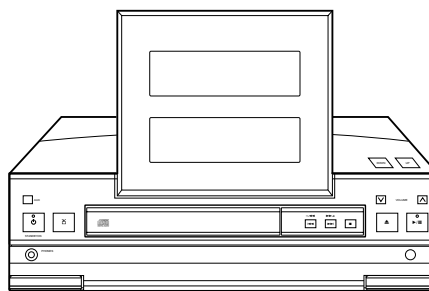


# Service Manual

**Pioneer**



ORDER NO.  
RRV2080

## STEREO CD RECEIVER **XC-L5**

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

Type	Model	Power Requirement	Remarks
	XC-L5		
KUXK/CA	○	AC120V	

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**PIONEER ELECTRONICS ASIACENTRE PTE. LTD.** 253 Alexandra Road, #04-01, Singapore 159936  
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# 1. SAFETY INFORMATION

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

**WARNING**

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

Health & Safety Code Section 25249.6 – Proposition 65



**NOTICE**

(FOR CANADIAN MODEL ONLY)

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

**REMARQUE**

(POUR MODÈLE CANADIEN SEULEMENT)

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

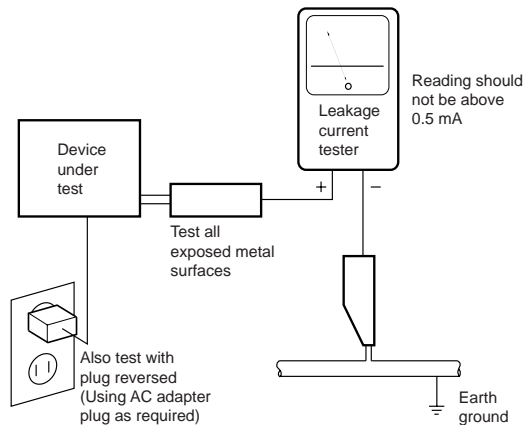
**(FOR USA MODEL ONLY)**

**1. SAFETY PRECAUTIONS**

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

**LEAKAGE CURRENT CHECK**

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



AC Leakage Test

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

**2. PRODUCT SAFETY NOTICE**

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

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

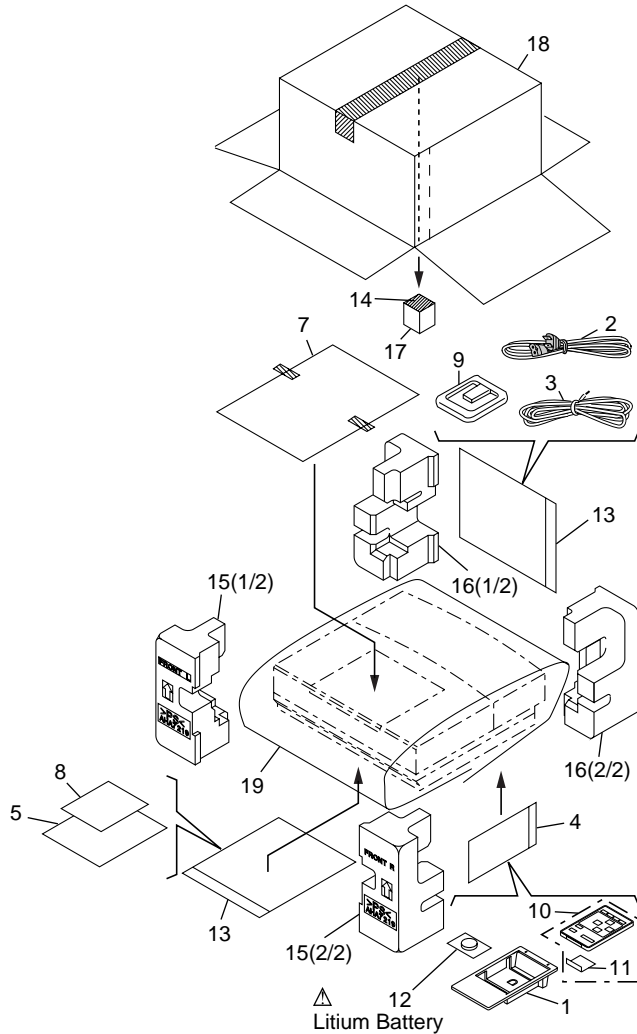
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

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

## 2. EXPLODED VIEWS AND PARTS LIST

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

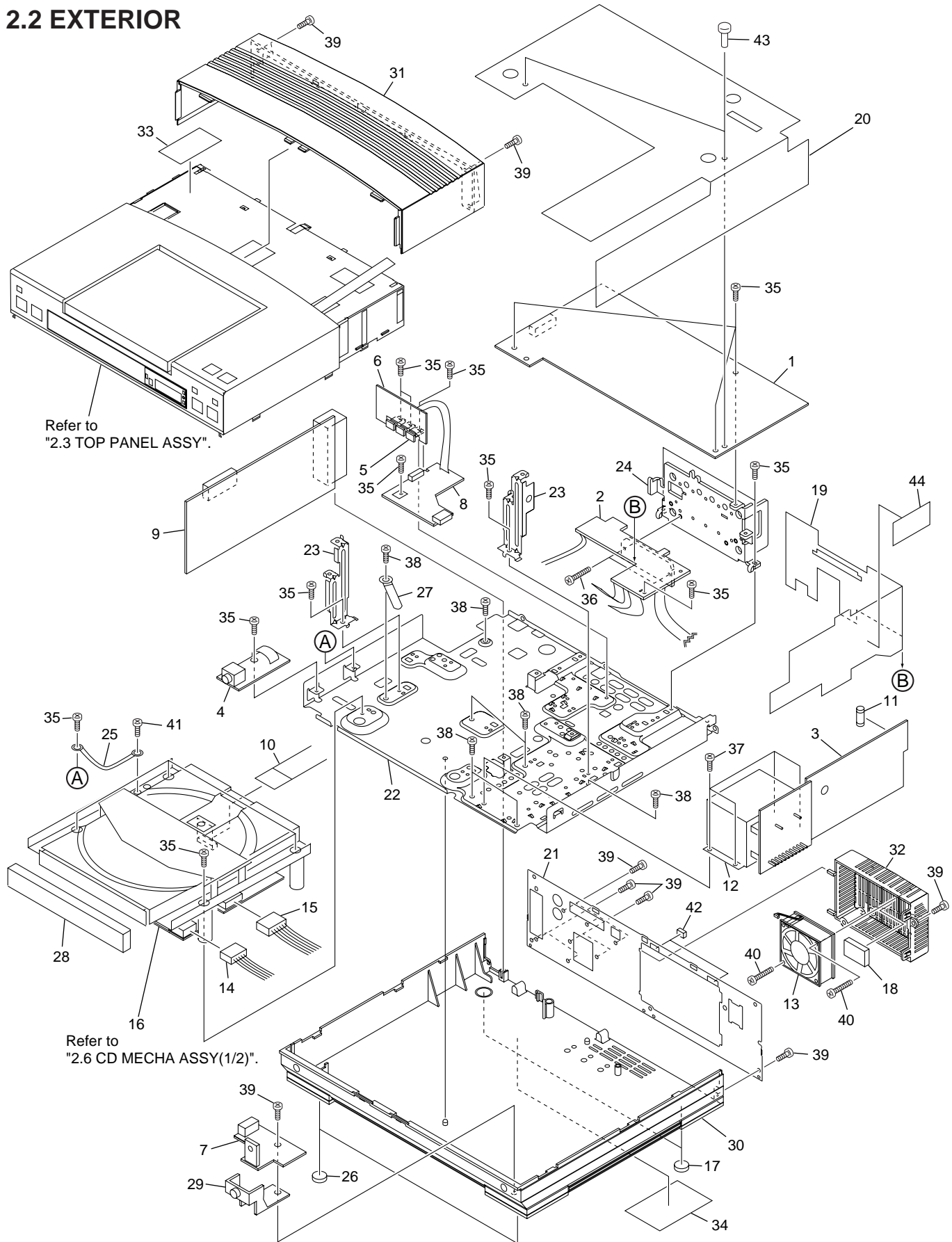
### 2.1 PACKING



### ● PACKING PARTS LIST

Mark	No.	Description	Part No.
$\Delta$	1	Remote Control Unit Holder	AAH7013
	2	Power Cord	ADG7022
	3	FM Antenna	ADH7004
NSP	4	Vinyl Bag	AHG7031
	5	Operating Instructions (English/French)	ARE7205
	6	•••••	
NSP	7	Demo Caution	ARR7016
NSP	8	Warranty Card	ARY7023
	9	AM Loop Antenna	ATB7007
	10	Remote Control Unit (CU-XC005)	AXD7170
	11	Battery Case	AZE7116
NSP $\Delta$	12	Lithium Battery (CR2025)	VEM1009
	13	Polyethylene Bag	Z21-038
NSP	14	Technibond431	AEH7006
	15	Pad F	AHA7219
	16	Pad R	AHA7220
	17	S Pad	AHA7230
	18	Packing Case	AHD7734
	19	Seat	Z23-007

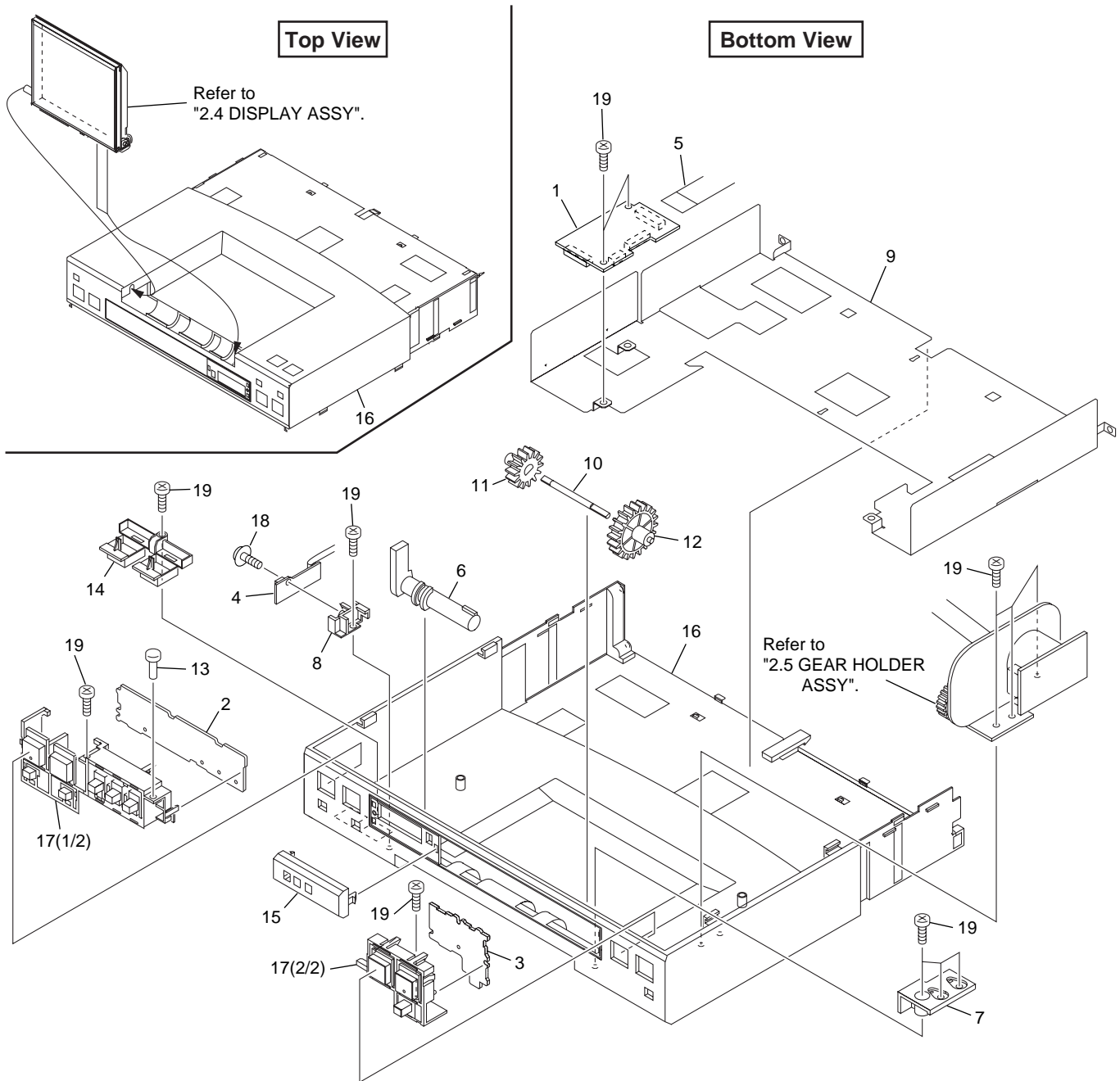
2.2 EXTERIOR



● EXTERIOR PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	CD MAIN UNIT	AWU7113		26	Front Leg	AEB7102
	2	CD AMP UNIT	AWU7114		27	Cord Clamper	RNH-184
	3	CD TRANS UNIT	AWU7115		28	Tray Panel CD	AAN7193
	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		33	65 Label	ARW7050
	9	FM/AM TUNER MODULE	AXQ7065		34	Name Label	ARW7046
	10	16P F•F•C/30V	ADD7096		35	Screw	BBZ30P060FMC
△	11	Fuse FU1 (2A)	REK1078		36	Screw	BBZ30P140FMC
△	12	Power Transformer (T1)	ATS7219		37	Screw	BBZ40P060FMC
△	13	DC Fan Motor	AXM7003		38	Screw	BPZ30P060FZK
	14	Connector 5P	AKP7040		39	Screw	BPZ30P100FZK
	15	Connector 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	NSP	43	Rivet	VEC1178
	19	Center Barrier	AEC7140		44	Fuse Caution A	AAX7724
	20	Top Barrier	AEC7190				
	21	Rear Panel	ANC7801				
NSP	22	Bottom Plate	ANF7010				
	23	Angle	ANG7189				
NSP	24	Heat Sink	ANH7088				
NSP	25	Cord With Plug J	DE005VF0				

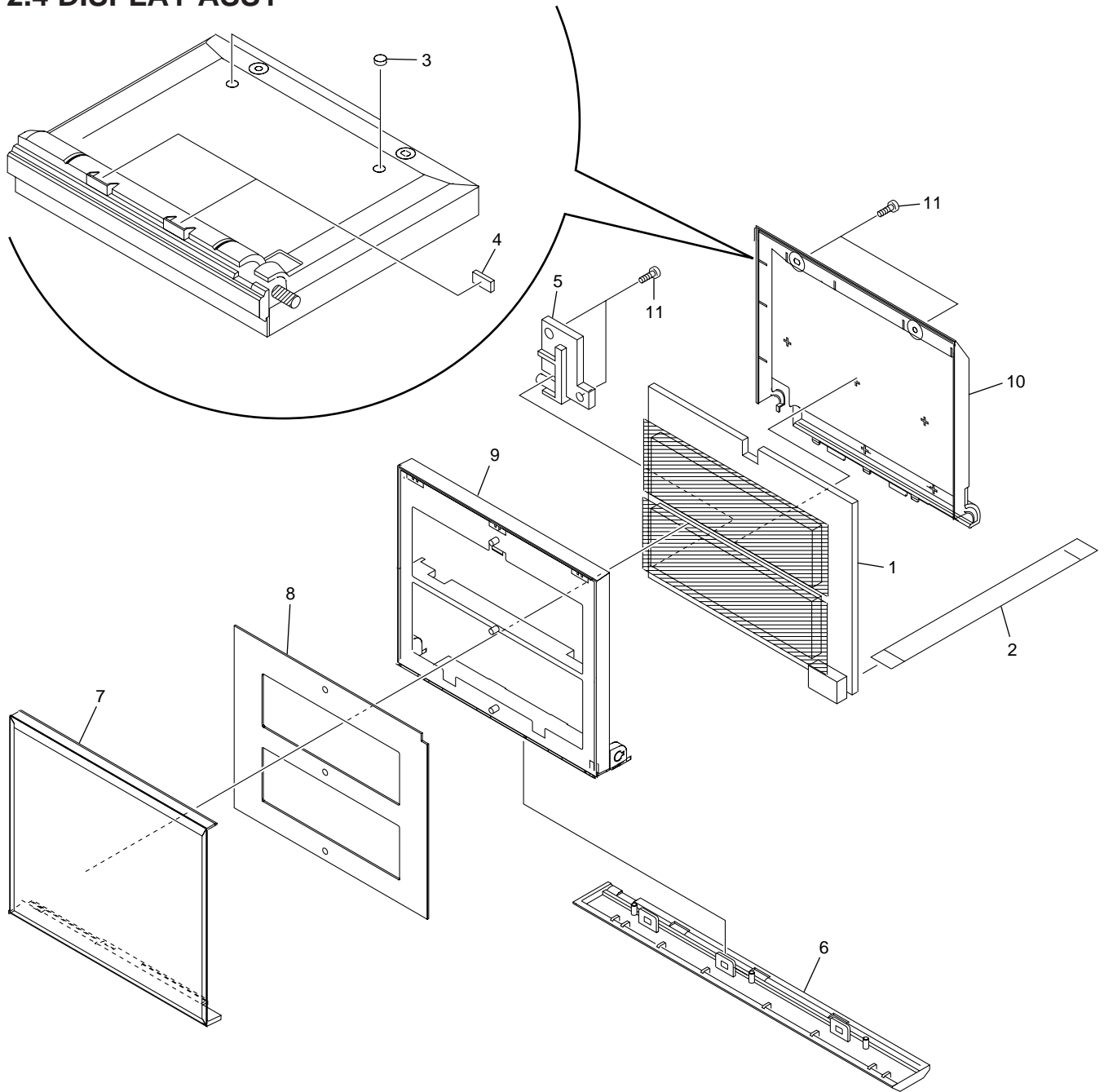
2.3 TOP PANEL ASSY



● 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	ANK7058	19		Screw	VPZ30P080FZK
	10	Shaft	ANL7010				

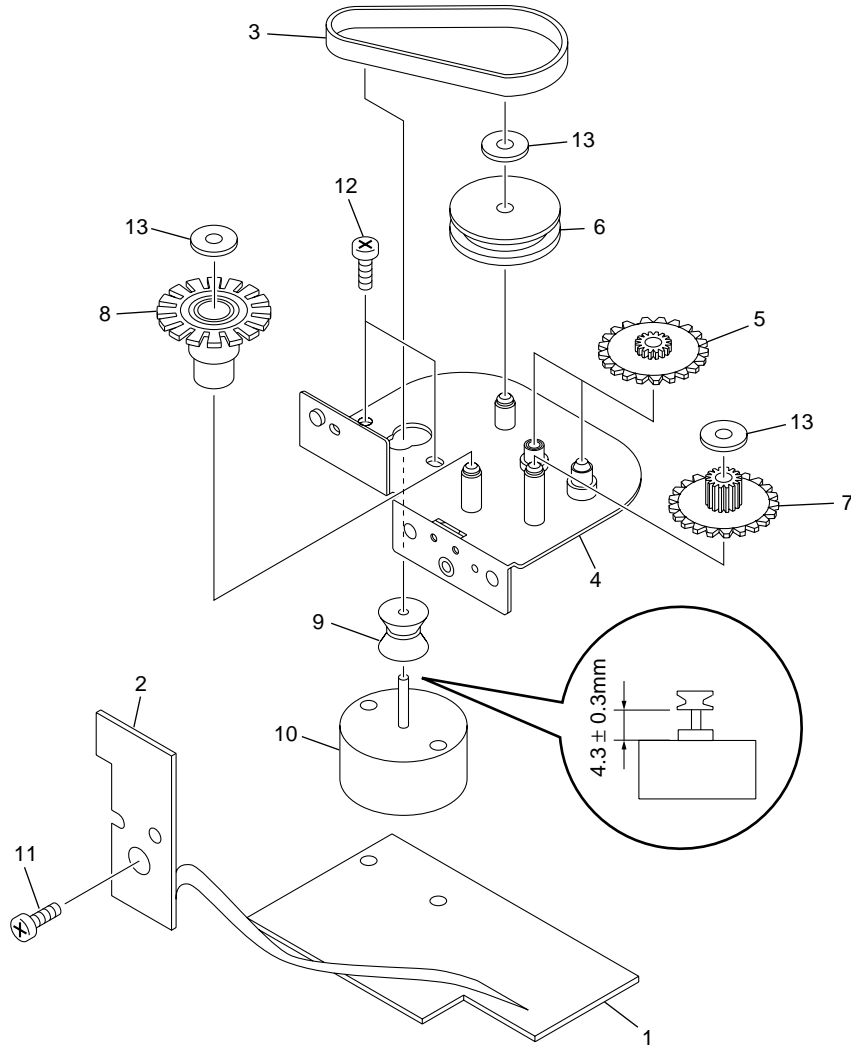
2.4 DISPLAY ASSY



● DISPLAY ASSY PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	CD FL UNIT	AWU7117	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

