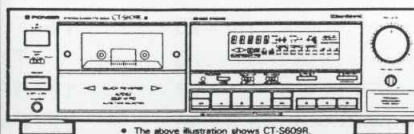


PIONEER
The Art of Entertainment

Service Manual



• The above illustration shows CT-S609R.

ORDER NO.
ARP2212

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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SI APR. 1991 Printed in Japan

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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

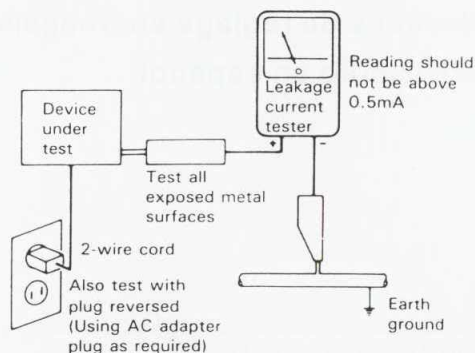
(FOR USA MODEL ONLY)

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

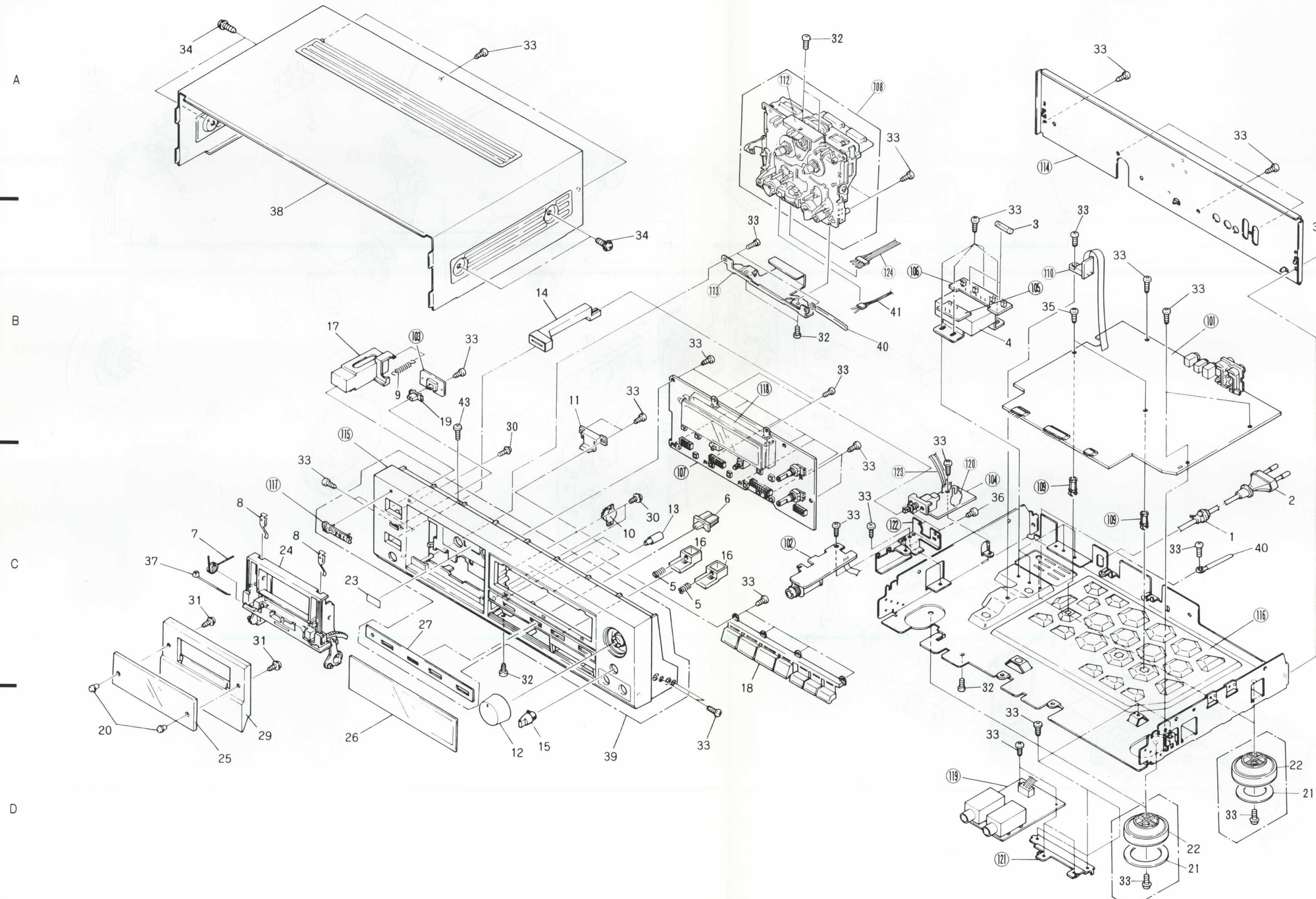
Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which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

Electrical components having such features are identified by marking with a Δ 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.

2.3 EXTERIOR (For CT-339/HEM type)



Parts List of Exterior

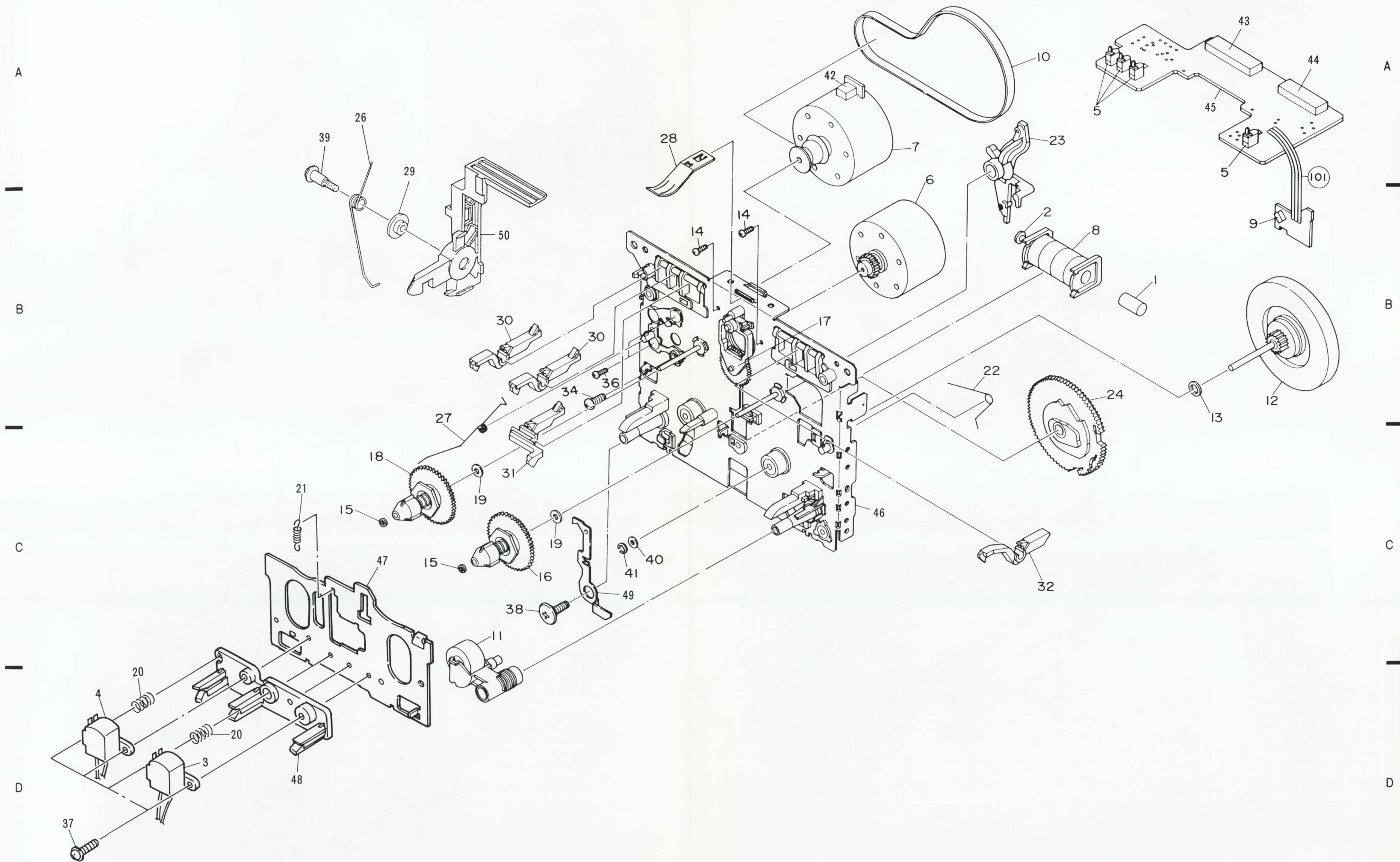
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
A	1	Strain relief	CM - 22B		101	Main unit	
A	2	AC Power cord	PDG1003		102	Headphone unit	
A	3	FU1, FU2 fuse (1.25A)	REK - 101		103	Timer SW unit	
A	4	T1 Power transformer	RTT1137		104	Power SW unit	
	5	Push spring	RBH1146		105	Transformer 1 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 (◀, ■, ▶, ►►, ●, ■, ○)	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				

