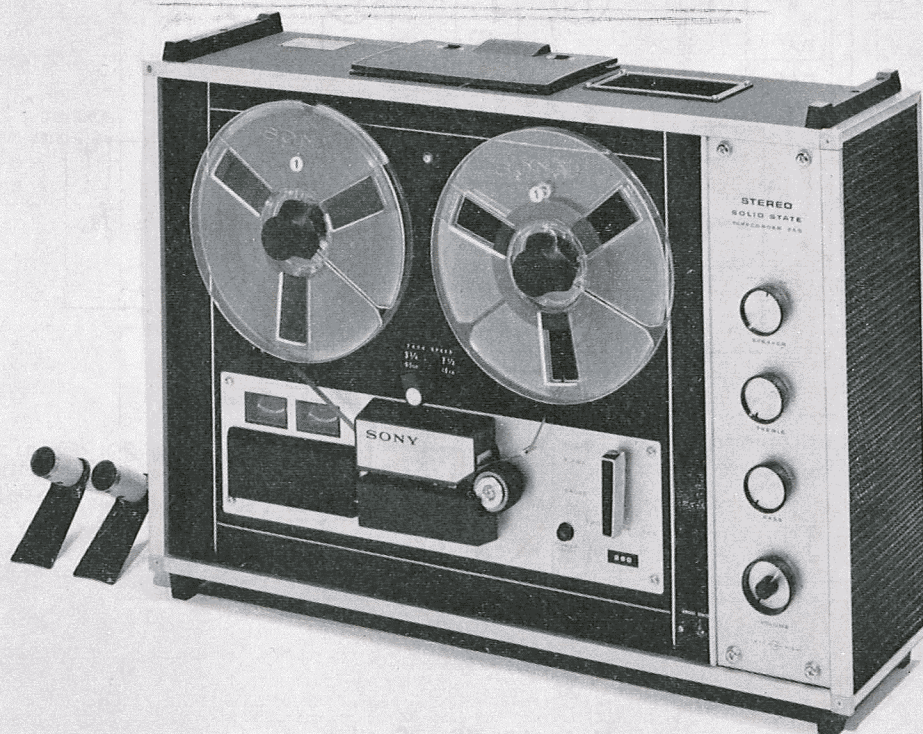


FROM SERIAL NUMBER

00001 TO 23000

TC-260



Specifications

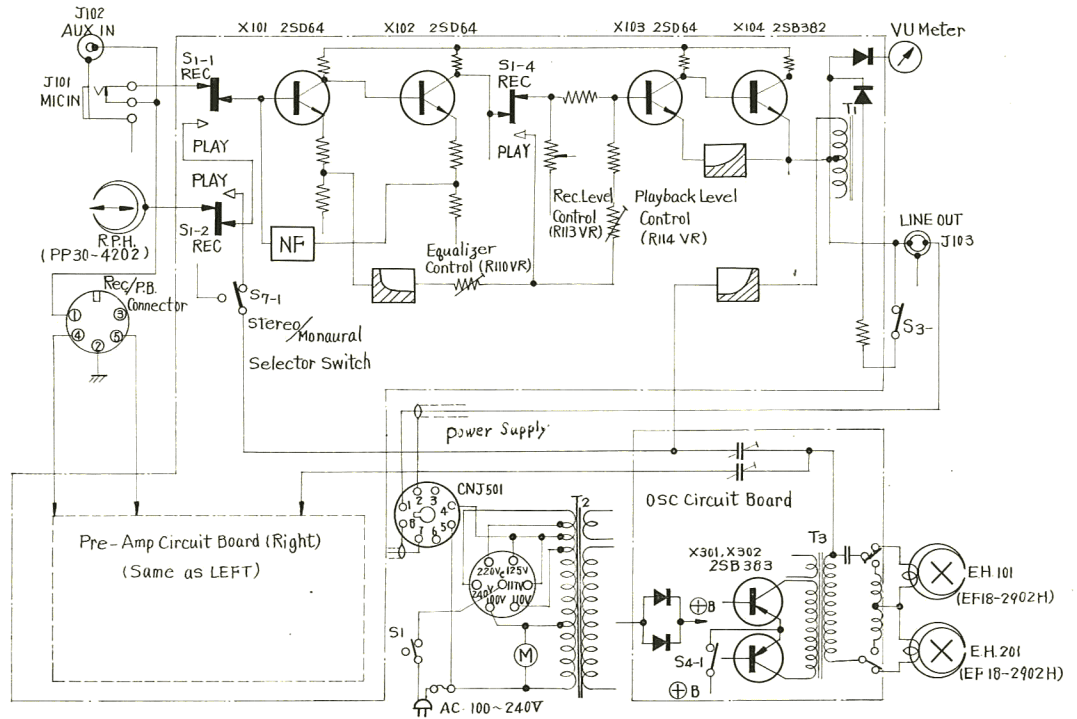
- Power Requirement :** 100, 110, 117, 125, 220 or 240 volts (Voltage selector provided in the set)
AC 50 c/s or 60 c/s (Convertible, see page 8) (Only AC 117V 60 c/s for U. S. A.)
55 watts
- Tape Speeds :** Instantaneous selection 7-1/2 ips or 3-3/4 ips (19 or 9.5 cm/s)
- Frequency Response :** 30~18,000 c/s at 7-1/2 ips
 ± 3 dB 50~15,000 c/s at 7-1/2 ips
30~13,000 c/s at 3-3/4 ips
- Signal-to-Noise Ratio :** Better than 50 dB
- Flutter and Wow :** Less than 0.19% at 7-1/2 ips
Less than 0.25% at 3-3/4 ips
- Bias Frequency :** Approx. 55 Kc
- Level Indication :** Two VU Meters (calibrated to 0 dB at 12 dB below saturation)
- Inputs :** Microphone inputs (low impedance)
Auxiliary inputs (high impedance)
- Outputs :** Line outputs (low impedance)
Auxiliary Record/Playback Connector
- Transistors :** 2SD64 (X6), 2SB381 (X6), 2SB382 (X2), 2SB383 (X2), 2SC297 (X1), 2SC298 (X4)
- Weight :** Approx. 34 lbs. (15.5 Kg)
- Dimensions :** 21-19/64" W X 15-13/32" D X 7-7/8" H
(541 W X 392 D X 200 H mm)

SONY®

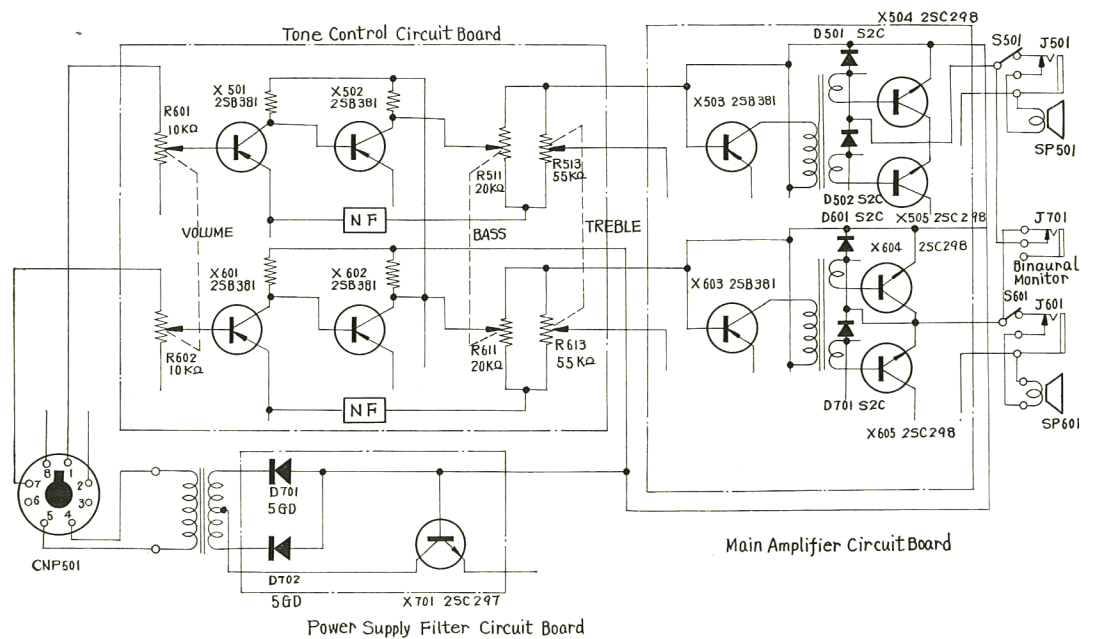
SERVICING GUIDE

Block Diagram

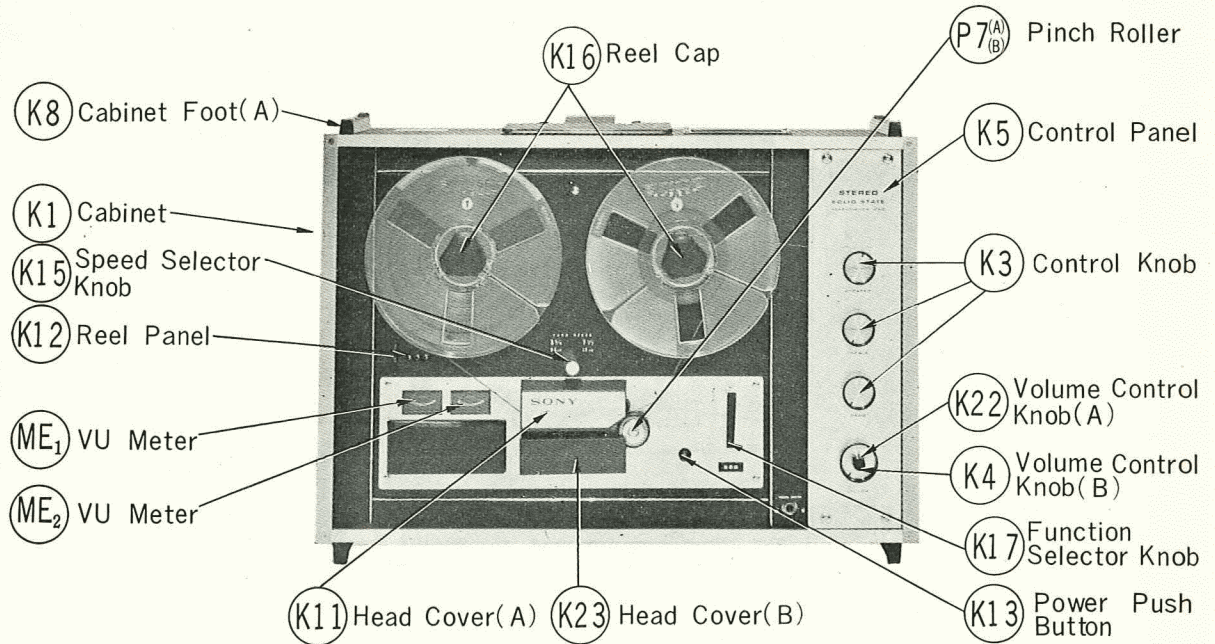
Pre-Amplifier Section



Main Amplifier Section

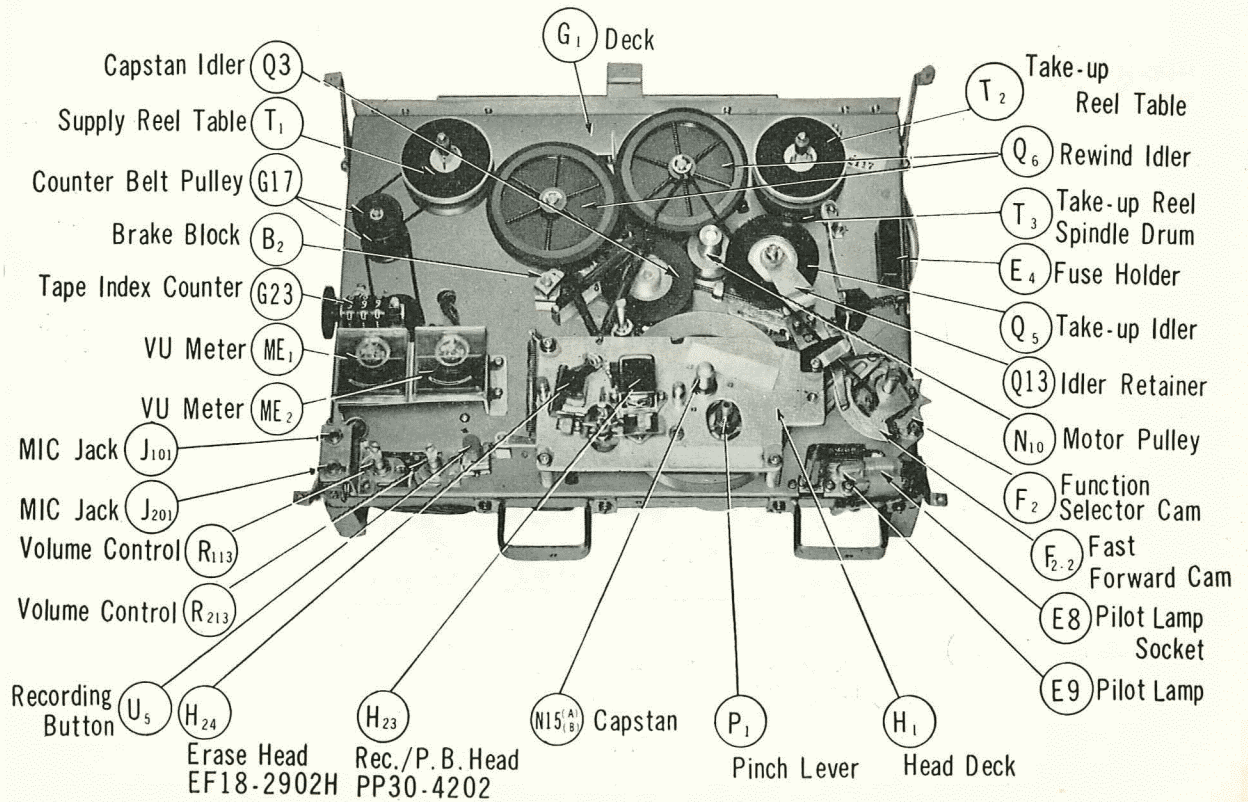


Top View



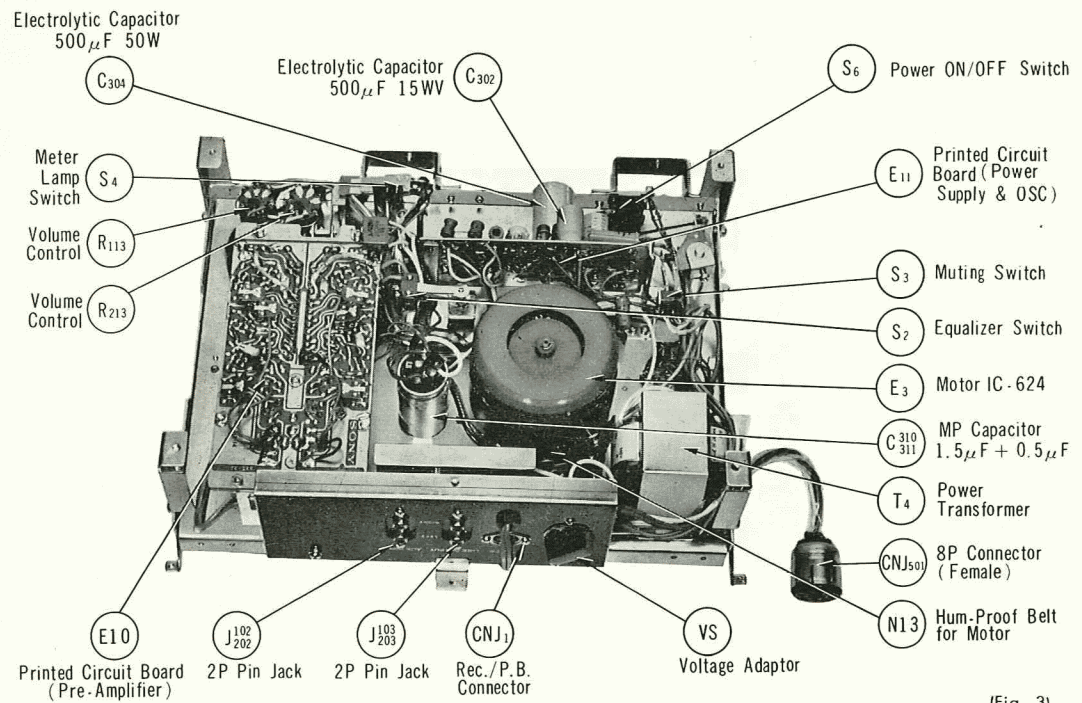
(Fig. 1)

Mechanical Section



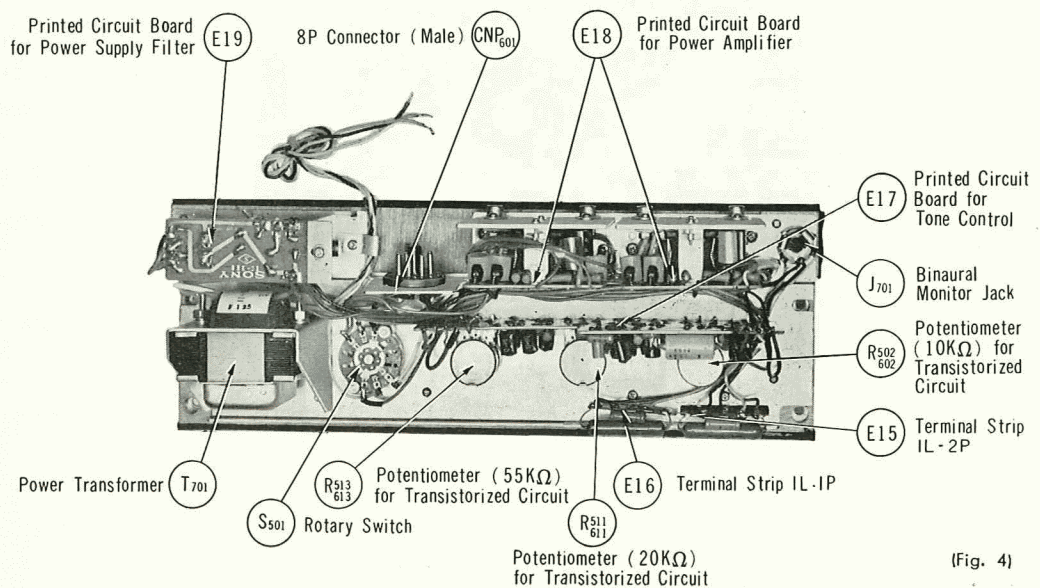
(Fig. 2)

Pre-Amplifier Section



(Fig. 3)

Main Amplifier Section



(Fig. 4)

Removal of Cabinet

1. Turn up-side down the recorder on a soft Pad.
2. Remove five Screws ($\oplus$ RF4 $\times$ 30 marked $\blacktriangle$ in Fig. 5.), five Cabinet Washers, two Screws ($\oplus$ B5 $\times$ 50 marked $\triangle$ in Fig. 5.) and two Handle Washers as shown in Fig. 5.
3. Lift up the Cabinet gently.
4. Disconnect the 8P Connector (Male) on the Main Amplifier side from the 8P Connector (Female) on the Pre-Amplifier side.

