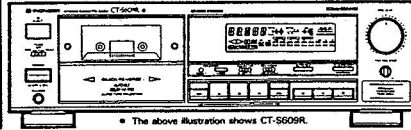


# Service Manual

**PIONEER**  
The Art of Entertainment



STEREO CASSETTE DECK

# CT-S609R

## CT-339

## CT-339-S

CT-S609R, CT-339 AND CT-339-S HAVE THE FOLLOWING:

Type	Model			Power Requirement	Remarks
	CT-S609R	CT-339	CT-339-S		
KUC	○	-	-	AC120V only	
HEM	○	○	-	AC220V, 240V (switchable) *	
HB	○	○	-	AC220V, 240V (switchable) *	
HEWM	-	-	○	AC220V, 240V (switchable) *	
SD	○	○	-	AC110V, 120V-127V, 220V, 240V (switchable)	

\* Change the primary wiring of the power transformer.

- This manual is applicable to the CT-S609R/KUC, HEM, HB, SD, CT-339/HEM, HB, SD and CT-339-S/HEWM types.
- As to the CT-S609R/HEM, HB, SD types, refer to page 51.
- As to the CT-339/HEM, HB, SD and CT-339-S/HEWM types, refer to page 52.
- Ce manuel pour le service comprend les explications de réglage en français.
- Este manual de servicio trata del método ajuste escrito en español.

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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**

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5). When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

**1. SAFETY INFORMATION**

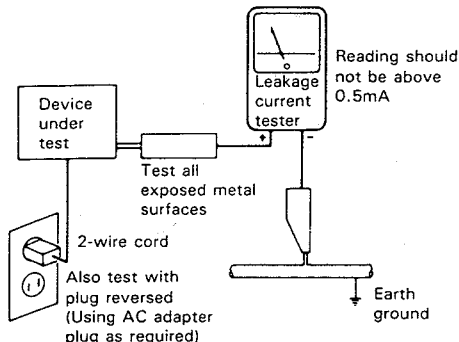
(FOR USA MODEL ONLY)

**1. SAFETY PRECAUTIONS**

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

**LEAKAGE CURRENT CHECK**

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



AC Leakage Test

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

**2. PRODUCT SAFETY NOTICE**

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

Electrical components having such features are identified by marking with a  $\Delta$  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

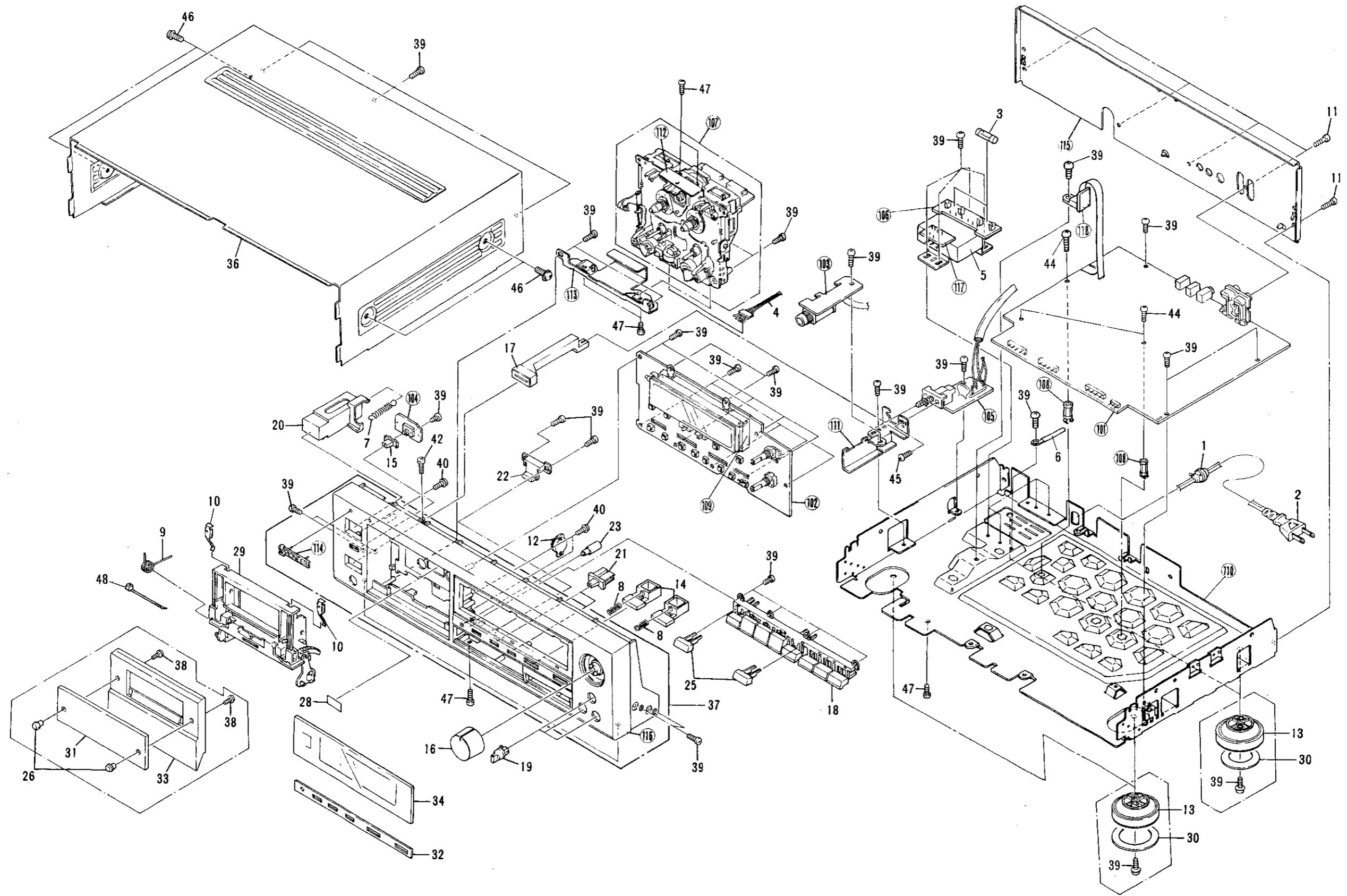
## 2.1 EXTERIOR (For CT-S609R/KUC type)

A

B

C

D



NOTI  
 • Part  
 • The  
 to us  
 • Part

Part  
 Mark



A

B

C

D

1

2

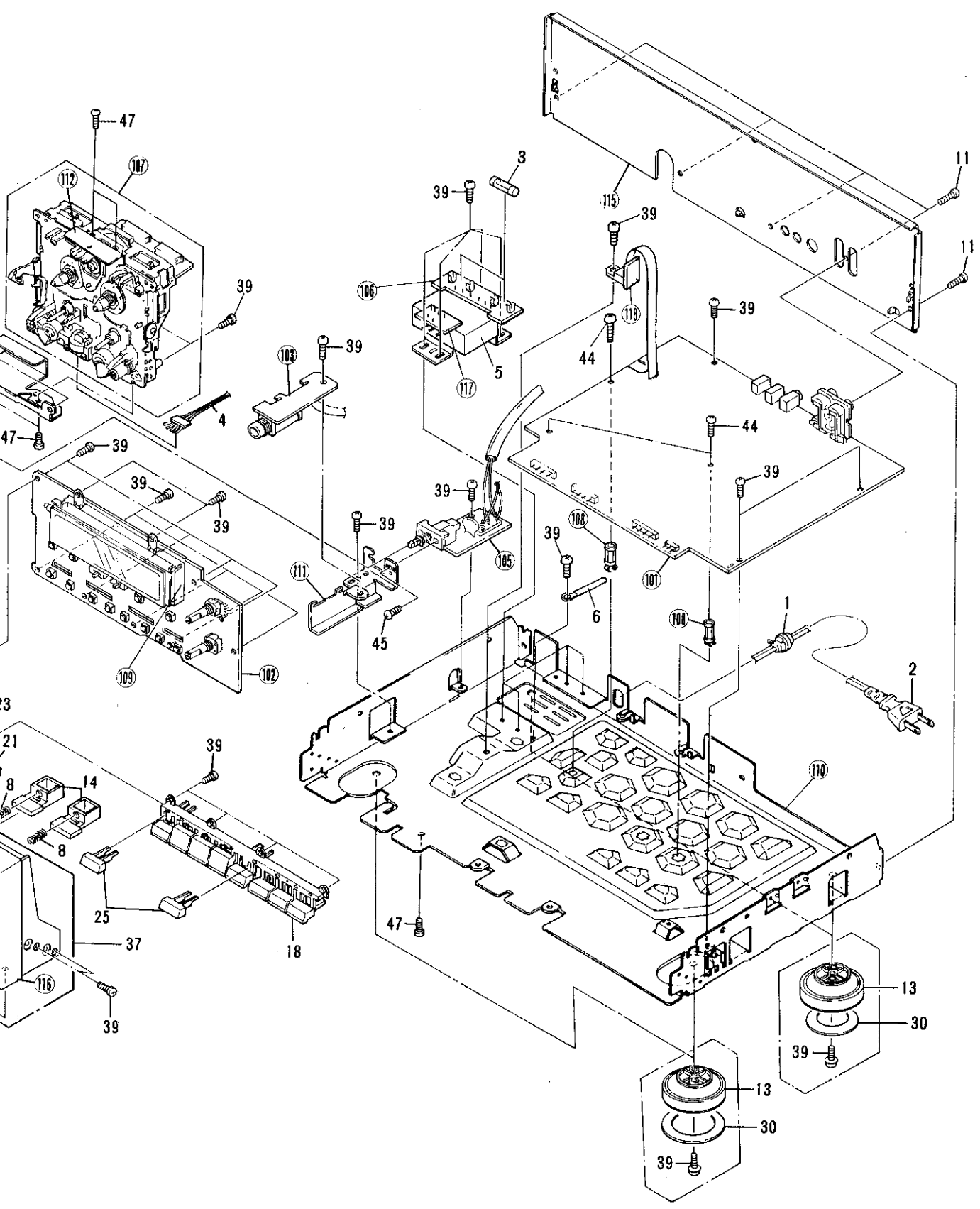
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**NOTES:**

- Parts without part number cannot be supplied.
- 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.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

**Parts List of Exterior (For CT-S609R/KUC type)**

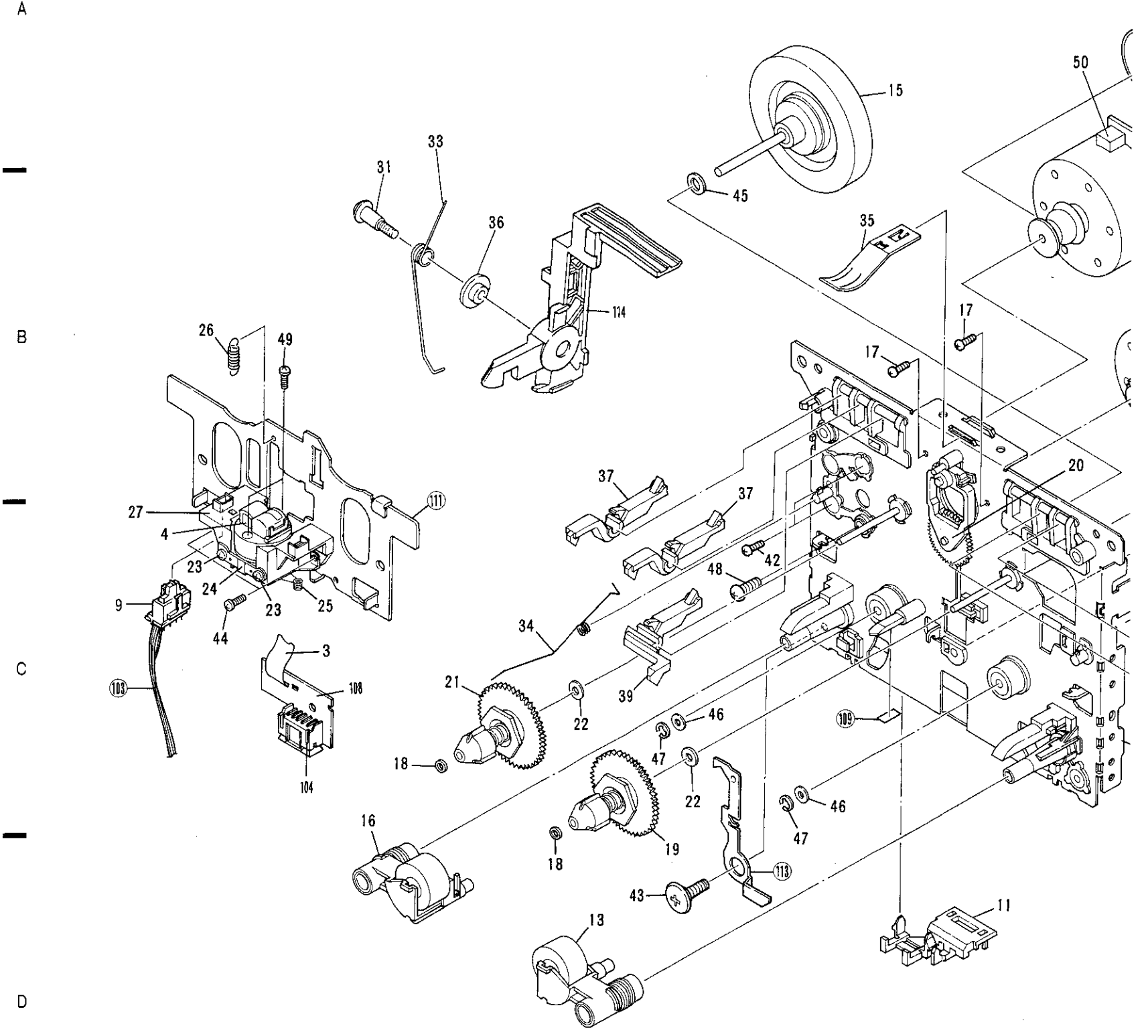
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
$\Delta$	1	Strain relief	CM-22		46	Screw	FBT40P080FZK
$\Delta$	2	AC Power cord	RDG1010		47	Screw	BBZ30P060FZK
$\Delta$	3	FU1201, FU1202 Fuse (L25A)	REK-073		48	Binder	REC-371
	4	Connector assembly 6P			101	Main unit	
$\Delta$	5	Power transformer (T1)	RTT1170		102	Display unit	
	6	Cord clamber	RNE-513		103	Headphone unit	
	7	Ratchet spring	RBH1008		104	Timer SW unit	
	8	Push spring	RBH1146		105	Power SW unit	
	9	Door spring (L)	RBH1203		106	Transformer 2 unit	
	10	Half pressure spring	RBK1004		107	Mechanism unit	
	11	.....			108	PCB spacer	
	12	Damper assembly	REC1013		109	FL holder	
	13	Insulator	VNK1095		110	Main chassis	
	14	Knob	RAC1604		111	Headphone blacket	
	15	Slide knob (A)	RAC1236		112	Mechanism mount plate (U)	
	16	VR knob	RAC1363		113	Mechanism mount plate (D)	
	17	Power button	RAC1364		114	Name plate	
	18	Operation knob	RAC1365		115	Rear panel	
	19	Headphone knob	RAC1366		116	Front panel	
	20	Eject knob	RAC1367		117	Transformer 1 unit	
	21	Slide knob (B)	RAC1392		118	Regulator IC unit	
	22	Tact knob	RAC1409				
	23	Counter reset knob	RAC1400				
	24	.....					
	25	Decoration plate	RAP1007				
	26	Decoration screw	RAT1001				
	27	.....					
	28	Remain display paper	REE-113				
	29	Door pocket	RNT1013				
	30	Stopper	VEC1061				
	31	Door lens	RAH1244				
	32	Dolby name plate	RAH1865				
	33	Door panel	RAH1863				
	34	FL lens	RAH1867				
	35	.....					
	36	Bonnet	RXX1396				
	37	Front panel assembly	RXX1391				
	38	Screw	ABZ26P050FMC				
	39	Screw	BBZ30P080FMC				
	40	Screw	ARZ26P060FMC				
	41	.....					
	42	Screw	BCZ30P060FMC				
	43	.....					
	44	Screw	IBZ30P150FCU				
	45	Screw	PMA30P060FMC				

2.2 MECHANISM UNIT (For CT-S609R/KUC type)

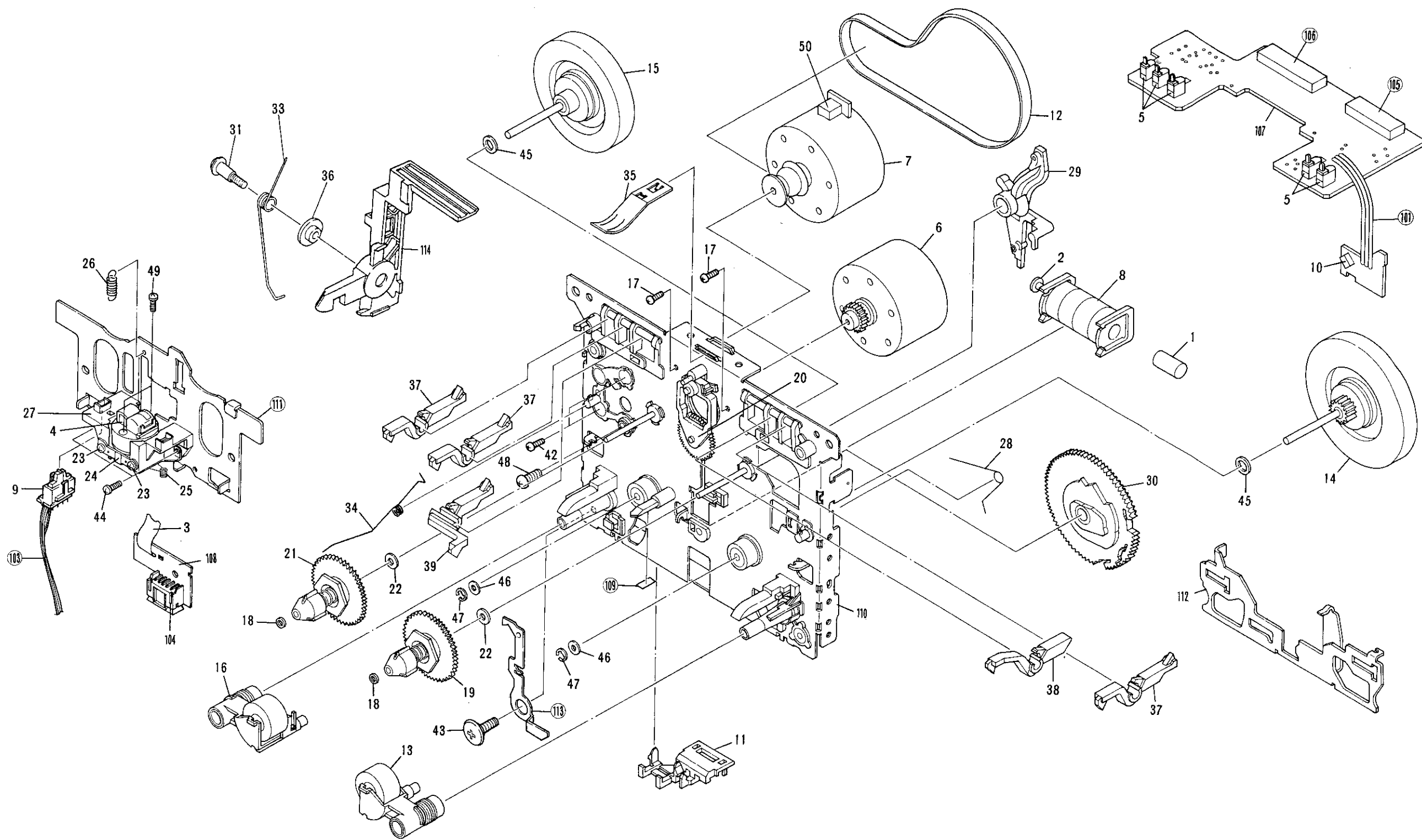
Parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Shaft	RLA1130	101	Triple-conductor jumper wire	
2	Planger	RLA1132	102	.....	
3	HD FPC (R/P)	RNP1232	103	QS lead wire	
4	R/P, E head	RPB1030	104	Connector (6P)	RKP1401
5	Push switch	RSG1018	105	Connector (7P)	
6	Motor assembly	RXM1029	106	Connector (10P)	
7	Motor assembly (Main)	RXM1032	107	P.C. board	RNP1279
8	Solenoid	RXP1010	108	Head P.C.B. R/P	RNP1351
9	Quick sensor	SPI-320-AB	109	Reflection plate	
10	Photo transistor	SPI33534FG	110	Chassis assembly	RXA1291
11	Wire holder	RNK1530	111	Head base	
12	Main belt	REB1157	112	Slide plate	RNE1345
13	Pinch roller assembly	RXA1183	113	Eject prevention arm (L)	
14	Flywheel assembly	RXA1294	114	Eject lever (L)	RNK1593
15	Flywheel assembly	RXA1295			
16	Pinch roller (L) assembly	RXA1296			
17	Screw	RBA1076			
18	Washer	RBF-057			
19	TU Reel assembly	RXA1184			
20	Idler assembly	RXA1248			
21	Reel assembly	RXC-040			
22	Washer	RBF1038			
23	Azimuth screw	RBA1080			
24	Azimuth spring	RBK1029			
25	Rotation spring	RBL-085			
26	Head base spring	RBL1003			
27	Head housing assembly	RXA1293			
28	Slide spring	RBH1239			
29	Play arm	RNK1525			
30	Cam gear (3R)	RNK1672			
31	Screw	RBA1078			
32	.....				
33	Eject lever spring (L)	RBH1262			
34	Eject prevention spring(L)	RBH1234			
35	Cassette hold spring	RBK1031			
36	Lever collar (B)	RLA1146			
37	REC detection lever	RNK1527			
38	PACK detection lever (P)	RNK1543			
39	Metal detection lever (L)	RNK1529			
40	.....				
41	.....				
42	Screw	PMZ26P050FMC			
43	Screw	RBA1048			
44	Screw	RBA1077			
45	Washer	WA26D045D025			
46	Washer	WA26D047D050			
47	E ring	YE15FUC			
48	Screw	PBZ30P080FMC			
49	Screw	PMZ14P050FNI			
50	Holder cushion (L)	RED1027			
51	Head assembly (R/P)	RXA1378			

\* : The head assembly (R/P) in No. 51 is a component of Nos. 3 and 4 and can be supplied as service.