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

Parts List

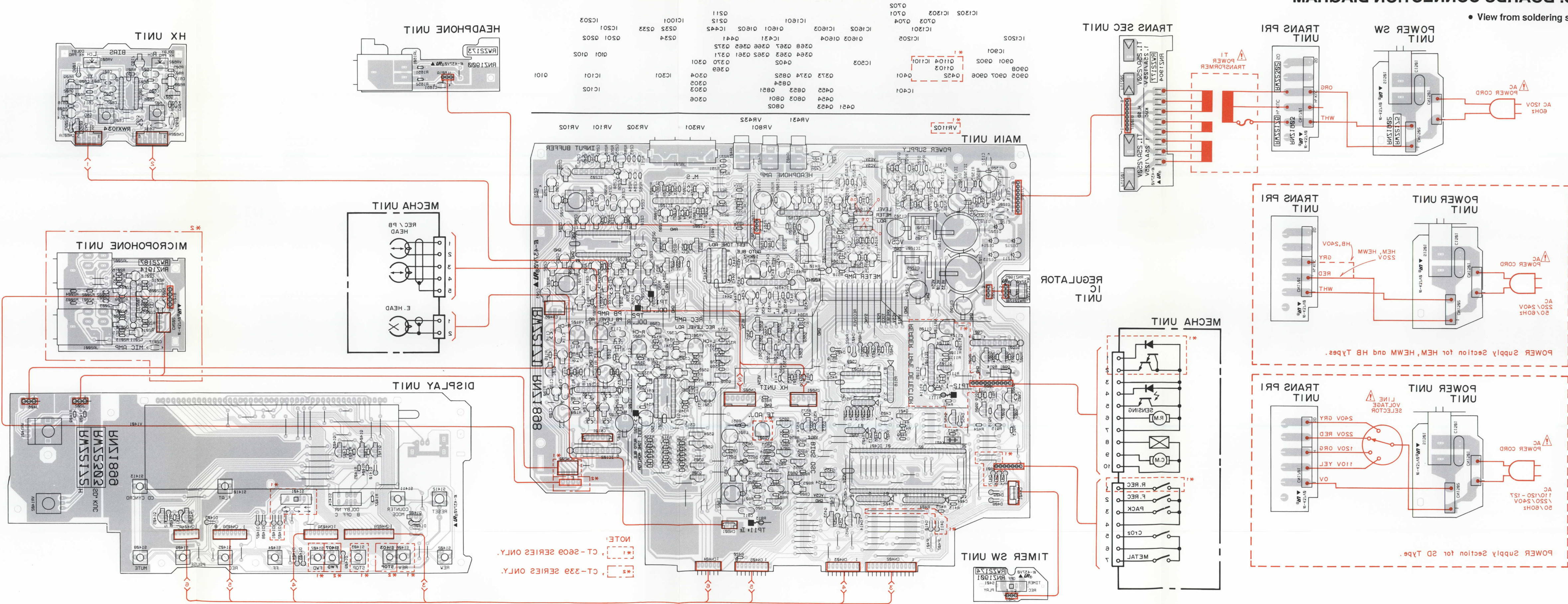
Mark	No.	Description	Part No.
	1	Fixed core	RLA1130
	2	Planger	RLA1132
	3	Head (R/P)	RPB1039
	4	Head (E)	RPB1040
	5	Push SW	RSG1018
	6	MTR reel BLK	RXM1029
	7	MTR main BLK	RXM1032
	8	Solenoid BLK	RXP1010
	9	Photo - transistor	SPI33534FG
	10	Main belt	REB1163
	11	Pinch roller ass'y	RXA1183
	12	F/W ass'y	RXA1294
	13	Washer	WA26D045D025
	14	Pan 2.6 × 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)

