

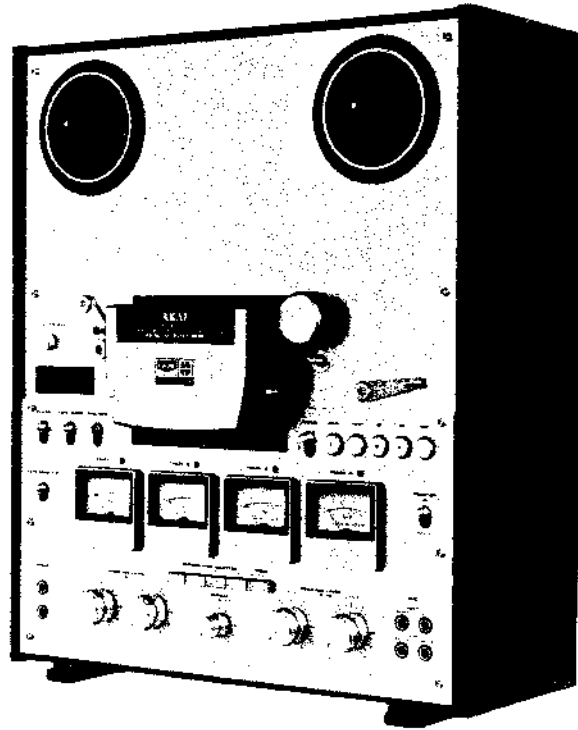
SERVICE MANUAL

PARTS LIST



**AKAI 4-CH STEREO TAPE DECK
MODEL GX-630D-SS**

**THIS MANUAL MUST BE USED AS A SET
TOGETHER WITH SEPARATELY PUBLISHED GX-
630D SERVICE MANUAL AND PARTS LIST**



AKAI 1-CH STEREO TAPE DECK

MODEL **GX-630D-SS**

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PUBLISHED GX-630D SERVICE MANUAL AND PARTS LIST

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SECTION 1

SERVICE MANUAL

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When making adjustment or repairs of Model GX-630D-SS, kindly refer to the following sections of Model GX-630D/DB Service Manual.

Dismantling of Unit: page - 4

Mechanism Adjustment: page - 6 to page - 9

For basic adjustments, measuring methods, and operating principles, refer to GENERAL OPERATING PRINCIPLES AND ADJUSTMENTS.

I. SPECIFICATIONS

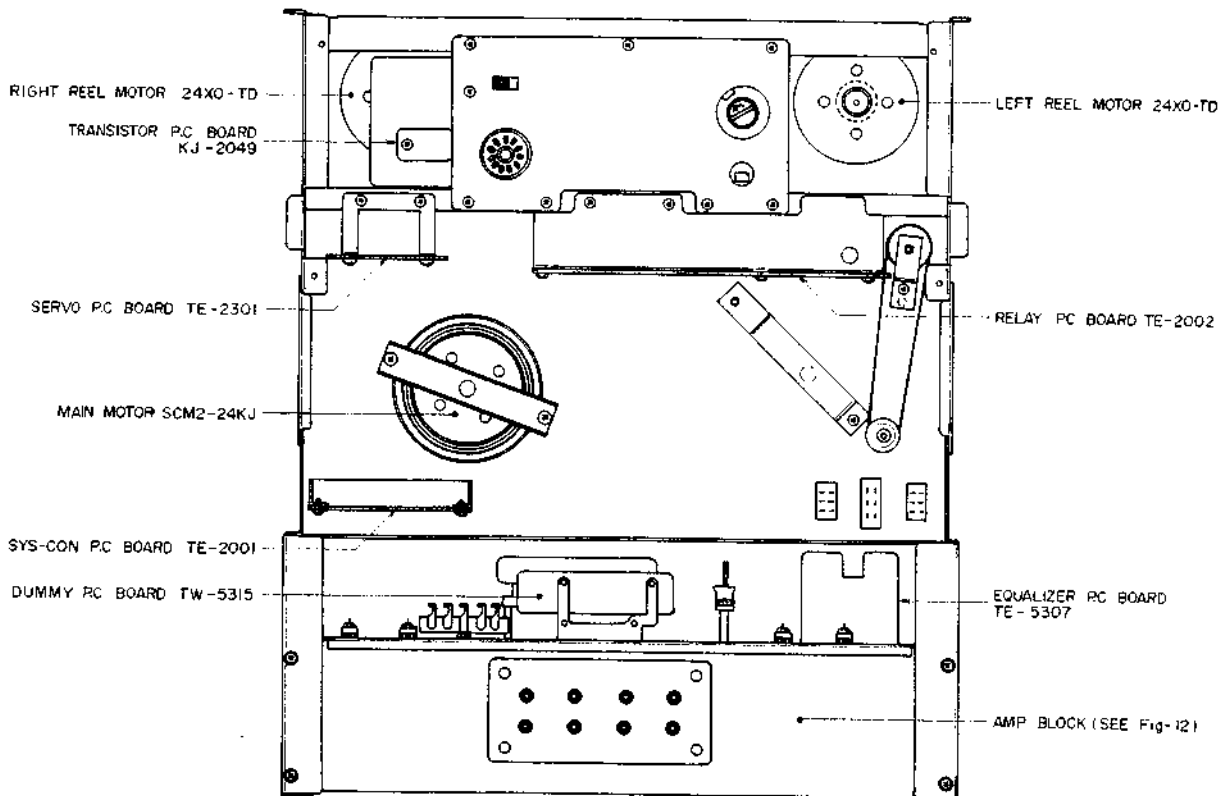
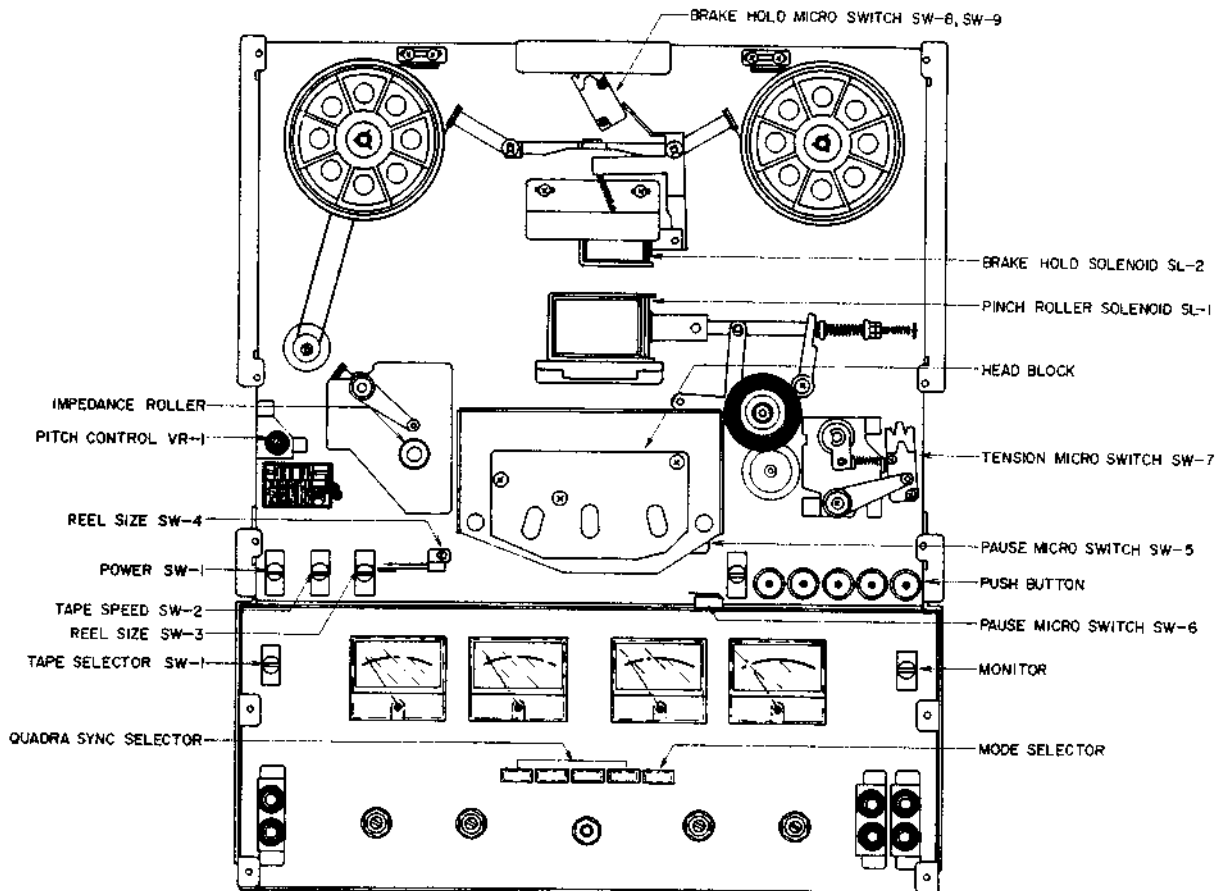
An asterisk next to a figure indicates the minimum guaranteed performance.

TRACK SYSTEM		4 track 4/2 channel compatible stereo system
TAPE SPEED		7-1/2 and 3-3/4 ips $\pm 0.7\%$ *7-1/2 and 3-3/4 ips $\pm 1.0/-1.5\%$
WOW AND FLUTTER		Less than 0.06% WRMS at 7-1/2 ips Less than 0.09% WRMS at 3-3/4 ips *Less than 0.10% RMS at 7-1/2 ips *Less than 0.15% RMS at 3-3/4 ips
TOTAL WOW AND FLUTTER		*Less than 0.12% RMS at 7-1/2 ips *Less than 0.18% RMS at 3-3/4 ips
FREQUENCY RESPONSE		30 to 21,000 Hz ± 3 dB at 7-1/2 ips 30 to 15,000 Hz ± 3 dB at 3-3/4 ips *30 to 20,000 Hz ± 3 dB at 7-1/2 ips *30 to 13,000 Hz ± 3 dB at 3-3/4 ips
DISTORTION FACTOR		Less than 0.5%
TOTAL DISTORTION FACTOR		*Less than 1.5%
SIGNAL TO NOISE RATIO		*Better than 50 dB (Normal) *Better than 42 dB (Quadra Sync)
TOTAL SIGNAL TO NOISE RATIO		*Better than 47 dB (Normal)
OUTPUT	LINE	*0.775V (0 dBm ± 1.0 dB)
	HEADPHONE	30 mV at 8 ohm At playback of a 700 Hz "0" VU pre-recorded test tape, output volume at maximum
INPUT	MIC	More than 0.5 mV/10 k ohm
	LINE	More than 100 mV/150 k ohm At "0" VU output, recording volume at maximum
RECORDING/PLAYBACK LEVEL		*0.775V (0 dBm ± 1.5 dB)
CROSS TALK		Better than 40 dB
ERASE RATIO		Better than 70 dB
BIAS FREQUENCY		100 kHz $\pm 5\%$
BIAS LEAK		Better than -20 dB
HIGH FREQUENCY DEVIATION		Less than 3 dB At playback of an 8,000 Hz 3-3/4 ips pre-recorded test tape at 7-1/2 ips
RECORDING TIME		180 min stereo recording at 7-1/2 ips, using an 1,800 ft tape
F.FWD AND RWD TIME		Approximately 2 min and 40 sec at 50 Hz, using 3,600 ft tape
MOTOR	MAIN MOTOR	2 speed AC servo-control outer-rotor motor Type: SCM2-24KJ 4-pole Revolutions: 615 rpm at 7-1/2 ips (19 cm/sec) 307.5 rpm at 3-3/4 ips (9.5 cm/sec)
	REEL MOTOR	6-pole eddy current outer-rotor motor Type: 24XO-TD Revolutions: 930 rpm at 50 Hz 1,120 rpm at 60 Hz
HEAD	ERASE HEAD	Type: E4-260 Gap: Double gap Impedance: 210 ohm $\pm 10\%$ at 100 kHz DC Resistance: 2 ohm
	RECORDING HEAD	Type: R4-285 Gap: 4 micron $\pm 15\%$ Impedance: 8,500 ohm $\pm 10\%$ at 100 kHz DC Resistance: 13 ohm
	PLAYBACK HEAD	Type: P4-280 Gap: 1.7 micron $\pm 15\%$ Impedance: 1,300 ohm $\pm 10\%$ at 1 kHz DC Resistance: 350 ohm

TRANSISTOR	2SA564(Q) (R) ... 1	2SC968(2) (3) ... 3
	2SA696(C) (D) ... 1	2SC1247A(B) (V) ... 6
	2SC458LG(C) ... 20	2SD361(D) (E) ... 1
	2SC711(E) (F) (G) ... 15	2SD361(D1) (D2) ... 2
	2SC945L(Q) (P) ... 16	TIP47 ... 1
DIODE	1N34A ... 4	10D05 ... 2
	1N4001 ... 4	10D2 ... 4
	1N4004 ... 5	WG713 ... 3
	1S2473 ... 20	WZ192 ... 1
	1S2473VE ... 18	RD5A(M) ... 2
	1S1588 ... 1	SL-103 ... 4
POWER REQUIREMENTS AND CONSUMPTION	100 to 240V AC 50/60 Hz, 90W for Universal Models 220V AC 50 Hz, 100W for CEE Models 120V AC 60 Hz, 90W for CSA Models 100V AC 50/60 Hz, 70W for JPN Models	
DIMENSIONS	507(H) x 440(W) x 240(D) mm (20.7" x 17.4" x 9.4") Dimensions include all protruding parts	
WEIGHT	20.7 kg (45.5 lbs)	

- NOTES: 1. Specifications determined with SCOTCH #211 Tape unless otherwise specified.
2. Specifications subject to change without notice.

II. ARRANGEMENT OF PRINCIPAL PARTS



III. HEAD ADJUSTMENT

Head Adjustment (Refer to Fig. 1 and Chart 1)

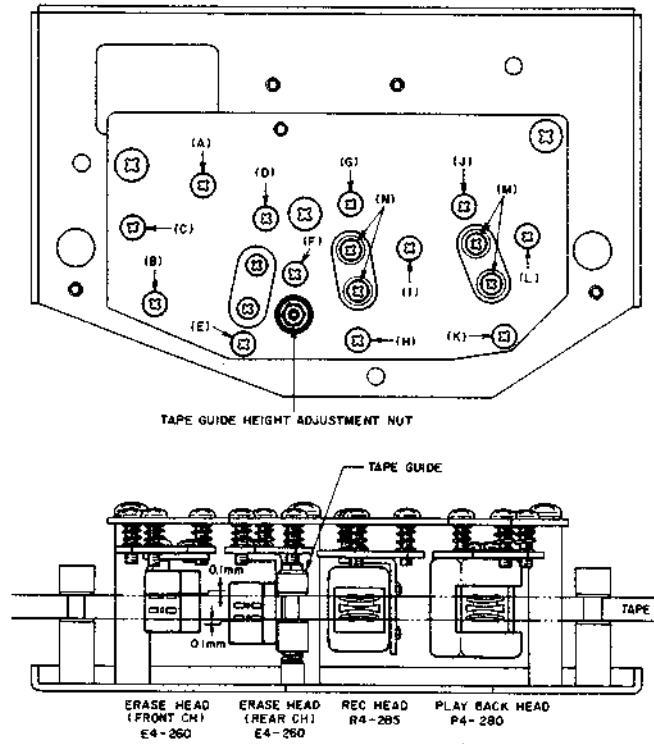


Fig. 1

Step	Adjustment Item	Test Tape Supply Signal	Mode	Adjustment Point	Remarks
1	Tape Guide Height Adjustment	Optional	Play	Tape Guide Height Adjustment Nut	Adjust so that tape does not twist between tape guide on head base.
2	Erase Head Height Adjustment (Front channel)	Optional	Play	(A)(B)(C)	Upper edge of channel 1 head core is 0.1mm higher than upper edge of tape.
3	Erase Head Height Adjustment (Rear channel)	Optional	Play	(D)(E)(F)	Lower edge of channel 4 head core is 0.1mm lower than lower edge of tape.
4	Recording Head Height Adjustment	Optional	Play	(G)(H)(I)	Even upper edge of channel 1 head core and upper edge of tape.
5	Playback Head Height Adjustment	Optional	Play	(J)(K)(L)	Same as Step 4 above.
6	Playback Head Azimuth Alignment Adjustment	8,000 Hz 3-3/4 ips test tape	Play	(L)	Maximum output on all channels.
7	Playback Head Gap Alignment Adjustment	8,000 Hz 3-3/4 ips test tape	Play	(M)	Adjust head gap surface so that there is no change in output level when tension is applied to the supply reel side.
8	Recording Head Azimuth Alignment Adjustment	SCOTCH #211 tape, 15,000 Hz -20 dBm	Rec	(I)	Same as Step 6 above.
9	Recording Head Gap Alignment Adjustment	SCOTCH #211 tape, 15,000 Hz -20 dBm	Rec	(N)	Same as Step 7 above.

NOTE: Set tape speed to 7-1/2 ips when making all alignment adjustments.

