



Technical Manual

AM/FM STEREO RECEIVER
RX-975

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THE ROTEL CO., LTD.

SHINSEN-BLD. 4F 10-10 SHINSEN-CHO, SHIBUYA-KU,
TOKYO 150-0045, JAPAN

Serial No. Beginning

Y-319A-99092C/R-R

Specification

Audio

Continuous Amplifier Power:	100 watts/channel (20-20 kHz, <0.05%, 8ohms)
Total Harmonic Distortion:	<0.05 % at rated power
Intermodulation Distortion (60 Hz : 7 kHz):	<0.05 % at rated power
Frequency Response:	Line Level: 10 - 70 kHz, $\pm$ 3dB Phono: 20 - 20 kHz, $\pm$ 1.5dB
Signal to Noise Ratio (IHF"A" weighted):	92 dB
Input Overload:	Line Inputs: 5 V Phono input: >120 mV
Preamplifier Output Voltage:	1.1 V
Input Sensitivity / Impedance:	Line Level: 200 mV / 47kohms Phono: 3.1 mV / 47 kohms
Tone Controls (Bass / Treble):	$\pm$ 8 dB at 100Hz /10 kHz

Video

Frequency Response:	3 Hz-10 MHz, $\pm$ 3dB
Signal to Noise Ratio:	92 dB
Input Impedance:	75kohms
Output Level:	1 volt

FM Tuner

Usable Sensitivity:	14.2 dBf
50 dB Quieting Sensitivity:	20.2 dBf (mono) 45.3dBf (stereo)
Signal to Noise Ratio (at 65 dBf):	70 dBf (mono) 65 dBf (stereo)
Harmonic Distortion (at 65 dBf):	0.3% (mono) 0.5% (stereo)
Frequency Response:	30 Hz- 14kHz, $\pm$ 1.5dB
Capture Ratio:	2.0 dB
Alternative Channel Selectivity	47 dB ($\pm$ 400kHz)
Spurious Response Ratio:	80 dB
Image Response Ratio:	65 dB
IF Response Ratio:	80 dB
AM Suppression Ratio:	52 dB
Stereo Separation (100Hz/ 1 kHz/ 10 kHz):	40 dB/ 45 dB/ 35 dB
Output Level:	550 mV
Antenna Input:	75 ohms unbalanced

AM Tuner

Sensitivity:	500 uV/m
Selectivity:	25 dB
Image Response Ratio:	35 dB
Signal to Noise Ratio:	40 dB
Output Level:	160 mV
Antenna Input:	Loop Antenna

General

Power Consumption:	350 watts
Power Requirements (AC):	115Volts, 60 Hz (USA version) 230 Volts, 50 Hz (European version)
Weight:	11.5 Kg / 25.4 lb.
Dimensions (W x H x D):	450 x 158 x 400 mm 173/4" x 61/4" x 153/4"

Wiring Diagram

FRONT B.D

- ** CN856 – CP603(POWER)
- ** CP901 – W601(MAIN)
- ** CN602 – CP602(AMP)

POWER S/W B.D

- ** CN852 – CP852(STANDBY)

HEADPHONE B.D

- ** CN855 – CP855(SPEAKER)

AMP B.D

- ** CN201 – CT452(SPEAKER)
- ** CN202 – CT453(SPEAKER)
- ** CN203 – CP203(MAIN)

MAIN B.D

- ** CN451 – CT451(SPEAKER)
- ** W601 – CP601(FRONT)
- ** W401 – CD401(C-VIDEO)
- ** W351 – CP351(INPUT VIDEO)
- ** W301 – CP301(INPUT AUDIO)
- ** W302 – CP302(INPUT AUDIO)
- ** W701 – CB701(TUNER)
- ** W201 – CP201(AMP)

POWER B.D

- ** CN803 – CP803(STANDBY)
- ** CN802 – CP802(SPEAKER)

AC INNET

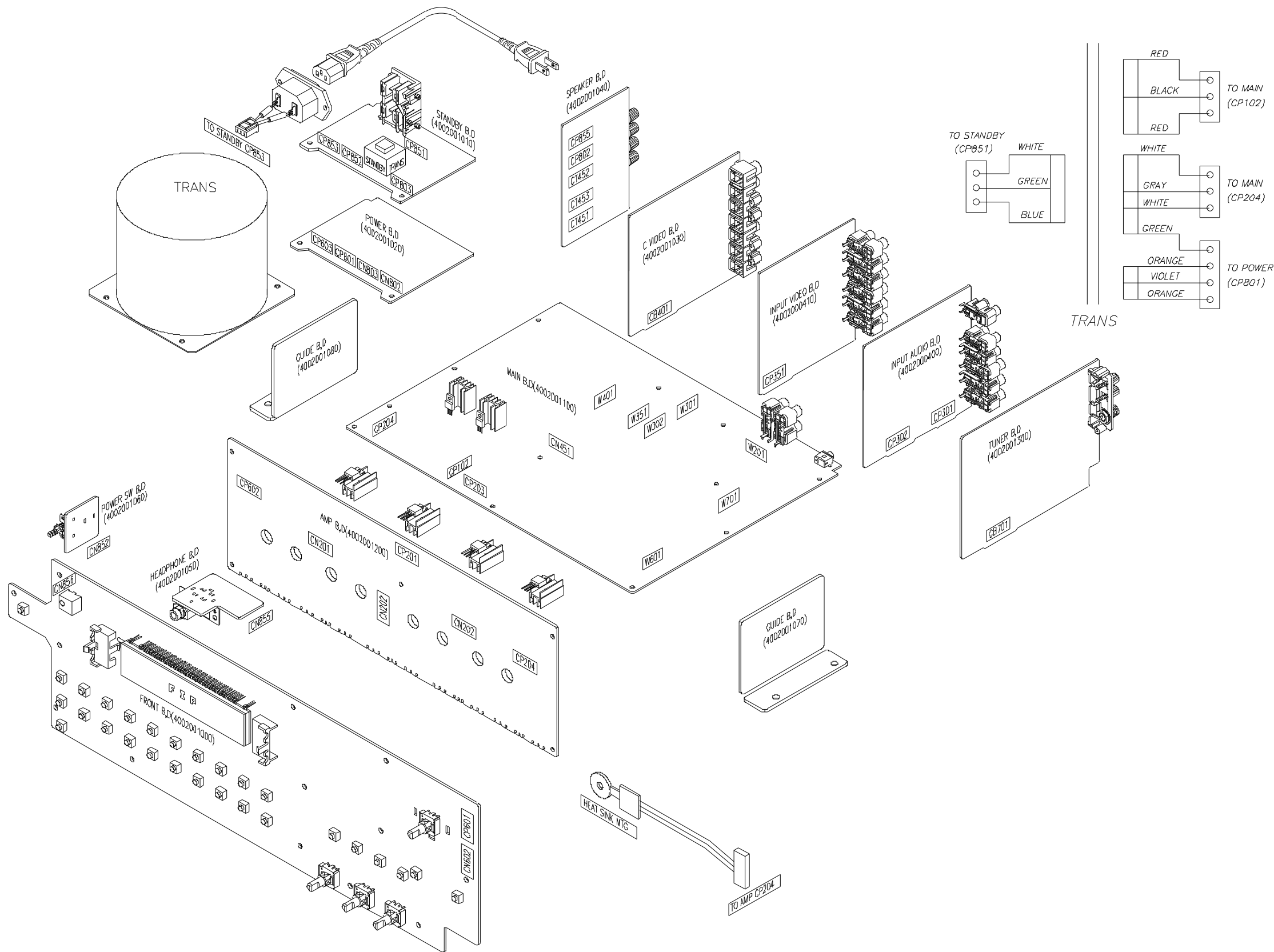
- ** AC INNET – CP853(STANDBY)

HEAT SINK

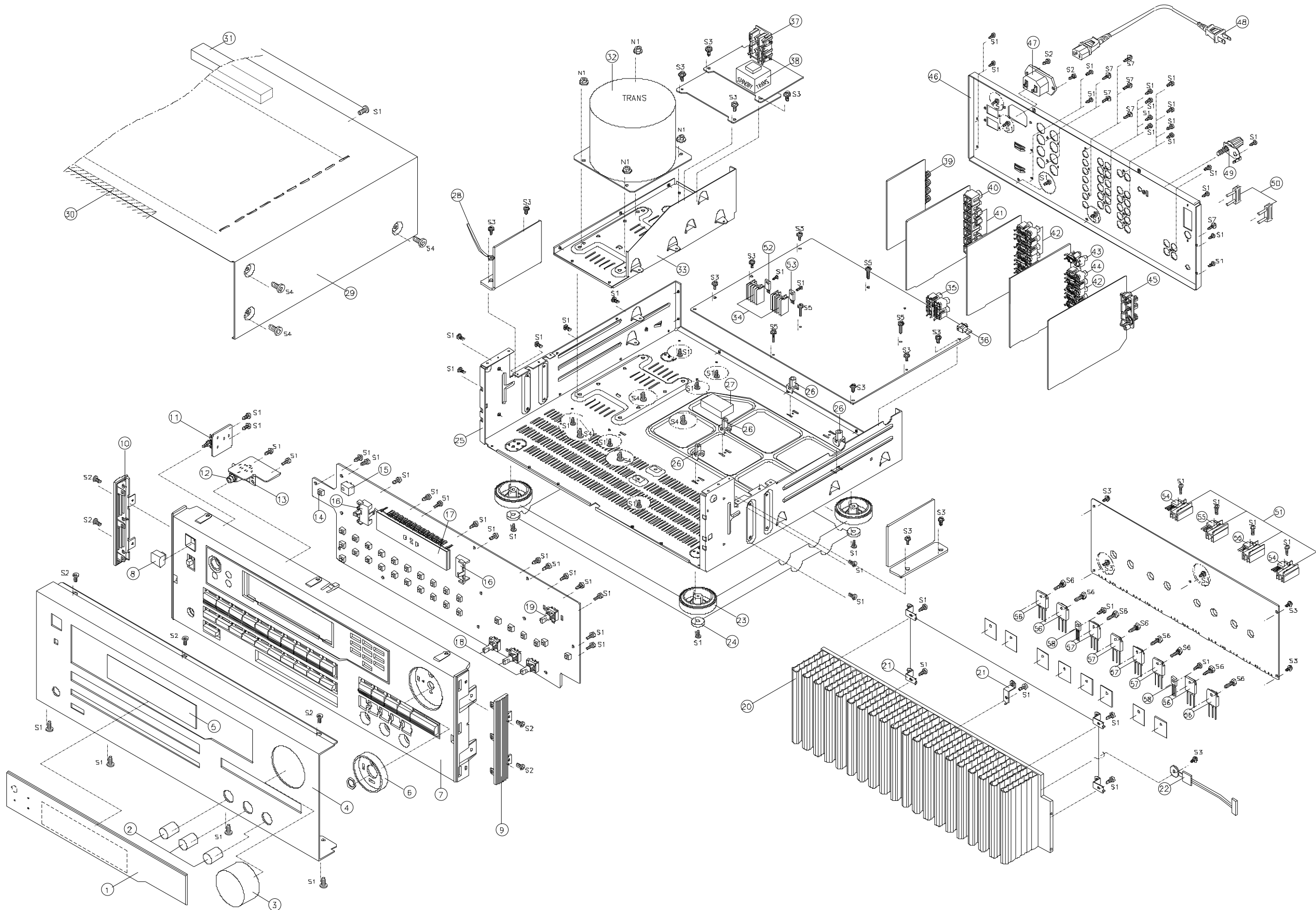
- ** POSISTOR – CP204(AMP)

POWER TRANS

- ** TRANS – CP204(MAIN)
- ** TRANS – CP102(MAIN)
- ** TRANS – CP851(STANDBY)



