

TEAC



SERVICE MANUAL

MC-DV250

DVD Home Theater System



NOTES

- PC board shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. they must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.

[E]: EUROPE [UK]: U.K. [A]: AUSTRALIA
[CN]: CHINA [HK]: HONG KONG

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MC-DV250

1 SPECIFICATIONS

DVD Player

Pickup :	Semiconductor laser, wave length 650/790 nm
Signal System :	NTSC / PAL
Video signal horizontal resolution :	More than 480 lines (DVD)
Video signal-to-noise-ratio :	More than 50 dB (DVD)
Audio frequency response :	20 Hz ~ 20 kHz (+1/-3dB)
Audio signal-to-noise ratio :	62 dB
Dynamic range :	80 dB
S-Video output	
Y (luminance) - Output level :	1 Vp-p (75 ohm)
C (color) - Output level :	286 mVp-p (75 ohm)
Jack :	S-VIDEO jack
Video output	
Output level :	1 Vp-p (75 ohm)
Jack :	RCA jack
Component video output (Y, Pb, Pr)	
Y-Output level :	1 Vp-p (75 ohm)
Pb, Pr-output level:	0.7 Vp-p (75 ohm)
Jacks :	RCA jacks
AV connector	
Jack :	SCART

Amplifier

Output Power :	25 W + 25 W (Stereo, 0.7% THD, 20 Hz TO 20 kHz, 6 ohm)
Total Harmonic Distortion:	0.09% (at 25 W, 1kHz, 6 ohm)
Audio Input sensitivity/impedance:	*LINE: 400mV/47 ohm
Output level/impedance (TAPE REC)	180 mV/ 2.2ohm
Frequency Response :	* LINE 20 Hz to 28kHz, +0/-3 dB
Signal-to-noise Ratio :	* LINE 80 dB (IHF-A)
Tone control :	BASS: +/- 10dB at 100Hz TREBLE +/- 10dB at 10 kHz

FM Tuner (Without notes 100.1 MHz, 65 dBf)

Tuning Range :	87.5 ~ 108.0 MHz (50 kHz steps)
Total Harmonic Distortion (1 kHz) :	Mono : 0.5% Stereo: 0.8%
Frequency Response :	30 Hz to 15 kHz, +/- 3dB
Stereo Separation (1 kHz) :	40 dB
Signal-to-Noise Ratio :	Mono: 55 dB Stereo: 45 dB

AM Tuner

Tuning Range :	522 ~ 1611 kHz (9 kHz steps)
Usable Sensitivity :	500 uV/m
Total Harmonic Distortion :	1.5% at 100 dB/m
Signal-to-Noise Ratio :	40 dB at 100 dB/m

General (Main unit)

Power requirements :	AC 220V 50 Hz (China model) AC 230V, 50Hz (Europe/U.K/Hong Kong model) AC 240V, 50Hz (Australia model)
Power consumption :	95 W (STAND BY: 1W)
Dimension (W x H x D) :	360 x 102 x 275 mm
Weight (net) :	5.4 kg

Speakers System (L & R)

Input Power :	30 W maximun
Unit :	2.5 cm / 8 cm cone type
Impedance :	6 ohm
Dimension (W x H x D) :	110 x 220 x 100 mm
Weight (net) :	1 kg

Active Subwoofer

Unit :	16.5 cm cone type
Impedance :	4 ohm
Output Power:	50 W
Dimension (W x H x D) :	200 x 297 x 315 mm
Weight :	7.0 kg

Accessories

AM loop Antenna x 1
FM T-type Antenna x 1
FM Matching Transformer x 1
Speaker Cable x 2
Subwoofer cable (RCA) x1
Remote Control Unit x 1 (RC-965)
Batteries (AAA, R03, UM-4) x 2
Owner Manual x 1

* LINE means: TAPE PLAY, AUX

- Design and specifications are subject to change without notice.
- Weight and dimensions are approximate.

2 ADJUSTMENTS AND CHECKS

2-1 Adjustments

ITEM	SG GENERATOR SETTING		FREQUENCY SETTING	ADJUSTMENT POINTS	SPECIFICATION
	MODULATION	OUTPUT			
1. FM Output Level	1 kHz 40 kHz deviation	60 dBu	98.1 MHz	Check	500 +/- 100mV (47 k ohm load)
2. FM Auto Stop Level	1 kHz 40 kHz deviation		98.1 MHz	SVR01	20 +/- 6 dBu
3. FM Stereo Separation	1 kHz MAIN: 53.5% PILOT: 10%	60 dBu	98.1 MHz	SVR02	30 dB min
4. AM Output Level	400Hz 30% modulation	74 dBu	999 kHz	Check	165 +/- 55 mV (47 k ohm load)
5. AM Auto Stop Level	400Hz 30% modulation		999 kHz	SVR03	55 +/- 15 dBu