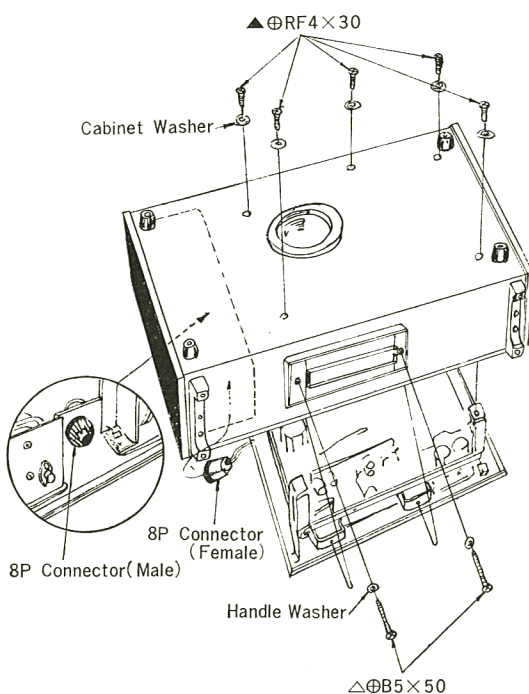
Removal of Reel Panel

1. Remove two Head Covers.
2. Remove Function Selector Knob, Speed Selector Knob and Pinch Roller by loosening the respective Set Screws.
3. Remove three Screws ($\oplus$ B3 $\times$ 6 marked $\triangle$ in Fig. 6.), three Washers 3 ϕ , one Screw ($\oplus$ T3 $\times$ 6 marked $\blacktriangledown$ in Fig. 6.) and one Washer 3 ϕ as Shown in Fig. 6.
4. Open the Cover for Recording Box and pull out two Volume Control Knobs.

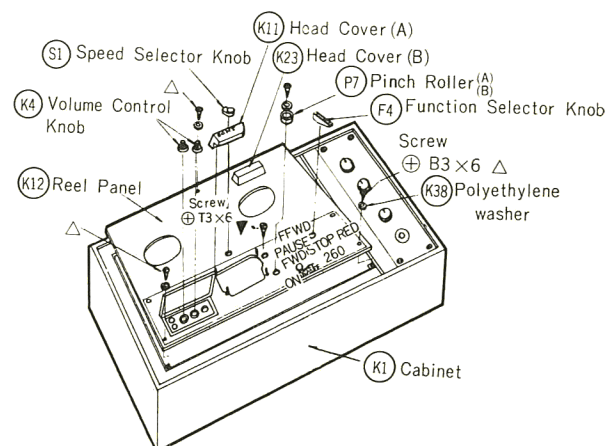
Note: If the Volume Control Knobs are too tight to remove, try to lift Reel Panel up slightly and the Volume Control Knobs will come up for easy removal.

5. Now Reel Panel can be removed and main mechanism can be checked.

Note: When re-assembling the Reel Panel, the Volume Control Shafts must be located just at the center of the respective holes.



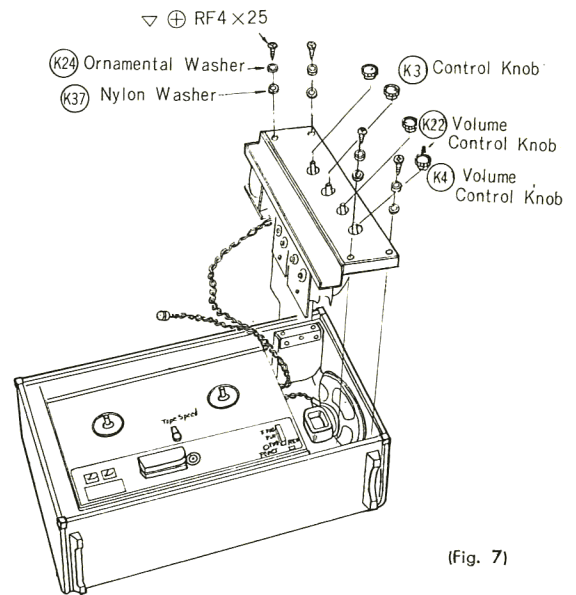
(Fig. 5)



(Fig. 6)

Removal of Ornamental Panel for Amplifier

1. Remove the Volume Control Knob for right channel, the Volume Control Knob for left channel and the other Control Knobs (Bass, Treble, Speaker ON/OFF) as shown in Fig. 7.
2. Remove four Screws ($\oplus$)RF 4 $\times$ 25 marked with ∇ in Fig. 7), four Ornamental Washers and four Nylon Washers.
3. Lift up the Main Amplifier Block gently.
4. Disconnect the 8P Connector (Male) on the Main Amplifier side from 8P Connector (Female) on the Pre-Amplifier side.
5. Disconnect the P.V.C. Wires from the Main Amplifier side at the Speaker Jack.



(Fig. 7)

Removal of Printed Circuit Board

Printed Circuit Boards can be checked without dis-assembled. When it is necessary to remove the Circuit Boards, proceed as follows.

Circuit Board for Power Supply and OSC Section

1. Take out two Holding Screws ($\oplus$)RK 3 $\times$ 6 marked $\bigcirc$ in Fig. 8.
2. Slide the Printed Circuit Board for Power Supply and OSC section rightwards and remove it from the left Bracket as shown in Fig. 8.

Note: Take care not to cut the attached leads.

Circuit Board for AUX INPUT Section

1. Take out two Holding Screws ($\oplus$)RF 3 $\times$ 5.
2. Lift up the Printed Circuit Board for AUX INPUT gently taking care not to cut the attached leads.

Circuit Board for Pre-Amplifier Section

1. Remove three Screws ($\oplus$)RF 3 $\times$ 6.
2. Remove Helical Spring covered with a PVC Tube, for Rec./P.B. Selector Switch shown in Fig. 9, from the Circuit Board Mounting Bracket.
3. Raise the Circuit Board gently, taking care not to cut the attached leads.
Now desired parts can be replaced.
4. When re-assembling the Circuit Board, never fail to put the PVC Tube on the spring and the Eyelet on the Pull Rod to the Recording Lever as shown in Fig. 10.

Circuit Board for Tone Control Section

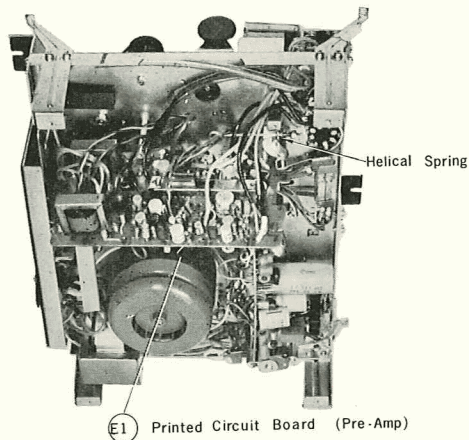
1. Remove three Holding Nuts for Potentiometer of Transistorized Circuit and remove the Circuit Board for Tone Control, taking care not to cut the connected Leads.

Circuit Board for Main Amplifier Section

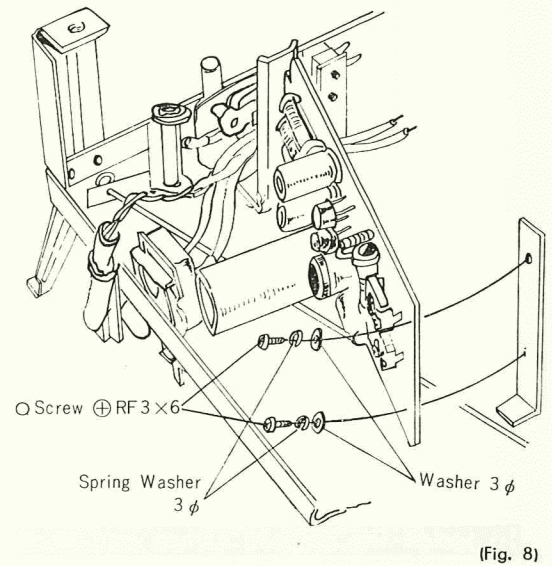
1. Remove two Holding Screws ($\oplus$ RF 3×6 marked ☆ in Fig. 11), two Holding Screws ($\oplus$ B 3×6 marked ★ in Fig. 11) and remove the Circuit Boards for Main Amplifier of Channel 1 and Channel 2, taking care not to cut the connected Leads.

Circuit Board for Power Supply Filter Section

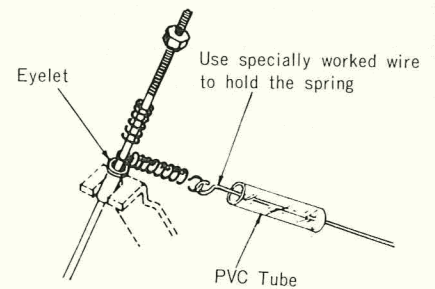
1. Remove Printed Circuit Board for Power Supply Filter by loosening the respective set Screws for Electrolytic Capacitor Mounting.
2. Remove one Screw ($\oplus$ RF 3×8 marked ◎ in Fig. 12), one Spring Washer 3φ and one Washer 3φ, taking care not to cut the connected Leads.
3. Lift up Printed Circuit Board for Power Supply Filter Section.



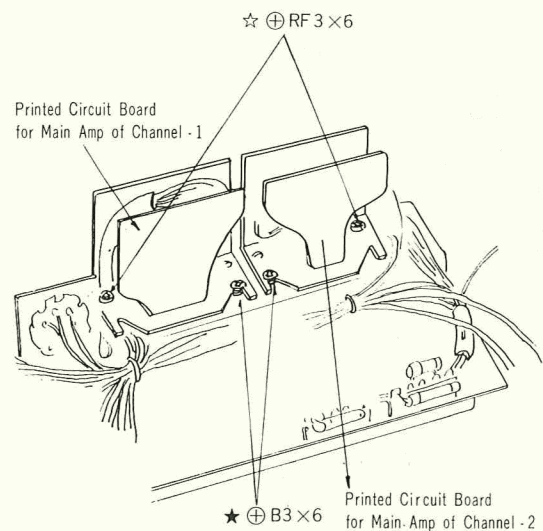
(Fig. 9)



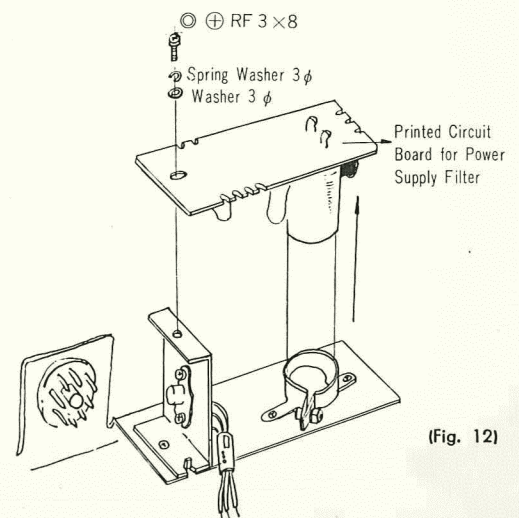
(Fig. 8)



(Fig. 10)



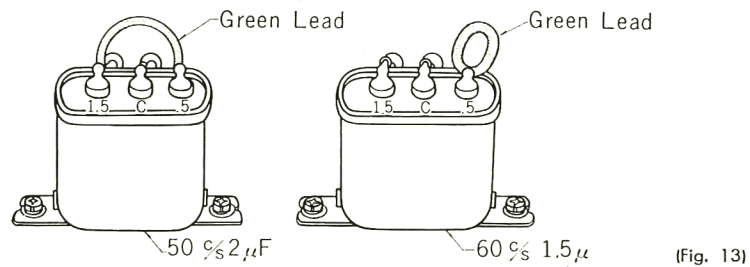
(Fig. 11)



(Fig. 12)

Modification to different power line frequency

	For 50 c/s	For 60 c/s
1. Connection between two terminals of the Metalized Paper Capacitor (MP.)	Connected (2 μ F)	Disconnected (1.5 μ F)
2. Pinch Roller	0-027-470-01 (Red)	0-027-477-01 (White)
3. Capstan	0-027-483-05 (Red)	0-027-483-06 (White)

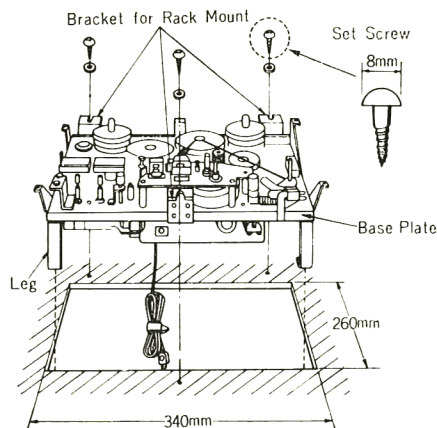


(Fig. 13)

To Install the Unit to Other Equipment

When it is desired to install the unit to other equipment, proceed as follows ;

1. Remove the Reel Panel referring to Fig. 6.
2. Remove the Cabinet referring to Fig. 5.
3. Install the unit in the opening (340×260 mm, 13.4"×10.2") on the Board with three Wood Screws, (⊕B 3×6) and Rack Mounting Brackets as shown in Fig. 14.



(Fig. 14)

Alignment Procedure

The alignment is to be performed at a tape speed of 7-1/2 ips unless otherwise specified. Connect an 100 KΩ load resistor in parallel with the VTVM terminals and connect the VTVM to LINE OUT Jack.

Elevation Alignment

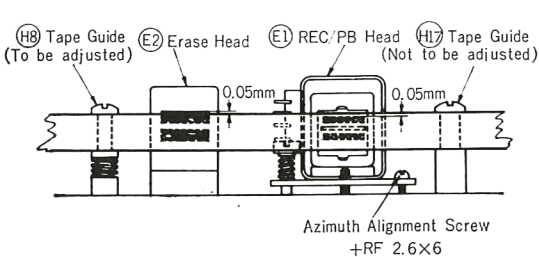
The exact vertical positionings of the Head are adjusted at the factory and should never need readjustment. However, when replacing Head or Tape Guide, height of the replaced part in relation to the tape be checked as follows ;

- 1. Thread a tape.
- 2. Align the upper edges of the Erase Head Core and Rec./P.B. Head Core and upper edge of the tape by turning the Tape Guide located on the left side of the Erase Head.
- 3. Turn the Tape Guide clockwise by approximately 30° from the position obtained in the preceding process, so that the upper edge of the tape is approximately 0.05 mm lower than that of the Erase Head Core.

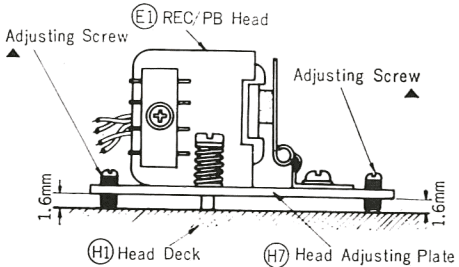
Azimuth Alignment

- (1) Playback a 10 Kc signal recorded on the first section of the SONY alignment tape "N-19-F1".
- (2) Turn the azimuth alignment screw located on the right side of playback Head to obtain the maximum recording on the VTVM.

Note : The Rec./P.B. Head Mounting Plate must always be kept 1.6 mm high from the Head Deck as shown in Fig. 15 which is set in the factory. As the correct positioning is very difficult without jig, take care not to turn the adjustment screws, marked with ▲ shown in Fig. 16 even in replacing the Rec./P.B. Head.



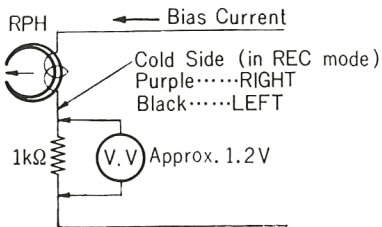
(Fig. 15)



(Fig. 16)

Recording Bias Adjustment

- (1) Unsolder the ground lead(s) (Violet for Right and Black for Left) on the terminal of Rec./P.B. Head.
- (2) Insert a VTVM and a 1 KΩ resistor in parallel between the Rec./P.B. Head and the unsoldered lead (See Fig. 17)
- (3) Place the recorder in record mode.
- (4) Adjust Trimmer Capacitor (s) (Right ... C₃₀₉, Left ... C₃₀₈) shown on page 18 to obtain 1.2 V reading on the VTVM.



