

SERVICE MANUAL

V4001 Plus



MODEL NO.: V4001 Plus

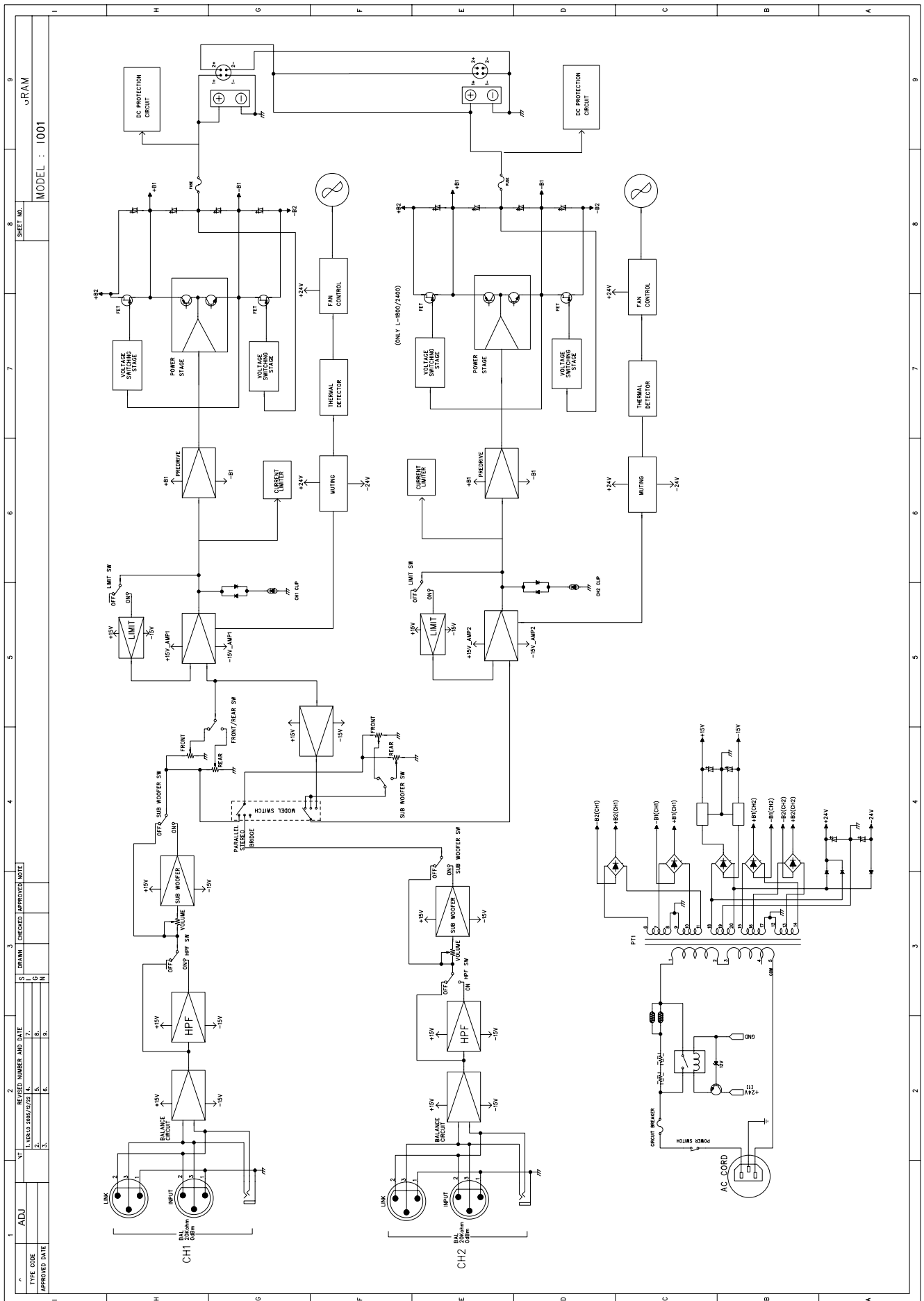
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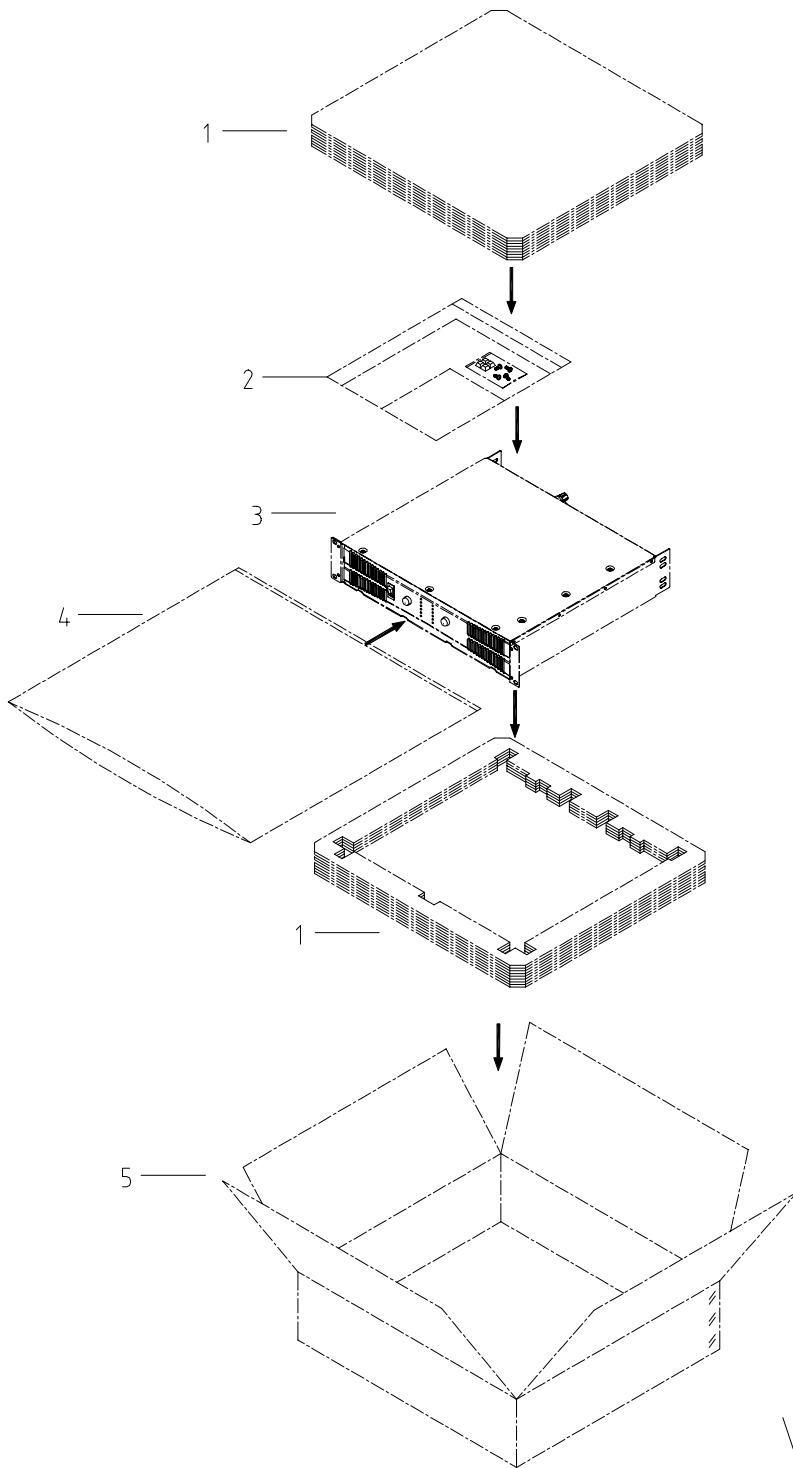
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General Specification