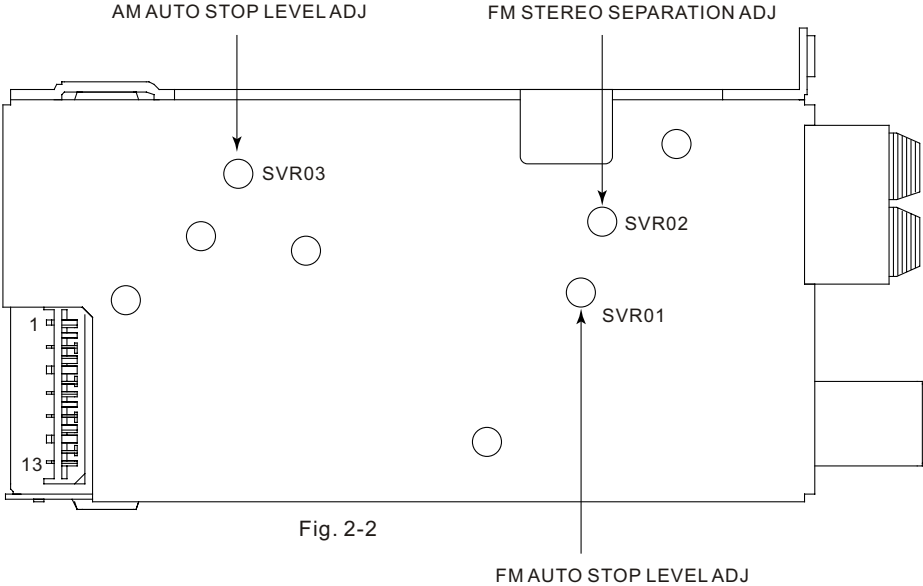
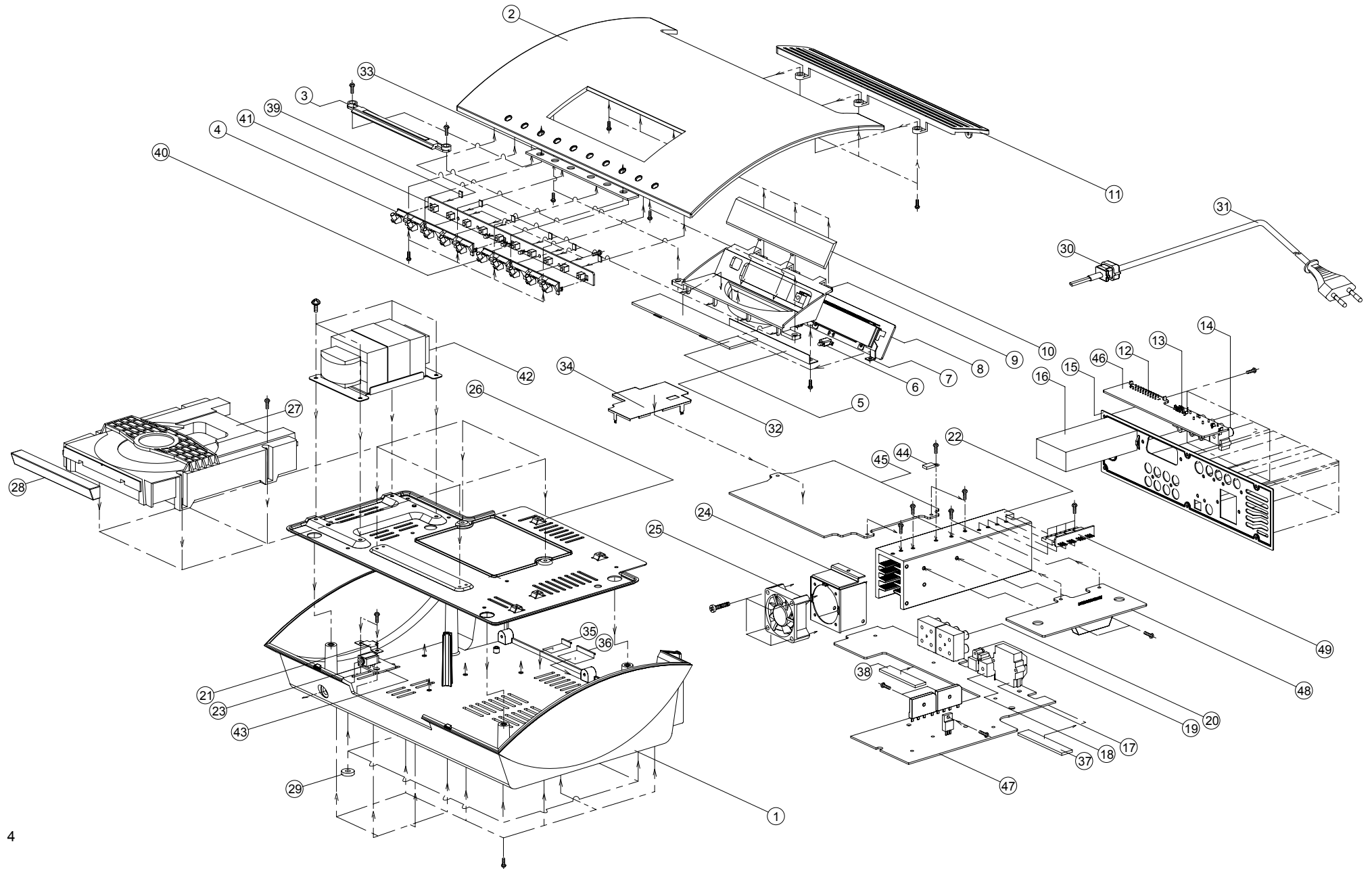


