

ADDITIONAL

 PIONEER®

7 / 10

# Service Manual

ORDER NO.  
ART-679-0

STEREO CASSETTE TAPE DECK

# CT-5

HE  
HB  
HP

- This additional service manual is applicable to the CT-5/HE, HB and HP types.
- The basic performance of the CT-5/HE, HB and HP types is the same as the CT-5/KU type, please refer to the CT-5/KU type service manual (ART-678-0) with the exception of this supplements.

## 1. SPECIFICATIONS

The specifications for the HE, HB and HP types are same as the KU type except for following sections.

### Miscellaneous

Power Requirements . . . . . AC 220V/240V  
(switchable) 50/60Hz

Power Consumption . . . . . 25 watts

### Tape Deck Section

Wow and Flutter . . . . . No more than 0.17% (DIN)

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## 2. CONTRAST OF MISCELLANEOUS PARTS

**NOTES:**

- Parts without part number cannot be supplied.
- The  $\triangle$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- 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.

**P.C. BOARD ASSEMBLY**

Mark	Symbol & Description	Part No.				Remarks
		KU type	HE type	HB type	HP type	
	Mother assembly	RWX-526	RWX-541	RWX-541	RWX-541	

**SWITCHES**

Mark	Symbol & Description	Part No.				Remarks
		KU type	HE type	HB type	HP type	
$\triangle$ ★★	Power switch	RSA-048	RSA-051	RSA-051	RSA-051	
$\triangle$ ★★	Line voltage selector (switchable 2 positions; 220V, 240V)	.....	RSX-045	RSX-045	RSX-045	

