Output:600W<=>0dBr) | | |
| -10dB LED Just Light | -10dB | -10dB+/-2dB |
| -20dB LED Just Light | -20dB | -20dB+/-2dB |
| Signal LED Just Light | -36dB | -36dB+/-2dB |
| * HPF TEST @8 ohm 1KHz 1W, Again Input 20Hz | | -10dBr Down |
| * Limiter @4 ohm 1KHz Input: +4dBm(600 ohm) Volume MAX | | <=1% |
| * SUB WOOFER No Load Input:20Hz,Output:36dBm(Audio Analyzer Input/100K SUB VR MIN),Again Input 45Hz | | -10dB DOWN |
| No Load Input:200Hz,Output:36dBm(Audio Analyzer Input/100K SUB VR MAX),Again Input 400Hz | | -10dB DOWN |
| * VOLUME CONTROL(FRONT/REAR SWITCH 'REAR') 8 ohm 1KHz, THD+N 1% | | 350W |



| | | | |
|---------------------|--|--------------|--|
| DRAWN: | | DATE: | |
| CHECKED: | | DATE: | |
| QUALITY CONTROL: | | DATE: | |
| RELEASED: | | DATE: | |
| TITLE: | | SCALE: | |
| V3001 BLOCK DIAGRAM | | 1 OF 1 | |
| COMPANY: | | DRAWING NO.: | |
| REV.: | | SIZE: | |
| CODE: | | DATE: | |

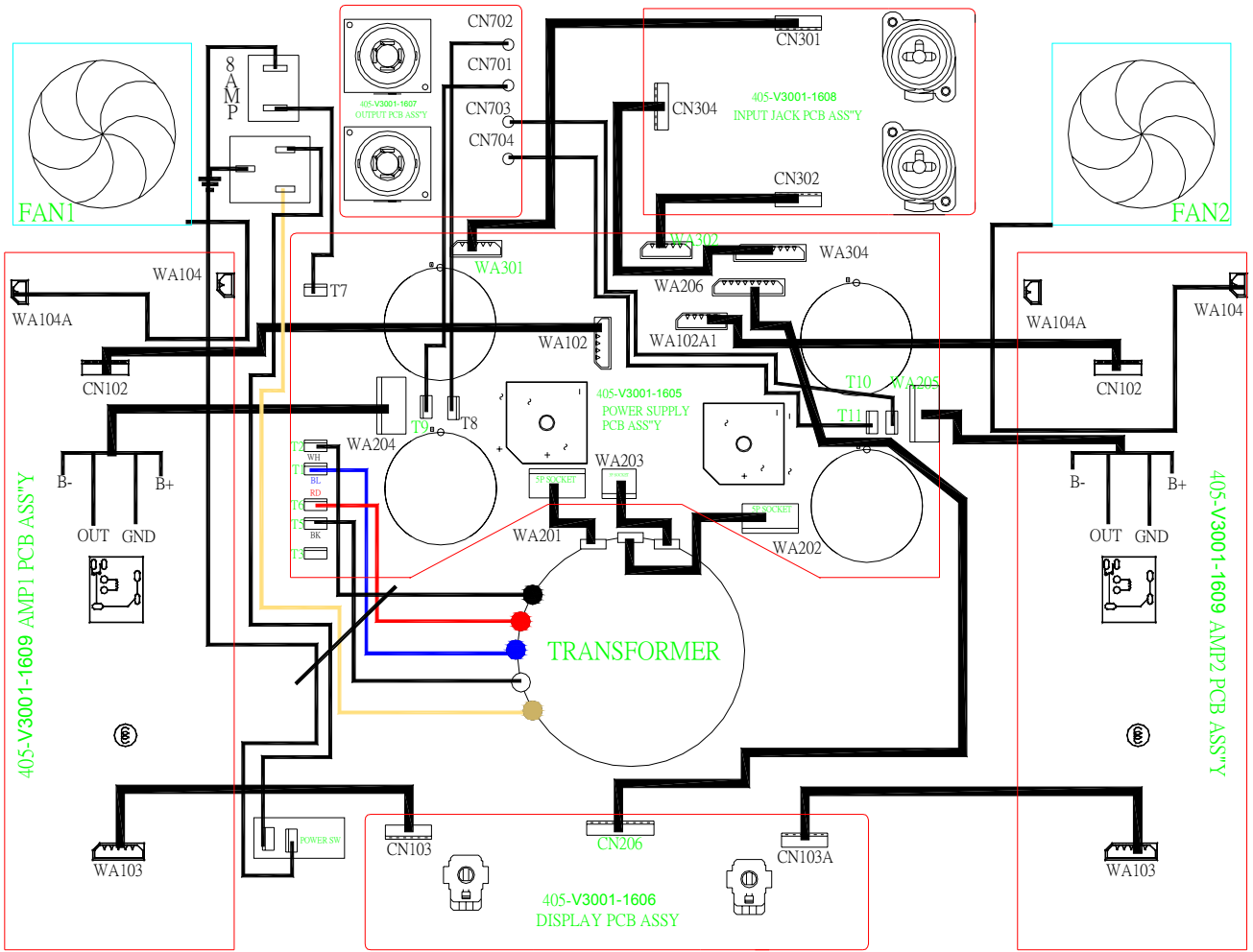


V3001B

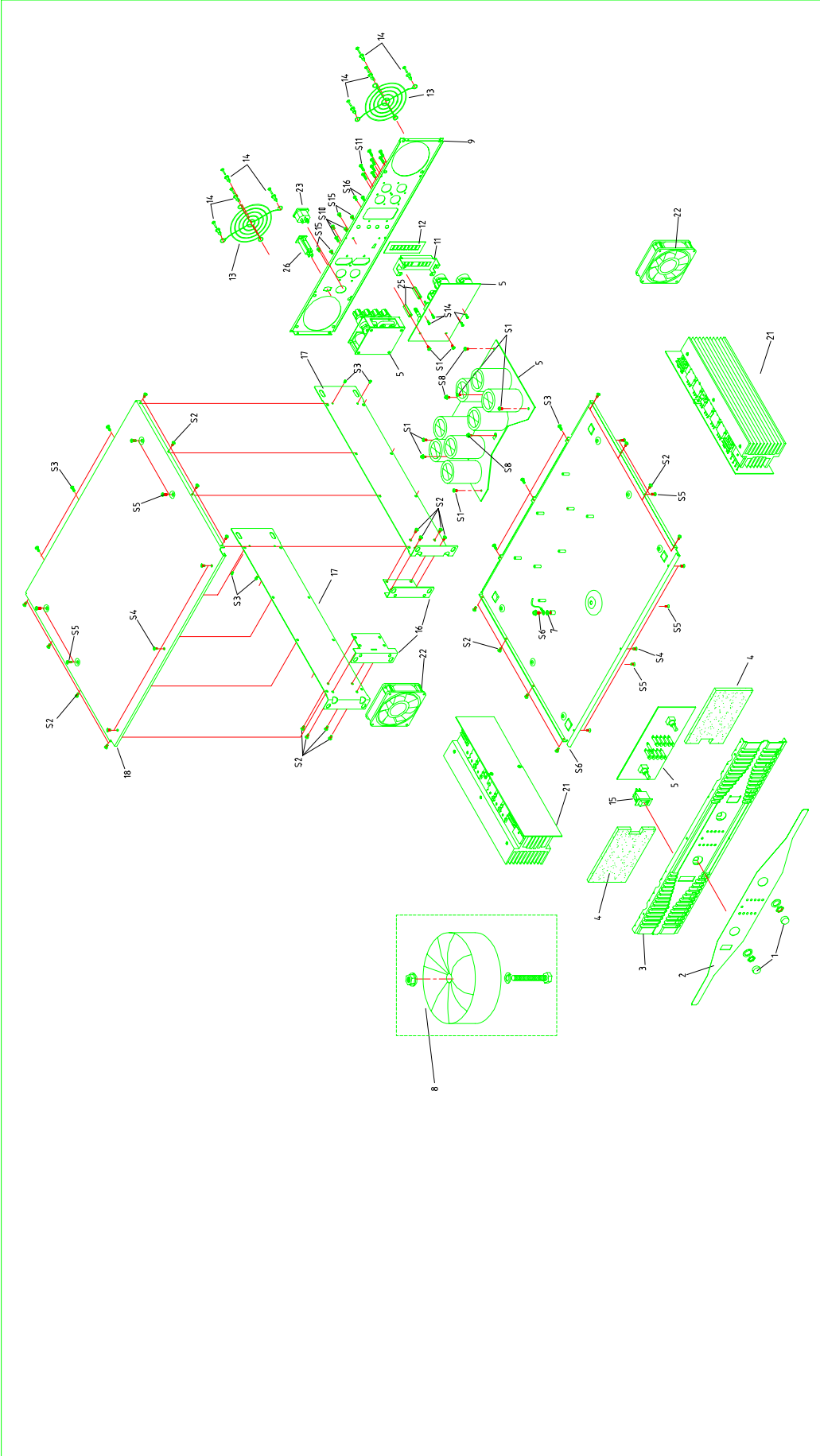
Packing View Part List

| REF NO. | DESCRIPTION | PART NO. | Q'TY | REMARK |
|---------|---------------|-----------------|------|--------|
| 1 | CUSHION | 507-V1001-2627 | 2 | |
| 2 | I/B ASS'Y | 701-V1001A-3624 | 1 | |
| 3 | UNIT | V3001B | 1 | |
| 4 | AC POWER CORD | 409-V1001B-144 | 1 | |
| 5 | BAG | 505-DJ35000-156 | 1 | |
| 6 | INSIDE BOX | 507-V3001-2639 | 1 | |
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Point to Point Wiring Diagram



