

- Parts without part number cannot be supplied.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- For your Parts Stock Control, the fast moving items are indicated with the marks **★★** and **★**.
- **★★ GENERALLY MOVES FASTER THAN ★**. This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- **Precaution when replacing heads (*1)**
Because of the very high precision requirements in tape heads, replacement components are supplied as assembly which also include the head base. Under no circumstances must this tape head assembly (RXX-430) be disassembled.

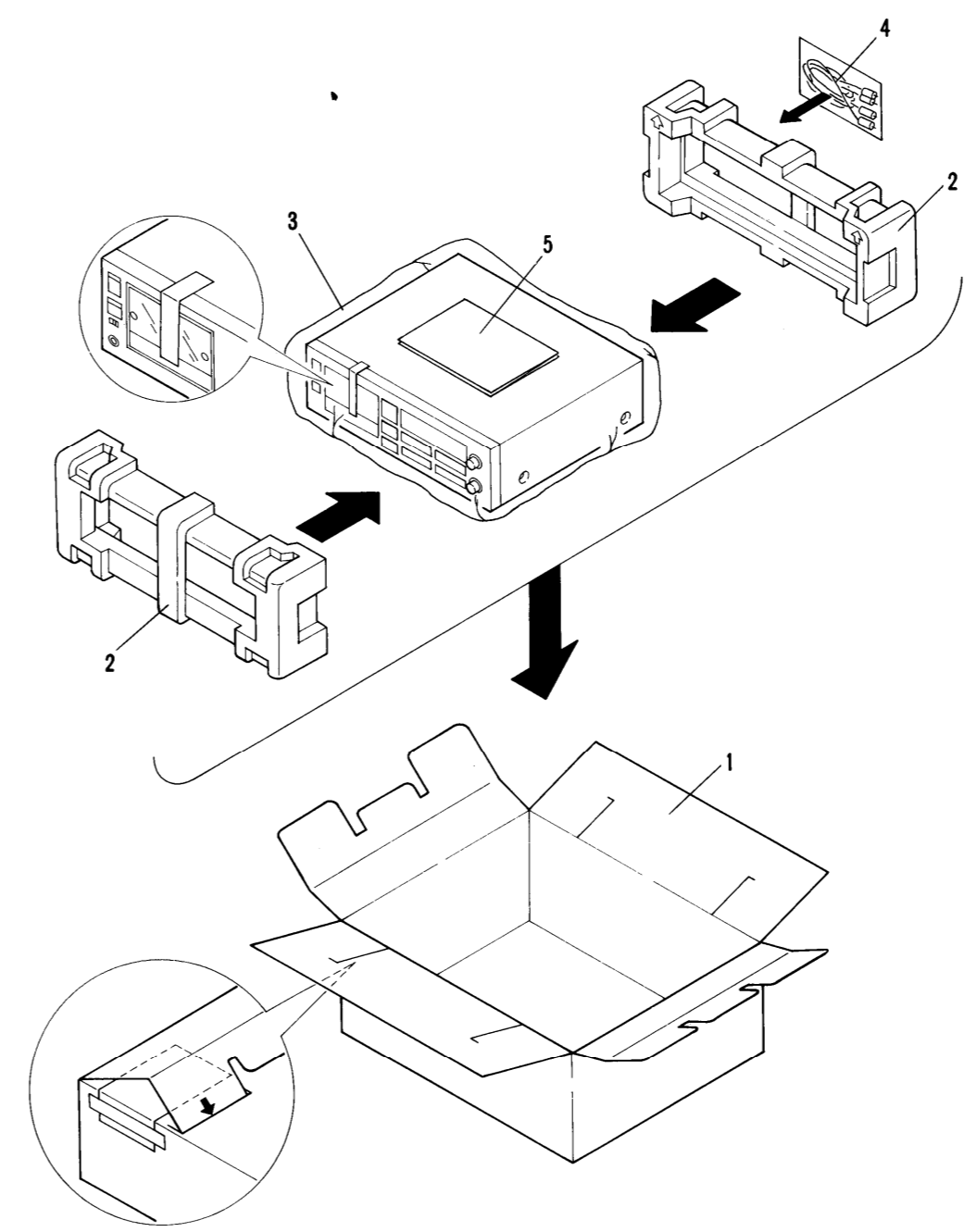
Parts List of Tape Transport Mechanism

Mark	No.	Part No.	Description	Mark	No.	Part No.	Description
★★	1	BMZ23P100FZK	Screw 2.3 x 10	★★	36	RNL-549	Take-up idler
	2	RSF-031	Microswitch (S084)		37	WA15D030D050	Washer
	3	VCT30P060FZK	Screw 3 x 6		38	RNL-801	Pocket R
	4	VCZ26P080FMC	Screw 2.6 x 8		39	REC-419	Cover
	5	YS24FBT	Washer C-type		40	YE20FUC	Washer E-type
	6	RNL-739	Piston		41	WA26N070W040	Washer
	7	REB-447	O-ring		42	RXB-884	Side cam gear assembly
	8	RNL-740	Cylinder		43	RNL-741	Lock lever
	9	PMA26P060FZK	Screw 2.6 x 6		44	RBL-043	Lock lever spring
	10	RNL-016	Tape guide		45	RNL-729	Cam gear
	11	YE25FUC	Washer E-type	★★	46	RXM-115	Reel motor with pulley
	12	RBL-030	Pinch thrust spring		47	BMZ30P080FZK	Screw 3 x 8
	13	RBL-029	Sub-pinch spring		48	BMZ20P030FZK	Screw 2 x 3
★★	14	RXB-877	Pinch roller arm L assembly		49	RBL-033	Idler pressure spring
	15	RNL-800	Pocket L		50	WA32D080D050	Washer
	16	RNL-742	Collar		51	BMZ30P060FZK	Screw 3 x 6
	17	RBL-027	Pocket spring		52	REF-023	Steel ball (φ4)
	18	BBZ30P080FZK	Screw 3 x 8		53	RBL-031	BT spring A
	19	YE30FUC	Washer E-type		54	RBL-032	BT spring B
	20	RBL-039	Eject spring		55	RXB-751	BT disk assembly
	21	RBL-040	Half hold spring		56	RXB-874	Reel base assembly
	22	RNL-733	REC detector arm		57	RBF-079	Washer
	23	RBL-041	REC detector arm spring		58	RNK-815	Cap B
	24	RNL-735	METAL detector arm		59	RBL-028	Pinch spring
	25	RNL-734	CrO ₂ detector arm		60	RXB-876	Pinch roller arm R assembly
	26	RBL-042	Detector arm spring	★★	61	RSX-059	Rotary encoder
	27	BBZ26P080FZK	Screw 2.6 x 8	★★	62	REB-502	Drive belt
	28		★★	63	RXM-113	Assist motor with pulley
	29	RNL-723	Brake		64	RBF-070	Thrust washer B
	30	REB-511	Brake shoe		65	BMZ26P060FZK	Screw 2.6 x 6
	31	RBL-038	Brake spring		66	RXB-893	Capstan holder B
	32	REF-022	Steel ball (φ3)		67	RBF-077	Oil stopper washer
	33	RBL-037	Head base spring		68	BMZ26P120BNN	Screw 2.6 x 12
	34	RXX-430 (*1)	Head base assembly		69	RNF-828	FG plate
	35			70	RXX-429	FG coil assembly

