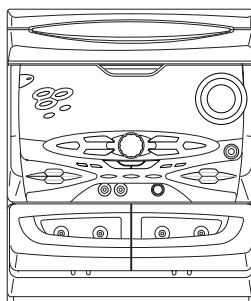


Service Manual

Pioneer



ORDER NO.
RRV2329

STEREO DVD CASSETTE DECK RECEIVER

XR-A9800D

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

Type	Model	Power Requirement	Region No.	Remarks
	XR-A9800D			
KUCXJ	○	AC120V	1	

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

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

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

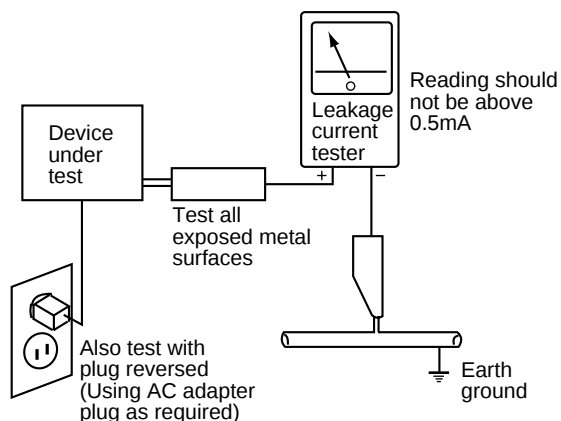
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

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

LEAKAGE CURRENT CHECK

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



AC Leakage Test

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

2. PRODUCT SAFETY NOTICE

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

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

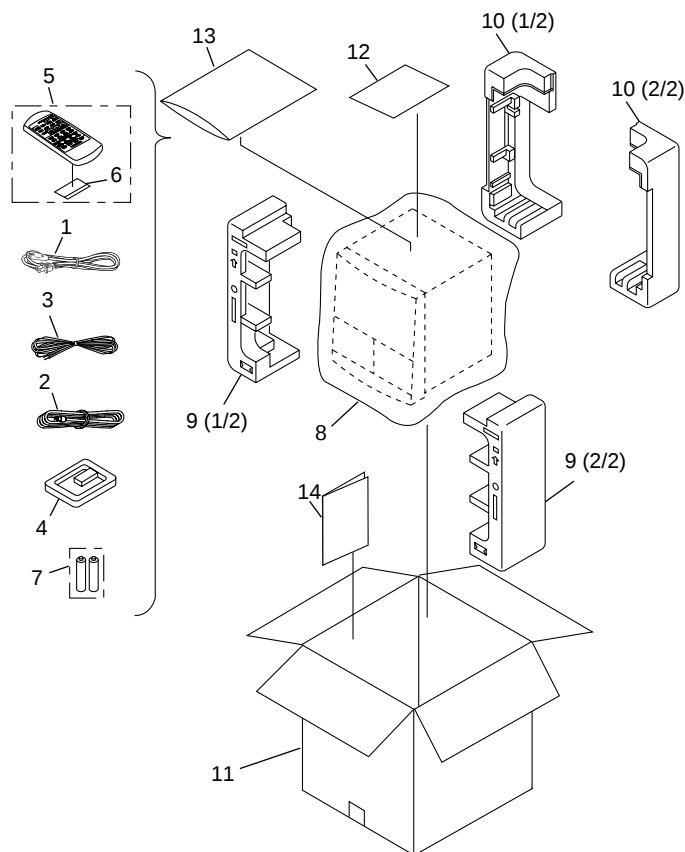
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

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

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

2.1 PACKING

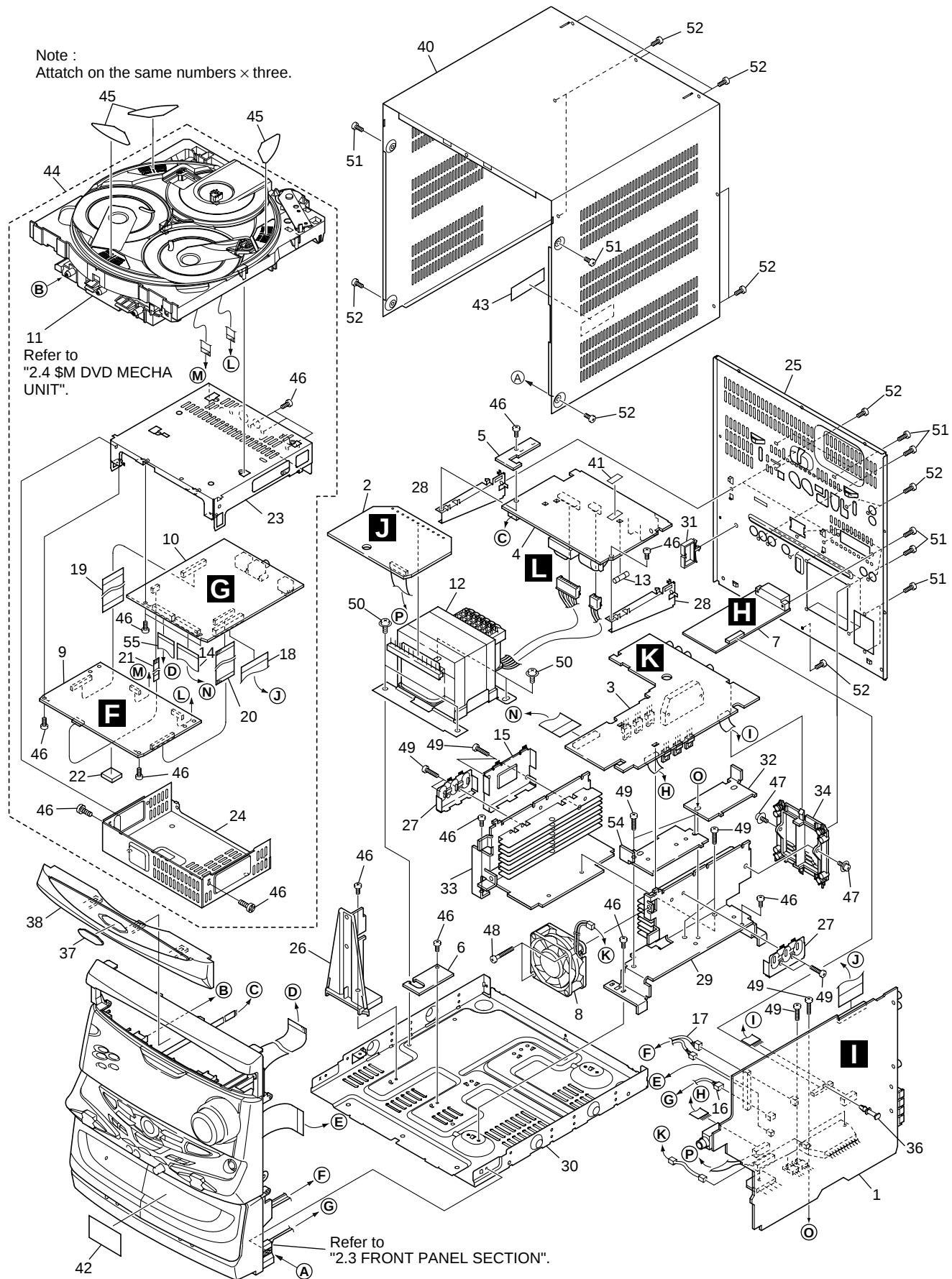


● PACKING PARTS LIST

Mark	No.	Description	Part No.
Δ	1	Power Cord	ADG7022
	2	Video Cord (L=1.5m)	VDE1034
	3	FM Antenna	ADH7004
	4	AM Loop Antenna	XTB3001
	5	Remote Control Unit	XZN3109
NSP	6	Battery Cover	XZN3105
	7	Dry Cell Battery (R6P, AA)	VEM-013
	8	Packing Sheet	AHG7049
	9	Front Pad	XHA3020
	10	Rear Pad	XHA3021
NSP	11	Packing Case	XHA3144
	12	Warranty Card PA/DC	ARY7045
	13	Polyethylene Bag (0.03 × 230 × 340)	Z21-038
	14	Operating Instructions (English/French)	XRE3036

2.2 EXTERIOR SECTION

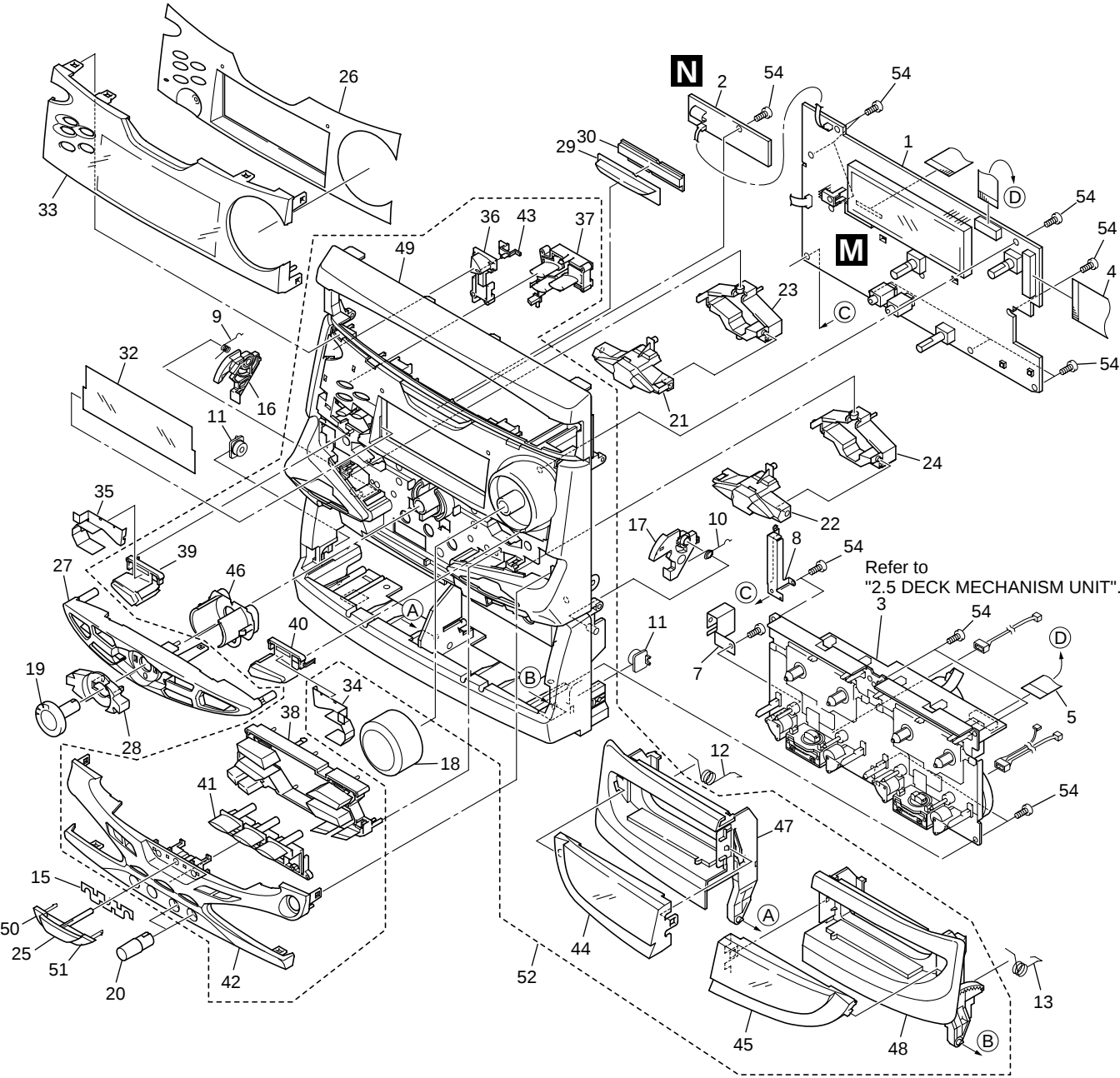
Note :
Attach on the same numbers × three.



● EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	AF Assy	XWZ3330	NSP	30	Chassis	XNA3006
	2	SECONDARY Assy	XWZ3323		31	Wire Clip A	XEC3003
	3	REAR AMP Assy	XWZ3325		32	Sub Heat Sink	XNH3013
	4	PRIMARY Assy	XWZ3332		33	Heat Sink D	XNH3016
	5	BIND 1 Assy	• • • • •		34	Mold B	AMR7006
	6	BIND 2 Assy	• • • • •		35	• • • • •	
	7	FM/AM TUNER Module	AXQ7065		36	Card Spacer	XEC3008
	8	DC Fan Motor	AXM7014		37	DVD Badge	XAM3002
	9	DVD MAIN Assy	XWX3014		38	Tray Cap	XAK3157
	10	CONNECT Assy (6 CH)	XWX3023		39	• • • • •	
NSP	11	\$M DVD Mecha Unit	AXA7083		40	Bonnet Case	XZN3098
△	12	Power Transformer (T1)	XTS3042	NSP	41	Fuse Card	AAX2374
△	13	Fuse (FU1, 6.3A)	REK1085	NSP	42	Getter	XAX3175
	14	25P Flexible Cable (CONNECT CN8105 ↔ AF CN3404)	XDD3046		43	65 Label	ARW7050
	15	Power Bracket	XNG3033	NSP	44	\$M Mecha. DVD (5P)	XXA3019
	16	Connector Assy 3P (AF CN2303 ↔ DECK I)	XDE3037		45	Disc Label	XAX3127
	17	Connector Assy 5P (AF CN2301, CN2302 ↔ DECK II)	XDE3038		46	Screw	BBZ30P080FMC
	18	30P Flexible Cable (CONNECT CN8103 ↔ AF CN5104)	XDD3044		47	Screw	ABA1021
	19	32P Flexible Cable/30V (CONNECT CN8101 ↔ DVDM CN80)	ADD7195		48	Screw	BPZ30P350FZK
	20	27P Flexible Cable/30V (CONNECT CN8102 ↔ DVDM CN20)	ADD7196		49	Screw	BBZ30P180FMC
	21	7P Flexible Cable/30V (CONNECT CN8106 ↔ DVDM CN6)	ADD7197		50	Screw	ASZ40P060FMC
	22	Radiation Sheet	AEB7173		51	Screw	BPZ30P100FZK
	23	DVD Base	XNG3034		52	Screw	VBT30P080FZK
	24	DVD Shield	XNK3006		53	Screw	BPZ30P080FMC
	25	Rear Panel	XNC3065		54	Sub Heat Sink	XNH3014
	26	SEC Holder	XMR3013		55	Flexible Cable 21P (DISPLAY CN5502 ↔ CONNECT CN8104)	XDD3052
	27	FET Bracket B	XNG3032				
	28	PCB Bracket	ANG7263				
	29	Heat Sink C	XNH3015				

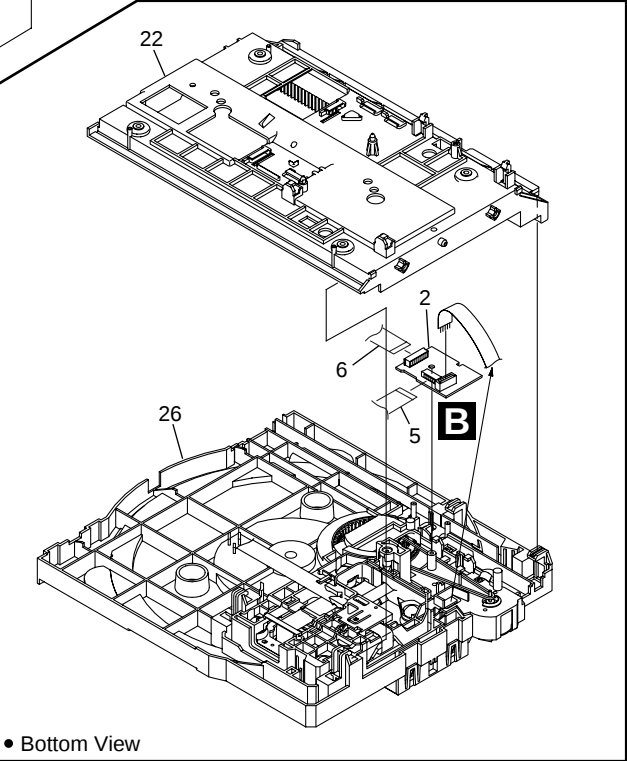
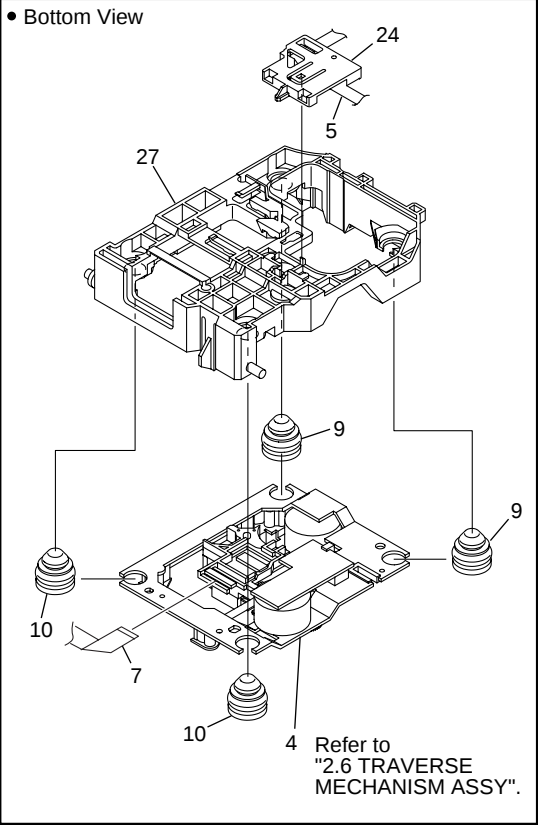
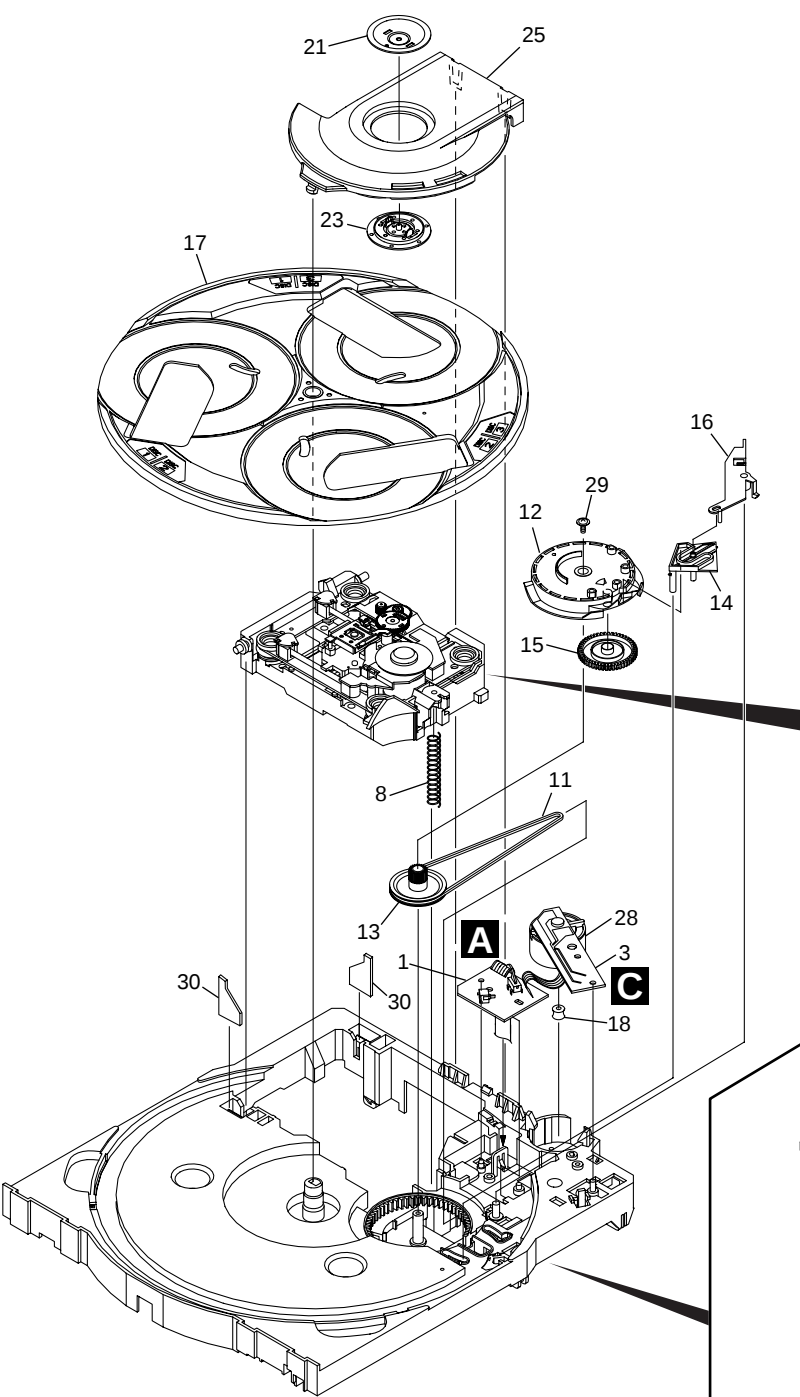
2.3 FRONT PANEL SECTION



● FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	DISPLAY Assy	XWZ3331		29	V Lens S	XAK3153
	2	BLUE LED Assy	XWZ3321		30	LT Conductor S	XAK3155
	3	Deck Mechanism Unit	XYM3012		31	•••••	
	4	Flexible Cable 27P (DISPLAY CN5501 ↔ AF CN5105)	XDD3041		32	FL Filter	XAK3162
					33	FL Cover	XAK3164
	5	Flexible Cable 15P (DISPLAY CN2901 ↔ DECK MECHA)	XDD3050		34	Cover Sheet L	XAK3184
	6	•••••			35	Cover Sheet R	XAK3185
	7	GND Plate B	XNG3031		36	Power Button	XAD3044
	8	GND Plate C	XNG3047		37	CD Button	XAD3045
					38	SC Button	XAD3060
	9	Ratch Spring_L	ABH7130		39	SC Button L	XAD3047
	10	Ratch Spring_R	ABH7131		40	SC Button R	XAD3049
	11	Damper Assy	XXA3025		41	DOLBY Button	XAD3054
	12	Door Spring_L	XBH3010		42	Sub Panel S	XAK3168
	13	Door Spring_R	XBH3011		43	ST Lens S	XAK3151
	14	•••••			44	Deck Lens L S	XAK3159
	15	Cushion Spring	XEB3010		45	Deck Lens R S	XAK3160
	16	Ratch Mold_L	XMR3001		46	JOG Conductor	XAK3165
	17	Ratch Mold_R	XMR3002		47	Deck Door_L	XAN3022
	18	Volume Knob	XAA3013		48	Deck Door_R	XAN3026
	19	JOG Knob	XAA3015		49	Front Panel	XMB3027
	20	MIC Knob	XAB3007		50	DV Button L	XAD3057
	21	FUNC Button L	XAD3061		51	DV Button R	XAD3059
	22	FUNC Button R	XAD3051	NSP	52	Front Panel Assy	XXG3058
	23	FUNC Frame L	XAD3052		53	Screw	BPZ30P100FZK
	24	FUNC Frame R	XAD3053		54	Screw	BPZ30P080FMC
	25	DV ENT Button	XAD3056				
	26	Display Panel	XAK3135				
	27	EQ Panel S	XAK3150				
	28	JOG Lens S	XAK3152				

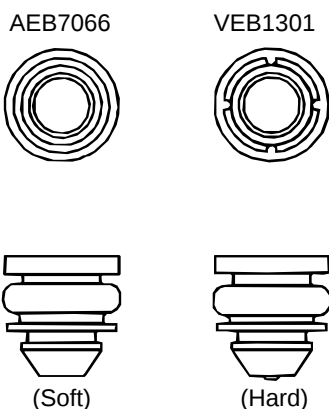
2.4 \$M DVD MECHA UNIT



● \$M DVD MECHA UNIT PARTS LIST

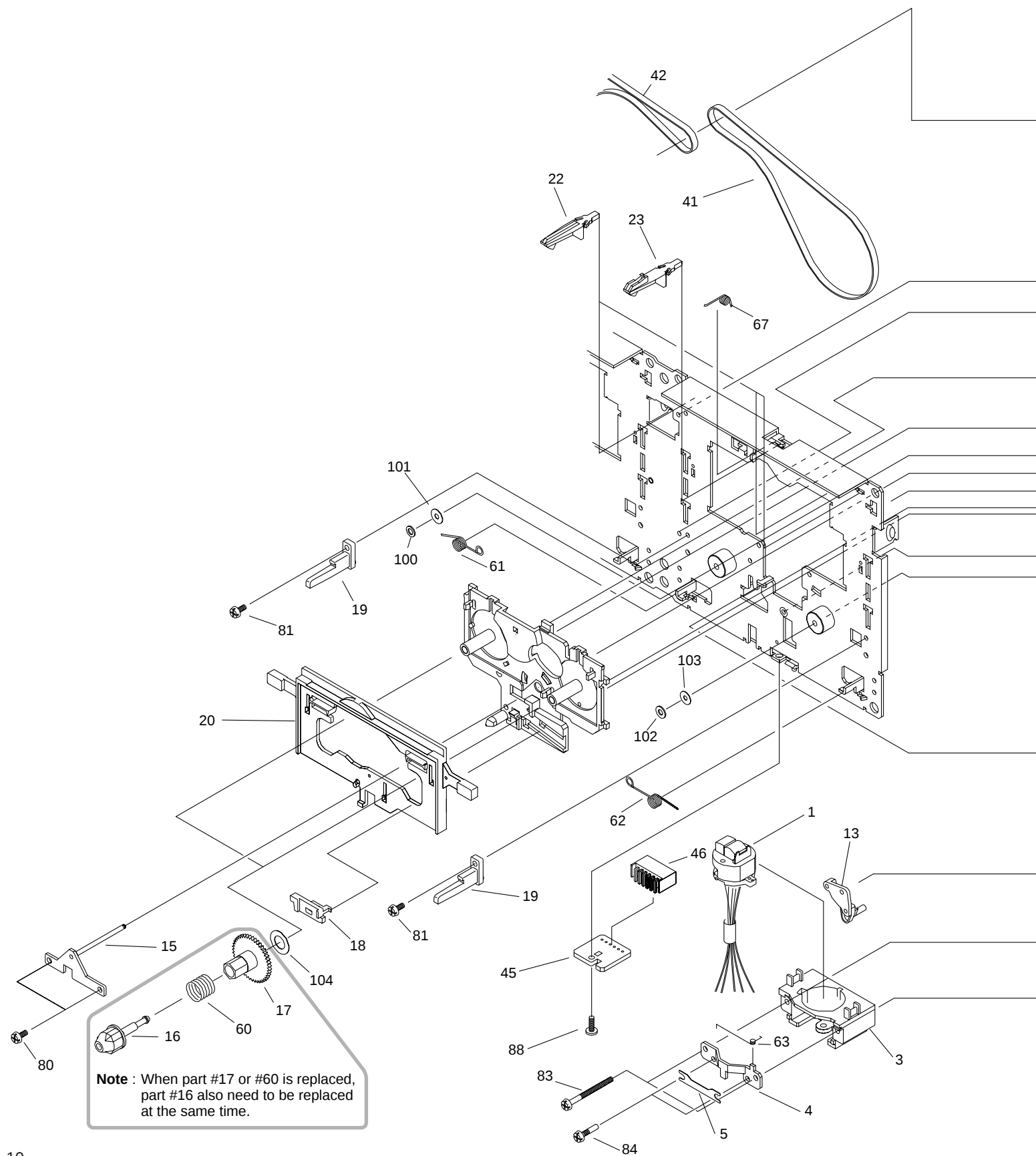
Mark	No.	Description	Part No.
NSP	1	SW Assy	VWG2002
NSP	2	TRADE Assy	VWG2003
NSP	3	MOTOR Assy	VWG2004
	4	TRAVERSE Mechanism Assy-S	VXX2653
	5	Flexible Cable (8P) (TRADE CN9001 ↔ SMEB CN202)	VDA1715
	6	Flexible Cable (13P) (TRADE CN9002 ↔ DVDM CN3)	ADD7199
	7	Flexible Cable (24P) (Pickup Assy ↔ DVDM CN4)	ADD7198
	8	Servo Spring	ABH7126
	9	Float Rubber C	VEB1301
	10	Float Rubber B	AEB7066
	11	Belt	AEB7072
	12	Main Cam	ANW7093
	13	Gear Pulley	ANW7094
	14	Lock Lever	ANW7095
	15	Planet Gear	ANW7096
	16	Actuator	ANW7097
	17	Rotary Tray	ANW7113
	18	Motor Pulley	PNW1634
	19	• • • • •	
	20	• • • • •	
	21	Clamper Plate	VNE2162
	22	Mecha Base	XNW3011
	23	Clamper	VNL1738
	24	FFC Holder	VNL1803
	25	Clamper Holder	VNL1804
	26	Loading Tray	XNW3002
	27	Servo Base	XNW3010
	28	Slider Motor (LOADING)	VXM1033
	29	Screw	IPZ30P080FMC
	30	Shaft Press Rubber	VEB1300

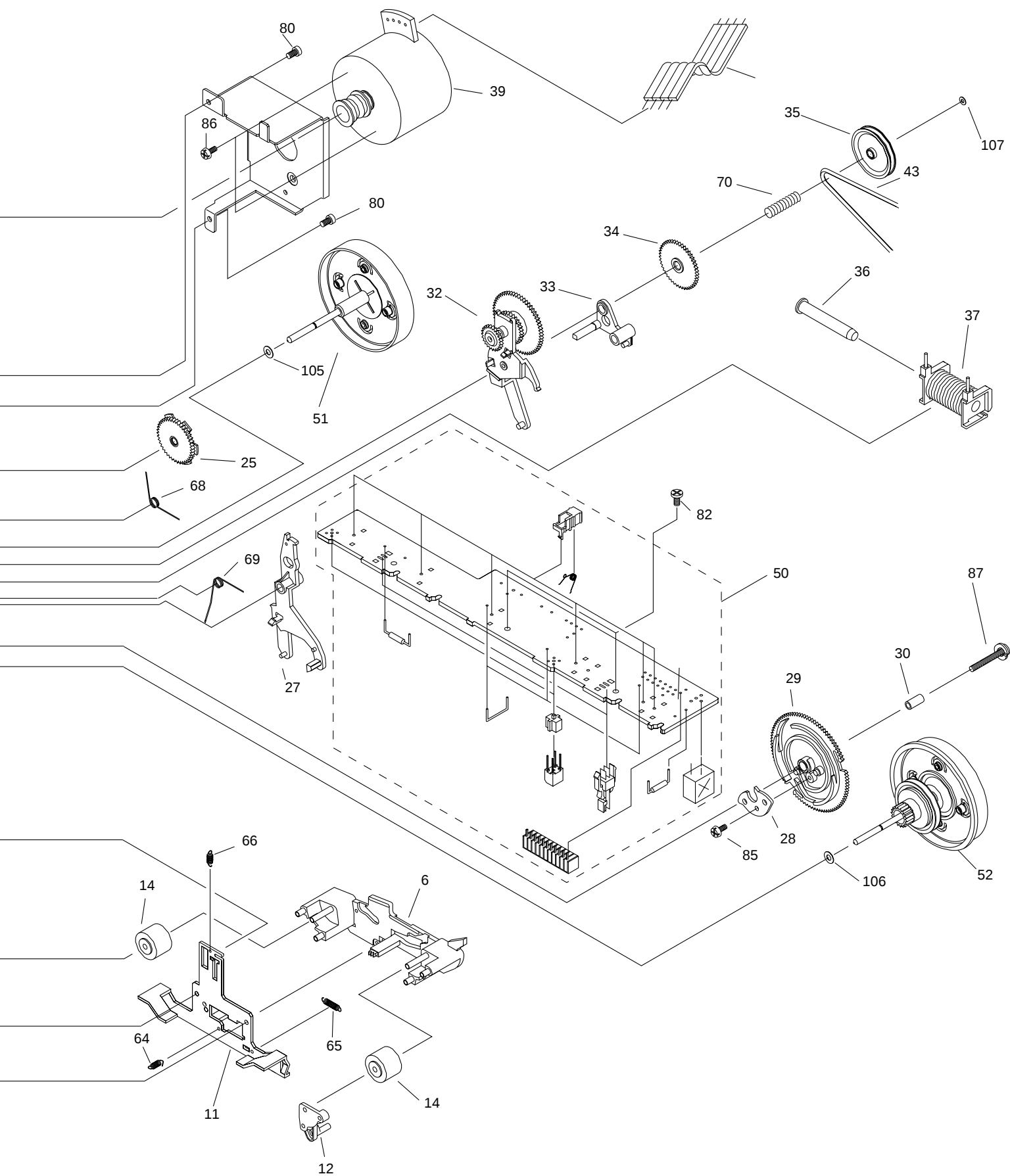
Detail of Float Rubber (No.9, No.10)



