

SERVICE MANUAL

PARTS LIST



AKAI STEREO TAPE RECORDER

MODEL **GX-1900**

ALSO APPLICABLE TO MODEL GX-1900D



REEL/CASSETTE COMBINATION STEREO TAPE RECORDER

MODEL GX-1900

ALSO APPLICABLE TO MODEL
GX-1900D STEREO TAPE DECK

SECTION 1	SERVICE MANUAL	2
SECTION 2	PARTS LIST	22
SECTION 3	SCHEMATIC DIAGRAM	57

SECTION I

SERVICE MANUAL

TABLE OF CONTENTS

I.	SPECIFICATIONS	3
II.	MEASURING METHOD	4
III.	DISMANTLING OF TAPE TRANSPORT UNIT & AMPLIFIERS	6
IV.	OPEN REEL MECHANISM ADJUSTMENTS	9
V.	CASSETTE MECHANISM ADJUSTMENTS	11
VI.	OPEN REEL HEAD ADJUSTMENTS	13
VII.	CASSETTE HEAD ADJUSTMENTS	14
VIII.	AMPLIFIER ADJUSTMENTS	14
IX.	BLOCK DIAGRAM OF TRANSFER SYSTEM	16
X.	COMPOSITE VIEWS OF COMPONENTS	17

II. MEASURING METHOD

1. TAPE SPEED DEVIATION

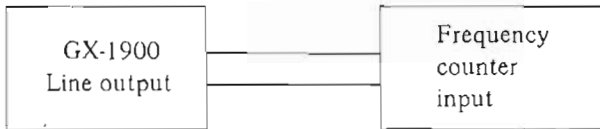


Fig. 1

As shown in Fig. 1, connect a Frequency Counter to the Line Output of Model GX-1900. Take a frequency counter reading at the beginning, middle, and end of tape winding during playback. The maximum value of these respective readings will represent tape speed deviation.

2. WOW AND FLUTTER

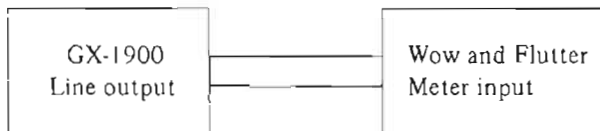


Fig. 2

Method A

As shown in Fig. 2, connect the Line Output of Model GX-1900 to the Input of a Wow and Flutter Meter. Use a 3,000 Hz pre-recorded test tape and take a wow and flutter meter reading at the beginning, middle, and end of tape winding. The maximum value of these respective readings will represent the wow and flutter.

Method B

Supply a 3,000 Hz sine wave signal from an Audio Frequency Oscillator and make a recording on a blank tape at the beginning, middle, and end of tape winding. Rewind and play tape. Measure wow and flutter with a Wow and Flutter Meter. (The wow and flutter value of Method B will be close to twice that of Method A.)

3. FREQUENCY RESPONSE

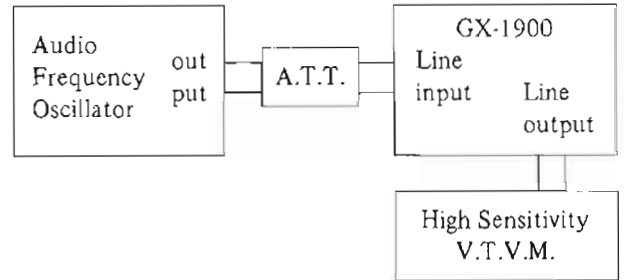


Fig. 3

For measuring frequency response, connect instruments as shown in Fig. 3 and proceed as follows.

- 1) Supply a 1,000 Hz sine wave to the Line Input of Model GX-1900 from an Audio Frequency Oscillator through an Attenuator. Set recorder to recording mode and turn recording level volume control to maximum. Adjust Attenuator to obtain a +4 dB V.T.V.M. reading.
- 2) Under conditions described in 1) above, re-adjust Attenuator so that the Line Output is -16 dB, and record 40 to 14,000 Hz spot frequencies.
- 3) Rewind tape and playback from the beginning. Take V.T.V.M. spot frequency readings and plot values on a graph.

Note: When measuring frequency response, new tape should be used.

4. SIGNAL TO NOISE RATIO



Fig. 4

As shown in Fig. 4, connect a High Sensitivity V.T.V.M. to the Line output of Model GX-1900. Playback a 250 Hz (333 Hz cassette) "0" VU pre-recorded test tape and measure the output. Then remove the tape and measure the noise level under the same condition. Convert each of the measured values into decibels.

5. TOTAL HARMONIC DISTORTION FACTOR

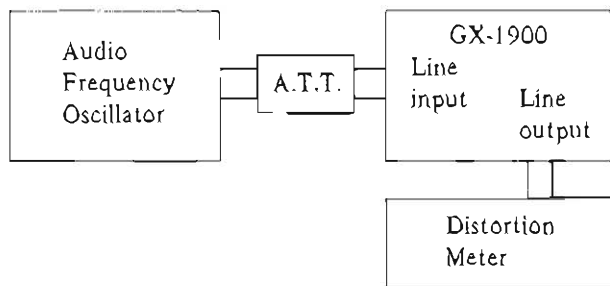


Fig. 5

Connect the measuring instruments as shown in Fig. 5 and record a 1,000 Hz sine wave signal at "0" VU. Playback the resultant signal and measure the overall distortion factor. Measure the noise level of the tape recorder without the tape. Connect the audio frequency oscillator directly to the distortion meter for measurement of the distortion factor of the oscillator. The required distortion factor can be obtained from the results of the above measurement by the following formula:

$$d_0 = d - d_1 - d_2$$

where, d_0 - Required distortion factor
 d - Overall distortion factor
 d_1 - Noise level.
 d_2 - Distortion factor of the oscillator

Note: When measuring the distortion factor, new tape should be used.

6. CROSS TALK (Cross talk between the tracks)

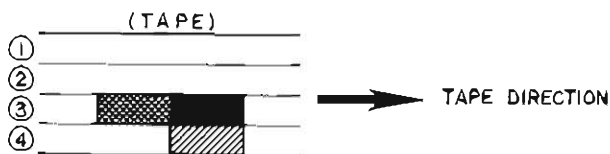


Fig. 6

As shown in Fig. 6, first record a 1,000 Hz sine wave signal on Track No. 3 at +3 VU level. Next, record under a non-input condition. Then, playback the tape on Tracks No. 3 and 4 through the B.P.F. (band pass filter sensitivity ... 1:1) and obtain a ratio between the two from the following formula:

$$C = 20 \log \frac{E_0}{E_2 - E_1} \text{ (dB)}$$

where, C - Desired cross talk ratio (dB)
 E_0 - 1,000 Hz signal output level
 E_2 - 1,000 Hz cross talk level
 E_1 - Non-input signal recorded level

7. ERASE RATIO

As shown in Fig. 4, connect a High Sensitivity V.T.V.M. to the Line Output of Model GX-1900. Playback a virgin tape and take a V.T.V.M. reading of the output level. Next, record a 1,000 Hz sine wave signal at +3 dB, then playback this recorded signal and take a V.T.V.M. reading of the output level. Next, using this pre-recorded tape, record under a non-input condition and take a reading of the noise level output of the erased signal and obtain a ratio between the two from the following formula:

$$Er = 20 \log \frac{E_0}{E_2 - E_1} \text{ (dB)}$$

where, Er - Desired erase ratio (dB)
 E_0 - 1,000 Hz signal output level
 E_2 - Non-input signal recorded level
 E_1 - Virgin tape noise output level

8. POWER OUTPUT

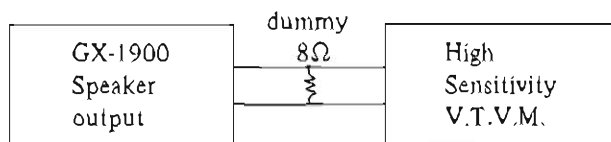


Fig. 7

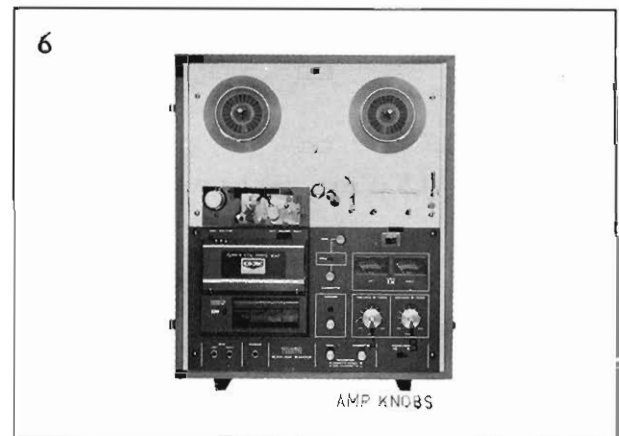
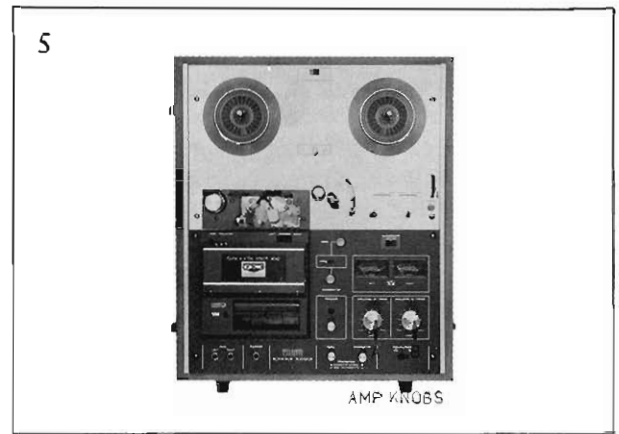
As shown in Fig. 7, connect an 8Ω dummy load resistor to the speaker output of Model GX-1900 and connect this terminal to a High Sensitivity V.T.V.M. Playback a 250 Hz "0" VU pre-recorded test tape and take a V.T.V.M. reading of the output level. The resultant output can be obtained from the results of the above measurement by using the following formula:

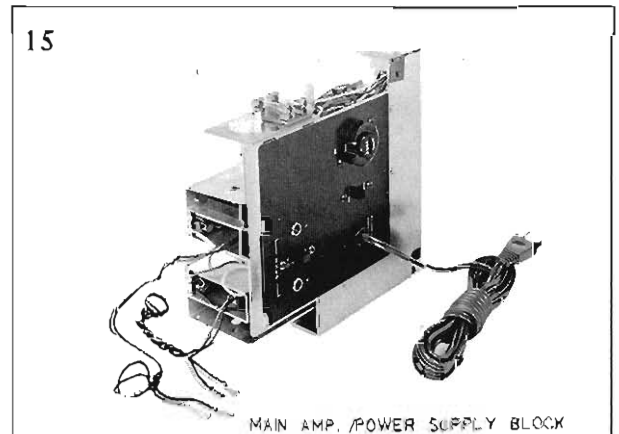
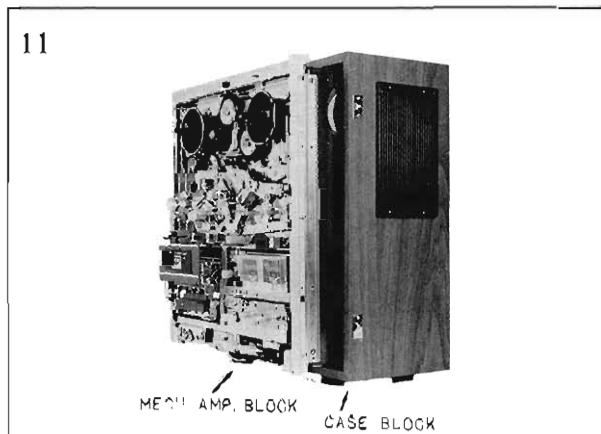
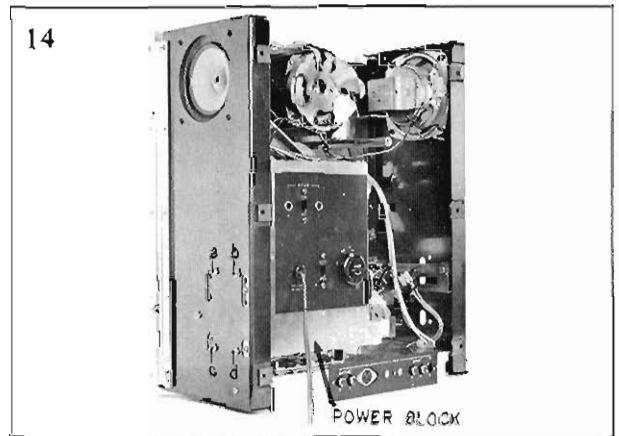
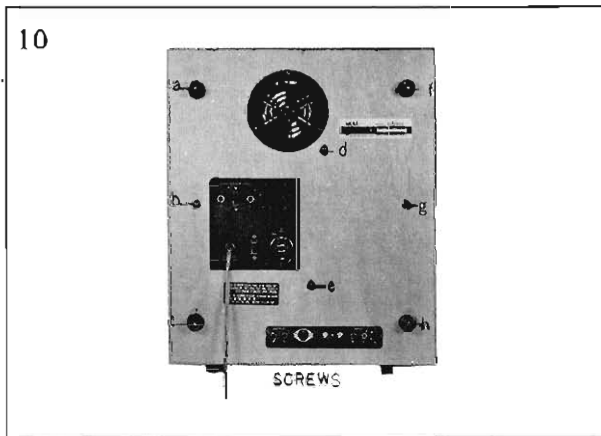
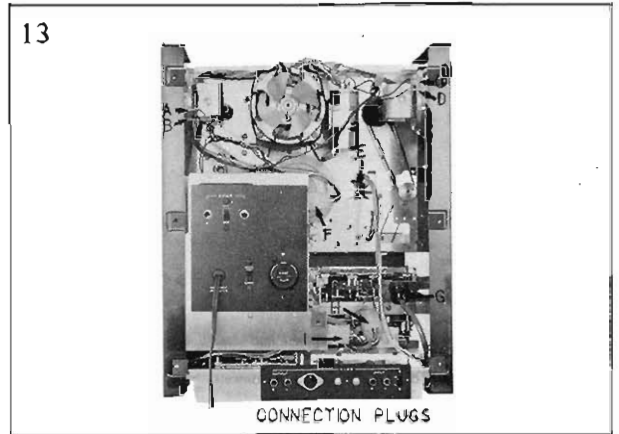
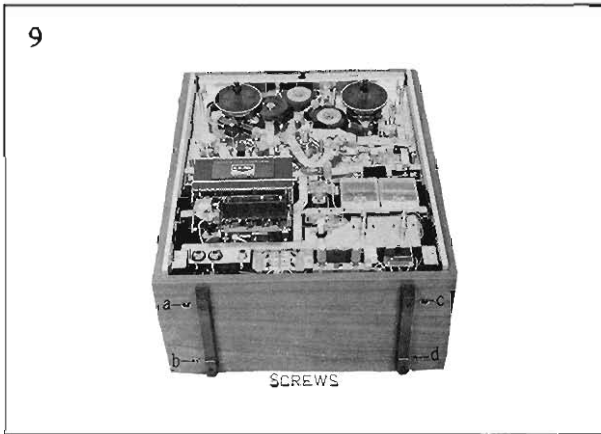
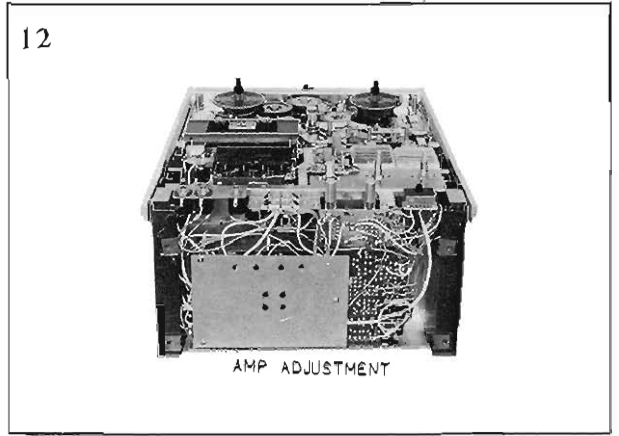
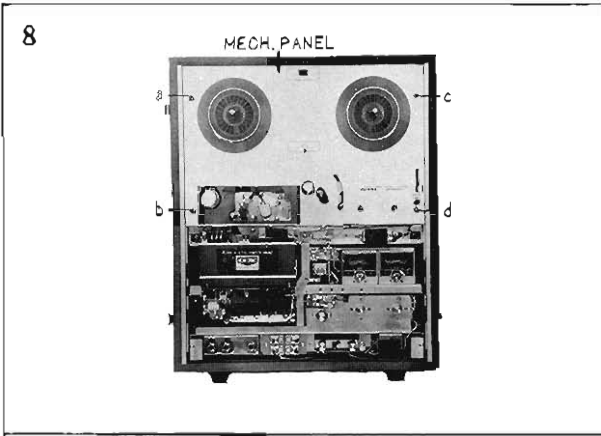
$$P = \frac{E^2}{R} \text{ (W)}$$

where, P - Desired power output (watts)
 E - Measured voltage (R.M.S.)
 R - 8Ω

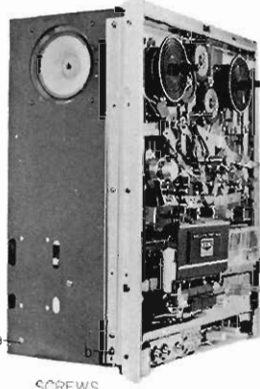
III. DISMANTLING OF TAPE TRANSPORT UNIT & AMPLIFIER

In case of trouble, etc. necessitating disassembly, please disassemble in the order shown in photographs. Re-assemble in reverse order.



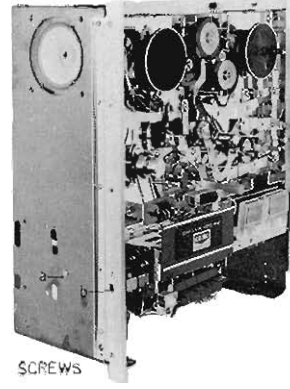


16



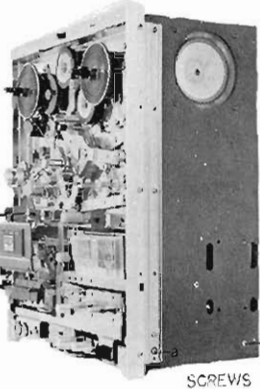
SCREWS

20



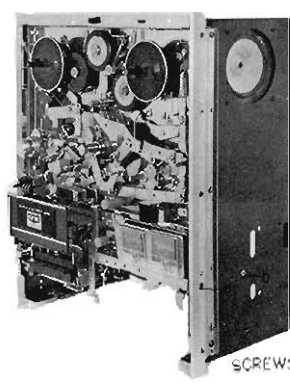
SCREWS

17



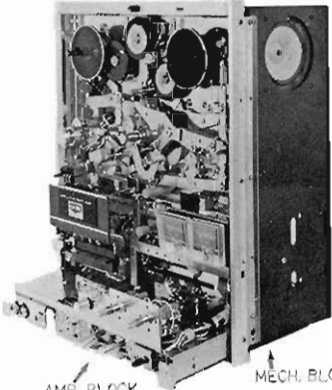
SCREWS

21



SCREWS

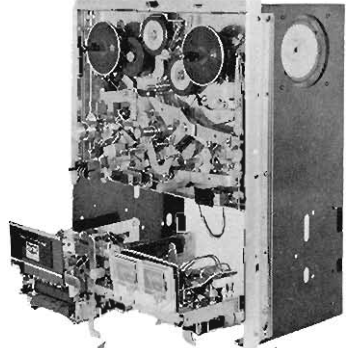
18



AMP. BLOCK

MECH. BLOCK

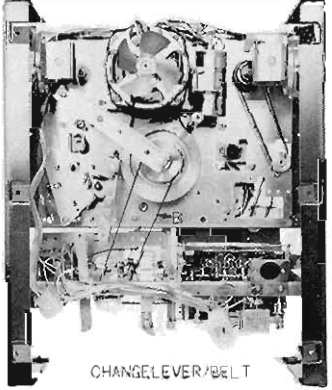
22



CASSETTE BLOCK

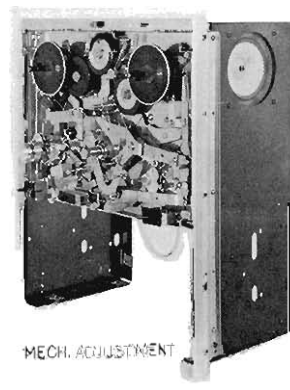
MECH. BLOCK

19



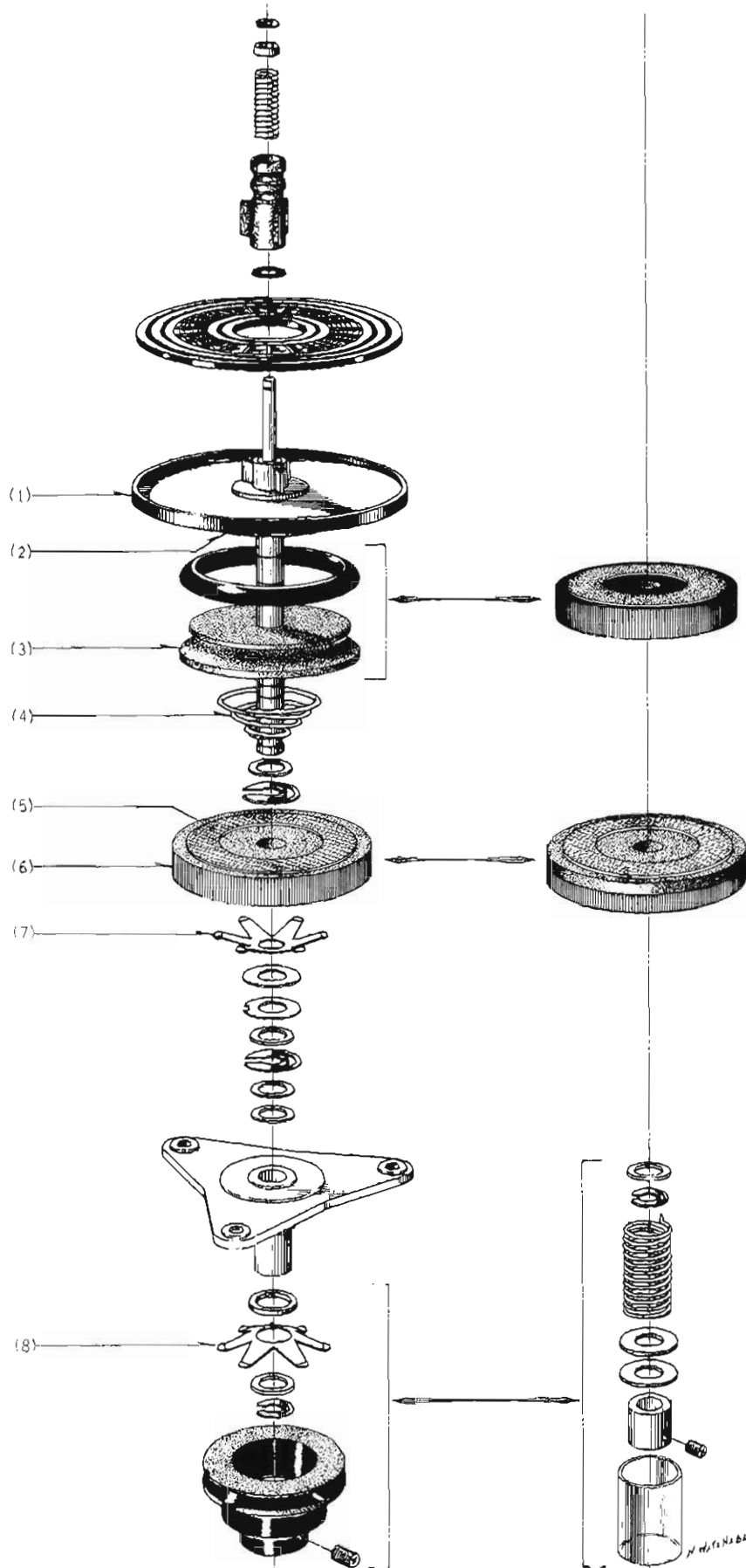
CHANGELEVER/BELT

23



MECH. ADJUSTMENT

IV. OPEN REEL MECHANISM ADJUSTMENTS



1. PINCH WHEEL ADJUSTMENT

It is important that the pinch wheel shaft be kept in perfect alignment with the capstan shaft. Proper pinch wheel pressure is between 1,000 and 1,150 grams when the unit is operated at the tape speed of 7-1/2 ips. Any deviation from this specification will result in wow and flutter. Check pinch wheel pressure with a spring scale, and if necessary, adjust the pinch wheel load spring.

2. SUPPLY REEL SHAFT ASSEMBLY ADJUSTMENT (See Fig. 8 at left)

Felt clutch material (2) is used between the lower side of the reel table base plate (1) and the rewind pulley (3) to protect recording tape from excessive tension during rewind operation. To check the amount of friction of this part, install a 5-inch reel with a 60 mm diameter tape, and gently pull the end of the tape upward with a spring scale. Adjust the conical spring (4) so that the amount of tension is kept between 400 and 500 grams. Other felt clutch material (5) is attached to the supply roller (6) to provide proper slippage during FWD and REC operation. The procedure for checking friction of this part is the same as the foregoing, and between 80 and 100 grams of tension gives best result. Adjust the spring (7) just under the supply roller (6). When the unit is set to fast forward operation, the amount of friction will decrease to from 15 to 20 grams. Check to see whether this is satisfactory. If not, adjust the spring plate (8) and the pressure of the pulley (9)

3. TAKE-UP REEL SHAFT ASSEMBLY ADJUSTMENT (See Fig. 8 at right)

Felt clutch material (2) is attached to the bottom side of the reel table base plate (1) so that the recording tape will not stretch during fast forward operation due to excessive tension. To check the amount of friction of this part, install a 5-inch reel with a 60 mm diameter tape, and gently pull the end of tape upward with a spring scale. Adjust the conical spring (4) so that the amount of tension at this part is kept between 400 and 500 grams. Other felt clutch material (10) is attached to the take-up roller (11). This is to provide proper slippage during FWD or REC operation. The procedure for checking friction of this part is the same as the foregoing, and between 150 and 180 grams of friction provides the best results. Adjust the spring plate (7) just under the take-up roller (11). When the unit is set to rewind operation, the amount of friction of this part will decrease to from 15 to 20 grams. Check to see whether this is satisfactory. If not, adjust the spring (12) and the pressure of the set sleeve (13).

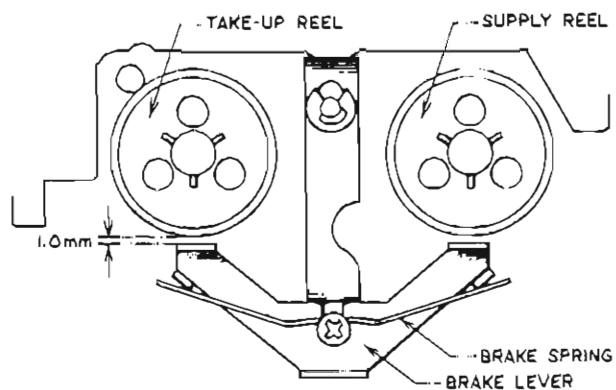


Fig. 9

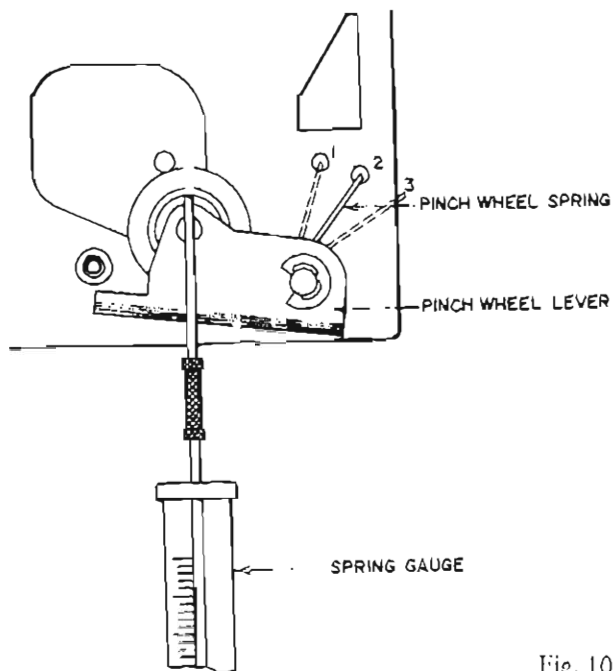


Fig. 10

1. BRAKE ADJUSTMENT

If operation of brake is weak when stopped from Playback, Fast Forward and Rewind mode, strengthen by bending Brake spring. Further, during each mode, the brake lever must be separated from the rubber surface of both reel tables by more than 1mm.

2. PINCH WHEEL PRESSURE ADJUSTMENT

- 1) With recorder at playback mode, connect a 0 to 500 gram Spring Gauge to the pinch wheel lever as shown in Fig. 10 and measure the pinch wheel pressure.
- 2) Proper pinch wheel pressure is between 280 to 300 grams. Pinch wheel pressure can be adjusted by changing the position of the pinch wheel spring.

3. MICRO SWITCH (SW 11) POSITION

ADJUSTMENT (See Figs. 11 & 12)

Loosen screws (A) (B) and adjust position of micro-switch plate by moving to left and right so that Micro Switch (SW 11) functions perfectly when the operating keys are depressed.

4. STOP CHIP POSITION ADJUSTMENT

Adjust Lock Rod Nut (C) so that the recording safety lever does not function during cassette playback mode.

5. AUTOMATIC STOP SOLENOID POSITION ADJUSTMENT

Loosen Solenoid fixation screws (D) (E) and adjust position of Solenoid by moving to left and right so that when the tape is stopped from each mode, the Plunger of Solenoid SL-1 pulls Keyboard Lever A for stop mode.

