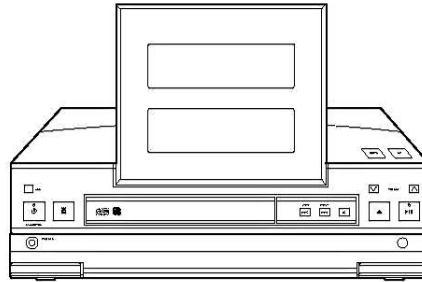


# Service Manual

**Pioneer**



ORDER NO.  
RRV1997

STEREO CD RECEIVER

# XC-L5

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

Type	Model	Power Requirement	Remarks
	XC-L5		
MYXK	○	AC220 – 230V	
NVXK	○	AC230V	

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# 1. SAFETY INFORMATION

## LITHIUM BATTERY NOTICE

### WARNING!

Lithium batteries. Danger of explosion. Replacement must be done by qualified personnel and only by following the instructions given in the service manual.

This warning is stated on the product or in the operating instructions. When replacing the lithium batteries, follow the note below.

Dispose of the used battery promptly. Keep away from children. Do not disassemble and do not dispose of in fire.

The battery used in this device may present a fire or chemical hazard if mistreated. Do not recharge, disassemble, heat above 100°C or incinerate. Replace only with the same Part Number. Use of another battery may present a risk of fire or explosion.

Note: The lithium battery installation position is shown in the exploded views.

### ADVARSEL!

Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

Denne advarsel er angivet på produktet eller i brugsvejledningen. Ved udskiftning af lithium batterierne følges nedenstående anvisning.

Batterierne må kun udskiftes med batterier af samme type og mærke.

## LABEL CHECK

<p><b>ADVARSEL</b> USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSafbrydere ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.</p> <p><b>VARO!</b> Avattansa ja suojauslaitteiden avattessa olet alttiina näkyvättömälle lasersträilylle. Älä katso säteeseen.</p>	<p><b>VORSICHT!</b> UNSICHTBARE LASER-STRÄHLUNG TRITTT AUS, WENN DECKEL(OODER KLAPPE)GEÖFFNET IST! NICHT DEM STRAHL AUSSETZEN!</p> <p><b>VARNING!</b> Ösynlig laserstråling när denna del är öppnad och spärran är urkopplad. Beträkta ej strålen. ARW1047</p>
--	--

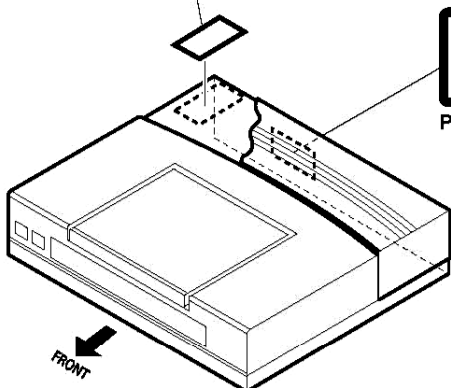
MYXK type

**CAUTION**  
INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM  
ARW1050

NVXK type

**CLASS 1 LASER PRODUCT**

Printed on the Rear Panel



### IMPORTANT

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

### LASER DIODE CHARACTERISTICS

MAXIMUM OUTPUT POWER: 5 mw  
WAVELENGTH: 780 – 785 nm

### Additional Laser Caution

- Laser Interlock Mechanism**  
The loading position detect switch (in CD mechanism assembly) is set to "CLMP ON(CD CLOSE)" (ON:low level,OFF:high level) position, the system control IC(IC5501) get the "CLMP" signal, and hand the laser "LDON" signal to IC1101. Then a laser diode can be lighted except when the level of signal CLMP is low. The interlock also does not function in the test mode\*. Laser diode oscillation will continue, if pin 1 of CXA1821M (IC1101) on the CDMAIN UNIT is connected to GND, or pin 19 is connected to low level (ON), or else the terminals of Q1101 are shorted to each other (fault condition).

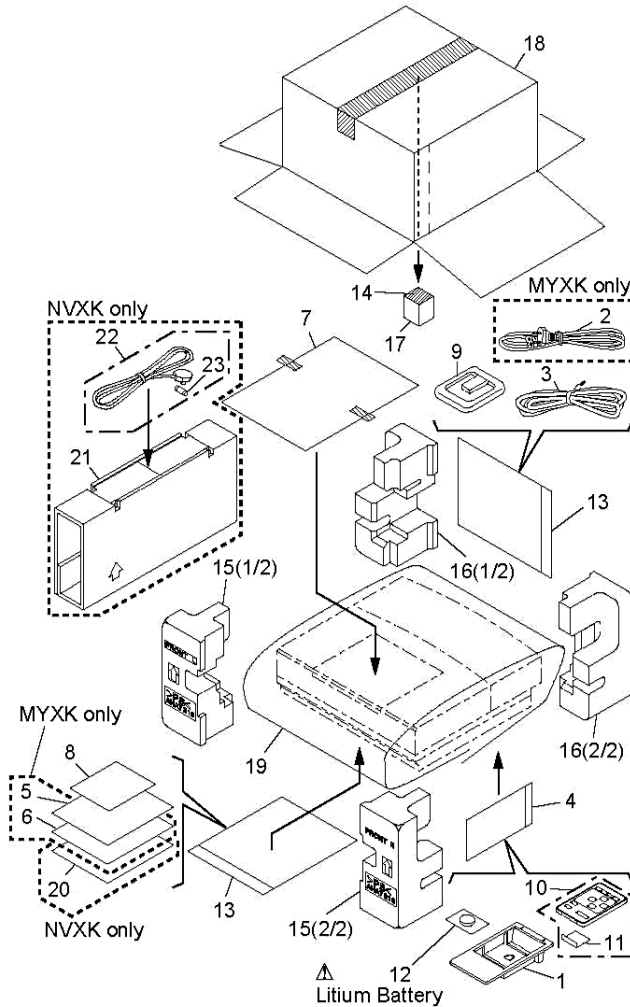
- When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

\*: Refer to page 41.

## 2. EXPLODED VIEWS AND PARTS LIST

- NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.  
 ● The  $\Delta$  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  $\nabla$  mark on the product are used for disassembly.

### 2.1 PACKING



### (1) PACKING PARTS LIST

Mark	No.	Description	Part No.
$\Delta$	1	Remote Control Unit Holder	AAH7013
	2	Power Cord	See Contrast table (2)
	3	FM Antenna	ADH7005
NSP	4	Vinyl Bag	AHG7031
	5	Operating Instructions (English/French/German/Italian)	See Contrast table (2)
	6	Operating Instructions (Dutch/Swedish/Spanish/Portuguese)	See Contrast table (2)
NSP	7	Demo Caution	ARR7016
NSP	8	Warranty Card (E-J)	ARY7022
	9	AM Loop Antenna	ATB7007
	10	Remote Control Unit (CU-XC005)	AXD7170
	11	Battery Case	AZE7116
NSP $\Delta$	12	Lithium Battery (CR2025)	VEM1009
NSP	13	Polyethylene Bag	Z21-038
	14	Technibond431	AEH7006
	15	Pad F	AHA7219
	16	Pad R	AHA7220
	17	S Pad	AHA7230
	18	Packing Case	See Contrast table (2)
	19	Seat	Z23-007
	20	Operating Instructions (English)	See Contrast table (2)
$\Delta$	21	Sub Packing	See Contrast table (2)
$\Delta$	22	Power Cord	See Contrast table (2)
$\Delta$	23	Fuse (T5A)	See Contrast table (2)

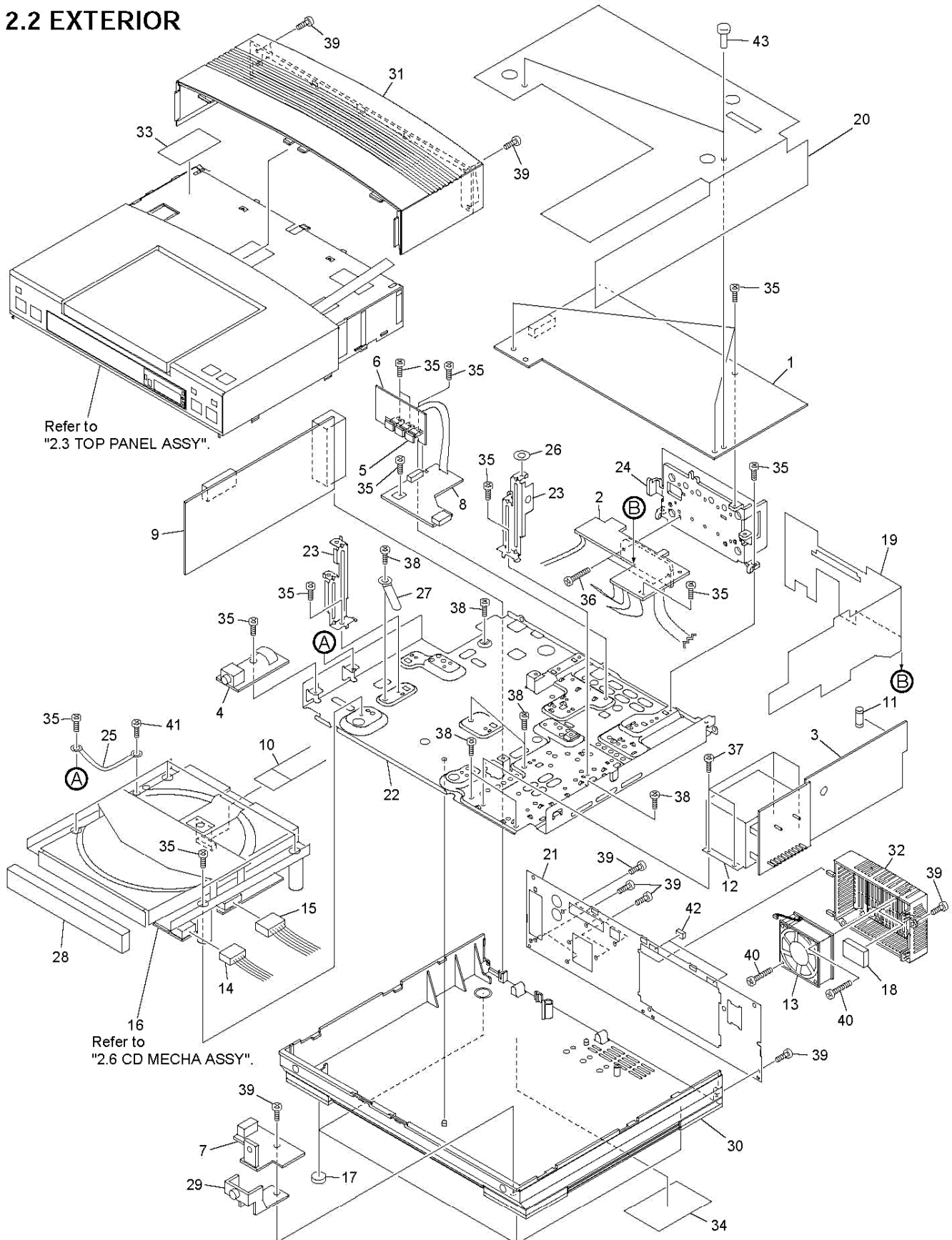
### (2) CONTRAST TABLE

MYXK and NVXK type are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			MYXK type	NVXK type	
$\Delta$	2	Power Cord	ADG7010	Not used	
	5	Operating Instructions (English/French/German/Italian)	ARE7171	Not used	
	6	Operating Instructions (Dutch/Swedish/Spanish/Portuguese)	ARE7172	Not used	
	18	Packing Case	AHD7619	AHD7620	
	20	Operating Instructions (English)	Not used	ARB7153	
$\Delta$	21	Sub Packing	Not used	AHD7618	
$\Delta$	22	Power Cord	Not used	ADG7009	
$\Delta$	23	Fuse (T5A)	Not used	AEK7001	

# XC-L5

## 2.2 EXTERIOR





**(1) EXTERIOR PARTS LIST**

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	CD MAIN UNIT	AWU7090	NSP	26	Spacer	PNM1135
	2	CD AMP UNIT	AWU7091		27	Cord Clamper	RNH-184
	3	CD TRANS UNIT	AWU7092		28	Tray Panel CD	AAN7184
	4	CD HP UNIT	AWU7093		29	Lens	AAX7639
	5	CD REG UNIT	AWU7121		30	Bottom Base	AMA7005
	6	CD RECTIFY UNIT	AWU7128		31	Bonnet	AMA7007
	7	CD REM UNIT	AWU7130		32	Rear Case	AMR7207
	8	CD POWER UNIT	AWU7153	NSP	33	Caution Label	See Contrast table (2)
	9	FM/AM TUNER MODULE	AXQ7077		34	Name Label	ARW7043
	10	16P F•F•C/30V	ADD7096		35	Screw	BBZ30P060FMC
△	11	Fuse FU1 (T800mA)	AEK1053		36	Screw	BBZ30P140FMC
△	12	Power Transformer (T1)	ATS7218		37	Screw	BBZ40P060FMC
△	13	DC Fan Motor	AXM7003		38	Screw	BPZ30P060FZK
	14	Connector CN 5P	AKP7040		39	Screw	BPZ30P100FZK
	15	Connector CN 6P	AKP7041		40	Screw	BPZ30P300FMC
	16	CD MECHA Assy	KSL-2130CCM		41	Screw	PDZ30P060FMC
	17	Leg	AEB7090		42	Cushion Rubber	AEB7068
	18	F Cushion	AEB7127		43	Rivet	VEC1178
	19	Center Barrier	AEC7140				
	20	Top Barrier	AEC7154				
	21	Rear Panel	See Contrast table (2)				
NSP	22	Bottom Plate	ANF7010				
	23	Angle	ANG7189				
NSP	24	Heat Sink	ANH7088				
NSP	25	Cord With Plug J	DE005VF0				

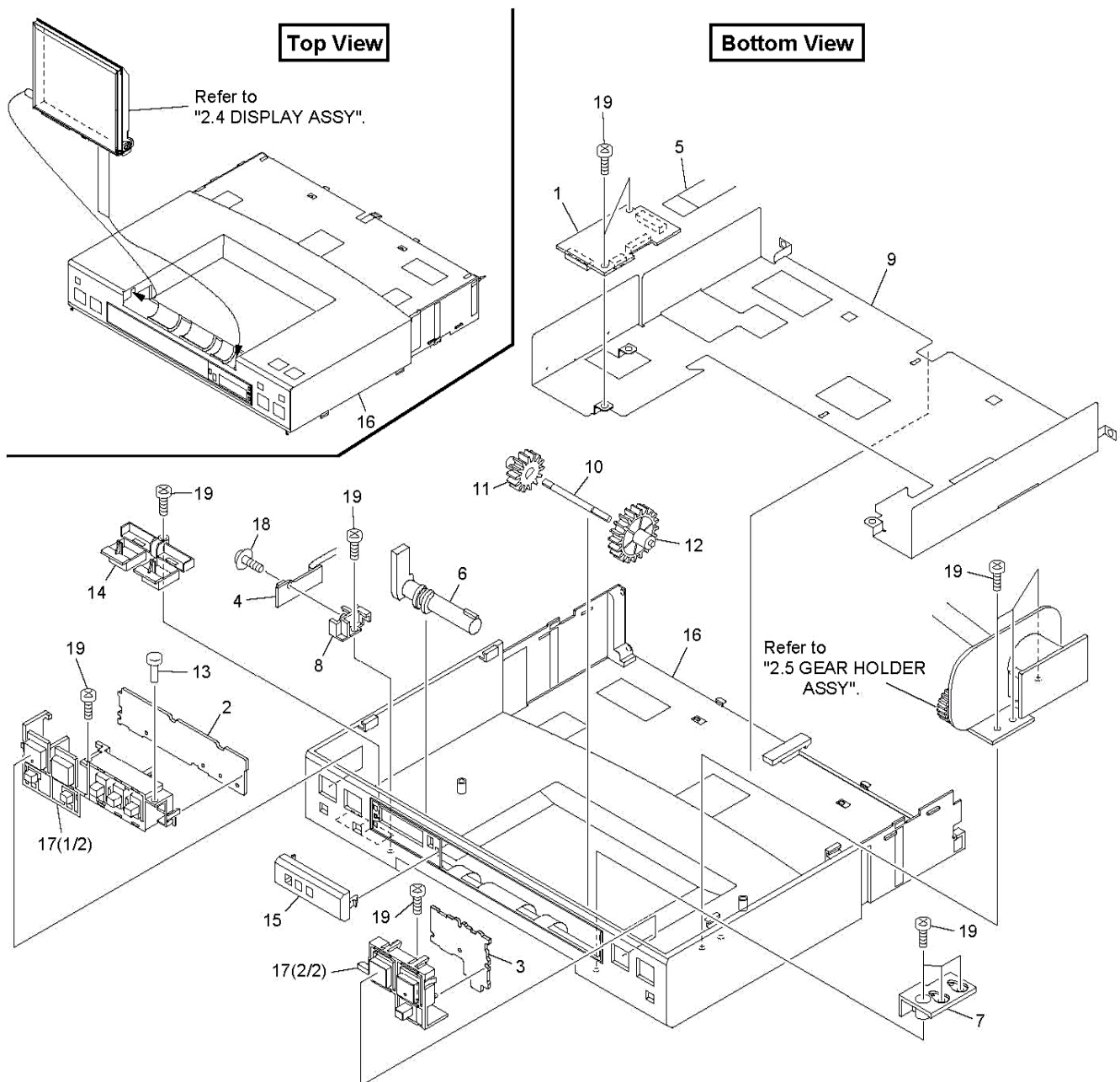
**(2) CONTRAST TABLE**

MYXK and NVXK type are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			MYXK type	NVXK type	
NSP	21	Rear Panel	ANC7672	ANC7673	
	33	Caution Label	ARW1047	ARW1050	

# XC-L5

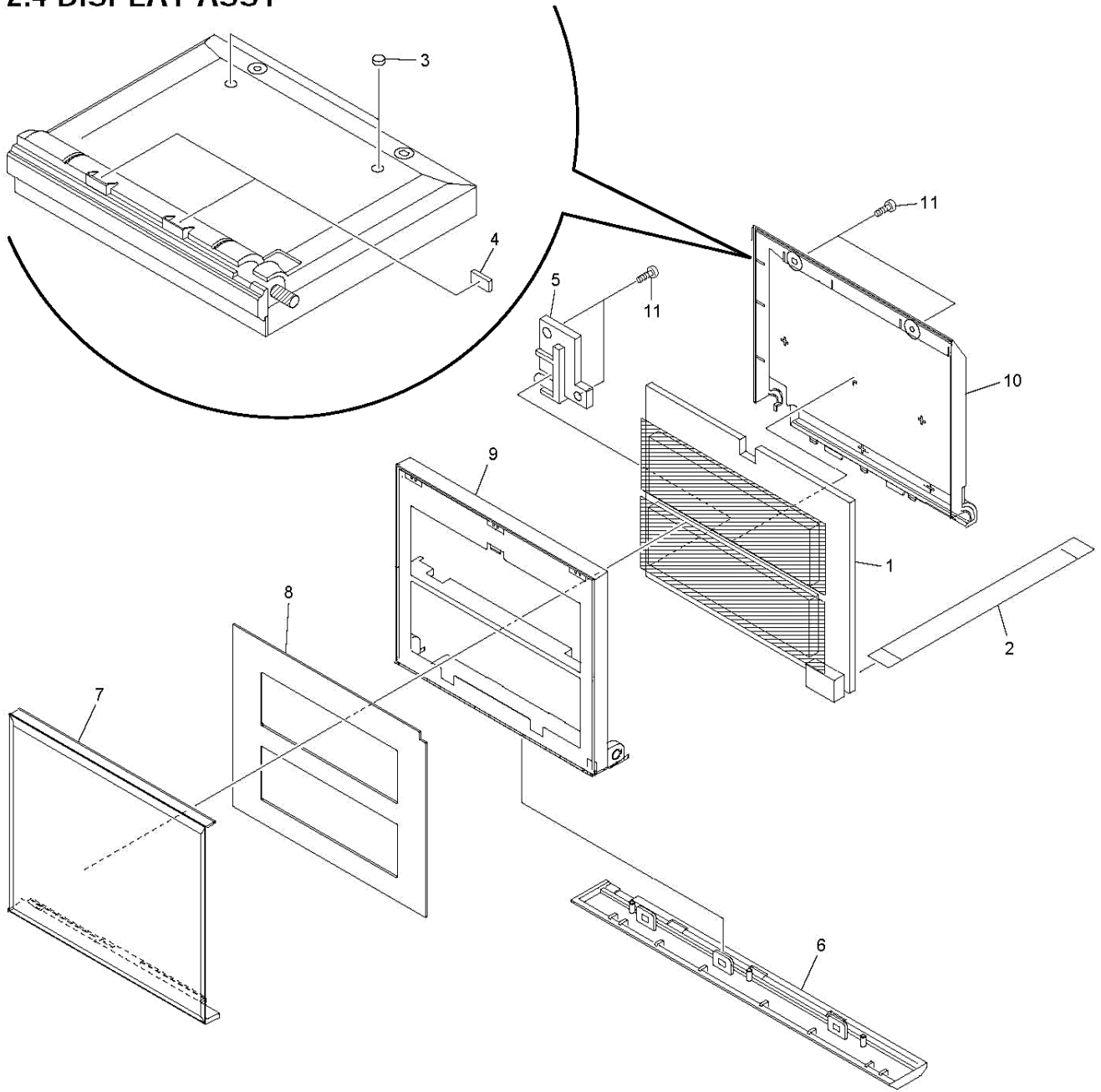
## 2.3 TOP PANEL ASSY



### ● TOP PANEL ASSY PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	CD TRADE UNIT	AWU7095	11	Gear S	ANW7120	
	2	CD KEYR UNIT	AWU7096	12	Gear B	ANW7121	
	3	CD KEYL UNIT	AWU7097	13	Rivet	VEC1178	
	4	CD POSIT UNIT	AWU7100	14	Top Button	AAD7476	
	5	17P F·F·C/60V	ADD7098	15	Sub Panel	AAP7048	
	6	Pin	AMR7208	16	Top Panel	AMB7513	
	7	Holder L	AMR7209	17	Button A Assy	AWL7036	
	8	Holder R	AMR7210	18	Screw	IPZ20P060FMC	
NSP	9	Top Plate	ANK7042	19	Screw	VPZ30P080FZK	
	10	Shaft	ANL7010				

2.4 DISPLAY ASSY

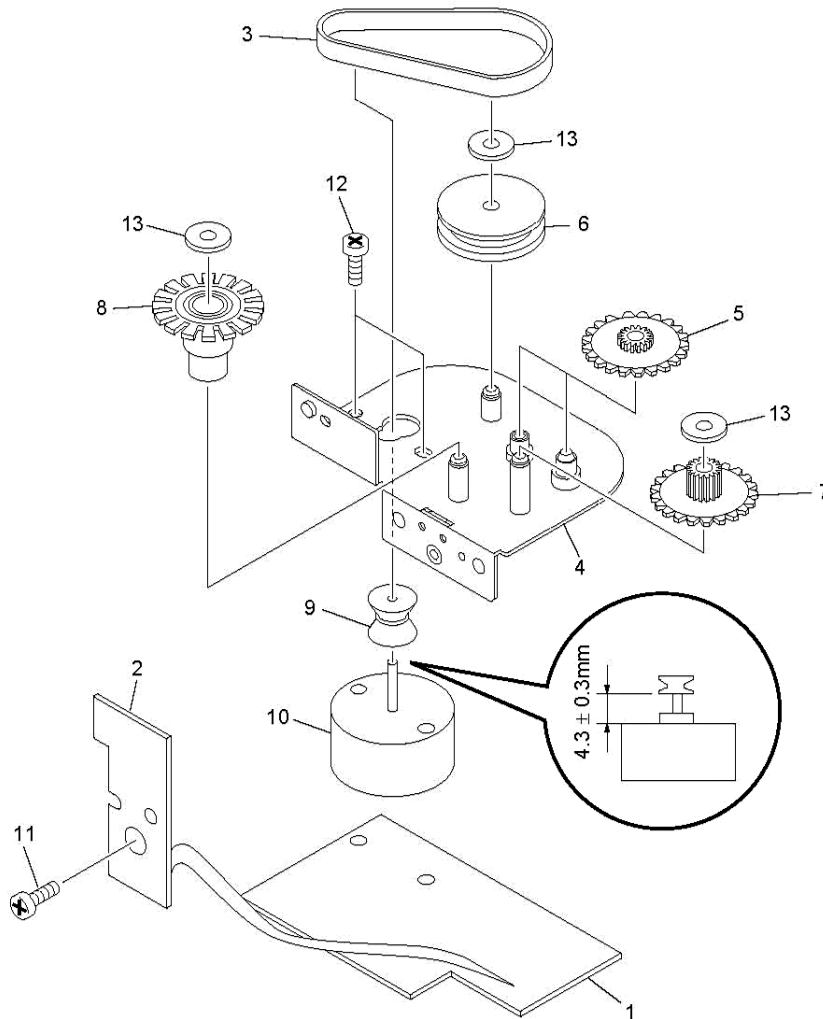


● DISPLAY ASSY PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	CD FL UNIT	AWU7094	6	Front Plate	AAH7012
2	8P F·F·C/60V	ADD7099	7	Window	AAK7575
3	Cushion Rubber	AEB7068	8	FL Filter	AEC7141
4	D Cushion	AEB7126	9	Display Panel	AMB7517
5	Rack Gear	ANW7123	10	Display Cover	AMC7026
			11	Screw	VPZ30P080FZK

# XC-L5

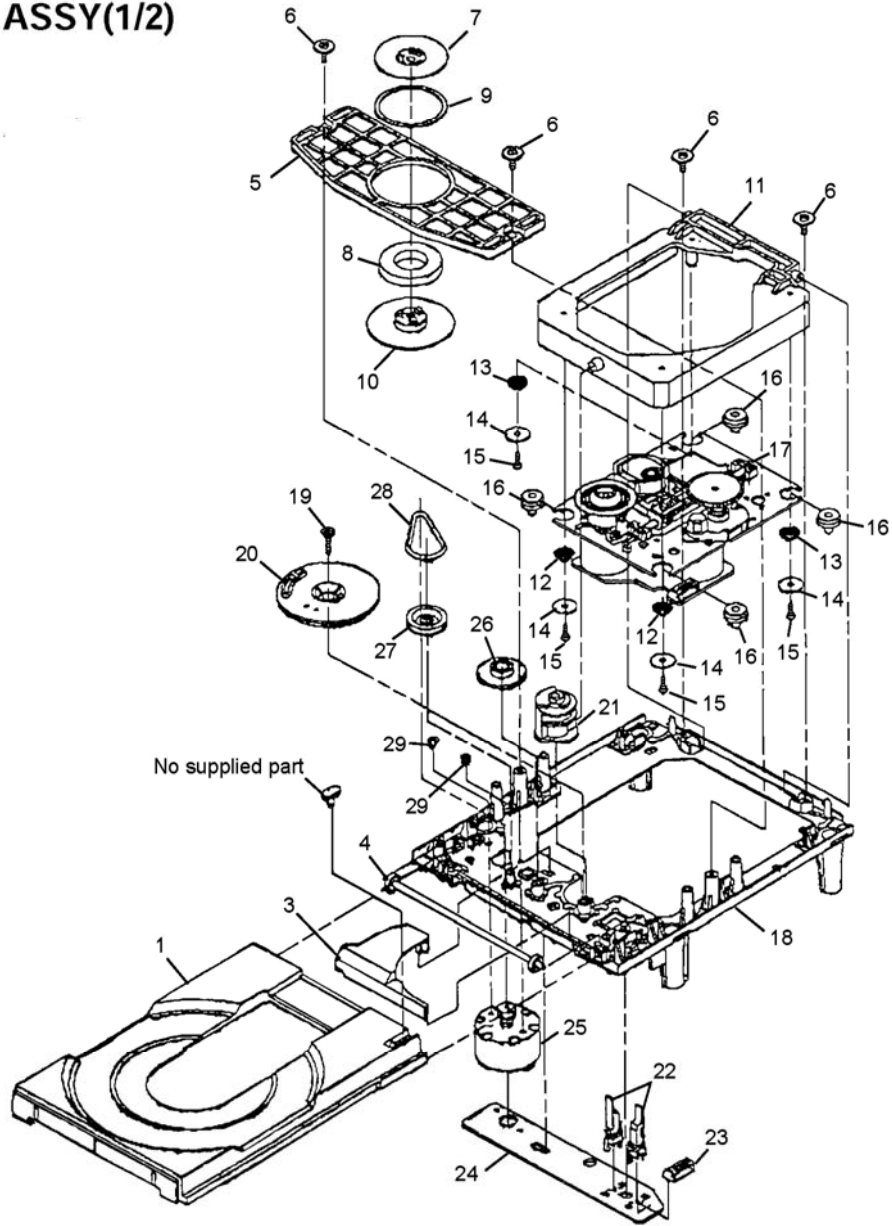
## 2.5 GEAR HOLDER ASSY



### ● GEAR HOLDER ASSY PARTS LIST

Mark	No.	Description	Part No.
	1	CD MOTOR UNIT	AWU7098
	2	CD SENSE UNIT	AWU7099
	3	Belt	AEB7030
	4	Gear Holder	ANG7190
	5	Gear A	ANW7063
	6	Gear Pulley A	ANW7066
	7	Select Gear	ANW7067
	8	FC Gear	ANW7122
	9	Motor Pulley	PNW1634
	10	DC Motor/0.75W	PXM1010
	11	Screw	BBZ30P060FMC
	12	Screw	PMA26P040FMC
	13	Washer	WT36D072D025