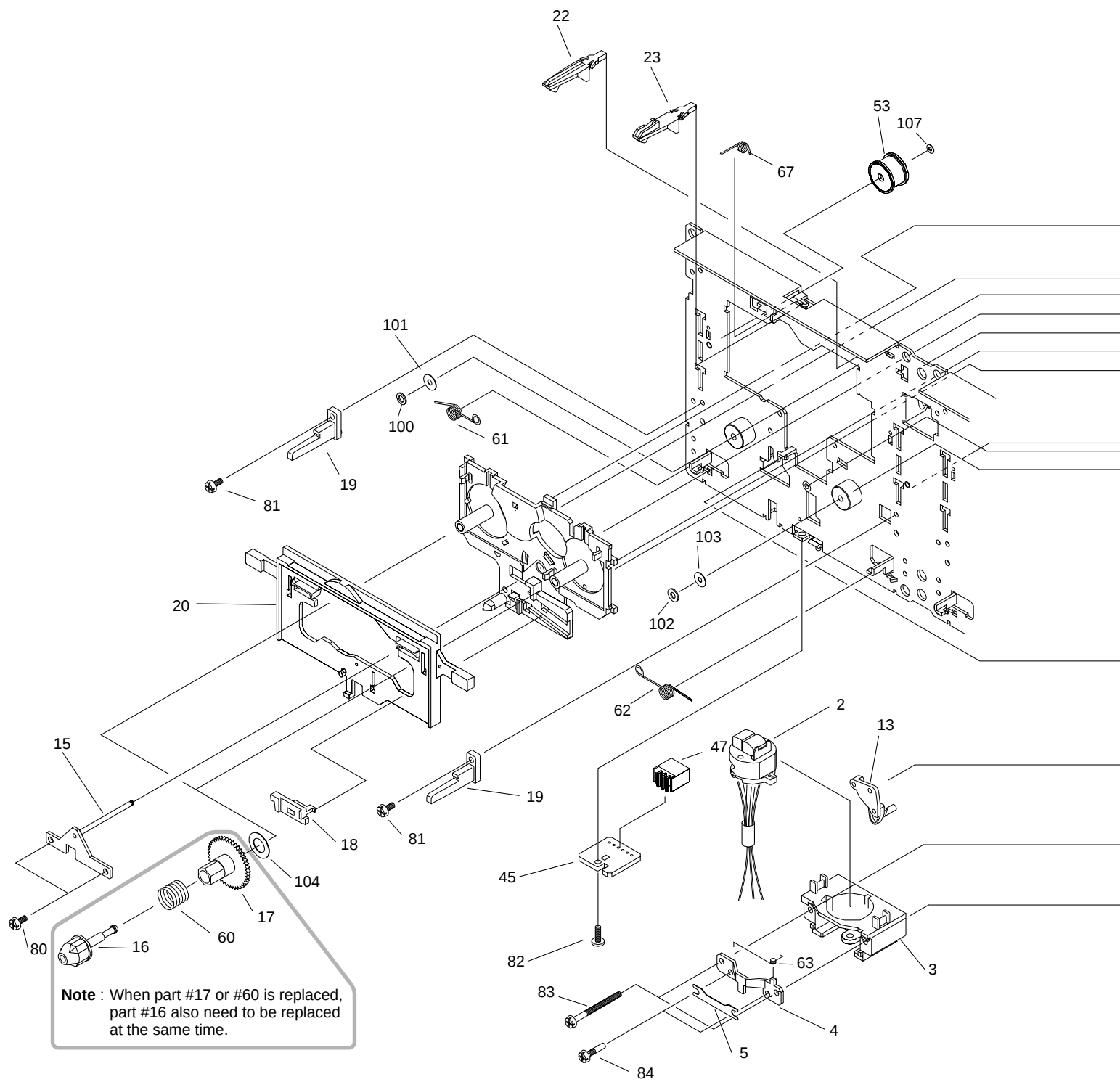
2.5 DECK MECHANISM UNIT

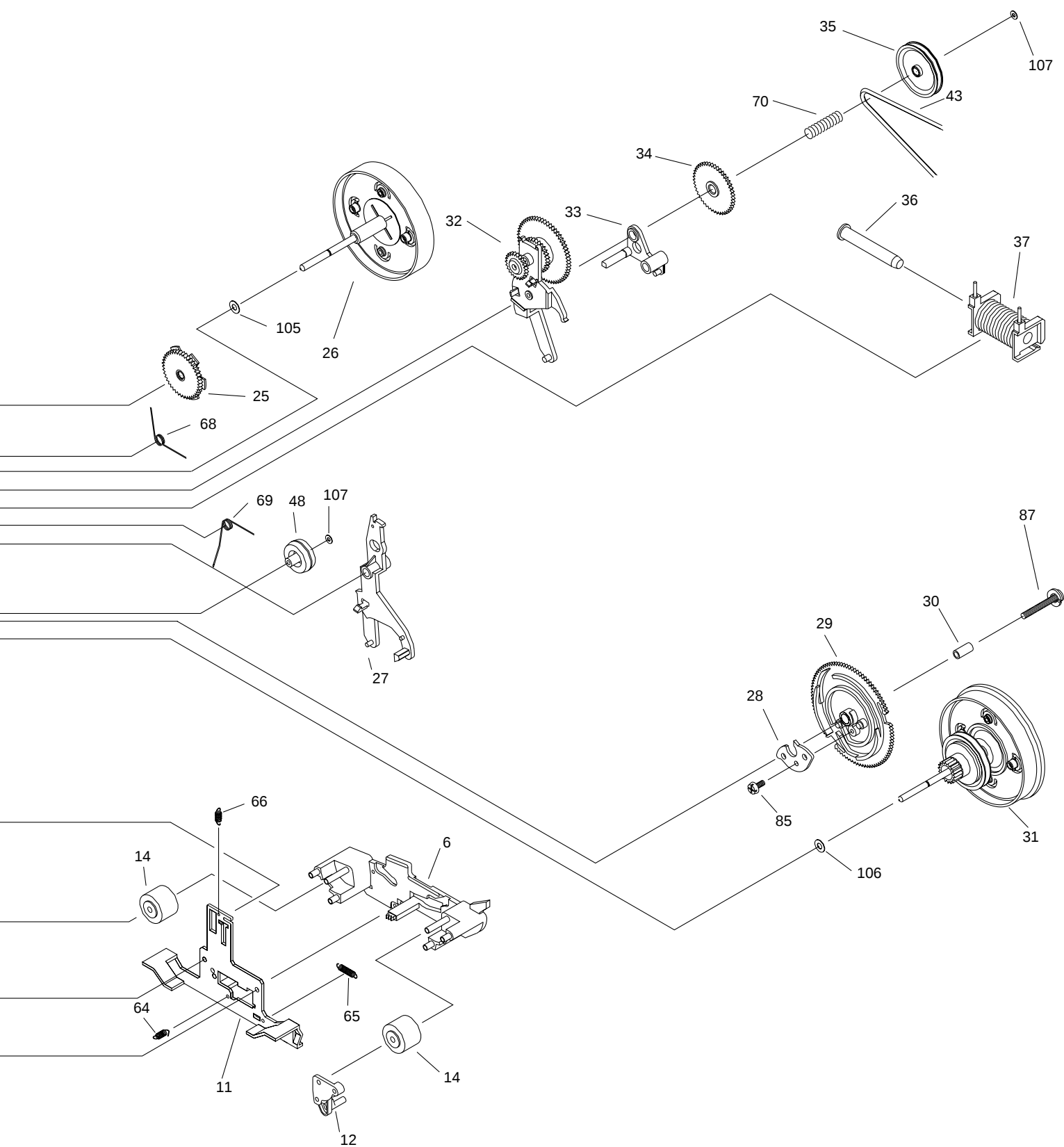
• DECK MECHANISM UNIT (1/2)





• DECK MECHANISM UNIT (2/2)



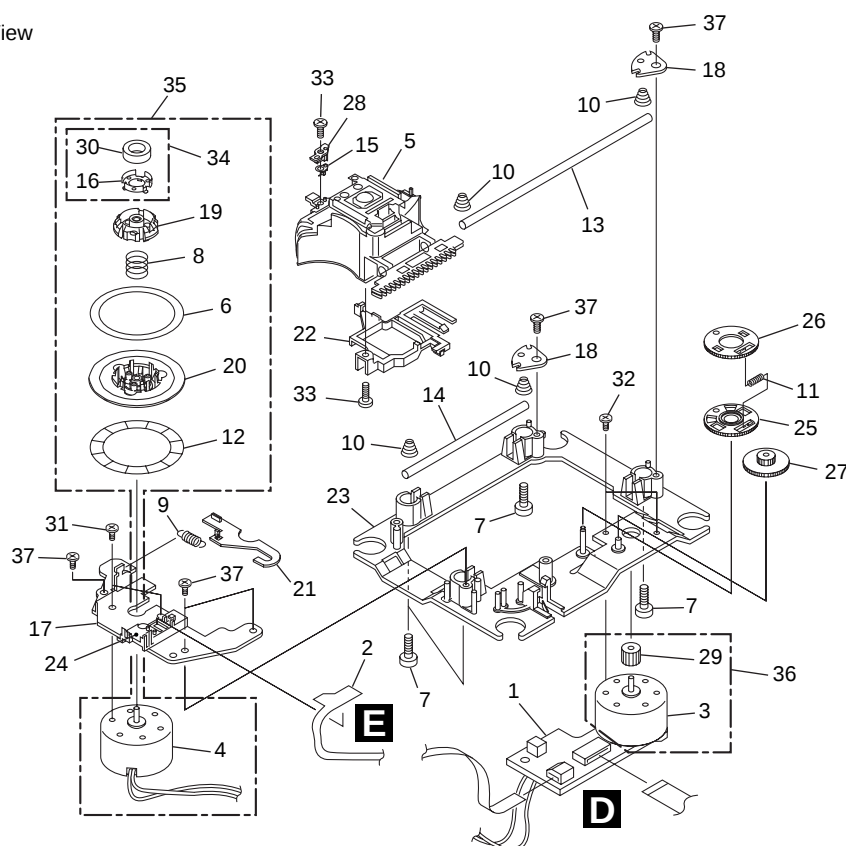


● DECK MECHANISM UNIT PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Ass'y HD Holder	50-093-4373		60	Spring	01-081-4601
	2	Ass'y HD Holder	50-093-4104		61	Spring	01-082-4652
	3	Frame HD	50-219-3024		62	Spring	01-082-4651
	4	Plate AZ	50-119-4046		63	Spring	01-082-4650
	5	Spring AZ	50-160-4108		64	Spring	01-080-4649
	6	Lever HD	50-259-3342		65	Spring	01-080-4607
	11	Chassis HD	50-112-3045		66	Spring	01-080-4635
	12	Cap Pinch R	50-219-4033		67	Spring	01-082-4654
	13	Cap Pinch L	50-219-4034		68	Spring	01-082-4598
	14	Roller Pinch	50-027-41054		69	Spring	01-082-4597
	15	Ass'y Plate D	50-219-4311		70	Spring	01-081-4657
	16	Cap Reel	50-228-4020		80	Screw	GSE10A2003
	17	Gear Reel	50-222-4006		81	Screw	GSE20A2005
	18	Lever ST	50-259-4041		82	Screw	GSE10A2004
	19	Guide C	50-219-4014		83	Screw	GSD10A2018
	20	Lever Brake	50-259-3251		84	Screw	03-300-4056
	22	Arm SW	50-239-4027		85	Screw	GSL10A1704
	23	Arm CS	50-239-4026		86	Screw	GSP10A2603
	25	Ass'y Cover	50-093-4063		87	Screw	GSP11A2012
	26	Ass'y Flywheel LA	50-093-3366		88	Screw	GSE20A2004
	27	Arm Trigger	50-268-3016		100	Washer	GWN21X040040
	28	Arm Cam	50-139-4292		101	Washer	GWM19X055035S
	29	Gear Cam	50-221-3009		102	Washer	GWM19S035035
	30	Collar	03-300-4455		103	Washer	GWM17S050035S
	31	Ass'y Flywheel RA	50-093-3360		104	Washer	GWM48X075010
	32	Ass'y Clutch	50-093-4069		105	Washer	GWP23X040020
	33	Arm UD A	50-239-4017		106	Washer	GWP21X045020
	34	Gear UD	50-222-4007		107	Washer	GWP12X030040S
	35	Pulley D	50-223-4254				
	36	Plunger	03-300-4442				
	37	Ass'y Bobbin	50-093-4125				
	39	Ass'y Motor	50-093-4316				
	41	Belt BR	02-084-4205				
	42	Belt AR	02-084-4203				
	43	Belt FR	02-083-4188				
	45	PCB HD	50-070-4057				
	46	Housing	S5BPHKS				
	47	Housing	S3BPHKS				
	48	Pulley IDL	50-223-4023				
	50	Ass'y PCB	50-093-4363				
	51	Ass'y Flywheel L	50-093-3367				
	52	Ass'y Flywheel RB	50-093-3361				
	53	Pulley	33-229-4264				

2.6 TRAVERSE MECHANISM ASSY-S

● Top View

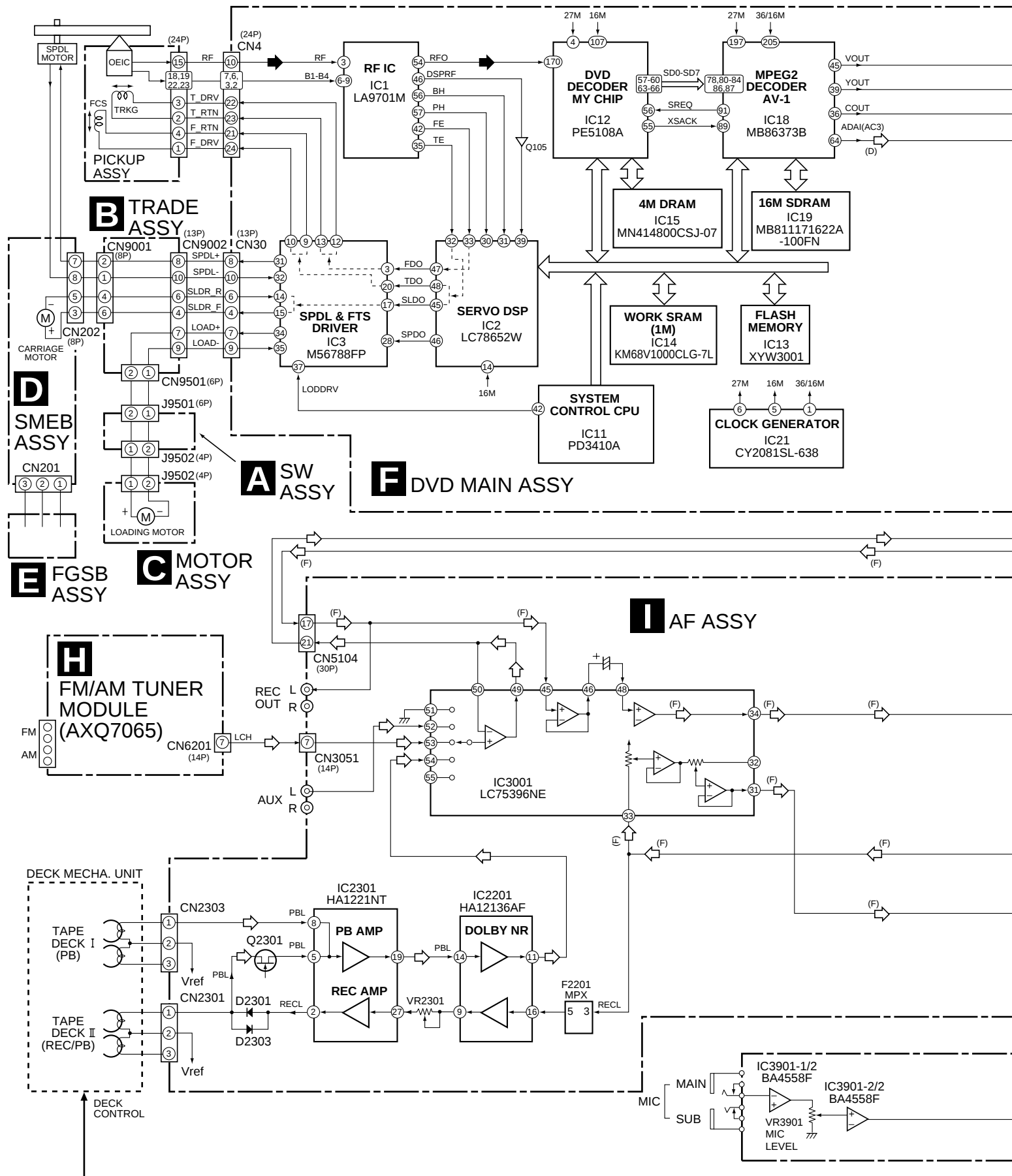


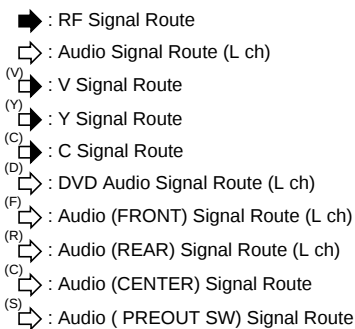
● TRAVERSE MECHANISM ASSY-S PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
NSP	1	SMEB Assy	VWG2048		21	Hook	VNL1770
NSP	2	FGSB Assy	VWG2009		22	FFC Holder	VNL1802
NSP	3	Motor	VXM1079		23	Mechanism Base	VNL1806
NSP	4	Motor	VXM1078		24	FG Holder	VNL1807
NSP Δ	5	Pickup Assy	VWY1055		25	Gear A	VNL1808
	6	Table Sheet	DEC2040		26	Gear B	VNL1809
	7	Screw	VBA1058		27	Gear C	VNL1810
	8	Centering Spring	VBH1278		28	Slider	VNL1811
	9	Hook Spring	VBH1317		29	Gear D	VNL1814
	10	Skew Spring	VBH1303	NSP	30	Magnet	VYM1024
	11	Gear Spring	VBH1308		31	Screw	JFZ17P025FZK
NSP	12	Reflected Sheet	VEC1959		32	Screw	JGZ17P028FMC
	13	Guide Bar	VLL1504		33	Screw	VBA1051
	14	Sub-guide Bar	VLL1505		34	Magnet Holder Assy	VXX2507
	15	Hold Spring	VNC1017		35	Spindle Motor Assy	VXX2649
NSP	16	Magnet Holder	VNE2070		36	Carriage Motor Assy	VXX2650
NSP	17	Motor Base	VNE2154	NSP	37	Screw	PBA1069
NSP	18	Cover	VNE2155				
NSP	19	Centering Ring	VNL1746				
NSP	20	Disc Table	VNL1747				

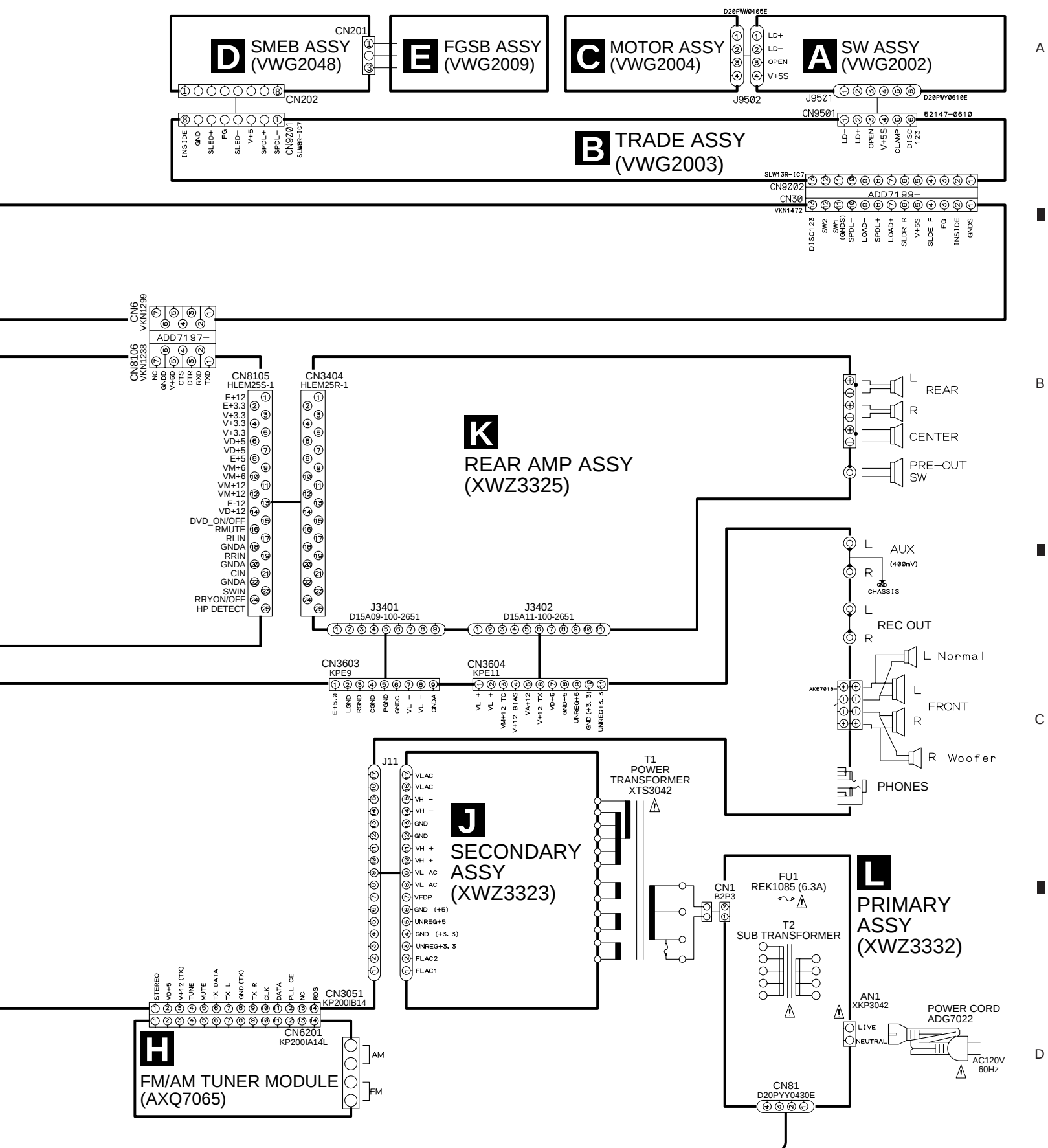
3. BLOCKDIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM





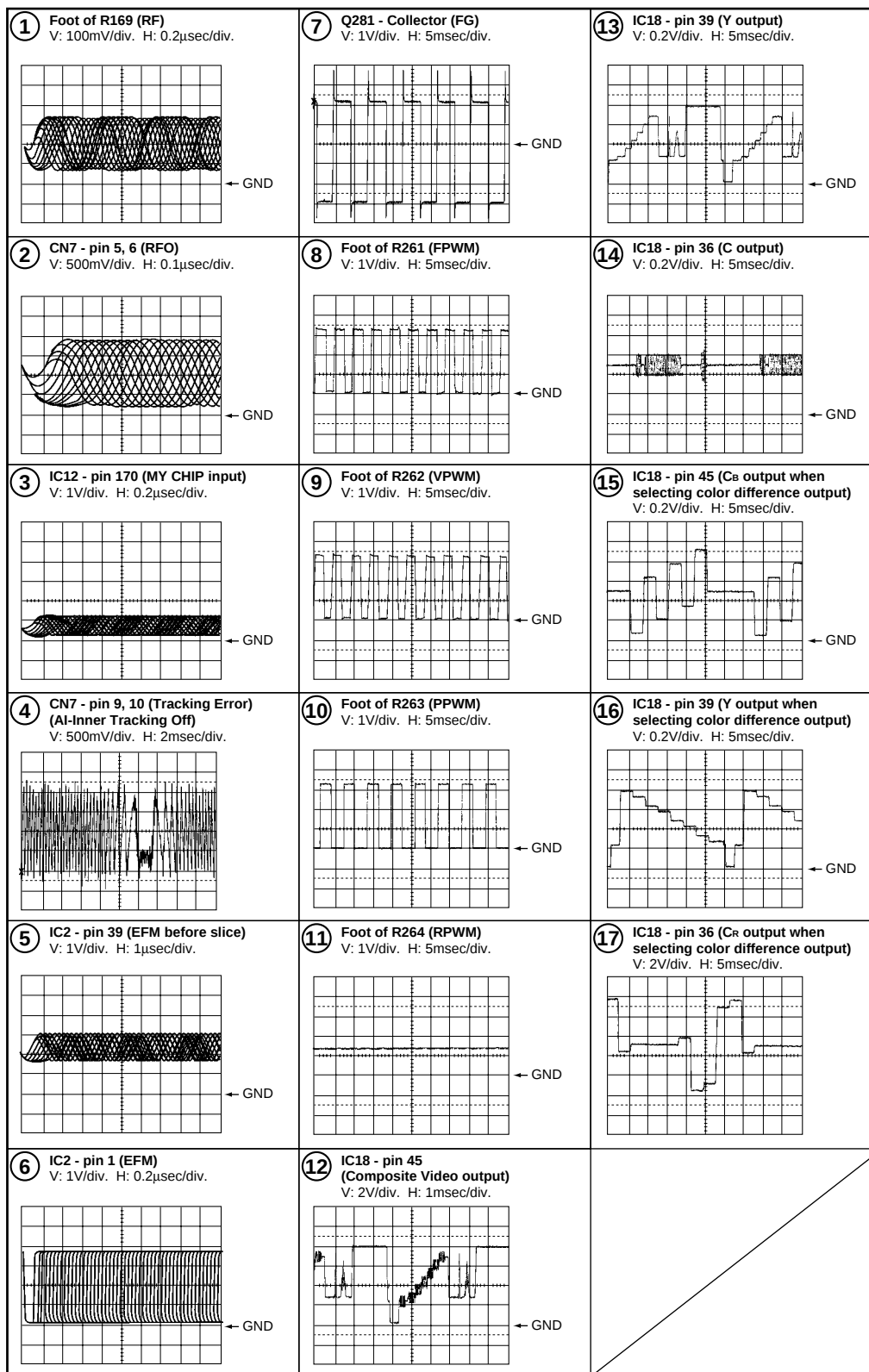
Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



WAVEFORMS for DVD MAIN ASSY

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

Measurement condition : No. 1 to 4 and 6 to 11 : Disc MA1, 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



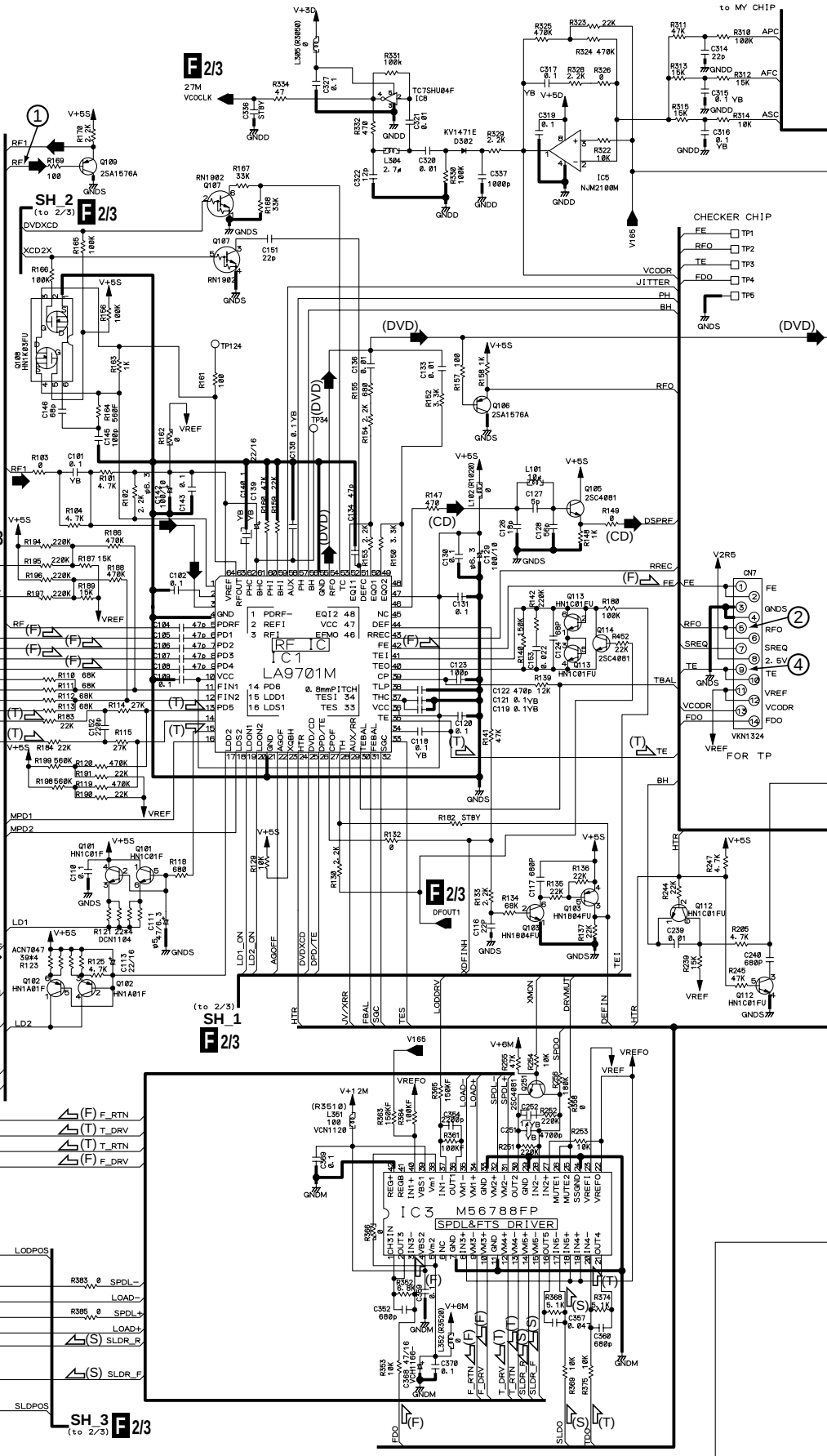
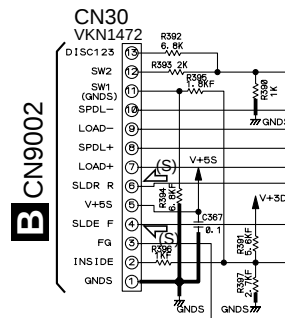
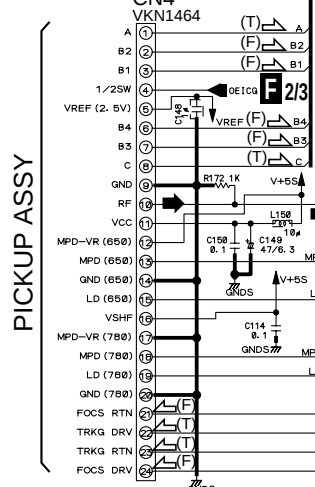
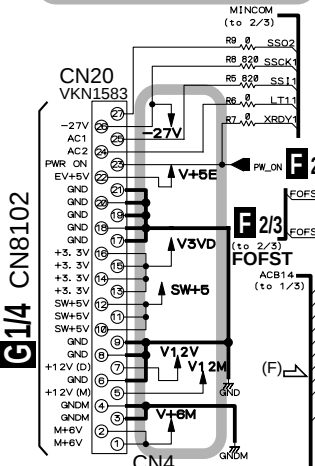
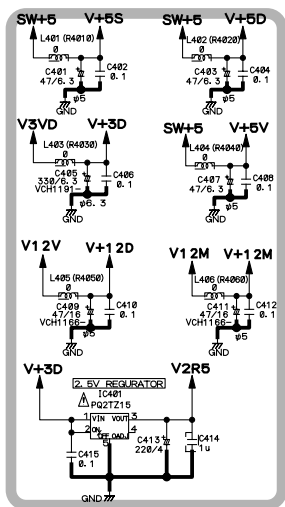
A

B

C

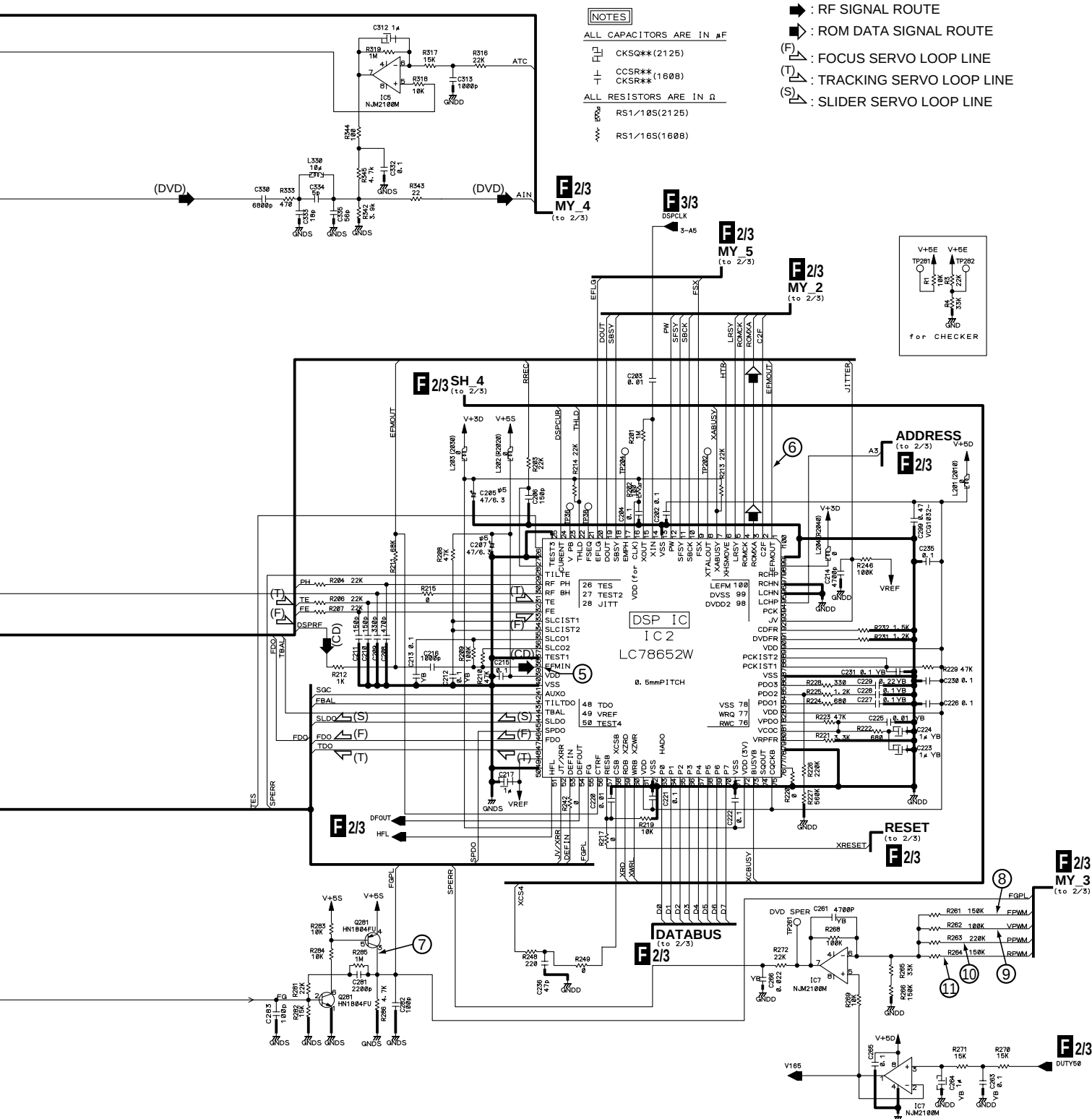
D

3.4 DVD MAIN ASSY (1/3)



F1/3 DVD MAIN ASSY (XWX3014)

: The power supply is shown with the marked box.