Exploded View



| MATERIAL | FINISHING | TOLERANCE | MODEL NO |
|-------------|-----------|-----------|-----------------|
| 3RD ANGLE'S | SCALE | 1:1 | V3001B |
| | | | DESCRIPTION |
| | | | EXPLODE DRAWING |
| | | | PART NO |
| | | | DRAW NO |

Exploded View Part List

| REF NO. | DESCRIPTION | PART NO. | Q'TY | REMARK |
|---------|---|-----------------|------|--------|
| 1 | CONTROL KNOB | 100-V1001-2342 | 2 | |
| 2 | ALUMINUM PLATE | 501-V3001-1820 | 1 | |
| 3 | FRONT PANEL | 703-V1001-974 | 1 | |
| 4 | FILTER | 612-V1001-206 | 2 | |
| 5 | POWER/DISPLAY/IN/OUTPUT PCB ASS'Y | 704-V3001-5886 | 1 | |
| 6 | BOTTOM COVER | 703-V4001-997 | 1 | |
| 7 | TOOTH WASHER | 606-F200-002 | 1 | |
| 8 | TRNASFORMER | 411-V3001B-498 | 1 | |
| 9 | REAR PANEL | 300-V3001-1235 | 1 | |
| 11 | SWITCH BRACKET | 300-V1001-1237 | 1 | |
| 12 | INLAY | 501-V1001-1821 | 1 | |
| 13 | FAN SHIELD | 703-V1001-931 | 2 | |
| 14 | MOUNTING BUTTON | 504-SX1200-167 | 8 | |
| 15 | POWER SWITCH | 403-V1001-232 | 1 | |
| 16 | RACK EAR BRACKET | 300-V1001-1262 | 2 | |
| 17 | SIDE FRAME | 300-V1001-1234 | 2 | |
| 18 | TOP COVER | 300-V2001-1232 | 1 | |
| 21 | AMP PCB ASS'Y | 704-V3001-5887 | 2 | |
| 22 | FAN | 401-V1001-063A | 2 | |
| 23 | AC INLET | 420-SX1800-195 | 1 | |
| 25 | SUPPORT M3(H:24) | 200-SX1200-451 | 2 | |
| 26 | CIRCUIT BREAKER | 403-SX1800C-222 | 1 | |
| | | | | |
| S1 | SCREW M3*6 B-HEAD YELLOW | 602-XM610-511 | 7 | |
| S2 | SCREW TTS4*6 B-HEAD BLACK | 602-SX1200-541 | 24 | |
| S3 | SCREW TTS3*6 B-HEAD BLACK | 602-SX1200-542 | 10 | |
| S4 | SCREW TTS4*6 F-HEAD BLACK | 602-V1001-556 | 6 | |
| S5 | SCREW M4*8 B-HEAD BLACK | 602-SX1200-543 | 8 | |
| S6 | SCREW M4*10 B-HEAD ASS'Y WASHERS YELLOW | 602-XM410-552 | 1 | |
| S8 | SCREW M 3*8 P-HEAD WASHER ASS'Y | 602-XM610-530 | 3 | |
| S10 | SCREW BTTB3*6 BLACK | 602-QMX2BPM-322 | 3 | |
| S11 | SCREW TTB 3*10 B-HEAD BLACK(TEETH) | 602-XM610-522 | 8 | |
| S14 | SCREW | 602-XM610-515 | 4 | |
| S15 | SCREW M3*8 B-HEAD BLACK | 602-SX1200-544 | 4 | |
| S16 | SCREW | 602-XM610-514 | 2 | |
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Power/Display/In/Out PCB Ass'y

| REF NO. | DESCRIPTION | PART NO. | Q'TY | REMARK |
|---|---|------------------|------|--------|
| | POWER/DISPLAY/IN/OUT PCB ASS'Y | 704-V3001-5886 | 1 | |
| | BRACKET(M3*24.5) | 200-SX-459 | 2 | |
| GND2,GND3,GND1 | GROUNDING SHIELD | 300-F202-001 | 3 | |
| | OUTPUT JACK BRACKET(SECC 1.0t) | 300-SX-1186A | 1 | |
| SW11 | SLIDE SW(SST1040-0202-9T-NP)-Alpha | 403-V3001-229 | 1 | |
| SW301,SW302,SW303,SW304,SW305,SW306,SW307 | SLIDE SW(SST1040-0202-0T-NP)-Alpha | 403-V3001-230 | 7 | |
| SW308 | SLIDE SW/6P/Vertical/Selflock(SS65010-0203-LH ALP) | 403-XM910-200 | 1 | |
| WA102,WA102A1 | 6P SOCKET(JST P=2.5mm WHITE) | 404-3113-056 | 2 | |
| WA301,WA302 | 5P SOCKET(CKM2501WV-5P 180°WHITE)(Cd,Pb,Hg,Cr) | 404-H200-007A | 2 | |
| WA304 | 8P SOCKET(CKM2501WV-8P 180°WHITE)(Cd,Pb,Hg,Cr) | 404-HMD510-253A | 1 | |
| WA206 | 9P SOCKET(CKM2501WV-9P 180°WHITE)(Cd,Pb,Hg,Cr) | 404-HV3700K-668A | 1 | |
| CN703 | 1P CONNTOR WIRE(AWM1015,AWG18 L=175mm 250T-B'D IN RED)(Cd,Pb) | 404-SX1800-1931 | 1 | |
| CN103,CN103A | 6P CONNECTOR WIRE(P=2.5mm, L=200mm,UL 2468#26 CKM2501) | 404-V1001-2126 | 2 | |
| AN302 | 9P CONNECTOR WIRE(P=2.54mm, L=500mm,UL 2468#26 CKM2501) | 404-V1001-2130 | 1 | |
| CN702 | 1P CON ASS'Y(L=150mm UL1015#18 250T-B'D IN BLACK) | 404-V2001-2071 | 1 | |
| CN701 | 1P CON ASS'Y(L=150mm UL1015#18 250T-B'D IN RED) | 404-V2001-2072 | 1 | |
| CN704 | 1P CON ASS'Y(L=230mm UL1015#18 250T-B'D IN BLACK) | 404-V2001-2074 | 1 | |
| CN302 | 5P CONNECTOR WIRE(P=2.54mm, L=150mm,UL 2468#26 CKM2501) | 404-V3001-2132 | 1 | |
| CN301 | 5P CONNECTOR WIRE(P=2.5mm, L=250mm,UL 2468#26 CKM2501) | 404-V3001-2133 | 1 | |
| CN304 | 8P CONNECTOR WIRE(P=2.5mm, L=150mm,UL 2468#26 CKM2501) | 404-V4001-2129 | 1 | |
| WA203 | 3P BASE(P=3.96mm CKM3962WV-3P) | 404-XM610-1789 | 1 | |
| WA201,WA202,WA204,WA205 | 5P BASE(P=3.96mm CKM3962WV-5P) | 404-XM910-1791 | 4 | |
| LD601,LD602,LD603,LD608 | LED (RED) | 410-CD6000-122 | 4 | |
| LD606,LD611 | LED (YELLOW) | 410-CD6000-123 | 2 | |
| LD604,LD605,LD609,LD610 | LED (GREEN) | 410-CD6000-124 | 4 | |
| LD607 | LED (LTL42UB5N,BLUE) | 410-NT2000-149 | 1 | |
| R1,R2 | CEMENT RESISTOR(12 OHM J 10W) | 412-V1001-1043 | 2 | |
| CPTC501,CPTC502 | PTC RES(MZ11-12P10RH265) | 412-V1001-1044 | 2 | |
| R613 | M.O.RES(330 ohm J 2W AXIAL TAPING 74mm) | 412-V2001-972 | 1 | |
| C209 | ELEC. CAPACITOR(1000uF/35V,M, 105°C,BULK 13*21)(Cd,Pb,Hg,Cr) | 413-DJ1900-110 | 1 | |
| C501,C216,C217 | E.C(470uF/35V M 105°C,TAPING 10*17)(Cd,Pb,Hg,Cr) | 413-LAC58A-728 | 3 | |
| C201,C202,C205,C206 | MAYLAR.CAP(0.47uF/250V M BULK STRONG:MEF 474J 250A EI) | 413-SX1800-891 | 4 | |
| C203,C204,C207,C208 | ELEC.CAP(6800uF/100V M BULK) | 413-SX2800-906 | 4 | |
| C214,C215 | E.C(220uF/50V,M, 105°C,TAPING 10*16)(Cd,Pb,Hg,Cr) | 413-XM910-858 | 2 | |
| D203,D204,D205,D206,D207,D208,D502,D503 | RECTIFYING DIODE(RECTIFIER LTIN4006) | 414-MX1824-155 | 8 | |
| ZD601 | DIODE(UZP 15BM/1W) | 414-SX2800-194 | 1 | |
| D501 | DIODE (UZ 12BM/1W) | 414-SX2800-196 | 1 | |
| BD203 | DIODE-BRIDGE KBP203G 2A | 414-XM610-182 | 1 | |
| RY501 | RELAY(NT90RNAS12CB) | 415-V4001-274 | 1 | |
| Q501 | TRANSISTOR(KTC4370A-Y TO 220IS) | 416-MX1436-235 | 1 | |
| IC201 | IC(NJM7815FA 3PIN) | 417-DV330-216 | 1 | |
| IC202 | IC(NJM7915FA) | 417-RCC955A-291 | 1 | |