	NORMAL	LIMIT
* Input Sensitivity (4 ohm LOAD,POWER OUTPUT 900W)	0dB	0dB+/-2dB
* Rated Power Output Level(1KHz,THD+N 1%)		
8 ohm TWO CHANNEL	680W	600W
4 ohm TWO CHANNEL(ONE CHANNEL)	1050W(1180W)	900W(1080W)
2 ohm ONE CHANNEL	1450W	1400W
8 ohm BRIDGED MONO	2100W	1800W
4 ohm BRIDGED MONO		2800W
* Frequency response		
8 ohm 1W, Check point 1KHz, From 20Hz~20KHz		+0.5/-1dB
* THD+N		
4 ohm per channel 1/2 POWER,AT1KHz,BOTH CH DRIVE	0.07%	0.15%
* Channel Crosstalk		
4 ohm rated power, "A" weighted		
CH1-> CH2	85dB	70dB
CH2-> CH1	77dB	70dB
* SIGNAL-TO-NOISE RATIO		
4 ohm RATED POWER,Audio Filter Weighted	105dB	more than 85dB
* Input Clipping		
No Load,Input 20dBm,Turn VR Output 40dBm		THD+N <0.1%
* INDICATOR		
CLIP LED (@4 ohm 1KHz,Just light)		>=0.08%
SIGNAL LED (@Audio Analyzer 4 ohm Load,Set No Load,1KHz,Output:900W↔0dBr)		
-10dB LED just light	-10dB	-10dB+/-2dB
-20dB LED just light	-20dB	-20dB+/-2dB
SIGNAL LED just light	-36dB	-36dB+/-2dB
* DC OFFSET VOLTAGE (@ 4 ohm 1KHz 1/8 POWER)		less than 100mV
* IDLE VOLTAGE (VOLUME MIN)		90+/-10mV
* DAMPING FACTOR @ 8ohm 400Hz 1W		more than 200
* HPF TEST @8ohm 1KHz 1W Again Input 20Hz		-10dBr Down
* Limiter @4ohm 1KHz Input:+4dBm(600 ohm) VOLUME MAX		<=1%
* SUB WOOFER(SWITCH ON VOLUME MAX)		
No load,Input:20Hz,Output:37dBm (Audio Analyzer Input/100K SUB VR MIN),Again Input 45Hz		-10dBr DOWN
No load,Input:200Hz,Output:37dBm (Audio Analyzer Input/100K SUB VR MAX),Again Input 400Hz		-10dBr DOWN
* VOLUME CONTROL(FRONT/REAR SWITCH 'REAR')		
8 ohm 1KHz,THD+N 1%		600W

