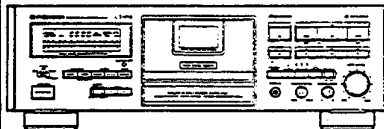


Service Manual

PIONEER
The Art of Entertainment



ORDER NO.
ARP2735

STEREO CASSETTE DECK

CT-43

CT-S820S

CT-S620

CT-S620-G

CT-43, CT-S820S, CT-S620 AND CT-S620-G HAVE THE FOLLOWING:

Type	Model				Power Requirement	Remarks
	CT-43	CT-S820S	CT-S620	CT-S620-G		
KU/CA	○	—	—	—	AC120V	
HEM	—	○	○	○	AC220 — 230V, 230 — 240V (Switchable) *	
HB	—	—	○	—	AC220 — 230V, 230 — 240V (Switchable) *	
SD	—	—	○	—	AC110V, 120 — 127V, 220V, 240V (Switchable)	

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

- For the following: CT-S820S/HEM; CT-S620/HEM, HB and SD; CT-S620-G/HEM, refer to page 37.

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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. 300 Allstate Parkway Markham, Ontario L3R 0P2 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
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3976

1. SAFETY INFORMATION

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

WARNING

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.

NOTICE

(FOR CANADIAN MODEL ONLY)

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

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

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

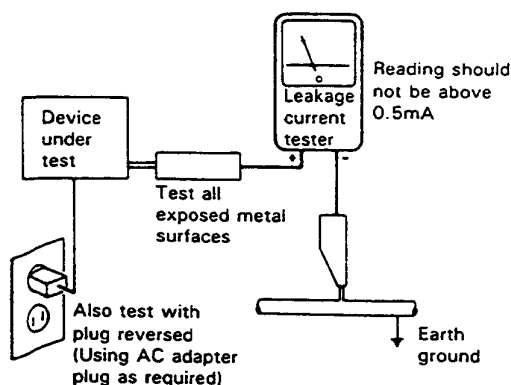
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

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

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 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

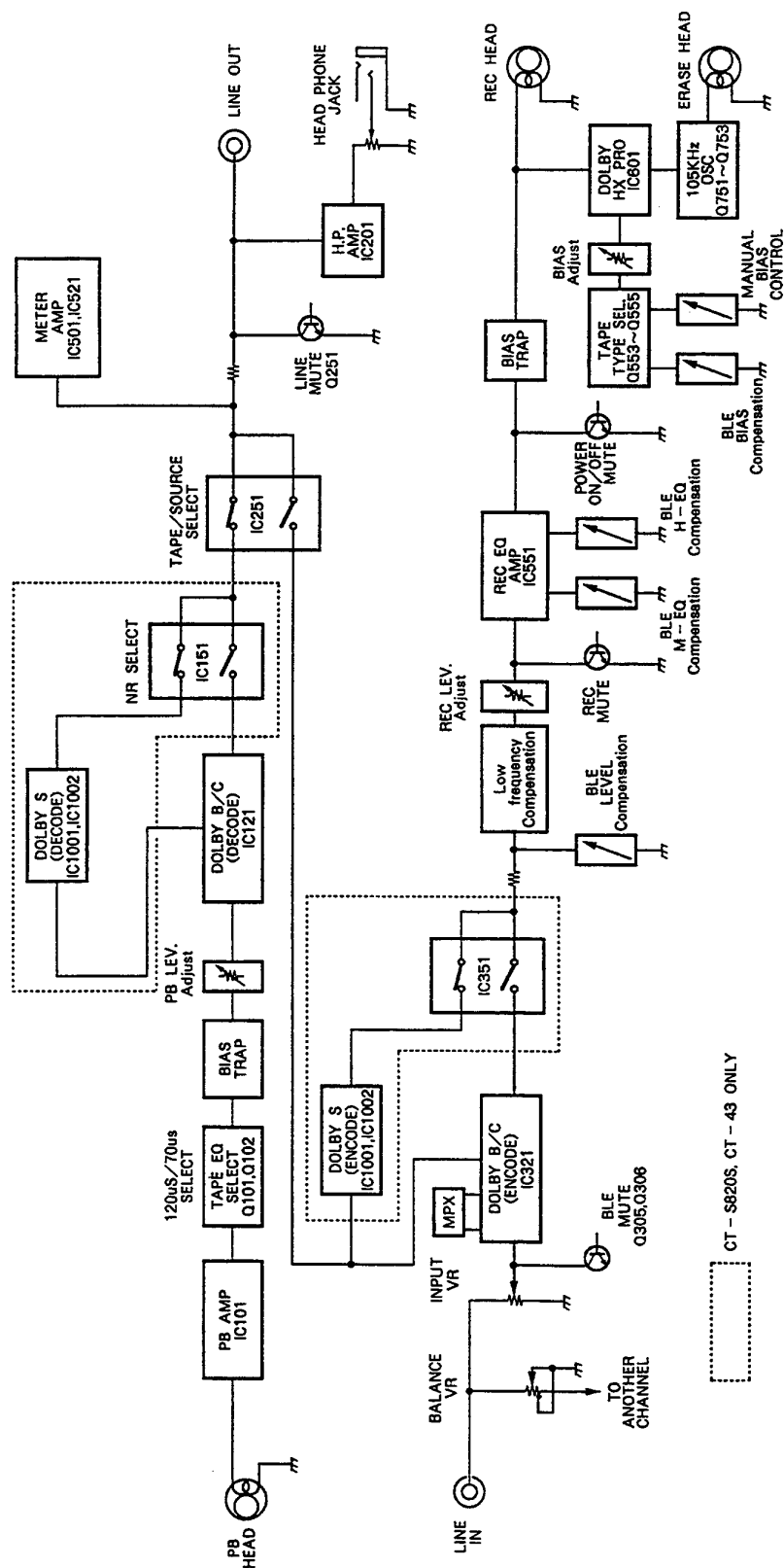
Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which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



3. EXPLODED VIEWS, PACKING AND PARTS LIST

3.1 EXTERIOR

NOTES:

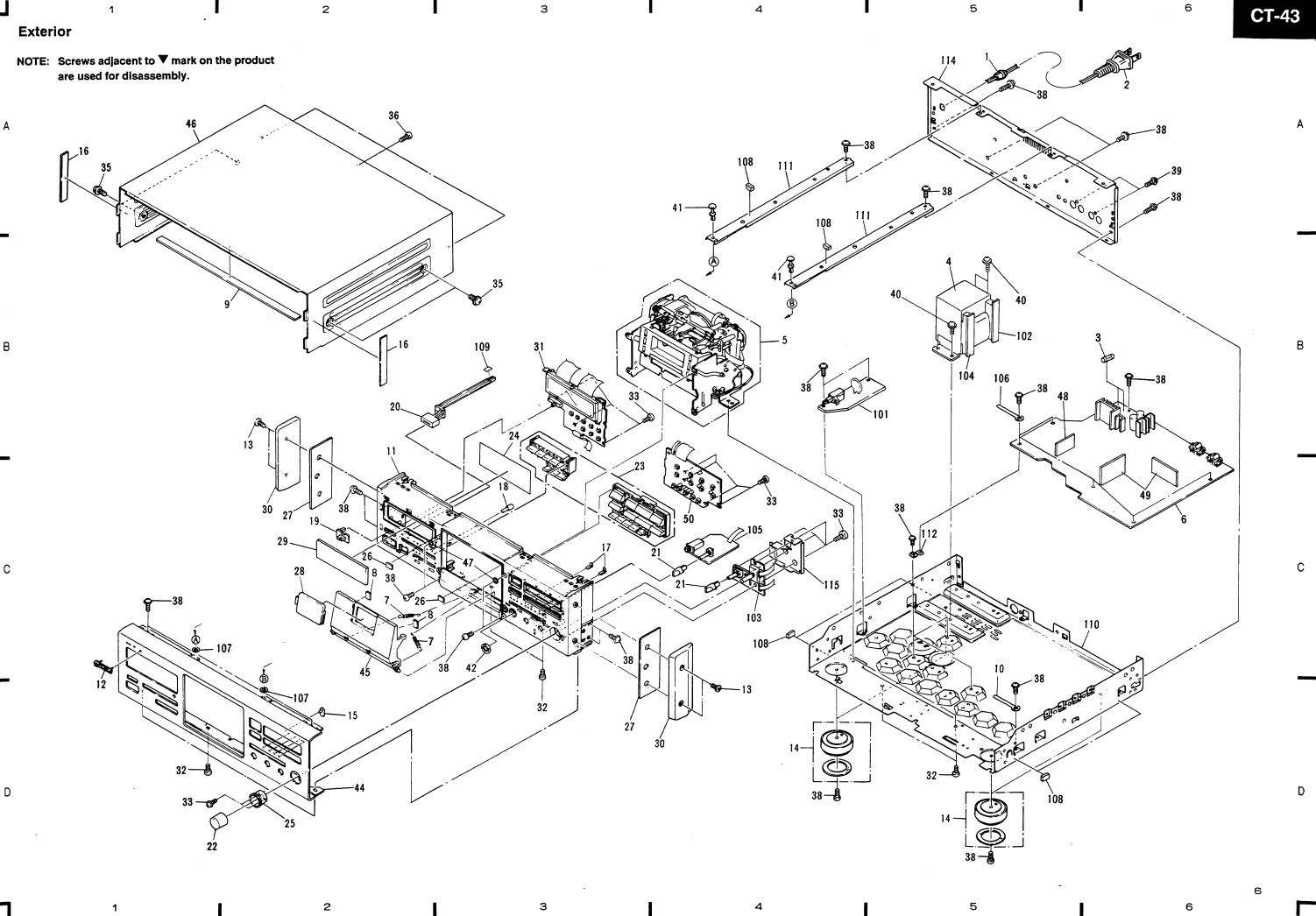
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙"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

Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
Δ	1	Strain relief	CM - 22C		41	Rivet	RBM - 003
Δ	2	AC power cord	PDG1015		42	Jack nut	RBN - 006
Δ	3	FU811, FU812 Fuse (1.5A)	DEK1014		43	.....	
Δ	4	T1 power transformer	RTT1234		44	Front panel	RAH2283
⊙	5	Mechanism unit	RYM1206		45	Door	RAH2277
	6	MAIN unit	RWZ2964		46	Bonnet	RXX1516
	7	Door spring	RBH1306		47	Fiber washer	REC1180
	8	Cushion	REB1174	⊙	48	HX unit	RWX1069
	9	Protector	RED1020		49	DOLBY S unit	RWX1079
	10	Cord clamper	RNH - 184		50	OPSW unit	RWZ2921
	11	Panel stay	RNT1179	NSP	101	PWSW unit	RWZ2965
	12	Name plate	RAN1008	NSP	102	TRN2 unit	RWZ2967
	13	Screw	ABA1148	NSP	103	VR unit	RWZ2922
	14	Foot assembly	AMR1159	NSP	104	TRN 1 PCB	RNZ2456
	15	LED lens	AMR1160	NSP	105	HPHN unit	RWZ2918
	16	Side sheet (sponge)	PNM1150	NSP	106	Cord clamper	DNF1128
	17	Lens S	PNW1893	NSP	107	Washer	RBFI017
	18	Counter reset knob	RAA1009	NSP	108	Rubber spacer (A)	REB1057
	19	Slide SW knob	RAC1562	NSP	109	Acetate tape	REH1020
	20	Power button	RAC1703	NSP	110	Main chassis	RNB1059
	21	Balance knob	RAC1705	NSP	111	Center stay	RNC1071
	22	VR knob	RAC1707	NSP	112	PCB base	RNE1221
	23	Function knob	RAC1817		113	.....	
	24	FL filter	RAH2087	NSP	114	Rear panel	RNA1722
	25	VR ring	RAT1011	NSP	115	VR shield plate	RNE1609
	26	Door sheet (rubber)	REB1191				
	27	Side spacer (rubber)	PEB1198				
	28	Door lens	RAH1927				
	29	FL lens	RAH2032				
	30	Side panel	RAH2044				
	31	FL unit	RWZ2920				
	32	Screw	BBT30P100FZK				
	33	Screw	BBZ26P080FZK				
	34	.....					
	35	Screw	FBT40P080FZK				
	36	Screw	IBZ30P060FCC				
	37	.....					
	38	Screw	IBZ30P080FCC				
	39	Screw	IBZ30P100FCC				
	40	Screw	IBZ40P080FCC				

Exterior

NOTE: Screws adjacent to ▼ mark on the product are used for disassembly.