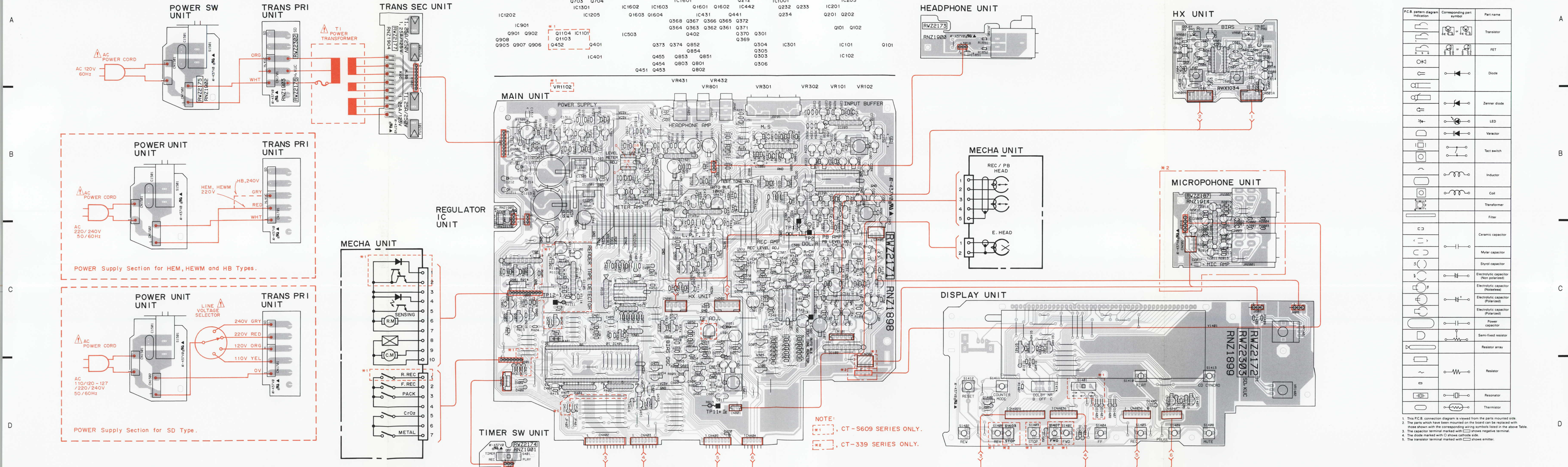


3. P.C. BOARDS CONNECTION DIAGRAM

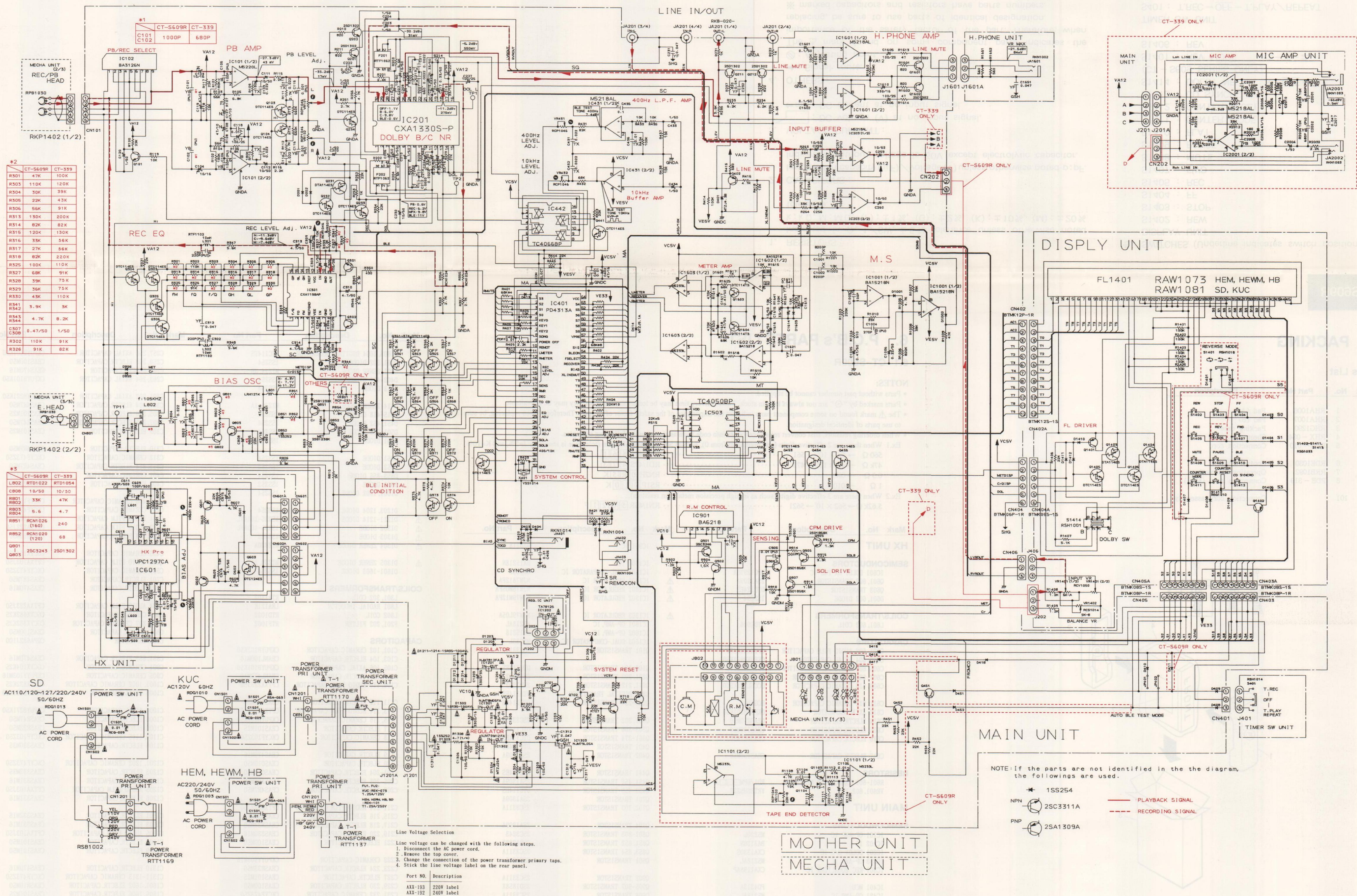
• View from soldering side



12/1



4. SCHEMATIC DIAGRAM

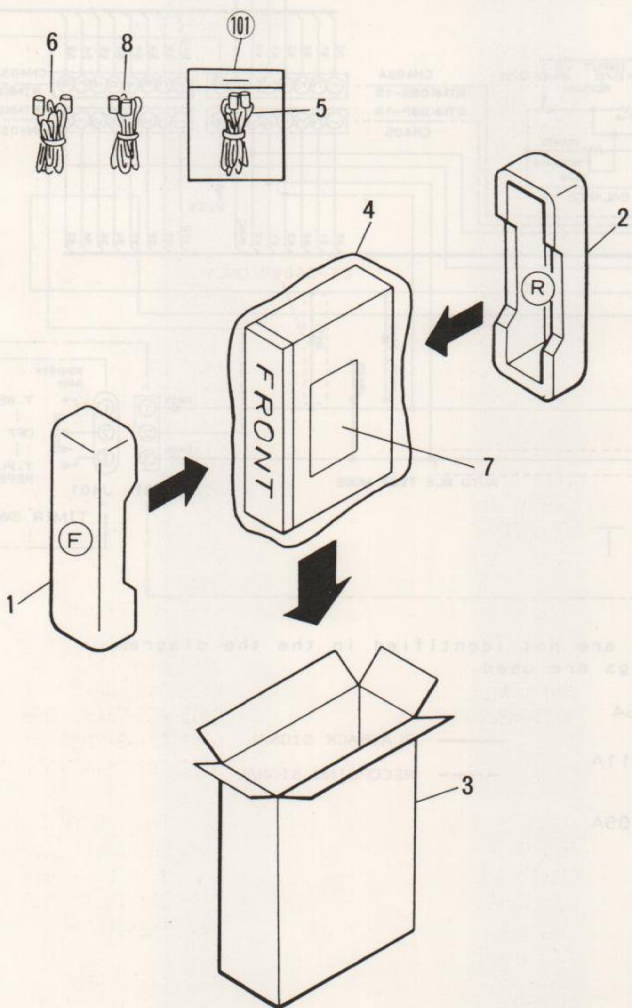


CT-S609R

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



1. RESISTORS :
Indicated in Ω , $\frac{1}{6}W$, $\pm 5\%$ tolerance unless otherwise noted
K:k Ω , M:M Ω , (F): $\pm 1\%$, (G): $\pm 2\%$, (K): $\pm 10\%$, (M): $\pm 20\%$ tolerance.
2. CAPACITORS :
Indicated in capacity (μF)/voltage (V) unless otherwise noted p.pF.
Indication without voltage is 50V except electrolytic capacitor.
3. VOLTAGE CURRENT :
→ mA: DC current at no input signal.
↻: DC voltage (V) at no input signal.
4. OTHERS :
↻: Adjusting point.
↻: Signal route.
- 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.
※ marked capacitors and resistors have parts numbers.
- This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

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 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%)
 $560\Omega \rightarrow 56 \times 10^1 \rightarrow 561$ RD1/4PS $\begin{bmatrix} 5 & 6 & 1 \end{bmatrix} J$
 $47k\Omega \rightarrow 47 \times 10^3 \rightarrow 473$ RD1/4PS $\begin{bmatrix} 4 & 7 & 3 \end{bmatrix} J$
 $0.5\Omega \rightarrow 0R5$ RN2H $\begin{bmatrix} 0 & R & 5 \end{bmatrix} K$
 $1\Omega \rightarrow 010$ RS1P $\begin{bmatrix} 0 & 1 & 0 \end{bmatrix} K$
 - Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
 $5.62k\Omega \rightarrow 562 \times 10^1 \rightarrow 5621$ RN1/4SR $\begin{bmatrix} 5 & 6 & 2 & 1 \end{bmatrix} F$

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
HX UNIT							
SEMICONDUCTORS							
	IC601 DOLBY HX PRO IC	UPC1297CA			IC901 IC	BA6218	
	Q601, 602 TRANSISTOR	2SA1309A		Δ	IC1001 IC	BA15218N	
	Q603 TRANSISTOR	DTC124ES		Δ	IC1101 DUAL-COMPARATOR IC	M5233L	
	D601, 602 DIODE	1SS254		Δ	IC1201 REGULATOR IC	NJM7812FA	
				Δ	IC1301 REGULATOR IC	NJM78M05FA	
				Δ	IC1302 REGULATOR IC	NJM79M12FA	
COILS/TRANSFORMERS				Δ	IC1303 REGULATOR IC	NJM79L05A	
	L601, 602 COIL	RTD1046			IC1601 OP-AMP, IC	M5218AL	
CAPACITORS					IC1602 OP-AMP, IC	BA15218	
	C601, 602 AUDIO FILM CAPACITOR	CFTXA103J50			IC1603 DUAL-COMPARATOR IC	M5233L	
	C603, 604 AXIAL CAPACITOR	CKPUYB821K50			Q101 TRANSISTOR	2SC3311A	
	C605, 606 AUDIO FILM CAPACITOR	CFTXA223J50			Q103, 104 TRANSISTOR	DTC114ES	
	C607, 608 CERAMIC CAPACITOR	CGCYX473K25			Q201, 202 TRANSISTOR	2SD1302	
	C609, 610 CERAMIC CAPACITOR	CCCSL101K500			Q211, 212 TRANSISTOR	2SD1302	
					Q231 DIGITAL TRANSISTOR	DTA114ES	
					Q232-234 TRANSISTOR	DTC114ES	
	C611, 612 CERAMIC CAPACITOR	ROG1005			Q301, 302 TRANSISTOR	2SC3311A	
	C613 AXIAL CAPACITOR	CKPUYB101K50			Q303-306 TRANSISTOR	DTC114ES	
	C614 ELECTR. CAPACITOR	CEASR10M50			Q361-374 TRANSISTOR	DTC114ES	
	C615 ELECTR. CAPACITOR	CEAS100M50			Q401 TRANSISTOR	DTC114ES	
	C616 ELECTR. CAPACITOR	CEAS4R7M50			Q402 TRANSISTOR	2SA1309A	
	C617 ELECTR. CAPACITOR	CEAS100M50			Q441 TRANSISTOR	DTC114ES	
RESISTORS					Q451, 452 TRANSISTOR	2SA1309A	
	R601-609 CARBONFILM RESISTOR	RD1/6PM□□□J			Q453-455 TRANSISTOR	DTC114ES	
	VR601, 602 VR	VRTB6HS223			Q701 TRANSISTOR	2SA1309A	
MAIN UNIT					Q702, 703 TRANSISTOR	2SC3311A	
SEMICONDUCTORS					Q704 TRANSISTOR	2SA1309A	
	IC101 OP-AMP IC	M5220L			Q801-803 TRANSISTOR	2SC3243	
	IC102 IC	BA3126N			Q851, 852 TRANSISTOR	2SB1238X	
	IC201 DOLBY B/C IC	CXA1330S			Q853, 854 TRANSISTOR	2SC3311A	
	IC203 OP-AMP, IC	M5218AL			Q901 TRANSISTOR	2SC3246	
	IC301 REC EQUALIZER IC	CXA1198AP			Q902 TRANSISTOR	2SC3311A	
	IC401 MCU	PD4313A			Q905-907 TRANSISTOR	2SD1858X	
	IC431 OP-AMP, IC	M5218AL			Q908 TRANSISTOR	2SC3311A	
	IC442 LOGIC IC	TC4066BP			Q103, 1104 TRANSISTOR	2SC3311A	
	IC503 CMOS LOGIC IC	TC4050BP			Q1601, 1602 TRANSISTOR	2SD1302	