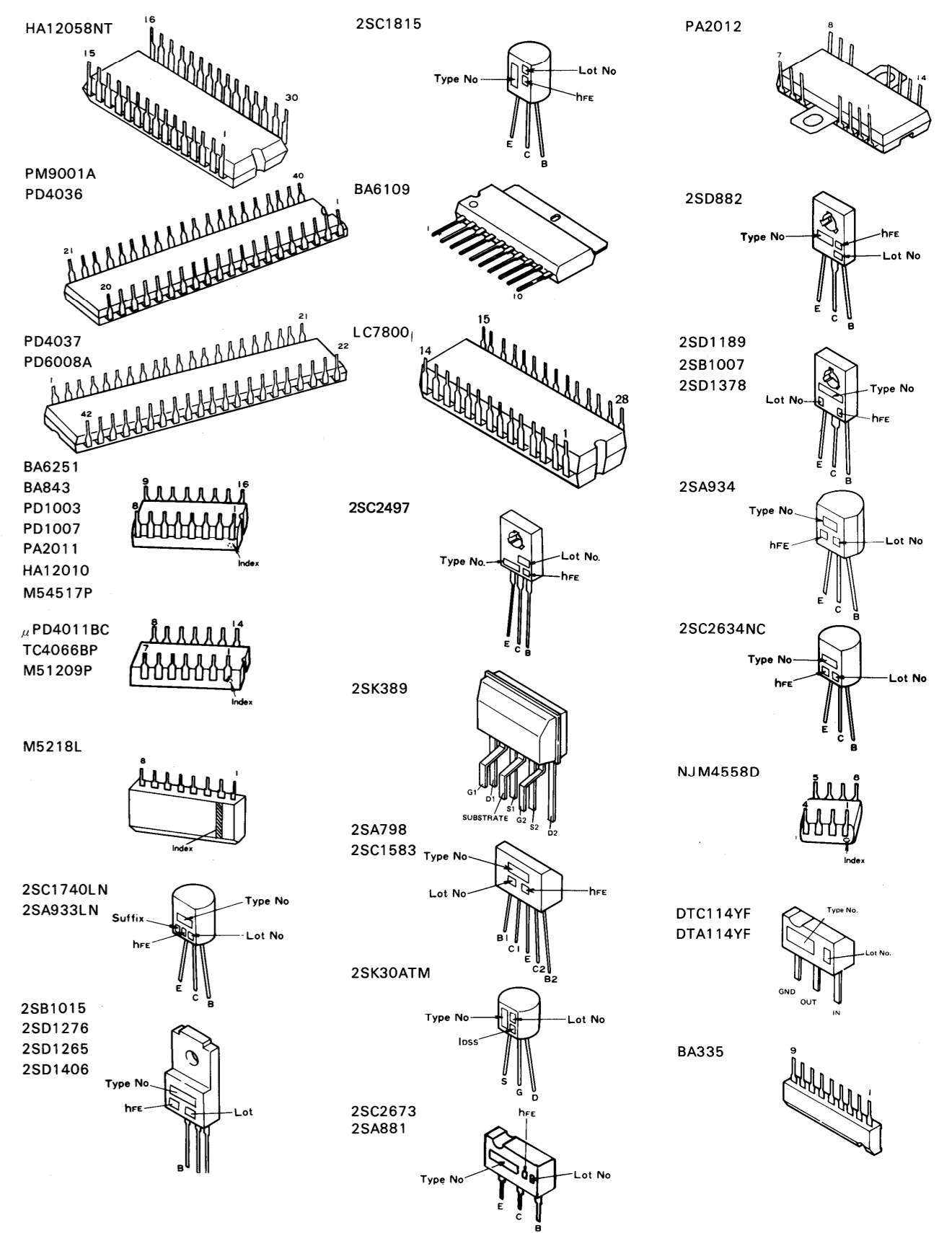
Mark	No.	Part No.	Description
	71	RXB-892	Capstan holder A
	72	RBF-030	Oil stopper washer
	73	RWX-850	CM control assembly
	74	RXB-889	Sub-flywheel assembly
	75	RXX-428	Rotor assembly
★★	76	REB-509	Capstan belt
	77	RBL-044	Thrust spring
	78	RBL-045	Spring
	79	VCZ30P060FMC	Screw 3 x 6
	80	
	81		Door frame L assembly
	82		Cord fixer
	83		Pressure arm L
	84		Pocket frame
	85		Eject lever
	86		Shift shaft
	87		Brake lever
	88		Rotation sensor assembly C
	89		Pinch lever assembly
	90		Pinch base assembly
	91		Head base hold spring
	92		Take-up idler assembly
	93		Door arm
	94		Cassette half sensor assembly
	95		Gear base assembly
	96		Rotation sensor assembly B
	97		REC detector assembly
	98		Reel motor base
	99		Tape selector assembly
	100		Chassis
	101		Pressure arm R
	102		Gear chassis
	103		Terminal assembly A
	104		Second pulley assembly
	105		FG shield plate
	106		Motor chassis
	107		Rotation sensor assembly A
	108		Door frame R assembly

7. PACKING

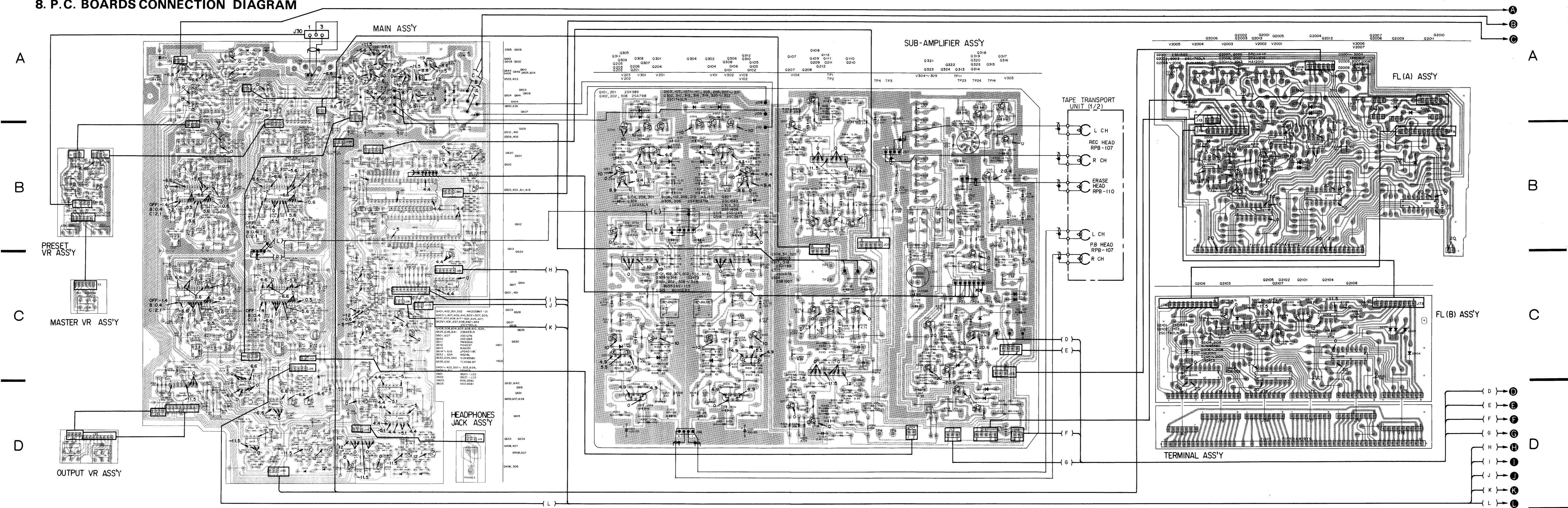
Mark	No.	Part No.	Description
	1	RHG-686	Packing case
	2	RHA-259	Pad
	3	RHX-030	Sheet
	4	RDE-010	Connection cord
	5	RRB-225	Operating instructions (English)



