

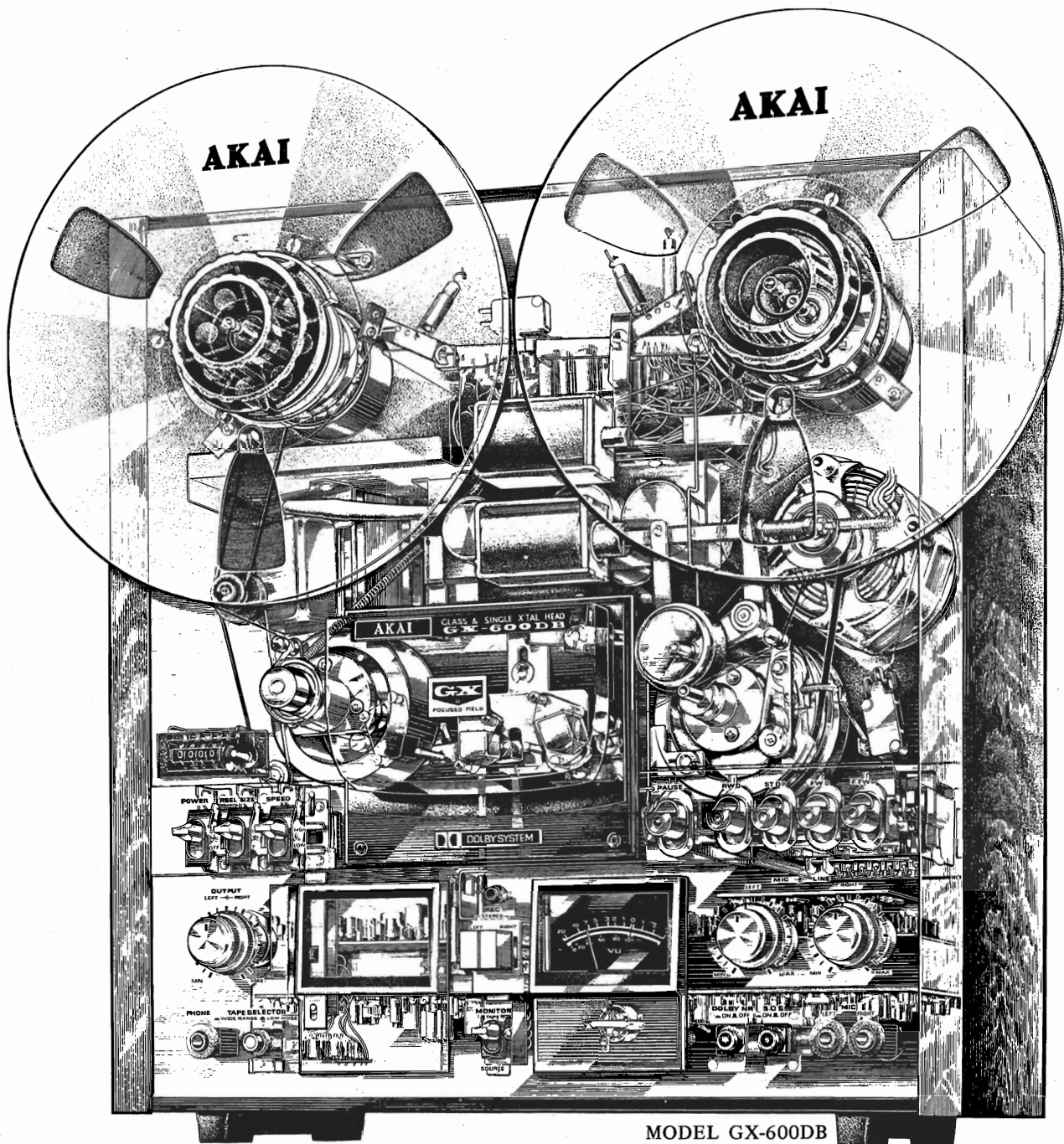
# SERVICE MANUAL

# PARTS LIST

AKAI STEREO TAPE DECK

MODEL **GX-600D**

ALSO APPLICABLE TO MODEL GX-600DS, GX-600D-PRO



MODEL GX-600DB



**STEREO TAPE DECK**  
**MODEL GX-600D**

**ALSO APPLICABLE TO MODEL GX-600DB, GX-600D · PRO**  
**STEREO TAPE DECK**

<b>SECTION 1</b>	<b>SERVICE MANUAL</b> .....	<b>3</b>
<b>SECTION 2</b>	<b>PARTS LIST</b> .....	<b>35</b>
<b>SECTION 3</b>	<b>SCHEMATIC DIAGRAM</b> .....	<b>68</b>

---

SECTION 1

**SERVICE MANUAL**

TABLE OF CONTENTS

<b>I</b>	<b>SPECIFICATIONS</b> .....	<b>4</b>
<b>II.</b>	<b>MEASURING METHOD</b> .....	<b>7</b>
	1. TAPE SPEED DEVIATION .....	7
	2. WOW AND FLUTTER .....	7
	3. FREQUENCY RESPONSE .....	7
	4. SIGNAL TO NOISE RATIO .....	7
	5. TOTAL HARMONIC DISTORTION .....	8
	6. CROSS TALK (Cross talk between the tracks) .....	8
	7. ERASE RATIO .....	8
<b>III.</b>	<b>DISMANTLING OF UNIT</b> .....	<b>9</b>
<b>IV.</b>	<b>MECHANICAL SYSTEM ADJUSTMENT</b> .....	<b>11</b>
	1. FLYWHEEL LOOSE PLAY ADJUSTMENT .....	12
	2. BRAKE SOLENOID POSITION ADJUSTMENT .....	12
	3. BRAKE TENSION ADJUSTMENT .....	12
	4. PINCH WHEEL SOLENOID POSITION ADJUSTMENT .....	14
	5. PINCH WHEEL PRESSURE ADJUSTMENT .....	14
	6. REEL TABLE HEIGHT ADJUSTMENT .....	14
	7. TENSION LEVER HEIGHT ADJUSTMENT .....	14
	8. SHIFT SWITCH POSITION ADJUSTMENT .....	15
	9. KEYBOARD RELEASE ROD ADJUSTMENT .....	15
<b>V.</b>	<b>HEAD ADJUSTMENT</b> .....	<b>16</b>
	1. Models: GX-600D, GX-600DB .....	17
	2. Model: GX-600D • PRO .....	17
<b>VI.</b>	<b>AMPLIFIER SYSTEM ADJUSTMENT</b> .....	<b>18</b>
	1. PLAYBACK LEVEL ADJUSTMENT .....	18
	2. HIGH RANGE DEVIATION CHECK .....	18
	3. RECORDING LEVEL ADJUSTMENT (Models GX-600D, GX-600D • PRO only) .....	18
	4. RECORDING LEVEL ADJUSTMENT (Model GX-600DB only) .....	18
	5. FREQUENCY RESPONSE ADJUSTMENT (Recording Bias Voltage Adjustment) .....	21
	6. DOLBY N.R. AMP. P.C. BOARD ADJUSTMENT (Model GX-600DB only) .....	22
	(1) RECORDING DOLBY NR CIRCUIT ADJUSTMENT .....	23
	(2) PLAYBACK DOLBY NR CIRCUIT ADJUSTMENT .....	23
<b>VII.</b>	<b>OPERATING PRINCIPALS OF DOLBY NR CIRCUIT</b> .....	<b>24</b>
	1. RECORDING DOLBY NR .....	24
	2. PLAYBACK DOLBY NR .....	25
<b>VIII.</b>	<b>DC RESISTANCE OF VARIOUS COILS</b> .....	<b>26</b>
<b>IX.</b>	<b>TRANSPORT MECHANISM</b> .....	<b>27</b>
<b>X.</b>	<b>COMPOSITE VIEWS OF COMPONENTS</b> .....	<b>30</b>

