GX-635D/DB

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

AVERTISSEMENT ⚠IL INDIQU LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

d	F1	F2	F3	F4	F5
U/T(200V AREA)	250V 1A	250V 1.6A	250V 0.8A	250V 0.8A	250V 0.8A
U/T(100V AREA)	250V 2A	250V 1.6A	250V 0.8A	250V 0.8A	250V 0.8A
JPN, CSA, AAL	250V 2A	250V 1.6A	250V 0.8A	250V 0.8A	250V 0.8A
CEE, UK	T500mA	T1A	T500mA	T1A	T500mA

JPN, CSA, AAL

JPN AC100V 50/60Hz
CSA, AAL AC120V 60Hz

FUSE P.C BOARD TH-2040

CEE, UK

AC INLET AC220/240V

FUSE P.C BOARD TH-2040

U/T

AC110 to 240V 50/60Hz

FUSE P.C BOARD TH-2040

FUSE P.C BOARD TH-2040

PRE AMP P.C BOARD

SERVO OUTPUT

CAPSTAN MOTOR M903 SCM-200

METER LAMP

REV SELECTOR SW1

REVERSE P.C BOARD TH-2044

SENSING P.C BOARD TH-2045

TENSION ROLLER SW SW902

OPERATION P.C BOARD(B) TH-2042

OPERATION P.C BOARD(A) TH-2041

REMOTE CONTROL J905

REC MUTE SW904 ON/OFF

PITCH CONTROL VR901 1KB

PLAY BACK / RECORD

U/T, JPN CSA, AAL	CR	CR1 to 14 0.1μF+120ohms/125V
CEE UK	100 Ω1/200(M) X2	R201 to 214 C101 to 128

FOR CEE AND UK MODELS, C101 to 128 AND R201 to 214 ARE INCLUDED INSTEAD OF CR1 to 14

IC1 M5440P
IC2,3 M53200P
IC4 M53202P
IC5 M53204P

REEL SIZE SW903

REEL MOTOR M901 LEFT 2440-TD

REEL MOTOR M902 RIGHT 2440-TD

BRAKE SW SW906

REC ENABLE
REC FINAL MUTE
PB MUTE
OSC

DIRECTION P.C BOARD TH-2043

REC MUTE P.C BOARD TH-2046

SYSTEM CONTROL P.C BOARD TH-1015

2SA733 2SC945L
2SC2130
2SC1061
2SC2336B
2SD794

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50WV (J)
POWER TRANSFORMER IS DIFFRENT ACCORDING TO AREA
(—||—) MARK INDICATES NON POLAR CAPACITORS

GX-635D/DB SCHEMATIC DIAGRAM NO.2-1 1562416A

001000F

GX-635D

REC ENABLE

LEFT

RIGHT

MIC

LINE IN J3-1

LINE IN J3-2

CEE,UK ONLY J3-5

OSC 39

VOLUME P.C BOARD TH-5002

TR1,2,3 2SC458LG(D)

TR4 2SC458(D)

TR5,6 2SC945L(P)

TR7,8,9 2SC458LG(D)

TR10 2SC945L(P)

TR11 2SK68(M)

TR12 2SC2130(G)(H)

REC LEVEL

MONITOR

PB LEVEL

SOURCE TAPE

BIAS FILTER

VU ME901

VU ME902

LINE OUT J3-3

LINE OUT J3-4

PHONES J1

PB MUTE 38

CEE,UK ONLY

REC LED P.C BOARD TH-5001B

REC MODE SW2c

SW2d

TR13,14,15,17,18 2SC945L(Q)(P)

TR16 2SD571(K)

TR19 2SC945L(Q)(P)

IC1 LA4170

PRE AMP P.C BOARD TH-5001A

TR20,21,22,23 2SC945L(P)(Q)

