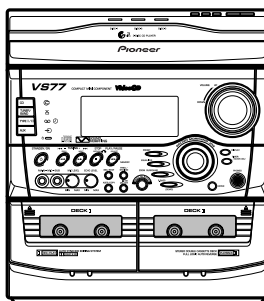


Service Manual

Pioneer



●XR-VS77

ORDER NO.
RRV2035

STEREO CD/VCD CASSETTE DECK RECEIVER

XR-VS77 XR-VS55

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

Type	Model		Power Requirement	The Voltage can be converted by the following method.
	XR-VS77	XR-VS55		
DBDXJ	○	○	AC110-127V/220-230V/240V	With the voltage selector
DLXJ/NC	○	○	AC110-127V/220-230V/240V	With the voltage selector

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PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 501 Orchard Road, #10-00 Wheelock Place, Singapore 238880
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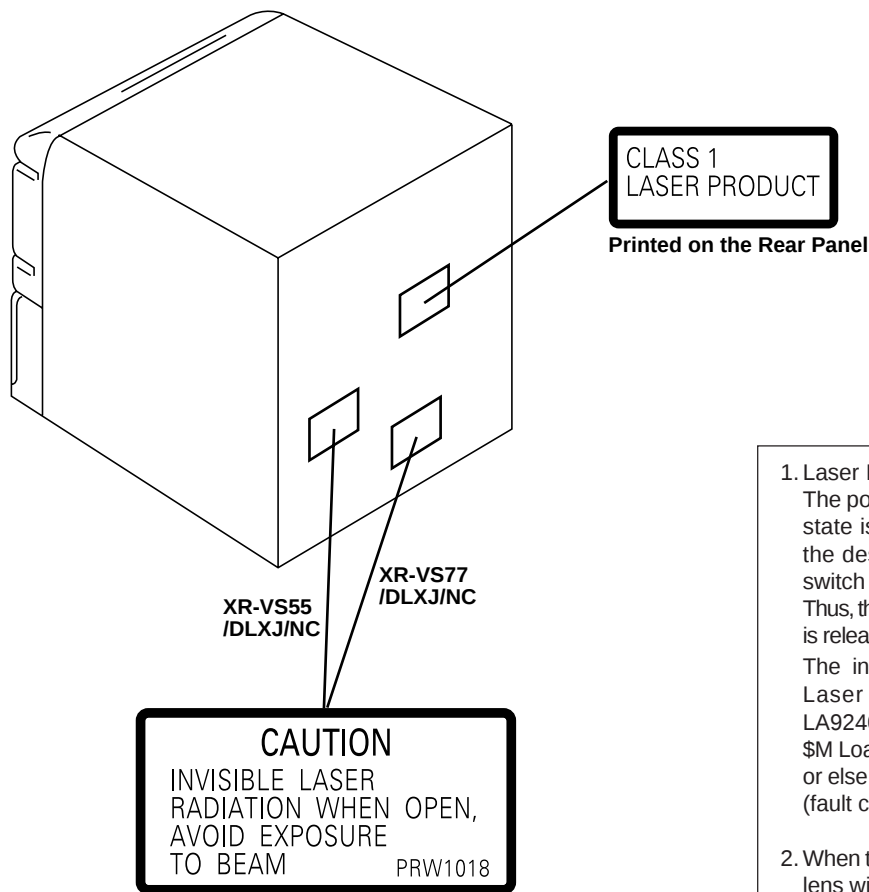
1. SAFETY INFORMATION

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.

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

— LASER DIODE CHARACTERISTICS —
MAXIMUM OUTPUT POWER: 1.3 mW
WAVELENGTH: 790 nm ± 25 nm

LABEL CHECK (For DLXJ/NC type)



— Additional Laser Caution —

1. Laser Interlock Mechanism
The position of the switch (S8501) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S8501) is pressed physically. Thus, the interlock will no longer function if the switch (S8501) is released physically and deliberately. The interlock also does not function in the test mode *. Laser diode oscillation will continue, if pin 62 of LA9240ML (IC8101) on the CD ASSY mounted on the \$M Loading Mechanism assembly is connected to GND, or else the terminals of Q8101 are shorted to each other (fault condition).

2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

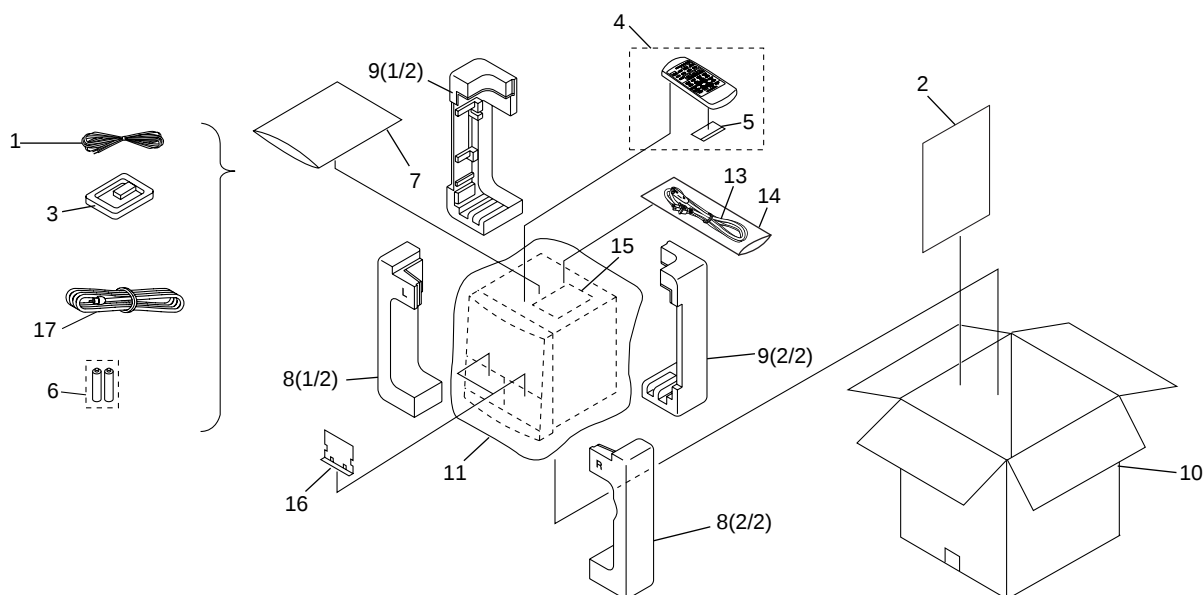
* : Refer to page 61.

2. EXPLODED VIEWS AND PARTS LIST

NOTES: ● Parts marked by "NSP" and ⊗ can not be supplied.

- The △ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Screws adjacent to ▼ mark on the product are used for disassembly.

2.1 PACKING



(1) PACKING PARTS LIST

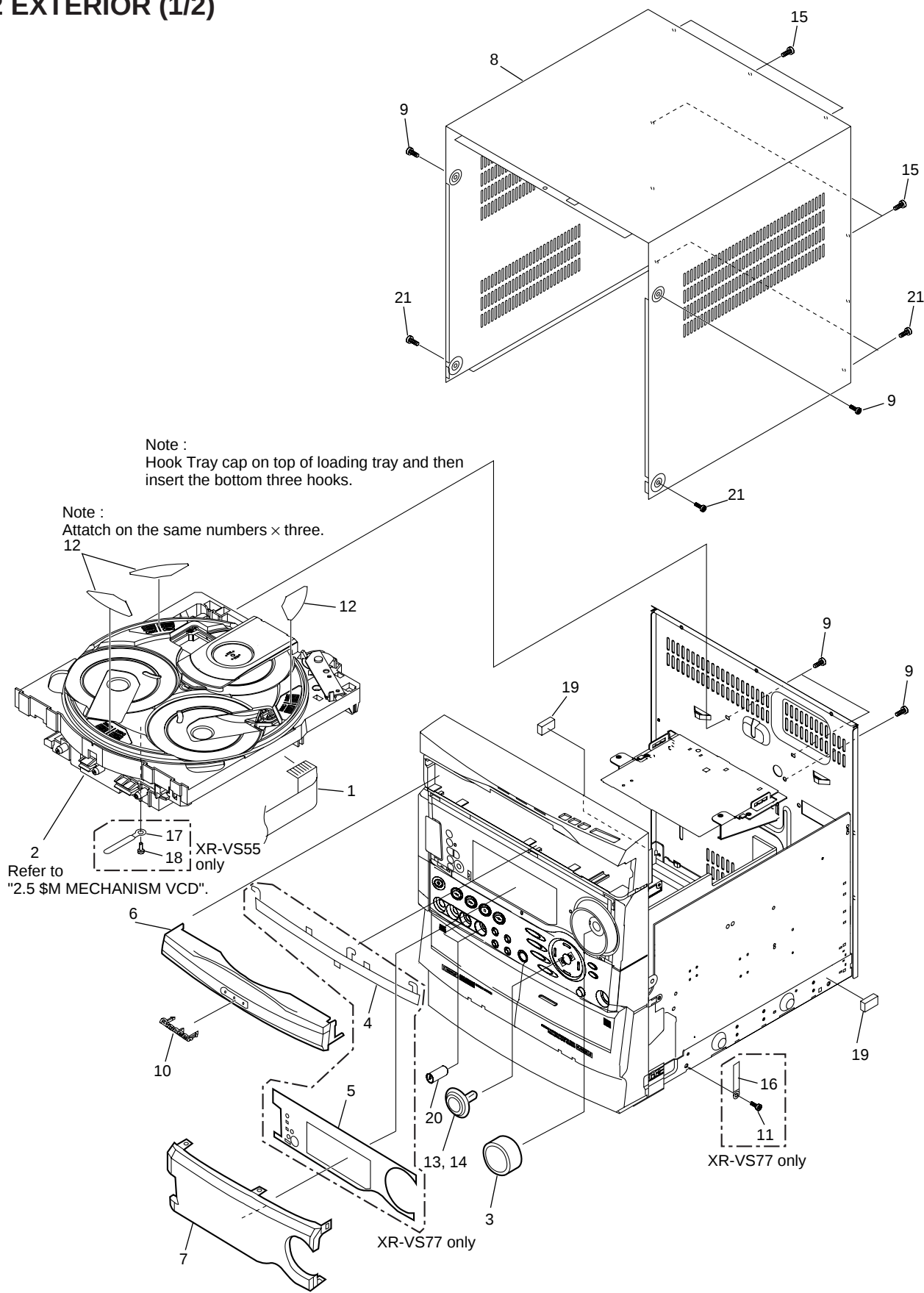
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	FM Antenna	ADH7004		9	Rear Pad	XHA3004
	2	Operating Instructions (English/Chinese/Chinese)	XRE3019		10	Packing Case	See Contrast table (2)
	3	AM Loop Antenna	XTB3001		11	Packing Sheet	AHG7049
	4	Remote Control Unit (CU-XR051)	XZN3009	△	12	•••••	
	5	Battery Cover	AZA7204		13	Power Cord	See Contrast table (2)
NSP	6	Dry Cell Battery (R6P, AA)	VEM-013	NSP	14	Polyethylene Bag	AHG7033
	7	Catalog Bag (0.03 × 230 × 340)	Z21-038	NSP	15	Caution Card	XAX3130
	8	Front Pad	XHA3003		16	Door Spacer	XHG3002
					17	Video Cord	VDE1034

(2) CONTRAST TABLE

XR-VS77/DBDXJ, DLXJ/NC, XR-VS55/DBDXJ and DLXJ/NC are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			XR-VS77 /DBDXJ	XR-VS77 /DLXJ/NC	XR-VS55 /DBDXJ	XR-VS55 /DLXJ/NC	
△	10	Packing Case	XHD3054	XHD3037	XHD3056	XHD3039	
	13	Power Cord	ADG1158	ADG1154	ADG1158	ADG1154	

2.2 EXTERIOR (1/2)



(1) EXTERIOR (1/2) PARTS LIST

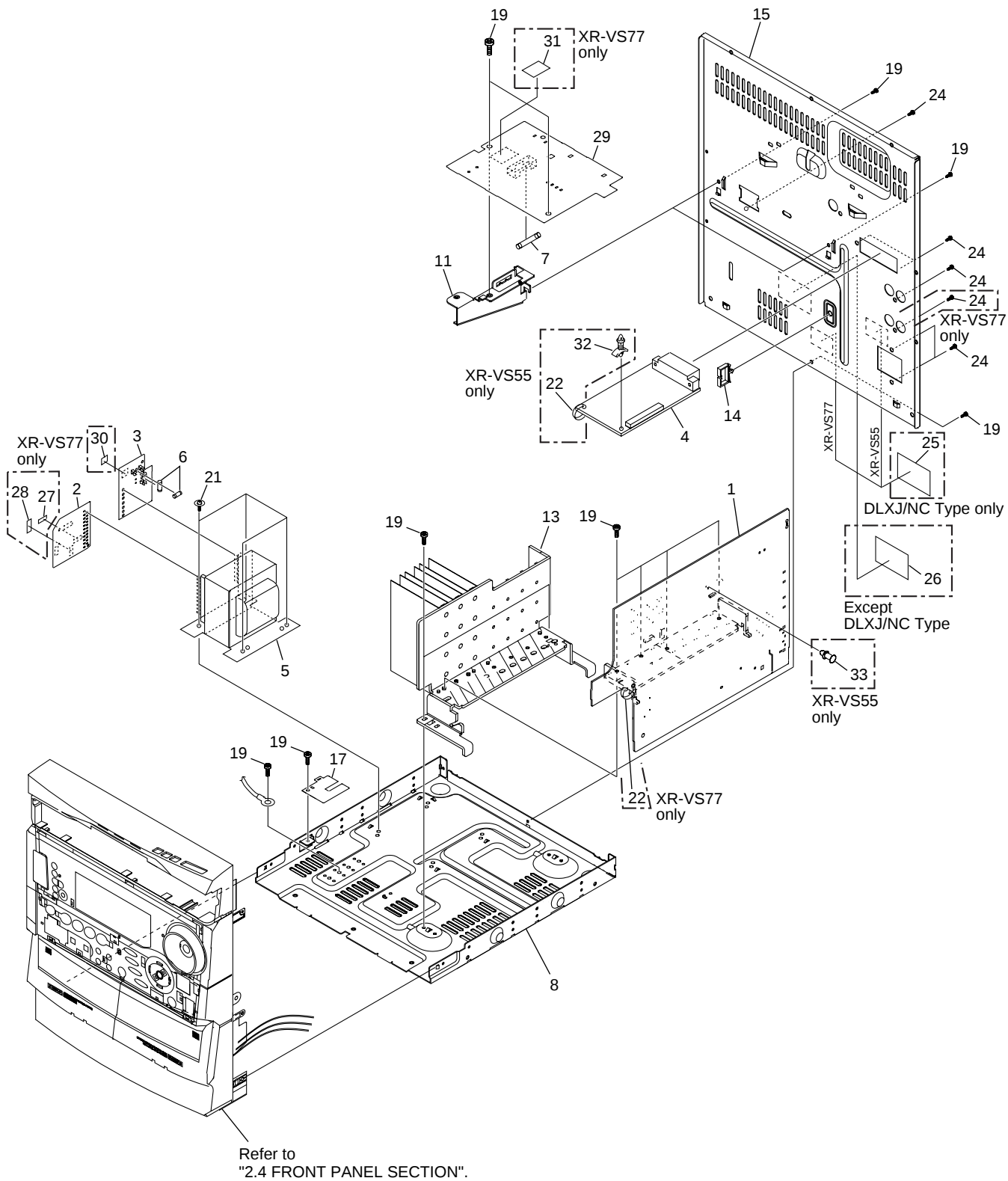
Mark	No.	Description	Part No.
NSP	1	16P F.F.C/30V	XDD3006
	2	\$M Mechanism VCD	XXA3007
	3	Volume Knob	See Contrast table (2)
	4	FL Cover A	See Contrast table (2)
	5	FL Cover B	See Contrast table (2)
	6	Tray Cap	See Contrast table (2)
	7	Display Panel	See Contrast table (2)
	8	Bonnet Case	See Contrast table (2)
	9	Screw	BPZ30P100FZK
	10	Pioneer Badge	AZN3049
	11	Screw	VBZ30P080FZK
	12	Disc Label	XAX3127
	13	Jog Knob Assy	See Contrast table (2)
	14	Jog Knob	See Contrast table (2)
	15	Screw	BCZ30P060FZK
NSP	16	Cord Clamper	See Contrast table (2)
	17	Cord Stopper	See Contrast table (2)
	18	Push Rivet	See Contrast table (2)
	19	Cushion Rubber	XEB3002
	20	Mic Knob	See Contrast table (2)
	21	Screw	VBT30P080FZK

(2) CONTRAST TABLE

XR-VS77/DBDXJ, DLXJ/NC, XR-VS55/DBDXJ and DLXJ/NC are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			XR-VS77 /DBDXJ	XR-VS77 /DLXJ/NC	XR-VS55 /DBDXJ	XR-VS55 /DLXJ/NC	
NSP	3	Volume Knob	XAA3005	XAA3005	XAA3007	XAA3007	
	4	FL Cover A	XAK3026	XAK3026	Not used	Not used	
	5	FL Cover B	XAK3036	XAK3036	Not used	Not used	
	6	Tray Cap	XZN3047	XZN3047	XZN3048	XZN3048	
	7	Display Panel	XAK3045	XAK3045	XAK3052	XAK3052	
	8	Bonnet Case	XZN3039	XZN3039	XZN3045	XZN3045	
	13	Jog Knob Assy	XXG3024	XXG3024	Not used	Not used	
	14	Jog Knob	Not used	Not used	XAA3009	XAA3009	
	16	Cord Clamper	RNH-184	RNH-184	Not used	Not used	
	17	Cord Stopper	Not used	Not used	DNF1128	DNF1128	
	18	Push Rivet	Not used	Not used	AEC7138	AEC7138	
	20	Mic Knob	XAB3004	XAB3004	XAB3006	XAB3006	

2.3 EXTERIOR (2/2)



(1) EXTERIOR (2/2) PARTS LIST

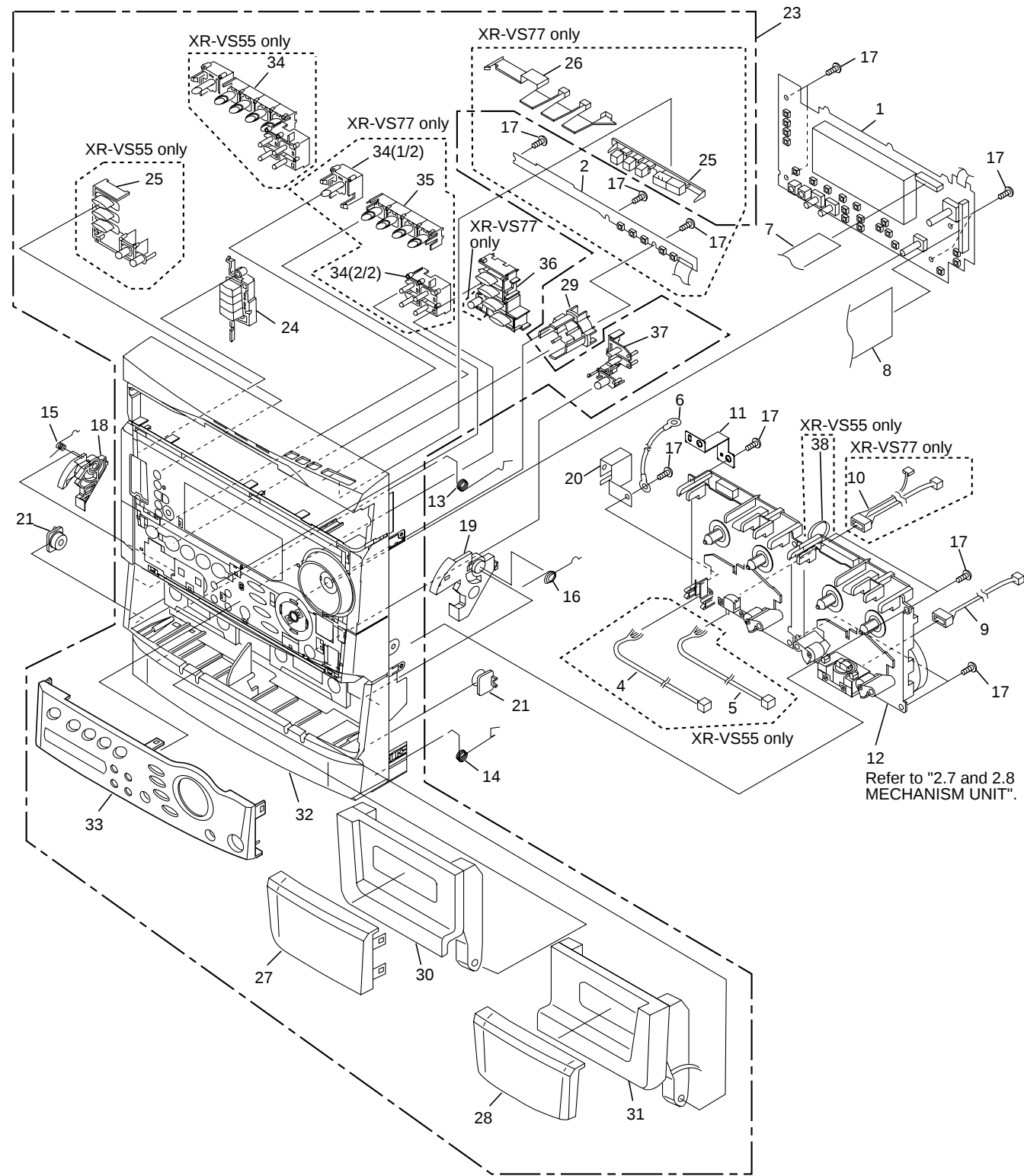
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
⊗	1	AF Assy	See Contrast table (2)		16	•••••	
⊗	2	SECONDARY Assy	See Contrast table (2)	NSP	17	SUPPORT Assy	XNP3008
⊗	3	PRIMARY Assy	XWZ3048		18	•••••	
⊗	4	FM/AM TUNER MODULE	AXQ7065		19	Screw	VBZ30P080FZK
△	5	T1 Power Transformer	See Contrast table (2)		20	•••••	
△	6	FU2, FU3 Fuse	See Contrast table (2)		21	Screw	ASZ40P060FMC
△	7	FU1 Fuse	See Contrast table (2)		22	Binder	ZCA-SKB90BK
NSP	8	Chassis	XNA3001		23	•••••	
	9	•••••			24	Screw	BPZ30P100FZK
	10	•••••			25	Caution Label	See Contrast table (2)
	11	PCB Bracket	XNG3006	NSP	26	Name Label	See Contrast table (2)
	12	•••••			27	ICP Label	See Contrast table (2)
	13	Heat Sink	See Contrast table (2)		28	ICP Label	See Contrast table (2)
	14	Wire Clip	XEC3002	⊗	29	SUB TRANS Assy	XWZ3049
	15	Rear Panel	See Contrast table (2)	NSP	30	Fuse Card	See Contrast table (2)
				NSP	31	Fuse Card	See Contrast table (2)
					32	Locking Spacer	See Contrast table (2)
					33	Card Spacer	See Contrast table (2)

(2) CONTRAST TABLE

XR-VS77/DBDXJ, DLXJ/NC, XR-VS55/DBDXJ and DLXJ/NC are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			XR-VS77 /DBDXJ	XR-VS77 /DLXJ/NC	XR-VS55 /DBDXJ	XR-VS55 /DLXJ/NC	
⊗	1	AF Assy	XWZ3102	XWZ3102	XWZ3068	XWZ3068	
⊗	2	SECONDARY Assy	XWZ3103	XWZ3103	XWZ3069	XWZ3069	
△	5	T1 Power Transformer	XTS3015	XTS3015	XTS3012	XTS3012	
△	6	FU2, FU3 Fuse (T2A)	AEK1057	AEK1057	Not used	Not used	
△	6	FU2, FU3 Fuse (T1.6A)	Not used	Not used	AEK1056	AEK1056	
△	7	FU1 Fuse (T4A)	AEK1060	AEK1060	Not used	Not used	
△	7	FU1 Fuse (T3.15A)	Not used	Not used	AEK1059	AEK1059	
	13	Heat Sink	XNH3002	XNH3002	XNH3003	XNH3003	
	15	Rear Panel	XNC3006	XNC3006	XNC3008	XNC3008	
	25	Caution Label	Not used	PRW1018	Not used	PRW1018	
NSP	26	Name Label	XAL3008	Not used	XAL3023	Not used	
	27	ICP Label	XAX3120	XAX3120	Not used	Not used	
	28	ICP Label	XAX3121	XAX3121	Not used	Not used	
NSP	30	Fuse Card	AAX2357	AAX2357	Not used	Not used	
NSP	31	Fuse Card	AAX7099	AAX7099	Not used	Not used	
	32	Locking Spacer	Not used	Not used	XEC3009	XEC3009	
	33	Card Spacer	Not used	Not used	XEC3008	XEC3008	

2.4 FRONT PANEL SECTION



(1) FRONT PANEL SECTION PARTS LIST

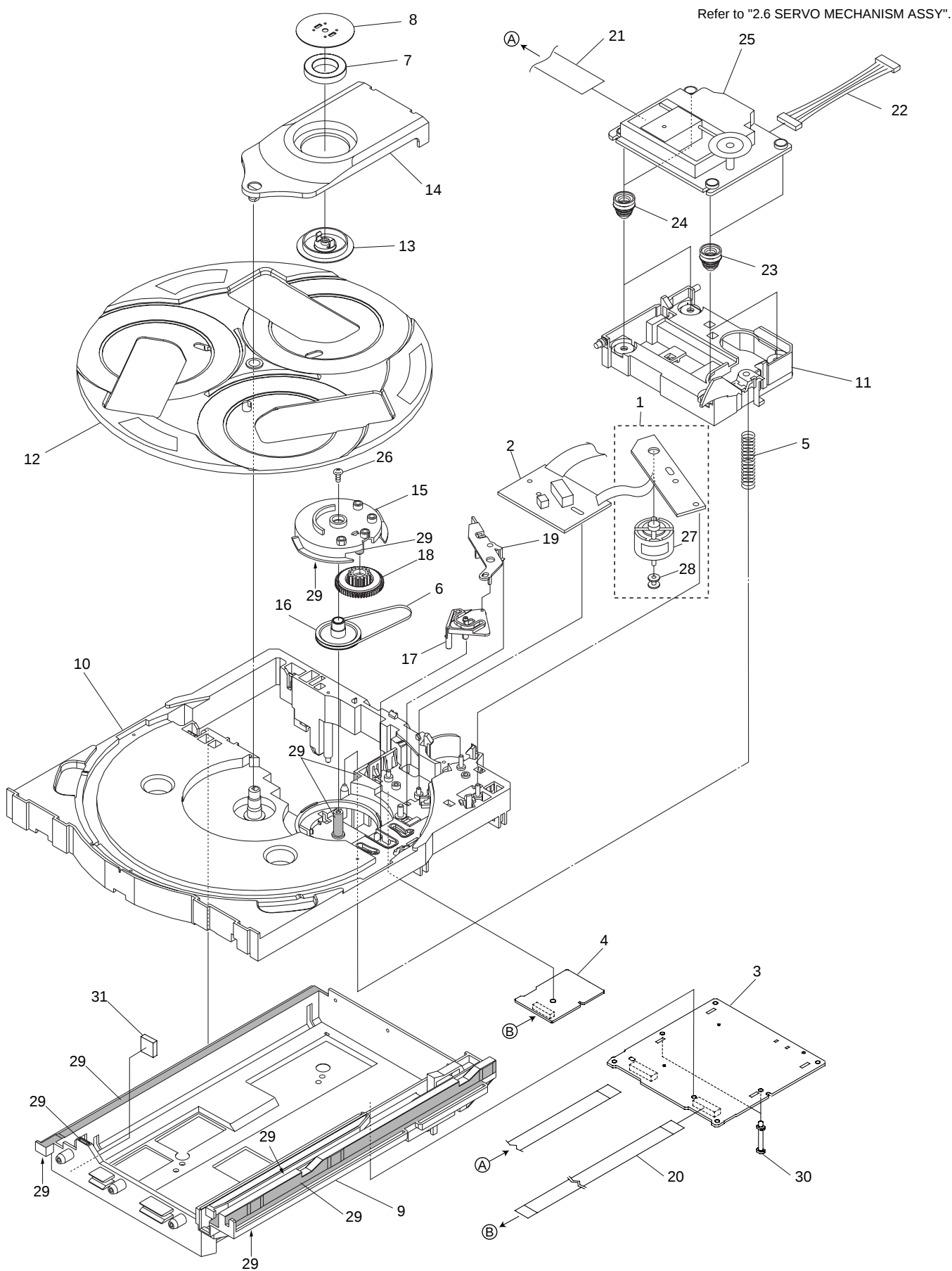
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
⊗	1	DISPLAY Assy	See Contrast table (2)		21	Damper Assy	AXA7052
⊗	2	CD SW LED Assy	See Contrast table (2)		22	•••••	
	3	•••••		NSP	23	Front Panel Assy	See Contrast table (2)
	4	Connector Assy 2P	See Contrast table (2)		24	Function Button	See Contrast table (2)
	5	Connector Assy 3P	See Contrast table (2)		25	CD Button	See Contrast table (2)
	6	Cord With Plug	DE007VE0		26	CD Lens	See Contrast table (2)
	7	Flexible Cable	See Contrast table (2)		27	Deck Lens L	XZN3035
	8	Flexible Cable 40P	XDD3005		28	Deck Lens R	XZN3036
	9	Connector Assy 3P	See Contrast table (2)		29	Jog Lens	See Contrast table (2)
	10	Connector Assy 5P	See Contrast table (2)		30	Door Pocket L	See Contrast table (2)
	11	GND Plate A	XNG3004		31	Door Pocket R	See Contrast table (2)
	12	Mechanism Unit	See Contrast table (2)		32	Front Panel	See Contrast table (2)
	13	Door Spring L	XBH3001		33	Sub Panel A	See Contrast table (2)
	14	Door Spring R	XBH3002		34	Power Button	See Contrast table (2)
	15	Latch Spring L	ABH7130		35	Play Button	See Contrast table (2)
	16	Latch Spring R	ABH7131		36	S.C. Button	See Contrast table (2)
	17	Screw	BPZ30P100FZK		37	TIMER Button	See Contrast table (2)
	18	Latch Mold L	XMR3001		38	Binder	See Contrast table (2)
	19	Latch Mold R	XMR3002				
	20	GND Plate B	XNG3005				

(2) CONTRAST TABLE

XR-VS77/DBDXJ, DLXJ/NC, XR-VS55/DBDXJ and DLXJ/NC are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			XR-VS77 /DBDXJ	XR-VS77 /DLXJ/NC	XR-VS55 /DBDXJ	XR-VS55 /DLXJ/NC	
⊗	1	DISPLAY Assy	XWZ3104	XWZ3104	XWZ3070	XWZ3070	
⊗	2	CD SW LED Assy	XWZ3086	XWZ3086	Not used	Not used	
	4	Connector Assy 2P	Not used	Not used	XDE3012	XDE3012	
	5	Connector Assy 3P	Not used	Not used	XDE3011	XDE3011	
	7	Flexible Cable 19P	XDD3009	XDD3009	Not used	Not used	
	7	Flexible Cable 17P	Not used	Not used	XDD3010	XDD3010	
	9	Connector Assy 3P	XDE3001	XDE3001	XDE3009	XDE3009	
	10	Connector Assy 5P	XDE3002	XDE3002	Not used	Not used	
	12	Mechanism Unit	XYM3003	XYM3003	XYM3002	XYM3002	
NSP	23	Front Panel Assy	XXG3015	XXG3015	XXG3012	XXG3012	
	24	Function Button	XZN3020	XZN3020	XZN3021	XZN3021	
	25	CD Button	XZN3018	XZN3018	XZN3019	XZN3019	
	26	CD Lens	XZN3037	XZN3037	Not used	Not used	
	29	Jog Lens	XAK3025	XAK3025	Not used	Not used	
	30	Door Pocket L	XZN3013	XZN3013	XZN3014	XZN3014	
	31	Door Pocket R	XZN3015	XZN3015	XZN3016	XZN3016	
	32	Front Panel	XZN3011	XZN3011	XZN3012	XZN3012	
	33	Sub Panel	XZN3032	XZN3032	XZN3034	XZN3034	
	34	Power Button	XZN3022	XZN3022	XZN3023	XZN3023	
	35	Play Button	XZN3024	XZN3024	Not used	Not used	
	36	S.C. Button	XZN3026	XZN3026	XZN3028	XZN3028	
	37	TIMER Button	XZN3029	XZN3029	XZN3030	XZN3030	
	38	Binder	Not used	Not used	ZCA-SKB90BK	ZCA-SKB90BK	

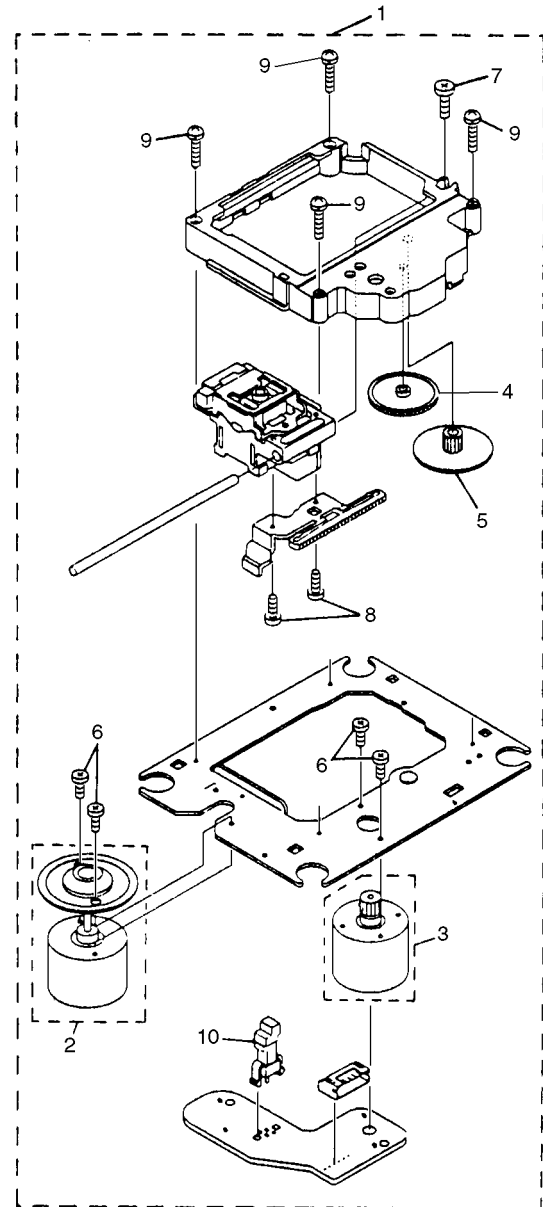
2.5 \$M MECHANISM VCD



2.6 SERVO MECHANISM ASSY

● \$M MECHANISM VCD PARTS LIST

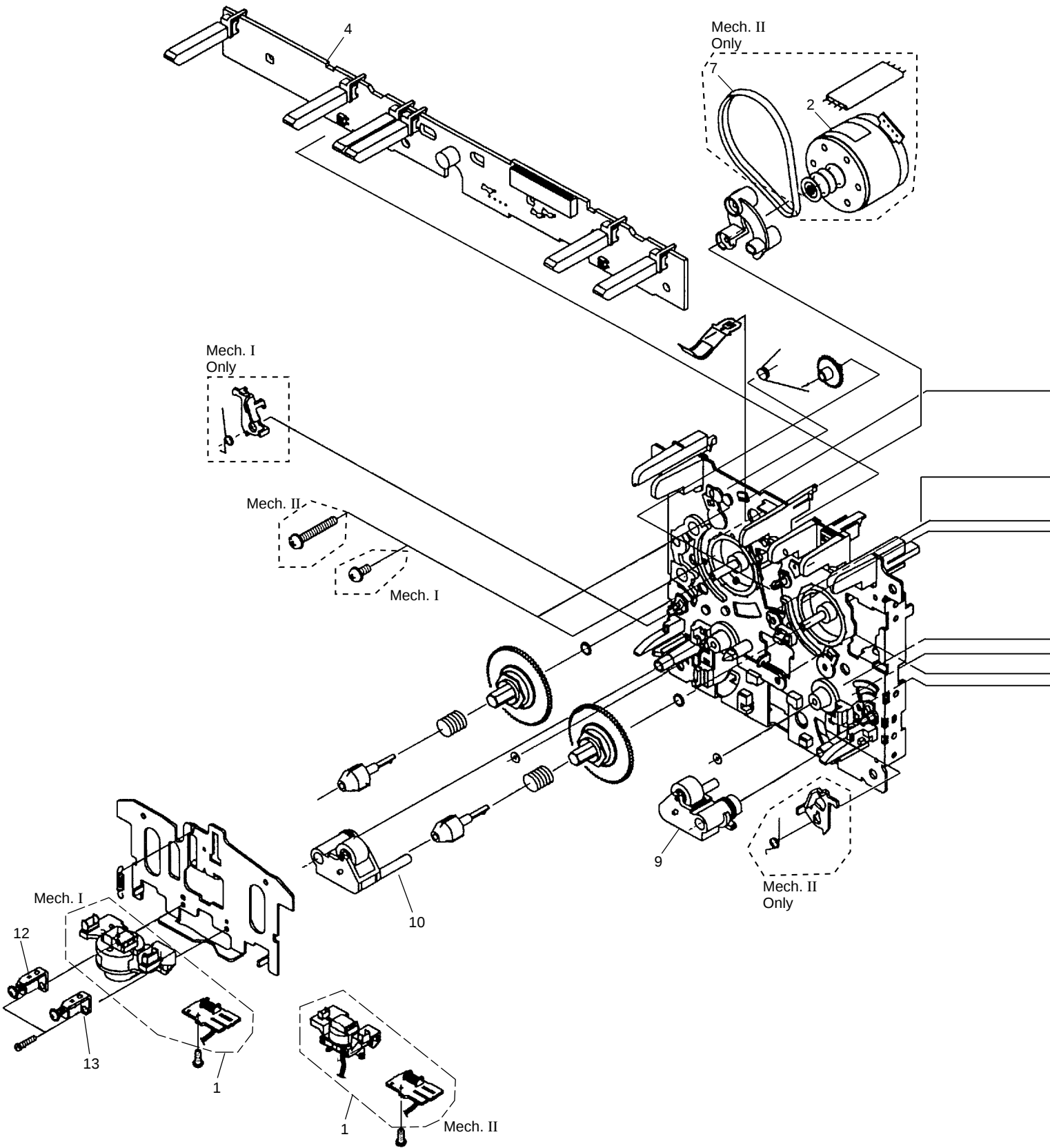
Mark	No.	Description	Part No.
⊗	1	MOTOR Assy	XWZ3080
NSP	2	SW Assy	XWZ3081
⊗	3	VCD SURVO Assy	XWX3003
⊗	4	TRADE Assy	XWZ3082
	5	Servo Spring	ABH7126
	6	Belt	AEB7072
	7	Clamp Magnet	AMF7001
	8	Yoke	ANB7067
	9	Mecha Base	XNW3001
	10	Loading Tray	XNW3002
	11	Servo Base	XNW3003
	12	Rotary Tray	ANW7113
	13	Clamper	ANW7091
	14	Clamper Holder	XNW3004
	15	Main Cam	ANW7093
	16	Gear Pulley	ANW7094
	17	Lock Lever	ANW7095
	18	Planet Gear	ANW7096
	19	Actuator	ANW7097
	20	13P F.F.C/30V	XDD3008
	21	15P F.F.C/30V	XDD3007
	22	Connector Assy (6P)	ADE7010
	23	Float Rubber A	AEB7063
	24	Float Rubber B	AEB7066
	25	Servo Mechanism Assy	AXA7039
	26	Screw	IPZ30P080FMC
	27	Carriage Motor	VXM1033
	28	Motor Pulley	PNW1634
	29	Ha Narl	GEM1016
	30	Card Spacer	AEC7143
	31	Cushion Rubber	XEB3004