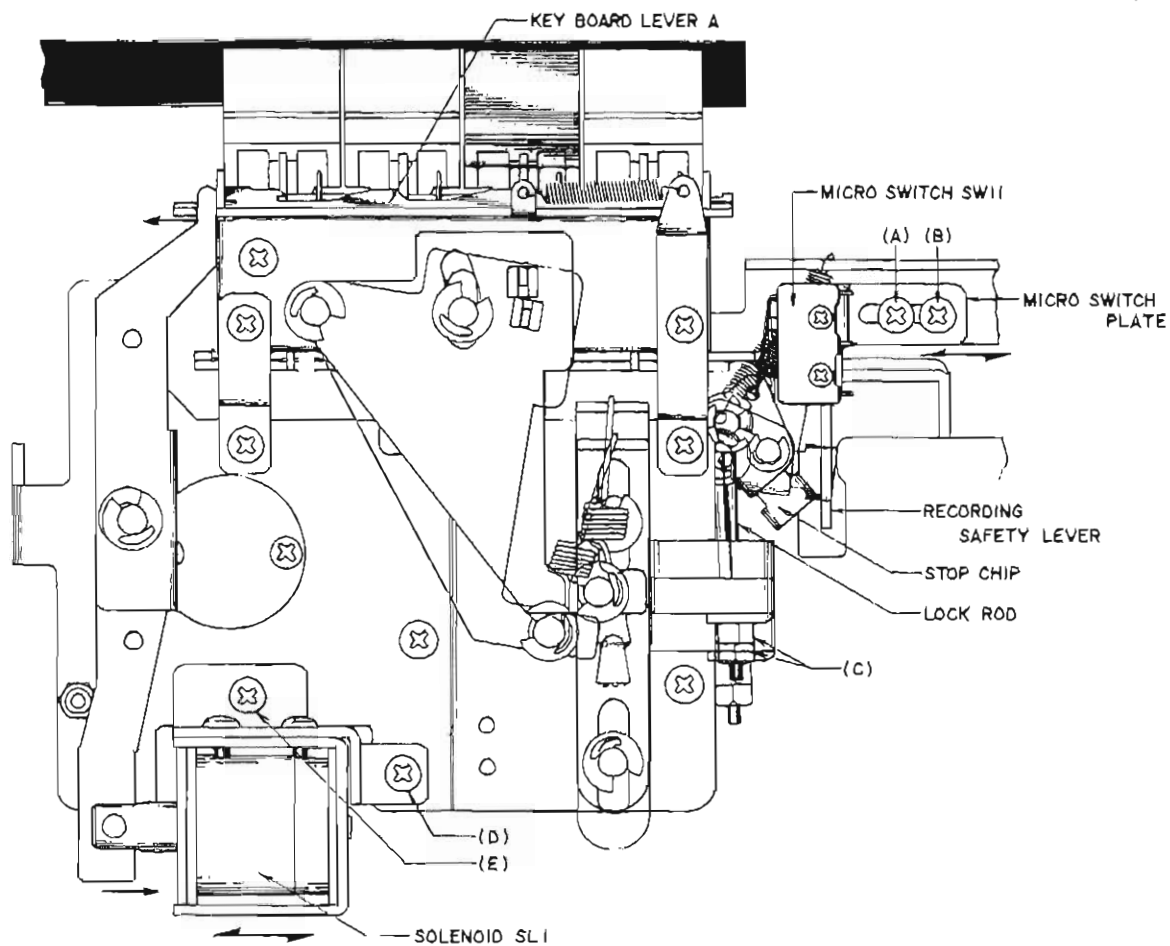


Fig. 11 "Stop" mode

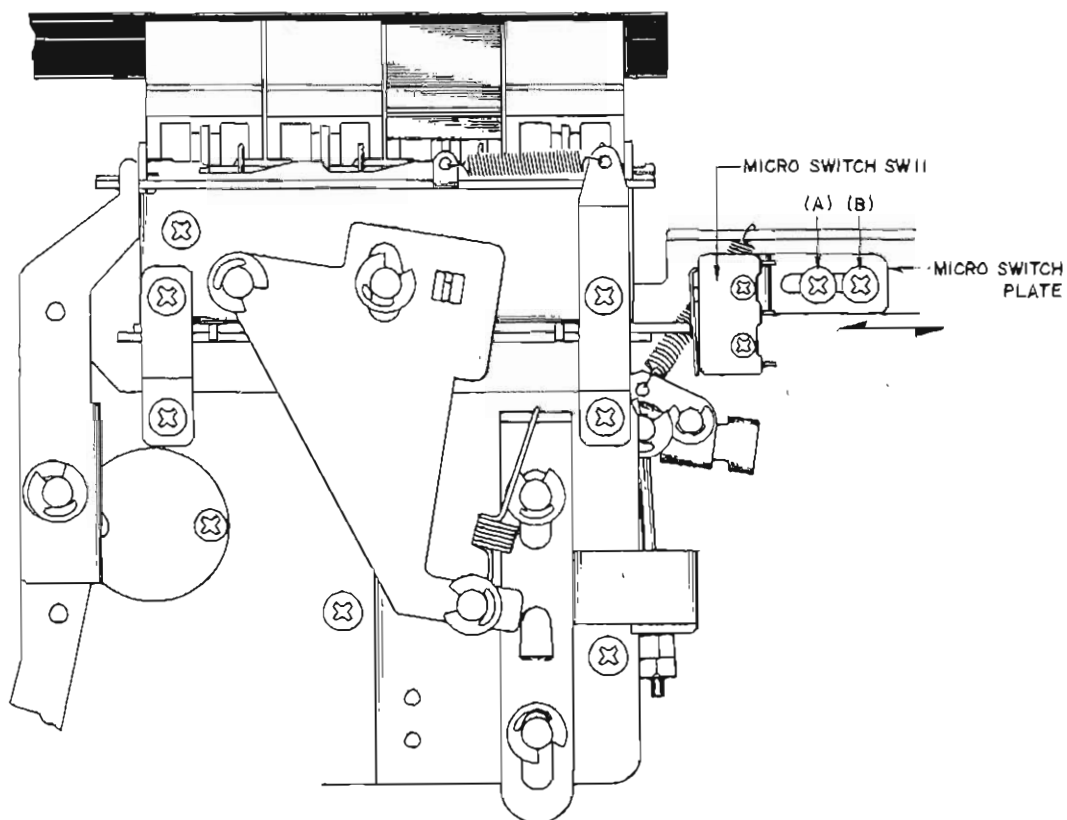


Fig. 12 "Play" mode

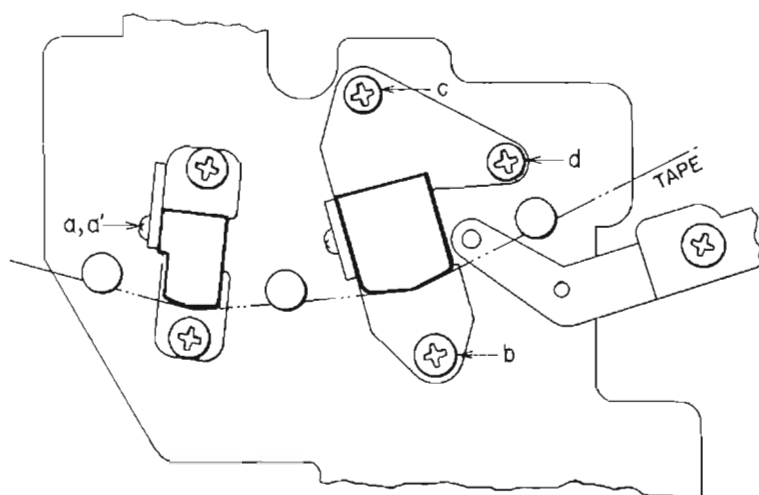


Fig. 13

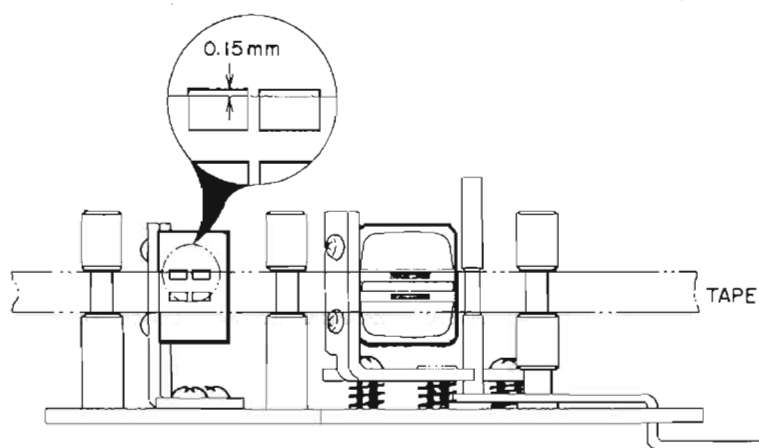


Fig. 14

1. HEAD HEIGHT ADJUSTMENTS

(See Figs. 13 & 14)

1) Erase Head

Loosen Erase Head screws (a) (a') and adjust erase head height, so that the upper edge of the tape is 0.15 mm lower than the upper edge of the upper erase head core.

2) Recording/Playback Head

Adjust Recording/Playback Head height by turning Recording/Playback Head Height Adjustment screws (b) (c) to left and right until the width between the upper edge of channel 1 head core and the upper edge of the tape is equal.

2. RECORDING/PLAYBACK HEAD SLANT ADJUSTMENT (See Figs. 13 & 14)

Adjust Recording/Playback Head slant by turning screws (b) (c) to left and right so that the Recording/Playback head contacts the tape surface at a right angle.

3. RECORDING/PLAYBACK HEAD AZIMUTH ALIGNMENT ADJUSTMENTS

Connect a High Sensitivity V.T.V.M. (Model 161A) to the line output and playback a Head Alignment test tape (8,000 Hz 3-3/4 ips. at 7-1/2 ips.). Adjust screw (d) by turning to left and right until the various line outputs are maximum.

4. Repeat adjustments outlined in Items 1, 2, and 3 above 2 or 3 times to obtain optimum adjusted condition.

VII. CASSETTE HEAD ADJUSTMENT

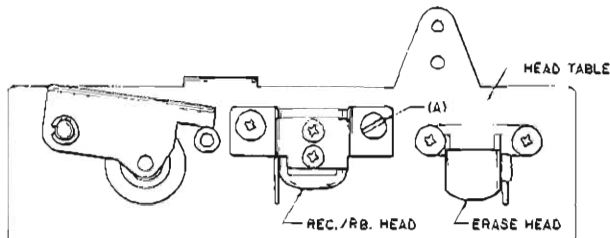


Fig. 15

RECORDING/PLAYBACK HEAD AZIMUTH ADJUSTMENT (See Fig. 15)

Connect a High Sensitivity V.T.V.M. (Model 161A) to the line output and playback a 10 kHz test tape. Adjust screw (A) by turning to left and right until the various line outputs are maximum.

VIII. AMPLIFIER ADJUSTMENT

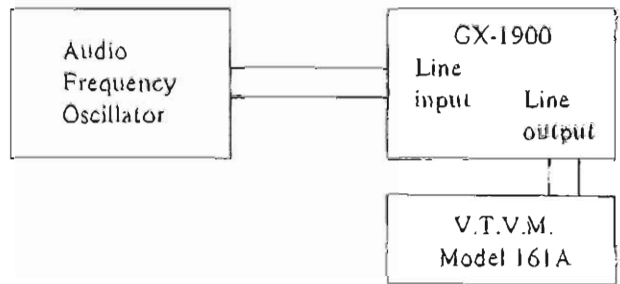


Fig. 16

1. REEL PLAYBACK LEVEL ADJUSTMENT (See Figs. 16 & 17)

- 1) Connect a High Sensitivity V.T.V.M. (Model 161A) to the line output.
- 2) Set main volume control (10k A) to maximum.
- 3) Playback a 250 Hz "0" VU pre-recorded test tape and turn Semi-fixed resistor VR 1 and VR 1b (2k B) to obtain a +4 dB reel playback level.

2. REEL RECORDING LEVEL ADJUSTMENT (See Figs. 16 & 17)

- 1) Load a blank test tape. Set recorder to recording mode and set main volume control (10k A) to maximum.
- 2) Supply a 1,000 Hz sine wave signal from an Audio Frequency Oscillator through an Attenuator to the line input, adjust the Attenuator so that the V.T.V.M. indicates +4 dB (VU meter indicates "0" VU).
- 3) After a few seconds of recording, playback the recorded tape from the starting point and check the V.T.V.M. indication.
- 4) If the line output is not +4 dB, repeat recording level adjustment procedure (from Item 2), and adjust Semi-fixed resistor VR 3 and VR 3b (10k B), to obtain a +4 dB recording level.

3. CASSETTE PLAYBACK LEVEL ADJUSTMENT

- 1) Set mode switch to "CASSETTE" and playback a 333 Hz "0" VU pre-recorded test tape.
- 2) Follow Item 1 of Reel playback level adjustment procedure and adjust VR 2 and VR 2b (2k B) to obtain a 14 dB cassette playback level.

4. CASSETTE RECORDING LEVEL ADJUSTMENT

- 1) Follow Item 2 of Reel recording level adjustment procedure.
- 2) Load a blank low noise test tape and adjust Semi-fixed resistor VR 4 and VR 4b (10k B) so that the recording level is +4 dB.

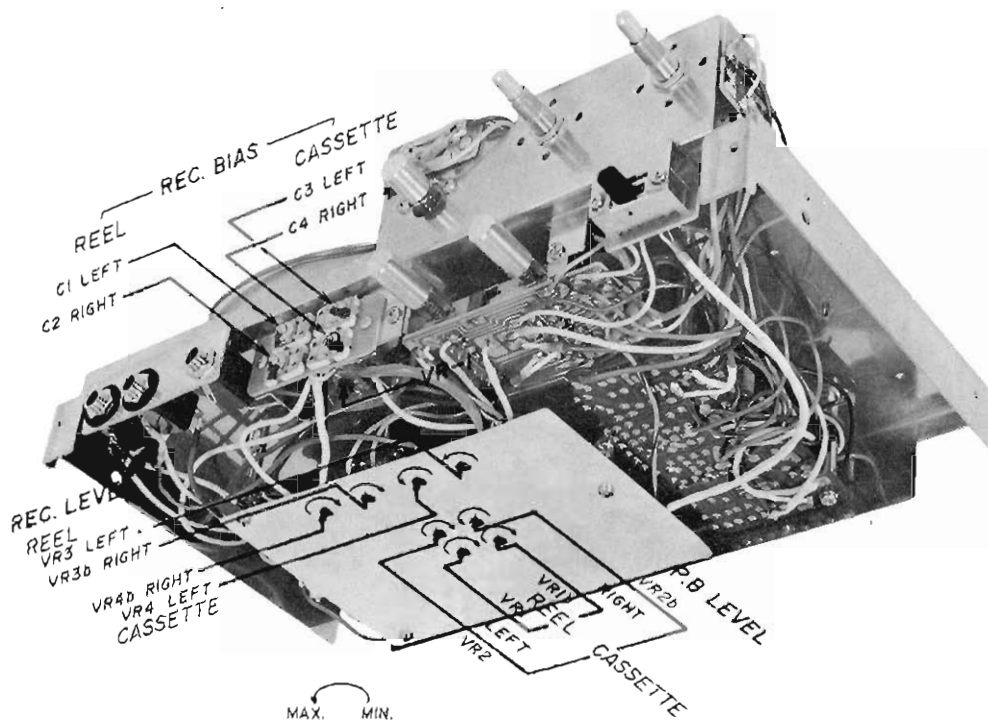


Fig. 17

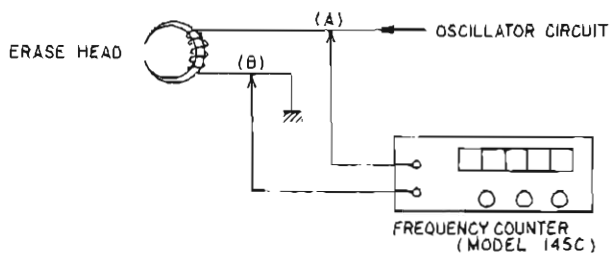


Fig. 18

5. REEL RECORDING BIAS VOLTAGE ADJUSTMENT (FREQUENCY RESPONSE ADJUSTMENT)

Playback the 1,000 Hz and 10,000 Hz signals recorded in Frequency Response Measuring Method procedure and adjust Bias Adjustment Semi-fixed condenser C1 and C2 (70 PF) so that the output level of these two frequencies are equal. The Bias voltage at this time is around 16V AC.

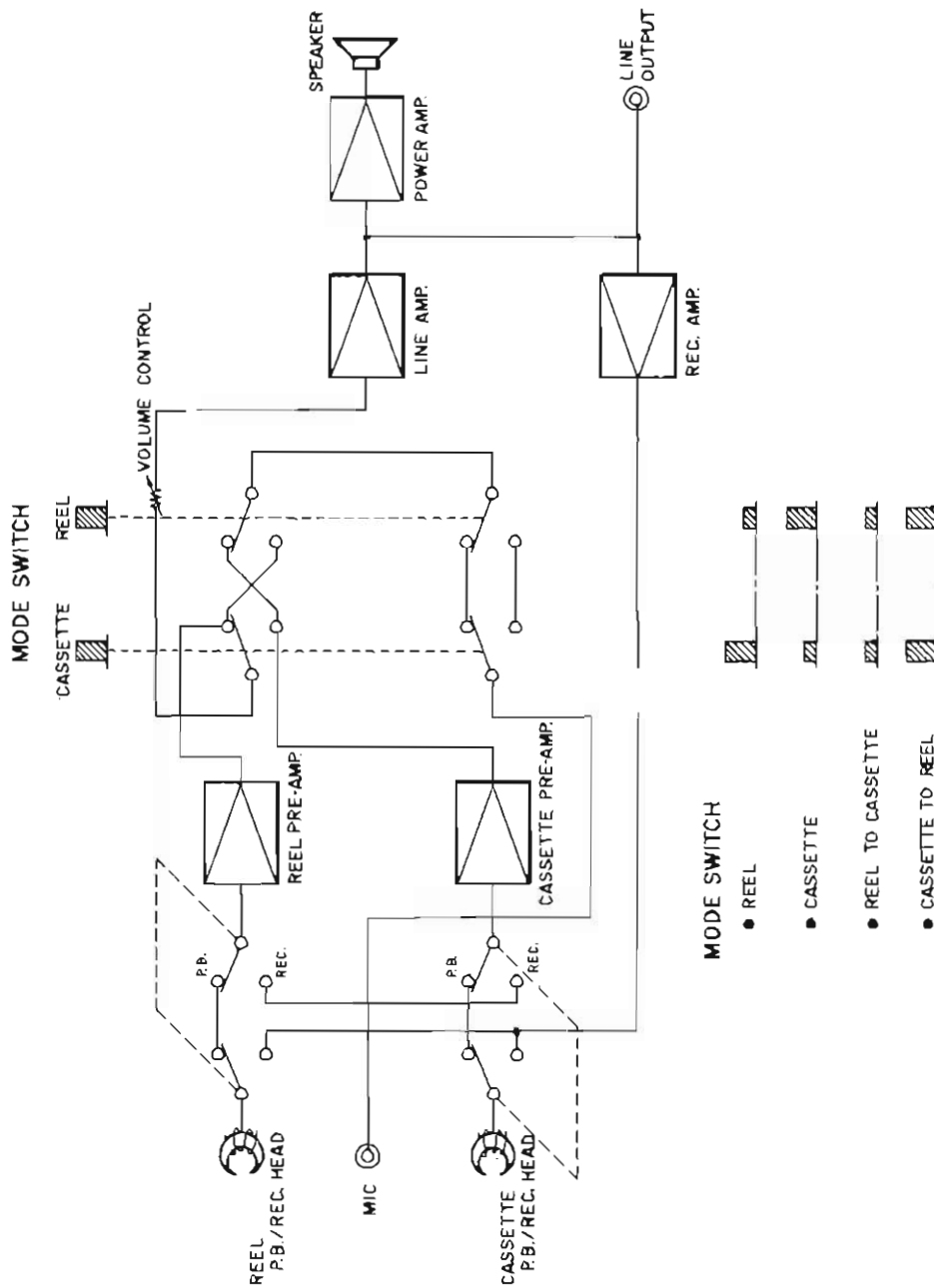
6. CASSETTE RECORDING BIAS VOLTAGE ADJUSTMENT (FREQUENCY RESPONSE ADJUSTMENT)

- 1) Follow Item 4 of Reel recording bias voltage adjustment procedure.
- 2) First adjust VR 1 (100k B) and next adjust Semi-fixed condenser C3 and C4 (70 PF) so that the output of these two frequencies are equal. The Bias voltage at this time is between 4 to 20V AC.

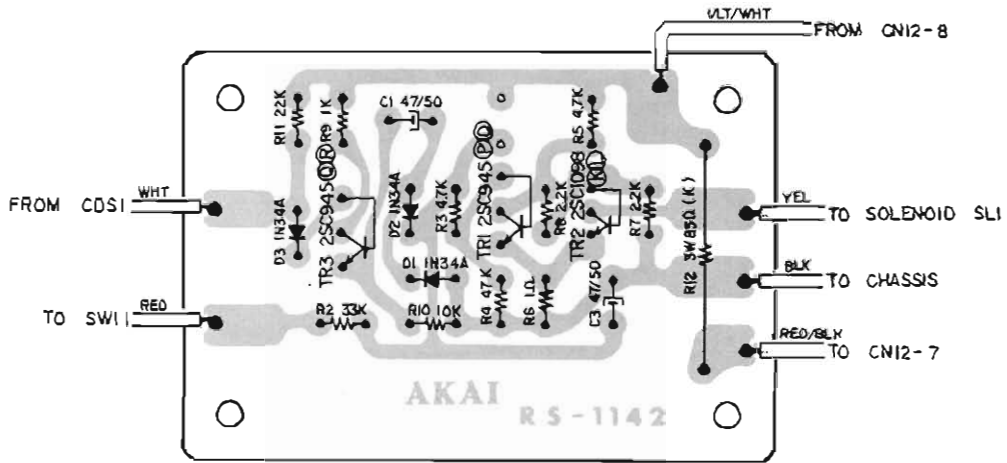
7. RECORDING BIAS FREQUENCY ADJUSTMENT

Connect a Frequency Counter to points (A) and (B) in Fig. 18 of the Erase Head and read the frequency indication. If the Frequency counter reading is 62 ± 5 kHz, the recording bias frequency is correct. If the recording bias frequency is incorrect, it can be adjusted by changing the value of condenser C 402 (2000P 500 WV) of the oscillator circuit.

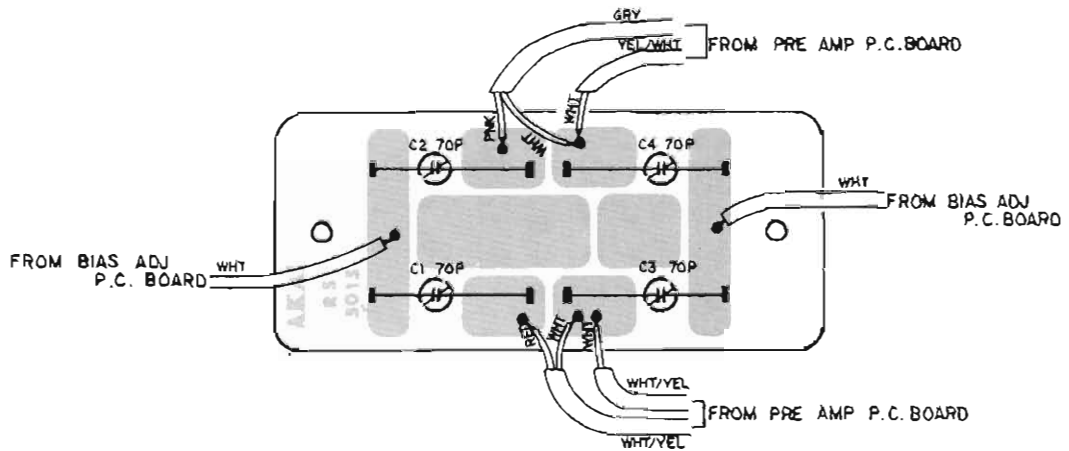
IX. BLOCK DIAGRAM OF TRANSFER SYSTEM



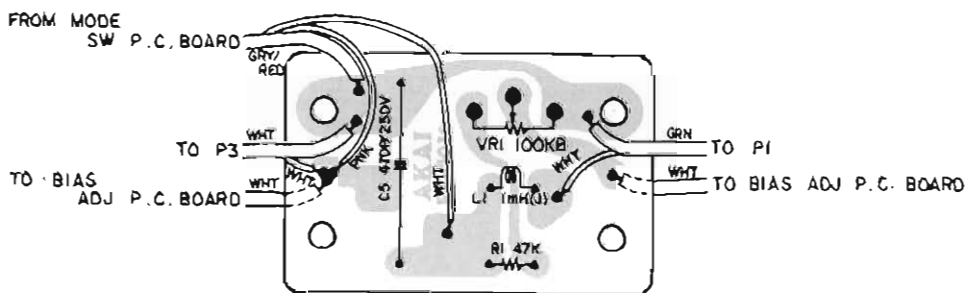
SYS. CON. P.C. BOARD (RS-1142)



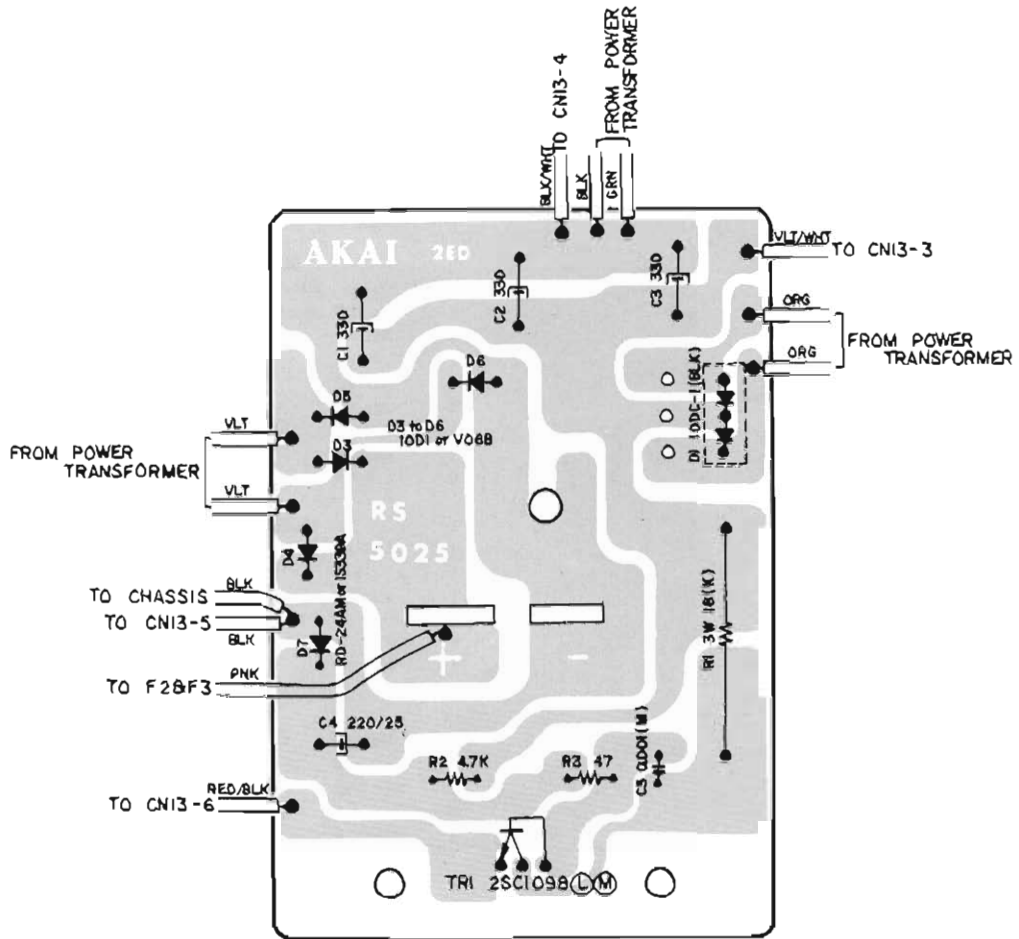
BIAS ADJUST P.C. BOARD A (RS-5015)



BIAS ADJUST P.C. BOARD B (RS-5016)

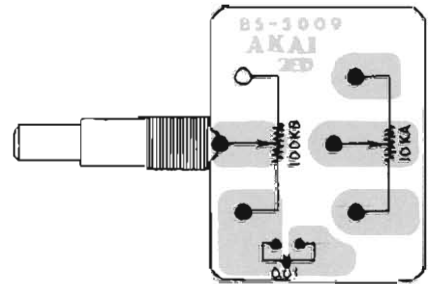
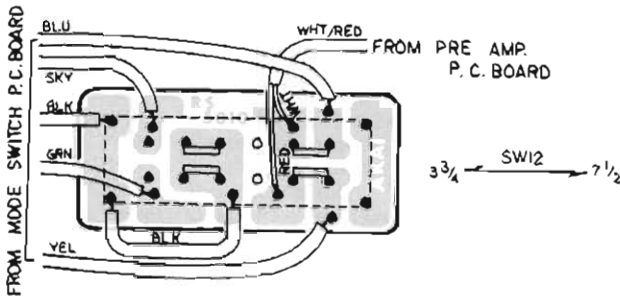


POWER SUPPLY P.C. BOARD (RS-5025)

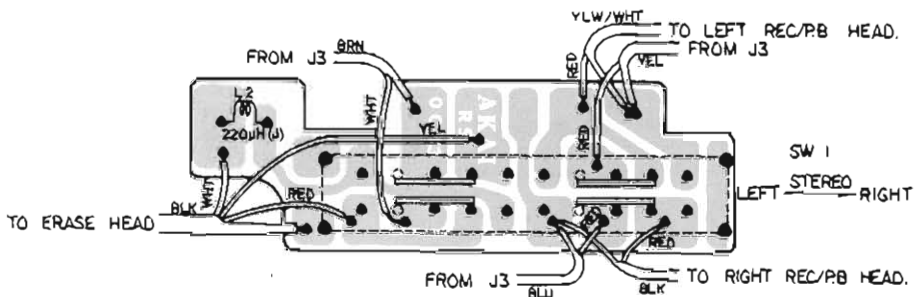


EQUALIZER SWITCH P.C. BOARD (RS-5010)

