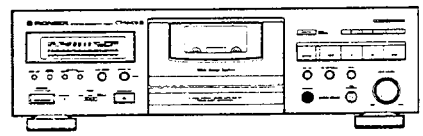
PIONEER®
The Art of Entertainment

PION-04971

Service Manual



ORDER NO.
RRV1498

STEREO CASSETTE DECK

CT-S550S

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

Type	Model	Power Requirement	Remarks
	CT-S550S		
HYXJ	○	AC220–230V	
HYXJ/GR	○	AC220–230V	

CONTENTS

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T-SSR FEB. 1996 Printed in Japan

CT-S550S

1. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES:

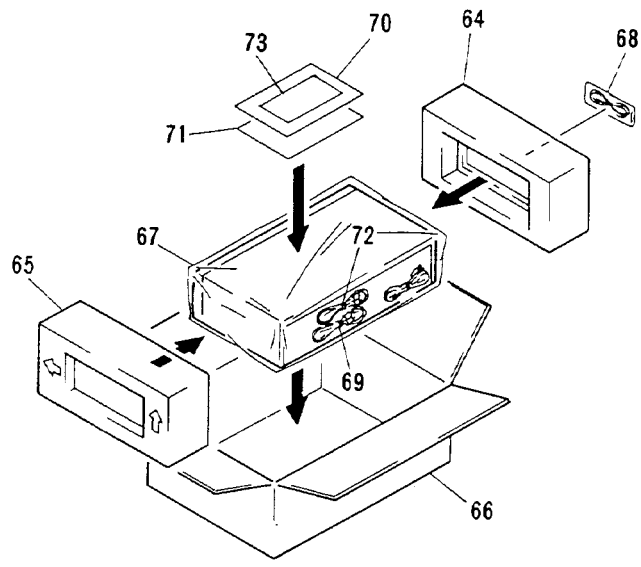
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by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

1.1 EXTERIOR AND PACKING

Parts List

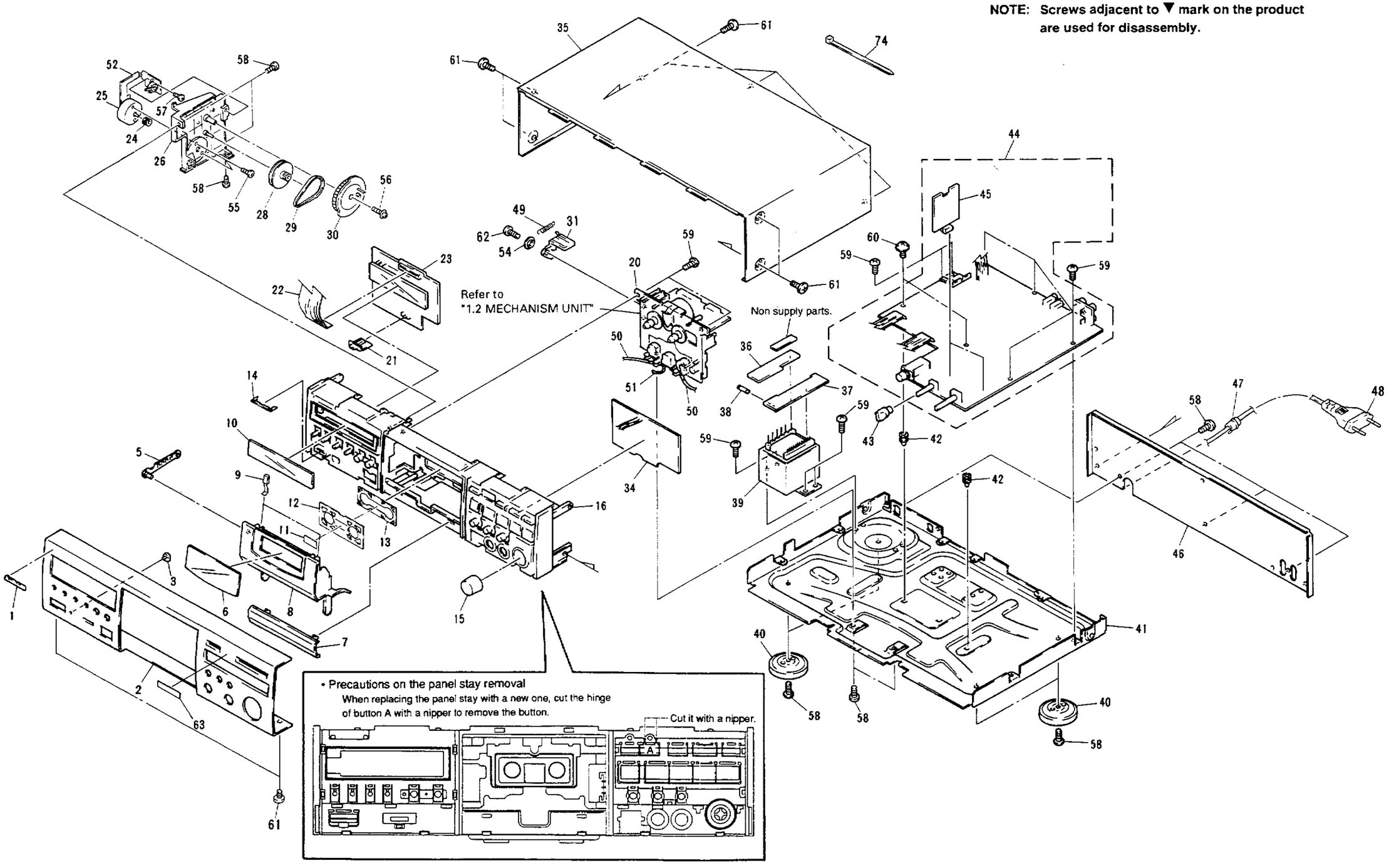
Mark	No.	Description	Parts No.
	1	Name plate	PAM1608
	2	Front panel	RAH2719
	3	LED lens	PNW2019
	4	.....	
	5	Joint	RNK1895
	6	Door lens	RAH2570
	7	Azimuth cover	RAH2567
	8	Door pocket	RAH2563
	9	Half pressure spring	RBK1004
	10	FL lens	RAH2558
	11	Remain display paper	REE-113
	12	Stabilizer panel	RAH1483
	13	Stabilizer B	REB1085
	14	Power cap	RAC1998
	15	VR knob	RAC1707
	16	Panel stay	REA1196
	17	.....	
	18	.....	
	19	.....	
NSP	20	MECHANISM UNIT	RYM1251
	21	Slide knob	RAC1713
	22	Lead card 29P	RDD1356
	23	FL UNIT	RWZ3859
	24	Motor pulley	PNW1634
	25	DC motor 0.75W	PXM1010
	26	Loading base assy	RXA1548
	27	.....	
	28	Pulley gear	RNK1517
	29	Rubber belt	PEB1127
	30	Cam gear	RNK1896
	31	SW lever	RNK1897
	32	.....	
	33	.....	
	34	OPSW UNIT	RWZ3861
	35	Bonnet	REA1192
NSP	36	TRN 1 PCB	RNZ3004
NSP	37	TRN 2 UNIT	RWZ3865
⚠	38	Fuse (T 1.25A)	AEK1055
⚠	39	Power transformer	RTT1309
	40	Insulator	PNW1912
NSP	41	Main chassis	RNB1113
NSP	42	Spacer	RNY-404
	43	Balance knob	RAC1705
	44	MAIN UNIT	RWZ3857
	45	DOLBY S UNIT	RWX1120
	46	Rear panel	RNA2034
⚠	47	Strain relief	CM-22B
⚠	48	AC power cord	PDG1043
	49	Ratchet spring	RBH1008
	50	Connector assy 3P	RKP1673
	51	Connector assy 2P	RKP1681
NSP	52	POCM UNIT	RWZ3867
	53	.....	
	54	Eject collar	RLA1303
	55	Screw	BMZ26P040FMC
	56	Screw	IPZ20P080FMC
	57	Screw	BBZ26P060FMC
	58	Screw	BBZ30P080FCC
	59	Screw	BBZ30P060FCC
	60	Screw	IBZ30P150FCC
	61	Screw	BBZ30P080FZK
	62	Screw	BBZ26P100FMC
	63	Getter	RAX1049
	64	Pad (L)	RHA1213
	65	Pad (R)	RHA1212
	66	Packing case	RHG1737
	67	Sheet	RHX-034
	68	Connection cord assy	RDE1026
	69	Control cord	RDE1044
	70	Operating instructions (French/Italian/Dutch/ Swedish/Spanish/Portuguese) (HYXJ type only)	RRD1185
	71	Operating instructions (English/German)	RRE1136
	72	Cord with mini plug	PDE1267
	73	Warranty card	ARY7009
	74	Binder	ZCA-T18S