2.5 GEAR HOLDER ASSY

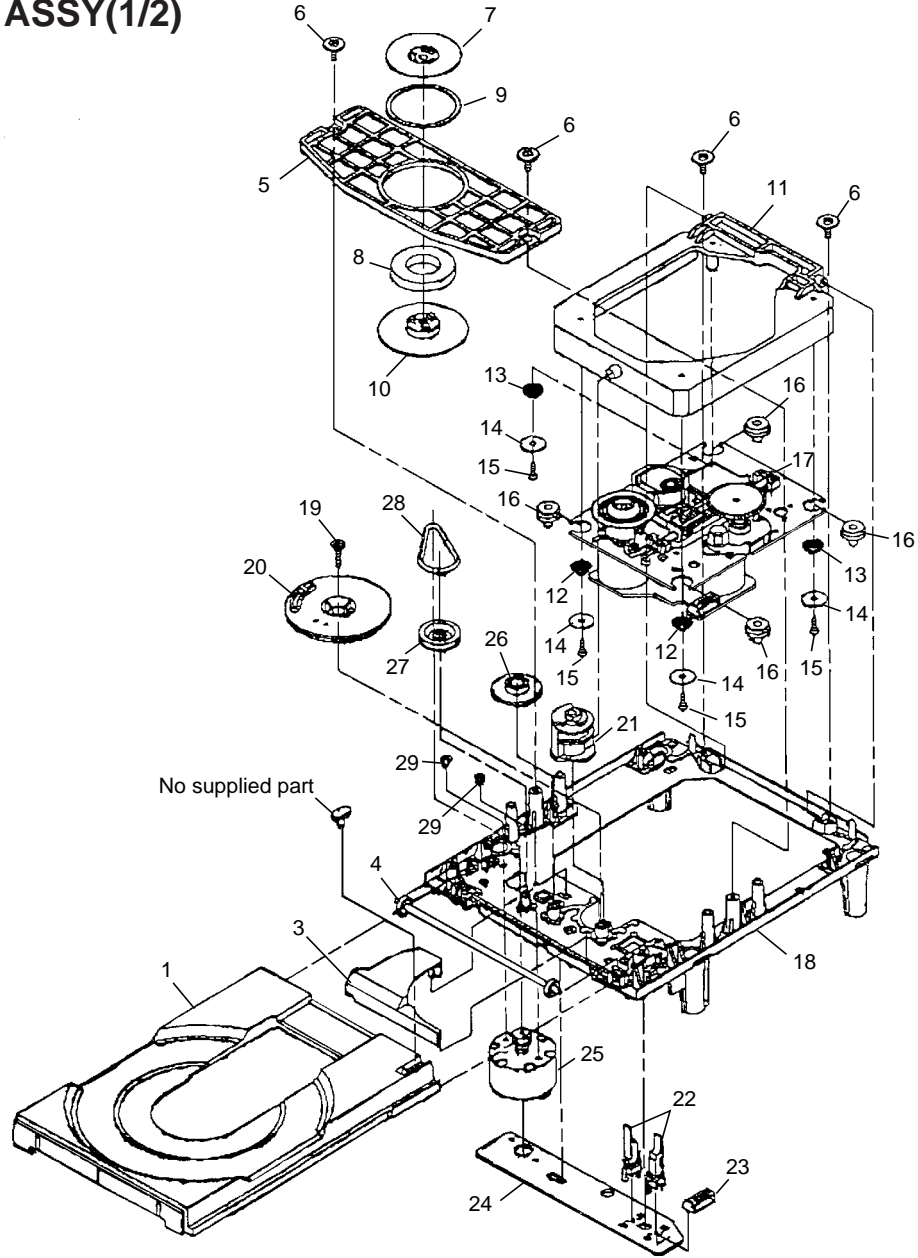


● GEAR HOLDER ASSY PARTS LIST

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



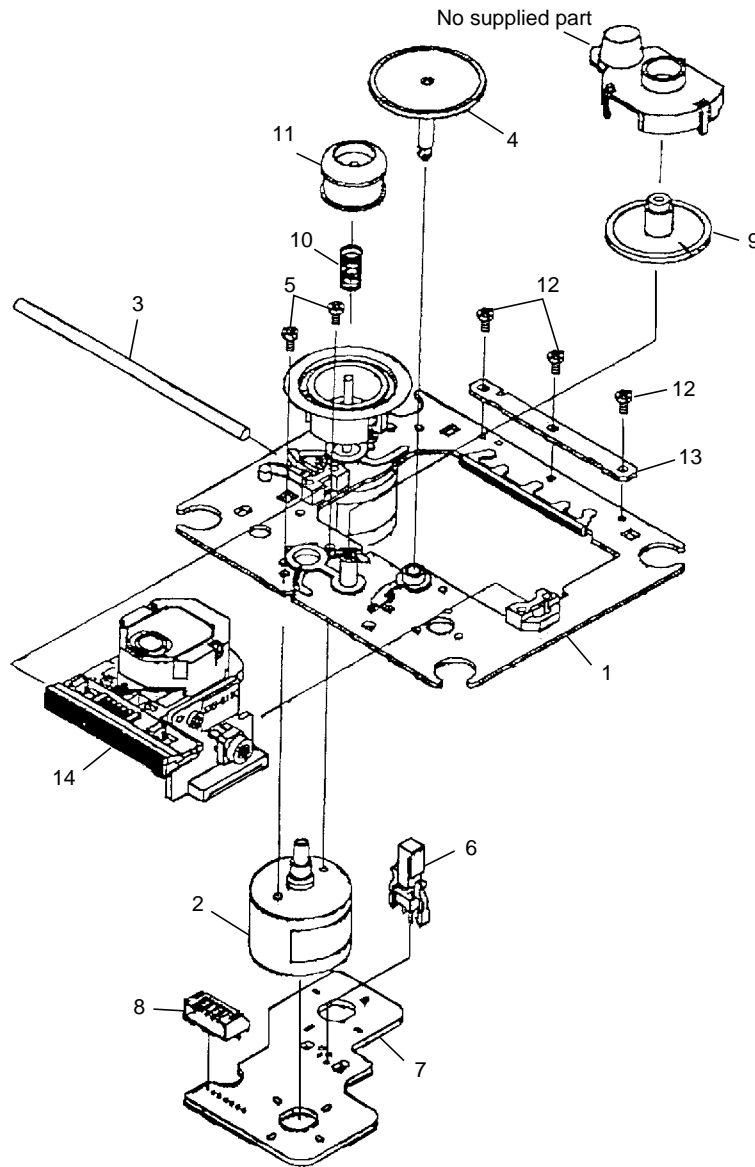
2.6 CD MECHA ASSY(1/2)



● 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	•••••		NSP	17	MD Assy	•••••
	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)
NSP	6	Screw +PTPWH2.6*7	•••••		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)	NSP	29	Screw +B2.6*2.5	•••••
NSP	15	Screw+P2.6*10 NOSLIT	•••••				

2.7 CD MECHA ASSY(2/2)



● CD MECHA ASSY(2/2) PARTS LIST

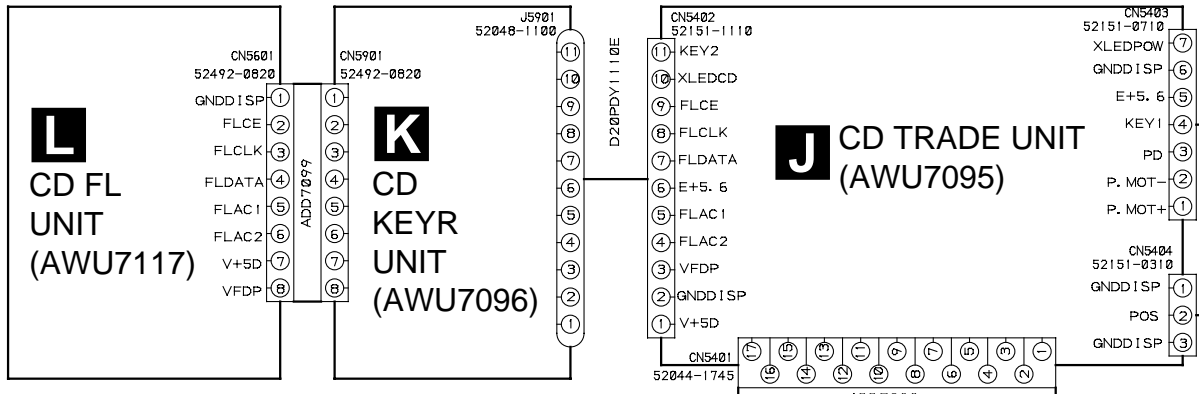
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Motor Chassis Assy	X-2625-984-(1)		11	Ring(LO)(S),Center	2-625-477-(01)
	2	Motor Gear Assy	X-2625-769-(1)		12	Screw 2*5, Tapping(S)	2-641-386-(01)
	3	Sled Shaft	2-626-908-(01)		13	Reinforcement(S)	2-625-625-(01)
	4	Gear (A)(S)	2-625-188-(02)		14	KSS-213C(Pic-up)	8-848-483-(05)
NSP	5	Screw +P2*3	•••••				
	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)				



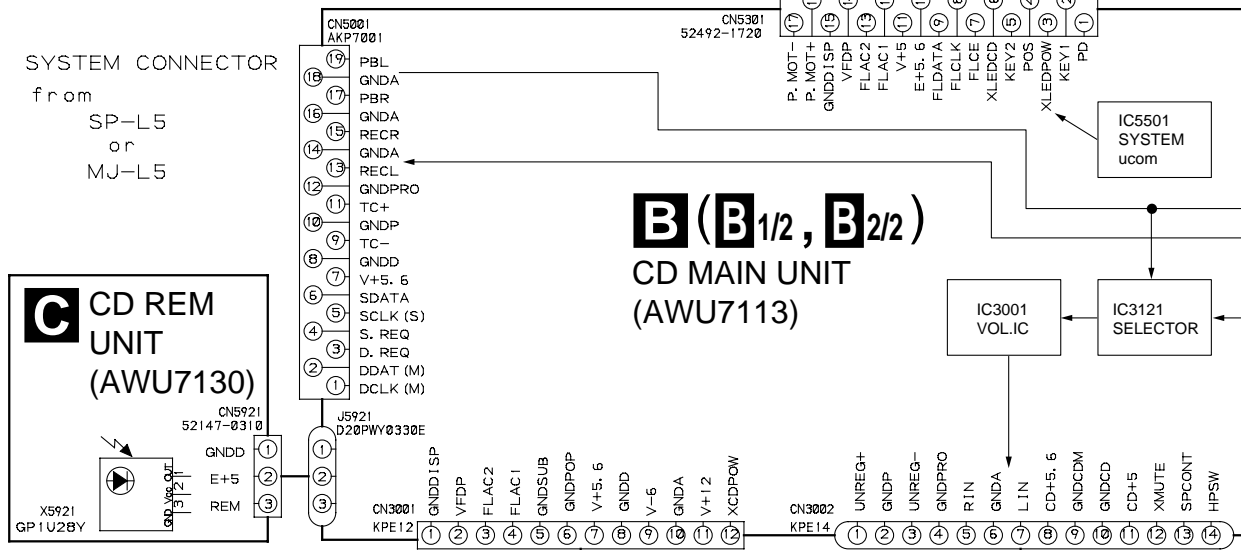
# 3. SCHEMATIC DIAGRAM

## 3.1 OVERALL CONNECTION DIAGRAM

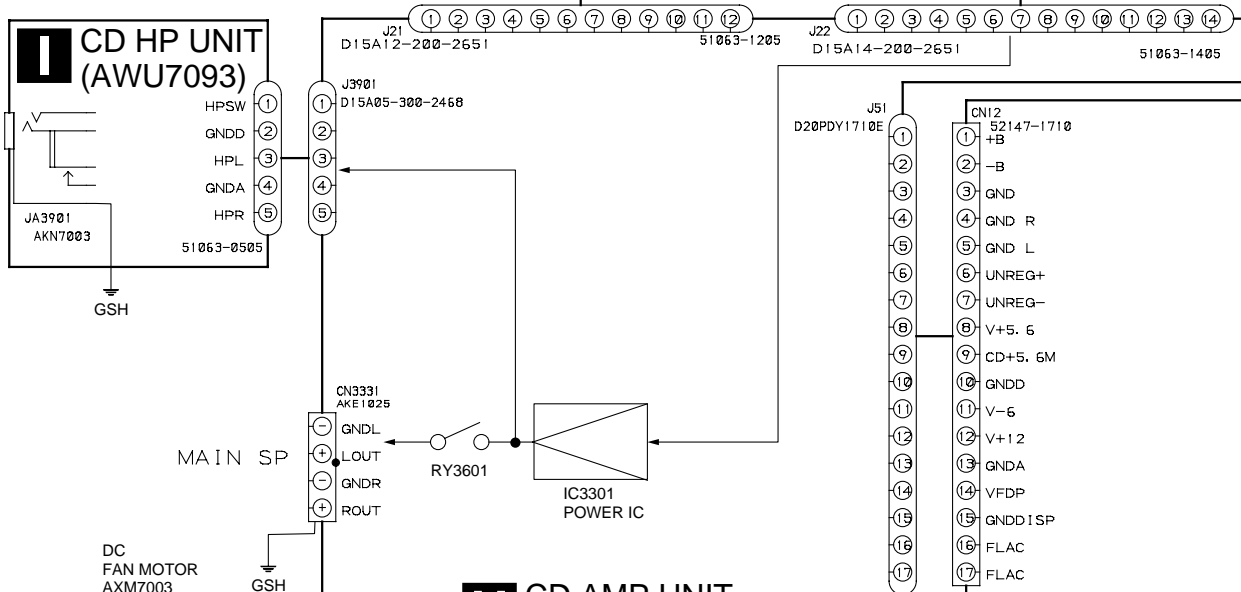
A



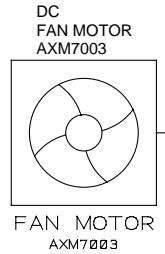
B



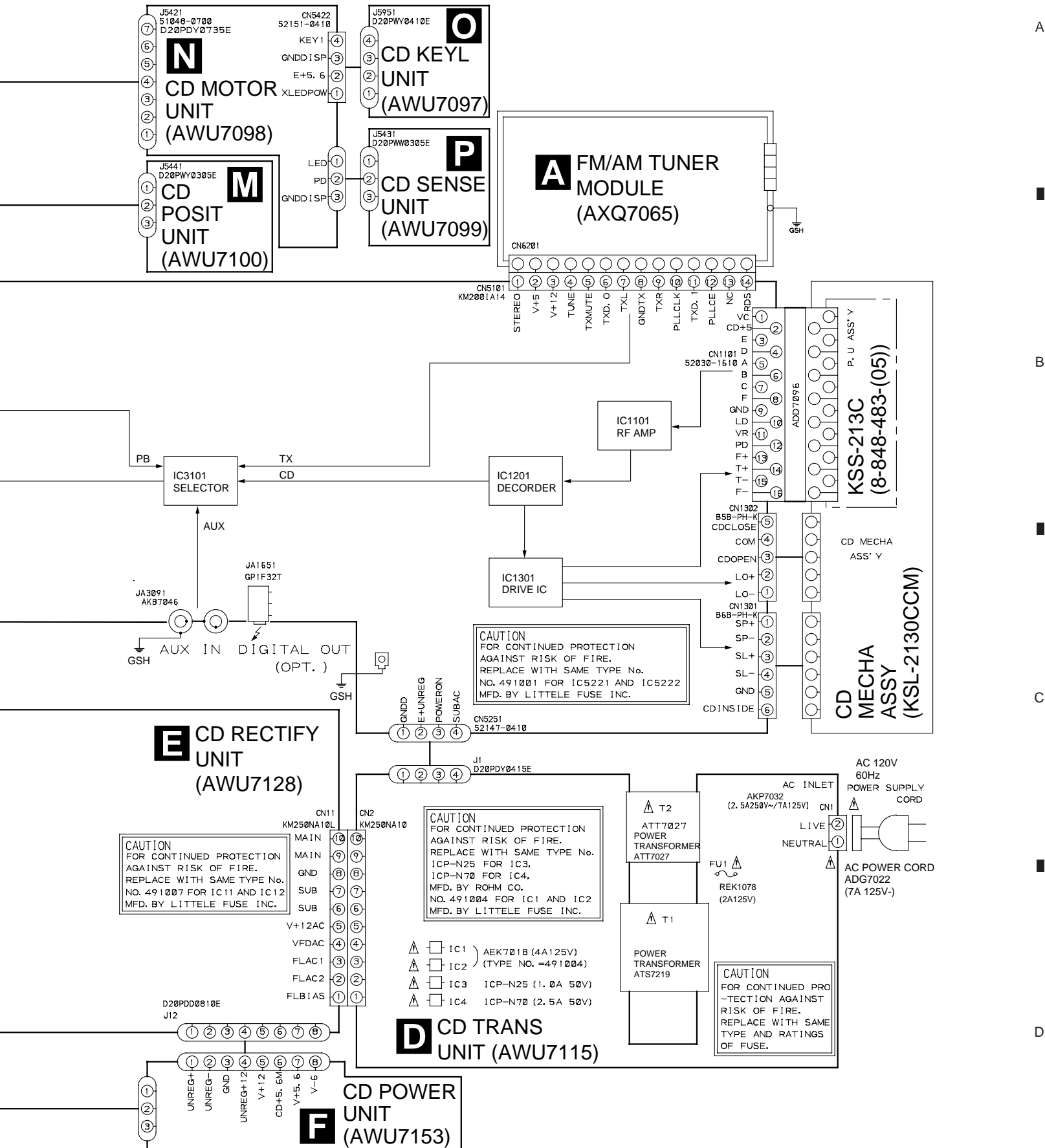
C



D



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



A

B

C

D

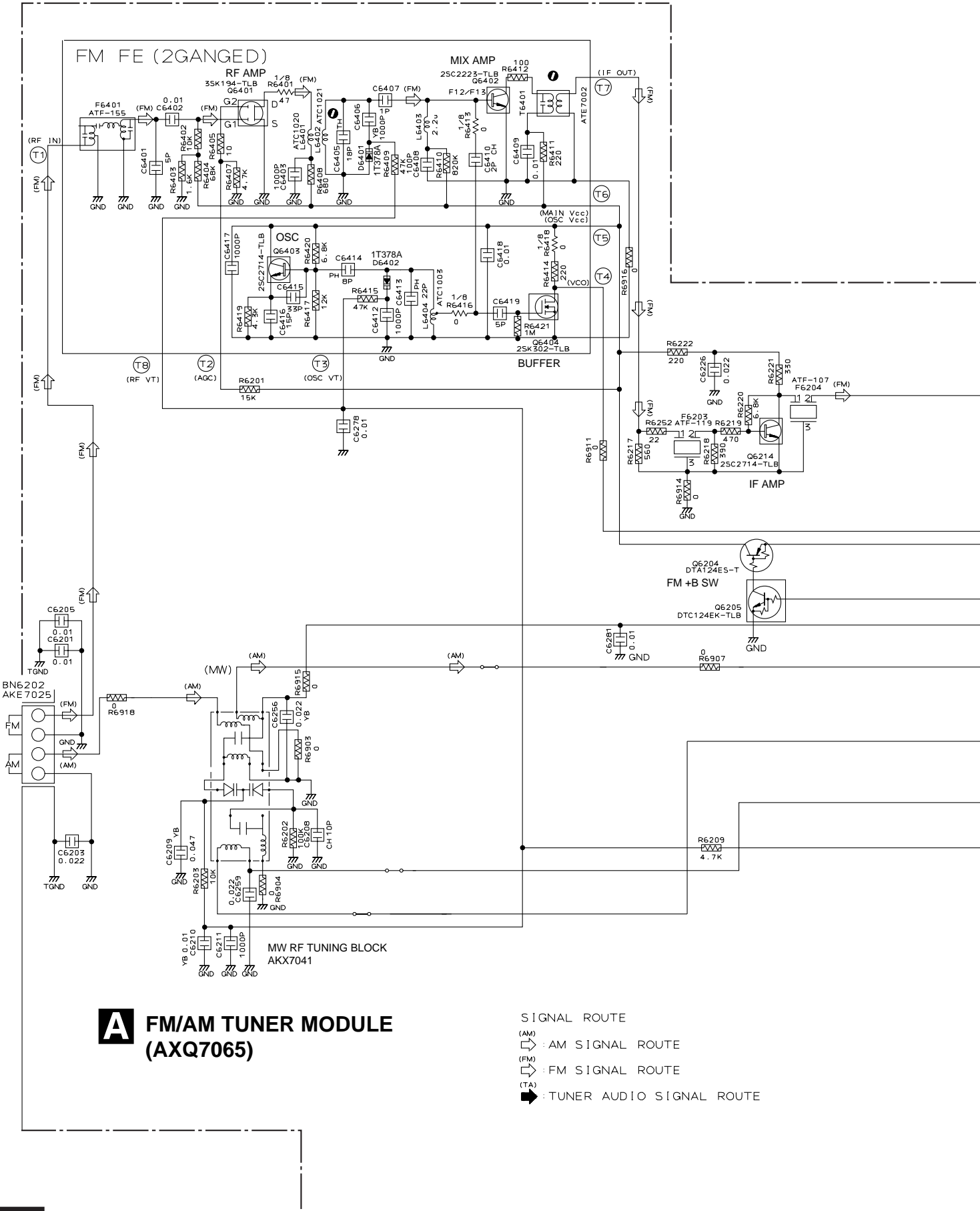
### 3.2 FM/AM TUNER MODULE

A

B

C

D



**A** FM/AM TUNER MODULE (AXQ7065)



### Notes

#### 1. RESISTORS

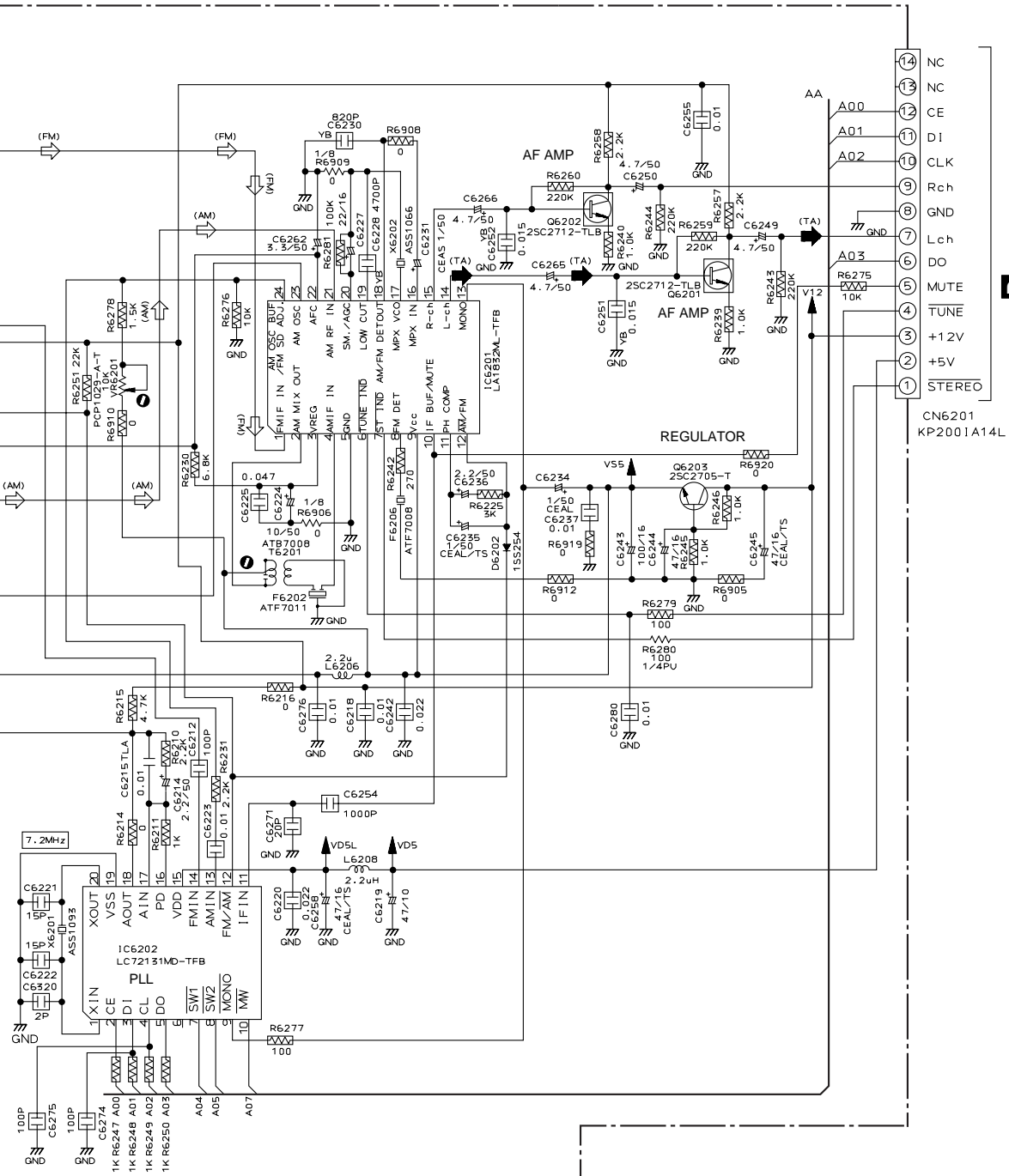
Indicated in  $\Omega$ , 1/10W $\pm$ 5% Tolerance unless otherwise noted K:K $\Omega$ , M:M $\Omega$ .