TIMER START SW6

LOCK

REV FWD SW5

SPEED SW2a 3-3/4in 7-1/2in

MOTOR SERVO

REC FINAL MUTE

+22V

GND

TIMER START

TIMER HOLD

P3 J903

P1 J901

P4 J904

P2 J902

E4-241 H901

R4-241 H902

P4-241 H903

E4-241 H904

R4-241 H905

P4-241 H906

FORWARD HEAD

REVERSE HEAD

SW1-5 SW1-6 SW4-1 SW1-7 SW1-8 SW4-3

RLI-1 RLI-2

※ REC MODE

		7-1/2in	3-3/4in
TR13	B	0.3V	0.3V
	C	22.0V	22.0V
TR14	B	0V	0V
	C	17.0V	14.3V
TR15	B	17.0V	14.3V
	E	16.5V	13.8V
TR16	E	15.9V	13.2V
L4	1 to 3	−0.4V	−0.2V
	4 to 6	15.9V	13.2V
	8	65.2V AC	54.0V AC
	9	120.4V AC	101.8V AC
TR17,18	E	0V	0V

E C B 2SC458 2SC458LG 2SC945L

B C E 2SC2130

E C B 2SD571

D G S 2SK68

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50WV(K)
(LL)=LOW LEAKAGE CAPACITOR