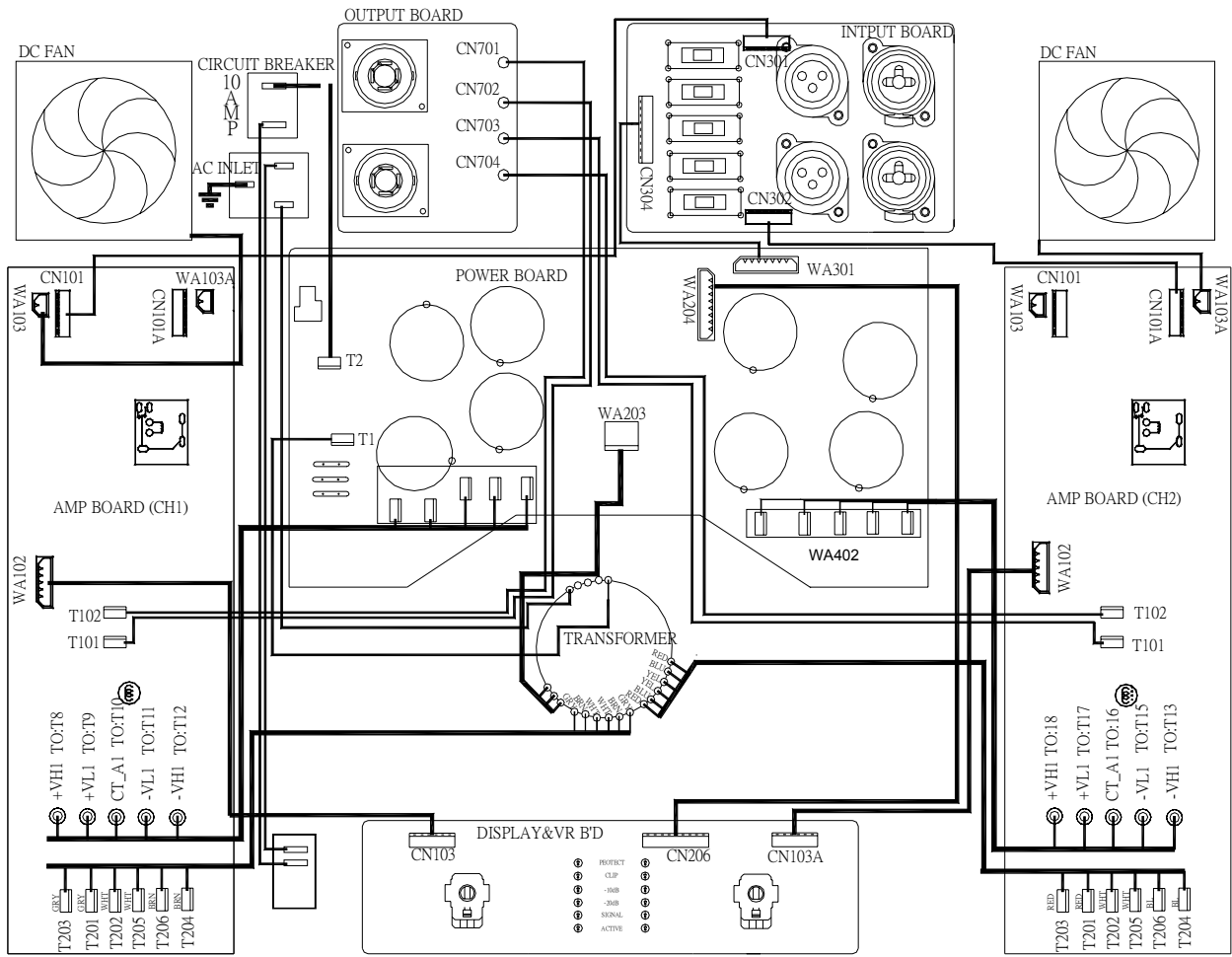
Block Diagram



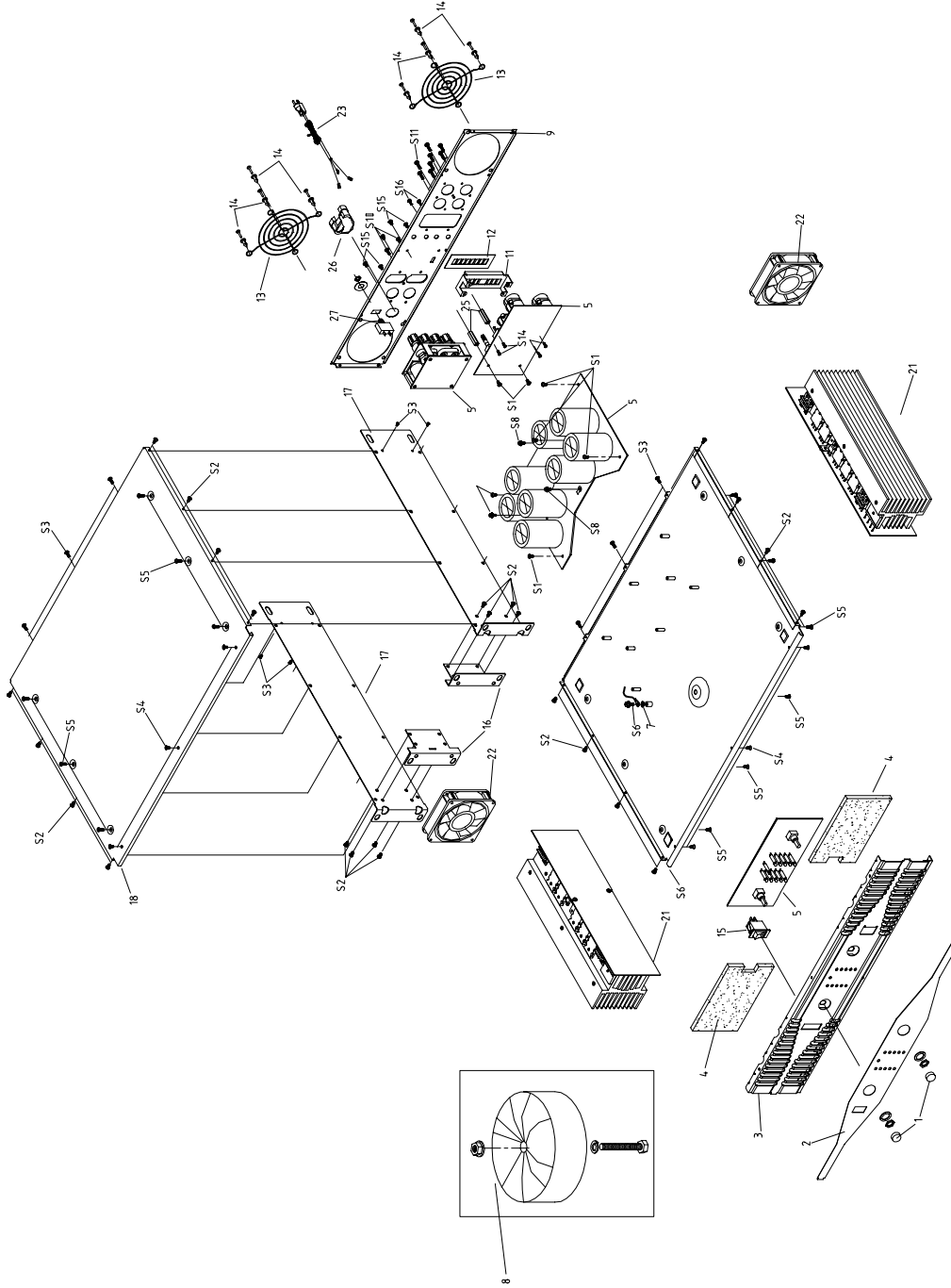


V4001B

Point to Point Wiring Diagram



Exploded View



MATERIAL	FINISHING	TOLERANCE	MODEL NO	V4001B
3RD ANGLES	SCALE	1:1	DESCRIPTION	EXPLODE DRAWING

Exploded View Part List

REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
1	CONTROL KNOB	100-V1001-2342	2	
2	ALUMINUM PLATE	501-V4001-1820	1	
3	FRONT PANEL	703-V1001-974	1	
4	FILTER	612-V1001-206	2	
5	POWER/DISPLAY/IN/OUTPUT PCB ASS'Y	704-V4001-5889	11	
6	BOTTOM COVER	703-V4001-997	1	
7	TOOTH WASHER	606-F200-002	1	
8	TRNASFORMER	411-V4001B-500	1	
9	REAR PANEL	300-V4001-1235	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-V4001-1232	1	
21	AMP PCB ASS'Y	704-V4001-5888	2	
22	FAN	401-V1001-063A	2	
23	AC POWER CORD	409-V4001B-147	1	
25	SUPPORT M3(H:24)	200-SX1200-451	2	
26	STRAIN RELIEF BUSHING	100-V4001-2348	1	
27	CIRCUIT BREAKER	403-SX1200-216	1	
S1	SCREW M3*6 B-HEAD YELLOW	602-XM610-511	8	
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	12	
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	2	
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	

Power/Display/In/Out PCB Ass'y

REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
	POWER/DISPLAY/IN/OUT PCB ASS'Y	704-V4001-5889	1	
	BRACKET(M3*24.5)	200-SX-459	2	
GND1	GROUNDING SHIELD	300-F202-001	1	
	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,S W304,SW305,SW306,S W307	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	
WA301	8P SOCKET(CKM2501WV-8P 180°WHITE)(Cd,Pb,Hg,Cr)	404-HMD510-253A	1	
WA204	9P SOCKET(CKM2501WV-9P 180°WHITE)(Cd,Pb,Hg,Cr)	404-HV3700K-668A	1	
CN701,CN703	1P CON. WIRE(UL1015#14, L=300mm 250T B'D IN RED)	404-SX2800-1973	2	
CN702,CN704	1P CON.WIRE(L=300mm,UL1015#14 250T-B'D IN BLACK)	404-SX2800-1974	2	
CN103,CN103A	6P CONNECTOR WIRE(P=2.54mm, L=300mm,UL 2468#26 CKM2501)	404-V1001-2127	2	
AN302	9P CONNECTOR WIRE(P=2.54mm, L=500mm,UL 2468#26 CKM2501)	404-V1001-2130	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	
WA401,WA402	5P SOCKET(5P P=6.3mm,180°)	404-V4001-2152	2	
WA203	3P BASE(P=3.96mm CKM3962WV-3P)	404-XM610-1789	1	
