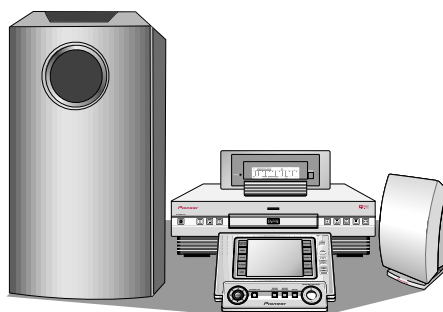


Service Manual

Pioneer



ORDER NO.
RRV2111

DVD SURROUND SYSTEM

HTZ-7

DVD CENTER UNIT

HTZ-C7

POWERED SUBWOOFER

HTZ-SW7,

SATELLITE SPEAKER

HTZ-ST7

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	HTZ-7		
MY	○	AC220- 230V	

● This product is a system(s) component.

This product does not function properly when independent; to avoid malfunctions, be sure to connect it to the prescribed system component(s), otherwise damage may result.

● HTZ-7 is a combination of the following components.

DVD SURROUND SYSTEM (HTZ-7) — DVD CENTER UNIT (HTZ-C7)
— POWERED SUBWOOFER (HTZ-SW7)
— AMP ASSY (A-SW7)
— SATELLITE SPEAKER (HTZ-ST7)

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

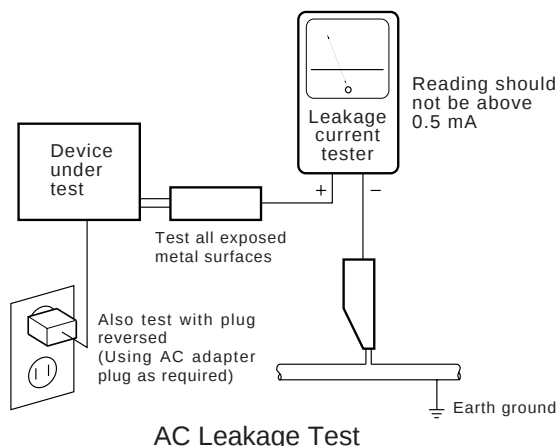
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a $\triangle$ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

— IMPORTANT —
THIS PIONEER APPARATUS CONTAINS
LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS
SHOULD BE DONE BY A SPECIALLY
INSTRUCTED PERSON.

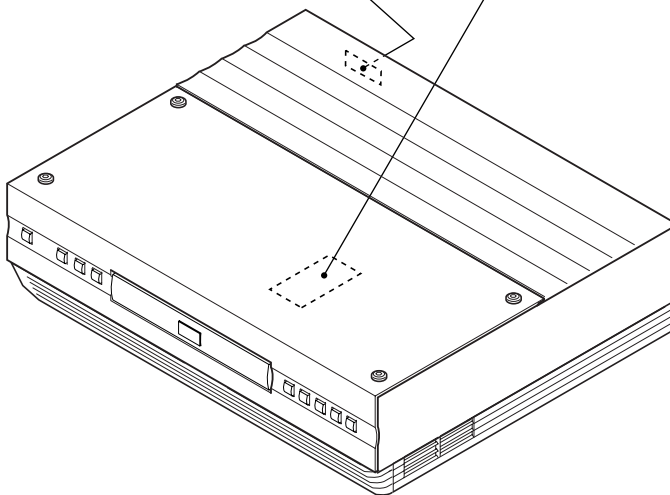
— LASER DIODE CHARACTERISTICS —
FOR DVD : MAXIMUM OUTPUT POWER : 7 mW
WAVELENGTH : 650 nm
FOR CD : MAXIMUM OUTPUT POWER : 5mW
WAVELENGTH : 780 – 785 nm

LABEL CHECK

**CLASS 1
LASER PRODUCT**
(Printed on the Rear Panel)

CAUTION : LASER RADIATION WHEN OPEN.
: AVOID EXPOSURE TO BEAM.
VORSICHT: LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET
: NICHT DEM STRAHL AUSSETZEN!
ADVARSEL : LASERSTRÅLING VED ÅBNING UNDGA
: UDSÆTTELSE FOR STRÅLING.
VARNING : LASERSTRÅLNING NÄR DENNA DEL ÄR
: ÖPPNAD BETRÄKTA EJ STRÅLEN.
VARO! : AVATTAESSA ALTISTUT LASERSÄTEILYLLE.
: ÄLÄ KATSO SÄTEESÄEN.
VRW1697

(FCC Holder Top)



Additional Laser Caution

1. Inside detection switch (S201 on the INSB assy) and loading-status detection switch (S301 on the LOSB assy) are detected by the microprocessor (IC501 in the DVDM assy).
• To permit the laser diode to oscillate, it is required to set the inside detection switch for the inside position (S201 : ON) and to set the loading-status detection switch for the clamp position (the center terminal of S301 is shorted to +5V). The laser diode oscillation will continue if pin 13 of IC101 is shorted to +5V (fault condition) in the DVDM assy.
In the test mode *, the laser diode oscillates when microprocessor detects a PLAY signal, or when the PLAY key is pressed (S5901 ON in the FRONT(1) assy), with the above requirements satisfied.

2. When the cover is open, close viewing through the objective lens with the naked eye will cause exposure to the laser beam.

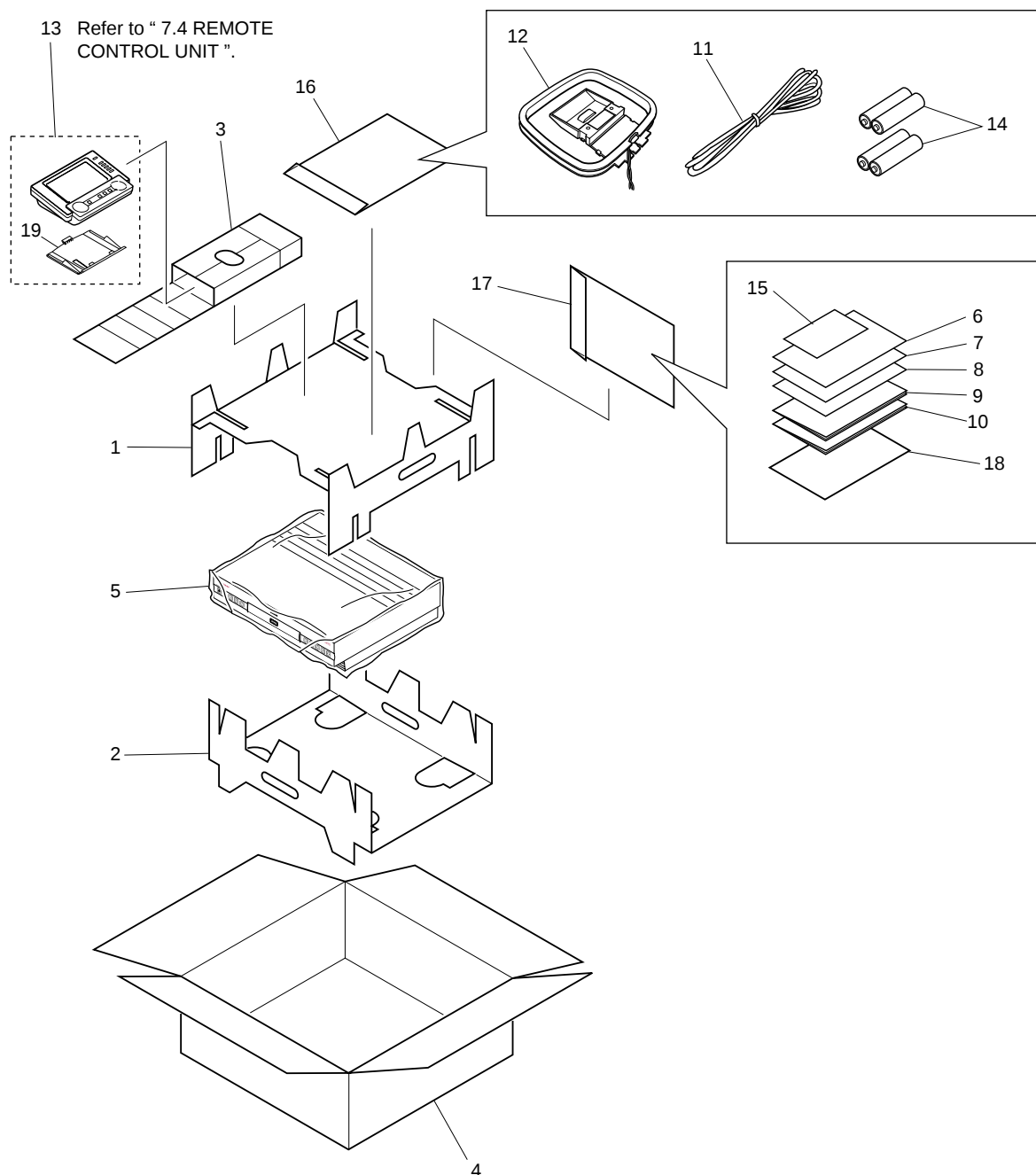
* : Refer to page 94.

2. EXPLODED VIEWS AND PARTS LIST

- NOTES :
- Parts marked by “ NSP ” are generally unavailable because they are not in our Master Spare Parts List.
 - The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - Screw adjacent to ▼ mark on the product are used for disassembly.

2.1 DVD CENTER UNIT (HTZ-C7)

2.1.1 PACKING

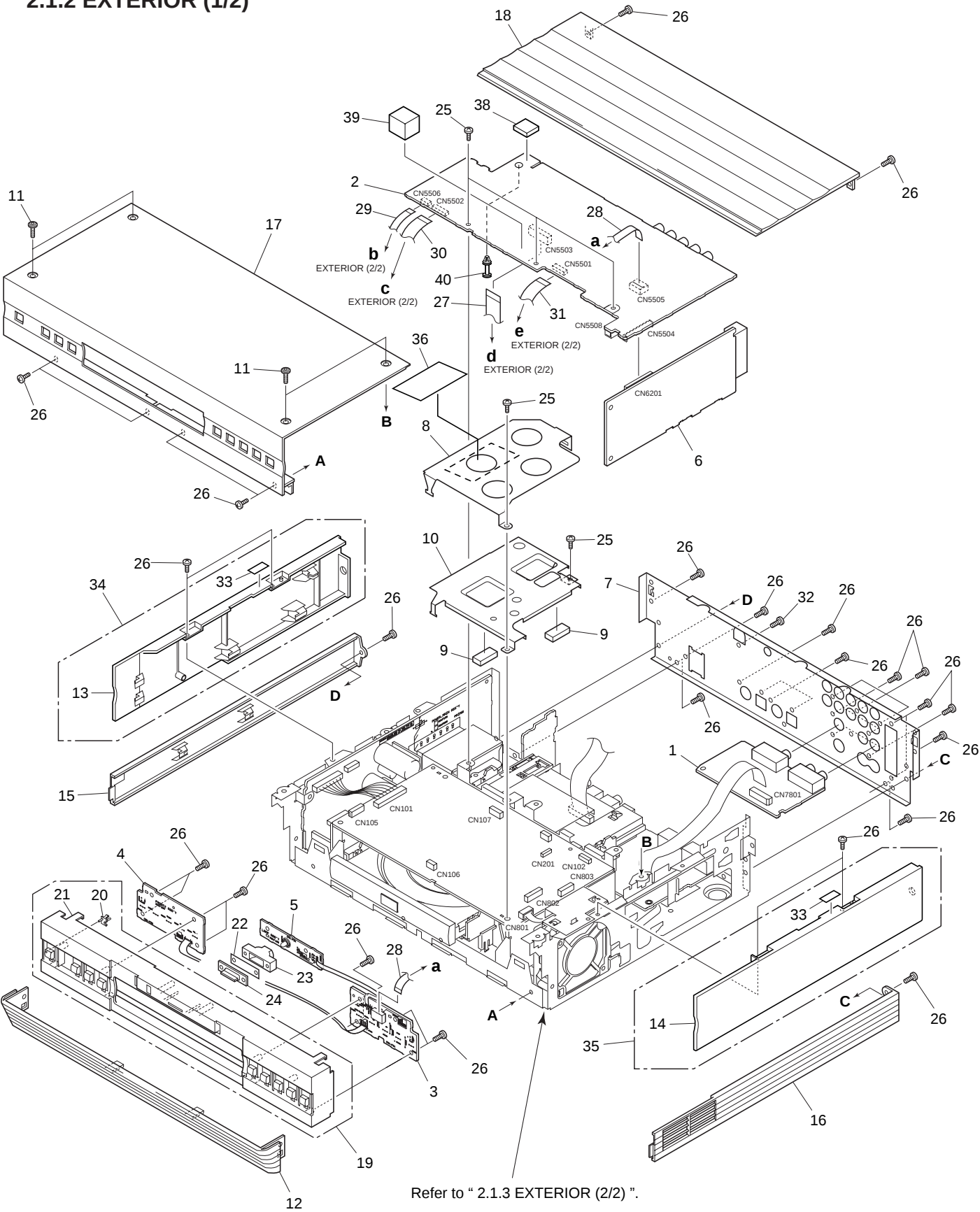


■ PACKING PARTS LIST

Mark	No.	Description	Part No.
	1	Protector A	AHA7242
	2	Protector B	AHA7257
	3	Protector C	AHA7244
	4	Packing Case	AHD7772
	5	Packing Sheet (750 × 600 × 0.5)	Z23-007
	6	Operating Instructions (Setting up the HTZ-7) (English/French/German/Italian)	ARE7230
	7	Operating Instructions (Setting up the HTZ-7) (Dutch/Spanish/Swedish)	ARE7231
	8	Operating Instructions (Basic/Detailed) (English/French)	ARE7218
	9	Operating Instructions (Basic/Detailed) (Italian/German)	ARE7226
	10	Operating Instructions (Basic/Detailed) (Dutch/Spanish/Swedish)	ARE7227
	11	FM Antenna	ADH7005
	12	AM Loop Antenna	ATB7009
	13	Remote Control (CU-HT005)	AXD7232
NSP	14	Alkaline Batteries (AA/LR6)	VEM1012
NSP	15	Warranty	ARY7022
	16	Polyethylene Bag (0.03 × 230 × 340)	Z21-038
NSP	17	Polyethylene Bag (0.1 × 350 × 440)	Z21-040
	18	Protector E	AHA7258
	19	Battery Cover	103RRC14701R

HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

2.1.2 EXTERIOR (1/2)



Refer to " 2.1.3 EXTERIOR (2/2) " .

■ EXTERIOR (1/2) PARTS LIST

Mark	No.	Description	Part No.
	1	VIDEO ASSY	AWU7402
	2	MOTHER ASSY	AWU7403
	3	FRONT (1) ASSY	AWU7163
	4	FRONT (2) ASSY	AWU7164
	5	LAMP ASSY	AWU7165
	6	FM/AM TUNER MODULE	AXQ7058
	7	Rear Panel	ANC7851
	8	FCC Holder	ANG7231
	9	Radiation Sheet	VEB1285
	10	Heat Sink	VNE2134
	11	Screw	ABA7048
	12	Front Skirt	AMB7528
NSP	13	Side Panel L	AMB7615
NSP	14	Side Panel R	AMB7616
	15	Side Skirt L	AMB7532
	16	Side Skirt R	AMB7533
	17	Front Alumi	ANB7136
	18	Top Alumi	ANB7137
	19	Panel Base Assy	AXG7069
NSP	20	LED Lens	AAK7581
NSP	21	Panel Base	AMB7526
	22	Illumination Filter	VEC1950
	23	Illumination Holder	VNK4098
	24	Illumination Lens	VNK4168
	25	Screw	BBZ30P060FMC
	26	Screw	BBZ30P100FZK
	27	17P FFC/60V (CN5503 ↔ CN7005)	ADD7108
	28	7P FFC/60V (CN5901 ↔ CN5505)	ADD7115
	29	7P FFC/60V (CN106 ↔ CN5506)	ADD7137
	30	14P FFC/60V (CN105 ↔ CN5502)	ADD7138
	31	12P FFC/60V (CN301 ↔ CN107, CN5501 ↔ CN11)	ADD7139
	32	Screw (3 × 8)	ABA7050
NSP	33	Tape	AEB7143
	34	Side Panel L Assy	AXG7073
	35	Side Panel R Assy	AXG7074
	36	Caution Label	VRW1697
	37	•••••	
	38	Cushion E	AEB7140
	39	Cushion D	AEB71394
NSP	40	PCB Spacer	AEC7156

2.1.3 EXTERIOR (2/2)

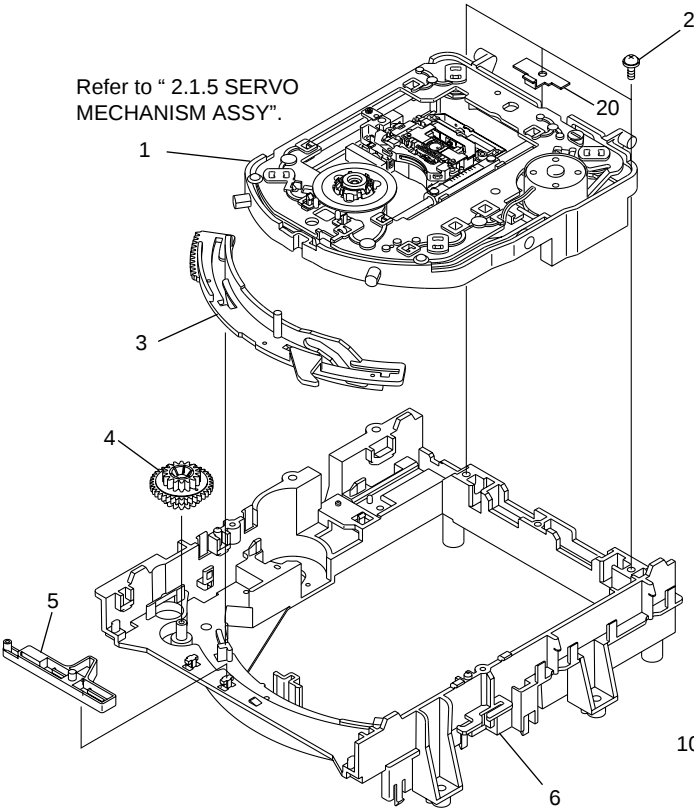


■ EXTERIOR (2/2) PARTS LIST

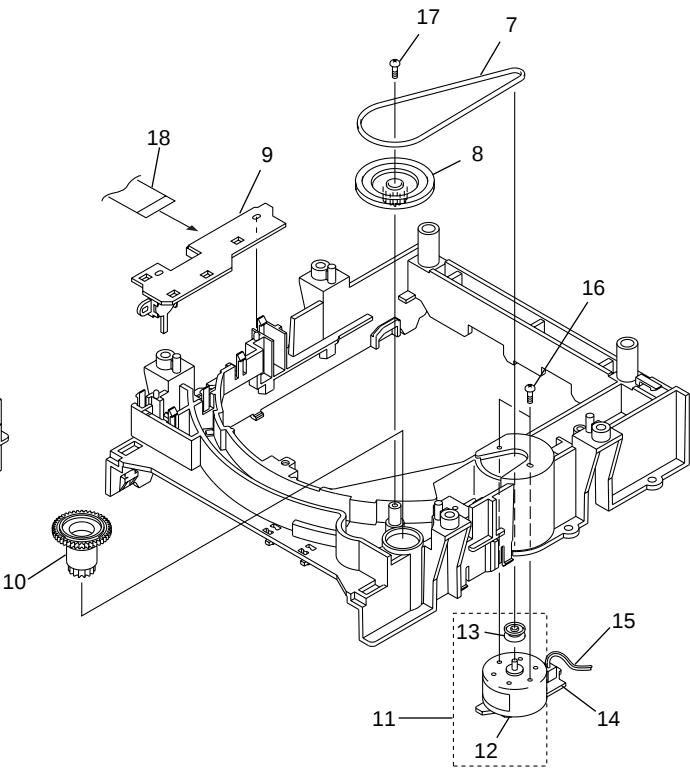
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	SVIDEO ASSY	AWU7401		41	Tray Label	VRW1628
	2	POWER MAIN ASSY	AWU7404		42	Screw	BBZ30P060FMC
	3	POWER SUB ASSY	AWU7287		43	Screw	BBZ30P100FZK
	4	AC ASSY	AWU7405		44	Screw	BPZ26P080FZK
	5	DVDM ASSY	VWS1364		45	Insulation Sheet B	AEC7186
	6	•••••			46	Insulation Sheet	AEC7187
⚠	7	Power Transformer (T1)	ATS7246		47	Nylon Rivet (3 × 4.5)	RBM-003
⚠	8	Fuse (315mA/250V, FU1)	REK1017		48	Label	ARW7053
	9	Fan Motor	AXM1019		49	Cushion F	AEB7141
NSP	10	Loading Mechanism Assy	VWT1147		50	Cushion G	AEB7142
	11	Leg	AEB7090		51	Spacer	AEB7151
	12	Rubber Bush	AEB7134				
	13	PCB Spacer (3 × 12)	AEC1372				
NSP	14	Chassis	ANA7075				
	15	PCB Holder (A)	ANG7202				
	16	PCB Holder (B)	ANG7206				
	17	Fan Cover	ANG7208				
	18	Fan Holder	ANG7230				
	19	Shield Case	ANK7046				
	20	Cover	ANK7047				
	21	Screw	BBZ30P300FZK				
NSP	22	Edging Saddle (S)	DEC1761				
	23	Tray Spring	VBH1277				
	24	Clamper Plate	VNE2068				
	25	Bridge	VNE2069				
	26	Tray	VNL1731				
	27	17P FFC/60V (CN5503 ↔ CN7005)	ADD7108				
	28	•••••					
	29	7P FFC/60V (CN106 ↔ CN5506)	ADD7137				
	30	14P FFC/60V (CN105 ↔ CN5502)	ADD7138				
	31	12P FFC/60V (CN301 ↔ CN107, CN5501 ↔ CN11)	ADD7139				
	32	7P FFC/60V (CN7801 ↔ CN7501)	ADD7109				
	33	17P FFC/60V (CN802 ↔ CN7502)	ADD7111				
	34	14P FFC/60V (CN803 ↔ CN7004)	ADD7112				
	35	Housing Assy (14P) (CN101 ↔ CN10)	AKP7033				
	36	4P Connector (CN801 ↔ CN7002)	AKP7046				
	37	Clamper	VNL1738				
	38	Tray Stopper	VNL1739				
	39	Tray Panel	AMB7534				
	40	DVD Badge	VAM1076				

2.1.4 LOADING MECHANISM ASSY

● Top View



● Bottom View



■ LOADING MECHANISM ASSY PARTS LIST

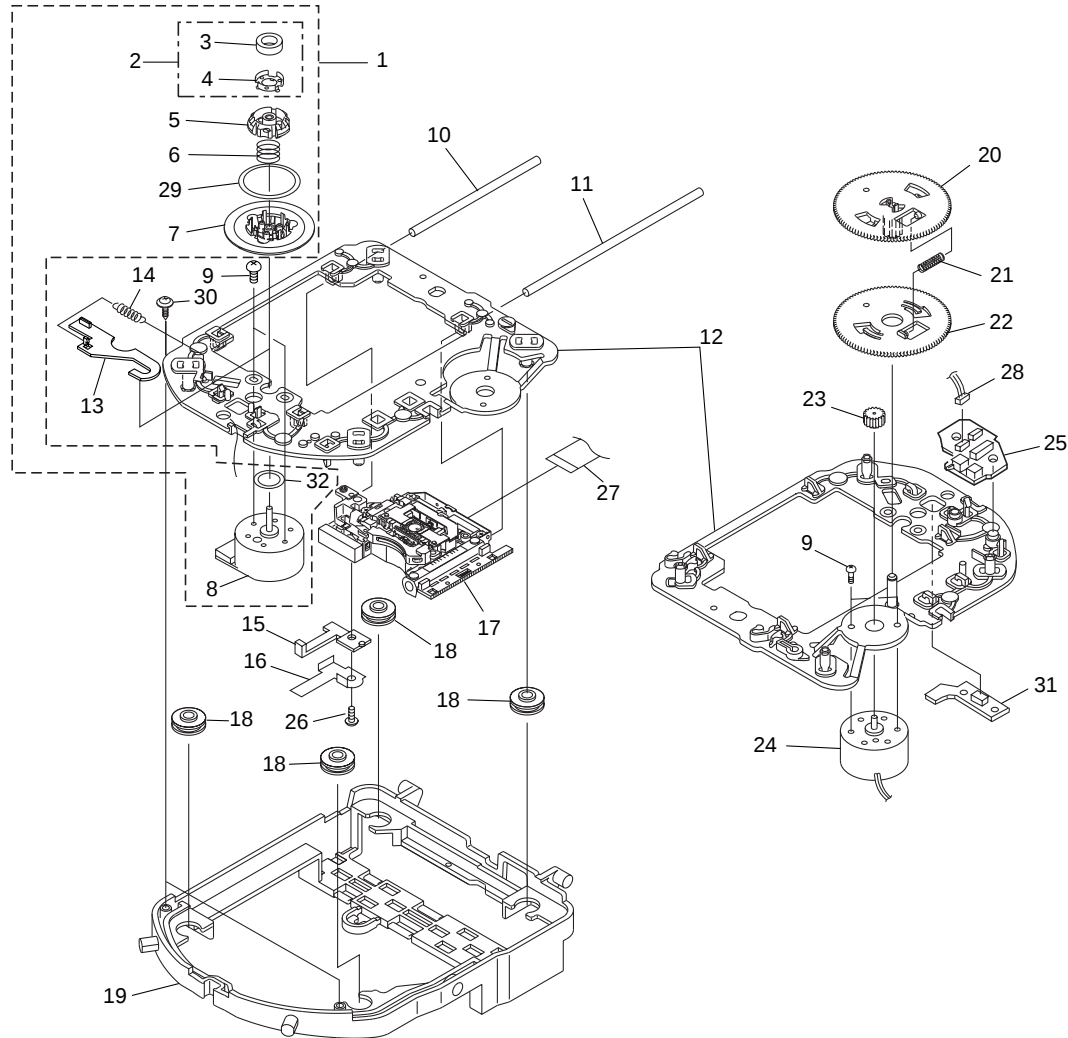
Mark	No.	Description	Part No.
	1	Servo Mechanism Assy-S	VXX2538
	2	Screw	DBA1006
	3	Drive Cam	VNL1736
	4	Drive Gear	VNL1735
	5	Lock Plate	VNL1820
	6	Loading Base	VNL1730
	7	Rubber Belt	VEB1260
	8	Gear Pulley	VNL1733
NSP	9	LOSB Assy	VWG1885
	10	Loading Gear	VNL1734
	11	Loading Motor Assy	VXX2505
	12	DC Motor	PXM1027
	13	Motor Pulley	PNW1634
NSP	14	LOMB Assy	VWG1886
	15	Connector Assy (2P) (LOMB CN401 ↔ LOSB CN303)	VKP2198

Mark	No.	Description	Part No.
	16	Screw	VBA1055
	17	Screw	Z39-019
	18	Flexible Cable (8P) (LOSB CN302 ↔ INSB CN202)	VDA1649
	19		
	20	Stopper	DNH2076

2.1.5 SERVO MECHANISM ASSY

● Top View

● Bottom View

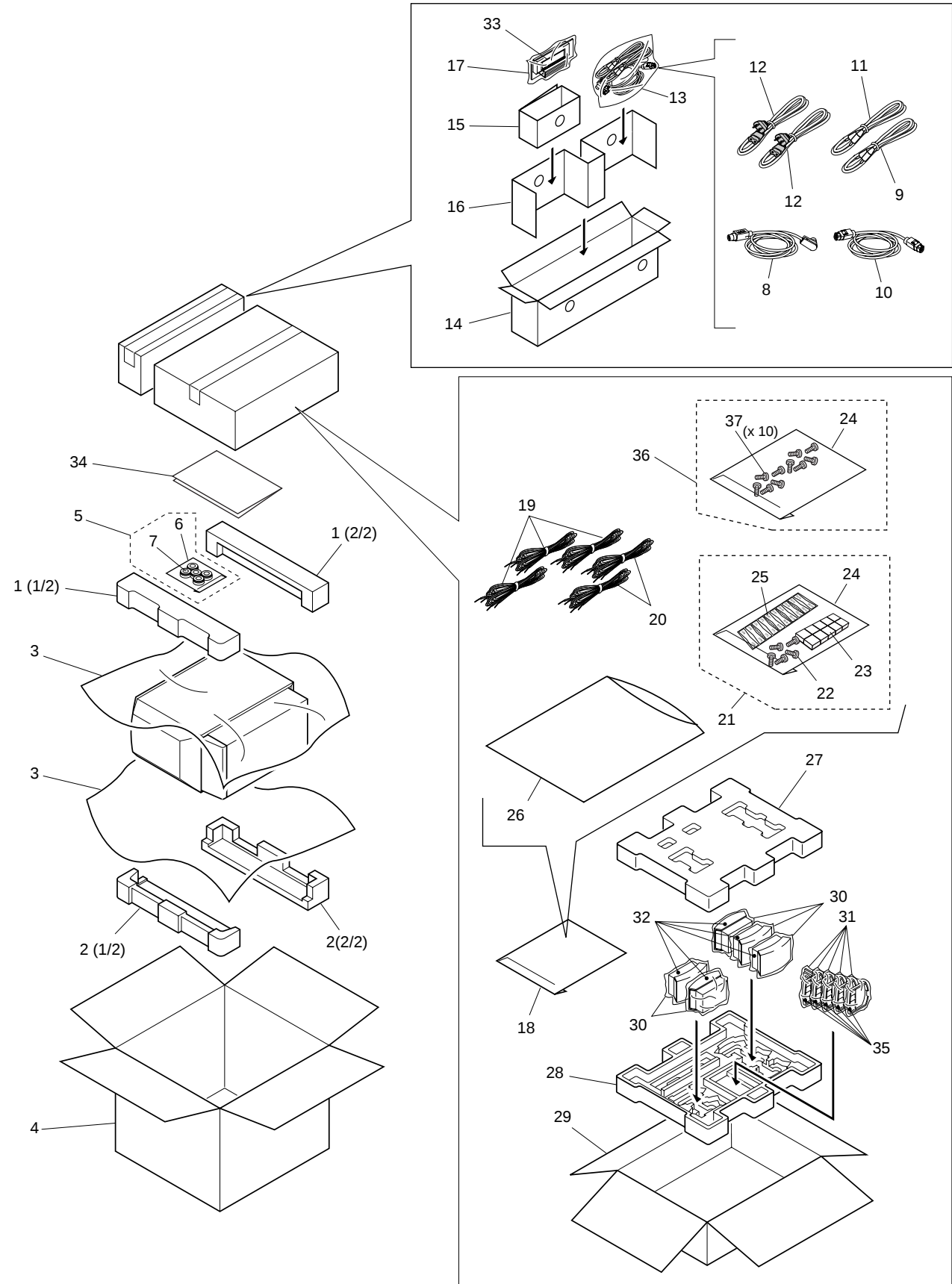


■ SERVO MECHANISM ASSY PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Spindle Motor Assy	VXX2563	⚠	17	Pickup Assy	VWY1046
	2	Magnet Holder Assy	VXX2507		18	Floating Rubber	DEB1315
NSP	3	Magnet	VYM1024		19	Float Base	VNL1732
NSP	4	Magnet Holder	VNE2070		20	Gear D	VNL1766
	5	Centering Ring	VNL1746		21	Gear Spring	VBH1306
	6	Centering Spring	VBH1278		22	Gear E	VNL1767
NSP	7	Disc Table	VNL1747		23	Gear F	VNL1768
NSP	8	Motor	VXM1071		24	Motor	VXM1062
	9	Screw	JGZ17P028FMC	NSP	25	INSB Assy	VWG1883
	10	Sub Guide Bar	VLL1489		26	Screw	PBZ20P050FMC
	11	Guide Bar	VLL1488		27	Flexible Cable (20P) (DVD CN102 ↔ Pickup Assy)	VDA1680
	12	Mechanism Base	VNL1748		28	Connector Assy (3P) (INSB CN201 ↔ FGSB CN101)	VKP2150
	13	Hook	VNL1770		29	Table Sheet	DEC2040
	14	Hook Spring	VBH1291		30	Screw	PBA1048
	15	Slider	VNL1745		31	FGSB Assy	VWG1884
	16	Hold Spring	VNC1011	NSP	32	Sheet	VEC1959
				NSP			

2.2 POWERED SUBWOOFER (HTZ-SW7)

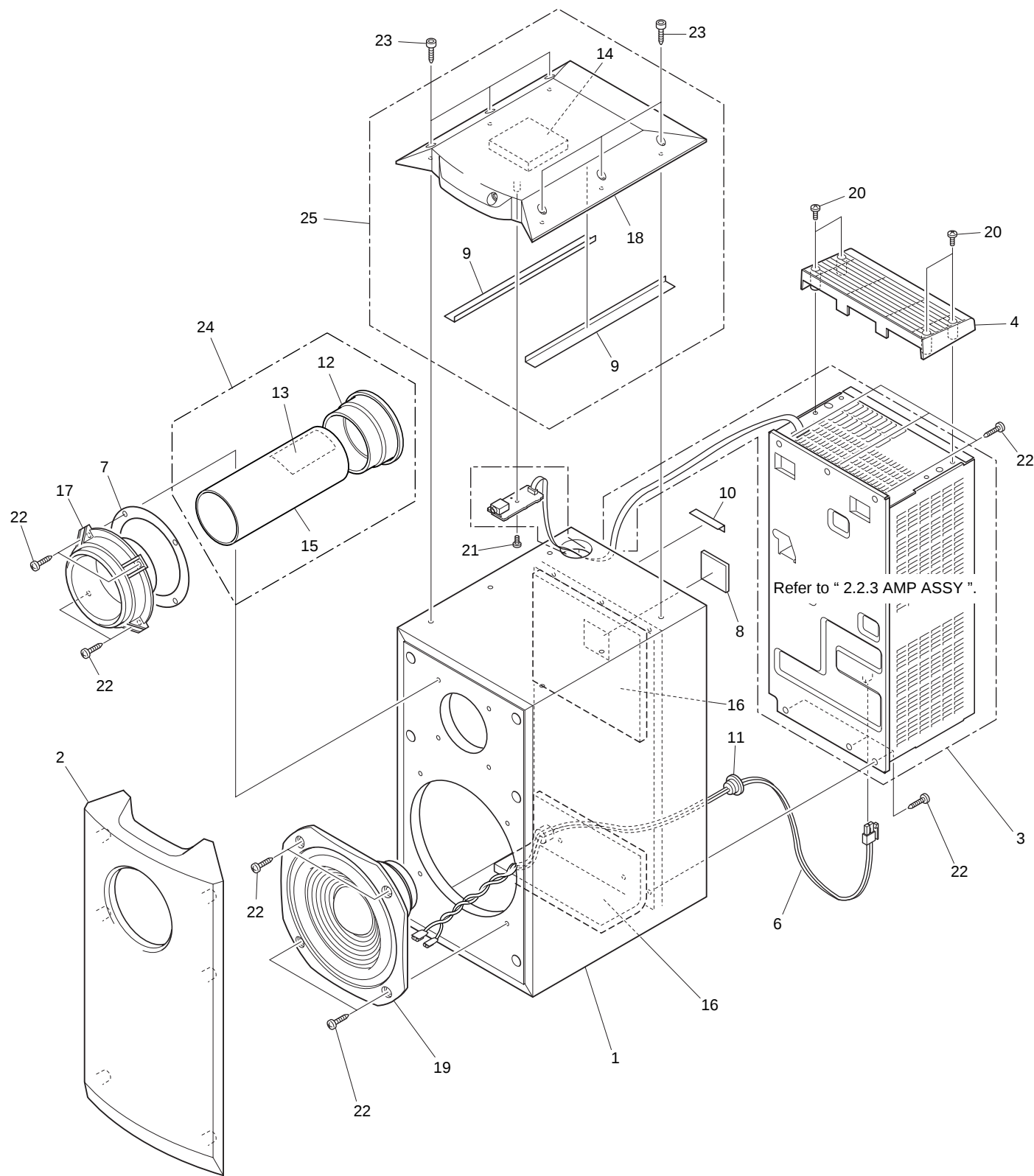
2.2.1 PACKING



PACKING PARTS LIST

Mark	No.	Description	Part No.
	1	Protector (L)	SHA2138
	2	Protector (R)	SHA2139
	3	Packing Sheet	SHC1723
	4	Packing Case	SHG2205
NSP	5	Cushion Set	SEA1528
NSP	6	Polyethylene Bag	SHL-051
	7	Feet	SXK1046
	8	Display Cable (L= 3m)	ADE7027
	9	Digital Audio Cable (L= 3m)	ADE7028
	10	Control Cable (L= 3m)	ADE7031
	11	Video Cable (L= 3m)	ADE7036
⚠	12	AC Power Cord	ADG1127
	13	Polyethylene Bag (0.03 × 230 × 340)	Z21-038
	14	Packing Case (for Accessories)	AHD7650
	15	Packing Case (for Display Unit)	AHD7651
	16	Spacer	AHD7652
	17	Packing Sheet	RHC1052
NSP	18	Accessory Kit	SEA1535
	19	Speaker Cords (5m × 3)	SDS1053
	20	Speaker Cords (10m × 2)	SDS1054
NSP	21	Screw Package	SEA1530
	22	Installation Screws	BMZ40P120FMC
	23	Non Skid Pads	SEP1189
NSP	24	Polyethylene Bag S1	SHL1225
	25	Cord Labels	SRW1066
NSP	26	Polyethylene Bag S2	SHL1223
	27	Top Protector	SHA2134
	28	Bottom Protector	SHA2135
	29	Packing Case	SHG2204
NSP	30	Polyethylene Bag S2	SHL1224
NSP	31	Polyethylene Bag S1	SHL1225
NSP	32	Satellite Speakers	HTZ-ST7
NSP	33	Display Unit	DU-HT7
	34	Caution Card	ARB7190
	35	Mini Stand	SNK2312
NSP	36	Screw Package	SEA1537
	37	Sound Quality Adjustment Screw	BMZ40P060FMC

2.2.2 EXTERIOR

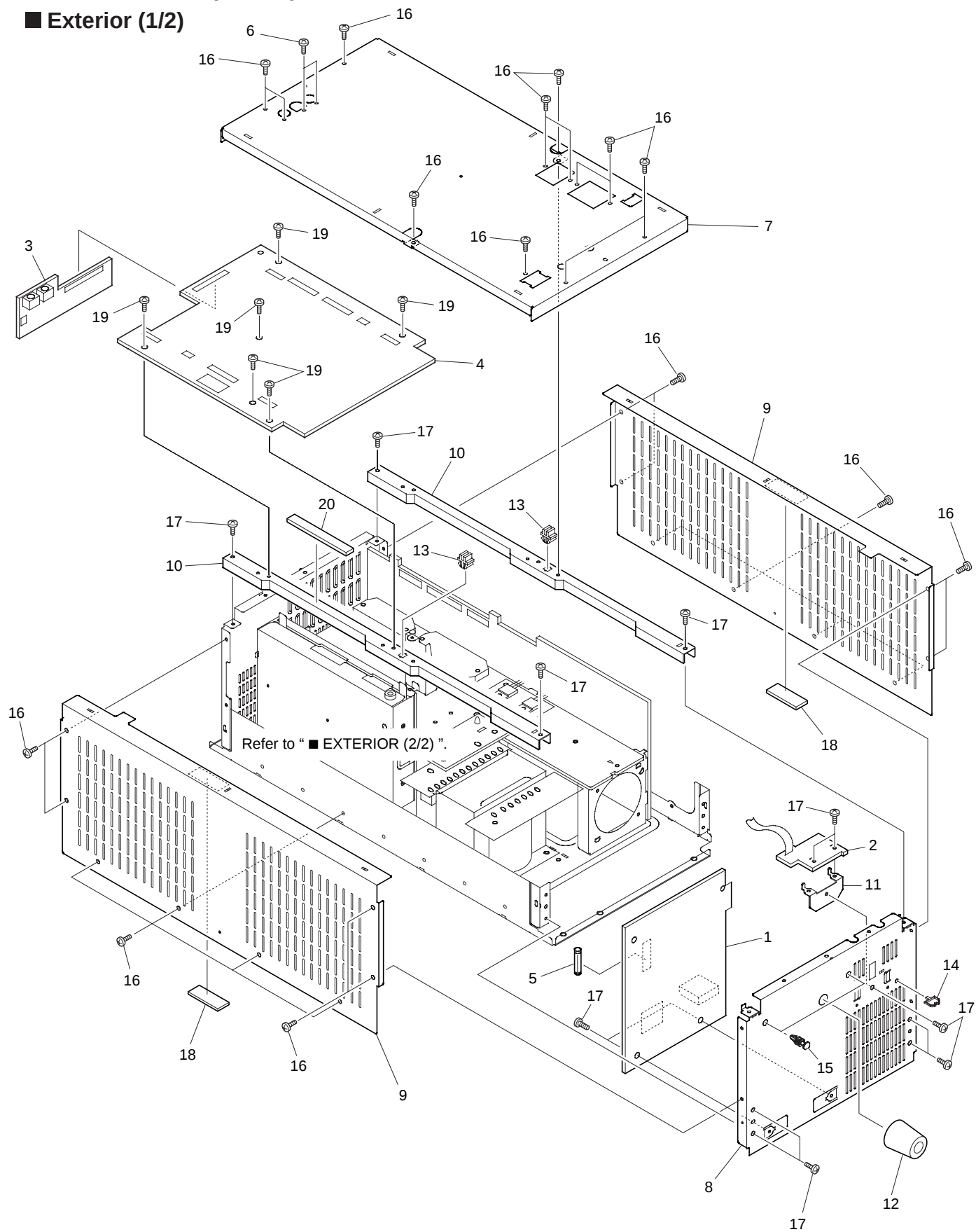


■ EXTERIOR PARTS LIST

Mark	No.	Description	Part No.
NSP	1	Cabinet	SMM1852
	2	Grille	SMG1623
NSP	3	Amp Assy	A-SW7
	4	Top Guard	AAK7646
	5	• • • • •	
	6	Connection Cord	SDF1070
	7	Packing	SEC1423
NSP	8	Packing	SEC1429
NSP	9	Damper	SEC1430
	10	Damper	SEC1431
NSP	11	Bush	SEP-150
NSP	12	Duct Ring 70	SEP1177
	13	Damper	SER1236
NSP	14	Damper Plate	SLX1142
NSP	15	Duct	SMR1281
NSP	16	Acoustic Absorbent	SMV1936
NSP	17	Duct Ring	SNK2348
NSP	18	Top Cover	SNK2354
	19	Speaker	Q20EU82-53F
	20	Screw (for Top Guard)	BBZ30P080FZK
	21	Screw (for HP Assy)	BPZ30P080FMC
	22	Screw (for Speaker, Duct and Amp Assy)	BYC40P200FZB
	23	Screw (For Top Cover)	SBA1095
	24	Duct Assy	SXB1367
	25	Top Cover Assy	SXB1371

2.2.3 AMP ASSY (A-SW7)

■ Exterior (1/2)

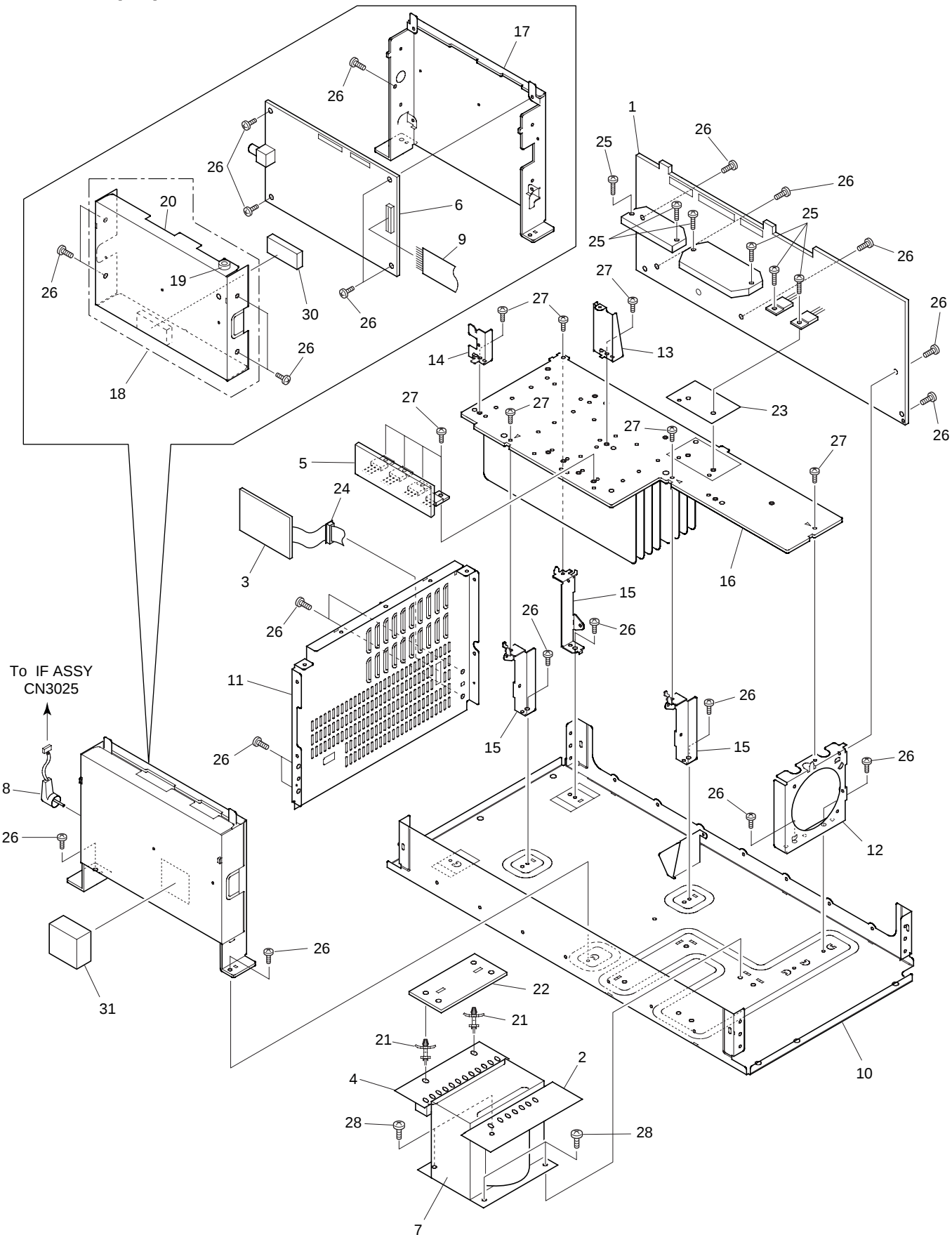


■ EXTERIOR (1/2) PARTS LIST

Mark	No.	Description	Part No.
	1	POWER SUPPLY ASSY	AWU7406
	2	SWF ASSY	AWU7408
	3	IF ASSY	AWU7293
	4	MAIN ASSY	AWU7364
⚠	5	Fuse (T2A, FU8001)	AEK1057
	6	Screw (3 × 8)	ABA7050
	7	Rear Panel	ANC7849
	8	Bottom Panel	ANC7706
	9	Side Panel	ANC7707
	10	Bridge	ANG7200
	11	PCB Holder	ANG7203
	12	Leg Assy	AEC7165
	13	PCB Fixing Jig	DEC1231
NSP	14	Cord Clamper S	DEC1574
NSP	15	PCB Holder	PNW2029
	16	Screw	BBT30P080FZK
	17	Screw	BBZ30P080FMC
	18	Cushion C	AEB7138
	19	Screw	IBZ30P100FCC
	20	Cushion D	AEB7148

HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

■ Exterior (2/2)

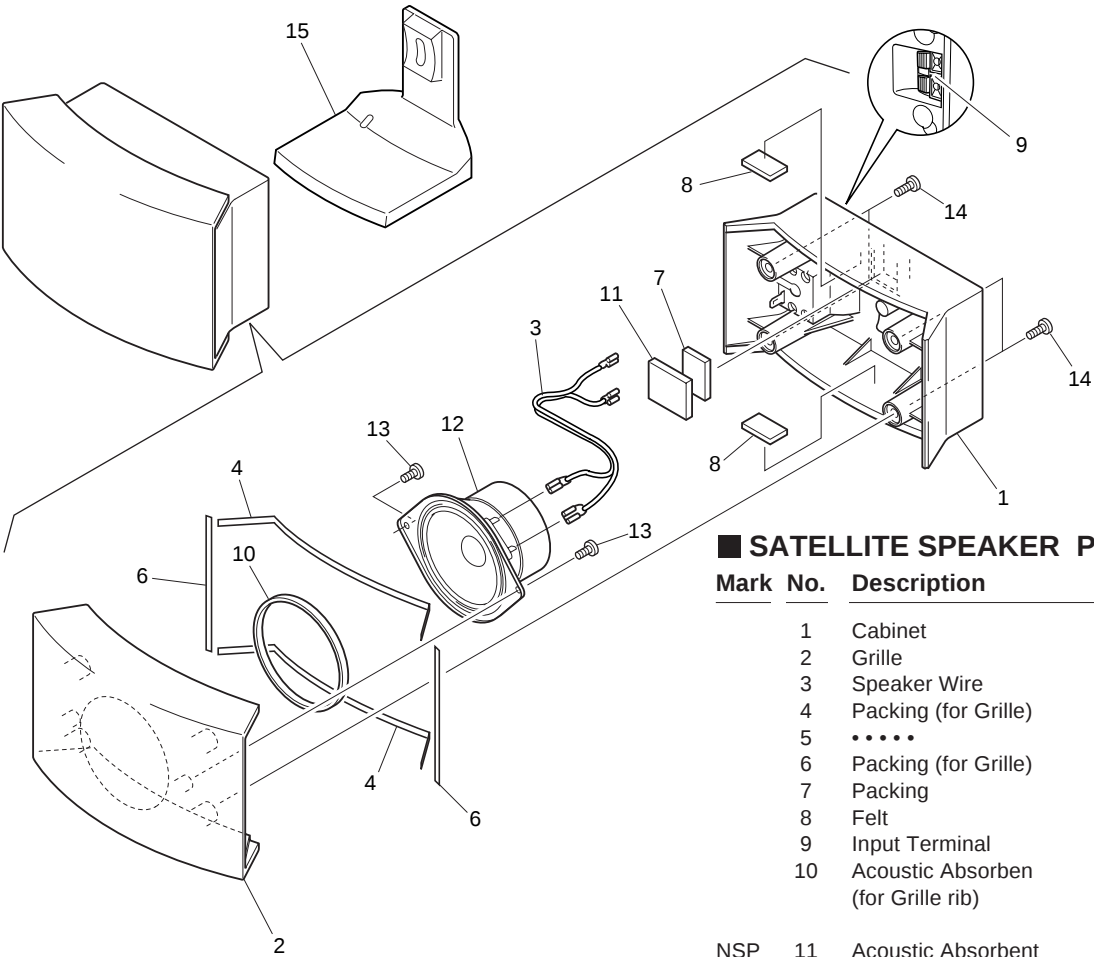


■ EXTERIOR (2/2) PARTS LIST

Mark	No.	Description	Part No.
	1	AMP ASSY	AWU7407
	2	PRIMARY ASSY	AWU7418
	3	HP ASSY	AWU7409
	4	SECONDARY ASSY	AWU7417
	5	REG (1) ASSY	AWU7176
	6	DOLBY DIG 9624 ASSY	AWX7271
⚠	7	Power Transformer (T8001)	ATS7245
	8	Cord with Plug	ADE7030
	9	Jumper Wire	D15A10-150-2651
NSP	10	Chassis	ANA7074
	11	Top Panel	ANC7808
	12	Fan Holder	ANG7199
	13	PCB Holder	ANG7201
	14	IF Holder	ANG7204
	15	HS Holder	ANG7207
NSP	16	Heat Sink	ANH7091
	17	Shield Case (A)	ANK7044
NSP	18	Shield Case (B) Assy	AXA7074
NSP	19	Earth Sleeve	ALA7010
NSP	20	Shield Case (B)	ANK7045
NSP	21	PCB Support	AEC1006
	22	Insulation Sheet	AEC7148
	23	Mica Sheet	AEE7028
NSP	24	10P Bushing	AEC7211
	25	Screw (3 × 16)	ABA1056
	26	Screw	BBZ30P080FMC
	27	Screw	BBZ30P100FCC
	28	Screw	BCZ40P060FMC
	30	Cushion A	AEB7136
	31	Cushion B	AEB7137

HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

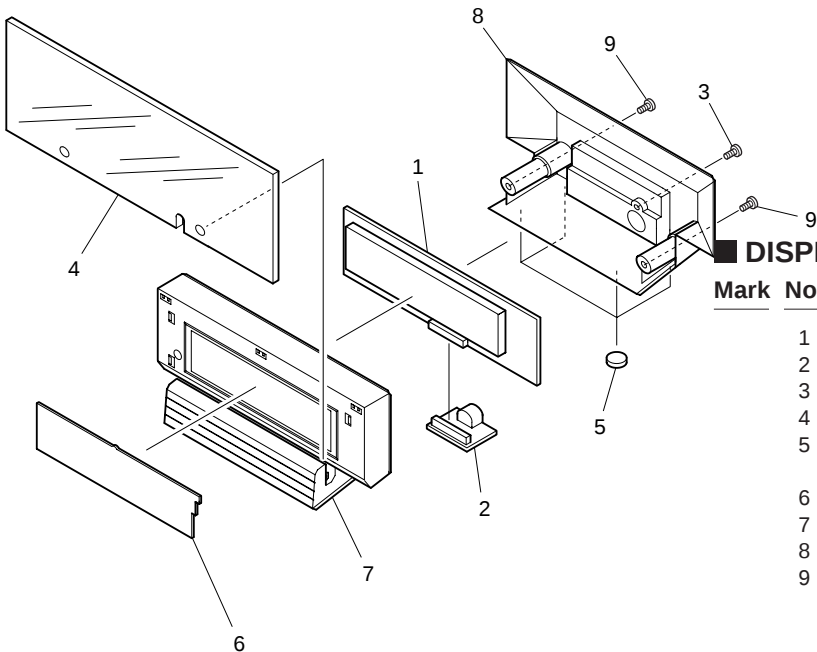
2.2.4 SATELLITE SPEAKER (HTZ-ST7)



■ SATELLITE SPEAKER PARTS LIST

Mark	No.	Description	Part No.
	1	Cabinet	SNK2305
	2	Grille	SMG1618
	3	Speaker Wire	SDD1257
	4	Packing (for Grille)	SEC1398
	5		
	6	Packing (for Grille)	SEC1401
	7	Packing	SEE1066
	8	Felt	SER1255
	9	Input Terminal	SKX1056
	10	Acoustic Absorben (for Grille rib)	SMV1919
NSP	11	Acoustic Absorbent	SMV1937
	12	Speaker	B70AC45-57F
	13	Screw	BPZ40P060FMC
	14	Screw	BPZ40P120FMC
	15	Mini Stand	SNK2312

2.2.5 DISPLAY UNIT (DU-HT7)



■ DISPLAY UNIT PARTS LIST

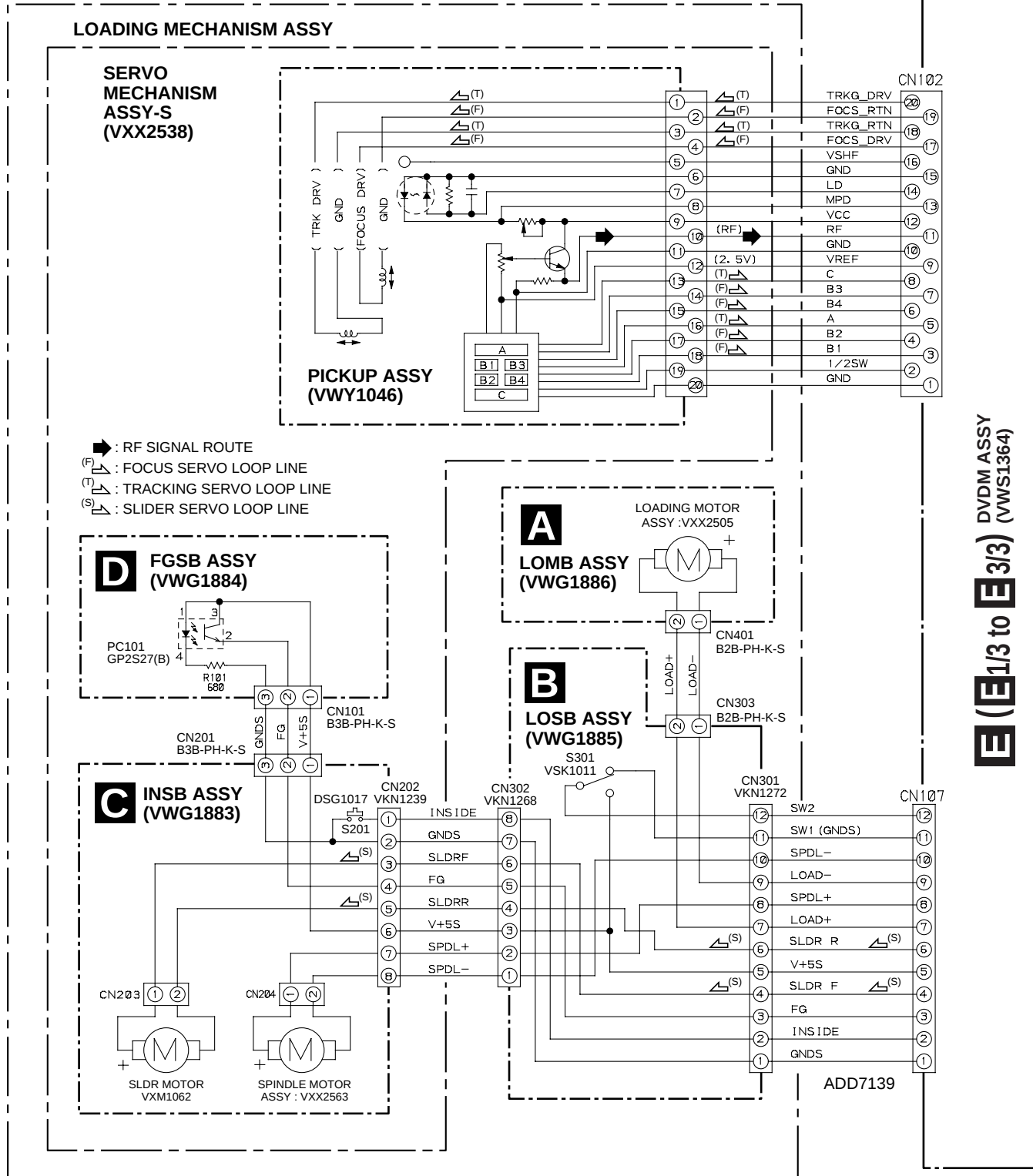
Mark	No.	Description	Part No.
	1	FLDP ASSY	AWU7410
	2	CNB ASSY	AWU7172
	3	Screw (3 × 8)	ABA7050
	4	Window	AAK7582
	5	Leg	AEB7090
	6	FL Filter	AEC7150
	7	Display Panel	AMB7531
	8	Rear Cover	AMC7030
	9	Screw	BPZ30P080FMC

3. SCHEMATIC DIAGRAM

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "PCB PARTS LIST".