Chart 1

IV. AMPLIFIER SYSTEM ADJUSTMENT

1. DC POWER SUPPLY VOLTAGE ADJUSTMENT (Refer to Fig. 2 and Chart 2)

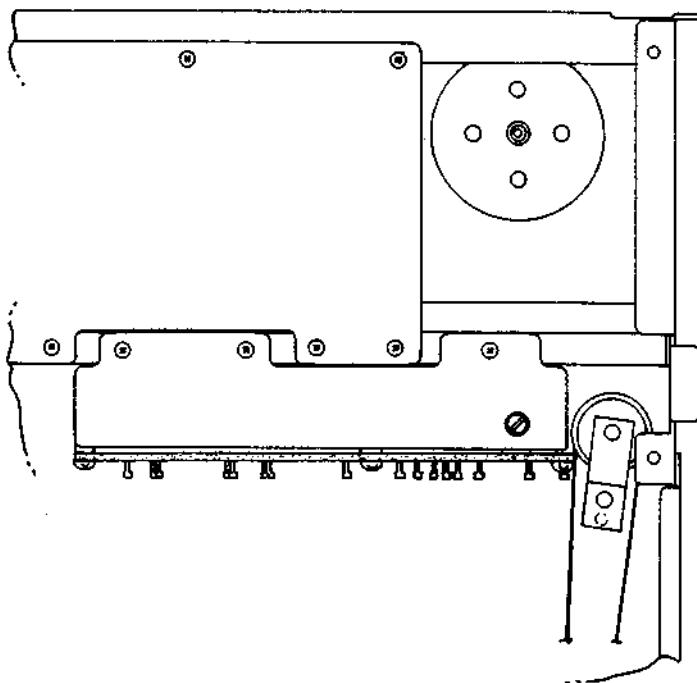


Fig. 2 REAR VIEW

2. TAPE SPEED ADJUSTMENT (Refer to Fig. 3 and Chart 2)

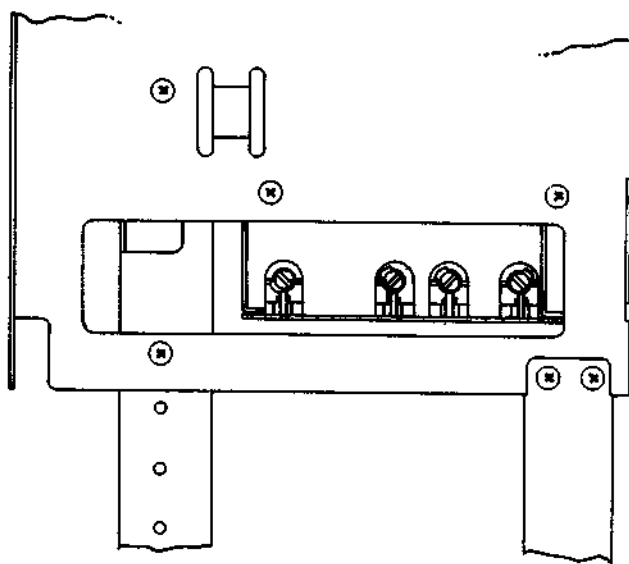


Fig. 3 RIGHT SIDE VIEW

3. RECORDING, PLAYBACK AMPLIFIER ADJUSTMENT (Refer to Fig. 4, 5 and Chart 2)

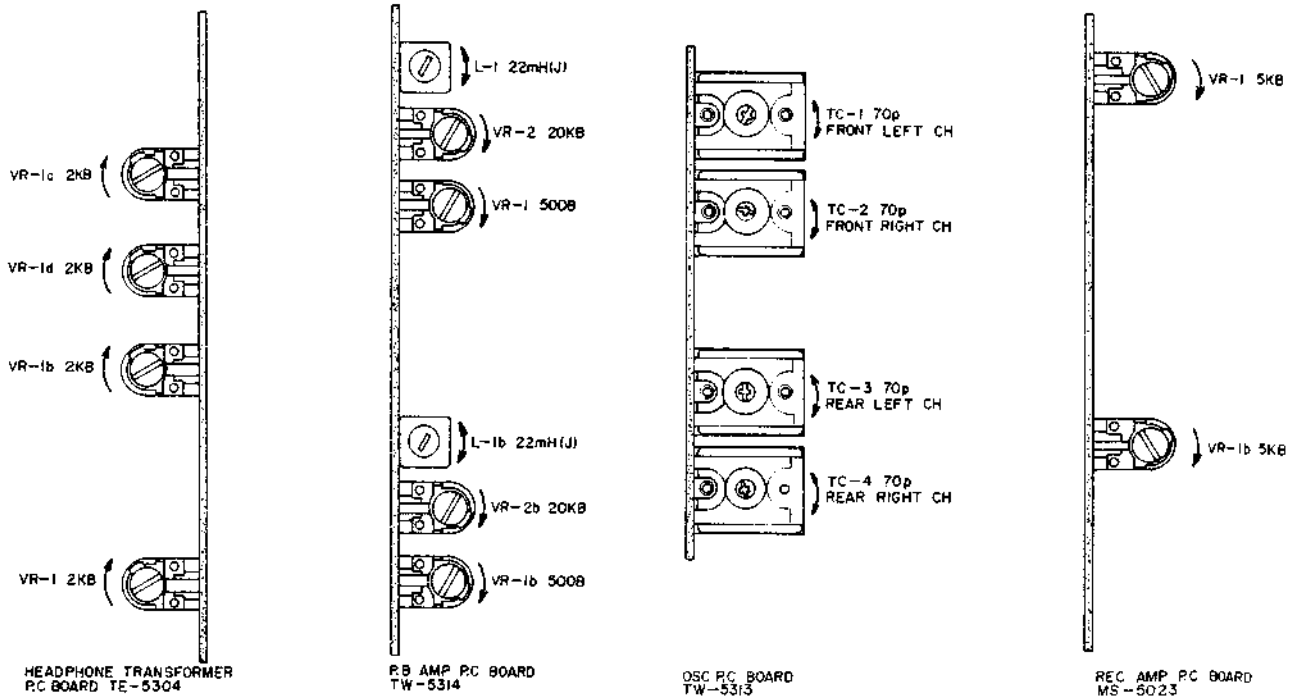
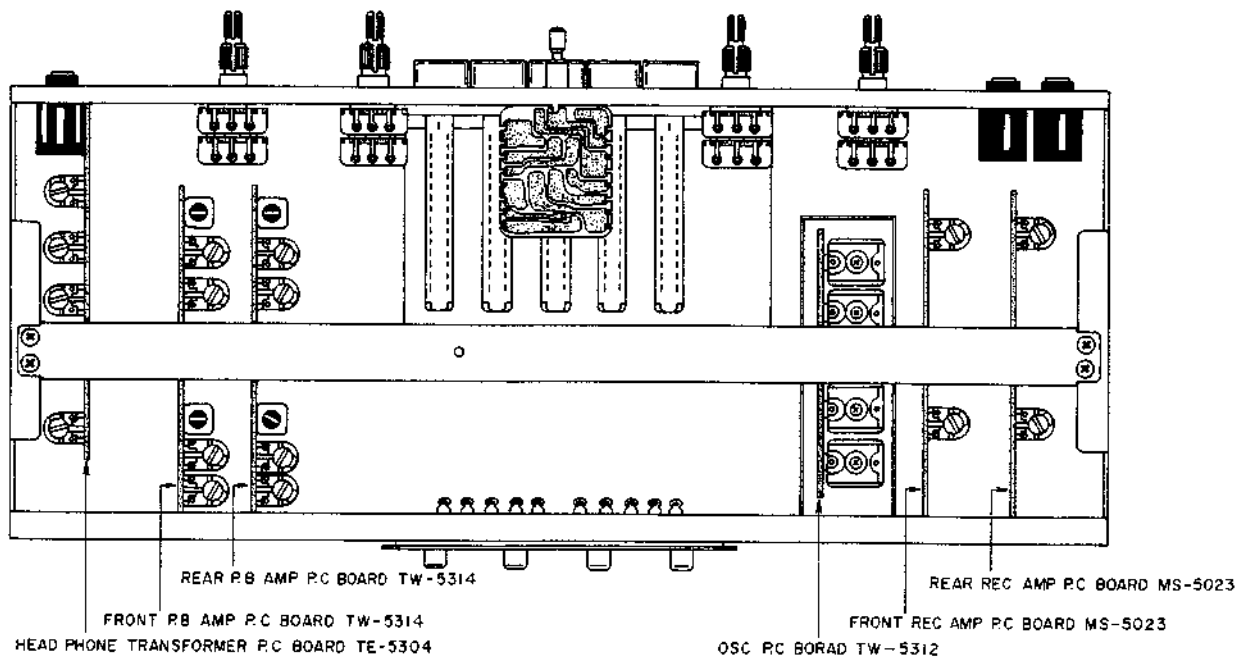


Fig. 4 BOTTOM VIEW

Step	Adjustment Item	Test Tape Supply Signal	Mode	Adjustment Point	Result	Remarks
1	DC Power Supply Voltage Adjustment	None	STOP	VR-1 1 kB (TE-2002)	24V	Measure at terminal (6) of Relay P.C Board
2	DC Power Supply Voltage Adjustment	None	REC	VR-3 1 kB (TE-2301)	24V	Measure at TR-7 Emitter of Servo P.C Board Quadra-Sync ON
3	DC Power Supply Voltage Adjustment	None	PLAY	VR-4 500B (TE-2301)	24V	Measure at TR-7 Emitter of Servo P.C Board
4	Tape Speed Adjustment (7-1/2 ips)	1,000 Hz 7-1/2 ips test tape	PLAY	VR-1 10 kB (TE-2301)	1,000 Hz $\pm 0.7\%$	See Note-1
5	Tape Speed Adjustment (3-3/4 ips)	1,000 Hz 7-1/2 ips test tape	PLAY	VR-2 30 kB (TE-2301)	500 Hz $\pm 0.7\%$	See Note-1
6	Playback Level Adjustment	700 Hz 7-1/2 ips 0VU tape	PLAY	VR-2 20 kB (TW-5314)	0 ± 1.0 dB (0.775V)	Quadra-Sync OFF
7	Playback Level Adjustment	700 Hz 7-1/2 ips 0VU tape	PLAY	VR-1 500B (TW-5314)	0 ± 1.0 dB (0.775V)	Quadra-Sync ON
8	VU Meter Sens Adjustment	700 Hz 7-1/2 ips 0VU tape	PLAY	VR-1 2 kB (TE-5304)	0 VU	
9	Recording Level Adjustment	SCOTCH #211 tape, 0 VU recording	REC	VR-1 5 kB (MS-5023)	0 ± 1.5 dB (0.775V)	
10	Frequency Response Adjustment	SCOTCH #211 tape, 1,000 Hz & 10,000 Hz -20 VU recording	REC	TC-1 to TC-4 70P (TW-5313) See Fig-5	1,000 Hz to 10,000 Hz flat	Tape Selector "Low NOISE" Tape Speed "3-3/4 ips"
11	Bias Leak Adjustment	None	REC	L-1 22 mH(J) (TW-5314)	Less than -20 VU	

Chart 2

Note-1 If specified tape speed cannot be obtained, readjust by slightly lowering the DC power supply voltage adjusted to 24 volt in Step 3.

V. DC RESISTANCE OF VARIOUS COILS

Part	Designation	DC Resistance
Main Motor	SCM2-24KJ	Between BLU-RED 100 ohm Between YLW-GRN 180 ohm Pick up Coil 635 ohm
Reel Motor	24XO-TD	Between RED-BLU 72 ohm Between YLW-GRN 160 ohm
Pinch Roller Solenoid	1660 THT3	700 ohm
Brake Solenoid	1240 PHT3	900 ohm
Relay	MY4-02-US-24DC	700 ohm
Relay	LC1-C-J1DC-24V	1,150 ohm
Relay	TECK-36	1,000 ohm
Headphone Output Transformer	N19-5921S	Primary 230 ohm $\pm 15\%$ Secondary 0.9 ohm $\pm 15\%$
Oscillator Coil	OT-204	Between 1 - 3 0.3 ohm Between 4 - 6 0.7 ohm Between 7 - 9 8.2 ohm
Erase Head	E4-260	3.5 ohm
Recording Head	R4-285	13 ohm
Playback Head	P4-280	350 ohm

Chart 3

NOTE: The resistance values shown in this chart are average values.

VI. CLASSIFICATIONS OF VARIOUS P.C BOARDS

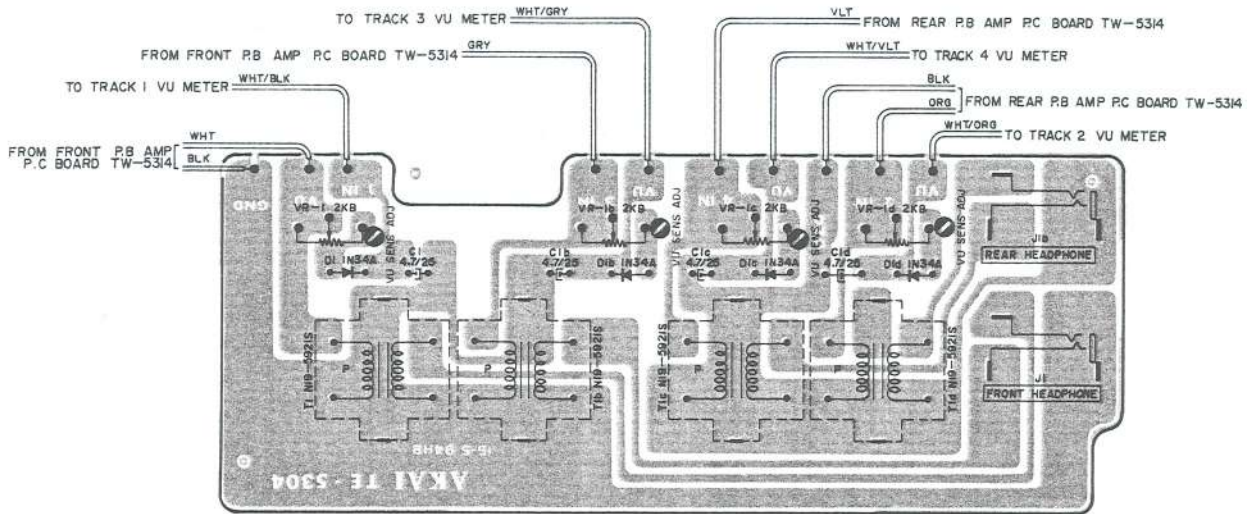
1. P.C BOARD INTERCHANGEABILITY CHART

P.C Board	GX-630D-SS	GX-630D	GX-630DB
Sys. Con P.C Board	TE-2001	TE-2001	TE-2001
Relay P.C Board	*TE-2002	TE-2002	TE-2002
Servo P.C Board	TE-2301	MY-2036 2ED	MY-2036 2ED
Speed Switch P.C Board		TE-5001	TE-5001
Rec Mode P.C Board		TE-5003	TE-5003
Headphone Trans P.C Board	TE-5304		
Output Volume P.C Board	TE-5305		
Equalizer P.C Board	TE-5307		
Rec Amp P.C Board	MS-5023 2ED	*MY-5016 3ED	MY-5016 3ED
Playback Amp P.C Board	TE-5314 2ED	MY-5017	MY-5017
Osc P.C Board	TW-5313 2ED		
Selector P.C Board	TW-5311 A,B		
Dummy P.C Board	TW-5315		
Transistor P.C Board	KJ-2049	KJ-2049	KJ-2049
SRT P.C Board		*TD-5201	TD-5201
Dolby N.R. P.C Board			TD-5301 4ED
Jack Plate P.C Board		LE-5622	LE-5622

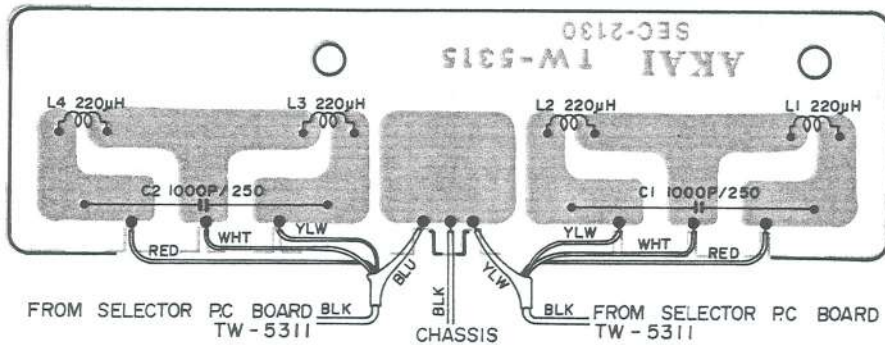
Chart 4

NOTE: *Not interchangeable.