#### 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

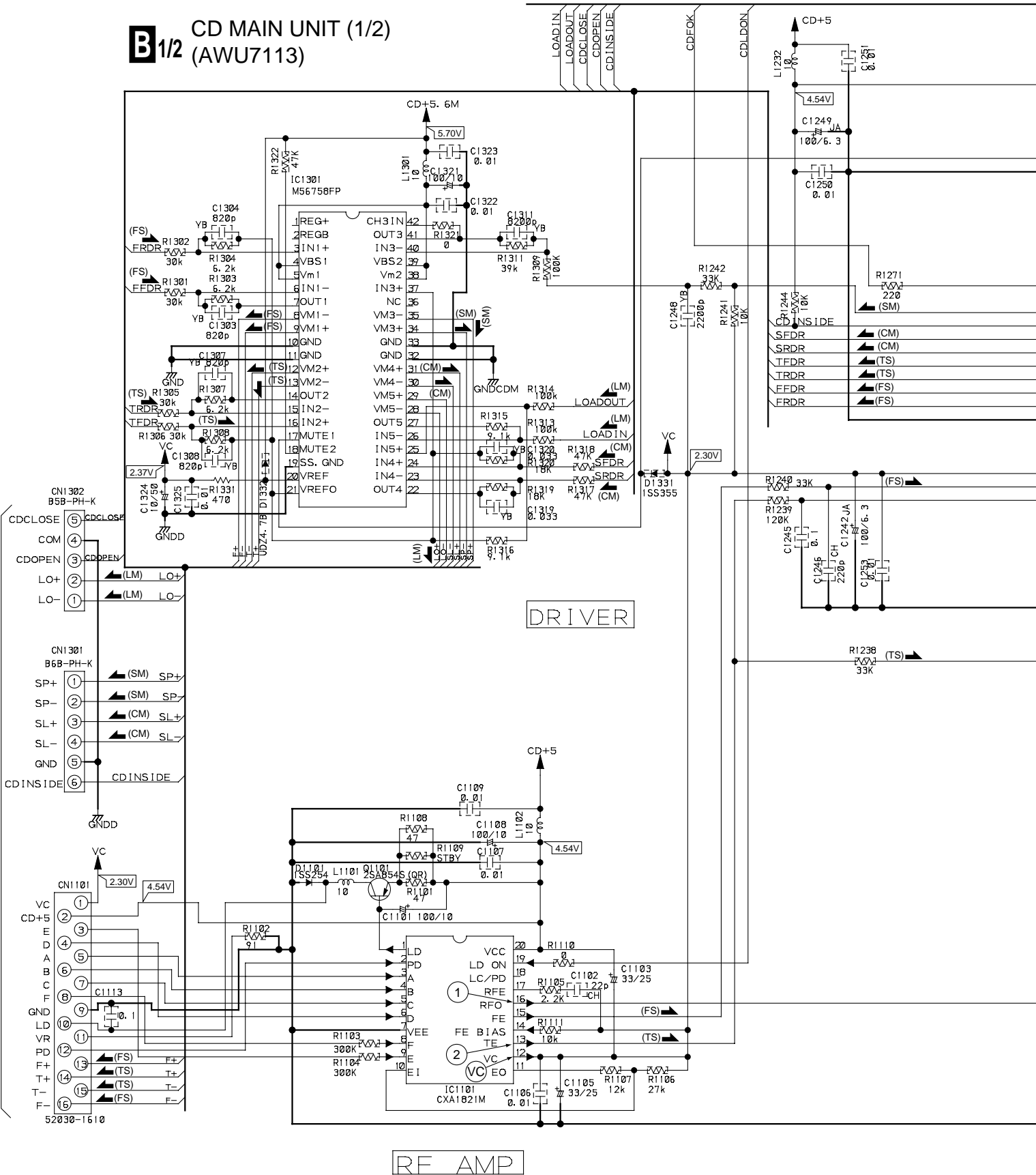
- 14 NC
- 13 NC
- 12 CE
- 11 DI
- 10 CLK
- 9 Rch
- 8 GND
- 7 Lch
- 6 DO
- 5 MUTE
- 4 TUNE
- 3 +1.2V
- 2 +5V
- 1 STEREO

CN6201  
KP2001A14L



3.3 CD MAIN UNIT(1/2)

B 1/2 CD MAIN UNIT (1/2) (AWU7113)

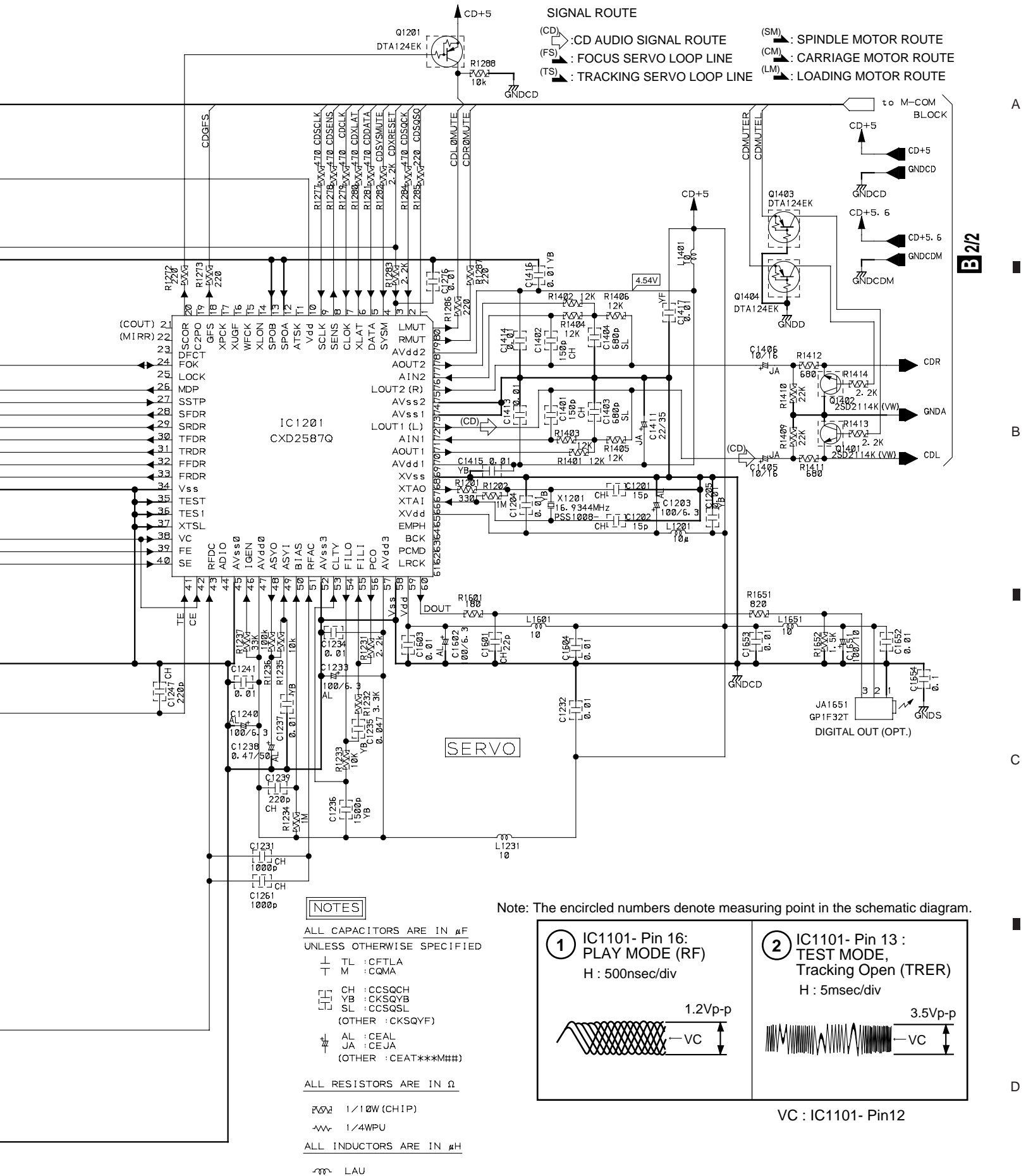


CD MECHANISM ASSY

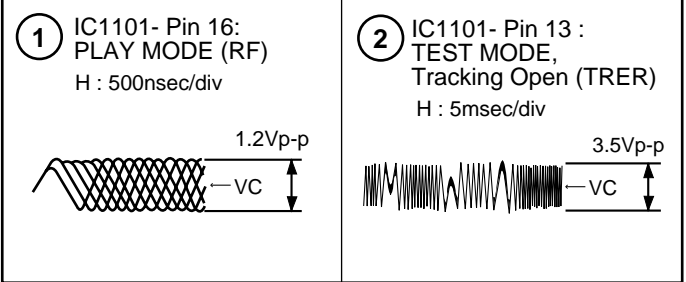
DRIVER

RF AMP





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



B/2/2

B

C

D

### 3.4 CD MAIN (2/2) and CD REM UNITS

B 1/2

A

B

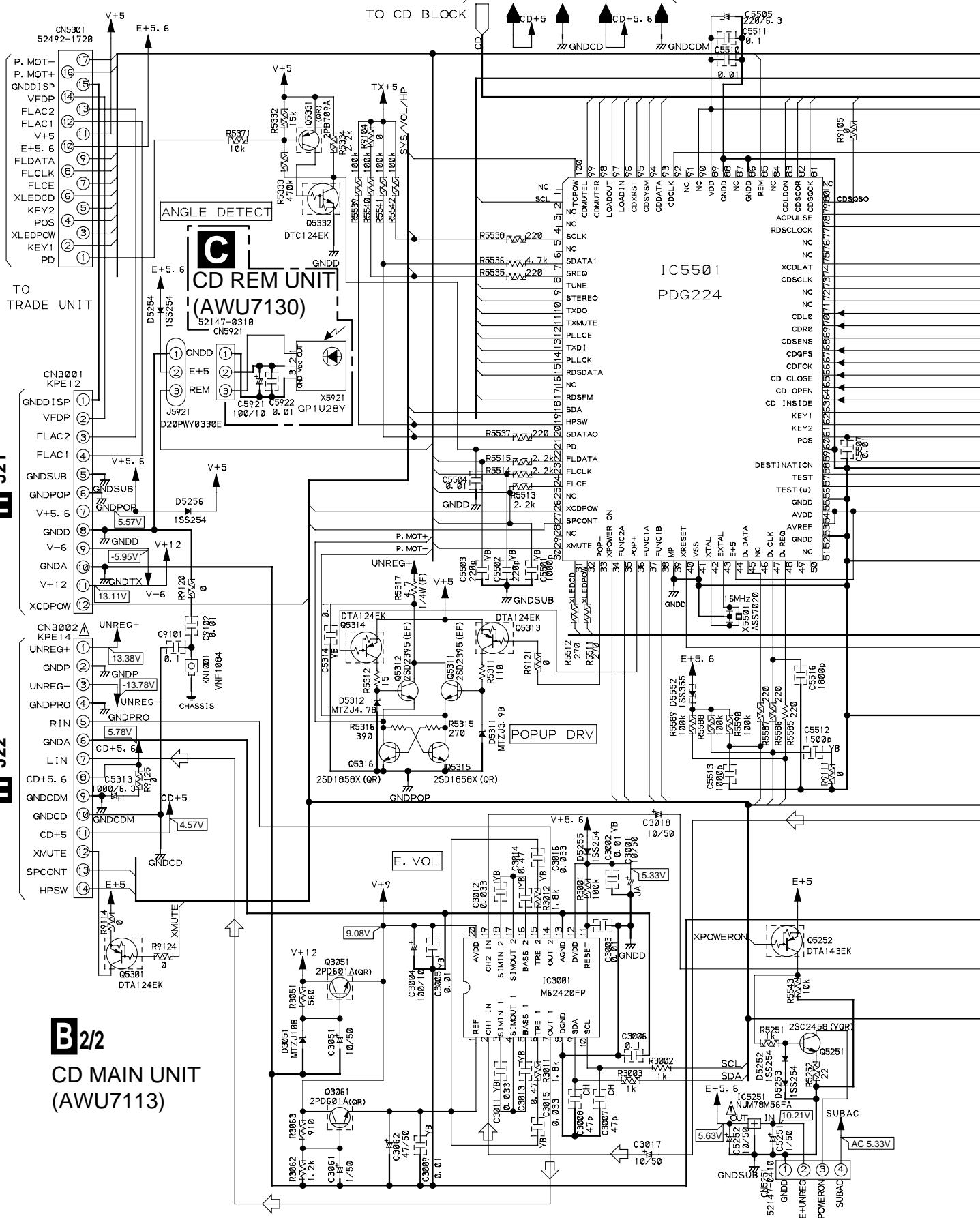
C

D

J CN5401

H J21

H J22



B 2/2  
CD MAIN UNIT  
(AWU7113)

D J1

SIGNAL ROUTE

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

NOTES

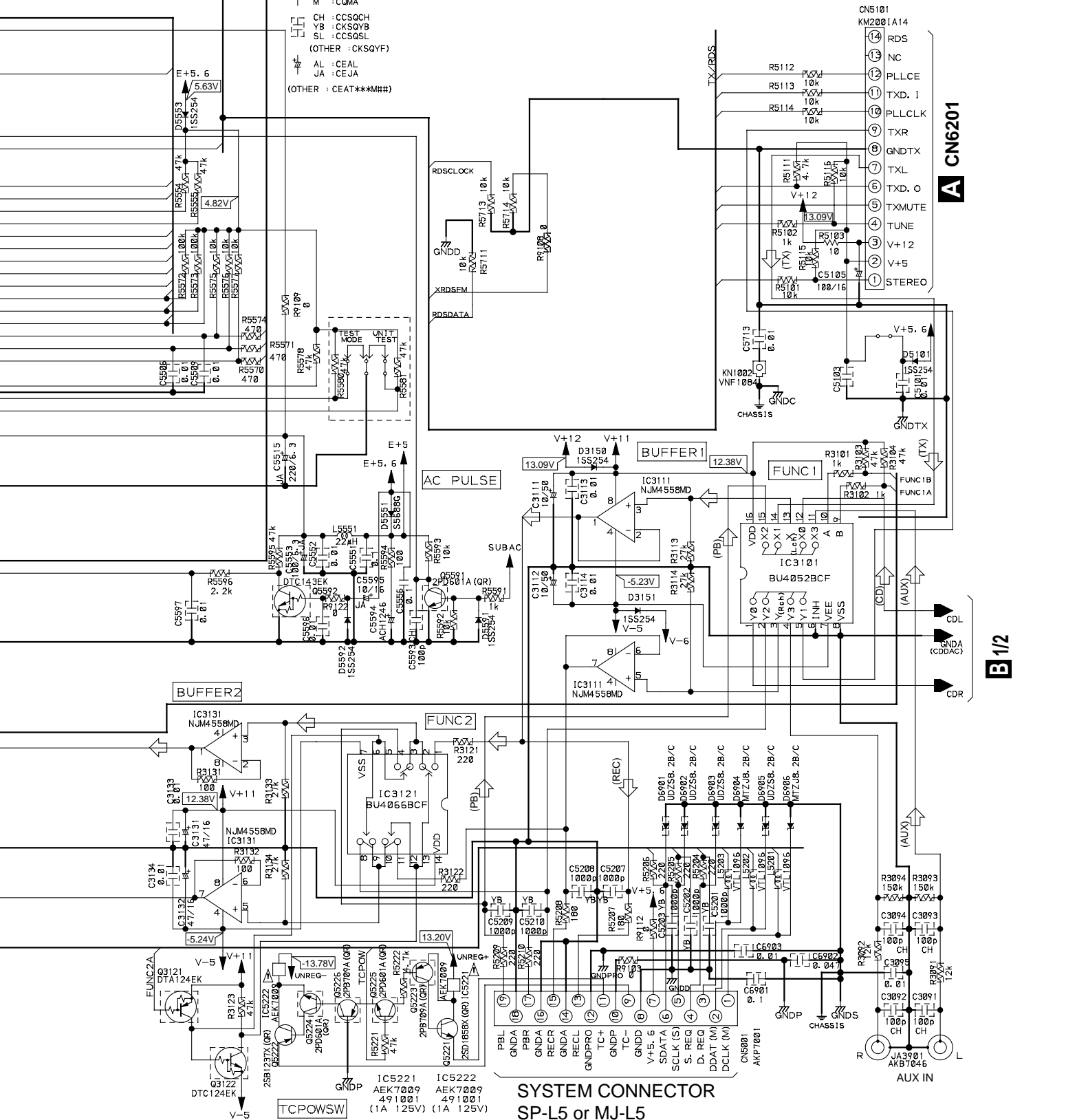
ALL CAPACITORS ARE IN  $\mu$ F  
UNLESS OTHERWISE SPECIFIED

TL : CFTLA  
M : CQMA

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

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

ALL RESISTORS ARE IN  $\Omega$   
K : 1/10W(CHIP)  
W : 1/4WPU  
ALL INDUCTORS ARE IN  $\mu$ H  
LAU



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

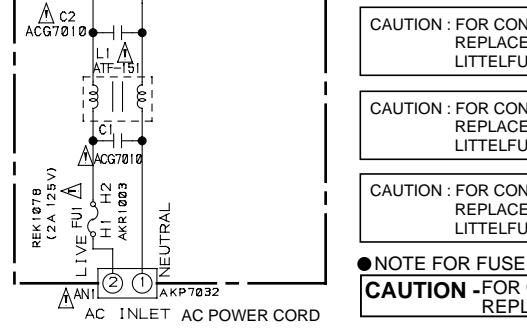
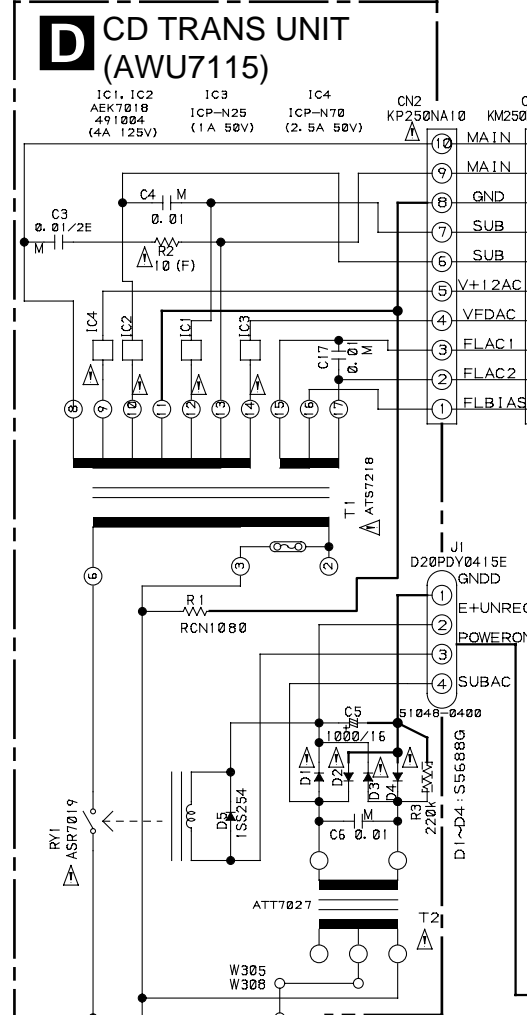
3.5 CD TRANS, CD RECTIFY, CD POWER, CD REG, CD AMP and CD HP UNITS

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

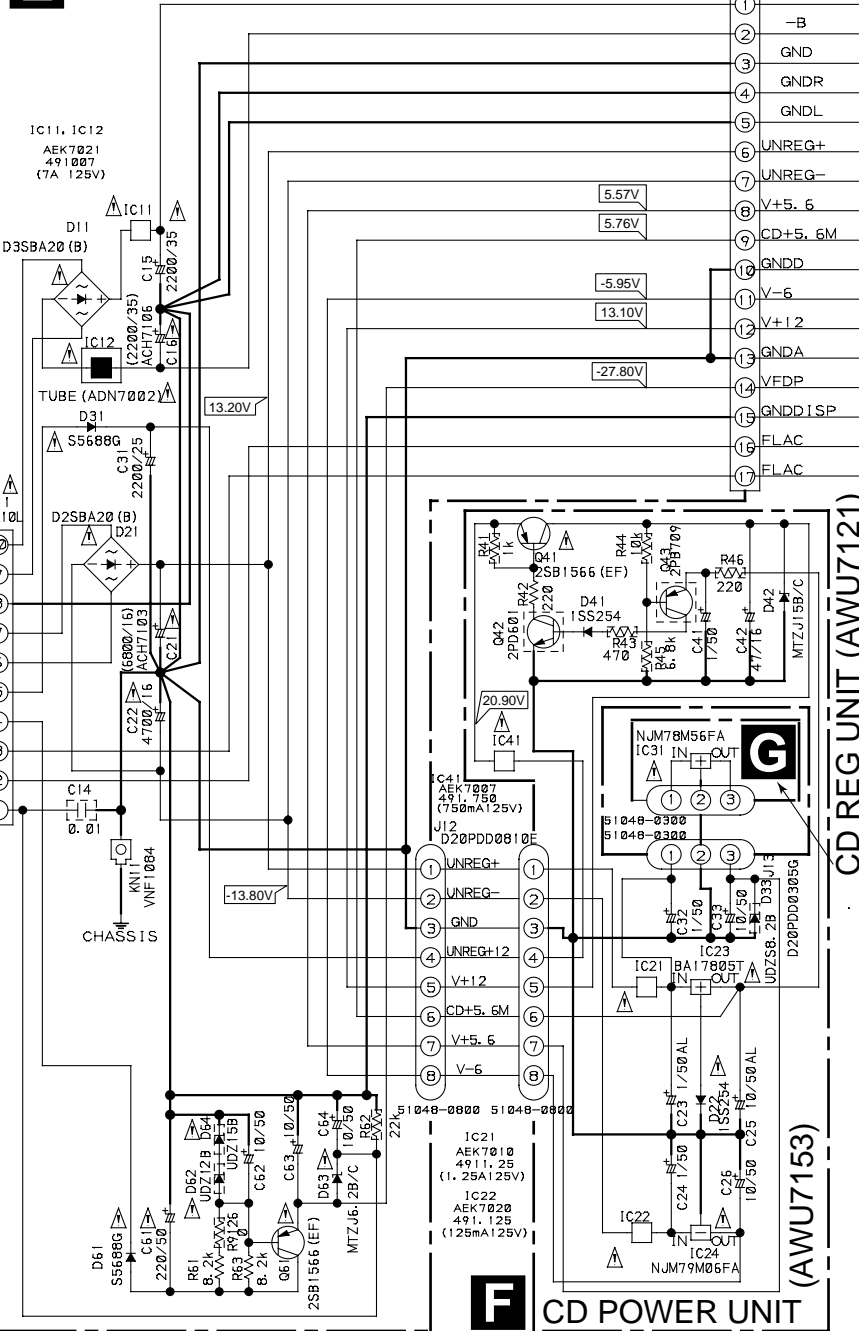
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491004 MFD, BY LITTELFUSE INK. FOR IC1,IC2 (AEK7018).

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N25 MFD, BY ROHM CO.,LTD. FOR IC3.

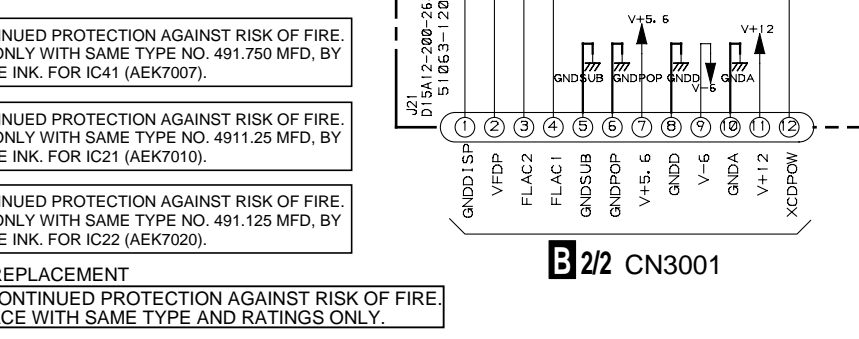
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N70 MFD, BY ROHM CO.,LTD. FOR IC4.