External Appearance of Transistors and ICs

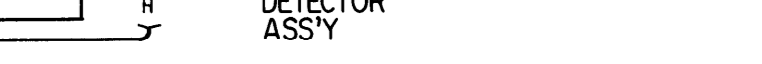
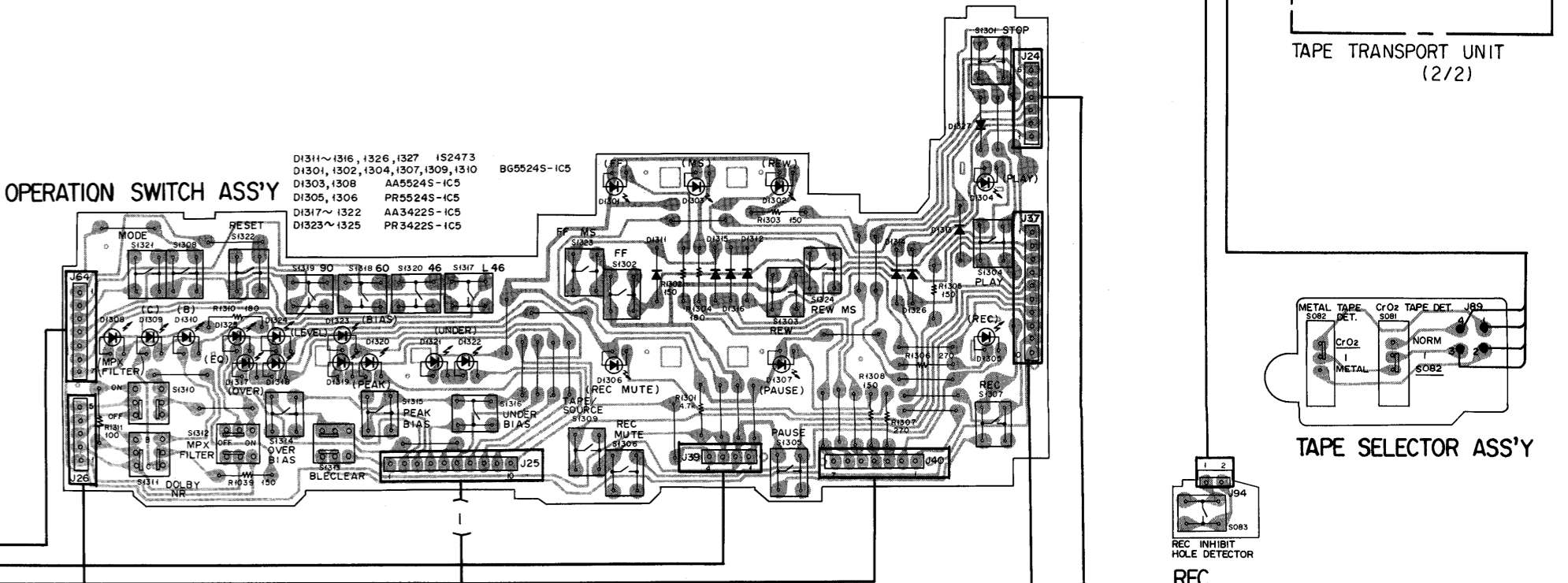
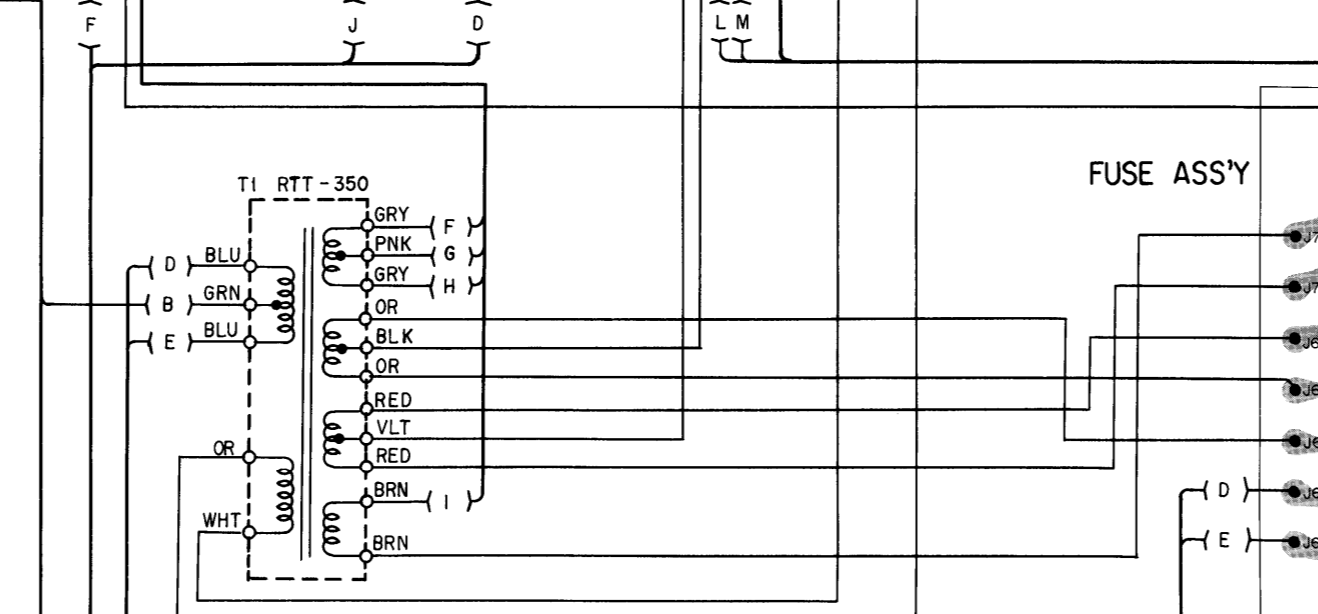
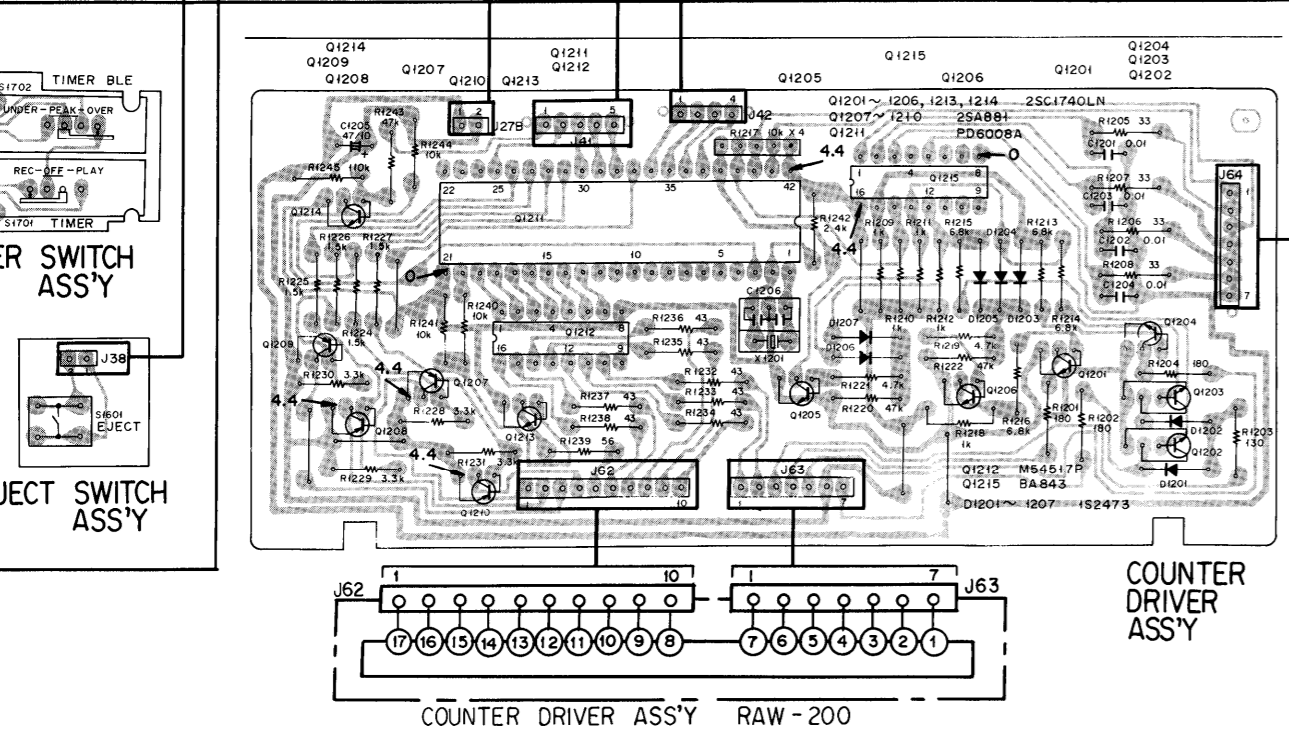