3.1 DVD CENTER UNIT (HTZ-C7)

3.1.1 OVERALL CONNECTION DIAGRAM (1/2), LOMB, LOSB, INSB and FGSB ASSEMBLIES



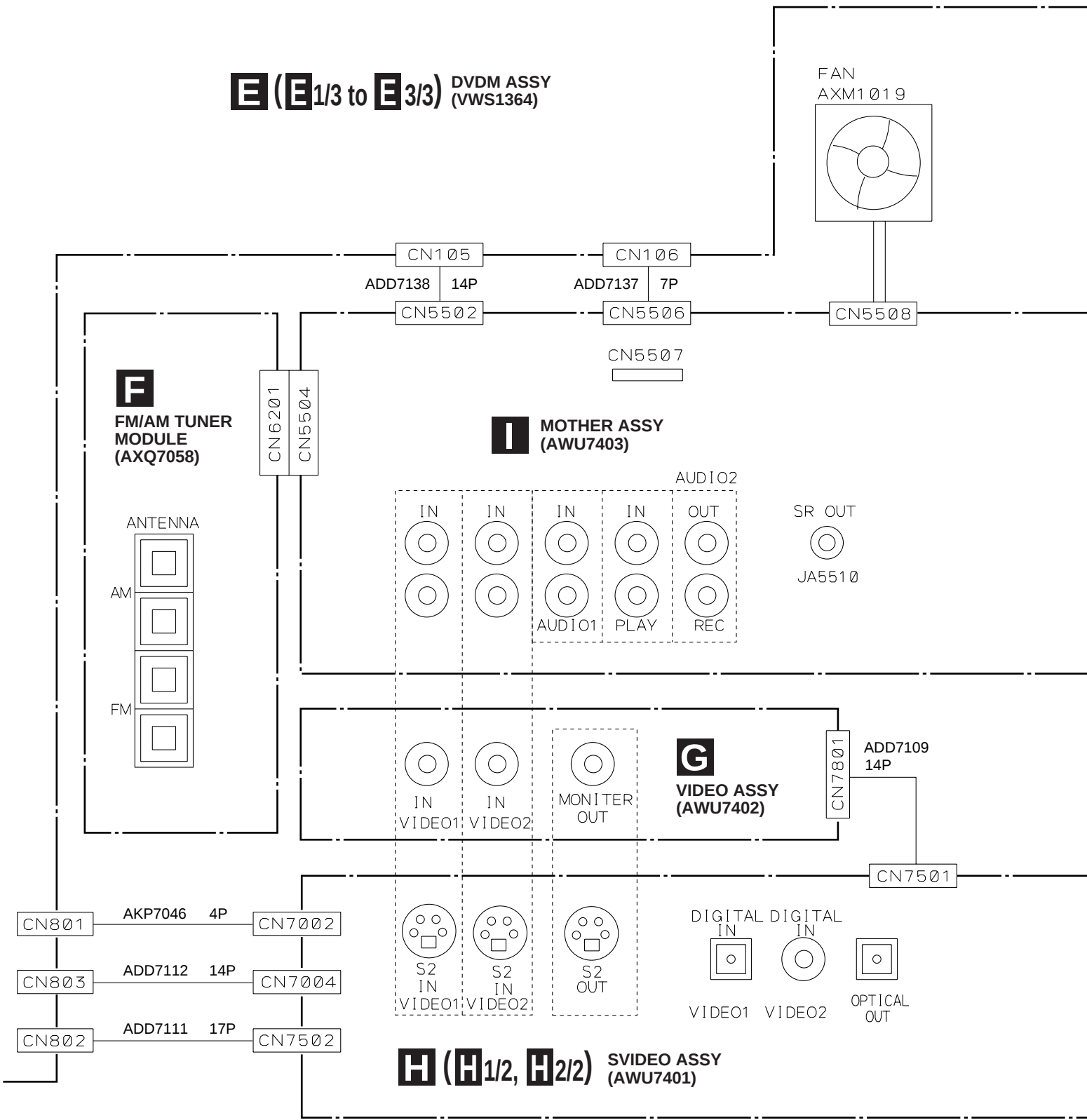
3.1.2 OVERALL CONNECTION DIAGRAM (2/2)

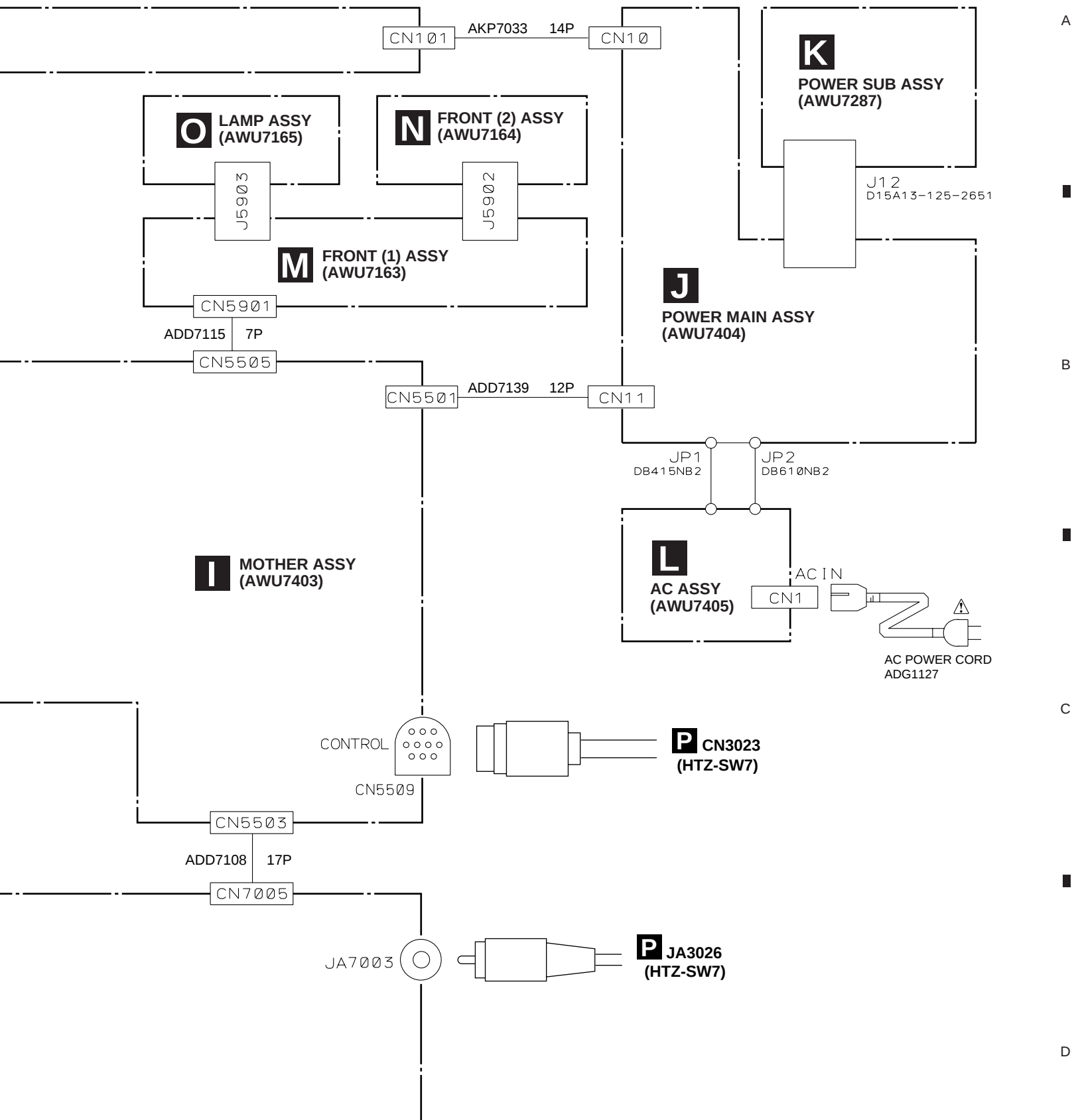
A

B

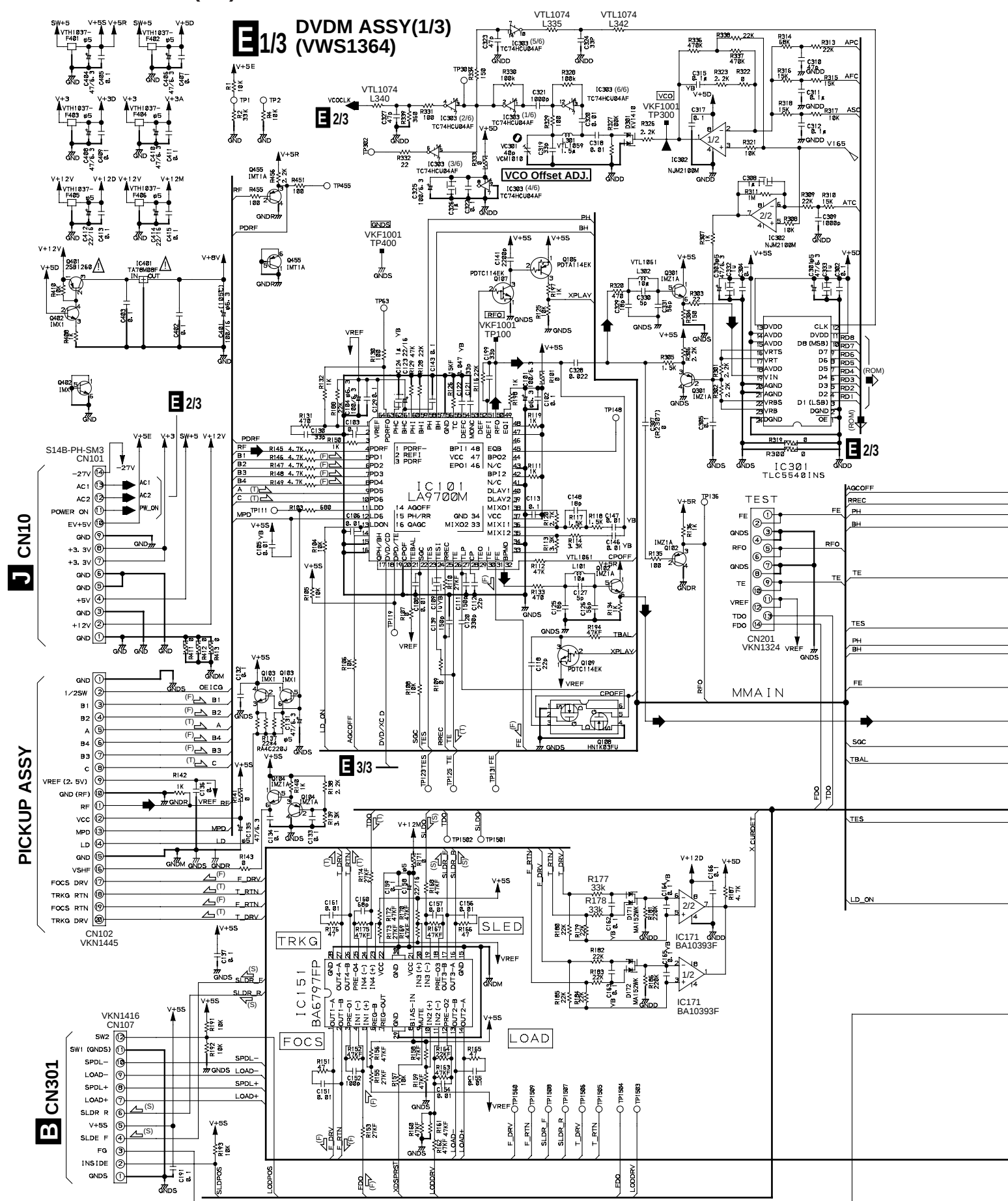
C

D





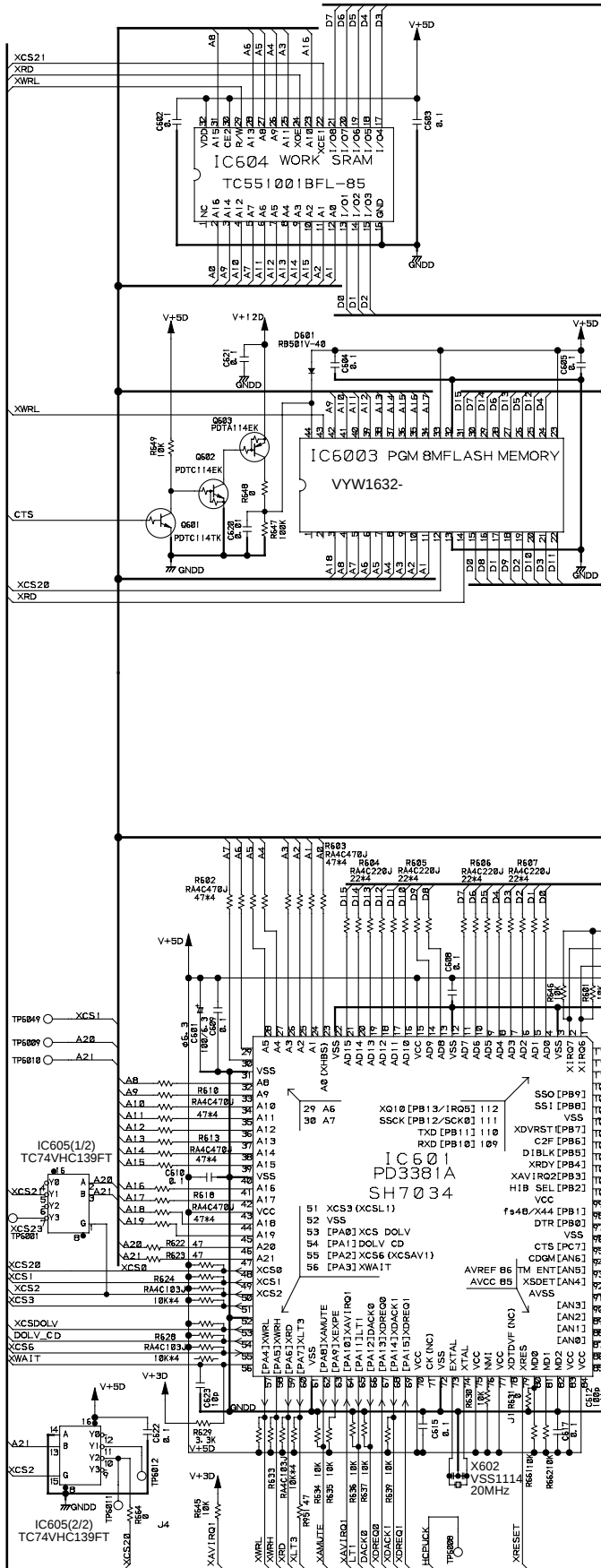
3.1.3 DVDM ASSY (1/3)



HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

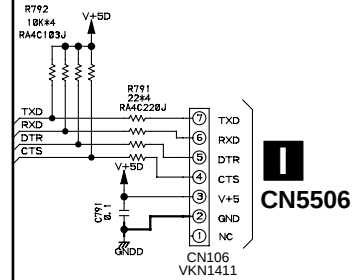
3.1.4 DVDM ASSY (2/3)

E 2/3 DVDM ASSY(2/3) (VWS1364)



E 1/3
C2F,XRESET

E 3/3
XCSDOLV,DOLV-CD,XWRL,XWRH,
XRD,XLT3,XAMUTE,XDREQ1,
HCPUCK,IR,SEL-IR,XDVRST1,
XAVIRQ0,48/X44,HIBSEL,XCS6,
XDACK1,NAP SW



MAIN

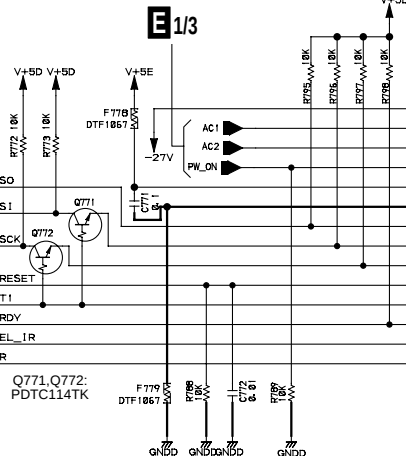
E 3/3
ADDRESS
A2-A10

ADDRESS

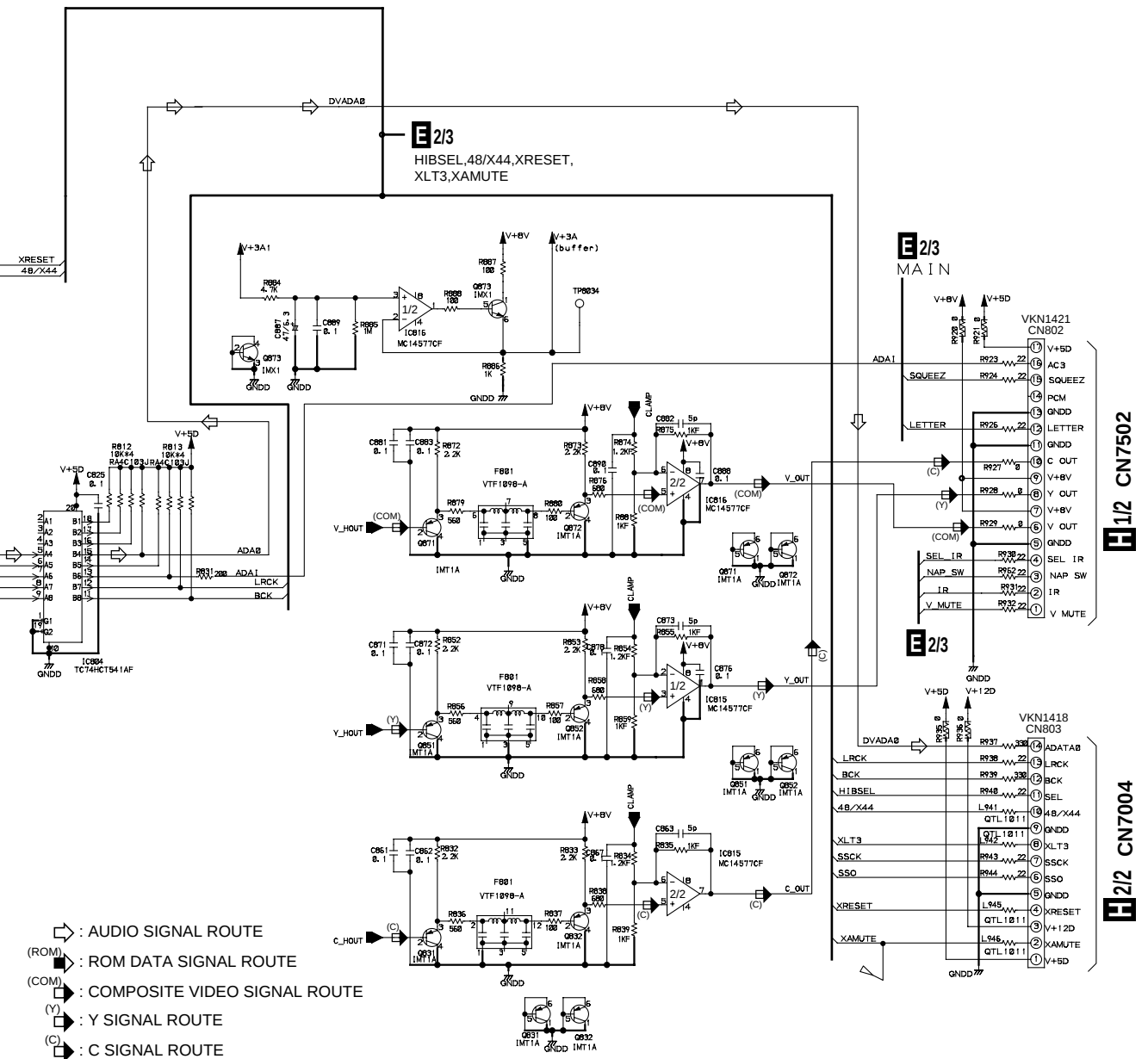
DATA

E 3/3
DATA

E 1/3

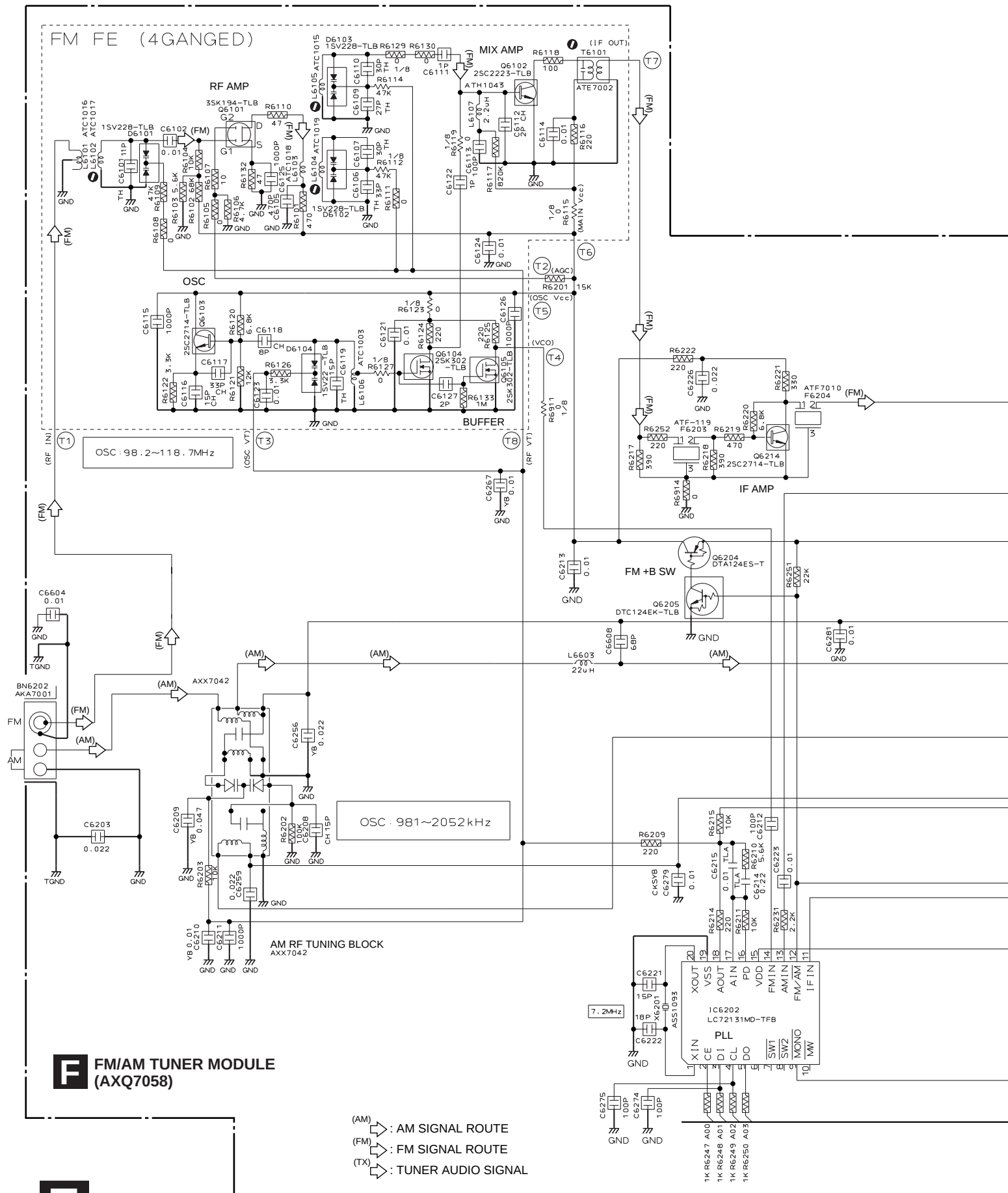


E 3/3 DVDM ASSY(3/3)
(VWS1364)



HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

3.1.6 FM/AM TUNER MODULE



Notes

1.RESISTORS

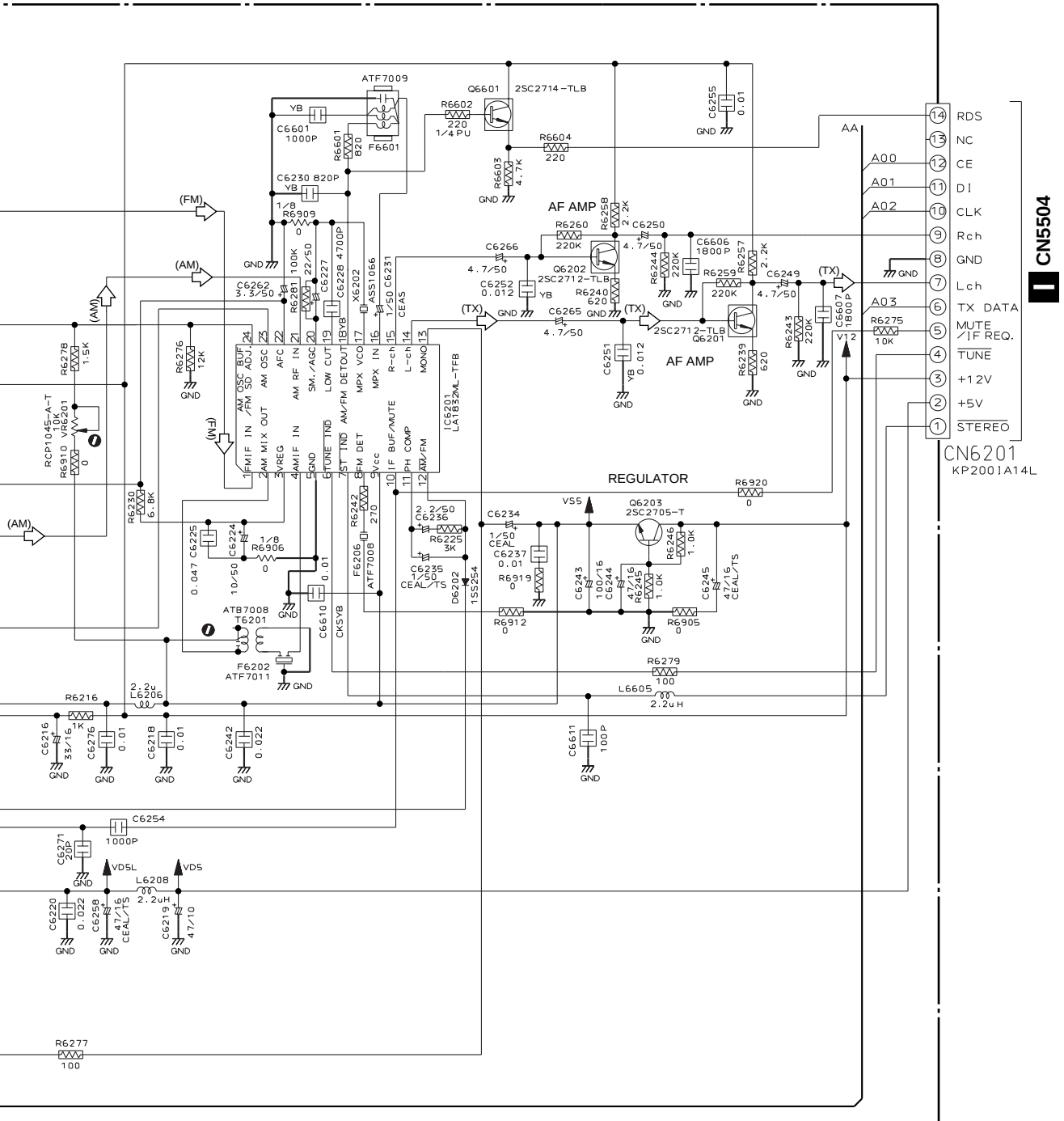
Indicated in Ω , $1/10W \pm 5\%$ Tolerance unless otherwise noted K:k Ω , M:M Ω .

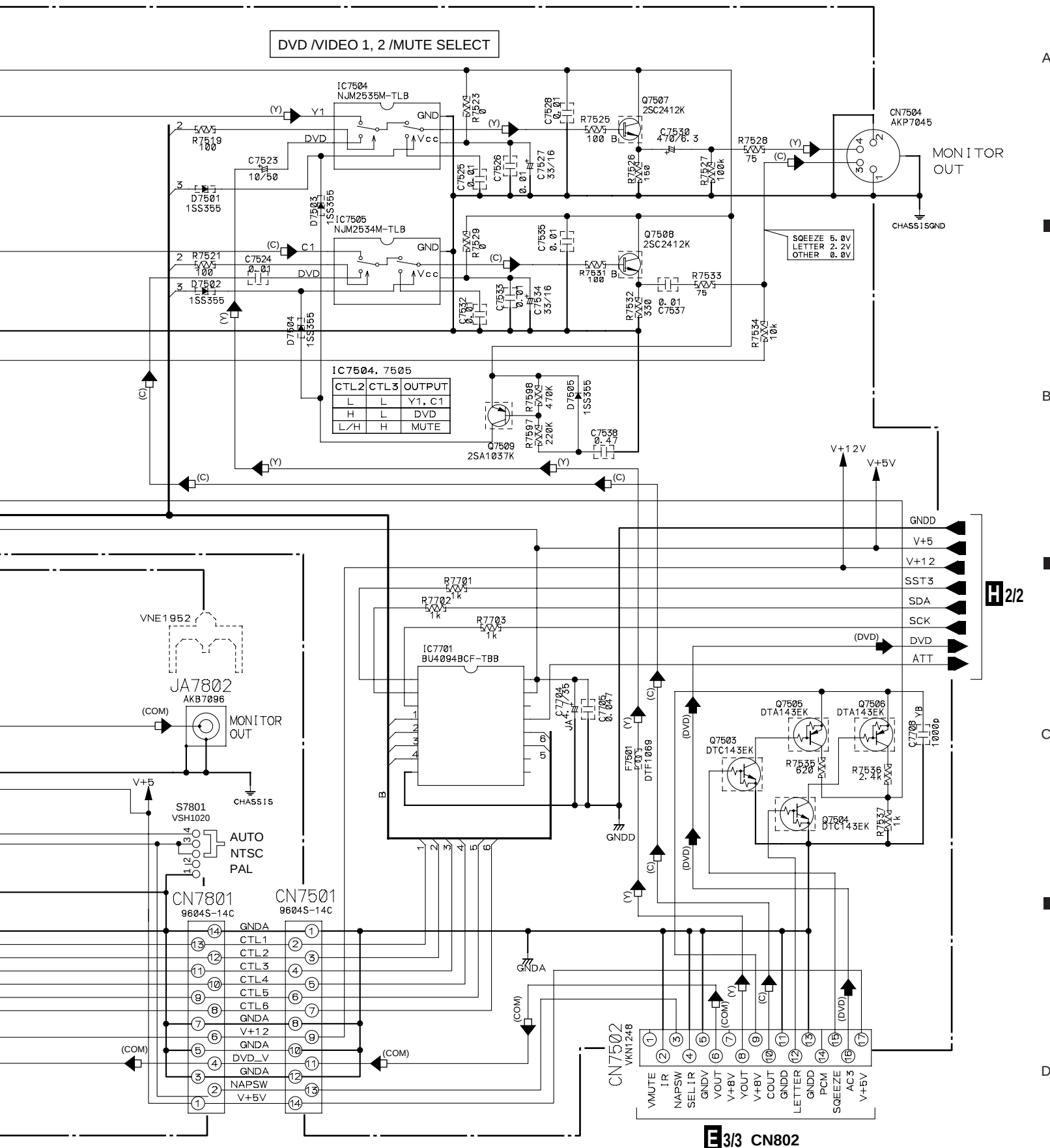
2.CAPACITORS

Indicated in Capacity (μF)/VOLTAGE (V) unless otherwise noted P:PF.

3.DIODES

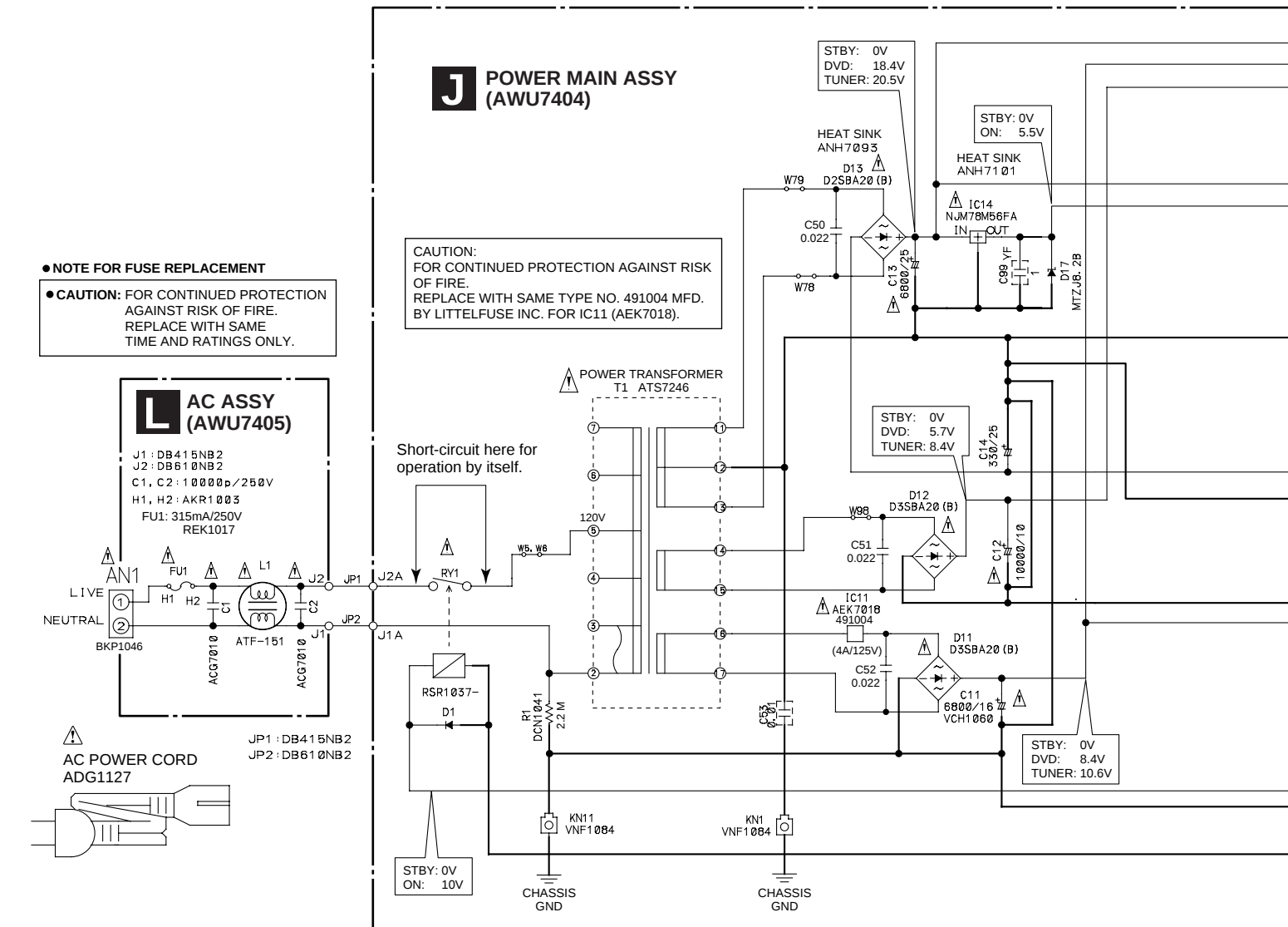
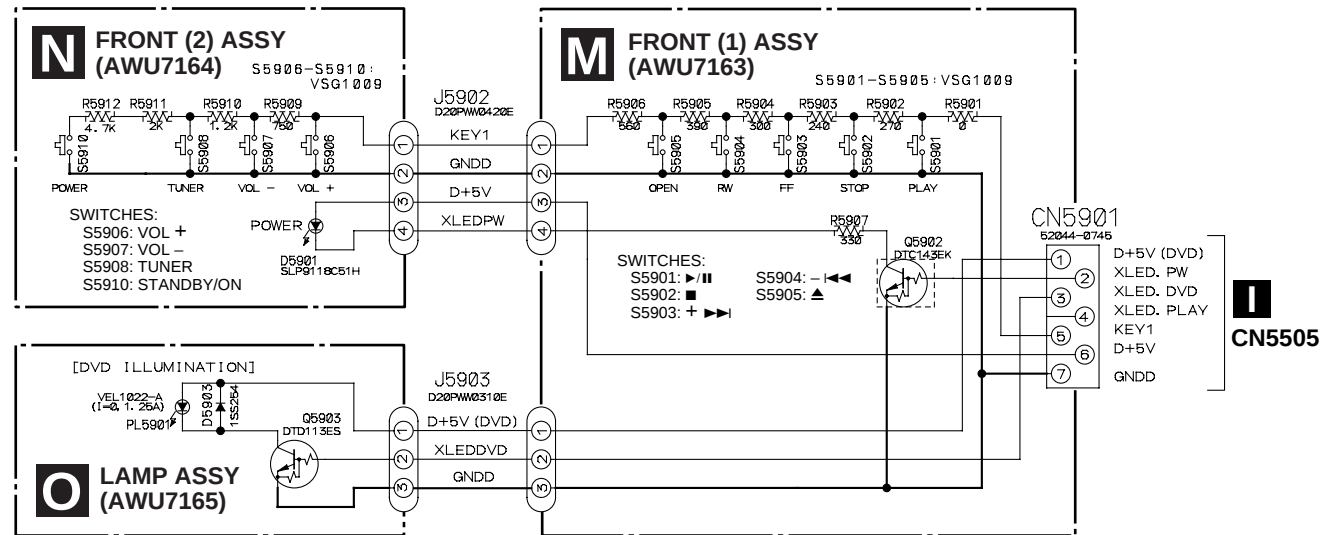
No mark diode is 1SS254.

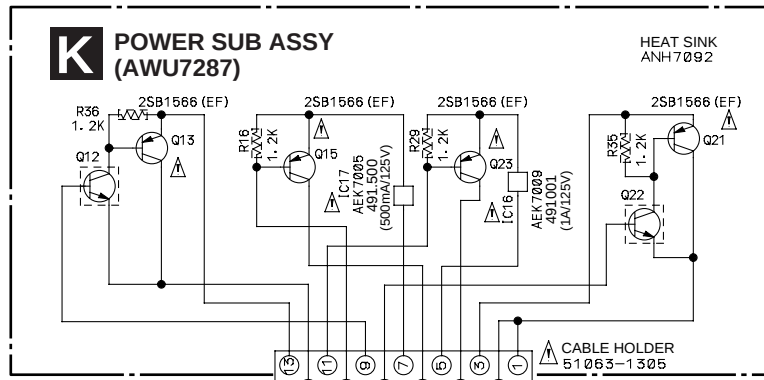




HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

3.1.10 POWER MAIN ASSY, POWER SUB ASSY, AC ASSY, FRONT (1) ASSY, FRONT (2) ASSY and LAMP ASSY



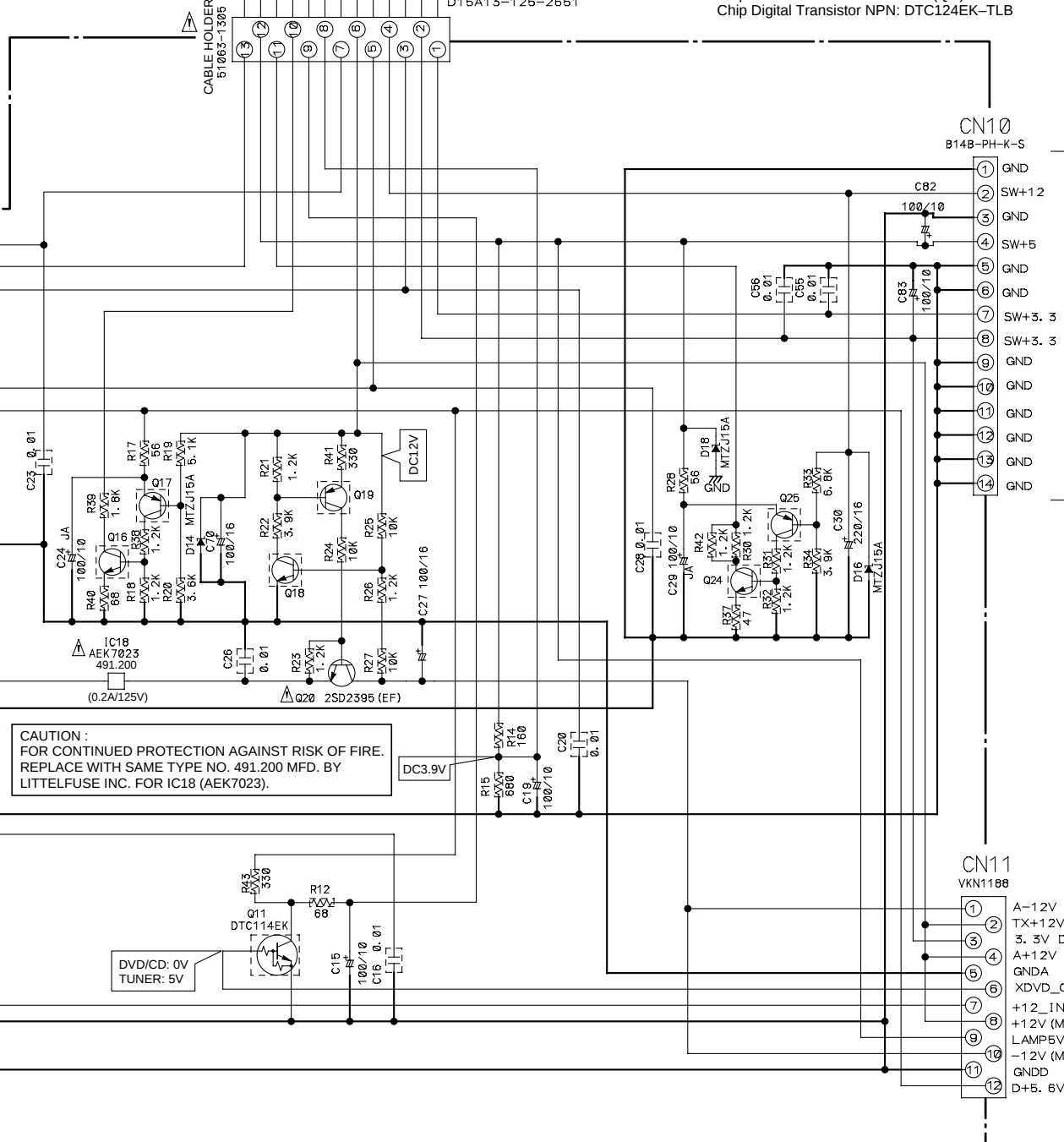


CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE NO. 491001 MFD. BY
LITTELFUSE INC. FOR IC16 (AEK7009).

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE NO. 491.500 MFD. BY
LITTELFUSE INC. FOR IC17 (AEK7005).

Note: If the parts are not identified in the diagram
the followings are used.