CD RECTIFY UNIT (AWU7128)



CD POWER UNIT (AWU7153)

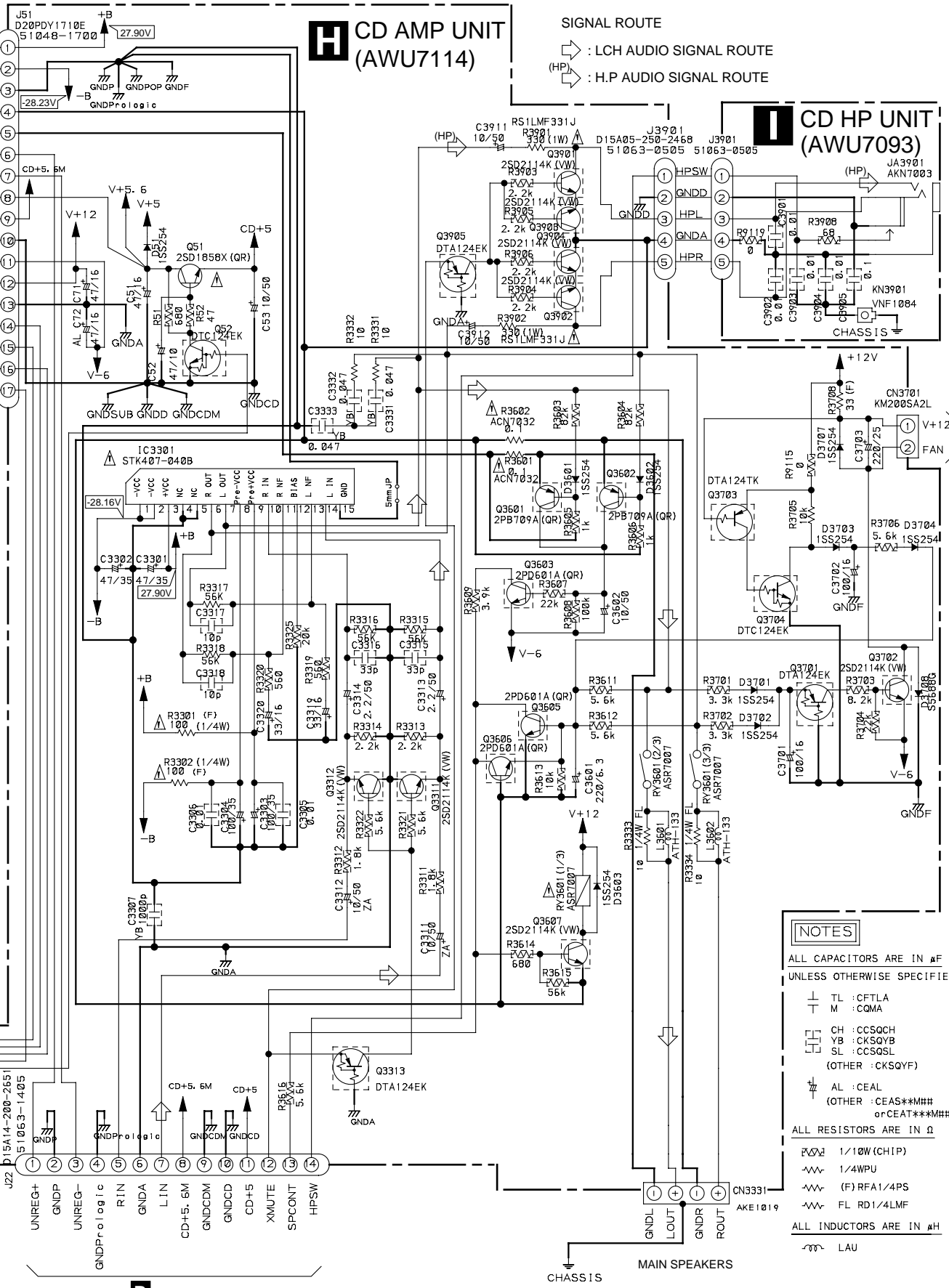


NOTE FOR FUSE REPLACEMENT CAUTION -FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE AND RATINGS ONLY.

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).



**CD AMP UNIT (AWU7114)**

**CD HP UNIT (AWU7093)**

SIGNAL ROUTE  
 ↳ : LCH AUDIO SIGNAL ROUTE  
 ↳ (HP) : H.P AUDIO SIGNAL ROUTE

FAN MOTOR

MAIN SPEAKERS

**NOTES**

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

TL : CFTLA  
 M : CQMA

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

AL : CEAL  
 (OTHER : CEAS\*\*M##  
 or CEAT\*\*M##)

ALL RESISTORS ARE IN  $\Omega$

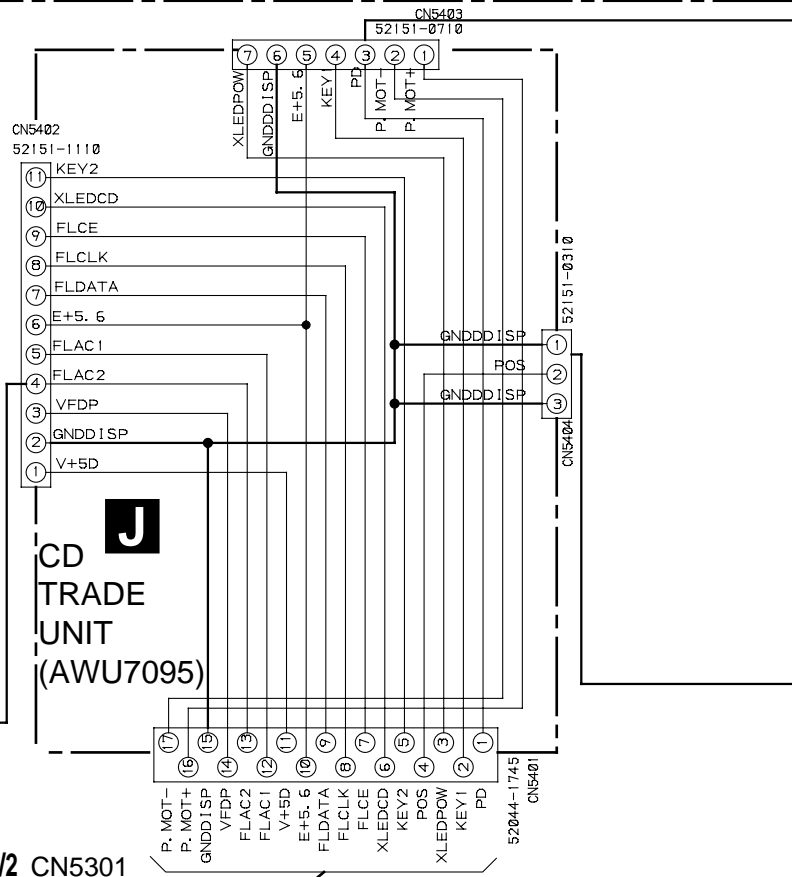
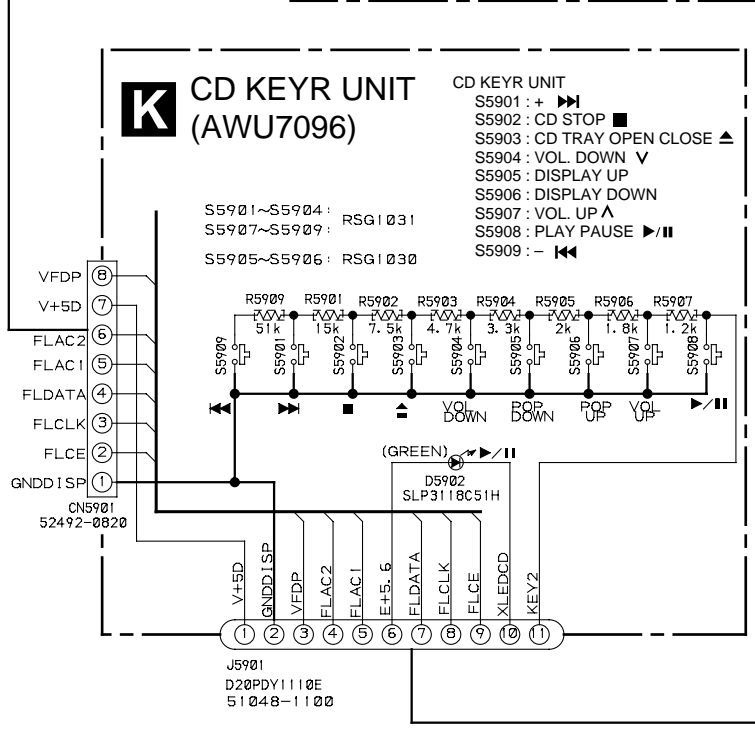
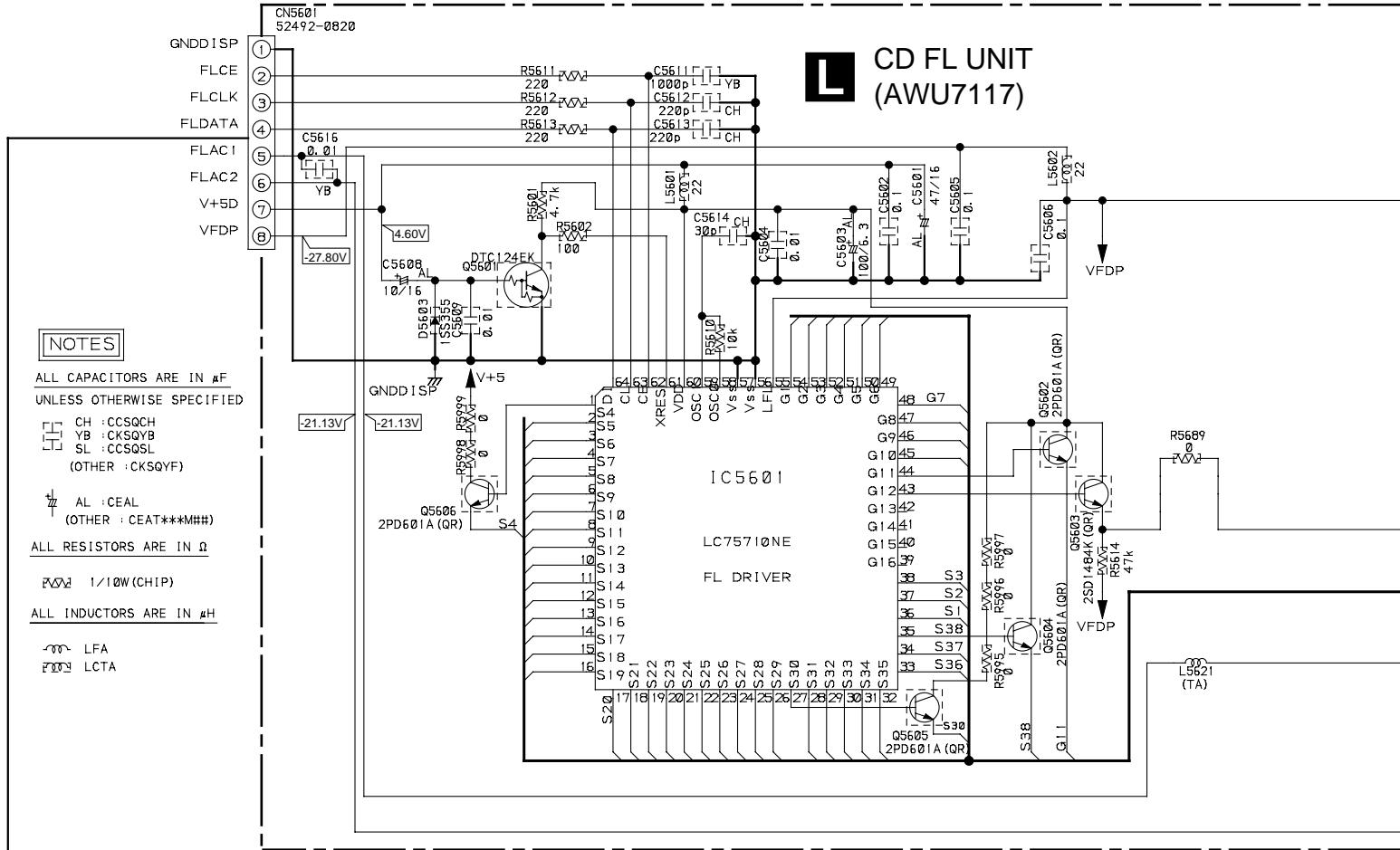
1/4W (CHIP)  
 1/4W (F)  
 (F) RFA1/4PS  
 FL RD1/4LMF

ALL INDUCTORS ARE IN  $\mu$ H  
 LAU

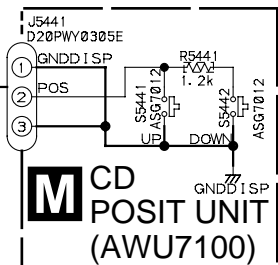
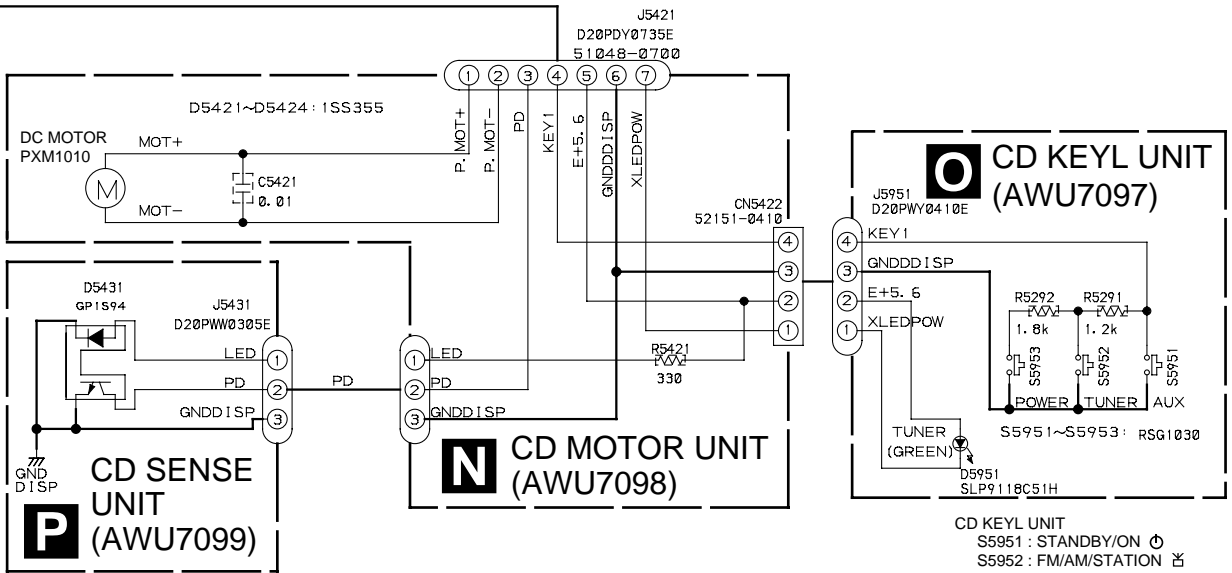
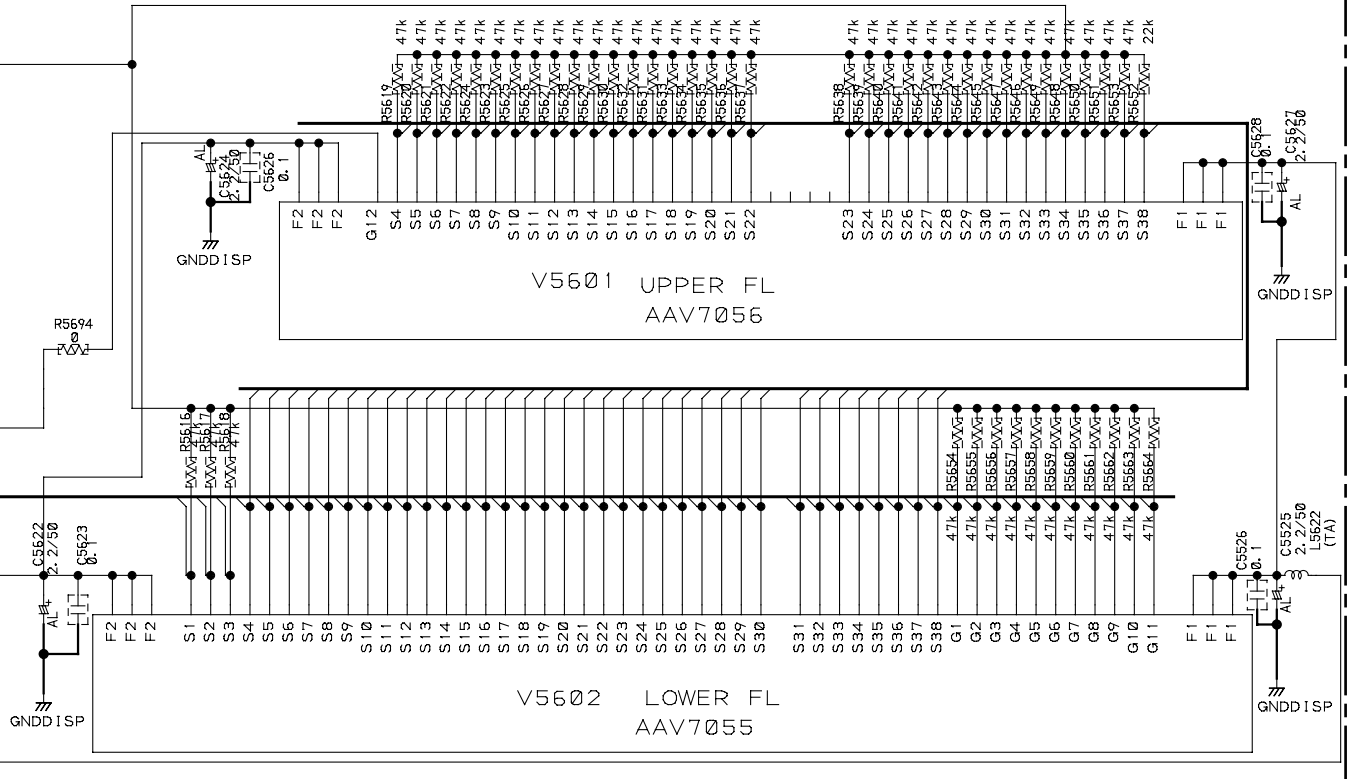
**B/2/2 CN3002**



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



AEB7125 x4  
(FL spacer)


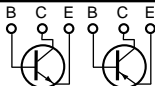

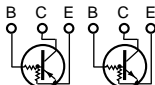

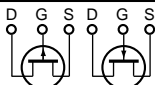

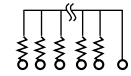




CD KEY UNIT  
S5951 : STANDBY/ON ⊕  
S5952 : FM/AM/STATION ⚡  
S5953 : AUX

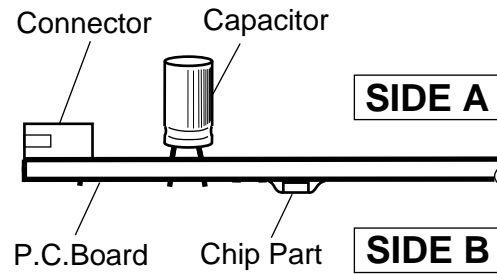
## 4. PCB CONNECTION DIAGRAM

### 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.

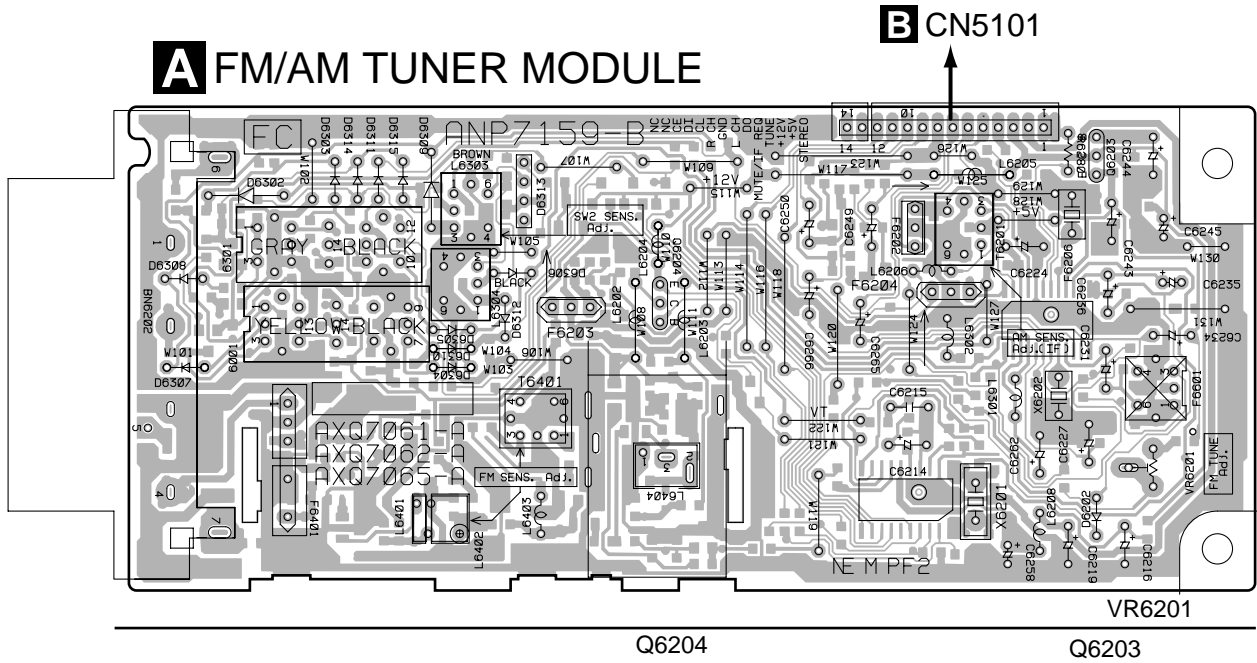
Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

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.