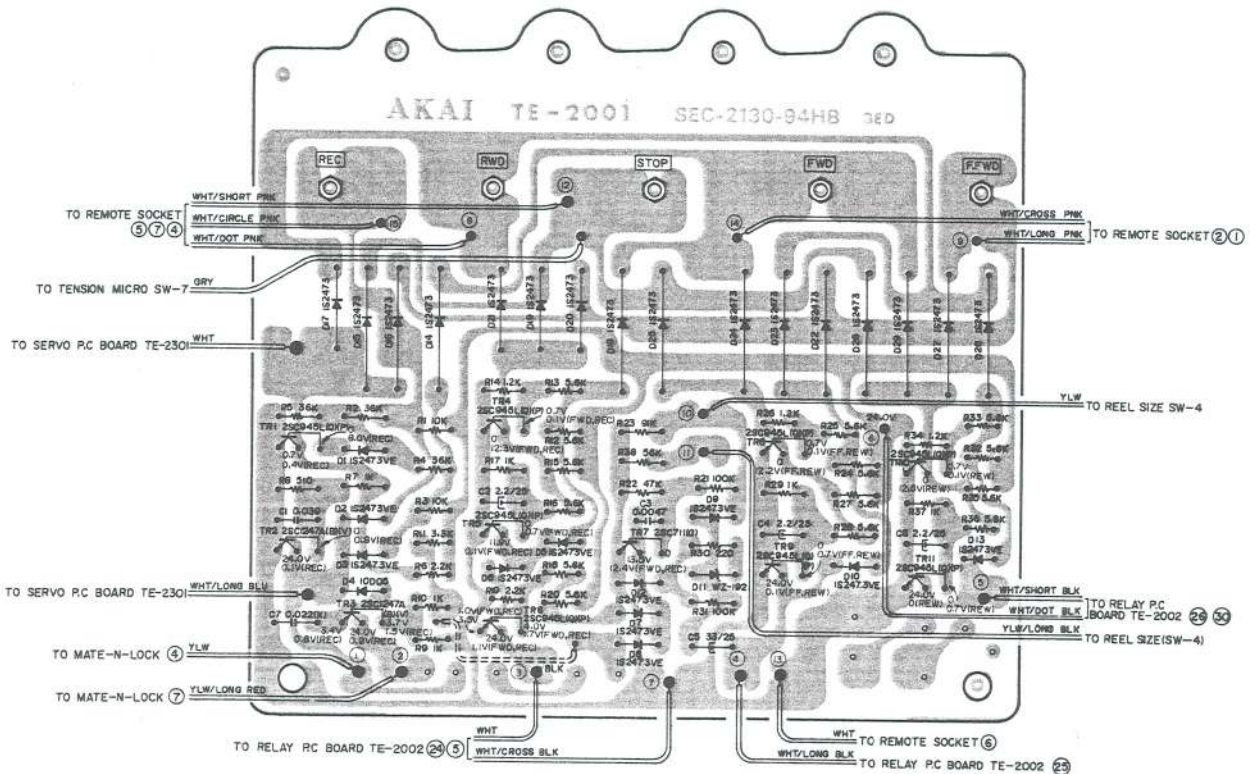
(6) HEADPHONE P.C BOARD TE-5304



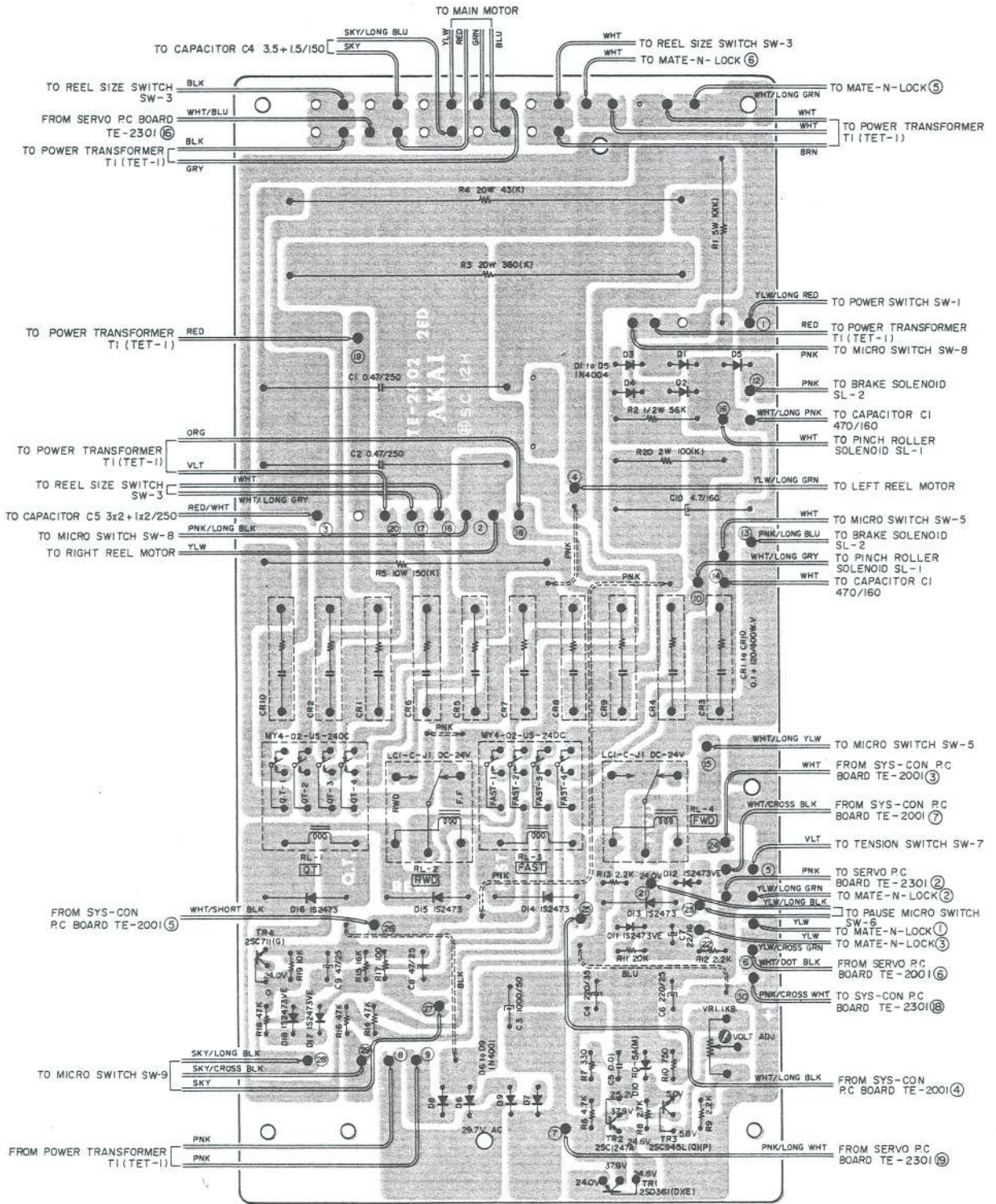
(7) DUMMY P.C BOARD TW-5315



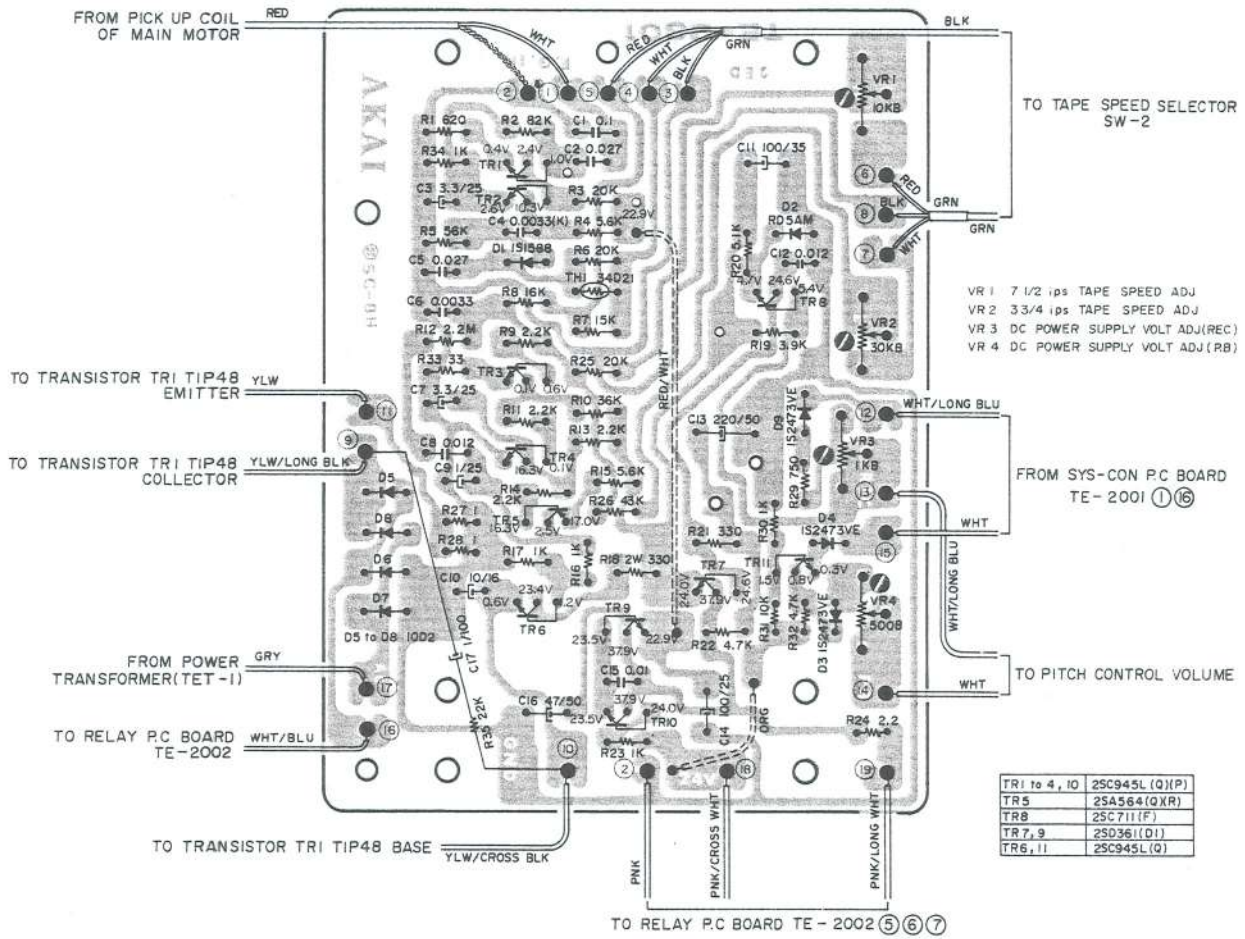
(8) SYS. CON. P.C BOARD TE-2001



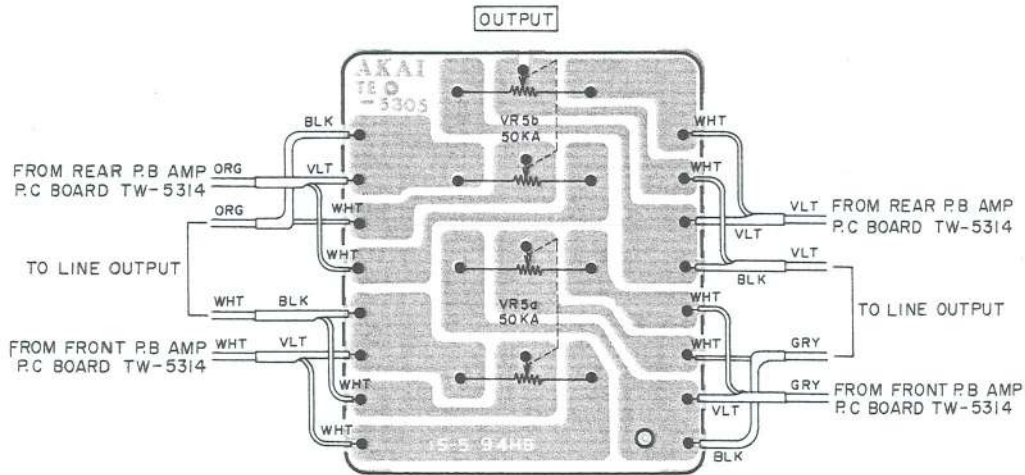
(9) RELAY P.C BOARD TE-2002



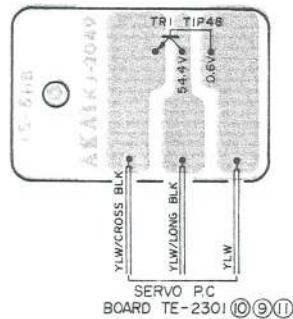
(10) SERVO P.C BOARD TE-2301



(11) OUTPUT VOL P.C BOARD TE-5305



(12) TRANSISTOR P.C BOARD KJ-2049



SECTION 2

PARTS LIST

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Some of the parts in this parts list are only available as a complete assembly, and can not be supplied as individual parts.

1) HEAD BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
1-1x	BH660690	Head Block Comp.	TE 3	1
1-2x	HZ653782	Head Base	TE-0301	1
1-3x	HZ803597	Tape Guide A	RD 3	2
1-4x	ZS413201	Screw, pan head 4x8		5
1-5x	MH578957	Tape Guide Prop	TD 0003	1
1-6x	ZW273756	Nut M3		2
1-7x	ZG466312	Agnel Adjust Spring E	RS-0018	7
1-8x	HZ532710	Tape Guide B	TW 0006	1
1-9x	HZ532686	Head Base Prop A	TW 0003	1
1-10x	ZW273914	Spring Washer M4		3
1-11x	EC290531	VFM/C. 100PF(K) 50WV	24-6 2	2
1-12x	HZ653793	Head Hanger Plate	TE-0302	1
1-13x	HP513281	PB. HEAD P4-280		1
1-14x	HZ532776	Shield Case	TW 0011	1
1-15x	ZS201475	Screw, pan head 2x3		8
1-16x	HZ532765	PH Retaining Base	TW-0010	2
1-17x	ZS608477	Screw, pan head 3x4		8
1-18x	ZW413256	Washer (SPC) D3.4x7.8x0.5t		5
1-19x	ZS608512	Screw, pan head 3x13		12
1-20x	HR565672	REC. HEAD R4-285		1
1-21x	HA533597	RH Angle	TW-0201	1
1-22x	HE563220	ERASE HEAD E4-260		2
1-23x	HA549944	REH Angle	TW-0301	1
1-24x	HZ653580	EH Mt. Table	TE 0303	1
1-25x	ZG540584	Angle Adjust Spring G	TW-0025	6
1-26x	HA533608	EH Angle	TW-0202	1
1-27x	HZ532732	CH Retaining Base	TW-0008	1
1-28x	EJ328320	Nylon Clip HP-5N	2-7 39	1
1-29x	ZS355522	Screw, pan head 3x6		1
1-30x	ZS201778	Screw, pan head 4x8		3
1-31x	ZW273914	Spring Washer M4		3
1-32x	EA382713	Head Connector P.C Board	RD A 8	1
1-33x	EA441685	Terminal P.C Board, 18P	KF-1003	1

2) P.C BOARDS

(1) P.B P.C BOARD (TW-5314) BLOCK

Symbol No.	Parts No.	Description	Q'ty
(1)-1	BA565740	P.B P.C Board Comp. (TW-5314)	1
(1)-IC1	EI412413	IC, Line Amp. LD-3141	2
(1)-TR1,2	ET234854	Transistor 2SC458LG(C)	4
(1)-TR3	ET398711	Transistor 2SC945(Q)(R)	2
(1)-L1	EO346230	Inductor RX 22MH	2
(1)-L2	EO244012	Ferri Inductor FL9H 22MH(J)	2
(1)-VR1	EV497711	Semi-fixed/Vol. V10K8-1.5(4US) 500ΩB	2
(1)-VR2	EV497698	Semi-fixed/Vol. V10K8-1.5(4US) 20kΩ	2
(1)-2	EA496258	Inductor P.C Board (KD-A5225)	2
Capacitor, Vertical Type			
(1)-C1	EC290520	VFM 100PF(J) 50WV	2
(1)-C2	EC432810	Elect. 10μF 16WV NL	2
(1)-C3	EC290520	VFM 100PF(J) 50WV	2
(1)-C4	EC329771	Elect. 47μF 6.3WV	2
(1)-C5	EC250841	Mylar 0.01μF(J) 50WV	2
(1)-C6	EC336216	VFM 330PF(J) 50WV	2
(1)-C7	EC290520	VFM 100PF(J) 50WV	2
(1)-C8	EC450055	Elect. 1μF 25WV	2
(1)-C9	EC329771	Elect. 47μF 6.3WV	2
(1)-C10	EC476965	Elect. 47μF 25WV NL	2
(1)-C11	EC336126	Elect. 47μF 25WV	2
(1)-C12	EC329850	VFM 220PF(J) 50WV	2
(1)-C13	EC290520	VFM 100PF(J) 50WV	2
(1)-C14	EC320051	Elect. 10μF 16WV	2
(1)-C15	EC329771	Elect. 47μF 6.3WV	2
(1)-C16	EC336104	Elect. 100μF 6.3WV	2
(1)-C17	EC220994	Elect. 10μF 25WV	2
(1)-C18	EC450055	Elect. 1μF 25WV	2
(1)-C19,20	EC220994	Elect. 10μF 25WV	4
(1)-C21	EC310792	VFM 120PF(J) 50WV	2

Carbon Resistor Omitted

(2) REC P.C BOARD (MS-5023) BLOCK

Symbol No.	Parts No.	Description	Q'ty
(2)-1	BA660835	Rec P.C Board Comp. (MS-5023)	1
(2)-TR1,2,3	ET234854	Transistor 2SC458LG(C)	6
(2)-TR4	ET453486	Transistor 2SC711(E)(F)	2
(2)-TR5	ET446736	Transistor 2SC968(2)(3)	2
(2)-L1	EO243977	Ferri Inductor FL7H 1MH(J)	2
(2)-VR1	EV497700	Semi-fixed/Vol. V10K8-1.5(4US) 5kΩ	2
Capacitor, Vertical Type			
(2)-C1	EC432810	Elect. 10μF 16WV NL	2
(2)-C2	EC383501	Mylar 0.001μF(M) 50WV	2
(2)-C3	EC329771	Elect. 47μF 6.3WV	2
(2)-C4	EC399690	VFM 33PF(J) 50WV	2
(2)-C5	EC290531	VFM 100PF(K) 50WV	2
(2)-C6	EC320051	Elect. 10μF 16WV	2
(2)-C7	EC329771	Elect. 47μF 6.3WV	2
(2)-C8	EC476965	Elect. 47μF 25WV NL	2
(2)-C9	EC336126	Elect. 47μF 25WV	2
(2)-C10	EC320051	Elect. 10μF 16WV	2
(2)-C11	EC290531	VFM 100PF(K) 50WV	2
(2)-C12	EC329771	Elect. 47μF 6.3WV	2
(2)-C13	EC220994	Elect. 10μF 25WV	2
(2)-C14	EC336104	Elect. 100μF 6.3WV	2
(2)-C15	EC368370	Mylar 0.15μF(J) 50WV	2
(2)-C16	EC333562	Mylar 0.18μF(K) 50WV	2
(2)-C17	EC320051	Elect. 10μF 16WV	2
(2)-C18	EC423033	VFM 680PF(K) 50WV	2
(2)-C19	EC220994	Elect. 10μF 25WV	2
(2)-C20	EC250841	Mylar 0.01μF(J) 50WV	2
(2)-C21	EC427948	FM 10PF(J) 50WV	2

Carbon Resistor Omitted

(3) OSC P.C BOARD (TW-5313) BLOCK

Symbol No.	Parts No.	Description	Q'ty
(3)-1	BA663524	Osc P.C Board Comp. (TW-5313)	1
(3)-TR1,2,3	ET520288	Transistor 2SC1247A(V)	3
(3)-D1	ED224526	Silicon Diode 10D1	1
(3)-D1to3	ED515790	Silicon Diode WG-713	3
(3)-RL1,2	EP315461	Relay TECK-19 1500Ω	2
(3)-TC1to4	EC425250	Trimmer/C A-1P3-3 70PF	4
(3)-L1	EO383365	Osc Coil OT-204	1
(3)-L2to5	EO424866	Ferri Inductor FL7H 1.2MH(J)	4
(3)-R3	ER427972	Metal Oxide Film/R 2W 68Ω(K)	1
Capacitor, Vertical Type			
(3)-C1,2	EC250841	Mylar 0.01μF(J) 50WV	2
(3)-C3	EC220678	Elect. 47μF 25WV	1
(3)-C4	EC346522	Plastic Film 2200PF(J) 500WV	1
(3)-C5to8	EC379765	Mylar 0.0027μF(J) 50WV	4
(3)-C9	EC350684	Elect. 22μF 25WV	1
(3)-C10,11	EC336126	Elect. 47μF 25WV	2
(3)-C12,13	EC220151	Elect. 100μF 25WV	2
(3)-C14,15	EC476324	VFM 30PF(J) 50WV	2

Carbon Resistor Omitted

When ordering parts, please describe Parts Number, Serial Number, and Model Number in detail.