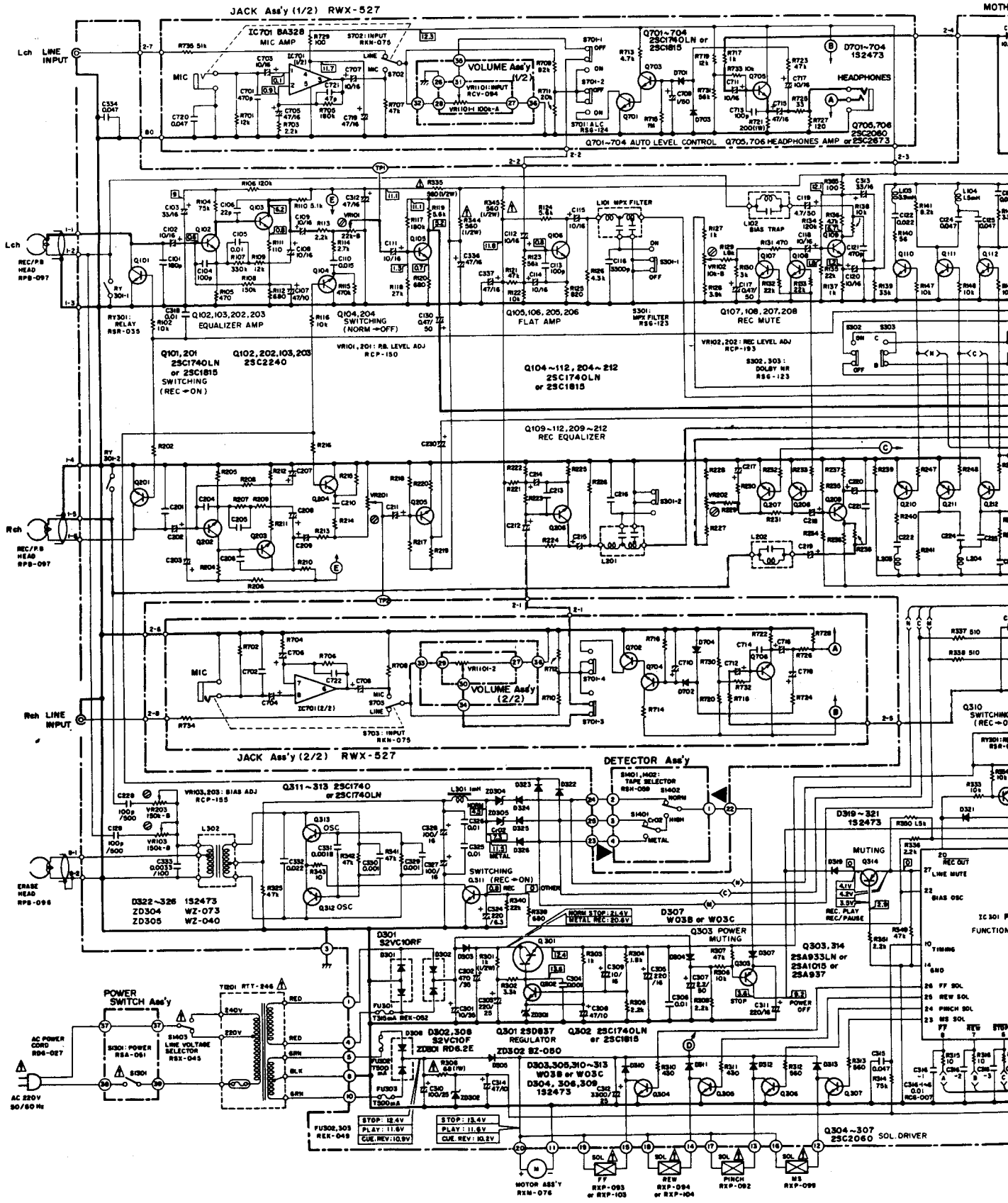
**OTHERS**

Mark	Symbol & Description	Part No.				Remarks
		KU type	HE type	HB type	HP type	
$\triangle$ ★	Power transformer (120V)	RTT-122	.....	.....	.....	
$\triangle$ ★	Power transformer (220V, 240V)	.....	RTT-246	RTT-246	RTT-246	
$\triangle$	Capacitor (0.01/AC250)	RCG-006	.....	.....	.....	
	Mechanism assembly	RYM-122	RYM-125	RYM-125	RYM-125	
	Flywheel assembly	RXB-358	RXB-500	RXB-500	RXB-500	
	Plunger solenoid P	RXP-092	RXP-092 (RXP-102)	RXP-092 (RXP-102)	RXP-092 (RXP-102)	
	Plunger solenoid F	RXP-100	RXP-093 (RXP-103)	RXP-093 (RXP-103)	RXP-093 (RXP-103)	
	Plunger solenoid R	RXP-101	RXP-094 (RXP-104)	RXP-094 (RXP-104)	RXP-094 (RXP-104)	

**PACKING AND FURNISHED PARTS**

Mark	Symbol & Description	Part No.				Remarks
		KU type	HE type	HB type	HP type	
	Packing case	RHG-436	RHG-443	RHG-459	RHG-459	
	Operating instructions	RRB-151	RRE-005	RRB-157	RRB-157	