Mechanism Unit (For CT-S609R/KUC type)



2.3 EXTERIOR (For CT-339/HEM type)

Part:  
Mark

△  
△  
△  
△

A

B

C

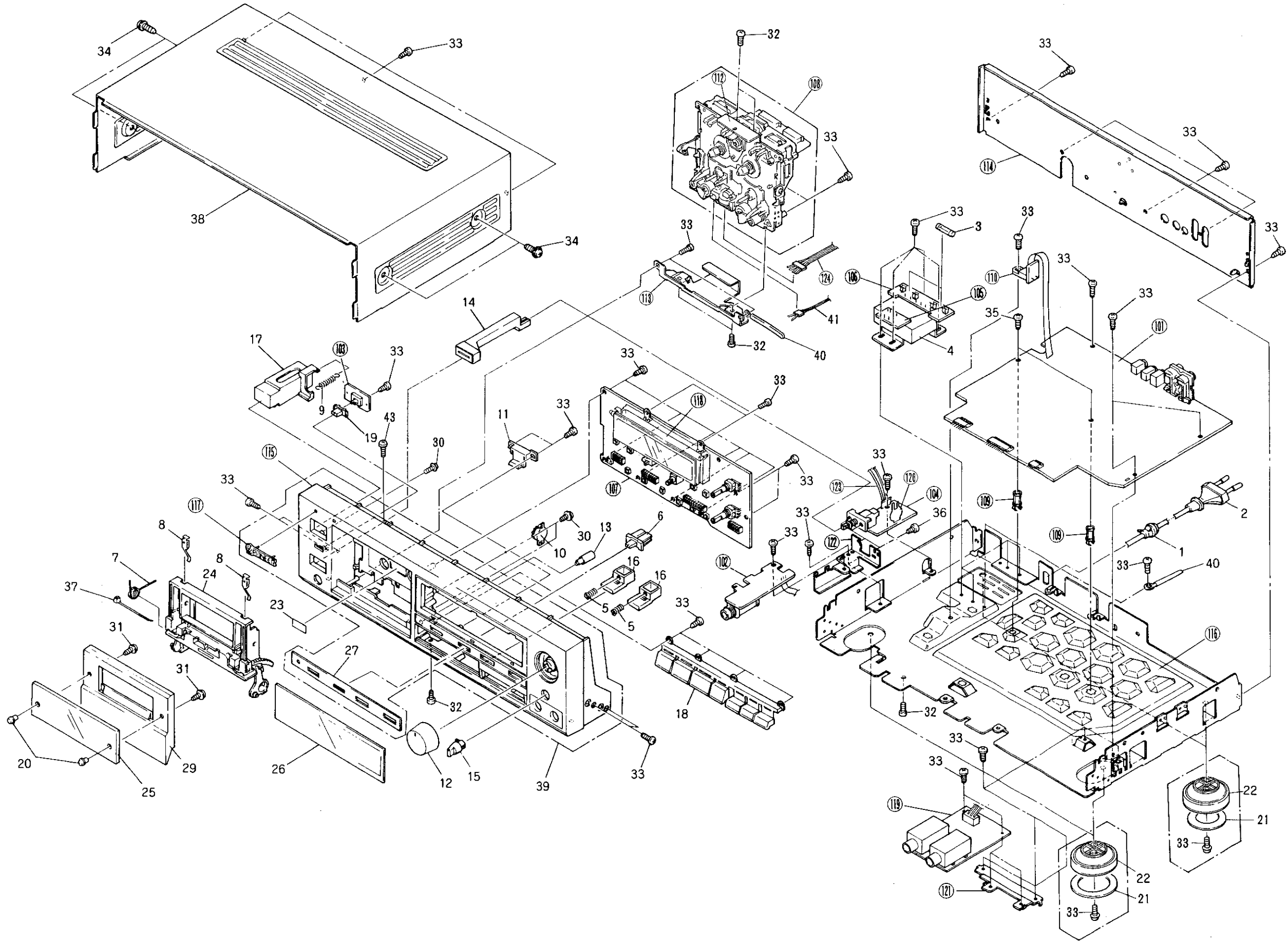
D

A

B

C

D



1

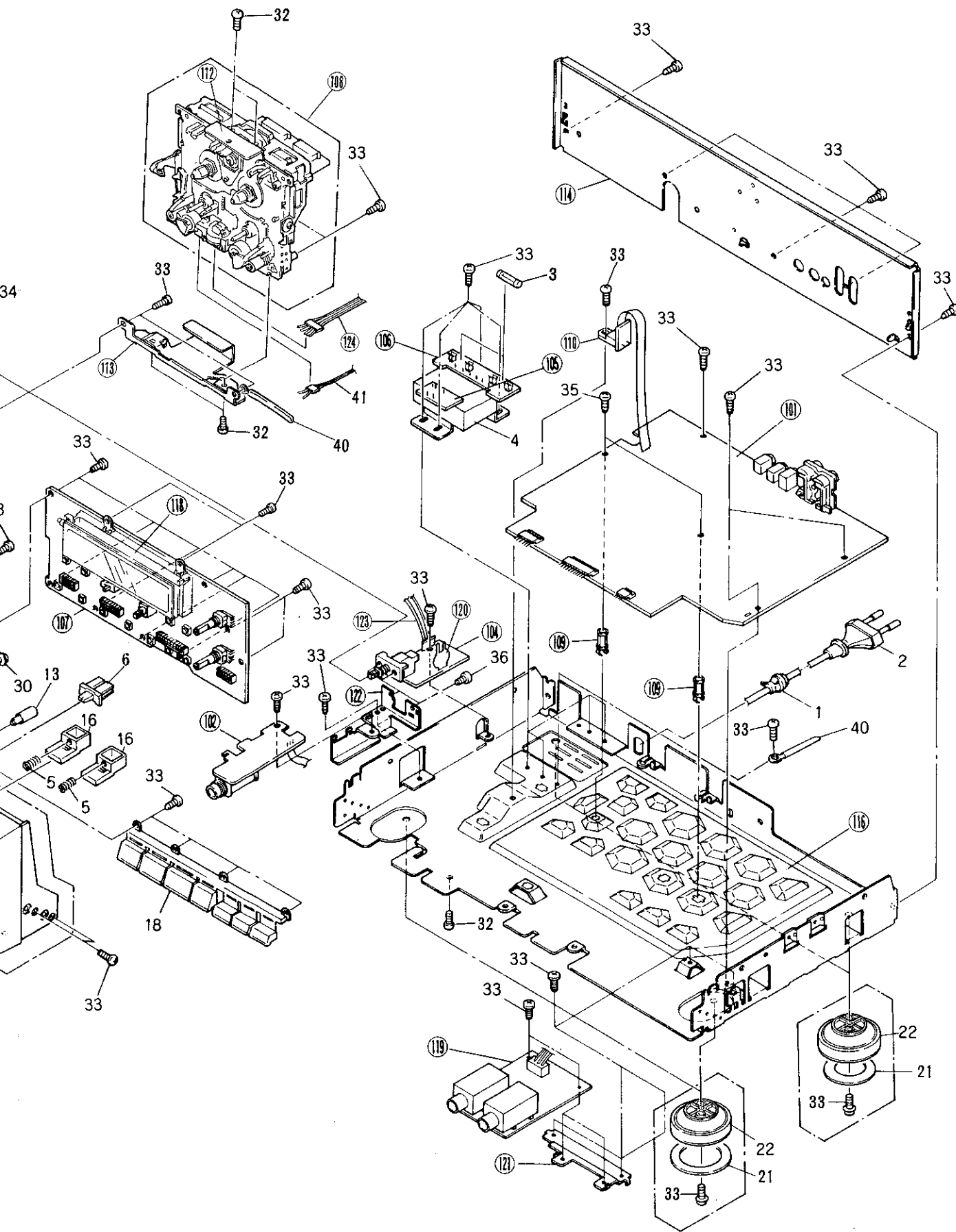
2

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Parts List of Exterior

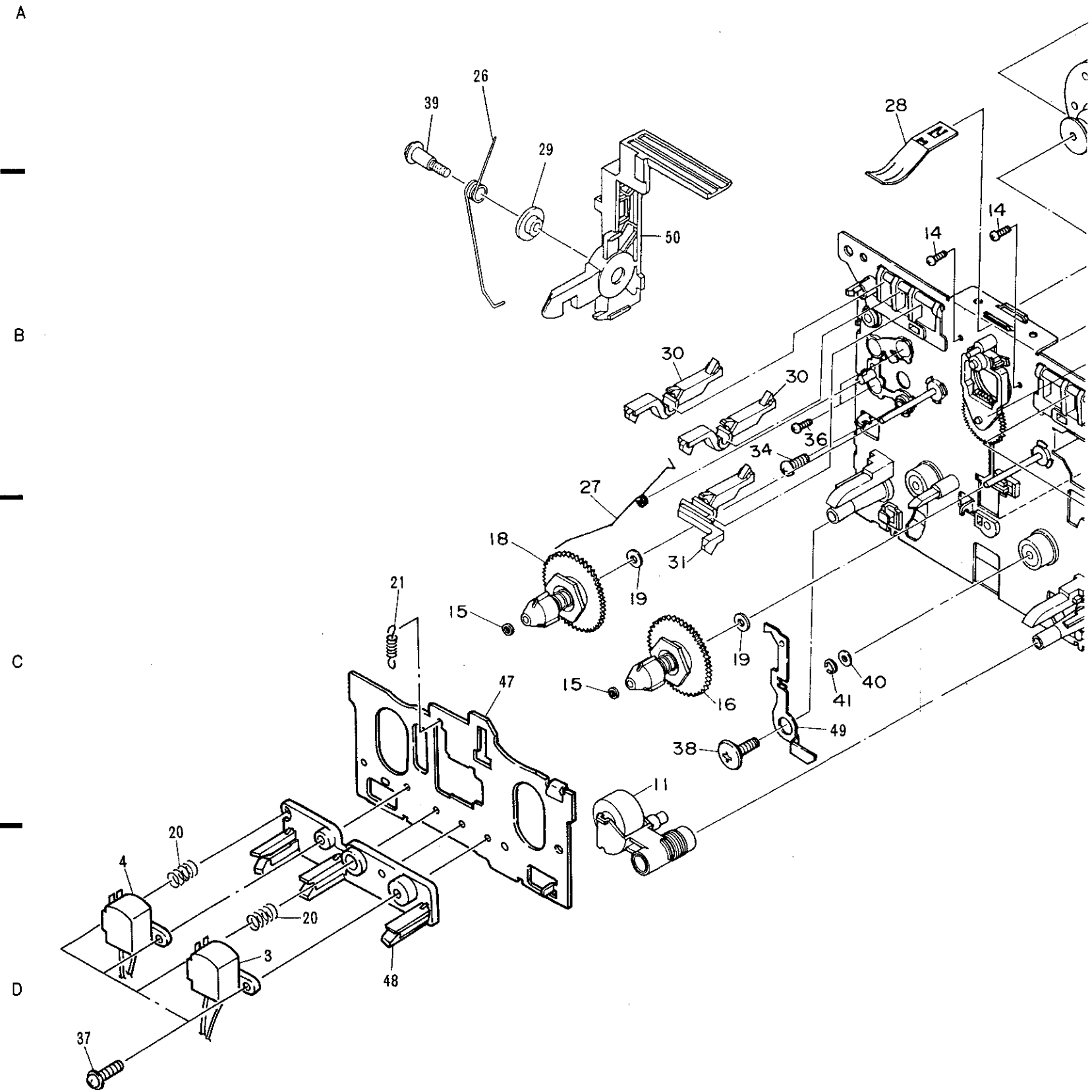
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
A	△	1 Strain relief	CM - 22B		101	Main unit	
	△	2 AC Power cord	PDG1003		102	Headphone unit	
	△	3 FU1, FU2 fuse (1.25A)	REK - 101		103	Timer SW unit	
	△	4 T1 Power transformer	RTT1137		104	Power SW unit	
		5 Push spring	RBH1146		105	Transformer 1 unit	
		6 Slide knob (B) (For Mechanism unit)	RAC1392		106	Transformer 2 unit	
		7 Door spring (L)	RBH1203		107	Display unit	
		8 Half pressure spring	RBK1004		108	Mechanism unit	
		9 Ratchet spring	RBH1008		109	PCB spacer	
		10 Damper ass'y	REC1013		110	Regulator IC unit	
		11 Tact knob	RAC1409		111	.....	
		12 Knob (REC LEVEL)	RAC1363		112	Mechanism mount plate (U) (For Mechanism unit)	
		13 Knob (COUNTER RESET)	RAC1400		113	Mechanism mount plate (D)	
		14 Button (POWER)	RAC1364		114	Rear panel	
		15 Knob (REC BALANCE)	RAC1366		115	Front panel	
B		16 Knob (CD SYNCHRO AUTO BLE)	RAC1604		116	Main chassis	
		17 Knob (EJECT)	RAC1367		117	Name plate	
		18 Knob (◀, ■, ▶, ►, ●, II, ○)	RAC1345		118	FL holder	
		19 Slide knob (A)	RAC1236		119	MIC unit	
		20 Screw	RAT1001		120	Capacitor sleeve A	
		21 Stopper	VEC1061		121	MIC bracket	
		22 Insulator	VNK1095		122	Headphone bracket	
		23 Remaining sheet	REE - 113		123	Wire	
		24 Door pocket	RNT1013		124	Connector assembly 5P	
		25 Door lens	RAH1244				
		26 FL lens	RAH1870				
		27 Dolby name plate	RAH1866				
		28 .....					
		29 Door panel	RAH1896				
		30 Screw	ARZ26P060FMC				
C		31 Screw	ABZ26P050FMC				
		32 Screw	BBZ30P060FZK				
		33 Screw	BBZ30P080FMC				
		34 Screw	FBT40P080FZK				
		35 Screw	IBZ30P150FCU				
		36 Screw	PMA30P060FMC				
		37 Binder	REC - 371				
		38 Bonnet	RXX1396				
		39 Front panel ass'y	RXX1392				
		40 Cord clamber	RNE - 513				
		41 Connector assembly 2P	RKP1361				
		42 .....					
		43 Screw	BCZ30P060FMC				
D							



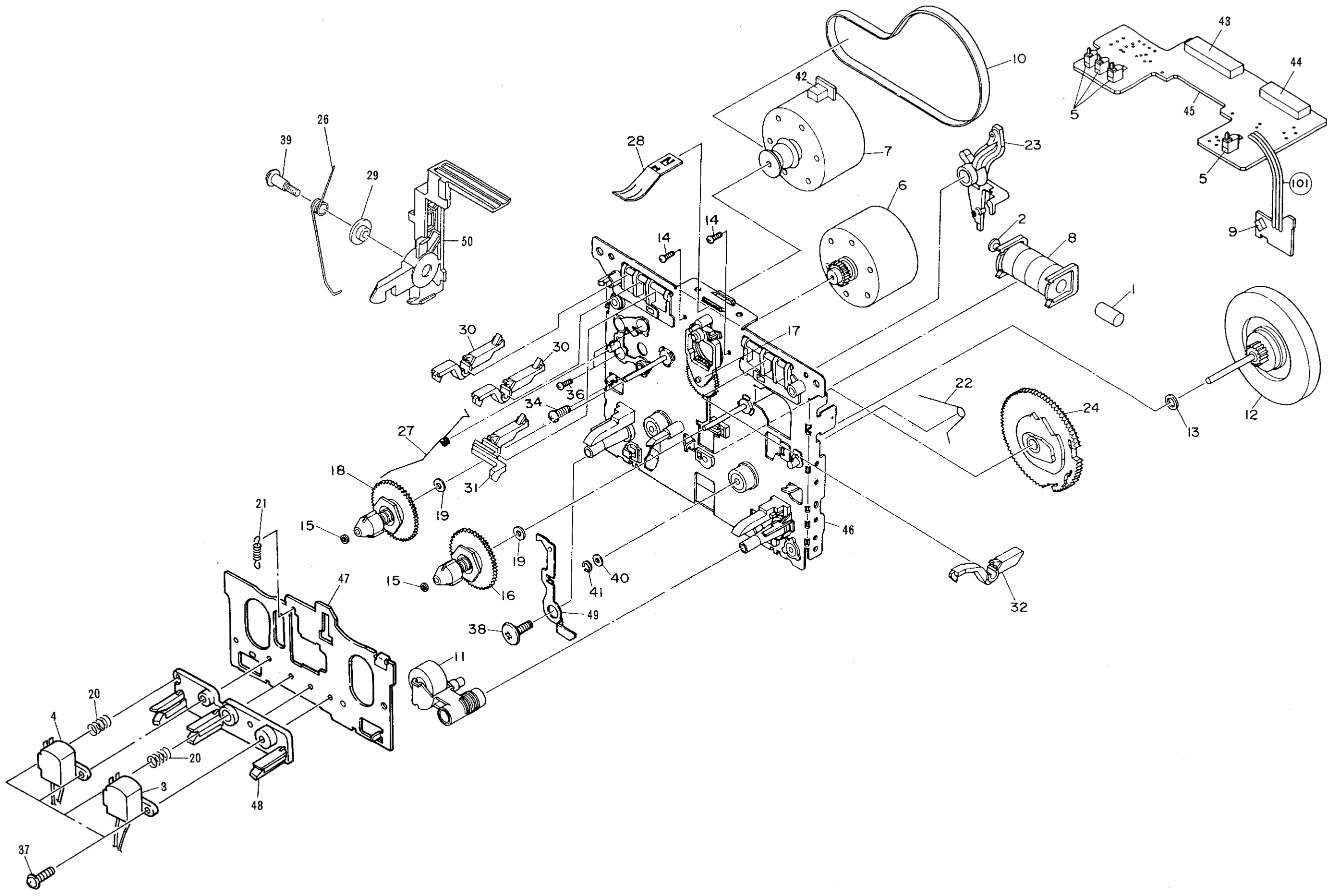
2.4 MECHANISM UNIT (For CT-339/HEM type)

Parts List

Mark	No.	Description	Part No.
	1	Fixed core	RLA1130
	2	Planger	RLA1132
	3	Head (R/P)	RPB1039
	4	Head (E)	RPB1040
	5	Push SW	RSG1018
	6	MTR reel BLK	RXM1029
	7	MTR main BLK	RXM1032
	8	Solenoid BLK	RXP1010
	9	Photo - transistor	SPI33534FG
	10	Main belt	REB1163
	11	Pinch roller ass'y	RXA1183
	12	F/W ass'y	RXA1294
	13	Washer	WA26D045D025
	14	Pan 2.6 x 6.4 ZN	RBA1076
	15	Washer	RBF - 057
	16	Reel base BLK	RXA1184
	17	Idle BLK	RXA1248
	18	Reel base BLK	RXC - 040
	19	Washer	RBF1038
	20	Azimuth SP	RBH1076
	21	Head base SP	RBL1003
	22	Slide SP	RBH1239
	23	Play arm	RNK1525
	24	Cam gear (3R)	RNK1672
	25	.....	
	26	Lever SP (L) (EJECT)	RBH1262
	27	Eject prevention spring (L)	RBH1234
	28	Spring (CASSETTE)	RBK1030
	29	Lever (Collar B)	RLA1146
	30	Detector lever (REC)	RNK1527
	31	Metal detector lever (L)	RNK1529
	32	Detector lever (P)	RNK1543
	33	.....	
	34	Screw	PBZ30P080FMC
	35	.....	
	36	Screw	PMZ26P050FMC
	37	F lock screw	RBA1031
	38	Screw (7.7)	RBA1048
	39	Screw	RBA1078
	40	Washer	WA26D047D050
	41	Washer	YE15FUC
	42	Holder cushion (L)	RED1027
	43	Connector (8P)	RKP1327
	44	Connector (6P)	RKP1359
	45	P.C. board	RNP1279
	46	Chassis base BLK	RXA1345
	47	Head base	RNE1390
	48	Head spacer	RNK1631
	49	Eject prevention arm (L)	RNE1199
	50	Lever (L) (EJECT)	RNK1593
101		Jumper (3P)	



Mechanism Unit (For CT-339/HEM type)



A

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B

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C

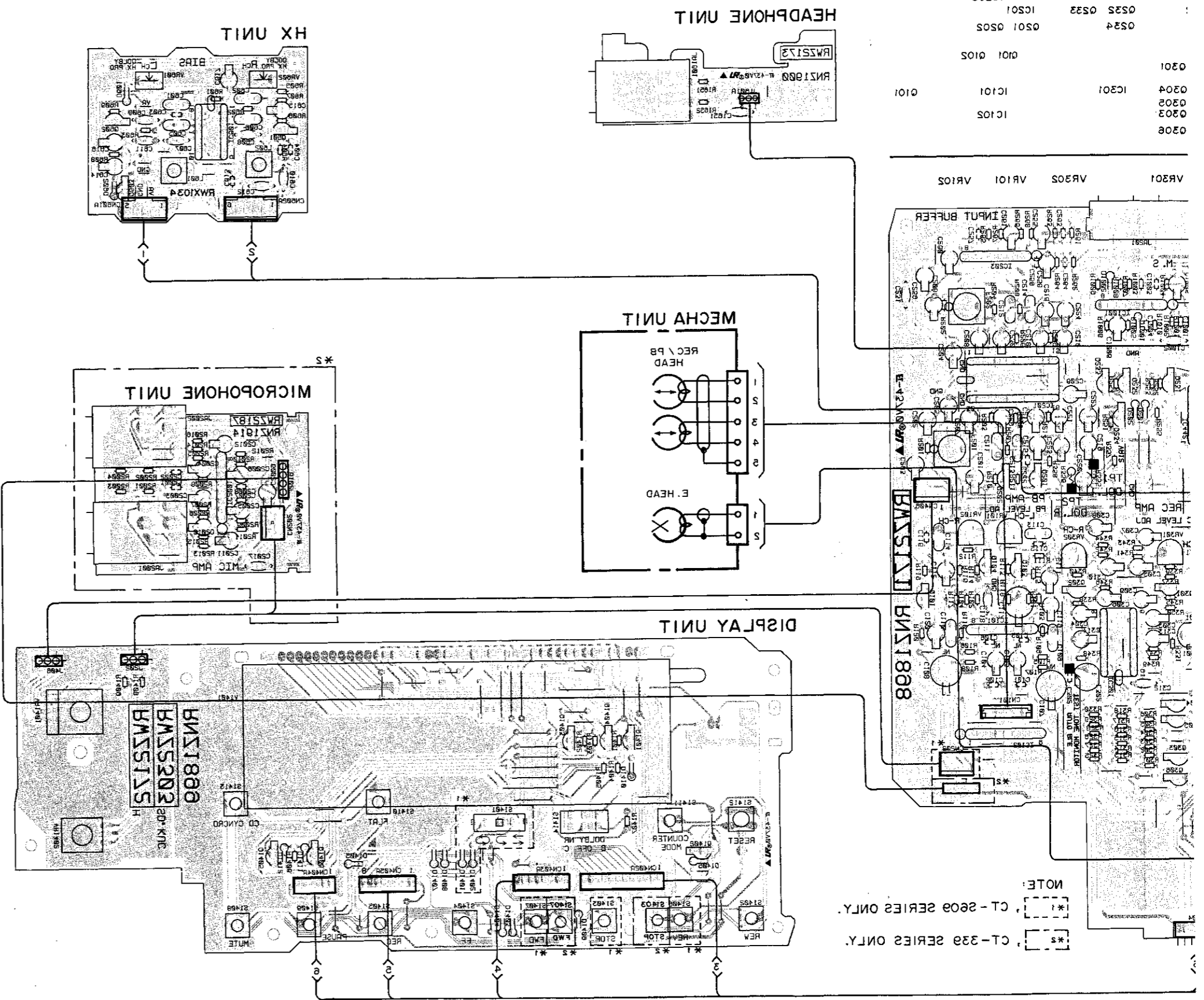
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D

—

0308	IC 105	IC101	0101	0301
0303	IC 105	IC101	0101	0304
0302	IC 105	IC101	0101	0304
0301	0501	0505	0501	0505
	0524	0523	0532	0532
	IC501	IC501	IC503	IC101

NOTE:  
 \*S CT-339 SERIES ONLY.  
 \*1 CT-260a SERIES ONLY.