Packing

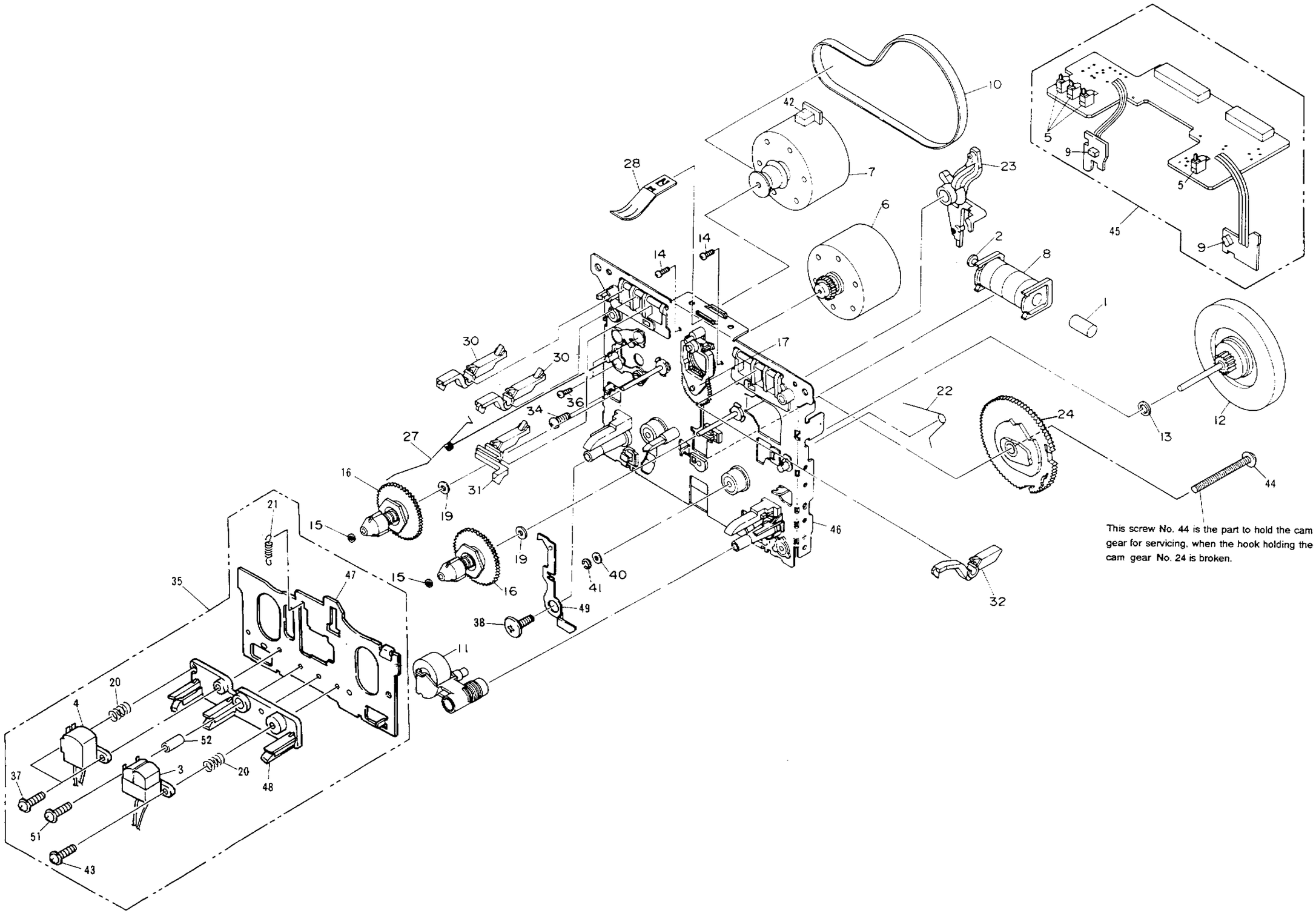


Exterior

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



1.2 MECHANISM UNIT

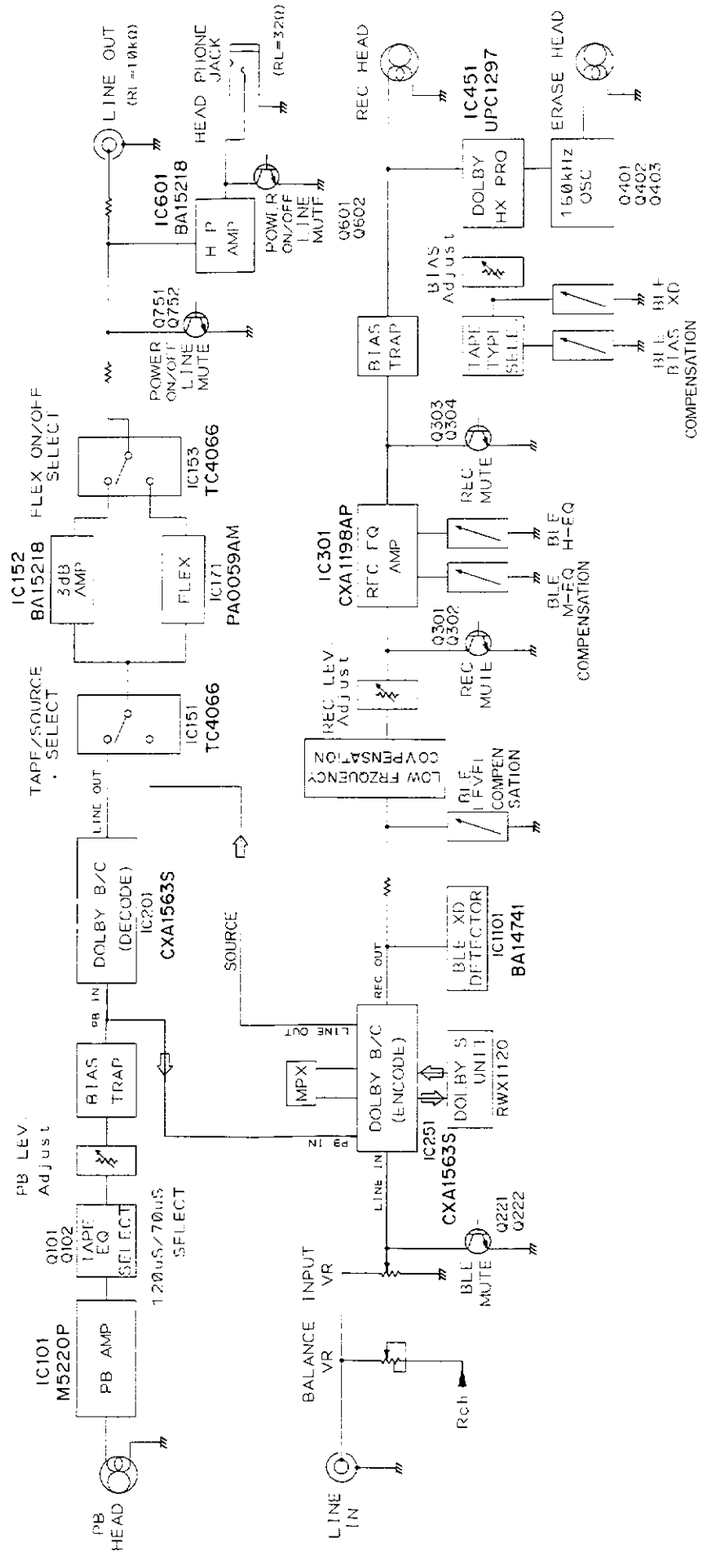


This screw No. 44 is the part to hold the cam gear for servicing, when the hook holding the cam gear No. 24 is broken.

Parts List

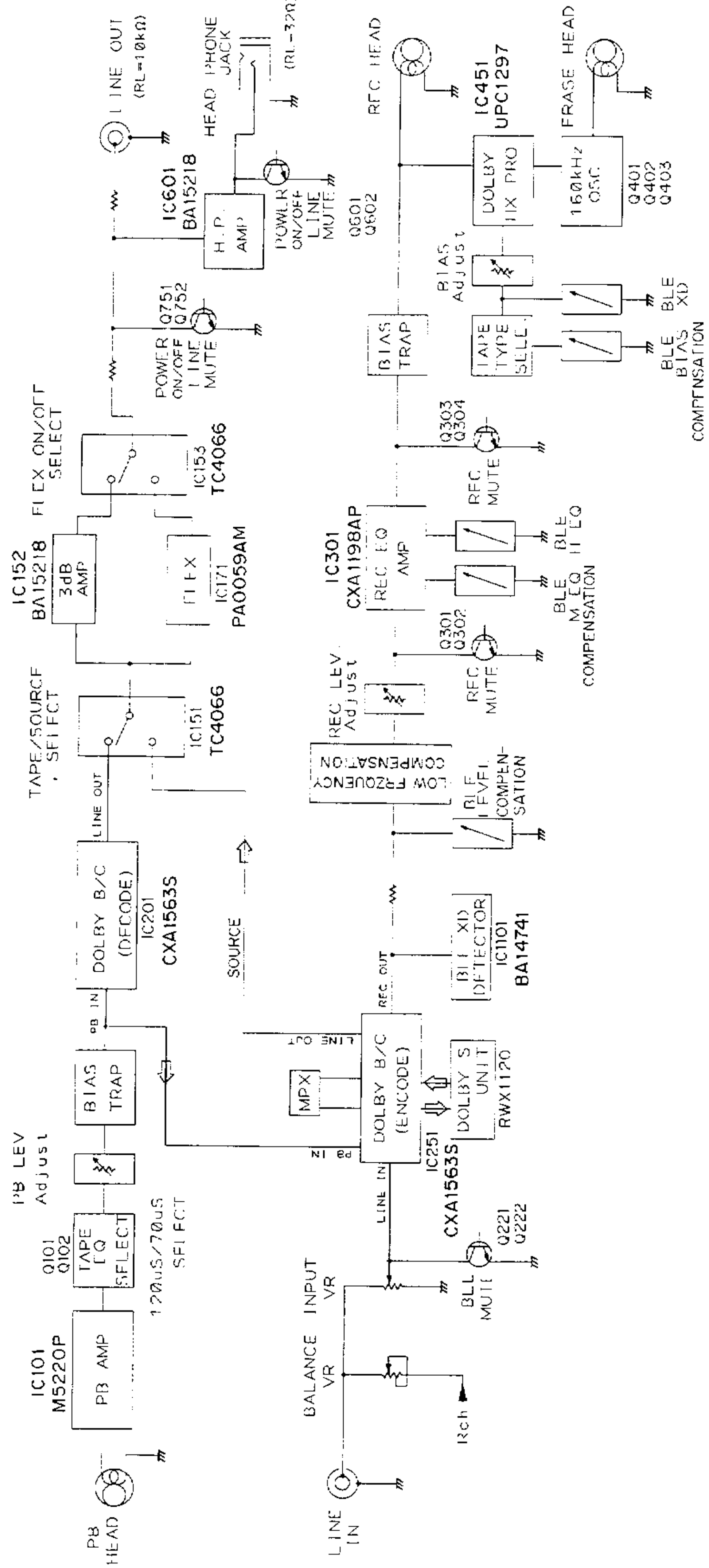
Mark	No.	Description	Parts No.
	1	Fixed core	RLA1130
	2	Plunger	RLA1132
	3	Head (R/P)	RPB1047
	4	Head (E)	RPB1060
	5	Push SW	RSG1018
	6	MTR rael BLK	RXM1057
	7	MTR main BLK	RXM1058
	8	Solenoid BLK	RXP1010
	9	Photo – transistor	SPI33534FG
	10	Main belt	REB1163
	11	Pinch roller assy	RXA1183
	12	F/W assy	RXA1346
	13	Washer	WA26D045D025
	14	Screw 2.6 x 6.4 ZN	RBA1076
	15	Washer	RBF – 057
	16	Reel base BLK	RXA1184
	17	Idler BLK	RXA1248
	18	.....	
	19	Washer	RBF1038
	20	Azimuth SP	RBH1076
	21	Haed base SP	RBL1003
	22	Slide SP	RBH1239
	23	Play arm	RNK1525
	24	Cam gear (3R)	RNK1672
	25	.....	
	26	.....	
	27	Eject prevention spring (L)	RBH1234
	28	Spring cassette	RBK1048
	29	.....	
	30	Detector lever (REC)	RNK1527
	31	Metal detector lever (L)	RNK1529
	32	Detector lever (P)	RNK1543
	33	.....	
	34	Screw	RBA1101
	35	Plate HD BLK	RXA1488
	36	Screw	PMA26P050FMC
	37	F lock screw	RBA1031
	38	Screw (7.7)	RBA1048
	39	.....	
	40	Washer	WA26D047D050
	41	Washer	YE15FUC
	42	Holder cushion (L)	RED1027
	43	F lock screw	RBA1102
	44	Screw	RBA1068
	45	PCB control BLK	RXA1487
	46	Chassis base BLK	RXA1557
	47	Head base	RNE1390
	48	Head spacer	RNK2106
	49	Eject prevention arm (L)	RNE1199
	50	.....	
	51	Screw	PMZ20P080FMC
	52	Spacer	RLA1275

2. BLOCK DIAGRAM



⇨ : On signals when a Dolby S sound is played back using CT-S550S
• When a Dolby S sound is played back using CT-S550S, signals are output to LINE OUT via the encoder side Dolby IC.
And a Dolby S sound is recorded and played back using CT-S550S, a simultaneous playback sound (tape) becomes a Dolby B sound.

2. BLOCK DIAGRAM



⇧ : On signals when a Dolby S sound is played back using CT-S550S
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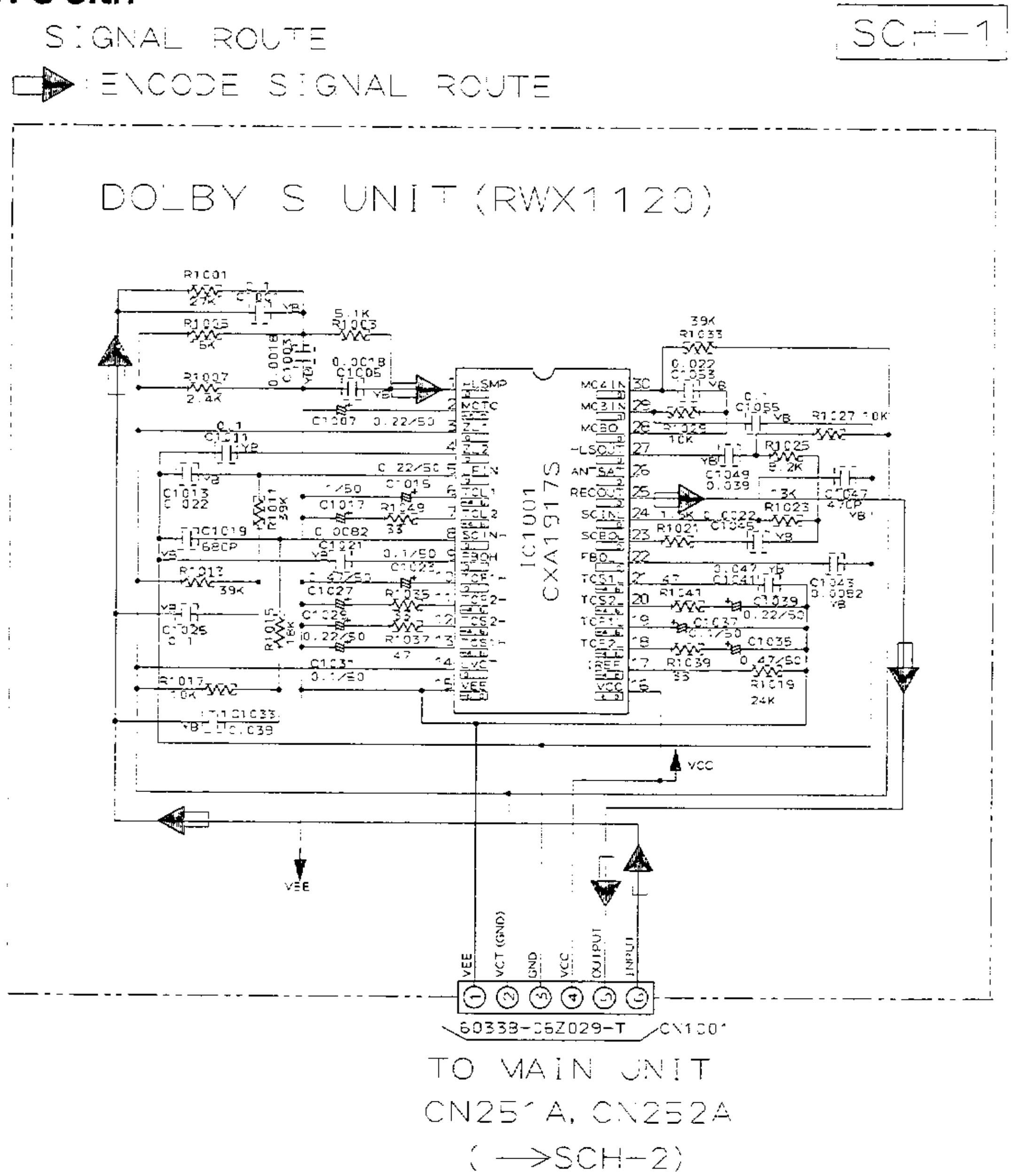
  And a Dolby S sound is recorded and played back using CT-S550S, a simultaneous playback sound (tape) becomes a Dolby B sound.