VOLUME & TONE P.C. BOARD (BS-5009 2ED)



TRACK SELECTOR P.C. BOARD (RS-0003)



SECTION 2

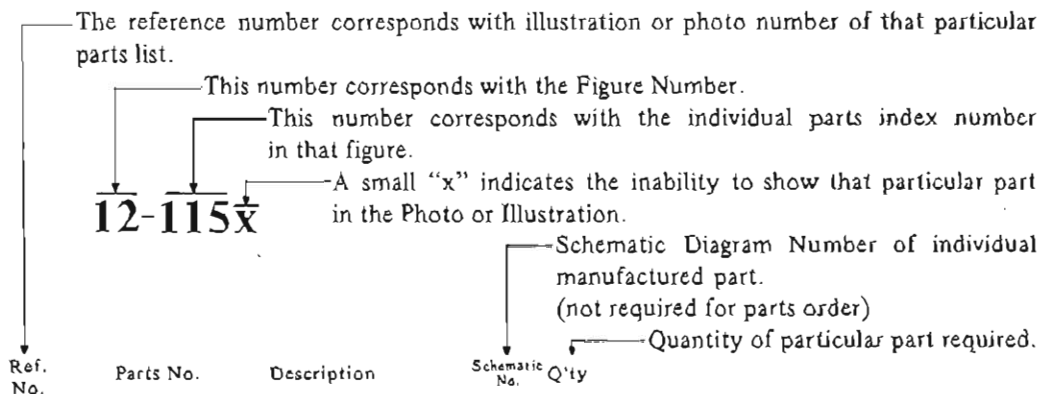
PARTS LIST

TABLE OF CONTENTS

FIG. 1	HEAD BLOCK	25
FIG. 2	SUPPLY/TAKE-UP REEL TABLE BLOCK	27
FIG. 3	MOTOR/BELT CHANGE LEVER BLOCK	27
FIG. 4	FLYWHEEL BLOCK	30
FIG. 5	SWITCH BLOCK	30
FIG. 6	MECHANISM ASSEMBLY BLOCK	33
FIG. 7	CASSETTE HEAD BLOCK	33
FIG. 8	CASSETTE CASE BLOCK	34
FIG. 9	KEYBOARD BLOCK	35
FIG. 10	CASSETTE REC. BUTTON/METER BASE BLOCK	36
FIG. 11	CASSETTE ASSEMBLY BLOCK I	38
FIG. 12	CASSETTE ASSEMBLY BLOCK II	40
FIG. 13	PRE-AMP. P.C. BOARD (RS-5018) BLOCK	41
FIG. 14	SYS. CON. P.C. BOARD (RS-1142) BLOCK	42
FIG. 15	OSC. P.C. BOARD (MR-505) BLOCK	43
FIG. 16	BIAS ADJUST P.C. BOARD (RS-5015, 16) BLOCK	43
FIG. 17	MODE SWITCH P.C. BOARD (RS-5017) BLOCK	44
FIG. 18	POWER AMP. P.C. BOARD (ED-515) BLOCK	45
FIG. 19	POWER SUPPLY P.C. BOARD (RS-5025) BLOCK	46
FIG. 20	AMP. ASSEMBLY BLOCK	48
FIG. 21	POWER SUPPLY BLOCK	50
FIG. 22	CASE BLOCK	51
FIG. 23	FINAL ASSEMBLY BLOCK	53
INDEX	54

HOW TO USE THIS PARTS LIST

1. This parts list is compiled by various individual blocks based on assembly process.
2. When ordering parts, please describe parts number, serial number, and model number in detail.
3. How to read List



FLYWHEEL BLOCK #13

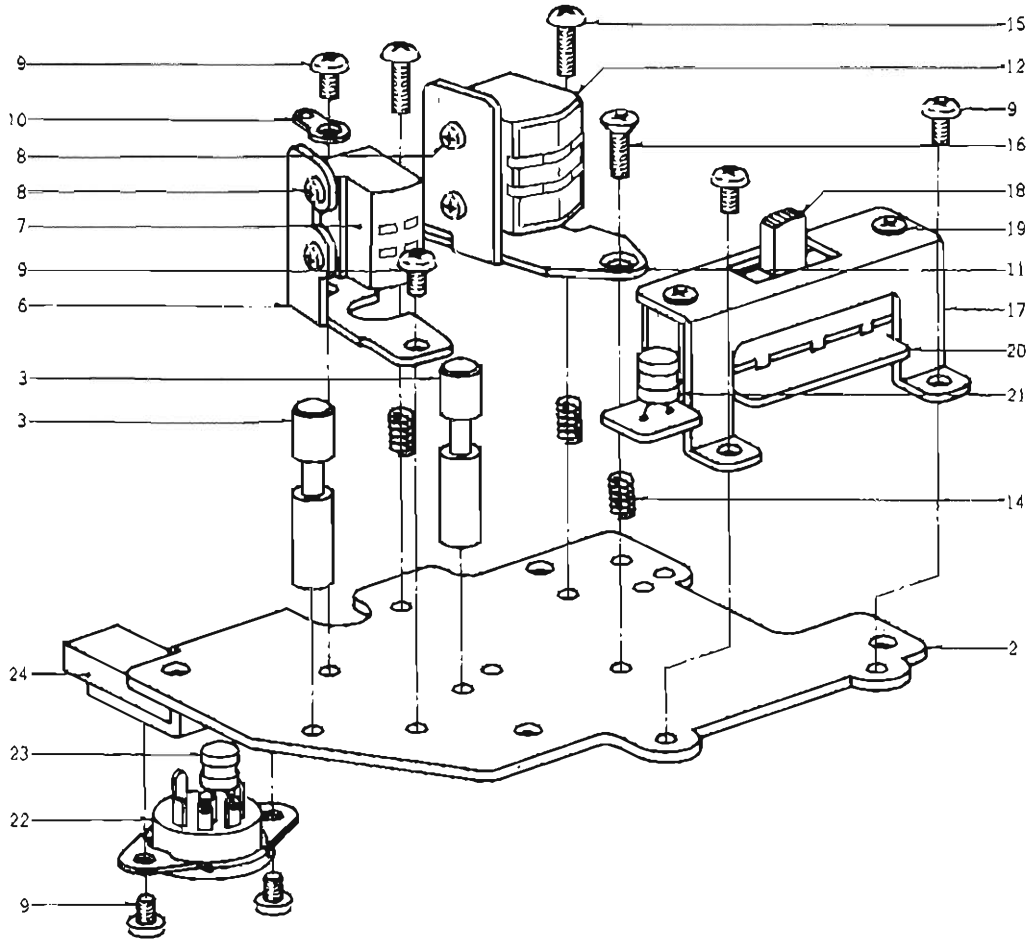
12-115x	800425	Flywheel Block Assy. Comp.	RDG #13	1
12-116	244506	Flywheel Only	RD-233	1
12-117x	244754	Felt, Flywheel	RD-275	1
12-118	251324	Main Metal Case	RD-236	1
12-119	253080	Main Metal	RD-237	1

4. The symbol numbers shown on the P.C. Board list can be matched with the Composite Views of components of the Schematic Diagram or Service Manual.
5. The indications of Resistors and Capacitors in the photos of P.C. Board are being eliminated.
6. The shape of the parts and parts name, etc. can be confirmed by comparing them with the parts shown on the Electrical Parts List Table of P.C. Board.
7. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List.
It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index. (meaning of ref. no. outlined in Item 3 above).
8. Utilize separate "Price List for Parts" to determine unit price. The most simple method of finding parts Price is to utilize the reference number.

ELECTRICAL PARTS LIST TABLE

<p>ELECTRICAL PARTS LIST TABLE Because the indication of resistors and capacitors in the P.C. Board photos are being eliminated, please confirm parts name and shape by comparing them with the parts shown in this table.</p>	<p>1</p>  <p style="text-align: center;">Solid Resistor</p>	<p>2</p>  <p style="text-align: center;">Carbon Resistor</p>	<p>3</p>  <p style="text-align: center;">Metal Oxide Film Resistor</p>
<p>4</p>  <p style="text-align: center;">Cement Resistor</p>	<p>5</p>  <p style="text-align: center;">Wire-Wound Resistor</p>	<p>6</p>  <p style="text-align: center;">Thermistor</p>	<p>7</p>  <p style="text-align: center;">Enamel Resistor</p>
<p>1</p>  <p style="text-align: center;">MP Capacitor (Tubler Type)</p>	<p>2</p>  <p style="text-align: center;">Plastic Capacitor</p>	<p>3</p>  <p style="text-align: center;">Mylar Capacitor</p>	<p>4</p>  <p style="text-align: center;">VFM (HI-Q) Capacitor</p>
<p>5</p>  <p style="text-align: center;">Mylar Capacitor</p>	<p>6</p>  <p style="text-align: center;">Tantalum Capacitor</p>	<p>7</p>  <p style="text-align: center;">Oil Capacitor (Tubler Type)</p>	<p>8</p>  <p style="text-align: center;">Stryal Capacitor</p>
<p>9</p>  <p style="text-align: center;">Electrolytic Capacitor (Tubler Type)</p>	<p>10</p>  <p style="text-align: center;">Electrolytic Capacitor</p>	<p>11</p>  <p style="text-align: center;">Ceramic Capacitor</p>	<p>12</p>  <p style="text-align: center;">Metalized Mylar (Paper) Capacitor</p>
<p>13</p>  <p style="text-align: center;">Trimer Condenser</p>		<p>VR</p>  <p style="text-align: center;">Semi-Fixed Volume</p>	
<p>L</p>  <p style="text-align: center;">Fermi Inductor</p>	<p>TR</p>  <p style="text-align: center;">Transformer</p>		
<p>CR</p>  <p style="text-align: center;">Spark Quencher</p>	<p>D</p>  <p style="text-align: center;">Diode (Silicon, Zener, Germanium)</p>		

FIG. 1 ILLUSTRATION OF HEAD BLOCK

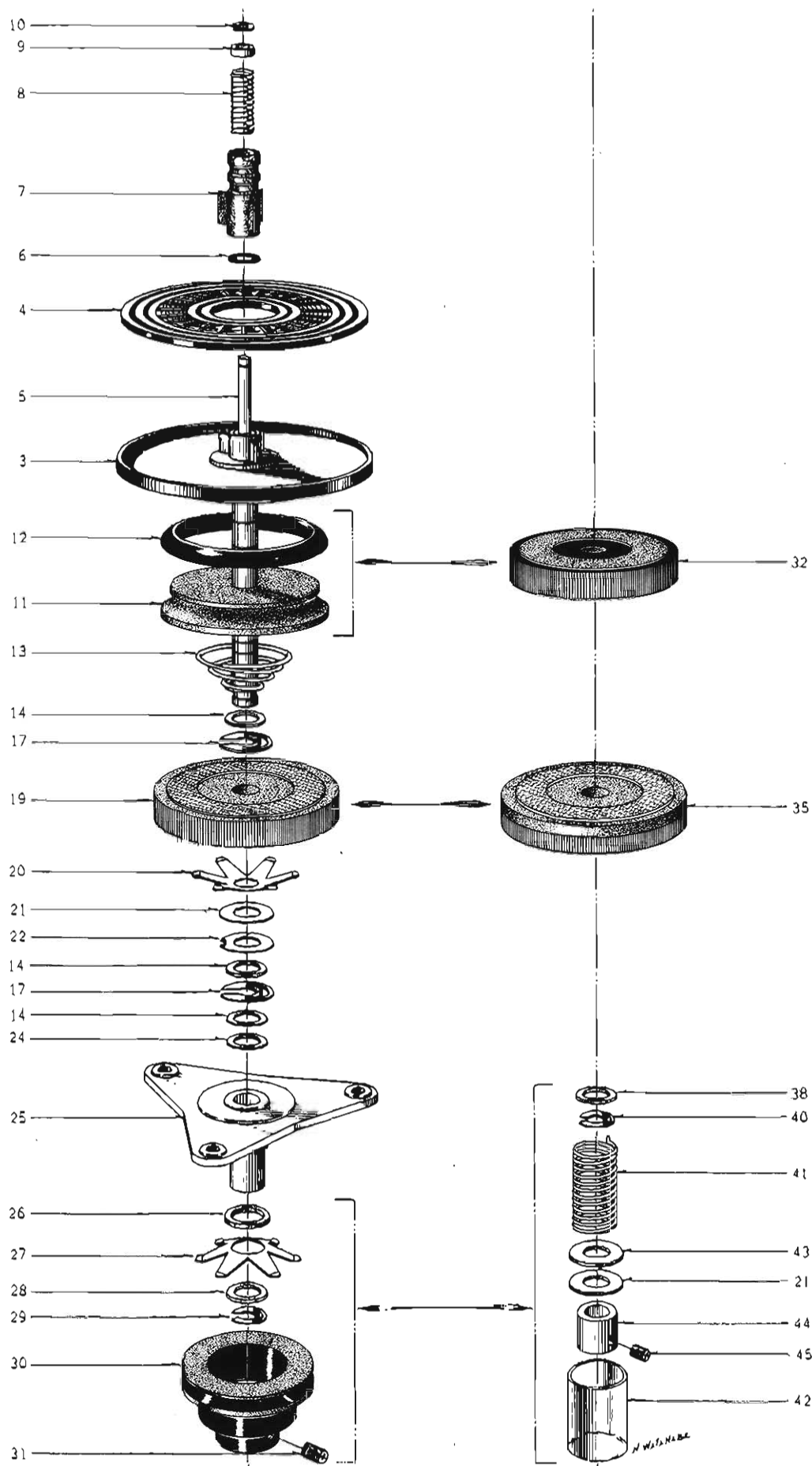


HEAD BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
1-1x	BH478372	Head Block Comp.	RS	1	1-17	HZ473837	Switch Retaining Table	RS-0002	1
1-2	HZ473848	Head Base	RS-0001	1	1-18	ES471914	Slide Switch SL243B4	25-3-64	1
1-3	HZ328421	Tape Guide A (SX)	SX-3	3	1-19	ZW477887	Screw, countersunk head		
1-4x	ZW417025	Screw, binding head 3x8, w/washer					2.6x5		2
1-5x	ZW273767	Earth Lug D3x20L		3	1-20	EA473850	Track Selector P.C. Board	RS-0003	1
1-6	HZ382680	Erase Head Base	RD-A5	1	1-21	E0346500	Ferri Inductor FL7H		
1-7	HE384693	ERASE HEAD E4-200		1			220 μH(J)	23-1-3	1
1-8	ZW477876	Screw, pan head 2x3		4	1-22	EJ392567	M type Molded Socket		
1-9	ZW323728	Screw, binding head 3x5		6			SB-5202	31-1-75	1
1-10	ZW273778	M3 Earth Lug		1	1-23	E0243977	Ferri Inductor FL7H 1MH(J)	23-1-3	1
1-11	112473861	REC./P.B. HEAD Mt. Base	RS-0004	1	1-24	SZ461632	Rubber, Speaker	BS-8044	1
1-12	11P375131	REC./P.B. HEAD P4-150		1	1-25x	MZ219576	Cord Retainer D	MJ-123	1
1-13x	HZ393974	J-MK Head Terminal Plate	RC-89	1	1-26x	ZW323728	Screw, binding head 3x5		1
1-14	ZG364656	Angle Adjust Spring C	RD-57	3					
1-15	ZW425114	Screw, round head 3x10		2					
1-16	ZW425103	Screw, countersunk head 3x10		1					

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

FIG. 2 ILLUSTRATION OF SUPPLY/TAKE-UP REEL TABLE BLOCK



SUPPLY/TAKE-UP REEL TABLE BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
2-1x	BR364037	Supply Reel Table Block		1
		Comp.	RS.RCCSD	1
2-2x	BR364048	Take-up Reel Table Block		1
		Comp.	RS.RCCSD	1
2-3	MT368684	Reel Table Disk A, w/shaft A	XR-101	2
2-4	MT317463	MR Reel Table Rubber	MR-250	2
2-5	MS255600	Reel Shaft B	XR-103	2
2-6	MT297663	3R 'O' Ring 2.9x1.65M	3R-139	2
2-7	MT255420	Reel Retainer	3R-102	2
2-8	ZG255633	Reel Spring	3R-109	2
2-9	MT255565	Reel Shaft Ring	XR-177	2
2-10	ZW270088	'E' Ring 1.9M	6-1-9	2
2-11	MR251460	Rewind Pulley	900-222	1
2-12	MT222366	Rubber Ring	900-234	1
2-13	ZG227553	Spring G2 (L)	900-230	1
2-14	ZW260021	Washer (SUP) D6.1x10x0.13t		6
2-15x	ZW260054	Washer (SUP) D6.1x10x0.25t		5
2-16x	ZW260065	Washer (SUP) D6.1x10x0.35t		7
2-17	MT255870	Reel Table Thrust Pin	900-237	4
2-18x	MT252101	Friction Cloth A	900-224	1
2-19	MR252066	Take-up Roller C	900-220	1
2-20	MT255971	Reel Table Spring Plate A	900-227	1
2-21	MT438647	Reel Torque Adjust Thrust 7		2
		D6.2x13x0.5t	101022	2
2-22	ZW231693	Claw Thrust Washer	900-235	2
2-23x	MT438592	Reel Torque Adjust Thrust 2		2
		D6.1x10x0.3t	101017	2
2-24	MT438603	Reel Torque Adjust Thrust 3		2
		D6.1x10x0.5t	101018	2
2-25	MT292386	XR Reel Metal Mt. Part,		2
		w/metal B	XR-191	2
2-26	MZ437804	Flywheel Thrust A		2
		D7.9x13x1t	101024	2
2-27	MT255993	Reel Table Spring Plate C	M8-207	2
2-28	ZW260065	Washer (SUP) D6.1x10x0.35t		1
2-29	ZW270000	Retaining Pin D4	900-257	1
2-30	MR256094	Reel Table Pulley	900-239	1
2-31	ZW434171	Set Screw, hexagon socket		1
		4x7 (cup)		1
2-32	MR252044	Take-up Roller A	900-218	1
2-33x	ZG227542	Spring G2 (R)	900-230	1
2-34x	MT255881	Reel Table Slip Plate A	MH-219	1
2-35	MR252077	Take-up Roller D (lower)	M8-204	1
2-36x	MT255982	Reel Table Spring Plate B	900-228	1
2-37x	MT438581	Reel Torque Adjust Thrust 5		1
		D5.8x10.3x1t	101016	1
2-38	MT438614	Reel Torque Adjust Thrust 4		1
		D6.1x10x0.8t	101019	1
2-39x	MT438625	Reel Torque Adjust Thrust 5		1
		D6.1x10x1t	101020	1
2-40	ZW312693	'E' Ring 4M	6-1-4	1
2-41	ZG414077	Spring F4	CD-67	1
2-42	MT440313	Nylon Tube D12		19
2-43	MT438636	Reel Torque Adjust Thrust 6		1
		D6.2x13x1t	101021	1
2-44	MT228598	Set Sleeve B	CD-66	1
2-45	ZW434160	Set Screw, hexagon socket		1
		3x3 (cup)		1

MOTOR/BELT CHANGE LEVER BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
MOTOR BLOCK				
3-1x	BM478585	Motor Block Comp.	RS	1
3-2	MZ448222	24 Motor Cover, w/metal	24X-781	2
3-3	ZW427037	Screw, pan head 4x50,		4
		w/washer		4
3-4	MZ254316	24 Motor Prop B	24X-729	4
3-5	MZ254373	Motor Mt. Plate L	24X-733	1
3-6	MZ254305	Motor/R. Table	RC-112	1
3-7	MZ254160	Motor Prop A	24X-730	2
3-8	MZ254182	Motor Prop B	24X-731	1
3-9	ZW424056	Screw, pan head 4x10		4
3-10	ZW272395	M-7 Motor Prop Set Screw	24X-732	1
3-11	ZW427026	Screw, countersunk head		2
		4x10		2
3-12x	MZ296144	24 Oil-cut	24X-735	2
3-13x	ZW222388	Rubber Washer	24X-739	1
3-14x	ZW259885	Washer (PBP) D5.1x10.3x0.1t		1
3-15	MR477472	Motor Pulley (RS), w/pjn	RS-7001	1
3-16	MR257984	Knurling Pulley, w/retainer B	24X-740	1
3-17	ZW413921	Screw, oval countersunk		1
		head 3x15		1
3-18x	MZ292364	XR Motor Shield Plate B	XR-705	1
3-19	MZ316326	Motor Out-side Shield (large)		1
		A	10R-714	1
3-20x	MZ337724	Motor Out-side Shield (large)		1
		B	10R-716	1
3-21	MZ256882	Motor Fan D, w/boss	MH-636	1
3-22	ZW476987	Set Screw, hexagon socket		1
		5x4		1
3-23	EC411682	MP/C. 2+0.8μF 250WV AC		1
		(Lug type Uni/D.)	24-9-53	1
3-24x	EC330401	MP/C. 2+1μF 250WV AC		1
		(Lug type Uni/D.) (AAL)	24-9-38	1
3-25	ZW323728	Screw, binding head 3x5		2
BELT CHANGE LEVER BLOCK				
3-26x	BL204445	Belt Change Lever Block		1
		Comp.	B	1
3-27	ML217462	Belt Change Lever B (small),		1
		w/roller B	AT-25	1
3-28	MZ248354	Belt Guide Stop, w/metal	4TR-221	1
3-29	ZG217337	Belt Return Spring	4TR-224	1
3-30	ZW413201	Screw, pan head 4x8		1
3-31x	ZG217394	Belt Change Spring B	MH-125	1
3-32x	ZW260054	Washer (SUP) D6.1x10x0.25t		1
3-33x	ZW290283	'U' Ring 2.85M	6-1-1	1

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

FIG. 3 ILLUSTRATION OF MOTOR/BELT CHANGE LEVER BLOCK

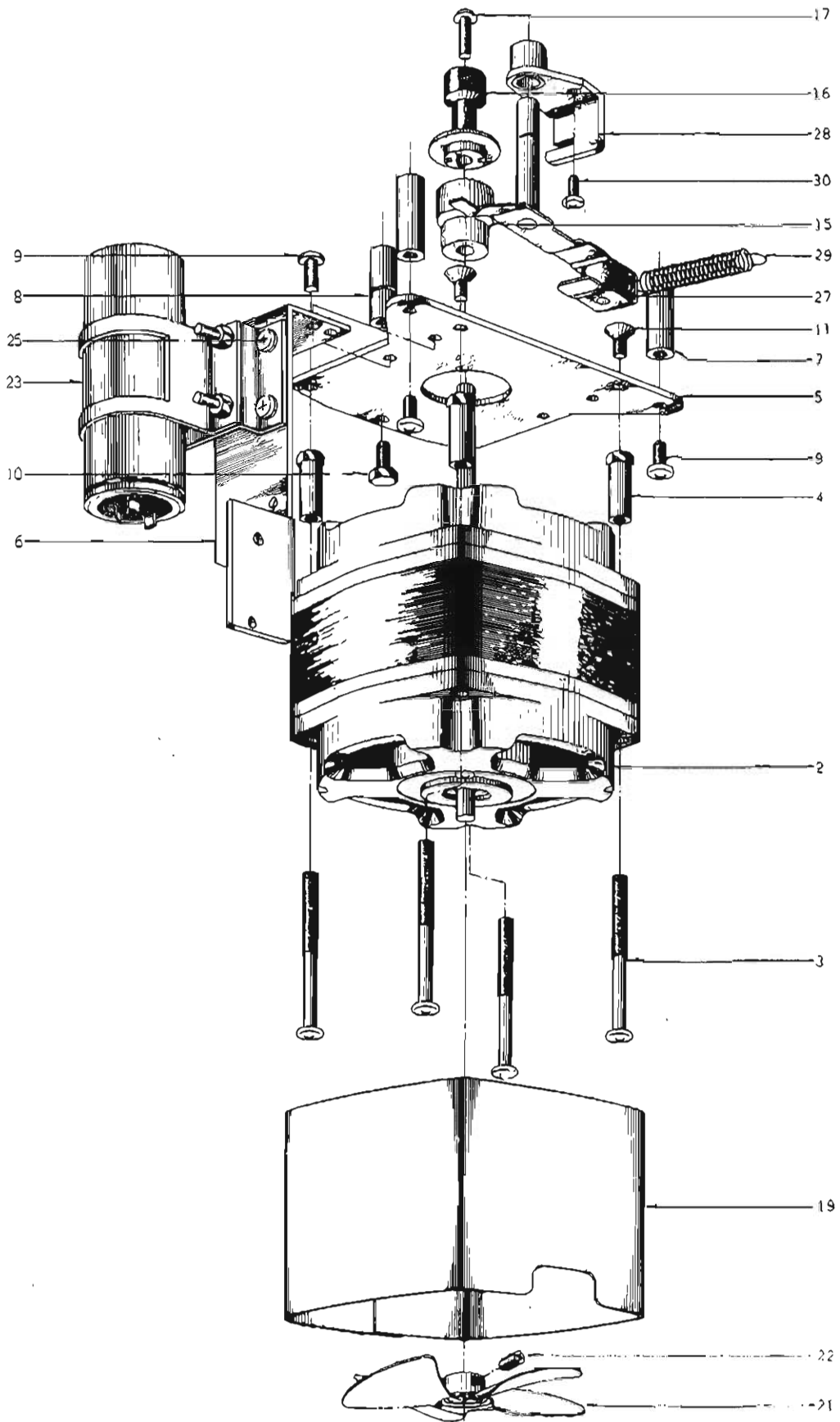
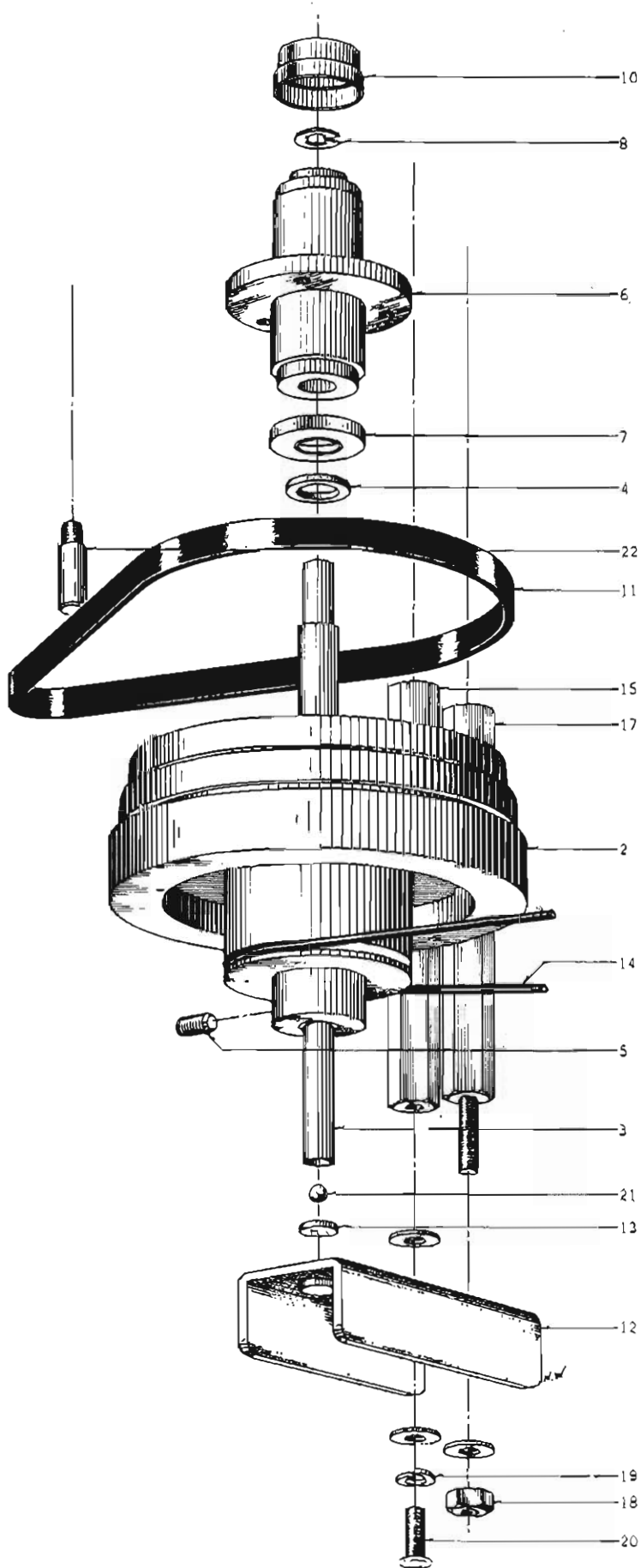


FIG. 4 ILLUSTRATION OF FLYWHEEL BLOCK



FLYWHEEL BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
4-1x	BF478618	Flywheel Block Comp.	RS	1
4-2	MZ369854	RCC Flywheel	RCC-201	1
4-3	MS471903	RS Main Shaft	RS-2002	1
4-4	MZ437804	Flywheel Thrust A		
		D7.9x13x11	101024	1
4-5	ZW373577	Set Screw, hexagon socket		
		5x6 (flat)		2
4-6	MZ275725	RC Main Case Comp.	RC-101	1
4-7	MZ446635	Thrust Cap, Main Metal B2	LF-2006	1
4-8	ZW244710	Flywheel Fixing Pin	900-250	1
4-9x	MZ244113	Felt D12.5x16x2t		1
4-10	MZ253113	Main Metal Cap B	MH-208	1
4-11	MB256590	Double Face Flat Belt D110	100912	1
4-12	MZ244517	Flywheel Support Plate	RC-108	1
4-13	ZW373331	Washer, without Hole		
		D10.3x1t		1
4-14	MB377256	Flywheel Belt B	RCC-204	1
4-15	MZ471778	Flywheel Prop 1	RS-1008	1
4-16x	ZW479463	Screw, truss head 4x10		2
4-17	MZ471780	Flywheel Prop 2	RS-1009	1
4-18	ZW369494	Flange Nut M4		2
4-19	ZW273914	M4 Spring Washer		1
4-20	ZW413201	Screw, pan head 4x8		1
4-21	MV269965	Steel Ball D4		1
4-22	MZ248343	Belt Guide Pin	4TR-109	1
4-23x	ZW413188	M4 Nut		1

