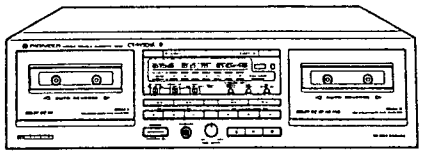
PIONEER®
The Art of Entertainment

Service Manual



* The above illustration shows CT-W501R.

ORDER NO.
ARP2420

STEREO DOUBLE CASSETTE DECK

CT-W501R
CT-W451R
CT-W401R

CT-W501R, CT-W451R AND CT-W401R HAVE THE FOLLOWING:

Type	Model			Power Requirement	Remarks
	CT-W501R	CT-W451R	CT-W401R		
KUCXJ	○	–	–	AC120V only	
KUXJ	–	○	○	AC120V only	
HEMXJ	–	–	○	AC220–230V, 230–240V (switchable) *	
HBXJ	–	–	○	AC220–230V, 230–240V (switchable) *	
HPW	○	–	–	AC220–230V, 230–240V (switchable) *	
SD	○	–	–	AC110V, 120–127V, 220V, 240V (switchable)	
KUCXJ/CA	○	–	–	AC120V only	
KUC	○	–	–	AC120V only	

* Change the connection of the power transformer's primary wiring.

- **This manual is applicable to CT-W501R/KUCXJ, KUC, CT-W451R/KUXJ, CT-W401R/KUXJ, HEMXJ and HBXJ.**
- **For the following: CT-W451R/KUXJ, CT-W401R/KUXJ, HEMXJ and HBXJ, refer to page 42.**
- **For the following: CT-W501R/KUCXJ/CA, SD and HPW, refer to the service manual ARP2468.**
- **Ce manuel pour le service comprend les explications de réglage en français.**
- **Este manual de servicio trata del método ajuste escrito en español.**

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A.
PIONEER ELECTRONICS OF CANADA, INC. 505 Cochrane Drive, Markham, Ontario L3R 8E3 Canada
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911

SG FEB. 1992 Printed in Japan

CONTENTS

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

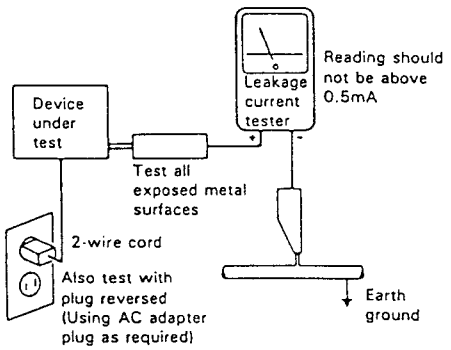
(FOR USA MODEL ONLY)

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 ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose 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. SPECIFICATIONS

System ..... 4-track, 2-channel stereo
Heads ..... "Hard permalloy" recording/playback head × 1
"Hard permalloy" playback head × 1
"Ferrite" erasing head × 1
Motors ..... DC servo motor × 2

Wow and Flutter ..... No more than 0.10% (WRMS)
Fast Winding Time ..... Approx. 120 seconds (C-60 tape)
Frequency Response (at −20 dB recording level)
TYPE IV (Metal) tape ..... 30 to 16,500 Hz
TYPE II (Chrome) tape ..... 30 to 16,000 Hz
TYPE I (Normal) tape ..... 30 to 16,000 Hz
Signal-to-Noise Ratio
Dolby NR OFF ..... More than 56 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 ..... No more than 0.8%
(at −4 dB: 160 nwb/m)
Input (Sensitivity)
LINE (INPUT) ..... 100 mV (Input impedance 56 kΩ)
Output (Reference level)
LINE (OUTPUT) ..... 0.5 V (Output impedance 4.5 kΩ)
Headphones
(CT-W501R only) ..... 0.63 mW (Output impedance 8 Ω)

Miscelllaneous

Power requirements
U.S. and Canadian models ..... AC 120 V, 60 Hz
Power consumption ..... 16 W
Dimensions ..... 420 (W) × 120 (H) × 265 (D) mm
16-9/16 (W) × 4-3/4 (H) × 10-7/16 (D) in.
Weight ..... 3.9 kg (8 lbs. 10 oz.)

Accessories

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

Features

- DOLBY HX PRO recording function
- DOLBY B/C types NR
- Music search over ±15 selections
- Synchronized copy start
- High-speed and normal-speed copy (Deck I → Deck II)
- Relay playback/blank skip
- 6-segment LED level meter
- 3-digit mechanical tape counter (for Deck II)
- Automatic recording mute
- Automatic tape selectors
- System remote control available
- Timer recording
- Timer playback (Automatic relay on)
- CD·DECK SYNCHRO function
- Headphones jack (CT-W501R only)
- Automatic reverse (except Deck I of the CT-W451R)

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

3. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES:

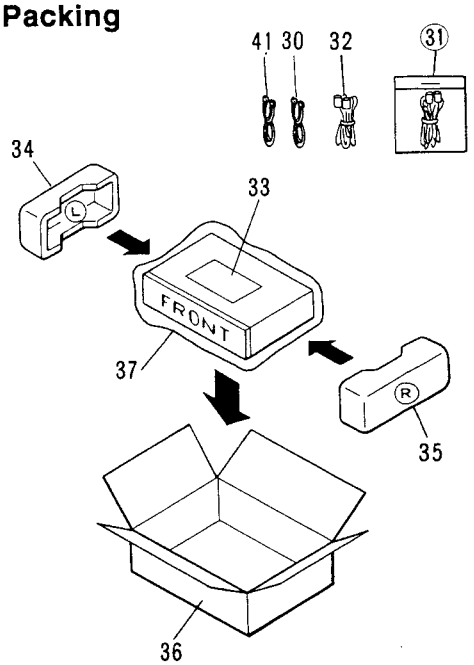
- The parts with an encircled number are generally unavailable because they are not in our Master Spare Parts List.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked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

3.1 EXTERIOR

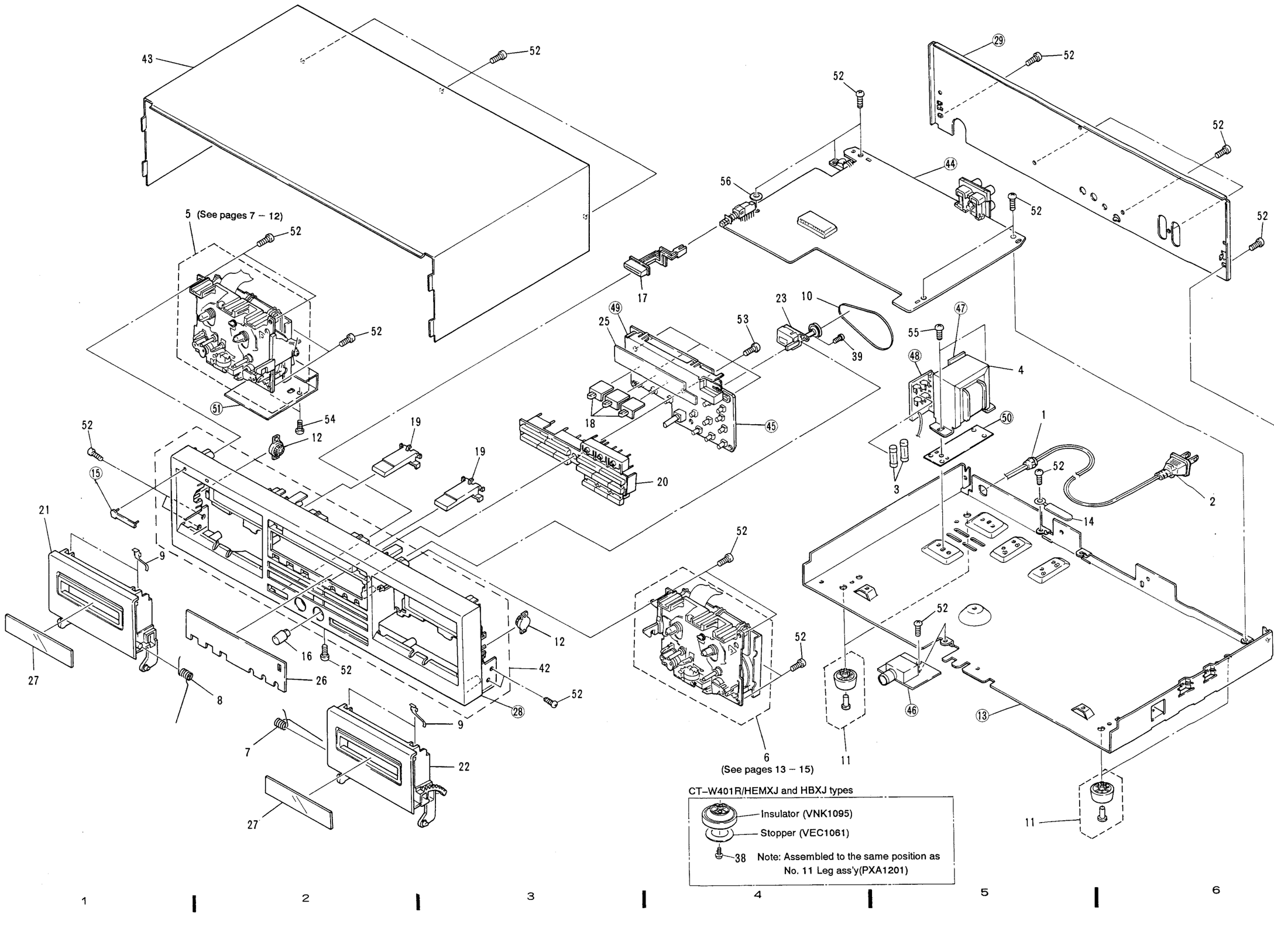
Parts List

Mark	No.	Description	Part No.
⚠	1	STRAIN RELIEF	CM – 22C
⚠	2	AC POWER CODE	PDG1015
⚠	3	FUSE (1.25A) (FU1201, 1202)	REK – 073
⚠	4	POWER TRANSFORMER	RTT1142
⊙	5	MECHANISM UNIT (DECK I)	RYM1134
⊙	6	MECHANISM UNIT (DECK II)	RYM1135
	7	DOOR SPRING L	RBH1304
	8	DOOR SPRING R	RBH1305
	9	HALF PRESSURE SPRING	RBK1004
	10	COUNTER BELT	REB1152
	11	LEG ASS'Y	PXA1201
	12	DAMPER ASSEMBLY	REC1005
	13	MAIN CHASSIS	RNB1054
	14	CORD CLAMPER	RNH – 184
	15	NAME PLATE	PAM1407
	16	VR KNOB (B)	RAC1421
	17	POWER KNOB	RAC1558
	18	SLIDE KNOB	RAC1559
	19	EJECT KNOB	RAC1560
	20	OPERATION KNOB	RAC1561
	21	DOOR POCKET (L)	RAH1948
	22	DOOR POCKET (R)	RAH1946
	23	COUNTER	RAW1001
	24	REMAIN DISPLAY PAPER	REE – 113
	25	METER PANEL	RAH1970
	26	METER LENS	RAH1882
	27	DOOR LENS	RAH1755
	28	FRONT PANEL	RAM1954
	29	REAR PANEL	RNA1487
	30	CONNECTION CORD (WITH MINI PLUG)	PDE – 319
	31	CONNECTION CORD ASSEMBLY	RDE1002
	32	CONTROL CORD	RDE1018
	33	OPERATING INSTRUCTIONS (ENGLISH)	RRB1098
	34	PAD (L)	RHA1056
	35	PAD (R)	RHA1057
	36	PACKING CASE	RHG1307
	37	SHEET	Z23 – 007
	38	SCREW	BBZ30P080FMC
	39	SCREW	BBZ20P080FMC
	40	·····	
	41	CONNECTION CORD	RDE – 010
	42	FRONT PANEL ASS'Y	RXX1454
	43	BONNET	RXX1351
	44	MAIN UNIT	RWZ2163
	45	SUB UNIT	RWZ2563
	46	H.PHONE UNIT	RWZ2071
	47	TRANS 1 UNIT	RWZ2072
	48	TRANS 2 UNIT	RWZ2567
	49	LED HOLDER	RNK1684
	50	TRANS SHIELD PLATE	RNE1451
	51	SHIELD PLATE	REC1091
	52	SCREW	BBZ30P080FMC
	53	SCREW	BBZ30P100FZK
	54	SCREW	BBZ20P060FMC
	55	SCREW	ABZ30P080FMC
	56	WASHER	WA30F150M080

Packing



EXTERIOR



CT–W401R/HEMXJ and HBXJ types

Insulator (VNK1095)

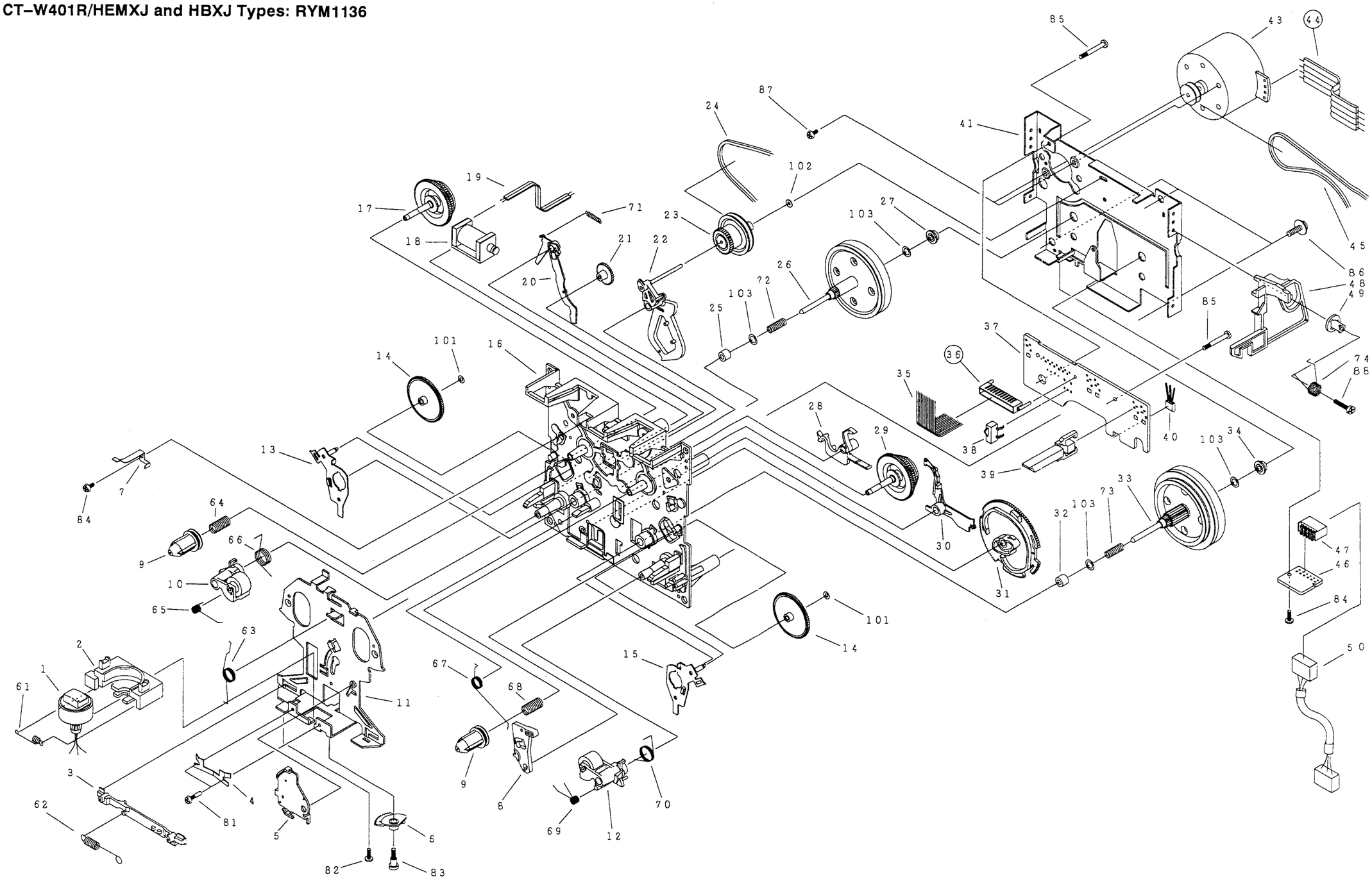
Stopper (VEC1061)