2.6 CD MECHA ASSY(1/2)



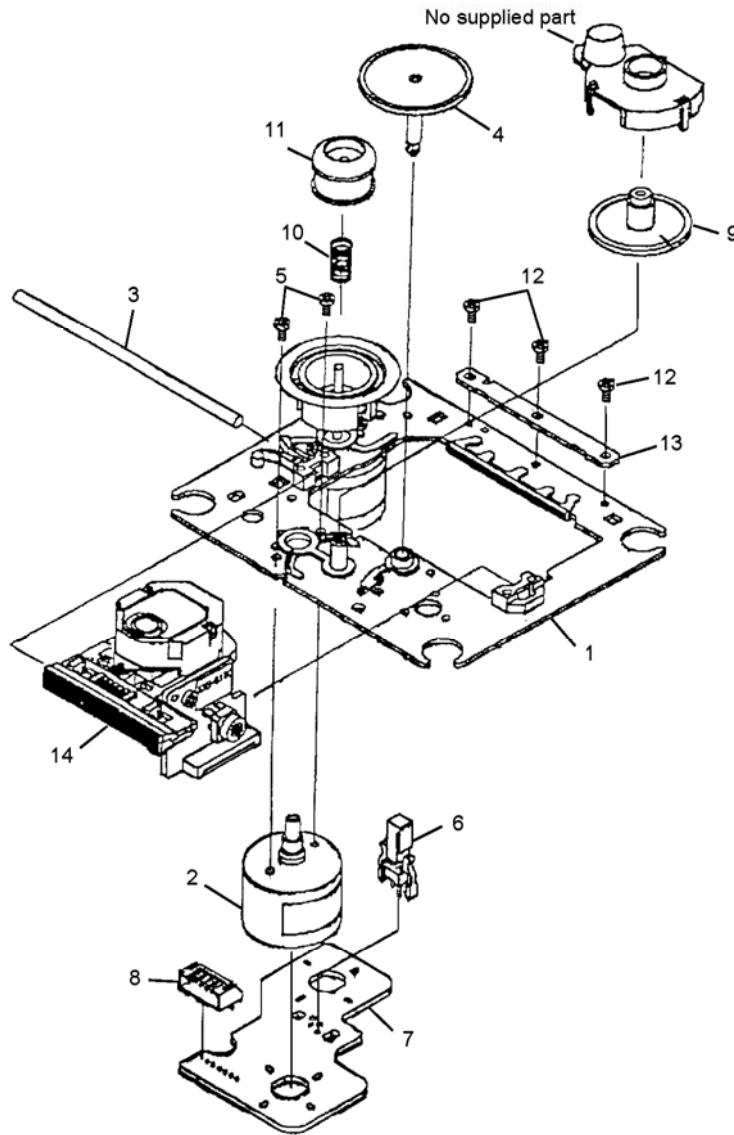
● CD MECHA ASSY(1/2) PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Tray(C)	2-646-290-01		16	Insulator	2-627-234-(01)
	2	.....			17	MD Assy	A-4912-186-A
	3	Cover(S),Gear	2-625-544-(01)		18	Outsert Main Chassis	2-625-552-(06)
	4	Gear(S),Tray	2-625-535-(01)		19	Screw +PTPWH2.6*16	3-319-501-(51)
	5	Plate(S),Chucking	2-625-546-(01)		20	Drive Gear (S)	2-625-547-(01)
	6	Screw +PTPWH2.6*7	2-626-294-(01)		21	Control Cam(S)	2-625-545-(04)
	7	Chucking Yoke(S)	2-625-537-(01)		22	Leaf Switch	1-692-667-(11)
	8	Magnet	1-452-493-(21)		23	Connector Pin 5p	1-564-721-(11)
	9	Damper(S)	2-625-541-(02)		24	Loading PC Board	1-640-523-(11)
	10	Chucking Pulley	2-646-291-(01)		25	Loading Motor Assy	X-2625-117-(1)
	11	Sub Chassis 2130	2-646-288-(01)		26	Midway Gear (S)	2-625-534-(02)
	12	Coil Spring (Front)	2-627-236-(01)		27	Loading Pulley (S)	2-625-536-(02)
	13	Coil Spring (Back)	2-627-235-(01)		28	LM Berut	3-653-387-(00)
	14	Washer 2130	2-646-289-(01)		29	Screw +B2.6*2.5	2-625-279-(01)
	15	Screw+P2.6*10 NOSLIT	7-685-135-(11)				



# XC-L5

## 2.7 CD MECHA ASSY(2/2)



### ● CD MECHA ASSY(2/2) PARTS LIST

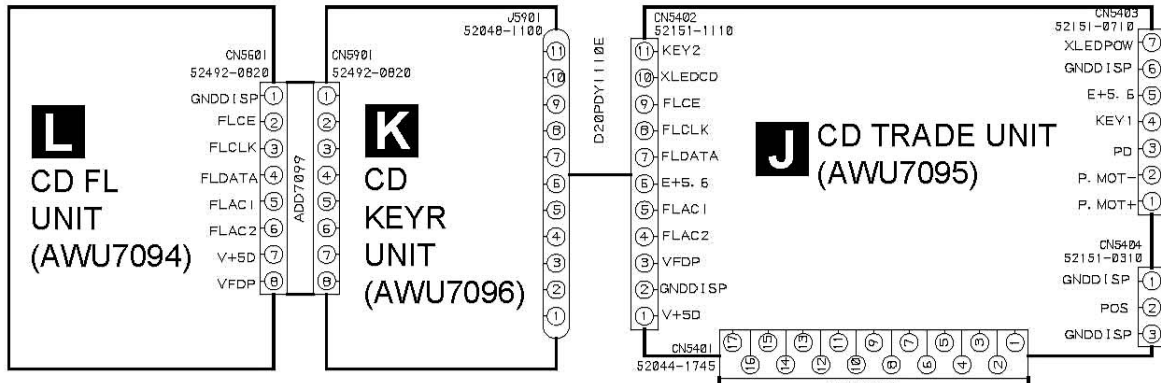
Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Motor Chassis Assy	X-2625-984-(1)	11	Ring(LO)(S),Center	2-625-477-(01)
2	Motor Gear Assy	X-2625-769-(1)	12	Screw2*5,Tapping(S)	2-641-386-(01)
3	Sled Shaft	2-626-908-(01)	13	Reinforcement(S)	2-625-625-(01)
4	Gear (A)(S)	2-625-188-(02)	14	KSS-213C(Pic-up)	8-848-483-(05)
5	Screw +P2*3	7-621-255-(15)			
6	Leaf Switch	1-572-085-(11)			
7	Motor(6p)(S)PCB	1-639-678-(12)			
8	Connector Pin 6p	1-564-722-(11)			
9	Gear(B)(RP)	2-627-003-(01)			
10	Spring(S)Compression	2-625-191-(01)			



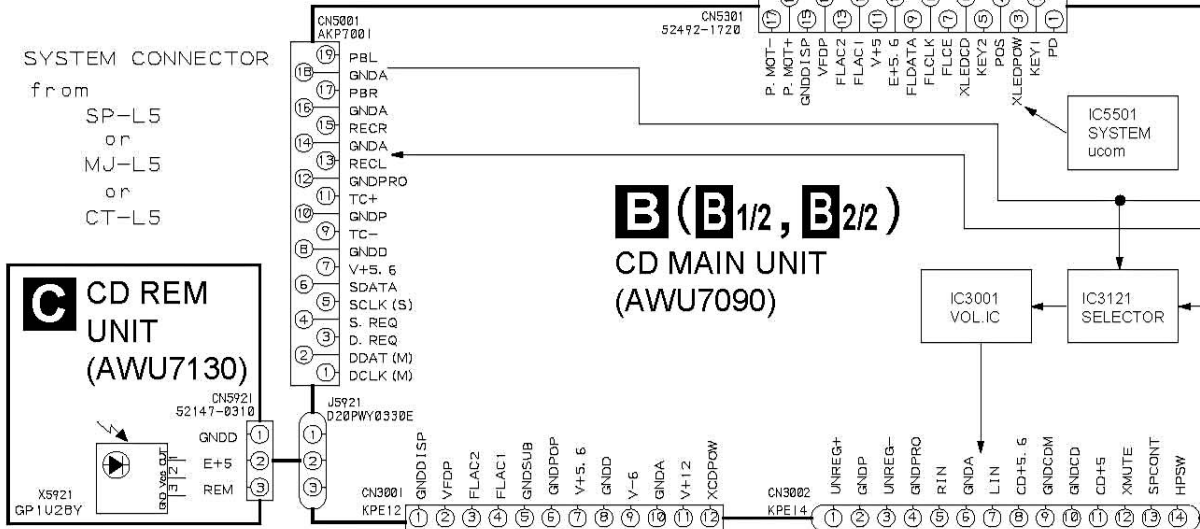
### 3. SCHEMATIC DIAGRAM

#### 3.1 OVERALL CONNECTION DIAGRAM

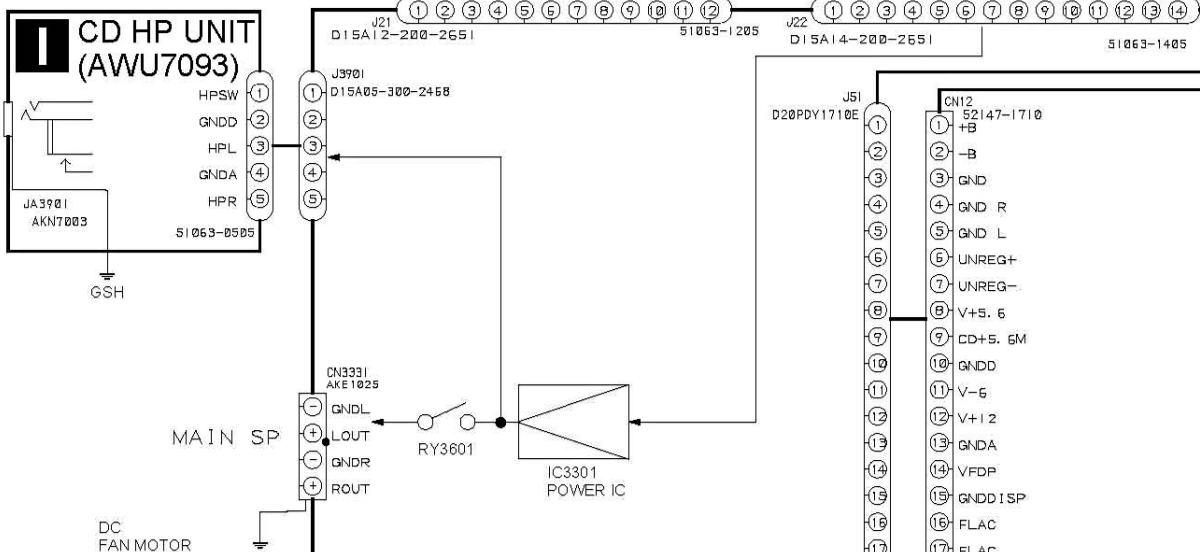
A



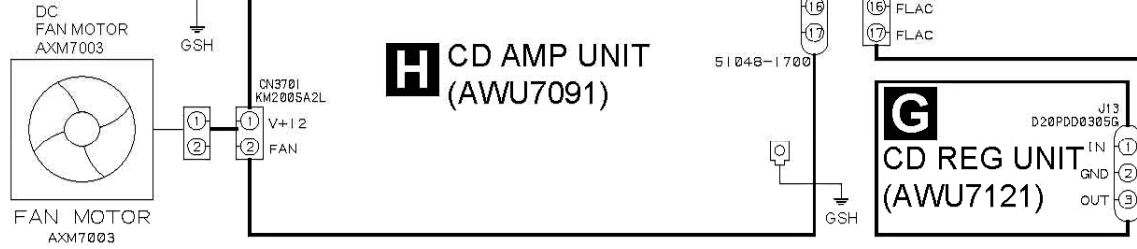
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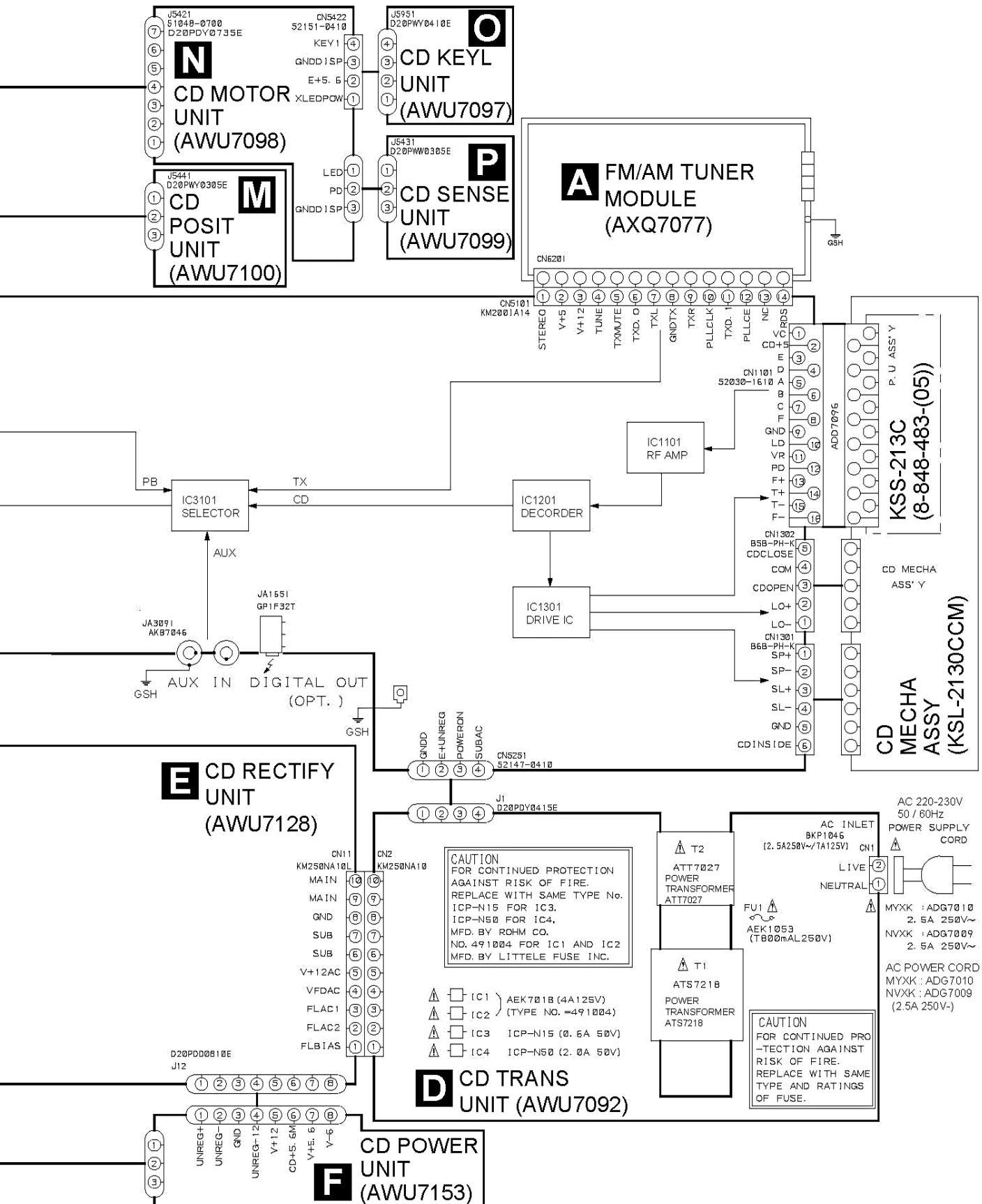
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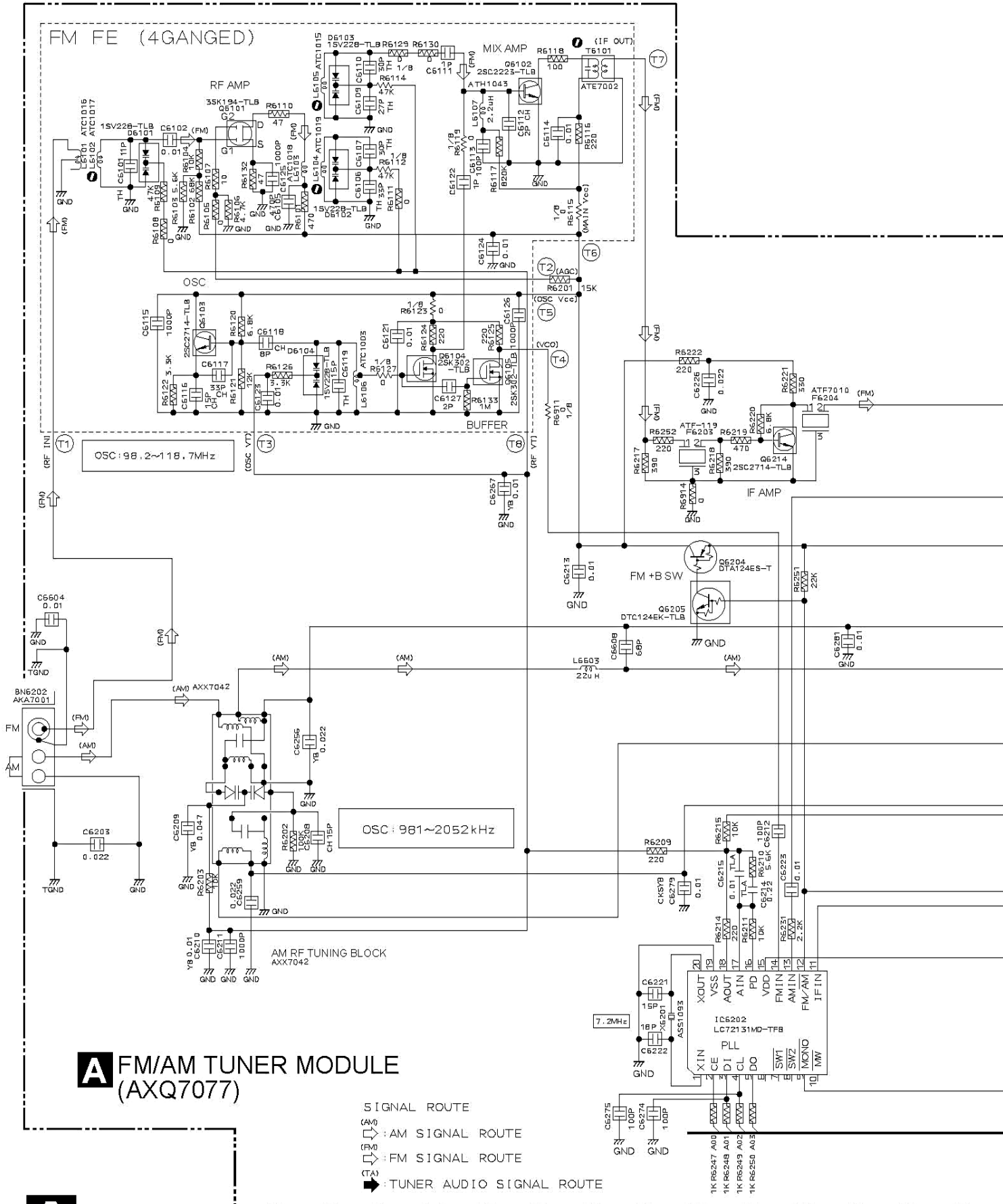
D



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



3.2 FM/AM TUNER MODULE



**A** FM/AM TUNER MODULE (AXQ7077)





### Notes

#### 1. RESISTORS

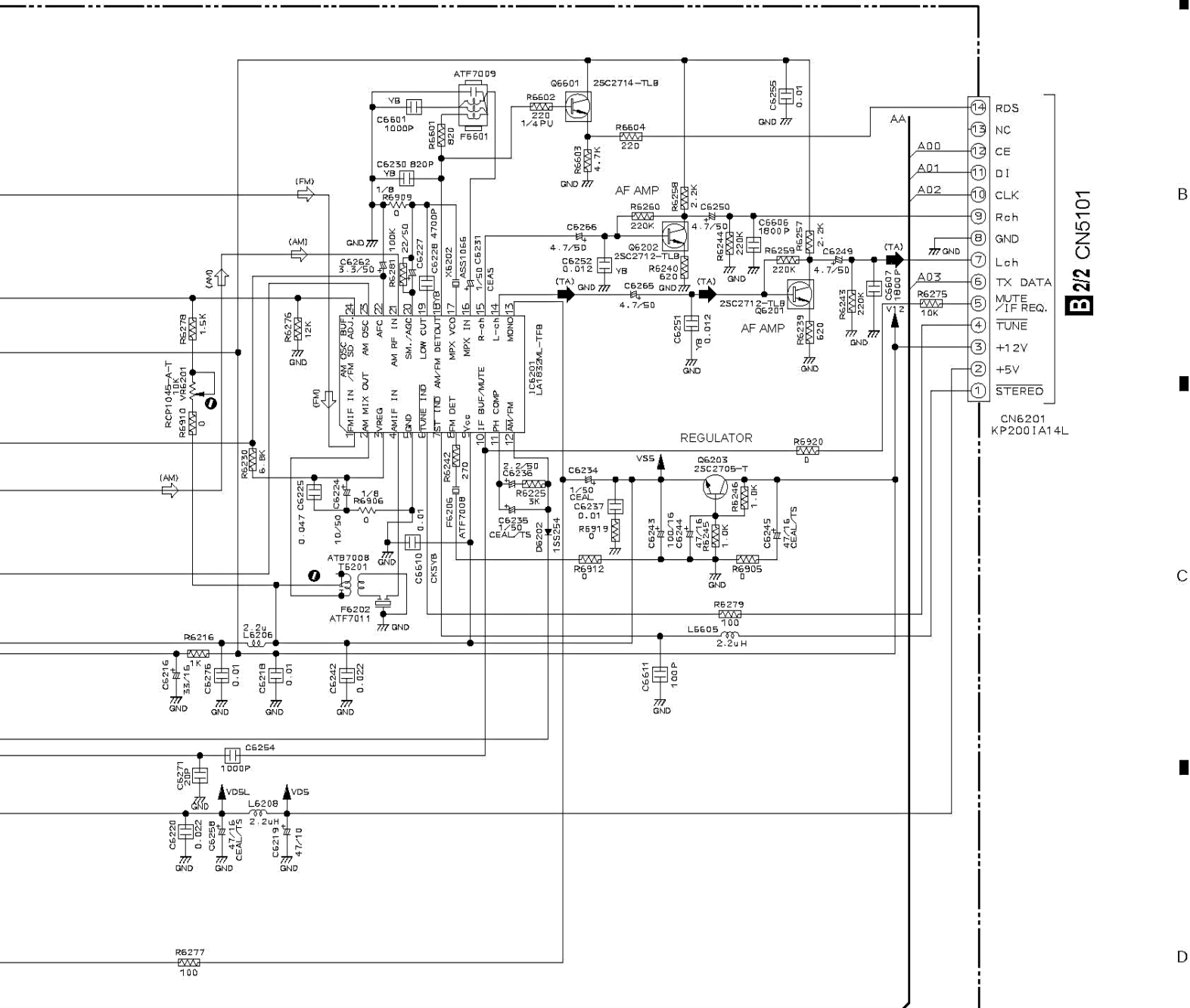
Indicated in  $\Omega$ , 1/10W $\pm$ 5% Tolerance unless otherwise noted K;K $\Omega$ , M;M $\Omega$ .

#### 2. CAPACITORS

Indicated in Capacity ( $\mu$ F)/VOLTAGE (V) unless otherwise noted P;PF.

#### 3. DIODES

No mark diode is 1SS254.