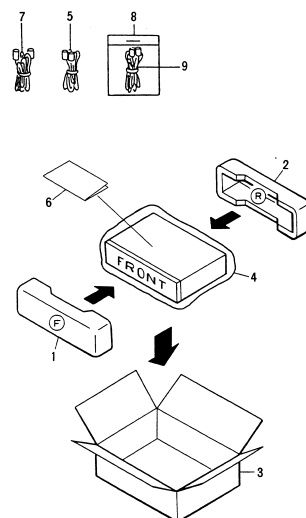
3.2 MECHANISM UNIT

Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
1		Rotary encoder	RSX1004	51		Head base set spring	RBL - 026
2		Capstan motor assembly	RXX1491	52		Gear chassis assembly	RXA1171
3		Reel motor assembly	REA1075	53		Screw	BE226P080FZK
4		Step screw	RBA - 064	54		Pinch base assembly	RXB - 878
5		Cassette plate assembly	RXX1064	55		Screw	BE230P080FZK
6		Rubber cushion	REB1125	56		Eject lever	RNK1763
7		Pinch spring	RBL - 028	57		Screw	BC230P060FMC
8		Pinch thrust spring	RBL - 030	58		Screw	BM226P030FZK
9		Sub - pinch spring	RBL - 098	59		Screw	IB220P060FMC
10		Capstan belt	REB1143	60		Screw	BM226P060FZK
11		Capstan belt (A)	REB - 509	61		Screw	BM230P080FZK
12		Tape guide	RNK1823	62		Screw	PM230P040FMC
13		Flywheel assembly	RXA1374	63		Screw	PMA26P050FZK
14		Sub - flywheel assembly	RXA1375	64		Screw	PMA26P060FZK
15		Metal holder assembly (A)	RXA1426	65		Screw	PM220P080FZK
16		Metal holder assembly (B)	RXA1343	66		Washer	RBF - 030
17		Pinch roller arm (R) assembly	RXB - 876	67		Stabilizer (B)	REB1038
18		Pinch roller arm (A) assembly	RXB - 877	68		Earth spring	RBL - 059
19		BT spring (A)	RBL - 031	69		Washer	RBF - 076
20		BT spring (B)	RBL - 032	70		Washer	RBF1040
21		Idler pressure spring	RBL - 033	71		Blinder	REC - 371
22		Reel shaft cap (B)	RNK - 815	72		Steel ball (3mm)	REF - 022
23		BT disk assembly	RXB - 751	73		Steel ball (4mm)	REF - 023
24		Reel base assembly	RXB - 874	74		Screw	VCT30P060FZK
25		Take - up idler assembly	RXA1554	75		LED (D3)	SLF - 401C
26		Washer	RBF - 065	76		Washer	WA21D040D013
27		Head base spring	RBL - 037	77		Washer	WA26N070W040
28		Brake spring	RBL - 038	78		Washer	WA32D080D050
29		Drive belt	REB1182	79		E ring	YE20FUC
30		Brake shoe	REB - 511	80		E ring	YE25FUC
31		Brake	RNL - 723	81		E ring	YE30FUC
32		Cam gear	RNK1640	82		Snap ring	YS24FBT
33		Side cam gear	RNK1765	83		Shift shaft assembly	RXB - 885
34		Stabilizer	REB1161	84		Head base assembly	RXX1333
35		Eject spring	RBL - 039	85		Mechanism chassis assembly	RXA1366
36		Half set arm spring	RBL - 040	86		Brake lever	RNK1638
37		REC functioning spring	RBL - 041	87		Second pulley assembly	RXA1350
38		Detection functioning spring	RBL - 042	88		Door frame (L)	RNE1475
39		Reel motor mounting plate	RNE1604	89		Pinch lever assembly	RXA1360
40		Flywheel holder	RNH - 304	90		Door frame (R)	RNE1476
41		Cord clasper	RNH - 184	91		Damper assembly	VXA1153
42		Washer	RBF - 057	92		Half pressure spring	RBK1004
43		REC detector arm	RNL - 733	93		Door pocket	RNK1865
44		Chrom detector arm	RNL - 734	94		Loading motor	VXM1034
45		Metal detector arm	RNL - 735	95		Screw	PB220P060FMC
46		Thrust holder	RNL - 743	96		Capstan motor	RXM1054
47		Motor pulley	PWN1634	97		Reel motor	RXM1065
48		Pressure arm (R)	RNL - 725	98		2.5mm pitch side post (5P)	BSP - SHF - 1
49		Collar	RNL - 742	99		Connector assembly (4P)	RKP1383
50		Pressure arm (L)	RNL - 726	100		Connector assembly (2P)	RKP1384

3.3 PACKING

Mark	No.	Description	Part No.
1		Pad (F)	RHA1117
2		Pad (R)	RHA1118
3		Packing case	RHG1493
4		Sheet	RHX1007
5		Control cord (For CD • DECK SYNCHRO)	RDE1030
6		Operating instructions (English/French)	RRE1078
7		Connection cord (For SR cord)	PDE - 319
8		Connection cord assembly	RDE1002
9		Connection cord (For Audio)	RDE - 010



1
Mechanism unit

A

B

C

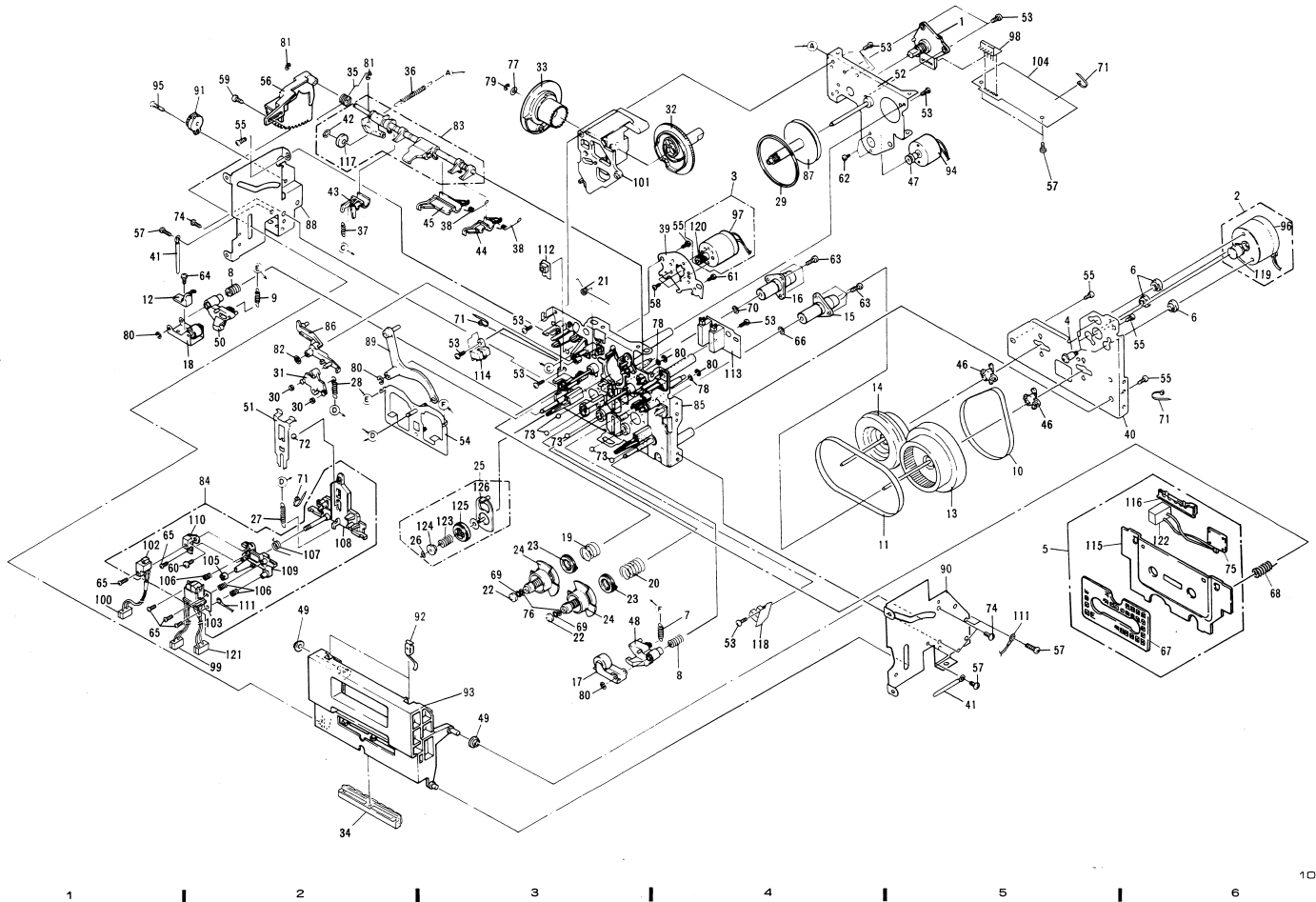
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A

B

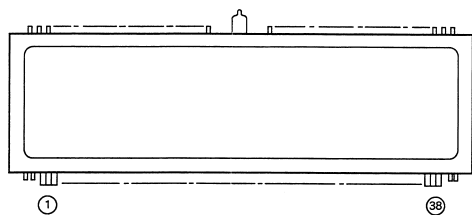
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D



4. FL INFORMATION

RAW1127 (V1501)

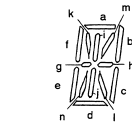
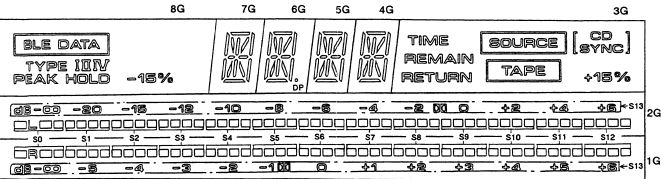


Pin Connection

TERMINAL NO. ELECTRODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	F1	F1	NP	NP	NC	8G	7G	6G	5G	4G	3G	2G	1G	P14	P13	P12	P11	P10	P9
TERMINAL NO. ELECTRODE	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
	P8	P7	P6	P5	P4	P3	P2	P1	P0	NP	NP	NP	NP	NP	NP	NP	NP	F2	F2