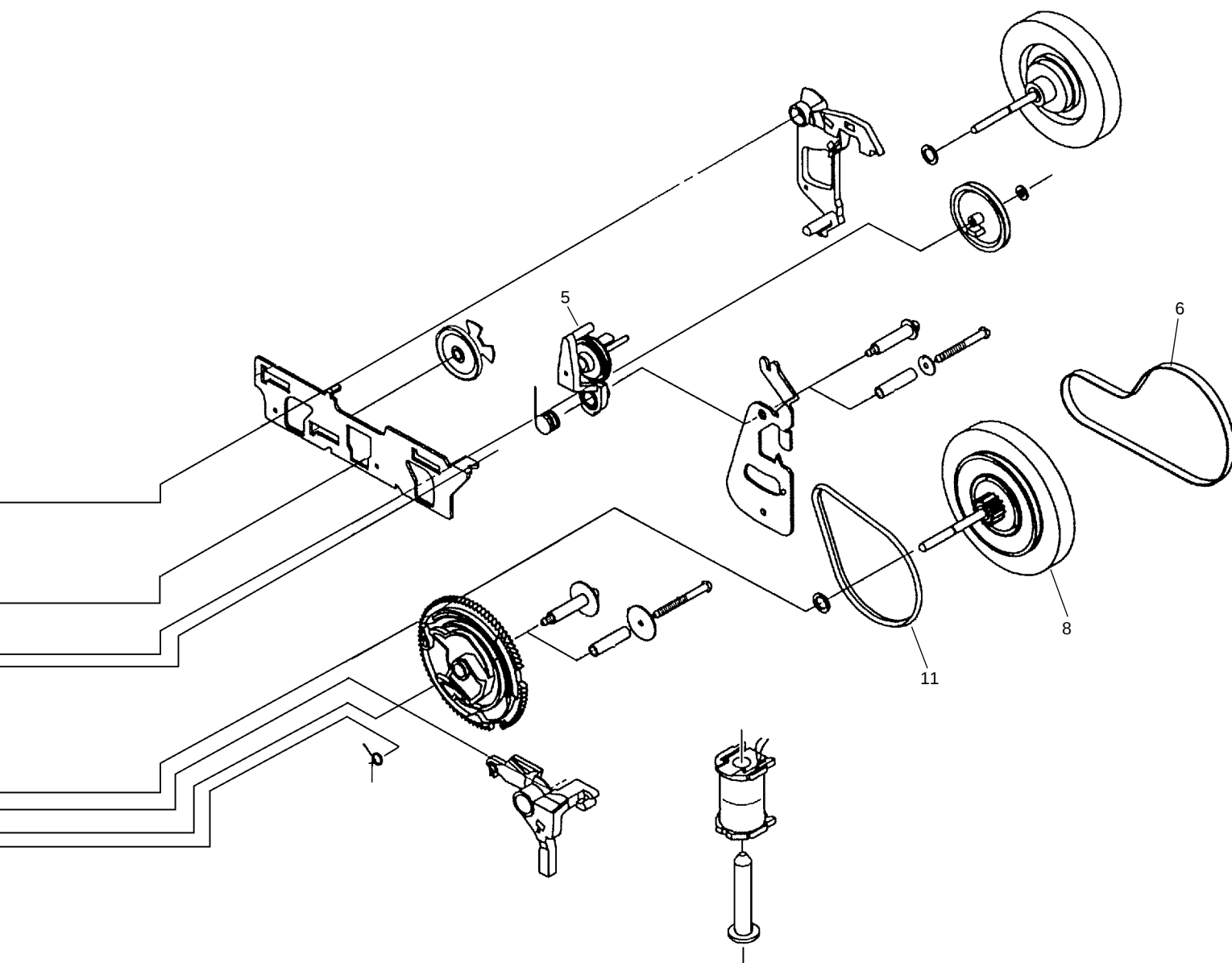


● SERVO MECHANISM ASSY PARTS LIST

Mark	No.	Description	Part No.
	1	Servo Mechanism	AXA7039
	2	SPINDLE MOTOR Assy	AEA7009
	3	SLEAD MOTOR Assy	AEA7010
	4	Gear A	AEA7013
	5	Gear B	AEA7014
	6	Screw	AEA7015
	7	Screw	AEA7016
	8	Screw	AEA7017
	9	Screw	AEA7018
	10	Leaf Switch	AEA7011

2.7 MECHANISM UNIT (XR-VS77)

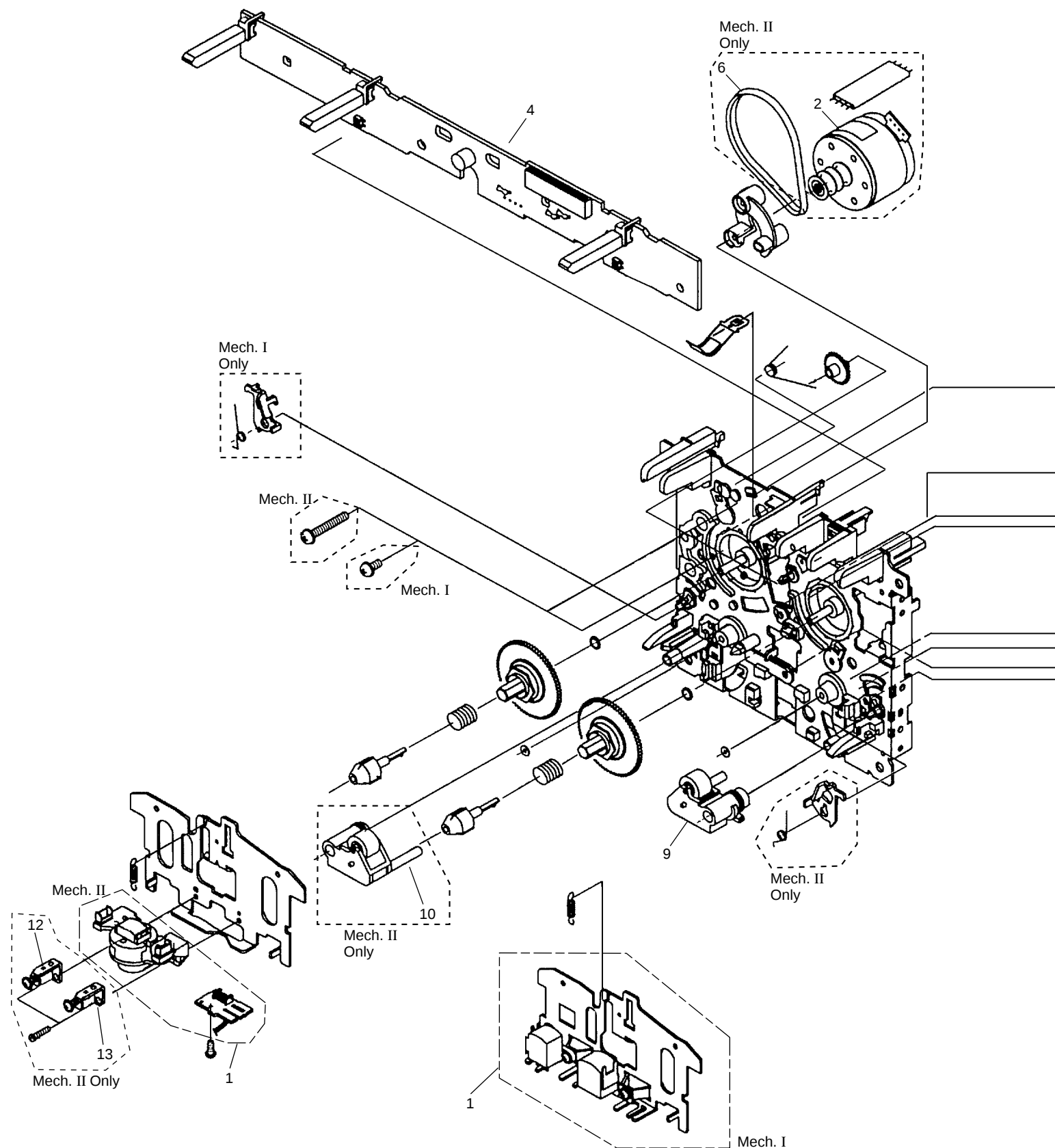


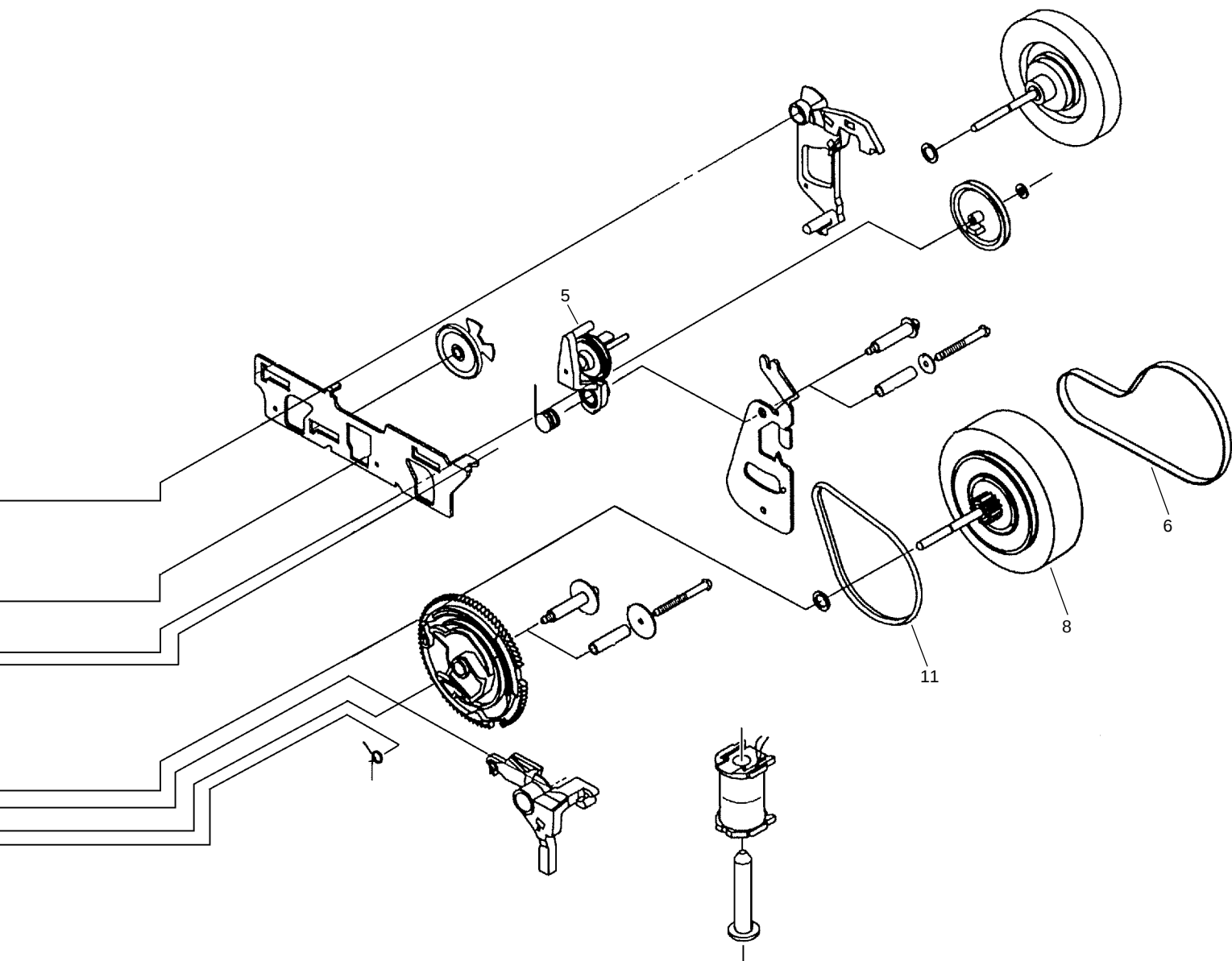


● MECHANISM UNIT PARTS LIST

Mark	No.	Description	Part No.
	1	Plate HD BLK (Mech. II)	F513-811
	1	Plate HD BLK (Mech. I)	F513-819
	2	Motor Main BLK (Mech. II only)	F525-324
	3		
	4	PCB Control BLK	F567-621
	5	Clutch Assy BLK	F522-037
	6	Main Belt	FF17G-31
	7	Joint Belt 113 (Mech. II only)	FF19D-21
	8	Clutch Assy BLK	F522-045
	9	Roller Pinch BLK R	F514-129
	10	Roller Pinch BLK L	F514-130
	11	F/R Belt	FF18W-12
	12	Plate Base BLK	F512-127
	13	Plate Base BLK	F512-128

2.8 MECHANISM UNIT (XR-VS55)





● MECHANISM UNIT PARTS LIST

Mark	No.	Description	Part No.
	1	Plate HD BLK (Mech. II)	F513-811
	1	Plate HD BLK (Mech. I)	F513-825
	2	Motor Main BLK (Mech. II only)	F525-324
	3		
	4	PCB Control BLK	F567-622
	5	Clutch Assy BLK	F522-037
	6	Main Belt	FF17G-31
	7		
	8	Clutch Assy BLK (Mech. II)	F522-045
	8	Clutch Assy BLK (Mech. I)	F522-038
	9	Roller Pinch BLK R (Mech. II)	F514-129
	9	Roller Pinch BLK R (Mech. I)	F514-131
	10	Roller Pinch BLK L (Mech. II only)	F514-130
	11	F/R Belt	FF18W-12
	12	Plate Base BLK (Mech. II only)	F512-127
	13	Plate Base BLK (Mech. II only)	F512-128

3. SCHEMATIC DIAGRAM

3.1 OVERALL WIRING DIAGRAM

The diagram illustrates the internal connections of the AF ASSY. Key components and their connections include:

- CD SW LED ASSY (XWZ3086):**
 - Connects to the main board via J5501 (V+5V, GND, KEY3, GND).
 - Includes controls for OPEN/CLOSE, DISC CHANGE, and KEY3.
- FM/AM TUNER MODULE (AXQ7065):**
 - Connects to the main board via CN6201 (STEREO, TX+5V, TX+12V, TUNE, MUTE, TXQDATA, TX L, TX R, TXQDATA, TX L, TX R, CLK, DATA, PLL CE, NC, RDS).
 - Includes an AUX input.
- Main Board Components:**
 - LC75394NED:** Two instances of this IC are shown, one for the display and one for the E-VOL (Electronic Volume) control.
 - DISPLAY:** A 16-segment display showing "HELLO FL".
 - ECHO:** A component connected to the MIC AMP and ECHO VOL.
 - MIC AMP:** Amplifies the MIC1 and MIC2 signals.
 - MAIN VOL:** Controls the volume, connected to the LC75394NED.
 - POWER AMP:** Amplifies the audio signal for the speakers.

AF ASSY
 (XR-VS77 : XWZ3102)
 (XR-VS55 : XWZ3068)

B VCD SURVO ASSY (XWX3003)

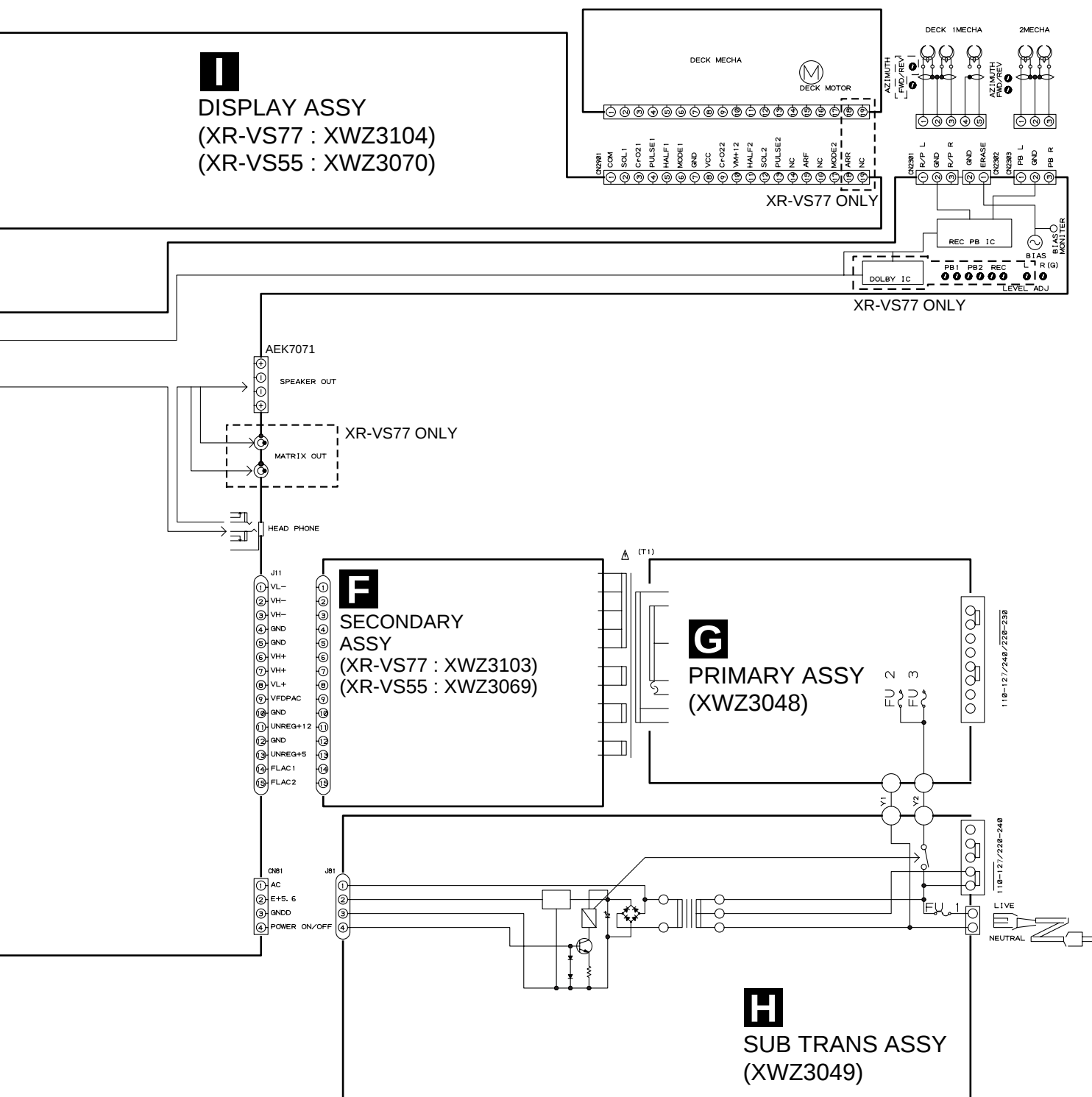
DA SW ASSY (XWZ3081)

C MOTOR ASSY (XWZ3080)

MOTOR
ASSY
(XWZ3080)

1

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



A

B

C

D

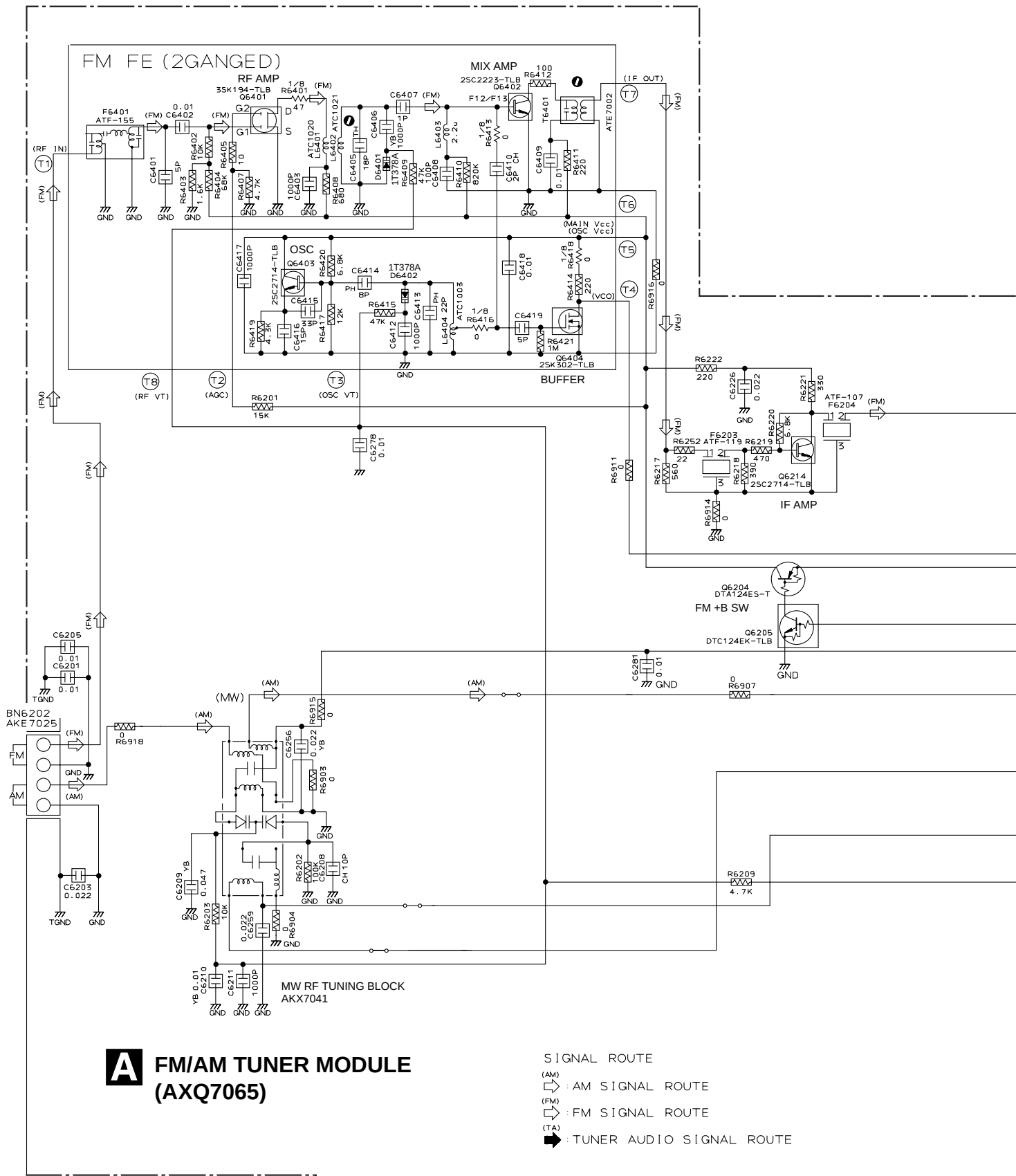
3.2 FM/AM TUNER MODULE

A

B

C

D



Notes

1.RESISTORS

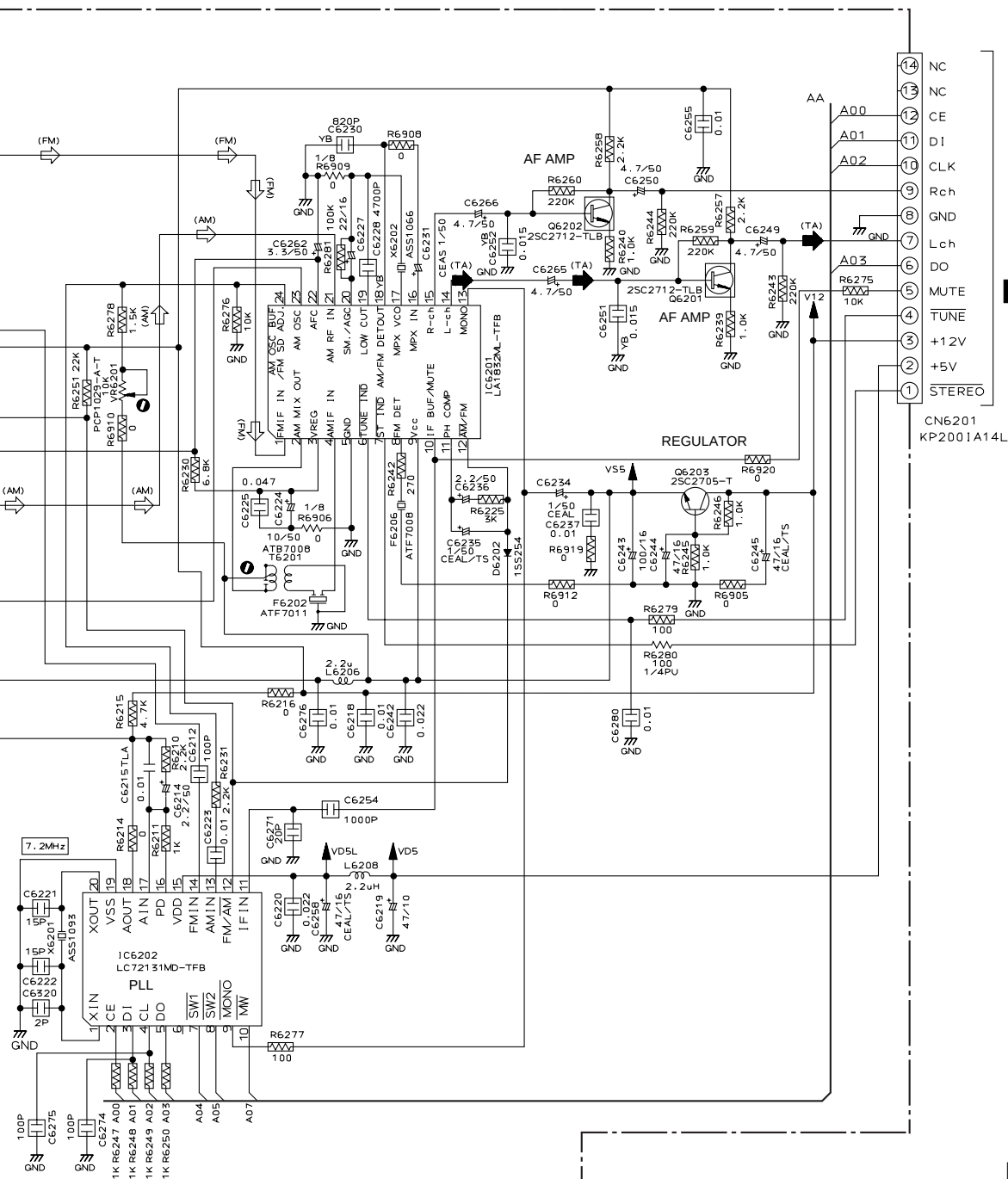
Indicated in Ω , $1/10W \pm 5\%$ Tolerance unless otherwise noted K:K Ω , M:M Ω .

2.CAPACITORS

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

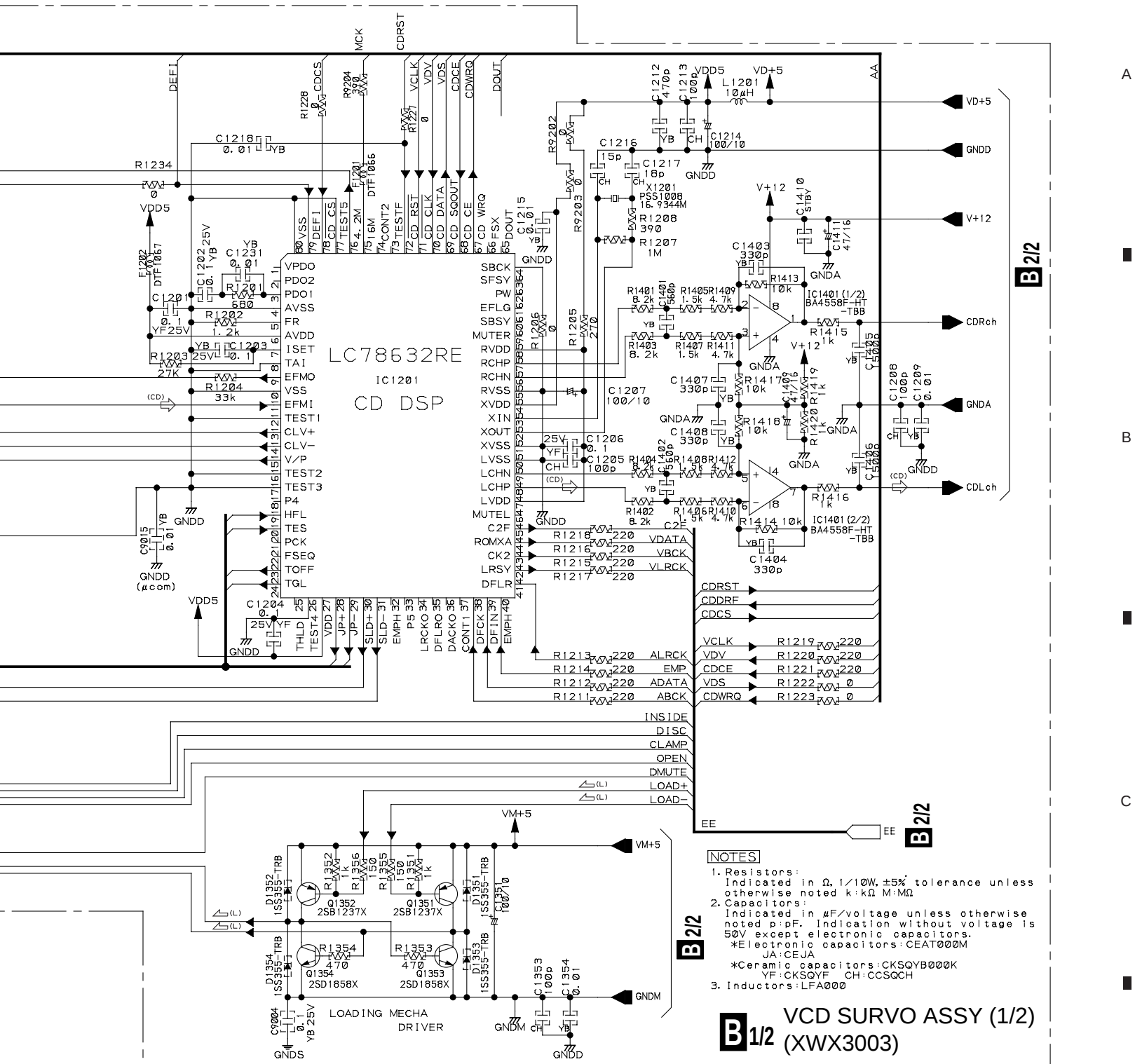
3.DIODES

No mark diode is 1SS254.