Disassembly Diagram



Disassembly Diagram List

NO.	PARTS NO.	DESCRIPTION	NO.	PARTS NO.	DESCRIPTION
1	8553000211	WINDOW DISPLAY, ACRYL 3.0t	52	2168602114	IC KIA7915P REG.
2	8545000211	KNOB ROTARY, AL A6063S-T5	53	2168602019	IC KIA7815P REG.
3	8543000211	KNOB MAIN, AL A6063S-T5	54	2028316100	TRANSISTOR 2SC4833A-Y
4	8602000311	FRONT PANEL, AL A6063S-T5	55	2028016100	TRANSISTOR 2SA1859A-Y
5	8535000110	FILTER, ACRYL 1.0t	56	2028416122	TRANSISTOR 2SC3519A W/ACC
6	8545000311	BEZEL RING, ABS BLACK	57	2028116108	TRANSISTOR 2SA1386A W/ACC
7	8521000110	FRONT BODY, ABS BLACK	58	2008622110	TRANSISTOR 2SC4137 FOR BIAS
8	8545000110	POWER BUTTON, ABS BLACK			
9	8523000120	SIDE CAP(RIGHT), ABS BLACK			
10	8523000110	SIDE CAP(LEFT), ABS BLACK			
11	4628000110	POWER SWITCH, TV-5			
12	4438000210	PHONE JACK 9P(GOLD)			
13	6505000210	PHONE BRAKET 0.6t			
14	4658000110	TACT SWITCH			
15	2408000180	REMOCON SENSOR CRV1M352-B			
16	6515000110	HOLDER FIP, ABS BLACK			
17	2328000304	FIP SVR-12MM18(35S/12G)			
18	3218000210	VR ROTARY, ENCODER			
19	3218000110	VR MAIN, ENCODER			
20	7502000210	POWER HEAT SINK, AL A6063S-T5			
21	6505000110	BRAKET HEAT SINK, SECC1.0t			
22	436102101535	ASS'Y POSISTOR			
23	6133100110	FOOT, ABS BLACK			
24	6715000110	BUMPON			
25	6121600110	MAIN CHASSIS, SECC1.2t			
26	6515000210	SPACER PCB, ABS BLACK			
27	6715000410	SPONGE, 80x20x9t			
28	6528000210	CLAMP WIRE			
29	6122000110	TOP COVER, VCM 0.95t			
30	6715000210	SPONGE, 260X20X1t			
31	6715000510	SPONGE, 90x40x12t			
32	2828000067	POWER TRANS(022 T-1068N01)			
33	6122600110	FRAME T/F, SECC 1.0t			
34	7505000210	REG TR HEAT SINK(24X30), AL			
35	4438101120	RCA JACK 4P(WR,WR)			
36	4438300110	JACK RCA(MINI)			
37	4448000110	AC OUTLET			
38	2828000037	STANDBY TRANS(120V/60Hz)			
39	4408100910	SPEAKER TERMINAL 8P(RBRB,RBRB)			
40	4438100720	RCA JACK 1P(Y), VIDEO			
41	4438100520	RCA JACK 3P(Y), VIDEO			
42	4438100320	RCA JACK 6P(WWW,RRR)			
43	4438100120	RCA JACK 2P(W,R)			
44	4438100220	RCA JACK 4P(WW,RR)			
45	4408000310	ANT TERMINAL(SCREW)			
46	6102000211	BACK CHASSIS, SECC1.0t			
47	4448000310	AC INNET			
48	4308000410	INNET CORD AC POWER			
49	4408200110	TERMINAL G.N.D			
50	4428000110	JUMPER PLUG			
51	7505000110	REG TR HEAT SINK(15X30), AL			

Parts List

PART NO.	DESCRIPTION	SYMBOL NO.
AMP PCB 4002001200 ASSEMBLY		
4002001200	Assembled PCB	
2008207101	TRANSISTOR 2SA1360(O/Y)	QL207,QR207
2008607106	TRANSISTOR 2SC3423(O/Y)	QL209,QR209
2028016100	TRANSISTOR 2SA1859A-Y	QL212,QR212
2028316100	TRANSISTOR 2SC4883A-Y	QL211,QR211
2648601470	COIL INDUCTOR 0.5UH	LL201,LR201
3049259573	RES WW 0.25 2W J	RL235,RL245-247,RR235,RR245-247
3479347181	CAP E SG 470UF/63V	CL208,CL209,CR208,CR209
436502102167	CTJ 0210 201,210 DL #18 P7.92	CN203
436502252166	CTJ 0225 201,210 DL #18 P3.96	CN202
436502302166	CTJ 0230 201,210 DL #18 P3.96	CN201
4428502526	CNT PLUG ST MO 5267-02	CP204,CP602
4428505526	CNT PLUG ST MO 5267-05	CP201
7505000110	H/SINK REG TR 15X30	
2058322101	DIODE 1N4148	D206,DL201,DL202,DR201,DR202
2208206104	TRANSISTOR KTA1268(GR/BL)	5
2208206105	TRANSISTOR KTA1266Y	Q218,QL203,QL204,QR203,QR204
2208606104	TRANSISTOR KTC3198Y-AT	Q219,Q220,QL217,QR217
2208606108	TRANSISTOR KTC3200(GR/BL)	QL206,QL208,QR206,QR208
2238006104	TRANSISTOR KRC107M	Q221
2258128002	DIODE 1N4004	DL203,DL204,DR203,DR204
2258599919	DIODE ZENER T-72 UZ9V1	ZD201
3029100470	RES MF 10 1W J	RL243,RR243
3029102970	RES MF 1K 1/8W J	R249,RL201,RR201
3029103970	RES MF 10K 1/8W J	RL210,RR210
3029104970	RES MF 100K1/8W J	R246
3029122970	RES MF 1K2 1/8W J	RL223,RR223
3029150970	RES MF 15 1/8W J	RL203,RL204,RR203,RR204
3029151970	RES MF 150 1/8W J	RL209,RR209
3029152970	RES MF 1K5 1/8W J	R252,RL212,RR212
3029154970	RES MF 150K 1/8W J	R253
3029222970	RES MF 2K2 1/8W J	RL237-240,RR237-240
3029223970	RES MF 22K 1/8W J	RL221,RL222,RR221,RR222
3029243970	RES MF 24K 1/8W J	RL242,RR242
3029332970	RES MF 3K3 1/8W J	R248
3029333970	RES MF 33K 1/8W J	9
3029339970	RES MF 3R3 1/8W J	RL231-234,RR231-234
3029392970	RES MF 3K9 1/8W J	RL225,RR225
3029470470	RES MF 47 1W J	RL227,RL228,RR227,RR228
3029471970	RES MF 470 1/8W J	RL224,RR224
3029472970	RES MF 4K7 1/8W J	RL217,RR217
3029561970	RES MF 560 1/8W J	RL213-216,RL218-219,RR213-216,RR218-219
3029680970	RES MF 68 1/8W J	RL208,RR208
3029681970	RES MF 680 1/8W J	RL205,RL241,RR205,RR241

Parts List

PART NO.	DESCRIPTION	SYMBOL NO.
3029682970	RES MF 6K8 1/8W J	R250,RL244,RR244
3029683970	RES MF 68K 1/8W J	R247
3029751970	RES MF 750 1/8W J	RL206,RL207,RR206,RR207
3029820970	RES MF 82 1/8W J	0
3479310071	CAP E SG 10uF/50V	CL210,CL216,CR210,CR216
3479310971	CAP E SG 1uF/50V	C218
3479310991	CAP E SG 1UF/100V	CR212,CR213
3479322031	CAP E SG 22UF/16V	CL205,CR205
3479333061	CAP E SG 33UF/35V	CL204,CR204
3479347111	CAP E SG 470UF/6.3V	C219,CL207,CR207
3479347971	CAP E SG 4.7uF/50V	CL201,CR201,CL211,CR211
3519033935	CAP C AXIAL 3.3PF/50V J	CL206,CR206
3519680935	CAP C AXIAL 68PF/50V J	CL202,CR202
3519681935	CAP C AXIAL 680PF/50V J	CL203,CR203
3679104250	CAP MYLAR 0.1UF/250V J	CL214,CR214
FRONT PCB 4002001000 ASSEMBLY		
4002001000	Assembled PCB	
2138322102	IC CPU CXP82832-180Q RX975	U601
2328000304	FIP SVR-12MM18(35S/12G)	FL601
2408000180	REMOCON SENSOR CRV1M352-B	RMC1
3218000110	VR ENCODER EC16B243040F	
3218000210	VR ENCODER EC16B242040A	
3439210415	CAP BACK-UP 0.1F/5.5V	C614
3938124010	RESONATOR CST10.0MTW-TF01	XT601
436102233535	CTM 0223 5263,5394 DL #26 P2.5	CN602
436210433524	CTG 1043 S04,T04 DL #26 P2.0	CN856
4428617265	CNT FPC PLUG EL AN 00-8370-177	CP601
2058322101	DIODE 1N4148	D601-610,618-620
2208606104	TRANSISTOR KTC3198Y-AT	Q601-603
2238006104	TRANSISTOR KRC107M	Q604,605
2371140711	LED SLR56VR3FL	D614-616
3029101970	RES MF 100 1/8W J	R628
3029102970	RES MF 1K 1/8W J	R601-610,644-647
3029103970	RES MF 10K 1/8W J	R617,623,624,626,634-641
3029104970	RES MF 100K1/8W J	R622
3029331970	RES MF 330 1/8W J	R612,614,616,625
3029333970	RES MF 33K 1/8W J	R618
3029472970	RES MF 4K7 1/8W J	R611,613,615,619,627,629,642,643
3029473970	RES MF 47K 1/8W J	R630-633
3029479970	RES MF 4R7 1/8W J	R620-621
3479322871	CAP E SG 0.22UF/50V	C616
3479333971	CAP E SG 3.3UF/50V	C615
3479347971	CAP E SG 4.7uF/50V	C612
3519101935	CAP C AXIAL 100PF/50V J	C601-609,623,624

Parts List

PART NO.	DESCRIPTION	SYMBOL NO.
3519103915	CAP C AXIAL 0.01UF/16V J	C611,613
3519473935	CAP C AXIAL 0.047UF/50V J	C617,618
3519821935	CAP C AXIAL 820PF/50V J	C619-622,625,626
4658000110	SW TACT SKHVBED010	S601-604,609-610,612-633
HEAD PHONE PCB 4002001050 ASSEMBLY		
4002001050	Assembled PCB	
3029471570	RES MF 470 2W J	R854-855
436204503524	CTG 0450 S04,T04 DL #26 P2.0	CN855
4438000210	JACK PHONE 9P G	
3029223970	RES MF 22K 1/8W J	R852-853
3519561935	CAP C AXIAL 560PF/50V J	C852-853
POWER PCB 4002001020 ASSEMBLY		
4002001020	Assembled PCB	
2168602105	IC KIA7805P REG.	U801
3419510241	CAP E SG 1000UF/25V	C807
436203153524	CTG 0315 S03,T03 DL #26 P2.0	CN802
436204103524	CTG 0410 S04,T04 DL #26 P2.0	CN803
4428504576	CNT PLUG ST JST B04B-EH-A	CP801
4428510416	CNT PLUG ST GIL-S-10P-S2T2-EF	CP603
2058322101	DIODE 1N4148	D803,808,810
2208206105	TRANSISTOR KTA1266Y	Q801
2208606104	TRANSISTOR KTC3198Y-AT	Q802-804
2258128002	DIODE 1N4004	D804-807
2258599300	DIODE ZENER T-72 UZ30V	D802
2258599439	DIODE ZENER T-72 UZ4V3	D809
2258599919	DIODE ZENER T-72 UZ9V1	D801
3029102970	RES MF 1K 1/8W J	R801
3029103970	RES MF 10K 1/8W J	R802
3029332970	RES MF 3K3 1/8W J	R804-806
3029470470	RES MF 47 1W J	R808
3029470970	RES MF 47 1/8W J	R809
3029472970	RES MF 4K7 1/8W J	R810-811
3029560970	RES MF 56 1/8W J	R803
3479310071	CAP E SG 10uF/50V	C801
3479310971	CAP E SG 1uF/50V	C808-809
3479347071	CAP E SG 47UF/50V	C802
3519104935	CAP C AXIAL 0.1UF/50V J	C810,C803
3519473935	CAP C AXIAL 0.047UF/50V J	C804-806,811
POWER SWITCH PCB 4002001060 ASSEMBLY		
4002001060	Assembled PCB	
3549472109	CAP C 0.0047UF/400V AC	C854
436502402167	CTJ 0240 201,210 DL #18 P7.92	CN852

Parts List

PART NO.	DESCRIPTION	SYMBOL NO.
4628000110	SW PWR SDDL B15700	
SPEAKER PCB 4002001040 ASSEMBLY		
4002001040	Assembled PCB	
3029100570	RES MF 10 2W J	R451-452
4408100910	TERMINAL SPK 8P(RBRB,RBRB)	
4428502646	CNT PLUG ST JE202A-1 T-2 P3.96	CT452,453
4428503416	CNT PLUG ST GIL-S-3P-S2T2-EF	CP802
4428503646	CNT PLUG ST JE202A-1 T-3 P3.96	CT451
4428504416	CNT PLUG ST GIL-S-4P-S2T2-EF	CP855
5528053001	RELAY DH24D2-OT(M)	RLY451,452
2258128002	DIODE 1N4004	D451-452
3679472120	CAP MYLAR 0.0047UF100V J	C453-456
3679473120	CAP MYLAR 0.047UF/100V J	C451-452
STANDBY PCB 4002001010 ASSEMBLY		
4002001010	Assembled PCB	
2648701170	FILTER TR25	T852
2828000037	T/F STANDBY RSX965(120V/60Hz)	T851
3549472109	CAP C 0.0047UF/400V AC	C851
4428502726	CNT PLUG ST MO 35328-0210 P7.92	CP853
4428502746	CNT PLUG ST JE202B-1 T-2(3-2) P7.92	CP852
4428503746	CNT PLUG ST JE202B-1 T-3(5-2,4) P7.92	CP851
4428504416	CNT PLUG ST GIL-S-4P-S2T2-EF	CP803
4448000110	AC OUTLET(A *),CCT1304-0212	
5508101431	FUSE 51S 315MA/250V	F851
5508102031	FUSE 51S 1A/250V	F853
5508103031	FUSE 51S 5A/250V	F852
5528001640	RELAY G5PA-1 DC12V	RLY851
2258128002	DIODE 1N4004	D851
3029335380	RES MF 3M3 1/2W J ERC	R851
VIDEO PCB 4002001030 ASSEMBLY		
4002001030	Assembled PCB	
2108499133	IC MC14577	U402
2168017141	IC LC7824 ANALOG SWICH	U401
4428807464	CNT HOUSING EL 20-8283-007	CB401
4438100520	JACK RCA 3P(Y)	
4438100720	JACK RCA 1P(Y)	
2238422100	TRANSISTOR DTC323TSTP	Q401
3029102970	RES MF 1K 1/8W J	R410-412
3029470970	RES MF 47 1/8W J	R417-423
3029471970	RES MF 470 1/8W J	R413-413,424
3029750970	RES MF 75 1/8W J	R401-407
3479310071	CAP E SG 10uF/50V	C417-423,C414-415