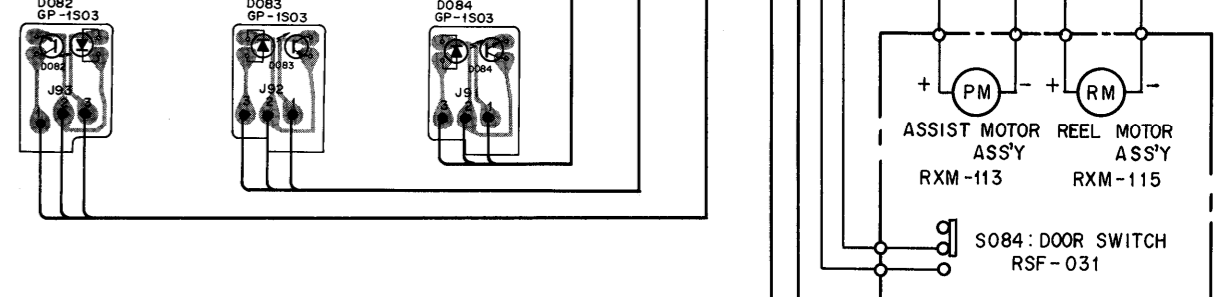
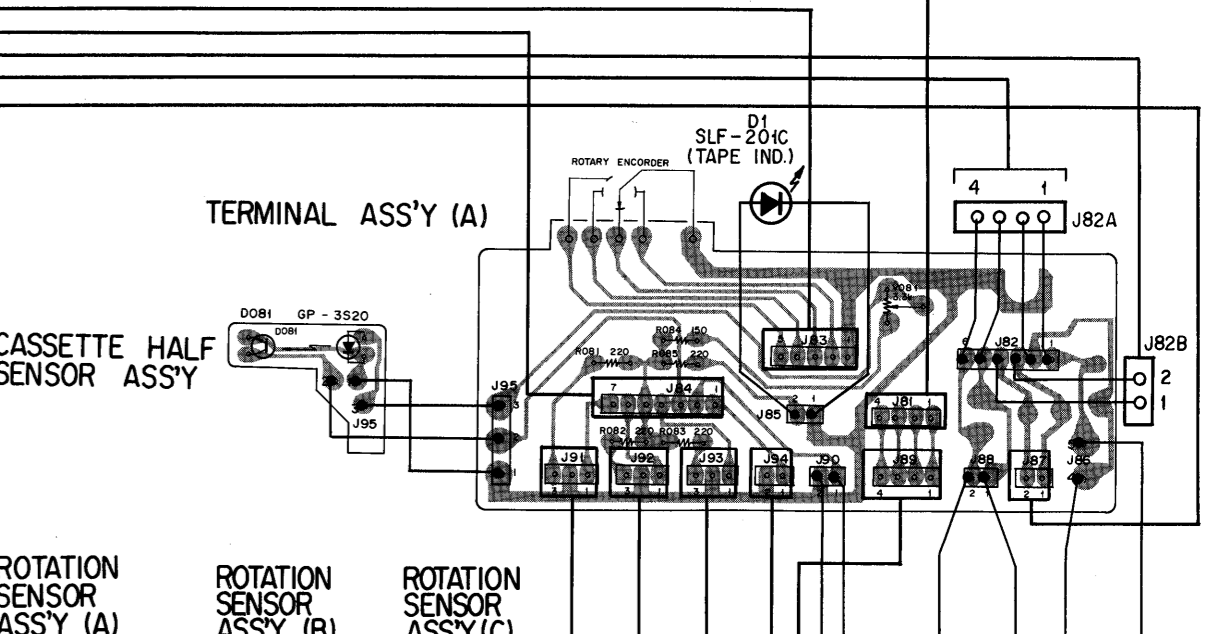
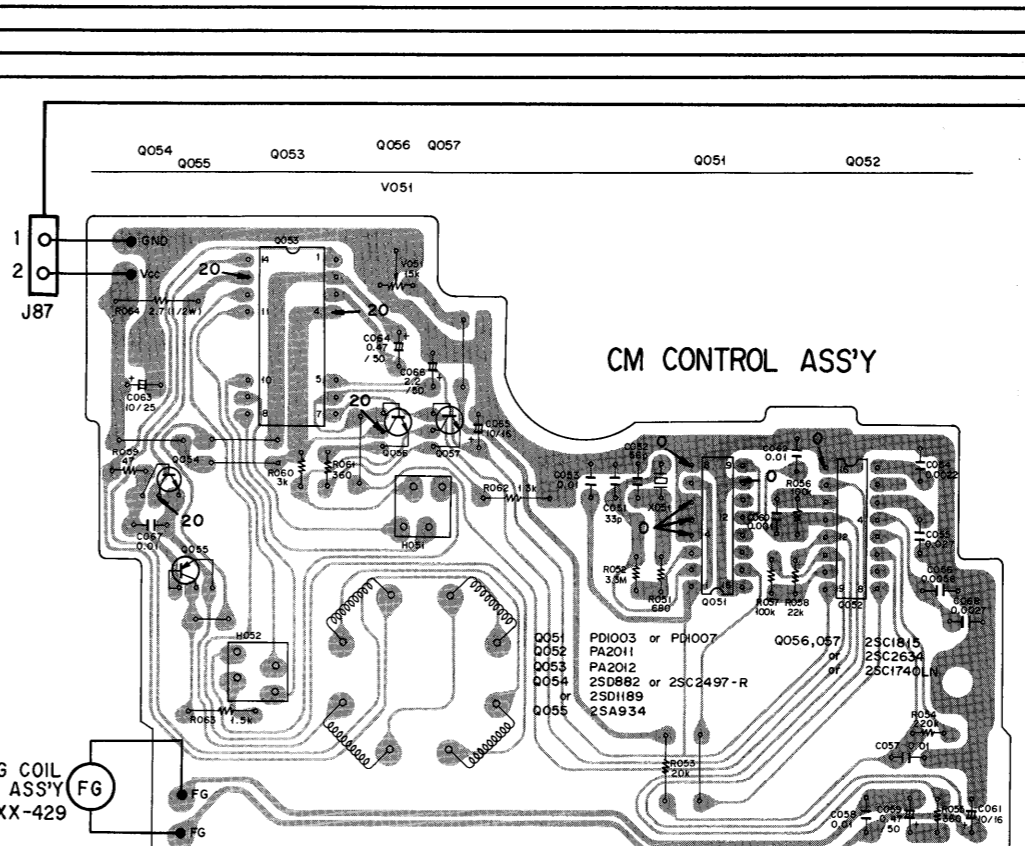
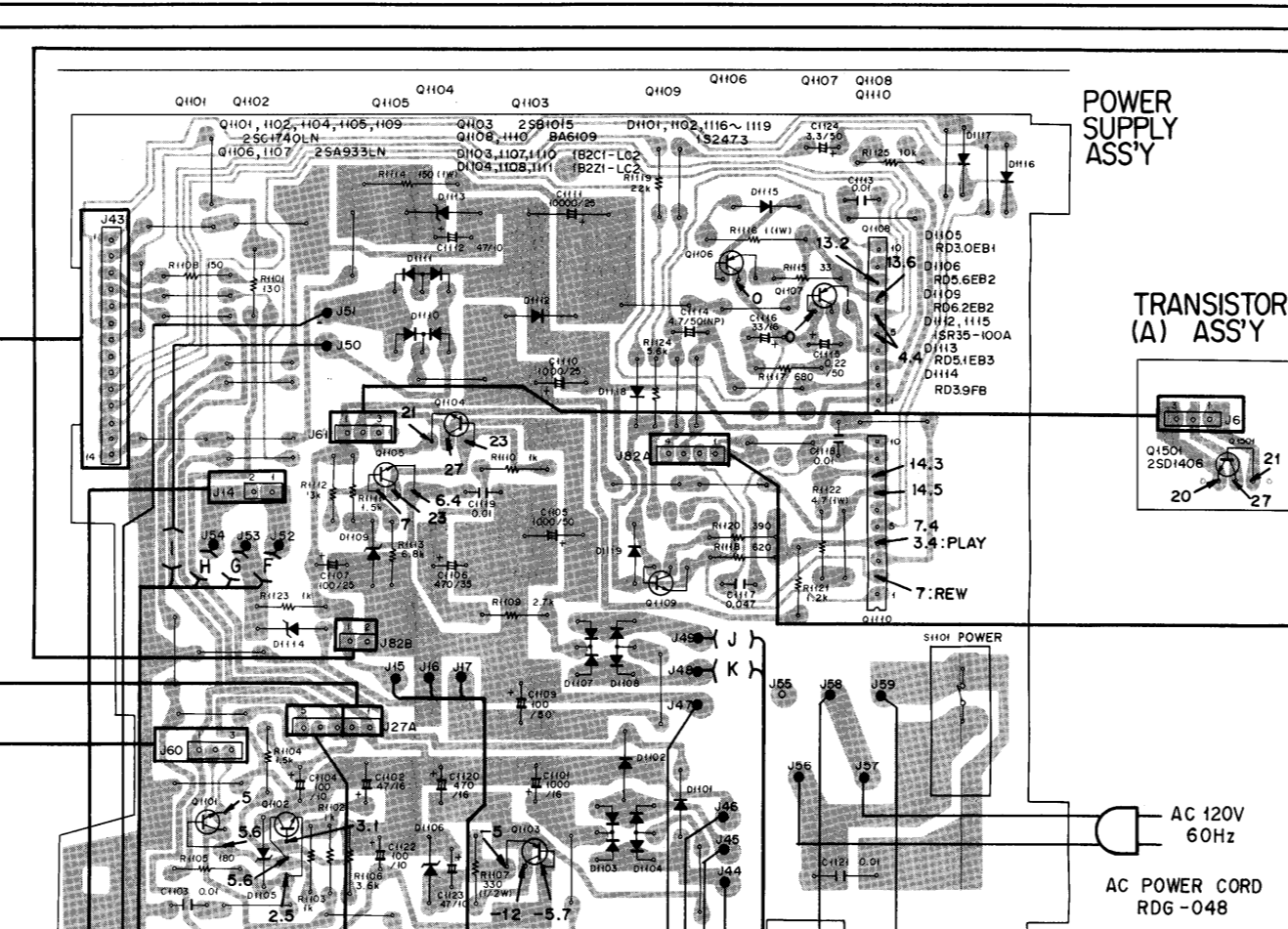
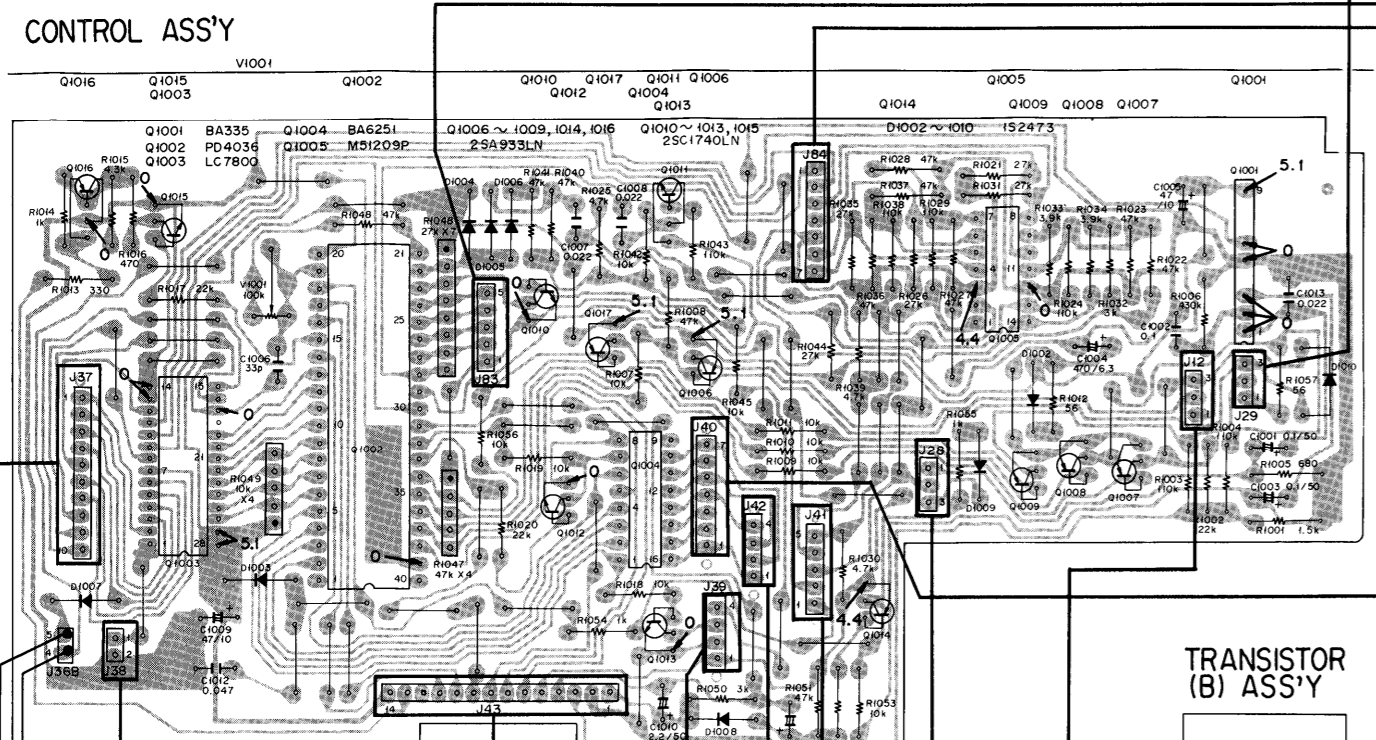


