

Service Manual

ORDER NO.
RRV1 3 9 9

STEREO DOUBLE CASSETTE DECK

CT-W504R

- Refer to the service manuals RRV1316 for CT-W504R/HEMXJ and RRV1206 for CT-W504R/KUXJ.

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

Type	Model	Power Requirement	The voltage can be converted by the following method.
	CT-W504R		
HEMXJ8	O	AC220 – 230V	AC230 – 240V, *
HBWXXJ8	O	AC230 – 240V	AC220 – 230V, *

* : Alter the wiring of the Power-supply block at the primary winding of Power-transformer referring to the "Line Voltage Selection" described in Service Manual.

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1. CONTRAST OF MISCELLANEOUS PARTS

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "◎" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

1. CONTRAST OF CT-W504R/HEMXJ8 AND CT-W504R/HEMXJ

CT-W504R/HEMXJ8 and CT-W504R/HEMXJ have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		CT-W504R/HEMXJ	CT-W504R/HEMXJ8	
Δ NSP	MOTHER UNIT MAIN UNIT	RWM1831 RWZ3588	RWM1891 RWZ3781 *	
NSP	SUB UNIT TRANSFORMER2 UNIT	RWZ3589 RWZ3185	RWZ3786 RWZ3787	

Note * :Refer to 2. PCB PARTS LIST and 3. SCHEMATIC AND PCB DIAGRAMS.

2. CONTRAST OF CT-W504R/HBWXJ8 AND CT-W504R/HBWXJ

CT-W504R/HBWXJ8 and CT-W504R/HBWXJ have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		CT-W504R/HBWXJ	CT-W504R/HBWXJ8	
Δ NSP	MOTHER UNIT MAIN UNIT	RWM1831 RWZ3588	RWM1891 RWZ3781 *	
NSP	SUB UNIT TRANSFORMER2 UNIT	RWZ3589 RWZ3185	RWZ3786 RWZ3787	

Note * :Refer to 2. PCB PARTS LIST and 3. SCHEMATIC AND PCB DIAGRAMS.

3. CONTRAST OF PCB ASSEMBLIES SUB UNIT

- Although RWZ3786 and RWZ3589 are different in part number, they consist of the same components.

TRANSFORMER2 UNIT

- Although RWZ3787 and RWZ3185 are different in part number, they consist of the same components.

2. PCB PARTS LIST

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- 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 $\rightarrow$ 56 $\times 10^1$ $\rightarrow$ 561 RD1/8PM561J
47k Ω $\rightarrow$ 47 $\times 10^3$ $\rightarrow$ 473 RD1/4PS473J
0.5 Ω $\rightarrow$ 0R5 RN2H0R5K
1 Ω $\rightarrow$ 010 RSIP010K