(Fig. 17)

Meter Calibration

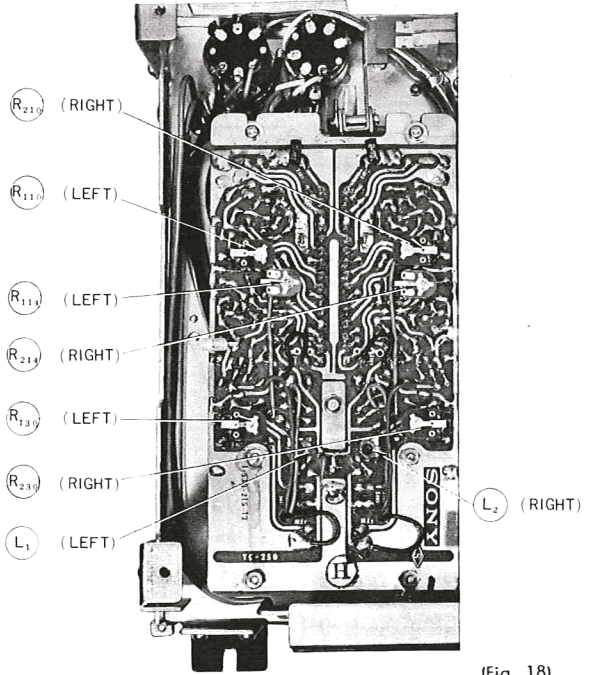
- 1. Playback second section of the alignment Tape "N-19-F1" (700 c/s, -12 dBs).
- 2. Adjust the potentiometer R₁₃₀ (R₂₃₀) shown in Fig. 18 so that the VTVM indicates 0 dBs (0.775 V).
- 3. Adjust the potentiometer R₁₃₀ (R₂₃₀) shown in Fig. 18 so that the Level Meter reads 0 VU (100%).

Equalizer Adjustment

- 1. Playback the 3rd section (700 c/s, -22 dBs) and the 4th section (10 Kc/s, -22 dBs) of the Alignment Tape "N-19-F1" and the potentiometer R₁₁₀ (R₂₁₀) shown in Fig. 18 to obtain the same readings on the VTVM for both the 3rd and the 4th sections of the alignment Tape.

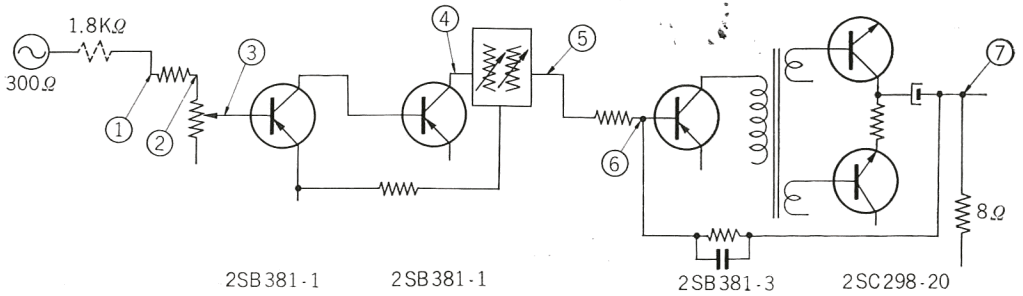
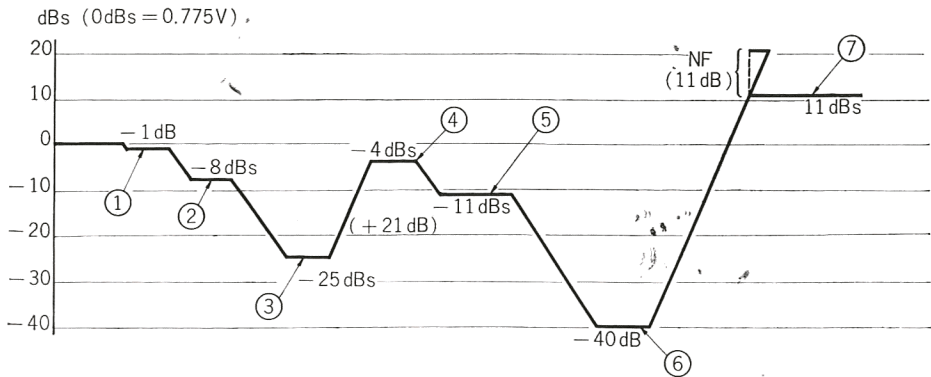
Bias Trap Adjustment

- 1. Place the recorder in record mode without loading a Tape.
- 2. Adjust the Trap Coil L₁ (L₂) shown in Fig. 18 for minimum reading on the VTVM.

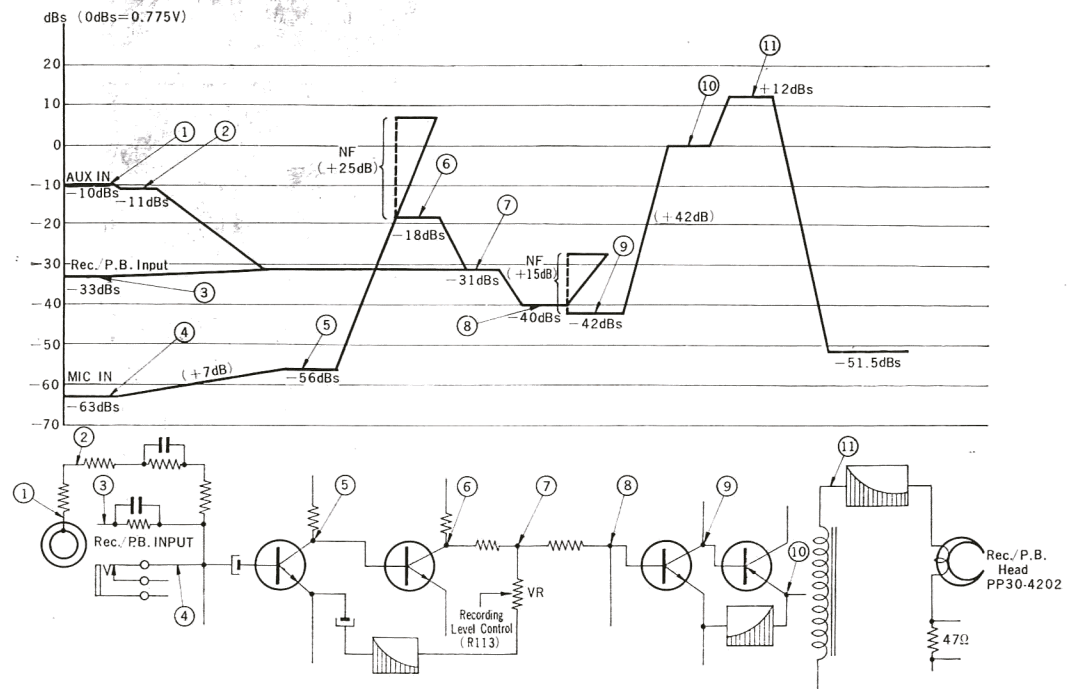


(Fig. 18)

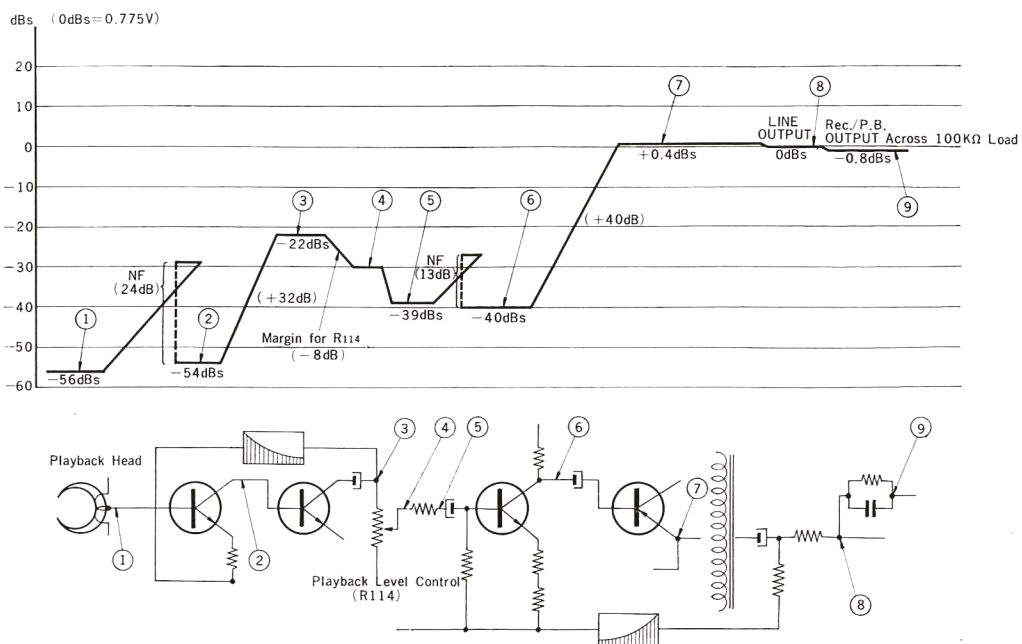
Main Amplifier Level Diagram



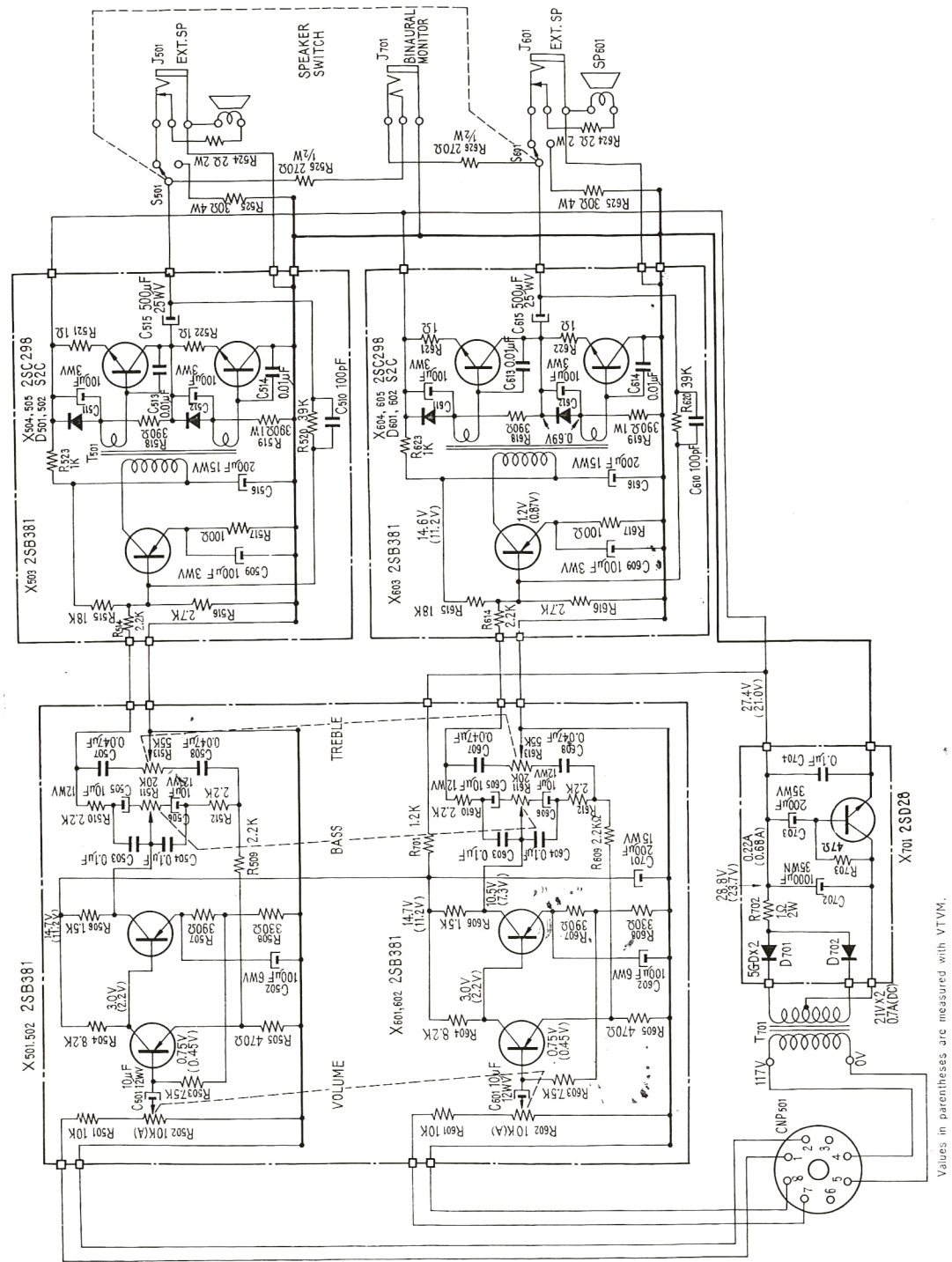
Recording Level Diagram

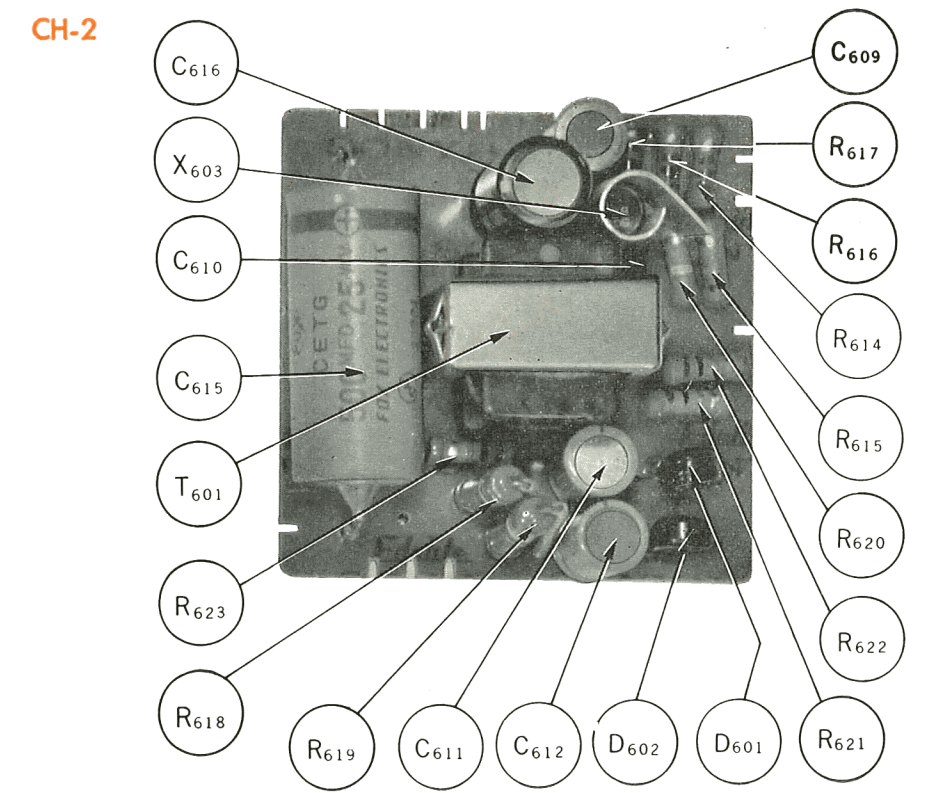
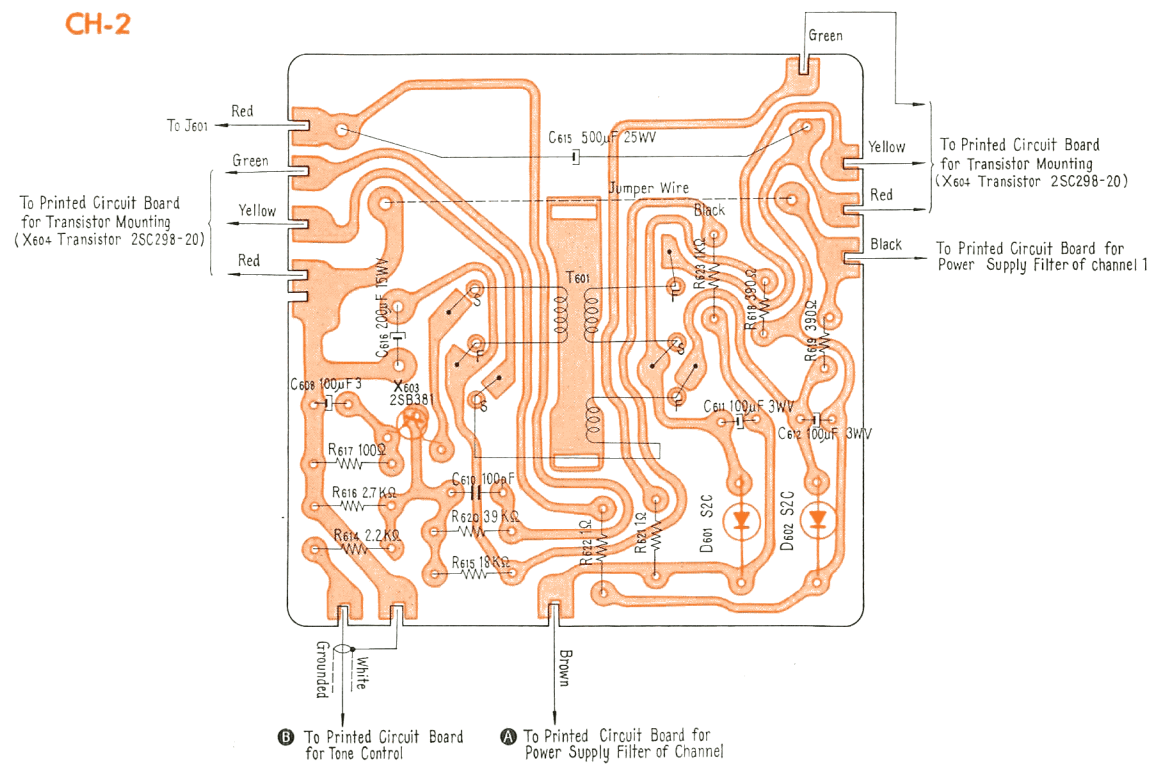
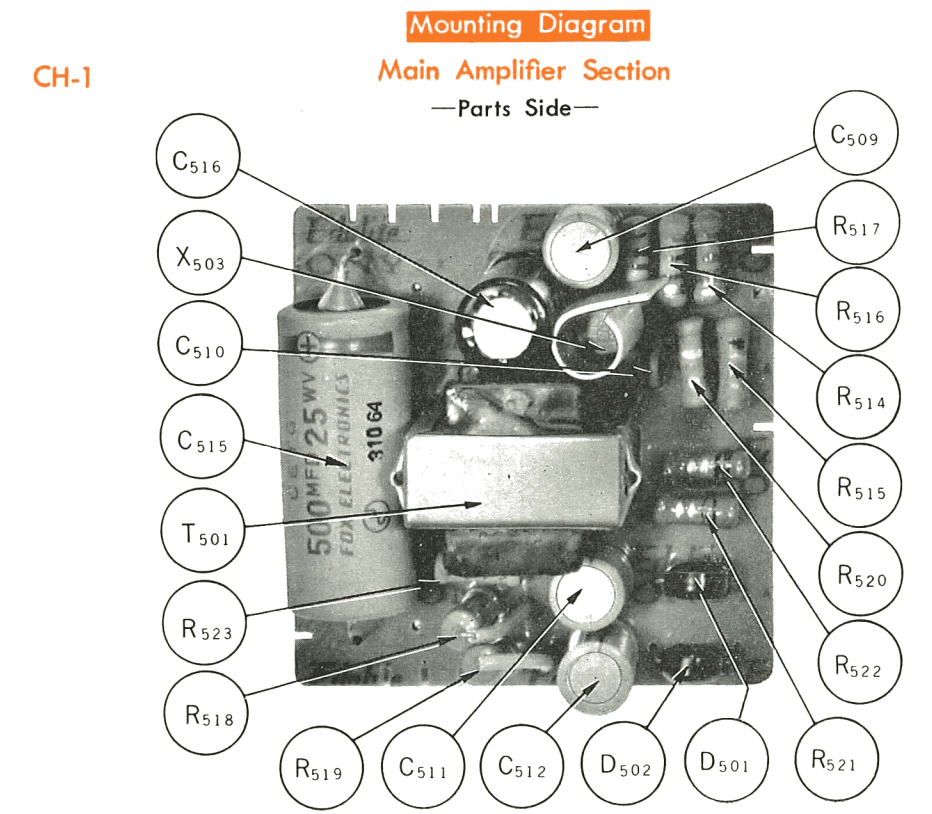
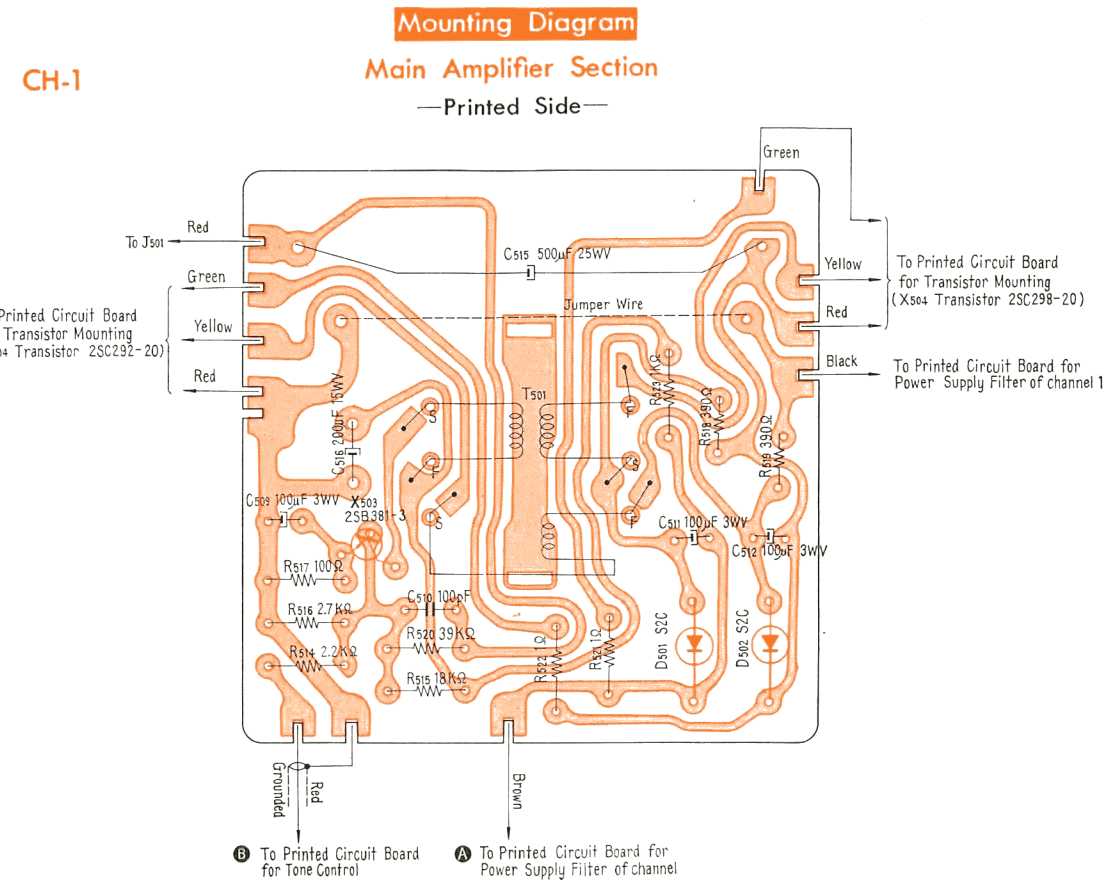