# I. SPECIFICATIONS

## 1. MODEL: GX-600D, GX-600DB

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

TRACK SYSTEM	4 track-2 channel stereo, monaural system	
TAPE SPEED	7-1/2 ips. (19 cm/sec), 3-3/4 ips (9.5 cm/sec) $\pm 0.8\%$ (*+1% *-1.5%)	
WOW AND FLUTTER	Less than 0.07%(*0.1%) R.M.S. at 7-1/2 ips. Less than 0.10%(*0.17%) R.M.S. at 3-3/4 ips.	
TOTAL WOW AND FLUTTER	Less than 0.13% R.M.S. at 7-1/2 ips. Less than 0.2% R.M.S. at 3-3/4 ips. (SCOTCH #150 tape, 3,000 Hz Recording/Playback)	
FREQUENCY RESPONSE	30 to 23,000 Hz(*30 to 22,000 Hz) $\pm 3$ dB at 7-1/2 ips. 30 to 19,000 Hz(*30 to 18,000 Hz) $\pm 3$ dB at 3-3/4 ips. (SCOTCH #211 tape, low noise position, -20VU recording)	
DISTORTION FACTOR	Less than 0.7% at 7-1/2 ips.	
TOTAL DISTORTION FACTOR	*Less than 1.5% at 7-1/2 ips. *Less than 2.5% at 3-3/4 ips. (SCOTCH #211 tape, 1,000 Hz "0" VU Recording/Playback)	
SIGNAL TO NOISE RATIO	Better than 56 dB(*50 dB)	
TOTAL SIGNAL TO NOISE RATIO	*Better than 45 dB	
OUTPUTS	LINE OUTPUT	0.775V(0 $\pm$ 1 dB) Using a 700 Hz "0" VU pre-recorded tape, output vol. max.
	DIN OUTPUT	0.5V(-4 $\pm$ 1 dB)
INPUTS	MIC INPUT	More than 0.3 mV
	LINE INPUT	More than 70 mV
	DIN INPUT	More than 3 mV
RECORDING PLAYBACK LEVEL	0.775V(0 $\pm$ 1.5 dB) using a SCOTCH #211 tape	
CROSS TALK	Better than 40 dB (stereo) Better than 60 dB (*55 dB) (Monaural) (1,000 Hz+3VU Recording)	
ERASE RATIO	Better than 70 dB (1,000 Hz+3VU recording)	
RECORDING BIAS FREQUENCY	150 $\pm$ 10 kHz	
BIAS LEAK	Less than -40VU	
HIGH FREQUENCY DEVIATION	Within 3 dB 8,000 Hz 3-3/4 ips. tape at 7-1/2 ips.	
RECORDING CAPACITY	180 min 2 channel stereo recording using a 3,600 ft. tape at 7-1/2 ips.	
F.FWD AND RWD TIME	170 sec., using a 3,600 ft. tape at 50 Hz	
MOTORS	CAPSTAN MOTOR	2 speed hysteresis synchronous motor Type: HM2-16MC(winterized) 4-8 pole Revolutions: 1,500/1,800 r.p.m. at 50/60 Hz 750/900 r.p.m. at 50/60 Hz
	REEL MOTOR	Two 6-pole eddy current outer rotor motors Type: 24XO-TD Revolutions: 930/1,120 r.p.m. at 50/60 Hz
HEADS	ERASE HEAD	Type: E4-260 GAP: W Gap Impedance: 210 $\Omega$ $\pm$ 10% at 100 kHz D.C. Resistance: 2 $\Omega$
	RECORDING HEAD	Type: R4-200 Gap: 4 microns Impedance: 1,870 $\Omega$ at 100 kHz D.C. Resistance: 8 $\Omega$
	PLAYBACK HEAD	Type: P4-202 Gap: 1.7 $\pm$ 0.5 microns Impedance: 1,400 $\Omega$ at 1 kHz D.C. Resistance: 268 $\Omega$
TRANSISTORS AND F.E.T	2SC458LG(C) . . . 16	2SC1211(D) . . . 2
	2SC711(D) (E) . . . 6	2SD360(D) . . . 1
	Dolby N.R. Circuit	
	2SA564(Q) . . . 4	2SC458(C) . . . 12
	2SC458LG(C) . . . 12	2SK30A(GR) . . . 4

DIODES	1N34A . . . 2 1S2473VE . . . 3 Dolby N.R. Circuit 1N34A . . . 8	10D4 . . . 7 10D5 . . . 4 1S2473VE . . . 12
ZENER DIODES	WZ240 . . . 1 Dolby N.R. Circuit WZ085 . . . 4	
POWER SUPPLY	100 to 240V A.C. 50/60 Hz universal models 120V A.C. 60 Hz U/L models 220V A.C. 50 Hz CEE models 100V A.C. 50/60 Hz JPN models	
POWER CONSUMPTION	130W/50 Hz, 100W/60 Hz	
DIMENSIONS	443(W) x 475(H) x 228(D)mm (17.4" x 18.7" x 9")	
WEIGHT	GX-600D: 22.0 kg(48.4 lbs.) GX-600DB: 22.3 kg(49.0 lbs.)	

NOTE: Specifications subject to change without notice.

