

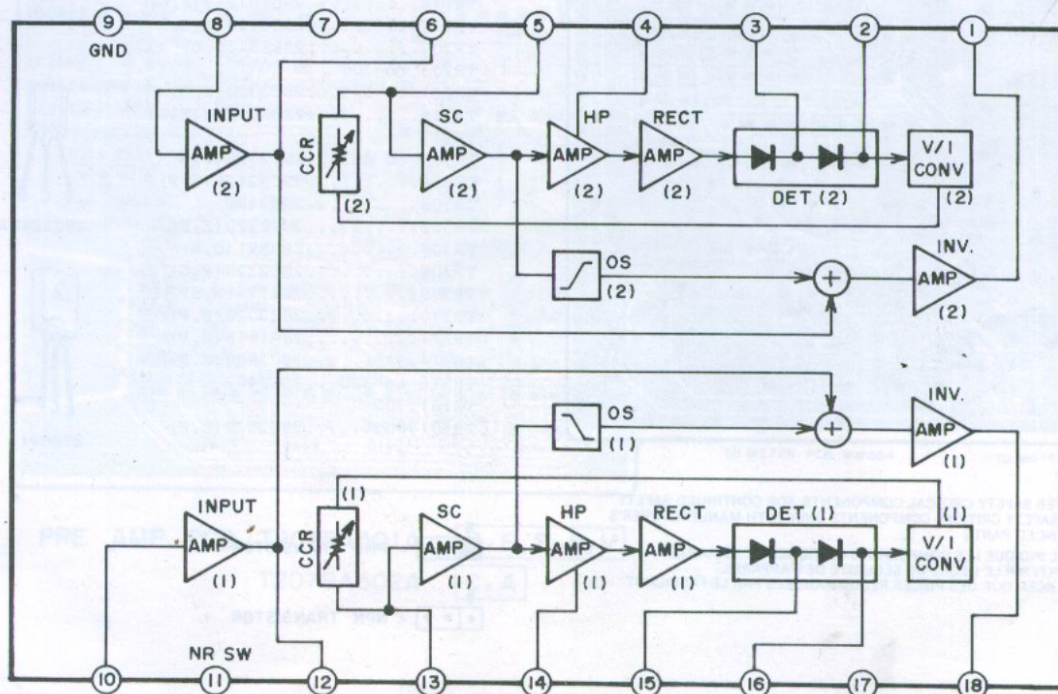
[Handwritten signature]

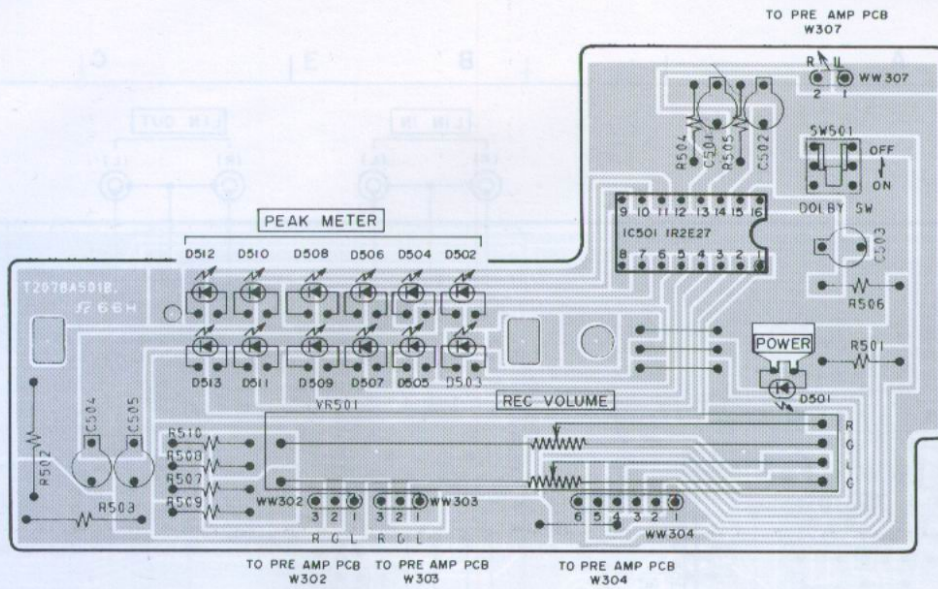
AKAI

MODEL HX-A301 W

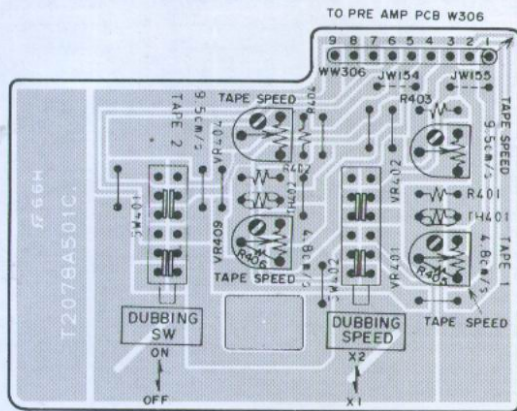
SCHEMATIC DIAGRAM AND PC BOARDS

HA12045



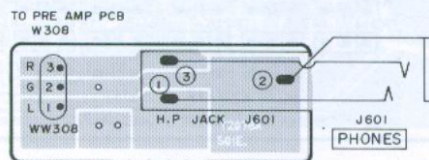
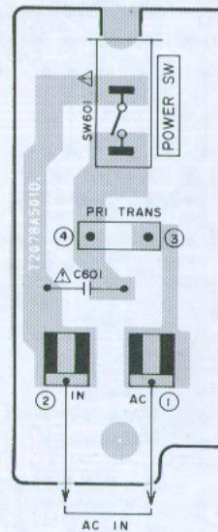