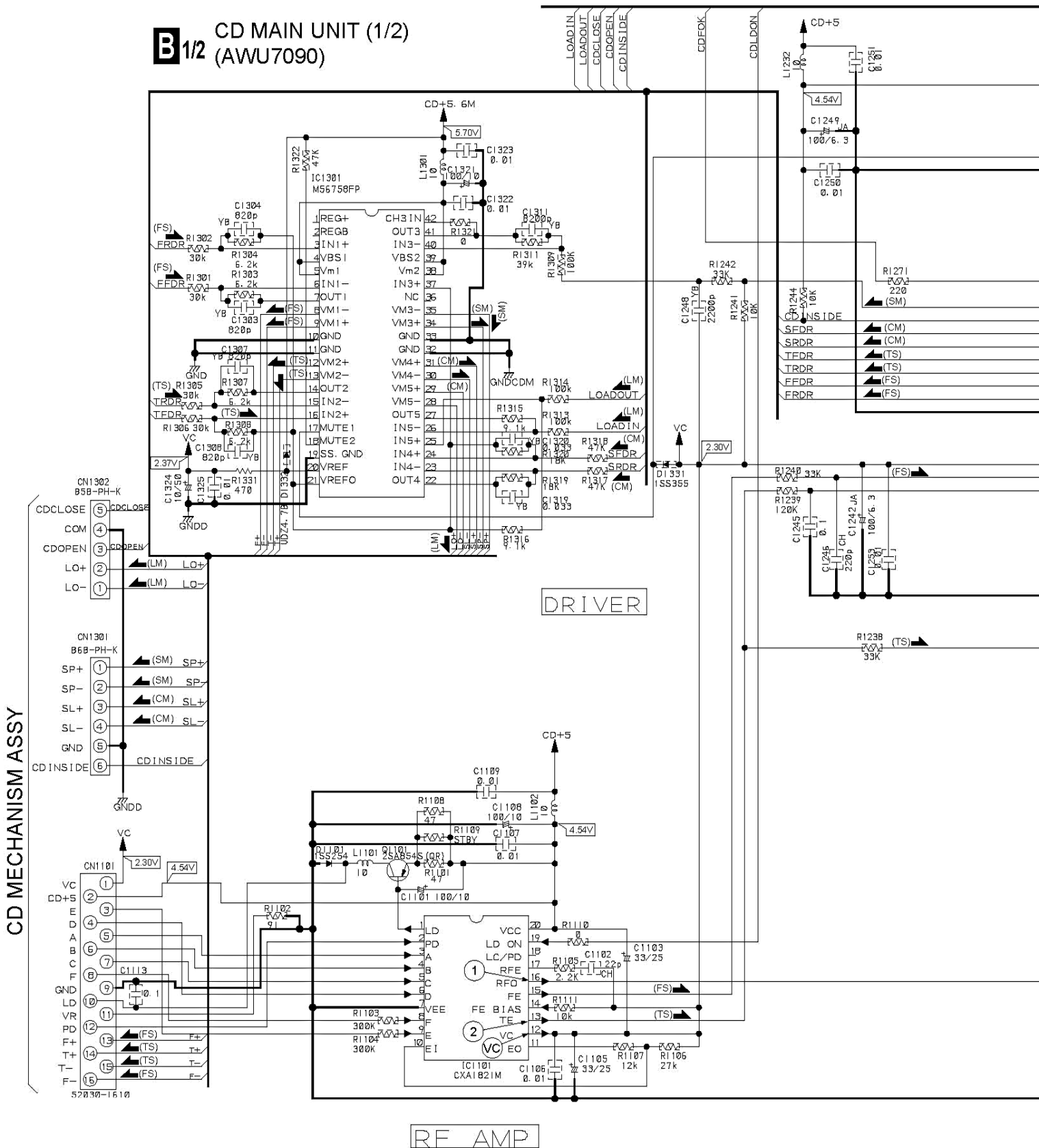
**B** 2/2 CN5101

- 14 RDS
- 13 NC
- 12 CE
- 11 DI
- 10 CLK
- 9 Rch
- 8 GND
- 7 Lch
- 6 TX DATA
- 5 MUTE / IF REQ.
- 4 TUNE
- 3 +12V
- 2 +5V
- 1 STEREO

CN6201  
KP2001A14L

3.3 CD MAIN UNIT (1/2)

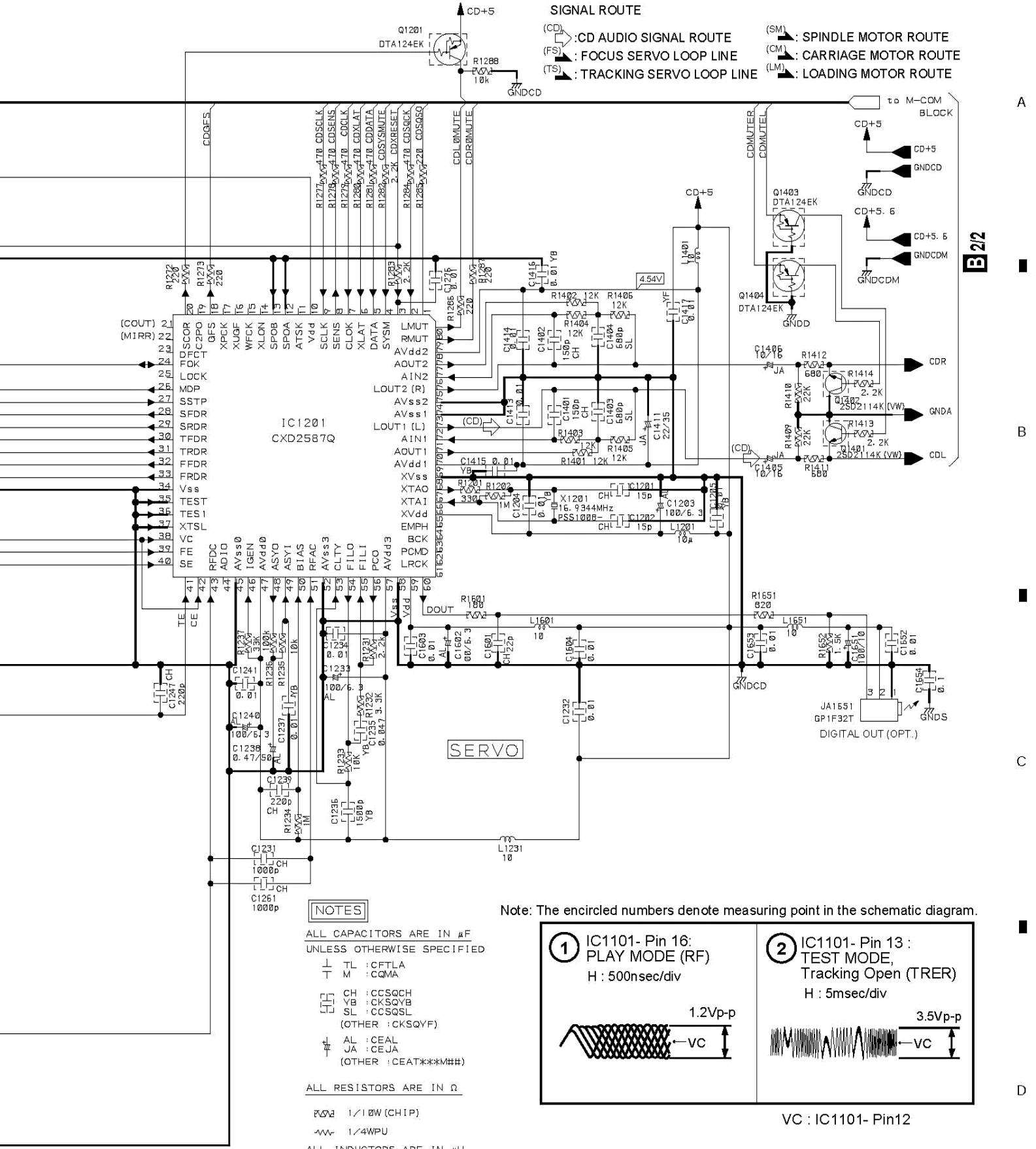
**B** 1/2 CD MAIN UNIT (1/2)  
(AWU7090)



CD MECHANISM ASSY

DRIVER

RF AMP



B/22

A

B

C

D

3.4 CD MAIN (2/2) AND CD REM UNITS

B 1/2

A

B

C

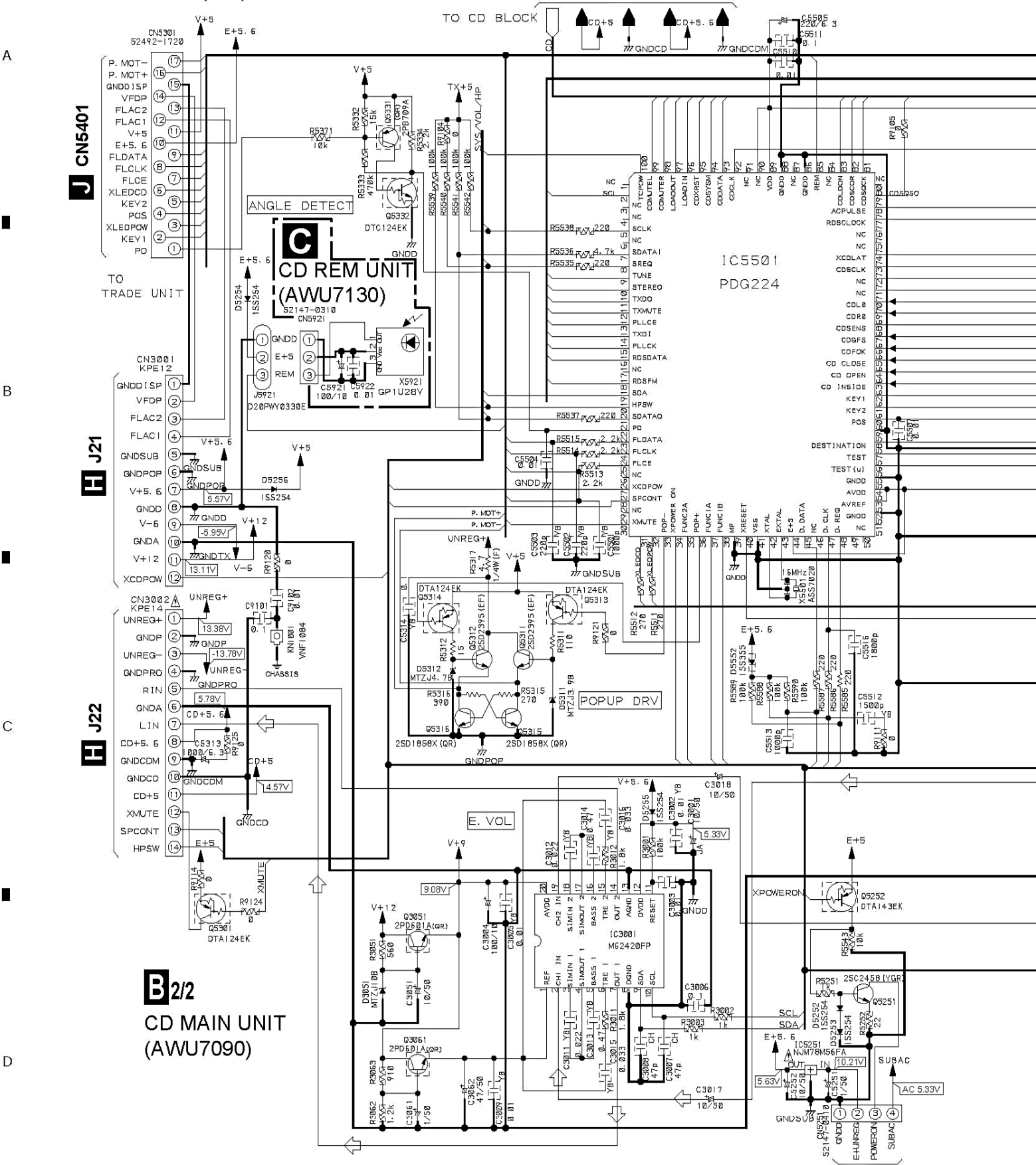
D

J CN5401

C CD REM UNIT (AWU7130)

B 2/2 CD MAIN UNIT (AWU7090)

D J1



SIGNAL ROUTE

NOTES

ALL CAPACITORS ARE IN  $\mu$ F UNLESS OTHERWISE SPECIFIED

TL : CFTLA  
M : CQMA

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

AL : CEAL  
JA : CEJA  
(OTHER : CEAT\*\*\*MHH)

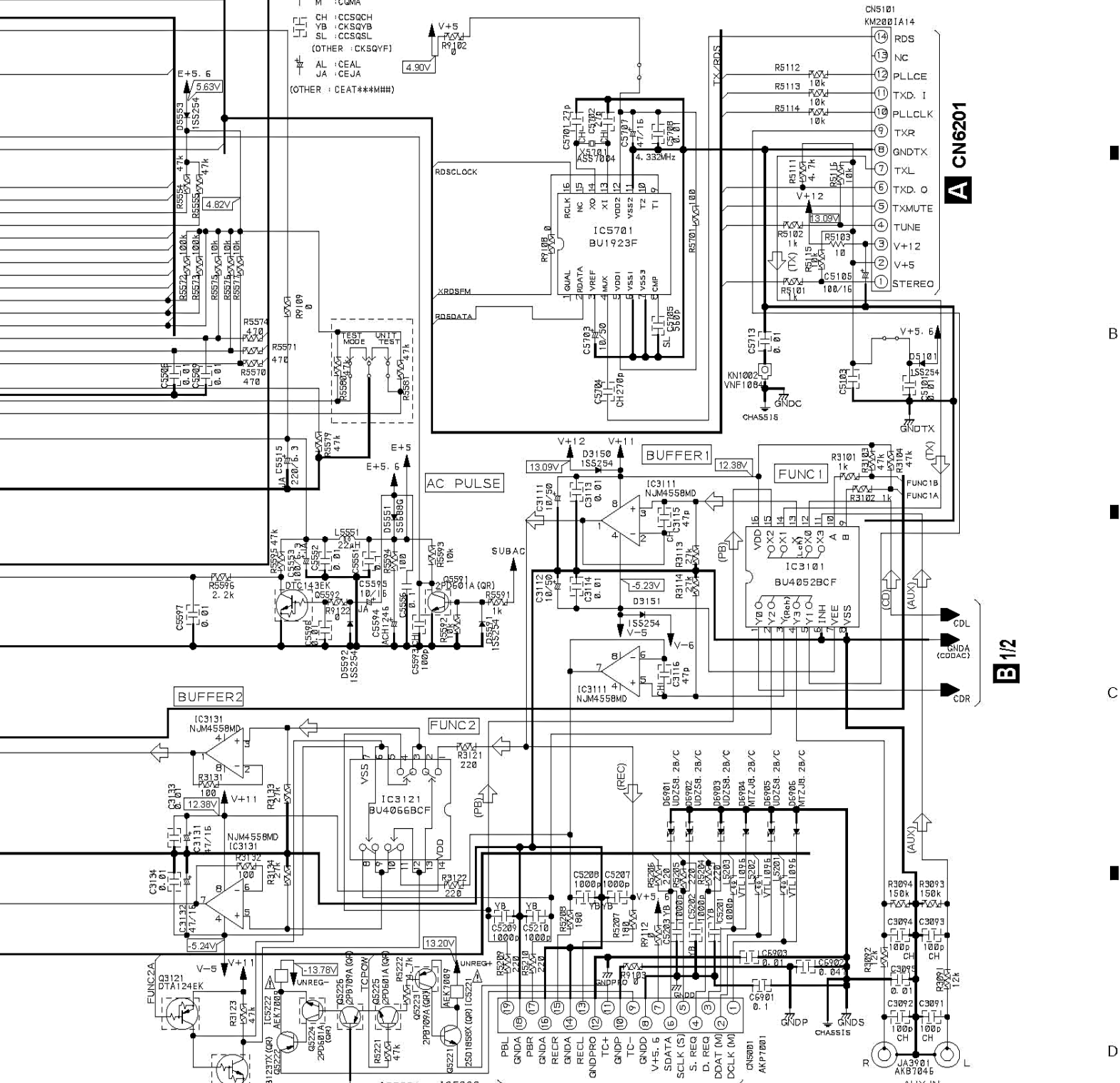
ALL RESISTORS ARE IN  $\Omega$

1/4W : 1/10W (CHIP)  
1/4WPU : 1/4WPU

ALL INDUCTORS ARE IN  $\mu$ H

LAU : LAU

(Lch) : Lch AUDIO SIGNAL ROUTE  
(AUX) : AUX AUDIO SIGNAL ROUTE  
(PB) : DECK PB SIGNAL ROUTE  
(REC) : DECK REC SIGNAL ROUTE  
(TX) : TUNER AUDIO SIGNAL ROUTE  
(CD) : CD AUDIO SIGNAL ROUTE



CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. 491001 MFD, BY LITTELFUSE INC. FOR IC5221, IC5222 (AEK7009).



# XC-L5

## 3.5 CD TRANS, CD RECTIFY, CD POWER, CD REG, CD AMP AND CD HP UNITS

### E CD RECTIFY UNIT (AWU7128)

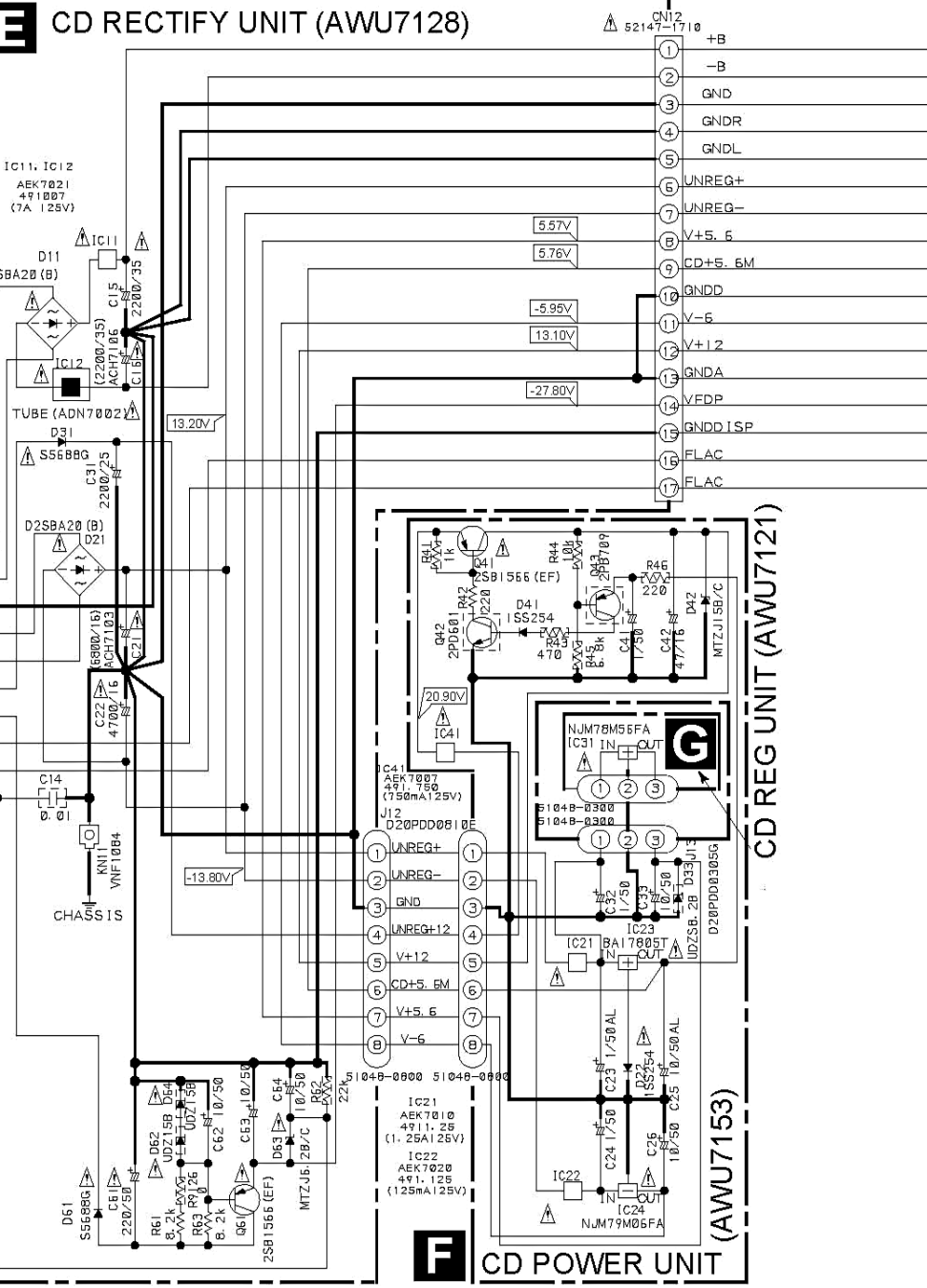
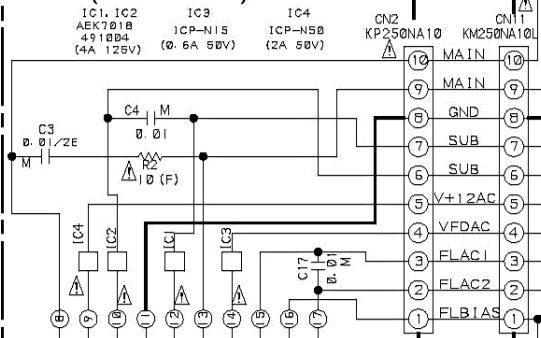
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491007 MFD, BY LITTELFUSE INK. FOR IC11,IC12 (AEK7021).

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491004 MFD, BY LITTELFUSE INK. FOR IC1,IC2 (AEK7018).

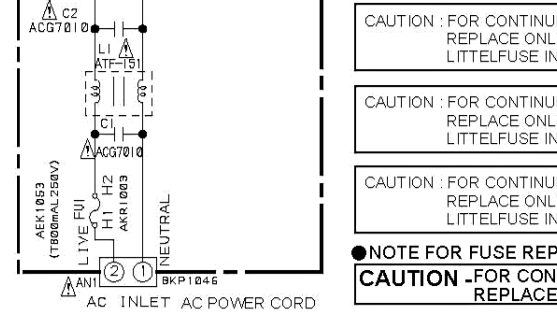
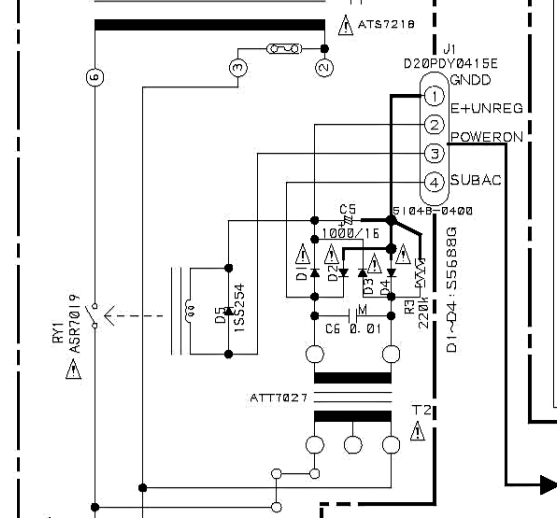
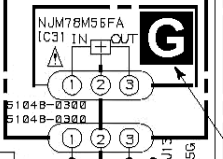
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N15 MFD, BY ROHM CO.,LTD. FOR IC3.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N50 MFD, BY ROHM CO.,LTD. FOR IC4.

### D CD TRANS UNIT (AWU7092)



### F CD POWER UNIT (AWU7153)

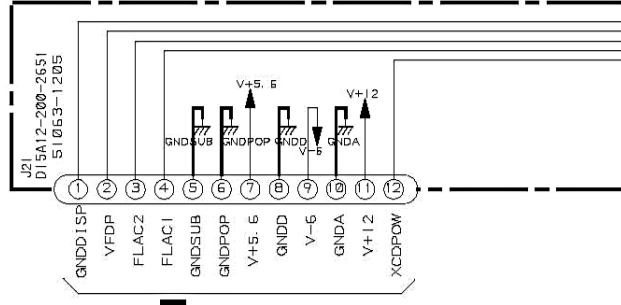


CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491.750 MFD, BY LITTELFUSE INK. FOR IC41 (AEK7007).

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 4911.25 MFD, BY LITTELFUSE INK. FOR IC21 (AEK7010).

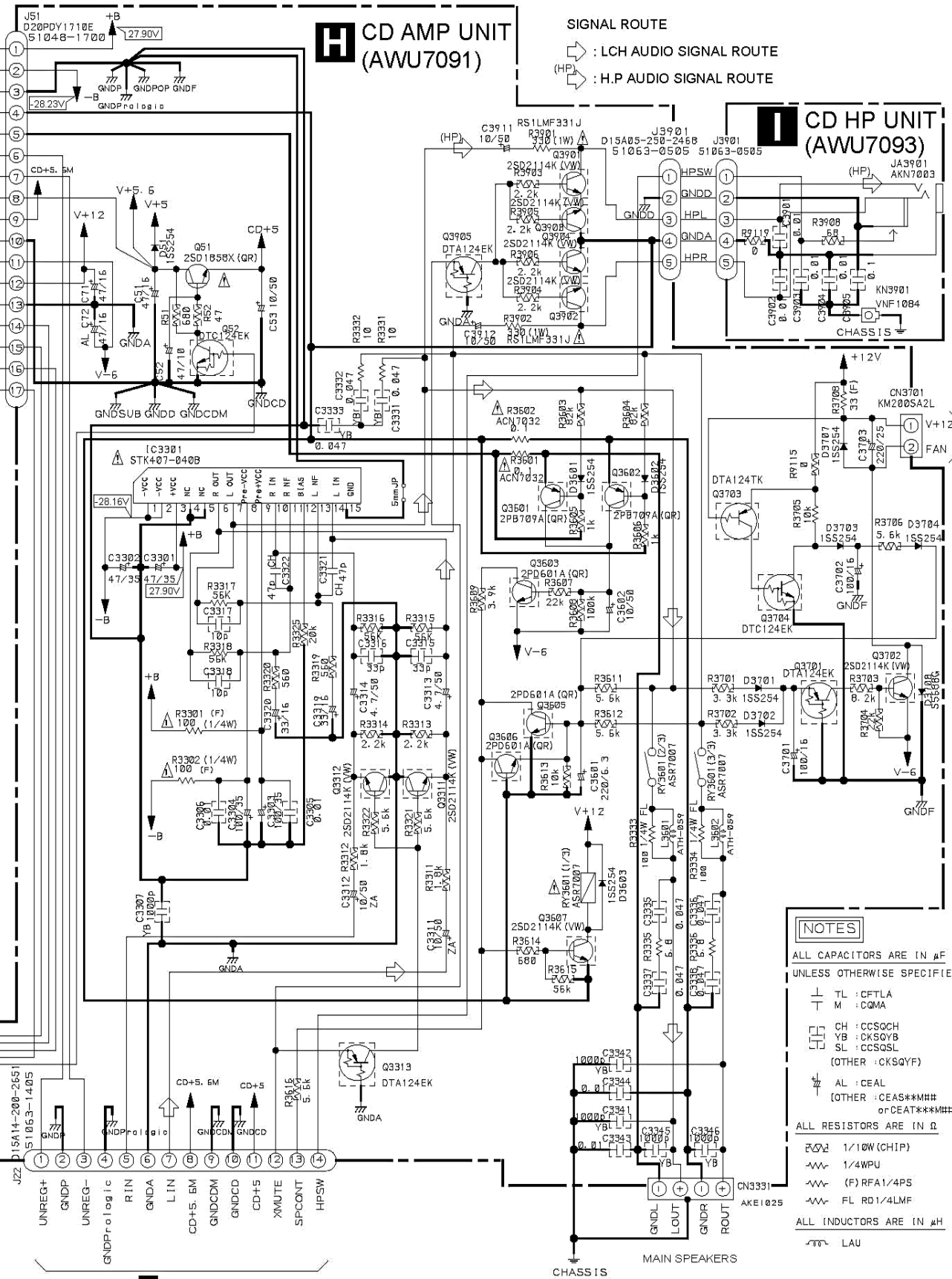
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491.125 MFD, BY LITTELFUSE INK. FOR IC22 (AEK7020).