3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

3.1 DOLBY S UNIT



NOTE FOR SCHEMATIC DIAGRAMS (Type 6A)

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

OPSW UNIT
S1601 : ■ STOP
S1602 : ● REC
S1603 : ❚❚ PAUSE
S1604 : MONITOR TAPE/SOURCE
S1605 : CD-SYNCHRO
S1606 : RETURN
S1607 : O REC MUTE
S1608 : ► PLAY
S1609 : ►► FF
S1610 : ◄◄ REW
S1611 : FLEX
S1612 : BLE XD

FL UNIT
S1501 COUNTER RESET
S1502 ≜ EJECT
S1504 COUNTER MODE
S1505 DOLBY NR OFF/B/C/S
S1506 DISP OFF
S1507 POWER STANDBY/ON/OFF
S1508 MPX FILTER
S1509 METER RANGE
S1510 TIMER MODE (REC–OFF–PLAY/REPEAT)

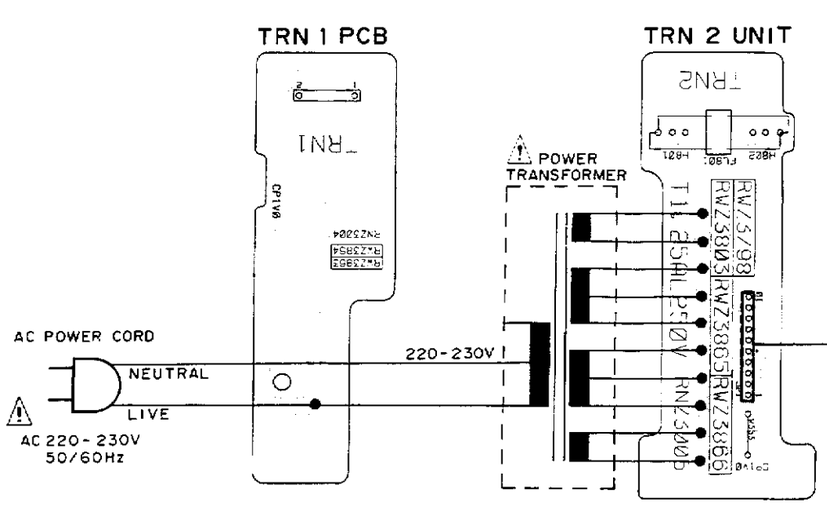
NOTE FOR PCB DIAGRAMS:

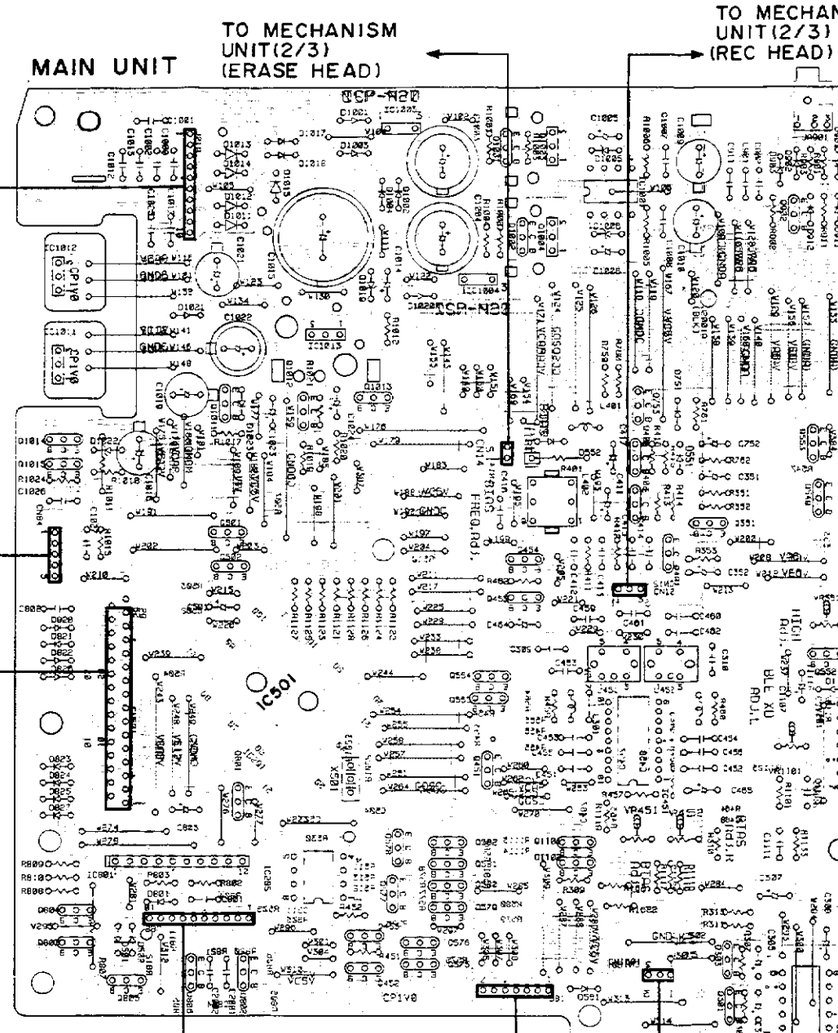
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

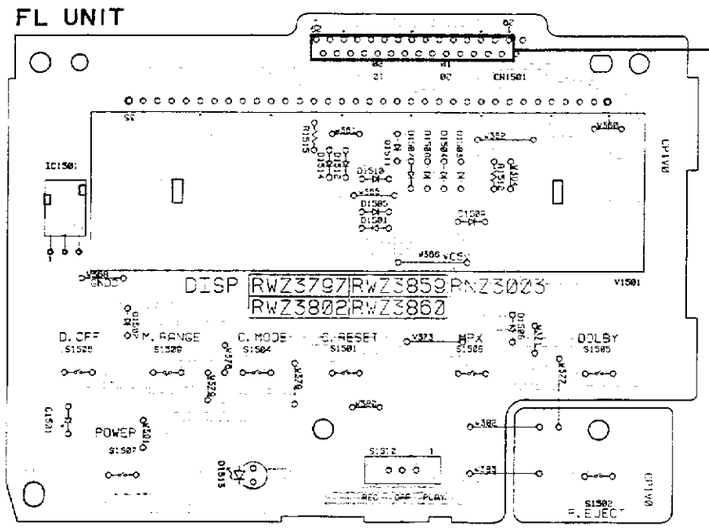
Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3- terminal regulator

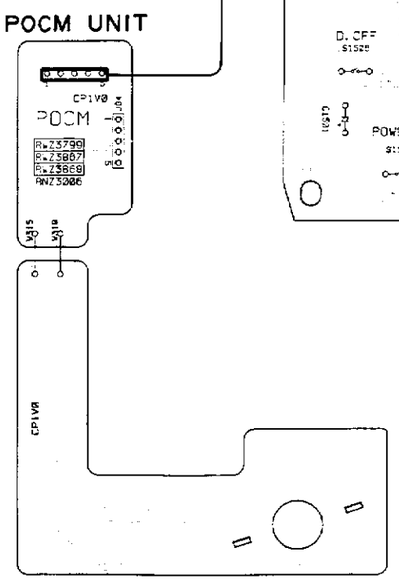
- The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

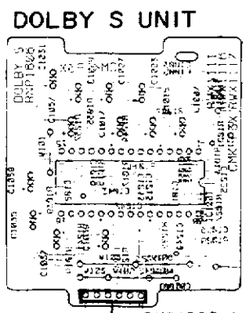
- **This diagram is viewed from the mounted parts side.**