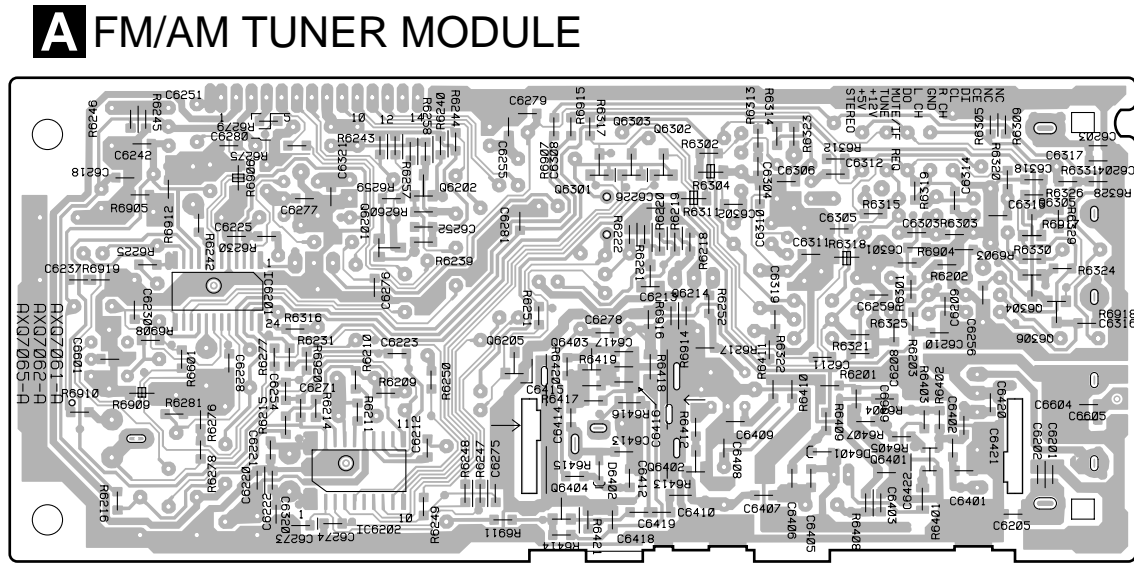




4.1 FM/AM TUNER MODULE



**SIDE A**



**SIDE B**

IC6201 Q6201 Q6202 Q6301 Q6303 Q6302 Q6401 Q6304  
 IC6202 Q6403 Q6214 Q6404 Q6402 Q6205 (ANP7159-B)

4.2 CD MAIN UNIT

SIDE A

A CN6201

B CD MAIN UNIT

SYSTEM CONNECTOR

CD MECHA ASSY

Q1101

Q5222

IC5222

Q5221

IC5221

CD MECHA ASSY

CD MECHA ASSY

Q5312

Q5311

Q5251

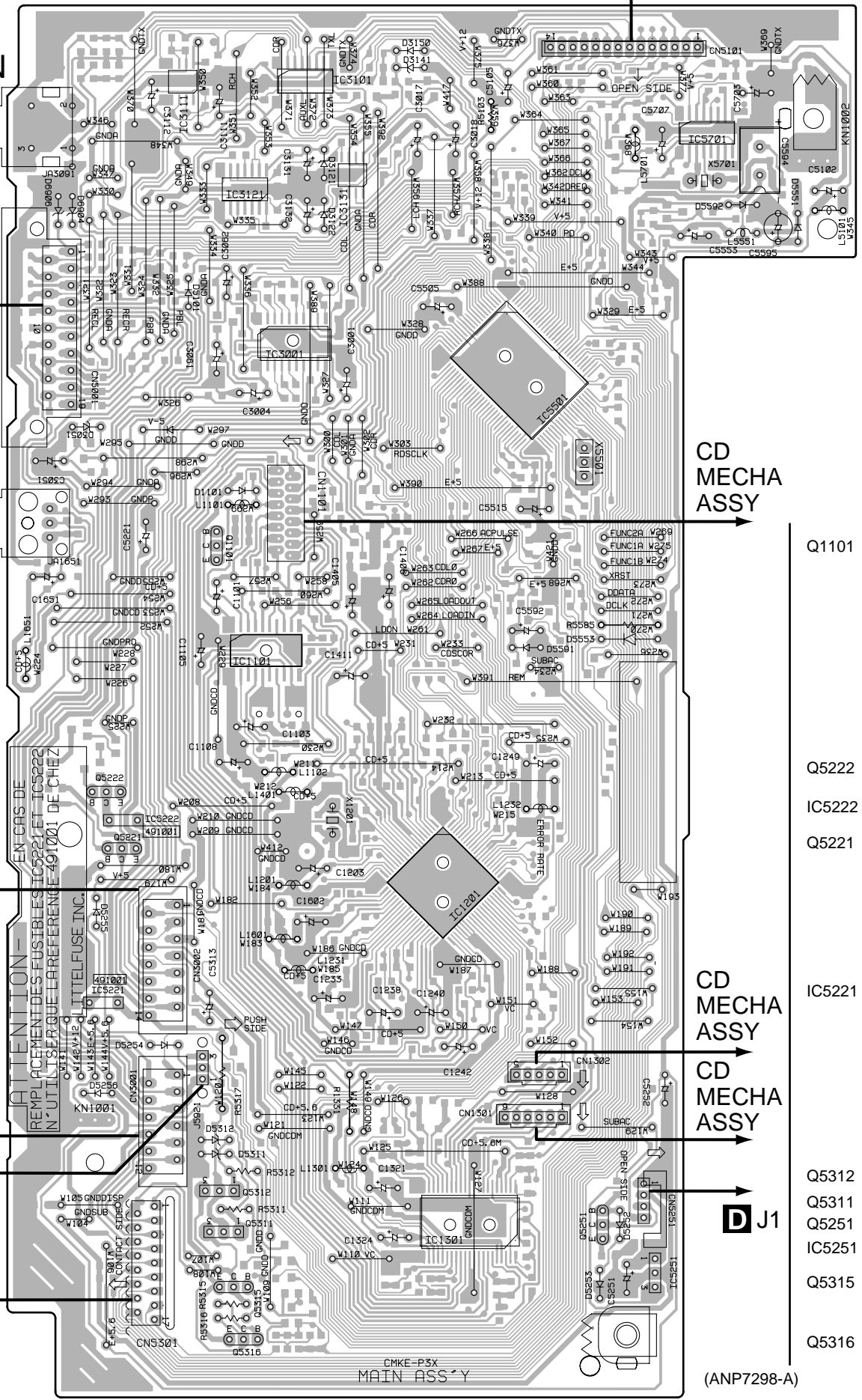
IC5251

Q5315

Q5316

D J1

(ANP7298-A)



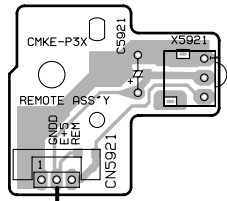
B



### 4.3 CD REM, CD TRANS, CD RECTIFY, CD POWER and CD REG UNITS

**SIDE A**

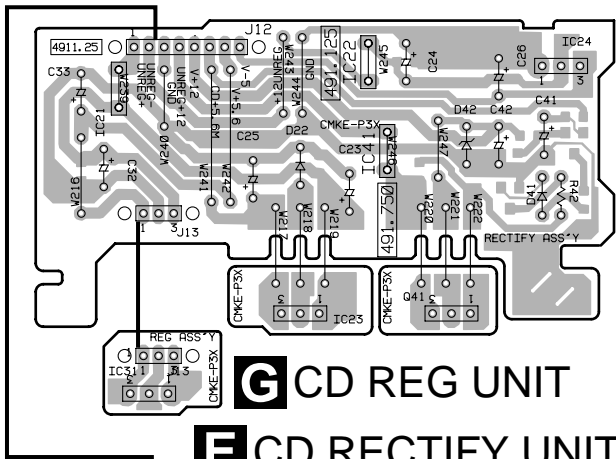
**C** CD REM UNIT



**B** J5921

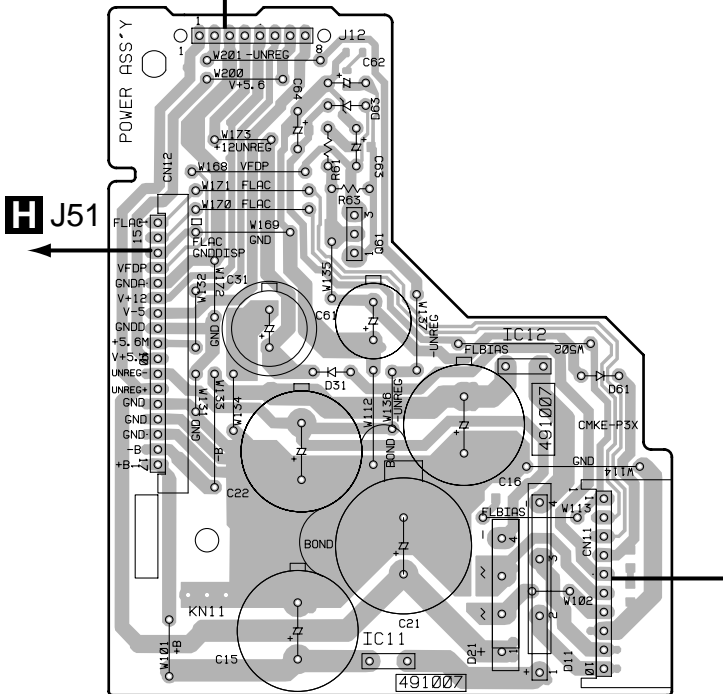
**F** CD POWER UNIT

**B** CN5251

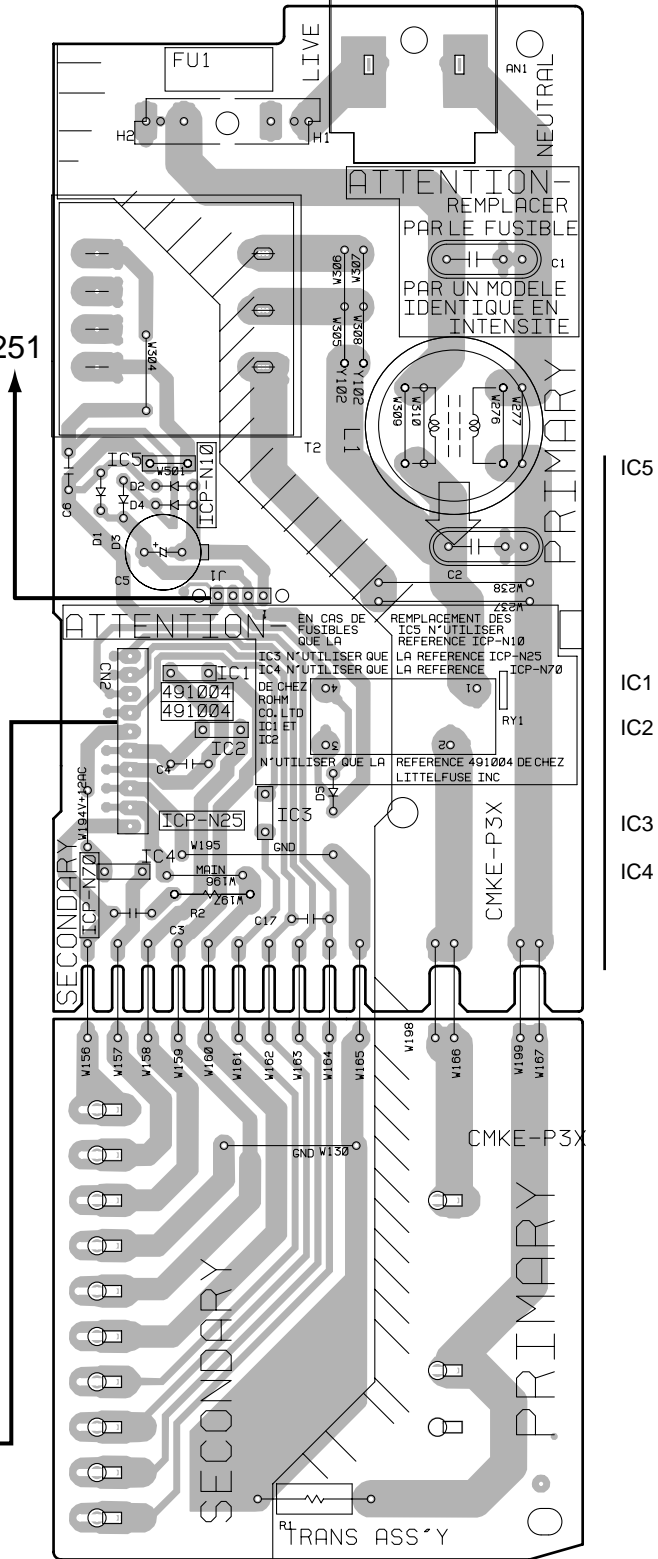


**G** CD REG UNIT

**E** CD RECTIFY UNIT



**D** CD TRANS UNIT



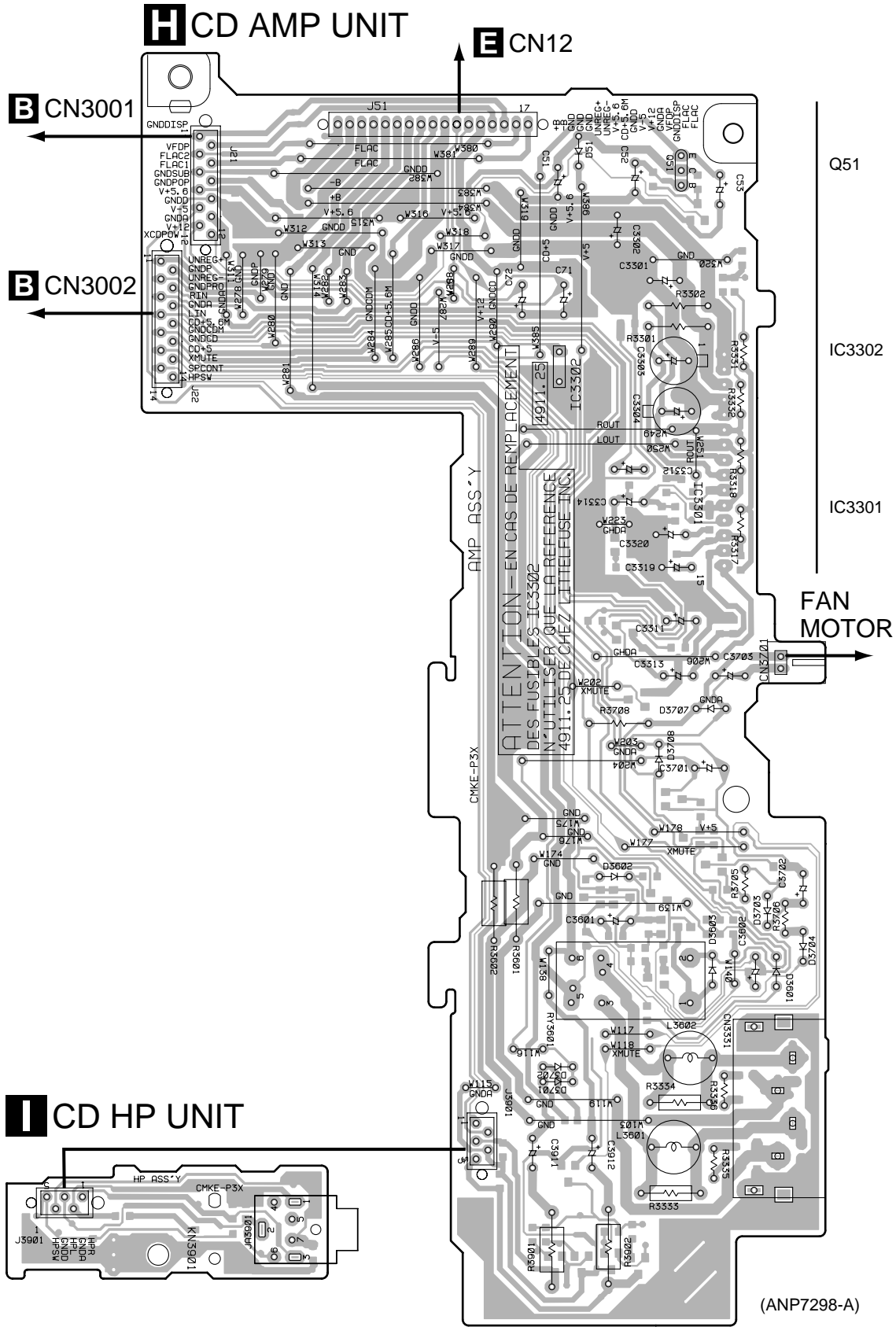
(ANP7298-A)





4.4 CD AMP and CD HP UNITS

SIDE A



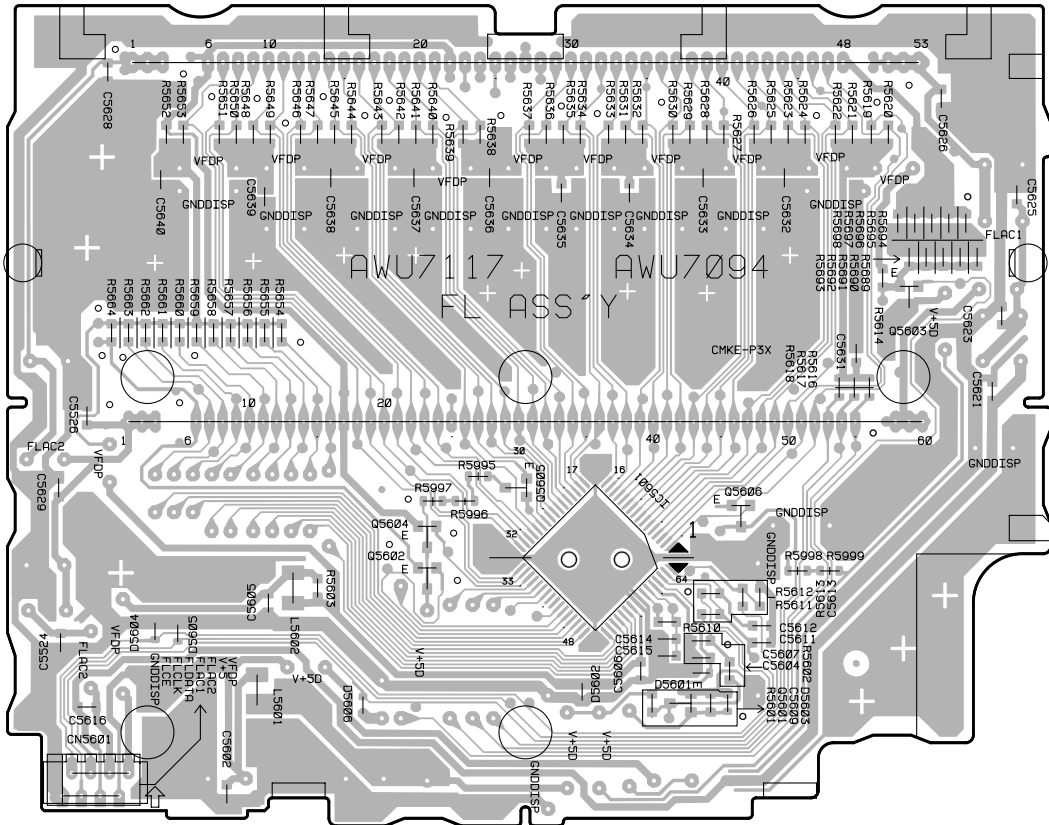






**SIDE B**

**L** CD FL UNIT

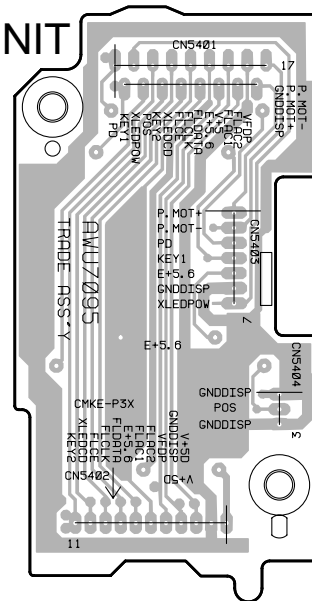


Q5603

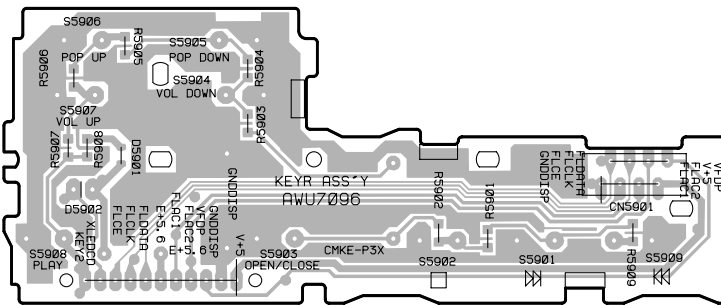
Q5605  
Q5606  
Q5604  
Q5602  
IC5601

Q5601

**J** CD TRADE UNIT

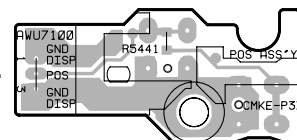


**K** CD KEYR UNIT



(ANP7247-B)

**M** CD POSIT UNIT

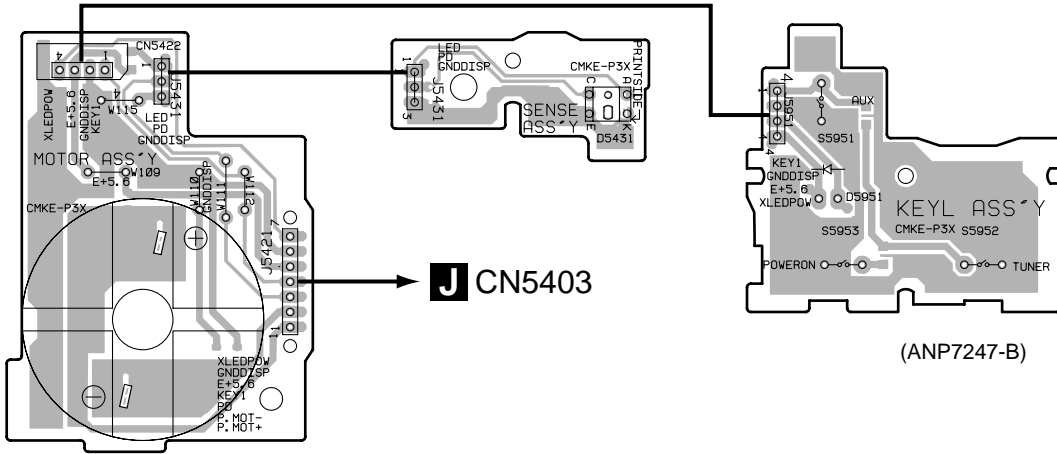


**J K L M**

4.6 CD MOTOR, CD KEYL and CD SENSE UNITS

SIDE A

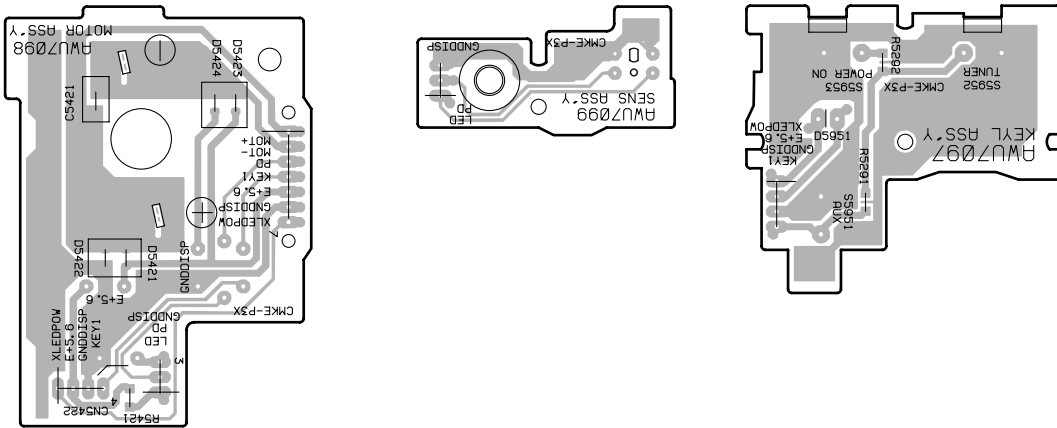
**N** CD MOTOR UNIT **P** CD SENSE UNIT **O** CD KEYL UNIT



(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	<table border="1"><tr><td>5</td><td>6</td><td>1</td></tr></table>	5	6	1	J
5	6	1									
47k $\Omega$	→	47 × 10 <sup>3</sup>	→	473	.....	RD1/4PU	<table border="1"><tr><td>4</td><td>7</td><td>3</td></tr></table>	4	7	3	J
4	7	3									
0.5 $\Omega$	→	R50	.....			RN2H	<table border="1"><tr><td>R</td><td>5</td><td>0</td></tr></table>	R	5	0	K
R	5	0									
1 $\Omega$	→	1R0	.....			RS1P	<table border="1"><tr><td>1</td><td>R</td><td>0</td></tr></table>	1	R	0	K
1	R	0									