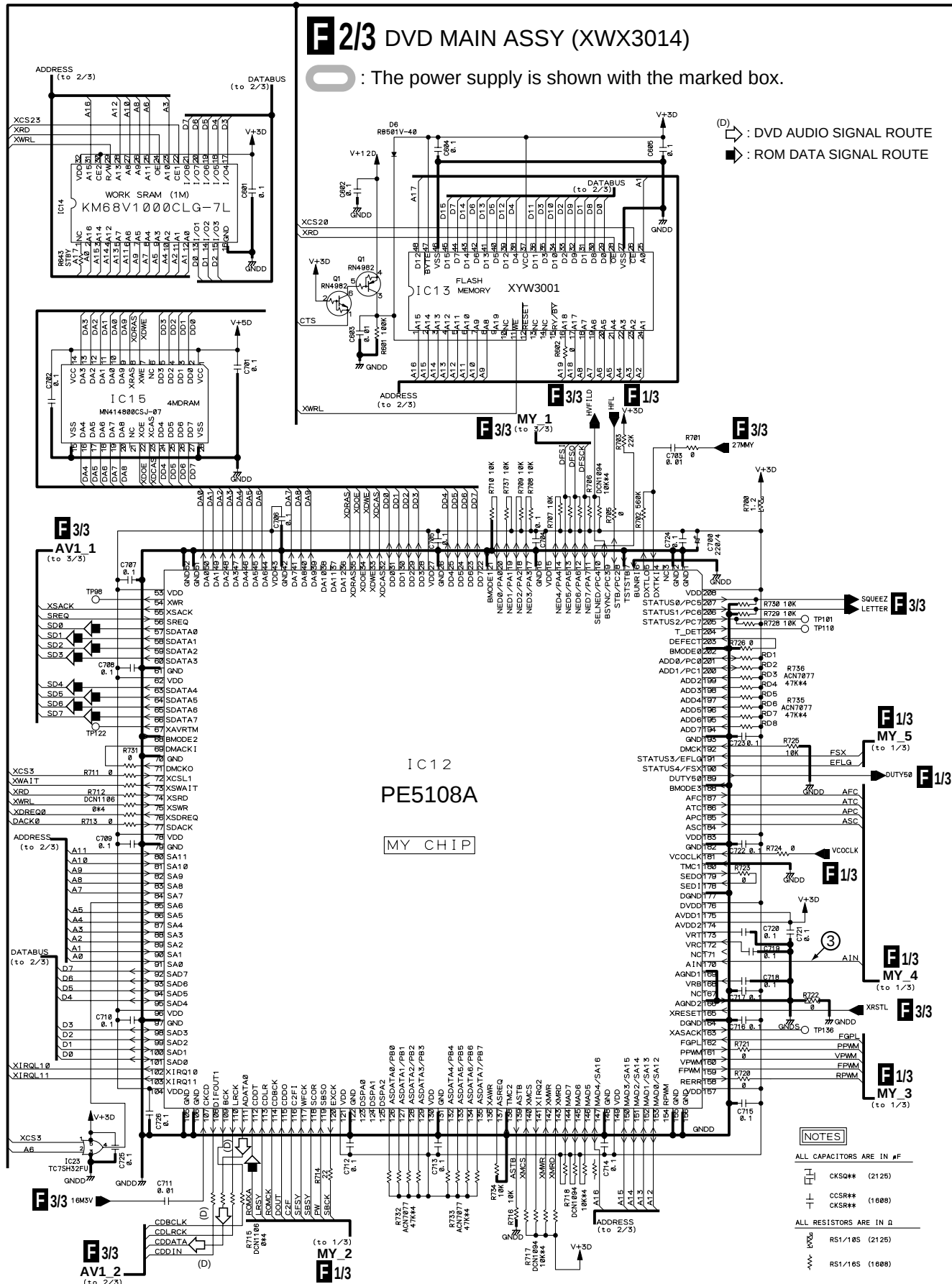


3.5 DVD MAIN ASSY (2/3)

2/3 DVD MAIN ASSY (XWX3014)

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

◇ : DVD AUDIO SIGNAL ROUTE
 ■ : ROM DATA SIGNAL ROUTE



NOTES

ALL CAPACITORS ARE IN #F

CKSQ** (2125)
 CCSR** (1608)
 CKSR** (1608)

ALL RESISTORS ARE IN #

RS1/105 (2125)
 RS1/105 (1608)



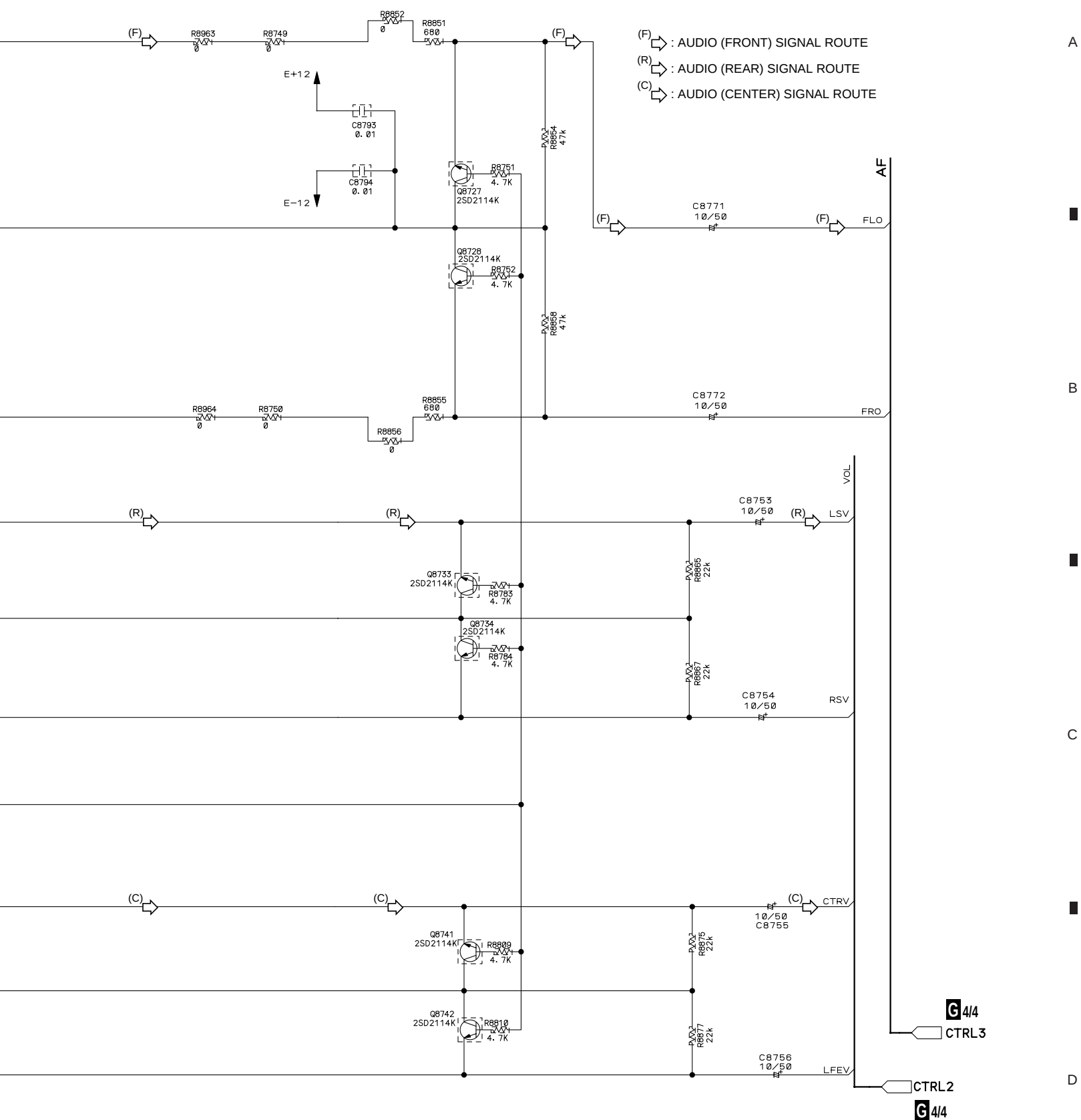


B



D

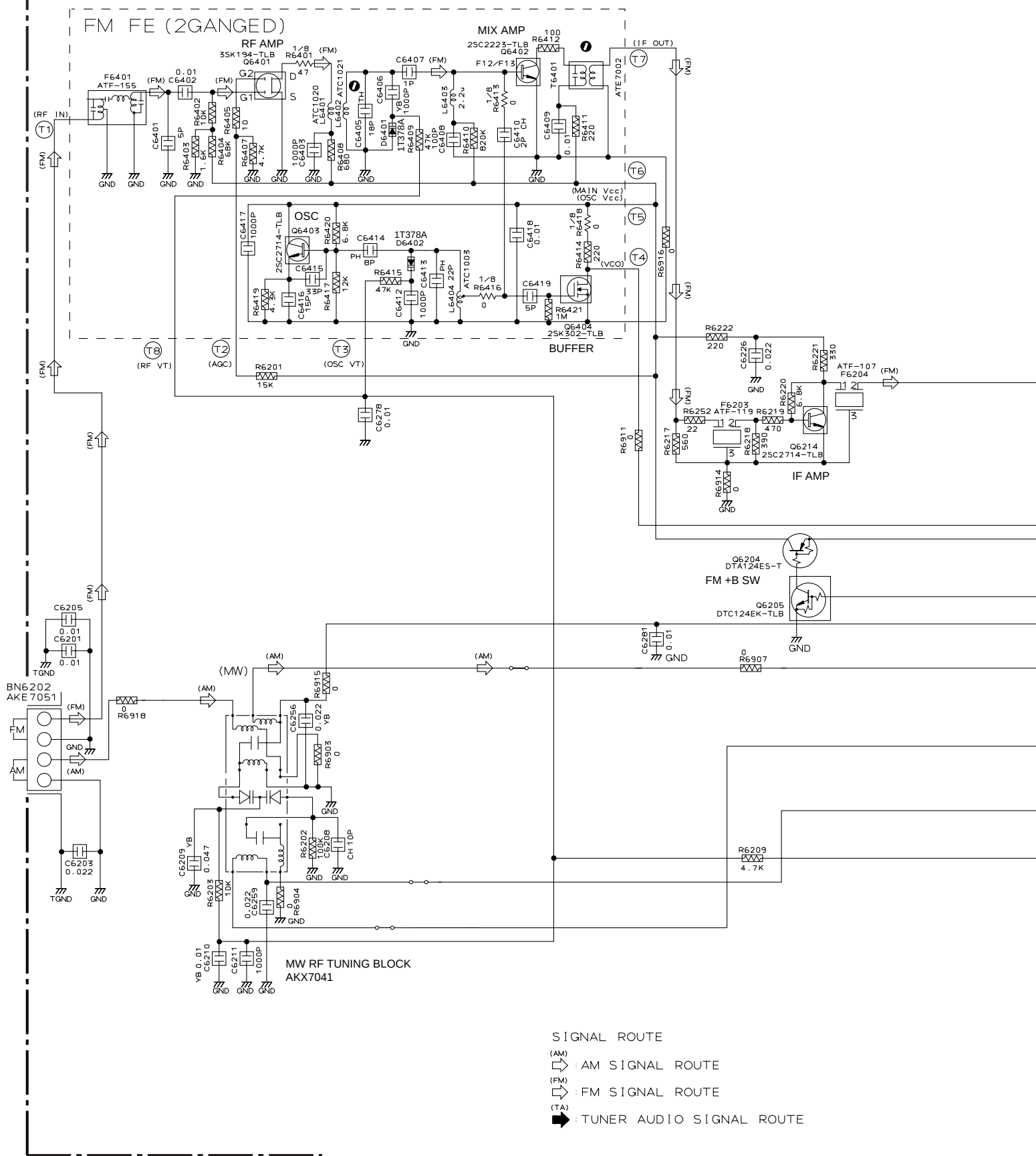




 : AUDIO SIGNAL ROUTE
 (D)  : DVD AUDIO SIGNAL ROUTE
 (F)  : AUDIO (FRONT) SIGNAL ROUTE
 (R)  : AUDIO (REAR) SIGNAL ROUTE
 (C)  : AUDIO (CENTER) SIGNAL ROUTE



3.11 FM/AM TUNER MODULE



FM/AM TUNER MODULE (AXQ7065)

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

Notes

1. RESISTORS

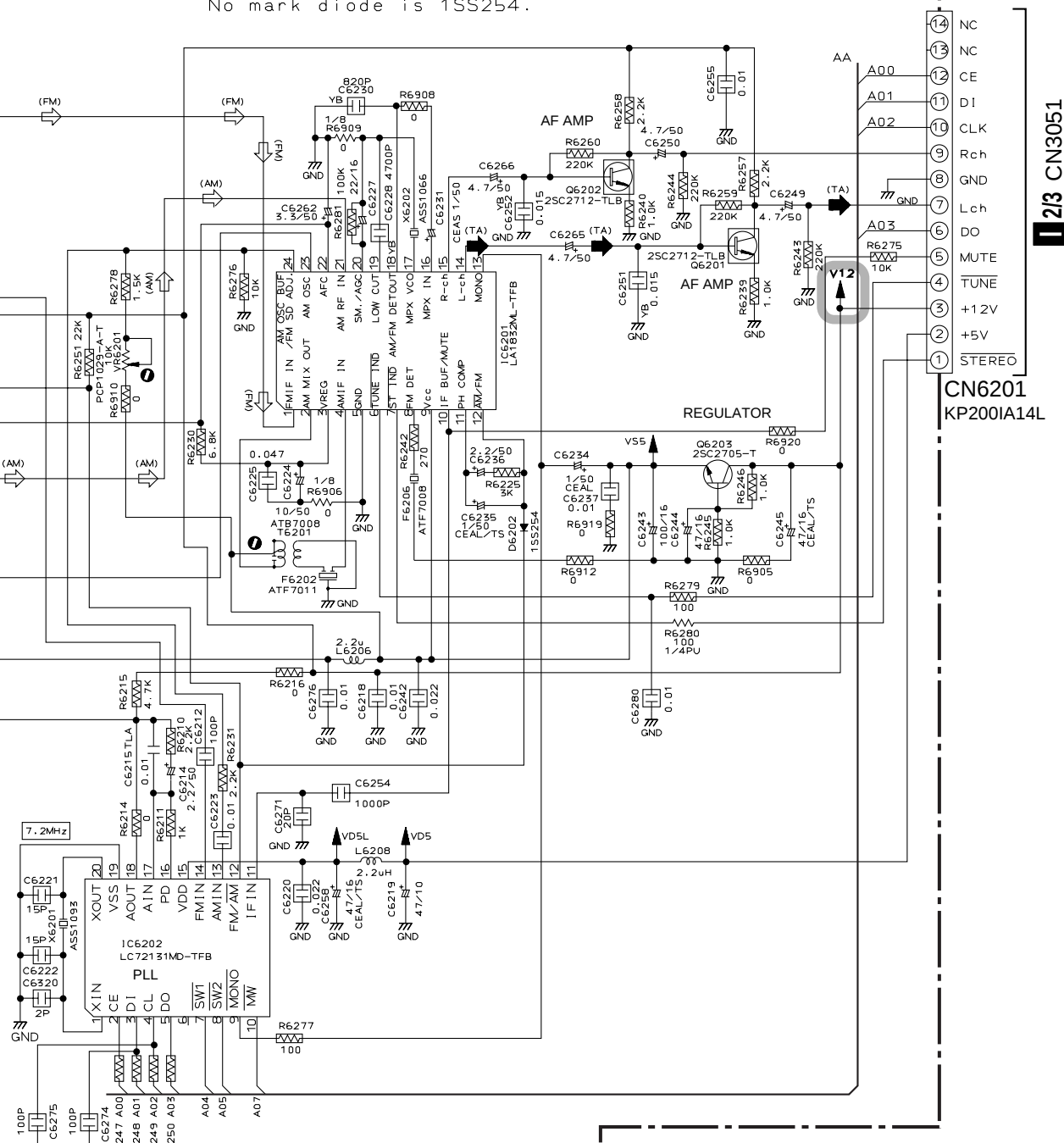
Indicated in Ω , $1/10W \pm 5\%$ Tolerance unless otherwise noted K:K Ω , M:M Ω .

2. CAPACITORS

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

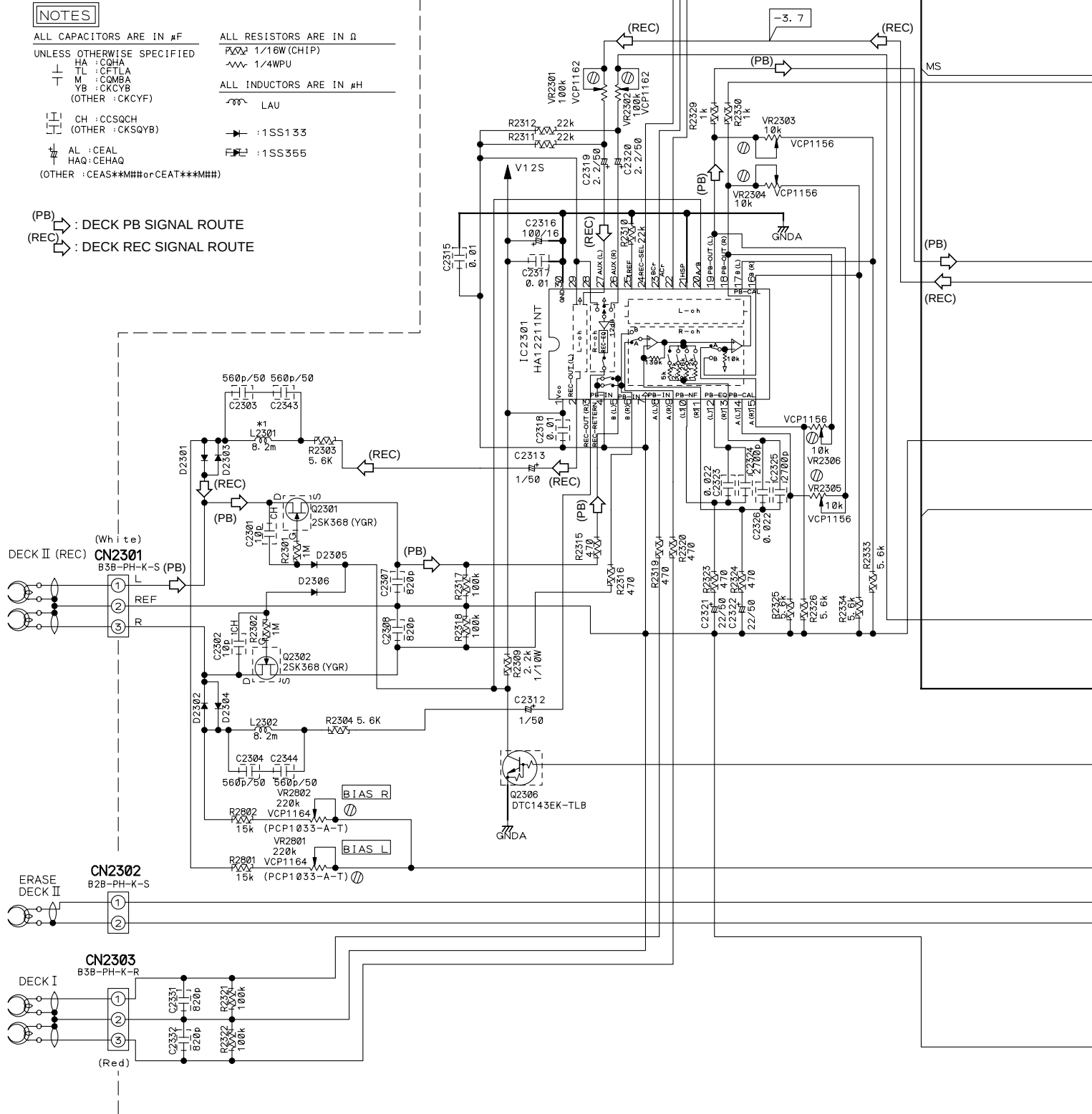
3. DIODES

No mark diode is 1SS254.

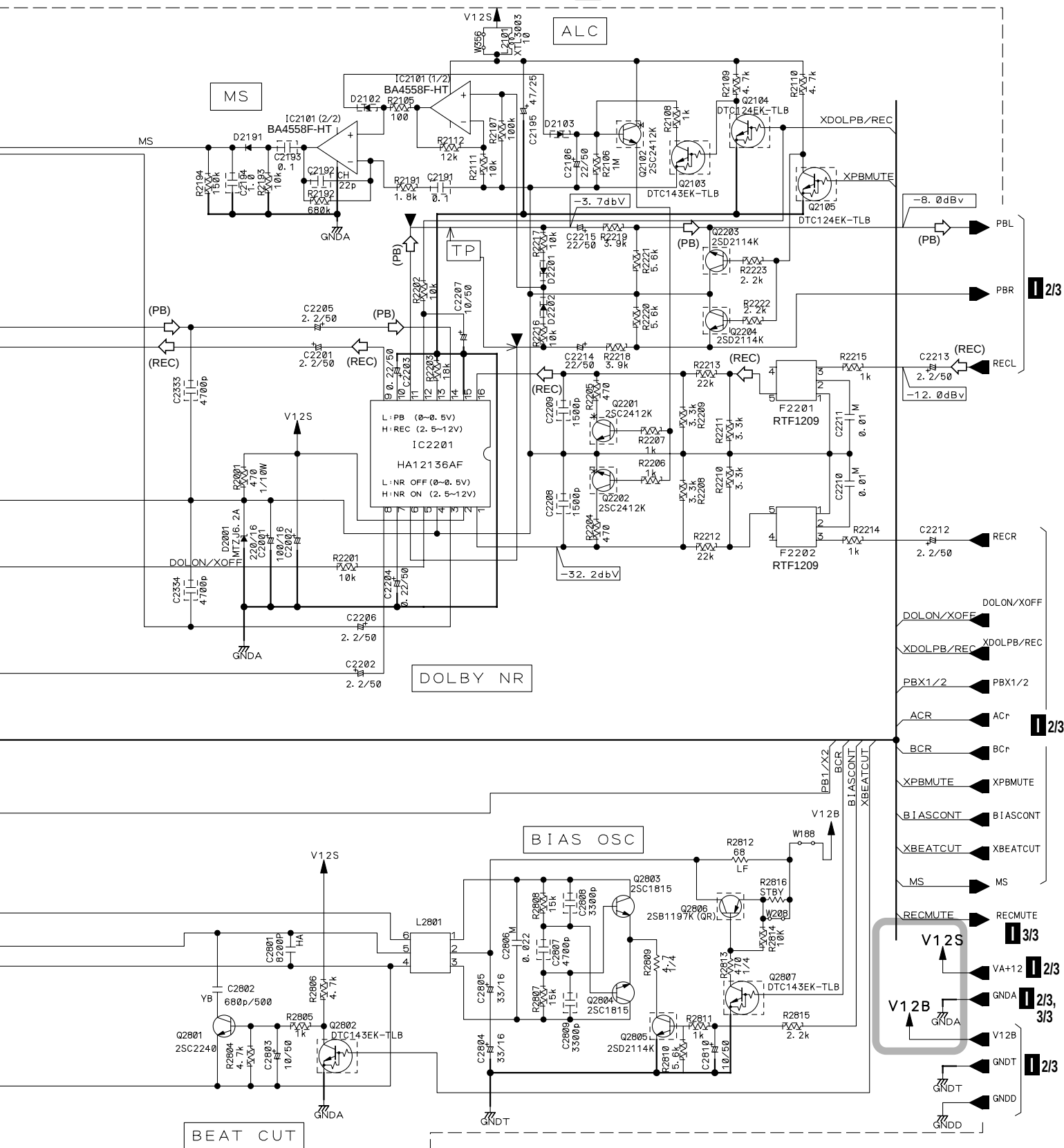


3.12 AF ASSY (1/3)

1/3 AF ASSY (XWZ3330)



 : The power supply is shown with the marked box.

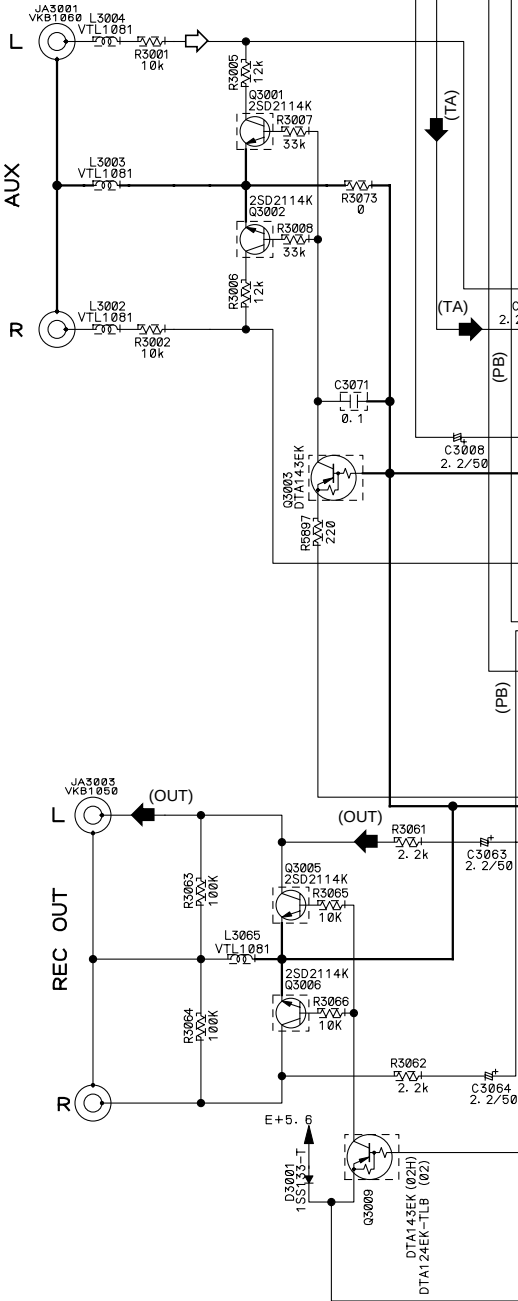


3.13 AF ASSY (2/3)

NOTES

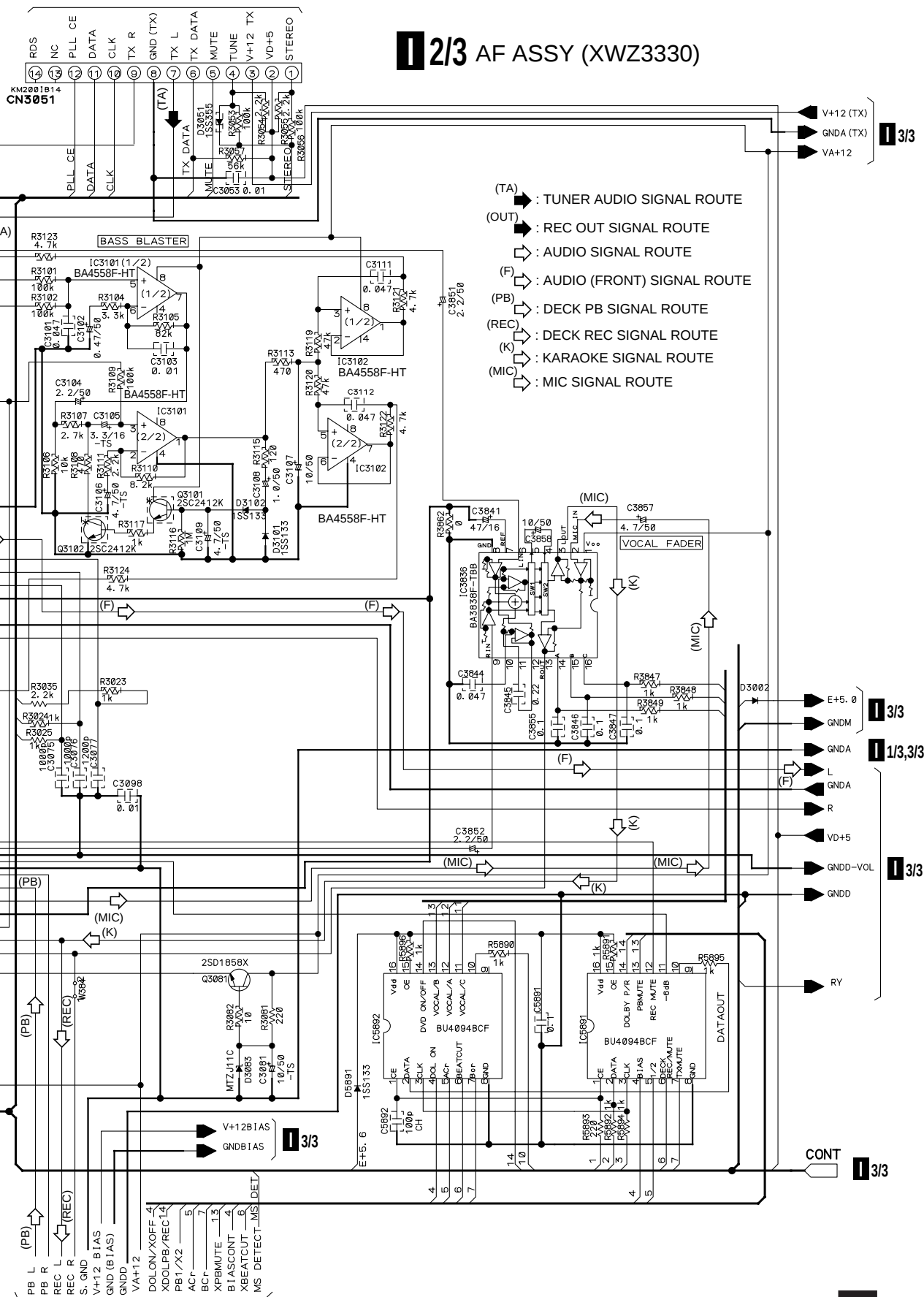
ALL CAPACITORS ARE IN μ F
UNLESS OTHERWISE SPECIFIED

LA : CFTLA
M : COMBA
(OTHER : CKCYF)
CH : CCSQCH
SL : CCSQSL
YF : CKSQYF
(OTHER : CKSQYB)
AL : CEAL
HAQ : CEHAQ
(OTHER : CEAS**MM# or CEAT***MM#)
ALL RESISTORS ARE IN Ω
1/4W (CHIP)
1/4WPU
ALL INDUCTORS ARE IN μ H
LAU
LCTB



H CN6201

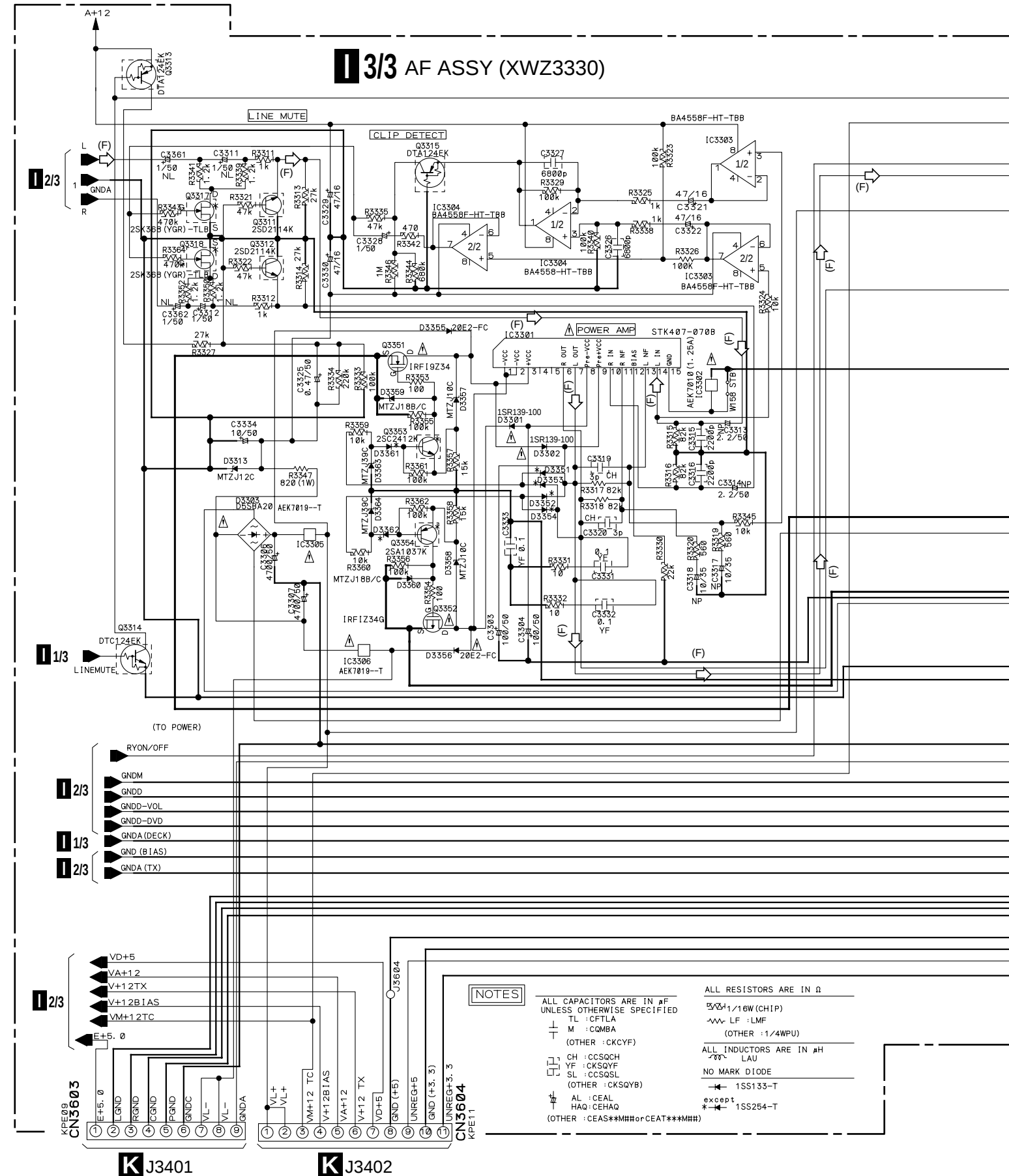
2/3 AF ASSY (XWZ3330)

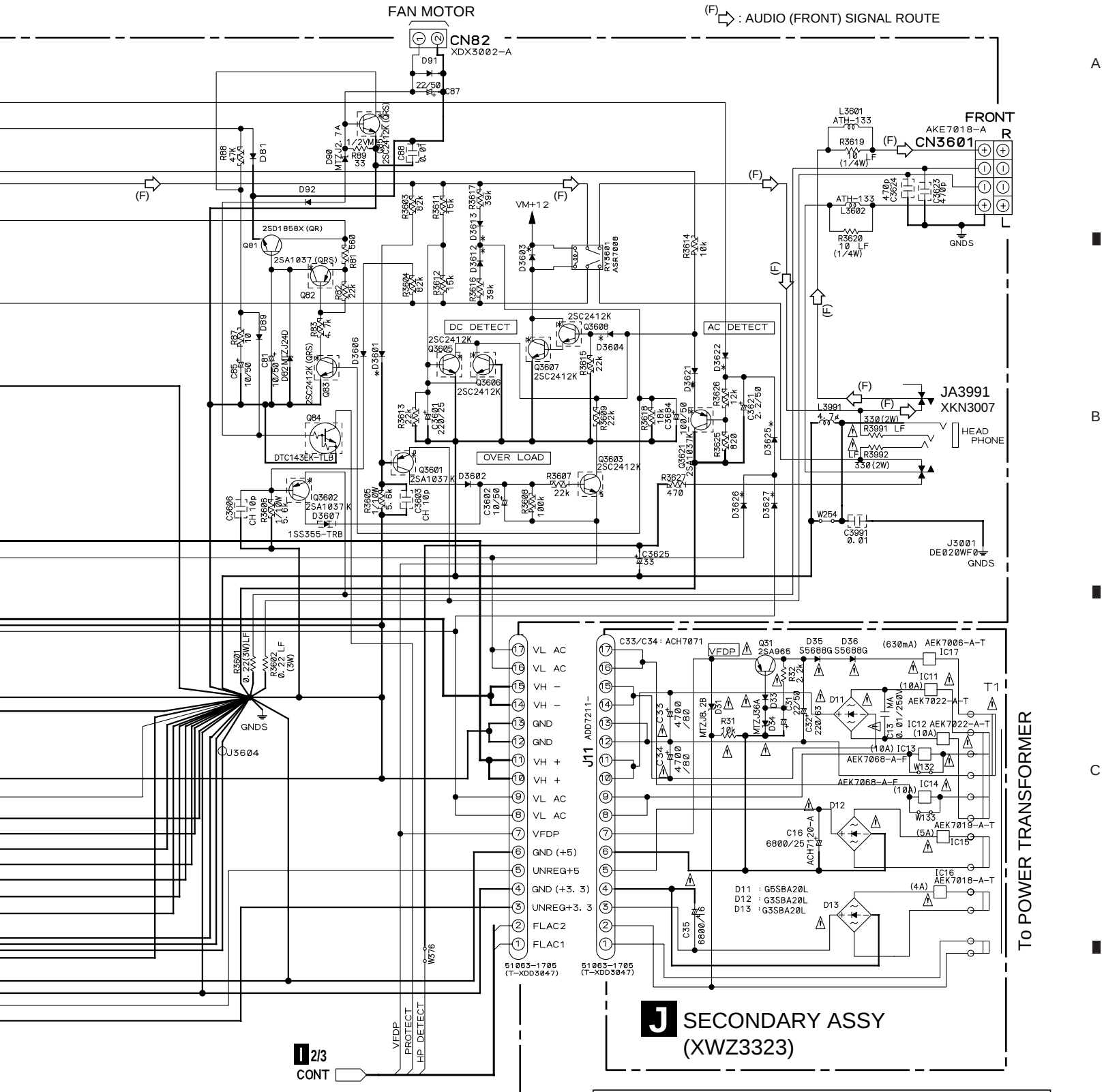


1/3

2/3

3.14 AF ASSY (3/3) and SECONDARY ASSY





CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 4911.25 MFD, BY LITTELFUSE INC. FOR IC3302 (AEK7010).

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491005 MFD, BY LITTELFUSE INC. FOR IC15, IC3305 AND IC3306 (AEK7019).

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491.630 MFD, BY LITTELFUSE INC. FOR IC17 (AEK7006).

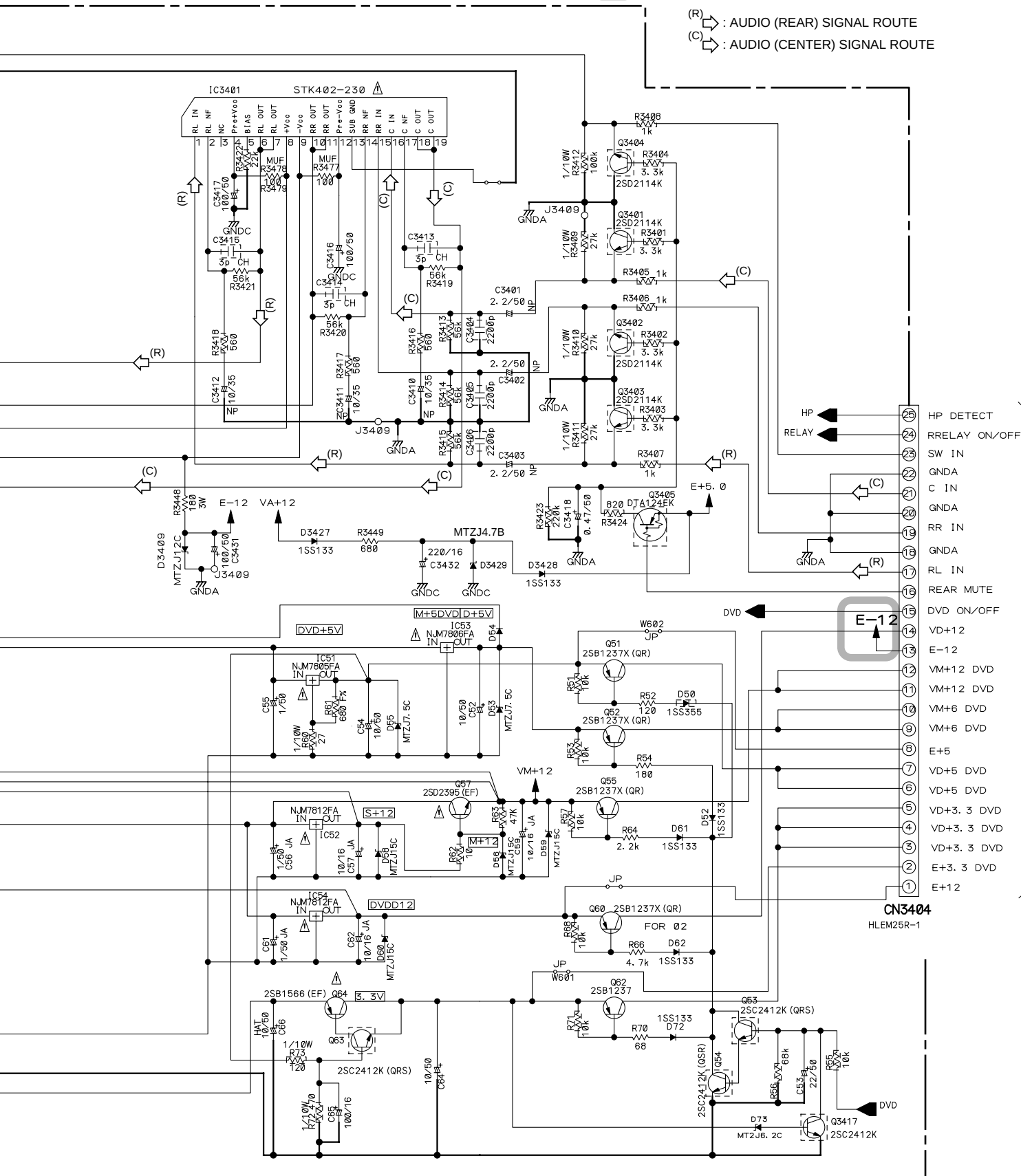
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491004 MFD, BY LITTELFUSE INC. FOR IC16 (AEK7018).