METER PCB T2078A501B U, E, B, S, V
T2078A502B C, A



MOTOR SPEED CONTROL PCB
T2078A501C U, E, B, S, V
T2078A502C C, A

POWER SW PCB
T2078A501D U, E, B, S, V
T2078A502D C, A



HEAD PHONE PCB
T2078A501E U, E, B, S, V
T2078A502E C, A

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

A

B

C

D

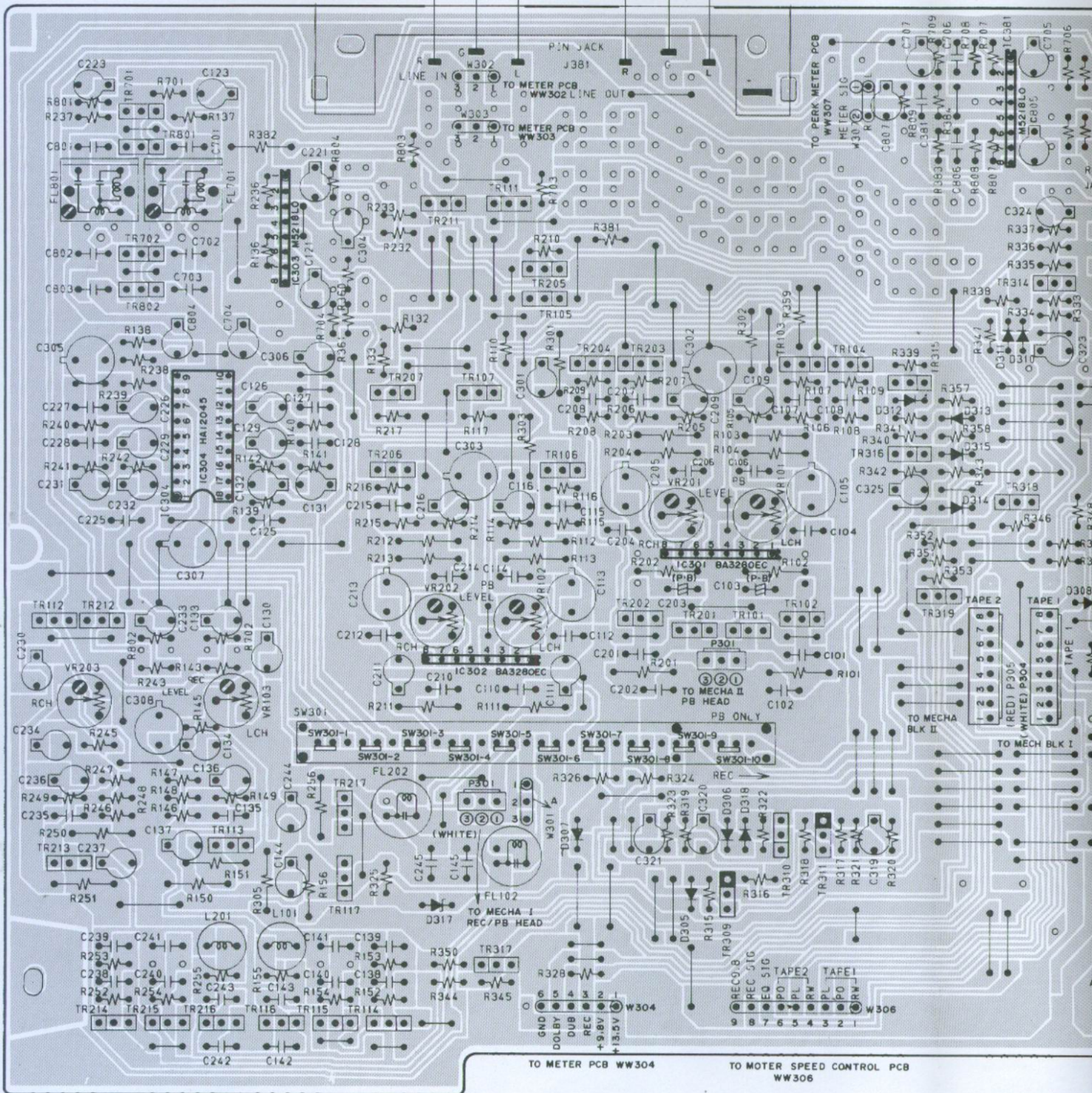
1

2

3

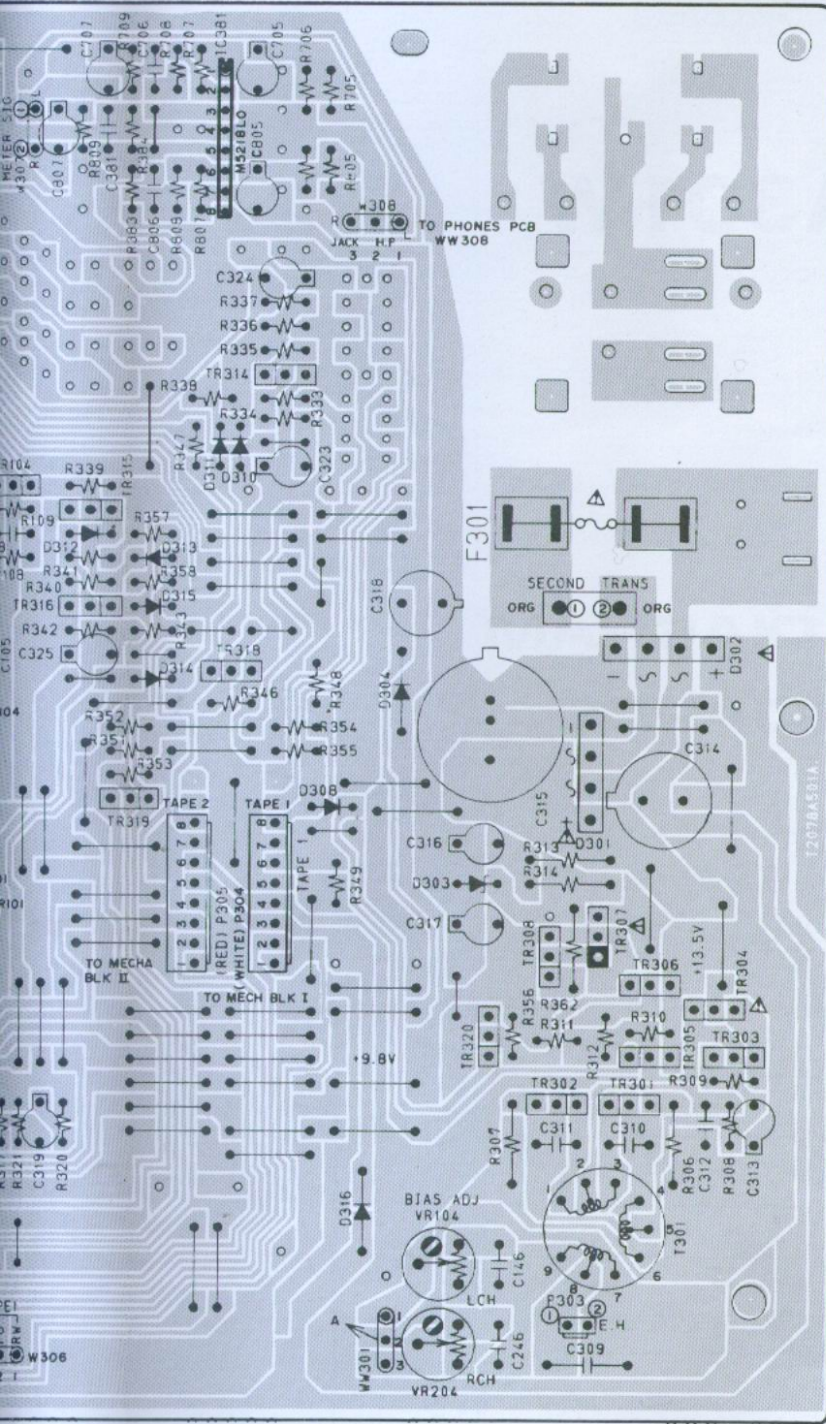
4

5



PRE AMP PCB T2078A501A* U, E, B, S, V
 T2078A502A C, A

WARNING: Δ INDICA
 REPLACE
 RECOMM
 AVERTISSEMENT: Δ
 POUR MA
 NE REMPLI



WARNING: INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT: INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

LOCATION OF COMPONENTS

TRs	
TR101, 102.....C3	TR701.....A1
TR103, 104.....C2	TR702.....A2
TR105.....B2	TR801.....A1
TR106.....B3	TR802.....A2
TR107.....B2	
TR111.....B1	ICs
TR112.....A3	IC301.....C3
TR113.....A4	IC302.....B4
TR114, 115.....B5	IC303.....A1/A2
TR116.....A5	IC304.....A2/A3
TR117.....B5	IC381.....D1
TR201, 202.....C3	
TR203, 204.....C2	
TR205.....B2	
TR206.....B3	CONNECTIONS
TR207.....B2	W301.....B4
TR211.....B1	WW301.....E5
TR212.....A3	W302, 303.....B1
TR213.....A4	W304, 306.....C5
TR214 to 216...A5	W307.....D1
TR217.....B4	W308.....E1
TR301 to 308...E4	T101.....E3
TR309.....C5	P301.....B4
TR310, 311.....C4	P302.....C4
TR314, 315.....D2	P303.....E5
TR316.....D3	P304.....D4
TR317.....B5	P305.....D4
TR318, 319.....D3	
TR320.....E4	

TR101.....	2SC2320 (F,G)
TR102.....	2SK381 (C,D)
TR103 to 107	
TR111 to 115...	2SC2320 (F,G)
TR116.....	2SD1012-V(F,G)
TR117, 201.....	2SC2320 (F,G)
TR202.....	2SK381 (C,D)
TR203 to 207	
TR211 to 215...	2SC2320 (F,G)
TR216.....	2SD1012-V(F,G)
TR217	
TR301 to 303...	2SC2320 (F,G)
TR304.....	2SC3242A (E,F)
TR305.....	2SC3402
TR306.....	2SC2320 (E,F)
TR307.....	2SB891 (Q,R)
TR308.....	2SB774 (R,S)
TR309.....	2SC2320 (F,G)
TR310.....	2SC2320 (E,F)
TR311.....	2SA1115 (E,F)
TR314, 315.....	2SC2320 (E,F)
TR316 to 320...	2SC3402
TR701, 702	
TR801, 802.....	2SC2320 (E,F)



