

Service Manual



ORDER NO.
RRV2634

DVD/CD RECEIVER

XV-HTD50

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

Model	Type	Power Requirement	Reginal restriction codes (Region No.)	Remarks
XV-HTD50	MYXJ	AC220-230V	2	



For details, refer to "Important symbols for good services".

SAFTY INFORMATION



WARNING

THE AEL(ACCESSIBLEEMISSION LEVEL)OF THE LASER POWER OUTPUT IS LESS THAN CLASS 1 BUT THE LASER COMPONENT IS CAPABLE OF EMITTING RADIATION EXCEEDINGTHE LIMIT FOR CLASS1.

A SPECIALLY INSTRUCTEDPERSONSHOULD DO SERVICINGOPERATION OF THE APPARATUS.

LASER DIODE CHARACTERISTICS

FOR DVD : MAXIMUM OUTPUT POWER : 5 mW
WAVELENGTH : 655 nm

FOR CD : MAXIMUM OUTPUT POWER : 5mW
WAVELENGTH : 785 nm

LABEL CHECK

Printed on the Rear Panel

CLASS 1
LASER PRODUCT

CAUTION : VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN.
: AVOID EXPOSURE TO BEAM.

VORSICHT : SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN
ABDECKUNG GEOFFNET NICHT DEM STRAHL AUSSETZEN!

ADVARSEL : SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING
UNDGÅ UDSÆTTELSE FOR STRÅLING.

VARNING : SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA
DEL ÄR ÖPPNAD BETRÄKTA EJ STRÅLEN.

VARO! : AVATTAESSA ALTISTUT NÄKYVÄ JA NÄKYMÄTTÖMÄLLE
LASERSATEILYLLE. ÄLÄ KATSO SÄTEESEN.

VRW1699

Additional Laser Caution

1. Inside detection switch (S201 on the SMEB assy) and clamp-status detection switch (S11 on the TRSB assy) are detected by the microprocessor (IC11 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 S11 is shorted to +5V). The 655 nm laser diode for DVD oscillation will continue if pin 19 of IC1 is shorted to +5V (fault condition) in the DVDM assy.The 785 nm laser diode for CD oscillates if pin 20 of IC1 is shorted to +5V in the DVDM assy.
2. When the cover is open, close viewing through the objective lens with the naked eye will cause exposure to the laser beam.

* : See page 81.

[Important symbols for good services]

In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely. When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety



You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments



To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning



For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws



To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts



Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount. For replacement parts or tools, the prescribed ones should be used.

Discs compatible with this system

General Disc Compatibility

This player was designed and engineered to be compatible with software containing one or more of the following logos.



DVD-Video



Audio CD



Video CD



CD-R



CD-RW

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1. SPECIFICATIONS

Amplifier Section

Continuous power output (RMS)	
Front	87 W, per channel (1 kHz, 10 % T.H.D., 8 Ω)
Surround	33 W, per channel (1 kHz, 10 % T.H.D., 6 Ω)
Center	33 W, per channel (1 kHz, 10 % T.H.D., 6 Ω)
Subwoofer	87 W (100Hz, 10% T.H.D., 8Ω)

DVD Player (Audio)Section

S/N ratio	95 dB (EIAJ)
Dynamic range	95 dB (EIAJ)
Distortion	0.004%
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 coaxial input (PCM/Dolby/DTS)	Coaxial connector
---	-------------------

Tuner Section

FM tuner	
Frequency range	87.5 MHz to 108.0 MHz
Antenna	75 Ω unbalanced
AM tuner	
Frequency range	531 kHz to 1,602 kHz (9 kHz step)
.....	530 kHz to 1,700 kHz (10 kHz step)
Antenna	loop antenna (supplied)

Power Supply Section

Power Requirements	
Multi voltage model	
.....	AC 110-127/220-230/240 V (Switchable) , 50/60 Hz
European model	AC 220-230 V, 50/60 Hz
Australian and New Zealand models	AC 240 V, 50/60 Hz

Power consumption

European model	157 W
Australian and New Zealand models	156 W
Singapore, Malaysian, Hong Kong, and Central and South American models	152 W
All other models	436 W
Power consumption in standby mode	1 W

Miscellaneous

Dimensions	420 (W) x 455 (D) x 125 (H) mm
Weight	9.0 kg

Supplied Items

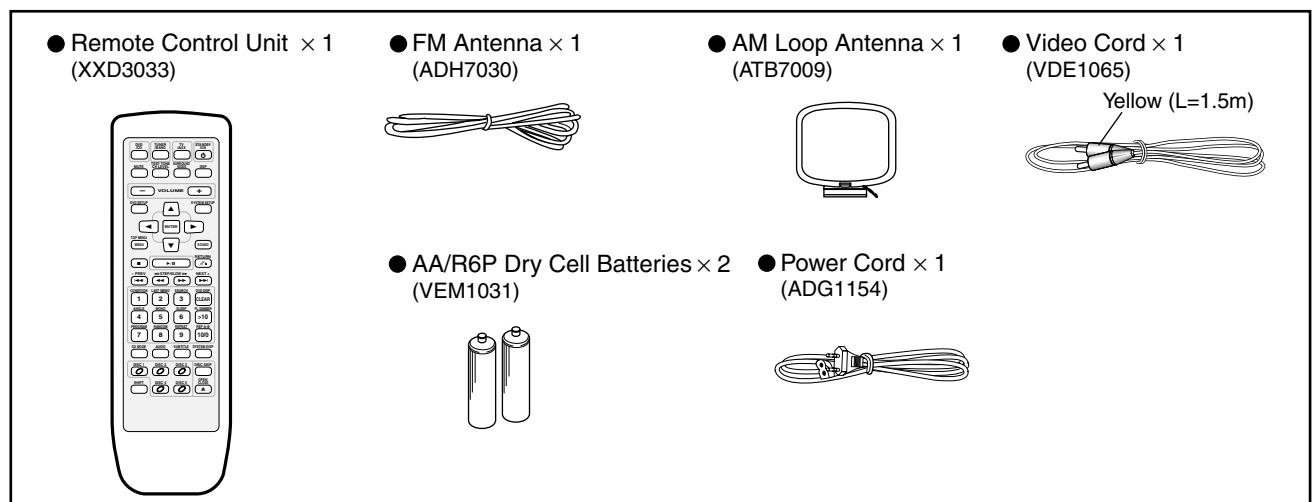
Remote control	1
AA/R6P dry cell batteries	2
AM loop antenna	1
FM antenna	1
Video cord (yellow)	1
Power cord	1
.....	2 (Central and South America models only)
Speaker cords	
5m (for front L-R speakers)	2
5m (for center speaker)	1
10m (for Surround L-R speakers)	2
5m (for subwoofer)	1
Operating instructions	1
Non-slip pads	20
Warranty card (European and Australian models only)	1
Power plug adapter (For Taiwan, the Philippines, Saudi Arabia, the Near East, American PX, Japanese tax-exempt export models and Central & South American models)	1

Note: Specifications and design subject to possible modification without notice, due improvements.

* Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

** "DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.

Accessories



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.

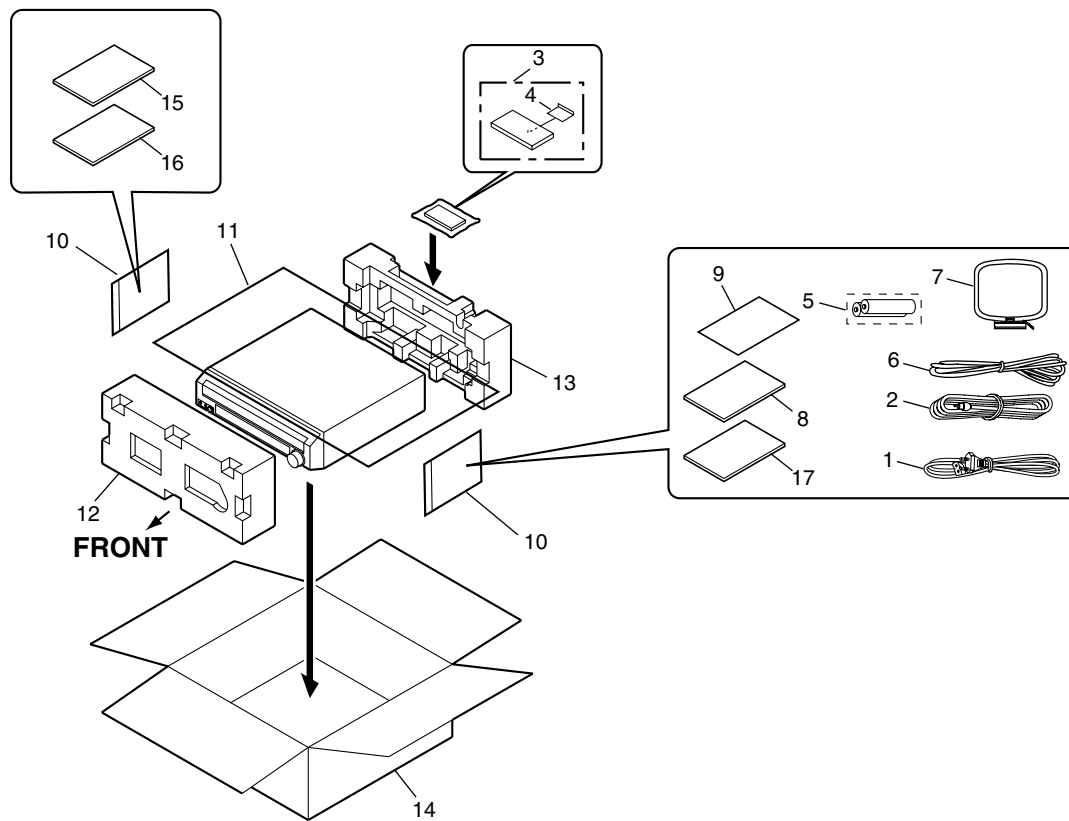
Therefore, when replacing, be sure to use parts of identical designation.

● Screws adjacent to ▼ mark on product are used for disassembly.

● For the applying amount of lubricants or glue, follow the instructions in this manual.

(In the case of no amount instructions, apply as you think it appropriate.)

2.1 PACKING



PACKING parts List

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
	1 Power Cord	ADG1154
	2 Video Cord (L = 1.5m)	VDE1065
	3 Remote Control Unit	XXD3033
	4 Battery Cover	XZN3117
NSP 5	Dry Cell Battery (R6P, AA)	VEM1031
	6 FM Antenna	ADH7030
	7 AM Loop Antenna	ATB7009
	8 Operating Instructions (English)	XRB3016
NSP 9	Warranty Card	ARY7022
NSP 10	Polyethylene Bag (0.03 x 230 x 340)	Z21-038
	11 Packing Sheet	AHG7010
	12 Front Pad	XHA3128
	13 Rear Pad	XHA3129
	14 Packing Case	XHD3299
	15 Operating Instructions (French/Italian/German)	XRC3062
	16 Operating Instructions (Dutch)	XRC3063
	17 Operating Instructions (Spanish)	XRC3064

2.2 EXTERIOR

A

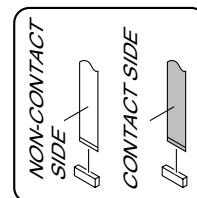
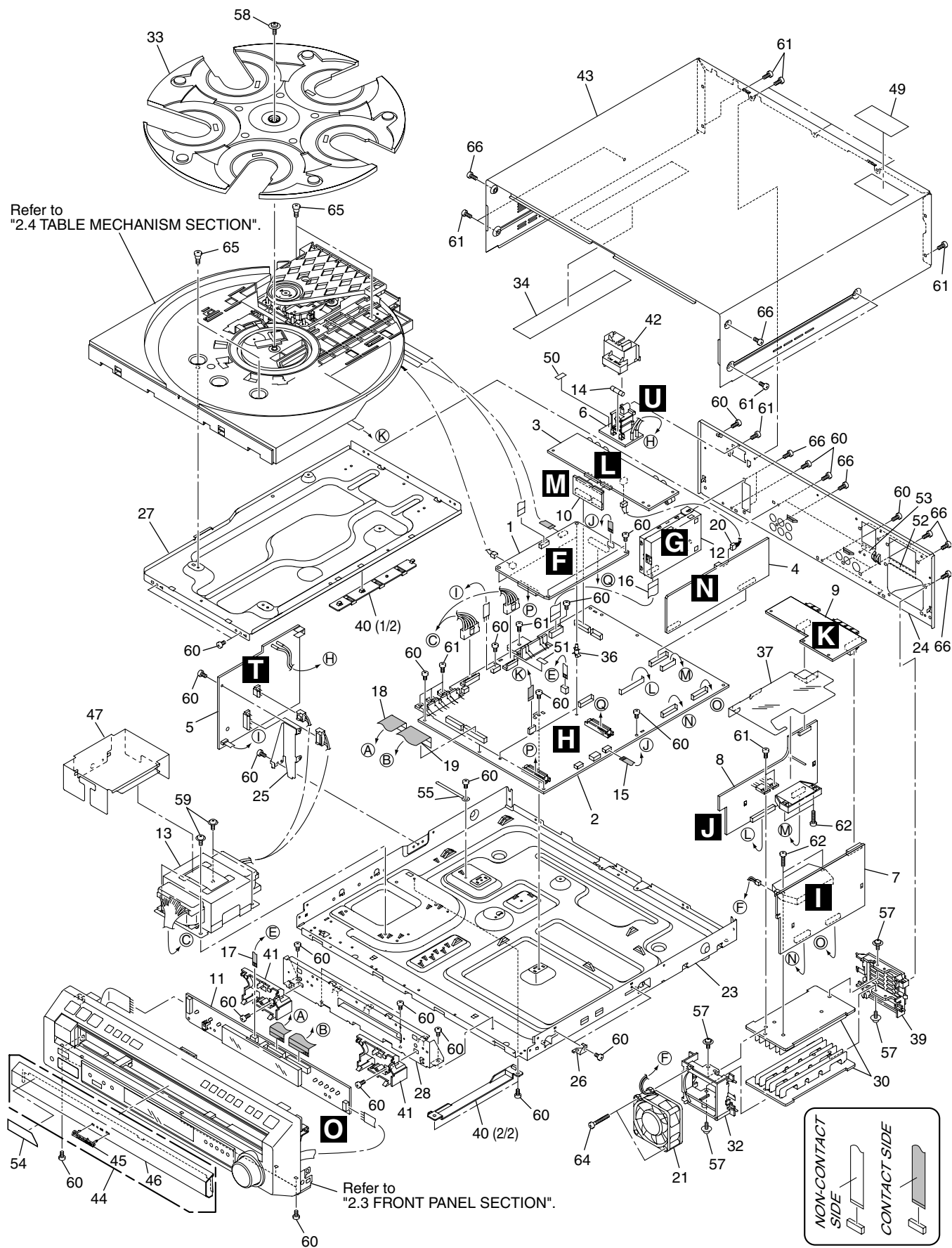
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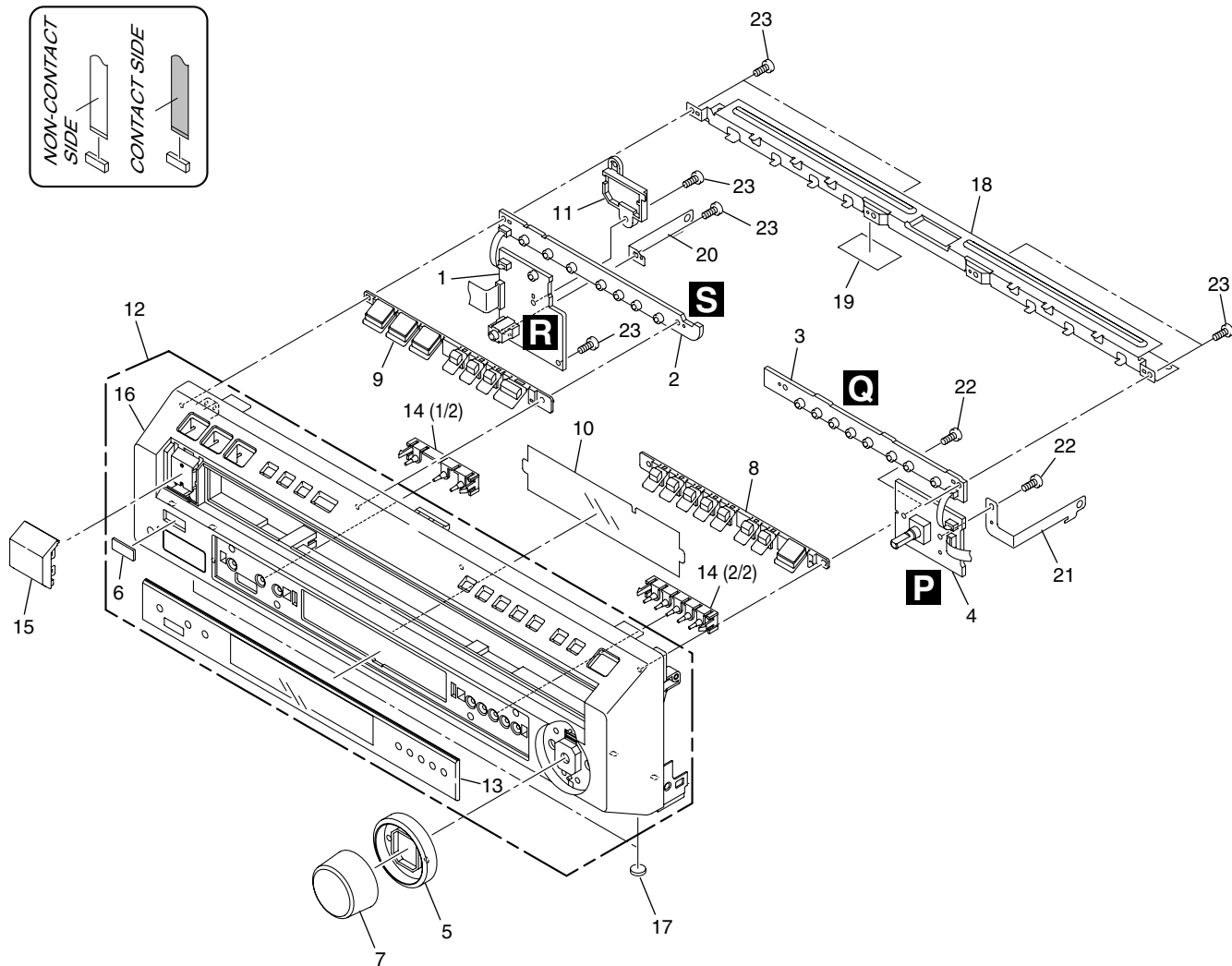
F



EXTERIOR parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	DVDM Assy	XWX3034	43	Bonnet Case	XZN3124	A
2	MAIN Assy	XWX3056	NSP 44	Tray Cap Assy	XXG3124	
3	CONNECT Assy	XWX3061	45	Pioneer Name Plate	VAM1129	
4	DSP Assy	XWX3065	46	Tray Cap	XAN3046	
5	PRIMARY Assy	XWZ3589				
6	INLET Assy	XWZ3594	47	Barrier Trans	XEC3028	
7	F.AMP Assy	XWZ3596	48	•••••		
8	R.AMP Assy	XWZ3600	49	Caution Label	VRW1699	
9	SPEAKER Assy	XWZ3604	NSP 50	Fuse Card	AAX7277	
10	B TO B Assy	XWZ3615	51	ICP Label	XAX3121	
11	DISPLAY Assy	XWZ3606	52	Speaker Label L	XAX3318	B
12	FM/AM TUNER Module	AXQ7229	53	Speaker Label S	XAX3321	
13	Power Transformer (T1)	XTS3062	NSP 54	Getter	XAX3324	
14	Fuse (FU1 : T2.5A)	REK1026	55	Cord Clamper	RNH-184	
15	7P F.F.C/30V (MAIN CN8902 - DVDM CN55)	XDD3094	56	•••••		
16	13P F.F.C/60V (TUNER CN201 - MAIN CN5701)	XDD3108	57	Screw	ABA1021	C
17	4P F.F.C/60V (DISPLAY CN5807 - MAIN CN5501)	XDD3109	58	Screw	ABA7069	
18	19P F.F.C/60V (MAIN CN5509 - DISPLAY CN5801)	XDD3111	59	Screw	ASZ40P060FMC	
19	27P F.F.C/60V (MAIN CN5511 - DISPLAY CN5802)	XDD3112	60	Screw	BBZ30P060FMC	
20	Connector Assy 3P (DSP CN3703 - CONNECT CN5207)	XDE3052	61	Screw	BBZ30P080FZK	
21	DC Fan Motor	AXM7014	62	Screw	BBZ30P160FMC	
22	•••••		63	•••••		
NSP 23	Chassis	XNA3010	64	Screw	BPZ30P350FZK	D
24	Rear Panel	XNC3165	65	Screw C	PBA1106	
25	PCB Angle	XNG3057	66	Screw	VPZ30P080FZK	
26	DV Bracket	XNG3064				
27	Mecha. Frame	XNG3076				
28	Front Frame	XNG3081				
29	•••••					
30	Heat Sink	XNH3021				
31	•••••					
32	FAN Mold	AMR7321				
33	Rotary Tray	VNK4923				
34	Bonnet Cushion	XEB3027				
35	•••••					
NSP 36	PCB Support	XEC3020				
37	Barrier AMP.	XEC3029				
38	•••••					
39	Rear Mold	XMR3038				
40	Twin Cap	XMR3049				
41	PCB Holder	XMR3051				
42	Inlet Holder	XMR3056				

2.3 FRONT PANEL SECTION



FRONT PANEL SECTION parts List

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	HP MIC Assy	XWZ3609
2	FUNCTION KEY Assy	XWZ3612
3	DISC KEY Assy	XWZ3613
4	JOG Assy	XWZ3614
5	Vol Ring	AAK7816
6	DVD V Plate	VAM1120
7	VOL. Knob Assy	XAC3001
8	Disc Button	XAD3147
9	Function Button	XAD3148
10	FL Filter	XEC3015
11	Rear Cap	XMR3048
NSP 12	Front Panel Assy	XXG3126
13	Display Panel	XAK3340
14	Lens	XAK3310
15	Power Cap	XAK3311
16	Front Panel	XMB3087
17	Leg	AEB7090
18	Top Frame	XNG3077
19	Sensor Cushion	XEB3026
20	GND Plate L	XNG3079
21	GND Plate R	XNG3085
22	Screw	BPZ30P080FMC
23	Screw	VPZ30P100FMC

2.4 TABLE MECHANISM SECTION

A

B

C

D

E

F

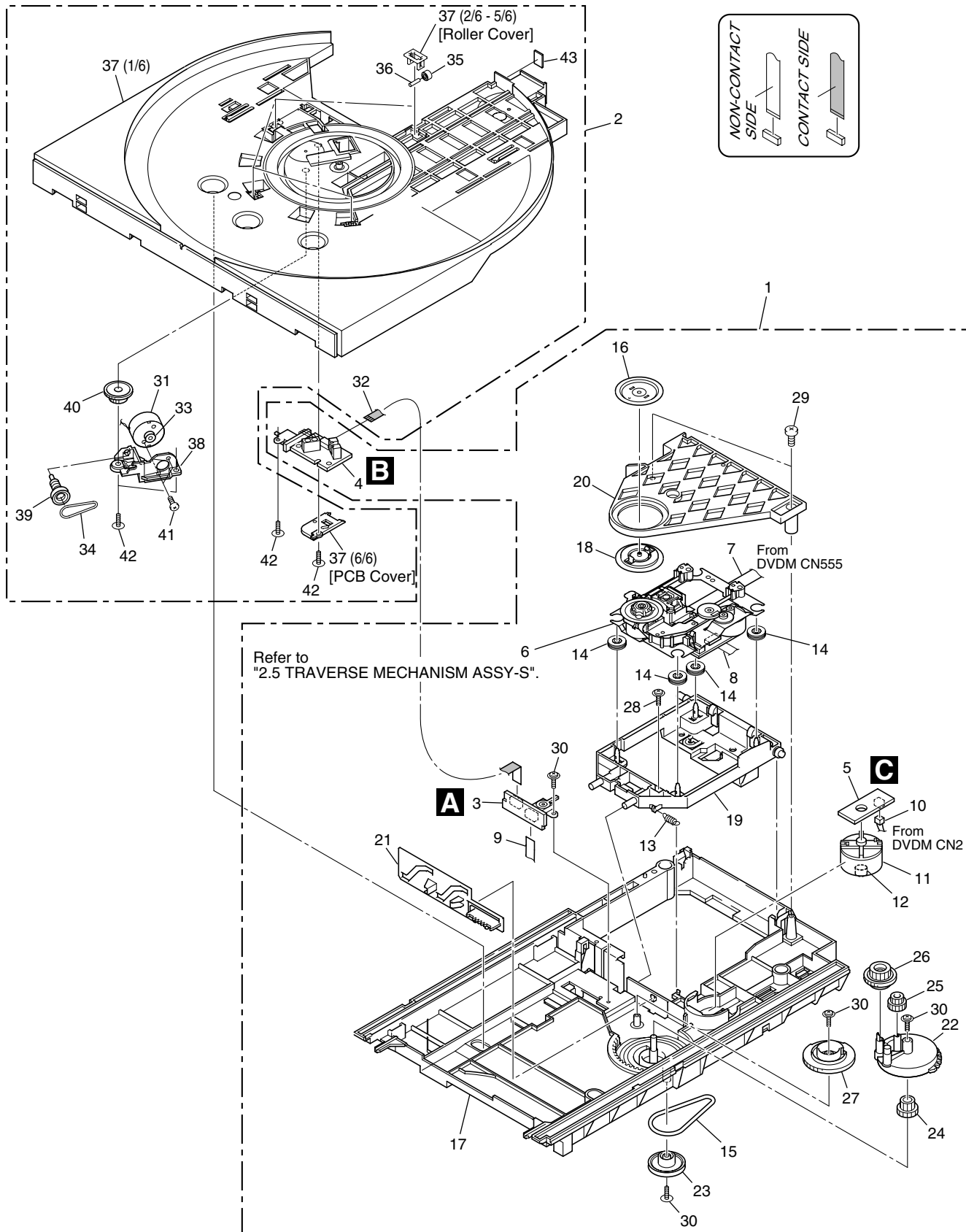


TABLE MECHANISM SECTION parts List

Mark No.	Description	Part No.
NSP 1	5C Mech. Base Assy	XXA3027
NSP 2	5C Table Mech. Assy	VWT1175
NSP 3	TRSB Assy	XWZ3461
NSP 4	SSRB Assy	XWZ3462
NSP 5	LOMB Assy	XWZ3463
6	Traverse Mechanism Assy-S	VXX2653
7	Flexible Cable 24P	XDD3074
8	Flexible Cable 8P (T)	XDD3075
9	Flexible Cable 8P (M)	XDD3076
10	Housing Assy 2P	XDE3039
11	Slider Motor (LOADING)	VXM1033
12	Motor Pulley	PNW1634
13	Spring	VBH1333
14	Floating Rubber	VEB1286
15	Load Belt	VEB1316
16	Clamper Plate	VNE2162
17	Mech. Base	VNK4826
18	Clamper	VNL1738
19	Float Base	VNL1907
20	Clamper Holder	VNL1872
21	Clamp Cam	VNL1873
22	Planet Base	VNL1874
23	Gear Pulley	VNL1876
24	Loading Gear (1)	VNL1877
25	Loading Gear (2)	VNL1908
26	Drive Gear	VNL1879
27	Change Gear	VNL1904
28	Screw	ABA7009
29	Screw	BPZ30P080FMC
30	Screw	Z39-019
31	Motor (TRAY)	DXM1118
32	Flexible Cable (7P)	VDA1835
33	Motor Pulley	PNW1634
34	Tray Belt	VEB1317
35	Rubber Roller	VEB1318
36	Roller Shaft	VLL1511
37	Slide Table	VNK5060
38	Motor Holder	ANW7252
39	Worm Gear	VNL1881
40	Tray Gear	VNL1882
41	Screw	JGZ17P028FMC
42	Screw	Z39-019
43	CR Cushion 2	XEB3020

A

B

C

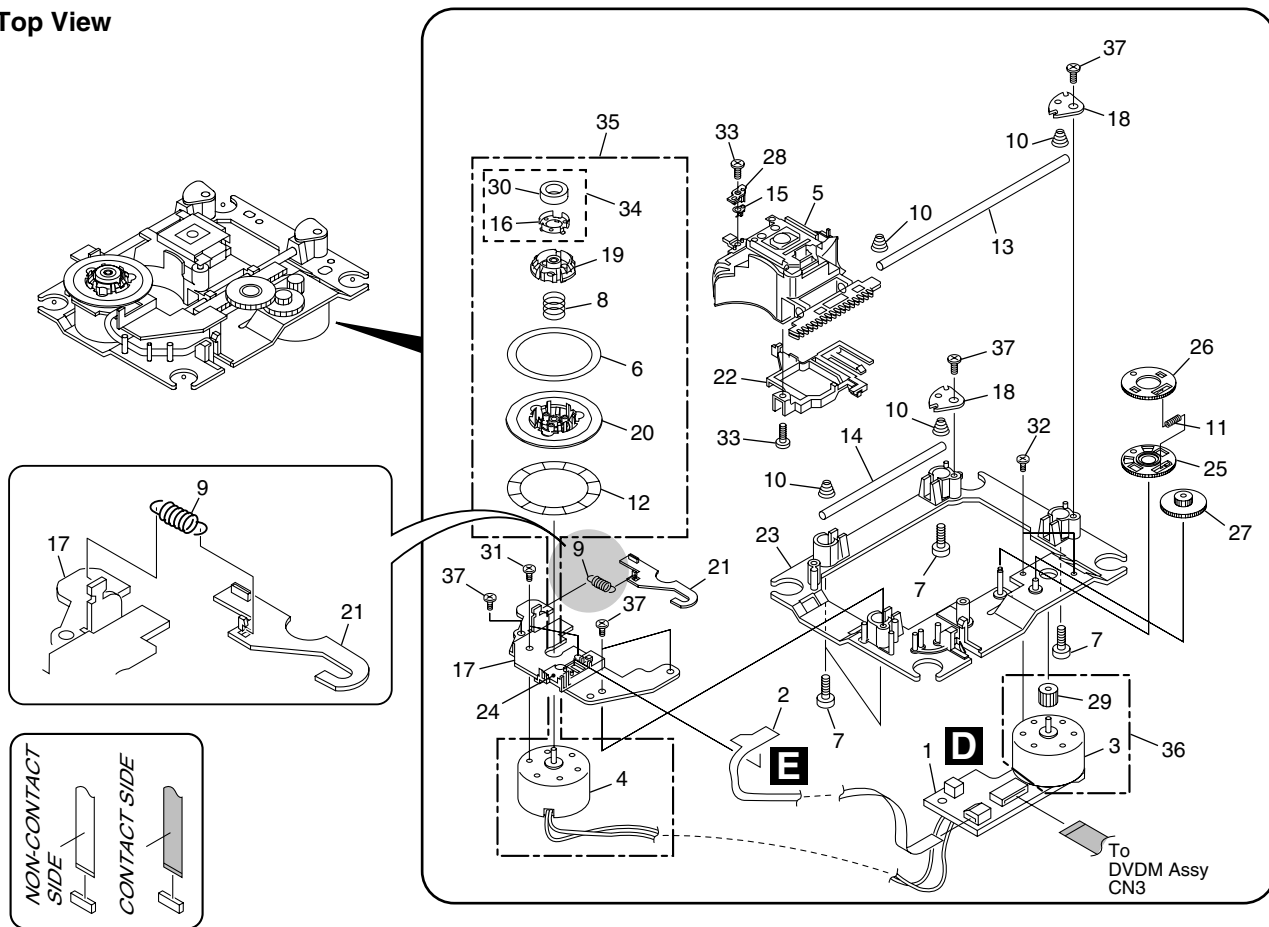
D

E

F

2.5 TRAVERSE MECHANISM ASSY-S

• Top View

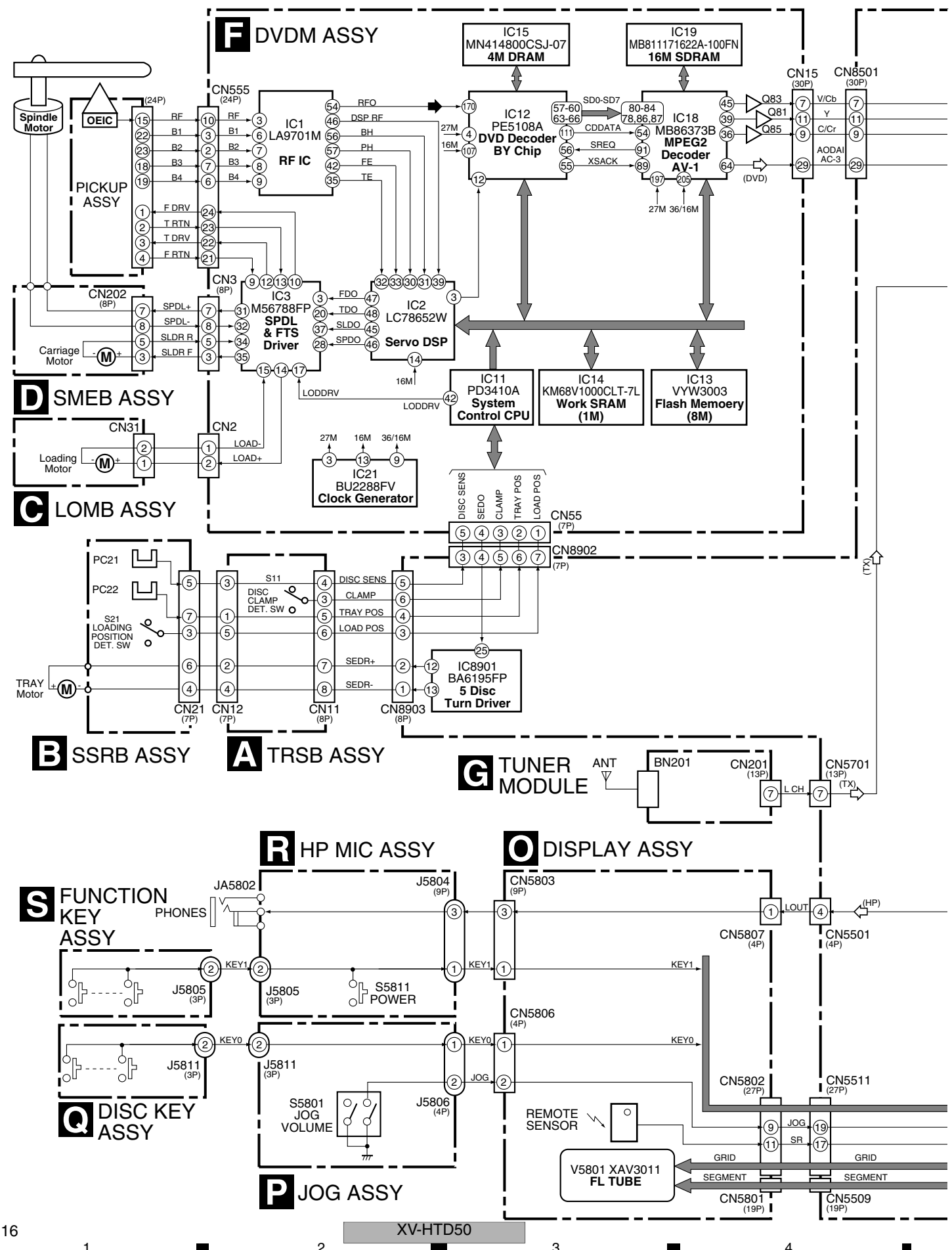


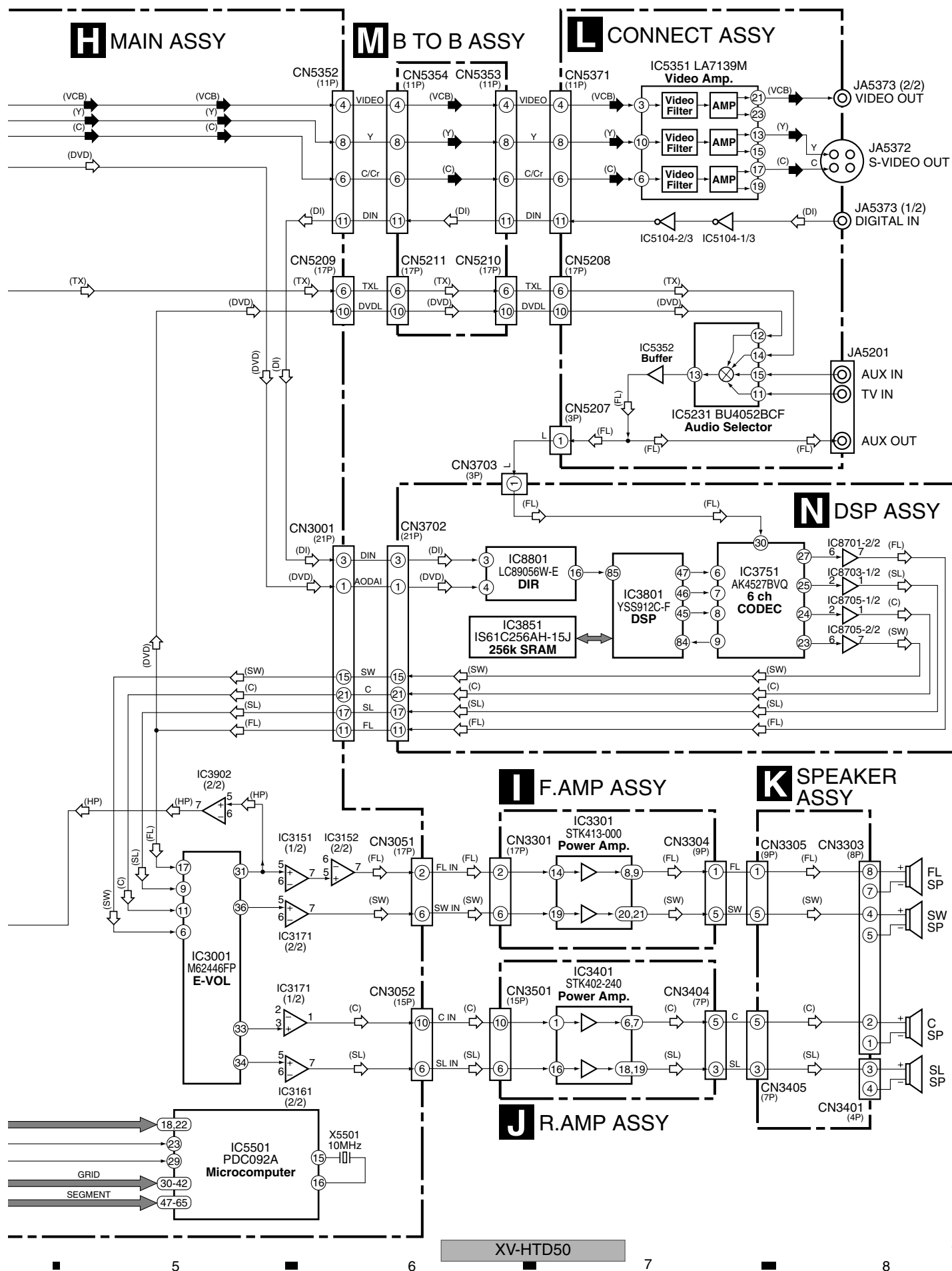
TRAVERSE MECHANISM ASSY-S parts List

Mark No.	Description	Part No.
NSP 1	SMEB Assy	VWG2048
NSP 2	FGSB Assy	VWG2009
NSP 3	Motor (CARRIAGE)	VXM1079
NSP 4	Motor (SPINDLE)	VXM1084
⚠ 5	Pickup Assy	VWY1055
6	Table Sheet	DEC2040
7	Screw	VBA1058
8	Centering Spring	VBH1278
9	Hook Spring	VBH1317
10	Skew Spring	VBH1303
11	Gear Spring	VBH1308
NSP 12	Reflected Sheet	VEC1959
13	Guide Bar	VLL1504
14	Sub-guide Bar	VLL1505
15	Hold Spring	VNC1017
NSP 16	Magnet Holder	VNE2070
NSP 17	Motor Base	VNE2154
NSP 18	Cover	VNE2155
19	Centering Ring	VNL1746
NSP 20	Disc Table	VNL1747
21	Hook	VNL1770
22	FFC Holder	VNL1802
23	Mechanism Base	VNL1806
24	FG Holder	VNL1807
25	Gear A	VNL1808
26	Gear B	VNL1809
27	Gear C	VNL1810
28	Slider	VNL1811
29	Gear D	VNL1814
NSP 30	Magnet	VYM1024
31	Screw	JFZ17P025FZK
32	Screw	JGZ17P028FMC
33	Screw	VBA1051
34	Magnet Holder Assy	VXX2507
35	Spindle Motor Assy	VXX2649
36	Carriage Motor Assy	VXX2650
37	Screw	PBA1069