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	<table border="1"><tr><td>5</td><td>6</td><td>2</td><td>1</td></tr></table>	5	6	2	1	F
5	6	2	1									

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

## LIST OF ASSEMBLIES

		FM/AM TUNER MODULE	AXQ7065
NSP		CDCOMP ASSY	AWM7381
		├ CD MAIN UNIT	AWU7113
		├ CD REM UNIT	AWU7130
		├ CD TRANS UNIT	AWU7115
		├ CD RECTIFY UNIT	AWU7128
		├ CD POWER UNIT	AWU7153
		├ CD REG UNIT	AWU7121
		├ CD AMP UNIT	AWU7114
		├ CD HP UNIT	AWU7093
NSP		DISPLAY ASSY	AWM7382
		├ CD TRADE UNIT	AWU7095
		├ CD KEYR UNIT	AWU7096
		├ CD FL UNIT	AWU7117
		├ CD POSIT UNIT	AWU7100
		├ CD MOTOR UNIT	AWU7098
		├ CD KEYL UNIT	AWU7097
		├ CD SENSE UNIT	AWU7099

F6401	ATF-155
F6206	ATF7008
F6202	ATF7011
L6206, L6208, L6403	LAU2R2J

## TRANSFORMERS

T6201	ATB7008
T6401	ATE7002

## CAPACITORS

C6208	CCSQCH100D50
C6212, C6274, C6275, C6408	CCSQCH101J50
C6412	CCSQCH102J50
C6221, C6222, C6416	CCSQCH150J50
C6271	CCSQCH200J50
C6415	CCSQCH330J50
C6406	CCSQCH331J50
C6401, C6419	CCSQCH5R0C50
C6407	CCSQCK1R0C50
C6410	CCSQCK2R0C50

C6413	CCSQRH180J50
C6414	CCSQRH8R0D50
C6405	CCSQTH150J50
C6234, C6235	CEAL1R0M50
C6245	CEAL470M16

C6224	CEAT100M50
C6243	CEAT101M16
C6231	CEAT1R0M50
C6227	CEAT220M25
C6214, C6236	CEAT2R2M50

C6262	CEAT3R3M50
C6219	CEAT470M10
C6244	CEAT470M16
C6249, C6250, C6265, C6266	CEAT4R7M50
C6258	CEJA470M16

C6215	CFTLA103J50
C6211, C6254, C6403, C6417	CKSQYB102K50
C6201, C6205, C6210, C6237, C6276	CKSQYB103K50
C6278, C6280, C6281, C6402, C6409	CKSQYB103K50
C6418	CKSQYB103K50

C6251, C6252	CKSQYB153K50
C6203, C6259	CKSQYB223K50
C6228	CKSQYB472K50
C6209	CKSQYB473K50
C6230	CKSQYB821K50

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

### SEMICONDUCTORS

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

### COILS AND FILTERS

L6404	ATC1003
L6401	ATC1020
L6402	ATC1021
F6204	ATF-107
F6203	ATF-119

# XC-L5

Mark	No.	Description	Part No.
	C6218, C6223, C6255		CKSQYF103Z50
	C6220, C6226, C6242, C6256		CKSQYF223Z50
	C6225		CKSQYF473Z50

## RESISTORS

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

## OTHERS

BN6202	2P TERMINAL WITH PAL	AKE7025
X6202	CRYSTAL RESONATOR (456 KHz)	ASS1066
X6201	CRYSTAL RESONATOR (7.2000 MHz)	ASS1093
CN6201	14P SOCKET MW RF TUNING BLOCK	KP200IA14L AXX7041

## B CD MAIN UNIT

### SEMICONDUCTORS

△	IC5221, IC5222 PROTECTOR (1A)	AEK7009
	IC3101	BU4052BCF
	IC3121	BU4066BCF
	IC1101	CXA1821M
	IC1201	CXD2587Q
	IC1301	M56758FP
	IC3001	M62420FP
	IC3111, IC3131	NJM4558MD
△	IC5251	NJM78M56FA
	IC5501	PDG224A
	Q5223, Q5226, Q5331	2PB709A
	Q3051, Q3061, Q5224, Q5225, Q5591	2PD601A
	Q1101	2SA854S
	Q5222	2SB1237X
	Q5251	2SC2458
	Q5221, Q5315, Q5316	2SD1858X
	Q1401, Q1402	2SD2114K
	Q5311, Q5312	2SD2395
	Q1201, Q1403, Q1404, Q3121, Q5301	DTA124EK
	Q5313, Q5314	DTA124EK
	Q5252	DTA143EK
	Q3122, Q5332	DTC124EK
	Q5592	DTC143EK
	D1101, D3150, D3151, D5101	1SS254
	D5252–D5256, D5553, D5591, D5592	1SS254
	D1331, D5552	1SS355
	D3051	MTZJ10B
	D5311	MTZJ3.9B
	D5312	MTZJ4.7B
	D6904, D6906	MTZJ8.2B
	D5551	S5688G
	D1332	UDZ4.7B
	D6901–D6903, D6905	UDZS8.2B

### COILS AND FILTERS

L1101, L1102, L1201, L1231, L1232	LAU100J
L1301, L1401, L1601, L1651	LAU100J
L5551	LAU220J
L5201–L5203 CHIP BEADS	VTL1096

Mark	No.	Description	Part No.
<b>CAPACITORS</b>			

C5594	ACH1246
C3091–C3094, C5593	CCSQCH101J50
C1231, C1261	CCSQCH102J50
C1201, C1202	CCSQCH150J50
C1401, C1402	CCSQCH151J50

C1102, C1601	CCSQCH220J50
C1239, C1246, C1247, C5502, C5503	CCSQCH221J50
C3007, C3008	CCSQCH470J50
C1403, C1404	CCSQL681J50
C1203, C1233, C1240, C1602, C5102	CEAL101M6R3

C1238	CEALR47M50
C1324, C3017, C3018, C3051	CEAT100M50
C3111, C3112, C5252	CEAT100M50
C1101, C1108, C1321, C1651, C3004	CEAT101M10
C5105	CEAT101M16

C5313	CEAT102M6R3
C3061, C5251	CEAT1R0M50
C1103, C1105	CEAT330M25
C3131, C3132	CEAT470M16
C3062	CEAT470M50

C1405, C1406, C5595	CEJA100M16
C3001	CEJA100M50
C1242, C1249, C5553	CEJA101M6R3
C1411	CEJA220M35
C5505, C5515	CEJA221M6R3

C5201–C5203, C5207–C5210, C5501	CKSQYB102K50
C5513	CKSQYB102K50
C1204, C1205, C1237, C1415, C1416	CKSQYB103K50
C3002, C3005, C3009	CKSQYB103K50
C5314	CKSQYB104K25

C1236, C5512	CKSQYB152K50
C5516	CKSQYB182K50
C1248	CKSQYB222K50
C1319, C1320, C3011, C3012	CKSQYB333K50
C3015, C3016	CKSQYB333K50

C1235	CKSQYB473K50
C3013, C3014	CKSQYB474K16
C1303, C1304, C1307, C1308	CKSQYB821K50
C1311	CKSQYB822K50
C1106, C1107, C1109, C1232, C1234	CKSQYF103Z50

C1241, C1250, C1251, C1253, C1276	CKSQYF103Z50
C1322, C1323, C1325, C1413, C1414	CKSQYF103Z50
C1417, C1603, C1604, C1652, C1653	CKSQYF103Z50
C3003, C3095, C3113, C3114	CKSQYF103Z50
C3133, C3134, C5101, C5504	CKSQYF103Z50

C5506, C5507, C5509, C5510, C5552	CKSQYF103Z50
C5596, C5597, C5713, C6902, C6903	CKSQYF103Z50
C9102	CKSQYF103Z50
C1113	CKSQYF104Z25
C1245, C1654, C3006, C5511, C5551	CKSQYF104Z50

C5556, C6901, C9101	CKSQYF104Z50
---------------------	--------------

### RESISTORS

R5103	RD1/4PU100J
R5311	RD1/4PU111J
R5312	RD1/4PU150J
R5585	RD1/4PU221J
R5315	RD1/4PU271J

Mark	No.	Description	Part No.
	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
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	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-N25
△	IC4 IC	PROTECTOR	ICP-N70
	D5		1SS254
△	D1-D4		S5688G

**COILS AND FILTERS**

△	L1	ATF-151
---	----	---------

**TRANSFORMERS**

△	T2	ATT7027
---	----	---------

**SWITCHES AND RELAYS**

△	RY1	STANDBY TRANSFORMER	ASR7019
---	-----	---------------------	---------

**CAPACITORS**

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

**RESISTORS**

△	R1 (2.2MΩ/ 1/2W)	RCN1080
△	R2	RFA1/4PS100J
	Other Resistors	RS1/10S□□□J

Mark	No.	Description	Part No.
<b>OTHERS</b>			
	1	CABLE HOLDER	51048-0400
△	AN1	AC INLET 1P	AKP7032
	H1, H2	FUSE CLIP	AKR1003
	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		UDZ12B
△	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
	Q43		2PB709A
	Q42		2PD601A
△	Q41		2SB1566
	D22, D41		1SS254
	D42		MTZJ15B
	D33		UDZS8.2B

**CAPACITORS**

C25	CEAL100M50
C23	CEAL1R0M50
C26, C33	CEAT100M50
C24, C32, C41	CEAT1R0M50
C42	CEAT470M16

# XC-L5

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

## RESISTORS

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

## 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-133
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### SWITCHES AND RELAYS

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

C3317, C3318		CCSQCH100D50
C3315, C3316		CCSQCH330J50
C72		CEAL470M16
C3602, C3911, C3912, C53		CEAT100M50
C3701, C3702		CEAT101M16
C3303, C3304		CEAT101M35
C3703		CEAT221M25
C3601		CEAT221M6R3
C3313, C3314		CEAT2R2M50
C3319, C3320		CEAT330M16
C51, C52, C71		CEAT470M16
C3301, C3302		CEAT470M35
C3311, C3312		CEZA100M50
C3307		CKSQYB102K50
C3331-C3333		CKSQYB473K50
C3305, C3306		CKSQYF103Z50

Mark	No.	Description	Part No.
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## RESISTORS

△ R3601, R3602 (0.1Ω/1W)		ACN7032
R3333, R3334		RD1/4LMF100J
R3331, R3332		RD1/4PU100J
R3705		RD1/4PU103J
R3706		RD1/4PU562J

R3317, R3318		RD1/4PU563J
△ R3301, R3302		RFA1/4PS101J
R3708		RFA1/4PS330J
△ R3901, R3902		RS1LMF331J
Other Resistors		RS1/10S□□□□

## OTHERS

3903	CABLE HOLDER(5P)	51063-0505
21	CABLE HOLDER(12P)	51063-1205
22	CABLE HOLDER(14P)	51063-1405
3331	SPEAKER TERMINAL 4P	AKE1019
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□□□□
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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 KEYS UNIT

### SEMICONDUCTORS

D5902		SLP3118C51H
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### SWITCHES AND RELAYS

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

### RESISTORS

All Resistors		RS1/10S□□□□
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## OTHERS

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

Mark	No.	Description	Part No.
<b>L</b>		<b>CD FL UNIT</b>	
		<b>SEMICONDUCTORS</b>	
	IC5601		LC75710NE
	Q5602, Q5604-Q5606		2PD601A
	Q5603		2SD1484K
	Q5601		DTC124EK
	D5603		1SS355
		<b>COILS AND FILTERS</b>	
	L5601, L5602		LCTA220J3225
	L5621, L5622		LFA1R0J
		<b>CAPACITORS</b>	
	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
		<b>RESISTORS</b>	
	All Resistors		RS1/10S□□□J
		<b>OTHERS</b>	
	CN5601	CONNECTOR 8P	52492-0820
	5602	FL TUBE	AAV7055
	5601	FL TUBE	AAV7056
		FL SPACER	AEB7125

Mark	No.	Description	Part No.
<b>M</b>		<b>CD POSIT UNIT</b>	
		<b>SWITCHES AND RELAYS</b>	
	S5441, S5442		ASG7012
		<b>RESISTORS</b>	
	All Resistors		RS1/10S□□□J
		<b>OTHERS</b>	
	J5441	3P JUMPER WIRE	D20PWY0305E

Mark	No.	Description	Part No.
<b>N</b>		<b>CD MOTOR UNIT</b>	
		<b>CAPACITORS</b>	
	C5421		CKSQYF103Z50
		<b>RESISTORS</b>	
	All Resistors		RS1/10S□□□J
		<b>OTHERS</b>	
	5421	CABLE HOLDER(7P)	51048-0700
	CN5422	4PJUMPER CONNECTOR	52151-0410
	J5421	JUMPER WIRE(7P)	D20PDY0735E

Mark	No.	Description	Part No.
<b>O</b>		<b>CD KEYL UNIT</b>	
		<b>SEMICONDUCTORS</b>	
	D5951		SLP9118C51H
		<b>SWITCHES AND RELAYS</b>	
	S5951-S5953		RSG1030
		<b>RESISTORS</b>	
	All Resistors		RS1/10S□□□J
		<b>OTHERS</b>	
	J5951	JUMPER WIRE(4P)	D20PWY0410E
<b>P</b>		<b>CD SENSE UNIT</b>	
		<b>SEMICONDUCTORS</b>	
	D5431	PHOTO INTERRUPTER	GP1S94
		<b>OTHERS</b>	
	J5431	3P JUMPER WIRE	D20PWW0305E





● **Special Function**

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

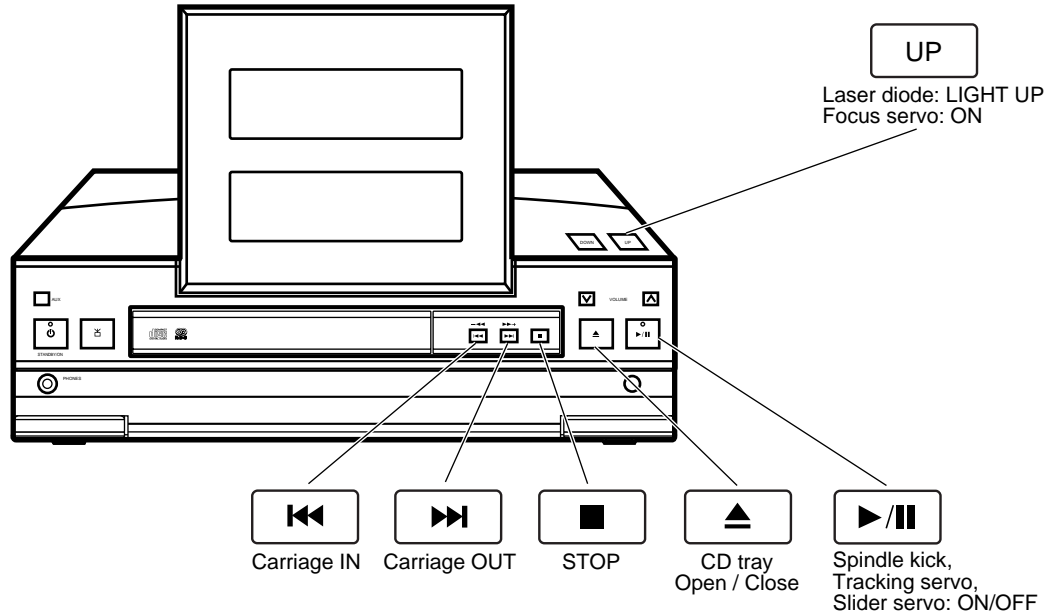
**How to Set Up**

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

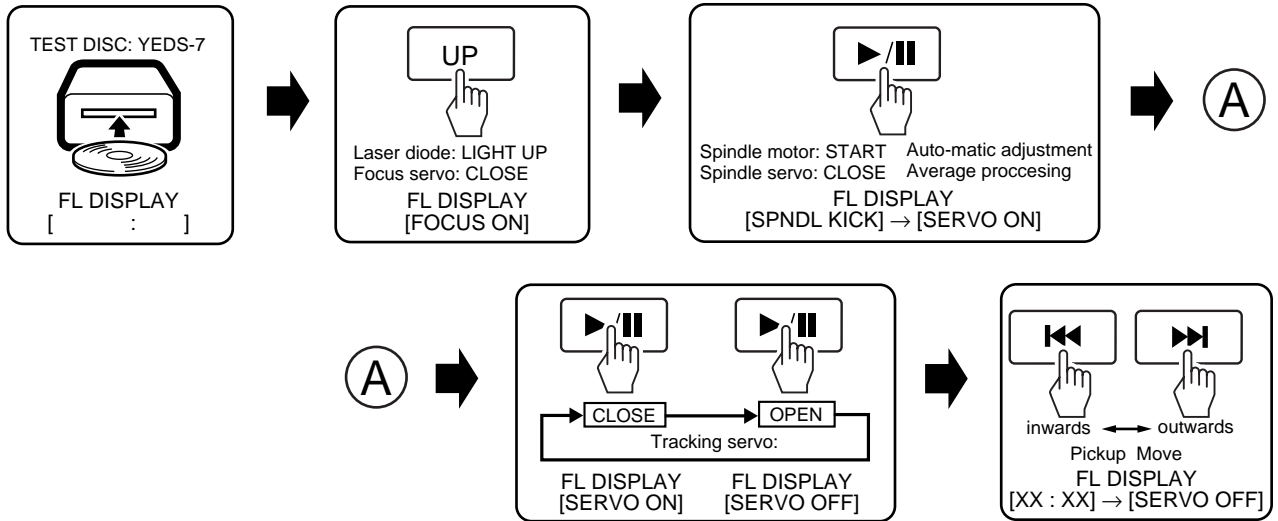
**How to Release**

Unplug the AC power cord from the outlet.