Playback Level Diagram



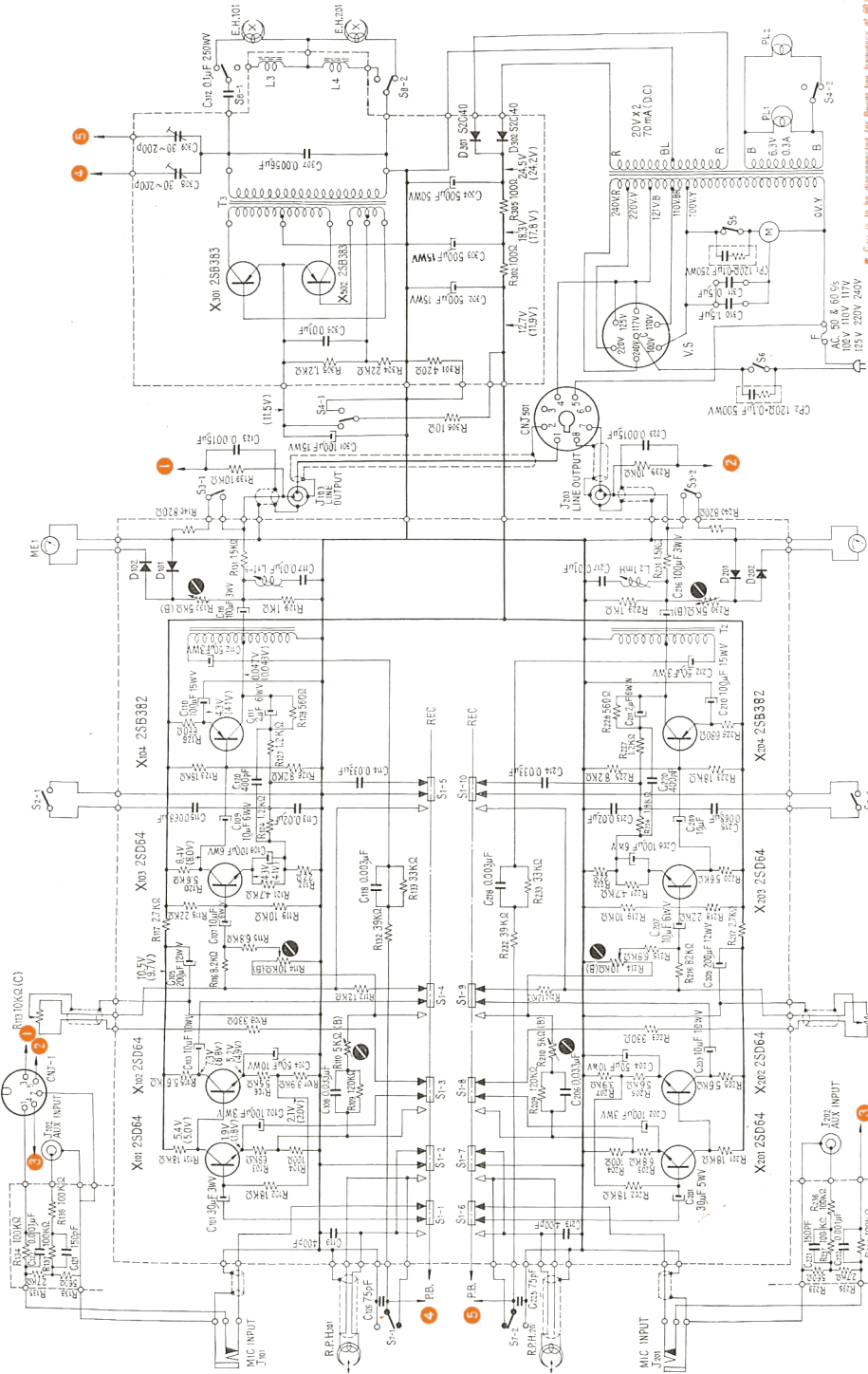
Circuit Schematic
Main Amplifier Section