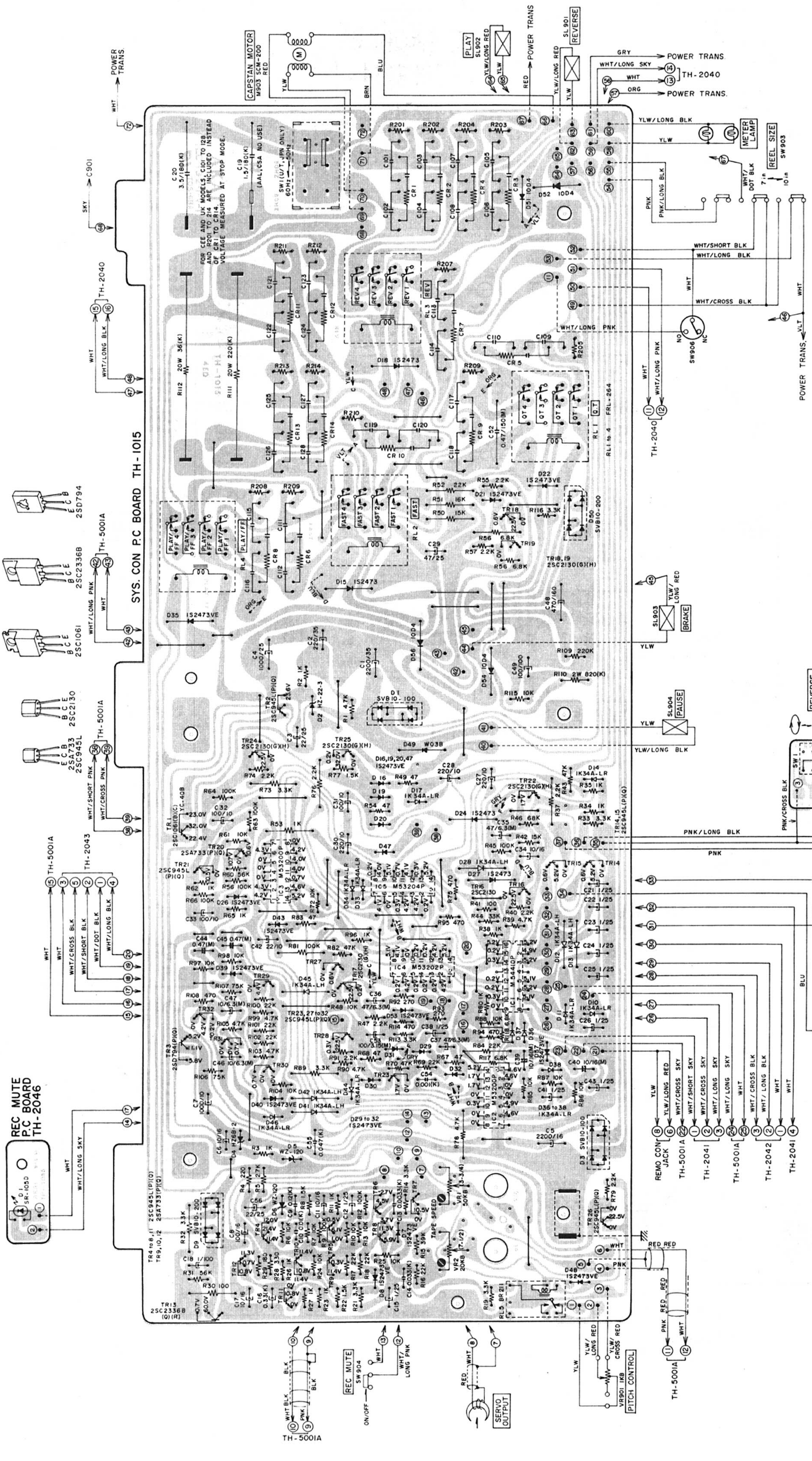
GX-635D AMP SCHEMATIC DIAGRAM

NO.2-2 1562417A 2C