Notes F: Filament G: Grid P: Anode NP: No pin

Grid Assignment

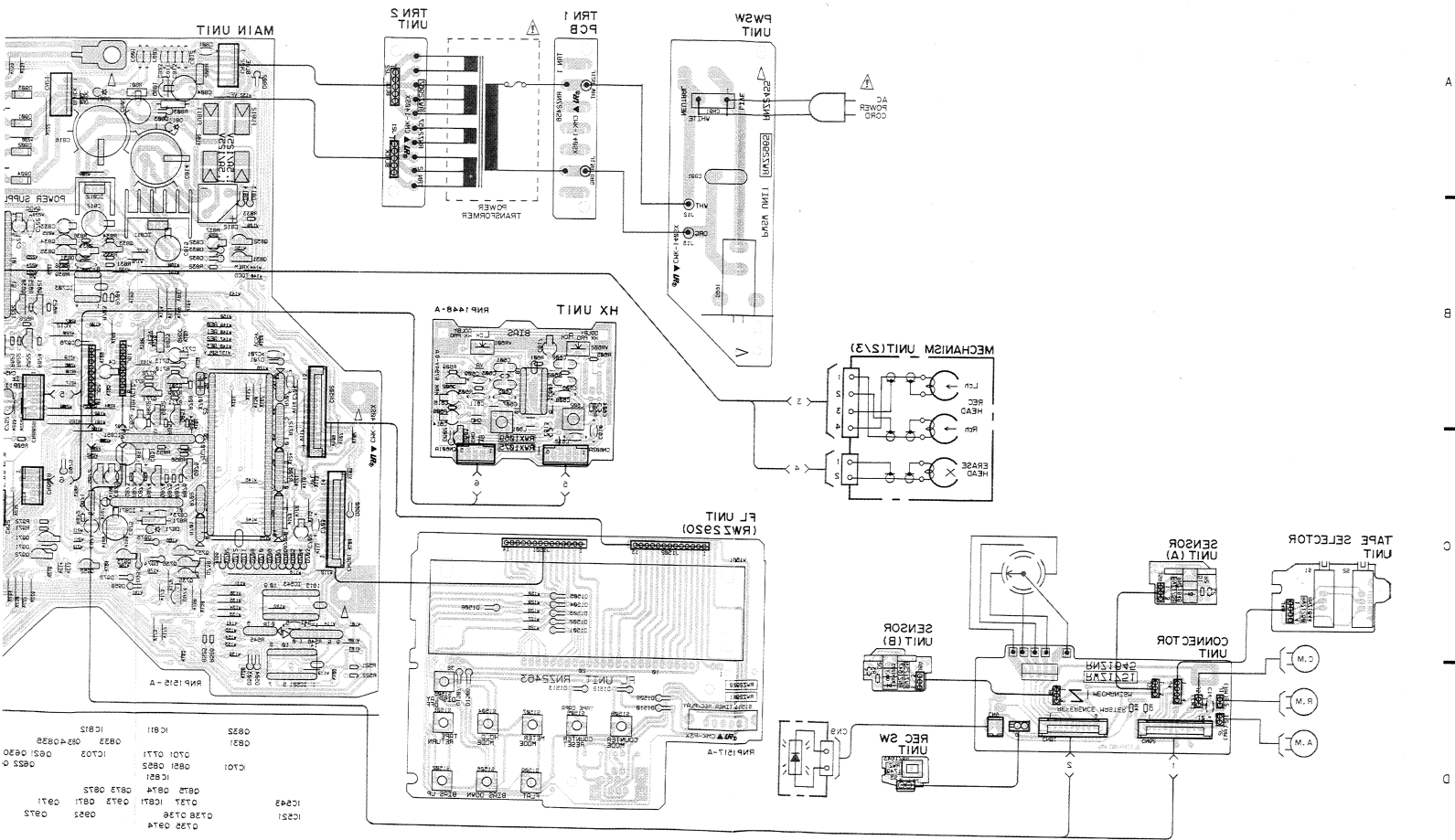


Anode Connection

	8G	7G	6G	5G	4G	3G	2G	1G
S0	-	a	a	a	a	TIME	S0	S0
S1	-	b	b	b	b	REMAIN	S1	S1
S2	-	c	c	c	c	RETURN	S2	S2
S3	-	d	d	d	d	TAPE	S3	S3
S4	-	e	e	e	e	SOURCE	S4	S4
S5	-	f	f	f	f	[CD] [SYNC]	S5	S5
S6	BLE DATA	g	g	g	g	+15%	S6	S6
S7	TYPE	h	h	h	h	-	S7	S7
S8	I	i	i	i	i	-	S8	S8
S9	II	j	j	j	j	-	S9	S9
S10	IV	k	k	k	k	-	S10	S10
S11	-15%	l	l	l	l	-	S11	S11
S12	HOLD	m	m	m	m	-	S12	S12
S13	PEAK	n	DP	n	n	-	S13	S13
S14	-	-	n	-	-	-	-	-

● View from soldering side



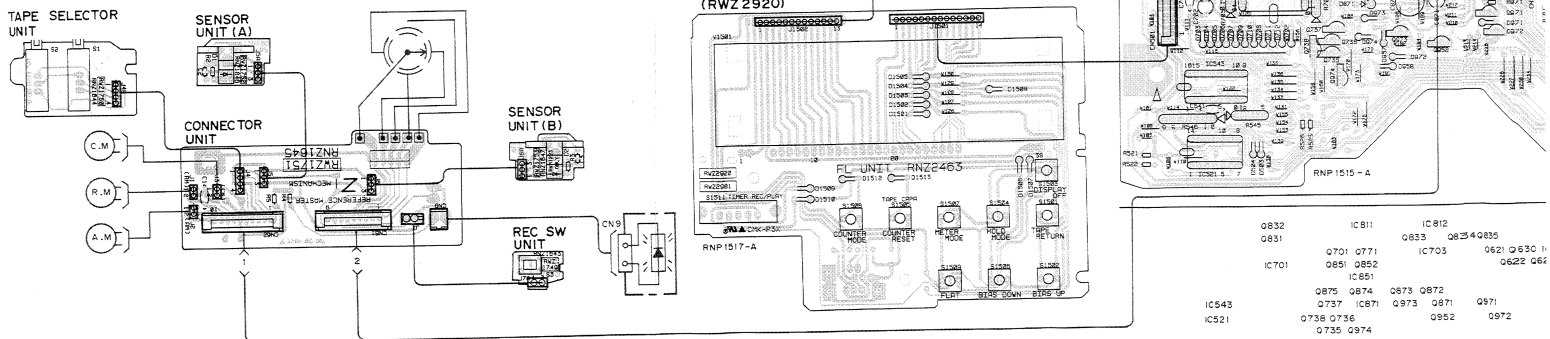


CT-43, CT-S820S

• View from component side

P.C.B. pattern diagram indication	Corresponding part symbol	Part name	P.C.B. pattern diagram indication	Corresponding part symbol	Part name
		Transistor			Ceramic capacitor
		FET			Mylar capacitor
		Diode			Styrol capacitor
		Zener diode			Electrolytic capacitor (non-polarized)
		LED			Electrolytic capacitor (polarized)
		Varactor			Power capacitor
		Tact switch			Semi-fixed resistor
		Inductor			Resistor
		Coil			Resistor
		Transformer			Resonator
		Filter			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 symbol marked with shows negative terminal.
4. The diode marked with shows cathode side.
5. The resistor terminal marked with shows center.



0832	IC811	IC812
0831	Q701 Q771	Q833 Q834 Q835
IC701	Q851 Q852	Q821 Q830 Q831
	IC851	Q822 Q823
Q875 Q874	Q873 Q872	Q871
Q757 IC871	Q973 Q871	Q872
Q738 Q736	Q952 Q972	
Q739 Q974		