Chip Transistor NPN: 2SC2412K (QR)-TLB
Chip Transistor PNP: 2SA1037K (QR)-TLB
Chip Digital Transistor NPN: DTC124EK-TLB



E1/3
CN101

I
CN5501

3.2 POWERED SUBWOOFER (HTZ-SW7)

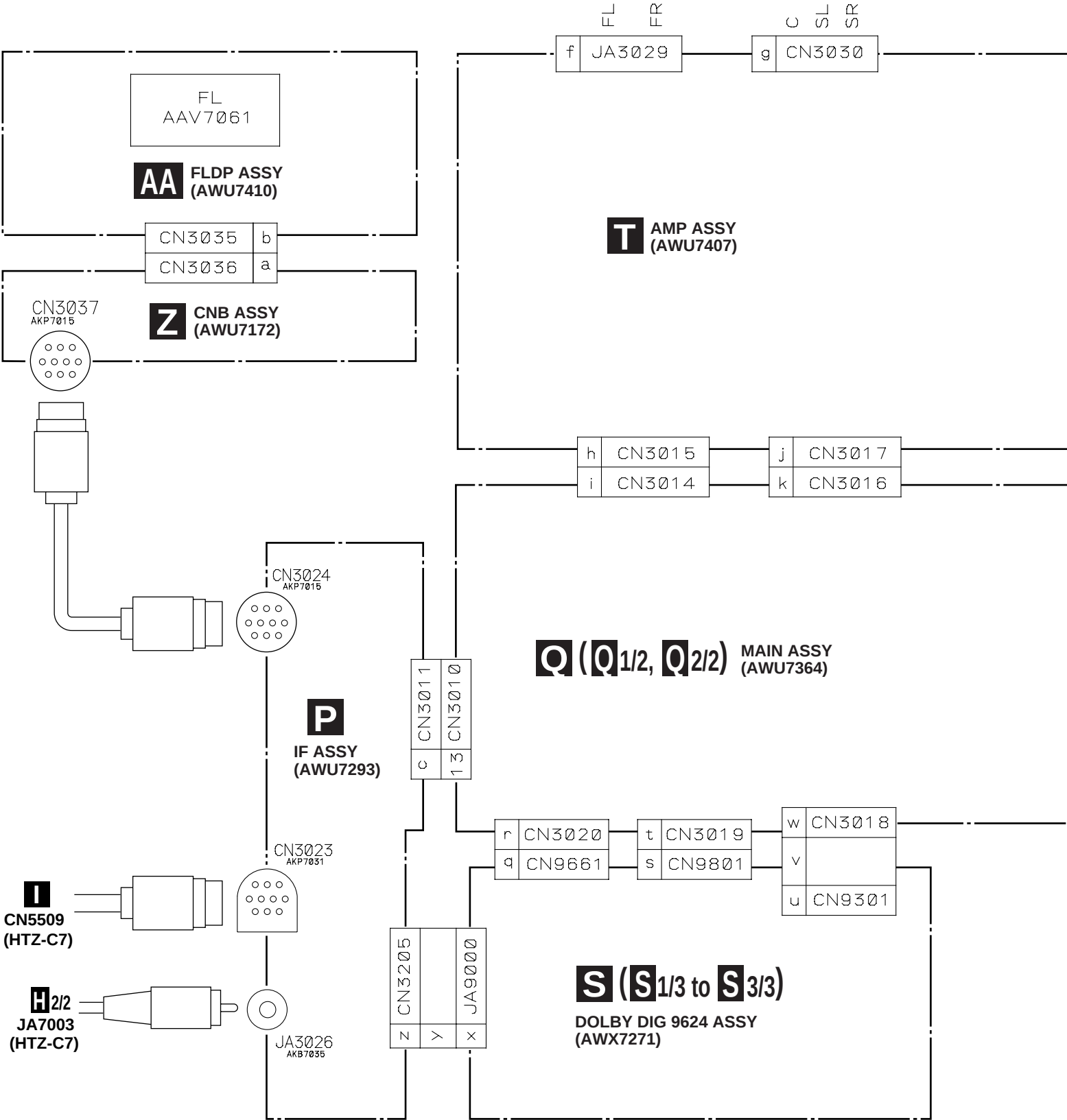
3.2.1 OVERALL CONNECTION DIAGRAM

A

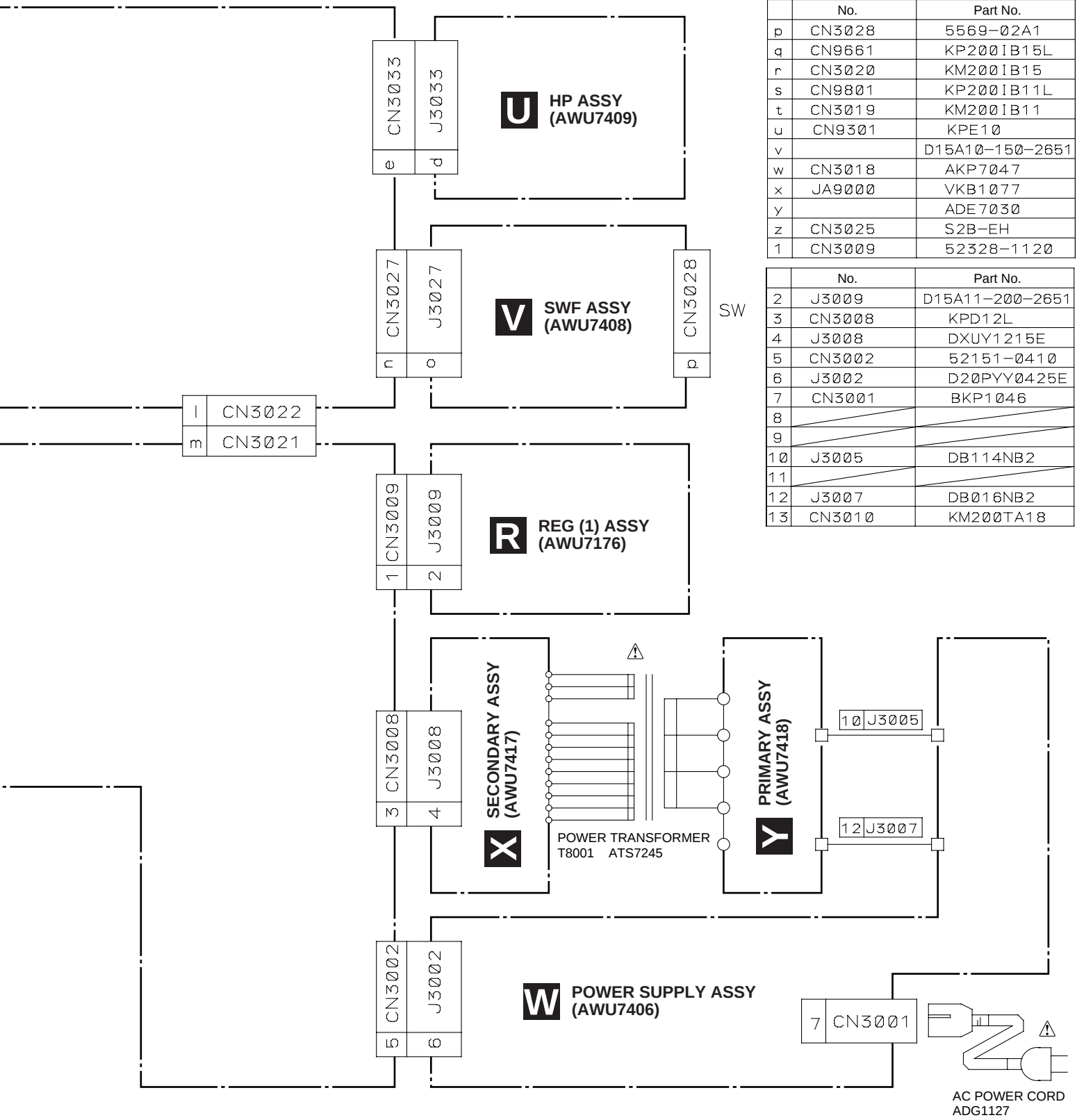
B

C

D



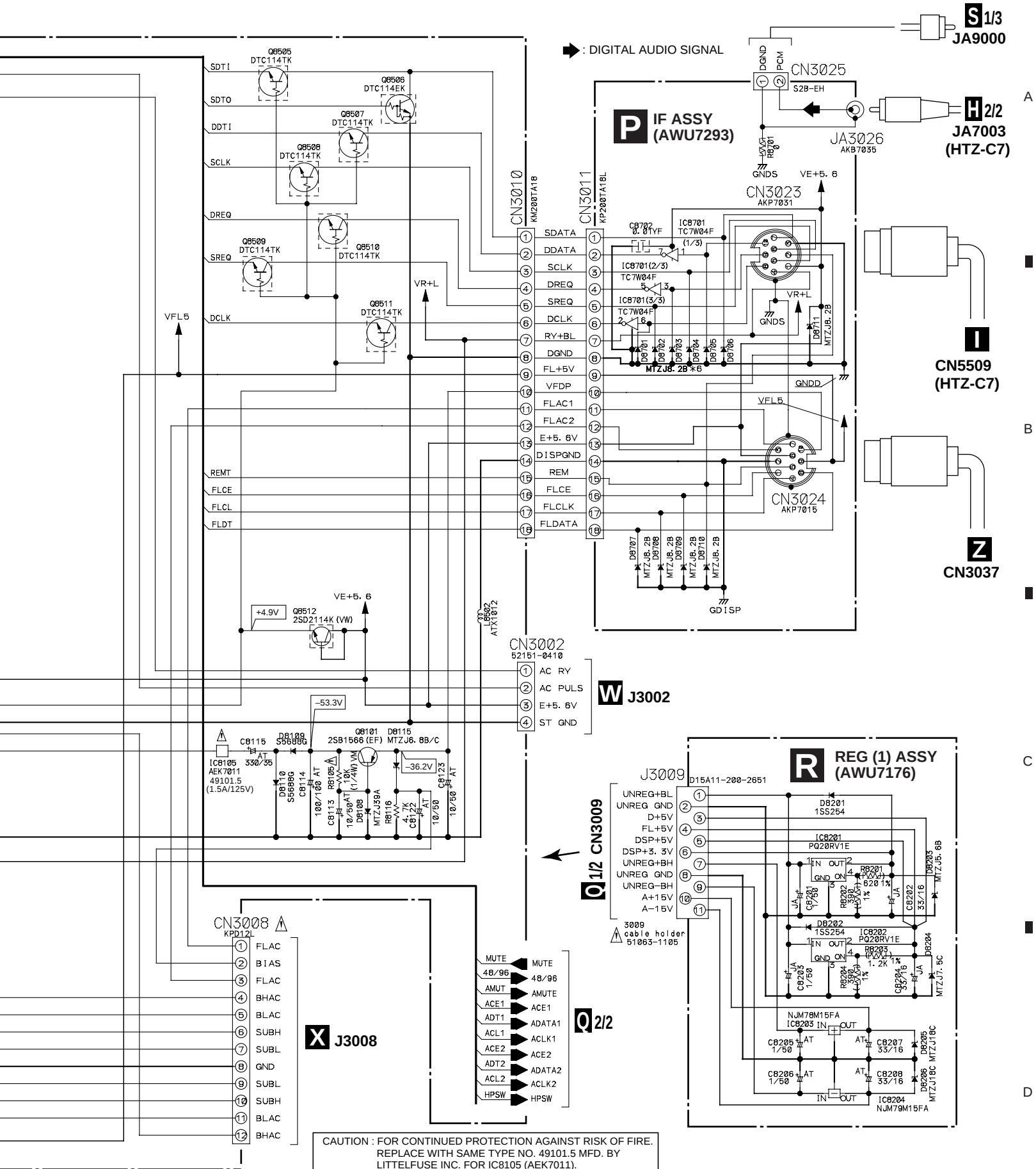
	No.	Part No.		No.	Part No.		No.	Part No.
a	CN3036	KM200TA10	f	JA3029	REK1003	k	CN3016	RKP1784
b	CN3035	KP200TA10	g	CN3030	AKE7020	l	CN3022	KP200IB19L
c	CN3011	KP200TA18L	h	CN3015	KP200IB11L	m	CN3021	KM200IB19
d	J3033	ADE7035	i	CN3014	KM200IB11	n	CN3027	KPD3
e	CN3033	KPE6	j	CN3017	RKP1822	o	J3027	DXUY0310E



	No.	Part No.
p	CN3028	5569-02A1
q	CN9661	KP200IB15L
r	CN3020	KM200IB15
s	CN9801	KP200IB11L
t	CN3019	KM200IB11
u	CN9301	KPE10
v		D15A10-150-2651
w	CN3018	AKP7047
x	JA9000	VKB1077
y		ADE7030
z	CN3025	S2B-EH
1	CN3009	52328-1120

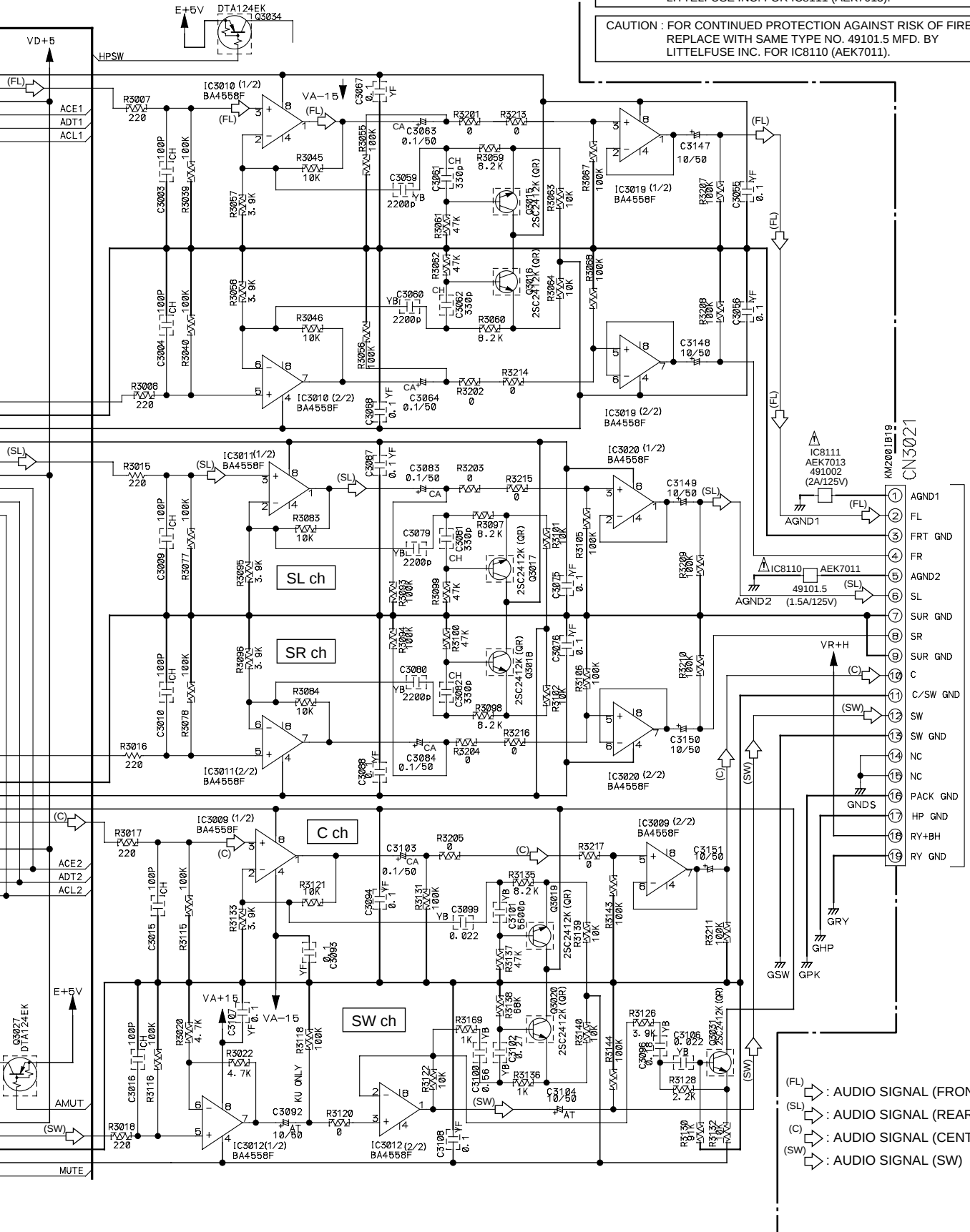
	No.	Part No.
2	J3009	D15A11-200-2651
3	CN3008	KPD12L
4	J3008	DXUY1215E
5	CN3002	52151-0410
6	J3002	D20PYY0425E
7	CN3001	BKP1046
8		
9		
10	J3005	DB114NB2
11		
12	J3007	DB016NB2
13	CN3010	KM200TA18

AC POWER CORD
ADG1127



CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE NO. 491002 MFD. BY
LITTELFUSE INC. FOR IC8111 (AEK7013).

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE NO. 49101.5 MFD. BY
LITTELFUSE INC. FOR IC8110 (AEK7011).



A



D

3.2.5 DOLBY DIG 9624 ASSY (2/3)

A

S2/3

DOLBY DIG 9624 ASSY (2/3)
(AWX7271)

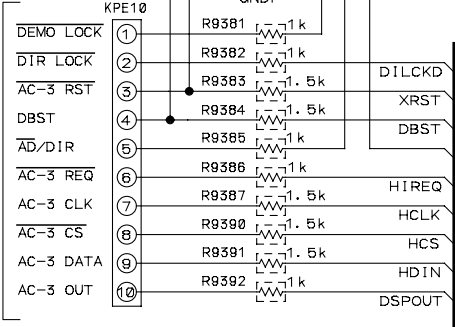
B

C

D

Q1/2 CN3018

CN9301
KPE10



S1/3 **S**3/3

S1/3

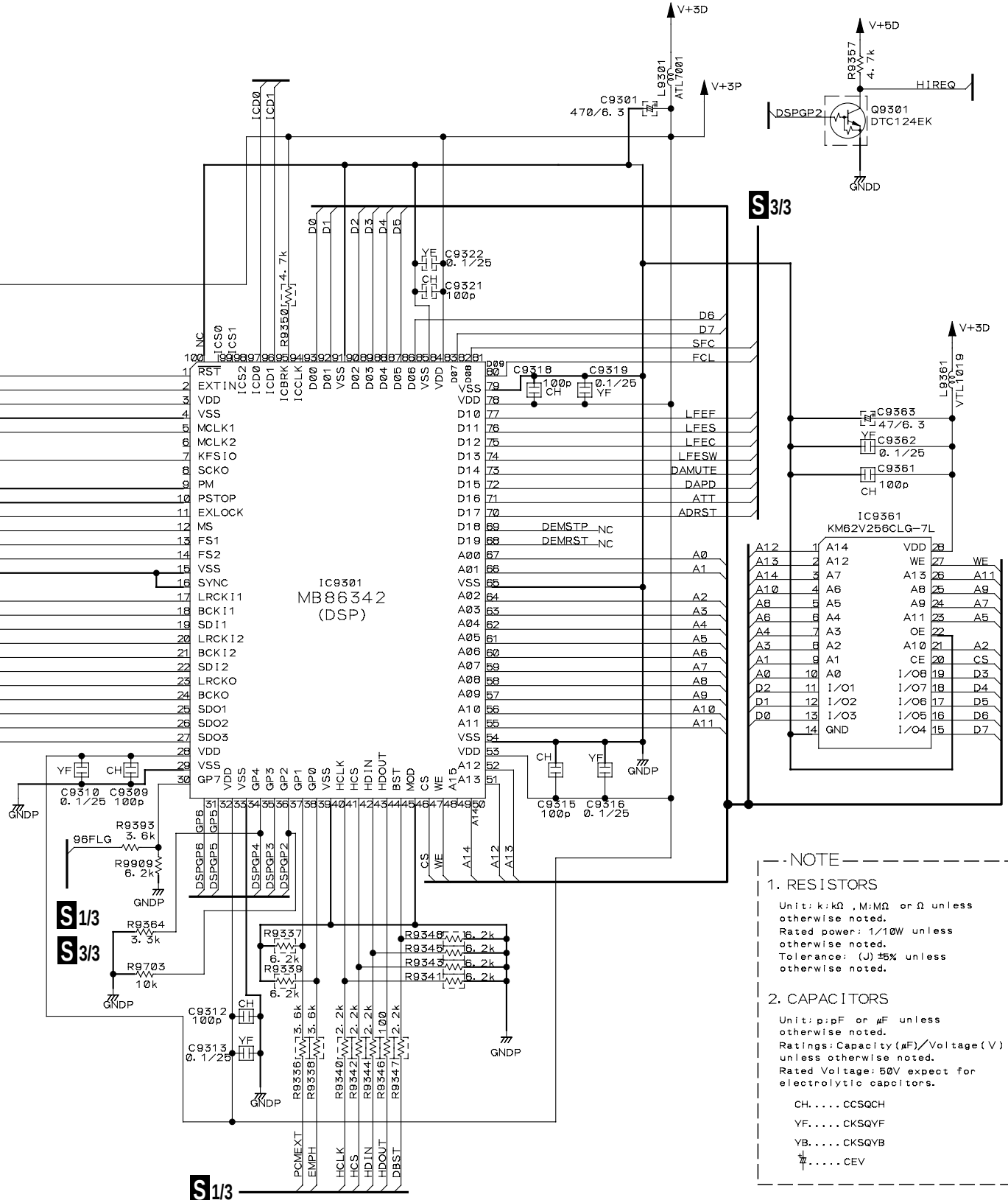
S1/3

S1/3

S1/3

S3/3

S2/3



3.2.6 DOLBY DIG 9624 ASSY (3/3)

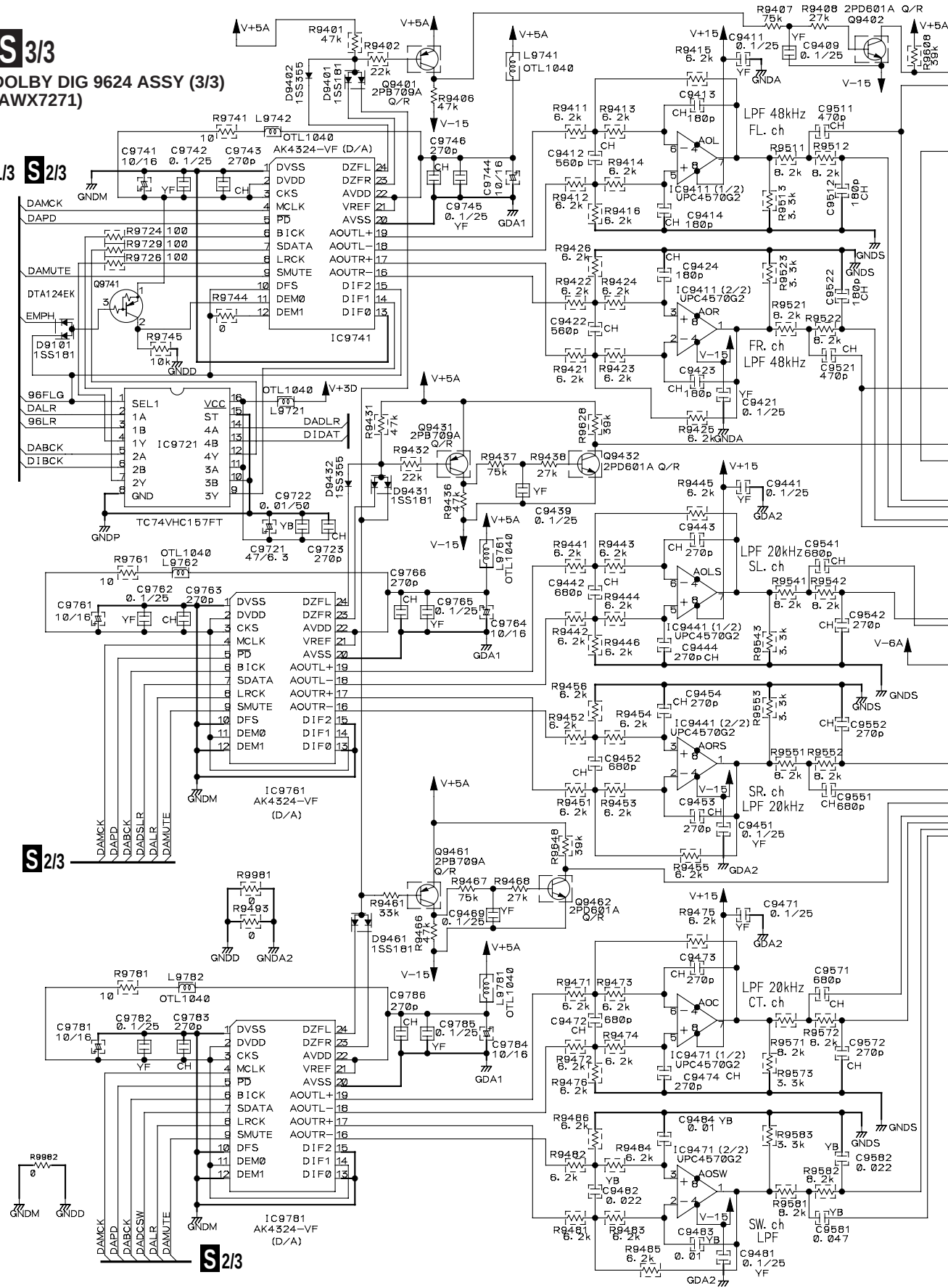
A

S3/3
DOLBY DIG 9624 ASSY (3/3)
(AWX7271)

B

C

D



HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

3.2.7 AMP ASSY, HP ASSY and SWF ASSY

A

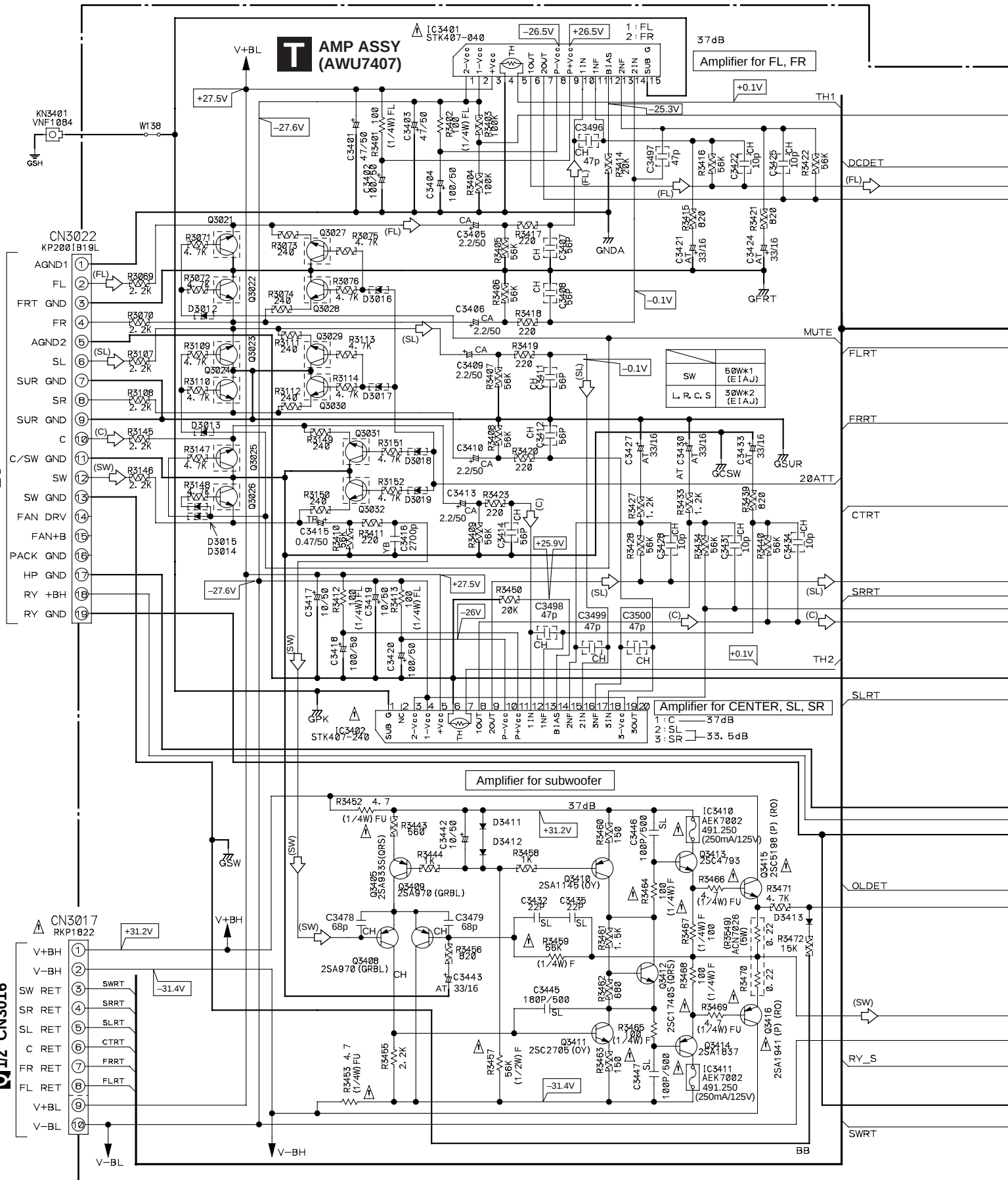
B

C

D

Q2/2 CN3021

Q1/2 CN3016



CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE NO. 491.250 MFD. BY
LITTELFUSE INC. FOR IC3410 and IC3411 (AEK7002).

NOTES

ALL CAPACITORS ARE IN μ F
UNLESS OTHERWISE SPECIFIED

TL : CFTLA
M : CQMA
TY : CFTYA

CH : CCSQCH
YB : CKSQYB
SL : CCSQSL
(OTHER : CKSQYF)

AL : CEAL
ZA : CEZA
NP : CEANP
(OTHER : CEAT***M##)

ALL RESISTORS ARE IN Ω

R000 1/10W (CHIP)

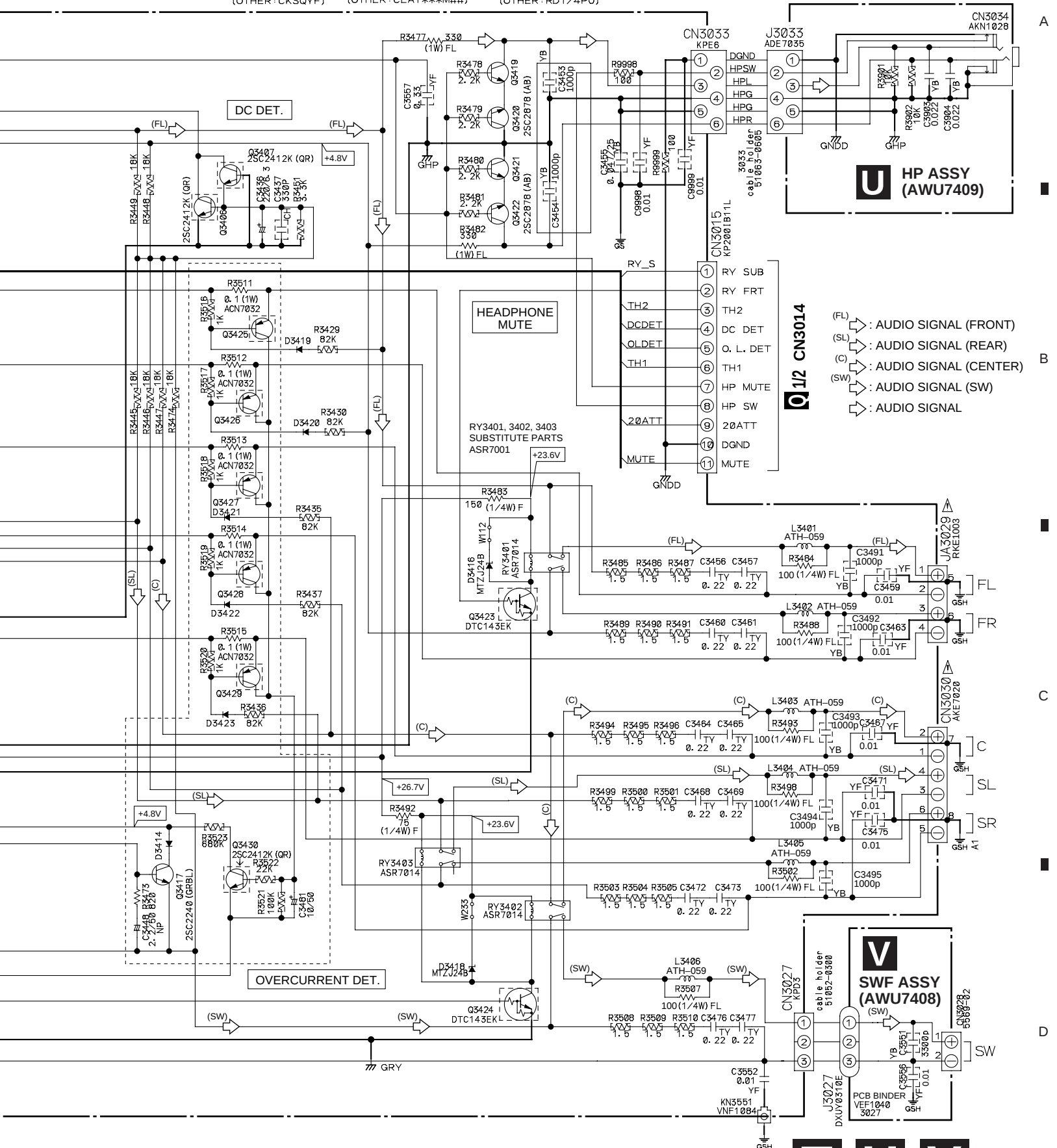
(1/2W) F : RD1/2PMF
(1/4W) F : RD1/4PMF
(1/4W) FL : RD1/4LMF
(1/4W) FU : RFA1/4PS
(OTHER : RD1/4PU)

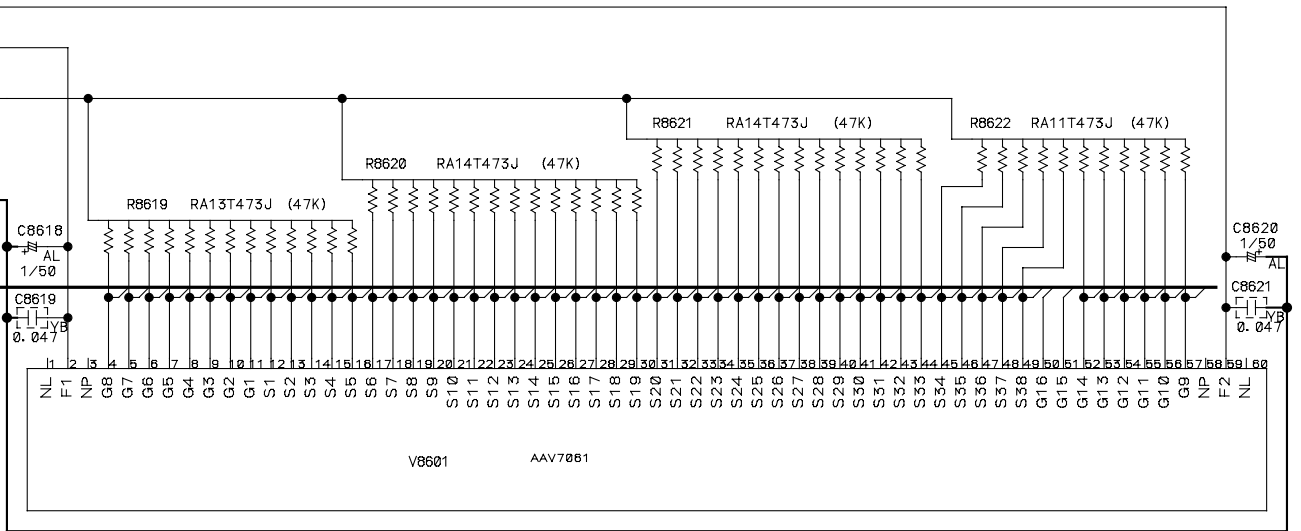
TRANSISTOR

2SD2114K-TLB (VW)
2SA1037K (QR)

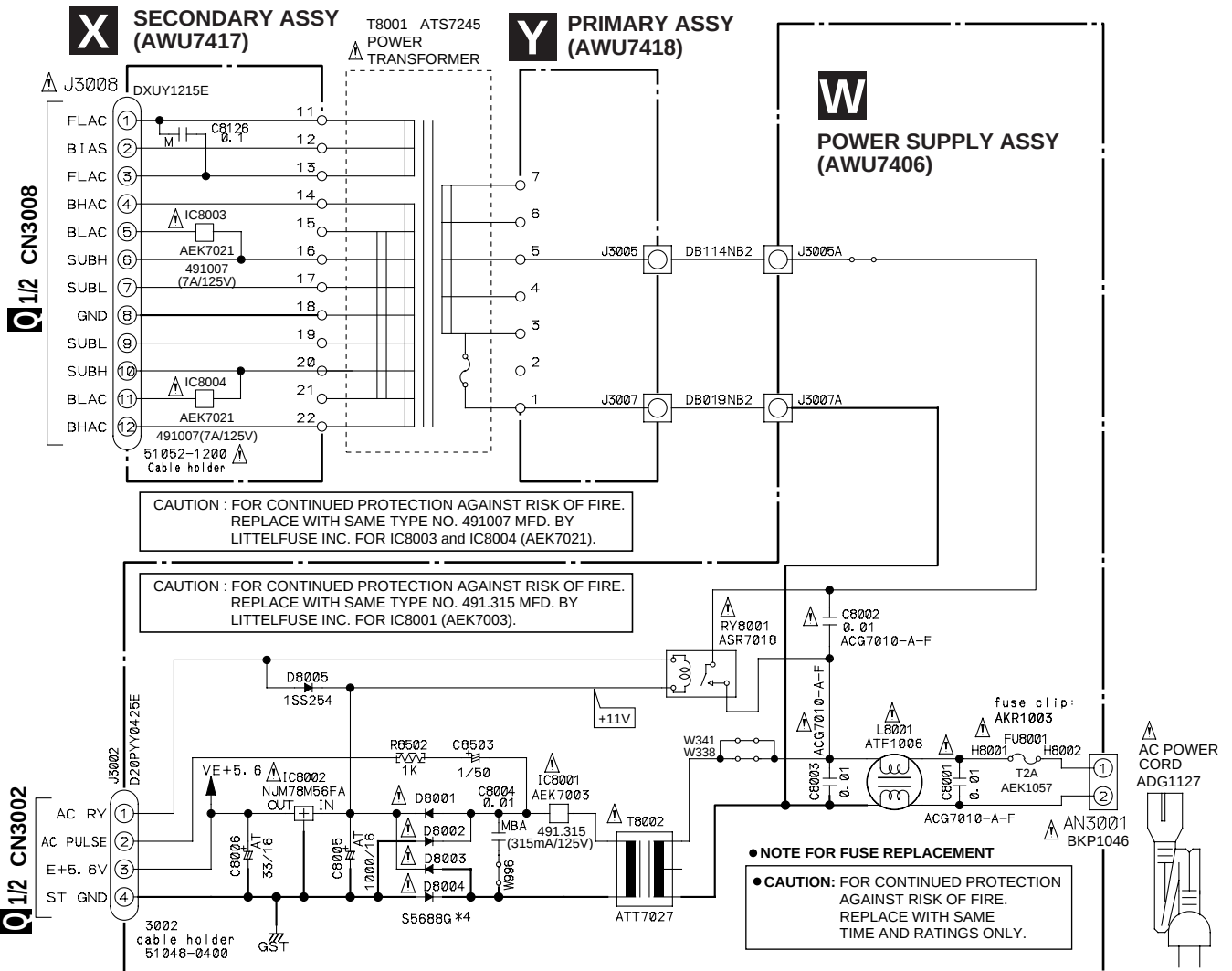
DIODE

1SS254
1SS355





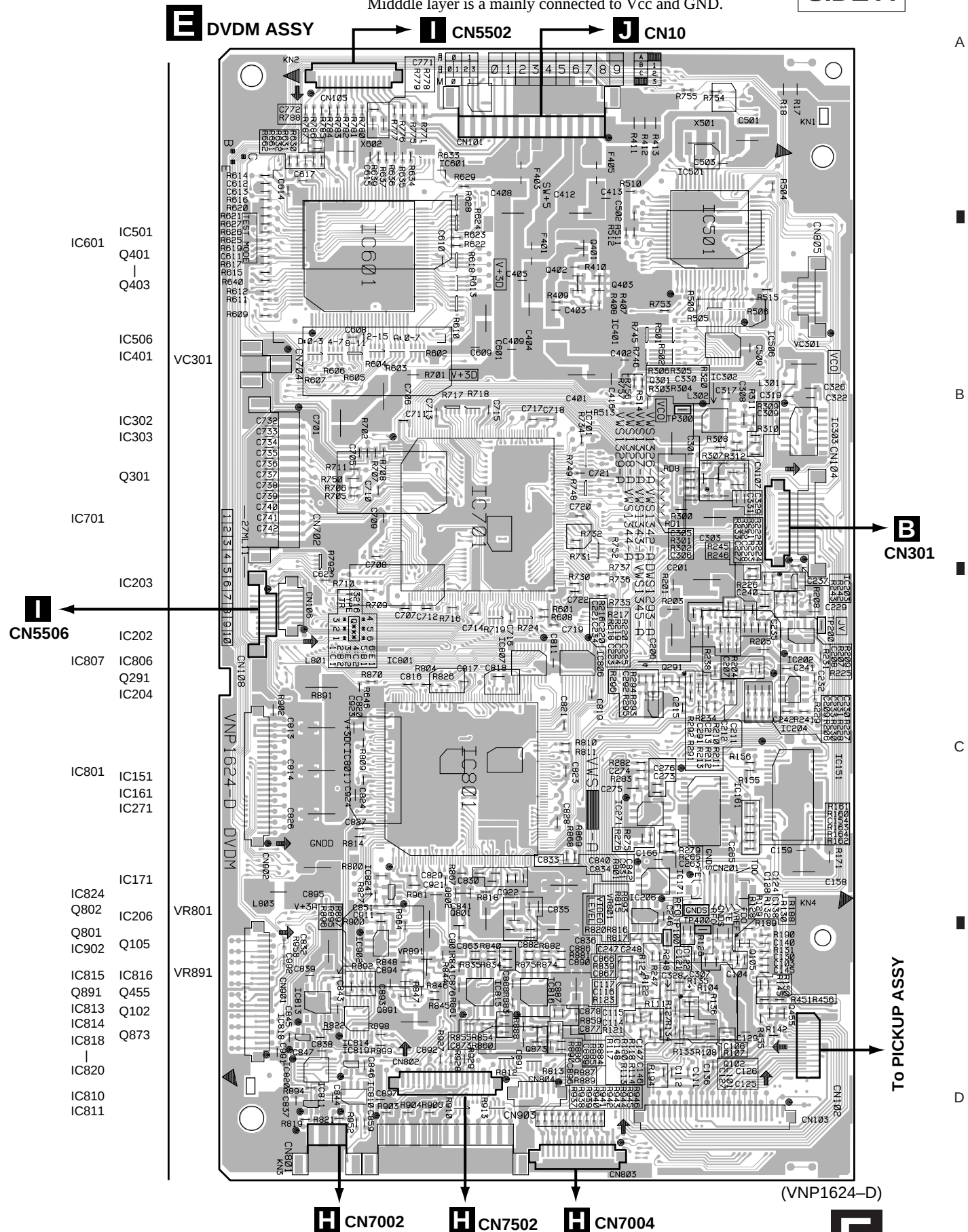
8602 (FL spacer)
8603 AEB7122 X 2



4.1.2 DVDM ASSY

• This PCB is a four-layered board.
Middle layer is a mainly connected to Vcc and GND.

SIDE A



TO PICKUP ASSY

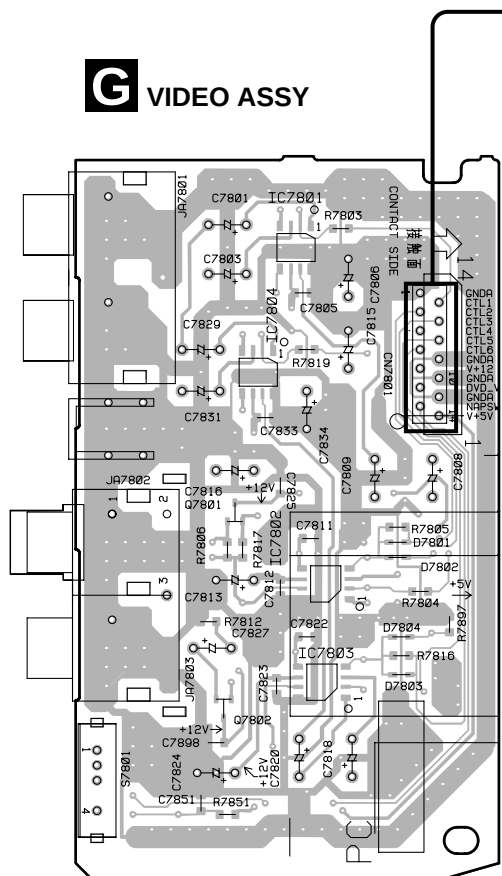
4.1.4 VIDEO ASSY and SVIDEO ASSY

SIDE A

G VIDEO ASSY

H SVIDEO ASSY

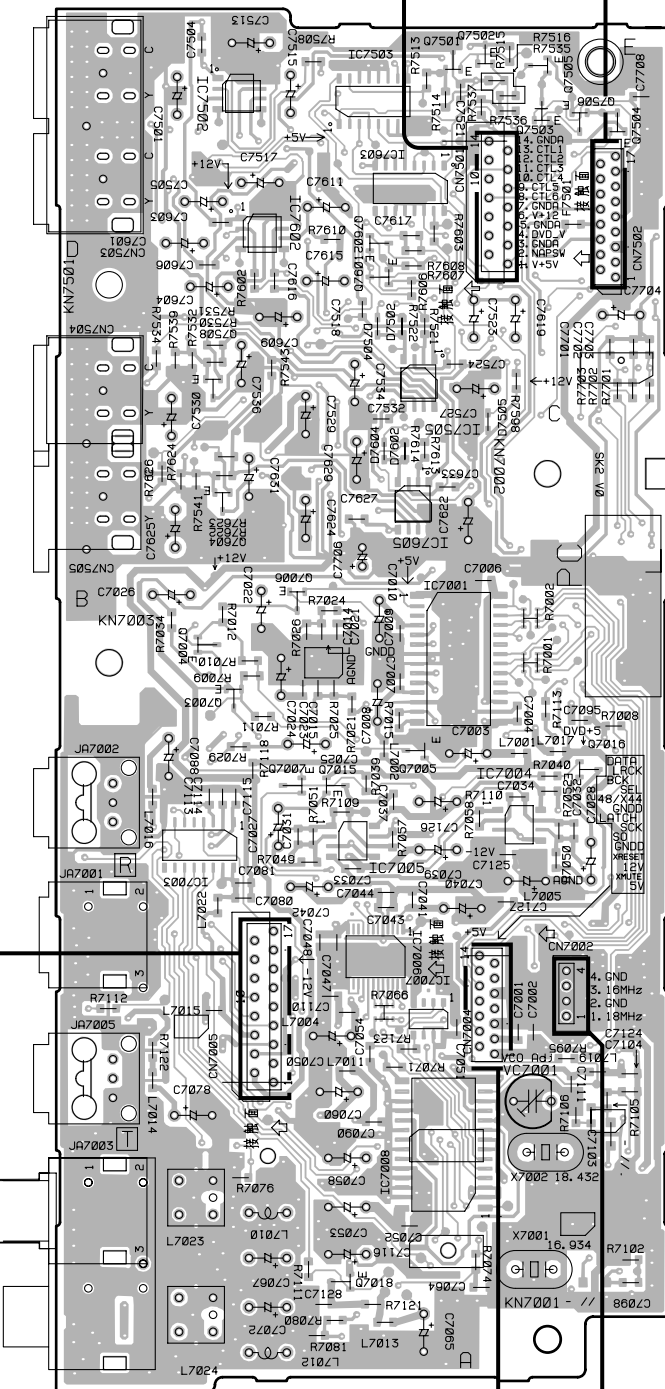
E CN802



(ANP7283-C)

I CN5503

P JA3026
(HTZ-SW7)

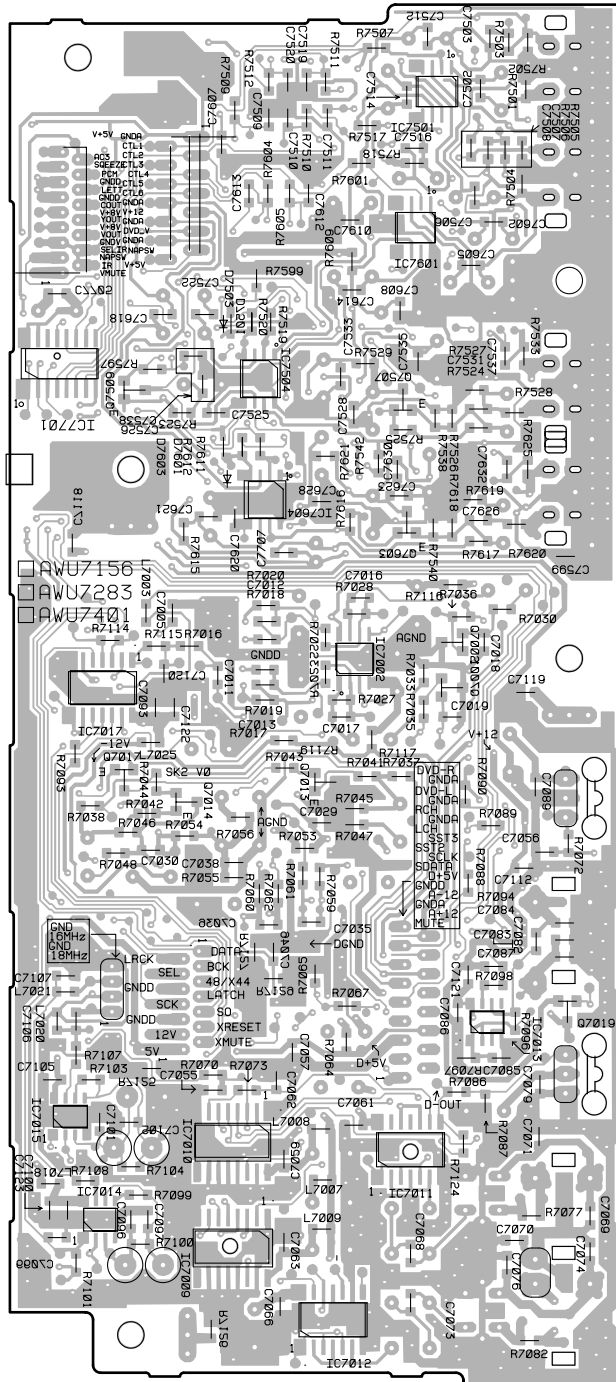


- Q7501
- Q7506
- IC7502
- IC7503
- IC7603
- IC7602
- Q7602
- Q7601
- Q7508
- IC7505
- Q7604
- IC7605
- Q7004
- IC7001
- Q7003
- Q7005
- Q7007
- Q7015
- IC7004
- IC7005
- IC7003
- IC7006
- IC7007
- VC7001
- IC7008
- Q7018

(ANP7283-C)

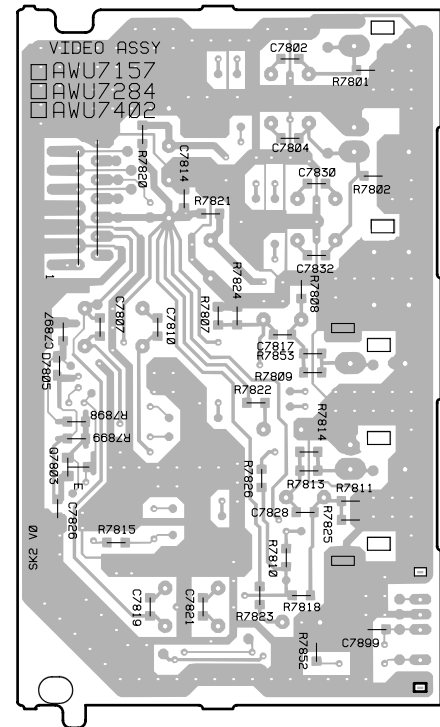
SIDE B

H SVIDEO ASSY



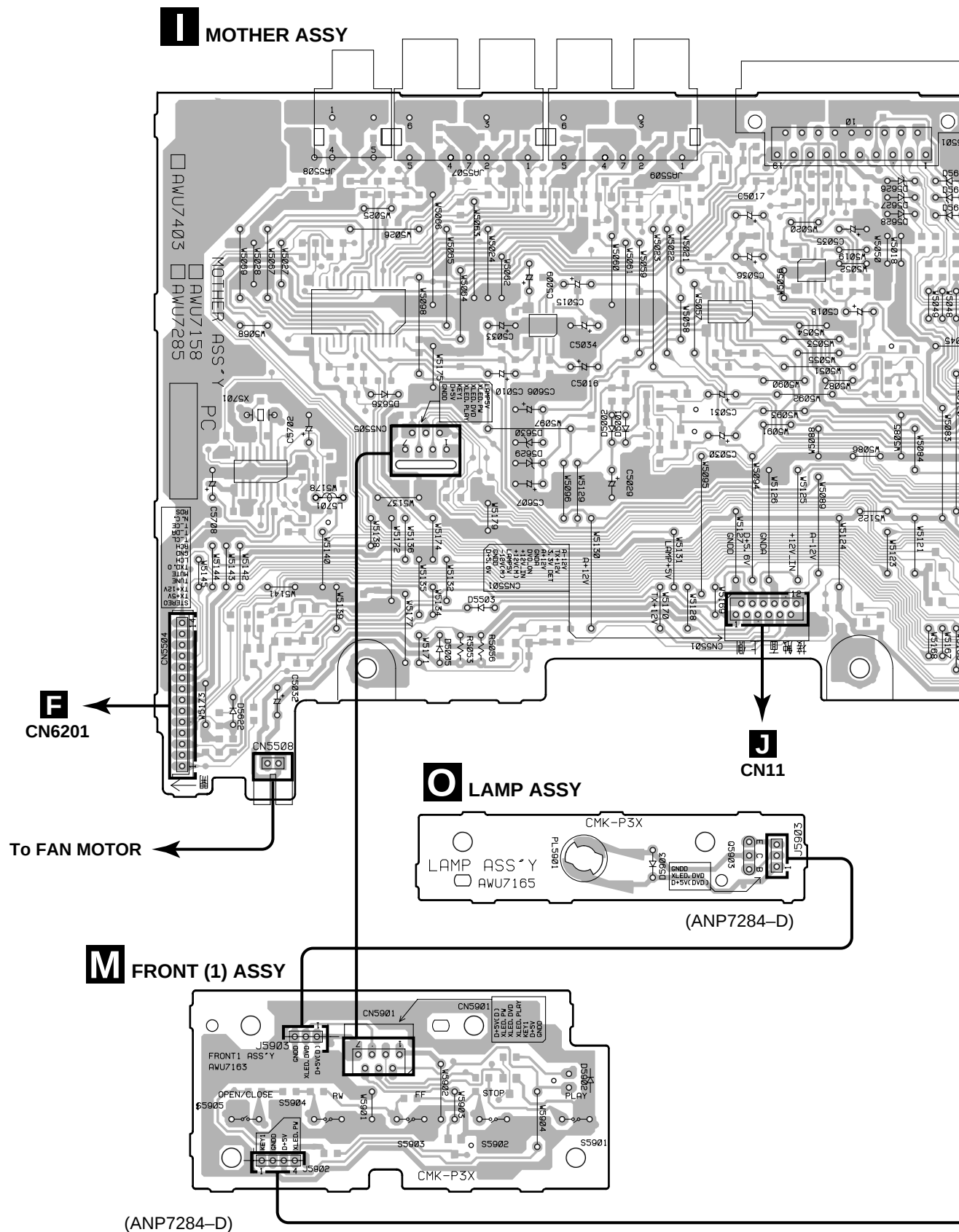
(ANP7283-C)

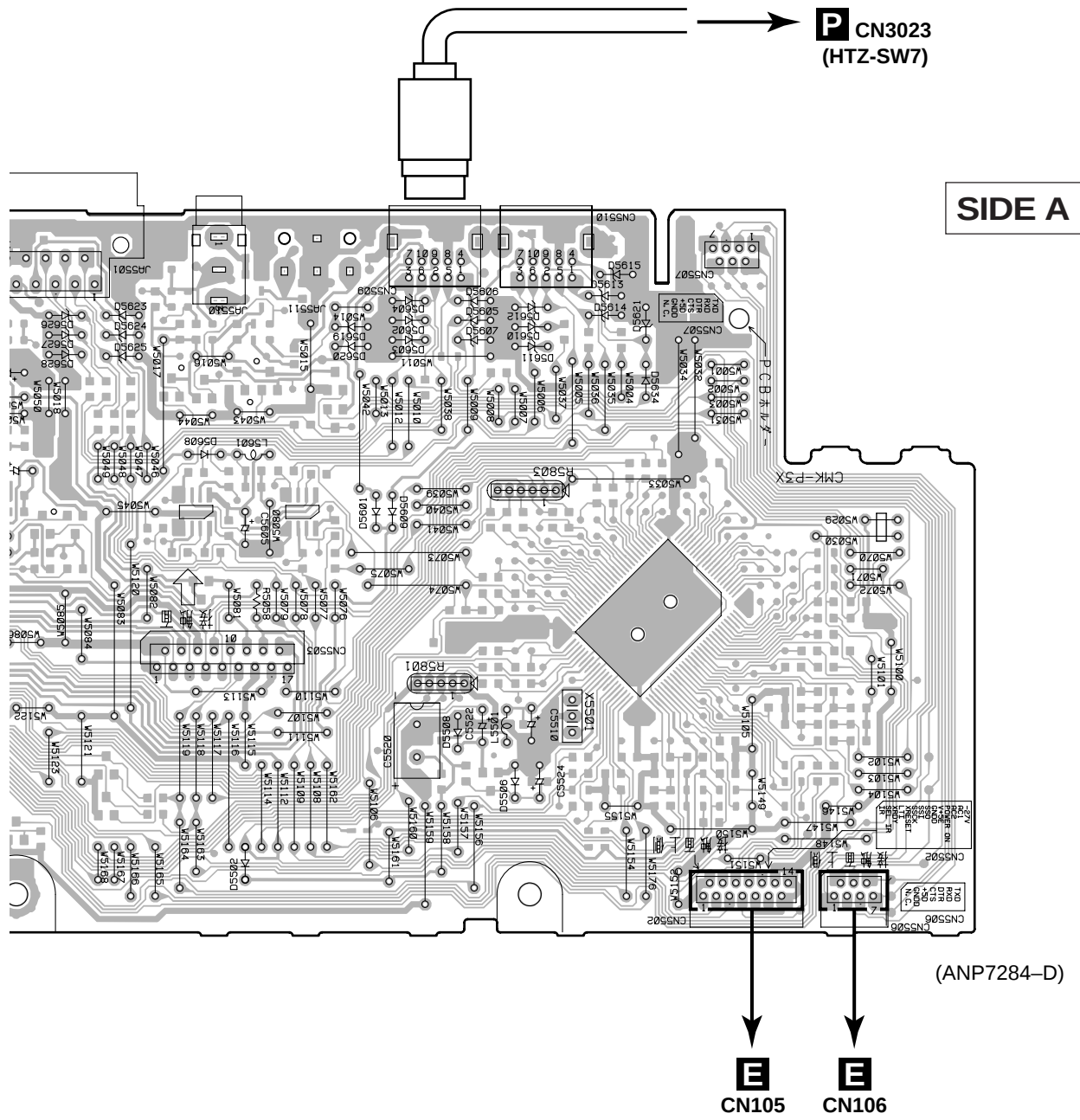
G VIDEO ASSY



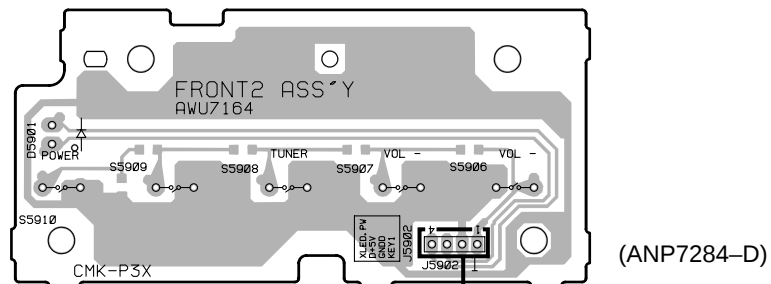
(ANP7283-C)