38 Note: Assembled to the same position as No. 11 Leg ass'y(PXA1201)

3.2 MECHANISM UNIT (DECK I)

For CT–W501R/KUCXJ and CT–W401R/KUXJ Types: RYM 1134

For CT–W401R/HEMXJ and HBXJ Types: RYM1136



Parts List

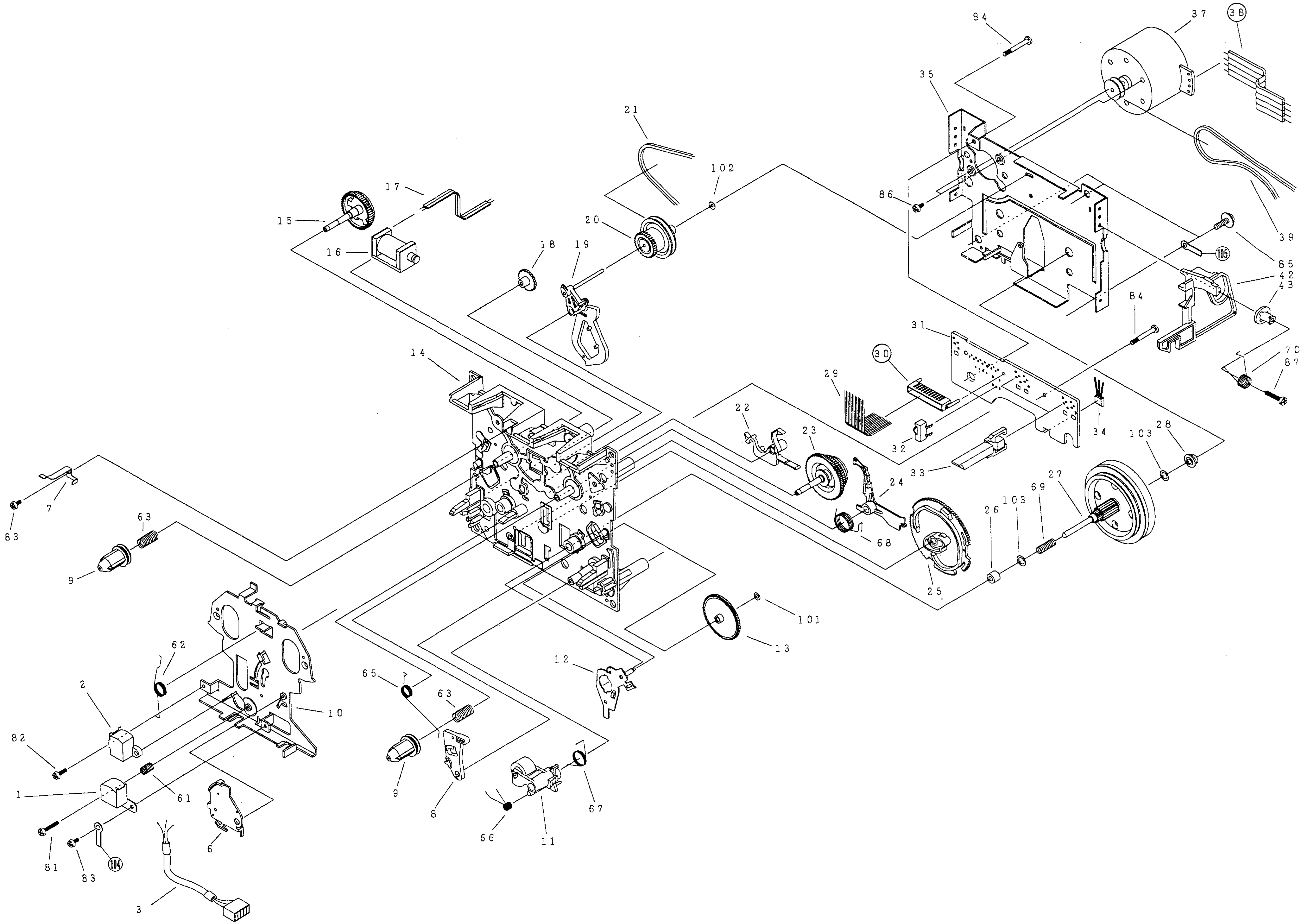
Mark	No.	Description	Part No.
	1	ASS'Y HOLDER HEAD	RXA1400
	2	FLAME HEAD	RNK1715
	3	LEVER HEAD	RNK1716
	4	SPRING AZIMUTH	RBK1006
	5	ASS'Y ARM ASSIST	RXA1401
	6	GEAR ARM HEAD	RNK1717
	7	SPRING CASSETTE	RBK1039
	8	EJECT LOCK	RNK1718
	9	CAP REEL	RNK1719
	10	ASS'Y PINCH ARM L	RXA1403
	11	CHASSIS HEAD	RNE1437
	12	ASS'Y PINCH ARM R	RXA1404
	13	ASS'Y ARM PLAY L	RXA1405
	14	GEAR PLAY	RNK1720
	15	ASS'Y ARM PLAY R	RXA1406
	16	CHASSIS OS.	RXA1411
	17	ASS'Y SUB REEL L	RXA1407
⚠	18	SOLENOID	RXP1017
	19	WIRE	RDC1006
	20	ARM RVS	RNK1721
	21	GEAR FF	RNK1723
	22	ASS'Y ARM FR	RXA1412
	23	ASS'Y PULLEY FR	RXA1413
	24	BELT FR	REB1158
	25	SHAFT HOLDER	RNG1048
	26	ASS'Y FLYWHEEL L (CT-W401R/HEMXJ, HBXJ)	RXA1423
		ASS'Y FLYWHEEL L (OTHERS)	RXA1409
	27	SHAFT HOLDER	RNG1005
	28	ARM BRAKE	RNK1724
	29	ASS'Y SUB REEL R	RXA1408
	30	ARM TRIGGER	RNK1722
	31	GEAR CAM	RNK1725
	32	SHAFT HOLDER	RNG1049
	33	ASS'Y FLYWHEEL R (CT-W401R/HEMXJ, HBXJ)	RXA1424
		ASS'Y FLYWHEEL R (OTHERS)	RXA1410
	34	SHAFT HOLDER	RNG1004
	35	WIRE (12P)	RDD1216
	36	HOLDER WIRE	RNK1683
	37	P.C. BOARD	RNP1347
	38	SWITCH MODE	RSN1020
	39	SWITCH (LEAF)	RSN1019
	40	HALL IC.	DN6851A
	41	BRACKET FW	RNE1438
	42	.....	
	43	ASS'Y MOTOR	RXM1052
	44	WIRE	
	45	BELT MAIN	REB1159
	46	P.C. BOARD	RNP1348
	47	HOUSING	RKP1396
	48	EJECT LEVER R	RNK1703
	49	COLLAR	RNK1704
	50	WIRE HEAD	RKP1398
	61	SPRING	RBH1282
	62	SPRING	RBH1283
	63	SPRING	RBH1284
	64	SPRING	RBH1286
	65	SPRING	RBH1288
	66	SPRING	RBH1291
	67	SPRING	RBH1285
	68	SPRING	RBH1287
	69	SPRING	RBH1289
	70	SPRING	RBH1290
	71	SPRING	RBH1292
	72	SPRING	RBH1061
	73	SPRING	RBH1060
	74	SPRING	RBH1293
	81	SCREW	RBA1023
	82	SCREW	RBA1027
	83	SCREW	RBA1030
	84	SCREW	PCZ20P040FMC
	85	SCREW	RBA1093
	86	SCREW	RBA1094
	87	SCREW	RBA1086
	88	SCREW	RBA1095
	101	WASHER	RBF1044
	102	WASHER	WA16D032D025
	103	WASHER	WA26D047D013

3.3 MECHANISM UNIT (DECK I)
For CT-W451R/KUXJ Type: RYM1138

Parts List

Mark	No.	Description	Part No.
	1	R/P HEAD	RPB1026
	2	DUMMY HEAD	PNK1458
	3	WIRE HEAD	RKP1400
	6	ASS'Y ARM ASSIST	RXA1401
	7	SPRING CASSETTE	RBK1039
	8	EJECT LOCK	RNK1718
	9	CAP REEL	RNK1719
	10	CHASSIS HEAD	RNE1439
	11	ASS'Y PINCH ARM R	RXA1404
	12	ASS'Y ARM PLAY R	RXA1406
	13	GEAR PLAY	RNK1720
	14	CHASSIS OS.	RXA1417
	15	REEL GEAR	RNK1726
⚠	16	SOLENOID	RXP1017
	17	WIRE	RDC1006
	18	GEAR FF	RNK1723
	19	ASS'Y ARM FR	RXA1412
	20	ASS'Y PULLEY FR	RXA1413
	21	BELT FR	REB1158
	22	ARM BRAKE	RNK1724
	23	ASS'Y SUB REEL R	RXA1408
	24	ARM TRIGGER	RNK1722
	25	GEAR CAM	RNK1725
	26	SHAFT HOLDER	RNG1049
	27	ASS'Y FLYWHEEL R	RXA1424
	28	SHAFT HOLDER	RNG1004
	29	WIRE (12P)	RDD1216
	30	HOLDER WIRE	RNK1683
	31	P.C. BOARD	RNP1347
	32	SWITCH MODE	RSN1020
	33	SWITCH (LEAF)	RSN1019
	34	HALL IC.	DN6851A
	35	BRACKET FW	RNE1438
	37	ASS'Y MOTOR	RXM1052
	38	WIRE	
	39	BELT MAIN	REB1160
	42	EJECT LEVER R	RNK1703
	43	COLLAR	RNK1704
	61	SPRING	RBH1296
	62	SPRING	RBH1284
	63	SPRING	RBH1286
	64	.....	
	65	SPRING	RBH1285
	66	SPRING	RBH1298
	67	SPRING	RBH1290
	68	SPRING	RBH1295
	69	SPRING	RBH1060
	70	SPRING	RBH1293

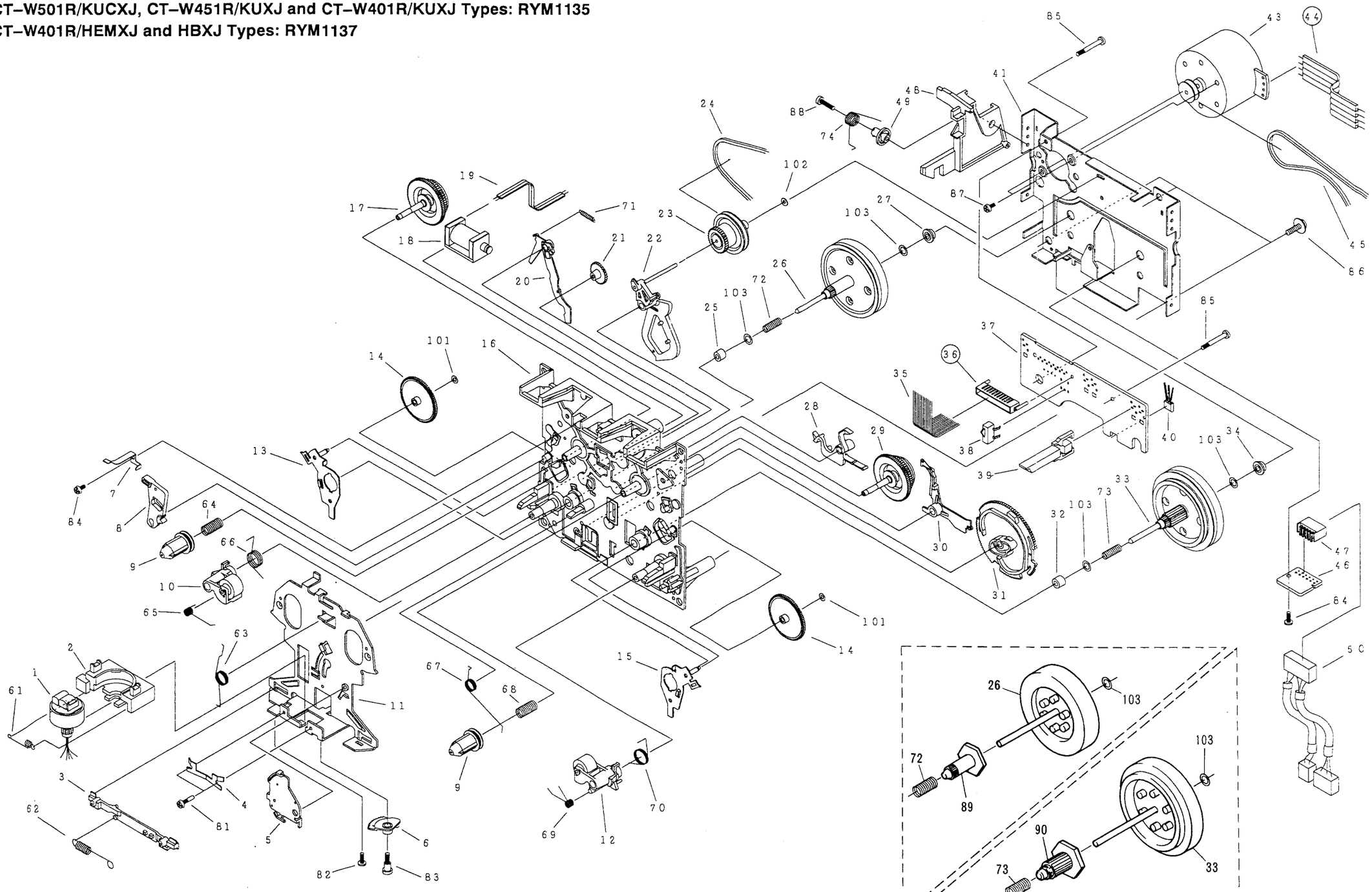
Mark	No.	Description	Part No.
	81	SCREW	RBA1096
	82	SCREW	RBA1029
	83	SCREW	PCZ20P040FMC
	84	SCREW	RBA1093
	85	SCREW	RBA1094
	86	SCREW	RBA1086
	87	SCREW	RBA1095
	101	WASHER	RBF1044
	102	WASHER	WA16D032D025
	103	WASHER	WA26D047D013
	104	KEEP WIRE	RNE1456
	105	KEEP WIRE	RNH1004

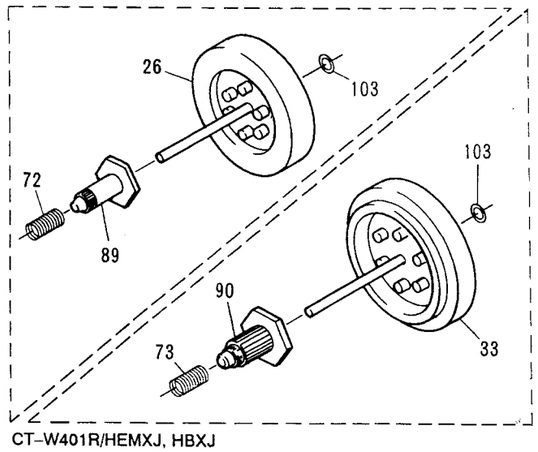

1
2
3
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
37
38
39
42
43
61
62
63
65
66
67
68
69
70
81
82
83
84
85
86
87
101
102
103
104
105

3.4 MECHANISM UNIT (DECK II)

For CT–W501R/KUCXJ, CT–W451R/KUXJ and CT–W401R/KUXJ Types: RYM1135

For CT–W401R/HEMXJ and HBXJ Types: RYM1137





CT–W401R/HEMXJ, HBXJ

Parts List

Mark	No.	Description	Part No.
	1	ASS'Y HOLDER HEAD	RXA1416
	2	FLAME HEAD	RNK1715
	3	LEVER HEAD	RNK1716
	4	SPRING AZIMUTH	RBK1006
	5	ASS'Y ARM ASSIST	RXA1401
	6	GEAR ARM HEAD	RNK1717
	7	SPRING CASSETTE	RBK1039
	8	EJECT LOCK	RNK1718
	9	CAP REEL	RNK1719
	10	ASS'Y PINCH ARM L	RXA1403
	11	CHASSIS HEAD	RNE1437
	12	ASS'Y PINCH ARM R	RXA1404
	13	ASS'Y ARM PLAY L	RXA1405
	14	GEAR PLAY	RNK1720
	15	ASS'Y ARM PLAY R	RXA1406
	16	CHASSIS OS.	RXA1411
	17	ASS'Y SUB REEL L	RXA1407
⚠	18	SOLENOID	RXP1017
	19	WIRE	RDC1006
	20	ARM RVS	RNK1721
	21	GEAR FF	RNK1723
	22	ASS'Y ARM FR	RXA1412
	23	ASS'Y PULLEY FR	RXA1413
	24	BELT FR	REB1158
	25	SHAFT HOLDER	RNG1048
	26	FLYWHEEL L (CT-W401R/HEMXJ, HBXJ)	RXA1414
		ASS'Y FLYWHEEL L (OTHERS)	RXA1409
	27	SHAFT HOLDER	RNG1005
	28	ARM BRAKE	RNK1724
	29	ASS'Y SUB REEL R	RXA1408
	30	ARM TRIGGER	RNK1722
	31	GEAR CAM	RNK1725
	32	SHAFT HOLDER	RNG1049
	33	FLYWHEEL R (CT-W401R/HEMXJ, HBXJ)	RXA1415
		ASS'Y FLYWHEEL R (OTHERS)	RXA1410
	34	SHAFT HOLDER	RNG1004
	35	WIRE (14P)	RDD1217
	36	HOLDER WIRE	
	37	P.C. BOARD	RNK1683
	38	SWITCH MODE	RSN1020
	39	SWITCH (LEAF)	RSN1019
	40	HALL IC.	DN6851A
	41	BRACKET FW	RNE1438
	42	.....	
	43	ASS'Y MOTOR (CT-W401R/HEMXJ, HBXJ)	RXM1051
		ASS'Y MOTOR(OTHERS)	RXM1052
	44	WIRE	RDD1012
	45	BELT MAIN (CT-W401R/HEMXJ, HBXJ)	REB1162
		BELT MAIN (OTHERS)	REB1159
	46	P.C. BOARD	RNP1348
	47	HOUSING	RKP1397
	48	EJECT LEVER L	RNK1702
	49	COLLAR	RNK1704
	50	WIRE HEAD	RKP1399
	61	SPRING	RBH1282
	62	SPRING	RBH1283
	63	SPRING	RBH1284
	64	SPRING	RBH1286
	65	SPRING	RBH1288
	66	SPRING	RBH1291
	67	SPRING	RBH1285
	68	SPRING	RBH1287
	69	SPRING	RBH1289
	70	SPRING	RBH1290
	71	SPRING	RBH1292
	72	SPRING	RBH1061
	73	SPRING	RBH1060
	74	SPRING	RBH1294
	81	SCREW	RBA1023
	82	SCREW	RBA1027
	83	SCREW	RBA1030
	84	SCREW	PCZ20P040FMC
	85	SCREW	RBA1093
	86	SCREW	RBA1094
	87	SCREW	RBA1086
	88	SCREW	RBA1095
	89	GEAR FW L (CT-W401R/HEMXJ, HBXJ)	RNK1732
	90	GEAR FW R (CT-W401R/HEMXJ, HBXJ)	RNK1733
	101	WASHER	RBF1044
	102	WASHER	WA16D032D025
	103	WASHER	WA26D047D013

4. PCB PARTS LIST

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 × 10^1 → 561 ····· RD1/4PS 5 6 1 J
47k Ω → 47 × 10^3 → 473 ····· RD1/4PS 4 7 3 J
0.5 Ω → 0R5 ····· RN2H 0 R 5 K
1 Ω → 010 ····· RS1P 0 1 0 K

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

5.62k Ω → 562 × 10^1 → 5621 ····· RN1/4SR 5 6 2 1 F

Mark	No.	Description	Part No.