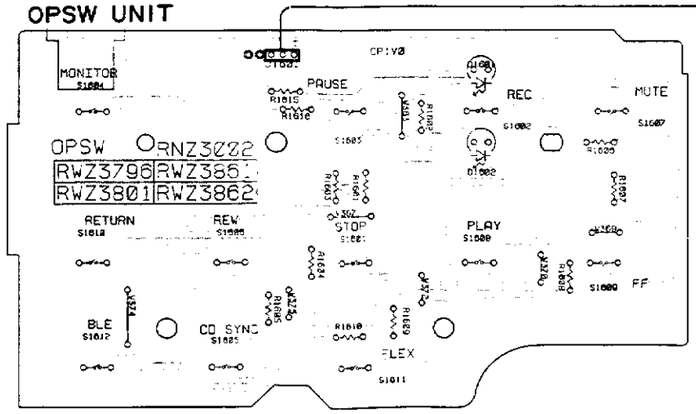




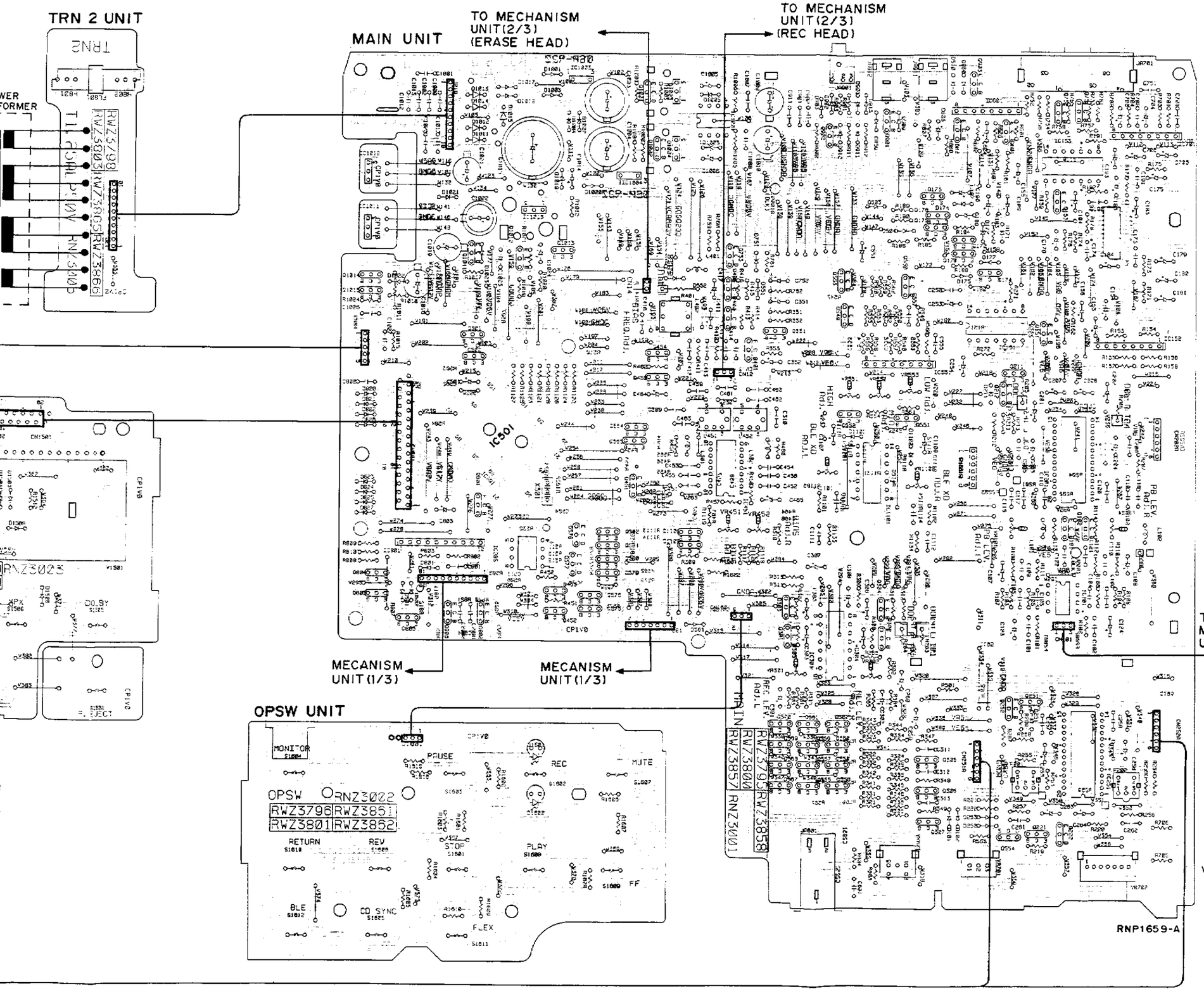






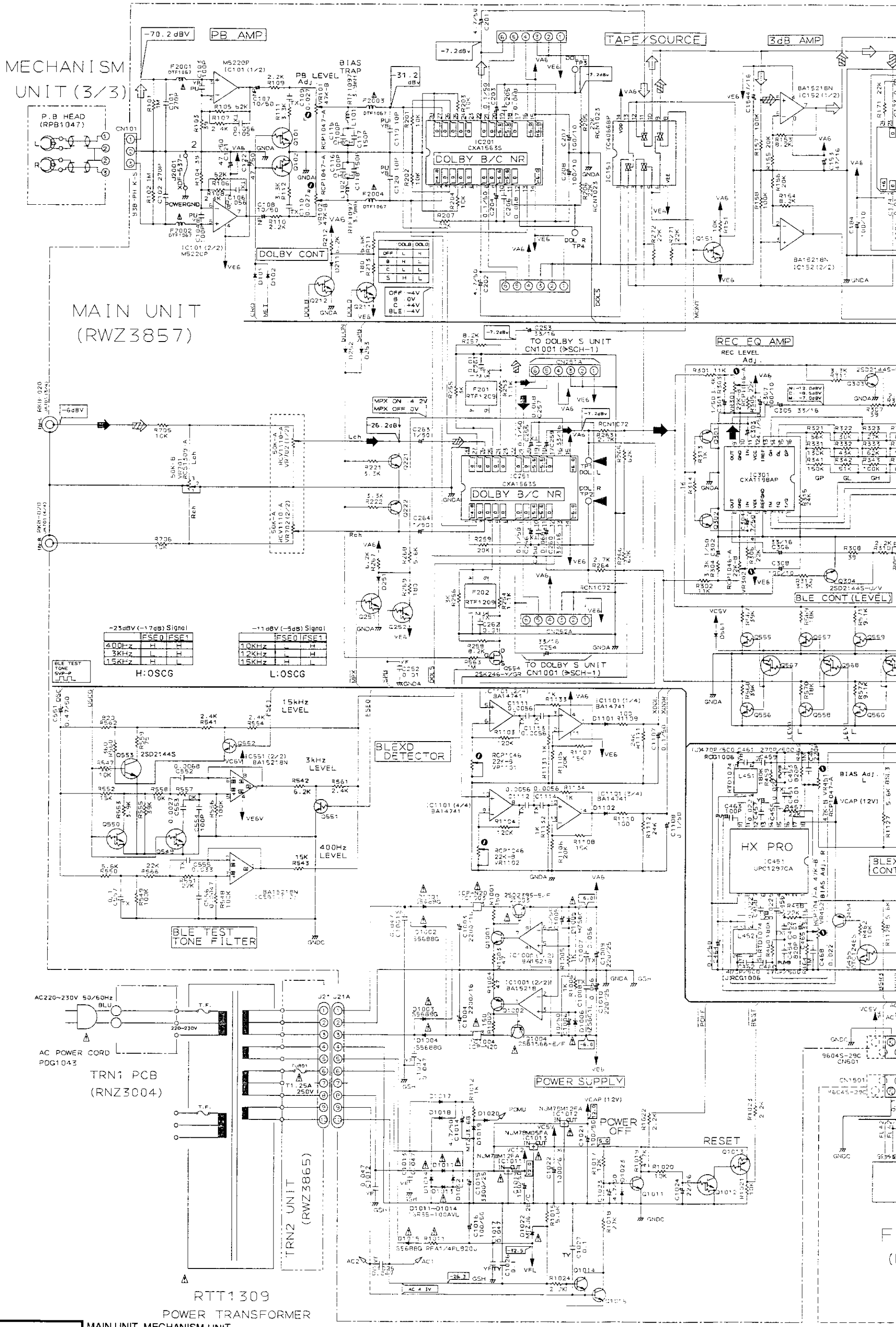


side.



IC1003	Q903	
Q1001	Q1003	Q751
IC1001	IC601	Q752
Q902	Q901	Q902
Q1002	Q1004	Q601
		IC153
IC1012	IC1004	
	Q173	Q153
IC1011	IC1013	Q176
	IC101	Q175
Q1012	Q1013	Q172
Q1011	Q753	Q171
Q1014	Q402	Q174
Q1015		Q553
		Q550
	Q402	Q549
		IC151
Q501	Q401	Q351
Q502	Q454	IC152
	IC551	Q211
	Q455	Q212
	Q552	Q551
IC501		
VR1101 VR1102	IC451	IC1101 IC201
Q801	Q451	
		Q102
VR451 VR452		
VR101 VR102	Q1101	Q101
IC801	Q1102	
IC502		
Q804	Q453	IC101
Q803	Q806	Q452
Q805	Q802	Q303
	Q301	Q304
	IC301	Q302
VR301 VR302		
	Q252	Q251
Q570	Q561	Q562
Q569	Q559	Q560
	Q557	IC251
Q568	Q558	Q305
Q567	Q555	Q556
		Q306
		Q307
Q554	Q221	Q222
VR701 VR702		

3.2 MAIN, MECHANISM, FL, OPSW, POCM, TRN 2 UNIT AND TRN 1 PCB



~23dBV (~17dB) Signal	FSE0	FSE1
400Hz	H	H
3KHz	H	L
15KHz	L	L

H:OSCG

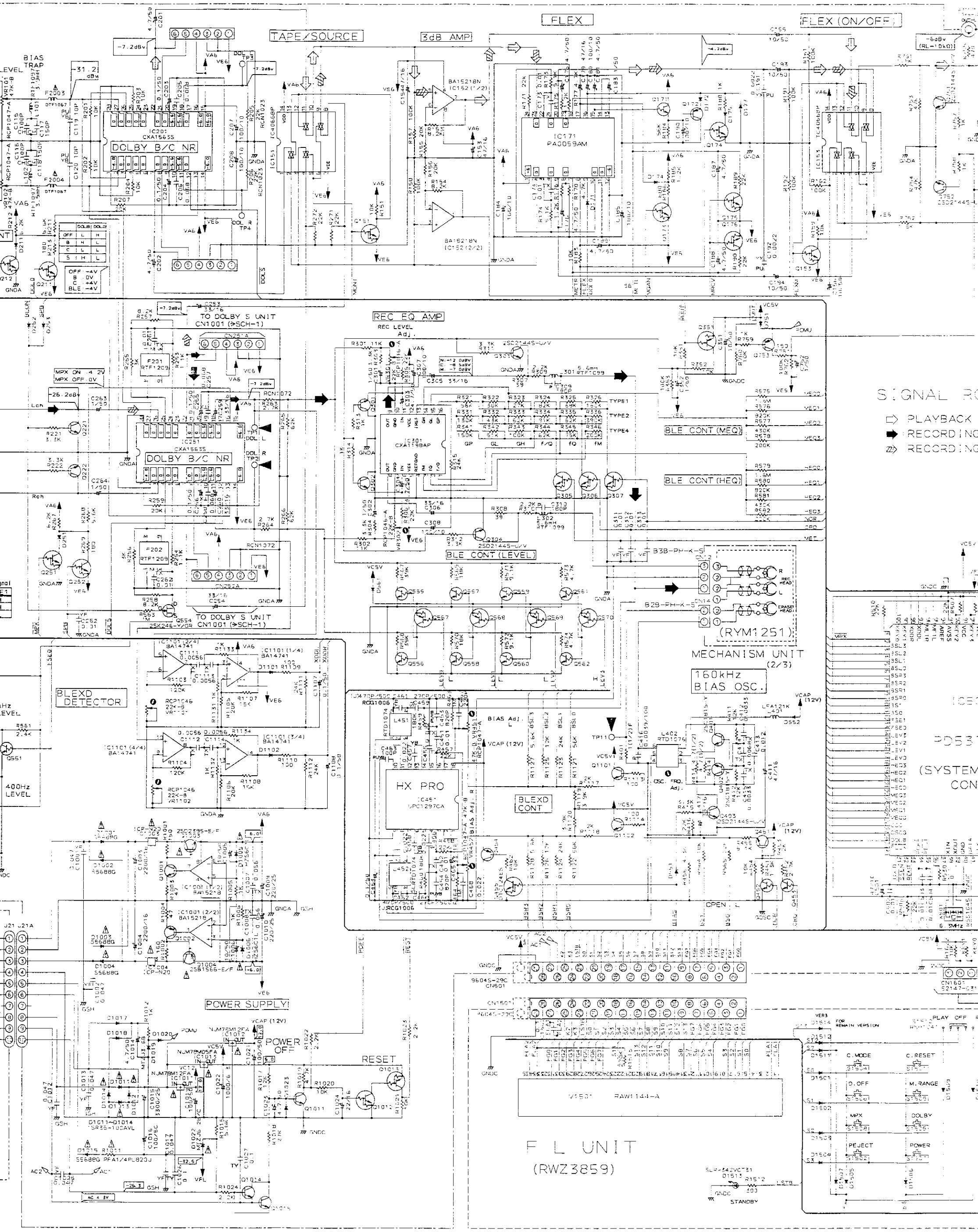
~11dBV (~5dB) Signal	FSE0	FSE1
10KHz	L	H
12KHz	L	H
15KHz	H	L

L:OSCG

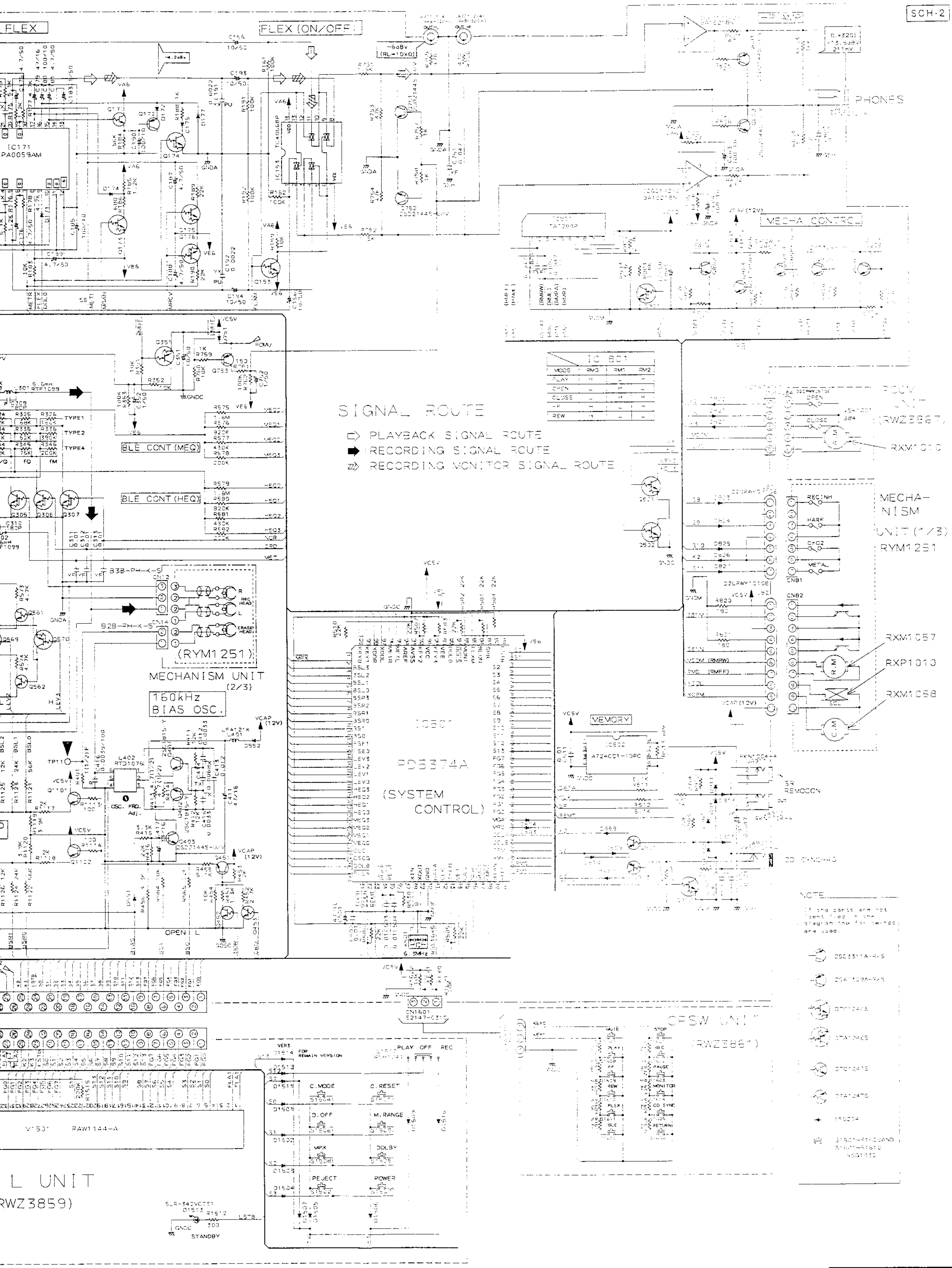
DOLB	DOLS
OFF	L	H
B	H	L
C	L	L
S	H	L

OFF	-4V
B	0V
C	+4V
BLE	-4V

DCM, TRN 2 UNIT AND TRN 1 PCB



3 4 5 6


SCH-2
FLEX
FLEX (ON/OFF)
IC171
PA0059AM
TC4066BP
-6dBv
(RL=10kΩ)
HP AMP
PHONES
MECHA CONTROL
IC 801
MODE RM0 RM1 RM2
PLAY
OPEN
CLOSE
FF
REW
SIGNAL ROUTE
PLAYBACK SIGNAL ROUTE
RECORDING SIGNAL ROUTE
RECORDING MONITOR SIGNAL ROUTE
BLE CONT (MEQ)
BLE CONT (HEQ)
TYPE1
TYPE2
TYPE4
POCM UNIT (RWZ3867)
RXM1010
MECHANISM UNIT (1/3)
RYM1251
RECINH
HARF
METAL
CNB1
CNB2
RXM1057
RXP1010
RXM1058
R.M
SOL
C.M
REC HEAD
ERASE HEAD
(RYM1251)
MECHANISM UNIT (2/3)
160kHz BIAS OSC.
OSC. FRQ. Adj.
VCAP (12V)
IC501
PD5374A
(SYSTEM CONTROL)
MEMORY
IC502
AT24C01-10PC
SR REMOCON
CD SYNCHRO
6.3MHz
CN1601
52147-0310
OPSW UNIT (RWZ3861)
MUTE
PLAY
FF
REW
FLEX
BLE
STOP
REC
PAUSE
MONITOR
CD SYNC
RETURN
V1501 RAW1144-A
L UNIT
(RWZ3859)
FOR REMAIN VERSION
PLAY OFF REC
C.MODE
C.RESET
D.OFF
M.RANGE
MPX
DOLBY
PEJECT
POWER
STANDBY
OPEN L
NOTE
A
B
C
D
E
5
6
7

MAIN UNIT, MECHANISM UNIT,
TRN1 PCB, TRN 2 UNIT,
OPSW UNIT, POCM UNIT,
FL UNIT

SCH-2

4. PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" 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.*
- *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 ..... RD1/4PU 561 J
47 kΩ → 47 × 10³ → 473 ..... RD1/4PU 473 J
0.5 Ω → 0R5 ..... RN2H 0R5 K
1 Ω → 1R0 ..... RS1P 1R0 K

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

5.62 kΩ → 562 × 10¹ → 5621 ..... RN1/4PC 5621 F

Mark	No.	Description	Parts No.