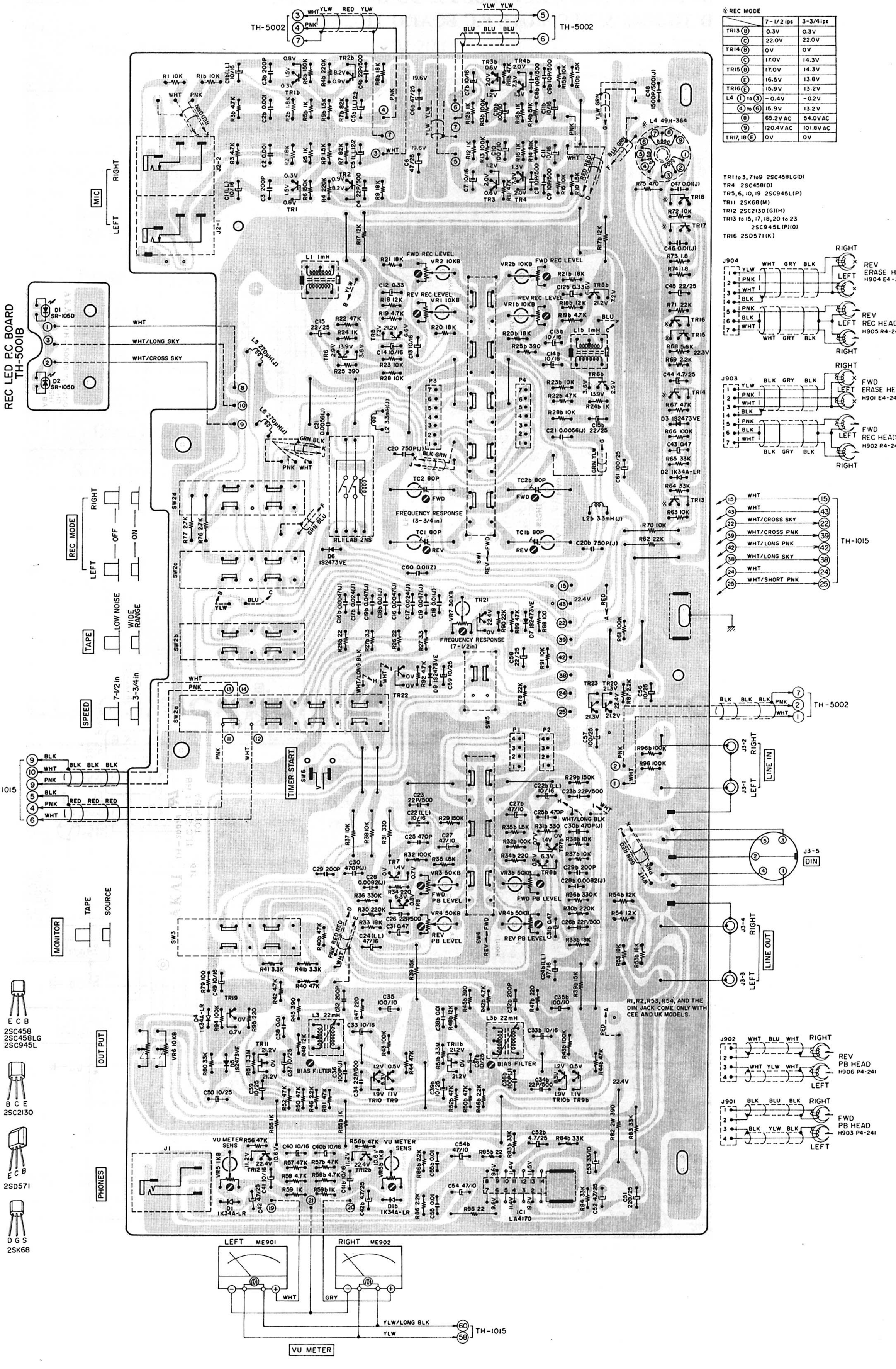
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2. COMPOSITION OF VARIOUS P.C BOARDS