A

B

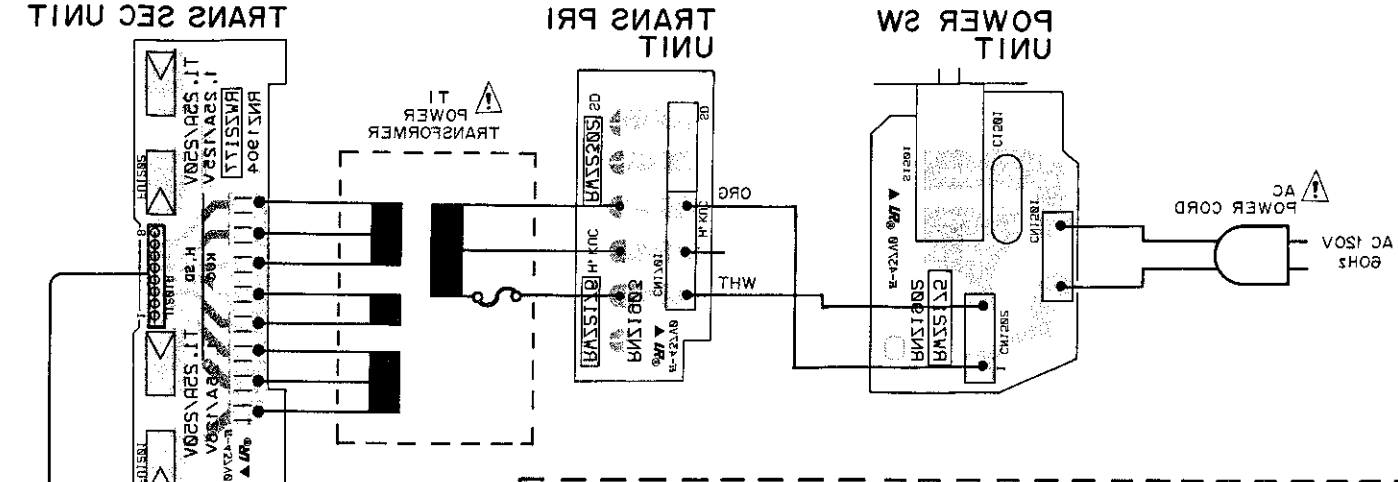
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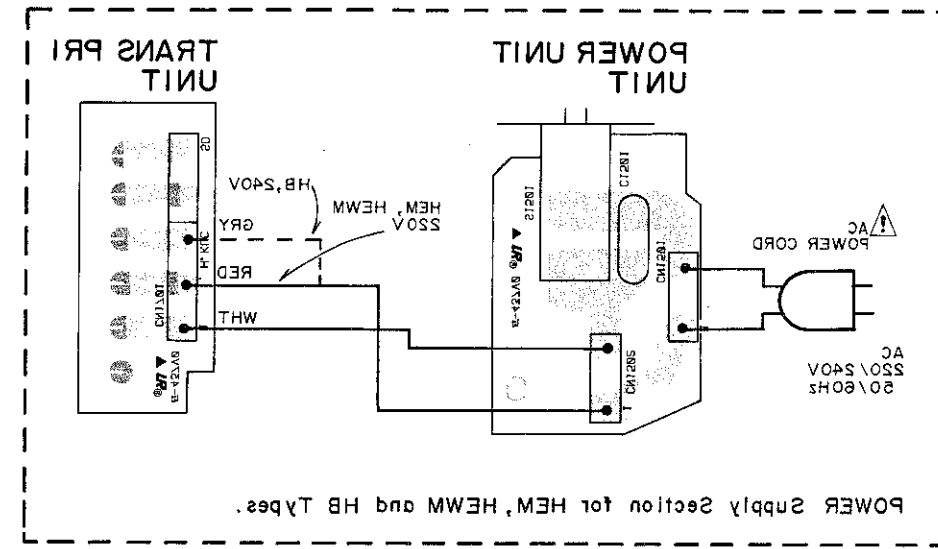
3. P.C. BOARDS CONNECTION DIAGRAM

• View from soldering side

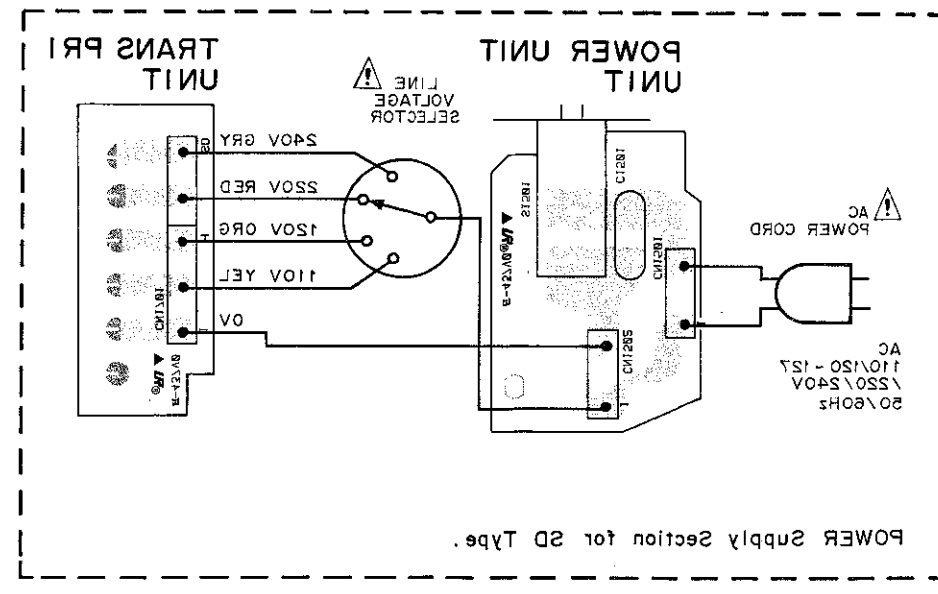
A



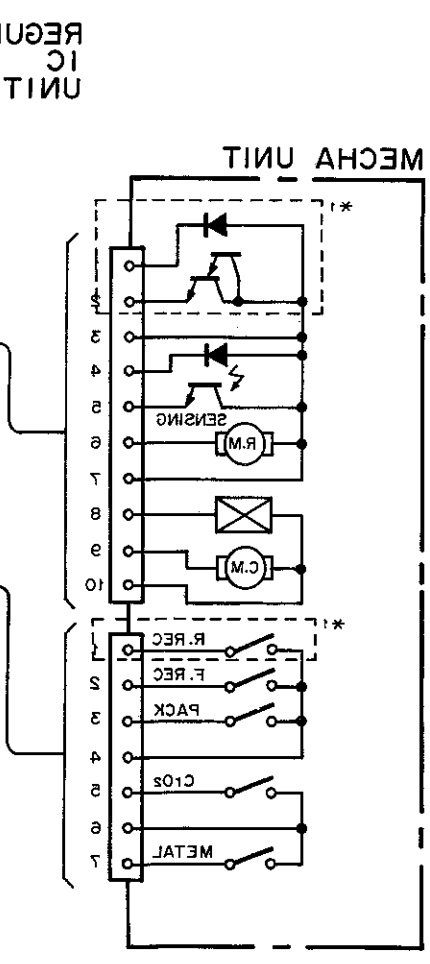
B



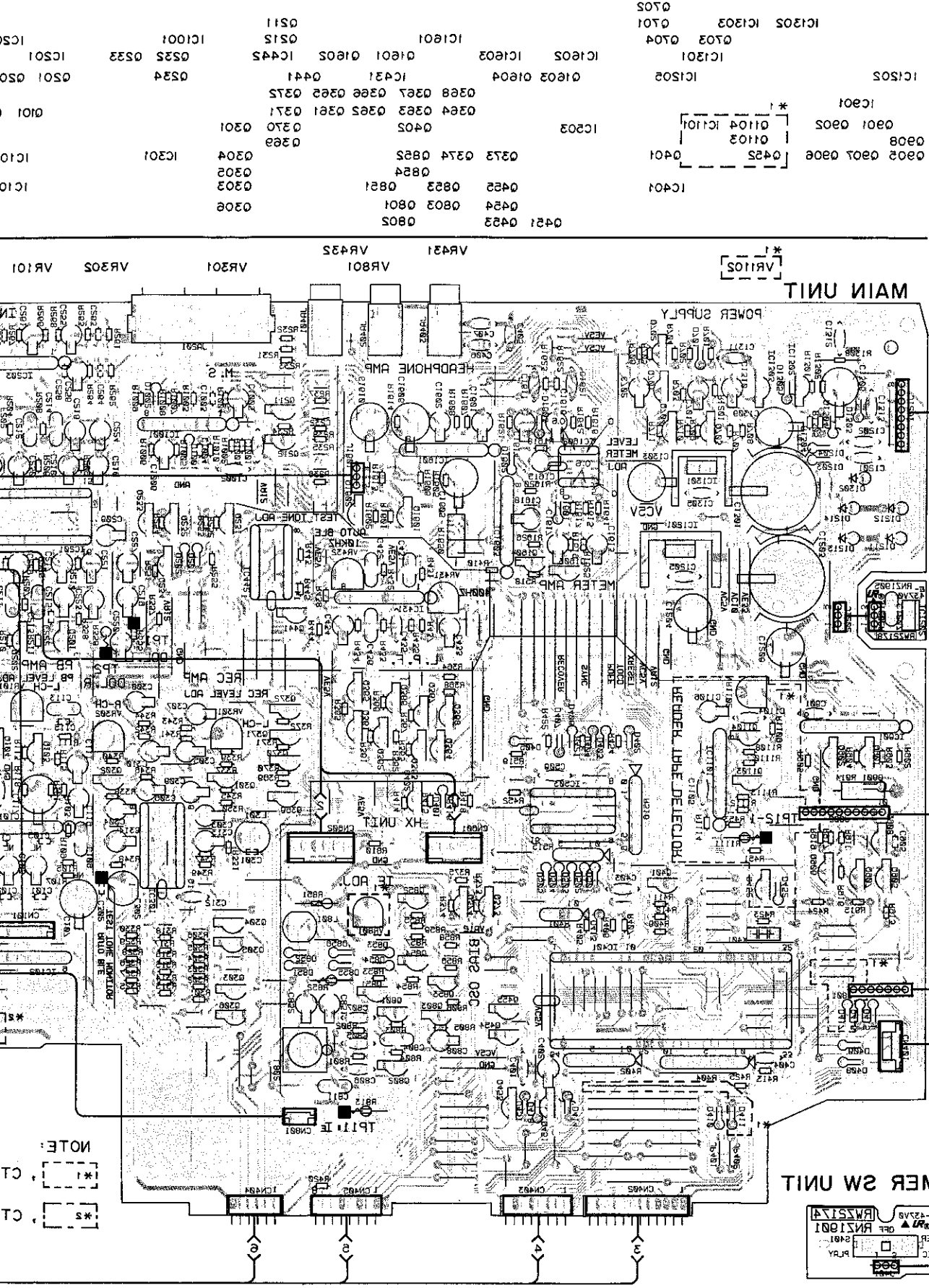
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D



IC REGULATOR

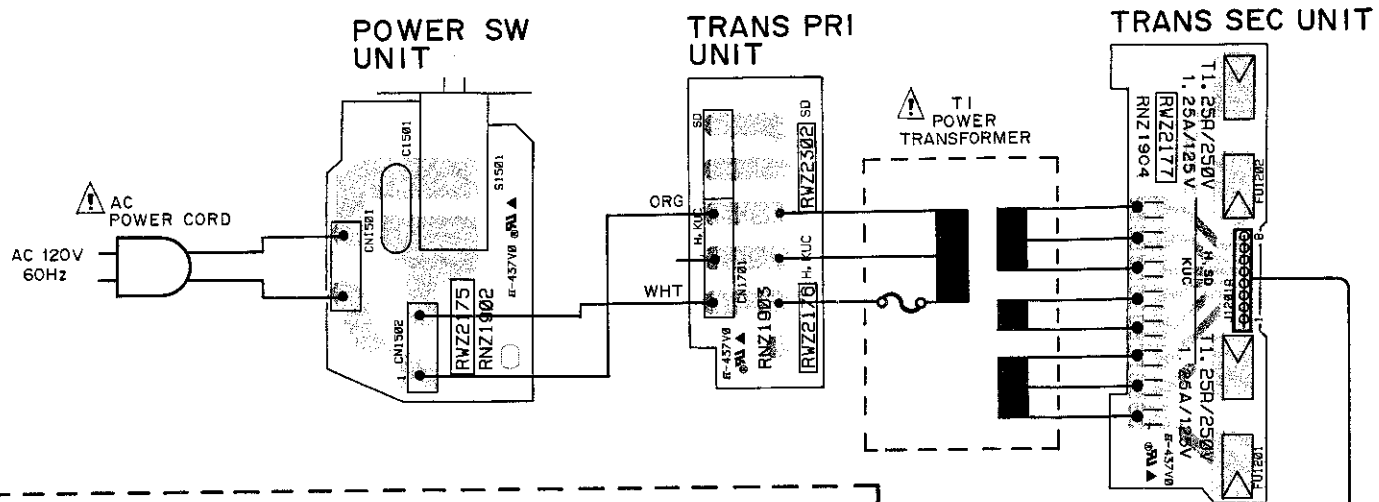


TIMER SW UNIT

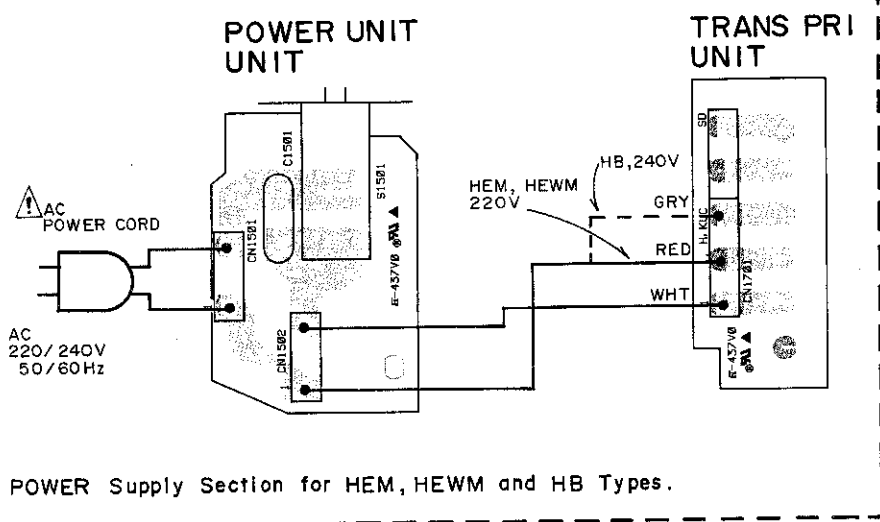
NOTE:  
 \*1 CT  
 \*5 CT

### 3. P.C. BOARDS CONNECTION DIAGRAM

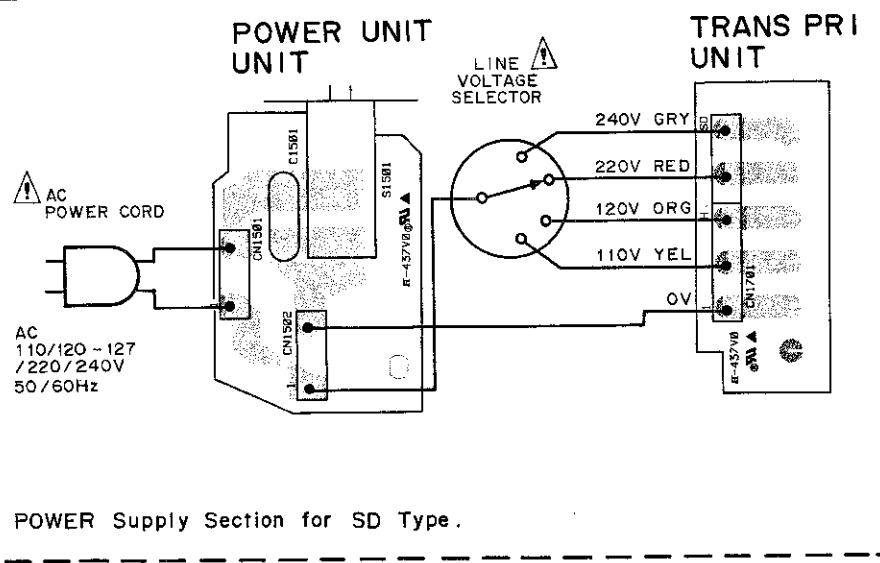
A



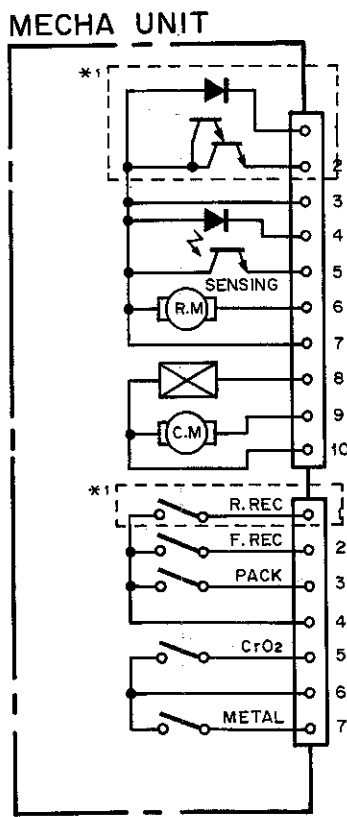
B



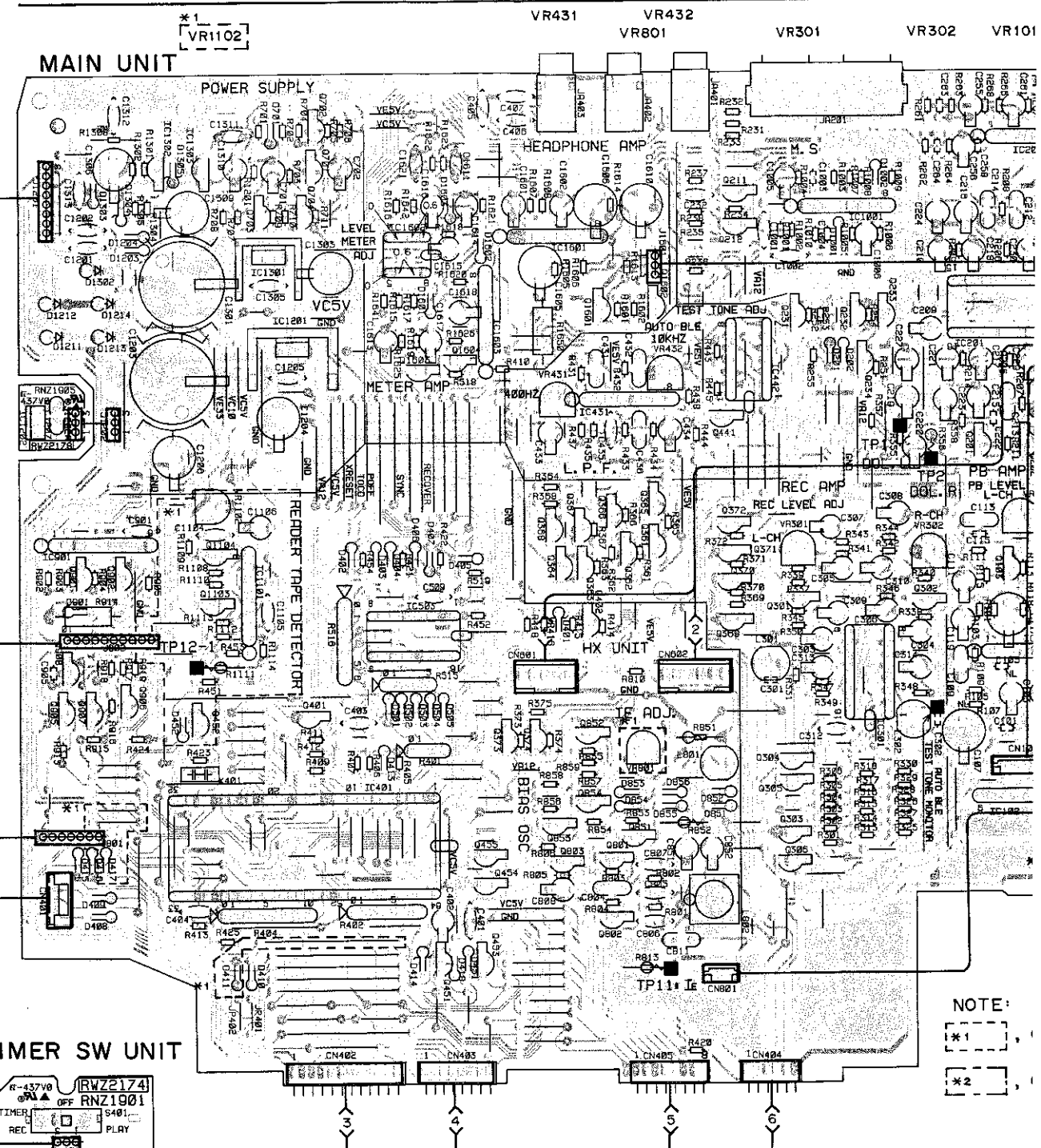
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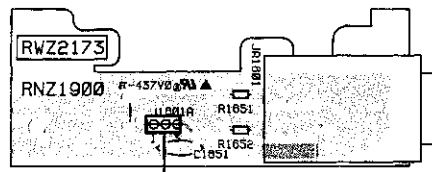
IC1302	IC1303	Q702	Q211	IC1001	IC
	Q703	Q704	Q212	Q232	Q233
IC1202	IC1301	IC1602	IC1603	IC442	Q234
IC901	IC1205	Q1603	Q1604	IC431	Q441
Q908	Q901	Q902	Q368	Q367	Q366
Q905	Q907	Q906	Q364	Q363	Q362
	Q452	Q401	Q402	Q370	Q301
	IC401	IC503	Q373	Q374	Q852
			Q455	Q853	Q851
			Q454	Q803	Q801
			Q451	Q453	Q802
				Q304	IC301
				Q305	IC1
				Q303	IC
				Q306	



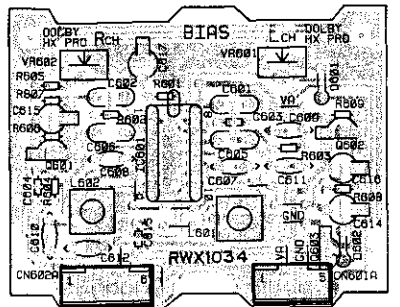
NOTE:  
\*1  
\*2

- 1 IC1001 IC203
- 2 Q232 Q233 IC201
- 42 Q234 Q201 Q202
- Q301 Q101 Q102
- Q304 IC301 IC101 Q101
- Q305 IC102
- Q303
- Q306

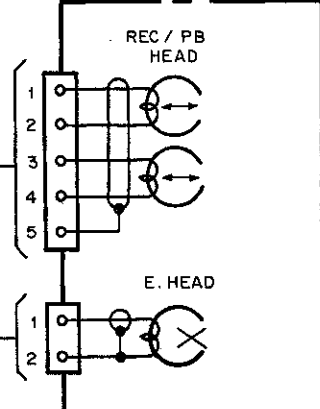
### HEADPHONE UNIT



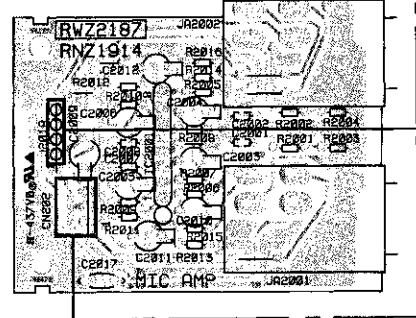
### HX UNIT



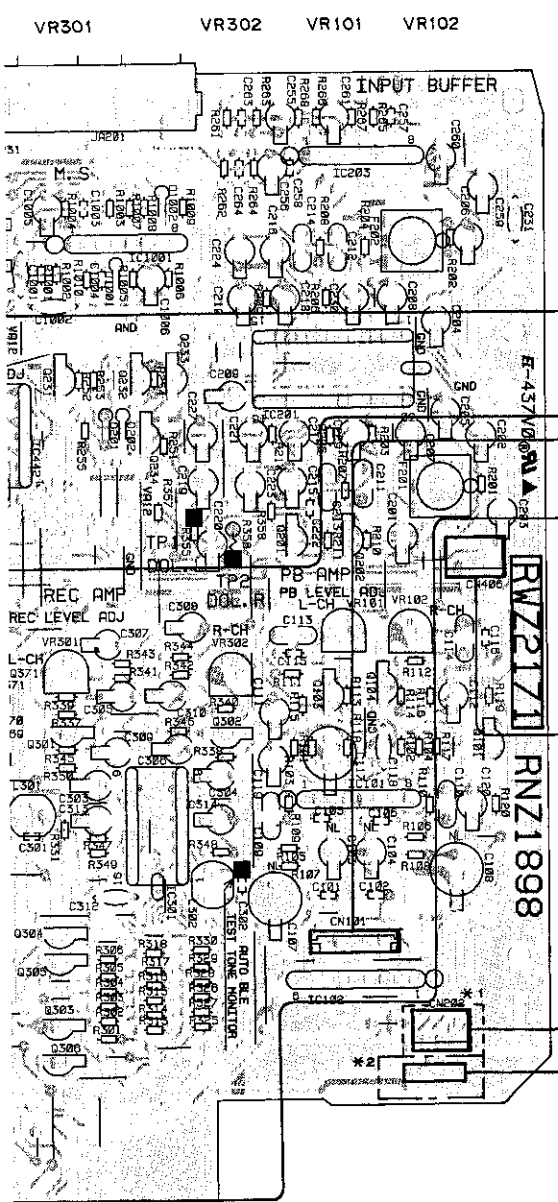
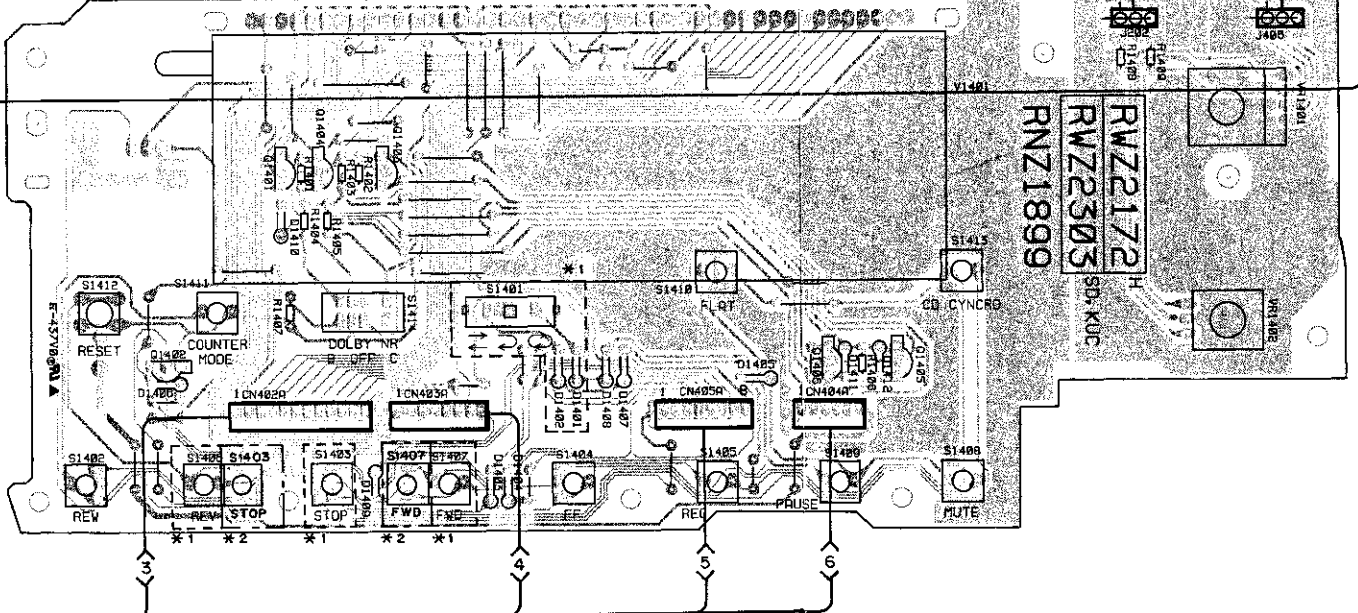
### MECHA UNIT



### MICROPHONE UNIT



### DISPLAY UNIT

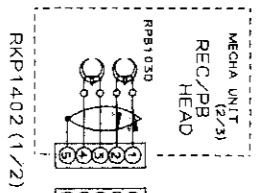


NOTE:  
 \*1 CT-S609 SERIES ONLY.  
 \*2 CT-339 SERIES ONLY.