LIST OF ASSEMBLIES

NSP	MOTHER UNIT	RWM1908
	├ MAIN UNIT	RWZ3857
	│ └ DOLBY S UNIT	RWX1120
	├ FL UNIT	RWZ3859
	├ OPSW UNIT	RWZ3861
NSP	├ TRN 2 UNIT	RWZ3865
NSP	└ POCM UNIT	RWZ3867

MAIN UNIT

SEMICONDUCTORS

	IC502	AT24C01-10PC
	IC1101	BA14741
	IC1001	BA15218
	IC152, IC551, IC601	BA15218N
	IC301	CXA1198AP
	IC201, IC251	CXA1563S
⚠	IC1003, IC1004	ICP-N20
	IC101	M5220P
⚠	IC1013	NJM78M05FA
⚠	IC1011, IC1012	NJM78M12FA
	IC171	PA0059AM
	IC501	PD5374A
	IC801	TA7288P
	IC151, IC153	TC4066BP
	IC451	UPC1297CA
	Q1002, Q172, Q454, Q753	2SA1309A
⚠	Q1004	2SB1566
	Q401, Q402	2SC1815
	Q805	2SC3246
	Q1001, Q1011, Q1014, Q1015	2SC3311A
	Q1101, Q1102, Q221, Q222	2SC3311A
	Q301, Q302, Q451, Q802, Q806	2SC3311A
	Q803, Q804	2SD1858X
	Q303, Q304, Q403, Q553	2SD2144S
	Q601, Q602, Q751, Q752	2SD2144S

Mark	No.	Description	Parts No.
⚠	Q1003		2SD2395
	Q554		2SK246
	Q1013, Q351, Q567-Q570		DTA124ES
	Q901, Q9030		DTA124TS
	Q101, Q1012, Q102, Q151, Q153		DTC124ES
	Q173-Q176, Q211, Q212		DTC124ES
	Q251, Q252, Q305-Q307, Q455		DTC124ES
	Q501, Q502, Q549, Q550, Q801		DTC124ES
	Q902		DTC124ES
	Q171, Q452, Q453, Q551, Q552		DTC124TS
	Q555-Q562		DTC124TS
⚠	D1011-D1014		1SR35-100AVL
	D101, D1017, D1018, D102, D1020		1SS254
	D1023, D1101, D1102, D1514		1SS254
	D171, D172, D174, D175, D177		1SS254
	D211, D251-D253, D503, D504		1SS254
	D509, D510, D551, D552, D561		1SS254
	D751, D820-D827, D859, D860		1SS254
	D901-D903, D911-D913		1SS254
⚠	D1005, D1006		HZS6C1L
	D1019		MTZJ3.6B
⚠	D1022		MTZJ6.2B
⚠	D1001-D1004, D1015, D801		S5688G

COILS AND FILTERS

⚠	F2001-F2004	DTF1067
	L401	LFA121K
	X501	RSS1045
	L451, L452	RTD1074
	L402	RTD1076
	L101, L102	RTF1097
	L301, L302	RTF1099
	F201, F202	RTF1209

CAPACITORS

	C115, C116	CCCCH101J50
	C117, C118	CCCCH151J50
	C459, C460	CCCSL271K500
	C121, C122, C2001, C2002	CCCSL470J50
	C554	CCSQCH101J50
	C107, C108	CEANP100M50
	C183, C263, C264, C301, C302	CEAS010M50
	C352, C752	CEAS010M50
	C1005, C1006, C155, C156	CEAS100M50
	C193, C194, C351, C803	CEAS100M50
	C180, C184, C185, C190	CEAS101M10
	C207, C208, C307, C308	CEAS101M10
	C603, C604	CEAS101M10
	C1016, C1019, C1021	CEAS101M50
	C1022	CEAS102M6R3
	C1024	CEAS220M16
	C1009, C1010	CEAS221M25
	C1003, C1004	CEAS222M16
	C253, C254, C259, C260	CEAS330M16
	C305, C306, C417, C465	CEAS330M16
	C1015	CEAS332M25
	C153, C154, C179, C411, C501	CEAS470M16
	C1014, C1023, C175, C176, C181	CEAS4R7M50
	C187-C189, C201, C202	CEAS4R7M50
	C303, C304	CEAS4R7M50
	C1107, C1108, C203, C204	CEASR10M50
	C255, C256, C464	CEASR10M50
	C551	CEASR47M50
	C412, C415	CFTXA332J50
	C1111-C1114	CFTXA562J50
	C414	CFTXA682J50
	C173, C174, C261, C262	CFTYA103J50
	C451, C452	CFTYA103J50
	C1026, C1027, C557	CFTYA104J50
	C413	CFTYA123J50
	C455, C456	CFTYA223J50
	C109, C110	CFTYA273J50
	C555	CFTYA333J50
	C1007, C1008, C105, C106	CFTYA563J50
	C205, C206, C257, C258	CFTYA683J50
	C119, C120	CKCYB101K50
	C252, C311-C313, C601	CKCYF103Z50
	C901, C902	CKCYF103Z50
	C1001, C1002, C1012, C1013, C1017	CKCYF473Z50
	C1025, C751, C801, C802, C911	CKCYF473Z50
	C103, C104, C463	CKPUYB101K50
	C453, C454	CKPUYB821K50
	C191, C192	CKPUYX222M16
	C467, C468	CKSQYB221K50
	C457, C458	CKSQYB223K50
	C553	CKSQYB272K50
	C556	CKSQYB472K50
	C552	CKSQYB682K50
	C502-C504, C511, C804, C805	CKSQYF103Z50
	C309, C310	CQPA181J100
	C101, C102	CQPA271J100
	C416	CQPA392J100
	C461, C462 (470pF/500V)	RCG1006

Mark	No.	Description	Parts No.

RESISTORS

	R205, R206 (22kΩ)	RCN1023
	R401	RD1/2LMF010J
	R413, R414	RD1/2VM4R7J
	R543	RD1/4PU153J
	R541	RD1/4PU242J
	R542	RD1/4PU622J
	R559	RD1/4PU750J
	R607, R608	RD1/6PM101J
	R1005, R1006, R1012, R1133, R1134	RD1/6PM102J
	R188, R313, R314, R605, R606	RD1/6PM102J
	R757-R759, R911	RD1/6PM102J
	R1020, R1021, R159, R1621, R1622	RD1/6PM103J
	R183, R351, R352, R462	RD1/6PM103J
	R557, R558, R603, R604	RD1/6PM103J
	R705, R706, R760	RD1/6PM103J
	R157, R158, R161, R162	RD1/6PM104J
	R191, R192, R343, R353	RD1/6PM104J
	R548, R549, R556, R762	RD1/6PM104J
	R101, R102, R563	RD1/6PM105J
	R253, R254	RD1/6PM112J
	R301, R302	RD1/6PM113J
	R175, R176, R185	RD1/6PM122J
	R1017, R1125, R1126, R411, R412	RD1/6PM123J
	R451	RD1/6PM132J
	R331	RD1/6PM134J
	R1001, R1002, R761	RD1/6PM151J
	R751, R752, R808, R810	RD1/6PM152J
	R552	RD1/6PM153J
	R341	RD1/6PM154J
	R326	RD1/6PM164J
	R213, R269	RD1/6PM181J
	R459, R460	RD1/6PM184J
	R1117, R1118	RD1/6PM202J
	R155, R156, R207	RD1/6PM203J
	R346	RD1/6PM204J
	R902	RD1/6PM221J
	R1024, R109, R110, R309, R310	RD1/6PM222J
	R171, R189, R190, R271, R272	RD1/6PM223J
	R305, R306, R416, R457, R458	RD1/6PM223J
	R501, R551, R566, R903	RD1/6PM223J
	R107, R108, R554, R561	RD1/6PM242J
	R1123, R1124, R315	RD1/6PM243J
	R452, R802	RD1/6PM272J
	R1018, R323	RD1/6PM273J
	R901, R912	RD1/6PM274J
	R255, R256	RD1/6PM302J
	R322	RD1/6PM303J
	R560	RD1/6PM331J
	R111, R112, R221, R222	RD1/6PM332J
	R303, R304, R311, R312, R415	RD1/6PM332J
	R803, R809	RD1/6PM332J
	R103, R104, R307, R308	RD1/6PM390J
	R1119, R1120, R553	RD1/6PM392J
	R555	RD1/6PM393J
	R336	RD1/6PM394J

Mark	No.
	R332
	R1003, R100
	R755, R756
	R1019, R177
	R753, R754
	R173, R174
	R342
	R1015, R112
	R550
	R1121, R112
	R212, R267
	R105, R106,
	R335, R344
	R186
	R325
	R345
	R562
	R153, R154,
	R324
	R334
	R1011
	R807
	VR1101, VR
	VR101, VR1
	VR701
	VR702
	Other Resisto

OTHERS

CN1601	3F
CN84	5F
CN501	29
CN14	C
CN101, CN12	
	SC
	SC
JA901	M
JA701	4F
JA601	HI
JA911, JA912	
	PC
	EA

DOLBY S UN

SEMICONDUCT

IC1001	

CAPACITORS

C1017	
C1023, C103	
C1007, C101	
C1027, C102	
C1001, C101	
C1003, C100	

Mark	No.	Description	Parts No.
	C107, C108		CEANP100M50
	C183, C263, C264, C301, C302		CEAS010M50
	C352, C752		CEAS010M50
	C1005, C1006, C155, C156		CEAS100M50
	C193, C194, C351, C803		CEAS100M50
	C180, C184, C185, C190		CEAS101M10
	C207, C208, C307, C308		CEAS101M10
	C603, C604		CEAS101M10
	C1016, C1019, C1021		CEAS101M50
	C1022		CEAS102M6R3
	C1024		CEAS220M16
	C1009, C1010		CEAS221M25
	C1003, C1004		CEAS222M16
	C253, C254, C259, C260		CEAS330M16
	C305, C306, C417, C465		CEAS330M16
	C1015		CEAS332M25
	C153, C154, C179, C411, C501		CEAS470M16
	C1014, C1023, C175, C176, C181		CEAS4R7M50
	C187-C189, C201, C202		CEAS4R7M50
	C303, C304		CEAS4R7M50
	C1107, C1108, C203, C204		CEASR10M50
	C255, C256, C464		CEASR10M50
	C551		CEASR47M50
	C412, C415		CFTXA332J50
	C1111-C1114		CFTXA562J50
	C414		CFTXA682J50
	C173, C174, C261, C262		CFTYA103J50
	C451, C452		CFTYA103J50
	C1026, C1027, C557		CFTYA104J50
	C413		CFTYA123J50
	C455, C456		CFTYA223J50
	C109, C110		CFTYA273J50
	C555		CFTYA333J50
	C1007, C1008, C105, C106		CFTYA563J50
	C205, C206, C257, C258		CFTYA683J50
	C119, C120		CKCYB101K50
	C252, C311-C313, C601		CKCYF103Z50
	C901, C902		CKCYF103Z50
	C1001, C1002, C1012, C1013, C1017		CKCYF473Z50
	C1025, C751, C801, C802, C911		CKCYF473Z50
	C103, C104, C463		CKPUYB101K50
	C453, C454		CKPUYB821K50
	C191, C192		CKPUYX222M16
	C467, C468		CKSQYB221K50
	C457, C458		CKSQYB223K50
	C553		CKSQYB272K50
	C556		CKSQYB472K50
	C552		CKSQYB682K50
	C502-C504, C511, C804, C805		CKSQYF103Z50
	C309, C310		CQPA181J100
	C101, C102		CQPA271J100
	C416		CQPA392J100
	C461, C462 (470pF/500V)		RCG1006