# 3. SCHEMATIC DIAGRAM



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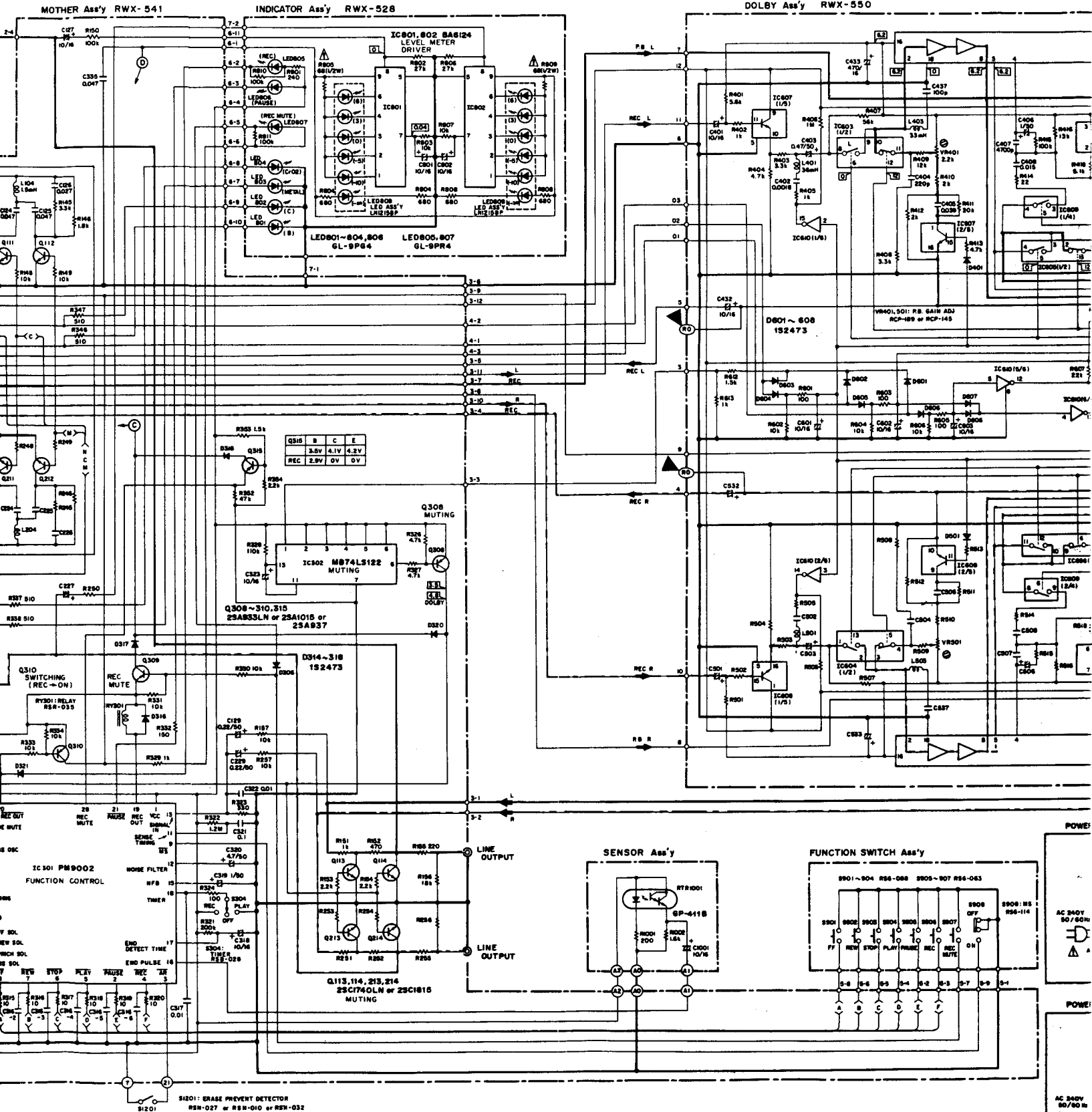
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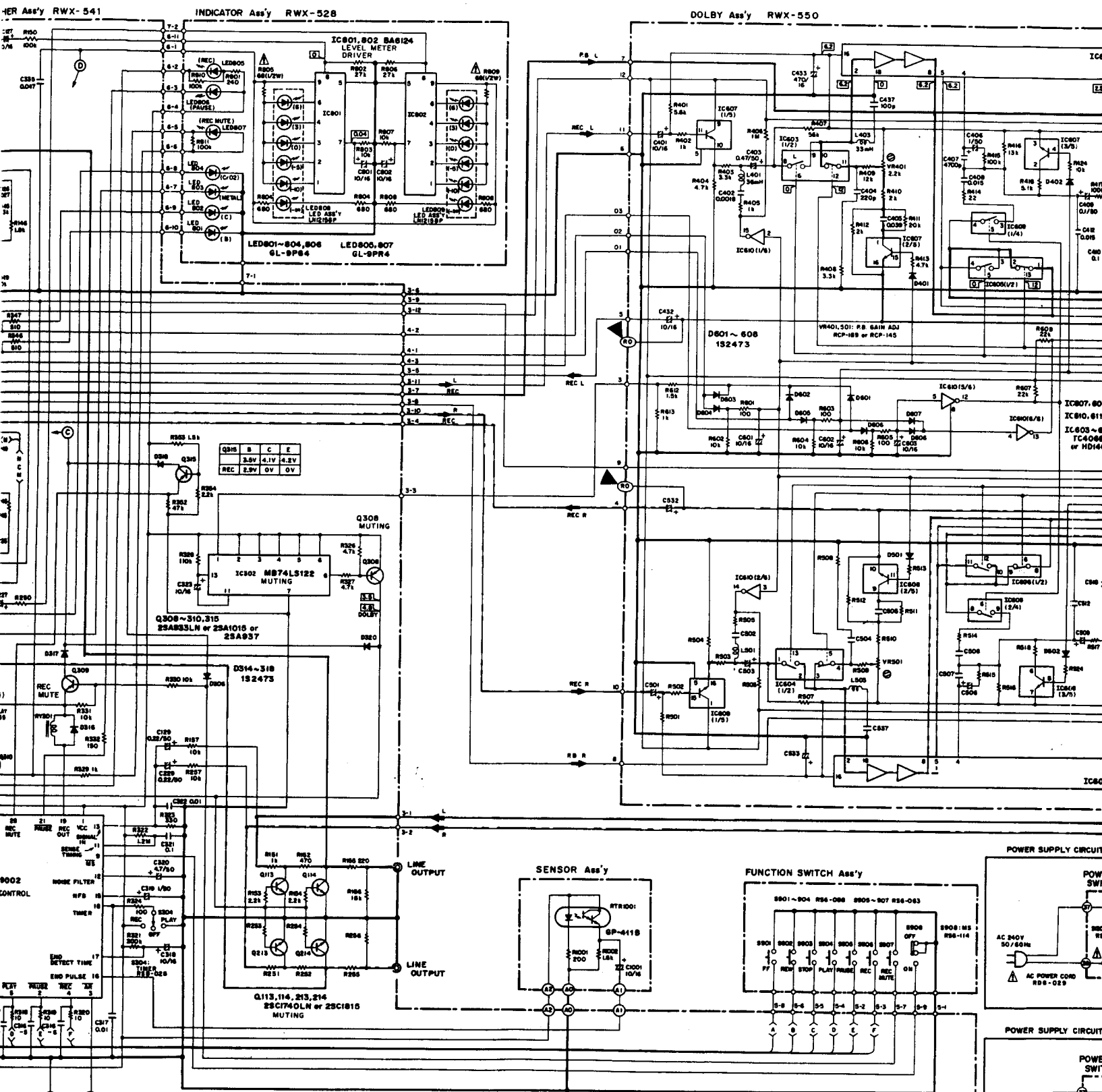
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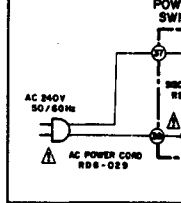
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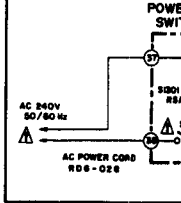