SWITCH BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
5-1x	BS478596	Switch Block Comp.	RS	1
5-2	MZ316901	Switch Table A-2 (SX),		
		w/props	MR-201	1
5-3	ES316934	RWD Shaft (Y type)	25-8-5	1
5-4	ES369865	RCC Y type RWD Shaft	RCC-202	1
5-5	MZ316945	Nut Plate	MR-245	2
5-6	ZW202138	Screw, binding head 3x6,		
		w/washer		4
5-7	MZ316956	Cam A-3	MR-242	1
5-8	ZW413201	Screw, pan head 4x8		4
5-9x	ZW260133	Washer (Fiber) D6.1x10x1t		3
5-10	MZ327341	Cam Trap Plate B	SX-201	1
5-11	ZG227586	Spring K	900-214	1
5-12	MZ327352	Cam C-2	SX-202	1
5-13	ZW201778	Screw, pan head 4x8		1
5-14x	ZW434215	Washer (Nylon)		
		D6.1x10.3x0.3t		1
5-15x	ZW434193	Washer (Nylon)		
		D6.1x10.3x0.5t		1
5-16	MV270066	Steel Ball D8		1
5-17	MZ217293	Cam B-2, without Tap	1630-201	1
5-18	ZW416687	Screw, binding head 4x8		1
5-19	ML257128	Lever I, w/shaft B	900-209	1
5-20	MZ217203	Cam Roller A	900-153	1
5-21	ZW290283	'U' Ring 2.85M	6-1-1	2
5-22	ZW217877	Pause Lever Set Screw	900-136	1
5-23	ZW260166	Washer (Nylon)		
		D6.2x13x0.125t		2
5-24x	ZW273892	M4 Toothed Lock Washer		1
5-25	ZW273960	M4 Nut		1
5-26	MZ225720	Switch Table B-2	M9-308	1
5-27	MZ258581	Rec. Lever Prop	M9-303	1
5-28	MZ317068	Amp. Switch Cam B	MR-243	1
5-29	MZ217686	Pause Lever Cushion	LC-102	1
5-30x	BL478607	Switch Lever Block Comp.	RS	1
5-31	ML226080	Switch Lever A, w/shaft B	900-255	1
5-32	MZ217203	Cam Roller A	900-153	1
5-33x	ZW290283	'U' Ring 2.85M	6-1-1	1
5-34	ML471892	Adjust Lever B	RS-2001	1
5-35	ZW437545	Hexagon Bolt 4x7, w/washer		2
5-36	ZG227564	Spring H	900-120	1
5-37	EG227485	Spring E	900-119	1

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

FIG. 5 ILLUSTRATION OF SWITCH BLOCK

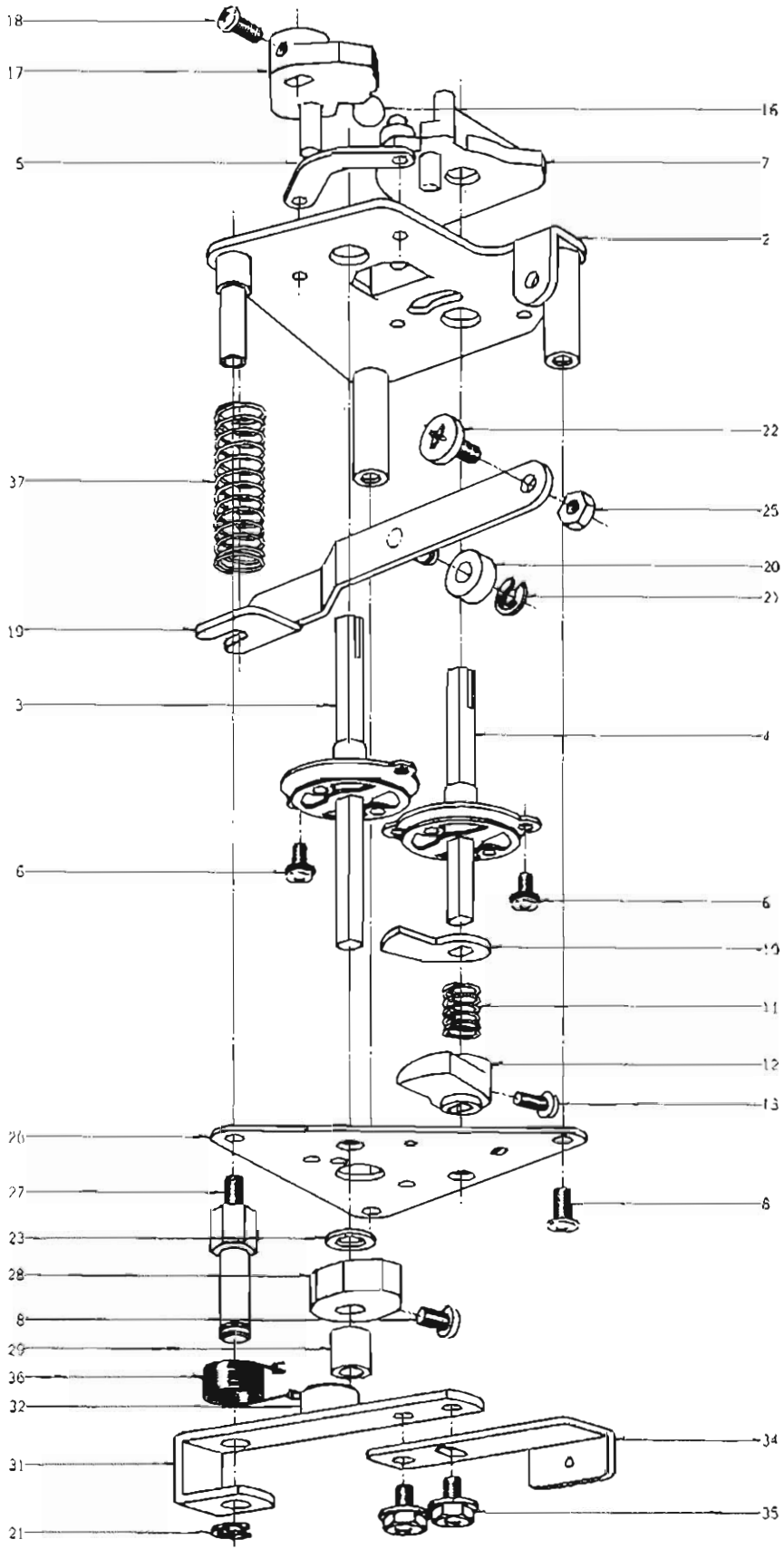
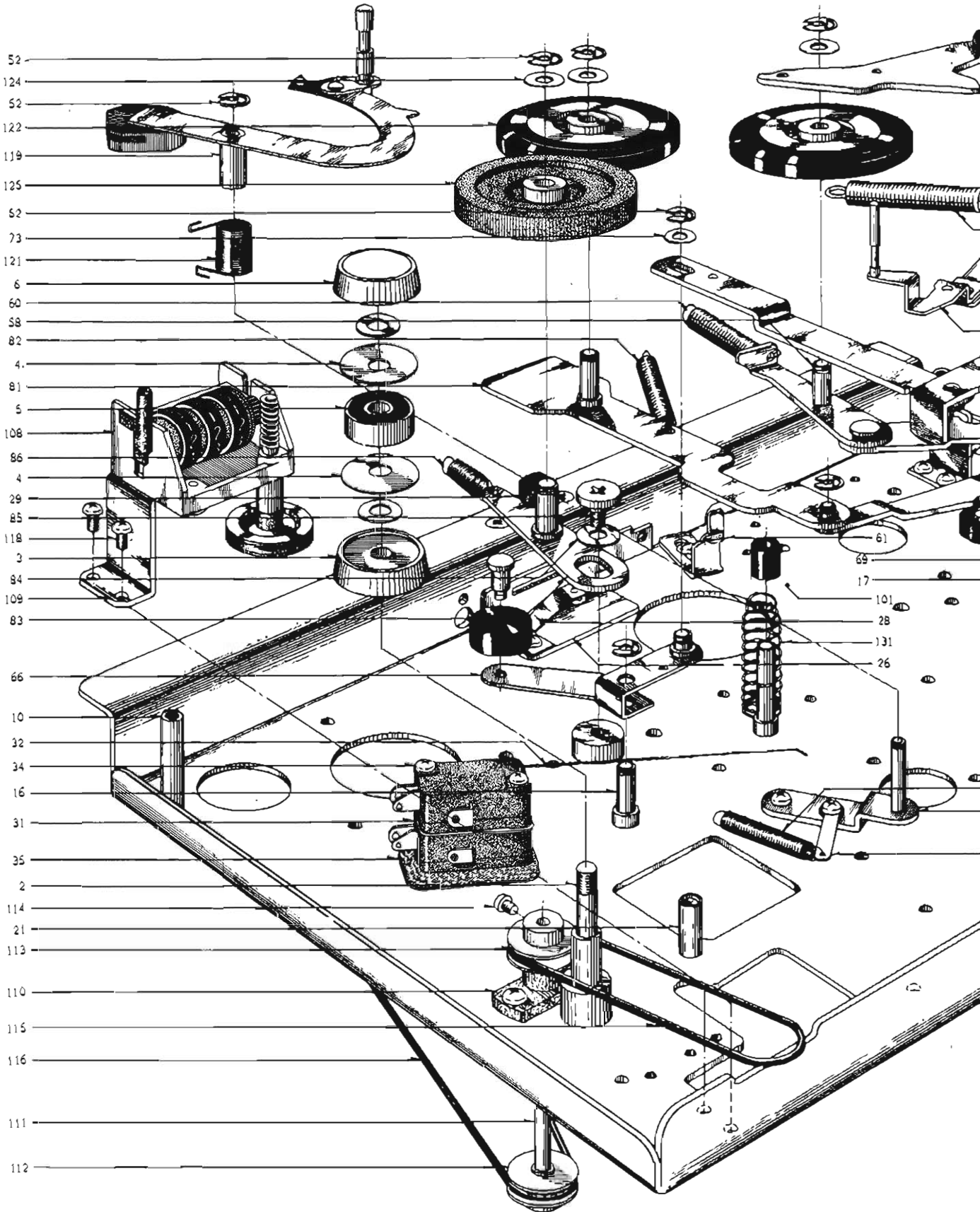
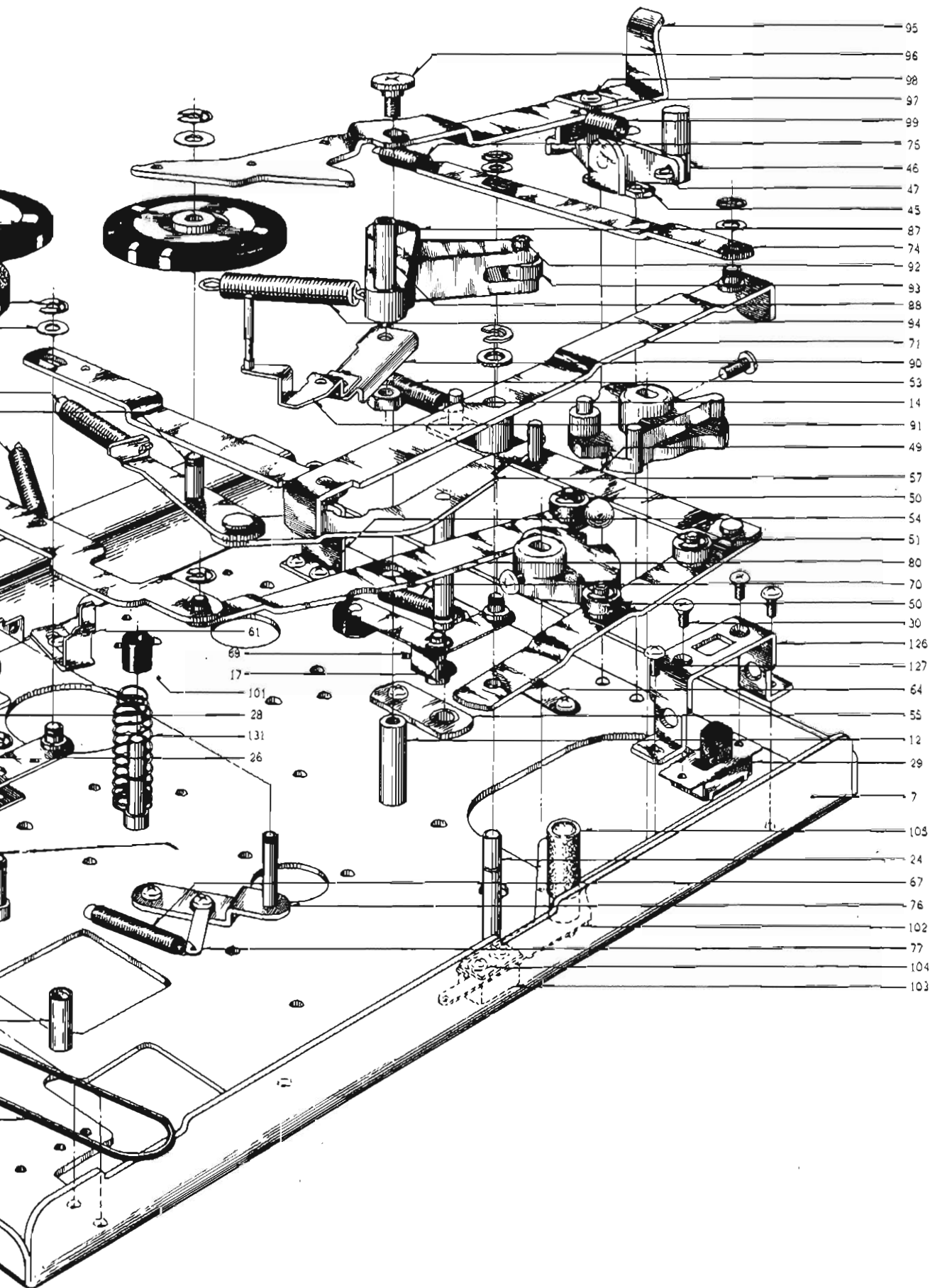


FIG. 6 ILLUSTRATION OF MECHANISM ASSEMBLY BLOCK



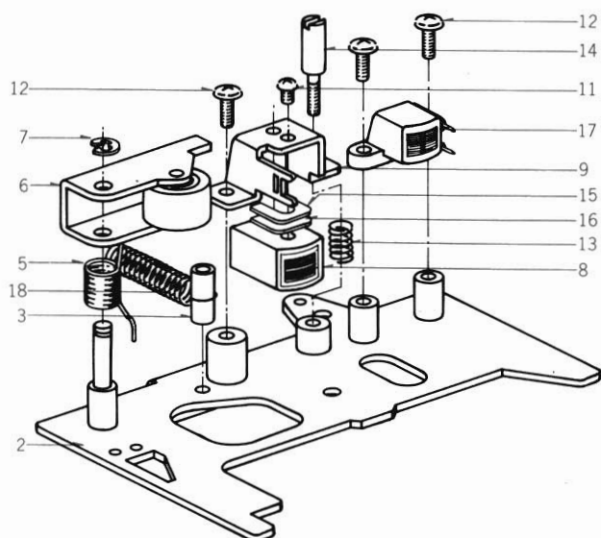


MECHANISM ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
6-1x	BZ484773	Tape Guide Block #4 Comp.	RS	1	6-63x	ZW260054	Washer (SUP) D6.1x10x0.25t		1
6-2	MH471881	Guide Prop	RS-1003	1	6-64	MZ217697	Pause Lever Stopper Plate	M9-113	1
6-3	SZ465377	Tape Guide Table A	LC-618	1	6-65x	MZ256814	Rewind Shaft Spacer	M9-124	2
6-4	ZW231805	Tape Guide Washer (large)	3A-356	2	6-66	ML217934	Supply Brake Comp.	900-113	1
6-5	MV248117	Bearing 635AHZZ-CIE-B32		1	6-67	ZG290384	UN Spring D	1630-108	1
					6-68x	ZW259942	Washer (Fiber) D5.1x10.3x0.5t		2
6-6	SZ465388	Tape Guide Table B	LC-619	1	6-69	ML251932	Take-up Brake Comp.	900-114	1
					6-70	ZG227452	Spring D	900-118	1
					6-71	ML260504	Lever A, w/lever E-2	900-102	1
					6-72x	ZW376380	Washer (Polyslider) D5.1x10.3x0.13t		1
					6-73	ZW369595	Washer (Pressboard) D5.1x10.3x0.25t		2
					6-74	ML262337	Lever C3	M8-106	1
6-7	MZ477426	Mech. Frame (DF)	SX-101	1	6-75	ZG217337	Belt Return Spring	4TR-224	1
6-8x	MZ327205	Bush B	SX-102	1	6-76	MZ260662	AS Lever Prop Base, w/prop	4TR-236	1
6-9x	ZW328871	Flange Nut M6		1	6-77	ZW273767	Earth Lug D3x20L		1
6-10	MZ273295	M-9 Mech. Panel Prop	M9-302	4	6-78x	ZW462835	Washer (PBP) D4.3x11x0.2t		1
6-11x	ZW369900	Screw, pan head 3x8, w/washer		4	6-79x	ZW462846	Washer (PBP) D4.3x11x0.3t		1
6-12	MS257051	Lever FA Shaft	900-127	1	6-80	ML257040	Lever FA, w/shaft B	900-107	1
6-13x	HZ305403	Cart. Frame Square Prop	RC-134	1	6-81	ML295727	1 Speed Motor Lever F, w/shaft	M8-107	1
6-14	ZW413188	M4 Nut		1	6-82	ZG270358	F.B Pull Spring	M8-108	1
6-15x	ZW273914	M4 Spring Washer		1	6-83	ML257163	Lever K, w/shaft	900-111	1
6-16	MS245463	Brake Lever Shaft	900-129	1	6-84	ZW260166	Washer (Nylon) D6.2x13x0.125t		1
6-17	MS491692	Brake Lever Shaft	RS-1019	1	6-85	ZW223233	Fulcrum Screw A	900-135	1
6-18x	ML308564	Belt Vibration Stopper (D, AAL)	MH-137	1	6-86	ZG224796	New Spring D	MH-142	1
6-19x	MZ245485	Brake Lever Pin (D, AAL)	MH-138	1	6-87	ML327385	Pinch Roller Lever (SX)	SX-117	1
6-20x	ZW413188	M4 Nut (D, AAL)		1	6-88	MS471802	RS Pinch Roller Shaft	RS-2004	1
6-21	MZ327216	Head Prop (SX)	SX-104	3	6-89x	ZW303491	Washer (SUP) D4.3x11x0.8t		1
6-22x	ZW413201	Screw, pan head 4x8		2	6-90	MZ327295	Shifter Plate	SX-119	1
6-23x	ZW414044	Screw, countersunk head 4x8		1	6-91	ML471813	Shifter Lever, w/pin	RS-1010	1
6-24	MS478620	A Lever Shaft	RS-1017	1	6-92	MS217192	Cam Roller Shaft A	900-130	1
6-25x	ZW413267	Flange Nut M4		1	6-93	MR269728	Cam Roller D12.5	RC-126	1
6-26	MZ257073	Lever FB Guide Base	M9-103	1	6-94	ZG272981	M-9 Pinch Roller Spring	M9-104	1
6-27x	ZW417150	Screw, pan head 4x6		2	6-95	ML369718	Pause Lever A, w/set screw	RCC-101	1
6-28	ZG257095	Lever FB Vibration Proof Spring	M8-104	1	6-96	ZW217877	Pause Lever Set Screw	900-136	1
6-29	ES479485	Slide Switch S-1	25-3-66	2	6-97	MZ316451	M-7 Pause Stopper	MH-126	1
6-30	ZW440291	Iso Screw, countersunk head 3x6		4	6-98	ZW323728	Screw, binding head 3x5		1
6-31	ES250042	Micro Switch V-1A U/L	25-1-1	2	6-99	ZG217866	Pause Lever Spring A	900-123	1
6-32	MZ205817	Actuator JW-560	21-1-5	1	6-100x	ZW259795	Washer (SUP) D4.3x11x0.13t		1
6-33x	ZW414055	Screw, binding head 3x30		1	6-101	MZ217686	Pause Lever Cushion	LC-102	1
6-34	ZW414066	Screw, binding head 3x25		1	6-102	MZ327262	Cam Stopper	SX-111	1
6-35	MZ479834	Micro Insulator S	MS-1020	1	6-103	ZW217102	Cam Stopper Insulator Washer	900-185	1
6-36x	ZW273756	M3 Nut		1	6-104	ZW413245	Screw, pan head 4x15		2
6-37x	MZ248343	Belt Guide Pin	4TR-109	1	6-105	SB471835	Rec. Button, w/shaft	RS-1001	1
6-38x	MZ452496	Cycle Angle (D, CEE)	LS-1007	1	6-106x	ZW477450	Washer (SUP) D3.4x7.8x0.5t		1
6-39x	ZW330412	Adjust Washer (U) D4x13x0.13t		1	6-107x	ZW477461	Cotter Pin 1.6x10		1
6-40x	ZW330423	Adjust Washer (U) D4x13x0.25t		1	6-108	MC471868	Counter MP391-00	9-1-21	1
6-41x	ZW330445	Adjust Washer (U) D4x13x0.8t		1	6-109	MZ471856	Counter Base	RS-1002	1
6-42x	EZ328320	Nylon Clip HP-5N		2	6-110	BC369720	Counter Pulley Case, w/metal	RCC-104	1
6-43x	EJ477448	Mate-N-Lock Comp. RS	RS-1016	1	6-111	MS369742	Counter Middle Shaft	RCC-106	1
6-44x	EJ488204	Mate-N-Lock Comp. (D, CEE)	RS-1016	1	6-112	MR369731	Counter Middle Pulley, RCC	RCC-105	2
6-45	ML226258	Start Lever A, w/lever B-2	4TR-122	1	6-113	MR471870	Counter Middle Pulley, RS	RS-1004	1
6-46	SB425777	Start Button	MS-1002	1	6-114	ZW432843	Screw, pan head 2.6x4		2
6-47	ZW314728	Cotter Pin 1.6x8		1	6-115	MB369753	Middle Belt	RCC-107	1
6-48x	ZW384131	Screw, round head 3x5		2	6-116	MB369663	RCC Counter Belt	RCC-126	1
6-49	ML309093	Lever B, w/lever D	900-103	1	6-117x	ZW413741	Screw, binding head 3x8		2
6-50	MZ217203	Cam Roller A (Nylon)	900-153	2	6-118	ZW323728	Screw, binding head 3x5		2
6-51	MR217214	Cam Roller B (Steel)	4TR-240	1	6-119	BL204658	AS Lever Comp. #2		1
6-52	ZW290283	'U' Ring 2.85M	6-1-1	2	6-120x	ZW322525	Washer (PBP) D4.1x7x0.2t		1
6-53	ZG469427	Spring B-1	LS-2004	1	6-121	ZG293692	AS Lever Spring #1630	1630-103	1
6-54	ML475920	New Spring Hook	900-185	1	6-122	MI204423	Idler Wheel #2		2
6-55	MZ253653	Metal Mt. Part, w/metal	900-174	1	6-123x	ZW376380	Washer (Polyslider) D5.1x10.3x0.13t		1
6-56x	ZW273881	M4 Earth Lug		1	6-124	ZW260076	Washer (Nylon) D6.1x10x0.5t		1
6-57	ML270685	G Lever, w/H lever	900-109	1	6-125	MI231423	Middle Wheel, w/metal	900-155	1
6-58	MS205560	Idler Shaft B	100150	1	6-126	MZ484751	Automatic Switch Plate	RS-1018	1
6-59x	ZW200384	Screw, countersunk head 3x6		1	6-127	ZW413155	Screw, binding head 3x6		2
6-60	ZG205571	Idler Tension Spring	MH-135	1	6-128x	EJ205975	Cramp Terminal 1-SD (D, AAL)	32-1-7	3
6-61	MZ327251	G Lever Stopper (SX)	SX-110	1	6-129x	EJ205975	Cramp Terminal 1-SD (D, CEE)	32-1-7	2
6-62x	ZW413223	Screw, binding head 3x5, w/washer		1	6-130x	MB229138	Side Wire Band (D, CEE)	2-35-1	1
					6-131	ZG217394	Belt Change Spring B	MH-125	1

When ordering parts, please describe Parts Number, Serial Number, and Model Number

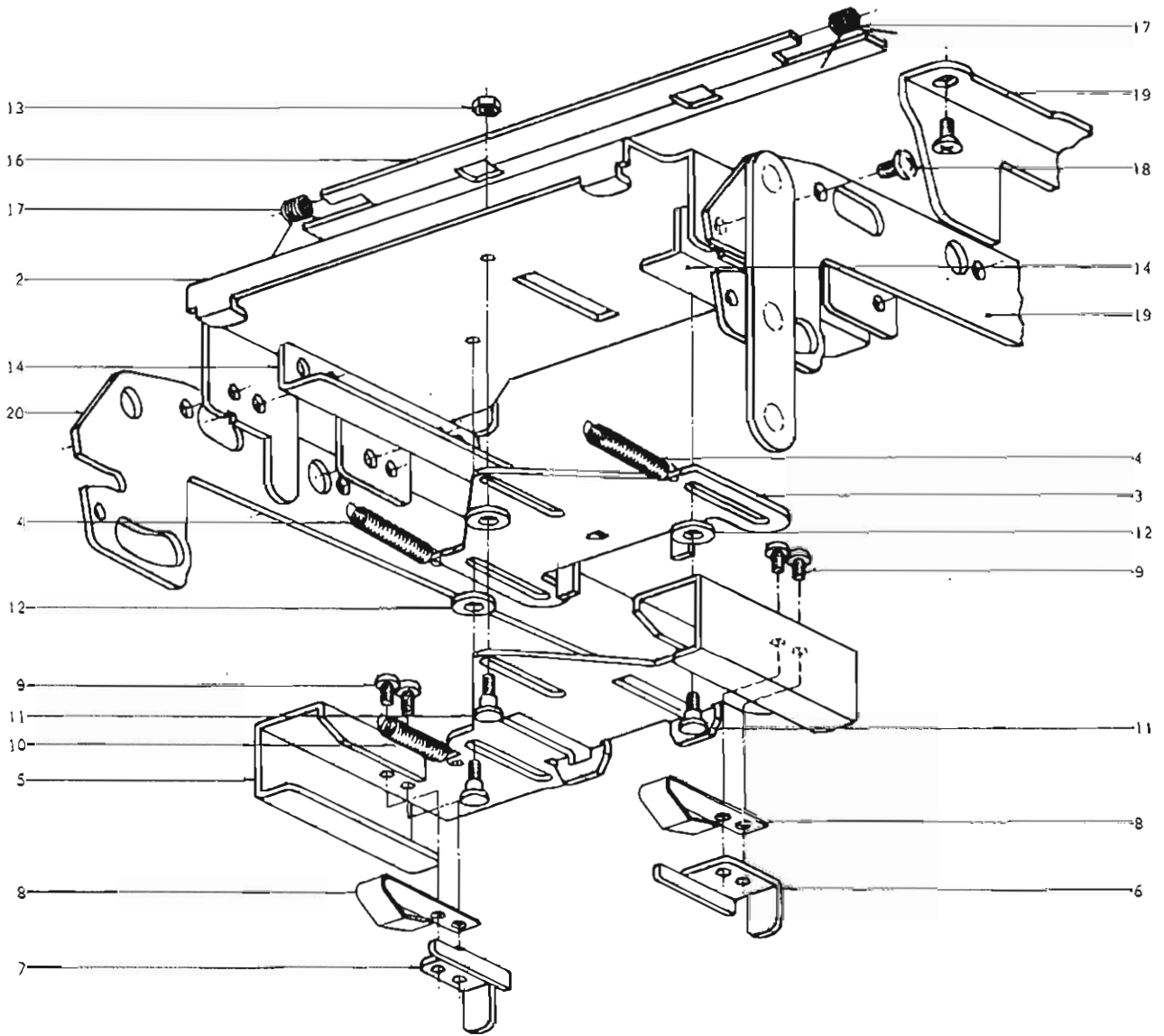
**FIG. 7 ILLUSTRATION OF
CASSETTE HEAD BLOCK**



CASSETTE HEAD BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
7-1x	BH478530	Cassette Head Block Comp.	RD	1
7-2	HZ368954	Head Base S, w/props	RCC-1019	1
7-3	UC369000	Pinch Roller Stopper	RCC-1024	1
7-4x	ZW201936	Screw, binding head 2.3x6		1
7-5	ZG364386	Pinch Roller Spring	RCC-1031	1
7-6	UC369011	Pinch Roller Lever, w/pinch roller	RCC-1025	1
7-7	ZW270088	'E' Ring 1.9M	6-1-9	1
7-8	HP451934	REC./P.B. HEAD P4-330		1
7-9	UM366625	PC Tape Guide	RCC-1012	1
7-10x	ZW259380	Washer (BSP) D2.4x4.3x0.3t		2
7-11	ZW374646	Screw, pan head 2x2		2
7-12	ZW201936	Screw, binding head 2.3x6		3
7-13	ZG369088	Angle Adjust Spring	RCC-1032	1
7-14	ZW369090	Angle Adjust Screw	RCC-1033	1
7-15	ZW414235	Washer A	CS-0025	1
7-16	ZW414246	Washer B	CS-0025	1
7-17	HE451945	ERASE HEAD E4-150		1
7-18	ZG369112	Head Base Return Spring	RCC-1035	1