LIST OF ASSEMBLIES

⊙		MOTHER BOARD ASSEMBLY	RWM1485
		├—SUB UNIT	
		├—H. PHONE UNIT	
		├—TRANS 1 UNIT	
		├—TRANS 2 UNIT	
		└—MAIN UNIT	

SUB UNIT

SEMICONDUCTORS

	IC2401 LEVEL METER IC	IR2E27A
	D1528-1531 DIODE	1SS254
	D2201-2205 DIODE	1SS254
	D2301-2308 DIODE	1SS254
	D2401-2404 LED	SEL4914D
	D2405, 2406 LED	SEL4914D
	D2407-2410 LED	SEL4214R
	D2411-2414 LED	SEL4914D
	D2416 LED	SEL4214R
	D2418 LED	SEL4214R
	D2419-2421 LED	SEL4914D
	D2422, 2423 LED	SEL4214R
	D2425-2429 DIODE	1SS254
	D2432 LED	SEL4914D
	D2435, 2436 LED	SEL4914D

SWITCHES

	S1501, 1502 SWITCH	RSH1014
	S2201-2205 SWITCH	RSG1034
	S2301-2308 SWITCH	RSG1034
	S2401 SWITCH	RSH1014
	S2404-2406 SWITCH	RSG1034

CAPACITORS

	C2401, 2402 ELECTR. CAPACITOR	CEAS100M50

RESISTORS

	R1512, 1513 CARBONFILM RESISTOR	RD1/6PM□□□J
	R2401-2404 CARBONFILM RESISTOR	RD1/6PM□□□J
	R2406 CARBONFILM RESISTOR	RD1/6PM□□□J
	R2408-2411 CARBONFILM RESISTOR	RD1/6PM□□□J
	R2414, 2415 CARBONFILM RESISTOR	RD1/6PM□□□J
	R2001, 2002 CARBONFILM RESISTOR	RD1/6PM332J
	R2419, 2420 CARBONFILM RESISTOR	RD1/6PM□□□J
	R2435, 2436 CARBONFILM RESISTOR	RD1/6PM□□□J
	VR2002 VARIABLE RESISTOR(5K)	RCV1057

H.PHONE UNIT

CAPACITORS

	C2018 CERAMIC CAPACITOR	CKCYF473Z50

OTHERS

	JA2001 JACK	RKN1002

TRANS 1 UNIT

There is no supply part in this unit.

TRANS 2 UNIT

There is no supply part in this unit.

MAIN UNIT

SEMICONDUCTORS

	IC101 IC	BA15218N
	IC201 DOLBY B/C IC	CXA1330S
	IC202 IC	BA15218N
	IC301 IC	BA15218N
	IC601 DOLBY HX PRO IC	UPC1297CA
	IC761 IC	BA15218N
	IC1101 CPU	PD4311A
⚠	IC1301 REGULATOR IC	NJM78M05FA
	IC1601 IC	BA15218N
⚠	IC1901 REGULATOR IC	TA7812S
	Q101, 102 TRANSISTOR	DTC124ES
	Q103-106 TRANSISTOR	2SC3311A
	Q107, 108 TRANSISTOR	DTC124ES
	Q110 TRANSISTOR	DTA124ES
	Q111, 112 N-FET	2SK373
	Q113, 114 TRANSISTOR	2SC3311A
	Q115, 116 TRANSISTOR	DTC124ES
	Q117, 118 N-FET	2SK246

Parts List

Mark	No.	Description	Part No.
	1	ASS'Y HOLDER HEAD	RXA1416
	2	FLAME HEAD	RNK1715
	3	LEVER HEAD	RNK1716
	4	SPRING AZIMUTH	RBK1006
	5	ASS'Y ARM ASSIST	RXA1401
	6	GEAR ARM HEAD	RNK1717
	7	SPRING CASSETTE	RBK1039
	8	EJECT LOCK	RNK1718
	9	CAP REEL	RNK1719
	10	ASS'Y PINCH ARM L	RXA1403
	11	CHASSIS HEAD	RNE1437
	12	ASS'Y PINCH ARM R	RXA1404
	13	ASS'Y ARM PLAY L	RXA1405
	14	GEAR PLAY	RNK1720
	15	ASS'Y ARM PLAY R	RXA1406
	16	CHASSIS OS.	RXA1411
	17	ASS'Y SUB REEL L	RXA1407
⚠	18	SOLENOID	RXP1017
	19	WIRE	RDC1006
	20	ARM RVS	RNK1721
	21	GEAR FF	RNK1723
	22	ASS'Y ARM FR	RXA1412
	23	ASS'Y PULLEY FR	RXA1413
	24	BELT FR	REB1158
	25	SHAFT HOLDER	RNG1048
	26	FLYWHEEL L (CT-W401R/HEMXJ, HBXJ)	RXA1414
		ASS'Y FLYWHEEL L (OTHERS)	RXA1409
	27	SHAFT HOLDER	RNG1005
	28	ARM BRAKE	RNK1724
	29	ASS'Y SUB REEL R	RXA1408
	30	ARM TRIGGER	RNK1722
	31	GEAR CAM	RNK1725
	32	SHAFT HOLDER	RNG1049
	33	FLYWHEEL R (CT-W401R/HEMXJ, HBXJ)	RXA1415
		ASS'Y FLYWHEEL R (OTHERS)	RXA1410
	34	SHAFT HOLDER	RNG1004
	35	WIRE (14P)	RDD1217
	36	HOLDER WIRE	
	37	P.C. BOARD	RNK1683
	38	SWITCH MODE	RSN1020
	39	SWITCH (LEAF)	RSN1019
	40	HALL IC.	DN6851A
	41	BRACKET FW	RNE1438
	42	.....	
	43	ASS'Y MOTOR (CT-W401R/HEMXJ, HBXJ)	RXM1051
		ASS'Y MOTOR(OTHERS)	RXM1052
	44	WIRE	RDD1012
	45	BELT MAIN (CT-W401R/HEMXJ, HBXJ)	REB1162
		BELT MAIN (OTHERS)	REB1159
	46	P.C. BOARD	RNP1348
	47	HOUSING	RKP1397
	48	EJECT LEVER L	RNK1702
	49	COLLAR	RNK1704
	50	WIRE HEAD	RKP1399
	61	SPRING	RBH1282
	62	SPRING	RBH1283
	63	SPRING	RBH1284
	64	SPRING	RBH1286
	65	SPRING	RBH1288
	66	SPRING	RBH1291
	67	SPRING	RBH1285
	68	SPRING	RBH1287
	69	SPRING	RBH1289
	70	SPRING	RBH1290
	71	SPRING	RBH1292
	72	SPRING	RBH1061
	73	SPRING	RBH1060
	74	SPRING	RBH1294
	81	SCREW	RBA1023
	82	SCREW	RBA1027
	83	SCREW	RBA1030
	84	SCREW	PCZ20P040FMC
	85	SCREW	RBA1093
	86	SCREW	RBA1094
	87	SCREW	RBA1086
	88	SCREW	RBA1095
	89	GEAR FW L (CT-W401R/HEMXJ, HBXJ)	RNK1732
	90	GEAR FW R (CT-W401R/HEMXJ, HBXJ)	RNK1733
	101	WASHER	RBF1044
	102	WASHER	WA16D032D025
	103	WASHER	WA26D047D013

4. PCB PARTS LIST

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%)

560Ω	→ 56 × 10¹ → 561	RD1/4PS 5 6 1 J
47kΩ	→ 47 × 10³ → 473	RD1/4PS 4 7 3 J
0.5Ω	→ 0R5	RN2H 0 R 5 K
1Ω	→ 010	RS1P 0 1 0 K

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

5.62kΩ	→ 562 × 10¹ → 5621	RN1/4SR 5 6 2 1 F

Mark	No.	Description	Part No.
LIST OF ASSEMBLIES			
⊙		MOTHER BOARD ASSEMBLY	RWM1485
		├—SUB UNIT	
		├—H. PHONE UNIT	
		├—TRANS 1 UNIT	
		├—TRANS 2 UNIT	
		└—MAIN UNIT	
SUB UNIT			
SEMICONDUCTORS			
	IC2401	LEVEL METER IC	IR2E27A
	D1528-1531	DIODE	1SS254
	D2201-2205	DIODE	1SS254
	D2301-2308	DIODE	1SS254
	D2401-2404	LED	SEL4914D
	D2405, 2406	LED	SEL4914D
	D2407-2410	LED	SEL4214R
	D2411-2414	LED	SEL4914D
	D2416	LED	SEL4214R
	D2418	LED	SEL4214R
	D2419-2421	LED	SEL4914D
	D2422, 2423	LED	SEL4214R
	D2425-2429	DIODE	1SS254
	D2432	LED	SEL4914D
	D2435, 2436	LED	SEL4914D
SWITCHES			
	S1501, 1502	SWITCH	RSH1014
	S2201-2205	SWITCH	RSG1034
	S2301-2308	SWITCH	RSG1034
	S2401	SWITCH	RSH1014
	S2404-2406	SWITCH	RSG1034
CAPACITORS			
	C2401, 2402	ELECTR. CAPACITOR	CEAS100M50
RESISTORS			
	R1512, 1513	CARBONFILM RESISTOR	RD1/6PM□□□J
	R2401-2404	CARBONFILM RESISTOR	RD1/6PM□□□J
	R2406	CARBONFILM RESISTOR	RD1/6PM□□□J
	R2408-2411	CARBONFILM RESISTOR	RD1/6PM□□□J
	R2414, 2415	CARBONFILM RESISTOR	RD1/6PM□□□J
	R2001, 2002	CARBONFILM RESISTOR	RD1/6PM332J
	R2419, 2420	CARBONFILM RESISTOR	RD1/6PM□□□J
	R2435, 2436	CARBONFILM RESISTOR	RD1/6PM□□□J
	VR2002	VARIABLE RESISTOR(5K)	RCV1057
H.PHONE UNIT			
CAPACITORS			
	C2018	CERAMIC CAPACITOR	CKCYF473Z50
OTHERS			
	JA2001	JACK	RKN1002
TRANS 1 UNIT			
There is no supply part in this unit.			
TRANS 2 UNIT			
There is no supply part in this unit.			
MAIN UNIT			
SEMICONDUCTORS			
	IC101	IC	BA15218N
	IC201	DOLBY B/C IC	CXA1330S
	IC202	IC	BA15218N
	IC301	IC	BA15218N
	IC601	DOLBY HX PRO IC	UPC1297CA
	IC761	IC	BA15218N
	IC1101	CPU	PD4311A
⚠	IC1301	REGULATOR IC	NJM78M05FA
	IC1601	IC	BA15218N
⚠	IC1901	REGULATOR IC	TA7812S
	Q101, 102	TRANSISTOR	DTC124ES
	Q103-106	TRANSISTOR	2SC3311A
	Q107, 108	TRANSISTOR	DTC124ES
	Q110	TRANSISTOR	DTA124ES
	Q111, 112	N-FET	2SK373
	Q113, 114	TRANSISTOR	2SC3311A
	Q115, 116	TRANSISTOR	DTC124ES
	Q117, 118	N-FET	2SK246

Parts List

Mark	No.	Description	Part No.
	1	ASS'Y HOLDER HEAD	RXA1416
	2	FLAME HEAD	RNK1715
	3	LEVER HEAD	RNK1716
	4	SPRING AZIMUTH	RBK1006
	5	ASS'Y ARM ASSIST	RXA1401
	6	GEAR ARM HEAD	RNK1717
	7	SPRING CASSETTE	RBK1039
	8	EJECT LOCK	RNK1718
	9	CAP REEL	RNK1719
	10	ASS'Y PINCH ARM L	RXA1403
	11	CHASSIS HEAD	RNE1437
	12	ASS'Y PINCH ARM R	RXA1404
	13	ASS'Y ARM PLAY L	RXA1405
	14	GEAR PLAY	RNK1720
	15	ASS'Y ARM PLAY R	RXA1406
	16	CHASSIS OS.	RXA1411
	17	ASS'Y SUB REEL L	RXA1407
⚠	18	SOLENOID	RXP1017
	19	WIRE	RDC1006
	20	ARM RVS	RNK1721
	21	GEAR FF	RNK1723
	22	ASS'Y ARM FR	RXA1412
	23	ASS'Y PULLEY FR	RXA1413
	24	BELT FR	REB1158
	25	SHAFT HOLDER	RNG1048
	26	FLYWHEEL L (CT-W401R/HEMXJ, HBXJ)	RXA1414
		ASS'Y FLYWHEEL L (OTHERS)	RXA1409
	27	SHAFT HOLDER	RNG1005
	28	ARM BRAKE	RNK1724
	29	ASS'Y SUB REEL R	RXA1408
	30	ARM TRIGGER	RNK1722
	31	GEAR CAM	RNK1725
	32	SHAFT HOLDER	RNG1049
	33	FLYWHEEL R (CT-W401R/HEMXJ, HBXJ)	RXA1415
		ASS'Y FLYWHEEL R (OTHERS)	RXA1410
	34	SHAFT HOLDER	RNG1004
	35	WIRE (14P)	RDD1217
	36	HOLDER WIRE	
	37	P.C. BOARD	RNK1683
	38	SWITCH MODE	RSN1020
	39	SWITCH (LEAF)	RSN1019
	40	HALL IC.	DN6851A
	41	BRACKET FW	RNE1438
	42	.....	
	43	ASS'Y MOTOR (CT-W401R/HEMXJ, HBXJ)	RXM1051
		ASS'Y MOTOR(OTHERS)	RXM1052
	44	WIRE	RDD1012
	45	BELT MAIN (CT-W401R/HEMXJ, HBXJ)	REB1162
		BELT MAIN (OTHERS)	REB1159
	46	P.C. BOARD	RNP1348
	47	HOUSING	RKP1397
	48	EJECT LEVER L	RNK1702
	49	COLLAR	RNK1704
	50	WIRE HEAD	RKP1399
	61	SPRING	RBH1282
	62	SPRING	RBH1283
	63	SPRING	RBH1284
	64	SPRING	RBH1286
	65	SPRING	RBH1288
	66	SPRING	RBH1291
	67	SPRING	RBH1285
	68	SPRING	RBH1287
	69	SPRING	RBH1289
	70	SPRING	RBH1290
	71	SPRING	RBH1292
	72	SPRING	RBH1061
	73	SPRING	RBH1060
	74	SPRING	RBH1294
	81	SCREW	RBA1023
	82	SCREW	RBA1027
	83	SCREW	RBA1030
	84	SCREW	PCZ20P040FMC
	85	SCREW	RBA1093
	86	SCREW	RBA1094
	87	SCREW	RBA1086
	88	SCREW	RBA1095
	89	GEAR FW L (CT-W401R/HEMXJ, HBXJ)	RNK1732
	90	GEAR FW R (CT-W401R/HEMXJ, HBXJ)	RNK1733
	101	WASHER	RBF1044
	102	WASHER	WA16D032D025
	103	WASHER	WA26D047D013

4. PCB PARTS LIST

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 5 6 1 J
47k Ω → 47 × 10³ → 473 ..... RD1/4PS 4 7 3 J
0.5 Ω → 0R5 ..... RN2H 0 R 5 K
1 Ω → 010 ..... RS1P 0 1 0 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 5 6 2 1 F

Mark	No.	Description	Part No.

LIST OF ASSEMBLIES

⊙		MOTHER BOARD ASSEMBLY	RWM1485
		├—SUB UNIT	
		├—H. PHONE UNIT	
		├—TRANS 1 UNIT	
		├—TRANS 2 UNIT	
		└—MAIN UNIT	

SUB UNIT

SEMICONDUCTORS

	IC2401 LEVEL METER IC	IR2E27A
	D1528-1531 DIODE	1SS254
	D2201-2205 DIODE	1SS254
	D2301-2308 DIODE	1SS254
	D2401-2404 LED	SEL4914D
	D2405, 2406 LED	SEL4914D
	D2407-2410 LED	SEL4214R
	D2411-2414 LED	SEL4914D
	D2416 LED	SEL4214R
	D2418 LED	SEL4214R
	D2419-2421 LED	SEL4914D
	D2422, 2423 LED	SEL4214R
	D2425-2429 DIODE	1SS254
	D2432 LED	SEL4914D
	D2435, 2436 LED	SEL4914D

SWITCHES

	S1501, 1502 SWITCH	RSH1014
	S2201-2205 SWITCH	RSG1034
	S2301-2308 SWITCH	RSG1034
	S2401 SWITCH	RSH1014
	S2404-2406 SWITCH	RSG1034

CAPACITORS

	C2401, 2402 ELECTR. CAPACITOR	CEAS100M50

RESISTORS

	R1512, 1513 CARBONFILM RESISTOR	RD1/6PM□□□J
	R2401-2404 CARBONFILM RESISTOR	RD1/6PM□□□J
	R2406 CARBONFILM RESISTOR	RD1/6PM□□□J
	R2408-2411 CARBONFILM RESISTOR	RD1/6PM□□□J
	R2414, 2415 CARBONFILM RESISTOR	RD1/6PM□□□J
	R2001, 2002 CARBONFILM RESISTOR	RD1/6PM332J
	R2419, 2420 CARBONFILM RESISTOR	RD1/6PM□□□J
	R2435, 2436 CARBONFILM RESISTOR	RD1/6PM□□□J
	VR2002 VARIABLE RESISTOR(5K)	RCV1057

H.PHONE UNIT

CAPACITORS

	C2018 CERAMIC CAPACITOR	CKCYF473Z50

OTHERS

	JA2001 JACK	RKN1002

TRANS 1 UNIT

There is no supply part in this unit.

TRANS 2 UNIT

There is no supply part in this unit.

