GX-635D/DB

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 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

⊘	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
CEE, UK
U/T
FUSE P.C BOARD TH-2040
PRE AMP P.C BOARD
SERVO OUTPUT
CAPSTAN MOTOR
PITCH CONTROL
REVERSE P.C BOARD TH-2044
SENSING P.C BOARD TH-2045
OPERATION P.C BOARD(B) TH-2042
OPERATION P.C BOARD(A) TH-2041
REMOTE CONTROL
TENSION ROLLER SW
REC MUTE SW904
DIRECTION P.C BOARD TH-2043
REC MUTE P.C BOARD TH-2046
SYSTEM CONTROL P.C BOARD TH-1015
REEL MOTOR
BRAKE SW SW906
REEL SIZE SW903

IC1 M5441(CP
IC2,3 M53200P
IC4 M53202P
IC5 M53204P

U/T, JPN CSA, AAL	CR	CR1 to 14 0.1μF+120ohms/120V
CEE UK	100	0.1/200(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

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

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

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

GX-635D

REC ENABLE

LEFT

RIGHT

MIC

LINE IN J3-1

LINE IN J3-2

OSC

LINE OUT J3-3

LINE OUT J3-4

PHONES

PB MUTE

VU ME901

VU ME902

REC LEVEL

PB LEVEL

MONITOR

REC MODE SW2c

SW2d

SPEED SW2a

TIMER START SW6

MOTOR SERVO

REC FINAL MUTE

+22V

GND

TIMER START

TIMER HOLD

VOLUME P.C BOARD TH-5002

REC LED P.C BOARD TH-5001B

PRE AMP P.C BOARD TH-5001A

IC 1 LA 4170

FORWARD HEAD

REVERSE HEAD

E4-241 H901

R4-241 H902

P4-241 H903

E4-241 H904

R4-241 H905

P4-241 H906

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)

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

TR16 2SD571(K)

TR19 2SC945L(Q)(P)