E2/3 CN3051

CN6201
KP2001A14L







C

D

3.4 AF ASSY (1/3)

E1/3 AF ASSY
(XR-VS77 : XWZ3102)
(XR-VS55 : XWZ3068)

NOTES

ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED

TL : CFTLA
M : CQMB A
(OTHER : CKCYF)

CH : CCSQCH
(OTHER : CKSQYB)

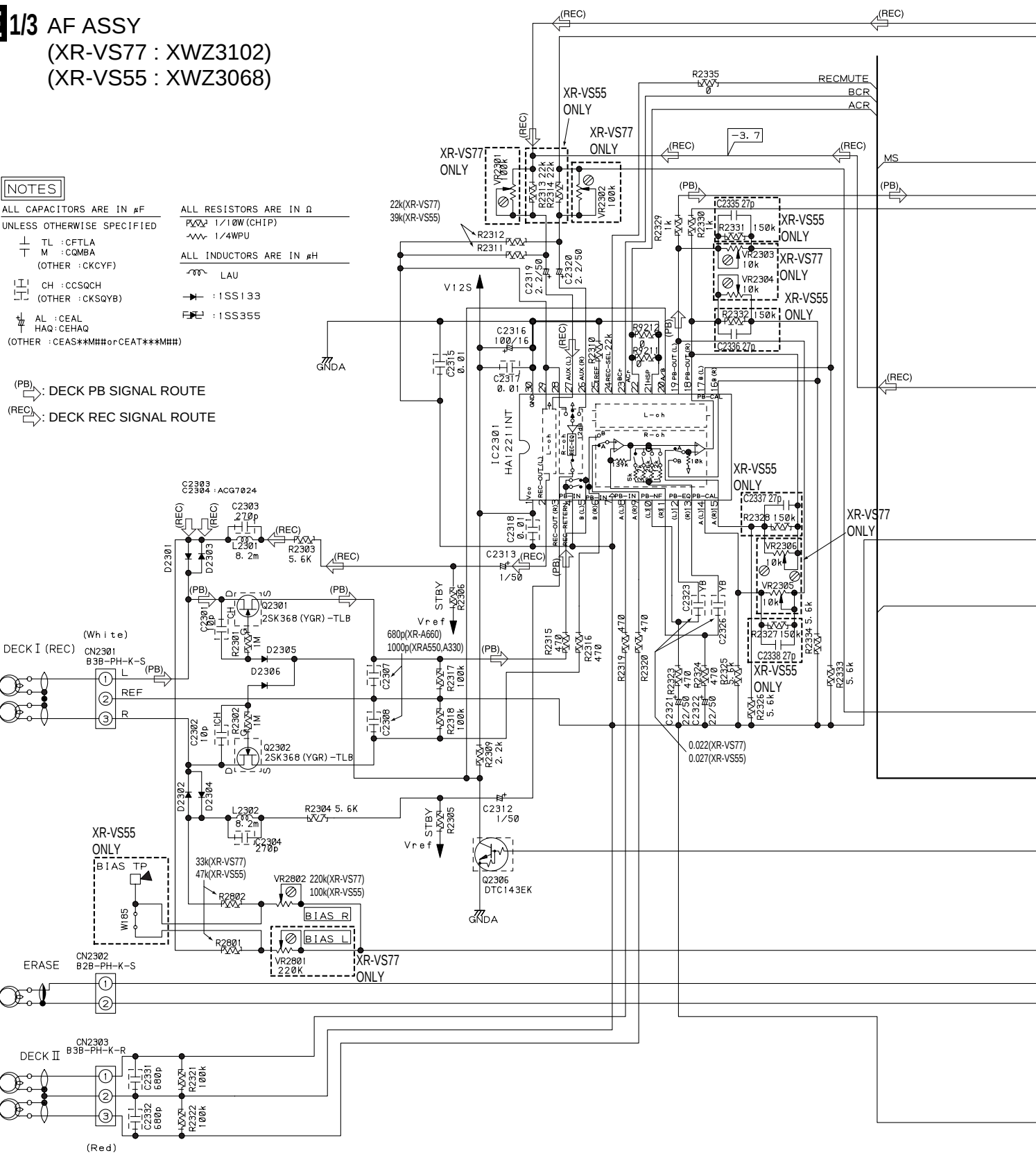
AL : CEAL
HAQ : CEHAQ
(OTHER : CEAS**M##orCEAT***M##)

ALL RESISTORS ARE IN Ω
1/10W (CHIP)
1/4WPU

ALL INDUCTORS ARE IN μH
LAU

1SS133
1SS355

(PB) : DECK PB SIGNAL ROUTE
(REC) : DECK REC SIGNAL ROUTE





3.5 AF ASSY (2/3)

B CN1004

E3/3

- ⇒ AUDIO SIGNAL ROUTE
(CD) ⇒ CD AUDIO SIGNAL ROUTE
(TA) ⇒ TUNER AUDIO SIGNAL ROUTE
(PB) ⇒ DECK PB SIGNAL ROUTE
(REC) ⇒ DECK REC SIGNAL ROUTE

NOTES

ALL CAPACITORS ARE IN μ F
UNLESS OTHERWISE SPECIFIED

TL : CFTLA
M : CQMB A
(OTHER : CKCYF)

CH : CCSQCH
SL : CCSQSL
(OTHER : CKSQVB)

AL : CEAL
HAQ : CEHAQ
(OTHER : CEAS**M##orCEAT**M##)

ALL RESISTORS ARE IN Ω
1/10W (CHIP)
1/4WPU

ALL INDUCTORS ARE IN μ H
LAU

XR-VS77
ONLY

I CN5501

XR-VS77
ONLY

A CN6201

E2/3 AF ASSY
 (XR-VS77 : XWZ3102)
 (XR-VS55 : XWZ3068)

E3/3

BASS BLASTER
 XR-VS77 ONLY

MIC MIX
 IC3951
 BA4558F (2/2)

XR-VS77 ONLY

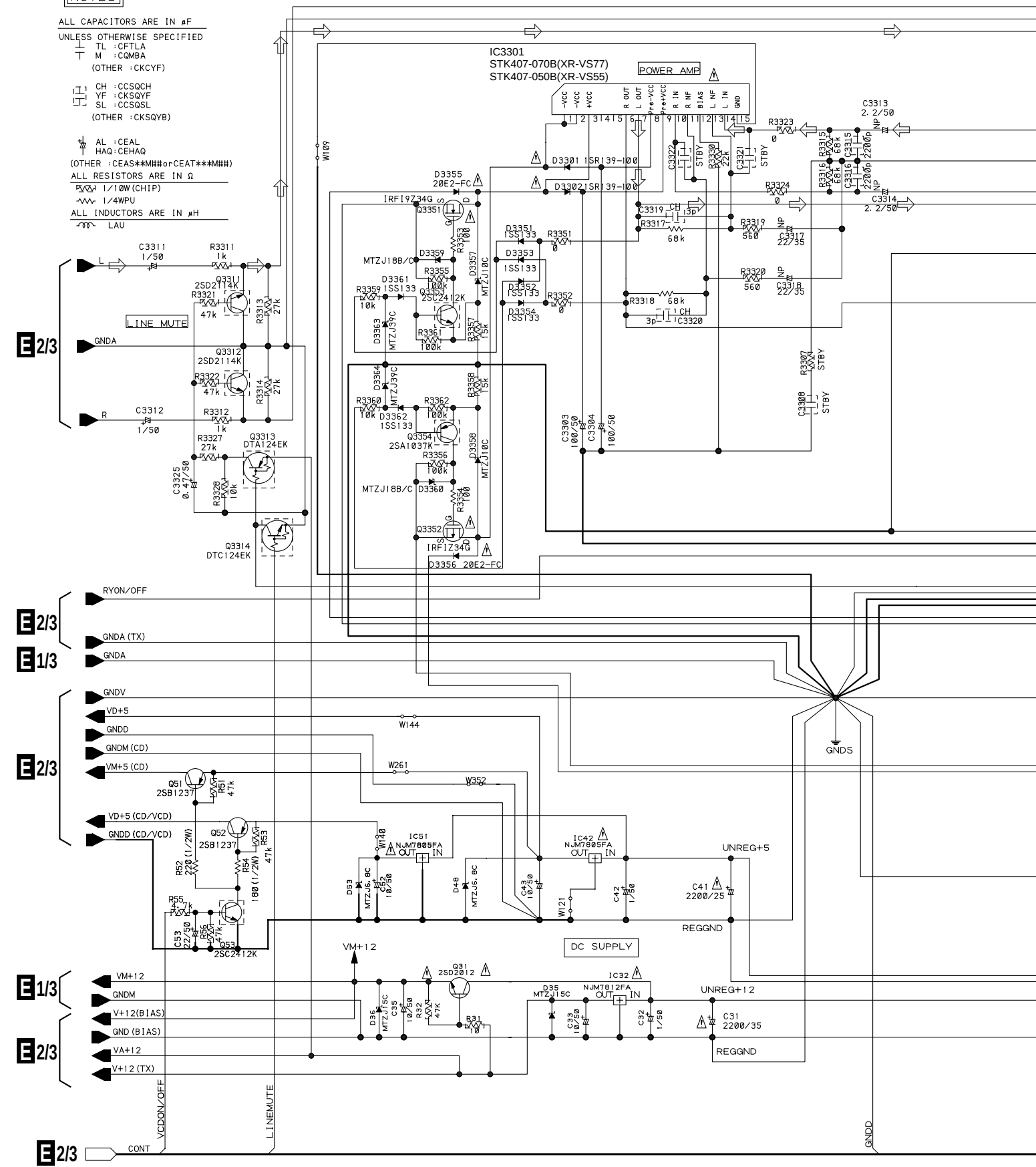
BU4094BCF

E3/3**E1/3****E3/3****E1/3**

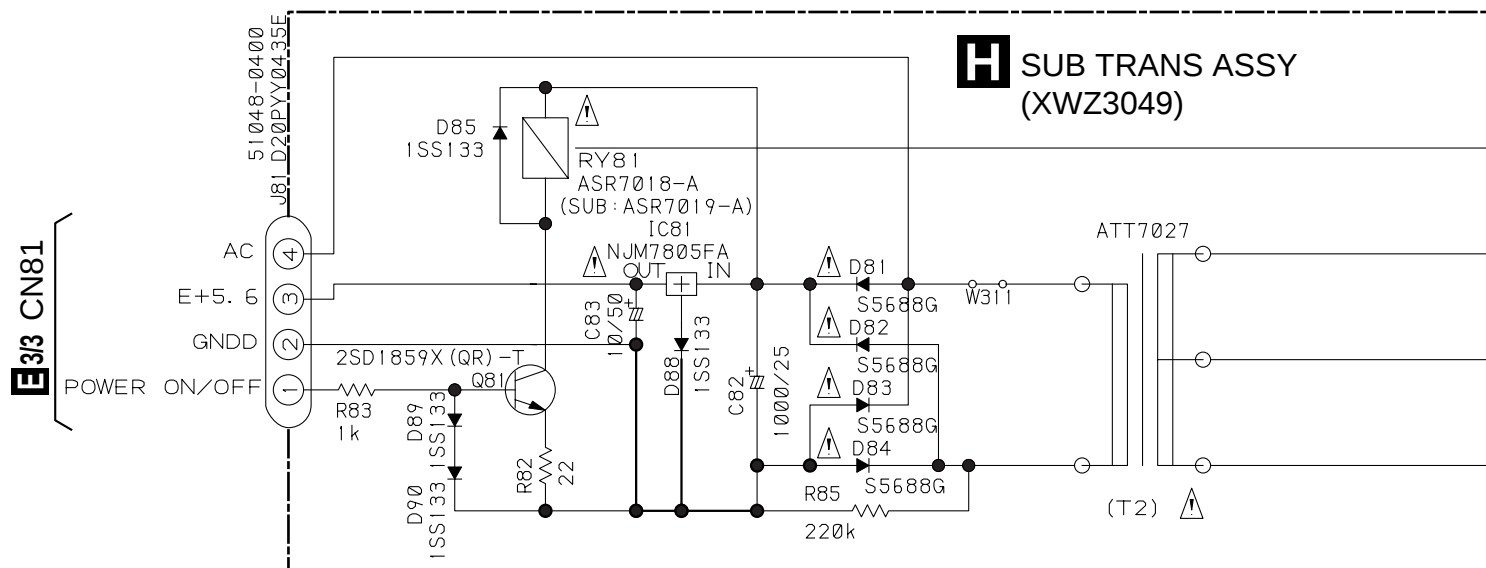
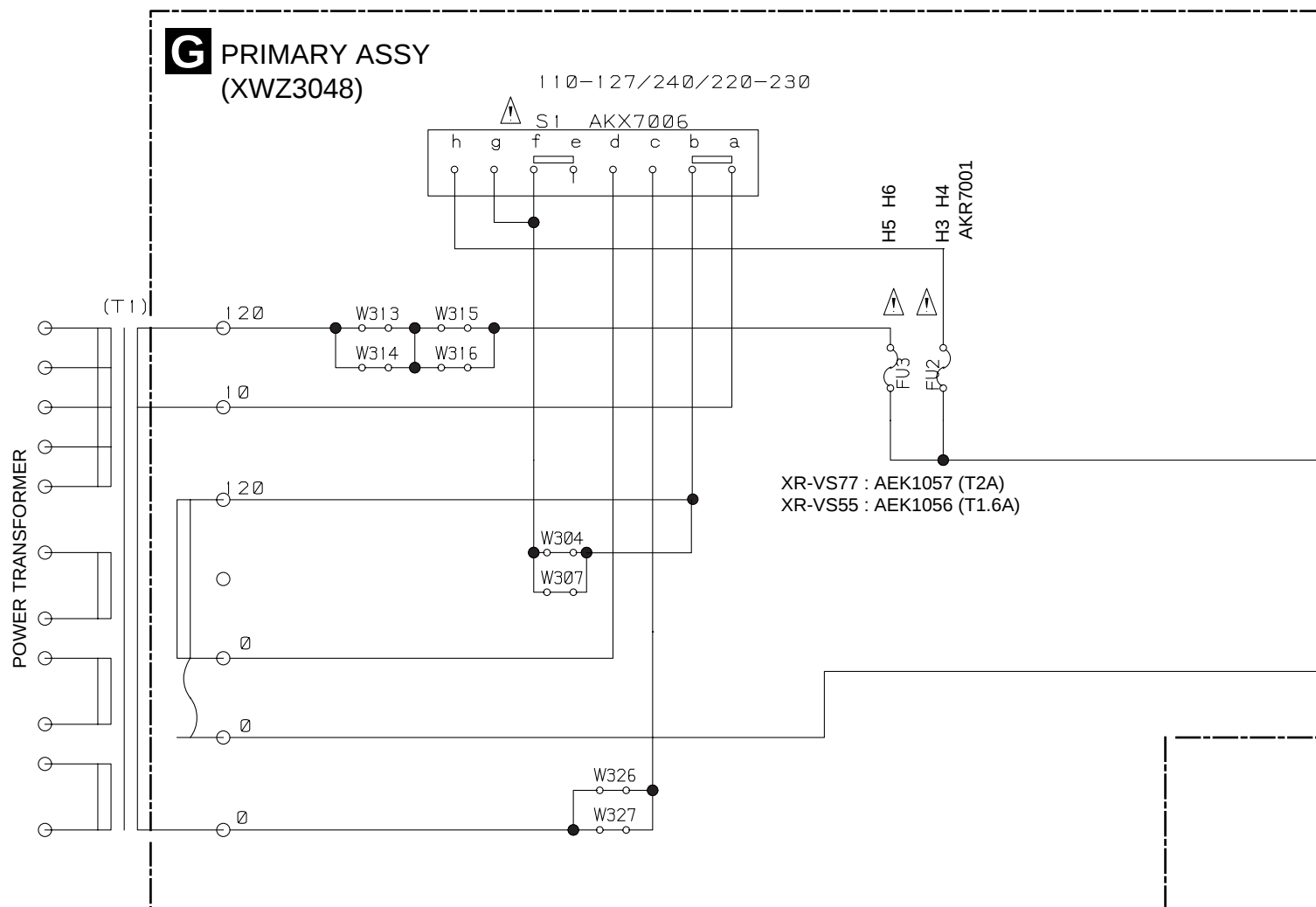
3.6 AF (3/3) and SECONDARY ASSEMBLIES

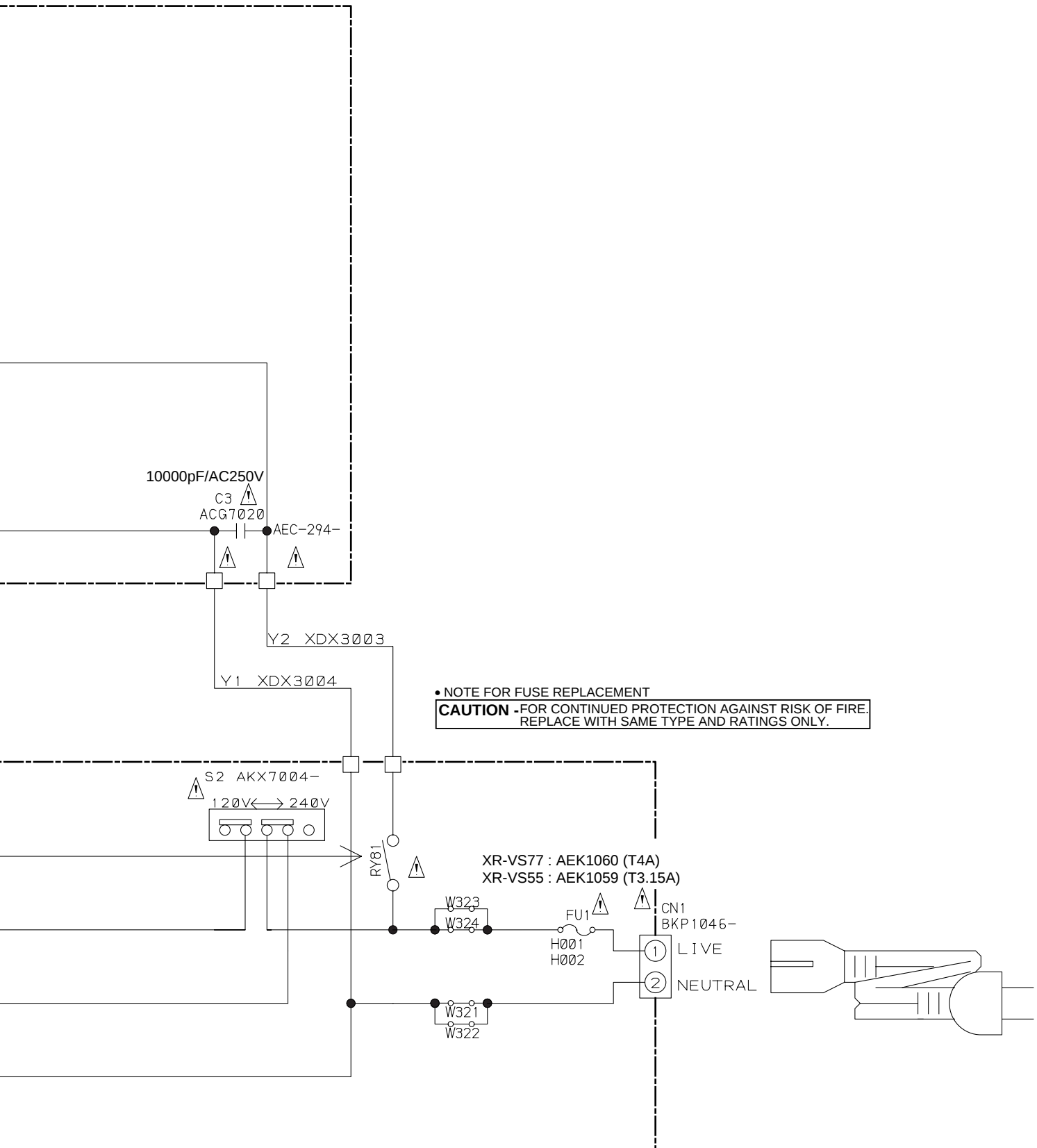
NOTES

ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED
TL : CFTLA
M : COMBA
(OTHER : CKCYF)
CH : CCSQCH
YF : CKSQYF
SL : CCSQSL
(OTHER : CKSQYB)
AL : CEAL
HAQ : CEHAQ
(OTHER : CEAS**MH#orCEAT**MH#)
ALL RESISTORS ARE IN Ω
1/10W (CHIP)
1/4WPU
ALL INDUCTORS ARE IN μH
LAU



3.7 PRIMARY and SUB TRANS ASSEMBLIES





3.8 DISPLAY and CD SW LED ASSEMBLIES

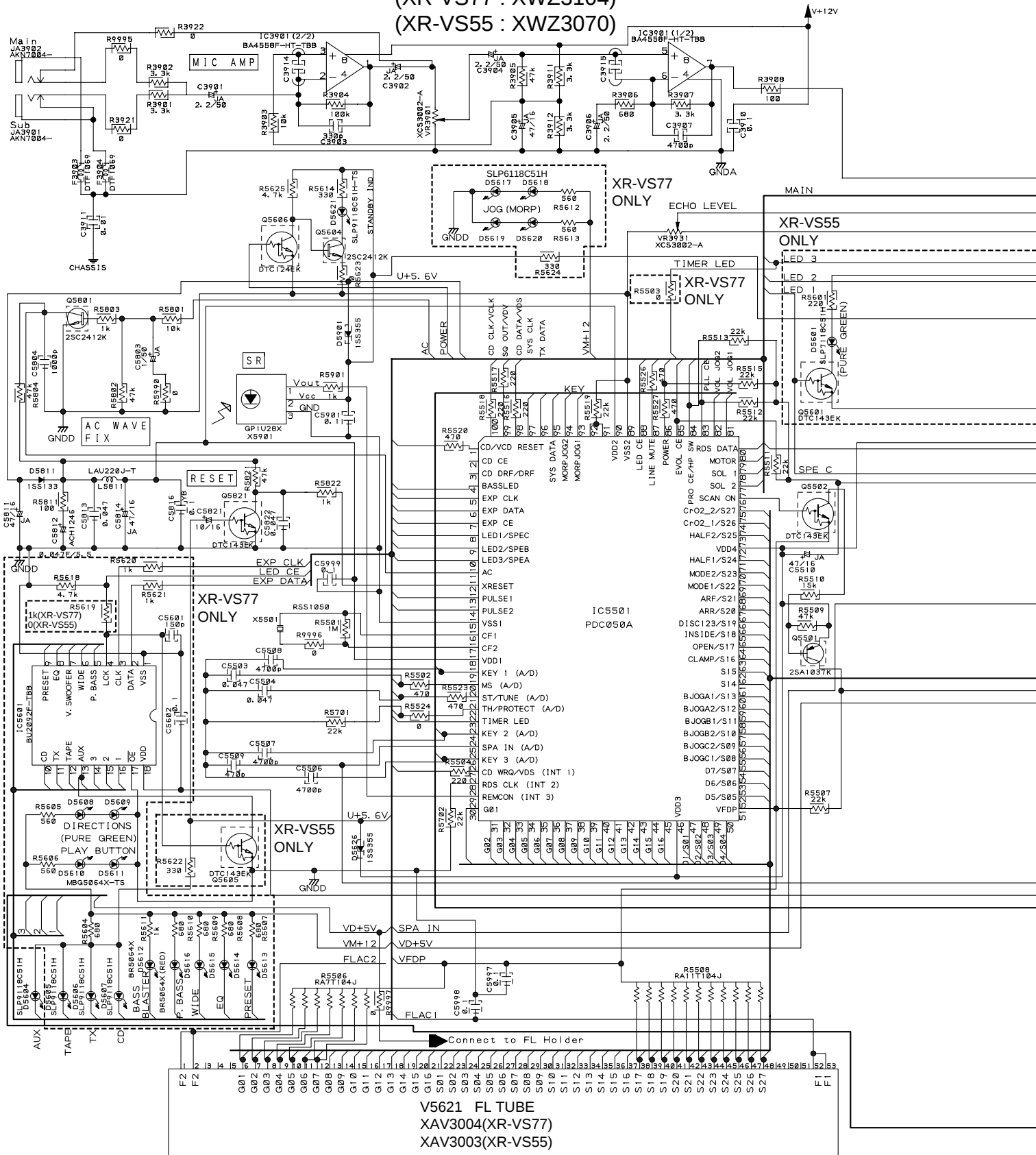
1 DISPLAY ASSY (XR-VS77 : XWZ3104) (XR-VS55 : XWZ3070)

A

B

C

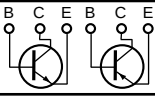
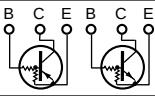
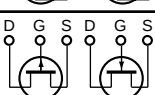
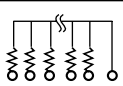
D



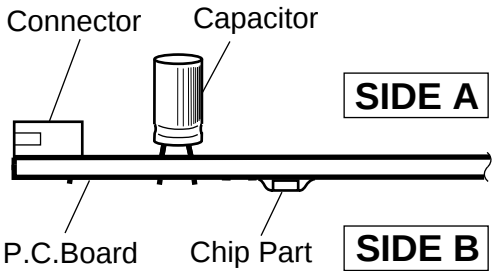
4. PCB CONNECTION DIAGRAM

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.

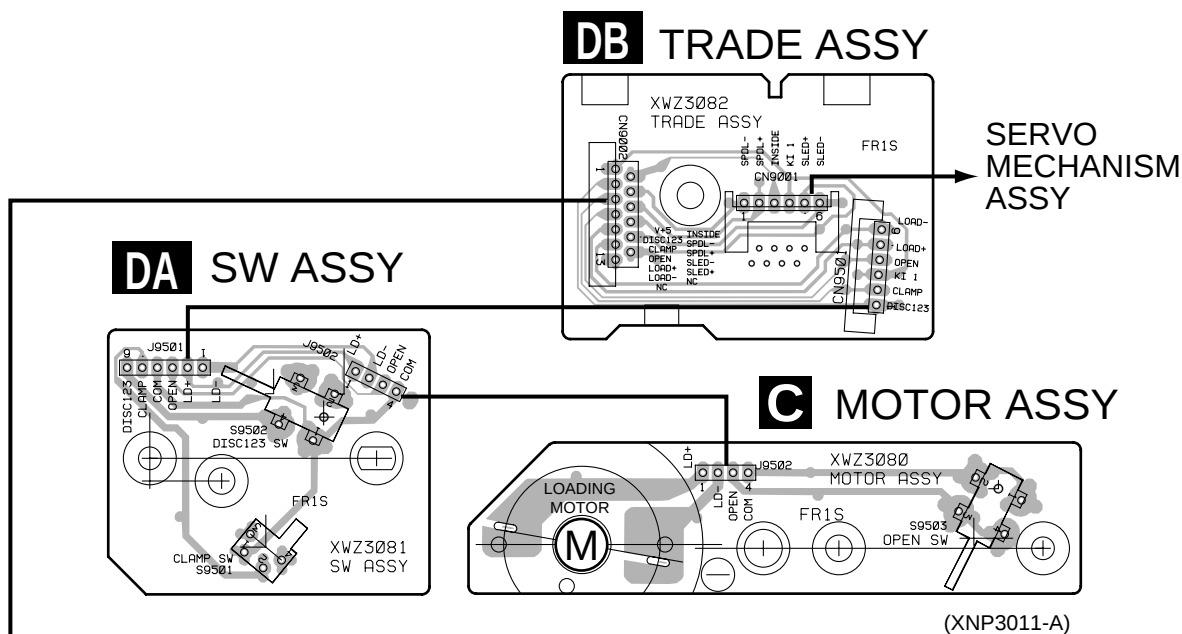
Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

- 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.