LD602,LD601,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	
R201,R202	M.O.RES(12 OHM ,J,3W,AXIAL TAPING 74mm)	412-SX2800-942A	2	
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	
C225	POLYESTER CAPACITOR(0.47uF/50V,J,TAPING)	413-QSPAND-632	1	
C224	MAYLAR CAP(0.047uF/400V M TAPING STRONG:MEF473J400AC1)	413-SX2800-907	1	
C203,C204,C205,C206,C 220,C221,C222,C223	ELEC.CAP(10000uF/80V M 35*46mm)	413-XM610-860	8	
C214,C215	E.C(220uF/50V,M, 105°C ,TAPING 10*16)(Cd,Pb,Hg,Cr)	413-XM910-858	2	
D203,D204,D205,D207,D 208,D502,D503	RECTIFYING DIODE(RECTIFIER LTIN4006)	414-MX1824-155	7	
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	

Power/Display/In/Out PCB Ass'y

REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
IC203	IC(NJM7824)	417-DJ2500-268	1	
IC201	IC(NJM7815FA 3PIN)	417-DV330-216	1	
IC202	IC(NJM7915FA)	417-RCC955A-291	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	
T1,T2	CONNCTOR PCB PIN(TERMINAL-250)	424-XM910-090	2	
	LED HOLDER	504-V1001-174	11	
	SCREW(M3*6)	602-XM610-511	2	
	SCREW(TTB3*8)	602-XM610-528	2	
C607,C604	CERAMIC CAPACITOR(470pF/50V,K,TAPING,Y5P)	413-3113-036	2	
C602,C218,C219,C1,C603,C606	ELEC. CAPACITOR(10uF/50V,M,105°C ,TAPING 5*11)(Cd,Pb,Hg,Cr)	413-DM1000-352	6	
C326,C327,C502,C304,C307,C310,C314,C317,C320,C321,C323,C324,C325	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	
C210,C211,C212,C213	CERAMIC CAPACITOR(4700pF/50V,K,TAPING,Y5P)	413-HT8015-167	4	
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,C318,C319	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	
Q604,Q605,Q606,Q607,Q611,Q612,Q613,Q615	TRANSISTOR(PNP KTA1268BL TO-92 TAPING KEC)	416-XM910-266	8	
	POWER PCB(CEM-1 T=1.6mm,330*247mm)	405-V4001-1610	1	
	DISPLAY PCB(CEM-1 T=1.6mm,330*247mm)	405-V4001-1611	1	
	OUTPUT PCB(CEM-1 T=1.6mm,330*247mm)	405-V4001-1612	1	
	INPUT PCB(CEM-1 T=1.6mm,330*247mm)	405-V4001-1613	1	
R603,R604,R605,R607,R611,R612,R333,R334	CARBON FILM RESISTOR(4.7K OHM,1/6W,J,T-26)	412-3113-055	8	
R308,R311,R314,R324,R327,R330	CARBON FILM RESISTOR(100 OHM,1/6W,J,T-26)	412-3113-060	6	
R306,R307,R310,R322,R323,R326	CARBON FILM RESISTOR((47K OHM,1/6W,J,T-26)	412-3113-063	6	