7

8

9

10

11

12

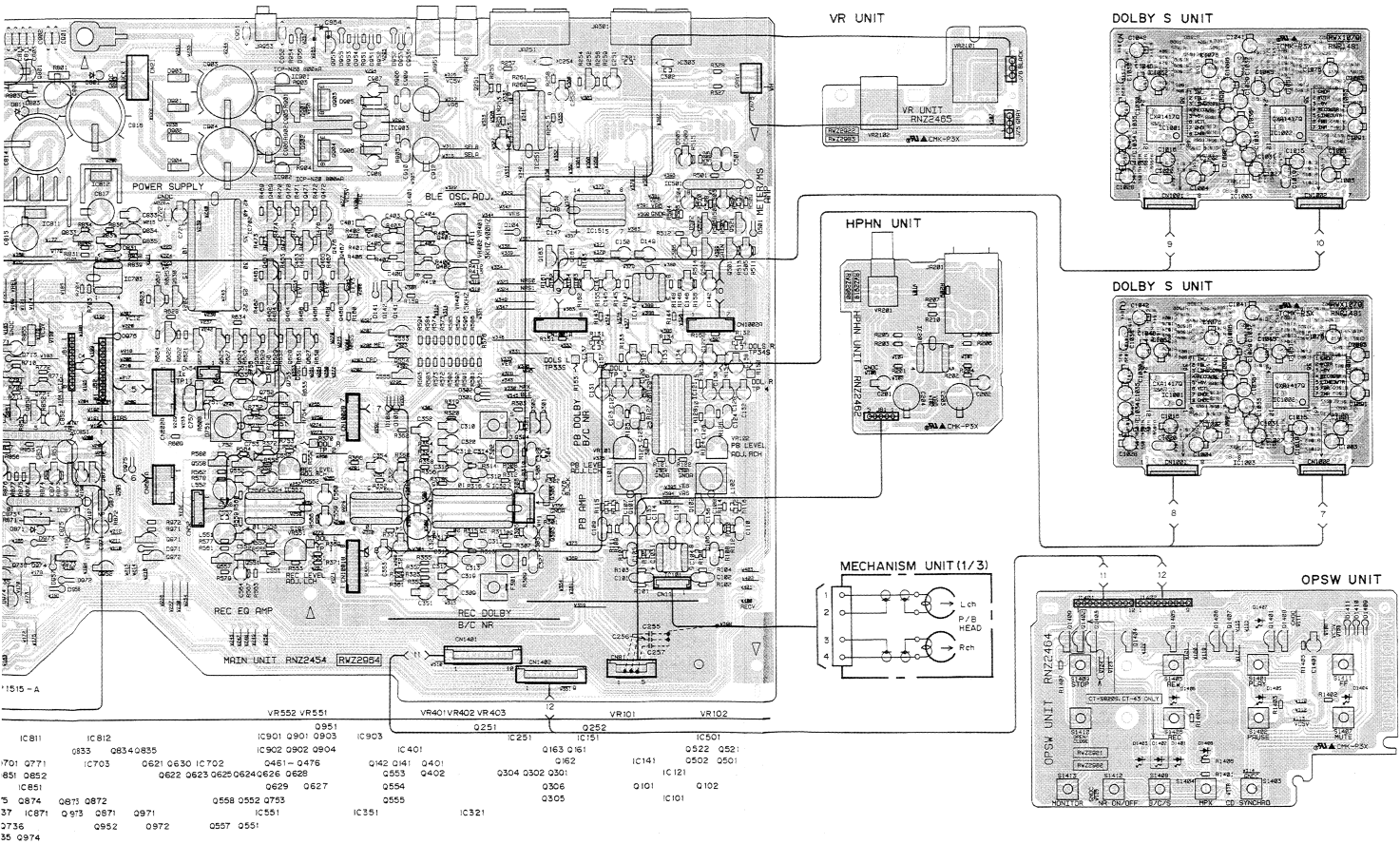
A

B

C

D

8



7

8

9

10

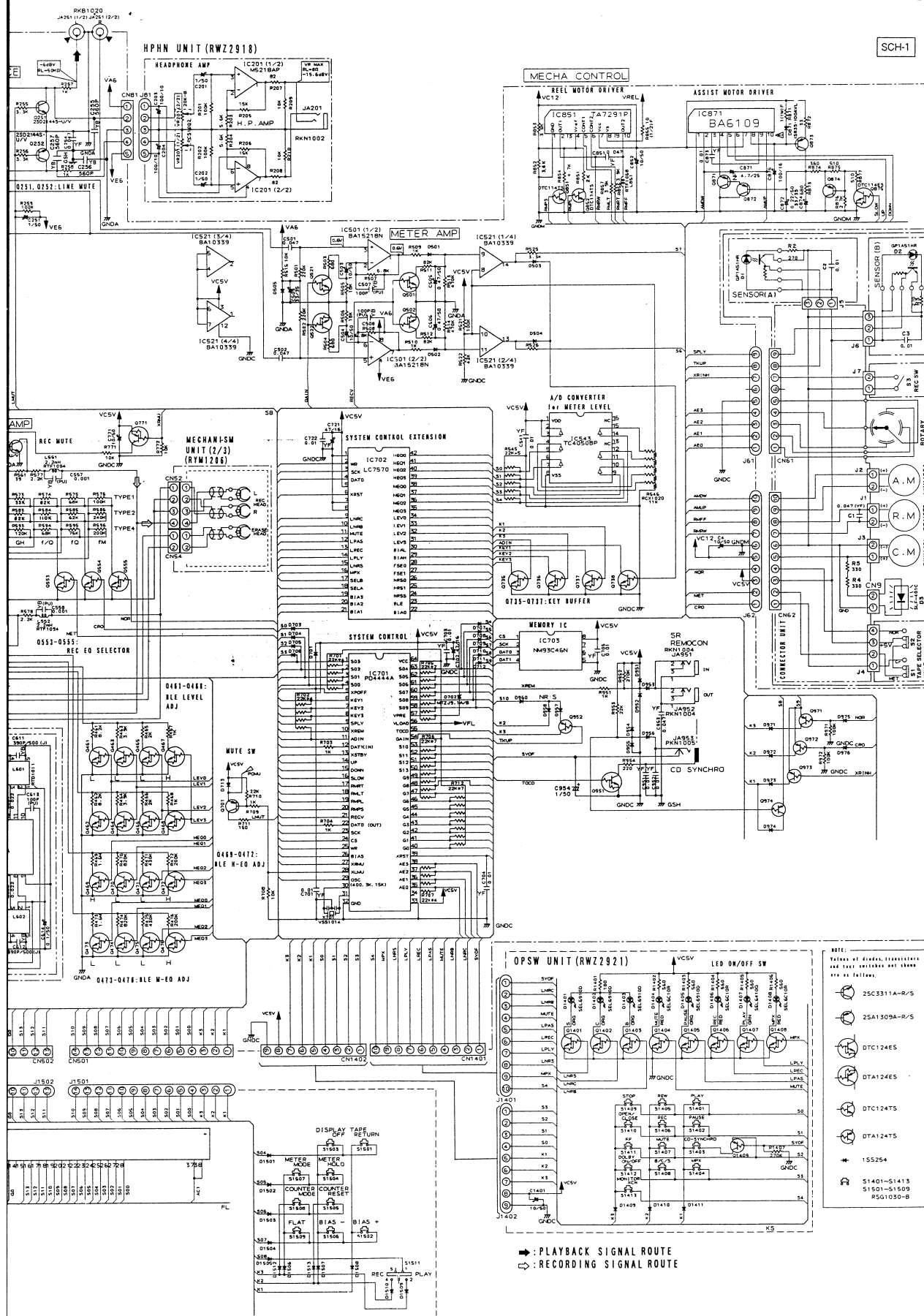
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12

1. MAIN, HPHN, HX, FL, OPSW, PWSW, VR AND TRN 2 UNIT



1
o.com manuals search engine



C121, C1321 (CA1130S)			
Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0	16	6. 0
2	0	17	0
3	0	18	0
4	0	19	-5. 7
5	-6. 0	20	-5. 7
6	0	21	0
7	0	22	0
8	0	23	0
9	0	24	0
10	0	25	0
11	-5. 7	26	0
12	-5. 7	27	0
13	0	28	0
14	-4. 9	29	0
15	-6. 0	30	0

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	1.3	9	0.7
2	1.3	10	0
3	1.3	11	0
4	0	12	6.0
5	-6.0	13	1.2
6	0	14	1.3
7	0	15	1.3
8	0.7	16	1.3

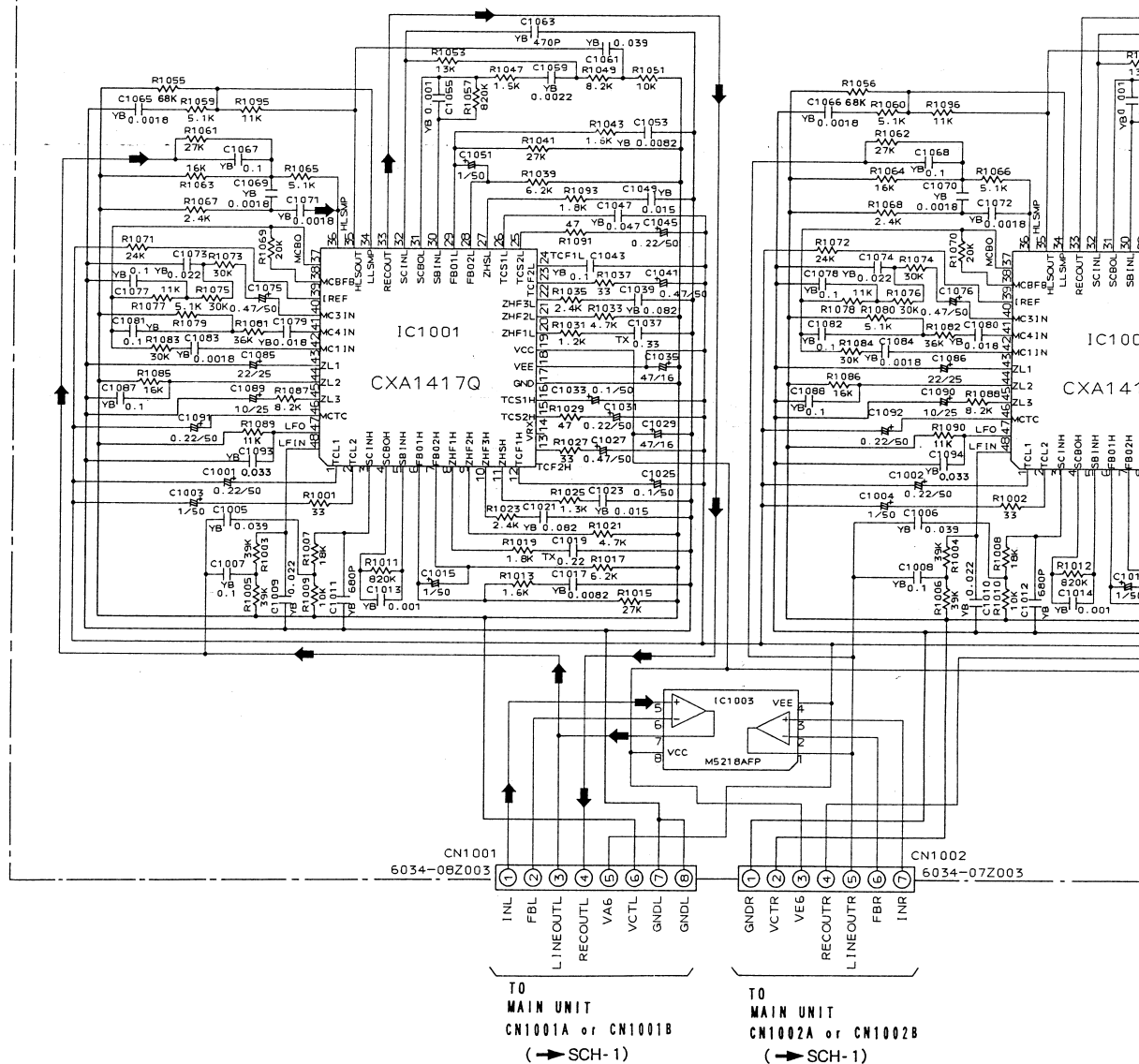
Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	4.4	10	1.7
2	0	11	0
3	4.4	12	0
4	0.6	13	0
5	0	14	0
6	0	15	0.6
7	0	16	4.4
8	0	17	0
9	0	18	12.0

MAIN,HPHN,HX,FL,
OPSW,PWSW,VR,
TBN 2 UNIT

2. DOLBY S UNIT

DOLBY S UNIT (RWX1079)

• CT-43 and CT-S820S each has two DOLBY S unit.



SCH-2

DOLBY S
UNIT

7. PCB PARTS LIST

NOTES:

- Parts marked by “NSP” are generally unavailable because they are not in our Master Spare Parts List.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by “ $\odot$ ” are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

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

560 Q → 56 × 10¹ → 561 RD1/8PM 561 J

47k Ω $\rightarrow 47 \times 10^3 \rightarrow 473$ RD1/4PS

4	7	3
---	---	---

 J

0.5 Q → 0R5 RN2H 0 R 5 K

10 → 010 RSIP 0 1 0 K

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

5.62k Q → 562 × 10¹ → 5621 RN1/4PC

5	6	2	1
---	---	---	---

 F

[illegible]

Mark	No.	Description	Part No.
CAPACITORS			
	C871		CEANP4R7M25
	C251, C401, C551, C552, C564, C954		CEAS010M50
	C4, C503, C504, C771, C852		CEAS100M50
	C751, C815, C875		CEAS101M16
	C804		CEAS101M25
	C802		CEAS101M50
	C817		CEAS102M6R3
	C509, C756, C874		CEAS330M35
	C702, C721, C833		CEAS470M16
	C831, C832		CEAS4R7M50
	C814		CEAS682M25
	C129, C130, C317, C318, C872		CEASR22M50
	C127, C128, C131, C132, C315, C316, C319, C320		CEASR33M50
	C133, C134, C252, C253, C323, C324, C905, C906		CENA101M25
	C505, C506		CEASR47M50
	C113, C114, C147-C150, C559, C560		CENA470M25
	C123-C126, C311-C314		CFTXA222J50
	C405, C753, C754		CFTXA332J50
	C406, C755		CFTXA682J50
	C752		CFTYA223J50
	C109, C110, C402		CFTYA273J50
	C501, C502		CFTYA473J50
	C105, C106, C403, C909, C910		CFTYA563J50
	C541, C701, C703-C705, C722, C873, C951, C952		CKCYF103Z50
	C254, C303, C801, C803, C811-C813, C851, C901, C902, C953		CKCYF473Z50
	C255-C257		CKDYB561K50
	C103, C104, C507, C508		CKPUYB101K50
	C111, C112, C557, C558		CKPUYB102K50
	C143, C144		CKPUYB122K50
	C304		CKPUYF103Z25
	C407		CQMA103J50
	C404		CQMA823J50
	C757		CQPA752J100
	C101, C102		CQSF221J50
	C305, C306, C351, C352 (1 μ /50V)		RCH1079
	C141, C142, C145, C146, C353, C354, C907, C908 (10 μ /50V)		RCH1080
	C107, C108, C135, C136, C555, C556 (22 μ /25V)		RCH1081
	C137, C138, C321, C322 (33 μ /25V)		RCH1083
	C121, C122, C309, C310, C553, C554 (4.7 μ /50V)		RCH1090
	C903, C904 (3300 μ /25V)		RCH1102
	C911, C912 (220 μ /25V)		RCH1103
	C816 (10000 μ /16V)		VCH1054
RESISTORS			
	R701, R702, R707 (22K)		RA4T223J
	R545 (22K)		RA5T223J
	R705, R706, R712 (22K)		RA7T223J
	R369, R370 (560 Ω)		RCN1024
	R153, R154, R157, R158 (12K)		RCN1064