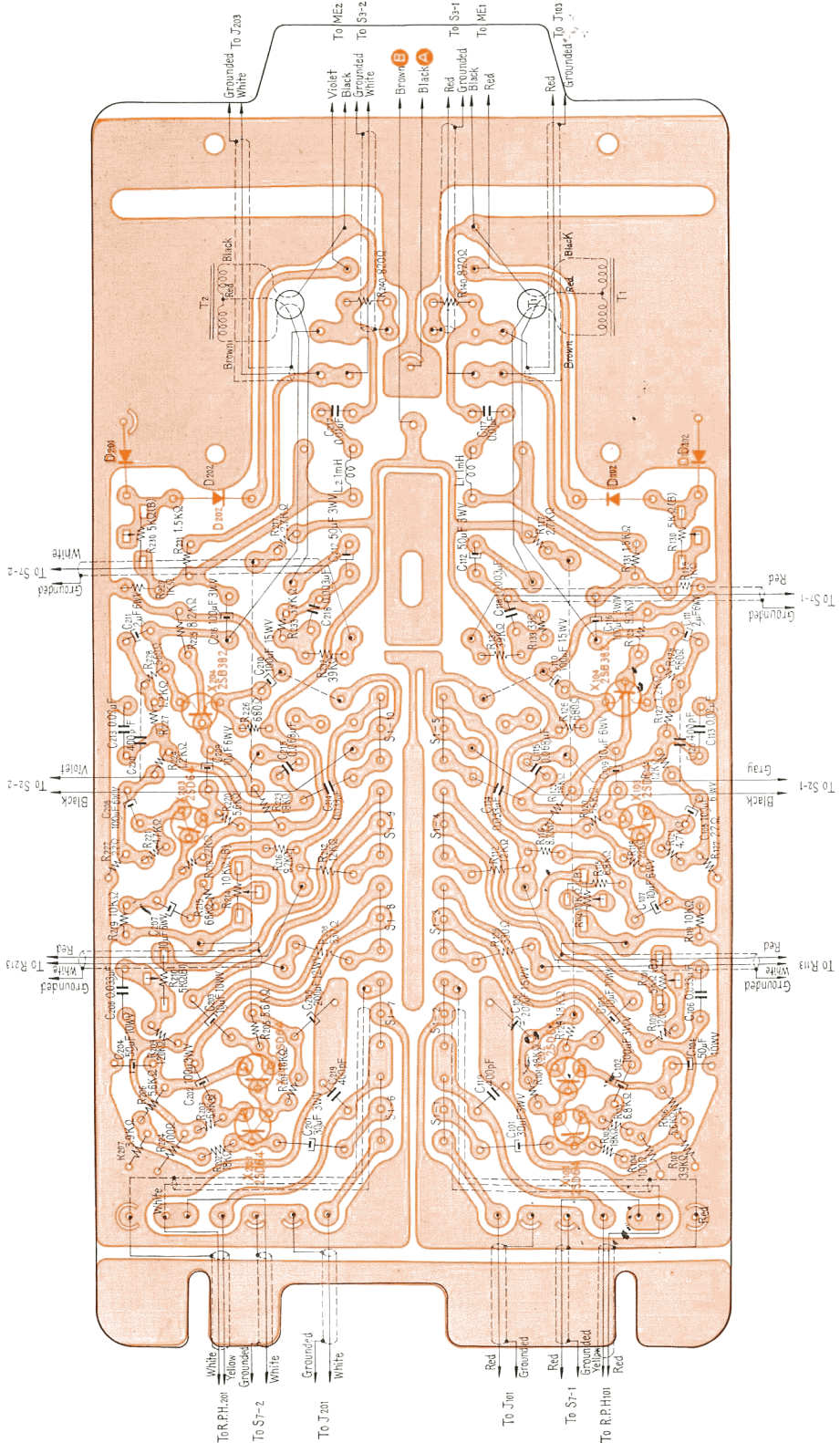
Circuit Schematic

Pre-Amplifier Section

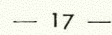


Mounting Diagram

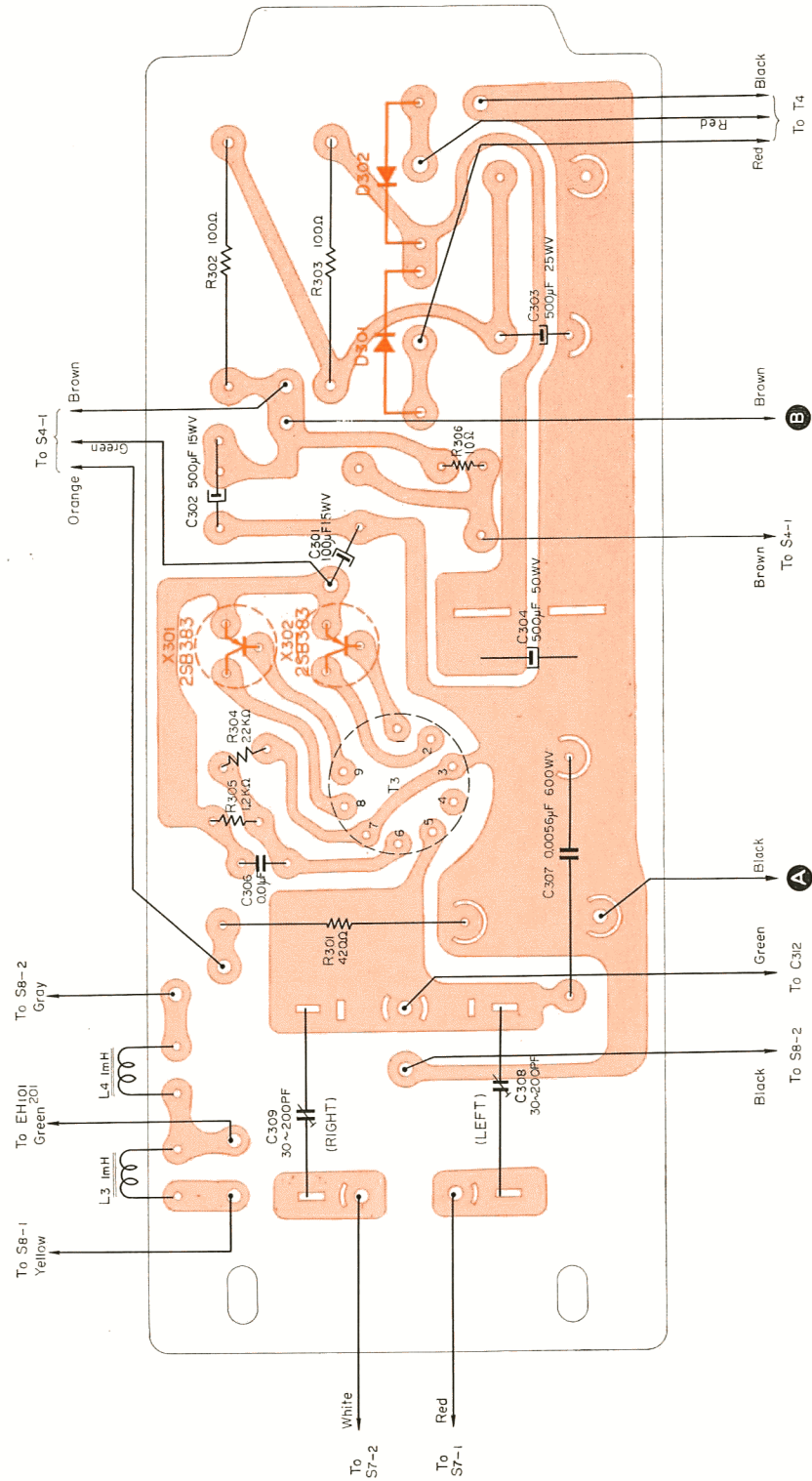
—Printed Side—



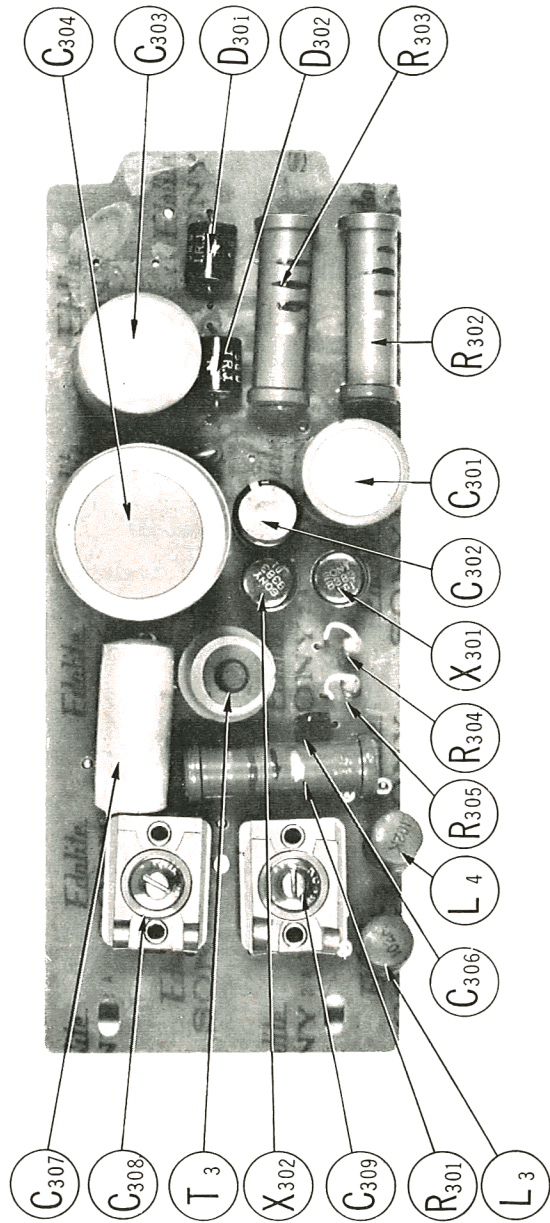
—Parts Side—



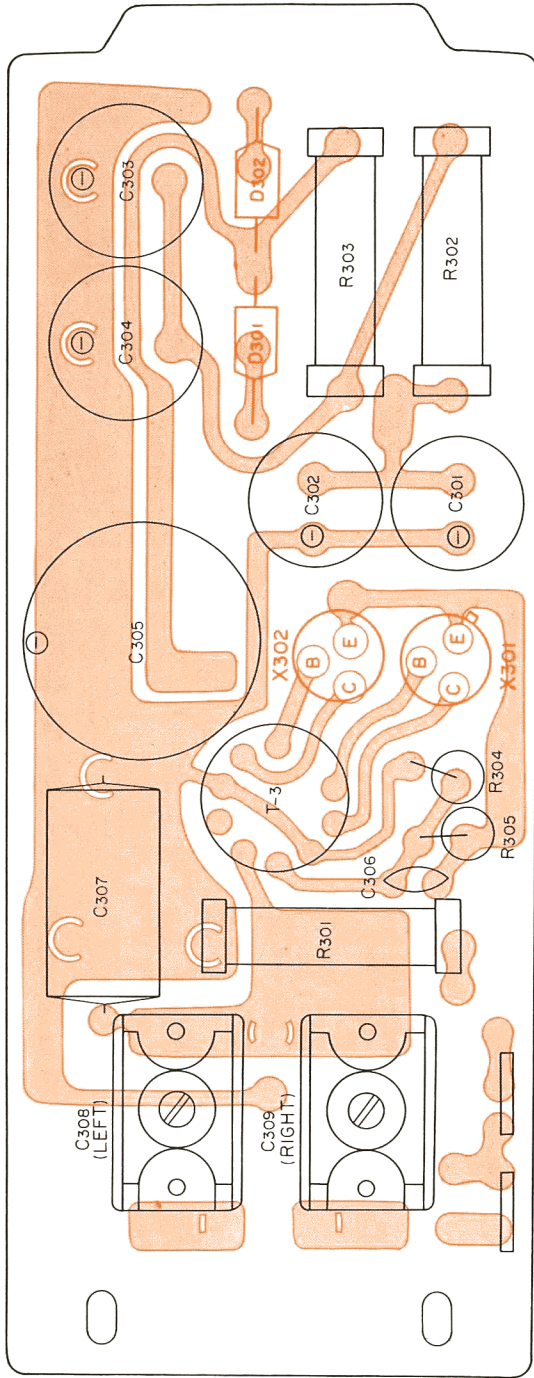
Mounting Diagram
Power Supply and OSC Section
 —Printed Side—



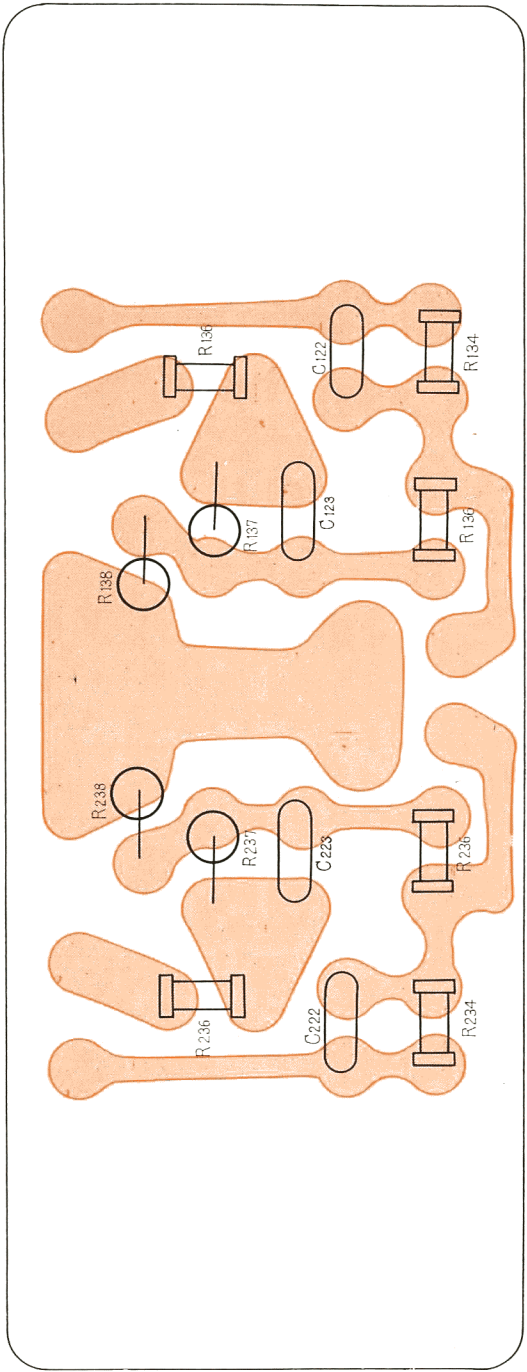
Mounting Diagram
Power Supply and OSC Section
—Parts Side—



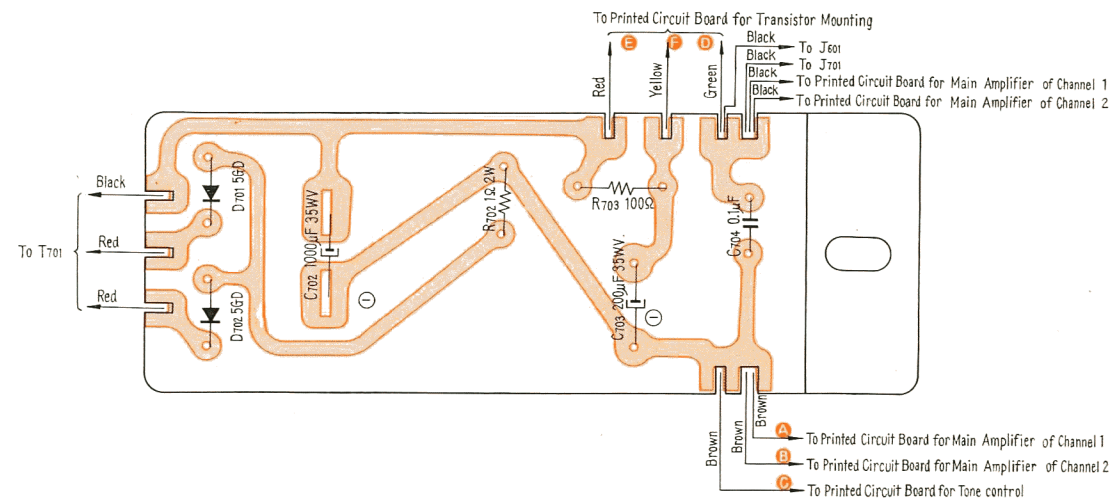
Mounting Diagram
Aux Input Section
—Printed Side—



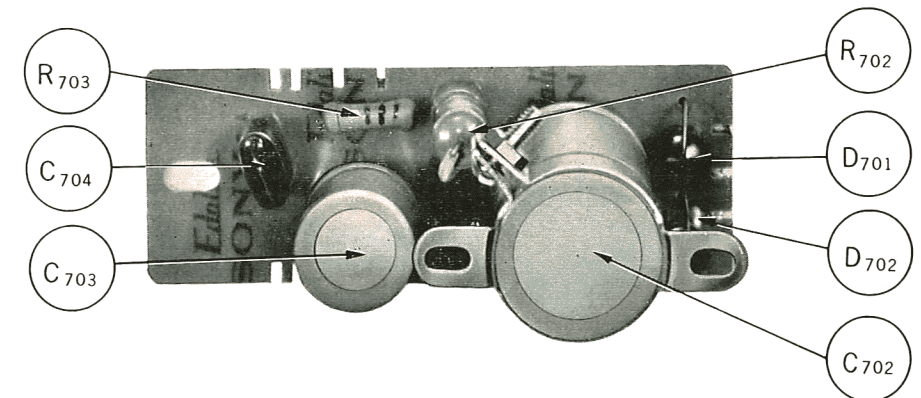
—Parts Side—



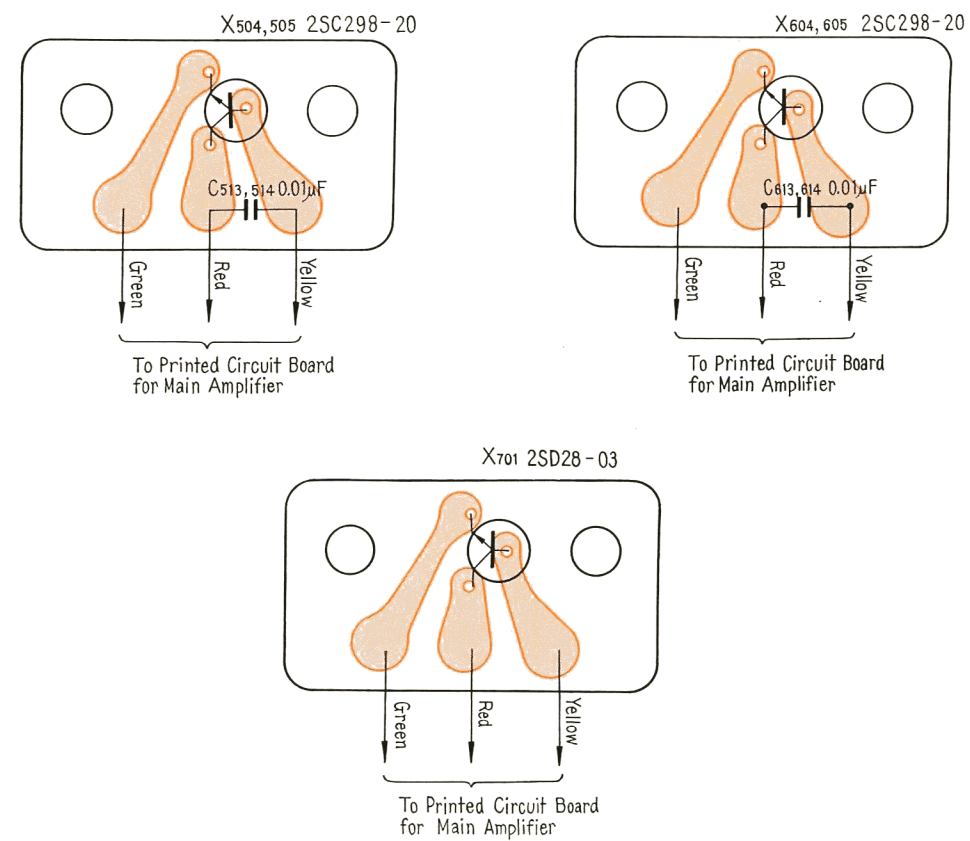
Mounting Diagram
Power Supply Filter Section
 —Printed Side—



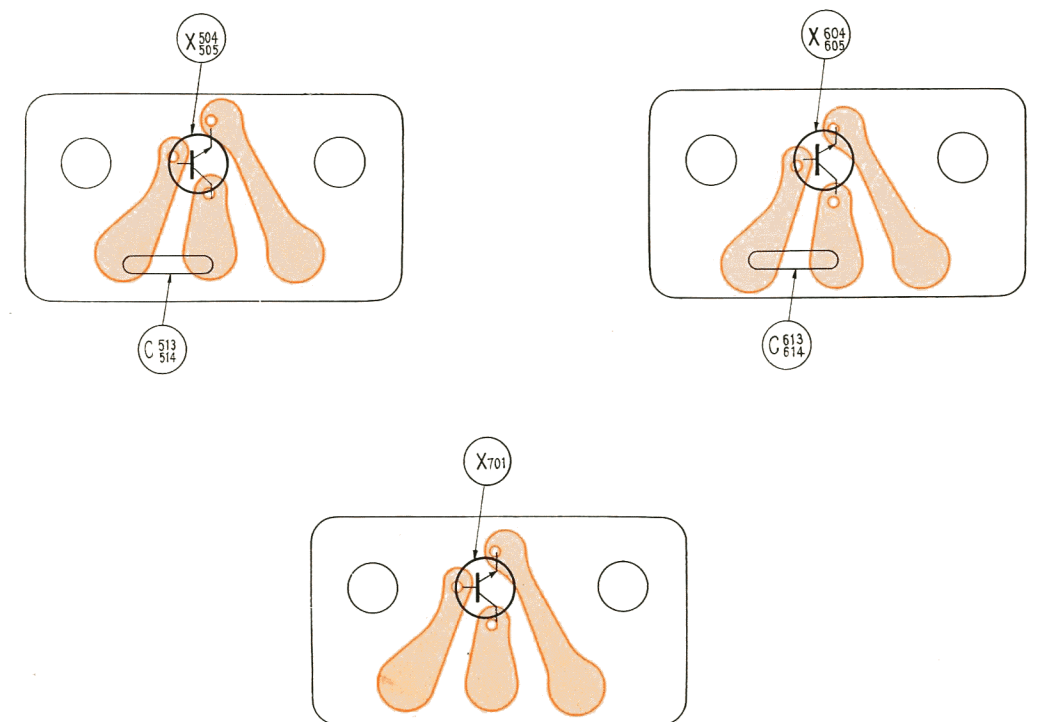
Mounting Diagram
Power Supply Filter Section
 —Parts Side—



Mounting Diagram
Transistor Mounting Section
 —Printed Side—



Mounting Diagram
Transistor Mounting Section
 —Parts Side—



—Printed Side—



—Parts Side—



Parts List

I. K. Cabinet & Appearance Items

Symbol	Description	Q'ty	Remarks	Symbol	Description	Q'ty	Remarks
K1	Cabinet Assembly, including	1		K6-4	Escutcheon for Binaural Monitor Jack	(1)	
K1-1	Pocket Lid Assembly	(1)		K7	Pocket Lid Assembly, including	1	
K1-2	Cabinet Foot (A) Assembly	(2)		K7-1	Pocket Lid	(1)	
K1-3	Cabinet	(1)		K7-2	Fastener for Pocket Lid (A)	(2)	
K1-4	Grill Retainer	(2)		K7-3	" (B)	(2)	
K1-5	Grill Metal	(2)		K7-4	Cushion for Pocket Lid	(4)	
K1-6	Grill Cushion	(2)		K7-5	Screw $\oplus$ RK2.6 $\times$ 7	(4)	
K1-7	Cabinet Sash (A)	(2)		K7-6	Nut 2.6 ϕ	(4)	
K1-8	" (B)	(1)		K7-7	Spring Washer 2.6 ϕ	(4)	
K1-9	" (C)	(1)		K8	Cabinet Foot (A) Assembly, including	2	
K1-10	Cabinet Corner (A)	(2)		K8-1	Cabinet Foot (A)	(2)	
K1-11	" (B)	(2)		K8-2	Cushion for Cabinet Foot	(4)	
K1-12	Pocket Cushion	(2)		K9	Cabinet Cover Pull Assembly, including	1	
K1-13	Ornamental Strip (A)	(2)		K9-1	Cabinet Cover Pull	(1)	
K1-14	" (B)	(1)		K9-2	Name Plate for Cabinet Cover Pull	(1)	
K1-15	Amplifier Holding Angles	(2)		K10	Cabinet Cover Lock Assembly, including	1	
K1-16	Cabinet Foot (B)	(2)		K10-1	Cabinet Cover Lock	(1)	
K1-17	Black Felt (B)	(1)		K10-2	Cabinet Cover Lock Holder	(1)	
K1-18	Duct	(1)		K10-3	Cabinet Cover Lock Spring	(1)	
K1-19	Foot Stopper	(4)		K10-4	Split Pin 3 ϕ $\times$ 32	(1)	
K1-20	Speaker Set Screw	(8)		K11	Head Cover (A) Assembly, including	1	H3
K1-21	Rubber Foot	(4)		K11-1	Name Label for Head Cover (A)	(1)	
K1-22	Black Felt (D)	(1)		K11-2	Head Cover (A)	(1)	
K1-23	Vinyl Cushion for Speaker	(1)		K12	Reel Panel (A) Assembly, including	1	
K1-24	Supporter for Printed Circuit Board	(1)		K12-1	Recording Box (A)	(1)	
K1-25	Screw $\oplus$ R3 $\times$ 30	(4)		K12-2	Reel Panel (A)	(1)	
K1-26	$\oplus$ RF4 $\times$ 25	(4)		K12-3	Tape Guide	(1)	
K1-27	$\oplus$ R3 $\times$ 25	(4)		K12-4	Pilot Lamp Cover	(1)	
K1-28	Wood Screw $\oplus$ R3.1 $\times$ 25	(4)		K12-5	Washer for Reel Panel	(2)	
K1-29	" $\oplus$ K2.4 $\times$ 7	(19)		K12-6	Head Cover Holding Stud	(4)	
K1-30	" $\oplus$ K2.7 $\times$ 10	(30)		K12-7	Ornamental Panel (A)	(1)	
K1-31	" $\oplus$ R3.1 $\times$ 12	(6)		K12-8	Special Nut (A)	(3)	
K1-32	Washer 3 ϕ	(8)		K12-9	" (B)	(2)	
K1-33	" 4 ϕ	(4)		K12-10	Screw $\oplus$ RF 2 $\times$ 6	(5)	
K1-34	Spring Washer 3 ϕ	(8)		K12-11	" $\oplus$ B 3 $\times$ 5	(2)	
K1-35	" 4 ϕ	(4)		K12-12	Lock Nut 3 ϕ	(4)	
K1-36	Nut 3 ϕ	(8)		K12-13	" 2.6 ϕ	(1)	
K1-37	" 4 ϕ	(4)		K12-14	Spring Washer 2.6 ϕ	(1)	
K2	Cabinet Cover Assembly, including	1		K12-15	" 3 ϕ	(4)	
K2-1	Cabinet Cover	(1)		K13	Power Push Button Assembly, including	1	
K2-2	Cabinet Hinge	(2)		K13-1	Power Push Button	(1)	
K2-3	Cabinet Cover Pull Assembly	(1)		K13-2	Collar for Power Push Button	(1)	
K2-4	Cabinet Cover Lock Assembly	(1)		K14	Record Volume Control Knob Assembly, including	2	
K2-5	Wood Screw $\oplus$ R3.1 $\times$ 8	(2)		K14-1	Record Volume Control Knob	(1)	
K2-6	" $\oplus$ R3.1 $\times$ 10	(4)		K14-2	Spacer for Record Volume Control Knob	(1)	
K2-7	Screw $\oplus$ RF3 $\times$ 25	(2)		K15	Speed Selector Knob Assembly, including	1	
K2-8	U Shaped Plastic Part	(1)		K15-1	Speed Selector Knob	(1)	
K3	Control Knob Assembly	3		K15-2	Ornamental Plate for Speed Selector Knob	(1)	
K4	Volume Control Knob Assembly	1		K15-3	Set Screw for Speed Selector Knob	(1)	
K5	Control Panel Assembly	1		K16	Reel Cap Assembly	2	
K5-1	Black Felt (C)	(1)		K17	Function Selector Knob Assembly, including	1	F4
K5-2	Pad Plate for Amplifier Chassis	(1)					
K5-3	Control Sash	(1)					
K5-4	Control Panel	(1)					
K5-5	Reinforcing Pad Plate	(1)					
K5-6	Wood Screw $\oplus$ K2.7 $\times$ 10	(4)					
K6	Ornamental Plate for Amp. Assembly, including	1					
K6-1	Black Felt (A)	(1)					
K6-2	Ornamental Plate for Amp.	(1)					
K6-3	Ornamental Strip	(1)					