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	Q1603, 1604 DIGITAL TRANSISTOR	DTC114TS			C257, 258 AXIAL CAPACITOR	CKPUYB101K50	
	D201, 202 DIODE	1SS254			C259, 260 ELECTR. CAPACITOR	CEAS100M50	
	D401 ZENER DIODE	MTZJ4, 3B			C261 ELECTR. CAPACITOR	CEAS470M16	
	D402-411 DIODE	1SS254			C263, 264 AXIAL CAPACITOR	CKPUYB101K50	
	D413 DIODE	1SS254					
	D414 ZENER DIODE	MTZJ9, 1A			C301, 302 AXIAL CAPACITOR	CKPUYB221K50	
	D415-418 DIODE	1SS254			C303, 304 ELECTR. CAPACITOR	CEAS4R7M50	
	D451, 452 DIODE	1SS254			C305, 306 ELECTR. CAPACITOR	CEAS101M25	
	D501-505 DIODE	1SS254			C307, 308 ELECTR. CAPACITOR	CEASR47M50	
	D701 DIODE	1SS254			C309 ELECTR. CAPACITOR	CEAS101M25	
	D851 DIODE	1SS254			C310 ELECTR. CAPACITOR	CEAS4R7M50	
	D852 DIODE	1SS252			C312 CERAMIC CAPACITOR	CKCYF473Z50	
	D853-856 DIODE	1SS254			C313, 314 ELECTR. CAPACITOR	CEAS4R7M50	
	D901 DIODE	1SS252			C401 CERAMIC CAPACITOR	CKCYF103Z50	
	D1001, 1002 DIODE	1SS254			C402 ELECTR. CAPACITOR	CEAS470M16	
Δ	D1203, 1204 DIODE	1SS254			C403-406 CERAMIC CAPACITOR	CKCYF103Z50	
Δ	D1211-1214 DIODE	1SR35-100AVL			C407 CERAMIC CAPACITOR	CKCYF473Z50	
Δ	D1302 DIODE	1SR35-100AVL			C431 AUDIO FILM CAPACITOR	CFTXA223J50	
Δ	D1303 DIODE	1SS252			C432 AUDIO FILM CAPACITOR	CFTXA222J50	
Δ	D1304 ZENER DIODE	MTZJ20A			C433, 434 ELECTR. CAPACITOR	CEAS010M50	
Δ	D1305 ZENER DIODE	MTZJ9, 1A			C435 CERAMIC CAPACITOR	CGCYX104K25	
	D1601-1603 DIODE	1SS254			C436 AUDIO FILM CAPACITOR	CFTXA103J50	
COILS/TRANSFORMERS					C509 CERAMIC CAPACITOR	CKCYF473Z50	
	L301, 302 COIL	RTF1102			C701 ELECTR. CAPACITOR	CEAS4R7M50	
	L801 RADIAL INDUCTOR	LRA121K			C702 ELECTR. CAPACITOR	CEAS470M16	
	L802 COIL	RTD1022					
	F201, 202 FILTER	RTF1062			C804 AUDIO FILM CAPACITOR	CFTXA223J50	
CAPACITORS					C805 CERAMIC CAPACITOR	CGCYX682K25	
	C101, 102 CERAMIC CAPACITOR	CKPUYB102K50			C806, 807 CERAMIC CAPACITOR	CGCYX332K25	
	C103, 104 ELECTR. CAPACITOR	CEANL100M16			C808 ELECTR. CAPACITOR	CEAS100M50	
	C105, 106 AXIAL CAPACITOR	CKPUYB101K50			C811 CAPACITOR	CQPA682J100	
	C107, 108 ELECTR. CAPACITOR	CEANL470M10					
	C109, 110 AUDIO FILM CAPACITOR	CFTXA223J50			C851, 852 ELECTR. CAPACITOR	CEAS470M16	
	C111, 112 ELECTR. CAPACITOR	CEAS100M50			C901 CERAMIC CAPACITOR	CGCYX104K25	
	C113, 114 AUDIO FILM CAPACITOR	CFTXA223J50			C905 CERAMIC CAPACITOR	CKPUY103M16	
	C115, 116 CERAMIC CAPACITOR	CKPUYB102K50			C1001, 1002 CERAMIC CAPACITOR	CGCYX822K25	
	C117 ELECTR. CAPACITOR	CEAS101M25			C1003 AXIAL CAPACITOR	CKPUYB101K50	
	C118 CERAMIC CAPACITOR	CKCYF103Z50					
	C119 ELECTR. CAPACITOR	CEAS470M16			C1004 AXIAL CAPACITOR	CKPUYB271K50	
	C120 ELECTR. CAPACITOR	CEAS010M50			C1005 ELECTR. CAPACITOR	CEASR47M50	
	C201-204 ELECTR. CAPACITOR	CEAS010M50			C1006 ELECTR. CAPACITOR	CEASR22M50	
	C205-208 ELECTR. CAPACITOR	CEAS100M50			C1104, 1105 CERAMIC CAPACITOR	CKCYF103Z50	
	C209, 210 ELECTR. CAPACITOR	CEAS4R7M50			C1106 ELECTR. CAPACITOR	CEAS330M35	
	C211-214 AUDIO FILM CAPACITOR	CFTXA222J50					
	C215, 216 ELECTR. CAPACITOR	CEASR22M50			C1201, 1202 CERAMIC CAPACITOR	CKCYF473Z50	
	C217, 218 ELECTR. CAPACITOR	CEASR33M50			C1203 ELECTR. CAPACITOR	CEAS332M35	
	C219, 220 ELECTR. CAPACITOR	CEAS330M16			C1204 ELECTR. CAPACITOR	CEAS331M16	
	C221 ELECTR. CAPACITOR	CEAS100M50			C1205 AUDIO FILM CAPACITOR	CFTXA103J50	
	C222 CERAMIC CAPACITOR	CKPUY103M16			C1206 ELECTR. CAPACITOR	CEAS331M16	
	C223, 224 ELECTR. CAPACITOR	CEASR33M50					
	C227 ELECTR. CAPACITOR	CEAS101M25			C1301 ELECTR. CAPACITOR	CEAS332M16	
	C229, 230 ELECTR. CAPACITOR	CEAS100M50			C1303 ELECTR. CAPACITOR	CEAS331M16	
	C231, 232 CERAMIC CAPACITOR	CKCYF473Z50			C1305 AUDIO FILM CAPACITOR	CFTXA103J50	
	C255, 256 ELECTR. CAPACITOR	CEAS100M50			C1306 ELECTR. CAPACITOR	CEAS101M50	
					C1309 ELECTR. CAPACITOR	CEAS101M50	
					C1310 ELECTR. CAPACITOR	CEAS470M16	
					C1311-1313 CERAMIC CAPACITOR	CKCYF473Z50	
					C1601, 1602 ELECTR. CAPACITOR	CEASR10M50	
					C1605, 1606 ELECTR. CAPACITOR	CEAS101M25	
					C1610 ELECTR. CAPACITOR	CEAS331M16	

Mark	No.	Description	Part No.
	C1611	CERAMIC CAPACITOR	CKCYF473Z50
	C1613	ELECTR. CAPACITOR	CEAS331M16
	C1614	ELECTR. CAPACITOR	CEAS330M35
	C1615, 1616	ELECTR. CAPACITOR	CEAS100M50
	C1617, 1618	ELECTR. CAPACITOR	CEASR47M50

C1621 CERAMIC CAPACITOR	CKCYF473Z50
-------------------------	-------------

RESISTORS

R101-120 CARBONFILM RESISTOR	RD1/6PM□□□J
R201-211 CARBONFILM RESISTOR	RD1/6PM□□□J
R214 CARBONFILM RESISTOR	RD1/6PM□□□J
R231-238 CARBONFILM RESISTOR	RD1/6PM□□□J
R251-255 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

R355, 356 CARBONFILM RESISTOR	RCN1024
R357, 358 CARBONFILM RESISTOR	RD1/6PM□□□J
R361-375 CARBONFILM RESISTOR	RD1/6PM□□□J
R401 RESISTOR ARRAY (22K)	RA4T□□□J
R402 RESISTOR ARRAY (68 K)	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
R451-454 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 CARBONFILM RESISTOR	RCN1026
R852 CARBONFILM RESISTOR	RCN1020
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
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.
	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
	VR801	VARIABLE RESISTOR	RCP-031
	VR1102	VR	RCP1046

OTHERS

CN402	BTMK12P-1R
CN403	BTMK08P-1R
CN404	BTMK06P-1R
CN405	BTMK08P-1R
JA201	JACK
	RKB-020

JA401	JACK	RKN1014
JA402, 403	JACK	RKN1004
X401	CERAMIC RESONATOR	VSS1014

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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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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CT-S609R

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 ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