Power/Display/In/Out PCB Ass'y

| REF NO. | DESCRIPTION | PART NO. | Q'TY | REMARK |
|--|--|------------------|------|--------|
| IC203 | IC(LOW NOISE AMPLIFER NJM2068DD DIP8 JRC) | 417-XM910-697 | 1 | |
| IC301,IC302,IC303,IC304 | IC(LOW NOISE AMPLIFER NJM2068L SIP8 JRC) | 417-XM910-698 | 4 | |
| VR303,VR304 | VOLUME(RV09BC-40-30B-B10K)-Alpha | 418-V3001-282 | 2 | |
| VR301,VR302 | VR (RV112BC-40-30B-C500K)-Alpha | 418-V3001-283 | 2 | |
| VR601,VR602 | VOLUME(R1111NOAV1B103FJ0941 10KB) | 418-V4001-312 | 2 | |
| JK302,JK304 | BALANCE JACK(JY-5030-030G)(Pb,Cd) | 420-CDMIX1-083 | 2 | |
| F201,F202 | FUSE CLIPS(FC-1206/WL-210A,15A) | 420-KT350A-004 | 4 | |
| SPEAKCON701,SPEAKCON702 | SPEAKCON JACK(JS001-120)-ALPHA | 420-SX1800-196 | 2 | |
| SP701 | JACK | 420-SX1800-197 | 1 | |
| SP702 | JACK | 420-SX1800-198 | 1 | |
| JK301,JK303 | COMBO JACK/9P/VERTICAL/NON-LOCKING(CXFL-06BELTON) | 420-XM910-181 | 2 | |
| F201,F202 | FUSE(2A/250V,VDE) | 422-VP9812B2-055 | 2 | |
| T8,T9,T10,T11,T1,T2 | CONNCTOR PCB PIN(TERMINAL-250) | 424-XM910-090 | 6 | |
| | LED HOLDER | 504-V1001-174 | 11 | |
| | SCREW(M3*6) | 602-XM610-511 | 6 | |
| | SCREW(TTB3*8) | 602-XM610-528 | 2 | |
| BD201,BD202 | BRIDGE ASS'Y | 704-SX1200-3364 | 2 | |
| | DIODE-BRIDGE KBPC3504W 35A | 414-SX1800-187 | 1 | |
| | HEATSINK-DIODE | 425-XM610-077 | 1 | |
| BRIDGE DIODE TO HEATSINK DIODE | SCREW(M4*16) | 602-XM610-523 | 1 | |
| | CERAMIC TUBE (4*2*11.5mm) | 605-KMD510P-034 | 4 | |
| C701,C702 | CERAMIC CAPACITOR(0.01uF/50V,Z,TAPING,Z5V) | 413-3113-028 | 2 | |
| C604,C607 | CERAMIC CAPACITOR(470pF/50V,K,TAPING,Y5P) | 413-3113-036 | 2 | |
| C603,C606 | ELEC. CAPACITOR(10uF/50V,M,105°C,TAPING 5*7,MINI)(Cd,Pb,Hg,C | 413-DM1000-348 | 2 | |
| C602,C218,C219 | ELEC. CAPACITOR(10uF/50V,M,105°C,TAPING 5*11)(Cd,Pb,Hg,Cr) | 413-DM1000-352 | 3 | |
| C222,C225 | LOSE ELEC. CAPACITOR(2.2uF/50V M 105°C TAPING LL) | 413-HF6011D-481 | 2 | |
| C220,C223 | CERAMIC CAPACITOR(22pF/50V,J,TAPING,NPO) | 413-HP1010K-199 | 2 | |
| C502,C304,C307,C310,C314,C317,C320,C321,C323,C324,C325,C326,C327 | ELEC. CAPACITOR (47uF/25V M 105°C, TAPING 5*11)(Cd,Pb,Hg | 413-HS100-181 | 13 | |
| C322 | CERAMIC CAPACITOR(47pF/50V,J,TAPING,NPO) | 413-HT8015-153 | 1 | |
| C211,C210,C212,C213 | CERAMIC CAPACITOR(4700pF/50V,K,TAPING,Y5P) | 413-HT8015-167 | 4 | |
| C601,C605 | POLYESTER CAPACITOR(0.1uF/100V,J,TAPING) | 413-KT350-089 | 2 | |
| C301,C311 | CERAMIC CAPACITOR(5pF/50V,C,TAPING,NPO) | 413-KT350-092 | 2 | |
| C302,C303,C312,C313 | CERAMIC CAPACITOR(100pF/50V,J,TAPING,NPO) | 413-PMSE1-258 | 4 | |
| C309,C308,C319,C318 | MYLAR CAPACITOR(0.012uF/100V J TAPING) | 413-XM910-874 | 4 | |
| C305,C306,C315,C316 | MAYLAR CAPACITOR(0.068uF/100V J TAPING) | 413-XM910-879 | 4 | |
| Q603,Q610 | TRANSISTOR(NPN KTC3200BL TO-92 TAPING KEC) | 416-XM910-261 | 2 | |
| Q601,Q602,Q608,Q609 | TRANSISTOR(NPN KTC3198BL TO-92 TAPING KEC) | 416-XM910-265 | 4 | |
| Q604,Q605,Q606,Q607,Q611,Q612,Q613,Q201,Q202,Q203,Q204,Q615 | TRANSISTOR(PNP KTA1268BL TO-92 TAPING KEC) | 416-XM910-266 | 12 | |
| R203,R216 | CARBON FILM RESISTOR(33K OHM,1/6W,J,T-26) | 412-3113-045 | 2 | |