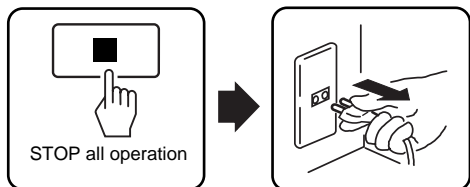
**FUNCTION OF CD TEST MODE**



**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	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.

### 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.

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

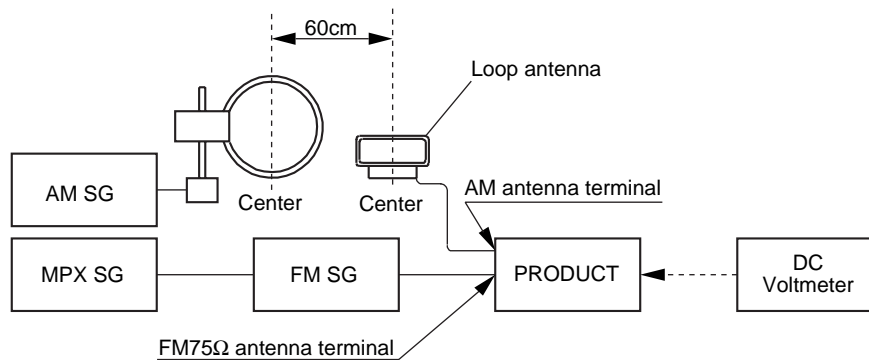


Fig. 1 AM and FM Adjustment Wiring Diagram

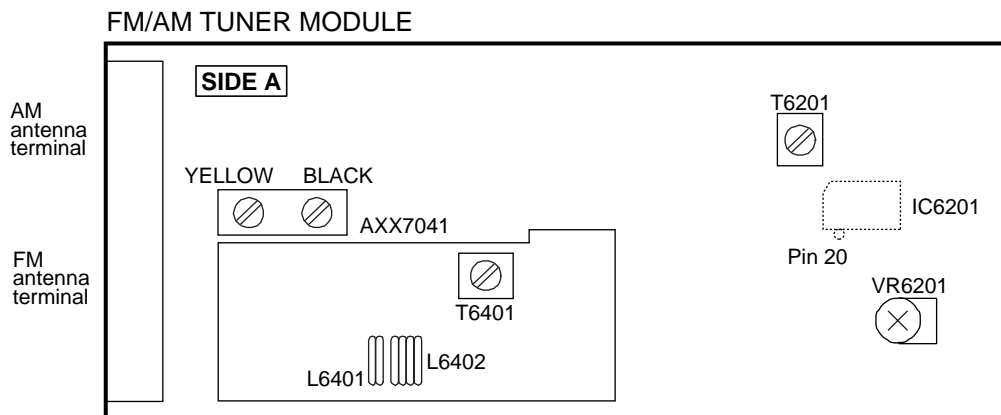


Fig. 2 Adjustment Point

# 7. GENERAL INFORMATION

## 7.1 PARTS

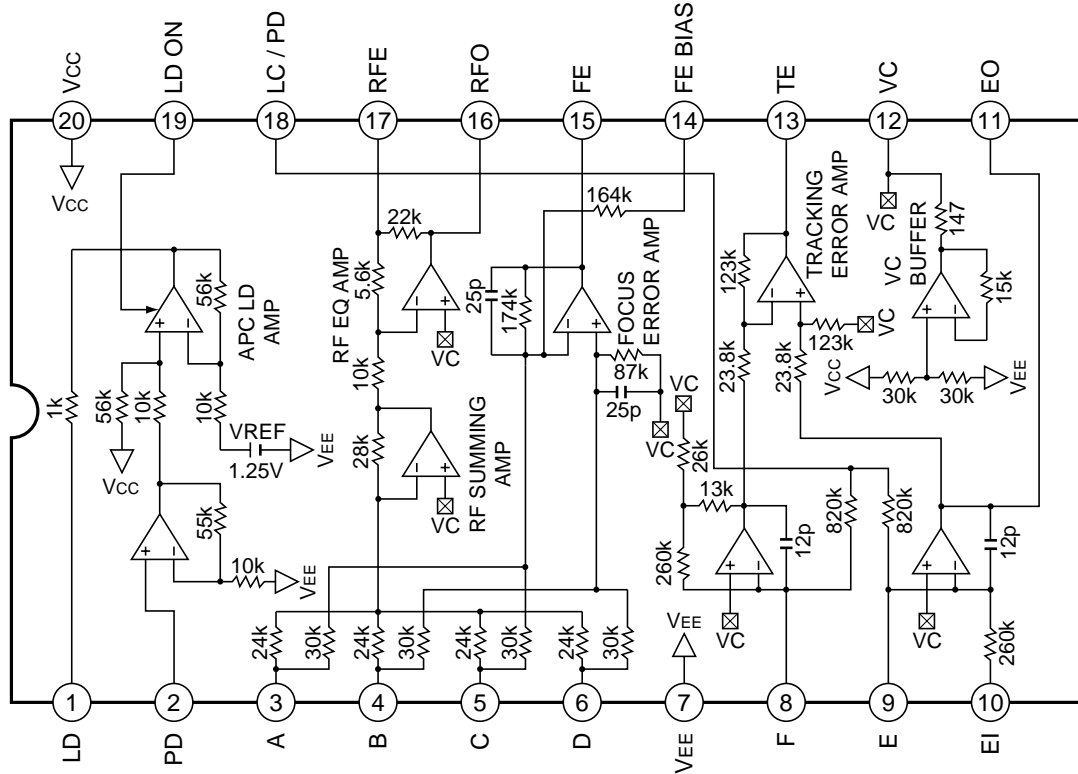
### 7.1.1 IC

• 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



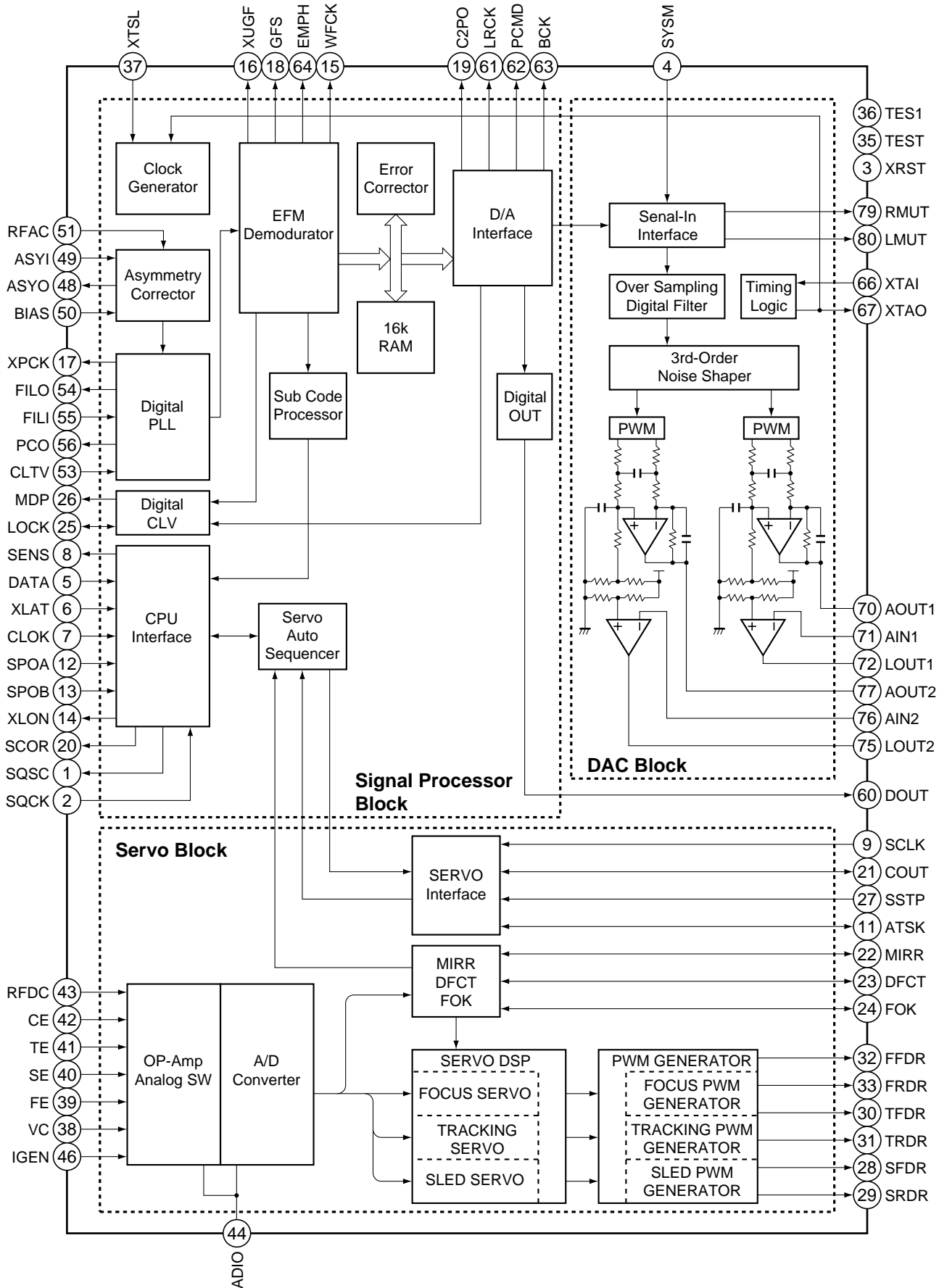
#### ●Pin Function

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

■ 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	SYSM	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	XPLCK	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		69	AVDD1	-	Analog power supply
30	TFDR	O	Tracking drive output	70	AOUT1	O	L ch analog output
31	TRDR	O		71	AIN1	I	L ch OP amp. input
32	FFDR	O	Focus drive output	72	LOUT1	O	L ch LINE output
33	FRDR	O		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		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.

■ PDG224A (CD MAIN UNIT : IC5501)

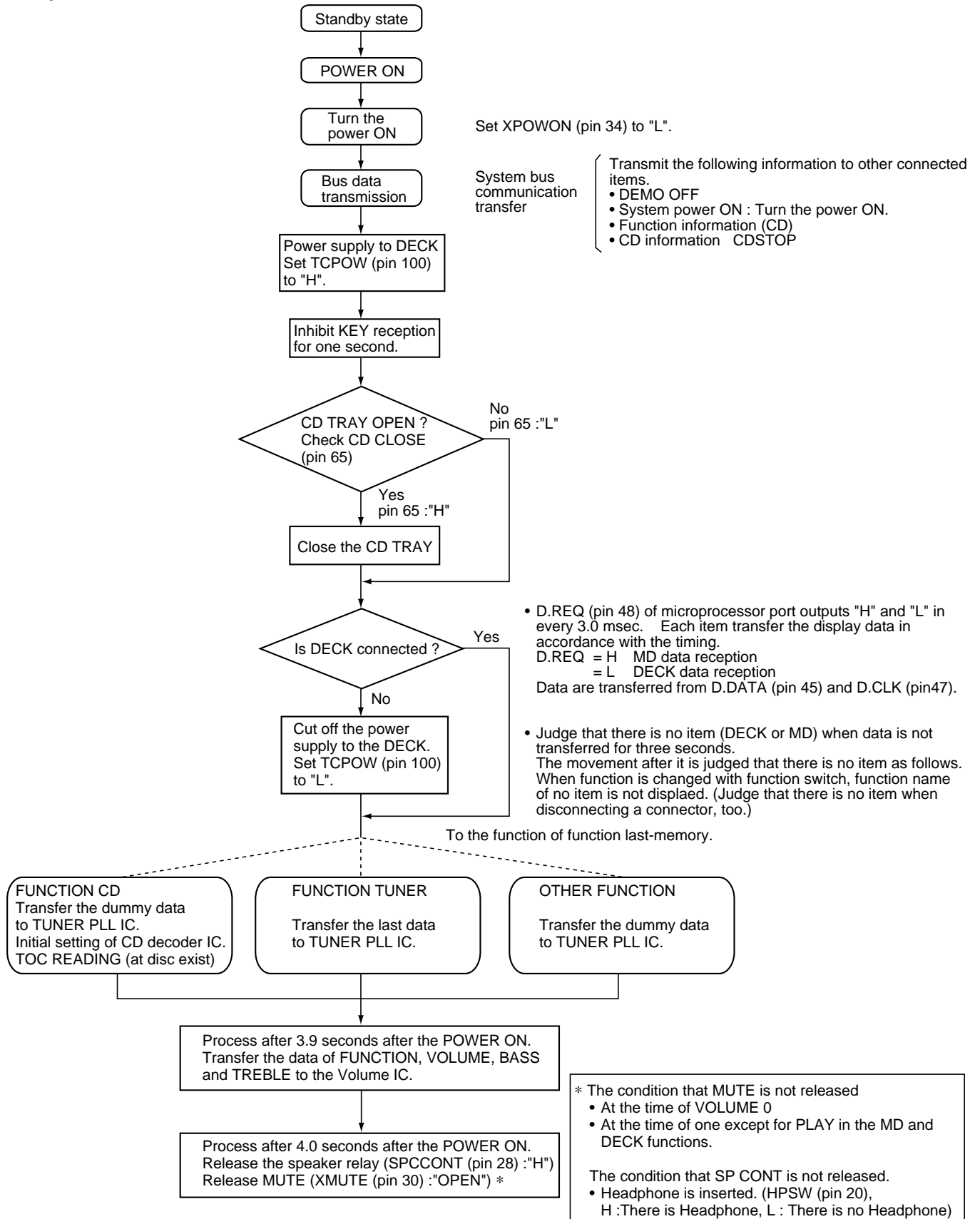
• Mode Control IC

● Pin Function

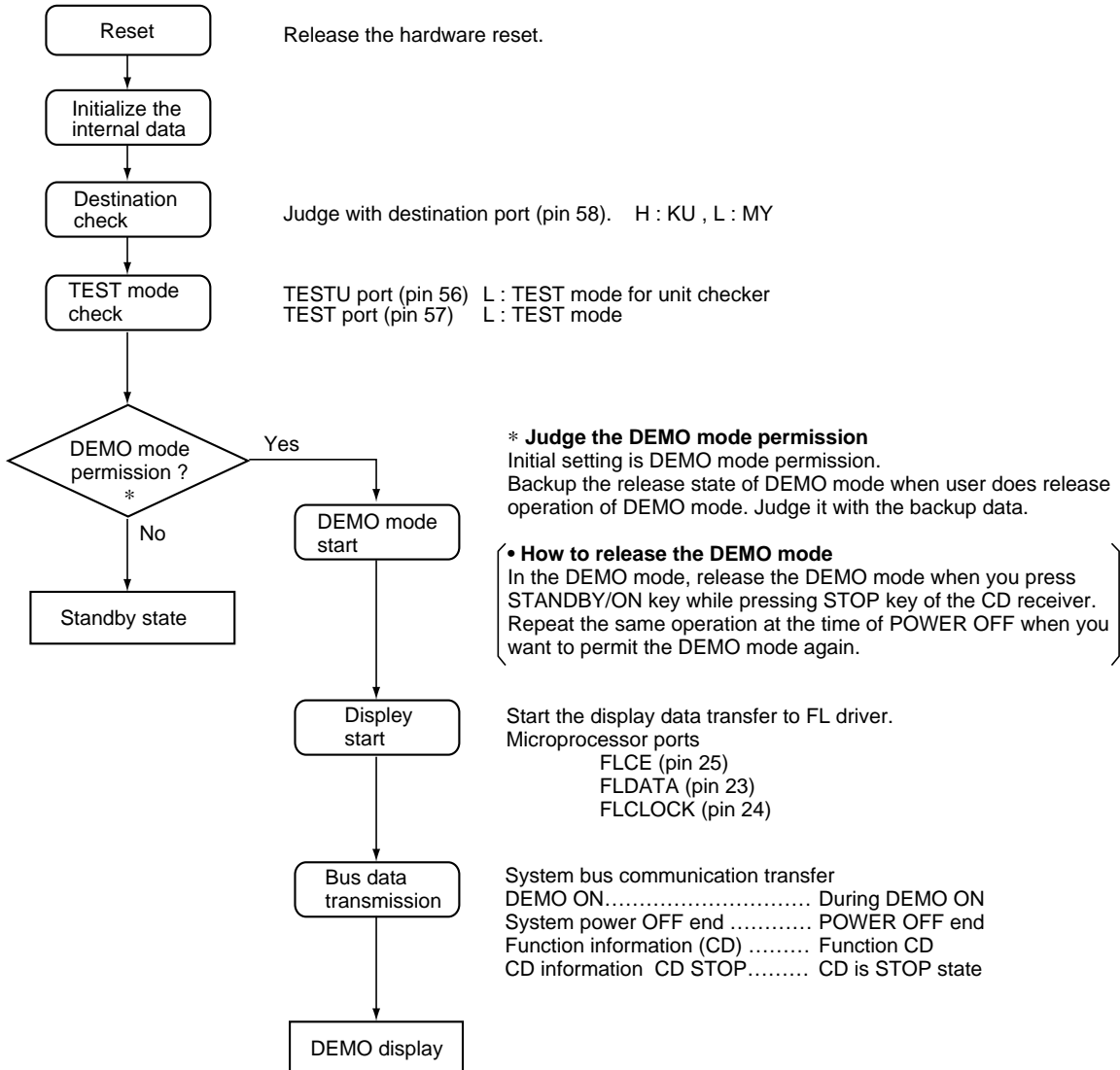
(\*) : PLL frequency synthesizer for electronic tuning

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/EXI1	CD INSIDE	I	CD slider INSIDE SW
14	PC0/PP016	TXDI	O	Tuner DATA IN LC72131 ( * )	64	PG6/EXI0	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	O	Not used	66	PG4	CD FOK	I	CD FOCUS OK
17	PJ5	NC	O		67	PG3	CD GFS	I	CD GFS
18	PJ4	RDSFM	O	Not used	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	Not used
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	XLED POW	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	87	TX	NC	-	
38	PH0	FUNC1B	O	L L H H L H H L	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



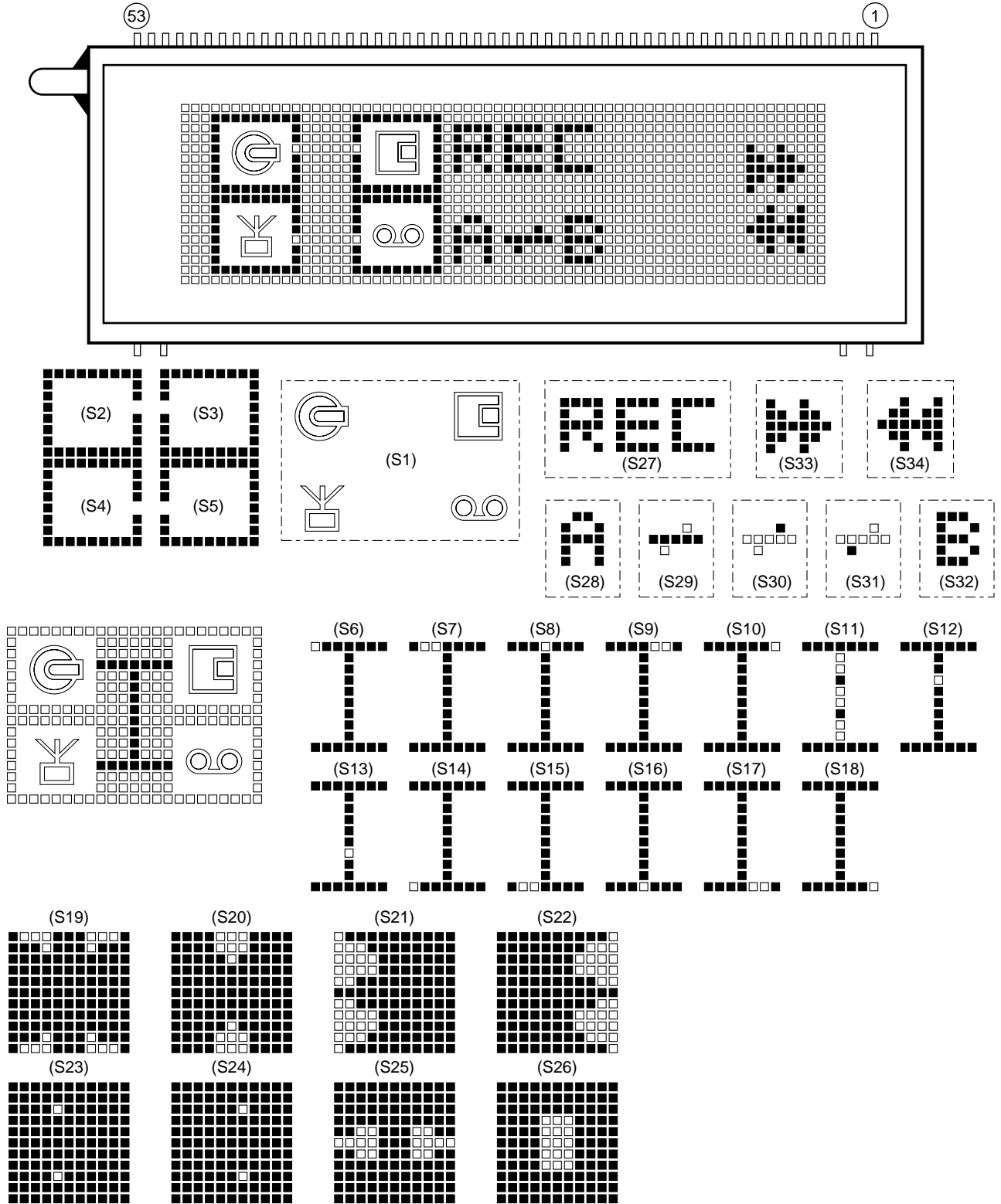


7.1.2 DISPLAY

■ AAV7056 (CD FL UNIT : V5601)

• Upper FL

● Segment Designation

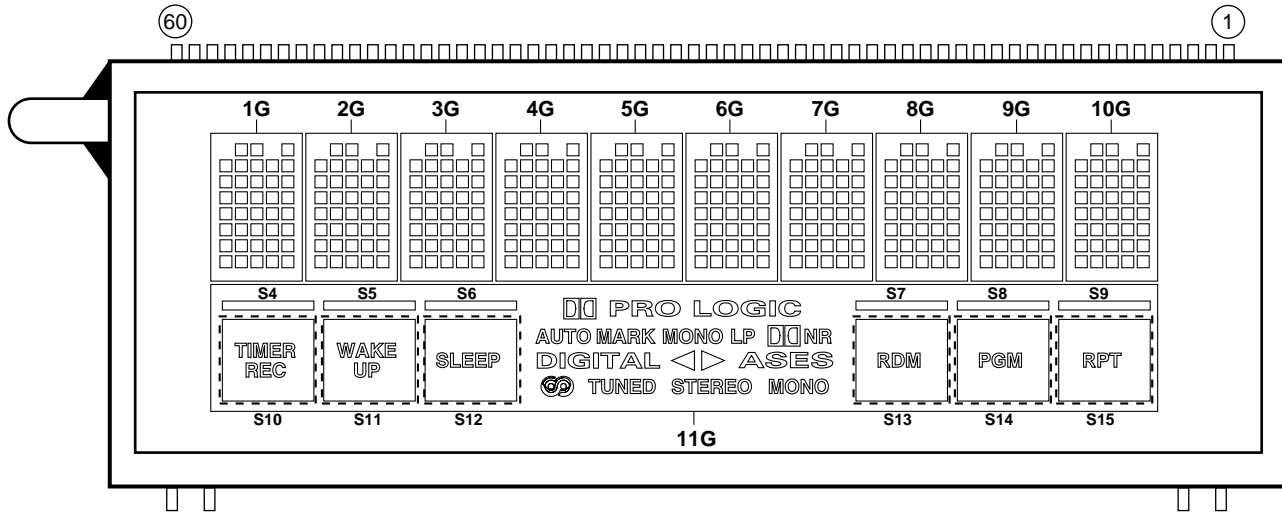


● Pin Connection

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	

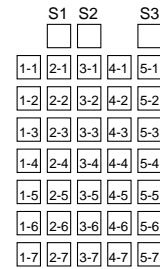
■ AAV7055 (CD FL UNIT : V5602)

• 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	DD 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	DDNR	P35	2-7	-
P17	4-3	DIGITAL	P36	3-7	-
P18	5-3	<	P37	4-7	-
P19	1-4	>	P38	5-7	-

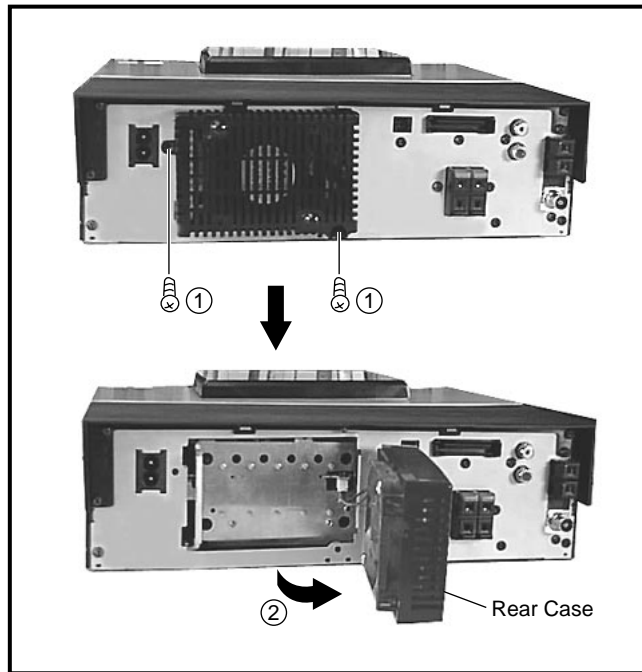


● Pin Connection

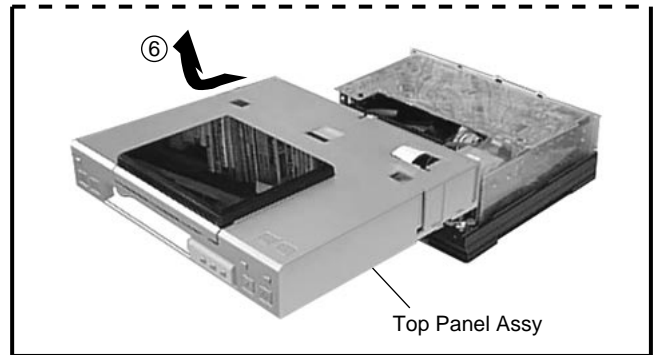
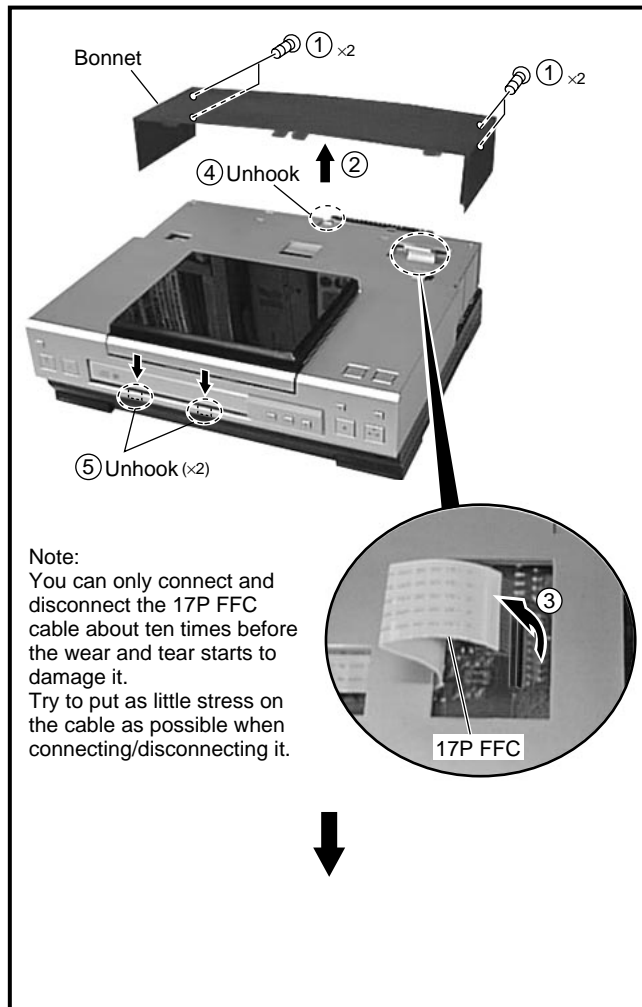
Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Connection	F1	F1	F1	NP	NP	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	P38	P37	P36	P35	P34	P33	P32	P31	NC	P30	P29	P28	P27	P26
Pin No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
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