2SK381



2SC2274K
2SC2320
2SB774



2SC3242A



2SA1115
2SC3402
2SD1012-V



2SB891

= PNP TRANSISTOR

= NPN TRANSISTOR

HX-A301W

A B C D

1
2
3
4
5
6

PB HEAD HY424528SVK

TAPE II

REC/PB HEAD HY424528SVK

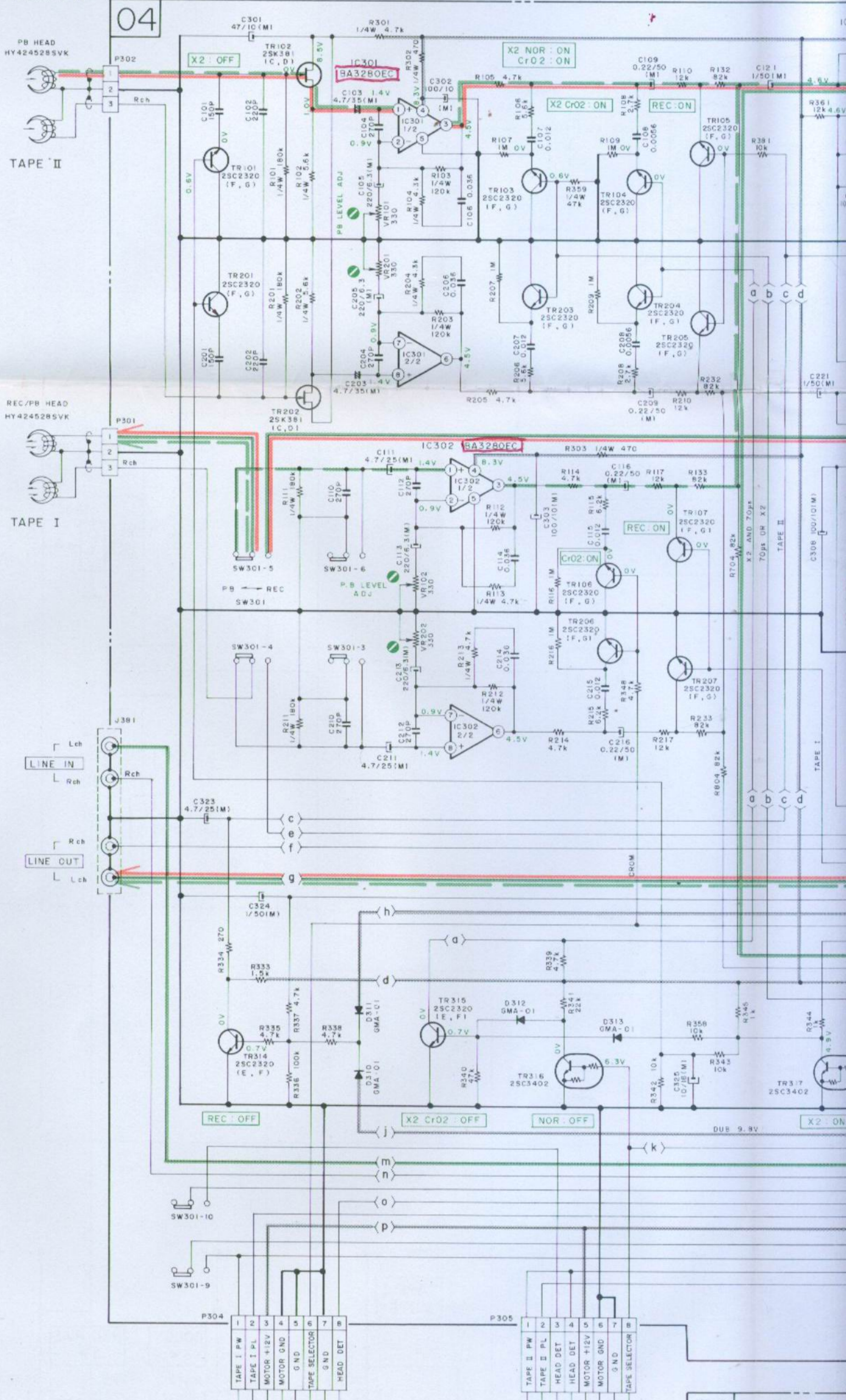
TAPE I

LINE IN

LINE OUT

04

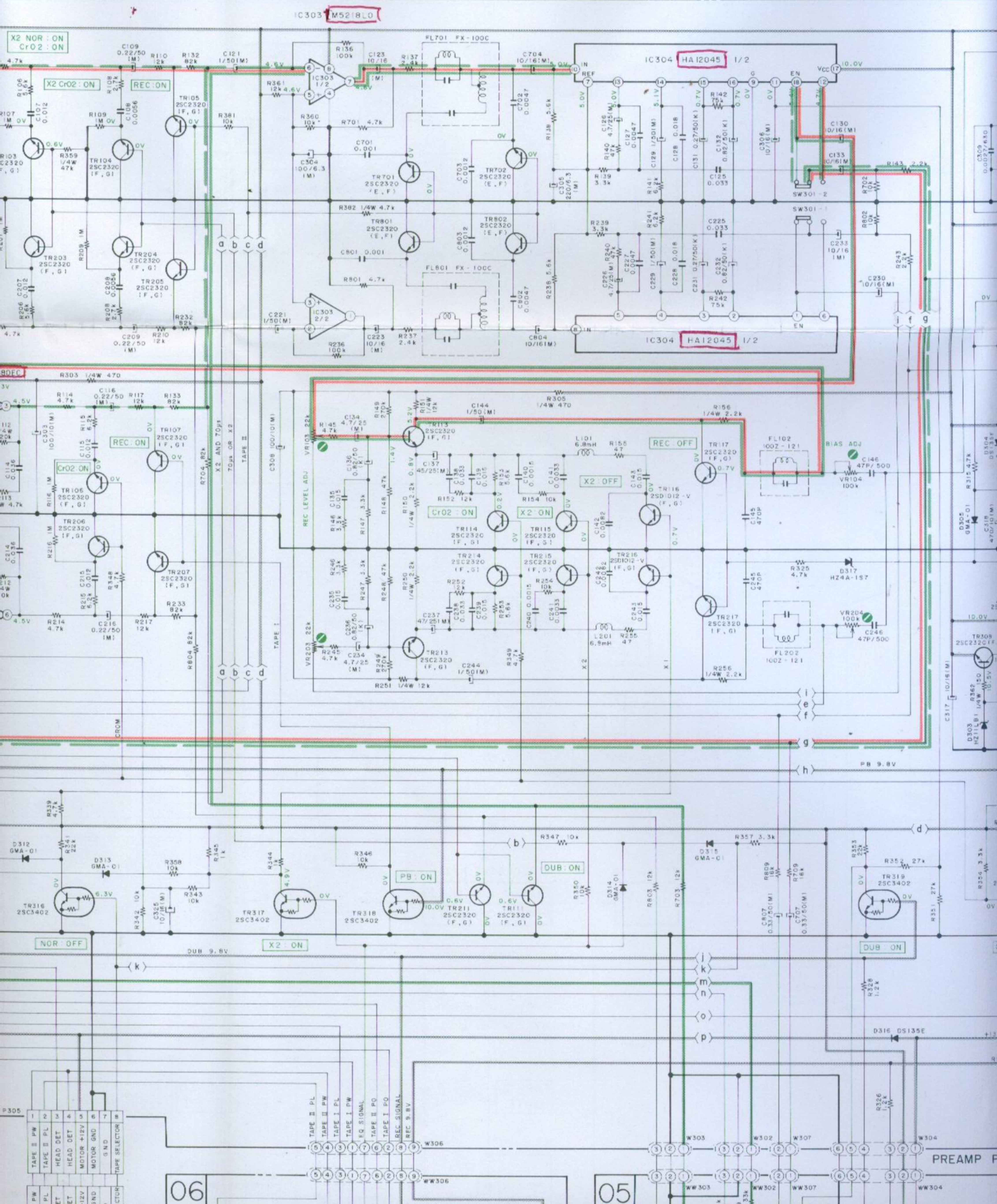
06



1	TAPE I PW
2	TAPE I PL
3	MOTOR +12V
4	MOTOR GND
5	GND
6	TAPE SELECTOR
7	GND
8	HEAD DET

1	TAPE II PW
2	TAPE II PL
3	HEAD DET
4	HEAD DET
5	MOTOR +12V
6	MOTOR GND
7	GND
8	TAPE SELECTOR

C D E F G



IC303 M5218L0

IC304 HA12045 1/2

IC304 HA12045 1/2

X2 NOR : ON
CrO2 : ON

X2 CrO2 : ON
REC : ON

REC : ON

CrO2 : ON

CrO2 : ON

X2 : ON

REC : OFF

X2 : OFF

NOR : OFF

X2 : ON

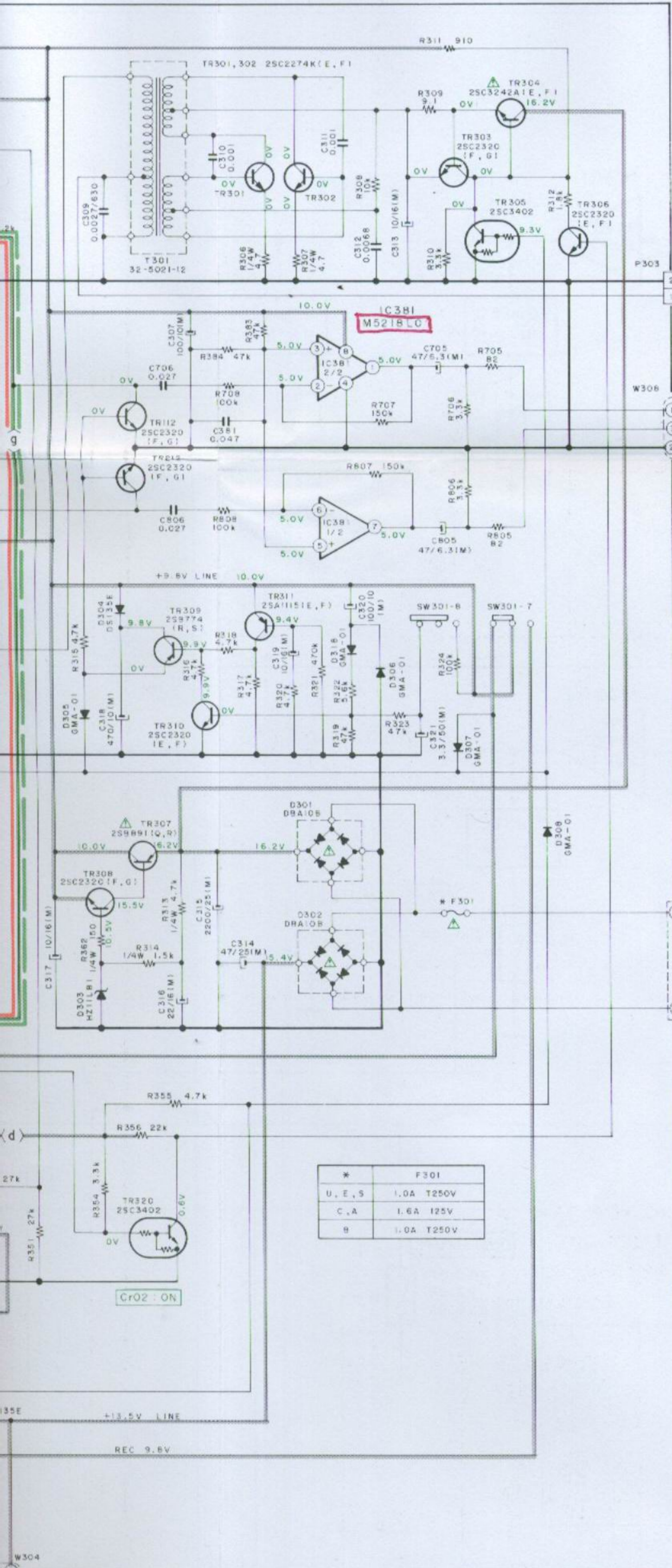
PB : ON

DUB : ON

DUB : ON



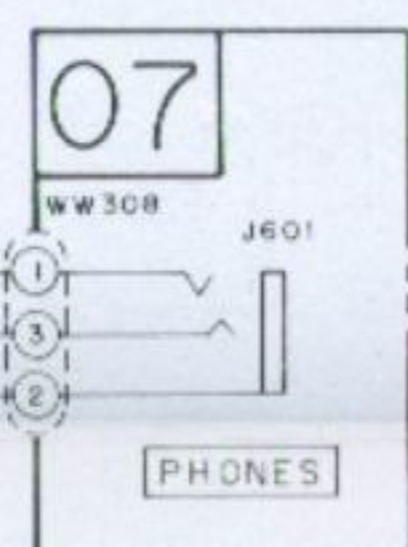
PREAMP F



REC MODE

	NORMAL	CrO2
TR304	B 5.6V	7.8V
	C 15.9V	15.5V
	E 5.0V	7.2V
TR303	B 5.0V	7.2V
	C 5.6V	7.8V
	E 4.7V	6.7V
TR302	B 0V	0V
	C 4.7V	6.7V
	E 0V	0V
TR301	B 0V	0V
	C 4.7V	6.7V
	E 0V	0V
TR305	B 0.6V	0V
	C 5.6V	7.8V
	E 0V	0V
TR306	B 0.6V	0V
	C 0V	7.7V
	E 0V	0V