S1201: GRAB PREVENT DETECTOR  
 R58-027 or R58-010 or R58-032

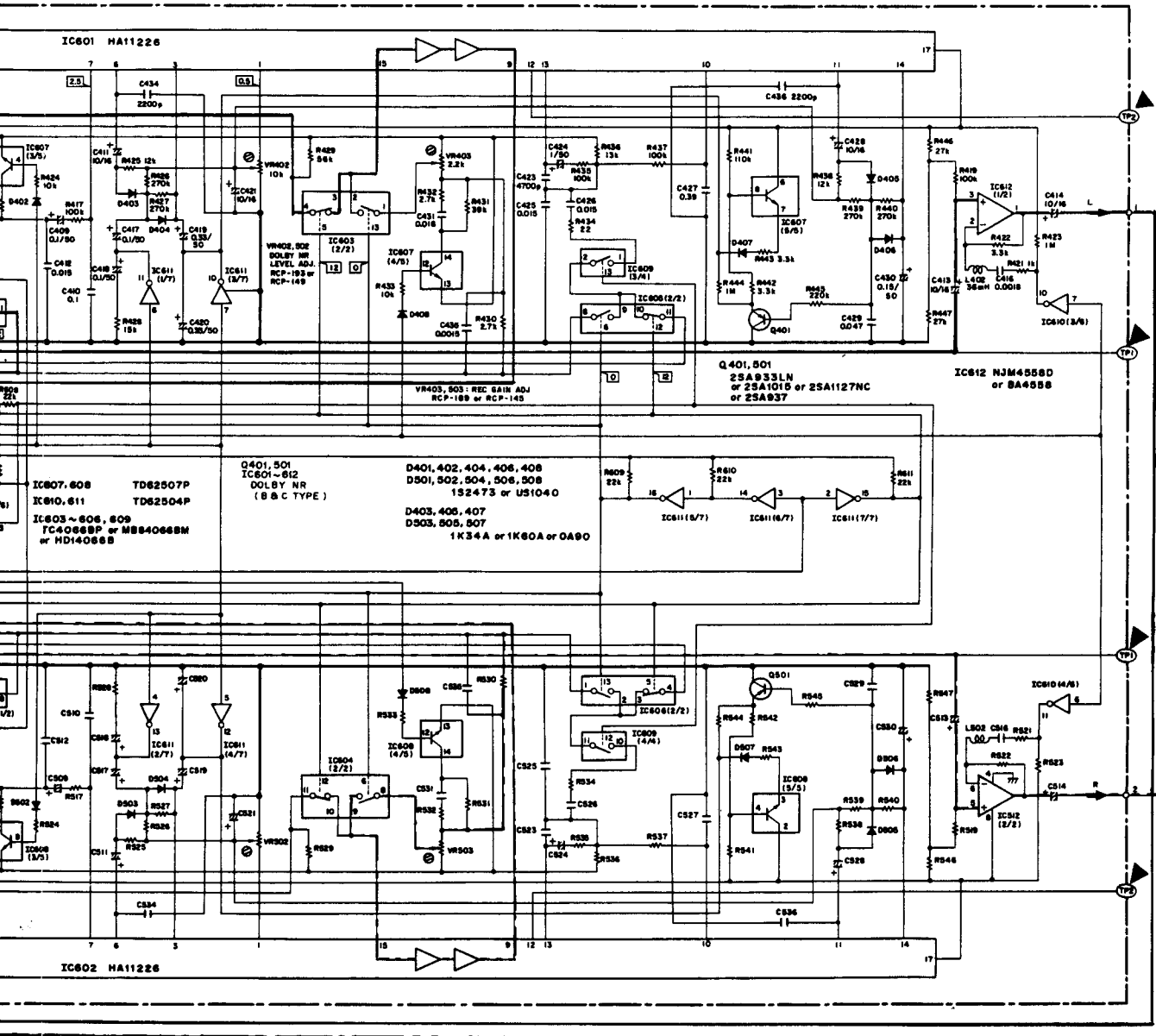
POWER SUPPLY CIRCUIT



POWER SUPPLY CIRCUIT



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



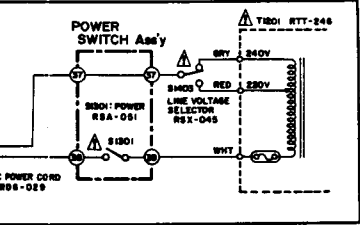
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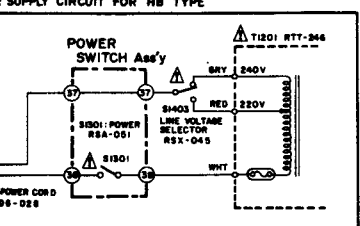
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SUPPLY CIRCUIT FOR HP TYPE



SUPPLY CIRCUIT FOR HB TYPE



- SWITCHES:**
- S301: MPX FILTER ON - OFF
  - S302: DOLBY NR ON - OFF
  - S303: DOLBY NR TYPE B - TYPE C
  - S304: TIMER REC - OFF - PLAY
  - S701: ALC ON - OFF
  - S702: INPUT SELECTOR LINE - MIC
  - S703: INPUT SELECTOR LINE - MIC
  - S901: FF ON - OFF
  - S902: REW ON - OFF
  - S903: STOP ON - OFF
  - S904: PLAY ON - OFF
  - S905: PAUSE ON - OFF
  - S906: REC ON - OFF
  - S907: REC MUTE ON - OFF
  - S908: MS ON - OFF
  - S1201: ERASE PREVENT DETECTOR HOLE - NO HOLE
  - S1301: POWER ON - OFF
  - S1401: TAPE SELECTOR Cr - 02 - METAL
  - S1402: TAPE SELECTOR NORM - HIGH
  - S1403: LINE VOLTAGE SELECTOR AC220V - AC240V
- The underlined indicates the switch position.