Fig. 2-2

MC-DV250

3. EXPLODED VIEWS AND PARTS LIST

EXPLODED VIEW 1






EXPLODED VIEW-1

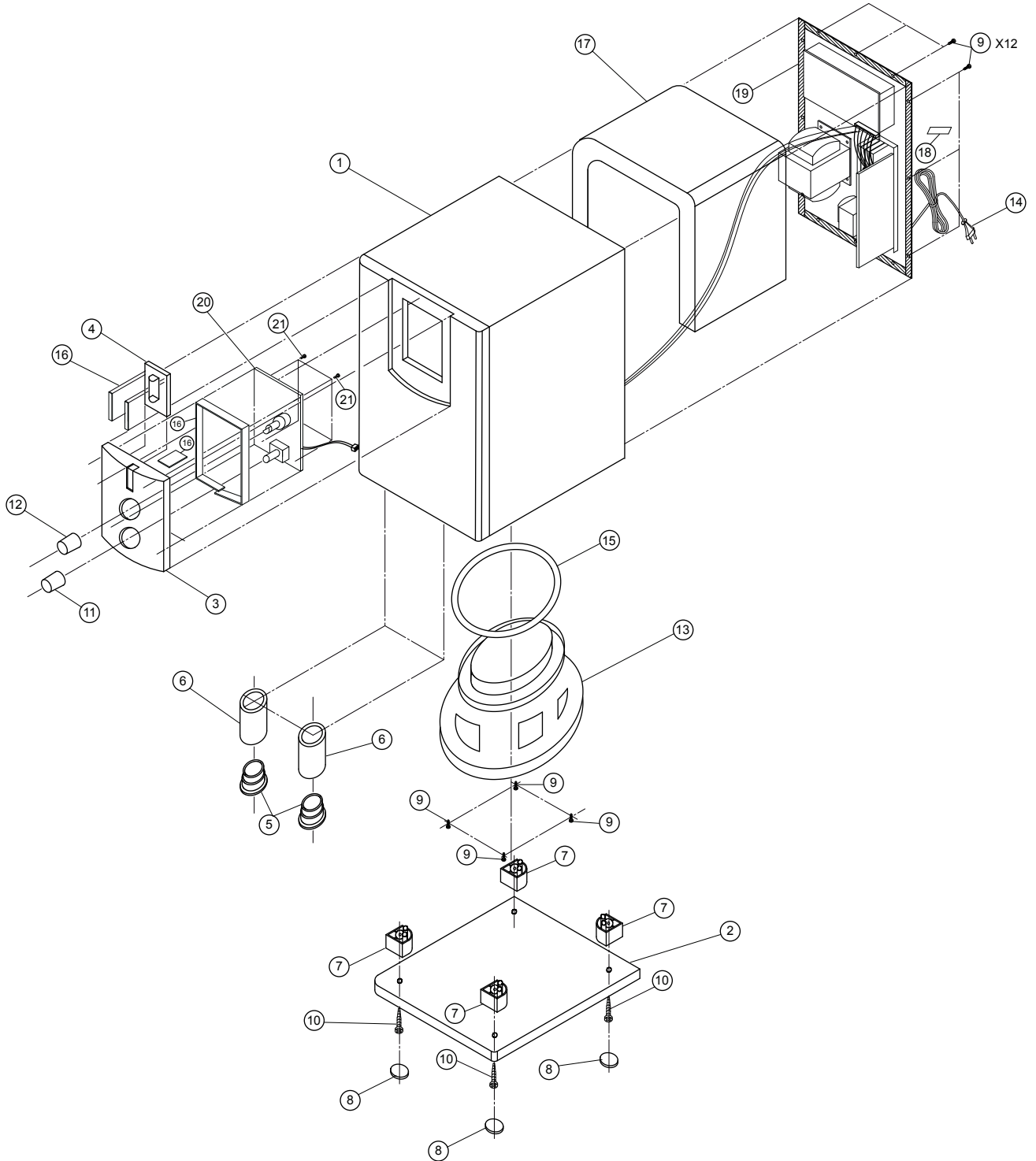
REF. NO	PARTS NO.	DESCRIPTION	REMARKS
1-1	3037210281010	CASE, BOTTOM [E, UK,A,HK].	
	3037210281030	CASE, BOTTOM [CN]	
1-2	3007210491000	CABINET, TOP [E,UK]	
	3007210491010	CABINET, TOP [A,CN,HK]	
1-3	5127210551000Z	DECORATION, POWER	
1-4	5090212521000Z	BUTTON, FUNCTION-L	
1-5	5077212013000	WINDOW, DISC	
1-6	4070210801000	SUPPORTER, LED	
1-7	4010212026000	BRACKET, VFD	
1-8	7028063322010	FRONT PCB ASSY	
1-9	4147210011000	STAND, VFD	
1-10	5077212023000	WINDOW, VFD	
1-11	4317212101000	COVER, VENTILATION	
1-12	G4062C1111000	JACK, MODULAR	
1-13	G600000010020	TERMINAL, RCA 1PIN	
1-14	G602404C0600Y	TERMINAL, RCA 4PIN	
1-15	3207211506000	CHASSIS, BACK [E,UK]	
	3207211506010	CHASSIS, BACK [A]	
	3207211506040	CHASSIS, BACK [CN]	
	3207211506020	CHASSIS, BACK [HK]	
1-16	E903114110010	TUNER, KST-ML114MS1-A10 [E,UK]	
	E903114110010	TUNER, KST-ML014MS1-A10 [A,CN,HK]	
1-17	G040404204220	SW , PUSH	
1-18	G600010003020	TERMINAL, RCA1PIN	
1-19	E100151300010	MODULE, GP1FA513TZ	
1-20	G602405A2040Y	TERMINAL, RCA 4PIN	
1-21	4010212016000	BRACKET, PHONE JACK	
1-22	2120210738000	HEAT SINK	
1-23	G401323A0000Y	JACK, D3.5	
1-24	4010212006000	BRACKET, FAN	
1-25	G720420100010	FAN, DC	
1-26	3210210766000	FRAME, MAIN	
1-27	8030803000010	DVD LOADING MECHA	
1-28	5047210421000	DOOR, TRAY	
1-29	4050211065000	CUSHION, FLT GUIDE	
1-30	⚠ 4380210002000	STOPPER, AC CORD	
1-31	⚠ L068040014050	CORD ASSY [E]	
	⚠ L068040350011	CORD ASSY [UK,HK]	
	⚠ L068040230050	CORD ASSY [A]	
	⚠ L068020140011	CORD ASSY [CN]	
1-32	5200210182000	FILTER, LED	
1-33	1200210069000	SPONGE, BTN	
1-34	3070210226000	SHIELD, DSP	
1-35	1150210017000	NON STEEL, FOIL	
1-36	1150210027000	NON STEEL, FOIL	