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491010 MFD, BY LITTELFUSE INC. FOR IC11 AND IC12 (AEK7022).

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491010F MFD, BY LITTELFUSE INC. FOR IC13 AND IC14 (AEK7068).

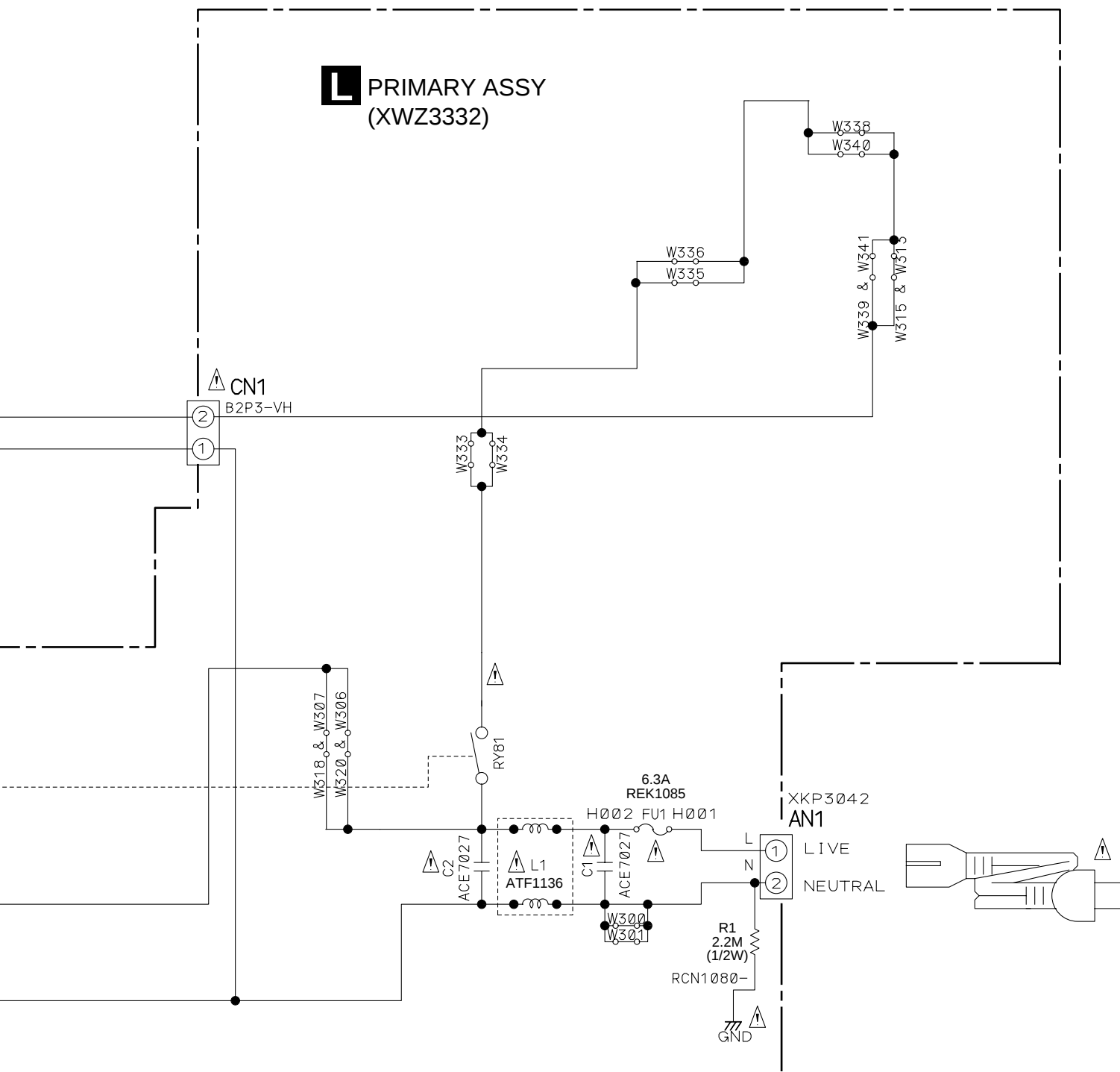
• The power supply is shown with the marked box.

(R) ➡ : AUDIO (REAR) SIGNAL ROUTE
(C) ➡ : AUDIO (CENTER) SIGNAL ROUTE



G4/4 CN8105

CN3404
HLEM25R-1



• NOTE FOR FUSE REPLACEMENT

CAUTION -FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE AND RATINGS ONLY.

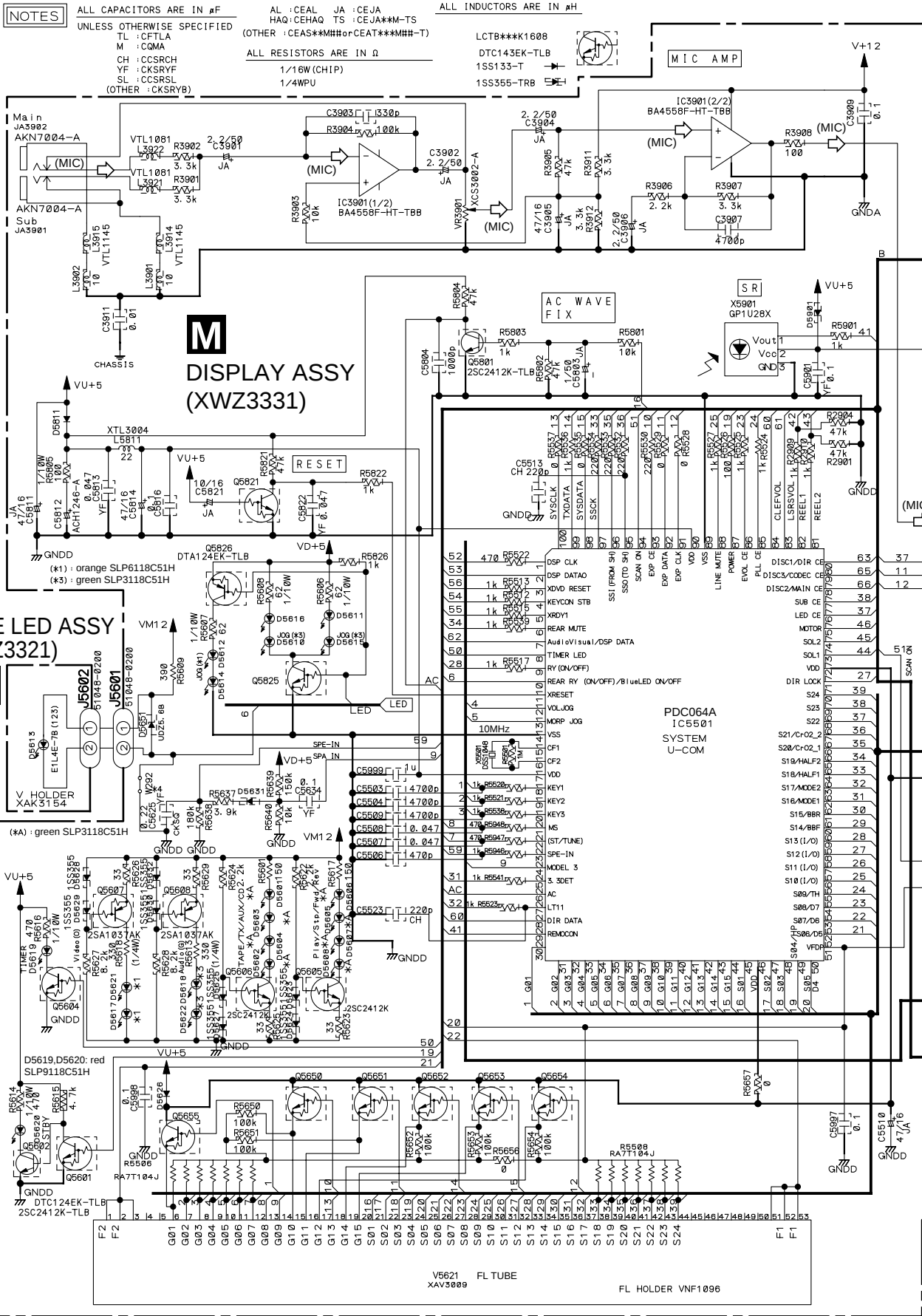
3.17 DISPLAY and BLUE LED ASSYS

A

B

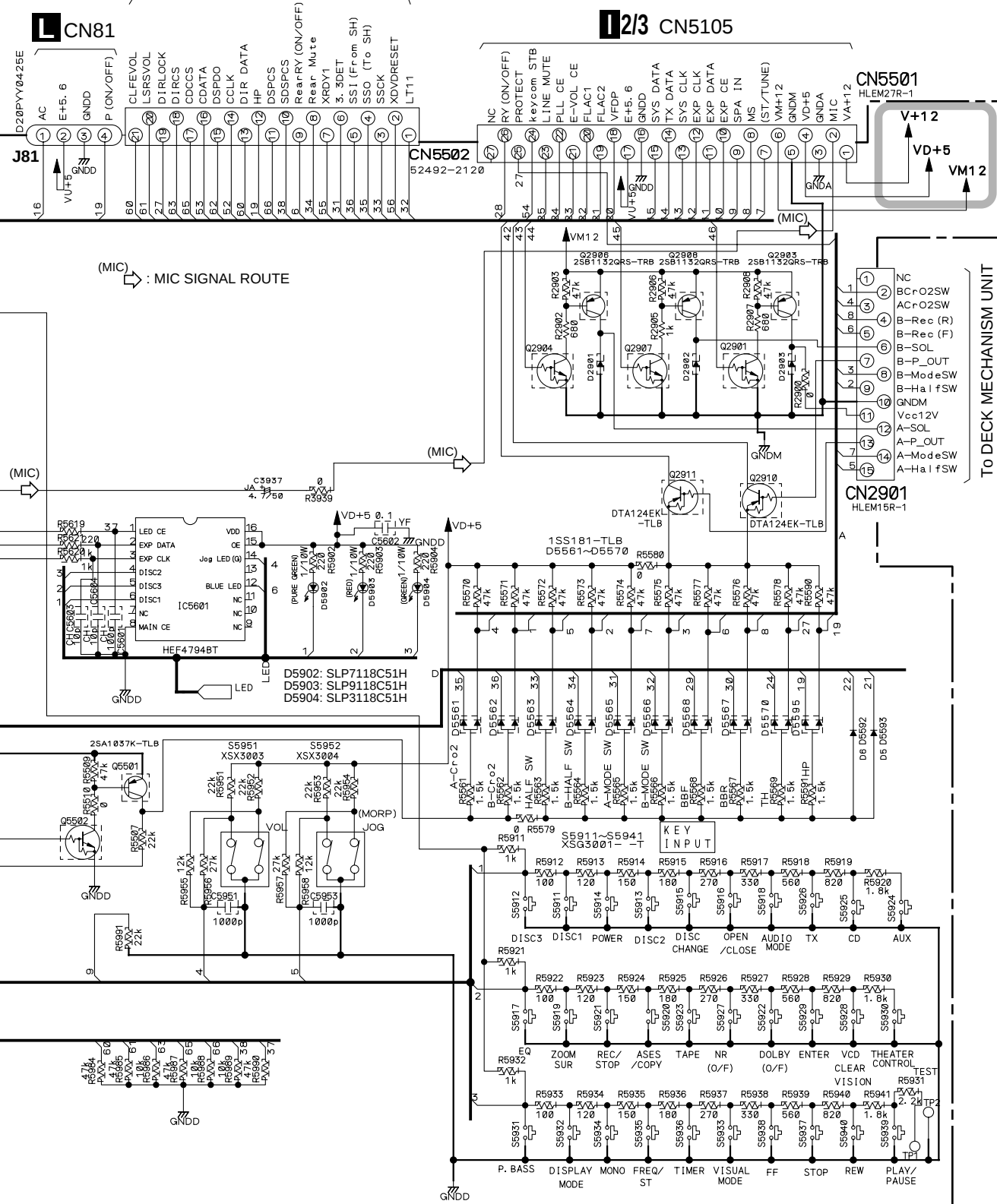
C

D



G4/4 CN8104

: The power supply is shown with the marked box.



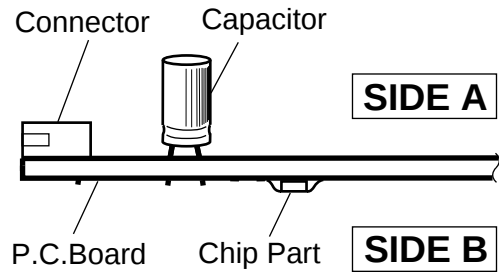
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

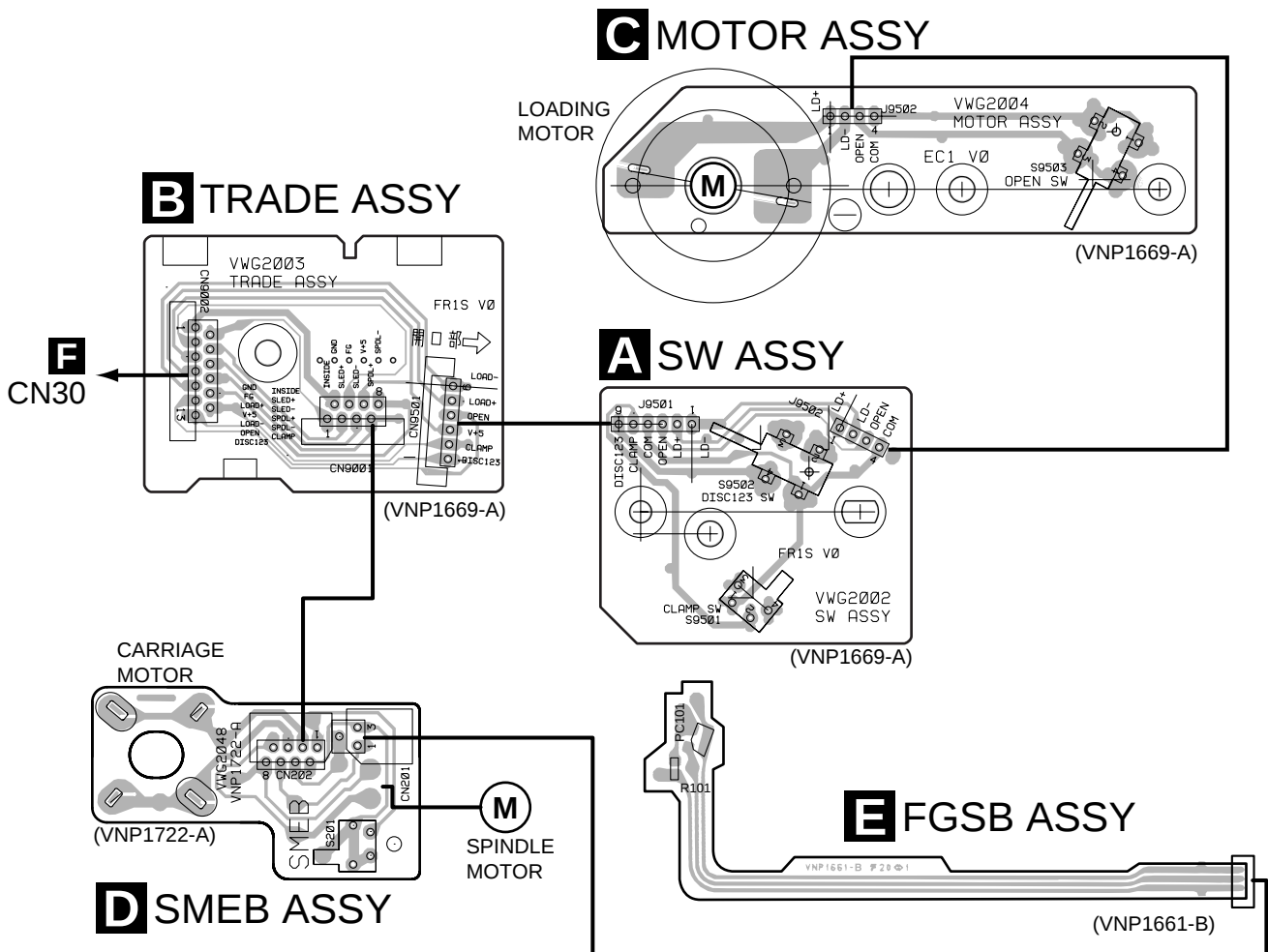
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

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 SW, TRADE, MOTOR, SMEB and FGSB ASSYS



A

B



D

53

4.4 CONNECT ASSY (6CH)

G CONNECT ASSY (6 CH)

F CN80

F CN20

I CN5104

F CN20

C

K CN3404

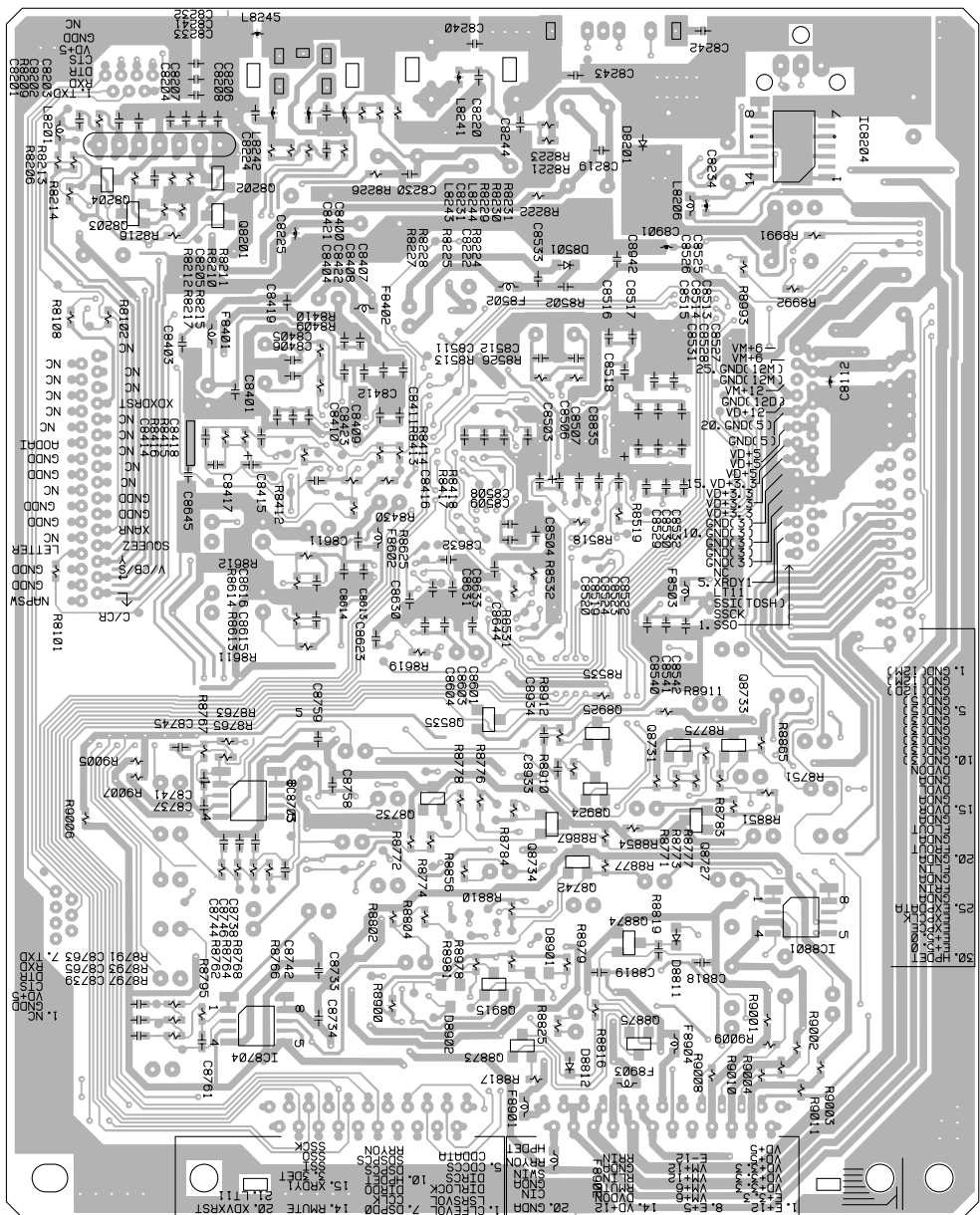
M CN5502

F CN6

SIDE A

- Q8205 IC8201
- IC8203 IC8202
- IC8901
- IC8401
- IC8501
- IC8502 IC8601
- Q8725 Q8721
- IC8706 Q8728 Q8921
- IC8702 IC8701
- Q8741
- Q8726 Q8722
- Q8872 Q8747
- Q8918 Q8917 Q8916

G CONNECT ASSY (6 CH)



(XNP3031-B)

IC8204
Q8201-Q8204

Q8535
Q8925
Q8731
Q8733
Q8924
IC8703
Q8732
Q8734
Q8727
Q8742
IC8801
Q8874
Q8915
IC8704
Q8873
Q8875

SIDE B

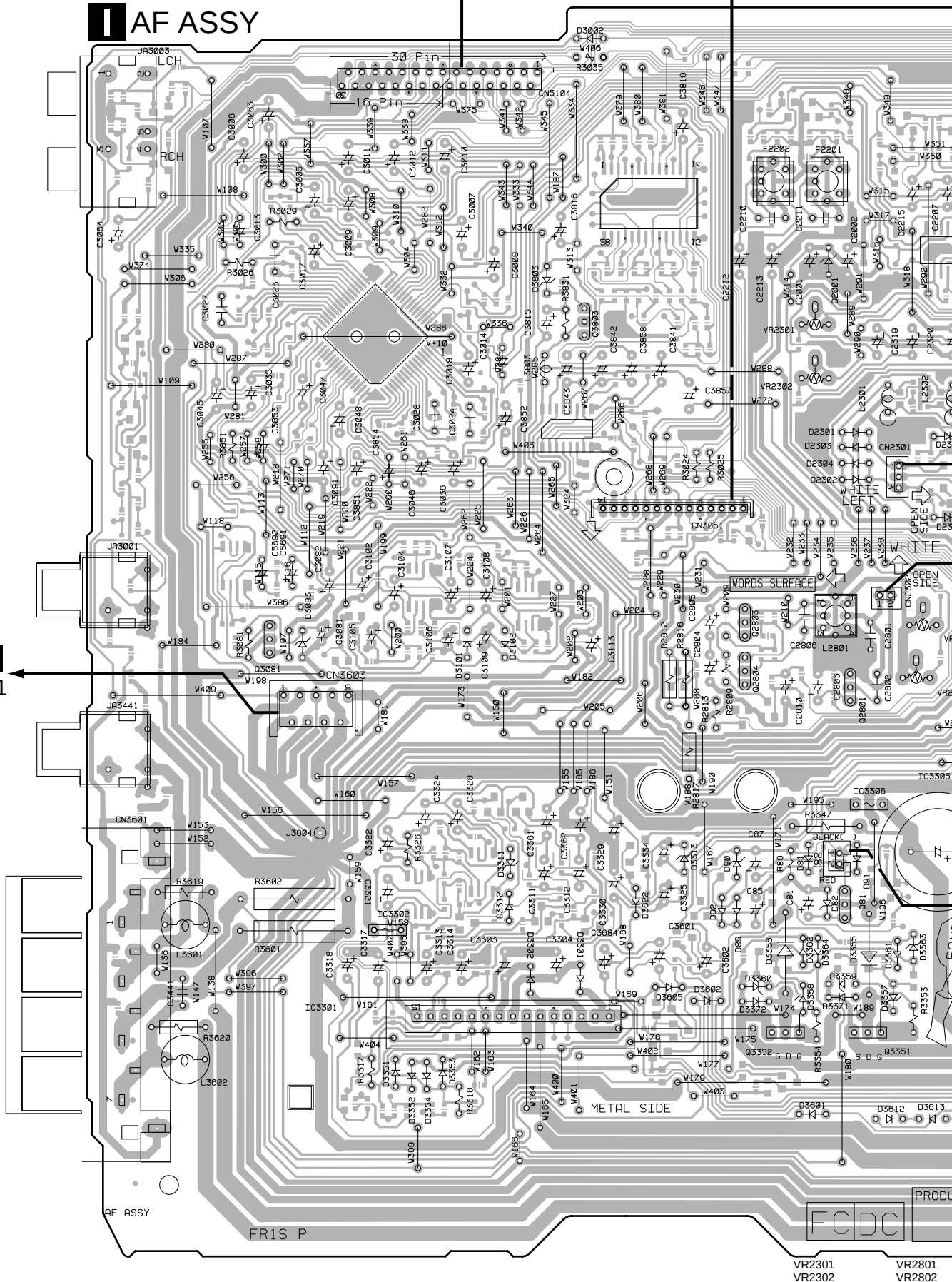
4.5 AF ASSY

G CN8103

H CN6201

I AF ASSY

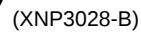
K J3401





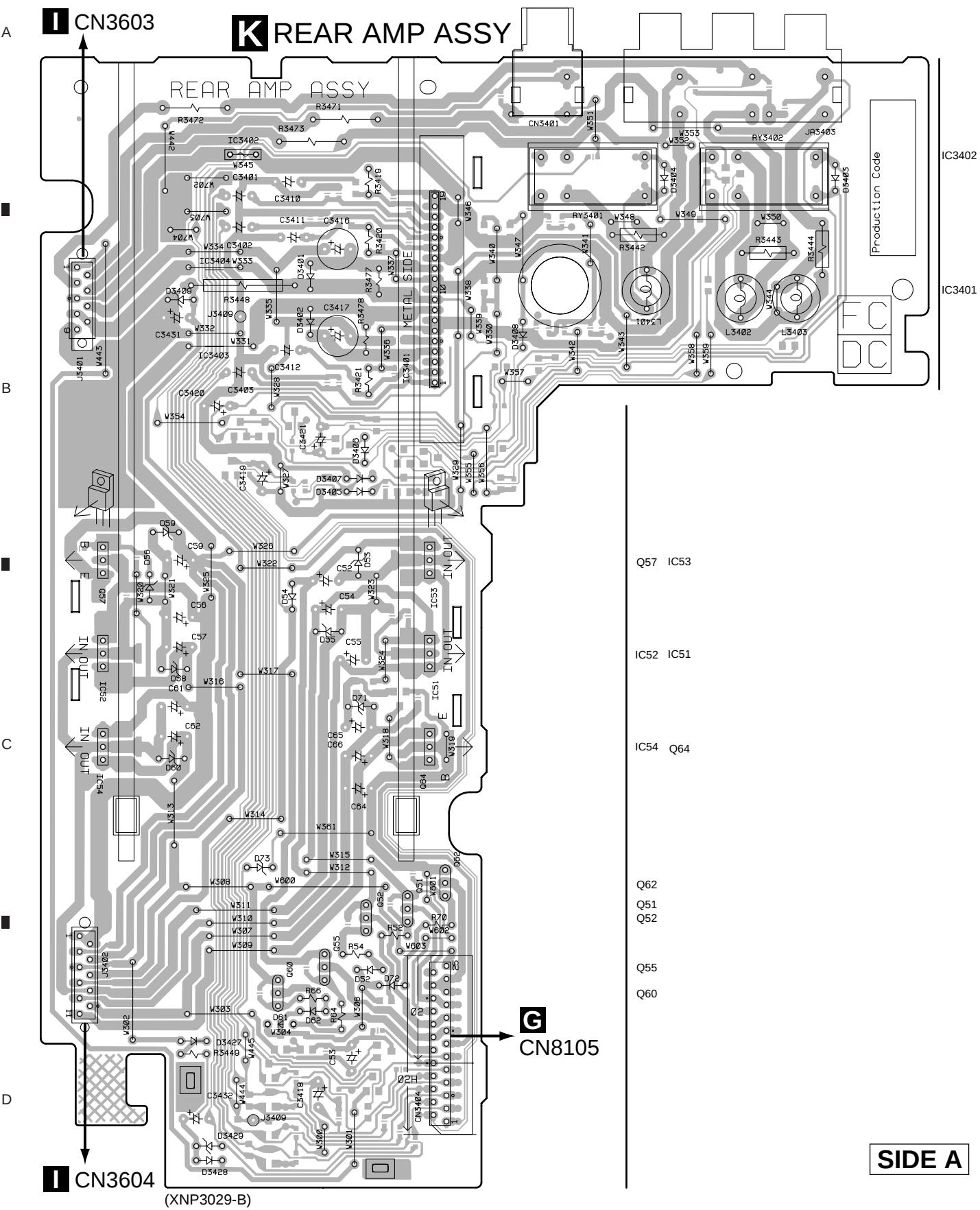
57

(XNP3028-B)



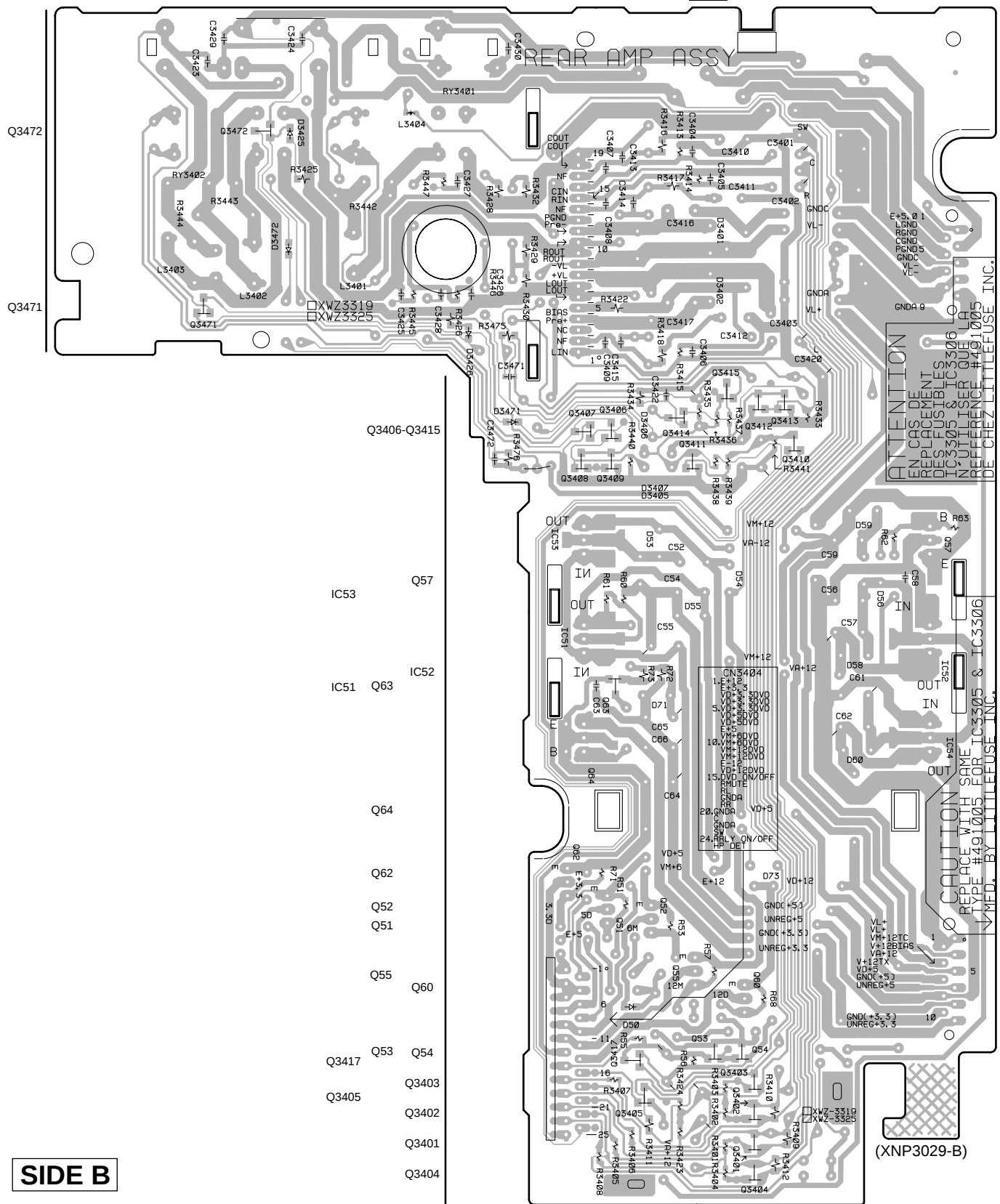
14	Q2805	IC3835	IC3836	Q3318	Q3317	IC3001	IC5691	Q3001-Q3003
182	Q65	Q2807	Q3603	Q3311-Q3314	IC3304	IC3303	Q3102	Q3005
	Q3354		Q3605		Q3315		Q3101	Q3006
	Q3602		Q3606	Q3601				