4.1.5 MOTHER ASSY, FRONT (1) ASSY, FRONT (2) ASSY and LAMP ASSY





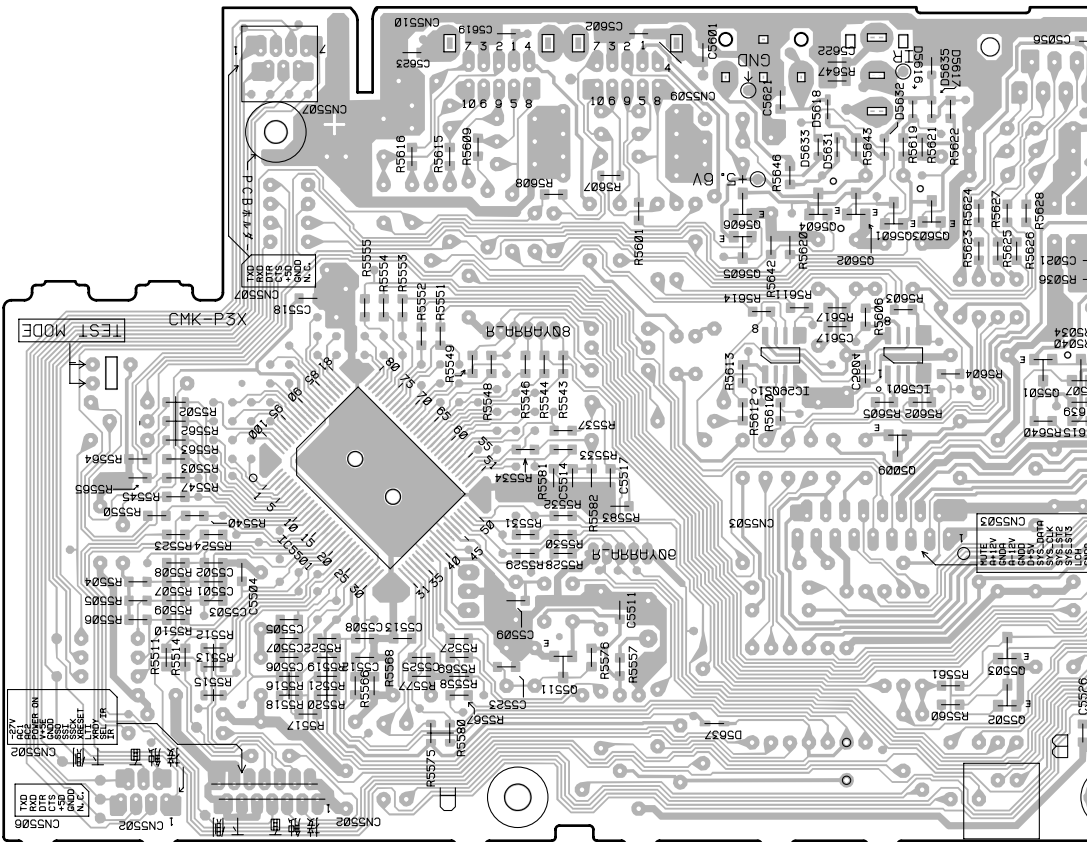
N FRONT (2) ASSY



A

SIDE B

I MOTHER ASSY

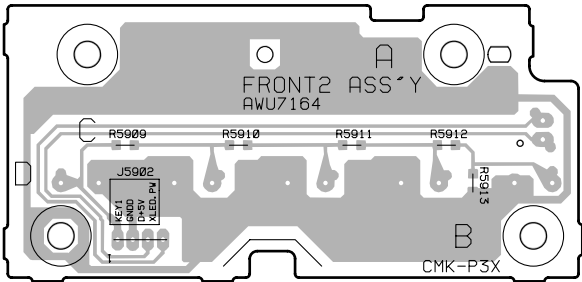


B

			Q5601-Q5606		
(ANP7284-D)	IC5501	Q5511	IC5602	IC5601 Q5009	Q5501 Q5502 Q5503 (

C

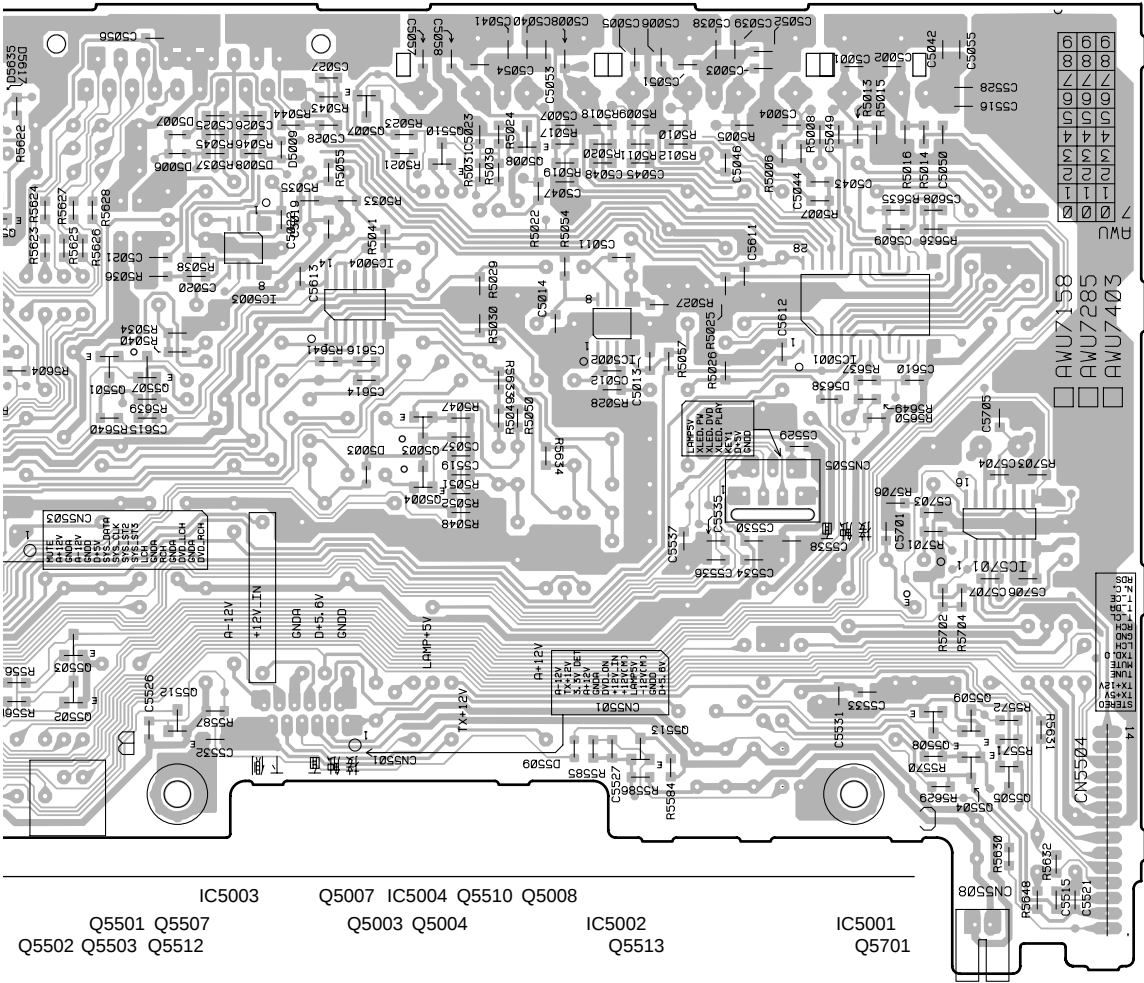
N FRONT (2) ASSY



D

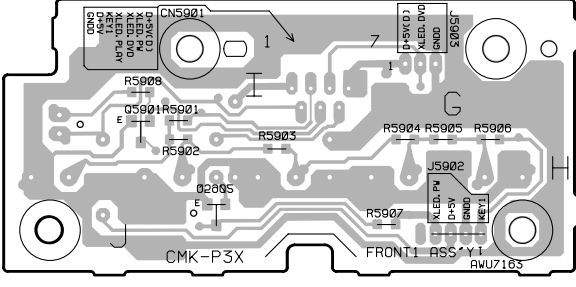
(ANP7284-D)

SIDE B



IC5003 Q5007 IC5004 Q5510 Q5008
Q5501 Q5507 Q5003 Q5004 IC5002 IC5001
Q5502 Q5503 Q5512 Q5513 Q5701
IC5701
Q5508 Q5509
Q5504 Q5505

M FRONT (1) ASSY



Q5901 Q5902

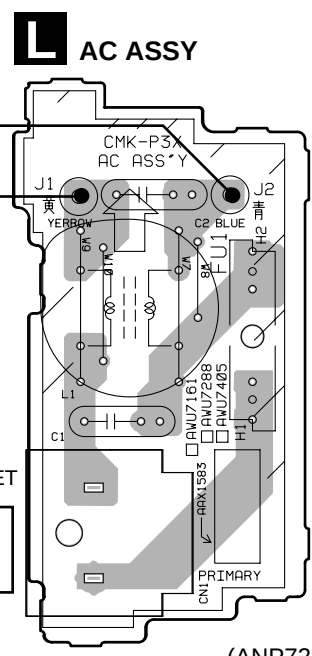
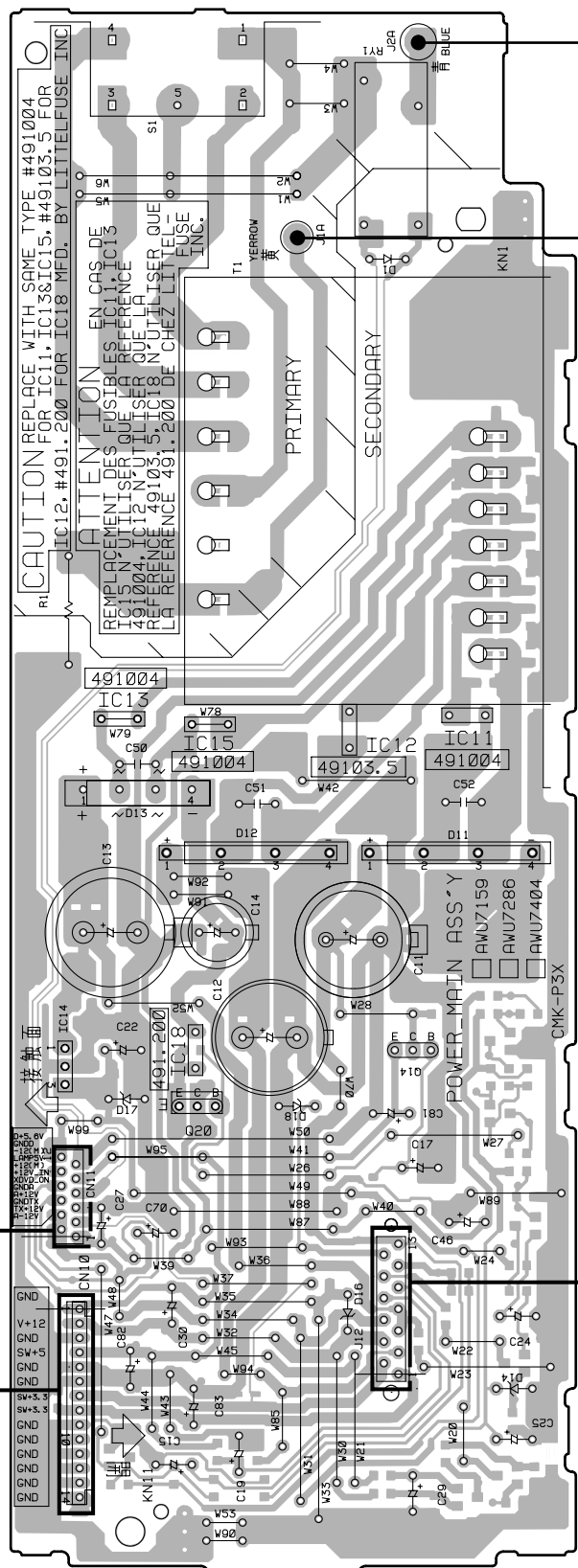
(ANP7284-D)

HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

4.1.6 POWER MAIN ASSY, POWER SUB ASSY and AC ASSY

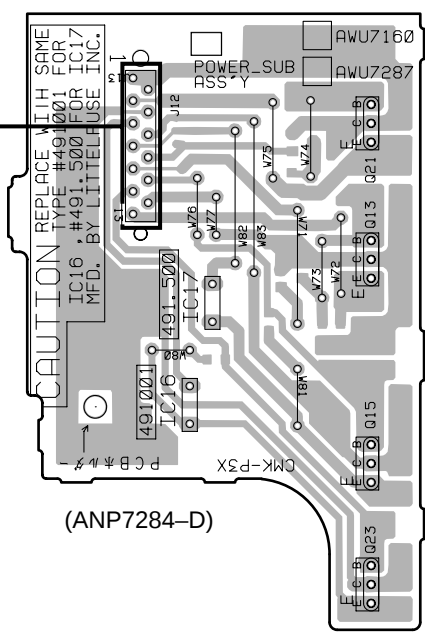
J POWER MAIN ASSY

SIDE A



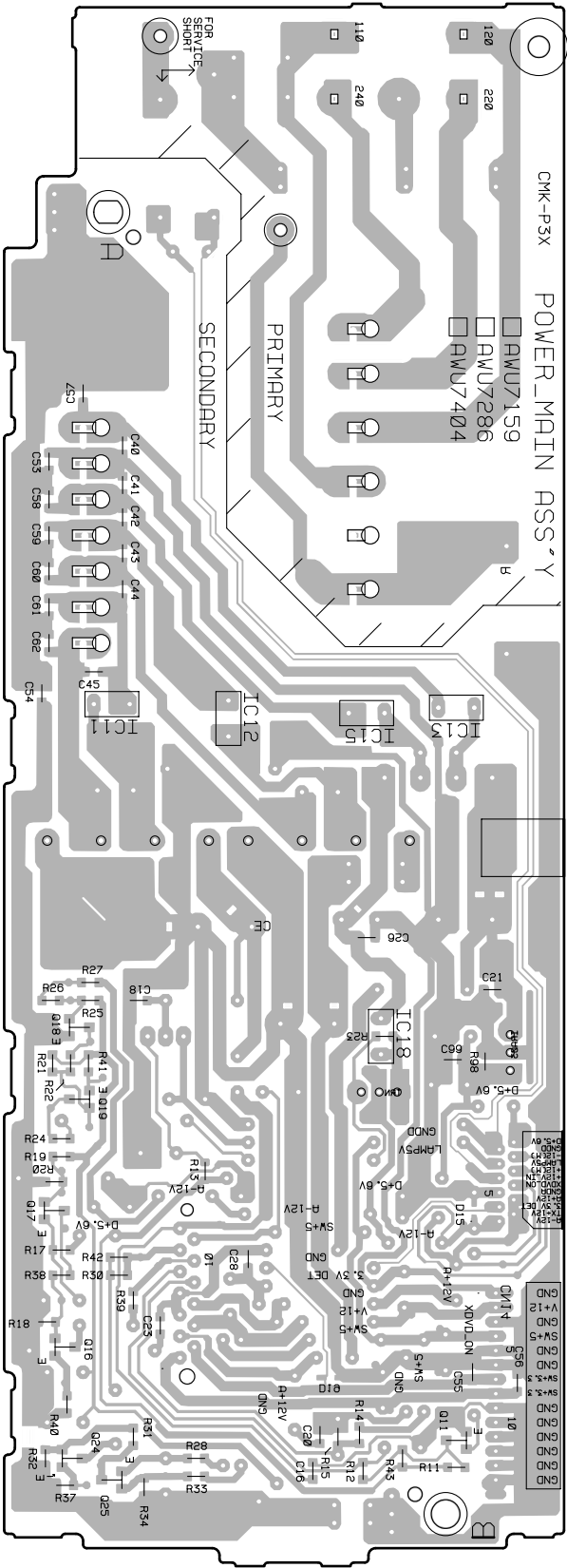
(ANP7284-D)

K POWER SUB ASSY



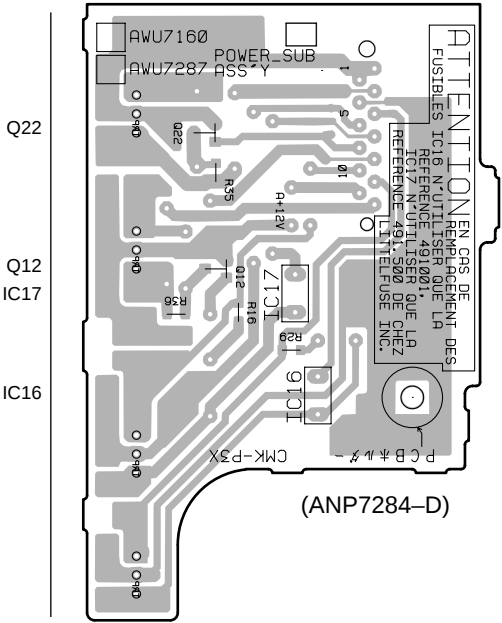
(ANP7284-D)

J POWER MAIN ASSY



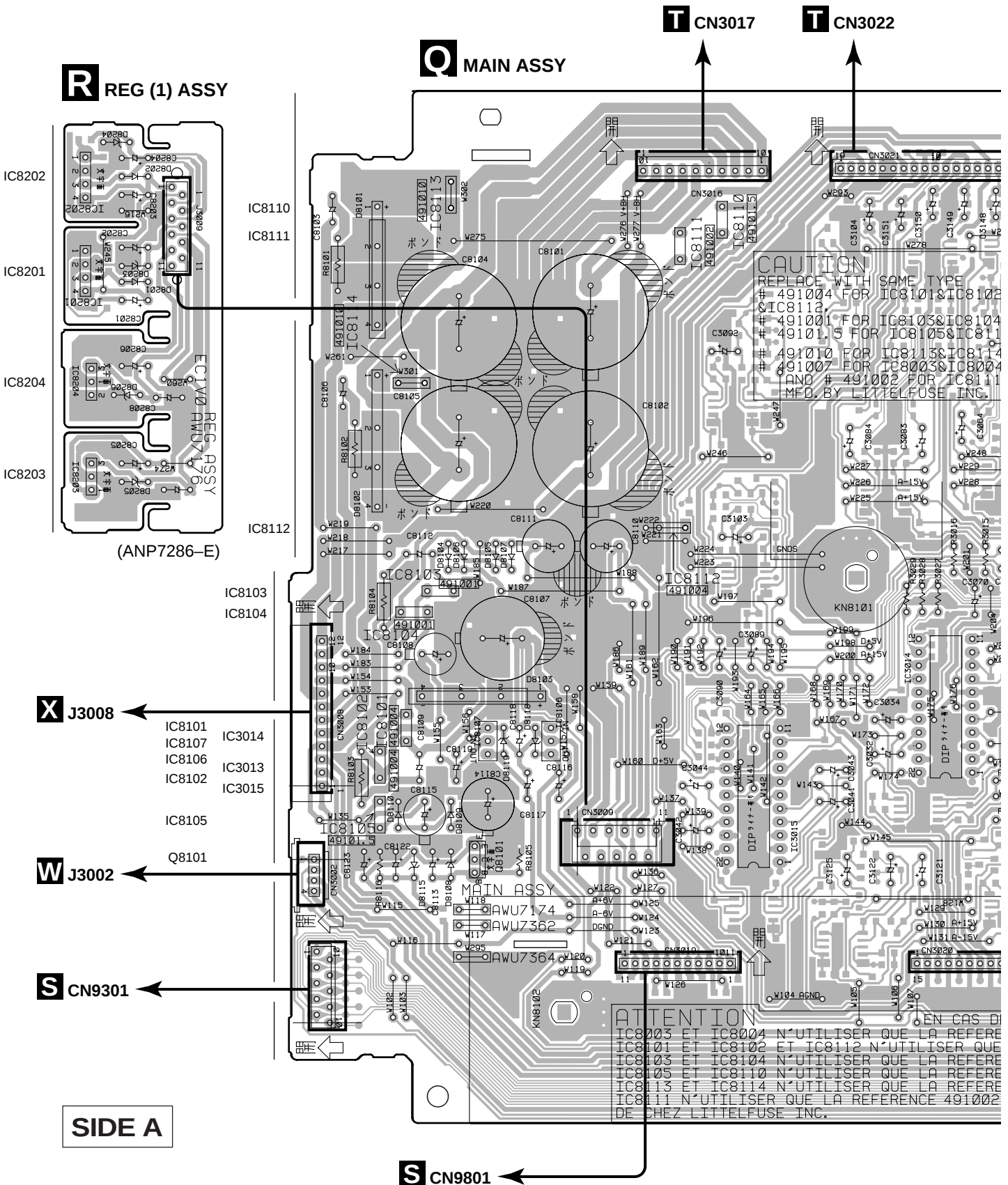
SIDE B

K POWER SUB ASSY

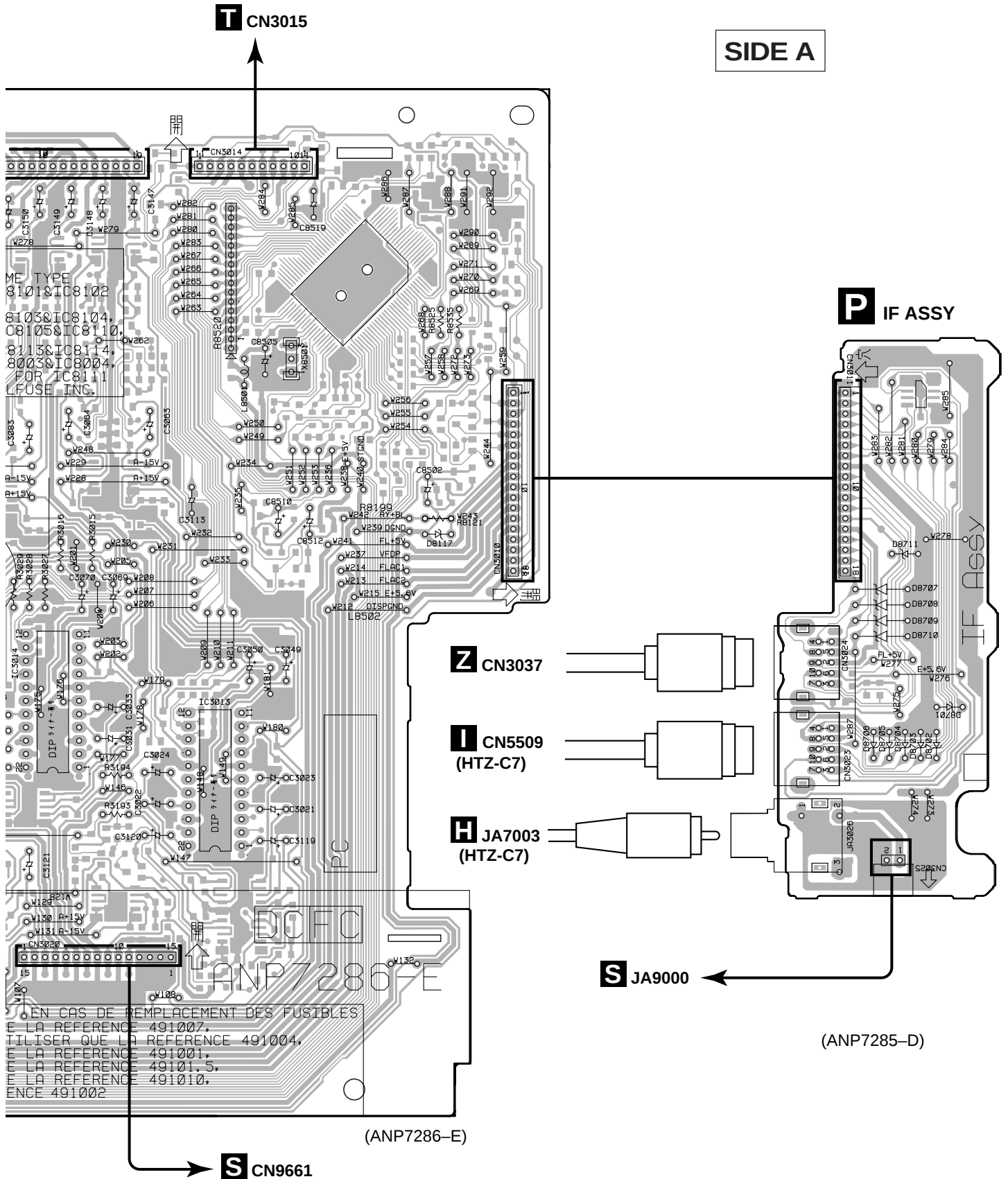


4.2 POWERED SUBWOOFER (HTZ-SW7)

4.2.1 IF ASSY, MAIN ASSY and REG (1) ASSY

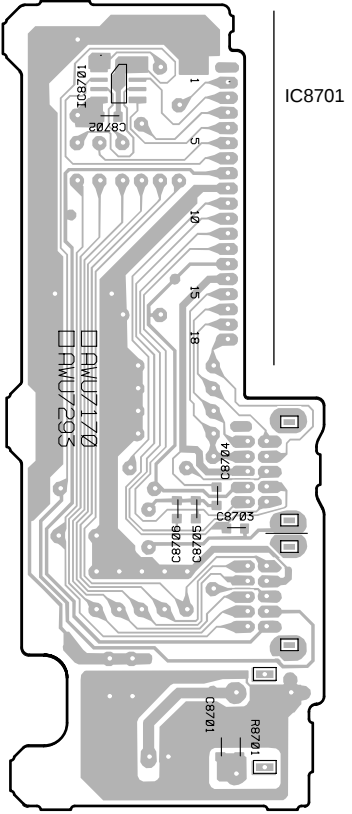


SIDE A



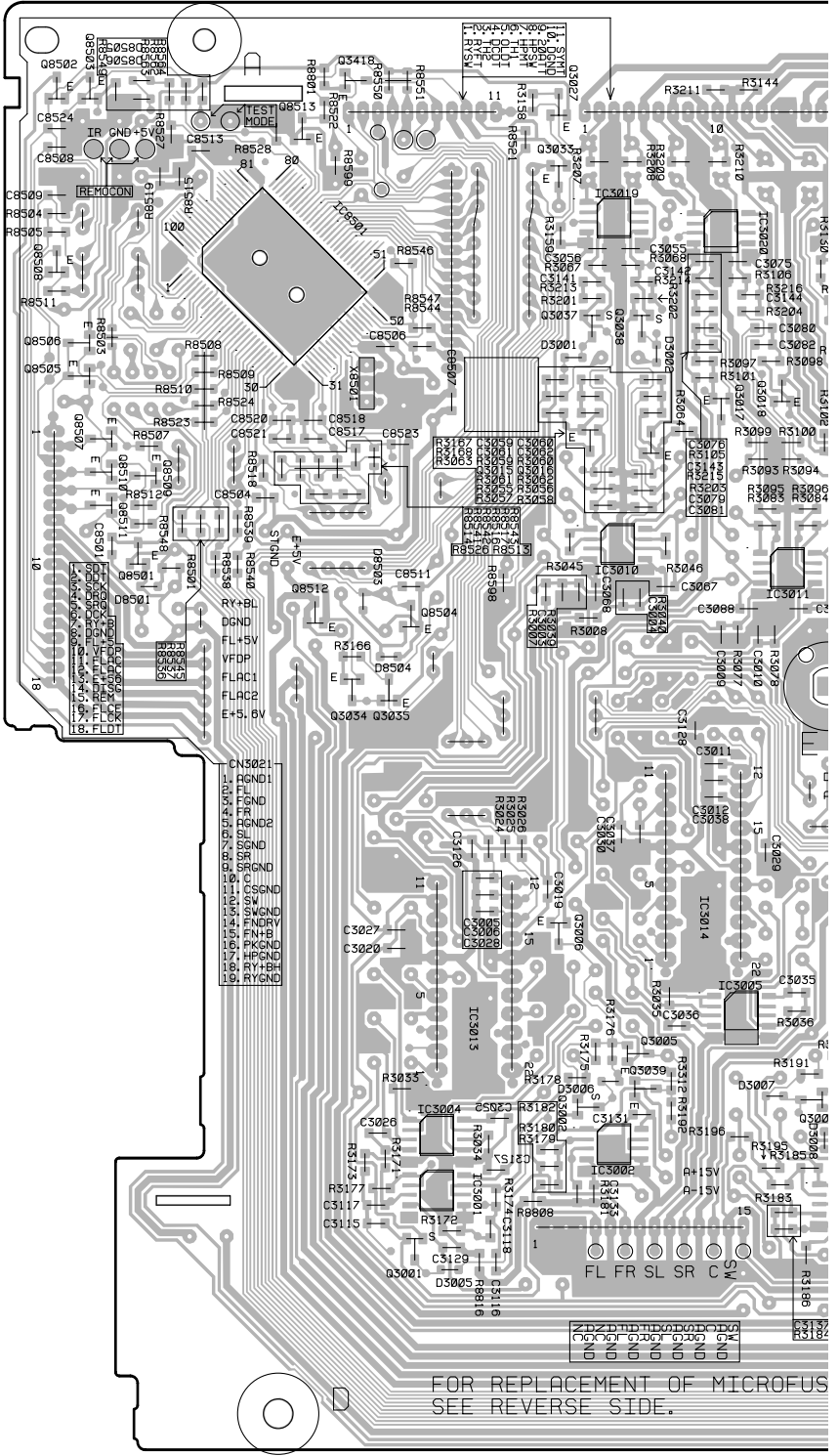
SIDE B

P IF ASSY



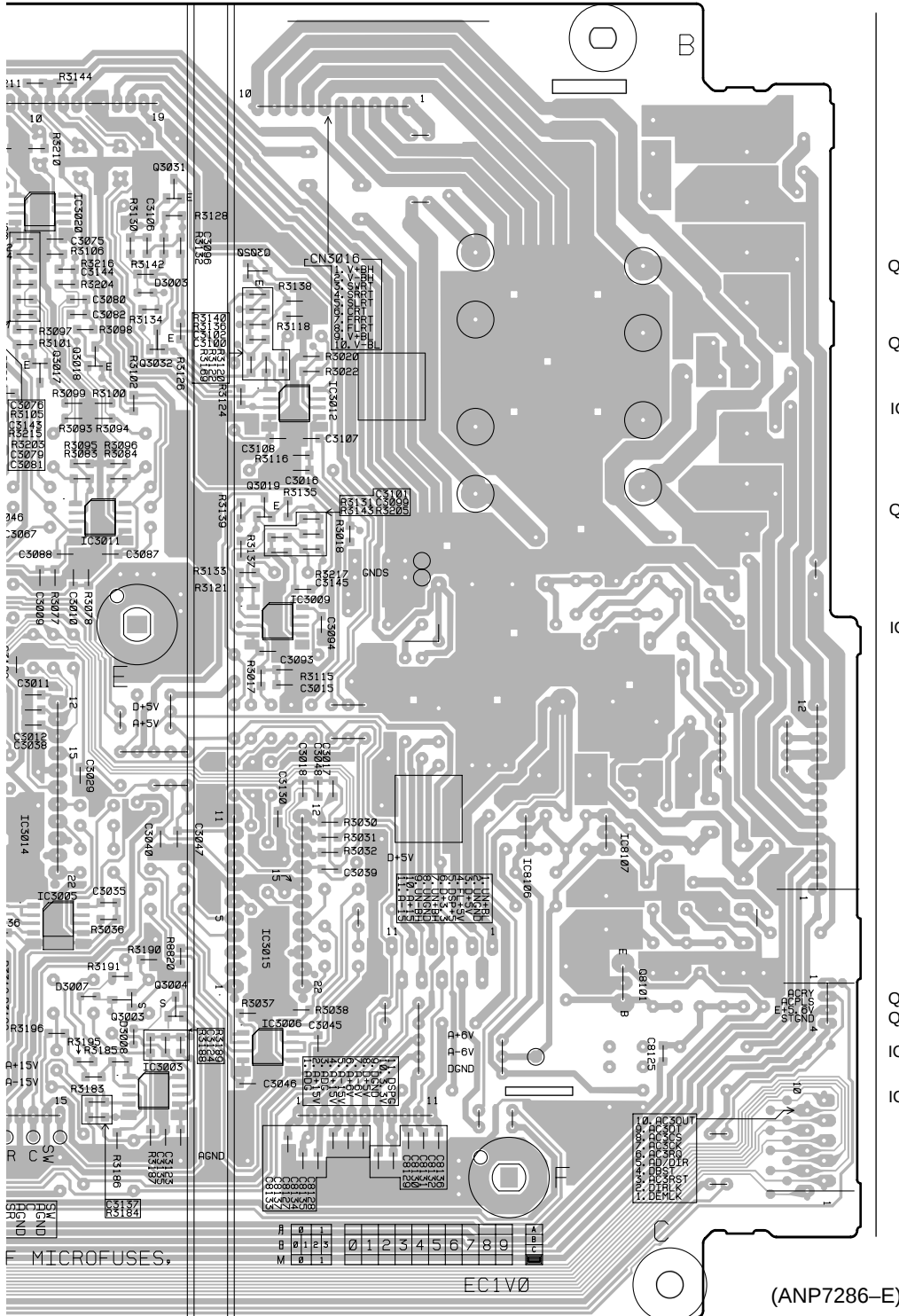
(ANP7285-D)

Q MAIN ASSY

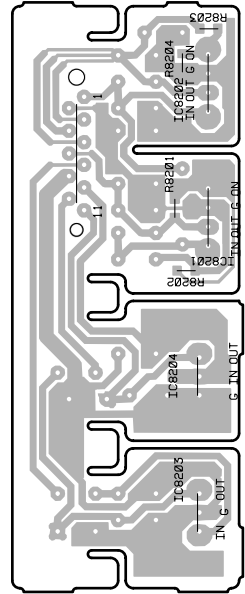


- Q8502
- Q8503
- Q3418
- Q8513
- Q3027
- Q3033
- IC3019
- IC3020
- Q8508
- IC8501
- Q3037
- Q3038
- Q3018
- Q3017
- Q8507
- Q3015
- Q3016
- Q8510
- Q8509
- Q8511
- IC3010
- IC3011
- Q8512
- Q8504
- Q3034
- Q3035
- Q3006
- IC3005
- Q3005
- Q3039
- Q3002
- IC3004
- IC3002
- IC3001
- Q3001

SIDE B



R REG (1) ASSY



(ANP7286-E)

Q3020

Q3032

IC3012

Q3019

IC3009

Q3003

Q3004

IC3006

IC3003

HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

4.2.2 DOLBY DIG 9624 ASSY

SIDE A

S DOLBY DIG 9624 ASSY

- This PCB is a four-layered board.
Middle layer is a mainly connected to Vcc and GND.

A

CN3019

B

CN3020

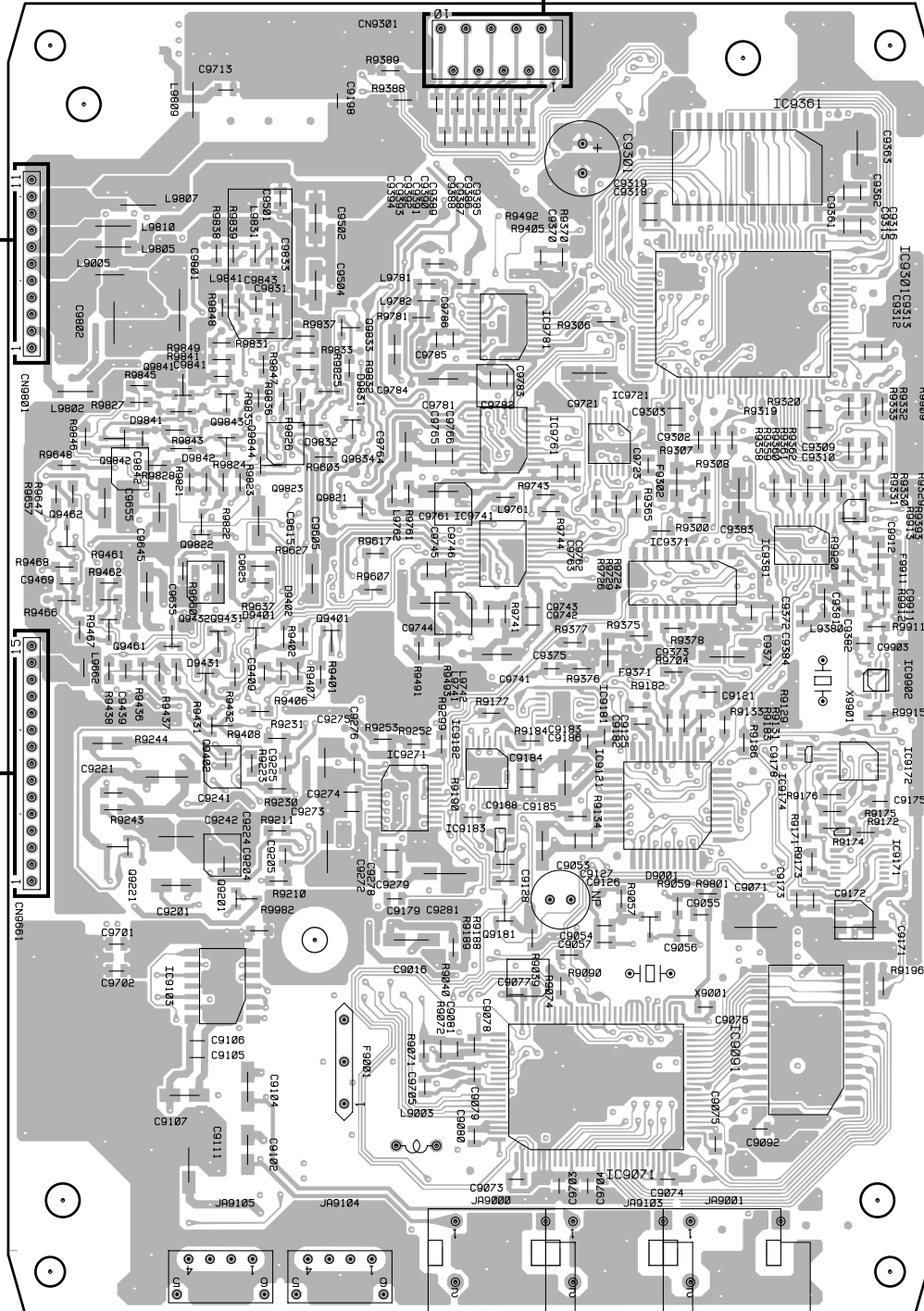
C

D

Q CN3018

P CN3025

(ANP7271-A)



IC9361

IC9781 IC9301
Q9833

Q9841
Q9843

Q9842 Q9834
Q9844 IC9721
Q9823

Q9822 Q9821
Q9462 IC9741 IC9381
IC9371

Q9432
Q9461 Q9401
Q9431

IC9902

Q9402 IC9181

IC9172
IC9182 IC9174
IC9271 IC9121

IC9183

Q9221 IC9171

Q9201 Q9181

IC9103

IC9091

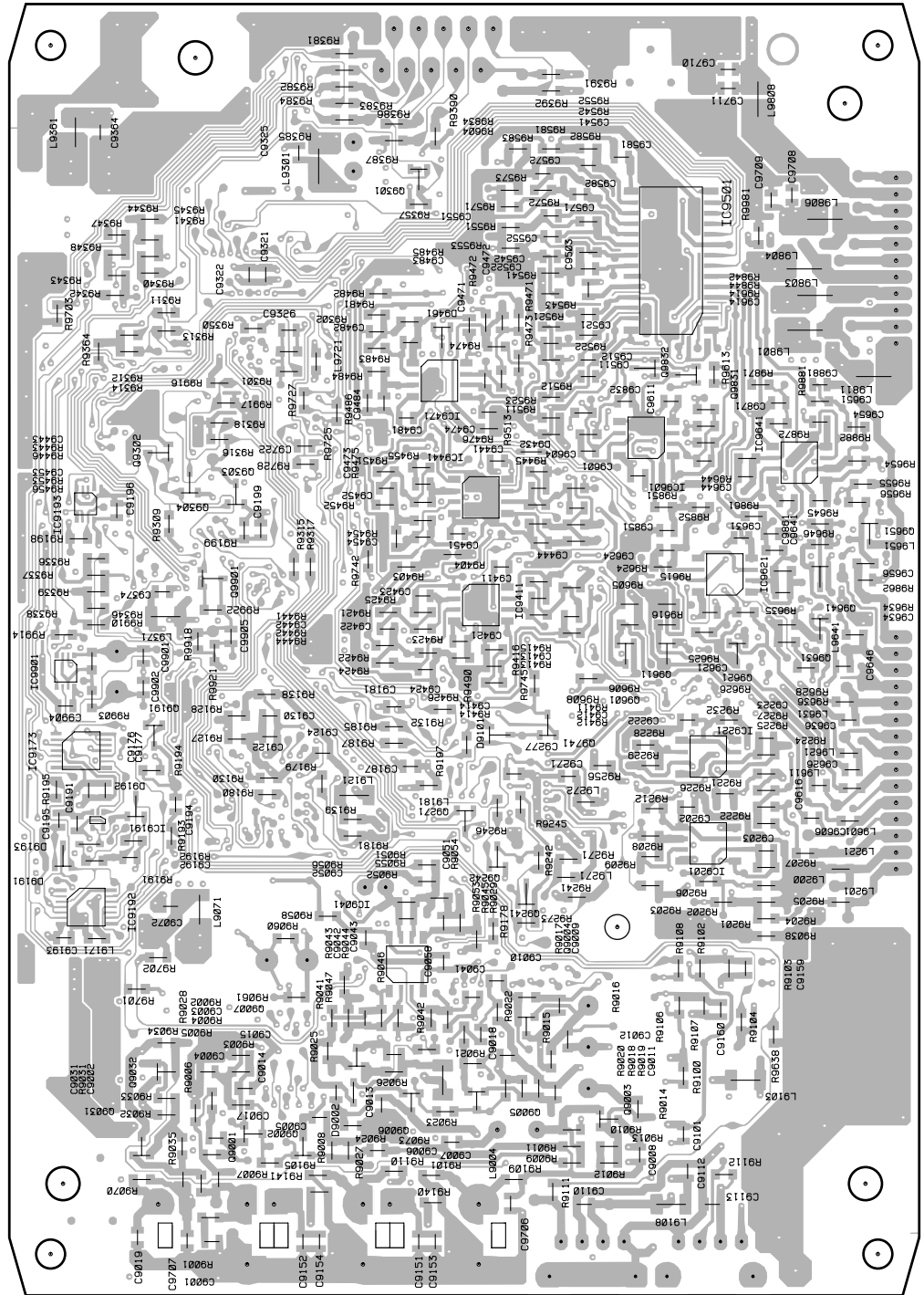
IC9071

SIDE B

S DOLBY DIG 9624 ASSY

- This PCB is a four-layered board.
Middle layer is a mainly connected to Vcc and GND.

Q9301
IC9501
Q9832
IC9471 Q9831
IC9601
IC9641
Q9302
Q9304
IC9193
IC9441
Q9651
IC9621
Q9641
IC9411
Q9601
IC9901
Q9631
Q9611
Q9621
Q9741
IC9221
IC9191
Q9271
Q9242
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Q9004
Q9007
Q9032
Q9005
Q9006
Q9001
Q9002
Q9031



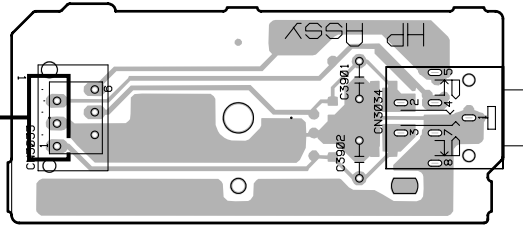
(ANP7271-A)

4.2.3 AMP ASSY, SWF ASSY and HP ASSY

SIDE A

A

U HP ASSY



(ANP7285-D)

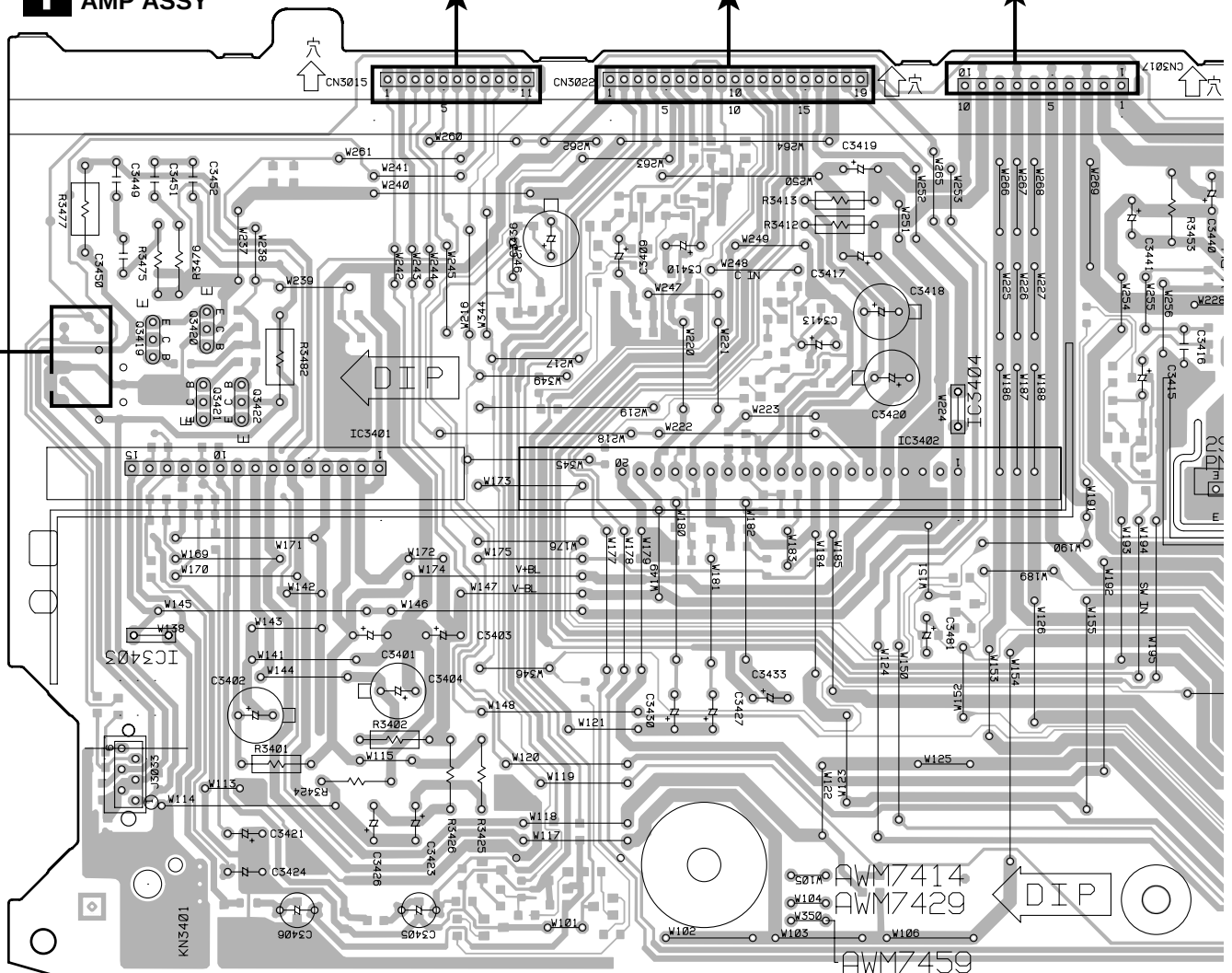
B

T AMP ASSY

Q CN3014

Q CN3021

Q CN3016



C

D

Q3419-Q3422 IC3401

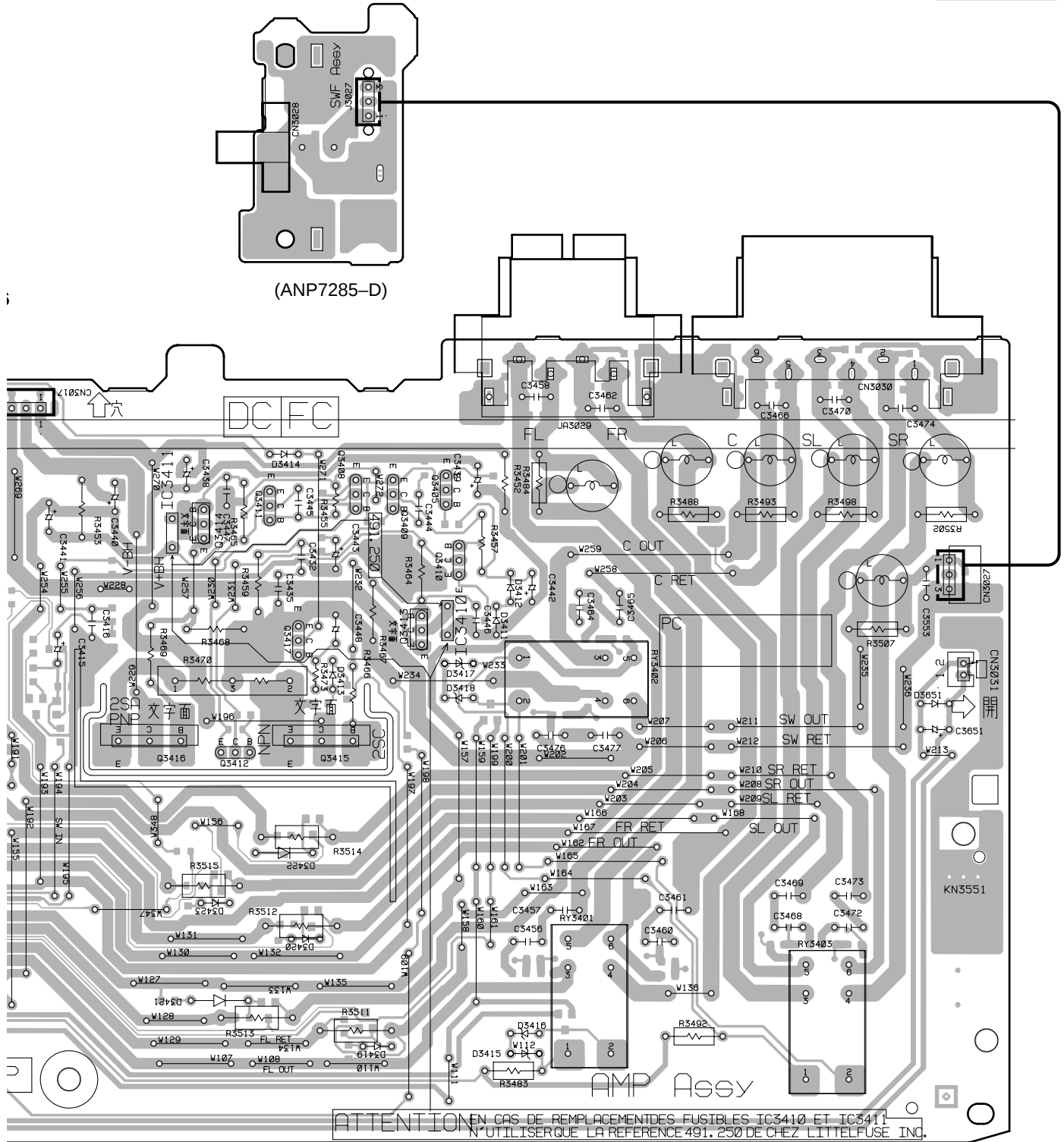
IC3402

IC3403

V SWF Assy

SIDE A

(ANP7285-D)



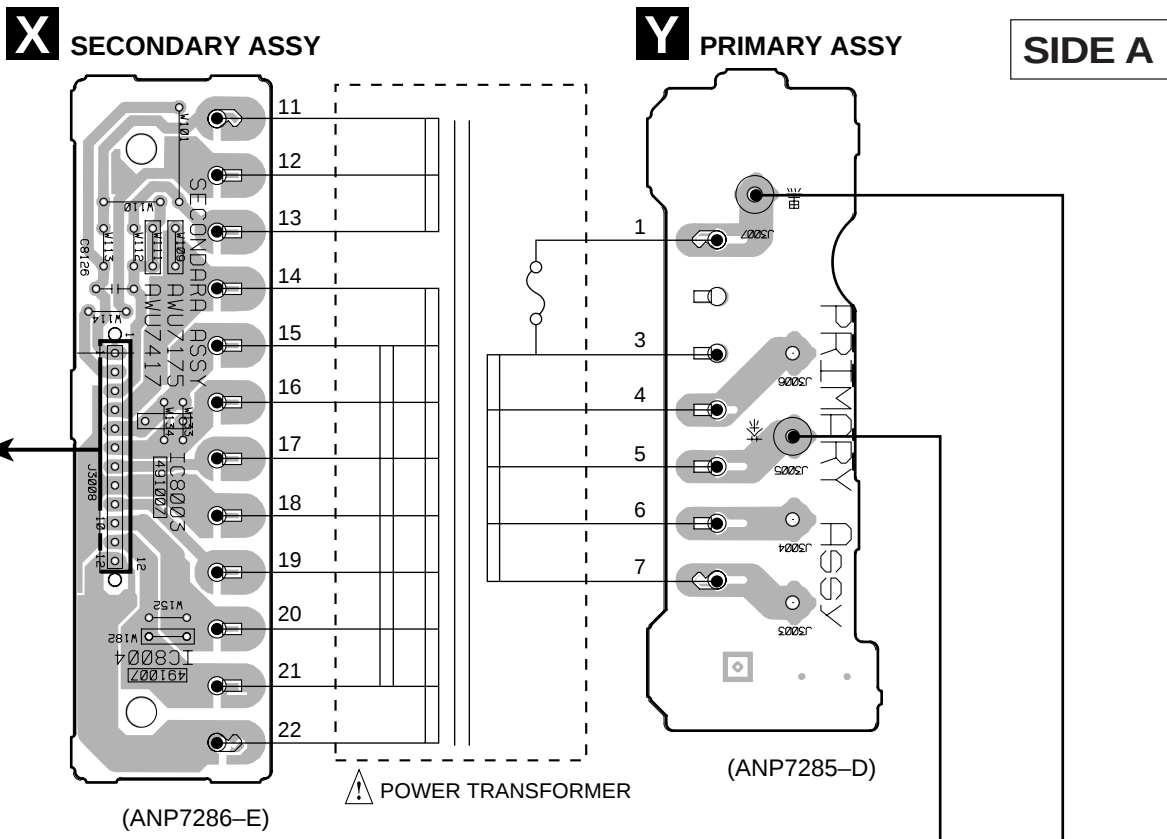
IC3411 Q3414 Q3411 Q3408 Q3409 Q3405

(ANP7285-D)