(4) EQ P.C BOARD (TE-5307) BLOCK

Symbol No.	Parts No.	Description	Q.ty
(4)-1	BA660791	EQ P.C Board Comp. (TE-5307)	1
(4)-SW1,2	ES654693	Slide SW. CL-106B34	2
(4)-2	MZ653668	Eq P.C Board Holder	1
(4)-3	ZS325495	Tapping Screw #2 3x6	1
Capacitor, Vertical Type			
(4)-C1	EC368357	Mylar 0.056 μ F(J) 50WV	4
(4)-C2	EC399734	Mylar 0.12 μ F(J) 50WV	4
(4)-C3	EC379192	Mylar 0.039 μ F(J) 50WV	4
(4)-C4	EC438041	Mylar 0.082 μ F(J) 50WV	4

(5) SELECTOR P.C BOARD (TW-5311) BLOCK

Symbol No.	Parts No.	Description	Q.ty
(5)-1	BA660778	Selector P.C Board Comp. (TW-5311)	1
(5)-TR1	ET515880	Transistor 2SA696(C)(D)	1
(5)-TR2to5	ET453486	Transistor 2SC711(E)(F)	5
(5)-D1,2	ED494583	Silicon Diode 10D05	2
(5)-D8	ED384096	Zener Diode RD-9A	1
(5)-SW1	ES565536	Push SW. 5FST-50U-773-3	1
(5)-L1to4	EO575482	Ferri Inductor FL7H	4
(5)-2	EZ638932	Jumper Wire, P.C Board	4
(5)-3	MZ653670	SW. Table	1
(5)-4	ZS422076	Screw, pan head 3x5	2
Capacitor, Vertical Type			
(5)-C1to4	EC302297	Mylar 0.018 μ F(K) 50WV	4
(5)-C8	EC220612	Elect. 33 μ F 25WV	1
(5)-C9	EC220994	Elect. 10 μ F 25WV	1
(5)-C10	EC220612	Elect. 33 μ F 25WV	1
(5)-C11	EC220994	Elect. 10 μ F 25WV	1
(5)-C12	EC220612	Elect. 33 μ F 25WV	1
(5)-C13	EC220994	Elect. 10 μ F 25WV	1
(5)-C16	EC220612	Elect. 33 μ F 25WV	1
(5)-C17	EC220994	Elect. 10 μ F 25WV	1

Carbon Resistor Omitted

(6) HEADPHONE P.C BOARD (TE-5304) BLOCK

Symbol No.	Parts No.	Description	Q.ty
(6)-1	BA660780	Headphone P.C Board Comp.	1
(6)-D1	ED219464	Germanium Diode 1N34A	4
(6)-J1	EJ654456	2-through Jack C	1
(6)-T1	BT247768	Headphone Trans. N19-5921S	4
(6)-VR1	EV498060	Semi-fixed/Vol V10K8-1-5	4
(6)-C1	EC450527	Elect. 4.7 μ F 25WV (Vert Type)	4

(7) DUMMY P.C BOARD (TW-5315) BLOCK

Symbol No.	Parts No.	Description	Q.ty
(7)-1	BA663221	Dummy P.C Board Comp. (TW-5315)	1
(7)-L1to4	EO679634	Ferri Inductor FL9H	4
(7)-2	EZ549808	Dummy P.C Board Angle	1
(7)-3	ZS323728	Screw, Binding head 3x5	2
(7)-4	EZ614586	Fuse Table MY	1
(7)-C1,2	EC565560	Plastic Film/C 1000PF(J)	2

(8) SYS. CON. P.C BOARD (TE-2001) BLOCK

Symbol No.	Parts No.	Description	Q.ty
(8)-1	BA663118	Sys. Con. P.C Board Comp. (TE-2001)	1
(8)-TR1	ET639437	Transistor 2SC945L(Q)(P)	1
(8)-TR2,3	ET511920	Transistor 2SC1247A(B)(V)	2
(8)-TR4to6	ET639437	Transistor 2SC945L(Q)(P)	3
(8)-TR7	ET399870	Transistor 2SC711(G)	1
(8)-TR8to11	ET639437	Transistor 2SC945L(Q)(P)	4
(8)-D1to3	ED560913	Silicon Diode 1S2473 VE	3
(8)-D4	ED494583	Silicon Diode 10D05	1
(8)-D5to10	ED560913	Silicon Diode 1S2473 VE	6
(8)-D11	ED498150	Zener Diode WZ-192	1
(8)-D12,13	ED560913	Silicon Diode 1S2473 VE	2
(8)-D14to29	ED624903	Silicon Diode 1S2473	16
(8)-2	ZS609298	Screw, flat fillister head	5
(8)-3	ZW273802	Toothed Lock Washer M3	5
(8)-4	ZW273756	Nut M3	5
Capacitor Vertical Type			
(8)-C1	EC459505	Mylar 0.039 μ F(K) 50WV	1
(8)-C2	EC350684	Elect. 22 μ F 25WV	1
(8)-C3	EC362158	Mylar 0.0047 μ F(K) 50WV	1
(8)-C4	EC350684	Elect. 22 μ F 25WV	1
(8)-C5	EC220612	Elect. 33 μ F 25WV	1
(8)-C6	EC350684	Elect. 22 μ F 25WV	1
(8)-C7	EC251087	Mylar 0.022 μ F(K) 50WV	1

Carbon Resistor Omitted

(9) RELAY P.C BOARD (TE-2002) BLOCK

Symbol No.	Parts No.	Description	Q.ty
(9)-1	BA663131	Relay P.C Board Comp. (TE-2002)	1
(9)-TR1	ET537300	Transistor 2SD361(D)(E)	1
(9)-TR2	ET511920	Transistor 2SC1247A(B)(V)	1
(9)-TR3	ET639437	Transistor 2SC945L(Q)(P)	1
(9)-TR4	ET517353	Transistor 2SC711(E)(G)	1
(9)-D1to5	ED570273	Silicon Diode 1N4004	5
(9)-D6to9	ED511097	Silicon Diode 1N4001	4
(9)-D10	ED357794	Zener Diode RD-5A(M)	1
(9)-D11,12	ED560913	Silicon Diode 1S2473 VE	2
(9)-D13to16	ED624903	Silicon Diode 1S2473	4
(9)-D17,18	ED560913	Silicon Diode 1S2473 VE	2
(9)-CR1to10	ER450786	Spark Quencher U/L 0.1 μ +120 Ω 400WV	10
(9)-BR1	EV498071	Semi-fixed/Vol V10K8-1-5 1kB	1
(9)-RL1	EP616500	Relay LC1-C-JT DC24V	1
(9)-RL2	EP638763	Relay MY4-0-US DC24V	1
(9)-RL3	EP616500	Relay LC1-C-JT DC24V	1
(9)-RL4	EP638763	Relay MY4-0-US DC24V	2
(9)-2	EZ640462	Relay P.C Board Retaining	Parts 1
(9)-3	ZS325495	Tapping Screw #2 3x6	6
(9)-4	EZ640642	Relay P.C Board Retaining	Parts B 1
(9)-5	ZS421806	Screw, pan head 3x8	1
(9)-6	ZW516993	Nut M3	1
(9)-R1	ER535948	Cement/R 5W 10 Ω (K) (Wire-wound Type)	1
(9)-R3	ER664773	Cement/R 20W 360 Ω (K) (Wire-wound Type)	1
(9)-R4	ER641261	Cement/R 20W 43 Ω (K) (Wire-wound Type)	1
(9)-R5	ER573524	Cement/R 10W 150 Ω (K) (Wire-wound Type)	1
(9)-R20	ER372082	Cement/R 2W 100 Ω (K) (Wire-wound Type)	1
Capacitor, Vertical Type			
(9)-C1,2	EC350987	MP 0.47 μ F(M) 250V AC (Tub. Type)	2
(9)-C3	EC565345	Elect. 1000 μ F 50WV	1
(9)-C4	EC372148	Elect. 220 μ F 35WV	1
(9)-C5	EC250918	Mylar 0.01 μ F(M) 50WV	1
(9)-C6	EC313121	Elect. 220 μ F 25WV	1
(9)-C7	EC331705	Elect. 22 μ F 16WV	1
(9)-C8,9	EC220678	Elect. 47 μ F 25WV	2
(9)-C10	EC646031	Elect. 4.7 μ F 160WV (Tub. Type)	1

Carbon Resistor Omitted

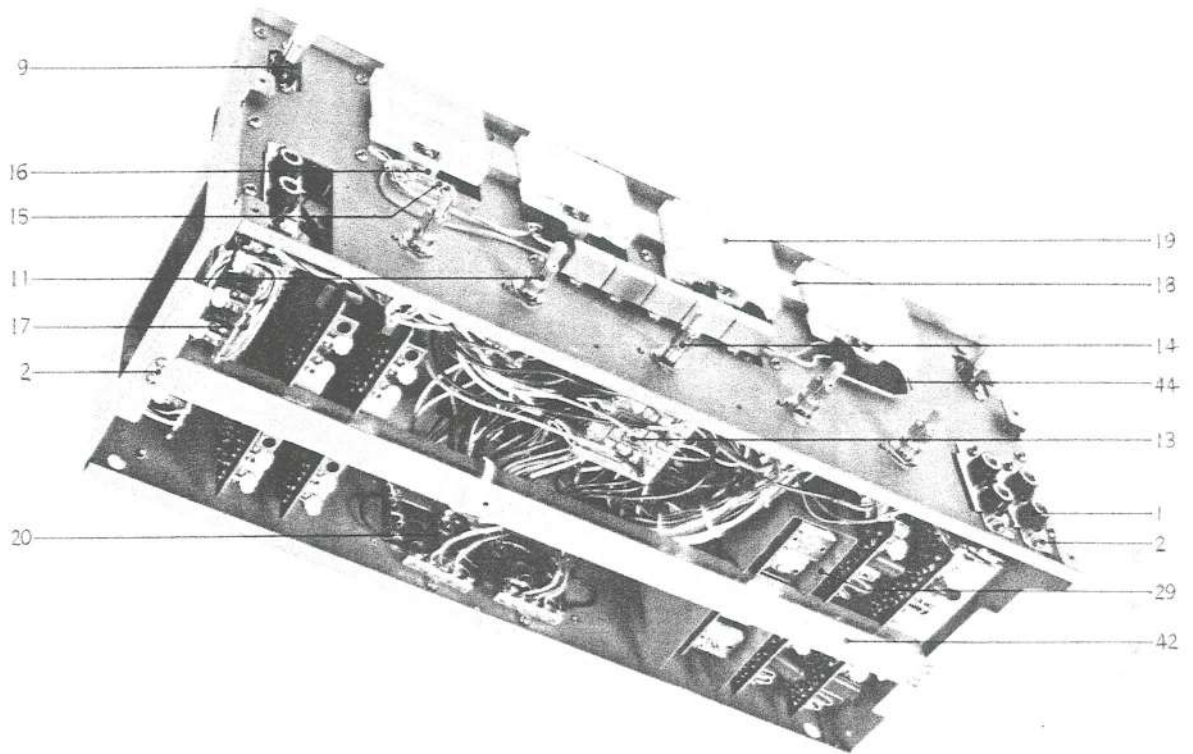
(10) SERVO P.C BOARD (TE-2301) BLOCK

Symbol No.	Parts No.	Description	Q.ty
(10)-1	BA660688	Servo P.C Board Comp. (TE-2301)	1
(10)-TR1to4	ET639437	Transistor 2SC945L(Q)(P)	4
(10)-TR5	ET538154	Transistor 2SA564(Q)(P)	1
(10)-TR6	ET399846	Transistor 2SC945(Q)	1
(10)-TR7	ET623867	Transistor 2SD361(D1)(D2)	1
(10)-TR8	ET399881	Transistor 2SC711(F)	1
(10)-TR9	ET623867	Transistor 2SD361(D1)(D2)	1
(10)-TR10	ET399846	Transistor 2SC945(Q)	1
(10)-D1	ED557447	Silicon Diode 1S1588	1
(10)-D2	ED357794	Zener Diode RD-5A(M)	1
(10)-D3,4	ED560913	Silicon Diode 1S2473 VE	2
(10)-D5to8	ED224548	Silicon Diode 10D2	4
(10)-D9	ED560913	Silicon Diode 1S2473 VE	1
(10)-TH1	ED593357	Thermister 34D21	1
(10)-VR1	EV621955	Semi-fixed/Vol V10K8-1-5 B10K	1
(10)-VR2	EV621966	Semi-fixed/Vol. V10K8-1-5 B30K	1

Symbol No.	Parts No.	Description	Q.ty
(10)-VR3	EV498071	Semi-fixed/Vol. V10K8-1-5 (4US) 1kB	1
(10)-VR4	EV497711	Semi-fixed/Vol. V10K8-1-5 (4US) 500 Ω B	1
(10)-2	EZ615047	Heat-sink Plate A	1
(10)-3	ZS421806	Screw, pan head 3x8	1
(10)-4	ZW273756	Nut M3	1
(10)-5	ZS422076	Screw, pan head 3x5	6
(10)-6	EZ615060	P.C Board Holder B	1
(10)-7	EZ615071	P.C Board Holder C	1
Capacitor, Vertical Type			
(10)-C1	EC251291	Mylar 0.1 μ F(K) 50WV	1
(10)-C2	EC251122	Mylar 0.027 μ F(K) 50WV	1
(10)-C3	EC331828	Elect. 3.3 μ F 25WV	1
(10)-C4	EC250582	Mylar 0.003 μ F(K) 50WV	1
(10)-C5	EC251122	Mylar 0.027 μ F(K) 50WV	1
(10)-C6	EC250582	Mylar 0.0033 μ F(K) 50WV	1
(10)-C7	EC557166	Solid Aluminum 3.3 μ F 25WV	1
(10)-C8	EC250964	Mylar 0.012 μ F(K) 50WV	1
(10)-C9	EC450055	Elect. 1 μ F 25WV	1
(10)-C10	EC320051	Elect. 10 μ F 16WV	1
(10)-C11	EC455354	Elect. 100 μ F 35WV	1
(10)-C12	EC250885	Mylar 0.01 μ F(K) 50WV	1
(10)-C13	EC337533	Elect. 220 μ F 50WV	1
(10)-C14	EC220151	Elect. 100 μ F 25WV	1
(10)-C15	EC250885	Mylar 0.01 μ F(K) 50WV	1
(10)-C16	EC346735	Elect. 47 μ F 50WV	1
(10)-C17	EC522617	Elect. 1 μ F 100WV	1