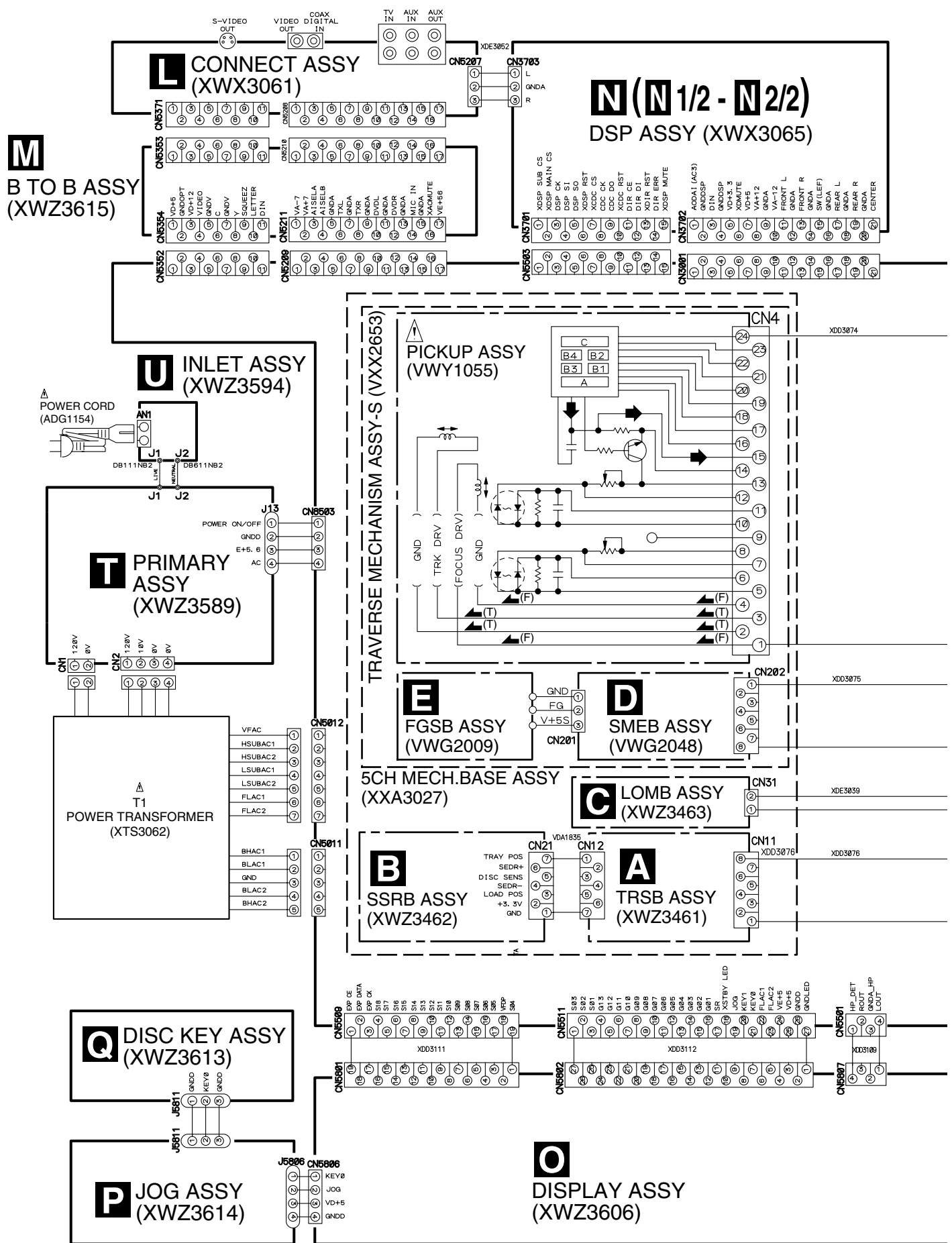
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

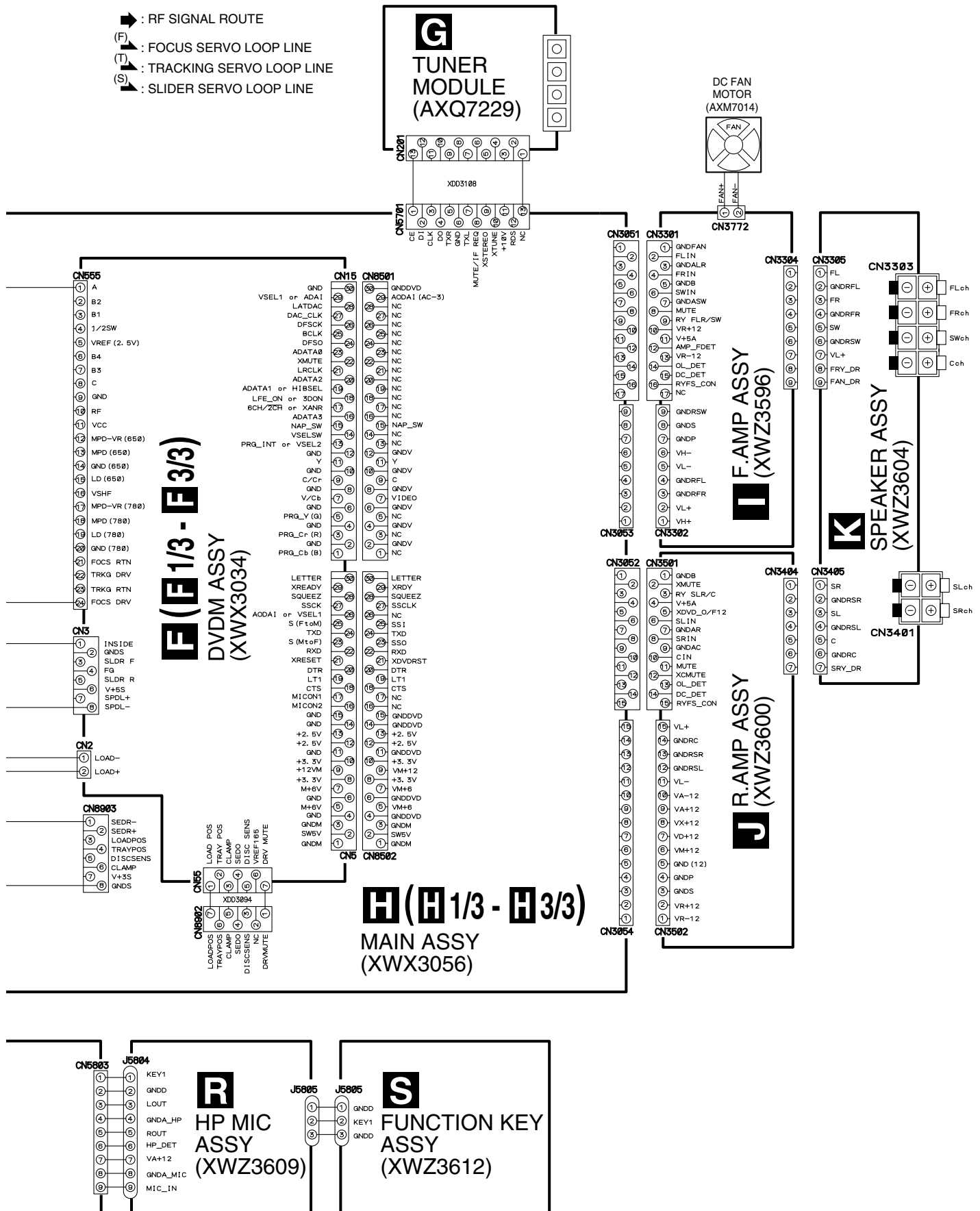




3.2 OVERALL WIRING DIAGRAM



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



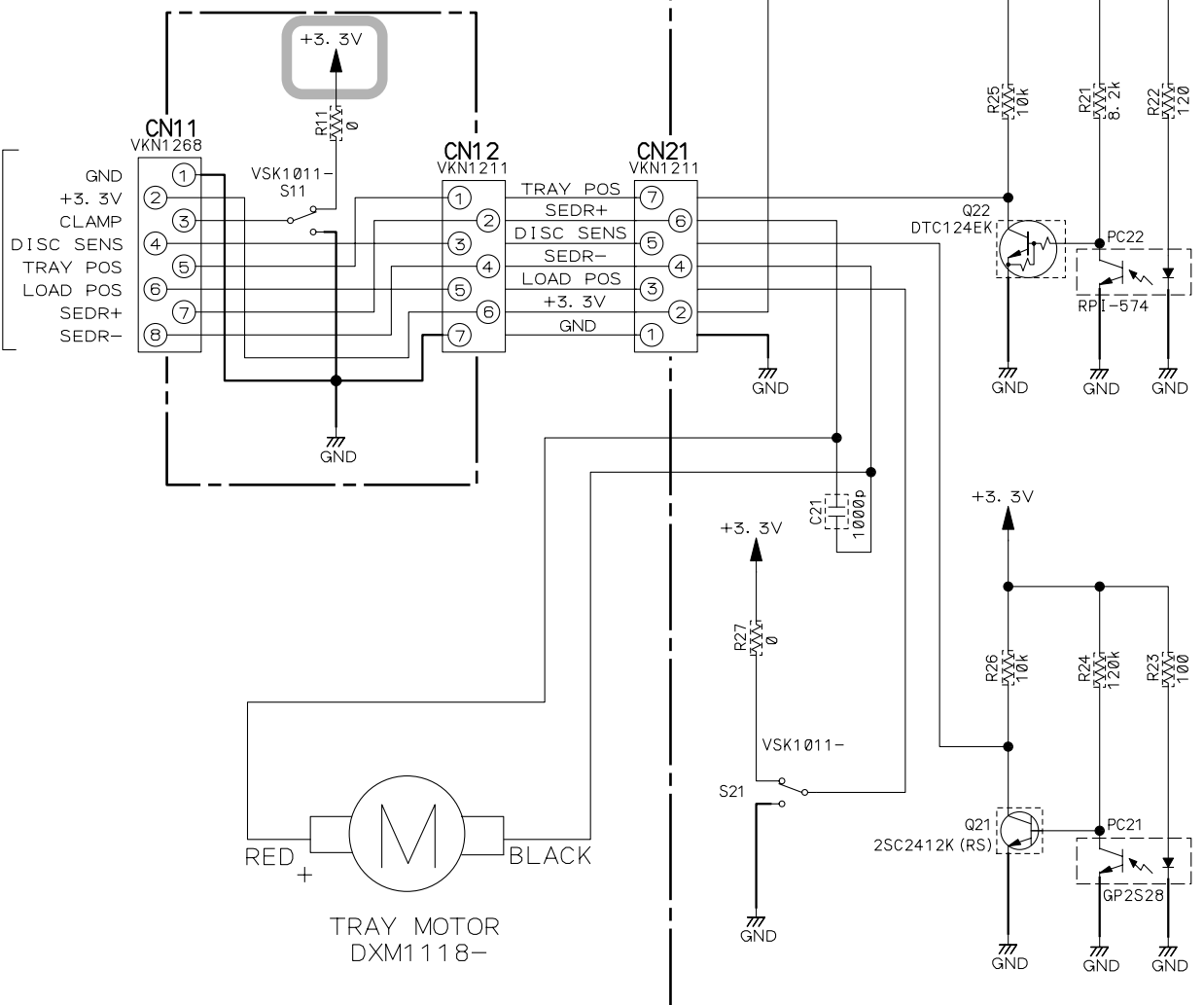
3.3 TRSB, SSRB, LOMB, SMEB and FGSB ASSYS

A

B

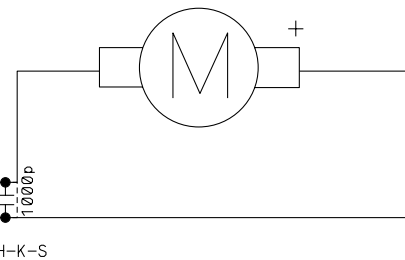
SSRB ASSY (XWZ3462)

A TRSB ASSY (XWZ3461)

H3/3 CN8903

C LOMB ASSY (XWZ3463)

 CARRIAGE MOTOR (LOADING)
: VXM1033

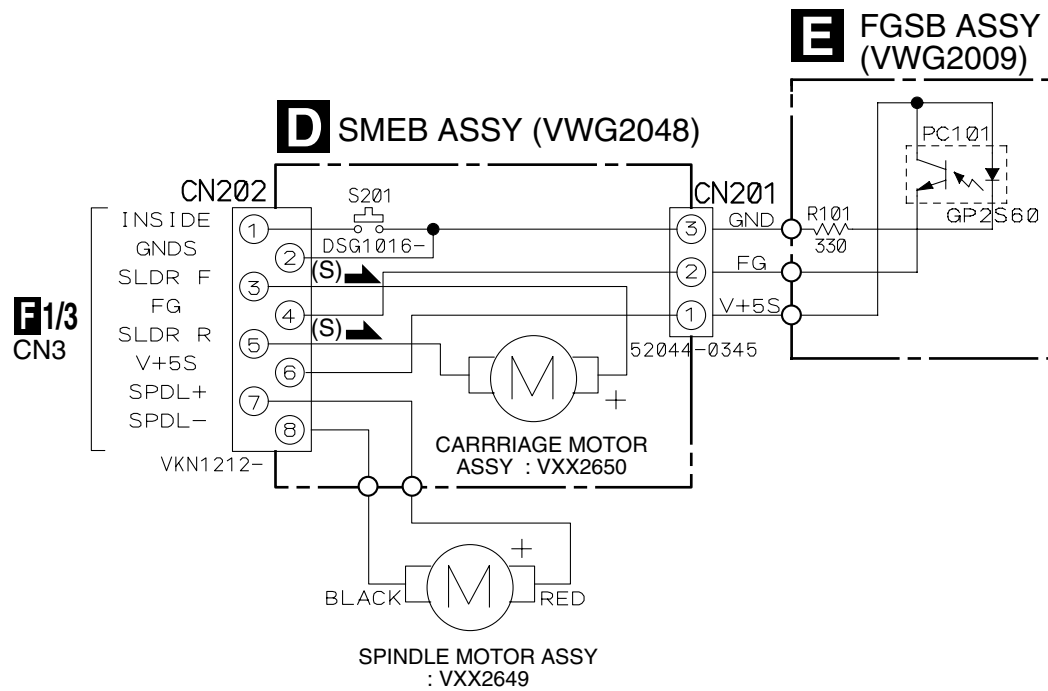
F1/3
CN2

 CN31
LOAD-
LOAD+
B2B-PH-K-S


: The power supply is shown with the marked box.

A B C

(S) : SLIDER SERVO LOOP LINE



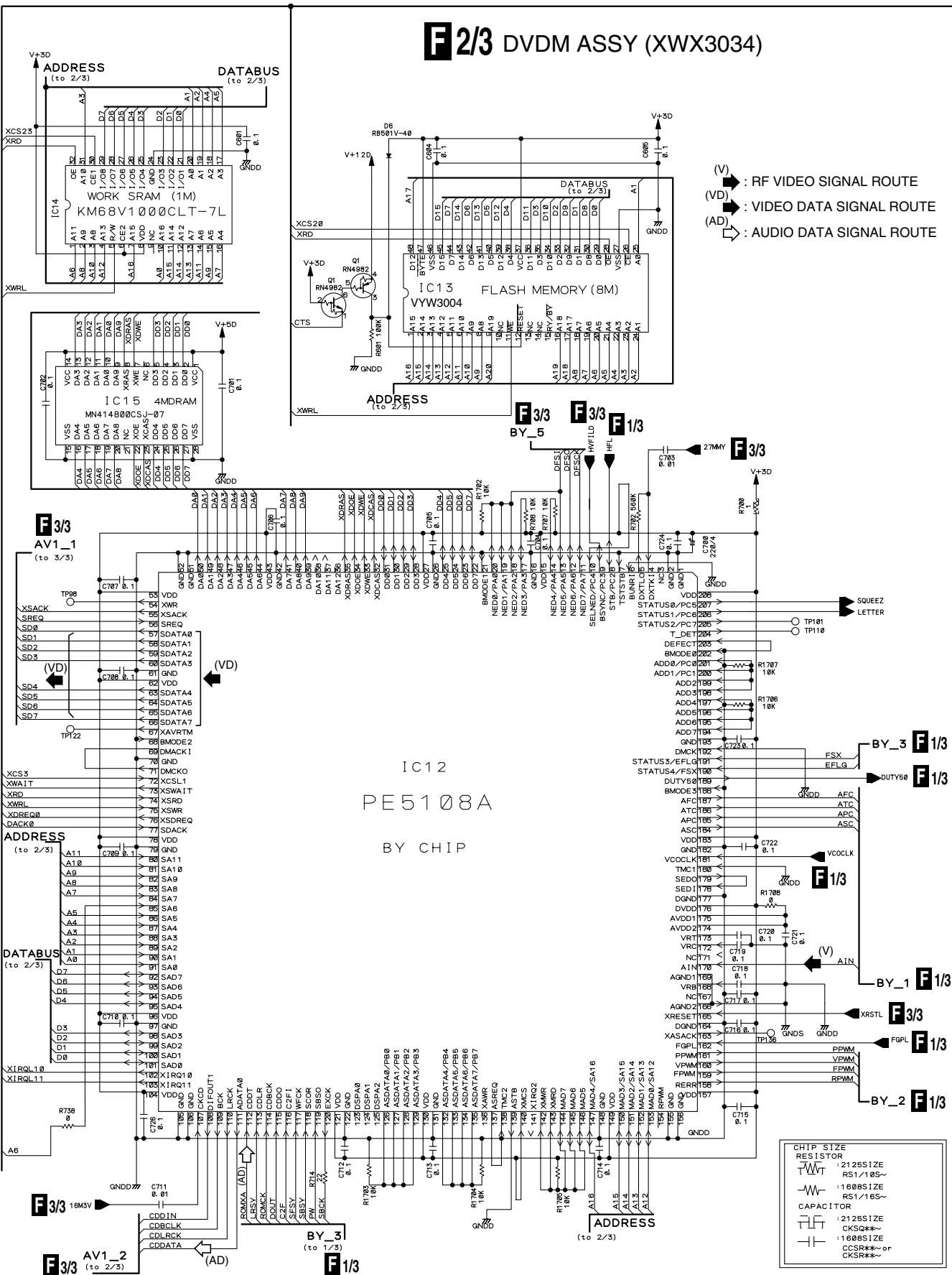
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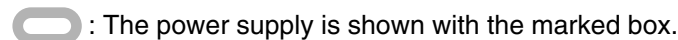
E



3.5 DVDM ASSY (2/3)

F 2/3 DVDM ASSY (XWX3034)





XV-HTD50

3.6 DVDM ASSY (3/3)

A

F 3/3 DVDM ASSY (XWX3034)

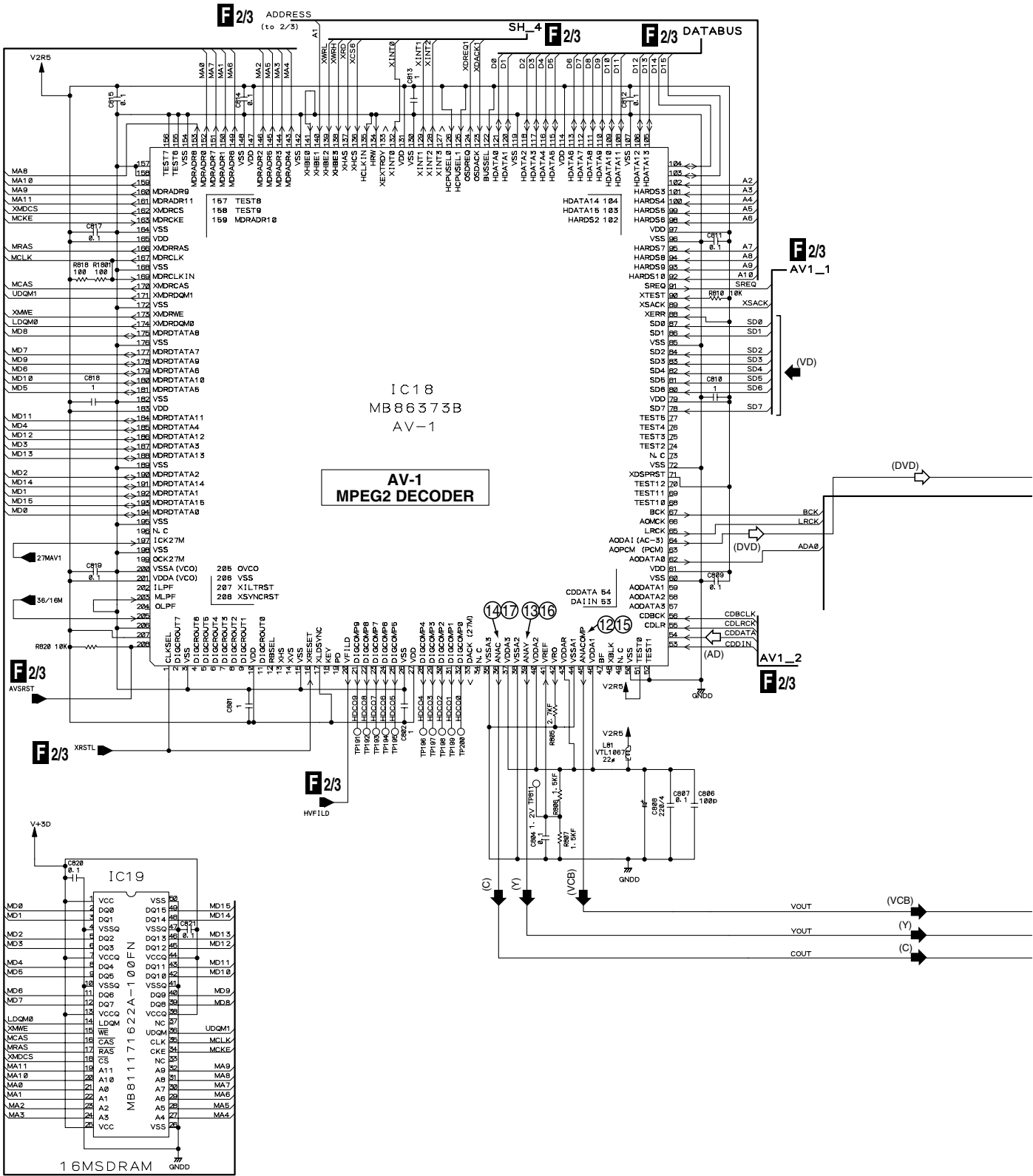
B

C

D

E

F





Notes

1. RESISTORS

Indicated in Ω , $1/16W \pm 5\%$ 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

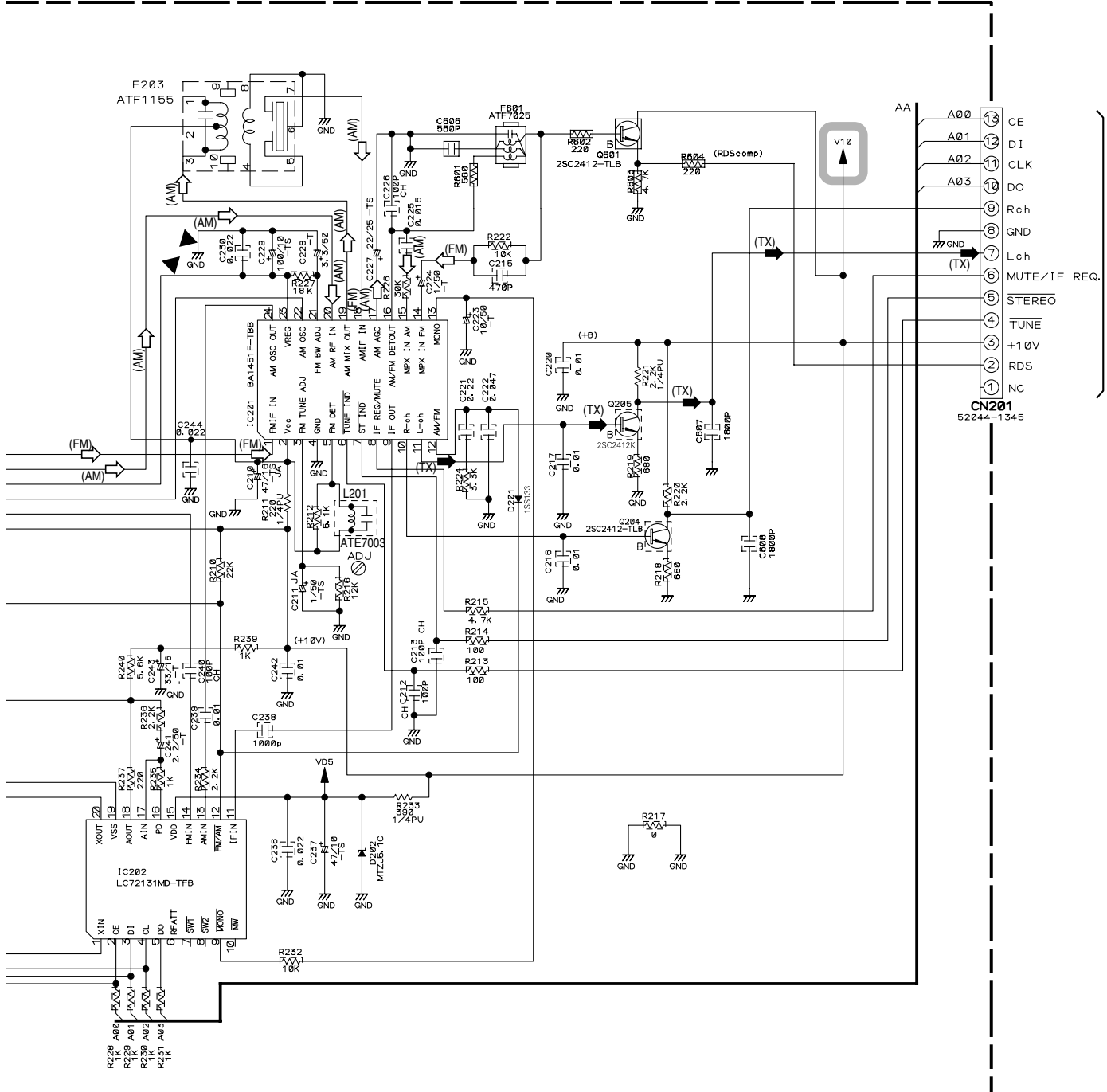
No mark diode is 1SS133.

 : The power supply is shown with the marked box.

(TX)  : AUDIO SIGNAL ROUTE (TUNER)

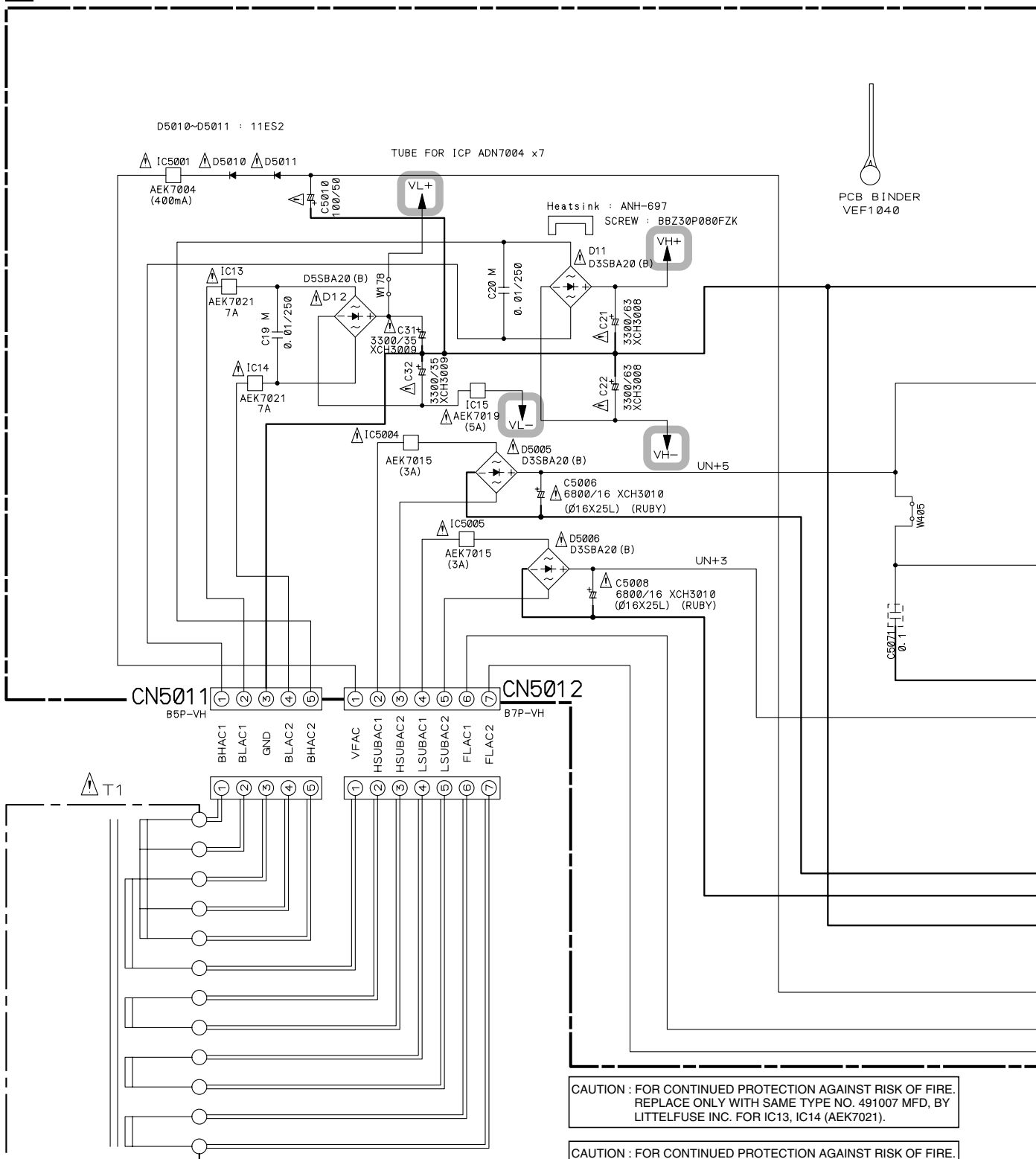
(AM)  : AM SIGNAL ROUTE

(FM)  : FM SIGNAL ROUTE



3.8 MAIN ASSY (1/3)

H 1/3 MAIN ASSY (XWX3056)



NOTES

ALL CAPACITORS ARE IN μ F
UNLESS OTHERWISE SPECIFIED

YF : CKSRYF
(OTHER : CKSRYB)

M : CQMA

AL : CEAL
(OTHER : CEAT***M##)

ALL RESISTORS ARE IN Ω

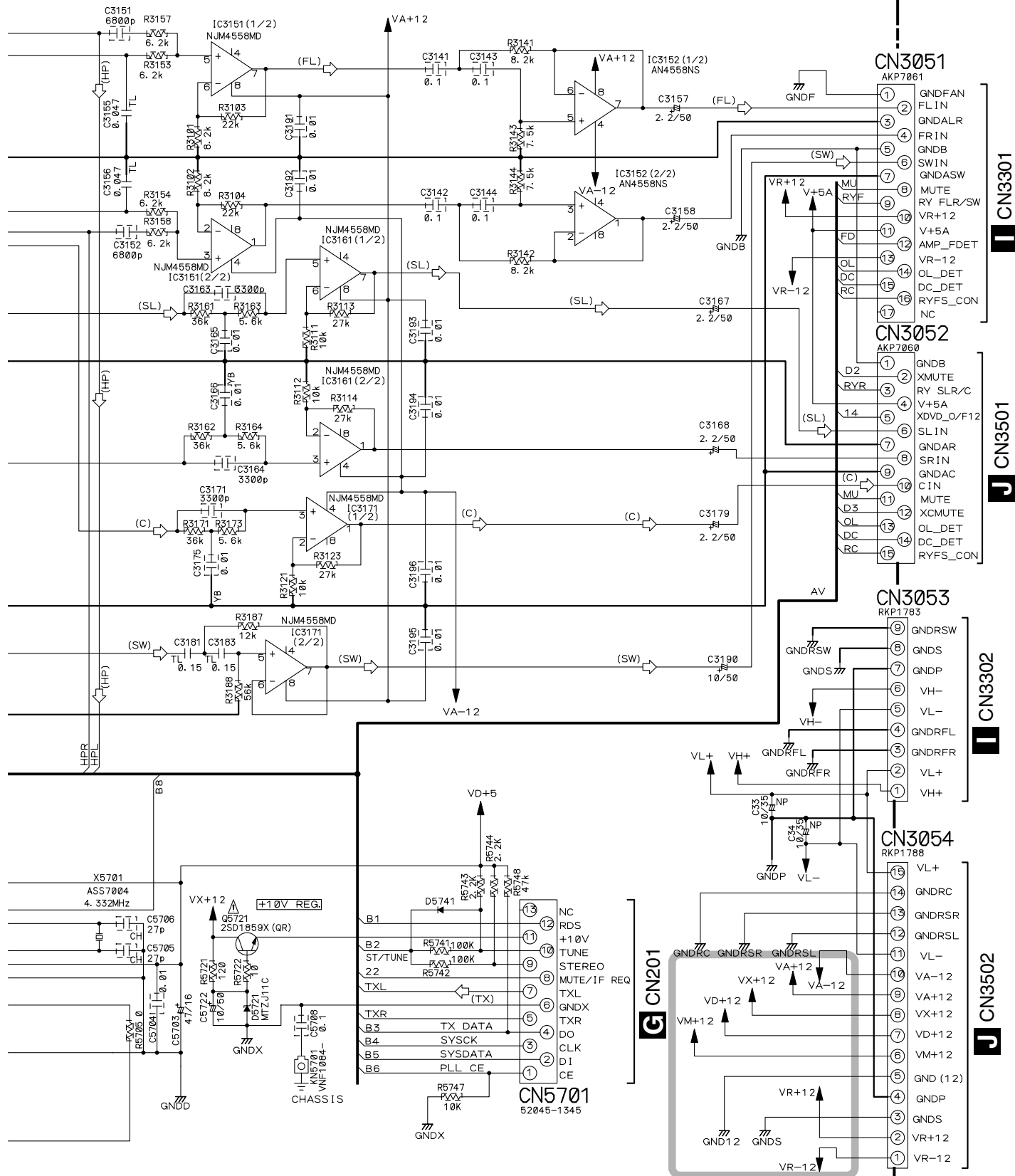
1/16W : RS1/16S***J
FU : RFA1/4PS
(OTHER : 1/4WPU)

NO MARK DIODE

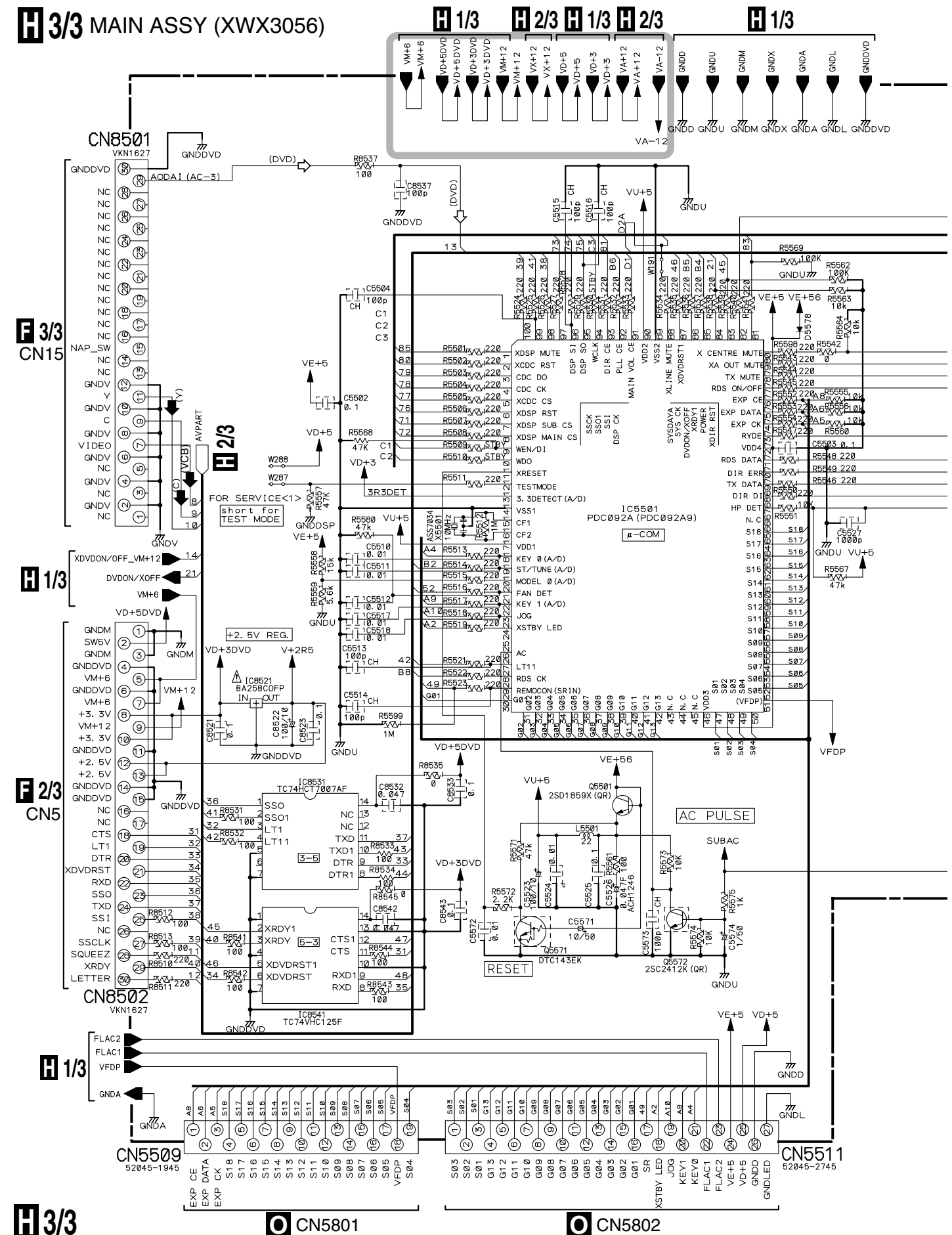
1SS133
1SS355

XV-HTD50

O : The power supply is shown with the marked box.