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

5.62k Ω $\rightarrow$ 562 $\times 10^1$ $\rightarrow$ 5621 RN1/4PC5621F

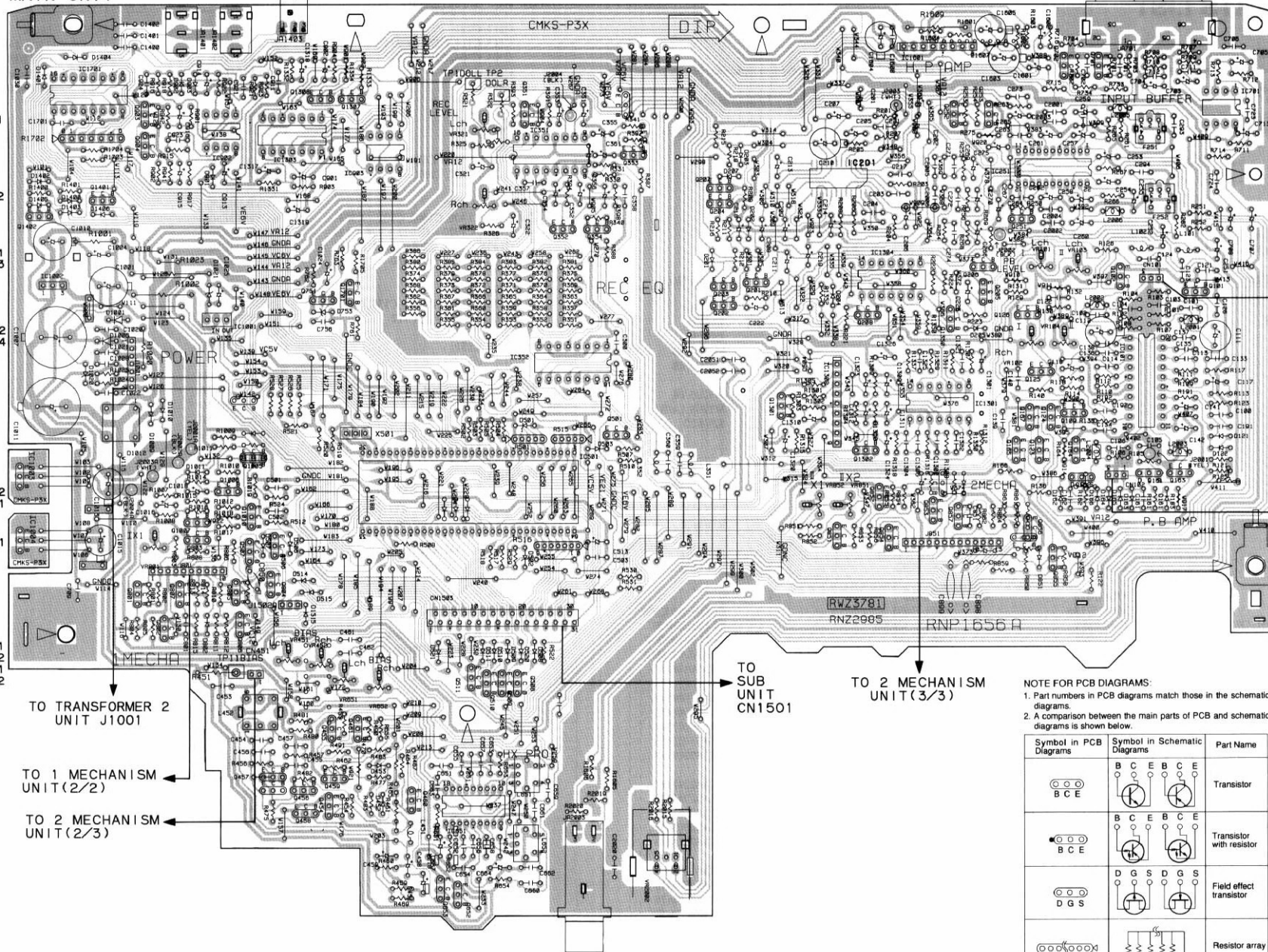
Mark No.	Description	Parts No.	Mark No.	Description	Parts No.
MAIN UNIT					
SEMICONDUCTORS					
IC1301		BA14741	D161 - D166, D201 - D205, D207		1SS254
IC1302		BA6138	D501, D503, D506 - D511		1SS254
IC101		CXA1115BP	D514, D515, D521		1SS254
IC351		CXA1198AP	D1020		MTZJ3.3B
IC251		CXA1562S	D753		MTZJ3.9B
IC1701		MC14050BCP	D1021		MTZJ5.1B
IC352		MC14051BCP	D502		MTZJ9.1A/B
IC1304		MC14066BCP	Δ D1012		S2VB20
IC1003, IC1004		NJM7812FA	COILS AND FILTERS		
IC1002		NJM78M06FA	L451		LFA121K
IC1001		NJM79L06A	L651, L652 (4.6MHz, 25Q, 105F)		RTD1046
IC201		PA0059AM	L452 (105F)		RTD1048
IC501		PD4507A	L101, L102		RTF1099
IC651		UPC1297CA	L351, L352		RTF1102
IC1303		XRA10339	Δ L2001 - L2006		RTF1167
IC701		XRA15218	Δ F251, F252		RTF1208
IC1601		XRA15218N	CAPACITORS		
Q1005, Q202, Q801, Q851		2SA1309A	C659, C660		CCCSL101K500
Q460, Q805, Q855		2SB1238X	C2003 - C2006		CCCSL330J50
Q803, Q853		2SB1425	C161, C162		CCPUSL100J50
Q456, Q457		2SC1815	C111, C112		CEANL101M10
Q1006, Q1007, Q205, Q454, Q455		2SC3311A	C213, C251 - C254, C703, C704		CEAS010M50