Carbon Resistor Omitted

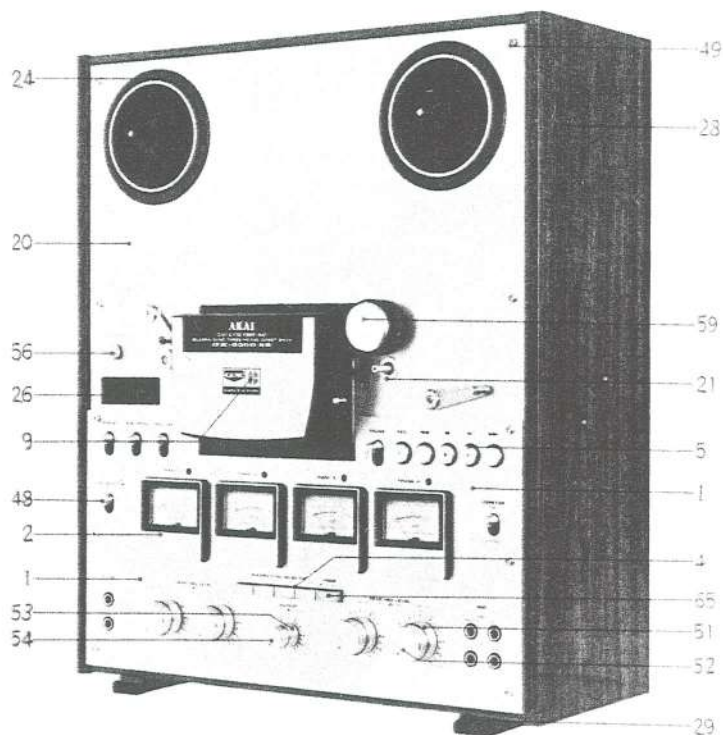
3 PHOTO OF AMP ASSEMBLY BLOCK



3) AMP ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q.ty	Ref. No.	Parts No.	Description	Schematic No.	Q.ty	
FRONT CHASSIS BLOCK					AMP ASSEMBLY BLOCK					
3-1	EJ654467	2-through Jack D	31-2-64	2	3-26x	EJ369077	Lug Plate VBL1	33-4-7	2	
3-2	ZS325495	Tapping Screw #2 3x6	TE-5319	23	3-27x	EZ653725	Amp Chassis Support	TE-5314	1	
3-3x	EZ665908	Lamp Holder		2	3-28x	MZ653736	P.C Board Support	TE-5317	1	
3-4x	ZS200676	Tapping Screw #2 (Countersunk)		4	3-29	MZ653815	OSC Shield Plate	TE-5315	1	
3-5x	EA653692	REC Lamp P.C Board	TE-5306	2	3-30x	EJ347670	Multi-Jack-3, 22P			
3-6x	ED661994	Luminous Diode SL-103	45-15-2	4			3250-022-001S	31-4-13	4	
3-7x	ZS327835	ISO Screw, Countersunk head 3x5		4	3-31x	ZS523664	Tapping Screw #2 3x10(BR)		10	
3-8x	ER392534	Carbon/R RD1/4 2k(J) (Insu. Type) 35 9 5		4	3-32x	EJ430378	Multi-Jack 14P	3252-014-001	31-4-14	1
3-9	ES641215	Lever SW S-J6398	25-12-23	2	3-33x	MZ661983	Spacer 3x18	7-2-6	4	
3-10x	ZS422076	Screw, pan head 3x5		4	3-34x	EJ482793	Multi-jack 10P	3250-010-001	31-4-21	1
3-11	EV654478	2-axial 2-throw/Vol D24N A50Kx2	36-3-63	4	3-35x	ZS608264	Screw, pan head 3x25		4	
3-12x	ER329308	Carbon/R RD1/4 47k(J) (Insu. Type) 35 9 3		4	3-36x	ZW425002	Washer (SPC) D3.1 x8x0.5t		4	
3-13	EA653681	VR P.C Board	TE-5305	1	3-37x	EJ310871	Multi-Jack (J-2) 18P	3250-018-001	31-4-11	1
3-14	EV424743	2-axial 4-throw/Vol KJ-60R 50KAx4	36-24-2	1	3-38x	EJ254913	Lug Plate KP2L2	33-3-6	1	
3-15	EA642598	Lamp P.C Board	NE-1047	4	3-39x	ER664863	Carbon/R F 1/4W 100Ω(J) (Insu. Type) 35 11-12		2	
3-16	EL621167	Pilot Lamp 5.5V 60mA	28-2-36	4	3-40x	EC220151	Elect. 100μF 25WV (Vert Type) 24-12-9		2	
3-17	BA660780	Headphone P.C Board Comp. GX-630D-SS	TE-5304	1	3-41x	ZS455207	Tapping Scree #2 3x5 (BR)		1	
3-18	EZ654737	Meter Cushion	TE-5318	1	3-42	MZ653826	Amp Card Support	TE-5316	1	
3-19	EM558180	VU Meter KL-243S-5	46-1-74	4	3-43x	EZ654423	Amp Harness A	26-6-242	1	
					3-44	SZ642802	Lamp Cover B	NE-6022	4	
REAR CHASSIS BLOCK										
3-20	BJ653703	Jack Plate SS	31-5-126	1						
3-21x	ZW411895	Hollow Rivet 3x5	7-6-6	4						
3-22x	ER213715	Carbon/R RD1/4 100K(J) (Insu. Type) 35 9 5		8						
3-23x	ER329308	Carbon/R RD1/4 47k(J) (Insu. Type) 35 9 3		4						
3-24x	EJ255115	Lug Plate VB2L2	33-4-3	2						
3-25x	SM653714	Jack Name Plate	TE-5311	1						

4 PHOTO OF FINAL ASSEMBLY BLOCK



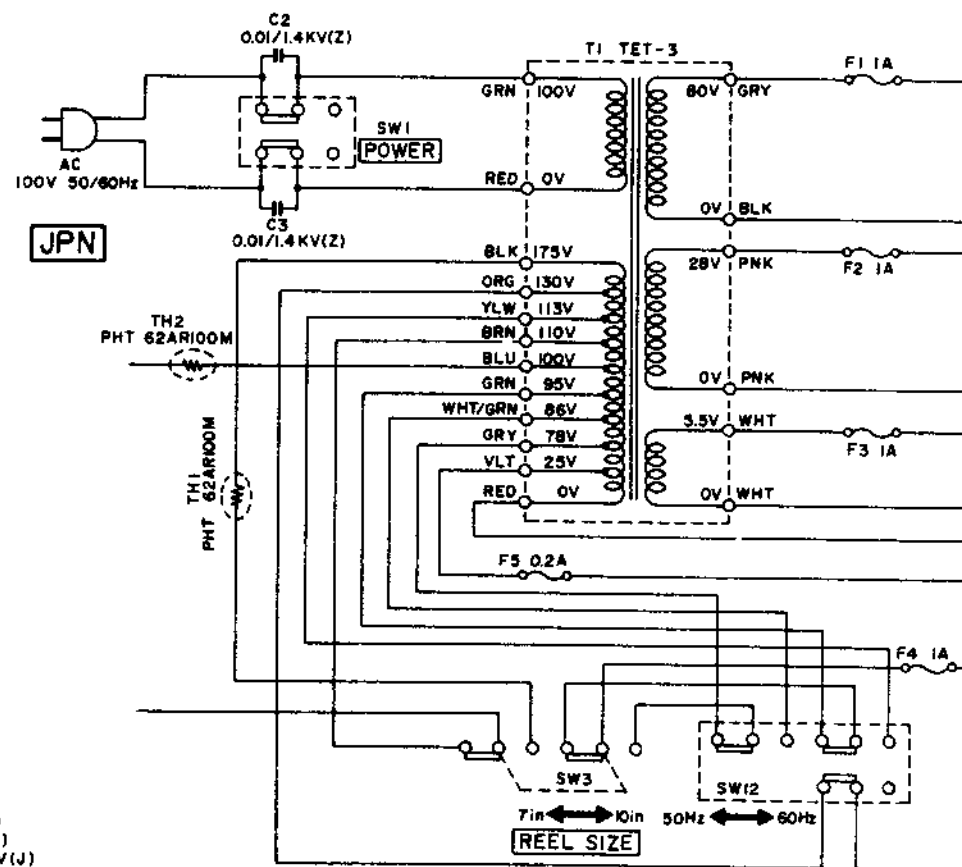
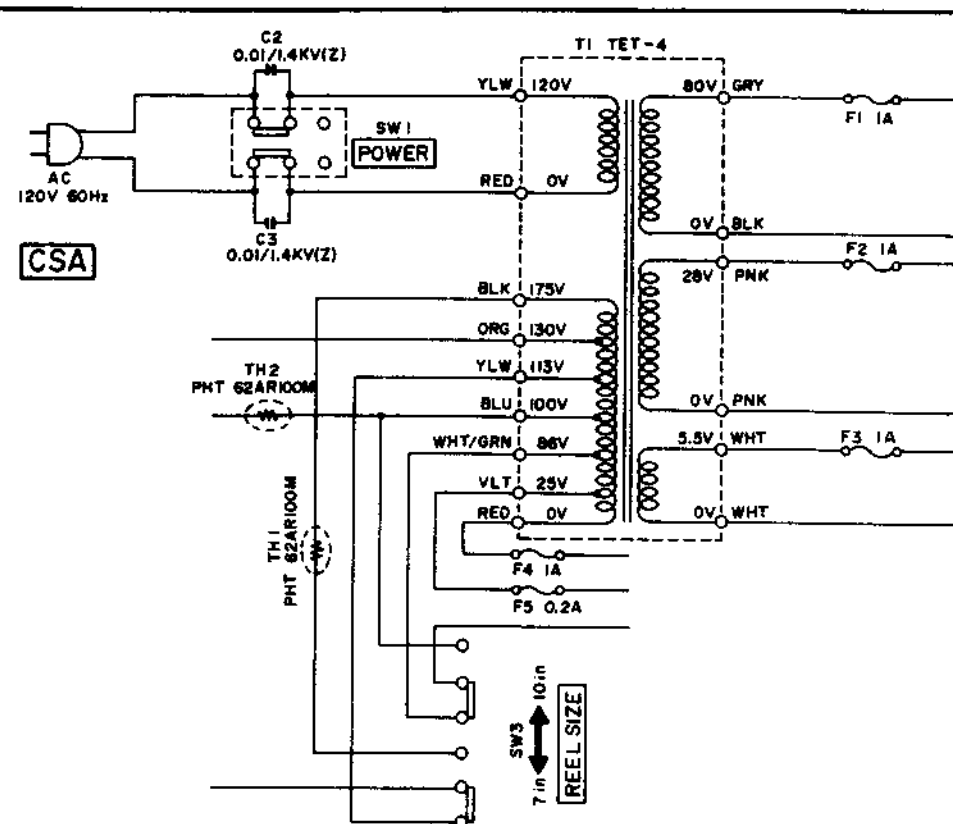
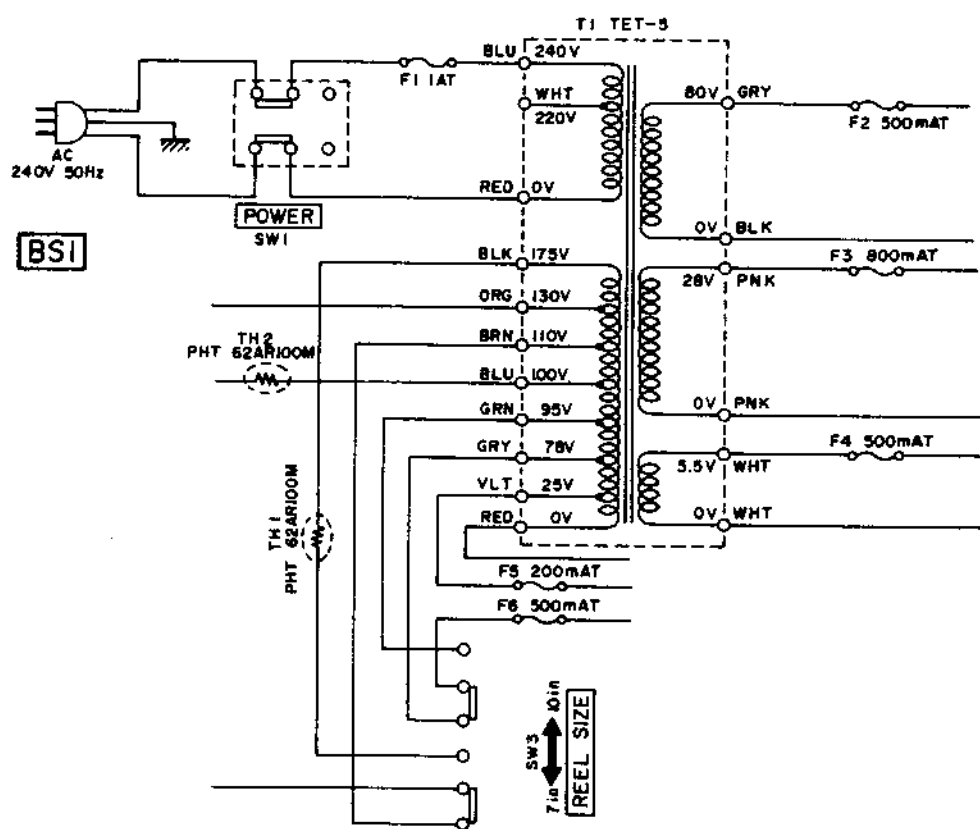
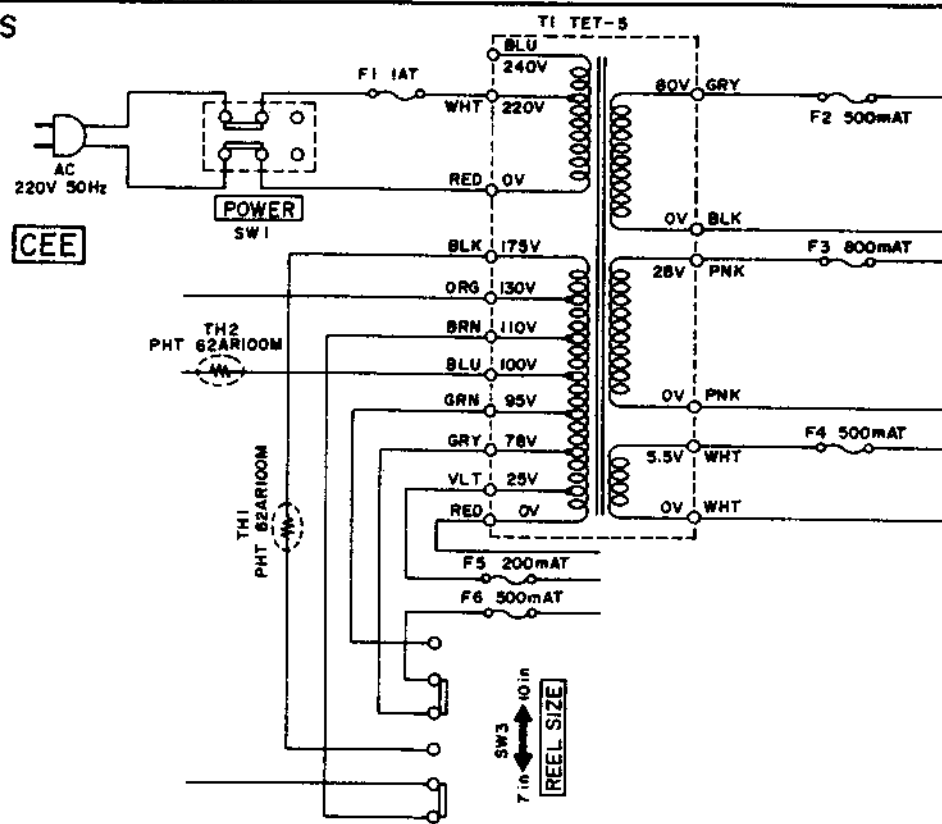
4) FINAL ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic Q.ty No.	Ref. No.	Parts No.	Description	Schematic Q.ty No.
AMP PANEL BLOCK				FINAL ASSEMBLY BLOCK			
4-1	SP653894	Amp Panel	TE 6303 1	4-33x	SP653883	Lower Side Plate A	TE 6301 1
4-2	SE642767	VU Meter Escutcheon	NE 6014 4	4-34x	SP654748	Lower Side Plate B	TE 6301 1
4-3x	ZS422076	Screw, pan head 3x5	16	4-35x	ZS325495	Tapping Screw #2 3x6	31
4-4	SE653444	Escutcheon 2	TE 6313 1	4-36x	SP641046	Upper Side Plate A	TE 6014 1
4-5	SE613866	Button Escutcheon C	CW 6016 5	4-37x	SP641057	Upper Side Plate B	TE 6014 1
HEAD COVER TABLE BLOCK				4-38x	MZ640877	Supporting Plate	TE 6016 2
4-6x	SC654726	Head Cover Base	TE 6310 1	4-39x	ZS417150	Screw, pan head 4x6	8
4-7x	SC653905	Head Cover	TE 6309 1	4-40x	SZ529920	Reinforcement Angle A	ND 6003 1
4-8x	SZ534543	Cushion Rubber C	TW 6039 2	4-41x	MZ653771	EQ Joint	TE 6302 1
4-9	SM653837	Read Cover Name Plate	TE 6311 1	4-42x	ZS432674	Screw, pan head 3x3	1
4-10x	MZ640800	Hinge Bracket	TE 6006 1	4-43x	SA428714	LM Rubber Foot, w/screw	LM 404 4
4-11x	MZ598263	Hinge Angle, w/ball sleeve	KJ 6017 1	4-44x	ZW324281	Screw, pan head 4x25	4
4-12x	MV269965	Steel Ball D4	1	4-45x	ZW419646	Washer (SPC) D4.5x9.8x0.5t	4
4-13x	ZG249107	Ball Retaining Spring	RD 632 1	4-46x	ZS665550	Screw, pan head 4x15,	
4-14x	ZW499893	Set Screw, hexagon socket 5x4 flat point	1			w/washer	2
4-15x	MS597431	Hinge Shaft	KJ 6015 1	4-47x	ZS664345	Screw, pan head 4x30,	
4-16x	SZ597420	Collar	KJ 6014 1			w/washer	4
4-17x	ZW420682	Washer (Nylon) D4.2x9x0.5t	1	4-48x	SK638976	Knob 1-C	CP 5018 4
4-18x	ZW270101	'E' Ring 3M	6 1 9 2	4-49	ZS613901	Panel Screw	CW 6031 10
4-19x	ZS323728	Screw, Binding head 3x5	4	4-50x	ZW653747	Panel Nut	TE 6305 1
MECH PANEL BLOCK				4-51	SK640923	Double Knob (Lower)	TE 6012 4
4-20	SP654568	Mech Panel SS	TE 6001 1	4-52	SK640912	Double Knob (Upper)	TE 6011 4
4-21	SE640754	Motor Escutcheon A	TE 6002 1	4-53	SK653760	Double Knob (Lower)	TE 6307 1
4-22x	MZ640787	Impedance Roller Collar	TE 6003 1	4-54	SK653758	Double Knob (Upper)	TE 6306 1
4-23x	MZ640798	Arm Collar	TE 6004 2	4-55x	ZS433001	Set Screw, hexagon socket 3x5 (cup/p.)	2
4-24	SE581602	Reel Table Escutcheon 2	TD 6021 2	4-56	SK647548	Single Knob (small)	CJ 6031 1
4-25x	ZW575730	Speed Nut (P Type) 3	6-3-6 8	4-57x	EZ653602	Speed Volume Table	TE 1301 1
4-26	SE626951	Counter Escutcheon	MY 6006 1	4-58x	EV661937	Volume V16L4N 1kΩB	36 6 17 1
CASE BLOCK				4-59	SK645300	Pinch Roller Cap	TD 6013 1
4-27x	BC660442	Case Block Comp.	TE 3 1	4-60x	ZS411660	Screw, oval countersunk head 3x6	2
4-28	BC653916	Wood Case GX-630D-SS	TE 6312 1	4-61x	EF663681	Fuse 1A 250V	39-1-50 1
4-29	SA640934	Square Foot, w/rubber	TE 6020 2	4-62x	SE627120	Ventilator	MY 6014 1
4-30x	ZS200610	Tapping Screw #1 4x12 (Truss)	4	4-63x	ZS392141	Tapping Screw #1 3x8 (Truss)	2
4-31x	SZ480712	Dust Cover Pin	LE 6024 2	4-64x	SM642396	S. NO. Plate GX-630D-SS	101072 1
4-32	SZ654715	Case Shield	TE 6319 2	4-65	SB679860	Push Button (Square)	TE 6320 5
				4-66x	SZ642802	Lamp Cover B	NE 6022 4