4.2 VCD SURVO, MOTOR, SW and TRADE ASSEMBLIES

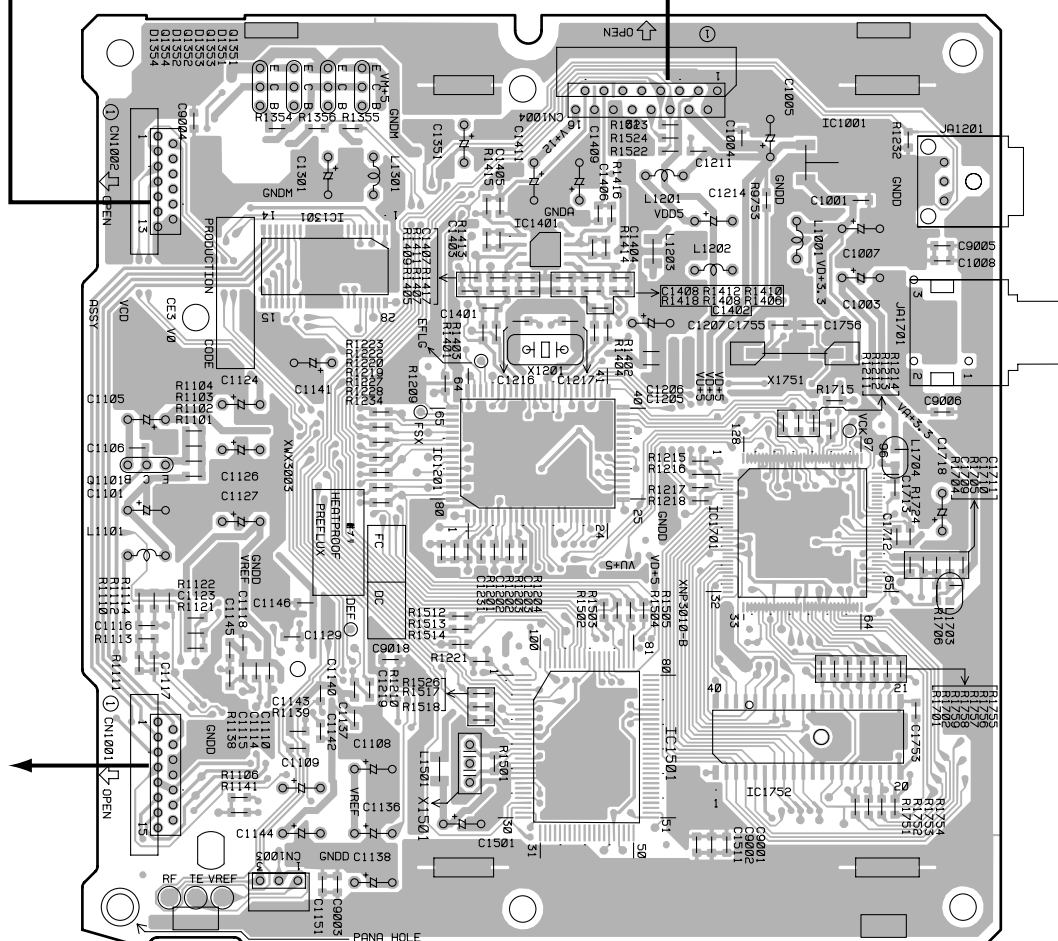
A



B

B VCD SURVO ASSY

E CN1053



- Q1351
- Q1352
- Q1353
- Q1354
- IC1001
- IC1401
- IC1301
- IC1201
- Q1101
- IC1701
- IC1501
- IC1752

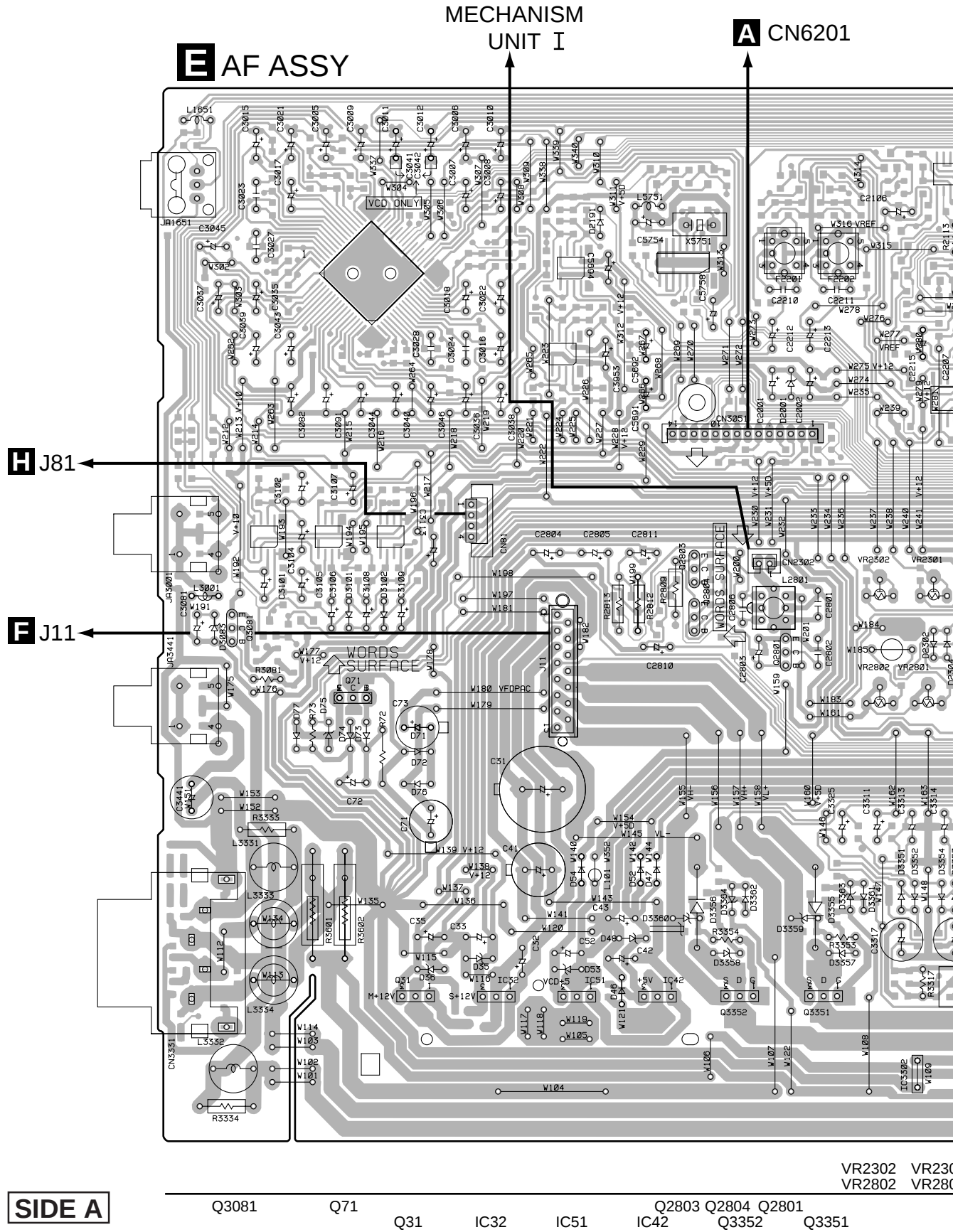
4.3 AF ASSY

A

B

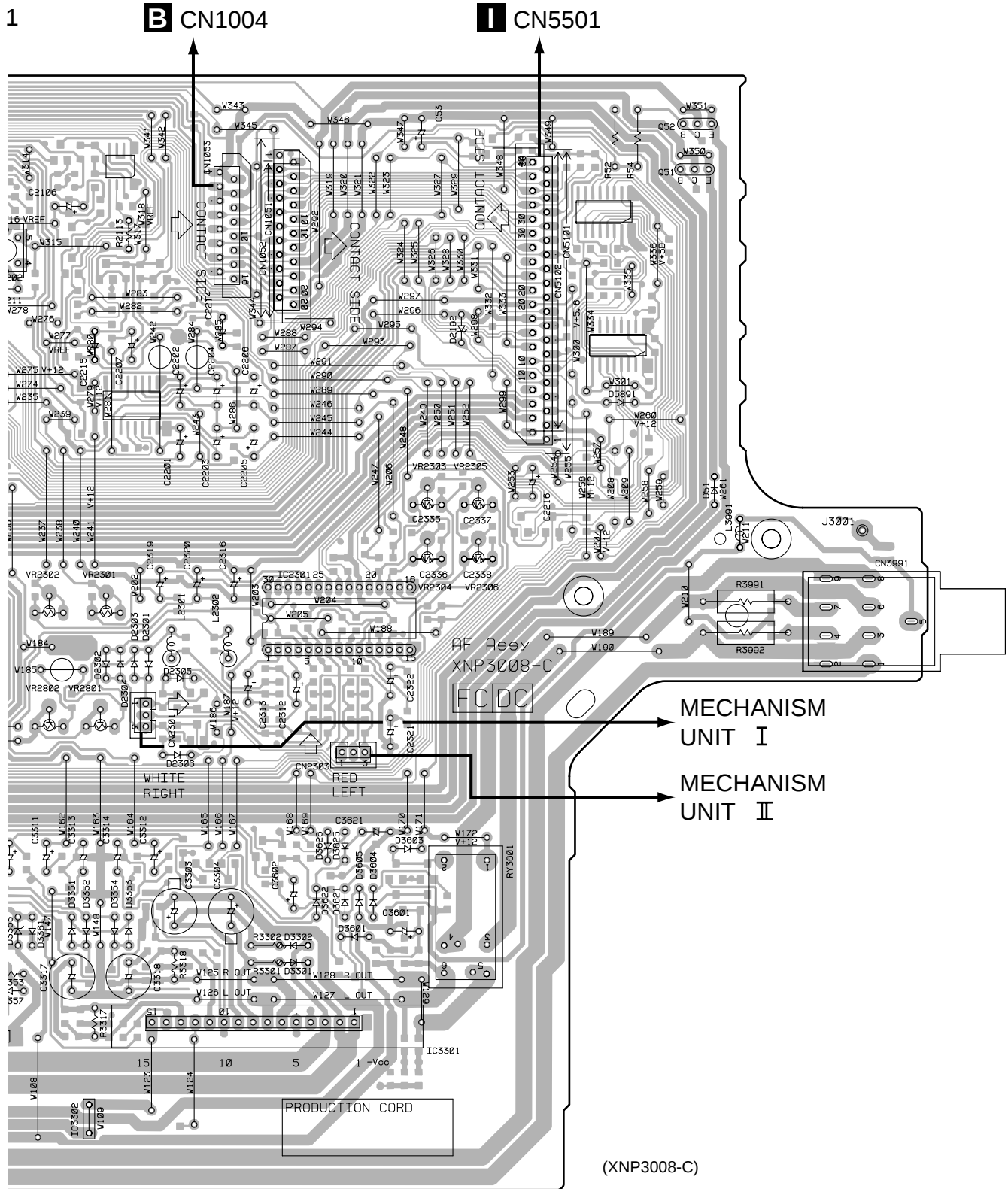
C

D



SIDE A





VR2302 VR2301
VR2802 VR2801

IC3301 IC2301 Q52 Q51

1 5 6 7

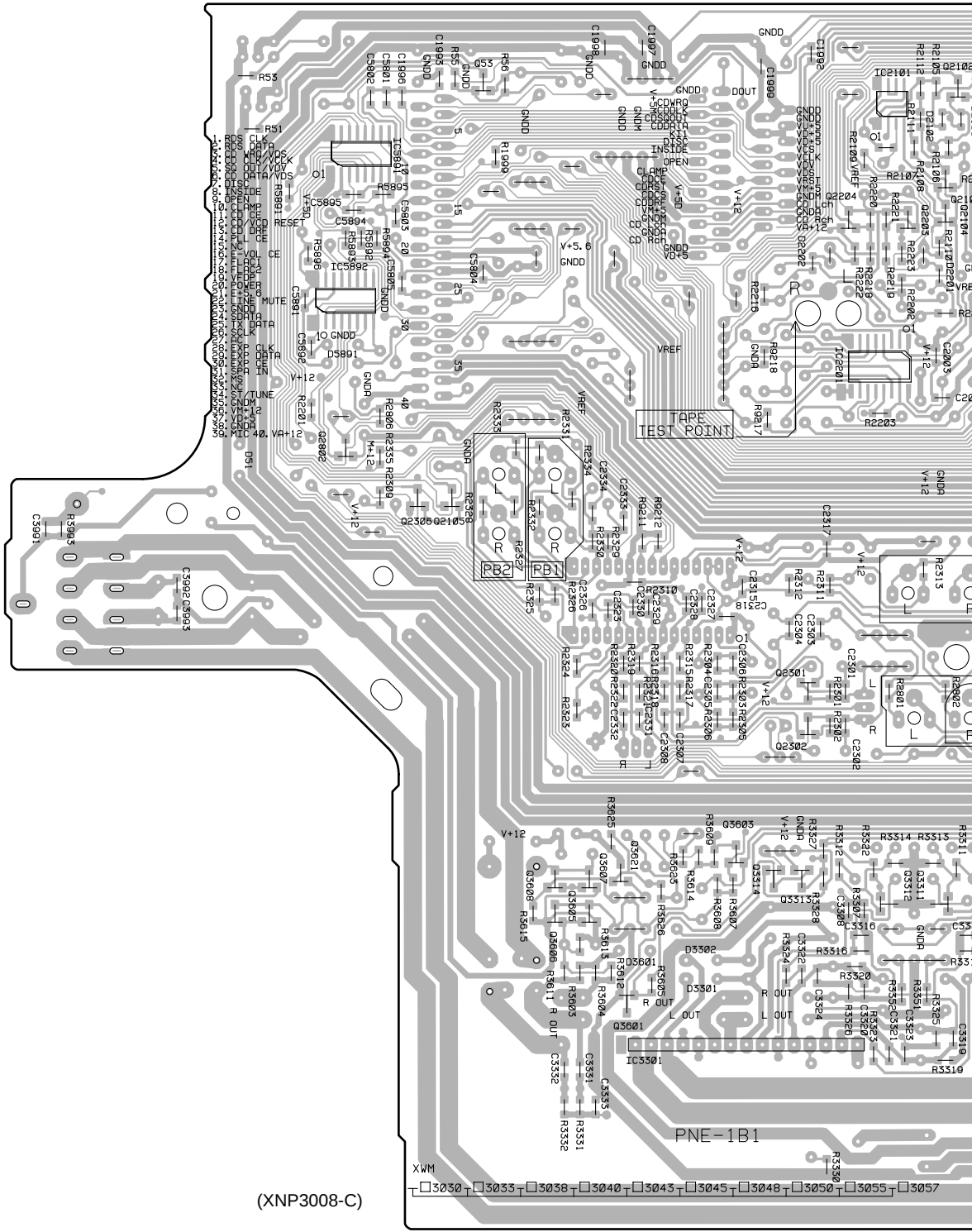
A

B

C

D

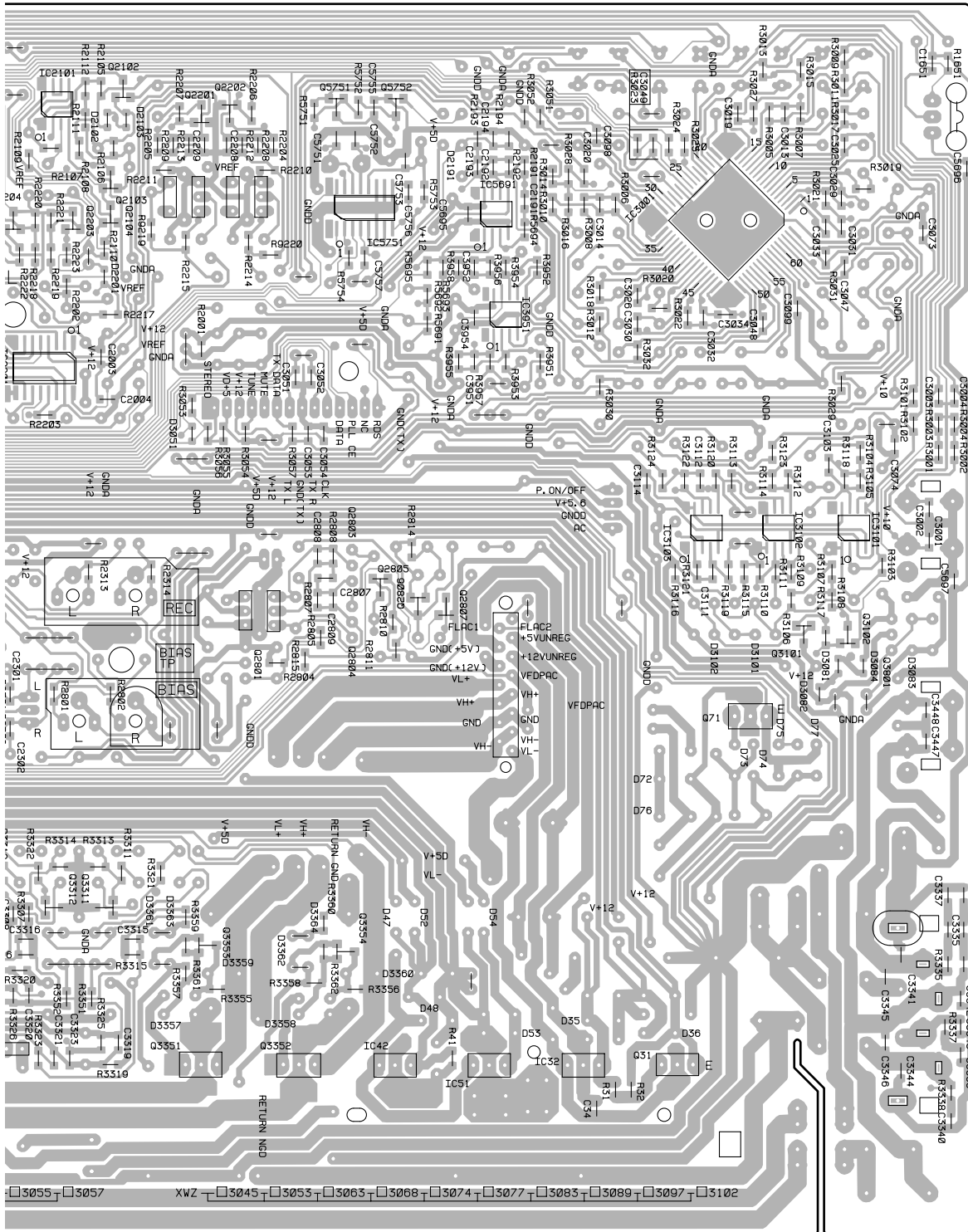
E AF ASSY



SIDE B

- | | | | |
|-------------------|-----|-------------|-------------------------------|
| IC5891 | Q53 | | IC2101 |
| IC5892 | | Q3605—Q3608 | Q2301 Q2204 Q2203 Q2 |
| Q2802 Q2306 Q2105 | | Q3601 | IC2201 |
| | | | IC3301 Q3314 Q3313 Q3312 Q331 |





IC2101 Q2201 Q2202 Q5751 Q5752 IC5691 IC3001
 Q2202 Q2203 Q2103 IC5751 IC3951 IC3101 IC3103
 IC2201 Q3353 Q3354 Q2805 Q2807 IC42 IC51 IC32 Q31
 Q3312 Q3311 Q3351 Q3352 IC42 IC51 IC32 Q31

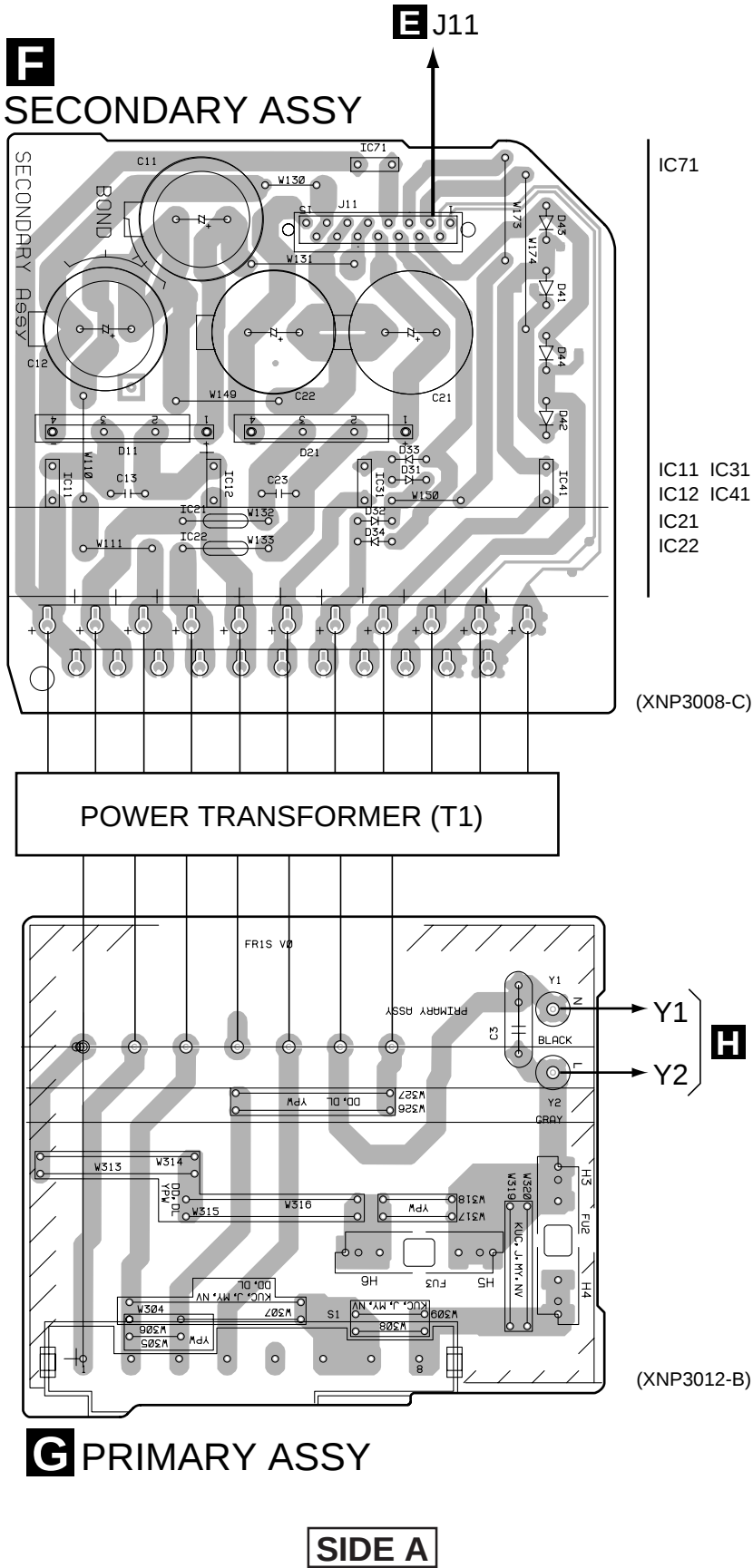
4.4 SECONDARY and PRIMARY ASSEMBLIES

A

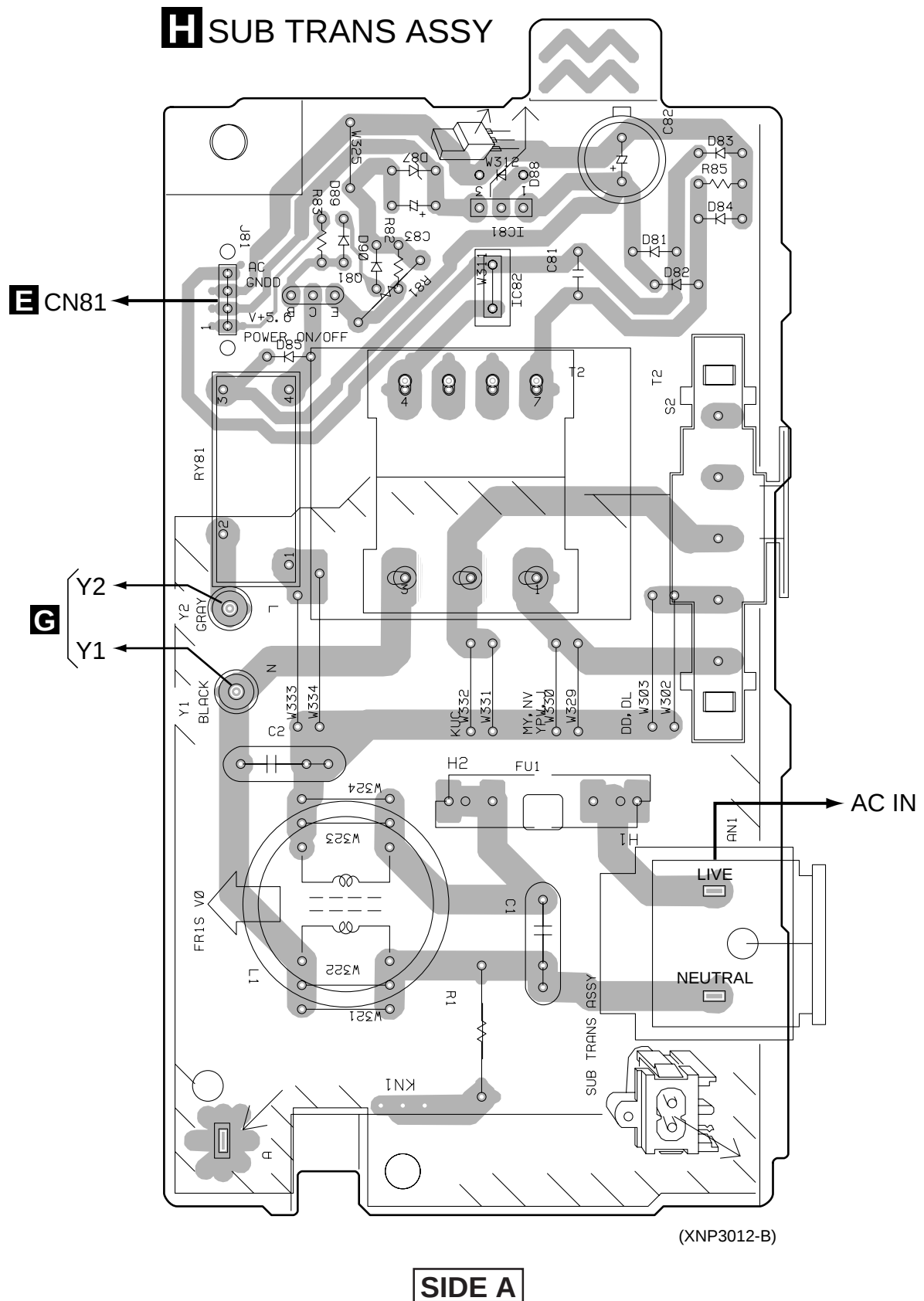
B

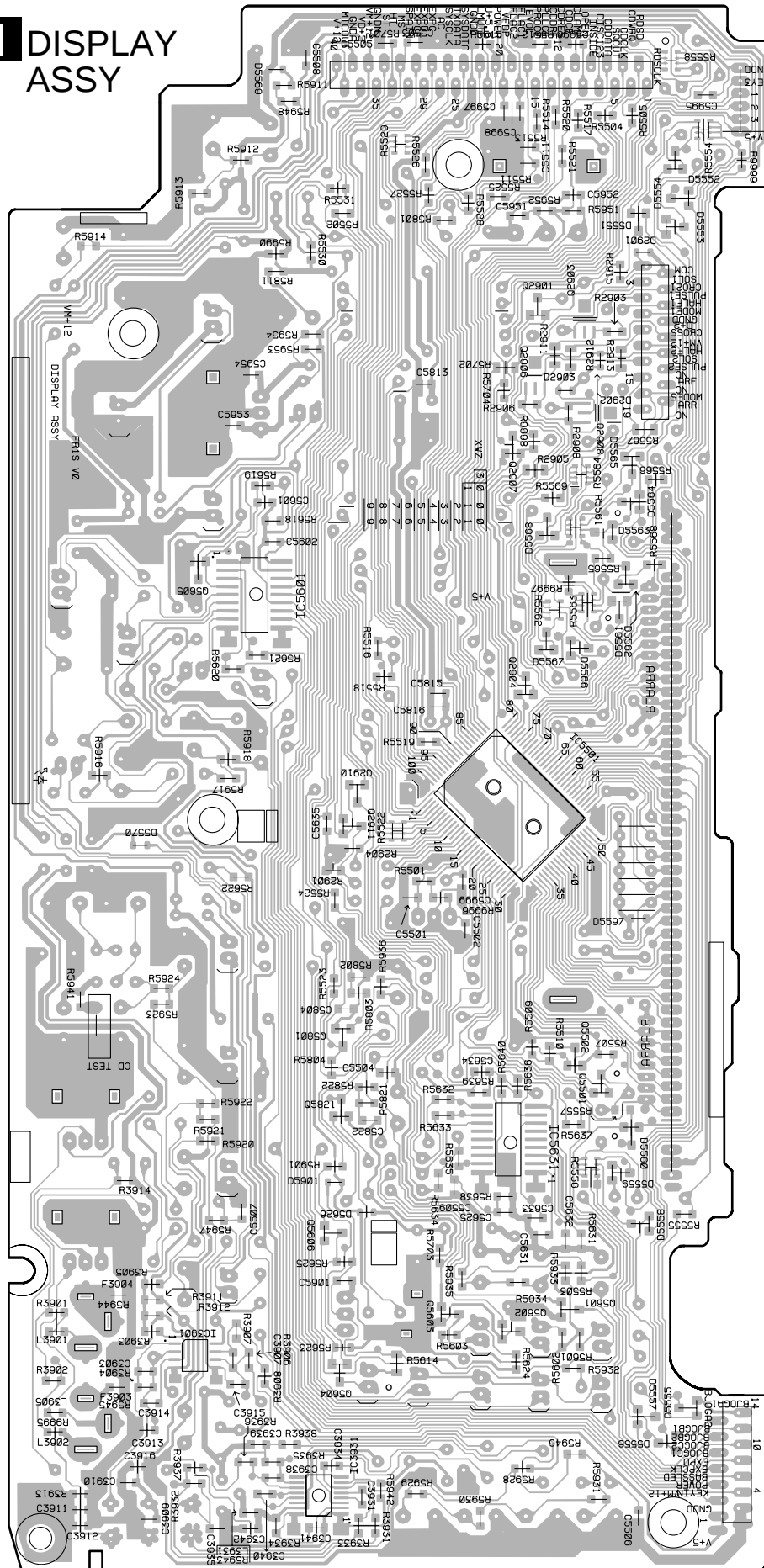
C

D



4.5 SUB TRANS ASSY





5. PCB PARTS LIST

NOTES: ●Parts marked by "NSP" and ⊗ can not be supplied.

- 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

LIST OF HOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.		Remarks
		XR-VS77	XR-VS55	
		DBDXJ, DLXJ/NC	DBDXJ, DLXJ/NC	
⊗	FM/AM TUNER MODULE	AXQ7065	AXQ7065	
⊗	VCD SURBO ASSY	XWX3003	XWX3003	
NSP	\$M MECHA PCB ASSY	XWX3004	XWX3004	
⊗	└MOTOR ASSY	XWZ3080	XWZ3080	
⊗	└SW ASSY	XWZ3081	XWZ3081	
NSP	└TRADE ASSY	XWZ3082	XWZ3082	
NSP	MAIN ASSY	XWM3057	XWM3040	
⊗	└AF ASSY	XWZ3102	XWZ3068	
⊗	└SECONDARY ASSY	XWZ3103	XWZ3069	
NSP	COMPLEX ASSY	XWM3058	XWM3041	
⊗	└PRIMARY ASSY	XWZ3048	XWZ3048	
⊗	└SUB TRANS ASSY	XWZ3049	XWZ3049	
⊗	└DISPLAY ASSY	XWZ3104	XWZ3070	
⊗	└CD SW LED ASSY	XWZ3086	Not used	

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
A	FM/AM TUNER MODULE				F6401	FM BAND PASS FILTER	ATF-155
	SEMICONDUCTORS				F6206	FM CERAMIC DISCRIMINATOR	ATF7008
	IC6201	LA1832ML			F6202	AM CERAMIC FILTER	ATF7011
	IC6202	LC72131MD			L6206, L6208, L6403		LAU2R2J
	Q6402	2SC2223		TRANSFORMERS			
	Q6203	2SC2705		T6201	AM IF TRANS.	ATB7008	
	Q6201, Q6202	2SC2712		T6401	FM CONNECT TRANS.	ATE7002	
	Q6214, Q6403	2SC2714		CAPACITORS			
	Q6404	2SK302		C6208		CCSQCH100D50	
	Q6401	3SK194		C6212, C6274, C6275, C6408		CCSQCH101J50	
COILS AND FILTERS				C6412		CCSQCH102J50	
L6404	FM COIL	ATC1003		C6221, C6222, C6416		CCSQCH150J50	
L6401	FM RF COIL	ATC1020		C6271		CCSQCH200J50	
L6402	FM RF COIL	ATC1021		C6415		CCSQCH330J50	
F6204	FM CERAMIC FILTER	ATF-107		C6406		CCSQCH331J50	
F6203	FM CERAMIC FILTER	ATF-119		C6401, C6419		CCSQCH5R0C50	
				C6407		CCSQCK1R0C50	
				C6410		CCSQCK2R0C50	

Mark	No.	Description	Part No.
	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□□□□

OTHERS

BN6202	4P ANTENNA TERMINAL	AKE7025
X6202	CERAMIC RESONATOR (456kHz)	ASS1066
X6201	CRYSTAL RESONATOR (7.2000MHz)	ASS1093
CN6201	14P SOCKET MW RF TUNING BLOCK	KP200IA14L AXX7041

B VCD SURVO ASSY

SEMICONDUCTORS

△	IC1001	BA033FP
	IC1401	BA4558F-HT
	IC1301	BA5923FP
	IC1701	CL680T-D1
	IC1101	LA9240ML
	IC1201	LC78632RE
	IC1752	MB814260-70PJ
	IC1501	PDC051A
	IC1751	PDK032A
	IC1754	TC7W14F
	IC1753	TC7WU04F
	Q1101	2SA1048
	Q1351, Q1352	2SB1237X
	Q1353, Q1354	2SD1858X
	D1351-D1354	1SS355

Mark	No.	Description	Part No.
COILS AND FILTERS			
	F1501		DTF1064
	F1201		DTF1066
	F1202		DTF1067
	F1705, F1706		DTF1069
	L1702		LCTB1R8K2125
	L1701		LCTB2R7K2125
	L1201		LFA100J
	L1001		LFA220J

CAPACITORS

C1129, C1205, C1208, C1213, C1353	CCSQCH101J50
C1706, C1722	CCSQCH101J50
C1133, C1755, C1756	CCSQCH120J50
C1720	CCSQCH121J50
C1216	CCSQCH150J50
C1708	CCSQCH151J50
C1217	CCSQCH180J50
C1705	CCSQCH271J50
C1132	CCSQCH300J50
C1707	CCSQCH331J50
C1130	CCSQCH3R0C50
C1715, C1717	CCSQCH470J50
C1138	CEAT100M50
C1003, C1108, C1144, C1207, C1214	CEAT101M10
C1301, C1351, C1501	CEAT101M10
C1127	CEAT1R0M50
C1005, C1007, C1126, C1141, C1409	CEAT470M16
C1411	CEAT470M16
C1718	CEAT471M6R3
C1136	CEAT4R7M50
C1109	CEATR22M50
C1124	CEATR47M50
C1101	CEJA3R3M50
C1105	CEJA470M10
C1106, C1119, C1134	CKSQYB102K50
C1102, C1122, C1123, C1139, C1140	CKSQYB103K50
C1209, C1215, C1218, C1231, C1302	CKSQYB103K50
C1354, C1502-C1506, C1703, C9002	CKSQYB103K50
C9005, C9013, C9015	CKSQYB103K50
C1001, C1002, C1004, C1008, C1135	CKSQYB104K25
C1151, C1202, C1203, C1511	CKSQYB104K25
C1701, C1702, C1704, C1710-C1714	CKSQYB104K25
C1716, C1751-C1754, C1757, C9004	CKSQYB104K25
C9006, C9008, C9017, C9019	CKSQYB104K25
C1405, C1406	CKSQYB152K50

C1111	CKSQYB153K25
C1114, C1117, C1120, C1121	CKSQYB154K16
C1125	CKSQYB221K50
C1131	CKSQYB222K50
C1107	CKSQYB223K50
C1110, C1403, C1404, C1407, C1408	CKSQYB331K50
C1115, C1128	CKSQYB332K50
C1113	CKSQYB333K25
C1112, C1143	CKSQYB334K16
C1212	CKSQYB471K50
C1507	CKSQYB472K50
C1116, C1142	CKSQYB473K50
C1401, C1402	CKSQYB561K50
C1118, C1201, C1204, C1206	CKSQYF104Z25

XR-VS77, XR-VS55

Mark	No.	Description	Part No.
RESISTORS			
	R1704	Other Resistors	RS1/10S2001F RS1/10S□□□□
OTHERS			
	CN1004	16P FFC CONNECTOR	52044-1645
	CN1003	3P SIDE POST	B3P-SHF-1AA
	CN1002	13P FFC CONNECTOR	SLW13R-1C7
	CN1001	15P FFC CONNECTOR	SLW15R-1C7
	JA1701	1P PIN JACK	VKB1063
	X1201	CRYSTAL RESONATOR (16.9344MHz)	PSS1008
	X1501	CERAMIC RESONATOR (6MHz)	RSS1050
	X1751	CRYSTAL RESONATOR (27MHz)	VSS1086
C MOTOR ASSY			
SWITCHES AND RELAYS			
	S9503		ASG7009
OTHERS			
	J9502	JUMPER WIRE 4P MOTOR PULLEY CARRIAGE MOTOR	D20PWW0405E PNW1634 VXM1033
DA SW ASSY			
SWITCHES AND RELAYS			
	S9502		ASG7009
	S9501		DSG1017
OTHERS			
	J9501	JUMPER WIRE 6P	D20PWY0610E
DB TRADE ASSY			
OTHERS			
	CN9501		52147-0610
	CN9001		S6B-PH-K-S
	CN9002		SLW13R-1C7
E AF ASSY (XWZ3102)			
SEMICONDUCTORS			
	IC2101, IC3101-IC3103, IC3951		BA4558F-HT BA4558F-HT BU4094BCF HA12136AF HA12211NT LC75394NED
	IC5691		
	IC5891, IC5892		
	IC2201		
	IC2301		
	IC3001		
△	IC42, IC51		NJM7805FA
△	IC32		NJM7812FA
△	IC3301		STK407-070B
	Q3354, Q3601, Q3621		2SA1037K
△	Q71		2SA965
	Q51, Q52		2SB1237X
	Q2803, Q2804		2SC1815
	Q2801		2SC2240
	Q2102, Q2201, Q2202, Q3101, Q3102		2SC2412K
	Q3353, Q3603, Q3605-Q3608, Q53		2SC2412K

Mark	No.	Description	Part No.
△	Q3081		2SD1858X
	Q31		2SD2012
	Q2203, Q2204, Q2805, Q3311, Q3312		2SD2114K
	Q2301, Q2302		2SK368
	Q3313		DTA124EK
	Q2104, Q2105, Q3314		DTC124EK
	Q2103, Q2306, Q2802		DTC143EK
△	Q3351		IRFI9Z34G
△	Q3352		IRFIZ34G
△	D3301, D3302		1SR139-100
	D2191, D2301-D2306, D3101, D3102		1SS133
	D3351-D3354, D3361, D3362, D3601		1SS133
	D3603, D3604, D3621, D3622		1SS133
	D3625, D3626, D5891, D73		1SS133
	D2102, D2103, D2201, D2202, D3051		1SS355
△	D3355, D3356		20E2-FC
	D3357, D3358		MTZJ10C
	D3083		MTZJ11C
	D35, D36		MTZJ15C
	D3359, D3360		MTZJ18B
	D74		MTZJ33C
	D3363, D3364		MTZJ39C
	D2001		MTZJ6.2A
	D48, D53		MTZJ6.8C
	D75		MTZJ8.2B
△	D71, D72		S5688G
COILS AND FILTERS			
	L3331, L3332		ATH-133
	L2801		ATX7002
	L3991		LAU4R7J
	L2301, L2302		LTA822J
	F2201, F2202		RTF1209
SWITCHES AND RELAYS			
	RY3601		ASR7008
CAPACITORS			
	C2303, C2304 (270pF)		ACG7024
	C2301, C2302		CCSQCH100D50
	C3047, C3048		CCSQCH101J50
	C2192		CCSQCH220J50
	C3319, C3320		CCSQCH3R0C50
	C3317, C3318		CEANP220M35
	C3621		CEANP2R2M2A
	C3313, C3314		CEANP2R2M50
	C2207, C2803, C2810, C3045, C3046		CEAT100M50
	C3081, C3091, C33, C35, C3602		CEAT100M50
	C3953, C43, C52		CEAT100M50
	C2002, C2316		CEAT101M16
	C71		CEAT101M2A
	C3303, C3304		CEAT101M50
	C2312, C2313, C3035, C3036		CEAT1R0M50
	C3107, C3108, C32, C3311, C3312		CEAT1R0M50
	C42		CEAT1R0M50
	C2106, C2214, C2215, C2321, C2322		CEAT220M50
	C53, C72		CEAT220M50
	C2001, C3601		CEAT221M16
△	C41		CEAT222M25
△	C31		CEAT222M35
	C2201, C2202, C2205, C2206		CEAT2R2M50
	C2212, C2213, C2319, C2320		CEAT2R2M50
	C3005-C3010, C3015-C3018		CEAT2R2M50

Mark	No.	Description	Part No.
	C3037–C3042, C3104		CEAT2R2M50
	C2804, C2805, C3105		CEAT330M16
	C3106, C3109		CEAT4R7M50
	C3021, C3022		CEATR10M50
	C2203, C2204, C3101, C3102		CEATR22M50
	C3325		CEATR47M50
	C3027, C3028		CFTLA334J50
	C3023, C3024		CFTLA474J50
	C2802		CKCYB681K2H
	C5892		CKSQYB102K50
	C1992, C1993, C2315, C2317, C2318		CKSQYB103K50
	C3053, C3098, C3103		CKSQYB103K50
	C2191, C2193, C3099, C5891		CKSQYB104K25
	C2194		CKSQYB105K10
	C3033, C3034		CKSQYB122K50
	C2208, C2209		CKSQYB152K50
	C3315, C3316		CKSQYB222K50
	C2323, C2326		CKSQYB223K50
	C3029, C3030		CKSQYB273K50
	C2808, C2809		CKSQYB332K50
	C2333, C2334		CKSQYB392K50
	C2807		CKSQYB472K50
	C3111, C3112		CKSQYB473K25
	C2307, C2308, C2331, C2332		CKSQYB681K50
	C3013, C3014		CKSQYB681K50
	C3019, C3020, C3031, C3032		CKSQYB682K50
	C3025, C3026		CKSQYB683K25
	C3331–C3333		CKSQYF104Z50
	C2801		CQHA822J2A
	C2210, C2211		CQMBA103J50
	C2806		CQMBA223J50

RESISTORS

	R2812		RD1/2LMF270J
	R2809		RD1/2LMF4R7J
	R54		RD1/2PM181J
	R52		RD1/2PM221J
	R72		RD1/2PM562J
	R3333, R3334		RD1/4LMF100J
	R3353, R3354		RD1/4PU101J
	R73		RD1/4PU103J
	R3081		RD1/4PU221J
	R3317, R3318		RD1/4PU683J
△	R3991, R3992		RS2LMF331J
	R3601, R3602		RS3LMFR22J
	VR2303–VR2306 (10kΩ)		VCP1156
	VR2301, VR2302 (100kΩ)		VCP1162
	VR2801, VR2802 (220kΩ)		VCP1164
	Other Resistors		RS1/10S□□□J

OTHERS

	15P CABLE HOLDER	51063–1505
CN1053	16P FFC CONNECTOR	52045–1645
CN5101	40P FFC CONNECTOR	52045–4045
CN81	4P JUMPER CONNECTOR	52147–0410
CN3331	4P SPEAKER TERMINAL	AKE7001
CN2302	KR CONNECTOR	B2B–PH–K–S
CN2303	KR CONNECTOR	B3B–PH–K–R
CN2301	KR CONNECTOR 3P	B3B–PH–K–S
CN3051	14P PLUG	KM200IB14
JA3001, JA3441	2P PIN JACK	VKB1060
CN3991	HEADPHONE JACK	XKN3001

Mark	No.	Description	Part No.
	AF ASSY (XWZ3068)		
	SEMICONDUCTORS		
	IC2101, IC3951, IC5691		BA4558F–HT
	IC5891		BU4094BCF
	IC2301		HA12211NT
	IC3001		LC75394NED
△	IC42, IC51		NJM7805FA
△	IC32		NJM7812FA
△	IC3301		STK407–050B
△	Q3354, Q3601, Q3621		2SA1037K
△	Q71		2SA1837
	Q51, Q52		2SB1237X
	Q2803, Q2804		2SC1815
	Q2102, Q2201, Q2202, Q3353, Q3603		2SC2412K
	Q3605–Q3608, Q53		2SC2412K
△	Q3081		2SD1858X
	Q31		2SD2012
	Q2203, Q2204, Q2805, Q3311, Q3312		2SD2114K
	Q2301, Q2302		2SK368
	Q3313		DTA124EK
	Q2104, Q2105, Q3314		DTC124EK
	Q2103, Q2306		DTC143EK
△	Q3351		IRFI9Z34G
△	Q3352		IRFIZ34G
△	D3301, D3302		1SR139–100
	D2301–D2306, D3351–D3354		1SS133
	D3361, D3362, D3601, D3603, D3604		1SS133
	D3621, D3622, D3625, D3626, D5891		1SS133
	D73		1SS133
△	D2102, D2103, D3051		1SS355
	D3355, D3356		20E2–FC
	D3357, D3358		MTZJ10C
	D3083		MTZJ11C
	D35, D36		MTZJ15C
	D3359, D3360		MTZJ18B
	D74		MTZJ33C
	D3363, D3364		MTZJ39C
	D2001		MTZJ6.2A
	D48, D53		MTZJ6.8C
△	D75		MTZJ8.2B
	D72, D76		S5688G
	COILS AND FILTERS		
	L3331, L3332		ATH–133
	L2801		ATX7002
	L3991		LAU4R7J
	L2301, L2302		LTA822J
	SWITCHES AND RELAYS		
	RY3601		ASR7008
	CAPACITORS		
	C2303, C2304 (270pF)		ACG7024
	C2335–C2338		CCCCH270J50
	C2301, C2302		CCSQCH100D50
	C3047–C3049		CCSQCH101J50
	C3319, C3320		CCSQCH3R0C50
	C3317, C3318		CEANP220M35
	C3621		CEANP2R2M2A
	C3313, C3314		CEANP2R2M50
	C73		CEAT100M2A
	C2810, C3045, C3046, C3081, C3091		CEAT100M50