Q459, Q807, Q857		2SC3311A	C1016, C257 - C260, C265, C266		CEAS100M50
Q353, Q354, Q458, Q701, Q702		2SD2144S	C269, C270, C667, C707, C708		CEAS100M50
Q161, Q162		2SK373	C210, C214, C222		CEAS101M10
Q1401, Q501, Q510, Q511, Q751		DTA114TS	C1603, C1604, C255		CEAS101M16
Q109, Q123, Q124, Q163, Q164		DTC114TS	C1018		CEAS220M50
Q201, Q206, Q351, Q352		DTC114TS	C351, C352		CEAS221M10
Q125, Q126		DTC115TS	C1001		CEAS221M50
Q1010, Q165, Q506 - Q509, Q652		XDA114ES	C451, C458		CEAS330M16
Q101, Q102, Q1301, Q1302		XDC124ES	C1004		CEAS330M35
Q1307, Q1308, Q1350, Q1402, Q167		XDC124ES	C1013, C1015, C1605		CEAS331M16
Q1701, Q203, Q204, Q207, Q208		XDC124ES	C1024, C1025, C1319, C141, C142		CEAS470M16
Q251 - Q253, Q653, Q802, Q804		XDC124ES	C209, C219, C267, C275, C361		CEAS470M16
Q806, Q852, Q854, Q856		XDC124ES	C459, C513, C705, C713		CEAS470M16
D802, D851		11ES2	C117, C118, C1301, C1310, C1312		CEAS470M50
D1001, D1006		1SR35 - 100AVL	C1323, C1324, C201, C202		CEAS470M50
D452		1SS252	C205 - C208, C211, C218		CEAS470M50
D1009 - D1011		1SS254	C353 - C356		CEAS470M50
D121, D122, D1400 - D1406		1SS254	C1601, C1602, C664		CEASR22M50
			C1326		CEASR33M50
			C321, C322		CEASR68M50