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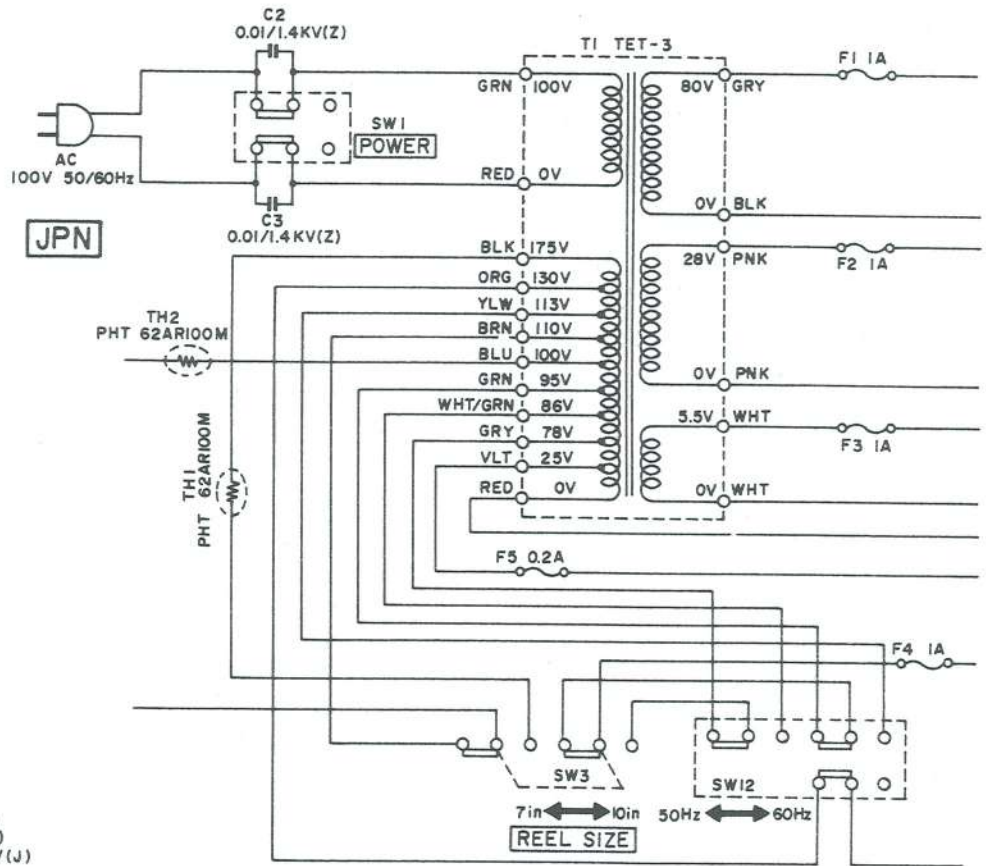
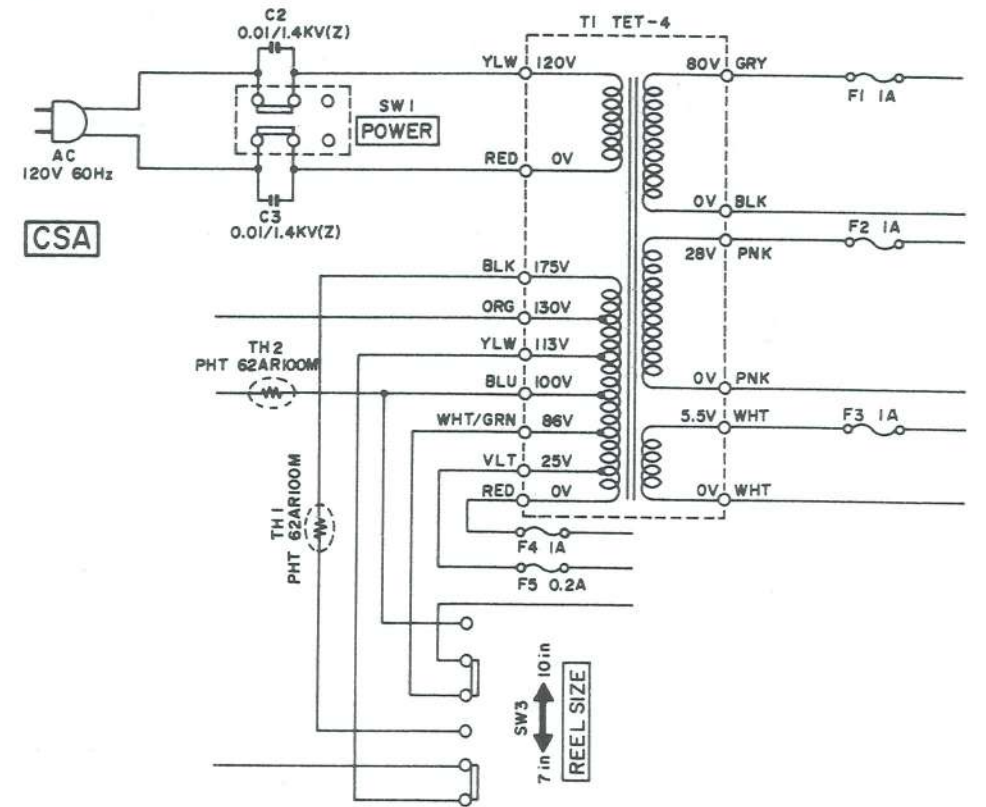
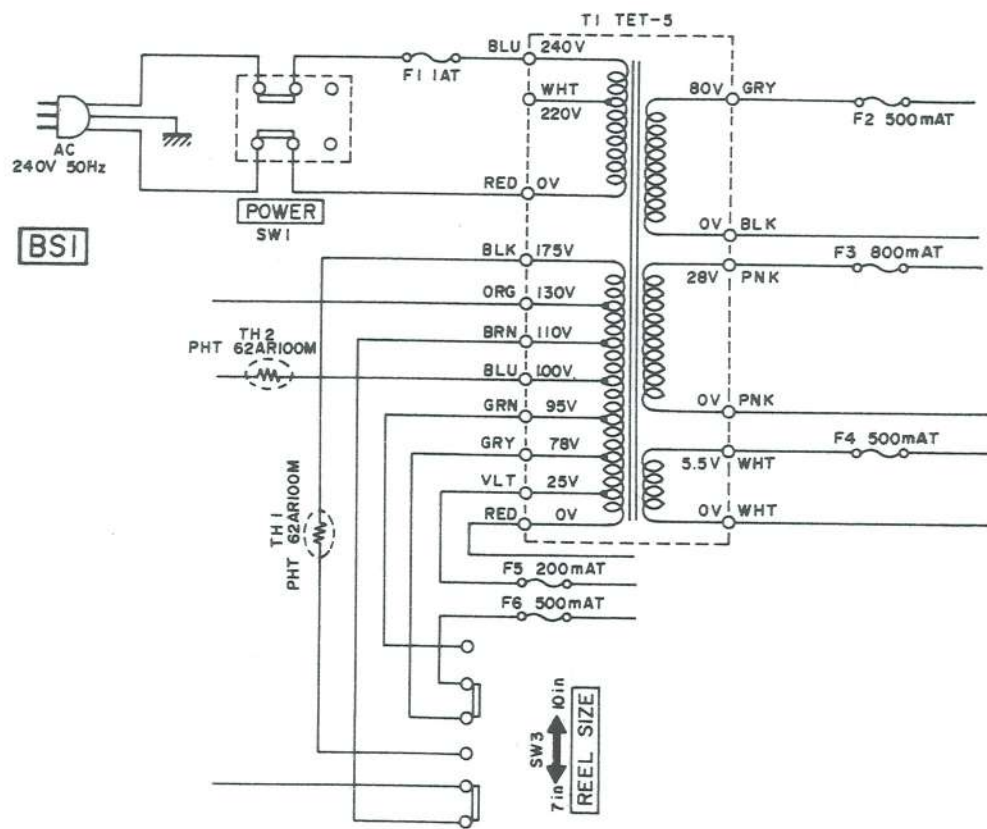
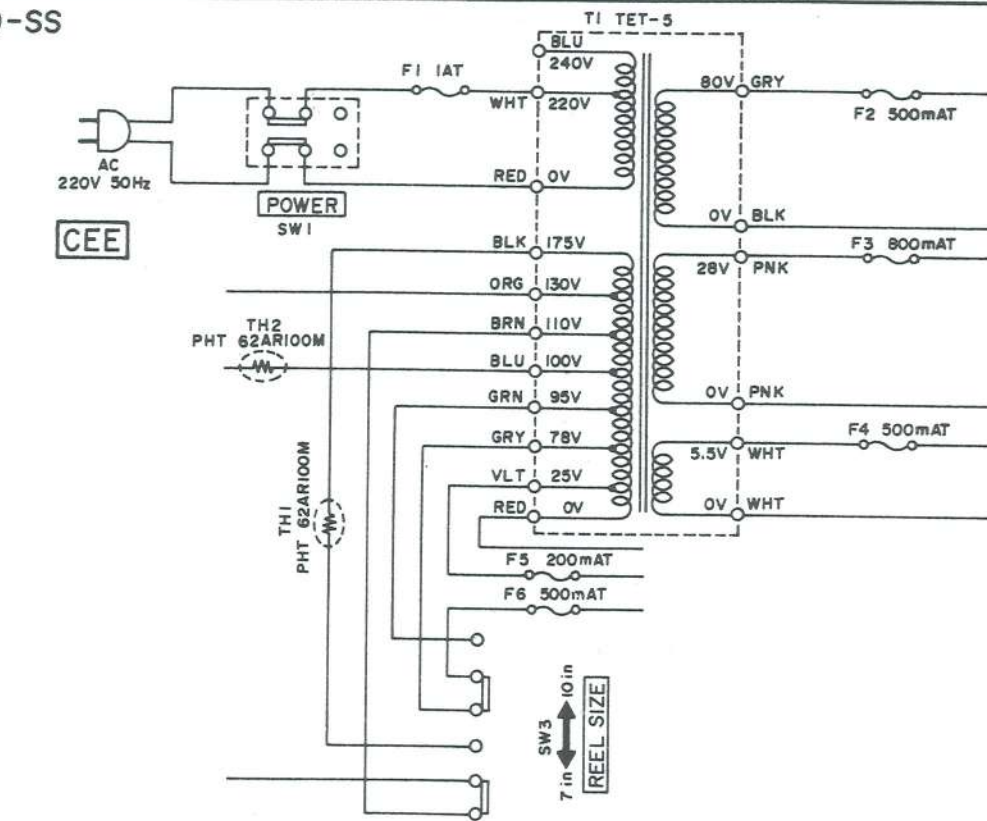
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BA565740	(1)-1	EC336126	(1)-C11	E0244012	(1)-L2	HR565672	1-20x	ZS421806	(10)-3
BA660688	(10)-1	EC336126	(2)-C9	E0346230	(1)-L1	HZ332686	1-9x	ZS422076	3-10x
BA660778	(5)-1	EC336126	(3)-C10,11	E0383365	(3)-L1	HZ532710	1-8x	ZS422076	4-3x
BA660780	3-17	EC336216	(1)-C6	E0424866	(3)-L2to5	HZ532732	1-27x	ZS422076	(5)-4
BA660780	(6)-1	EC337533	(10)-C13	E0575482	(5)-L1to4	HZ532765	1-16x	ZS422076	(10)-5
BA660791	(4)-1	EC346522	(3)-C4	E0679634	(7)-L1to4	HZ532776	1-14x	ZS432674	4-42x
BA660835	(2)-1	EC346735	(10)-C16	EP315461	(3)-RL1,2	HZ653580	1-24x	ZS433001	4-55x
BA663118	(8)-1	EC350684	(3)-C9	EP616500	(9)-RL1	HZ653782	1-2x	ZS455207	3-41x
BA663131	(9)-1	EC350684	(8)-C2	EP616500	(9)-RL3	HZ653793	1-12x	ZS523664	3-31x
BA663221	(7)-1	EC350684	(8)-C4	EP638763	(9)-RL2	HZ803597	1-3x	ZS608264	3-35x
BA663524	(3)-1	EC350684	(8)-C6	EP638763	(9)-RL4	MH578957	1-5x	ZS608477	1-17x
BC653916	4-28	EC350987	(9)-C1,2	ER213715	3-22x	MS597431	4-15x	ZS608512	1-19x
BC660442	4-27x	EC362158	(8)-C3	ER329308	3-12x	MV269965	4-12x	ZS609298	(8)-2
BH660690	1-1x	EC368357	(4)-C1	ER329308	3-23x	MZ598263	4-11x	ZS613901	4-49
BJ653703	3-20	EC368370	(2)-C15	EE372082	(9)-R20	MZ640787	4-22x	ZS664345	4-47x
BT247768	(6)-T1	EC372148	(9)-C4	ER392534	3-8x	MZ640798	4-23x	ZS665550	4-46x
EA382713	1-32x	EC379192	(4)-C3	ER427972	(3)-R3	MZ640800	4-10x	ZS270101	4-18x
EA441685	1-33x	EC379765	(3)-C5to8	ER450786	(9)-CR1to10	MZ640877	4-38x	ZW273756	1-6x
EA496258	(1)-2	EC383501	(2)-C2	ER535948	(9)-R1	MZ653668	(4)-2	ZW273756	(8)-4
EA642598	3-15	EC399690	(2)-C4	ER573524	(9)-R5	MZ653670	(5)-3	ZW273756	(10)-4
EA653681	3-13	EC399734	(4)-C2	ER641261	(9)-R4	MZ653736	3-28x	ZW273802	(8)-3
EA653692	3-5x	EC423033	(2)-C18	ER664773	(9)-R3	MZ653771	4-41x	ZW273914	1-10x
EC220151	(3)-C12,13	EC425250	(3)-TC1to4	ER664863	3-39x	MZ653815	3-29	ZW273914	1-31x
EC220151	3-40x	EC427948	(2)-C21	ES655536	(5)-SW1	MZ653826	3-42	ZW324281	4-44x
EC220151	(10)-C14	EC432810	(1)-C2	ES641215	3-9	MZ661983	3-33x	ZW411895	3-21x
EC220612	(5)-C8	EC432810	(2)-C1	ES654693	(4)-SW1,2	SA428714	4-43x	ZW413256	1-18x
EC220612	(5)-C10	EC438041	(4)-C4	ET234854	(1)-TR1,2	SA640934	4-29	ZW419646	4-45x
EC220612	(5)-C12	EC450055	(1)-C8	ET234854	(2)-TR1,2,3	SB679860	4-65	ZW420682	4-17x
EC220612	(5)-C16	EC450055	(1)-C18	ET398711	(1)-TR3	SC653905	4-7x	ZW425002	3-36x
EC220612	(8)-C5	EC450055	(10)-C9	ET399846	(10)-TR6	SC654726	4-6x	ZW499893	4-14x
EC220678	(3)-C3	EC450527	(6)-C1	ET399846	(10)-TR11	SE581602	4-24	ZW516993	(9)-6
EC220678	(9)-C8,9	EC455354	(10)-C11	ET399870	(8)-TR7	SE613866	4-5	ZW575730	4-25x
EC220994	(1)-C17	EC459505	(8)-C1	ET399881	(10)-TR8	SE626951	4-26	ZW653747	4-50x
EC220994	(1)-C19,20	EC476324	(3)-C14,15	ET446736	(2)-TR5	SE627120	4-62x		
EC220994	(2)-C13	EC476965	(1)-C10	ET453486	(2)-TR4	SE640754	4-21		
EC220994	(2)-C19	EC476965	(2)-C8	ET453486	(5)-TR2to5	SE642767	4-2		
EC220994	(5)-C9	EC522617	(10)-C17	ET511920	(8)-TR2,3	SE653444	4-4		
EC220994	(5)-C11	EC557166	(10)-C7	ET511920	(9)-TR2	SK638976	4-48x		
EC220994	(5)-C13	EC565345	(9)-C3	ET515880	(5)-TR1	SK640912	4-52		
EC220994	(5)-C17	EC565560	(7)-C1,2	ET517353	(9)-TR4	SK640923	4-51		
EC250582	(10)-C4	EC646031	(9)-C10	ET520288	(3)-TR1,2,3	SK645300	4-59		
EC250582	(10)-C6	ED219464	(6)-D1	ET537300	(9)-TR1	SK647548	4-56		
EC250841	(1)-C5	ED224526	(3)-D1	ET538154	(10)-TR5	SK653758	4-54		
EC250841	(2)-C20	ED224548	(10)-D5to8	ET623867	(10)-TR7	SK653760	4-53		
EC250841	(3)-C1,2	ED357794	(9)-D10	ET623867	(10)-TR9	SM642396	4-64x		
EC250885	(10)-C12	ED357794	(10)-D2	ET639437	(8)-TR1	SM653714	3-25x		
EC250885	(10)-C15	ED384096	(5)-D8	ET639437	(8)-TR4to6	SM653837	4-9		
EC250918	(9)-C5	ED494583	(5)-D1,2	ET639437	(8)-TR8to11	SP641046	4-36x		
EC250964	(10)-C8	ED494583	(8)-D4	ET639437	(9)-TR3	SP641057	4-37x		
EC251087	(8)-C7	ED498150	(8)-D11	ET639437	(10)-TR1to4	SP653883	4-33x		
EC251122	(10)-C2	ED511097	(9)-D6to9	EV424743	3-14	SP653894	4-1		
EC251122	(10)-C5	ED515790	(3)-D1to3	EV497700	(2)-VR1	SP654568	4-20		
EC251291	(10)-C1	ED557447	(10)-D1	EV497711	(1)-VR1	SP654748	4-34x		
EC290520	(1)-C1	ED560913	(8)-D1to3	EV497711	(10)-VR4	SZ480712	4-31x		
EC290520	(1)-C3	ED560913	(8)-D5to10	EV497698	(1)-VR2	SZ529920	4-40x		
EC290520	(1)-C7	ED560913	(8)-D12,13	EV498060	(6)-VR1	SZ534543	4-8x		
EC290520	(1)-C13	ED560913	(9)-D11,12	EV498071	(9)-VR1	SZ597420	4-16x		
EC290531	1-11x	ED560913	(9)-D17,18	EV498071	(10)-VR3	SZ642802	3-44		
EC290531	(2)-C5	ED560913	(10)-D3,4	EV621955	(10)-VR1	SZ642802	4-66x		
EC290531	(2)-C11	ED560913	(10)-D9	EV621966	(10)-VR2	SZ654715	4-32x		
EC302297	(5)-C1to4	ED570273	(9)-D1to5	EV654478	3-11	ZG249107	4-13x		
EC310792	(1)-C21	ED593357	(10)-TH1	EV661937	4-58x	ZG466312	1-7x		
EC313121	(9)-C6	ED624903	(8)-D14to29	EZ549808	(7)-2	ZG540584	1-25x		
EC320051	(1)-C14	ED624903	(9)-D13to16	EZ614586	(7)-4	ZS200610	4-30x		
EC320051	(2)-C6	ED661994	3-6x	EZ615047	(10)-2	ZS200676	3-4x		
EC320051	(2)-C10	EF563681	4-61x	EZ615060	(10)-6	ZS201475	1-15x		
EC320051	(2)-C17	E1412413	(1)-IC1	EZ615071	(10)-7	ZS201778	1-30x		
EC320051	(10)-C10	EJ254913	3-38x	EZ638932	(5)-2	ZS323728	4-19x		
EC329771	(1)-C4	EJ255115	3-24x	EZ640462	(9)-2	ZS323728	(7)-3		
EC329771	(1)-C9	EJ310871	3-37x	EZ640642	(9)-4	ZS325495	3-2		
EC329771	(1)-C15	EJ328320	1-28x	EZ653602	4-57x	ZS325495	(4)-3		
EC329771	(2)-C3	EJ347670	3-30x	EZ653725	3-27x	ZS325495	4-35x		
EC329771	(2)-C7	EJ369077	3-26x	EZ654423	3-43x	ZS325495	(9)-3		
EC329771	(2)-C12	EJ430378	3-32x	EZ654737	3-18	ZW327835	3-7x		
EC329850	(1)-C12	EJ482793	3-34x	EZ665908	3-3x	ZS355522	1-29x		
EC331705	(9)-C7	EJ654456	(6)-J1	HA533597	1-21x	ZS392141	4-63x		
EC331828	(10)-C3	EJ654467	3-1	HA533608	1-26x	ZS411660	4-60x		
EC333562	(2)-C16	EL621167	3-16	HA549944	1-23x	ZS413201	1-4x		
EC336104	(1)-C16	EM558180	3-19	HE563220	1-22x	ZS417150	4-39x		
EC336104	(2)-C14	E0243977	(2)-L1	HP513281	1-13x	ZS421806	(9)-5		