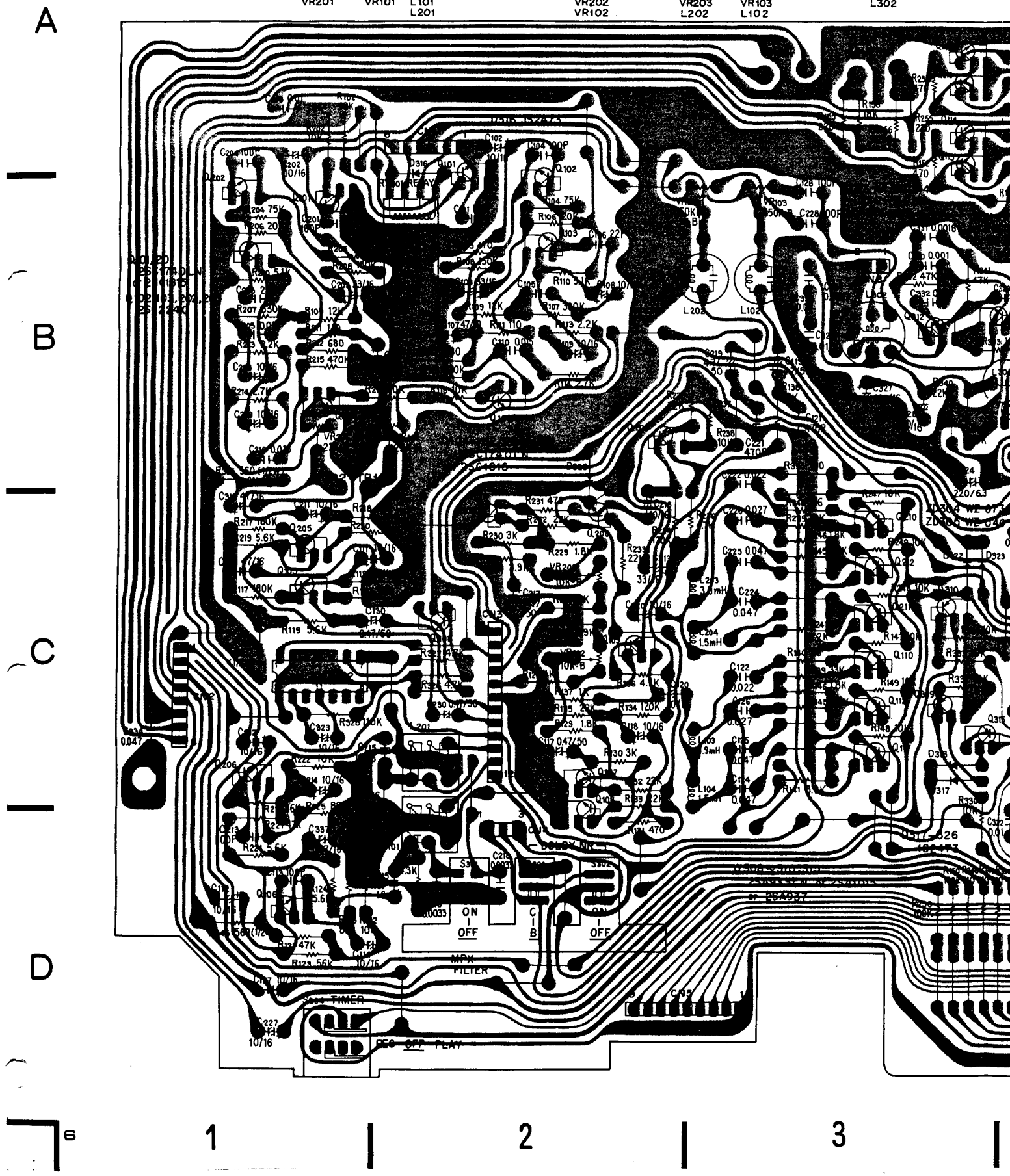
- 1. RESISTORS:**  
 Indicated in Ω, KΩ, 1% tolerance unless otherwise noted k: kΩ, M: MΩ, (F): 1%, (G): 2%, (K): 10%, (M): ± 20% tolerance
- 2. CAPACITORS:**  
 Indicated in capacity (μF)/voltage (V) unless otherwise noted p: pF indication without voltage is 50V except electrolytic capacitor.
- 3. VOLTAGE**  
 □: DC voltage (V) at no input signal
- 4. OTHERS:**  
 ⊕: Signal route  
 ⊙: Adjusting point  
 ⊛: The ⊛ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