Mark No.	Description	Parts No.	Mark No.	Description	Parts No.
C217, C221		CFTXA222J50	JA2003	JACK	RKN1002
C113, C114, C271 – C274		CFTXA822J50	JA1401, JA1402	JACK	RKN1004
C203, C204, C293, C294		CFTYA103J50		PCB BINDER	VEF1040
C261, C262		CFTYA104J50		Earth metal fitting	VNF – 091
C454		CFTYA223J50	X501	CERAMIC RESONATOR	VSS1014
C263, C264		CFTYA683J50			
C651, C652		CGCYX103K25			
C655, C656		CGCYX223K25			
C1304, C1306, C455 – C457		CGCYX332K25			
C1302, C657, C658		CGCYX473K25			
C2001, C2002		CKCYB331K50			
C140, C1400, C1402, C501 – C503		CKCYF103Z50			
C1008, C1020 – C1022, C126, C139		CKCYF473Z50			
C1401, C1701, C2020, C357, C358		CKCYF473Z50			
C706, C709, C756, C850		CKCYF473Z50			
C898, C899		CKCYF473Z50			
C1321, C1322, C135 – C138, C663		CKPUYB101K50			
C701, C702, C711, C712		CKPUYB101K50			
C723, C724		CKPUYB101K50			
C801, C851		CKPUYB102K50			
C121, C122, C1607, C1608		CKPUYB221K50			
C359, C360, C504		CKPUYB221K50			
C101 – C104		CKPUYB331K50			
C123, C124		CKPUYB391K50			
C105, C106, C133, C134		CKPUYB681K50			
C1325, C653, C654		CKPUYB821K50			
C453		CQPA682J100			
C1007 (4700pF/16V)		PCH1116			
C1010 (1000pF/10V)		PCH1117			
C661, C662 (430pF/500V)		RCG1005			
C1011 (4700pF/35V)		RCH1120			
RESISTORS					
R501		RA4T223J			
R515		RA4T683J			
R516		RA6T683J			
R321, R322 (4.7kΩ/1/6W)		RCN1028			
R1702 (11kΩ/22kΩ)		RCX1020			
R451		RD1/2LMF010J			
R467		RD1/2LMF150J			
R461		RD1/2LMF680J			
R1020		RFA1/4L470J			
R1609		RS2LMF221J			
R1002		RS2LMF271J			
R1023		RS3LMF180J			
VR851 (2.2kΩ, 0.1W)		RCP1019			
VR801, VR852 (1.0kΩ, 0.1W)		RCP1044			
VR321, VR322, VR651, VR652 (22kΩ, 0.1W)		RCP1046			
VR101 – VR104 (47kΩ, 0.1W)		RCP1047			
VR2002 (5kA, 0.05W)		RCV1089			
Other Resistors		RD1/GPM□□□J			
OTHERS					
CN1503	30P CONNECTOR	52045 – 3145			
CN451	CONNECTOR POST	B2B – PH – K – S			
CN101, CN102	CONNECTOR POST	B3B – PH – K – S			
JA1403	JACK	PKN1005			
JA701	JACK	RKB – 020			