XR-VS77, XR-VS55

Mark	No.	Description	Part No.
△ △	C33, C35, C3602, C3953, C43 C52 C2002, C2316 C3303, C3304 C2312, C2313, C32, C3311, C3312		CEAT100M50 CEAT100M50 CEAT101M16 CEAT101M50 CEAT1R0M50
	C42 C2106, C2214, C2215, C2321, C2322 C53, C72 C2001, C3601 C71		CEAT1R0M50 CEAT220M50 CEAT220M50 CEAT221M16 CEAT221M63
	C41 C31 C2212, C2213, C2319, C2320 C3005–C3010, C3015–C3018 C3037–C3040, C3082		CEAT222M25 CEAT222M35 CEAT2R2M50 CEAT2R2M50 CEAT2R2M50
	C2804, C2805 C3021, C3022 C3041, C3042, C3325 C3027, C3028 C3023, C3024		CEAT330M16 CEATR10M50 CEATR47M50 CFTLA334J50 CFTLA474J50
	C2307, C2308 C1992, C1993, C2315, C2317, C2318 C3053, C3098 C3099, C5891 C3033, C3034		CKSQYB102K50 CKSQYB103K50 CKSQYB103K50 CKSQYB104K25 CKSQYB122K50
	C3315, C3316 C2323, C2326, C3029, C3030 C2808, C2809 C2333, C2334 C2807		CKSQYB222K50 CKSQYB273K50 CKSQYB332K50 CKSQYB392K50 CKSQYB472K50
	C2331, C2332, C3013, C3014 C3019, C3020, C3031, C3032 C3025, C3026 C3331–C3333 C2801		CKSQYB681K50 CKSQYB682K50 CKSQYB683K25 CKSQYF104Z50 CQHA822J2A
	C2806		CQMBA223J50
	RESISTORS		
	R2812 R2809 R54 R52 R72		RD1/2LMF270J RD1/2LMF4R7J RD1/2PM181J RD1/2PM221J RD1/2PM222J
	R3333, R3334 R3353, R3354 R2113, R73 R3081 R3317, R3318		RD1/4LMF100J RD1/4PU101J RD1/4PU103J RD1/4PU221J RD1/4PU683J
	R3991, R3992 R3601, R3602 VR2802 (100kΩ) Other Resistors		RS2LMF331J RS2LMFR22J VCP1162 RS1/10S□□□J
	OTHERS		
		15P CABLE HOLDER	51063–1505
	CN1053	16P FFC CONNECTOR	52045–1645
	CN5101	40P FFC CONNECTOR	52045–4045
	CN81	4P JUMPER CONNECTOR	52147–0410
	CN3331	4P SPEAKER TERMINAL	AKE7001
	CN2302	KR CONNECTOR	B2B–PH–K–S
	CN2303	KR CONNECTOR	B3B–PH–K–R
	CN2301	KR CONNECTOR 3P	B3B–PH–K–S
	CN3051	14P PLUG	KM200IB14
	JA3001	2P PIN JACK	VKB1060

Mark	No.	Description	Part No.
	CN3991	HEADPHONE JACK	XKN3001

F SECONDARY ASSY

(1) CONTRAST TABLE

XWZ3069 and XWZ3103 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		XWZ3103	XWZ3069	
△	IC11, IC12 PROTECTOR	AEK7021 (7A)	AEK7019 (5A)	
△	IC21, IC22 PROTECTOR	AEK7046 (5A)	AEK7053 (4A)	
	C21, C22	CEAT332M50	CEAT222M50	

(2) PARTS LIST FOR XWZ3103

SEMICONDUCTORS

△	IC71 (1.25A)	AEK7010
△	IC31, IC41 (3A)	AEK7015
△	IC11, IC12 (7A)	AEK7021
△	IC21, IC22 (5A)	AEK7046
△	D11, D21	GBU4DL–5303
△	D41–D44	S5566G(TPB2)
△	D31–D34	S5688G

CAPACITORS

△	C11, C12 (220μF/63V)	ACH7071
△	C21, C22	CEAT332M50

OTHERS

	15P CABLE HOLDER	51063–1505
J11	JUMPER WIRE	D15A15–350–2651

G PRIMARY ASSY

SWITCH

△	S1	AKX7006
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CAPACITOR

△	C3 (10000pF/AC250V)	ACG7020
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OTHERS

△	H3–H6 FUSE CLIP	AKR7001
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H SUB TRANS ASSY

SEMICONDUCTORS

△	IC81	NJM7805FA
	Q81	2SD1859X
	D85, D88–D90	1SS133
△	D81–D84	S5688G

TRANSFORMER

△	T2	ATT7027
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SWITCH AND RELAY

△	S2	AKX7004
△	RY81	ASR7018

CAPACITORS

	C83	CEAT100M50
△	C82	CEAT102M25

Mark	No.	Description	Part No.
RESISTORS			
	All Resistors		RD1/4PU□□□J
OTHERS			
△	H1, H2 AN1 J81	4P CABLE HOLDER FUSE CLIP 1P AC INLET JUMPER WIRE 4P	51048-0400 AKR7001 BKP1046 D20PYY0425E

I DISPLAY ASSY (XWZ3104)

SEMICONDUCTORS

IC5631	BA3835F
IC3901	BA4558F-HT
IC5601	BU2092F
IC3931	BU9253FS
IC5501	PDC050B
Q5501	2SA1037K
Q2903, Q2906, Q2908	2SB1132
Q5604, Q5801	2SC2412K
Q2910, Q2911	DTA124EK
Q5606	DTC124EK
Q2901, Q2904, Q2907, Q5502, Q5603	DTC143EK
Q5821	DTC143EK
D5591, D5593, D5811	1SS133
D5563-D5568	1SS181
D2901-D2903, D5569, D5570, D5626	1SS355
D5901	1SS355
D5612	BR5064X
D5613-D5616	MAA5064X
D5608-D5611	MBG5064X
D3931	MTZJ5.1B
D5617-D5620	SLP6118C51H
D5603-D5607, D5621	SLP9118C51H

COILS AND FILTERS

F3903, F3904	DTF1069
L5811	LAU220J
L3931	LCTB100K2125

SWITCHES AND RELAYS

S5951	ASX7004
S5952	ASX7017
S5911-S5931	XSG3001

CAPACITORS

C5812 (0.047F/5.5V)	ACH1246
C3941	CCSQCH101J50
C5601	CCSQSL151J50
C3903	CCSQSL331J50
C5821	CEJA100M16
C3943	CEJA101M16
C5803	CEJA1R0M50
C3933	CEJA220M16
C3901, C3902, C3904, C3906	CEJA2R2M50
C3905, C5510, C5811, C5814	CEJA470M16
C3936, C3937	CEJA4R7M50
C3932	CEJAR47M50
C5804	CKSQYB102K50
C3911, C3931, C3934, C3940	CKSQYB103K50
C3910, C5816, C5997-C5999	CKSQYB104K25

Mark	No.	Description	Part No.
	C3939		CKSQYB123K50
	C5509, C5951-C5954		CKSQYB471K50
	C3907, C3938, C5506-C5508		CKSQYB472K50
	C3935		CKSQYB473K50
	C3942, C5602, C5631-C5634, C5901		CKSQYF104Z50
	C5503, C5504, C5813, C5822		CKSQYF473Z50

RESISTORS

R5529 (470Ω)	ACN7056
R5561, R5562 (1.5kΩ)	ACN7062
R5563, R5564 (47kΩ)	ACN7077
R5508	RA11T104J
R5506	RA7T104J
R2907, R2909, R2910, R5611, R5919	RD1/4PU102J
R5915	RD1/4PU181J
R5925	RD1/4PU331J
R3940	RD1/4PU471J
R5605, R5606, R5612, R5613, R5926	RD1/4PU561J
R2902, R5604, R5607-R5610	RD1/4PU681J
R5927	RD1/4PU821J
R2911-R2913, R5567	RS1/8S0R0J
R5702	RS1/8S223J
R5614	RS1/8S331J
R2905	RS1/8S681J
VR3901, VR3931	XCS3002
Other Resistors	RS1/10S□□□J

OTHERS

CN2901	19P FFC CONNECTOR	52045-1945
CN5501	40P FFC CONNECTOR	52045-4045
JA3901, JA3902	JACK	AKN7004
5901	REMOTE RECEIVER UNIT	GP1U28X
V5621	FL TUBE	XAV3004
2902	FL HOLDER	XNG3008
X5501	CERAMIC RESONATOR (6MHz)	RSS1050

I DISPLAY ASSY (XWZ3070)

SEMICONDUCTORS

IC3901	BA4558F-HT
IC3931	BU9253FS
IC5501	PDC050B
Q5501	2SA1037K
Q2903, Q2906, Q2908	2SB1132
Q5604, Q5801	2SC2412K
Q2910, Q2911	DTA124EK
Q5606	DTC124EK
Q2901, Q2904, Q2907, Q5502	DTC143EK
Q5601-Q5603, Q5605, Q5821	DTC143EK
D5591, D5631, D5811	1SS133
D5563-D5568	1SS181
D2901-D2903, D5569, D5570, D5626	1SS355
D5901	1SS355
D3931	MTZJ5.1B
D5602	SLP3118C51H
D5601	SLP7118C51H
D5603, D5604, D5621	SLP9118C51H

COILS AND FILTERS

F3903, F3904	DTF1069
L5811	LAU220J
L3931	LCTB100K2125

XR-VS77, XR-VS55

Mark	No.	Description	Part No.
SWITCHES AND RELAYS			
	S5951		ASX7004
	S5952		ASX7017
	S5911–S5915, S5917–S5925		XSG3001
	S5927–S5936		XSG3001
CAPACITORS			
	C5812 (0.047F/5.5V)		ACH1246
	C3941		CCSQCH101J50
	C3903		CCSQL331J50
	C5821		CEJA100M16
	C3943		CEJA101M16
	C5803		CEJA1R0M50
	C3933		CEJA220M16
	C3901, C3902, C3904, C3906		CEJA2R2M50
	C3905, C5510, C5811, C5814		CEJA470M16
	C3936, C3937		CEJA4R7M50
	C3932		CEJAR47M50
	C5804		CKSQYB102K50
	C3911, C3931, C3934, C3940		CKSQYB103K50
	C3910, C5816, C5997–C5999		CKSQYB104K25
	C3939		CKSQYB123K50
	C5509, C5951–C5954		CKSQYB471K50
	C3907, C3938, C5506–C5508		CKSQYB472K50
	C3935		CKSQYB473K50
	C3942, C5634, C5901		CKSQYF104Z50
	C5625		CKSQYF224Z25
	C5503, C5504, C5813, C5822		CKSQYF473Z50
RESISTORS			
	R5529 (470Ω)		ACN7056
	R5561, R5562 (1.5Ω)		ACN7062
	R5563, R5564 (47kΩ)		ACN7077
	R5508		RA11T104J
	R5506		RA7T104J
	R2907, R2909, R2910, R5919		RD1/4PU102J
	R5915		RD1/4PU181J
	R5925		RD1/4PU331J
	R3940		RD1/4PU471J
	R5926		RD1/4PU561J
	R2902		RD1/4PU681J
	R5927		RD1/4PU821J
	R2911–R2913, R5567		RS1/8S0R0J
	R5702		RS1/8S223J
	R5614		RS1/8S331J
	R2905		RS1/8S681J
	VR3901, VR3931		XCS3002
	Other Resistors		RS1/10S□□□J
OTHERS			
	CN2901 17P FFC CONNECTOR		52045–1745
	CN5501 40P FFC CONNECTOR		52045–4045
	JA3901, JA3902 JACK		AKN7004
	5901 REMOTE RECEIVER UNIT		GP1U28X
	5631 FL HOLDER		VNF1096
	V5621 FL TUBE		XAV3003
	X5501 CERAMIC RESONATOR (6MHz)		RSS1050

Mark	No.	Description	Part No.
J	CD SW LED ASSY		
	SEMICONDUCTORS		
	D5623		SLP3118C51H
	D5624		SLP7118C51H
	D5622		SLP9118C51H
SWITCHES			
	S5937–S5941		XSG3001
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
	J5501 JUMPER WIRE		D20PWW0615E

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	0-30	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. starts 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)	35-45	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, frequencies should be 1000kHz.

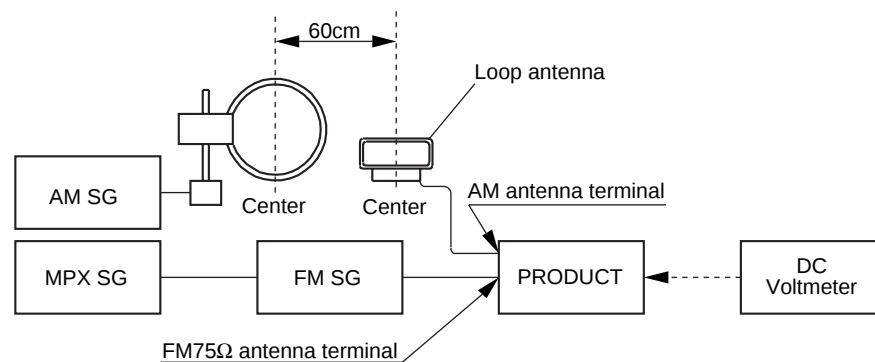


Fig. 1 AM and FM Adjustment Wiring Diagram

FM/AM TUNER MODULE

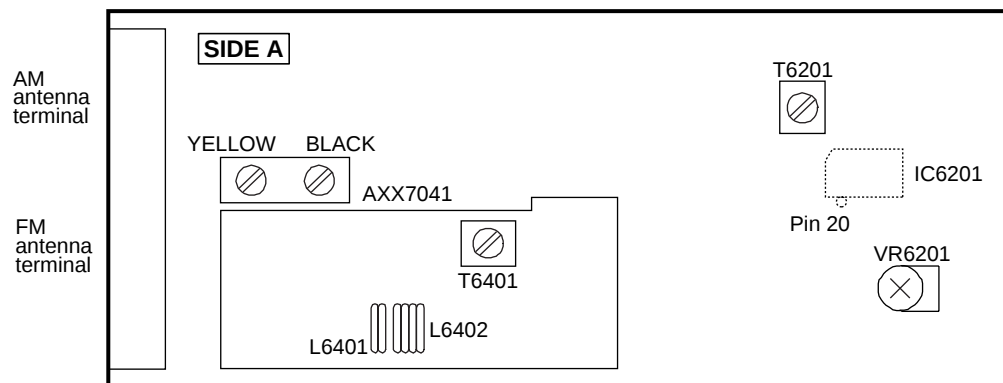


Fig. 2 Adjustment Point

6.2 CASSETTE DECK SECTION

6.2.1 For XR-VS77

● 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 3000Hz ± 60Hz).	

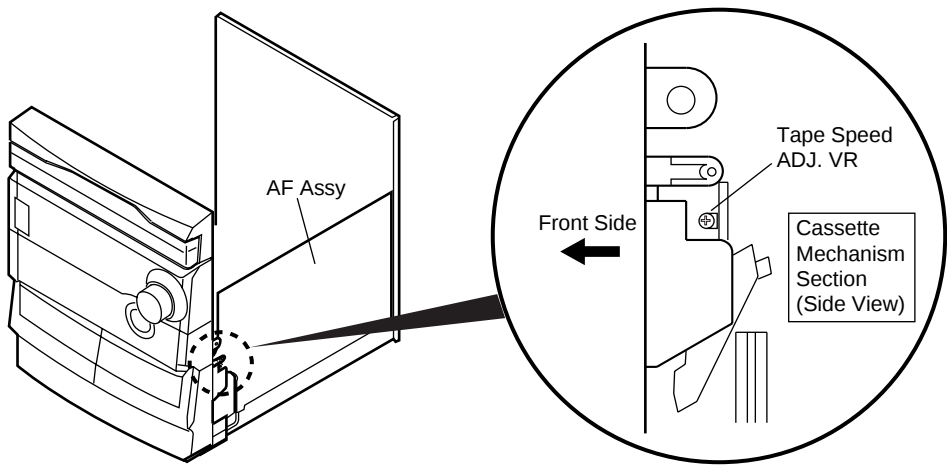


Fig.3 Tape Speed ADJ. Point

■ 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-632 : 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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0 dB 30s

315Hz	0 dB: 315 Hz, 250 nwb/m															
	30s	30s	30s	10s	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

-20 dB

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(Lch) VR2304(Rch)	TAPE TEST POINT (L, Rch) (AF Assy)	- 3.7dBV	
			Deck II	VR2305(Lch) VR2306(Rch)			

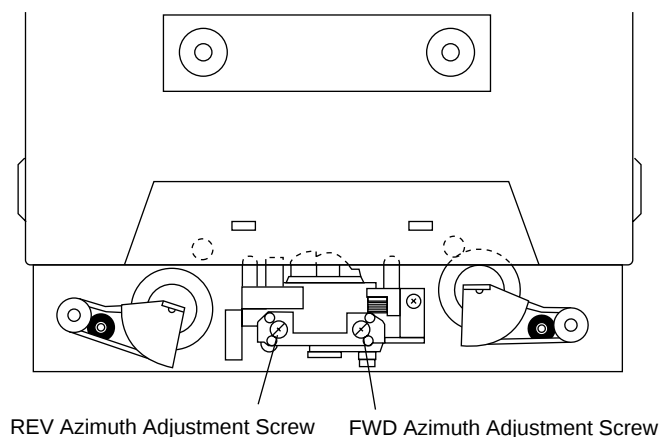
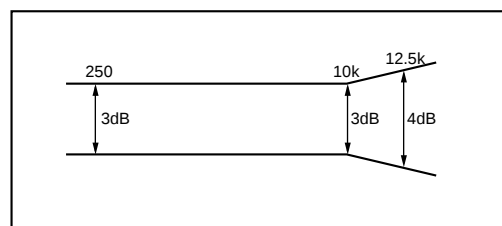


Fig. 5 Head Azimuth Adjustment Screw

PLAY BACK



RECORDING

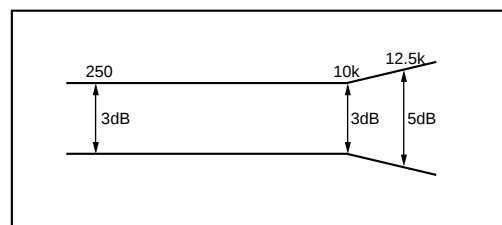


Fig. 6 Frequency Characteristics

■ 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-632 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 in 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 315Hz signal to the AUX terminal and set the input selector to AUX.	Deck II	_____	TAPE TEST POINT (L, Rch) (AF Assy)	– 23.7dBV	
			DECK I	Input signal level			
2	REC → PLAY	Load the STD-632 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 ± 0.5 dB from that of the 315Hz signal.
			DECK I	VR2801(Lch) VR2802(Rch)			

Note : Set the 10kHz input signal level to the same value as the 315Hz 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 315Hz signal to the AUX terminal and set the input selector to AUX.	Deck II	Input signal level	TAPE TEST POINT (L, Rch) (AF Assy)	– 7.7dBV	
			DECK I				
2	REC → PLAY	Load the STD-632 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 315Hz signal becomes – 7.7dBV.
			DECK I	VR2301(Lch) VR2302(Rch)			

(4) ALC Operation Check

Step	Mode	Input Signal/Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1	REC/ PAUSE	Input a 315Hz signal to the AUX terminal and set the input selector to AUX.	Input signal level	TAPE TEST POINT (L, Rch) (AF Assy)	– 8.2dBV	
2			Set to a level +10dB adove the input level at step1.		Confirm that the reading is – 2.2 ± 2.5dBV.	

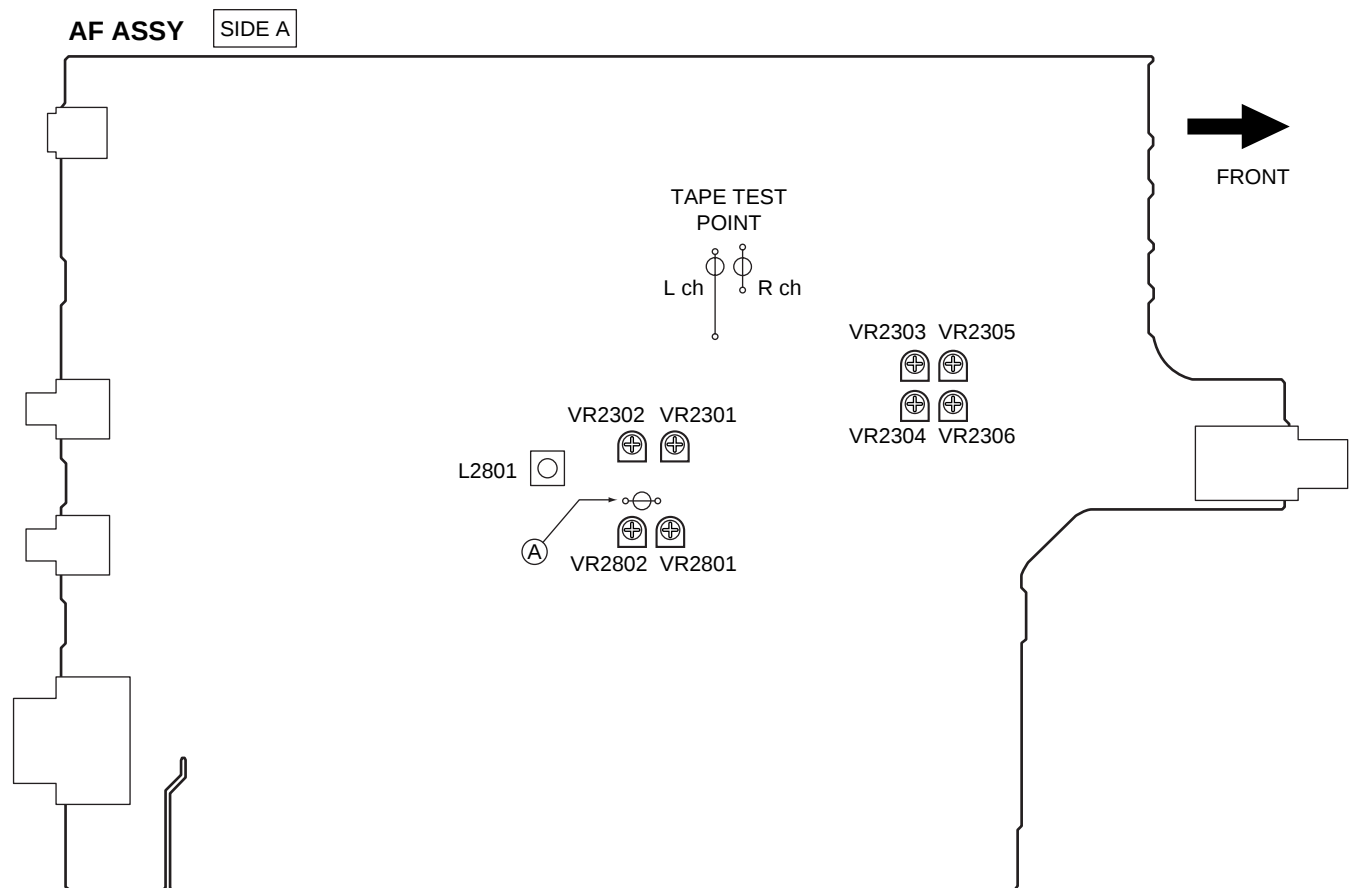


Fig.7 Adjustment and Measurement Points

6.2.2 For XR-VS55

- Adjustment points and test points are shown in Fig.8, Fig.10 and Fig.11.

■ 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. 8)	TAPE TEST POINT (Rch) (AF Assy)	Press the PLAY SW and adjust so that the reading becomes 3000Hz $\pm$ 20Hz. Confirm that wow & flutter level is below 0.3% (in the reverse direction, confirm that the reading is within 3000Hz $\pm$ 60Hz).	

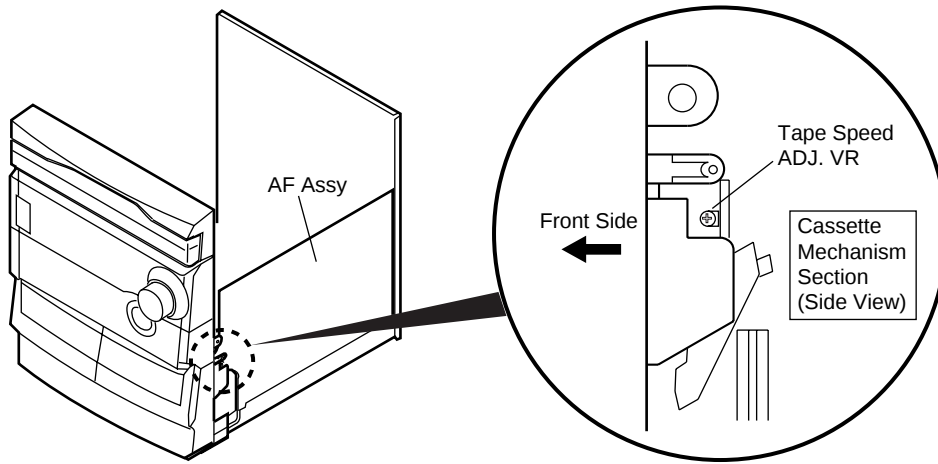


Fig.8 Tape Speed ADJ. Point

■ 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-632 : Normal blank tape
 - (5) Provide yourself with the following measuring devices:
 - AC voltmeter (Noisemeter : filter off)
 - AC millivoltmeter
 - Low-frequency oscillator
 - Attenuator
 - Oscilloscope
 - (6) Adjust both right and left channels unless otherwise specified.
 - (7) 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.
 - (8) Always follow the indicated adjustment order.
Otherwise, a complete adjustment may not be achieved.
- ### Playback Adjustment (Decks I and II)
- (1) Head Azimuth Adjustment
- ### Recording Adjustment (Deck I)
- (1) Bias Oscillation Frequency Adjustment
 - (2) Recording Bias Adjustment

Playback Adjustment (Decks I and II)

- ### (1) Head Azimuth Adjustment

Recording Adjustment (Deck I)

- (1) Bias Oscillation Frequency Adjustment
- (2) Recording Bias Adjustment

* 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.

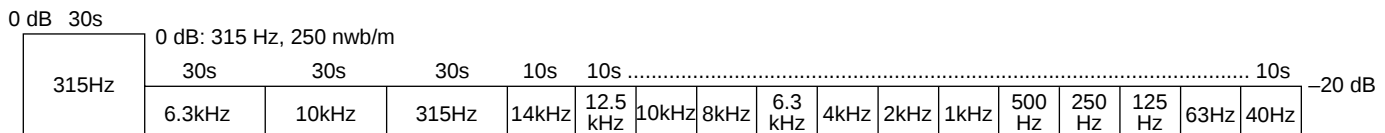


Fig. 9 STD-331E Test Tape

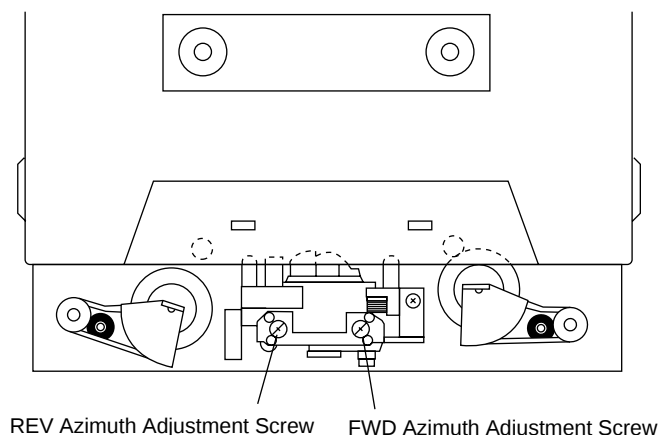


Fig. 10 Head Azimuth Adjustment Screw

■ 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. 10)	TAPE TEST POINT (L, Rch) (AF Assy)	Max. playback signal level	After adjustment, apply silicon bond to the head azimuth adjustment screw.
			Deck II				

■ 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-632 test tape and set the recording mode.	Deck II	_____	_____	Oscillation frequency to be 105.0kHz ± 2kHz.	
			DECK I	L2801 (AF Assy)	Between ㉞ point in Fig. 11 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	Load the STD-632 test tape and record (No signal)	Deck I	VR2802 (AF Assy)	BIAS TP POINT (AF Assy)	24V – 27V	
2	REC → PLAY	Load the STD-632 test tape. Record the 315Hz and 10kHz signals at -25dBV input level (check ㉞ point) and playback.	Deck II	_____	TAPE TEST POINT (L, Rch) (AF Assy)	Repeat adjustment until playback level of the 10kHz signal is within 0 ± 1.0dB from that of the 315Hz signal.	
			DECK I	VR2802 (AF Assy)			

Note : No connecting to BIAS TP POINT at Step 2 REC→PLAY.

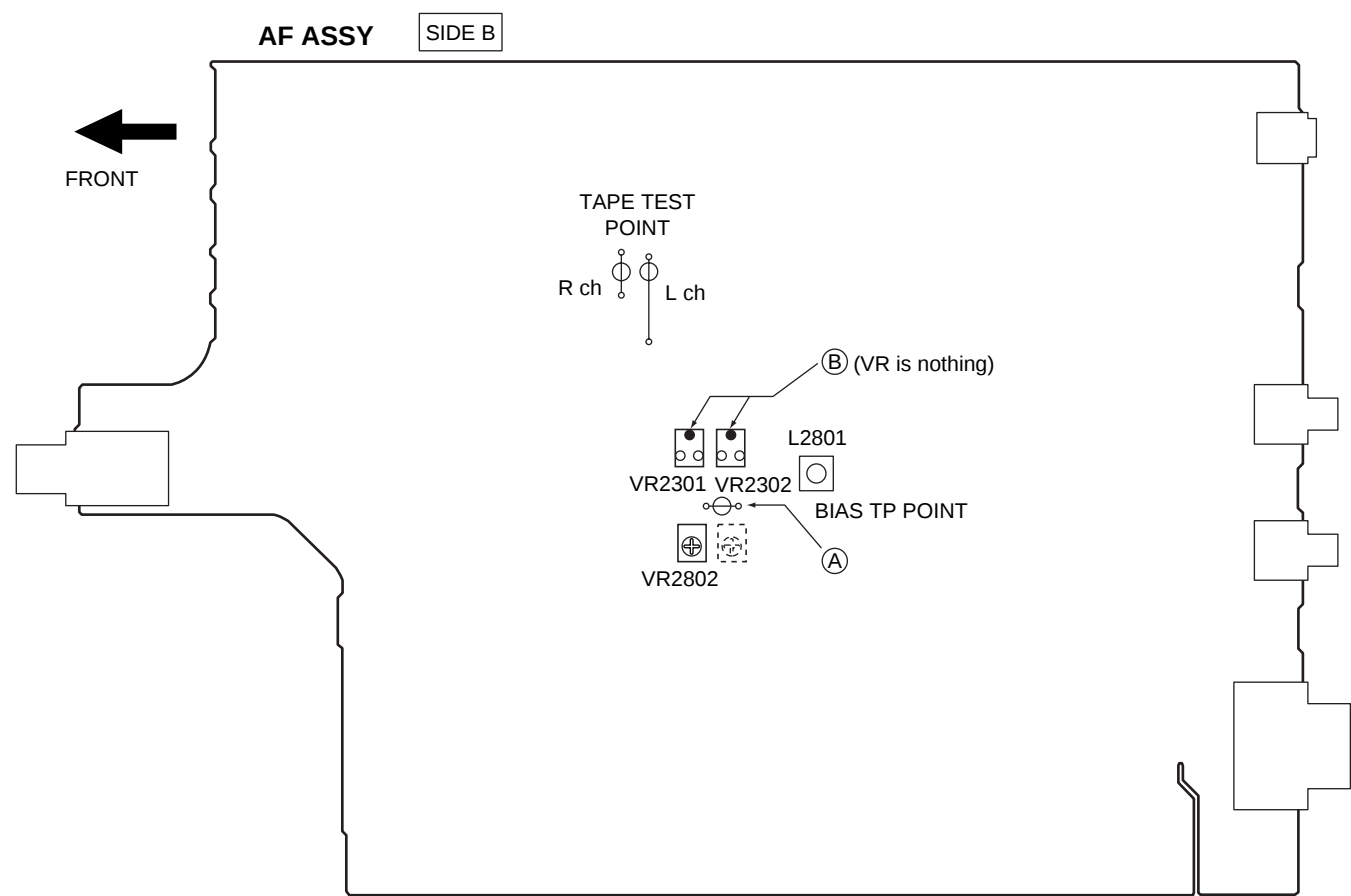


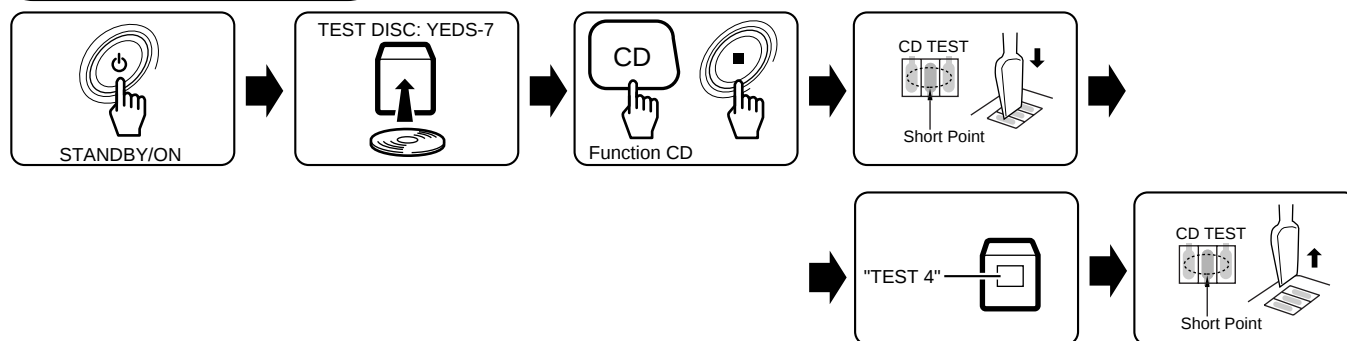
Fig.11 Adjustment and Measurement Points

6.3 TEST MODE

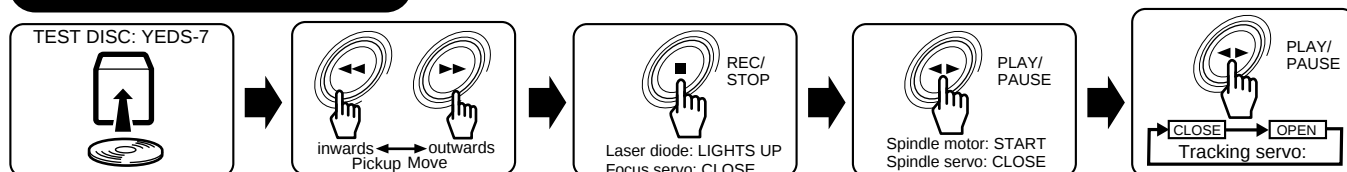
NOTE: There is no information to be shown in this CD adjustment.