P.C.B. pattern diagram indication	Corresponding part symbol	Part name
		Transistor
		FET
		Diode
		Zener diode
		LED
		Varactor
		Tact switch
		Inductor
		Coil
		Transformer
		Filter
		Ceramic capacitor
		Mylar capacitor
		Styrol capacitor
		Electrolytic capacitor (Non polarized)
		Electrolytic capacitor (Noiseless)
		Electrolytic capacitor (Polarized)
		Electrolytic capacitor (Polarized)
		Power capacitor
		Semi-fixed resistor
		Resistor array
		Resistor
		Resonator
		Thermistor

1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the above Table.
3. The capacitor terminal marked with shows negative terminal.
4. The diode marked with shows cathode side.
5. The transistor terminal marked with shows emitter.

# 4. SCHEMATIC DIAGRAM

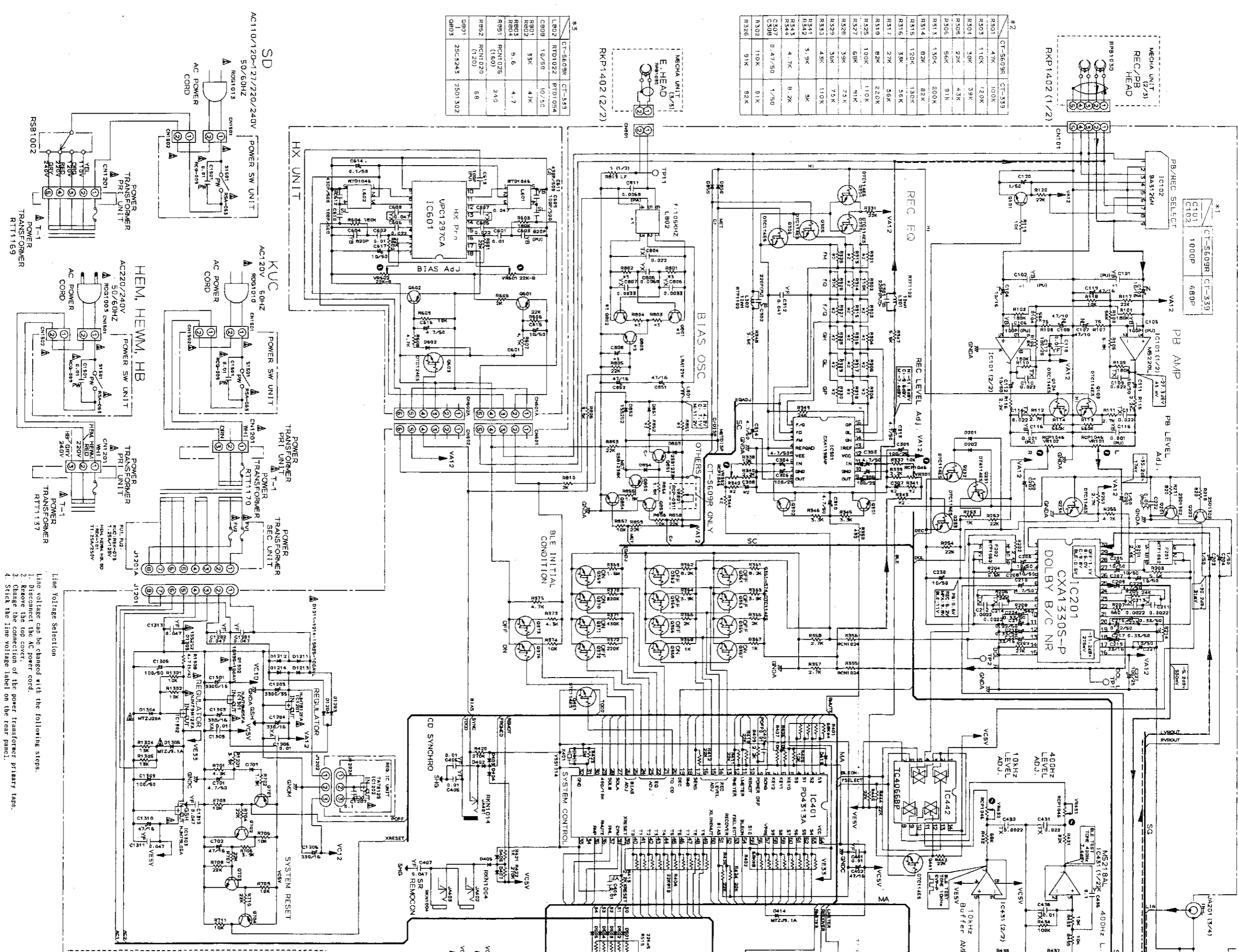
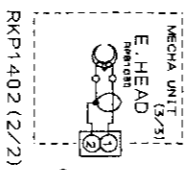


#2

CT-S609R	CT-333
R301	47K
R303	110K
R304	30K
R305	22K
R306	51K
R311	130K
R314	82K
R315	120K
R316	3K
R317	27K
R318	82K
R325	100K
R327	68K
R328	39K
R329	33K
R330	43K
R341	3.9K
R343	4.7K
R344	4.7K
R347	0.47/50
C308	1/50
R302	110K
R326	91K

#5

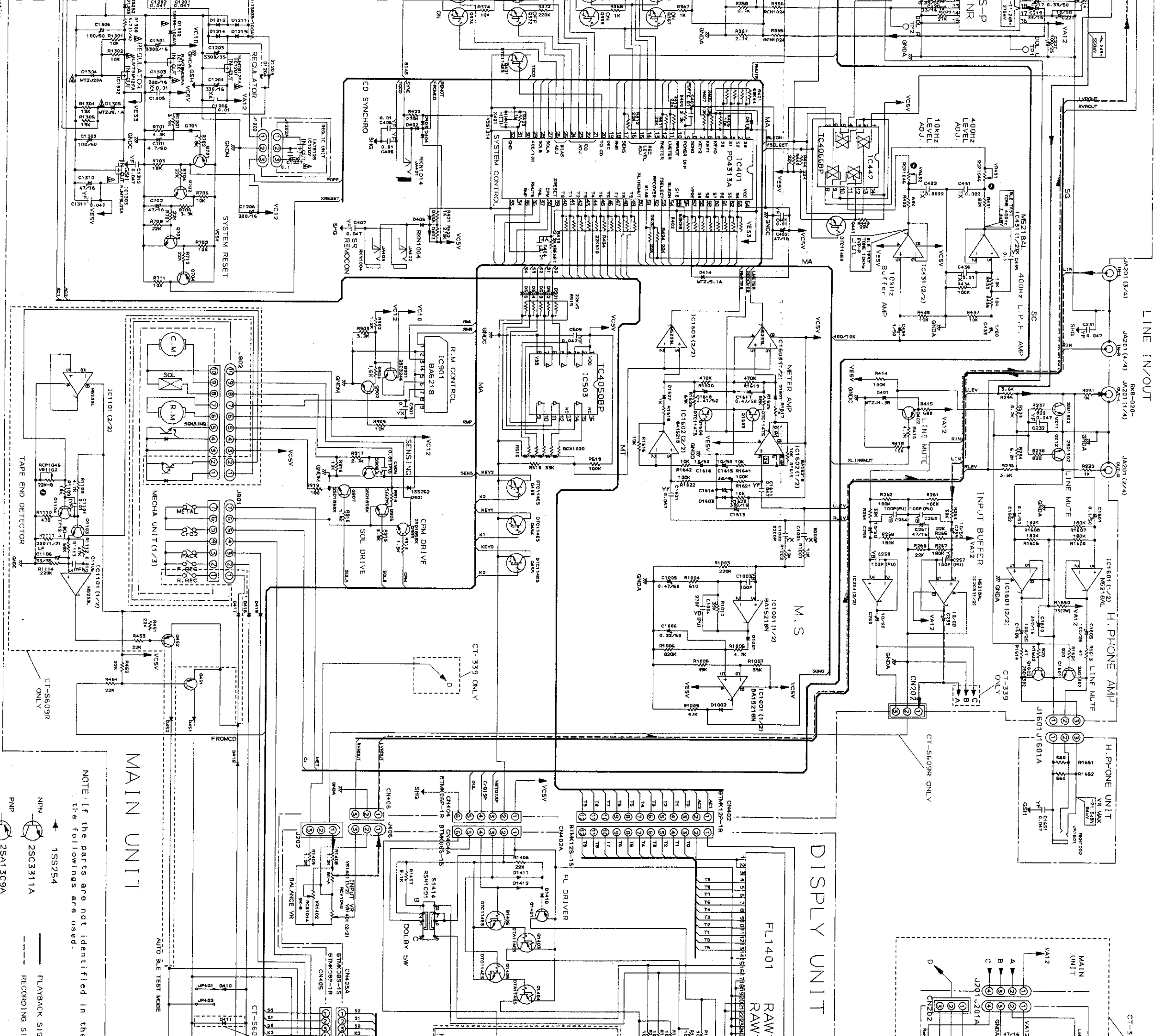
CT-S609R	CT-343
L802	RFD1022
C808	10/50
R801	33K
R802	47K
R803	5.6
R804	4.7
R891	RCM1025
R892	1160
R893	120
C801	CTN1020
C803	58
C802	Z5C3243
C803	Z5D1302



- Line Voltage Selection
- Line voltage can be changed with the following steps.
  - Disconnect the AC power cord.
  - Change the connection of the power transformer primary taps.
  - Stick the line voltage label on the rear panel.

Part No.	Description
AXX-198	220V label
AXX-197	240V label

1 2 3 4



MOTHER UNIT

MECHA UNIT

MAIN UNIT

DISPLAY UNIT

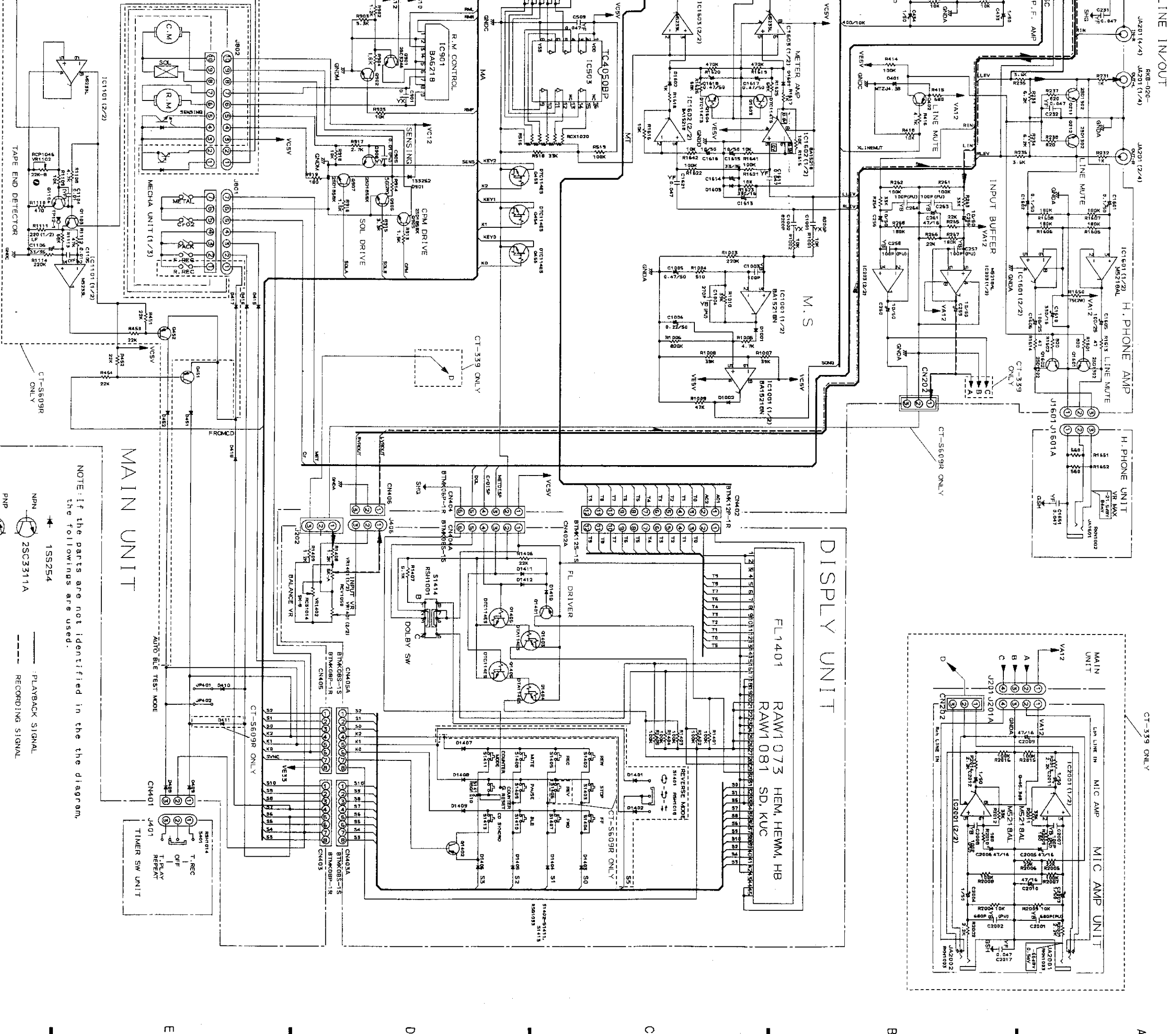
H. PHONE UNIT

NOTE: If the parts are not identified in the following are used.

- 15S254
- 25C3311A
- 25A1309A
- PLAYBACK SIG
- RECORDING SIG

be changed with the following steps.  
AC power cord.  
section of the power transformer primary taps.  
voltage label on the rear panel.  
cription



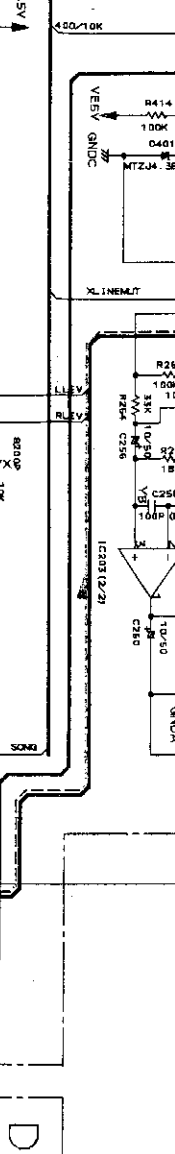
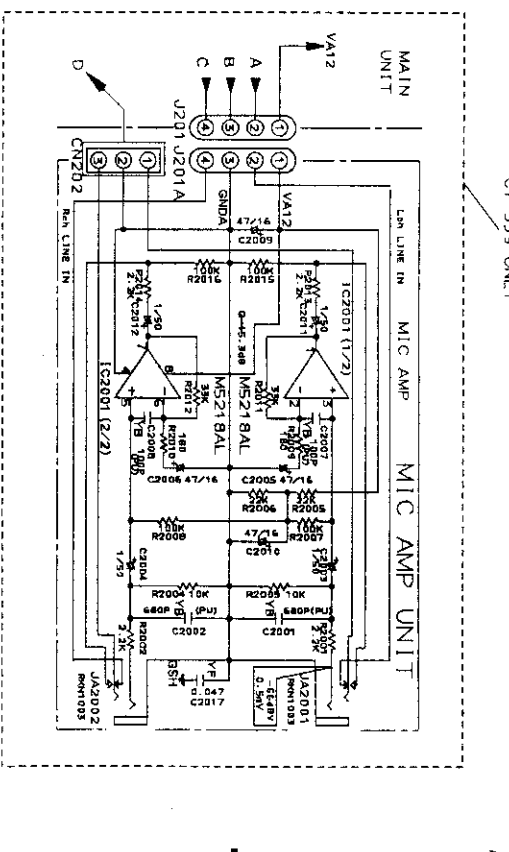
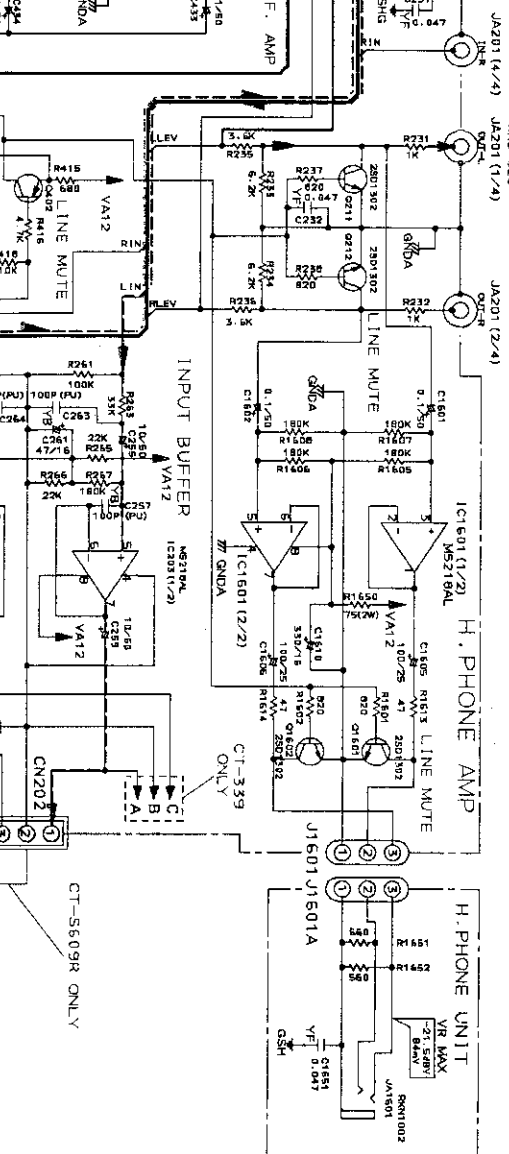


NOTE: If the parts are not identified in the the diagram, the followings are used.

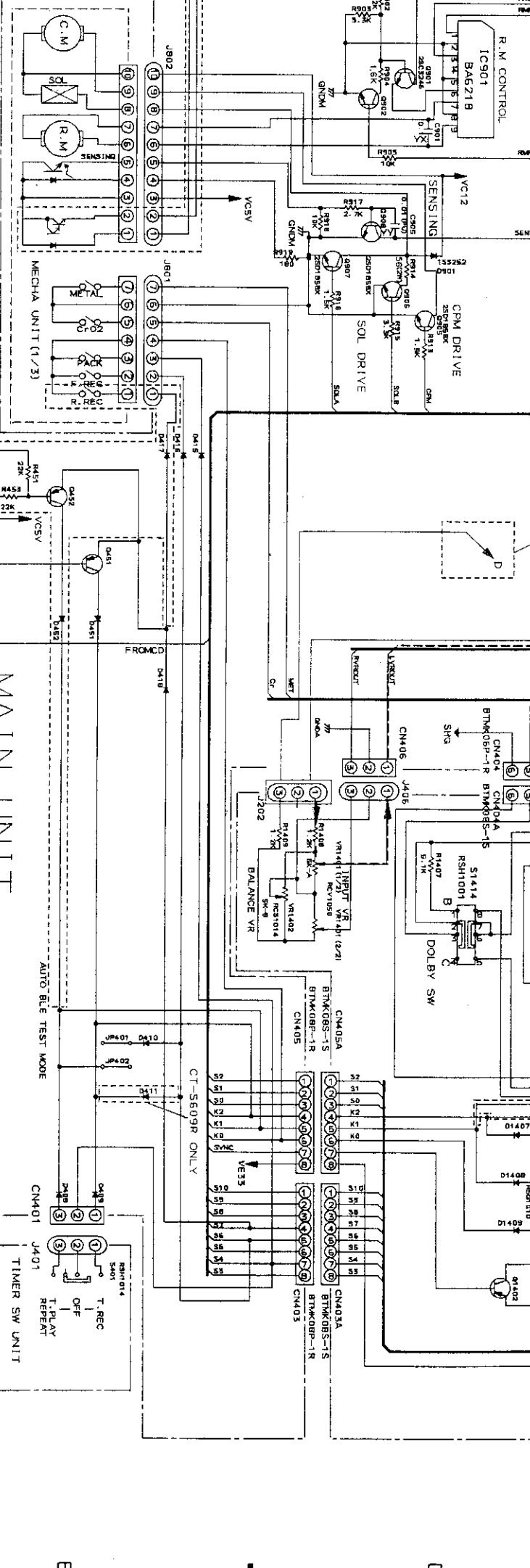
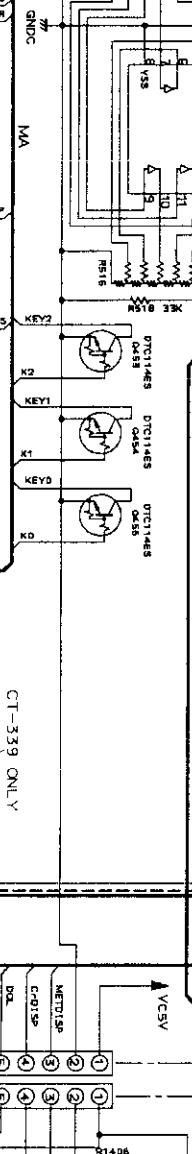
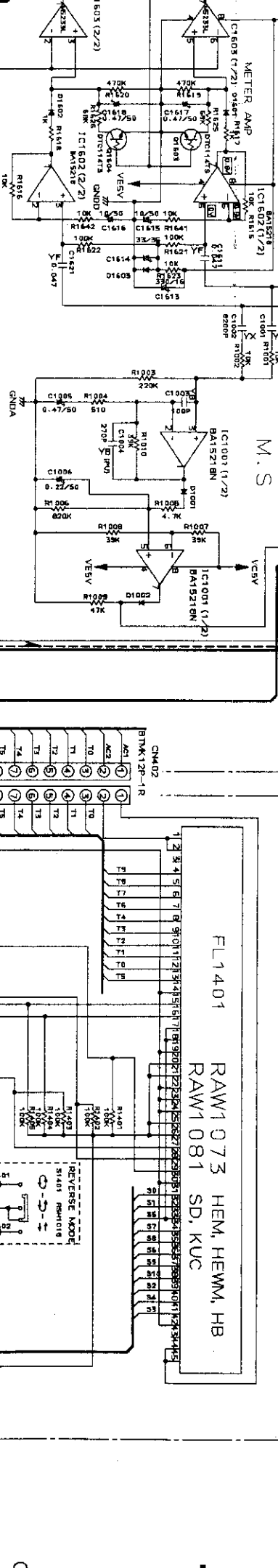
1SS254  
NPN 2SC3311A  
PNP 2SA1209A

PLAYBACK SIGNAL  
RECORDING SIGNAL

LINE IN/OUT



DISPLY UNIT



MAIN UNIT

MOTHER UNIT

MECHA UNIT

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

POWER SW UNIT  
S1501 : ON - OFF

TIMER SW UNIT  
S401 : T.REC - OFF - T.PLAY/REPEAT

S1401 : REV MODE  $\odot$ - $\square$ - $\rightarrow$   
S1406 : REV

(CT - S609 SERIES ONLY)  
S1414 : DOLBY NR B - OFF - C

S1413 : CD SYNCRO

S1412 : CUNTER RESET

S1411 : CUNTER MODE

S1410 : FLAT

S1409 : PAUSE

S1408 : MUTE

S1407 : FWD

S1405 : REC

S1403 : STOP

S1402 : REW

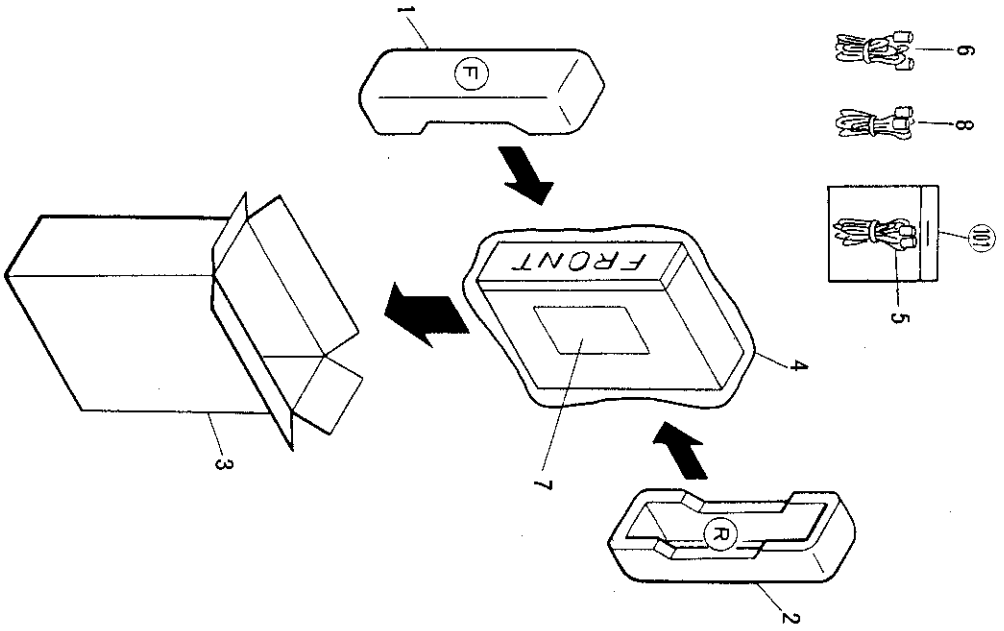
5. SWITCHES (Underline indicates switch position)  
DISPLAY UNIT