8. P.C. BOARDS CONNECTION DIAGRAM



1 2 3 4 5 6 7 8 9 10 11 12

A
B
C
D
E
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G
H
I
J
K
L

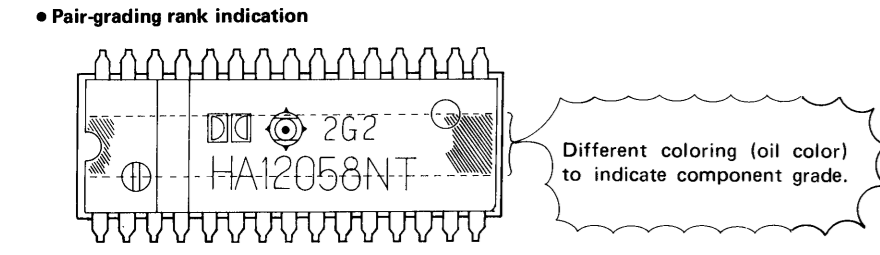


1 2 3 4 5 6 7 8 9 10 11 12

9. ELECTRICAL PARTS LIST

NOTES:
(*1) Precaution when replacing the Dolby NR IC in CT-A9
Because the CT-A7 and CT-A9 tape decks are 3-head decks, it is necessary to use select Dolby NR ICs in pairs in the recording and playback circuits to ensure that performance is maintained.

- Pair-grading ranks (Six ranks)
HA12058NT-Q1 → HA12058NT-R (Red)
HA12058NT-V (Violet)
HA12058NT-G (Green)
HA12058NT-Y (Yellow)
HA12058NT-O (Orange)
HA12058NT-B (Blue)



Hence, when replacing Dolby NR ICs, use the same grade (same color) components for recording/playback.

(*2) Precaution when replacing heads
Because of the very high precision requirements in tape heads, replacement components are supplied as assembly which also include the head base. Under no circumstances must this tape head assembly (RXX-430) be disassembled.

NOTES:
When ordering resistors, first convert resistance values into code form as shown in the following examples.
Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).
560Ω 56 x 10^1 561 RD4PS 5 5 J
47kΩ 47 x 10^3 473 RD4PS 4 7 J
0.5Ω 0R5 RN2H 0 5 K
1Ω 010 RS1P 0 1 K
Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62kΩ 562 x 10^1 5621 RN4SR 5 6 2 1 F
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.
For your Parts Stock Control, the fast moving items are indicated with the marks ** and *.
** GENERALLY MOVES FASTER THAN *.
This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.

Miscellaneous Parts

P. C. BOARD ASSEMBLIES

Table with columns: Mark, Part No., Symbol & Description. Lists various board assemblies like CM control assembly, rotation sensor assembly, output VR assembly, etc.

FUSES

Table with columns: Mark, Part No., Symbol & Description. Lists fuses like REK-073, FU1901, FU1902, etc.

OTHERS

Table with columns: Mark, Part No., Symbol & Description. Lists various components like power transformer, LED, microswitch, rotary encoder, rotor assembly, etc.

Main Assembly

SEMICONDUCTORS

Table with columns: Mark, Part No., Symbol & Description. Lists various semiconductors like HA12058NT-01, M5218L, TC4066BP, etc.

COILS, FILTERS

Table with columns: Mark, Part No., Symbol & Description. Lists coils and filters like RTF-158, L401, L501, etc.

CAPACITORS

Table with columns: Mark, Part No., Symbol & Description. Lists various capacitors like CQMA 332J 50, CEA R15M 50, etc.

Mark Part No. Symbol & Description

Table with columns: Mark, Part No., Symbol & Description. Lists various parts like CEAXA 221M 25, CEANP R47M 50, etc.

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Table with columns: Mark, Part No., Symbol & Description. Lists resistors like RCP-151, RCP-150, etc.

OTHERS

Table with columns: Mark, Part No., Symbol & Description. Lists other parts like RKB-021, Phono jack 4-P.

Output VR Assembly

Table with columns: Mark, Part No., Symbol & Description. Lists parts for output VR assembly like RCV-114, V901, V902.

Master VR Assembly

Table with columns: Mark, Part No., Symbol & Description. Lists parts for master VR assembly like RCV-115, V801.

Preset VR Assembly

Table with columns: Mark, Part No., Symbol & Description. Lists parts for preset VR assembly like 2SC1740LN, Q701.

CAPACITORS

Table with columns: Mark, Part No., Symbol & Description. Lists capacitors like CEXA 010M 50, CEA 470M 10, etc.

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Table with columns: Mark, Part No., Symbol & Description. Lists resistors like RCS-027, RD1/4M, etc.

Counter Driver Assembly

SEMICONDUCTORS

Table with columns: Mark, Part No., Symbol & Description. Lists semiconductors like PD6008A, M54517P, etc.

CAPACITORS

Table with columns: Mark, Part No., Symbol & Description. Lists capacitors like CKDYF 103Z 50, CEA 470M 10.

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Table with columns: Mark, Part No., Symbol & Description. Lists resistors like RD1/4PM, All resistors.

OTHERS

Table with columns: Mark, Part No., Symbol & Description. Lists other parts like RSS-033, X1201/C1206.

Timer Switch Assembly

SWITCHES

Table with columns: Mark, Part No., Symbol & Description. Lists switches like RSH-064, S1701, S1702.

Eject Switch Assembly

Table with columns: Mark, Part No., Symbol & Description. Lists switches like RSG-155, S1601.

Transistor A Assembly

Table with columns: Mark, Part No., Symbol & Description. Lists transistors like 2SD1406, Q1501.

Transistor B Assembly

Table with columns: Mark, Part No., Symbol & Description. Lists transistors like 2SD1406, Q1401.

Headphones Jack Assembly

Table with columns: Mark, Part No., Symbol & Description. Lists parts like RKN-081, Phone jack (PHONES).

Power Supply Assembly

SENUCONDUCTORS

Table with columns: Mark, Part No., Symbol & Description. Lists senuconductors like BA6109, 2SC1740LN, etc.

Table with columns: Mark, Part No., Symbol & Description. Lists various parts like 1S2473, 1B2C1-LC2, etc.

Table with columns: Mark, Part No., Symbol & Description. Lists various parts like RD6-2EB2, 1SR35-100A, etc.

SWITCHES

Table with columns: Mark, Part No., Symbol & Description. Lists switches like RSA-063, S1101.

CAPACITORS

Table with columns: Mark, Part No., Symbol & Description. Lists various capacitors like RCG-008, RCH-057, etc.

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Table with columns: Mark, Part No., Symbol & Description. Lists resistors like RS1LF 010J, RS1LF 4R7J, etc.

Control Assembly

SEMICONDUCTORS

Table with columns: Mark, Part No., Symbol & Description. Lists various semiconductors like BA335, PD4036, etc.

CAPACITORS

Table with columns: Mark, Part No., Symbol & Description. Lists various capacitors like CEA R10M 50, CEA 471M 6R3, etc.