**NOTE;**  
 Play back signal route ———  
 Recording signal route ———

# 4. P.C. BOARD ASSEMBLY

## Mother Assembly (RWX-541)

Q202	IC302	Q201		Q101	Q207	Q102	Q107~109		Q213	Q214	Q315
Q203	Q205	Q204		Q308	Q104	Q103	Q208	Q209	Q113	Q114	
VR201	VR101	L101		VR202	VR102	VR203	VR103		L302		
		L201				L202	L102				



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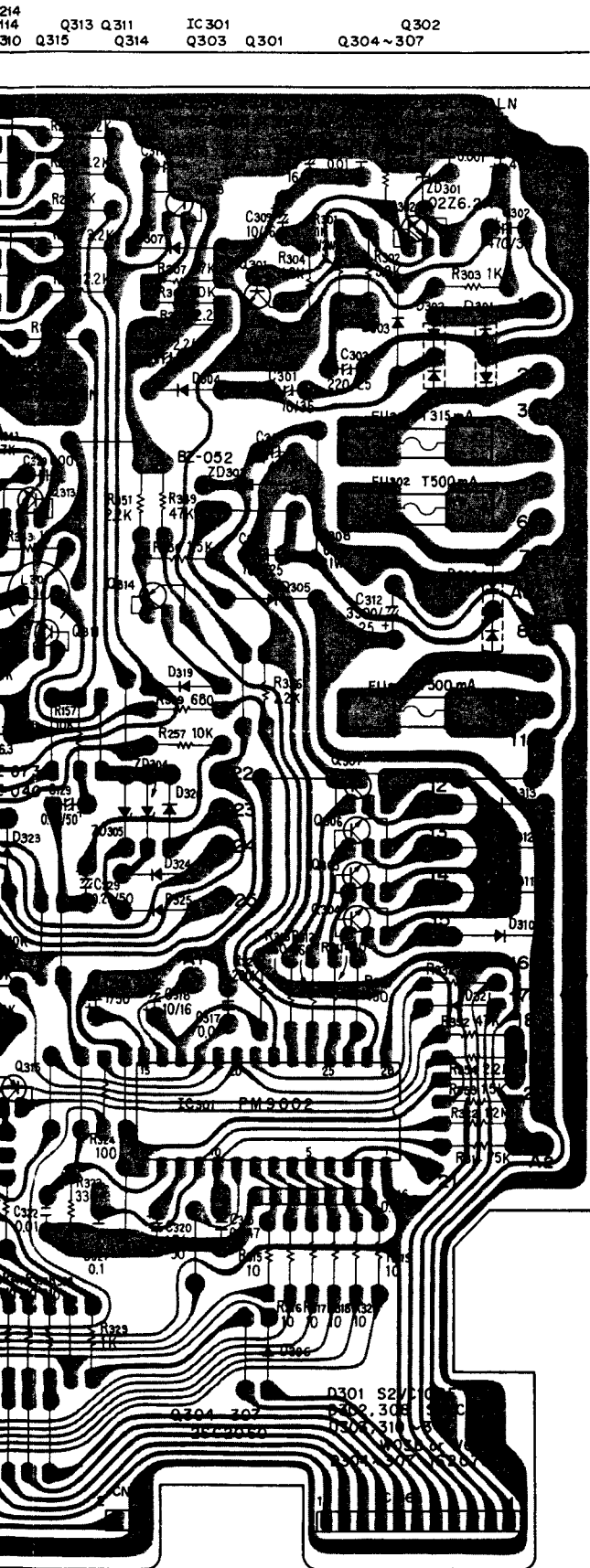
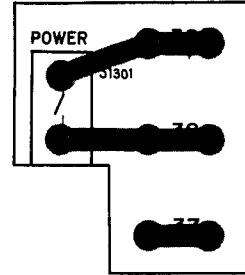
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### Power Switch Assembly