■ How to Start/Cancel Test Mode

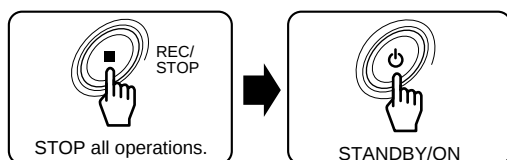
TEST MODE : ON



TEST MODE : PLAY



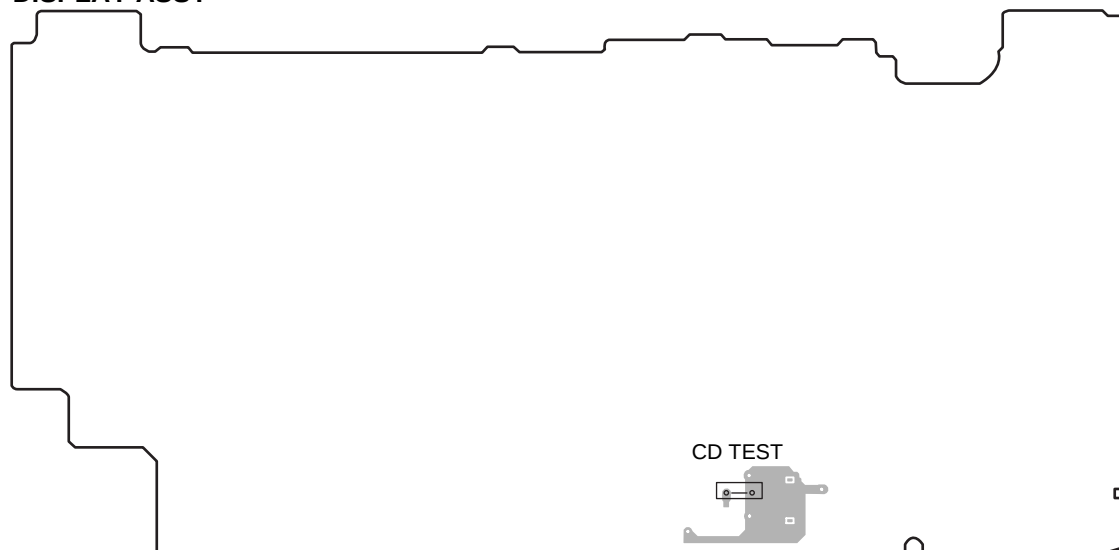
TEST MODE : STOP CANCEL



■ Test Point

DISPLAY ASSY

SIDE B



Bottom Side

7. GENERAL INFORMATION

7.1 PARTS

7.1.1 IC

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

■ HA12136AF (AF ASSY : IC2201)

• Dolby B Type NR System IC

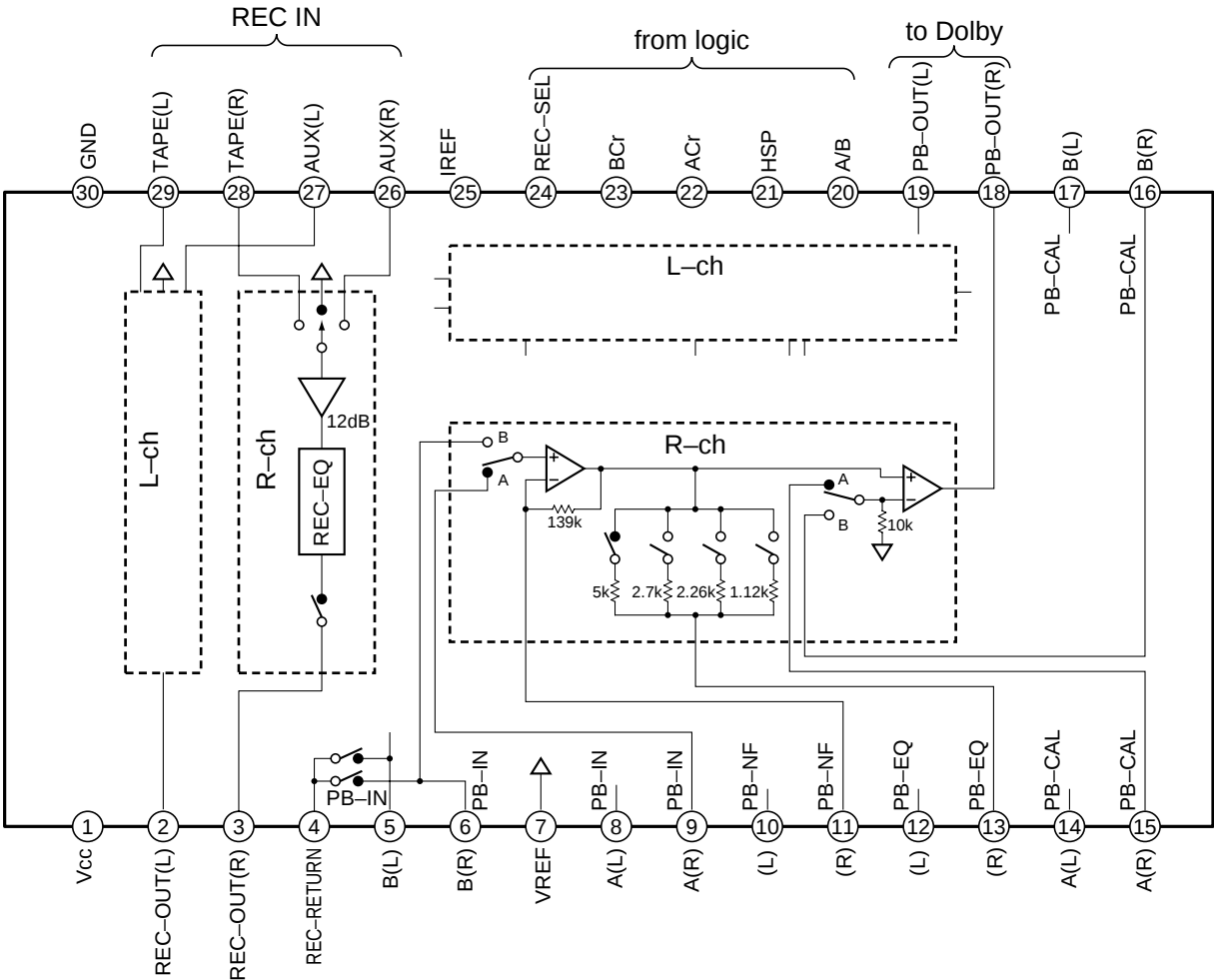
●Pin Function

No.	Pin Name	Function	No.	Pin Name	Function
1	REC IN	Recording (Encode) input	9	REC OUT	Recording (Encode) output
2	Vcc	Power supply	10	DET	Time constant pin for the level detector
3	PB IN	Playback (Decode) input	11	PB OUT	Playback (Decode) output
4	Vref	Reference voltage	12	REC/PB	Mode control pin for REC/PB (Encode/Decode) "H" : REC (Encode), "L" : PB (Decode)
5	NR ON/OFF	Mode control pin for NR ON/OFF "H" : NR ON, "L" : NR OFF	13	BIAS	Reference current input pin for the active filters
6	PB OUT	Playback (Decode) output	14	PB IN	Playback (Decode) input
7	DET	Time constant pin for the level detector	15	GND	Ground
8	REC OUT	Recording (Encode) output	16	REC IN	Recording (Encode) input

■ HA12211NT (AF ASSY : IC2301)

• REC Equalizer and PB Equalizer System IC

●Block Diagram



●Pin Function

No.	Pin Name	Function	No.	Pin Name	Function
1	Vcc	Vcc pin	16	PB-Cal B (R)	Feed back input for gain adjustment
2	RECOUT (L)	REC-EQ output	17	PB-Cal B (L)	
3	RECOUT (R)		18	PB OUT (R)	PB output
4	REC-RETURN	REC return	19	PB OUT (L)	
5	PB-IN B (L)	PB B deck input	20	A/B	Mode control input
6	PB-IN B (R)		21	HSP	
7	VREF	Reference voltage	22	Acr	
8	PB-IN A (L)	PB A deck input	23	Bcr	Mode control input
9	PB-IN A (R)		24	REC-SEL	
10	PB-NF (L)	PB EQ feed back	25	IREF	Equalizer reference current input
11	PB-NF (R)		26	AUX (R)	REC-EQ input
12	PB-EQ (L)	NAB output	27	AUX (L)	
13	PB-EQ (R)		28	TAPE (R)	
14	PB-Cal A (L)	Feed back input for gain adjustment	29	TAPE (L)	GND pin
15	PB-Cal A (R)		30	GND	

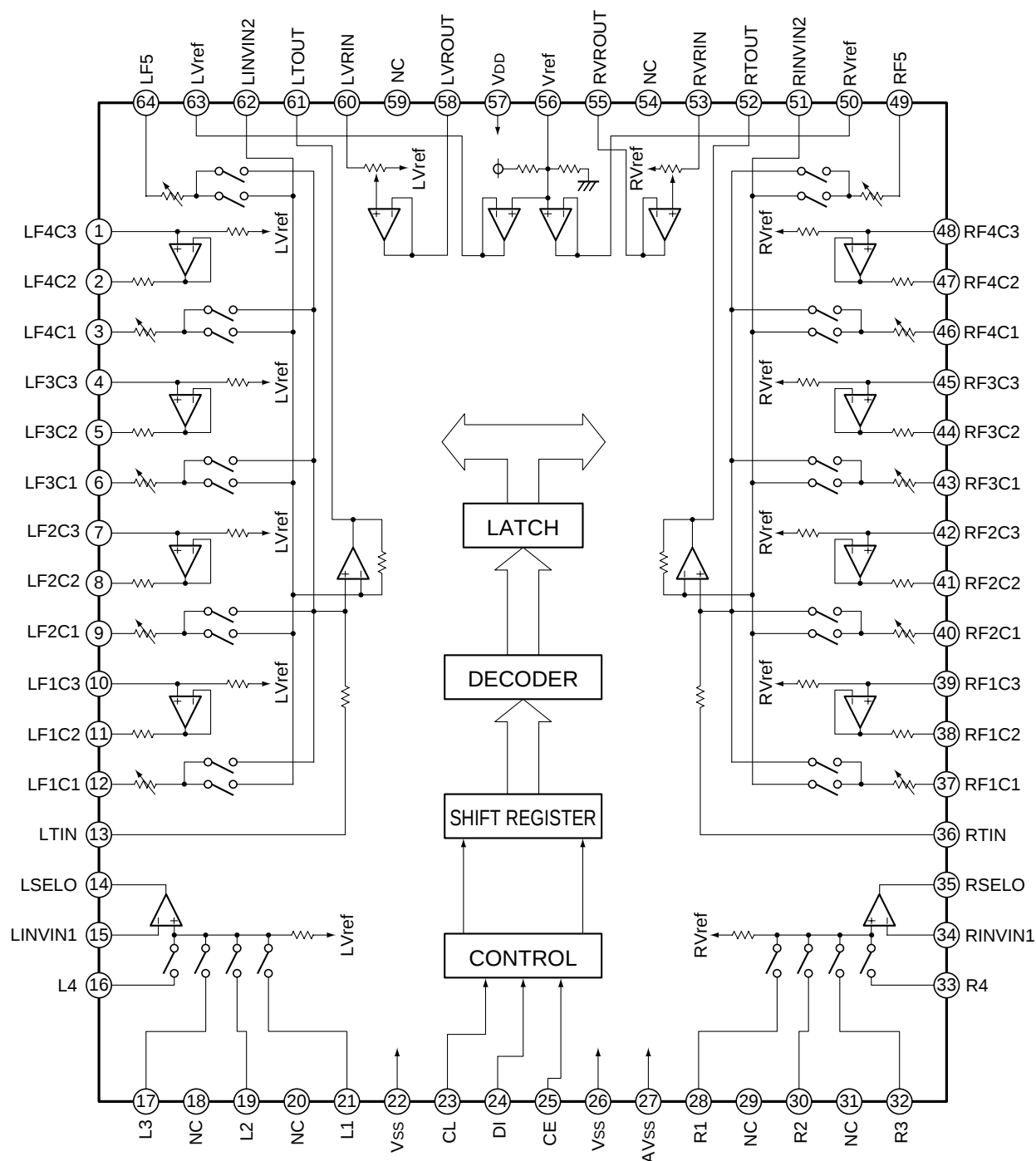
■ LC75394NED (AF ASSY : IC3001)

• Electrical Volume IC

●Pin Function

No.	Pin Name	Function	No.	Pin Name	Function
1	LF4C3	F4 band control block of L ch External capacitor connection pin	33	R4	Signal input
2	LF4C2		34	RINVIN1	Inverting input of OP amp. for input gain setting
3	LF4C1		35	RSELO	Input selector output
4	LF3C3	F3 band control block of L ch External capacitor connection pin	36	RTIN	Tone control input pin that is driven with low-impedance
5	LF3C2		37	RF1C1	F1 band control block of R ch External capacitor connection pin
6	LF3C1		38	RF1C2	
7	LF2C3	F2 band control block of L ch External capacitor connection pin	39	RF1C3	F2 band control block of R ch External capacitor connection pin
8	LF2C2		40	RF2C1	
9	LF2C1		41	RF2C2	
10	LF1C3	F1 band control block of L ch External capacitor connection pin	42	RF2C3	F3 band control block of R ch External capacitor connection pin
11	LF1C2		43	RF3C1	
12	LF1C1		44	RF3C2	
13	LTIN	Tone control input pin that is driven with low-impedance	45	RF3C3	F4 band control block of R ch External capacitor connection pin
14	LSELO	Input selector output	46	RF4C1	
15	LINVIN1	Inverting input of OP amp. for input gain setting	47	RF4C2	
16	L4	Signal input	48	RF4C3	F5 band control block External capacitor connection pin
17	L3		49	RF5	
18	NC	Non connection	50	RVref	Common pin of volume, tone and input selector blocks
19	L2	Signal input	51	RINVIN2	Inverting input of OP amp. for graphic equalizer
20	NC	Non connection	52	RTOUT	Tone control output
21	L1	Signal input	53	RVRIN	Volume input pin that is driven with low-impedance
22	VSS	Ground of internal logic system	54	NC	Non connection
23	CL	Serial data and clock input for control	55	RVROUT	Volume output pin
24	DI		56	Vref	VDD/2 voltage generating block Connect a capacitor between Vref and VSS.
25	CE	Chip enable pin H: Enable data transfer	57	VDD	Power supply
26	VSS	Ground of internal logic system	58	LVROUT	Volume output pin
27	AVSS	Ground of internal OP amp.	59	NC	Non connection
28	R1	Signal input	60	LVRIN	Volume input pin that is driven with low-impedance
29	NC	Non connection	61	LTOUT	Tone control output
30	R2	Signal input	62	LINVIN2	Inverting input of OP amp. for graphic equalizer
31	NC	Non connection	63	LVref	Common pin of volume, tone and input selector blocks
32	R3	Signal input	64	LF5	F5 band control block External capacitor connection pin

●Block Diagram

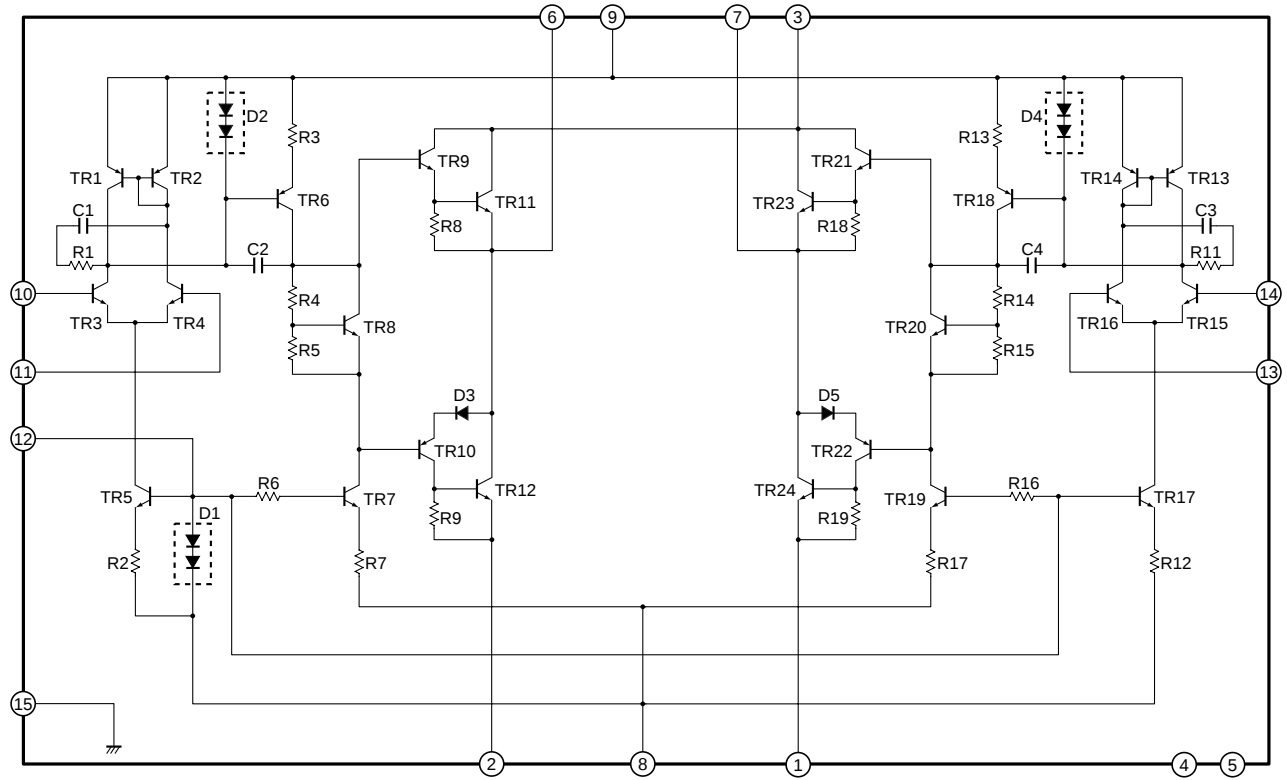


■ STK407-070B (AF ASSY : IC3301)(XR-VS77)

STK407-050B (AF ASSY : IC3301)(XR-VS55)

• Audio IC

●Block Diagram



■ PDC050A (DISPLAY ASSY : IC5501)

- System Control Microcomputer

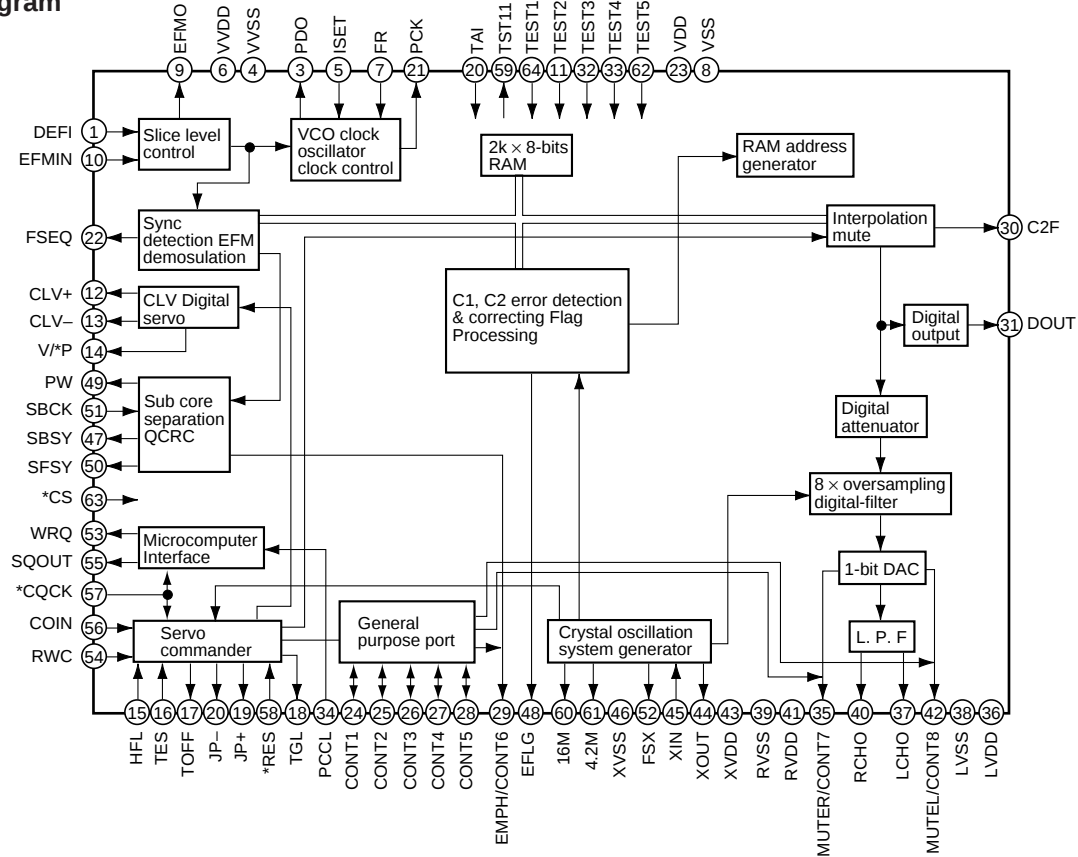
●Pin Function

No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function
1	VCD RESET	O	Reset output for VCD LSI	51	VFDP	—	
2	NC	O	Not used	52	S*/D5593	*	
3	NC	I	Not used	53	S*/D5592	*	
4	NC	O	Not used	54	S*/D5591	*	
5	EXP CLK	O	Clock output for EXP IC (BU4094), LED IC (BU2092) and Prologic IC (LV1035)	55	S*	O	
6	EXP DATA	O	Data output for EXP IC (BU4094), LED IC (BU2092) and Prologic IC (LV1035)	56	S*	O	
7	EXP CE	O	EXP IC (BU4094), LED IC (BU2092) strobe output	57	S*	O	
8	LED1/SPE A	O	LED control / Spectrum analyzer IC (BU1923) output control	58	S*	O	
9	LED2/SPE B	O		59	S*	O	
10	LED3/SPE C	O		60	S*	I/O	
11	AC	I	AC pulse input (for clock , power supply monitor)	61	S*	I/O	FL display control anode
12	XRESET	I	CPU reset input	62	S*	I/O	
13	REEL1	I	Pulse input for deck 2 reel	63	S*	I/O	
14	REEL2	I	Pulse input for deck 1 reel	64	S*	I/O	
15	VSS	—	Ground	65	S*	I/O	
16	CF1	I		66	S*	I/O	
17	CF2	O		67	S*/ARR	I/O	
18	VDD	—	power supply	68	S*/ARF	I/O	
19	KEY1	I	Front key input	69	S*/MODE1	I/O	
20	MS	I	Deck MS signal input	70	S*/MODE2	I/O	
21	ST/TUNE	I	Tuner tuned (STEREO) detection	71	S*/HALF1	I/O	
22	NC	I	Not used	72	VDD	—	Power supply
23	TIMER LED	O	LED control (for timer) (XR-VS77 only)	73	S*/HALF2	I/O	FL display control anode
24	KEY2	I	Front key input	74	S*/CrO2_1	I/O	
25	SPE-IN	I	Spectrum analyzer signal input	75	S*/CrO2_2	I/O	
26	KEY3	I	Front key input	76	SCAN ON	O	Key scan input control
27	VCS	I	Strobe input from VCD LSI	77	SOL2	O	Deck 1 solenoid control
28	NC	I	Not used	78	SOL1	O	Deck 2 solenoid control
29	REMOCON	I	Remote control signal input	79	MOTOR	O	Deck motor control
30	G*	O	FL display control anode	80	RDS DATA	I	Data input for RDS
31	G*			81	VOLJOG1	I	Pulse input for volume jog
32	G*			82	VOLJOG2		
33	G*			83	PLL CE	O	Tuner PLL IC strobe output
34	G*			84	NC	—	Not used
35	G*			85	EVOL CE	O	Main volume control IC (LC75394) strobe output
36	G*			86	POWER	O	Main power control
37	G*			87	LINE MUTE	O	Line mute control
38	G*			88	TIMER LED /LED CE	O	LED control (for TIMER) / LED control IC (BU2092) strobe output
39	G*			89	VSS	—	Ground
40	G*			90	VDD	—	Power supply
41	G*	O	FL display control anode (XR-VS77 only)	91	NC	I	No connection
42	G*			92	NC		
43	G*			93	MORP JOG1	I	Pulse input for sound morphing jog
44	G*			94	MORP JOG2		
45	G*			95	SYS DATA	O	Serial data output
46	VDD	—	Power supply	96	TX DATA	I	Serial data input
47	S*/D5597	O	FL display control anode	97	SCLK	O	Serial clock output
48	S*/D5596	O		98	VDS	O	Serial data output for VCD LSI
49	S*/D5595	*		99	VDV	I	Serial data input for VCD LSI
50	S*/D5594	*		100	VCLK	O	Clock output for VCD LSI

LC78622NE (CD ASSY : IC8301)

• CD DSP IC

• Block Diagram



• Pin Function

No.	Pin Name	I/O	Function
1	DEFI	I	Defect detection signal (DEF) input pin (Must be connected to 0V when unused).
2	TAI	I	PLL pins Test input pin A pull-down resistor is built-in. Must be connected to 0V.
3	PDO	O	
4	VVSS	–	
5	ISET	AI	
6	VVDD	–	
7	FR	AI	
8	VSS	–	Digital system ground pin Must be connected to 0V.
9	EFMO	O	Slice level control EFM signal output pin
10	EFMIN	I	
11	TEST2	I	Test input pin A pull-down resistor is built-in. Must be connected to 0V.
12	CLV+	O	Disc motor control output
13	CLV–	O	Can be set to three-value output by microprocessor command.
14	V/*P	O	Rough servo/phase control automatic switching monitor output pin Outputs a high level during rough servo a low level.
15	HFL	I	Track detection signal input pin This is a Schmitt input.
16	TES	I	Tracking error signal input pin This is a Schmitt input.
17	TOFF	O	Tracking off output pin
18	TGL	O	Tracking gain switching output pin Increase the gain when low.
19	JP+	O	Track jump output
20	JP–	O	Three-value output is also possible when specified by microprocessor command.

XR-VS77, XR-VS55

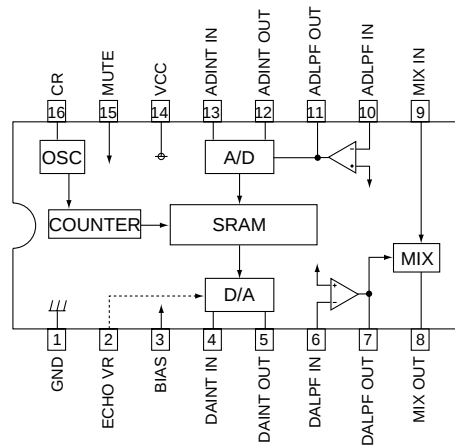
No.	Pin Name	I/O	Function
21	PCK	O	EFM data playback clock monitor pin Output pin 4.3218MHz when the phase is locked.
22	FSEQ	O	Synchronization signal detection output pin Output a high level when the synchronization signal detected from the EFM signal and the internally generated synchronization signal range.
23	VDD	–	Digital system power supply pin
24	CONT1	I/O	General-purpose 1
25	CONT2		General-purpose 2
26	CONT3		General-purpose 3
27	CONT4		General-purpose 4
28	CONT5		General-purpose 5
29	EMPH/CONT6	O	De-emphasis monitor pin A high level indicates playback of a de-emphasis disk. / General-purpose 6
30	C2F	O	C2 flag output pin
31	DOUT	O	Digital output pin (EIJ format)
32	TEST3	I	Test input pin A pull-down resistor is built-in. Must be connected to 0V.
33	TEST4	I	
34	PCCL	I	General-purpose input / output command identifying pin Must be connected to 0V when used with functions similar to those of LC78622E. H: Control possible only for the general-purpose input / output port command L: Control possible for all commands
35	MUTEL/CONT7	O	Left channel mute output pin
36	LVDD	–	Left channel one-bit D/A converter
37	LCHO	O	Left channel output pin
38	LVSS	–	Left channel ground pin Must be connected to 0V.
39	RVSS	–	Right channel ground pin Must be connected to 0V.
40	RCHO	O	Right channel one-bit D/A converter
41	RVDD	–	Right channel power supply pin
42	MUTER/CONT8	O	Right channel mute output pin
43	XVDD	–	Crystal oscillator power supply pin
44	XOUT	O	Connections for a 16.9344MHz crystal oscillator element pin
45	XIN	I	
46	XVSS	–	Crystal oscillator ground pin Must be connected to 0V.
47	SBSY	O	Subcode clock synchronization signal output pin
48	EFLG	O	C1, C2 single and double error correction monitor pin
49	PW	O	Subcode P, Q, R, S, T, U and W output pin
50	SFSY	O	Subcode frame synchronization signal output pin This signal falls when the subcode are in standby state.
51	SBCK	I	Subcode readout clock input pin This is a Schmitt input. (Must be connected to 0V when unused.)
52	FSX	O	Output pin for the 7.35kHz synchronization signal divided from the crystal oscillator
53	WRQ	O	Subcode Q output standby output pin
54	RWC	I	Read/write control input pin This is a Schmitt input.
55	SQOUT	O	Subcode Q output pin
56	COIN	I	Command input pin from control microprocessor
57	*CQCK	I	Input for both the command input acquisition clock and the SQOUT pin subcode readout clock input pin. This is a Schmitt input.
58	*RES	I	Reset input pin This pin must be set low briefly after power is first applied.
59	TST11	O	Test output pin Leave open. (Normally output a low level.)
60	16M	O	16.9344MHz output pin
61	4.2M	O	4.2336MHz output pin
62	TEST5	I	Test input pin A pull-down resistor is built-in. Must be connected to 0V.
63	*CS	I	Chip select input pin A pull-down resistor is built-in. Must be connected to 0V if not controlled.
64	TEST1	I	Test input pin No pull-down resistor. Must be connected to 0V.

Note: The same potential must be supplied to all power supply pins, i.e., VDD, VVDD, LVDD, RVDD and XVDD.

■ BU9253FS (DISPLAY ASSY : IC3931)

- 1 Chip Karaoke Echo LSI

●Block Diagram



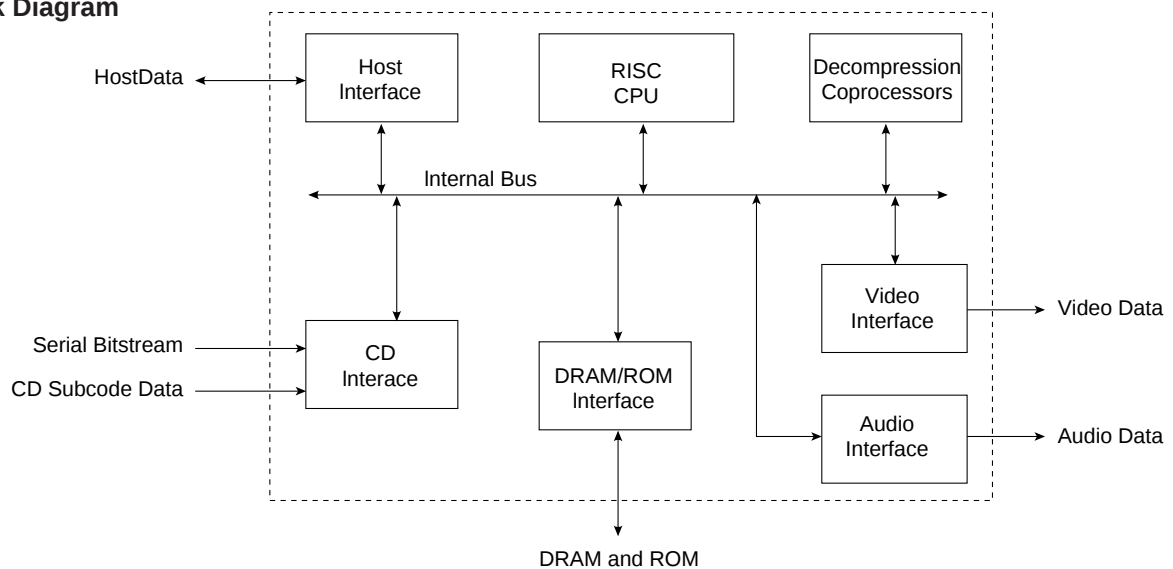
●Pin Function

No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function
1	GND	-	Ground Pin	9	MIX IN	I	MIX AMP input
2	ECHO VREcho	I	Echo level control	10	ADLPF IN	I	AD side LPF input
3	BIAS	-	Analog part DC bias	11	ADLPF OUT	O	AD side LPF output
4	DAINT IN	I	DA side Integrator input	12	ADINT OUT	O	AD side Integrator output
5	DAINT OUT	O	DA side Integrator output	13	ADINT IN	I	AD side Integrator input
6	DALPF IN	I	DA side LPF input	14	VCC	-	VCC pin
7	DALPF OUT	O	DA side LPF output	15	MUTE	I	Mute control
8	MIX OUT	O	MIX AMP output	16	CR	-	CR Pin for Oscillator

■ CL680T-D1 (VCD ASSY : IC1701)

- MPEG Decoder

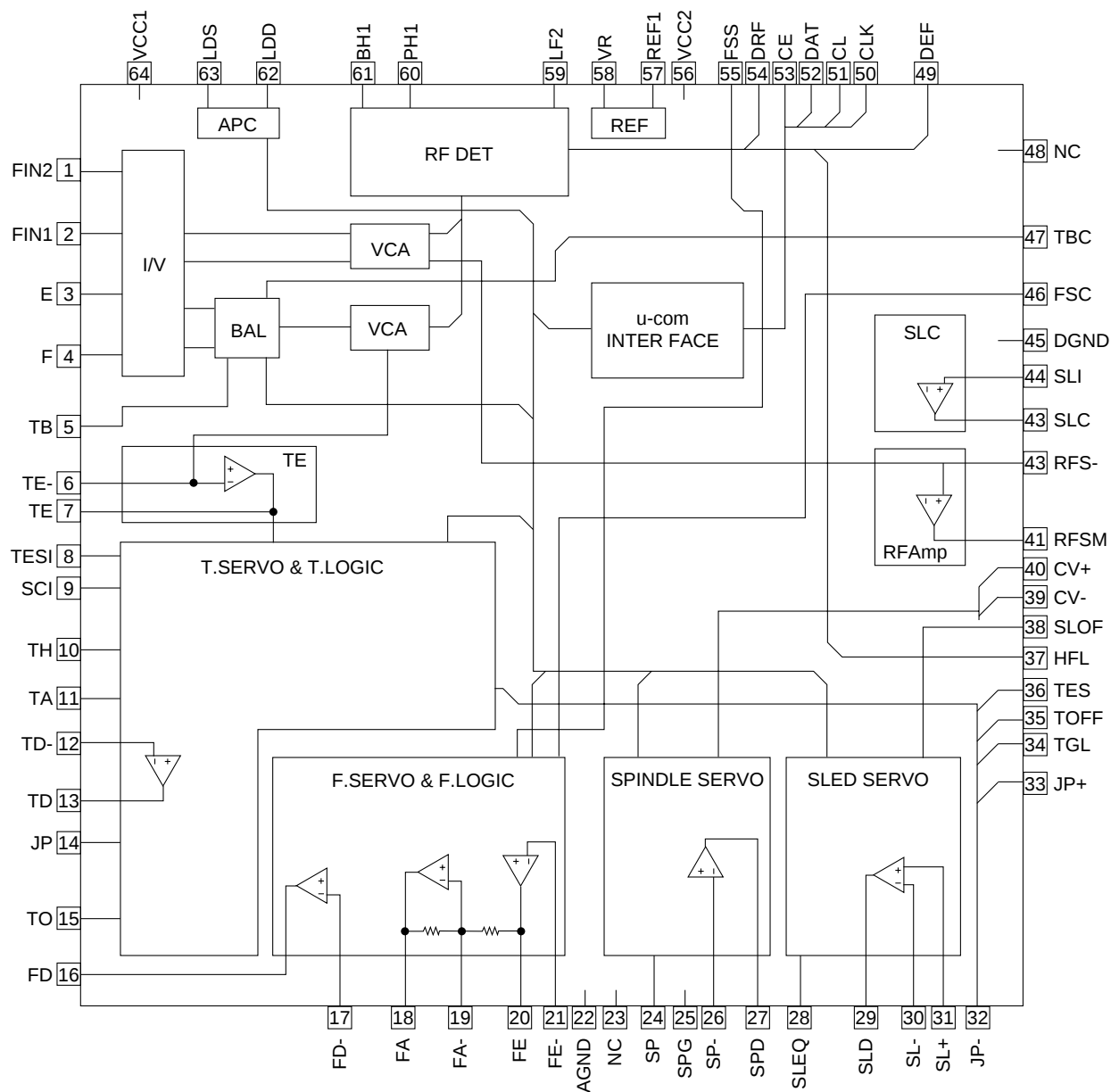
●Block Diagram



■ LA9241ML (VCD ASSY : IC1101)

• CD RF/SERVO

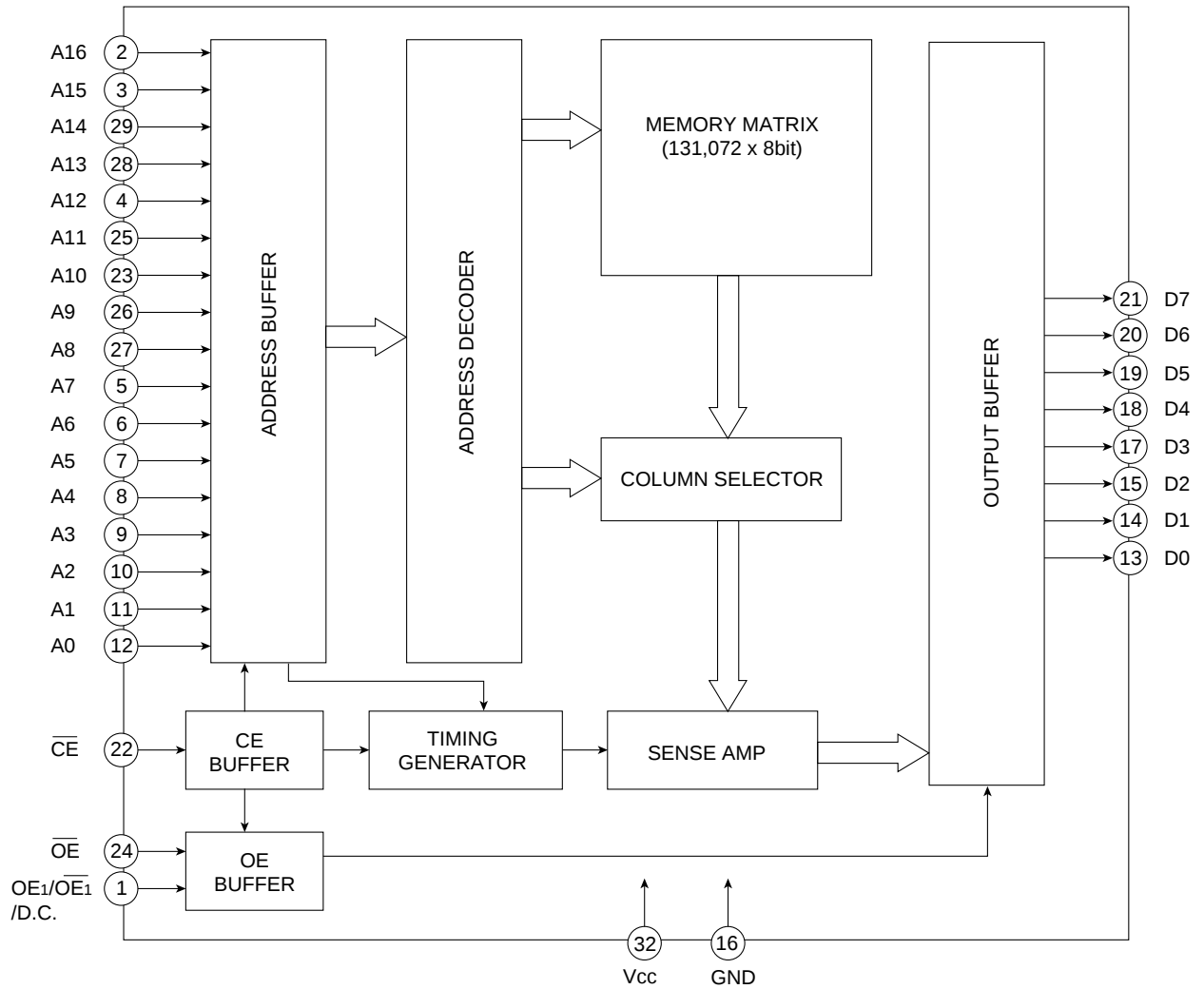
●Block Diagram



■ PDK032A (VCD ASSY : IC1751)

• 1M ROM

●Block Diagram



■ LC78632 (VCD ASSY : IC1201)

- Compact Disc Signal Processing and Servo control for Video Compact Disc player.