Mark	No.	Description	Parts No.
RESISTORS			
	R205, R206 (22kΩ)		RCN1023
	R401		RD1/2LMF010J
	R413, R414		RD1/2VM4R7J
	R543		RD1/4PU153J
	R541		RD1/4PU242J
	R542		RD1/4PU622J
	R559		RD1/4PU750J
	R607, R608		RD1/6PM101J
	R1005, R1006, R1012, R1133, R1134		RD1/6PM102J
	R188, R313, R314, R605, R606		RD1/6PM102J
	R757-R759, R911		RD1/6PM102J
	R1020, R1021, R159, R1621, R1622		RD1/6PM103J
	R183, R351, R352, R462		RD1/6PM103J
	R557, R558, R603, R604		RD1/6PM103J
	R705, R706, R760		RD1/6PM103J
	R157, R158, R161, R162		RD1/6PM104J
	R191, R192, R343, R353		RD1/6PM104J
	R548, R549, R556, R762		RD1/6PM104J
	R101, R102, R563		RD1/6PM105J
	R253, R254		RD1/6PM112J
	R301, R302		RD1/6PM113J
	R175, R176, R185		RD1/6PM122J
	R1017, R1125, R1126, R411, R412		RD1/6PM123J
	R451		RD1/6PM132J
	R331		RD1/6PM134J
	R1001, R1002, R761		RD1/6PM151J
	R751, R752, R808, R810		RD1/6PM152J
	R552		RD1/6PM153J
	R341		RD1/6PM154J
	R326		RD1/6PM164J
	R213, R269		RD1/6PM181J
	R459, R460		RD1/6PM184J
	R1117, R1118		RD1/6PM202J
	R155, R156, R207		RD1/6PM203J
	R346		RD1/6PM204J
	R902		RD1/6PM221J
	R1024, R109, R110, R309, R310		RD1/6PM222J
	R171, R189, R190, R271, R272		RD1/6PM223J
	R305, R306, R416, R457, R458		RD1/6PM223J
	R501, R551, R566, R903		RD1/6PM223J
	R107, R108, R554, R561		RD1/6PM242J
	R1123, R1124, R315		RD1/6PM243J
	R452, R802		RD1/6PM272J
	R1018, R323		RD1/6PM273J
	R901, R912		RD1/6PM274J
	R255, R256		RD1/6PM302J
	R322		RD1/6PM303J
	R560		RD1/6PM331J
	R111, R112, R221, R222		RD1/6PM332J
	R303, R304, R311, R312, R415		RD1/6PM332J
	R803, R809		RD1/6PM332J
	R103, R104, R307, R308		RD1/6PM390J
	R1119, R1120, R553		RD1/6PM392J
	R555		RD1/6PM393J
	R336		RD1/6PM394J

Mark	No.	Description	Parts No.
	R332		RD1/6PM433J
	R1003, R1004, R601, R602		RD1/6PM470J
	R755, R756		RD1/6PM471J
	R1019, R177, R178		RD1/6PM472J
	R753, R754		RD1/6PM473J
	R173, R174		RD1/6PM512J
	R342		RD1/6PM513J
	R1015, R1127, R1128, R211, R268		RD1/6PM562J
	R550		RD1/6PM562J
	R1121, R1122, R184, R321		RD1/6PM563J
	R212, R267		RD1/6PM622J
	R105, R106, R265, R266, R333		RD1/6PM623J
	R335, R344		RD1/6PM623J
	R186		RD1/6PM681J
	R325		RD1/6PM683J
	R345		RD1/6PM753J
	R562		RD1/6PM821J
	R153, R154, R257, R258		RD1/6PM822J
	R324		RD1/6PM823J
	R334		RD1/6PM913J
	R1011		RFA1/4PL820J
	R807		RS2LMF560J
	VR1101, VR1102, VR301, VR302 (22kΩ)		RCP1046
	VR101, VR102, VR451, VR452 (47kΩ)		RCP1047
	VR701		RCS1039
	VR702		RCV1110
	Other Resistors		RS1/10S□□□J
OTHERS			
	CN1601	3P JUMPER CONNECTOR	52147-0310
	CN84	5P JUMPER CONNECTOR	52147-0510
	CN501	29P JUMPER CONNECTOR	9604S-29C
	CN14	CONNECTOR POST	B2B-PH-K-S
	CN101, CN12	CONNECTOR POST 3P	B3B-PH-K-S
		SCREW	BBZ30P080FMC
		SCREW	BMZ30P080FMC
	JA901	MINI JACK	PKN1005
	JA701	4P PIN JACK	RKB-020
	JA601	HEADPHONE JACK	RKN1002
	JA911, JA912	REMOTE CONTROL JACK	RKN1004
		PCB BINDER	VEF1008
		EARTH METAL FITTING	VNF-091

DOLBY S UNIT

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC1001		CXA1917S
CAPACITORS			
	C1017		CEJA010M50
	C1023, C1031, C1037		CEJAR10M50
	C1007, C1015, C1029, C1039		CEJAR22M50
	C1027, C1035		CEJAR47M50
	C1001, C1011, C1025, C1055		CKSQYB104K25
	C1003, C1005		CKSQYB182K50

Mark	No.	Description	Parts No.
	C1045		CKSQYB222K50
	C1013, C1053		CKSQYB223K50
	C1033, C1049		CKSQYB393K50
	C1047		CKSQYB471K50
	C1041		CKSQYB473K50
	C1019		CKSQYB681K50
	C1021, C1043		CKSQYB822K50
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
	CN1001		6033B-06Z029

FL UNIT

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	D1501-D1507, D1509-D1512		1SS254
	D1513		SLR-342VCT31
SWITCHES AND RELAYS			
	S1501, S1502, S1504-S1509		RSG1030
	S1510		RSH1041
CAPACITORS			
	C1502		CKSQYB104K25
RESISTORS			
	All Resistors		RD1/6PM□□□J
OTHERS			
	CN1501	29P FFC CONNECTOR	9604S-29C
	V1501	FL INDICATOR TUBE	RAW1144

OPSW UNIT

Mark	No.	Description	Parts No.
SWITCHES AND RELAYS			
	S1601-S1612		RSG1030
RESISTORS			
	All Resistors		RD1/6PM□□□J

TRN 2 UNIT

TRN 2 unit has no service parts.

POCM UNIT

Mark	No.	Description	Parts No.
OTHERS			
	REAF SWITCH		VSK1011

5. TEST MODE

1. Entering the Test Mode

In case of STOP mode:

- To enter the test mode, press COUNTER MODE + COUNTER RESET + PAUSE at a time.

2. Canceling test mode

- Press COUNTER RESET key.
- Press STANDBY key.
- Turn the power OFF.

The test mode is canceled by executing any of the above.

3. Test mode major items

- CD sync, SW check
- BLE adjustment, BLE-XD adjustment
- FLEX monitor check

①SW operation check

The test mode is executed as follows.

Counter Display	Key Input	Adjustment and Check items
＊＊ : 10	All keys other than COUNTER MODE key	● In this mode, the mechanism is operated without the cassette half. ● SW check The following appear on the counter. • Cassette half SW check With the cassette half : " h＊ : 10" Without the half : " ＊ : 10" • Erase-protection detection SW check Recordable : " r＊ : 10" Not recordable : " ＊ : 10" • Timer SW check TIMER REC : " ＊R : 10" OFF : " ＊ : 10" TIMER PLAY : " ＊P : 10" ● CD sync check Connect a code, let the input/output be short-circuited, and press CD SYNCHRO key. " CD SYNC " will light up. ● Tape position SW check The following appear in the same manner as in normal condition. NORMAL : " TYPE I " CrO_2 : " TYPE II " METAL : " TYPE IV "

②BLE Adjustment Mode

● Entering the BLE Adjustment Mode

To enter the BLE adjustment mode, press BLE key when " ∗ ∗ : 10 " appears on the counter.
After that, the adjustment mode is changed each time BLE key is pressed.
When " ∗ ∗ : 10 " is not displayed on the counter, first press STOP key and perform the above procedures.

● Canceling BLE adjustment mode

To cancel the BLE adjustment mode, press STOP key. The mechanism operation check mode is set.

Counter Display	Key Input	LINE MUTE	REC MUTE	BIAS	Adjustment and Check items
: 30	BLE	OFF	ON	OFF	———
400	BLE	OFF	ON	OFF	● 400 Hz OUTPUT LEVEL CHECK MODE Check so that the meter indicates as follows. (LINE OUT output = −20.5 to −25 dBv) □ -□- -□- -□- -□- -□- -□- -□- -□- -□- -□- □ ■ ■ ■ ■ ■ □ ■ ■ ■ ■ ■ ■
3 k	BLE	OFF	ON	OFF	● 3 kHz OUTPUT LEVEL CHECK MODE Check so that the meter indicates as follows. (LINE OUT output = −20.5 to −25 dBv) □ -□- -□- -□- -□- -□- -□- -□- -□- -□- -□- -□- □ ■ ■ ■ ■ ■ □ ■ ■ ■ ■ ■ ■
15 k	BLE	OFF	ON	OFF	● 15 kHz OUTPUT LEVEL CHECK MODE Check so that the meter indicates as follows. (LINE OUT output = −20.5 to −25 dBv) □ -□- -□- -□- -□- -□- -□- -□- -□- -□- -□- -□- □ ■ ■ ■ ■ ■ □ ■ ■ ■ ■ ■ ■
10 k	BLE	OFF	ON	OFF	● 10 kHz OUTPUT LEVEL CHECK MODE Check so that the meter indicates as follows. (LINE OUT output = −8.5 to −13 dBv) □ -□- -□- -□- -□- -□- -□- -□- -□- -□- -□- -□- □ ■ ■ ■ ■ □ □ □ ■ ■ ■ ■ ■
12 k	BLE	OFF	ON	OFF	● 12 kHz OUTPUT LEVEL CHECK MODE Check so that the meter indicates as follows. (LINE OUT output = −8.5 to −13 dBv) □ -□- -□- -□- -□- -□- -□- -□- -□- -□- -□- -□- □ ■ ■ ■ ■ □ □ □ ■ ■ ■ ■ ■
15 k	BLE	OFF	ON	OFF	● 15 kHz OUTPUT LEVEL CHECK MODE Check so that the meter indicates as follows. (LINE OUT output −8.5 to −13 dBv) □ -□- -□- -□- -□- -□- -□- -□- -□- -□- -□- -□- □ ■ ■ ■ ■ □ □ □ ■ ■ ■ ■ ■

※ ■ : Stands for "lights up"
□ : Stands for "goes off"
-□- : Stands for "lights up" or "blinks"

Counter Display	Key Input	LINE MUTE	REC MUTE	BIAS	Adjustment and Check items
HPFL	BLE	OFF	ON	OFF	● BLE XD LCH HPF ADJUSTMENT MODE Input signals to LINE IN so that a 12 kHz/—11 dBV signal is output from LINE OUT. □ □ □ □ -□- -□- -□- □ □ □ □ □ ■ ■ ■ ■ □ □ □ ■ ■ ■ ■ ■
HPFR	BLE	OFF	ON	OFF	● BLE XD RCH HPF ADJUSTMENT MODE Same as above.

※ ■ : Stands for "lights up"
□ : Stands for "goes off"
-□- : Stands for "lights up" or "blinks"

③FLEX monitor mode

● Entering FLEX monitor mode

To enter the FLEX monitor mode, press FLEX key when " ＊＊ : 10 " appears on the counter.
After that, the FLEX MOVEMENT is turned ON and OFF each time FLEX key is pressed.
When " ＊＊ : 10 " is not displayed on the counter, first press STOP key and perform the above procedures.

● Canceling FLEX monitor mode

To cancel the FLEX monitor mode, press STOP key. The mechanism operation check mode is set.

Counter Display	Key Input	Adjustment and Check items
＊＊ : 40	FLEX basic operation key	• Turned ON when "FLEX" lights up.

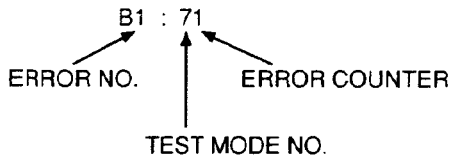
④ Error No. display (Refer to "Self-diagnosis".)

Press METER RANGE key when " ＊＊ : 10 " appears on the counter. An error No. will appear on the front panel FL area.

Self-diagnosis function

The self-diagnosis function automatically displays an error symbol on the front panel FL display area when an error occurs. The purpose ofthis function is to efficiently repair the product by reading an error symbol by the user to report it to a service personnel.
After an error occurs, even if the AC power cord is disconnected from an outlet, an error symbol can be displayed again by the following procedures.

① Enter the test mode. (See "Entering test mode".)
② Press METER RANGE key.
③ A display example is shown below.



④ When METER RANGE key is additionally pressed, the error counter changes to "2" then "3", and errors that have occurred in the past appear. (Up to three errors can be stored.)
⑤ After the repair is completed, clear the stored error numbers.
To perform this, press STOP key to enter the test mode, and press COUNTER MODE key and MUTE key.

Parts error occurred	Counter display	Producing condition	Possible causes
BLE	B1	The take-up side reel table stops during BLE operation.	• A tape was ended. • The reel motor stopped. • The capstan motor stopped.
	B2	Signals are not recorded on the tape during BLE operation.	• The characteristics of the tape used was significantly different from that of the reference tape. • The internal oscillator did not oscillate. • The compensation circuit parts were defective or did not correctly contact to each other.
Loading	L1	A tape does not reach an appropriate position by open/close operation.	• A tape was not set properly. • Foreign matters existed, etc.
Mechanism	M1	The take-up side reel table stops while the supply-side reel table continues operation. The tape may be jammed.	• The reel motor stopped. • A tape wound round the capstan due to static electricity, etc.