Power Amp PCB Ass'y

REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
	POWER AMP PCB ASS'Y	704-V4001-5888	2	
	HEATSINK BRACKET(SECC 1.0t)	300-SX-1184	2	
	IC BRACKET	300-SX2400-1200	4	
WA102	6P SOCKET(JST P=2.5mm WHITE)	404-3113-056	1	
CN101A,CN101	5P SOCKET(CKM2501WV-5P 180°WHITE)(Cd,Pb,Hg,Cr)	404-H200-007A	2	
+VL(GREEN),CT-A1(BLACK),-VL(WHITE),-VH(BLUE),+VH(RED)	5P CONNECTOR WIRE(5P UL1015#14 STR L=250mm)	404-V4001-2151	1	
WA103,WA103A,IDLE	2P BASE(P=2.54mm,CKM2503WV-2P-2.54mm)	404-XM910-1833	3	
R123	CARBON FILM RESISTOR(15K OHM,1/4W,J,T-52)	412-3113-083	1	
R121	CARBON FILM RESISTOR(12K OHM,1/4W,J,T-52)	412-DV300-5110	1	
TH101	NTC THERMISTOR(TKINKING:PTMS2331RP416B)	412-SX1800-897	1	
NTC1	NTC THERMISTOR-60 OHM (THINKING:TTC05060)-10%	412-SX2800-931	1	
R156	M.O.RES(100 OHM,1W,J,)	412-SX2800-932	1	
R165,R181	M.O.RES(12K OHM,1W ,J ,RADIAL TAPING)	412-SX2800-934	2	
R154	M.O.RES(15K OHM,1W ,J ,RADIAL TAPING)	412-SX2800-935	1	
R135,R142	M.O.RES(22 OHM, 1W ,J ,RADIAL TAPING)	412-SX2800-936	2	
R118	M.O.RES(33 OHM,1W ,J)	412-SX2800-937	1	
R149,R150	M.O.RES(1.5 OHM,2W, J)	412-SX2800-938	2	
R116,R133,R134	M.O.RES(3 OHM,2W ,J ,RADIAL TAPING)	412-SX2800-939	3	
R157	M.O.RES(5.6 OHM,2W ,J)	412-SX2800-940	1	
R194	M.O.RES(1K OHM,2W ,J ,RADIAL TAPING)	412-SX2800-941	1	
R158,R159,R160,R161	M.O.RES(12 OHM ,J,3W,AXIAL TAPING 74mm)	412-SX2800-942A	4	
R151,R152,R153	M.O.RES(2.2K OHM J,3W,AXIAL TAPING 74mm)	412-SX2800-943A	3	
R162,R163,R178,R179	M.O.RES(4.7K OHM,J,3W,AXIAL TAPING 74mm)	412-SX2800-946A	4	
R176,R191	CEMENT .RES(8.2K OHM, 5W ,J ,AXIAL)	412-SX2800-947	2	
R155	M.O.RES(10 OHM,1W,J)	412-SX2800-953	1	
R137,R138,R139,R140,R141,R144,R145,R146,R147,R148	C.M.RESISTOR(0.22 OHM J 3W RADIAL)	412-SX2800-955A	10	
R193	METAL OXIDE RESISTOR(4.7 OHM,J 2W RADIAL)	412-XM910-877	1	
C111,C113	ELEC. CAPACITOR(220uF/25V,M, 105°C ,TAPING 8*12)(Cd,Pb,Hg,Cr)	413-DV300-292	2	
C201,C202	MAYLAR.CAP(0.47uF/250V M BULK STRONG:MEF 474J 250A EI)	413-SX1800-891	2	
D125	RECTIFYING DIODE(RECTIFIER LTIN4006)	414-MX1824-155	1	
D122,D123	DIODE MUR 1520	414-SX2800-192	2	
D126,D127	DIODE IN5404	414-SX2800-193	2	
D118	DIODE (UZ 10BM/1W)	414-SX2800-195	1	
D121,D129	DIODE (UZ 12BM/1W)	414-SX2800-196	2	
BD201,BD202	DIODE-BRIDGE GBJ2504,25A	414-SX2800-198	2	
SW101	SWITCH DIODE (67L090)	414-SX2800-199	1	
D101,D102	DIOD(15V/2W,215DS EIC)	414-SX2800-203	2	
L101	SPRING COIL(2.2UH +/-15% CS8F-514149)	415-SX2800-259	1	
RL101	RELAY (3A/24V 842A SONG CHUAN)	415-SX2800-260	1	