MAIN UNIT

SEMICONDUCTORS

	IC101 IC	BA15218N
	IC201 DOLBY B/C IC	CXA1330S
	IC202 IC	BA15218N
	IC301 IC	BA15218N
	IC601 DOLBY HX PRO IC	UPC1297CA
	IC761 IC	BA15218N
	IC1101 CPU	PD4311A
⚠	IC1301 REGULATOR IC	NJM78M05FA
	IC1601 IC	BA15218N
⚠	IC1901 REGULATOR IC	TA7812S
	Q101, 102 TRANSISTOR	DTC124ES
	Q103-106 TRANSISTOR	2SC3311A
	Q107, 108 TRANSISTOR	DTC124ES
	Q110 TRANSISTOR	DTA124ES
	Q111, 112 N-FET	2SK373
	Q113, 114 TRANSISTOR	2SC3311A
	Q115, 116 TRANSISTOR	DTC124ES
	Q117, 118 N-FET	2SK246

Parts List

Mark	No.	Description	Part No.
	1	ASS'Y HOLDER HEAD	RXA1416
	2	FLAME HEAD	RNK1715
	3	LEVER HEAD	RNK1716
	4	SPRING AZIMUTH	RBK1006
	5	ASS'Y ARM ASSIST	RXA1401
	6	GEAR ARM HEAD	RNK1717
	7	SPRING CASSETTE	RBK1039
	8	EJECT LOCK	RNK1718
	9	CAP REEL	RNK1719
	10	ASS'Y PINCH ARM L	RXA1403
	11	CHASSIS HEAD	RNE1437
	12	ASS'Y PINCH ARM R	RXA1404
	13	ASS'Y ARM PLAY L	RXA1405
	14	GEAR PLAY	RNK1720
	15	ASS'Y ARM PLAY R	RXA1406
	16	CHASSIS OS.	RXA1411
	17	ASS'Y SUB REEL L	RXA1407
⚠	18	SOLENOID	RXP1017
	19	WIRE	RDC1006
	20	ARM RVS	RNK1721
	21	GEAR FF	RNK1723
	22	ASS'Y ARM FR	RXA1412
	23	ASS'Y PULLEY FR	RXA1413
	24	BELT FR	REB1158
	25	SHAFT HOLDER	RNG1048
	26	FLYWHEEL L (CT-W401R/HEMXJ, HBXJ)	RXA1414
		ASS'Y FLYWHEEL L (OTHERS)	RXA1409
	27	SHAFT HOLDER	RNG1005
	28	ARM BRAKE	RNK1724
	29	ASS'Y SUB REEL R	RXA1408
	30	ARM TRIGGER	RNK1722
	31	GEAR CAM	RNK1725
	32	SHAFT HOLDER	RNG1049
	33	FLYWHEEL R (CT-W401R/HEMXJ, HBXJ)	RXA1415
		ASS'Y FLYWHEEL R (OTHERS)	RXA1410
	34	SHAFT HOLDER	RNG1004
	35	WIRE (14P)	RDD1217
	36	HOLDER WIRE	
	37	P.C. BOARD	RNK1683
	38	SWITCH MODE	RSN1020
	39	SWITCH (LEAF)	RSN1019
	40	HALL IC.	DN6851A
	41	BRACKET FW	RNE1438
	42	.....	
	43	ASS'Y MOTOR (CT-W401R/HEMXJ, HBXJ)	RXM1051
		ASS'Y MOTOR(OTHERS)	RXM1052
	44	WIRE	RDD1012
	45	BELT MAIN (CT-W401R/HEMXJ, HBXJ)	REB1162
		BELT MAIN (OTHERS)	REB1159
	46	P.C. BOARD	RNP1348
	47	HOUSING	RKP1397
	48	EJECT LEVER L	RNK1702
	49	COLLAR	RNK1704
	50	WIRE HEAD	RKP1399
	61	SPRING	RBH1282
	62	SPRING	RBH1283
	63	SPRING	RBH1284
	64	SPRING	RBH1286
	65	SPRING	RBH1288
	66	SPRING	RBH1291
	67	SPRING	RBH1285
	68	SPRING	RBH1287
	69	SPRING	RBH1289
	70	SPRING	RBH1290
	71	SPRING	RBH1292
	72	SPRING	RBH1061
	73	SPRING	RBH1060
	74	SPRING	RBH1294
	81	SCREW	RBA1023
	82	SCREW	RBA1027
	83	SCREW	RBA1030
	84	SCREW	PCZ20P040FMC
	85	SCREW	RBA1093
	86	SCREW	RBA1094
	87	SCREW	RBA1086
	88	SCREW	RBA1095
	89	GEAR FW L (CT-W401R/HEMXJ, HBXJ)	RNK1732
	90	GEAR FW R (CT-W401R/HEMXJ, HBXJ)	RNK1733
	101	WASHER	RBF1044
	102	WASHER	WA16D032D025
	103	WASHER	WA26D047D013

4. PCB PARTS LIST

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 5 6 1 J
47k Ω → 47 × 10³ → 473 ····· RD1/4PS 4 7 3 J
0.5 Ω → 0R5 ····· RN2H 0 R 5 K
1 Ω → 010 ····· RS1P 0 1 0 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 5 6 2 1 F

Mark	No.	Description	Part No.
		LIST OF ASSEMBLIES	
⊙		MOTHER BOARD ASSEMBLY	RWM1485
		├—SUB UNIT	
		├—H. PHONE UNIT	
		├—TRANS 1 UNIT	
		├—TRANS 2 UNIT	
		└—MAIN UNIT	
		SUB UNIT	
		SEMICONDUCTORS	
	IC2401	LEVEL METER IC	IR2E27A
	D1528-1531	DIODE	1SS254
	D2201-2205	DIODE	1SS254
	D2301-2308	DIODE	1SS254
	D2401-2404	LED	SEL4914D
	D2405, 2406	LED	SEL4914D
	D2407-2410	LED	SEL4214R
	D2411-2414	LED	SEL4914D
	D2416	LED	SEL4214R
	D2418	LED	SEL4214R
	D2419-2421	LED	SEL4914D
	D2422, 2423	LED	SEL4214R
	D2425-2429	DIODE	1SS254
	D2432	LED	SEL4914D
	D2435, 2436	LED	SEL4914D
		SWITCHES	
	S1501, 1502	SWITCH	RSH1014
	S2201-2205	SWITCH	RSG1034
	S2301-2308	SWITCH	RSG1034
	S2401	SWITCH	RSH1014
	S2404-2406	SWITCH	RSG1034
		CAPACITORS	
	C2401, 2402	ELECTR. CAPACITOR	CEAS100M50
		RESISTORS	
	R1512, 1513	CARBONFILM RESISTOR	RD1/6PM□□□J
	R2401-2404	CARBONFILM RESISTOR	RD1/6PM□□□J
	R2406	CARBONFILM RESISTOR	RD1/6PM□□□J
	R2408-2411	CARBONFILM RESISTOR	RD1/6PM□□□J
	R2414, 2415	CARBONFILM RESISTOR	RD1/6PM□□□J
	R2001, 2002	CARBONFILM RESISTOR	RD1/6PM332J
	R2419, 2420	CARBONFILM RESISTOR	RD1/6PM□□□J
	R2435, 2436	CARBONFILM RESISTOR	RD1/6PM□□□J
	VR2002	VARIABLE RESISTOR(5K)	RCV1057
		H.PHONE UNIT	
		CAPACITORS	
	C2018	CERAMIC CAPACITOR	CKCYF473Z50
		OTHERS	
	JA2001	JACK	RKN1002
		TRANS 1 UNIT	
		There is no supply part in this unit.	
		TRANS 2 UNIT	
		There is no supply part in this unit.	
		MAIN UNIT	
		SEMICONDUCTORS	
	IC101	IC	BA15218N
	IC201	DOLBY B/C IC	CXA1330S
	IC202	IC	BA15218N
	IC301	IC	BA15218N
	IC601	DOLBY HX PRO IC	UPC1297CA
	IC761	IC	BA15218N
	IC1101	CPU	PD4311A
⚠	IC1301	REGULATOR IC	NJM78M05FA
	IC1601	IC	BA15218N
⚠	IC1901	REGULATOR IC	TA7812S
	Q101, 102	TRANSISTOR	DTC124ES
	Q103-106	TRANSISTOR	2SC3311A
	Q107, 108	TRANSISTOR	DTC124ES
	Q110	TRANSISTOR	DTA124ES
	Q111, 112	N-FET	2SK373
	Q113, 114	TRANSISTOR	2SC3311A
	Q115, 116	TRANSISTOR	DTC124ES
	Q117, 118	N-FET	2SK246

Mark	No.	Description	Part No.
	Q119	TRANSISTOR	DTA124ES
	Q120	TRANSISTOR	DTC124ES
	Q121, 122	N-FET	2SK246
	Q123-126	DIGITAL TRANSISTOR	DTC114TS
	Q127	TRANSISTOR	DTC124ES
	Q201, 202	TRANSISTOR	2SD2144S
	Q203, 204	TRANSISTOR	DTC124ES
	Q301-308	TRANSISTOR	DTC114ES
	Q309-312	TRANSISTOR	2SD2144S
	Q401, 402	TRANSISTOR	2SC1815
	Q403	TRANSISTOR	2SD2144S
	Q404, 405	DIGITAL TRANSISTOR	DTC114TS
	Q409, 410	TRANSISTOR	2SB1238X
	Q601, 602	TRANSISTOR	2SA1309A
	Q603	TRANSISTOR	DTC124ES
	Q701	TRANSISTOR	2SA1309A
	Q702, 703	TRANSISTOR	2SC3311A
	Q704	TRANSISTOR	DTA114TS
	Q705	TRANSISTOR	2SA1309A
	Q762	TRANSISTOR	DTC124ES
	Q801	TRANSISTOR	2SC3311A
	Q802	TRANSISTOR	2SA1309A
	Q803	TRANSISTOR	DTC124ES
	Q804	TRANSISTOR	2SA1286
	Q805	TRANSISTOR	DTC124ES
	Q807	TRANSISTOR	2SD1858X
	Q810	TRANSISTOR	2SA1309A
	Q851	TRANSISTOR	2SC3311A
	Q852	TRANSISTOR	2SA1309A
	Q853	TRANSISTOR	DTC124ES
	Q854	TRANSISTOR	2SA1286
	Q855	TRANSISTOR	DTC124ES
	Q857	TRANSISTOR	2SD1858X
	Q860	TRANSISTOR	2SA1309A
	Q915	TRANSISTOR	DTC124ES
	Q921	TRANSISTOR	DTC124ES
	Q1101	TRANSISTOR	2SA1309A
	Q1120, 1121	TRANSISTOR	2SA1309A
	D101-108	DIODE	1SS254
	D121, 122	DIODE	1SS254
	D135, 136	DIODE	1SS254
	D401	DIODE	1SS254
	D402	DIODE	1SS252
	D403, 404	DIODE	1SS254
	D411, 412	DIODE	1SS254
	D601, 602	DIODE	1SS254
	D701, 702	DIODE	1SS254
	D761, 762	DIODE	1SS254
	D801	DIODE	1SS252
	D851	DIODE	1SS252
	D906-908	DIODE	1SS254
	D1101	ZENER DIODE	MTZJ4.3B
	D1102-1104	DIODE	1SS254
	D1107-1109	DIODE	1SS254

Mark	No.	Description	Part No.
	D1124-1129	DIODE	1SS254
⚠	D1201		S2VB20
	D1203, 1204	DIODE	1SS254
⚠	D1205	DIODE	1SR35-100AVL
⚠	D1301	DIODE	1SS252
⚠	D1303	DIODE	1SS252
⚠	D1304	ZENER DIODE	MTZJ5.1B
SWITCHES			
⚠	S1201	SWITCH	RSA-069
COILS/TRANSFORMERS			
	L101, 102	COIL	RTF1099
	L301, 302	COIL	RTF1102
	L303, 304	COIL	RTF1124
	L401	RADIAL INDUCTOR	LRA121K
	L402	COIL	RTD1063
	L601, 602	COIL	RTD1046
	F201, 202	FILTER	RTF1062
CAPACITORS			
	C101, 102	AXIAL CAPACITOR	CKPUYB331K50
	C103, 104	AXIAL CAPACITOR	CKPUYB391K50
	C105, 106	AXIAL CAPACITOR	CKPUYB101K50
	C107, 108	ELECTR. CAPACITOR	CEANL100M16
	C109, 110	AUDIO FILM CAPACITOR	CFTXA682J50
	C111, 112	ELECTR. CAPACITOR	CEAS100M50
	C115, 116	CERAMIC CAPACITOR	CKPUYB102K50
	C117	ELECTR. CAPACITOR	CEAS101M25
	C118	CERAMIC CAPACITOR	CKCYF103Z50
	C119	ELECTR. CAPACITOR	CEAS470M16
	C121, 122	AXIAL CERAMIC C.	CCPUSL100J50
	C123, 124	AXIAL CAPACITOR	CKPUYB391K50
	C125, 126	CERAMIC CAPACITOR	CCCSL331J50
	C127, 128	AXIAL CERAMIC C.	CCPUSL100J50
	C135, 136	AXIAL CERAMIC C.	CCPUSL100J50
	C143, 144	ELECTR. CAPACITOR	CEANL220M16
	C145	CERAMIC CAPACITOR	CKCYF103Z50
	C201-204	ELECTR. CAPACITOR	CEAS010M50
	C205, 206	ELECTR. CAPACITOR	CEAS100M50
	C207, 208	ELECTR. CAPACITOR	CEAS010M50
	C209, 210	ELECTR. CAPACITOR	CEAS4R7M50
	C211-214	AUDIO FILM CAPACITOR	CFTXA222J50
	C215, 216	ELECTR. CAPACITOR	CEASR22M50
	C217, 218	ELECTR. CAPACITOR	CEASR33M50
	C219, 220	ELECTR. CAPACITOR	CEAS4R7M50
	C221	ELECTR. CAPACITOR	CEAS100M50
	C223, 224	ELECTR. CAPACITOR	CEASR33M50
	C230	ELECTR. CAPACITOR	CEAS470M16
	C231	ELECTR. CAPACITOR	CEAS100M50
	C238	CERAMIC CAPACITOR	CKCYF473Z50
	C239, 240	CERAMIC CAPACITOR	CGCYX822K25
	C245, 246	ELECTR. CAPACITOR	CEAS100M50
	C247	ELECTR. CAPACITOR	CEAS470M16
	C248, 249	AXIAL CAPACITOR	CKPUYB101K50
	C250, 251	ELECTR. CAPACITOR	CEAS100M50

Mark	No.	Description	Part No.
	C252	ELECTR. CAPACITOR	CEAS470M16
	C255, 256	ELECTR. CAPACITOR	CEASR10M50
	C301, 302	AXIAL CAPACITOR	CKPUYB221K50
	C303, 304	CERAMIC CAPACITOR	CGCYX472K25
	C305, 306	CERAMIC CAPACITOR	CGCYX183K25
	C307, 308	CERAMIC CAPACITOR	CGCYX123K25
	C309, 310	CERAMIC CAPACITOR	CGCYX272K25
	C311, 312	CERAMIC CAPACITOR	CGCYX472K25
	C313, 314	ELECTR. CAPACITOR	CEAS4R7M50
	C315, 316	ELECTR. CAPACITOR	CEASR22M50
	C317, 318	ELECTR. CAPACITOR	CEAS100M50
	C319, 320	AUDIO FILM CAPACITOR	CFTXA332J50
	C321	ELECTR. CAPACITOR	CEAS470M16
	C322	ELECTR. CAPACITOR	CEAS010M50
	C323	ELECTR. CAPACITOR	CEAS470M16
	C324	ELECTR. CAPACITOR	CEASR47M50
	C325, 326	ELECTR. CAPACITOR	CEAS010M50
	C401	ELECTR. CAPACITOR	CEAS100M50
	C402, 403	ELECTR. CAPACITOR	CEAS470M16
	C404	AUDIO FILM CAPACITOR	CFTXA223J50
	C405-407	AUDIO FILM CAPACITOR	CFTXA332J50
	C408	ELECTR. CAPACITOR	CEAS470M16
	C411	CAPACITOR	CQPA682J100
	C601, 602	AUDIO FILM CAPACITOR	CFTXA103J50
	C603, 604	AXIAL CAPACITOR	CKPUYB821K50
	C605, 606	AUDIO FILM CAPACITOR	CFTXA223J50
	C607, 608	CERAMIC CAPACITOR	CGCYX473K25
	C609, 610	CERAMIC CAPACITOR	CCCSL101K500
	C611, 612	CERAMIC CAPACITOR	RCG1005
	C613	AXIAL CAPACITOR	CKPUYB101K50
	C614	ELECTR. CAPACITOR	CEASR10M50
	C615	ELECTR. CAPACITOR	CEAS100M50
	C616	ELECTR. CAPACITOR	CEAS4R7M50
	C617	ELECTR. CAPACITOR	CEAS100M50
	C701	ELECTR. CAPACITOR	CEAS4R7M50
	C702	ELECTR. CAPACITOR	CEAS470M16
	C762	AXIAL CAPACITOR	CKPUYB101K50
	C763	ELECTR. CAPACITOR	CEASR47M50
	C764	AXIAL CAPACITOR	CKPUYB271K50
	C765	ELECTR. CAPACITOR	CEASR22M50
	C801	AXIAL CAPACITOR	CKPUYB681K50
	C851	AXIAL CAPACITOR	CKPUYB681K50
	C910-912	CERAMIC CAPACITOR	CKCYF103Z50
	C1101	CERAMIC CAPACITOR	CKCYF103Z50
	C1102	ELECTR. CAPACITOR	CEAS470M16
	C1106, 1107	CERAMIC CAPACITOR	CKCYF103Z50
	C1201, 1202	CERAMIC CAPACITOR	CKCYF473Z50
	C1203	ELECTR. CAPACITOR	CEAS222M35
	C1204	ELECTR. CAPACITOR	CEAS221M16
	C1205	AUDIO FILM CAPACITOR	CFTXA104J50
	C1207	ELECTR. CAPACITOR	CEAS222M16
	C1208, 1209	CERAMIC CAPACITOR	CKCYF473Z50
	C1210	ERECTR. CARPACITOR	CEAS222M16
	C1301	ELECTR. CAPACITOR	CEAS222M16
	C1302	ELECTR. CAPACITOR	CEAS221M16