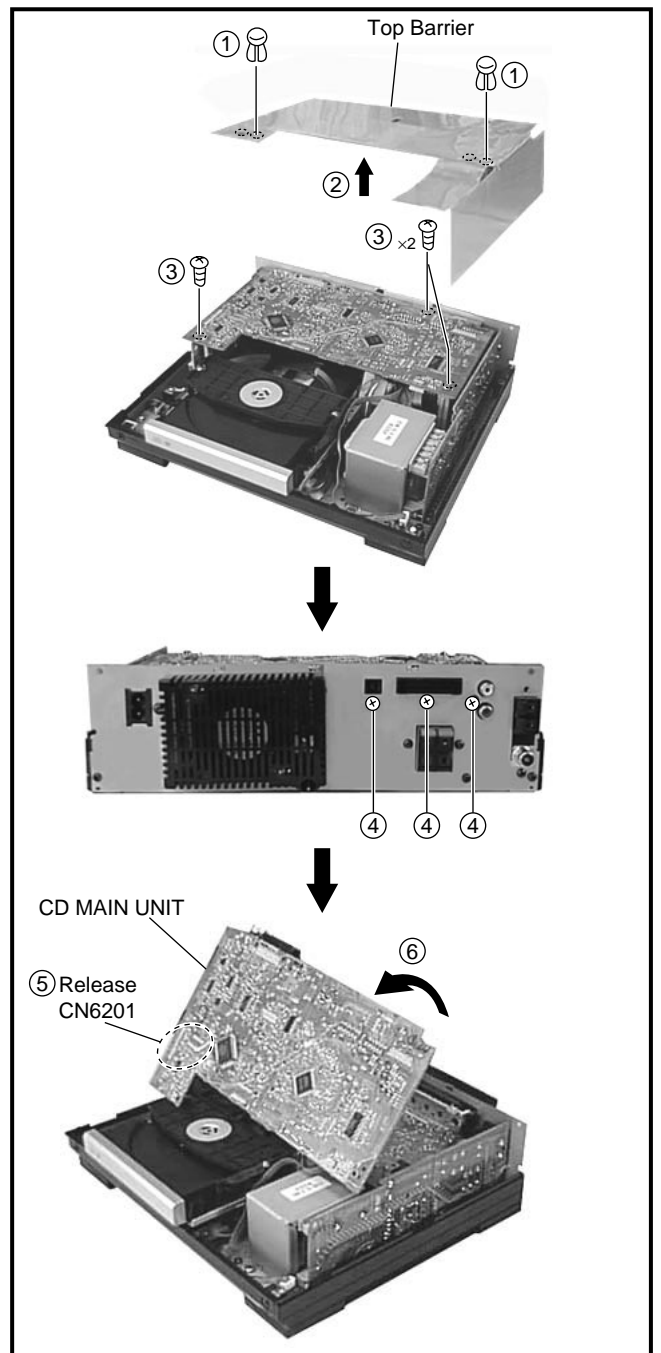
### (1) Rear Case



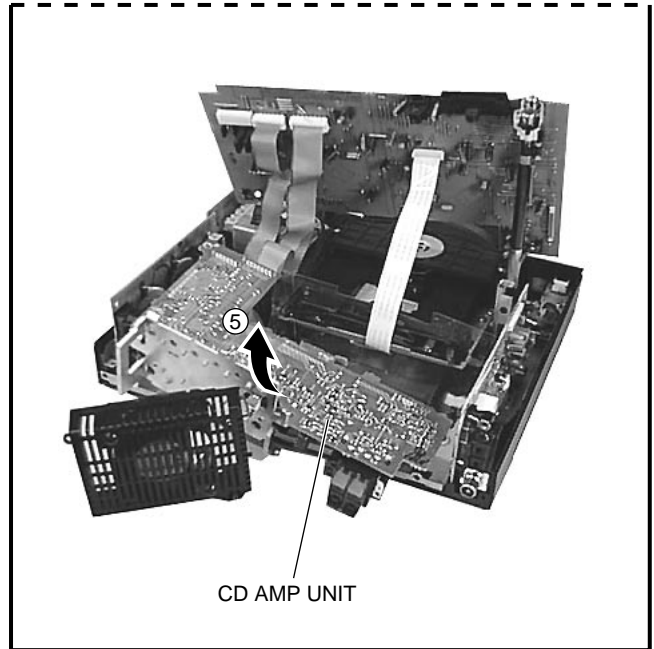
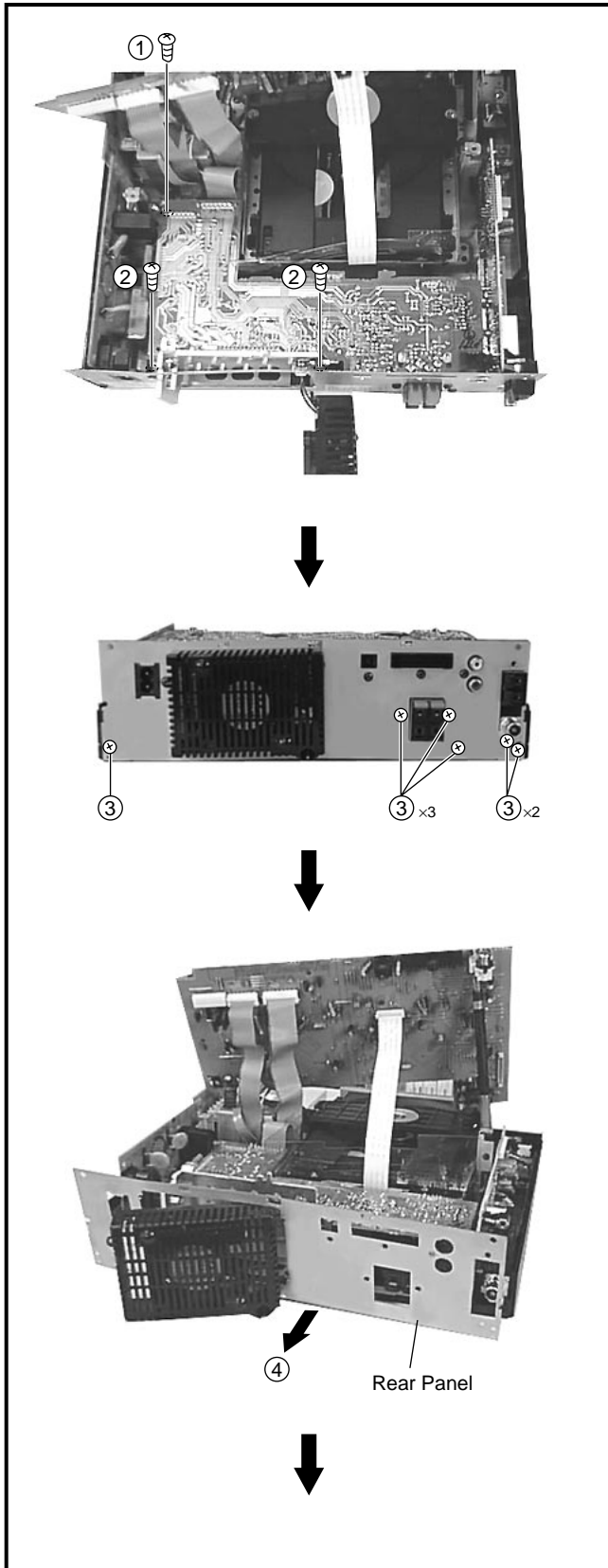
### (2) Bonnet and Top Panel Assy



### (3) CD MAIN UNIT

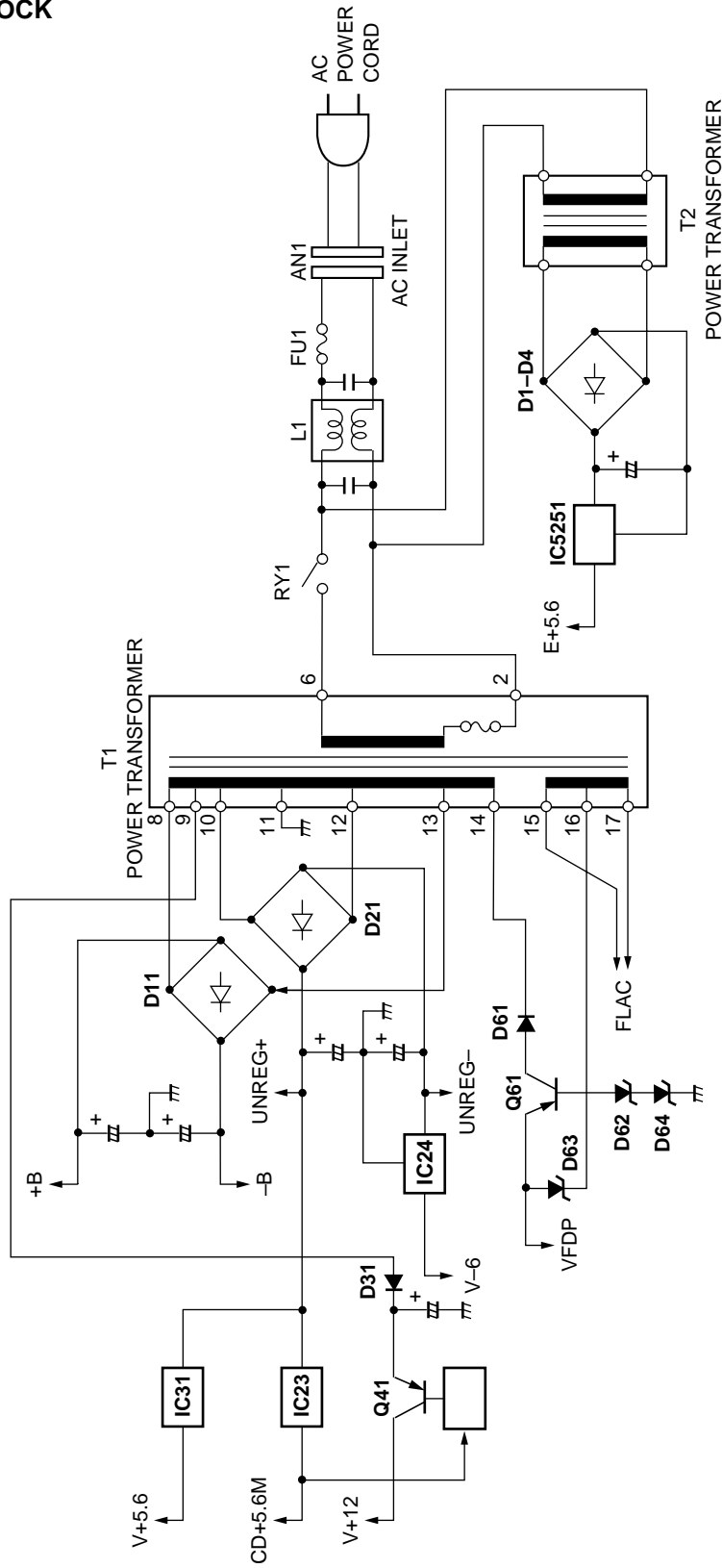


(4) CD AMP UNIT



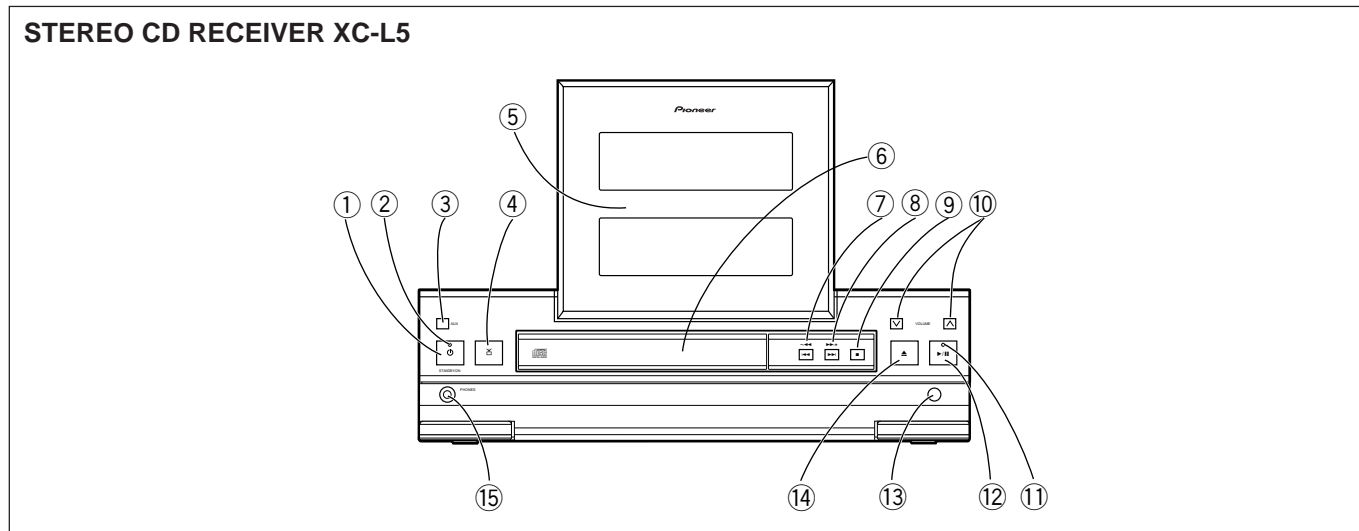
### 7.3 BLOCK DIAGRAM

• POWER SUPPLY BLOCK



## 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

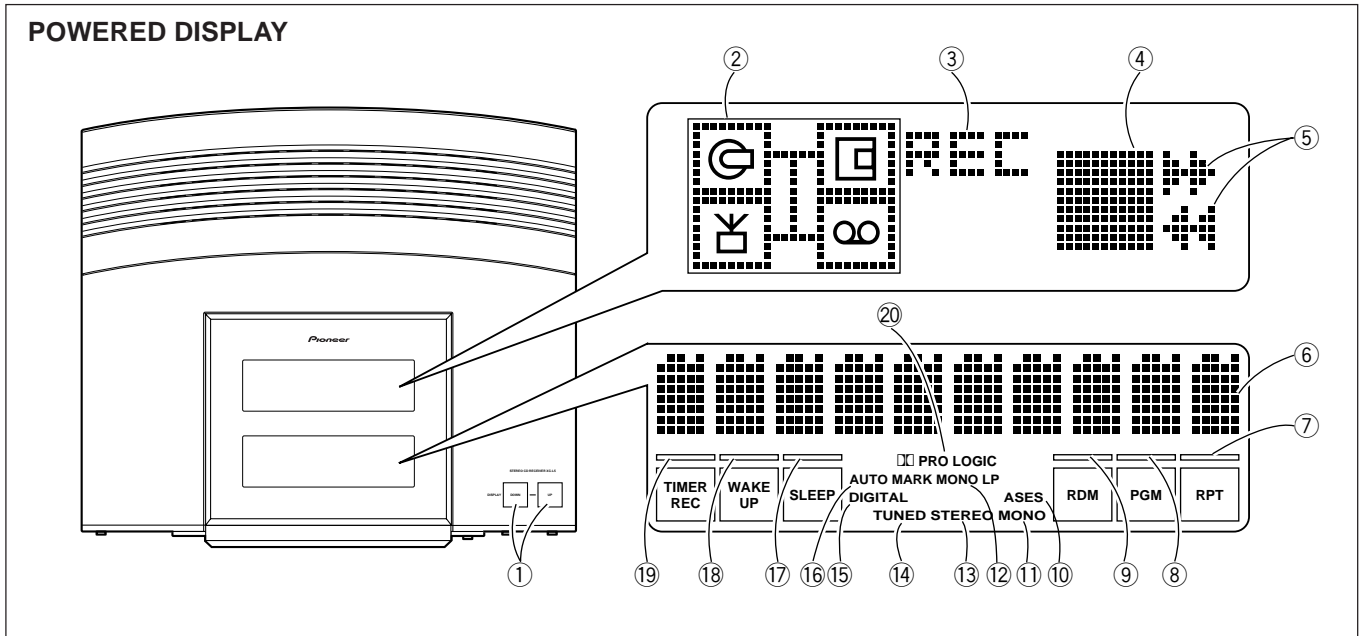
- : Frequency and station – (down) button.
- : Frequency and station + (up) button.

#### 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.



**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 US and Canadian models are not provided with Tape functions.)  
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 **Displays operation status**
- ⑤ **Lights during Fast Forward (▶▶) or Reverse (◀◀)**
- ⑥ **Displays characters and numerals**
- ⑦ **Lights during repeat play**
- ⑧ **Lights during program setting and program play**
- ⑨ **Lights during random play**
- ⑩ **Lights during A.S.E.S. setting and operation.**
- ⑪ **Lights during monaural reception mode.**
- ⑫ **Lights to indicate MiniDisc monaural long-play mode.**
- ⑬ **Lights to indicate reception of a stereo broadcast.**
- ⑭ **Lights to indicate that station is tuned.**
- ⑮ **Lights to indicate digital input to Mini Disc recorder.**
- ⑯ **Lights when Mini Disc recorder's AutoMark function is ON.**
- ⑰ **Lights during setting and operation of the sleep timer.**
- ⑱ **Lights during setting of the wake-up timer.**
- ⑲ **Lights during setting of timer recording.**
- ⑳ **Lights to indicate that Dolby\* Pro Logic Surround is ON.**

\*  
● Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.  
● "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

■ **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.

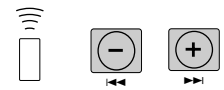
1. Press the **DISPLAY/CHARACTER** button to select "DISP SEL".



2. Press the **SET** button.



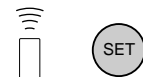
3. Use the **-** and **+** buttons to select "DISP MODE 1" or "DISP MODE 2".

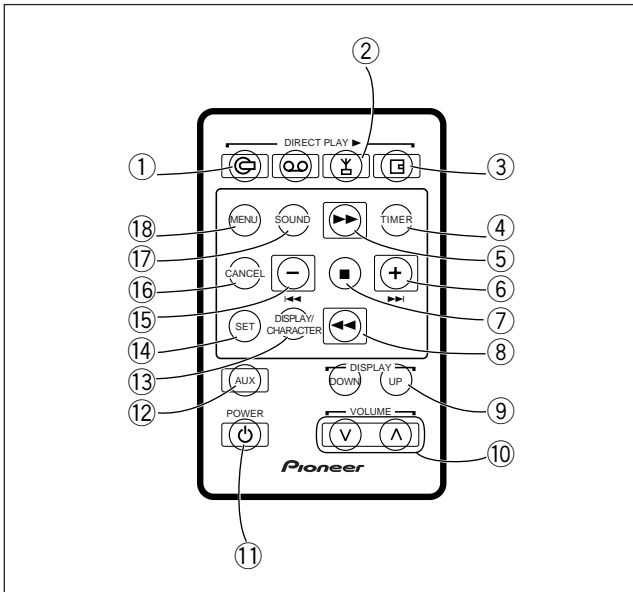


Mode alternates each time button is pressed.



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





## REMOTE CONTROL UNIT

① **CD Play/Pause button**

② **FM/AM button**

③ **MD Play/Pause button**

④ **TIMER button**

⑤  button

⑥  button

⑦  button

⑧  button

⑨ **DISPLAY UP/DOWN buttons**

⑩ **VOLUME ^ (Up), v (Down) buttons**

⑪ **STANDBY/ON button**

⑫ **AUX function button**

⑬ **DISPLAY/CHARACTER button**

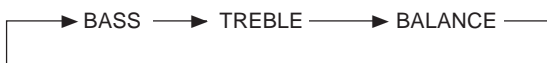
⑭ **SET button**

⑮  button

⑯ **CANCEL button**

⑰ **SOUND button**


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




⑱ **MENU button**


- Roles of buttons ⑤, ⑥, ⑦, ⑧ and ⑮ vary depending on the input function currently selected, as follows:


### NOTE:


The  button does not operate on this component.

### 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 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

Output for Front Speakers

**Continuous average power output of 18 watts\* per channel, min., at 8 ohms, from 70 Hz to 15,000 Hz with no more than 0.9%\*\* total harmonic distortion (front).**

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

\*\* Measured by Audio Spectrum Analyzer.

FM Tuner Section

Frequency Range ..... 87.5 - 108MHz

Antenna ..... 75 Ω, unbalanced

AM Tuner Section

Frequency Range ..... 530 kHz - 1,700 kHz (10 kHz step);  
531 kHz - 1,602 kHz (9 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 120 V, 60 Hz

Power Consumption ..... 63 W

Power Consumption in standby mode ..... 3 W

Dimensions ..... 290 (W) × 99 (H) × 277 (D) mm  
11-7/16 (W) × 3-15/16 (H) × 10-15/16 (D) in.

200 (H) when powered display is at maximum height.

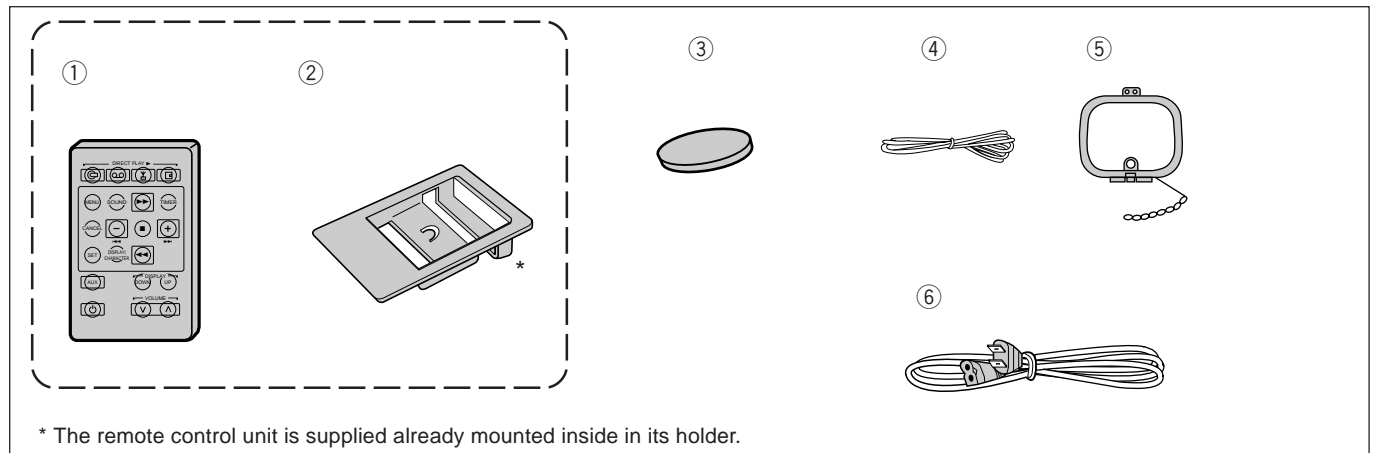
Weight ..... 4.5 kg (9 lb 15 oz)

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.



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

- ① Remote control unit x 1 : AXD7170 (CU-XC005)
- ② Remote control unit holder x 1 : AAH7013
- ③ Lithium battery (CR2025) x 1 : VEM1009

- ④ FM antenna x 1 : ADH7004
- ⑤ AM loop antenna (shown assembled) x 1 : ATB7007
- ⑥ Power cord x 1 : ADG7022