Mark	No.	Description	Part No.
	R546 (11K/22K)		RCX1020
	R608		RD1/2LF010J
	R855		RD1/2LF100J
	R802		RD1/2LF562J
	R753, R754		RD1/2LF6R2J
	R257, R258		RDR1/4PM102J
	R327, R328		RDR1/4PM273J
Δ	R801 (47 Ω)		RFA1/4L470J
	R871 (1 Ω)		RSILMF010J
Δ	R903, R904 (150 Ω)		RSILMF151J
	R803 (1.5K)		RSILMF152J
	VR551, VR552 (22K)		RCP1046
	VR101, VR102, VR401, VR403 (47K)		RCP1047
	VR402 (100K)		RCP1048
	OTHER RESISTORS		RD1/6PM□□□J
OTHERS			
	JA953 MINI JACK		PKN1005
	JA251, JA301 PIN JACK		RKB1020
	JA951, JA952 REMOTE CONTROL JACK		RKN1004
	X701 CERAMIC RESONATOR (4.19MHz)		VSS1014
HX UNIT			
SEMICONDUCTORS			
	IC601		UPC1297CA
	Q602		2SA1309A
	Q603		DTC124ES
	D602		1SS254
COILS			
	L601, L602 (L=4.6mH, Q=75, F=105KHz)		RTD1011
CAPACITORS			
	C609, C610		CCCSL101K500
	C616, C617		CEAS330M35
	C614		CEASR10M50
	C601, C602		CFTXA103J50
	C605, C606		CFTXA223J50
	C607, C608		CGCYX223K25
	C613		CKPUYB101K50
	C603, C604		CKPUYB821K50
	C611, C612 (C=390P, V(DC)=500)		RCG1004
RESISTORS			
	VR601, VR602		VRTB6HS473
	OTHER RESISTORS		RD1/6PM□□□J
DOLBY S UNIT			
SEMICONDUCTORS			
	IC1001, IC1002		CXA1417Q
	IC1003		M5218AFP
CAPACITORS			
	C1003, C1004, C1015, C1016, C1051, C1052		CEJA010M50
	C1033, C1034		CEJAR10M50
	C1001, C1002, C1031, C1032, C1045, C1046, C1091, C1092		CEJAR22M50

Mark	No.	Description	Part No.
	C1027, C1028, C1041, C1042, C1075, C1076 C1019, C1020	CEJAR47M50 CFTYA224J50	
	C1037, C1038 C1013, C1014, C1055, C1056 C1007, C1008, C1025, C1026, C1043, C1044, C1067, C1068, C1077, C1078, C1081, C1082, C1087, C1088 C1023, C1024, C1049, C1050 C1065, C1066, C1069-C1072, C1083, C1084	CFTYA334J50 CKSQYB102K50 CKSQYB104K25 CKSQYB153K50 CKSQYB182K50	
	C1093, C1094 C1079, C1080 C1059, C1060 C1009, C1010, C1073, C1074 C1093, C1094	CKSQYB333K50 CKSQYB183K50 CKSQYB222K50 CKSQYB223K50 CKSQYB333K50	
	C1005, C1006, C1061, C1062 C1063, C1064 C1047, C1048 C1011, C1012 C1017, C1018, C1053, C1054	CKSQYB393K50 CKSQYB471K50 CKSQYB473K50 CKSQYB681K50 CKSQYB822K50	
	C1021, C1022, C1039, C1040 C1089, C1090 (10 μ /25V) C1085, C1086 (22 μ /25V) C1029, C1030, C1035, C1036 (47 μ /16V)	CKSQYB823K25 RCH1093 RCH1094 RCH1095	
RESISTORS	OTHER RESISTORS	RD1/10S□□□J	
OTHERS	CN1002 CN1001	6034B-07Z001 6034B-08Z001	
PWSW UNIT			
SWITCHES	△ S991	RSA1001	
CAPACITORS	△ C991 (0.01 μ F/400V)	VCG-044	
OTHERS	△ TERMINAL	RKC-061	
TRN2 UNIT	TRN2 unit has no service part.		
TRN1 PCB	TRN1 PCB has no service part.		
HPHN UNIT			
SEMICONDUCTORS	IC201	M5218AP	
CAPACITORS	C201, C202 C203, C204	CEAS010M50 CEAS101M10	

Mark	No.	Description	Part No.
RESISTORS	VR201 (20KB) OTHER RESISTORS	PCS1002 RD1/6PM□□□J	
OTHERS	JA201 HEADPHONE JACK	RKN1002	
FL UNIT			
SEMICONDUCTORS	D1501-D1510, D1512, D1513	1SS254	
SWITCHES	S1501-S1509 S1511	RSG1030 RSH1011	
OTHERS	V1501 FL INDICATOR TUBE	RAW1127	
OPSW UNIT			
SEMICONDUCTORS	Q1409 Q1401-Q1408 D1409-D1411 D1407 D1401-D1403, D1405 D1404, D1406, D1408	DTA124TS DTC124ES 1SS254 SEL6410G SEL6910D SEL6C10R	
SWITCHES	S1401-S1413	RSG1030	
CAPACITORS	C1401	CEJA100M16	
RESISTORS	ALL RESISTORS	RD1/6PM□□□J	
VR UNIT			
RESISTORS	VR2102 VR2101 (100KA)	RCV1078 RCV1077	
REC SWITCH UNIT			
SWITCHES	S3	RSG-113	
TAPE SELECTOR UNIT			
SWITCHES	S1, S2	RSH-C/O	
CONNECTOR UNIT			
CAPACITORS	C1	CKCYH7 3Z50	
RESISTORS	ALL RESISTORS	RD1/6PM□□□J	

Mark	No.	Description	Part No.
SENSOR UNIT (A)			
SEMICONDUCTORS			
	D1		GP1A51HR
CAPACITORS			
	C2		CKPUYY103N16
RESISTORS			
	ALL RESISTORS		RD1/6PM□□□J
SENSOR UNIT (B)			
SEMICONDUCTORS			
	D2		GP1A51HR
CAPACITORS			
	C3		CKPUYY103N16
RESISTORS			
	ALL RESISTORS		RD1/6PM□□□J

8. ADJUSTMENTS

8.1 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	3015Hz $\pm$ 5Hz

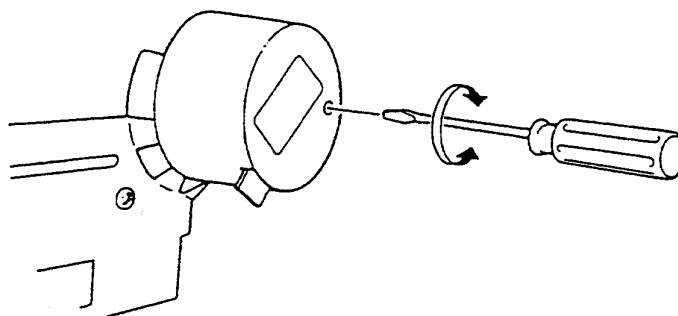


Fig. 8-1 Tape speed adjustment

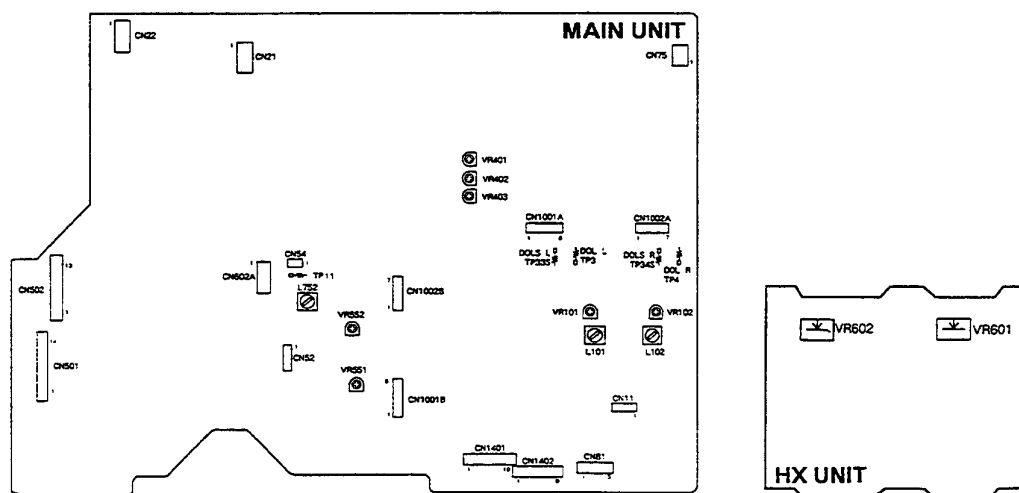


Fig. 8-2 Adjusting points

8.2 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-331E : Playback adjustments
(See Fig. 8-3)

STD-631 : NORMAL blank tape

STD-621 : CrO₂ blank tape

STD-610 : METAL blank tape

* 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.

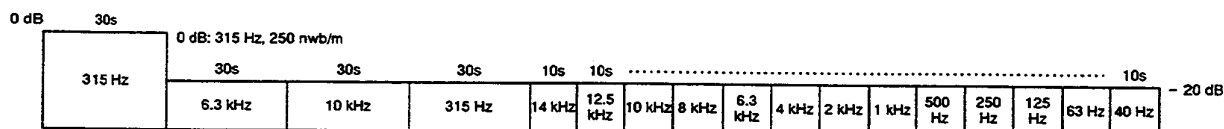


Fig. 8-3 Constants of the test tape STD-331E

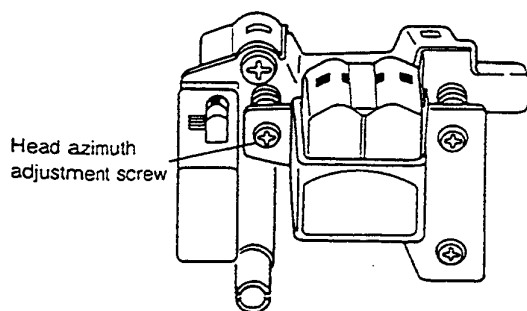


Fig. 8-4 Head azimuth adjustment

List of Adjustments

Playback sections

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

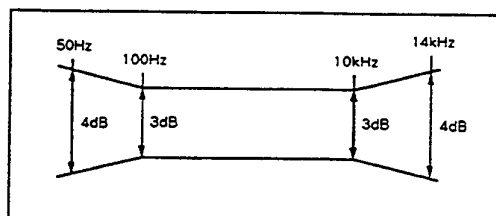
Recording sections

1. Bias oscillator adjustment.
2. Bias trap adjustment.
3. Recording bias adjustment.
4. Recording level adjustment.
5. AUTO BLE adjustment.

NOTE: This unit has an automatic tape selection feature.

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PLAY BACK



RECORDING

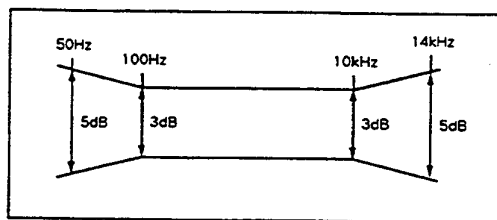


Fig. 8-5 Frequency response zone

PLAYBACK SECTION

1. Head Azimuth Adjustment

- Turn VR101, 102 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. 8-4)	LINE OUT	Maximum playback signal level.	
2.	STOP	Lock the screw with screw lock after completing adjustment.				

Note: The left and right phase difference for the 12.5 kHz tone should be within 75 degrees. (That for the 10 kHz tone should be within 60 degrees.)

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 VR101 (Lch) VR102 (Rch)	TP. 3 (Lch) TP. 4 (Rch)	-7.2 dBV	
2.	Set the DOLBY NR switch to the S position.					
3.	PLAY	Play the 315 Hz/0 dB section of the STD-331E test tape.		TP. 33S (Lch) TP. 34S (Rch)	-7.2 dBV $\pm$ 0.5 dB	

RECORDING SECTION

1. Bias Oscillator Adjustment

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	REC/ PLAY	Load the STD-610 test tape with no input signal.	Deck L752	TP. 11	105 kHz $\pm$ 300 Hz	

2. Bias Trap Adjustment

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	REC/ PLAY	Load the STD-610 test tape with no input signal.	Deck L101 (Lch) L102 (Rch)	LINE OUT	Minimum output	

3. Recording Bias Adjustment

- After the adjustment, Caution should be exercised so as not to become under bias by checking the distortion rate.
- Set the DOLBY NR switch to the OFF position.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	REC/ PLAY	Record the 315 Hz and 10kHz signals at -26 dBV input level onto the STD-631 test tape, and Playback.	NOR. VR601 (Lch) VR602 (Rch)	LINE OUT	Repeatedly record, playback and adjust so that the playback level of 10 kHz signal becomes 0 dB $\pm$ 0.5dB when compared with the 315Hz signal.	