FIG. 8 ILLUSTRATION OF CASSETTE CASE BLOCK

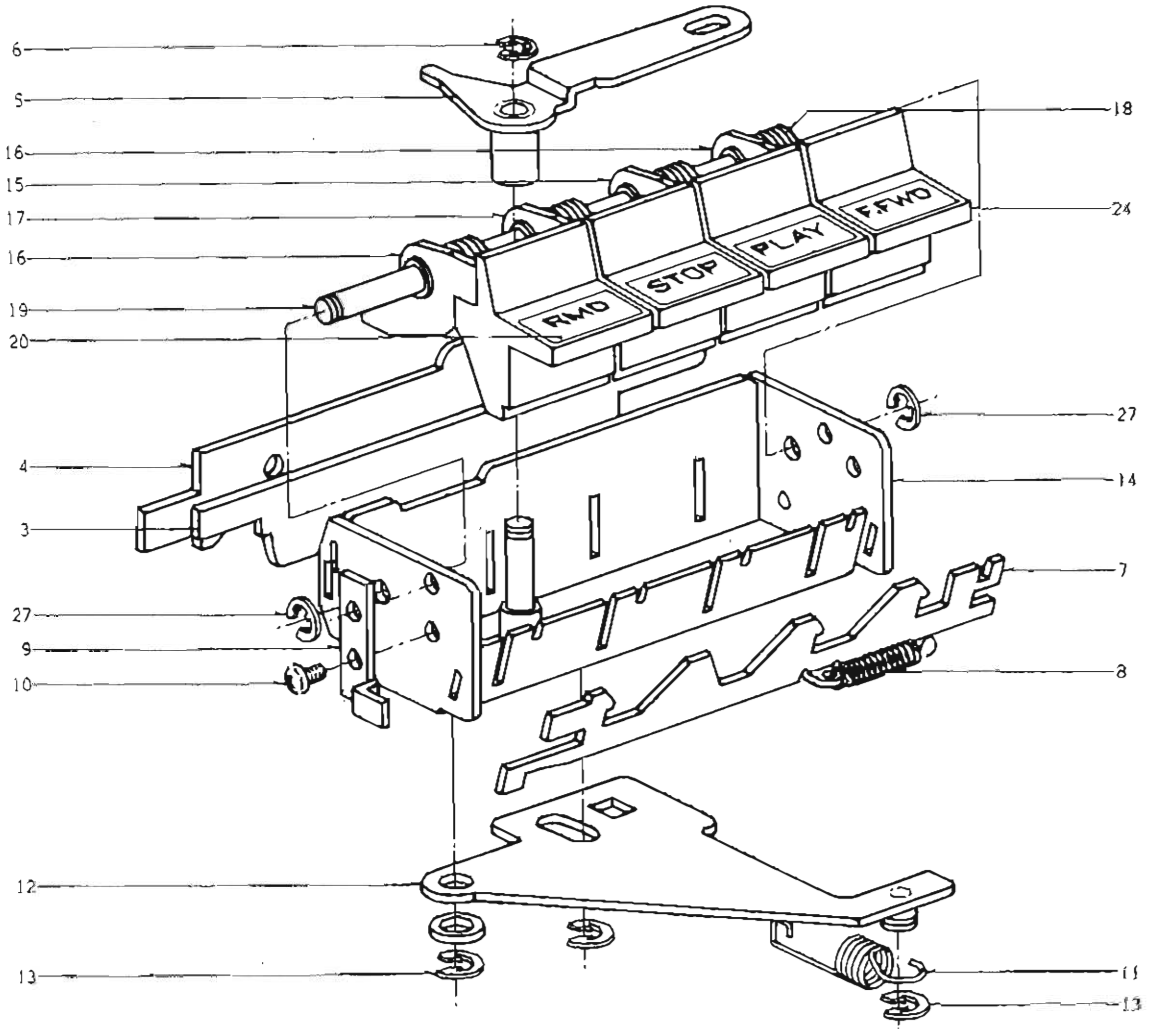


CASSETTE CASE BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
8-1x	B2363960	Cassette Case Block Comp.	RS-RCC	1
8-2	UC366737	Cassette Case Cover	RCC-1206	1
8-3	UC366748	Slider D	RCC-1207	1
8-4	ZG451574	Slider Pull Spring	RCC-1207B	2
8-5	UC366772	Slider C	RCC-1210	1
8-6	UC493558	Retaining Plate A	RS-1225	1
8-7	UC493560	Retaining Plate B	RS-1225	1
8-8	ZG366783	Retaining Spring	RCC-1211	2
8-9	ZW417273	Screw, binding head 2.3x4		4
8-10	ZG366794	Cassette Return Spring	RCC-1212	2
8-11	ZW366750	Slider Graduated Screw	RCC-1208	3
8-12	ZW465254	Slide Washer D3.1x8x11	RCC-1227	3
8-13	ZW273688	M2.3 Nut		3
8-14	UC494818	Slider Guide	RS-1228	2
8-15x	ZW417137	Screw, binding head 3x4		4
8-16	UC366895	Cassette Lock Lever	RCC-1219	1
8-17	ZG366906	Cassette Lock Spring	RCC-1220	2
8-18	ZW323728	Screw, binding head 3x5		4
8-19	UC366816	Main Lever A, w/lever D, bracket B	RCC-1214	1
8-20	UC364443	Main Lever B, w/bracket A	RCC-1214	1

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

FIG. 9 ILLUSTRATION OF KEYBOARD BLOCK

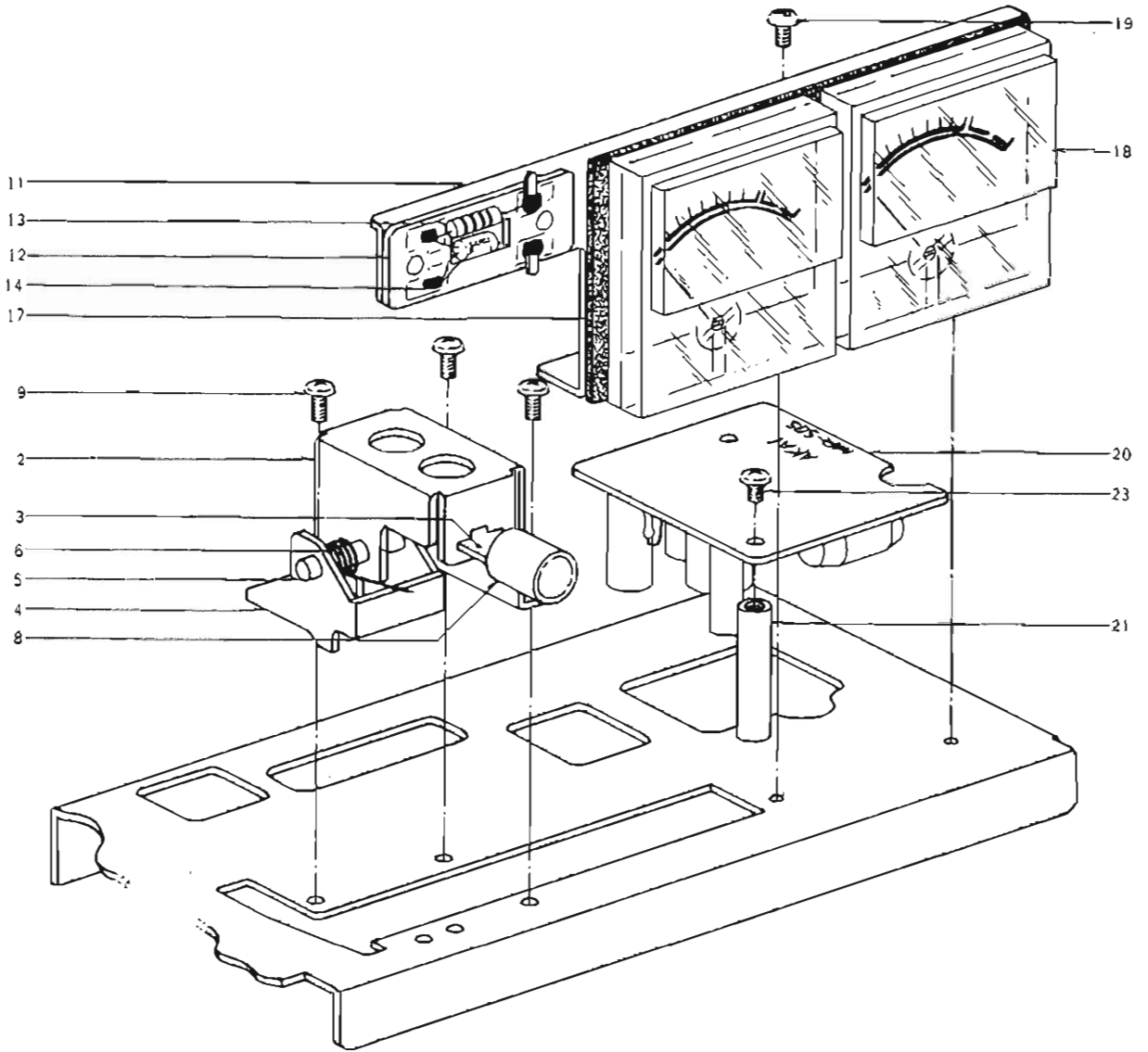


KEYBOARD BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Maker No.	Q'ty
9-1x	BZ478552	Keyboard Block Comp.	RS	1	9-2x	ES477505	Keyboard Switch Comp.	RS 25-5-53	1
9-2x	ES477505	Keyboard Switch Comp.	RS 25-5-53	1	9-14	RS-K01	Keyboard Holder, w/shaft, pins	ME1-0104	1
9-3	UC367468	Keyboard Lever B	RCC-1275	1	9-15	RS-K05	Keyboard Lock Lever B, w/metal	ME2-0110	1
9-4	UC367470	Keyboard Lever C	RCC-1276	1	9-16	RS-K06	Keyboard Lock Lever A, w/metal	ME2-0120	2
9-5	UC367481	F. FWD Lever, w/metal	RCC-1277	1	9-17	RS-K07	Keyboard Lock Lever D, w/metal	ME2-0130	1
9-6	ZW290283	'U' Ring 2.85M	6-1-1	1	9-18	RS-K08	Keyboard RWD Spring C	ME2-2100	4
9-7	UC367558	Keyboard Lever A	RCC-1281	1	9-19	RS-K09	Keyboard Shaft	ME2-2100	1
9-8	ZG367110	SST Spring	RCC-1240	1	9-20	RS-K11	Keyboard Name Plate A (RWD)	ME2-0510	1
9-9	UC477516	Keyboard Stopper	RS-1133	1	9-21x	RS-K12	Keyboard Name Plate B (Stop)	ME2-0520	1
9-10	ZW417273	Screw, binding head 2.3x4		2	9-22x	RS-K13	Keyboard Name Plate C (Play)	ME2-0530	1
9-11	ZG493514	Operation Lever Spring	RS-1227	1	9-23x	RS-K14	Keyboard Name Plate D (F.FWD)	ME2-0540	1
9-12	UC495595	Operation Lever A, w/pin	RS-1226	1	9-24	RS-K15	Cassette Knob	ME2-6100	4
9-13	ZW290283	'U' Ring 2.85M	6-1-1	3	9-25x	RS-K16	Keyboard Stop	ME2-0100	1
					9-26x	RS-K17	Graduated Screw	ME9-4300	1
					9-27	RS-K18	'E' Ring	ME9-0600	2

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

FIG. 10 ILLUSTRATION OF CASSETTE REC. BUTTON/METER BASE BLOCK

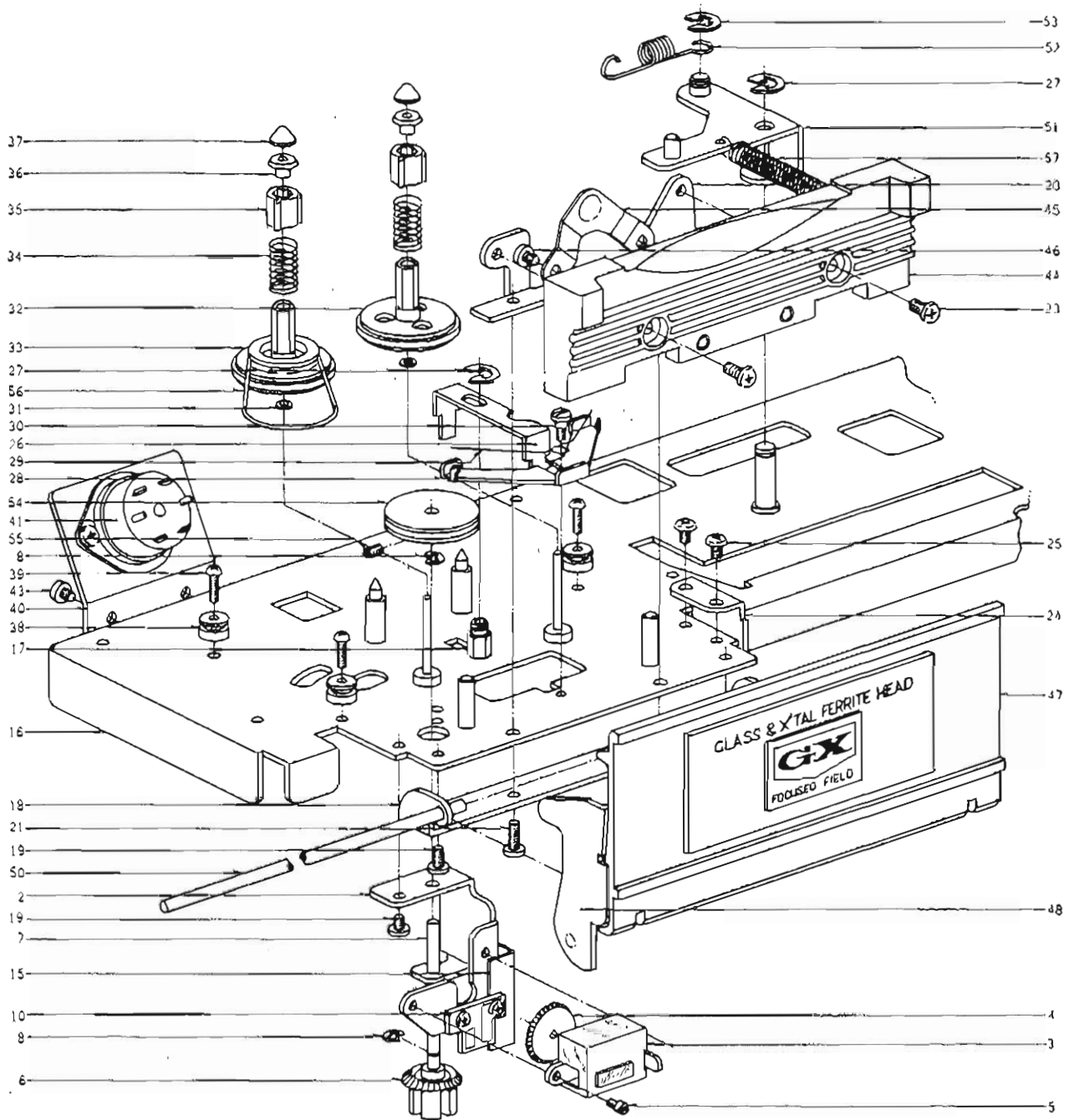


CASSETTE REC. BUTTON/METER BASE BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
CASSETTE REC. BUTTON BLOCK					METER BASE BLOCK				
10-1x	BZ478394	Cassette Rec. Button Block Comp.	RS	1	10-10x	BZ478416	Meter Base Block Comp.	RS	1
10-2	UC471284	Button Holder	RS-1201	1	10-11	UC471060	Meter Base	RS-1302	1
10-3	UC471295	Button Lever	RS-1202	1	10-12	EA479384	Lamp Board	RS-5314	2
10-4	UC471306	Safety Lever	RS-1203	1	10-13	FR347130	Solid/R. RC1/2W 82(K)	35-5-4	1
10-5	UC471317	Holder Shaft	RS-1204	1	10-14	FL295312	No. 2 Lamp 8V 0.2A	28-2-8	1
10-6	ZG471330	Cassette Rec. Spring	RS-1215	1	10-15x	ZW484738	Insulated Washer	RS-5019	2
10-7x	ZW290283	'U' Ring 2.85M	6-J-1	2	10-16x	EI.390576	Pilot Lamp RM6-24V-SOMA	28-2-6	1
10-8	SB471328	Cassette Rec. Button	RS-1205	1	10-17	UC471420	VU Meter Cushion	RS-1216	1
10-9	ZW323728	Screw, binding head 3x5		3	10-18	FM471273	VU Meter D-1914R	46-35	2
					10-19	ZW447772	Tapping Screw 3x6 (BR)		2
					10-20	BA478574	OSC. P.C. Board Comp. (MR-505)		1
					10-21	UC366210	P.C. Board Prep	ACC-1102	2
					10-22x	ZW413223	Screw, binding head 3x5, w/washer		1
					10-23	ZW323728	Screw, binding head 3x5		1
					10-24x	ZW413741	Screw, binding head 3x8		2

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

FIG. 11 ILLUSTRATION OF CASSETTE ASSEMBLY BLOCK I

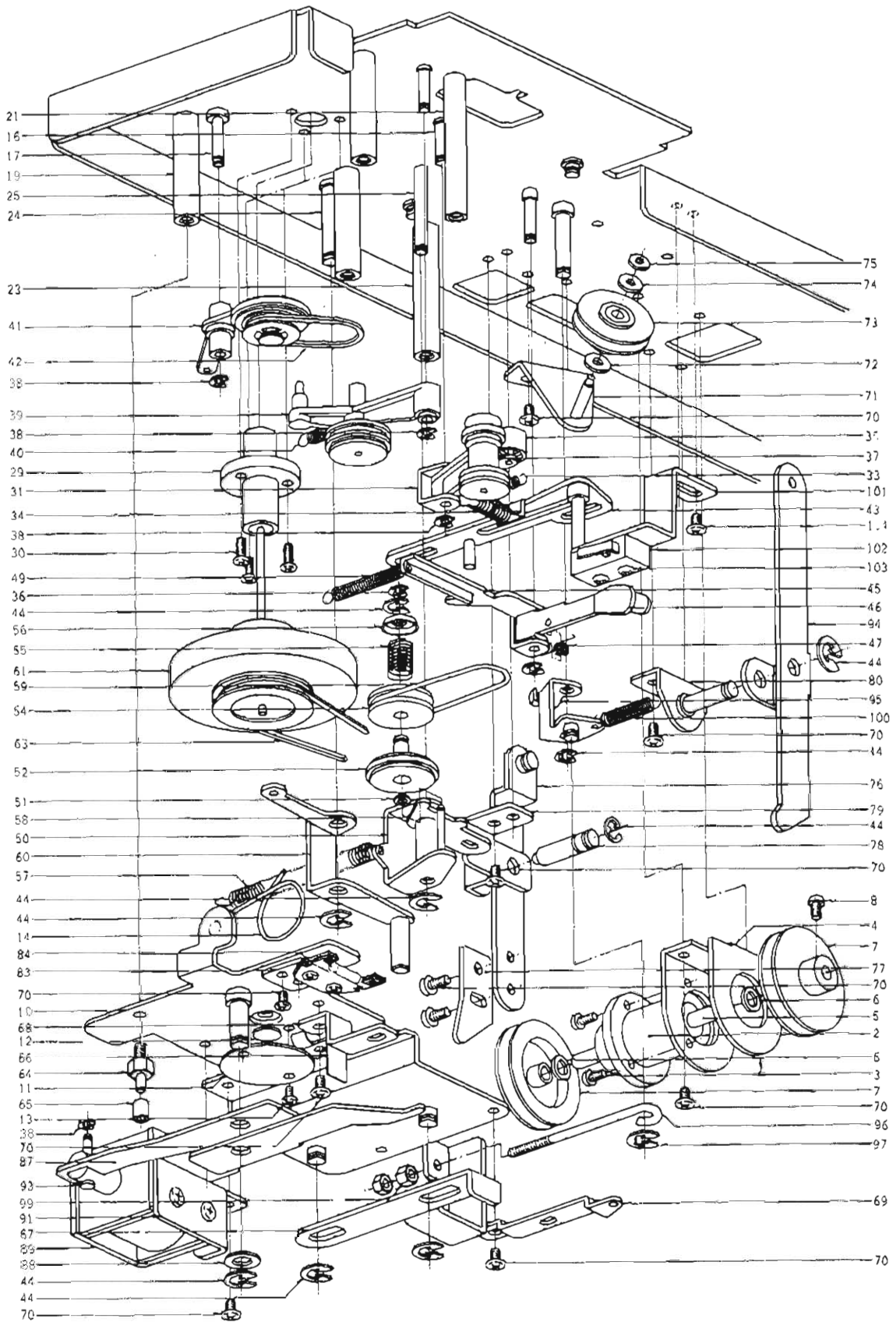


CASSETTE ASSEMBLY BLOCK I

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
CASSETTE COUNTER BASE BLOCK				
11-1x	BZ478405	Cassette Counter Base Block		
		Comp.	RS	1
11-2	UC471374	Counter Mt. Plate	RS-1207	1
11-3	MC471363	Counter KMP-3813	9-1-22	1
11-4	UC471385	Counter Gear 2	RS-1210	1
11-5	ZW486268	Counter Set Screw	RS-1137	2
11-6	UC471396	Counter Gear 1	RS-1212	1
11-7	MS471407	Counter Shaft	RS-1208	1
11-8	ZW270088	'E' Ring 1.9M	6-1-9	2
11-9x	ZW484762	Washer (Teflon)		
		D3.1x5x0.2t		1
11-10	EA471418	CDS P.C. Board	RS-1013	1
11-11x	ET368921	CDS P-320	45-9-1	1
11-12x	UC472263	CDS Cushion	RS-1130	1
11-13x	ZW417273	Screw, binding head 2.3x4		2
11-14x	ZW269785	M2.3 Toothed Lock Washer		1
11-15	UC488902	Lamp Mask	RS-1139	1
CASSETTE ASSEMBLY BLOCK				
11-16	HZ471047	Cassette Frame, w/shafts	RS-1101	1
11-17	VM370023	Brake Lever Prop	RCC-1308	1
11-18	UC370080	Cover Bearing	RCC-1311	1
11-19	ZW323728	Screw, binding head 3x5		4
11-20	UC370091	Decorative Cover Angle	RCC-1312	1
11-21	ZW417025	Screw, binding head 3x8,		
		w/washer		2
11-22x	UC366210	P.C. Board Prop	RCC-1102	2
11-23	ZW413741	Screw, binding head 3x8		4
11-24	UC370181	Keyboard Holder Retaining		
		Plate	RCC-1321	1
11-25	ZW323728	Screw, binding head 3x5		2
11-26	UC370236	Brake Lever A	RCC-1326	1
11-27	ZW290283	'U' Ring 2.85M	6-1-1	2
11-28	UC370247	Brake Lever	RCC-1327	1
11-29	ZG370258	Brake Spring	RCC-1328	1
11-30	ZW344812	2.3 Graduated Screw	BT-126	1
11-31	ZW364342	Washer (Polyslider)		
		D1.7x3.2x0.25t		2
11-32	UC370315	C type Reel Table A	RCC-1340	1
11-33	UC370337	C type Reel Table B	RCC-1342	1
11-34	ZG370350	Reel Table Spring	RCC-1344	2
11-35	ZG370361	C type Reel Table Blade	RCC-1345	2
11-36	UC370348	C type Reel Table Bush	RCC-1343	2
11-37	UC370372	C type Reel Shaft Cap	RCC-1346	2
11-38	UC488070	Head Base Guide	RX-1138	3
11-39	ZW417306	Screw, round head 2.3x8		3
11-40	UC365567	Connector Base A	RCC-1360	1
11-41	EJ365703	6P Socket	31-1-67	1
11-42x	EJ369077	Lug Plate VBL 1	33-4-7	1
11-43	ZW447840	Tapping Screw #2 3x8(BR)		2
11-44	UC366388	Decorative Cover	RCC-1120	1
11-45	ZG366401	Cassette Retaining Spring	RCC-1122	1
11-46	ZW323728	Screw, binding head 3x5		2
11-47	UC471071	Cassette Cover, w/rivet, pin	RS-1213	1
11-48	UC488733	Cam Angle (RS), w/pin	RS-1224	1
11-49x	ZW464747	Screw, countersunk head		
		3x6		2
11-50	MS366480	Cassette Cover Shaft	RCC-1129	1
11-51	UC471082	Rec. Lever 2, w/pins	RS-1109	1
11-52	ZG471126	Adjust Spring 1	RS-1110	1
11-53	ZW270101	'E' Ring 3M	6-1-9	2
11-54	MR471150	Counter Pulley 1	RS-1211	1
11-55	ZW499454	Set Screw, hexagon socket		
		2.6x3 (cup)		1
11-56	MB471161	Counter Belt	RS-1122	1
11-57	ZG217337	Belt Return Spring	4TR-224	1