## 2. MODEL: GX-600D · PRO

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

TRACK SYSTEM	2 track-2 channel stereo, monaural system	
TAPE SPEED	15 ips. (38 cm/sec.), 7-1/2 ips. (19 cm/sec.) ±0.8% (*+1% -1.5%)	
WOW AND FLUTTER	Less than 0.05%(*0.07%) R.M.S. at 15 ips. Less than 0.07%(*0.12%) R.M.S. at 7-1/2 ips.	
TOTAL WOW AND FLUTTER	Less than 0.1% R.M.S. at 15 ips. Less than 0.15% R.M.S. at 7-1/2 ips. (SCOTCH #150 tape, 3,000 Hz Recording/Playback)	
FREQUENCY RESPONSE	30 to 25,000 Hz(*30 to 24,000 Hz)±3 dB at 15 ips. 30 to 23,000 Hz(*30 to 22,000 Hz)±3 dB at 7-1/2 ips. (SCOTCH #211 tape, low noise position, -20VU recording)	
DISTORTION FACTOR	Less than 0.7%	
TOTAL DISTORTION FACTOR	Less than 1.5% (SCOTCH #211 tape, 1,000 Hz "0" VU Recording/Playback)	
SIGNAL TO NOISE RATIO	Better than 59 dB(*50 dB)	
TOTAL SIGNAL TO NOISE RATIO	Better than 45 dB	
OUTPUTS	LINE OUTPUT	0.775V(0±1 dB) Using a 700 Hz "0" VU pre-recorded tape, output vol., max
	DIN OUTPUT	0.5V(-4±1 dB)
INPUTS	MIC INPUT	More than 0.3 mV
	LINE INPUT	More than 70 mV
	DIN INPUT	More than 3 mV
RECORDING PLAYBACK LEVEL	0.775V(0±1.5 dB) using a SCOTCH #211 tape.	
CROSS TALK	Better than 40 dB(stereo) Better than 60 dB(*55 dB) (monaural) (1,000 Hz+3 VU recording)	
ERASE RATIO	Better than 70 dB(1,000 Hz+3VU recording)	
RECORDING BIAS FREQUENCY	150±10 kHz	
BIAS LEAK	Less than -40VU	
HIGH FREQUENCY DEVIATION	Within 3 dB 8,000 Hz 3-3/4 ips. tape at 7-1/2 ips.	
RECORDING CAPACITY	45 min 2 channel stereo recording using a 3,600 ft. tape at 15 ips.	
F.FWD AND RWD TIME	170 sec., using a 3,600 ft. tape at 50 Hz	
MOTORS	CAPSTAN MOTOR	2 speed hysteresis synchronous motor Type: HM2-16MC (winterized) 4-8 pole Revolutions: 1,500/1,800 r.p.m. at 50/60 Hz 750/900 r.p.m. at 50/60 Hz
	REEL MOTOR	Two 6-pole eddy current outer rotor motors Type: 24XO-TD Revolutions: 930/1,120 r.p.m. at 50/60 Hz

HEADS	ERASE HEAD	Type: E2-100 Gap: W Gap Impedance: 280Ω at 100 kHz D.C. Resistance: 2.5Ω
	RECORDING HEAD	Type: R2-100 Gap: 4.5±1 microns Impedance: 3 kΩ±20% at 100 kHz D.C. Resistance: 8Ω
	PLAYBACK HEAD	Type: P2-100 Gap: 0.5 to 1 microns Impedance: 1.9 kΩ±20% at 1 kHz D.C. Resistance: 180Ω
TRANSISTORS	2SC458LG(C) . . . 6	2SC1211(D) . . . 2
	2SC711(D) (E) . . . 6	2SD360(D) . . . 1
DIODES	1N34A . . . 2	10D4 . . . 7
	1S2473VE . . . 3	10D5 . . . 4
ZENER DIODE	WZ240 . . . 1	
POWER SUPPLY	100 to 240V A.C. 50/60 Hz universal models 120V A.C. 60Hz U/L models 220V A.C. 50Hz CEE models 100V A.C. 50/60 Hz JPN models	
POWER CONSUMPTION	130W/50Hz, 100W/60 Hz	
DIMENSIONS	443(W) x 475(H) x 228(D) mm (17.4" x 18.7" x 9")	
WEIGHT	22.0 kg (48.4 lbs.)	

NOTE: Specifications subject to change without notice

## II. MEASURING METHOD

### 1. TAPE SPEED DEVIATION

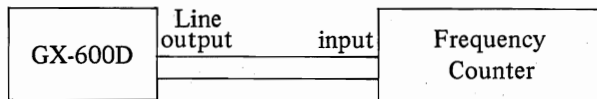


Fig. 1

As shown in Fig. 1, connect a Frequency Counter to the Line output of Model GX-600D. Playback a 1,000 Hz pre-recorded test tape. 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

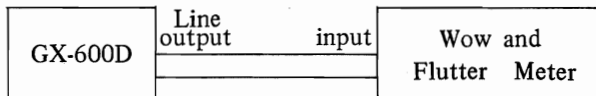


Fig. 2

#### METHOD A

As shown in Fig. 2, connect the Line output of Model GX-600D to the input of a Wow and Flutter Meter. Playback 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 playback the resultant signal. Measure Wow and Flutter with a Wow and Flutter Meter. (The Wow and Flutter value of Method B will be close to  $\sqrt{2}$  times of value of Method A.)

### 3. FREQUENCY RESPONSE

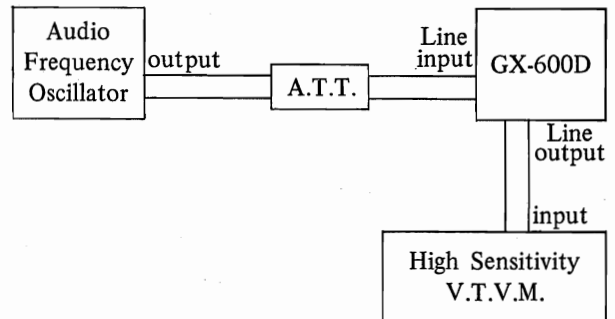


Fig. 3

For measuring Frequency Response, connect instruments as shown in Fig. 3 and proceed as follows:

- 1) Supply a 1,000 Hz sine wave signal to the Line input of Model GX-600D from an Audio Frequency Oscillator through an Attenuator.
- 2) Set recorder to recording mode and turn recording level control volume to maximum. Adjust Attenuator to obtain a 0 dB V.T.V.M. reading.
- 3) Under conditions described in 2) above, readjust Attenuator so that the Line output is -20 dB, and record 30 to 27,000 Hz spot frequencies.
- 4) 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

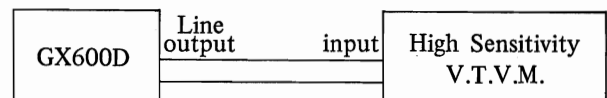


Fig. 4

As shown in Fig. 4, connect a High Sensitivity V.T.V.M. to the Line output of Model GX-600D. Playback a 700 Hz "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

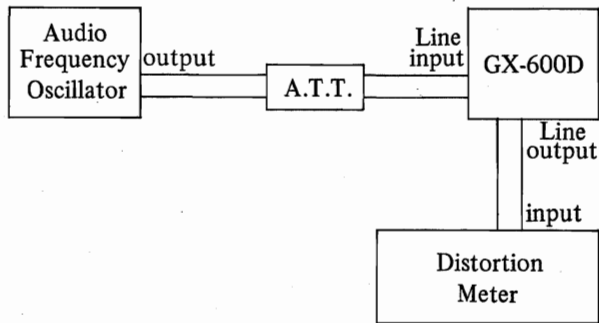


Fig. 5

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.