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



B 2/2 CN3001



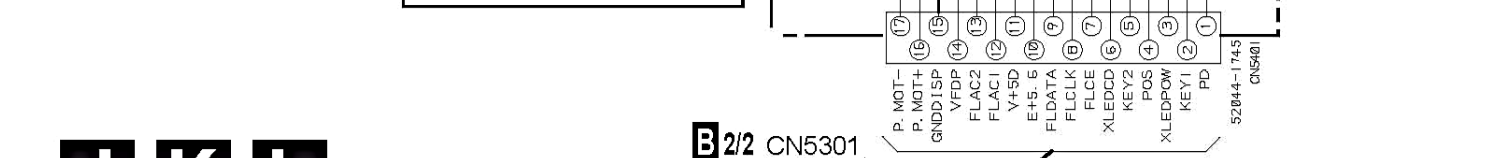
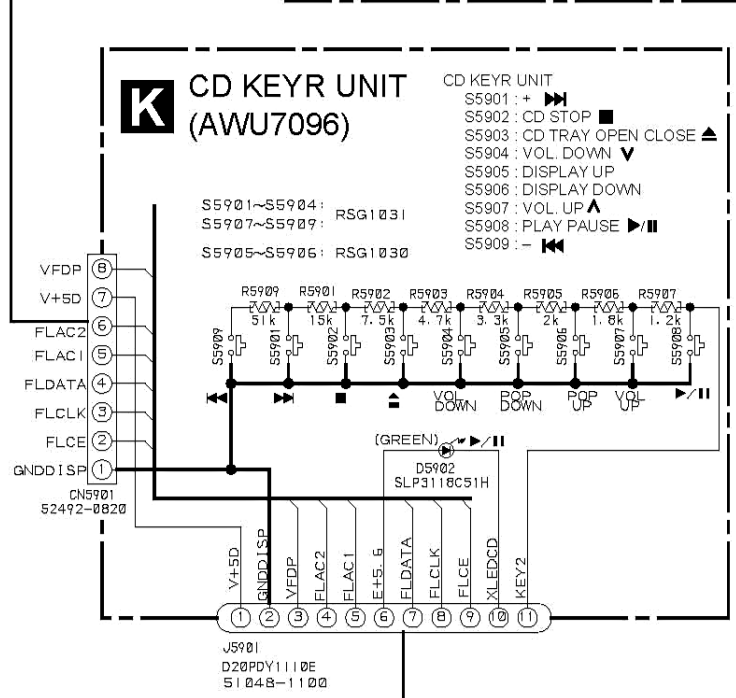
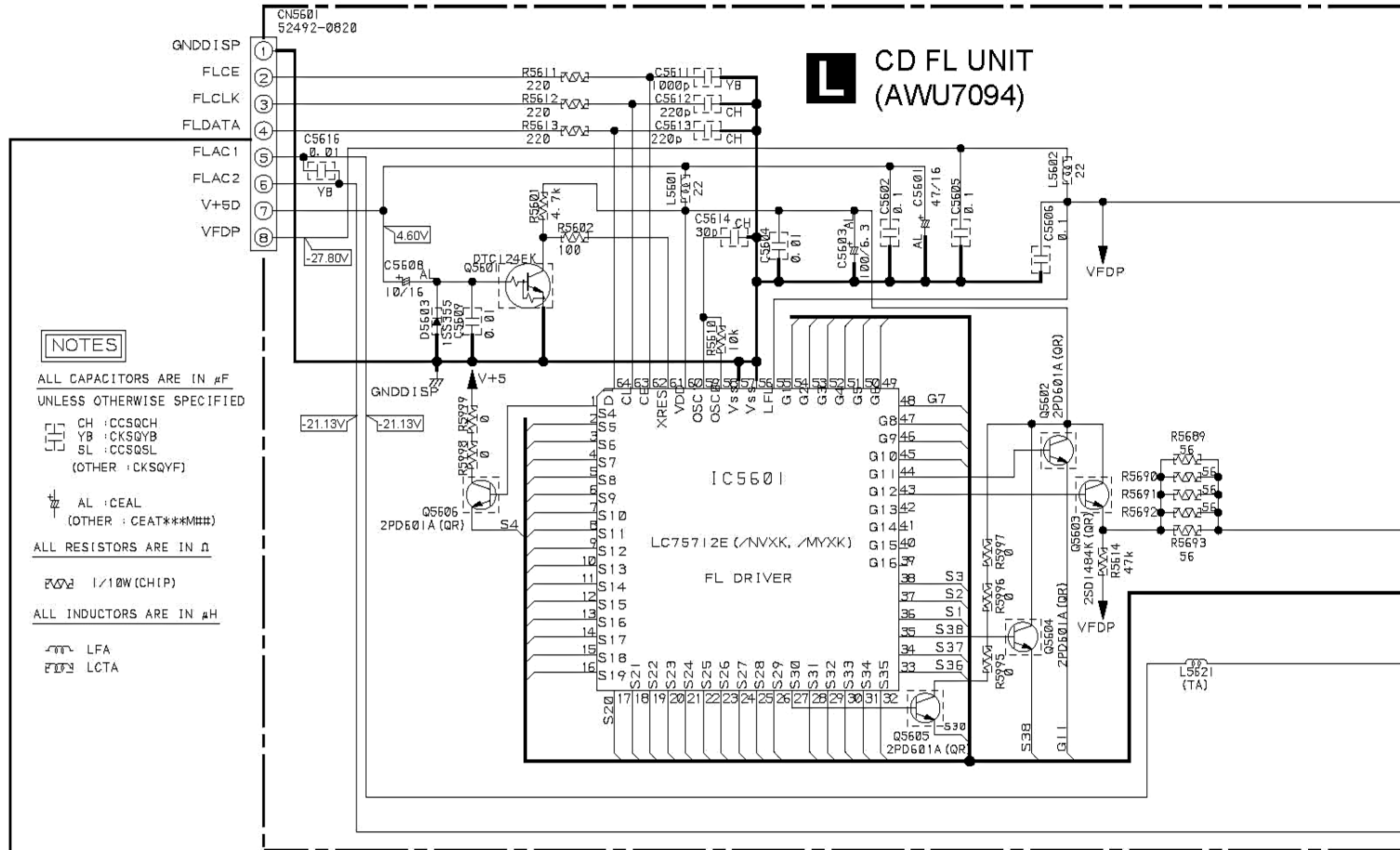


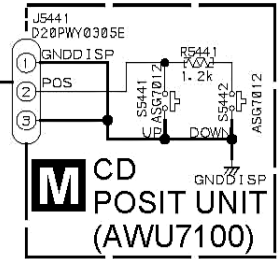
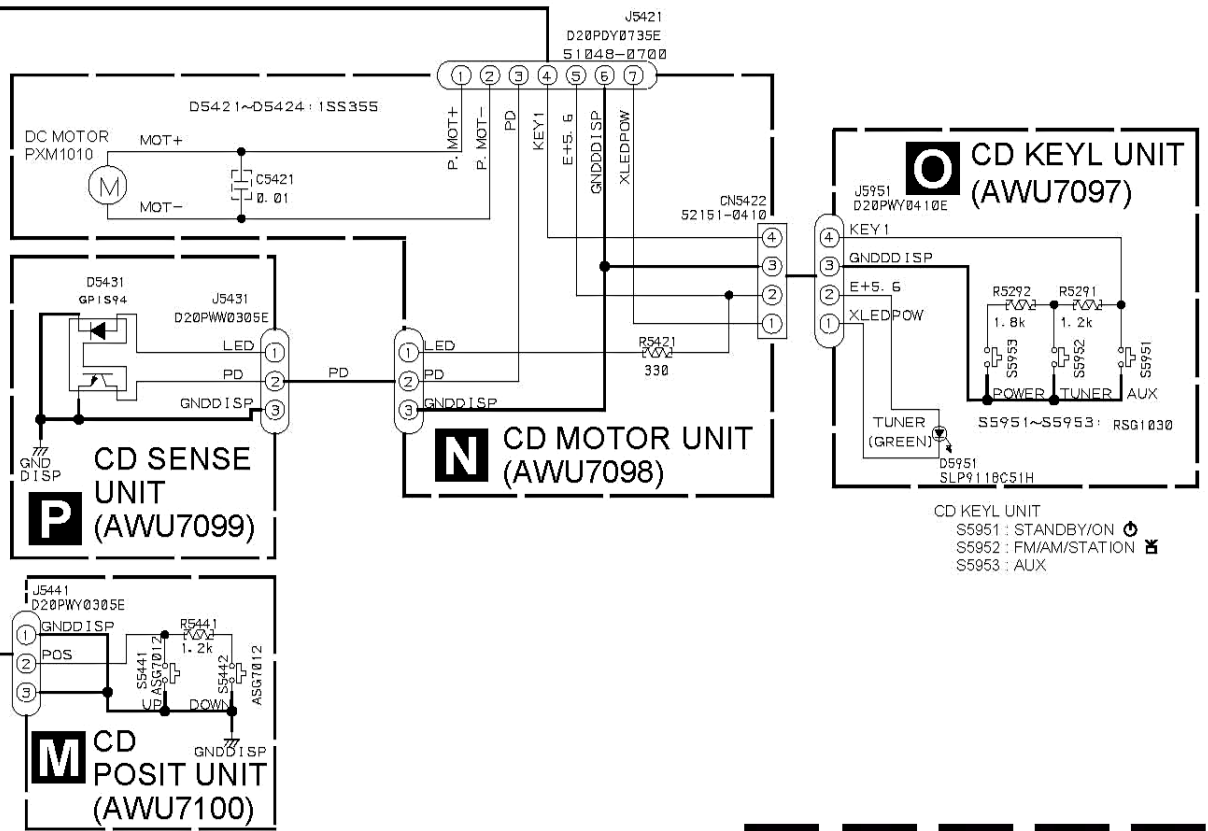
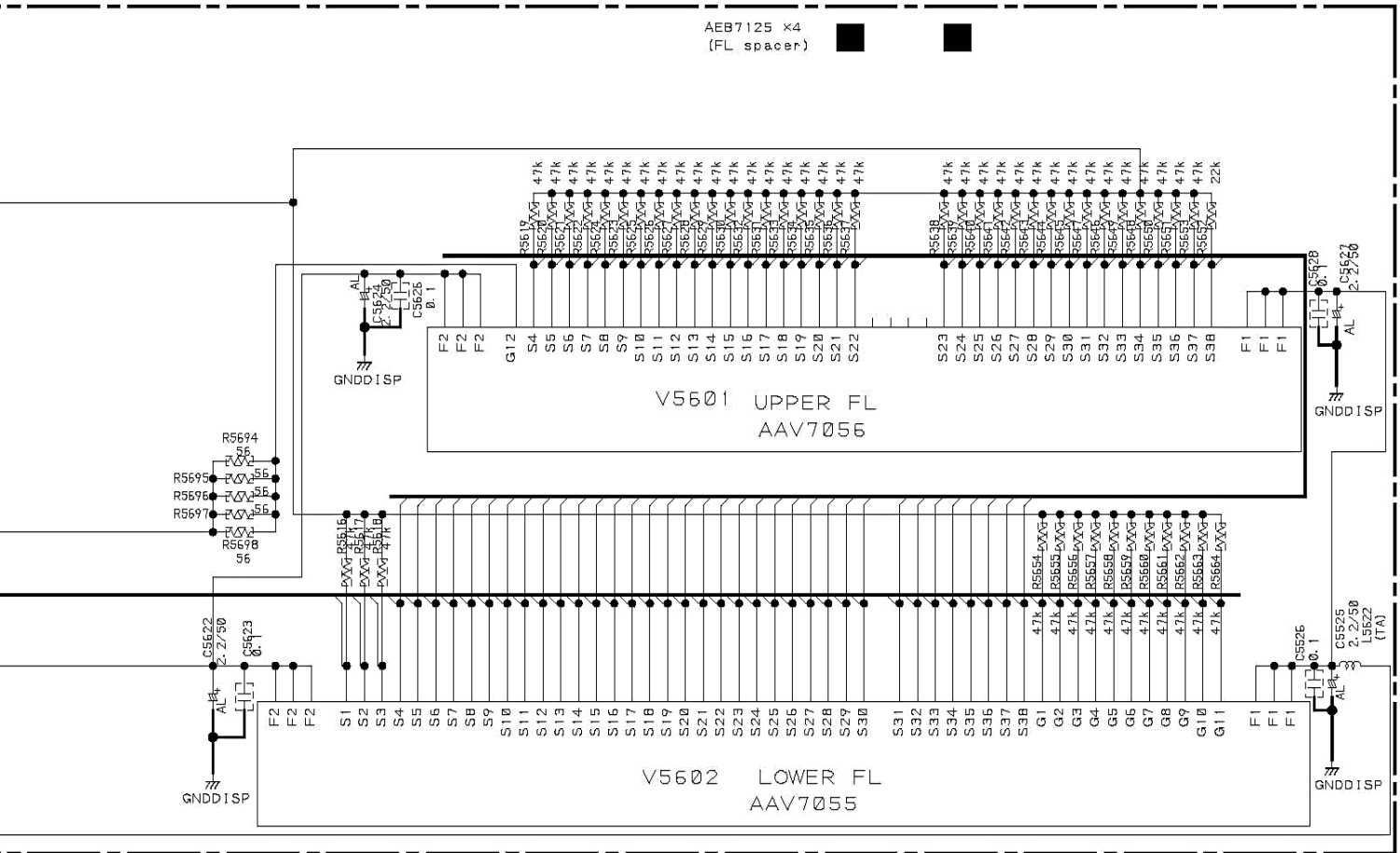
B2/2 CN3002



# XC-L5

## 3.6 CD TRADE, CD KEYR, CD FL, CD POSIT, CD MOTOR, CD KEYL AND CD SENSE UNITS


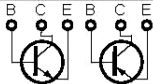

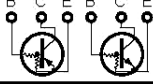

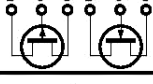

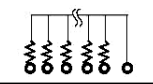






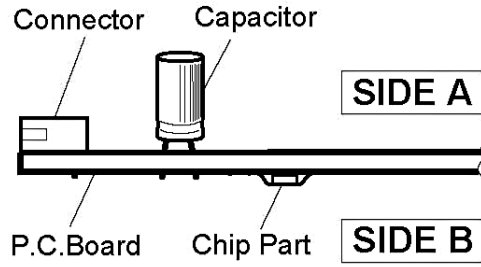
## 4. PCB CONNECTION DIAGRAM

### NOTE FOR PCB DIAGRAMS :

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

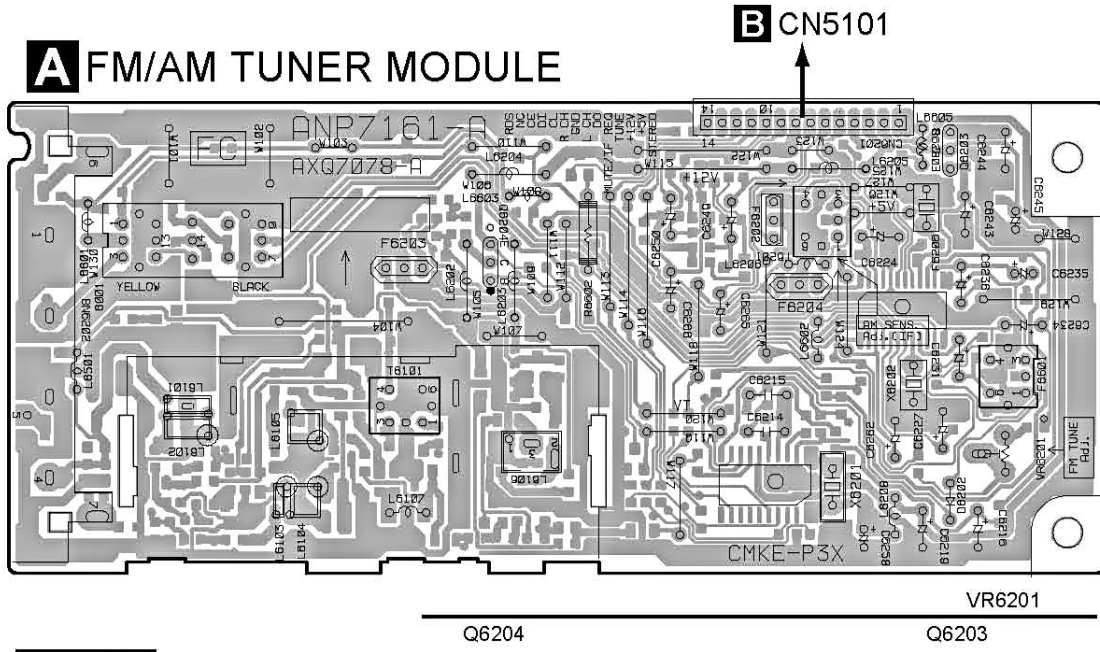
Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

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

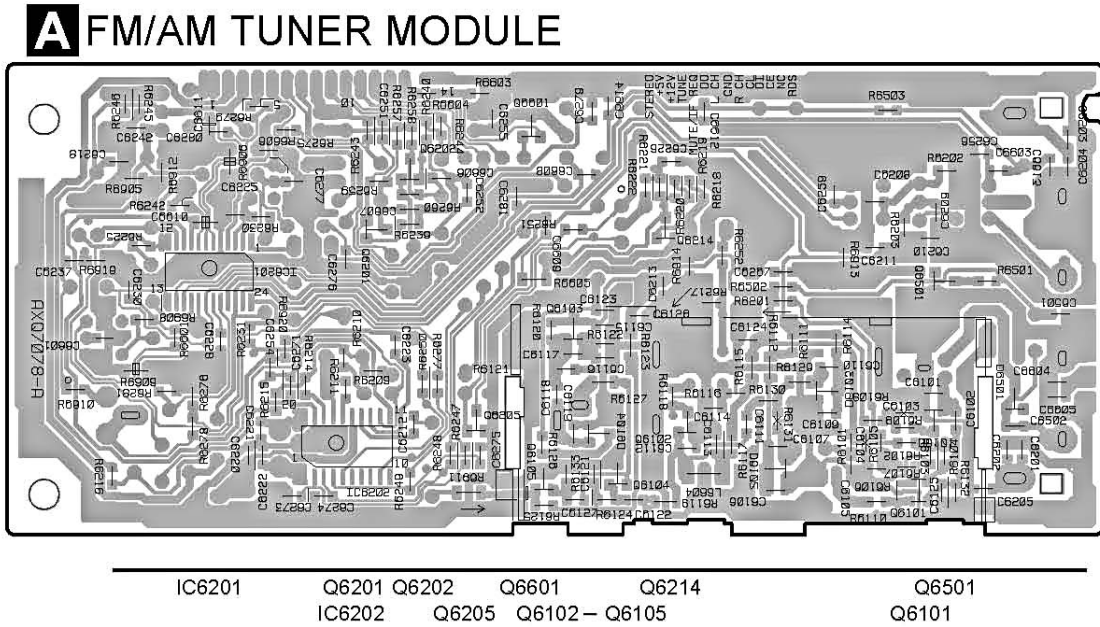




### 4.1 FM/AM TUNER MODULE



**SIDE A**



**SIDE B**

(ANP7161-A)

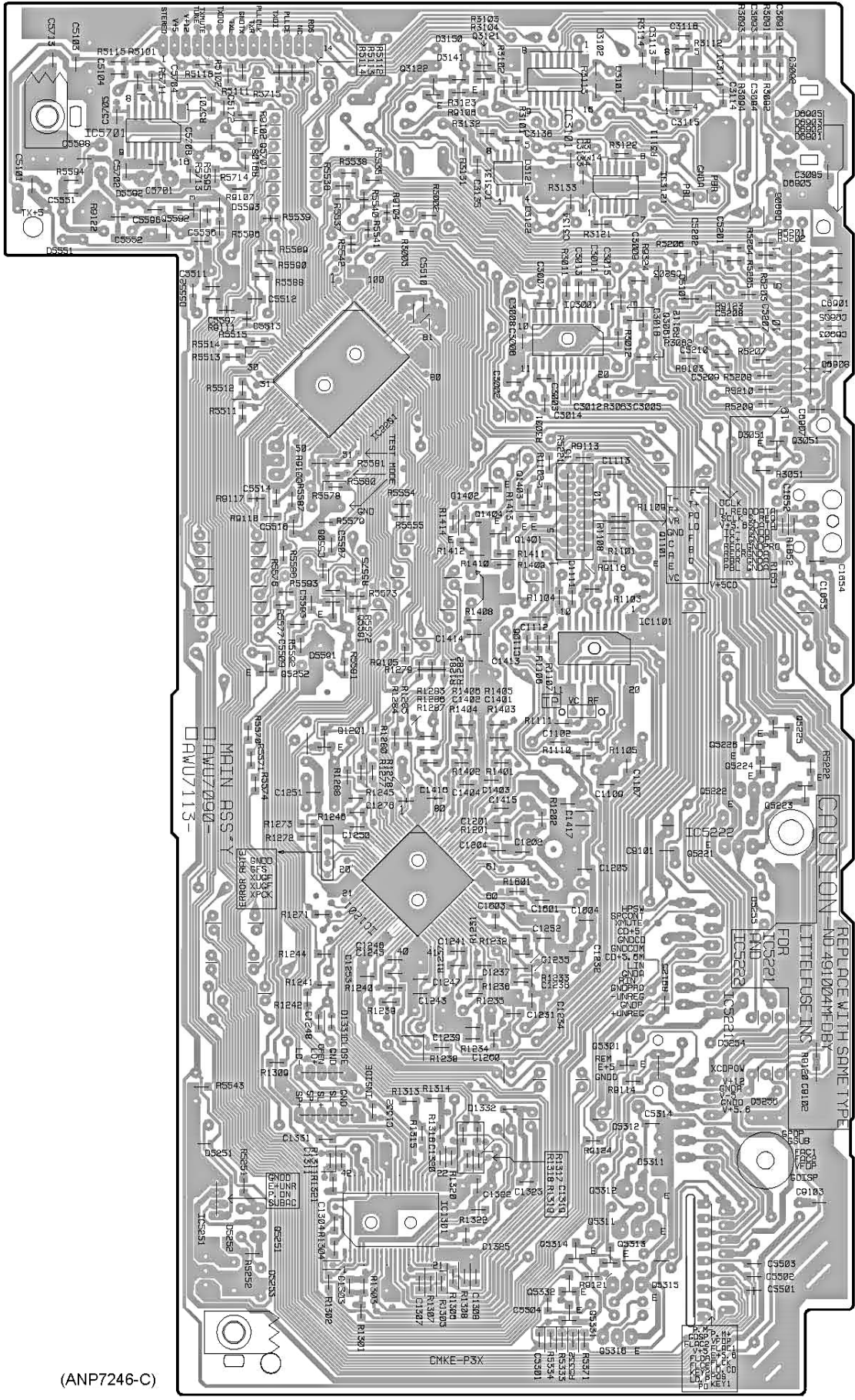






**B** CD MAIN UNIT

**SIDE B**



- IC3101
- IC3111
- IC5701
- Q5701
- IC3131
- IC3121
- Q5592
- Q3016
- IC3001
- IC5501
- Q3051
- Q1402
- Q1403
- Q1404
- Q1401
- Q5591
- IC1101
- Q5252
- Q1201
- Q5225
- Q5226
- Q5224
- Q5223
- IC1201
- Q5301
- IC1301
- Q5313
- Q5314
- Q5332
- Q5331

A

B

C

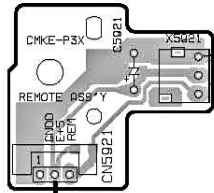
D



4.3 CD REM, CD TRANS, CD RECTIFY, CD POWER AND CD REG UNITS

**SIDE A**

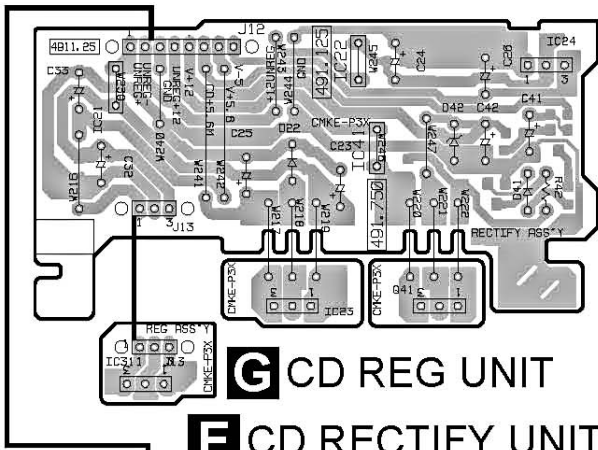
**C** CD REM UNIT



**B** J5921

**F** CD POWER UNIT

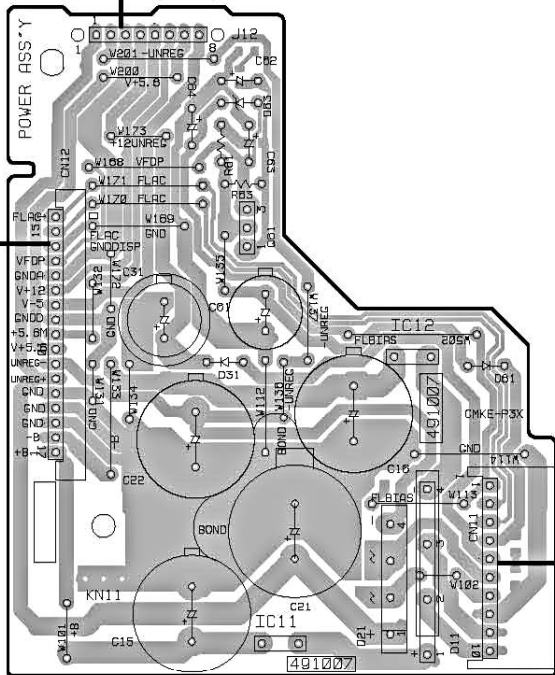
**B** CN5251



**G** CD REG UNIT

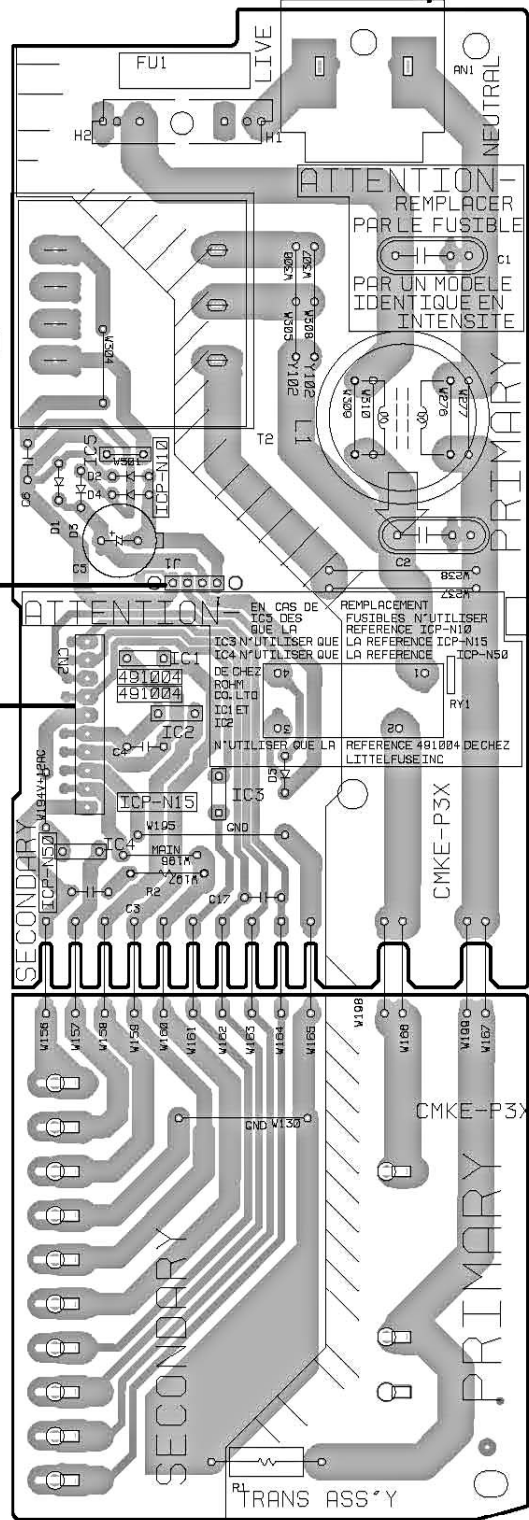
**E** CD RECTIFY UNIT

**H** J51



AC POWER CORD

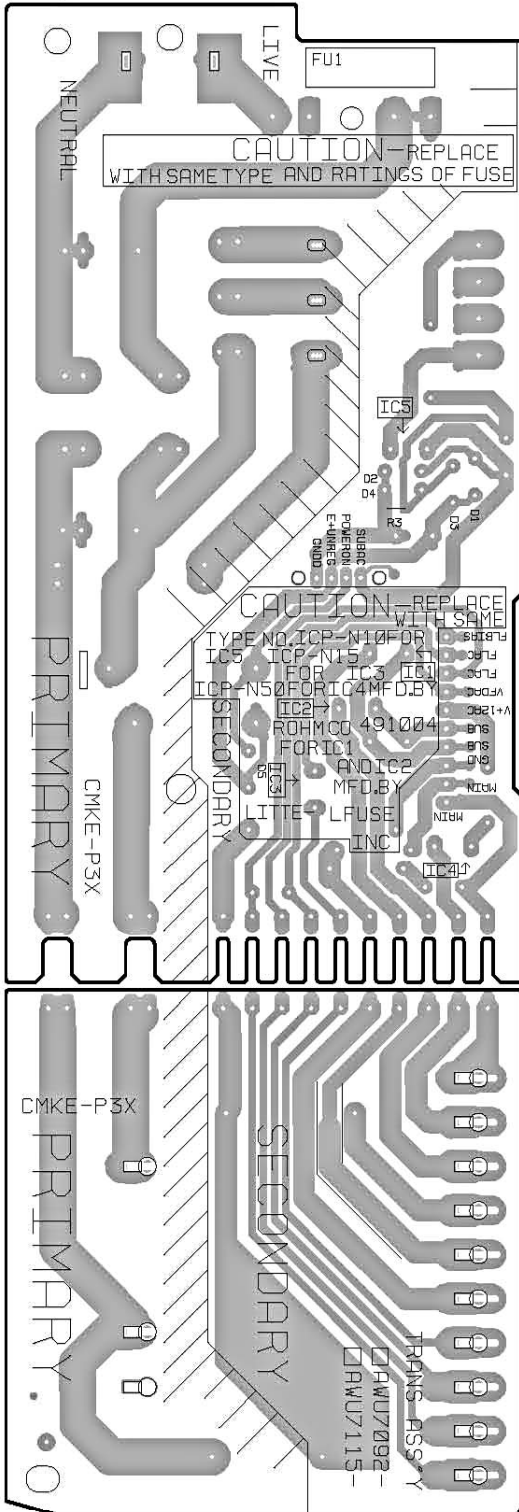
**D** CD TRANS UNIT



(ANP7246-C)