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EXPLODED VIEW-1

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
1-37	1200210075000	SPONE	
1-38	1200210085000	SPONE	
1-39	4300210072000	SPACER, PC SHEET	
1-40	5090212531000Z	BUTTON, FUNCTION-R	
1-41	7028063323010	KEY PCB ASSY	
1-42	 8200660700090	POWER TRANSFORMER 230V [E,UK,HK]	
	 8200660700110	POWER TRANSFORMER 240V [A]	
	 8200660700120	POWER TRANSFORMER 220V [CN]	
1-43	7028063313010	HEADPHONE PCB ASSY	
1-44	F320550001060	POSISTOR, P43T5D100BW500	
1-45	7028063321010	DSP PCB ASSY [E,UK]	
	7028063321030	DSP PCB ASSY [A,HK]	
	7028063321050	DSP PCB ASSY [CN]	
1-46	7028063324010	VIDEO PCB ASSY [E,UK]	
	7028063324020	VIDEO PCB ASSY [A,CN,HK]	
1-47	7028063311010	MAIN PCB ASSY [E,UK,HK]	
	7028063311020	MAIN PCB ASSY [A]	
	7028063311040	MAIN PCB ASSY [CN]	
1-48	7028063312010	AMP PCB ASSY	
1-49	7028063314010	REGULATOR PCB ASSY	

EXPLODED VIEW 2









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DSP PCB ASSY

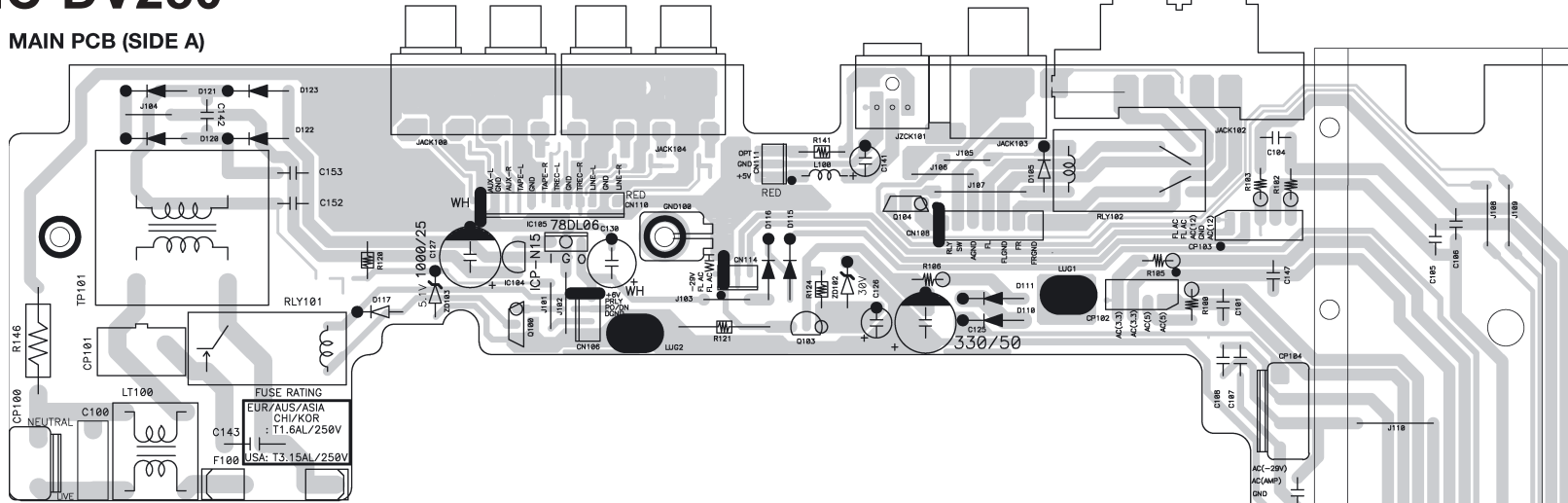
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	7028063321030	DSP PCB ASSY [A,HK]	
	7028063321050	DSP PCB ASSY [CN]	
	7020063320000	DSP PCB	
	3070210226000	SHIELD, DSP	
C714	D090473704010	C. CAP 0.047UF/5.5V	
CP106	L101220040000	CN WAFER, GIL-S-4P-S2T2-EF	
CP107	L102526700900	CN WAFER, 5267-09A 9P	
CN110	L101220120000	CN WAFER, GIL-S-12P-S2T2-EF	
CP111,114	L101220030000	CN WAFER, GIL-S-3P-S2T2-EF	
CP201	L101220080000	CN WAFER, GIL-S-8P-S2T2-EF	
CP202	L101220150000	CN WAFER, GIL-S-15P-S2T2-EF	
CP203,204	L101220050000	CN WAFER, GIL-S-5P-S2T2-EF	
CP205	L131837001300	CN FPC, 8370-131 13P	
CP206	L101220130000	CN WAFER, GIL-S-13P-S2T2-EF	
CP209,401	L102526700300	CN WAFER, 5267-03A 3P	
CP301	L102526800400	CN WAFER, 5268-04A 4P	
CP302	L130623202410	CN FPC, 6232-24P	
CP303	L101220070010	CN WAFER, GIL-S-07P-S2L2-EF	
D701,702,704,708	K000013300520	DIODE - 1SS133T-72	
D705,706,709	K005041480020	DIODE CHIP - 1N4148	
D710,711,713-716			
D707	K000400700520	DIODE - 1N4007	
IC602,604	J040742440180	IC - MM74LCX244	
IC603	J080832100010	IC - LC83210W	
IC605	J043538100010	IC - AK5381VT-E2	
IC606	J042438400010	C - AK4384VT-E2	
IC607	J040740400200	IC - MC74HCU04AD	
IC608,609,706, IC707,708	J121206800020	IC - NJM2068M	
IC611	J040744040030	IC - SN74LV4040APWR	
IC617	⚠ J126780500110	IC - KIA7805API	
IC618	⚠ J126111733020	IC - RC1117-3.3	
IC619	⚠ J126111725020	IC - RC1117-2.5	
IC700	J125704200010	IC - KIA7042P	
IC701	J020825403360	IC - CPU CXP82540-3360	
IC702	J000240200140	IC - M240C02-WMN6T	
IC703	J123753430010	IC - LC75343M	
IC704	J040405200060	IC - BU4052BCF	
L603,607,619-621	7610035500030	COIL BEAD - 3550R2F	
L609-618,623-626, L628,629	D3401608000060	COIL BEAD - MB-160808-0120H	
Q610,611,701,702	J522010200210	TR - CHIP KRC102S	
Q714			
Q612	J5223875Y0210	TR - CHIP KTC3875Y	
Q613,705,708, Q709,711,715	J5200107S0050	TR - CHIP KRA107S	