●Pin Function

No.	Pin symbol	I/O	Description
1	VPDO	O	Test output pin.
2	PD02	O	Double-speed and quad-speed mode playback PLL charge pump output. Must be left open if unused.
3	PD01	O	Normal-speed playback PLL charge pump output pin.
4	AVSS		Analog system ground pin. Normally to be connected to 0V.
5	FR		Resistor connection pin to set the built-in VCO frequency range.
6	AVDD		Analog system ground pin.
7	ISSET		Resistor connection pin to set PD01 and PD02 output current.
8	TAI	I	Test input pin. A pull-down resistor is built-in. Must be connected to VSS.
9	EFMO	O	EFM signal output pin.
10	VSS		Digital system ground pin. Normal be connected to 0V.
11	EFMIN	I	EFM signal input pin.
12	TEST1	I	Test input pin. A pull-down resistor is built-in. Must be connected to VSS.
13	CLV+	O	Spindle servo control output pin. CLV+ outputs a high-level for acceleration, and CLV- outputs a high level for deceleration.
14	CLV-	O	
15	V/P	O	Rough servo/phase control automatic switching monitor output pin. A high-level output indicates rough servo, and a low-level output indicates phase control.
16	TEST2	I	Test input pin. A pull-down resistor is built-in. Must be connected to VSS.
17	TEST3	I	Test input pin. A pull-down resistor is built-in. Must be connected to VSS.
18	P4	I/O	I/O port, which should either be set to the output and opened or set to the input and connected to VDD or VSS when not used.
19	HFL	I	Track detection signal input pin. This is a Schmitt input.
20	TES	I	Tracking error signal input pin. This is a Schmitt input.
21	PCK	O	EFM data playback bit clock monitor pin. Output pin 4.3218MHz when the phase is locked.
22	FSEQ	O	Sync signal detection output pin. "H" when the sync signal detected from the EFM signal agrees with the internally generated sync signal.
23	TOFF	O	Tracking off output pin.
24	TGL	O	Tracking gain switching output pin. Increase the gain when low.
25	THLD		Tracking hold output.
26	TEST4	I	Test input pin. A pull-down resistor is built-in. Must be connected to VSS.
27	VDD		Digital system power supply pin.
28	JP+	O	Track jump output pin. JP+ output a high level both for acceleration during out jumps and for deceleration during inward direction jumps. JP- outputs a high level both for acceleration during inward direction jumps and for deceleration during outward jumps.
29	JP-	O	
30	SLD+	O	Sled output. This pin can be set to 1 of 4 levels by commands sent from the system control microprocessor.
31	SLD-	O	
32	EMPH	O	De-emphasis monitor pin. A high level indicates playback of a De-emphasis disk.
33	P5	I/O	I/O port, which should either be set to the output and opened or set to the input and connected to VDD or VSS when not used.
34	LRCKO	O	Digital filter outputs : LR clock output pin.
35	DFOLO	O	Digital filter outputs : LR data output pin. The digital filter can be turned with the DFOFF command.
36	DACKO	O	Digital filter outputs : But clock output pin.
37	CONT1	O	Output port.
38	P0/DFCK	I/O	I/O port or DF bit clock input pin, which should either be set to the output and opened or set to the input and connected to VDD or VSS when not used.
39	P1/DFIN	I/O	I/O port or DF data input pin, which should either be set to the output and opened or set to the input and connected to VDD or VSS when not used.
40	P2	I/O	I/O port, which also acts as an input for On/Off changeover of the de-emphasis filter in the anti-shock mode and should either be set to the output and opened or set to the input and connected to VDD or VSS when not used.

No.	Pin symbol	I/O	Description
41	P3/DFLR	I/O	Port output or DFclock input pin, which should either be set to the output and opened or set to the input and connected to VDD or VSS when not used.
42	LRSY	O	ROMXA : LR clock output pin.
43	CK2	O	ROMXA : Bit clock output pin. The polarity can be inverted with the CK2CON command.
44	R0MXA	O	ROMXA : Interpolated data output pin. Data that has not been interpolated can be output by issuing the ROMXA command.
45	C2F	O	ROMXA : C2 flag output pin.
46	MUTEL	O	1-bit DAC : Left channel mute output pin.
47	LVDD		1-bit DAC : Left channel power supply pin.
48	LCHP	O	1-bit DAC : Left channel P output pin.
49	LCHN	O	1-bit DAC : Left channel N output pin.
50	LVSS		1-bit DAC : Left channel ground pin. Must be connected to 0V.
51	XVSS		Crystal oscillator ground. Must be connected to 0V.
52	XOUT	O	Connections for a 16.9344MHz crystal oscillator element pin. Use a 33.8688MHz crystal oscillator for quad-speed playback.
53	XIN	I	Spindle servo control output pin. CLV+outputs a high-level for acceleration, and CLV-outputs a high level for deceleration.
54	XVDD		Crystal oscillator power supply pin.
55	RVSS		1-bit DAC : Right channel ground pin. Must be connected to 0V.
56	RCHN	O	1-bit DAC : Right channel N output pin.
57	RCHP	O	1-bit DAC : Right channel P output pin.
58	RVDD		1-bit DAC : Right channel power supply pin.
59	MUTER	O	1-bit DAC : Right channel mute output pin.
60	SBSY	O	Subcode clock synchronization signal output pin.
61	EFLG	O	CI and C2 error correction state monitor.
62	PW	O	Subcode P,Q,R,S,T,U and W output pin.
63	SFSY	O	Subcode frame synchronization signal output pin. This signal falls when the subcode are in standby stase.
64	SBCK	I	Subcode readout clock input pin. This is a Schmitt input. This pin must be connected to 0V if unused.
65	DOUT	O	Digital output pin.
66	FSX	O	output pin for the 7.35kHz synchronization signal divided from the crystal oscillator.
67	WRQ	O	Subcode Q output standby output pin.
68	RWC	I	Read/write control input pin.
69	SQOUT	O	Subcode Q output pin.
70	COIN	I	Command input pin from control microprocessor.
71	CQCK	I	Input for both the commad input acquisition clock and the SQOUT pin subcode readout clock input pin. This is Schmitt input.
72	RES	I	Chip reset input pin. This pin must be set low briefly after power is first applied.
73	TESTF	O	Test output pin.
74	CONT2	O	Output port.
75	16M	O	16.9344MHz output pin.
76	4.2M	O	4.2336MHz output pin.
77	TEST5	I	Test input pin. A pull-down resistor is built-in. Must be connected to 0V.
78	CS	I	Chip select input pin.A pull-down resistor is built-in. Be sure to connect to VSS to select DSP when not controlled.
79	DEFI	I	Defect detection signal input pin. Be sure to use this pin. If not. connect the pin to VSS.
80	VCOC	I	Test input pin. Must be connected to VSS.

■ PDC051A (VCD ASSY : IC1501)

• VCD Control Microcomputer

●Pin Function

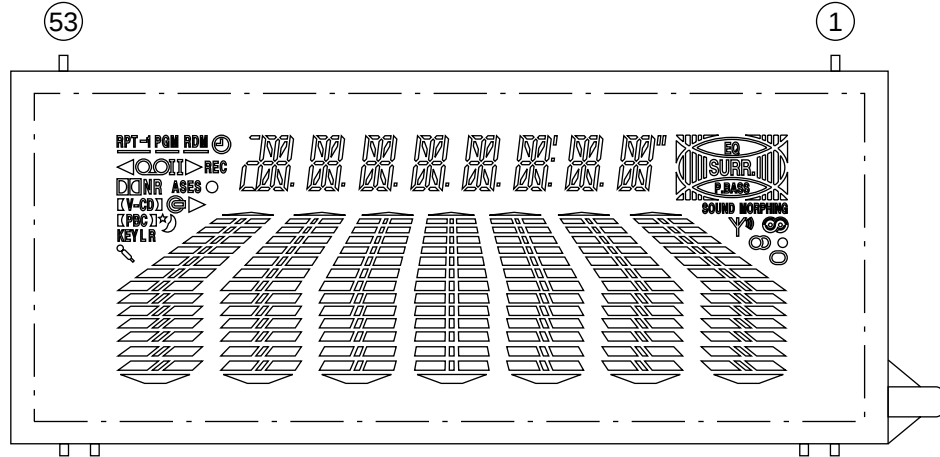
No.	Symbol	I/O	Pin Name	Function	No.	Pin Name	I/O	Pin Name	Function
1	P16/BUZZ	O	—	Not used (NC)	51	VP	—	—	Connected to GND
2	P17/PWM0	O	—	Not used (NC)	52	S20/PC4	O	—	Not used (NC)
3	P30	O	CDCE	Read-Write control terminal for CD LSI ("H" : Write)	55	S23/PC7	O	—	Not used (NC)
4	P31	I	CDDRF	RF level detection terminal	56	S24/PD0	O	—	Not used (NC)
5	P32	O	CDCF	Chip select for CD LSI ("L" : Active)	63	S31/PD7	O	—	Not used (NC)
6	P33	O	CDRST	Reset terminal for CD/VCD LSI	64	S32/PE0	O	—	Not used (NC)
7	P34	O	VCS	Chip select for MAIN microcomputer ("L" : Active)	71	S39/PE7	O	—	Not used (NC)
8	P35	I	HRDY	Data delay signal for CDV LSI ("L" : Active)	72	VDD4	—	—	Connected to +5V
9	P36	O	—	Not used (NC)	73	S40/PF0	O	—	Not used (NC)
10	P37	O	—	Not used (NC)	80	S47/PF7	O	—	Not used (NC)
11	P70/INT0	I	HINT	Interrupt input for VCD LSI ("L" : Active)	81	S48/PG0	I	DISC	Input detection of disc position (CD mechanism)
12	RES	I	VRST	Reset input terminal	82	S49/PG1	I	INSIDE	Input detection of slider position (CD mechanism)
13	P74	I	—	Not used (Connected to VDD)	83	S50/PG2	I	OPEN	Input detection of open/close position (CD mechanism)
14	P75	O	—	Not used (NC)	84	S51/PG3	I	CLAMP	Input detection of disc clamp (CD mechanism)
15	VSS1	—	—	Connected to GND	85	P00	O	—	Not used (NC)
16	CF1	I	—	Connected to 6MHz Ceramic resonator	88	P03	O	—	Not used (NC)
17	CF2	O	—	Connected to 6MHz Ceramic resonator	89	VSS2	—	—	Connected to GND
18	VDD1	—	—	Connected to +5V	90	VDD2	—	—	Connected to +5V
19	P80/AN0	I	—	Not used (Connected to GND)	91	P04	O	LOAD+	Control of Loading motor driver
22	P83/AN3	I	—	Not used (Connected to GND)	92	P05	O	LOAD-	Control of Loading motor driver
23	P84/AN4	O	—	Not used (NC)	93	P06	O	DMUTE	Mute of servo driver ("L" : Active)
26	P87/AN7	O	—	Not used (NC)	94	P07	O	HSEL	Address/Data select output for VCD LSI ("H" : Address)
27	P71/INT1	I	CD WRQ	CD subcode Q data standby signal ("L" : OK) Track count Interrupt ("L" : Active)	95	P10/SO0	O	VDV /CD DATA	Serial data output (MAIN microcomputer/CD LSI)
28	P72/INT2	O	—	Not used (NC)	96	P11/SI0/SB0	I	VDS/SQ OUT	Serial data input (MAIN microcomputer/CD LSI)
29	P73/INT3	O	—	Not used (NC)	97	P12/SCK0	I/O	VCLK/CD CLK	Serial clock input/output (MAIN microcomputer/CD LSI)
30	S0/T0	O	—	Not used (NC)	98	P13/SO1	O	—	Not used (NC)
45	S15/T15	O	—	Not used (NC)	99	P14/SI1/SB1	I/O	HDIO	Serial data input/output for VCD LSI
46	VDD3	—	—	Connected to +5V	100	P15/SCK1	O	HCK	Serial clock output for VCD LSI
47	S16/PC0	—	—	Not used (NC)					
50	S19/PC3	—	—	Not used (NC)					

7.1.2 DISPLAY

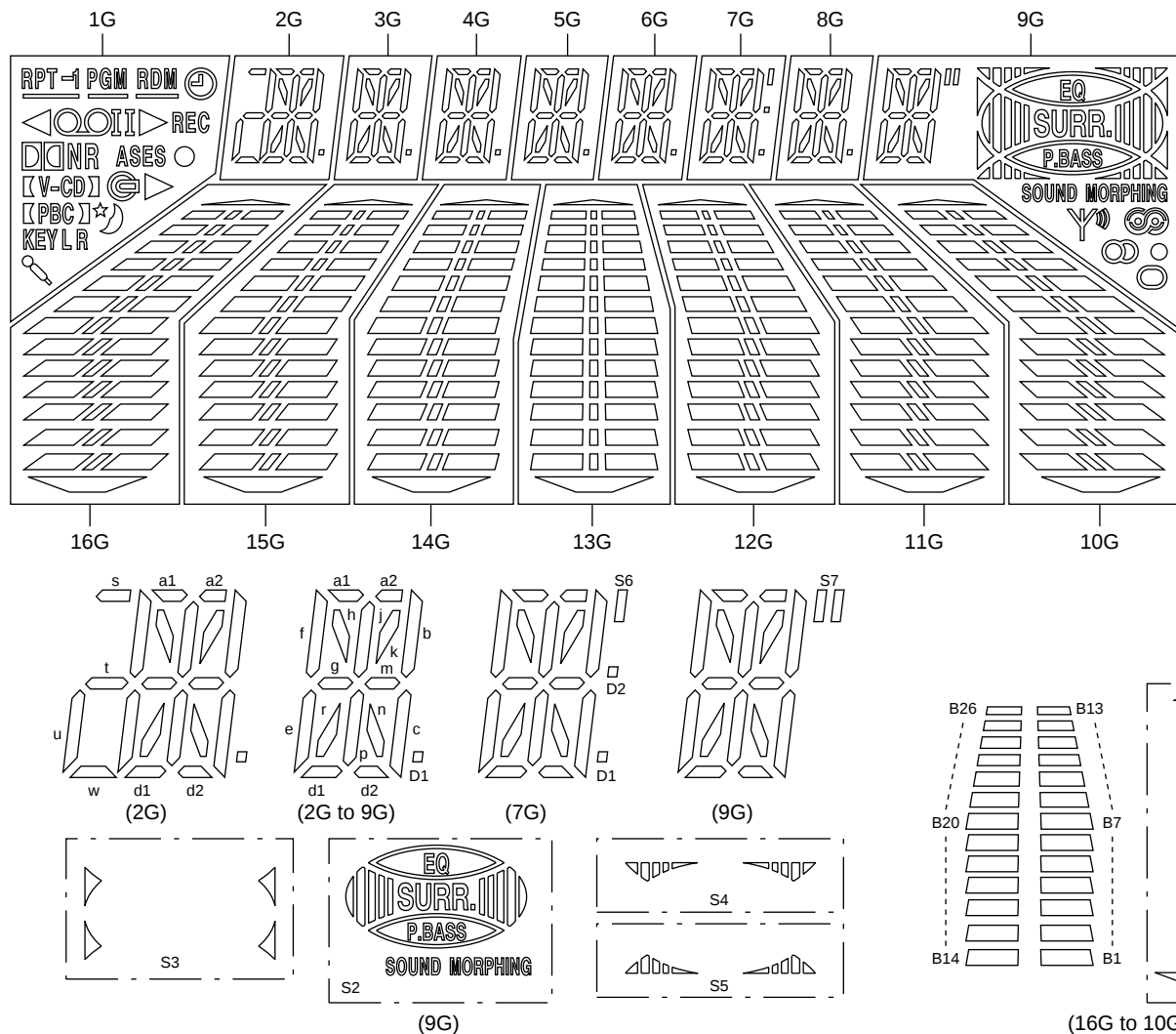
■ XAV3004 (DISPLAY ASSY : V5621)(XR-VS77)

- FL Display

- Pin Assignment



- Grid Assignment



XR-VS77, XR-VS55

• 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	16G	P1	P2	P3	P4	P5	P6

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	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	NP	NP	F1	F1	F1

NOTE 1) F1, F2..... Filament
 2) NP..... No pin
 3) DL..... Datum Line
 4) 1G to 16G..... Grid

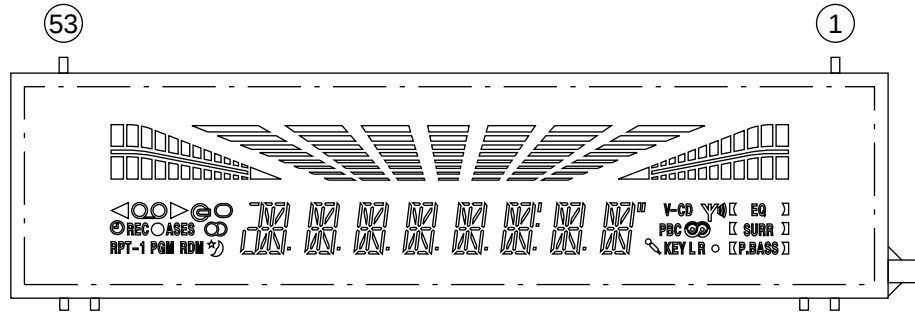
• Anode Connection

	1G	2G	3G to 6G	7G	8G	9G	10G to 16G
P1	—	a1	a1	a1	a1	a1	B14
P2		a2	a2	a2	a2	a2	B15
P3		h	h	h	h	h	B16
P4		j	j	j	j	j	B17
P5		k	k	k	k	k	B18
P6		b	b	b	b	b	B19
P7	(Left)	f	f	f	f	f	B20
P8		g	g	g	g	g	B21
P9	(Right)	m	m	m	m	m	B1
P10	(Upper right)	c	c	c	c	c	B2
P11		e	e	e	e	e	B3
P12		r	r	r	r	r	B4
P13		p	p	p	p	p	B5
P14		n	n	n	n	n	B6
P15	(V-CD)	d1	d1	d1	d1	d1	B7
P16		d2	d2	d2	d2	d2	B8
P17		s	—	—	—	S7	B22
P18	(Under)	t	—	—	—	S2	B23
P19	(PBC)	u	—	—	—	S3	B24
P20		w	—	—	—	S4	B25
P21		—	—	—	—	S5	B9
P22		—	—	—	—		B10
P23		—	—	—	—		B11
P24		—	—	—	—		B12
P25		D1	D1	D1	D1		B26
P26	—	—	—	D2	—		B13
P27	—	—	—	S6	—	—	S1

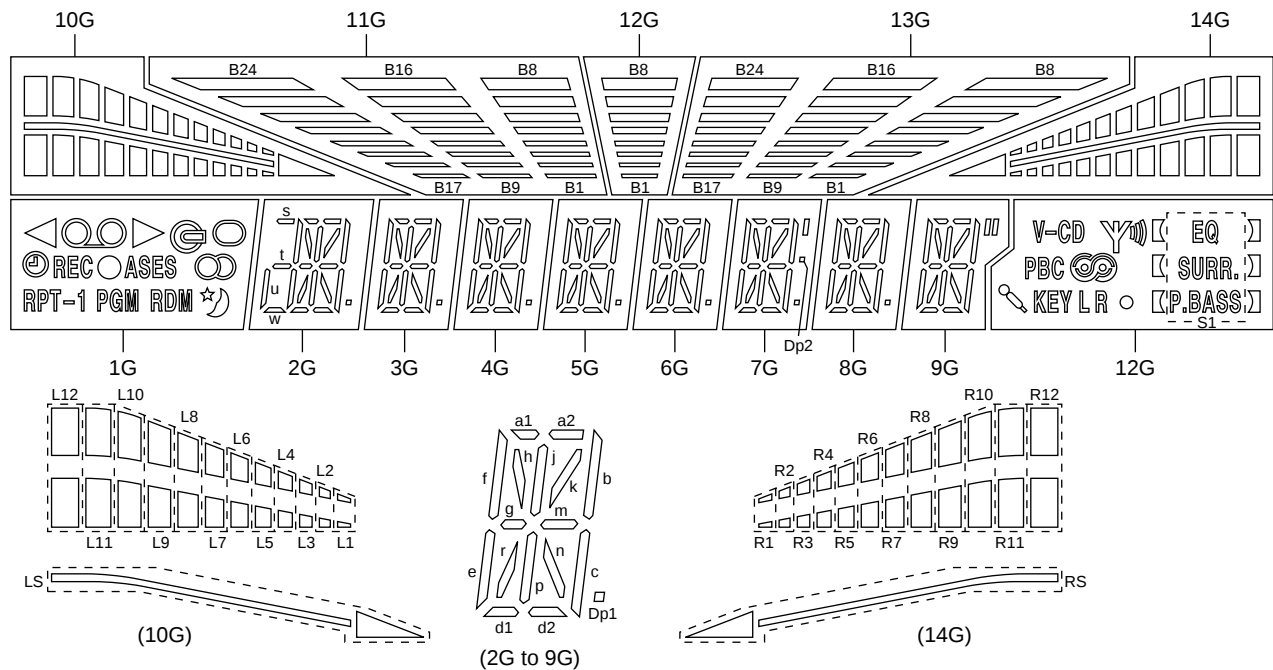
XAV3003 (DISPLAY ASSY : V5621) (XR-VS55)

FL Display

Pin Assignment



Grid Assignment



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	NP	NP	NX	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G	14G	NX	NX	P1	P2	P3	P4	P5	P6

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	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	NX	NP	NP	F1	F1

- NOTE
- 1) F1, F2..... Filament
 - 2) NP..... No pin
 - 3) NX..... No extend pin
 - 4) DL..... Datum Line
 - 5) 1G to 14G..... Grid
 - 6) Set view angle to 25.8° minimum at lower side.

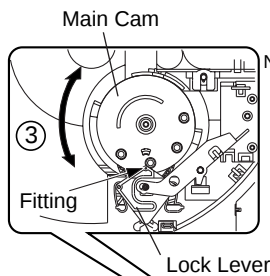
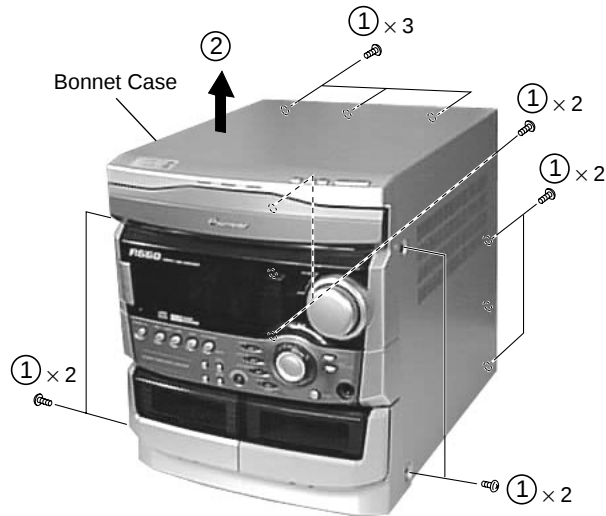
XR-VS77, XR-VS55

• Anode Connection

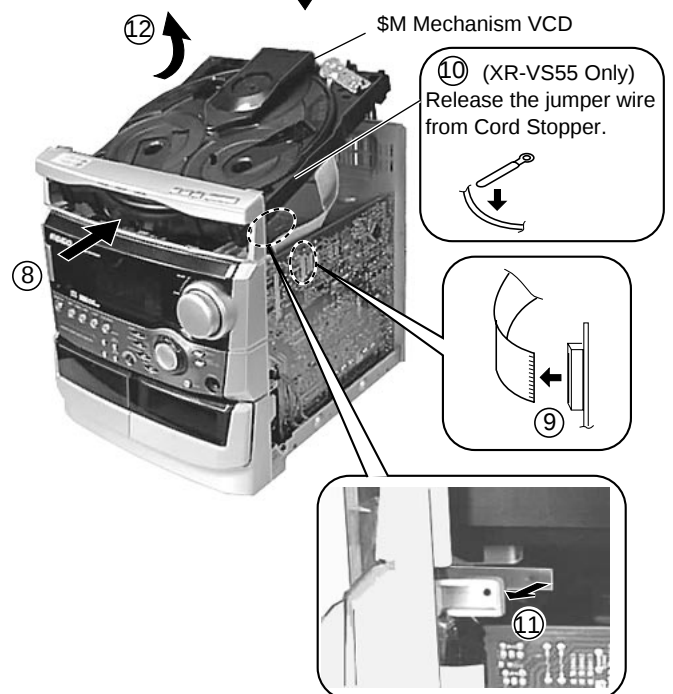
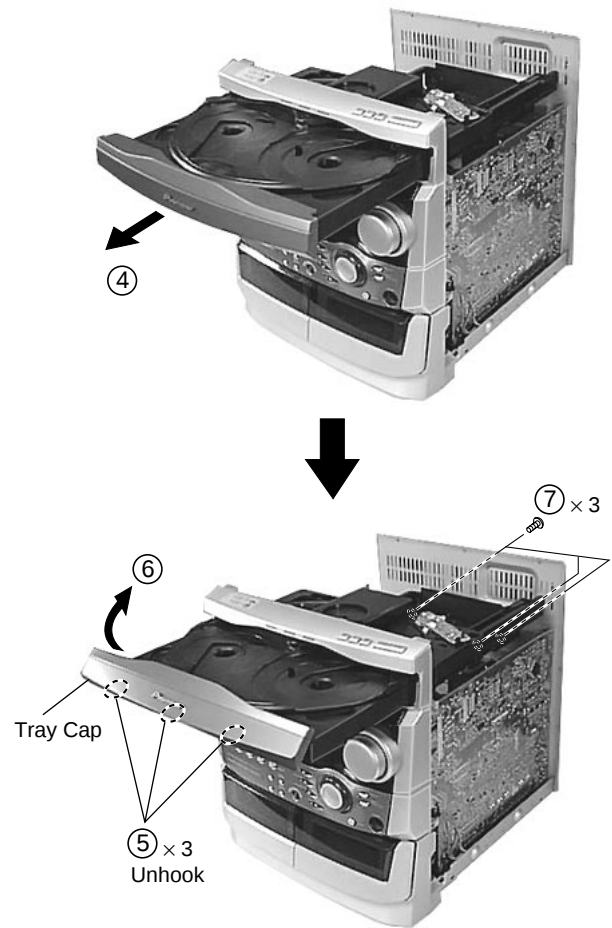
	1G	2G	3G to 6G	7G	8G	9G	10G	11G	12G	13G	14G
P1		a1	a1	a1	a1	a1	L1	B1	B1	B1	R1
P2		a2	a2	a2	a2	a2	L2	B2	B2	B2	R2
P3		h	h	h	h	h	L3	B3	B3	B3	R3
P4		j	j	j	j	j	L4	B4	B4	B4	R4
P5		k	k	k	k	k	L5	B5	B5	B5	R5
P6		b	b	b	b	b	L6	B6	B6	B6	R6
P7	REC	f	f	f	f	f	L7	B7	B7	B7	R7
P8		g	g	g	g	g	L8	B8	B8	B8	R8
P9	ASES	m	m	m	m	m	L9	B9	V-CD	B9	R9
P10		c	c	c	c	c	L10	B10		B10	R10
P11	RPT	e	e	e	e	e	L11	B11	PBC	B11	R11
P12	-1	r	r	r	r	r	L12	B12		B12	R12
P13	PGM	p	p	p	p	p	—	B13		B13	—
P14	RDM	n	n	n	n	n	—	B14	KEY	B14	—
P15		d1	d1	d1	d1	d1	—	B15	L	B15	—
P16	—	d2	d2	d2	d2	d2	—	B16	R	B16	—
P17	—	s	—	—	—		LS	B17		B17	RS
P18	—	t	—	—	—	—	—	B18	S1	B18	—
P19	—	u	—	—	—	—	—	B19	[(EQ)]	B19	—
P20	—	w	—	—	—	—	—	B20	[(SURR.)]	B20	—
P21	—	—	—	—	—	—	—	B21	[(P.BASS)]	B21	—
P22	—	—	—	—	—	—	—	B22	—	B22	—
P23	—	—	—	—	—	—	—	B23	—	B23	—
P24	—	—	—	—	—	—	—	B24	—	B24	—
P25	—	Dp1	Dp1	Dp1	Dp1	—	—	—	—	—	—
P26	—	—	—	Dp2	—	—	—	—	—	—	—
P27	—	—	—		—	—	—	—	—	—	—

7.2 DISASSEMBLY

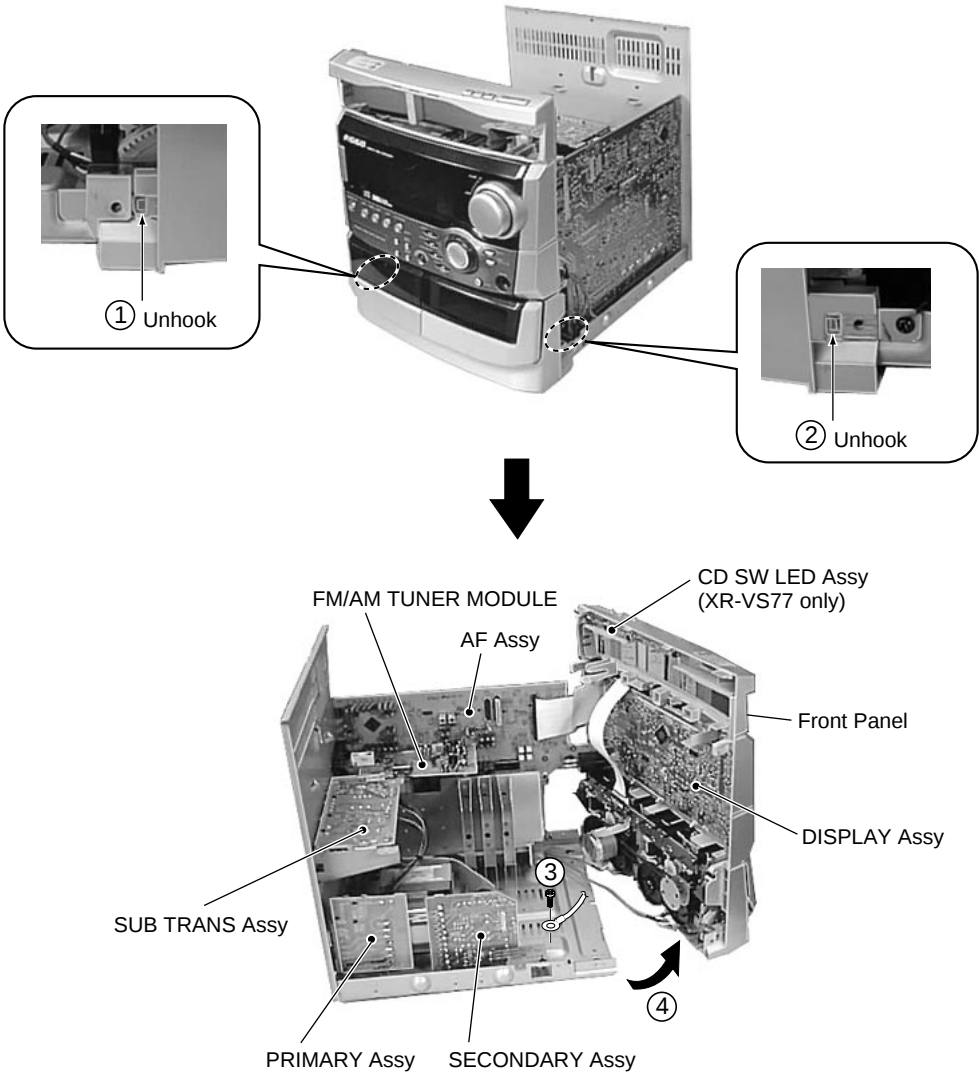
■ \$M MECHANISM VCD



Note: The loading tray can be pulled out when the main cam is in this position. (The Lock Lever should be in the notch of the Main Cam.)