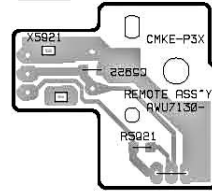
**SIDE B**

**D CD TRANS UNIT**

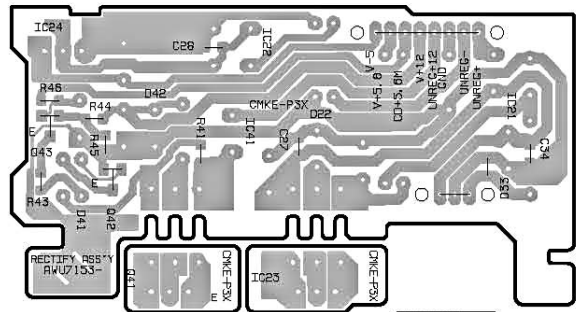


(ANP7246-C)

**C CD REM UNIT**



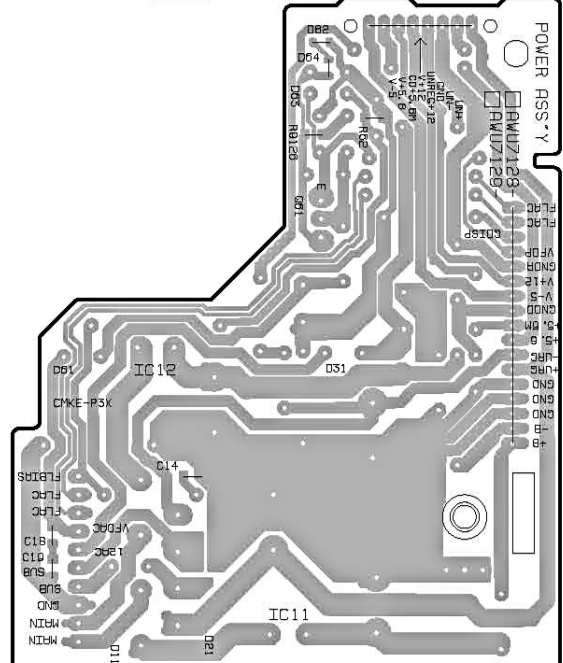
**F CD POWER UNIT**



**G CD REG UNIT**



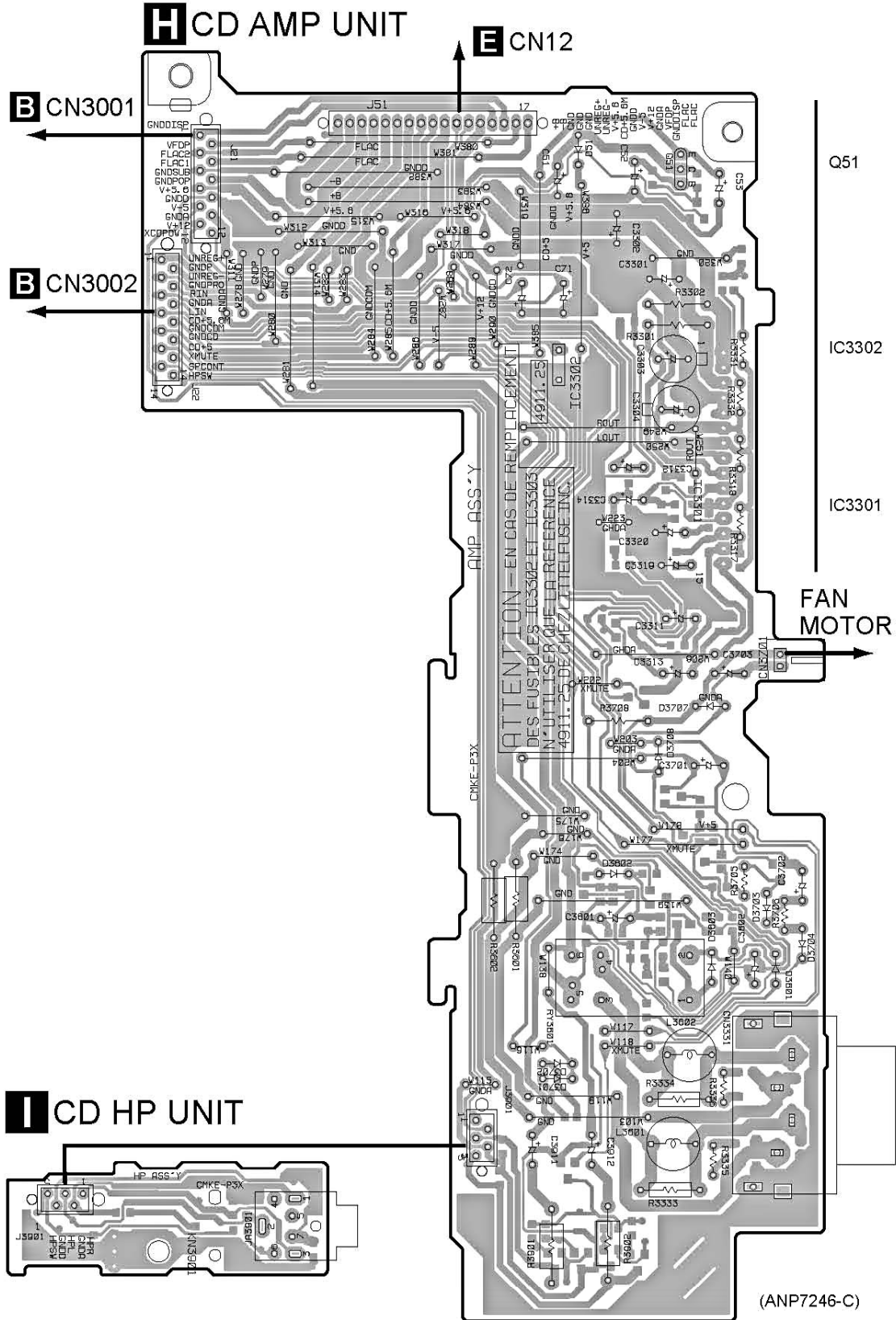
**E CD RECTIFY UNIT**





4.4 CD AMP AND CD HP UNITS

**SIDE A**



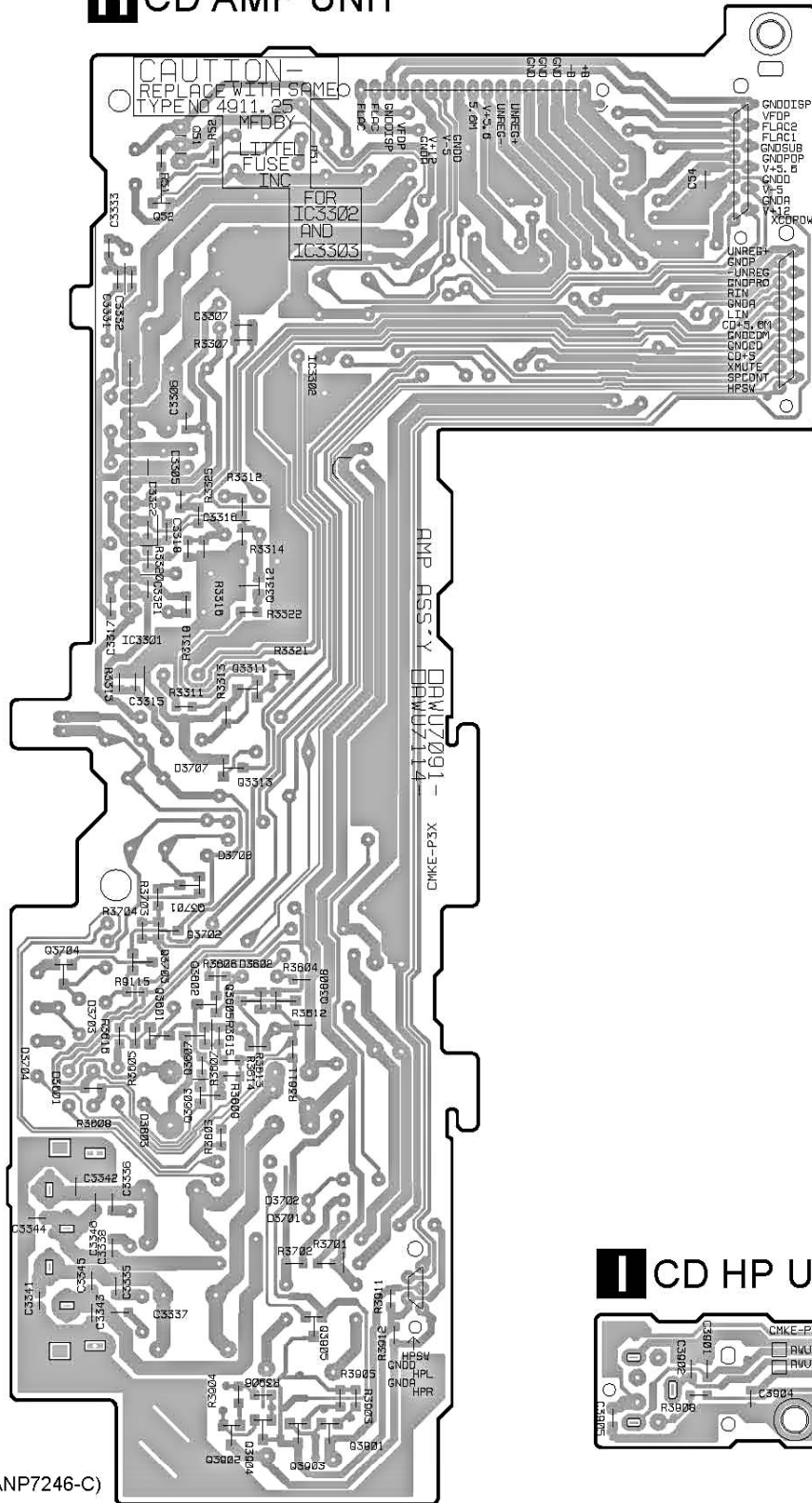


SIDE B

# CD AMP UNIT

- Q52
- Q3312
- Q3311
- Q3313
- Q3701
- Q3702
- Q3703
- Q3704
- Q3602
- Q3605
- Q3606
- Q3601
- Q3607
- Q3603
- Q3905
- Q3901
- Q3902
- Q3903
- Q3904

(ANP7246-C)



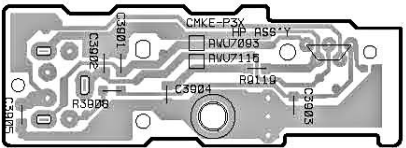
CAUTION -  
 REPLACE WITH SAME  
 TYPE NO 4911.25  
 MFDBY  
 LITTEL  
 FUSE  
 INC

FOR  
 IC3302  
 AND  
 IC3303

AMP ASSY  
 DW7091 -  
 DW7114

XC-L5  
 CMKE-P3X

# CD HP UNIT

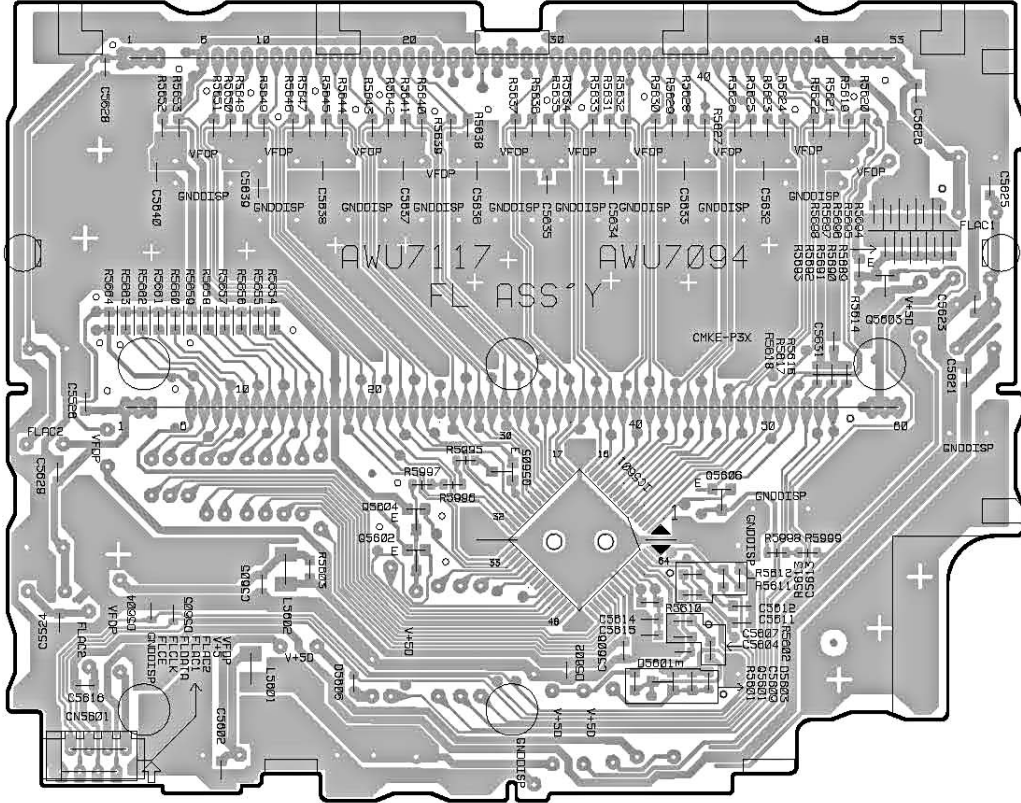






**SIDE B**

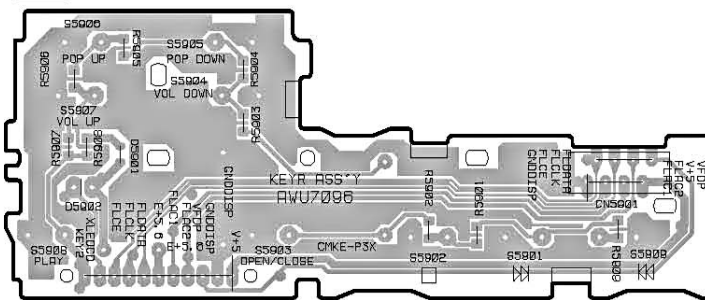
**L** CD FL UNIT



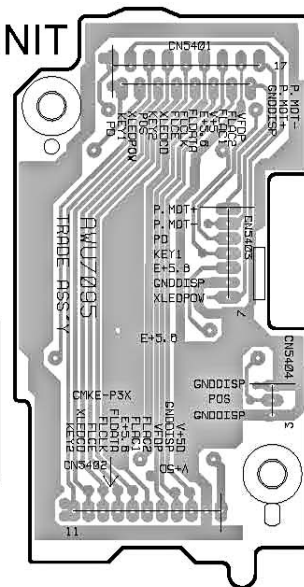
- Q5603
- Q5605
- Q5606
- Q5604
- Q5602
- IC5601
- Q5601

**J** CD TRADE UNIT

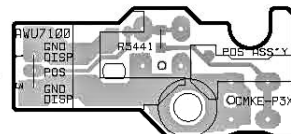
**K** CD KEYS UNIT



(ANP7247-B)



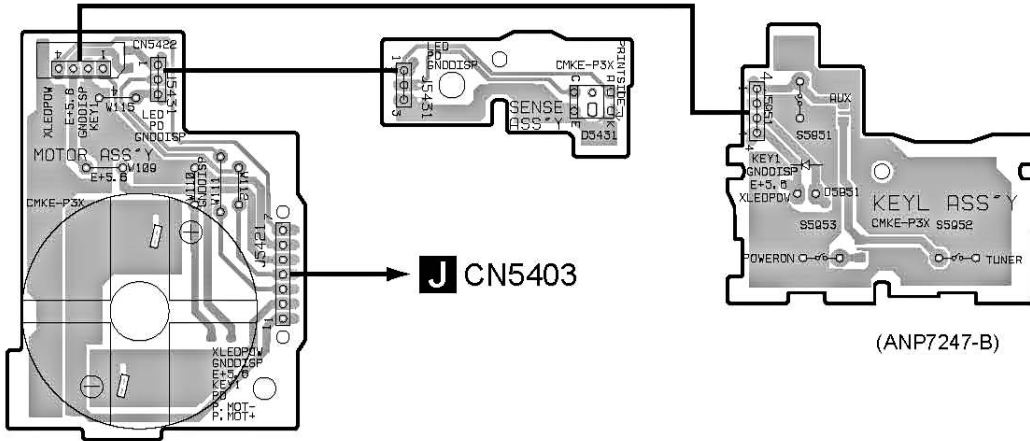
**M** CD POSIT UNIT



4.6 CD MOTOR, CD KEYL AND CD SENSE UNITS

**SIDE A**

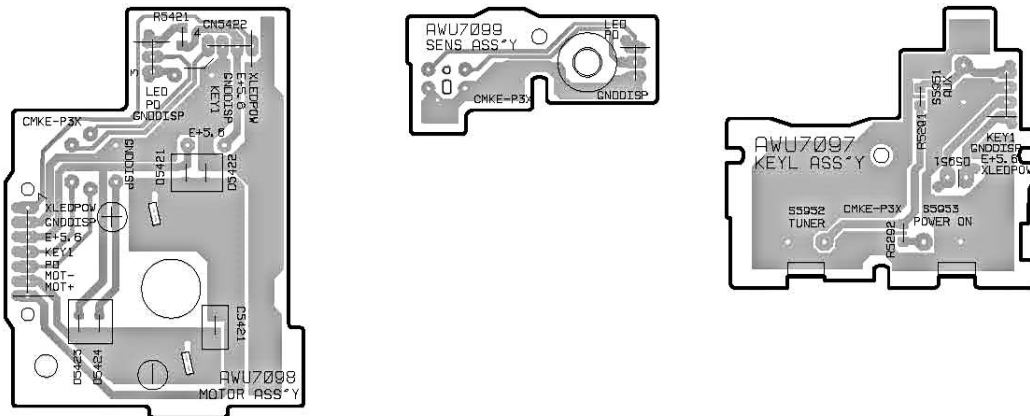
**N** CD MOTOR UNIT   **P** CD SENSE UNIT   **O** CD KEYL UNIT



(ANP7247-B)

**SIDE B**

**N** CD MOTOR UNIT   **P** CD SENSE UNIT   **O** CD KEYL UNIT



(ANP7247-B)

## 5. PCB PARTS LIST

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

● The  $\Delta$  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  $\Omega$  → 56 × 10<sup>1</sup> → 561 ..... RD1/4PU 5 6 1 J  
 47k  $\Omega$  → 47 × 10<sup>3</sup> → 473 ..... RD1/4PU 4 7 3 J  
 0.5  $\Omega$  → R50 ..... RN2H R 5 0 K  
 1  $\Omega$  → 1R0 ..... RS1P 1 R 0 K

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

5.62k  $\Omega$  → 562 × 10<sup>1</sup> → 5621 ..... RN1/4PC 5 6 2 1 F

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

### LIST OF ASSEMBLIES

		FM/AM TUNER MODULE	AXQ7077				
NSP		CDCOMP ASSY	AWM7376				
		├ CD MAIN UNIT	AWU7090				
		├ CD REM UNIT	AWU7130				
		├ CD TRANS UNIT	AWU7092				
		├ CD RECTIFY UNIT	AWU7128				
		├ CD POWER UNIT	AWU7153				
		├ CD REG UNIT	AWU7121				
		├ CD AMP UNIT	AWU7091				
		├ CD HP UNIT	AWU7093				
NSP		DISPLAY ASSY	AWM7377				
		├ CD TRADE UNIT	AWU7095				
		├ CD KEYS UNIT	AWU7096				
		├ CD FL UNIT	AWU7094				
		├ CD POSIT UNIT	AWU7100				
		├ CD MOTOR UNIT	AWU7098				
		├ CD KEYL UNIT	AWU7097				
		├ CD SENSE UNIT	AWU7099				

		L6104	ATC1019
		F6203	ATF-119
		F6206	ATF7008
		F6601	ATF7009
		F6204	ATF7010
		F6202	ATF7011
		L6107	ATH1043
		L6603	LAU220J
		L6206, L6208, L6605	LAU2R2J

### TRANSFORMERS

		T6201	ATB7008
		T6101	ATE7002

### CAPACITORS

		C6113, C6212, C6274, C6275, C6611	CCSQCH101J50
		C6116, C6208, C6221	CCSQCH150J50
		C6222	CCSQCH180J50
		C6271	CCSQCH200J50
		C6117	CCSQCH330J50
		C6608	CCSQCH680J50
		C6118	CCSQCH8R0D50
		C6111, C6122	CCSQCK1R0C50
		C6112, C6127	CCSQCK2R0C50
		C6105	CCSQSL471J50

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

		C6234, C6235	CEAL1R0M50
		C6245	CEAL470M16
		C6224	CEAT100M50
		C6243	CEAT101M16
		C6231	CEAT1R0M50

		C6227	CEAT220M50
		C6236	CEAT2R2M50
		C6216	CEAT330M16
		C6262	CEAT3R3M50
		C6219	CEAT470M10

		C6244	CEAT470M16
		C6249, C6250, C6265, C6266	CEAT4R7M50
		C6258	CEJA470M16
		C6215	CFTLA103J50
		C6214	CFTLA224J50

## **A** FM/AM TUNER MODULE

### SEMICONDUCTORS

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

### COILS AND FILTERS

L6106	ATC1003
L6105	ATC1015
L6101	ATC1016
L6102	ATC1017
L6103	ATC1018



## XC-L5

Mark	No.	Description	Part No.
	C6115, C6125, C6126, C6211, C6254 C6601		CKSQYB102K50 CKSQYB102K50
	C6102, C6114, C6121, C6123, C6124 C6210, C6213, C6237, C6267, C6276 C6279, C6281, C6604		CKSQYB103K50 CKSQYB103K50 CKSQYB103K50
	C6251, C6252 C6606, C6607 C6203, C6259 C6228 C6209		CKSQYB123K50 CKSQYB182K50 CKSQYB223K50 CKSQYB472K50 CKSQYB473K50
	C6230 C6218, C6223, C6255 C6220, C6226, C6242, C6256 C6225 C6610		CKSQYB821K50 CKSQYF103Z50 CKSQYF223Z50 CKSQYF473Z50 CKSYB103K50

### RESISTORS

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

### OTHERS

BN6202	2P TERMINAL WITH PAL	AKA7001
X6202	CRYSTAL RESONATOR (456 KHz)	ASS1066
X6201	CRYSTAL RESONATOR (7.2000 MHz)	ASS1093
CN6201	14P SOCKET AM RF TUNING BLOCK	KP200IA14L AXX7042

## **B** CD MAIN UNIT

### SEMICONDUCTORS

$\Delta$ IC5221, IC5222	PROTECTOR(1A)	AEK7009
IC5701 IC3101 IC3121 IC1101		BU1923F BU4052BCF BU4066BCF CXA1821M
IC1201 IC1301 IC3001 IC3111, IC3131 IC5251		CXD2587Q M56758FP M62420FP NJM4558MD NJM78M56FA
IC5501 Q5223, Q5226, Q5331 Q3051, Q3061, Q5224, Q5225, Q5591 Q1101 Q5222		PDG224A 2PB709A 2PD601A 2SA854S 2SB1237X
Q5251 Q5221, Q5315, Q5316 Q1401, Q1402 Q5311, Q5312 Q1201, Q1403, Q1404, Q3121, Q5301		2SC2458 2SD1858X 2SD2114K 2SD2395 DTA124EK
Q5313, Q5314 Q5252 Q3122, Q5332 Q5592 D1101, D3150, D3151, D5101		DTA124EK DTA143EK DTC124EK DTC143EK 1SS254

Mark	No.	Description	Part No.
	D5252-D5256, D5553, D5591, D5592 D1331, D5552 D3051 D5311 D5312		1SS254 1SS355 MTZJ10B MTZJ3.9B MTZJ4.7B
	D6904, D6906 D5551 D1332 D6901-D6903, D6905		MTZJ8.2B S5688G UDZ4.7B UDZS8.2B

### COILS AND FILTERS

L1101, L1102, L1201, L1231, L1232 L1301, L1401, L1601, L1651 L5551 L5201-L5203	LAU100J LAU100J LAU220J VTL1096
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### CAPACITORS

C5594 C3091-C3094, C5593 C1231, C1261 C1201, C1202 C1401, C1402	ACH1246 CCSQCH101J50 CCSQCH102J50 CCSQCH150J50 CCSQCH151J50
C1102, C1601 C1239, C1246, C1247, C5502, C5503 C5701, C5702 C5704 C3007, C3008, C3115, C3116	CCSQCH220J50 CCSQCH221J50 CCSQCH270J50 CCSQCH271J50 CCSQCH470J50
C5705 C1403, C1404 C1203, C1233, C1240, C1602, C5102 C1238 C1324, C3017, C3018, C3051	CCSQSL561J50 CCSQSL681J50 CEAL101M6R3 CEALR47M50 CEAT100M50
C3111, C3112, C5252, C5703 C1101, C1108, C1321, C1651, C3004 C5105 C5313 C3061, C5251	CEAT100M50 CEAT101M10 CEAT101M16 CEAT102M6R3 CEAT1R0M50
C1103, C1105 C3131, C3132, C5707 C3062 C1405, C1406, C5595 C3001	CEAT330M25 CEAT470M16 CEAT470M50 CEJA100M16 CEJA100M50
C1242, C1249, C5553 C1411 C5505, C5515 C5201-C5203, C5207-C5210, C5501 C5513	CEJA101M6R3 CEJA220M35 CEJA221M6R3 CKSQYB102K50 CKSQYB102K50
C1204, C1205, C1237, C1415, C1416 C3002, C3005, C3009 C5314 C1236, C5512 C5516	CKSQYB103K50 CKSQYB103K50 CKSQYB104K25 CKSQYB152K50 CKSQYB182K50
C1248 C3011, C3012 C1319, C1320, C3015, C3016 C1235 C3013, C3014	CKSQYB222K50 CKSQYB223K50 CKSQYB333K50 CKSQYB473K50 CKSQYB474K16
C1303, C1304, C1307, C1308 C1311 C1106, C1107, C1109, C1232, C1234 C1241, C1250, C1251, C1253, C1276 C1322, C1323, C1325, C1413, C1414	CKSQYB821K50 CKSQYB822K50 CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50



Mark	No.	Description	Part No.
	C1417, C1603, C1604, C1652, C1653 C3003, C3095, C3113, C3114 C3133, C3134, C5101, C5504 C5506, C5507, C5509, C5510, C5552 C5596, C5597, C5708, C5713	CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50	
	C6902, C6903, C9102 C1113 C1245, C1654, C3006, C5511, C5551 C5556, C6901, C9101	CKSQYF103Z50 CKSQYF104Z25 CKSQYF104Z50 CKSQYF104Z50	

**RESISTORS**

R5103	RD1/4PU100J
R5311	RD1/4PU111J
R5312	RD1/4PU150J
R5585	RD1/4PU221J
R5315	RD1/4PU271J
R5316	RD1/4PU391J
R1331	RD1/4PU471J
R5317	RFA1/4PS4R7J
Other Resistors	RS1/10S□□□J

**OTHERS**

CN1101	CONNECTOR(16P)	52030-1610
CN5251	4P JUMPER CONNECTOR	52147-0410
CN5301	FFC CONNECTOR 17P	52492-1720
JA3091	2P PIN JACK	AKB7046
5001	SOCKET(19P)	AKP7001
X5701	CRYSTAL RESONATOR (4.332 MHz)	ASS7004
X5501	CERAMIC RESONATOR (16 MHz)	ASS7020
CN1302	CONNECTOR KR(5P)	B5B-PH-K-S
CN1301	CONNECTOR KR(6P)	B6B-PH-K-S
J5921	JUMPER WIRE(3P)	D20PWY0330E
JA1651	OPTICAL LINK OUT	GP1F32T
CN5101	14P PLUG	KM200IA14
CN3001	CONNECTOR(12P)	KPE12
△ CN3002	CONNECTOR(14P)	KPE14
X1201	CRYSTAL RESONATOR (16.9344 MHz)	PSS1008
KN1001,KN1002	EARTH METAL FITTING	VNF1084