4.6 REAR AMP ASSY



SIDE A

K REAR AMP ASSY



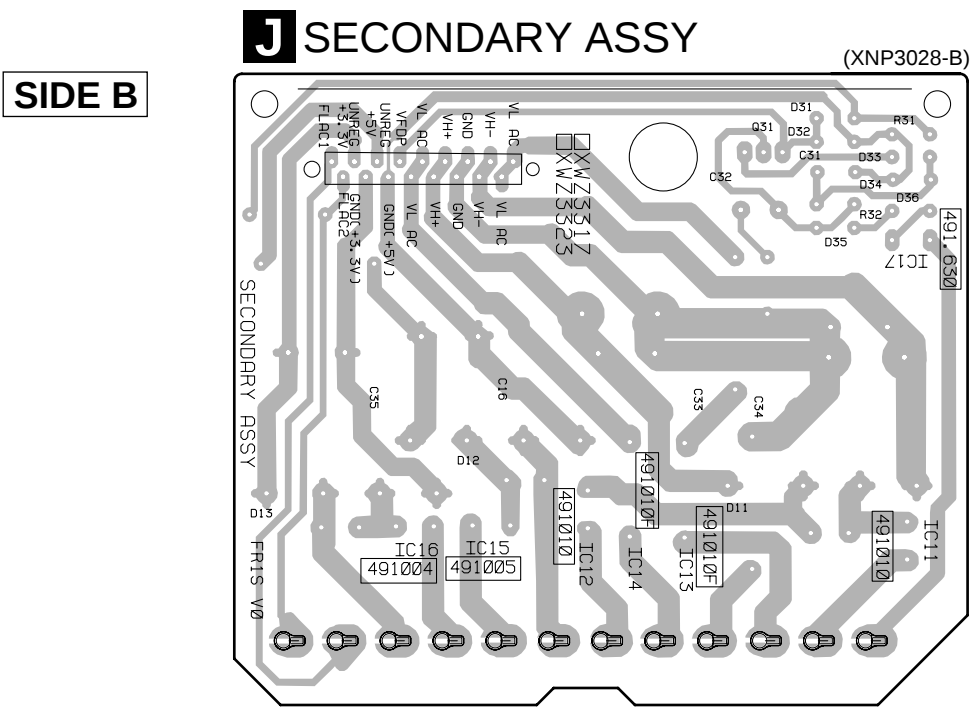
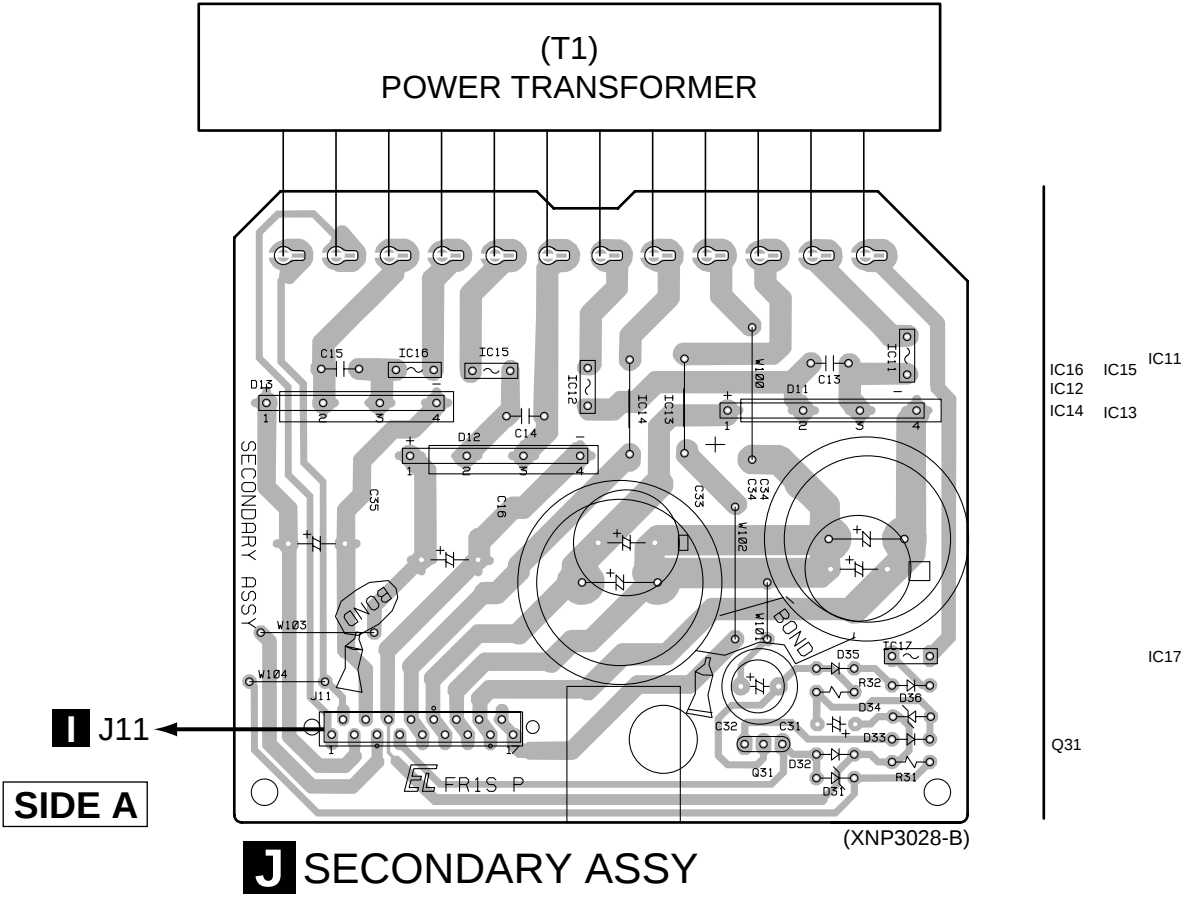
4.7 SECONDARY ASSY

A

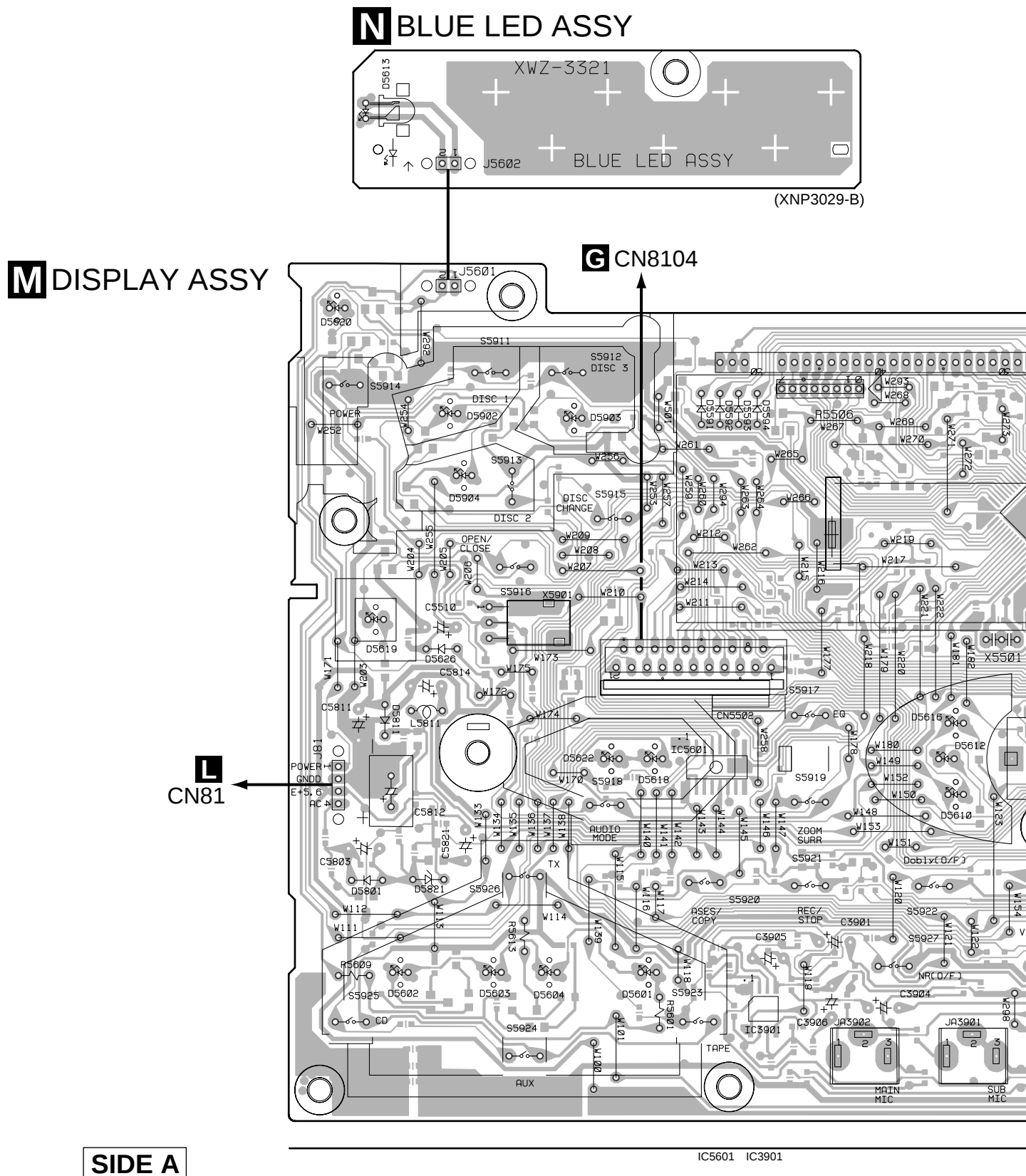
B

C

D



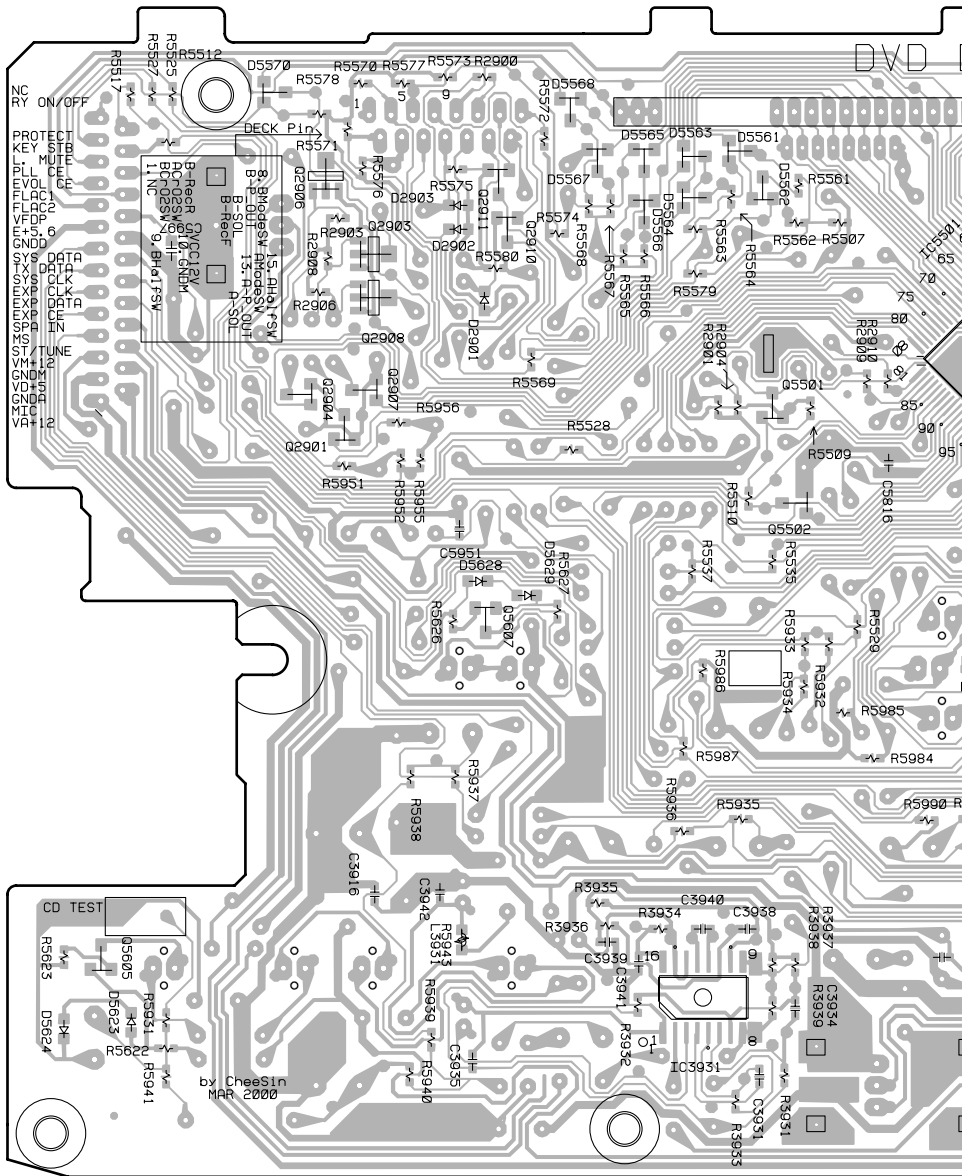
4.9 DISPLAY and BLUE LED ASSYS



UNIT



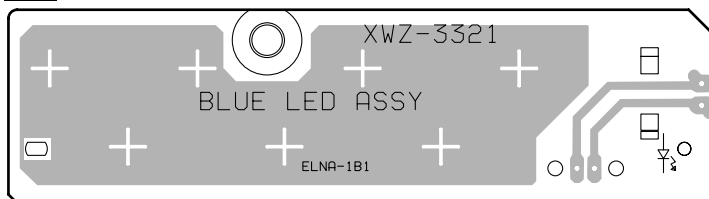
DISPLAY ASSY



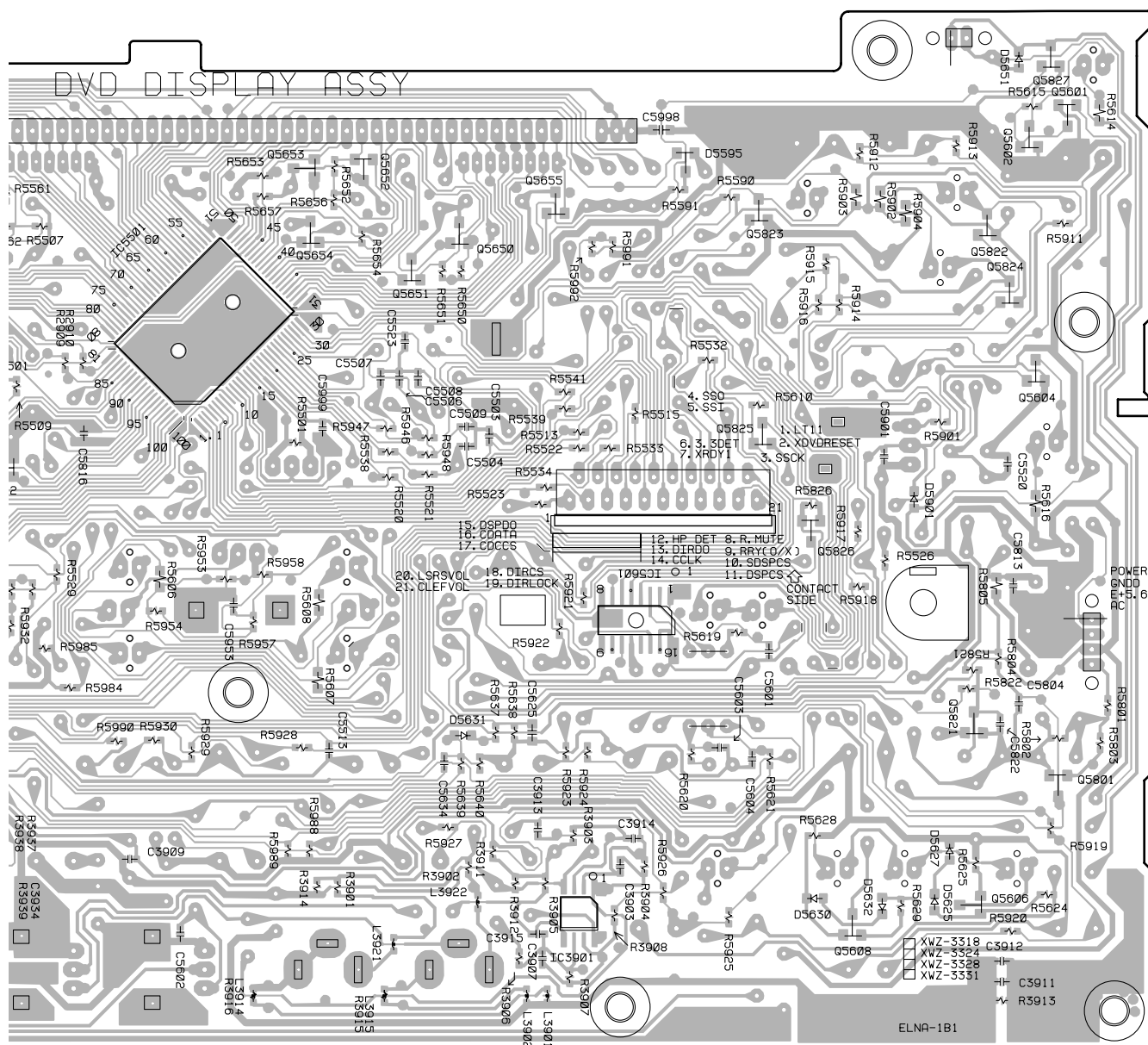
SIDE B

- Q5605
- Q2906
- Q2903
- Q2908
- Q2907
- Q2901
- Q2911
- Q2910
- Q5607
- IC3931
- Q5501
- Q5502

N BLUE LED ASSY



(XNP3029-B)



(XNP3029-B)

302	IC5501	Q5653	Q5652	Q5651	Q5650	Q5655	IC3901	IC5601	Q5823	Q5826	Q5608	Q5822	Q5827	Q5601
		Q5654							Q5825			Q5821	Q5602	
												Q5824	Q5801	
												Q5606		Q5604

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 → 56 × 10¹ → 561 RD1/4PU 5 6 1 J
47k Ω → 47 × 10³ → 473 RD1/4PU 4 7 3 J
0.5 Ω → R50 RN2H R 5 0 K
1 Ω → 1R0 RS1P 1 R 0 K
Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62k Ω → 562 × 10¹ → 5621 RN1/4PC 5 6 2 1 F

Mark	No.	Description	Part No.
LIST OF ASSEMBLIES			
NSP	\$M	MECHA PCB ASSY	VWM1878
NSP	—	SW ASSY	VWG2002
NSP	—	TRADE ASSY	VWG2003
NSP	—	MOTOR ASSY	VWG2004
NSP		TRAVERSE MECHANISM ASSY	VWT1161
NSP	—	SMEB ASSY	VWG2048
NSP	—	FGSB ASSY	VWG2009
		DVD MAIN ASSY	XWX3014
		CONNECT ASSY (6CH)	XWX3023
		FM/AM TUNER MODULE	AXQ7065
		MAIN ASSY	XWM3174
	—	AF ASSY	XWZ3330
	—	SECONDARY ASSY	XWZ3323
		COMPLEX ASSY	XWM3178
	—	REAR AMP ASSY	XWZ3325
	—	PRIMARY ASSY	XWZ3332
	—	DISPLAY ASSY	XWZ3331
	—	BLUE LED ASSY	XWZ3321

A SW ASSY			
SWITCHES			
	S9502		ASG7009
	S9501		DSG1017
OTHERS			
	J9501	JUMPER WIRE 6P	D20PWY0610E

B TRADE ASSY			
OTHERS			
	CN9501	6P JUMPER CONNECTOR	52147-0610
	CN9002	FFC CONNECTOR 13P	SLW13R-1C7
	CN9001	FFC CONNECTOR 8P	SLW8R-1C7

C MOTOR ASSY			
SWITCH			
	S9503		ASG7009
OTHERS			
	J9502	JUMPER WIRE 4P	D20PWW0405E

Mark	No.	Description	Part No.
D SMEB ASSY			
SWITCH			
	S201		DSG1016
OTHERS			
	CN201	3P FFC CONNECTOR	52044-0345
	CN202	8P FFC CONNECTOR	VKN1212
		PC BOARD SMEB	VNP1722

E FGSB ASSY			
SEMICONDUCTOR			
	PC101		GP2S60

RESISTORS			
	All Resistors		RS1/10S□□□J

F DVD MAIN ASSY			
SEMICONDUCTORS			
	IC21		CY2081SL-638
	IC14		KM68V1000CLG-7L
	IC1		LA9701M
	IC2		LC78652W
	IC3		M56788FP
	IC19		MB811171622A-100FN
	IC18		MB86373B
	IC16		MC74VHC541DT
	IC17		MC74VHCT541ADT
	IC15		MN414800CSJ-07
	IC5,IC7		NJM2100M
	IC11		PD3410A
	IC12		PE5108A
	IC401		PQ2TZ15
	IC23		TC7SH32FU
	IC8		TC7SHU04F
	IC13		XYW3001
	Q106,Q109,Q81-Q86		2SA1576A
	Q105,Q114,Q251		2SC4081
	Q102		HN1A01F

Mark	No.	Description	Part No.
	Q103,Q281,Q6,Q7		HN1B04FU
	Q101		HN1C01F
	Q112,Q113		HN1C01FU
	Q108		HN1K03FU
	Q107		RN1902
	Q3		RN1911
	Q1		RN4982
	D302		KV1471E
	D6		RB501V-40

COILS AND FILTERS

F8500	CHIP BEAD	DTF1069
L101,L150,L330		LCYA100J2520
L304		LCYA2R7J2520
F1	VIDEO FILTER	VTF1155
L81	CHIP COIL	VTL1067

CAPACITORS

C123,C145,C282,C283,C613	CCSRCH101J50
C627,C629,C843	CCSRCH101J50
C322	CCSRCH120J50
C206,C210,C211	CCSRCH151J50
C126,C333,C845	CCSRCH180J50
C116,C151,C314	CCSRCH220J50
C152	CCSRCH221J50
C209	CCSRCH331J50
C104-C108,C134,C236	CCSRCH470J50
C122,C208	CCSRCH471J50
C128,C335	CCSRCH560J50
C127,C334	CCSRCH5R0C50
C124,C146	CCSRCH680J50
C117,C240,C352,C360	CCSRCH681J25
C129,C142	CEV101M10
C113,C139	CEV220M16
C413,C700,C808	CEV221M4
C111,C149,C205,C207,C401	CEV470M6R3
C403,C407	CEV470M6R3
C140,C223,C224,C252,C264	CKSQYB105K10
C312,C801,C802,C807	CKSQYB105K10
C809-C815,C817-C819	CKSQYB105K10
C229	CKSQYB224K16
C148,C217,C414	CKSQYF105Z16
C216,C313,C337	CKSRYB102K50
C133,C136,C203,C220,C225	CKSRYB103K50
C239,C320,C321,C603,C625	CKSRYB103K50
C703,C711	CKSRYB103K50
C101,C102,C114,C118,C119	CKSRYB104K16
C121,C138,C204,C212,C213	CKSRYB104K16
C227,C228,C231,C263	CKSRYB104K16
C315-C317,C332,C804	CKSRYB104K16
C281,C354	CKSRYB222K50
C153,C266	CKSRYB223K25
C214,C251,C261	CKSRYB472K50
C357	CKSRYB473K16
C330	CKSRYB682K50
C109,C110,C120,C130,C131	CKSRYF104Z16
C143,C150,C202,C215	CKSRYF104Z16
C221,C222,C226,C230,C235	CKSRYF104Z16
C265,C319,C327,C359,C367	CKSRYF104Z16
C369,C370,C402,C404,C406	CKSRYF104Z16
C408,C410,C412,C415	CKSRYF104Z16
C601,C602,C604-C612	CKSRYF104Z16
C614,C615,C617-C623,C626	CKSRYF104Z16

Mark	No.	Description	Part No.
	C701,C702,C704-C710		CKSRYF104Z16
	C712-C726,C831-C833		CKSRYF104Z16
	C837-C839		CKSRYF104Z16
	C820,C821 (2.2μF)		VCG1030
	C299,C844 (0.47μF)		VCG1032
	C368,C409,C411 (47μF/6.3V)		VCH1166
	C405 (330μF)		VCH1191
	VC1 (30pF)		VCM1013

RESISTORS

R123 (39Ω×4)	ACN7047
R732,R733,R735,R736 (47Ω×4)	ACN7077
R632,R840 (100Ω×4)	DCN1092
R608,R609,R613,R624,R627 (100kΩ×4)	DCN1094
R629,R631,R633,R634,R638 (100kΩ×4)	DCN1094
R654,R657,R658,R662,R706 (100kΩ×4)	DCN1094
R717,R718 (100kΩ×4)	DCN1094
R121,R663 (22Ω×4)	DCN1104
R712,R715 (0Ω×4)	DCN1106
R1020,R162,R2010,R2020,R2030	RS1/10S0R0J
R2040,R3050,R3520,R366,R4010	RS1/10S0R0J
R4020,R4030,R4040,R4050,R4060	RS1/10S0R0J
R685,R722,R8000,R821	RS1/10S0R0J
R202	RS1/10S101J
R700	RS1/10S1R2J
R396	RS1/16S1001F
R361,R364	RS1/16S1003F
R807	RS1/16S1201F
R363,R365	RS1/16S1503F
R825-R827	RS1/16S1600F
R395	RS1/16S1801F
R805	RS1/16S2401F
R397,R806,R808	RS1/16S2701F
R848-R850	RS1/16S4700F
R164	RS1/16S5600F
R391	RS1/16S5601F
R394	RS1/16S6801F
R3510 (100Ω)	VCN1120
Other Resistors	RS1/16S□□□□

OTHERS

X2	CHIP CERAMIC (20MHz)	DSS1110
CN6	FLEXIBLE CABLE 07P	VDA1681
CN7	7P FFC CONNECTOR	VKN1299
CN4	B TO B CONNECTOR 14P	VKN1324
	24P FFC CONNECTOR	VKN1464
CN30	13P FFC CONNECTOR	VKN1472
CN80	32P FFC CONNECTOR	VKN1518
CN20	27P FFC CONNECTOR	VKN1583
X1	CRYSTAL (13.824MHz)	VSS1129

CONNECT ASSY (6 CH)**SEMICONDUCTORS**

IC8601	AK4527VQ
IC8701,IC8703,IC8704,IC8706,IC8851	BA4558F-HT
IC8901	BU4094BCF
IC8202	LA7137M
IC8401	LC89055W

XR-A9800D

Mark	No.	Description	Part No.
	IC8801,IC8802		M62429FP
	IC8203		NJM78L08A
	IC8201		TA7302P
	IC8204		TC74HCT7007AF
	IC8502		W24257AJ-12
	IC8501		YSS912C
	Q8203,Q8204		2SB1197K
	Q8727,Q8728,Q8733,Q8734		2SD2114K
	Q8741,Q8742		2SD2114K
	Q8915,Q8916,Q8918		DTA124EK
	Q8205		DTA143EK
	Q8201		DTC114YK
	Q8535,Q8917		DTC124EK
	Q8202		PDTA124EK
	D8901,D8902		1SS181
	D8903		1SS184
	D8501		UDZS5.1B

COILS AND FILTERS

L8401,L8402,L8501-L8503	DTF1064
CHIP BEAD	
L8201	LCTA470J2520
L8205,L8206	VTF1096
CHIP SOLID INDUCTOR	
L8241-L8244	VTL1081
CHIP BEAD	

SWITCH

S8201	VSH1020
-------	---------

CAPACITORS

C8220,C8224,C8504,C8507,C8515	CCSRCH101J50
C8518,C8523,C8524,C8527,C8529	CCSRCH101J50
C8540,C8721,C8722	CCSRCH101J50
C8741,C8742,C8761	CCSRCH151J50
C8405,C8406,C8511,C8512	CCSRCH200J50
C8201	CCSRCH390J50
C8521	CCSRCH471J50
C8111	CEAT102M10
C8727-C8730,C8747-C8750	CEJQ100M50
C8753-C8756,C8767-C8772	CEJQ100M50
C8801-C8804	CEJQ100M50
C8209,C8210,C8217,C8226,C8227	CEJQ101M10
C8235,C8239,C8502,C8842	CEJQ101M10
C9001,C9002	CEJQ101M16
C8402,C8501,C8546,C8602,C8606	CEJQ101M6R3
C8612,C8617,C8618	CEJQ101M6R3
C8621,C8622,C8627,C8628,C8814	CEJQ220M25
C8543	CEJQ221M6R3
C8212,C8223	CEJQ331M6R3
C8413	CEJQ470M10
C8101,C8232,C8242,C8244,C8400	CKSRYB103K50
C8414,C8415,C8421,C8506,C8508	CKSRYB103K50
C8510,C8514,C8517,C8520,C8525	CKSRYB103K50
C8528,C8530,C8541,C8641,C8642	CKSRYB103K50
C8733,C8734,C8758,C8759	CKSRYB103K50
C8791-C8794,C8818,C8819,C8947	CKSRYB103K50
C8202-C8206,C8208,C8211	CKSRYB104K16
C8213,C8214,C8216,C8221,C8222	CKSRYB104K16
C8228,C8233,C8234,C8236,C8237	CKSRYB104K16
C8243,C8401,C8403,C8404	CKSRYB104K16

Mark	No.	Description	Part No.
	C8408,C8409,C8411,C8416,C8417		CKSRYB104K16
	C8419,C8503,C8505,C8509,C8513		CKSRYB104K16
	C8516,C8519,C8522,C8526		CKSRYB104K16
	C8531-C8534,C8542,C8545,C8601		CKSRYB104K16
	C8604,C8605,C8613,C8615,C8616		CKSRYB104K16
	C8839-C8841,C8901		CKSRYB104K16
	C8745,C8746,C8765		CKSRYB152K50
	C8619,C8620,C8743,C8744,C8763		CKSRYB222K50
	C8766		CKSRYB223K50
	C8723-C8726		CKSRYB332K50
	C8643		CKSRYB471K50
	C8762		CKSRYB472K50
	C8241		CKSRYB473K16

RESISTORS

R8514 (1kΩ×4)	ACN7060
R8403,R8404,R8500,R8503,R8509	DCN1092
(100Ω×4)	
R8525,R8529,R8603,R8607	DCN1092
(100Ω×4)	
R8994-R8997	RS1/10S0R0J
R8625	RS1/10S100J
R8626	RS1/10S180J
Other Resistors	RS1/16S□□□J

OTHERS

X8401,X8501	VSS1140
CRYSTAL RESONATOR (12.288MHz)	
CN8202	4P MINI DIN SOCKET
JA8203	OPTICAL LINK OUT
CN8104	FFC CONNECTOR 21P
CN8105	FFC CONNECTOR 25P
CN8103	FFC CONNECTOR 30P
JA8201	1P PIN JACK
CN8106	7P FFC CONNECTOR
CN8102	27P FFC CONNECTOR
CN8101	32P FFC CONNECTOR
CN8107	7P FFC CONNECTOR
	AKP7008
	GP1F32T
	HLEM21S-1
	HLEM25S-1
	HLEM30S-1
	VKB1063
	VKN1238
	VKN1258
	VKN1263
	VKN1267

FM/AM TUNER MODULE SEMICONDUCTORS

IC6201	LA1832ML
IC6202	LC72131MD
Q6402	2SC2223
Q6203	2SC2705
Q6201,Q6202	2SC2712
Q6214,Q6403	2SC2714
Q6404	2SK302
Q6401	3SK194
Q6204	DTA124ES
Q6205	DTC124EK
D6202	1SS254
D6401,D6402	1T378A

COILS AND FILTERS

L6404	FM COIL	ATC1003
L6401	FM RF COIL	ATC1020
L6402	FM RF COIL	ATC1021
F6204	FM CERAMIC FILTER	ATF-107
F6203	FM CERAMIC FILTER	ATF-119

Mark	No.	Description	Part No.
	F6401	FM BAND PASS FILTER	ATF-155
	F6206	FM CERAMIC DISCRIMINATOR	ATF7008
	F6202	AM CERAMIC FILTER	ATF7011
	L6206,L6208,L6403		LAU2R2J

TRANSFORMERS

T6201	ATB7008
T6401	ATE7002

CAPACITORS

C6208	CCSQCH100D50
C6212,C6274,C6275,C6408	CCSQCH101J50
C6412	CCSQCH102J50
C6221,C6222,C6416	CCSQCH150J50
C6271	CCSQCH200J50
C6415	CCSQCH330J50
C6406	CCSQCH331J50
C6401,C6419	CCSQCH5R0C50
C6407	CCSQCK1R0C50
C6410	CCSQCK2R0C50
C6413	CCSQRH180J50
C6414	CCSQRH8R0D50
C6405	CCSQTH150J50
C6234,C6235	CEAL1R0M50
C6245	CEAL470M16
C6224	CEAT100M50
C6243	CEAT101M16
C6231	CEAT1R0M50
C6227	CEAT220M25
C6214,C6236	CEAT2R2M50
C6262	CEAT3R3M50
C6219	CEAT470M10
C6244	CEAT470M16
C6249,C6250,C6265,C6266	CEAT4R7M50
C6258	CEJA470M16
C6215	CFTLA103J50
C6211,C6254,C6403,C6417	CKSQYB102K50
C6201,C6205,C6210,C6237,C6276	CKSQYB103K50
C6278,C6280,C6281,C6402,C6409	CKSQYB103K50
C6418	CKSQYB103K50
C6251,C6252	CKSQYB153K50
C6203,C6259	CKSQYB223K50
C6228	CKSQYB472K50
C6209	CKSQYB473K50
C6230	CKSQYB821K50
C6218,C6223,C6255	CKSQYF103Z50
C6220,C6226,C6242,C6256	CKSQYF223Z50
C6225	CKSQYF473Z50

RESISTORS

R6280	RD1/4PU101J
R6413,R6416,R6418,R6906,R6909	RS1/8S0R0J
R6401	RS1/8S470J
VR6201 (10kΩ)	PCP1029
Other Resistors	RS1/10S□□□J

OTHERS

BN6202	4P ANTENNA TERMINAL	AKE7051
X6202	CERAMIC RESONATOR (456kHz)	ASS1066
X6201	CRYSTAL RESONATOR (7.2000MHz)	ASS1093
CN6201	14P SOCKET MW RF TUNING BLOCK	KP200IA14L AXX7041

Mark	No.	Description	Part No.
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AF ASSY**SEMICONDUCTORS**

△	IC3302 (1.25A)	AEK7010
△	IC3305,IC3306 (5A)	AEK7019
	IC3836	BA3838F
	IC2101,IC3101,IC3102,IC3303,IC3304	BA4558F-HT
	IC5691	BA4558F-HT
	IC5891,IC5892	BU4094BCF
	IC2201	HA12136AF
	IC2301	HA12211NT
	IC3001	LC75396NE
△	IC3301	STK407-070B
	Q3354,Q3601,Q3602,Q3621,Q82	2SA1037K
	Q2806	2SB1197K
	Q2803,Q2804	2SC1815
	Q2801	2SC2240
	Q2102,Q2201,Q2202,Q3101,Q3102	2SC2412K
	Q3353,Q3603,Q3605-Q3608,Q83	2SC2412K
	Q85	2SC2412K
	Q3081,Q81	2SD1858X
	Q2203,Q2204,Q2805,Q3001,Q3002	2SD2114K
	Q3005,Q3006,Q3311,Q3312	2SD2114K
	Q2301,Q2302,Q3317,Q3318	2SK368
	Q3313,Q3315	DTA124EK
	Q3003,Q3009	DTA143EK
	Q2104,Q2105,Q3314	DTC124EK
	Q2103,Q2306,Q2802,Q2807,Q84	DTC143EK
△	Q3351	IRFI9Z34G
△	Q3352	IRFIZ34G
△	D3301,D3302	1SR139-100
	D2191,D2301-D2306,D3001,D3002	1SS133
	D3101,D3102,D3351-D3354	1SS133
	D3361,D3362,D3601-D3604,D3606	1SS133
	D3612,D3613,D3621,D3622	1SS133
	D3625-D3627,D5891,D81,D89	1SS133
	D91,D92	1SS133
	D2102,D2103,D2201,D2202,D3051	1SS355
	D3607	1SS355
	D3355,D3356	20E2-FC
△	D3303	D5SBA20
	D3357,D3358	MTZJ10C
	D3083	MTZJ11C
	D3313	MTZJ12C
	D3359,D3360	MTZJ18B
	D90	MTZJ2.7A
	D82	MTZJ24D
	D3363,D3364	MTZJ39C
	D2001	MTZJ6.2A

COILS AND FILTERS

L3601,L3602	AF CHOKE COIL	ATH-133
L2801	OSC COIL	ATX7002
L2301,L2302		LTA822J
F2201,F2202	MPX FILTER	RTF1209
L3002-L3004,L3065	CHIP BEAD	VTL1081

L3991	AXIAL INDUCTOR	XTL3001
L2101	AXIAL INDUCTOR	XTL3003

RELAY

RY3601	ASR7008
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Mark	No.	Description	Part No.
CAPACITORS			
	C2301, C2302, C3603, C3606		CCSRCH100D50
	C5892		CCSRCH101J50
	C2192		CCSRCH220J50
	C3319, C3320		CCSRCJ3R0C50
	C3311, C3312, C3361, C3362		CEANL1R0M50
	C3317, C3318		CEANP100M35
	C3313, C3314		CEANP2R2M50
	C2207, C2803, C2810, C3047, C3048		CEAT100M50
	C3063, C3064, C3081, C3107, C3334		CEAT100M50
	C3602, C3858, C81, C85		CEAT100M50
	C2002, C2316, C3045, C3046, C3091		CEAT101M16
	C3303, C3304, C3684		CEAT101M50
	C2312, C2313, C3035, C3036, C3108		CEAT1R0M50
	C3328		CEAT1R0M50
	C2106, C2214, C2215, C2321, C2322		CEAT220M50
	C87		CEAT220M50
	C2001		CEAT221M16
	C3601		CEAT221M25
	C2201, C2202, C2205, C2206		CEAT2R2M50
	C2212, C2213, C2319, C2320		CEAT2R2M50
	C3005-C3010, C3017, C3018, C3104		CEAT2R2M50
	C3621, C3851-C3854, C5691, C5692		CEAT2R2M50
	C2804, C2805, C3625		CEAT330M16
	C3105		CEAT3R3M50
	C3321, C3322, C3329, C3330, C3841		CEAT470M16
	C2195		CEAT470M25
	C3106, C3109, C3857		CEAT4R7M50
	C2203, C2204		CEATR22M50
	C3102, C3325		CEATR47M50
	C3027, C3028		CFTLA334J50
	C3023, C3024		CFTLA474J50
	C2802		CKCYB681K2H
	C5891		CKSQYB104K25
	C2194		CKSQYB105K10
	C3845		CKSQYB224K16
	C3075, C3076		CKSRYB102K50
	C2315, C2317, C2318, C3042, C3053		CKSRYB103K50
	C3083, C3086, C3098, C3103, C3991		CKSRYB103K50
	C88		CKSRYB103K50
	C2191, C2193, C3021, C3022, C3071		CKSRYB104K16
	C3099, C3846, C3847, C3855		CKSRYB104K16
	C3033, C3034, C3077		CKSRYB122K50
	C2208, C2209		CKSRYB152K50
	C3315, C3316		CKSRYB222K50
	C2323, C2326		CKSRYB223K50
	C2324, C2325		CKSRYB272K50
	C3029, C3030		CKSRYB273K16
	C2808, C2809		CKSRYB332K50
	C3623, C3624		CKSRYB471K50
	C2333, C2334, C2807		CKSRYB472K50
	C3101, C3111, C3112, C3844		CKSRYB473K16
	C2303, C2304, C2343, C2344		CKSRYB561K50
	C3019, C3020, C3031, C3032		CKSRYB682K50
	C3326, C3327		CKSRYB682K50
	C3025, C3026		CKSRYB683K16
	C2307, C2308, C2331, C2332		CKSRYB821K50
	C3331-C3333		CKSRYF104Z50
	C2801		CQHA822J2A
	C2210, C2211		CQMBA103J50
	C2806		CQMBA223J50
	C3306, C3307 (4700μF/50V)		XCH3004