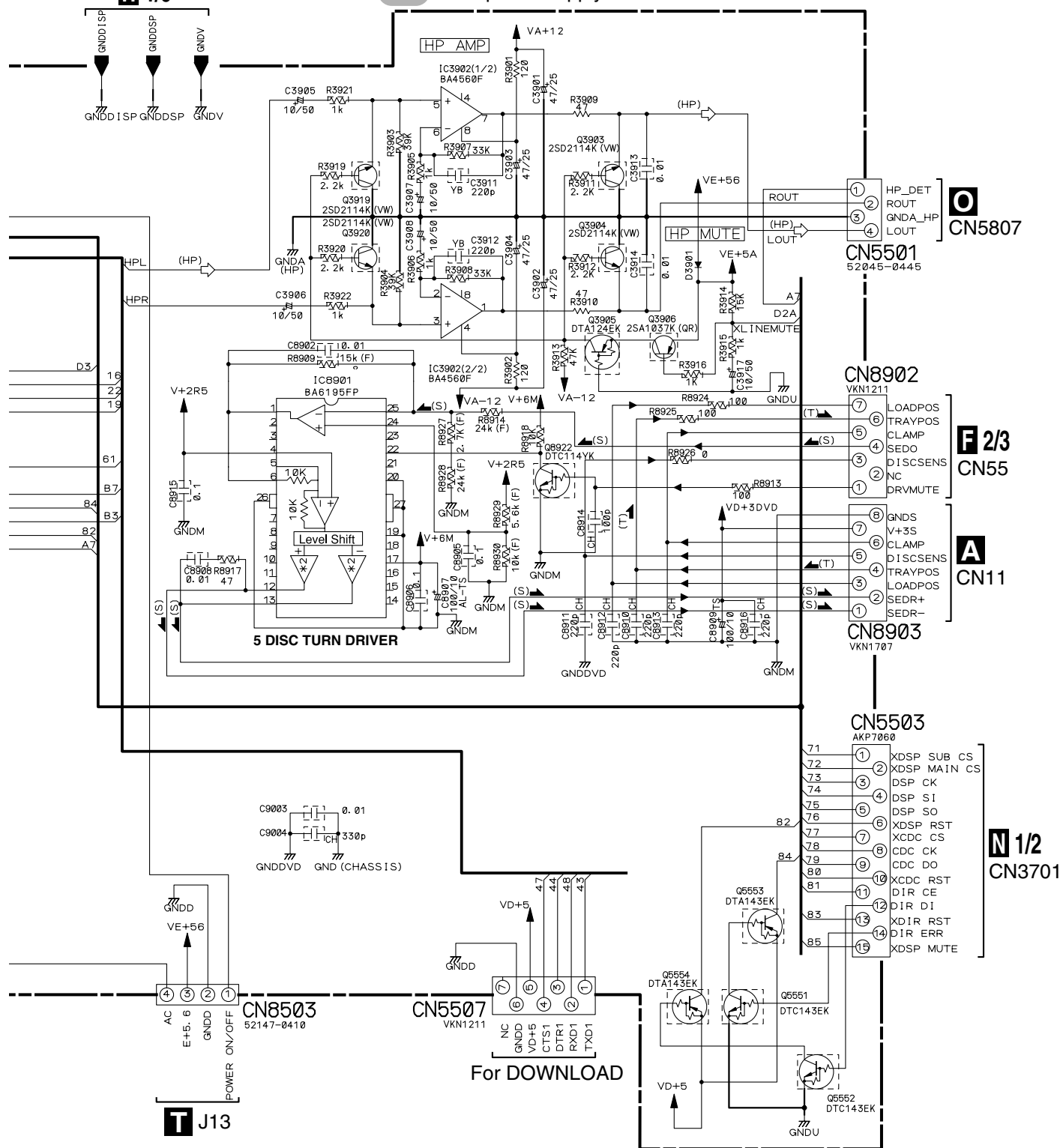


H 3/3 MAIN ASSY (XWX3056)



H 1/3

O : The power supply is shown with the marked box.



NOTES

ALL CAPACITORS ARE IN μ F
UNLESS OTHERWISE SPECIFIED

CH : CCSRCH
SL : CCSRSL
(OTHER : CKSRYB)

AL : CEAL
(OTHER : CEAT***M###)

ALL RESISTORS ARE IN Ω
1/16W 1/4WPU (F) 1%

ALL INDUCTORS ARE IN μ H

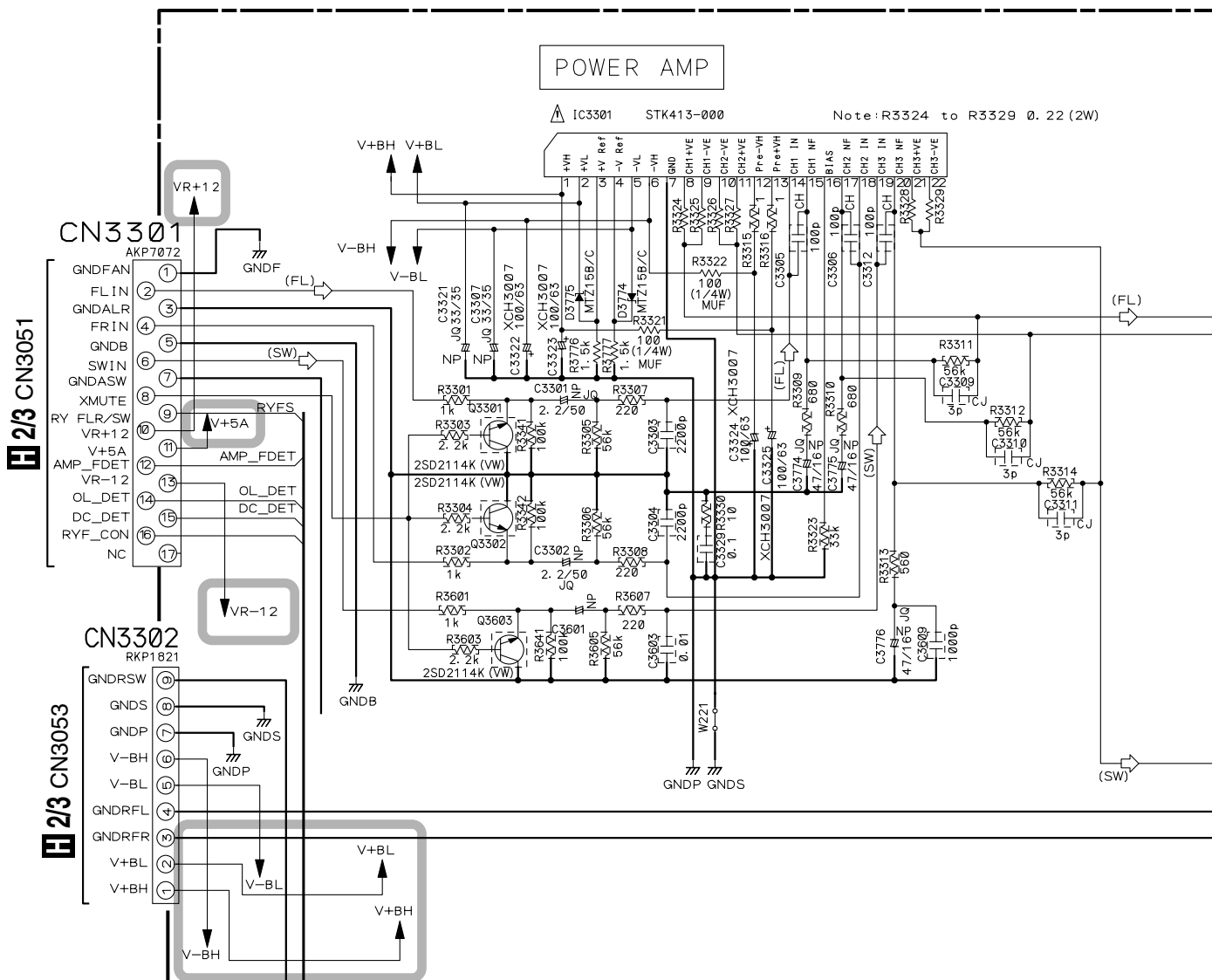
LAU

NO MARK DIODE

1SS355 1SS133

3.11 F. AMP ASSY

F. AMP ASSY (XWZ3596)



NOTES

ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED

CH : CCSRCH
SL : CCSRSL
CJ : CCSRCJ
(OTHER : CKSRVB)

CEAT***M##

-TS: P=2.5MM

JQ: CEJQNP***M##

JQ: CEJQ***M##

ALL RESISTORS ARE IN Ω

1/10W or 1/16W

FU: RF1/4PS
FL: RS (1 or 2 or 3) LMF
PM: RD1/2PM
PMF: RD1/2PMF
(OTHER : RD1/4PU)

ALL INDUCTORS ARE IN μH

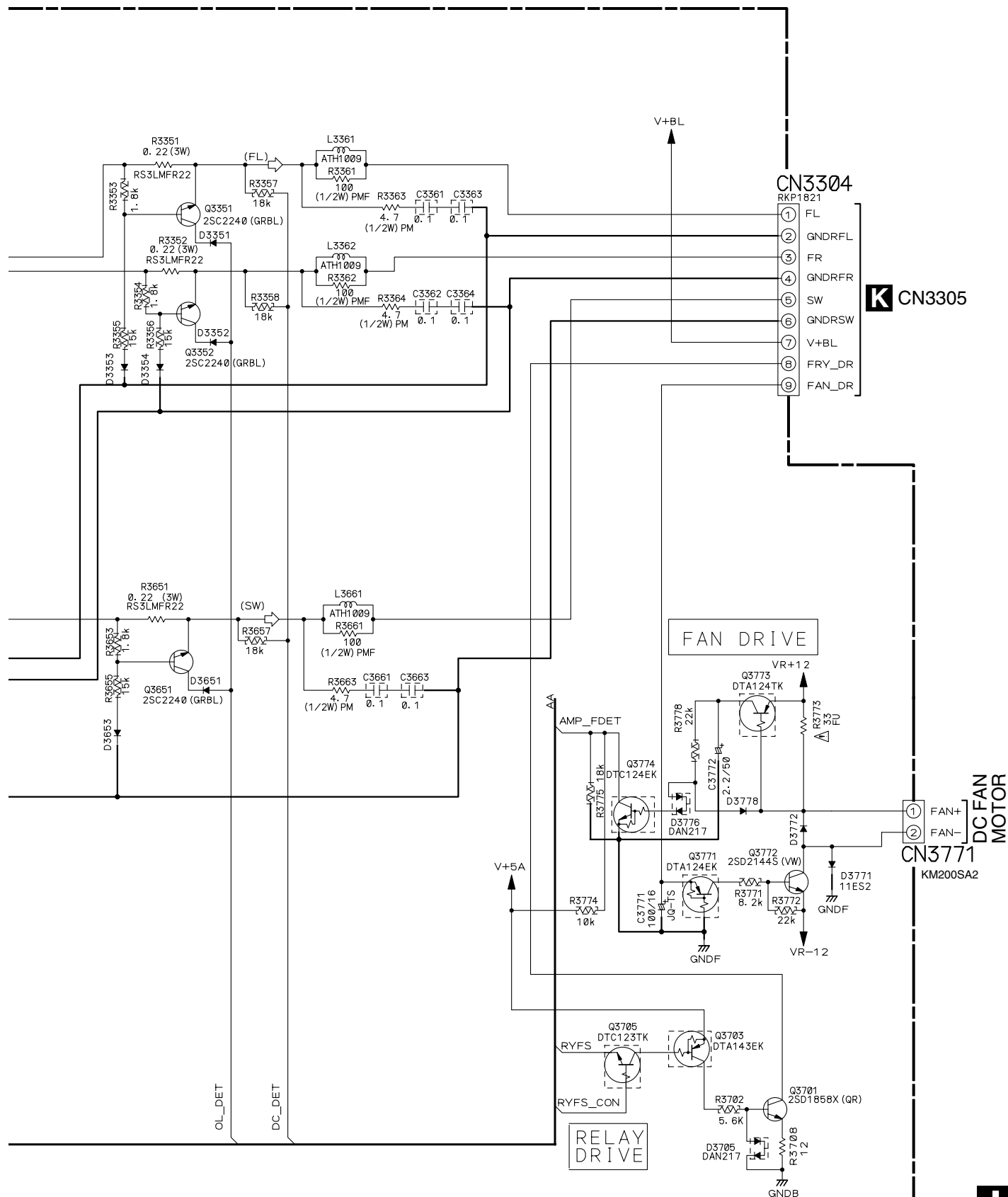
LAU

NO MARK DIODE

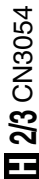
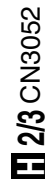
1SS133

: The power supply is shown with the marked box.

(FL) ➡ : FL AUDIO SIGNAL ROUTE
(SW) ➡ : SW AUDIO SIGNAL ROUTE



A

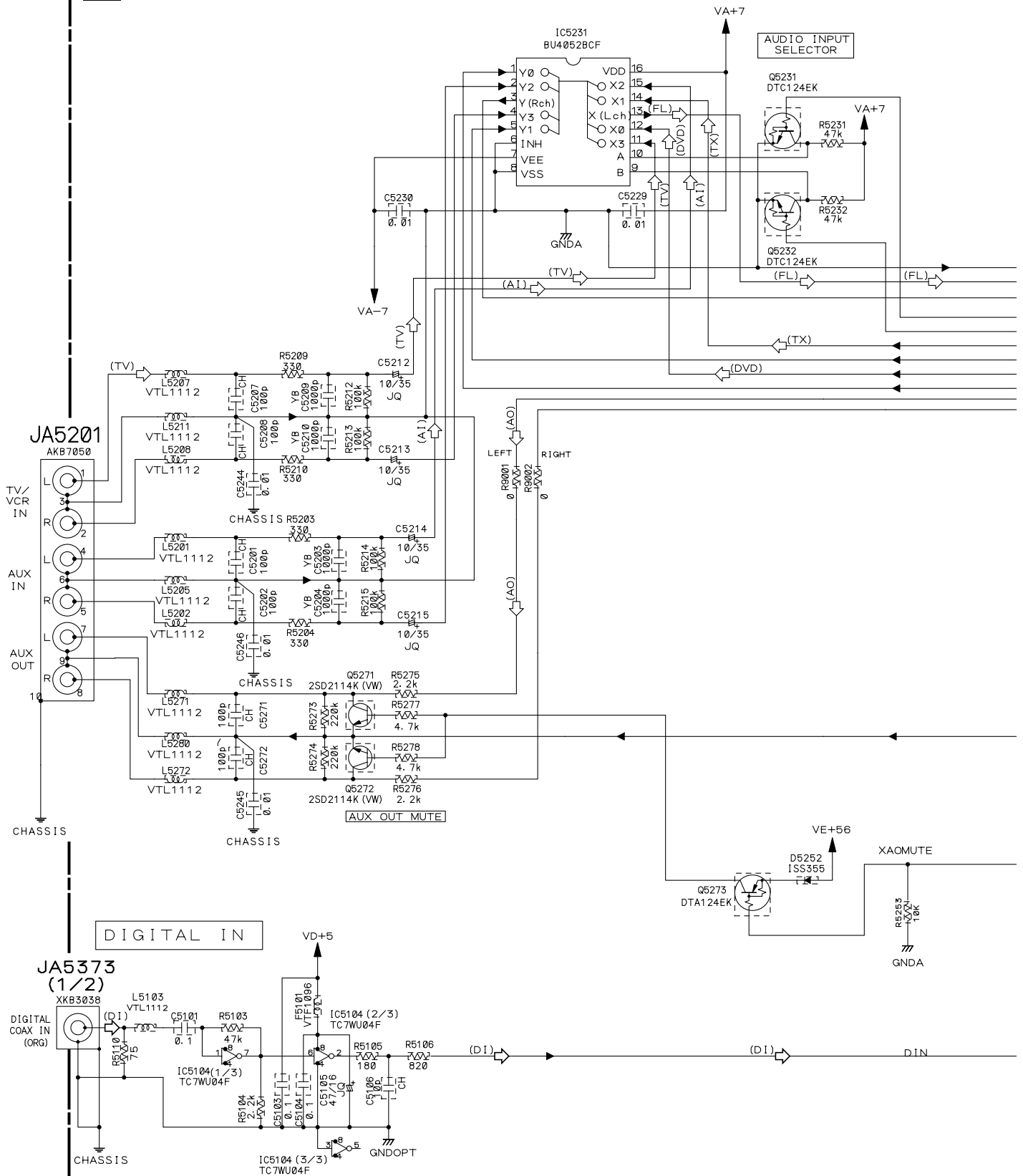


39



3.13 CONNECT and B TO B ASSYS

CONNECT ASSY (XWX3061)



NOTES

ALL CAPACITORS ARE IN μ F
 CH : CCSRCH
 YF : CKSRYF
 (OTHER : CKSRYB)
 CEAT***MHH
 CEJQ***MHH

ALL RESISTORS ARE IN Ω
 1/16W
 1/4WPU

NO MARK DIODE
 1SS355



3.14 DSP ASSY (1/2)

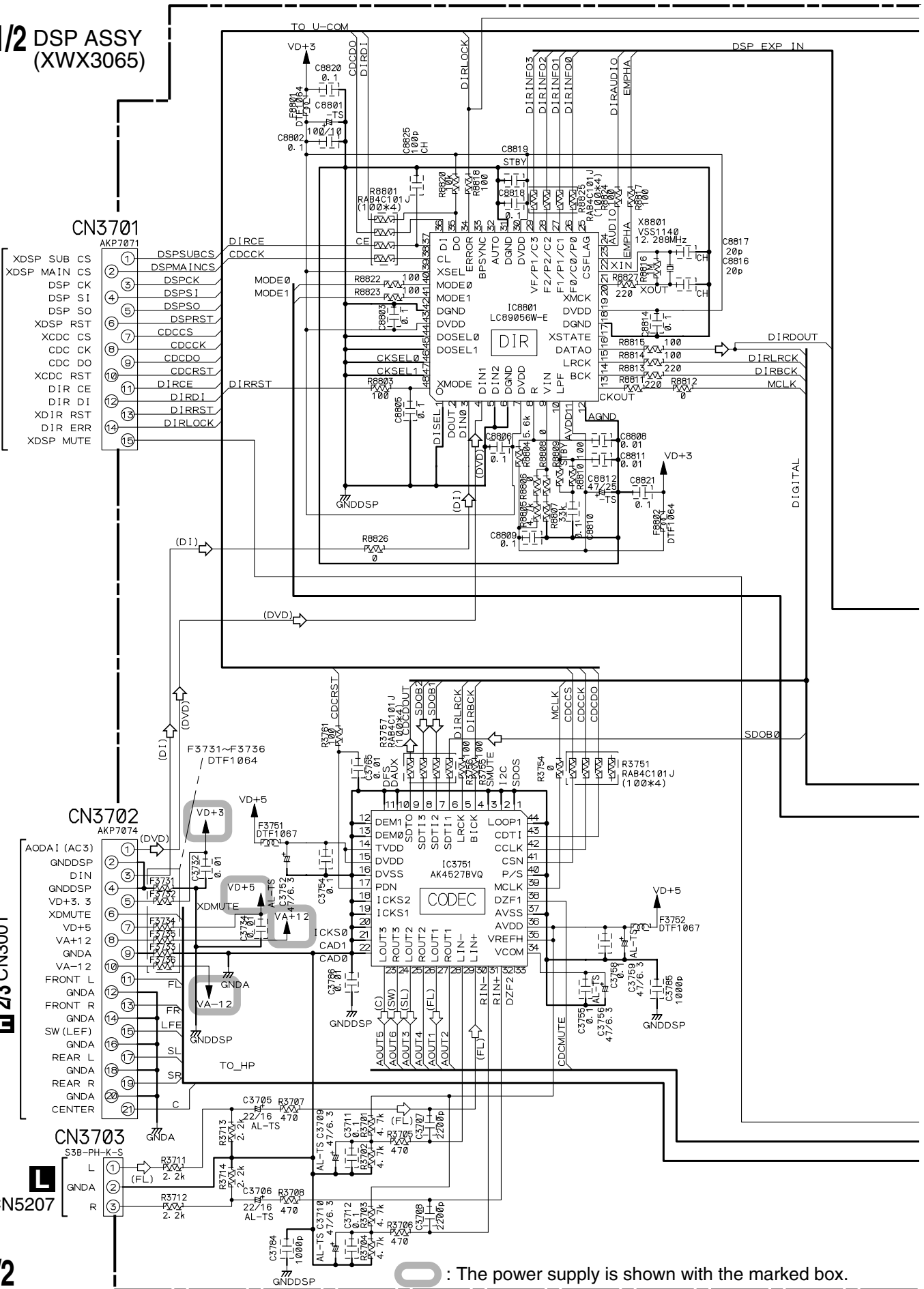
N 1/2 DSP ASSY (XWX3065)

H 3/3 CN5503

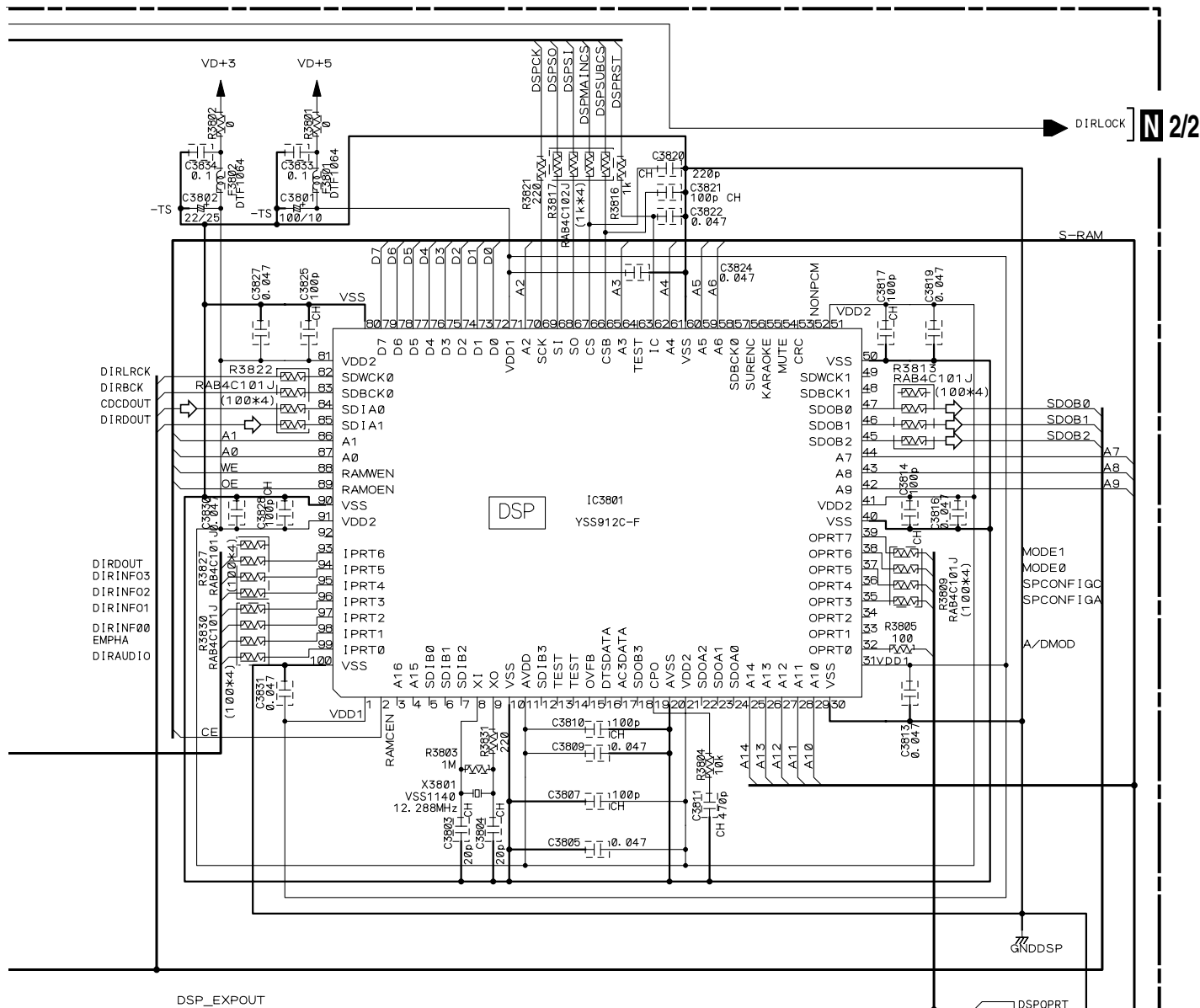
H 2/3 CN3001

L CN5207

N 1/2



O : The power supply is shown with the marked box.



NOTES

ALL CAPACITORS ARE IN μ F
UNLESS OTHERWISE SPECIFIED

CH : CCSRCH
YF : CKSRYF
(OTHER : CKSRYB)

CEAT***M##

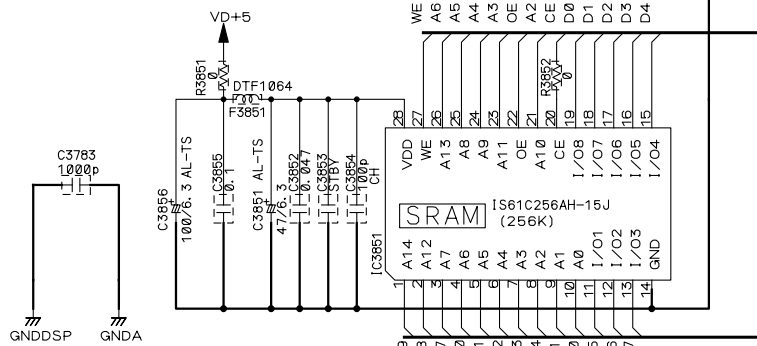
CEAL***M##

ALL RESISTORS ARE IN Ω

1/16W

NO MARK DIODE

1SS355



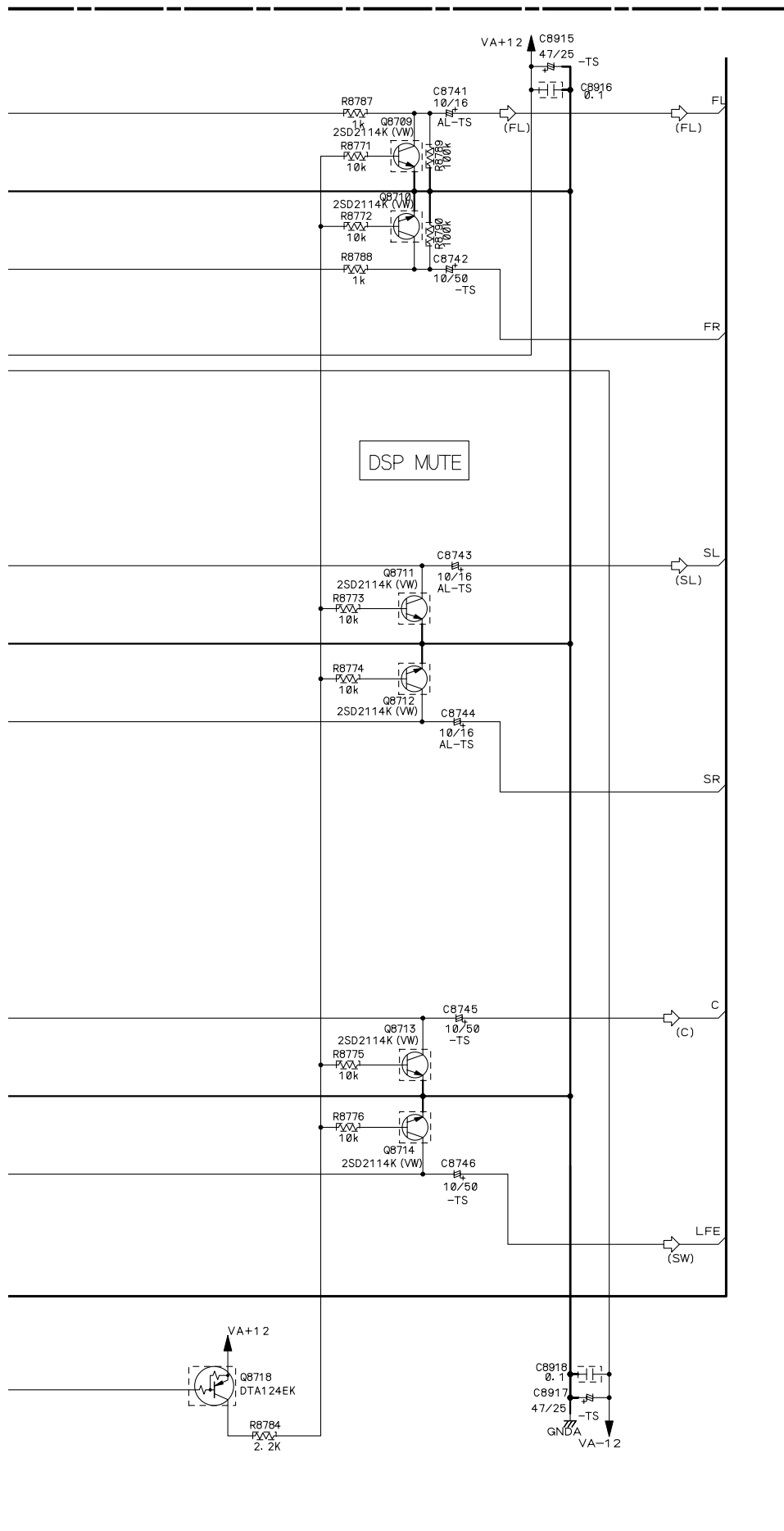
(DVD) : DVD AUDIO SIGNAL ROUTE
(DI) : DI AUDIO SIGNAL ROUTE
(FL) : FL AUDIO SIGNAL ROUTE
(SL) : SL AUDIO SIGNAL ROUTE
(C) : C AUDIO SIGNAL ROUTE
(SW) : SW AUDIO SIGNAL ROUTE

◇ : AUDIO SIGNAL ROUTE

N 1/2

N 2/2 DSP ASSY (XWX3065)

(FL)  : FL AUDIO SIGNAL ROUTE
 (SL)  : SL AUDIO SIGNAL ROUTE
 (C)  : C AUDIO SIGNAL ROUTE
 (SW)  : SW AUDIO SIGNAL ROUTE



NOTES

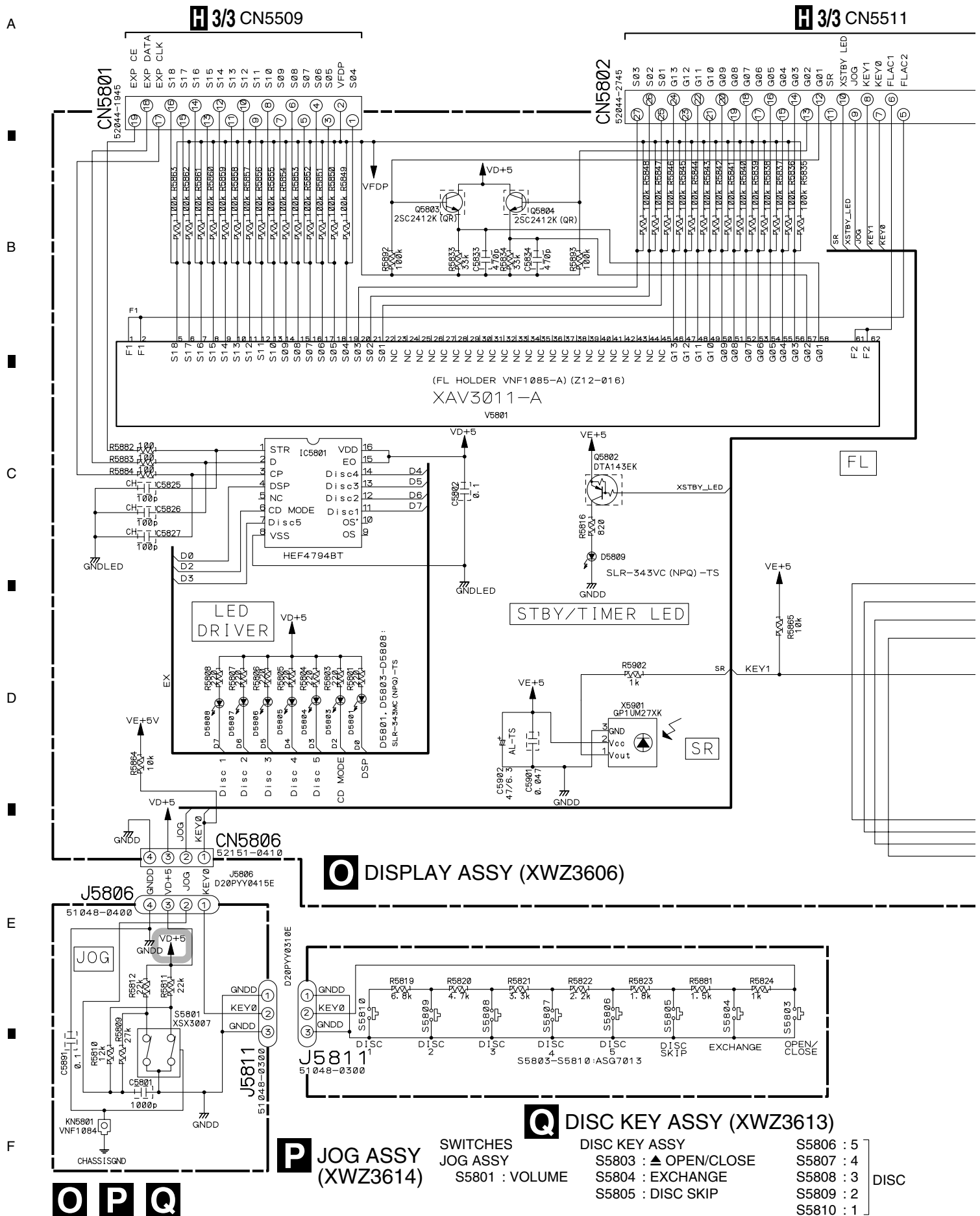
ALL CAPACITORS ARE IN μF
 UNLESS OTHERWISE SPECIFIED

CH : CCSRCH
 YF : CKSRVF
 (OTHER : CKSRYB)

AL : CEAL
 JA : CEJA
 (OTHER : CEAT***M###)

ALL RESISTORS ARE IN Ω
 1/16W

3.16 DISPLAY, JOG, DISC KEY, HP MIC and FUNCTION KEY ASSYS



A

B

C

D

E

F



3.17 PRIMARY and INLET ASSYS

NOTES

ALL CAPACITORS ARE IN μ F
UNLESS OTHERWISE SPECIFIED

NO MARK DIODE

1SS133

CKSRYB

CEAT****M##

JQ

1/3
CN5011

1/3
CN5012

CN2
B4P7-VH

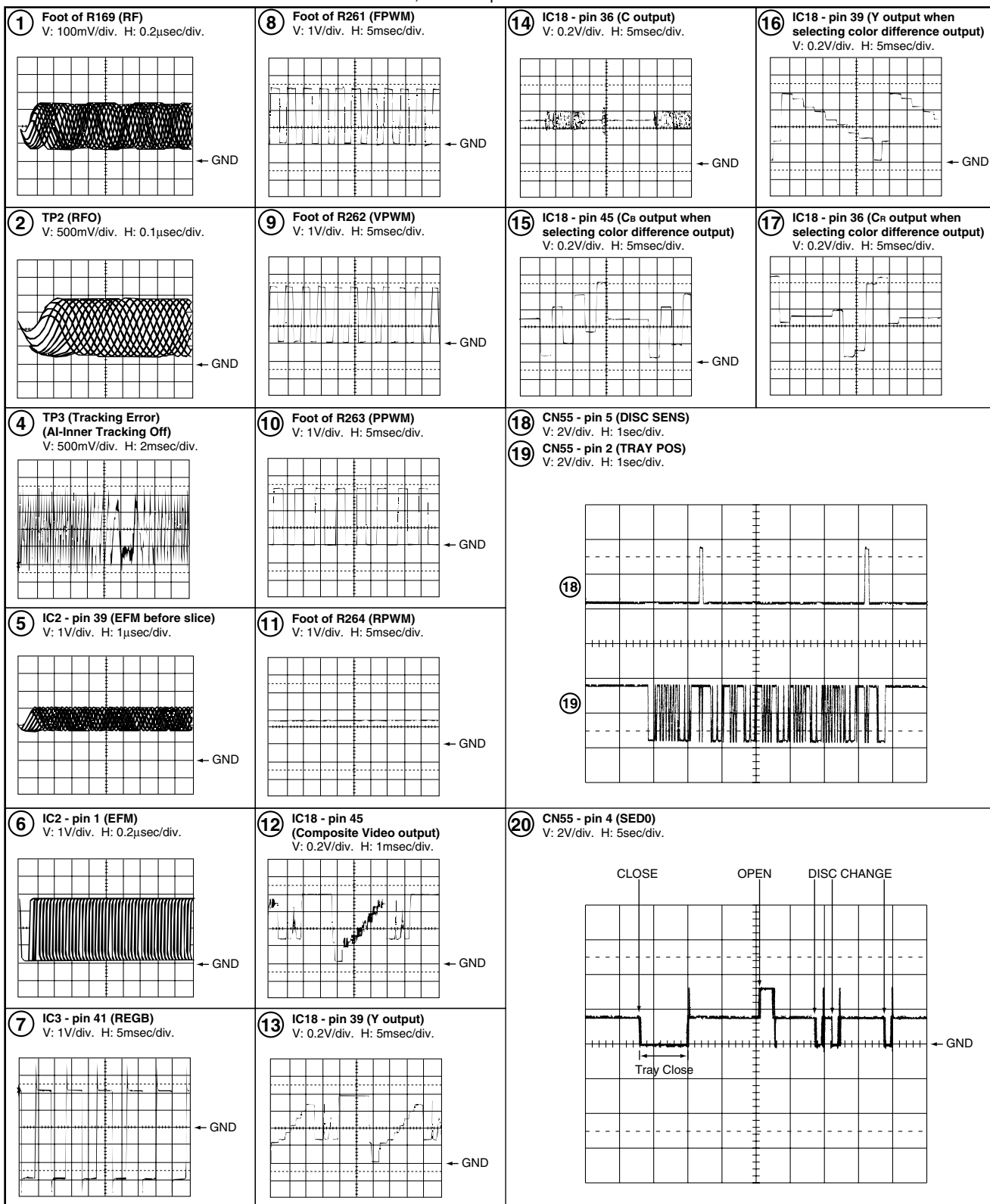
CN1
B2P3-VH

PRIMARY ASSY
(XWZ3589)

F DVDM ASSY

Note : The encircled numbers denote measuring point in the schematic diagram.