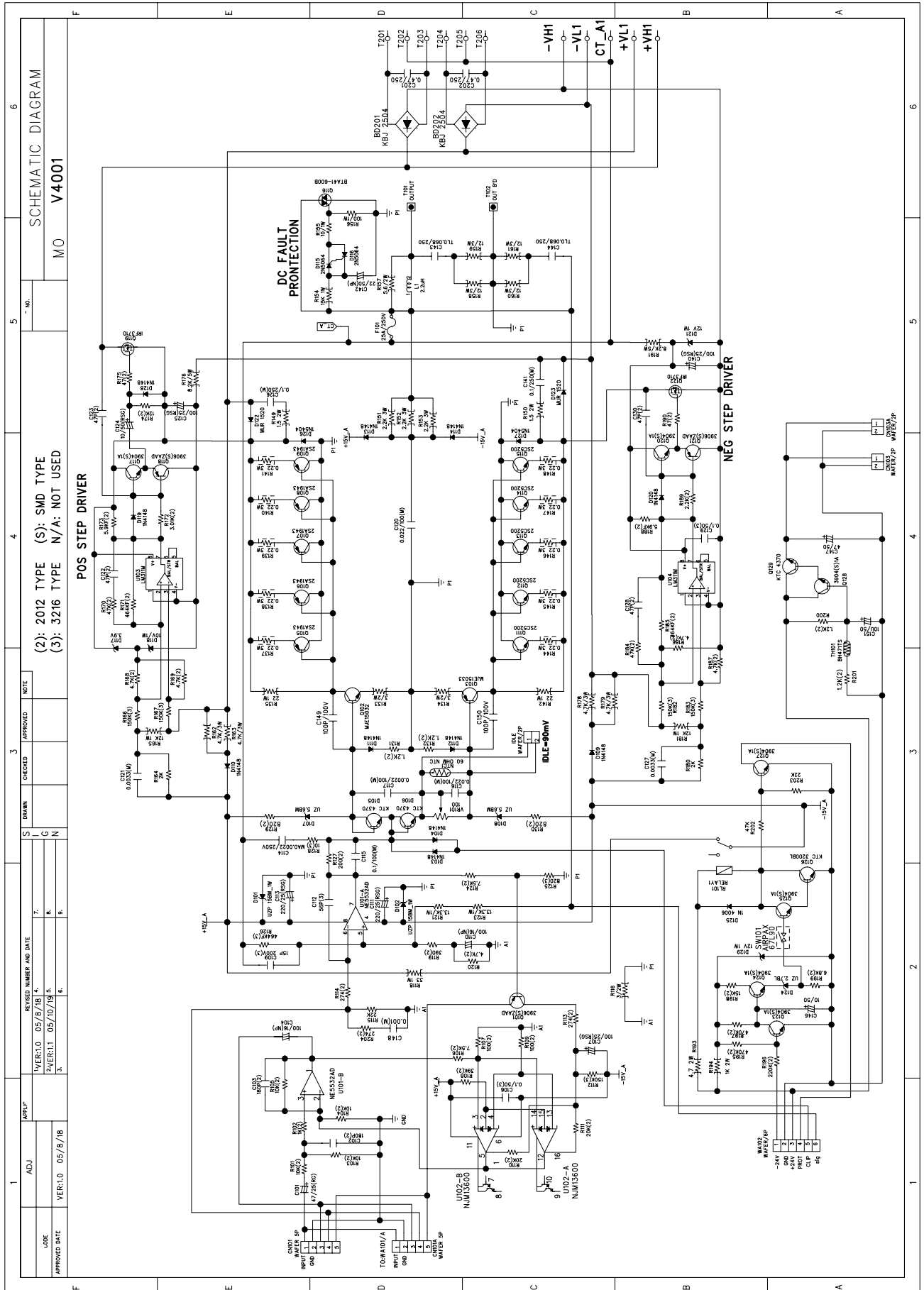
Power Amp PCB Ass'y

REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
D105,D106,Q129	TRANSISTOR(KTC4370A-Y TO 220IS)	416-MX1436-235	3	
Q102	TRANSISTOR(MJE15032)	416-SX2800-279	1	
Q103	TRANSISTOR(MJE15033)	416-SX2800-280	1	
Q116	TRANSISTOR(BTA41-600B)	416-SX2800-281	1	
Q119,Q122	TRANSISTOR(IRF3710)	416-SX2800-284	2	
D115,D116	TRANSISTOR(2N5064,TAPING)	416-SX2800-286	2	
Q111,Q112,Q113,Q114,Q115	TRANSISTOR(NPN 2SC5200-O TO-3 TOSHIBA)	416-XM910-267	5	
Q105,Q106,Q107,Q108,Q109	TRANSISTOR(PNP 2SA1943 TO-3 TOSHIBA)	416-XM910-268	5	
U101	IC NE5532N(DIP-8)	417-SX2800-731	1	
VR101	SEMI CONDUCTOR RESISTOR(P=5mm, MB100)	418-SX2800-274	1	
F101	FUSE CLIPS(FC-1206/WL-210A,15A)	420-KT350A-004	2	
F101	FUSE(T25A/125V)	422-V4001-066	1	
T101,T102,T201,T202,T203,T204,T205,T206	CONNCTOR PCB PIN(TERMINAL-250)	424-XM910-090	8	
	HEATSINK	425-V4001-082	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	12	
	TUBE(L=20mm)	605-HPA-078	0	
	UL TUBE (#18 L=15mm)	605-HT8015-035	0	
	CERAMIC TUBE (4*2*11.5mm)	605-KMD510P-034	4	
	SILICONE SHEET	612-SX2400-204	3	
C151,C124,C146	ELEC. CAPACITOR(10uF/50V,M,105°C ,TAPING 5*11)(Cd,Pb,Hg,Cr)	413-DM1000-352	3	
C147	ELEC. CAPACITOR(47uF/50V,M,105°C ,TAPING 6.3*11)(Cd,Pb,Hg,Cr)	413-DV300-5143	1	
C125,C140,C107	ELEC. CAPACITOR(100uF/25V,M,105°C ,TAPING 6.3*11)(Cd,Pb,Hg,Cr)	413-HS100-180	3	
C101	ELEC. CAPACITOR (47uF/25V M 105°C , TAPING 5*11)(Cd,Pb,Hg,Cr)	413-HS100-181	1	
C121,C127	POLYESTER CAPACITOR(0.0033uF/100V,J,TAPING)	413-KT300-103	2	
C115	POLYESTER CAPACITOR(0.1uF/100V,J,TAPING)	413-KT350-089	1	
C150,C149	CERAMIC CAPACITOR(100pF/50V,J,TAPING,NPO)	413-PMSE1-258	2	
C148	POLYESTER CAPACITOR(0.001uF/100V,J,TAPING)	413-PMSE1-279	1	
C104,C110	ELEC.CAP(100uF/16V,NP,M,TAPING 8*12)	413-SX2800-909	2	
C142	ELEC.CAP(22uF/50V,NP,M,TAPING 8*12)	413-SX2800-910	1	
C143,C144	CAPACITOR(0.068UF/250V J TAPING/BOX)	413-SX2800-914	2	
C114	MAYLAR CAPACITOR(0.0022uF/250V ,M TAPING)	413-SX2800-915	1	
C126,C141	MYLAR CAP(0.1uF/250V M TAPING)	413-XM910-865	2	
C117	MYLAR CAPACITOR(0.0022uF/100V J TAPING)	413-XM910-871	1	
C116,C120	MAYLAR CAP(0.022uF/100V J TAPING)	413-XM910-876	2	
Q126	TRANSISTOR(NPN KTC3200BL TO-92 TAPING KEC)	416-XM910-261	1	
R115	CARBON FILM RESISTOR(22K OHM,1/6W,J,T-26)	412-3113-059	1	
D110,D111,D112,D113,D114,D119,D120,D128,D103,D104,D109	SWITCHING DIODE(1N4148,1/2W,150mA/100V,T-77)	414-2002-002	11	
D117	ZENER DIODE(MTZJ3.9-B,1/2W,T-77)	414-DV300-5012	1	