Mark	No.	Description	Part No.
RESISTORS			
	R2812		RD1/2LMF680J
	R89		RD1/2VM330J
	R3619, R3620		RD1/4LMF100J
	R3353, R3354		RD1/4PU101J
	R3024, R3025, R5892, R5894, R5895		RD1/4PU102J
	R3029, R3317, R3318, R3326		RD1/4PU104J
	R3081, R5893		RD1/4PU221J
	R3035, R3851		RD1/4PU222J
	R2813		RD1/4PU471J
	R2809		RD1/4PU4R7J
	R3026		RD1/4PU822J
	R3355, R3356		RS1/10S104J
	R3357, R3358, R3611, R3612		RS1/10S153J
	R2309		RS1/10S222J
	R3330		RS1/10S223J
	R2001		RS1/10S471J
	R3319, R3320, R81		RS1/10S561J
	R3605, R3606		RS1/10S562J
	R3603, R3604		RS1/10S823J
	R3347		RS1LMF821J
△	R3991, R3992		RS2LMF331J
	R3601, R3602		RS3LMFR22J
	VR2303-VR2306 (10kΩ)		VCP1156
	VR2301, VR2302 (100kΩ)		VCP1162
	VR2801, VR2802 (220kΩ)		VCP1164
	Other Resistors		RS1/16S□□□J
OTHERS			
	17P CABLE HOLDER		51063-1705
CN3601	4P SPEAKER TERMINAL		AKE7018
CN2302	KR CONNECTOR		B2B-PH-K-S
CN2303	KR CONNECTOR		B3B-PH-K-R
CN2301	KR CONNECTOR 3P		B3B-PH-K-S
CN5105	27P FFC CONNECTOR		HLEM27S-1
CN5104	30P FFC CONNECTOR		HLEM30R-1
CN3051	14P PLUG		KM200IB14
CN3604	11P JUMPER CONNECTOR		KPE11
CN3603	9P JUMPER CONNECTOR		KPE9
JA3003	2P PIN JACK		VKB1046
JA3001	2P PIN JACK		VKB1060
J82	CONNECTOR ASSY 2P		XDX3002
JA3991	HEADPHONE JACK		XKN3007
J SECONDARY ASSY SEMICONDUCTORS			
△	IC17 (630mA)		AEK7006
△	IC16 (4A)		AEK7018
△	IC15 (5A)		AEK7019
△	IC11, IC12 (10A)		AEK7022
△	IC13, IC14 (10A)		AEK7068
△	Q31		2SA965
△	D33		1SS133
△	D12, D13		G3SBA20L
△	D11		G5SBA20L
△	D34		MTZJ36A
△	D31		MTZJ8.2B
△	D35, D36		S5688G

Mark	No.	Description	Part No.
CAPACITORS			
△	C33,C34	(4700μF/80V)	ACH7071
△	C16	(6800μF/25V)	ACH7120
△	C31		CEAT220M50
△	C32		CEAT221M63
△	C35		CEAT682M16
△	C13		CQMA103K2E
RESISTORS			
△	R31		RD1/4PU103J
△	R32		RD1/4PU222J
OTHERS			
		17P CABLE HOLDER	51063-1705

K REAR AMP ASSY

SEMICONDUCTORS

△	IC51	NJM7805FA
△	IC53	NJM7806FA
△	IC52,IC54	NJM7812FA
△	IC3401	STK402-230
	Q3414,Q3471,Q3472	2SA1037K
	Q51,Q52,Q55,Q60,Q62	2SB1237X
△	Q64	2SB1566
	Q3406	2SC2412K
△	Q3407	2SC2412K
	Q3408,Q3409,Q3411-Q3413,Q3415	2SC2412K
	Q3417,Q53,Q54,Q63	2SC2412K
	Q3401-Q3404	2SD2114K
△	Q57	2SD2395
	Q3405,Q3410	DTA124EK
	D3403-D3406,D3408,D3427,D3428	1SS133
	D52,D54,D61,D62,D72	1SS133
	D3425,D3426,D3471,D3472,D50	1SS355
	D3409	MTZJ12C
	D56,D58-D60	MTZJ15C
	D3429	MTZJ4.7B
	D73	MTZJ6.2C
	D53,D55	MTZJ7.5C

COILS

L3401-L3403	AF CHOKE COIL	ATH-133
L3404	CHIP BEAD	VTL1081

RELAYS

RY3401,RY3402	ASR7017
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CAPACITORS

C3422,C3471,C3472	CCSRCH100D50
C3407-C3409	CCSRCH221J50
C3413-C3415	CCSRCJ3R0C50
C3410-C3412	CEANP100M35
C3401-C3403	CEANP2R2M50
C3421,C52,C54,C64	CEAT100M50
C3420	CEAT101M10
C65	CEAT101M16
C3416,C3417,C3431	CEAT101M50
C55	CEAT1R0M50

Mark	No.	Description	Part No.
	C53		CEAT220M50
	C3432		CEAT221M16
	C3419		CEATR47M50
	C66		CEHAT100M50
	C57,C59,C62		CEJA100M16
	C56,C61		CEJA1R0M50
	C3423,C3424,C3429		CKSRYB103K50
	C3404-C3406		CKSRYB222K50
	C3425-C3428		CKSRYF104Z50

RESISTORS

R3442-R3444	RD1/4LMF100J
R3477,R3478	RD1/4MUF101J
R52	RD1/4PU121J
R54	RD1/4PU181J
R64	RD1/4PU222J
R66	RD1/4PU472J
R3419-R3421	RD1/4PU563J
R70	RD1/4PU680J
R3449	RD1/4PU681J
R3412	RS1/10S104J
R73	RS1/10S121J
R3429,R3430,R3432	RS1/10S153J
R3422	RS1/10S223J
R3409-R3411	RS1/10S273J
R60	RS1/10S27R0F
R3434,R3475,R3476	RS1/10S392J
R72	RS1/10S471J
R3416-R3418	RS1/10S561J
R3425,R3426,R3428	RS1/10S823J
R61	RS1/16S6800F
R3471-R3473	RS1LMFR22J
R3448	RS3LMF102J
Other Resistors	RS1/16S□□□J

OTHERS

	9P CABLE HOLDER	51063-0905
	11P CABLE HOLDER	51063-1105
CN3401	1P PIN JACK	AKB7042
J3401	JUMPER WIRE	D15A09-100-2651
J3402	JUMPER WIRE	D15A11-100-2651
CN3404	FFC CONNECTOR 25P	HLEM25R-1
	PCB BINDER	VEF1040
JA3403	AUDIO 3P PIN JACK	XKB3007

L PRIMARY ASSY

SEMICONDUCTORS

△	IC81	NJM7805FA
	Q81	2SD1859X
	D85,D88-D90	1SS133
△	D81	S1WB(A)60SD

COIL

L1	LINE FILTER	ATF1136
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TRANSFORMER

△	T2	XTT3004
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RELAYS

△	RY81	ASR7018
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XR-A9800D

Mark	No.	Description	Part No.
CAPACITORS			
△	C1,C2 (0.01μF)		ACE7027
	C83		CEAT100M50
△	C82		CEAT102M25
RESISTORS			
△	R1 (2.2MΩ, 1/2W)		RCN1080
	Other Resistors		RD1/4PU□□□J
OTHERS			
	H1,H2	FUSE CLIP	AKR7001
△	CN1	2P VH CONNECTOR	B2P3-VH
△	AN1	1P AC INLET	XKP3042

M DISPLAY ASSY SEMICONDUCTORS

IC3901	BA4558F-HT
IC5601	HEF4794BT
IC5501	PDC064A
Q5501,Q5607,Q5608	2SA1037K
Q2903,Q2906,Q2908	2SB1132
Q5602,Q5605,Q5606,Q5801	2SC2412K
Q2910,Q2911,Q5826	DTA124EK
Q5601	DTC124EK
Q2901,Q2904,Q2907,Q5502,Q5604	DTC143EK
Q5650-Q5655,Q5821,Q5825	DTC143EK
D5592,D5593,D5626,D5811	1SS133
D5561-D5568,D5570,D5595	1SS181
D2901-D2903,D5623-D5625	1SS355
D5627-D5632,D5901	1SS355
D5601-D5608,D5610,D5611	SLP3118C51H
D5615,D5616,D5618,D5622,D5904	SLP3118C51H
D5612,D5614,D5617,D5621	SLP6118C51H
D5902	SLP7118C51H
D5619,D5620,D5903	SLP9118C51H
D5651	UDZS5.6B

COILS

L3901,L3902	LCTB100K1608
L3921,L3922	CHIP BEAD
L3914,L3915	CHIP SOLID INDUCTOR
L5811	AXIAL INDUCTOR
	VTL1081
	VTL1145
	XTL3004

SWITCHES

S5911-S5940	XSG3001
S5951	XSX3003
S5952	XSX3004

CAPACITORS

C5812 (0.047F/5.5V)	ACH1246
C5603,C5604	CCSRCH100D50
C5601	CCSRCH101J50
C5513,C5523	CCSRCH221J50
C3903	CCSRCH331J50
C5821	CEJA100M16
C5803	CEJA1R0M50
C3901,C3902,C3904,C3906	CEJA2R2M50
C3905,C5510,C5811,C5814	CEJA470M16
C5997,C5998	CKSQYB104K25

Mark	No.	Description	Part No.
	C5999		CKSQYB105K10
	C5625		CKSQYF224Z25
	C5804,C5951,C5953		CKSRYB102K50
	C3911		CKSRYB103K50
	C3909,C5816		CKSRYB104K16
	C5506		CKSRYB471K50
	C3907,C5503,C5504,C5509		CKSRYB472K50
	C5507,C5508		CKSRYB473K16
	C5602		CKSRYF104Z25
	C5634,C5901		CKSRYF104Z50
	C5813,C5822		CKSRYF473Z50

RESISTORS

R5506,R5508	RA7T104J
R2905,R5524,R5536	RD1/4PU102J
R5601,R5617	RD1/4PU151J
R5530	RD1/4PU221J
R5613,R5618	RD1/4PU331J
R5609	RD1/4PU391J
R2902,R2907	RD1/4PU681J
R5805	RS1/10S101J
R5902-R5904	RS1/10S221J
R5614,R5616	RS1/10S471J
R5606-R5608	RS1/10S620J
VR3901 (10kΩ-B)	XCS3002
Other Resistors	RS1/16S□□□J

OTHERS

X5501	CERAMIC RESONATOR (10MHz)	DSS1048
	2P CABLE HOLDER	51048-0200
	4P CABLE HOLDER	51048-0400
CN5502	FFC CONNECTOR 21P	52492-2120
JA3901,JA3902	SR JACK	AKN7004
J5601	JUMPER WIRE 2P	D20PYY0210E
J81	JUMPER WIRE 4P	D20PYY0425E
X5901	REMOTE RECEIVER UNIT	GP1U28X
CN2901	FFC CONNECTOR 15P	HLEM15R-1
CN5501	27P FFC CONNECTOR	HLEM27R-1
5621	FL HOLDER	VNF1096
V5621	FL TUBE	XAV3009

N BLUE LED ASSY SEMICONDUCTOR

D5613	E1L4E-7B(123)
-------	---------------

OTHERS

2P CABLE HOLDER	51048-0200
LED HOLDER	XAK3154

6. ADJUSTMENT

6.1 TUNER SECTION

■ FM Tuner Section

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

Step No.	Adjustment Title	FM SG (1kHz, ± 75 kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dB μ V)			
1	Front End Sensitivity	98	0 to 30	98MHz	L6402 T6401	Adjust so that the DC voltage between the IC6201 - pin 20 and GND becomes at maximum level.
2	TUNED IND. Lighting Level	98	18 ± 2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. strats to light up.

Note:

Before adjusting, make sure there is no gap between L6401 and L6402. If there is a gap between them, bring them into contact with each other first, and then make adjustments.

■ AM Tuner Section

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

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

Note (*1) : For the area using 10kHz step, frequency should be 1000kHz.

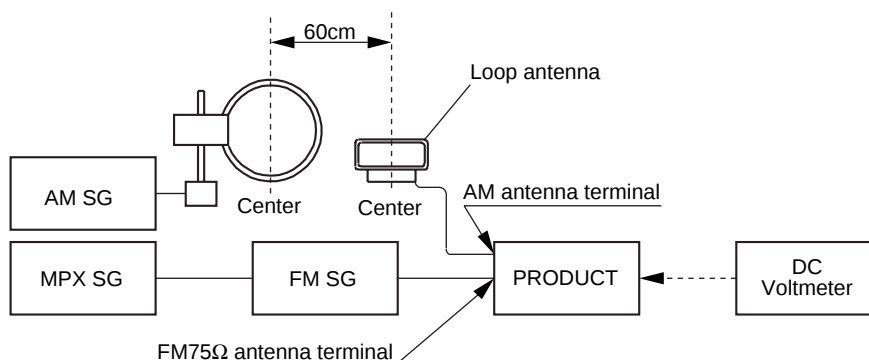


Fig.1 AM and FM Adjustment Wiring Diagram

FM/AM TUNER MODULE

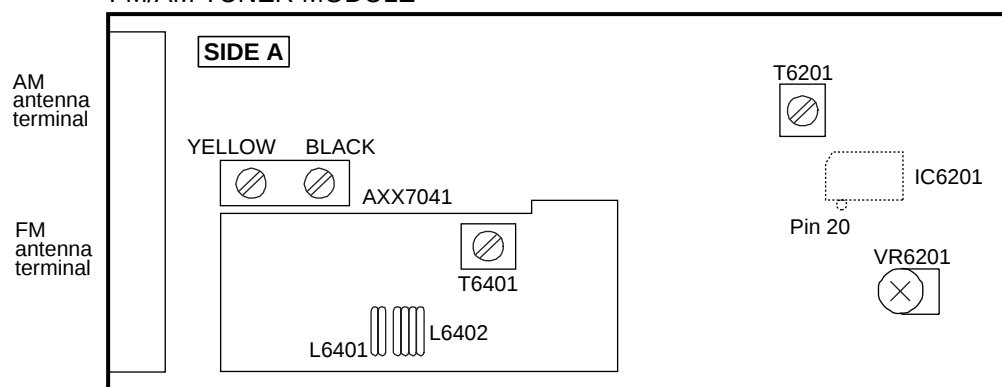


Fig.2 Adjustment Point

6.2 CASSETTE DECK SECTION

• Adjustment points and test points are shown in Fig.3, Fig.5 and Fig.7.

■ Mechanical Adjustment

• Test tape : NCT-111 (3kHz, 30min).

1. Tape Speed Adjustment

No.	Mode	Test Tape	Adjusting Points	Measurement Points	Adjustment Procedure	Remarks
1	Deck I PLAY	NCT-111 (Playback : 3kHz)	ADJ. VR on CASSETTE MECHA (Fig. 3)	TAPE TEST POINT (Rch) (AF Assy)	Press the PLAY SW and adjust so that the reading becomes 3000Hz ± 20Hz. Confirm that wow & flutter level is below 0.3% (in the reverse direction, confirm that the reading is within 2940Hz to 3090Hz).	

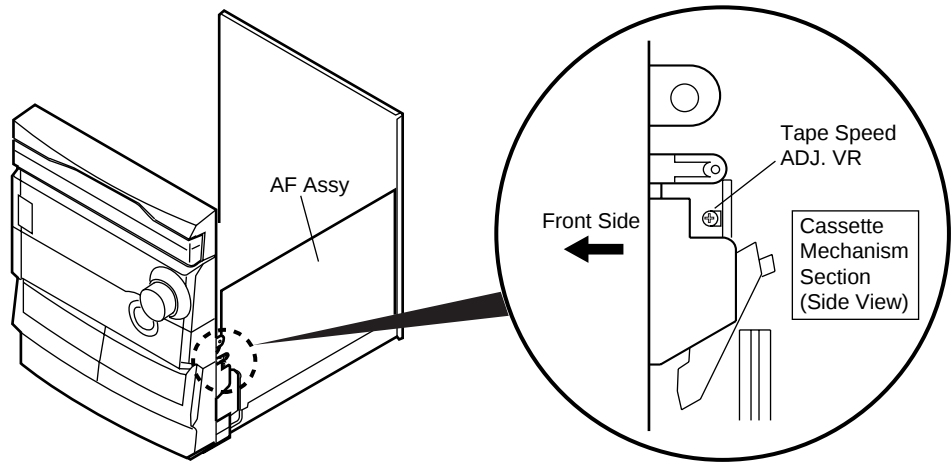


Fig.3 Tape Speed ADJ. Point

■ Electrical Adjustment

Check the following before starting.

- (1) Confirm that the tape speed adjustment has been completed.
- (2) Clean the heads and demagnetize them using a head eraser.
- (3) Set the measurement level to 0 dBV = 1 Vrms.
- (4) Use the specified tape for adjustment. Use the labeled (A) side of the test tape.
STD-331E : For playback check
STD-633 : Normal blank tape
- (5) Provide yourself with the following measuring devices:
 - AC millivoltmeter
 - Low-frequency oscillator
 - Attenuator
 - Oscilloscope
- (6) Adjust both right and left channels unless otherwise specified.
- (7) Turn the DOLBY NR switch off unless otherwise specified.
- (8) Warm up the unit for several minutes before adjustment.
In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.
- (9) Always follow the indicated adjustment order.
Otherwise, a complete adjustment may not be achieved.

Playback Adjustment (Decks I and II)

- (1) Head Azimuth Adjustment
- (2) Playback Level Adjustment

Recording Adjustment (Deck I)

- (1) Bias Oscillation Frequency Adjustment
- (2) Recording Bias Adjustment
- (3) Recording Level Adjustment.
- (4) ALC Operation Check

* As the reference recording level is 250nwb/m for STD-331E, the recording level will be higher by 4 dB for STD-331B (160nwb/m). When adjusting, pay carefull attention to the type of tape used.

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"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

0 dB 30s

0 dB: 315 Hz, 250 nwb/m																					
315Hz	30s	30s	30s	10s	10s	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	6.3kHz	10kHz	315Hz	14kHz	12.5 kHz	10kHz	8kHz	6.3 kHz	4kHz	2kHz	1kHz	500 Hz	250 Hz	125 Hz	63Hz	40Hz					

Fig.4 STD-331E Test Tape

■ Playback Adjustment

(1) Head Azimuth Adjustment

- Do not switch between forward and reverse operation with the screwdriver inserted.

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	PLAY	STD-331E test tape (Playback: 10kHz, -20dB)	Deck I	Head azimuth adjustment screw (Fig. 5)	TAPE TEST POINT (L, Rch) (AF Assy)	Max. playback signal level	After adjustment, apply silicon bond to the head azimuth adjustment screw.
			Deck II				

(2) Playback Level Adjustment

- Since this adjustment determines playback dolby NR level, perform it carefully.

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	PLAY	STD-331E test tape (Playback: 315Hz, 0dB)	Deck I	VR2303 (L ch) VR2304 (R ch)	TAPE TEST POINT (L, Rch) (AF Assy)	- 3.7dBV $\pm$ 2dB	
			Deck II	VR2305 (L ch) VR2306 (R ch)			

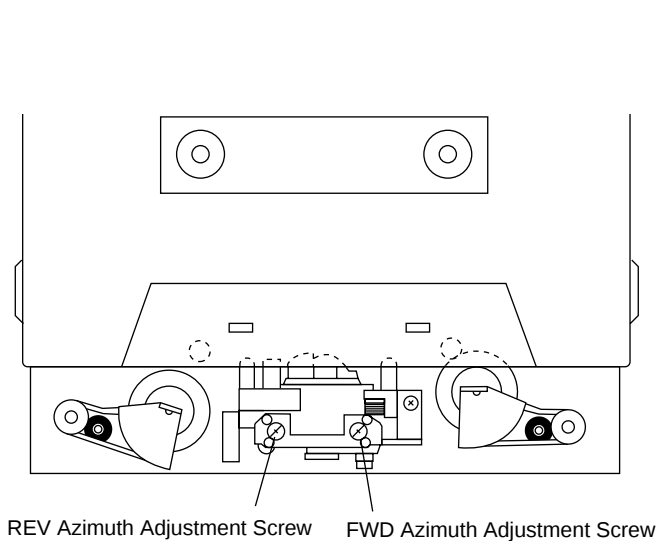
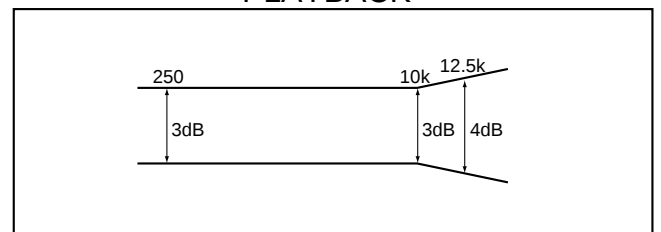


Fig. 5 Head Azimuth Adjustment Screw

PLAYBACK



RECORDING

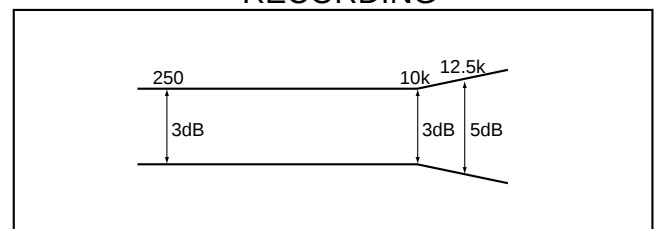


Fig. 6 Frequency Characteristics

■ Recording Adjustment

(1) Bias Oscillation Frequency Adjustment

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Load the STD-633 test tape and set the recording mode.	Deck II	_____	_____	Oscillation frequency to be 105.0kHz $\pm$ 2kHz.	If the REC/STOP button for four seconds while the power is in STAND BY mode, the frequency will decrease 2 to 3 kHz.
			Deck I	L2801 (AF Assy)	Between ① point Fig. 7 and GND		

(2) Recording Bias Adjustment

• Since this adjustment affects recording bias, prevent distortion from increasing due to underbias.

Step	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Input a 315 Hz signal to the AUX terminal and set the input selector to AUX.	Deck II	_____	TAPE TEST POINT (L, Rch) (AF Assy)	– 26dBV	
			Deck I	Input signal level			
2	REC → PLAY	Load the STD-633 test tape and record/playback the 315Hz and 10kHz signals (see the Note below)	Deck II	_____	TAPE TEST POINT (L, Rch) (AF Assy)	Repeat adjustment until playback level of the 10kHz signal is within 0 $\pm$ 0.5 dB from that of the 315Hz signal.	
			Deck I	VR2801 (L ch) VR2802 (R ch)			

Note : Set the 10 kHz input signal level to the same value as the 315 Hz input signal level of step 1.

(3) Recording Level Adjustment

Step	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Input a 315 Hz signal to the AUX terminal and set the input selector to AUX.	Deck II	Input signal level	TAPE TEST POINT (L, Rch) (AF Assy)	– 7.7 dBV $\pm$ 0.5dB	
			Deck I				
2	REC → PLAY	Load the STD-633 test tape and record/playback the 315Hz signal.	Deck II	_____	TAPE TEST POINT (L, Rch) (AF Assy)	Repeat recording, playback and adjustment until playback level of the 315 Hz signal becomes – 7.7 dBV.	
			Deck I	VR2301 (L ch) VR2302 (R ch)			

(4) ALC Operation Check

Step	Mode	Input Signal/Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1	REC/ PAUSE	Input a 315 Hz signal to the AUX terminal and set the input selector to AUX.	Input signal level	TAPE TEST POINT (L, Rch) (AF Assy)	– 8.2 dBV	
2			Set to a level + 10dB above the input level at step 1.		Confirm that the reading is – 2.2 ± 2.5 dBV.	

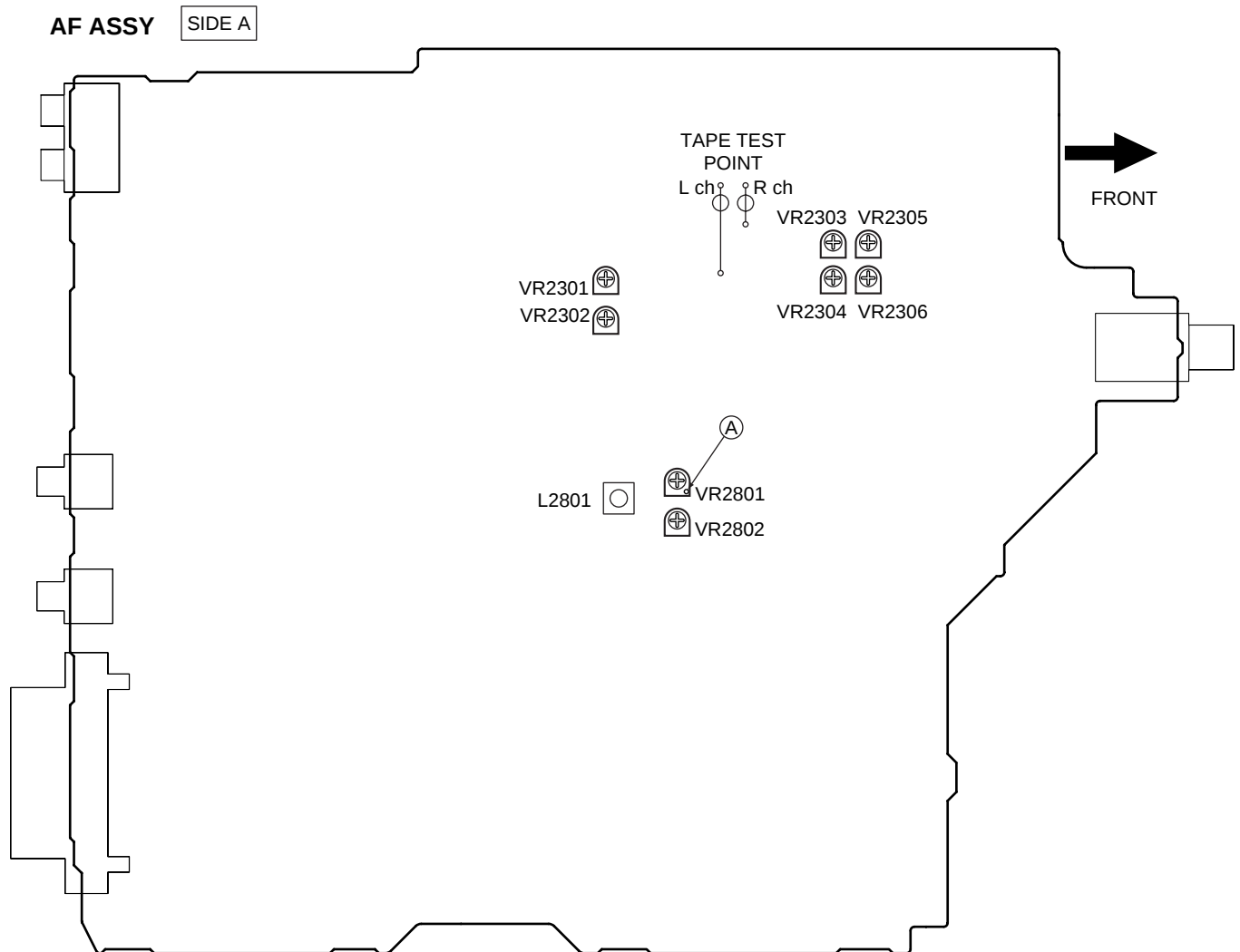


Fig.7 Adjustment and Measurement Points

6.3 DVD SECTION

6.3.1 ADJUSTMENT ITEMS AND LOCATION

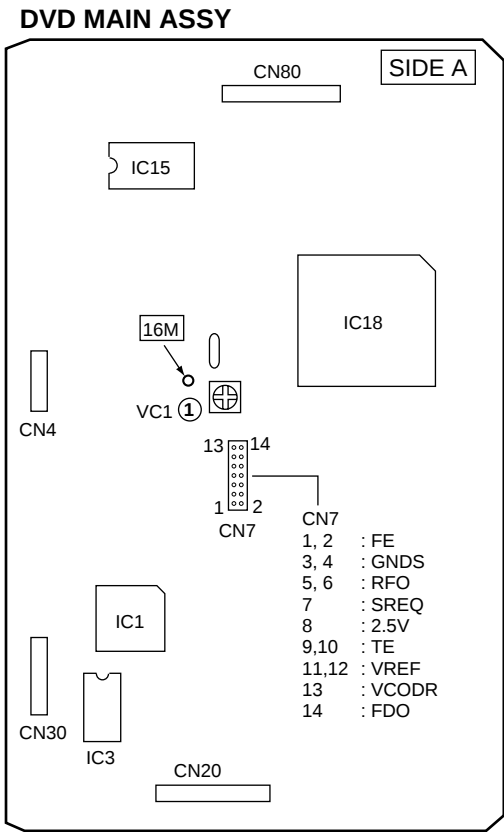
Note : When the Traverse mechanism adjustment is not properly adjusted, jitter, error rate and play ability are defective.
The noise may come out by the case.

■ Adjustment Points (PCB Part)

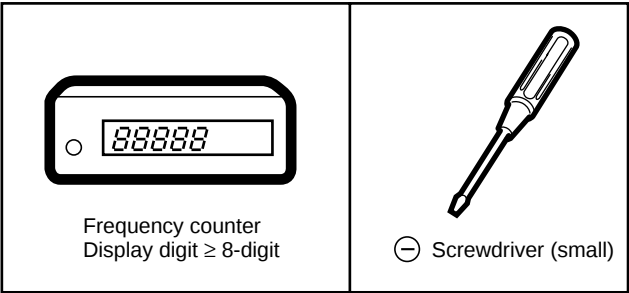
■ Adjustment Items

[Electrical Part]

- ① Master Clock Adjustment



6.3.2 JIGS AND MEASURING INSTRUMENTS



6.3.3 NECESSARY ADJUSTMENT POINTS

When

Adjustment Points

■ EXCHANGE PCB ASSY

Exchange board
DVD MAIN ASSY



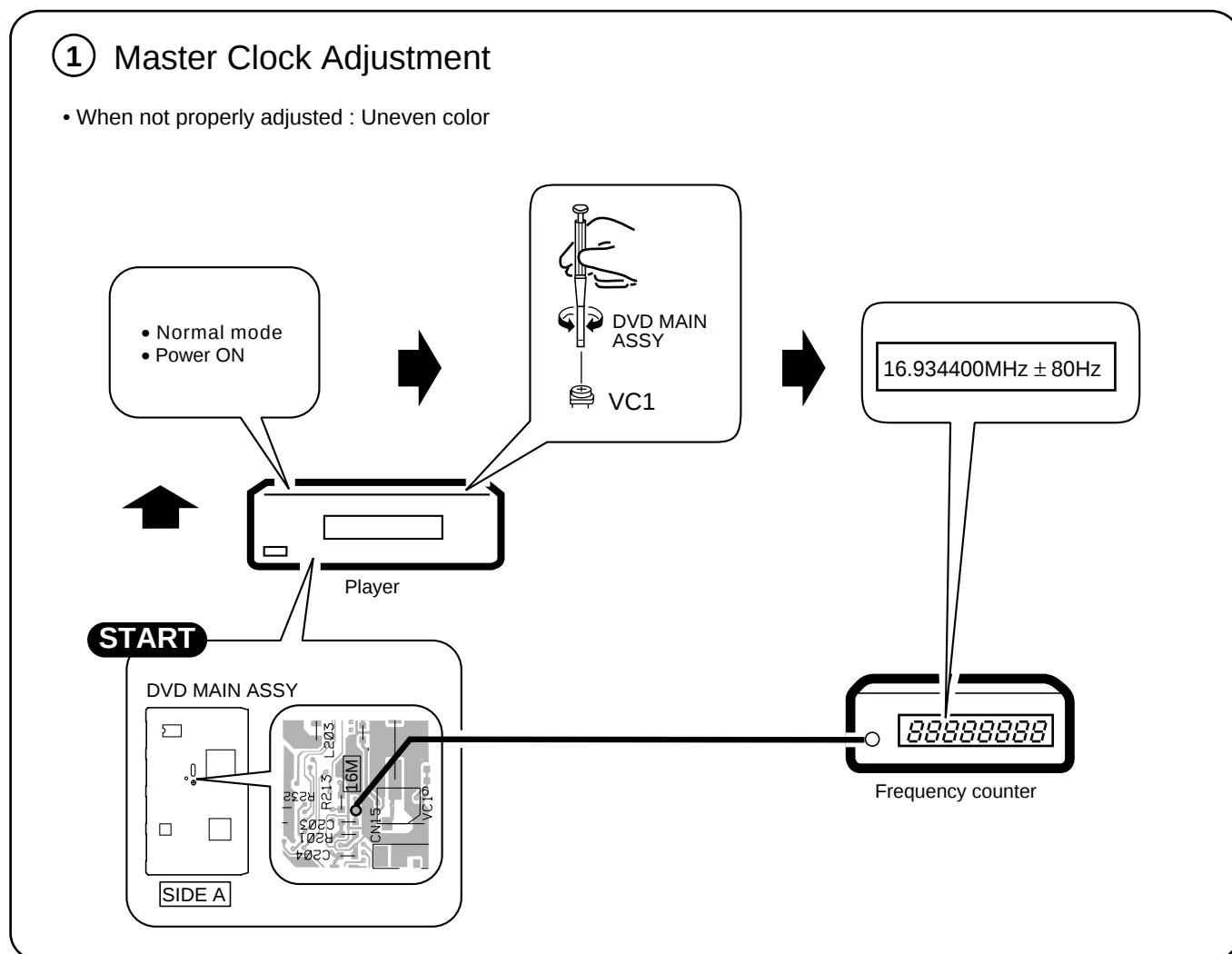
Mechanical point	_____
Electric point	_____

Note : ① is adjusted already.

6.3.4 ELECTRICAL ADJUSTMENT

① Master Clock Adjustment

- When not properly adjusted : Uneven color



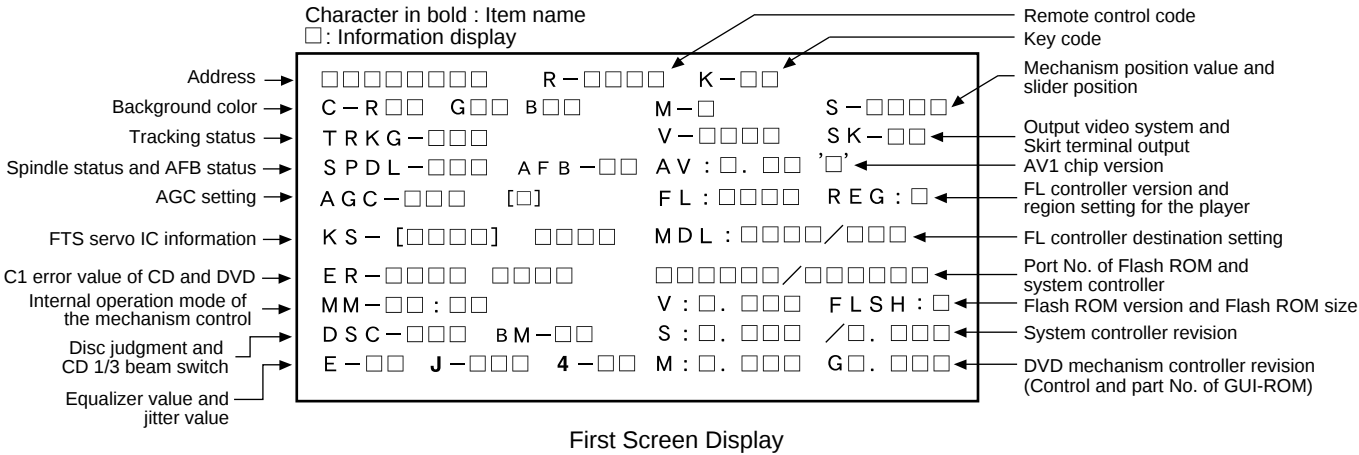
7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 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) Tracking status [TRKG - ***]

Tracking on [ON]
Tracking off [OFF]

(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 [3]

(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]

Skirt terminal output [SK - * *]

VIDEO	[00]
S-VIDEO	[01]
RGB	[02]

* : Display only the model which can do the output setting of skirt terminal.