4. Recording Level Adjustment

- Set the DOLBY NR switch to the OFF position.

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC PAUSE	Apply a 315 Hz/ - 4 dBV 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	
2.	REC/ PLAY	Record the above signal onto the STD - 631 test tape, and playback.	Deck	VR551 (Lch) VR552 (Rch)	TP. 3 (Lch) TP. 4 (Rch)	Repeatedly record, playback and adjust so that the playback signal level becomes -11.2 dB.	
3.	REC/ PLAY	Record the above signal onto the STD - 621 test tape, and playback.	Check			-11.2 dBV ± 1 dB	
4.	REC/ PLAY	Record the above signal onto the STD - 610 test tape, and playback.	Check			-11.2 dBV ± 1 dB	
5.	STOP	Set the DOLBY NR switch to the S position.					
6.	REC/ PLAY	Record the above signal onto the STD - 631 test tape, and playback.	Check		LINE OUT	0 dB ± 1.0 dB for paragraph 2.(* 1)	

* 1: If this confirmation value cannot be obtained, perform "Playback Level Adjustment" once again.

5. AUTO BLE Adjustment

- BLE Adjustment must be performed after all other adjustments are completed.
- This adjustment should be performed in the test mode.
- Entering the test mode

Press the COUNTER MODE, COUNTER RESET and PAUSE keys on the front panel simultaneously, with the power ON. The unit enters the test mode and oscillates a 400 Hz signal.

Thereafter, each time the AUTO BLE key is pressed, the oscillation frequency changes as follows: 3 kHz oscillation $\rightarrow$ 15 kHz oscillation $\rightarrow$ 400Hz oscillation

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	-	Set to test mode	-	-		
2.		Press the AUTO BLE key on the front panel.	VR401	Level meter Lch	Adjust the Lch segment which is lit until Rch is not lighting up. Lch ☒ → ☐ Rch ☒ ☒ ☒ ☒ (☒ : light up ☐ : not light up)	400 Hz adjustment (FL indication 1)
3.		Press the AUTO BLE key on the front panel.	VR402			3 kHz adjustment (FL indication 2)
4.		Press the AUTO BLE key on the front panel.	VR403			15 kHz adjustment (FL indication 3)
5.	When the COUNTER RESET key is pressed again, the test mode is released.					

9. IC INFORMATION

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

1. PD4444A (IC701)

- System control

Pin functions

Pin No.	Name	Function
1	S3	Pins 1 to 4 are the FL scan segment output, key scan output and level scan output.
2	S2	
3	S1	
4	S0	
5	POFF	Power off pulse input. Power off processing starts when "H" becomes "L".
6	KEY1	Pins 6 to 8 are key scan data inputs.
7	KEY2	
8	KEY3	
9	SPLY	Supply side sensing pulse input.
10	REMOTE	Remote control pulse input.
11	ADIN	Level detection signal input. (Lch, Rch, FLEX level detection signals)
12	DAT1(IN)	Communication data input from the external memory (NM93C46N).
13	STBY	When the power is turned off by the SR signal, outputs "L" and sets into the standby mode.
14	AM UP	Assist motor control output. Outputs "H" when stopping.
15	AM DOWN	Assist motor control output. Outputs "H" when stopping.
16	AM SLOW	Assist motor control output. Outputs "H" when stopping.
17	RM RT	Reel motor control output. Outputs "H" when stopping.
18	RM LT	Reel motor control output. Outputs "H" when stopping.
19	RM PL	Reel motor play torque output. Outputs "H" during play.
20	RM PS	Reel motor play torque output. Outputs "H" at the beginning of tape rewinding during play.
21	RECV	Switches the meter circuit output recovery time. Increases the speed of the recovery time at "H".
22	DAT0(OUT)	Communication data output with the external memory (NM93C46) and output expansion IC (LC7570).
23	SCK	Communication clock output with the external memory and output expansion IC.
24	CS	Chip select output. Outputs "H" when communicating with the external memory.
25	WR	Outputs "H" when communicating with the output expansion IC.
26	BIAS	Bias current and erasure current control output. ON at "H".
27	REC MUTE	Recording amplifier mute control output. Mute turns on at "L".
28	LINE MUTE	Line mute control output. Mute turns on at "L".
29	BLE OSC	Square wave output for AUTO BLE. Outputs the 400/3K/10K/15 kHz square wave.
30	OSC1	Operation clock input.
31	OSC2	Operation clock input.
32	GND	Connected to GNDC.

Pin No.	Name	Function
33	GND	Connected to GNDC.
34	—	N.C.
35	AE0	Pins 35 to 38 are encoder inputs for detecting the position of the mechanism assist.
36	AE1	
37	AE2	
38	AE3	
39	RESET	Reset input. Resets at "L". (When the power is on and off)
40	G0	Pins 40 to 49 are outputs for the FL scan grid.
41	G1	
42	G2	
43	G3	
44	G4	
45	G5	
46	G6	
47	G7	
48	G8	
49	G9	
50	S13	Pins 50 to 53 are FL scan segment output pins.
51	S12	
52	S11	
53	S10	
54	M. GAIN	Meter amplifier gain switching output. When MS, outputs "H".
55	TOCD	CD synchronization output. Outputs "H" during CD synchronization.
56	VLOAD	Connected to VFL (Approx. — 30V).
57	VPRE	Connected to approx. — 5V.
58	S9	Pins 58 to 62 are FL scan segment outputs and key scan outputs.
59	S8	
60	S7	
61	S6	
62	S5	
63	S4	FL scan segment output, key scan output, and level scan output.
64	VC5V	Power supply terminal. Connected to +5V.

* 2 Pad spacer B

Pad(R)

Packing case

10. FOR CT-S820S/HEM, CT-S620/HEM, HB, SD, AND CT-S620-G/HEM

CONTRAST OF MISCELLANEOUS PARTS

NOTES:

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

CT-S820S/HEM, CT-S620/HEM, HB, SD, CT-S620-G/HEM and CT-43/KU/CA have the same construction except for the following:

Mark	Symbol & Description	Part No.						Remarks
		CT-43/ KU/CA	CT-S820S/ HEM	CT-S820/ HEM	CT-S620/ HB	CT-S620/ SD	CT-S620-G/ HEM	
NSP	MOTHER unit	RWM1818	RWM1810	RWM1819	RWM1820	RWM1821	RWM1819	
	MAIN unit	RWZ2964	RWZ2917	RWZ2968	RWZ2972	RWZ2976	RWZ2968	
NSP	PWSW unit	RWZ2965	RWZ2919	RWZ2969	RWZ2973	RWZ2977	RWZ2969	
NSP	TRN1 PCB *	RNZ2456	RNZ2452	RNZ2480	RNZ2480	RNZ2480	RNZ2480	
NSP	TRN1 unit *	.....	.....	.....	.....	RWZ2978	.....	
NSP	TRN2 unit	RWZ2967	RWZ2934	RWZ2971	RWZ2975	RWZ2979	RWZ2971	
NSP	SUB unit	RWM1813	RWM1813	RWM1822	RWM1822	RWM1822	RWM1822	
NSP	HPHN unit	RWZ2918	RWZ2918	RWZ2980	RWZ2980	RWZ2980	RWZ2980	
	FL unit	RWZ2920	RWZ2920	RWZ2981	RWZ2981	RWZ2981	RWZ2981	
	OPSW unit	RWZ2921	RWZ2921	RWZ2982	RWZ2982	RWZ2982	RWZ2982	
NSP	VR unit	RWZ2922	RWZ2922	RWZ2983	RWZ2983	RWZ2983	RWZ2983	
	DOLBY S unit	RWX1079	RWX1079	.....	.....	.....	.....	
Δ	T1 Power transformer (AC120V)	RTT1234	.....	.....	.....	.....	.....	
Δ	T1 Power transformer (AC220 - 230/230 - 240V)	.....	RTT1233	RTT1233	RTT1233	.....	RTT1233	
Δ	T1 Power transformer (AC110/120 - 127/220/240V)	.....	.....	.....	.....	RTT1235	.....	
Δ	AC power cord	PDG1015	RDG1028	RDG1028	RDG1024	RDG1028	RDG1028	
Δ	Strain relief	CM - 22C	CM - 22B	CM - 22B	CM - 22B	CM - 22B	CM - 22B	
Δ	Fuse FU811, FU812 (1.5A/125V)	DEK1014	.....	.....	.....	.....	.....	
Δ	Fuse FU811, FU812 (T1.6A, 250V)	.....	REK - 102	REK - 102	REK - 102	REK - 102	REK - 102	
Δ	Line voltage selector (AC110/120 - 127/220/240V)	.....	.....	.....	.....	PSB1002	.....	
	Foot assembly	AMR1159	.....	.....	.....	.....	.....	
	Insulator	PNW1912	PNW1912	PNW1912	PNW1912	PNW1912	PNW1912	For foot
	Side panel	RAH2044	.....	.....	.....	.....	.....	
	Side sheet	PHM1150	.....	.....	.....	.....	.....	
	Side spacer (Rubber)	REB1198	.....	.....	.....	.....	.....	
	Front panel	RAH2283	RAH2289	RAH2284	RAH2284	RAH2284	RAH2285	
	Door	RAH2277	RAH2270	RAH2278	RAH2278	RAH2278	RAH2279	
	FL filter	RAH2087	RAH1936	RAH1936	RAH1936	RAH2087	RAH1936	
	Name plate	RAN1008	VAM1032	VAM1032	VAM1032	VAM1032	RAN1011	
	Function knob	RAC1817	RAC1817	RAC1821	RAC1821	RAC1821	RAC1822	
NSP	Rear panel	RNA1722	RNA1715	RNA1723	RNA1723	RNA1724	RNA1725	
	Panel stay	RNT1179	RNT1175	RNT1175	RNT1175	RNT1175	RNT1180	
	Slide SW knob	RAC1562	RAC1562	RAC1562	RAC1562	RAC1562	RAC1540	
	Power button	RAC1703	RAC1703	RAC1703	RAC1703	RAC1703	RAC1657	
	Balance knob	RAC1705	RAC1705	RAC1705	RAC1705	RAC1705	RAC1682	
	VR knob	RAC1707	RAC1707	RAC1707	RAC1707	RAC1707	RAC1708	
	VR ring	RAT1011	RAT1011	RAT1011	RAT1011	RAT1011	RAT1011	
	Bonnet	RXX1516	RXX1516	RXX1516	RXX1516	RXX1516	RXX1506	
	Screw	.....	.....	.....	.....	.....	RBA1088	For bonnet
	Screw	ABA1148	.....	.....	.....	.....	.....	
	Packing case	RHG1493	RHG1450	RHG1494	RHG1495	RHG1496	RHG1497	
	Pad (F)	RHA1117	RHA1119	RHA1119	RHA1119	RHA1119	RHA1119	
	Operating instructions (German/Italian/Dutch/Swedish/Spanish/Portuguese)	.....	RRD1138	RRD1138	.....	.....	RRD1138	
	Operating instructions (Spanish)	.....	.....	.....	.....	RRD1139	.....	
	Pad spacer A	.....	.....	.....	.....	.....	.....	* 1
	Pad spacer B	.....	.....	.....	.....	.....	.....	* 2
	Pin cap	.....	.....	.....	RHC1041	.....	.....	* 3
	Vec1616	.....	.....	.....	VEC1616	.....	.....	

Note : * TRN1 PCB and TRN1 unit has no service part.