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Part No.	Symbol & Description
★	RCP-154	V1001 Semi-fixed (100k-B)
	RM4-103J	R1049
	RM4-473J	R1047
	RM7-273J	R1048
	RD1/4PM □□□J	Other resistors

Operation Switch Assembly

SEMICONDUCTORS

Mark	Part No.	Symbol & Description
★	BG5524S-1C5	D1301, D1302, D1304, D1307, D1309, D1310
★	AA5524S-1C5	D1303, D1308
★	PR5524S-1C5	D1305, D1306
★	1S2473	D1311 – D1316, D1326, D1327
★	AA3422S-1C5	D1317 – D1322
★	PR3422S-1C5	D1323 – D1325

SWITCHES

Mark	Part No.	Symbol & Description
★★	RSG-155	S1301, S1304, S1307, S1314 – S1316 Push switch
★★	RSG-143	S1302, S1303, S1305, S1306, S1308, S1309, S1317 – S1324 Push switch
★★	RSG-149	S1310 – S1312 Push switch
★★	RSG-156	S1313 Push switch

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Part No.	Symbol & Description
	RD1/4PM □□□J	R1301 – R1310

Sub-Amplifier Assembly

SEMICONDUCTORS

Mark	Part No.	Symbol & Description
★★	M5218L	Q106, Q112, Q206, Q212
★★	2SK389	Q101, Q201
★★	2SC1740LN	Q103, Q105, Q107 – Q111, Q203, Q205, Q207 – Q211, Q302, Q310, Q313, Q314, Q319 – Q322
★★	2SA933LN	Q104, Q204, Q301, Q309
△★★	2SD1406	Q303, Q312
△★★	2SB1015	Q304, Q311, Q325
★★	2SK30ATM	Q305, Q306
★★	2SC1583	Q307
★★	2SA798	Q102, Q202, Q308

Mark	Part No.	Symbol & Description
△★★	2SD1265	Q315
★★	2SC2673	Q316
★★	2SD1189	Q317, Q318
★★	2SD1378	Q323
★★	2SB1007	Q324
★	1S2473	D101, D102, D201, D202, D303, D304, D309 – D314
★	BG5524S-1C5	D301, D302, D305 – D308
△★	RD20EB3	D315

COILS, TRANSFORMERS

Mark	Part No.	Symbol & Description
	RTF-161	L101, L201 Trap coi
	RTF-127	L102, L202 Peaking coil 8.2mH
	RTF-157	L103, L203 Trap coil
	RTF-101	L301 Line coil
	RTD-030	L302 Oscillator transformer
	RTD-018	L303 Step-up transformer

CAPACITORS

Mark	Part No.	Symbol & Description
	CEXA 101M 25	C101, C102, C201, C202
	CEXA 010M 50	C106, C206
	CEXA 100M 50	C109, C116, C209, C216
	CEXANP 4R7M 50	C105, C108, C119, C205, C208, C219
	CEXANP 100M 50	C115, C215
	CEA R22M 50	C118, C218
	CEANP R47M 50	C334
	CEA 010M 50	C326, C328
	CEA 100M 16	C111, C211, C303, C304
	CEA 100M 25	C327
	CEA 470M 10	C319
	CEA 470M 25	C316
	CEA 101M 16	C309, C310, C314, C315, C332, C333
	CEA 101M 25	C335, C336
	CEA 221M 16	C312, C313
	CEA 221M 25	C311, C335
	QMA 102J 50	C117, C217
	QMA 332J 50	C110, C210
	QMA 332K 50	C320, C321
	QMA 152J 50	C113, C213
	QMA 272J 50	C112, C212
	QMA 682K 50	C323, C329
	QMA 562J 50	C114, C214
	QMA 103J 50	C325
	QMA 103K 50	C301, C302, C305 – C308, C337
	QMA 223J 50	C322
	QMA 683J 50	C107, C207
	QMA 563K 50	C104, C204
	QPA 682J 100	C324
	CKDYF 473Z 50	C317, C318

Mark	Part No.	Symbol & Description
	CKDYF 103Z 50	C339
	CKDYB 102K 50	C338
	QSQF 151J 125	C103, C203
	QOSA 181K 125	C330, C331

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Part No.	Symbol & Description
★	RCP-161	V101, V201 Semi-fixed 220-B
★	RCP-166	V102, V202 Semi-fixed 2.2k-B
★	RCP-170	V103, V203 Semi-fixed 10k-B
★	RCP-148	V104, V204 Semi-fixed 6.8k-B
★	RCP-145	V301, V302 Semi-fixed 2.2k-B
★	RCP-146	V303 Semi-fixed 3.3k-B
★	RCP-154	V304 – V309 Semi-fixed 100k-B
△	RS1LF □□□J	R315, R316, R351
	RN1/4PQ □□□F	R101 – R115, R118, R121, R124, R132, R149, R201 – R215, R218, R221, R224, R232, R249, R313, R314, R322, R329, R331, R336, R342, R344, R350, R354 – R356
	RD1/4PM □□□J	Other resistors

OTHERS

Mark	Part No.	Symbol & Description
★★	RSR-037	RL01, RL02 Miniature relay

CM Control Assembly (RWX-850)

SEMICONDUCTORS

Mark	Part No.	Symbol & Description
★★	PD1003 (PD1007)	Q051
★★	PA2011	Q052
★★	PA2012	Q053
★★	2SD882 (2SC2497-R) (2SD1189)	Q054
★★	2SA934	Q055
★★	2SC1815 (2SC2634NC) (2SC1740LN)	Q056, Q057
★	PCX-010 (PCX-012)	H051, H052 Hall element A (Hall element B)

CAPACITORS

Mark	Part No.	Symbol & Description
	CCDCH 330J 50	C051
	CCDCH 560J 50	C052
	CEA R47M 50	C059, C064
	CEA 100M 16	C061, C065
	CEA 100M 25	C063
	CEA 2R2M 50	C066
	QMA 273K 50	C055
	RCE-230	C056 PP capacitor (5600p/50)
	RCE-231	C054 Film capacitor (2200p/50)
	CKDYF 102Z 50	C060
	CKDYF 103Z 50	C053, C057, C058, C062, C067
	RCE-229	C068 Film capacitor (2700p/50)

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Part No.	Symbol & Description
★	RCP-117	V051 Semi-fixed 15k-B
	RD1/2PS 2R7J	R064
	RN1/4PQ 203F	R053
	RD1/4PM □□□J	R062, R063
	RD1/6PM □□□J	Other resistors

OTHER

Mark	Part No.	Symbol & Description
★	RSS-032	X051 Crystal resonator

Terminal Assembly A

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Part No.	Symbol & Description
★	RCP-190	V081 Semi-fixed 3.3k-B
	RD1/6PM □□□J	R081 – R085

REC Detector Assembly

SWITCH

Mark	Part No.	Symbol & Description
★★	RSG-143	S083 Push switch

Tape Selector Assembly

SWITCHES

Mark	Part No.	Symbol & Description
★★	RSH-070	S081, S082 Slide switch

Cassette Half Sensor Assembly

SEMICONDUCTOR

Mark	Part No.	Symbol & Description
★	GP-3S20	D081

Rotation Sensor Assembly A

SEMICONDUCTOR

Mark	Part No.	Symbol & Description
★	GP-1S03	D082

Rotation Sensor Assembly B

Mark	Part No.	Symbol & Description
★	GP-1S03	D083

Rotation Sensor Assembly C

Mark	Part No.	Symbol & Description
★	GP-1S03	D084

FL A Assembly

SEMICONDUCTORS

Mark	Part No.	Symbol & Description
★★	2SC1583	Q2001
★★	2SC1740LN	Q2002, Q2003
★★	NJM4558D	Q2004 – Q2006
★★	DTC114YF	Q2007, Q2009
★★	DTA114YF	Q2008, Q2010
★★	HA12010	Q2011 – Q2013
★	1K60AUF	D2001 – D2004
★	1S2473	D2005 – D2008
★	RD6 - 2EB	D2009

CAPACITORS

Mark	Part No.	Symbol & Description
	QMA 473K 50	C2001, C2002
	CKDYB 271K 50	C2003, C2004
	CEA 100M 16	C2005, C2006
	CEA R10M 50	C2007
	CEA 470M 16	C2008, C2009
	CEA 101M 25	C2010

RESISOTRS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Part No.	Symbol & Description
★	RCP-149	V2001, V2002, V2006, V2007 Semi-fixed 10k-B
★	RCP-145	V2003, V2004 Semi-fixed 2.2k-B
★	RCP-155	V2005 Semi-fixed 150k-B
	RN1/4PQ □□□F	R2015, R2016, R2018
	RD1/4PM □□□J	R2038
	RD1/6PM □□□J	Other resistors

OTHER

Mark	Part No.	Symbol & Description
★	FIP101AW19YS	FL2201 Fluorescent indicator tube

FL Assembly

SEMICONDUCTORS

Mark	Part No.	Symbol & Description
★★	2SC1583	Q2101
★★	2SC1740LN	Q2102, Q2103
★★	NJM4558D	Q2104, Q2105
★★	HA12010	Q2106 – Q2108
★	1S2473	D2101 – D2105
★	RD6 - 2EB	D2106

CAPACITORS

Mark	Part No.	Symbol & Description
	CKDYB 271K 50	C2101, C2102
	CEA 100M 16	C2103
	CEA R10M 50	C2104