Mark	No.	Description	Part No.
	C1303	ELECTR. CAPACITOR	CEAS102M16
	C1304	ELECTR. CAPACITOR	CEAS221M16
	C1305	CERAMIC CAPACITOR	CKCYF473Z50
	C1306	CERAMIC CAPACITOR	CKCYF103Z50
	C1307	ELECTR. CAPACITOR	CEAS100M50
	C1308	CERAMIC CAPACITOR	CKCYF473Z50
	C1601, 1602	ELECTR. CAPACITOR	CEASR10M50
	C1605, 1606	ELECTR. CAPACITOR	CEAS101M25
	C1607	ELECTR. CAPACITOR	CEAS221M16
RESISTORS			
	R101-110	CARBONFILM RESISTOR	RD1/6PM□□□J
	R113-128	CARBONFILM RESISTOR	RD1/6PM□□□J
	R131-137	CARBONFILM RESISTOR	RD1/6PM□□□J
	R138	CARBONFILM RESISTOR	RD1/6PM□□□J
	R140	CARBONFILM RESISTOR	RD1/6PM□□□J
	R145-149	CARBONFILM RESISTOR	RD1/6PM□□□J
	R151-154	CARBONFILM RESISTOR	RD1/6PM□□□J
	R201-209	CARBONFILM RESISTOR	RD1/6PM□□□J
	R214	CARBONFILM RESISTOR	RD1/6PM□□□J
	R229, 230(56Ω)		RCN1029
	R219-228	CARBONFILM RESISTOR	RD1/6PM□□□J
	R242-249	CARBONFILM RESISTOR	RD1/6PM□□□J
	R255, 256	CARBONFILM RESISTOR	RD1/6PM□□□J
	R301-338	CARBONFILM RESISTOR	RD1/6PM□□□J
	R401-406	CARBONFILM RESISTOR	RD1/6PM□□□J
	R411	CARBONFILM RESISTOR	RD1/2LF□□□J
	R412	CARBONFILM RESISTOR	RD1/2LF□□□J
	R413-418	CARBONFILM RESISTOR	RD1/6PM□□□J
	R424	CARBONFILM RESISTOR	RD1/6PM□□□J
	R430	CARBONFILM RESISTOR	RD1/2LF□□□J
	R601-609	CARBONFILM RESISTOR	RD1/6PM□□□J
	R701-709	CARBONFILM RESISTOR	RD1/6OM□□□J
	R711-715	CARBONFILM RESISTOR	RD1/6PM□□□J
	R761-768	CARBONFILM RESISTOR	RD1/6PM□□□J
	R770	CARBONFILM RESISTOR	RD1/6PM□□□J
	R801	CARBONFILM RESISTOR	RD1/6PM□□□J
	R803	CARBONFILM RESISTOR	RD1/6PM□□□J
	R804, 805	METALFILM RESISTOR	RN1/6PQ□□□□F
	R806-810	CARBOMFILM RESISTOR	RD1/6PM□□□J
	R816	CARBONFILM RESISTOR	RD1/6PM□□□J
	R818	CARBONFILM RESISTOR	RN1/6PQ□□□J
	R851	CARBONFILM RESISTOR	RD1/6PM□□□J
	R853	CARBONFILM RESISTOR	RD1/6PM□□□J
	R854, 855	METALFILM RESISTOR	RN1/6PQ□□□□F
	R856-860	CARBONFILM RESISTOR	RD1/6PM□□□J
	R866	CARBONFILM RESISTOR	RD1/6PM□□□J
	R941	CARBONFILM RESISTOR	RD1/6PM□□□J
	R943	CARBONFILM RESISTOR	RD1/6PM□□□J
	R948	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1101-1103	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1106, 1107	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1109	RESISTOR ARRAY(1.5K)	RA7T152J
	R1110	RESISTOR ARRAY (100K)	RA4T104J
	R1111	CARBONFILM RESISTOR	RD1/6PM□□□J
	R1113-1117	CARBONFILM RESISTOR	RD1/6PM□□□J

1. RESISTORS :
   Indicated in Ω, 1／4W, 1／6W, 1／8W, ± 5 % tolerance unless otherwise noted k : kΩ, M : MΩ, (F) : ± 1 %, (G) : ± 2 %, (K) : ± 10 %, (M) : ± 20 % tolerance.

2. CAPACITORS :
   Indicated in capacity (μ F) ／voltage (V) unless otherwise noted p : pF. Indication without voltage is 50V except electrolytic capacitor.

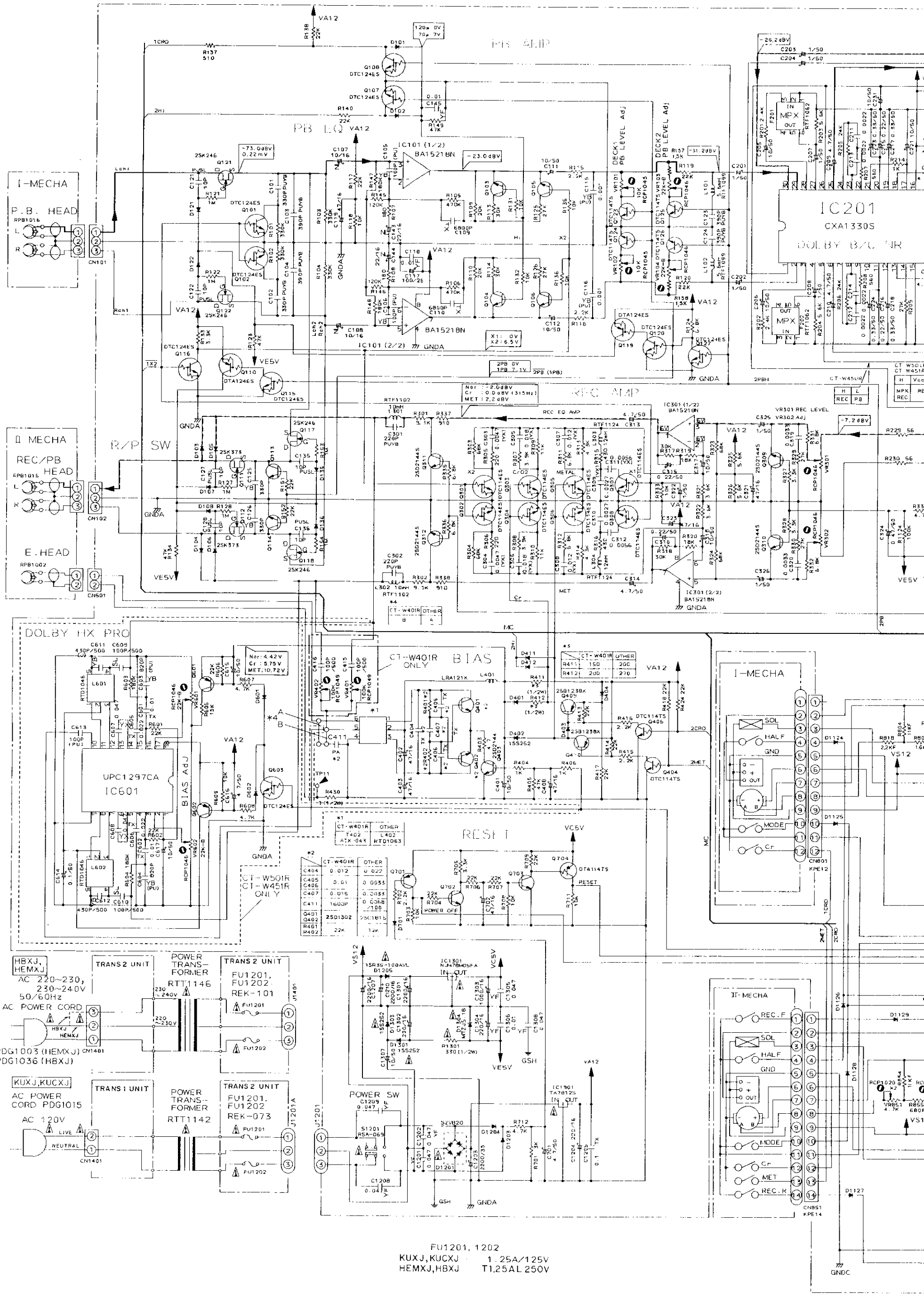
3. VOLTAGE CURRENT :
   ; DC voltage (V) at no input signal.
   Value in ( ) is DC current at stop state.
   ➡mA ; DC current at no input signal.

4. OTHERS :
   ➡ ; Signal route.
   ⊘ ; Adjusting point.
   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.
   ※ marked capacitors and resistors have parts numbers.

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

No.	Mark	No.	Description	Part No.
		R1119	CARBONFILM RESISTOR	RD1/6PM□□□J
		R1121-1124	CARBONFILM RESISTOR	RD1/6PM□□□J
		R1130, 1131	CARBONFILM RESISTOR	RD1/6PM□□□J
		R1147, 1148	CARBONFILM RESISTOR	RD1/6PM□□□J
	⚠	R1301	CARBONFILM RESISTOR	RD1/2LF□□□J
		R1605-1608	CARBONFILM RESISTOR	RD1/6PM□□□J
		R1613-1616	CARBONFILM RESISTOR	RD1/6PM□□□J
		R1617	METALFILM RESISTOR	RS1LF221J
		VR101, 102	VR(10K)	RCP1045
		VR301, 302	VR(22K)	RCP1046
		VR601, 602	VR(22K)	RCP1046
		VR802	VR(4.7K)	RCP1020
		VR103, 104	VR(22K)	RCP1046
		VR851	VR(4.7K)	RCP1020
		VR852	VR(10k)	RCP1045
	OTHERS			
		CN801	CONNECTOR(12P)	KPE12
		CN851	CONNECTOR(14P)	KPE14
		JA201	JACK	RKB-020
		JA901	JACK	PKN1005
		JA902, 903	JACK	RKN1004
		X1101	CERAMIC RESONATOR(4.19MHz)	VSS1014

5. SCHEMATIC DIAGRAMS



MAIN UNIT

CT-W401R/HEMXJ,HBXJ, AND CT-W501R ONLY

SUB UNI

IC201
CXA1330S
DOLBY B/C NR

IC1101
PD4311A

IC202 (1/2) BA15218N
IC202 (2/2) BA15218N
IC761 (1/2) BA15218N
IC761 (2/2) BA15218N
IC301 (1/2) BA15218N
IC301 (2/2) BA15218N
IC1601 (1/2) BA15218N
IC1601 (2/2) BA15218N

IC2401 LR2E27A

I-MECHA
II-MECHA

LINE OUT
FF,REW : -35dBV
PLAY : -43dBV

FF REW STOP 3.6V
PLAY 2.4V

OFF:1.5V
B :5.9V
C :10.3V

KUXJ AND KUCXJ TYPES ONLY

INPUT VR

LEVEL METER

RELAY

VA12
VC5V
VE5V
VS12
VCSV
GNDA
GNDC

S2201~2205, 2301~2308 S240

D2407~2410, 2416, 2418, 2422
D2401~2406, 2411~2414, 2419
2432, 2435, 2436

KUXJ, K
HEMXJ,

NOTE If the parts are not identif
the followings are used.

NPN 2SC3311A PNP 2SA1

PLAY

REC

MAIN UNIT

SUB UNIT

CT-W401R/HEMXJ,HBXJ, AND CT-W501R ONLY

IC202 (1/2) BA15218N

IC202 (2/2) BA15218N

IC1601 (1/2) BA15218N

IC1601 (2/2) BA15218N

H.P

INPUT VR

VR2002 (1/2) RCV1057

VR2002 (2/2) RCV1057

LINE OUT
FF,REW : -35dBV
PLAY : -43dBV

IC761 (1/2) BA15218N

IC761 (2/2) BA15218N

FF REW STOP 3.6V
PLAY 2.4V

LEVEL METER

IC2401
IR2E27A

IC1101
PD4311A

RELAY

KUXJ AND KUCXJ TYPES ONLY

CT-W401R
CT-W501R
ONLY

S2201~2205, 2301~2308 S2404~2406 RSG1034

D2407~2410, 2416, 2418, 2422, 2423 SEL4214R
D2401~2406, 2411~2414, 2419~2421, 2432, 2435, 2436

KUXJ, KUCXJ SEL4914D
HEMXJ, HBXJ SEL4414G

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

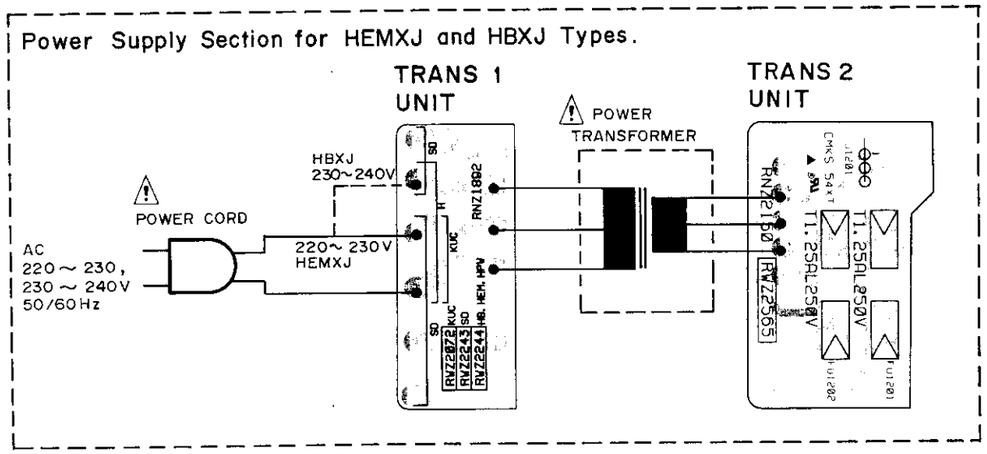
NPN 2SC3311A PNP 2SA1309A 1SS254

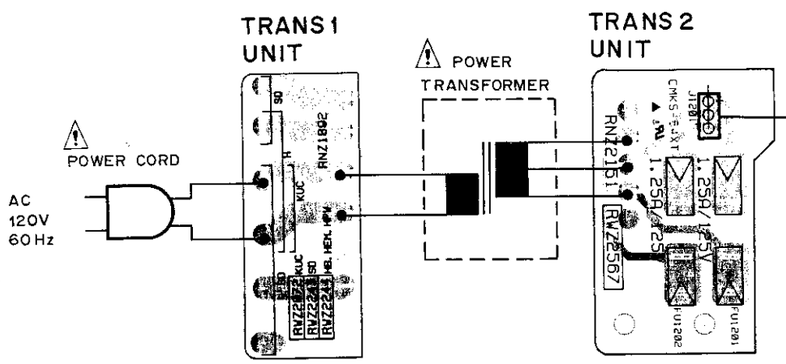
PLAY

REC

6. PCB CONNECTION DIAGRAMS

• View from component side

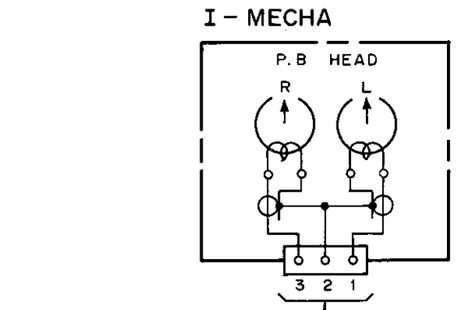


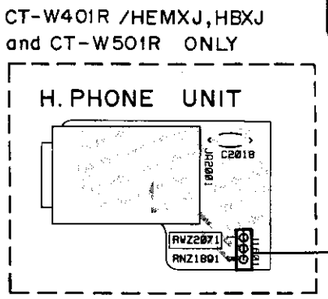


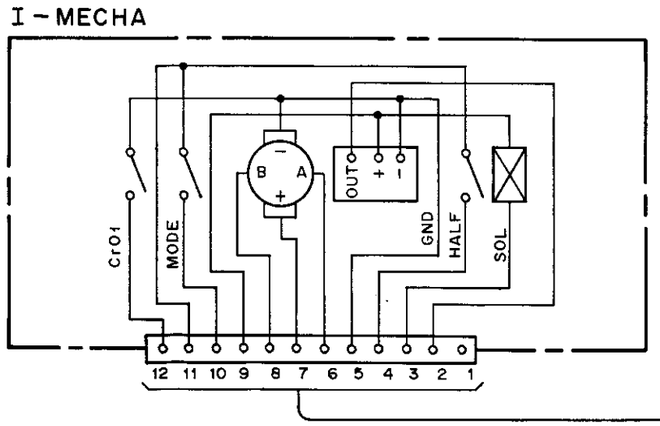
Line Voltage Selection

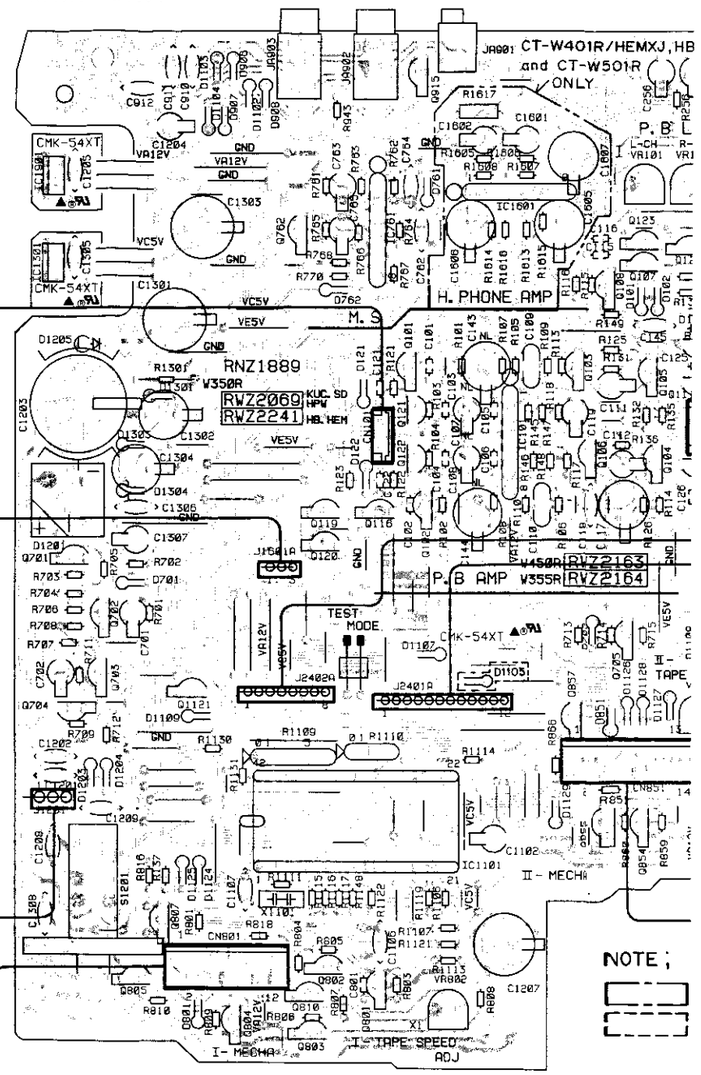
Line voltage can be changed with the following steps.
1. Disconnect the AC power cord.
2. Remove the top cover.
3. Change the connection of the TRNS 1 UNIT primary pins.
4. Stick the line voltage label on the rear panel.