MAIN UNIT

RWZ2968, RWZ2972, RWZ2976 and following:

Mark	Symbol & Description	RW.
	IC141	M5:
	IC151, IC351	TC4
	Q141	DTC
	Q142	DTA
	D141, D958	1S
	C137, C138 (33 μ /25V)	RCI
	C141, C142, C145, C146, C353, C354 (10 μ /50V)	RCI
	C143, C144	CKPUY
	C147 - C150	CENA
	C351, C352 (1 μ /50V)	RCI
	C903, C904 (3300 μ /25V)	RCI
	C903, C904 (2200 μ /25V)	..
	C113, C114, C559, C560	CENA
	C133, C134, C323, C324, C905, C906	CENA
	C252, C253	CENA
	C907, C908 (10 μ /50V)	RCI
	C907, C908	..
	C911, C912 (220 μ /25V)	RCI
	C911, C912	..
	R131, R132, R151, R152	RD1/E
	R143, R144, R155, R156, R365, R366	RD1/E
	R145 - R148	RD1/E
	R153, R154 (12K)	RCI
	R159	RD1/E
	R160	RD1/E
	R353, R354, R359, R360	RD1/E
	R355, R356	RD1/E
	R357, R358	RD1/E
	R361, R362	RD1/E

Note : Although RWZ2917 and RWZ2964 are differ

PWSW UNIT

Although RWZ2919, RWZ2969, RWZ number, they have the same service

TRN2 UNIT

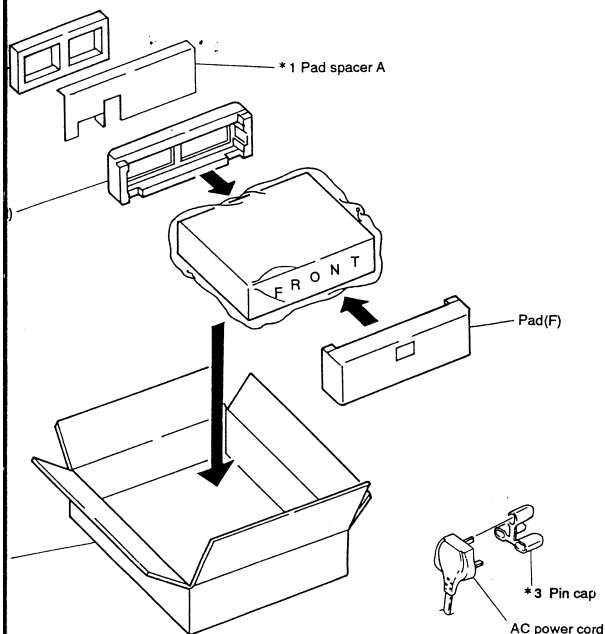
Although RWZ2934, RWZ2971, RWZ number, they consist of the same c

HPHN UNIT

Although RWZ2980 and RWZ2918 a components.

FL UNIT

Although RWZ2981 and RWZ2920 a components.



CT-S820S, CT-S620, CT-S620S

76 and RWZ2964 have the same construction except for the

OPSW UNIT

RWZ2982 and RWZ2921 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		RWZ2921	RWZ2982	
	Q1402	DTC124ES	.....	
	D1402	SEL6910D	.....	

VR UNIT

Although RWZ2983 and RWZ2922 are different in part number, they consist of the same components.

Part No.				Remarks
RWZ2964	RWZ2968	RWZ2972	RWZ2976	
M5218AP	.....	.....	.....	
TC4066BP	.....	.....	.....	
DTC124ES	.....	.....	.....	
DTA124ES	.....	.....	.....	
1SS254	.....	.....	.....	
RCH1083	.....	.....	.....	
RCH1080	.....	.....	.....	
CKPUYB122K50	.....	.....	.....	
CENA470M25	.....	.....	.....	
RCH1079	.....	.....	.....	
RCH1102	.....	.....	.....	
.....	RCH1096	RCH1096	RCH1096	
CENA470M25	CENA470M25	CEAS101M10	CEAS101M10	
CENA101M25	CENA101M25	CEAS101M10	CEAS101M10	
CENA101M25	CENA101M25	CEAS470M16	CEAS470M16	
RCH1080	RCH1080	CEAS100M50	CEAS100M50	
.....				
RCH1103	RCH1103	CEAS101M10	CEAS101M10	
.....				
RD1/6PM182J	.....	.....	.....	
RD1/6PM104J	.....	.....	.....	
RD1/6PM152J	.....	.....	.....	
RCN1064	.....	.....	.....	
RD1/6PM223J	.....	.....	.....	
RD1/6PM473J	.....	.....	.....	
RD1/6PM203J	.....	.....	.....	
RD1/6PM103J	.....	.....	.....	
RD1/6PM124J	.....	.....	.....	
RD1/6PM123J	.....	.....	.....	

4 are different in part number, they consist of the same components.

9, RWZ2973, RWZ2977 and RWZ2965 are different in part service parts.

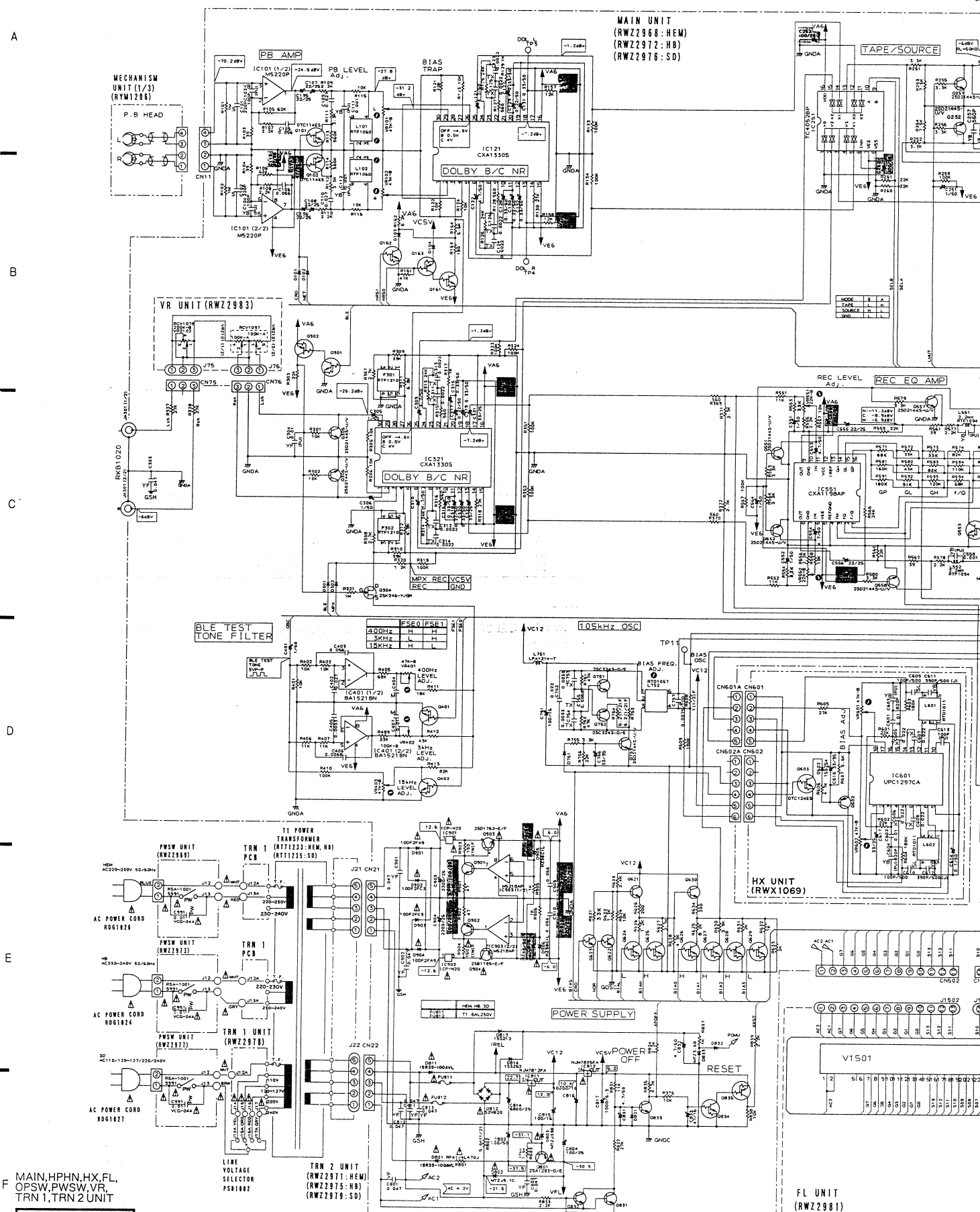
1, RWZ2975, RWZ2979 and RWZ2967 are different in part same components.

2918 are different in part number, they consist of the same

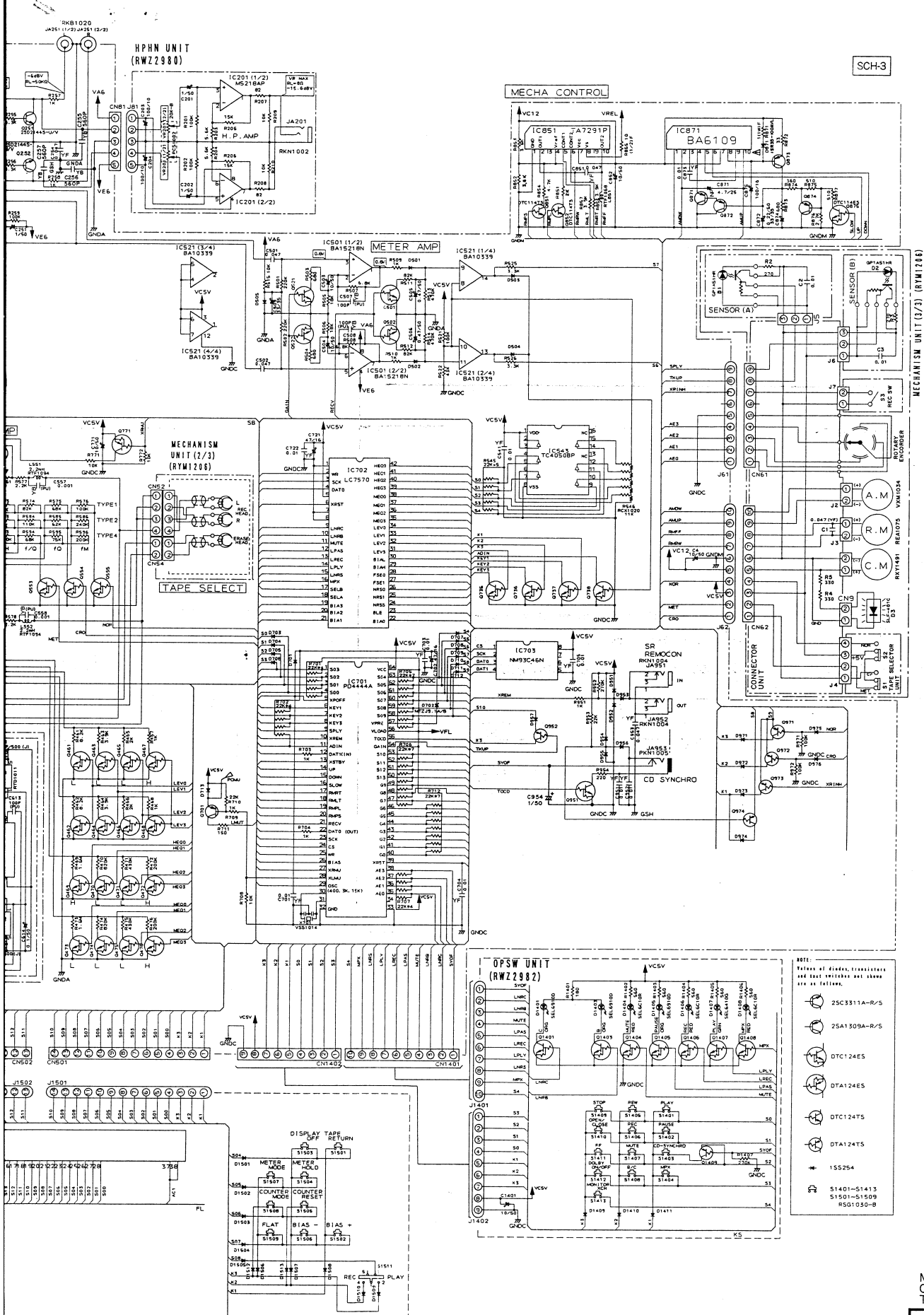
2920 are different in part number, they consist of the same

SCHEMATIC DIAGRAM FOR CT-S620 AND CT-S620-G

Note: For CT-S820S/HEM, refer to "6. SCHEMATIC DIAGRAM".