Measurement condition : No. 1 to 4 and 6 to 11 : MJK1, Title 1-chp 1
 No. 5 : CD, ABEX-784 Track 1
 No. 12 to 14 : MJK1, Title 1-chp 4
 No. 15 to 17 : MJK1, Title 1-chp 5



3/3 MAIN ASSY

IC5501 (PDC092A) • Mode: DVD Play

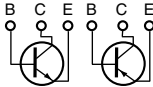
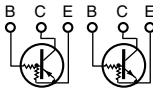
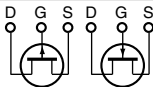
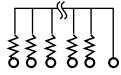
Pin	Name	Voltage (V)	Pin	Name	Voltage (V)	Pin	Name	Voltage (V)
1	XDSP MUTE	4.8	36	G07	*	71	RDS DATA	0
2	XCDC MUTE	4.8	37	G08	*	72	VDD4	4.8
3	CDC DO	3.3	38	G09	*	73	RYDE	4.9
4	CDC CK	4.8	39	G10	*	74	EXP CK	0
5	XCDC CS	4.8	40	G11	*	75	EXP DATA	0
6	XDSP RST	4.8	41	G12	*	76	EXP CE	0
7	XDSP SUB CS	4.8	42	G13	*	77	RDS ON/OFF	0
8	XDSP MAIN CS	4.8	43	N.C.	—	78	TX MUTE	0
9	WEN/DI	3.3	44	N.C.	—	79	XA OUT MUTE	4.7
10	WDO	3.4	45	N.C.	—	80	X CENTER MUTE	4.7
11	XRESET	4.8	46	VDD3	4.8	81	XDIR RST	4.7
12	TEST MODE	0	47	S01	*	82	POWER	4.5
13	3.3DETECT	3.2	48	S02	*	83	XRDY1	0
14	VSS1	0	49	S03	*	84	DVDON /XOFF	4.7
15	CF1	2.5	50	S04	*	85	SYS CK	0
16	CF2	2.5	51	VFDP	-30.8	86	SYS DATA	0
17	VDD1	4.8	52	S05	*	87	XDVDRST1	4.8
18	KEY0	4.8	53	S06	*	88	XLINE MUTE	0
19	ST/MUTE	4.9	54	S07	*	89	VSS2	0
20	MODEL	0	55	S08	*	90	VDD2	4.8
21	FAN DET	0	56	S09	*	91	MAIN VOL CE	0
22	KEY1	4.8	57	S10	*	92	PLLCE	0
23	JOG	0.2	58	S11	*	93	DIR CE	0
24	XSTBY LED	4.7	59	S12	*	94	WCLK	0
25	N.C.	—	60	S13	*	95	DSP SO	0
26	AC	2.4	61	S14	*	96	DSP SI	0
27	LT11	0	62	S15	*	97	DSP CK	4.8
28	RDS CK	0	63	S16	*	98	SSI	0
29	REMOCON	4.6	64	S17	*	99	SSO1	4.8
30	G01	*	65	S18	*	100	SSCK	4.6
31	G02	*	66	N.C.	—			
32	G03	*	67	HP DET	0			
33	G04	*	68	DIR DI	5.0			
34	G05	*	69	TX DATA	4.2			
35	G06	*	70	DIR ERR	0			

Note * : FL drive voltage, pulse waveform of Low level is VFDP (about -31V) and High level is VDD (+5V).

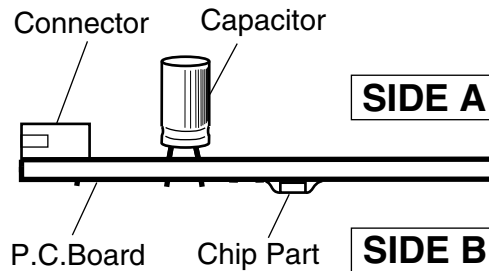
4. PCB CONNECTION DIAGRAM

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
		Resistor array
		3-terminal regulator

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



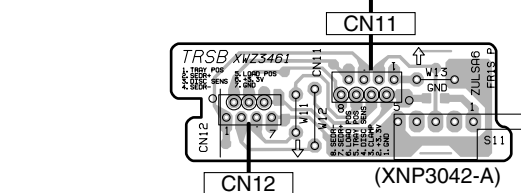
4.1 TRSB, SSRB, LOMB, SMEB, and FGSB ASSYS

SIDE A

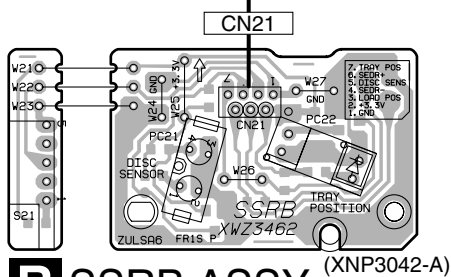
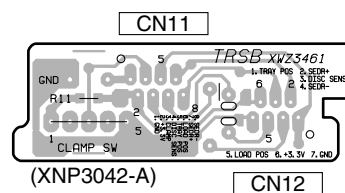
SIDE B

A TRSB ASSY

H CN8903

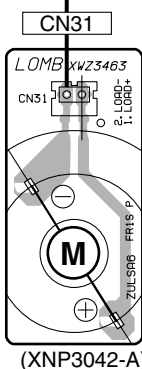


A TRSB ASSY

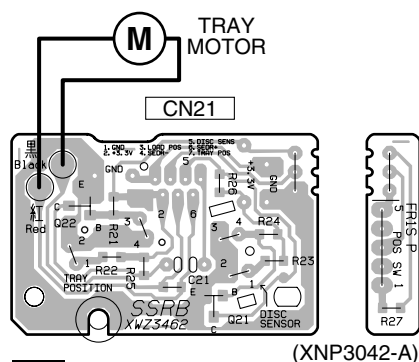
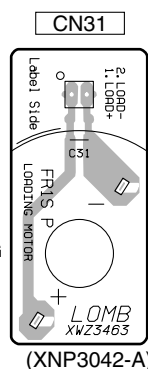


B SSRB ASSY

F CN2



C LOMB ASSY

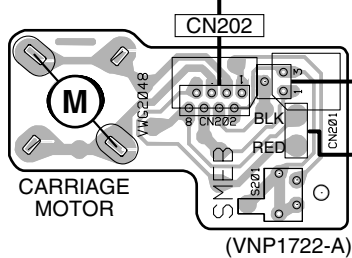


B SSRB ASSY

SIDE B

D SMEB ASSY

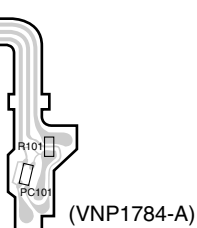
F CN3



SIDE A

E FGSB ASSY

M SPINDLE MOTOR



A B C D E

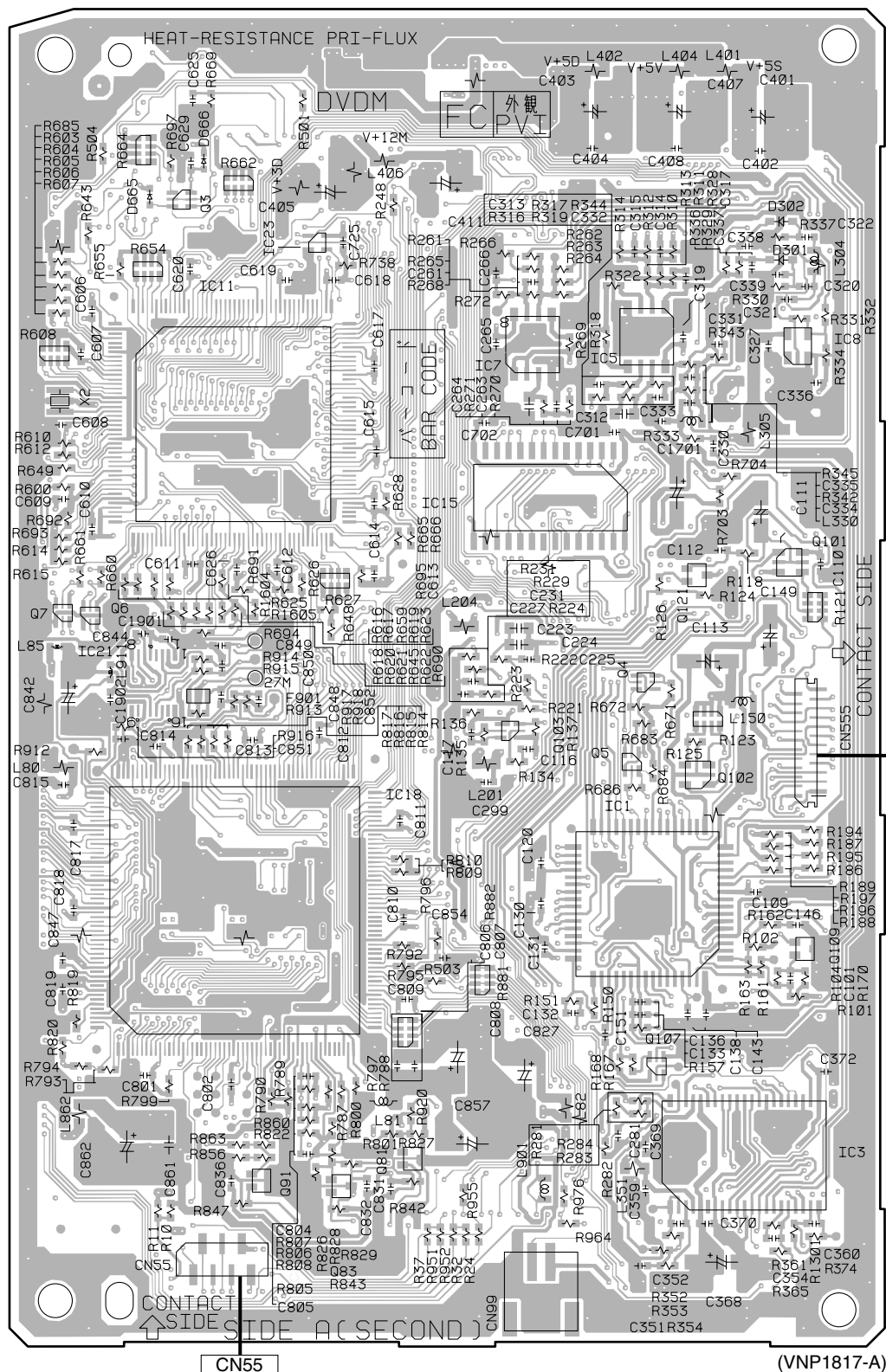
A B C D E

4.2 DVDM ASSY

SIDE A

SIDE A

F DVDM ASSY



SIDE B

SIDE B

A

B

C

D

E

F

1

IC12	IC13	IC14
------	------	------

Q112

IC2

IC19

Q114

Q113

Q131

Q106 IC26 IC27

Q251

Q85	Q89	Q87
-----	-----	-----

H CN8502

F DVDM ASSY

C
CN31

D CN202

H CN8501

(VNP1817-A)

CONTACT SIDE CN15 STDF B (FIRST)

CONTACT
SIDE**F****F**

XV-HTD50

4.3 MAIN ASSY

SIDE A

H MAIN ASSY

I CN3302

J CN3502

N CN3701

I CN3301

J CN3501

N CN3702

M CN5354

M CN5211

G CN201

O CN5807

CN5501

CN5011

Q5721

IC15

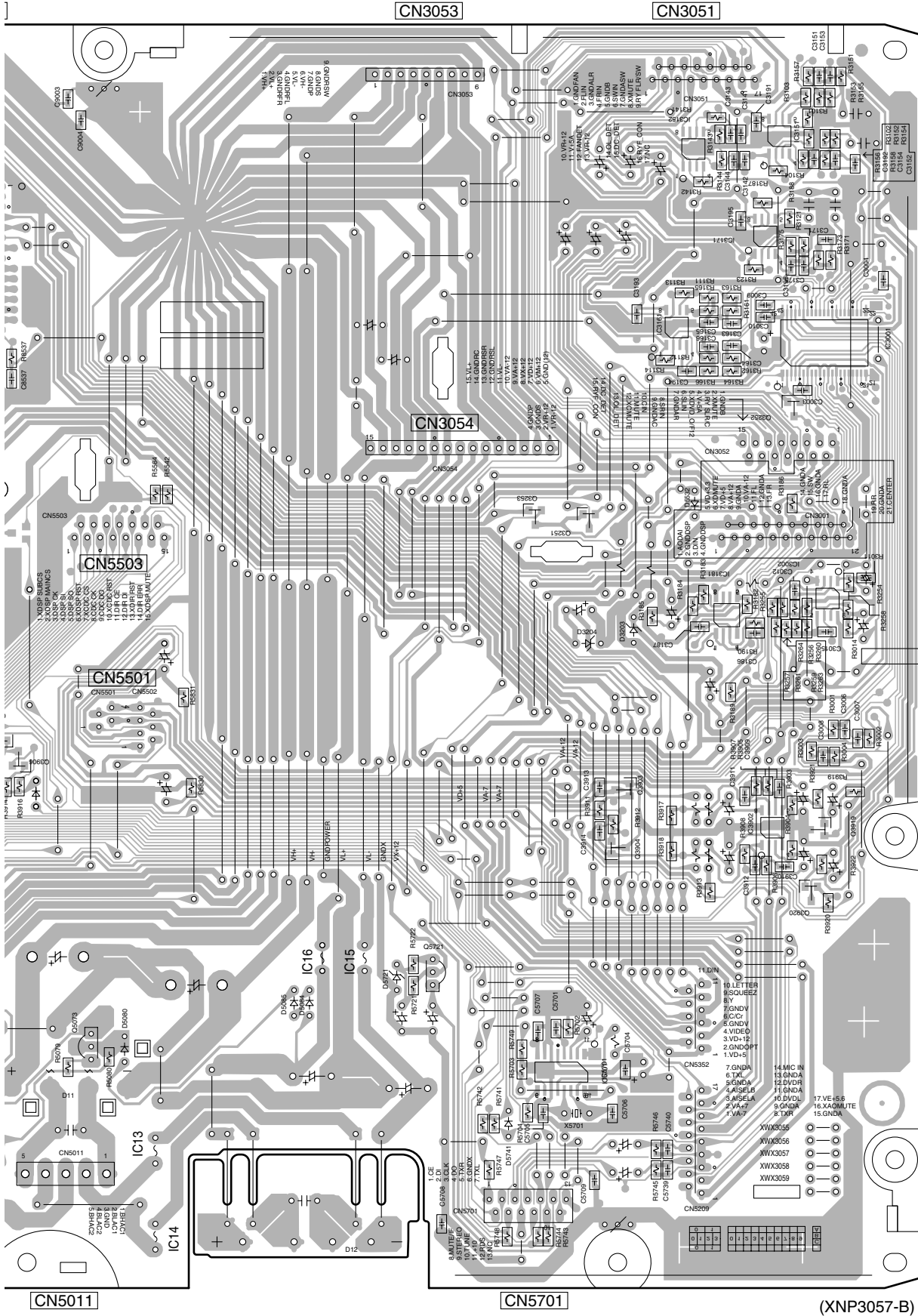
IC16

IC14

IC13

Q5073

XV-HTD50



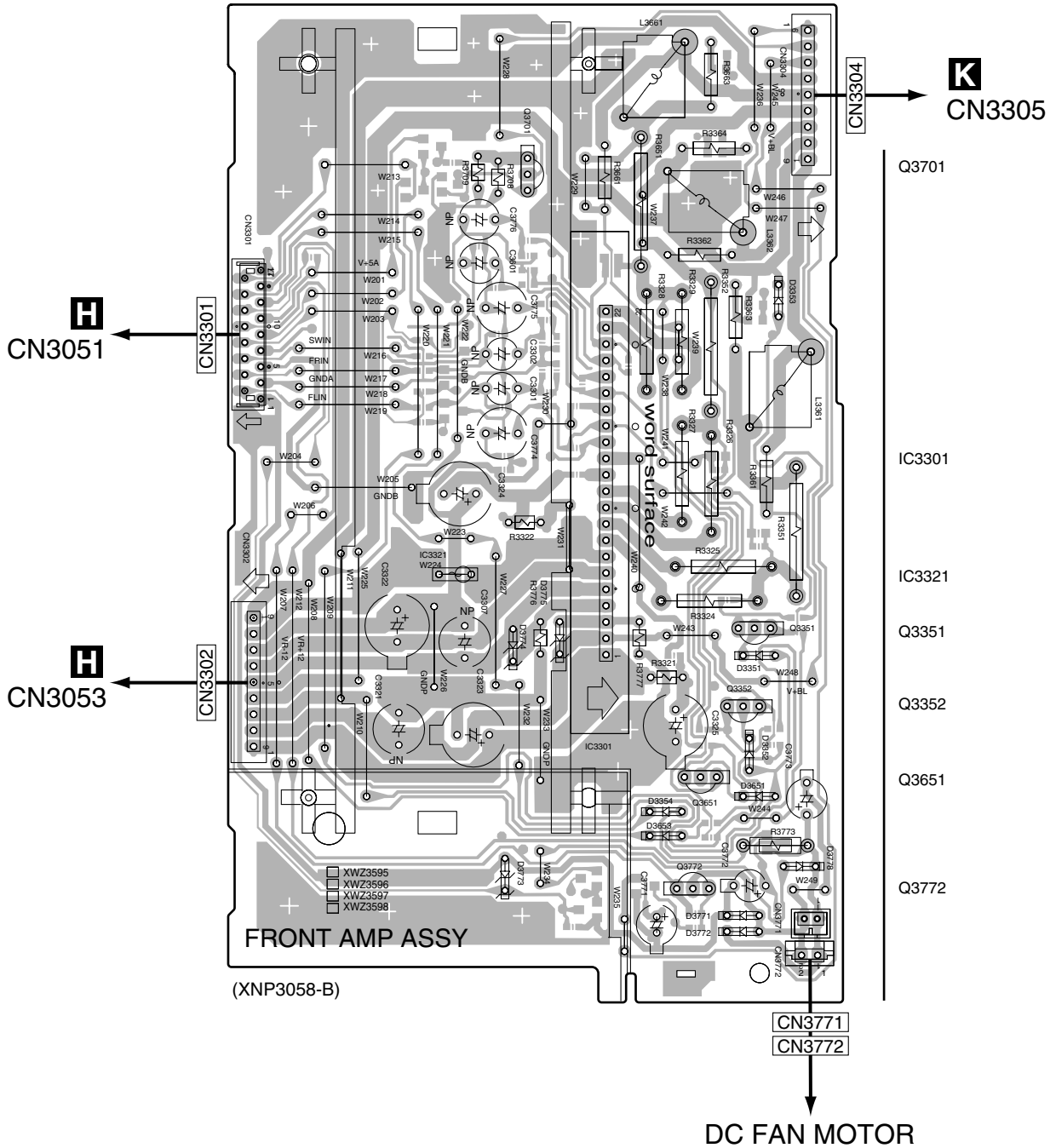
(XNP3057-B)

4.4 F. AMP ASSY

SIDE A

SIDE A

F. AMP ASSY

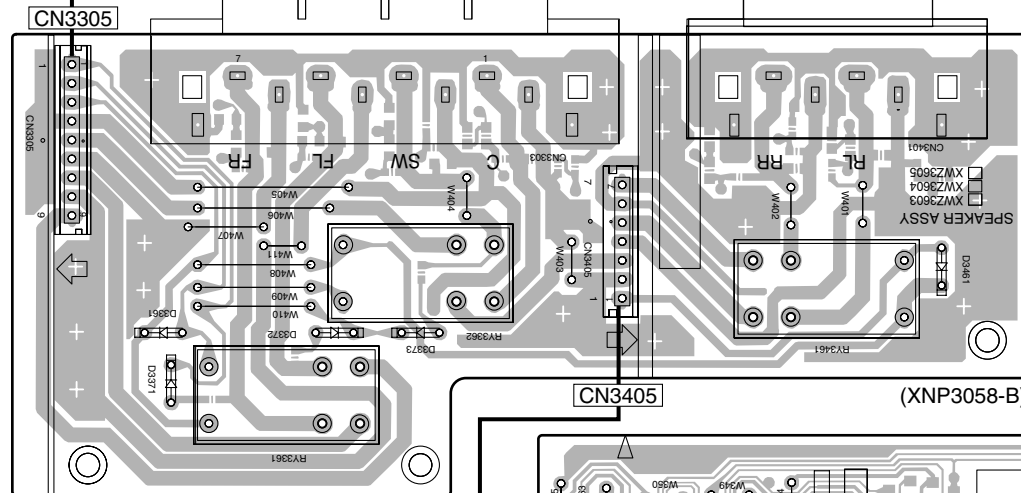


4.5 R. AMP and SPEAKER ASSYS

SIDE A

SIDE A

I CN3304



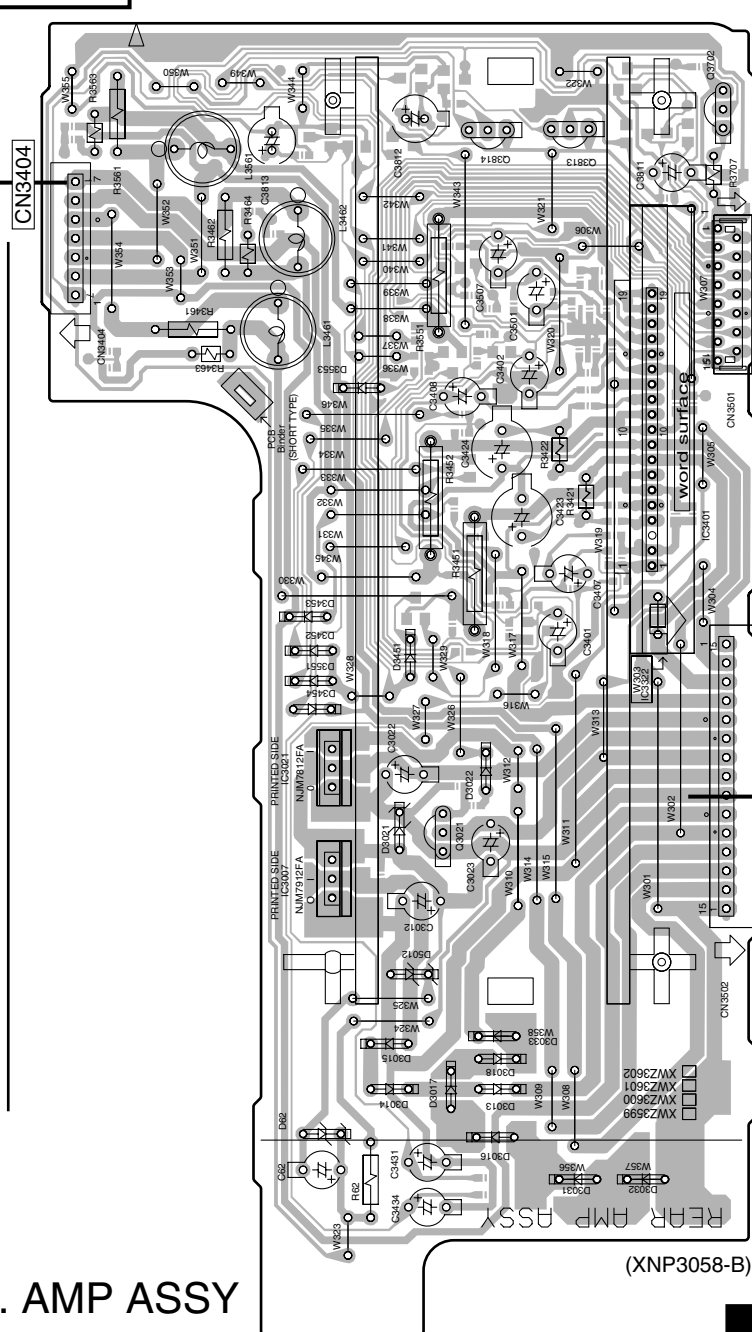
K SPEAKER ASSY

Q3813
Q3702
Q3814

IC3401

IC3322

IC3021
Q3021
IC3007



H CN3052

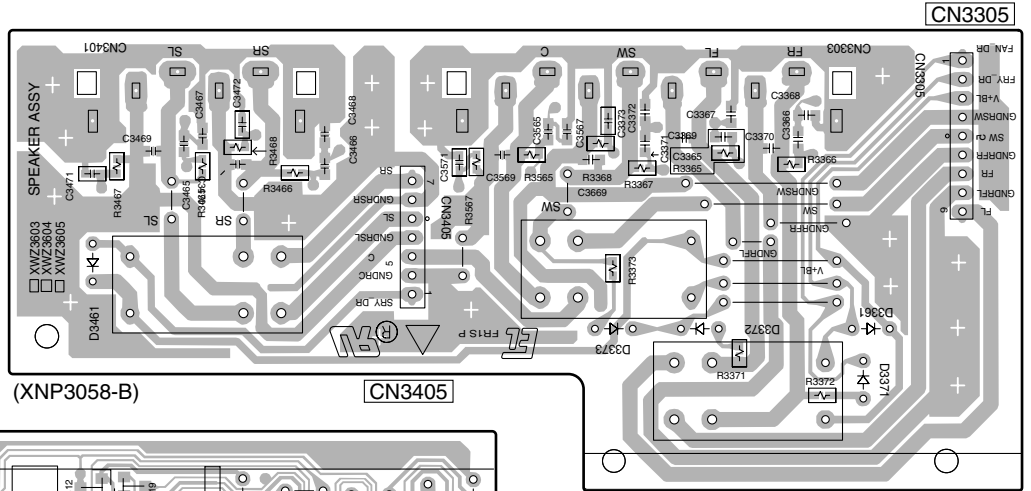
H CN3054

J R. AMP ASSY

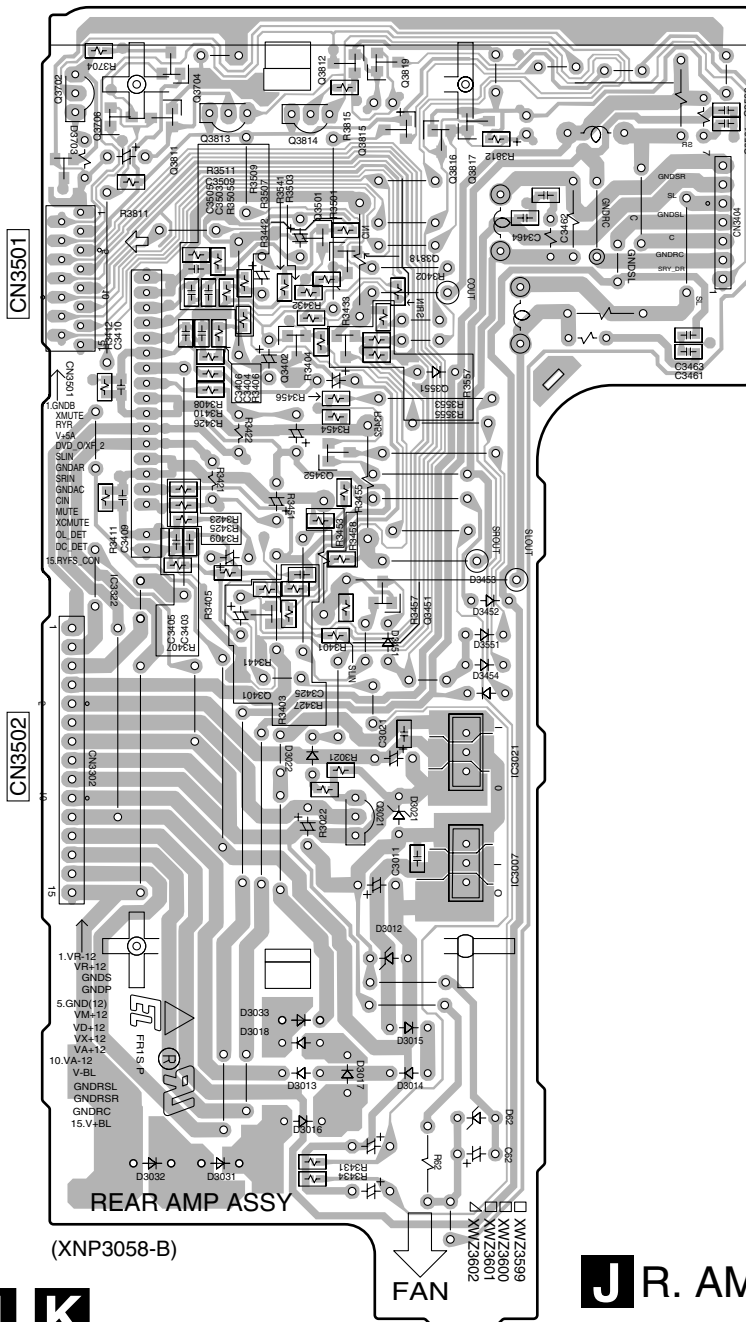
J **K**

SIDE B

SIDE B



K SPEAKER ASSY

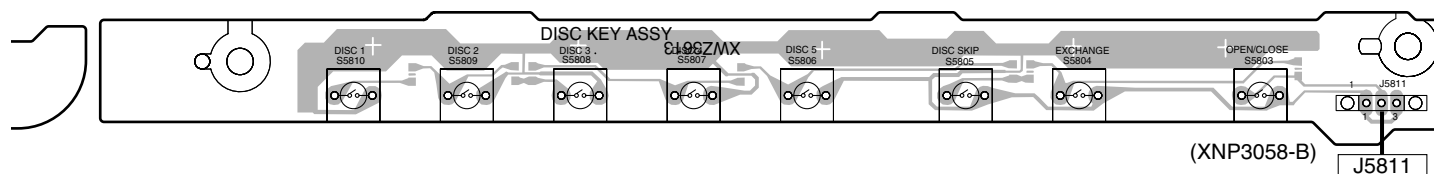


J R. AMP ASSY

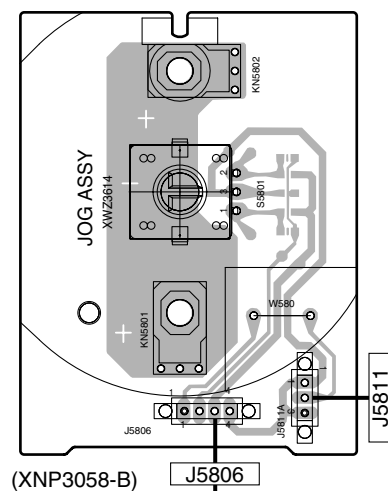
J **K**

SIDE A

Q DISC KEY ASSY



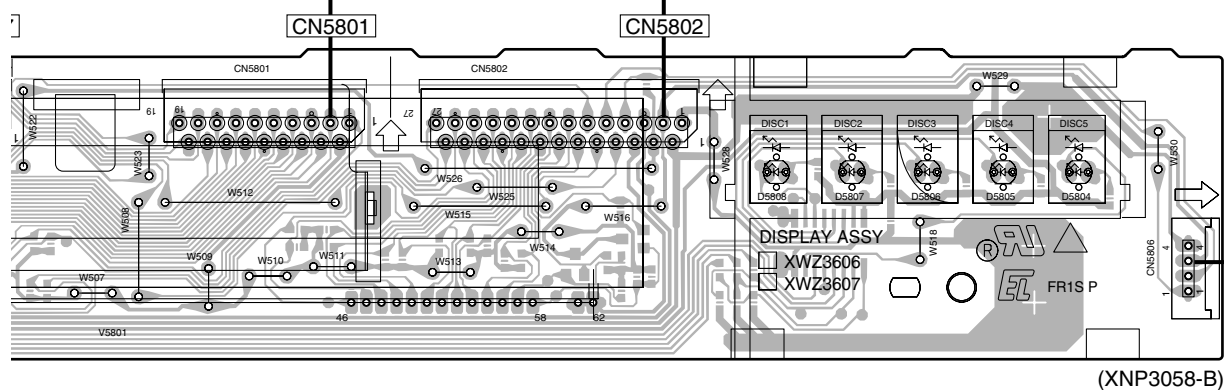
P JOG ASSY



01

J CN5509

J CN5511

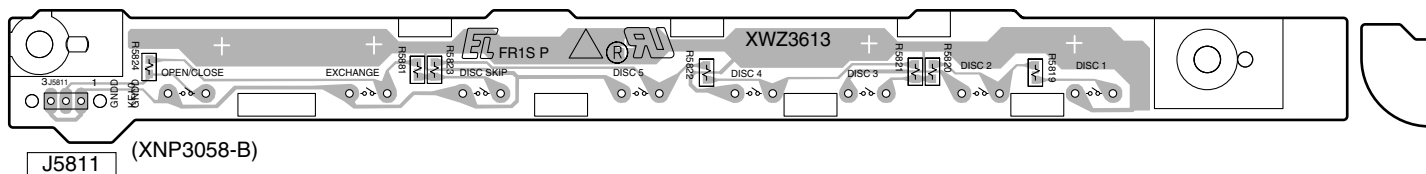


O P Q

SIDE B

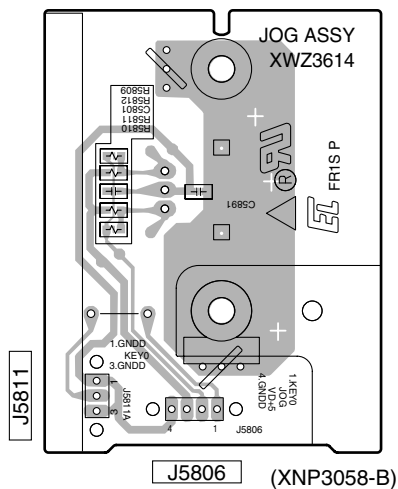
A

Q DISC KEY ASSY



B

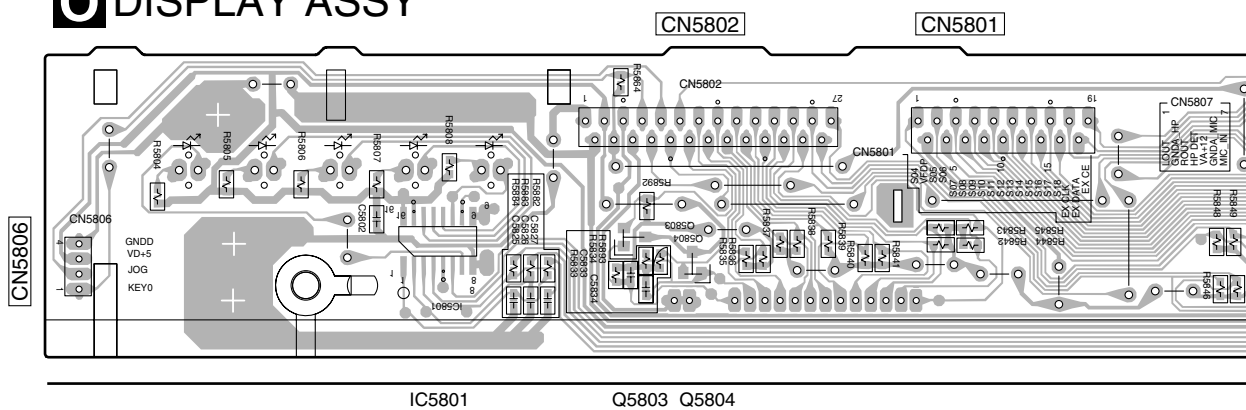
P JOG ASSY



C

D

0 DISPLAY ASSY



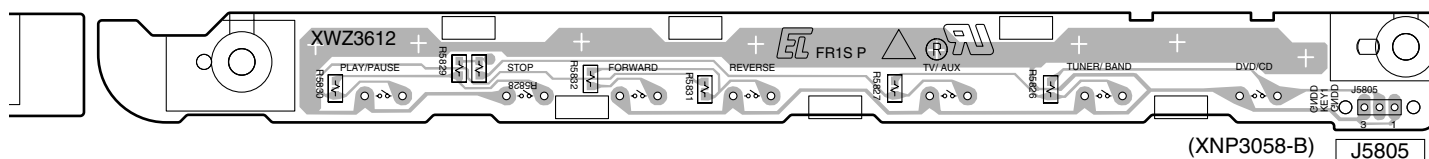
E

F

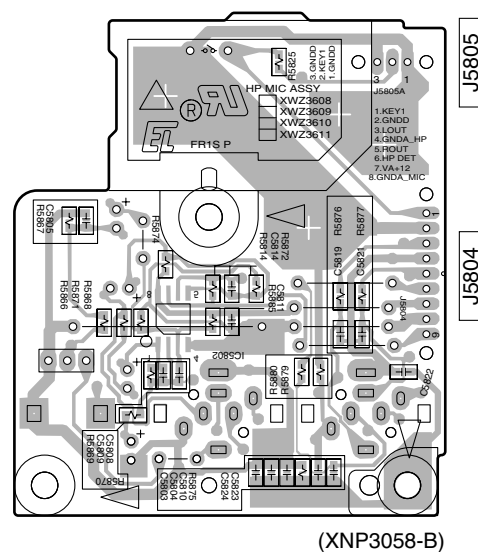
O P Q

SIDE B

A

S FUNCTION KEY ASSY

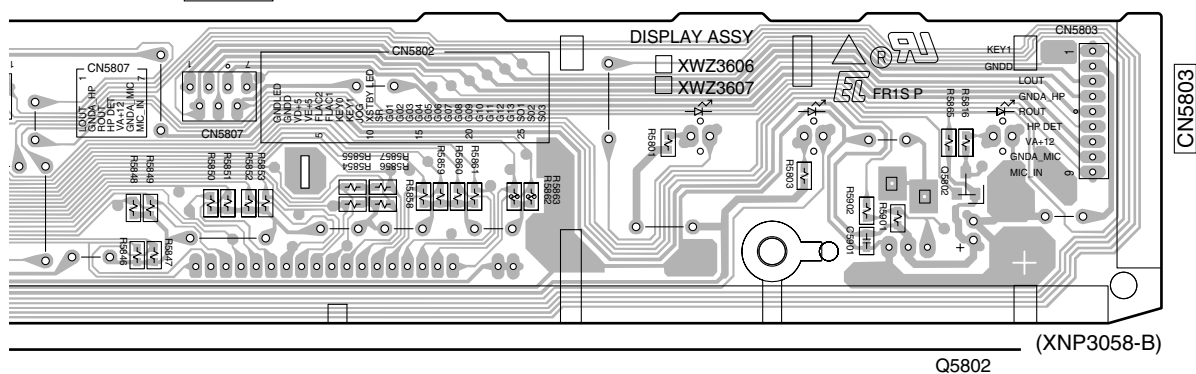
B

R HP MIC ASSY

C

D

CN5807



E

F

O R S

4.9 PRIMARY and INLET ASSYS

SIDE A

SIDE A

T PRIMARY ASSY

U INLET ASSY

AC IN

(XNP3058-B)