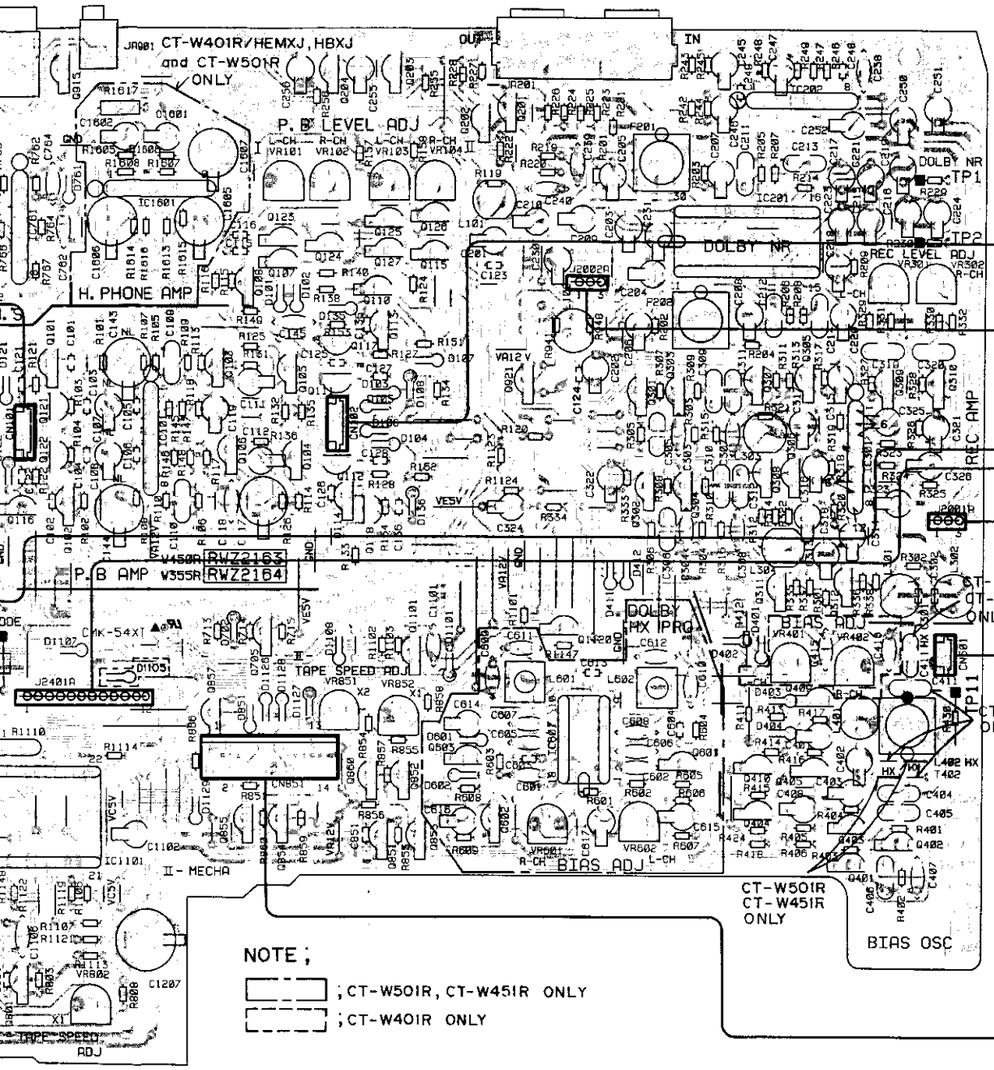
Port NO.	Description
AXX-193	220V label
AXX-192	240V label

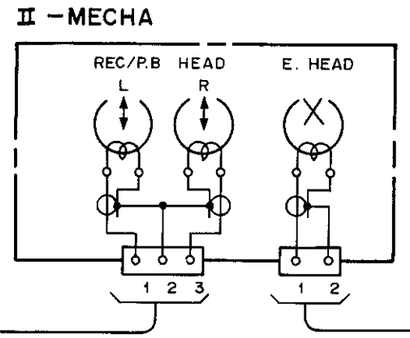


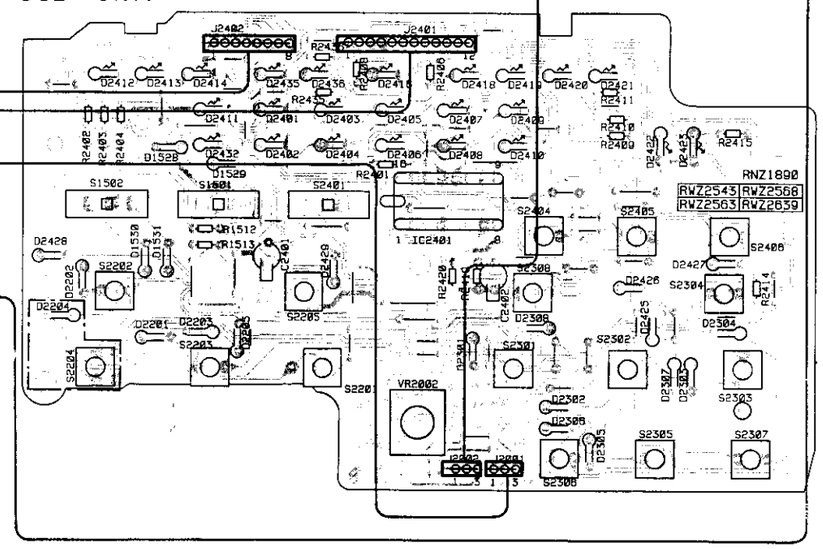


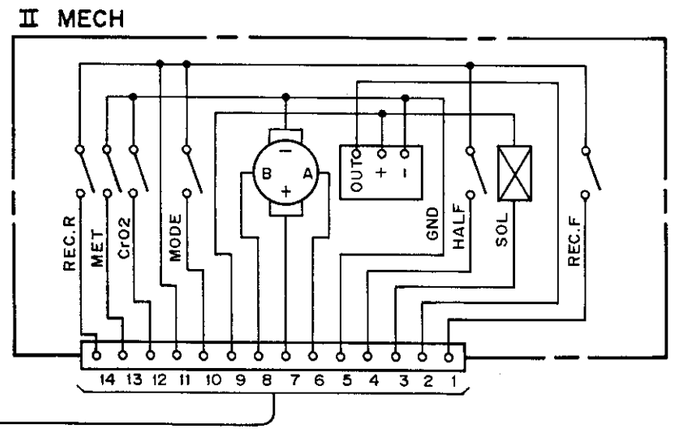






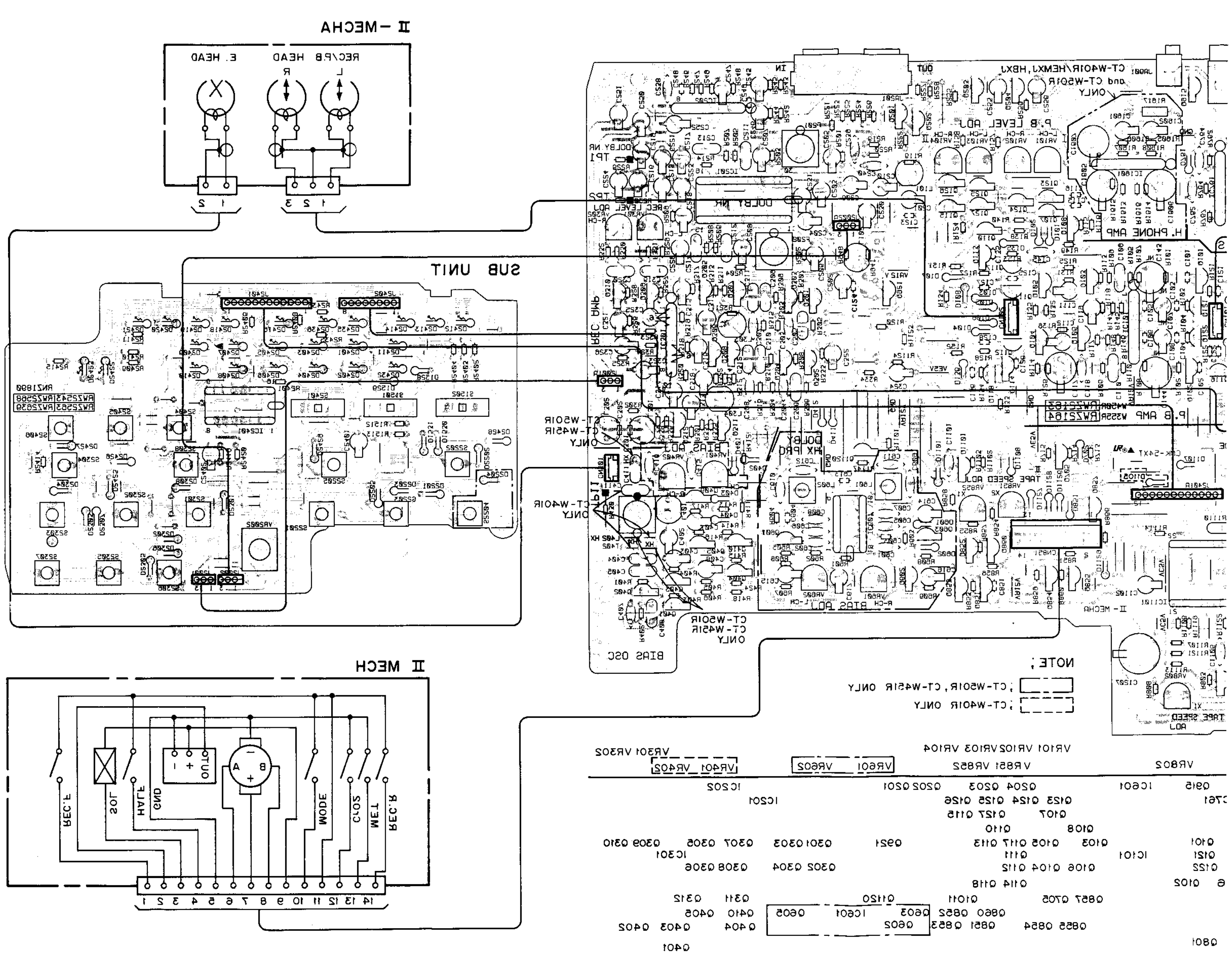


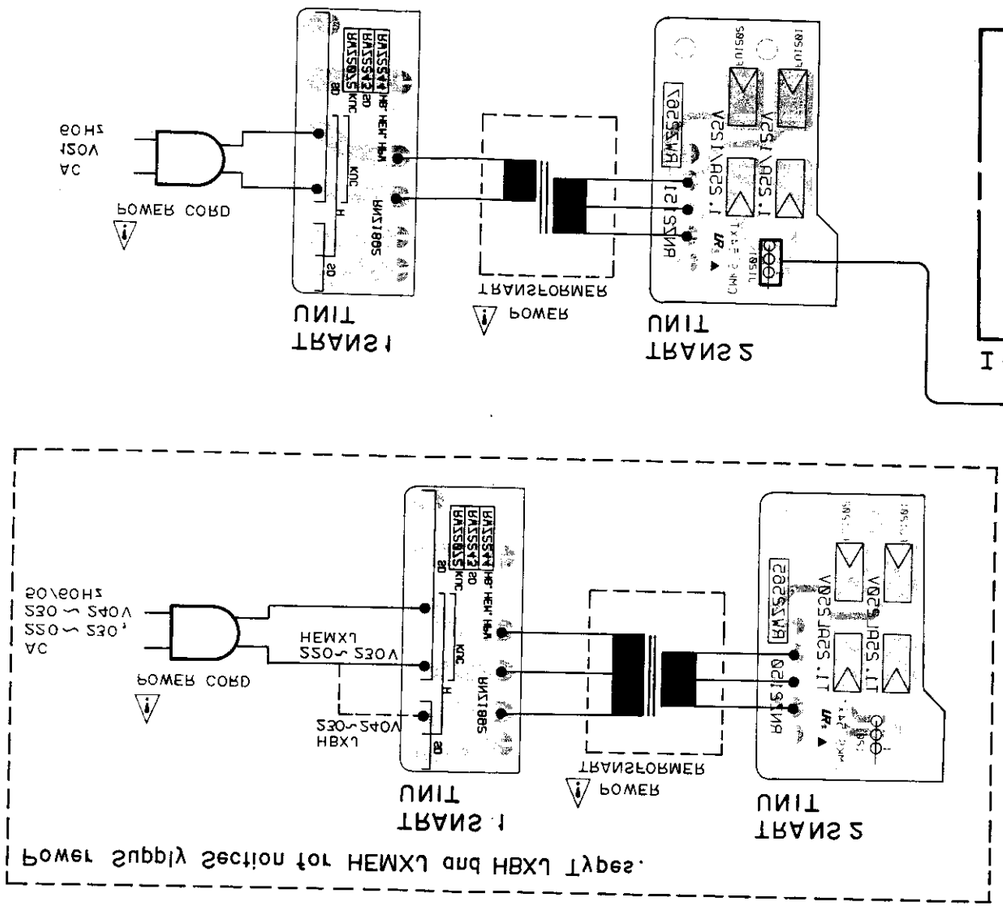




P.C.B. pattern diagram indication	Corresponding part symbol	Part name
		Transistor
		FET
		Diode
		Zenner diode
		LED
		Varactor
		Tact switch
		Inductor
		Coil
		Transformer
		Filter
		Ceramic capacitor
		Mylar capacitor
		Styrol capacitor
		Electrolytic capacitor (Non polarized)
		Electrolytic capacitor (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


II – MECHA
REC/PB HEAD
E. HEAD
SUB UNIT
II MECH
REC AMP
DOLBY NR
P.B LEVEL ADJ
H. PHONE AMP
P.B AMP
TAPE SPEED
BIAS OSC
CT-W501R, CT-W451R ONLY
CT-W401R ONLY
NOTE;
CT-W501R, CT-W451R ONLY
CT-W401R ONLY



6. PCB CONNECTION DIAGRAMS

- View from soldering side

Line Voltage Selection

Line voltage can be changed with the following steps.

1. Disconnect the AC power cord.
2. Remove the top cover.
3. Change the connection of the TRNS 1 UNIT primary pins.
4. Stick the line voltage label on the rear panel.

Part NO.	Description
AXX-193	220V label
AXX-192	240V label

7. ADJUSTMENTS

7.1 MECHANICAL ADJUSTMENT

These adjustments must be performed in the TEST MODE.
- Entering the TEST MODE
  Set the Reverse Mode Switch to ⇄ , and short the TEST MODE jumper wire.
- Releasing the TEST MODE
  Press the STOP keys of DECKs I and II simultaneously.

1. Tape Speed Adjustment and Check

No.	Deck	Mode	Test tape	Adjusting points	Specifications/Ratings (playback frequency)	Remarks
1	I	Normal speed PLAY	STD-301 (3 kHz)	Play back for 1 minute and then press the FF key. *1		
2		Double speed PLAY		check	6000 Hz ±600 Hz	
3		Normal speed PLAY		Press the FF key after checking.		
4	II			Play back for 1 minute and then press the FF key. *1		
5		Double speed PLAY		VR851	Within ±10Hz of step 2 (deck I) check value.	
6		Normal speed PLAY		Press the FF key after checking.		
7	I			VR802	3020 Hz ± 5 Hz	
8	II			VR852	Within ±5 Hz of step 7 (deck I) adjustment value.	

*1: If the FF key is pressed during PLAY, double speed mode is selected.

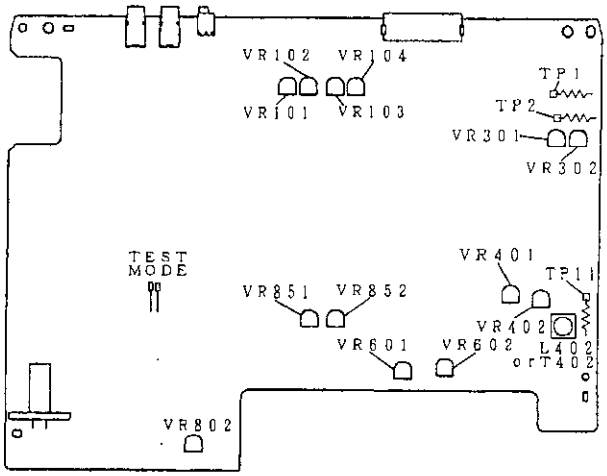


Fig. 7–1 Adjusting points

- Door damping check and adjustment

1. Attach the door spring at position (b) according to fig. 7-2. and stand the front panel assembly straight up as shown in fig. 7-3.
2. Open the doors of DECK I and DECK II simultaneously, and when one of the doors is fully opend, confirm that the difference between the two doors is within 15 mm.
3. If the specification described in steps 1 and 2 above is not satisfied, change the door spring position as follows and adjust.
- When the door of DECK I opens slower than the one of DECK II: Change the DECK II door spring to position (a).
- When the door of DECK I opens faster than the one of DECK II: Change the DECK I door spring to position (a).