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

560 Ω → 56 × 10¹ → 561 RD1/4PS 561 J

47k Ω → 47 × 10³ → 473 RD1/4PS 473 J

0.5 Ω → 0R5 ... RN2H 0R5 K

1 Ω → 010 ... RS1P 010 K

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

5.62k Ω → 562 × 10¹ → 5621 RN1/4SR 5621 F

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
HX UNIT				⚠	IC1201	REGULATOR IC	NJM7812FA
SEMICONDUCTORS				⚠	IC1301	REGULATOR IC	NJM78M05FA
	IC601	DOLBY HX PRO IC	UPC1297CA	⚠	IC1302	REGULATOR IC	NJM79M12FA
	Q601, 602	TRANSISTOR	2SA1309A	⚠	IC1303	REGULATOR IC	NJM79L05A
	Q603	TRANSISTOR	DTC124ES		IC1601	OP-AMP, IC	M5218AL
	D601, 602	DIODE	1SS254		IC1602	OP-AMP IC	BA15218
COILS/TRANSFORMERS					IC1603	DUAL-COMPARATOR IC	M5233L
	L601, 602	COIL	RTD1046		Q101	TRANSISTOR	2SC3311A
CAPACITORS					Q103, 104	TRANSISTOR	DTC114ES
	C601, 602	AUDIO FILM CAPACITOR	CFTXA103J50		Q201, 202	TRANSISTOR	2SD1302
	C603, 604	AXIAL CAPACITOR	CKPUYB821K50		Q211, 212	TRANSISTOR	2SD1302
	C605, 606	AUDIO FILM CAPACITOR	CFTXA223J50		Q231	DIGITAL TRANSISTOR	DTA114ES
	C607, 608	CERAMIC CAPACITOR	CGCYX473K25		Q232-234	TRANSISTOR	DTC114ES
	C609, 610	CERAMIC CAPACITOR	CCCSL101K500		Q301, 302	TRANSISTOR	2SC3311A
	C611, 612	CERAMIC CAPACITOR	RCG1005		Q303-306	TRANSISTOR	DTC114ES
	C613	AXIAL CAPACITOR	CKPUYB101K50		Q361-374	TRANSISTOR	DTC114ES
	C614	ELECTR. CAPACITOR	CEASR10M50		Q401	TRANSISTOR	DTC114ES
	C615	ELECTR. CAPACITOR	CEAS100M50		Q402	TRANSISTOR	2SA1309A
	C616	ELECTR. CAPACITOR	CEAS4R7M50		Q441	TRANSISTOR	DTC114ES
	C617	ELECTR. CAPACITOR	CEAS100M50		Q451	TRANSISTOR	2SA1309A
RESISTORS					Q453-455	TRANSISTOR	DTC114ES
	R601-609	CARBONFILM RESISTOR	RD1/6PM□□□J		Q701	TRANSISTOR	2SA1309A
	VR601, 602	VR	VRTB6HS223		Q702, 703	TRANSISTOR	2SC3311A
MAIN UNIT					Q704	TRANSISTOR	2SA1309A
SEMICONDUCTORS					Q801-803	TRANSISTOR	2SD1302
	IC101	OP-AMP IC	M5220L		Q851, 852	TRANSISTOR	2SB1238X
	IC102	IC	BA3126N		Q853, 854	TRANSISTOR	2SC3311A
	IC201	DOLBY B/C IC	CXA1330S		Q901	TRANSISTOR	2SC3246
	IC203	OP-AMP, IC	M5218AL		Q902	TRANSISTOR	2SC3311A
	IC301	REC EQUALIZER IC	CXA1198AP		Q905-907	TRANSISTOR	2SD1858X
	IC401	MCU	PD4313A		Q908	TRANSISTOR	2SC3311A
	IC431	OP-AMP, IC	M5218AL		Q1601, 1602	TRANSISTOR	2SD1302
	IC442	LOGIC IC	TC4066BP		Q1603, 1604	DIGITAL TRANSISTOR	DTC114TS
	IC503	CMOS LOGIC IC	TC4050BP		D201, 202	DIODE	1SS254
	IC901	IC	BA6218		D401	ZENER DIODE	MTZJ4. 3B
	IC1001	IC	BA15218N		D402-410	DIODE	1SS254
					D413	DIODE	1SS254
					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				
		D851 DIODE	1SS254			C310 ELECTR. CAPACITOR	CEAS4R7M50
						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				
		D1203, 1204 DIODE	1SS254			C403-406 CERAMIC CAPACITOR	CKCYF103Z50
△		D1211-1214 DIODE	1SR35-100AVL			C407 CERAMIC CAPACITOR	CKCYF473Z50
△		D1302 DIODE	1SR35-100AVL			C431 AUDIO FILM CAPACITOR	CFTXA223J50
△		D1303 DIODE	1SS252			C432 AUDIO FILM CAPACITOR	CFTXA222J50
△		D1304 ZENER DIODE	MTZJ20A			C433, 434 ELECTR. CAPACITOR	CEAS010M50
△		D1305 ZENER DIODE	MTZJ9. 1A				
						C435 CERAMIC CAPACITOR	CGCYX104K25
		D1601-1603 DIODE	1SS254			C436 AUDIO FILM CAPACITOR	CFTXA103J50
						C509 CERAMIC CAPACITOR	CKCYF473Z50
COILS/TRANSFORMERS						C701 ELECTR. CAPACITOR	CEAS4R7M50
		L301, 302 COIL	RTF1102			C702 ELECTR. CAPACITOR	CEAS470M16
		L801 RADIAL INDUCTOR	LRA121K				
		L802	RTD1054			C804 AUDIO FILM CAPACITOR	CFTXA223J50
		F201, 202 FILTER	RTF1062			C805 CERAMIC CAPACITOR	CGCYX682K25
CAPACITORS						C806, 807 CERAMIC CAPACITOR	CGCYX332K25
		C101, 102 AXIAL CAPACITOR	CKPUYB681K50			C808 ELECTR. CAPACITOR	CEAS100M50
		C103, 104 ELECTR. CAPACITOR	CEANL100M16			C811 CAPACITOR	QCPA682J100
		C105, 106 AXIAL CAPACITOR	CKPUYB101K50				
		C107, 108 ELECTR. CAPACITOR	CEANL101M10			C851, 852 ELECTR. CAPACITOR	CEAS470M16
		C109, 110 AUDIO FILM CAPACITOR	CFTXA223J50			C901 CERAMIC CAPACITOR	CGCYX104K25
						C905 CERAMIC CAPACITOR	CKPUY103M16
		C111, 112 ELECTR. CAPACITOR	CEAS100M50			C1001, 1002 CERAMIC CAPACITOR	CGCYX822K25
		C113, 114 AUDIO FILM CAPACITOR	CFTXA223J50			C1003 AXIAL CAPACITOR	CKPUYB101K50
		C115, 116 CERAMIC CAPACITOR	CKPUYB102K50				
		C117 ELECTR. CAPACITOR	CEAS101M25			C1004 AXIAL CAPACITOR	CKPUYB271K50
		C118 CERAMIC CAPACITOR	CKCYF103Z50			C1005 ELECTR. CAPACITOR	CEASR47M50
						C1006 ELECTR. CAPACITOR	CEASR22M50
		C119 ELECTR. CAPACITOR	CEAS470M16			C1201, 1202 CERAMIC CAPACITOR	CKCYF473Z50
		C120 ELECTR. CAPACITOR	CEAS010M50			C1203 ELECTR. CAPACITOR	CEAS332M35
		C201-204 ELECTR. CAPACITOR	CEAS010M50				
		C205-208 ELECTR. CAPACITOR	CEAS100M50			C1204 ELECTR. CAPACITOR	CEAS331M16
		C209, 210 ELECTR. CAPACITOR	CEAS4R7M50			C1205 AUDIO FILM CAPACITOR	CFTXA103J50
						C1206 ELECTR. CAPACITOR	CEAS331M16
		C211-214 AUDIO FILM CAPACITOR	CFTXA222J50			C1301 ELECTR. CAPACITOR	CEAS332M16
		C215, 216 ELECTR. CAPACITOR	CEASR22M50			C1303 ELECTR. CAPACITOR	CEAS331M16
		C217, 218 ELECTR. CAPACITOR	CEASR33M50				
		C219, 220 ELECTR. CAPACITOR	CEAS330M16			C1305 AUDIO FILM CAPACITOR	CFTXA103J50
		C221 ELECTR. CAPACITOR	CEAS100M50			C1306 ELECTR. CAPACITOR	CEAS101M50
						C1309 ELECTR. CAPACITOR	CEAS101M50
		C222 CERAMIC CAPACITOR	CKPUY103M16			C1310 ELECTR. CAPACITOR	CEAS470M16
		C223, 224 ELECTR. CAPACITOR	CEASR33M50			C1311-1313 CERAMIC CAPACITOR	CKCYF473Z50
		C227 ELECTR. CAPACITOR	CEAS101M25				
		C229, 230 ELECTR. CAPACITOR	CEAS100M50			C1601, 1602 ELECTR. CAPACITOR	CEASR10M50
		C231, 232 CERAMIC CAPACITOR	CKCYF473Z50			C1605, 1606 ELECTR. CAPACITOR	CEAS101M25
						C1610 ELECTR. CAPACITOR	CEAS331M16
		C255, 256 ELECTR. CAPACITOR	CEAS100M50			C1611 CERAMIC CAPACITOR	CKCYF473Z50
		C257, 258 AXIAL CAPACITOR	CKPUYB101K50			C1613 ELECTR. CAPACITOR	CEAS331M16
		C259, 260 ELECTR. CAPACITOR	CEAS100M50				
		C261 ELECTR. CAPACITOR	CEAS470M16			C1614 ELECTR. CAPACITOR	CEAS330M35
		C263, 264 AXIAL CAPACITOR	CKPUYB101K50			C1615, 1616 ELECTR. CAPACITOR	CEAS100M50
						C1617, 1618 ELECTR. CAPACITOR	CEASR47M50
						C1621 CERAMIC CAPACITOR	CKCYF473Z50
		C301, 302 AXIAL CAPACITOR	CKPUYB221K50	RESISTORS			
		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
CN403
CN404

BTMK12P-1R
BTMK08P-1R
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	1SS254

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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Mark	No.	Description	Part No.
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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
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

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 $\pm$ 5Hz

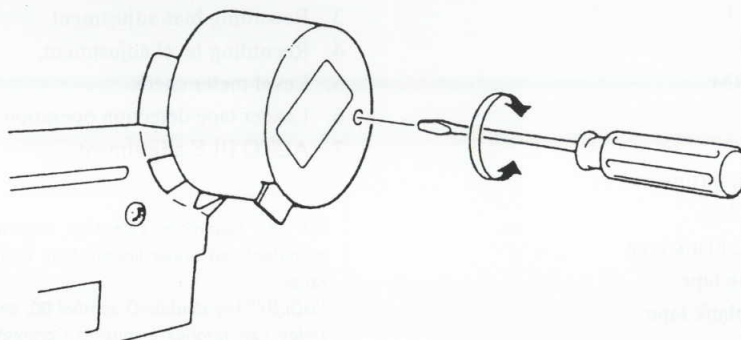


Fig. 7-1 Tape speed adjustment

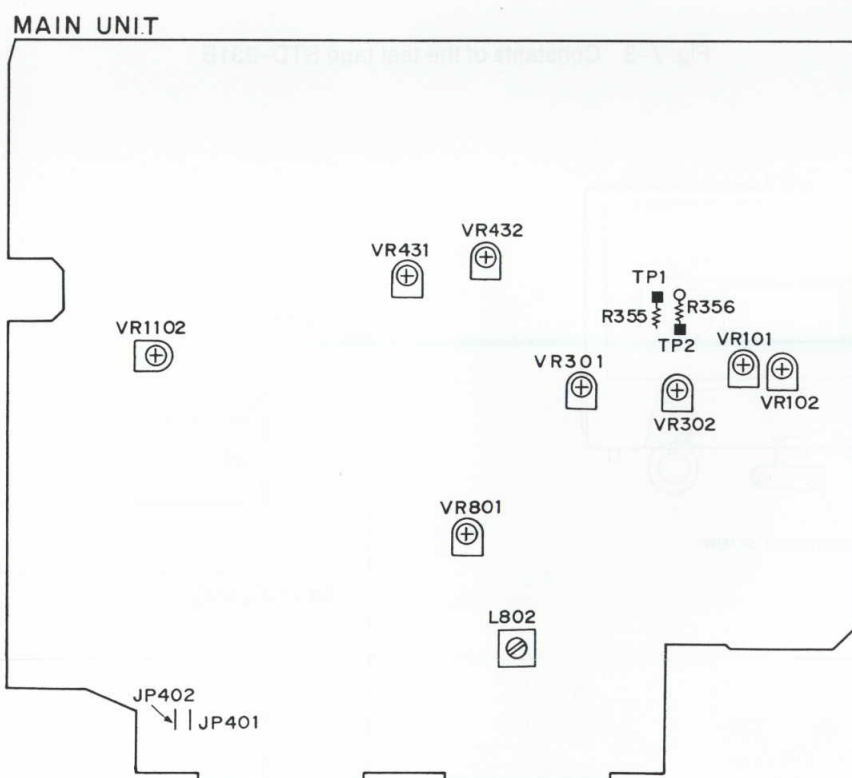


Fig. 7-2 Adjusting points

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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 k Ω (or between 47k to 52 k Ω) 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

Test Tapes

- STD-331B : Playback adjustments
(See Fig. 7-3)
- STD-630 : NORMAL blank tape
- STD-620 : CrO₂ blank tape
- STD-610 : METAL blank tape

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 , and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