**C CD REM UNIT**

**CAPACITORS**

C5921	CEAT101M10
C5922	CKSQYF103Z50

**OTHERS**

CN5921	3P JUMPER CONNECTOR	52147-0310
5921	REMOTE RECEIVER UNIT	GP1U28Y

**D CD TRANS UNIT**

**SEMICONDUCTORS**

△ IC1, IC2	PROTECTOR(4A)	AEK7018
△ IC3	IC PROTECTOR	ICP-N15
△ IC4	IC PROTECTOR	ICP-N50
D5		1SS254
△ D1-D4		S5688G

**COILS AND FILTERS**

△ L1	FILTER	ATF-151
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Mark	No.	Description	Part No.
------	-----	-------------	----------

**TRANSFORMERS**

△ T2	STANDBY TRANSFORMER	ATT7027
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**SWITCHES AND RELAYS**

△ RY1		ASR7019
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**CAPACITORS**

△ C1, C2	(0.01/AC250V)	ACG7010
C5		CEAT102M16
C4, C6		CQMA103J50
C3		CQMA103K2E
C17		CQMA103J50

**RESISTORS**

△ R2	Other Resistors	RFA1/4PS100J
		RS1/10S□□□J

**OTHERS**

1	CABLE HOLDER	51048-0400
H1, H2	FUSE CLIP	AKR1003
△ AN1	AC INLET 1P	BKP1046
J1	JUMPER WIRE	D20PDY0415E
△ CN2	10P SOCKET	KP250NA10

**E CD RECTIFY UNIT**

**SEMICONDUCTORS**

△ IC11, IC12	PROTECTOR(7A)	AEK7021
△ Q61		2SB1566
△ D21		D2SBA20(B)
△ D11		D3SBA20(B)
△ D63		MTZJ6.2B
△ D31, D61		S5688G
△ D62, D64		UDZ15B

**CAPACITORS**

△ C21	(6800μF/16V)	ACH7103
△ C16	(2200μF/35V)	ACH7106
C62-C64		CEAT100M50
C61		CEAT221M50
△ C31		CEAT222M25
△ C15		CEAT222M35
△ C22		CEAT472M16
△ C14		CKSQYF103Z50

**RESISTORS**

R61, R63		RD1/4PU822J
Other Resistors		RS1/10S□□□J

**OTHERS**

12	8P CABLE HOLDER	51048-0800
△ CN12	17PJUMPER CONNECTOR	52147-1710
J12	8P JUMPER WIRE	D20PDD0810E
△ CN11	10P PLUG	KM250NA10L
KN11	EARTH METAL FITTING	VNF1084

**F CD POWER UNIT**

**SEMICONDUCTORS**

△ IC41	PROTECTOR(750mA)	AEK7007
△ IC21	PROTECTOR(1.25A)	AEK7010
△ IC22	PROTECTOR(125mA)	AEK7020
△ IC23		BA17805T
△ IC24		NJM79M06FA

## XC-L5

Mark	No.	Description	Part No.
	Q43		2PB709A
	Q42		2PD601A
△	Q41		2SB1566
	D22, D41		1SS254
	D42		MTZJ15B
	D33		UDZS8.2B

### CAPACITORS

C25	CEAL100M50
C23	CEAL1ROM50
C26, C33	CEAT100M50
C24, C32, C41	CEAT1ROM50
C42	CEAT470M16

### RESISTORS

R42	RD1/4PU221J
Other Resistors	RS1/10S□□□J

### OTHERS

14	3P CABLE HOLDER	51048-0300
11	8P CABLE HOLDER	51048-0800
J13	JUMPER WIRE 3P	D20PDD0305G

## G CD REG UNIT

### SEMICONDUCTORS

△	IC31	NJM78M56FA
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### OTHERS

13	3P CABLE HOLDER	51048-0300
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## H CD AMP UNIT

### SEMICONDUCTORS

△	IC3301	STK407-040B
	Q3601, Q3602	2PB709A
	Q3603, Q3605, Q3606	2PD601A
△	Q51	2SD1858X
	Q3311, Q3312, Q3607, Q3702	2SD2114K

Q3901-Q3904	2SD2114K
Q3313, Q3701, Q3905	DTA124EK
Q3703	DTA124TK
Q3704, Q52	DTC124EK
D3601-D3603, D3701-D3704, D3707	1SS254

D51	1SS254
D3708	S5688G

### COILS AND FILTERS

L3601, L3602	ATH-059
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### SWITCHES AND RELAYS

△	RY3601 SP RELAY/12V	ASR7007
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### CAPACITORS

C3317, C3318	CCSQCH100D50
C3315, C3316	CCSQCH330J50
C3321, C3322	CCSQCH470J50
C72	CEAL470M16
C3602, C3911, C3912, C53	CEAT100M50

C3701, C3702	CEAT101M16
C3303, C3304	CEAT101M35
C3703	CEAT221M25
C3601	CEAT221M6R3
C3319, C3320	CEAT330M16

Mark	No.	Description	Part No.
	C51, C52, C71		CEAT470M16
	C3301, C3302		CEAT470M35
	C3313, C3314		CEAT4R7M50
	C3311, C3312		CEZA100M50
	C3307, C3341, C3342, C3345, C3346		CKSQYB102K50
	C3331-C3333		CKSQYB473K50
	C3305, C3306, C3343, C3344		CKSQYF103Z50
	C3335-C3338		CKSQYF473Z50

### RESISTORS

△	R3601, R3602 (0.1Ω/1W)	ACN7032
	R3333, R3334	RD1/4LMF101J
	R3331, R3332	RD1/4PU100J
	R3705	RD1/4PU103J
	R3706	RD1/4PU562J

R3317, R3318	RD1/4PU563J
R3335, R3336	RD1/4PU6R8J
△	R3301, R3302
R3708	RFA1/4PS101J
△	R3901, R3902
	RFA1/4PS330J
	RS1LMF331J

Other Resistors	RS1/10S□□□J
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### OTHERS

3903	CABLE HOLDER(5P)	51063-0505
21	CABLE HOLDER(12P)	51063-1205
22	CABLE HOLDER(14P)	51063-1405
3331	SPEAKER TERMINAL 4P	AKE1025
J3901	JUMPER WIRE(5P)	D15A05-250-2468

J21	JUMPER WIRE(12P)	D15A12-200-2651
J22	JUMPER WIRE(14P)	D15A14-200-2651
J51	JUMPER WIRE(17P)	D20PDY1710E

## I CD HP UNIT

### CAPACITORS

C3901-C3904	CKSQYF103Z50
C3905	CKSQYF104Z50

### RESISTORS

All Resistors	RS1/10S□□□J
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### OTHERS

3902	CABLE HOLDER(5P)	51063-0505
3901	MINI JACK	AKN7003
KN3901	EARTH METAL FITTING	VNF1084

## J CD TRADE UNIT

### OTHERS

CN5401	17P CONNECTOR	52044-1745
CN5404	3PJUMPER CONNECTOR	52151-0310
CN5403	7PJUMPER CONNECTOR	52151-0710

## K CD KEYR UNIT

### SEMICONDUCTORS

D5902	SLP3118C51H
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### SWITCHES AND RELAYS

S5905, S5906	RSG1030
S5901-S5904, S5907-S5909	RSG1031

Mark	No.	Description	Part No.
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**RESISTORS**

		All Resistors	RS1/10S□□□J
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**OTHERS**

5901	CABLE HOLDER(11P)	51048-1100
CN5901	FFC CONNECTOR 8P	52492-0820
J5901	JUMPER WIRE(11P)	D20PDY1110E



**CD FL UNIT**

**SEMICONDUCTORS**

IC5601	LC75712E
Q5602, Q5604-Q5606	2PD601A
Q5603	2SD1484K
Q5601	DTC124EK
D5603	1SS355

**COILS AND FILTERS**

L5601, L5602	LCTA220J3225
L5621, L5622	LFA1R0J

**CAPACITORS**

C5612, C5613	CCSQCH221J50
C5614	CCSQCH300J50
C5608	CEAL100M16
C5603	CEAL101M6R3
C5525, C5622, C5624, C5627	CEAL2R2M50
C5601	CEAL470M16
C5611	CKSQYB102K50
C5524, C5616, C5621	CKSQYB103K50
C5604, C5609	CKSQYF103Z50
C5526, C5602, C5605, C5606, C5623	CKSQYF104Z50
C5626, C5628	CKSQYF104Z50

**RESISTORS**

	All Resistors	RS1/10S□□□J
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**OTHERS**

CN5601	CONNECTOR 8P	52492-0820
V5602	FL TUBE	AAV7055
V5601	FL TUBE	AAV7056
	FL SPACER	AEB7125



**CD POSIT UNIT**

**SWITCHES AND RELAYS**

S5441, S5442	ASG7012
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**RESISTORS**

	All Resistors	RS1/10S□□□J
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**OTHERS**

J5441	3P JUMPER WIRE	D20PWY0305E
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**CD MOTOR UNIT**

**CAPACITORS**

C5421	CKSQYF103Z50
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**RESISTORS**

	All Resistors	RS1/10S□□□J
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**OTHERS**

5421	CABLE HOLDER(7P)	51048-0700
CN5422	4PJUMPER CONNECTOR	52151-0410
J5421	JUMPER WIRE(7P)	D20PDY0735E



**CD KEYL UNIT**

**SEMICONDUCTORS**

D5951	SLP9118C51H
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**SWITCHES AND RELAYS**

S5951-S5953	RSG1030
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**RESISTORS**

	All Resistors	RS1/10S□□□J
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**OTHERS**

J5951	JUMPER WIRE(4P)	D20PWY0410E
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**CD SENSE UNIT**

**SEMICONDUCTORS**

D5431	PHOTO INTERRUPTER	GP1S94
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**OTHERS**

J5431	3P JUMPER WIRE	D20PWW0305E
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## 6. ADJUSTMENT

### 6.1 TEST MODE

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

#### 6.1.1 HOW TO START / CANCEL TEST MODE

##### TEST MODE : ON

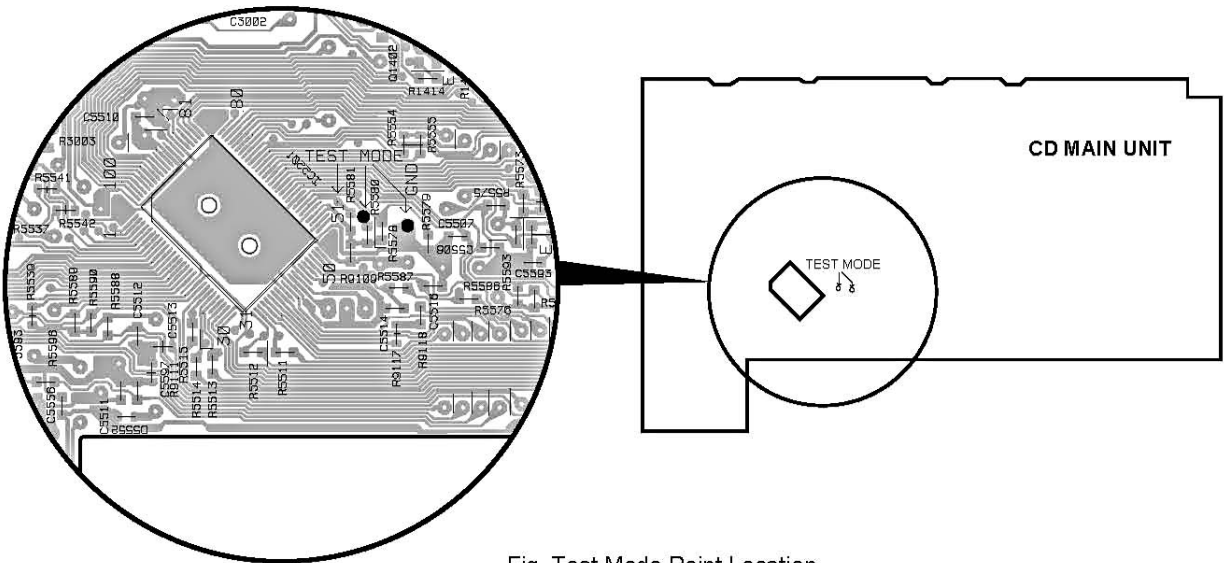
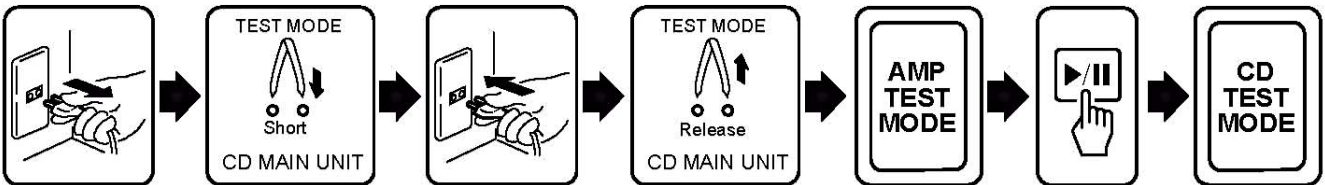
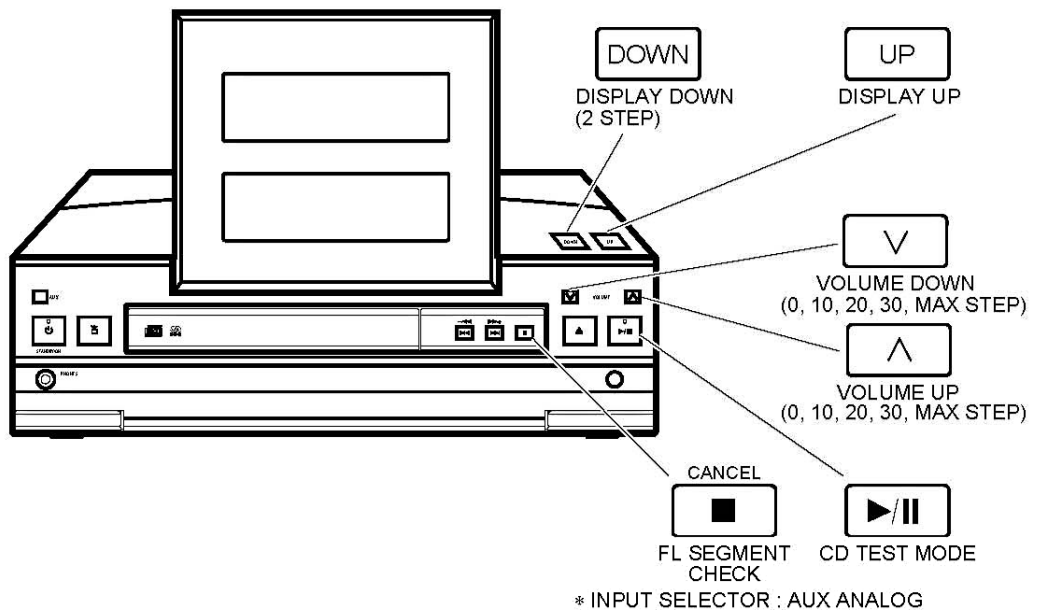


Fig. Test Mode Point Location

##### FUNCTION OF AMP TEST MODE





● **Special Function**

DISPLAY fixed mode (POPUP is fixed even if the POWER is turned ON and OFF.)

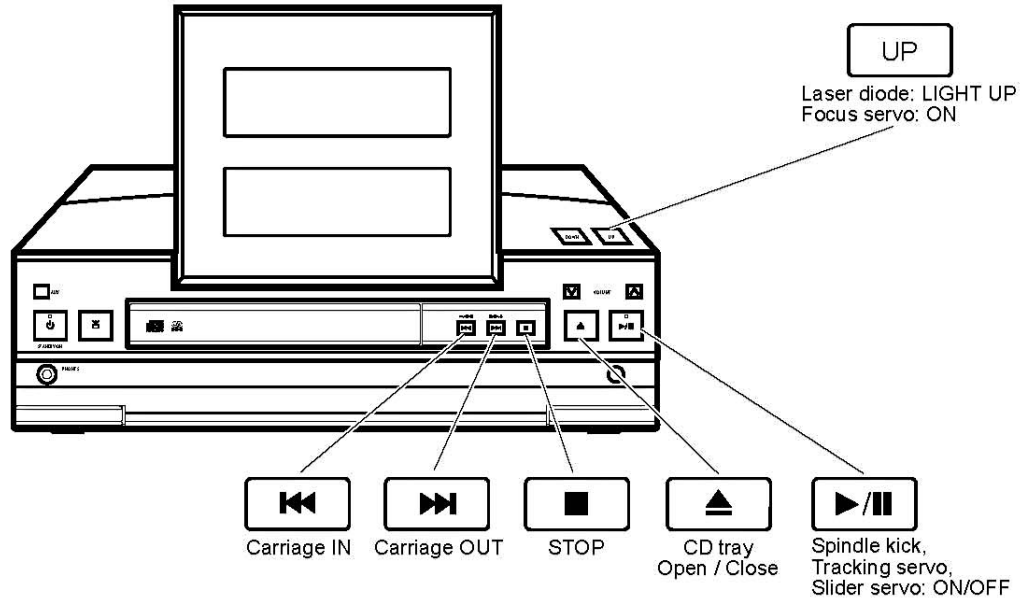
**How to Set Up**

Press POWER button (Receiver) with pressing STOP button (Receiver) in the TEST mode.

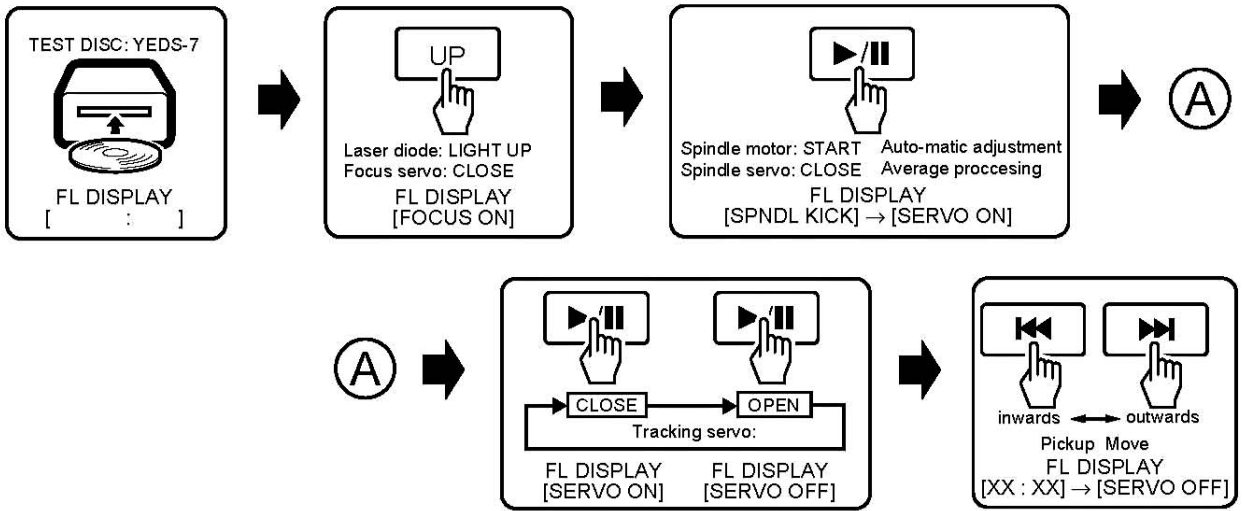
**How to Release**

Unplug the AC power cord from the outlet.

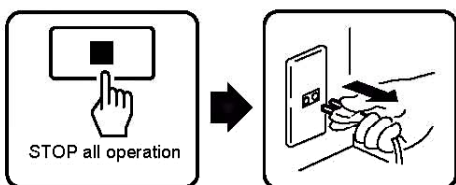
**FUNCTION OF CD TEST MODE**



**TEST MODE : PLAY**



**TEST MODE : STOP → CANCEL**



## 6.2 TUNER SECTION

### 6.2.1 FM TUNER SECTION

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

Step No.	Adjustment Title	FM SG (1kHz, ± 75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dB $\mu$ V)			
1	Front End Sensitivity	106	0-30	106MHz	L6104 L6105 L6102 T6101	Adjust so that the DC voltage between the IC6201-pin 20 and GND becomes at maximum level.
2	Stereo Distortion	98 (ON STEREO)	80	98MHz	T6101	Minimize the distortion with 1/8 rotation of the core.
3	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 L6101 and L6102 as well as between L6103 and L6104. If there is a gap between them, bring them into contact with each other first, and then make adjustments.

### 6.2.2 AM TUNER SECTION

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

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dB $\mu$ 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.

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

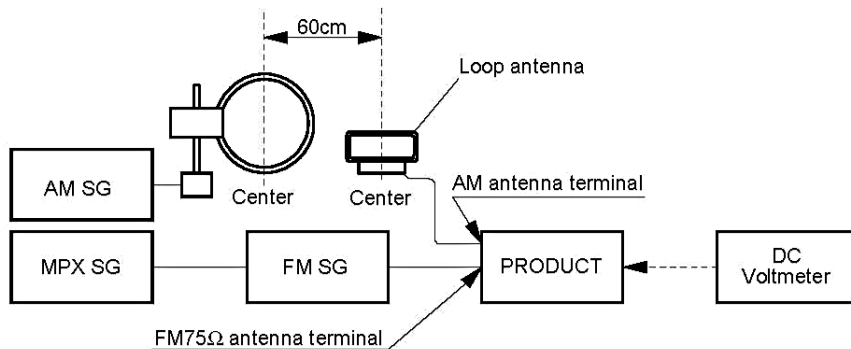


Fig. 1 AM and FM Adjustment Wiring Diagram

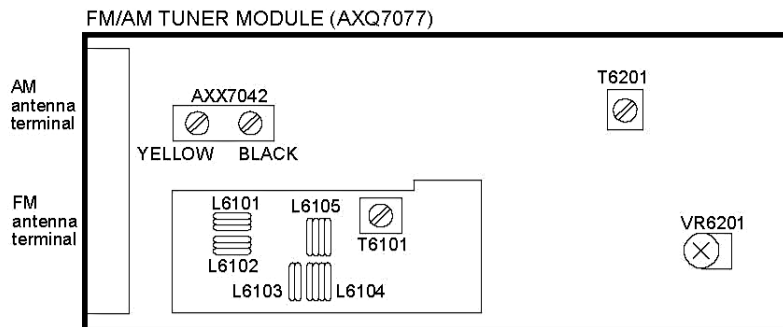


Fig. 2 Adjustment Point



## 7. GENERAL INFORMATION

### 7.1 PARTS

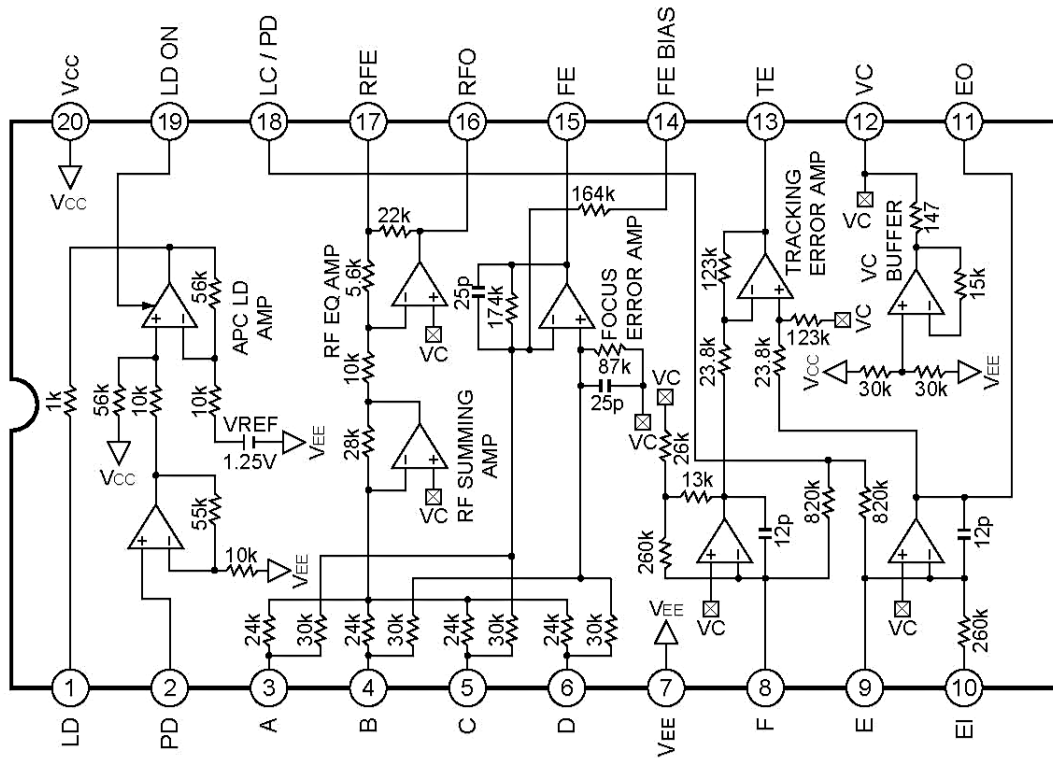
#### 7.1.1 IC

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

#### ■ CXA1821M (CD MAIN UNIT : IC1101)

- RF AMP. IC

#### ●Block Diagram



#### ●Pin Function

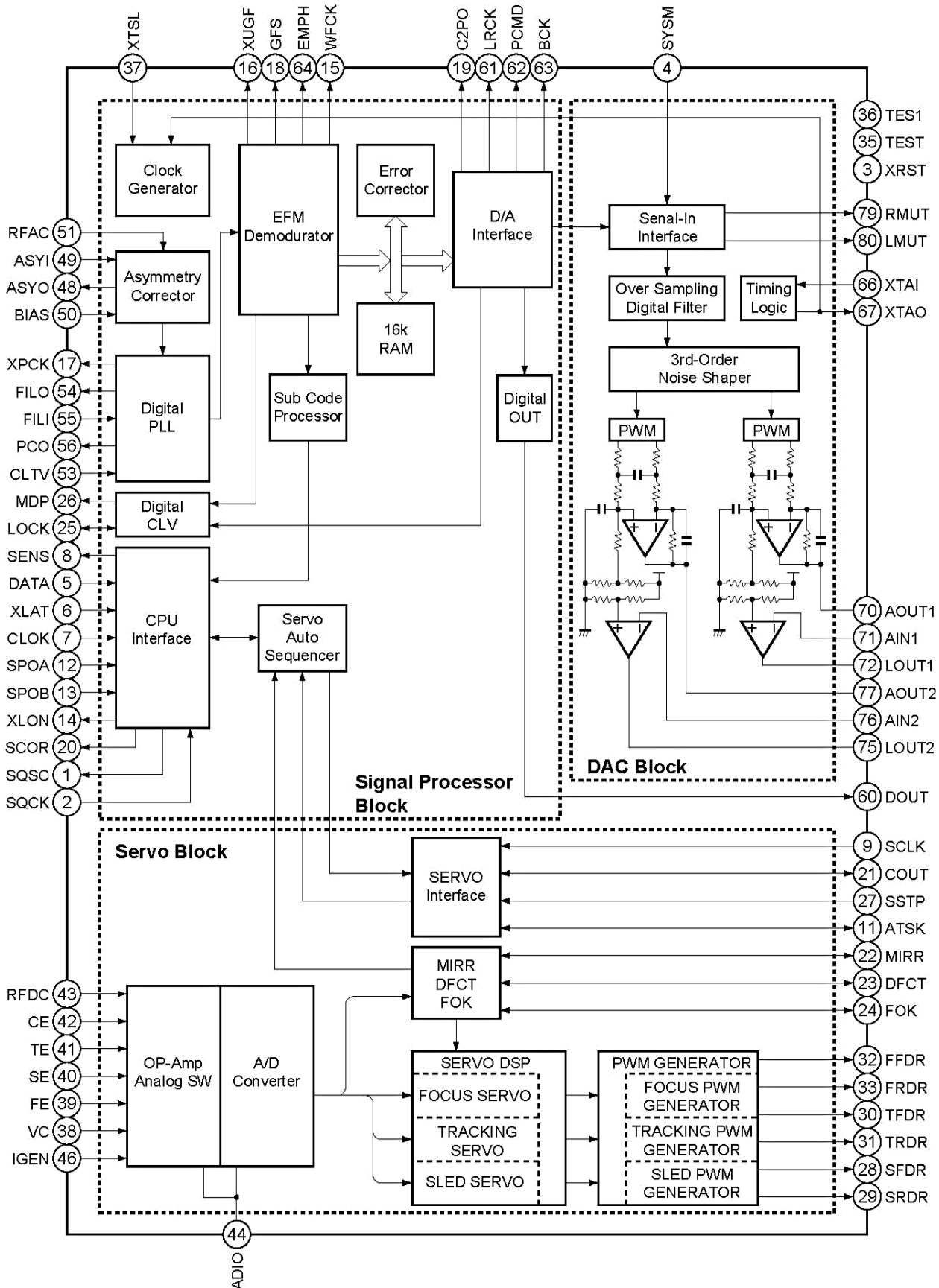
No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function
1	LD	O	APC amplifier output	11	EO	-	Gain adjust the signal which was input from pin 9.
2	PD	I	APC amplifier input	12	VC	O	DC voltage output of (VCC+VEE)/2
3	A	I	RF amplifier and FE amplifier input	13	TE	O	Tracking error amplifier output F-E signal is output.
4	B			14	FE BIAS	I	Pin for focus bias adjustment
5	C			15	FE	O	Focus error amplifier output.
6	D			16	RFO	O	RF amplifier output
7	VEE	-	Ground pin	17	RFE	-	Pin for RF amplifier equalization
8	F	I	Tracking error amplifier input.	18	LC/PD	I	Bias pin VCC : LC , OPEN : PDIC
9	E			19	LD ON	I	ON/OFF switching pin of APC amplifier VCC : ON, VEE : OFF
10	EI	-	Gain adjust the signal which was input from pin 9.	20	VCC	-	Power supply pin