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

※ 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

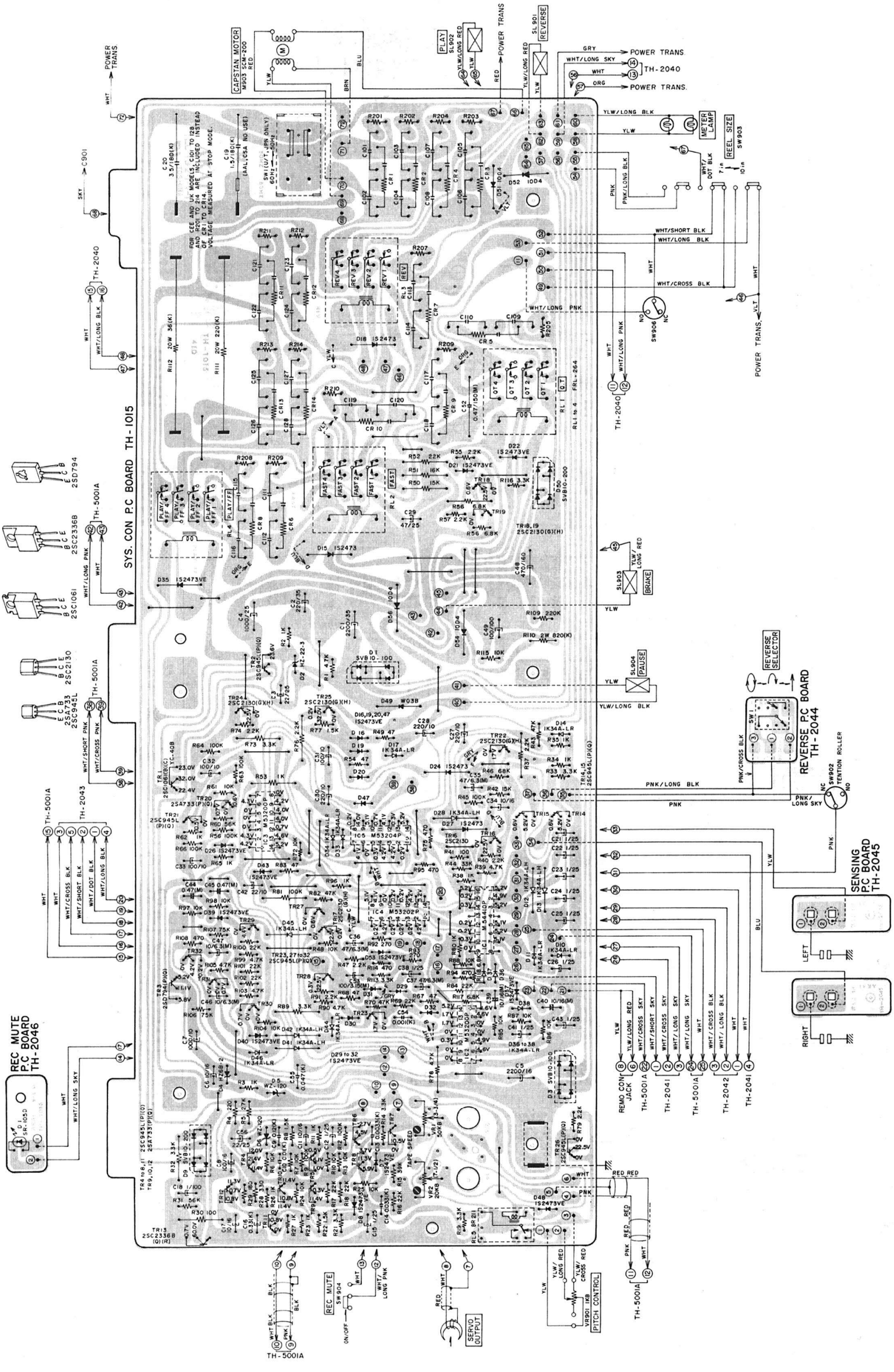
GX-635D AMP SCHEMATIC DIAGRAM

NO.2-2 1562417A 2C

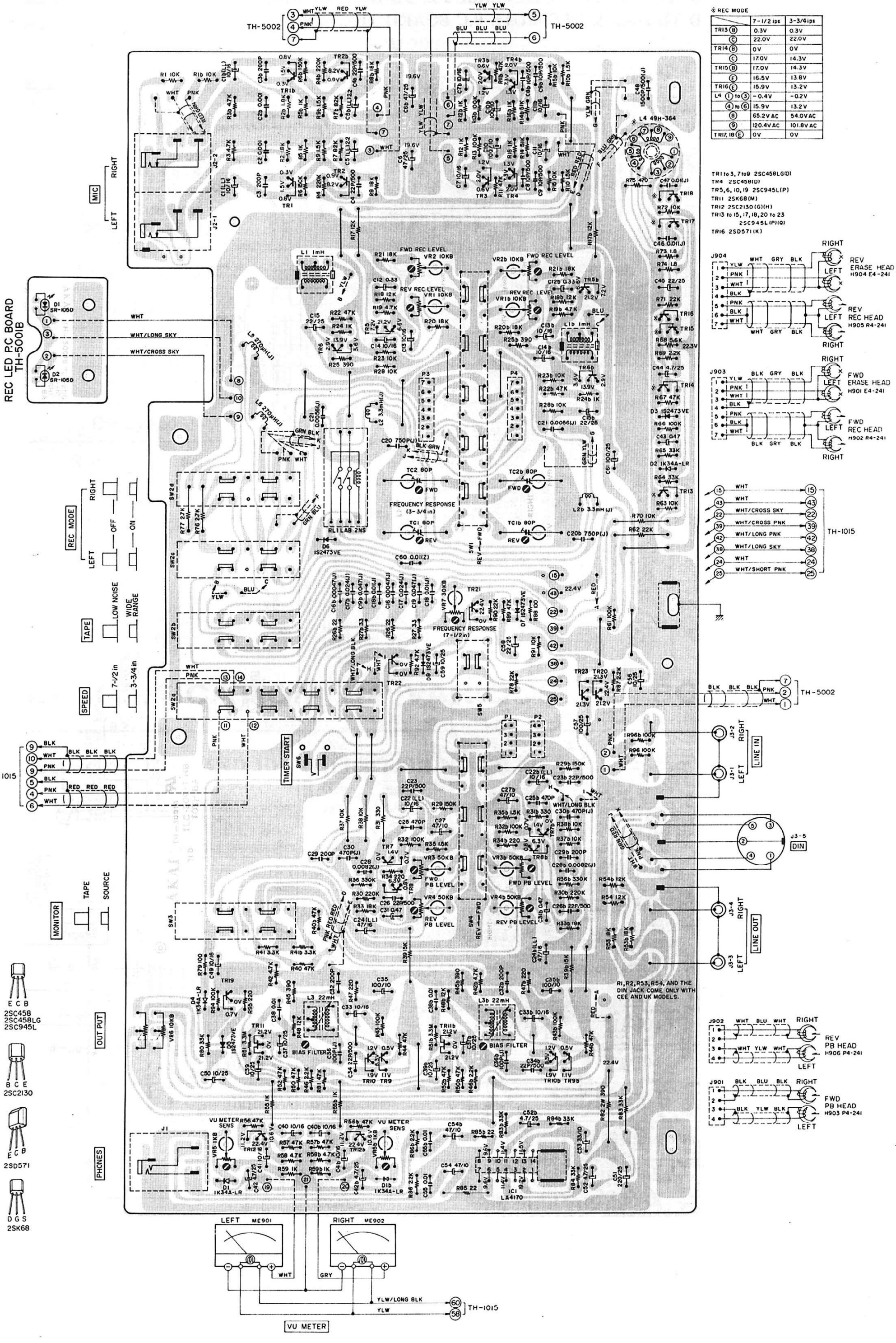
0010010

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

TR1 to 3, 7 to 9 2SC458LG(D)
TR4 2SC458(D)
TR5, 6, 10, 19 2SC945L(P)
TR11 2SK68(M)
TR12 2SC2130(G)(H)
TR13 to 15, 17, 18, 20 to 23 2SC945L(P)(Q)
TR16 2SD571(K)