Parts List

PART NO.	DESCRIPTION	SYMBOL NO.
3479347031	CAP E SG 47UF/16V	C404,409,411,413
3479347121	CAP E SG 470UF/10V	C401,416
3519101935	CAP C AXIAL 100PF/50V J	C405-407
3519103915	CAP C AXIAL 0.01UF/16V J	C403,C408,410,412
INPUT AUDIO PCB 4002000400 ASSEMBLY		
4002000400	Assembled PCB	
2168017132	IC LC78211 ANALOG SWITCH	U302
2168220135	IC NJM5532D DUAL OPAMP	U301,303
4428807464	CNT HOUSING EL 20-8283-007	CP302
4428808464	CNT HOUSING EL 20-8283-008	CP301
4438100120	JACK RCA 2P(W,R)	RCA301
4438100220	JACK RCA 4P(WW,RR)	RCA302
4438100320	JACK RCA 6P(WWW,RRR)	RCA303
2058322101	DIODE 1N4148	D301
3029101970	RES MF 100 1/8W J	RL/R311-315,326,330
3029102970	RES MF 1K 1/8W J	R319-321,RL/R301
3029103970	RES MF 10K 1/8W J	RL/R328
3029104970	RES MF 100K1/8W J	R318,RL/R308,327,329
3029221970	RES MF 220 1/8W J	R309,310,316,317,322,323
3029433970	RES MF 43K 1/8W J	RL/R305
3029561970	RES MF 560 1/8W J	RL/R307
3029564970	RES MF 560K 1/8W J	RL/R304
3029821970	RES MF 820 1/8W J	RL/R306
3029913970	RES MF 91K 1/8W J	RL/R302,303
3479310971	CAP E SG 1uF/50V	C323
3479322871	CAP E SG 0.22UF/50V	CL/R307
3479333061	CAP E SG 33UF/35V	CL/R309
3479347041	CAP E SG 47uF/25V	C309,310,324,326-328
3479347971	CAP E SG 4.7uF/50V	CL/R303,330,333
3519101935	CAP C AXIAL 100PF/50V J	C325,CL/R301,302,313-322,331-332
3679182120	CAP MYLAR 0.0018UF/100V J	CL/CR305,CL/CR308
3679222120	CAP MYLAR 0.0022UF/100V J	CL/R304
3679562120	CAP MYLAR 0.0056UF/100V J	CL/R306
INPUT VIDEO PCB 4002000410 ASSEMBLY		
4002000410	Assembled PCB	
2138001115	IC MULTIFLEX BU4053BC	U352
2168017132	IC LC78211 ANALOG SWITCH	U351
4428809464	CNT HOUSING EL 20-8283-009	CP351
4438100320	JACK RCA 6P(WWW,RRR)	RCA351-2
2058322101	DIODE 1N4148	D351
3029101970	RES MF 100 1/8W J	RL/R350-355
3029102970	RES MF 1K 1/8W J	R362-364
3029104970	RES MF 100K1/8W J	R360,RL/R366

Parts List

PART NO.	DESCRIPTION	SYMBOL NO.
3029221970	RES MF 220 1/8W J	R361,365,
3029332970	RES MF 3K3 1/8W J	R356-359
3479310971	CAP E SG 1uF/50V	C366
3479347041	CAP E SG 47uF/25V	C363-365,367
3479347971	CAP E SG 4.7uF/50V	CL/R362
3519101935	CAP C AXIAL 100PF/50V J	C368,CL/R350-361
MAIN PCB 4002001100 ASSEMBLY		
4002001100	Assembled PCB	
2058100139	DOIDE BRIDGE KBPC2504W-F	DB101
2138007120	IC TC9459F ELECT VOL	U108
2138007130	IC TC9184P ELECT TONE	U105
2168220135	IC NJM5532D DUAL OPAMP	U107
2168602109	IC KIA7815P REG.	U102
2168602114	IC KIA7915P REG.	U103
2408000136	OPTO. COUPLER LTV-817	U101
3409333261	CAP E SG 3300UF/35V	C103,C104
3419512381	CAP E AM 12000UF/80V	C101,C102
436105409035	CTM 0540 5263,5394 DS #26 P2.5	W201
436503252166	CTJ 0325 201,210 DL #18 P3.96	CN451
4428502746	CNT PLUG ST JE202B-1 T-2(3-2) P7.92	CP203
4428503576	CNT PLUG ST JST B03B-EH-A	CP204
4428503746	CNT PLUG ST JE202B-1 T-3(5-2,4) P7.92	CP102
4428617266	CNT FPC PLUG EL ST 00-8370-171	W601
4428807466	CNT PLUG EL 00-8283-0712	W401,W302
4428808466	CNT PLUG EL 00-8283-0812	W301
4428809466	CNT PLUG EL 00-8283-0912	W351
4428810466	CNT PLUG EL 00-8283-1012	W701
4438101120	JACK RCA 4P(WR,WR)	
4438300110	JACK RCA YKB21-5103A	
5508102031	FUSE 51S 1A/250V	F101,F102
7505000210	H/SINK REG TR(24X30)	
2208206105	TRANSISTOR KTA1266Y	Q106
2208606104	TRANSISTOR KTC3198Y-AT	Q104,Q105
2238006103	TRANSISTOR KRA107M	Q103
2238422100	TRANSISTOR DTC323TSTP	Q101,Q102
2258128002	DIODE 1N4004	D101-D104
2258599270	DIODE ZENER T-72 UZ27V	ZD103
2258599569	DIODE ZENER T-72 UZ5V6	ZD104,ZD105
3029101970	RES MF 100 1/8W J	R107,R108,R129,R130
3029102970	RES MF 1K 1/8W J	R104,R109-R110,R113-R118,R151,R152
3029104970	RES MF 100K1/8W J	R133,R134
3029122970	RES MF 1K2 1/8W J	R149,R150
3029221970	RES MF 220 1/8W J	R106,R111,R112,R119,R120
3029273970	RES MF 27K 1/8W J	R145,R146

Parts List

PART NO.	DESCRIPTION	SYMBOL NO.
3029393970	RES MF 39K 1/8W J	R139,R140
3029471970	RES MF 470 1/8W J	R131,R132
3029472970	RES MF 4K7 1/8W J	R103,R105,R143,R144
3029474970	RES MF 470K 1/8W J	R135,R136
3029562970	RES MF 5K6 1/8W J	R147,R148
3029564970	RES MF 560K 1/8W J	R141,R142
3029823970	RES MF 82K 1/8W J	R137,R138
3479310071	CAP E SG 10uF/50V	C119,C120,C129,C130,C131,C143,C144, C161,C162
3479310971	CAP E SG 1uF/50V	C117,C118,C149,C150
3479347041	CAP E SG 47uF/25V	C135,C136,C163,C164
3479347971	CAP E SG 4.7uF/50V	C123,C124,C155,C156
3519101935	CAP C AXIAL 100PF/50V J	C132,C145,C146
3519270935	CAP C AXIAL 27PF/50V J	C147,C148
3579104530	CAP C RADIAL 0.1UF/50V J	C115,C116,C125,C126,C137,C138
3679104250	CAP MYLAR 0.1UF/250V J	C105-C109
3679123120	CAP MYLAR 0.012UF/100V J	C153,C154
3679223120	CAP MYLAR 0.022UF/100V J	C159,C160
3679272120	CAP MYLAR 0.0027UF/100V J	C157,C158
3679473120	CAP MYLAR 0.047UF/100V J	C110-C114
3679683120	CAP MYLAR 0.068UF/100V J	C151,C152
TUNER PCB 4002001300 ASSEMBLY		
4002001300	Assembled PCB	
2138017136	IC LM7001 PLL	IC701
2168017128	IC LA1266 IF	IC702
2168417120	IC LA3401 MPX	U703
2258817101	DIODE VARACTOR SVC321SPA-C	VD701,702
2618231001	COIL AM-ANT1 M7ZN-K5643A-KR	T701
2638231001	COIL AM IFT A7MC-K672713N4-KR	T703
2638231001	COIL AM IFT A7MC-K672713N4-KR	T702
2658031001	COIL MPX LPF 253AGG-K5001-KR	TL706,TR706
2838501111	COIL FM-DET-A1 292BCA-K5713FKG	T704
2838501112	COIL FM-DET-B1 292BCA-K5714X	T705
3615471110	CAP POLY 470PF/50V J	C715
3838001000	TRIMMER 10PF TZ03-T110FR(WHT)	TC701
3908001020	FILTER BFU450C4N	CF704
3908011071	FILTER FM IF SFE10.7MA5	CF701,702,703
3908101030	CLYSTAL 7.2MHZ	X701
3928001010	FRONT-END FTA4-575H	FE1
3938131600	RESONATOR CSB-456F15	X702
4408000310	TERMINAL ANT,SC021058KN	
4428810464	CNT HOUSING EL 20-8283-010	CB701
2058322101	DIODE 1N4148	D702
2208406103	TRANSISTOR KTC3194Y(KTC1923Y)	Q703