## CT-S609R

## 5. PACKING

### Parts List

Mark No.	Part No.	Description
1	RHA1006	Pad (A)
2	RHA1007	Pad (B)
3	RHG1290	Packing case
4	RHX - 034	Sheet
5	RDE - 010	Connection cord
6	RDE1030	Control cord
7	RRB1092	Operating instructions
8	PDE - 319	Connection cord (Mini)
101		Connection cord assembly



## 6. P.C.B.'s PARTS LIST

### 6.1 CT-S609R

#### NOTES:

- Parts without part number cannot be supplied.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may vary.
- The  $\Delta$  mark found on some component parts indicates the importance of the parts 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  $\Omega$  → 560  $\Omega$  → 56 × 10<sup>1</sup> → 561
- 47k  $\Omega$  → 47 × 10<sup>3</sup> → 473
- 0.5  $\Omega$  → 0R5
- 1  $\Omega$  → 010
- Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors), such as 5.62k  $\Omega$  → 562 × 10<sup>1</sup> → 5621

Mark No.	Description	Part No.	Mark
<b>HX UNIT</b>			
<b>SEMICONDUCTORS</b>			
IC601	DOLBY HX PRO IC	UPC1297CA	$\Delta$
Q601, 602	TRANSISTOR	2SA1309A	$\Delta$
Q603	TRANSISTOR	DTC124ES	$\Delta$
D601, 602	DIODE	1SS254	$\Delta$
<b>COILS/TRANSFORMERS</b>			
L601, 602	COIL	RTD1046	$\Delta$
<b>CAPACITORS</b>			
C601, 602	AUDIO FILM CAPACITOR	CFTXA103J50	
C603, 604	AXIAL CAPACITOR	CKPVB821K50	
C605, 606	AUDIO FILM CAPACITOR	CFTYA223J50	
C607, 608	CERAMIC CAPACITOR	CGCYX473K25	
C609, 610	CERAMIC CAPACITOR	CCC5L101K500	
C611, 612	CERAMIC CAPACITOR	RCG1005	
C613	AXIAL CAPACITOR	CKPYB101K50	
C614	ELECTR. CAPACITOR	CEASR10M50	
C615	ELECTR. CAPACITOR	CEAS100M50	
C616	ELECTR. CAPACITOR	CEAS4RTM50	
C617	ELECTR. CAPACITOR	CEAS100M50	
<b>RESISTORS</b>			
R601-609	CARBON FILM RESISTOR	RD1/6PM□□□J	
VR601, 602	VR	VRTBRHS223	
<b>MAIN UNIT</b>			
<b>SEMICONDUCTORS</b>			
IC101	OP-AMP IC	MS220L	
IC102	IC	BA3126N	
IC201	DOLBY B/C IC	CXA1330S	
IC203	OP-AMP IC	MS218AL	
IC301	REC EQUALIZER IC	CA11198AP	
IC401	MCU	PD4313A	
IC431	OP-AMP IC	MS218AL	
IC442	LOGIC IC	TC4066BP	
IC503	CMOS LOGIC IC	TC4050BP	



be longer than usual or they may be unavailable.  
 safety factor of the part. Therefore, when replacing, be sure  
 when in the following examples.

47k ohm (tolerance is shown by J=5%, and K=10%)  
 D/J/4PS 5 6 1 J  
 D/J/4PS 4 7 3 J  
 NNZH 0 R 5 K  
 S1P 0 1 0 K  
 resistors).

NNI/4SR 5 6 2 1 F

Part No.	Description	Mark No.
IC901 IC	BA6218	
IC1001 IC	BA15218N	
IC1101 DUAL-COMPARATOR IC	ME233L	
IC1201 REGULATOR IC	N1M7812FA	
IC1301 REGULATOR IC	N1M78M05FA	
IC1302 REGULATOR IC	N1M79M12FA	
IC1303 REGULATOR IC	N1M79L05A	
IC1601 OP-AMP IC	ME218AL	
IC1602 OP-AMP IC	BA15218	
IC1603 DUAL-COMPARATOR IC	ME233L	
Q101 TRANSISTOR	2SC3311A	
Q103, 104 TRANSISTOR	DTC114ES	
Q201, 202 TRANSISTOR	2SD1302	
Q211, 212 TRANSISTOR	2SD1302	
Q231 DIGITAL TRANSISTOR	DTA114ES	
Q232-234 TRANSISTOR	DTC114ES	
Q401 TRANSISTOR	DTC114ES	
Q402 TRANSISTOR	2SA1309A	
Q441 TRANSISTOR	DTC114ES	
Q451, 452 TRANSISTOR	2SA1309A	
Q453-455 TRANSISTOR	DTC114ES	
Q701 TRANSISTOR	2SA1309A	
Q702, 703 TRANSISTOR	2SC3311A	
Q704 TRANSISTOR	2SA1309A	
Q801-803 TRANSISTOR	2SC33243	
Q851, 852 TRANSISTOR	2SB1238X	
Q853, 854 TRANSISTOR	2SC3311A	
Q901 TRANSISTOR	2SC3246	
Q902 TRANSISTOR	2SC3311A	
Q905-907 TRANSISTOR	2SD1858X	
Q908 TRANSISTOR	2SC3311A	
Q1103, 1104 TRANSISTOR	2SC3311A	
Q1601, 1602 TRANSISTOR	2SD1302	

Mark No.	Description	Part No.
Q1603, 1604 DIGITAL TRANSISTOR	DTC114FS	
D201, 202 DIODE	ISS254	
D401 ZENER DIODE	MTZ14, 3B	
D402-411 DIODE	ISS254	
D413 DIODE	ISS254	
D414 ZENER DIODE	MTZ19, 1A	
D415-418 DIODE	ISS254	
D451, 452 DIODE	ISS254	
D501-505 DIODE	ISS254	
D701 DIODE	ISS254	
D851 DIODE	ISS254	
D852 DIODE	ISS252	
D853-856 DIODE	ISS254	
D901 DIODE	ISS252	
D1001, 1002 DIODE	ISS254	
D1203, 1204 DIODE	ISS254	
D1211-1214 DIODE	1SR35-100AVL	
D1302 DIODE	1SR35-100AVL	
D1303 DIODE	ISS252	
D1304 ZENER DIODE	MTZ120A	
D1305 ZENER DIODE	MTZ19, 1A	
D1601-1603 DIODE	ISS254	

Mark No.	Description	Part No.
D1305 ZENER DIODE	MTZ19, 1A	
D1601-1603 DIODE	ISS254	

**COILSTRANSFORMERS**

L301, 302 COIL	RTE1102
L801 RADIAL INDUCTOR	LRA121K
-L802 COIL	RTD1022
F201, 202 FILTER	RFF1062

**CAPACITORS**

C101, 102 CERAMIC CAPACITOR	CKPUB102K50
C103, 104 ELECTR. CAPACITOR	CEAN1100M16
C105, 106 AXIAL CAPACITOR	CKPUB101K50
C107, 108 ELECTR. CAPACITOR	CEAN1470M10
C109, 110 AUDIO FILM CAPACITOR	CFTXA223J50
C111, 112 ELECTR. CAPACITOR	CEAS100M50
C113, 114 AUDIO FILM CAPACITOR	CFTXA223J50
C115, 116 CERAMIC CAPACITOR	CKPUB102K50
C117 ELECTR. CAPACITOR	CEAS101M25
C118 CERAMIC CAPACITOR	CKCFY103Z50
C119 ELECTR. CAPACITOR	CEAS470M16
C120 ELECTR. CAPACITOR	CEAS010M50
C201-204 ELECTR. CAPACITOR	CEAS010M50
C205-208 ELECTR. CAPACITOR	CEAS100M50
C209, 210 ELECTR. CAPACITOR	CEAS100M50
C211-214 AUDIO FILM CAPACITOR	CFTXA222J50
C215, 216 ELECTR. CAPACITOR	CEASR22M50
C217, 218 ELECTR. CAPACITOR	CEASR33M50
C219, 220 ELECTR. CAPACITOR	CEAS330M16
C221 ELECTR. CAPACITOR	CEAS100M50
C222 CERAMIC CAPACITOR	CKPUBY103M16
C223, 224 ELECTR. CAPACITOR	CEASR33M50
C227 ELECTR. CAPACITOR	CEAS101M25
C229, 230 ELECTR. CAPACITOR	CEAS100M50
C231, 232 CERAMIC CAPACITOR	CKCFY473Z50
C255, 256 ELECTR. CAPACITOR	CEAS100M50

Mark No.	Description	Part No.
C257, 258 AXIAL CAPACITOR	CKPUB101K50	
C259, 260 ELECTR. CAPACITOR	CEAS100M50	
C261 ELECTR. CAPACITOR	CEAS470M16	
C263, 264 AXIAL CAPACITOR	CKPUB101K50	

C301, 302 AXIAL CAPACITOR	CKPUB221K50
C303, 304 ELECTR. CAPACITOR	CEAS4RTM50
C305, 306 ELECTR. CAPACITOR	CEAS101M25
C307, 308 ELECTR. CAPACITOR	CEASR47M50
C309 ELECTR. CAPACITOR	CEAS101M25

C310 ELECTR. CAPACITOR	CEAS4RTM50
C312 CERAMIC CAPACITOR	CKCFY473Z50
C313, 314 ELECTR. CAPACITOR	CEAS4RTM50
C401 CERAMIC CAPACITOR	CKCFY103Z50
C402 ELECTR. CAPACITOR	CEAS470M16

C403-406 CERAMIC CAPACITOR	CKCFY103Z50
C407 CERAMIC CAPACITOR	CKCFY473Z50
C431 AUDIO FILM CAPACITOR	CFTXA223J50
C432 AUDIO FILM CAPACITOR	CFTXA222J50
C433, 434 ELECTR. CAPACITOR	CEAS010M50

C435 CERAMIC CAPACITOR	CCCYX104K25
C436 AUDIO FILM CAPACITOR	CFTXA103J50
C509 CERAMIC CAPACITOR	CKCFY473Z50
C701 ELECTR. CAPACITOR	CEAS4RTM50
C702 ELECTR. CAPACITOR	CEAS470M16

C804 AUDIO FILM CAPACITOR	CFTXA223J50
C805 CERAMIC CAPACITOR	CCCYX682K25
C806, 807 CERAMIC CAPACITOR	CCCYX332K25
C808 ELECTR. CAPACITOR	CEAS100M50
C811 CAPACITOR	QCPA682J110

C851, 852 ELECTR. CAPACITOR	CEAS470M16
C901 CERAMIC CAPACITOR	CCCYX104K25
C905 CERAMIC CAPACITOR	CKPUBY103M16
C1001, 1002 CERAMIC CAPACITOR	CCCYX822K25
C1003 AXIAL CAPACITOR	CKPUB101K50

C1004 AXIAL CAPACITOR	CKPUB271K50
C1005 ELECTR. CAPACITOR	CEASR47M50
C1006 ELECTR. CAPACITOR	CEASR22M50
C1104, 1105 CERAMIC CAPACITOR	CKCFY103Z50
C1106 ELECTR. CAPACITOR	CEAS330M35

C1201, 1202 CERAMIC CAPACITOR	CKCFY473Z50
C1203 ELECTR. CAPACITOR	CEAS332M35
C1204 ELECTR. CAPACITOR	CEAS331M16
C1205 AUDIO FILM CAPACITOR	CFTXA103J50
C1206 ELECTR. CAPACITOR	CEAS331M16

C1301 ELECTR. CAPACITOR	CEAS332M16
C1303 ELECTR. CAPACITOR	CEAS331M16
C1305 AUDIO FILM CAPACITOR	CFTXA103J50
C1306 ELECTR. CAPACITOR	CEAS101M50
C1309 ELECTR. CAPACITOR	CEAS101M50

C1310 ELECTR. CAPACITOR	CEAS470M16
C1311-1313 CERAMIC CAPACITOR	CKCFY473Z50
C1601, 1602 ELECTR. CAPACITOR	CEASR10M50
C1605, 1606 ELECTR. CAPACITOR	CEAS101M25
C1610 ELECTR. CAPACITOR	CEAS331M16

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	C1611	CERAMIC CAPACITOR	CKCYF473Z50		R1605-1608	CARBONFILM RESISTOR	RD1/6PM□□□J
	C1613	ELECTR. CAPACITOR	CEAS331M16		R1613-1623	CARBONFILM RESISTOR	RD1/6PM□□□J
	C1614	ELECTR. CAPACITOR	CEAS330M35		R1625, 1626	CARBONFILM RESISTOR	RD1/6PM□□□J
	C1615, 1616	ELECTR. CAPACITOR	CEAS100M50		R1641, 1642	CARBONFILM RESISTOR	RD1/6PM□□□J
	C1617, 1618	ELECTR. CAPACITOR	CEASR47M50		R1650	METAL OXIDE RESISTOR	RS2LMF□□□J
	C1621	CERAMIC CAPACITOR	CKCYF473Z50		VR101, 102	VR	RCP1046
					VR301, 302	VR	RCP1046
					VR431, 432	VR	RCP1046
					VR801	VARIABLE RESISTOR	RCP-031
					VR1102	VR	RCP1046
<b>RESISTORS</b>				<b>OTHERS</b>			
	R101-120	CARBONFILM RESISTOR	RD1/6PM□□□J		CN402		BTMK12P-1R
	R201-211	CARBONFILM RESISTOR	RD1/6PM□□□J		CN403		BTMK08P-1R
	R214	CARBONFILM RESISTOR	RD1/6PM□□□J		CN404		BTMK06P-1R
	R231-238	CARBONFILM RESISTOR	RD1/6PM□□□J		CN405		BTMK08P-1R
	R251-255	CARBONFILM RESISTOR	RD1/6PM□□□J		JA201	JACK	RKB-020
	R261-268	CARBONFILM RESISTOR	RD1/6PM□□□J		JA401	JACK	RKN1014
	R301-306	CARBONFILM RESISTOR	RD1/6PM□□□J		JA402, 403	JACK	RKN1004
	R313-318	CARBONFILM RESISTOR	RD1/6PM□□□J		X401	CERAMIC RESONATOR	VSS1014
	R325-331	CARBONFILM RESISTOR	RD1/6PM□□□J				
	R337-350	CARBONFILM RESISTOR	RD1/6PM□□□J				
	R355, 356	CARBONFILM RESISTOR	RCN1024	<b>HEADPHONE UNIT</b>			
	R357, 358	CARBONFILM RESISTOR	RD1/6PM□□□J	<b>CAPACITORS</b>			
	R361-375	CARBONFILM RESISTOR	RD1/6PM□□□J		C1651	CERAMIC CAPACITOR	CKCYF473Z50
	R401	RESISTOR ARRAY (22K)	RA4T□□□J	<b>RESISTORS</b>			
	R402	RESISTOR ARRAY (68 K)	RA8T□□□J		R1651, 1652	CARBONFILM RESISTOR	RD1/6PM□□□J
	R404	RESISTOR ARRAY (100K)	RA10T□□□J	<b>OTHERS</b>			
	R405-407	CARBONFILM RESISTOR	RD1/6PM□□□J		JA1601	JACK	RKN1002
	R409-416	CARBONFILM RESISTOR	RD1/6PM□□□J	<b>TIMER SW UNIT</b>			
	R418	CARBONFILM RESISTOR	RD1/6PM□□□J	<b>SWITCHES</b>			
	R420-425	CARBONFILM RESISTOR	RD1/6PM□□□J		S401	SWITCH	RSH1014
	R431-435	CARBONFILM RESISTOR	RD1/6PM□□□J	<b>POWER SW UNIT</b>			
	R437, 438	CARBONFILM RESISTOR	RD1/6PM□□□J	<b>SWITCHES</b>			
	R443-445	CARBONFILM RESISTOR	RD1/6PM□□□J		△ S1501	SWITCH	RSA-063
	R451-454	CARBONFILM RESISTOR	RD1/6PM□□□J	<b>CAPACITORS</b>			
	R515	RESISTOR ARRAY (22K)	RA5T□□□J		△ C1501	CAPACITOR (CERAMIC)	RCG-009
	R516	LADDER RESISTOR	RCX1020	<b>TRANS PRI UNIT</b>			
	R518, 519	CARBONFILM RESISTOR	RD1/6PM□□□J		There is no supply part in this unit.		
	R701-711	CARBONFILM RESISTOR	RD1/6PM□□□J	<b>TRANS SEC UNIT</b>			
	R801-806	CARBONFILM RESISTOR	RD1/6PM□□□J		There is no supply part in this unit.		
	R810	CARBONFILM RESISTOR	RD1/6PM□□□J	<b>REGULATOR IC UNIT</b>			
	R813	CARBONFILM RESISTOR	RD1/2LF□□□J	<b>SEMICONDUCTORS</b>			
	R851	CARBONFILM RESISTOR	RCN1026		△ IC1202	REGULATOR IC	TA7812S
	R852	CARBONFILM RESISTOR	RCN1020	<b>CAPACITORS</b>			
	R853-859	CARBONFILM RESISTOR	RD1/6PM□□□J		C1207	AUDIO FILM CAPACITOR	CFTXA104J50
	R902-905	CARBONFILM RESISTOR	RD1/6PM□□□J				
	R913	CARBONFILM RESISTOR	RD1/6PM□□□J				
	R914	METAL OXIDE RESISTOR	RS2LMF□□□J				
	R915-919	CARBONFILM RESISTOR	RD1/6PM□□□J				
	R1001-1010	CARBONFILM RESISTOR	RD1/6PM□□□J				
	R1108-1110	CARBONFILM RESISTOR	RD1/6PM□□□J				
	R1111	CARBONFILM RESISTOR	RD1/2LF□□□J				
	R1112-1114	CARBONFILM RESISTOR	RD1/6PM□□□J				
	R1201	CARBONFILM RESISTOR	RD1/6PM□□□J				
	R1301, 1302	CARBONFILM RESISTOR	RD1/6PM□□□J				
	R1304, 1305	CARBONFILM RESISTOR	RD1/6PM□□□J				
△	R1308	FUSIBLE RESISTOR	RFA1/4L□□□J				
	R1601, 1602	CARBONFILM RESISTOR	RD1/6PM□□□J				

Mark	No.	Description	Part No.
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**DISPLAY UNIT**

**SEMICONDUCTORS**

Q1401, 1402	TRANSISTOR	2SA1309A
Q1403, 1404	DIGITAL TRANSISTOR	DTA114ES
Q1405, 1406	TRANSISTOR	DTC114ES
D1401-1412	DIODE	1SS254

**SWITCHES**

S1401		RSH1018
S1402-1411	SWITCH	RSG1033
S1412		RSG1010
S1413	SWITCH	RSG1033
S1414	SWITCH	RSH1001

FL HOLDER		RNK1499
CN402		BTMK12S-1S
CN403		BTMK08S-1S
CN404		BTMK06S-1S

**RESISTORS**

R1401-1409	CARBONFILM RESISTOR	RD1/6PM□□□J
VR1401	VR	RCV1050
VR1402	VR	RCS1014

**OTHERS**

CN405		BTMK08S-1S
V1401		RAW1081

6.2 CT-S339

NOTES:

- Parts without part number cannot be supplied.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%)

560 Ω → 56 × 10<sup>1</sup> → 561 ..... RD1/4PS 561J

47k Ω → 47 × 10<sup>3</sup> → 473 ..... RD1/4PS 473J

0.5 Ω → OR5 ... RN2H 0R5K

1 Ω → O10 ... RS1P 010K

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

5.62k Ω → 562 × 10<sup>1</sup> → 5621 ..... RN1/4SR 5621F

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
<b>HX UNIT</b>				Δ	IC1201	REGULATOR IC	NJM7812FA
				Δ	IC1301	REGULATOR IC	NJM78M05FA
				Δ	IC1302	REGULATOR IC	NJM79M12FA
				Δ	IC1303	REGULATOR IC	NJM79L05A
<b>SEMICONDUCTORS</b>							
	IC601	DOLBY HX PRO IC	UPC1297CA		IC1601	OP-AMP, IC	M5218AL
	Q601, 602	TRANSISTOR	2SA1309A		IC1602	OP-AMP IC	BA15218
	Q603	TRANSISTOR	DTC124ES		IC1603	DUAL-COMPARATOR IC	M5233L
	D601, 602	DIODE	1SS254		Q101	TRANSISTOR	2SC3311A
<b>COILS/TRANSFORMERS</b>					Q103, 104	TRANSISTOR	DTC114ES
	L601, 602	COIL	RTD1046		Q201, 202	TRANSISTOR	2SD1302
<b>CAPACITORS</b>					Q211, 212	TRANSISTOR	2SD1302
	C601, 602	AUDIO FILM CAPACITOR	CFTXA103J50		Q231	DIGITAL TRANSISTOR	DTA114ES
	C603, 604	AXIAL CAPACITOR	CKPUYB821K50		Q232-234	TRANSISTOR	DTC114ES
	C605, 606	AUDIO FILM CAPACITOR	CFTXA223J50		Q301, 302	TRANSISTOR	2SC3311A
	C607, 608	CERAMIC CAPACITOR	CGCYX473K25		Q303-306	TRANSISTOR	DTC114ES
	C609, 610	CERAMIC CAPACITOR	CCCSL101K500		Q361-374	TRANSISTOR	DTC114ES
	C611, 612	CERAMIC CAPACITOR	RCG1005		Q401	TRANSISTOR	DTC114ES
	C613	AXIAL CAPACITOR	CKPUYB101K50		Q402	TRANSISTOR	2SA1309A
	C614	ELECTR. CAPACITOR	CEASR10M50		Q441	TRANSISTOR	DTC114ES
	C615	ELECTR. CAPACITOR	CEAS100M50		Q451	TRANSISTOR	2SA1309A
	C616	ELECTR. CAPACITOR	CEAS4R7M50		Q453-455	TRANSISTOR	DTC114ES
	C617	ELECTR. CAPACITOR	CEAS100M50		Q701	TRANSISTOR	2SA1309A
<b>RESISTORS</b>					Q702, 703	TRANSISTOR	2SC3311A
	R601-609	CARBONFILM RESISTOR	RD1/6PM□□□J		Q704	TRANSISTOR	2SA1309A
	VR601, 602	VR	VRTB6HS223		Q801-803	TRANSISTOR	2SD1302
<b>MAIN UNIT</b>					Q851, 852	TRANSISTOR	2SB1238X
<b>SEMICONDUCTORS</b>					Q853, 854	TRANSISTOR	2SC3311A
	IC101	OP-AMP IC	M5220L		Q901	TRANSISTOR	2SC3246
	IC102	IC	BA3126N		Q902	TRANSISTOR	2SC3311A
	IC201	DOLBY B/C IC	CXA1330S		Q905-907	TRANSISTOR	2SD1858X
	IC203	OP-AMP, IC	M5218AL		Q908	TRANSISTOR	2SC3311A
	IC301	REC EQUALIZER IC	CXA1198AP		Q1601, 1602	TRANSISTOR	2SD1302
	IC401	MCU	PD4313A		Q1603, 1604	DIGITAL TRANSISTOR	DTC114TS
	IC431	OP-AMP, IC	M5218AL		D201, 202	DIODE	1SS254
	IC442	LOGIC IC	TC4066BP		D401	ZENER DIODE	MTZJ4. 3B
	IC503	CMOS LOGIC IC	TC4050BP		D402-410	DIODE	1SS254
	IC901	IC	BA6218		D413	DIODE	1SS254
	IC1001	IC	BA15218N		D414	ZENER DIODE	MTZJ9. 1A
					D415, 416	DIODE	1SS254