SCH-3



SCH-3

MECHANISM UNIT (1/3) (RYM1206)

- NOTE: Values of diodes, transistors and base resistors are shown as follows.
- 2SC8311A-R/S
 - 2SA1509A-R/S
 - DTC124ES
 - DTA124ES
 - DTC124TS
 - DTA124TS
 - 1S5254
 - S1401-S1413
 - S1501-S1509
 - RS01030-B

MAIN, HPHN, HX, FL, OPSW, PWSW, VR, TRN 1, TRN 2 UNIT

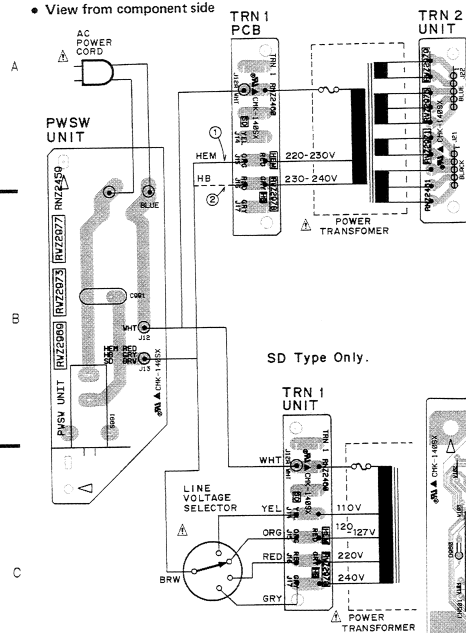
SCH-3

parts marked by " " refer to page 38.

● PCB DIAGRAM FOR CT-S620 AND CT-S620-G

Note: For CT-S820S/HEM, refer to "5. PCB CONNECTION DIAGRAM".

● View from component side



Line Voltage Selection

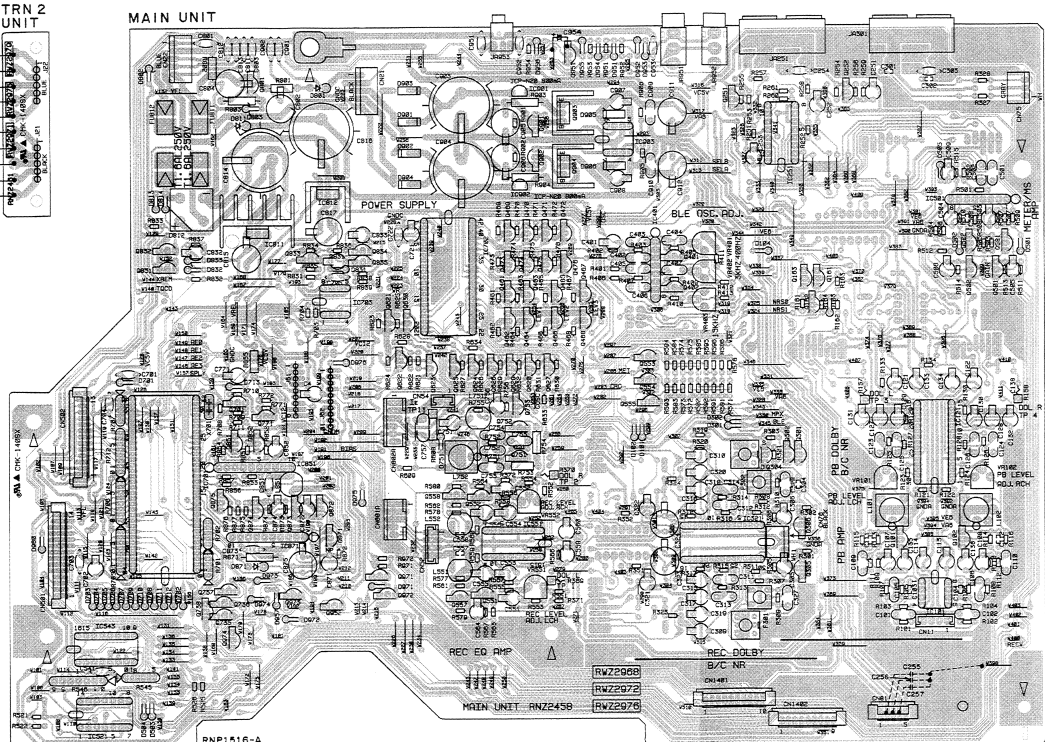
Line voltage can be changed with the following steps.

1. Disconnect the AC power cord.
2. Remove the Top cover.
3. Change the position of the connection wire from PWSW unit to TRN 1 PCB as follows.

Voltage	Position of the connection wire
220V-230V	①
230V-240V	②

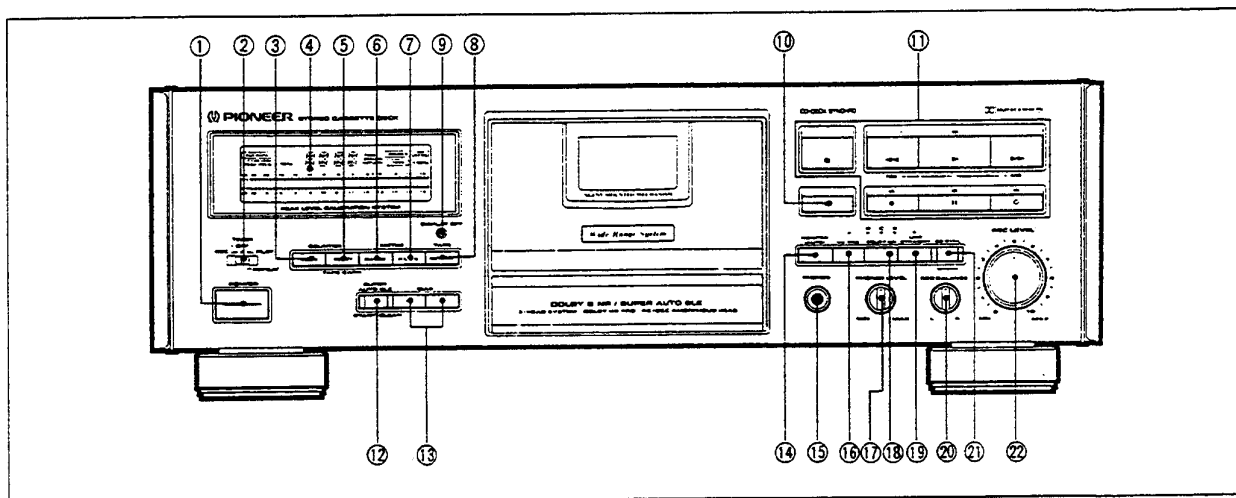
4. Stick the line voltage label on the rear panel.

Parts No.	Description
AAX-193	220 V label
AAX-192	240 V label



Q832	IC811	IC812	IC901 Q901 Q903	Q951	VR552 VR551	VR401 VR402 VR403	Q251	IC251	Q252	VR101	VR102
Q831	Q701 Q771	Q833	Q834 Q835	IC902 Q902 Q904	IC903	IC401	Q401	Q163 Q161	Q162	IC501	Q522 Q521
IC701	Q851 Q852	IC703	Q621 Q630 IC702	Q461 - Q476	Q553 Q402	Q554	Q555	Q304 Q302 Q301	Q306	Q101	IC121
	Q875 Q874 Q873 Q872		Q622 Q623 Q624 Q625 Q626	Q629 Q627	Q558 Q552 Q753	IC321		Q305		IC101	Q102
IC543	Q737 IC871 Q873	Q871	Q871	Q951	IC551						
IC521	Q738 Q736	Q952	Q972	Q557 Q551							
	Q735 Q974										

11. PANEL FACILITIES



① Power switch (POWER)

After pressing the switch, the WAIT message will appear in the counter display and the level meter scale will flash for about four seconds (the time necessary for circuitry to stabilize). During the time the display is flashing, no operating buttons will respond, with the exception of the cassette door open/close button (▲). To close the cassette door, do it while the power is turned on.

② TIMER mode/repeat play switch (TIMER REC/OFF/PLAY-REPEAT)

REC: Set to this position to perform timer recording.
OFF: Set to this position under ordinary conditions, (when not using the timer or repeat functions).

PLAY-REPEAT:

Set to this position to perform timer playback. When the switch is set to this position during normal playback, repeat playback of a single tape can be performed.

③ Counter mode button (COUNTER MODE)

Each time this button is pressed, one of the three modes (Normal tape counter/Timer counter/Remaining time counter) is set in sequence.

④ Function display

⑤ Counter reset/tape capacity selector button (COUNTER RESET/TAPE CAPA)

Reset the counter indication to "0000" in the normal tape counter or the time counter mode.

To indicate the correct time value in the remaining time counter mode, this button must be set in accordance with the tape used.

⑥ Level meter mode selector button (METER MODE)

Switches between wide range, expanded range, and bias display.

⑦ Level meter hold mode button (METER HOLD MODE)

Selects the display mode of the peak level.
 When press this button so that the PEAK HOLD indicator lights up, the level meter holds the maximum level indications of the signal. To erase the maximum level indications, press this button again. When the PEAK HOLD indicator goes off, the level meter holds peak indications for about 1.2 second.

⑧ Tape return button (TAPE RETURN)

This button is used in the normal tape counter mode to fast forward or rewind the tape to a point near the counter reading "0000".

⑨ Display off button (DISPLAY OFF)

Press this button to turn off the function display.

⑩ Open/Close button (▲)

Press this button to open or close the cassette door. Whenever inserting or removing a cassette tape, be sure that the power is turned on.

NOTE:

If the cassette door is closed while the unit is turned off, and the power is then turned on, the cassette door may open and close after pressing one of the operation buttons. This occurs when the microprocessor resets the door mechanism to its initial state and does not indicate any malfunctioning of the unit.

⑪ Operation buttons

- : Stop
- ◀ : Rewind/music search
- ▶ : Playback
- ▶▶ : Fast forward/music search
- : Recording
- ⏸ : Pause
- : Recording mute

⑫ SUPER AUTO BLE START/CLEAR button

⑬ Recording bias buttons (BIAS -/+)

When desired, these buttons can be used to manually adjust the recording bias after performing AUTO BLE tuning.

- : Changes tone by reducing recording bias
- + : Changes tone by increasing recording bias

⑭ Monitor selector button (MONITOR [AUTO])

Used to monitor the source sound or adjust recorded sound during recording.

- When the unit is set to record or playback mode, the TAPE indicator lights up and monitor mode is automatically selected.

⑮ Headphones jack (PHONES)

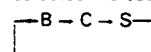
⑯ DOLBY NR ON/OFF button

Press to turn the Dolby NR system on and off.

⑰ Headphones level control (PHONES LEVEL)

⑱ DOLBY* NR button (B/C/S)

Press to select the Dolby NR system in the following order. The selected indicator lights up on the display.



*

- 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.

⑲ MPX FILTER button

⑳ Recording balance control (REC BALANCE)

㉑ CD DECK SYNCHRO recording button (CD SYNC)

㉒ Recording level control (REC LEVEL)