Power Amp PCB Ass'y

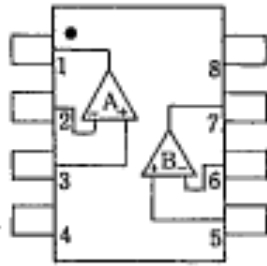
REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
D107,D108	ZENER DIODE(MTZJ5.6-B,1/2W,T-77)	414-HT8033-032	2	
D124	DIODE (UZ 2.7BL)	414-SX2800-197	1	
	POWER AMP PCB(FR-4,t=1.6mm,SIZE:197*247)	405-SX2800A-1441A	1	
R102	CHIP RESISTOR(1K 1/8W SMD0805 F TP)	412-CDVD2003-592	1	
R196	CHIP RESISTOR(220K OHM,1/8W,0805,J,TP ,150V)	412-DFX1-569	1	
R107,R109	CHIP RESISTOR(100 OHM,1/8W,0805,J,TP 150V)	412-DV330-304	2	
R201,R131,R132,R200	CHIP RESISTOR(1.2K OHM,1/8W, 0805,J,TP,150V)	412-DV330-309	4	
R110,R111	CHIP RESISTOR(20K OHM,1/8W,0805,J,TP ,150V)	412-DV330-311	2	
R189	CHIP RESISTOR(2.2K OHM,1/8W,0805,J,TP 150V)	412-DV330-313	1	
R203	CHIP RESISTOR(22K OHM,1/8W, 0805,J,TP 150V)	412-DV330-314	1	
R175,R190	CHIP RESISTOR(47 OHM,1/8W, 0805,J,TP,150V)	412-DV330-319	2	
R169,R168,R186,R187,R120	CHIP RESISTOR(4.7K OHM,1/8W,0805,J,TP 150V)	412-DV330-320	5	
R202,R170,R184	CHIP RESISTOR(47K OHM,1/8W,0805,J,TP 150V)	412-DV330-321	3	
R129,R130	CHIP RESISTOR(820 OHM,1/8W, 0805,J,TP 150V)	412-DV330-324	2	
R174	CHIP RESISTOR(12K OHM,1/8W, 0805,J,TP,150V)	412-DV330-330	1	
R198	CHIP RESISTOR(15K OHM,1/8W,0805,J,TP 150V)	412-DV330-331	1	
R199	CHIP RESISTOR(6.8K OHM,1/8W, 0805 ,J,TP,150V)	412-HDJ2650-102	1	
R125	CHIP RES(820 OHM,1/8W,1206 J,TP)	412-HPA2800-1000	1	
R119	CHIP RESISTOR(390 Ohm J 1/8W 0805 TAPING)	412-MX1436-557	1	
R164,R180	CHIP RESISTOR(2K OHM,J,1/10W,TAPING)	412-MX1824-752	2	
R127	CHIP RESISTOR(200 OHM,1/8W,J,TP 0805,150V)	412-QFX19-612	1	
R197,R195	CHIP RESISTOR((470K OHM,1/8W, 0805,J,TP 150V)	412-QMX2-120	2	
R106,R124	CHIP RESISTOR(7.5K OHM,1/8W, 0805,J,TP 150V)	412-QMX2-191	2	
R108	CHIP RESISTOR(39K OHM,1/8W,0805,J,TP 150V)	412-QMX2-192	1	
R101,R103,R104,R105	CHIP RESISTOR(10K歐姆,1/8W,F,TP 0805,150V)	412-SMX701-660	4	
R204,R114,R113	CHIP RESISTOR(2740HM,1/8W ,0805,J ,TP 150V)	412-SX2800-944	3	
R172	CHIP RESISTOR(3.01K OHM,1/8W,0805,J,TP,150V)	412-SX2800-945	1	
R128	CHIP RESISTOR(10 OHM,1/8W ,1206,J ,TP ,150V)	412-SX2800-948	1	
R171,R185	CHIP RESISTOR(464K OHM, 1/8W ,0805,F, TP,150V)	412-SX2800-949	2	
R173,R188	CHIP RESISTOR(5.9K OHM,1/8W,0805,F,TP,150V)	412-SX2800-950	2	
R112,R166,R167,R182,R183	CHIP RESISTOR(150K OHM,1/8W ,1206,J,TP ,150V)	412-SX2800-951	5	
R126	CHIP RESISTOR(464K OHM,1/8W,1206,F,TP,150V)	412-SX2800-952	1	
C122,C123,C128,C130	CHIP CAPACITOR(47pF/50V,J,0805 TYPE,NPO)	413-AMC110D-5094	4	
C102,C103	CHIP CAPACITOR(180pF/50V,J,0805 TYPE,NPO)	413-STR880-619	2	
C112	CHIP CAPACITOR(56P/50V,J SMD1206)	413-SX2800-911	1	
C129,C106	CHIP CAPACITOR(0.1uF/50V,K TAPING,X7R/1206)	413-SX2800-912	2	
C109	CHIP CAPACITOR(15P/200V,J ,SMD1206)	413-SX2800-913	1	
Q117,Q120,Q123,Q124, Q125,Q127,Q128	TRANSISTOR(3904(S)1A)	416-SX2800-282	7	
Q118,Q121,Q101	TRANSISTOR(3906(S)ZAAD)	416-SX2800-283	3	
U103,U104	IC LM311M(SOP-8)	417-SX2800-732	2	
U102	IC (NJM13600M)	417-V4001-745	1	