Parts List

Symbol	Description	Q'ty	Remarks	Symbol	Description	Q'ty	Remarks
K17-1	Function Selector Knob	(1)		K28	Speaker Jack Plate	1	
K17-2	Set Screw for Function Selector Knob	(1)		K29	Ornamental Plate for Speaker Jack	1	
K17-3	Polyethylene Sheet for Function Selector Knob	(1)		K30	Felt Washer for Handle Escutcheon	1	
K18	Back Panel Assembly	1		K31	Vibration Absorber for Reel Panel (A)	1	
K19	Handle Escutcheon	1		K32	" (B)	1	
K20	Handle Cover	2		K33	Name Plate on Back Panel	1	
K21	Carrying Handle	1		K34	Felt Pad for Power Push Button	1	
K22	Volume Control Knob (A) (Play, Right)	1		K35	Vibration Absorber for Reel Panel (C)	5	
K23	Head Cover (B)	1	H4	K36	Cabinet Washer	5	
K24	Ornamental Washer for Control Panel	4		K37	Washer for Reel Panel	3	
K25	Specification Label	1		K38	Polyethylene Washer for Reel Panel	1	
K26	Bakelite Washer for Speaker	8		K39	Nylon Washer for Bottom Set Screw	4	
K27	Speaker Jack Escutcheon	1		K40	Caution Label	1	
				K41	Nylon Washer t=0.5	2	
				K42	Binaural Jack Escutcheon	1	

II. Mechanical Parts

Symbol	Description	Q'ty	Remarks	Symbol	Description	Q'ty	Remarks
	A. Amplifier Block			F6	Muting Switch Holding Bracket	1	
A1	Power Supply Chassis	1		F7	Cam Shaft	1	
A2	Heat Sink A	2		F8	Cam for Muting Switch	1	
A3	" B	1		F9	Stepper Spring	1	
A4	Transformer Cover	1		F10	Stepper Shaft	1	
A5	Binder on Power Supply Chassis	2		F11	Stepper Arm Assembly	1	
A6	Wire Retainer	3		F12	Pull Rod Holding Bracket	1	
A7	Transistor Head Sink	2			G. Deck Block		
A8	Transformer Holder	1		G1	Deck Assembly, including	1	
A9	Power Cord Retainer	1		G1-1	Thrust Bearer	(1)	
A10	Shield Plate	1		G1-2	Insulation Fiber	(1)	
	B. Brake Block			G2	Leg A	2	
B1	Brake Lever Assembly, including	1		G3	Leg B	2	
B1-1	Brake Lever	(1)		G4	Level Meter Holder	1	
B1-2	Brake Felt	(1)		G5	Equalizer Switch Holding Bracket	1	
B2	Brake Block	1		G6	Tape Index Counter Holding Bracket	1	
B3	Brake Block Spring	1		G7	Meter Lamp Holder	1	
B4	Spring for Pull Rod (B)	3		G8	Pilot Lamp Holder	1	
B5	Spring for Brake Lever	1		G9	Cushion for Level Meter	2	
B6	Push Rod for Pause	1		G10	Fuse Cover	1	
	F. Function Selector Mechanism			G11	Cushion for Output Transformer	2	
F1	Muting Switch Assembly	1		G12	Idler Guide Bracket	1	Q19
F2	Function Selector Cam Assembly, including	1		G13	Idler Guide	2	Q20
F2-1	Function Selector Cam Boss Assembly	(1)		G14	Handle Hunger	2	
F2-2	Fast Forward Cam	(1)		G15	Miniature Input Jack Spacer	2	
F2-3	Screw $\oplus$ RF 3 $\times$ 6	(1)		G16	Idler Guide (B)	1	
F2-4	Spring Washer 3 ϕ	(1)		G17	Counter Belt Pulley	2	
F3	Function Selector Cam Boss Assembly, including	1		G18	Counter Belt	2	
F3-1	Function Selector Cam Boss	(1)		G19	Counter Pulley Spacer	1	
F3-2	Set Screw for Function Selector Cam	(1)		G20	Cord Stopper (Small)	1	
F3-3	Function Selector Cam Boss (B)	(1)		G21	Capacitor Cap	1	
F3-4	Set Screw	(1)		G22	Counter Pulley Shaft	1	
F4	Function Selector Knob Assembly	1		G23	Tape Index Counter	1	
F5	Cam for Actuator	1	K17	G24	Muting Switch Mounting Bracket	1	
				G25	Counter Pulley Spacer 3.2 ϕ	2	
				G26	Polyethylene Washer for Jack	1	
				G27	Fiber Washer for Jack	1	
				G28	Wire Retainer	1	
				G29	4 ϕ Paper Washer for Tape Index Counter	2	

Parts List

Symbol	Description	Q'ty	Remarks	Symbol	Description	Q'ty	Remarks
H. Head Deck Block				Q. Idler Mechanism			
H1	Head Deck Assembly, including	1		Q1	Idler Arm Assembly	1	
H1-1	Head Deck	(1)		Q2	Take-up Idler Plate Assembly	1	
H1-2	Pinch Lever Shaft	(1)		Q3	Capstan Idler Assembly	1	
H2	Head Hinge Assembly, including	1		Q4	Idler Shaft Assembly	1	
H2-1	Head Hinge (A)	(1)		Q5	Take-up Idler Assembly	1	
H2-2	" (B)	(1)		Q6	Rewind Idler Assembly	1	
H2-3	Head Hinge Shaft	(1)		Q7	Capstan Idler Arm Assembly	1	
H2-4	Head Hinge Spring	(1)		Q8	Rewind Idler Spring	1	
H3	Head Cover (A) Assembly	1	K11	Q9	Capstan Idler Cap	1	
H4	Head Cover (B)	1	K23	Q10	Pull Rod for Take-up Idler	1	
H5	Oil Absorber	1		Q11	Push Rod for Capstan Idler	1	
H6	Erase Head Mounting Bracket	1		Q12	Rewind Control Rod	1	
H7	Rec./P.B. Head Mounting Bracket	1		Q13	Idler Retainer	1	
H8	Tape Guide (Right)	1		Q14	Nylon Washer (B) for Take-up Idler	1	
H9	Rec./P.B. Head Mounting Spacer	1		Q15	Nylon Washer t=0.5	2	
H10	Head Shield Plate	1		Q16	Idler Cushion	1	
H11	Pad for Head Shield Plate	1		Q17	Idler Guide (B)	1	
H12	Tape Pad Shifter	1		Q18	Idler Spring	1	
H13	Head Terminal Strip	1		Q19	Idler Guide Bracket	1	G12
H14	Shield Case for Rec./P.B. Head	1		Q20	Idler Guide	1	G13
H15	Tape Guide Shaft	1		Q21	Thin Washer 5φ	2	
H16	Tape Guard (B)	1		Q22	Helical Spring (H)	1	
H17	Tape Guide (B)	1		Q23	Oil Absorber t=1	1	
H18	Tape Guide Adjusting Spring	1		Q24	Paper Washer 5φ	2	
H19	Head Adjusting Spring	1		Q25	" 6φ	3	
H20	Head Adjusting Screw	1		Q26	Idler Pressure Spring	1	
H21	Pad (small) for Head Shield Plate	1		Q27	Idler Spring 0.6φ	1	
H22	Pad (large) for Head Shield Plate	1		Q28	Idler Spring t=0.2	1	
H23	Rec./P.B. Head PP30-4202	1		Q29	Idler Plate (B)	1	
H24	Erase Head EF18-2902 (H)	1		Q30	Push Rod Retainer Bracket	1	
N. Capstan & Flywheel Mechanism				T. Reel Table Block			
N1	Capstan Shaft Assembly, including	1		T1	Supply Reel Table Assembly, including	1	
N1-1	Steel Ball	(1)		T1-1	Reel Table Spring	(1)	
N2	Oil Absorber for Capstan Shaft	1		T1-2	Supply Reel Table (Middle Part)	(1)	
N3	Capstan Set Screw	1		T1-3	" (Lower Part)	(1)	
N4	Capstan Shaft Holder Retainer	1		T1-4	" (Upper Part)	(1)	
N5	Capstan Shaft Holder Cap	1		T1-5	Thrust Washer for Reel Table	(1)	
N6	Capstan Shaft Holder	1		T1-6	Friction Felt (S)	(1)	
N7	Oil Absorber Retainer for Capstan	1		T1-7	Retaining Ring E-8	(1)	
N8	Oil Absorber for Capstan	1		T2	Take-up Reel Table Assembly, including	1	
N9	Nylon Washer for Capstan Shaft	1		T2-1	Friction Felt S	(1)	
N10	Motor Pulley	1		T2-2	Take-up Reel Table (Upper Part)	(1)	
N12	Set Screw for Motor Pulley	1		T2-3	" (Lower Part)	(1)	
N13	Hum-Proof Belt for Motor	1		T2-4	" (Middle Part)	(1)	
N14	Hum-Proof Belt Mounting Spacer	1		T2-5	Thrust Washer for Reel Table	(1)	
N15 (A)	Capstan 50 c/s	1		T2-6	Reel Table Spring	(1)	
N15 (B)	" 60 c/s	1		T2-7	Retaining Ring E-8	(1)	
P. Pinch Roller Mechanism				T3	Take-up Reel Spindle Drum Assembly, including	1	
P1	Pinch Lever Assembly	1		T3-1	Friction Felt (Upper Side)	(1)	
P2	Pinch Roller Covering Plate	1		T3-2	" (Lower Side)	(1)	
P3	Pinch Lever Spring	1		T3-3	Oil Absorber	(1)	
P4	Pinch Roller Spacer	1		T3-4	Take-up Reel Spindle Drum	(1)	
P5	Helical Spring (D)	1		T4	Supply Spindle Deck Assembly, including	1	
P6	Oil Absorber for Pinch Roller	1		T4-1	Supply Spindle Deck	(1)	
P7 (A)	Pinch Roller 50 c/s	1		T4-2	Supply Friction Felt	(1)	
P7 (B)	" 60 c/s	1					

Parts List

Symbol	Description	Q'ty	Remarks	Symbol	Description	Q'ty	Remarks
T5	Take-up Spindle	1		Y10	⊕RF 2.6 × 25	1	
T6	Supply Spindle	1		Y11	// RF 3 × 3	1	
T7	Supply Spindle Spacer	1		Y12	// RF 3 × 3	3	
T8	Take-up Spindle Spacer	1		Y13	// RF 3 × 4	3	
T9	Felt for Reel Spindle Drum	1		Y14	// RF 3 × 4	1	
T10	Reel Cap Spacer (A)	2		Y15	// RF 3 × 5	23	
T11	" (B)	2		Y16	// RF 3 × 5	5	
	S. Speed Selector Mechanism			Y17	// RF 3 × 5	2	
S1	Speed Selector Knob Assembly	1	K15	Y18	// RF 3 × 6	6	
S2	Equalizer Switch (A)	1		Y19	// RF 3 × 6	10	
S3	" (B)	1		Y20	// RF 3 × 8	6	
S4	Speed Selector Shaft	1		Y21	// RF 3 × 8	1	
S5	Speed Selector Shaft Spring	1		Y22	// RF 3 × 8	1	
S6	Speed Selector Shaft Pin	1		Y23	// RF 3 × 8	2	
S7	Speed Selector Shaft Washer	1		Y24	// RF 3 × 10	1	
S8	Split Nut	3		Y25	// RF 3 × 10	2	
S9	Equalizer Switch Mounting Bracket	1	G5	Y26	// RF 3 × 10	6	
S10	Muting Switch	1		Y27	// RF 3 × 12	10	
	U. Recording Mechanism			Y28	// RF 3 × 12	2	
U1	Recording Shaft Stopper Assembly, including	1		Y29	// RF 3 × 14	2	
U1-1	Recording Shaft Stopper	(1)		Y30	// RF 4 × 6	8	
U1-2	Screw ⊕RF 2.6 × 6	(1)		Y31	// RF 4 × 8	12	
U2	Record Switching Lever Holder	1		Y32	// RF 4 × 8	2	
U3	Recording Lever	1		Y33	// RF 4 × 10	1	
U4	Slide Switch Mounting Bracket	1		Y34	// RF 4 × 12	1	
U5	Recording Button	1		Y35	// RF 4 × 30	1	
U6	Spring for Recording Lever	1		Y36	⊕K 2 × 5	2	
U7	Record Push Rod	1		Y37	// K 2 × 6	1	
U8	"	1		Y38	// K 2 × 18	2	
U9	Restoring Spring for Slide Switch	1		Y39	⊕RK 2 × 10	2	
U10	Pull Rod for Slide Switch	1		Y40	// RK 4 × 25	4	
U11	Spring for Slide Switch Control Rod	3		Y41	⊕B 3 × 6	2	
U12	Lock Lever Spring	1		Y42	// B 3 × 6	5	
U13	VU Meter Cushion	1		Y43	// B 5 × 50	2	
	W. Automatic Shut-off Actuator			Y44	⊕R 2.7 × 10	6	
W1	Automatic Shut-off Actuator Assembly	1		Y45	⊕T 3 × 8	1	
W2	Actuator Control Lever	1			Set Screw (Minimum Q'ty Ordering : 100 pcs.) 3 × 6	2	
W3	Actuator Cam	1		Y46			
W4	Automatic Shut-off Switch Lever	1			Hexagonal Screw (Minimum Q'ty Ordering : 100 pcs.) 3 × 6	1	
W5	Shaft Pull Rod for Actuator Lever	1		Y47			
	Y. Screws, Washers & Miscellaneous				Self Tapping (Minimum Q'ty Ordering : 100 pcs.) 3 × 6	2	
Y1	⊕RF 2 × 3	2			Nuts (Minimum Q'ty Ordering : 100 pcs.)		
Y2	// RF 2 × 4	2		Y48			
Y3	// RF 2 × 8	1		Y49	2.6φ	2	
Y4	// RF 2 × 12	2		Y50	3φ	29	
Y5	// RF 2 × 12	4		Y51	4φ	5	
Y6	// RF 2 × 18	2			Washers (Minimum Q'ty Ordering : 100 pcs.)		
Y7	// RF 2.6 × 4	2		Y52	2φ (Small)	2	
Y8	// RF 2.6 × 6	1		Y53	2φ (Medium)	2	
Y9	// RF 2.6 × 20	3		Y54	2φ (Large)	4	
				Y55	2.6φ (Small)	2	
				Y56	2.6φ (Medium)	2	
				Y57	3φ (Medium)	40	
				Y58	4φ (Small)	4	

Parts List

Symbol	Description	Q'ty	Remarks	Symbol	Description	Q'ty	Remarks
Y59	4φ (Medium)	2		Y87	16/0.12×1.2φ White	60	
Y60	6φ t=0.5	2			Shielded Cables (Single Conductor) (Minimum Q'ty Ordering : 1 m)		
	Spring Washers (Minimum Q'ty Ordering : 100 pcs.)					mm	
Y61	2φ	7		Y88	16/0.12×2.6φ Gray & Red	2,380	
Y62	2.6φ	2		Y89	" Gray & White	2,400	
Y63	3φ	78		Y90	7/0.18×2.6φ Black & Red	430	
Y64	4φ	24		Y91	" Black & White	410	
	Star Washer (Minimum Q'ty Ordering : 100 pcs.)				Shielded Cables (Two Conductor) (Minimum Q'ty Ordering : 1 m)		
Y65	3φ	11		Y92	12/0.12×3.6φ	mm	
	Lugs (Minimum Q'ty Ordering : 100 pcs.)				Black & Red, Yellow	390	
Y66	3φ	3		Y93	16/0.18×3.6φ		
Y67	4φ	1			Black & Red, White	430	
	Eyelet (Minimum Q'ty Ordering : 100 pcs.)				Z. Accessories		
Y68	2.5φ×5	2		Z1	Instruction Manual	1	
	Retaining Rings (Minimum Q'ty Ordering : 100 pcs.)			Z2	Inspection Card	1	
Y69	E-3	7		Z3	Reel R-7A	1	
Y70	E-5	8		Z4	Microphone F-96 (MTL)	2	
	P.V.C. Wires (Minimum Q'ty Ordering : 100 pcs.)			Z5	Connection Cord RK-56	2	
				Z6	Polyethylene Bag	1	
Y71	11/0.16×1.45φ Black	3,930		Z7	Demonstration Tape S-5	1	
Y72	" Brown	1,960		Z8	Tape Talk	1	
Y73	" Red	2,210		Z9 (A)	Capstan 50 c/s	each 1	
Y74	" Orange	900		(B)	" 60 c/s		
Y75	" Yellow	700		Z10 (A)	Pinch Roller 50 c/s	each 1	
Y76	" Green	1,600		(B)	" 60 c/s		
Y77	" Blue	1,850		Z11	Polyethylene Bag	1	
Y78	" Violet	2,430		Z12	Microphone Containing Bag for F-96	2	
Y79	" Gray	570		Z13	Head Cleaning Ribbon	1	
Y80	" White	1,440		Z14	Desiccant	1	
Y81	16/0.16×2.4φ Yellow	1,070		Z15	Check Sheet Bag	1	
Y82	" Green	70		Z16	Reel Cap	2	
Y83	" White	850		Z17	Carton Assembly, including	1	
Y84	16/0.12×1.2φ Black	60		Z17-1	Inner Carton	(1)	
Y85	" Red	60		Z17-2	Outer Carton	(1)	
Y86	" Violet	60		Z17-3	Upper & Lower side Piece	(2)	
				Z17-4	Corner Piece	(4)	
				Z18	Tack Label Assembly 50 c/s	1	
				Z19	" 60 c/s	1	
				Z20	Polyethylene Bag on Cabinet	1	