Power/Display/In/Out PCB Ass'y

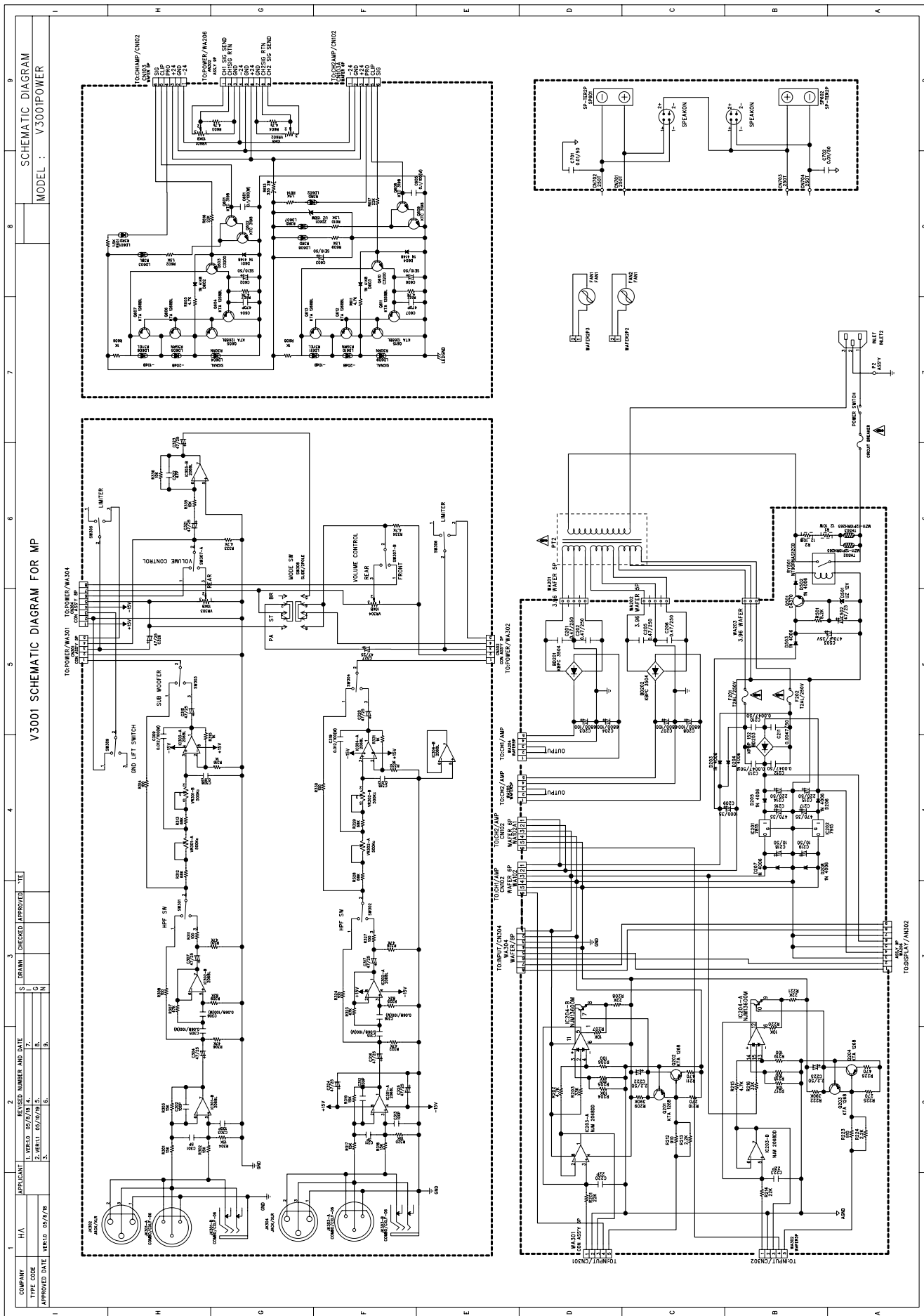
| REF NO. | DESCRIPTION | PART NO. | Q'TY | REMARK |
|---|--|-----------------|------|--------|
| R213,R224 | CARBON FILM RESISTOR(2.2K OHM,1/6W,J,T-26) | 412-3113-048 | 2 | |
| R210,R225 | CARBON FILM RESISTOR(270 OHM,1/6W,J,T-26) | 412-3113-049 | 2 | |
| R603,R604,R605,R607,R611,R612,R202,R215,R333,R334 | CARBON FILM RESISTOR(4.7K OHM,1/6W,J,T-26) | 412-3113-055 | 10 | |
| R211,R226 | CARBON FILM RESISTOR(470 OHM,1/6W,J,T-26) | 412-3113-056 | 2 | |
| R616,R617,R201,R208,R214,R221 | CARBON FILM RESISTOR(22K OHM,1/6W,J,T-26) | 412-3113-059 | 6 | |
| R308,R311,R314,R324,R327,R330,R205,R206,R218,R219 | CARBON FILM RESISTOR(100 OHM,1/6W,J,T-26) | 412-3113-060 | 10 | |
| R306,R307,R310,R322,R323,R326 | CARBON FILM RESISTOR((47K OHM,1/6W,J,T-26) | 412-3113-063 | 6 | |
| R204,R217,R335,R336 | CARBON FILM RESISTOR(10K OHM,1/6W,J,T-26) | 412-3113-068 | 4 | |
| R207,R220 | CARBON RESISTOR(10K 1/6W J TAPING 52mm) | 412-3113-068L | 2 | |
| R315,R316,R331,R332,R606,R608 | CARBON FILM RESISTOR(1K OHM,1/6W,J,T-26) | 412-3113-078 | 6 | |
| R601,R602,R609,R610,R614 | CARBON FILM RESISTOR(1.5K OHM,1/6W,J,T-26) | 412-D396-135 | 5 | |
| R212,R223 | CARBON FILM RESISTOR(910 OHM,1/6W,J,T-26) | 412-HDJ2100-371 | 2 | |
| R501 | CARBON FILM RESISTOR(8.2K OHM,1/6W,J,T-26) | 412-KM500-123 | 1 | |
| R309,R325 | CARBON FILM RESISTOR((82K OHM,1/6W,J,T-26) | 412-KT300-105 | 2 | |
| R209,R222 | CARBON FILM RESISTOR(390K OHM,1/6W,J,T-26) | 412-KT300-106 | 2 | |
| R312,R313,R328,R329 | CARBON FILM RESISTOR(68K OHM,1/6W,J,T-26) | 412-KT350-101 | 4 | |
| R301,R302,R303,R304,R317,R318,R319,R320 | CARBON FILM RESISTOR(15K OHM 1/6W F TAPING 52mm) | 412-XM910-861 | 8 | |
| D601,D602,D603,D604 | SWITCHING DIODE(1N4148,1/2W,150mA/100V,T-77) | 414-2002-002 | 4 | |
| | POWER PCB(CEM-1 T=1.6mm,330*247mm) | 405-V3001-1605 | 1 | |
| | DISPLAY PCB(CEM-1 T=1.6mm,330*247mm) | 405-V3001-1606 | 1 | |
| | OUTPUT PCB (CEM-1 T=1.6mm,330*247mm) | 405-V3001-1607 | 1 | |
| | INPUT PCB (CEM-1 T=1.6mm,330*247mm) | 405-V3001-1608 | 1 | |
| IC204 | IC (NJM13600M) | 417-V4001-745 | 1 | |
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Power Amp PCB Ass'y