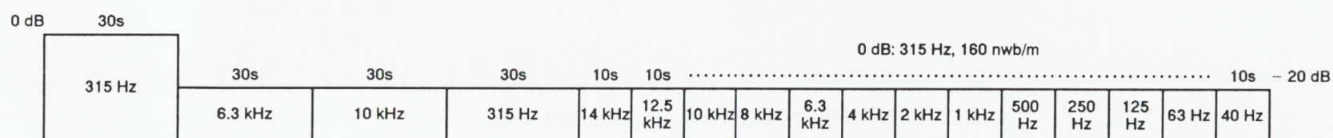
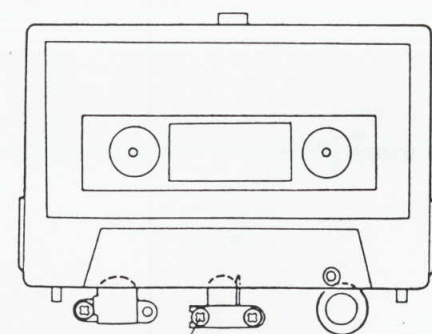


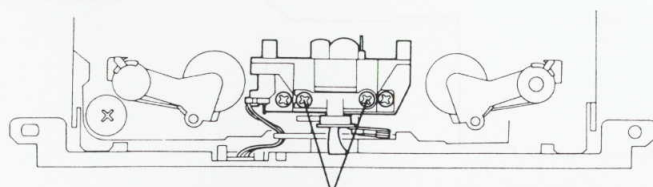
Fig. 7-3 Constants of the test tape STD-331B

CT-339



Head azimuth adjustment screw

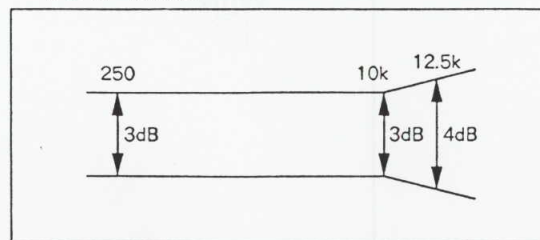
CT-S609R



Head azimuth adjustment screw

Fig. 7-4 Head azimuth adjustment

PLAY BACK



RECORDING

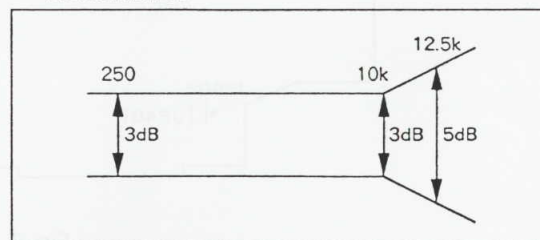


Fig. 7-5 Frequency response zone

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.	

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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-630 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-630 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-620 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-610 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 $\pm$ 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 $\pm$ $\frac{0}{0.1}$ 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 défilement 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 $\pm$ 5Hz

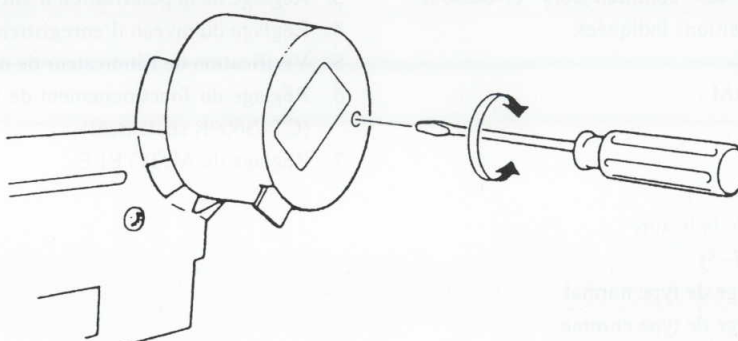


Fig. 7-1 Réglage de la vitesse de défilement de la bande

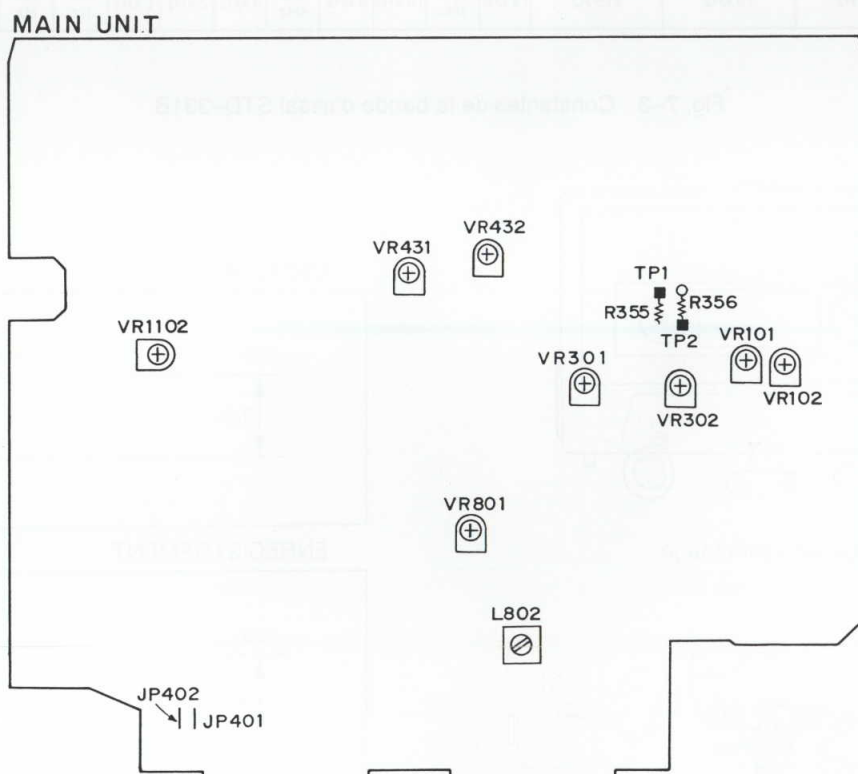


Fig. 7-2 Points de réglage

CT-S609R, CT-339**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 k Ω (tolérance 47k à 52 k Ω) 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'essaiSTD-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

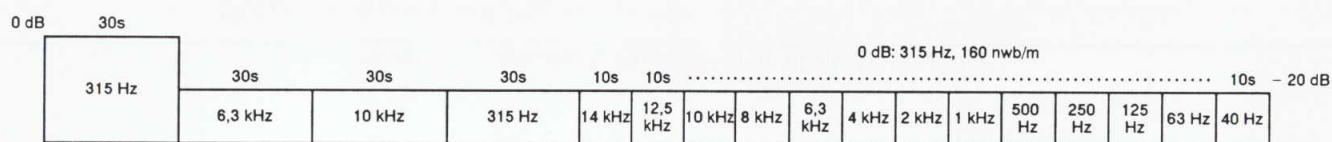
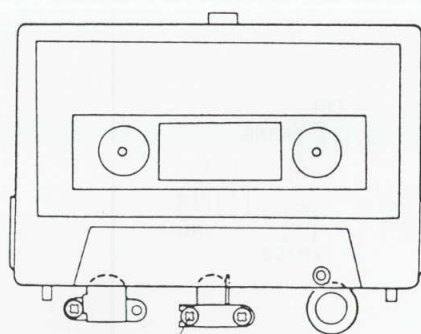
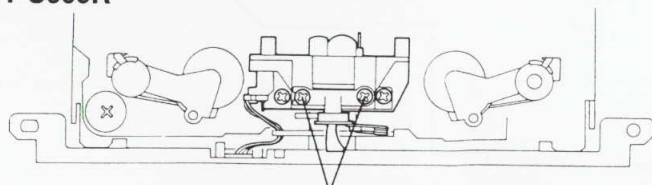


Fig. 7-3 Constantes de la bande d'essai STD-331B

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

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

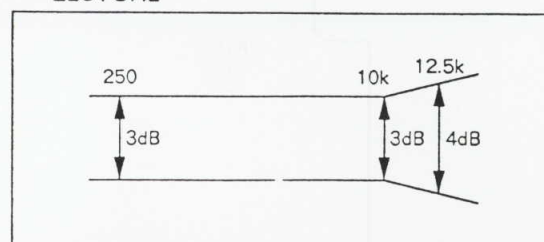
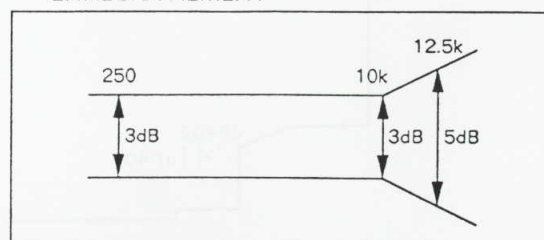
LECTURE**ENREGISTREMENT**

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.	

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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 $\pm$ 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	$1,0V \pm \begin{smallmatrix} 0 \\ 0,1 \end{smallmatrix} V$ (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 $\pm$ 5Hz