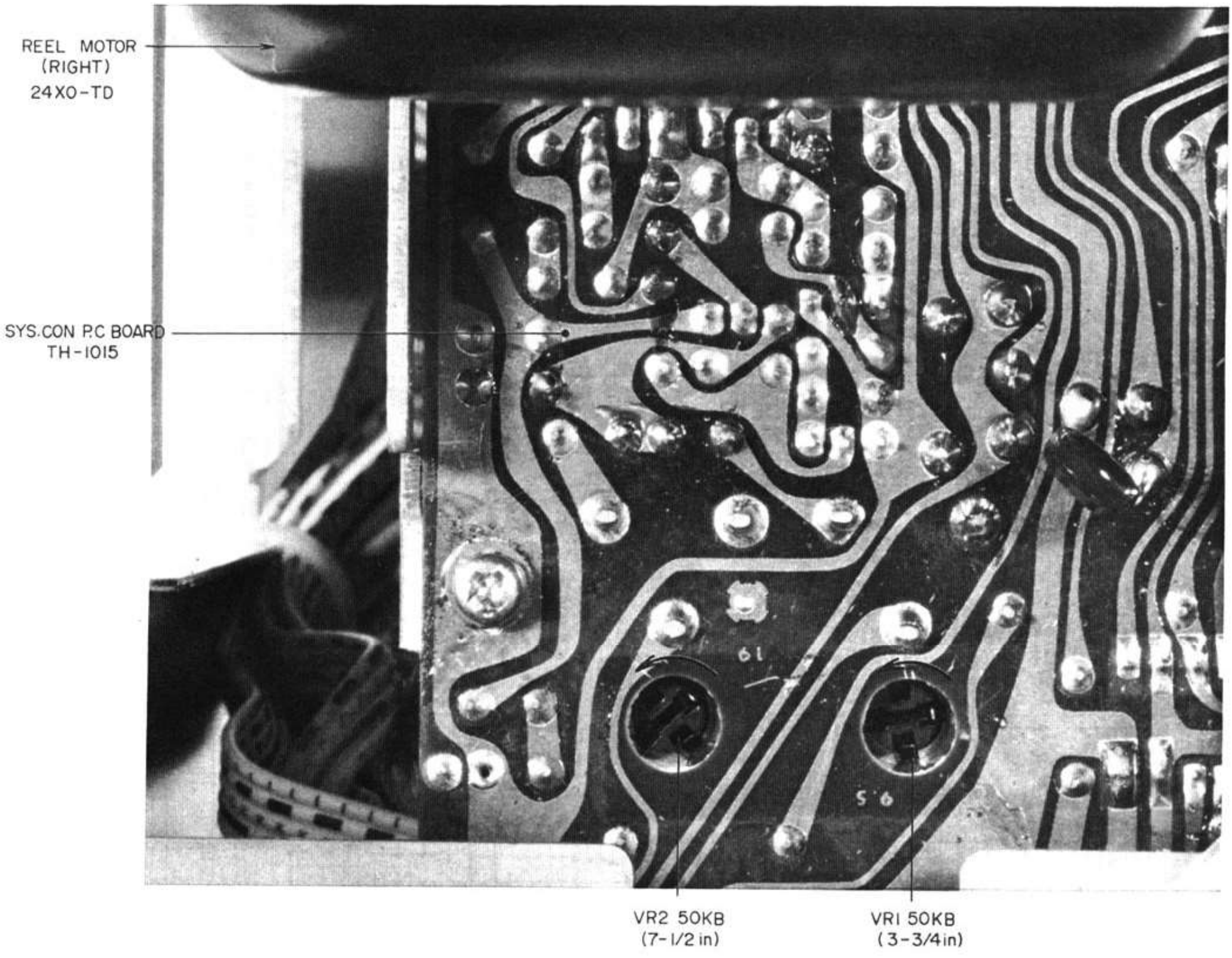


Fig. 16

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

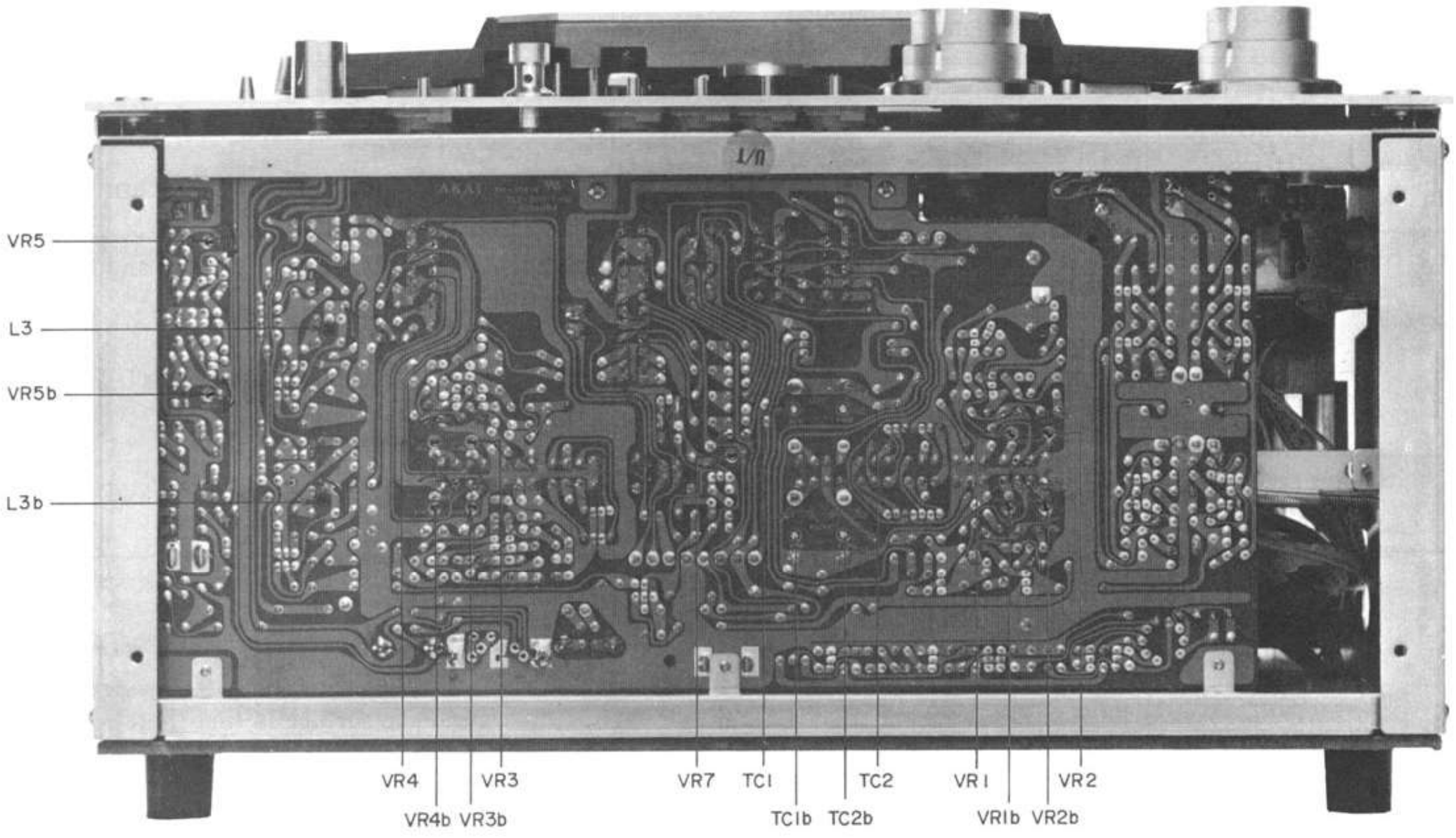


Fig. 18

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.