TAPE I
ERASING HEAD
HJ 213270

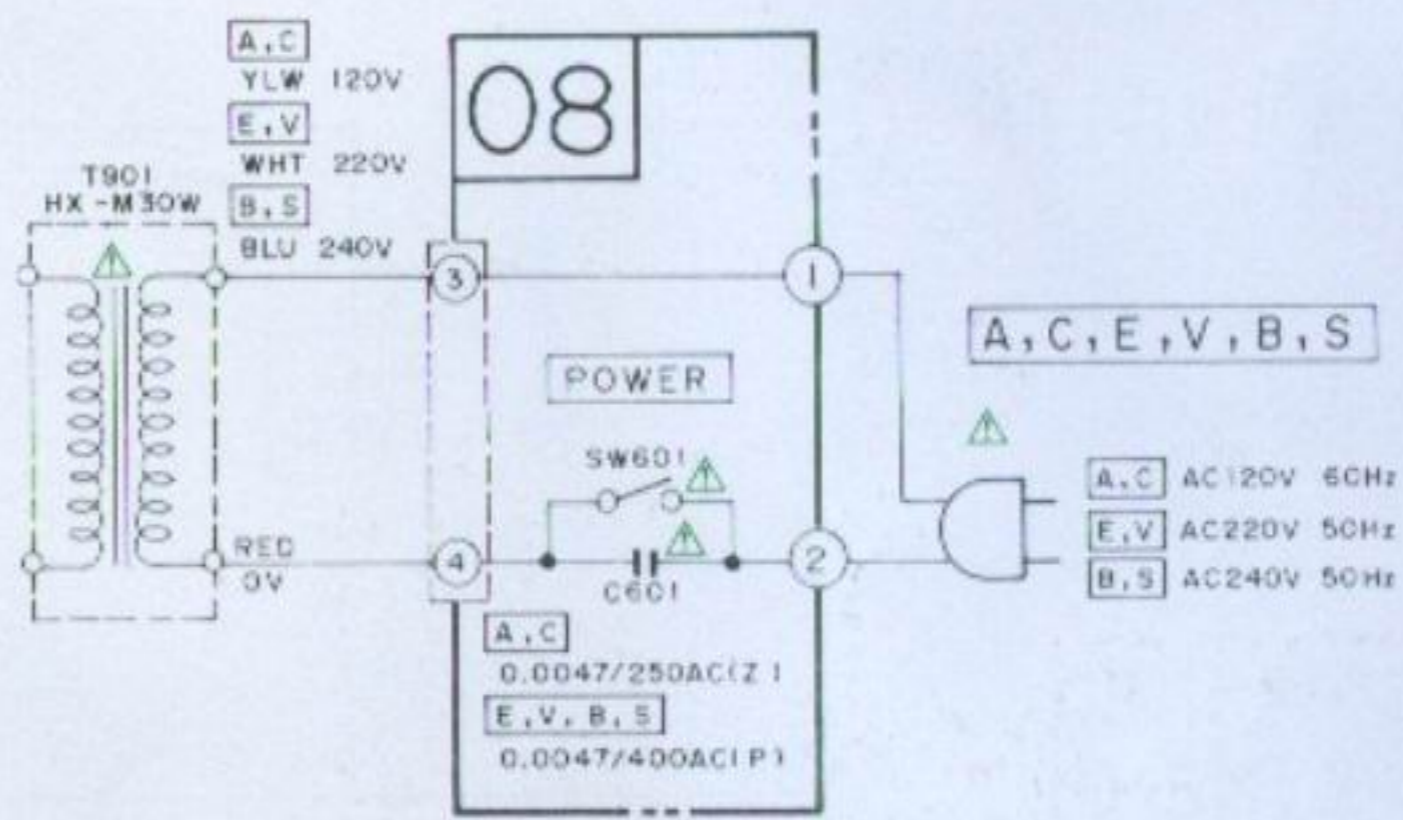
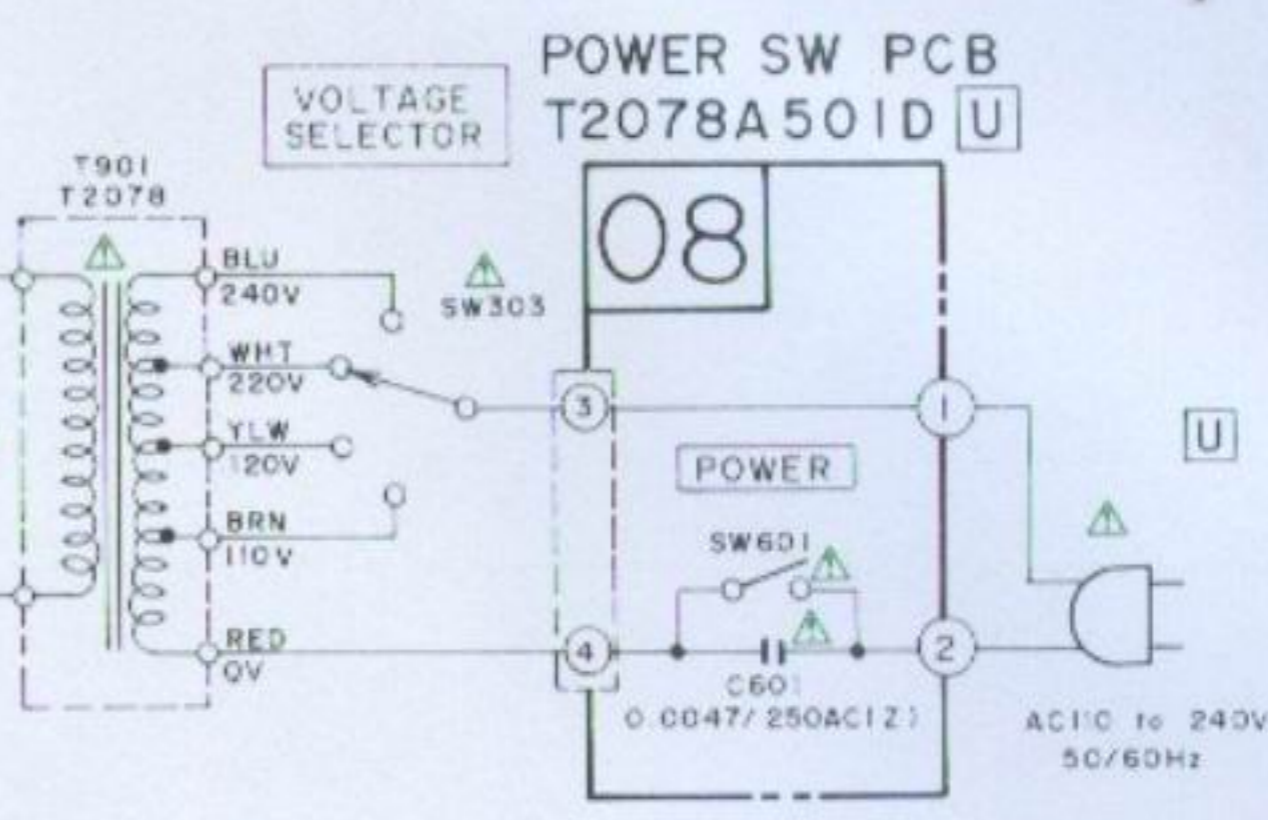


HEAD PHONE PCB
T2078A501E U, E, B, S, V
A502E C, A

- B (POWER SUPPLY) LINE
- REC SIGNAL LINE
- PB SIGNAL LINE
- DUBBING SIGNAL LINE

* F301

U, E, S	1.0A	T250V
C, A	1.6A	T250V
B	1.0A	T250V



POWER SW PCB
T2078A501D E, V, B, S
A502D A, C

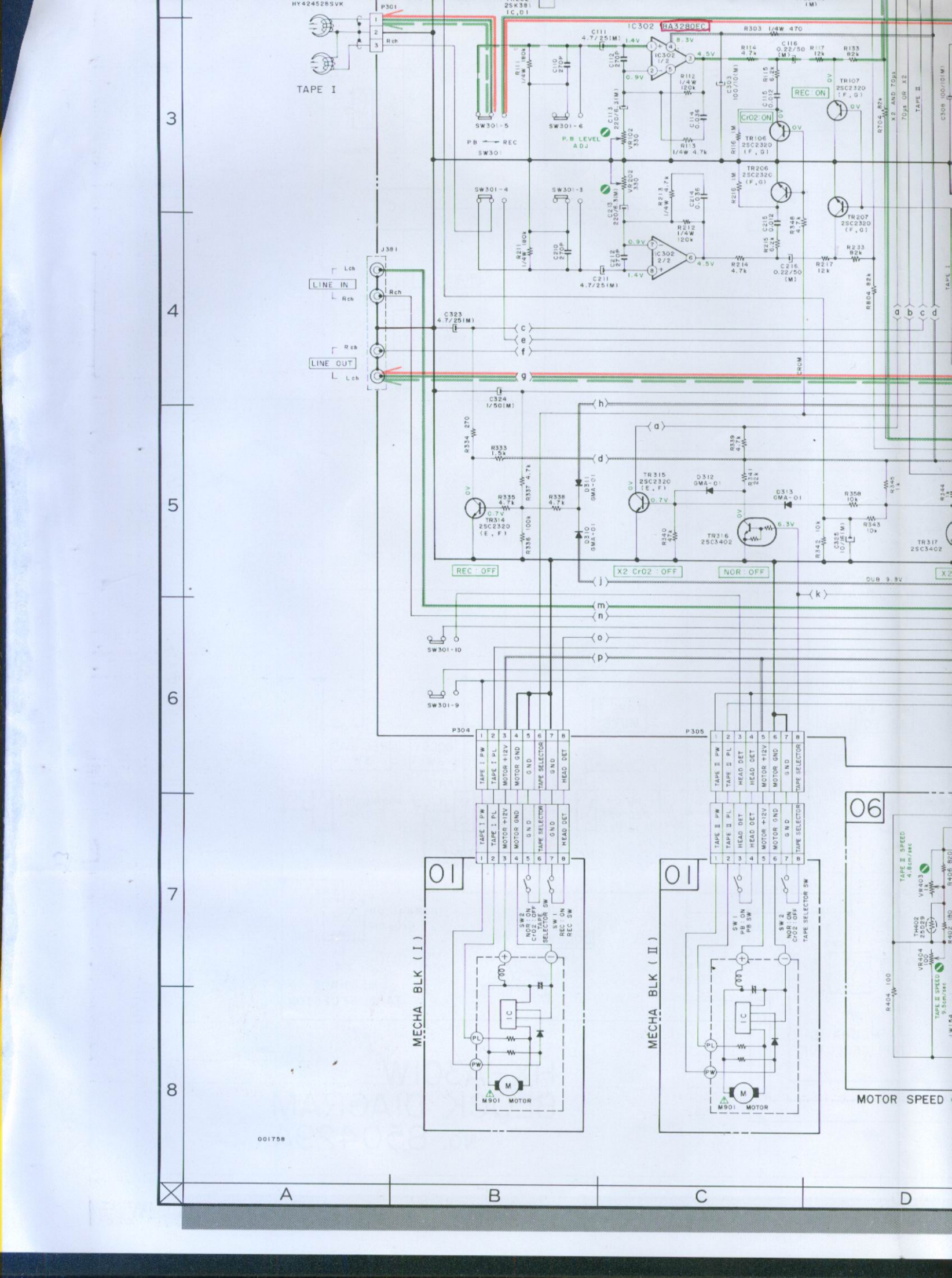


25C2274K
25C2320
25B774

25A1115
25C3402
25D1012-V

PREAMP PCB T2078A501A U, E, B, S, V T2078A502A C, A

PEAK METER



3

4

5

6

7

8

A

B

C

D

001758

06

MOTOR SPEED

TAPE I

LINE IN

LINE OUT

MECHA BLK (I)