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## ■ CXD2587Q (CD MAIN UNIT : IC1201)

• SERVO IC

### ●Block Diagram



## ●Pin Function

No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function
1	SQSO	O	SubQ 80-bit, PCM peak and level data output CD TEXT data output	41	TE	I	Tracking error input
2	SQCK	I	Clock input for SQSO readout	42	CE	I	Center servo analog input
3	XRST	I	System reset Reset when "L"	43	RFDC	I	RF signal input
4	YSM	I	Mute input Mute when "H"	44	ADIO	O	OP amplifier output
5	DATA	I	Serial data input from CPU	45	AVss0	-	Analog GND
6	XLAT	I	Latch input from CPU Serial data is latched at the falling edge.	46	IGEN	I	Constant current input for OP amplifier
7	CLOK	I	Serial data transfer clock input from CPU	47	AVdd0	-	Analog power supply
8	SENS	O	SENS output to CPU	48	ASYO	O	EFM full-swing output ("L"=VSS, "H"=VDD)
9	SCLK	I	Clock input for SENS serial-data readout	49	ASYI	I	Asymmetry compare voltage input
10	Vdd	-	Digital power supply	50	BIAS	I	Constant current input of the asymmetry circuit
11	ATSK	I/O	Input and output for anti-shock	51	RFAC	I	EFM signal input
12	SPOA	I	Microcomputer extended interface (input A)	52	AVss3	-	Analog GND
13	SPOB	I	Microcomputer extended interface (input B)	53	CLTV	I	VCO control voltage input for master
14	XLON	O	Microcomputer extended interface (output)	54	FILO	O	Filter output for master PLL (Slave=digital PLL)
15	WFCK	O	WFCK output	55	FILI	I	Filter input for master PLL
16	XUGF	O	XUGF output MNT1 and RFCK output by switching the command.	56	PCO	O	Charge pump output for master PLL
17	XPCK	O	XPLCK output MNT0 output by switching the command.	57	AVdd3	-	Analog power supply
18	GFS	O	GFS output MNT3 and XRAOF output by switching the command.	58	Vss	-	Digital GND
19	C2PO	O	C2PO output GTOP output by switching the command.	59	Vdd	-	Digital power supply
20	SCOR	O	Outputs "H" when either subcode sync, S0 or S1 is detected.	60	DOUT	O	DIGITAL OUT output
21	COUT	I/O	Input and output of track-number count signal	61	LRCK	O	D/A interface LR clock output f=Fs
22	MIRR	I/O	Mirror signal input and output	62	PCMD	O	D/A interface Serial data output (two's complement, MSB first)
23	DFCT	I/O	Defect signal input and output	63	BCK	O	D/A interface Bit clock output
24	FOK	I/O	Focus OK signal input and output	64	EMPH	O	Outputs "H" when the playback disc has emphasis, and "L" when there is no emphasis.
25	LOCK	I/O	GFS is sampled at 460Hz;when GFS is "H", this pin outputs "H". If GFS is "L" eight consecutive samples, this pin outputs "L". Input when LKIN="H".	65	XVdd	-	Power supply for master clock
26	MDP	O	Servo control output of spindle motor	66	XTAI	I	Crystal oscillation circuit input Input the external master clock via this pin.
27	SSTP	I	Detection signal input of disc innermost	67	XTAO	O	Crystal oscillation circuit output
28	SFDR	O	Sled drive output	68	XVss	-	GND for master clock
29	SRDR	O	Tracking drive output	69	AVdd1	-	Analog power supply
30	TFDR	O	Tracking drive output	70	AOUT1	O	L ch analog output
31	TRDR	O	Tracking drive output	71	AIN1	I	L ch OP amp. input
32	FFDR	O	Focus drive output	72	LOUT1	O	L ch LINE output
33	FRDR	O	Focus drive output	73	AVss1	-	Analog GND
34	Vss	-	Digital GND	74	AVss2	-	Analog GND
35	TEST	I	TEST pin : normally GND	75	LOUT2	O	R ch LINE output
36	TEST	I	TEST pin : normally GND	76	AIN2	I	R ch OP amp. input
37	XTSL	I	Crystal selector input "L":16.9344MHz, "H":33.8688MHz	77	AOUT2	O	R ch analog output
38	VC	I	Center voltage input	78	AVdd2	-	Analog power supply
39	FE	I	Focus error signal input	79	RMUT	O	R ch zero detection flag
40	SE	I	Sled error signal input	80	LMUT	O	L ch zero detection flag

## Notes)

- PCMD is an MSB first, two's complement output.
- GTOP is used to monitor the frame sync protection status. (High:sync protection window released)
- XUGF is the negative pulse for the frame sync derived from the EFM signal. It is the signal before sync protection.
- XPLCK is the inverse of the EFM PLL clock. The PLL is designed so that the falling edge of XPLCK and the EFM signal transition point coincide.
- GFS goes high when the frame sync and the insertion protection timing match.
- RFCK is derived with the crystal accuracy. This signal has a cycle of 136μs.
- C2PO represents the data error status.
- XRAOF is generated when the 16K RAM exceeds the ±4F jitter margin.

# XC-L5

## ■ PDG224A (CD MAIN UNIT : IC5501)

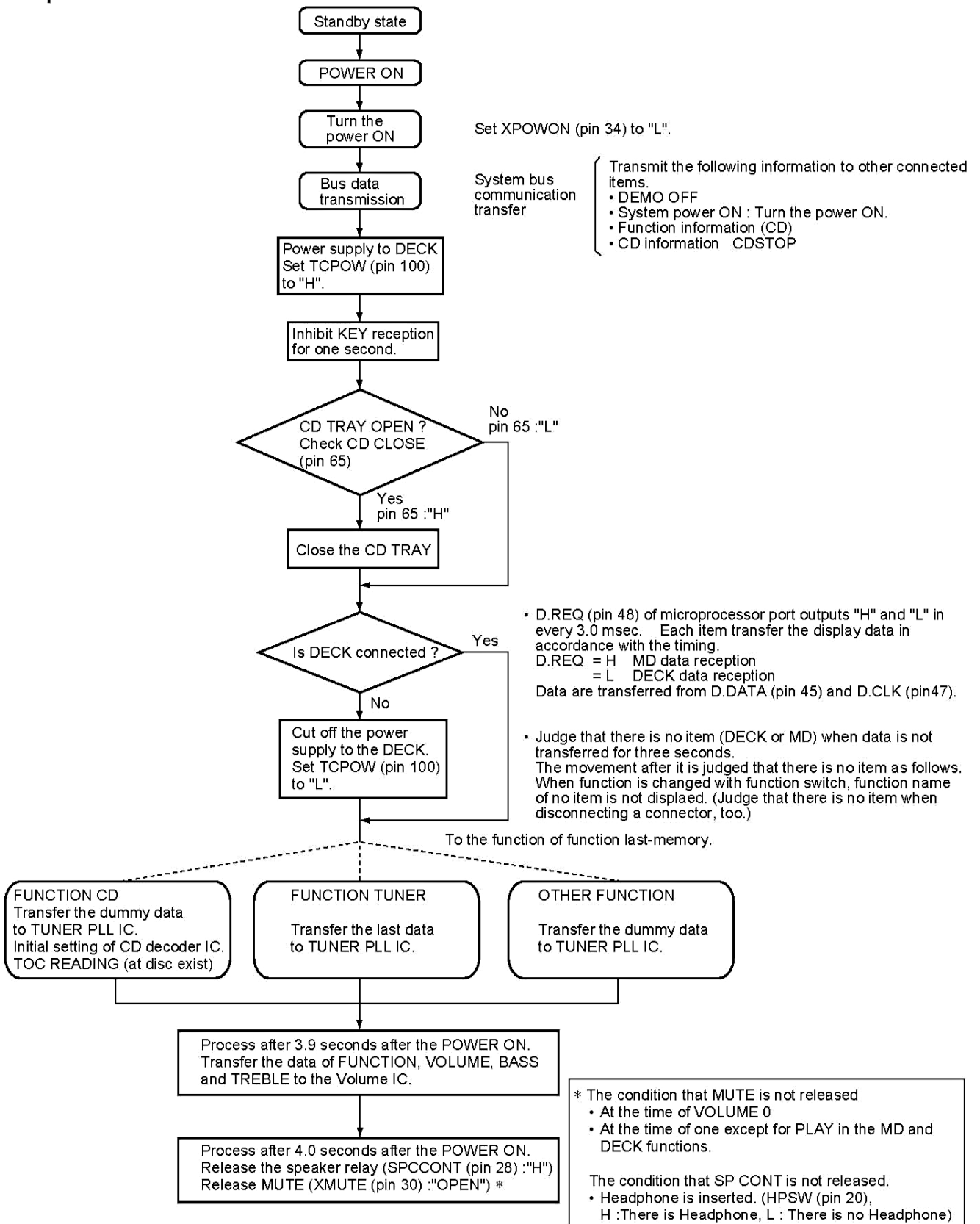
### • Mode Control IC

#### ● Pin Function

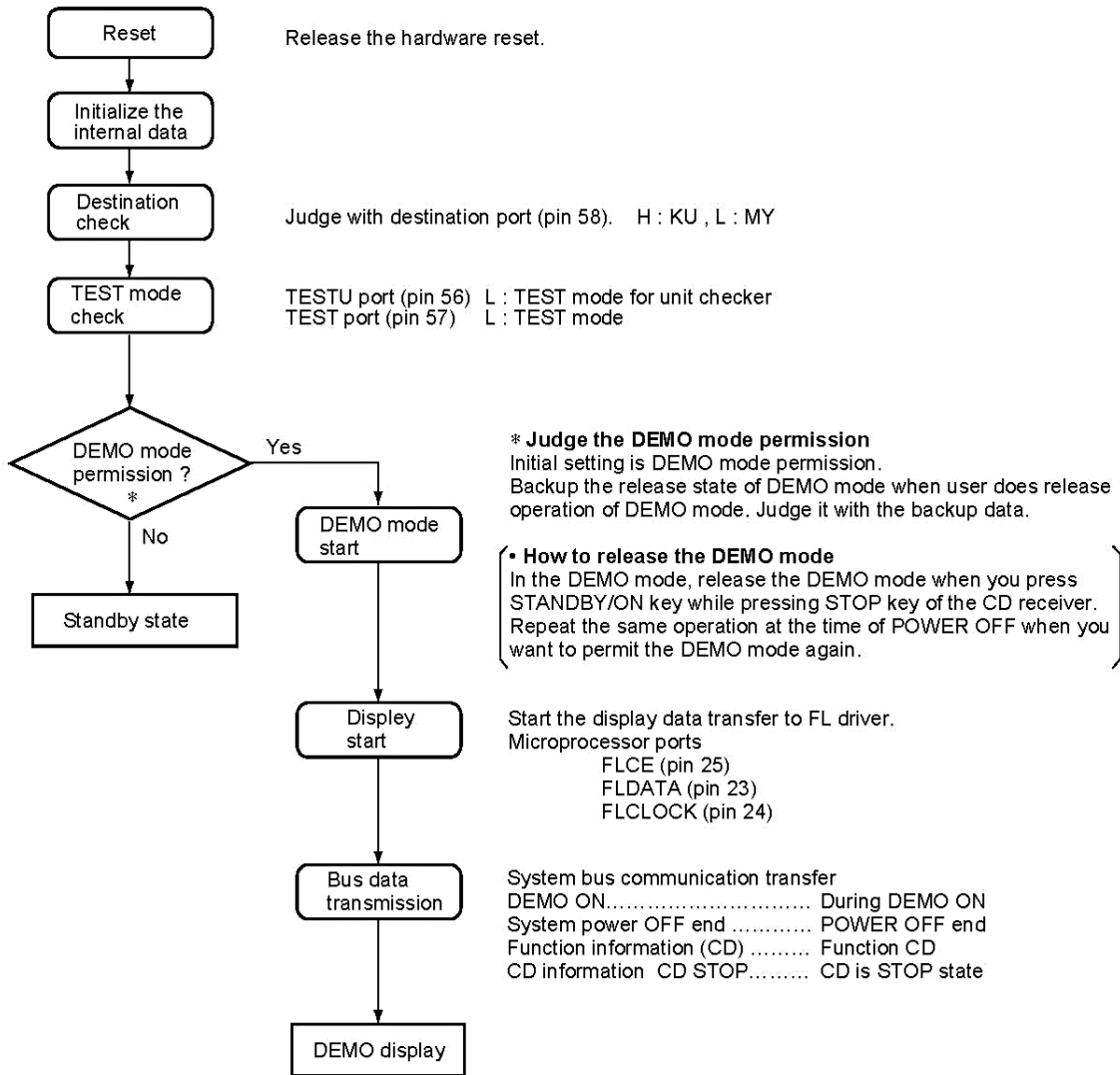
(\*) : PLL frequency synthesizer for electronic tuning

No.	Mark	Pin Name	I/O	Function	No.	Mark	Pin Name	I/O	Function
1	PB5/PP013	NC	O		51	PF4/AN8	NC	O	
2	PB4/PP012	SCL	O	Electronic VOL IC M62420FP clock	52	AVss	GNDD	O	
3	PB3/PP011	NC	O		53	AVref	AVref	-	Reference voltage for AD converter
4	PB2/PP010	NC	O		54	AVdd	Avdd	-	
5	PB1/PP09	S.CLK	O	System bus CLOCK OUT	55	PF3/AN7	GNDD	-	
6	PB0/PP08	NC	O		56	PF2/AN6	TEST(u)	I	Test mode port for unit checker
7	PC7/RT07	S.DATI	I/O	System bus DATA IN input	57	PF1/AN5	TEST	I	Port for Test mode
8	PC6/RT06	S.REQ	I/O	System bus REQE	58	PF0/AN4	Destination	I	Port for destination switch L:MY(Europe), H:KU(North America)
9	PC5/RT05	TUNE	I	Tuner TUNED_SD	59	AN3	NC	I	
10	PC4/RT04	STEREO	I	Tuner STEREO	60	AN2	POS	I	POP UP display OPEN end/CLOSE end SW
11	PC3/RT03	TXDO	I	Tuner DATA OUT LC72131 (*)	61	AN1	KEY2	I	KEY input
12	PC2/PP018	TXMUTE	O	Tuner MUTE / IF COUNT	62	AN0	KEY1	I	
13	PC1/PP017	PLLCE	O	Tuner CE LC72131 (*)	63	PG7/EX11	CD INSIDE	I	CD slider INSIDE SW
14	PC0/PP016	TXDI	O	Tuner DATA IN LC72131 (*)	64	PG6/EX10	CD OPEN	I	CD tray OPEN end SW
15	PJ7	PLLCLK	O	Tuner CLOCK LC72131 (*)	65	PG5	CD CLOSE	I	CD tray CLOSE end SW
16	PJ6	RDSDATA	I	RDS IC BU1923F DATA	66	PG4	CD FOK	I	CD FOCUS OK
17	PJ5	NC	O		67	PG3	CD GFS	I	CD GFS
18	PJ4	RDSFM	O	Power ON/OFF for RDS IC BU1923F	68	PG2	CD SENS	I	CD SENS
19	PJ3	SDA	I/O	Electronic VOL IC M62420FP data	69	PG1	CD RO	I	CD 0 detection MUTE R ch
20	PJ2	HPSW	I	Headphone switch	70	PG0	CD LO	I	CD 0 detection MUTE L ch
21	PJ1	SDATAO	I/O	System bus DATA OUT	71	PE7/DAB1	NC	O	
22	PJ0	PD	I	Angle counter pulse input of POPUP display	72	PE6/DAB0	NC	O	
23	PD7	FLDATA	O	FL driver (LC75712/10) DATA	73	PE5/DAA1	CDSCLK	O	CLOCK for reading SENS serial data of CD decoder IC (CXD2587Q)
24	PD6	FLCLK	O	FL driver (LC75712/10) CLOCK	74	PE4/DAA0	XCDLAT	O	CD decoder IC (CXD2587Q) LATCH
25	PD5	FLCE	O	FL driver (LC75712/10) CE	75	PE3/PWM1	NC	O	
26	PD4	NC	O		76	PE2/PWM0	NC	O	
27	PD3	XCDPOW	O	CD power supply ON/OFF	77	PE1/EC/INT2	RDSCLOCK	I	RDS decoder IC (BU1923F) CLOCK
28	PD2	SPCONT	O	Speaker relay ON/OFF H:ON, L:OFF	78	PE0/INT0	ACPULSE	I	AC pulse input
29	PD1	NC	O		79	PI7/SI1	CDSQSO	I	SUBQ, level data input
30	PD0	XMUTE	O	System MUTE	80	PI6/SO1	NC	O	
31	PH7	XLED CD	O	CD PLAY LED	81	PI5/SCK1	CD SQCK	I	CLOCK for reading SQSO
32	PH6	XLEDPOW	O	POWER LED	82	PI4/INT1	CD SCOR	I	Sub code sync. detection
33	PH5	POP	O	POPUP control	83	PI3/T0	CD LDON	O	CD laser diode ON/OFF
34	PH4	XPOWER ON	I	Power control	84	PI2/PWM	NC	O	
35	PH3	FUNC2A	O	PROLOGIC/SUR.OFF switch L:SUR.OFF, H:Processor output	85	PI1/RMC	REM	I	Remote control input
36	PH2	POP-	O	POPUP control	86	TEX	GNDD	I	
37	PH1	FUNC1A	O	Function switch CD TUNER AUX MD/TC L L H H L H H L	87	TX	NC	-	
38	PH0	FUNC1B	O		88	Vss	GNDD	-	
39	MP	MP	I		89	Vdd	Vdd	-	
40	RST	XRESET	-		90	NC	NC	-	
41	Vss	Vss	-		91	PA7/PP07	NC	O	
42	XTAL	XTAL	-		92	PA6/PP06	CD CLK	O	CD decoder IC (CXD2587Q) CLOCK
43	EXTAL	EXTAL	I		93	PA5/PP05	CD DATA	O	CD decoder IC (CXD2587Q) DATA
44	CS0	E+5	I		94	PA4/PP04	CDSYSM	O	CD decoder IC (CXD2587Q) MUTE H:MUTE ON
45	SI0	D.DATA	I	Display data DATA	95	PA3/PP03	CDXRST	O	CD decoder IC(CXD2587Q) RESET
46	SO0	NC	O		96	PA2/PP02	LOADIN	O	CD tray LOAD IN
47	SCKO	D.CLK	I	Display data CLOCK	97	PA1/PP01	LOADOUT	O	CD tray LOAD OUT
48	PF7/AN11	D.REQ	O	Display data CS	98	PA0/PP00	CDMUTER	O	CD analog audio MUTE R ch
49	PF6/AN10	NC	O		99	PB7/PP015	CDMUTEL	O	CD analog audio MUTE L ch
50	PF5/AN9	NC	O		100	PB7/PP014	TCPOW	O	DECK power control H:Power ON

• Sequence after the POWER ON



• Rise-up sequence after AC supplied to CD receiver microprocessor



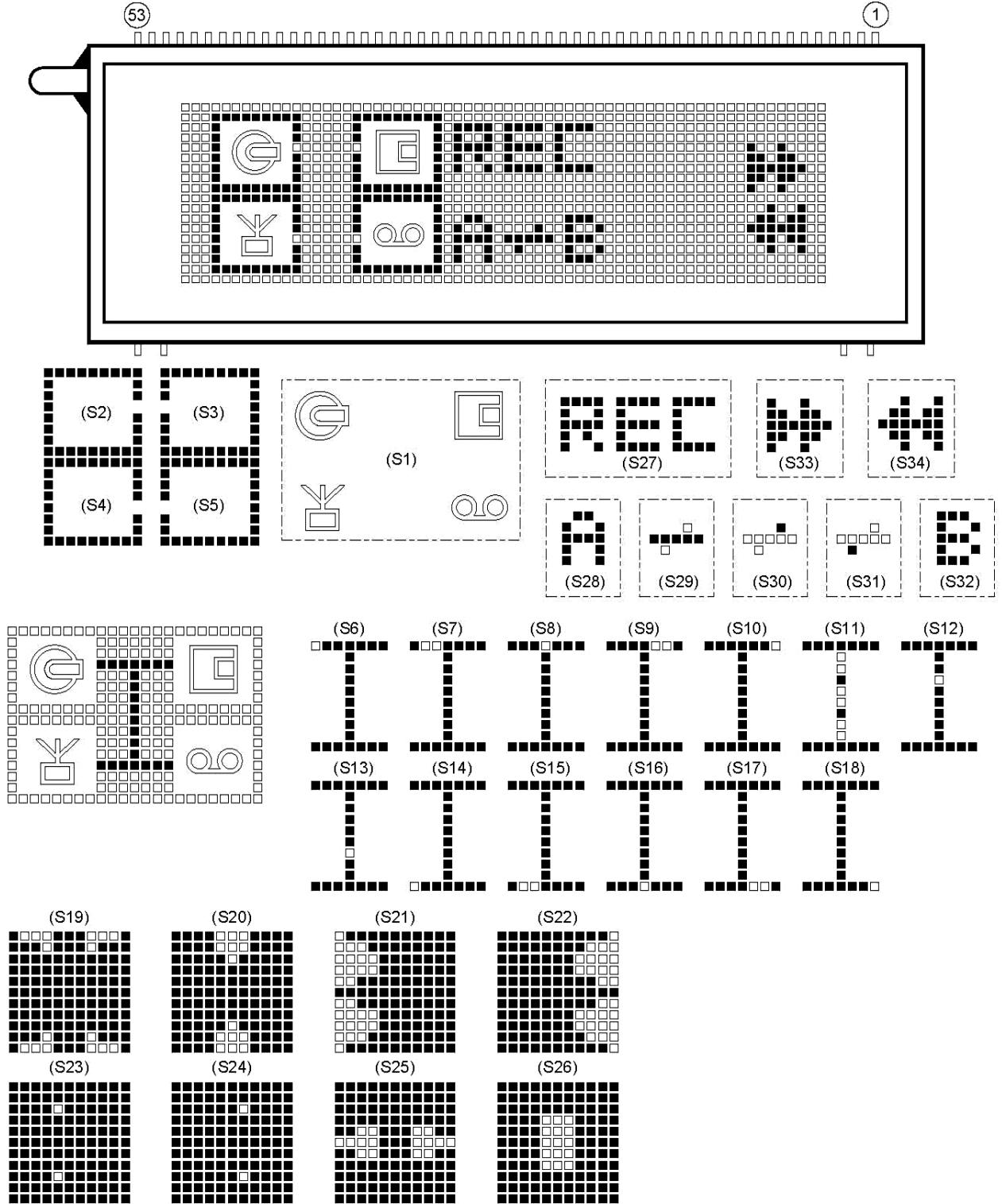


7.1.2 DISPLAY

■ AAV7056 (CD FL UNIT : V5601)

• Upper FL

● Segment Designation



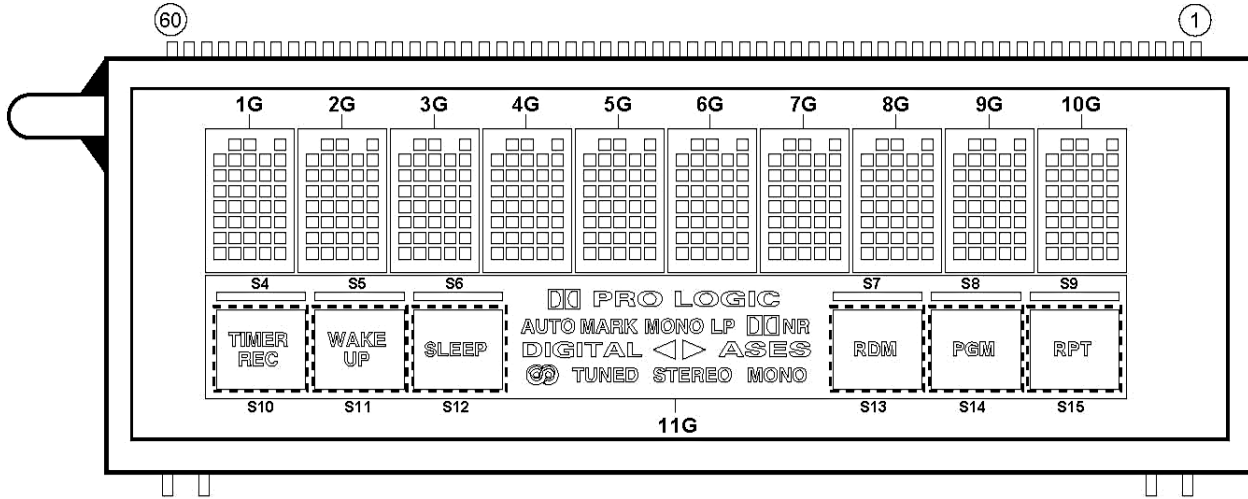
● Pin Connection

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Connection	F1	F1	F1	NP	NP	S35	S34	S33	S32	S31	S30	S29	S28	S27	S26	S25	S24	S23	S22	S21	S20	NC	NC	NC	NC	NC	NC
Pin No.	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	
Connection	NC	S19	S18	S17	S16	S15	S14	S13	S12	S11	S10	S9	S8	S7	S6	S5	S4	S3	S2	S1	G	NP	NP	F2	F2	F2	

# XC-L5

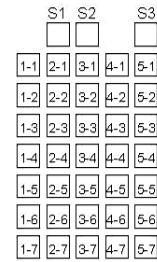
## ■ AAV7055 (CD FL UNIT : V5602)