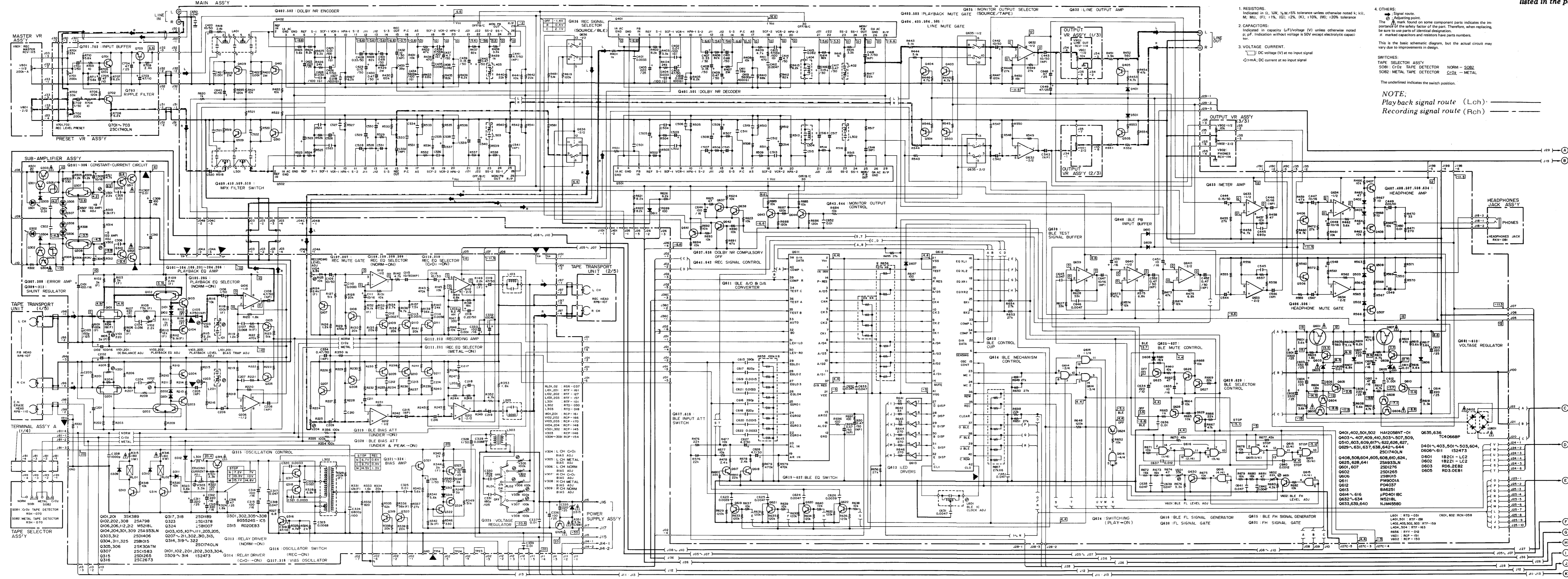
RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Part No.	Symbol & Description
	RN1/4PQ □□□J	R2103, R2104, R2106
	RD1/4PM □□□J	R2121
	RD1/6PM □□□J	Other resistor

10. SCHEMATIC DIAGRAM

NOTE:
The indicated semiconductors are representative ones only.
Other alternative semiconductors may be used and are listed in the parts list.



- RESISTORS:** Indicated in Ω, K, M, % tolerance unless otherwise noted; K, M, MC, MG, (E), (G), (I), (L), (N), (P), (R), (S), (T), (V), (W), (X), (Y), (Z), (AA), (BB), (CC), (DD), (EE), (FF), (GG), (HH), (JJ), (KK), (LL), (MM), (NN), (OO), (PP), (QQ), (RR), (SS), (TT), (UU), (VV), (WW), (XX), (YY), (ZZ), (AAA), (BBB), (CCC), (DDD), (EEE), (FFF), (GGG), (HHH), (III), (JJJ), (KKK), (LLL), (MMM), (NNN), (OOO), (PPP), (QQQ), (RRR), (SSS), (TTT), (UUU), (VVV), (WWW), (XXX), (YYY), (ZZZ), (AAA), (BBB), (CCC), (DDD), (EEE), (FFF), (GGG), (HHH), (III), (JJJ), (KKK), (LLL), (MMM), (NNN), (OOO), (PPP), (QQQ), (RRR), (SSS), (TTT), (UUU), (VVV), (WWW), (XXX), (YYY), (ZZZ).
- CAPACITORS:** Indicated in capacity (pF, nF, μF) unless otherwise noted; p, n, μ, M, K, G, T, (E), (G), (I), (L), (N), (P), (R), (S), (T), (V), (W), (X), (Y), (Z), (AA), (BB), (CC), (DD), (EE), (FF), (GG), (HH), (JJ), (KK), (LL), (MM), (NN), (OO), (PP), (QQ), (RR), (SS), (TT), (UU), (VV), (WW), (XX), (YY), (ZZ), (AAA), (BBB), (CCC), (DDD), (EEE), (FFF), (GGG), (HHH), (III), (JJJ), (KKK), (LLL), (MMM), (NNN), (OOO), (PPP), (QQQ), (RRR), (SSS), (TTT), (UUU), (VVV), (WWW), (XXX), (YYY), (ZZZ).
- VOLTAGE CURRENT:** DC voltage (V) at no input signal; mA, DC current at no input signal.
- OTHERS:** Signal route; Adjusting point.

NOTE:
Playback signal route (Lch)
Recording signal route (Rch)

A

A

B

B

C

C

D

D

A

B

C

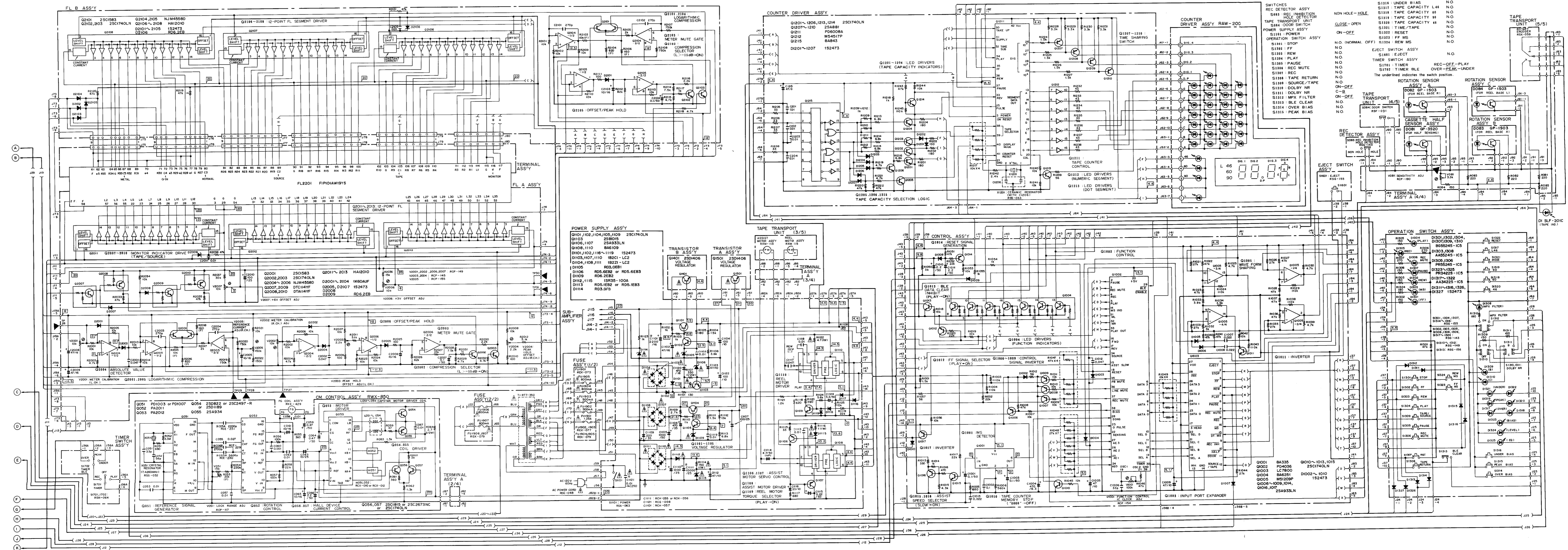
D

A

B

C

D



11. ADJUSTMENTS

11.1 MECHANICAL ADJUSTMENTS

11.1.1 Tape Speed Adjustment

*Use a frequency counter

Mode	Adjustment location	Specifications
PLAY	V051 (CM control assembly)	Playback frequency should be within the 3005 ± 10Hz range at the beginning of the STD-301 test tape.
PLAY	Check	Playback frequency should be within the 3000 ± 30Hz range at the beginning of the STD-301 test tape.

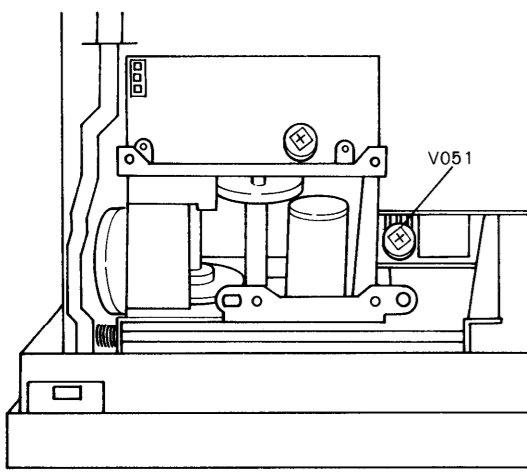


Fig. 11-1 Tape speed adjustment

11.1.2 Air Damper Adjustment

Adjustment location	Specifications
Cylinder adjustment screw	The door should open smoothly (with no jerking etc.), and should not "bounce" back when fully opened.

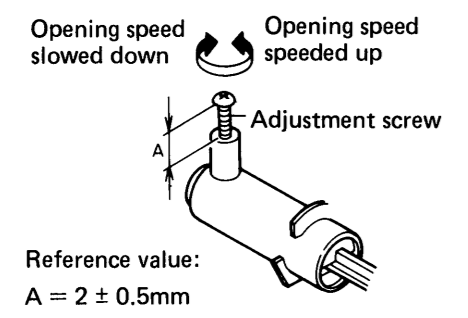


Fig. 11-2 Air damper adjustment

11.1.3 Door Position Adjustment

Check 1	When seen from the front, the ratios between dimensions A and B, and between dimensions C and D should be within the 0.5 to 2 range.
Check 2	When seen from the front, the difference between E and G should not exceed ± 0.4mm, and E, F, and G should all exceed 0.5mm.