Schematic Diagram

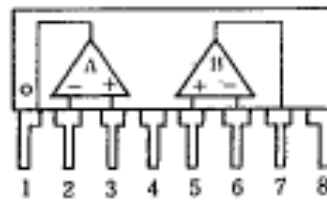


■ PIN CONFIGURATION

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



NJM2068D
NJM2068M
NJM2068V



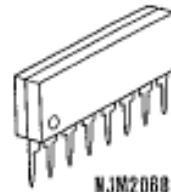
NJM2068L

PIN FUNCTION

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

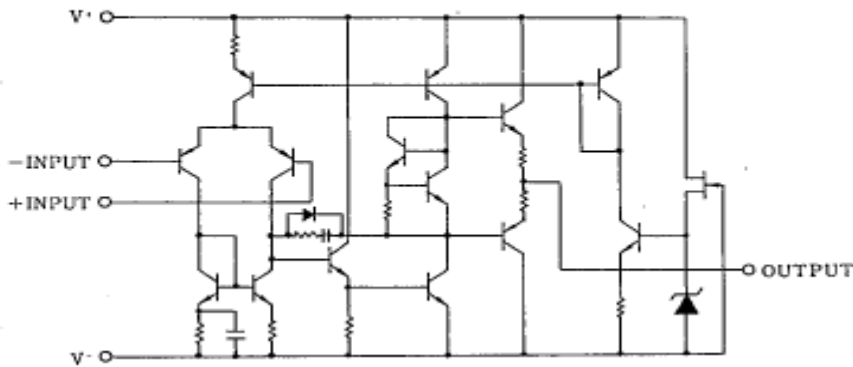


NJM2068D



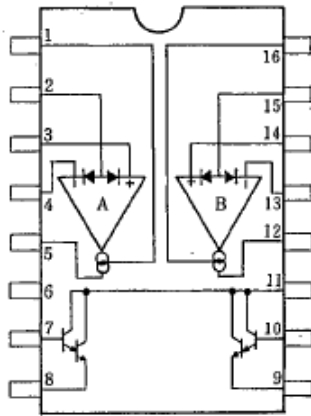
NJM2068L

■ EQUIVALENT CIRCUIT (1/2 Shown)



417-V4001-745 NJM13600M

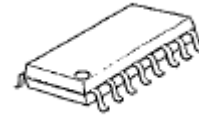
■ PIN CONFIGURATION



NJM13600D, NJM13600M, NJM13600V
 NJM13700D, NJM13700M,

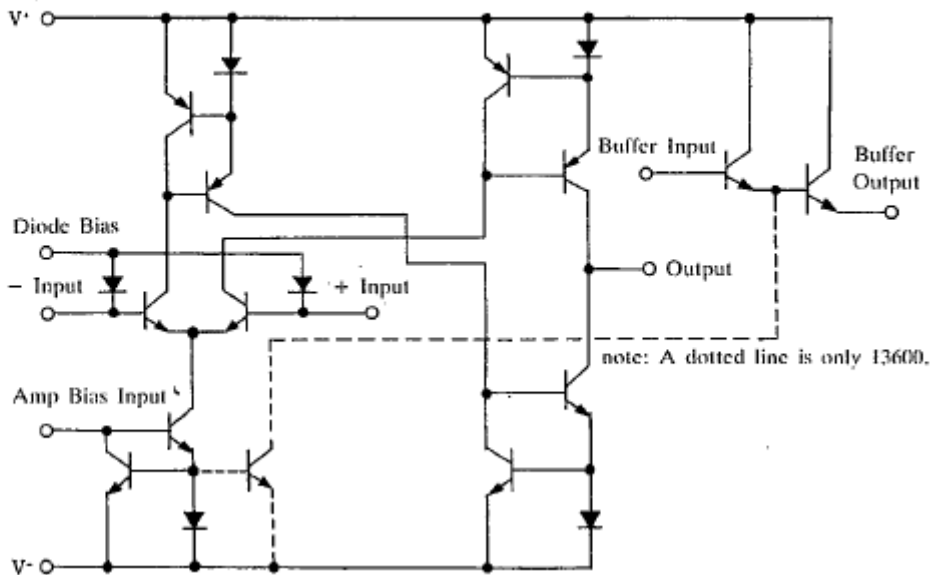
PIN FUNCTION

- | | |
|---------------------|----------------------|
| 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 |

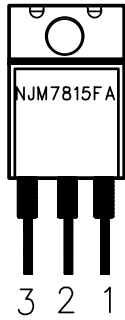


NJM13600M

■ EQUIVALENT CIRCUIT

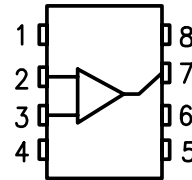


417-DV330-216
NJM7815FA



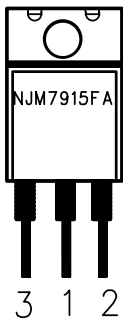
- 1. OUTPUT
- 2. COMMON
- 3. INPUT

417-SX2800-732
LM311



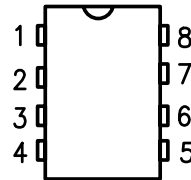
- 1. Ground
- 2. Non-inverting
- 3. Inverting input
- 4. Vcc-
- 5. Balance
- 6. Strobe/Balance
- 7. Output
- 8. VCC+

417-RCC955A-291
NJM7915FA

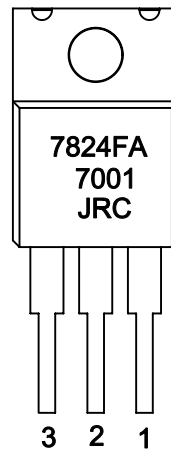


- 1. OUTPUT
- 2. COMMON
- 3. INPUT

417-SX2800-731
NE5532



- 1.A OUT
- 2.A IN-
- 3.A IN+
- 4.Vcc-
- 5.B IN+
- 6.B IN-
- 7.B OUT
- 8.VCC+



417-DJ2500-268
NJM7824FA

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

Trouble Shooting

<i>SYMPTOM</i>	<i>POSSIBLE CAUSE</i>	<i>CORRECTION ACTION</i>
1. Device dose not react when switching on	Connection to main disrupted	Check AC plug ang AC connection
2. Pop noise	MIXER or CD and amplifier connections inappropriate	Check cable and jack quantity
3. Power LED is dark	The improper position of voltage connection.	Reconfirm the voltage position.
4. No sound	Improper setu of input cable connection and switch.	Correct the position of input cable and switch correctly.