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## Parts List of Mother Assembly (RWX-541)

### SWITCHES

Mark	Part No.	Symbol & Description
★★	RSG-123	S301-S303 Push switch assembly
★★	RSB-028	S304 Rotary switch

### COILS

Mark	Part No.	Symbol & Description
	RTF-089	L101, L201 MPX filter
	RTF-084	L102, L202 Trap coil
	RTF-085	L103, L203 Peaking coil (3.9mH)
	RTF-086	L104, L204 Peaking coil (1.5mH)
	RTF-057	L301 Line coil
	RTD-026	L302 OSC coil


### CAPACITORS

Mark	Part No.	Symbol & Description
	CCDSL 181K 50	C101, C201
	CEANL 100M 16	C102, C202
	CEA R22M 50	C129, C229
	CEA R47M 50	C117, C217, C130, C230
	CEA 010M 50	C319
	CEA 2R2M 50	C307
	CEA 4R7M 50	C119, C219, C320
	CEA 100M 16	C108, C109, C111, C112, C114, C115, C118, C120, C127, C208, C209, C211, C212, C214, C215, C218, C220, C227, C309, C318, C323
	CEA 100M 35	C301
	CEA 330M 16	C103, C203, C313
	CEA 470M 16	C312, C336, C337
	CEA 470M 10	C107, C207, C314, C308
	CEA 101M 25	C310
	CEA 101M 16	C327, C328
	CEA 221M 25	C303
	CEA 221M 6.3	C324
	CEA 221M 16	C305, C311
	CEA 471M 35	C302
	CEA 332M 25	C312
	CQMA 103J 50	C105, C205
	CQMA 153J 50	C110, C210
	CQMA 223J 50	C122, C222
	CQMA 273J 50	C126, C226
	CQMA 473J 50	C124, C125, C224, C225, C315
	CQMA 182K 50	C331
	CQMA 103K 50	C322
	CQMA 104J 50	C321
	CQMA 102K 50	C329, C330
	CQMA 332K 50	C116, C216
	CQMA 223K 50	C332
	CQPA 332J 100	C333
	CCDSL 220K 50	C106, C206
	CCDSL 101K 50	C104, C113, C204, C213

Mark	Part No.	Symbol & Description
	CCDSL 101K 500	C128, C228
	CCDSL 471K 50	C121, C221
	CKDYF 103Z 50	C306, C317, C318, C325, C326
	CKDYF 473Z 50	C335, C334
	CKDYF 102Z 50	C304
	RCG-007	C316 Capacitor array

### 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-150 (RCP-195)	VR101, VR201 Semi-fixed (22k-B)
★	RCP-193 (RCP-149)	VR102, VR202 Semi-fixed (10k-B)
★	RCP-155 (RCP-200)	VR103, VR203 Semi-fixed (150k-B)
	RD $\frac{1}{2}$ PM $\square\square\square$ J	R102, R104, R142, R145-R157, R202, R204-R242, R245-R257, R302-R307, R309-R334, R336-R343, R346, R347, R349-R355 R301
	RD $\frac{1}{2}$ PSF $\square\square\square$ J	
	RD $\frac{1}{2}$ PSF $\square\square\square$ J	R335, R344, R345
	RS1PF $\square\square\square$ J	R308

### SEMICONDUCTORS

Mark	Part No.	Symbol & Description
★★	2SC1740LN (2SC1815) (2SC2021LN) (2SC2634NC)	Q101, Q104-Q114, Q201, Q204-Q214, Q302
★★	2SC2240	Q102, Q103, Q202, Q203
★★	2SC1740-S (2SC1740LN-S)	Q311-Q313
★★	2SA933LN (2SA1015) (2SA937) (2SA1127NC)	Q303, Q308-Q310, Q314, Q315
★★	2SC2060 (2SC2673) (2SC1383NC)	Q304-Q307
★★	2SD837 (2SD1031) (2SD686)	Q301
★★	PM9002	IC301
★★	MB74LS122 (HD74LS122) (SN74LS122)	IC302
★	S2VC10RF	D301
★	S2VC10F	D302, D308
★	W03B (W03C)	D303, D305, D307, D310-D313
★	1S2473 (US1040)	D304, D306, D316-D326