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	D418	DIODE	1SS254		C305, 306	ELECTR. CAPACITOR	CEAS101M25
	D451	DIODE	1SS254		C307, 308	ELECTR. CAPACITOR	CEAS010M50
	D501-505	DIODE	1SS254		C309	ELECTR. CAPACITOR	CEAS101M25
	D701	DIODE	1SS254		C310	ELECTR. CAPACITOR	CEAS4R7M50
	D851	DIODE	1SS254		C312	CERAMIC CAPACITOR	CKCYF473Z50
	D852	DIODE	1SS252		C313, 314	ELECTR. CAPACITOR	CEAS4R7M50
	D853-856	DIODE	1SS254		C401	CERAMIC CAPACITOR	CKCYF103Z50
	D901	DIODE	1SS252		C402	ELECTR. CAPACITOR	CEAS470M16
	D1001, 1002	DIODE	1SS254		C403-406	CERAMIC CAPACITOR	CKCYF103Z50
	D1203, 1204	DIODE	1SS254		C407	CERAMIC CAPACITOR	CKCYF473Z50
△	D1211-1214	DIODE	1SR35-100AVL		C431	AUDIO FILM CAPACITOR	CFTXA223J50
△	D1302	DIODE	1SR35-100AVL		C432	AUDIO FILM CAPACITOR	CFTXA222J50
△	D1303	DIODE	1SS252		C433, 434	ELECTR. CAPACITOR	CEAS010M50
△	D1304	ZENER DIODE	MTZJ20A		C435	CERAMIC CAPACITOR	CGCYX104K25
△	D1305	ZENER DIODE	MTZJ9. 1A		C436	AUDIO FILM CAPACITOR	CFTXA103J50
	D1601-1603	DIODE	1SS254		C509	CERAMIC CAPACITOR	CKCYF473Z50
	<b>COILS/TRANSFORMERS</b>				C701	ELECTR. CAPACITOR	CEAS4R7M50
	L301, 302	COIL	RTF1102		C702	ELECTR. CAPACITOR	CEAS470M16
	L801	RADIAL INDUCTOR	LRA121K		C804	AUDIO FILM CAPACITOR	CFTXA223J50
	L802		RTD1054		C805	CERAMIC CAPACITOR	CGCYX682K25
	F201, 202	FILTER	RTF1062		C806, 807	CERAMIC CAPACITOR	CGCYX332K25
	<b>CAPACITORS</b>				C808	ELECTR. CAPACITOR	CEAS100M50
	C101, 102	AXIAL CAPACITOR	CKPUYB681K50		C811	CAPACITOR	CQPA682J100
	C103, 104	ELECTR. CAPACITOR	CEANL100M16		C851, 852	ELECTR. CAPACITOR	CEAS470M16
	C105, 106	AXIAL CAPACITOR	CKPUYB101K50		C901	CERAMIC CAPACITOR	CGCYX104K25
	C107, 108	ELECTR. CAPACITOR	CEANL101M10		C905	CERAMIC CAPACITOR	CKPUY103M16
	C109, 110	AUDIO FILM CAPACITOR	CFTXA223J50		C1001, 1002	CERAMIC CAPACITOR	CGCYX822K25
	C111, 112	ELECTR. CAPACITOR	CEAS100M50		C1003	AXIAL CAPACITOR	CKPUYB101K50
	C113, 114	AUDIO FILM CAPACITOR	CFTXA223J50		C1004	AXIAL CAPACITOR	CKPUYB271K50
	C115, 116	CERAMIC CAPACITOR	CKPUYB102K50		C1005	ELECTR. CAPACITOR	CEASR47M50
	C117	ELECTR. CAPACITOR	CEAS101M25		C1006	ELECTR. CAPACITOR	CEASR22M50
	C118	CERAMIC CAPACITOR	CKCYF103Z50		C1201, 1202	CERAMIC CAPACITOR	CKCYF473Z50
	C119	ELECTR. CAPACITOR	CEAS470M16		C1203	ELECTR. CAPACITOR	CEAS332M35
	C120	ELECTR. CAPACITOR	CEAS010M50		C1204	ELECTR. CAPACITOR	CEAS331M16
	C201-204	ELECTR. CAPACITOR	CEAS010M50		C1205	AUDIO FILM CAPACITOR	CFTXA103J50
	C205-208	ELECTR. CAPACITOR	CEAS100M50		C1206	ELECTR. CAPACITOR	CEAS331M16
	C209, 210	ELECTR. CAPACITOR	CEAS4R7M50		C1301	ELECTR. CAPACITOR	CEAS332M16
	C211-214	AUDIO FILM CAPACITOR	CFTXA222J50		C1303	ELECTR. CAPACITOR	CEAS331M16
	C215, 216	ELECTR. CAPACITOR	CEASR22M50		C1305	AUDIO FILM CAPACITOR	CFTXA103J50
	C217, 218	ELECTR. CAPACITOR	CEASR33M50		C1306	ELECTR. CAPACITOR	CEAS101M50
	C219, 220	ELECTR. CAPACITOR	CEAS330M16		C1309	ELECTR. CAPACITOR	CEAS101M50
	C221	ELECTR. CAPACITOR	CEAS100M50		C1310	ELECTR. CAPACITOR	CEAS470M16
	C222	CERAMIC CAPACITOR	CKPUY103M16		C1311-1313	CERAMIC CAPACITOR	CKCYF473Z50
	C223, 224	ELECTR. CAPACITOR	CEASR33M50		C1601, 1602	ELECTR. CAPACITOR	CEASR10M50
	C227	ELECTR. CAPACITOR	CEAS101M25		C1605, 1606	ELECTR. CAPACITOR	CEAS101M25
	C229, 230	ELECTR. CAPACITOR	CEAS100M50		C1610	ELECTR. CAPACITOR	CEAS331M16
	C231, 232	CERAMIC CAPACITOR	CKCYF473Z50		C1611	CERAMIC CAPACITOR	CKCYF473Z50
	C255, 256	ELECTR. CAPACITOR	CEAS100M50		C1613	ELECTR. CAPACITOR	CEAS331M16
	C257, 258	AXIAL CAPACITOR	CKPUYB101K50		C1614	ELECTR. CAPACITOR	CEAS330M35
	C259, 260	ELECTR. CAPACITOR	CEAS100M50		C1615, 1616	ELECTR. CAPACITOR	CEAS100M50
	C261	ELECTR. CAPACITOR	CEAS470M16		C1617, 1618	ELECTR. CAPACITOR	CEASR47M50
	C263, 264	AXIAL CAPACITOR	CKPUYB101K50		C1621	CERAMIC CAPACITOR	CKCYF473Z50
	C301, 302	AXIAL CAPACITOR	CKPUYB221K50		<b>RESISTORS</b>		
	C303, 304	ELECTR. CAPACITOR	CEAS4R7M50		R101-120	CARBONFILM RESISTOR	RD1/6PM□□□J



Mark	No.	Description	Part No.
	R201-211	CARBONFILM RESISTOR	RD1/6PM□□□J
	R214	CARBONFILM RESISTOR	RD1/6PM□□□J
	R231-238	CARBONFILM RESISTOR	RD1/6PM□□□J
	R251-256	CARBONFILM RESISTOR	RD1/6PM□□□J
	R261-268	CARBONFILM RESISTOR	RD1/6PM□□□J
	R301-306	CARBONFILM RESISTOR	RD1/6PM□□□J
	R313-318	CARBONFILM RESISTOR	RD1/6PM□□□J
	R325-331	CARBONFILM RESISTOR	RD1/6PM□□□J
	R337-350	CARBONFILM RESISTOR	RD1/6PM□□□J
	R357, 358	CARBONFILM RESISTOR	RD1/6PM□□□J
	R361-375	CARBONFILM RESISTOR	RD1/6PM□□□J
	R401	RESISTOR ARRAY (22K)	RA4T□□□J
	R402	RESISTOR ARRAY(68K)	RA8T□□□J
	R404	RESISTOR ARRAY(100K)	RA10T□□□J
	R405-407	CARBONFILM RESISTOR	RD1/6PM□□□J
	R409-416	CARBONFILM RESISTOR	RD1/6PM□□□J
	R418	CARBONFILM RESISTOR	RD1/6PM□□□J
	R420-425	CARBONFILM RESISTOR	RD1/6PM□□□J
	R431-435	CARBONFILM RESISTOR	RD1/6PM□□□J
	R437, 438	CARBONFILM RESISTOR	RD1/6PM□□□J
	R443-445	CARBONFILM RESISTOR	RD1/6PM□□□J
	R452	CARBONFILM RESISTOR	RD1/6PM□□□J
	R454	CARBONFILM RESISTOR	RD1/6PM□□□J
	R515	RESISTOR ARRAY (22K)	RA5T□□□J
	R516	LADDER RESISTOR	RCX1020
	R518, 519	CARBONFILM RESISTOR	RD1/6PM□□□J
	R701-711	CARBONFILM RESISTOR	RD1/6PM□□□J
	R801-806	CARBONFILM RESISTOR	RD1/6PM□□□J
	R810	CARBONFILM RESISTOR	RD1/6PM□□□J
	R813	CARBONFILM RESISTOR	RD1/2LF□□□J
	R851, 852	CARBONFILM RESISTOR	RD1/2LF□□□J
	R853-859	CARBONFILM RESISTOR	RD1/6PM□□□J
	R902-905	CARBONFILM RESISTOR	RD1/6PM□□□J
	R913	CARBONFILM RESISTOR	RD1/6PM□□□J
	R914	METAL OXIDE RESISTOR	RS2LMF□□□J
	R915-919	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1001-1010	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1201	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1301, 1302	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1304, 1305	CARBONFILM RESISTOR	RD1/6PM□□□J
△	R1308	FUSIBLE RESISTOR	RFA1/4L□□□J
	R1601, 1602	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1605-1608	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1613-1623	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1625, 1626	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1641, 1642	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1650	METAL OXIDE RESISTOR	RS2LMF□□□J
	VR101, 102	VR	RCP1046
	VR301, 302	VR	RCP1046
	VR431, 432	VR	RCP1046

**OTHERS**

CN402	BTMK12P-1R
CN403	BTMK08P-1R
CN404	BTMK06P-1R

Mark	No.	Description	Part No.
	CN405		BTMK08P-1R
	JA201	JACK	RKB-020
	JA401	JACK	RKN1014
	JA402, 403	JACK	RKN1004
	X401	CERAMIC RESONATOR	VSS1014

**DISPLAY UNIT**

**SEMICONDUCTORS**

Q1401, 1402	TRANSISTOR	2SA1309A
Q1403, 1404	DIGITAL TRANSISTOR	DTA114ES
Q1405, 1406	TRANSISTOR	DTC114ES
D1403-1412	DIODE	ISS254

**SWITCHES**

S1402-1405	SWITCH	RSG1033
S1407-1411	SWITCH	RSG1033
S1412		RSG1010
S1413	SWITCH	RSG1033
S1414	SWITCH	RSH1001

**RESISTORS**

R1401-1409	CARBONFILM RESISTOR	RD1/6PM□□□J
VR1401	VARIABLE RESISTOR	RCV1050
VR1402	VARIABLE RESISTOR	RCS1014

**OTHERS**

CN405		BTMK08S-1S
FL	HOLDER	RNK1499
CN402		BTMK12S-1S
CN403		BTMK08S-1S
CN404		BTMK06S-1S
V1401		RAW1073

**HEADPHONE UNIT**

**CAPACITORS**

C1651	CERAMIC CAPACITOR	CKCYF473Z50
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**RESISTORS**

R1651, 1652	CARBONFILM RESISTOR	RD1/6PM□□□J
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**OTHERS**

JA1601	JACK	RKN1002
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**TIMER SW UNIT**

**SWITCHES**

S401	SWITCH	RSH1014
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**POWER SW UNIT**

**SWITCHES**

△ S1501	SWITCH	RSA-063
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**CAPACITORS**

△ C1501	CAPACITOR (CERAMIC)	RCG-009
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<b>Mark No.</b>	<b>Description</b>	<b>Part No.</b>
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**TRANS PRI UNIT**

There is no supply part in this unit.

**TRANS SEC UNIT**

There is no supply part in this unit.

**REGULATOR IC UNIT**

**SEMICONDUCTORS**

△	IC1202 REGULATOR IC	TA7812S
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**CAPACITORS**

	C1207 AUDIO FILM CAPACITOR	CFTXA104J50
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**MIC UNIT**

**SEMICONDUCTORS**

	IC2001 OP-AMP, IC	M5218AL
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**CAPACITORS**

	C2001, 2002 AXIAL CAPACITOR	CKPUYB681K50
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	C2003, 2004 ELECTR. CAPACITOR	CEAS010M50
--	-------------------------------	------------

	C2005, 2006 ELECTR. CAPACITOR	CEAS470M16
--	-------------------------------	------------

	C2007, 2008 AXIAL CAPACITOR	CKPUYB101K50
--	-----------------------------	--------------

	C2009, 2010 ELECTR. CAPACITOR	CEAS470M16
--	-------------------------------	------------

	C2011, 2012 ELECTR. CAPACITOR	CEAS010M50
--	-------------------------------	------------

	C2017 CERAMIC CAPACITOR	CKCYF473Z50
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**RESISTORS**

	R2001-2016 CARBONFILM RESISTOR	RD1/6PM□□□J
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**OTHERS**

	JA2001, 2002 JACK	RKN1003
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# 7. ADJUSTMENTS

## 7.1 MECHANICAL ADJUSTMENT

1. Tape speed Adjustment			
Mode	Test tape	Adjustment position	Specification rating (playback frequency)
PLAY	Play the STD-301 tape (3kHz)	Tape speed adjustment hole	3000Hz ± 5Hz

The diagram illustrates the mechanical adjustment process. A cylindrical component with a central hole is shown. A screwdriver is inserted into this hole, and curved arrows indicate the direction of rotation for adjustment.

Fig. 7-1 Tape speed adjustment

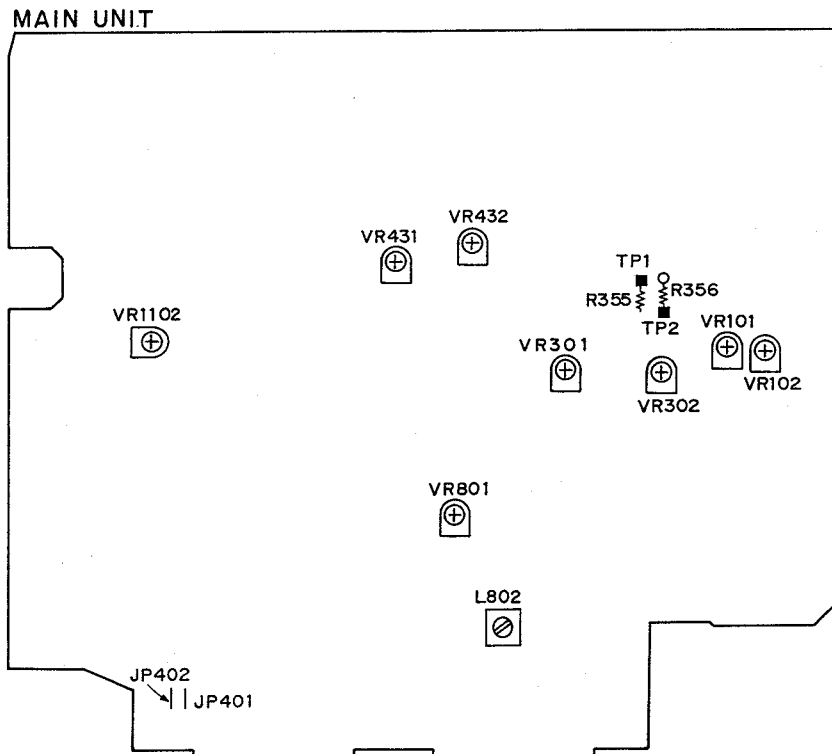


Fig. 7-2 Adjusting points

## 7.2 ELECTRICAL ADJUSTMENTS

### Adjustment Conditions

1. The mechanical adjustments must be completed first.
2. The head must be cleaned and demagnetized.
3. Turn power on allow the deck to warm up for at least a few minutes before commencing any electrical adjustments.
4. The reference signal is 0 dBV=1 Vrms.
5. Connect a 50 kΩ (or between 47k to 52 kΩ ) load resistance to the OUTPUT terminals.
6. Unless otherwise specified, the switches listed below are left in the positions indicated.

DOLBY NR : OFF  
 TAPE SELECTOR : NORM

### List of Adjustments

#### Playback sections

1. Head azimuth adjustment.
2. Playback level adjustment.

#### Recording sections

1. Bias oscillator adjustment.
2. Erase current adjustment. (CT-S609R only)
3. Recording bias adjustment.
4. Recording level adjustment.
5. Level meter check.
6. Leader tape detection operation adjustment. (CT-S609R only)
7. AUTO BLE adjustment

*HX Pro headroom extension originated by Bang & Olufsen and manufactured under license from Dolby Laboratories Licensing Corporation.*  
*"DOLBY", the double-D symbol  $\square$ , and "HX PRO" are trademarks of Doldy Laboratories Licensing Corporation.*

### Test Tapes

- STD-331B : Playback adjustments  
 (See Fig. 7-3)
- STD-630 : NORMAL blank tape  
 STD-620 : CrO<sub>2</sub> blank tape  
 STD-610 : METAL blank tape

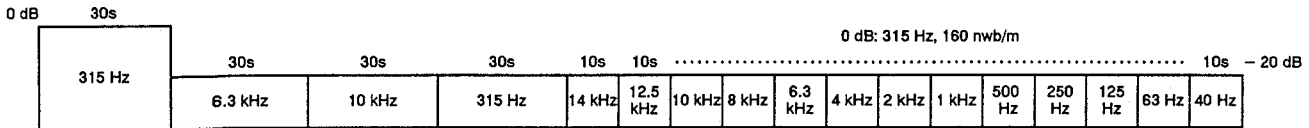
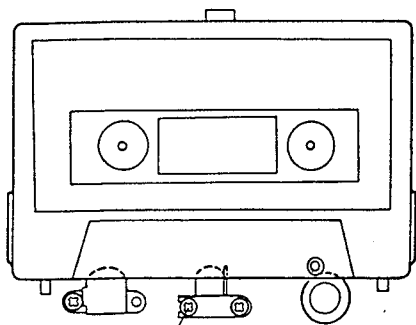


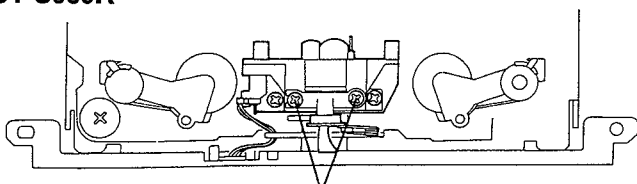
Fig. 7-3 Constants of the test tape STD-331B

### CT-339



Head azimuth adjustment screw

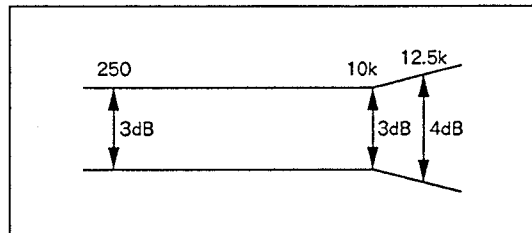
### CT-S609R



Head azimuth adjustment screw

Fig. 7-4 Head azimuth adjustme.

### PLAY BACK



### RECORDING

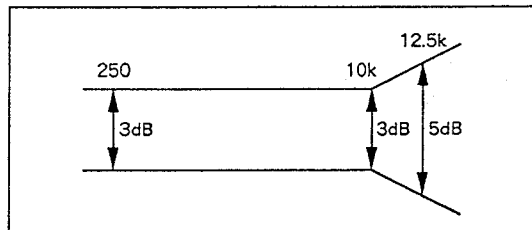


Fig. 7-5 Frequency response zone

## PLAYBACK SECTION

### 1. Head Azimuth Adjustment

- Turn VR101, 102 (Deck I) to mechanical center positions.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks	
1.	PLAY	Play the 10 kHz/-20 dB section of STD-331B test tape.	Head azimuth adjustment screw. (See Fig. 7-4)	LINE OUT	Maximum playback signal level.		
2.	STOP	Lock the screw with screw lock after completing adjustment.					

### 2. Playback Level Adjustment

- This adjustment determines the DOLBY NR level, and must be performed with great care.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	PLAY	Play the 315 Hz/0 dB section of the STD-331B test tape.	Deck I VR101 (Lch) VR102 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	-10.7 dBv	

## RECORDING SECTION

### 1. Bias Oscillator Adjustment

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	REC	Load the STD-610 test tape with no input signal.	Deck I L802	TP. 11	105 ± 0.3 kHz	

### 2. Erase Current Adjustment (CT-S609R only)

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	REC	Load the STD-610 test tape with no input signal.	Deck I VR801	TP. 11	170 mV AC	

### 3. Recording Bias Adjustment

- After the adjustment, caution should be exercised so as not to become under bias by checking the distortion rate.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks	
1.	STOP	Set the TAPE SELECTOR switch to the NORM position.					
2.	REC	Record the 315 Hz and 6.3 kHz signals at -20 dBv input level and playback.	Deck I VR601 (Lch) VR602 (Rch)	LINE OUT	Repeatedly record, playback and adjust so that the playback level of 6.3 kHz signal becomes +0.5 dB ± 0.5 dB when compared with the 315 Hz signal.		

**4. Recording Level Adjustment**

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	STOP	Set the TAPE SELECTOR switch to the NORM position.					
2.	REC/ PAUSE	Apply a 315 Hz/0 dBv signal to the line input terminals, load the STD-830 test tape.	REC level control volume		TP. 1 (Lch) TP. 2 (Rch)	-11.2 dBv	
3.	STOP	Set the DOLBY NR switch to the ON position. (DOLBY B)					
4.	REC/ PLAY	Record the above signal onto the STD-830 test tape, and playback.	Deck I	VR301 (Lch) VR302 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	Repeatedly record, playback and adjust so that the playback signal level becomes -11.2 dB.	
5.	STOP	Set the TAPE SELECTOR switch to the CrO2 position.					
6.	REC/ PLAY	Record the above signal onto the STD-820 test tape, and playback.	Check		TP. 1 (Lch) TP. 2 (Rch)	-11.2 dBv ± 1.5 dB	
7.	STOP	Set the TAPE SELECTOR switch to the METAL position.					
8.	REC/ PLAY	Record the above signal onto the STD-810 test tape, and playback.	Check		TP. 1 (Lch) TP. 2 (Rch)	-11.2 dBv ± 1.5 dB	

**5. Level Meter Check**

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC/ PAUSE	Apply a 315 Hz/-10 dBv (316 mV) signal to the Line Input terminals.	REC level control volume		TP. 1 (Lch) TP. 2 (Rch)	Check that the level meters "0 dB" light up within -11.2 dBv ± 2 dB of the signal output level.	

**6. Leader Tape Detection Operation Adjustment (CT-S609R only)**

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks	
1.	PLAY	No input-load an empty cassette half.	Deck I	VR1102	Deck I	TP. 12-1	$1.0V \pm \begin{matrix} 0 \\ 0.1 \end{matrix} V (DC)$	
2.	Check that the leader tape detection operation is correctly performed (inboth FWD and REV directions when in endless reverse mode).							

**7. AUTO BLE Adjustment**

- BLE adjustment should be performed after all other adjustments are completed.
- This adjustment should be performed in the test mode.
- Entering the test mode.  
Turn the power on, and short JP401 and JP402 briefly.

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.		Set to test mode.	-		-	-	
2.	-	Press the ◀ (REW) key on the front panel.	Level meter		VR431	Adjust so that 0 dB on the level meter lights up.	400 Hz adjustment
3.	Press the ■ (STOP) key on the front panel.	VR432			Adjust so that 0 dB on the level meter lights up.	10 kHz adjustment	

# 7. RÉGLAGE

## 7.1 RÉGLAGES MECANIQUES

1. Réglage de la vitesse de déroulement de la bande

Mode	Bande d'étalonnage	Position de réglage	Spécifications nominales (fréquence de lecture)
LECTURE	Lire la bande STD-301 (3kHz)	Trou de réglage de vitesse de bande	3000Hz ± 5Hz

The diagram shows a mechanical component with a circular face. A screwdriver is shown adjusting a screw on the right side of the component. The screw has a circular head with a central hole. The component has several wires extending from its left side.