Parts List

III. Electrical Parts

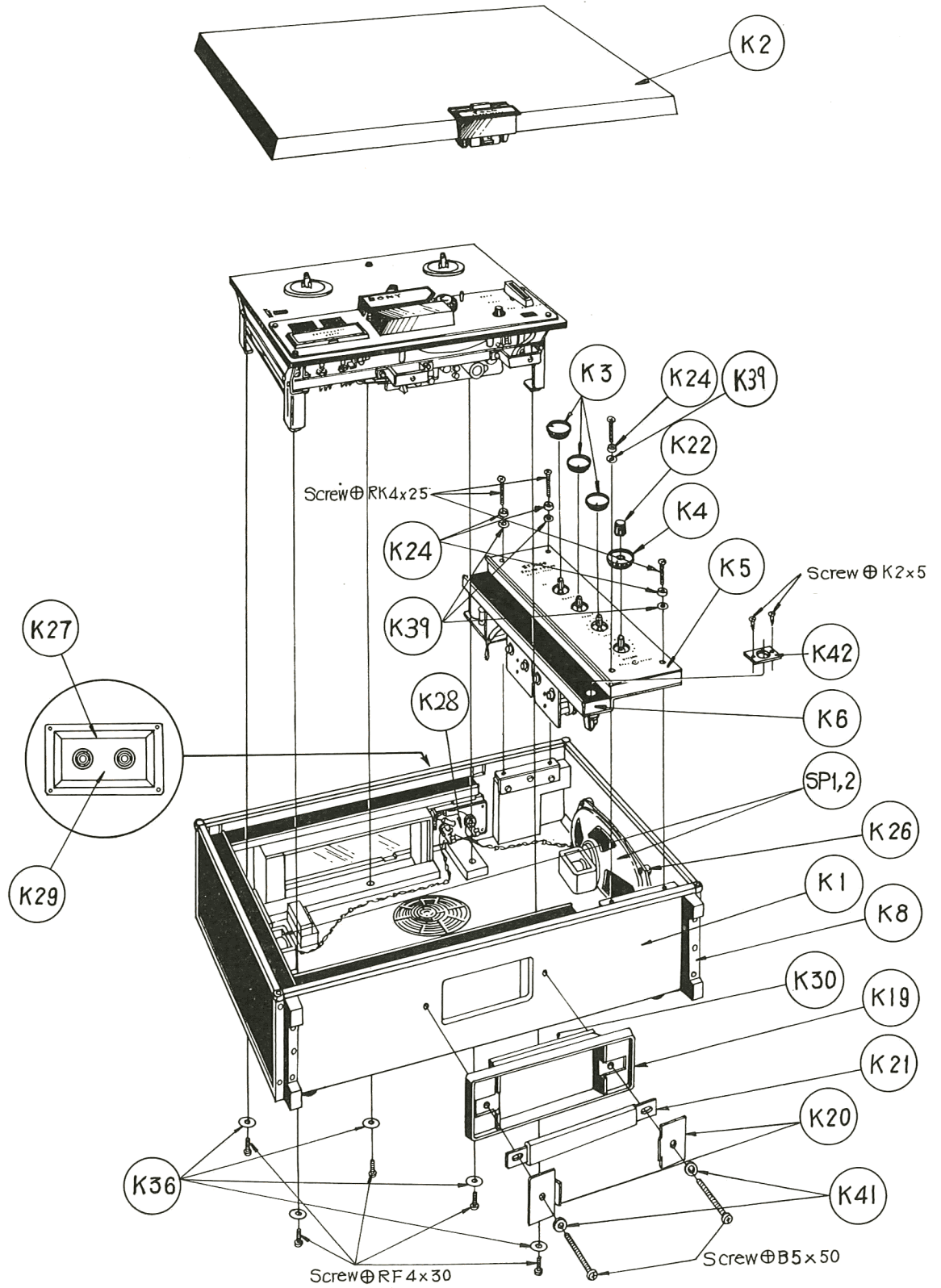
Symbol	Description	Q'ty	Remarks	Symbol	Description	Q'ty	Remarks
Pre-Amplifier Block				T ₁	Output Transformer	1	
E. Electrical Parts (General)				T ₂	"	1	
				T ₃	Bias OSC Transformer	1	
E1	Rec./P.B. Head PP 30-4202	1	H23	T ₄	Power Transformer	1	
E2	Erase Head EF18-2902 (H)	1	H24	R. Resistors			
E3	Motor IC-624	1		R _{101, 201}	Carbon 18K Ω RD $\frac{1}{8}$ RL $\pm 5\%$	2	
E4	Fuse Holder	1		R _{102, 202}	" " " "	2	
E5	Fuse 1.5A	1		R _{103, 203}	" 6.8K Ω " "	2	
E6	Terminal Strip 1L-2P	4		R _{104, 204}	" 1.2K Ω RD $\frac{1}{4}$ RL " "	2	
E7	AC Power Cord	1		R _{105, 205}	" 5.6K Ω " " $\pm 10\%$	2	
E8	Pilot Lamp Socket	2		R _{106, 206}	" " " "	2	
E9	Pilot Lamp	2		R _{107, 207}	" 3.9K Ω " "	2	
E10	Printed Circuit Board			R _{108, 208}	" 330 Ω " "	2	
	for Pre-Amp.	1		R _{109, 209}	" 120K Ω " "	2	
E11	" for OSC Power Supply	1		R _{110, 210}	Adjustable 5K Ω (B)	2	
E12	" for AUX. Input	1		R _{112, 212}	Carbon 12K Ω RD $\frac{1}{4}$ RL $\pm 10\%$	2	
	Encapsulated Component			R _{113, 213}	Volume Control w/Switch	2	
E13	0.033 μ F + 120 Ω	1		R _{114, 214}	Adjustable 10K Ω (B)	2	
E14	0.1 μ F + 120 Ω	1		R _{115, 215}	Carbon 6.8K Ω RD $\frac{1}{4}$ RL $\pm 10\%$	2	
X ₁₀₁	Transistor 2SD64-3	1		R _{116, 216}	" 8.2K Ω " "	2	
X ₁₀₂	" 2SD64-3	1		R _{117, 217}	" 2.7K Ω " "	2	
X ₁₀₃	" 2SD64-5	1		R _{118, 218}	" 22K Ω RD $\frac{1}{8}$ RL $\pm 5\%$	2	
X ₁₀₄	" 2SB382-2	1		R _{119, 219}	" 10K Ω " "	2	
X ₂₀₁	" 2SD64-3	1		R _{120, 220}	" 5.6K Ω " "	2	
X ₂₀₂	" 2SD64-3	1		R _{121, 221}	" 4.7K Ω RD $\frac{1}{4}$ RL $\pm 10\%$	2	
X ₂₀₃	" 2SD64-5	1		R _{122, 222}	" 22 Ω " "	2	
X ₂₀₄	" 2SB382-2	1		R _{123, 223}	" 18K Ω " "	2	
X ₃₀₁	" 2SB383-1	1		R _{124, 224}	" 1.2K Ω " " $\pm 5\%$	2	
X ₃₀₂	" 2SB383-1	1		R _{125, 225}	" 8.2K Ω " " $\pm 10\%$	2	
D ₁₀₁	Diode 1T206	1		R _{126, 226}	Composition 680 Ω RC $\frac{1}{2}$ $\pm 10\%$	2	
D ₁₀₂	" 1T206	1		R _{127, 227}	Carbon 1.2K Ω RD $\frac{1}{4}$ RL $\pm 5\%$	2	
D ₂₀₁	" 1T206	1		R _{128, 228}	" 560 Ω " " $\pm 10\%$	2	
D ₂₀₂	" 1T206	1		R _{129, 229}	" 1K Ω " "	2	
D ₃₀₁	" S2C40	1		R _{130, 230}	Adjustable 5K Ω (B)	2	
D ₃₀₂	" S2C40	1		R _{131, 231}	Carbon 1.5K Ω RD $\frac{1}{4}$ RL $\pm 10\%$	2	
J ₁₀₁	Mini Jack F	1		R _{132, 232}	" 39K Ω " "	2	
J ₁₀₂	2P Pin Jack	1		R _{133, 233}	" 33K Ω RD $\frac{1}{4}$ RL " "	2	
J ₁₀₃	"	1		R _{134, 234}	" 100K Ω RD $\frac{1}{8}$ RL $\pm 5\%$	2	
J ₂₀₁	Mini Jack F	1		R _{135, 235}	" 2.7K Ω " "	2	
J ₂₀₂	2P Pin Jack	1		R _{136, 236}	" 100K Ω " "	2	
J ₂₀₃	"	1		R _{137, 237}	" 100K Ω " "	2	
CNJ ₁	Rec./P.B. Connector	1		R _{138, 238}	" 560 Ω " "	2	
VS	Voltage Adaptor	1		R _{139, 239}	" 10K Ω " "	2	
CNJ ₅₀₁	8P Connector (Female)	1		R _{140, 240}	" 820 Ω RD $\frac{1}{4}$ RL $\pm 10\%$	2	
CNJ ₅₀₁	Cap for 8P Connector (Female)	1		R ₃₀₁	" 420 Ω RD 1 RL $\pm 5\%$	1	
S ₁	Rec./P.B. Selector Switch	1		R ₃₀₂	" 100 Ω " " $\pm 10\%$	1	
S ₂	Equalizer Switch	1		R ₃₀₃	" 100 Ω " "	1	
S ₃	Muting Switch	1		R ₃₀₄	" 22K Ω RD $\frac{1}{4}$ RL " "	1	
S ₄	Meter Lamp Switch	1		R ₃₀₅	" 1.2K Ω " " $\pm 5\%$	1	
S ₅	Auto/Manual Shut off-Switch	1		R ₃₀₆	" 10 Ω " " $\pm 10\%$	1	
S ₆	Power ON/OFF Switch	1		C. Capacitors			
ME ₁	VU Meter	1		C _{101, 201}	Electrolytic 30 μ F 3WV	2	
ME ₂	"	1		C _{102, 202}	" 100 μ F " "	2	
L ₁	Trap Coil 1mH	1		C _{103, 203}	" 10 μ F 10WV	2	
L ₂	" 1mH	1		C _{104, 204}	" 50 μ F " "	2	
L ₃	Dummy Coil 1mH	1		C _{105, 205}	" 200 μ F 12WV	2	
L ₄	" 1mH	1		C _{106, 206}	Mylar 0.033 μ F 50WV	2	
				C _{107, 207}	Electrolytic 10 μ F 6WV	2	
				C _{108, 208}	" 100 μ F " "	2	
				C _{109, 209}	" 10 μ F " "	2	

Parts List

Symbol	Description	Q'ty	Remarks	Symbol	Description	Q'ty	Remarks
C _{110, 210}	Electrolytic 100μF 15WV	2		CNP ₆₀₁	8P Connector (Male)	1	
C _{111, 211}	" 2μF 6WV	2		J ₅₀₁	Phono Jack Type E	1	
C _{112, 212}	" 50μF 3WV	2		J ₆₀₁	Phono Jack Type E	1	
C _{113, 213}	Mylar 0.02μF 50WV	2		J ₇₀₁	Binaural Monitor Jack	1	
C _{114, 214}	" 0.033μF "	2					
C _{115, 215}	" 0.068μF "	2					
C _{116, 216}	Electrolytic 100μF 3WV	2					
C _{117, 217}	Mylar 0.01μF 50WV	2					
C _{118, 218}	" 0.003μF "	2					
C _{119, 219}	Polyethylene 400μF 50WV	2					
C _{120, 220}	" " "	2					
C _{121, 221}	Mica 150μF 500WV	2					
C _{122, 222}	Mylar 0.001μF 50WV	2					
C _{123, 223}	" 0.0015μF "	2					
C _{124, 224}	" 0.033μF "	2					
C _{125, 225}	Mica 75μF "	2					
C ₃₀₁	Electrolytic 100μF 15WV	1					
C ₃₀₂	" 500μF "	1					
C ₃₀₃	" 500μF "	1					
C ₃₀₄	" 500μF 50WV	1					
C ₃₆₆	Mylar 0.0056μF 600WV	1					
C ₃₀₇	Polyethylene 0.0056μF 600WV	1					
C ₃₀₈	Trimmer Capacitor 30~200P	1					
C ₃₀₉	" 30~200P	1					
C ₃₁₀	MP Capacitor 1.5μF	1					
C ₃₁₁	" 0.5μF	1					
C ₃₁₂	" 0.1μF	1					
Main Amplifier Bloc							
E. Electrical Parts (General)							
E15	Terminal Strip 1L-2P	2					
E16	" 1L-1P	1					
E17	Printed Circuit Band for Tone Control	1					
E18	for Power Amp.	2					
E19	for Power Supply Filter	1					
E20	for Transistor Mounting	1					
X ₅₀₁	Transistor 2SB381-1	1					
X ₅₀₂	" "	1					
X ₅₀₃	" 2SB381-3	1					
X ₅₀₄	" 2SC298-20	1					
X ₅₀₅	" "	1					
X ₆₀₁	" 2SB381-1	1					
X ₆₀₂	" "	1					
X ₆₀₃	" 2SB381-3	1					
X ₆₀₄	" 2SC298-20	1					
X ₆₀₅	" "	1					
X ₇₀₁	" 2SD28	1					
D ₅₀₁	Dicor S2C	1					
D ₅₀₂	" "	1					
D ₆₀₁	" "	1					
D ₆₀₂	" "	1					
D ₇₀₁	" 5G-D	1					
D ₇₀₂	" "	1					
T ₅₀₁	Input Transformer	1					
T ₆₀₁	"	1					
T ₇₀₁	Power Transformer	1					
SP ₁	Speaker	1					
SP ₂	"	1					
S ₅₀₁	Rotary Switch	1					

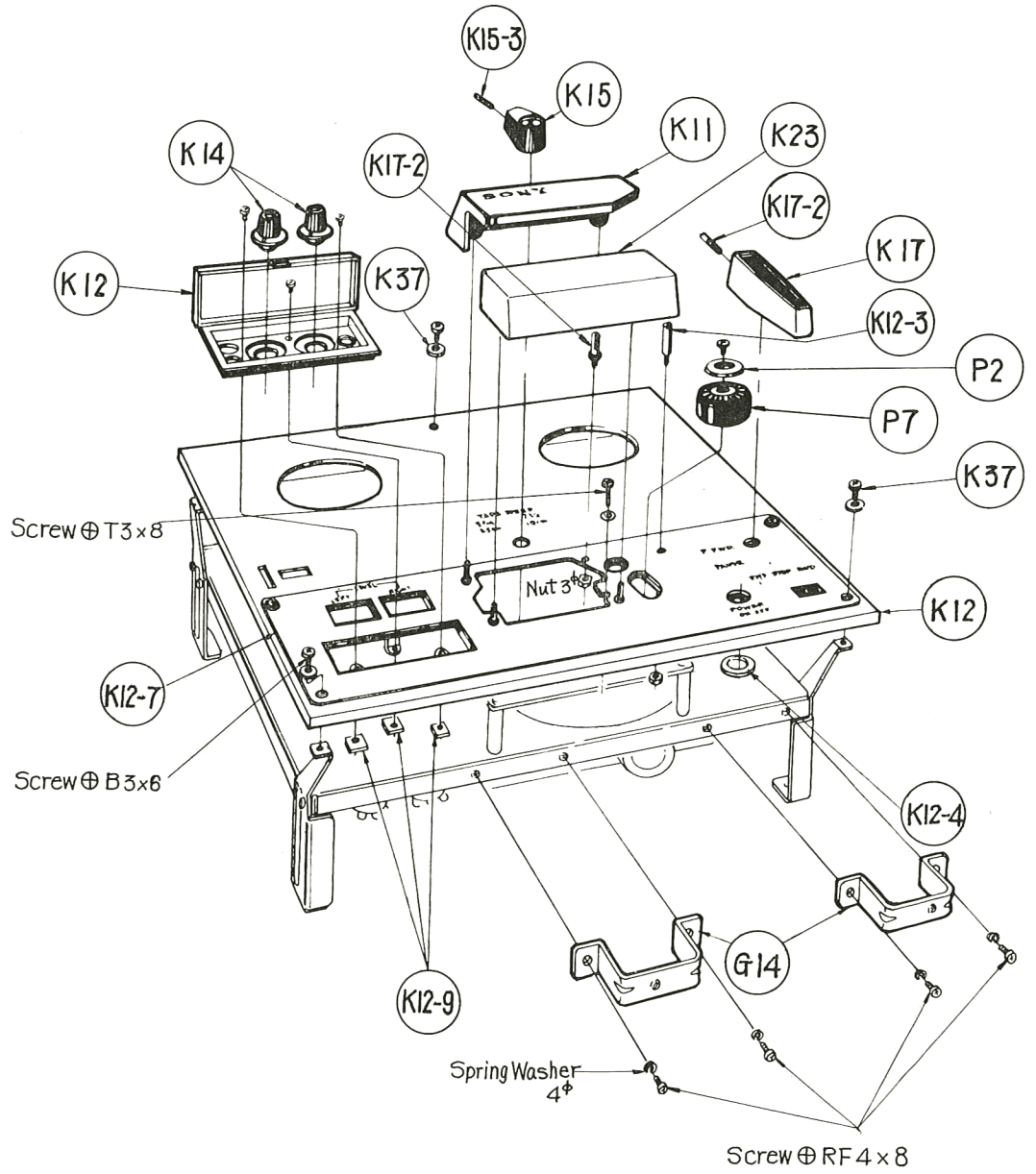
Exploded Diagram

(1)