- NOTE 1) At this time, Distortion of the Audio Frequency Oscillator for must be sufficiently small.
- 2) 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 track No. 3 and 1 (reversed condition of tape) through the B.P.F. (1,000 Hz Band Pass Filter, sensitivity 1,000 Hz, ratio 1:1) and obtain the ratio 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 (V)
- $E_2$  = 1,000 Hz cross talk level (V)
- $E_1$  = Non-input cross talk level (V)

## 7. ERASE RATIO

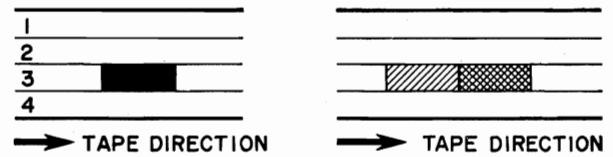


Fig. 7

As shown in Fig. 7, using a virgin tape first record a 1,000 Hz sine wave signal on track No. 3 at +3VU level, then playback this recorded signal and take a V.T.V.M. reading at the output level. Next, erase this recorded portion and playback the erased part through the B.P.F. (1,000 Hz sensitivity 1:1) and take readings of the erased signal. Obtain a ratio between the two from the following formula:

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

where,

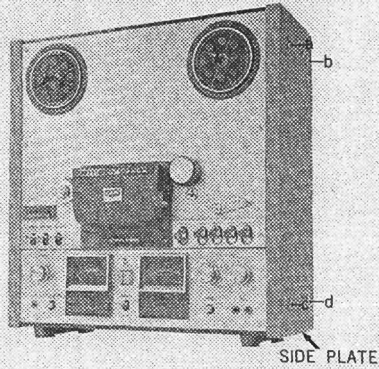
- $E_r$  = Desired erase ratio
- $E_0$  = 1,000 Hz signal output level (V)
- $E_2$  = Erased 1,000 Hz signal and noise level (V)
- $E_1$  = Erased noise level (V)

NOTE: When measuring cross talk and erase ratio, virgin tape should be used.