T1

IC41

Q41

(XNP3058-B)

FC	DC
----	----

SEC.
SIDE

CAUTION
REPLACE WITH SAME TYPE
AND RATINGS OF FUSE

ATTENTION
REMPLACER PAR LE FUSIBLE
UN MODELE IDENTIQUE EN
INTENSITE

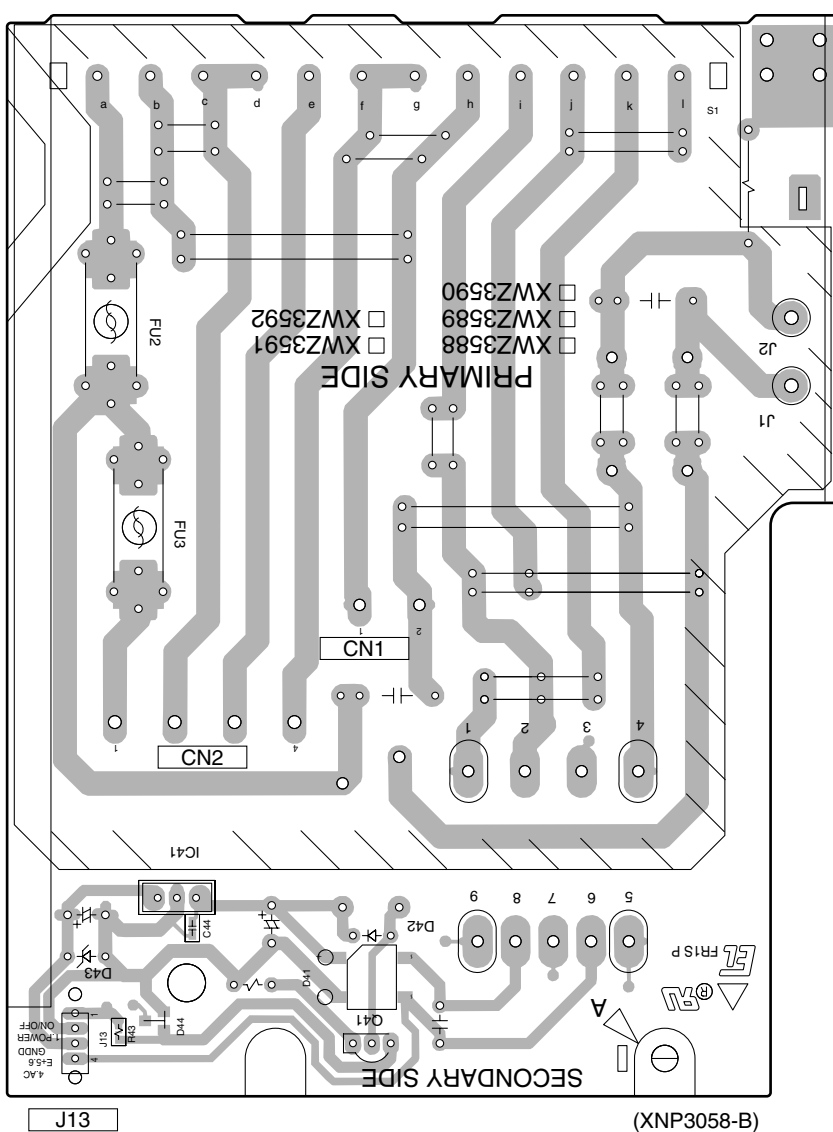
H CN8503

XV-HTD50

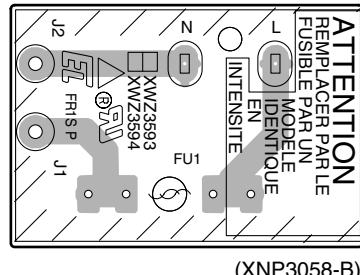
SIDE B

SIDE B

T PRIMARY ASSY



U INLET ASSY



T U

T U

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 x 10^1 $\rightarrow$ 561 RD1/4PU561J

47k Ω $\rightarrow$ 47 x 10^3 $\rightarrow$ 473 RD1/4PU473J

0.5 Ω $\rightarrow$ R50 RN2H[R]50K

1 Ω $\rightarrow$ 1R0 RS1P[R]10K

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

5.62k Ω $\rightarrow$ 562 x 10^1 $\rightarrow$ 5621 RN1/4PC5621F

Mark No. Description Part No. LIST OF ASSEMBLIES

NSP	1..MECB ASSY	XWM3197
NSP	2..TRSB ASSY	XWZ3461
NSP	2..SSRB ASSY	XWZ3462
NSP	2..LOMB ASSY	XWZ3463

	1..Traverse Mechanism Assy-S	VXX2653
NSP	2..FGSB ASSY	VWG2009
NSP	2..SMEB ASSY	VWG2048

NSP	1..COMPLEX ASSY	XWM3202
	2..PRIMARY ASSY	XWZ3589
	2..INLET ASSY	XWZ3594
	2..F. AMP ASSY	XWZ3596
	2..R. AMP ASSY	XWZ3600
	2..SPEAKER ASSY	XWZ3604
	2..DISPLAY ASSY	XWZ3606
	2..HP MIC ASSY	XWZ3609
	2..FUNCTION KEY ASSY	XWZ3612
	2..DISC KEY ASSY	XWZ3613
	2..JOG ASSY	XWZ3614
	2..B TO B ASSY	XWZ3615

	1..DVDM ASSY	XWX3034
	1..MAIN ASSY	XWX3056
	1..CONNECT ASSY	XWX3061
	1..DSP ASSY	XWX3065
	1..FM/AM TUNER MODULE	AXQ7229

Mark No.	Description	Part No.
	MECB ASSY	
	PC BOARD MECB	XNP3042

A TRSB ASSY SWITCHES AND RELAYS

S11	VSK1011
-----	---------

RESISTORS

R11	RS1/10S0R0J
-----	-------------

OTHERS

CN12 7P FFC CONNECTOR	VKN1211
CN11 8P FFC CONNECTOR	VKN1268

B SSRB ASSY SEMICONDUCTORS

Q21	2SC2412K
Q22	DTC124EK
PC21	GP2S28
PC22	RPI-574

Mark No. Description Part No. SWITCHES AND RELAYS

S21	VSK1011
-----	---------

CAPACITORS

C21	CKSQYB102K50
-----	--------------

RESISTORS

All Resistors	RS1/10S###J
---------------	-------------

OTHERS

CN21 7P FFC CONNECTOR	VKN1211
-----------------------	---------

C LOMB ASSY CAPACITORS

C31	CKSQYB102K50
-----	--------------

OTHERS

CN31 KR CONNECTOR	B2B-PH-K
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D SMEB ASSY SWITCHES AND RELAYS

S201	DSG1016
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OTHERS

CN201 3P FFC CONNECTOR	52044-0345
CN202 8P FFC CONNECTOR	VKN1212
PC BOARD SMEB	VNP1722

E FGSB ASSY SEMICONDUCTORS

PC101	GP2S60
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RESISTORS

R101	RS1/10S331J
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F DVDM ASSY SEMICONDUCTORS

IC5, IC7	BA4510F
IC21	BU2288FV
IC14	KM68V1000CLT-7L
IC1	LA9701M
IC2	LC78652W
IC3	M56788FP
IC19	MB811171622A-100FN
IC18	MB86373B
IC15	MN414800CSJ-07
IC11	PD3410A

Mark No. Description**Part No.**

IC12
IC8
IC13
Q106, Q109, Q81, Q83, Q85
Q114, Q121, Q251

PE5108A
TC7SHU04F
XYW3004
2SA1576A
2SC4081

Q131
Q102
Q103, Q6, Q7
Q101
Q112, Q113

DTC114EUA
HN1A01F
HN1B04FU
HN1C01F
HN1C01FU

Q107, Q4, Q5
Q3
Q1
D301
D6

RN1902
RN1911
RN4982
KV1471E
RB501V-40

COILS AND FILTERS

L150, L330
L304
L81 (22.0μH)
L9170 CHIP BEADS

LCYA100J2520
LCYA2R7J2520
VTL1067
VTL1084

CAPACITORS

C845, C846, C849–C852
C123, C146, C372, C402, C404
C408, C613, C806, C843
C322
C135

CCSRCH100D50
CCSRCH101J50
CCSRCH101J50
CCSRCH120J50
CCSRCH121J50

C104–C108
C206, C210, C211
C333
C314, C336
C152

CCSRCH150J50
CCSRCH151J50
CCSRCH180J50
CCSRCH220J50
CCSRCH221J50

C151
C127, C209, C337
C116, C134, C236
C122, C208
C126, C335

CCSRCH270J50
CCSRCH331J50
CCSRCH470J50
CCSRCH471J50
CCSRCH560J50

C334
C124, C132
C117, C240, C352, C360
C129, C142, C842
C113, C139

CCSRCH5R0C50
CCSRCH680J50
CCSRCH681J25
CEV101M10
CEV220M16

C405, C413, C700, C808
C368, C411
C111, C149, C205, C207, C401
C403, C407
C140, C223, C224, C252, C264

CEV221M4
CEV470M16
CEV470M6R3
CEV470M6R3
CKSQYB105K10

C312
C216, C313
C133, C136, C203, C220, C225
C239, C320, C321, C330, C625
C703, C711

CKSQYB105K10
CKSRYB102K50
CKSRYB103K50
CKSRYB103K50
CKSRYB103K50

C101, C102, C114, C118, C119
C121, C138, C204, C212, C213
C227, C231, C263, C315, C317
C332, C604, C606, C609
C611, C612, C614, C617, C619

CKSRYB104K25
CKSRYB104K25
CKSRYB104K25
CKSRYB104K25
CKSRYB104K25

C705, C707, C709, C710
C713, C714, C722, C724, C804
C807, C809, C811, C812
C814, C815, C817, C819, C821

CKSRYB104K25
CKSRYB104K25
CKSRYB104K25
CKSRYB104K25

Mark No. Description**Part No.**

C153, C266, C357

CKSRYB223K50

C214, C251, C261, C351, C354
C109, C110, C120, C130, C131
C143, C150, C1901, C1902, C202
C215, C221, C222, C226, C230
C235, C265, C299, C319, C359

CKSRYB472K50
CKSRYF104Z50
CKSRYF104Z50
CKSRYF104Z50
CKSRYF104Z50

C367, C369, C370, C601, C605
C607, C608, C610, C615, C618
C620, C626, C701, C702, C704
C706, C708, C712, C715–C721
C723, C726, C820, C844

CKSRYF104Z50
CKSRYF104Z50
CKSRYF104Z50
CKSRYF104Z50
CKSRYF104Z50

C148, C217, C327, C801, C802
C810, C813, C818, C828, C830

CKSRYF105Z10
CKSRYF105Z10

RESISTORS

R632
R657, R658
R121, R663
R123
R202, R3510

RAB4C0R0J
RAB4C103J
RAB4C220J
RAB4C390J
RS1/10S101J

R700
R807
R806
R363, R365
R825–R827

RS1/10S1R0J
RS1/16S1201F
RS1/16S1501F
RS1/16S1503F
RS1/16S2000F

R805
R361, R364
Other Resistors

RS1/16S2701F
RS1/16S7502F
RS1/16S###J

OTHERS

X2 CHIP CERAMLOCK (20MHz)
CN2 PH CONNECTOR
FLEXIBLE CABLE
CN555 24P CONNECTOR
CN55 7P CONNECTOR

DSS1110
S2B-PH-SM3
VDA1681
VKN1464
VKN1493

CN15, CN5 B TO B CONNECTOR
CN3 8P CONNECTOR
X1 CRYSTAL RESONATOR
(27.000MHz)

VKN1626
VKN1763
VSS1159

**FM/AM TUNER MODULE
SEMICONDUCTORS**

IC201
IC202
Q201, Q204, Q205, Q601
Q202
Q203

BA1451F
LC72131MD
2SC2412K
DTA124ES
DTC124EK

D201
D202
D101

1SS133
MTZJ5.1C
UDZS6.8B

COILS AND FILTERS

L201 FM DETECTOR COIL
F202 CERAMIC FILTER
F201 CERAMIC FILTER
F203 AM CERAMIC FILTER
F601 ANTIBIRDY FILTER

ATE7003
ATF-107
ATF-119
ATF1155
ATF7025

L601

LC7A270J2520

CAPACITORS

C605
C212, C213, C226, C233–C235

CCSQCH680J50
CCSRCH101J50

Mark No.	Description	Part No.
C240, C614		CCSRCH101J50
C206		CCSRCH120J50
C231, C232		CCSRCH150J50
C223		CEAT100M50
C229		CEAT101M10
C224		CEAT1R0M50
C227		CEAT220M25
C241		CEAT2R2M50
C243		CEAT330M16
C228		CEAT3R3M50
C237		CEAT470M10
C211		CEJA1R0M50
C210		CEJA470M16
C103, C104, C204, C238		CKSRYB102K50
C102, C208, C216, C217, C220		CKSRYB103K50
C239, C242, C604, C615		CKSRYB103K50
C225		CKSRYB153K50
C607, C608		CKSRYB182K50
C201, C205, C214, C230, C236		CKSRYB223K50
C244		CKSRYB223K50
C221		CKSRYB224K10
C603		CKSRYB392K50
C215		CKSRYB471K50
C202, C222		CKSRYB473K16
C606		CKSRYB561K50

RESISTORS

R211	RD1/4PU221J
R221	RD1/4PU222J
R233	RD1/4PU391J
R103, R104	RS1/10S221J
Other Resistors	RS1/16S###J

OTHERS

CN201 13P CONNECTOR	52044-1345
BN201 2P TERMINAL WITH PAL SHIELD CASE T	AKA7002
SHIELD CASE B	ANK7072
X201 CRYSTAL RESONATOR (7.2000MHz)	ANK7073
	ASS1093
FM FRONTEND	AXF7004
AM RF TUNING BLOCK	AXX7072

MAIN ASSY SEMICONDUCTORS

⚠ IC5001 PROTECTOR(400mA)	AEK7004
⚠ IC5004, IC5005 PROTECTOR(3A)	AEK7015
⚠ IC15 PROTECTOR(5A)	AEK7019
⚠ IC13, IC14 PROTECTOR(7A)	AEK7021
IC3152	AN4558NS
⚠ IC5071	BA05T
⚠ IC8521	BA25BC0FP
IC3902	BA4560F
IC8901	BA6195FP
IC5701	BU1923F
IC3001	M62446FP
IC3151, IC3161, IC3171	NJM4558MD
IC5501	PDC092A
IC8531	TC74HCT7007AF
IC8541	TC74VHC125F
Q3906	2SA1037K

Mark No.	Description	Part No.
⚠ Q5072		2SA965
Q5043, Q5071		2SB1237X
⚠ Q5031, Q5041		2SB1375
Q5032, Q5042, Q5572		2SC2412K
Q5501		2SD1859X
⚠ Q5721		2SD1859X
Q3903, Q3904, Q3919, Q3920, Q5051		2SD2114K
Q3905		DTA124EK
Q5553, Q5554		DTA143EK
Q3251, Q3252		DTC114TK
Q8922		DTC114YK
Q3253		DTC124EK
Q5551, Q5552, Q5571		DTC143EK
D5010, D5011		11ES2
D3901, D5042, D5072, D5078, D5578		1SS133
D5741		1SS133
⚠ D11, D5005, D5006		D3SBA20(B)
⚠ D12		D5SBA20(B)
D5083		DAN202K
D5721		MTZJ11C
D5079		MTZJ33A
D5043		MTZJ4.7A
D3203, D3204, D5076		MTZJ6.8B
D5031, D5071		MTZJ7.5B

COILS AND FILTERS

L5501	LAU220J
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CAPACITORS

C5526 (0.047F)	ACH1246
C3006-C3008, C5504, C5513-C5516	CCSRCH101J50
C5573, C8537, C8914	CCSRCH101J50
C8910-C8913, C8916	CCSRCH221J50
C5705, C5706	CCSRCH270J50
C9004	CCSRCH331J50
C8907	CEAL101M10
C33, C34	CEANP100M35
C3190, C3905-C3908, C3917, C5043	CEAT100M50
C5076, C5571, C5702, C5722	CEAT100M50
C5741, C5742	CEAT100M50
C5032, C5042, C5045, C5073, C5523	CEAT101M10
C8522, C8909	CEAT101M10
⚠ C5010	CEAT101M50
C5574	CEAT1R0M50
C5051, C5074, C5075	CEAT220M50
C3001, C3002	CEAT221M16
C3157, C3158, C3167, C3168, C3179	CEAT2R2M50
C5033, C5703	CEAT470M16
C3901-C3904	CEAT470M25
C3005, C5072	CEJQ100M16
C3181, C3183	CFTLA154J50
C3155, C3156	CFTLA473J50
C5527	CKSRYB102K50
C3010, C3165, C3166, C3175	CKSRYB103K50
C3191-C3196, C3913, C3914	CKSRYB103K50
C5510-C5512, C5517, C5518, C5524	CKSRYB103K50
C5572, C5704, C8902, C8908, C9003	CKSRYB103K50
C3141-C3144, C5031, C5041, C5071	CKSRYB104K25
C5502, C5503, C5525, C5708, C8521	CKSRYB104K25
C8523, C8533, C8543, C8905, C8906	CKSRYB104K25
C8915	CKSRYB104K25

Mark No.	Description	Part No.
C3911, C3912		CKSRYB221K50
C5701		CKSRYB271K50
C3163, C3164, C3171		CKSRYB332K50
C8532, C8542		CKSRYB473K25
C5707		CKSRYB561K50
C3151, C3152		CKSRYB682K50
C19, C20		CQMA103K2E
⚠ C21, C22		XCH3008
⚠ C31, C32		XCH3009
⚠ C5006, C5008		XCH3010

RESISTORS

R3219, R3220	RD1/2PM151J
R5077, R5078, R5701, R8533, R8534	RD1/4PU101J
R5075	RD1/4PU102J
R3901, R3902	RD1/4PU121J
R3909, R3910	RD1/4PU470J
R5076	RD1/4PU472J
R5568	RD1/4PU473J
R5031	RD1/4PU821J
R8930	RS1/16S1002F
R8909	RS1/16S1502F
R8914, R8928	RS1/16S2402F
R8927	RS1/16S2701F
R8929	RS1/16S5601F
Other Resistors	RS1/16S###J

OTHERS

CN5501 4P FFC CONNECTOR	52045-0445
CN5701 13P FFC CONNECTOR	52045-1345
CN5509 19P FFC CONNECTOR	52045-1945
CN5511 27P FFC CONNECTOR	52045-2745
CN8503 4P JUMPER CONNECTOR	52147-0410
CN5352 11P PLUG	AKP7058
CN3052, CN5503 15P PLUG	AKP7060
CN3051, CN5209 17P PLUG	AKP7061
CN3001 21P PLUG	AKP7063
HEAT SINK M	ANH-697
X5701 CRYSTAL RESONATOR (4.332MHz)	ASS7004
CN5011 5P VH CONNECTOR	B5P-VH
CN5012 7P VH CONNECTOR	B7P-VH
SCREW	BBZ30P080FZK
CN3053 B TO B CONNECTOR 9P	RKP1783
CN3054 B TO B CONNECTOR 15P	RKP1788
PCB BINDER	VEF1040
CN5507, CN8902	VKN1211
7P FFC CONNECTOR	
CN8501, CN8502	VKN1627
B TO B CONNECTOR 30P	
CN8903 8P FFC CONNECTOR	VKN1707
KN5001, KN5701	VNF1084
EARTH METAL FITTING	
X5501 CERAMIC RESONATOR (10MHz)	ASS7034

F.AMP ASSY SEMICONDUCTORS

⚠ IC3301	STK413-000
Q3351, Q3352, Q3651	2SC2240
Q3701	2SD1858X

Mark No.	Description	Part No.
Q3301, Q3302, Q3603		2SD2114K
Q3772		2SD2144S
Q3771		DTA124EK
Q3773		DTA124TK
Q3703		DTA143EK
Q3705		DTC123TK
Q3774		DTC124EK
D3771		11ES2
D3351-D3354, D3651, D3653, D3772		1SS133
D3778		1SS133
D3705, D3776		DAN217
D3774, D3775		MTZJ15B

COILS AND FILTERS

⚠ L3361, L3362, L3661 AF COIL	ATH1009
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CAPACITORS

C3305, C3306, C3312	CCSRCH101J50
C3309-C3311	CCSRCJ3R0C50
C3771	CEAT101M16
C3772	CEAT2R2M50
C3601	CEJQNP100M16
C3301, C3302	CEJQNP2R2M35
C3307, C3321	CEJQNP330M35
C3774-C3776	CEJQNP470M16
C3361-C3364, C3661, C3663	CKSQYB104K50
C3609	CKSRYB102K50
C3603	CKSRYB103K50
C3329	CKSRYB104K25
C3303, C3304	CKSRYB222K50
C3322-C3325 (100μF/63V)	XCH3007

RESISTORS

R3363, R3364, R3663	RD1/2PM4R7J
R3361, R3362, R3661	RD1/2PMF101J
R3321, R3322	RD1/4MUF101J
R3708	RD1/4PU120J
R3776, R3777	RD1/4PU152J
⚠ R3773	RF1/4PS330J
R3324-R3329	RS2LMFR22J
R3351, R3352, R3651	RS3LMFR22J
Other Resistors	RS1/16S###J

OTHERS

CN3301 17P SOCKET	AKP7072
CN3771 PLUG(2P)	KM200SA2
CN3302, CN3304	RKP1821
B TO B CONNECTOR 9P	

J.R.AMP ASSY SEMICONDUCTORS

⚠ IC3021	NJM7812FA
⚠ IC3007	NJM7912FA
⚠ IC3401	STK402-230
Q3021	2SB1237X
Q3451, Q3452, Q3551, Q3816, Q3817	2SC2412K
Q3702	2SD1858X
Q3401, Q3402, Q3501	2SD2114K
Q3813, Q3814	DTA123JS
Q3704, Q3815, Q3818	DTA143EK
Q3706	DTC123TK
Q3811, Q3812, Q3819	DTC143EK
D3013-D3018	11ES2

Mark No.	Description	Part No.
D3022, D3451–D3454, D3551, D3553 D3703 D3021		1SS133 DAN217 MTZJ15B/C
D62		MTZJ5.1B

COILS AND FILTERS

⚠ L3461, L3462, L3561 AF COIL ATH-059

CAPACITORS

C3409, C3410, C3509 CCSRCJ3R0C50
C3012, C3022, C3407, C3408, C3507 CEJQ100M35
C3812, C3813 CEJQ101M10
C3423, C3424 CEJQ101M35
C3431, C3434 CEJQ220M25

C3401, C3402, C3501 CEJQ2R2M50
C3023, C3811, C62 CEJQ470M16
C3425, C3461–C3464, C3561, C3563 CKSRYB104K25
C3405, C3406, C3505 CKSRYB221K50
C3403, C3404, C3503 CKSRYB222K50

C3011, C3021 CKSRYF104Z50

RESISTORS

R62 RD1/2PM221J
R3461, R3462, R3561 RD1/2PMF101J
R3421, R3422 RD1/4MUF101J
R3707 RD1/4PU220J
R3463, R3464, R3563 RD1/4PU4R7J

R3451, R3452, R3551 RS2LMFR22J
Other Resistors RS1/16S###J

OTHERS

CN3501 15P SOCKET AKP7071
PCB BINDER DEF1012
CN3404 B TO B CONNECTOR 7P RKP1819
CN3502 B TO B CONNECTOR 15P RKP1827

K SPEAKER ASSY SEMICONDUCTORS

D3361, D3371, D3372, D3461 1SS133

SWITCHES AND RELAYS

RY3361, RY3362, RY3461 XSR3002

CAPACITORS

C3365–C3368, C3371, C3372 CKSQYB104K50
C3469, C3470, C3569 CKSRYB103K50
C3373, C3465–C3468, C3471, C3472 CKSRYB104K25
C3565, C3567, C3571 CKSRYB104K25
C3369, C3370, C3669 XCG3008

RESISTORS

All Resistors RS1/16S###J

OTHERS

3401 SPEAKER TERMINAL 4-P AKE7079
CN3405 B TO B CONNECTOR 7P RKP1781
CN3305 B TO B CONNECTOR 9P RKP1783
CN3303 SPEAKER TERMINAL 8-P XKE3016

L CONNECT ASSY SEMICONDUCTORS

IC5352 AN4558NS
IC5231 BU4052BCF
IC5351 LA7139M

Mark No.	Description	Part No.
IC5104 Q5351		TC7WU04F 2SA1037K
Q5271, Q5272 Q5273 Q5231, Q5232 D5252		2SD2114K DTA124EK DTC124EK 1SS355

COILS AND FILTERS

F5101 CHIP SOLID INDUCTOR VTF1096
L5379 CHIP BEADS VTL1081
L5103, L5201, L5202, L5205 VTL1112
L5207, L5208, L5211, L5271, L5272 VTL1112
L5280 CHIP BEADS VTL1112

CAPACITORS

C5106 CCSRCH100D50
C5201, C5202, C5207, C5208 CCSRCH101J50
C5271, C5272 CCSRCH101J50
C5371, C5379, C5382 CCSRCH331J50
C5354 CEAT101M16

C5356 CEAT221M16
C5372, C5380 CEAT471M6R3
C5212–C5215, C5239, C5240 CEJQ100M35
C5105, C5231, C5232 CEJQ470M16
C5203, C5204, C5209, C5210 CKSRYB102K50

C5229, C5230, C5233, C5234 CKSRYB103K50
C5244–C5246 CKSRYB103K50
C5101, C5103, C5104, C5351–C5353 CKSRYB104K25
C5357, C5358, C5381 CKSRYB104K25

RESISTORS

All Resistors RS1/16S###J

OTHERS

JA5201 PIN JACK(6P) AKB7050
CN5372 4P MINI DIN SOCKET AKP7008
CN5371 11P SOCKET AKP7069
CN5208 17P SOCKET AKP7072
CN5207 3P CONNECTOR POST B3B-PH-K

JA5373 PIN JACK(2P) XKB3038

M B TO B ASSY OTHERS

CN5353 11P PLUG AKP7058
CN5210 17P PLUG AKP7061
CN5354 11P SOCKET AKP7069
CN5211 17P SOCKET AKP7072

N DSP ASSY SEMICONDUCTORS

IC3751 AK4527BVQ
IC3851 IS61C256AH-15J
IC8801 LC89056W-E
IC8701, IC8703, IC8705 NJM4558MD
IC3801 YSS912C

Q8709–Q8714 2SD2114K
Q8715, Q8716, Q8718 DTA124EK
Q8717 DTC124EK
D8703 DAN202K
D8701, D8702 DAP202K

COILS AND FILTERS

F3731–F3736, F3801, F3802, F3851 DTF1064

Mark No.	Description	Part No.
F8801, F8802	CHIP BEAD	DTF1064
F3751, F3752	CHIP BEAD	DTF1067

CAPACITORS

C3807, C3810, C3814, C3817, C3821	CCSRCH101J50
C3825, C3828, C3854, C8825	CCSRCH101J50
C3803, C3804, C8816, C8817	CCSRCH200J50
C3820	CCSRCH221J50
C8709, C8710	CCSRCH470J50

C3811	CCSRCH471J50
C8721, C8722, C8733	CCSRCH820J50
C8711, C8712, C8723, C8724, C8735	CEAL100M16
C8741, C8743, C8744, C8761	CEAL100M16
C8763–C8765	CEAL100M16

C3856	CEAL101M6R3
C3705, C3706	CEAL220M16
C3709, C3710, C3752, C3756, C3759	CEAL470M6R3
C3851	CEAL470M6R3
C8736, C8742, C8745, C8746, C8762	CEAT100M50

C8766	CEAT100M50
C3801, C8801	CEAT101M10
C3802	CEAT220M25
C8812, C8915, C8917	CEAT470M25
C3783–C3785	CKSRYB102K50

C3732, C3734, C3765, C3786	CKSRYB103K50
C8701, C8702, C8751, C8753	CKSRYB103K50
C8755–C8758, C8808, C8811	CKSRYB103K50
C3711, C3712, C3754, C3755, C3758	CKSRYB104K25
C3833, C3834, C3855, C8802, C8803	CKSRYB104K25

C8805, C8806, C8809, C8810, C8814	CKSRYB104K25
C8818, C8820, C8821, C8916, C8918	CKSRYB104K25
C8715, C8716, C8727	CKSRYB122K50
C8713, C8714, C8725	CKSRYB152K50
C3707, C3708	CKSRYB222K50

C8728	CKSRYB224K10
C8703, C8704, C8734	CKSRYB472K50
C3805, C3809, C3813, C3816, C3819	CKSRYB473K25
C3822, C3824, C3827, C3830, C3831	CKSRYB473K25
C3852	CKSRYB473K25

RESISTORS

R3751, R3757, R3809, R3813, R3822	RAB4C101J
R3827, R3830, R8801, R8825	RAB4C101J
R3817	RAB4C102J
Other Resistors	RS1/16S###J

OTHERS

CN3701 15P SOCKET	AKP7071
CN3702 21P SOCKET	AKP7074
CN3703 CONNECTOR POST	S3B-PH-K
X3801, X8801 (12.288MHz)	VSS1140
CRYSTAL RESONATOR	

DISPLAY ASSY SEMICONDUCTORS

IC5801	HEF4794BT
Q5803, Q5804	2SC2412K
Q5802	DTA143EK
D5801, D5803–D5808	SLR-343MC(NPQ)
D5809	SLR-343VC(NPQ)

CAPACITORS

C5825–C5827	CCSRCH101J50
C5902	CEAL470M6R3

Mark No.	Description	Part No.
C5802		CKSRYB104K25
C5833, C5834		CKSRYB471K50
C5901		CKSRYB473K25

RESISTORS

All Resistors	RS1/16S###J
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OTHERS

CN5807 4P CONNECTOR	52044-0445
CN5801 19P CONNECTOR	52044-1945
CN5802 27P FFC CONNECTOR	52044-2745
CN5806 4PJUMPER CONNECTOR	52151-0410
CN5803 9PJUMPER CONNECTOR	52151-0910

5901 REMOTE RECEIVER UNIT	GP1UM27XK
FL HOLDER	VNF1085
V5801 FL TUBE	XAV3011

P JOG ASSY SWITCHES AND RELAYS

S5801	XSX3007
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CAPACITORS

C5801	CKSRYB102K50
C5891	CKSRYB104K25

RESISTORS

All Resistors	RS1/16S###J
---------------	-------------

OTHERS

3P CABLE HOLDER	51048-0300
4P CABLE HOLDER	51048-0400
J 5806 4P JUMPER WIRE	D20PYY0415E
KN5801 EARTH METAL FITTING	VNF1084

Q DISC KEY ASSY SWITCHES AND RELAYS

S5803–S5810	ASG7013
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RESISTORS

All Resistors	RS1/16S###J
---------------	-------------

OTHERS

3P CABLE HOLDER	51048-0300
J 5811 3P JUMPER WIRE	D20PYY0310E

R HP MIC ASSY SWITCHES AND RELAYS

S5811	ASG7013
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CAPACITORS

C5822	CKSRYB104K25
C5819, C5821	CKSRYB223K50

RESISTORS

All Resistors	RS1/16S###J
---------------	-------------

OTHERS

3P CABLE HOLDER	51048-0300
9P CABLE HOLDER	51048-0900
JA5802 MINITURE JACK	AKN7005
J 5804 JUMPER WIRE 9P	D20PYY0915E

S FUNCTION KEY ASSY SWITCHES AND RELAYS

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
S5802, S5812–S5814, S5816–S5818		ASG7013

RESISTORS

All Resistors	RS1/16S###J
---------------	-------------

OTHERS

3P CABLE HOLDER	51048-0300
J 5805 3P JUMPER WIRE	D20PYY0305E

T PRIMARY ASSY

SEMICONDUCTORS

⚠ IC41	NJM78M56FA
Q41	2SD1859X
D42	1SS133
D44	DAN217
⚠ D41	DF06SA

COILS AND FILTERS

⚠ L1 LINE FILTER	ATF7018
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TRANSFORMERS

⚠ T2 STANDBY TRANSFORMER	ATT7050
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SWITCHES AND RELAYS

⚠ RY41 POWER RELAY	XSR3004
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CAPACITORS

⚠ C1, C3 (0.01μF)	ACE7013
⚠ C42	CEAT102M16
C41	CEJQ100M35
C44	CKSRYB104K25

RESISTORS

R43	RS1/16S102J
Other Resistors	RD1/4PU###J

OTHERS

4P CABLE HOLDER	51048-0400
⚠ CN1 2P VH CONNECTOR	B2P3-VH
⚠ CN2 4P-VH CONNECTOR	B4P7-VH
J 13 JUMPER WIRE	D20PYY0420E
PCB BINDER	VEF1040
SCREW PLATE	VNE1948

U INLET ASSY

OTHERS

H1, H2 FUSE CLIP	AKR7001
⚠ AN1 AC INLET 1P	XKP3041

6. ADJUSTMENT

6.1 TUNER SECTION



■ AM Tuner Section

- There is no adjustment in the AM tuner.

■ FM Tuner Section

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

Step No.	Adjustment Title	ANT. Input level and signal condition			Adjustment	
		Frequency (MHz)	Modulation	Input Level (dB μ V)	Adjust point	Contents
1	T-METER Adjustment	98	OFF	80	L201	Adjust L201 so that the DC voltage between Pin 21 and Pin 23 of IC201 (Test point V _{tm}) gets within 0 ± 50 mV.

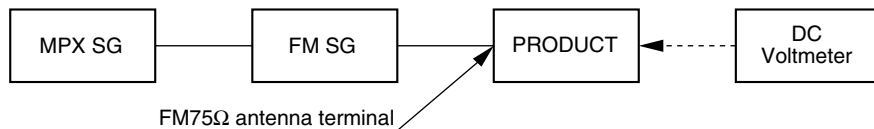
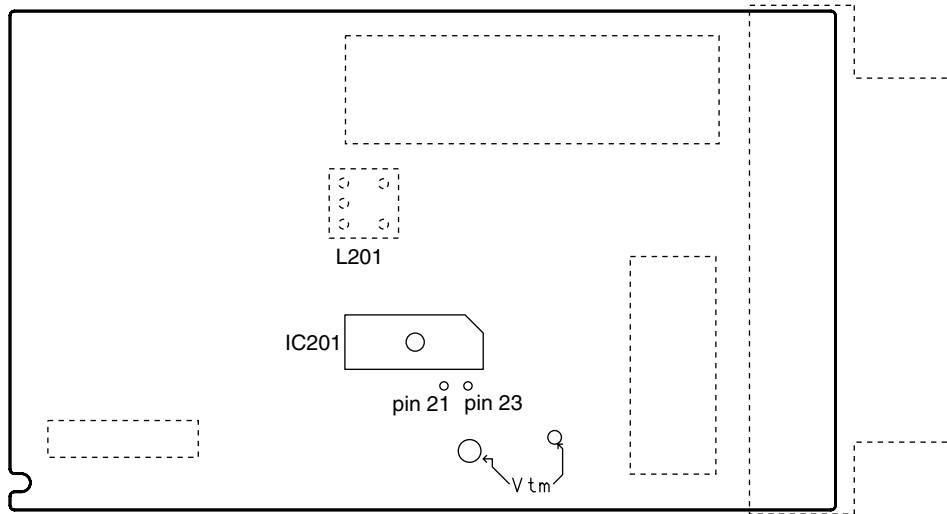


Fig.1 Adjustment Wiring Diagram

G FM/AM TUNER MODULE



SIDE B

Fig.2 Adjustment Point

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 SELF-DIAGNOSTIC FUNCTION OF PICKUP DEFECTIVE

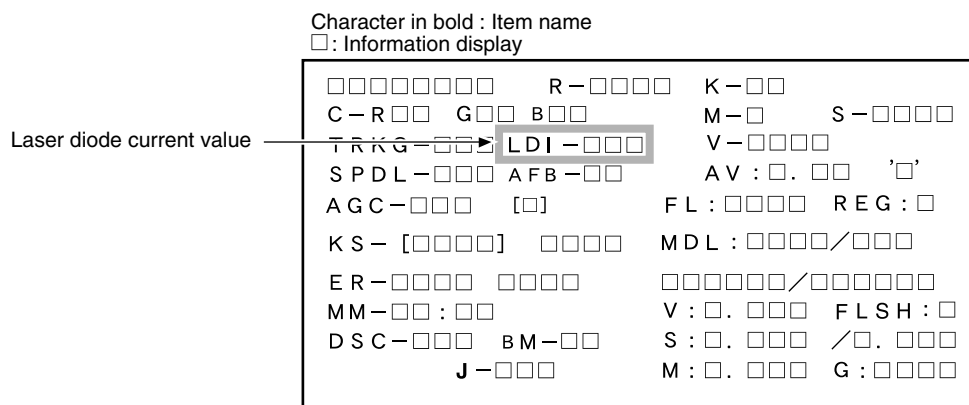
Symptom

- Indicates "No Disc" in FL display.
- Player does not playback, etc..