Fig. 7-1 Réglage de la vitesse de déroulement de la bande

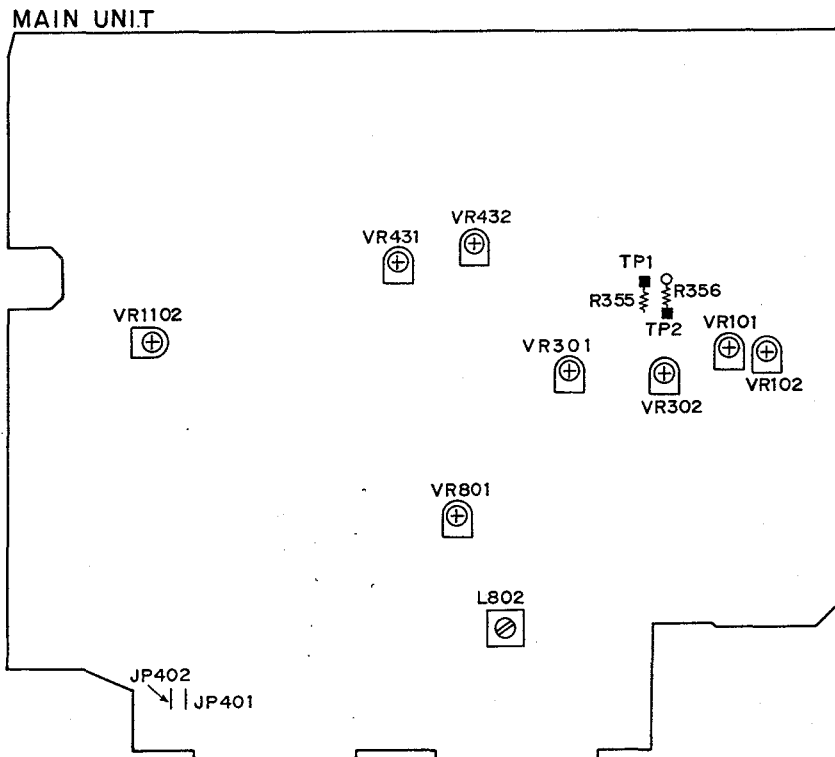


Fig. 7-2 Points de réglage

## 7.2 REGLAGES ELECTRIQUES

### Conditions de réglage

1. Les réglages mécaniques doivent tout d'abord être terminés.
2. Les têtes doivent être nettoyées et démagnétisées.
3. Mettre la platine sous tension et la laisser chauffer pendant au moins quelques minutes avant de commencer les réglages électriques.
4. Le signal de référence est de 0 dBv=1 Vrms.
5. Connecter une résistance de charge de 50 kΩ (tolérance 47k à 52 kΩ ) aux bornes de sortie (OUTPUT).
6. Sauf indication contraire, les commutateurs ci-dessous doivent être laissés sur les positions indiquées.  
 DOLBY NR : OFF  
 Sélecteur de bande : NORM  
 (TAPE SELECTOR)

### Bandes d'essai

- STD-331B : Réglages de la lecture  
(Voir fig. 7-3)
- STD-630 : Bande vierge de type normal
- STD-620 : Bande vierge de type chrome
- STD-610 : Bande vierge de type métal

### Liste des réglages

#### Sections de lecture

1. Réglage de l'azimut de la tête.
2. Réglage du niveau de lecture.

#### Sections d'enregistrement

1. Réglage de l'oscillateur de polarisation.
2. Réglage du courant d'effacement. (CT-S609R seulement)
3. Réglage de la polarisation d'enregistrement.
4. Réglage du niveau d'enregistrement.
5. Vérification de l'indicateur de niveau.
6. Réglage du fonctionnement de la détection de bande amorce. (CT-S609R seulement)
7. Réglage de AUTO BLE

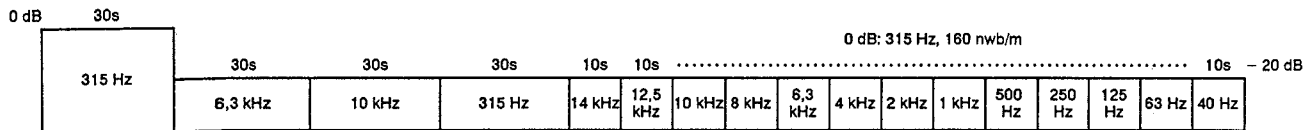
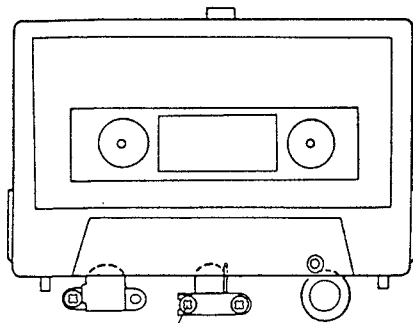


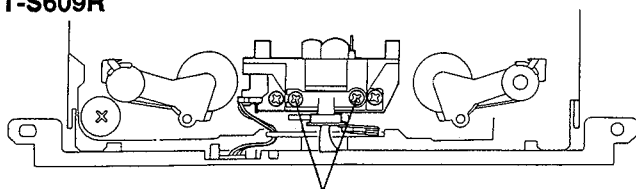
Fig. 7-3 Constantes de la bande d'essai STD-331B

### CT-339



Vis de réglage de l'azimutage

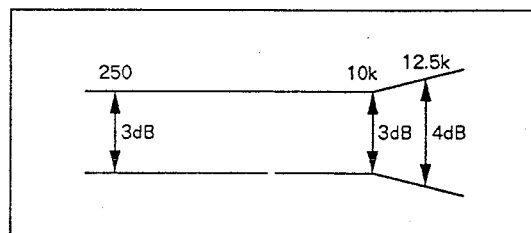
### CT-S609R



Vis de réglage de l'azimutage

Fig. 7-4 Réglage de l'azimut de la tête

### LECTURE



### ENREGISTREMENT

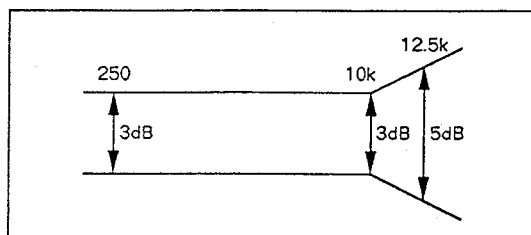


Fig. 7-5 Tolérance de la zone de réponse en fréquence de lecture



## SECTION DE LECTURE

### 1. Réglage de l'azimut de la tête

- Tourner VR101, 102 (Platine I) sur leur position centrale mécanique.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques
1.	PLAY	Reproduire la section 10 kHz/-20 dB de la bande d'essai STD-331B.	Vis de réglage de l'azimut de la tête. (Voir fig. 7-4)		Sortie de ligne (LINE OUT)	Niveau du signal de reproduction maximum.
2.	STOP	Verrouiller la vis avec le verrouillage de vis après avoir terminé le réglage.				

### 2. Réglage du niveau de lecture

- Ce réglage détermine le niveau DOLBY NR et il doit être effectué très soigneusement.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques
1.	PLAY	Reproduire la section 315 Hz/0 dB de la bande d'essai STD-331B.	Platine I	VR101 (can. G) VR102 (can. D)	TP. 1 (can. G) TP. 2 (can. D)	-10,7 dBv

## SECTION D'ENREGISTREMENT

### 1. Réglage de l'oscillateur de polarisation

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques
1.	REC	Charger la bande d'essai STD-610 et n'introduire aucun signal.	Platine I	L802	TP. 11	105 ± 0,3 kHz

### 2. Réglage du courant d'effacement (CT-S609R seulement)

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques
1.	REC	Charger la bande d'essai STD-610 et n'introduire aucun signal.	Platine I	VR801	TP. 11	170 mV AC

### 3. Réglage de la polarisation d'enregistrement

- Après le réglage, des précautions doivent être prises pour éviter une sous-polarisation en vérifiant le taux de distorsion.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques
1.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position NORM.				
2.	REC	Enregistrer les signaux 315 Hz et 6,3 kHz à un niveau d'entrée de -20 dBv et les reproduire.	Platine I	VR601 (can. G) VR602 (can. D)	Sortie de ligne (LINE OUT)	Enregistrer, reproduire et régler de manière répétée de sorte que le niveau de lecture du signal 6,3 kHz devienne +0,5 dB ± 0,5 dB lorsqu'il est comparé avec le signal 315 Hz.

## 4. Réglage du niveau d'enregistrement

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage		Points de mesure	Valeur de réglage	Remarques
1.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position NORM.					
2.	REC/ PAUSE	Appliquer un signal de 315 Hz/0 dBv aux bornes d'entrée de ligne, charger la bande d'essai STD-630.	Volume de la commande de niveau d'enregistrement.		TP. 1 (can. G) TP. 2 (can. D)	-11,2 dBv	
3.	STOP	Régler le commutateur DOLBY NR sur la position ON. (DOLBY B)					
4.	REC/ PLAY	Enregistrer le signal cidessus sur la bande d'essai STD-630 et le reproduire.	Platine I	VR301 (can. G) VR302 (can. D)	TP. 1 (can. G) TP. 2 (can. D)	Enregistrer, reproduire et régler de manière répétée de sorte que le niveau du signal devienne -11,2 dB.	
5.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position CrO2.					
6.	REC/ PLAY	Enregistrer le signal cidessus sur la bande d'essai STD-620 et le reproduire.	Vérifier		TP. 1 (can. G) TP. 2 (can. D)	-11,2 dBv ± 1,5 dB	
7.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position METAL.					
8.	REC/ PLAY	Enregistrer le signal cidessus sur la bande d'essai STD-610 et le reproduire.	Vérifier		TP. 1 (can. G) TP. 2 (can. D)	-11,2 dBv ± 1,5 dB	

## 5. Vérification de l'Indicateur de niveau

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques
1.	REC/ PAUSE	Appliquer un signal de 315 Hz/-10 dBv (316 mV) aux bornes d'entrée de ligne.	Volume de la commande de niveau d'enregistrement		TP. 1 (can. G) TP. 2 (can. D)	Vérifier que les indicateurs de niveau "0 dB" s'allument dans la limite de -11,2 dBv ± 2 dB du niveau de sortie du signal.

## 6. Réglage du fonctionnement de la détection de bande amorce (CT-S609R seulement)

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage		Points de mesure	Valeur de réglage	Remarques
1.	PLAY	Pas d'entrée -- Charger une moitié de cassette vide.	Platine I	VR1102	Deck I	TP. 12-1	$1,0V \pm \begin{matrix} 0 \\ 0,1 \end{matrix} V (DC)$
2.	Vérifier que l'opération de détection de bande amorce s'effectue correctement (à la fois dans le sens avant (FWD) et inverse (REV) dans le mode d'inversion sans fin).						

## 7. Réglage de AUTO BLE

- Le réglage BLE doit être effectué après que tous les autres réglages sont complétés.
- Ce réglage doit être effectué dans le mode d'essai.
- Passage au mode d'essai.  
Mettre sous tension et court-circuiter rapidement JP401 et JP402.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage		Points de mesure	Valeur de réglage	Remarques
1.		Régler dans le mode d'essai.	-		-	-	
2.	-	Appuyer sur la touche ◀ (rembobinage) du panneau avant.	L'indicateur de niveau		VR431	Régler de sorte que 0 dB sur l'indicateur de niveau s'allume.	Réglage 400 Hz
3.	Appuyer sur la touche ■ (arrêt) du panneau avant.	VR432			Régler de sorte que 0 dB sur l'indicateur de niveau s'allume.	Réglage 10 kHz	

## 7. AJUSTE

### 7.1 AJUSTE MECANICO

1. Ajuste de la velocidad de la cinta			
Mode	Cinta de prueba	Posición de ajuste	Valor de especificación (frecuencia de reproducción)
PLAY	Reproducir la STD-301 (3kHz)	Orificio de ajuste de la velocidad de la cinta	3000Hz ± 5Hz

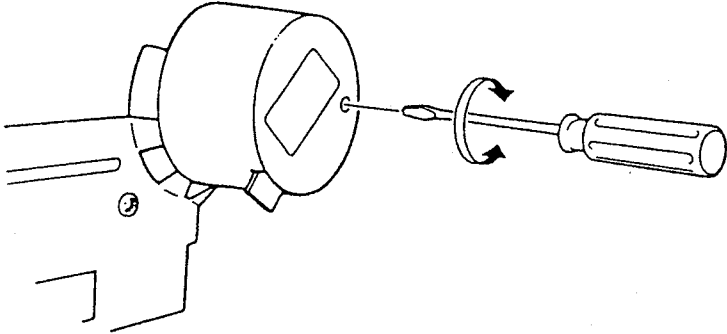
  


Figura 7-1 Ajuste de la velocidad de la cinta

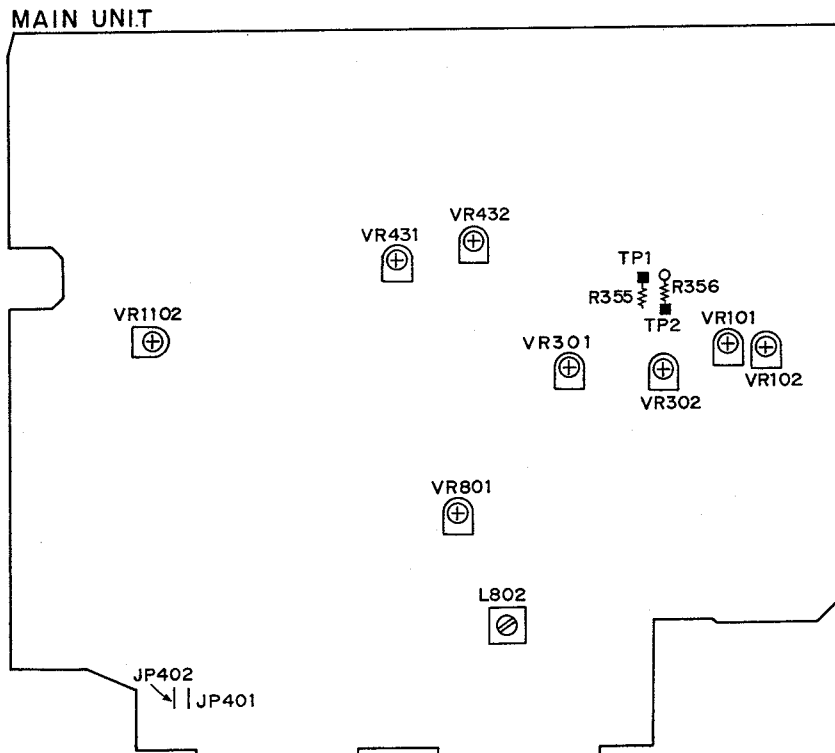


Figura 7-2 Puntos de ajuste

**7.2 AJUSTES ELÉCTRICOS**

**Condiciones de ajuste**

1. Los ajustes mecánicos deben haberse completado primero.
2. La cabeza debe estar limpia y desmagnetizada.
3. Encienda la alimentación para permitir que la platina se caliente durante unos pocos minutos por lo menos antes de realizar cualquier ajuste eléctrico.
4. La señal de referencia es de 0 dBV=1 Vrms.
5. Conecte una resistencia de 50 kΩ (o entre 47k y 52 kΩ ) en los terminales OUTPUT.
6. A menos que se especifique lo contrario, los conmutadores indicados más abajo deben dejarse en las posiciones indicadas.

DOLBY NR : OFF  
 TAPE SELECTOR : NORM

**Cintas de prueba**

- STD-331B : Ajustes de reproducción  
 (Consulte la figura 7-3)
- STD-630 : Cinta virgen NORMAL
- STD-620 : Cinta virgen de CrO<sub>2</sub>
- STD-610 : Cinta virgen de METAL

**Lista de ajustes**

**Secciones de reproducción**

1. Ajuste de azimut de la cabeza
2. Ajuste del nivel de reproducción

**Secciones de grabación**

1. Ajuste del oscilador de polarización
2. Ajuste de la corriente de borrado (CT-S609R sólo)
3. Ajuste de la polarización de grabación
4. Ajuste del nivel de grabación
5. Verificación del medidor de nivel
6. Ajuste de la operación de detección del extremo inicial de cinta (CT-S609R sólo)
7. Ajuste AUTO BLE

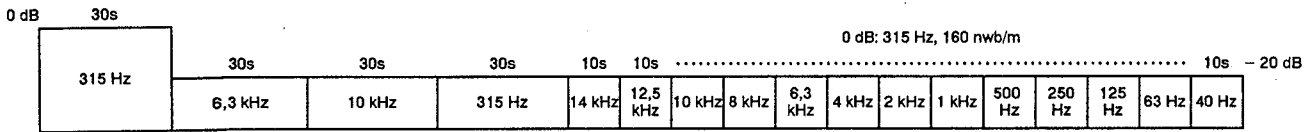
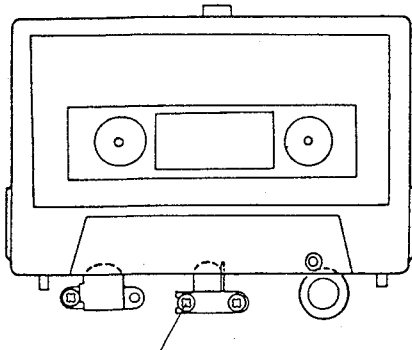


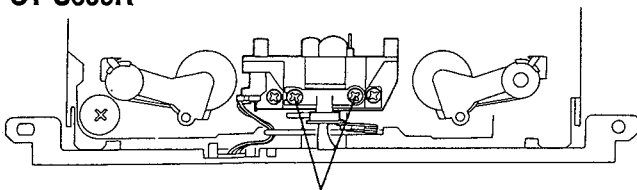
Figura 7-3 Constantes de la cinta de prueba STD-331B

**CT-339**



Tornillo de ajuste de azimut

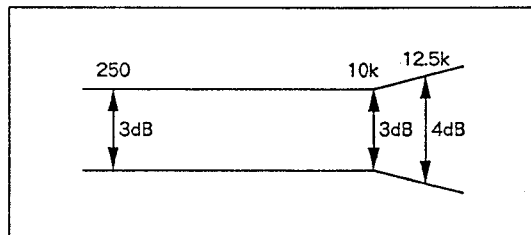
**CT-S609R**



Tornillo de ajuste de azimut

Figura 7-4 Ajuste de azimut de la cabeza

**REPRODUCCIÓN**



**GRABACIÓN**

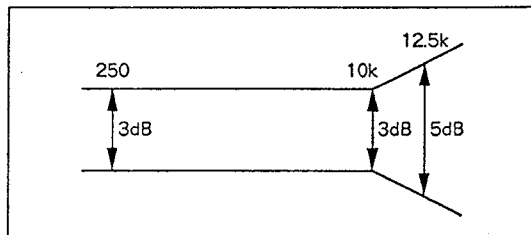


Figura 7-5 Zona permisible de respuesta de frecuencia de reproducción

## SECCIÓN DE REPRODUCCIÓN

### 1. Ajuste del azimut de la cabeza

- Poner VR101, 102 (platina I) en las posiciones del centro mecánico.

N.º	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	PLAY	Reproduzca la sección de 10 kHz/-20 dB de la cinta de prueba STD-331B.	Tornillo de ajuste del azimut de la cabeza. (Vea la figura 7-4)	LINE OUT	Nivel máximo de la señal de reproducción.	
2.	STOP	Bloquee el tornillo con su cierre una vez finalizado el ajuste.				

### 2. Ajuste del nivel de reproducción

- Este ajuste determina el nivel DOLBY NR y debe realizarse con mucho cuidado.

N.º	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	PLAY	Produce la parte de 315 Hz/0 dB de la cinta de prueba STD-331B.	Platina I VR101 (Lch) VR102 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	-10,7 dBv	

## SECCIÓN DE GRABACIÓN

### 1. Ajuste del oscilador de polarización

N.º	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	REC	Introduzca la cinta de prueba STD-610 sin señal de entrada.	Platina I L802	TP. 11	105 ± 0,3 kHz	

### 2. Ajuste de la corriente de borrado (CT-S609R sólo)

N.º	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	REC	Introduzca la cinta de prueba STD-610 sin señal de entrada.	Platina I VR801	TP. 11	170 mV AC	

### 3. Ajuste de polarización de grabación

- Una vez finalizado el ajuste, compruebe el porcentaje de distorsión para no obtener subpolarización.

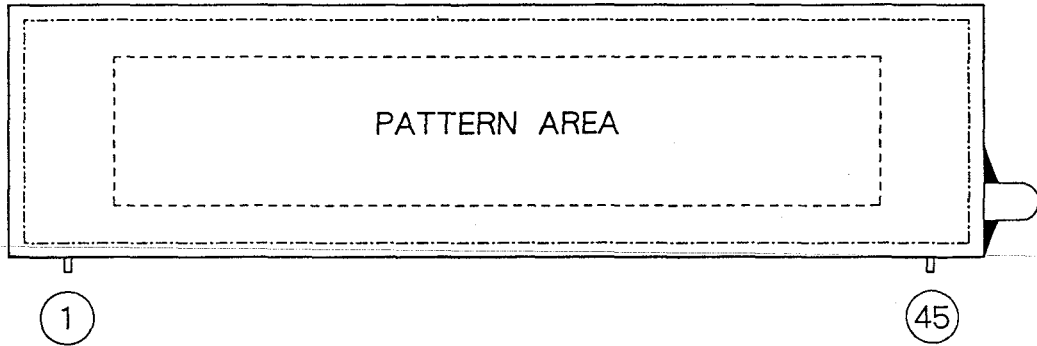
N.º	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	STOP	Ponga el conmutador TAPE SELECTOR en la posición NORM.				
2.	REC	Grabe la señal de 315 Hz y 6,3 kHz a un nivel de entrada de -20 dBv y reproduzca.	Platina I VR801 (Lch) VR802 (Rch)	LINE OUT	Grabe, reproduzca y ajuste repetidamente para que el nivel de la señal de reproducción de 6,3 kHz sea de +0,5 dB ± 0,5 dB cuando se compare con la señal de 315 Hz.	

**CT-S609R, CT-339**

Pin No.	Symbol	I/O	Function	Active
33		-	Not used	-
34				
35	RMP	O	Output terminal for reel motor play torque selection	H
36	RMUTE	O	Recording amplifier muting output terminal	H
37	RML	O	Reel motor REV direction drive terminal	H
38	CPM	O	Capstan motor drive terminal	H
39	XRESET	I	System reset terminal	L
40	T <sub>0</sub>	O	Grid output terminal for dynamic FL display	H
41	T <sub>1</sub>			
42	T <sub>2</sub>			
43	T <sub>3</sub>			
44	T <sub>4</sub>			
45	T <sub>5</sub>			
46	T <sub>6</sub>			
47	T <sub>7</sub>			
48	T <sub>8</sub>			
49	T <sub>9</sub>			
50	XLINEMUT	O	Line out muting terminal	L
51	BIAS	O	Bias oscillation. ON: "H", OFF: "L"	H
52	RECOVER	O	Meter amplifier time constant (recovery time) selection. "H": short	H
53	fSELECT	O	Output selection of 400 Hz or 10 kHz when AUTO-BLE. "H": 400 Hz	H
54	BLEON	O	When AUTO-BLE is "H", sets line in mute ON, dolby OFF and test signal ON.	H
55	S <sub>10</sub>	O	(*1)	H
56		-	Not used	-
57	V <sub>PRE</sub>	-	Output buffer supply terminal of FL controller/driver inside microprocessor.	-
58	S <sub>9</sub>	O	(*1)	H
59	S <sub>8</sub>			
60	S <sub>7</sub>			
61	S <sub>6</sub>			
62	S <sub>5</sub>			
63	S <sub>4</sub>			
64	V <sub>DD</sub>	-	Power terminal +5V	-

\*1: Same function as in Pin No. 1 to Pin No. 4.