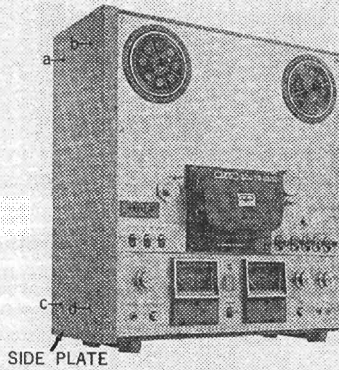
### III. DISMANTLING OF UNIT

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

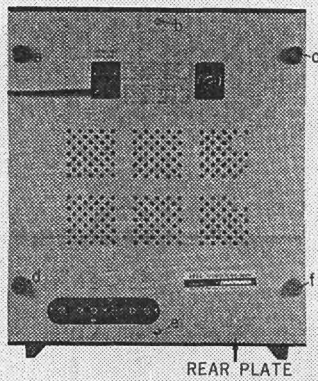
1



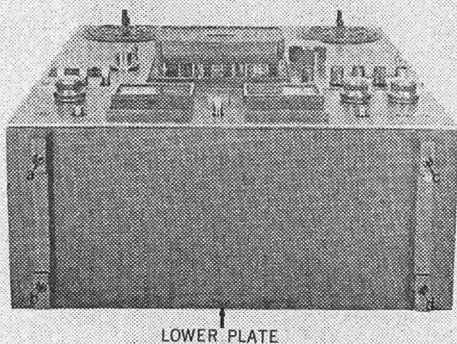
2



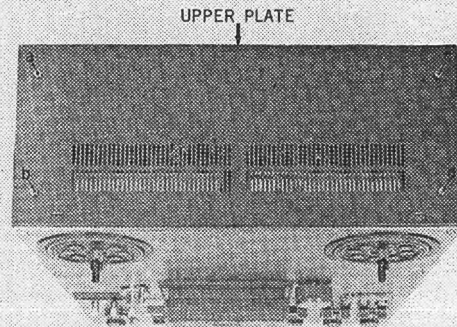
3



4



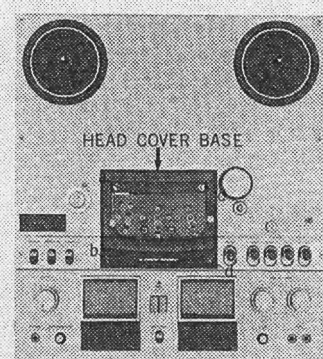
5



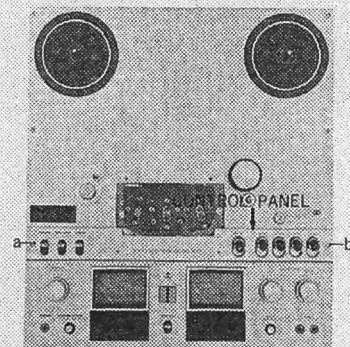
6



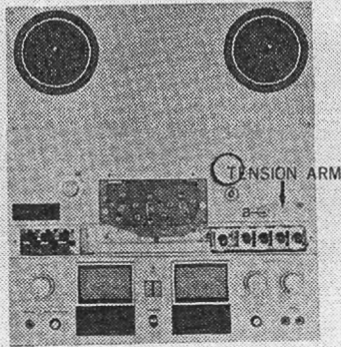
7



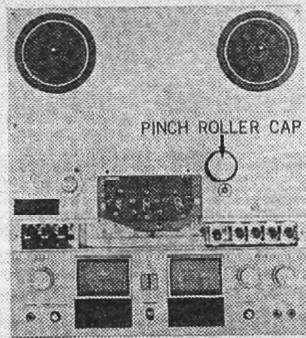
8



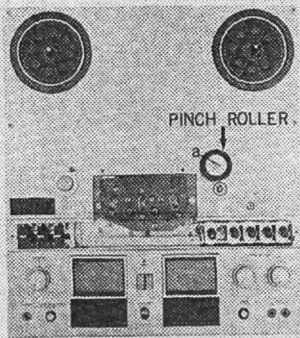
9



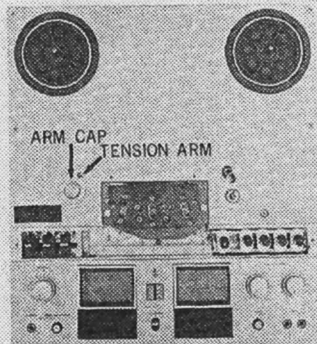
10



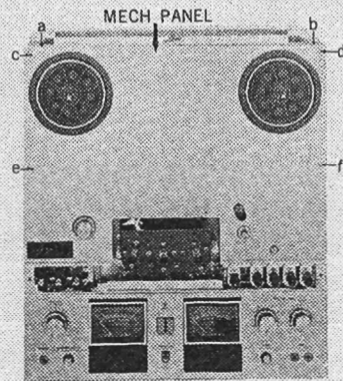
11



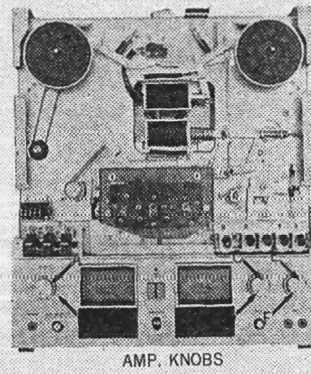
12



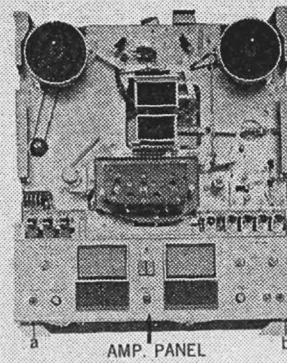
13



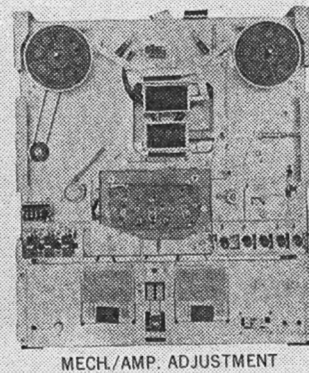
14



15



16



# IV. MECHANICAL SYSTEM ADJUSTMENT

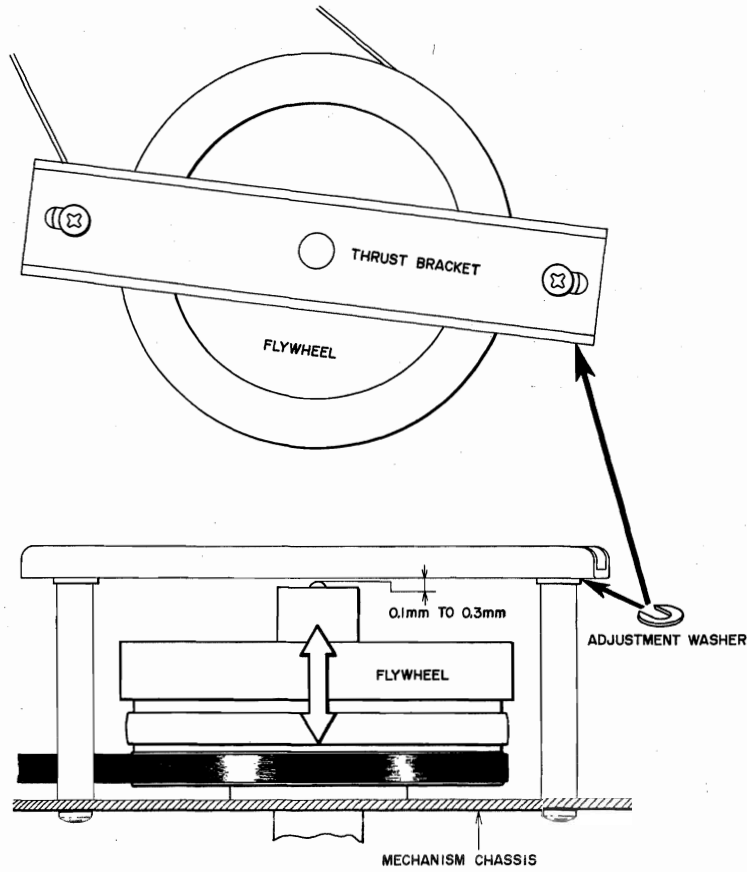


Fig. 8

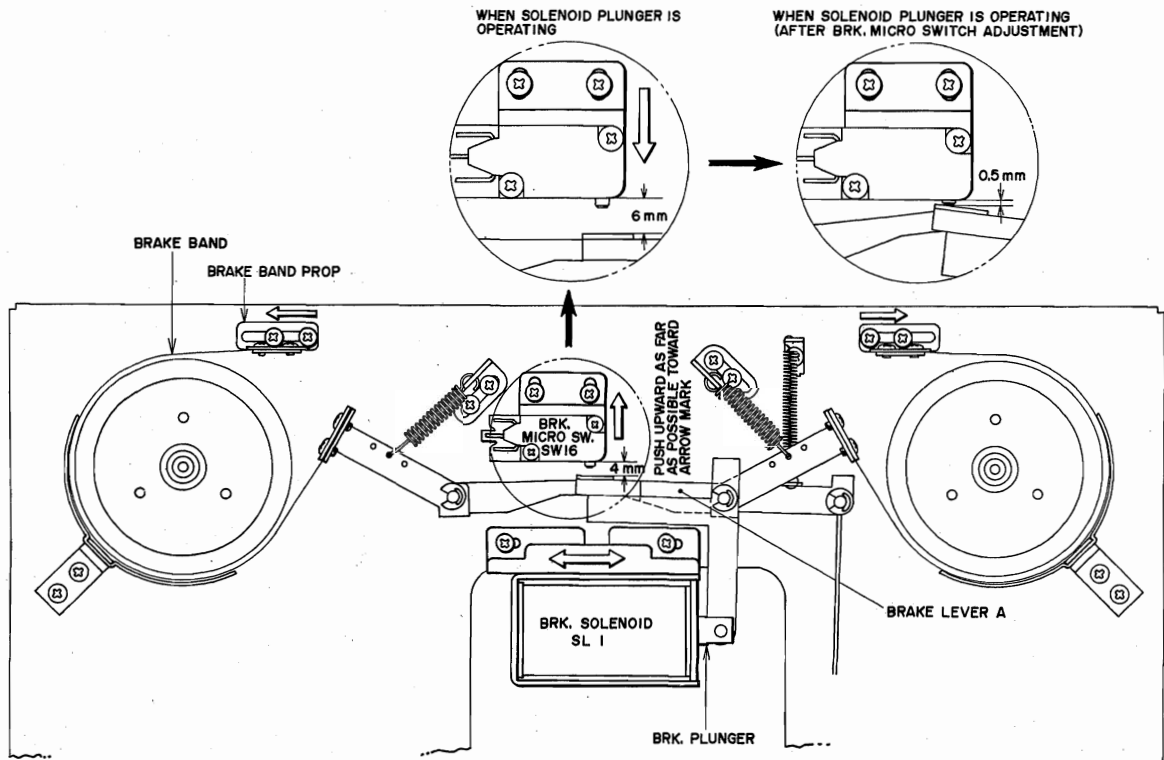


Fig. 9

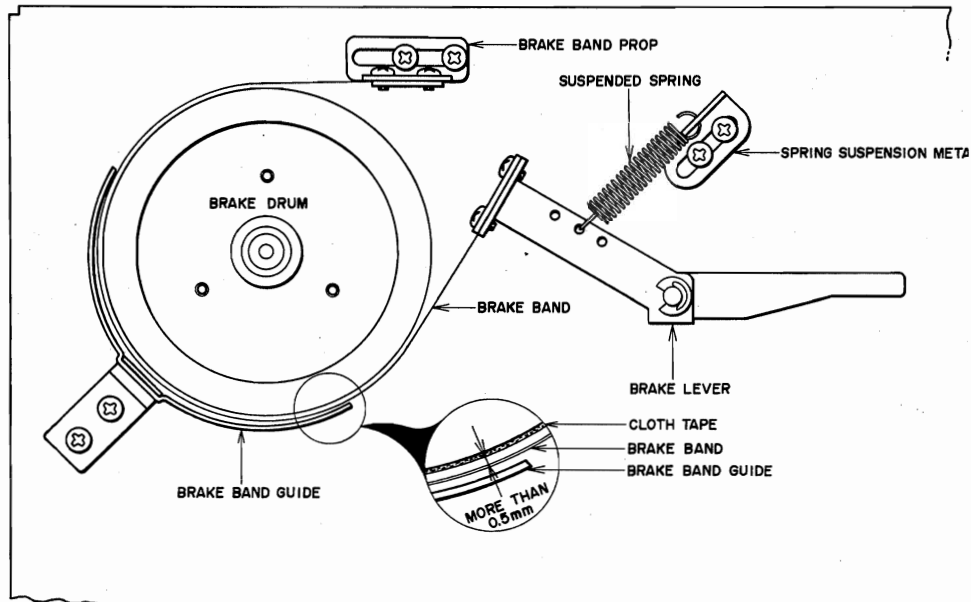


Fig. 10

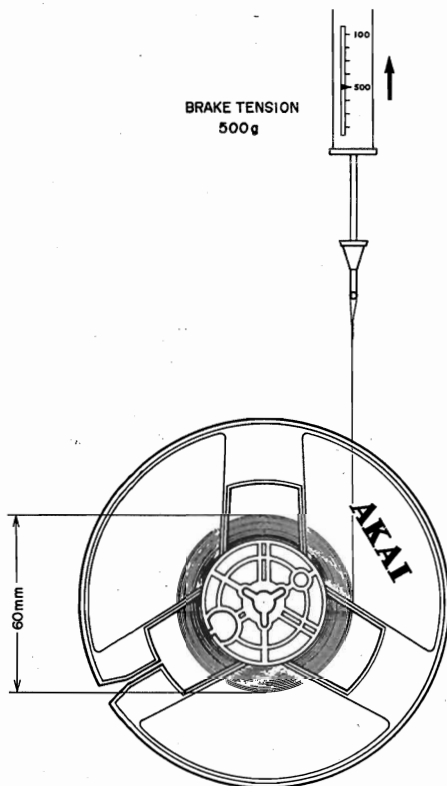


Fig. 11

### 1. FLYWHEEL LOOSE PLAY ADJUSTMENT

Adjust to obtain 0.1 to 0.3 mm loose play by the insertion of a horse shoe shaped washer as shown in Fig. 8.

### 2. BRAKE SOLENOID POSITION ADJUSTMENT (Refer to Fig. 9)

1) As shown in Fig. 9, push the Brake Micro as far as it will go toward the mechanical chassis and fix at that position.

- 2) Adjust brake band prop.  
Right hand brake band prop → fully to the right.  
Left hand brake band prop → fully to the left.
- 3) At the condition wherein the brake plunger has fully entered the solenoid, move the solenoid to left and right and fix the solenoid at place at which there is a 4 mm gap between brake lever A and the body of the brake micro switch.
- 4) At stop mode, lower brake micro switch and fix at position at which the space between brake lever A and the body of the brake micro switch is 6 mm.

NOTE: At playback mode (when the plunger operates), confirm that when brake lever A pushes the brake micro switch, it does not hit the body of the micro switch (Space between body of micro switch and brake lever A must be 0.5 mm).

### 3. BRAKE TENSION ADJUSTMENT (Refer to Figs 10, 11)

- 1) As shown in Fig. 11, for brake tension adjustment, use a 60 mm diameter of tape wound on an empty 5" reel, and measure with a spring scale. Correct brake tension is 500 gr.
- 2) In case brake tension is not within specifications, change the position of the suspended spring and adjust position of spring suspension metal.

NOTE: Left/right brake tension non-conformity must be within 50 gr.

After completing brake tension adjustment, confirm that at each mode (except stop mode), the brake band completely separates from the cloth tape on the brake drum. (free condition).