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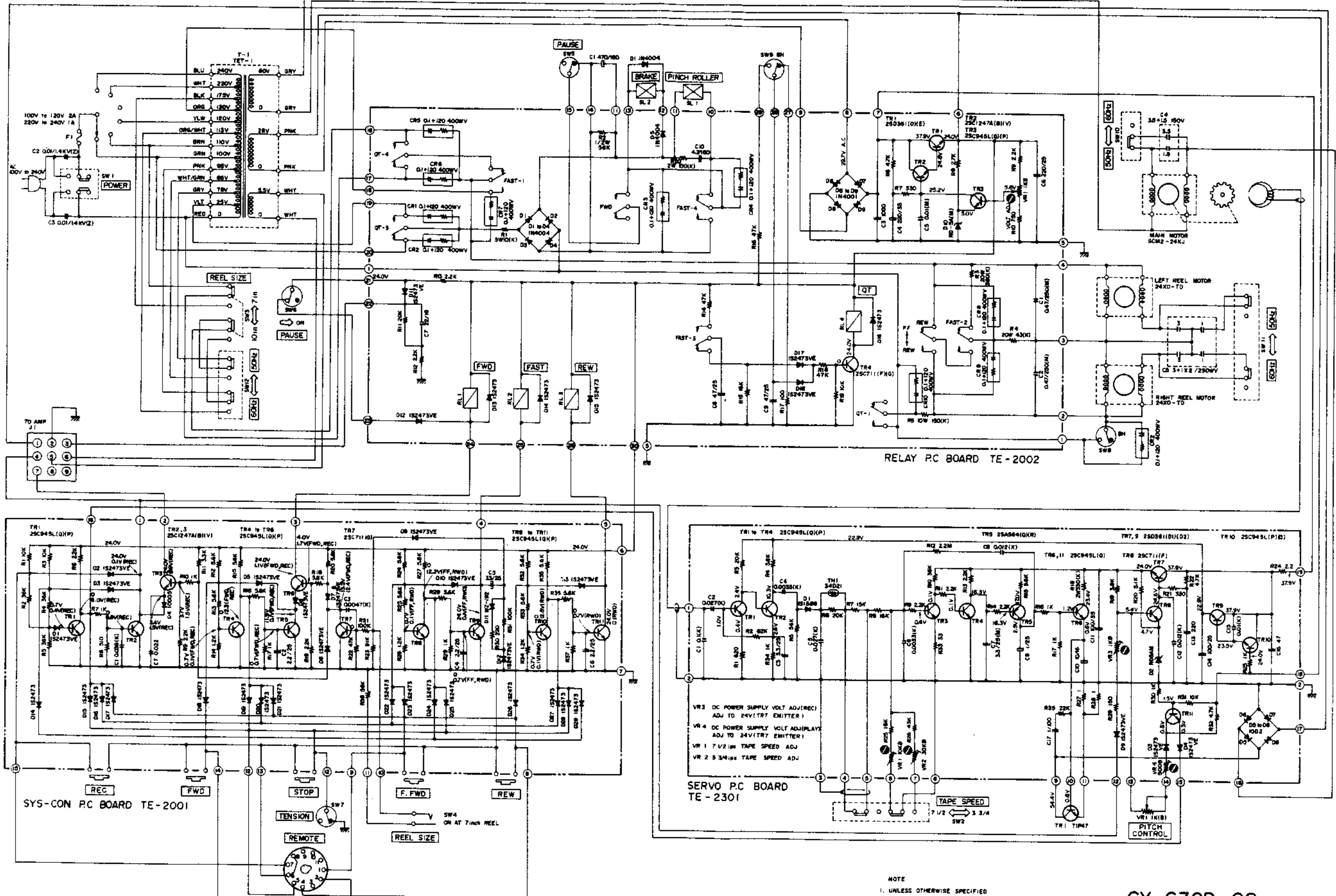


NOTE
 UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS IN Ω 1/4W(J)
 ALL CAPACITORS IN μ F 50VV(J)

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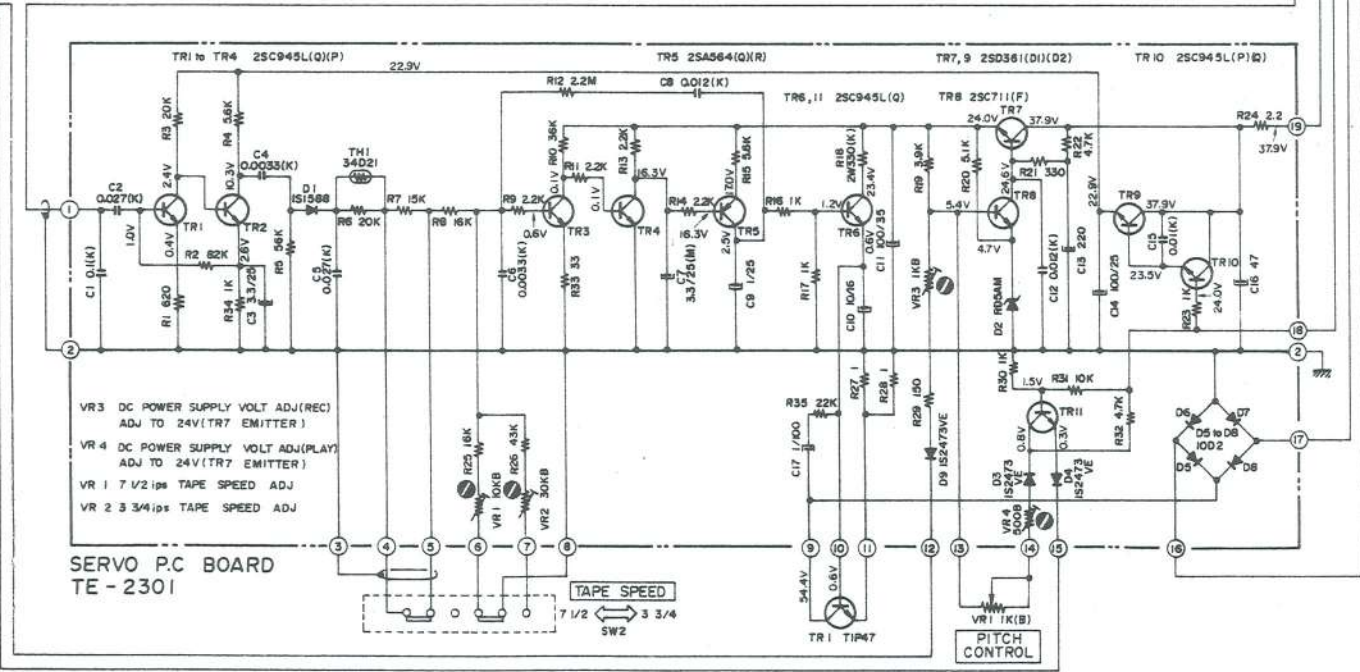
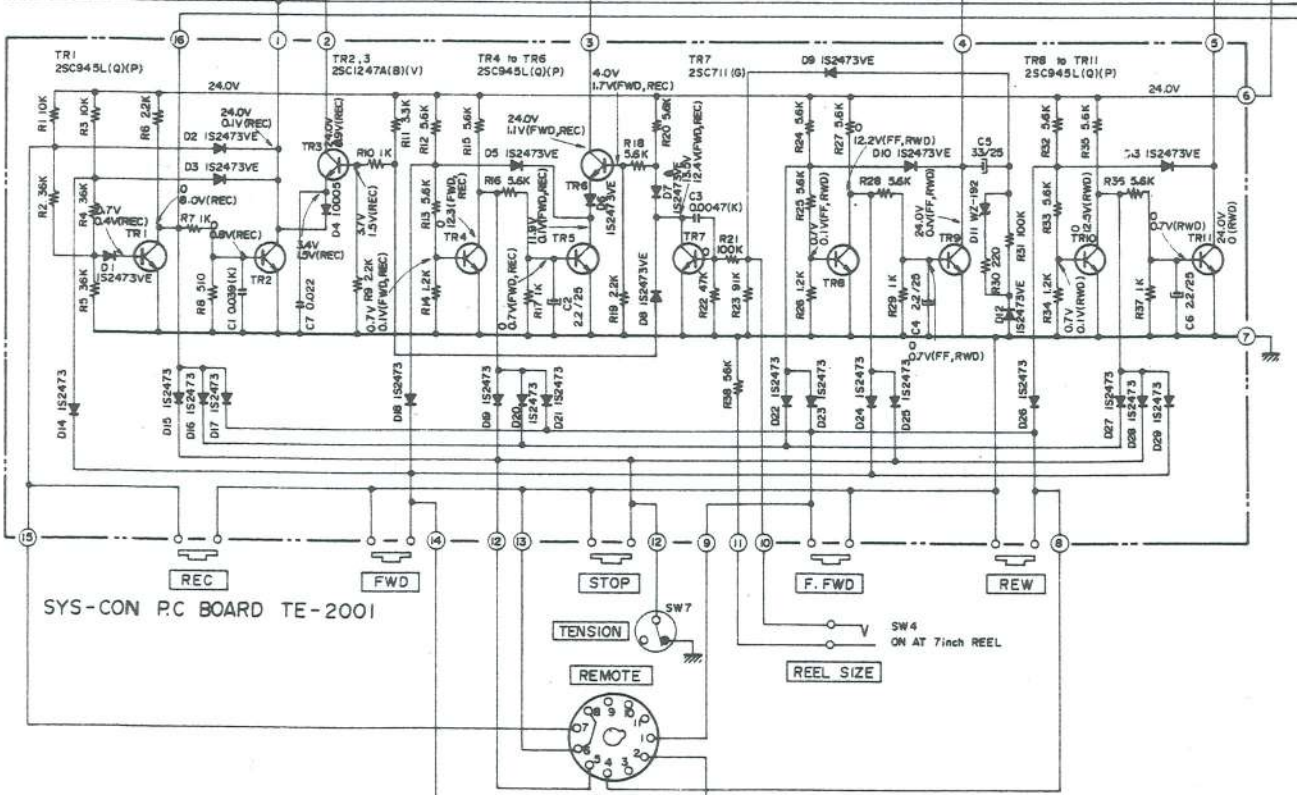
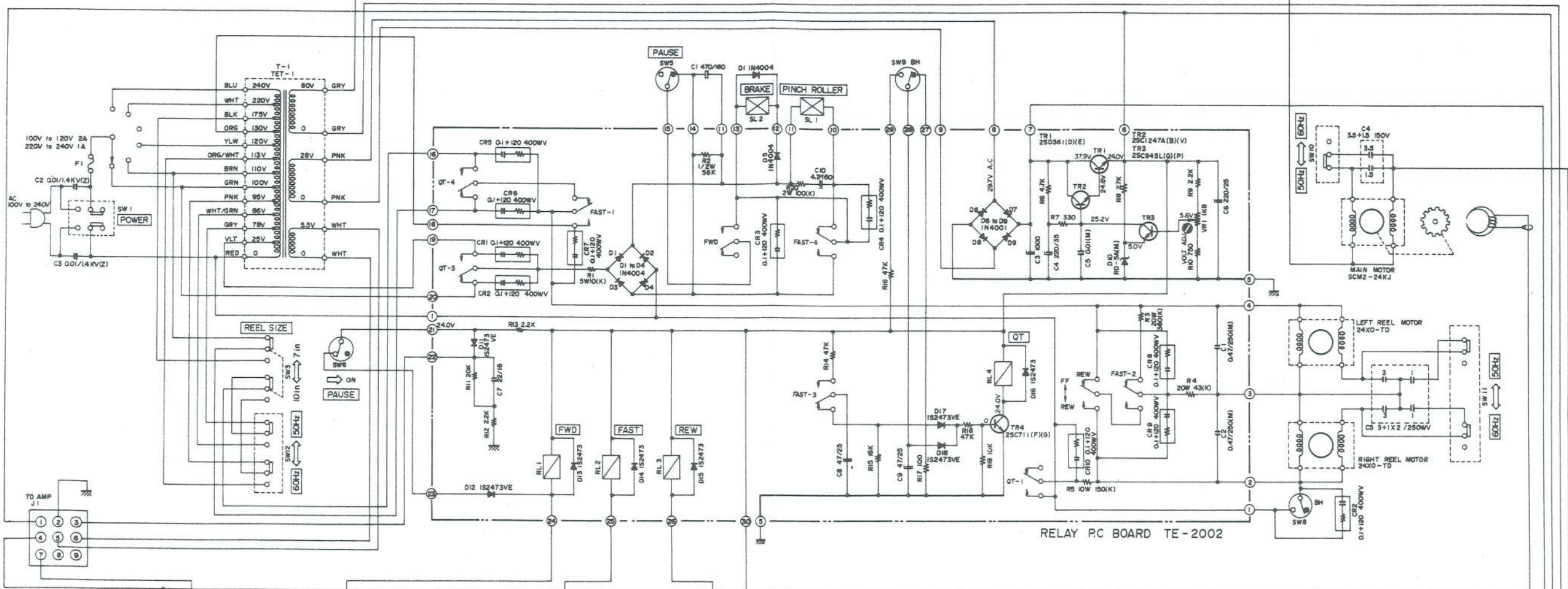


NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μ F 50WV(J)