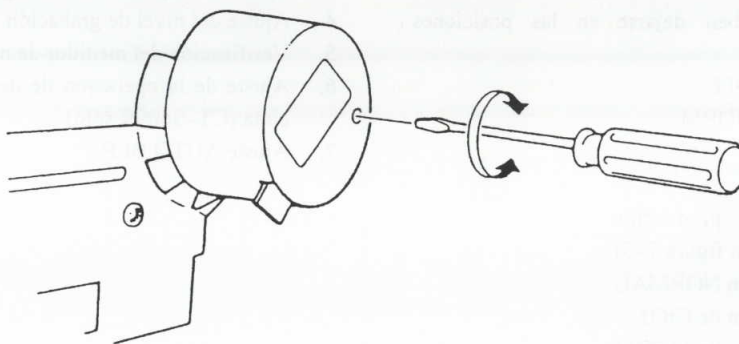


Figura 7-1 Ajuste de la velocidad de la cinta

MAIN UNIT

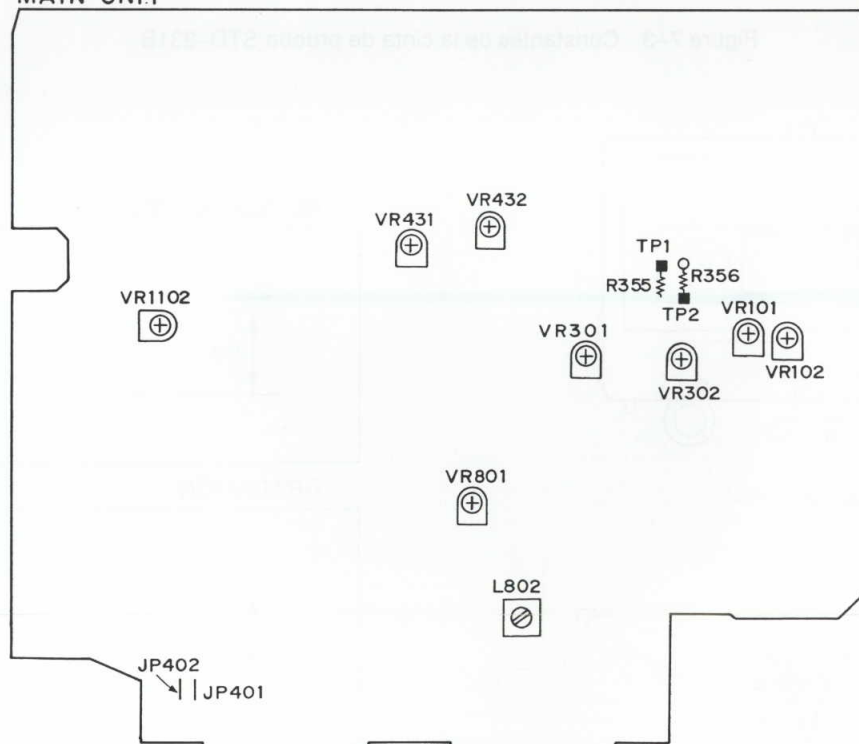


Figura 7-2 Puntos de ajuste

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	Produzca 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 VR601 (Lch) VR602 (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.	

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4. Ajuste del nivel de grabación

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/ PAUSE	Aplique una señal de 315 Hz/0 dBv a los terminales de entrada de línea e introduzca la cinta de prueba STD-630.	Control de nivel de grabación.		TP. 1 (Lch) TP. 2 (Rch)	-11,2 dBv	
3.	STOP	Ponga el conmutador DOLBY NR en la posición ON. (DOLBY B)					
4.	REC/ PLAY	Grabe la señal de arriba en la cinta de prueba STD-630 y reproduzca.	Platina I	VR301 (Lch) VR302 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	Grabe, reproduzca y ajuste repetidamente para que el nivel de la señal de reproducción sea de -11,2 dB.	
5.	STOP	Ponga el conmutador TAPE SELECTOR en la posición CrO2.					
6.	REC/ PLAY	Grabe la señal de arriba en la cinta de prueba STD-620 y reproduzca.	Verifique		TP. 1 (Lch) TP. 2 (Rch)	-11,2 dBv ± 1,5 dB	
7.	STOP	Ponga el conmutador TAPE SELECTOR en la posición METAL.					
8.	REC/ PLAY	Grabe la señal de arriba en la cinta de prueba STD-610 y reproduzca.	Verifique		TP. 1 (Lch) TP. 2 (Rch)	-11,2 dBv ± 1,5 dB	

5. Verificación del medidor de nivel

N.º	Modo	Señal de entrada y cinta de prueba	Punto de ajuste		Punto de medición		Valor de ajuste	Comentarios
1.	REC/PAUSE	Aplique una señal de 315 Hz/-10 dBv (316 mV) a los terminales de entrada de línea.	Control de nivel de grabación		TP. 1 (Lch) TP. 2 (Rch)		Verifique si se encienden los medidores de nivel "0 dB" cuando el nivel de salida de la señal sea -11,2 dBv ± 2 dB.	

6. Ajuste de la operación de detección del extremo inicial de la cinta (CT-S609R sólo)

N.º	Modo	Señal de entrada y cinta de prueba	Punto de ajuste		Punto de medición		Valor de ajuste	Comentarios
1.	PLAY	Sin entrada - Introduzca un casete vacío la mitad.	Platina I	VR1102	Platina I	TP. 12-1	1,0V ± $\frac{0}{0,1}$ V (DC)	
2.	Confirme que la función de detección del extremo inicial de la cinta funcione correctamente (en el modo de inversión sin fin, compruebe tanto en la dirección de avance como en la de retroceso).							

7. Ajuste AUTO BLE

- El ajuste BLE debe efectuarse después de haber terminado todos los otros ajustes.
- Este ajuste debe efectuarse en el modo de prueba.
- Cómo establecer el modo de prueba.
Conecte el interruptor de corriente, y cortocircuite JP401 y JP402 durante un corto tiempo.

N.º	Modo	Señal de entrada y cinta de prueba	Punto de ajuste		Punto de medición		Valor de ajuste	Comentarios
1.		Establezca el modo de prueba.	-		-		-	
2.	-	Pulse la tecla ◀ (REW) del panel delantero.	En medidor de nivel		VR431		Ajuste de modo que se ilumine 0 dB en el medidor de nivel.	Ajuste de 400 Hz
3.		Pulse la tecla ■ (STOP) del panel delantero.			VR432		Ajuste de modo que se ilumine 0 dB en el medidor de nivel.	Ajuste de 10 kHz

8. IC DESCRIPTIONS

● PD4313A

Pin No.	Symbol	I/O	Function	Active
1	S ₃	O	Level scan (S ₀ to S ₄), key scan (S ₀ to S ₇) Output terminal for dynamic FL display (S ₀ to S ₁₀) (Controlled by time sharing)	H
2	S ₂			
3	S ₁			
4	S ₀			
5	KEY 0	I	Key scan input terminal "L": switch on	L
6	KEY 1			
7	KEY 2			
8	SONG	I	Song index detection input terminal	H
9	POWER OFF	I	Power off detect input terminal	H
10	REMOTE	I	Remote controlling input	L
11	LMETER	I	Lch level detection input terminal	H
12	RMETER	I	Rch level detection input terminal	H
13	REC LEVEL ADJ	O	Output terminal for recording level compensation (4 bit)	H
14				
15				
16				
17	SENS	I	Sensing pulse input terminal	
18	RMR	O	Reel motor FWD direction drive terminal	H
19	DEC	O	When dolby IC decoding: "H". When encoding: "L"	H
20	TO CD	O	CD control signal output terminal	H
21	EQ ADJ	O	Output terminal for recording equalizer compensation (4 bit)	H
22				
23				
24				
25	BIAS ADJ	O	Output terminal for bias level compensation when recording (2 bit)	H
26				
27	SOL A	O	Output terminal for solenoid drive	H
28	SOL B	O	Output terminal for holding solenoid low voltage	H
29	400/10K	O	Square wave (400 Hz/10 kHz) output terminal output when AUTO-BLE	
30		O	Crystal connection terminal	
31				
32	Vss	—	GND	—

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 ₀	O	Grid output terminal for dynamic FL display	H
41	T ₁			
42	T ₂			
43	T ₃			
44	T ₄			
45	T ₅			
46	T ₆			
47	T ₇			
48	T ₈			
49	T ₉			
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 ₁₀	O	(*1)	H
56		–	Not used	–
57	VPRE	–	Output buffer supply terminal of FL controller/driver inside microprocessor.	–
58	S ₉	O	(*1)	H
59	S ₈			
60	S ₇			
61	S ₆			
62	S ₅			
63	S ₄			
64	VDD	–	Power terminal +5V	–

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

● FL INFORMATION



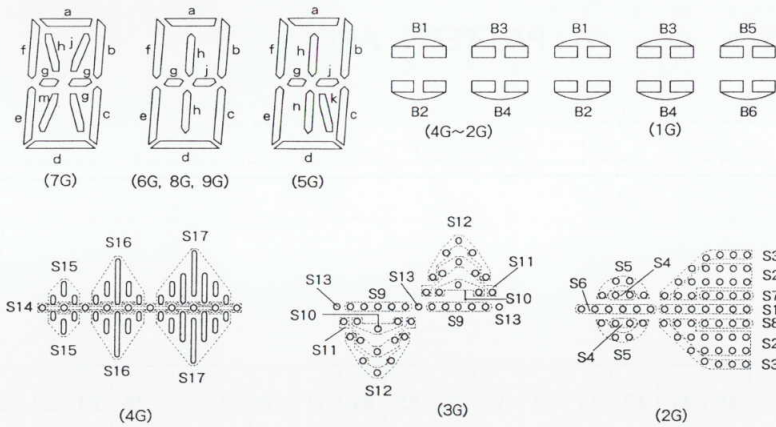
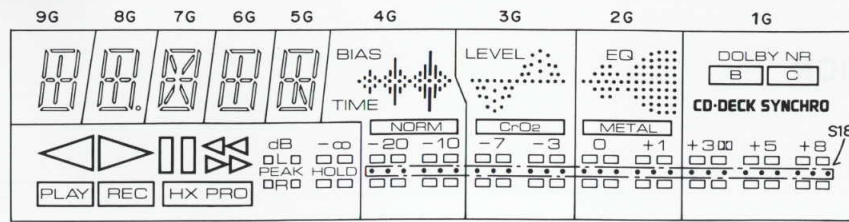
PIN CONNECTION

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 $\triangle$ 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.

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	
$\triangle$	Display unit	Non supply	Non supply	Non supply	Non supply	
$\triangle$	TRANS PRI unit	Non supply	Non supply	Non supply	Non supply	
$\triangle$	Strain relief	CM-22	CM-22B	CM-22B	CM-22B	
$\triangle$	AC Power cord	RDG1010	PDG1003	PDG1036	PDG1013	
$\triangle$	FU1, FU2 Fuse (1.25A)	REK-073	.....	.....	.....	
$\triangle$	FU1, FU2 Fuse (1.25A)	.....	REK-101	REK-101	REK-101	
$\triangle$	Power transformer (AC120V)	RTT1170	.....	.....	.....	
$\triangle$	Power transformer (AC220/240V)	.....	RTT1137	RTT1137	.....	
$\triangle$	Power transformer	.....	.....	.....	RTT1169	
$\triangle$	(AC110/120-127/220/240V)					
$\triangle$	Voltage selector	.....	.....	.....	PSB1002	
	Packing case	RHG1290	RHG1271	RHG1271	RHG1271	
	FL lens	RAH1867	RAH1870	RAH1870	RAH1867	
	Operating instructions (English)	RRB1092	.....	RRB1092	RRB1092	
	Operating instructions	.....	RRE1041	.....	.....	
	(English/French/German/Italian/Dutch/ Swedish/Spanish/Portuguese)					
	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	

CT-339/HEM, HB, SD, CT-339-S/HEWM**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 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.