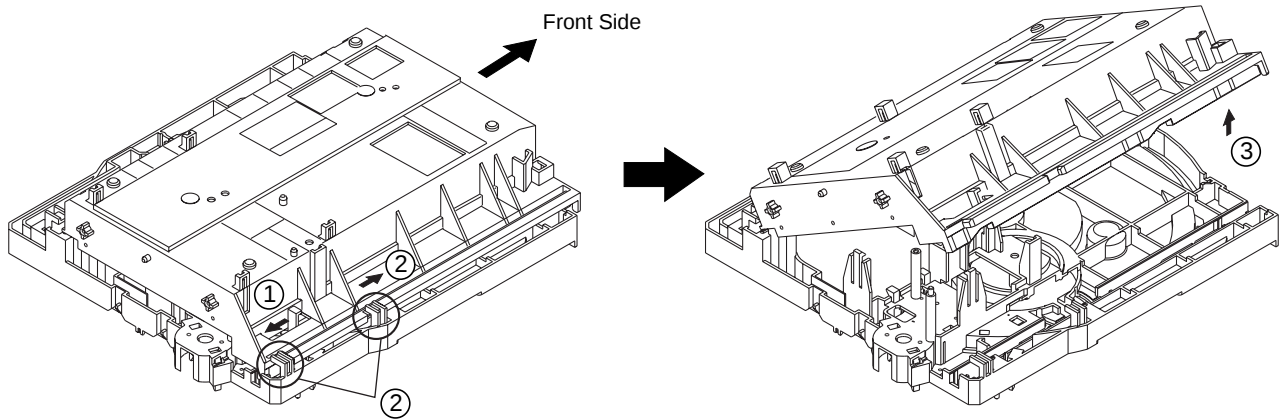


FRONT PANEL

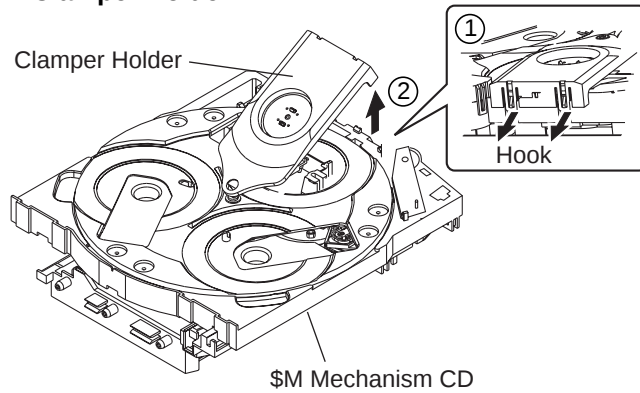


\$M MECHANISM VCD ADDITIONAL TO JOB

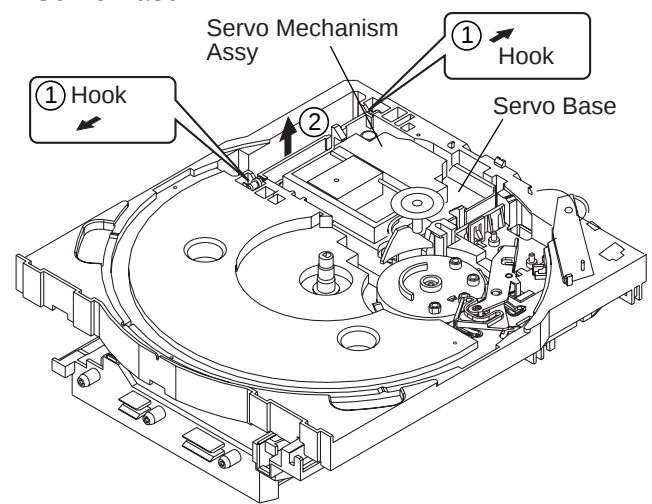
● Mechanism Base (Bottom View)



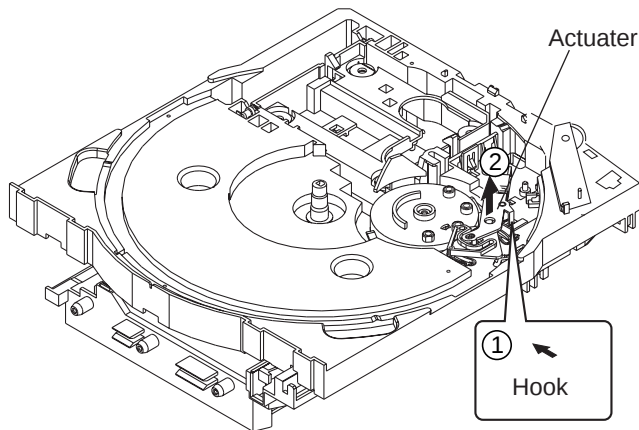
● Clamper Holder



● Servo Base

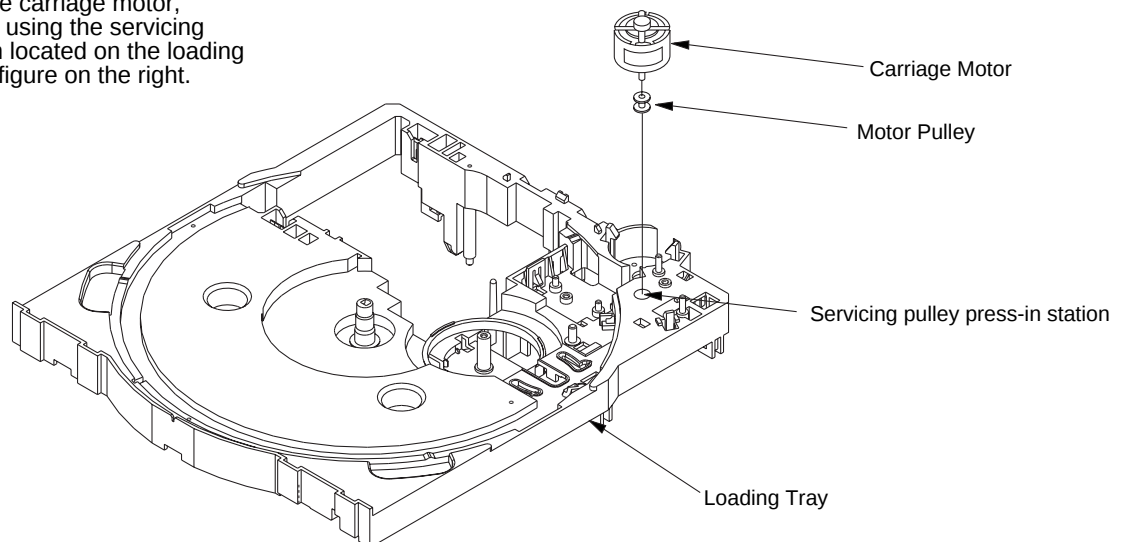


● Actuator

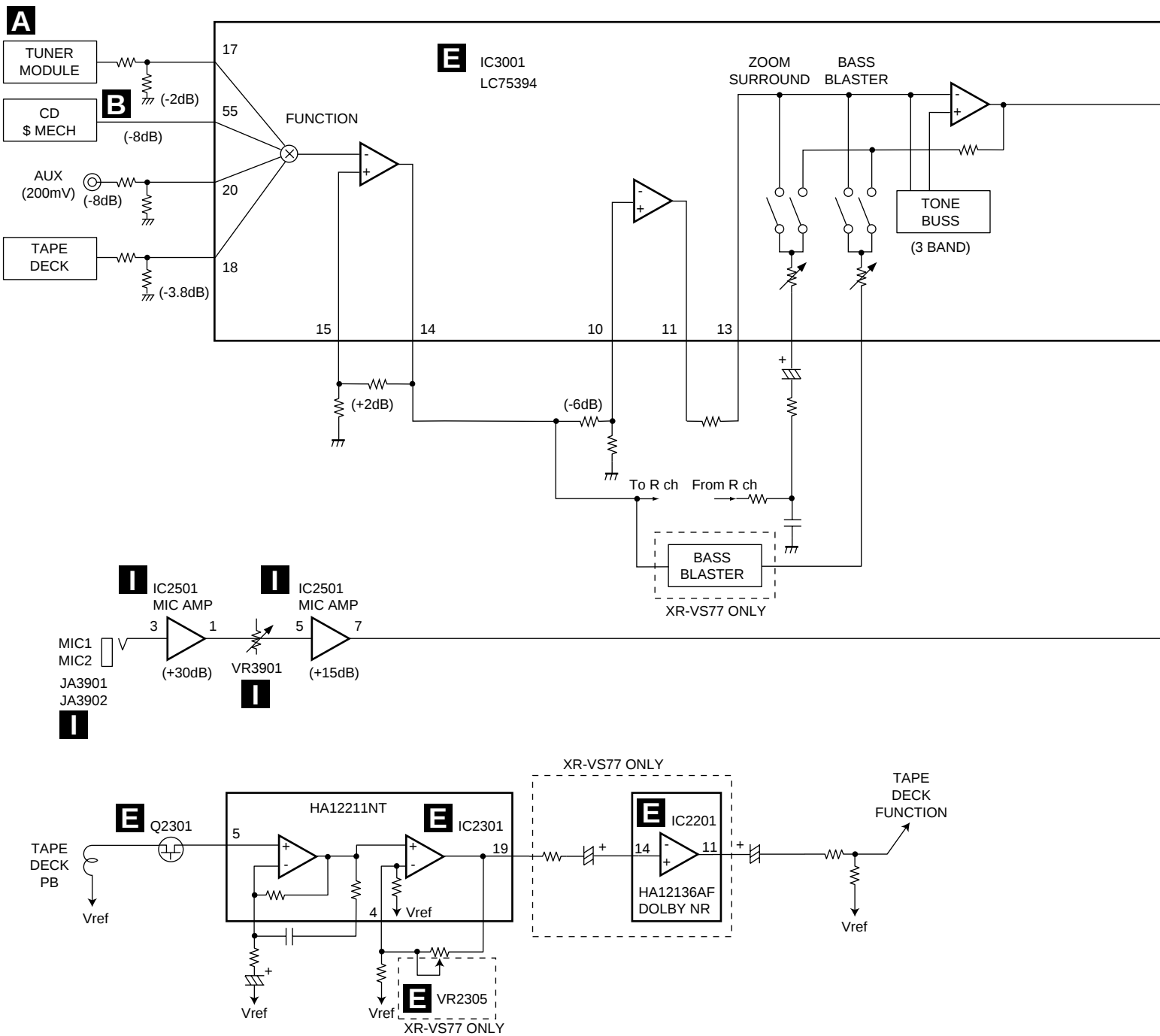


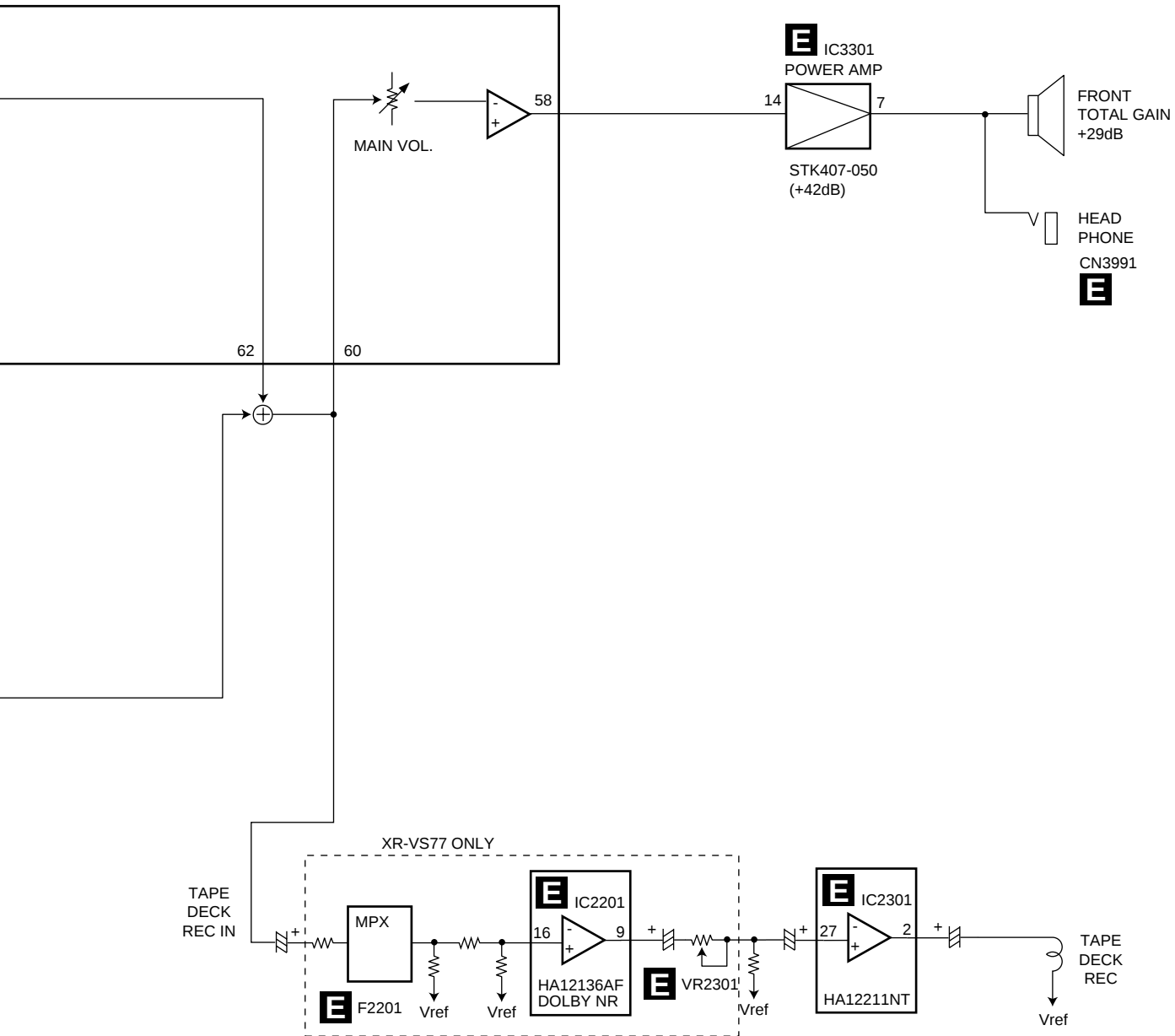
■ FITTING THE PULLEY INTO THE CARRIAGE MOTOR

For replacement of the carriage motor, fit the motor pulley by using the servicing pulley press-in station located on the loading tray, as shown in the figure on the right.



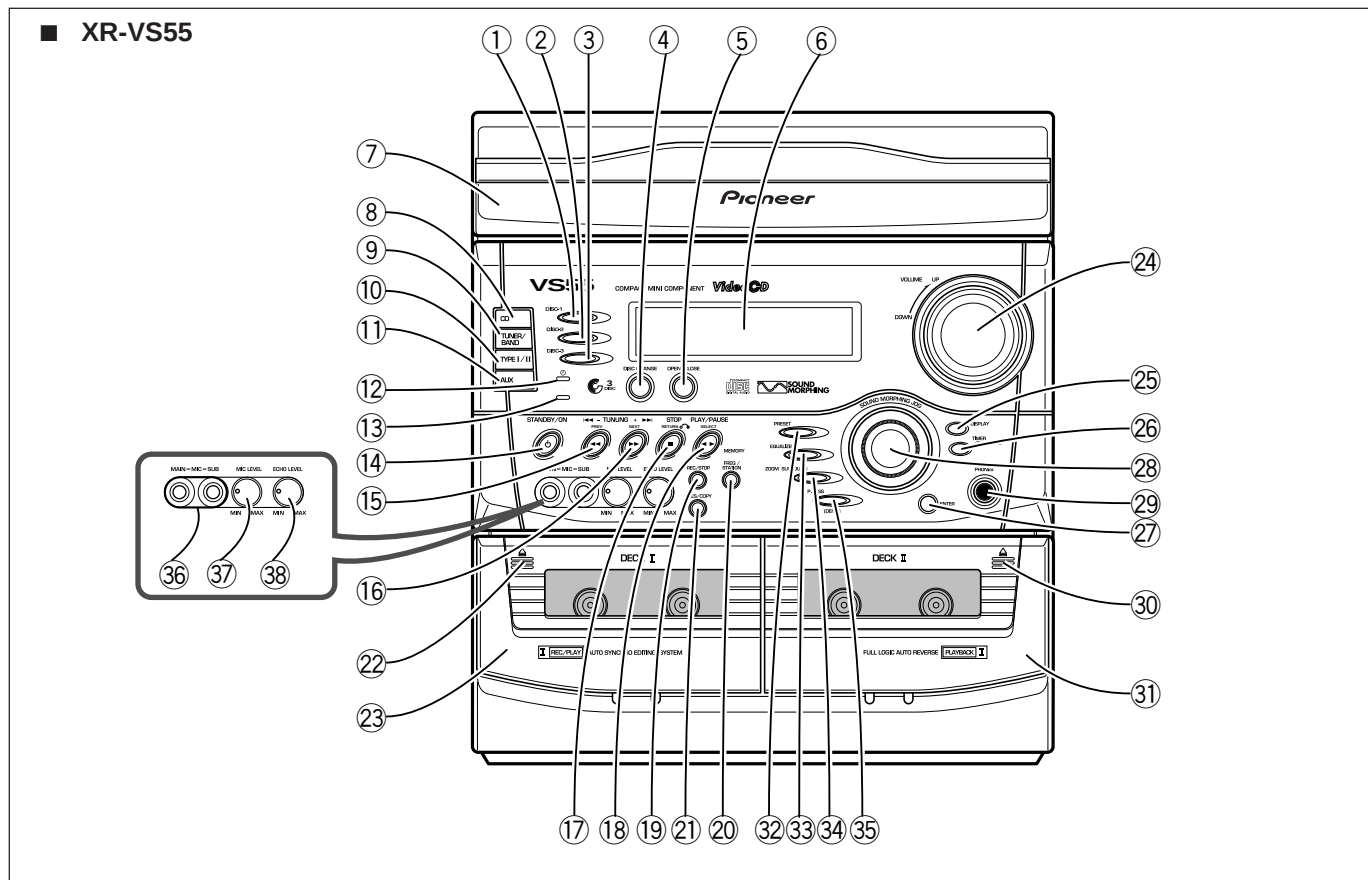
7.3 BLOCK DIAGRAM





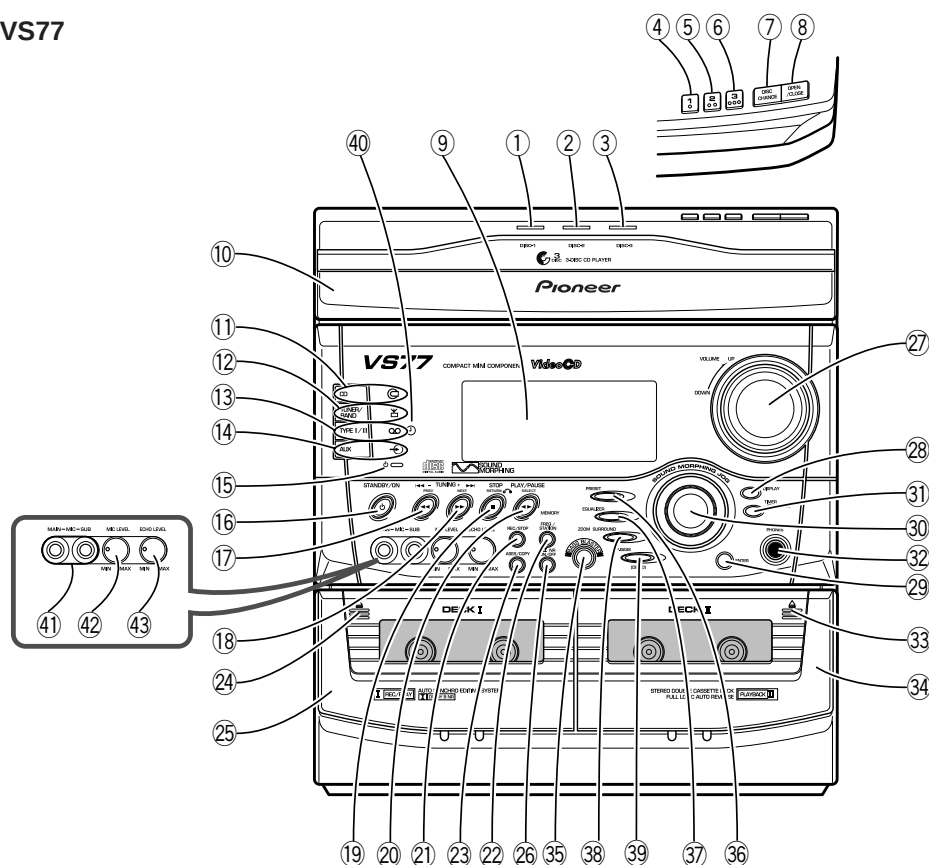
8. PANEL FACILITIES AND SPECIFICATIONS

• PANEL FACILITIES



- | | |
|--|---------------------------------------|
| ① DISC-1 select button & indicator | ⑱ PLAY/PAUSE SELECT ◀▶, MEMORY button |
| ② DISC-2 select button & indicator | ⑲ REC/STOP button |
| ③ DISC-3 select button & indicator | ⑳ FREQ/STATION button |
| ④ DISC CHANGE button | ㉑ ASSES/COPY button |
| ⑤ OPEN/CLOSE button | ㉒ TAPE I Eject button (▲) |
| ⑥ Display | ㉓ TAPE I cassette door |
| ⑦ CD disc tray | ㉔ Volume control (VOLUME) |
| ⑧ CD Function button | ㉕ DISPLAY button |
| ⑨ TUNER/BAND Function button | ㉖ TIMER/CLOCK ADJ button |
| ⑩ TAPE I/II Function button | ㉗ ENTER button |
| ⑪ AUX Function button | ㉘ SOUND MORPHING JOG dial |
| ⑫ TIMER indicator | ㉙ PHONES jack (Headphones) |
| Lights in Standby mode when the system has been set for timer operation. | |
| ⑬ STANDBY indicator | ㉚ TAPE II Eject button (▲) |
| ⑭ STANDBY/ON switch | ㉛ TAPE II cassette door |
| ⑮ TUNING ◀◀◀◀◀◀ – PREV button | ㉜ PRESET button |
| ⑯ TUNING ▶▶▶▶▶▶ NEXT button | ㉝ EQUALIZER button |
| ⑰ STOP/RETURN ⏮(■) button | ㉞ ZOOM SURROUND button |
| | ㉟ P.BASS (DEMO) button |
| | ㊱ MIC MAIN SUB jacks |
| | ㊲ MIC LEVEL knob |
| | ㊳ ECHO LEVEL knob |

■ XR-VS77



- ① DISC-1 indicator
- ② DISC-2 indicator
- ③ DISC-3 indicator
- ④ DISC-1 select button
- ⑤ DISC-2 select button
- ⑥ DISC-3 select button
- ⑦ DISC CHANGE button
- ⑧ OPEN/CLOSE button
- ⑨ Display
- ⑩ CD disc tray
- ⑪ CD Function button & indicator
- ⑫ TUNER/BAND Function button & indicator
- ⑬ TAPE I/II Function button & indicator
- ⑭ AUX Function button & indicator
- ⑮ STANDBY indicator
- ⑯ STANDBY/ON switch
- ⑰ TUNING ◀◀|◀◀ - PREV button
- ⑱ TUNING + ▶▶|▶▶ NEXT button
- ⑲ STOP/RETURN ⏮ (■) button
- ⑳ PLAY/PAUSE SELECT ◀▶, MEMORY button
- ㉑ REC/STOP button
- ㉒ FREQ/STATION button
- ㉓ ASSES/COPY button

- ㉔ TAPE I Eject button (▲)
- ㉕ TAPE I cassette door
- ㉖ Dolby* NR ON/OFF button
- ㉗ Volume control (VOLUME)
- ㉘ DISPLAY button
- ㉙ ENTER button
- ㉚ SOUND MORPHING JOG dial
- ㉛ TIMER/CLOCK ADJ button
- ㉜ PHONES jack (Headphones)
- ㉝ TAPE II Eject button (▲)
- ㉞ TAPE II cassette door
- ㉟ BASS BLASTER button & indicator
- ㊱ PRESET button & indicator
- ㊲ EQUALIZER button & indicator
- ㊳ ZOOM SURROUND button & indicator
- ㊴ P.BASS (DEMO) button & indicator
- ㊵ TIMER indicator

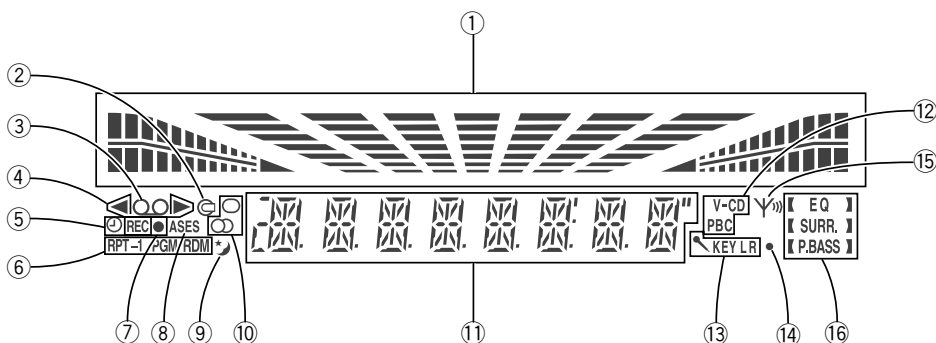
Lights in Standby mode when the system has been set for timer operation.

- ㊶ MIC MAIN SUB jacks
- ㊷ MIC LEVEL knob
- ㊸ ECHO LEVEL knob

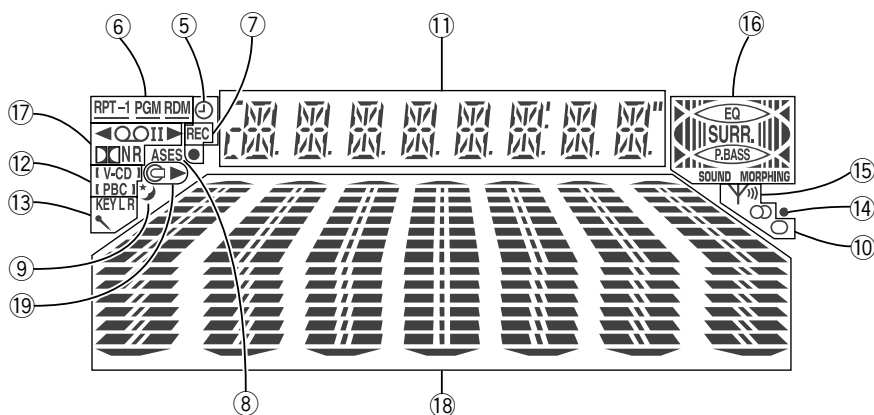
*

- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

■ For model XR-VS55

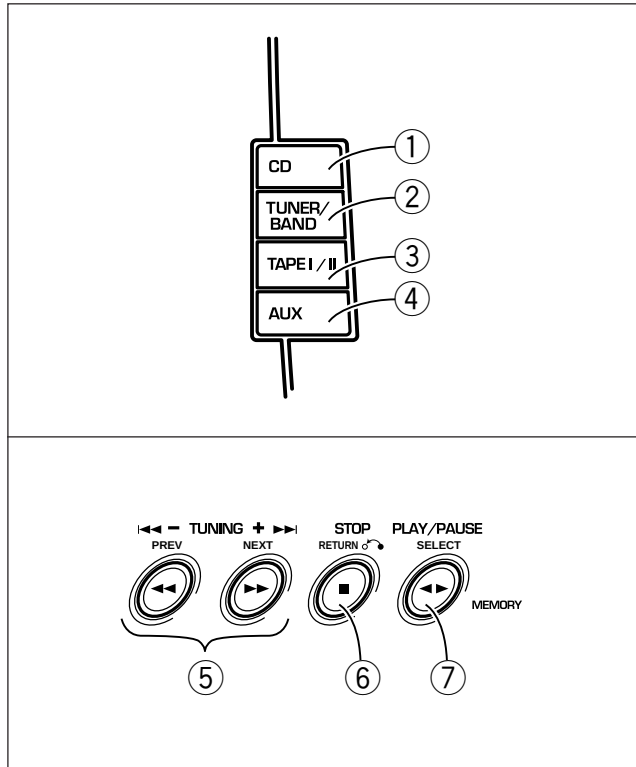


■ For model XR-VS77



Display section

- ① Indicates audio level.
- ② Lights when the selected function is CD.
- ③ Lights when the selected function is TAPE.
- ④ Indicates CD and TAPE play status.
- ⑤ Displays timer function indications.
- ⑥ Indicates CD function status.
- ⑦ Lights during recording.
- ⑧ Lights during ASES operation.
- ⑨ Lights during Sleep Timer operation.
- ⑩ Indicates tuner operation status.
- ⑪ Displays a wide range of operation status indications.
- ⑫ Indicates Video CD function status.
- ⑬ Indicates Karaoke function status.
- ⑭ Lights when BEAT CUT 2 is selected.
- ⑮ Indicates tuner reception status.
- ⑯ Indicates SOUND MORPHING status.
- ⑰ Indicates TAPE status.
- ⑱ Displays audio level, spectrum analyzer and other indications.
- ⑲ Indicates CD player operation status.



Function button section

- ① CD function button
- ② TUNER/BAND function button
- ③ TAPE I/II function button
- ④ AUX function button
- ⑤ TUNING ◀◀, ▶▶ (-) PREV, (+) ▶▶, ▶▶ NEXT buttons
- ⑥ STOP/RETURN ■ button (■)
- ⑦ PLAY/PAUSE SELECT button (▶▶)

● Roles of the common operation buttons (The rules of the buttons vary depending on the input functions as shown below.)

During CD input

PLAY/PAUSE/SELECT: Play/pause button/SELECT for VCD playback control

STOP/RETURN: Stop button/RETURN for VCD playback control

(+) ▶▶, ▶▶/NEXT: Fast forward/track search button/NEXT for VCD playback control

◀◀, ◀◀ (-)/PREV: Fast reverse/track search button/PREV for VCD playback control

During cassette deck input

PLAY/PAUSE: Play button/Tape transport direction

STOP: Stop button

(+) ▶▶, ▶▶: Fast forward button/
Music search button (except XR-VS55)

◀◀, ◀◀ (-): Rewind button/
Music search button (except XR-VS55)

During tuner operation

PLAY/PAUSE MEMORY: STATION MEMORY button

(+) ▶▶, ▶▶: Frequency & Station + (up) button

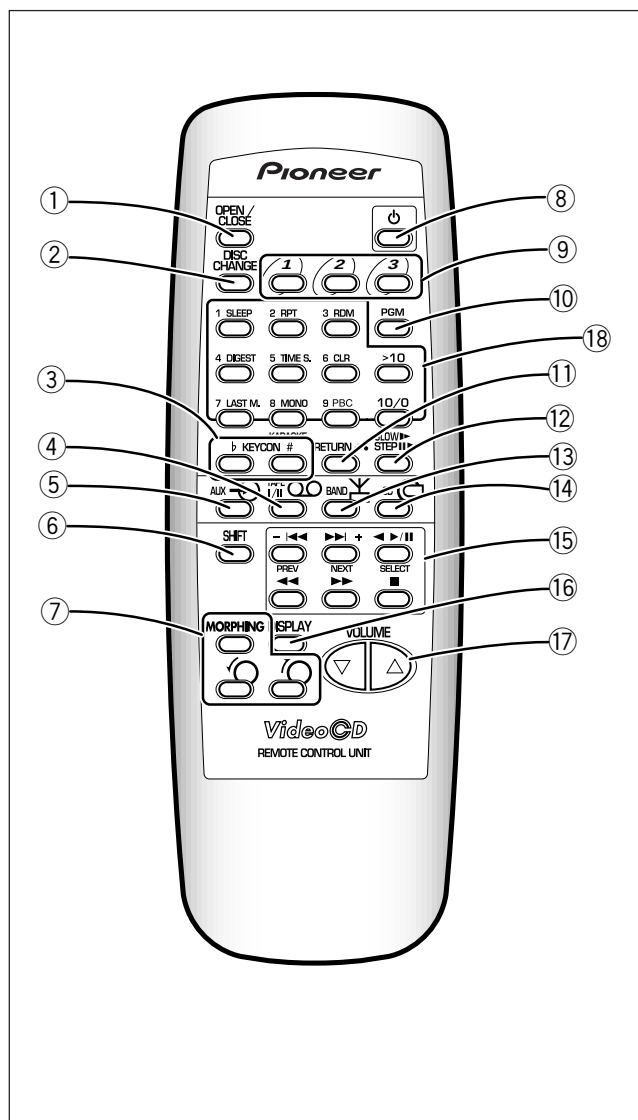
◀◀, ◀◀ (-): Frequency & Station – (down) button

■ Function Auto Play

If you press the CD function button when a CD is loaded, the CD automatically starts playing. If you press the TAPE I/II function button when a tape is loaded in the cassette deck, the tape automatically starts playing.

NOTE:

The function cannot be switched during recording and tape copying.



Remote control unit

- ① **OPEN/CLOSE button**
- ② **DISC CHANGE button**
- ③ **KEYCON buttons**
- ④ **TAPE I/II function button**
- ⑤ **AUX function button**
- ⑥ **SHIFT button**
To operate an indicated function on the numerical key-pad, press the desired button while pressing the SHIFT button.
Ex. Press **SHIFT** **1 SLEEP** -> 1
Press **SHIFT** while pressing **1 SLEEP** -> SLEEP
- ⑦ **SOUND MORPHING mode button & SOUND MORPHING jog control buttons**
- ⑧ **STANDBY/ON button**
- ⑨ **DISC select buttons (1-3)**
- ⑩ **PGM button**
- ⑪ **RETURN button**
- ⑫ **SLOW, STEP buttons**
- ⑬ **BAND button**
Use to switch between FM and AM bands.
- ⑭ **CD function button**
- ⑮ **CD/TAPE/STATION (up,down) operation buttons**
 - **CD operation buttons**
(Play/Pause **▶/II**, Track search **◀◀▶▶**, Stop **■**, Fast **▶▶▶▶**)
(SELECT, NEXT **▶▶▶**, PREV **◀◀◀** for VCD playback control)
 - **TAPE operation buttons**
(Play **▶▶**, Music Search **◀◀▶▶**, Stop **■**, Fast **▶▶▶▶**)
The XR-VS55 does not feature the Music Search **◀◀▶▶** function.
 - **TUNER buttons**
 - + Stations change in order in the upward direction.
 - Stations change in order in the downward direction.
 - ◀◀ Frequency down.
 - ▶▶ Frequency up.
- ⑯ **DISPLAY button**
- ⑰ **VOLUME ▲ (up), ▼ (down) buttons**
- ⑱ **Used both as Numerical key-pad and various functions.**

When using for radio station tuning:

Pressing these buttons tunes the unit to the frequencies stored in memory.

Examples:

Station 5 **5 TIME S.**
>10 **1 SLEEP** **3 RDM**
 Station 13 **>10** **2 RPT** **10/D**
 Station 20 **>10** **9 PBC** **9 PBC**

When using for the CD player:

Pressing these buttons lets you directly select the tracks you want from the program you entered.

Examples:

3rd track **3 RDM**
 99th track **>10** **9 PBC** **9 PBC**

• SPECIFICATIONS

STEREO CD/VCD CASSETTE DECK RECEIVER

Amplifier section

<XR-VS55>

[FRONT]

Continuous Power Output (RMS)

..... 70 W + 70 W (1 kHz, T.H.D. 10%, 6 Ω)

Peak Music Power Output 1,400 W

<XR-VS77>

[FRONT]

Continuous Power Output (RMS)

..... 100 W + 100 W (1 kHz, T.H.D. 10%, 6 Ω)

Peak Music Power Output 2,000 W

FM/AM Tuner section

FM tuner section

Frequency Range 87.5 MHz to 108 MHz

Antenna input 75 Ω unbalanced

AM tuner section

Frequency Range

With 9 kHz step 531 kHz to 1,602 kHz

With 10 kHz step 530 kHz to 1,700 kHz

Antenna Loop antenna

Miscellaneous

Power Requirements ... AC 110 – 127, 220 – 230, 240 V, 50/60 Hz

Power Consumption

XR-VS55/DBDXJ 390 W

DLXJ 90 W

DAMXJ 380 W

XR-VS77/DBDXJ 640 W

DLXJ 160 W

DAMXJ 640 W

Power Consumption in Standby mode 1 W

CD section

Type Compact disc digital audio system

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 x 1

Playback head x 1

Erasing head x 1

Motor DC servo motor x 1

Tape type TYPE I (Normal) tape

Dimensions

XR-VS55, XR-VS77 270 (W) x 300 (H) x 336 (D) mm

Weight (without package)

XR-VS55 7.6 kg

XR-VS77 8 kg

Accessories

Operating instructions 1

Remote control unit 1

FM antenna 1

AM loop antenna 1

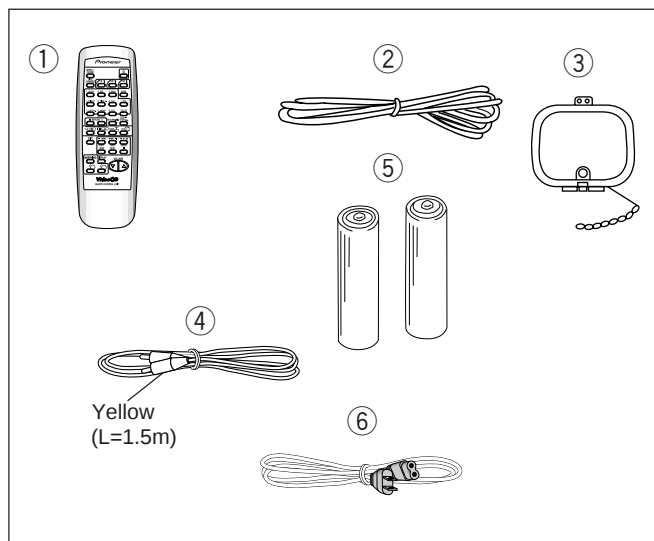
Size AA/R6P dry cell batteries 2

Video cord 1

Power cord 1

NOTE:

Specifications and design subject to possible modification without notice due to improvement.



- ① Remote control unit x 1 : XZN3009 (CU-XR051)
- ② FM antenna x 1 : ADH7004
- ③ AM loop antenna x 1 : XTB3001
- ④ Video cord x 1 : VDE1034
- ⑤ AA/R6P dry cell batteries x 2
- ⑥ Power Cord x 1 : ADG1158 (DBDXJ type)
ADG1154 (DLXJ/NC type)