MECHA BLK (II)

TAPE II SPEED
4.8cm/sec
TAPE III SPEED
9.5cm/sec

P301

J381

P304

P305

01

01

TAPE I PW

TAPE I PL

HEAD DET

MOTOR +12V

MOTOR GND

GND

TAPE SELECTOR

SW 1

REC SW

SW 2

TAPE SELECTOR SW

IC

M901 MOTOR

PL

PW

TAPE I PW

TAPE I PL

HEAD DET

MOTOR +12V

MOTOR GND

GND

TAPE SELECTOR

SW 1

REC SW

SW 2

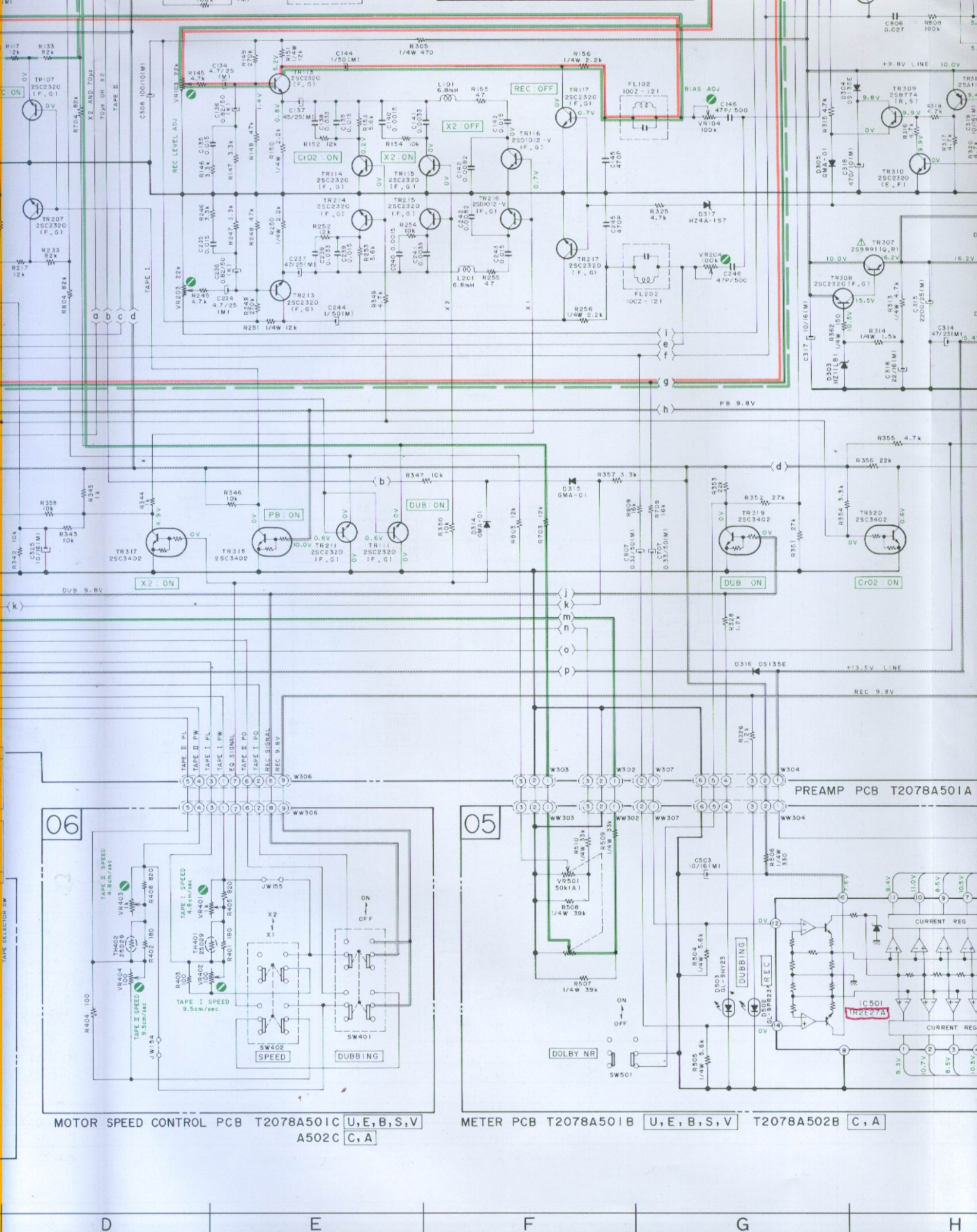
TAPE SELECTOR SW

IC

M901 MOTOR

PL

PW



MOTOR SPEED CONTROL PCB T2078A501C U, E, B, S, V
A502C C, A

METER PCB T2078A501B U, E, B, S, V T2078A502B C, A

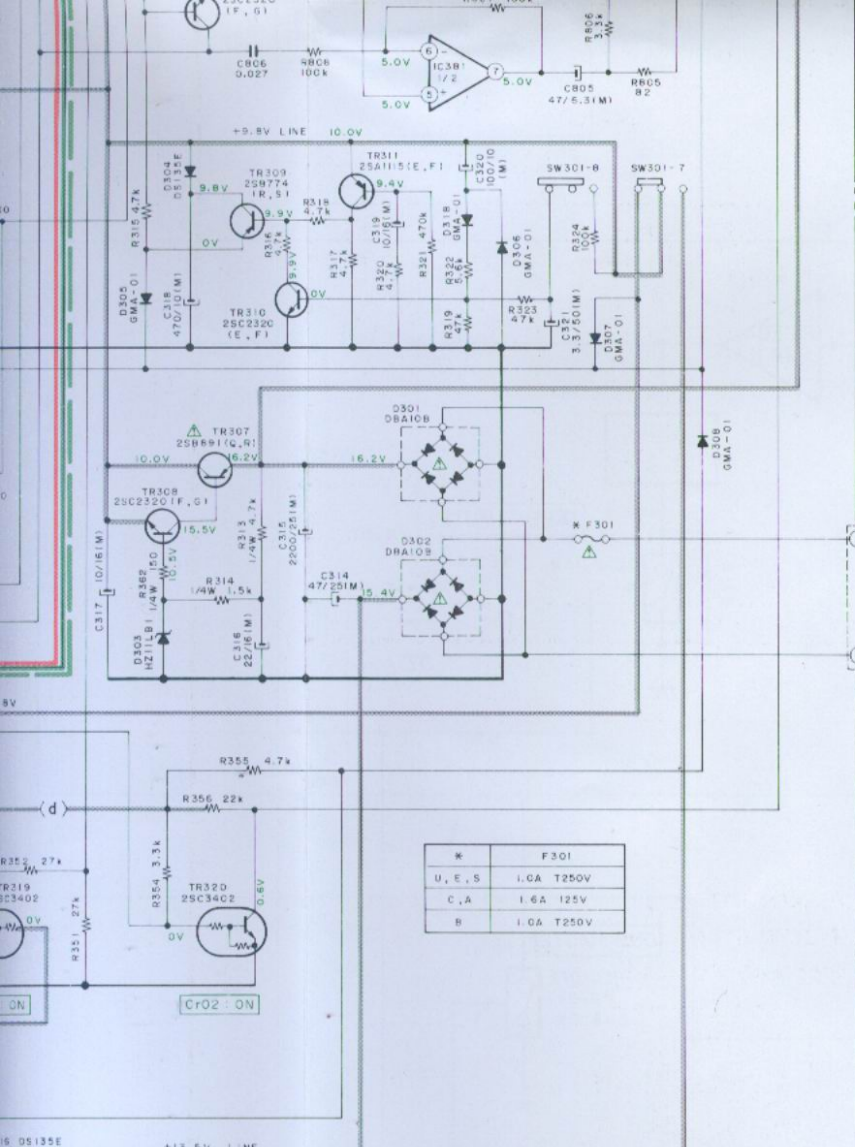
D

E

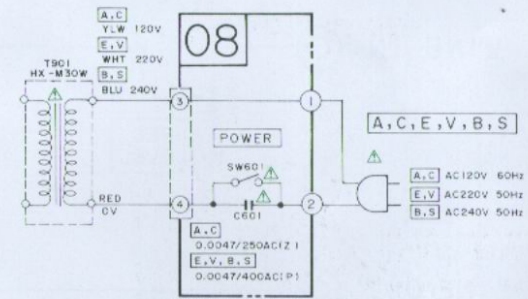
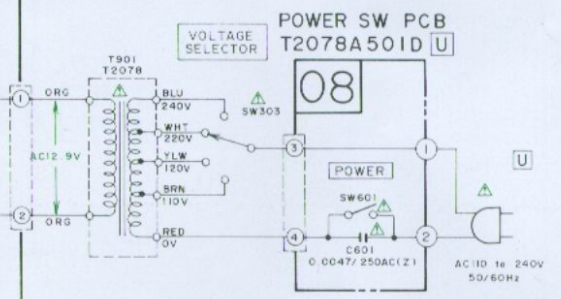
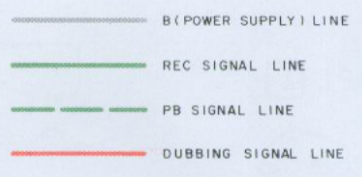
F