Q3416 Q3412 Q3415 Q3417 Q3413 Q3410 IC3410

4.2.4 POWER SUPPLY ASSY, SECONDARY ASSY and PRIMARY ASSY

A



B

C

D

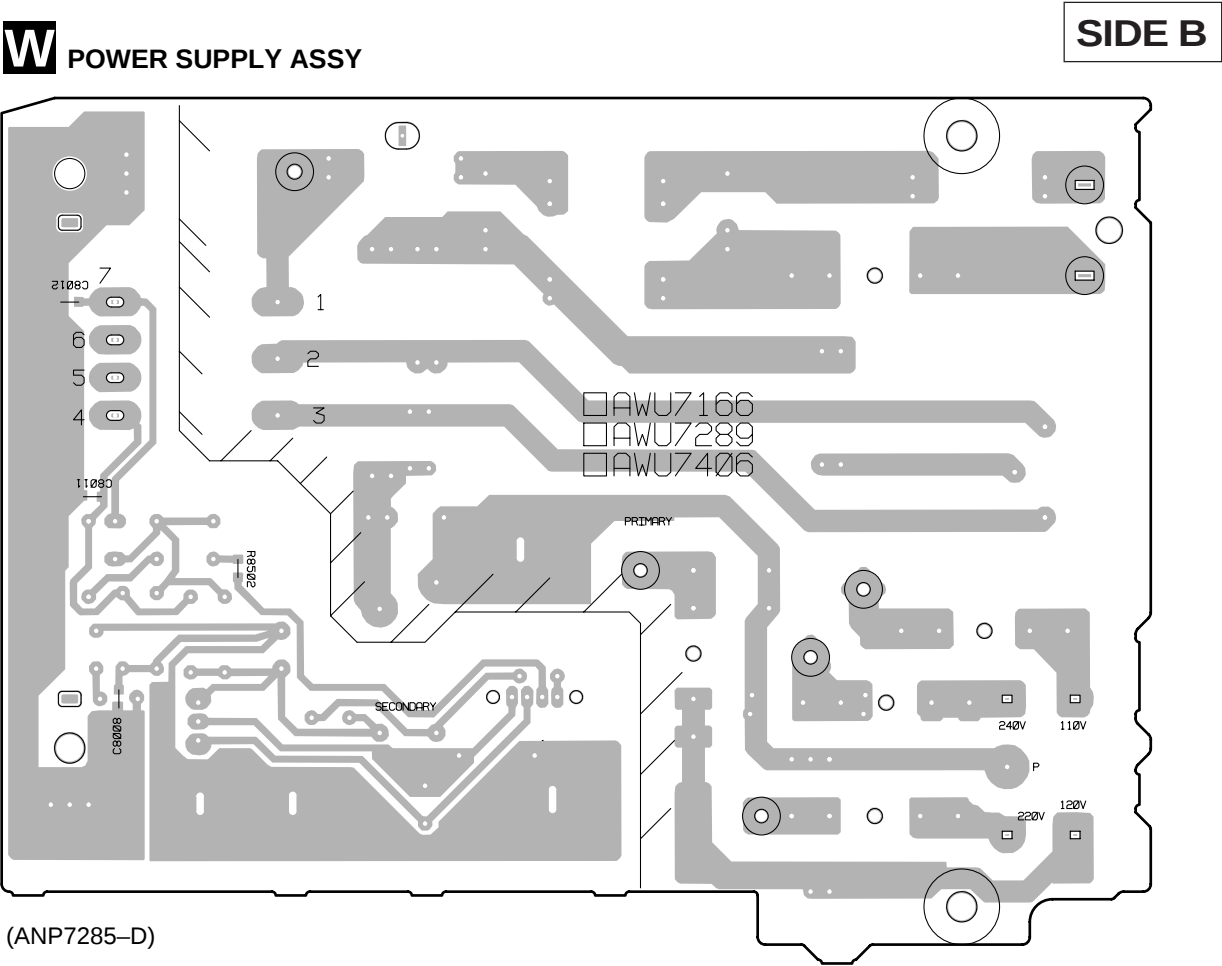
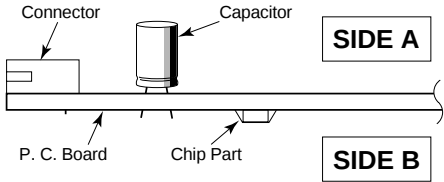
NOTE FOR PCB DIAGRAMS:

- 1. Part numbers in PCB diagrams match those in the schematic diagrams.
- 2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Resistor array
		3-terminal regulator

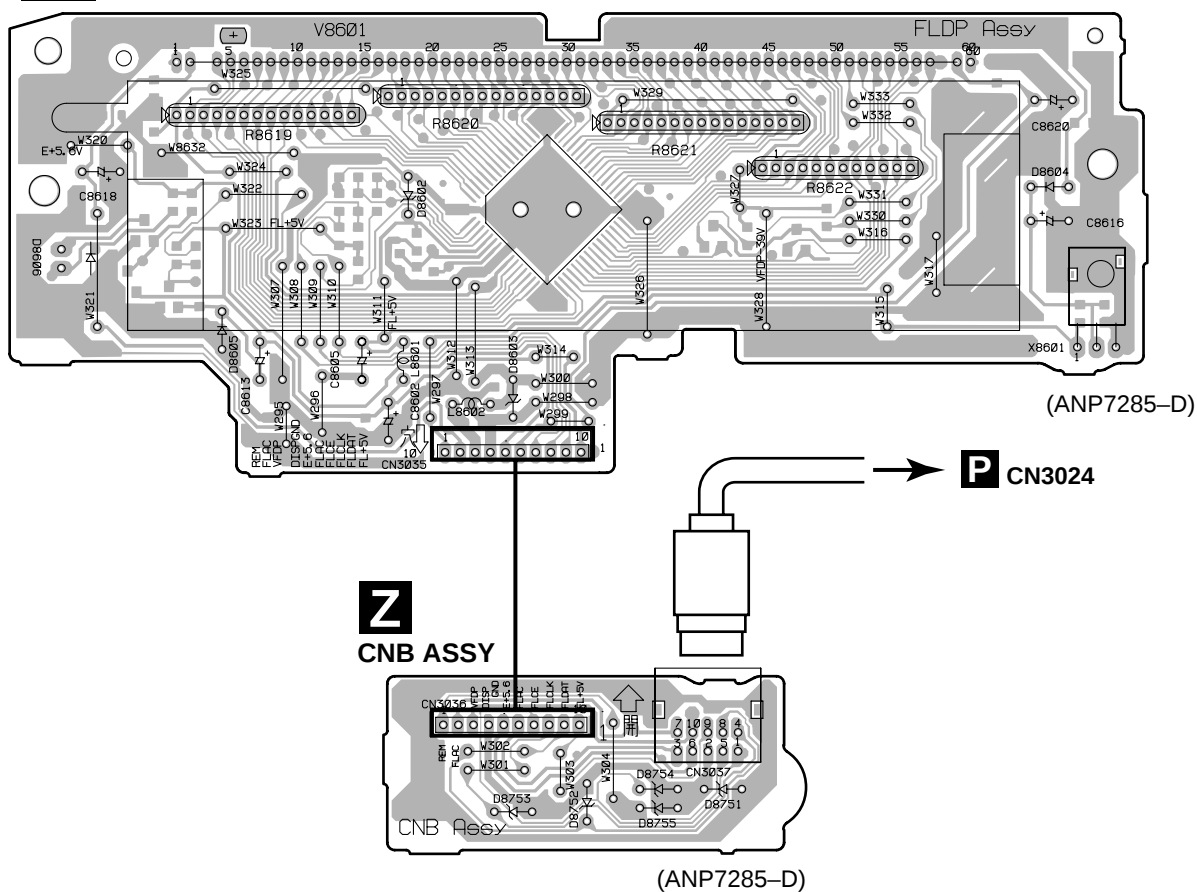
- 3. The parts mounted on this PCB include all necessary parts for several destination.
For further information for respective destinations, be sure to check with the schematic diagram.
- 4. Viewpoint of PCB diagrams



4.2.5 CNB ASSY and FLDP ASSY (DISPLAY UNIT)

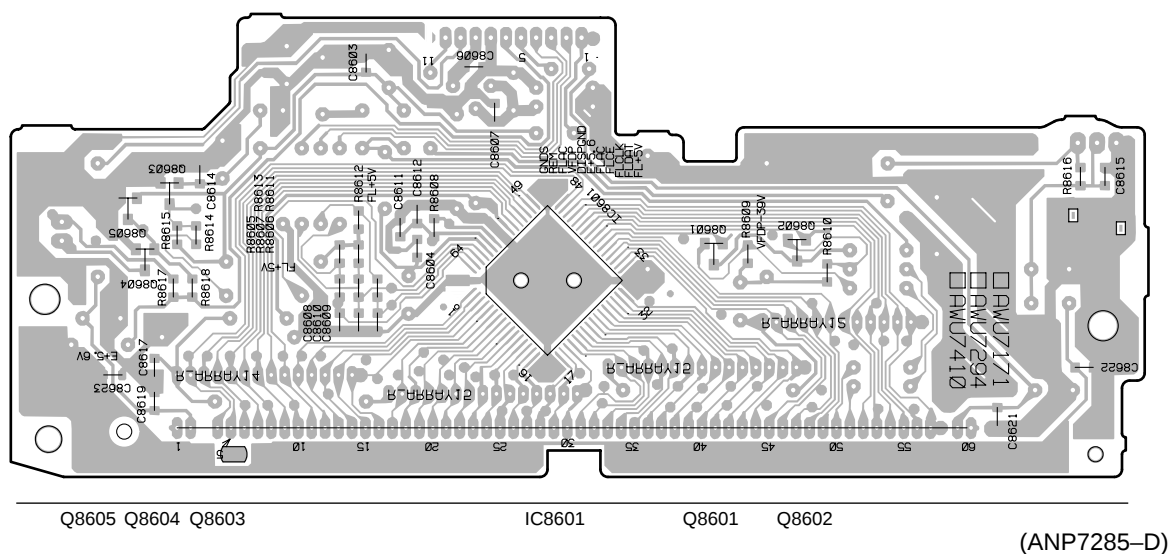
SIDE A

AA FLDP ASSY



AA FLDP ASSY

SIDE B



5. PCB PARTS LIST

NOTES : ● Parts marked by “NSP” are generally unavailable because they are not in our Master Spare Parts List.

- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560 Ω $\rightarrow$ $56 \times 10^1 \rightarrow$ 561 RD1/4PU $\begin{bmatrix} 5 & 6 & 1 \end{bmatrix}$ J

47k Ω $\rightarrow$ $47 \times 10^3 \rightarrow$ 473 RD1/4PU $\begin{bmatrix} 4 & 7 & 3 \end{bmatrix}$ J

0.5 Ω $\rightarrow$ R50 RN2H $\begin{bmatrix} R & 5 & 0 \end{bmatrix}$ K

1 Ω $\rightarrow$ 1R0 RS1P $\begin{bmatrix} 1 & R & 0 \end{bmatrix}$ K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω $\rightarrow$ $562 \times 10^1 \rightarrow$ 5621 RN1/4PC $\begin{bmatrix} 5 & 6 & 2 & 1 \end{bmatrix}$ F

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
5.1 DVD CENTER UNIT (HTZ-C7)							
LIST OF PCB ASSEMBLIES							
NSP	CVDB ASSY		AWM7457	IC7011			TC74HCU04AF
	└ SVIDEO ASSY		AWU7401	IC7007			TC7W74F
	└ VIDEO ASSY		AWU7402	IC7013-IC7015			TC7WU04F
				IC7008			TC9271F
				Q7003, Q7004, Q7501, Q7509			2SA1037K
NSP	CPCB ASSY		AWM7458	Q7502, Q7507, Q7508			2SC2412K
	└ FRONT (1) ASSY		AWU7163	Q7001, Q7002, Q7013-Q7016			2SD2114K
	└ FRONT (2) ASSY		AWU7164	Q7007, Q7017			DTA124EK
	└ LAMP ASSY		AWU7165	Q7019, Q7505, Q7506			DTA143EK
	└ MOTHER ASSY		AWU7403	Q7005, Q7006			DTC124EK
	└ POWER MAIN ASSY		AWU7404				
	└ POWER SUB ASSY		AWU7287	Q7503, Q7504			DTC143EK
	└ AC ASSY		AWU7405	D7501-D7505			1SS355
	FM/AM TUNER MODULE		AXQ7058	COILS AND FILTERS			
	DVDM ASSY		VWS1364	F7001, F7002			ATF7013
NSP	LOADING MECHANISM ASSY		VWT1147	F7501			DTF1069
NSP	└ LOAB ASSY		VWM1798	L7001-L7005, L7007, L7008, L7011			OTL1040
NSP	└ └ LOSB ASSY		VWG1885	(100 MHz)			
NSP	└ └ LOMB ASSY		VWG1886	L7014-L7019, L7022 (100 MHz)			OTL1040
	└ SERVO MECHANISM ASSY		VWT1148	L7023			PTL1003
NSP	└ └ SMEB ASSY		VWM1797	L7010			RTF1167
NSP	└ └ INSB ASSY		VWG1883	L7020, L7021			VTL1098
NSP	└ └ FGSB ASSY		VWG1884	CAPACITORS			
				C7012, C7013, C7085			CCSQCH101J50
				C7031, C7032			CCSQCH220J50
				C7047, C7509-C7511			CCSQCH221J50
				C7102			CCSQCH270J50
				C7044			CCSQCH271J50
				C7014-C7017, C7099, C7106, C7107			CCSQCH470J50
				C7098, C7103			CCSQCH560J50
				C7104			CCSQCH6R0D50
				C7096, C7097, C7101			CCSQCH7R0D50
				C7027, C7028, C7515, C7523			CEAT100M50
				C7008, C7010, C7040, C7042, C7053			CEAT101M10
				C7058, C7060, C7067, C7078, C7088			CEAT101M10
				C7039			CEAT221M6R3
				C7022, C7024-C7026, C7126, C7127			CEAT330M16
				C7513, C7517, C7527, C7534			CEAT330M16
	IC7006		AK5351-VF				
	IC7002, IC7004, IC7005		BA4558F-HT				
	IC7503		BU4053BCF				
	IC7003, IC7701		BU4094BCF				
	IC7501, IC7502		MM1112XF				
	IC7505		NJM2534M				
	IC7504		NJM2535M				
	IC7001		PD2026BM (L)				
	IC7017		TC74HC02AF				
	IC7010		TC74HC153AF				



SVIDEO ASSY

SEMICONDUCTORS

IC7006	AK5351-VF
IC7002, IC7004, IC7005	BA4558F-HT
IC7503	BU4053BCF
IC7003, IC7701	BU4094BCF
IC7501, IC7502	MM1112XF
IC7505	NJM2534M
IC7504	NJM2535M
IC7001	PD2026BM (L)
IC7017	TC74HC02AF
IC7010	TC74HC153AF

HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

Mark	No.	Description	Part No.
	C7501, C7505 C7003, C7050, C7530 C7704 C7129, C7708 C7061		CEAT470M16 CEAT471M6R3 CEJA4R7M35 CKSQYB102K50 CKSQYB103K50
	C7035, C7036 C7018, C7019 C7001, C7005, C7011, C7021, C7023 C7029, C7030, C7033, C7034 C7037, C7038, C7041, C7043, C7046		CKSQYB152K50 CKSQYB332K50 CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50
	C7051, C7052, C7057, C7059, C7068 C7079, C7080, C7082, C7086 C7089, C7090, C7093, C7095, C7105 C7110–C7112, C7118, C7119, C7125 C7512, C7516, C7518–C7521		CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50
	C7524–C7526, C7528, C7532, C7533 C7535, C7537 C7004, C7006, C7007, C7009, C7048 C7100, C7503, C7504, C7507, C7508 C7002, C7081, C7121–C7124		CKSQYF103Z50 CKSQYF103Z50 CKSQYF104Z25 CKSQYF104Z25 CKSQYF105Z16
	C7071, C7705 C7538 VC7001 (20 pF)		CKSQYF473Z50 CKSQYF474Z16 VCM-008

RESISTORS

R7066 (330 Ω)	ACN7054
R7001, R7002 (220 Ω)	DCN1093
R7057, R7058, R7109, R7110	RN1/10SE1002D
R7025–R7028	RN1/10SE4702D
Other Resistors	RS1/10S □□□J

OTHERS

CN7501	14P FFC CONNECTOR	9604S–14C
CN7005	17P FFC CONNECTOR	9604S–17C
7001, 7003	PIN JACK (1P)	AKB7035
CN7503	DIN SOCKET (4P ×2)	AKP7020
CN7504	DIN SOCKET (4P)	AKP7045
X7001	(16.9344 MHz)	ASS1073
CN7002	KR CONNECTOR	B4B–PH–K–S
JA7002	OPTICAL RECEIV MOD.	GP1F32R
JA7005	OPTICAL LINK OUT	GP1F32T
X7002	(18.432 MHz)	RSS1052
CN7004	14P FFC CONNECTOR	VKN1245
CN7502	17P FFC CONNECTOR	VKN1248
KN7001–KN7003, KN7501		VNF1084
	EARTH METAL FITTING	

VIDEO ASSY SEMICONDUCTORS

IC7801	MM1112XF
IC7802	NJM2535M
Q7803	2SA1037K
Q7801	2SC2412K
D7801, D7802, D7805	1SS355

SWITCHES AND RELAYS

S7801	VSH1020
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Mark	No.	Description	Part No.
		CAPACITORS	
	C7806, C7813 C7801, C7803 C7816 C7808, C7809 C7805, C7812, C7814, C7825, C7899		CEAT330M16 CEAT470M16 CEAT471M6R3 CEJA100M16 CKSQYF103Z50
	C7811 C7897		CKSQYF104Z25 CKSQYF474Z16

RESISTORS

All Resistors	RS1/10S □□□J
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OTHERS

CN7801	14P FFC CONNECTOR	9604S–14C
JA7802	PIN JACK (1P)	AKB7096
JA7801	PIN JACK (2P)	VKB1094
7801	PCB HOLDER (S)	VNE1952

M FRONT (1) ASSY SEMICONDUCTORS

Q5902	DTC143EK
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SWITCHES AND RELAYS

S5901–S5905	VSG1009
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RESISTORS

All Resistors	RS1/10S □□□J
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OTHERS

CN5901	7P FFC CONNECTOR	52044–0745
J5903	3P JUMPER WIRE	D20PWW0310E
J5902	4P JUMPER WIRE	D20PWW0420E

N FRONT (2) ASSY SEMICONDUCTORS

D5901	SLP9118C51H
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SWITCHES AND RELAYS

S5906–S5908, S5910	VSG1009
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RESISTORS

All Resistors	RS1/10S □□□J
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O LAMP ASSY SEMICONDUCTORS

Q5903	DTD113ES
D5903	1SS254

OTHERS

PL5901	LAMP (DVD)	VEL1022
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Mark	No.	Description	Part No.
I	MOTHER ASSY		
	SEMICONDUCTORS		
	IC5002		BA4558F-HT
	IC5701		BU1923F
	IC5004		BU4066BCF
	IC5501		PDG251A
	IC5601		TC7W04F
	IC5001		TC9164AF
	Q5505		2SA1037K
	Q5003, Q5004, Q5512, Q5513		2SC2412K
	Q5603, Q5604		2SC2412K
	Q5007-Q5009		2SD2114K
	Q5507, Q5510, Q5601		DTA124EK
	Q5504		DTA143EK
	Q5501-Q5503, Q5508, Q5509, Q5511		DTC124EK
	Q5602		DTC124EK
	D5502		11EQS06
	D5001, D5002, D5005, D5503, D5506		1SS254
	D5508, D5601, D5608, D5622, D5636		1SS254
	D5003, D5509, D5616, D5617		1SS355
	D5632, D5633, D5637, D5638		1SS355
	D5629, D5630		MTZJ5.1B/C
	D5602-D5607, D5619, D5620		MTZJ8.2B
	D5635		UDZS8.2B
	COILS AND FILTERS		
	L5501		LAU220J
	L5601		LAU2R2J
	CAPACITORS		
	C5520 (1F/16V)		ACH1246
	C5001-C5008, C5043-C5055		CCSQCH101J50
	C5057, C5058, C5502-C5504, C5507		CCSQCH221J50
	C5514, C5517, C5615, C5616		CCSQCH221J50
	C5704, C5705		CCSQCH270J50
	C5707		CCSQCH271J50
	C5011, C5012		CCSQCH330J50
	C5534-C5537		CCSQCH471J50
	C5706		CCSQCH561J50
	C5708		CEAT100M50
	C5510, C5605-C5607		CEAT101M10
	C5029, C5524		CEAT1R0M50
	C5032, C5522		CEAT220M25
	C5009, C5010		CEAT2R2M50
	C5033, C5034, C5702		CEAT330M16
	C5015, C5016		CEAT470M10
	C5056, C5501, C5511, C5519, C5525		CKSQYB102K50
	C5528, C5531-C5533, C5538, C5601		CKSQYB102K50
	C5622		CKSQYB102K50
	C5013, C5014, C5037-C5042		CKSQYF103Z50
	C5508, C5509, C5512, C5515, C5518		CKSQYF103Z50
	C5529, C5530, C5604, C5611-C5614		CKSQYF103Z50
	C5617, C5703		CKSQYF103Z50
	C5516		CKSQYF104Z50
	C5023, C5513, C5521, C5523, C5527		CKSQYF473Z50
	C5602		CKSQYF473Z50

Mark	No.	Description	Part No.
	RESISTORS		
	R5801		RA4T103J
	R5803		RA5T103J
	R5053, R5056		RD1/2VM431J
	R5522		RS1/10S1801F
	Other Resistors		RS1/10S□□□J
	OTHERS		
	CN5505	7P FFC CONNECTOR	52492-0720
	CN5503	17P FFC CONNECTOR	9604S-17C
	JA5508	PIN JACK (2P)	AKB7107
	JA5507, JA5509	PIN JACK (4P)	AKB7108
	CN5509	10P MINI DIN SOCKET	AKP7031
	X5701		ASS7004
	X5501	(16 MHz)	ASS7020
	CN5504	14P PLUG	KM200IA14
	JA5510	REMOTE CONTROL JACK	RKN1004
	CN5508	KR CONNECTOR	S2B-PH-K-S
	CN5506, CN5507		VKN1211
		7P FFC CONNECTOR	
	CN5501	12P FFC CONNECTOR	VKN1216
	CN5502	14P FFC CONNECTOR	VKN1274

J POWER MAIN ASSY

	SEMICONDUCTORS		
⚠	IC11 (4A/125V)		AEK7018
⚠	IC18 (200mA/125V)		AEK7023
⚠	IC14		NJM78M56FA
	Q17, Q19, Q25		2SA1037K
	Q16, Q18, Q24		2SC2412K
⚠	Q20		2SD2395
	Q11		DTC114EK
	D1		1SS254
⚠	D13		D2SBA20 (B)
⚠	D11, D12		D3SBA20 (B)
	D14, D16, D18		MTZJ15A
	D17		MTZJ8.2B
	SWITCHES AND RELAYS		
⚠	RY1		RSR1037
	CAPACITORS		
	C15, C19, C82, C83		CEAT101M10
	C27, C70		CEAT101M16
⚠	C12		CEAT103M10
	C30		CEAT221M16
	C14		CEAT331M25
⚠	C13		CEAT682M25
	C24, C29		CEJA101M10
	C51, C52		CFTLA223J50
	C16, C20, C23, C26, C28		CKSQYF103Z50
	C53, C55, C56		CKSQYF103Z50
	C99		CKSQYF105Z16
	C50		CQMA223K2E
⚠	C11 (6800 μF/16V)		VCH1060

HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

Mark	No.	Description	Part No.
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RESISTORS

Other Resistors	RS1/10S □□□J
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OTHERS

⚠ 11	CABLE HOLDER (13P) SCREW	51063-1305 BBZ30P080FCC
J12	JUMPER WIRE	D15A13-125-2651
CN11	12P FFC CONNECTOR	VKN1188
KN1, KN11	EARTH METAL FITTING	VNF1084

K POWER SUB ASSY

SEMICONDUCTORS

⚠ IC17 (500mA/125V)	AEK7005
⚠ IC16 (1A/125V)	AEK7009
⚠ Q13, Q15, Q21, Q23	2SB1566
Q12, Q22	2SC2412K

RESISTORS

All Resistors	RS1/10S □□□J
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OTHERS

⚠ 12	CABLE HOLDER (13P)	51063-1305
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L AC ASSY

COILS AND FILTERS

⚠ L1	ATF-151
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CAPACITORS

⚠ C1, C2 (0.01 μF/250V)	ACG7010
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OTHERS

⚠ AN1	POWER SOCKET	BKP1046
H1, H2	FUSE CLIP	AKR1003
J1	LEAD WIRE UNIT	DB415NB2

F FM/AM TUNER MODULE

SEMICONDUCTORS

IC6201	LA1832ML
IC6202	LC72131MD
Q6102	2SC2223
Q6203	2SC2705
Q6201, Q6202	2SC2712
Q6103, Q6214, Q6601	2SC2714
Q6104, Q6105	2SK302
Q6101	3SK194
Q6204	DTA124ES
Q6205	DTC124EK
D6202	1SS254
D6101-D6104	1SV228

Mark	No.	Description	Part No.
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COILS AND FILTERS

L6106	ATC1003
L6105	ATC1015
L6101	ATC1016
L6102	ATC1017
L6103	ATC1018

L6104	ATC1019
F6203	ATF-119
F6206	ATF7008
F6601	ATF7009
F6204	ATF7010

F6202 (455kHz)	ATF7011
L6107 (2.2μH)	ATH1043
L6603	LAU220J
L6206, L6208, L6605	LAU2R2J

T6201	ATB7008
T6101	ATE7002

CAPACITORS

C6113, C6212, C6274, C6275, C6611	CCSQCH101J50
C6116, C6208, C6221	CCSQCH150J50
C6222	CCSQCH180J50
C6271	CCSQCH200J50
C6117	CCSQCH330J50

C6608	CCSQCH680J50
C6118	CCSQCH8R0D50
C6111, C6122	CCSQCK1R0C50
C6112, C6127	CCSQCK2R0C50
C6105	CCSQSL471J50

C6101	CCSQTH110J50
C6119	CCSQTH150J50
C6109	CCSQTH270J50
C6107, C6110	CCSQTH300J50
C6106	CCSQTH330J50

C6234, C6235	CEAL1R0M50
C6245	CEAL470M16
C6224	CEAS100M50
C6243	CEAS101M16
C6231	CEAS1R0M50

C6227	CEAS220M16
C6236	CEAS2R2M50
C6216	CEAS330M16
C6262	CEAS3R3M50
C6219	CEAS470M10

C6244	CEAS470M16
C6249, C6250, C6265, C6266	CEAS4R7M50
C6258	CEJA470M16
C6215	CFTLA103J50
C6214	CFTLA224J50

C6115, C6125, C6126, C6211, C6254	CKSQYB102K50
C6601	CKSQYB102K50
C6102, C6114, C6121, C6123, C6124	CKSQYB103K50
C6210, C6213, C6237, C6267, C6276	CKSQYB103K50
C6279, C6281, C6604	CKSQYB103K50

Mark	No.	Description	Part No.
	C6251, C6252		CKSQYB123K50
	C6606, C6607		CKSQYB182K50
	C6203, C6259		CKSQYB223K50
	C6228		CKSQYB472K50
	C6209		CKSQYB473K50
	C6230		CKSQYB821K50
	C6218, C6223, C6255		CKSQYF103Z50
	C6220, C6226, C6242, C6256		CKSQYF223Z50
	C6225		CKSQYF473Z50
	C6610		CKSYB103K50

RESISTORS

R6602	RD1/4PU221J
R6115, R6119, R6123, R6127, R6129	RS1/8S0R0J
R6906, R6909, R6911	RS1/8S0R0J
R6112	RS1/8S473J
VR6201 (10kΩ)	RCP1045
Other Resistors	RS1/10S□□□ J

OTHERS

BN6202 2P TERMINAL WITH PAL	AKA7001
X6202 (456 kHz)	ASS1066
X6201 (7.2000 MHz)	ASS1093
CN6201 14P SOCKET	KP2001A14L

DVD M ASSY SEMICONDUCTORS

IC171	BA10393F
IC161	BA6195FP
IC151	BA6797FP
IC813	CY2081SL-611
IC503	HD74HC573FP
IC702	HM514800CJ-7
IC101	LA9700M
IC201	LC78650NE
IC802	MB811171622A-100FN
IC801	MB86371C
IC815, IC816	MC14577CF
IC271, IC302	NJM2100M
IC203	NJM2107F
IC601	PD3381A
IC701	PD4833A
IC501	PD4889A
IC502	SRM2B256SLMX70
IC401	TA78M08F
IC202, IC204, IC206	TC4W53F
IC604	TC551001BFL-85
IC804	TC74HCT541AF
IC303	TC74HCU04AF
IC807, IC808	TC74LCX245FT
IC821	TC74VHC00FT
IC814, IC820	TC74VHC02FT
IC505, IC605	TC74VHC139FT
IC504	TC74VHC20FT
IC805, IC806, IC809	TC74VHC541FT
IC506	TC74VHCT245AFT
IC817	TC74VHCT541AFT

Mark	No.	Description	Part No.
	IC811, IC818, IC819		TC7SHU04F
	IC810		TC7WU04F
	IC301		TLC5540INS
	IC603		VKH1012
	IC6003		VYW1632
△	Q401		2SB1260
	Q108		HN1K03FU
	Q455, Q831, Q832, Q851, Q852		IMT1A
	Q871, Q872		IMT1A
	Q103, Q402, Q873		IMX1
	Q102, Q104, Q291, Q301		IMZ1A
	Q106, Q603		PDTA114EK
	Q107, Q109, Q261, Q602		PDTC114EK
	Q601, Q771, Q772		PDTC114TK
	D301		KV1410
	D171, D172		MA152WK
	D601		RB501V-40

COILS AND FILTERS

F771, F778, F779	DTF1067
L941, L942, L945, L946	QTL1011
F896	VTF1077
F801 (6.0 MHz)	VTF1098
F401-F406 (4700 pF)	VTH1037
L301 (1.5 mH)	VTL1059
L101, L302 (10 mH)	VTL1061
L802, L803 (22 mH)	VTL1067
L335, L340, L342	VTL1074
L777, L780-L787, L895	VTL1075
L897-L899	VTL1075

CAPACITORS

C623	CCSRCH100D50
C152, C208, C291, C612, C613	CCSRCH101J50
C700, C735, C737, C739	CCSRCH101J50
C897, C898	CCSRCH101J50
C111, C139, C215, C231, C232	CCSRCH151J50
C248	CCSRCH151J50
C125, C148, C329	CCSRCH180J50
C112, C118	CCSRCH220J50
C121, C130, C199, C319, C324	CCSRCH330J50
C120	CCSRCH331J50
C310, C323, C327	CCSRCH470J50
C230	CCSRCH471J50
C126, C331, C838	CCSRCH560J50
C127, C330, C863, C873, C882	CCSRCH5R0C50
C160	CCSRCH680J50
C401	CEV101M10
C101, C104, C201, C325, C601	CEV101M6R3
C701, C704, C706, C801	CEV101M6R3
C803, C804, C813-C815, C826	CEV101M6R3
C123, C158, C264, C412, C414	CEV220M16
C835, C895	CEV221M4
C131, C135, C205, C206, C301	CEV470M6R3
C303, C404, C406, C408, C410	CEV470M6R3
C501, C504, C832, C836, C841	CEV470M6R3
C887	CEV470M6R3

HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

Mark	No.	Description	Part No.
	C211		CKSQYB104K25
	C109, C124, C216, C220, C229		CKSQYB105K10
	C234, C261, C275, C308, C326		CKSQYB105K10
	C332, C333, C730, C731		CKSQYB105K10
	C818, C823, C828		CKSQYF105Z16
	C213, C292, C309, C321		CKSRYB102K50
	C105, C106, C108, C146, C147		CKSRYB103K50
	C151, C154–C157, C161, C207		CKSRYB103K50
	C217, C221, C247, C263, C265		CKSRYB103K50
	C276, C318, C320, C620, C705		CKSRYB103K50
	C722, C772, C859		CKSRYB103K50
	C143, C162–C165, C223, C224		CKSRYB104K16
	C242, C273, C274, C311, C312		CKSRYB104K16
	C315		CKSRYB104K16
	C141		CKSRYB222K50
	C328		CKSRYB223K25
	C262, C271		CKSRYB472K50
	C122		CKSRYB473K16
	C102, C103, C113, C129		CKSRYF104Z16
	C132–C134, C136, C137, C159		CKSRYF104Z16
	C166, C191, C202–C204, C209		CKSRYF104Z16
	C214, C218, C219, C222		CKSRYF104Z16
	C226–C228, C235, C237, C241		CKSRYF104Z16
	C246, C302, C304, C305, C317		CKSRYF104Z16
	C322, C402, C403, C405, C407		CKSRYF104Z16
	C409, C411, C413, C415		CKSRYF104Z16
	C502, C503, C505–C509		CKSRYF104Z16
	C602–C605, C608–C611		CKSRYF104Z16
	C614, C615, C617, C621, C622		CKSRYF104Z16
	C702, C703, C707–C721		CKSRYF104Z16
	C732–C734, C736, C738		CKSRYF104Z16
	C740–C742, C771, C791, C800		CKSRYF104Z16
	C802, C805–C812, C816, C817		CKSRYF104Z16
	C819–C822, C824, C825, C827		CKSRYF104Z16
	C829, C830, C833, C834, C837		CKSRYF104Z16
	C839, C840, C842–C848		CKSRYF104Z16
	C861, C862, C867, C871, C872		CKSRYF104Z16
	C876, C878, C881, C883		CKSRYF104Z16
	C888–C890		CKSRYF104Z16
	C852, C855, C857, C858 (2.2 μ F/6.3V)		VCG1030
	C922–C924 (2.2 μ F/6.3V)		VCG1030
	VC301 (40 pF)		VCM1010

RESISTORS

R752	RA4C101J
R507, R508, R624, R628, R633	RA4C103J
R703, R704, R717, R718	RA4C103J
R745, R746, R761, R762, R792	RA4C103J
R812, R813	RA4C103J
R137, R501, R502, R505, R506	RA4C220J
R604–R607, R712, R713, R719	RA4C220J
R724, R748, R749, R791	RA4C220J
R802, R803, R808	RA4C220J
R602, R603, R610, R613, R618	RA4C470J

Mark	No.	Description	Part No.
	R100, R101, R11–R14, R141		RS1/10S0R0J
	R15–R17, R171, R18		RS1/10S0R0J
	R201–R203, R266, R300, R319		RS1/10S0R0J
	R333, R411–R413, R701		RS1/10S0R0J
	R775, R776, R891, R893		RS1/10S0R0J
	R920, R921, R935, R936		RS1/10S0R0J
	R205		RS1/10S101J
	R835, R839, R855, R859, R875		RS1/16S1001F
	R881		RS1/16S1001F
	R834, R854, R874		RS1/16S1201F
	R823–R825		RS1/16S1500F
	R117, R118		RS1/16S1501F
	R126		RS1/16S1502F
	R241, R247		RS1/16S2202F
	R110, R153, R155, R173, R174		RS1/16S2702F
	R213, R228, R229, R248		RS1/16S2702F
	R152, R156, R158–R164		RS1/16S4702F
	R167–R170, R172, R175, R194		RS1/16S4702F
	R227		RS1/16S4702F
	R836, R856, R879		RS1/16S5600F
	VR801 (1 k Ω)		VCP1125
	Other Resistors		RS1/16S□□□J

OTHERS

CN101	PH CONNECTOR	S14B–PH–SM3
CN801	PH CONNECTOR	S4B–PH–SM3
	FLEXIBLE CABLE 7P	VDA1681
TP100, TP200, TP300, TP400	CHECKER CHIP	VKF1001
CN201	B TO B CONNECTOR 14P	VKN1324
CN106	7P FFC CONNECTOR	VKN1411
CN107	12P FFC CONNECTOR	VKN1416
CN105, CN803	14P FFC CONNECTOR	VKN1418
CN802	17P FFC CONNECTOR	VKN1421
CN102	20P FFC CONNECTOR	VKN1445
KN1–KN3	EARTH METAL FITTING	VNF1109
	LABEL	VRW1634
X602	(20.00MHz)	VSS1114
X501	(10.00MHz)	VSS1115

C INSB ASSY

SWITCHES AND RELAYS

S201	DSG1017
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OTHERS

CN201	KR CONNECTOR POST	B3B–PH–K–S
	PCB BINDER	DEF1012
CN202	FFC CONNECTOR 8P	VKN1239

Mark	No.	Description	Part No.
D		FGSB ASSY	
		SEMICONDUCTORS	
	PC101		GP2S27 (B)
		RESISTOR	
	R101		RS1/10S681J
		OTHERS	
	CN101	KR CONNECTOR 3P	B3B-PH-K-S
B		LOSB ASSY	
		SWITCHES AND RELAYS	
	S301	REAF SWITCH	VSK1011
		OTHERS	
	CN303	KR CONNECTOR	B2B-PH-K-S
	CN302	FFC CONNECTOR 8P	VKN1268
	CN301	FFC CONNECTOR 12P	VKN1272
A		LOMB ASSY	
		OTHERS	
	CN401	KR CONNECTOR	B2B-PH-K-S

Mark	No.	Description	Part No.
		5.2 POWERED SUBWOOFER (HTZ-SW7)	
		LIST OF PCB ASSEMBLIES	
NSP	SPAB ASSY		AWM7459
	└ CNB ASSY		AWU7172
	└ POWER SUPPLY ASSY		AWU7406
	└ AMP ASSY		AWU7407
	└ PRIMARY ASSY		AWU7418
	└ SWF ASSY		AWU7408
	└ IF ASSY		AWU7293
	└ FLDP ASSY		AWU7410
	└ HP ASSY		AWU7409
NSP	SMCB ASSY		AWM7460
	└ SECONDARY ASSY		AWU7417
	└ REG (1) ASSY		AWU7176
	└ MAIN ASSY		AWU7364
		DOLBY DIG 9624 ASSY	AWX7271

Z		CNB ASSY	
		SEMICONDUCTORS	
	D8751		MTZJ2.0A
	D8752-D8755		MTZJ8.2B
		OTHERS	
	CN3037	10P MINI DIN SOCKET	AKP7015
	CN3036	10P PLUG	KM200TA10

W		POWER SUPPLY ASSY	
		SEMICONDUCTORS	
	⚠ IC8001 (315mA/125V)		AEK7003
	⚠ IC8002		NJM78M56FA
	D8005		1SS254
	⚠ D8001-D8004		S5688G
		COILS AND FILTERS	
	⚠ L8001		ATF1006
		SWITCHES AND RELAYS	
	⚠ RY8001		ASR7018
		CAPACITORS	
	⚠ C8001-C8003 (0.01 μF/250V)		ACG7010
	C8005		CEAT102M16
	C8503		CEAT1R0M50
	C8006		CEAT330M16
	C8004		CQMBA103J50
		RESISTOR	
	R8502		RS1/10S102J
		OTHERS	
	H8001, H8002	FUSE CLIP	AKR1003
	3002	4P CABLE HOLDER	51048-0400
	⚠ AN3001	POWER SOCKET	BKP1046
	⚠ T8002	POWER TRANSFORMER	ATT7027
	J3002	JUMPER WIRE 4P	D20PYY0425E

HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

Mark	No.	Description	Part No.
T AMP ASSY			
SEMICONDUCTORS			
⚠	IC3410, IC3411 (250mA/125V)	AEK7002	
⚠	IC3401	STK407-040	
⚠	IC3402	STK407-240	
	Q3425–Q3429	2SA1037K	
	Q3410	2SA1145	
	Q3414	2SA1837	
⚠	Q3416	2SA1941(P)	
	Q3405	2SA933S	
	Q3408, Q3409	2SA970	
	Q3412	2SC1740S	
	Q3417	2SC2240	
	Q3406, Q3407, Q3430	2SC2412K	
	Q3411	2SC2705	
	Q3419–Q3422	2SC2878	
	Q3413	2SC4793	
⚠	Q3415	2SC5198(P)	
	Q3021–Q3032	2SD2114K	
	Q3423, Q3424	DTC143EK	
	D3411–D3414, D3419–D3423	1SS254	
	D3012–D3019	1SS355	
	D3416, D3418	MTZJ24B	
COILS AND FILTERS			
	L3401–L3406 (5.3 μH)	ATH-059	
SWITCHES AND RELAYS			
	RY3401-RY3403	ASR7014	
CAPACITORS			
	C3446, C3447	CCCSL101K2H	
	C3445	CCCSL181K2H	
	C3432, C3435	CCCSL220J50	
	C3422, C3425, C3428, C3431, C3434	CCSQCH100D50	
	C3437	CCSQCH331J50	
	C3496–C3500	CCSQCH470J50	
	C3407, C3408, C3411, C3412, C3414	CCSQCH560J50	
	C3478, C3479	CCSQCH680J50	
	C3448	CEANP2R2M50	
	C3417, C3419, C3442, C3481	CEAT100M50	
	C3402, C3404, C3418, C3420	CEAT101M50	
	C3436	CEAT221M6R3	
	C3421, C3424, C3427, C3430, C3433	CEAT330M16	
	C3443	CEAT330M16	
	C3401, C3403	CEAT470M50	
	C3415	CEATR47M50	
	C3405, C3406, C3409, C3410, C3413	CECA2R2M50	
	C3456, C3457, C3460, C3461	CFTYA224J50	
	C3464, C3465, C3468, C3469	CFTYA224J50	
	C3472, C3473, C3476, C3477	CFTYA224J50	
	C3416	CKCYB272K50	
	C3453, C3454, C3491–C3495	CKSQYB102K50	
	C3455	CKSQYB473K25	
	C3459, C3463, C3467, C3471, C3475	CKSQYF103Z50	
	C3552, C9998, C9999	CKSQYF103Z50	
	C3557	CKSQYF334Z25	

Mark	No.	Description	Part No.
RESISTORS			
	R3470 (0.22 Ω /5W)	ACN7026	
	R3511–R3515 (0.1 Ω /1W)	ACN7032	
⚠	R3457	RD1/2PMF563J	
	R3401, R3402, R3412, R3413, R3484	RD1/4LMF101J	
	R3488, R3493, R3498, R3502, R3507	RD1/4LMF101J	
	R3483	RD1/4LMF151J	
	R3492	RD1/4LMF750J	
⚠	R3464, R3465, R3467, R3468	RD1/4PMF101J	
⚠	R3459	RD1/4PMF563J	
	R3455	RD1/4PU222J	
	R3473	RD1/4PU821J	
⚠	R3452, R3453, R3466, R3469	RFA1/4PS4R7J	
	R3477, R3482	RS1LMF331J	
	Other Resistors	RS1/10S□□□ J	
OTHERS			
	3033 6P CABLE HOLDER	51063-0605	
	CN3030 SPEAKER TERMINAL 6–P	AKE7020	
	J3033 JUMPER WIRE	D15A06-350-2651	
	CN3015 11P SOCKET	KP200IB11L	
	CN3022 19P SOCKET	KP200IB19L	
	CN3027 3P JUMPER CONNECTOR	KPD3	
	JA3029 4P SPEAKER TERMINAL	RKE1003	
	CN3017 B TO B CONNECTOR 10P	RKP1822	
	KN3401, KN3551	VNF1084	
	EARTH METAL FITTING		
Y PRIMARY ASSY			
PRIMARY ASSY has no service part.			
V SWF ASSY			
CAPACITORS			
	C3551	CKSQYB332K50	
	C3556	CKSQYF103Z50	
OTHERS			
	CN3028 CABLE HOLDER (3P)	51052–0300	
	J3027 2P CONNECTOR	5569–02A1	
	3027 JUMPER WIRE	DXUY0310E	
	PCB BINDER	VEF1040	
P IF ASSY			
SEMICONDUCTORS			
	IC8701	TC7W04F	
	D8701–D8711	MTZJ8.2B	
CAPACITORS			
	C8702	CKSQYF103Z50	
RESISTOR			
	R8701	RS1/10S0R0J	
OTHERS			
	3026 PIN JACK (1P)	AKB7035	
	CN3024 10P MINI DIN SOCKET	AKP7015	
	CN3023 10P MINI DIN SOCKET	AKP7031	
	CN3011 18P SOCKET	KP200TA18L	

Mark	No.	Description	Part No.
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AA FLDP ASSY

SEMICONDUCTORS

IC8601	LC75712E
Q8601, Q8602, Q8604	2SC2412K
Q8603, Q8605	DTC124EK
D8604, D8605	1SS254
D8603	MTZJ39D
D8602	MTZJ8.2B
D8606	SLP9118C51H

COILS AND FILTERS

L8603	ATX1012
L8602	LAU100J
L8601	LAU220J

CAPACITORS

C8611	CCSQCH300J50
C8618, C8620	CEAL1R0M50
C8616	CEAL470M16
C8602	CEAT101M6R3
C8613	CEJA100M35
C8605	CEJA101M6R3
C8604, C8606, C8607, C8615, C8619	CKSQYB473K50
C8621–C8623	CKSQYB473K50
C8614	CKSQYF103Z50
C8603	CKSQYF104Z50

RESISTORS

R8622	RA11T473J
R8619	RA13T473J
R8620, R8621	RA14T473J
Other Resistors	RS1/10S □□□J

OTHERS

V8601	FL TUBE	AAV7061
8602, 8603	FL SPACER	AEB7122
8601	REMOTE RECEIVER UNIT	GP1U27X
CN3035	10P SOCKET	KP200TA10L

U HP ASSY

CAPACITORS

C3903, C3904	CKSQYB223K50
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RESISTORS

All Resistors	RS1/10S □□□J
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OTHERS

CN3034	HEADPHONE JACK	AKN1028
CN3033		KPE6

X SECONDARY ASSY

SEMICONDUCTORS

△ IC8003, IC8004	AEK7021
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CAPACITORS

C8126	CQMA104J50
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Mark	No.	Description	Part No.
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OTHERS

△ J3008	CABLE HOLDER (12P) JUMPER WIRE	51052–1200 DXUY1215E
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R REG (1) ASSY

SEMICONDUCTORS

IC8203	NJM78M15FA
IC8204	NJM79M15FA
IC8201, IC8202	PQ20RV1E
D8201, D8202	1SS254

CAPACITORS

C8205, C8206	CEAT1R0M50
C8207, C8208	CEAT330M16
C8201, C8203	CEJA1R0M50
C8202, C8204	CEJA330M16

RESISTORS

R8203	RS1/10S1201F
R8202, R8204	RS1/10S3900F
R8201	RS1/10S6200F

OTHERS

△ J3009	CABLE HOLDER (11P) JUMPER WIRE	51063–1105 D15A11–200–2651
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Q MAIN ASSY

SEMICONDUCTORS

△ IC8103, IC8104 (1A/125V)	AEK7009
△ IC8105, IC8110 (1.5A/125V)	AEK7011
△ IC8111 (2A/125V)	AEK7013
△ IC8101, IC8102, IC8112 (4A/125V)	AEK7018
△ IC8113, IC8114 (10A/125V)	AEK7022

IC3001–IC3006, IC3009–IC3012	BA4558F-HT
IC3019, IC3020	BA4558F-HT
IC3013–IC3015	LC7535
IC8106	NJM78L06A
IC8107	NJM79L06A

IC8501	PDG250A
Q8101	2SB1566
Q3015–Q3020, Q3031, Q8501–Q8503	2SC2412K
Q8512	2SD2114K
Q3001–Q3004	2SK208

Q3006, Q3027, Q3034, Q3039, Q8513	DTA124EK
Q3418	DTA143EK
Q8506	DTC114EK
Q8505, Q8507–Q8511	DTC114TK
Q3005, Q8504	DTC124EK

△ D3005–D3008, D8501, D8503–D8506	1SS355
△ D8101, D8103	D3SBA20(B)
△ D8102	D5SBA20(B)
D8205, D8206	MTZJ18C
D8108	MTZJ39A

D8203	MTZJ5.6B
D8115	MTZJ6.8B
D8204	MTZJ7.5C
D8118, D8119	MTZJ8.2C
D8104–D8107, D8109, D8110	S5688G

HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

Mark	No.	Description	Part No.
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COILS AND FILTERS

L8502	ATX1012
L8501	LAU220J

CAPACITORS

C8103, C8106, C8109, C8112 (1μF/100V)	ACH1237
C8101, C8102 (4700 μF/50V)	ACH7097
C8104, C8105 (3300 μF/50V)	ACH7098
C3003, C3004, C3009, C3010	CCSQCH101J50
C3015, C3016, C8501	CCSQCH101J50

C3005, C3006, C3011, C3012	CCSQCH221J50
C3017, C3018, C3028, C3038, C3048	CCSQCH221J50
C8504	CCSQCH221J50
C3061, C3062, C3081, C3082	CCSQCH331J50
C3113, C8519	CEANP4R7M50

C3023, C3024, C3033, C3034	CEAT100M50
C3043, C3044, C3049, C3050	CEAT100M50
C3069, C3070, C3089, C3090, C3092	CEAT100M50
C3104, C3119–C3122, C3125	CEAT100M50
C3147–C3151, C8113, C8122, C8123	CEAT100M50

C8505	CEAT101M10
C8114	CEAT101M2A
C3021, C3022, C3031, C3032	CEAT1R0M50
C3041, C3042, C8118, C8119, C8502	CEAT1R0M50
C8510	CEAT1R0M50

C8512	CEAT220M50
C8116, C8117	CEAT330M16
C8115	CEAT331M35
C8108	CEAT471M16
C8110, C8111	CEAT471M35

C8107	CEAT472M16
C3063, C3064, C3083, C3084, C3103	CECAR10M50
C8127–C8135, C8137	CKSQYB102K50
C8506, C8507, C8513, C8517, C8518	CKSQYB103K50
C8520, C8521, C8523	CKSQYB103K50

C3115–C3118	CKSQYB154K16
C3096	CKSQYB184K16
C3059, C3060, C3079, C3080	CKSQYB222K50
C3106	CKSQYB223K25
C3099	CKSQYB223K50

C3102	CKSQYB274K16
C3101	CKSQYB562K50
C3100	CKSQYB564K16
C3019, C3020, C3025–C3027	CKSQYF104Z25
C3029, C3030, C3035–C3037	CKSQYF104Z25

C3039, C3040, C3045–C3047	CKSQYF104Z25
C3055, C3056, C3067, C3068	CKSQYF104Z25
C3075, C3076, C3087, C3088	CKSQYF104Z25
C3093, C3094, C3107, C3108, C3127	CKSQYF104Z25
C3129, C3131, C3133, C3135, C3137	CKSQYF104Z25

C8511	CKSQYF104Z50
C3123	CKSQYF153Z50
C3124	CKSQYF333Z50
C3126, C3128, C3130	CKSQYF473Z50

Mark	No.	Description	Part No.
------	-----	-------------	----------

RESISTORS

R8520	RA15T472J
R8103	RD1/4LMF220J
R8101, R8102, R8104	RD1/4LMF470J
R3027–R3029	RD1/4PU102J

R3193, R3194	RD1/4PU105J
R3015, R3016, R8525, R8535	RD1/4PU221J
R8116	RD1/4PU472J
R8105	RD1/4VM103J
R8199	RFA1/4PS4R7J

Other Resistors	RS1/10S□□□ J
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OTHERS

CN3002	4P JUMPER CONNECTOR	52151–0410
CN3018	10P JUMPER CONNECTOR	AKP7047
X8501	(7.70 MHz)	ASS1055
CN3014, CN3019	11P PLUG	KM200IB11
CN3020	15P PLUG	KM200IB15

CN3021	19P PLUG	KM200IB19
CN3010	18P PLUG	KM200TA18
CN3008	L-CONNECTOR (12P)	KPD12L
CN3016	B TO B CONNECTOR 10P	RKP1784
KN8101, KN8102	EARTH METAL FITTING	VNF1084

S DOLBY DIG 9624 ASSY

SEMICONDUCTORS

IC9741, IC9761, IC9781	AK4324-VF
IC9411, IC9441, IC9471, IC9601, IC9621	BA4558F-HT
IC9641	BA4558F-HT
IC9121	CD0015AF
IC9361	KM62V256CLG-7L

IC9301	MB86342B
IC9501	PA4025A
IC9371	TC74HCT244AF
IC9103	TC74HCU04AF
IC9381	TC74LVX244FS

IC9192	TC74VHC00FT
IC9182, IC9721	TC74VHC157FT
IC9171	TC74VHC393FT
IC9172, IC9173, IC9181	TC74VHC74FT
IC9174	TC7S04FU

IC9183	TC7S08F
IC9191	TC7S86FU
IC9193, IC9902	TC7W08FU
IC9901	TC7WU04FU
Q9401, Q9431, Q9461	2PB709A

Q9402, Q9432, Q9462	2PD601A
Q9601, Q9611, Q9621, Q9631, Q9641	2SC3326
Q9651, Q9831, Q9832, Q9841, Q9842	2SC3326
Q9833, Q9834, Q9843, Q9844	2SK208
Q9304, Q9741, Q9822, Q9823, Q9901	PDTA124EK