Procedure of Self-Diagnosis

- ① Press the **TEST** → **1** buttons (of the test mode remote control unit : GGF1067) in the test mode screen, and turn on the laser diode (It light-up for nine seconds.).
- ② Confirm the indicated value of the laser diode current (LDI).
- ③ When indicated value is more than 110, pickup is defective. → Release the Traverse Mechanism Assy.

Note : When a DVD disc is played in the test mode, this function is effective.
This function is effective only for DVD pickup (650nm).

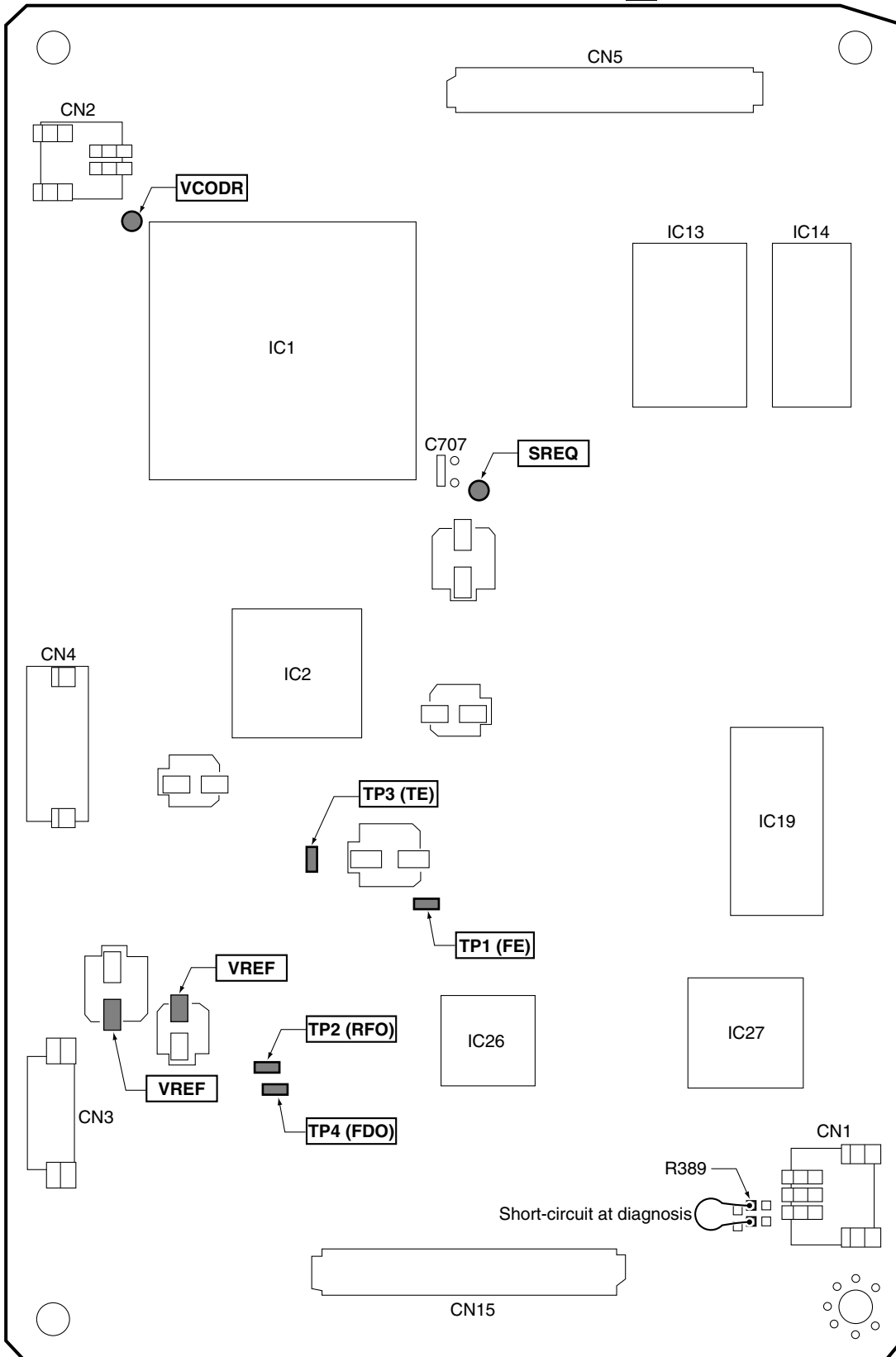


Test Mode Screen Display

7.1.2 TEST POINTS LOCATION

F DVDM ASSY

Front Side



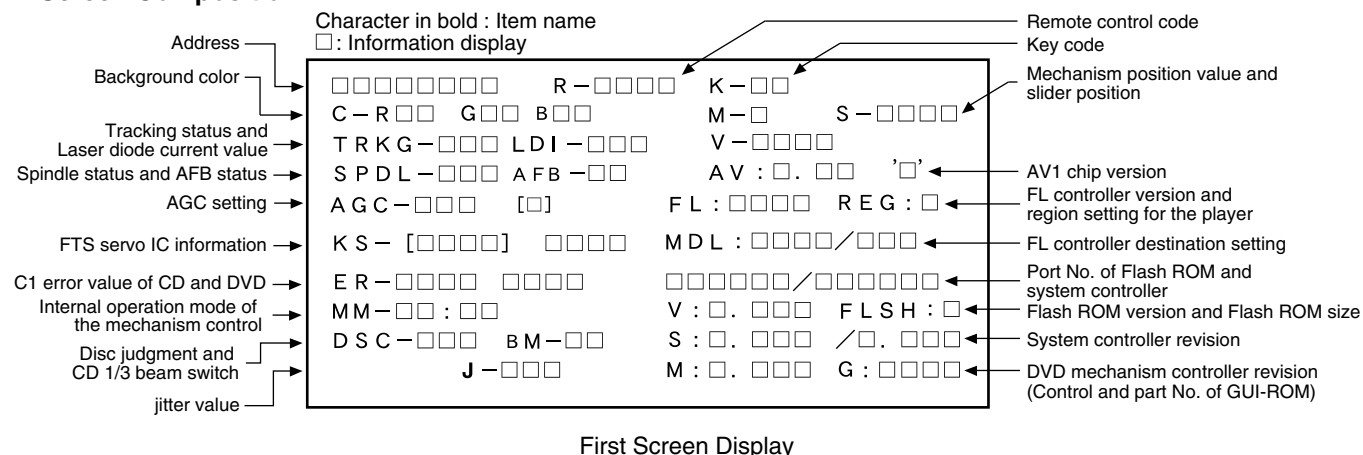
SIDE B

7.1.3 TEST MODE SCREEN DISPLAY

TEST MODE SCREEN DISPLAY

Consecutive double-OSD display is supported during test mode. The screen is composed 10 lines with a maximum of 32 characters per line. It can't be used with the debugging display mode together.

• Screen Composition



Caution :

The first screen and second screen switch by pressing [DISPLAY] key of the remote control unit.
It is only a version display part on the lower right of the screen those contents of display change.
ATB : ON/OFF information display and AGC manual setting display deleted with the second generation.
The displays of Tilt error value, Tilt servo status and pickup DVD/CLD display deleted with the third generation becomes LD part is deleted.

• Description of Each Item on the Display

(1) Address indication

The address being traced is displayed in number.
DVD : ID indication (hexadecimal number, 8 digits)
[* * * * * * * *]
CD : A-TIME (min. sec.) [0 0 0 0 * * * *]
(Note : For DVDs, decimal-number indication is possible.)

(2) Code indication of the remote control unit [R - * * * *]

The code for the key pressed on the remote control unit, which is received by the FL controller, is displayed while the key is pressed. In the case of the double code, the second code will be displayed.

(3) Key code indication for the main unit [K - * *]

The code for the key pressed on the main unit, which is received by the system controller, is displayed while the key is pressed.

(4) Background color indication [C - R * * G * * B * *]

(5) ① Tracking status [TRKG - * * *]

Tracking on [ON]
Tracking off [OFF]

② Laser diode current value [LDI - * * *]

(6) ① Spindle status [SPDL - * * *]

Spindle accelerator and brake, free-running [A/B]
FG servo [FG]
Rough, velocity phase servo [SRV]
Offset addition, rough, velocity phase servo [O_S]

② AFB status [AFB - * *]

ON [ON]
OFF [OFF]

(7) Mechanism position value [M - *]

Position code [1] to [7]

(8) Slider position [S - * * * *]

CD TOC area [IN]
CD active area [CD]

(9) AGC setting [AGC - * *]

AGC on [AGC-ON]
AGC off [AGC-OFF]

(10) Output video system [V – * * * *]

NTSC system [NTSC]
 PAL system [PAL]
 Auto-setting [AUTO]

(11) FTS servo IC information

DSP coefficient indication [KS – [* * * *] * * * *]
 Displays the address (four digits) of the specified coefficient
 and the setting value (four digits) with [TEST] and [9] keys.

(12) Error rate indication

① C1 error value of CD [ER – C1 * * * *]
 ② C1 error value of DVD [ER – * * * * * * * *]

(13) Internal operation mode of mechanism controller [MM – * * : * *]

Internal mechanism mode (2 digits) and internal mechanism
 step (2 digits) of the mechanism controller

(14) ① Disc sensing [DSC – * * *]

The type of discs loaded is displayed.
 [DVD], [CD], [VCD], []

② CD 1/3 beam switch [BM – * *]**(15) Jitter value [J – * *]**

CD is effective only in the jitter value.

(16) Version of the AV-1 chip [AV : * . * * ' * ']**(17) ① Version of the FL controller [FL : * * * *]**

② **Region setting of the player [REG : *]**
 Setting value [1] to [6]

(18) Destination setting of the FL controller

[MDL : * * * * / * * * *]

For characters in front represent the type of model :
 There characters that follow represent the destination code.
 J : /J, K : /KU, /KC, /KU/KC, R : /RAM, /RL, /RD, /LB,
 WY : /WY

(19) The part number of the flash ROM and system controller [* * * * * / * * * * * * * *]

① Part number of the flash ROM <Front>
 (Example) VYW1536-A = W1536A
 (Example) PD6256A9 = 6256A9
 ② Part number of the system controller <Rear>
 (Example) PD3381T1 = 3381T1

(20) ① Version of the flash ROM [V : * . * * *]**② Flash ROM size [FLSH = *]****(21) Revision of the system controller [S : * . * * * / * . * *]**

① Revision number of the external ROM part (flash ROM) of
 the system controller <Front>
 ② Revision of the internal ROM part of the system controller
 <Rear>

(22) Revision of the DVD mechanism controller

[M : * . * * *]

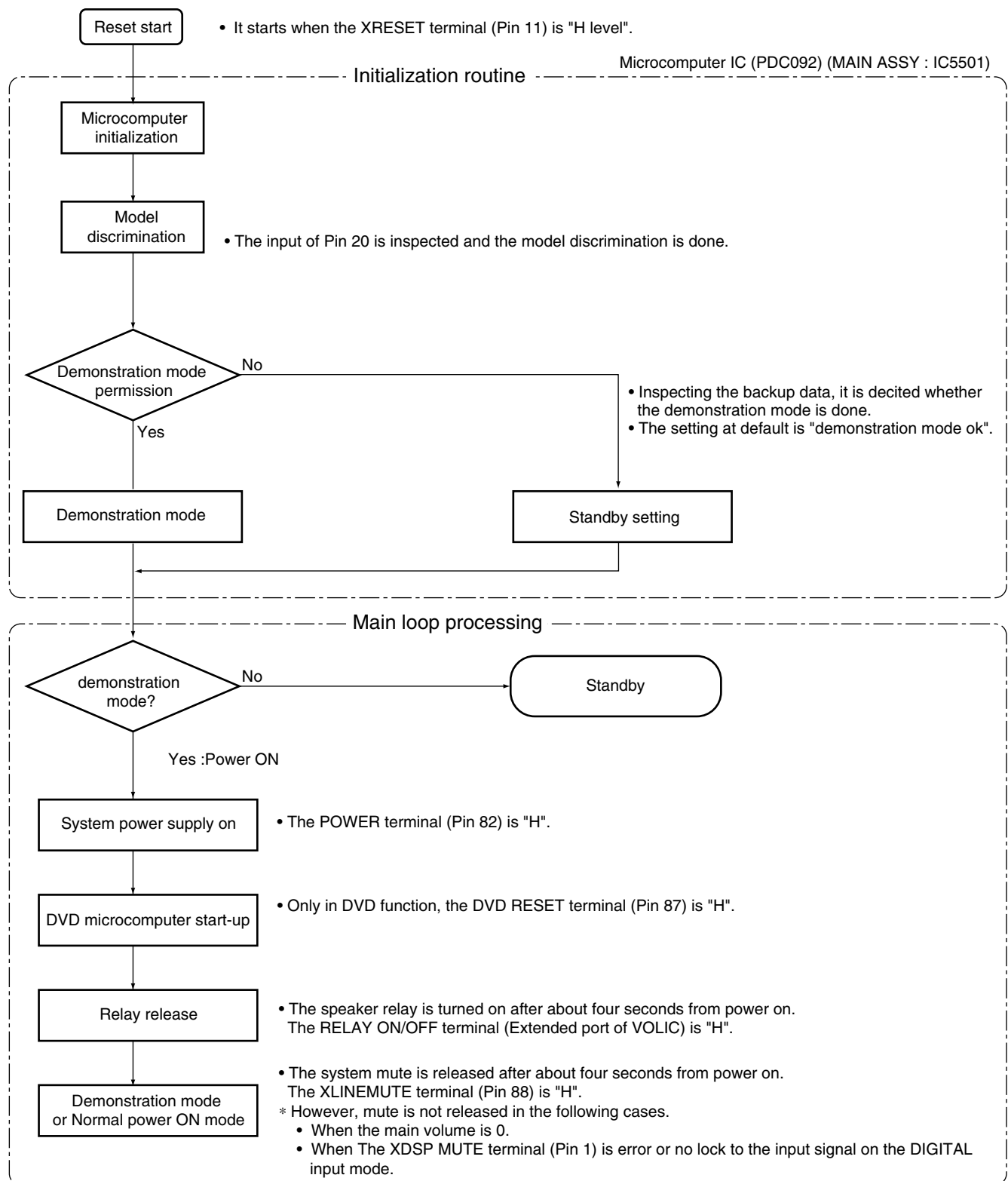
Revision number of the external ROM part (flash ROM) of the
 DVD mechanism controller

(23) Control and part numbers of the GUI-ROM

[GUI : * * * *]

No GUI model displays as " — / — ".
 OEM model displays the part number of GUI-ROM
 [GUI : * * * *]

7.1.4 POWER ON SEQUENCE



* If the pulse is not input to the AC terminal (Pin 26) about 60ms, during the memory backup mode, the microcomputer does not process all.

* It returns from the memory backup mode when there is a rising up input at the XRESET terminal (Pin 11).

7.1.5 TROUBLE SHOOTING

Microcomputer troubleshooting

Symptom of problem	Thought cause	Check method
- The power supply does not enter . - The standby LED lights even if the POWER key is pushed.	The microcomputer is not reset.	Whether terminal RESET (11Pin) is "H" is confirmed. The operation of the RESET circuit is confirmed if not becoming "H".
	The AC pulse is not input.	Whether the AC pulse is input to AC input terminal (26Pin) is confirmed. If the AC pulse is not input, the AC pulse generation circuit is confirmed.
	The oscillation circuit of the microcomputer does not oscillate.	The microcomputer or the oscillation circuit is broken. The microcomputer or the oscillation circuit is exchanged.
It enters the state of POWER OFF soon even in case of the POWER ON.	If the function is DVD, the 3.3DETECT input is 2.9V or less.	If the voltage of the 3.3DETECT (13Pin) terminal of the microcomputer is 2.9V or less, the voltage is adjusted to 2.9V or more.
- DVD does not operate at all. - Time is not displayed in FL DISPLAY at the DVD function.	It does not communicate with the DVD microcomputer.	- Whether terminal (27Pin, 83Pin, 98-100Pin) for the communication with the DVD microcomputer does the communication operation is confirmed. If the communication operation is not done, whether the B to B connector etc. are disconnected is confirmed. - Whether "H" is output to terminal DVDRESET (87Pin) is confirmed.
The operation key is not accepted at all.	It is recognized that other KEY has already been pushed.	When KEY is not pushed, whether KEY input terminal (18Pin, 22Pin) is 5V is confirmed. If the KEY input terminal is not 5V, whether KEY SW on the line breaks is confirmed.

7.1.6 ERROR CODE

Error codes that are displayed on the FL display without using the remote control unit

FL Display	Possible causes	Operation of the unit
AV1 VER	AV-1 chip is not a match with the program of system controller	The sound may not produced with the specific audio.
CPU AERR	CPU address error (Hardware is unusual.)	No operation
DMA AERR	DMA address error (Hardware is unusual.)	No operation
FLASH ID	Difference in versions of the internal ROM of the system controller and of the flash ROM, or bus line failure or reverse installation	No operation
FLASH WRP	Write protect error of the flash ROM	No operation
FLASH SIG	Difference in part number of the flash ROM (When the ROM which couldn't be used was used.)	No operation
FLASH SUM	Check sum error of the flash ROM (It exceeds the regular size.) or reverse installation (Hardware is unusual.)	No operation
FLASH SIZE	Size error of the flash ROM (Use 4 or 8 M-bit.)	No operation
ILLGAL	The system controller fetched a code other than an operation code (Hardware is unusual.)	No operation
RESERVE	Undefined interrupt (Hardware is unusual.)	No operation
SLOT	Inappropriate slot command issued (Hardware is unusual.)	No operation
DVD ERR	This display appears when the terminal of microcomputer PIN.No13 becomes 2.9V or less and the set enters the standby state.	No operation
AMP FAN ERR	display appears when the terminal of microcomputer PIN.No21 becomes 1-3V, and the set enters the state of the standby.	No operation
PT FAN ERR	display appears when the terminal of microcomputer PIN.No21 becomes 3-5V, and the set enters the state of the standby.	No operation

Error codes that are displayed on the FL display by using the remote control unit (Mechanism controller error)

To display: ESC + DISPLAY + DISPLAY; Location of the display: At the two digits of center of the FL display

To display the error history: ESC + DISPLAY + One shot; Location of the display: TV screen

FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the Unit
11	Search timeout	Search could not be complete within 7 seconds.	Search could not be complete within 7 seconds, and it could not enter the target area within 7 seconds by VCD scan.	CD : Stops, DVD : Continues operation
12	Search retry error	A search could not be completed after 3 retries, search backup was executed 4 times, or in a case of timeout (6 seconds) while the unit was tracing 11 tracks or more beyond the target while the search operation was converging.	Backup against slider skip was executed 4 times during a search, or slider skip twice resulted in starting from the read-in point.	CD : Stops, DVD : Continues operation
19	Tracing timeout while converging	Timeout (10.5 seconds) while tracing at the stage of convergence of a search.		Stop
1B	Index 0 search error		During Track (Index) Search, the search for the beginning of a program could not be completed within 3 seconds (20 seconds in the case of Index Search) after positioning based on the TOC data was completed.	Stop
22	Timeout of slider inner circumference	Inside switch could not ON within 3 seconds.		Stop
23	Timeout of slider outer circumference	Inside switch could not OFF within 2 seconds.		Stop
33	No FOK pulse during playback CLVA	When the focus was deviated continuously 20 times.		Adjusts focus at the innermost circumference and tries to return to its position where the error was generated (for 3 times), then opens. If the same error persists after one retry, the tray opens. (No FOK pulse)

FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the Unit
38	Disc-type-sensing error	If normal starting was impossible in the following three cases, disc-type sensing will be retried if other errors occur excepting C5 error. However, when the focus error "33" was occurred continuously 3 times, it is finished as "38 error" at the moment: (1) startup with the first disc-type-sensing result, (2) forced startup with another disc by designating the disc type, (3) forced startup with the original disc by designating the disc type.		Open
39	SGC converge timeout	SGC could not converge during detects the peak		Open
41	Spindle timeout	The unit did not enter Stop mode within 10 seconds of issuance of a Stop command.		Stop
48	Spindle FG transition timeout	The spindle could not converge into within $\pm 12\%$ of the target FG rotation speed within 10 seconds after spindle kick. The first time after startup (the first time after disc distinction), it doesn't become the number of the target rotation within five seconds. The first time after startup, detects the abnormal rotation number of high-speed continuously 3 loops. DVD: 5 to 9 mS, CD: 40 to 60 mS		Stops. (FG timeout)
49	Spindle PLL transition timeout	After the second times after startup, it doesn't become the number of the target rotation within five seconds. Detects the abnormal high-speed or low-speed rotations. DVD: 5 to 9 mS, CD: 40 to 60 mS		Stops. ("73" is displayed during starting process.)
4A	Spindle lock timeout	Spindle could not lock more than 1.5 seconds before start the AFB.		Stops. ("73" is displayed during starting process.)
51	Auto sequence timeout of peak	ABUSY did not return within 1 second after the DDTCT (peak detection) command was sent.		Stop
52	Auto sequence timeout of focus jump down	ABUSY did not return within 30 mS after the FJMPD (Focus jump 1 to 0) command was sent.		Stop
53	Auto sequence timeout of focus	ABUSY did not return within 30 mS after the FJMPU (Focus jump 0 to 1) command was sent.		Stop
54	Auto sequence timeout of play AGC	ABUSY did not return within 50 mS after the GSUMON (play-AGC-measuring) command was sent.		Stop
55	Auto sequence timeout of disc-type-sensing	ABUSY did not return within 2 seconds after the DJSRT (disc-sensing) command was sent.		Stop
56	Auto sequence timeout of ATB2	ABUSY did not return within 1 second after the TBLOFS (Internal ATB after the completion of external ATB) command was sent.		Stop
57	Auto sequence timeout of tracking servo ON	ABUSY did not return within 500 mS after the TSON (tracking servo ON) command was sent.		Stop
58	Auto sequence timeout of ATB1	ABUSY did not return within 200 mS after the TBL (external ATB) command was sent.		Stop
59	Auto sequence timeout of focus gain adjustment	ABUSY did not return within 2 seconds after the FGN (focus gain adjustment) command was sent.		Stop
5A	Auto sequence timeout of tracking gain adjustment	ABUSY did not return within 2 seconds after TGN (tracking gain adjustment) command was sent.		Stop
5B	Auto sequence timeout of offset adjustment	ABUSY did not return within 1 second after the CMDAVE (offset adjustment) command was sent.		Stop
5C	Auto sequence timeout of modulation factor measurement	ABUSY did not return within 200 mS after the ADJMIR (modulation factor measurement) command was sent.		Stop
5D	Auto sequence timeout of auto focus bias	ABUSY did not return within 2 seconds after the AFB (auto focus bias) command was sent.		Stop
5F	Auto sequence already busy	A command could not be sent because ABUSY was low. ABUSY did not return within 200 mS after TLV command was sent.		Stop
62	Pause retry error	Pause mode could not be restored within three retries after it had been released.		Continues operation

FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the Unit
71	ID can not read during tracing	An ID could not be read for 1 second or more.		Stop
72	Subcode check failure during playback		No frame could be read for 3 seconds or more.	Stop
73	ID can not read at the startup	An ID could not be read within 1 second after the AFB adjustment had been finished.		Opens (ID readout failure)
74	Subcode check failure during startup		No subcode could be read within 3 seconds after AFB adjustment had been finished.	Opens (Subcode readout failure).
81	Timeout for reading TOC of the mechanism controller		TOC readout took 30 seconds or more.	Stop
82	Timeout for reading TOC of the system controller		Reading TOC of the system controller took 30 seconds or	Stop
A1	Communication timeout of DSP command	A command could not be issued to DSP because Command Busy (XCBUSY) was in force (XCBUSY = L) for a specified time (about 200 mS).		No operation
A2	Communication timeout for reading DSP coefficient	Command Busy (XCBUSY) was in force for a specified time (about 200 mS) before and after a coefficient read command was issued to DSP, or the address echo-back after command issuance did not match the setup address.		No operation
A3	Communication timeout for writing DSP coefficient	Command Busy (XCBUSY) was in force for a specified time (about 1024 mS) before and after the coefficient write command was issued to DSP.		No operation
A4	Communication timeout for continuously writing DSP coefficient	Command Busy (XCBUSY) was in force for 200 mS during continuous coefficient writing, or before and after a continuous write command was issued to DSP.		No operation
B1	Timeout error for backup	In the tracing state during the backup sequence, codes could not be read for 1 second or more. In the backup sequence, tracking ON sequence of the servo DSP could not be completed even if more than 500 mS after the tracking ON command was issued.		Stops
B2	Retry error for backup	Tracing impossible after retrying the tracking ON for 3 times in the backup sequence.		Stops
B3	Retry error for trace	During tracing, runaway was detected after three iterations of backup operations for detecting runaway.		Stops
C3	Detection of tracking overcurrent	During playback, the overcurrent detection port was at L for 300 ms or more continuously.		Stops (the mechanical controller operates independently).
(C5)	Short-circuit test corresponding error	While the power was on, the overcurrent detection port was at L for 40 ms or more continuously.		Turns off the power instantly (No indication on the FL display and no writing to flash memory)
E3	Violation against digital copy guard			Stops
F5	Tray being pushed	The tray switch that had been Open mode was forcibly changed to a mode other than Open by an external force.		Closes
F8	Loading timeout	Loading, unloading or clamping could not be completed within a specified time (about 5 seconds).		Reverses the loading direction. If timeout is repeated upon retry, the unit stops.
FC	Focus	The following error occurred eight times. (1) Focus ON sequence could not be completed even if more than two seconds after the focus ON command (to the servo DSP) was sent. (2) Focus IN sequence was finished, actually focus IN was not completed.		Stops wherever possible then opens (stops in the case of side B).

Error codes that are displayed on the FL display by using the remote control unit (Device error)

To display : ESC + DISPLAY + DISPLAY ; Location of the display : At the two digits of left of the FL display

FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the Unit
bit3=1 08 etc.	AV1 access error (read, write NG)			No operation or it becomes debugging indication if the power is able to ON.
bit2=1 04 etc.	MY CHIP access error			
bit1=1 01 etc.	SRAM access error			

7.1.7 DISASSEMBLY

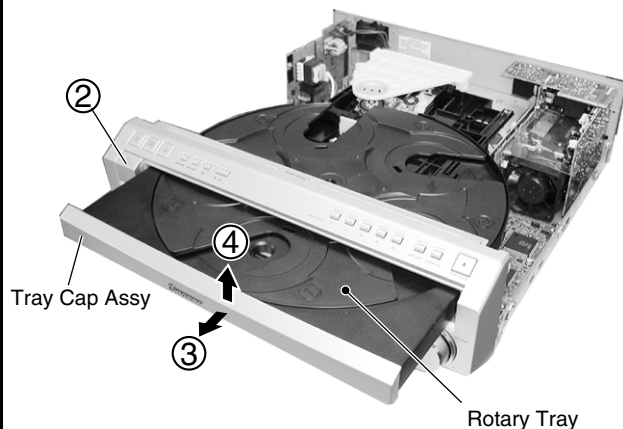
DIAGNOSIS OF PCBs

Note

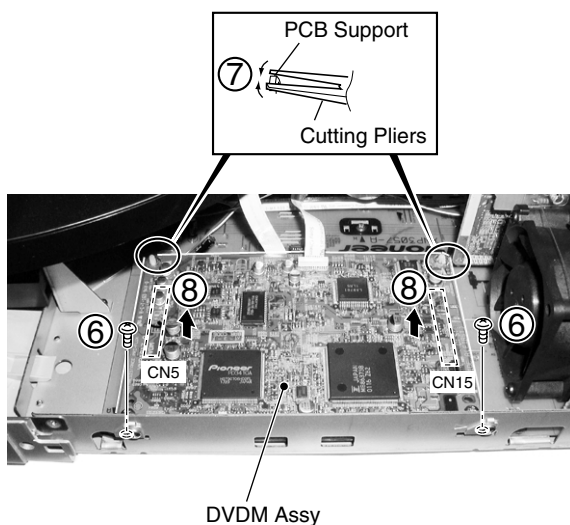
When diagnosing the unit, be sure to use two connection cables for service. (Part No : GGD1228)

DVDM Assy

- ① Remove the Bonnet Case (Screws × 11)
- ② Power ON ()
- ③ Tray Open (▲ OPEN/CLOSE)
- ④ Remove the Tray Cap Assy

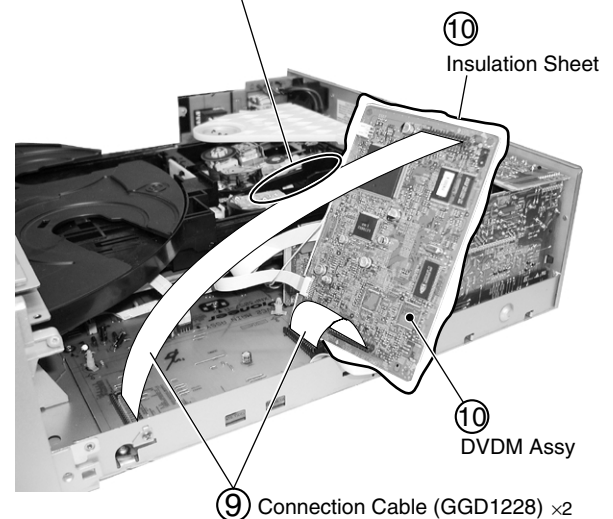


- ⑤ Power OFF (Pull out the Power Cord from the outlet.)
- ⑥ Remove two Screws
- ⑦ Unhook two PCB Supports
- ⑧ Remove the DVDM Assy (Connectors × 2)

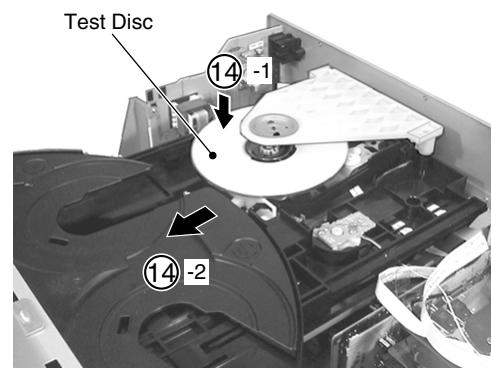


- ⑨ Connect two Connection Cables for Service (GGD1228)
- ⑩ Stand the DVDM Assy as figure below.
(In this time, put an insulation Sheet between the DVDM Assy and main unit not to short-circuit.)

Attention: Be careful not to put the flexible cables when closing the tray



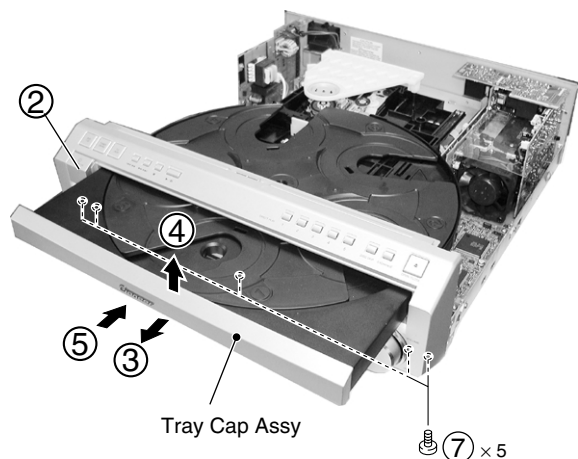
- ⑪ Set the Test Disc
- ⑫ Put the Power Cord in the outlet
- ⑬ Power On → Tray close (Automatically)
- ⑭ Press the EXCHANGE Button
(clamp the Test Disc → Tray Open)



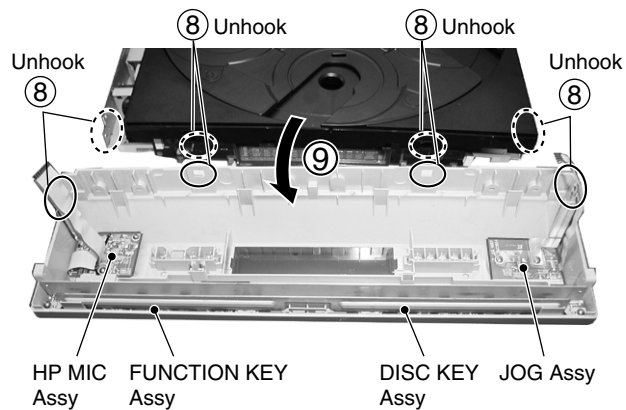
Diagnosis

Front Panel Section

- ① Remove the Bonnet Case (Screws × 11)
- ② Power ON (⏻)
- ③ Tray Open (▲ OPEN/CLOSE)
- ④ Remove the Tray Cap Assy
- ⑤ Close the tray
- ⑥ Power OFF (Pull out the Power Cord from the outlet.)
- ⑦ Remove five Screws



- ⑨ Remove the Front Panel Section

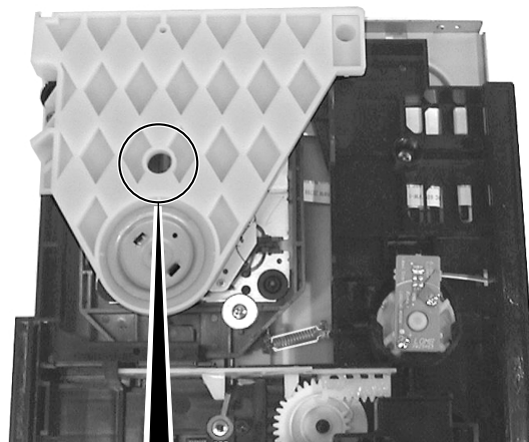


- ⑩ Put the Power Cord in the outlet
- ⑪ Power ON

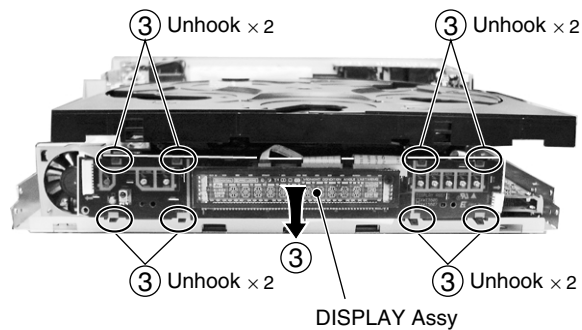
Diagnosis

Table Mechanism Section

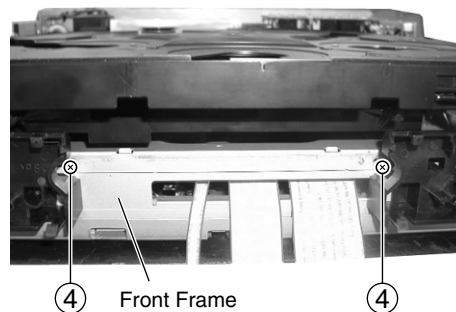
- ① Turn the Pickup Short SW to Short side.