1) SYS. CON P.C BOARD TH-1015 (4ED), REVERSE P.C BOARD TH-2044, SENSING P.C BOARD TH-2045 & REC MUTE P.C BOARD TH-2046



2) PRE AMP P.C BOARD TH-5001A (2ED) & REC LED P.C BOARD TH-5001B



※ REC MODE

	7-1/2 ips	3-3/4 ips
TR13 (B)	0.3V	0.3V
(C)	22.0V	22.0V
TR14 (B)	0V	0V
(C)	17.0V	14.3V
TR15 (B)	17.0V	14.3V
(E)	16.5V	13.8V
TR16 (E)	15.9V	13.2V
L4 (1) to (3)	-0.4V	-0.2V
(4) to (6)	15.9V	13.2V
(8)	65.2V AC	54.0V AC
(9)	120.4V AC	101.8V AC
TR17, 18 (E)	0V	0V

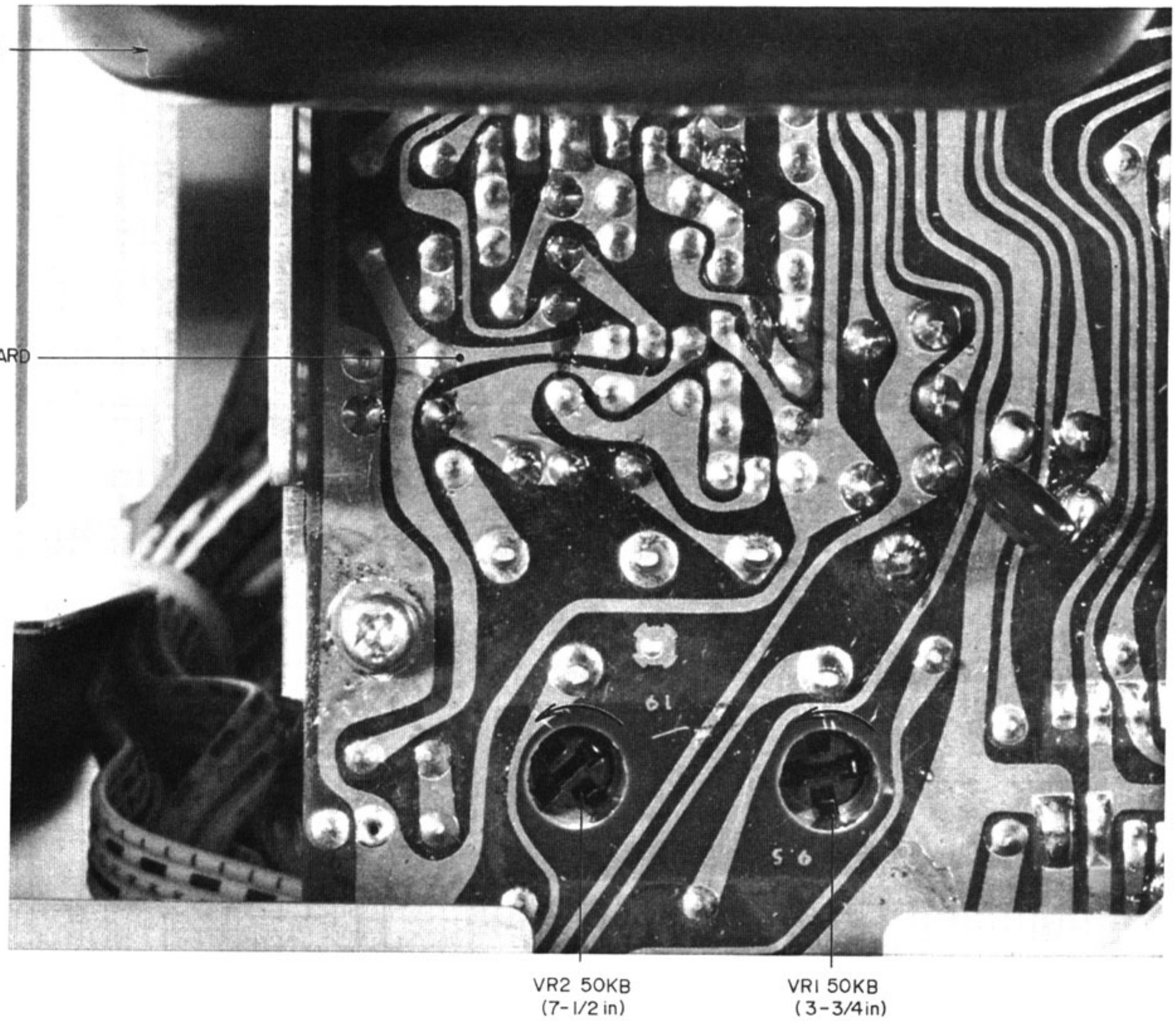


Fig. 16

10. TAPE SPEED ADJUSTMENT

(Refer to Fig. 16)

Set the Tape Speed Switch to 7-1/2 ips and playback the 1,000 Hz, 7-1/2 Test tape.

Connect a frequency counter to LINE OUT and adjust VR2 50 kB until the counter reads 1,000 Hz ±0.5%.

Next, set the Tape Speed Switch to 3-3/4 ips and adjust VR1 50 kB until the frequency counter reads 500 Hz ±0.5%.