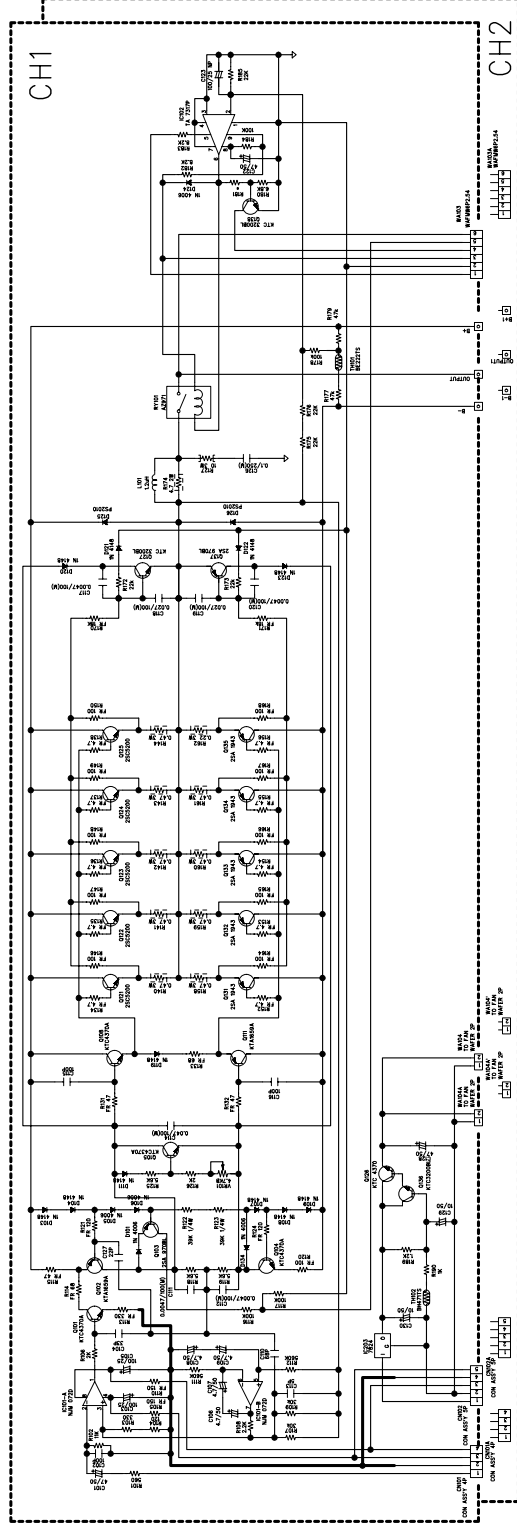
| REF NO. | DESCRIPTION | PART NO. | Q'TY | REMARK |
|--|---|-----------------|------|--------|
| | POWER AMP PCB ASS'Y | 704-V3001-5887 | 2 | |
| | HEATSINK BRACKET(SECC 1.0t) | 300-SX-1184 | 2 | |
| WA103 | 6P SOCKET(JST P=2.5mm WHITE) | 404-3113-056 | 1 | |
| GND,B+B -OUTPUT | 5P CONNECTOR WIRE(P=3.96mm,L=150mm,UL1015#18) | 404-SX1800-1923 | 1 | |
| CN102 | 6P CON ASS'Y(6P P=2.5mm L=200mm UL2468#26 CKM2501 SCREEN) | 404-V2001-2176 | 1 | |
| WA104,WA104A | 2P BASE(P=2.54mm,CKM2503WV-2P-2.54mm) | 404-XM910-1833 | 2 | |
| VR101 | RESISTOR(4.7KB OHM, $\frac{1}{4}$ W, RH0615CS3J) | 412-KC220-127 | 1 | |
| R128 | CARBON FILM RESISTOR(10 OHM, 1/6W, J, T-26) | 412-KC220-132 | 1 | |
| R124 | FUSE.RES(120 OHM, 1/4W J RADIAL TAPING) | 412-SX1800-891 | 1 | |
| TH102 | NTC THERMISTOR(TKINKING:PTMS2331RP416B) | 412-SX1800-897 | 1 | |
| TH101 | PTC THERMISTOR(TKINKING:PTMS2331RP716B) | 412-XM910-859 | 1 | |
| R174 | METAL OXIDE RESISTOR(4.7 OHM, J 2W RADIAL) | 412-XM910-877 | 1 | |
| R127 | M.O.RES(10 OHM, J 3W AXIAL 74mm) | 412-XM910-879 | 1 | |
| R140,R141,R142,R143,R144,R158,R159,R160,R161,R162 | CEMENT.RES(0.47 ohm, J 5W AXIAL) | 412-XM910-880 | 10 | |
| D101,D105,D106,D124,D134 | RECTIFYING DIODE(RECTIFIER LTIN4006) | 414-MX1824-155 | 5 | |
| D125,D126 | DIODE(PS2010 2A TAPING 52mm TYPE:DO-15) | 414-XM910-178 | 2 | |
| RY101 | RELAY(832A-1A-S24V) | 415-SX1800-263 | 1 | |
| L101 | SPRING COIL 1.2UH +/-15%(CS8F-514149) | 415-XM910-253 | 1 | |
| Q102 | TRANSISTOR(KTA1659A-Y) | 416-LAC62C-159 | 1 | |
| Q101,Q104,Q126,Q105 | TRANSISTOR(KTC4370A-Y TO 220IS) | 416-MX1436-235 | 4 | |
| Q108 | TRANSISTOR(MJE15032) | 416-SX2800-279 | 1 | |
| Q111 | TRANSISTOR(MJE15033) | 416-SX2800-280 | 1 | |
| Q121,Q122,Q123,Q124,Q125 | TRANSISTOR(NPN 2SC5200-O TO-3 TOSHIBA) | 416-XM910-267 | 5 | |
| Q131,Q132,Q133,Q134,Q135 | TRANSISTOR(PNP 2SA1943 TO-3 TOSHIBA) | 416-XM910-268 | 5 | |
| IC203 | IC(NJM7824) | 417-DJ2500-268 | 1 | |
| IC101 | IC(NJM072D DIP8) | 417-SX1800-718 | 1 | |
| IC102 | IC(AMP+SPK PROTECTION IC TA7317P SIP9) | 417-XM910-701 | 1 | |
| | HEAT SINK | 425-V3001-082 | 1 | |
| | PCB SPACER SUPPORT(NYLON66/101F/94V-2)(Cd,Pb,Hg,Cr) | 504-SX1200-166 | 4 | |
| | SCREW(M3*6) | 602-XM610-511 | 4 | |
| | SCREW(M3*14) | 602-XM610-512 | 6 | |
| | SCREW(M3*14) | 602-XM610-535 | 10 | |
| | TRANSISTOR WASHER(NYLON) | 606-HPA1800-214 | 2 | |
| | | 612-HPA1800-217 | 2 | |
| R121 | FUSE.RES(120 OHM, 1/4W J RADIAL TAPING) | 412-SX1800-891 | 1 | |
| R105,R110 | FUSE.RES(150 OHM, 1/4W J RADIAL TAPING) | 412-SX1800-892 | 2 | |
| R113 | FUSE.RES(330 OHM, 1/4W J RADIAL TAPING) | 412-SX1800-894 | 1 | |
| R114 | FUSE.RES(68 OHM, 1/4W J RADIAL TAPING) | 412-SX1800-895 | 1 | |
| R120,R146,R147,R148,R149,R150,R164,R165,R166,R167,R168 | FUSE RESISTOR (100 OHM 1/4W J RADIAL TAPING) | 412-XM910-872 | 11 | |
| R115,R131,R132 | FUSE RESISTOR (47 OHM 1/4W J RADIAL TAPING) | 412-XM910-873 | 3 | |