DSP PCB ASSY

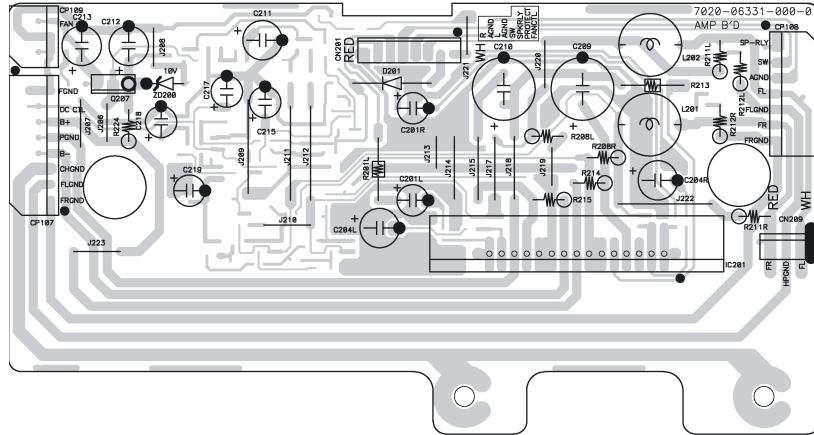
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Q619,713 Q702L,702R	J522104S00210 J5441170Y0050	TR - CHIP KRC104S FET, 2SK117Y(TYPE)	
R606	 C060010065050	R, METAL 10 J 1W	
R607	 C060022066050	R, METAL 22 J 2W	
R609	 C060022065050	R, METAL 22 J 1W	
R625,729	 C060012165060	R, METAL 120 J 1W	
R725	 C06000106506	R, METAL 1 J 1W	
R771L,771R	 C060027165060	R, METAL 270 J 1W	
RLY701	G680061022010	RELAY, RSB6 DC6V	
X601	E800100000070	CRYSTAL 10.000MHz	
X602	E80012R288080	CRYSTAL 12.288MHz	
ZD701	K06006R844520	ZENER DIODE MTZJ6.8B	

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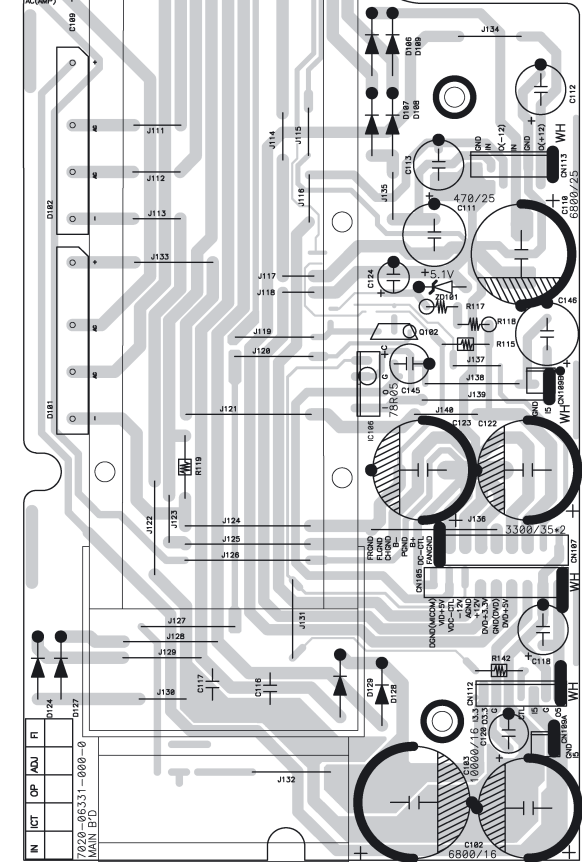
MAIN PCB (SIDE A)



AMP PCB (SIDE A)