G

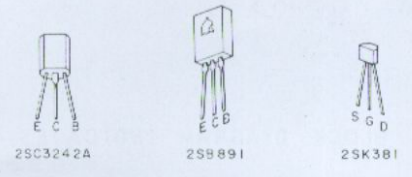
H



HEAD PHONE PCB
T2078A501E U, E, B, S, V
A502 E C, A

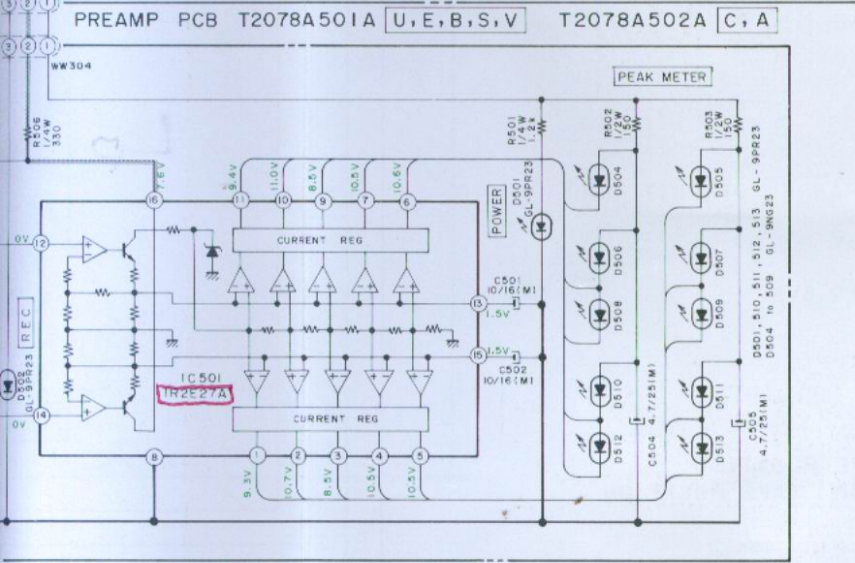
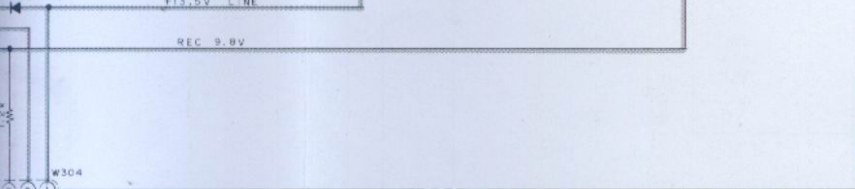


POWER SW PCB
T2078A501D E, V, B, S
A502 D A, C



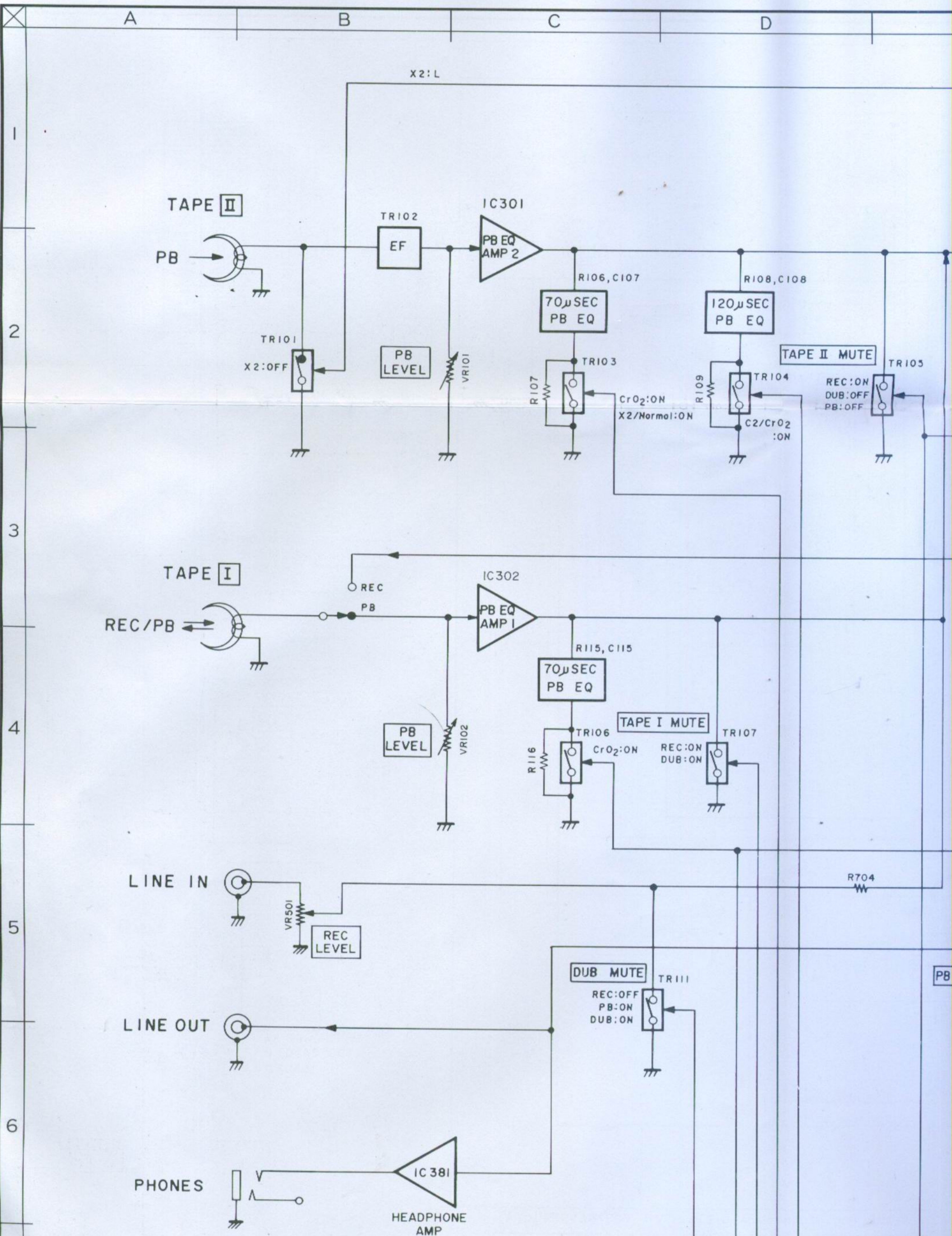
WARNING ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.
AVERTISSEMENT ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN µF 50WV(J)
POWER TRANSFORMER IS DIFFERENT
ACCORDING TO AREA



HX - A301W
SCHEMATIC DIAGRAM
No. 850613A

INDICATED VOLTAGES ARE 315Hz P.B. MODE.