Parts List

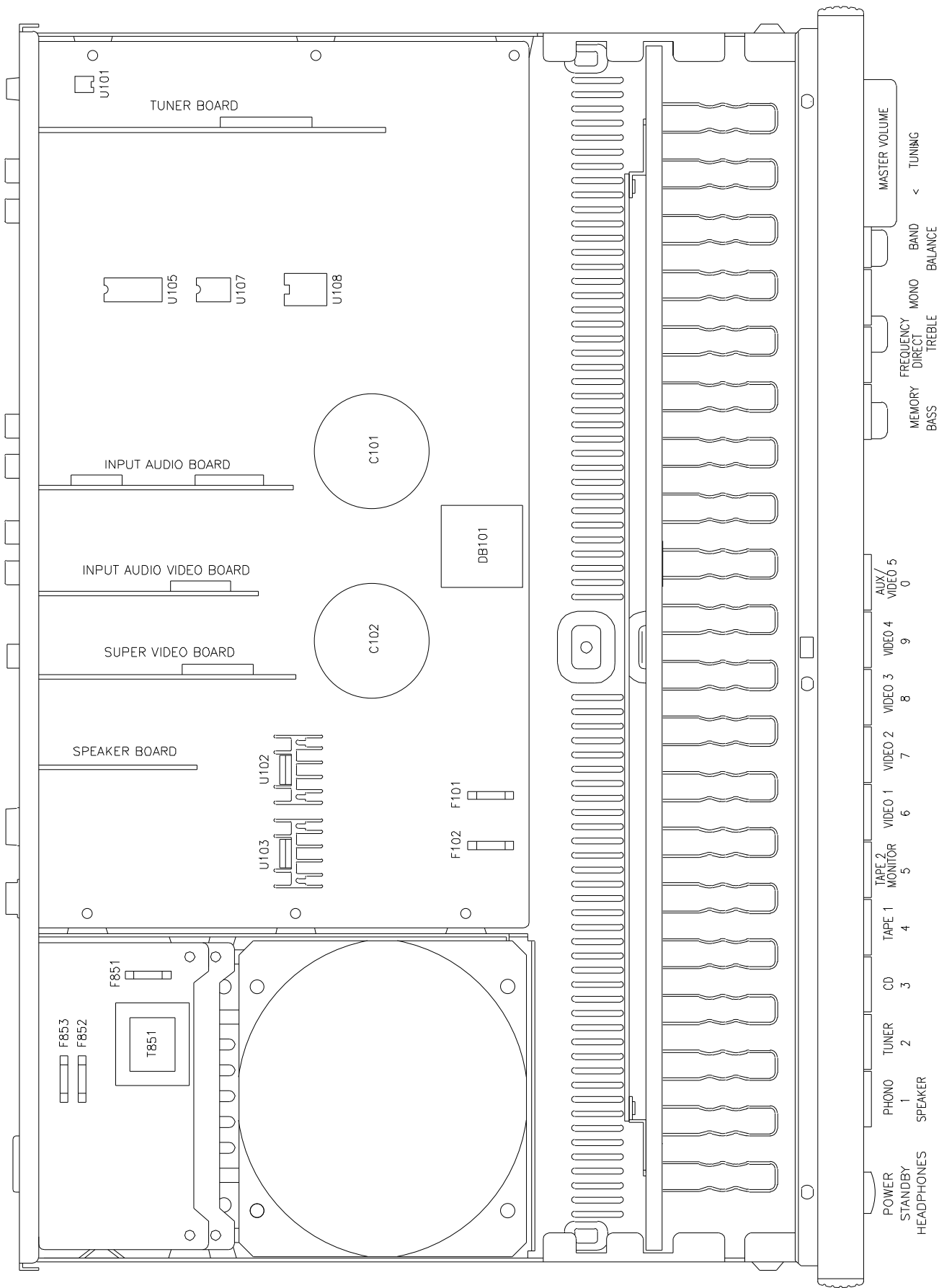
PART NO.	DESCRIPTION	SYMBOL NO.
2208606104	TRANSISTOR KTC3198Y-AT	Q701,702
2238006103	TRANSISTOR KRA107M	Q704,705,706,709
2238422100	TRANSISTOR DTC323TSTP	QL708,QR708
2258599519	DIODE ZENER T-72 UZ5V1	ZD701
3029101970	RES MF 100 1/8W J	R716,734,739
3029102970	RES MF 1K 1/8W J	R710,717-719,
3029103970	RES MF 10K 1/8W J	R707,727,731
3029104970	RES MF 100K1/8W J	R701,704,706
3029124970	RES MF 120K 1/8W J	RL746,RR746
3029152970	RES MF 1K5 1/8W J	RL757,RR757
3029181970	RES MF 180 1/8W J	R711
3029184970	RES MF 180K 1/8W	RL747,RR747
3029220970	RES MF 22 1/8W J	R729
3029223970	RES MF 22K 1/8W J	R726,728,741,743
3029271970	RES MF 270 1/8W J	R708,721
3029272970	RES MF 2K7 1/8W J	RL748,RR748
3029331970	RES MF 330 1/8W J	R720
3029332970	RES MF 3K3 1/8W J	R713,733,742,RL749,RR749
3029471970	RES MF 470 1/8W J	R705,715,722
3029472970	RES MF 4K7 1/8W J	R724,730
3029473970	RES MF 47K 1/8W J	R740,744
3029561970	RES MF 560 1/8W J	R709,712,714
3029562970	RES MF 5K6 1/8W J	R702,732
3029623970	RES MF 62K 1/8W J	R703
3029683970	RES MF 68K 1/8W J	R725
3248022443	VR SEMI 220K(B)-H RH063MCJ5R	VR703
3248047243	VR SEMI 4K7(B)-H RH063MCS3R	VR701
3248047343	VR SEMI 47K(B)-H RH063MCS4R	VR702
3479310071	CAP E SG 10uF/50V	C720,739,749,753,CL751,CR751
3479310131	CAP E SG 100UF/16V	C714,735,744
3479310971	CAP E SG 1uF/50V	C733,745,747
3479322871	CAP E SG 0.22UF/50V	C746
3479333971	CAP E SG 3.3UF/50V	C703,727
3479347031	CAP E SG 47UF/16V	C711,705
3479347971	CAP E SG 4.7uF/50V	C726,728,741
3519101935	CAP C AXIAL 100PF/50V J	C710
3519103915	CAP C AXIAL 0.01UF/16V J	C704,707,723
3519150935	CAP C AXIAL 15PF/50V J	C716
3519223520	CAP C AXIAL 0.022UF/25V J	C701,706,712,713,717,718,721,722,724,725,729,734,C748
3519331935	CAP C AXIAL 330PF/50V J	C736
3519473935	CAP C AXIAL 0.047UF/50V J	C742,C702
3519561935	CAP C AXIAL 560PF/50V J	CL750,CR750
3519680935	CAP C AXIAL 68PF/50V J	CL752,CR752
3519681935	CAP C AXIAL 680PF/50V J	C743

Parts List

PART NO.	DESCRIPTION	SYMBOL NO.
3528180210	CAP C RADIAL 18PF/50V(CH) J	C708,709
3679223120	CAP MYLAR 0.022UF/100V J	C730
3679332120	CAP MYLAR 0.0033UF/100V J	C731
3679393120	CAP MYLAR 0.039UF/100V J	C732
HEAT SINK ASSEMBLY		
2008622110	TRANSISTOR 2SC4137 FOR BIAS	QL210,QR210
2028116108	TRANSISTOR 2SA1386A W/ACC	QL215,QL216,QR215,QR216
2028416122	TRANSISTOR 2SC3519A W/ACC	QL213,QL214,QR213,QR214
436102101535	POSISTOR P2.5 PTH9M04 MO 100mm	
7502000210	POWER HEAT SINK	

OTHERS		
2608207360	AM ANTENNA LOOP	
4348000110	FM ANTENNA	
4428400110	MATCHING TRANS(A)	
9007000410	INSTRUCTION MANUAL	
9605000113	BOX CARTON(INNER)	
9625000113	BOX CARTON(OUT)	
9722000110	CUSHION POLY	
6122000110	TOP COVER ,VCM 0.95T	
6715000110	BUMPON	
8535000110	FILTER FL, ACRYL 1.0T	
8543000211	KNOB MAIN(AL)	
8545000211	KNOB ROTARY(AL)	
8545000311	BEZEL RING, ABS BLACK	
8553000211	WINDOW DISPLAY	
8602000311	PANEL FRONT(AL),RX975US	
435602120067	CTW 0212 35156,INLET DL#18 P7.92	
4408200110	TERMINAL GND	
4428000110	JUMPER PLUG	
6133100110	FOOT, ABS BLACK	
6515000210	SPACER PCB, ABS BLACK	
436617281182	CTW 1728 KFC,KFC NL 0.1mm P1.25	
8521000110	BODY FRONT, ABS BLACK	
8545000110	BUTTON PWR, ABS BLACK	

Chassis Layout



Adjustment

1. FM Alignments

Necessary measurement equipment:

Stereo Generator, FM/AM Signal Generator, Distortion meter, Oscilloscope,
Digital Volt Meter (DVM)

(A) Center Adjust

Stereo Generator Setting: MODE; MONO, Audio Frequency; 1 kHz

FM Signal Generator Setting: Deviation; 75 kHz, Frequency; 98.1 MHz, Output Level; 66 dB

RX-975 Setting: FM Frequency; 98.1 MHz, FM MODE; MONO

- 1) Turn FM Signal Generator Modulation On.
- 2) Connect DVM (+) (-) terminals to both ends of resistor R726 and measure the volt.
- 3) Make this measured volt '0' by adjusting T704 (FM-DET-A Coil). (The adjustment should be within $\pm 2\text{mV}$)
- 4) After this adjustment, measure THD (Distortion) with Distortion Meter.
- 5) Adjust THD to minimum point with T-705 (FM-DET-B Coil). (THD should be within 0.5%)

(B) Channel Separation Adjust

Stereo Generator Setting: MODE; STEREO (Only L-channel or R-channel Signal Out),

Audio Frequency; 1 kHz

FM Signal Generator Setting: Deviation; 75 kHz, Frequency; 98.1 MHz, Output Level; 66 dB

RX-975 Setting: FM Frequency; 98.1 MHz, FM MODE; STEREO

- 1) Turn FM Signal Generator Modulation On after modulating only L-channel or R-channel at Stereo Generator.
- 2) Confirm if 'STEREO' indicator is light On on the display.
- 3) Measure output level via Distortion Meter and make the level as standard.
- 4) Turn FM Signal Generator Modulation On after modulation only R-channel or L-channel at Stereo Generator.
- 5) Measure output level via Distortion Meter (measure per a "dB").
- 6) Adjust output level to minimum position with VR702. (lower than -40 dB)

(C) "Tune" Level Adjust

Stereo Generator Setting: MODE; STEREO, Audio Frequency; 1 kHz

FM Signal Generator Setting: Deviation; 75 kHz, Frequency; 98.1 MHz, Output Level; 26 dB

RX-975 Setting: FM Frequency; 98.1 MHz, FM MODE; STEREO

- 1) Turn FM Signal Generator Modulation On. (confirm if output level is 26 dB)
- 2) Adjust VR702 up to the moment where 'STEREO' & 'TUNE' indicator turn OFF & ON again.
- 3) Confirm if 'STEREO' & 'TUNE' turn OFF when decreasing the output level slowly from 26 dB to 25 dB, 24dB ~ ~ ~. (Repeat the above 2)~3) if not OFF in lower than 24 dB)
- 4) Push RX-975's TUNE UP and DOWN button "long" at Signal Generator Output Level 26 dB and start Auto Search. Confirm if search stops at FM Frequency 98.1 MHz. (confirm both of High Frequency to 98.1 MHz search, Low Frequency to 98.1 MHz search)

2. AM

Necessary measurement equipment:

AM Signal Generator, Distortion Meter, Oscilloscope, Digital Volt Meter (DVM)

(A) VT Adjust

AM Signal Generator Setting:

- 1) Adjust AM Frequency of RX-975 to 520 kHz.
- 2) Connect (-) terminal of DVM with GND (or chassis) and connect (+) terminal with jumper J704 (VT CHECK) and measure voltage. (Low Frequency VT)
- 3) Adjust VT to 1.2 volts with T-702 (AM-OSC Coil).

*In case of European version, AM frequency range is 522 kHz ~ 1611 kHz. So, adjust VT to 1.0 volt at 522 kHz. (Low Frequency VT)

(B) Output Level Adjust

AM Signal Generator Setting: Modulation; 30 %, Frequency; 400 Hz, Output Level; 84 dB

RX-975 Setting: AM Frequency; 600 kHz

- 1) Turn AM Signal Generator Modulation On.
- 2) Adjust output level to maximum point with T701 (AM-ANT Coil).
- 3) Adjust AM Signal Generator & RX-975 AM Frequency to 144 kHz and measure output level.
- 4) Adjust output level to maximum point with TC701 (WHITE trimmer).
- 5) Repeat above 2)~4) steps 2~3 times until adjusting to maximum output levels.
- 6) Adjust AM Signal Generator & RX-975 AM Frequency to 1000 kHz and measure output level.
- 7) Adjust level to maximum position with T703 (AM-IFT).

*In case of European version, AM Frequency Step is 9 kHz. So, change the standard frequency as below:

522 kHz as 520 kHz

1404 kHz as 1400 kHz

999 kHz as 1000 kHz

(C) TUNED Level Adjust

AM Signal Generator Setting: Modulation; 30 %, Audio Frequency; 400 Hz,

Radio Frequency; 1000 kHz Output Level; 84 dB

RX-975 Setting: AM Frequency; 1000 kHz

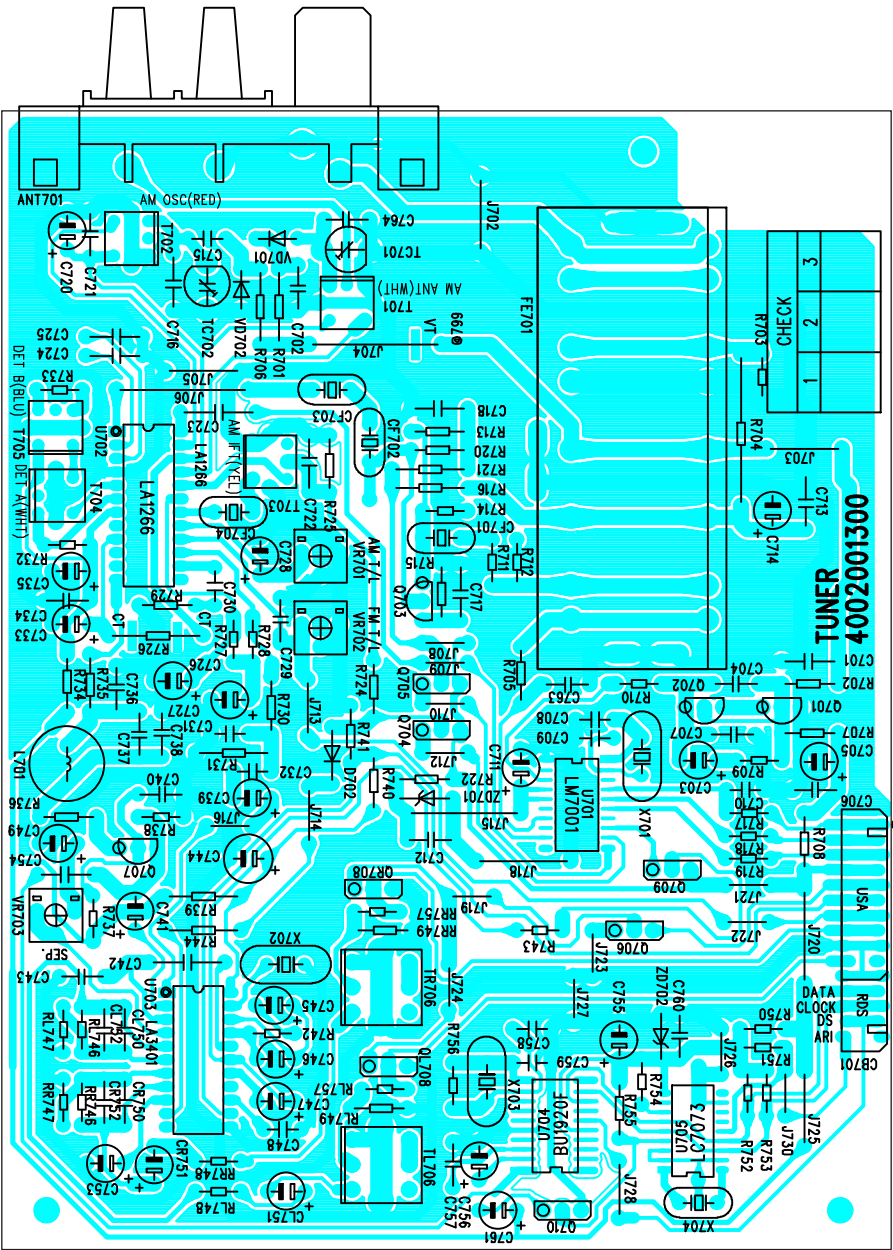
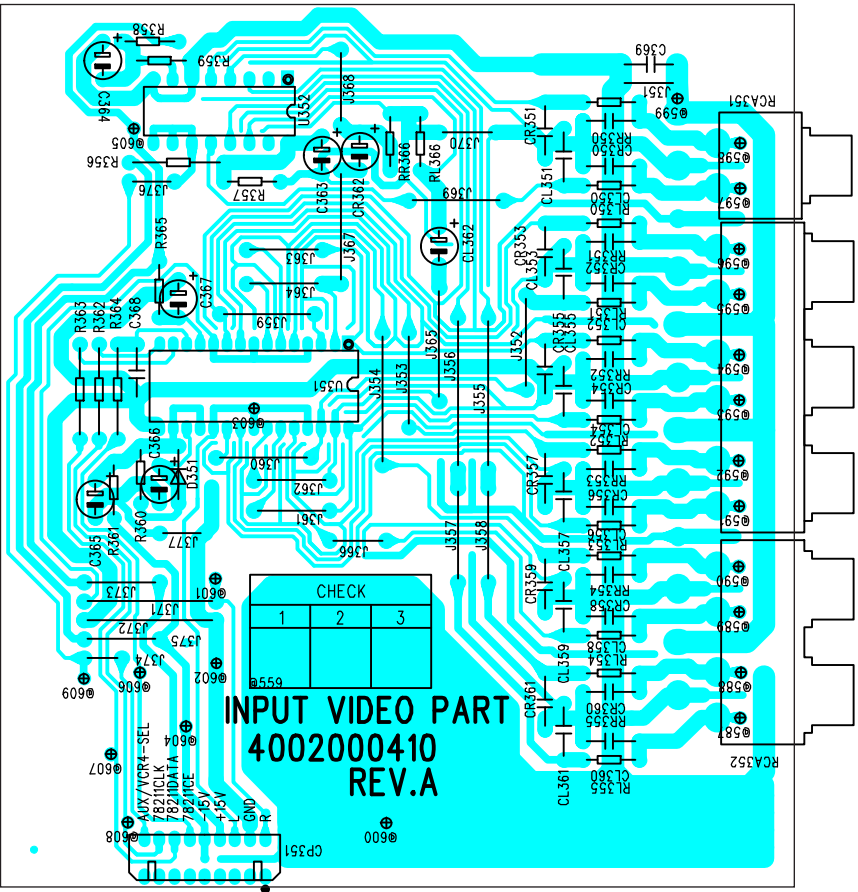
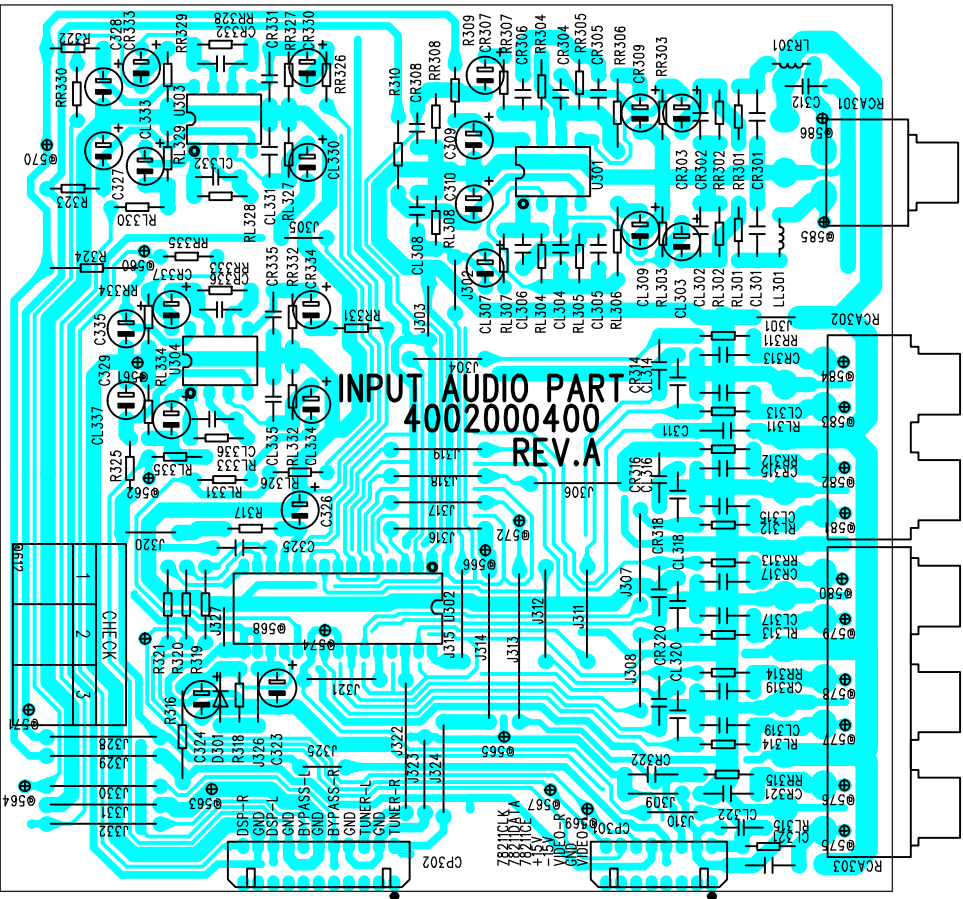
- 1) Turn AM Signal Generator Modulation On. (Make sure if Output level is 84 dB)
- 2) Adjust VR701 (AM-ADJ) up to the moment where 'TUNED' indicator turns OFF & ON again.
- 3) Confirm if 'TUNED' turns OFF when decreasing the output level of AM Signal Generator slowly from 84 dB to 80 dB.
- 4) Push RX-975's TUNE UP or DOWN button "long" at AM Signal Generator Output Level 84 dB and start Auto Search.

Confirm if search stops at AM Frequency 1000 kHz. (Check with both of High Frequency to 1000 kHz search, Low Frequency to 1000 kHz search)

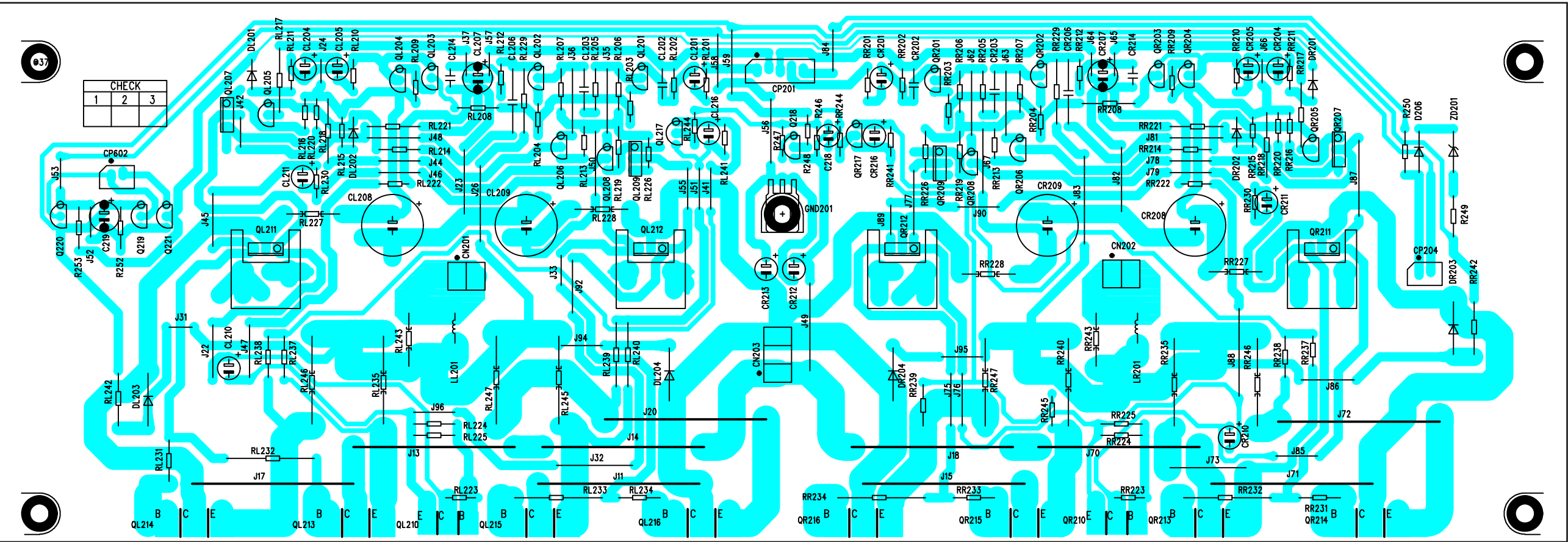
*In case of European version, AM Frequency Step is 9 kHz. So, check above steps with 999 kHz instead of 1000 kHz.

NOTE

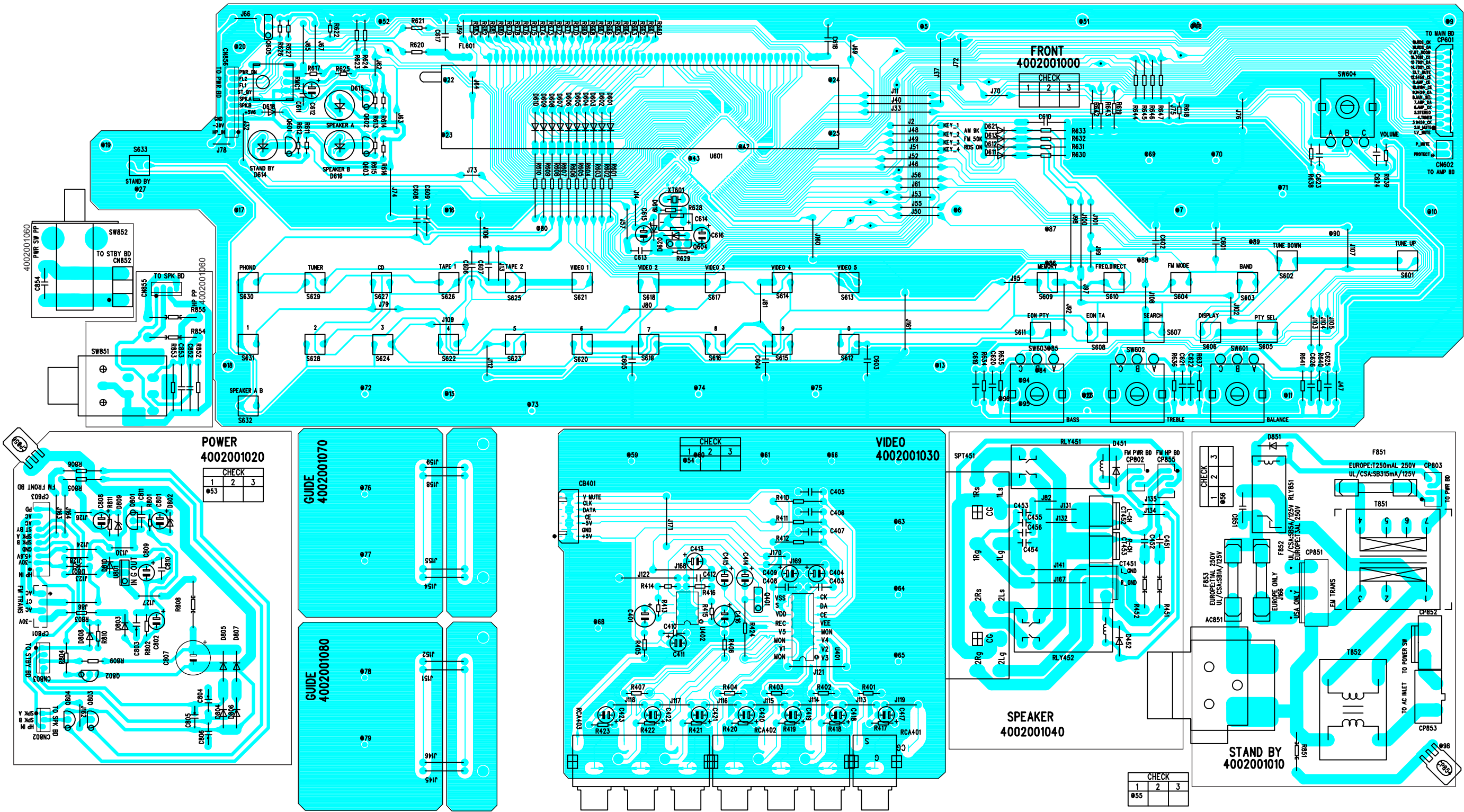
PCB Assembly (1/3)