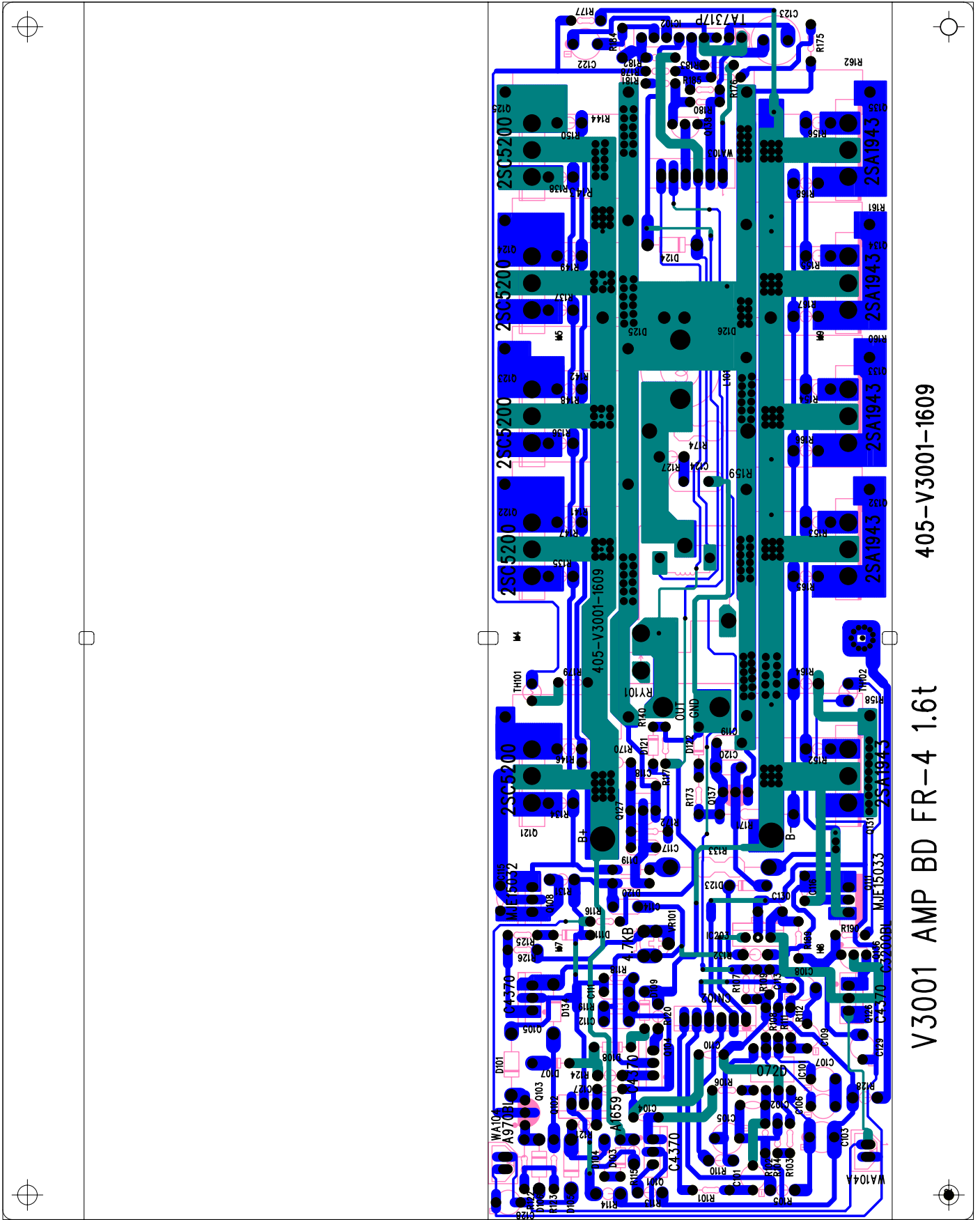
Power Amp PCB Ass'y

| REF NO. | DESCRIPTION | PART NO. | Q'TY | REMARK |
|--|--|------------------|------|--------|
| R134,R135,R136,R137,R138,R152,R153,R154,R155,R156 | FUSE RESISTOR (4.7 OHM 1/4W J RADIAL TAPING) | 412-XM910-874 | 10 | |
| C113 | C.C(5P/50V,+/-5%,TAPING) | 413-2595AV-624 | 1 | |
| C104 | CERAMIC CAPACITOR(33pF/50V,J,TAPING,NPO) | 413-3113-029 | 1 | |
| C110 | CERAMIC CAPACITOR(68pF/50V,K,TAPING,SL) | 413-3113-031 | 1 | |
| C106,C107,C108,C109 | ELEC. CAPACITOR(4.7uF/50V,M,105°C,TAPING 5*11)(Cd,Pb,Hg,Cr) | 413-3113-050 | 4 | |
| C129,C130 | ELEC. CAPACITOR(10uF/50V,M,105°C,TAPING 5*11)(Cd,Pb,Hg,Cr) | 413-DM1000-352 | 2 | |
| C101,C122,C128 | ELEC. CAPACITOR(47uF/50V,M,105°C,TAPING 6.3*11)(Cd,Pb,Hg,Cr) | 413-DV300-5143 | 3 | |
| C127 | CERAMIC CAPACITOR(22pF/50V,J,TAPING,NPO) | 413-HP1010K-199 | 1 | |
| C103,C105 | ELEC. CAPACITOR(100uF/25V,M,105°C,TAPING 6.3*11)(Cd,Pb,Hg,C | 413-HS100-180 | 2 | |
| C111,C112,C117,C120 | POLYESTER CAPACITOR(0.0047uF/100V,J,TAPING) | 413-HT8015-159 | 4 | |
| C102,C115,C116 | CERAMIC CAPACITOR((100pF/50V,J,TAPING,SL) | 413-PXE90-107 | 3 | |
| C123 | E.C(100uF/25V,NP M,105°C,TAPING 8*12)(Cd,Pb,Hg,Cr) | 413-XM910-857 | 1 | |
| C124 | MYLAR CAP(0.1uF/250V M TAPING) | 413-XM910-865 | 1 | |
| C118,C119 | MYLAR CAPACITOR(0.027uF/100V J TAPING) | 413-XM910-877 | 2 | |
| C114 | MYLAR CAPACITOR(0.047uF/100V J TAPING) | 413-XM910-878 | 1 | |
| Q103,Q137 | TRANSISTOR(2SA970 BL) | 416-HMA2200-069 | 2 | |
| Q127,Q136,Q138 | TRANSISTOR(NPN KTC3200BL TO-92 TAPING KEC) | 416-XM910-261 | 3 | |
| | AMP PCB(FR-1 T=1.6mm,197*247mm) | 405-V3001-1609 | 1 | |
| R122,R123 | CARBON FILM RESISTOR((39K OHM,1/4W,J,T-52) | 412-2030-036 | 2 | |
| R118,R119,R125 | CARBON FILM RESISTOR(5.6K OHM,1/6W,J,T-26) | 412-3113-044 | 3 | |
| R116,R117,R184,R178 | CARBON FILM RESISTOR(100K OHM,1/6W,J,T-26) | 412-3113-047 | 4 | |
| R108 | CARBON FILM RESISTOR(2.2K OHM,1/6W,J,T-26) | 412-3113-048 | 1 | |
| R172,R173,R175,R176,R185 | CARBON FILM RESISTOR(22K OHM,1/6W,J,T-26) | 412-3113-059 | 5 | |
| R177,R179,R181 | CARBON FILM RESISTOR((47K OHM,1/6W,J,T-26) | 412-3113-063 | 3 | |
| R189 | CARBON FILM RESISTOR(1.2K OHM,1/6W,J,T-26) | 412-3113-067 | 1 | |
| R180 | CARBON FILM RESISTOR(6.8K OHM,1/6W,J,T-26) | 412-3113-069 | 1 | |
| R111,R112 | CARBON FILM RESISTOR(560K OHM,1/6W,J,T-26) | 412-3113-072 | 2 | |
| R190 | CARBON FILM RESISTOR(1K OHM,1/6W,J,T-26) | 412-3113-078 | 1 | |
| R102 | CARBON FILM RSISTOR(11K OHM,1/6W,J,T-26) | 412-DCM370E3-436 | 1 | |
| R107,R109 | CARBON FILM RESISTOR(30K OHM,1/6W,J,T-26) | 412-DV300-291 | 2 | |
| R106,R126 | CARBON FILM RESISTOR(2K OHM,1/6W,J,T-26) | 412-HC1421FR-246 | 2 | |
| R104 | CARBON FILM RESISTOR(120 OHM,1/6W,J,T-26) | 412-HP1010K-250 | 1 | |
| R103 | CARBON FILM RESISTOR(330 OHM,1/6W,J,T-26) | 412-KM300-118 | 1 | |
| R182,R183 | CARBON FILM RESISTOR(8.2K OHM,1/6W,J,T-26) | 412-KM500-123 | 2 | |
| R101 | CARBON FILM RESISTOR((560 OHM,1/6W,J,T-26) | 412-KT346-112 | 1 | |
| R133 | FUSE RES.(68 OHM 1/4W J TAPING) | 412-SX1800-1003 | 1 | |
| R170,R171 | NICETY RES(1.8K OHM,F,1/4W,T-52) | 412-SX1800-963 | 2 | |
| D103,D104,D107,D108,D109,D111,D119,D120,D121,D122,D123 | SWITCHING DIODE(1N4148,1/2W,150mA/100V,T-77) | 414-2002-002 | 11 | |