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

FIG. 12 ILLUSTRATION OF CASSETTE ASSEMBLY BLOCK II

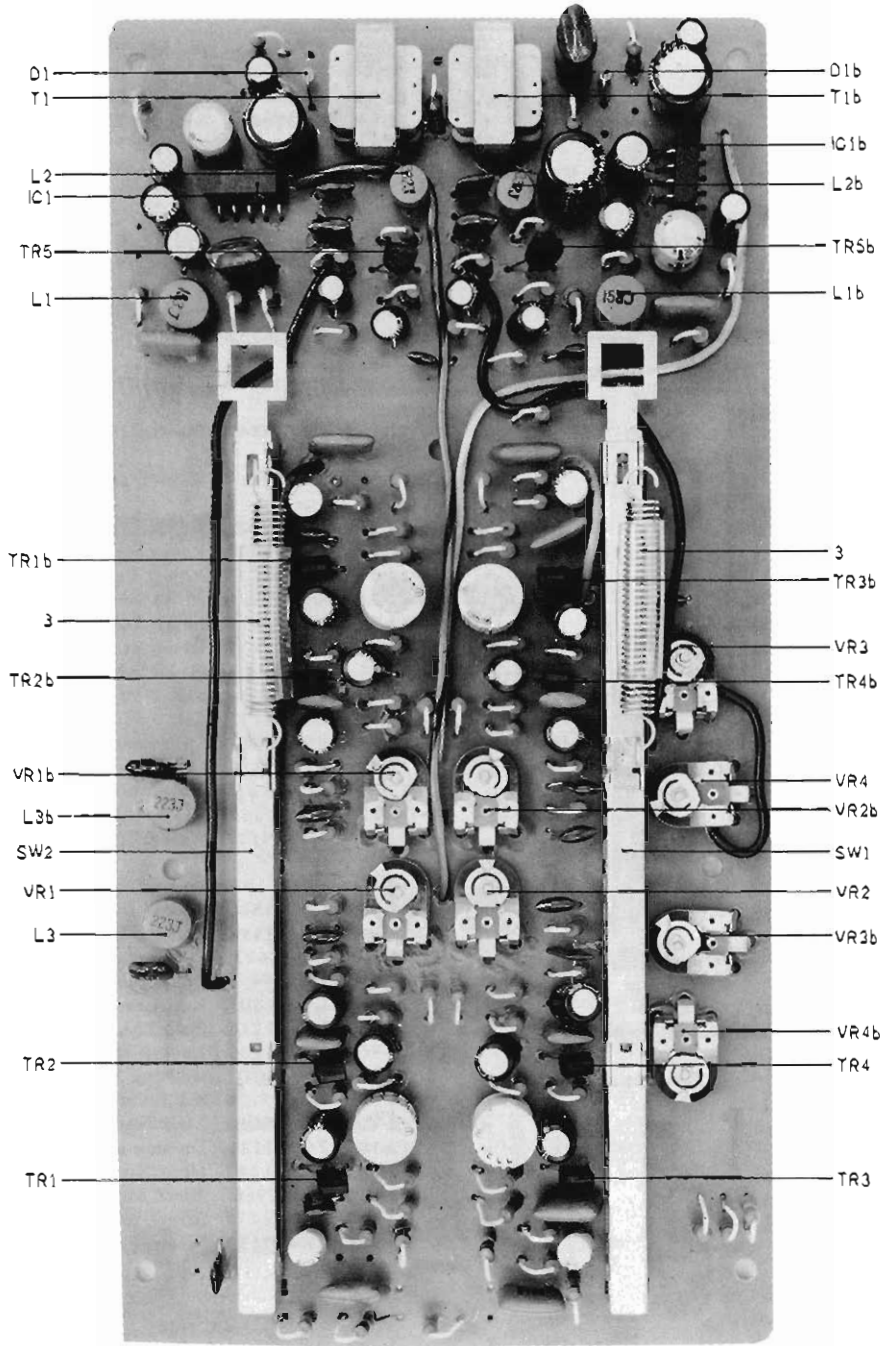


CASSETTE ASSEMBLY BLOCK II

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
MIDDLE PULLEY BLOCK									
12-1x	BZ478563	Middle Pulley Block Comp.	RS	1	12-62x	ZW259334	Washer (Polyslider) D2.05x3.5x0.25t		1
12-2	UC367312	Pulley Metal Case, w/metal B	RCC-1260	1	12-63	MB366287	Flywheel Belt A	RCC-1110	1
12-3	ZW464692	Screw, binding head 2.3x6		3	12-64	UC476820	Stopper Pin	RS-1131	1
12-4	UC472195	RS Metal Case Holder	RS-1125	1	12-65	UC486044	Stopper Pin Tube	RS-1223	1
12-5	UC367356	Pulley Shaft	RCC-1264	1	12-66	SZ226282	Cord Holder, Standard	900-180	1
12-6	ZW259738	Washer (Polyslider) D4.1x7x0.25t		2	12-67	UC471352	Operation Lever	RS-1206	1
12-7	UC367345	Middle Pulley	RCC-1263	2	12-68	UC366491	Keyboard Supporting Plate A	RCC-1130	1
12-8	ZW461935	Screw, round head 2.6x4		4	12-69	UC366502	Keyboard Supporting Plate B	RCC-1131	1
FLYWHEEL SUPPORT PLATE BLOCK									
12-9x	BZ478541	Flywheel Support Plate Block Comp.	RS	1	12-70	ZW323728	Screw, binding head 3x5		4
12-10	MZ477494	Flywheel Support Plate B, w/shaft	RCC-1201 900-721	1	12-71	UC366232	Middle Pulley Bracket, w/shaft	RCC-1104	1
12-11	UC254250	Motor Bottom Plate		1	12-72	ZW429276	Washer (Rubber) D3.1x8x0.5t		1
12-12	ZW235776	Nylon Plate D8		1	12-73	UC366243	Flywheel Middle Pulley, w/metal	RCC-1105	1
12-13	ZW427048	Screw, round head 3x3		2	12-74	ZW377414	Washer (SUP) D2.1x7x0.5t		1
12-14	ZG451552	Reject Spring	RCC-1143	1	12-75	ZW377425	Push Nut CS 2.0		1
12-15x	ZW270101	'E' Ring 3M	6-1-9	1	12-76	UC471104	Rec. Lever 1, w/pin	RS-1108	1
CASSETTE ASSEMBLY BLOCK									
12-16	MS370034	Idler Lever Shaft A	RCC-1309	1	12-77	UC471115	Adjust Lever	RS-1107	1
12-17	UC373353	Idler Arm Shaft	RCC-1333	1	12-78	MS477922	Angle Shaft	RS-1127	1
12-18x	ZW273756	M3 Nut		1	12-79	UC477933	Lever Angle	RS-1124	1
12-19	UC370102	Flywheel Prop A	RCC-1313	3	12-80	UC471137	Lever Mt. Plate, w/prop	RS-1103	1
12-20x	ZW413741	Screw, binding head 3x8		7	12-81x	EJ477944	9P Mate-N-Lock Comp.	RS-1129	1
12-21	UC370113	Keyboard Holder Prop	RCC-1314	1	12-82x	MB229138	Side Wire Band	2-35-3	2
12-22x	ZW414033	Screw, countersunk head 3x8		1	12-83	UC471172	CDS Lamp Table	RS-1137	1
12-23	UC370124	Flywheel Prop B	RCC-1315	1	12-84	EA488867	Stop Lamp P.C. Board (RS)	RS-1140	1
12-24	UC370135	Operation Lever Shaft	RCC-1316	1	12-85x	EL295312	No. 2 Lamp 8V 0.2A	28-2-8	1
12-25	UC370146	Idler Lever Shaft	RCC-1317	1	12-86x	ZW417137	Screw, binding head 3x4		2
12-26x	ZW273688	M2.3 Nut		1	12-87	UC471262	Keyboard Return Lever	RS-1116	1
12-27x	ZW417227	Screw, binding head 2.3x5		1	12-88	ZW399137	Washer (PBP) D5.1x10.3x0.25t		1
12-28x	ZW273633	M2.3 Earth Lug		1	12-89	EP471183	Plunger Solenoid	44-1-46	1
12-29	UC370192	Flywheel Metal Case, w/metal	RCC-1322	1	12-90x	ED224526	Silicon Diode 10D1	45-2-11	1
12-30	ZW464692	Screw, binding head 2.3x6		3	12-91	UC471194	Plunger Plate	RS-1118	1
12-31	UC370260	Idler Lever C, w/shaft C	RCC-1335	1	12-92x	EJ373623	Pin Contact 61116-1	52-1-1	1
12-32x	ZW474581	Washer (Teflon) D2.05x3.5x0.21		2	12-93	ZW257477	Connecting Pin	RD-211	1
12-33	ZG365422	Idler Lever B Spring	RCC-1394	1	12-94	UC471205	Rec. Lever 5	RS-1105	1
12-34	ZG451530	Take-up Spring	RCC-1144	1	12-95	UC471216	Stop Tip, w/pin	RS-1112	1
12-35	UC370282	Idler C	RCC-1337	1	12-96	UC471238	Lock Rod	RS-1113	1
12-36	ZW356657	'E' Ring 1.5M	6-1-9	2	12-97	ZW270101	'E' Ring 3M	6-1-9	1
12-37	UC368932	Idler Lever B Comp.	2-20-6	1	12-98x	ZW485728	M2.3 Nut		1
12-38	ZW270088	'E' Ring 1.9M	6-1-9	5	12-99	ZW415956	Lock Nut	CC-1036	1
12-39	UC368910	Idler Lever A Comp.	2-20-5	1	12-100	ZG232121	Tension Lever Spring	MH-143	1
12-40	ZG365433	Idler Tension Spring	RCC-1365	1	12-101	MZ471240	Micro Switch Table	RS-1120	1
12-41	BZ373972	Take-up Arm Comp.	2-20-7	1	12-102	ES477966	Micro Switch SS-5L	25-1-23	1
12-42	MB373386	Idler Arm Belt	RCC-1396	1	12-103	ZW202230	Screw, round head 2.3x10		2
12-43	UC370427	Take-up Lever, w/pin	RCC-1351	1	12-104	ZW417137	Screw, binding head 3x4		2
12-44	ZW290283	'U' Ring 2.85M	6-1-1	10					
12-45	UC365207	Brake Lever D	RCC-1373	1					
12-46	UC451631	Lock Lever, w/pin	RCC-1140	1					
12-47	ZG451563	Lock Lever Spring	RCC-1142	1					
12-48x	ZW270088	'E' Ring 1.9M	6-1-9	1					
12-49	ZG365218	Brake Lever Return Spring	RCC-1374	1					
12-50	UC365220	Idler Lever D, w/shaft	RCC-1375	1					
12-51	ZW381644	Washer (Polyslider) D2.1x4.0x0.13t		2					
12-52	UC365242	Idler E, w/metal	RCC-1377	1					
12-53x	UC365264	Friction Felt B	RCC-1379	1					
12-54	UC365275	Idler Pulley B	RCC-1380	1					
12-55	ZG365297	Clutch Spring B	RCC-1382	1					
12-56	UC365670	Spring Holder	RCC-1371	1					
12-57	ZG365321	Idler Lever Spring	RCC-1385	1					
12-58	UC365308	Brake Lever C, w/metal	RCC-1383	1					
12-59	MB365332	Idler Belt	RCC-1386	1					
12-60	UC365376	Operation Lever B, w/prop	RCC-1390	1					
12-61	UC366254	Flywheel, w/shaft	RCC-1107	1					

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

FIG. 13 PHOTO OF PRE-AMP. P.C. BOARD (RS-5018)



PRE-AMP. P.C. BOARD (RS-5018) BLOCK

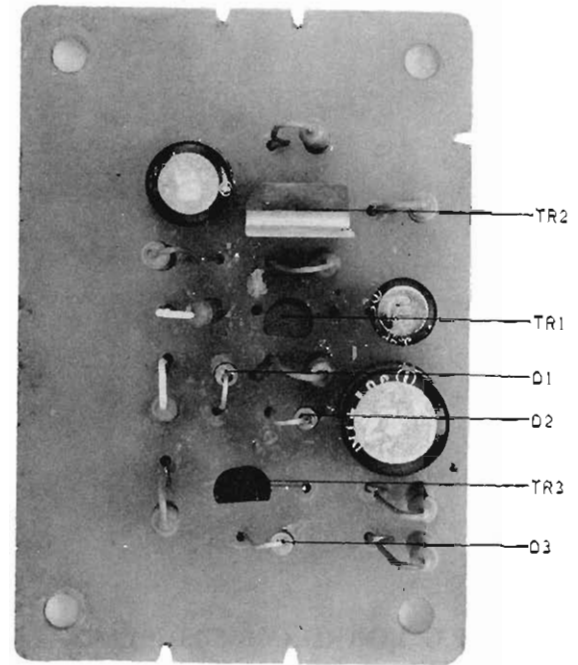
Symbol No.	Parts No.	Description	Q'ty	Symbol No.	Parts No.	Description	Q'ty
13-1x	BA478462	Pre-amp. P.C. Board Comp. (RS-5018)	1	13-VR3, 4	EV472184	Semi-fixed Volume TR93R105-10k B	4
13-2x	BA478473	Pre-amp. P.C. Board Comp. (RS-5018) (D)	1	13-L1	E0478181	Ferri Inductor FL9H 15MH(J)	2
13-IC1	FL412413	Line Amp. I.C. LD-3141	2	13-L2	E0243988	Ferri Inductor FL7H 3.3MH(J)	2
13-TR1, 2	ET234854	Transistor 2SC458LG(C)	4	13-L3	E0244012	Ferri Inductor FL9H 22MH(J)	2
13-TR3, 4	ET234854	Transistor 2SC458LG(C)	4	13-D1	ED219464	Germanium Diode 1N34A	2
13-TR5	ET398845	Transistor 2SC871(E, F)	2	13-T1	BT247746	Head Phone Trans. N19-228S	2
13-VR1	EV472162	Semi-fixed Volume TR93R103-2k B	2	13-SW1, 2	ES227867	Slide Switch CL 1122B3500 (special)	2
13-VR2	EV472173	Semi-fixed Volume TR93R102-1k B	2	13-3	ZG227441	Spring C	2

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

Symbol No.	Parts No.	Description	Q'ty
Capacitor, Vertical Type			
13-C1	EC329850	VFM 220PF(J) 50WV	2
13-C2	EC476965	Elect. 47 μ F 25WV (noiseless)	2
13-C3	EC432810	Elect. 10 μ F 16WV (noiseless)	2
13-C4	EC250604	Mylar 0.001 μ F(K) 50WV	2
13-C5	EC220590	Elect. 33 μ F 10WV	2
13-C6	EC478124	VFM 68PF(K) 50WV	2
13-C7	EC389485	Mylar 0.018 μ F(J) 50WV	2
13-C8	EC220994	Elect. 10 μ F 25WV	2
13-C9	EC329771	Elect. 47 μ F 6.3WV	2
13-C10	EC476954	Elect. 100 μ F 25WV (noiseless)	2
13-C11	EC429851	VFM 680PF(J) 50WV	2
13-C12	EC432810	Elect. 10 μ F 16WV (noiseless)	2
13-C13	EC478124	VFM 68PF(K) 50WV	2
13-C14	EC220590	Elect. 33 μ F 10WV	2
13-C15	EC478124	VFM 68PF(K) 50WV	2
13-C16	EC220994	Elect. 10 μ F 25WV	2
13-C17	EC329771	Elect. 47 μ F 6.3WV	2
13-C18	EC389485	Mylar 0.018 μ F(J) 50WV	2
13-C19	EC220151	Elect. 100 μ F 25WV	2
13-C21	EC320051	Elect. 10 μ F 16WV	2
13-C22	EC220364	Elect. 100 μ F 6.3WV	2
13-C23	EC478146	FM 430PF(J) 500WV	2
13-C24	EC220994	Elect. 10 μ F 25WV	2
13-C25	EC329771	Elect. 47 μ F 6.3WV	2
13-C27	EC220465	Elect. 22 μ F 6.3WV	2
13-C28	EC446297	Mylar 0.18 μ F(J) 50WV	2
13-C29	EC220151	Elect. 100 μ F 25WV	1
13-C30	EC320051	Elect. 10 μ F 16WV	2
13-C31	EC329861	Mylar 0.027 μ F(J) 50WV	2
13-C32	EC250975	Mylar 0.015 μ F(J) 50WV	2
13-C33	EC331828	Elect. 3.3 μ F 25WV	2
13-C34	EC478168	FM 270PF(J) 500WV	2
13-C35	EC350875	Mylar 0.001 μ F(J) 50WV	2
13-C36	EC379721	Mylar 0.0012 μ F(J) 50WV	2
13-C37	EC350875	Mylar 0.001 μ F(J) 50WV	2

Symbol No.	Parts No.	Description	Q'ty
Resistor, Stopper Type			
13-R2	ER430086	Carbon RD1/4 560k(J)	2
13-R3	ER211757	Carbon RD1/4 100k(J)	2
13-R4	ER212264	Carbon RD1/4 22k(J)	2
13-R5, 6	ER211757	Carbon RD1/4 100k(J)	4
13-R7	ER424855	Carbon RD1/4 150k(J) (noiseless)	2
13-R8	ER212477	Carbon RD1/4 3.3k(J)	2
13-R9	ER212883	Carbon RD1/4 4.7k(J)	2
13-R10	ER212264	Carbon RD1/4 22k(J)	2
13-R11	ER211757	Carbon RD1/4 100k(J)	2
13-R12	ER212477	Carbon RD1/4 3.3k(J)	2
13-R13	ER211757	Carbon RD1/4 100k(J)	2
13-R14, 15	ER212883	Carbon RD1/4 4.7k(J)	4
13-R16	ER306360	Carbon RD1/4 6.8k(J)	2
13-R17	ER211858	Carbon RD1/4 12k(J)	2
13-R18, 19	ER211757	Carbon RD1/4 100k(J)	4
13-R20	ER424855	Carbon RD1/4 150k(J) (noiseless)	2
13-R21	ER212477	Carbon RD1/4 3.3k(J)	2
13-R22	ER349828	Carbon RD1/4 20k(J)	2
13-R23	ER211757	Carbon RD1/4 100k(J)	2
13-R24	ER212477	Carbon RD1/4 3.3k(J)	2
13-R25	ER350100	Carbon RD1/4 68k(J)	2
13-R26	ER352045	Carbon RD1/4 3.9k(J)	2
13-R27	ER336442	Carbon RD1/4 10k(J)	2
13-R28	ER212883	Carbon RD1/4 4.7k(J)	2
13-R29	ER211858	Carbon RD1/4 12k(J)	2
13-R30	ER306843	Carbon RD1/4 1.2k(J)	2
13-R31	ER349942	Carbon RD1/4 8.2k(J)	2
13-R32	ER336442	Carbon RD1/4 10k(J)	2
13-R33	ER306360	Carbon RD1/4 6.8k(J)	2
13-R34	ER450011	Carbon RD1/4 120k(J)	2
13-R35	ER336442	Carbon RD1/4 10k(J)	2
13-R36	ER306887	Carbon RD1/4 15k(J)	2
13-R37	ER211465	Carbon RD1/4 1k(J)	2
13-R38	ER211667	Carbon RD1/4 100(J)	1
13-R39	ER379675	Carbon RD1/4 51k(J)	2
13-R40	ER212883	Carbon RD1/4 4.7k(J)	2
13-R41	ER346601	Carbon RD1/4 47k(J)	2

FIG. 14 PHOTO OF
SYS. CON. P.C. BOARD (RS-1142)



SYS. CON. P.C. BOARD (RS-1142) BLOCK

Symbol No.	Parts No.	Description	Q'ty
14-1x	BA478427	Sys. Con. P.C. Board Comp. (RS-1142)	1
14-TR1	ET478001	Transistor 2SC945(P, Q)	1
14-TR2	ET465208	Transistor 2SC1098(L, K)	1
14-TR3	ET398711	Transistor 2SC945(Q, R)	1
14-D1, 2, 3	ED219464	Germanium Diode 1N34A	3
Capacitor, Vertical Type			
14-C1	EC346735	Elect. 47 μ F 50WV	1
14-C3	EC320040	Elect. 47 μ F 16WV	1
Resistor, Stopper Type			
14-R1	ER212883	Carbon RD1/4 4.7k(J)	1
14-R2	ER349907	Carbon RD1/4 33k(J)	1
14-R3	ER212883	Carbon RD1/4 4.7k(J)	1
14-R4	ER346601	Carbon RD1/4 47k(J)	1
14-R5	ER212883	Carbon RD1/4 4.7k(J)	1
14-R6	ER430018	Carbon RD1/4 1(J)	1
14-R7, 8	ER357456	Carbon RD1/4 2.2k(J)	2
14-R9	ER211465	Carbon RD1/4 1k(J)	1
14-R10	ER336442	Carbon RD1/4 10k(J)	1
14-R11	ER212264	Carbon RD1/4 22k(J)	1
14-R12	ER477527	Cement S3W 85(K) (Wire-wound type)	1

FIG. 15 PHOTO OF
OSC. P.C. BOARD (MR-505)

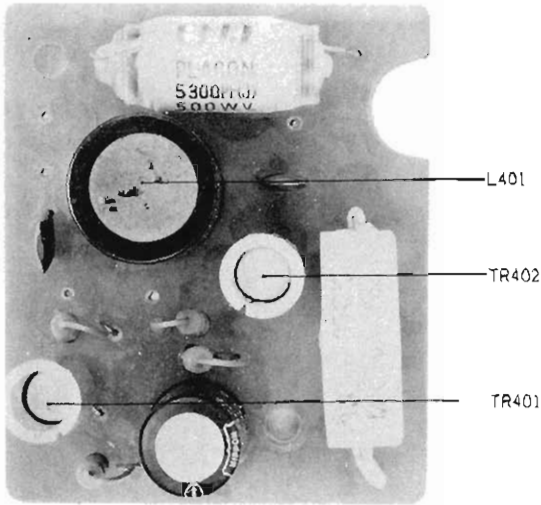
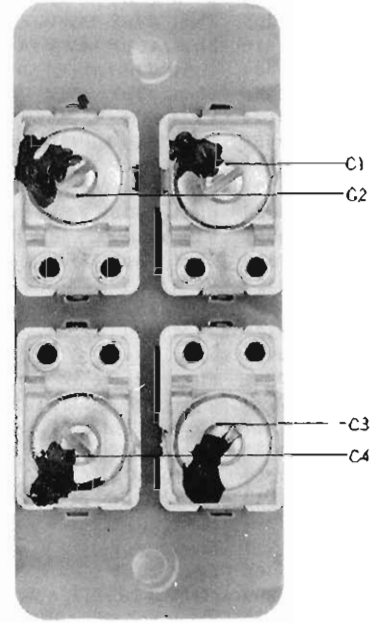
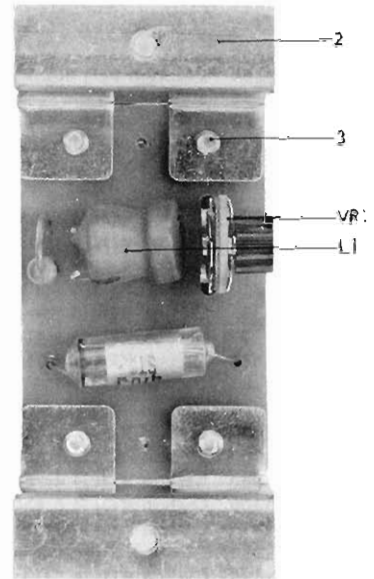


FIG. 16 PHOTO OF BIAS ADJUST
P.C. BOARD (RS-5015,16)



OSC. P.C. BOARD (MR-505) BLOCK

Symbol No.	Parts No.	Description	Qty
15-1x	BA478574	OSC. P.C. Board Comp. (MR-505)	1
15-TR401,2	ET304255	Transistor 2SC971 (2, 3) (red)	2
15-L401	E0315898	OSC. Coil OT-104A	1
Capacitor, Vertical Type			
15-C401	EC220678	Elect. 47 μ F 25WV	1
15-C402	EC246137	Plustic Film 2000PF(J) 500WV	1
15-C403,4	EC250841	Mylar 0.01 μ F(J) 50WV	2
Resistor, Stopper Type			
15-R401	ER492952	Cement S3W 100(K) (Wire-wound type)	1
15-R402	ER315944	Carbon RD1/4 3.3(J)	1
15-R403	ER212883	Carbon RD1/4 4.7k(J)	1
15-R404	ER304378	Carbon RD1/4 470(J)	1
15-R405	ER315944	Carbon RD1/4 3.3(J)	1

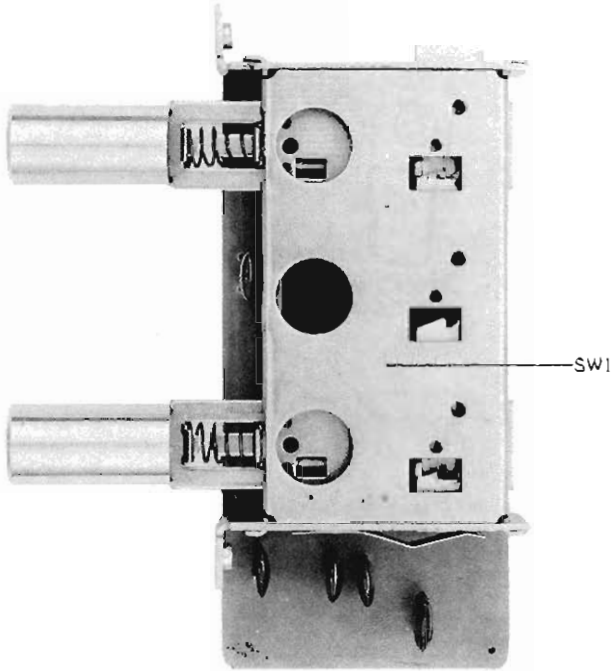


**BIAS ADJUST P.C. BOARD
(RS-5015, 16) BLOCK**

Symbol No.	Parts No.	Description	Qty
16-1x	BA478451	Bias Adjust P.C. Board Comp. (RS-5015, 16)	1
16-L1	E0443722	Ferri Inductor FL9H 1MH(J)	1
16-VR1	EV406901	Semi-fixed Volume V10K-S 100k B	1
16-2	E7478113	Bias Adjust Card Mt. Metal	2
16-3	ZW419782	Screw, binding head 2.6x5	4
16-4x	ZW317801	M2.6 Toothed Lock Washer	2
Capacitor, Vertical Type			
16-C1,2,3,4	EC398878	Trimmer C-1P-2 70PF	4
16-C5	EC489014	Styrol 470PF(J) 250WV (tubular type)	1
16-R1	ER346601	Carbon Resistor RD1/4 47k(J)	1

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

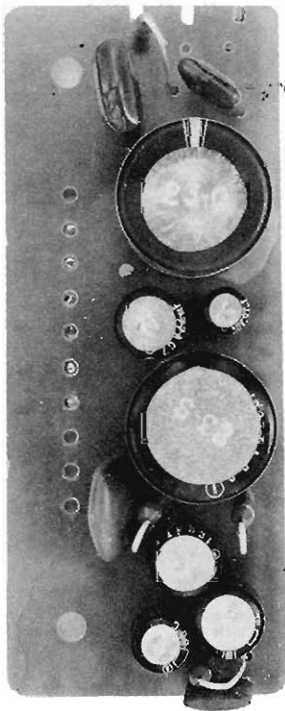
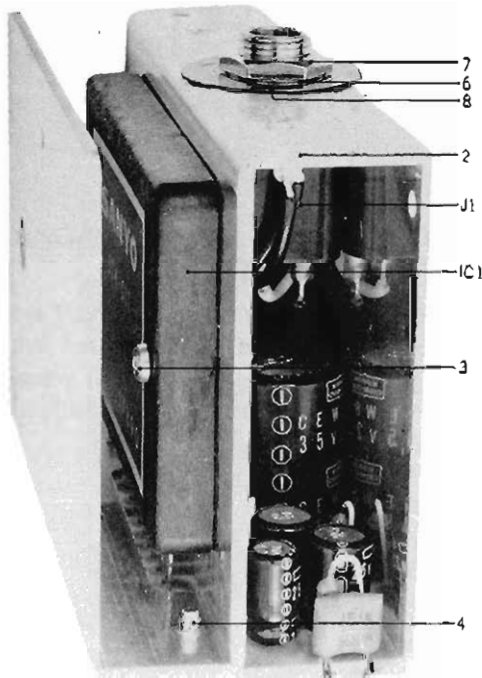
FIG. 17 PHOTO OF MODE SWITCH
P.C. BOARD (RS-5017)



MODE SWITCH P.C. BOARD
(RS-5017) BLOCK

Symbol No.	Parts No.	Description	Q'ty
17-1x	BA478484	Mode Switch P.C. Board Comp. (RS-5017)	1
17-SW1	ES447827	Push Switch UM32420	1
		Capacitor, Vertical Type	
17-C1,2,3,4	EC302297	Mylar 0.018 μ F(K) 50WV	4
17-C5	EC379157	Mylar 0.033 μ F(J) 50WV	1

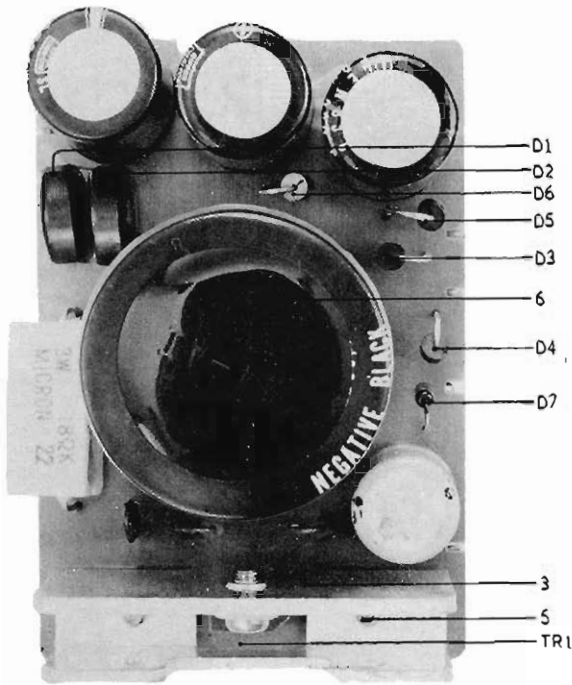
FIG. 18 PHOTO OF
POWER AMP. P.C. BOARD (ED-515)



POWER AMP. P.C. BOARD (ED-515) BLOCK

Symbol No.	Parts No.	Description	Q'ty
18-1x	BA478528	Power Amp. P.C. Board Comp. (ED-515)	1
18-1C1	E1372126	I.C. STK-011(A)	1
18-J1	EJ454858	Mic. Jack 2PM31	1
18-2	BC371428	Power Amp. Case	1
18-3	ZW375085	Tapping Screw #2 2.6x12 (round)	2
18-4	ZW447772	Tapping Screw 3x6(BR)	2
18-5x	ZW272722	M9 Toothed Lock Washer D9.3x13x0.5t	1
18-6	ZW376481	Jack Thin Washer (SUP) D9.1x11.7x0.25t	1
18-7	ZW375153	E Jack Nut	1
18-8	ZW446984	Washer (Polyslider) D9x22x0.25t	1
18-9x	EZ328331	Fasten Receptacle 17004J-2	2
Capacitor, Vertical Type			
18-C1	EC350684	Elect. 22 μ F 25WV	1
18-C2	EC290507	VFM 150PF(K) 50WV	1
18-C3	EC372148	Elect. 220 μ F 35WV	1
18-C4	EC220994	Elect. 10 μ F 25WV	1
18-C5	EC320040	Elect. 47 μ F 16WV	1
18-C6	EC350684	Elect. 22 μ F 25WV	1
18-C7	EC290507	VFM 150PF(K) 50WV	1
18-C8	EC450281	Elect. 0.47 μ F 50WV	1
18-C9	EC450270	Elect. 1000 μ F 25WV	1
18-C10	EC308711	Mylar 0.047 μ F(K) 50WV	1
18-C11	EC251291	Mylar 0.1 μ F(K) 50WV	1
Resistor, Stopper Type			
18-R1	ER336442	Carbon RD1/4 10k(J)	1
18-R2	ER361642	Carbon RD1/4 47(J)	1
18-R3	ER346544	Carbon RD1/4 3k(J)	1
18-R4	ER399723	Carbon RD1/4 4.7(J)	1

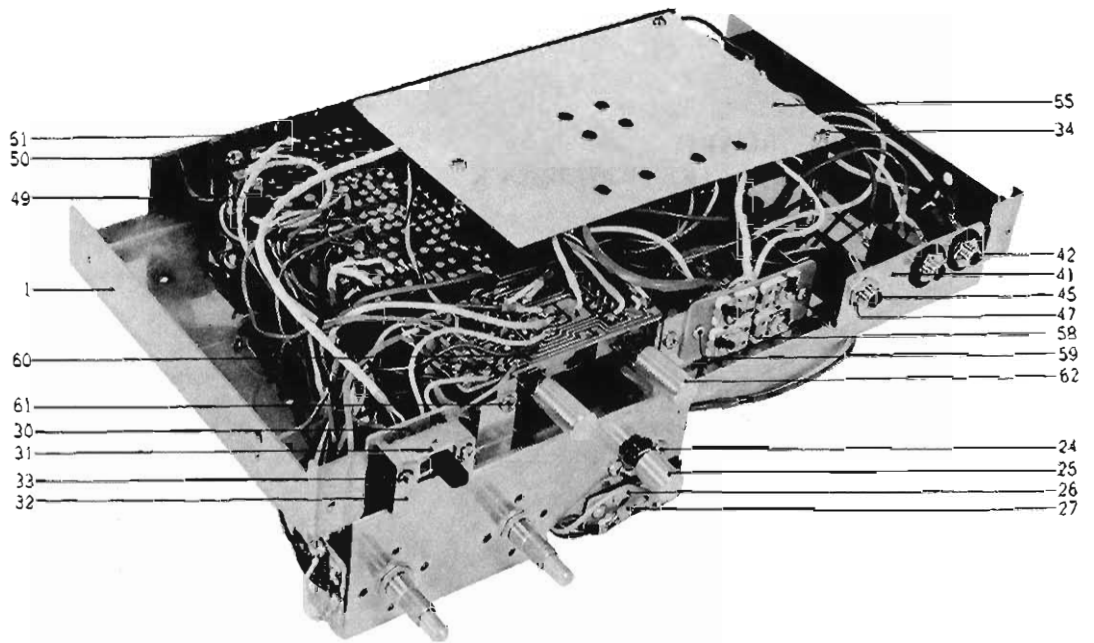
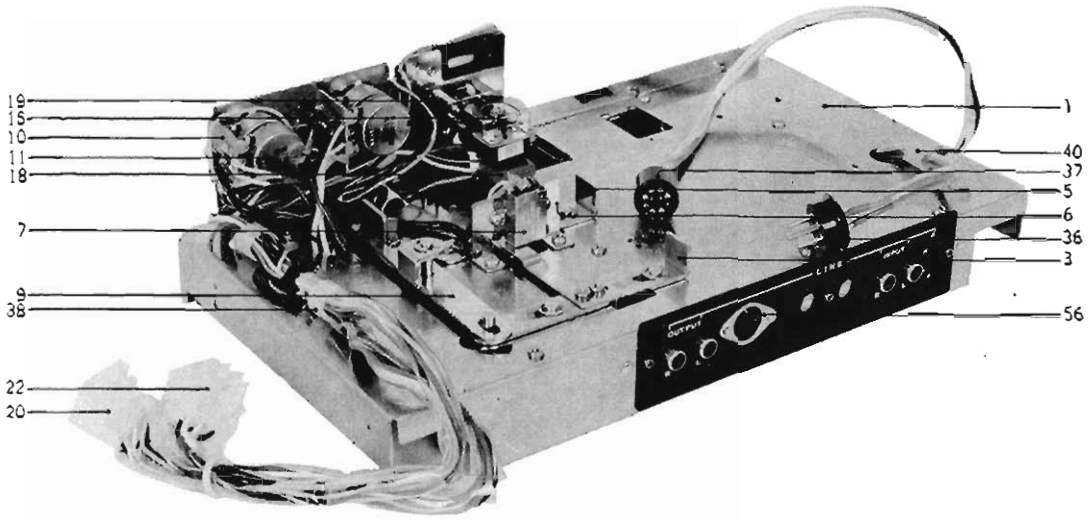
FIG. 19 PHOTO OF
POWER SUPPLY P.C. BOARD (RS-5025)