AMP PCB 4002001200

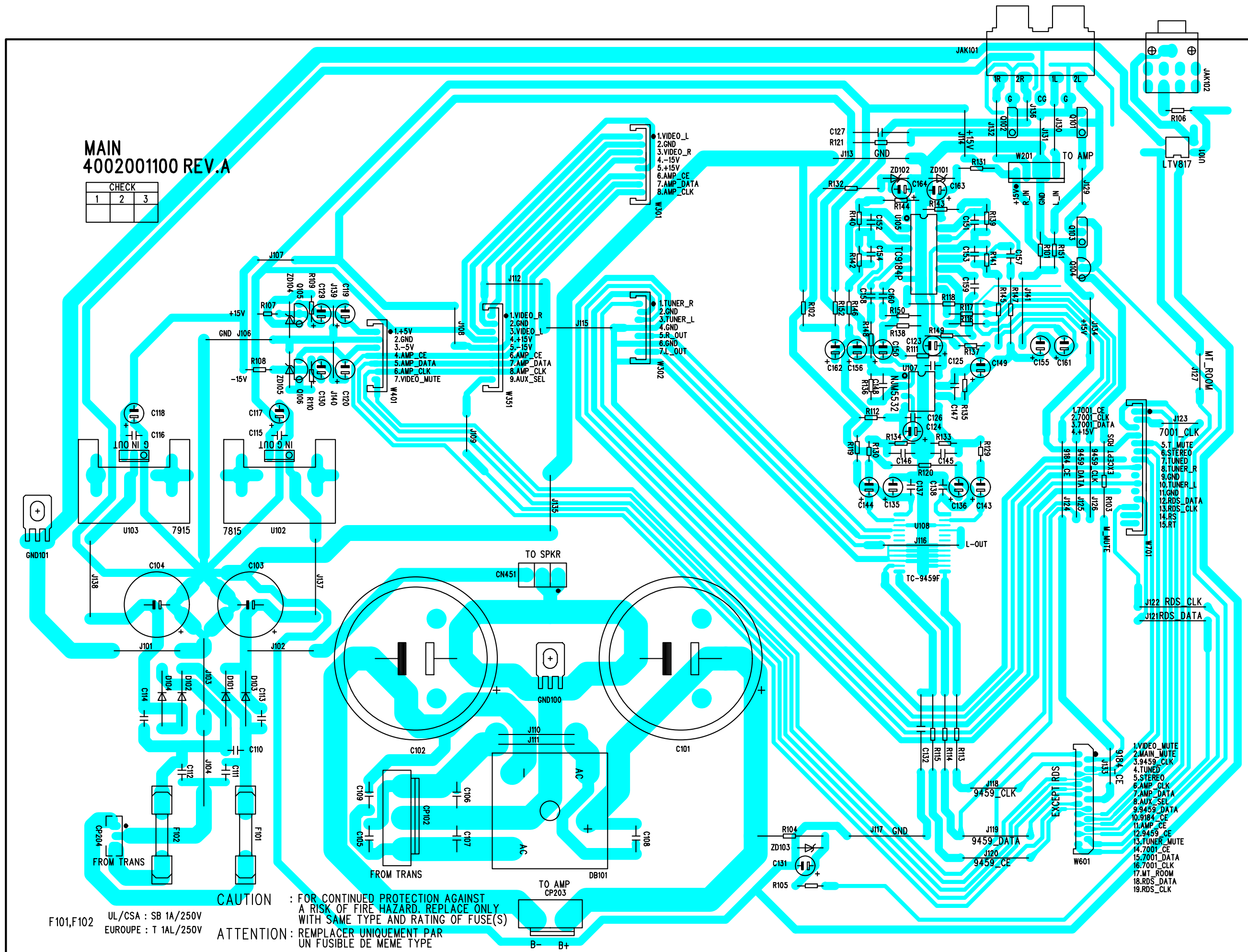


FRONT 4002001000



MAIN
4002001100 REV.A

CHECK		
1	2	3



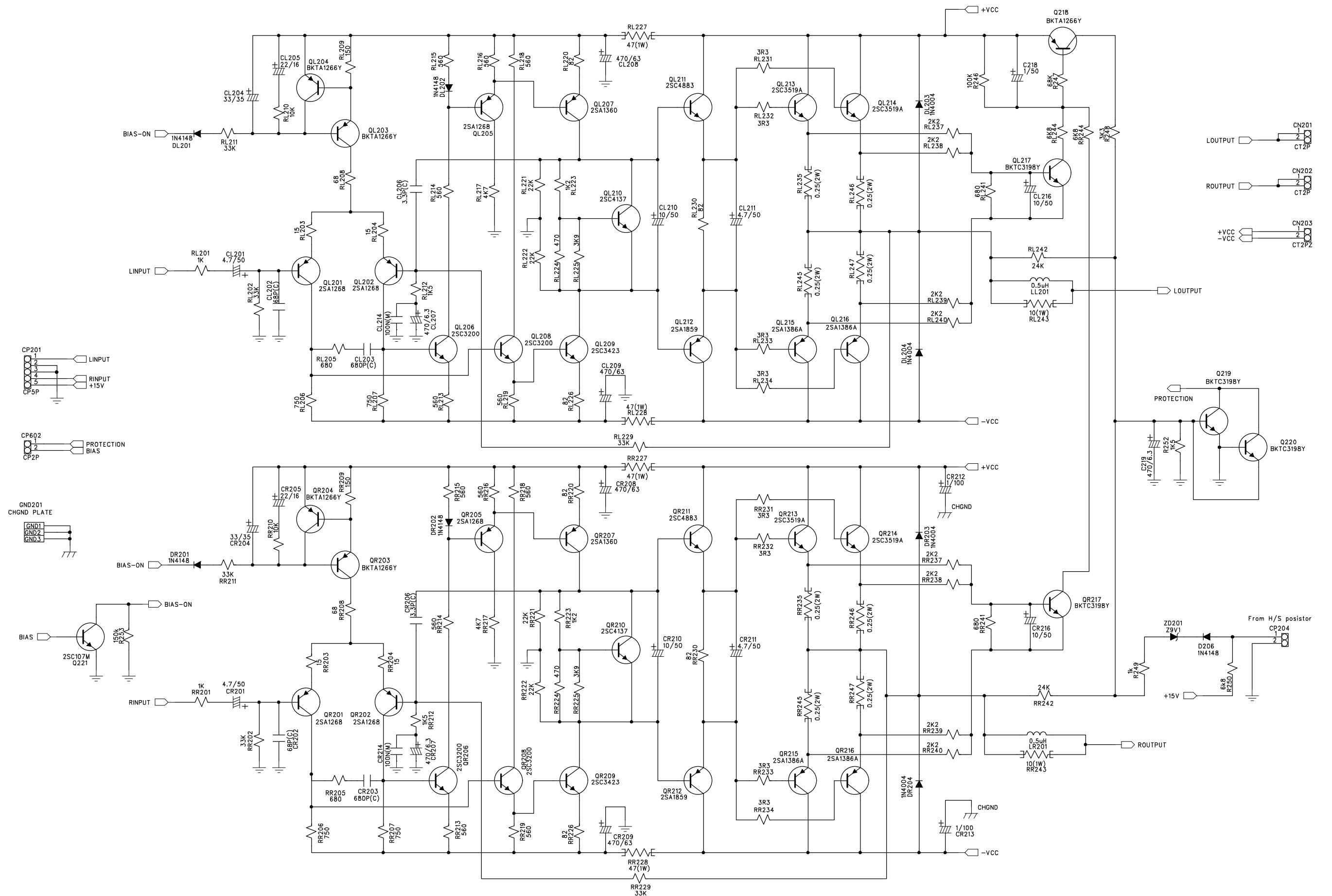
F101,F102

UL/CSA : SB 1A/250V
EUROPE : T 1AL/250V

CAUTION : FOR CONTINUED PROTECTION AGAINST
A RISK OF FIRE HAZARD. REPLACE ONLY
WITH SAME TYPE AND RATING OF FUSE(S)
ATTENTION : REMPLACER UNIQUEMENT PAR
UN FUSIBLE DE MEME TYPE