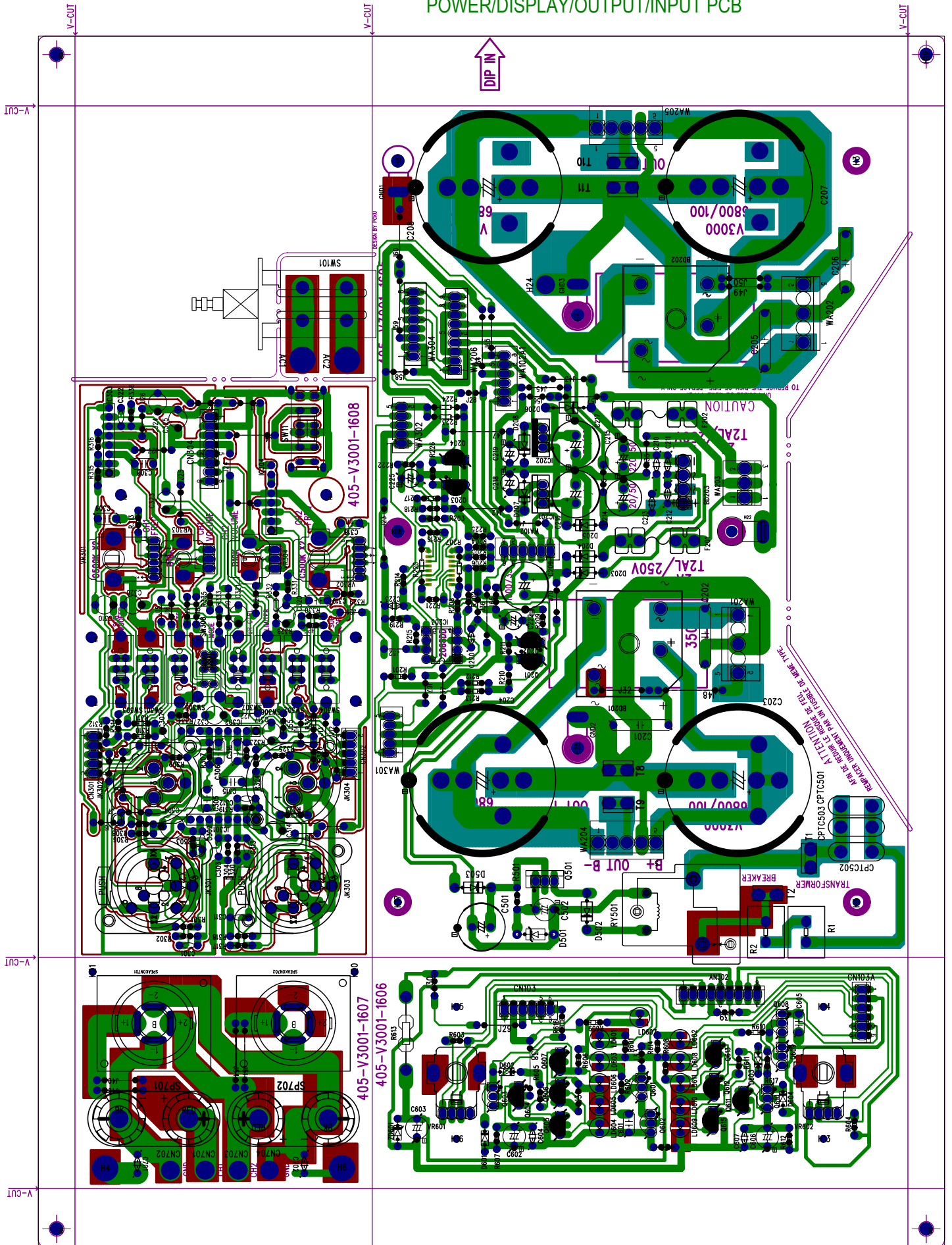


8
SHEET NO. 9
SCHEMATIC DIAGRAM
MODEL : V3001



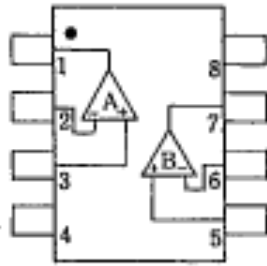


405-V3001-1605/1606/1607/1608
POWER/DISPLAY/OUTPUT/INPUT PCB

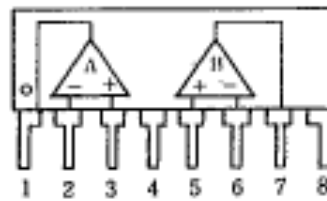


■ PIN CONFIGURATION

417-XM910-697/698(NJM2068D/NJM2068L)



NJM2068D
NJM2068M
NJM2068V



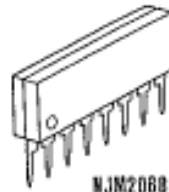
NJM2068L

PIN FUNCTION

- 1. A OUTPUT
- 2. A-INPUT
- 3. A+INPUT
- 4. V⁻
- 5. B+INPUT
- 6. B-INPUT
- 7. B OUTPUT
- 8. V⁺

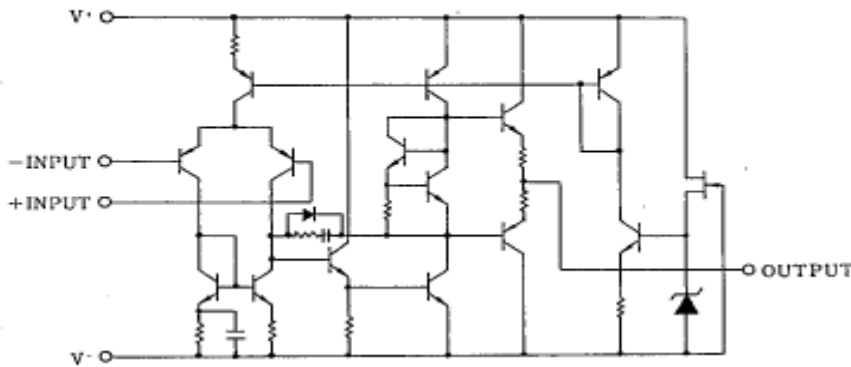


NJM2068D



NJM2068L

■ EQUIVALENT CIRCUIT (1/2 Shown)



417-DV330-216
NJM7815FA

- 1. OUTPUT
- 2. COMMON
- 3. INPUT

7815FA
7001
JRC

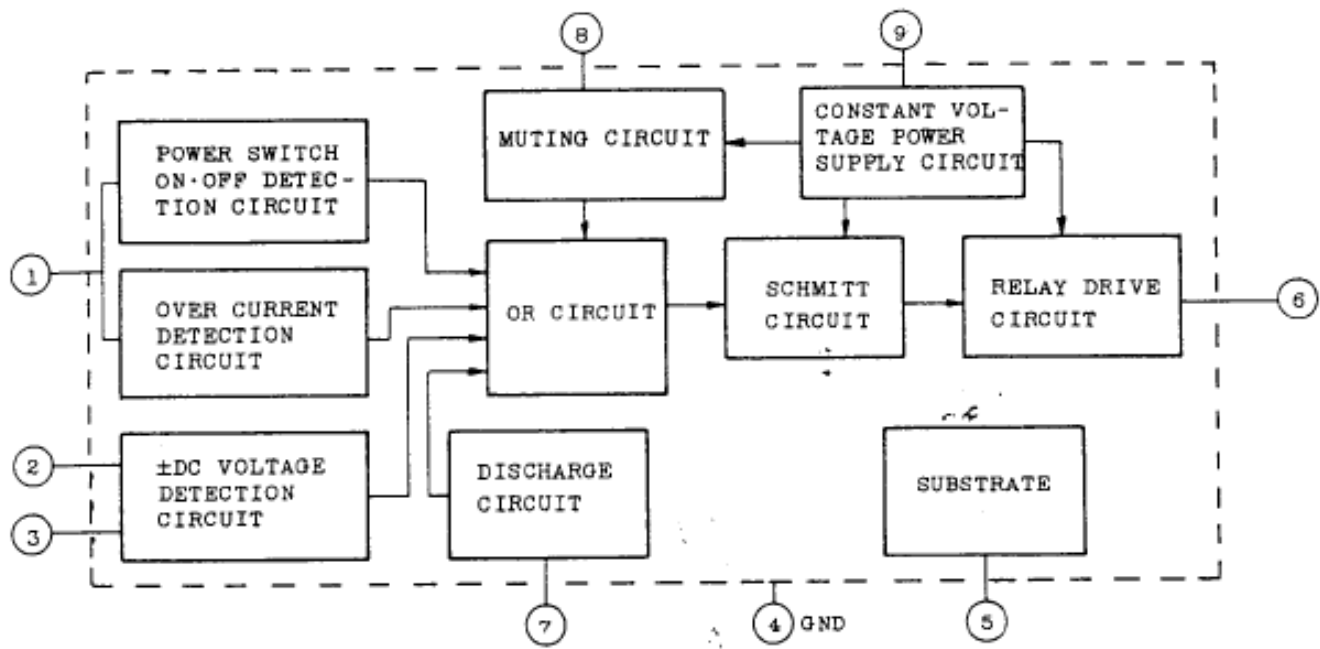
3 2 1

417-RCC955A-291
7915FA

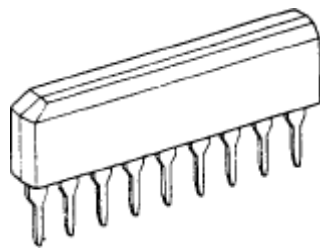
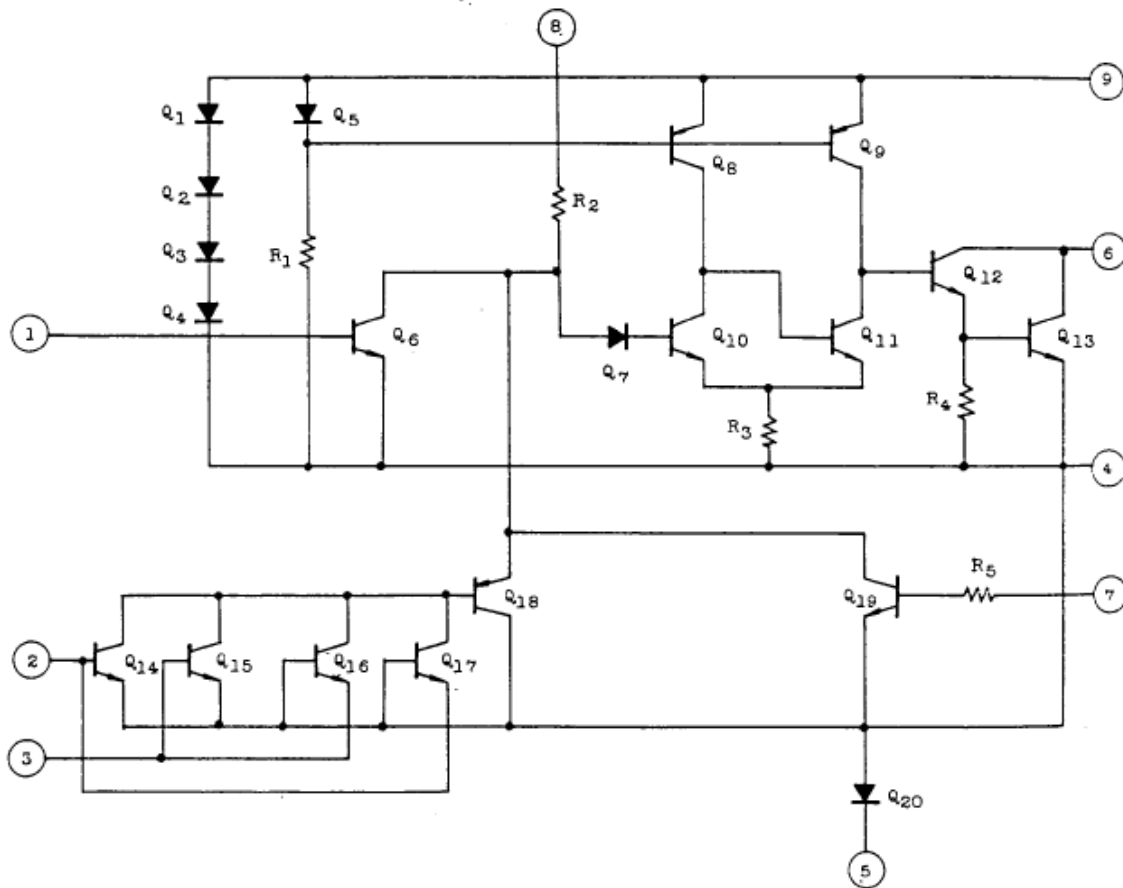
- 1. OUTPUT
- 2. INPUT
- 3. COMMON