POWER SUPPLY P.C. BOARD
(RS-5025) BLOCK

Symbol No.	Parts No.	Description	Q'ty
19-1x	BA478350	Power Supply P.C. Board Comp. (RS-5025)	1
19-2x	BA478361	Power Supply P.C. Board Comp. (RS-5025) (D)	1
19-D1,2	ED329130	Silicon Diode 10DC-1 (black)	1
19-D3,4,5,6	ED375592	Silicon Diode V06B	4
19-D7	ED315415	Zener Diode RD-24A (MN)	1
(9-TR1	ET476886	Transistor 2SC1098(L, M)	1
19-3	FZ471767	Heat-sink Plate	1
(9-4x	ZW392940	Insulated Washer G-473025-1	1
19-5	ZW413155	Screw, binding head 3x6	3
Capacitor, Vertical Type			
19-C1,2,3	EC403468	Elect. 330 μ F 50WV	3
19-C4	EC313121	Elect. 220 μ F 25WV	1
19-C5	EC383501	Mylar 0.001 μ F(M) 50WV	1
Resistor, Stopper Type			
19-R1	ER395741	Cement 3W 18(K) (Wire-wound type)	1
19-R2	ER212883	Carbon RD1/4 4.7k(J)	1
19-R3	ER361642	Carbon RD1/4 47(J)	1
19-6	EC368695	Elect. Capacitor 2200 μ F 50WV (Lug type) (C1) (GX-1900)	1

FIG. 20 PHOTO OF AMP. ASSEMBLY BLOCK

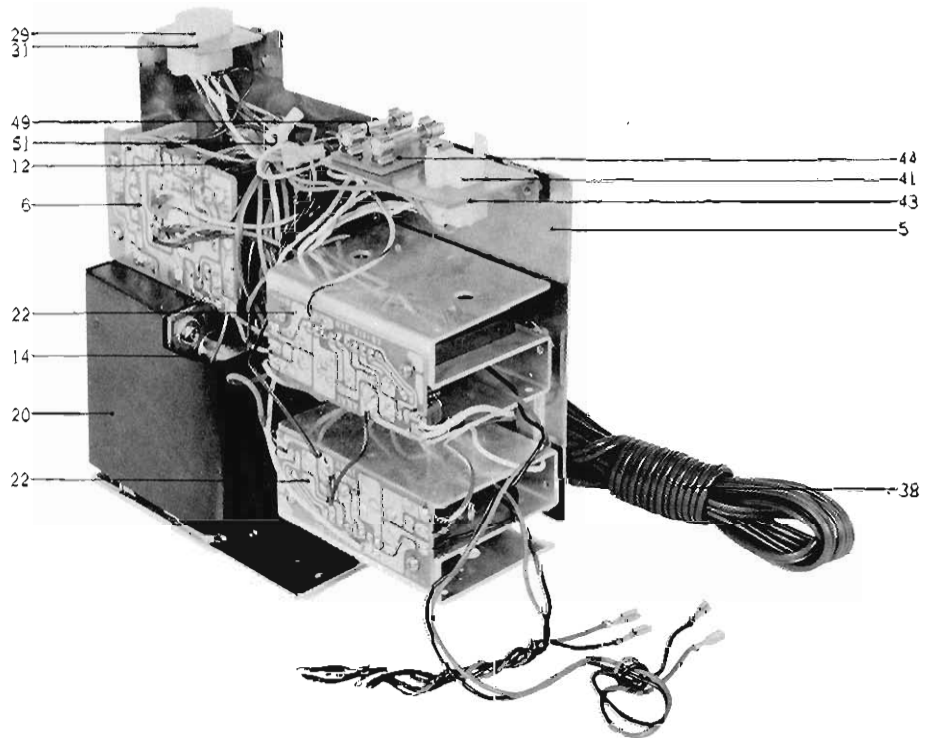
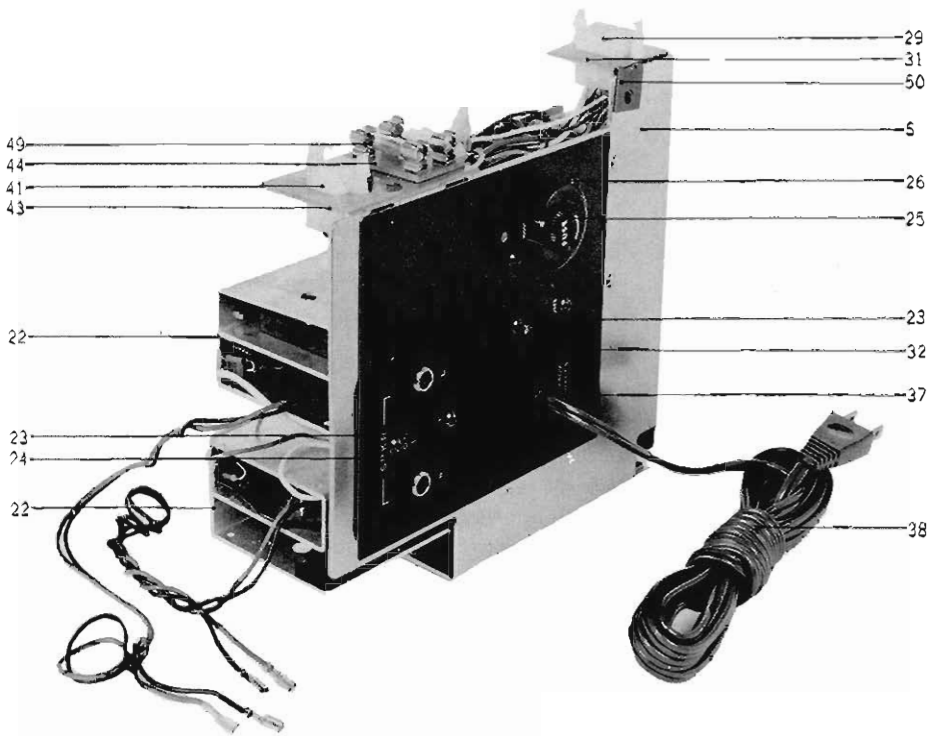


AMP. ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
20-1	EZ471925	Amp. Chassis A, w/prop	RS-5001	1	20-55	EZ472004	Pre Amp. Shield	RS-5019	1
20-2x	EZ471936	Amp. Chassis D, w/prop (D, CEE)	RS-5001	1	20-56	BZ478495	Jack Plate Comp.	RS-5036	1
20-3	ML472050	Rec. Lever 4, w/pin	RS-5005	1	20-57x	EZ471947	Jack Shield	RS-5011	1
20-4x	ZW290283	'U' Ring 2.85M	6-1-1	4	20-58	BA478451	Bias Adjust P.C. Board Comp. (RS-5015,16)		1
20-5	ML472048	Rec. Lever 3, w/pin	RS-5004	1	20-59	ZW419782	Screw, binding head 2.6x5		2
20-6	EZ471958	Mute Switch Table	RS-5029	1	20-60	BA478484	Mode Switch P.C. Board Comp. (RS-5017)		1
20-7	EZ486753	Snap Switch SAR-21HB	25-9-2	1	20-61	ZW379405	Iso Screw, binding head 3x6		2
20-8x	ZW447772	Tapping Screw 3x6 (BR)		4	20-62	SK441628	Knob A	KF-2018	2
20-9	ML472072	Rec. Lever 6	RS-5007	1	20-63x	SZ226282	Cord Holder, Standard B (D, CEE)	900-180	1
20-10	EA449460	Volume P.C. Board	BS-5009	2	20-64x	ZW447772	Tapping Screw 3x6(BR) (D, CEE)		1
20-11	EV472026	Double Volume D24R-100k B, 10k A	36-3-40	2					
20-12x	EV249298	Volume V24LSN 25R 10k A (D, CEE)	36-2-16	2					
20-13x	EC250841	Mylar/C. 0.01 μF(J) 50WV (Vert. type)	24-1-1	2					
20-14x	EZ488237	Insulated Seat (D, CEE)	RS-5051	1					
20-15	ES468426	Push Switch UEH-12BFN (Power)	25-5-58	1					
20-16x	ES499972	Push Switch JS-09 (Power) (D, CEE)	25-5-67	1					
20-17x	EJ299823	6P Mate-N-Lock Cap Housing 1-480276-0 (D, CEE)	52-1-2	1					
20-18	ER376413	Spark Quencher U/L 0.033 μ+120 500WV	41-1-37	1					
20-19	EZ472037	Switch Prop	RS-5002	2					
20-20	EJ368796	9P Mate-N-Lock Plug Housing	52-1-2	1					
20-21x	EJ373634	Socket Contact 61115-1	52-1-1	9					
20-22	EJ373691	9P Mate-N-Lock Cap Housing 1-480277-0	52-1-2	1					
20-23x	EJ373623	Pin Contact 61116-1	52-1-1	9					
20-24	ZW323728	Screw, binding head 3x5		2					
20-25	SK436274	Knob B	MC-5011	1					
20-26	EA488856	Power Indicating Lamp Board	RS-5053	1					
20-27	EL295312	No. 2 Lamp 8V 0.2A	28-2-8	1					
20-28x	ZW484738	Insulated Washer	RS-5049	1					
20-29x	BA478056	Equalizer Switch Comp. RS	RS-5046	1					
20-30	EA472138	Equalizer P.C. Board	RS-5010	1					
20-31	ES446973	Slide Switch SL-242B4D	25-3-51	1					
20-32	EZ472127	Equalizer Switch Retaining Metal	RS-5009	1					
20-33	ZW442585	Screw, binding head 2.6x4		2					
20-34	ZW417137	Screw, binding head 3x4		8					
20-35x	ER488711	Carbon/R. RD1/4 2(J) (Insu. type)	35-9-5	1					
20-36	EJ303805	6P Connector Plug	42-1-21	1					
20-37	EJ390453	7P Connector Plug S-17302	42-1-40	1					
20-38	EZ419760	Nylon Clip HP-7N		2					
20-39x	ZW462194	Tapping Screw #2 3x8 (pan), w/washer		3					
20-40	EZ328320	Nylon Clip HP-5N		1					
20-41	EZ472015	Front Jack Mt. Metal	RS-5008	1					
20-42	EJ315281	Mic. Jack 2PMJ1	31-2-19	2					
20-43x	EZ225180	Nylon Collar, Jack	LD-520	2					
20-44x	ZW260368	Washer (Fiber) D9.2x18x0.5t		2					
20-45	EJ376604	Mic. Jack 3PMJ1	31-2-17	1					
20-46x	ZW224976	Jack Thin Washer	DX-509	1					
20-47	ZW391680	E Jack Nut	7-1-20	3					
20-48x	ER214290	Carbon/R. RD1/4 4.7k(J) (Insu. type)	35-9-5	2					
20-49	EZ246644	P.C. Board Prop B	RD-519	7					
20-50	ZW413155	Screw, binding head 3x6		7					
20-51	BA478462	Pre-amp. P.C. Board Comp. (RS-5018)		1					
20-52x	BA478473	Pre-amp. P.C. Board Comp. (RS-5018) (D)		1					
20-53x	EZ327047	P.C. Board Prop	SX-513	3					
20-54x	ZW413728	Screw, binding head 3x6, w/washer		4					

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

FIG. 21 PHOTO OF POWER SUPPLY BLOCK

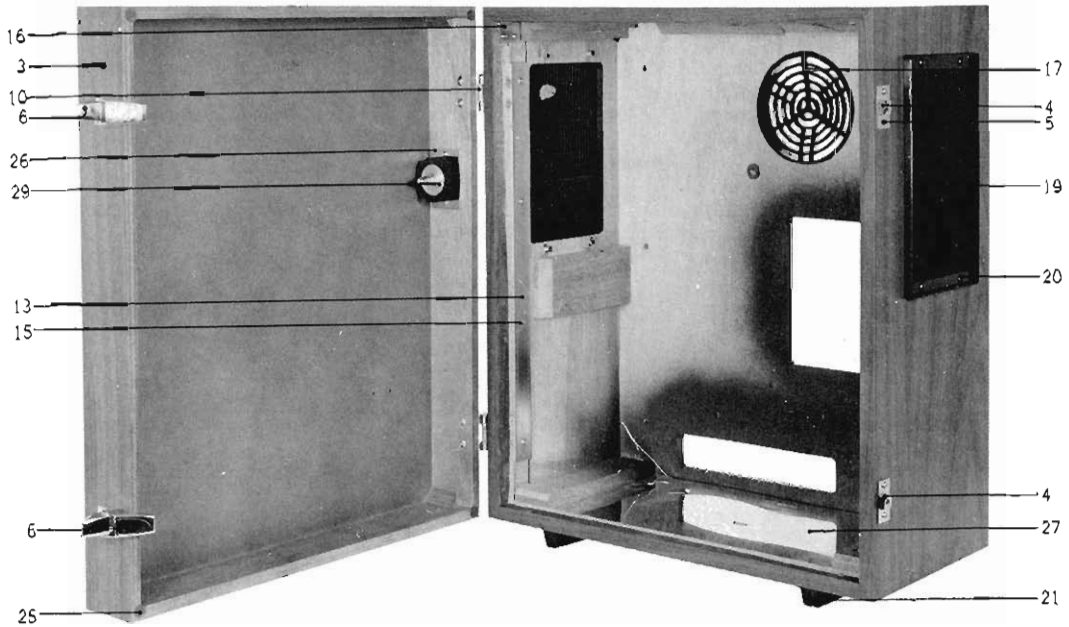


POWER SUPPLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
21-1x	BP478337	Power Supply Block Comp.		1	21-54x	EF295188	Fuse (T type) 630MAT		
21-2x	BP478348	Power Supply Block Comp. (D)		1			(D, CEE)		1
21-3x	BP488272	Power Supply Block Comp. (D, CEE)		1	21-55x	ZW201183	Screw, truss head 3x8 (D, CEE)		2
21-4x	BPS10243	Power Supply Block Comp. (D, AAL)		1	21-56x	ZW273756	M3 Nut (D, AAL)		1
21-5	EZ471677	Power Chassis, w/angle	RS-5020	1	21-57x	EZ315448	Australia Cord (3 core)	26-3-11	1
21-6	BA478350	Power Supply P. C. Board Comp. (RS-5025)		1	21-58x	ZW273778	M3 Earth Lug		2
21-7x	BA478361	Power Supply P.C. Board Comp. (RS-5025) (D)		1					
21-8x	ZW447772	Tapping Screw 3x6 (BR)		11					
21-9x	HZ305460	Cartridge Prop	RC-135	1					
21-10x	ZW413741	Screw, binding head 3x8		1					
21-11x	ZW413728	Screw, binding head 3x6, w/washer		1					
21-12	EC368695	Elect. 2200 μ F 50WV	24-10-45	1					
21-13x	ZW413256	Washer (SPC) D3.4x7.8x0.5t		2					
21-14	BT471688	Power Trans. RST-1	38-4-164	1					
21-15x	BT471690	Power Trans. RST-2 (D)	38-4-165	1					
21-16x	BT471712	Power Trans. RST-4 (D, CEE)	38-4-159	1					
21-17x	BT499915	Power Trans. RST-6 (D, AAL)	38-4-182	1					
21-18x	EJ373634	Socket Contact 61115-1 (D, CEE)	52-1-1	4					
21-19x	ZW200700	Tapping Screw #2 4x8 (round)		4					
21-20	EZ368548	Trans. Shield	RCC-543	1					
21-21x	ZW417137	Screw, binding head 3x4		1					
21-22	BA478528	Power Amp. P.C. Board Comp. (ED-515)		1					
21-23	ES375478	Slide Switch ESD-279DU	25-3-23	2					
21-24	ZW372025	Iso Screw, truss head 3x6 (black)		4					
21-25	EJ233370	Power Plug Socket S-18010	40-2-3	1					
21-26	ZW374128	Iso Screw, truss head 3x8		2					
21-27x	EF338387	Fuse ST-2 1.5A	39-1-26	1					
21-28x	EF277402	Fuse ST-2 1A (D)	39-1-26	1					
21-29	EJ477808	9P Mate-N-Lock Comp.	RS-5040	1					
21-30x	EJ477810	9P Mate-N-Lock Comp. (D, D, CEE)	RS-5040	1					
21-31	EZ368526	Mate-N-Lock Cap. Mt. Plate	RCC-541	1					
21-32	SM471723	Power Supply Name Plate A	RS-5021	1					
21-33x	SM471734	Power Supply Name Plate D (D)	RS-5022	1					
21-34x	SM488171	Power Supply Name Plate (D, CEE)	RS-5050	1					
21-35x	SM499926	Power Supply Name Plate (D, AAL)	RS-5058	1					
21-36x	ZW201150	Screw, truss head 3x6		1					
21-37	EZ382263	Strain Relief SR-4K-4	2-7-12	1					
21-38	EZ374894	U/L AC Cord 3M	26-3-19	1					
21-39x	EZ354240	Power Supply Cord ER0150 (D, CEE)		1					
21-40x	EZ246936	Strain Relief SR-6W-1(3 core)	2-7-8	1					
21-41	EJ477821	6P Mate-N-Lock Comp.	RS-5041	1					
21-42x	EJ477832	6P Mate-N-Lock Comp. (D)	RS-5041	1					
21-43	EZ471745	Fuse Holder Mt. Metal	RS-5024	1					
21-44	EJ302062	2P Fuse Holder	40-1-1	1					
21-45x	EJ254970	Lug Plate KP1 L1 (D, AAL)	33-3-3	1					
21-46x	EF460653	Fuse ST-1 1A (D, AAL)	39-1-25	1					
21-47x	EZ499432	Mate-N-Lock Mt. Table Comp. (D, CEE)	RS-5057	1					
21-48x	EZ498936	Mate-N-Lock Mt. Angle (D, CEE)	RS-5056	1					
21-49	EF428815	Fuse 0.9A 0.9	39-1-38	2					
21-50	ZW290250	U type Speed Nut M4 #1 (large)	6-3-2	1					
21-51	EJ205975	Cramp Terminal 1-SD	32-1-7	2					
21-52x	EJ488193	Fuse Holder (D, CEE)	101060	1					
21-53x	EF375647	Fuse (T type) 500MAT (D, CEE)		2					

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

FIG. 22 PHOTO OF CASE BLOCK

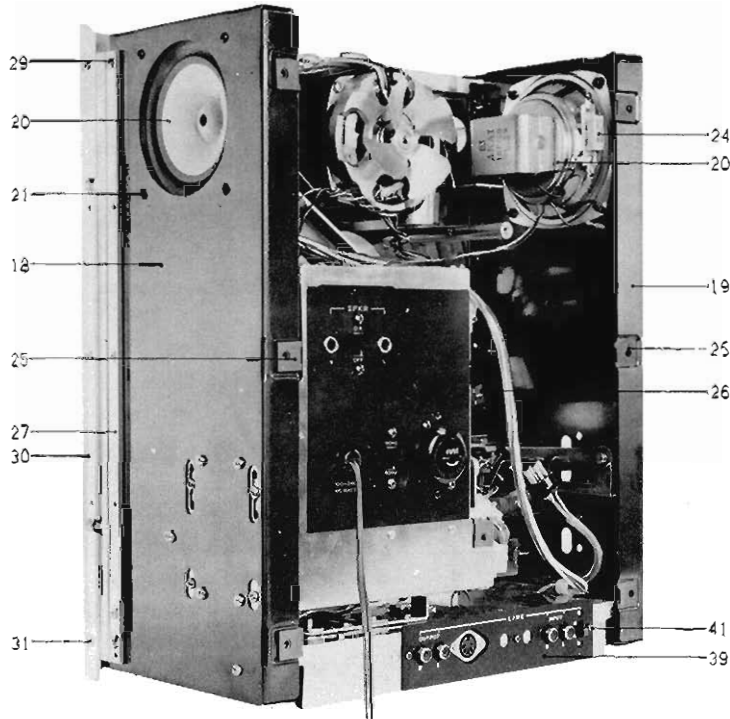


CASE BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
22-1x	BC478271	Case Block Comp.		1	22-17	SZ382217	Fan Grill	RD-A402	1
22-2x	BC478282	Case Block Comp.		1	22-18x	ZW324448	Tapping Screw #1 3x10 (truss)		3
22-3	BC867126	RS Wood Case Front Cover		1	22-19	SZ369393	Speaker Grill	RCC-405	2
22-4	SZ237993	Hooking Holder B	100737	2	22-20	ZW419714	Screw, without Grooved 3x15 (truss)		8
22-5	ZW203218	Wood Screw, round head 2.7x10		4	22-21	SZ316620	MR Square Foot	MR-402	2
22-6	SZ304964	Hooking #1700	AT-37	2	22-22x	ZW413886	Screw countersunk head 4x15		4
22-7x	ZW202375	Screw, round head 3x10		8	22-23x	ZW273756	M3 Nut		8
22-8x	ZW231704	Claw Hinge Nut	7-1-8	4	22-24x	ZW425002	Washer (SPC) D3.1x8x0.5t		8
22-9x	ZW203218	Wood Screw, round head 2.7x10		2	22-25	EZ377583	Felt D9	CD-60	4
22-10	VM293883	Hinge #1700	AT-38	2	22-26	SZ477696	Accessory Parts Mt. Plate, w/shaft	RS-4004	1
22-11x	ZW366197	Screw, round head 3x17		2	22-27	EZ482207	Shield Plate	RS-4006	1
22-12x	ZW231715	Claw Frame Fixing Nut	7-1-7	6					
22-13	SZ484806	Anti Warping Angle	RS-4007	1	22-28x	MR436364	1 1/2 Inch Pinch Roller	MC-6014	1
22-14x	SE447873	Upper Anti Warping Part	LF-4005	2	22-29	MP424023	Pinch Roller (KD)	KD-1084	1
22-15	ZW392141	Tapping Screw #1 3x8 (truss)		22					
22-16	SZ439694	Case Corner Angle	KD-6031	2					

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

FIG. 23 PHOTO OF FINAL ASSEMBLY BLOCK



FINAL ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
MECH. PANEL BLOCK					23-53x	SM471576	Head Cover Name Plate D (D)	RS-6015	1
23-1x	BZ478293	Mech. Panel Block Comp.	RS	1	23-54x	ZW201150	Screw, truss head 3x6 (black)		2
23-2x	BZ478304	Mech. Panel Block Comp. (D)	RS	1	23-55x	MP424023	Pinch Roller (KD)	KD-1084	1
23-3x	BZ488261	Mech. Panel Block Comp. (D, CEE)	RS	1	23-56	SK465197	Pinch Roller Cap	MC-6017	1
23-4	SP473883	Mech. Panel B	RS-6001	1	23-57	SK471587	Mech. Knob	RS-6009	2
23-5x	SP471622	Mech. Panel A (D)	RS-6001	1	23-58x	SK486055	RS Mech. Knob Screw	RS-6021	2
23-6x	SP488160	Mech. Panel C (D, CEE)	RS-6001	1	23-59x	ZW260166	Washer (Nylon) D6.2x13x0.125t		2
23-7	SZ477720	Spin Plate		2	23-60	SK314100	Pause Knob B	MR-612	1
23-8	SC471633	Head Cover Base	RS-6003	1	23-61x	ZW433001	Set Screw, hexagon socket 3x5 (cup)		1
23-9x	ZW491332	Screw, countersunk head 2.3x7		4	23-62	ZW201150	Screw, truss head 3x6		4
23-10x	ZW273690	M2.3 Nut		4	23-63x	ZW259560	Washer (BSP) D3.3x5.8x0.25t		4
AMP. PANEL BLOCK					23-64x	SK471532	Amp. Knob C (D)	RS-6010	2
23-11x	BZ478315	Amp. Panel Block Comp.	RS	1	23-65	SK361956	Amp. Knob B	10R-639	2
23-12x	BZ478326	Amp. Panel Block Comp. (D)	RS	1	23-66x	ZW492928	Set Screw, hexagon socket 3x7 (cup)		2
23-13	SP471644	Amp. Panel A	RS-6005	1	23-67	SK361945	Amp. Knob A	10R-638	2
23-14x	SP471655	Amp. Panel D (D)	RS-6005	1	23-68x	ZW492917	Set Screw, hexagon socket 3x5 (cup)		2
23-15	SM471666	Automatic Name Plate	RS-6008	1	23-69x	ZW483208	Washer (Nylon) D8.5x20x0.5t		2
23-16	FZ435104	Illumination Escutcheon (green)	61-5023	1	23-70x	EF304626	Fuse ST-4 1A	39-1-28	1
23-17	FZ426780	Illumination Escutcheon (red)	61-5023	1	23-71	MY436307	Capstan	MC-6010	1
FINAL ASSEMBLY BLOCK					23-72	ZW436353	Capstan Set Screw	MC-6012	1
23-18	SZ471442	RS Side Chassis A (right)	RS-6011	1	23-73	MR436364	1/2 Inch Pinch Roller	MC-6014	1
23-19	SZ471453	RS Side Chassis B (left)	RS-6011	1	23-74x	EF277402	Fuse ST-2 1A	39-1-26	1
23-20	SS484740	Speaker 10F-6B	29-5-13	2	23-75x	EF338387	Fuse ST-2 1.5A	39-1-26	1
23-21	ZW366186	Screw, round head 3x12 (black)		8	23-76x	EF304626	Fuse ST-4 1A	39-1-28	1
23-22x	ZW413256	Washer (SPC)D3.4x7.8x0.5t		8					
23-23x	ZW273756	M3 Nut		8					
23-24	ER395741	Cement/R. 3W 18(K) (Wire-wound type)	35-16-2	2					
23-25	ZW290250	U type Speed Nut M4 #1 (large)	6-3-2	1					
23-26	ZW290248	U type Speed Nut M4 #1 (small)	6-3-1	4					
23-27	SZ471464	RS Sash Mt. Plate A (right)	RS-6012	1					
23-28x	SZ473872	RS Sash Mt. Plate B (left)	RS-6012	1					
23-29	ZW447772	Tapping Screw 3x6 (BR)		10					
23-30	SZ471475	RS Sash	RS-6013	2					
23-31	ZW323728	Screw, binding head 3x5		10					
23-32x	SZ471486	Panel Retainer A (right)	RS-1005	1					
23-33x	SZ471497	Panel Retainer B (left)	RS-1005	1					
23-34x	ZW200610	Tapping Screw #1 4x12 (truss)		4					
23-35	SM471510	Cassette Name Plate	RS-1214	1					
23-36x	ZG473905	Adjust Spring 2 (Cassette/Amp.)	RS-1106	1					
23-37x	SZ471521	Reinforcement Plate (Cassette)	RS-2005	1					
23-38x	ZW200676	Tapping Screw #2 3x6 (countersunk)		1					
23-39	SM471543	Jack Name Plate	RS-5013	1					
23-40x	ZW477617	Washer (SPC)D2.4x4.2x0.3t		3					
23-41	ZW488068	Tapping Screw #2 2.6x5 (truss)		3					
23-42	BC478271	Case Block Comp.		1					
23-43x	BC478282	Case Block Comp. (D)		1					
23-44x	SZ377190	LM Rubber Floor	LM-401	4					
23-45x	ZW419646	Washer (SPC)D4.5x9.8x0.5t		4					
23-46x	ZW448288	Tapping Screw #1 4x35 (truss)		4					
23-47x	ZW488327	Tapping Screw #1 4x25 (truss), w/washer		3					
23-48x	ZW488338	Tapping Screw #1 4x25 (truss), w/washer		4					
23-49x	ZW259560	Washer (BSP) D3.3x5.8x0.25t		4					
23-50	ZW201148	Screw, truss head 3x6		4					
23-51	SC471554	Head Cover	RS-6004	1					
23-52	SM471565	Head Cover Name Plate A	RS-6015	1					