Q9181, Q9191, Q9301–Q9303, Q9821	PDTC124EK
D9101, D9193, D9401, D9431, D9461	1SS181
D9192	1SS184
D9191, D9402, D9432, D9831, D9832	1SS355
D9841, D9842	1SS355

Mark	No.	Description	Part No.
COILS AND FILTERS			
	F9911		ATF7013
	L9301, L9801–L9811 (100 MHz)		ATL7001
	L9171, L9181, L9601, L9611, L9621 (100 MHz)		OTL1040
	L9631, L9641, L9651, L9721 (100 MHz)		OTL1040
	L9741, L9742, L9761, L9762 (100 MHz)		OTL1040
	L9781, L9782 (100 MHz)		OTL1040
	L9103, L9121, L9361, L9371, L9380 (100 MHz)		VTL1019

CAPACITORS

C9125	CCSQCH100D50
C9105, C9122, C9126, C9159, C9302	CCSQCH101J50
C9309, C9312, C9315, C9318, C9321	CCSQCH101J50
C9361, C9381, C9624, C9634, C9905	CCSQCH101J50
C9192, C9832, C9842, C9911	CCSQCH102J50
C9644	CCSQCH151J50
C9413, C9414, C9423, C9424, C9512	CCSQCH181J50
C9522	CCSQCH181J50
C9901, C9902	CCSQCH220J50
C9604, C9614	CCSQCH221J50
C9151, C9152, C9173, C9175, C9182	CCSQCH271J50
C9184, C9443, C9444, C9453, C9454	CCSQCH271J50
C9473, C9474, C9542, C9552, C9572	CCSQCH271J50
C9702, C9704, C9709, C9723, C9743	CCSQCH271J50
C9746, C9763, C9766, C9783, C9786	CCSQCH271J50
C9904	CCSQCH271J50
C9326, C9387, C9388, C9511, C9521	CCSQCH471J50
C9912	CCSQCH560J50
C9412, C9422	CCSQCH561J50
C9442, C9452, C9472, C9541, C9551	CCSQCH681J50
C9571	CCSQCH681J50
C9301	CEAT471M6R3
C9107, C9128, C9502, C9504, C9605	CEV100M16
C9615, C9625, C9635, C9645, C9741	CEV100M16
C9744, C9761, C9764, C9781, C9784	CEV100M16
C9171	CEV101M6R3
C9655	CEV2R2M50
C9801, C9802	CEV330M25
C9186, C9242, C9363, C9373, C9383	CEV470M6R3
C9721	CEV470M6R3
C9371	CKSQYB102K50
C9101, C9172, C9183, C9185	CKSQYB103K50
C9483, C9484, C9606, C9616, C9656	CKSQYB103K50
C9701, C9703, C9706–C9708, C9722	CKSQYB103K50
C9903	CKSQYB103K50
C9121, C9153, C9154, C9179	CKSQYB104K25
C9194, C9195	CKSQYB104K25
C9831, C9841	CKSQYB222K50
C9482, C9582	CKSQYB223K25
C9581	CKSQYB473K25

Mark	No.	Description	Part No.
	C9626, C9636, C9646		CKSQYB822K50
	C9043, C9058, C9106, C9127, C9130		CKSQYF104Z25
	C9177, C9178, C9188, C9191, C9193		CKSQYF104Z25
	C9196, C9204, C9224, C9303, C9310		CKSQYF104Z25
	C9313, C9316, C9319, C9322, C9362		CKSQYF104Z25
	C9372, C9382, C9409, C9411, C9421		CKSQYF104Z25
	C9439, C9441, C9451, C9469, C9471		CKSQYF104Z25
	C9481, C9501, C9503, C9601, C9611		CKSQYF104Z25
	C9621, C9631, C9641, C9651, C9742		CKSQYF104Z25
	C9745, C9762, C9765, C9782, C9785		CKSQYF104Z25

RESISTORS

Other Resistors	RS1/10S□□□□
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OTHERS

X9901	(18.432 MHz)	ASS1035
	DOLBY DIGITAL PCB	ANP7271
CN9801	11P SOCKET	KP200IB11L
CN9661	15P SOCKET	KP200IB15L
CN9301	10P JUMPER CONNECTOR	KPE10
JA9000	PIN JACK (1P)	VKB1077

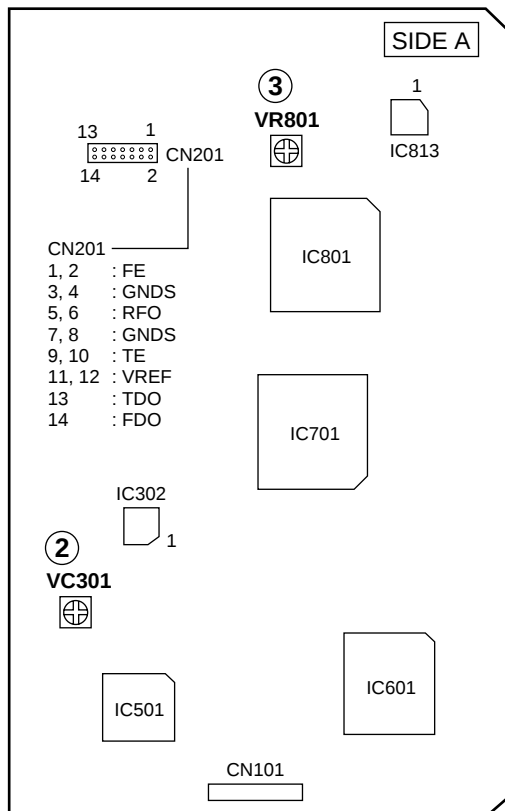
6. ADJUSTMENT

6.1 DVD SECTION

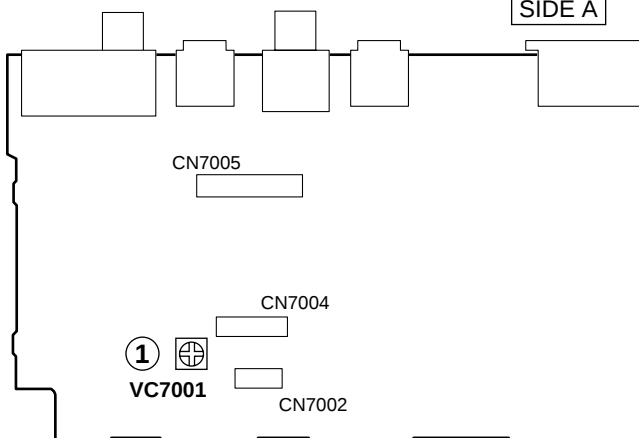
6.1.1 ADJUSTMENT ITEMS AND LOCATION

■ Adjustment Points (PCB Part)

DVDM ASSY



SVIDEO ASSY



■ Adjustment Items

[Mechanical Part]

- ① Tangential Skew and Radial Skew Coarse Adjustment
- ② DVD Jitter Adjustment

[Electrical Part]

- ① 18 MHz Master Clock Adjustment
- ② VCO Offset Adjustment
- ③ Video Output Level Adjustment

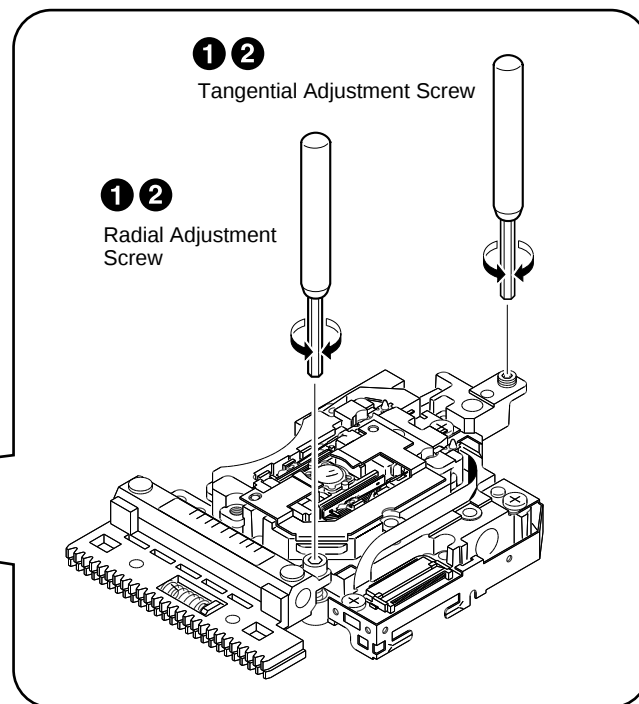
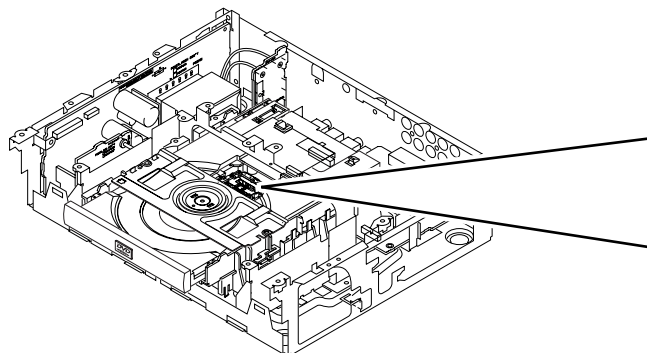
■ Adjustment Points (Mechanical Part)

Note 1:

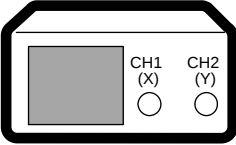
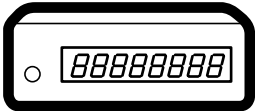
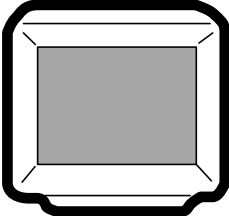
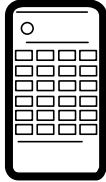
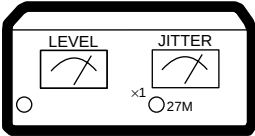
Remove the tray when adjusting the tangential and radial adjustment screws.

Note 2:

After the adjustment, stabilize the screw with an adhesive.

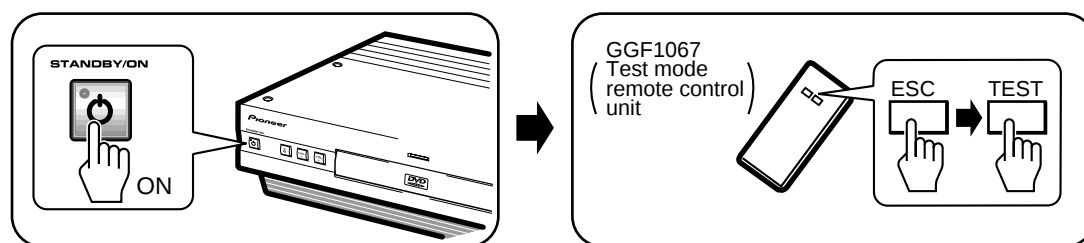


6.1.2 JIGS AND MEASURING INSTRUMENTS

 CD test disc (ABEX-784)	 DVD test disc (DVD-MJK1)	 ⊖ Screwdriver (medium)	 ⊖ Screwdriver (small)
 ⊖ Precise screwdriver	 ⊕ Screwdriver (large)	 ⊕ Screwdriver (medium)	 Dual-trace oscilloscope (with delay) Frequency band $\geq$ 40 MHz
 Frequency counter Display digit $\geq$ 8-digit	 TV monitor	 Test mode remote control unit (GGF1067)	 Hexagonal screwdriver
 Jitter Meter	 Equalizer Unit		

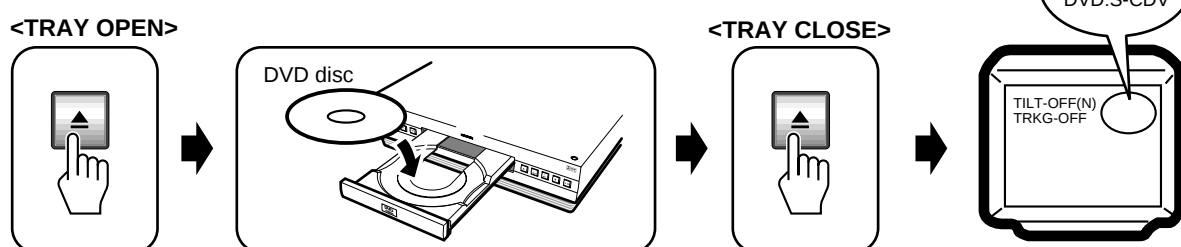
6.1.3 TEST MODE

TEST MODE: ON



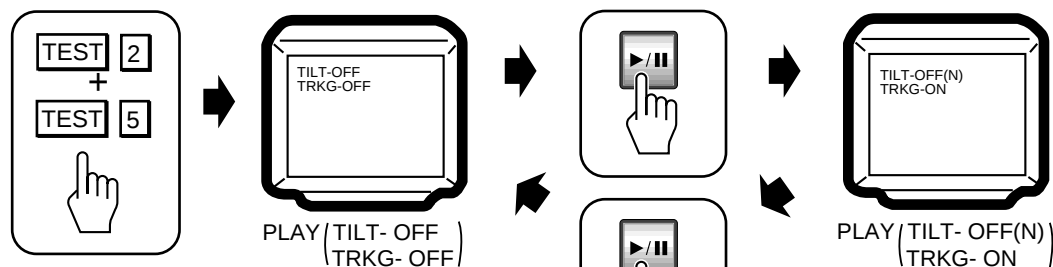
TEST MODE: DISC SET

● With TRAY

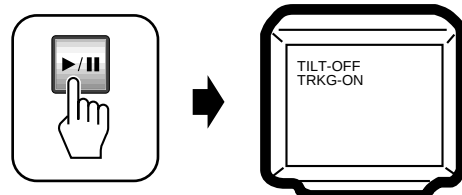


TEST MODE: PLAY

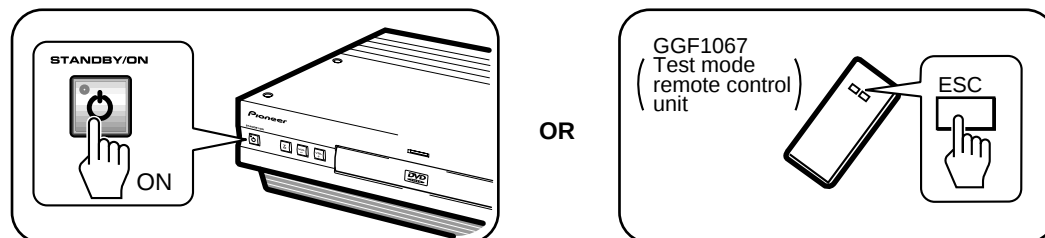
<TRACKING OFF PLAY>



<TRACKING ON PLAY>



TEST MODE: OFF

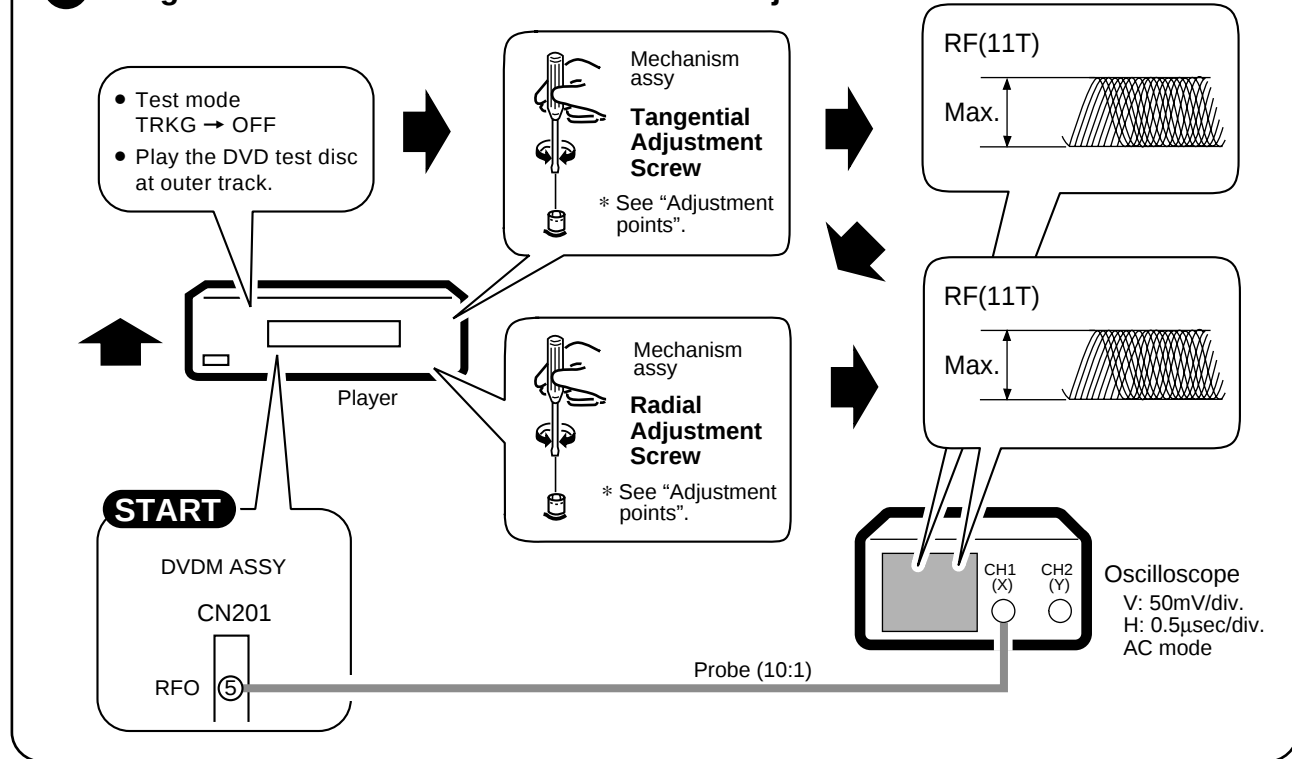


6.1.4 NECESSARY ADJUSTMENT POINTS

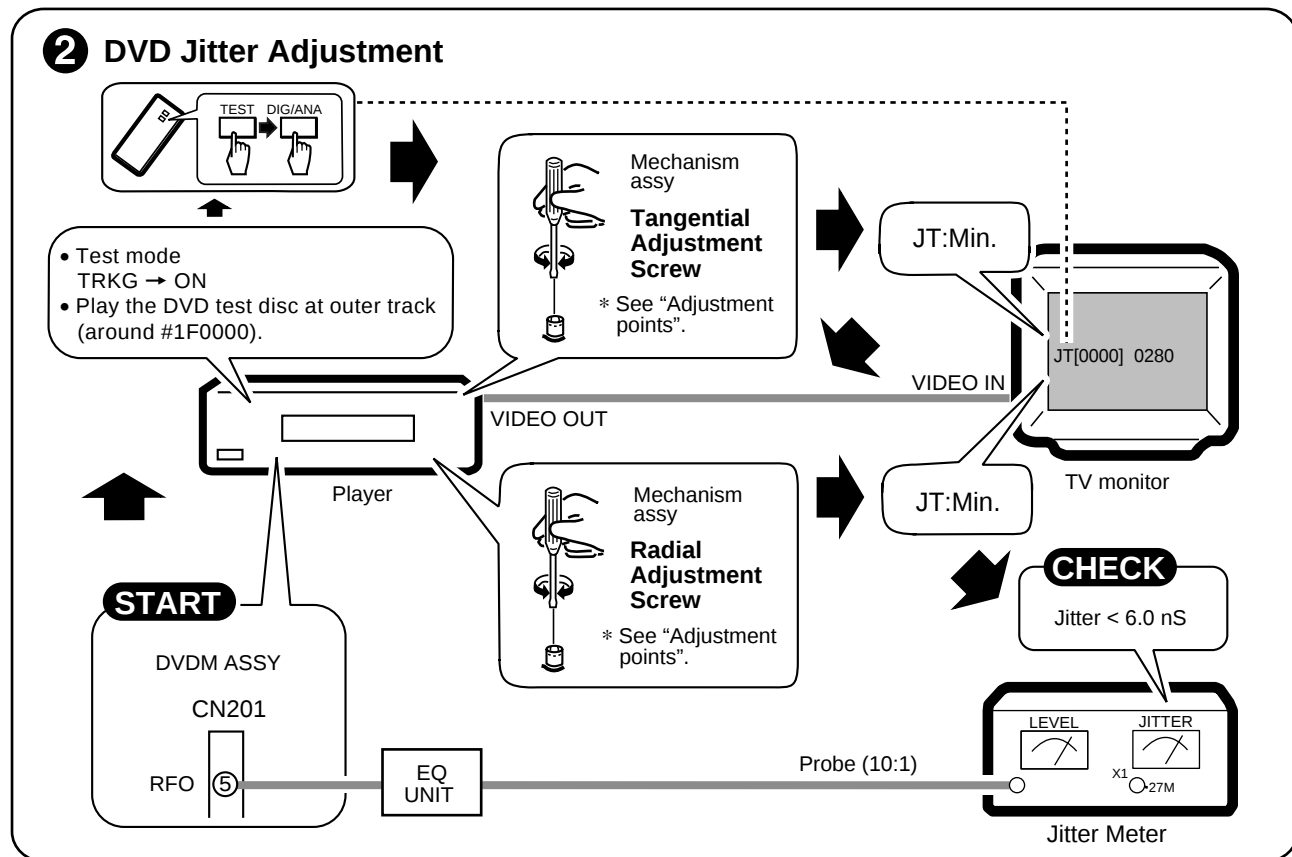
When		Adjustment Points
■ EXCHANGE MECHANISM ASSY PARTS		
Exchange pickup	➔	Mechanical point①, ② Electric point
Exchange spindle motor	➔	Mechanical point Electric point
■ EXCHANGE PCB ASSY		
Exchange board SVIDEO ASSY	➔	Mechanical point Electric point Note: ① is adjusted already.
Exchange board DVDM ASSY	➔	Mechanical point Electric point Note: ② and ③ are adjusted already.

6.1.5 MECHANICAL ADJUSTMENT

1 Tangential Skew and Radial Skew Coarse Adjustment

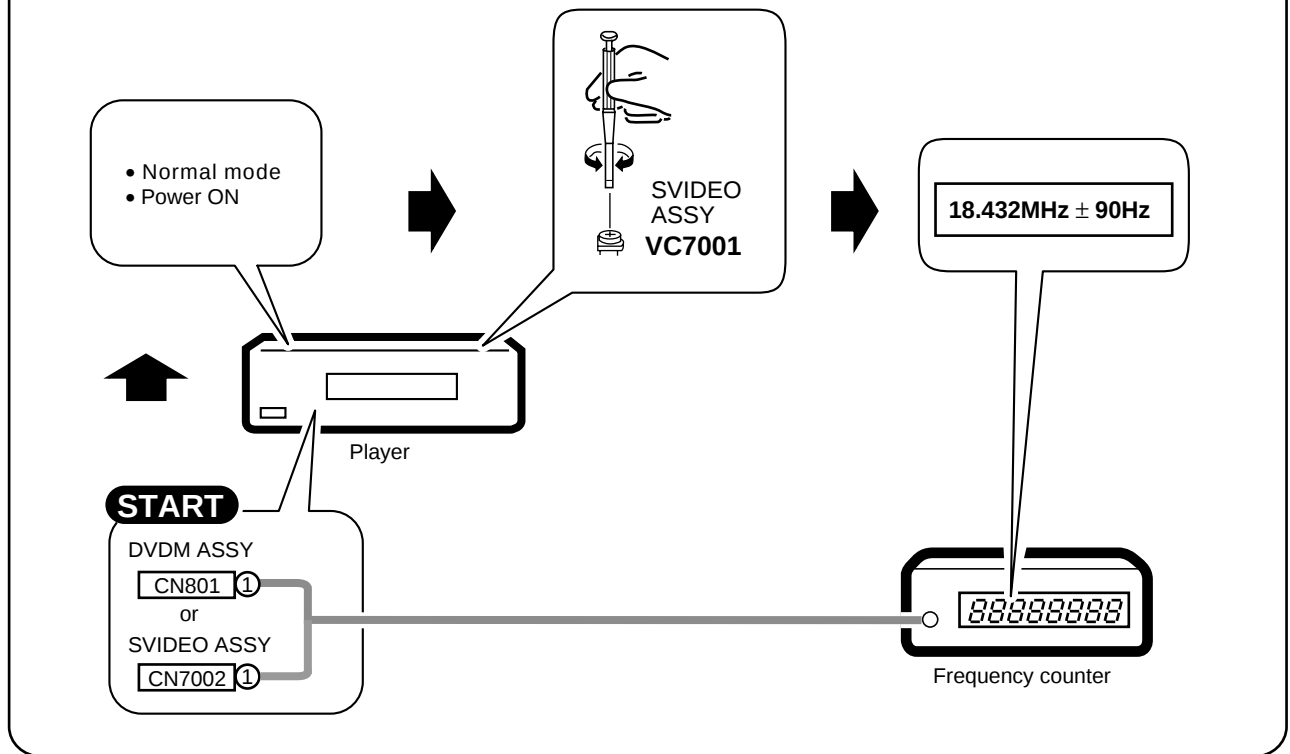


2 DVD Jitter Adjustment

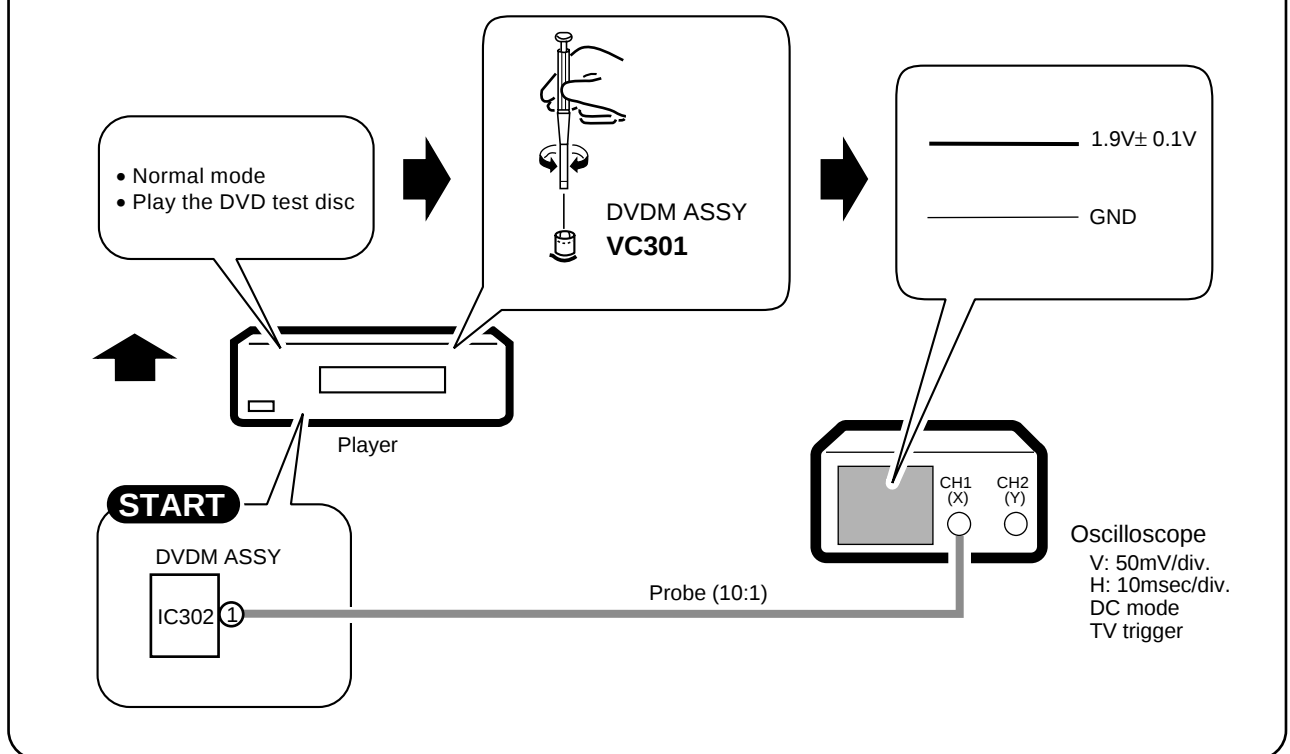


6.1.6 ELECTRICAL ADJUSTMENT

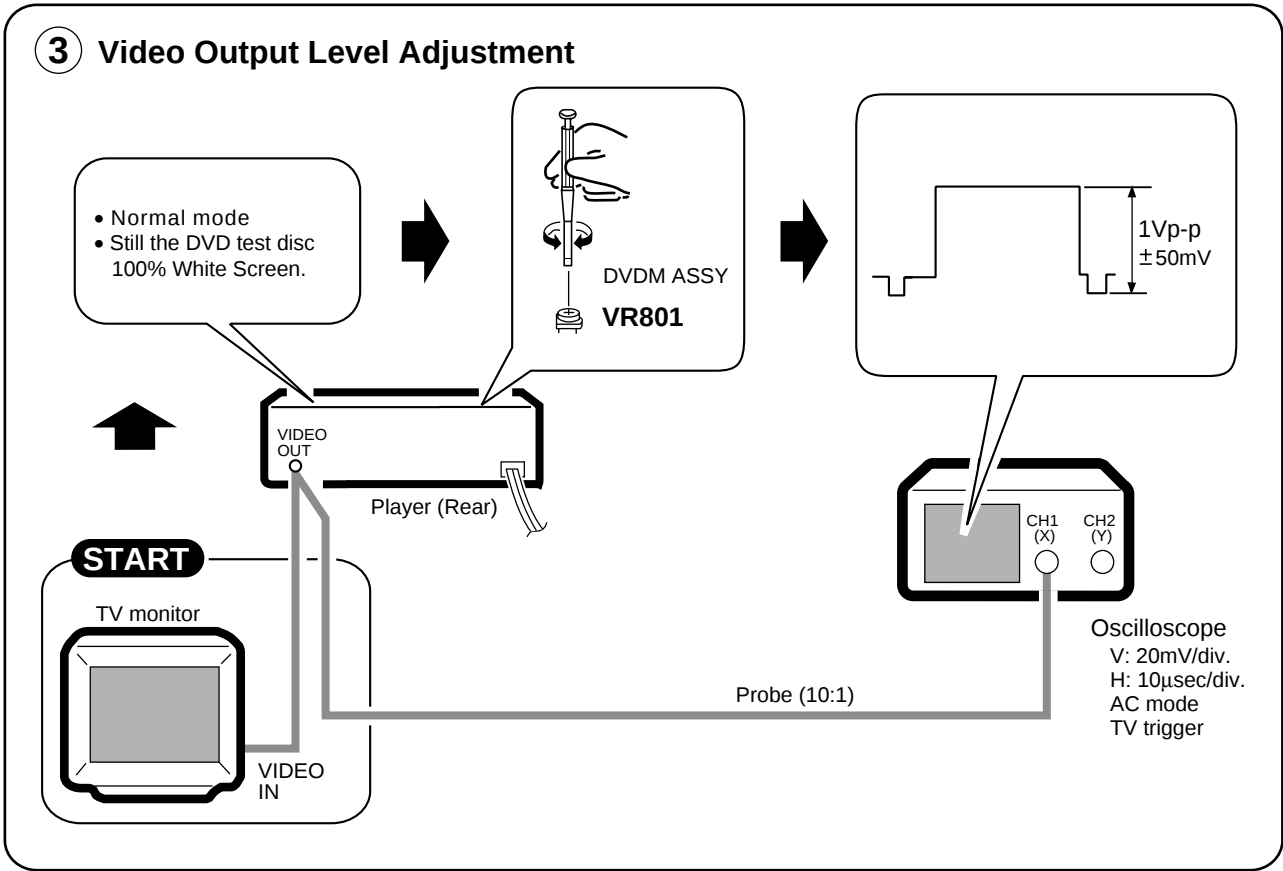
① 18 MHz Master Clock Adjustment



② VCO Offset Adjustment

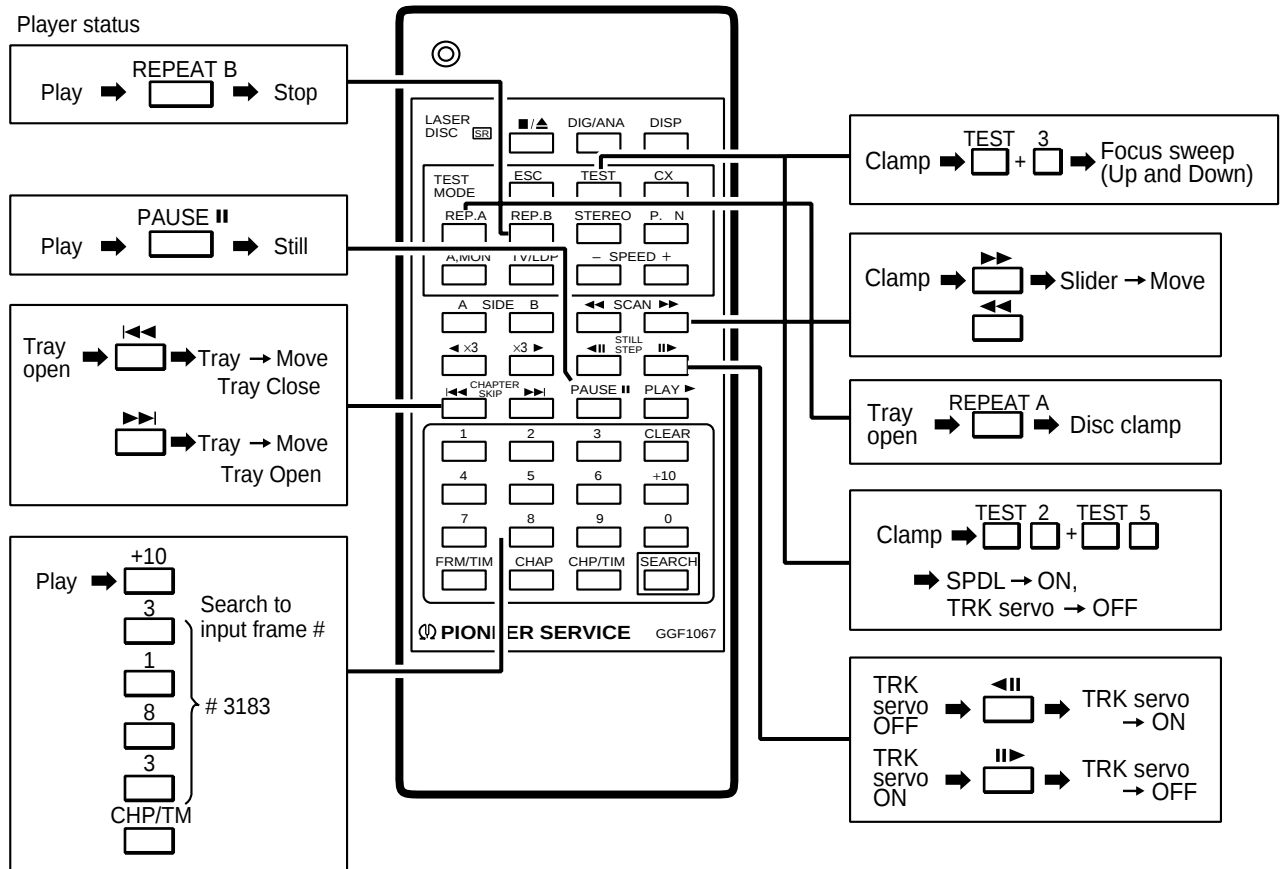


3 Video Output Level Adjustment

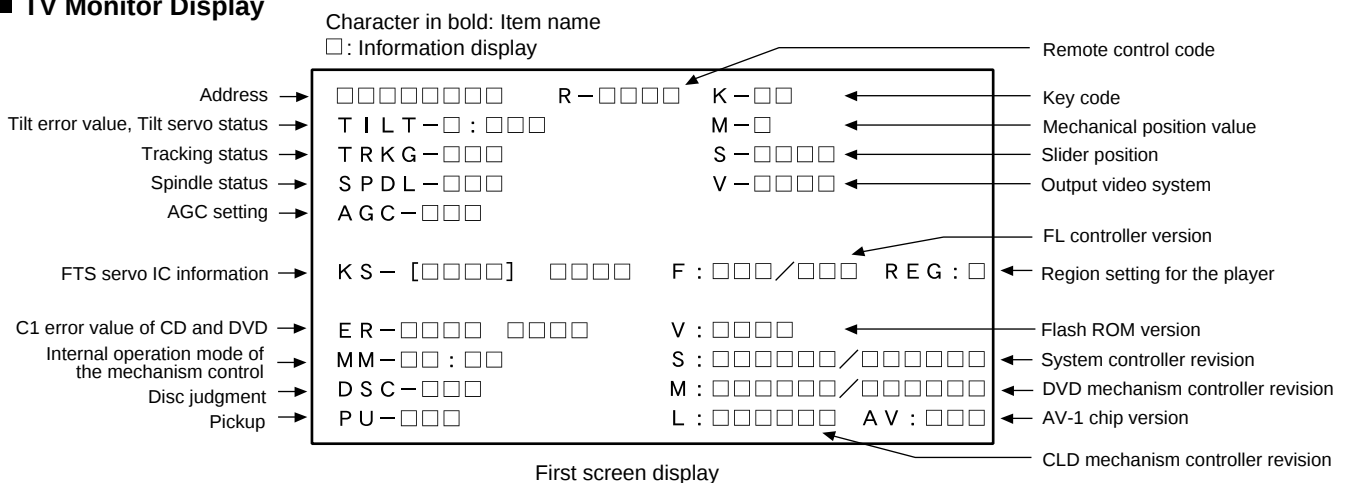


6.1.7 OPERATIONS IN THE TEST MODE

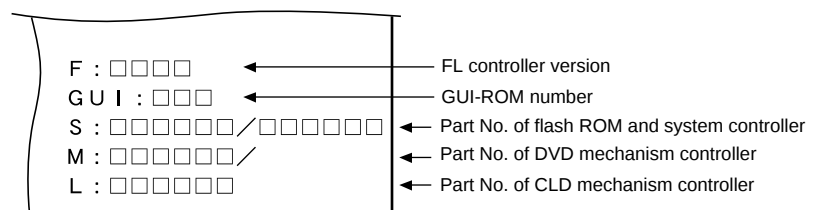
■ Test Mode Remote Control Unit (GGF1067)



■ TV Monitor Display



Note: Switch the first and second screen by pressing the [DISPLAY] key on the remote control unit.



Second screen display (at lower right portion of the screen)

6.2 TUNER SECTION

6.2.1 FM TUNER SECTION

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	FM SG (1kHz, ±75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Front End Sensitivity	106	0 – 30	106 MHz	L6104 L6105 L6102 T6101	Adjust so that the DC voltage between the IC6201- Pin 20 and GND becomes at maximum level.
2	Stereo Distortion	98 (ON STEREO)	80	98 MHz	T6101	Minimize the distortion with 1/8 rotation of the core.
3	TUNED IND. Lighting Level	98	18 ± 2	98 MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

Note: Before adjusting, make sure there is no gap between L6101 and L6102 as well as between L6103 and L6104. If there is a gap between them, bring them into contact with each other first, and then make adjustments.

6.2.2 AM TUNER SECTION

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	Front End Sensitivity	999*1	35 – 45	999 kHz*1	T6201	Adjust so that the DC voltage between the IC6201- Pin 20 and GND becomes at maximum level.

*1: For the area using 10 kHz step, frequencies should be 1000 kHz.

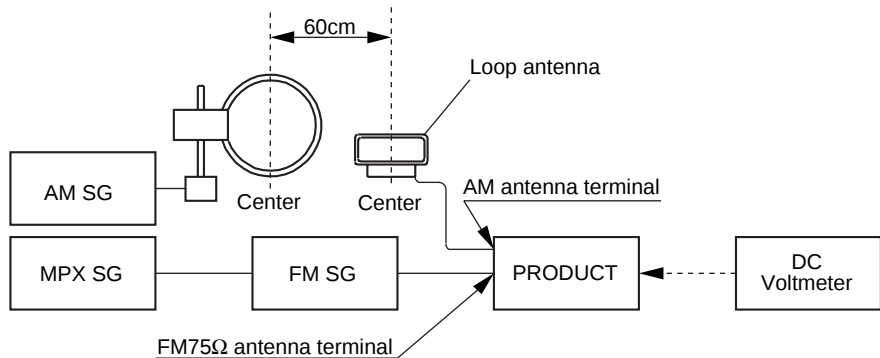


Fig. 1 AM and FM Adjustment Wiring Diagram

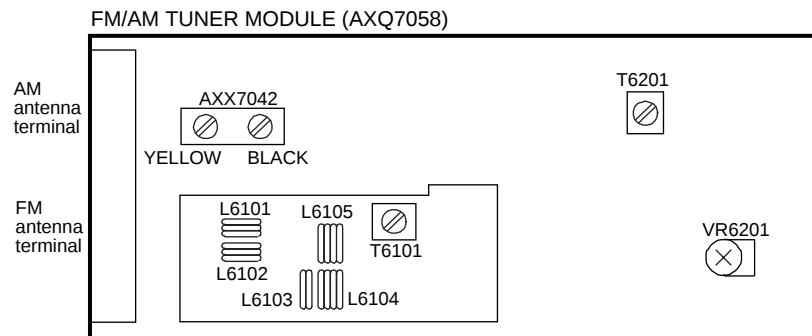


Fig. 2 Adjustment Point

7. GENERAL INFORMATION

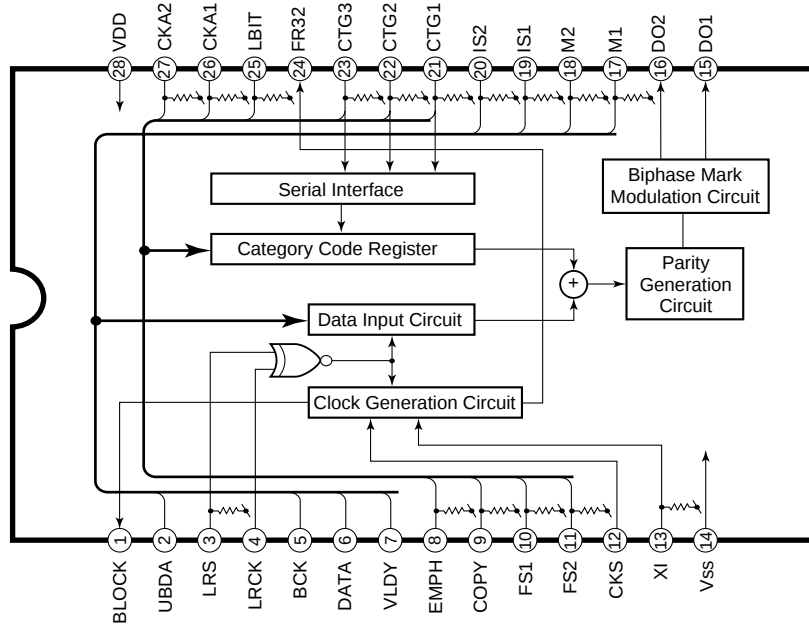
7.1 PARTS

7.1.1 IC

■ TC9271F (IC7008: SVIDEO ASSY)

● Digital Audio Interface Modulation and Transmission IC

● Block Diagram



● Pin Function

No.	Name	I/O	Description											
1	BLOCK	O	Block leading head position detection terminal											
2	UBDA	I	User bit data input terminal											
3	LRS	I	LRCK polarity selection terminal <table border="1"><tr><td rowspan="2">LRS</td><td colspan="2">LRCK</td></tr><tr><td>L</td><td>R</td></tr><tr><td>L Level</td><td>R ch Data</td><td>L ch Data</td></tr><tr><td>L Level</td><td>L ch Data</td><td>R ch Data</td></tr></table>	LRS	LRCK		L	R	L Level	R ch Data	L ch Data	L Level	L ch Data	R ch Data
LRS	LRCK													
	L	R												
L Level	R ch Data	L ch Data												
L Level	L ch Data	R ch Data												
4	LRCK	I	LR clock input terminal											
5	BCK	I	Bit clock input terminal											
6	DATA	I	2-channel mode: Data input terminal 4-channel mode: Data input terminal 1											
7	VLDY	I	2-channel mode: Compensation flag input terminal 4-channel mode: Data input terminal 2											
8	EMPH	I	Emphasis flag setting terminal											
9	COPY	I	Parallel setting mode: Copy flag setting terminal Serial setting mode: Fixed to "H"											
10	FS1	I	Sampling frequency setting terminal 1											
11	FS2	I	Sampling frequency setting terminal 2											
12	CKS	I	Clock division selection terminal											
13	XI	I	Clock input terminal											

No.	Name	I/O	Description
14	Vss	—	GND terminal
15	DO1	O	Digital data output terminal 1
16	DO2	O	Digital data output terminal 2
17	M1	I	Channel mode setting terminal 1
18	M2	I	Channel mode setting terminal 2
19	IS1	I	Data input mode setting terminal 1
20	IS2	I	Data input mode setting terminal 2
21	CTG1	I	Parallel setting mode: Category code setting terminal 1 Serial setting mode: Data input terminal
22	CTG2	I	Parallel setting mode: Category code setting terminal 2 Serial setting mode: Clock input terminal
23	CTG3	I	Parallel setting mode: Category code setting terminal 3 Serial setting mode: Latch pulse input terminal
24	FR32	O	FR32 output terminal
25	LBIT	I	Parallel setting mode: LBIT input terminal 1 Serial setting mode: 32/192 bit switching terminal
26	CKA1	I	Parallel setting mode: Clock accuracy setting terminal 1 Serial setting mode: Fixed to "H"
27	CKA2	I	Parallel setting mode: Clock accuracy setting terminal 2 Serial setting mode: Output prohibited, fixed to "H"
28	VDD	—	Power supply voltage terminal

HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

■ PDG251A (IC5501: MOTHER ASSY)

● System Micro-computer (for AV center)

● Pin Function

No.	Symbol	Name	I/O	Description
1	G1/A1	——	OUT	——
2	G0/A0	——	OUT	——
3	NC	——	—	——
4	PE0/INT0/EC0	——	IN	——
5	PE1/INT1/EC1	——	IN	——
6	PE2/INT2	——	IN	——
7	PE3/INT3/NM1	——	IN	——
8	PE4/RMC	SR_IN	IN	SR input
9	PE5	TEST_MODE	IN	Test mode when this port is "L" at the time of power ON
10	PE6/PWM	AUDIOSW_STAT3	OUT	AV switching strobe 3 (DIGITAL system)
11	PE7/TO/ADJ	AUDIOSW_STAT1	OUT	AV switching strobe (AUDIO system)
12	PC0/KR0	AUDIOSW_STAT2	OUT	AV switching strobe 2 (VIDEO system)
13	PC1/KR1	AUDIOSW_DATA	OUT	Function switching IC data
14	PC2/KR2	AUDIOSW_CLK	OUT	Function switching IC clock
15	PC3/KR3	——	OUT	——
16	PC4/KR4	SYSBUS_DI	IN	System bus data input [for ID (priority) confirmation]
17	PC5/KR5	SYSBUS_DO	IN/OUT	System bus data I/O (input except at the time of transmission)
18	PC6/KR6	SYSBUS_REQ	IN/OUT	System bus REQ I/O (input except at the time of transmission)
19	PC7/KR7	SYSBUS_CLK	OUT	System bus CLK output (always communication master)
20	PB0/CINT	DVD_XRDY	OUT	DVD-READY
21	PB1/CS0	DVD_LT1	IN	DVD latch
22	PB2/SCK0	DVD_XSCK	OUT	DVD serial data CLK
23	PB3/SI0	DVD_SI	IN	DVD serial data IN
24	PB4/SO0	DVD_SO	OUT	DVD serial data OUT
25	PB5/SCK1	DISP_CLK	OUT	Display communication transmission clock output
26	PB6/SI1	DISP_REQ_MD	OUT	Display communication REQ to MD
27	PB7/SO1	DISP_DATA	OUT	Display communication transmission data output
28	PI0	——	IN	——
29	PA0/AN0	KEY_IN	IN	AD input for main unit key input
30	PA1/AN1	SLEEP	IN	AD input for confirmation of microcomputer power supply 5.6 V DOWN (for backup)
31	PA2/AN2	FAN DET	IN	AD input for confirmation of heat dissipation fan operation
32	PA3/AN3	3.3V DET	IN	AD input for confirmation of DVD power supply 3.3 V DOWN (for sag correspondence)
33	PA4/AN4	MS1	IN	AD input for destination switching, 0: J/1: KU
34	PA5/AN5	AD_OVL	IN	AD input overload detection AD input
35	PA6/AN6	AV_5.6V	IN	AD input for confirmation of AV center 5.0 V power supply DOWN
36	PA7/AN7	XSTEREO/TUNED	IN	ADL for TUNER stereo reception OK/reception OK
37	PI1	——	—	GND
38	RST	——	—	Reset
39	EXTAL	——	—	Oscillator 16 MHz
40	XTAL	——	—	Oscillator 16 MHz
41	Vss	——	—	GND
42	PI2/TX	——	—	GND
43	PI3/TEX	——	—	GND
44	VDD	——	—	5V
45	Vfdp	——	—	GND
46	PD0/A55	TX_DI (OUT)	OUT	TUNER data output
47	PD1/A54	TX_CLOCK	OUT	TUNER clock output
48	PD2/A53	TX_CE	OUT	TUNER CE output
49	PD3/A52	TX_MUTE	OUT	TUNER mute output

No.	Symbol	Name	I/O	Description
50	PD4/A51	TX_DO (IN)	OUT	TUNER data input
51	PD5/A50	———	OUT	———
52	PD6/A49	DVD_RESET	OUT	DVD player reset output
53	PD7/A48	———	OUT	———
54	PF0/A47	———	OUT	———
55	PF1/A46	———	OUT	———
56	PF2/A45	DISP_REQ	OUT	Display reception REQ to powered subwoofer
57	PF3/A44	———	OUT	———
58	PF4/A43	———	OUT	———
59	PF5/A42	———	OUT	———
60	PF6/A41	———	OUT	———
61	PF7/A40	———	OUT	———
62	PG0/A39	xAUDIO1_MUTE	OUT	AUDIO1 REC out mute (LOW active)
63	PG1/A38	———	OUT	———
64	PG2/A37	———	OUT	———
65	PG3/A36	xAUDIO_MUTE	IN	Audio mute (LOW active)
66	PG4/A35	———	OUT	———
67	PG5/A34	———	OUT	———
68	PG6/A33	FUNC_NO_CLOCK	OUT	At the time of data transmission to TC9162, TC9164, "L" . Coupled with IC strobe 1
69	PG7/A32	AUDIO_REC_CTL	OUT	AUDIO REC out switching
70	PH0/A31	———	OUT	———
71	PH1/A30	———	OUT	———
72	PH2/A29	———	OUT	———
73	PH3/A28	XLED_POWER	OUT	POWER LED control, "H": Lit
74	PH4/A27	XLED_DVD	OUT	DVD LED control, "H": Lit
75	PH5/A26	xLED_PLAY	OUT	PLAY LED control, "H": Lit
76	PH6/A25	XPW_TUNER	OUT	Tuner power ON/OFF
77	PH7/A24	XPW_DVD	OUT	DVD power ON/OFF
78	A23	———	OUT	———
79	A22	———	OUT	———
80	A21	———	OUT	———
81	A20	———	OUT	———
82	A19	———	OUT	———
83	A18	———	OUT	———
84	A17	———	OUT	———
85	A16	———	OUT	———
86	G15/A15	———	OUT	———
87	G14/A14	———	OUT	———
88	G13/A13	———	OUT	———
89	VDD	———	—	5V
90	G12/A12	———	OUT	———
91	G11/A11	———	OUT	———
92	G10/A10	———	OUT	———
93	G9/A9	———	OUT	———
94	G8/A8	———	OUT	———
95	G7/A7	———	OUT	———
96	G6/A6	———	OUT	———
97	G5/A5	———	OUT	———
98	G4/A4	———	OUT	———
99	G3/A3	———	OUT	———
100	G2/A2	———	OUT	———

HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

■ PDG250A (IC8501: MAIN ASSY)

● System Micro-computer (for Subwoofer)