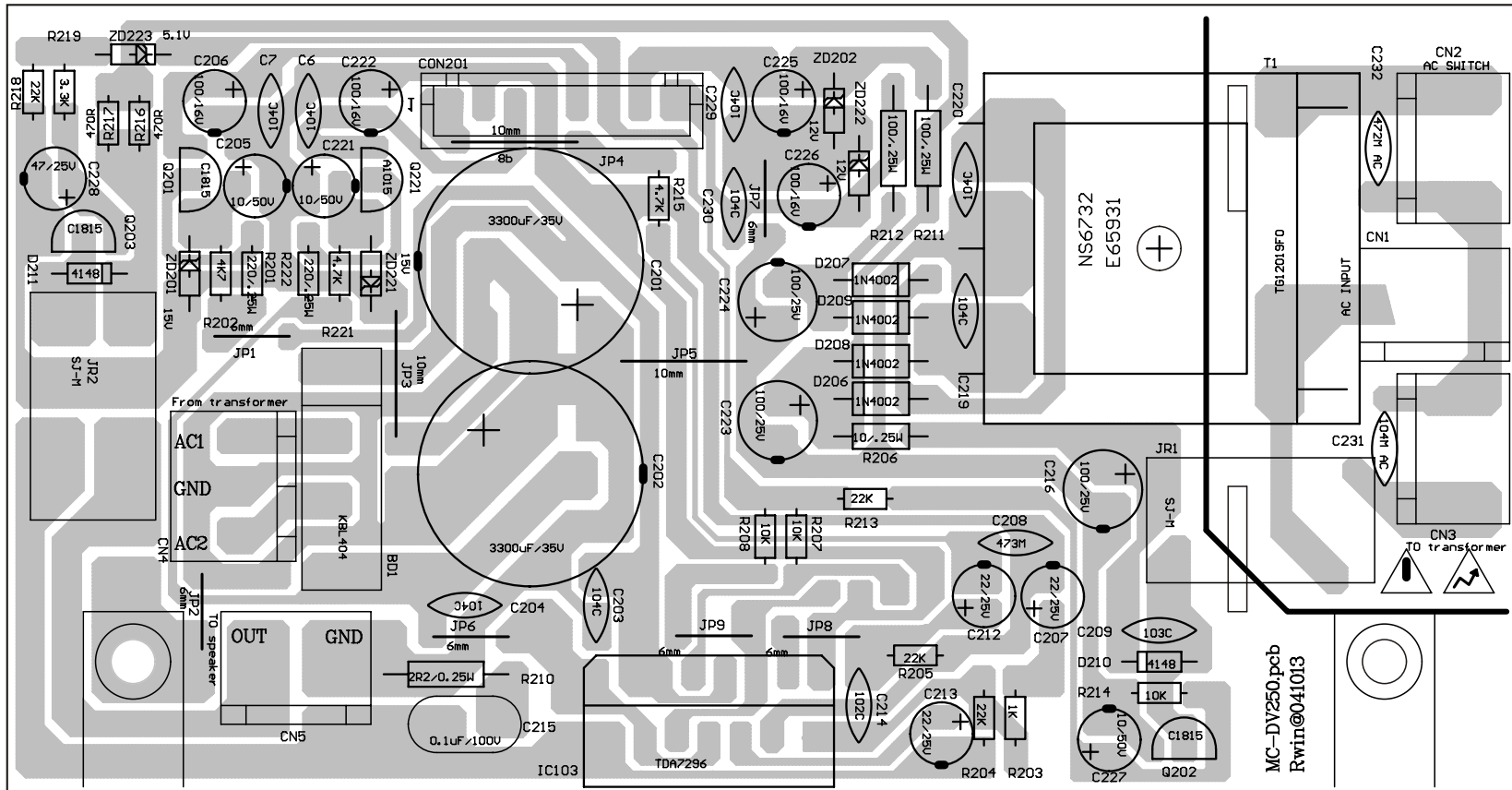


REG PCB (SIDE A)



MC-DV250

SUBWOOFER - AMP PCB



MC -DV250

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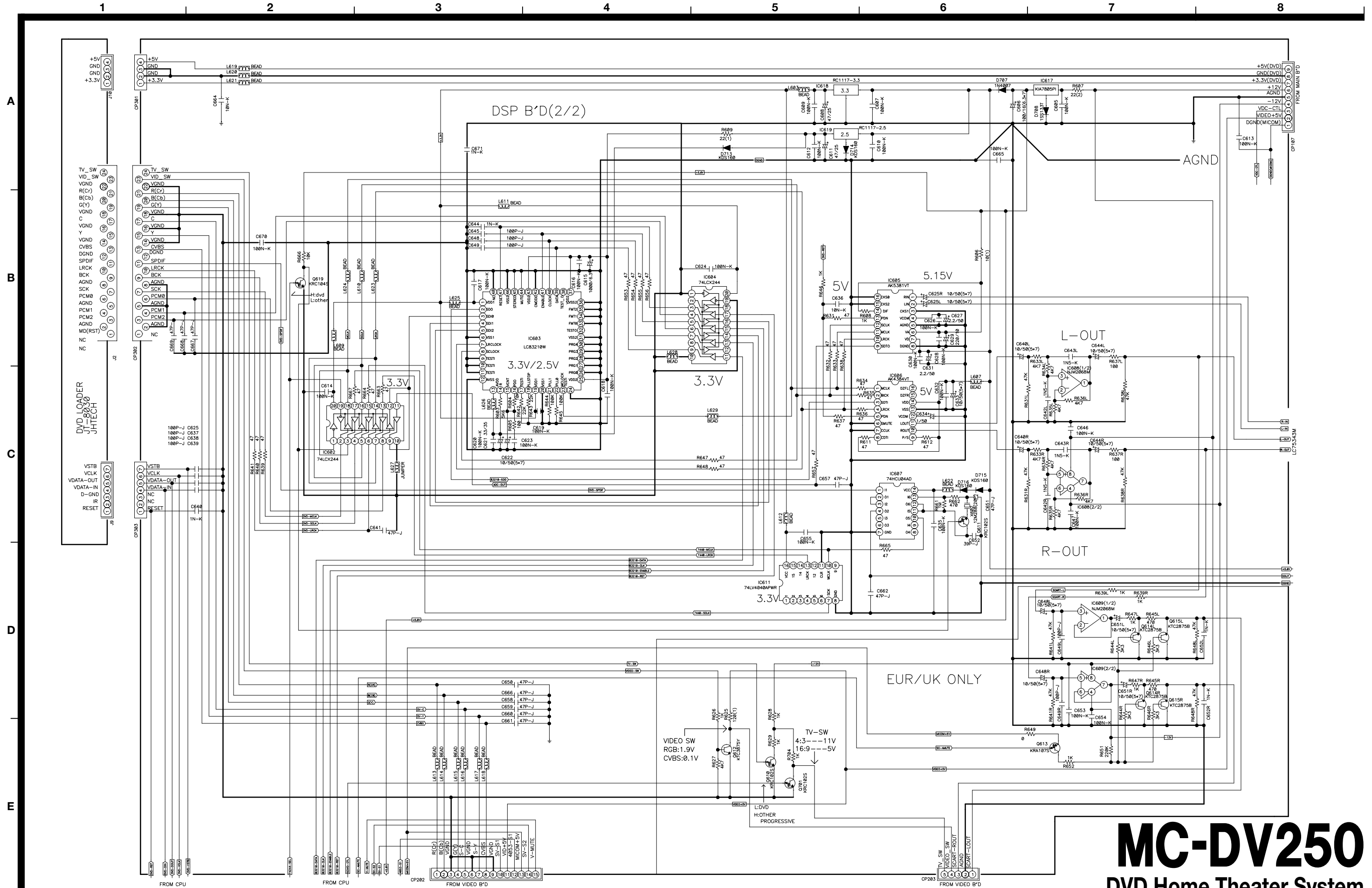
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MC-DV250
DVD Home Theater System
 1st Issue; October 2004