6. ADJUSTMENTS

1. MECHANICAL ADJUSTMENT

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

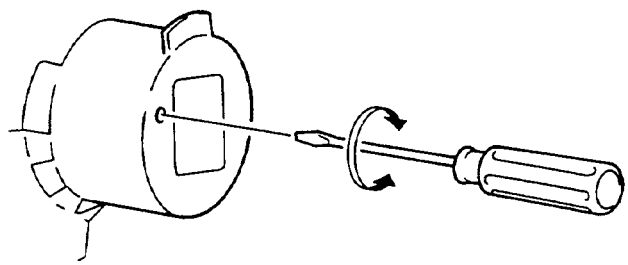


Fig.1 Tape speed adjustment

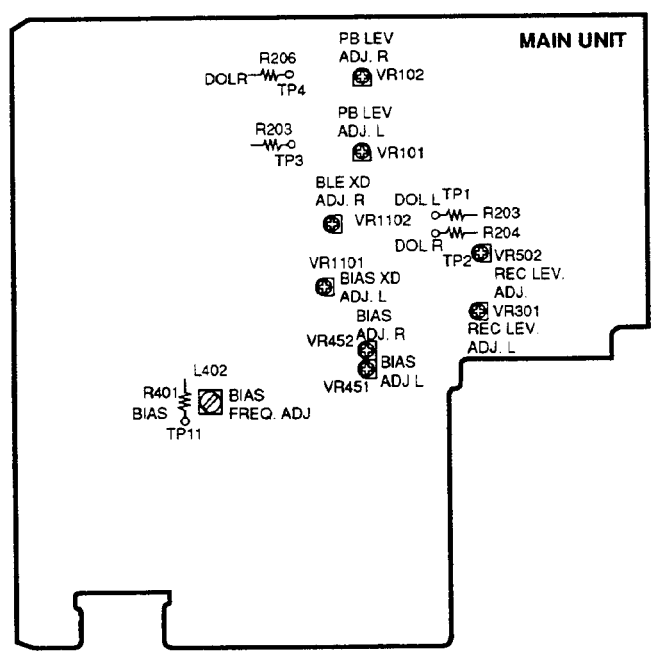


Fig.2 Adjusting points

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 10 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. 3)
STD–631 or STD–632	: NORMAL blank tape
STD–621	: CrO_2 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 careful attention to the type of tape used.

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.
5. AUTO BLE adjustment.

NOTE:This unit has an automatic tape selection feature.

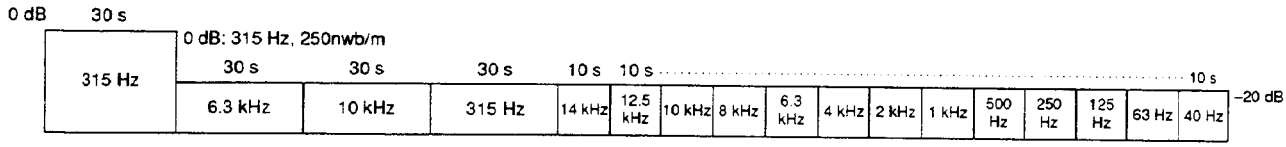
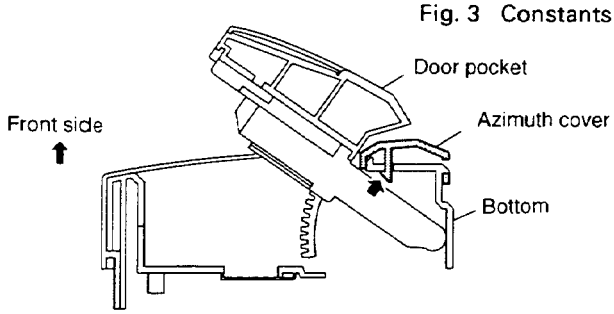


Fig. 3 Constants of the test tape STD–331E



Open the door and remove the two inner hooks (right and left). The azimuth cover will be removed.
• The front panels are not removed from the panel stay unless the azimuth cover is removed.

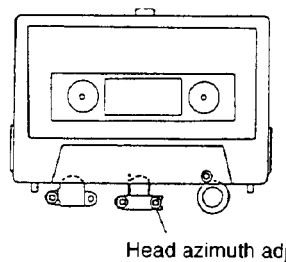
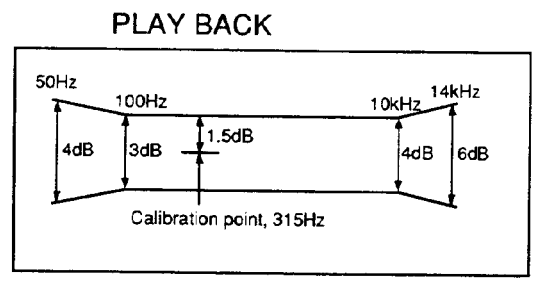


Fig. 4 Head azimuth adjustment



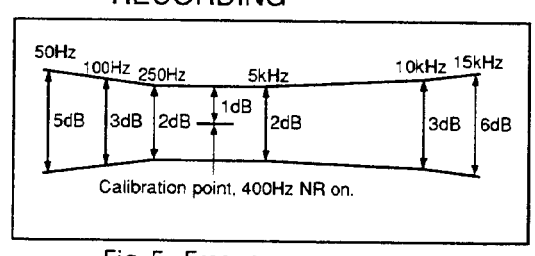


Fig. 5 Frequency response zone

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. 4)	LINE OUT	Maximum playback signal level.	
2.	STOP	Lock the screw with silicon bond 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	VR 101 (Lch) VR 102 (Rch)	TP. 3 (Lch) TP. 4 (Rch)	–6.7 dBV	This adjustment must be performed accurately for proper Dolby level setting.

RECORDING SECTION

1. Bias Oscillator Adjustment

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC	Load the STD-610 test tape with no input signal.	Deck	L402	TP. 11	160 kHz ± 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.	REC	Load the STD-631 or STD-632 test tape. Record the 315 Hz and 10 kHz signals at –20 dB input level and playback.	Deck	VR 451 (Lch) VR 452 (Rch)	LINE OUT	Repeatedly record, playback and adjust so that the playback level of 10 kHz signal becomes 0 dB ± 0.5 dB when compared with the 315 Hz signal.	

3. Recording Level Adjustment

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC PAUSE	Apply a 315 Hz/–4 dB signal to the line input terminals, load the STD-631 or STD-632 test tape.	Volume of the output level of the oscillator		TP. 3 (Lch) TP. 4 (Rch)	–11.2 dBV	
2.	REC/ PLAY	Record the above signal onto the STD-631 or STD-632 test tape, and playback.	Deck	VR 301 (Lch) VR 302 (Rch)		Repeatedly record, playback and adjust so that the playback signal level becomes –11.2 dBV.	
3.	REC/ PLAY	Record the above signal onto the STD-621 test tape, and playback.	Check			–11.2 dBV ± 1.5 dB	
4.	REC/ PLAY	Record the above signal onto the STD-610 test tape, and playback.	Check			–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/ 0 dB signal to the Line Input terminals.	Volume of the output level of the oscillator	TP. 1 (Lch) TP. 2 (Rch)	Check that the level meters "0dB" light up within –7.2 dBV ± 1 dB of the signal output level.	

5. AUTO BLE Adjustment

- BLE adjustment should be performed after all other adjustments are completed.
- This adjustment should be performed in the test mode.
- Entering the test mode.
  Turn on the power, and after more than 4 seconds, press the "COUNTER RESET" button, "COUNTER MODE" button and ⏸ (PAUSE) button simultaneously.
- Releasing the Test Mode.
  Press the "COUNTER RESET" button.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment Value	Remarks
1.		Set to test mode.		—	—	
2.		Press the BLE KEY (twice).				400 Hz confirmation (Test mode FL display: 400)
3.		Press the BLE KEY.				3 kHz confirmation (Test mode FL display: 3k)
4.		Press the BLE KEY.	—		The segments should light up or blink between –4 dB and +5 dB.	15 kHz confirmation (Test mode FL display: 15k)
5.		Press the BLE KEY.				10 kHz confirmation (Test mode FL display: 10k)
6.	—	Press the BLE KEY.		Level meter		12 kHz confirmation (Test mode FL display: 12k)
7.		Press the BLE KEY.				15 kHz confirmation (Test mode FL display: 15k)
8.		Press the BLE KEY. Input a signal to LINE IN so that a 12 kHz, –11 dBV signal is output from LINE OUT.	VR1101		0 dB segment should light up or blink. (Lighting up or blinking of the both adjacent segments to 0 dB may be accepted.)	Filter adjustment (Test mode FL display: HPFL)
9.		Press the BLE KEY. Input a signal to LINE IN so that a 12 kHz, –11 dBV signal is output from LINE OUT.	VR1102			Filter adjustment (Test mode FL display: HPFR)

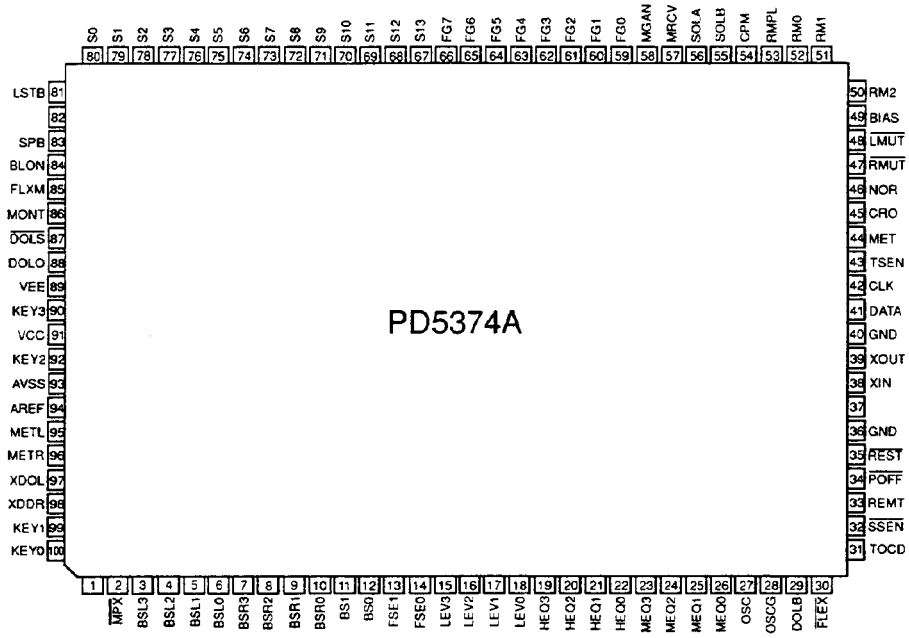
7. IC INFORMATION

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

■ PD5374A (MAIN UNIT: IC501)

System Control IC

● Pin Arrangement (Top View)



● Pin Function

Pin No.	NAME	I/O	FUNCTION
1	—	I	Connected to the pull-down resistor.
2	$\overline{\text{MPX}}$	O	Multiplex filter control pin (MPX ON: "L")
3	BSL3	O	BLE-XD L-CH BIAS control pin
4	BSL2	O	
5	BSL1	O	
6	BSL0	O	
7	BSR3	O	BLE-XD R-CH BIAS control pin
8	BSR2	O	
9	BSR1	O	
10	BSR0	O	
11	BS1	O	BLE BIAS control pin (When BLE OFF, BS1: "OPEN", BS0: "L")
12	BS0	O	
13	FSE1	O	BLE oscillator frequency select pin
14	FSE0	O	
15	LEV3	O	BLE LEVEL control pin When BLE OFF, LEV3 : "L", LEV2 : "H" LEV1 : "H", LEV0 : "H"
16	LEV2	O	
17	LEV1	O	
18	LEV0	O	

Level	Frequencies selected	FSE0	FSE1
−23dB	400Hz	H	H
	3kHz	L	H
	15kHz	H	L
	10kHz	H	L
−11dB	10kHz	L	H
	12kHz	L	H
	15kHz	H	L

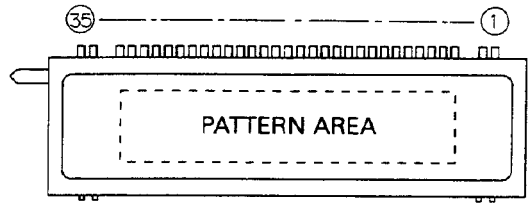
Pin No.	NAME	I/O	FUNCTION
19	HEQ3	O	BLE HIGH EQ control pin When BLE OFF, HEQ3 : "L" , HEQ2 : "OPEN" HEQ1 : "OPEN", HEQ0 : "OPEN"
20	HEQ2	O	
21	HEQ1	O	
22	HEQ0	O	
23	MEQ3	O	BLE MID EQ control pin When BLE OFF, MEQ3: "L" , MEQ2 : "OPEN" MEQ1: "OPEN", MEQ0 : "OPEN"
24	MEQ2	O	
25	MEQ1	O	
26	MEQ0	O	
27	OSC	O	Square wave output pin for the BLE oscillator
28	OSCG	O	Gain select pin for the BLE oscillator (HIGH GAIN: "L")
29	DOLB	O	Dolby control pin (Dolby B: "H")
30	$\overline{\text{FLEX}}$	O	FLEX IC ON/OFF control pin (FLEX OFF: "H")
31	TOCD	O	CD SYNCHRO output pin (SYNCHRO REC: "H")
32	$\overline{\text{SSEN}}$	I	Sensing pulse input pin for the supply side
33	REMT	I	Remote control signal input pin
34	$\overline{\text{POFF}}$	I	Power-off signal input pin (Power-off: "L")
35	$\overline{\text{REST}}$	I	Reset signal input pin (Reset: "L")
36	GND	I	Connected to GND.
37	—	—	Open
38	XIN	I	Connected to the main clock. (6.3 MHz)
39	XOUT	O	
40	GND	I	Connected to GND.
41	DATA	I/O	LAST MEMORY IC IC502 (AT24C01 to 10PC) communication pin
42	CLK	O	
43	TSEN	I	Sensing pulse input pin for the take-up side
44	MET	O	Recording amplifier control pin according to the tape type Metal : "H", MET Chrome : "H", CRO Normal : "H", NOR
45	CRO	O	
46	NOR	O	
47	$\overline{\text{RMUT}}$	O	REC MUTE control pin (MUTE OFF: "H")
48	$\overline{\text{LMUT}}$	O	LINE MUTE control pin (MUTE OFF: "H")
49	BIAS	O	Bias control pin (Bias ON: "H")
50	RM2	O	Parts No. (TA7288P) Motor driver control pin
51	RM1	O	
52	RM0	O	
53	RMPL	O	Reel motor torque control pin
54	CPM	O	Capstan motor control pin
55	SOLB	O	Solenoid control pin
56	SOLA	O	
57	MRCV	O	Meter circuit recovery time control pin (Recovery FAST: "H")
58	MGAN	O	Meter circuit gain select pin (MS: "H")
59	FG0	O	FL grid scanning output pin (With built-in pull-down resistor)
60	FG1	O	
61	FG2	O	
62	FG3	O	
63	FG4	O	