● Pin Function

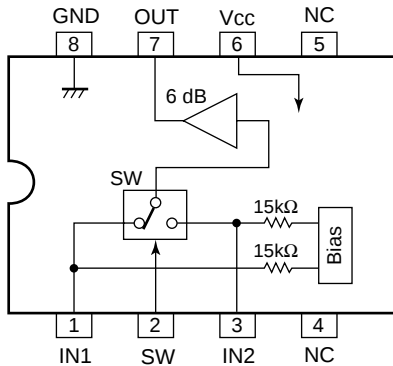
No.	Symbol	Name	I/O	Description
1	G1/A1	——	OUT	————
2	G0/A0	——	OUT	————
3	NC	——	—	5V
4	PE0/INT0/EC0	——	IN	5V
5	PE1/INT1/EC1	AC_PULSE	IN	AC pulse input (interrupt use)
6	PE2/INT2	SYSBUS_CLOCK	IN	System bus clock input (interrupt use)
7	PE3/INT3/NM1	AC3_REQ	IN	Communication request from the AC3 board, "L": Communication request (interrupt use)
8	PE4/RMC	REM_IN	IN	Remote control input
9	PE5	TEST_MODE	IN	Test mode when L at the time of power ON
10	PE6/PWM	——	OUT	————
11	PE7/TO/ADJ	——	OUT	————
12	PC0/KR0	——	OUT	————
13	PC1/KR1	FL_DATA	OUT	FL driver data
14	PC2/KR2	DEM_LOCK	IN	When the modulator IC is locked to the RF signal, "L" Input
15	PC3/KR3	DIR_LOCK	IN	When DIR is locked to the digital input signal, "L" Input
16	PC4/KR4	SYSBUS_DI	IN	System bus data input [for ID (priority) confirmation]
17	PC5/KR5	SYSBUS_DO	IN/OUT	System bus data output
18	PC6/KR6	SYSBUS_REQ	IN/OUT	System bus REQ I/O (input except at the time of transmission)
19	PC7/KR7	FL_CLK	OUT	FL driver clock
20	PB0/CINT	FL_CE	OUT	FL driver address/data status
21	PB1/CS0	AC3_CS	OUT	Chip selection for AC-3 board communication
22	PB2/SCK0	AC3_CLK	OUT	Serial clock for AC-3 board communication
23	PB3/SI0	AC3_OUT	IN	Serial data input for AC-3 board communication
24	PB4/SO0	AC3_DATA	OUT	Serial data output for AC-3 board communication
25	PB5/SCK1	DISP_CLOCK	IN	Clock input for display communication
26	PB6/SI1	DISP_DATA	IN	Data input for display communication
27	PB7/SO1	DISP_REQ	IN	REQ output for display communication
28	AVref	——	—	5V
29	PA0/AN0	HP_SW	IN	Headphone insertion detection
30	PA1/AN1	DC DETECT	IN	Power supply trouble detection AD
31	PA2/AN2	TEMP_HI1	IN	Temperature rise detection, amplifier 1
32	PA3/AN3	TEMP_HI2	IN	Temperature rise detection, amplifier 2
33	PA4/AN4	——	OUT	————
34	PA5/AN5	——	OUT	————
35	PA6/AN6	——	OUT	————
36	PA7/AN7	OL_DET	IN	Overcurrent detection
37	AVss	GND	—	————
38	RST	RESET	—	————
39	EXTAL	——	—	Oscillator 7.70MHz
40	XTAL	——	—	Oscillator 7.70MHz
41	Vss	GND	—	————
42	TX	OPEN_GND	—	————
43	TEX	GND	—	————
44	VDD	——	—	5V
45	Vfdp	——	—	————
46	PD0/A55	AD/DIR	OUT	Master/Slave selection, "L": Analog, "H": Digital
47	PD1/A54	——	OUT	————
48	PD2/A53	AC3_RST	OUT	AC-3 board: Reset
49	PD3/A52	AC3_BST	OUT	AC-3 board: Bootstrap

No.	Symbol	Name	I/O	Description
50	PD4/A51	—	OUT	—
51	PD5/A50	—	OUT	—
52	PD6/A49	—	OUT	—
53	PD7/A48	—	OUT	—
54	PF0/A47	—	OUT	—
55	PF1/A46	—	OUT	—
56	PF2/A45	—	OUT	—
57	PF3/A44	—	OUT	—
58	PF4/	—	OUT	—
59	PF5/A42	—	OUT	—
60	PF6/A41	SW ATT	OUT	Subwoofer ATT control, L: DOLBY/Through, "H": SFC ON
61	PF7/A40	48/96	OUT	48/96 kHz switching FET switch control, "H": 48 kHz, "L": 96 kHz
62	PG0/A39	A_CLK1	OUT	Electronic volume 1, clock output
63	PG1/A38	A_DATA1	OUT	Electronic volume 1, data output
64	PG2/A37	A_CE1	OUT	Electronic volume 1, CE output
65	PG3/A36	A_CLK2	OUT	Electronic volume 2, clock output
66	PG4/A35	A_DATA2	OUT	Electronic volume 2, data output
67	PG5/A34	A_CE2	OUT	Electronic volume 2, CE output
68	PG6/A33	AUDIO_MUTE	OUT	AUDIO mute
69	PG7/A32	HP_MUTE	OUT	Headphone mute
70	PH0/A31	RELAY_FRONT	OUT	Relay, front
71	PH1/A30	RELAY_SUB	OUT	Relay, subwoofer
72	PH2/A29	VOL_ATT	OUT	Volume ATT switching, "H": 0 to 17, "L": 18 to 35
73	PH3/A28	RELAY_AC1	OUT	Relay AC1
74	PH4/A27	RELAY_AC2	OUT	Relay AC2
75	PH5/A26	—	OUT	—
76	PH6/A25	—	OUT	—
77	PH7/A24	—	OUT	—
78	A23	—	OUT	—
79	A22	—	OUT	—
80	A21	—	OUT	—
81	A20	—	OUT	—
82	A19	—	OUT	—
83	A18	—	OUT	—
84	A17	—	OUT	—
85	A16	—	OUT	—
86	G15/A15	—	OUT	—
87	G14/A14	—	OUT	—
88	G13/A13	—	OUT	—
89	VDD	—	—	5V
90	G12/A12	—	OUT	—
91	G11/A11	—	OUT	—
92	G10/A10	—	OUT	—
93	G9/A9	—	OUT	—
94	G8/A8	—	OUT	—
95	G7/A7	—	OUT	—
96	G6/A6	—	OUT	—
97	G5/A5	—	OUT	—
98	G4/A4	—	OUT	—
99	G3/A3	—	OUT	—
100	G2/A2	—	OUT	—

■ MM1112XF (IC7801: VIDEO ASSY)

● Video Switch

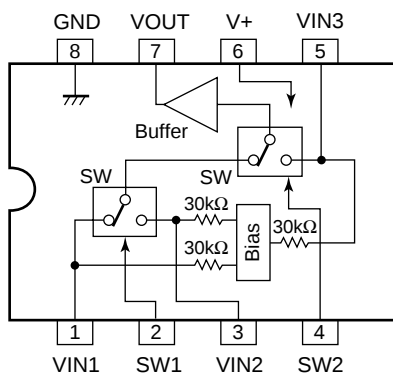
● Block Diagram



■ NJM2534M (IC7505: SVIDEO ASSY)

● 3-input Signal Video Switch

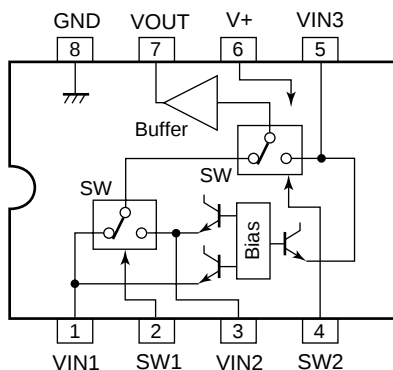
● Block Diagram



■ NJM2535M (IC7504: SVIDEO ASSY) (IC7802: VIDEO ASSY)

● 3-input Signal Video Switch

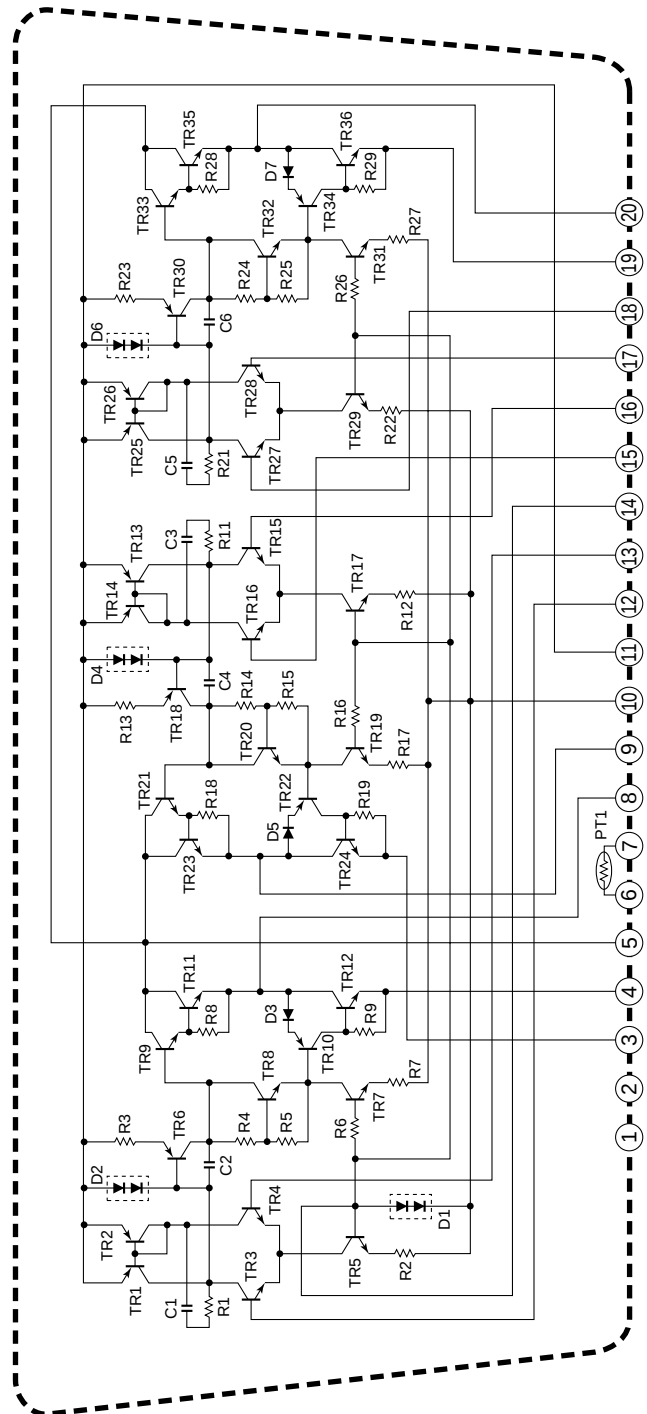
● Block Diagram



■ STK407-240 (IC3402: AMP ASSY)

● 3-channel AF Power Amplifier

● Block Diagram

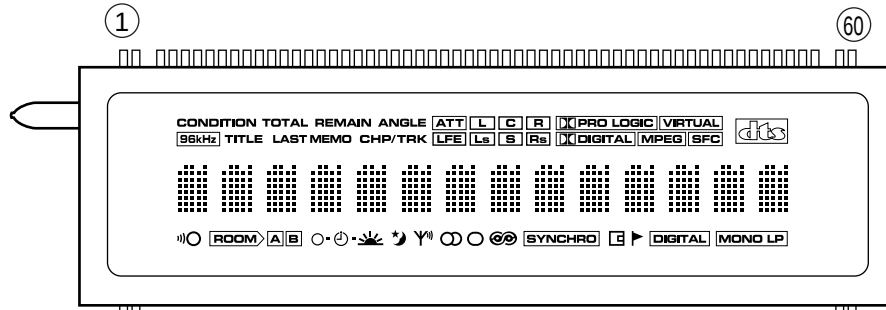


7.1.2 DISPLAY

■ AAV7061 (V8601: FLDP ASSY)

● FL Tube

● Pin Assignment

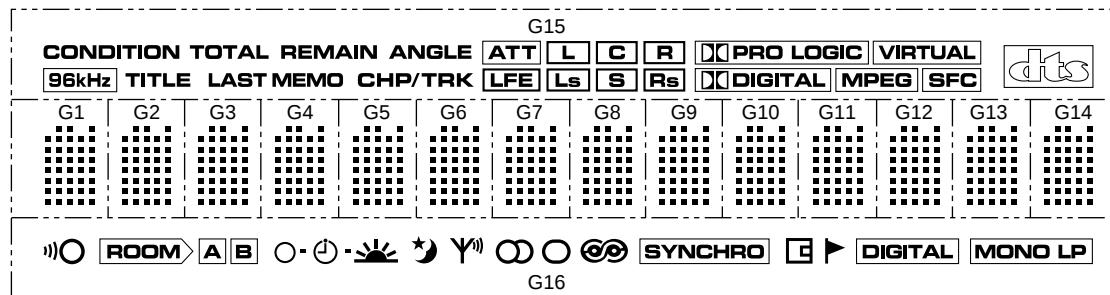


● Pin Connection

Note) F1, F2: Filament
S1 to S38: Anode
NP: No pin

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Assignment	NL	F1	NP	G8	G7	G6	G5	G4	G3	G2	G1	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19
Pin No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Assignment	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36	S37	S38	G16	G15	G14	G13	G12	G11	G10	G9	NP	F2	NL

● Anode and Grid Assignment (1/2)



S36 S37 S38
S1 S2 S3 S4 S5
S6 S7 S8 S9 S10
S11 S12 S13 S14 S15
S16 S17 S18 S19 S20
S21 S22 S23 S24 S25
S26 S27 S28 S29 S30
S31 S32 S33 S34 S35

G1 – G14

● Anode and Grid Assignment (2/2)

	G1 – G14	G15	G16
S1	S1		
S2	S2		
S3	S3		
S4	S4		
S5	S5		
S6	S6		
S7	S7		
S8	S8		
S9	S9	96kHz	
S10	S10	TITLE	
S11	S11	CONDITION	
S12	S12	ANGLE	
S13	S13	LAST MEMO	
S14	S14	TOTAL	
S15	S15	REMAIN	
S16	S16	CHP/TRK	MONO LP
S17	S17		DIGITAL
S18	S18		
S19	S19		

	G1 – G14	G15	G16
S20	S20	ATT	
S21	S21	LFE	
S22	S22	(LFE)	
S23	S23	L	B
S24	S24	LS	A
S25	S25	C	ROOM
S26	S26	S	SYNCHRO
S27	S27	R	
S28	S28	RS	
S29	S29	DIGITAL	
S30	S30	MPEG	
S31	S31	DSP	
S32	S32	DTS	
S33	S33	VIRTUAL	
S34	S34	PRO LOGIC	
S35	S35		
S36	S36		
S37	S37		
S38	S38		

7.2 DIAGNOSIS

7.2.1 FAIL-SAFE

■ DVD Center Unit (HTZ-C7)

1. System Reset after Detection

■ Check of the power supply line (3.3 V line) (AD3: Pin 32)

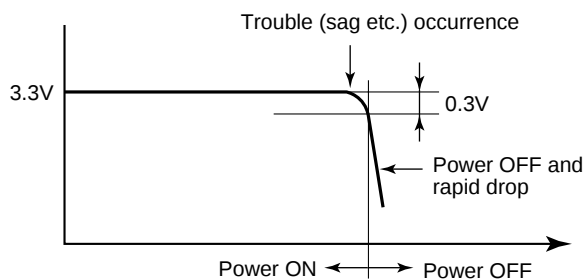
Fail-safe for prevention of crashing of the DVD microcomputer (system controller) with occurrence of power supply ripples. (ADC read value for the power supply voltage of the player section at the time of power ON)

System reset is applied when the threshold value is not reached six times in a row during power ON.

● Operation explanation

The power supplied to the DVD assembly is composed of the three types +12 V, +5 V, and +3.3 V, and of these, the 3.3 V system is detected at all times.

In the following diagram, dropping of the +3.3 V system to 3 V or less because of power supply trouble is detected, and the power supply is switched off.



3.3 V system Trouble Detection

■ Check of the power supply line (5 V line) (AD6: Pin 35)

Fail-safe at the time of disconnection from the power outlet. As the power for the AV controller is supplied from the powered subwoofer section, this kind of fail-safe becomes necessary. A system reset is applied when the ADC read value for the power supply voltage of the DVD center unit twice in a row drops below the threshold value.

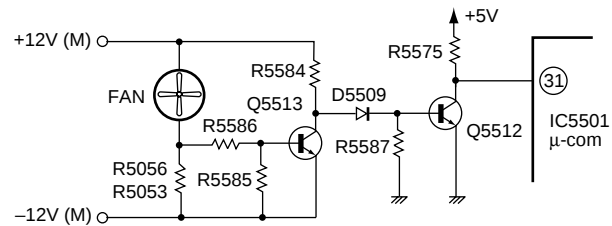
■ Cooling fan trouble detection (AD2: Pin 31)

When the cooling fan stops to run because of a defect, entry of foreign matter, etc. and energization is continued, there is the possibility of burning, so that a circuit for detection of this condition is included. A system reset is applied when the ADC read value for the cooling fan operation detection port twice in a row drops below the threshold value.

● Operation explanation

When the fan is operating in the fan detection circuit, a current flows, so that a potential difference occurs at R5056 and Q5515 becomes ON. In this case, the anode potential of D5509 is – (minus), so that the potential becomes a reverse maximum voltage and D5509 does not open. Accordingly, Q5512 is OFF and pin ③ of the microcomputer reaches high level. When the fan rotation stops, Q5513 becomes OFF and the potential at C becomes +. Then D5509 becomes ON, and as the result, Q5512 becomes ON. Then pin ③ of the microcomputer becomes low level.

The microcomputer at all times monitors pin ③, and when this becomes low level, forced entry into standby mode is performed and the power supply of the set is switched off.



Fan Detection Circuit

■ Communication error with the DVD system controller

A system reset is applied when serial communication with the DVD system controller fails 32 times in a row.

2. Stop Mode after Detection (The appearance is a simple system reset.)

■ Check of the AV control power supply line (5.6 [V] line) from the powered subwoofer unit (AD1: Pin 30)

When the power supply for the AV controller drops off, the AV controller enters stop mode and memory backup is performed. When the ADC read value for the power supply voltage twice in a row drops below the threshold value, stop mode (power saving mode) is entered and the memory contents are backed up.

■ Powered subwoofer (HTZ-SW7)

1. Power OFF after Detection

■ DVD center display communication interruption

Power OFF is performed when the REQ edge of the DVD center display communication is interrupted for 1.5 sec. (The count value of the internal 1 ms timer is used for the judgment.)

■ Overcurrent detection

Power OFF is performed when the overcurrent detection port (always “H” while the power is ON) becomes “L”. (Judgment is performed once with the main loop.)

■ Abnormal temperature detection

An abnormal temperature is judged to exist when one of the abnormal temperature detection ports (A/D input, 2 ports) becomes 4.3 V or higher, and then the power is switched off. (Judgment is performed once with the main loop.)

■ Overvoltage detection

An overvoltage is judged to exist when the overvoltage detection port (A/D input port) drops to 3.5 V or less, and then the power is switched off. (Judgment is performed once with the main loop.)

2. System Reset after Detection

■ Abnormal AC pulse

When the AC pulses have been interrupted for 2 pulses, reset start is performed. (Judgment is performed once with the main loop.)

■ Single unit operation of the powered subwoofer unit (HTZ-SW7)

(1) When the display unit is connected

When the display unit is connected, there are no other special connections.

The display unit has a remote control light receiver.

(2) When the display unit is not connected

When the display unit is not connected, the “remote control light reception jig GGF1270” must be connected. Please connect it to the point shown in Fig. 3.

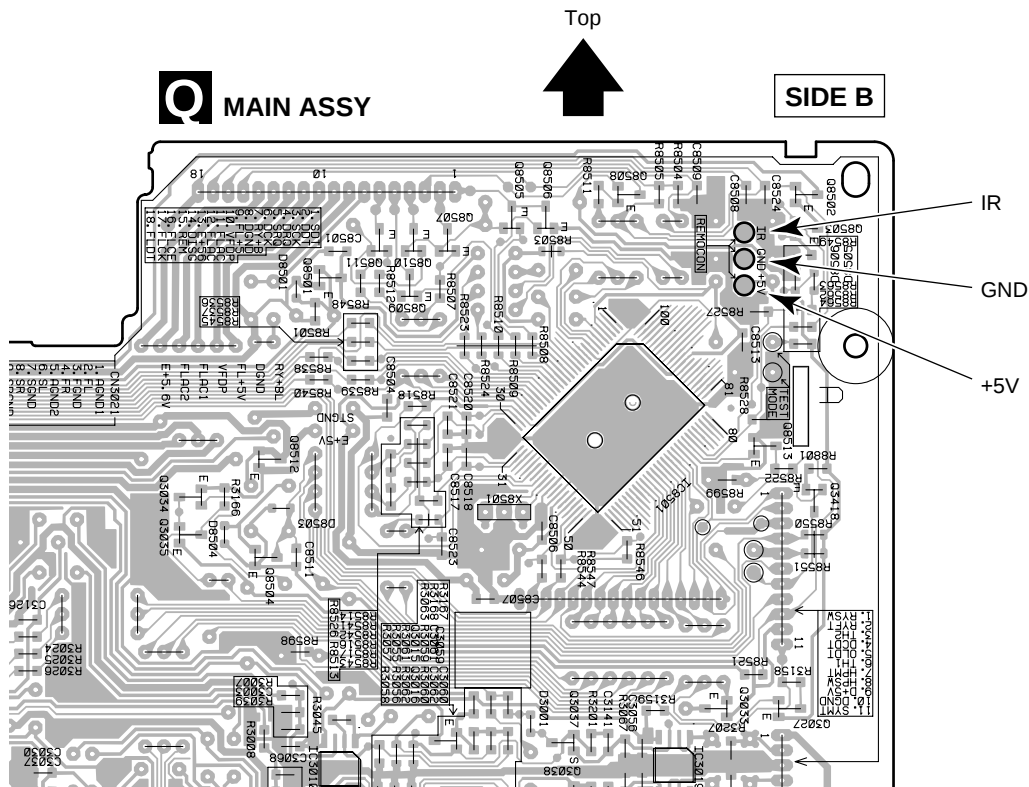


Fig. 3 Main assembly (seen from the solder side)

Cautions for making service connections

When power is to be supplied from an external power supply and when the relay is to be short-circuited forcibly, always disconnect the system cable between the DVD center unit and the subwoofer to prevent equipment breakage.

When the DVD center unit and the subwoofer both are present at the time of servicing, servicing in normal mode (user used condition) is recommended except for DVD test mode. (Test modes other than the DVD test mode are not supported when both units are connected.)

7.2.3 DISASSEMBLY

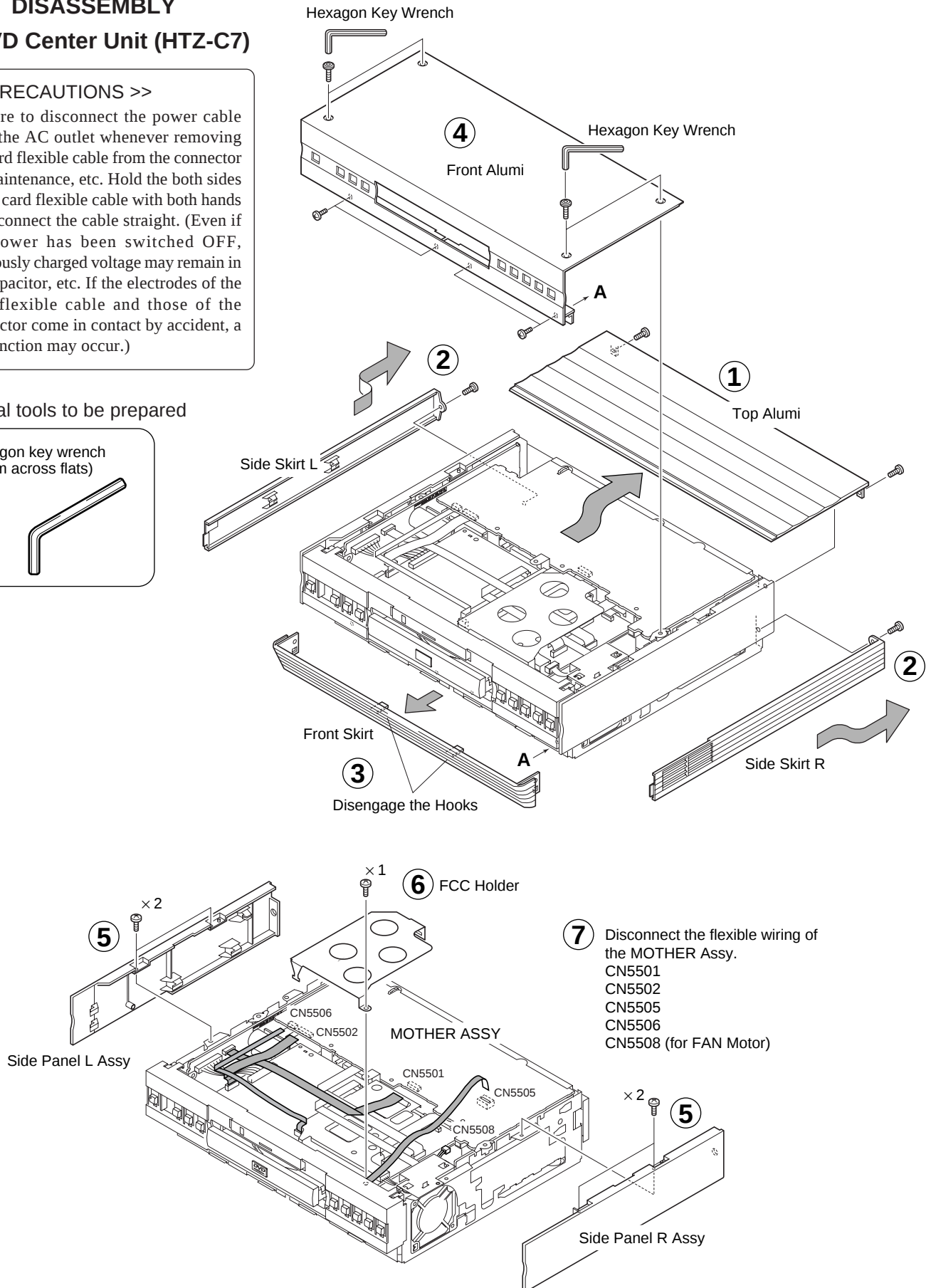
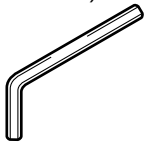
■ DVD Center Unit (HTZ-C7)

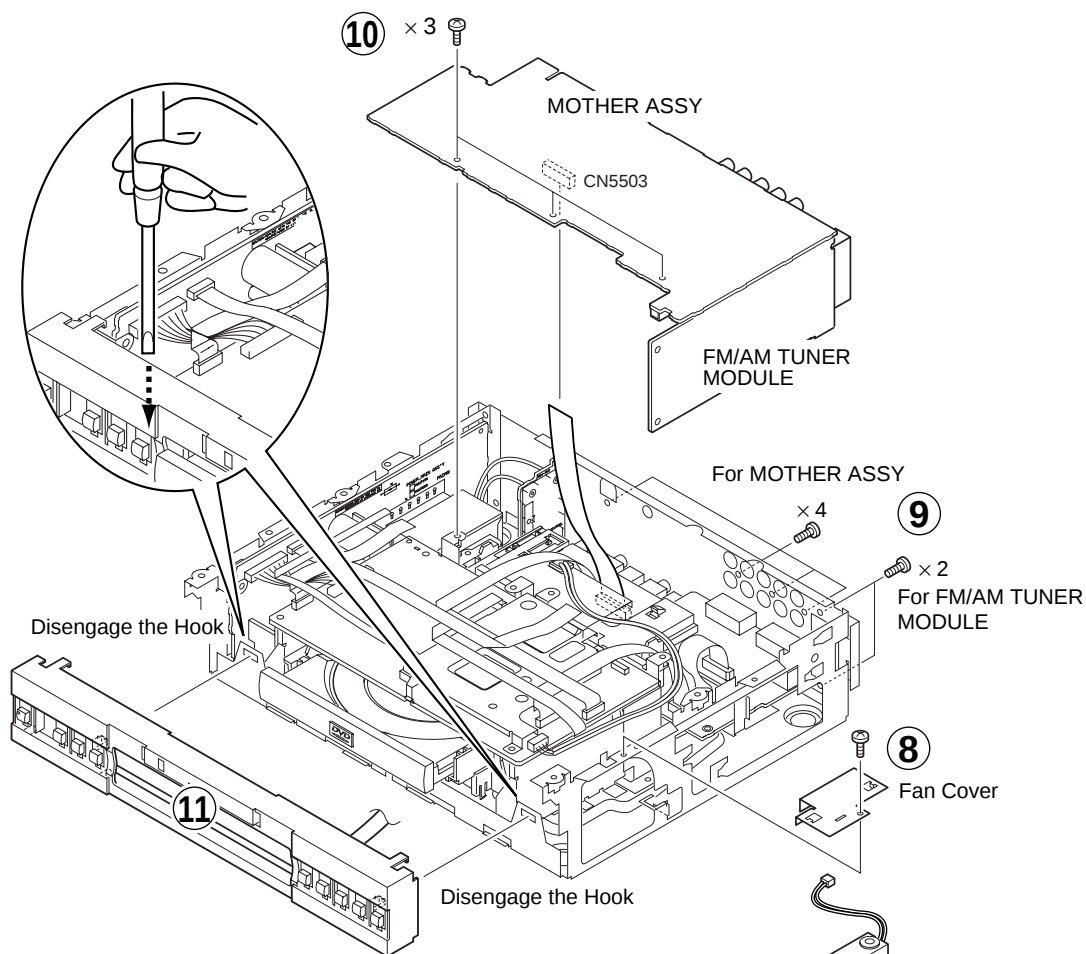
<< PRECAUTIONS >>

Be sure to disconnect the power cable from the AC outlet whenever removing the card flexible cable from the connector for maintenance, etc. Hold the both sides of the card flexible cable with both hands to disconnect the cable straight. (Even if the power has been switched OFF, previously charged voltage may remain in the capacitor, etc. If the electrodes of the card flexible cable and those of the connector come in contact by accident, a malfunction may occur.)

Special tools to be prepared

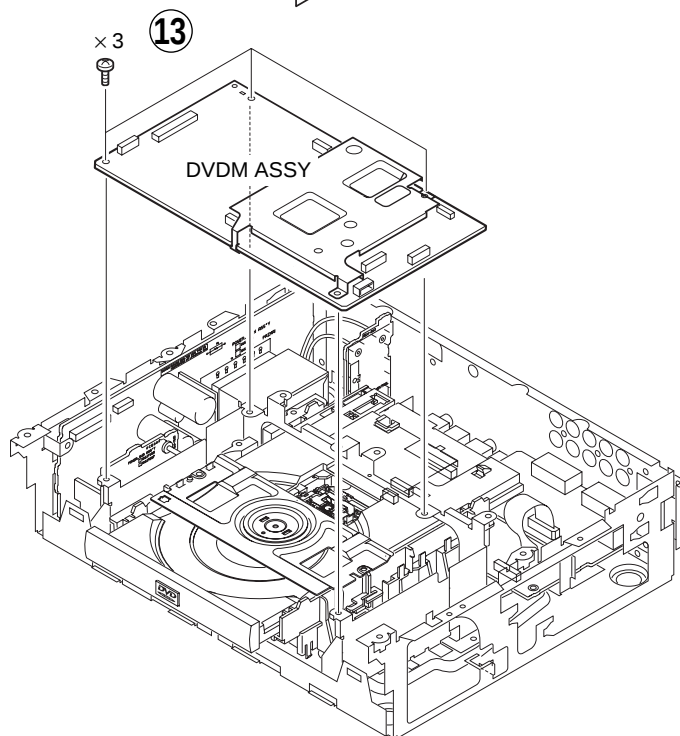
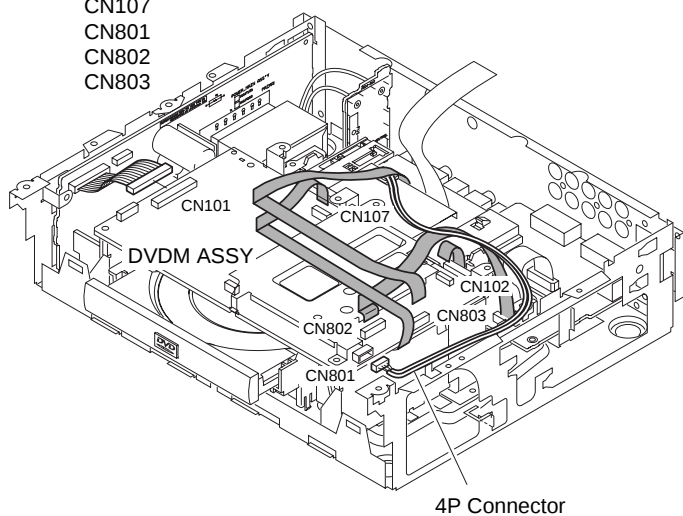
Hexagon key wrench
(2 mm across flats)

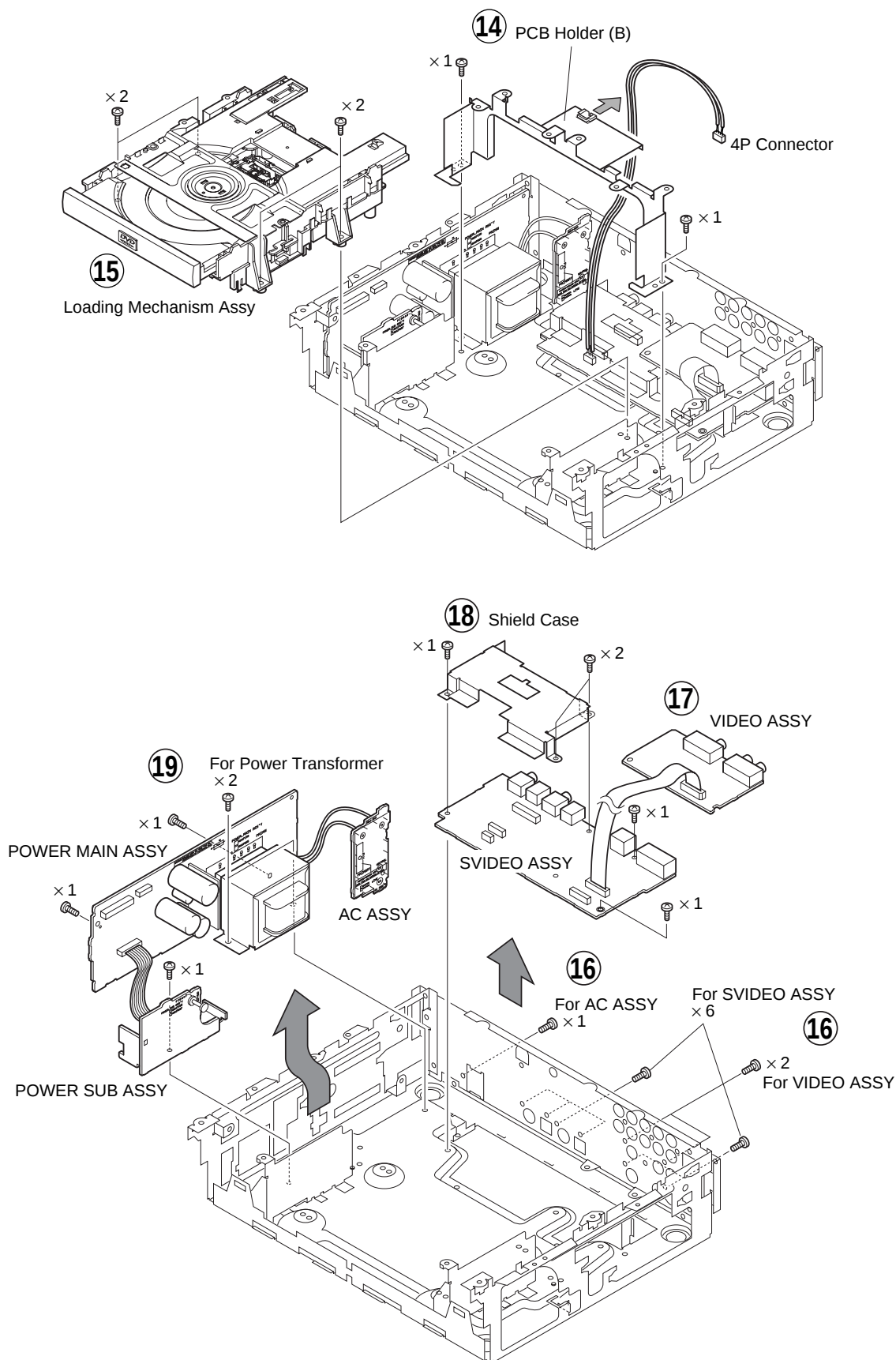




12 Disconnect the flexible wiring of the DVDM Assy.

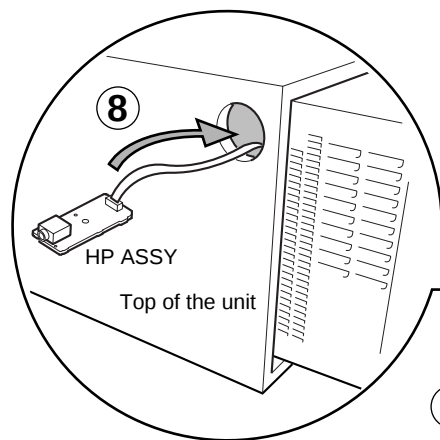
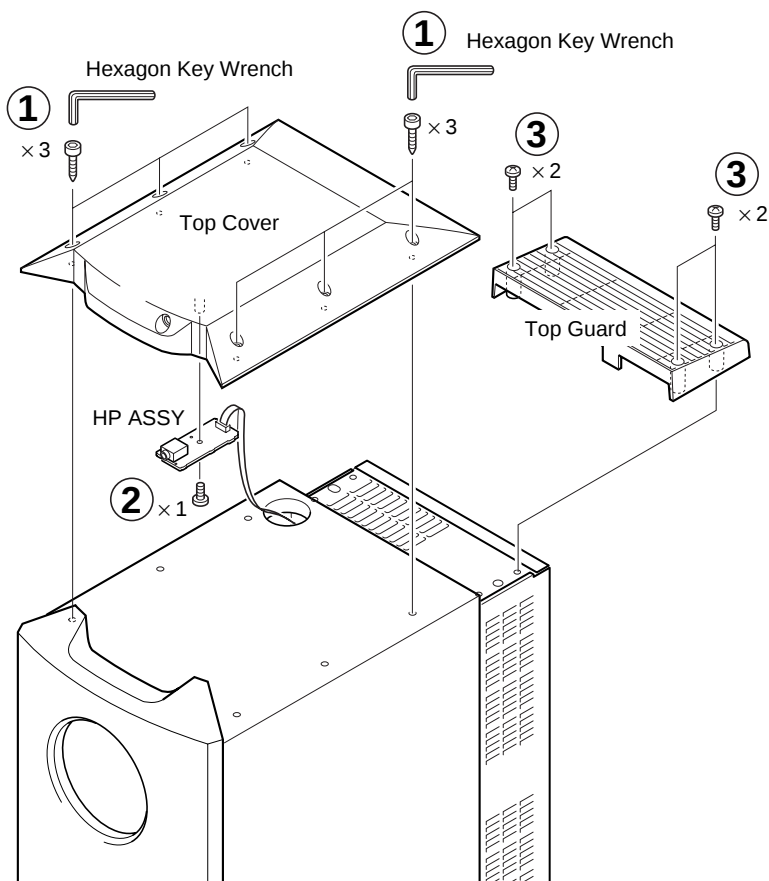
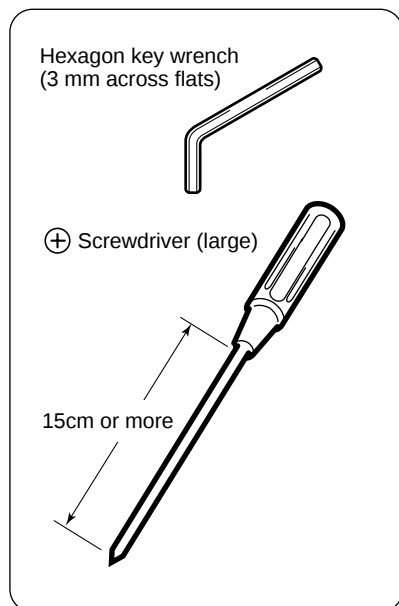
CN101
CN102
CN107
CN801
CN802
CN803



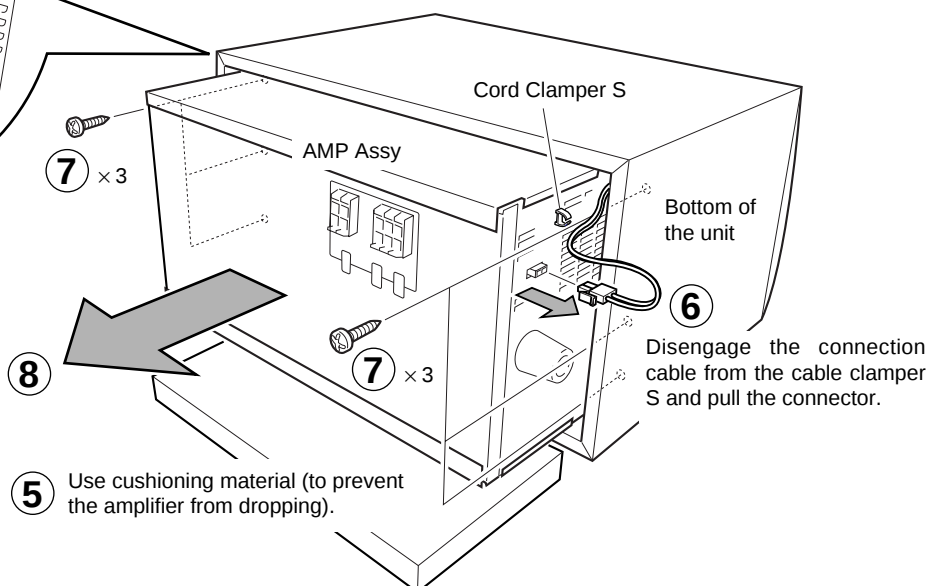


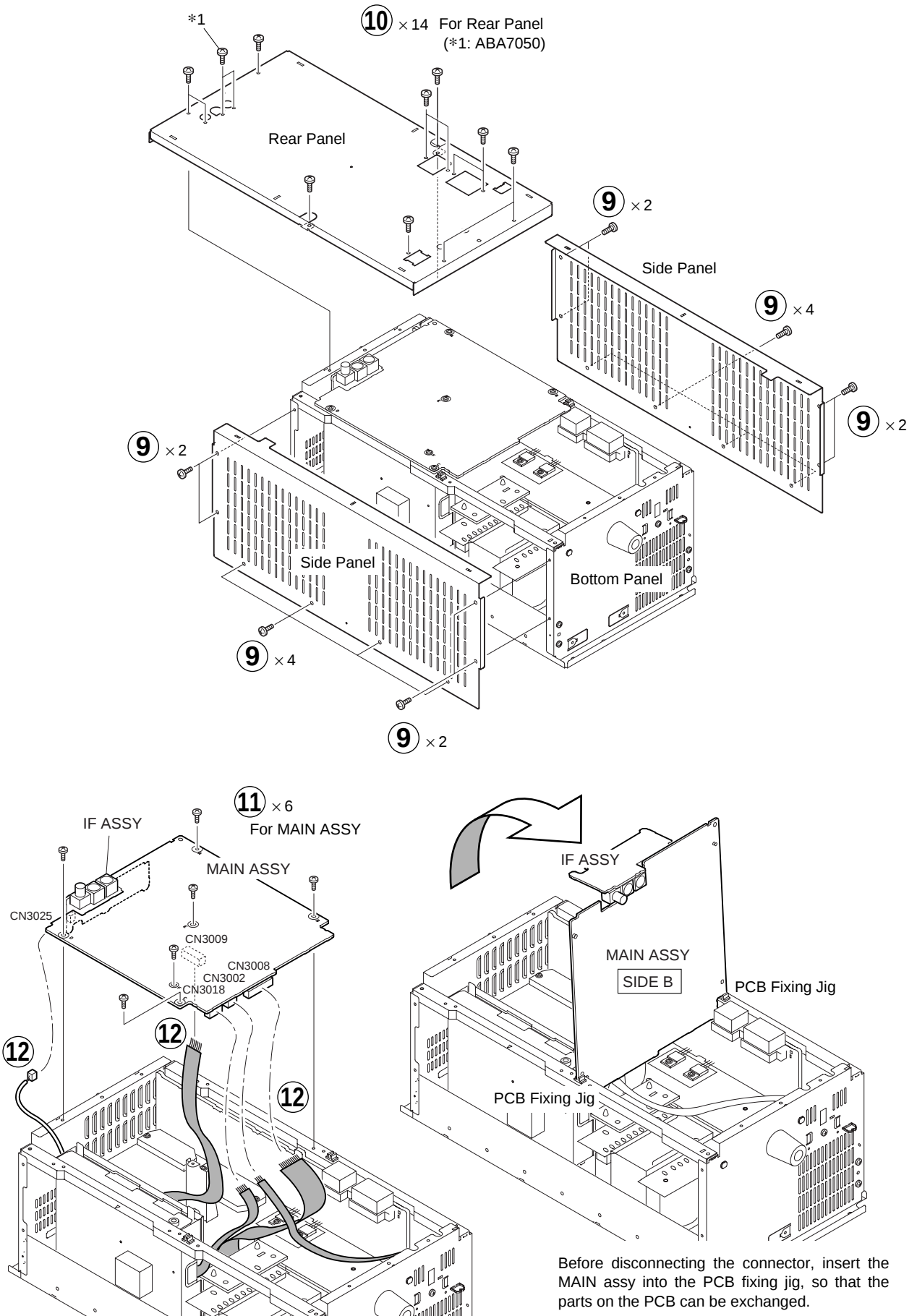
■ Powered Subwoofer (HTZ-SW7)

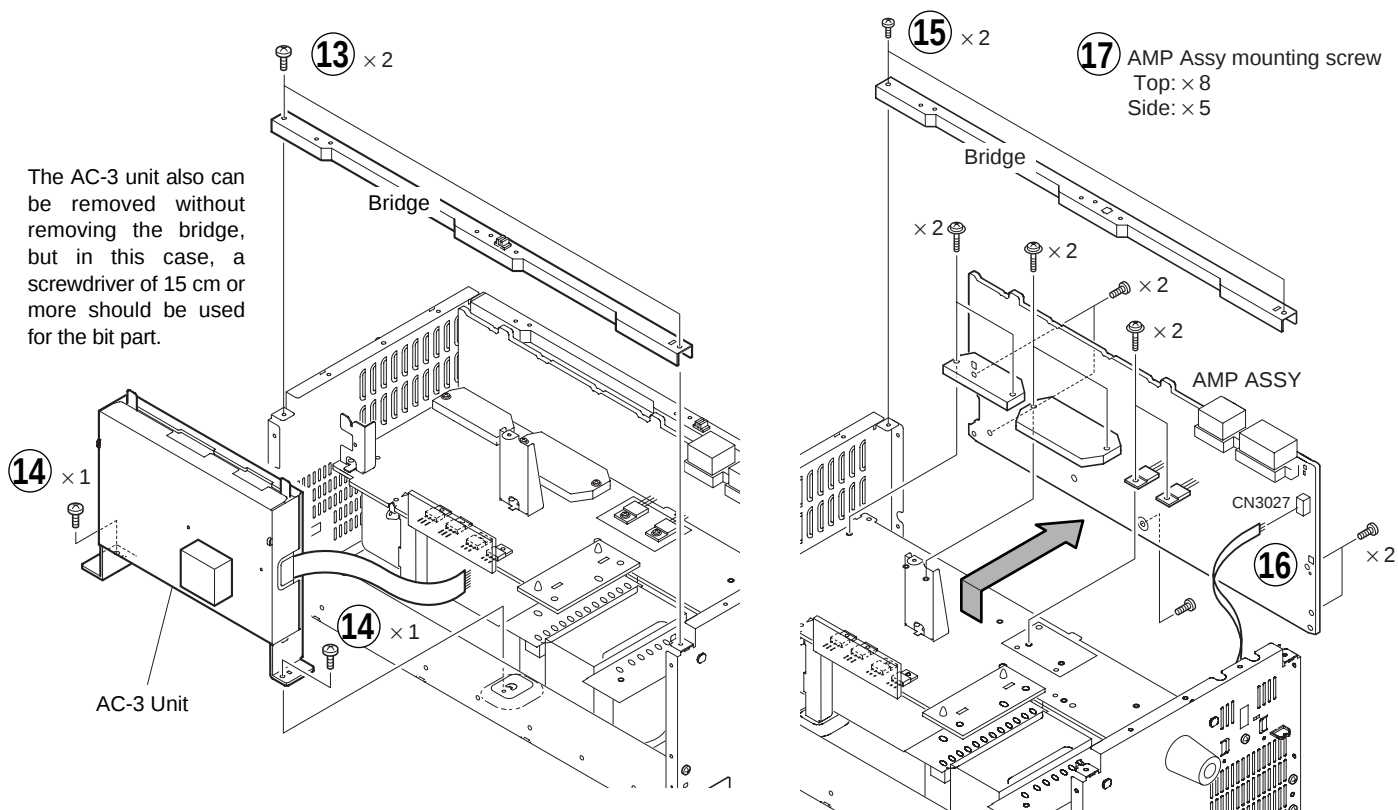
Special tools to be prepared



4 Place the unit on its side.
(As the unit is heavy, take care not to damage it.)







7.2.4 TEST MODE

■ DVD Center Unit (HTZ-C7)

1. Entry into test mode

Perform power ON after short-circuiting the “TEST MODE” pin of the MOTHER assy during power OFF or transmit “ESC+TEST” with the test mode remote control unit (GGF1067).

The power will be switched on and AV controller test mode will be entered. The standby LED of the main unit flashes during AV controller test mode. (Refer to Fig. 1.)

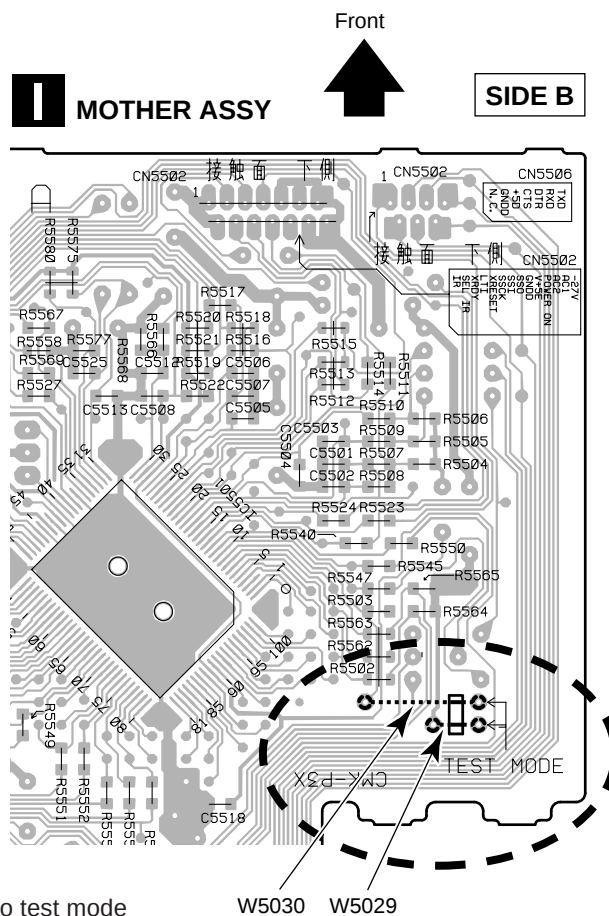
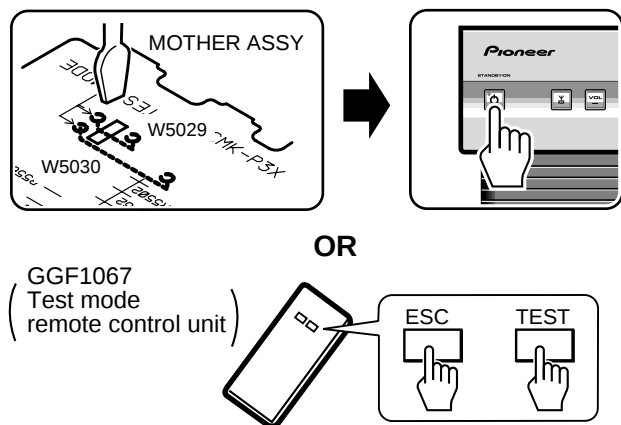


Fig. 1 Entry into test mode

2. Special Operations during Test Mode

■ Special operations during test mode

During AV controller test mode, the DVD player section can be operated with the single unit DVD remote control (component code \$A3), which normally does not function. Also, when “ESC + TEST” is transmitted during AV controller test mode with the LD servicing test remote control, DVD test mode will be entered. The operation is equivalent to the operation for the single unit player DV-505. Power OFF is performed when “ESC” is transmitted with the LD servicing test remote control during DVD test mode.

■ Function switching during test mode

As this unit has no function keys on the unit body, “VOL +” and “VOL -” on the unit body are used for function switching during AV controller test mode.

■ Switching of DVD, tuner, MD, audio 1, and audio 2

The DVD function is active at the time of test mode ON. When “VOL +” on the unit body is pressed, the function can be switched in the sequence of DVD → tuner → MD → audio 1 → audio 2. When “VOL -” on the unit body is pressed, the function can be switched in the sequence of audio 2 → audio 1 → MD → tuner → DVD. Here, several seconds may be required for switching from DVD to tuner, tuner to DVD, tuner to MD, and MD to tuner. As key input is not accepted during switching, the function switching key should be pressed slowly and with slightly longer intervals. As there is no function indication, provide video or audio input and confirm that the function has been switched.

■ Automatic presetting of tuner and station memory

The contents of the station memory preset automatically when entering into test mode are shown below.

ST1, FM	88.5 MHz
ST2, FM	89.5 MHz
ST3, AM	954 kHz
ST4, AM	1062 kHz
ST5, FM	88.0 MHz

■ DVD remote operation

The DVD player operates with the single unit DVD remote control (component code \$A3). In the same way as at the time of normal operation, “ESC + TEST” from the LD service remote control can be used to enter into the same test mode as with the single unit DVD player. In this case, power OFF will occur with the next reception of “ESC”.

Note 1

DVD → TUNER → MD → AUDIO1 → AUDIO2 →

At the time of the above switching, several seconds are required to switch from DVD to TUNER. When “VOL +/-” is switched during this time, the function will not be switched. Please wait several seconds before switching.

Notes 2

● How to select “VIDEO1 ANALOG”
AUDIO2 – (VOL+) → VIDEO1 ANALOG

● How to select “VIDEO1 DIGITAL”
(Switch once to VIDEO2 and then use VOL- to return to VIDEO1.)
AUDIO2 – (VOL+) → VIDEO1 ANALOG – (VOL+) →
VIDEO1 ANALOG – (VOL+) → VIDEO2 ANALOG – (VOL-) →
VIDEO1 DIGITAL

● How to select “VIDEO2 ANALOG”
AUDIO2 – (VOL+) → VIDEO1 ANALOG – (VOL+) →
VIDEO1 ANALOG – (VOL+) → VIDEO2 ANALOG

● How to select “VIDEO2 DIGITAL”
(Perform power OFF/ON after setting to the second of VIDEO2. At the time of power ON, “ESC+TEST” must be used to enter into test mode.)
AUDIO2 – (VOL+) → VIDEO1 ANALOG – (VOL+) →
VIDEO1 ANALOG – (VOL+) → VIDEO2 ANALOG – (VOL+) →
VIDEO2 ANALOG

When this setting has been made, VIDEO2 DIGITAL will be obtained by power OFF with the POWER button and power ON in test mode by “ESC+TEST”.