3. SCHEMATIC AND PCB DIAGRAMS

● This diagram is viewed from the mounted parts side.

MAIN UNIT

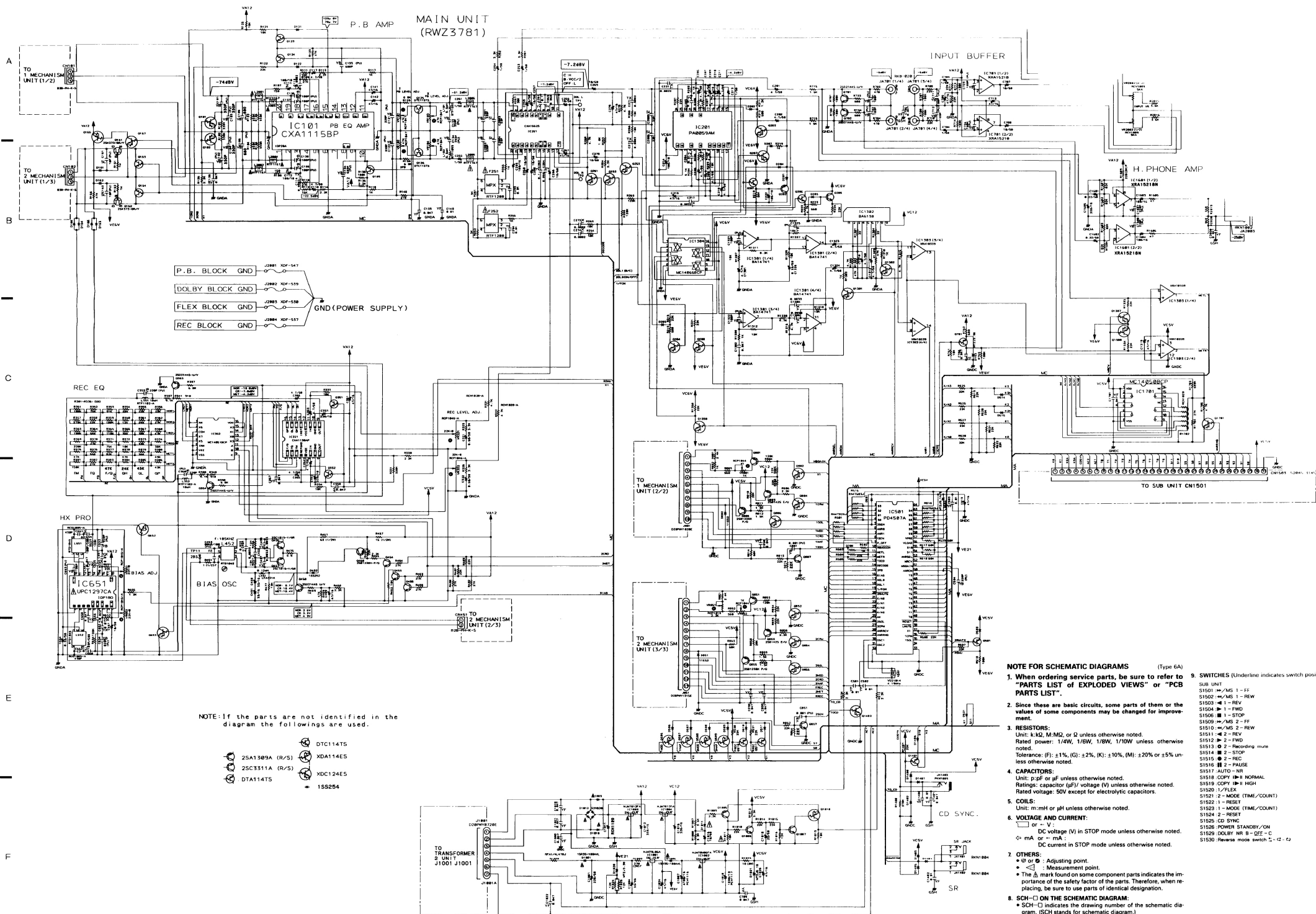


NOTE FOR PCB DIAGRAMS:

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



NOTE FOR SCHEMATIC DIAGRAMS (Type 6A)

- When ordering service parts, be sure to refer to **PARTS LIST OF EXPLODED VIEWS** or **PCB PARTS LIST**.
- Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.
- RESISTORS:**
Unit: k Ω , M Ω , or Ω unless otherwise noted.
Rated power: 1/4W, 1/8W, 1/6W, 1/10W unless otherwise noted.
Tolerance: (F): $\pm 1\%$, (G): $\pm 2\%$, (K): $\pm 10\%$, (M): $\pm 20\%$ or $\pm 5\%$ unless otherwise noted.
- CAPACITORS:**
Unit: pF or μ F unless otherwise noted.
Ratings: capacitor (μ F) voltage (V) unless otherwise noted.
Rated voltage: 50V except for electrolytic capacitors.
- COILS:**
Unit: mH or μ H unless otherwise noted.
- VOLTAGE AND CURRENT:**
□ or $\sim$ V: DC voltage (V) in STOP mode unless otherwise noted.
□ mA or $\sim$ mA: DC current in STOP mode unless otherwise noted.
- OTHERS:**
 - or Φ : Adjusting point.
 - $\triangle$: Measurement point.
 - The Δ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
- SCH-□ ON THE SCHEMATIC DIAGRAM:**
 - SCH-□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
- SWITCHES** (Underline indicates switch position):

SUB UNIT	S1501 $\Rightarrow$ MS 1 - FF
	S1502 $\Rightarrow$ MS 1 - REW
	S1503 $\Rightarrow$ 1 - REV
	S1504 $\Rightarrow$ 1 - FWD
	S1506 $\Rightarrow$ 1 - STOP
	S1508 $\Rightarrow$ MS 2 - FF
	S1510 $\Rightarrow$ MS 2 - REW
	S1511 $\Rightarrow$ 2 - REV
	S1512 $\Rightarrow$ 2 - FWD
	S1513 $\Rightarrow$ Recording mute
	S1514 $\Rightarrow$ 2 - STOP
	S1515 $\Rightarrow$ 2 - REC
	S1516 $\Rightarrow$ 2 - PAUSE
	S1517 AUTO - NR
	S1518 COPY $\Rightarrow$ NORMAL
	S1519 COPY $\Rightarrow$ HIGH
	S1520 1/FLEX
	S1521 2 - MODE (TIME/COUNT)
	S1522 1 - RESET
	S1523 1 - MODE (TIME/COUNT)
	S1524 2 - RESET
	S1525 CD SYNC
	S1526 POWER STANDBY/ON
	S1529 DOLBY NR B - OFF - C
	S1530 Reverse mode switch 2 - C - 12