(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 Disk sensing [DSC - * * *]

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

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

nake the jitter four times, and renew it in every one second.
 [4 - * *]
 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 : * * * * *]

7.1.2 TROUBLE SHOOTING

XR-A9800D microcomputer troubleshooting

Symptom of problem	Thought cause	Check method
The power supply does not enter though the power supply outlet is put, standby LED lit 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.	The PROTECT input does not become "H".	Whether "H" is input to PROTECT input (55Pin) when "H" is output to the terminal of SCAN ON is confirmed. If "H" is not input, diode D5570 etc. are confirmed.
	If the function is DVD, the 3.3DETECT input is 2.9V or less.	If the voltage of the 3.3DETECT (24Pin) 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 (5,27Pin,95-97Pin) for the communication with the DVD microcomputer does the communication operation is confirmed. If the communication operation is not done, whether the FFC cable etc. are disconnected is confirmed. - Whether "H" is output to terminal DVDRESET (3Pin) is confirmed.
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 (18-20Pin) is 5V is confirmed. If the KEY input terminal is not 5V, whether KEY SW on the line breaks is confirmed.
The Spectrum analyzer display does not displayed.	The Spectrum analyzer input is not input.	Whether Spectrum analyzer input terminal (23Pin) is 0.3V or more is confirmed. Whether DISPLAY MODE is DISP6 when it is 0.3V or more is confirmed. Whether Spectrum analyzer IC control terminal (8-10Pin) was changeable when it is 0.3V or less is confirmed. If it was changeable, whether Spectrum analyzer IC breaks is confirmed.

7.1.3 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 out 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 WR	Write protect error of the flash ROM	No operation
FLASH SI	Difference in part number of the flash ROM (When the ROM which could't be used was used.) Or size error of the flash ROM (Use 4 or 8 M-bit.)	No operation
FLASH SU	Check sum error of the flash ROM (It exceeds the regular size.) or reverse installation (Hardware is unusual.)	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

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 six digit display part at 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)
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

FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the Unit
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 detection	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 jump up	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 more.	Stop
97	Switching error at currousel loading	Clamping could not be completed during loading.		Retry clamp operation
9A	Stop error of currousel tray	Currousel tray rotation could not be completed within 10 seconds.		Stop
9B	Push error of currousel tray	Push in the tray from the loading tray open state.		Close the tray
9C	Pull error of currousel tray	Pull out the tray from the loading tray close state.		Open the tray
9D	Stop error of currousel loading tray	Loading tray movement could not be completed within 10 seconds.		Open the tray
9E	Abnormal error of currousel switch	Tray switch error was detected with the currousel tray.		Stop (Initialize the mechanism in the mechanism controller.)
9F	Currousel initialize error	Initialization could not be achieved with the currousel tray.		Turn off the power instantly (no indication on the FL display and no writing to flash memory.)
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 μ S).		No operation
A2	Communication timeout for reading DSP coefficient	Command Busy (XCBUSY) was in force for a specified time (about 200 μ S) 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 μ S 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 retring 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).

FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the Unit
(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)

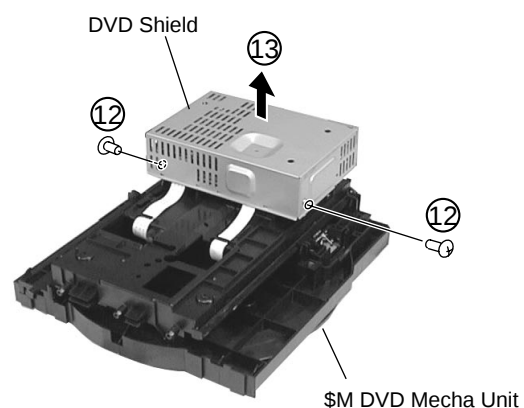
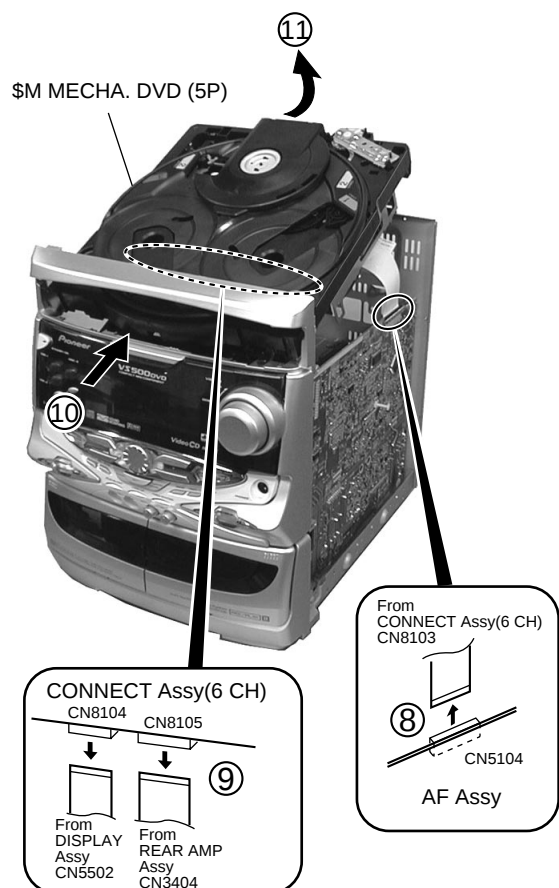
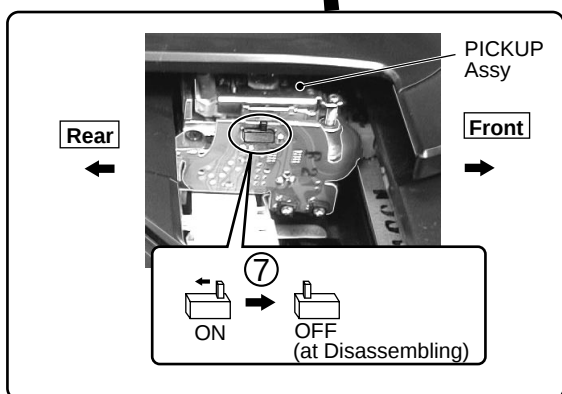
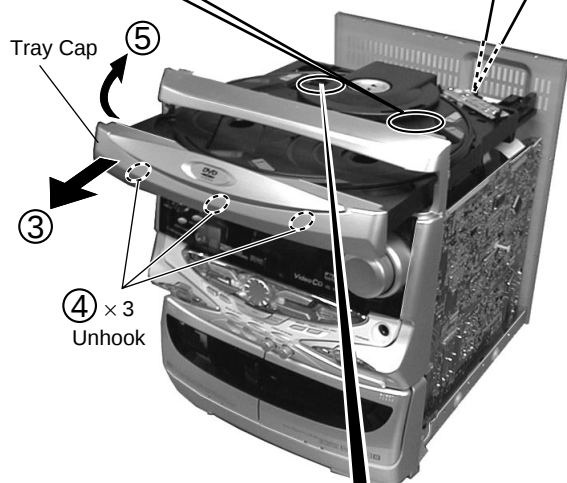
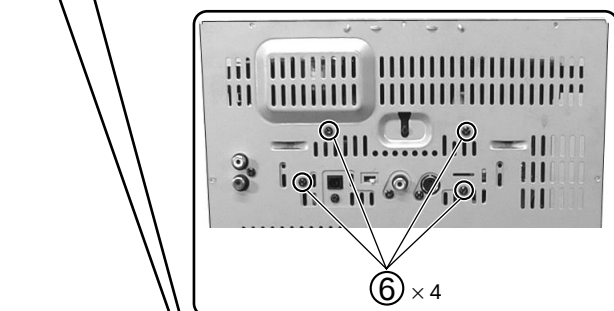
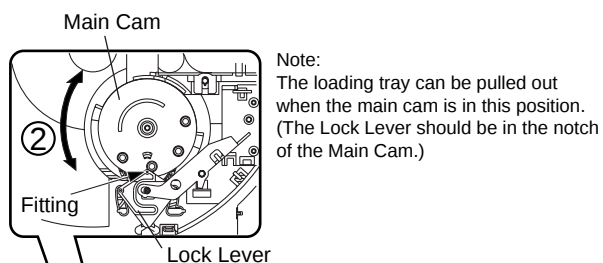
To display: ESC + DISPLAY + DISPLAY; Location of the display: At the two digits of left of the FL display

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			

7.1.4 DISASSEMBLY

■ DVD MAIN ASSY

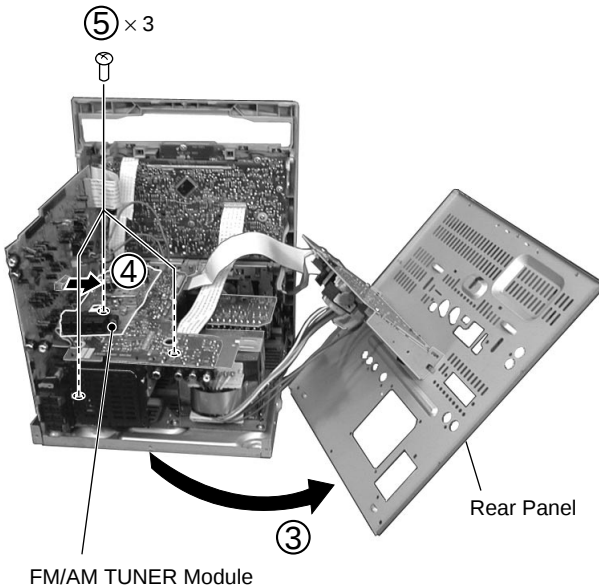
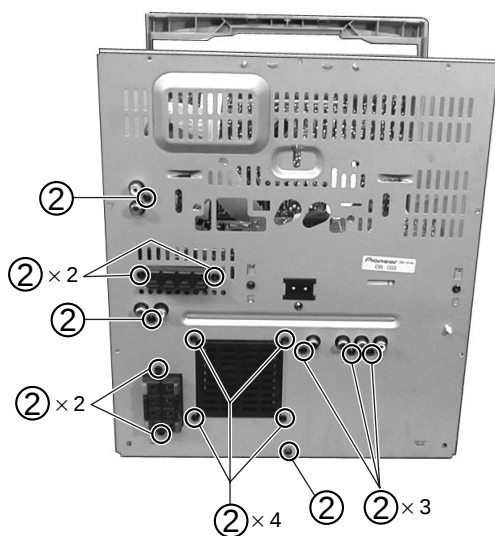
- ① Remove a Bonnet (Eleven screws).



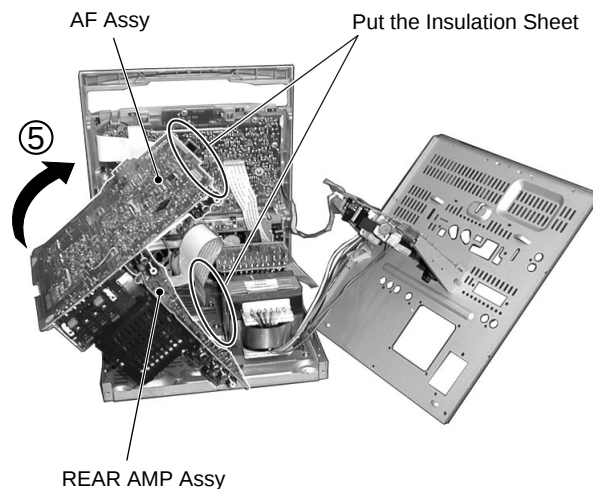
- The two FFC cable of \$M DVD Mecha Unit interferes with Loading Tray when it is movable. Please fixes the FFC cable to AF Assy with the tape so as not to interfere.

■ DIAGNOSIS of AF and REAR AMP ASSYS

- ① Remove a Bonnet (Eleven screws).
and remove the \$M Mecha DVD (5P).



- ④ Please be useless in this case
and remove FM/AM TUNER Module.



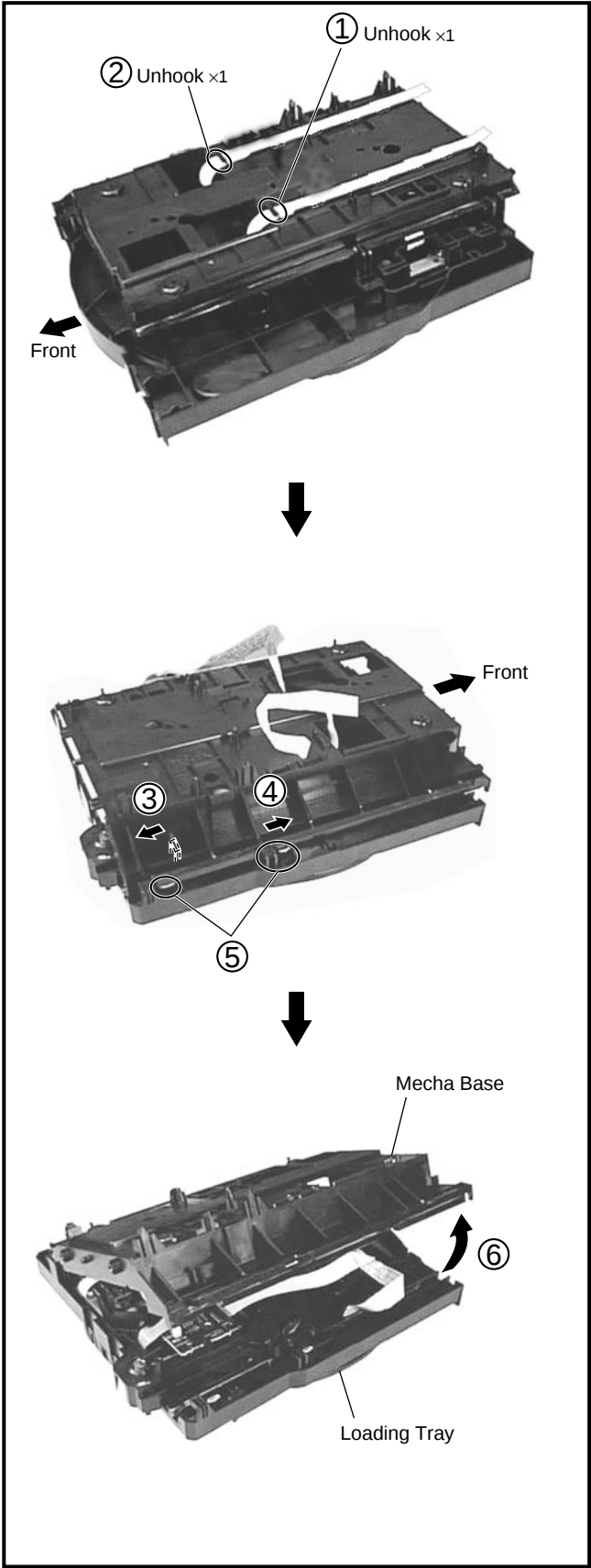
The product operates even if \$M DVD Mecha. is not connected.



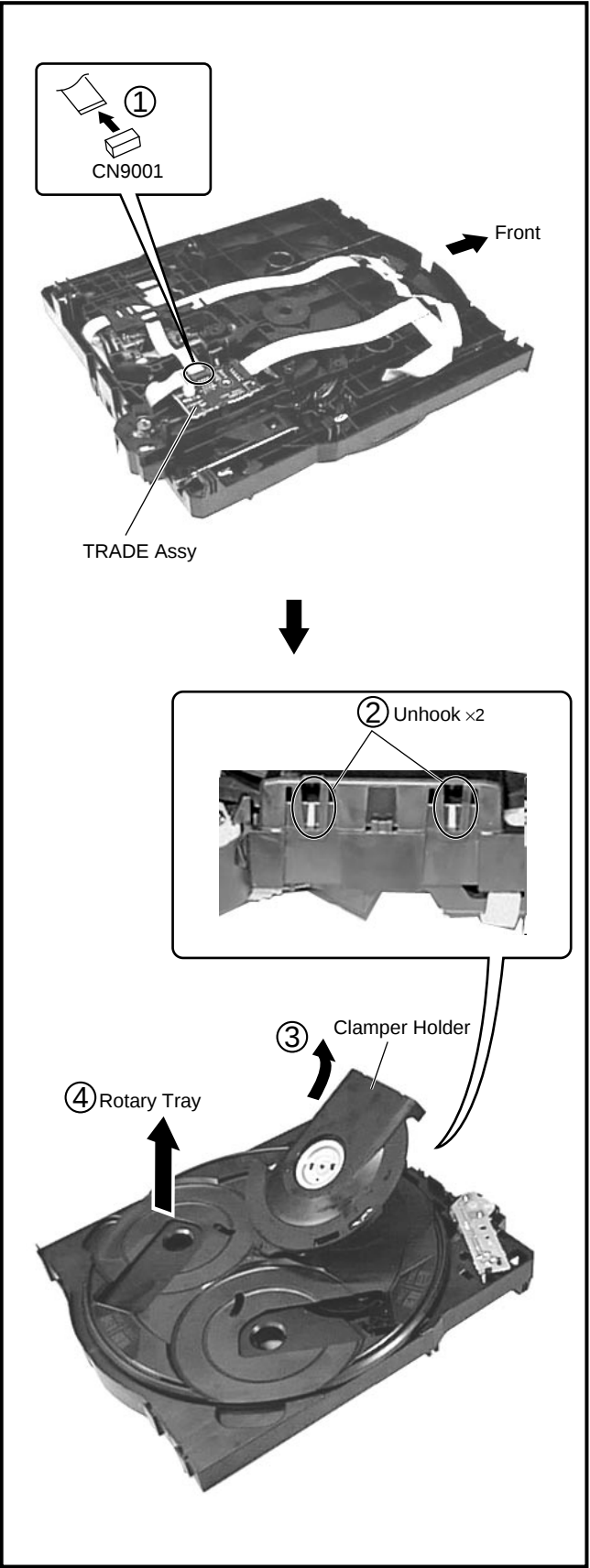
Diagnosis

■ \$M DVD MECHA UNIT ADDITIONAL TO JOB

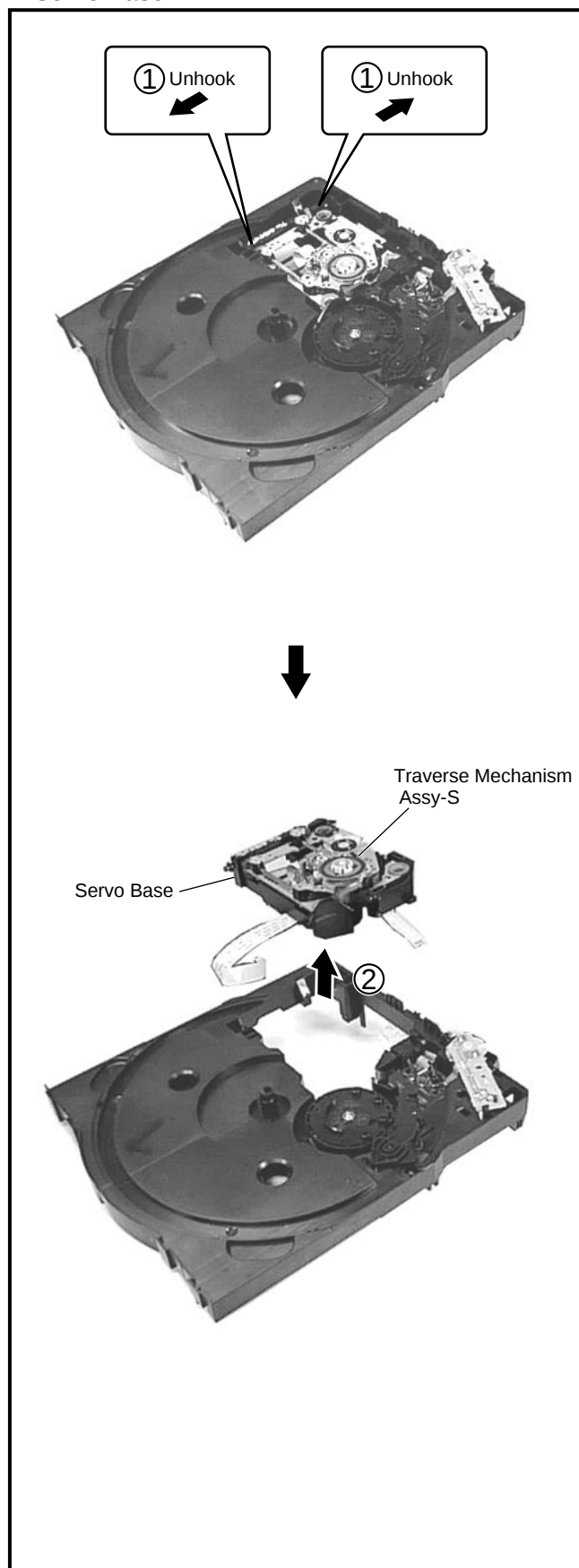
● Mecha Base (Bottom View)



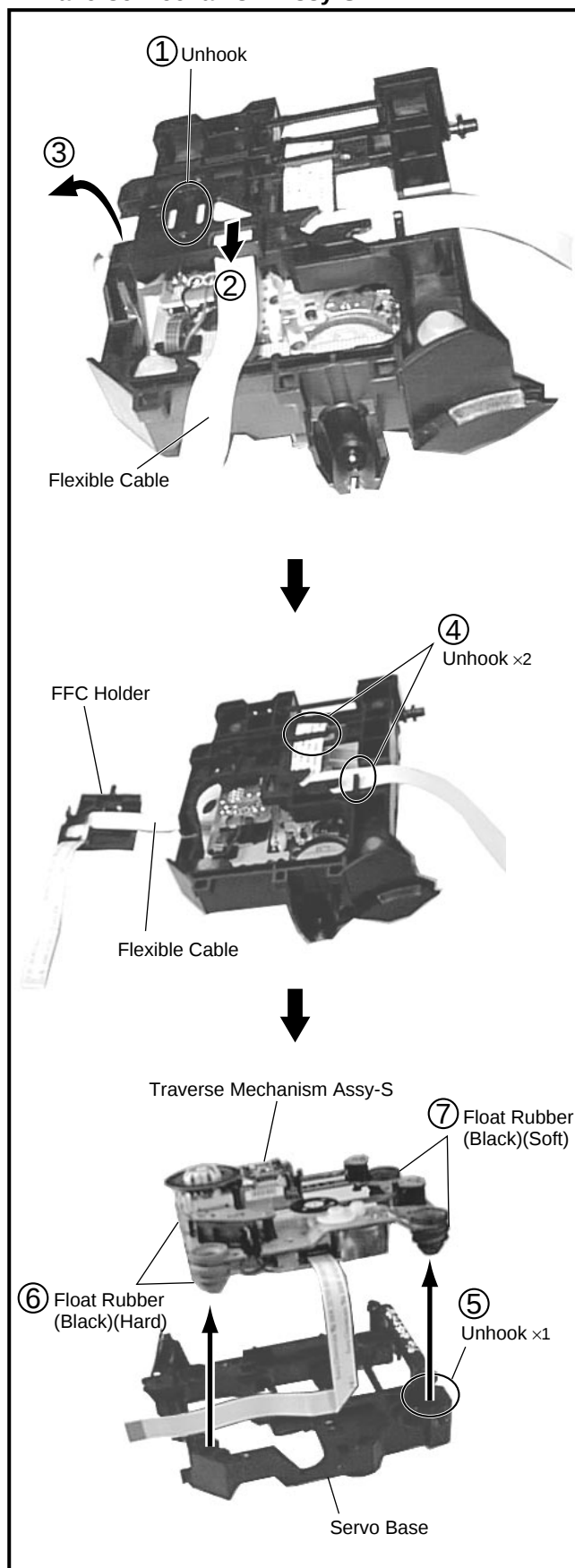
● Clamper Holder



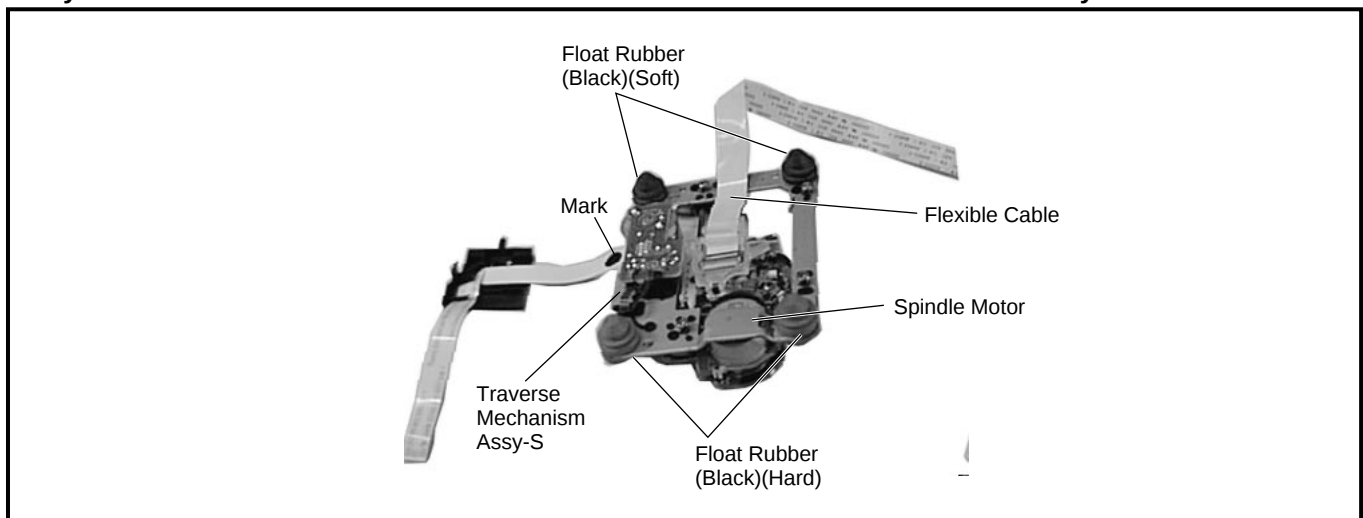
● Servo Base



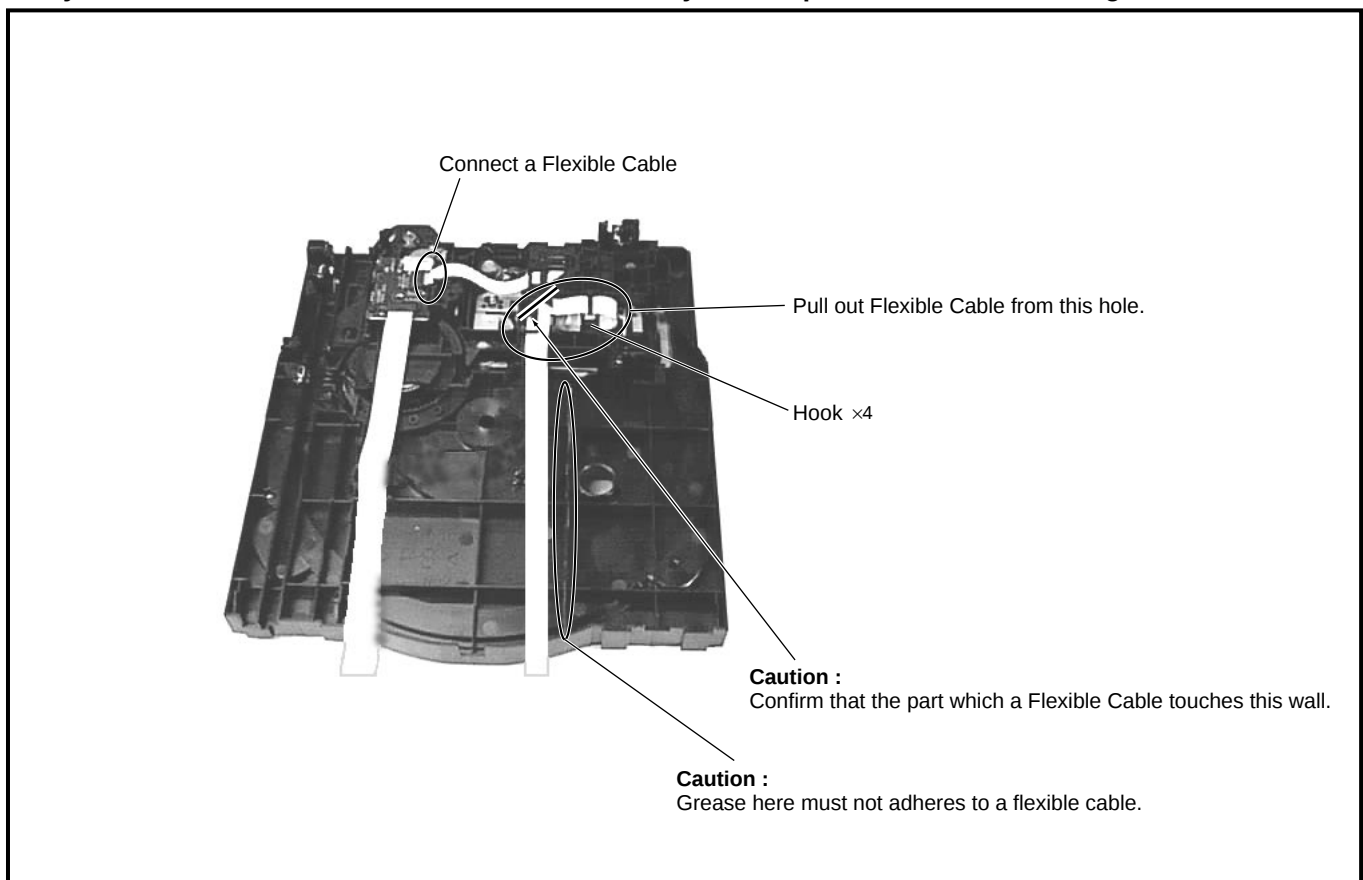
● Traverse Mechanism Assy-S



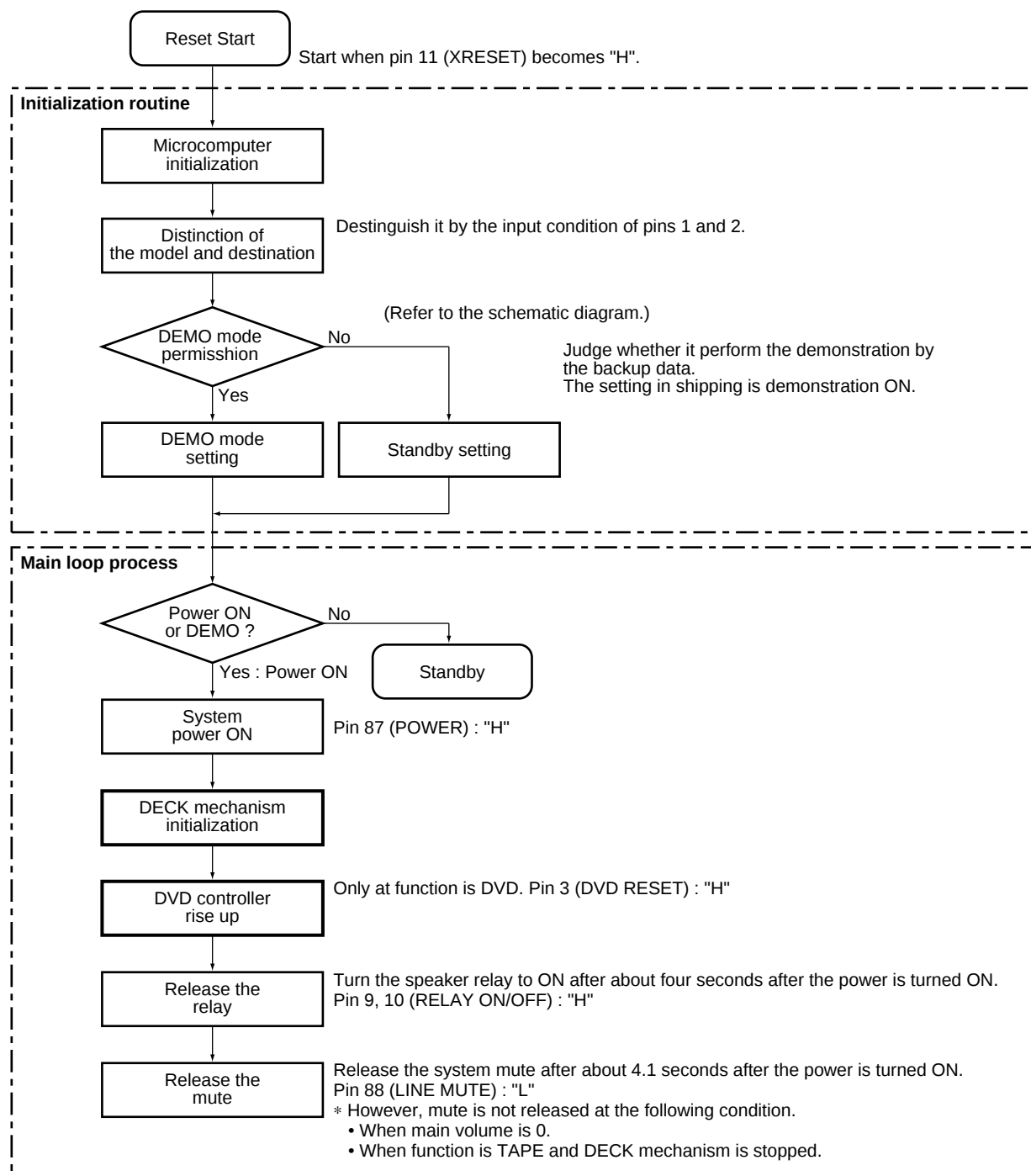
● Style the Flexible Cable and Float Rubber Position in the Traverse Mechanism Assy-S



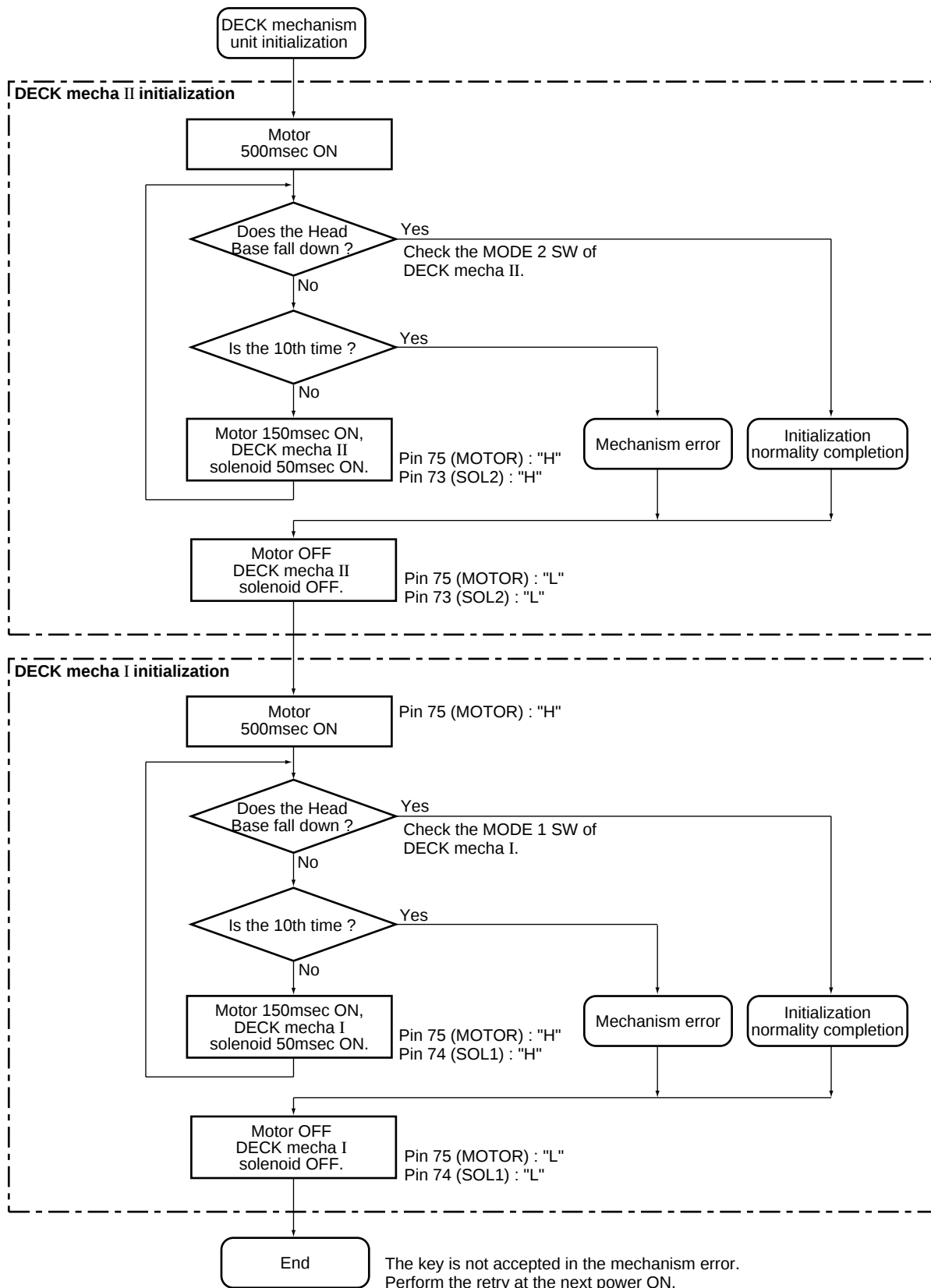
● Style the Flexible Cable in the \$M MECHA DVD Assy and Preparation before Installing the Mecha Base



7.1.5 POWER ON SEQUENCE



Note : The microcomputer enter the memory backup mode if the pulse is not inputted to pin 26 (AC) for about 60 msec.
While the memory is backupped, all the process is not done.
It is revert from the memory backup mode when there is rising edge (↑) input at the pin 11 (XRESET).