● Switching between video 1 and video 2
Audio analog input and digital input for video 1 and 2 can be switched with “VOL +” and “VOL -” on the main unit and power ON/OFF.

● How to select video 1 analog audio input
Press “VOL +” on the main unit once at the time of audio 2 selection.

● How to select video 1 digital audio input
Press “VOL +” on the main unit three times at the time of audio 2 selection.

● How to select video 2 analog audio input
Press “VOL +” on the main unit three times at the time of audio 2 selection.

● How to select video 2 digital audio input
At the time of audio 2 selection, press “VOL +” on the main unit four times, use the POWER switch on the main unit for power OFF (power OFF can be confirmed by the standby LED on the main unit changing from flashing to steady lighting), and transmit “ESC+TEST” from the test mode remote control for LD servicing for power ON in AV controller test mode, to switch to video 2 digital audio input. Video 2 analog audio input is selected at the time of power OFF.)

HTZ-7, HTZ-C7, HTZ-SW7, HTZ-ST7

■ Powered Subwoofer (HTZ-SW7)

1. Test Mode Use Conditions

Use of the test mode with connected DVD center unit is not possible. In that case, do not use test mode, but normal operation.

■ When there is a display unit

When there is a display unit, use is possible simply by connection to an outlet.

■ When there is no display unit

The remote control light reception jig (GGF1270) must be connected. Display at the time of operation is not possible.

2. How to enter into test mode

With connection to an outlet and a display unit (or the remote control light reception jig), the power will be switched on and SF controller test mode will be entered when “ESC+TEST” is transmitted from the test mode remote control for LD servicing.

■ Display during test mode

After power ON, all FL are lit. Afterwards, TEST MODE is displayed except at the time of operation. The display at the time of operation is the same as during normal operation.

■ How to leave test mode

When “ESC” is transmitted from the test mode remote control for LD servicing (GGF1067), the power is switched off. The same effect can be obtained when the plug is pulled from the outlet.

■ Initial values of the set values for each mode and their adjustment ranges

Shown in Fig. 2.

Function	Initial Value	Adjustment Range
VOLUME	0	0 to 35
BASS	0	−6 to +6
TREBLE	0	−6 to +6
FRONT L LEVEL	0	−10dB to +10dB
FRONT R LEVEL	0	−10dB to +10dB
REAR L LEVEL	0	−10dB to +10dB
REAR R LEVEL	0	−10dB to +10dB
SUB WOOFER LEVEL	0	−10dB to +10dB
CENTER LEVEL	0	−10dB to +10dB
REAR L DELAY	0	0, 5, 10, 15 ms (15, 20, 25, 30 ms with Prologic)
REAR R DELAY	0	0, 5, 10, 15 ms (15, 20, 25, 30 ms with Prologic)
CENTER DELAY	0	0, 1, 2, 3, 4, 5 ms
MIDNIGHT	OFF	ON/OFF
DSP MODE	OFF	GAME, SPORT, MUSIC, MOVIE
ONE-TOUCH SURROUND	CENTER	FRONT +2 to REAR +2
DOLBY PRO-LOGIC	OFF	ON/OFF

Fig. 2 Initial Values for Each Mode
(Setting to the above initial values has been done at the time of power ON.)

■ Operation during test mode

During test mode, all operations can be performed with the test remote control for LD servicing (GGF1067). The operation is shown in Fig. 3.

■ Key layout diagram for the servicing remote control unit (GGF1067)

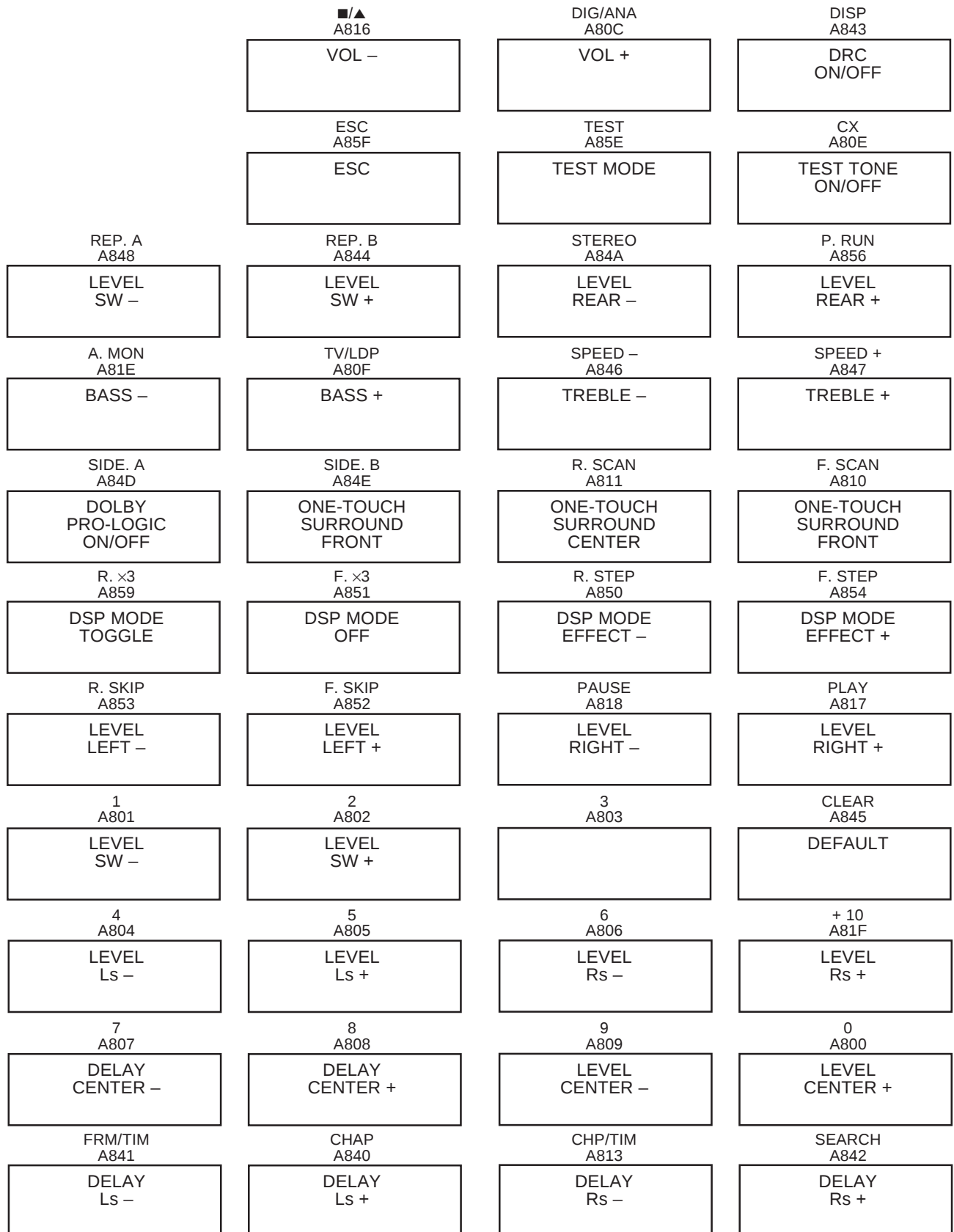
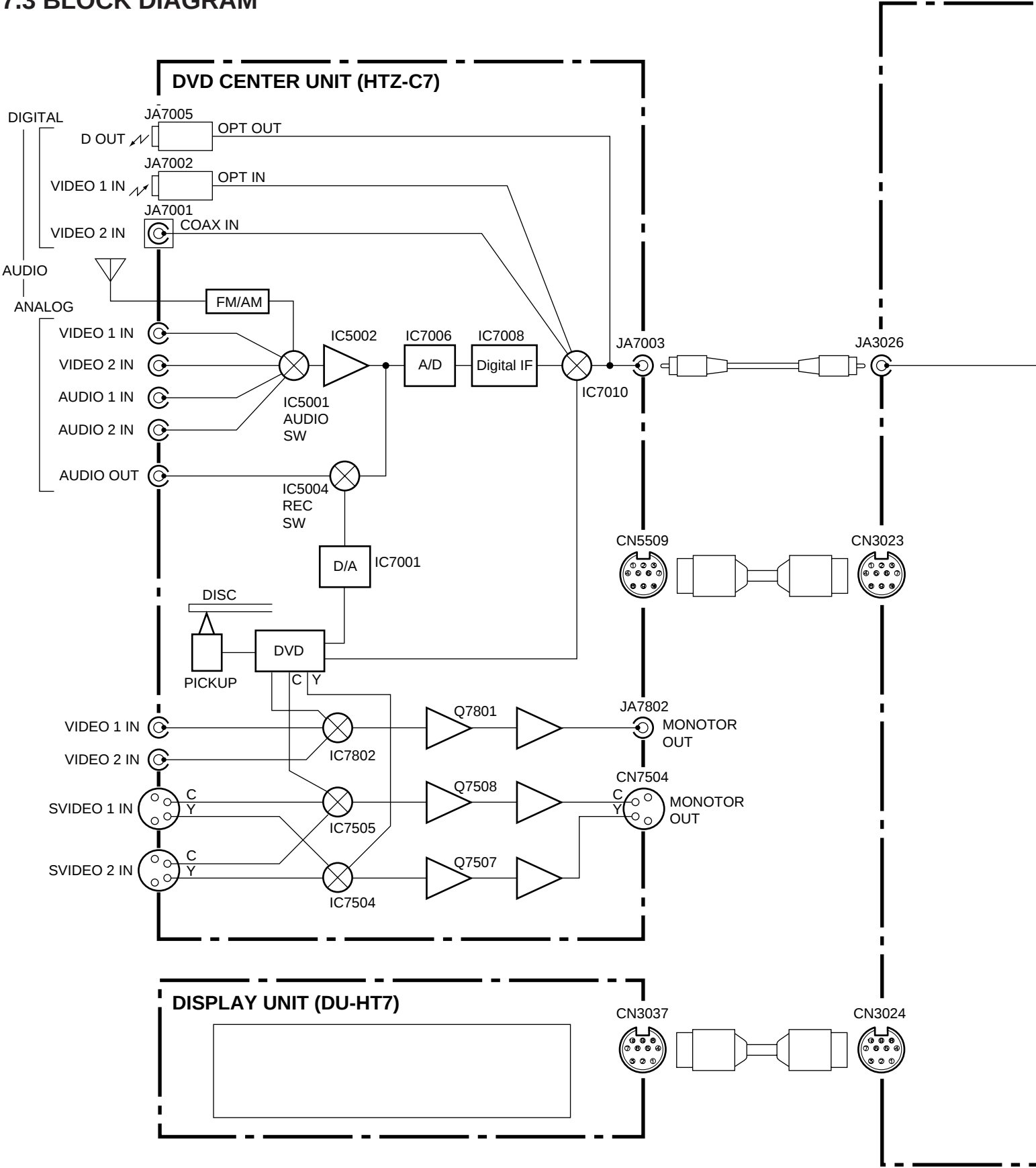
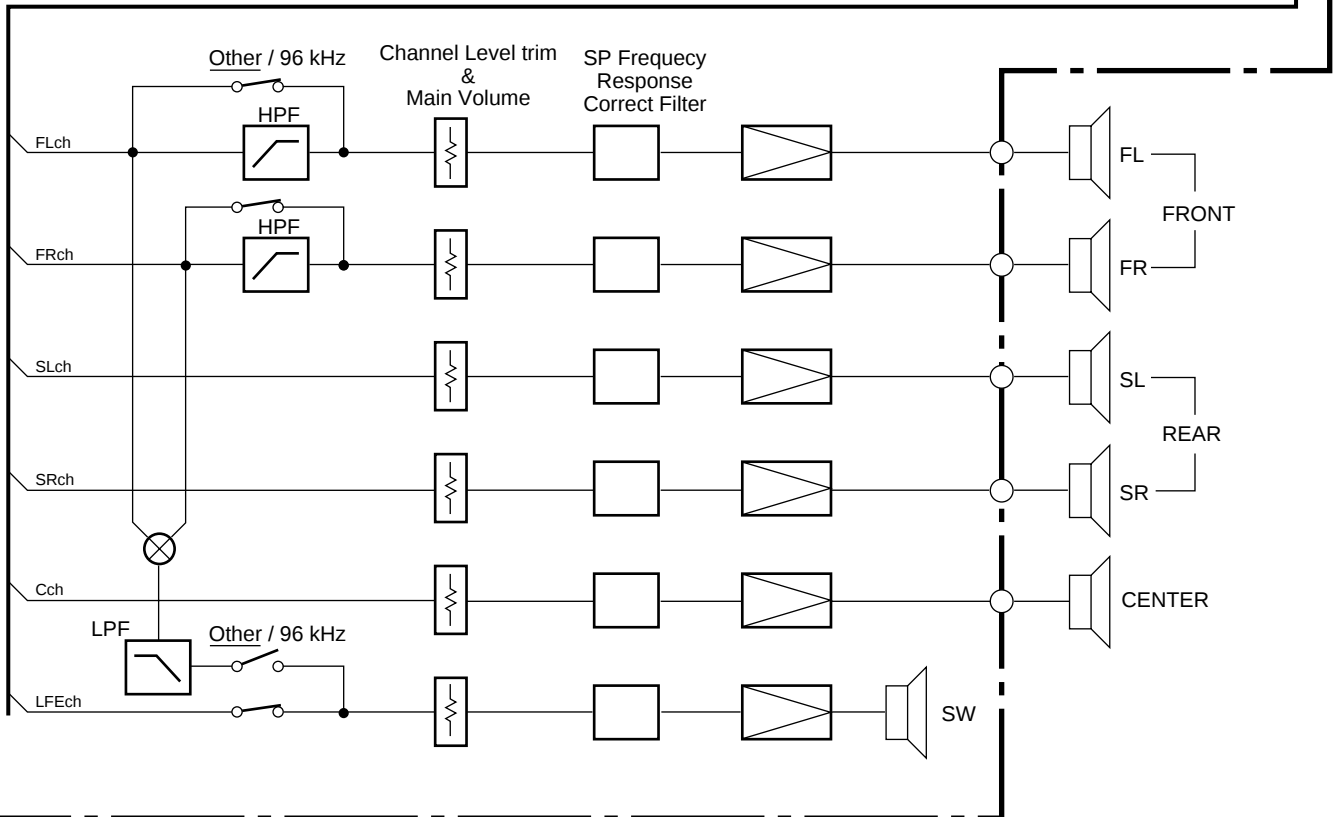
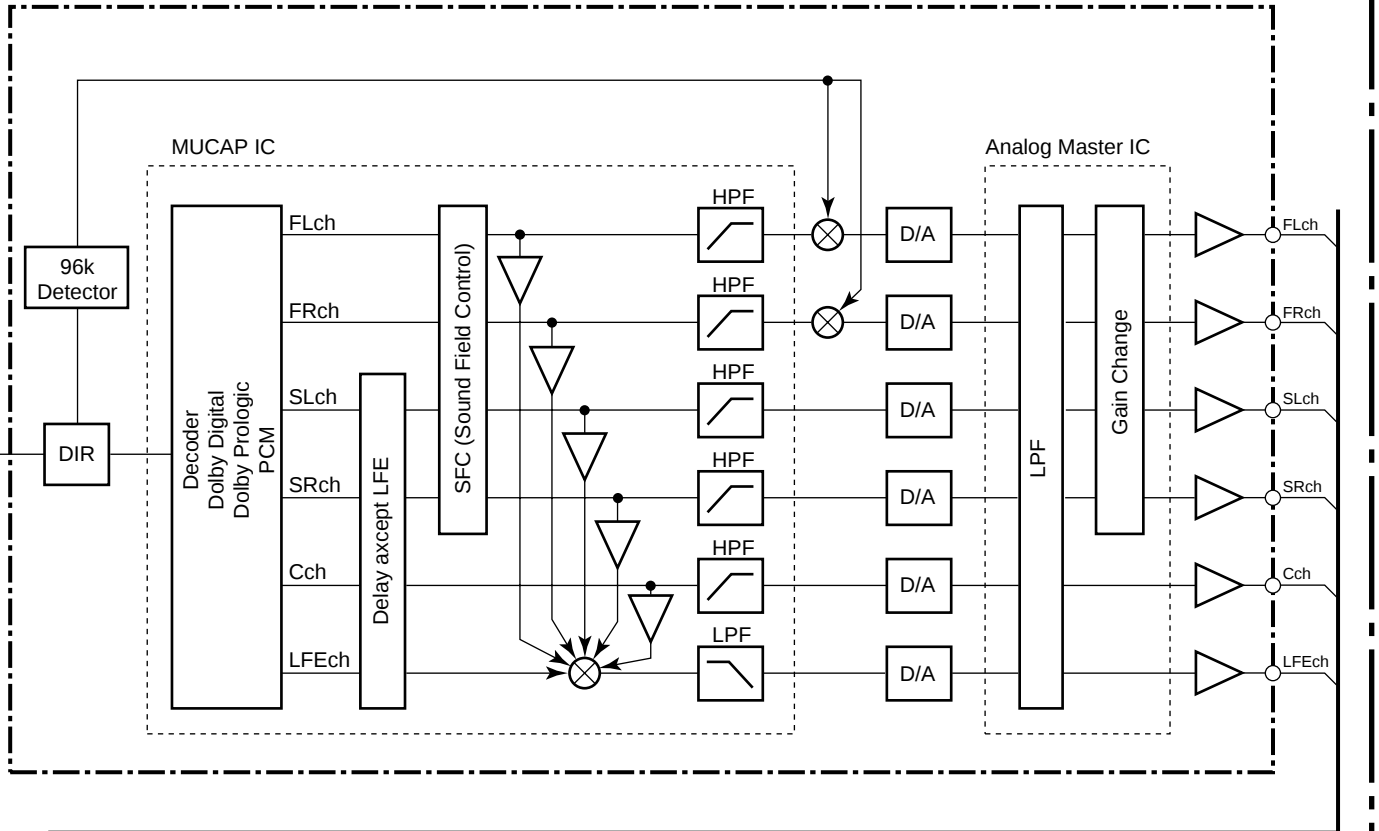


Fig. 3 Operation method for the powered subwoofer of the LD test mode remote control unit
(Drawn up according to the key layout for the test mode remote control unit for LD servicing)

7.3 BLOCK DIAGRAM

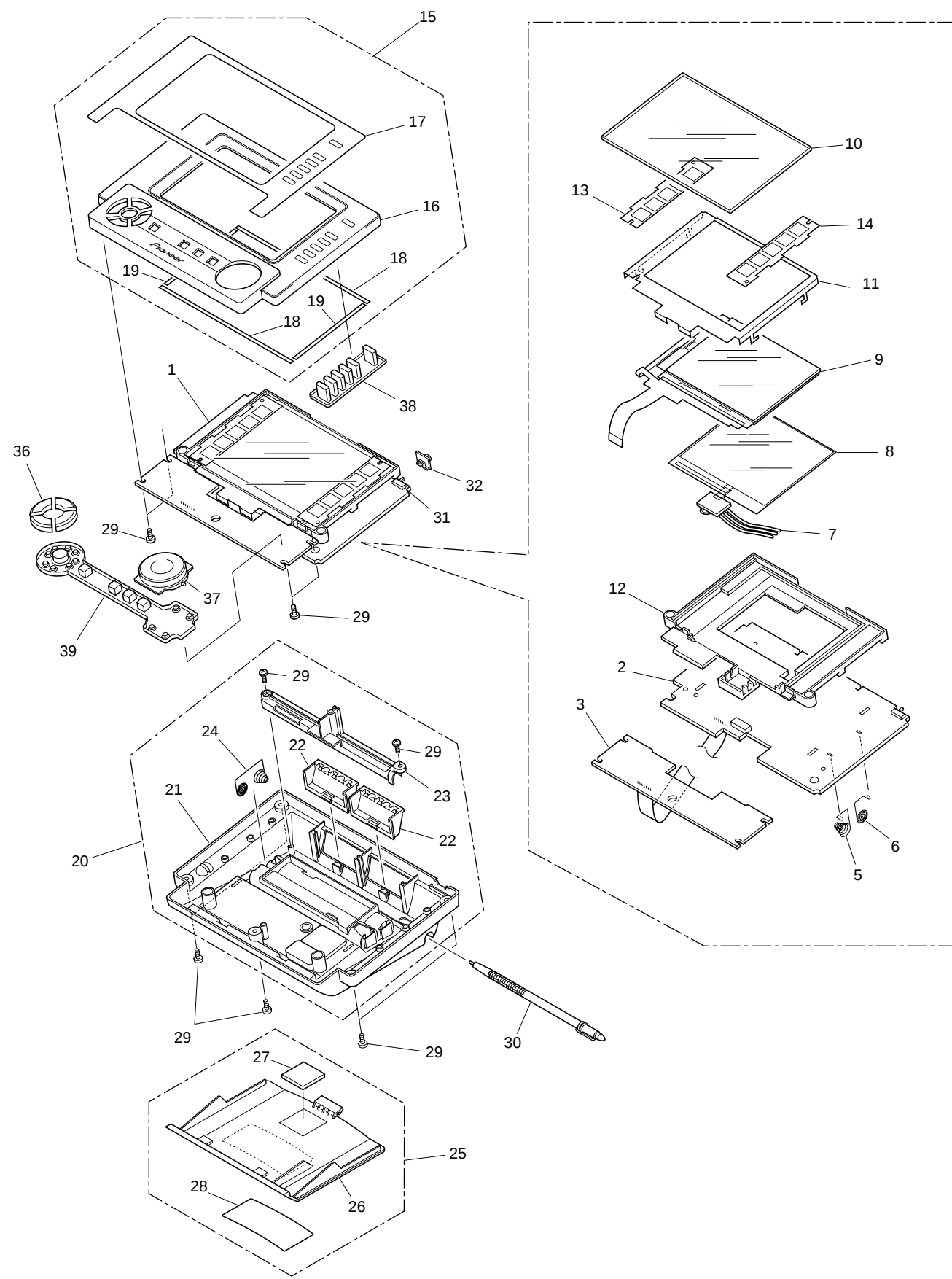


POWERED SUBWOOFER (HTZ-SW7)



7.4 REMOTE CONTROL UNIT [CU-HT005 (AXD7232)]

7.4.1 EXPLODED VIEWS AND PARTS LIST

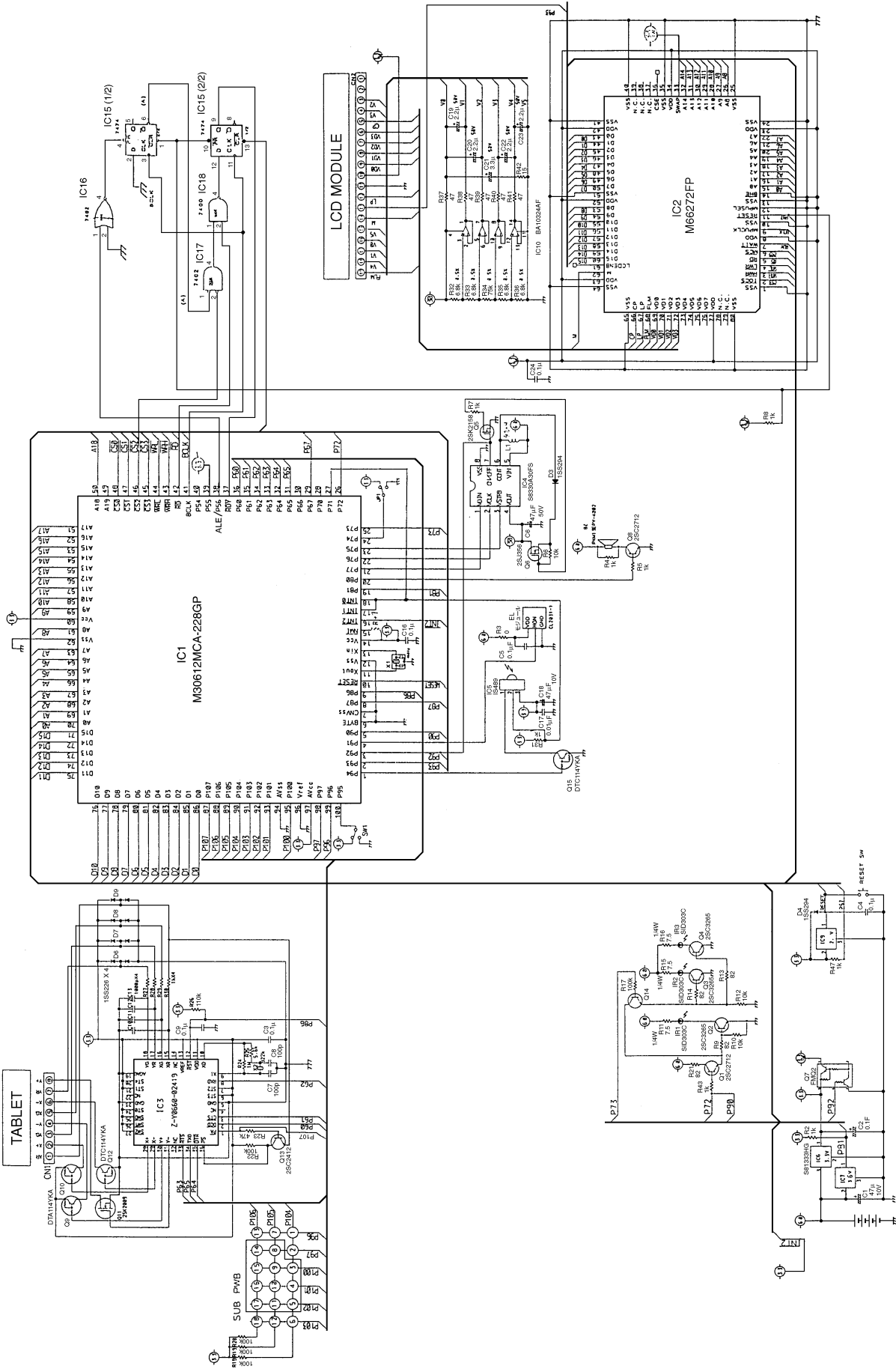


NOTES : ● Parts marked by “NSP” are generally unavailable because they are not in our Master Spare Parts List.
 ● The Δ mark found on some component parts indicates the importance of the safety factor of the part.
 Therefore, when replacing, be sure to use parts of identical designation.
 ● Screw adjacent to ▼ mark on the product are used for disassembly.

■ REMOTE CONTROL UNIT PARTS LIST

Mark	No.	Description	Part No.
	1	PWB Assy	RRC4-7251-01
	2	P. W. Board A	401RRC19301R
	3	P. W. Board B	401RRC19401R
	4		
	5	Terminal A	411RRC15801R
	6	Terminal B	411RRC15901R
	7	Jumper Cable	E-AA1446-001
	8	EL Module	E-AA1457-001
	9	LCD Module	E-EC1026-001
	10	Touch Panel	NTX01005701R
	11	Frame	501RRC01901R
	12	LCD Holder	501RRC01701R
	13	Seal A	204RRC10301R
	14	Seal B	204RRC10302R
	15	Upper Case Assy	RRC4-7251-02
	16	Case A	102RRC24301R
	17	Name Plate	201RRC27001R
	18	Cushion A	701RRC04801R
	19	Cushion B	701RRC04901R
	20	Bottom Case Assy	RRC4-7251-03
	21	Case B	102RRC24401R
	22	Filter	811RRC08001R
	23	Pen Holder	501RRC01801R
	24	Terminal	413RRC11201R
	25	Battery Cover Assy	RRC4-7251-04
	26	Battery Cover	103RRC14701R
	27	Cushion C	701RRC03501R
	28	Label	204RRC10604R
	29	Screw	ABA2005022#2
	30	Touch Pen	E-AA1445-001
	31	Slide Switch	JSB1220-0111
	32	Slide Knob	301RRC07801R
	33		
	34		
	35		
	36	Key Top A	302RRC09901R
	37	Key Top B	302RRC10001R
	38	Rubber Sheet A	421RRC20701R
	39	Rubber Sheet B	421RRC20801R

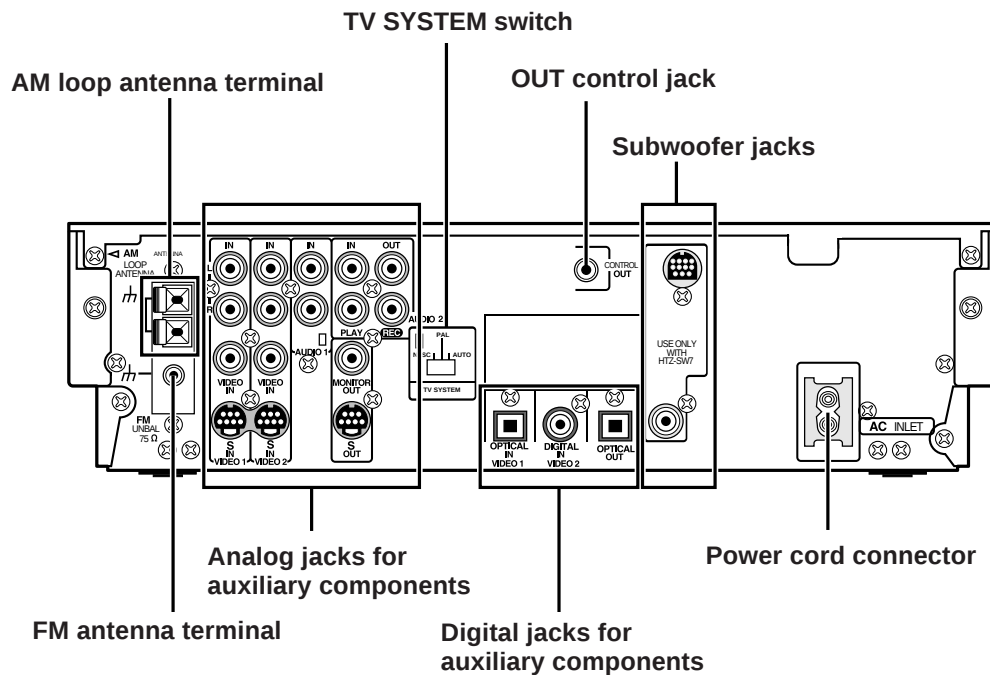
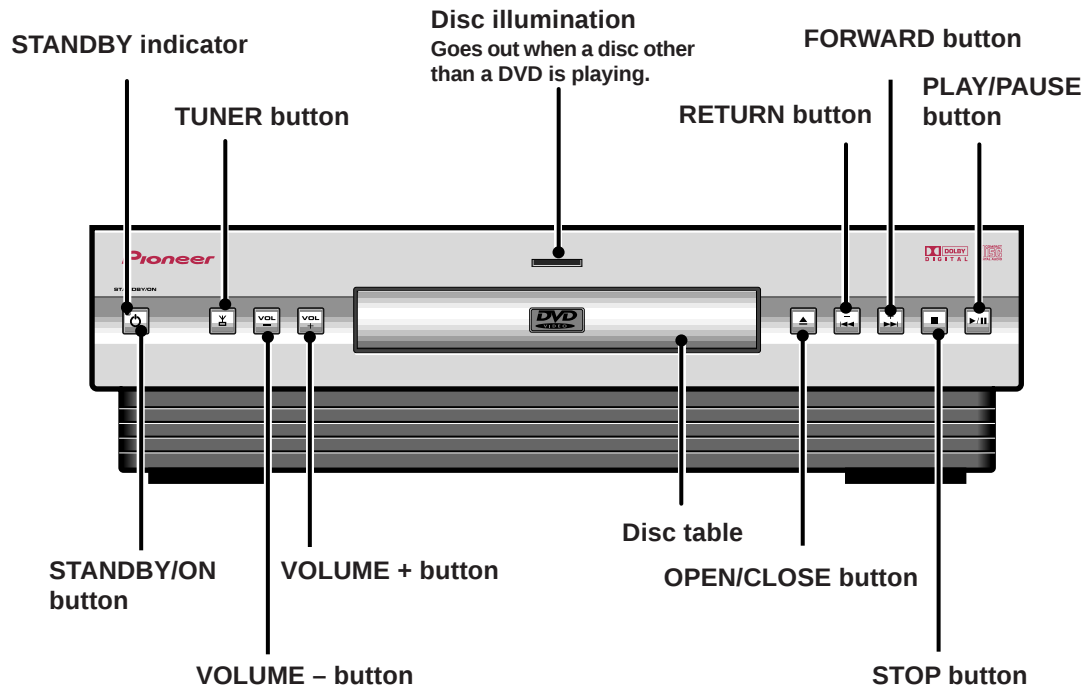
7.4.2 SCHEMATIC DIAGRAM (REFERENCE DOCUMENTATION)



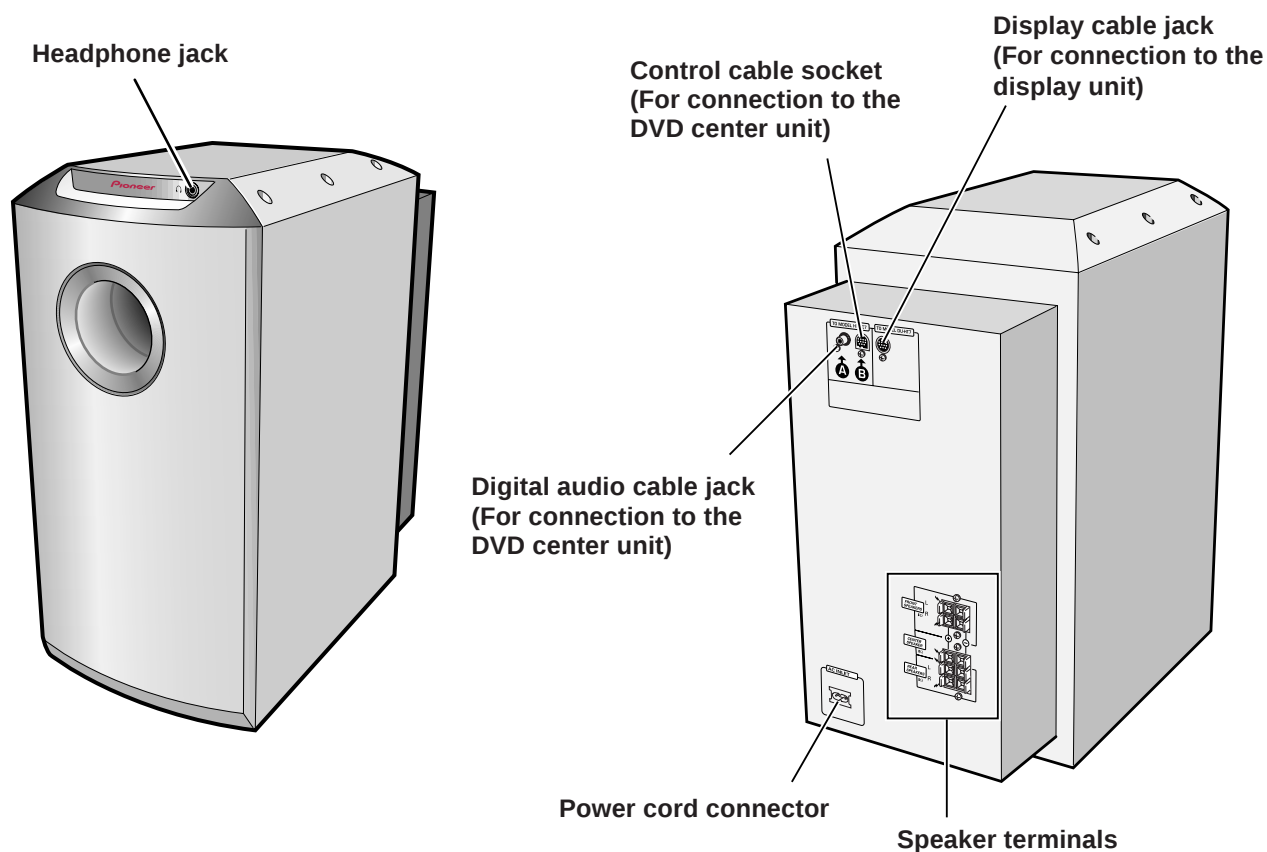
8. PANEL FACILITIES AND SPECIFICATIONS

■ PANEL FACILITIES

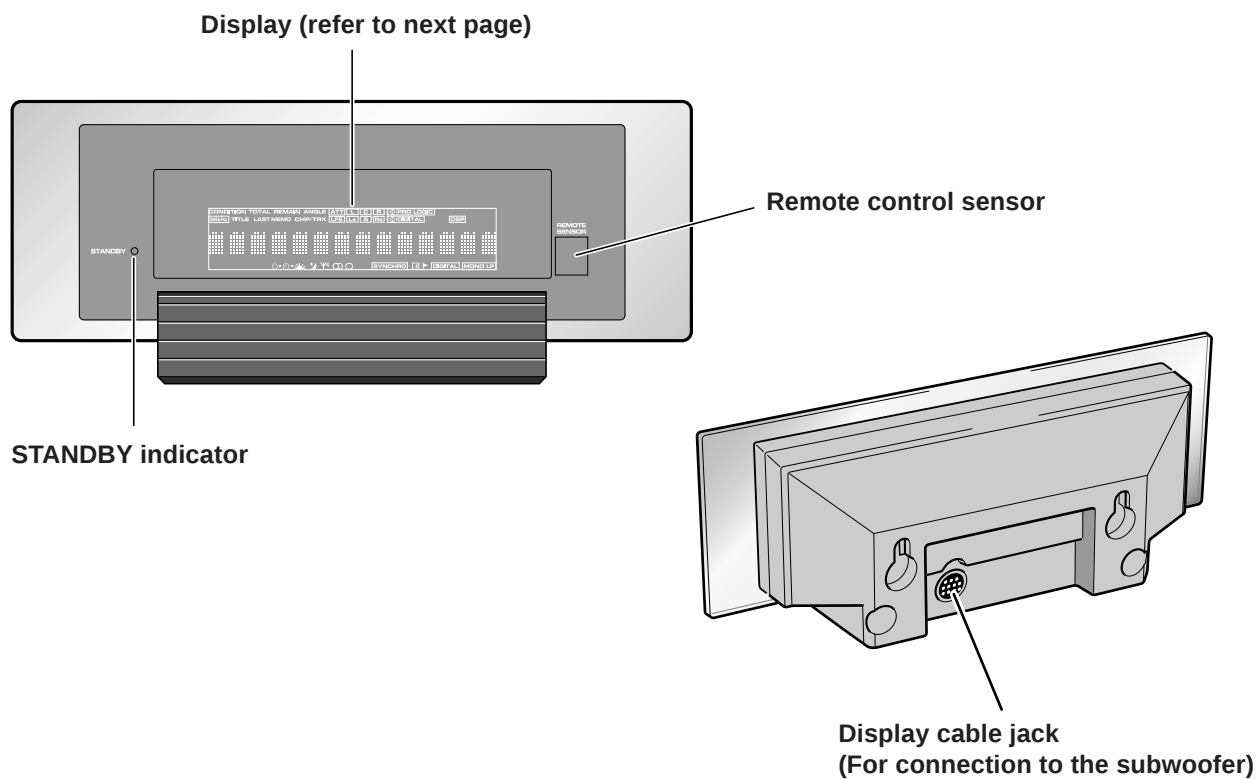
■ DVD Center Unit (HTZ-C7)



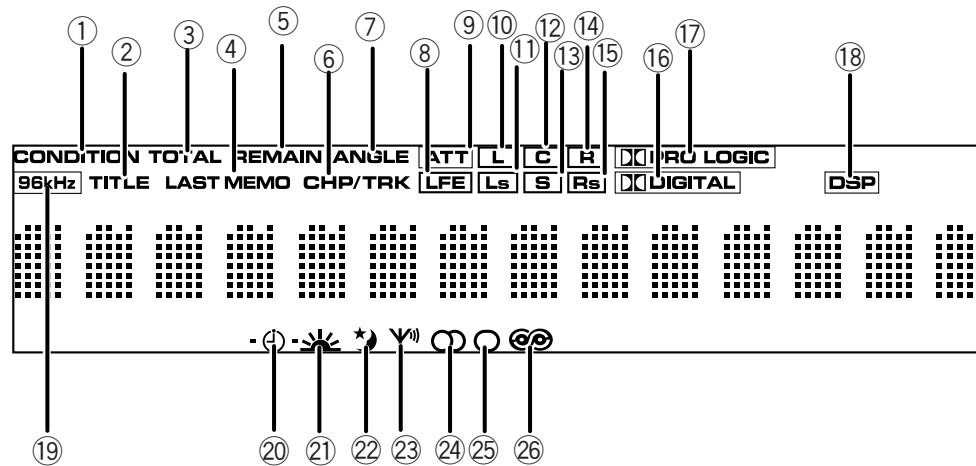
■ Powered Subwoofer (HTZ-SW7)



■ Display Unit (DU-HT7)



● Display



① **CONDITION**

Indicates playback settings (condition) are memorized.

② **TITLE**

Indicates a title playback.

③ **TOTAL**

Indicates total playback time of disc side currently playing.

④ **LAST MEMO**

Indicates that the location on disc where you last stopped watching is memorized.

⑤ **REMAIN**

Indicates remaining playback time.

⑥ **CHP/TRK**

Indicates playback of a chapter or track.

⑦ **ANGLE**

Indicates multi-angle playback.

⑧ **LFE**

LFE lights when the unit is set for Dolby Digital playback and there's a source channel set for LFE (Low Frequency Effect) reproduction. During actual playback, [LFE] lights.

⑨ **ATT**

Lights when the attenuator is ON.

⑩ **L** ⑪ **Ls** ⑫ **C** ⑬ **S** ⑭ **R** ⑮ **Rs**

Set channels light.

⑯ **DIGITAL**

Indicates Dolby Digital playback is in progress.

⑰ **PRO LOGIC**

Indicates Dolby PRO LOGIC playback is in progress.

* When [DIGITAL] and [PRO LOGIC] light simultaneously
Indicates Dolby Digital playback of a Dolby Pro Logic encoded source is in progress.

⑱ **DSP**

Lights during DSP mode selection.

⑲ **96 kHz**

Lights during playback of a disc with a sampling frequency of 96kHz.

⑳ **Timer ON**

Lights during Wake-up Timer setting/operation.

㉑ **Wake-up Timer**

Lights when the Wake-up Timer is ON, and flashes during Wake-up Timer operation.

㉒ **Sleep Timer**

Lights when the Sleep Timer is ON and during Sleep Timer operation.

㉓ **Station Reception**

Lights during broadcast station reception.

㉔ **Stereo Station Reception**

Lights during stereo broadcast station reception.

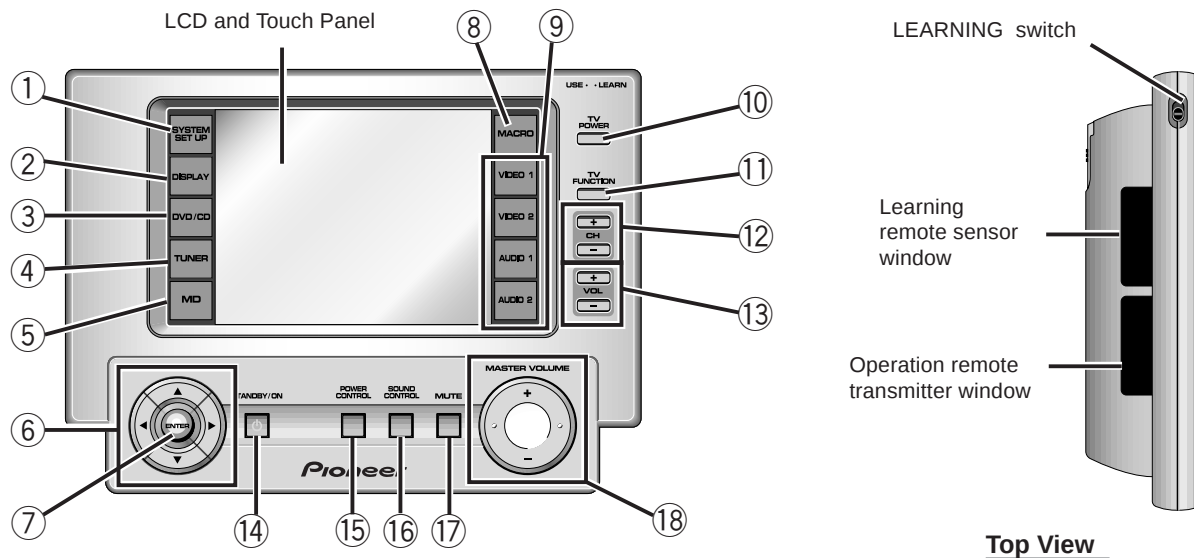
㉕ **Mono**

Lights when the Monaural mode is selected.

㉖ **RDS**

Lights when this unit is set to display RDS information.

Remote Control Unit



System Buttons

- ① **SYSTEM SET UP button**
Displays the Set Up menu.
- ② **DISPLAY button**
Displays the Timer menu.

Function Buttons

- ③ **DVD/CD button**
Displays the DVD/CD menu and switches DVD/CD functions.
- ④ **TUNER button**
Displays the Tuner menu and switches tuner functions.
- ⑤ **MD button**
Displays the MD menu.

Cursor Buttons

- ⑥ **Cursor buttons**
Function differs depending on the selected function.
- ⑦ **ENTER button**
Function differs depending on the selected function.

Macro Button

- ⑧ **MACRO button**
Displays the Macro menu.

Auxiliary Function Buttons

- ⑨ **VIDEO 1, VIDEO 2, AUDIO 1, AUDIO 2 buttons**
Displays menus for components preset in the VIDEO 1, VIDEO 2, AUDIO 1, and AUDIO 2 buttons, and switches between these functions.

LCD and Touch Panel

Provides function displays and a touch panel.

TV Buttons

- ⑩ **TV POWER button**
Switches TV power ON/OFF.
- ⑪ **TV FUNCTION button**
Displays a TV operation menu, and switch TV input ON/OFF.
- ⑫ **CH buttons +/-**
Change the TV channel.
- ⑬ **VOL button +/-**
Change TV volume level.

System Control Buttons

- ⑭ **STANDBY/ON button**
Switches power to the system ON/OFF.
- ⑮ **POWER CONTROL button**
Displays the Power Control menu.
- ⑯ **SOUND CONTROL button**
Displays the Sound Control menu.
- ⑰ **MUTE button**
Temporarily cuts volume level.
- ⑱ **MASTER VOLUME button**
Changes system volume level. (There are no LCD indications.)

LEARNING Switch

Use for the Learning and Macro functions.

Learning Remote Sensor Window

Use for the Learning and Macro functions. Use while pointing it at the remote transmitter window of another component's remote control.

Operation Remote Transmitter Window

Point at the display unit when using the remote control to operate this system.

SPECIFICATIONS

Amplifier Section

Continuous Power Output

SURROUND

(RMS) Front, Center, Rear	30 W, per channel (1 kHz, 0.8% T.H.D., 8 Ω)
(RMS) Sub woofer	45 W (100 kHz, 0.8% T.H.D., 8 Ω)
(DIN) Front, Center, Rear	30 W, per channel (100 kHz, 1% T.H.D., 8 Ω)
(DIN) Sub woofer	43 W (100 kHz, 1% T.H.D., 8 Ω)

Speakers Section

Satellite speakers HTZ-ST7

Type	Sealed, antimagnetic (EIAJ)*
Speaker	7cm (cone type)
Nominal impedance	8 Ω
Frequency range	110 to 20,000 Hz
Max. input	30 W (EIAJ)

Powered subwoofer HTZ-SW7

Type	20 cm (8 in.) bass reflex floor type, antimagnetic (EIAJ)*
Speaker	
Woofer	20 cm (cone type)
Nominal impedance	8 Ω
Frequency range	30 Hz to 350 Hz
Max. input	50 W (EIAJ)

DVD Player (Audio) Section

S/N ratio	115 dB (EIAJ)
Dynamic range	97 dB (EIAJ)
Distortion	0.003%
Frequency response	
48 kHz sampling	4 Hz to 22 kHz
96 kHz sampling	4 Hz to 44 kHz
Wow & flutter	Below measurable levels (±0.001% W.PEAK)

DVD Player (Video) Section

Output level	1 Vp-p (75 Ω)
Video Y output level	1 Vp-p (75 Ω)
Video C output level	286 mVp-p (75 Ω)

DVD (Other jacks) Section

Digital optical output (PCM/  (optical))	Optical connector
Control output	Minijack

Tuner Section

FM tuner

Frequency range	87.5 MHz to 108.0 MHz
Antenna	75 Ω unbalanced
Usable sensitivity	14.3 dBf (1.4μV, 75Ω)

AM tuner

Frequency range	522 kHz to 1.602 kHz (9 kHz step)
Antenna	loop antenna (supplied)

Power Supply Section

Power requirements	AC 220 V to 230V, 50/60 Hz
DVD center	
Power consumption	37 W
Standby power consumption	0 W
Powered subwoofer	
Power consumption	143 W
Standby power consumption	2 W

Miscellaneous

DVD center unit

Dimensions	320 (W) x 274 (D) x 89 (H) mm
Weight	4.0 kg (8.8 lbs)

Powered subwoofer

Dimensions	240 (W) x 445 (D) x 482 (H) mm
Weight	15.2 kg

Satellite speakers

Dimensions	150 (W) x 70 (D) x 90 (H) mm
Weight	0.50 kg

Display

Dimensions	210 (W) x 62 (D) x 86 (H) mm
Weight	0.23 kg

Remote control

Dimensions	168 (W) x 123 (D) x 42 (H) mm
Weight	0.30 kg

Operating conditions:

Temperature	+5°C to +35°C
Humidity	5% to 85% (without condensation)

Supplied Items

Remote control	1
Touch pen	1
Display unit	1
AM loop antenna	1
FM antenna	1
Feet	5
Digital audio cable	1
Video cable	1
Alkaline batteries (AA/LR6)	4
Power cord	1
Display cable	1
Control cable	1
Mini stands	5
Speaker cords (5 m)	3
Speaker cords (10 m)	2
Mounting screws (M4 x 12)	5
Bolts for covering holes (M4 x 6)(for sound quality adjustment) ..	10
Cord labels	1
Non-skid pads	1
Operating instructions (Setting up the HTZ-7)	1
Operating instructions	1
Warranty	1

* **Measured by Audio Spectrum Analyzer.**

* **Design and specifications are subject to change without notice.**

● **Antimagnetic design (EIAJ) speaker system conforms to the basic EIAJ standards.**

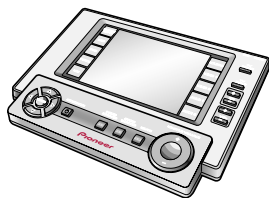
NOTE:

Specification and design subject to possible modifications without notice due to improvements.

Accessories

HTZ-C7

- Remote control (CU-HT005) (AXD7232)

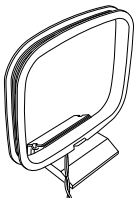


- Touch pen (EAA1445-001)



(Attached to the top part of the remote control on the rear.)

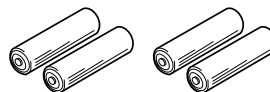
- AM loop antenna (ATB7009)



- FM antenna (ADH7005)



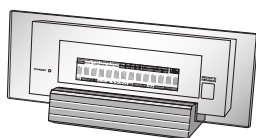
- Alkaline batteries (size AA/LR6) × 4



- Operating instructions (Setting up the HTZ-7)
- Operating instructions (Basic/Detailed)
- Warranty

HTZ-SW7

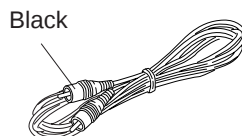
- Display unit (DU-HT7)



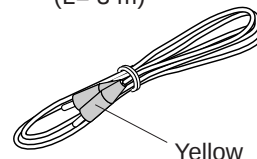
- Feet × 5 (SXK1046)



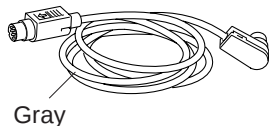
- Digital audio cable (ADE7028) (L= 3 m)



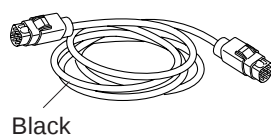
- Video cable (ADE7036) (L= 3 m)



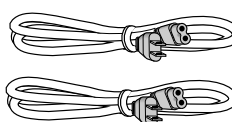
- Display cable (ADE7027) (L= 3 m)



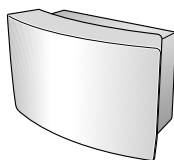
- Control cable (ADE7031) (L= 3 m)



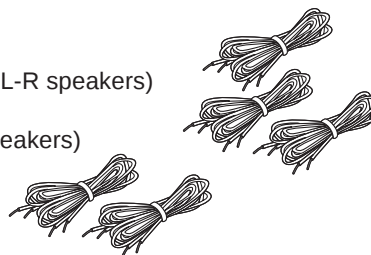
- Power cords × 2 (ADG1127)



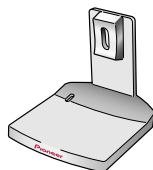
- Satellite speakers × 5 (HTZ-ST7/MY)



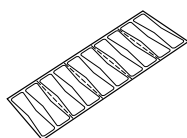
- Speaker cords
5m (16 ft. 3 in.) × 3 (for center, front L-R speakers) (SDS1053) (L= 5 m)
10m (32 ft. 6 in.) × 2 (for rear L-R speakers) (SDS1054) (L= 10 m)



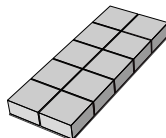
- Mini stands × 5 (SNK2312)



- Cord labels (SRW1066)



- Non-skid pads (SEP1189)



- Installation screws × 5 (BMZ40P120FMC)



- Sound quality adjustment screws × 10 (BMZ40P060FMC)