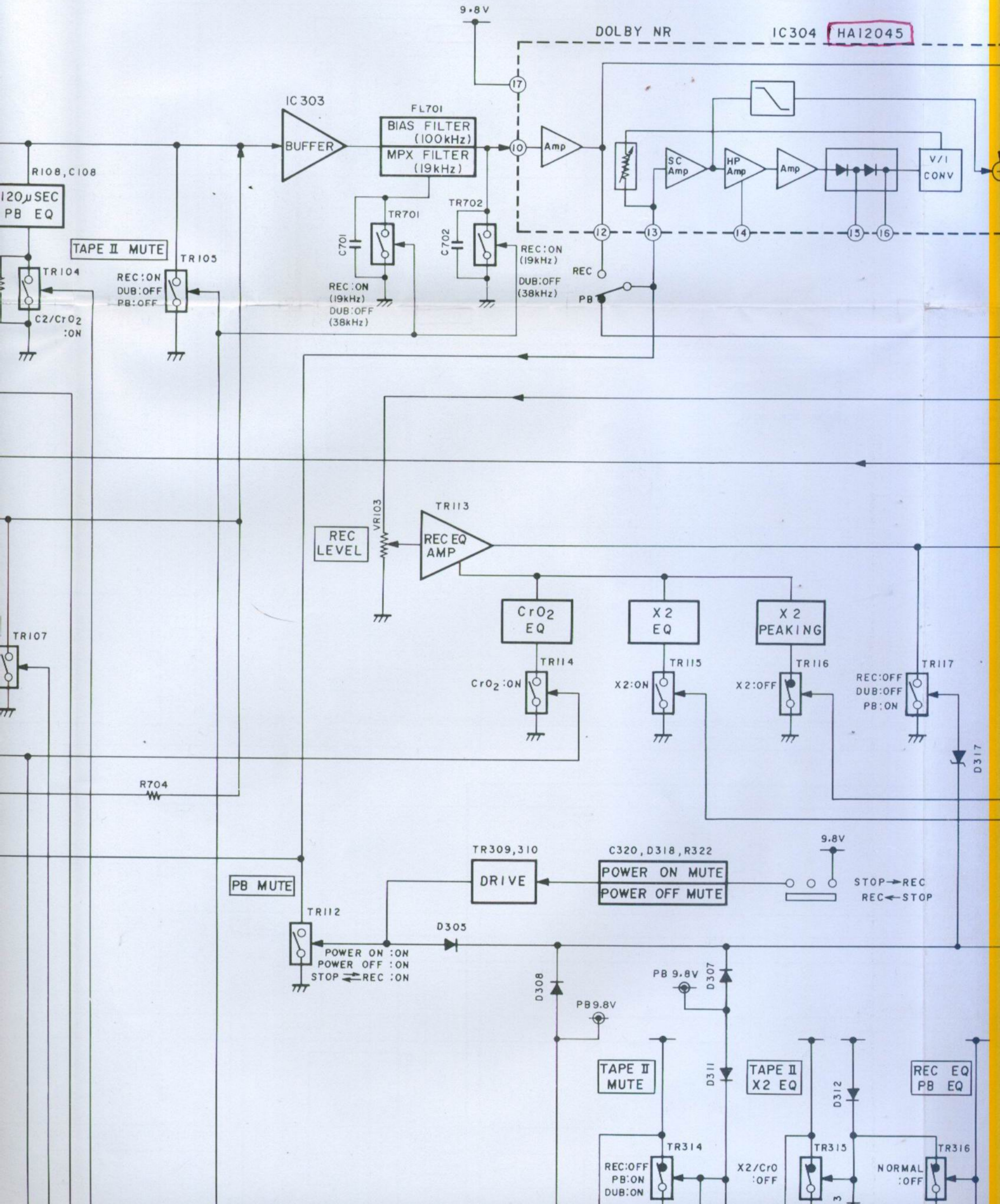
D

E

F

G

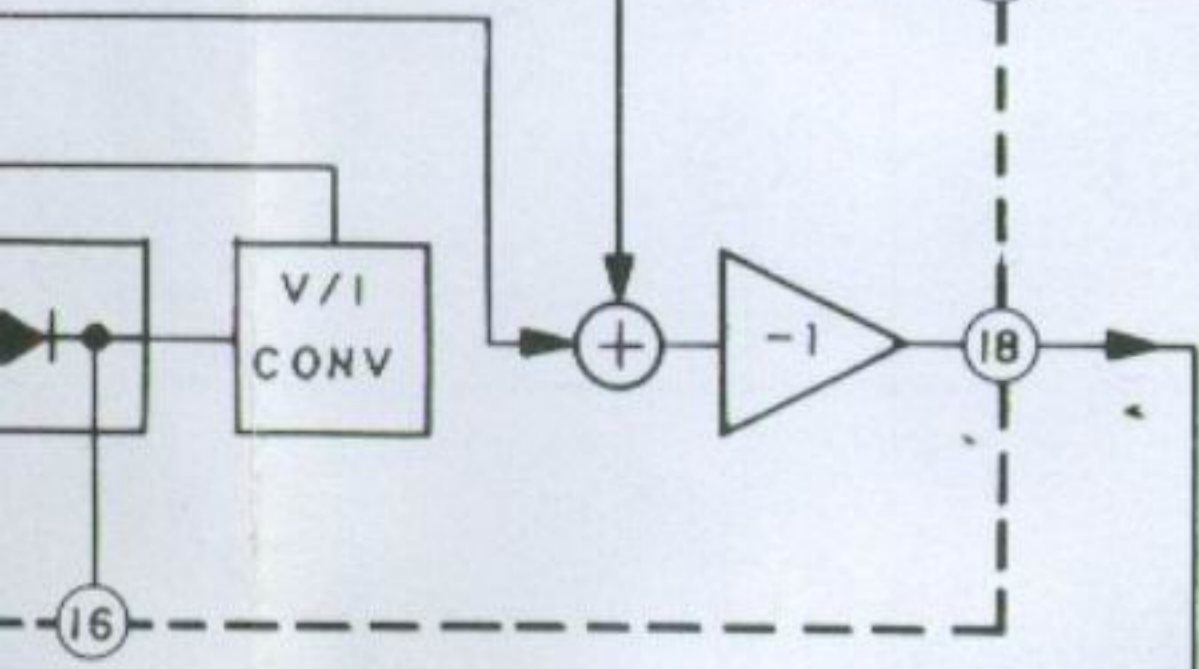
H



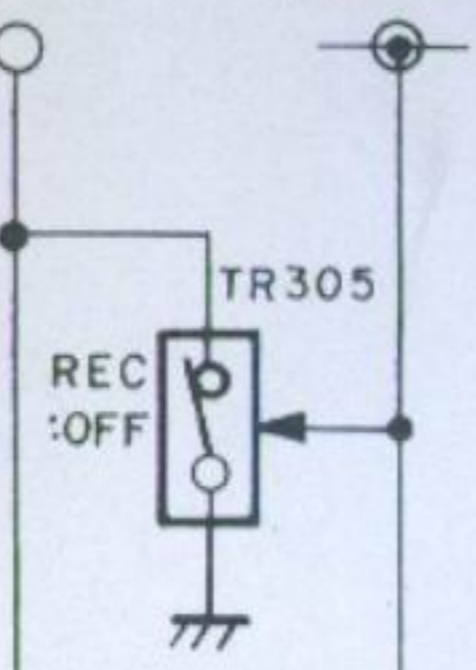
2045

DOLBY ON :H
DOLBY OFF :L
DUBBING :L

NR SW (11)



+13.5V PB 9.8V

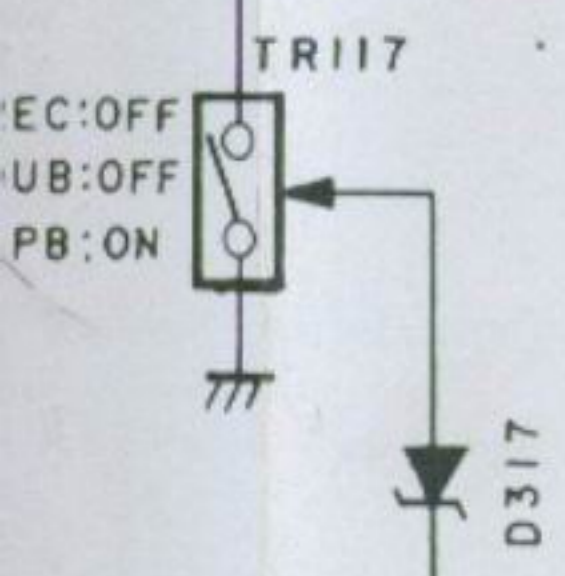
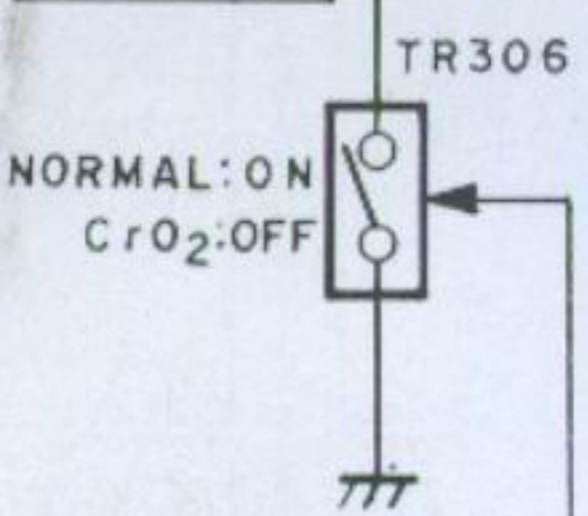


FL102
BIAS
FILTER

BIAS
ADJ
VR104

OSC

BIAS SW



TOP → REC
REC ← STOP

PB 9.8V

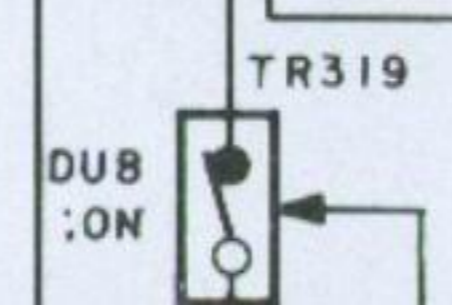
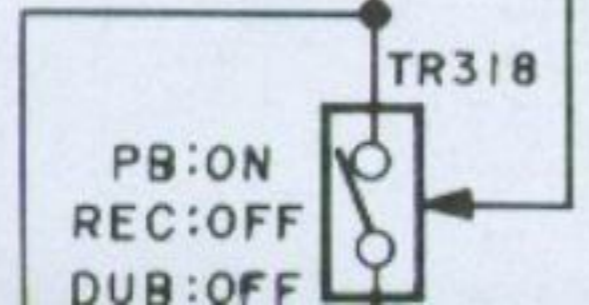
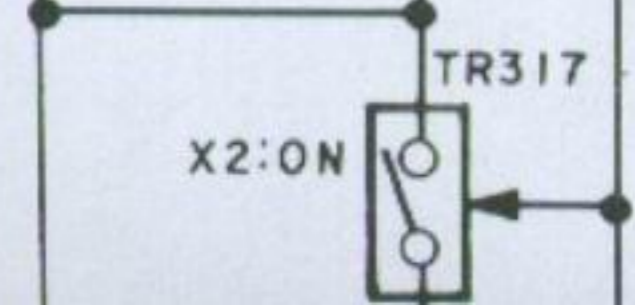
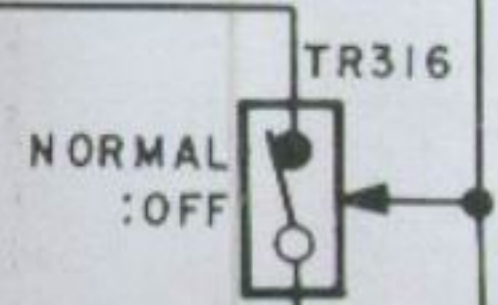
REC EQ
PB EQ