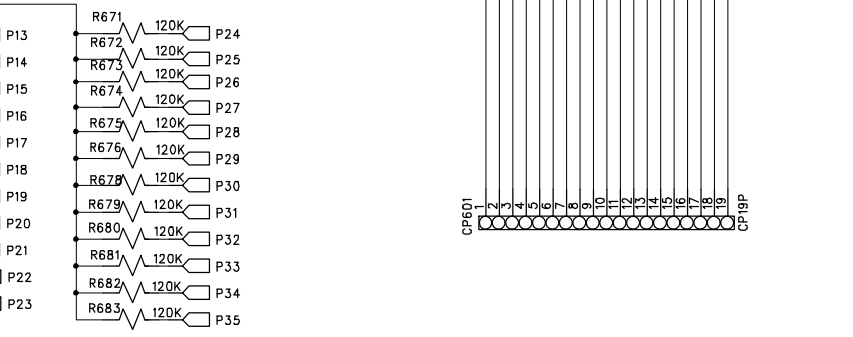
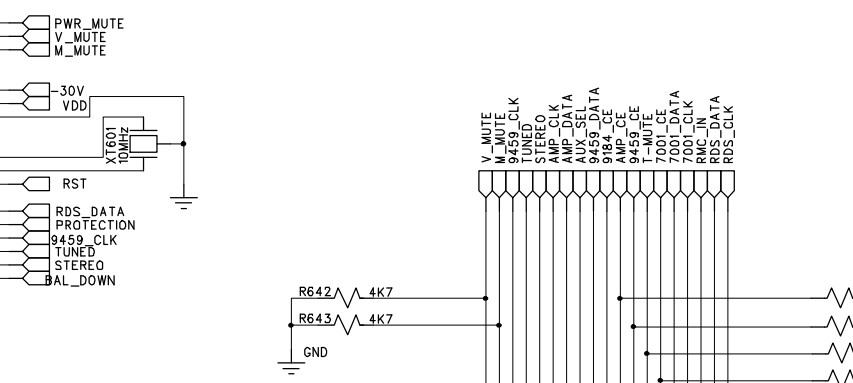
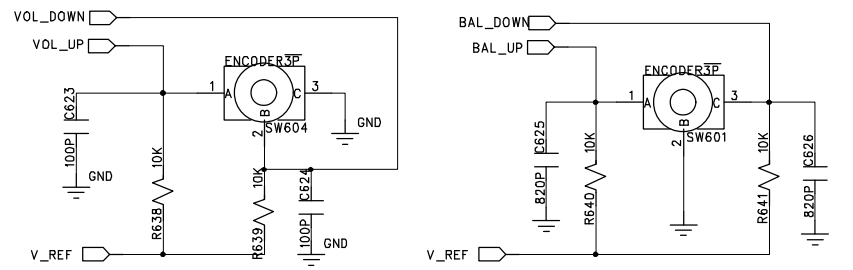
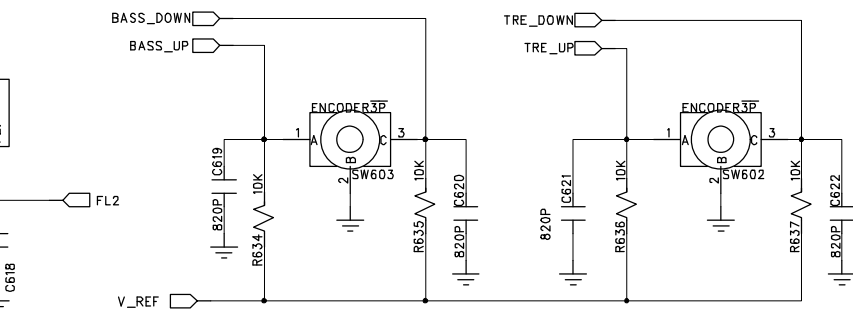
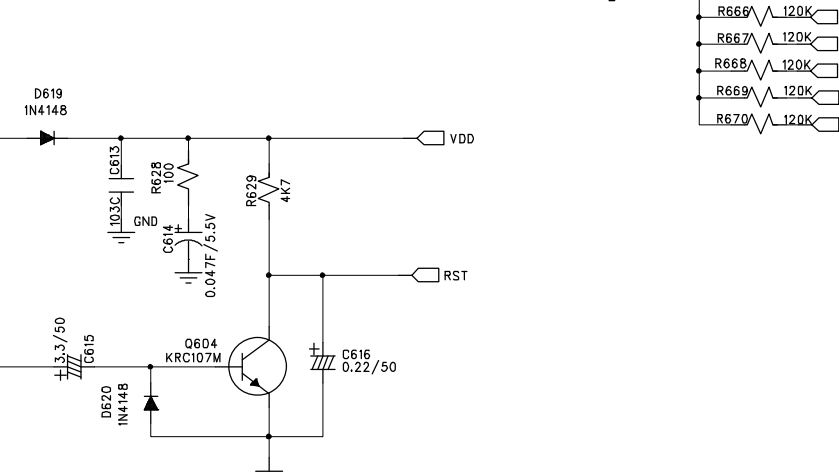
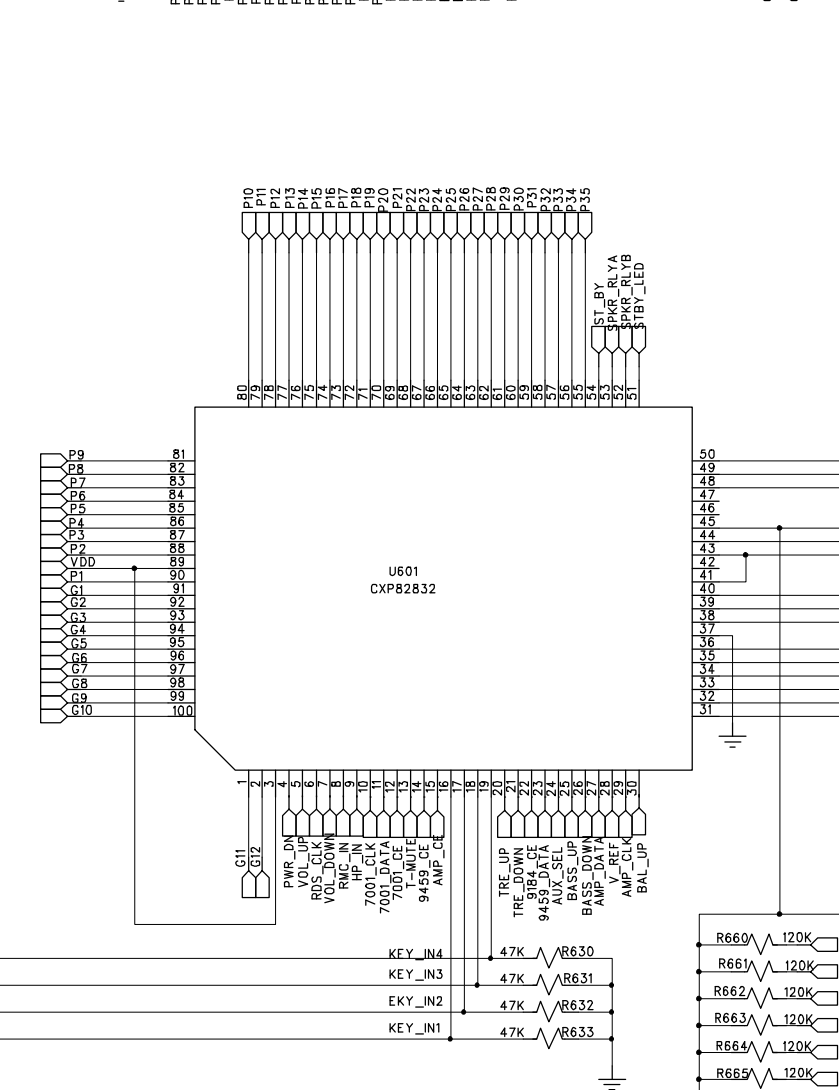
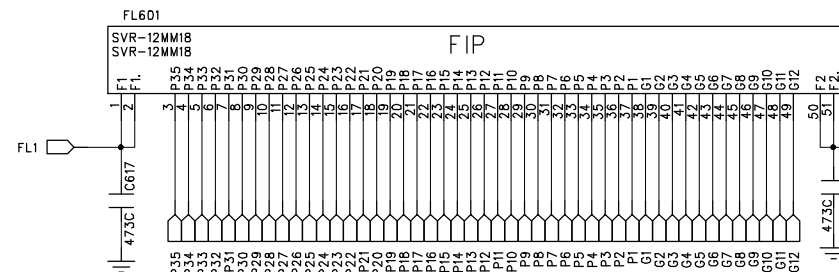
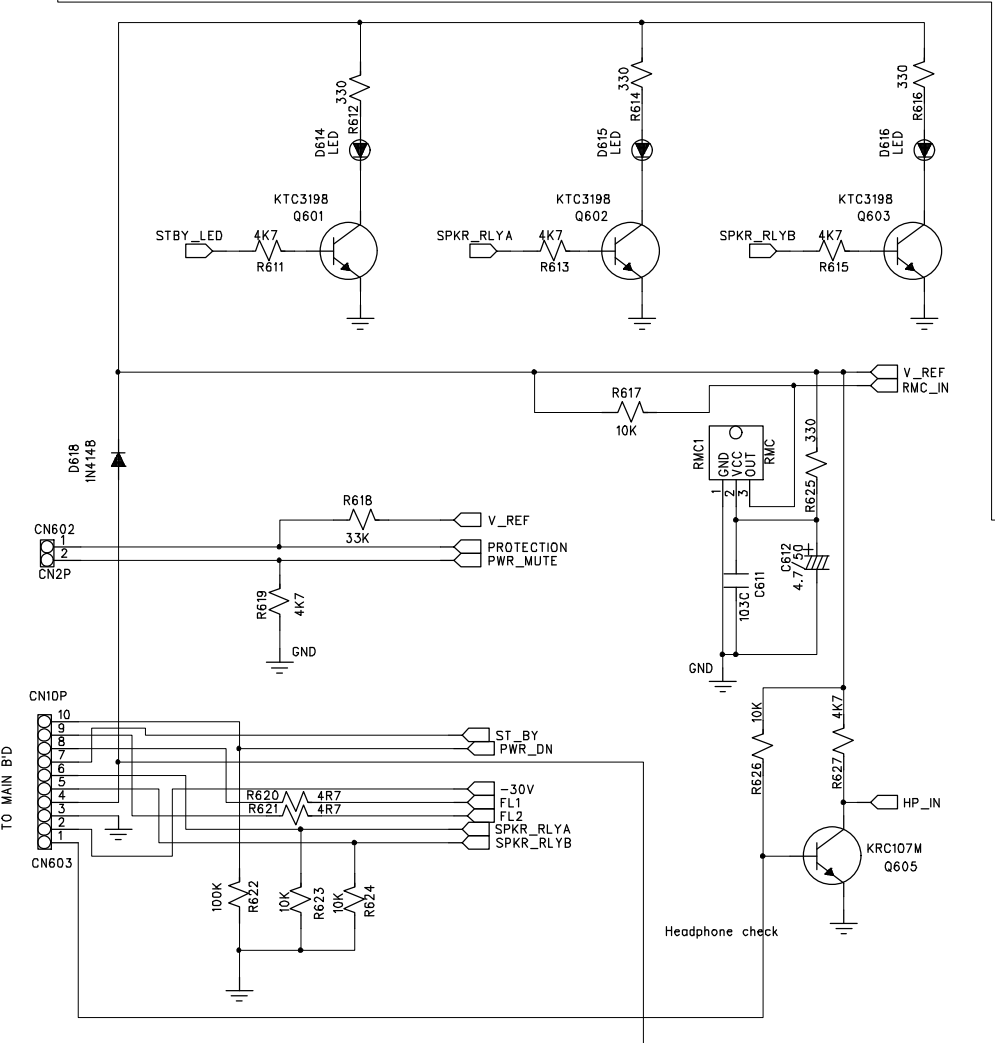
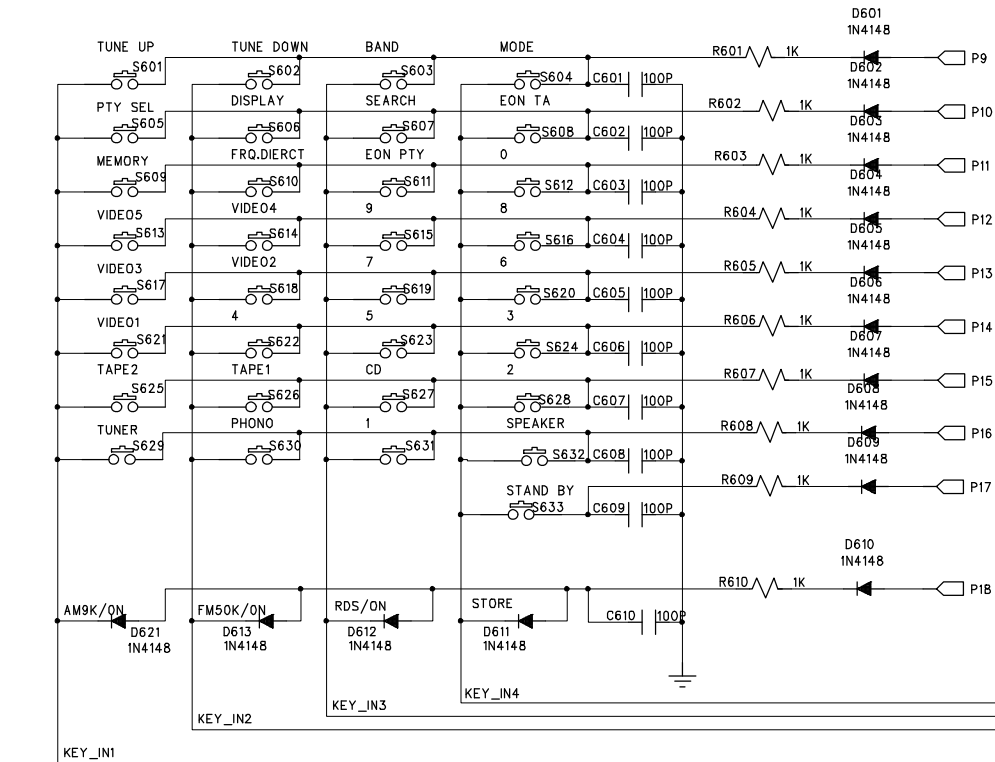
Schematic Diagram(1/6)

AMP PCB 4002001200



Schematic Diagram(2/6)

Front PCB 4002001000



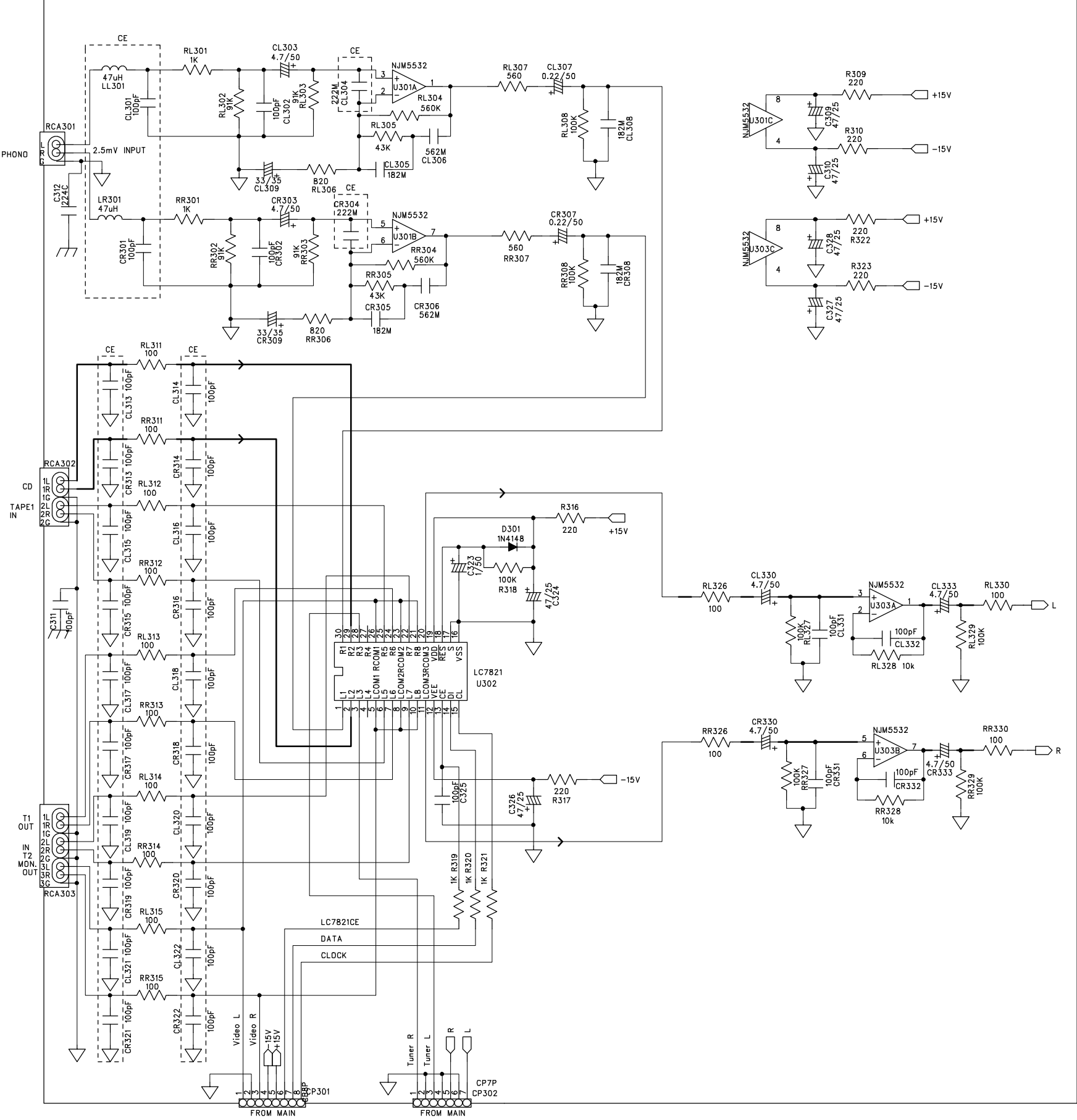
1. Resistor values are indicated in ohms unless otherwise specified.
(K=1,000 M=1,000,000)
2. Capacitor values are indicated in microfarads unless otherwise specified.
Example: 104=0.1 103=0.01 102=0.001
(p=micro-microfarad)
3. These resistors are to be segregated from printed wiring board or other accessible parts.