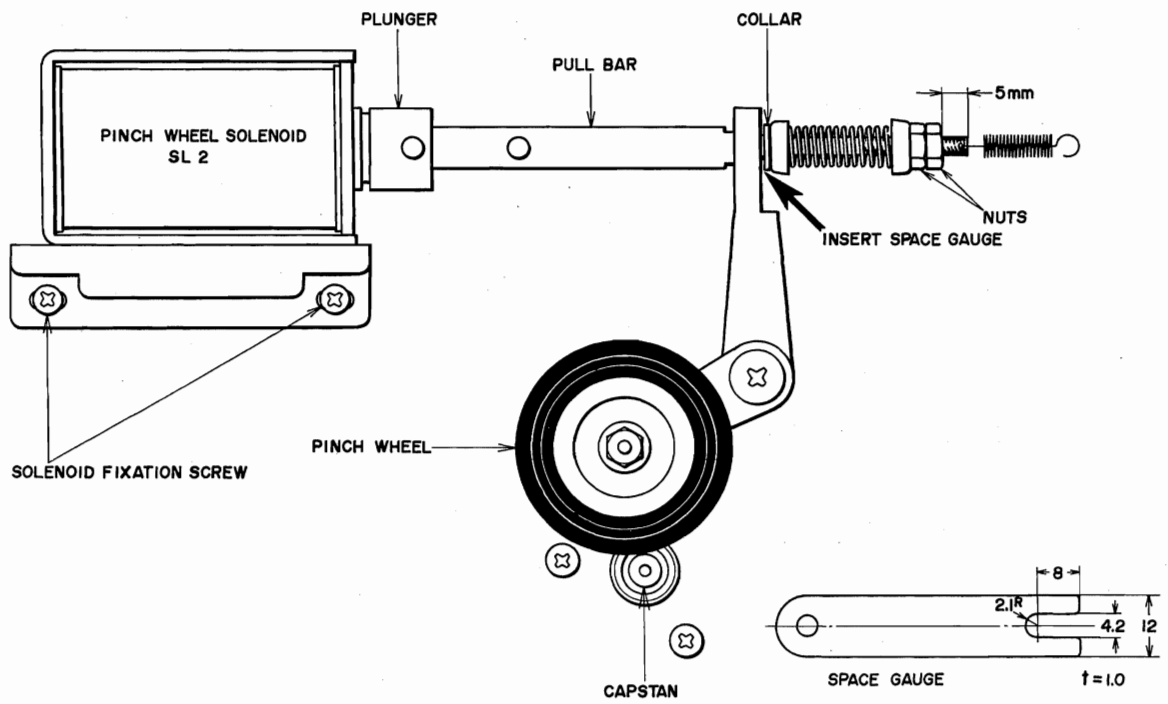


Fig. 12

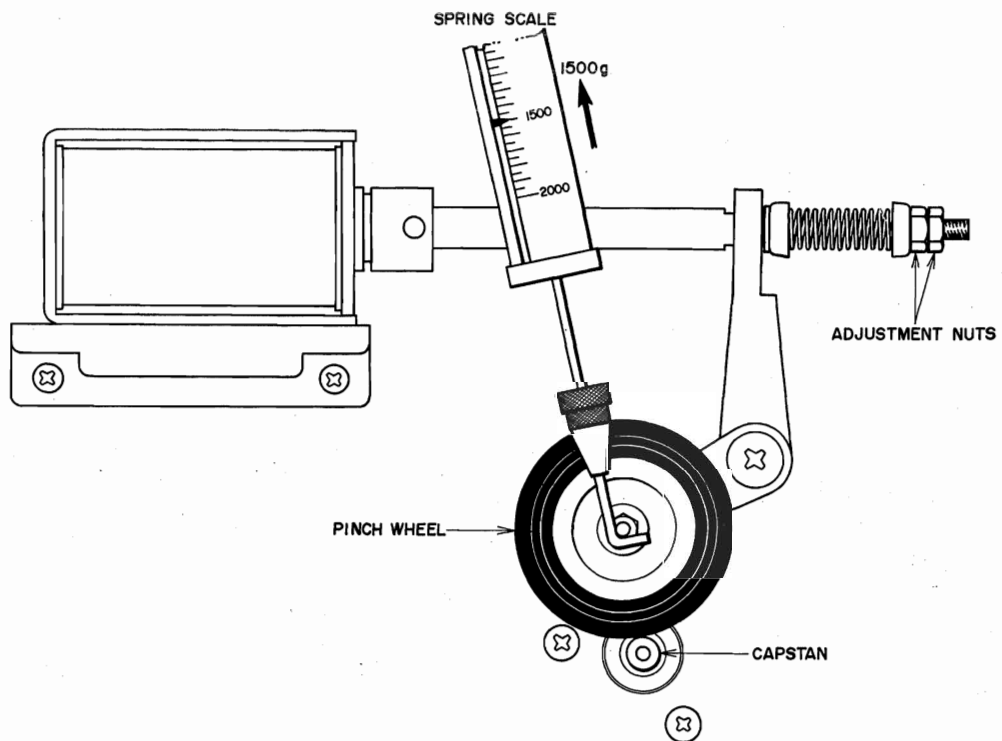


Fig. 13

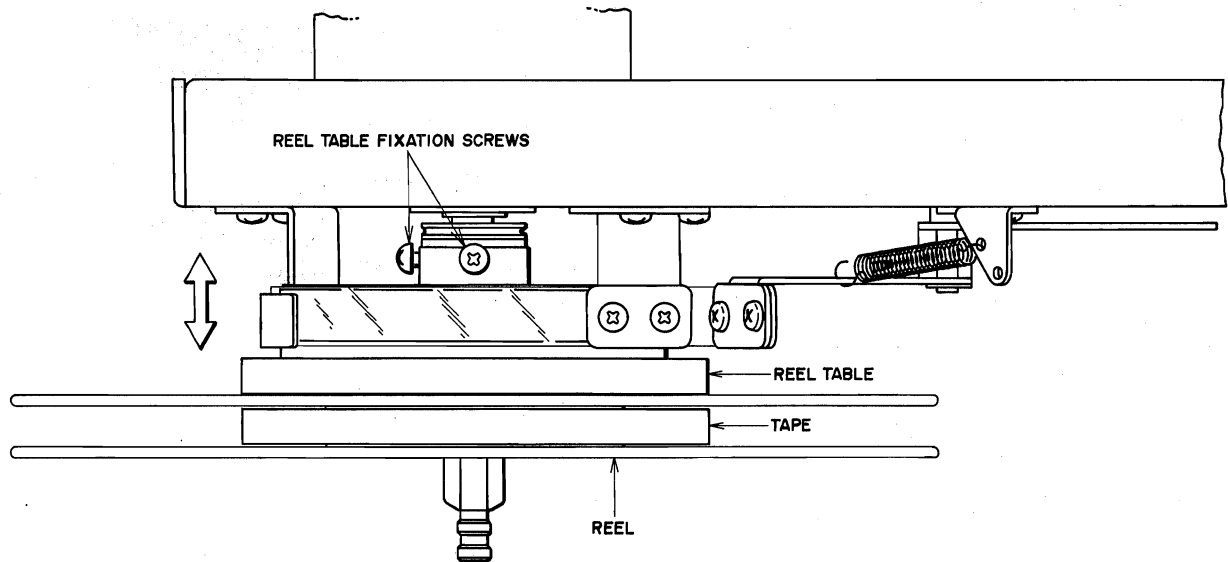


Fig. 14

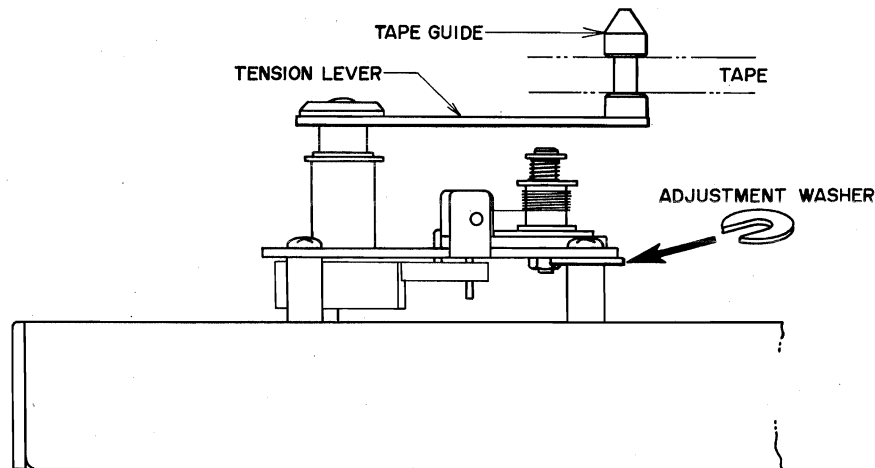


Fig. 15

#### 4. PINCH WHEEL SOLENOID POSITION ADJUSTMENT (Refer to Fig. 12)

- 1) Set nut so that the screw part of the pull bar protrudes 5 mm from the nut.
- 2) Insert a space gauge between the collar and pull bar, and fix solenoid at position at which the pinch wheel touches the capstan.