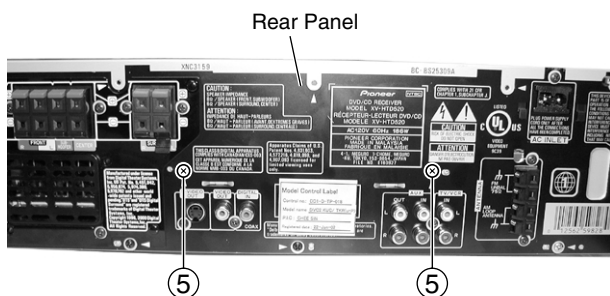
- ② Remove the Front Panel section
- ③ Remove DISPLAY Assy



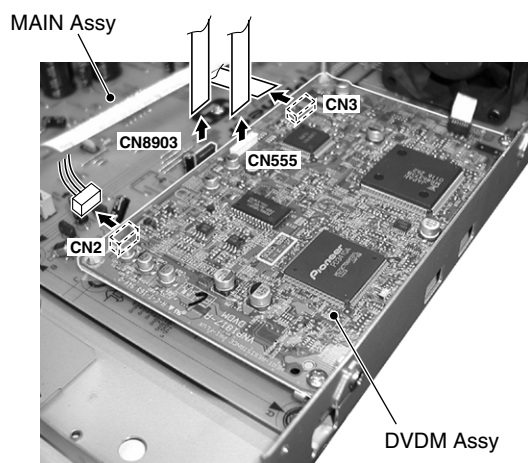
- ④ Remove two Screws



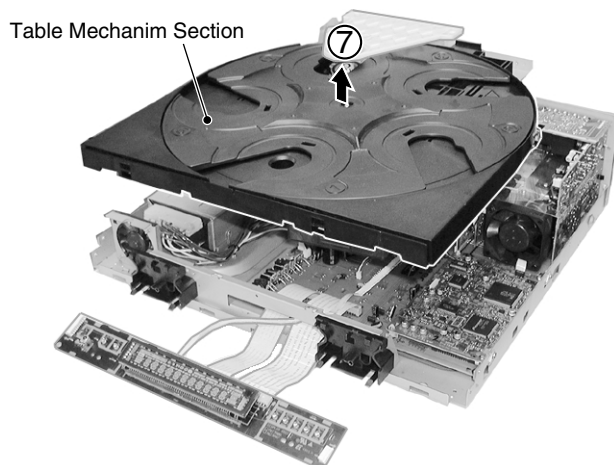
⑤ Remove two Screws



⑥ Remove three Flexible Cables and Connector Assy



⑦ Remove the Table Mechanism Section

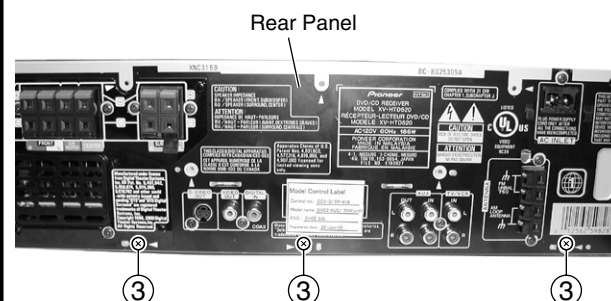


MAIN Assy

① Remove the Front Panel Section

② Remove the Table Mechanism Section

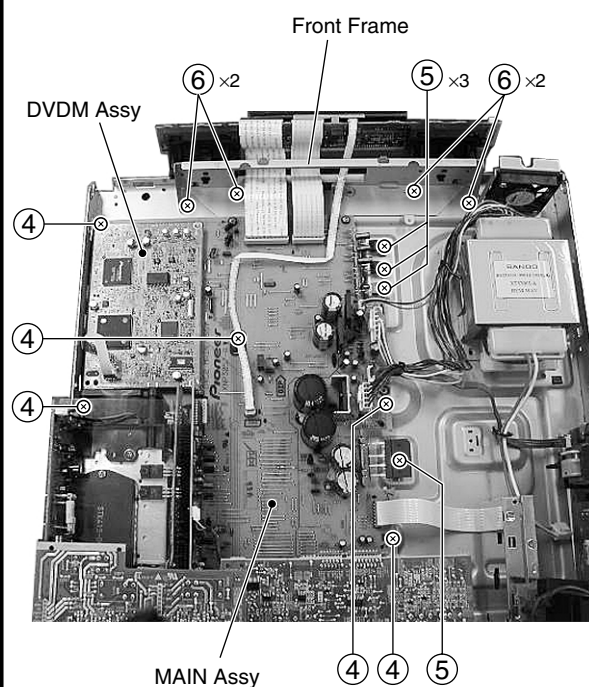
③ Remove three Screws



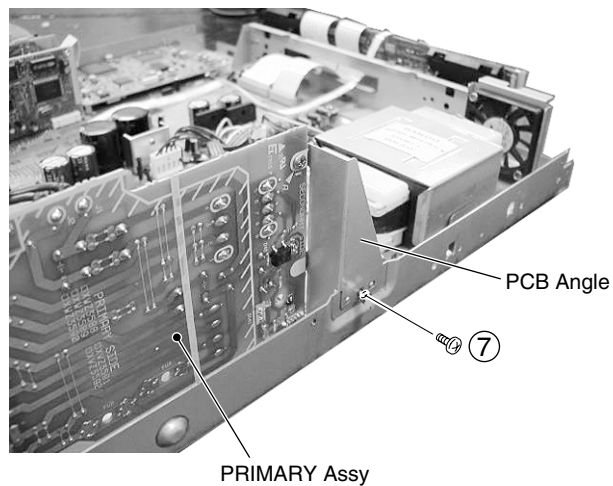
④ Remove five Screws

⑤ Remove four Screws

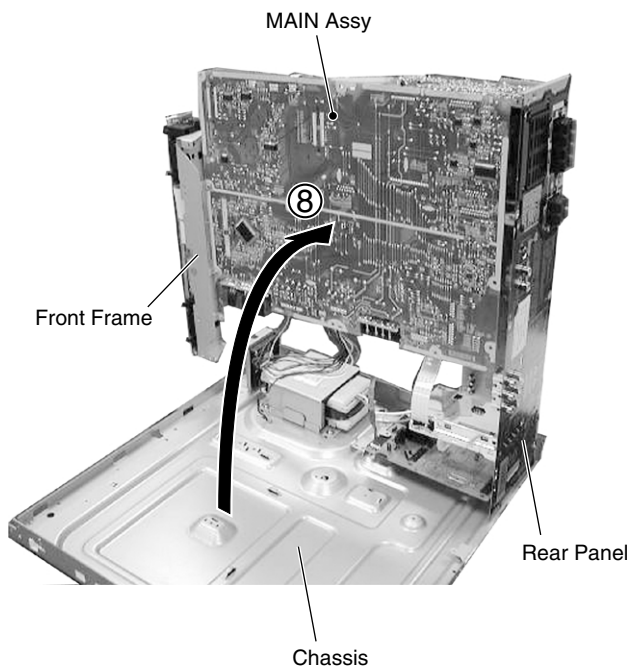
⑥ Remove four Screws



⑦ Remove one Screw

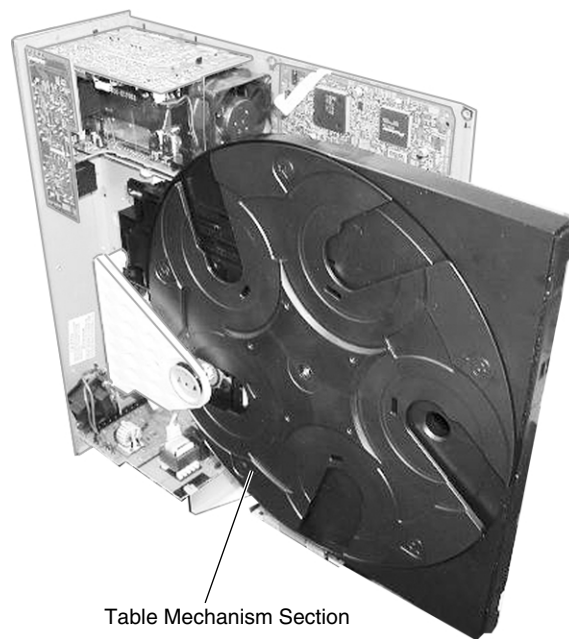


⑧ Lift the MAIN Assy from the Chassis in the state that installed Rear Panel and Front Frame.



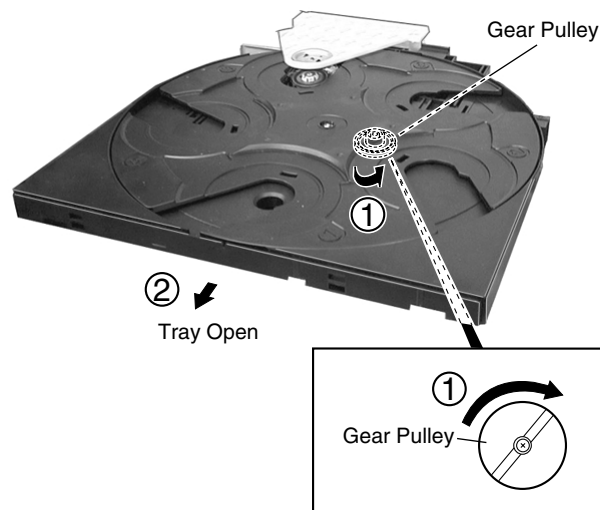
⑨ Replace the Table Mechanism Section. (Screws ×4)

Caution: Stand the main unit after the Test Disc clamped.



Diagnosis

● How to Open the Tray by Manual Operating

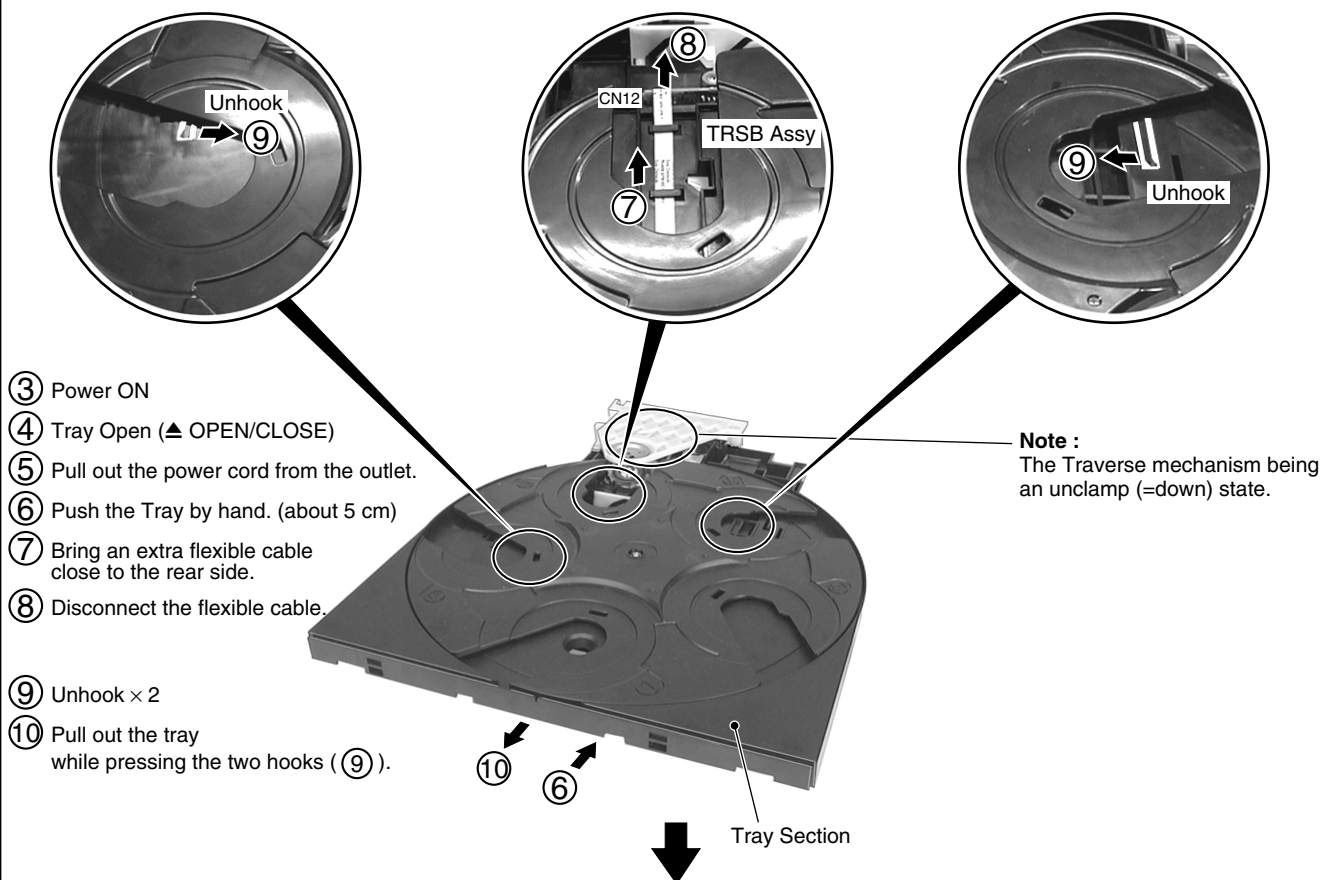


③ If the tray moved toward the front about 2 or 3 cm, pull out the tray by hands.

TRAVERSE MECHANISM ASSY-S

● Disassembly

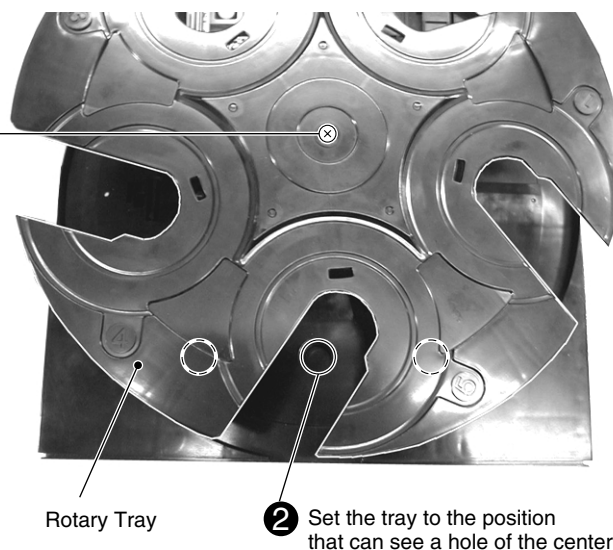
- ① Remove the Bonnet (Screws × 11)
- ② Remove the Tray Cap
Remove the Front Panel Section (Refer to "FRONT PANEL SECTION")



● When Tray Cannot Pull Out

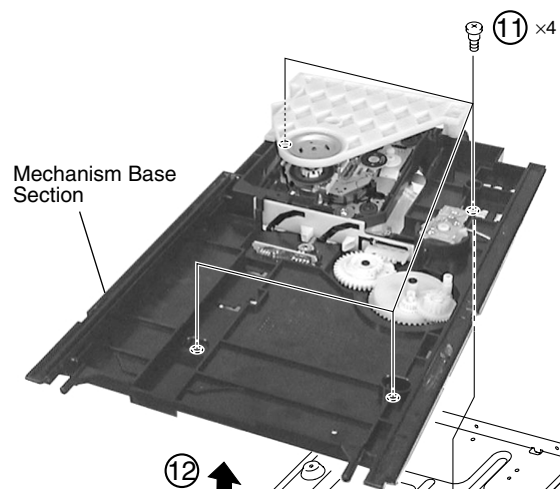
Tray cannot pull out that is not at a position of home position.
(When two hooks (⑨) hide under the Rotary Tray and can not pull out the tray.)
In that case, set the tray in the following procedures.

- ① Remove
- ③ Tighten



Note :
Do not need to match with Disc No. (1 to 5)
when returns the tray.
Detect it automatically.

A

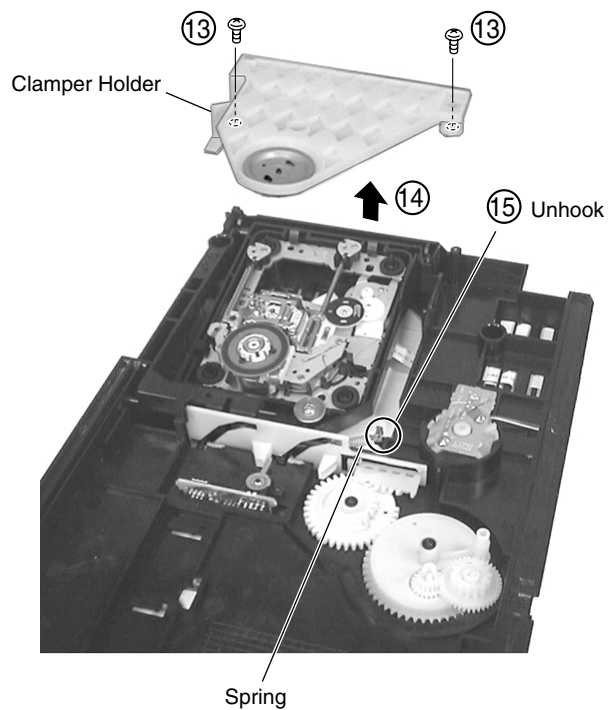


B

(12)

Mecha Frame

C

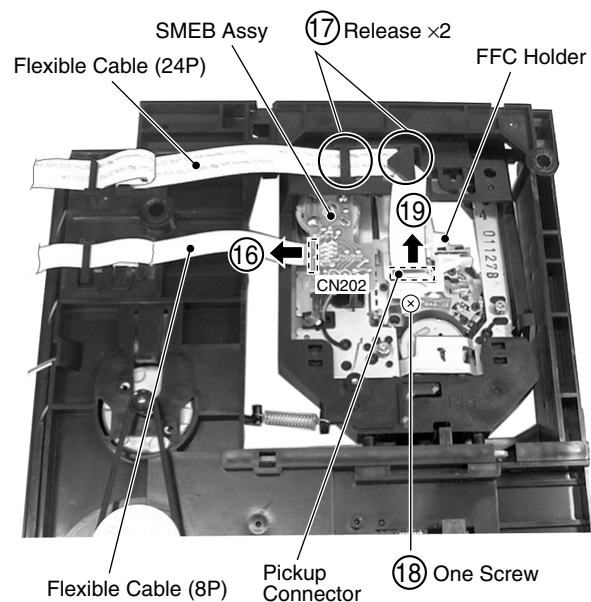


D

E

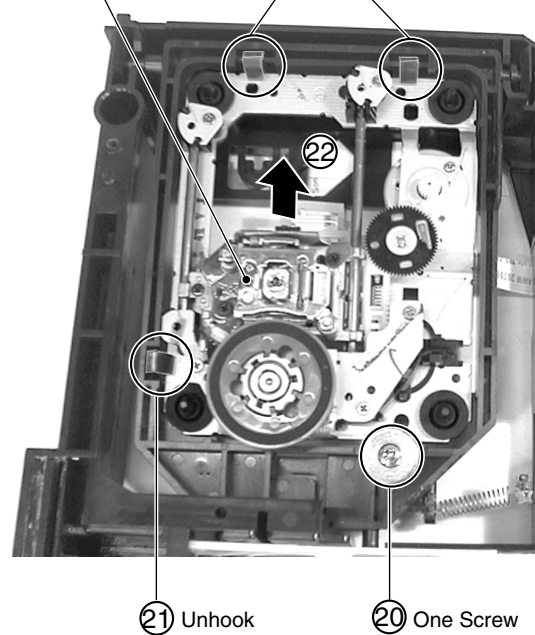
F

• Bottom View



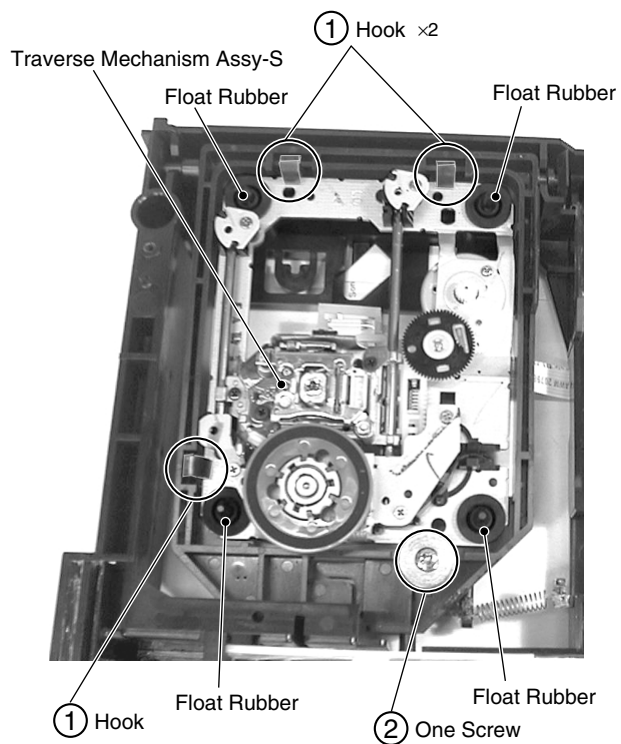
(21) Unhook x2

Traverse Mechanism Assy-S

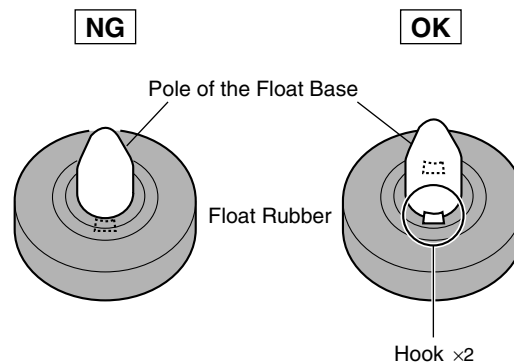


Exchange

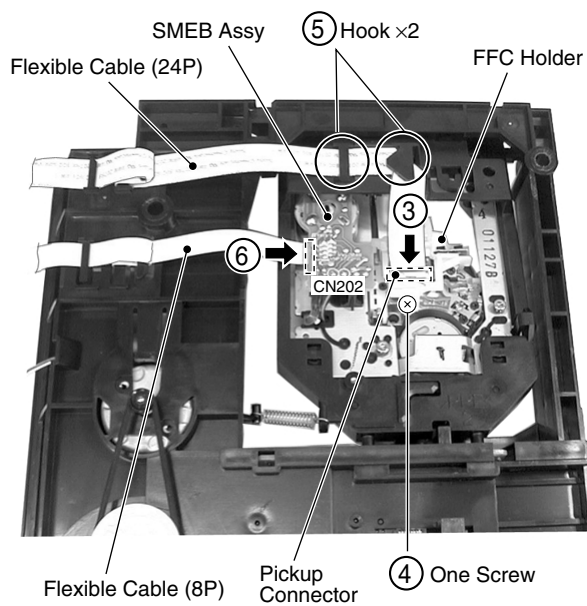
● Assembly



Check the Float Rubbers ×4

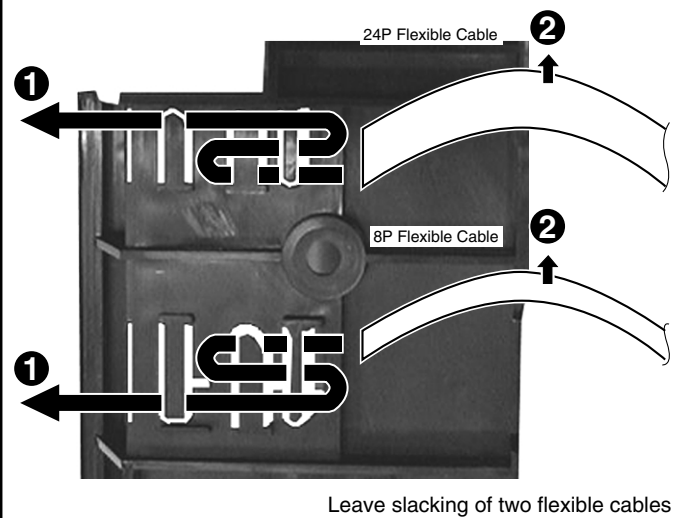


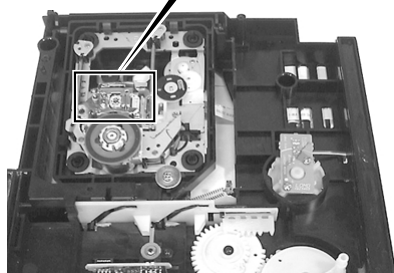
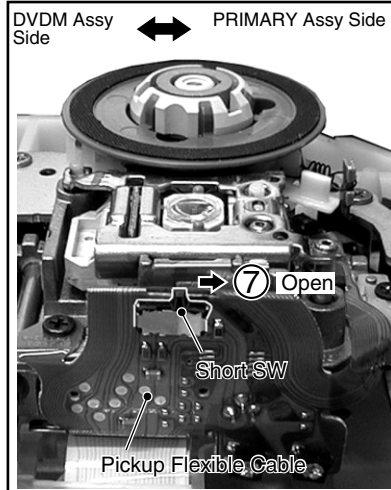
● Bottom View



Reference

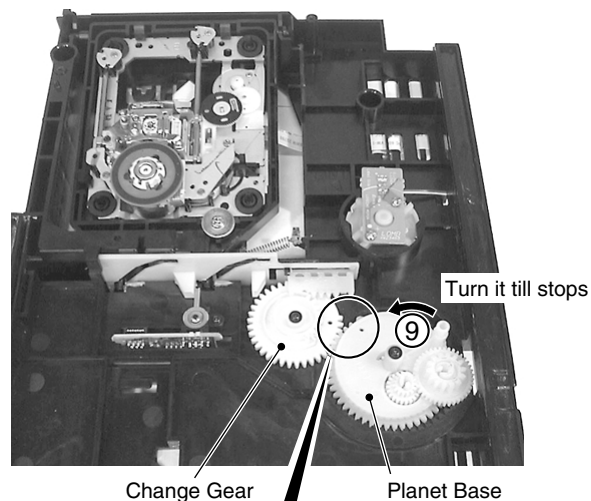
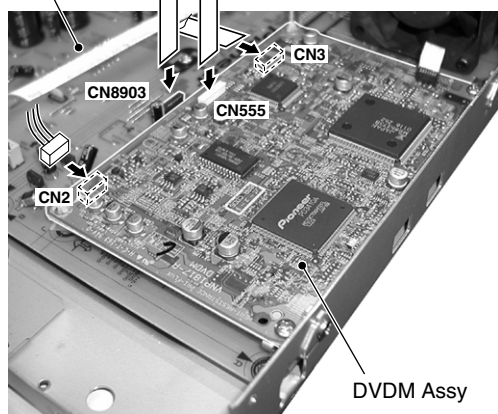
Styling of the Flexible Cables



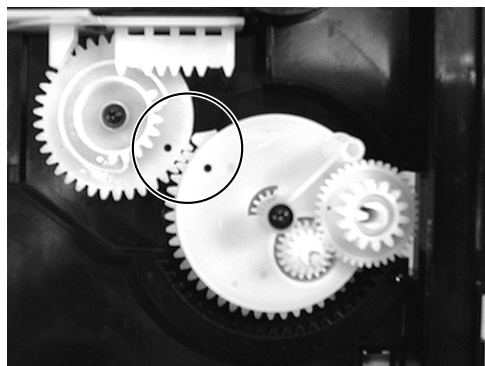
Rear View

⑧ Connect four connectors.

MAIN Assy

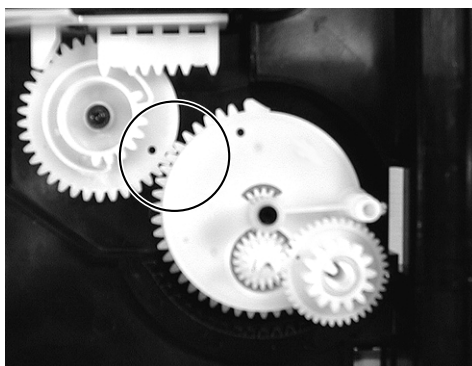


OK



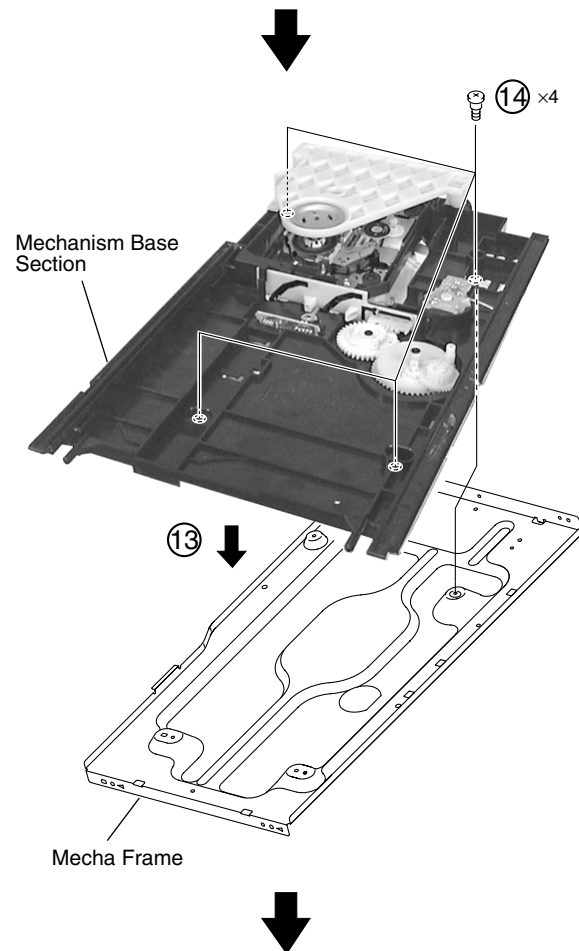
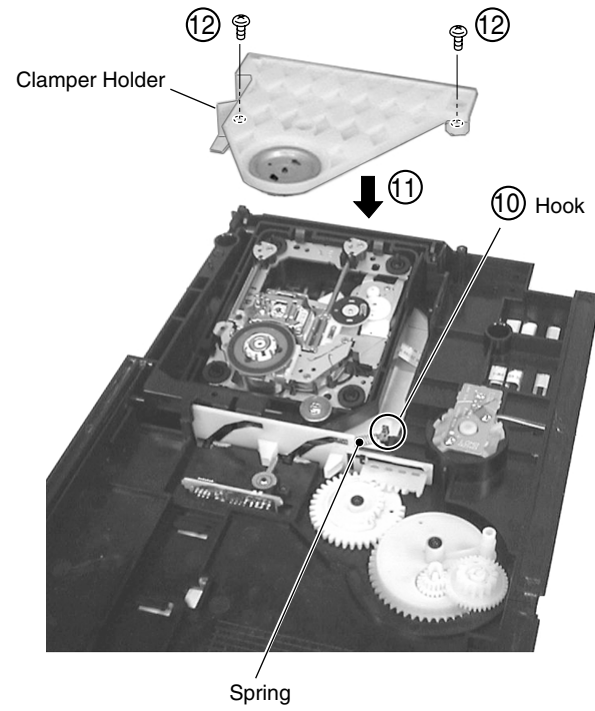
Match it between first teeth of the gear.

NG



When the tooth of gear deviates more than two or three tooth, Strange sound is generated, and cause trouble.



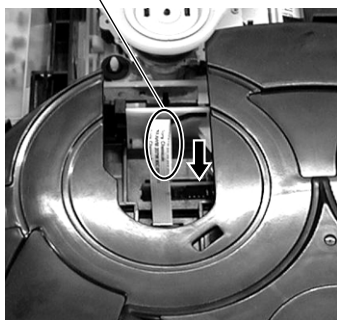


⑮ Assemble the Tray Section to the Mechanism Base Section

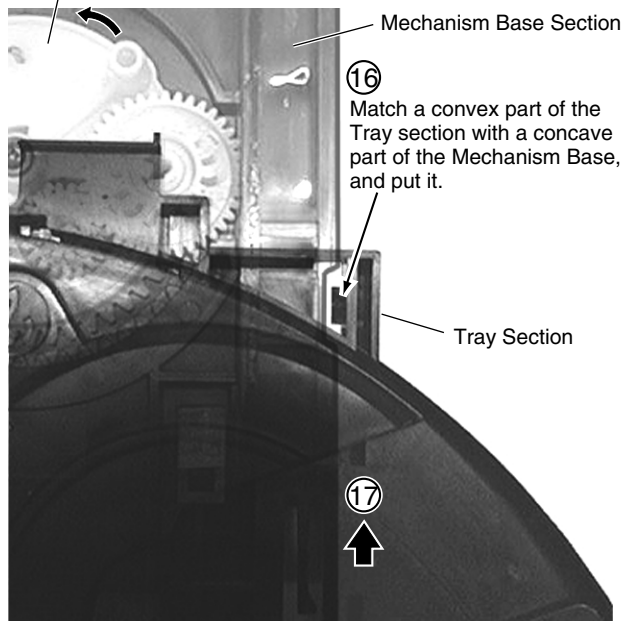
Confirmation :

Fully turning the Planet Base to an arrow direction.

⑮ Bring an extra flexible cable close to the front side.



Mechanism Base Section

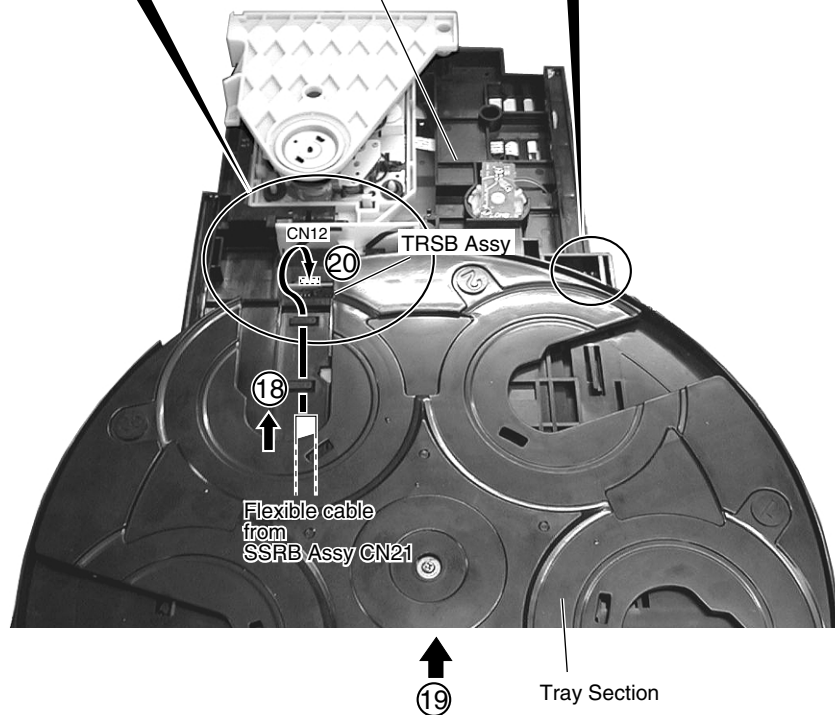


Mechanism Base Section

⑮ Match a convex part of the Tray section with a concave part of the Mechanism Base, and put it.

Tray Section

⑮



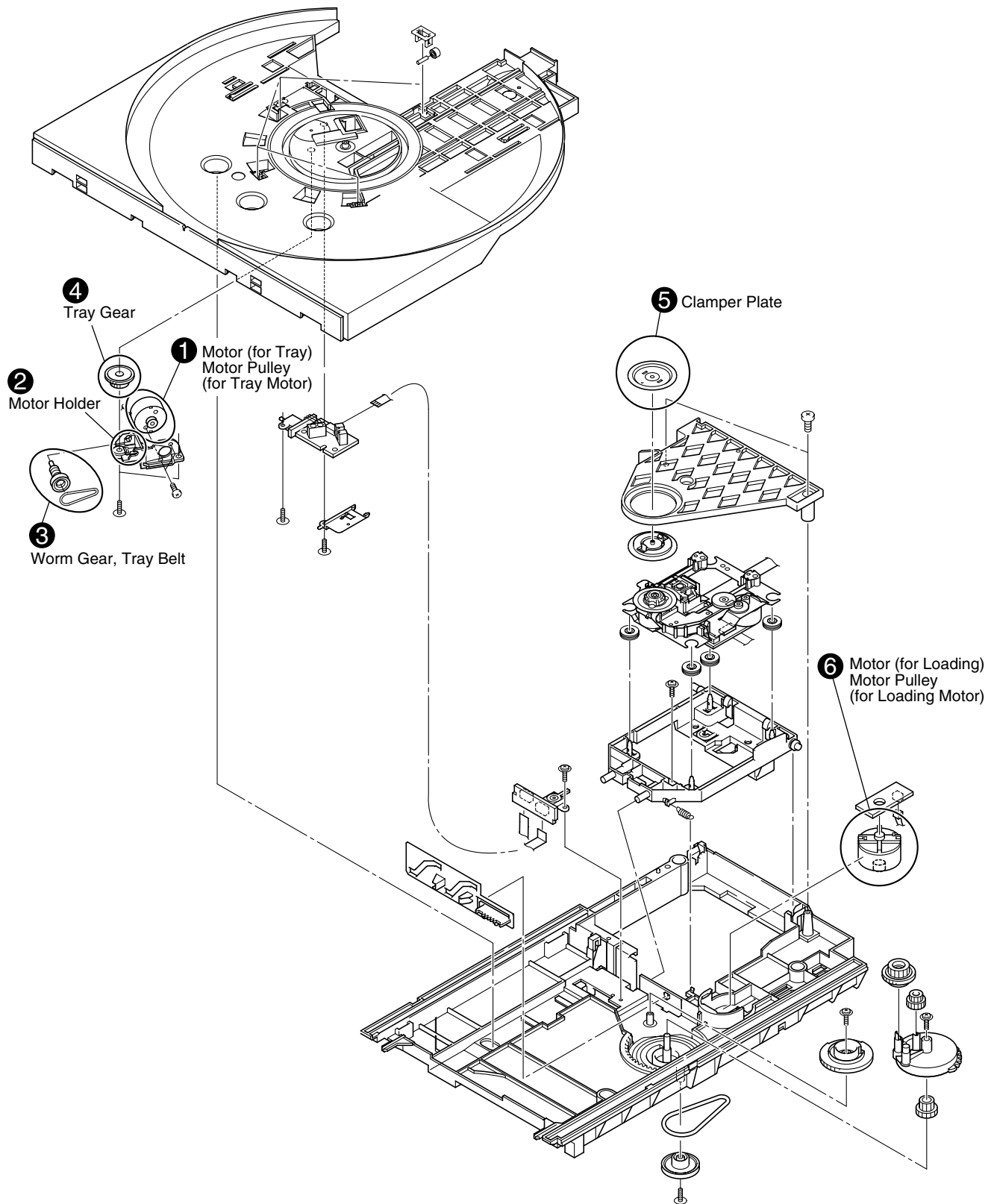
Flexible cable from SSRB Assy CN21

Tray Section

⑮ Assemble the Front Panel Section.

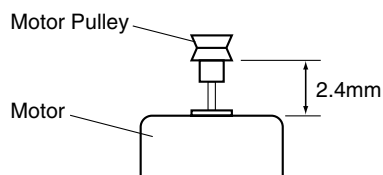
⑮ Assemble the Bonnet. (Screws × 11)

● Important Points when Assembling the Mechanism Section



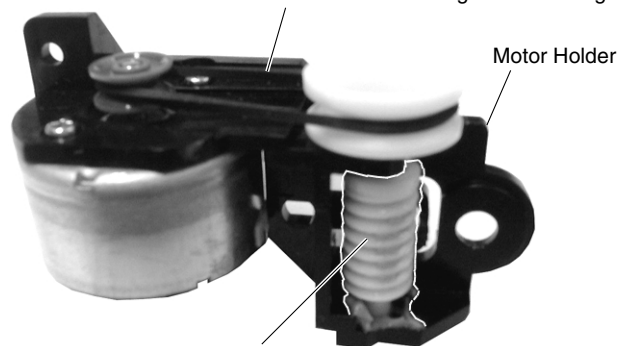
1 Motor (for Tray), Motor Pulley (for Tray Motor)

Adjust the height of the Motor Pulley to 2.4mm.



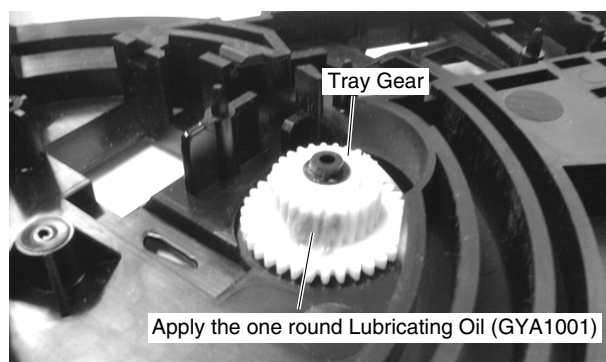
3 Worm Gear and Tray Belt

Tray Belt
Be careful not to damage it in exchange.