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.

■ PDC064A (DISPLAY ASSY : IC5501)

- System Control Microcomputer

• Pin Function

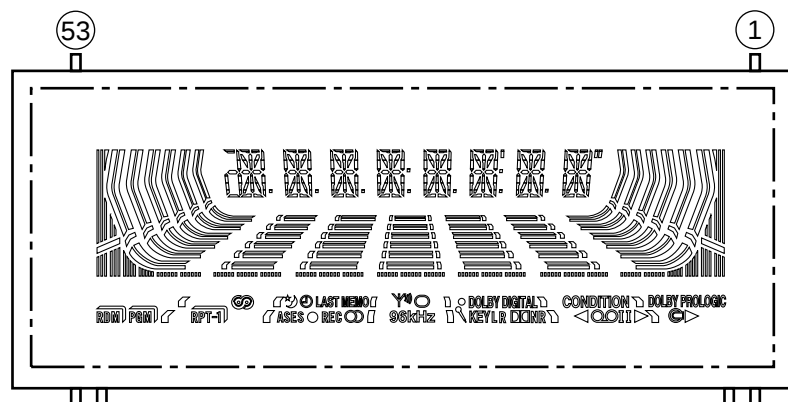
No.	Pin Name	I/O	Function
1	DSP CLK	O	Clock output for DSP, CODEC and DIR controls
2	DSP DATAO	O	Data output for DSP, CODEC and DIR controls
3	XDVDRESET	O	Reset output of DVD microcomputer
4	KYC STB	O	Strobe output of Keycon IC (M65847AFP)
5	XRDY1	O	Communication ready output of DVD microcomputer
6	REAR MUTE	O	Rear mute output
7	DSP DATAI	I	Data input for DSP
8	TIMER LED	O	Timer LED output
9	RY ON/OFF	O	Relay ON/OFF
10	REAR RY	O	Rear relay ON/OFF
11	XRESET	–	
12	VOL JOG	I	Volume JOG input
13	MORP JOG	I	Sound Morphing JOG input
14	VSS	–	Ground
15	CF1	–	
16	CF2	–	
17	VDD	–	Power supply
18	KEY1	I	Key input 1 (A/D)
19	KEY2	I	Key input 2 (A/D)
20	KEY3	I	Key input 3 (A/D)
21	MS	I	Deck MS input
22	ST/TUNE	I	Tuner STEREO/TUNE input
23	SPE-IN	I	Spectrum analyzer signal input
24	3.3DETECT	I	DVD 3.3V detection input
25	MODEL3	I	Model distinguish input 3
26	AC	I	AC pulse interrupt input
27	LT11	I	Communication latch input of DVD microcomputer
28	DIRDATAIN	I	DIR data input
29	REMOCON	I	Remote control interrupt input
30	G01	O	Grid output
31	G02		
32	G03		
33	G04		
34	G05		
35	G06		
36	G07		
37	G08		
38	G09		
39	G10		
40	G11		
41	G12		
42	G13		
43	G14		
44	G15		
45	S01	O	Segment 1 output
46	VDD	–	Power supply
47	S02/D5597	I/O	Segment 2 output
48	S03/D5596		Segment 3 output
49	S04/D5595		Segment 4 output
50	S05/D5594		Segment 5 output/Destination SW4 input

No.	Pin Name	I/O	Function
51	VFDP	–	
52	S06/D5593	I/O	Segment 6 output/Destination SW3 input
53	S07/D5592		Segment 7 output/Destination SW2 input
54	S08/D5591		Segment 8 output/Destination SW1 input
55	S09/TH		Segment 9 output/Protection input
56	S10/H.P.DET		Segment 10 output/Headphone insert/pull-out check input
57	S11		Segment 11 output
58	S12		Segment 12 output
59	S13		Segment 13 output
60	S14/ARF		Segment 14 output/DECK ARF SW input
61	S15/ARR		Segment 15 output/DECK ARR SW input
62	S16/MODE1		Segment 16 output/DECK MODE SW1 input
63	S17/MODE2		Segment 17 output/DECK MODE SW2 input
64	S18/HALF1		Segment 18 output/DECK HALF SW1 input
65	S19/HALF2		Segment 19 output/DECK HALF SW2 input
66	S20/CrO2_1		Segment 20 output/DECK CrO2 SW1 input
67	S21/CrO2_2		Segment 21 output/DECK CrO2 SW2 input
68	S22	O	Segment 22 output
69	S23		Segment 23 output
70	S24		Segment 24 output
71	DIR LOCK	I	DIR lock detection
72	VDD	–	Power supply
73	SOL2	O	DECK solenoid output 2
74	SOL1		DECK solenoid output 1
75	MOTOR	O	DECK motor output
76	LED CE	O	Chip enable output of LED driver (pull-down)
77	SUB CE	O	Chip enable output of YSS912C SUB DSP (pull-down)
78	MAIN CE	O	Chip enable output of YSS912C MAIN DSP (pull-down)
79	CODEC CE	O	Chip enable output of CODEC (pull-down)
80	DIR CE	O	Chip enable output of DIR (pull-down)
81	REEL1	I	DECK reel pulse input 1
82	REEL2		DECK reel pulse input 2
83	LSRSVOL	O	Rear volume data (pull-down)
84	CLFEVOL	O	Center volume data (pull-down)
85	PLL CE	O	Chip enable output of Tuner PLL
86	EVOL CE	O	Chip enable output of electronic volume IC
87	POWER	O	Power output
88	LINE MUTE	O	Line mute output
89	VSS	–	Ground
90	VDD	–	Power supply
91	EXP CLK	O	Clock output for EXP IC
92	EXP DATA	O	Data output for EXP IC
93	EXP CE	O	Chip enable output of EXP IC (BU4094BCF)
94	SCAN ON	O	Outputs for SW reading
95	SSI(SSO)	O	Communication data output of DVD microcomputer (outputs at AMP side)
96	SSO(SSS)	I	Communication data input of DVD microcomputer (inputs at AMP side)
97	SSCK	O	Communication clock output of DVD microcomputer
98	SYSDATA	O	Data output of the Tuner PLL data/electronic volume IC
99	TXDATA	I	Tuner data input
100	SYSCLK	O	Clock output of the Tuner PLL data/electronic volume IC

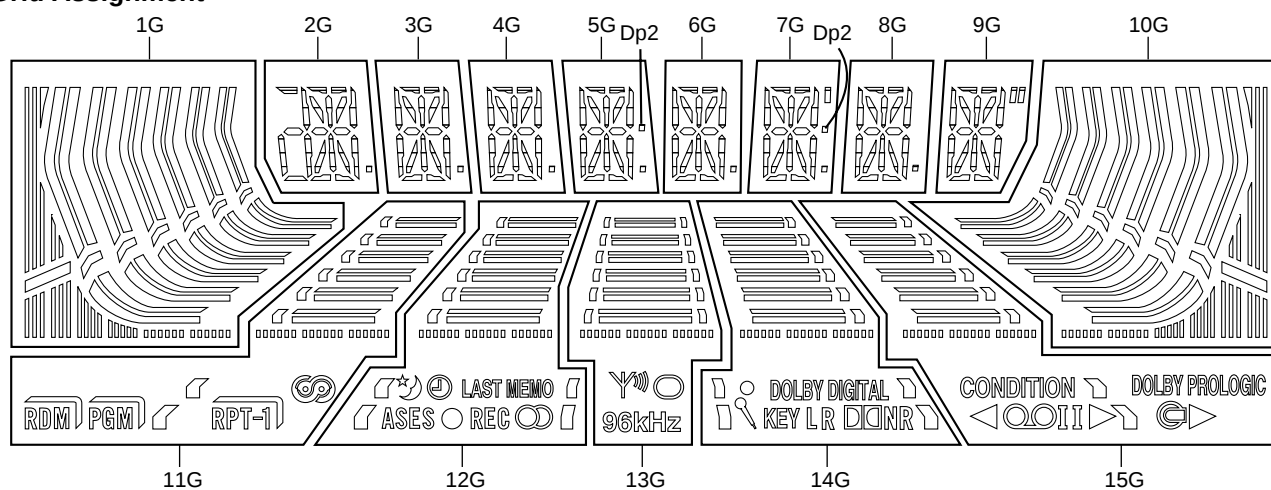
7.2.2 DISPLAY

■ XAV3009 (DISPLAY ASSY :V5621)

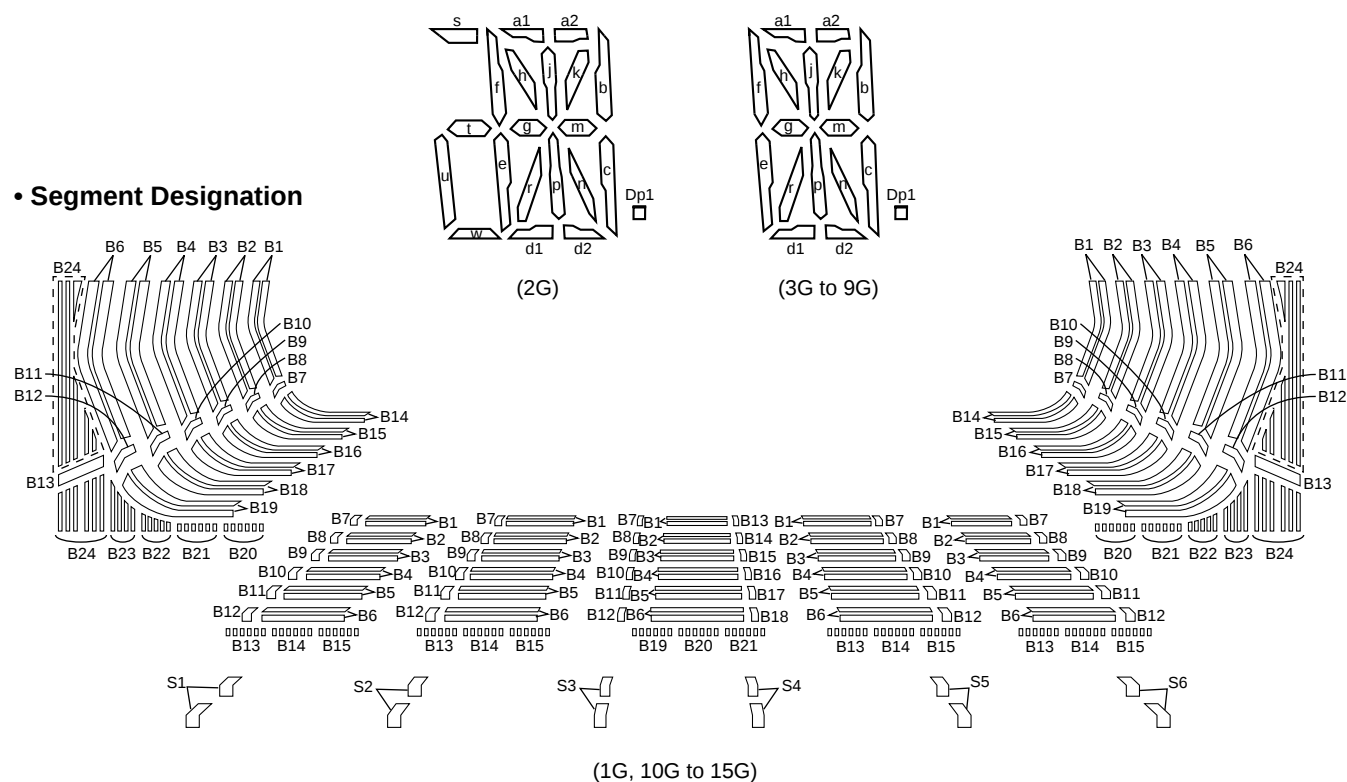
- FL Display
- Pin Assignment



• Grid Assignment



• Segment Designation



• Pin Connection

Pin No.	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27
Connection	F2	F2	F2	NP	NP	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G	14G	15G	P1	P2	P3	P4	P5	P6	P7
Pin No.	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
Connection	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	NX	NX	NX	NX	NP	NP	F1	F1	F1	

NOTE 1) F1, F2..... Filament
 2) NP..... No pin
 3) NX..... No extend pin
 4) DL..... Datum Line
 5) 1G to 15G..... Grid
 6) Field of vision is a minimum of 29° from the lower side.

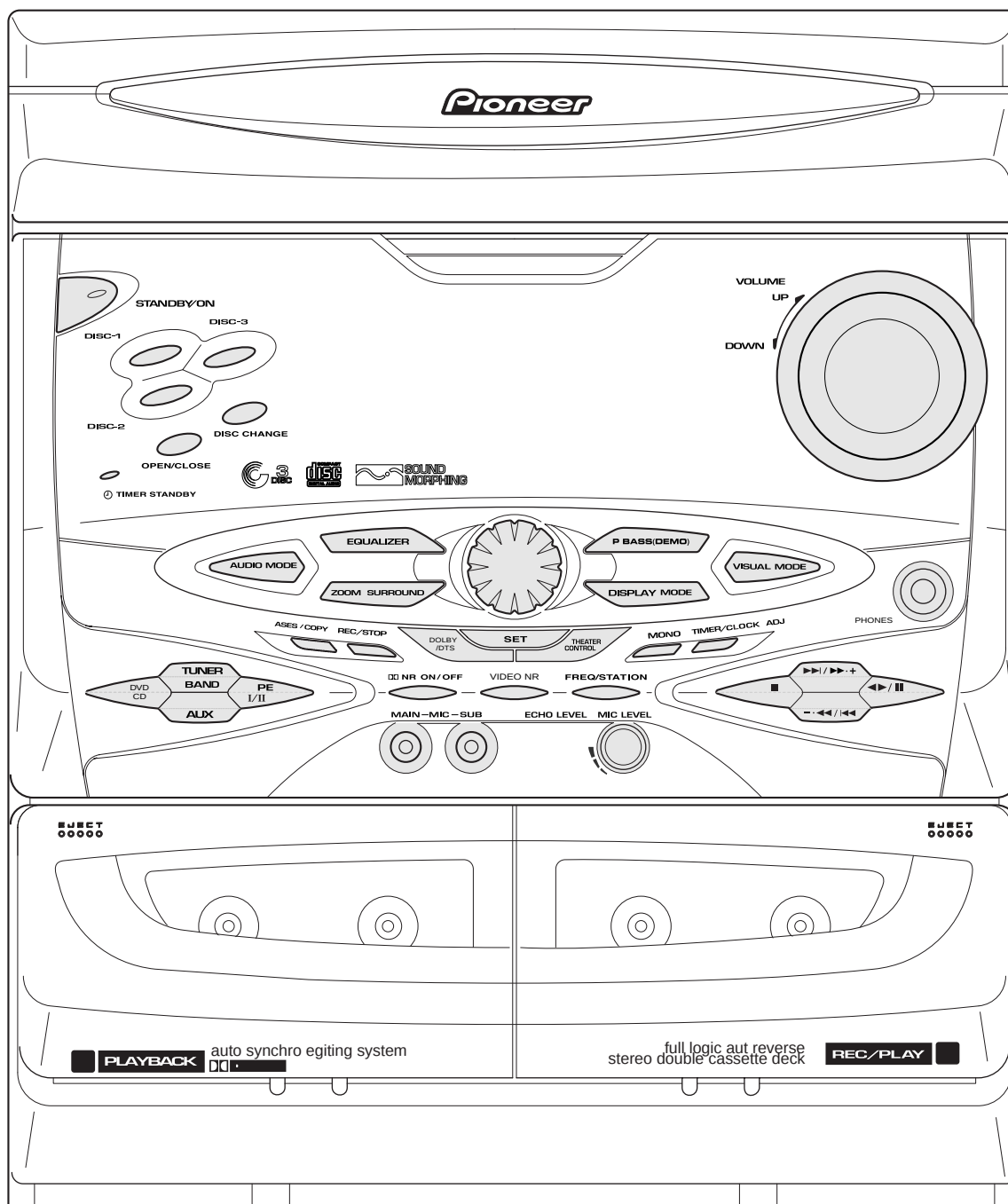
• Anode Connection

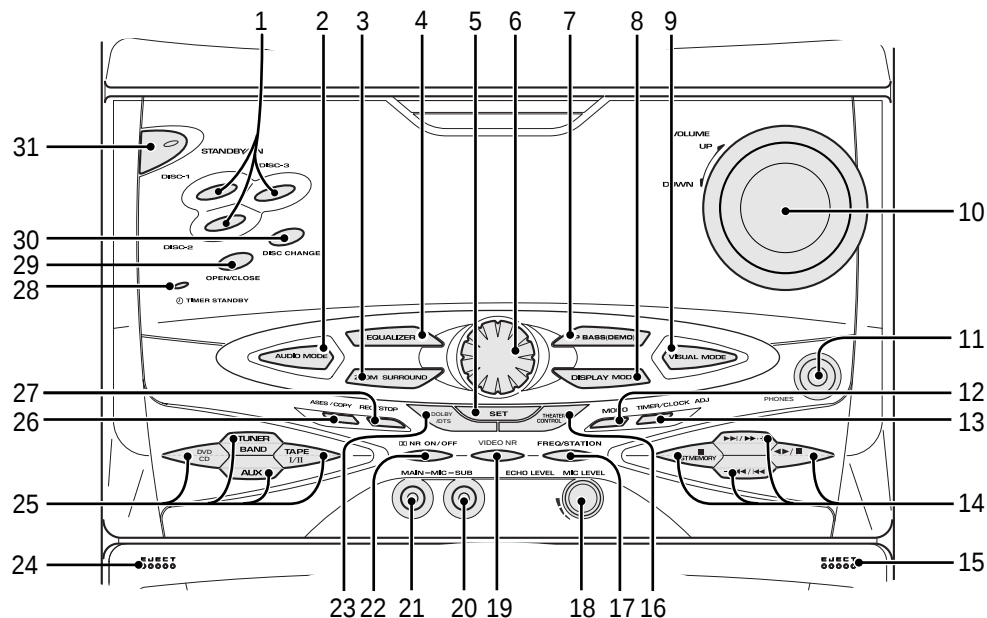
	1G	2G	3G,4G	5G	6G	7G	8G	9G	10G	11G	12G	13G	14G	15G
P1	B24	—	—	—	—	—	—	—	B24	RDM	S2	96kHz	S4	▷ (RIGHT)
P2	B23	a1	a1	a1	a1	a1	a1	a1	B23		ASES			
P3	B22	a2	a2	a2	a2	a2	a2	a2	B22	PGM	○	○	KEY	S6
P4	B21	h	h	h	h	h	h	h	B21		REC	B21	L	▷ (LEFT)
P5	B19	j	j	j	j	j	j	j	B19	RPT	S3	B19	R	
P6	B17	k	k	k	k	k	k	k	B17			B17	DICNR	DOLBY PROLOGIC
P7	B15	b	b	b	b	b	b	b	B15	B15	B15	B15	B15	B15
P8	B14	f	f	f	f	f	f	f	B14	B14	B14	B14	B14	B14
P9	B13	g	g	g	g	g	g	g	B13	B13	B13	B13	B13	B13
P10	B6	m	m	m	m	m	m	m	B6	B6	B6	B6	B6	B6
P11	B11	c	c	c	c	c	c	c	B11	B11	B11	B11	B11	B11
P12	B10	e	e	e	e	e	e	e	B10	B10	B10	B10	B10	B10
P13	B4	r	r	r	r	r	r	r	B4	B4	B4	B4	B4	B4
P14	B9	p	p	p	p	p	p	p	B9	B9	B9	B9	B9	B9
P15	B8	n	n	n	n	n	n	n	B8	B8	B8	B8	B8	B8
P16	B2	d1	d1	d1	d1	d1	d1	d1	B2	B2	B2	B2	B2	B2
P17	B3	d2	d2	d2	d2	d2	d2	d2	B3	B3	B3	B3	B3	B3
P18	B12	dp1	dp1	dp1	dp1	dp1	dp1	—	B12	B12	B12	B12	B12	B12
P19	B18	—	—	dp2	—	dp2	—	—	B18	-1		B18	DOLBY DIGITAL	◁
P20	B20	—	—	—	—		—		B20	S1		B20	○	I
P21	B16	s	—	—	—	—	—	—	B16		LAST MEMO	B16	S5	CONDITION
P22	B5	t	—	—	—	—	—	—	B5	B5	B5	B5	B5	B5
P23	B1	u	—	—	—	—	—	—	B1	B1	B1	B1	B1	B1
P24	B7	w	—	—	—	—	—	—	B7	B7	B7	B7	B7	B7

8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

■ Front Panel Section



**1 DISC-1/2/3**

Press to select discs in the player directly.

2 AUDIO MODE

Press to switch between the preset audio settings (use the **JOG** dial for smooth adjustment).

3 ZOOM SURROUND

Press to switch between Zoom Surround modes (use the **JOG** dial for smooth adjustment).

4 EQUALIZER

Press to switch between the preset Equalizer settings (use the **JOG** dial for smooth adjustment).

5 SET

Use to enter timer and other settings made with the **JOG** dial.

6 JOG dial

Use to morph between sound settings and when setting the clock or timer.

7 P.BASS (DEMO)

Press to switch between P.Bass modes (use the **JOG** dial for smooth adjustment).

8 DISPLAY MODE

Use to switch the sound level display pattern.

9 VISUAL MODE

Press to switch between the preset visual settings (use the **JOG** dial for smooth adjustment).

10 VOLUME UP/DOWN

Use to adjust the overall volume.

11 PHONES jack (Headphones)

Plug in a pair of headphones to this jack.

12 MONO

Press to listen to a stereo FM broadcast in mono (sound quality is usually improved).

13 TIMER / CLOCK ADJ

Use to start setting the clock/timer.

14 Playback/tuning controls**■ ST. MEMORY**

When playing tapes or discs, press to stop a disc or tape currently playing. When in the tuner mode, press to change from manual tuning to the station presets.



Use for forward scanning and track skip when playing a disc. Use for forward music search and fast-forward when playing a tape. When listening to the radio, use to select a preset station, or tune manually to a station.



Use for reverse scanning and track skip when playing a disc. Use for reverse music search and rewind when playing a tape. When listening to the radio, use to select a preset station, or tune manually to a station.



Press to start playback of a disc or tape. When playing a disc, press to pause playback (press again to restart). When playing a tape, press to start playing the other side.

15 EJECT (tape II)

Press to open the cassette door of deck II.

16 THEATER CONTROL

Press to change the picture mode. There are three modes: Cinema, Animation, and Standard.

17 FREQ / STATION

Press to switch between tuning and preset station modes.

18 MIC LEVEL

Use to adjust the volume of the microphone relative to the backing track when singing karaoke.

19 VIDEO NR

Press to switch on Video NR and improve the picture quality of Video CDs and DVDs.

20 MIC SUB

Plug in a second microphone into this jack for karaoke.

21 MIC MAIN

Plug in a microphone into this jack for karaoke.

22 NR* ON/OFF

Press to switch Dolby Noise Reduction on/off for tape playback and recording.

23 DOLBY/DTS

Press to switch Dolby Digital / Dolby Pro-Logic / DTS surround sound on/off.

24 EJECT (tape I)

Press to open the cassette door of deck I.

25 Function select buttons

DVD/CD

Press to change the system function to DVD/CD.

TUNER BAND

Press to switch to tuner function and to switch between AM and FM.

AUX

Press to change the system function to auxiliary.

TAPE I/II

Press to switch the system function to tape and to switch between tape decks I and II.

26 ASSES / COPY

Press to start automatic CD/tape recording.

27 REC / STOP

Press to start/stop tape recording.

28 TIMER indicator

Lights when the timer has been set.

29 OPEN/CLOSE

Press to open and close the disc tray.

30 DISC CHANGE

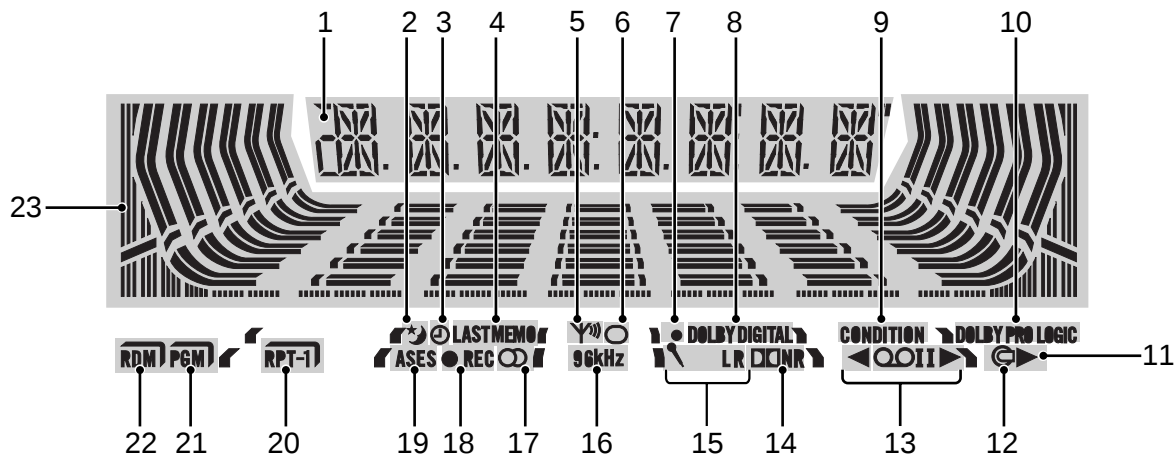
Press to select the next disc in the player.

31 STANDBY/ON and standby indicator

Press to switch the unit between standby and on. Indicator lights in standby.

* Manufactured under licence from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

■ Display Section



1 Character display

2 Sleep indicator

Lights when sleep timer has been set.

3 Timer indicator

Lights when either the record timer or the wake up timer has been set.

4 LAST MEMO

Lights when a bookmark was set for the DVD disc loaded.

5 Tuned indicator

Lights when the tuner is receiving a broadcast.

6 Mono indicator

Lights when the tuner is set to mono FM mode.

7 Beat cut 2 indicator

Lights when in beat cut 2 mode.

8 DOLBY DIGITAL

Lights when a Dolby Digital DVD disc is playing.

9 CONDITION

Lights when a DVD disc is loaded that has had preferences set for language, screen, etc.

10 DOLBY PRO LOGIC

Lights when Dolby Pro Logic is switched on.

11 Disc play indicator

Lights when a DVD/CD/Video CD is playing.

12 Disc indicator

Lights when the system is in DVD/CD/Video CD mode.

13 Tape indicators

◀ and ▶ – Indicates the current tape play/record direction.

I or II – Indicates the current tape deck, I or II.

14 NR

Lights when Dolby Noise Reduction is switched on.

15 Karaoke indicators

L R – Indicates which channels of the karaoke track you're hearing.

🎤 – Lights when in the karaoke mode.

16 96kHz

Lights when a DVD disc is playing that contains 96kHz audio.

17 STEREO

Lights when the tuner is receiving a stereo FM broadcast in auto stereo mode.

18 REC

Lights when recording to tape.

19 ASES

Lights during automatic recording of a CD.

20 RPT / RPT-1

Highlights during repeat play mode.

21 PGM

Highlights during program playback mode.

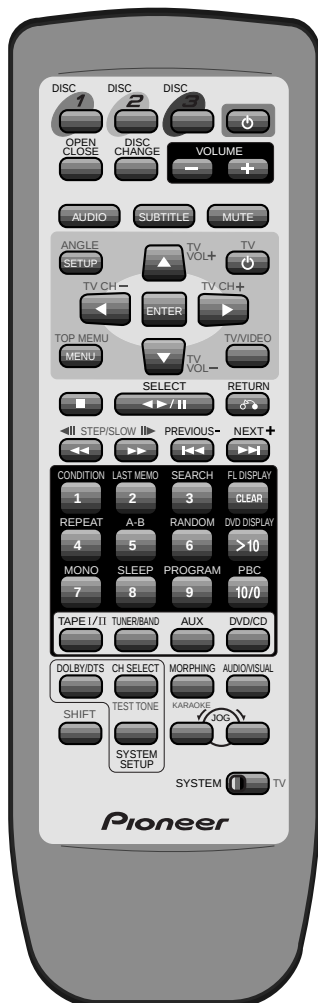
22 RDM

Highlights during random playback mode.

23 Sound morphing / sound level display

■ Remote Control Unit

To learn about the function of a particular button, look up the name of the button in the following alphabetical list (buttons marked with symbols appear first).



Press to switch the system on or into standby.



Use to navigate the on-screen menus.



Press to stop a disc or tape currently playing.



Press to start playing a disc or tape, or pause one already playing.



Use to scan backward on a disc, or fast-rewind a tape. When listening to the radio, use for tuning to stations.



Use to scan forward on a disc, or fast-forward a tape. When listening to the radio, use for tuning to stations.



Use with the **SHIFT** button for reverse frame-advance and slow motion reverse playback of a DVD disc.



Use with the **SHIFT** button for frame advance and slow motion forward playback of a DVD or Video CD.



Use to skip back tracks/chapters on a disc or tape. When listening to the radio, use to change the station preset.



Use to skip forward tracks/chapters on a disc or tape. When listening to the radio, use to change the station preset.

>10

Use to select numbers over 10 (press this button, then input the number using the other number buttons).

10/0

Use as zero or 10 when entering numbers (for track numbers, station presets, TV channels, etc.).

1-9

Number buttons (for track numbers, station presets, TV channels, etc.).

A A-B (SHIFT & 5)

Press to mark the start and end points of a loop to repeat when playing discs.

ANGLE (SHIFT & SETUP)

Press to switch camera angle on DVD discs recorded with multiple camera angles.

AUDIO

Press to switch the audio language of DVD discs.

AUDIO/VISUAL

Press to switch between Audio Preset and Visual Preset sound modes.

AUX

Press to change the system function to auxiliary.

C CH SELECT

Use to select a speaker when adjusting channel levels.

CLEAR

Press to clear or cancel various operations.

CONDITION (SHIFT & 1)

Press to memorize the current DVD disc preferences.

D DISC-1/2/3

Use to select discs in the player directly.

DISC CHANGE

Press to select the next disc in the player.

DOLBY/DTS

Press to switch Dolby Digital / Dolby Pro-Logic / DTS surround sound on/off.

DVD DISPLAY (SHIFT & >10)

Press to display disc information on-screen.

DVD/CD

Press to change the system function to DVD/CD/ Video CD.

E ENTER

Use to select items from on-screen menus.

F FL DISPLAY (SHIFT & CLEAR)

Press to switch the display mode.

J JOG

Use to morph between sound settings and when setting the clock or timer.

K KARAOKE (SHIFT & MORPHING)

Press to switch the karaoke mode.

L LAST MEMO (SHIFT & 2)

Press to memorize the current position on a DVD disc.

M MENU

Press to display the disc menu of a DVD disc.

MONO (SHIFT & 7)

Press to listen to a stereo FM broadcast in mono (sound quality is usually improved).

MORPHING

Press to switch the sound morphing mode (adjust using the JOG buttons).

MUTE

Press to mute all sound from the speakers. Press again to restore the sound.

N NEXT +

Press to display the next menu screen on a PBC Video CD.

O OPEN/CLOSE

Press to open/close the disc tray.

P PBC (SHIFT & 10/0)

Press to switch Video CD playback control on or off.

PREVIOUS -

Press to display the previous menu screen on a PBC Video CD.

PROGRAM (SHIFT & 9)

Press to start programming a playlist.

R RANDOM (SHIFT & 6)

Press to start random playback of tracks/discs loaded.

REPEAT (SHIFT & 4)

Use to select a repeat mode for discs.

RETURN

Press to leave a menu screen without making changes. During PBC playback at a Video CD, press to display the PBC menu.

S SEARCH (SHIFT & 3)

Use to select the disc search mode (track, chapter, title or time).

SELECT

Press to start playing the selected track from a Video CD PBC menu.

SETUP

Press to display the DVD Setup menu for access to various sound, picture and language options.

SHIFT

Use to access secondary functions printed in red or orange on the remote control.

SLEEP (SHIFT & 8)

Press to set up the sleep timer.

STEP/SLOW

See ◀II and II▶ above.

SUBTITLE

Press to switch the subtitle language of DVD discs during playback.

SYSTEM SETUP

Press to display the menu for setting up surround sound.

SYSTEM / TV switch

When set to system the remote controls the system unit; when set to tv, the remote controls your TV.

T TAPE I/II

Press to switch to the tape function and to switch between tape decks I and II.

TEST TONE (SHIFT & CH SELECT)

Press to output a test tone when adjusting channel levels.

TOP MENU (SHIFT & MENU)

Press to display the top menu of a DVD disc.

TUNER/BAND

Press to switch to the tuner, and use to switch between FM and AM bands.

**TV **

Press to switch your TV on or into standby.

TV CH +

Press to change the TV channel.

TV CH –

Press to change the TV channel.

TV VOL +

Press to turn up the TV volume.

TV VOL –

Press to turn down the TV volume.

TV/VIDEO

Press to switch the TV's input between the built in TV tuner and an external video source.

V VOLUME +/-

Use to adjust the overall volume level.

8.2 SPECIFICATIONS

Amplifier Section

Continuous Power Output – Stereo (XR-A9800D)

Continuous average power output of 70 watts* per channel, min., at 6 ohms, from 60 Hz to 15,000 Hz with no more than 5%** total harmonic distortion (front L/R).

* Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claim's for Amplifiers.

** Measured by Audio Spectrum Analyzer.

Surround

XR-A9800D, XR-VS500D (RMS)

Front	100 W per channel (1 kHz, 10% T.H.D., 6 Ω)
Center, Rear R, L	33 W per channel (1 kHz, 10% T.H.D., 8 Ω)

Disc section

Digital audio characteristics	DVD fs: 96 kHz, 24-bit
Type	DVD system, Video CD system and Compact Disc digital audio system
Frequency response	4 Hz to 44 kHz
S/N ratio	95 dB
Dynamic range	95 dB
Total harmonic distortion	0.005 %
Wow and Flutter	Limit of measurement
.....	(±0.001 % W.PEAK) or less (EIAJ)

Cassette deck section

Systems	4 track, 2-channel stereo
Heads	Recording/playback head × 1 Playback head × 1
Motor	DC servo motor × 1
Tape types	TYPE I (Normal)/TYPE II (HIGH/CrO2) tape

FM tuner section

FrequencyRange	87.5 MHz to 108 MHz
Antenna input	75 Ω unbalanced

AM tuner section

FrequencyRange	
With 9 kHz step	531 kHz to 1,602 kHz
With 10 kHz step	530 kHz to 1,700 kHz
Antenna input	Loop antenna

Miscellaneous

Power Requirements	
US and Canadian models	AC 120 V, 60 Hz
Australian models	AC 240 V, 50/60 Hz
Power Consumption	170 W
Power Consumption in Standby mode	1 W
Dimensions	270 (W) x 320 (H) x 339 (D) mm
.....	10 5/8 (W) x 12 5/8 (H) x 13 3/8 (D) in.
Weight (without package)	10.2kg (22 lbs. 8oz.)

Accessories

Operating instructions 1
Remote control unit 1
Size AA/R6P dry cell batteries 2
FM antenna 1
AM loop antenna 1
Power Cord 1
Video Cord 1
Warranty card 1

- Specifications and design subject to possible modification without notice, due to improvements.
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POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

■ Accessories

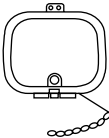
① Remote Control Unit × 1
(XZN3109)



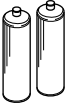
② FM Antenna × 1
(ADH7004)



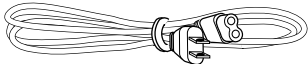
③ AM Loop Antenna × 1
(XTB3001)



④ AA/R6P Dry Cell Batteries × 2



⑤ Power Cord × 1
(ADG7022)



⑥ Video Cord × 1
(VDE1034) (L=1.5m)
Yellow