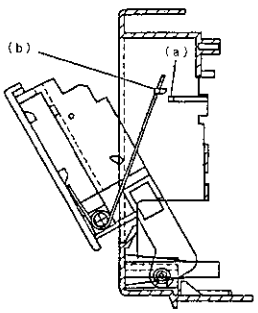


Fig. 7–2

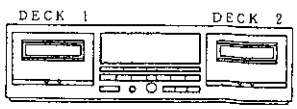


Fig. 7–3

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

Test Tapes

STD–331E : Playback adjustments (See Fig. 7–4)
STD–631 : NORMAL blank tape
STD–620 : CrO_2 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. Recording bias adjustment.
3. Recording level adjustment.
4. Level meter check.

NOTE: This unit has an automatic tape selection feature.

* As the reference recording level is 250 nwb/m for STD–331E, the recording level will be higher by 4 dB for STD–331B (160 nwb/m). When adjusting, pay carefull attention to the type of tape used.

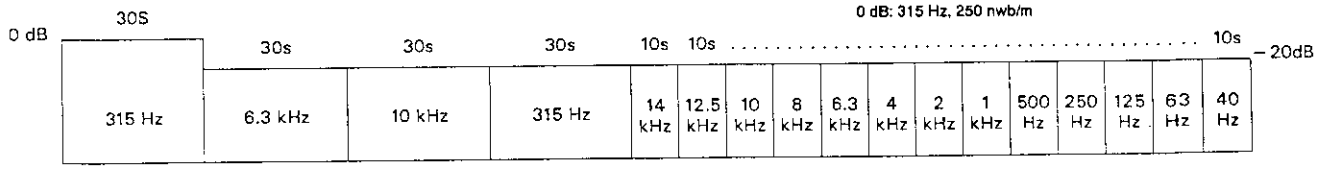
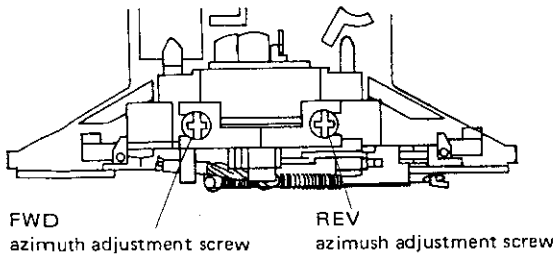


Fig. 7–4 Constants of the test tape STD–331E

CT-W501R, CT-W451R (Deck II), CT-W401R



CT-W451R (Deck I)

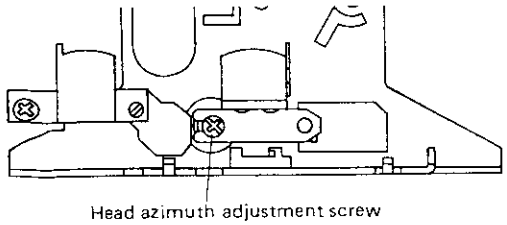
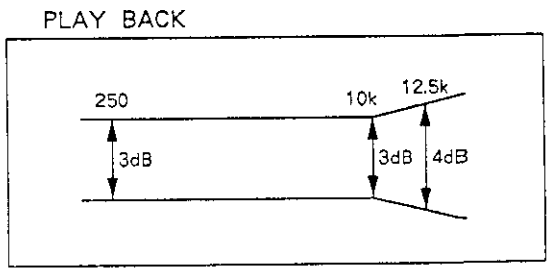


Fig. 7–5 Head azimuth adjustment



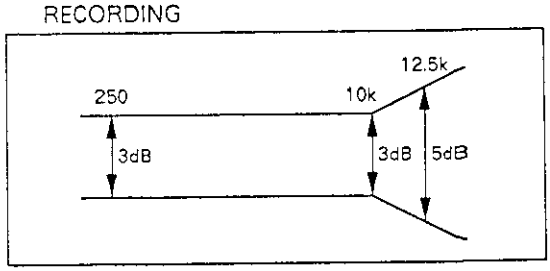


Fig. 7–6 Frequency response zone

PLAYBACK SECTION

1. Head Azimuth Adjustment

• Turn VR101, 102 (Deck I) or VR103, 104 (Deck II) 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–331E test tape.	Head azimuth adjustment screw. (See Fig. 7–5)	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–331E test tape.	Deck I	VR101 (Lch) VR102 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	–6.7 dBV	
			Deck II	VR103 (Lch) VR104 (Rch)			

RECORDING SECTION

NOTE: *1: Others *2: CT-W401R

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 II	L402 *1 T402 *2	TP. 11	106 kHz $^{+3}_{-1}$ kHz	

2. 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	Load the STD–631 test tape. Record the 315 Hz and 6.3 kHz signals at –20 dBV input level and playback.	Deck II	VR601 (Lch) *1 VR602 (Rch)	LINE OUT	Repeatedly record, playback and adjust so that the playback level of 6.3 kHz signal becomes +1.0 dB ± 0.5 dB when compared with the 315 Hz signal.	
				VR401 (Lch) *2 VR402 (Rch)			

3. 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/–4 dB signal to the line Input terminals, load the STD–631 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–631 test tape, and playback.	Deck II	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	

4. Level Meter Check

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	REC PAUSE	Apply a 315 Hz/–6 dBV (0.5V) 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 –7.2 dBV ± 2 dB of the signal output level.	

7. REGLAGES

7.1 REGLAGES MECANIQUES

Ces réglages doivent être réalisés en TEST MODE.
- Commutation de TEST MODE
  Positionner l'inverseur sur ⊂⊃ et court-circuiter le câble de connexion.
- Relâchement de TEST MODE
  Appuyer simultanément sur les touches STOP de DECK I et II.

1. Réglage et vérification de la vitesse de defilement de la bande

No.	Platine	Mode	Bande test	Points de réglage	Spécifications/valeurs (fréquence de lecture)	Remarques
1	I	Lecture à vitesse normale	STD-301 (3 kHz)	Lire pendant 1 minute puis, appuyer sur la touche FF. *1		
2	I	Lecture à vitesse double		Vérifier	6000 Hz ± 600 Hz	
3	I	Lecture à vitesse normale		Appuyer sur la touche FF aprés contrôle.		
4	II	Lecture à vitesse normale		Lire pendant 1 minute puis, appuyer sur la touche FF. *1		
5	II	Lecture à vitesse double		VR851	Dans la limite de ± 10 Hz de la valeur de vérification de 1' étape 2 (platine I)	
6	II	Lecture à vitesse normale		Appuyer sur la touche FF aprés contrôle.		
7	I	Lecture à vitesse normale		VR802	**3020 Hz ± 5 Hz**	
8	II	Lecture à vitesse normale		VR852	Dans la limite de ± 5 Hz de la valeur de réglage de 1'étape 7 (platine I).	

*1: Le mode vitesse double est sélectionné lorsque la touche FF est enfoncée pendant la lecture PLAY.

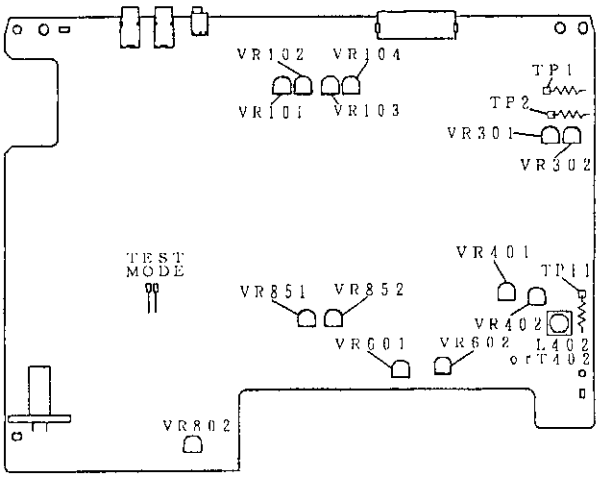


Fig. 7–1 Points de réglage

• Contrôle et réglage de l'amortissement de porte

1. Fixer le ressort de porte à la position (b) conformément à la **Fig. 7-2** et mettre debout l'ensemble de panneau avant comme illustré sur la **Fig. 7-3.**
2. Ouvrir simultanément les portes de la platine I (DECK I) et de la platine II (DECK II) et vérifier, lorsqu'une des portes est complètement ouverte, que la différence entre les deux portes est inférieure à 15 mm.
3. Si la spécification décrite dans les étapes 1 et 2 ci-dessus n'est pas satisfaite, changer comme suit la position du ressort de porte et régler.

- Lorsque la porte de la Platine I s'ouvre plus lentement que celle de la Platine II: Placer le ressort de porte de la Platine II sur la position (a).
- Lorsque la porte de la Platine I s'ouvre plus rapidement que celle de la Platine II: Placer le ressort de porte de la Platine I sur la position (a).

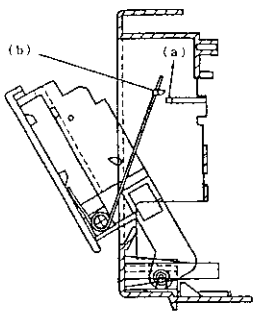


Fig. 7–2

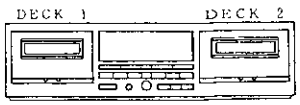


Fig. 7–3

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 réfrence 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–331E : Réglages de la lecture (Voir fig. 7–4)
STD–631 : 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 de la polarisation d'enregistrement.
3. Réglage du niveau d'enregistrement.
4. Vérification de l'indicateur de niveau.

REMARQUE:
Cette unité est dotée d'une sélection automatique de bande.

* Le niveau d'enregistrement de référence étant de 250 nwb/m pour le STD–331E, le niveau d'enregistrement sera supérieur de 4 dB pour le STD–331B (160 nwb/m). Pour le réglage, tenir compte du type de bande utilisé.

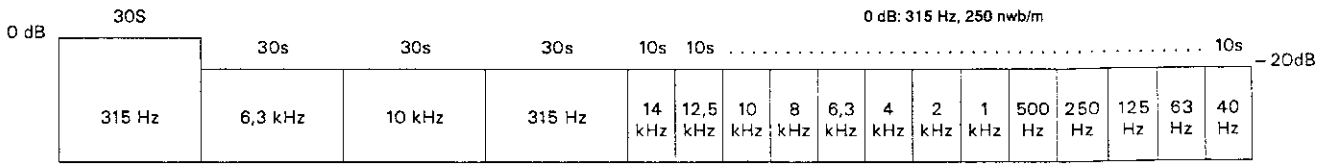
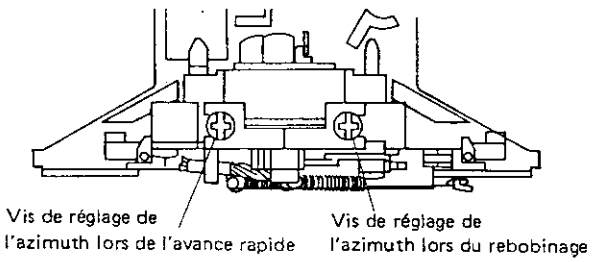


Fig. 7–4 Constantes de la bande d'essai STD–331E

CT-W501R, CT-W451R (Platine II), CT-W401R



CT-W451R (Platine I)

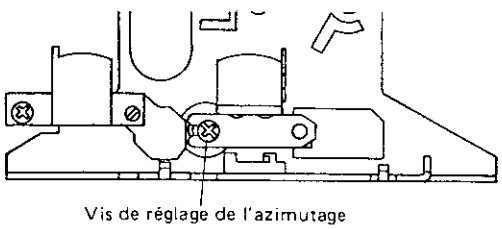


Fig. 7–5 Réglage de l'azimut de la tête

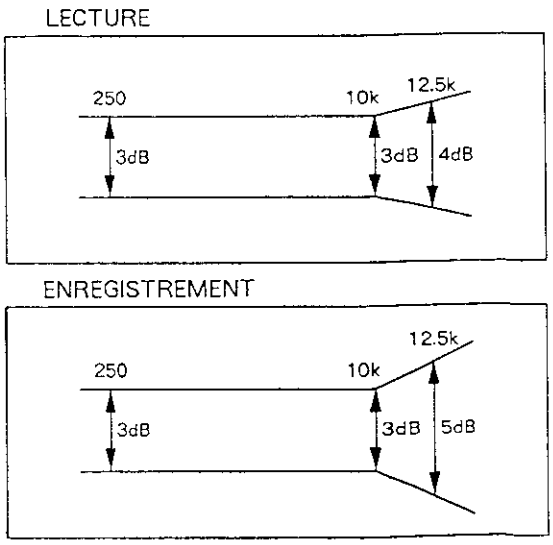


Fig. 7–6 Zone de réponse en fréquence

SECTION DE LECTURE

1. Réglage de l'azimut de la tête

• Tourner VR101, 102 (Platine I) ou VR 103, 104 (Platine II) 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–331E.**	**Vis de réglage de l'azimut de la tête. (Voir fig. 7–5)**	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–331E.**	Platine I	VR101 (can. G) VR102 (can. D)	TP. 1 (can. G) TP. 2 (can. D)	–8,7 dBV	
			Platine II	VR103 (can. G) VR104 (can. D)			

SECTION D'ENREGISTREMENT

REMARQUE: *1: Autres *2: CT-W401R

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 II	L402 *1 T402 *2	TP. 11	106 kHz $^{+3}_{-1}$ kHz	

2. 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	Charger la bande d'essai STD–631. Enregistrer les signaux 315 Hz et 6,3 kHz à un niveau d'entrée de –20 dBV et les reproduire.	Platine II	VR601 (can. G) VR602 (can. D) *1	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 +1,0 dB ± 0,5 dB lorsqu'il est comparé avec le signal 315 Hz.**	
				VR401 (can. G) VR402 (can. D) *2			

3. 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/–4 dB aux bornes d'entrée de ligne, charger la bande d'essai STD–631.	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–631 et le reproduire.**	Platine II	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 – 11,2dB.	
5.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position CrO_2.					
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	

4. 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/–6 dBV (0,5V) 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 –7,2 dBV ± 2 dB du niveau de sortie du signal.	

7. AJUSTE

7.1 AJUSTE MECANICO

Estos ajustes deben efectuarse en el modo de prueba.

- Cómo poner el modo de prueba
  Coloque el interruptor del modo de inversión en ⇄, y cortocircuite el hilo de puenteado del modo de prueba.
- Cómo cancelar el modo de prueba
  Pulse las teclas STOP de las platinas I y II simultáneamente.

1. Ajuste y verificación de la velocidad de cinta

No.	Platina	Modo	Cinta de prueba	Puntos de ajuste	Especificaciones/valores nominales (frecuencia de reproducción)	Comentarios
1	I	PLAY (velocidad normal)	STD-301 (3 kHz)	Reproduzca durante 1 minuto y pulse luego la tecla FF. *1		
2		PLAY (velocidad doble)		Verificar	6000 Hz ± 600 Hz	
3		PLAY (velocidad normal)		Pulse la tecla FF después de la verificación.		
4	II			Reproduzca durante 1 minuto y pulse luego la tecla FF. *1		
5		PLAY (velocidad doble)		VR851	Dentro de un margen de ± 10 Hz del valor de verificación del paso 2 (platina I).	
6		PLAY (velocidad normal)		Pulse la tecla FF después de la verificación.		
7	I			VR802	3020 Hz ± 5 Hz	
8	II			VR852	Dentro de un margen de ± 5 Hz del valor de verificación del paso 7 (platina I).	

*1: Si pulsa la tecla FF durante la reproducción, se seleccionará el modo de doble velocidad.

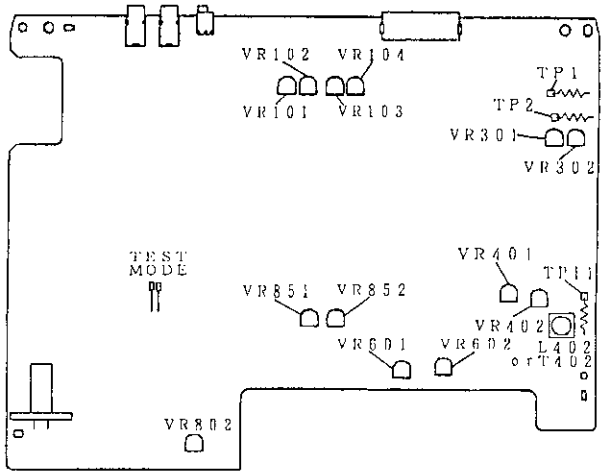


Fig. 7–1 Puntos de réglage

- Comprobación y ajuste del amortiguamiento de las puertas.

1. Fije el resorte de puerta en la posición (b) según la Fig. 7-2 y ponga de pie y recto el conjunto del panel delantero tal como muestra la Fig. 7-3.
2. Abra las puertas del DECK I y DECK II simultáneamente y, cuando una de las puertas esté completamente abierta, confirme que la diferencia entre las dos puertas es menor de 15 mm.
3. Si las especificaciones descritas en los pasos 1 y 2 anteriores no se satisfacen, cambie la posición del resorte de la puerta de la forma siguiente y ajuste:

- Cuando la puerta del DECK I se abre más lentamente que la del DECK II: Cambie el resorte de la puerta del DECK II a la posición (a).
- Cuando la puerta del DECK I se abre más rápidamente que la del DECK II: Cambie el resorte de la puerta del DECK I a la posición (a).

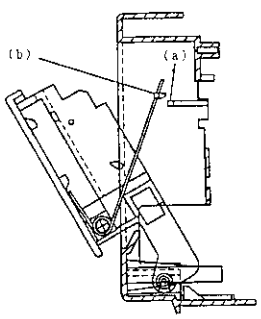


Fig. 7–2

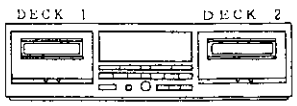


Fig. 7–3

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–331E : Ajustes de reproducción (Consulte la figura 7–4)
STD–631 : Cinta virgen NORMAL
STD–620 : Cinta virgen de CrO_2
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 oscillador de polarización
2. Ajuste de la polarización de grabación
3. Ajuste del nivel de grabación
4. Verificación del medidor de nivel

NOTA:
Esta unidad posee una función de selección automática de cinta.