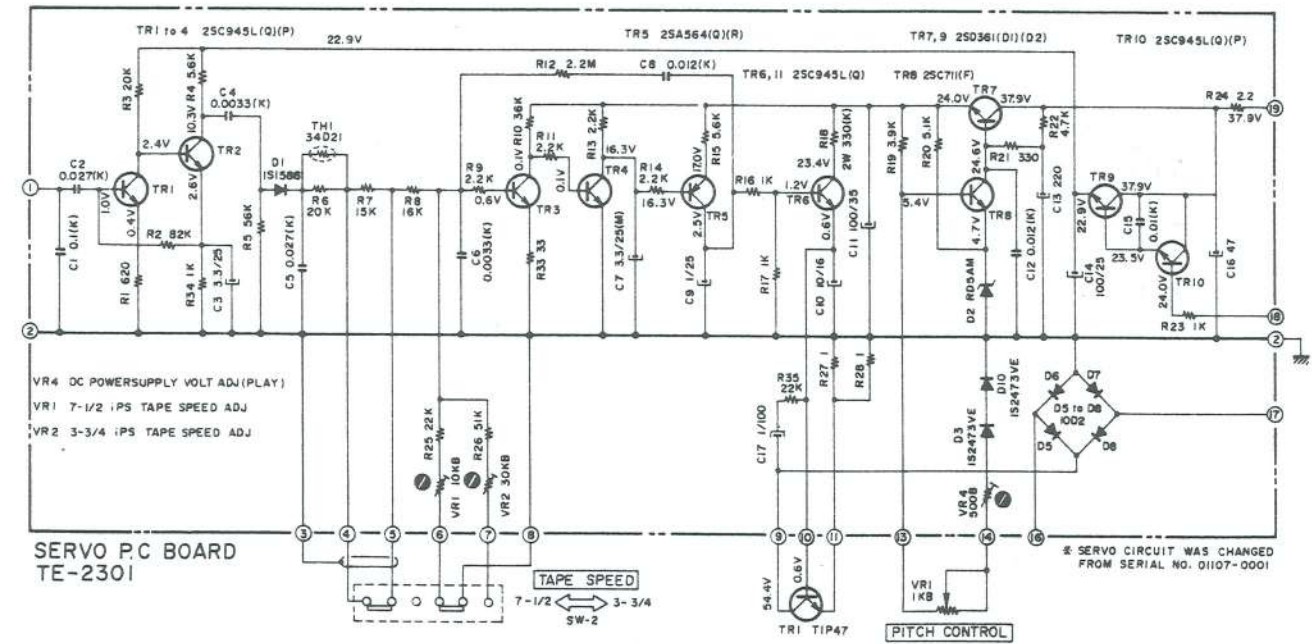
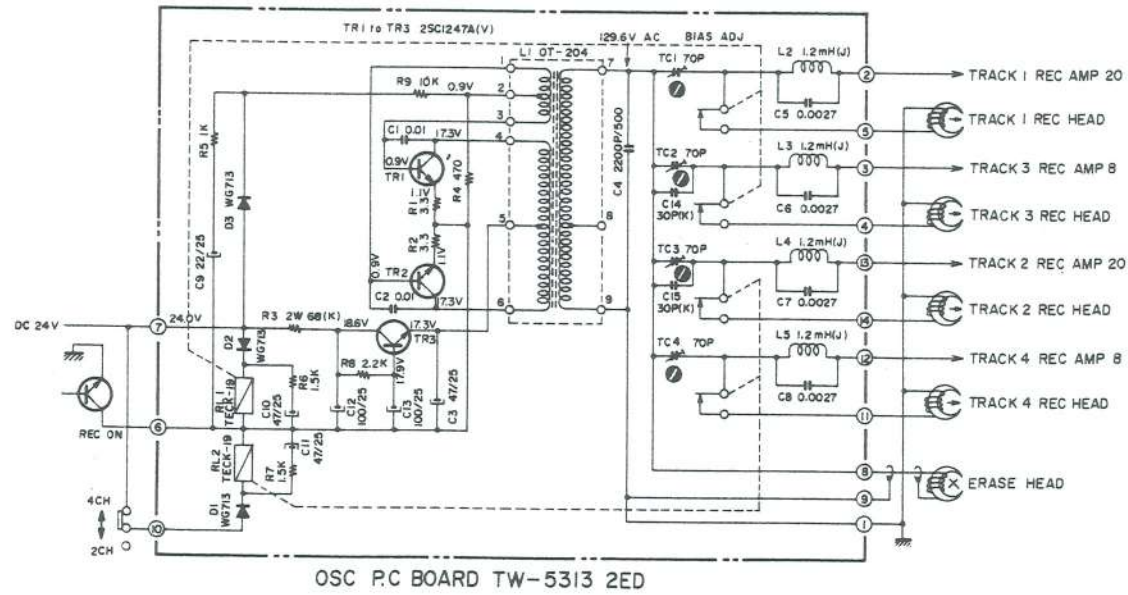
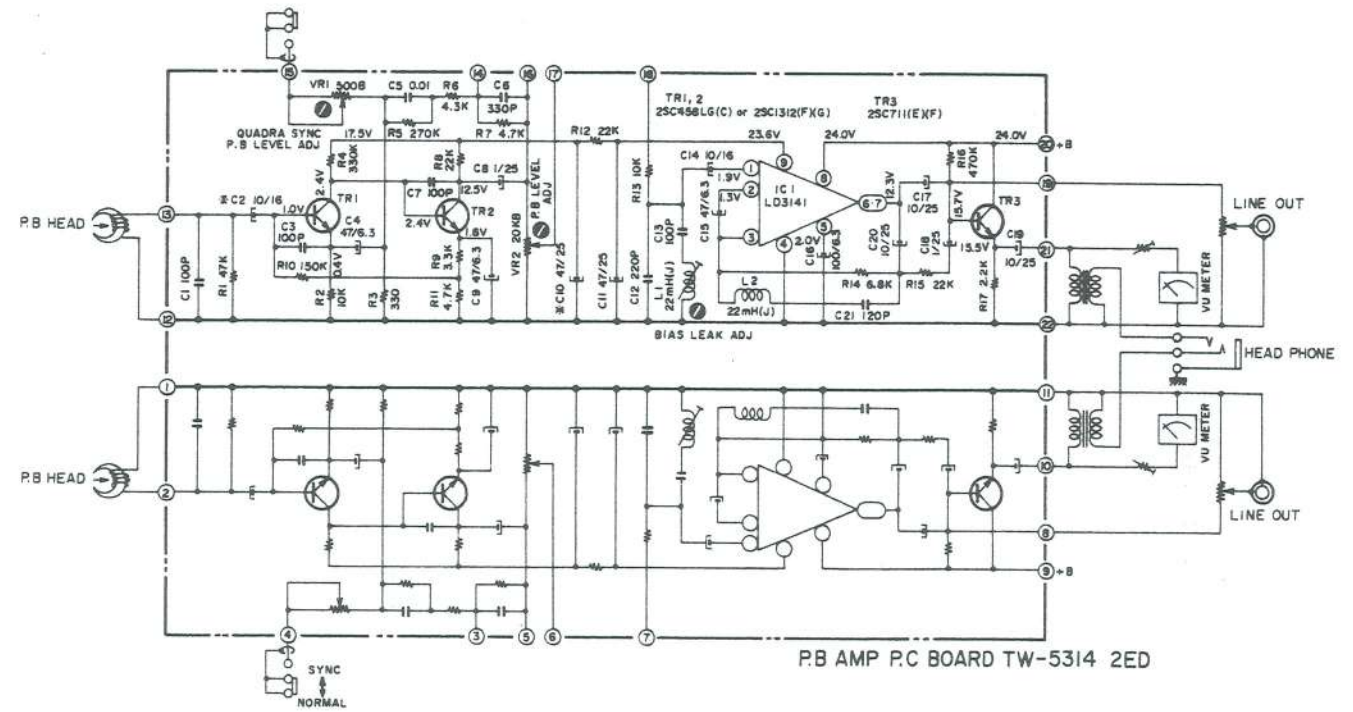
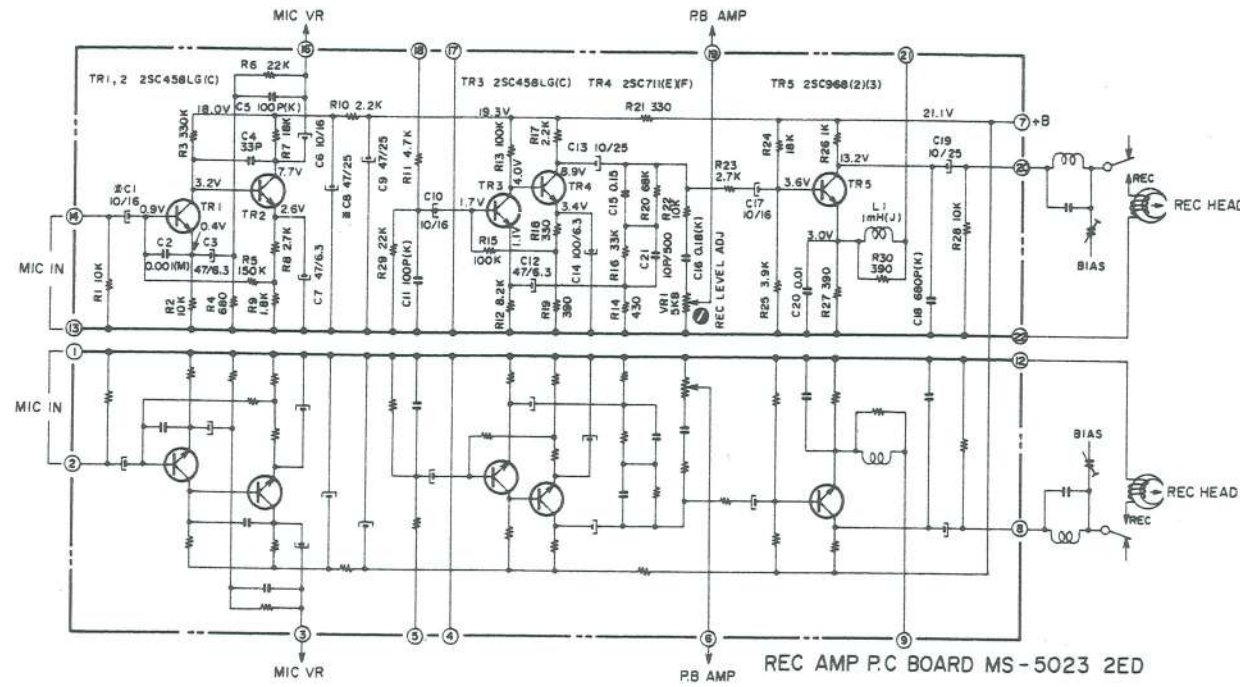


NOTE
 1. UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS IN Ω (1/4W(1))
 ALL CAPACITORS IN μF (50WV(1))
 2. POWER TRANSFORMER BLOCK IS DIFFERENT
 ACCORDING TO AREA

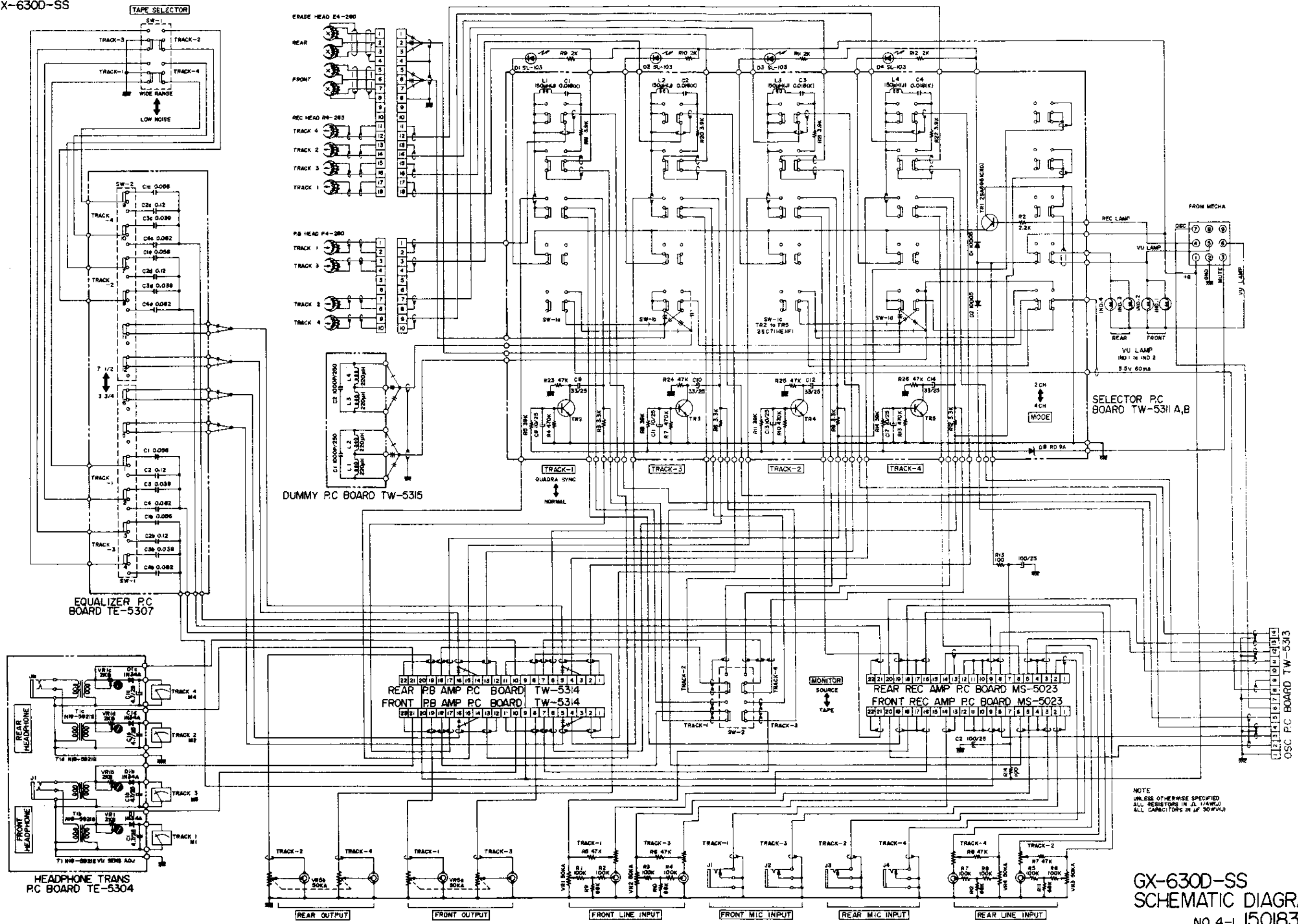
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 SCHEMATIC DIAGRAM
 NO.4-3 1501838A



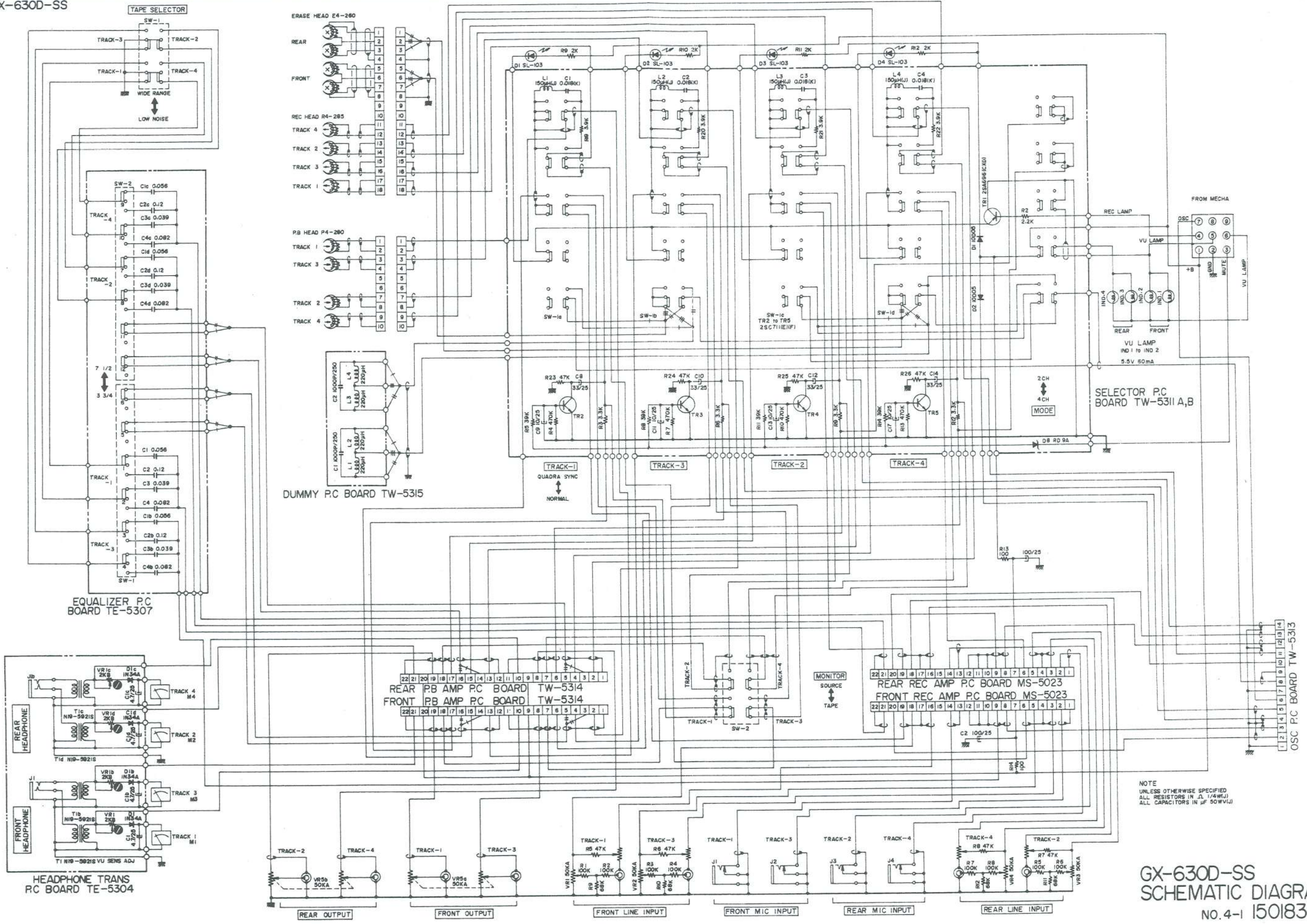
NOTE
 1. UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS IN Ω 1/4W (J)
 ALL CAPACITORS IN μF 50WV (J)
 2. POWER TRANSFORMER BLOCK IS DIFFERENT
 ACCORDING TO AREA



NOTE
 1. UNLESS OTHERWISE SPECIFIED
 ALL RESISTOR IN Ω 1/4W(J)
 ALL CAPACITORS IN μ F 50WV(J)
 2. * MARK INDICATES LOW LEAKAGE CAPACITORS



NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω, 1/4W
ALL CAPACITORS IN μF 50VDC



NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4WUJ
ALL CAPACITORS IN μ F 50WVUJ