VIII. AMPLIFIER ADJUSTMENT

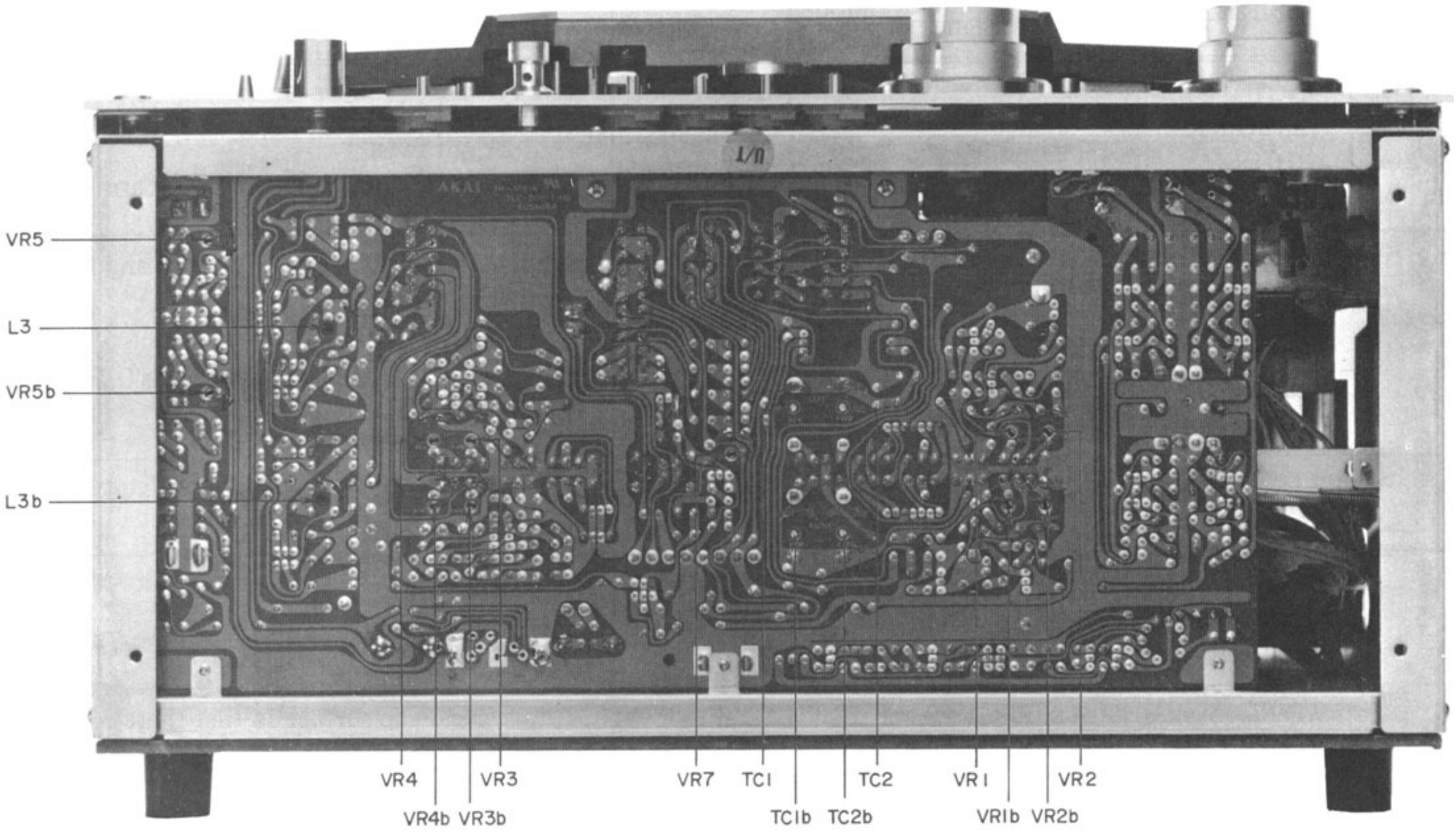


Fig. 18

VR3	50 kB	FWD Playback Level Adjustment
VR4	50 kB	REV Playback Level Adjustment
VR5	1 kB	VU Meter Sensitivity Adjustment
VR2	10 kB	FWD Recording Level Adjustment
VR1	10 kB	REV Recording Level Adjustment
TC2	80 PF	FWD Frequency Response Adjustment (3-3/4 in)
TC1	80 PF	REV Frequency Response Adjustment (3-3/4 in)
VR7	30 kB	Frequency Response Adjustment (7-1/2 in)
L3		Bias Filter Adjustment

*** The letter "b" following an adjustment part number indicates "RIGHT CHANNEL".**

Step	Adjustment Item	Test Tape Supply Signal	Mode	Adjustment Point	Result	Remarks
1	FWD Playback Level	700Hz 7-1/2 ips 0VU Test Tape	FWD	VR3 50 kB	0±0.5dBm (0.775V)	
2	REV Playback Level	700Hz 7-1/2 ips 0VU Test Tape	REV	VR4 50 kB	0±0.5dBm (0.775V)	
3	VU Meter Sensitivity	700Hz 7-1/2 ips 0VU Test Tape	FWD	VR5 1 kB	0 VU indication	
4	FWD Recording Level	Scotch #211 Tape 1,000 Hz 0 dBm Recording	FWD-REC	VR2 10 kB	0±0.5dBm (0.775V)	
5	REV Recording Level	Scotch #211 Tape 1,000 Hz 0 dBm Recording	REV-REC	VR1 10 kB	0±0.5dBm (0.775V)	
6	FWD Frequency Response (3-3/4 ips)	Scotch #211 Tape 1.5kHz, 15kHz −20dBm Recording	FWD-REC	TC2	1.5 kHz, 15 kHz flat	Tape Speed 3-3/4 ips. Recheck Recording Level.
7	REV Frequency Response (3-3/4 ips)	Scotch #211 Tape 1.5kHz, 15kHz −20dBm Recording	REV-REC	TC1	1.5 kHz, 15 kHz flat	Tape Speed 3-3/4 ips. Recheck Recording Level.
8	Frequency Response (7-1/2 ips)	Scotch #211 Tape 1.5kHz, 15kHz −20dBm Recording	FWD-REC	VR7 30 kB	1.5 kHz, 15 kHz flat	Tape Speed 7-1/2 ips. Recheck Recording Level.
9	FWD Distortion Confirmation	Scotch #211 Tape 1,000Hz 0 dBm Recording	FWD-REC		Less than 0.5%	See NOTE 4
10	REV Distortion Confirmation	Scotch #211 Tape 1,000 Hz, 0 dBm Recording	REV-REC		Less than 0.5%	See NOTE 4
11	Bias Filter		REC	L3	Less than −30 dB	Mic, Line Volume at Max. See NOTE 5.

Chart-5

NOTES:
1. Output Level Control should be at maximum.
2. Except for Steps 6 and 7, set Tape Speed to 7-1/2 ips.
3. Set Tape Selector Switch to Low Noise position.
4. If it does not comply with the specifications, repeat Steps 6 and 7, and re-adjust.
5. Unless the core is moved intentionally this adjustment is not necessary.