• Lower FL



### ● Anode Connection

	1G - 10G	11G		1G - 10G	11G
P1	S1	-	P20	2-4	ASES
P2	S2	-	P21	3-4	☉
P3	S3	-	P22	4-4	TUNED
P4	1-1	S4	P23	5-4	STEREO
P5	2-1	S5	P24	1-5	MONO
P6	3-1	S6	P25	2-5	S13
P7	4-1	DC PRO LOGIC	P26	3-5	S14
P8	5-1	S7	P27	4-5	S15
P9	1-2	S8	P28	5-5	-
P10	2-2	S9	P29	1-6	-
P11	3-2	S10	P30	2-6	-
P12	4-2	S11	P31	3-6	-
P13	5-2	S12	P32	4-6	-
P14	1-3	AUTO MARK	P33	5-6	-
P15	2-3	MONO LP	P34	1-7	-
P16	3-3	DQNR	P35	2-7	-
P17	4-3	DIGITAL	P36	3-7	-
P18	5-3	<	P37	4-7	-
P19	1-4	>	P38	5-7	-

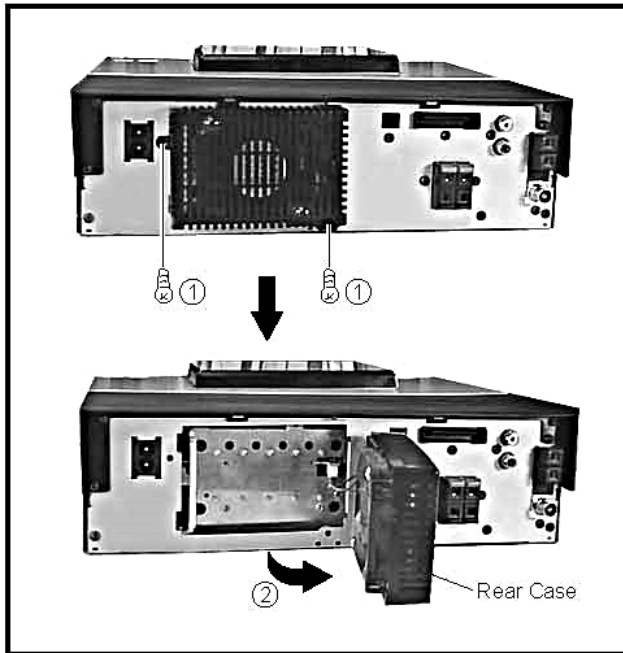


### ● Pin Connection

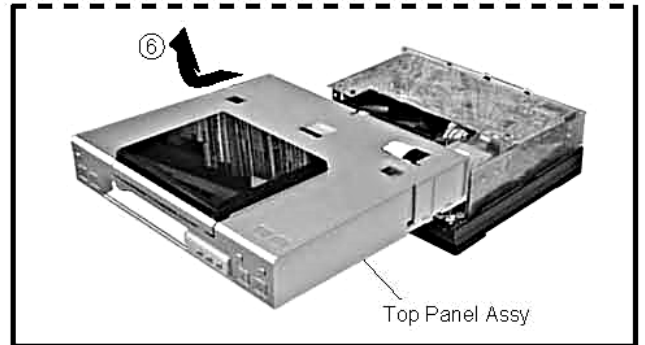
Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Connection	F1	F1	F1	NP	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	P38	P37	P36	P35	P34	P33	P32	P31	NC	P30	P29	P28	P27	P26	
Pin No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Connection	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NP	NP	F2	F2	F2

## 7.2 DISASSEMBLY

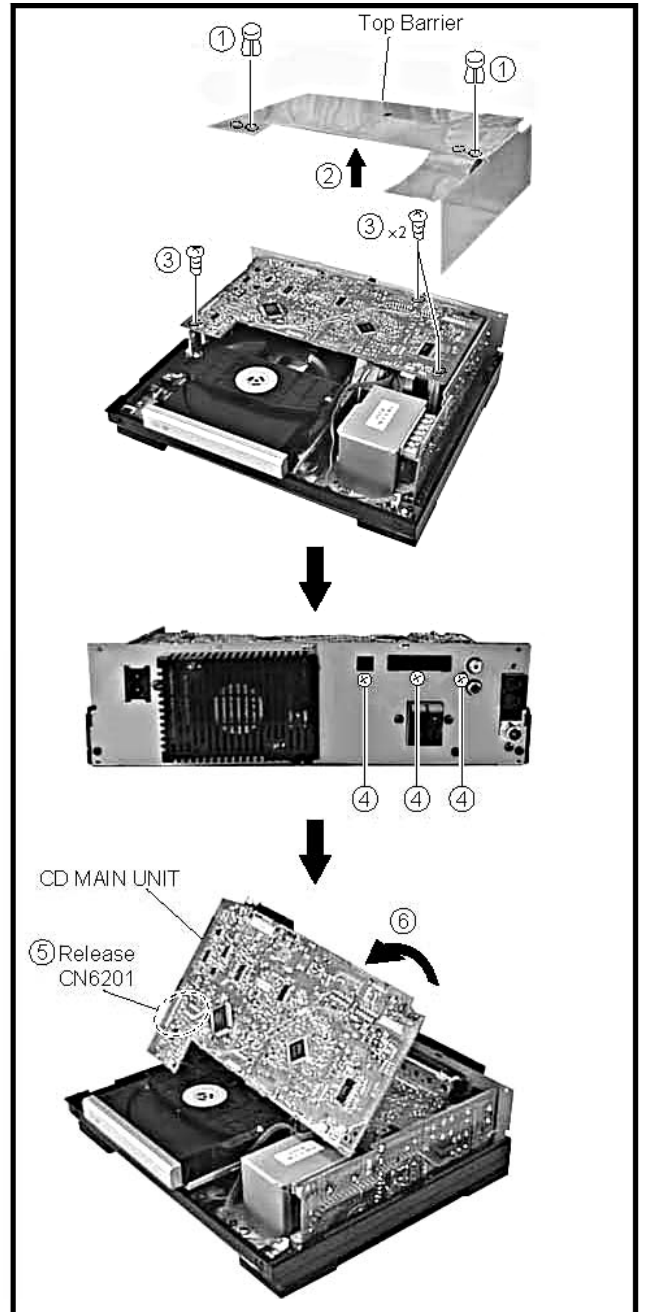
### (1) Rear Case



### (2) Bonnet and Top Panel Assy

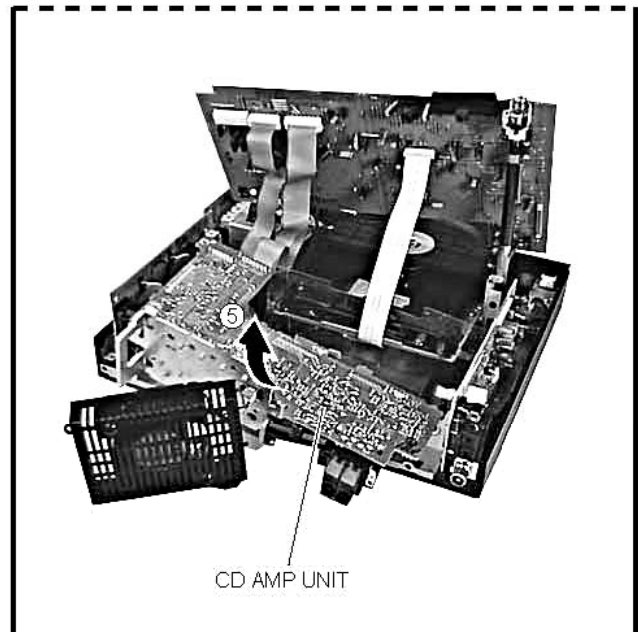
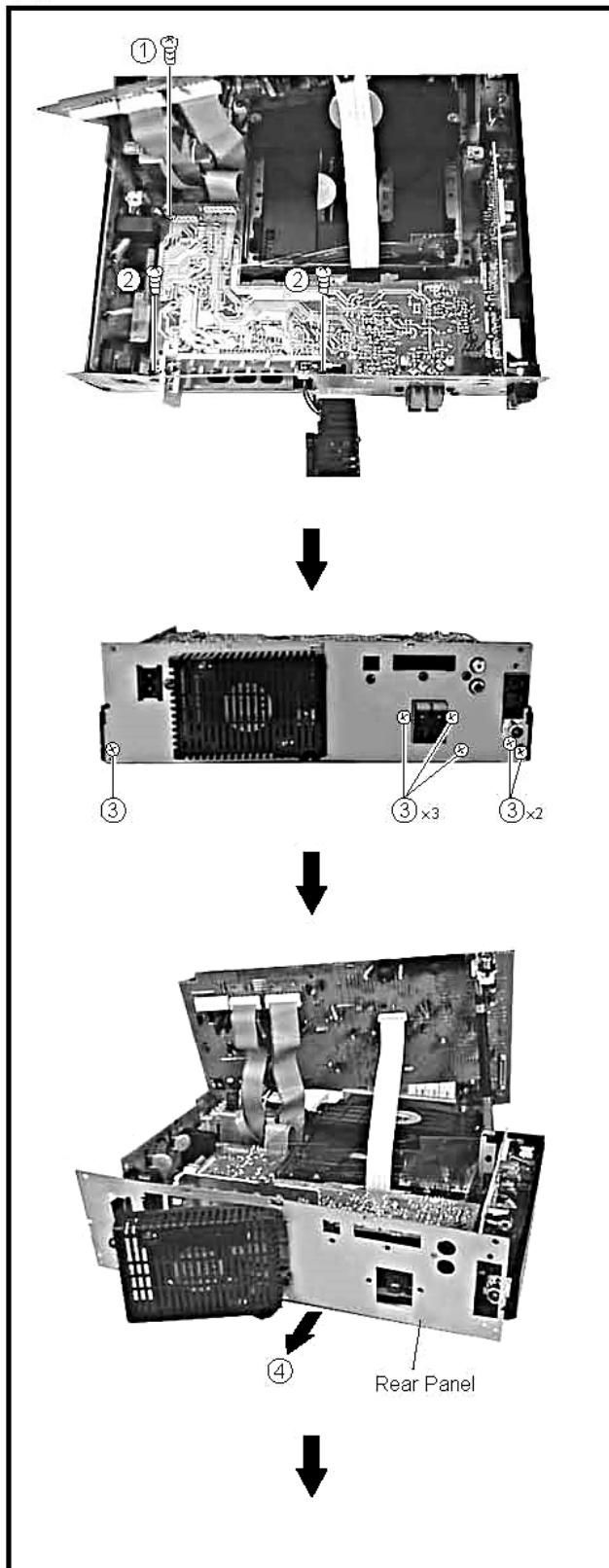


### (3) CD MAIN UNIT



# XC-L5

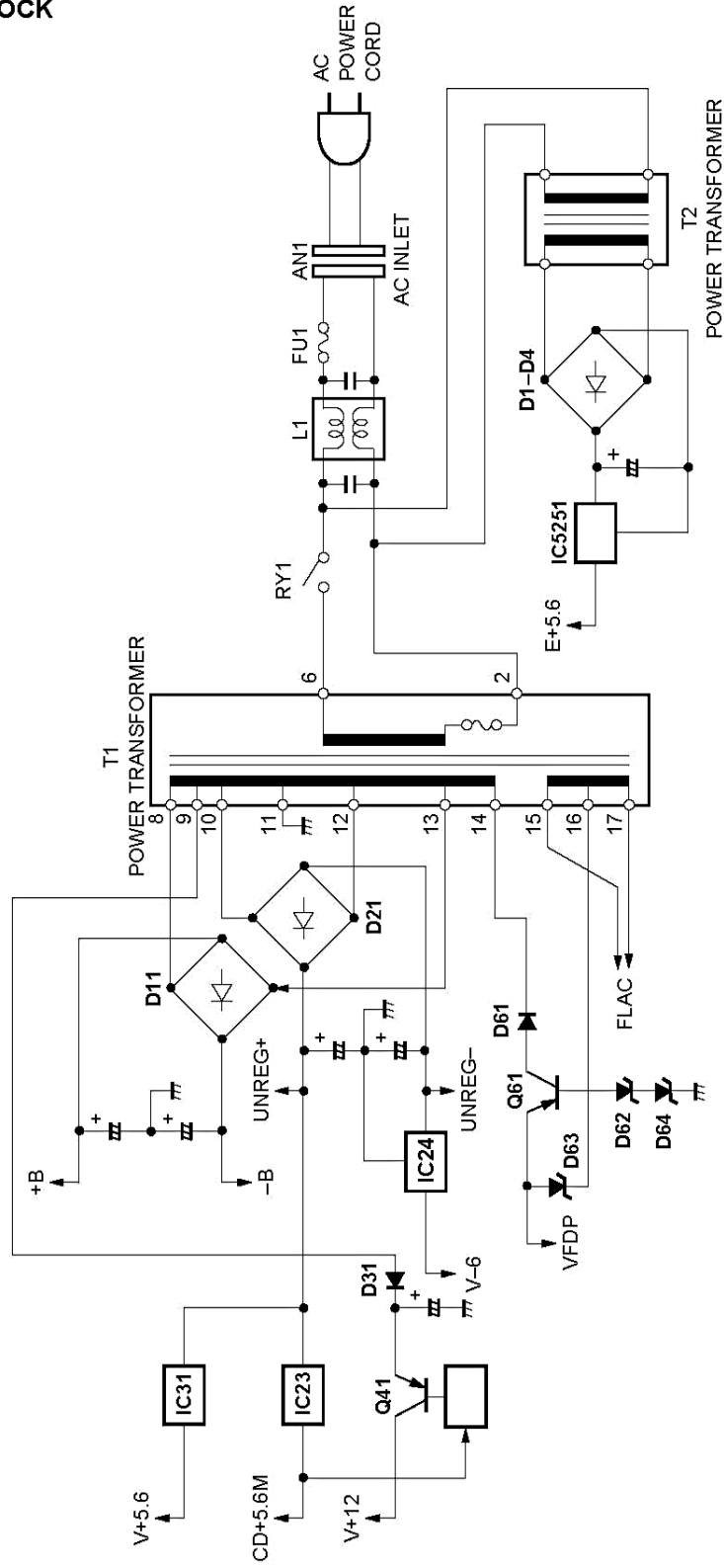
## (4) CD AMP UNIT





### 7.3 BLOCK DIAGRAM

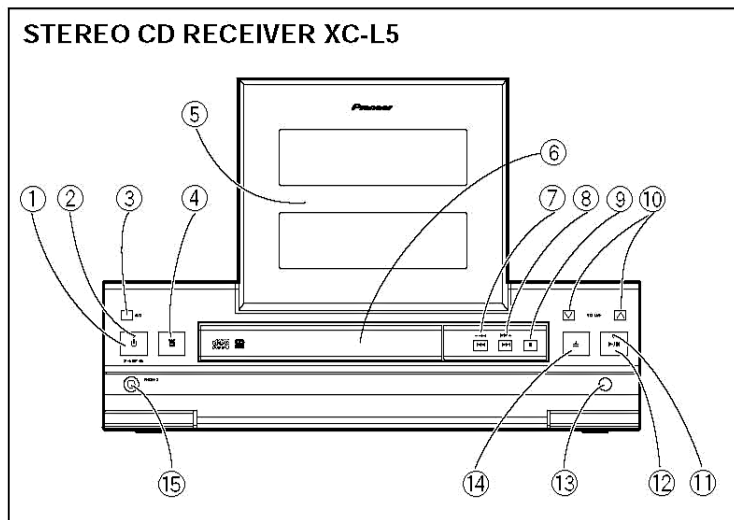
• POWER SUPPLY BLOCK



# XC-L5

## 8. PANEL FACILITIES AND SPECIFICATIONS

### • PANEL FACILITIES

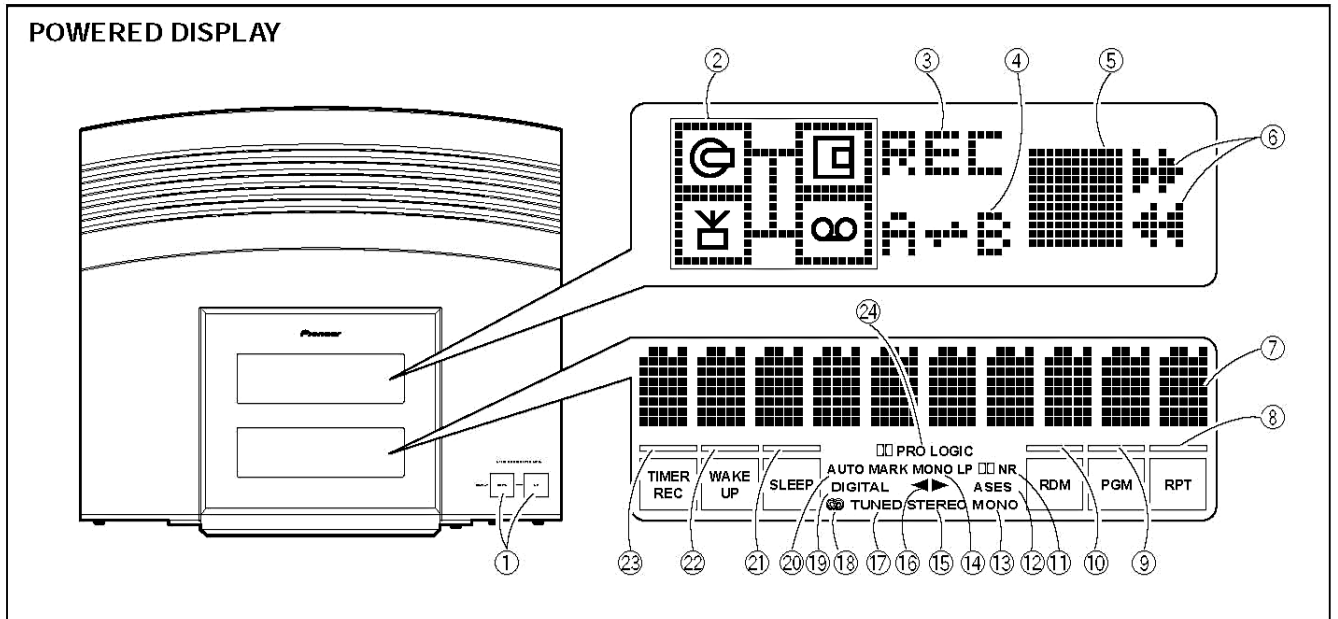


**STEREO CD RECEIVER XC-L5**

- ① STANDBY/ON switch
- ② STANDBY indicator
- ③ AUX button
- ④ FM/AM/station button
- ⑤ Powered display
- ⑥ CD tray
- ⑦ button
- ⑧ button
- Roles of common operation buttons vary depending on the input function currently selected, as follows:
  - During Tuner Operation**
    - : Frequency and station - (down) button.
    - : Frequency and station + (up) button.
  - During CD Operation**
    - : Fast reverse/track search button.
    - : Fast forward/track search button.
- ⑨ CD stop button (■).
- ⑩ VOLUME ^ (Up)/v (Down) buttons
- ⑪ Playback indicator
- ⑫ CD Play/Pause button
- ⑬ Remote sensor
- ⑭ CD tray Open/Close button (▲)
- ⑮ PHONES jack  
For use with headphones equipped with a stereo miniplug. When headphones are connected, sound to the speakers is disabled.

\*

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



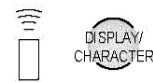
**POWERED DISPLAY**

- ① **DISPLAY UP/DOWN buttons**  
The display is automatically powered up and down when the main power is turned on/off. The UP/DOWN buttons on the main unit or the remote control unit can be used to adjust the display's opening angle.
- ② **Function display: CD (Ⓞ), MiniDisc (Ⓜ), Tuner (Ⓣ), Tape (Ⓜ).**  
The selected function will appear emphasized in one of the following ways:  
In DISP MODE 1: Slightly larger display typeface  
In DISP MODE 2: Surrounded by frame
- ③ **Lights during recording.**
- ④ **Tape direction indicator (reverse mode)**
- ⑤ **Displays operation status**
- ⑥ **Lights during Fast Forward (▶▶) or Reverse (◀◀)**
- ⑦ **Displays characters and numerals**
- ⑧ **Lights during repeat play**
- ⑨ **Lights during program setting and program play**
- ⑩ **Lights during random play**
- ⑪ **Lights when Dolby \*NR is ON.**
- ⑫ **Lights during A.S.E.S. setting and operation.**
- ⑬ **Lights during monaural reception mode.**
- ⑭ **Lights to indicate MiniDisc monaural long-play mode.**
- ⑮ **Lights to indicate reception of a stereo broadcast.**
- ⑯ **Indicates direction of cassette tape travel.**
- ⑰ **Lights to indicate that station is tuned.**
- ⑱ **RDS indicator lights in RDS mode.**
- ⑲ **Lights to indicate digital input to Mini Disc recorder.**
- ⑳ **Lights when Mini Disc recorder's AutoMark function is ON.**
- ㉑ **Lights during setting and operation of the sleep timer.**
- ㉒ **Lights during setting of the wake-up timer.**
- ㉓ **Lights during setting of timer recording.**
- ㉔ **Lights to indicate that Dolby PROLOGIC Surround is ON.**

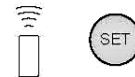
■ **Switch the DISPLAY MODE**

Two display modes can be selected; choose the one you prefer. The default mode set at the time of shipping is DISP MODE 1.

1. Press the **DISPLAY/CHARACTER** button to select "DISP SEL".



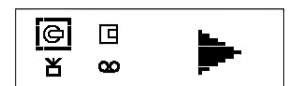
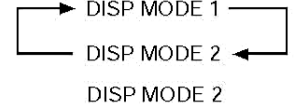
2. Press the **SET** button.



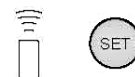
3. Use the **◀** and **▶** buttons to select "DISP MODE 1" or "DISP MODE 2".



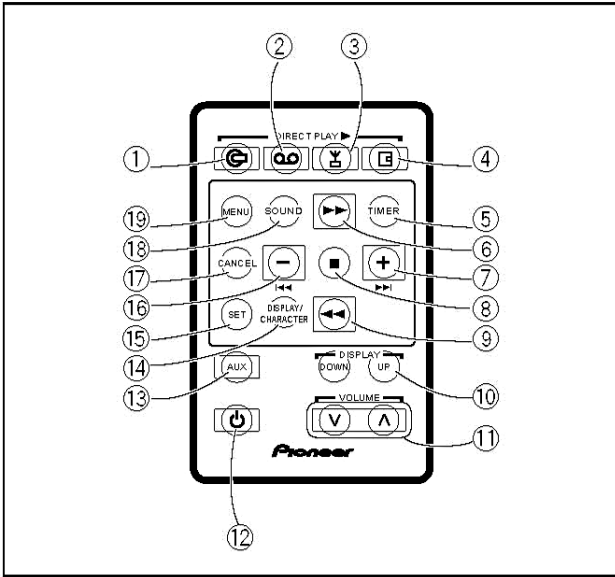
Mode alternates each time button is pressed.



4. Press the **SET** button to finish the DISPLAY MODE.



# XC-L5



## REMOTE CONTROL UNIT

- ① CD Play/Pause button
- ② Tape Play/Direction button
- ③ FM/AM button
- ④ MD Play/Pause button
- ⑤ TIMER button
- ⑥ button
- ⑦ button
- ⑧ button
- ⑨ button
- ⑩ DISPLAY UP/DOWN buttons
- ⑪ VOLUME  $\wedge$  (Up),  $\vee$  (Down) buttons
- ⑫ STANDBY/ON button
- ⑬ AUX function button
- ⑭ DISPLAY/CHARACTER button
- ⑮ SET button
- ⑯ button
- ⑰ CANCEL button
- ⑱ SOUND button

Each time this button is pressed, the sound mode changes in the following sequence:



- ⑱ MENU button
- Roles of buttons ⑥, ⑦, ⑧, ⑨ and ⑯ vary depending on the input function currently selected, as follows:

### During Tuner Operation

- : Station + (up) button
- : Station - (down) button
- : Frequency up button
- : Frequency down button

### During CD Operation

- : Forward track search button
- : Reverse track search button
- : Stop button
- : Fast forward (manual search) button
- : Fast reverse (manual search) button

### During Tape Operation

- : Fast forward button
- : Rewind button
- : Stop button
- : Forward music search button
- : Reverse music search button

### During MENU mode Operation

- : Plus button
- : Minus button
- : Cursor movement (during character input)
- : Cursor movement (during character input)

### During MD Operation

- : Forward track search button
- : Reverse track search button
- : Stop button
- : Fast forward (manual search) button
- : Fast reverse (manual search) button



• **SPECIFICATIONS**

**Stereo CD Receiver: XC-L5**

**Amplifier Section**

Continuous Power Output (RMS) .....	30 W + 30 W
	(1 kHz, THD 10%, 8 Ω)
Continuous Power Output (DIN) .....	22 W + 22 W
	(1 kHz, THD 1%, 8 Ω)
Music Power (DIN) .....	35 W + 35 W
	(1 kHz, THD 1%, 8 Ω)

• Above specifications are for when the power supply is 230 V.

**FM Tuner Section**

Frequency Range .....	87.5 - 108MHz
Antenna .....	75 Ω, unbalanced

**AM Tuner Section**

Frequency Range .....	531 kHz - 1,602 kHz
	(9 kHz step);
	530 kHz - 1,700 kHz (10 kHz step)
Antenna .....	Loop antenna

**Compact Disc Player Section**

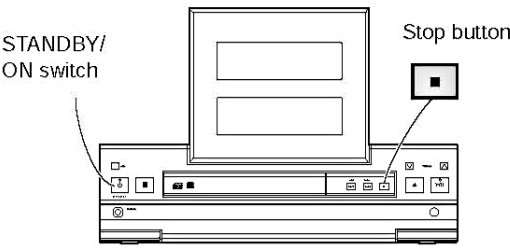
Type .....	Compact disc digital audio system
Usable discs .....	Compact discs
Channels .....	2 (stereo)
Frequency Response .....	4 Hz–20 kHz
Signal-to-Noise Ratio .....	102 dB (EIAJ)
Wow and Flutter .....	Limit of measurement
	(0.001%) or less (EIAJ)
Power Requirements .....	AC 230 V, 50/60 Hz
Power Consumption .....	81 W
Power Consumption in standby mode .....	3 W
Dimensions .....	290 (W) x 99 (H) x 277 (D) mm
	200 (H) when powered display is at maximum height.
Weight .....	4.5 kg

**Accessories**

Operating Instructions .....	1
Warranty Card .....	1
FM antenna .....	1
AM loop antenna .....	1
Remote control unit .....	1
Lithium battery (CR2025) .....	1
Remote control unit holder .....	1
Power cord .....	1

**NOTE:**

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



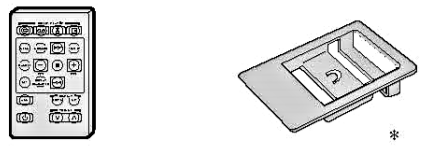
STANDBY/ON switch

Stop button

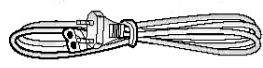
- When the default DEMO mode is on, supplying power after a power interruption (for example, when the power cord is first inserted into its outlet, or when power is restored after an interruption) will cause the DEMO mode to automatically begin, and **the powered display will also open**.  
The unit is factory set to a default of DEMO mode ON.
- During the DEMO mode display, pressing the STANDBY/ON switch on either the CD receiver or remote control unit will cause the DEMO mode to be cancelled.
- **To set the DEMO mode to OFF:**  
Press the STANDBY/ON switch while holding down the CD receiver's stop button (■) during the DEMO mode display.
- **To set the DEMO mode from OFF to ON:**  
Press the STANDBY/ON switch while holding down the CD receiver's stop button (■) in the standby mode.

• **ACCESSORIES**

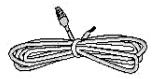
- Remote control unit × 1 [AXD7170 (CU-XC005)]
- Remote control unit holder × 1 (AAH7013)



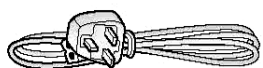
- Power cord × 1 (ADG7010) (For MYXK type)



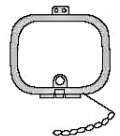
- FM antenna × 1 (ADH7005)




- Power cord × 1 (ADG7009) (For NVXK type)



- AM loop antenna × 1 (ATB7007) (shown assembled)



- Lithium battery × 1 [VEM1009 (CR2025)]



- Operating instructions × 1
- Warranty card × 1

\* The remote control unit is supplied already mounted inside in its holder.