* Como el nivel de grabación de referencia es igual a 250 nwb/m para el STD–331E, el nivel de grabación será 4 dB mayor para el STD–331B (160 nwb/m). Al realizar el ajuste, preste suma atención al tipo de cintá que se está utilizando.

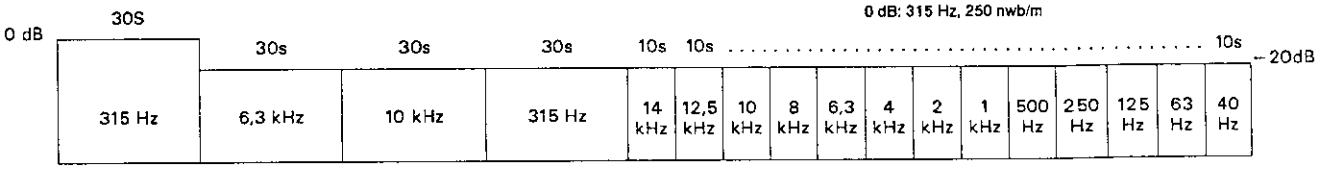
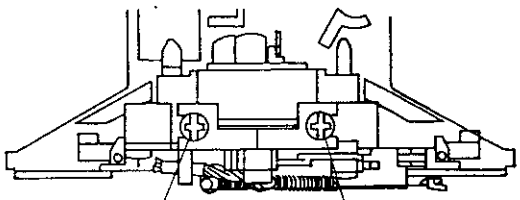


Figura 7–4 Constantes de la cinta de prueba STD–331E

CT-W501R, CT-W451R (Platina II), CT-W401R



CT-W451R (Platina I)

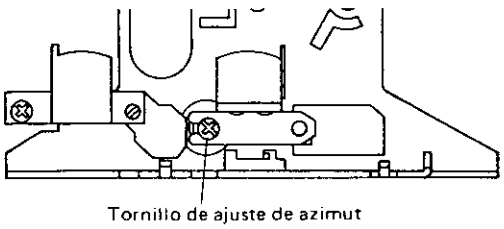


Figura 7–5 Ajuste de azimut de la cabeza

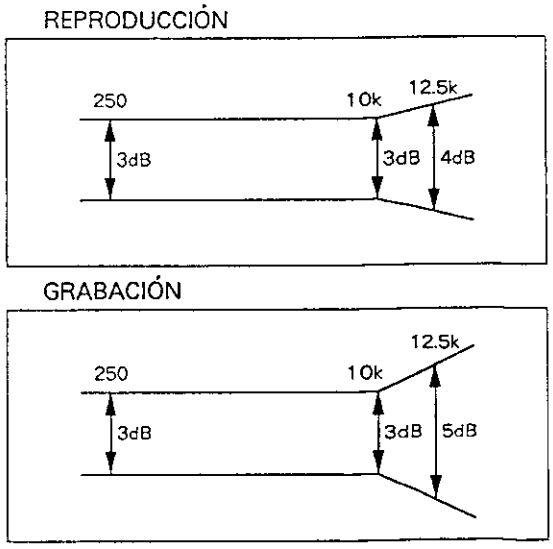


Figura 7–6 Zona de respuesta de frecuencia

SECCIÓN DE REPRODUCCIÓN

1. Ajuste del azimut de la cabeza

• Poner VR101, 102 (platina I) o VR103, 104 (platina II) 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–331E.	Tornillo de ajuste del azimut de la cabeza. (Vea la figura 7–5)	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–331E.	Platina I	VR101 (Lch) VR102 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	–8,7 dBV	
			Platina II	VR103 (Lch) VR104 (Rch)			

SECCIÓN DE GRABACIÓN

NOTA: *1: Otros *2: CT-W401R

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 II	L402 *1 T402 *2	TP. 11	108 kHz $^{+3}_{-1}$ kHz	

2. 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	Introduzca la cinta de prueba STD–631. Grabe la señal de 315 Hz y 6,3 kHz a un nivel de entrada de –20 dBV y reprodúzcala.	Platina II	VR601 (Lch) *1 VR602 (Rch)	LINE OUT	Grabe, reproduzca y ajuste repetidamente para que el nivel de la señal de reproducción de 6,3 kHz sea de +1,0 dB ± 0,5 dB cuando se compare con la señal de 315 Hz.	
				VR401 (Lch) *2 VR402 (Rch)			

3. 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/–4 dB a los terminales de entrada de línea e introduzca la cinta de prueba STD–631.	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–631 y reprodúzcala.	Platina II	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 CrO_2.					
6.	REC/ PLAY	Grabe la señal de arriba en la cinta de prueba STD-620 y reprodúzcala.	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 reprodúzcala.	Verifique		TP. 1 (Lch) TP. 2 (Rch)	–11,2 dBV ± 1,5 dB	

4. 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/–6 dBV (0,5V) 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 –7,2 dBV ± 2 dB.	

8. FOR CT–W451R/KUXJ, CT–W401R/ KUXJ, HEMXJ AND HBXJ TYPES

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.

The CT–W451R/KUXJ, CT–W401R/KUXJ, HEMXJ and HBXJ types are the same as the CT–W501R/KUCXJ type with the exception of the following sections.

Mark	Symbol & Description	Part No.					Remarks
		CT–W501R/ KUCXJ type	CT–W451R/ KUXJ type	CT–W401R/ KUXJ type	CT–W401R/ HEMXJ type	CT–W401R/ HBXJ type	
⚠	Strain relief	CM – 22C	CM – 22C	CM – 22C	CM – 22B	CM – 22B	
⚠	AC power cord	PDG1015	PDG1015	PDG1015	PDG1003	PDG1036	
⚠	Power transformer (AC120V)	RTT1142	RTT1142	RTT1142	.....	.....	
⚠	Power transformer (AC220 – 230/230 – 240V)	.....	.....	.....	RTT1146	RTT1146	
⊙	Mechanism unit (DECK I)	RYM1134	RYM1138	RYM1134	RYM1136	RYM1136	*1
⊙	Mechanism unit (DECK II)	RYM1135	RYM1135	RYM1135	RYM1137	RYM1137	*1
	Leg Ass'y	PXA1201	PXA1201	PXA1201	.....	.....	
	Insulator	.....	.....	.....	VNK1095	VNK1095	
	Stopper	.....	.....	.....	VEC1061	VEC1061	
	Operation knob	RAC1561	RAC1563	RAC1561	RAC1561	RAC1561	
	Door pocket (L)	RAH1948	RAH1947	RAH1948	RAH1948	RAH1948	
	Door pocket (R)	RAH1946	RAH1946	RAH1945	RAH1945	RAH1945	
	Meter panel	RAH1970	RAH1971	RAH1970	RAH1970	RAH1970	
	Operating instructions (English)	RRB1098	RRB1098	RRB1103	.....	RRB1103	
	Operating instructions (English/German/French/Italian/Dutch/ Swedish/Spanish/Portuguese)	.....	.....	.....	RRE1050	.....	
	Packing case	RHG1307	RHG1308	RHG1309	RHG1339	RHG1339	
	Front panel Ass'y	RXX1454	RXX1453	RXX1452	RXX1479	RXX1479	
⊙	Mother board assembly	RWM1485	RWM1486	RWM1487	RWM1489	RWM1489	
	├ Main unit	Non supply	Non supply	Non supply	Non supply	Non supply	
	├ Sub unit	Non supply *2	Non supply	Non supply *2	Non supply *3	Non supply *3	
	├ H. Phone unit	Non supply	.....	.....	Non supply	Non supply	
	├ TRANS 1 unit	Non supply	Non supply	Non supply	Non supply	Non supply	
	└ TRANS 2 unit	Non supply	Non supply	Non supply	Non supply	Non supply	
⚠	Fuse 1.25A (FU1201, FU1202)	REK – 073	REK – 073	REK – 073	.....	.....	
⚠	Fuse 1.25A (FU1201, FU1202)	.....	.....	.....	REK – 101	REK – 101	

*1: For exterior, refer to pages from 4 to 6.
Mechanism unit, refer to pages from 7 to 15.

*2: CT–W501R/KUCXJ and CT–W401R/KUXJ have the identical assembly.

*3: CT–W401R/HEMXJ and CT–W401R/HBXJ have the identical assembly.

MAIN UNIT

The main units (for CT–W451R/KUXJ, CT–W401R/KUXJ, HEMXJ and HBXJ types) are the same as the main units (for CT–W501R/KUCXJ type) with the exception of the following sections.

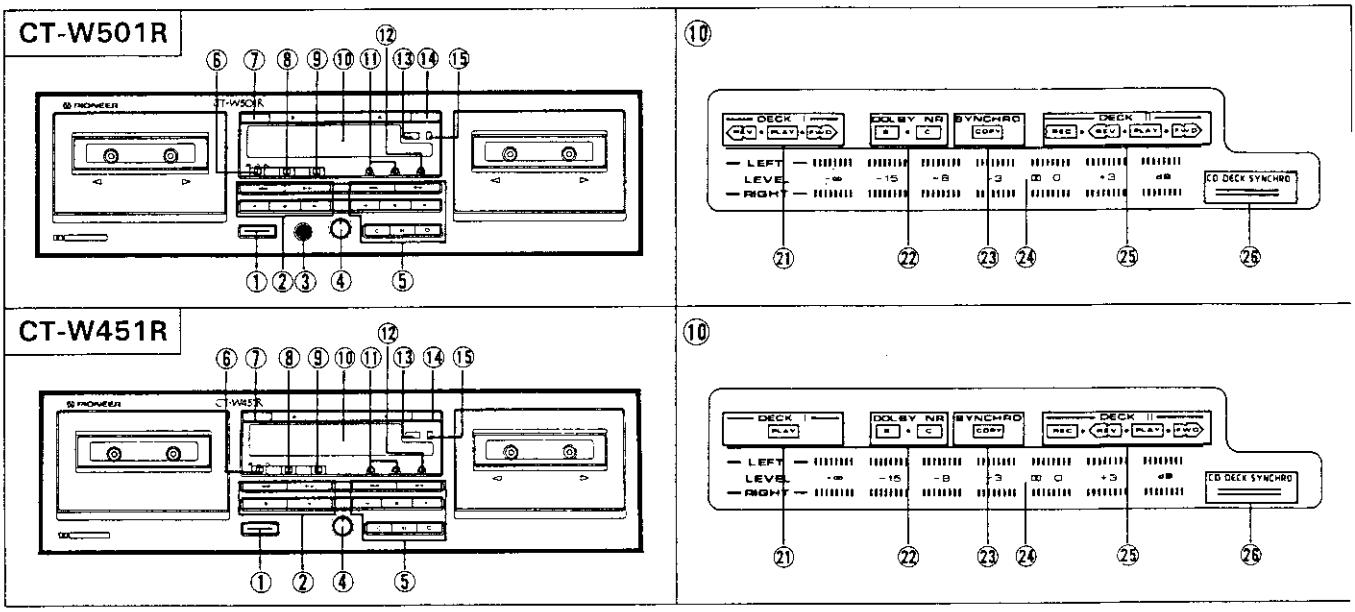
Mark	Symbol & Description	Part No.				Remarks
		CT–W501R/ KUCXJ type	CT–W451R/ KUXJ type	CT–W401R/ KUXJ type	CT–W401R/ HEMXJ and HBXJ types	
	IC1601	BA15218N	.....	.....	BA15218N	
	IC601	UPC1297CA	UPC1297CA	.....	.....	
	Q401. Q402	2SC1815	2SC1815	2SD1302	2SD1302	
	Q601, Q602	2SA1309A	2SA1309A	.....	.....	
	Q603	DTC124ES	DTC124ES	.....	.....	
	D1105	.....	1SS254	.....	.....	
	D601, D602	1SS254	1SS254	.....	.....	
	C1601, C1602	CEASR10M50	.....	.....	CEASR10M50	
	C1605, C1606	CEAS101M25	.....	.....	CEAS101M25	
	C1607	CEAS221M16	.....	.....	CEAS221M16	
	C404	CFTXA223J50	CFTXA223J50	CFTXA123J50	CFTXA123J50	
	C405, C406	CFTXA332J50	CFTXA332J50	CFTXA103J50	CFTXA103J50	
	C407	CFTXA332J50	CFTXA332J50	CFTXA153J50	CFTXA153J50	
	C411	CQPA682J100	CQPA682J100	CQPA162J100	CQPA162J100	
	C415, C416	.....	.....	CCCSL101K500	CCCSL101K500	
	C601, C602	CFTXA103J50	CFTXA103J50	.....	.....	
	C603, C604	CKPUYB821K50	CKPUYB821K50	.....	.....	
	C605, C606	CFTXA223J50	CFTXA223J50	.....	.....	
	C607, C608	CGCYX473K25	CGCYX473K25	.....	.....	
	C609, C610	CCCSL101K500	CCCSL101K500	.....	.....	
	C611, C612	RCG1005	RCG1005	.....	.....	
	C613	CKPUYB101K50	CKPUYB101K50	.....	.....	
	C614	CEASR10M50	CEASR10M50	.....	.....	
	C615, C617	CEAS100M50	CEAS100M50	.....	.....	
	C616	CEAS4R7M50	CEAS4R7M50	.....	.....	
	L402	RTD1063	RTD1063	.....	.....	
	L601, L602	RTD1046	RTD1046	.....	.....	
	R1605–R1608	RD1/6PM104J	.....	.....	RD1/6PM104J	
	R1613, R1614	RD1/6PM470J	.....	.....	RD1/6PM470J	
	R1615, R1616	RD1/6PM561J	.....	.....	RD1/6PM561J	
	R1617	RS1LF221J	.....	.....	RS1LF221J	
	R401, R402	RD1/6PM123J	RD1/6PM123J	RD1/6PM223J	RD1/6PM223J	
	R411	RD1/2LF201J	RD1/2LF201J	RD1/2LF151J	RD1/2LM151J	
	R412	RD1/2LF271J	RD1/2LF271J	RD1/2LF201J	RD1/2LM201J	
	R601, R602, R606	RD1/6PM223J	RD1/6PM223J	.....	.....	
	R603, R604	RD1/6PM184J	RD1/6PM184J	.....	.....	
	R605	RD1/6PM153J	RD1/6PM153J	.....	.....	
	R606	RD1/6PM223J	RD1/6PM223J	.....	.....	
	R607, R608	RD1/6PM472J	RD1/6PM472J	.....	.....	
	R609	RD1/6PM103J	RD1/6PM103J	.....	.....	
	VR401, VR402	.....	.....	RCP1049	RCP1049	
	VR601, VR602	RCP1046	RCP1046	.....	.....	
	T402	.....	.....	ATX–043	ATX–043	

SUB UNIT

The sub units (for CT–W451R/KUXJ, CT–W401R/HEMXJ and HBXJ types) are the same as the sub units (for CT–W501R/KUCXJ and CT–W401R/KUXJ types) with the exception of the following sections.

Mark	Symbol & Description	Part No.			Remarks
		CT–W501R/ KUCXJ and CT–W401R/KUXJ type	CT–W451R/ KUXJ type	CT–W401R/ HEMXJ and HBXJ Types	
	D2412, D2414	SEL4914D	.....	SEL4414G	
	D2401–D2406, D2411 – D2414, D2419–D2421, D2432, D2435, D2436	SEL4914D	SEL4914D	SEL4414G	
	D2204	1SS254	.....	1SS254	
	R2402, R2404	RD1/6PM181J	.....	RD1/6PM181J	
	S2204	RSG1034	.....	RSG1034	

9. PANEL FACILITIES



① POWER (STANDBY/ON) switch

NOTE:
The POWER switch activates the secondary transformer only. Even when the switch is in the STANDBY position, there will be a power flow to the deck's circuits as long as the power cord is connected to a power outlet.

② Deck I operation buttons

◀◀: Fast reverse/Music search
▶▶: Fast forward/Music search
▶: Forward playback
■: Stop
◀: Reverse playback (CT-W501R only)

③ Headphones (PHONES) jack (CT-W501R only)

④ Recording level control (REC LEVEL)

⑤ Deck II operation buttons

◀◀: Fast reverse/Music search
▶▶: Fast forward/Music search
▶: Forward playback
■: Stop
◀: Reverse playback
O: Recording mute
❚❚: Pause
●: Recording

⑥ Reverse mode switch (REV MODE)

- CT-W501R: For both Decks I and II.
- CT-W451R: For Deck II only .

⑦ Deck I eject button (EJECT)

- If the tape is moving (recording, playback, tape winding, etc.), press the stop (■) button before pressing this button.

⑧ Dolby* NR switch (B/OFF/C)

⑨ Timer mode — Relay/Skip play switch (TIMER REC/OFF/PLAY — RELAY/SKIP)

⑩ Function display

⑪ Synchro copy buttons (SYNCHRO COPY)

- NORMAL SPEED: Copying at normal speed.
- HIGH SPEED: Copying at twice normal speed.

⑫ CD·DECK SYNCHRO recording button (CD SYNCHRO)

⑬ Deck II tape counter (DECK II COUNTER)

⑭ Deck II eject button (EJECT)

- If the tape is moving (recording, playback, tape winding, etc.) press the stop (■) button before pressing this button.

⑮ Tape counter reset button (RESET)

Function display

㉑ Deck I tape transport mode indicators

㉒ Dolby NR indicators (B/C)

㉓ Synchro copy indicator (COPY)

- NORMAL SPEED: lights
- HIGH SPEED: flashes

㉔ Level meter

- The DD between the "0" and "−3" marks indicates tl reference level for the Dolby NR system.

㉕ Deck II tape transport mode indicators

㉖ CD·DECK SYNCHRO recording indicator (CD·DECK SYNCHRO)

*

- *Dolby noise reduction and HX Pro headroom extensio manufactured under license from Dolby Laboratories Licensin Corporation. HX Pro originated by Bang & Olufsen.*
- *"DOLBY", the double-D symbol DD and "HX PRO" are trad marks of Dolby Laboratories Licensing Corporation.*