Exploded Diagram

(2)

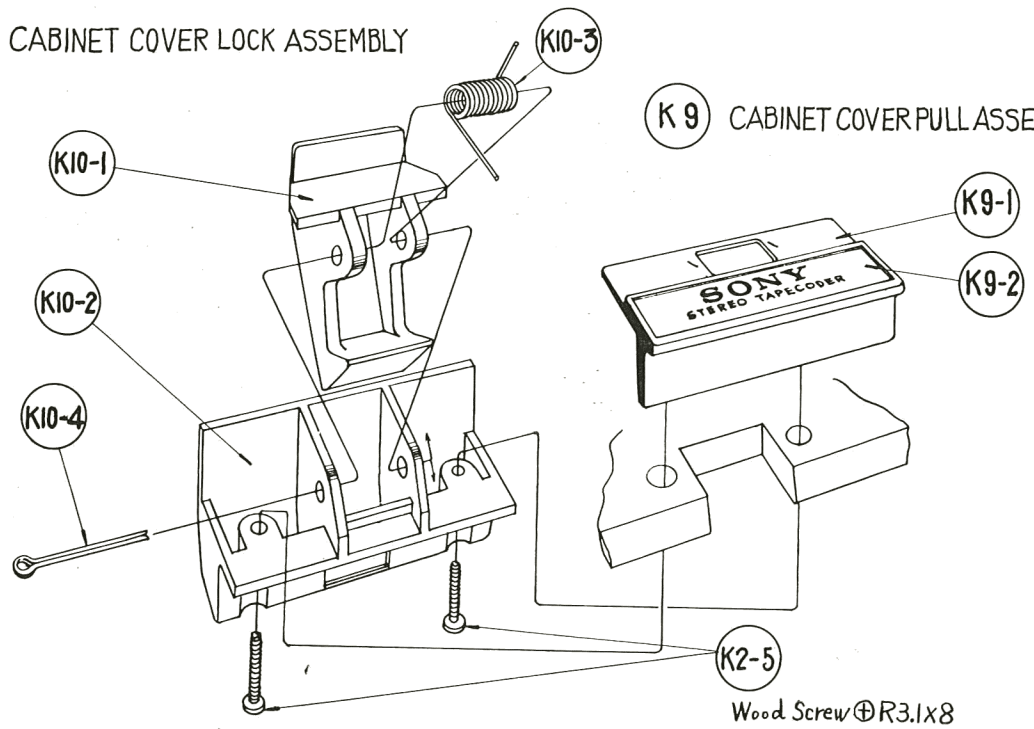


Exploded Diagram

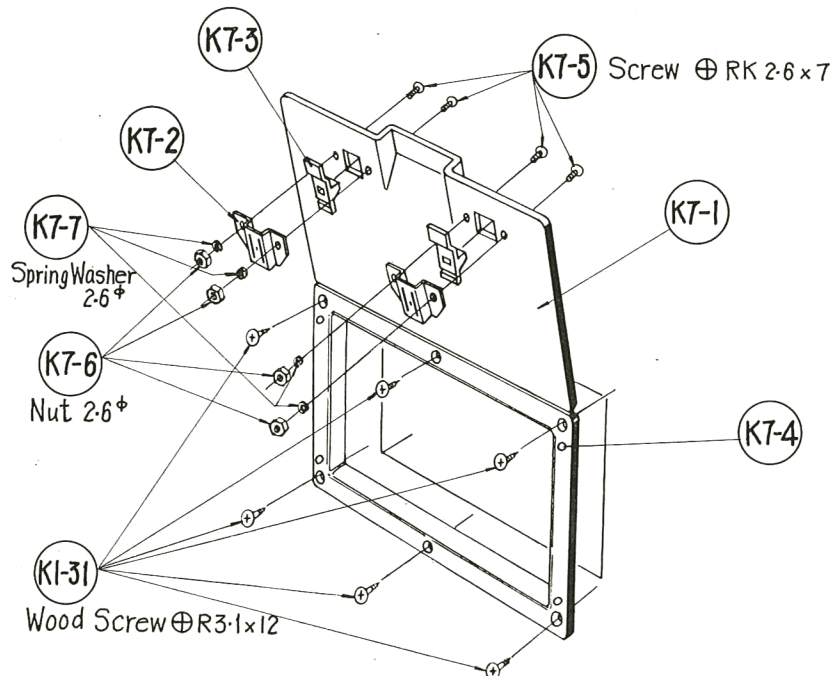
(3)

K10 CABINET COVER LOCK ASSEMBLY

K9 CABINET COVER PULL ASSEMBLY

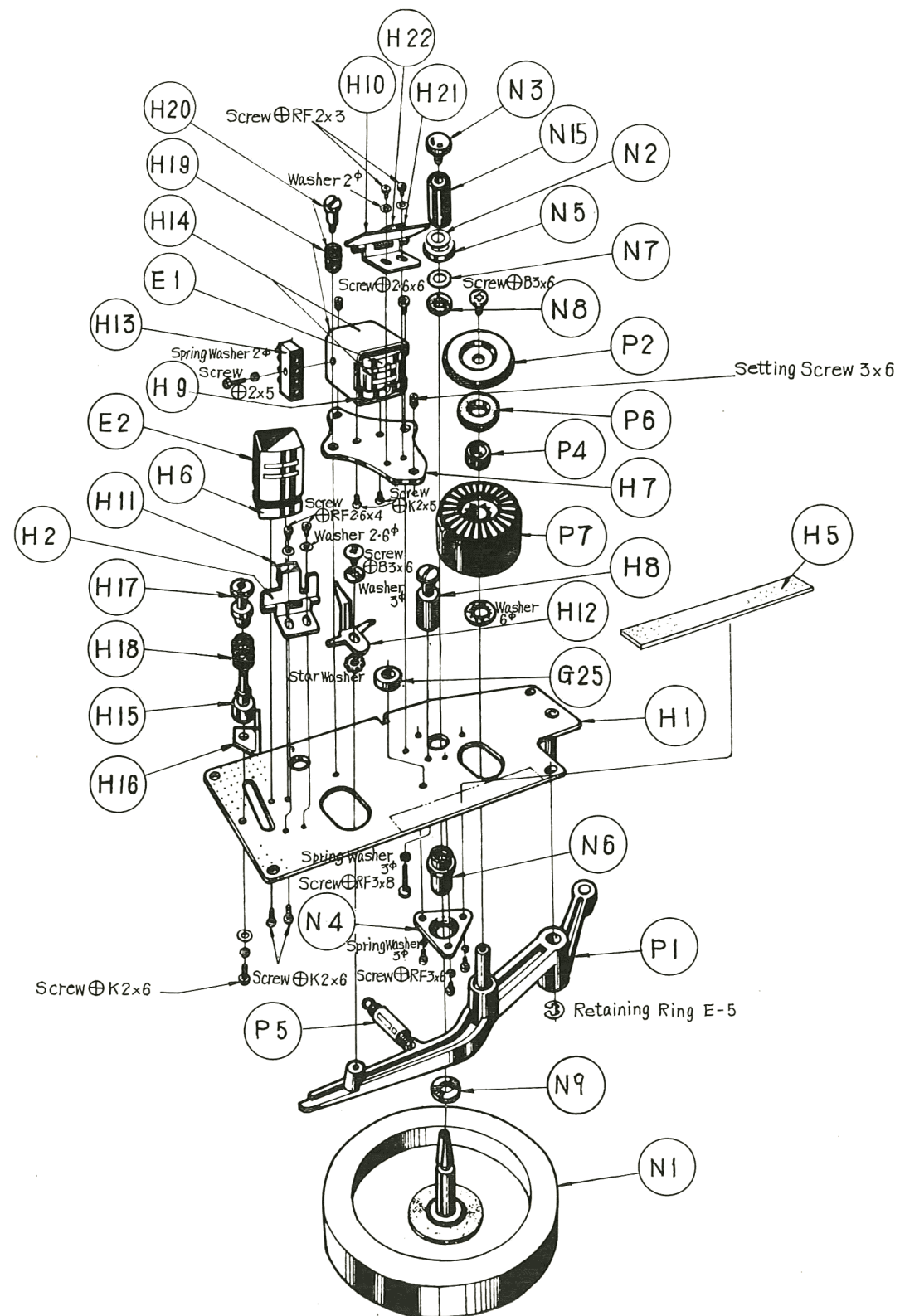


K7 POCKET LID ASSEMBLY



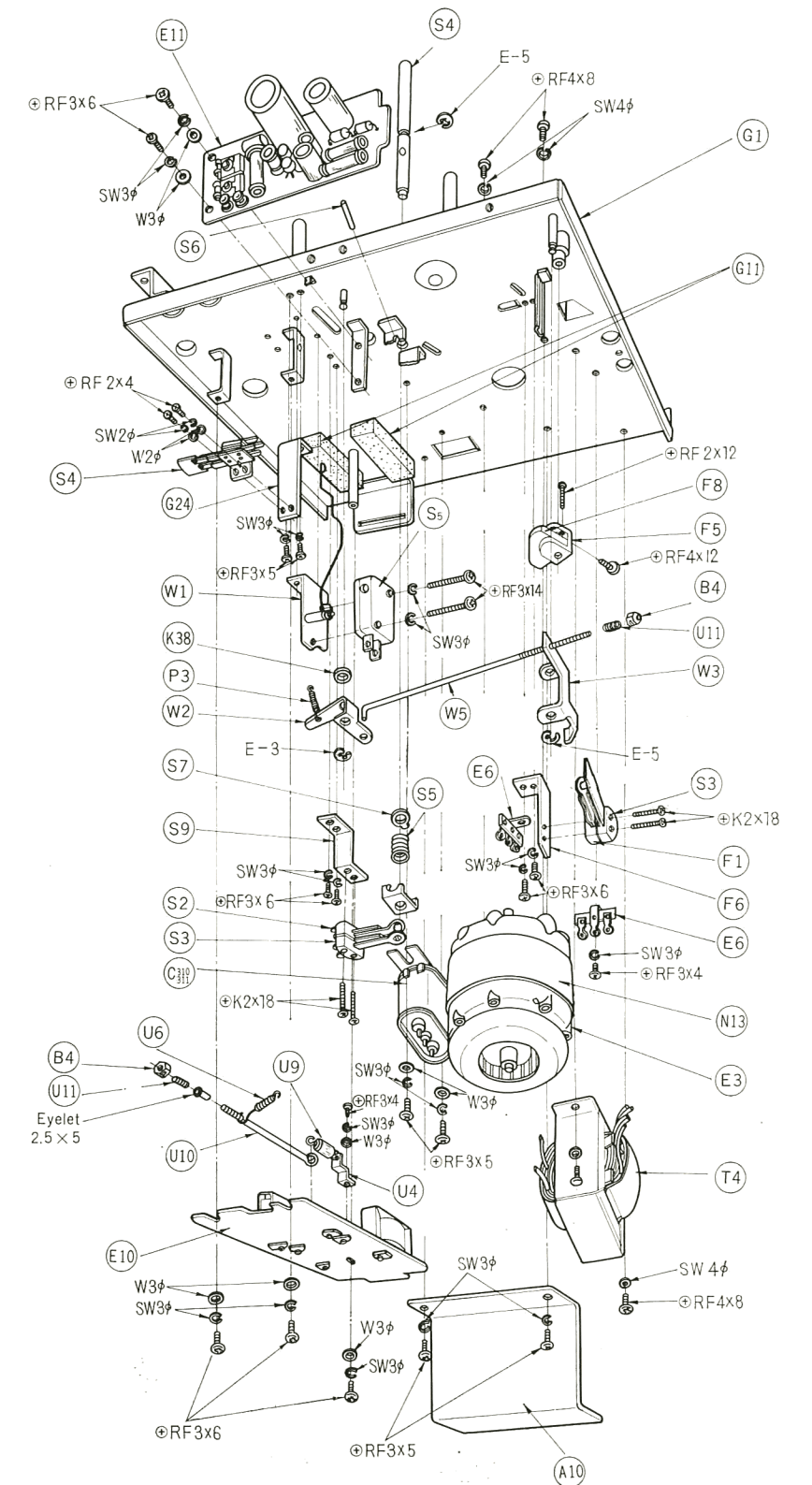
Exploded Diagram

(4)

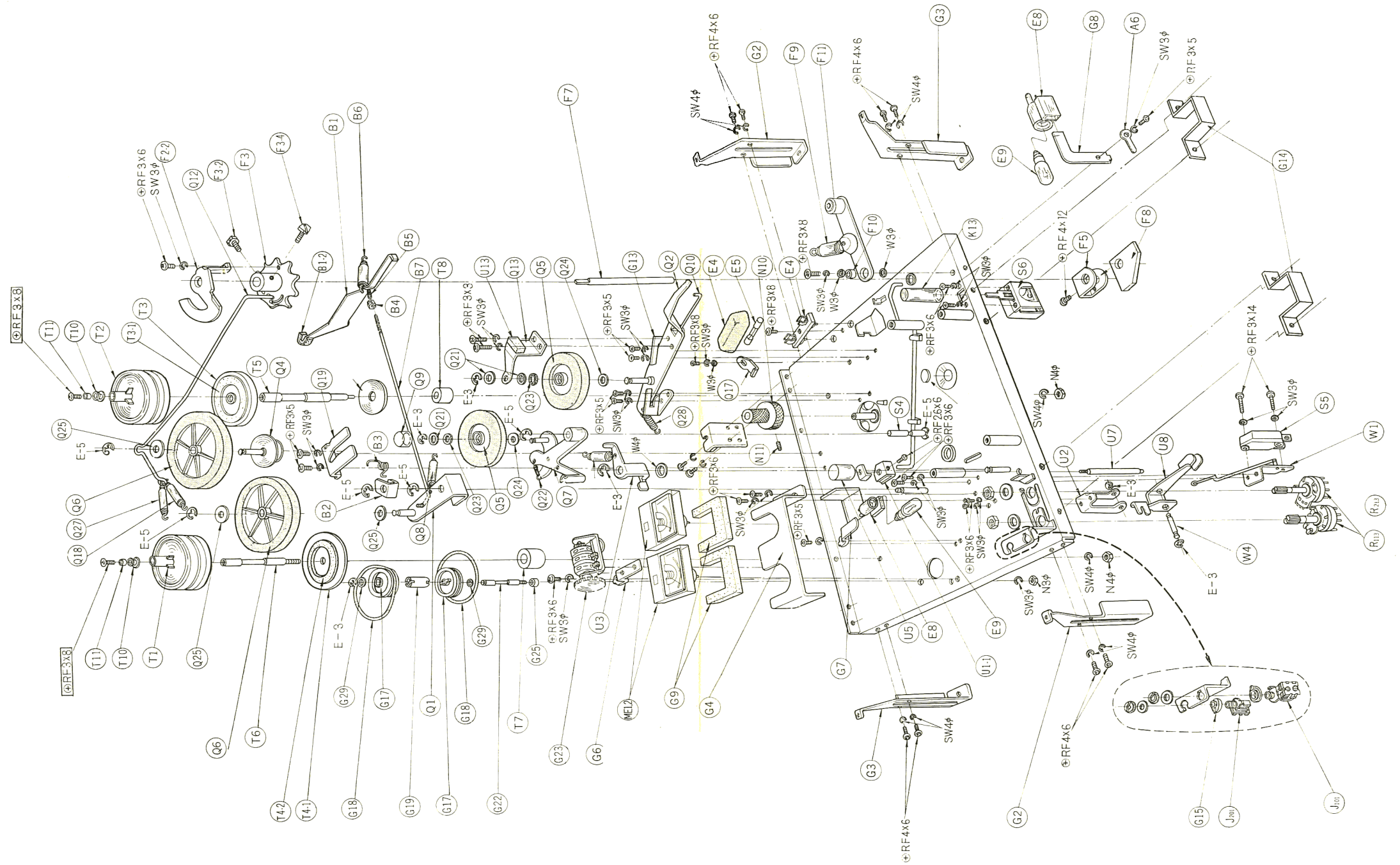


Exploded Diagram

(5)



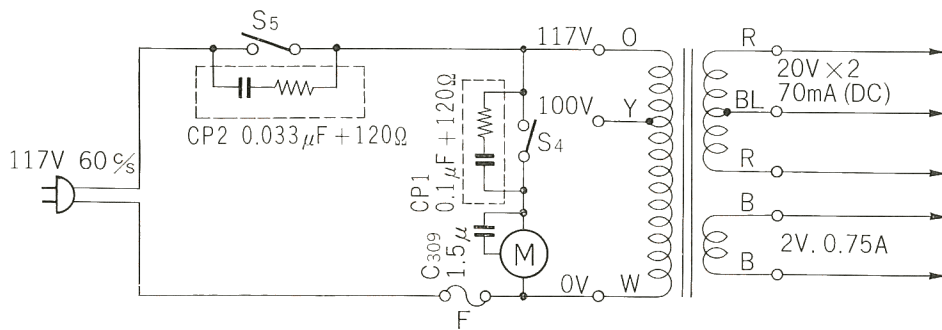
Exploded Diagram
(6)



SONY CORPORATION

Circuit Schematic

—Power Supply Section for U. S. A.—



Parts List for U. S. A.

Ref. No.	Part No.	Description	Q'ty
	1-117-035-11	CAPACITOR, MP 1.5μF ±5%	1
	1-101-534-11	ENCAPSULATED, component 0.1μF +120Ω	1
	1-534-330-11	POWER CORD w/plug, UL	1
	1-441-236-11	TRANSFORMER, power T ₂	1
	X-37010-08-1	HEAD RIBBON ASS'Y	1
	3-793-011-	CHECK SHEET	1
	-016-	INSTRUCTION MANUAL, strobo scope	1
	-030-	BOOKLET, SONY tape	1
	3-796-111-11	INSPECTION CARD	1