TEAC SCHEMATIC DIAGRAM MC-DV250 TUNER

1 2 3 4 5 6 7 8

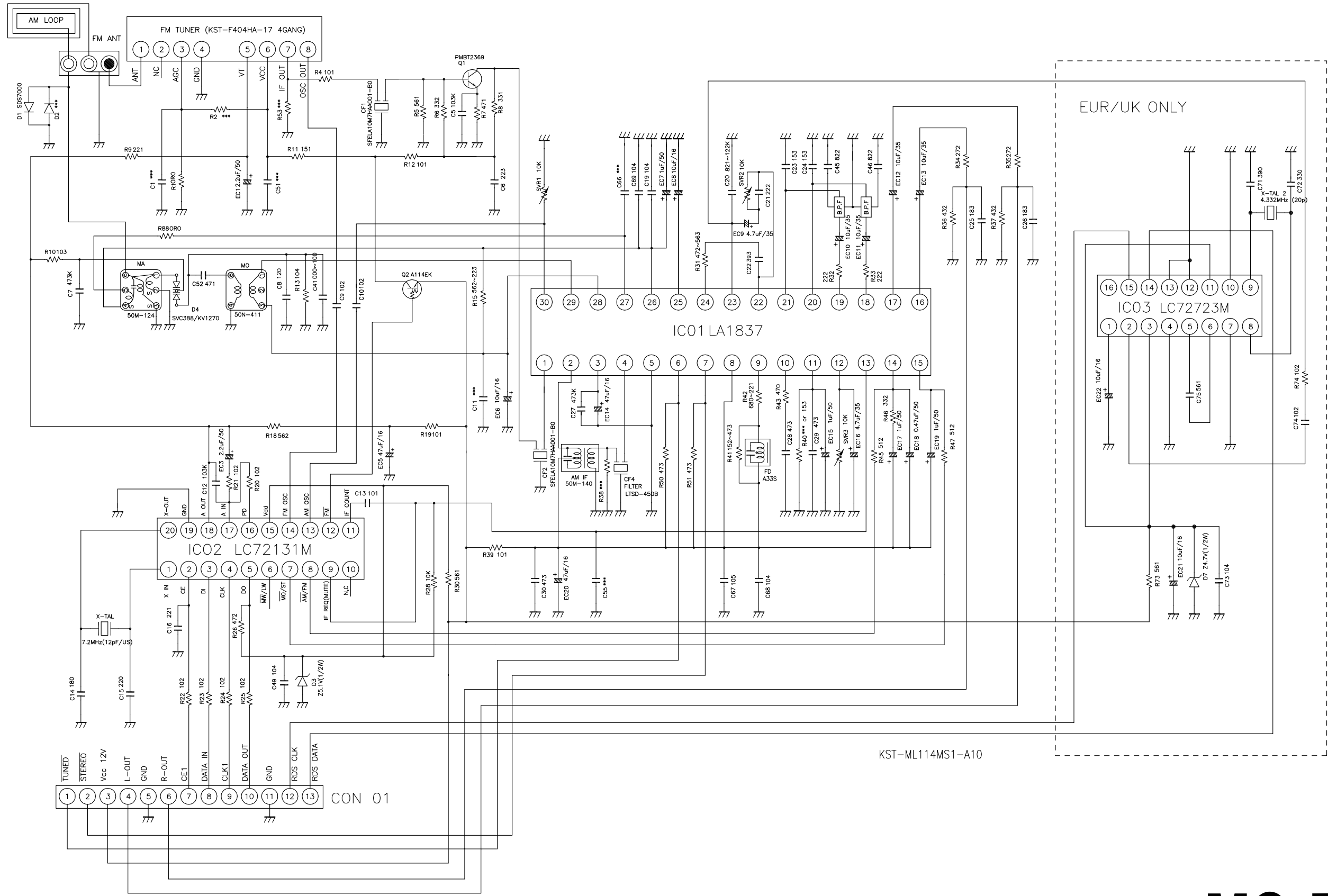
A

B

C

D

E



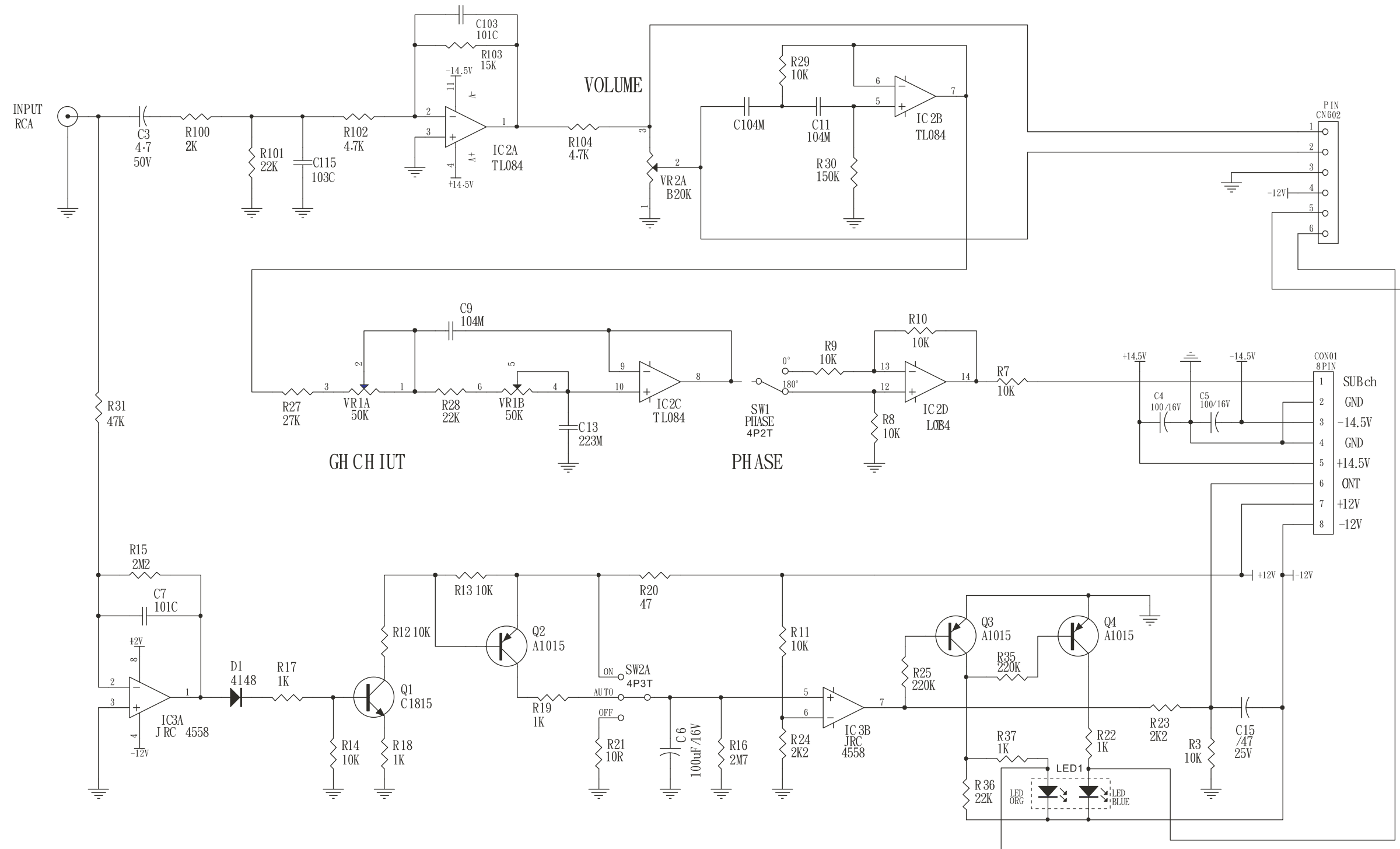