If the above specifications are not met, loosen the screws and readjust the door position.

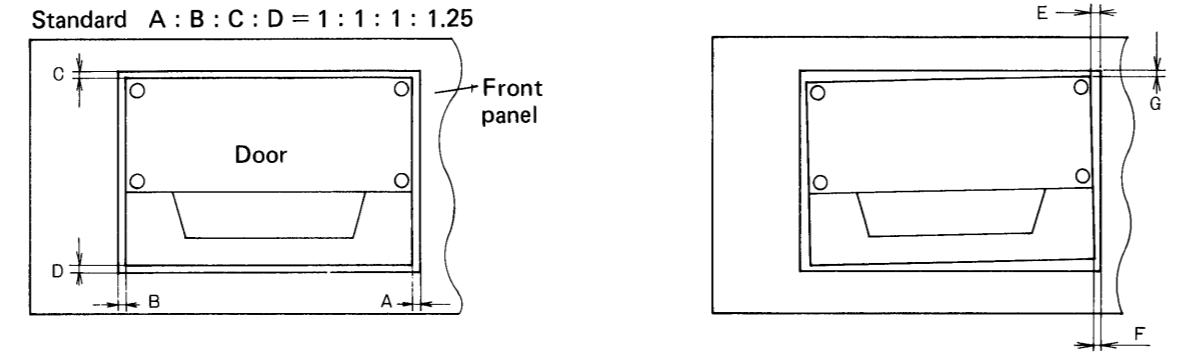


Fig. 11-3 Door position adjustment

11.2 ELECTRICAL ADJUSTMENTS

Adjustment Conditions

- The mechanical adjustments must be completed first.
- The heads must be cleaned and demagnetized.
- Allow the deck to age for at least a few minutes before commencing any electrical adjustments.
- The reference signal level is 0dBv = 1Vrms.
- Connect a 50 kilo-ohm (or between 47 to 52 kilo-ohm) load resistance to the OUTPUT terminals.
- Unless otherwise specified, leave the OUTPUT level control at the position of maximum level.
- Likewise, the other switches listed below are to be left in the positions indicated unless otherwise specified.
 - TIMER : OFF
 - DOLBY NR : OFF
 - MPX FILTER : OFF
 - AUTO-BLE : CLEAR (DATA SET indicator off)

Test Tapes

- STD-331B* : Playback adjustments (see Fig. 11-4)
 - STD-608A : NORMAL blank tape
 - STD-603 : CrO2 blank tape
 - STD-604 : METAL blank tape
- * Whereas the reference recording level for STD-331A is 333Hz, 250nwb/m, the same level for STD-331B is 315Hz, 160nwb/m.

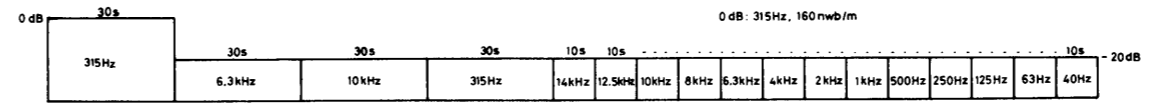


Fig. 11-4 STD-331B test tape

List of Adjustments

- Shunt regulator output voltage adjustment (Excluding KC, HEM, HB and HP types)
- DC amplifier DC balance adjustment
- Control IC clock adjustment
- BLE IC clock adjustment
- Cassette half detector sensitivity adjustment
- Tape transport and head azimuth adjustment
- Playback equalizer adjustment
- Playback level adjustment
- Level meter adjustment
- METAL erasure current adjustment
- Bias trap adjustment
- Recording bias adjustment
- Recording level adjustment
- Recording and playback frequency response adjustment
- AUTO-BLE adjustment

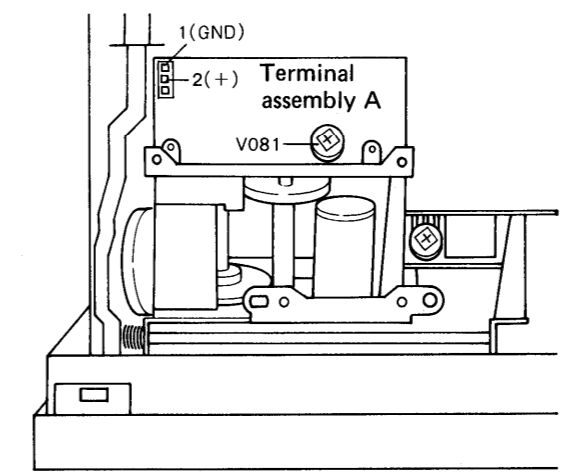


Fig. 11-5 Cassette half detector sensitivity adjustment

1. Shunt Regulator Output Voltage Adjustment						
● Excluding KC, HEM, HB and HP types						
	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	STOP	No input	V301	Q311 emitter	+10V±0.5V DC	+DC ADJ.
2			V302	Q312 emitter	-10V±0.5V DC	-DC ADJ.

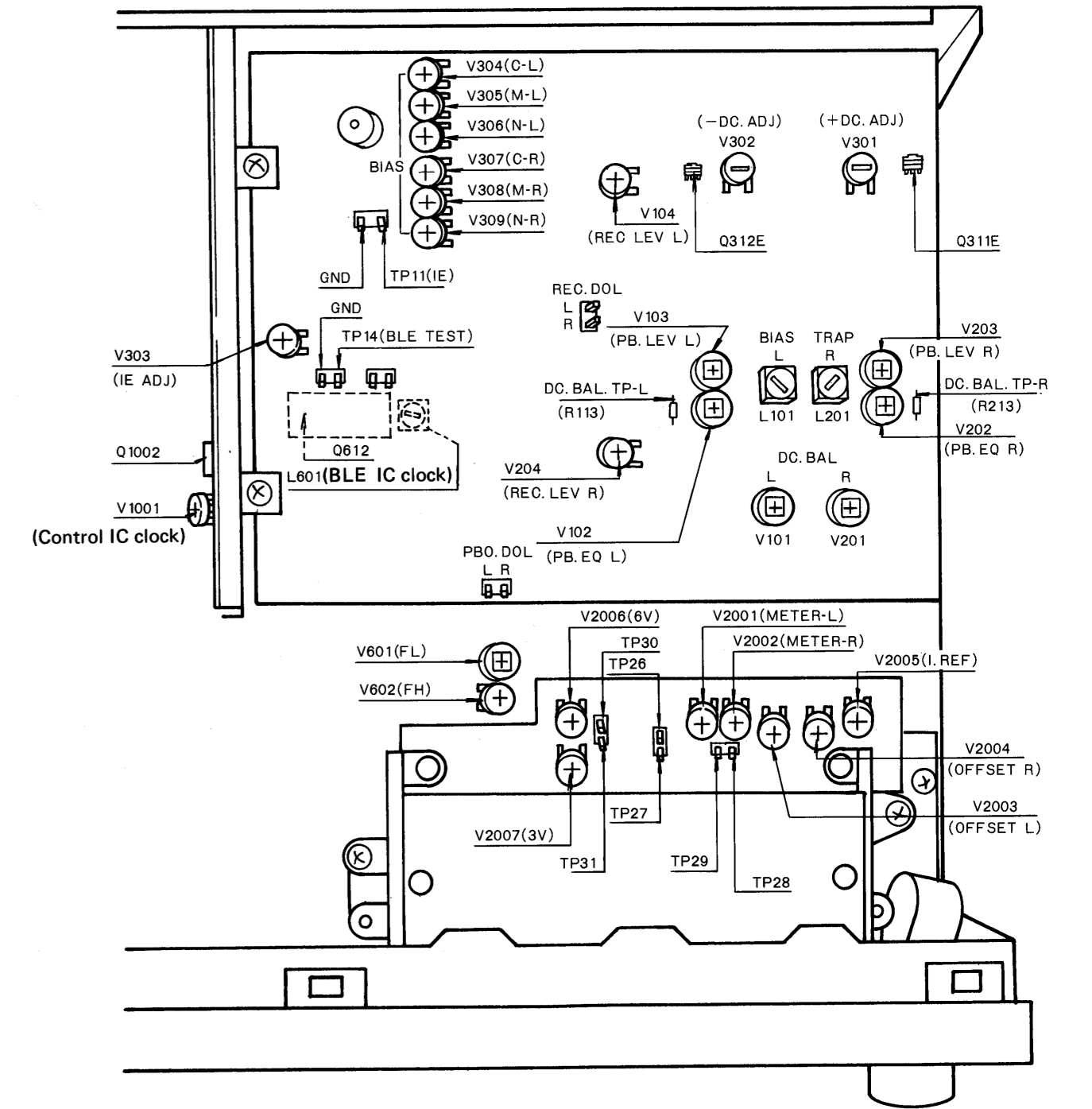


Fig. 11-6 Adjustment locations

A

B

C

D

A

B

C

D