7915FA
7001
JRC

3 2 1



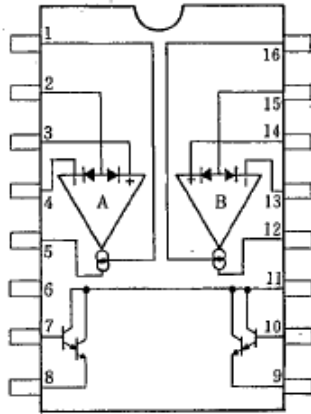
EQUIVALENT CIRCUIT



SIP9-P-A

417-V4001-745 NJM13600M

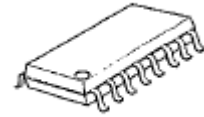
■ PIN CONFIGURATION



NJM13600D, NJM13600M, NJM13600V
 NJM13700D, NJM13700M,

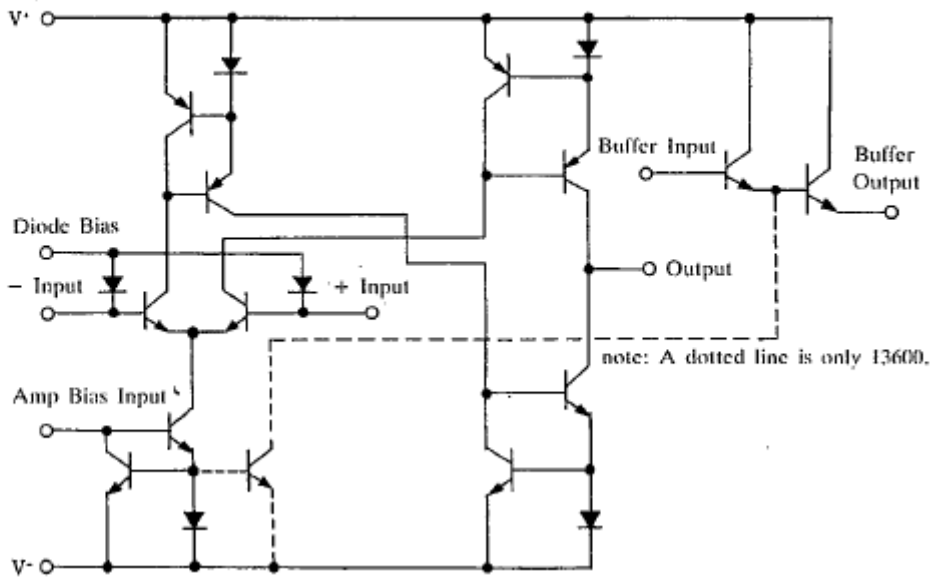
PIN FUNCTION

- | | |
|---------------------|----------------------|
| 1. Amp Bias Input A | 9. Buffer Output B |
| 2. Diode Bias A | 10. Buffer Input B |
| 3. + Input | 11. V ⁺ |
| 4. - Input | 12. Output B |
| 5. Output A | 13. - Input B |
| 6. V ⁻ | 14. + Input B |
| 7. Buffer Input A | 15. Diode Bias B |
| 8. Buffer Output A | 16. Amp Bias Input B |



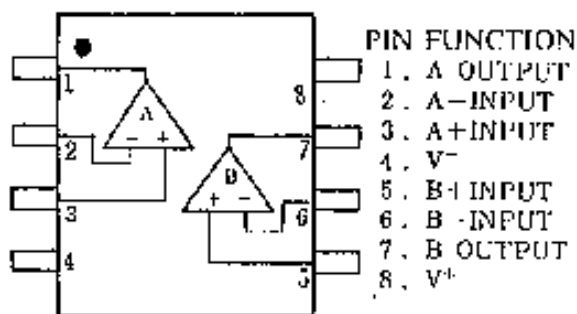
NJM13600M

■ EQUIVALENT CIRCUIT

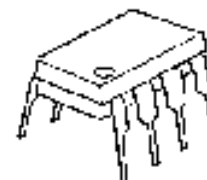


417-SX1800-718 NJM072D

■ PIN CONFIGURATION

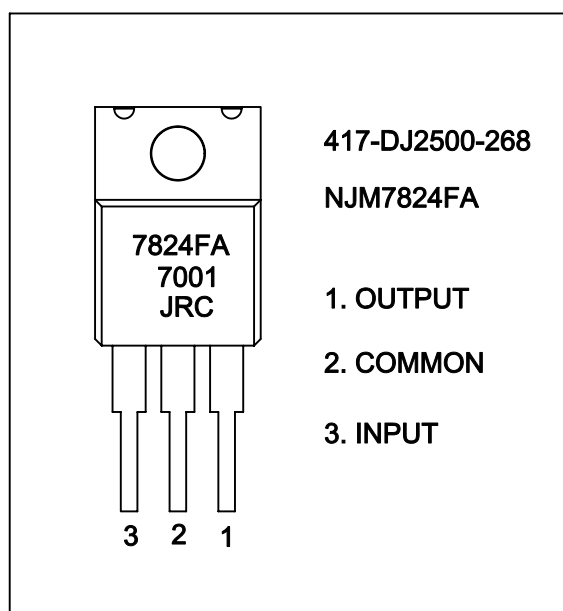
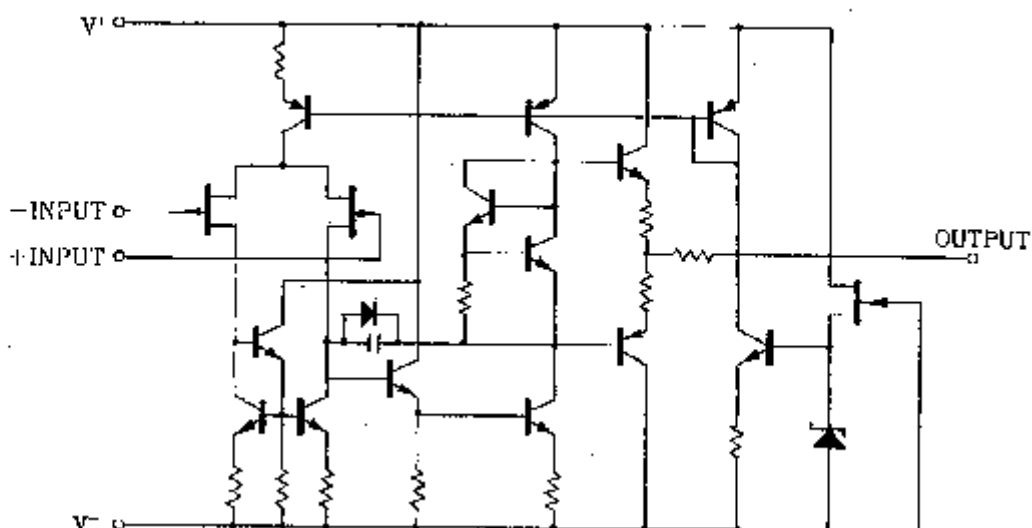


NJM072BD/DB2BD
 NJM072D/DB2D
 NJM072M/DB2M
 NJM072BE/DB2BE
 NJM072BV/DB2BV



NJM072BD/DB2BD
 NJM072D/DB2D

■ EQUIVALENT CIRCUIT



Trouble Shooting

| <i>SYMPTOM</i> | <i>POSSIBLE CAUSE</i> | <i>CORRECTIVE ACTION</i> |
|--|--|---|
| 1. Device does not react when switching on | Connection to main disrupted | Check AC plug and AC connection |
| 2. Pop noise | MIXER or CD and amplifier connections intermittent | Check cable and plug continuity |
| 3. Power LED is dim | The improper position of AC voltage fuse sled | Reconfirm the voltage position. |
| 4. No sound | Improper set of input cable and switch. | Correct the position of input cable and switch. |