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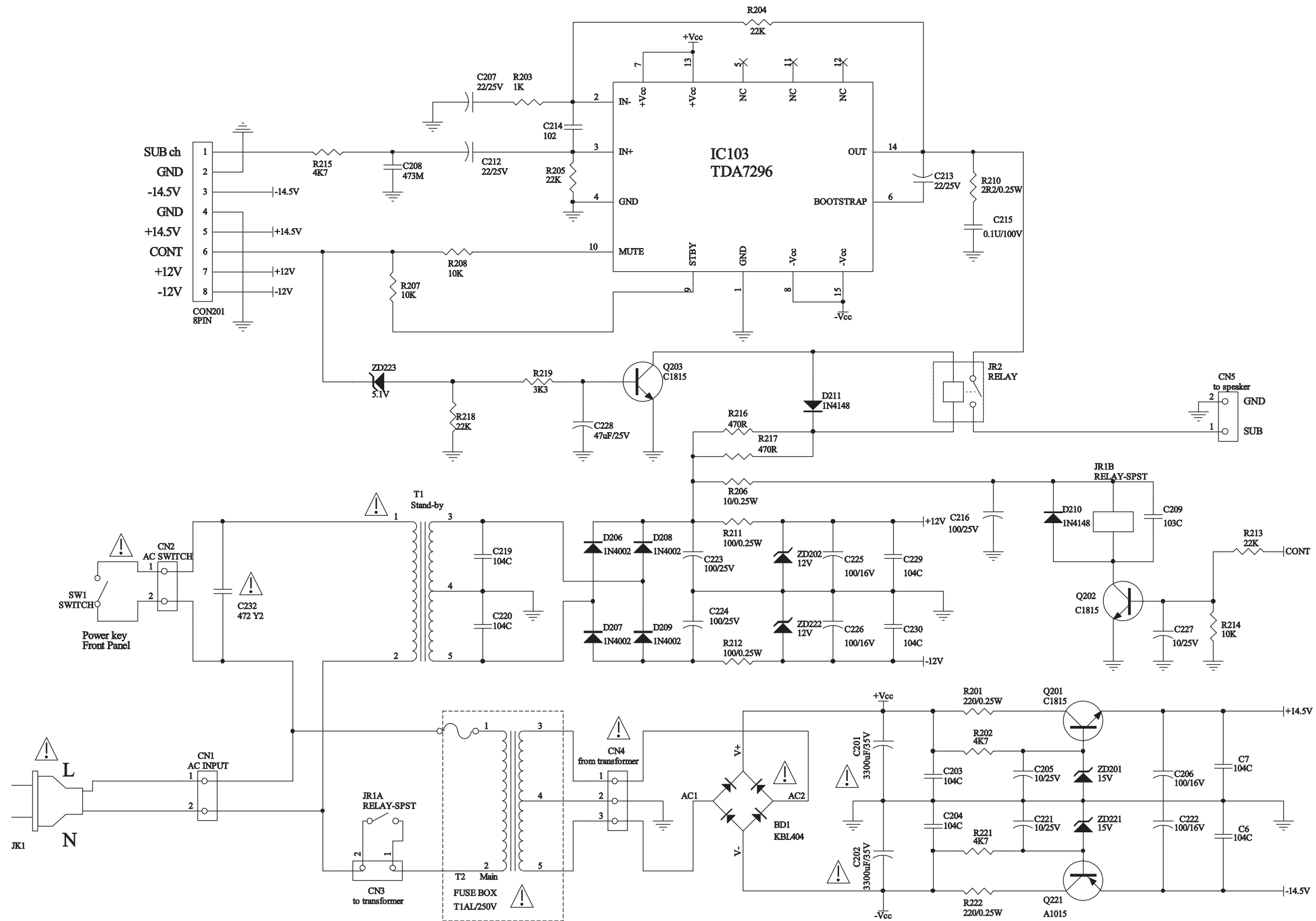


MC-DV250

DVD Home Theater System

1 2 3 4 5 6 7 8

A
B
C
D
E



MC-DV250

DVD Home Theater System