	OFF	RML	RMR	OPEN	CLOSE
RM0	L	H	H	L	L
RM1	L	L	L	H	H
RM2	L	L	H	L	H

Pin No.	NAME	I/O	FUNCTION
64	FG5	O	FL grid scanning output pin (With built-in pull-down resistor)
65	FG6	O	
66	FG7	O	
67	S13	O	FL segment scanning output pin (With built-in pull-down resistor)
68	S12	O	
69	S11	O	
70	S10	O	
71	S9	O	
72	S8	O	
73	S7	O	
74	S6	O	
75	S5	O	
76	S4	O	
77	S3	O	
78	S2	O	
79	S1	O	
80	S0	O	
81	LSTB	O	Standby LED control pin (STANDBY ON: "H")
82	—	O	Connected to the pull-down resistor.
83	SPB	O	DOLBY S playback: "H" (CT-S540S only)
84	BLON	O	BLE control pin (BLE: "H")
85	FLXM	O	Playback output control pin (Only when FLEX playback: "L")
86	MONT	O	MONITOR select control pin (TAPE: "L", SOURCE: "H")
87	$\overline{\text{DOLS}}$	O	Dolby control pin (DOLBY S: "L".)
88	DOLO	O	Dolby control pin (DOLBY OFF: "H".)
89	VEE	I	Power supply pin for the built-in pull-down resistor
90	KEY3	I	Key scanning input pin
91	VCC	I	Power supply pin (+5V)
92	KEY2	I	Key scanning input pin
93	AVSS	I	Power supply pin for the built-in A/D converter AVSS is connected to GND and AREF is connected to 5V.
94	AREF	I	
95	METL	I	L-CH level meter input pin
96	METR	I	R-CH level meter input pin
97	XDDL	I	L-CH BLE-XD detector input pin
98	XDDR	I	R-CH BLE-XD detector input pin
99	KEY1	I	Key scanning input pin
100	KEY0	I	

8. FL INFORMATION

■ RAW1144 (FL UNIT: V1501)



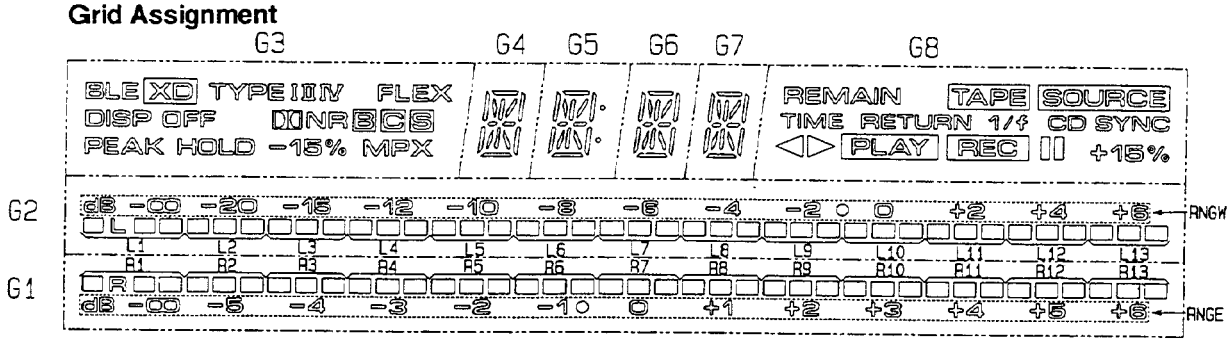
Pin Connection

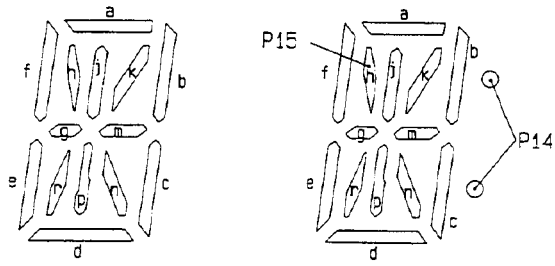
Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Assignment	F	F	NP	NL	P1	P2	P3	P4	NL	P5	P6	P7	P8	P9	NL	P10	P11

Pin No.	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Assignment	P12	P13	P14	NL	P15	P16	NL	G8	G7	G6	G5	G4	G3	G2	G1	NP	F	F

F:Filament G1~G8:Grid P1~P16:Anode NP:No pin NL:No lead

Grid Assignment



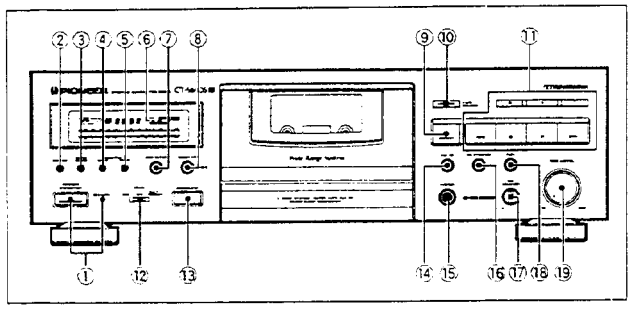


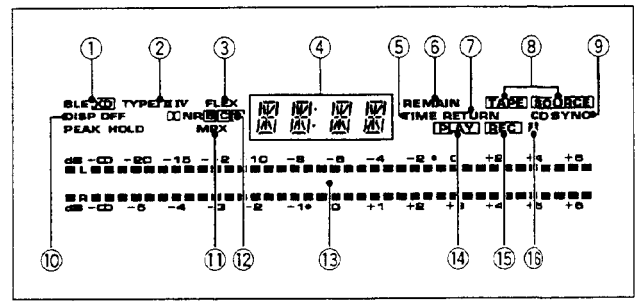
G4, G6, G7 G5

Anode Connection

	G8	G7	G6	G5	G4	G3	G2	G1
P1	TAPE	a	a	a	a	DISP OFF	L1	R1
P2	SOURCE	b	b	b	b	II	L2	R2
P3	II	f	f	f	f	III	L3	R3
P4	▷	g	g	g	g	IV	L4	R4
P5	◁	m	m	m	m	B	L5	R5
P6	PLAY	c	c	c	c	C	L6	R6
P7	REC	e	e	e	e	S	L7	R7
P8	TIME	d	d	d	d	MPX	L8	R8
P9	REMAIN	j	j	j	j	BLE	L9	R9
P10	RETURN	p	p	p	p	XD	L10	R10
P11	1/f	k	k	k	k	FLEX	L11	R11
P12	+15%	n	n	n	n	PEAK	L12	R12
P13	CD SYNC	r	r	r	r	DOLBY NR	L13	R13
P14		h	h	h	h	TYPE	RNGW	RNGE
P15				h		-15%		
P16						HOLD		

9. PANEL FACILITIES





① **POWER STANDBY/ON switch and STANDBY indicator**
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 **Display off button (DISP OFF)**
Press to select the function display on or off.

③ **Level meter range selector button (METER RANGE)**
Press to select wide or expanded range on the level meter.

④ **Tape counter mode button (COUNTER MODE)**

⑤ **Counter reset button (COUNTER RESET)**
The tape capacity can be selected with this button while the REMAIN counter is displayed.

⑥ **Function display**

⑦ **MPX FILTER button**

⑧ **Dolby* NR button (DOLBY NR OFF/B/C/S)**

*
- *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.*

⑨ **Return button (RETURN)**
This button is used to fast forward or rewind the tape to a point near the counter reading "0000".

⑩ **Monitor selector button (MONITOR)**
Used to monitor the source sound or the actual recorded sound during recording.

⑪ **Operation buttons**
- ◀◀ : Rewind/music search
- ■ : Stop
- ▶ : When pressed during stop, begins playback.
- ▶▶ : Fast forward/music search
- ● : Recording
- II : When pressed during playback or recording, pauses playback or recording. When pressed during pause, resumes play or starts recording.
- 0 : Recording mute

⑫ **TIMER mode/repeat play switch (TIMER REC/OFF/PLAY-REPEAT)**

⑬ **OPEN/CLOSE button (⏏)**

⑭ **BLE XD button**

⑮ **Headphones jack (PHONES)**

⑯ **CD•DECK SYNCHRO recording button (CD SYNCHRO)**

⑰ **Recording balance control (REC BALANCE)**

⑱ **FLEX button**

⑲ **Recording level control (REC LEVEL)**

① **BLE XD indicator**

② **Tape type indicators (TYPE I/II/IV)**
Indicate the tape type in accordance with the loaded cassette.

③ **FLEX indicator**
This indicator lights when the FLEX button is pressed.

④ **Counter indicator**
Normally the tape, time or remaining time counter is displayed.

⑤ **TIME counter indicator**
Lights up in the time counter mode.

⑥ **REMAIN counter indicator**
Lights up in the remaining time counter mode.

⑦ **RETURN indicator**
Lights when the tape is returning to counter reading "0000" by pressing the RETURN button.

⑧ **Monitor source indicators**
TAPE: Recorded sound
The sound differs in the CT-S550S as the Dolby S-type NR used during recording is played back in Dolby B-type NR.
SOURCE: Original source sound

⑨ **CD SYNC indicator**
Lights when synchro recording from a CD player is being carried out.

⑩ **Display off indicator (DISP OFF)**
Lights when the display off function is selected.

⑪ **MPX indicator**
This indicator lights when the MPX filter button is set to ON (only when DOLBY NR is also set to ON).

⑫ **DOLBY NR B/C/S indicator**

⑬ **Level meter with peak hold function**
The ● between the –2 and 0 marks indicates the Dolby NR system's reference level.
Meter range:
Wide mode: –20 dB to +6 dB
Expand mode: –5 dB to +6 dB

⑭ **PLAY indicator**
Lights during playback.

⑮ **REC indicator**
Lights during recording.

⑯ **Pause indicator (II)**

CT-S550S

10. SPECIFICATION

System ..... 4-track, 2-channel stereo
Heads
Recording/Playback head:
Combined Hard permalloy recording/Hard permalloy playback head x 1
Erasing head: Ferrite head x 1
Motor ..... DC servo capstan motor x 1
DC reel motor x 1
DC assist motor x 1
Wow and Flutter ..... No more than 0.05% (WRMS, JIS)
No more than ± 0.14% (DIN)
Fast Winding Time ..... Approx. 90 seconds (C-60 tape)

Frequency Response (at –20 dB recording level)
TYPE IV (Metal) tape ..... 20 to 25,000 Hz (±6 dB)
TYPE II (High/CrO_2) Tape ..... 20 to 19,000 Hz (±6 dB)
TYPE I (Normal) Tape ..... 20 to 19,000 Hz (±6 dB)

Signal-to-Noise Ratio (Dolby NR OFF) ..... More than 59 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)
Dolby S-type NR ON ..... More than 22 dB (at 5 kHz)
Harmonic Distortion ..... No more than 0.6%
(at –4 dB: 160 nwb/m)
Input (Sensitivity)
LINE (INPUT) ..... 100 mV (Input impedance 23 kΩ)
Output (Reference level)
LINE (OUTPUT) ..... 0.5 V (Output impedance 1.9 kΩ)
Headphones (PHONES) ..... 1.4 mW (Load impedance 32 Ω)

Miscellaneous

Power requirements
U.K., model ..... AC 230—240 Volts~, 50/60 Hz
European model ..... AC 220—230 Volts~, 50/60 Hz
Power consumption
CT-S550S ..... 22 W
Dimensions ..... 420 (W) x 125 (H) x 280 (D) mm
Weight (without packages)
European model ..... 4.1 kg
U.K. model ..... 4.3 kg

Subfunctions

- DOLBY B-type, C-type and S-type NR Systems
  When the monitoring function is used during a recording being made with Dolby S-type noise reduction, the recorded signals from the tape are played back via a Dolby B-type noise reduction.
- DOLBY HX PRO system
- MPX FILTER
- Headphones jack
- 4-digit electronic tape/time/remain counter
- Music search up to ±15 selections
- Automatic space recording mute
- SUPER AUTO BLE XD tuning system
- FL level meter 12 +1 segments (with peak hold)
- SR System remote control available
- CD · DECK SYNCHRO function
- Timer Recording/Playback (Automatic repeat playback ON)
- Auto tape selector
- FLEX system
- Last memory
- Tape return/return play
- Auto monitor selection (Tape/Source)
- Display off
- Power eject (Open/Close)

Accessories

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

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