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

INDEX

Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
BA478056	20-29x	EC250841	20-13x	EJ373623	20-23x	ER361642	18-R2	MB365332	12-59
BA478350	19-1x	EC250975	13-C32	EJ373634	20-21x	ER361642	19-R3	MB366287	12-63
BA478350	21-6	EC251291	18-C11	EJ373634	21-18x	ER376413	20-18	MB369663	6-116
BA478361	19-2x	EC290507	18-C2	EJ373691	20-22	ER379675	13-R39	MB369753	6-115
BA478361	21-7x	EC290507	18-C7	EJ376604	20-45	ER395741	19-R1	MB373386	12-42
BA478427	14-1x	EC302297	17-C1,2,3,4	EJ390453	20-37	ER395741	23-24	MB377256	4-14
BA478451	16-1x	EC308711	18-C10	EJ392567	1-22	ER399723	18-R4	MB471161	11-56
BA478451	20-58	EC313121	19-C4	EJ454858	18-J1	ER424855	13-R7	MC471363	11-3
BA478462	13-1x	EC320040	14-C3	EJ477448	6-43x	ER424855	13-R20	MC471868	6-108
BA478462	20-51	EC320040	18-CS	EJ477808	21-29	ER430018	14-R6	MH471881	6-2
BA478473	13-2x	EC320051	13-C21	EJ477810	21-30x	ER430086	13-R2	MI204423	6-122
BA478473	20-52x	EC320051	13-C30	EJ477821	21-41	ER450011	13-R34	MI231423	6-125
BA478484	17-1x	EC329771	13-C9	EJ477832	21-42x	ER477527	14-R12	ML217462	3-27
BA478484	20-60	EC329771	13-C17	EJ477944	12-81x	ER488711	20-35x	ML217934	6-66
BA478528	18-1x	EC329771	13-C25	EJ488193	21-52x	ER492952	15-R401	ML226080	5-31
BA478528	21-22	EC329850	13-C1	EJ488204	6-44x	ES227867	13-SW1,2	ML226258	6-45
BA478574	10-20	EC329861	13-C31	EL295312	10-14	ES250042	6-31	ML251932	6-69
BA478574	15-1x	EC330401	3-24x	EL295312	12-85x	ES316934	5-3	ML257040	6-80
BC369720	6-110	EC331828	13-C33	EL295312	20-27	ES369865	5-4	ML257128	5-19
BC371428	18-2	EC346735	14-C1	EL390576	10-16x	ES375478	21-23	ML257163	6-83
BC478271	22-1x	EC350684	18-C1	EM471273	10-18	ES446973	20-31	ML260504	6-71
BC478271	23-42	EC350684	18-C6	E0243977	1-23	ES447827	17-SW1	ML262337	6-74
BC478282	22-2x	EC350875	13-C35	E0243988	13-L2	ES468426	20-15	ML270685	6-57
BC478282	23-43x	EC350875	13-C37	E0244012	13-L3	ES471914	1-18	ML295727	6-81
BC867126	22-3	EC368695	21-12	E0315898	15-L401	ES477505	9-2x	ML308564	6-18x
BF478618	4-1x	EC368695	19-6	E0346500	1-21	ES477966	12-102	ML309093	6-49
BH478372	1-1x	EC372148	18-C3	E0443722	16-L1	ES479485	6-29	ML327385	6-87
BH478530	7-1x	EC379157	17-C5	E0478181	13-L1	ES499972	20-16x	ML369718	6-95
BL204445	3-26x	EC379721	13-C36	EP471183	12-89	ET234854	13-TR1,2	ML471813	6-91
BL204658	6-119	EC383501	19-C5	ER211465	13-R37	ET234854	13-TR3,4	ML471892	5-34
BL478607	5-30x	EC389485	13-C7	ER211465	14-R9	ET304255	15-TR401,2	ML472048	20-5
BM478585	3-1x	EC389485	13-C18	ER211667	13-R38	ET368921	11-11x	ML472050	20-3
BP478337	21-1x	EC398878	16-C1,2,3,4	ER211757	13-R3	ET398711	14-TR3	ML472072	20-9
BP478348	21-2x	EC403468	19-C1,2,3	ER211757	13-R5,6	ET398845	13-TR5	ML475920	6-54
BP488272	21-3x	EC411682	3-23	ER211757	13-R11	ET465208	14-TR2	MP424023	22-29
BP510243	21-4x	EC429851	13-C11	ER211757	13-R13	ET476886	19-TR1	MP424023	23-55x
BR364037	2-1x	EC432810	13-C3	ER211757	13-R18,19	ET478001	14-TR1	MR217214	6-51
BR364048	2-2x	EC432810	13-C12	ER211757	13-R23	EV249298	20-12x	MR251460	2-11
BS478596	5-1x	EC446297	13-C28	ER211858	13-R17	EV406901	16-VR1	MR252044	2-32
BT247746	13-T1	EC450270	18-C9	ER211858	13-R29	EV472026	20-11	MR252066	2-19
BT471688	21-14	EC450281	18-C8	ER212264	13-R4	EV472162	13-VR1	MR252077	2-35
BT471690	21-15x	EC476954	13-C10	ER212264	13-R10	EV472173	13-VR2	MR256094	2-30
BT471712	21-16x	EC476965	13-C2	ER212264	14-R11	EV472184	13-VR3,4	MR257984	3-16
BT499915	21-17x	EC478124	13-C6	ER212477	13-R8	EZ225180	20-43x	MR269728	6-93
BZ363960	8-1x	EC478124	13-C13	ER212477	13-R12	EZ246644	20-49	MR369731	6-112
BZ373972	12-41	EC478124	13-C15	ER212477	13-R21	EZ246936	21-40x	MR436364	22-28x
BZ478293	23-1x	EC478146	13-C23	ER212477	13-R24	EZ315448	21-57x	MR436364	23-73
BZ478304	23-2x	EC478168	13-C34	ER212883	13-R9	EZ327047	20-53x	MR471150	11-54
BZ478315	23-11x	EC489014	16-C5	ER212883	13-R14,15	EZ328320	6-42x	MR471870	6-113
BZ478326	23-12x	ED219464	13-D1	ER212883	13-R28	EZ328320	20-40	MR477472	3-15
BZ478394	10-1x	ED219464	14-D1,2,3	ER212883	13-R40	EZ328331	18-9x	MS205560	6-58
BZ478405	11-1x	ED224526	12-90x	ER212883	14-R1	EZ354240	21-39x	MS217192	6-92
BZ478416	10-10x	ED315415	19-D7	ER212883	14-R3	EZ368526	21-31	MS245463	6-16
BZ478495	20-56	ED329130	19-D1,2	ER212883	14-R5	EZ368548	21-20	MS255600	2-5
BZ478541	12-9x	ED375592	19-D3,4,5,6	ER212883	15-R403	EZ374894	21-38	MS257051	6-12
BZ478552	9-1x	EF277402	21-28x	ER212883	19-R2	EZ377583	22-25	MS366480	11-50
BZ478563	12-1x	EF277402	23-74x	ER214290	20-48x	EZ382263	21-37	MS369742	6-111
BZ484773	6-1x	EF295188	21-54x	ER304378	15-R404	EZ419760	20-38	MS370034	12-16
BZ488261	23-3x	EF304626	23-70x	ER306360	13-R16	EZ426780	23-17	MS471407	11-7
EA449460	20-10	EF304626	23-76x	ER306360	13-R33	EZ435104	23-16	MS471802	6-88
EA471418	11-10	FF338387	21-27x	ER306843	13-R30	EZ471677	21-5	MS471903	4-3
EA472138	20-30	EF338387	23-75x	ER306887	13-R36	EZ471745	21-43	MS477922	12-78
EA473850	1-20	EF375647	21-53x	ER315944	15-R402	EZ471767	19-3	MS478620	6-24
EA479384	10-12	EP428815	21-49	ER315944	15-R405	EZ471925	20-1	MS491692	6-17
EA488856	20-26	EP460653	21-46x	ER336442	13-R27	EZ471936	20-2x	MT222366	2-12
EA488867	12-86	EG227485	5-37	ER336442	13-R32	EZ471947	20-57x	MT228598	2-44
EC220151	13-C19	EJ372126	18-IC1	ER336442	13-R35	EZ471958	20-6	MT252101	2-18x
EC220151	13-C29	EJ412413	13-IC1	ER336442	14-R10	EZ472004	20-55	MT255420	2-7
EC220364	13-C22	EJ205975	6-128x	ER336442	18-R1	EZ472015	20-41	MT255565	2-9
EC220465	13-C27	EJ205975	6-129x	ER346544	18-R3	EZ472037	20-19	MT255870	2-17
EC220590	13-C5	EJ205957	21-51	ER346601	13-R41	EZ472127	20-32	MT255881	2-34x
EC220590	13-C14	EJ233370	21-25	ER346601	14-R4	EZ478113	16-2	MT255971	2-20
EC220678	15-C401	EJ254970	21-45x	ER346601	16-R1	EZ482207	22-27	MT255982	2-36x
EC220994	13-C8	EJ299823	20-17x	ER347130	10-13	EZ486753	20-7	MT255993	2-27
EC220994	13-C16	EJ302062	21-44	ER349828	13-R22	EZ488237	20-14x	MT292386	2-25
EC220994	13-C24	EJ303805	20-36	ER349907	14-R2	EZ498936	21-48x	MT297663	2-6
EC220994	18-C4	EJ315281	20-42	ER349942	13-R31	EZ499432	21-47x	MT317463	2-4
EC246137	15-C402	EJ365703	11-41	ER350100	13-R25	MB229138	6-130x	MT368684	2-3
EC250604	13-C4	EJ369077	11-42x	ER352045	13-R26	MB229138	12-82x	MT438581	2-37x
EC250841	15-C403,4	EJ373623	12-92x	ER357456	14-R7,8	MB256590	4-11	MT438592	2-23x

INDEX

Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
MT438603	2-24	RS-K15	9-24	UC366895	8-16	ZG227553	2-13	ZW260065	2-28
MT438614	2-38	RS-K16	9-25x	UC367312	12-2	ZG227564	5-36	ZW260076	6-124
MT438625	2-39x	RS-K17	9-26x	UC367345	12-7	ZG227586	5-11	ZW260133	5-9x
MT438636	2-43	RS-K18	9-27	UC367356	12-5	ZG232121	12-100	ZW260166	5-23
MT438647	2-21	SB425777	6-46	UC367468	9-3	ZG255633	2-8	ZW260166	6-84
MT440313	2-42	SB471328	10-8	UC367470	9-4	ZG257095	6-28	ZW260166	23-59x
MV248117	6-5	SB471835	6-105	UC367481	9-5	ZG270358	6-82	ZW260368	20-44x
MV269965	4-21	SC471554	23-51	UC367558	9-7	ZG272981	6-94	ZW269785	11-14x
MV270066	5-16	SC471633	23-8	UC368910	12-39	ZG290384	6-67	ZW270000	2-29
MY436307	23-71	SE447873	22-14x	UC368932	12-37	ZG293692	6-121	ZW270088	2-10
MZ205817	6-32	SK314100	23-60	UC369000	7-3	ZG364386	7-5	ZW270088	7-7
MZ217203	5-20	SK361945	23-67	UC369011	7-6	ZG364656	1-14	ZW270088	11-8
MZ217203	5-32	SK361956	23-65	UC370080	11-18	ZG365218	12-49	ZW270088	12-38
MZ217203	6-50	SK436274	20-25	UC370091	11-20	ZG365297	12-55	ZW270088	12-48x
MZ217293	5-17	SK441628	20-62	UC370102	12-19	ZG365321	12-57	ZW270101	11-53
MZ217686	5-29	SK465197	23-56	UC370113	12-21	ZG365422	12-33	ZW270101	12-15x
MZ217686	6-101	SK471532	23-64x	UC370124	12-23	ZG365433	12-40	ZW270101	12-97
MZ217697	6-64	SK471587	23-57	UC370135	12-24	ZG366401	11-45	ZW272395	3-10
MZ219576	1-25x	SK486055	23-58x	UC370146	12-25	ZG366783	8-8	ZW272722	18-5x
MZ225720	5-26	SM471510	23-35	UC370181	11-24	ZG366794	8-10	ZW273633	12-28x
MZ244113	4-9x	SM471543	23-39	UC370192	12-29	ZG366906	8-17	ZW273688	8-13
MZ244517	4-12	SM471565	23-52	UC370236	11-26	ZG367110	9-8	ZW273688	12-26x
MZ245485	6-19x	SM471576	23-53x	UC370247	11-28	ZG369088	7-13	ZW273690	23-10x
MZ248343	4-22	SM471666	23-15	UC370260	12-31	ZG369112	7-18	ZW273756	6-36x
MZ248343	6-37x	SM471723	21-32	UC370282	12-35	ZG370258	11-29	ZW273756	12-18x
MZ248354	3-28	SM471734	21-33x	UC370315	11-32	ZG370350	11-34	ZW273756	21-56x
MZ253113	4-10	SM488171	21-34x	UC370337	11-33	ZG370361	11-35	ZW273756	22-23x
MZ253653	6-55	SM499926	21-35x	UC370348	11-36	ZG414077	2-41	ZW273756	23-23x
MZ254160	3-7	SP471622	23-5x	UC370372	11-37	ZG451530	12-34	ZW273767	1-5x
MZ254182	3-8	SP471644	23-13	UC370427	12-43	ZG451552	12-14	ZW273767	6-77
MZ254305	3-6	SP471655	23-14x	UC373353	12-17	ZG451563	12-47	ZW273778	1-10
MZ254316	3-4	SP473883	23-4	UC451631	12-46	ZG451574	8-4	ZW273778	21-58x
MZ254373	3-5	SP488160	23-6x	UC471060	10-11	ZG469427	6-53	ZW273881	6-56x
MZ256814	6-65x	SS484740	23-20	UC471071	11-47	ZG471126	11-52	ZW273892	5-24x
MZ256882	3-21	SZ226282	12-66	UC471082	11-51	ZG471330	10-6	ZW273914	4-19
MZ257073	6-26	SZ226282	20-63x	UC471104	12-76	ZG473905	23-36x	ZW273914	6-15x
MZ258581	5-27	SZ237993	22-4	UC471115	12-77	ZG493514	9-11	ZW273960	5-25
MZ260662	6-76	SZ304964	22-6	UC471137	12-80	ZW200384	6-59x	ZW290248	23-26
MZ273295	6-10	SZ316620	22-21	UC471172	12-83	ZW200610	23-34x	ZW290250	21-50
MZ275725	4-6	SZ369393	22-19	UC471194	12-91	ZW200676	23-38x	ZW290250	23-25
MZ292364	3-18x	SZ377190	23-44x	UC471205	12-94	ZW200700	21-19x	ZW290283	3-33x
MZ296144	3-12x	SZ382217	22-17	UC471216	12-95	ZW201148	23-50	ZW290283	5-21
MZ316326	3-19	SZ439694	22-16	UC471238	12-96	ZW201150	21-36x	ZW290283	5-33x
MZ316451	6-97	SZ461632	1-24	UC471262	12-87	ZW201150	23-54x	ZW290283	6-52
MZ316901	5-2	SZ465377	6-3	UC471284	10-2	ZW201150	23-62	ZW290283	9-6
MZ316945	5-5	SZ465388	6-6	UC471295	10-3	ZW201183	21-55x	ZW290283	9-13
MZ316956	5-7	SZ471442	23-18	UC471306	10-4	ZW201778	5-13	ZW290283	10-7x
MZ317068	5-28	SZ471453	23-19	UC471317	10-5	ZW201936	7-4x	ZW290283	11-27
MZ327205	6-8x	SZ471464	23-27	UC471352	12-67	ZW201936	7-12	ZW290283	12-44
MZ327216	6-21	SZ471475	23-30	UC471374	11-2	ZW202138	5-6	ZW290283	20-4x
MZ327251	6-61	SZ471486	23-32x	UC471385	11-4	ZW202230	12-103	ZW303491	6-89x
MZ327262	6-102	SZ471497	23-33x	UC471396	11-6	ZW202375	22-7x	ZW312693	2-40
MZ327295	6-90	SZ471521	23-37x	UC471420	10-17	ZW203218	22-5	ZW314728	6-47
MZ327341	5-10	SZ473872	23-28x	UC472195	12-4	ZW203218	22-9x	ZW317801	16-4x
MZ327352	5-12	SZ477696	22-26	UC472263	11-12x	ZW217102	6-103	ZW322525	6-120x
MZ337724	3-20x	SZ477720	23-7	UC476820	12-64	ZW217877	5-22	ZW323728	1-9
MZ369854	4-2	SZ484806	22-13	UC477516	9-9	ZW217877	6-96	ZW323728	1-26x
MZ437804	2-26	UC254250	12-11	UC477933	12-79	ZW222388	3-13x	ZW323728	3-25
MZ437804	4-4	UC364443	8-20	UC486044	12-65	ZW223233	6-85	ZW323728	6-98
MZ446635	4-7	UC365207	12-45	UC488070	11-38	ZW224976	20-46x	ZW323728	6-118
MZ448222	3-2	UC365220	12-50	UC488733	11-48	ZW231693	2-22	ZW323728	8-18
MZ452496	6-38x	UC365242	12-52	UC488902	11-15	ZW231704	22-8x	ZW323728	10-9
MZ471240	12-101	UC365264	12-53x	UC493558	8-6	ZW231715	22-12x	ZW323728	10-23
MZ471778	4-15	UC365275	12-54	UC493560	8-7	ZW231805	6-4	ZW323728	11-19
MZ471780	4-17	UC365308	12-58	UC494488	8-14	ZW235776	12-12	ZW323728	11-25
MZ471856	6-109	UC365376	12-60	UC495595	9-12	ZW244710	4-8	ZW323728	11-46
MZ477426	6-7	UC365567	11-40	UM366625	7-9	ZW257477	12-93	ZW323728	12-70
MZ477494	12-10	UC365670	12-56	VM293883	22-10	ZW259334	12-62x	ZW323728	20-24
MZ479834	6-35	UC366210	10-21	ZG370023	11-17	ZW259380	7-10x	ZW323728	23-31
MZ484751	6-126	UC366210	11-22x	VM205571	6-60	ZW259560	23-49x	ZW324448	22-18x
RS-K01	9-14	UC366232	12-71	ZG217337	3-29	ZW259560	23-63x	ZW328871	6-9x
RS-K05	9-15	UC366243	12-73	ZG217337	6-75	ZW259738	12-6	ZW330412	6-39x
RS-K06	9-16	UC366254	12-61	ZG217337	11-57	ZW259795	6-100x	ZW330423	6-40x
RS-K07	9-17	UC366388	11-44	ZG217394	3-31x	ZW259885	3-14x	ZW330445	6-41x
RS-K08	9-18	UC366491	12-68	ZG217394	6-131	ZW259942	6-68x	ZW344812	11-30
RS-K09	9-19	UC366502	12-69	ZG217866	6-99	ZW260021	2-14	ZW356657	12-36
RS-K11	9-20	UC366737	8-2	ZG224796	6-86	ZW260054	2-15x	ZW364342	11-31
RS-K12	9-21x	UC366748	8-3	ZG227432	6-70	ZW260054	3-32x	ZW366186	23-21
RS-K13	9-22x	UC366772	8-5	ZG227441	13-3	ZW260054	6-63x	ZW366197	22-11x
RS-K14	9-23x	UC366816	8-19	ZG227542	2-33x	ZW260065	2-16x	ZW366750	8-11

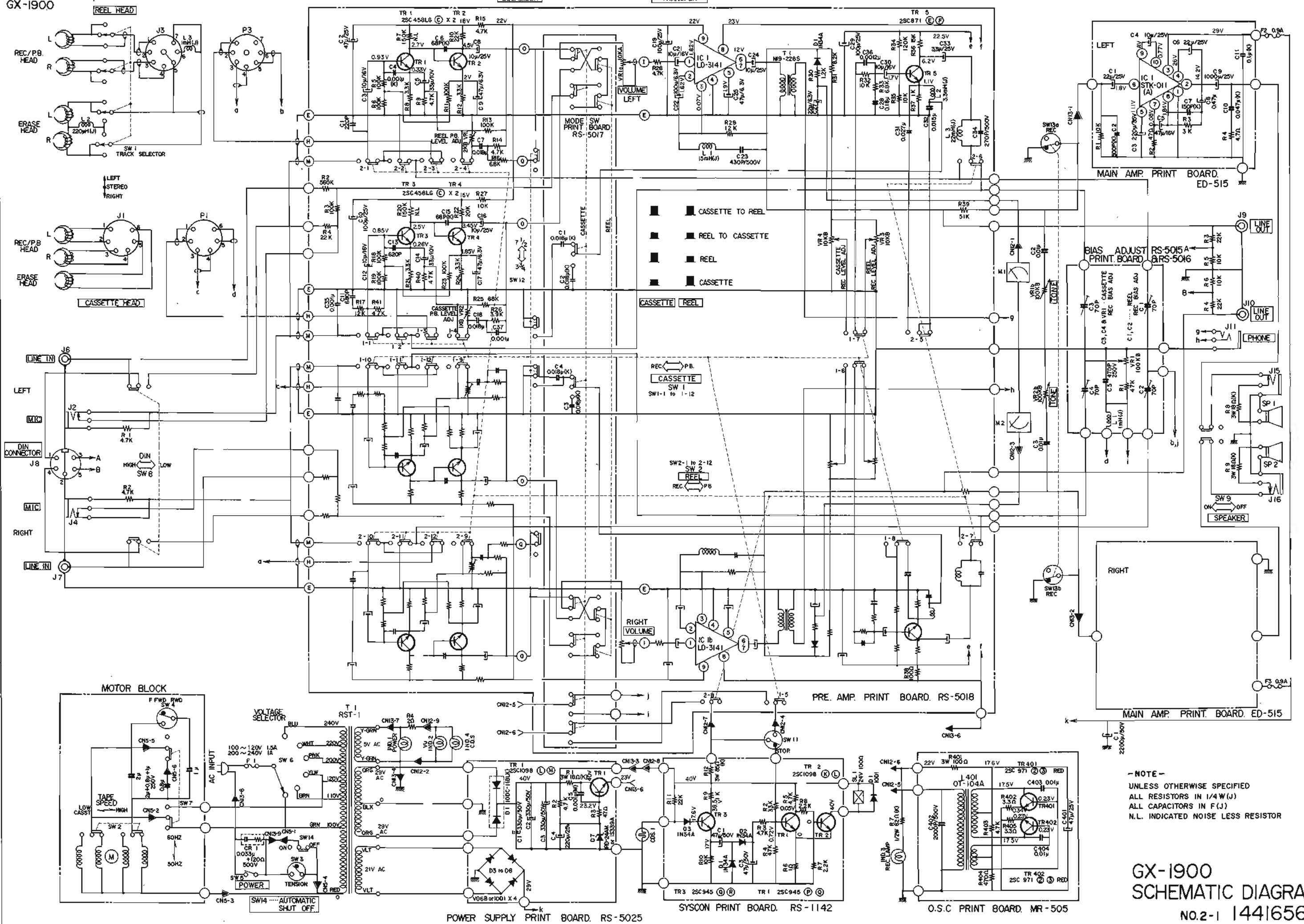
INDEX

Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
ZW369090	7-14	ZW432843	6-114						
ZW369494	4-18	ZW433001	23-61x						
ZW369595	6-73	ZW434160	2-45						
ZW369900	6-11x	ZW434171	2-31						
ZW372025	21-24	ZW434193	5-15x						
ZW373331	4-13	ZW434215	5-14x						
ZW373577	4-5	ZW436353	23-72						
ZW374128	21-26	ZW437545	5-35						
ZW374646	7-11	ZW440291	6-30						
ZW375085	18-3	ZW442585	20-33						
ZW375153	18-7	ZW446984	18-8						
ZW376380	6-72x	ZW447772	10-19						
ZW376380	6-123x	ZW447772	18-4						
ZW376481	18-6	ZW447772	20-8x						
ZW377414	12-74	ZW447772	20-64x						
ZW377425	12-75	ZW447772	21-8x						
ZW379405	20-61	ZW447772	23-29						
ZW381644	12-51	ZW447840	11-43						
ZW384131	6-48x	ZW448288	23-46x						
ZW391680	20-47	ZW461935	12-8						
ZW392141	22-15	ZW462194	20-39x						
ZW392940	19-4x	ZW462835	6-78x						
ZW399137	12-88	ZW462846	6-79x						
ZW413155	6-127	ZW464692	12-3						
ZW413155	19-5	ZW464692	12-30						
ZW413155	20-50	ZW464747	11-49x						
ZW413188	4-23x	ZW465254	8-12						
ZW413188	6-14	ZW474581	12-32x						
ZW413188	6-20x	ZW476987	3-22						
ZW413201	3-30	ZW477450	6-106x						
ZW413201	4-20	ZW477461	6-107x						
ZW413201	5-8	ZW477617	23-40x						
ZW413201	6-22x	ZW477876	1-8						
ZW413223	6-62x	ZW477887	1-19						
ZW413223	10-22x	ZW479463	4-16x						
ZW413245	6-104	ZW483208	23-69x						
ZW413256	21-13x	ZW484738	10-15x						
ZW413256	23-22x	ZW484738	20-28x						
ZW413267	6-25x	ZW484762	11-9x						
ZW413728	20-54x	ZW485728	12-98x						
ZW413728	21-11x	ZW486268	11-5						
ZW413741	6-117x	ZW488068	23-41						
ZW413741	10-24x	ZW488327	23-47x						
ZW413741	11-23	ZW488338	23-48x						
ZW413741	12-20x	ZW491332	23-9x						
ZW413741	21-10x	ZW492928	23-66x						
ZW413886	22-22x	ZW499454	11-55						
ZW413921	3-17								
ZW414033	12-22x								
ZW414044	6-23x								
ZW414055	6-33x								
ZW414066	6-34								
ZW414235	7-15								
ZW414246	7-16								
ZW415956	12-99								
ZW416687	5-18								
ZW417025	1-4x								
ZW417025	11-21								
ZW417137	8-15x								
ZW417137	12-86x								
ZW417137	12-104								
ZW417137	20-34								
ZW417137	21-21x								
ZW417227	12-27x								
ZW417273	8-9								
ZW417273	9-10								
ZW417273	11-13x								
ZW417306	11-39								
ZW419646	23-45x								
ZW419714	22-20								
ZW419782	16-3								
ZW419782	20-59								
ZW424056	3-9								
ZW425006	22-24x								
ZW425103	1-16								
ZW425114	1-15								
ZW427026	3-11								
ZW427037	3-3								
ZW427048	12-13								
ZW429276	12-72								

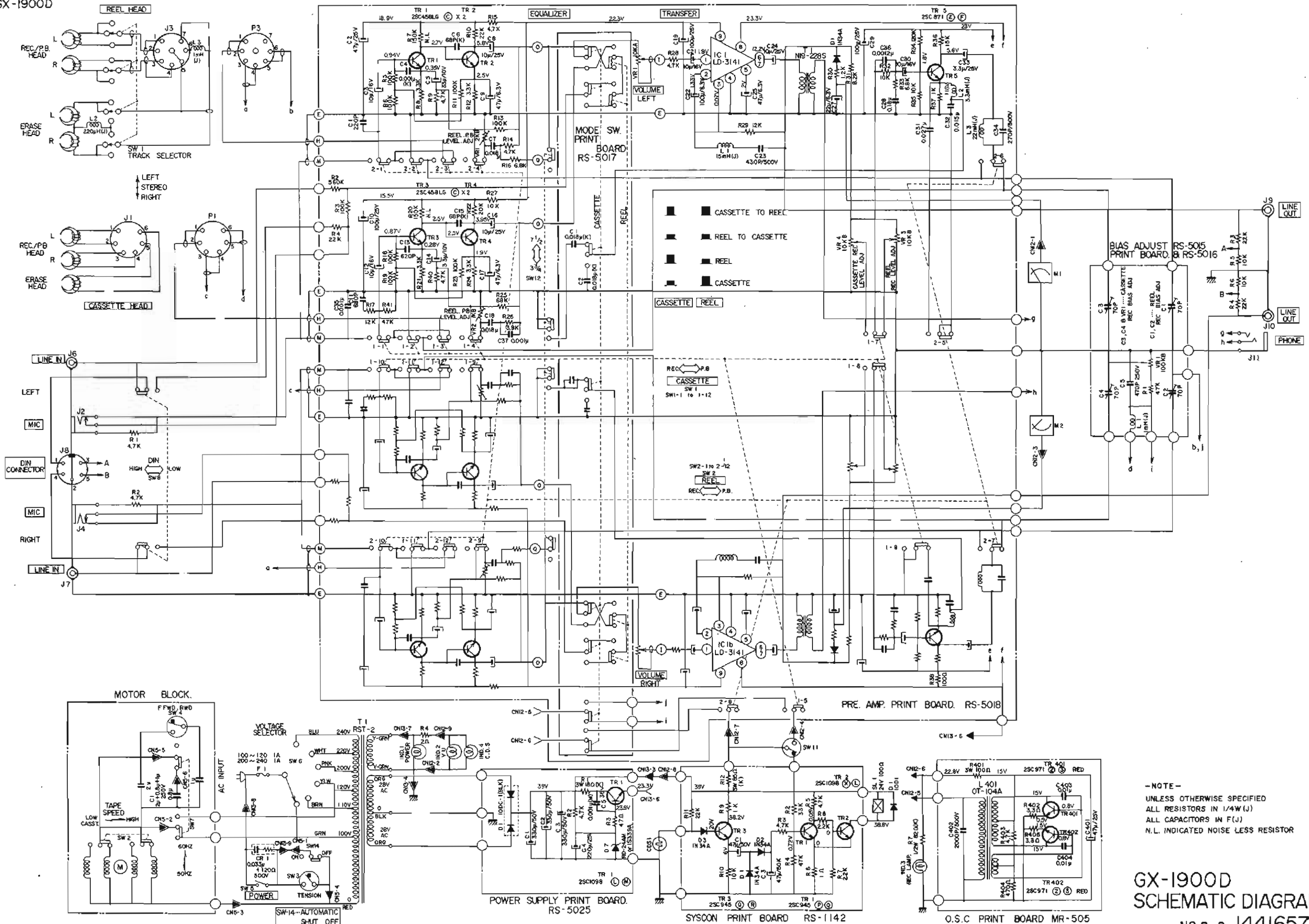
SECTION 3

SCHEMATIC DIAGRAM

1. GX-1900 SCHEMATIC DIAGRAM
2. GX-1900D SCHEMATIC DIAGRAM



- NOTE -
 UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS IN 1/4 W (J)
 ALL CAPACITORS IN F (J)
 N.L. INDICATED NOISE LESS RESISTOR



-NOTE-
 UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS IN 1/4W (J)
 ALL CAPACITORS IN F (J)
 N.L. INDICATED NOISE LESS RESISTOR

 **AKAI ELECTRIC CO.,LTD.**
AKAI TRADING CO.,LTD.

(P.O. BOX 21, Tokyo International Airport, Japan)

12-14, 2-chome, Higashi-Kojiya, Ohta-ku, Tokyo, Japan

TELEPHONE: TOKYO (742) 5111

CABLE: HIFIAKAI TOKYO TELEX: J26261

Printed No.1442006 Printed in Japan Price \$8.00