REC EQ
PB EQ

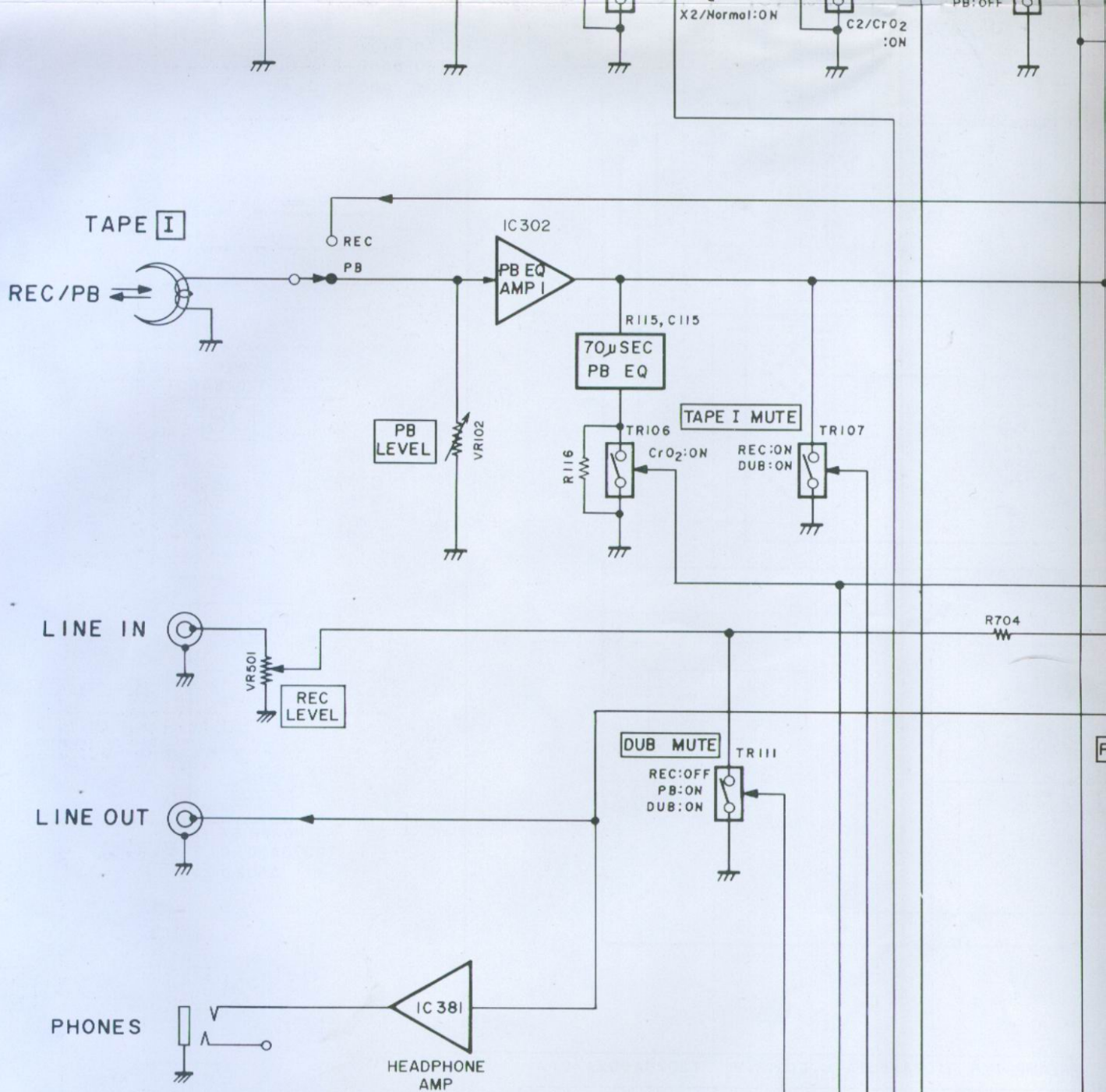
TAPE I
MUTE

DOLBY
SW

REC BIAS
SW



1
2
3
4
5
6



BLOCK DIAGRAM INDICATES LEFT CHANNEL CIRCUIT ONLY

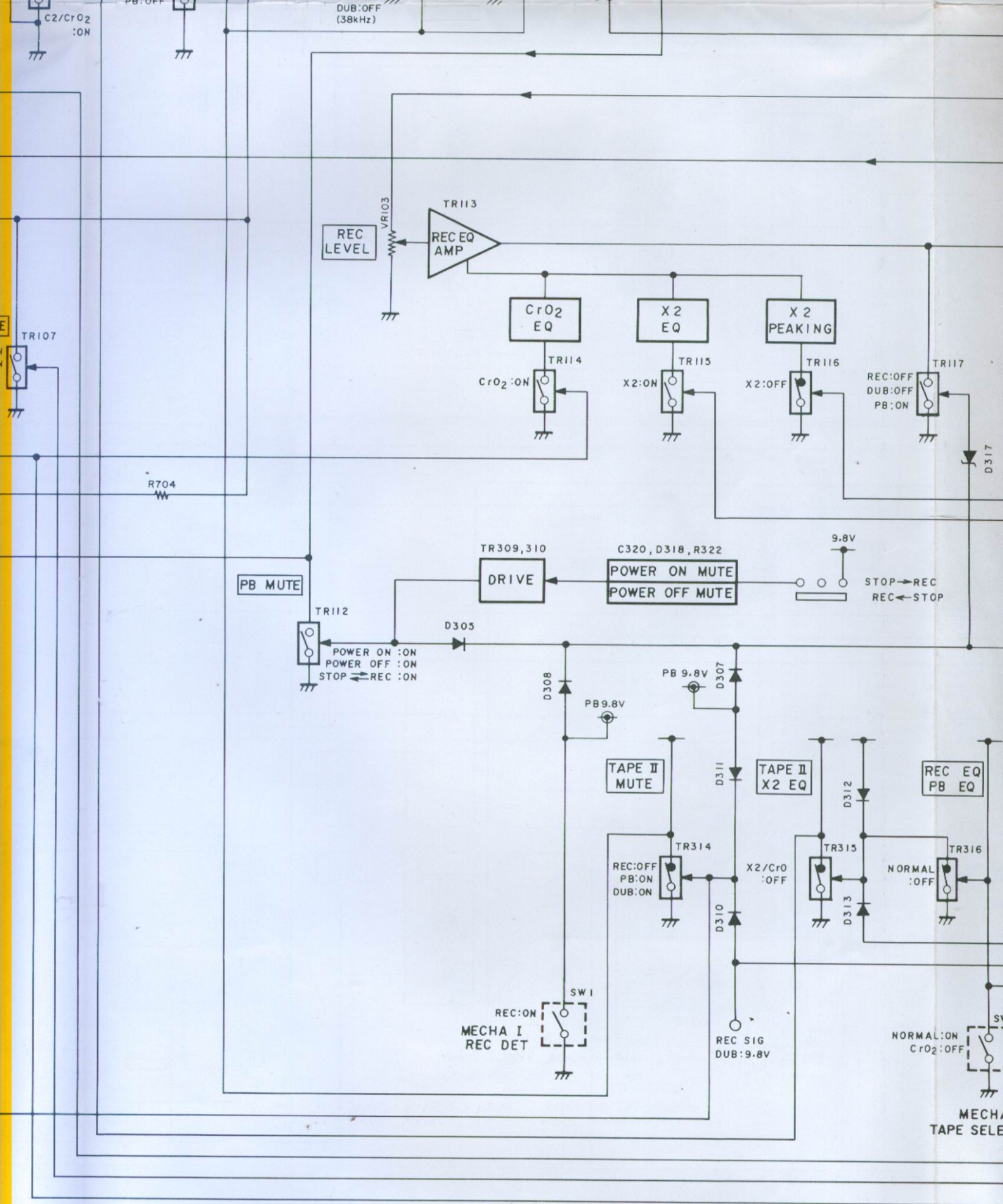
POWER SUPPLY LINE : $\overset{9.8}{\bullet}$ ALLWAY +9.8V
 $\overset{PB\ 9.8}{\bullet}$ PB +9.8V

MODE PB : PLAYBACK
 REC : RECORDING
 DUB : NORMAL SPEED DUBBING
 X2 : DOUBLE SPEED DUBBING

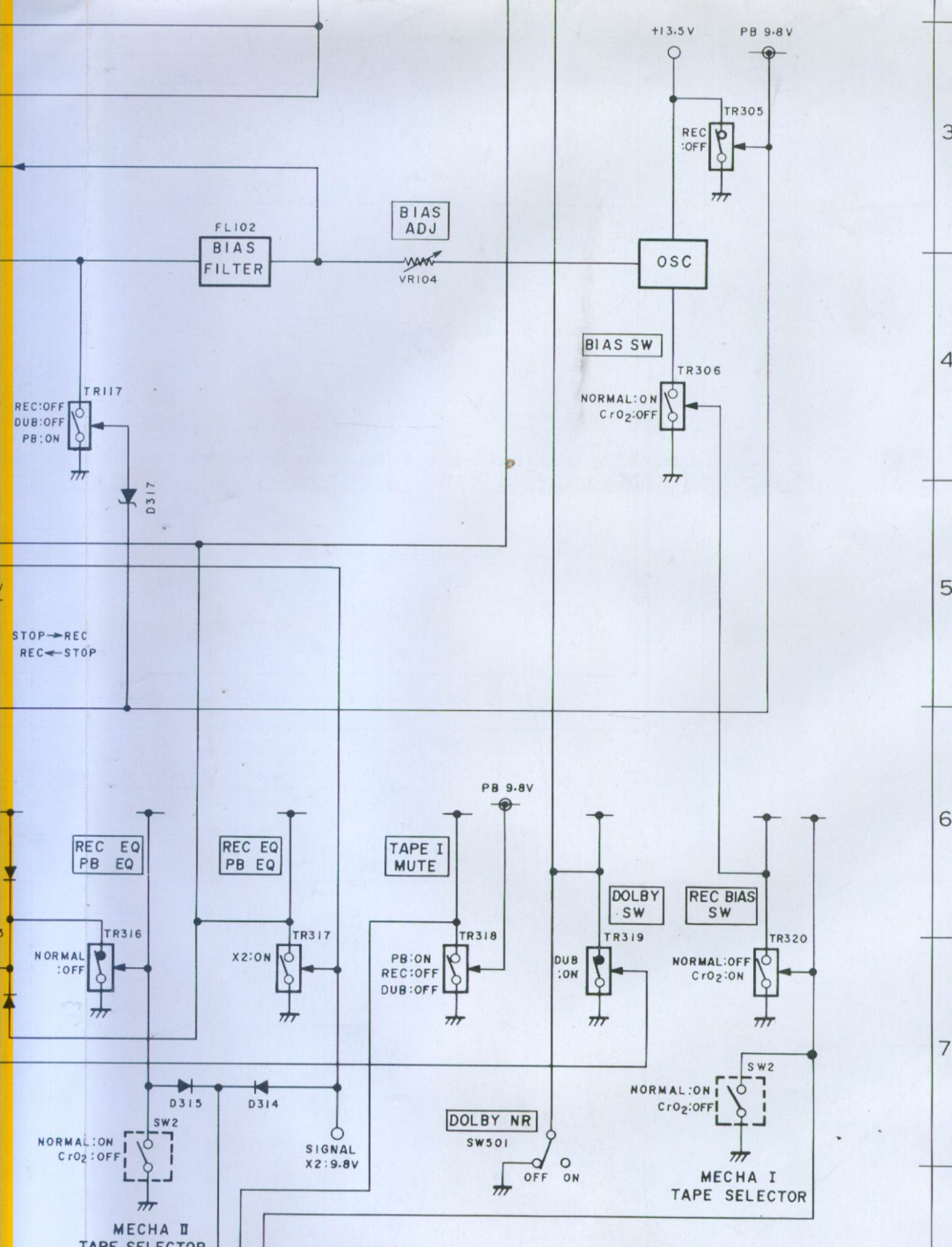
TAPE POSITION NOR : NORMAL TAPE POSITION
 CrO2 : CrO2 (CHROME) TAPE POSITION

3
4
5
6
7
8

A B C D



D E F G H



HX-A30IW
 BLOCK DIAGRAM
 No. 850429A (A2)