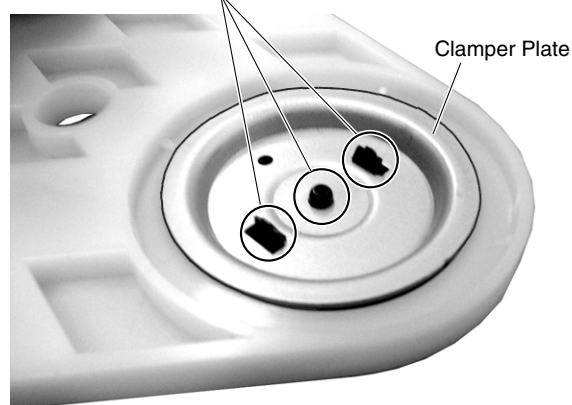
Worm Gear
Apply the one round Lubricating Oil (GYA1001)

4 Tray Gear



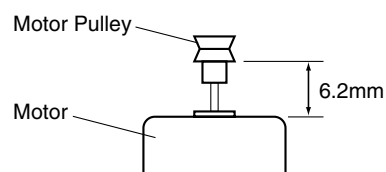
5 Clamper Plate

Apply the adhesive on the inside of hooks.
(Prevention of dropping)

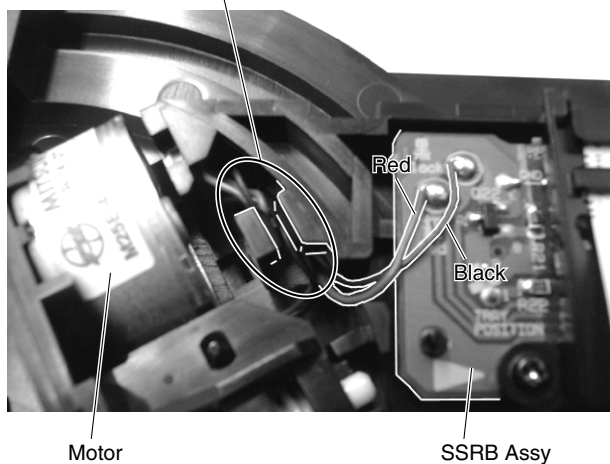


6 Motor (for Loading), Motor Pulley (for Loading Motor)

Adjust the height of Motor Pulley to 6.2mm.



Wiring lead wires into the hook of Motor Holder.
(So that lead wires are caught at the Tray open or close.)



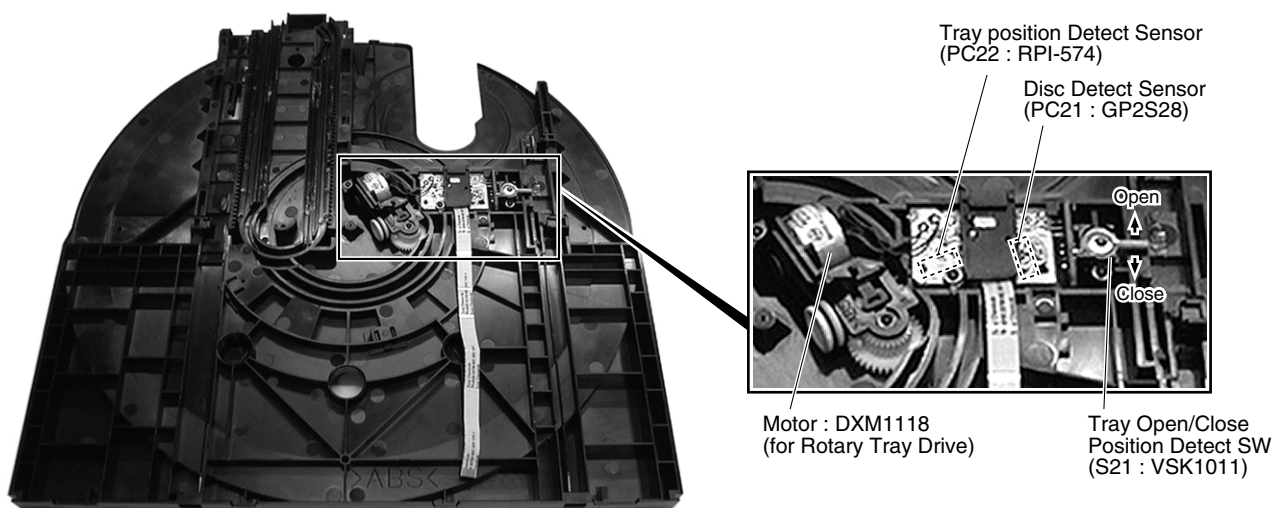
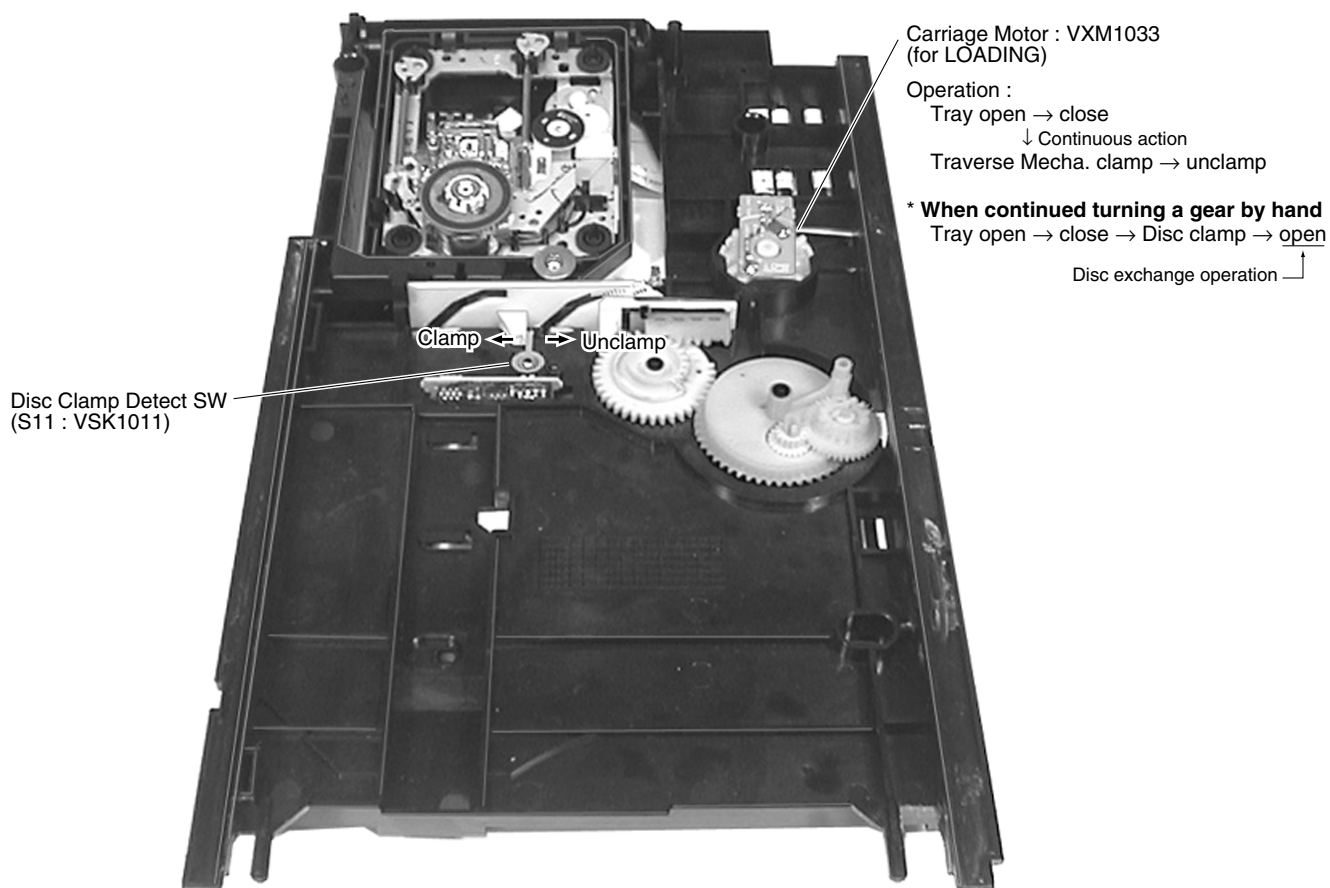
2 Motor Holder

Apply Lubricating Oil (GYA1001) to the holder part.



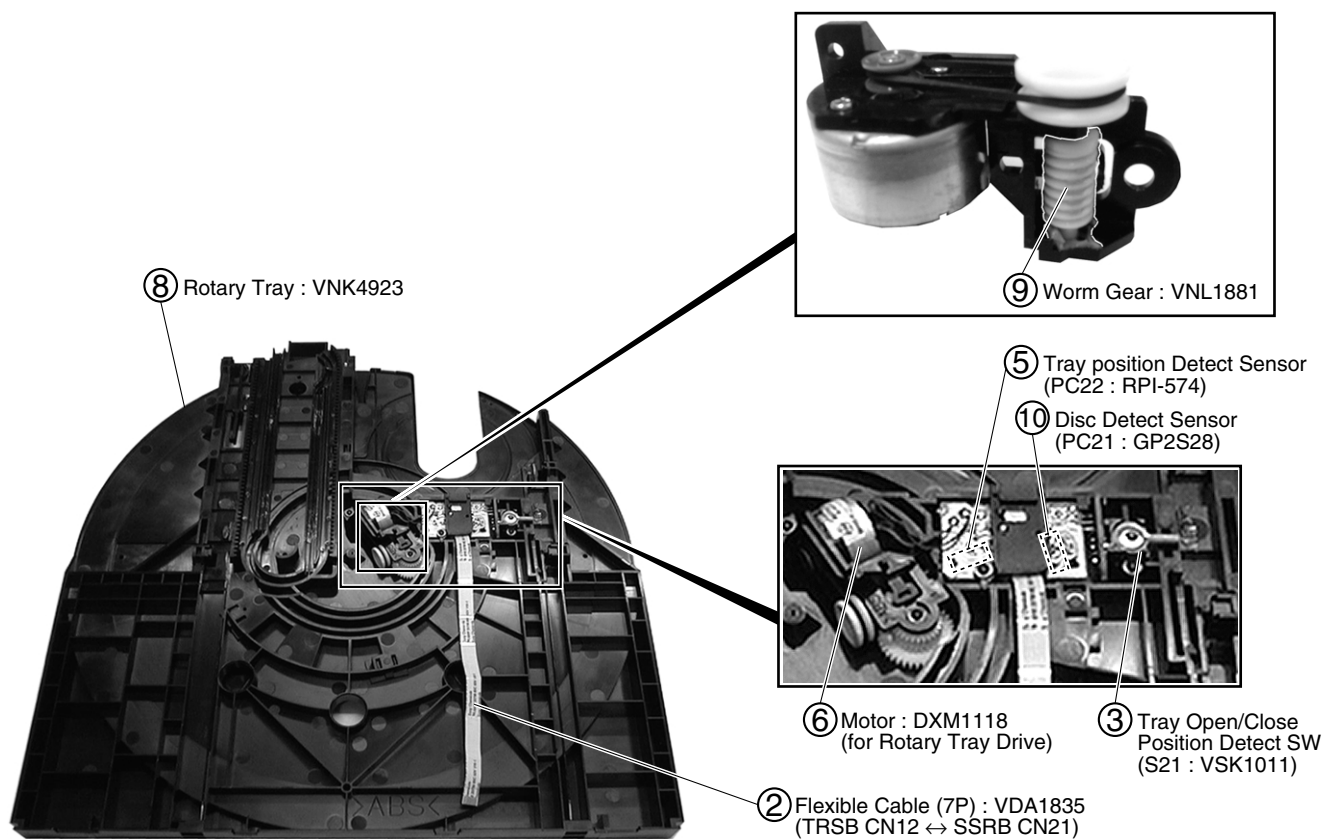
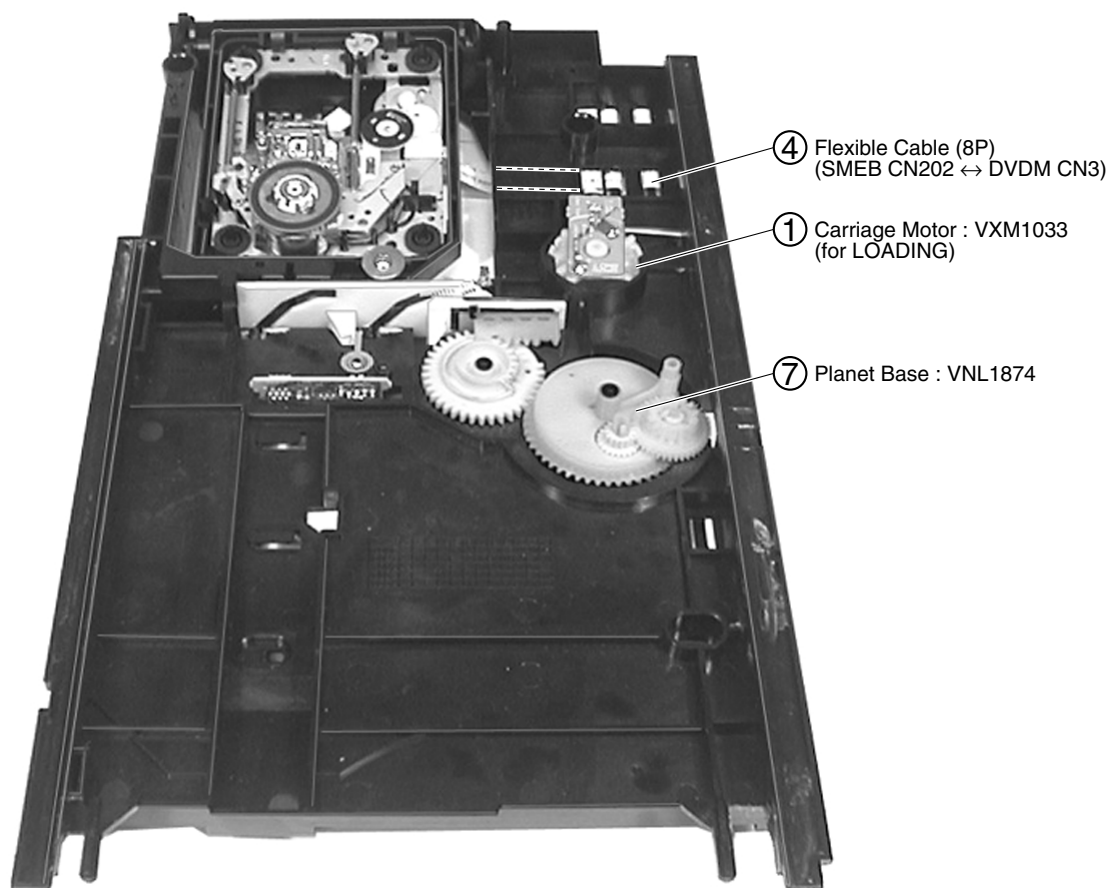
7.1.8 TROUBLE SHOOTING FOR MECHANISM SECTION

Location of Motors and Switches



Trouble Shooting

Condition	Condition	Trouble Point
Tray does not open. (Nothing works) POWER OFF Key → "OFF" indication does not disappear ▲ (OPEN) key → "OPEN" indication does not disappear ► (PLAY) key → It becomes indication of "OPEN" from "NO DISC", and stop by the condition. (When a disc is not put in the Tray.)	Loading Motor is damage, disconnection or contact defectiveness.	 ①
Tray does not open. (Hear the clatter continuation sound.) It becomes the state that flashed indication of " 1 2 3 4 5 ". ● ● ● ● ●	Contact defectiveness of Flexible Cable (7P) or the connector comes off, etc.. Tray Open/Close Position SW (S21) is damage or contact defectiveness, etc..	 ②  ③
Tray opens it in POWER ON freely, and stay by the state.	Contact defectiveness of Flexible Cable (8P) or the connector comes off, etc..	 ④
Rotary Tray does not stop at the home position. (May stop on the way of rotation suddenly.)	Tray Position Detect Sensor (PC22) is damage or contact defectiveness, etc..	 ⑤
"CHANGE" indication does not change in POWER ON, and Rotary Tray does not move. (In this case only opening and closing of Tray are possible.)	Motor for Rotary Tray Drive is damage, disconnection or contact defectiveness.	 ⑥
Hear the clatter sound in clamp of the disc.	A gear of Planet Base deviates.	 ⑦
Rotation of Rotary Tray does not stop in POWER ON. In this case indication more than two which seems to be " 1 2 3 4 5 " lights, and abnormal indication appears. ⊗ ⊗ ● ● ⊗	Slit part of bottom of the Rotary Tray is damaged.	 ⑧
When Rotary Tray turns, hear the rattle and large sound.	Damage of Worm Gear or grease is insufficient.	 ⑨
Playback even if indicates it with "NO DISC". Take time till playbacks.	Disc Detect Sensor (PC21) is damage or contact defectiveness, etc..	 ⑩



7.2 PARTS

7.2.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

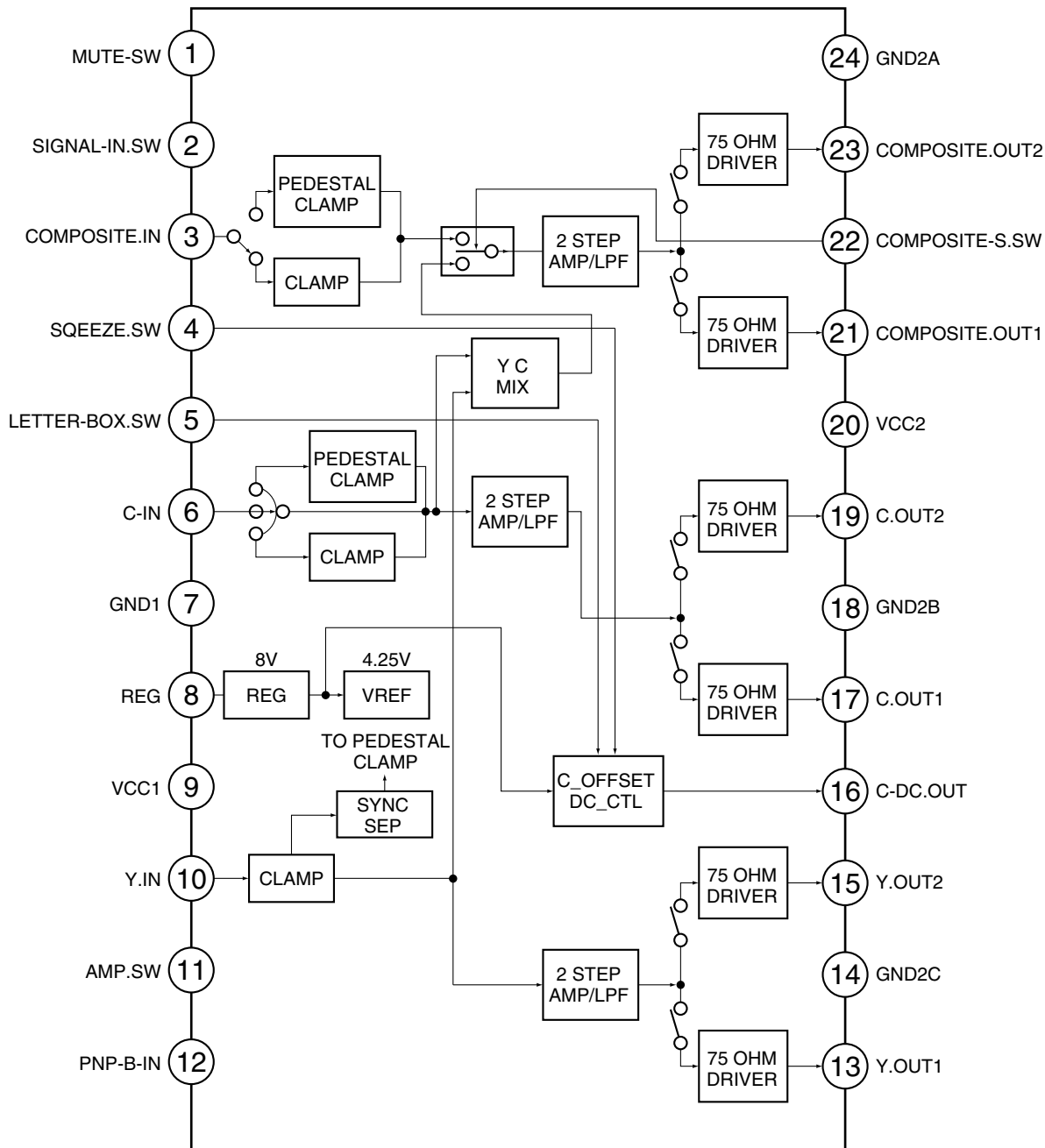
• List of IC

LA7139M, PDC092A

■ LA7139M (CONNECT ASSY : IC5351)

• Video Amp.

● Block Diagram



PDC092A (MAIN ASSY : IC5501)

• Microcomputer IC

• Pin Function

No.	Mark	Pin Name	I/O	Function
1	P16/T1PWML	XDSP MUTE	O	DSP mute output
2	P17/T1PWMH/BUZ	XCDC RST	O	CODEC reset
3	P30	CDC DO	O	CODEC Data
4	P31	CDC CK	O	CODEC Clock
5	P32	XCDC CS	O	CODEC Chip Select
6	P33	XDSP RST	O	DSP Reset
7	P34	XDSP SUB CS	O	DSP Chip Select (Sub)
8	P35	XDSP MAIN CS	O	DSP Chip Select (Main)
9	P36	WEN/DI	I/O	for DOWN LOAD
10	P37	WDO		
11	RES	XRESET		u-P Reset
12	XT1/AN10	TESTMODE	I	system test mode input
13	XT2/AN11	3.3DETECT (A/D)	I	(DVD) 3.3V Detection
14	VSS1	GNDD	–	–
15	CF1	CF1		Crystal Oscillator
16	CF2	CF2		
17	VDD1	V+5E	–	–
18	P80/AN0	KEY 0	A/D	Button control (Disp. Assy)
19	P81/AN1	ST/TUNE	A/D	TUNER STEREO TUNED detection
20	P82/AN2	MODEL 0 (A/D)	A/D	Determine Model intended for
21	P83/AN3	FAN DET	A/D	Fan Detection
22	P84/AN4	KEY 1	A/D	Button control (Disp. Assy)
23	P85/AN5	JOG	A/D	(Disp. Assy)
24	P86/AN6	XSTBY LED	O	
25	P87/AN7	NC		
26	P70/INT0/T0LCP/AN8	AC	I	AC pulse detection
27	P71/INT1/T0HCP/AN9	LT11	I	(DVD)
28	P72/INT2/T0IN	RDS CK	I	RDS Clock
29	P73/INT3/T0IN	REMOCON	I	Remote control (Disp. Assy)
30	S0/T0	G01	O	Grid
31	S1/T1	G02		
32	S2/T2	G03		
33	S3/T3	G04		
34	S4/T4	G05		
35	S5/T5	G06		
36	S6/T6	G07		
37	S7/T7	G08		
38	S8/T8	G09		
39	S9/T9	G10		
40	S10/T10	G11		
41	S11/T11	G12		
42	S12/T12	G13		
43	S13/T13	NC		
44	S14/T14	NC		
45	S15/T15	NC		
46	VDD3	V+5E	–	–
47	S16/PC0	S01	O	Segment
48	S17/PC1	S02		
49	S18/PC2	S03		
50	S19/PC3	S04		

A

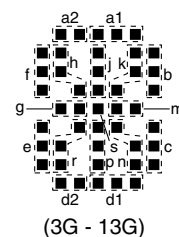
No.	Mark	Pin Name	I/O	Function
51	VP	VFDP	–	Vacuum Fluorescence Display Power
52	S20/PC4	S05	O	Segment
53	S21/PC5	S06		
54	S22/PC6	S07		
55	S23/PC7	S08		
56	S24/PD0	S09		
57	S25/PD1	S10		
58	S26/PD2	S11		
59	S27/PD3	S12		
60	S28/PD4	S13		
61	S29/PD5	S14		
62	S30/PD6	S15		
63	S31/PD7	S16		
64	S32/PE0	S17		
65	S33/PE1	S18		
66	S34/PE2	NC		
67	S35/PE3	HP DET	I	Headphone Detect
68	S36/PE4	DIR DI	I	DIR Data In
69	S37/PE5	TX DATA	I	Data from PLL IC
70	S38/PE6	DIR ERR	I	DIR Error
71	S39/PE7	RDS DATA	I	RDS Data
72	VDD4	V+5E	–	–
73	S40/PF0	RYDE	I	SP Relay's ENABLE
74	S41/PF1	EXP CK	O	LED driver IC clock
75	S42/PF2	EXP DATA	O	LED driver IC data
76	S43/PF3	EXP CE	O	LED driver IC CE
77	S44/PF4	RDS ON/OFF	O	RDS IC oscillator ON/OFF
78	S45/PF5	TX MUTE	O	Tuner MUTE
79	S46/PF6	X AOUT MUTE	O	Audio Out mute
80	S47/PF7	X CENTRE MUTE	O	Centre Chunnel Audio Mute
81	S48/PG0	XDIR RST	O	DIR Reset
82	S49/PG1	POWER	O	system power control
83	S50/PG2	XRDY1	O	DVD MCU interface READY output
84	S51/PG3	DVD ON/OFF	O	DVD power control
85	P00	SYS CK	O	System Clock
86	P01	SYS DATA	O	System Data
87	P02	XDVDRST	O	DVD Reset
88	P03	XLINE MUTE	O	system audio MUTE
89	VSS2	GNDD	–	–
90	VDD2	V+5E	–	–
91	P04	MAIN VOL CE	O	MAIN VOL IC M62446 CE
92	P05	PLL CE	O	PLL IC CE
93	P06	DIR CE	O	DIR Chip Enable
94	P07	WCLK	O	for DOWNLOAD
95	P10/SO0	DSP SO	O	DATA to YSS912
96	P11/SI0/SB0	DSP SI	I	DATA from YSS912
97	P12/SCK0	DSP CK	O	YSS912 (DSP) Clock
98	P13/SO1	SSI	O	Data to DVD MCU
99	P14/SI1/SB1	SSO1	I	Data from DVD MCU
100	P15/SCK1	SSCK	O	DVD MCU clock

F

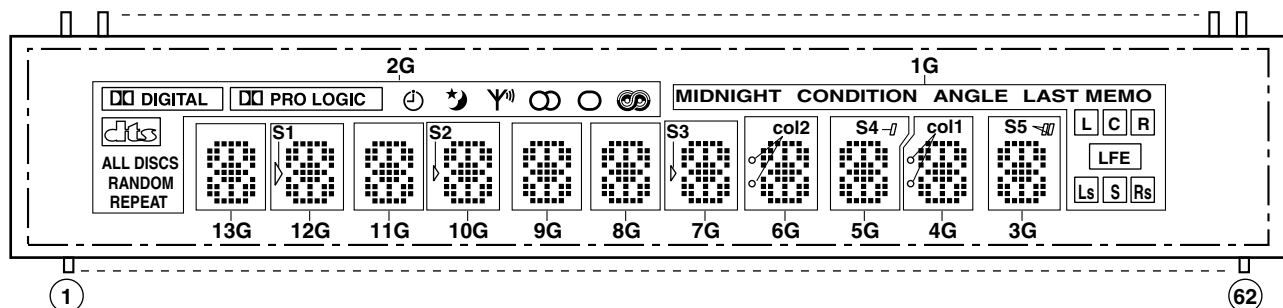
7.2.2 DISPLAY

■ XAV3011 (DISPLAY ASSY :V5801)

• FL DISPLAY



● Pin Assignment



● Anode Connection

	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	—	S1	—	S2	—	—	S3	col2	S4	col1	S5	REPEAT	MIDNIGHT
P2	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	RANDOM	CONDITION
P3	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	S	ANGLE
P4	b	b	b	b	b	b	b	b	b	b	b	DISC	LAST MEMO
P5	h	h	h	h	h	h	h	h	h	h	h	ALL	L
P6	j	j	j	j	j	j	j	j	j	j	j	ALL DISCS RANDOM REPEAT	C
P7	k	k	k	k	k	k	k	k	k	k	k	DIGITAL	R
P8	f	f	f	f	f	f	f	f	f	f	f	PRO LOGIC	Rs
P9	g	g	g	g	g	g	g	g	g	g	g	⏻	LFE
P10	s	s	s	s	s	s	s	s	s	s	s	★	S
P11	m	m	m	m	m	m	m	m	m	m	m	Y	Ls
P12	c	c	c	c	c	c	c	c	c	c	c	∞	—
P13	r	r	r	r	r	r	r	r	r	r	r	○	—
P14	p	p	p	p	p	p	p	p	p	p	p	⊗	—
P15	n	n	n	n	n	n	n	n	n	n	n	—	—
P16	e	e	e	e	e	e	e	e	e	e	e	—	—
P17	d1	d1	d1	d1	d1	d1	d1	d1	d1	d1	d1	—	—
P18	d2	d2	d2	d2	d2	d2	d2	d2	d2	d2	d2	—	—

● Pin Connection

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Connection	F1	F1	NP	NP	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2
Pin No.	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Connection	P1	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX
Pin No.	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	
Connection	NX	NX	NX	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F2	F2	

Note

- (1) F1, F2 : Filament
- (2) NP : No pin
- (3) NX : No extend pin
- (4) DL : Datum Line
- (5) 1G to 13G : Grid

7.3 CLEANING



Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

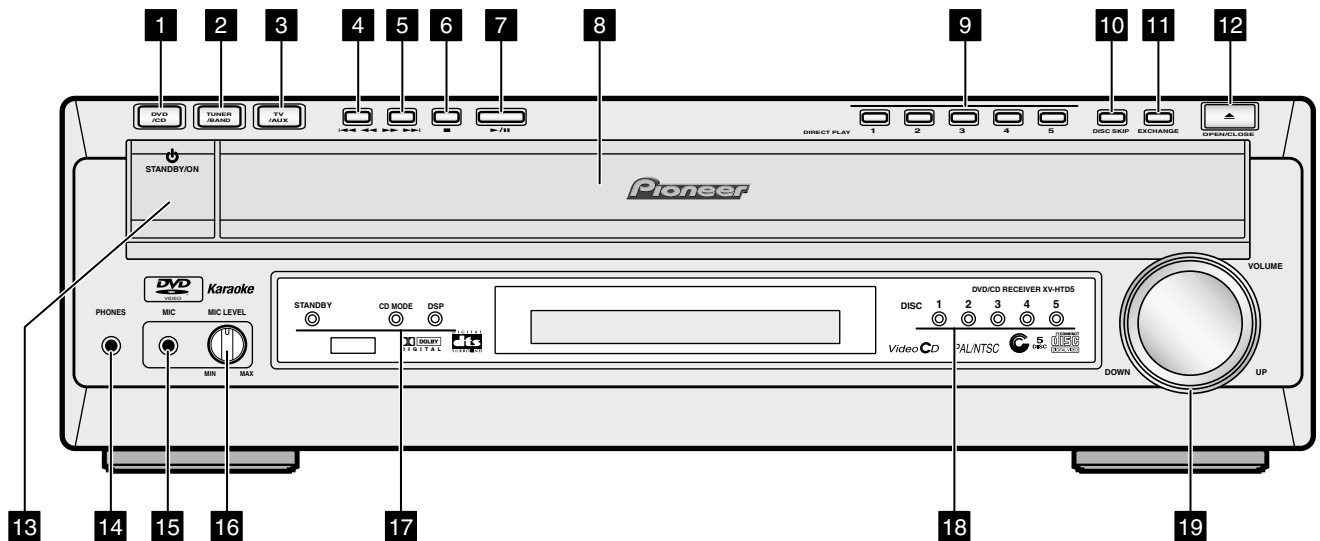
Position to be cleaned	Cleaning tools
Pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

Position to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

8. PANEL FACILITIES

■ Front Panel

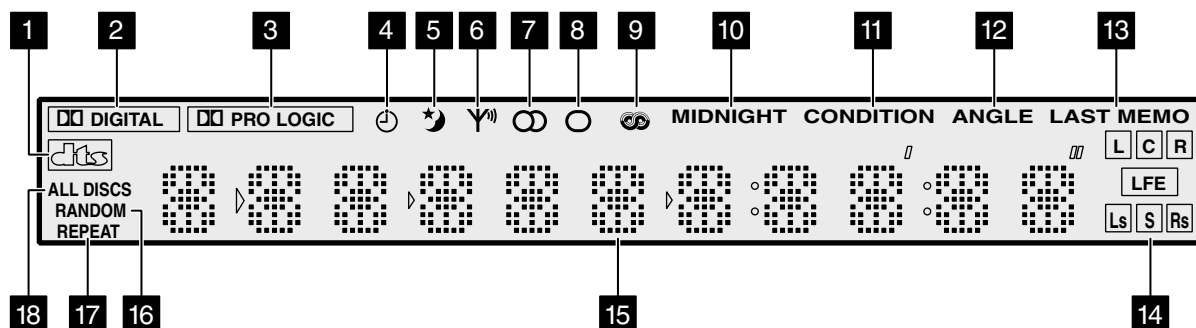
This illustration is XV-HTD5.



- 1 DVD/CD
- 2 TUNER/BAND
- 3 TV/AUX (DIGITAL IN)
- 4 ◀◀◀
- 5 ▶▶▶
- 6 ■
- 7 ▶/||
- 8 Disc tray
- 9 Disc buttons
- 10 DISC SKIP
- 11 EXCHANGE

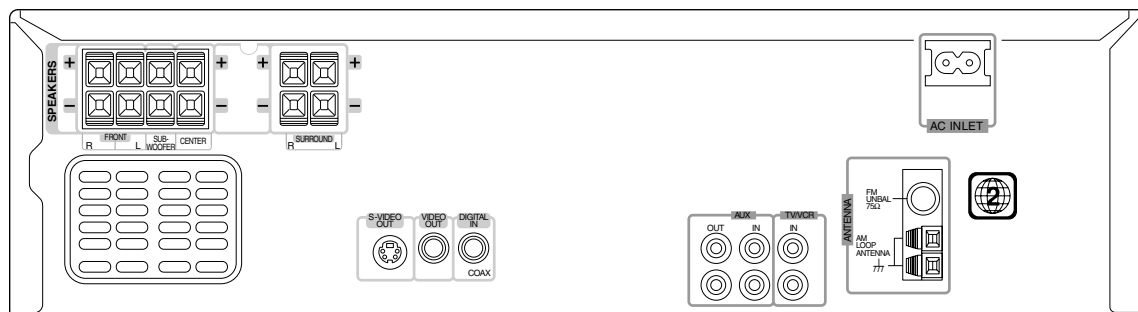
- 12 ▲ OPEN/CLOSE
- 13 STANDBY/ON
- 14 PHONES Plug in a pair of headphones here.
- 15 Mic input (XV-HTD5 only)
- 16 Mic volume (XV-HTD5 only)
- 17 STANDBY indicator
CD MODE indicator
DSP indicator
- 18 DISC indicators
- 19 VOLUME Turn to adjust the volume.

Display

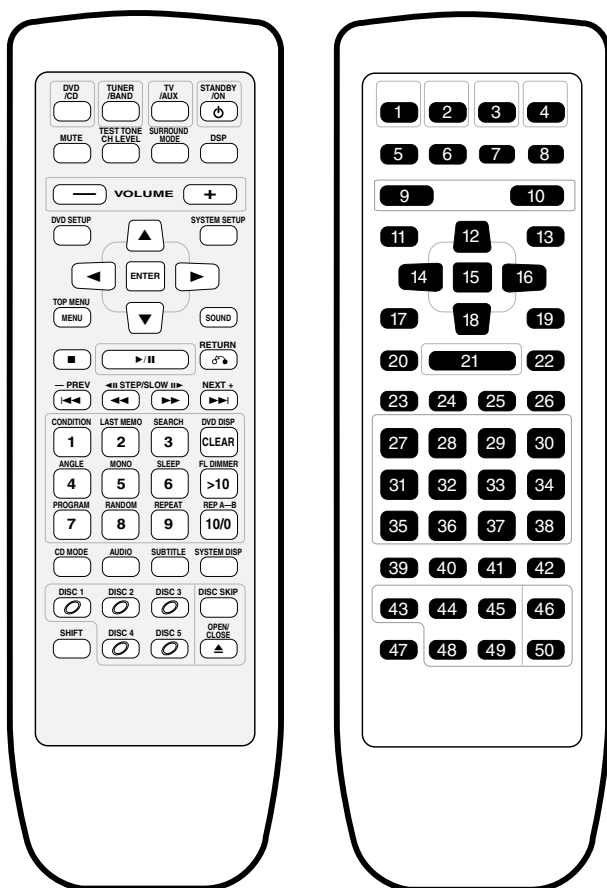


- | | |
|---|---|
| 1 DTS | 11 CONDITION |
| 2 DIGITAL | 12 ANGLE |
| 3 PRO LOGIC | 13 LAST MEMO |
| 4 Timer indicator | 14 Channel indicators Show which channels are available on the current disc. |
| 5 Sleep indicator | 15 Character display When playing discs : Left to right displays disc number, title, chapter/track, minutes, seconds. |
| 6 Tuned indicator | 16 RANDOM |
| 7 FM stereo indicator | 17 REPEAT |
| 8 FM mono indicator | 18 DISC ALL DISCS Indicates the random or repeat mode. |
| 9 RDS (XV-HTD50 only) Lights when in one of the RDS display or search modes | |
| 10 MIDNIGHT | |

Rear Panel



■ Remote Control Unit



- 1 DVD/CD
- 2 TUNER/BAND
- 3 TV/AUX
- 4 STANDBY/ON
- 5 MUTE Silences/restores all sound.
- 6 TEST TONE/CH LEVEL
- 7 SURROUND MODE
- 8 DSP
- 9 VOLUME – Lowers the volume.
- 10 VOLUME + Raises the volume.
- 11 DVD SETUP
- 12 Cursor up Use for navigating menus and on-screen displays.
- 13 SYSTEM SETUP
- 14 Cursor left Use for navigating menus and on-screen displays.

- 15 ENTER
- 16 Cursor right Use for navigating menus and on-screen displays.
- 17 MENU
TOP MENU
- 18 Cursor down Use for navigating menus and on-screen displays.
- 19 SOUND
- 20 ■
- 21 ►/||
- 22 RETURN ↶
- 23 ◀◀ / -PREV
- 24 ◀◀ / STEP/SLOW ◀◀
- 25 ▶▶ / STEP/SLOW ▶▶
- 26 ▶▶ / NEXT+
- 27 1 / CONDITION (SHIFT & 1)
- 28 2 / LAST MEMO (SHIFT & 2)
- 29 3 / SEARCH (SHIFT & 3)
- 30 CLEAR Clears/cancels various functions
DVD DISP (SHIFT & CLEAR)
- 31 4 / ANGLE (SHIFT & 4)
- 32 5 / MONO (SHIFT & 5)
- 33 6 / SLEEP (SHIFT & 6)
- 34 >10 Selects numbers over 10
FL DIMMER (SHIFT & >10)
- 35 7 / PROGRAM (SHIFT & 7)
- 36 8 / RANDOM (SHIFT & 8)
- 37 9 / REPEAT (SHIFT & 9)
- 38 REP A-B (SHIFT & 10/0)
10/0 Number button (10 and 0)
- 39 CD MODE
- 40 AUDIO
- 41 SUBTITLE
- 42 SYSTEM DISP
- 43 DISC 1
- 44 DISC 2
- 45 DISC 3
- 46 DISC SKIP
- 47 SHIFT Hold down to access secondary button functions
- 48 DISC 4
- 49 DISC 5
- 50 OPEN/CLOSE ▲