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	
Δ	AC Power cord	PDG1003	PDG1036	PDG1013	PDG1003	
Δ	Power transformer (AC220/240V)	RTT1137	RTT1137	.....	RTT1137	
Δ	Power transformer (AC110/120-127/220/240V)	.....	.....	RTT1169	.....	
Δ	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/CrO₂/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

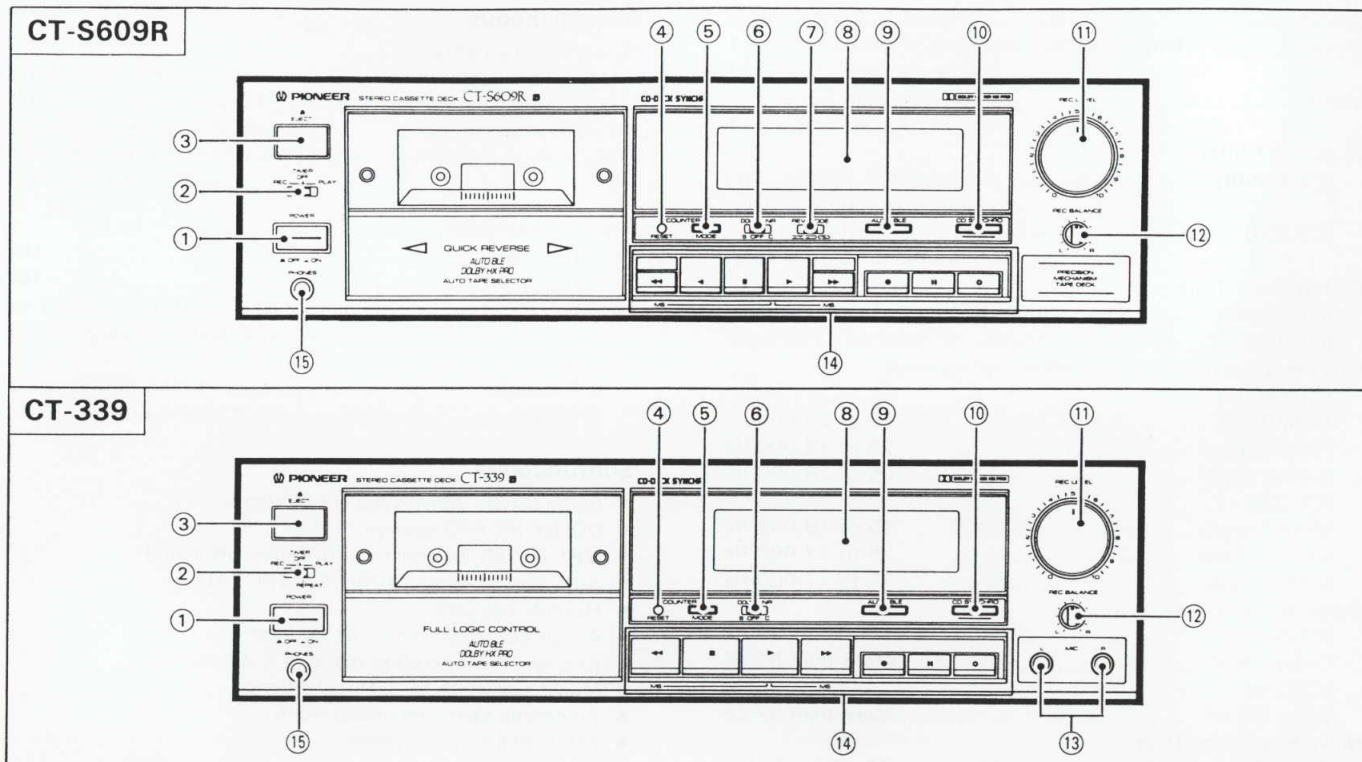
Operating instructions	1
Connection cord with pin plugs	2
 Remote control cord	1
CD•DECK SYNCHRO control cord	1

NOTE:

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

CT-S609R, CT-339

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

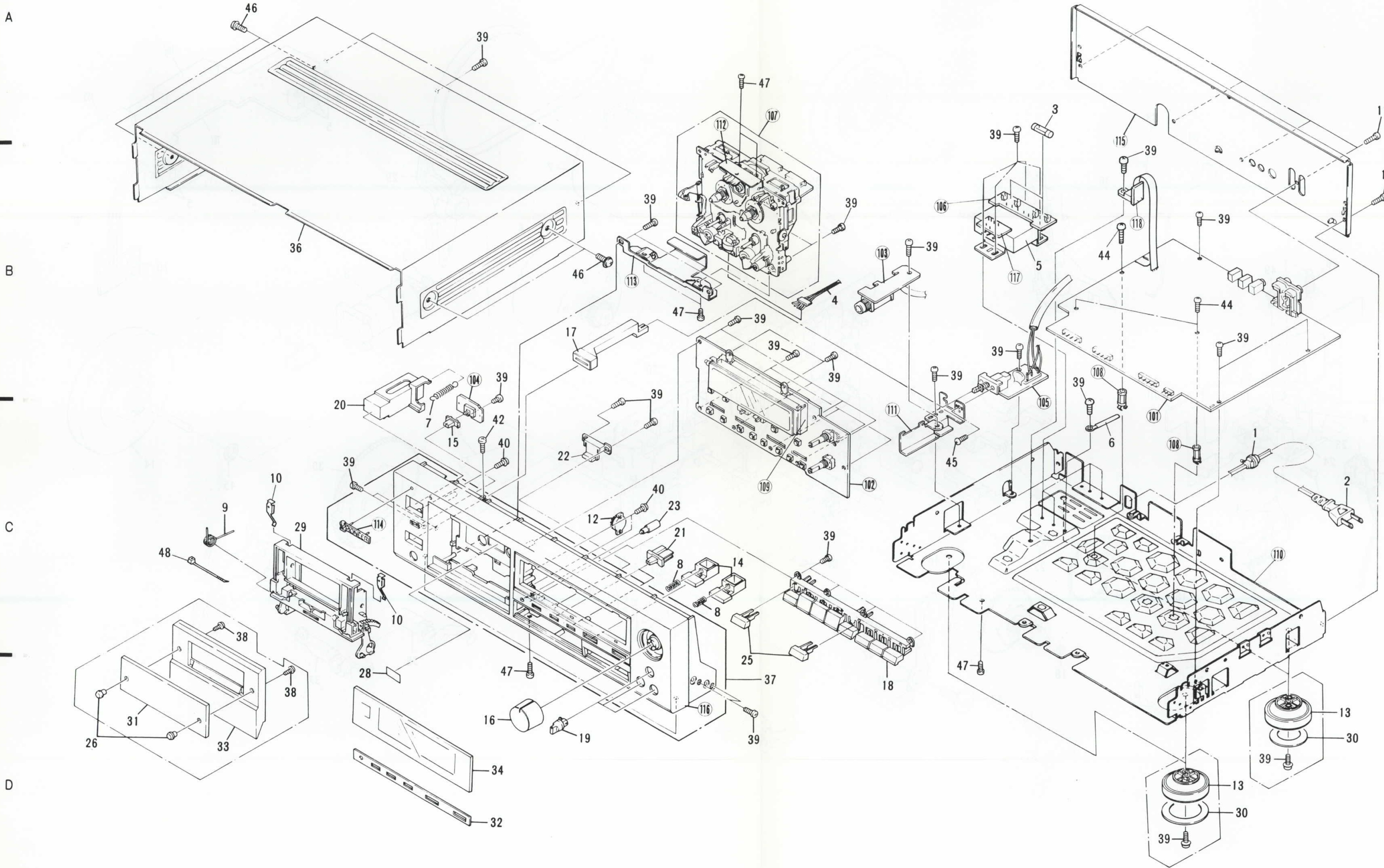
: Pause

: Recording mute

⑮ Headphones jack (PHONES)

2. EXPLODED VIEWS AND PARTS LIST

2.1 EXTERIOR (For CT-S609R/KUC type)



- NOTES:**
- Parts without part number cannot be supplied.
 - The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - 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.
⚠	1	Strain relief	CM - 22	46	Screw		FBT40P080FZK
⚠	2	AC Power cord	RDG1010	47	Screw		BBZ30P060FZK
⚠	3	FU1201, FU1202 Fuse (1.25A)	REK - 073	48	Binder		REC - 371
⚠	4	Connector assembly 6P		101	Main unit		
	5	Power transformer (T1)	RTT1170	102	Display unit		
	6	Cord clamper	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				
	10	Half pressure spring	RBK1004	106	Transformer 2 unit		
	11	.....		107	Mechanism unit		
	12	Damper assembly	REC1013	108	PCB spacer		
	13	Insulator	VNK1095	109	FL holder		
	14	Knob	RAC1604	110	Main chassis		
	15	Slide knob (A)	RAC1236				
	16	VR knob	RAC1363	111	Headphone blacket		
	17	Power button	RAC1364	112	Mechanism mount plate (U)		
	18	Operation knob	RAC1365	113	Mechanism mount plate (D)		
	19	Headphone knob	RAC1366	114	Name plate		
	20	Eject knob	RAC1367	115	Rear panel		
	21	Slide knob (B)	RAC1392	116	Front panel		
	22	Tact knob	RAC1409	117	Transformer 1 unit		
	23	Counter reset knob	RAC1400	118	Regulator IC unit		
	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				

CT-S609R

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)