CAUTION
Safety precaution to be followed during servicing:
1. Since those parts marked with are critical parts for safety. Use only the one described in the part list.
2. Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

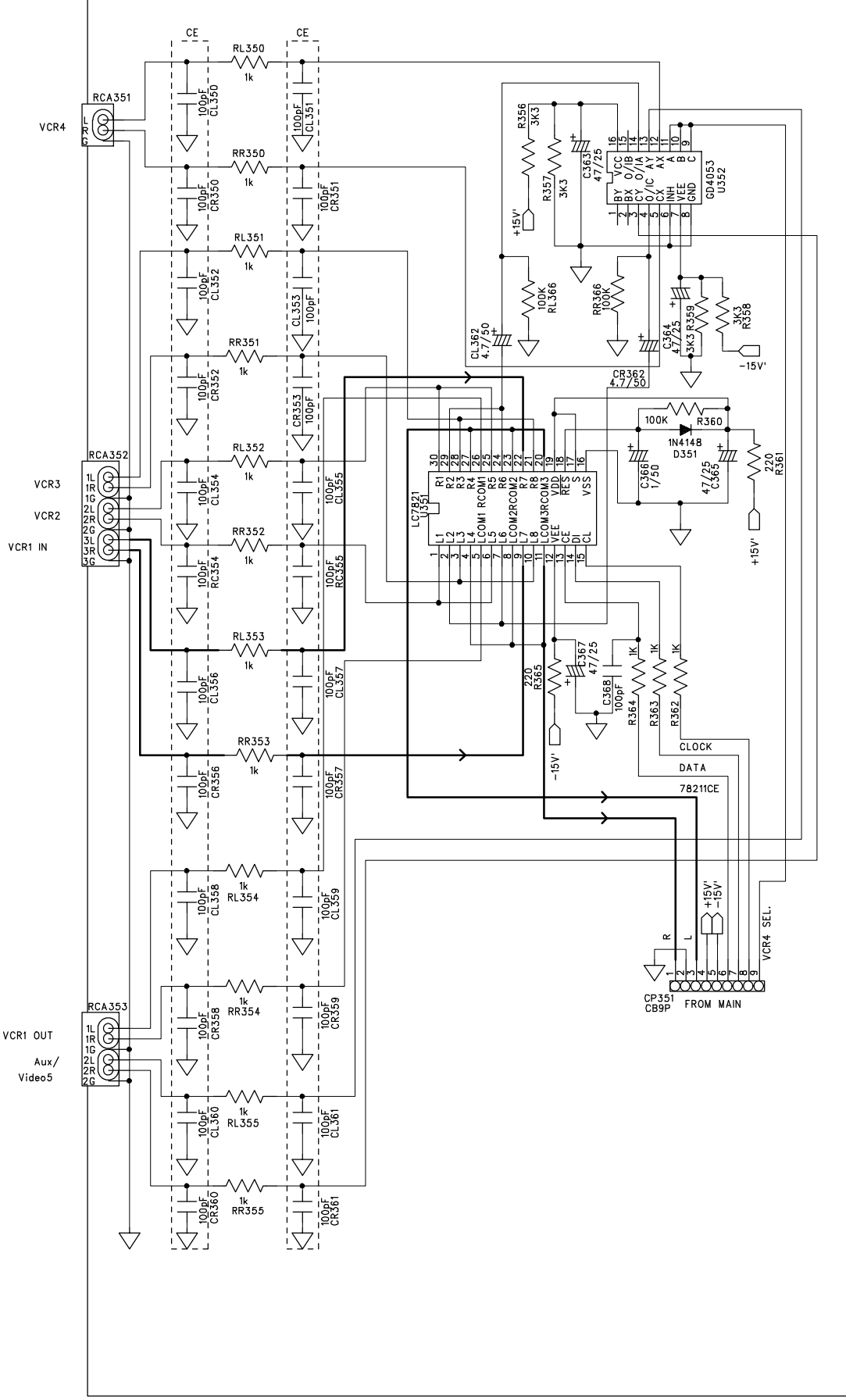
Schematic Diagram(3/6)



Schematic Diagram(4/6)



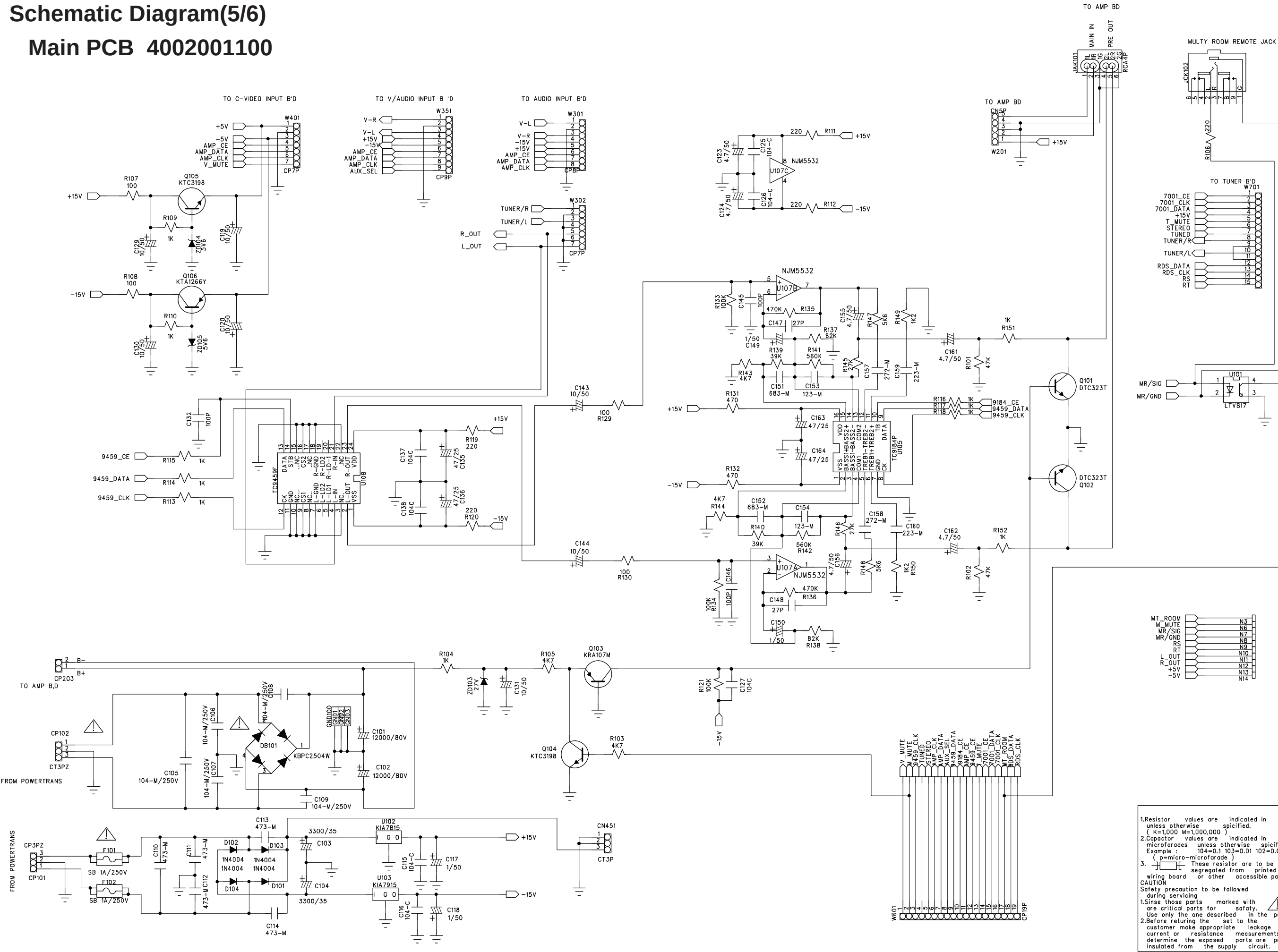
INPUT AUDIO PCB 400200400



INPUT VIDEO PCB 400200410

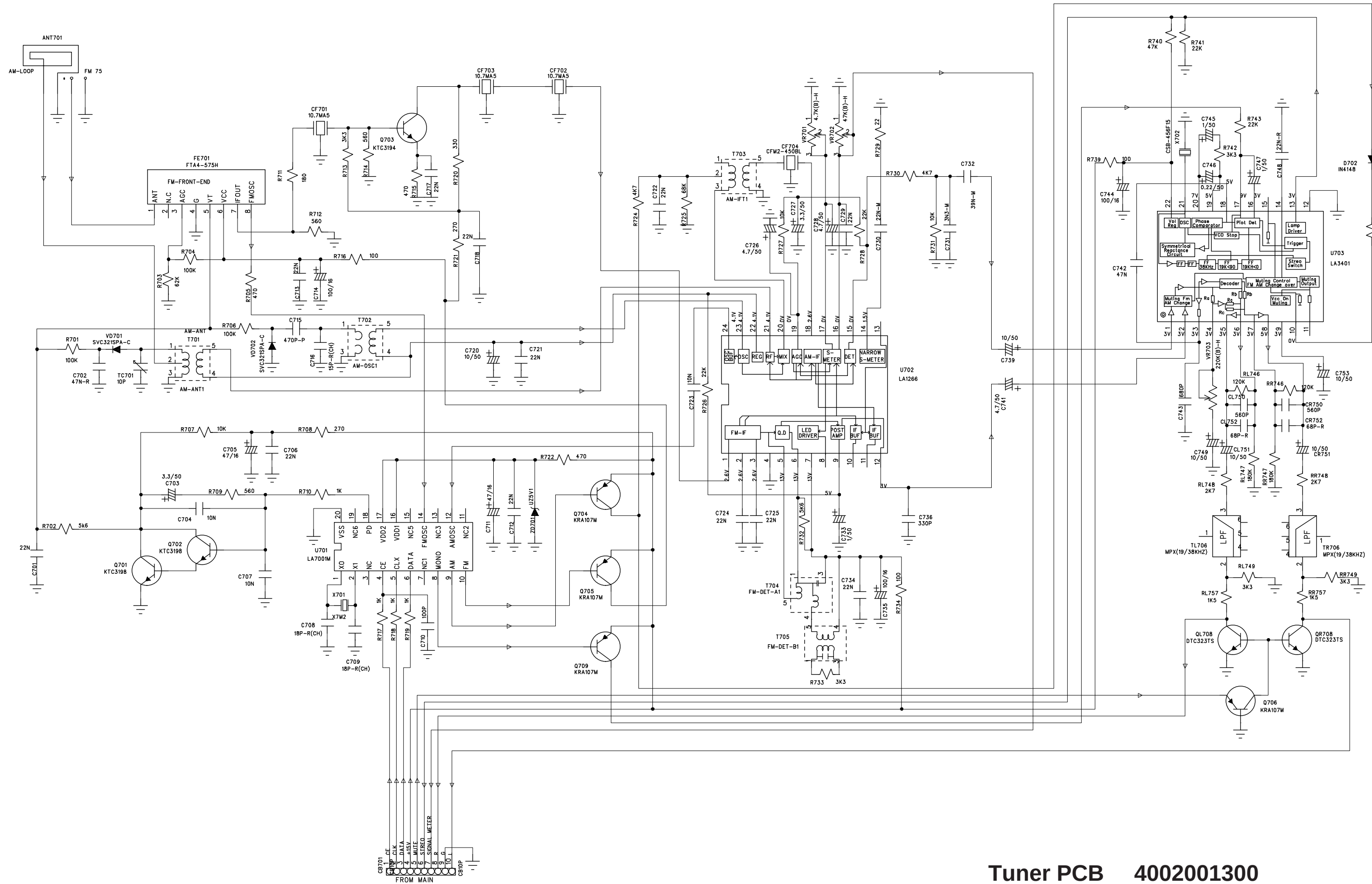
Schematic Diagram(5/6)

Main PCB 4002001100



1. Resistor values are indicated in ohms unless otherwise specified.
(K=1,000 M=1,000,000)
2. Capacitor values are indicated in microfarads unless otherwise specified.
Example: 104=0.1 103=0.01 102=0.001 (p=micro-microfarade)
3. These resistor are to be segregated from printed wiring board or other accessible parts.
CAUTION
Safety precaution to be followed during servicing
1. Since those parts marked with are critical parts for safety.
Use only the one described in the part list.
2. Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

Schematic Diagram(6/6)



Tuner PCB 4002001300