● FL INFORMATION



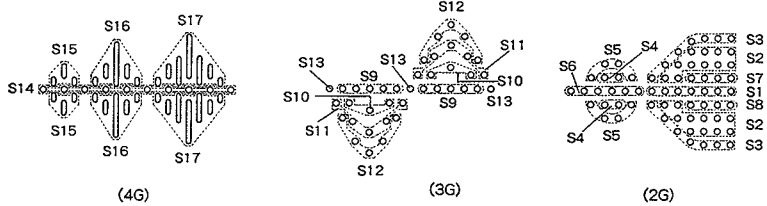
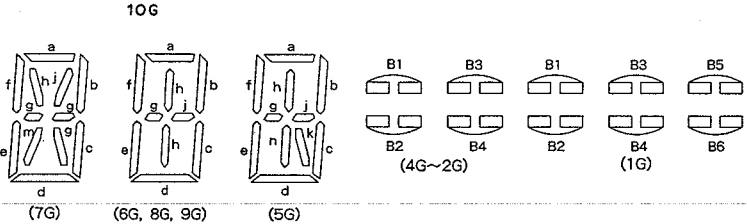
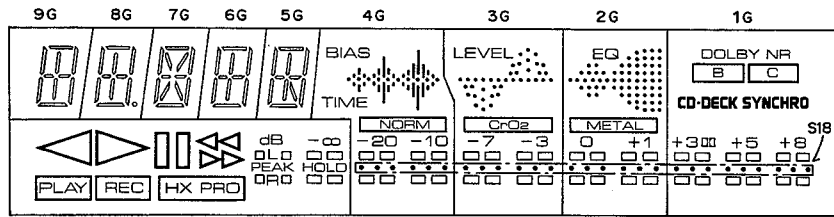
**PIN CONNECTION**

PIN NO.	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23
CONNECTION	F2	F2	NP	P12	P4	P5	P3	P11	P10	P7	P9	P8	P6	P2	P1	P15	P20	P21	P22	P17	P19	P14	P16

PIN NO.	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	P13	P29	P28	P18	P27	P26	P24	P25	23G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	F1	F1

- Note:** 1) F1, F2 ..... Filament  
 2) NP ..... No pin  
 3) NC ..... No connection  
 4) 1G to 10G ... Grid

# CT-S609R, CT-339



## ANODE CONNECTION

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	II	a	a	a	a	a	B1	B1	B1	B1
P2	REC	b	b	b	b	b	B2	B2	B2	B2
P3	PLAY	c	c	c	c	c	B3	B3	B3	B3
P4	◀◀	d	d	d	d	d	B4	B4	B4	B4
P5	▶▶	e	e	e	e	e	S14	S9	S1	B5
P6	▶	f	f	f	f	f	S15	S10	S2	B6
P7	◀	g	g	g	g	g	S16	S11	S3	CD-DECK
P8	-	j	j	m	j	j	S17	S12	S4	SYNCHRO
P9	HOLD	h	h	j	h	h	TIME	S13	S5	BLANK SEARCH
P10	dB -∞	-	-	k	-	k	-20 -10	-7 -3	0 +1	+3 +5 +8
P11	dB -∞	-	dp	h	-	-	-4 -1	0 +1	+3 +6	+8 +10 +12
P12	PEAK	-	-	-	-	-	S18	S18	S18	S18
P13	-	-	-	-	-	-	-	-	S6	-
P14	-	-	-	-	-	-	BIAS	-	-	-
P15	HX PRO	-	-	-	-	-	-	-	-	-
P16	-	-	-	-	-	-	-	LEVEL	-	-
P17	-	-	-	-	-	-	-	BLE	-	-
P18	-	-	-	-	-	-	-	-	EQ	-
P19	-	-	-	-	-	-	-	-	TUNED	-
P20	-	-	-	-	-	-	NORM	-	-	-
P21	-	-	-	-	-	-	-	CrO2	-	-
P22	-	-	-	-	-	-	-	-	METAL	-
P23	-	-	-	-	-	-	-	-	-	DOLBY NR
P24	-	-	-	-	-	-	-	-	-	B
P25	-	-	-	-	-	-	-	-	-	C
P26	-	-	-	-	-	-	-	-	S7	-
P27	-	-	-	-	-	-	-	-	S8	-
P28	-	-	-	-	-	-	-	-	-	-
P29	-	-	-	-	-	-	-	-	M	-



## 9. FOR CT-S609R/HEM, HB AND SD TYPES

### CONTRAST OF MISCELLANEOUS PARTS

**NOTES:**

- Parts without part number cannot be supplied.
- 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.
- Parts marked by "©" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

The CT-S609R/HEM, HB and SD types are the same as the CT-S609R/KUC type with the exception of the following sections.

Mark	Symbol & Description	Part No.				Remarks
		CT-S609R/ KUC type	CT-S609R/ HEM type	CT-S609R/ HB type	CT-S609R/ SD type	
	Display unit	Non supply	Non supply	Non supply	Non supply	
	TRANS PRI unit	Non supply	Non supply	Non supply	Non supply	
$\Delta$	Strain relief	CM-22	CM-22B	CM-22B	CM-22B	
$\Delta$	AC Power cord	RDG1010	PDG1003	PDG1036	PDG1013	
$\Delta$	FU1, FU2 Fuse (1.25A)	REK-073	.....	.....	.....	
$\Delta$	FU1, FU2 Fuse (1.25A)	.....	REK-101	REK-101	REK-101	
$\Delta$	Power transformer (AC120V)	RTT1170	.....	.....	.....	
$\Delta$	Power transformer (AC220/240V)	.....	RTT1137	RTT1137	.....	
$\Delta$	Power transformer (AC110/120-127/220/240V)	.....	.....	.....	RTT1169	
$\Delta$	Voltage selector	.....	.....	.....	PSB1002	
	Packing case	RHG1290	RHG1271	RHG1271	RHG1271	
	FL lens	RAH1867	RAH1870	RAH1870	RAH1867	
	Operating instructions (English)	RRB1092	.....	RRB1092	RRB1092	
	Operating instructions (English/French/German/Italian/Dutch/ Swedish/Spanish/Portuguese)	.....	RRE1041	.....	.....	
	Operating instructions (Spanish)	.....	.....	.....	RRD1088	

**Note:** TRANS PRI unit no different parts to be supplied.

### DISPLAY UNIT

The display units (for CT-S609R/HEM and HB types) are the same as the display unit (for CT-S609R/KUC type) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		CT-S609R/ KUC type	CT-S609R/ HEM and HB types	
	V1401	RAW1081	RAW1073	

## 10. FOR CT-339/HB, SD AND CT-339-S/HEWM TYPES

### CONTRAST OF MISCELLANEOUS PARTS

**NOTES:**

- Parts without part number cannot be supplied.
- 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.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

The CT-339/HB, SD and CT-339-S/HEWM types are the same as the CT-339/HEM type with the exception of the following sections.

Mark	Symbol & Description	Part No.				Remarks
		CT-339/ HEM type	CT-339/ HB type	CT-339/ SD type	CT-339-S/ HEWM type	
	Display unit	Non supply	Non supply	Non supply	Non supply	
	TRANS PRI unit	Non supply	Non supply	Non supply	Non supply	
$\Delta$	AC Power cord	PDG1003	PDG1036	PDG1013	PDG1003	
$\Delta$	Power transformer (AC220/240V)	RTT1137	RTT1137	.....	RTT1137	
$\Delta$	Power transformer (AC110/120-127/220/240V)	.....	.....	RTT1169	.....	
	Voltage selector	.....	.....	PSB1002	.....	
	Operation knob	RAC1345	RAC1345	RAC1345	RAC1353	
	Slide knob (B)	RAC1392	RAC1392	RAC1392	RAC1613	
	Door panel	RAH1896	RAH1896	RAH1896	RAH1869	
	Dolby name plate	RAH1866	RAH1866	RAH1866	RAH1868	
	FL lens	RAH1870	RAH1870	RAH1867	RAH1870	
	Slide knob (A)	RAC1236	RAC1236	RAC1236	RAC1350	
	VR knob	RAC1363	RAC1363	RAC1363	RAC1496	
	Power button	RAC1364	RAC1364	RAC1364	RAC1497	
	Headphone knob	RAC1366	RAC1366	RAC1366	RAC1498	
	Eject knob	RAC1367	RAC1367	RAC1367	RAC1614	
	Tact knob	RAC1409	RAC1409	RAC1409	RAC1501	
	Knob	RAC1604	RAC1604	RAC1604	RAC1605	
	Bonnet	RXX1396	RXX1396	RXX1396	RXX1397	
	Front panel assembly	RXX1392	RXX1392	RXX1392	RXX1393	
	Packing case	RHG1272	RHG1272	RHG1272	RHG1273	
	Operating instructions (English)	.....	RRB1092	RRB1092	.....	
	Operating instructions (English/French/German/Italian/Dutch/Swedish/ Spanish/Portuguese)	RRE1041	.....	.....	RRE1041	
	Operating instructions (Spanish)	.....	.....	RRD1088	.....	

**Note:** TRANS PRI unit no different parts to be supplied.

### DISPLAY UNIT

The display unit (for CT-339/SD type) is the same as the display unit (for CT-339/HEM type) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		CT-339/HB, HEM and CT-339-S/ HEWM types	CT-339/ SD type	
	V1401	RAW1073	RAW1081	

## 11. SPECIFICATION

System .....	4 track, 2-channel stereo
Heads .....	"Hard permalloy" recording/playback head × 1 "Ferrite" erasing head × 1
Motor .....	DC servo capstan motor × 1 DC reel motor × 1
Wow and Flutter	
[CT-S609R] .....	No more than 0.055% (WRMS, JIS) No more than ±0.16% (DIN)
[CT-339] .....	No more than 0.055% (WRMS, JIS) No more than ±0.16% (DIN)
Fast Winding Time	
[CT-S609R] .....	Approx. 90 seconds (C-60 tape)
[CT-339] .....	Approx. 90 seconds (C-60 tape)
Frequency Response (at -20 dB recording level)	
[CT-S609R]	
Metal Tape .....	25 to 20,000 Hz
Chrome Tape .....	25 to 18,000 Hz
Normal Tape .....	25 to 18,000 Hz
[CT-339]	
Metal Tape .....	25 to 18,000 Hz
Chrome Tape .....	25 to 17,000 Hz
Normal Tape .....	25 to 17,000 Hz
Signal-to-Noise Ratio	
[CT-S609R]	
Dolby NR off .....	More than 57 dB
[CT-339]	
Dolby NR off .....	More than 57 dB
Noise Reduction Effect	
Dolby B-type NR ON .....	More than 10 dB (at 5 kHz)
Dolby C-type NR ON .....	More than 19 dB (at 5 kHz)
Harmonic Distortion	
[CT-S609R] .....	No more than 0.7% (at 0 dB)
[CT-339] .....	No more than 1.0% (at 0 dB)
Input (Sensitivity)	
LINE (INPUT) .....	63 mV (Input impedance 52 kΩ)
MIC (CT-339 only) .....	0.4 mV
Output (Reference level)	
LINE (OUTPUT) .....	316 mV (Output impedance 3.3 kΩ)
Headphone (PHONES) .....	0.25 mW (Load impedance 8 Ω)

### Miscellaneous

#### Power Requirements

U.S., Canadian models .....	AC 120V, 60 Hz
U.K., Australian models .....	AC 240 Volts~, 50/60 Hz
European model .....	AC 220 Volts~, 50/60 Hz
Multi-voltage models .....	AC 110V/120V-127V/220V/240V (switchable), 50/60 Hz

#### Power Consumption


[CT-S609R] .....	19W
[CT-339] .....	18W

Dimensions .....	420(W) × 120(H) × 265(D) mm 16-9/16(W) × 4-3/4(H) × 10-7/16(D) in
------------------	--


#### Weight

[CT-S609R] .....	3.9 kg (8 lbs. 10 oz.)
[CT-339] .....	3.9 kg (8 lbs. 10 oz.)

### Subfunctions

- Dolby B-type and C-type NR Systems
- DOLBY HX PRO system
- MPX FILTER (Interlocks with Dolby NR switch)
- Auto tape selector (NORM/CrO<sub>2</sub>/METAL)
- Headphones jack
- 4-digit electronic tape/time counter (Displays the operation mode in 5 digits)
- Music search up to ±15 selections
- Automatic space recording mute
- AUTO BLE tuning system
- FL level meter 9 + 1 segments (with peak hold)
-  System remote control available
- CD•DECK SYNCHRO function
- Timer Recording/Playback (CT-339: Automatic repeat playback ON)
- Automatic reverse (CT-S609R only)
- Microphone jacks (CT-339 only)

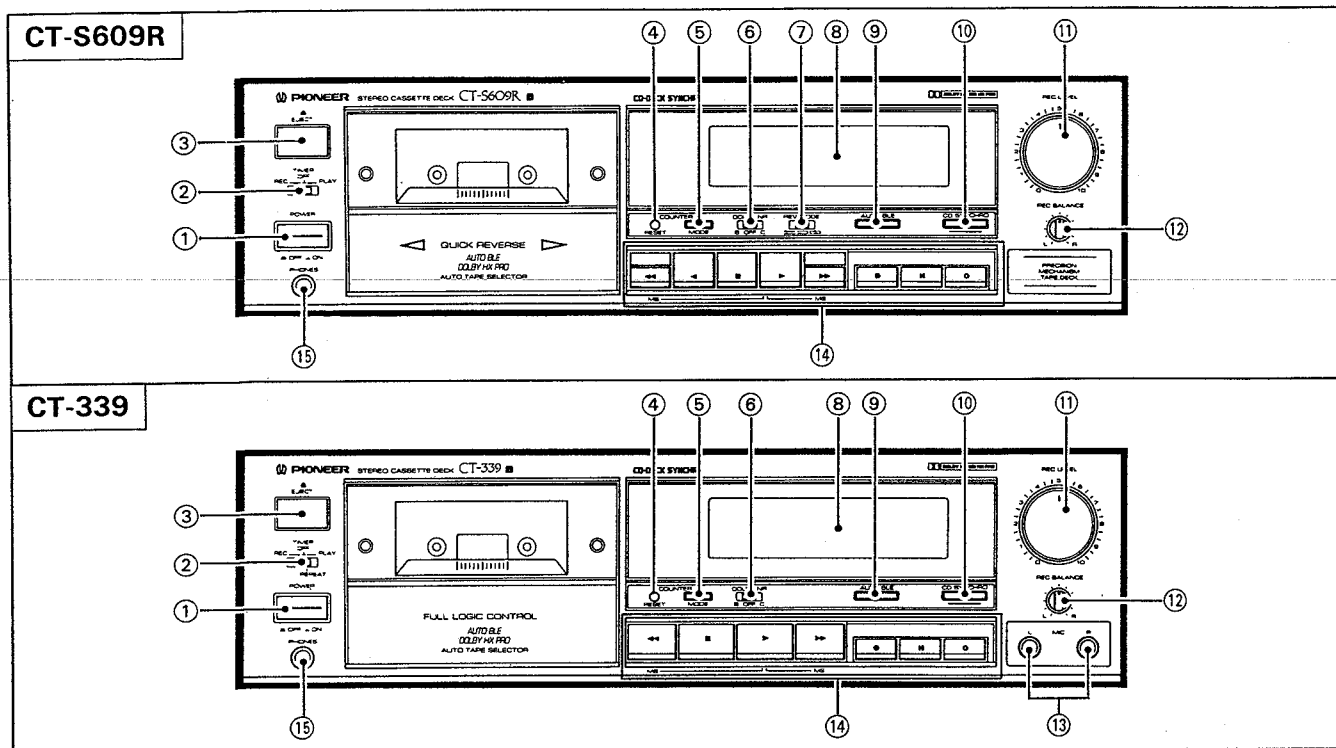
### Accessories

Operating instructions .....	1
Connection cord with pin plugs .....	2
 Remote control cord .....	1
CD•DECK SYNCHRO control cord .....	1

#### NOTE:

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

## 12. PANEL FACILITIES



- ① Power switch (POWER OFF / ON)
- ② [for CT-S609R]  
Timer mode switch (TIMER REC/OFF/PLAY)  
[for CT-339]  
Timer mode /repeat play switch  
(TIMER REC/OFF/PLAY-REPEAT)
- ③ Eject button (EJECT )
  - If the tape is moving (recording, playback, tape winding, etc.), press the stop () button before pressing this button.
- ④ Tape counter reset button (COUNTER RESET)
- ⑤ Tape counter mode button (COUNTER MODE)
- ⑥ Dolby\* NR switch (DOLBY NR B/OFF/C)
- \*  
• Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.  
• "DOLBY", the double-D symbol and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.
- ⑦ [CT-S609R only]  
Reverse mode switch (REV MODE)
- ⑧ Function display
- ⑨ AUTO BLE button
- ⑩ CD•DECK SYNCHRO recording button (CD SYNCHRO)
- ⑪ Recording level control (REC LEVEL)
- ⑫ Recording balance control (REC BALANCE)
- ⑬ [CT-339 only]  
Microphone jacks (MIC L, R)
- ⑭ Operation buttons
  - ◀◀/MS : Fast reverse/music search
  - ◀ : Reverse playback (CT-S609R only)
  - : Stop
  - ▶ : Forward playback
  - ▶▶/MS : Fast forward/music search
  - : Recording
  - ▬▬ : Pause
  - : Recording mute
- ⑮ Headphones jack (PHONES)

 **PIONEER®**  
The Art of Entertainment

3697

# Service Manual

ORDER NO.  
ARP2430

STEREO CASSETTE DECK

# CT-S310

HEM, HB,  
SD

- Refer to the service manual ARP2212 for CT-339.
- This manual is applicable to CT-S310/HEM, HB and SD.

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SN FEB. 1992 Printed in Japan

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## CONTRAST OF MISCELLANEOUS PARTS

**NOTES:**

- Parts without part number cannot be supplied.
- The  $\triangle$  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.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

**CT-S310/HEM, HB, SD and CT-339/HEM have the same construction except for the following:**

Mark	Symbol & Description	Part No.				Remarks
		CT-339/ HEM type	CT-S310/ HEM type	CT-S310/ HB type	CT-S310/ SD type	
$\triangle$	DISPLAY unit	Non supply	Non supply	Non supply	Non supply	for Door pocket for Door pocket
$\triangle$	TRANSFORMER 1 unit	Non supply	Non supply	Non supply	Non supply	
$\triangle$	AC power cord	PDG1003	PDG1003	PDG1036	PDG1013	
$\triangle$	Power transformer ( AC220-230/230-240V )	RTT1137	RTT1182	RTT1182	.....	
$\triangle$	Power transformer ( AC110/120-127/220/240V )	.....	.....	.....	RTT1169	
$\triangle$	Voltage selector	.....	.....	.....	PSB1002	
	Operation knob	RAC1345	RAC1683	RAC1683	RAC1683	
	Door panel	RAH1896	RAH1992	RAH1992	RAH1992	
	Stabilizer panel	.....	RAH1483	RAH1483	RAH1483	
	Stabilizer ( B )	.....	REB1085	REB1085	REB1085	
	Front panel assembly	RXX1392	RXX1469	RXX1469	RXX1469	
$\odot$	FL lens	RAH1870	RAH1870	RAH1870	RAH1867	
	Mechanism unit	RYM1148	RYM1097	RYM1097	RYM1097	
	Packing case	RHG1272	RHG1320	RHG1320	RHG1320	
	Operating instructions ( English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese )	RRE1041	.....	.....	.....	
	Operating instructions ( English, French )	.....	RRE1052	RRE1052	RRE1052	
	Operating instructions ( German, Italian, Dutch, Swedish, Spanish, Portuguese )	.....	RRD1120	.....	.....	
	Operating instructions ( Spanish )	.....	.....	.....	RRD1119	

### DISPLAY UNIT

**DISPLAY unit of CT-S310/HEM, HB, SD and DISPLAY unit of CT-339/HEM have the same construction except for the following:**

Mark	Symbol & Description	Part No.			Remarks
		CT-339/ HEM type	CT-S310/HEM and HB types	CT-S310/ SD type	
	V1401	RAW1073	RAW1101	RAW1111	

### TRANSFORMER 1 UNIT

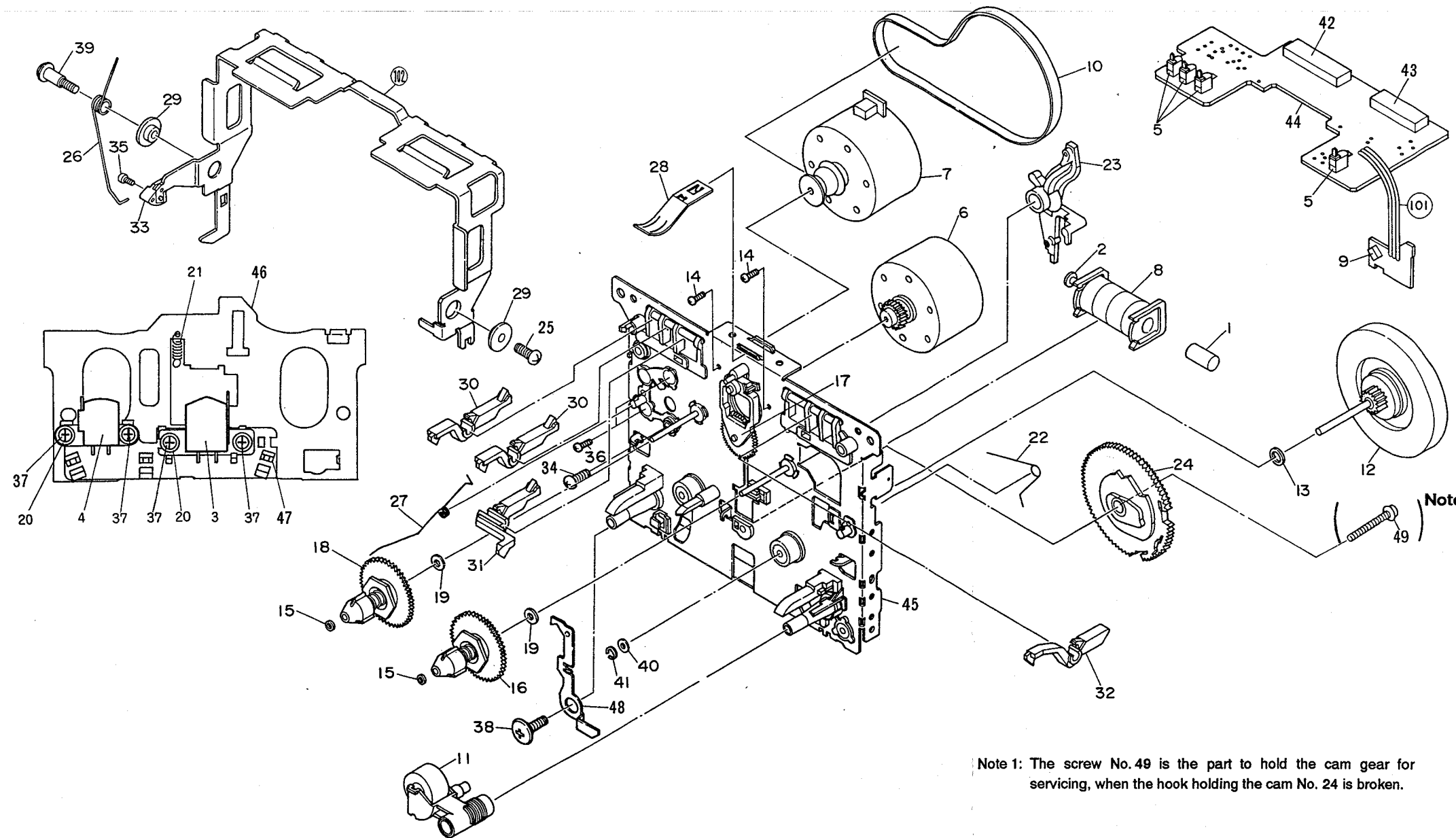
**Although TRANSFORMER 1 unit of CT-S310/SD and TRANSFORMER 1 unit of CT-339/HEM are different in part number, they consist of the same components.**

Parts List of Mechanism Unit (RYM1097)

NOTES:

- The parts with an encircled number 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.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Fixed core	RLA1130	46	Head base	RNE1390
2	Planger	RLA1132	47	Head spacer	RNK1631
3	Head (R/P)	RPB1039	48	Arm cap (L) (EJECT)	RNE1199
4	Head (E)	RPB1040	49	Screw	RBA1068
5	Push SW	RSG1018			
			101	Jumper (3P)	RDD1130
6	MTR reel BLK	RXM1029	102	Eject lever L	RNE1301
7	MTR-main BLK	RXM1032			
8	Solenoid BLK	RXP1010			
9	Photo-transistor	SPI33534FG			
10	Main belt	REB1163			
11	Pinch roller ass'y	RXA1183			
12	F/W ass'y	RXA1346			
13	Washer	WA26D045D025			
14	Pan 2.6 x 6.4 ZN	RBA1076			
15	Washer	RBF-057			
16	Reel base BLK	RXA1184			
17	Idle BLK	RXA1248			
18	Reel base BLK	RXC-040			
19	Washer	RBF1038			
20	Azimuth SP	RBH1076			
21	Head base SP	RBL1003			
22	Slide SP	RBH1239			
23	Play arm	RNK1525			
24	Cam gear (3R)	RNK1672			
25	Pan TT 2.6 x 5 ZN	RBA1079			
26	Lever SP (L) (EJECT)	RBH1231			
27	SP cap (L) (EJECT)	RBH1234			
28	Spring (CASSETTE)	RBK1031			
29	Lever (Color A)	RLA1133			
30	Detector lever (REC)	RNK1527			
31	Metal dector lever (L)	RNK1529			
32	Dector lever (P)	RNK1543			
33	Hook	RNM-160			
34	Screw	PBZ30P080FMC			
35	Screw	PCZ20P040FMC			
36	Screw	PMZ26P050FMC			
37	F lock screw	RBA1031			
38	Screw (7.7)	RBA1048			
39	Screw	RBA1078			
40	Washer	WA26D047D050			
41	Washer	YE15FUC			
42	Connector (8P)	RKP1327			
43	Connector (6P)	RKP1359			
44	P.C. board	RNP1279			
45	Chassis base BLK	RXA1345			



Note 1: The screw No. 49 is the part to hold the cam gear for servicing, when the hook holding the cam No. 24 is broken.