#### 5. PINCH WHEEL PRESSURE ADJUSTMENT (Refer to Fig. 13)

As shown in Fig. 13, pull out and return pinch wheel with a spring scale, reading the spring scale indication when the pinch wheel touches the capstan. Adjust pinch wheel pressure with adjustment nut to obtain a 1.5 kg. spring scale indication at pinch wheel and capstan contact.

#### 6. REEL TABLE HEIGHT ADJUSTMENT (Refer to Fig. 14)

Properly load a tape, and adjust the reel table as indicated by the arrow mark in the figure so that the tape winds in the center of the reel at F.Fwd and Rwd modes. Fix at best position.

Also tape should wind in center of reel regardless of type of reel used.

#### 7. TENSION LEVER HEIGHT ADJUSTMENT (Refer to Fig. 15)

Properly load a tape and set machine to Fwd mode. Adjust tension lever height with a horse-shoe washer so that the tape runs on the center of the tape guide.

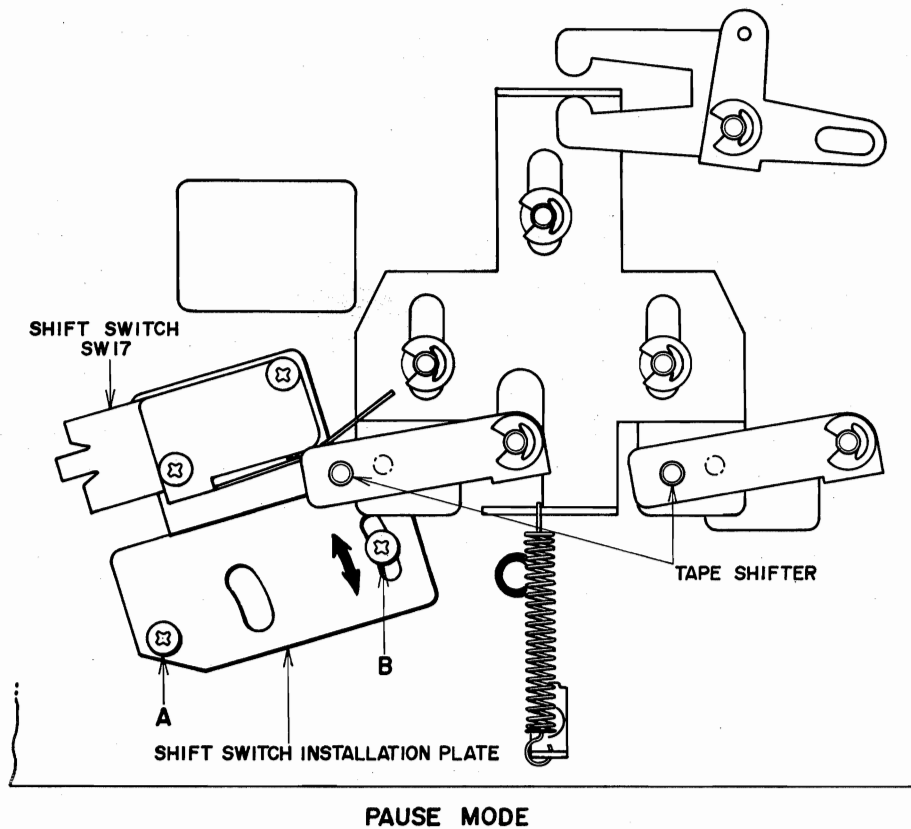


Fig. 16

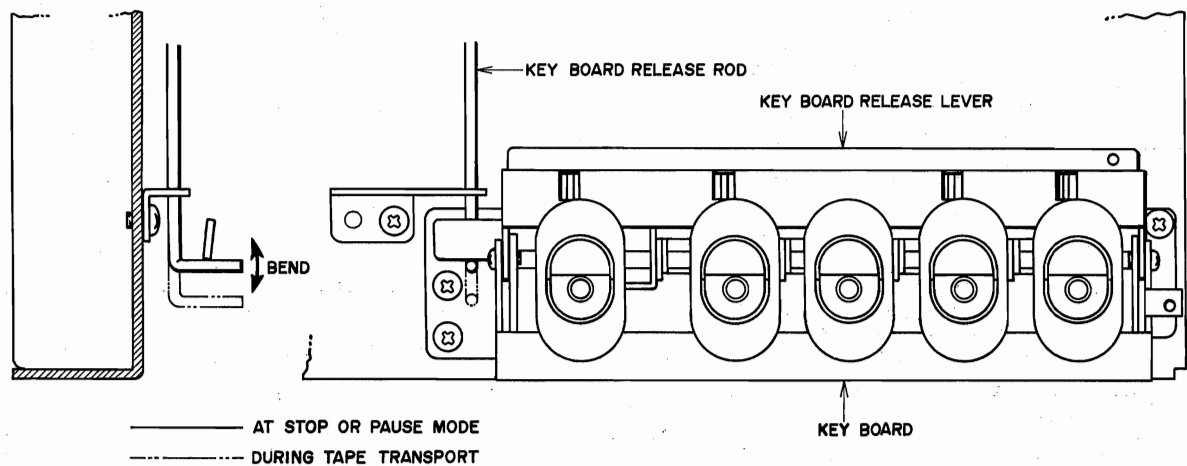


Fig. 17

### 8. SHIFT SWITCH POSITION ADJUSTMENT (Refer to Fig. 16)

As shown in Fig. 16, adjust by moving shift switch installation plate as shown by the arrow mark in figure so that when the machine is set to pause mode, the shift switch is not turned off.  
(Shift switch installation plate can be moved after loosening screws A, B)

### 9. KEYBOARD RELEASE ROD ADJUSTMENT (Refer to Fig. 17)

With the power switch turned off, adjust by bending release rod so that the keys do not lock at any mode.



# V. HEAD ADJUSTMENT

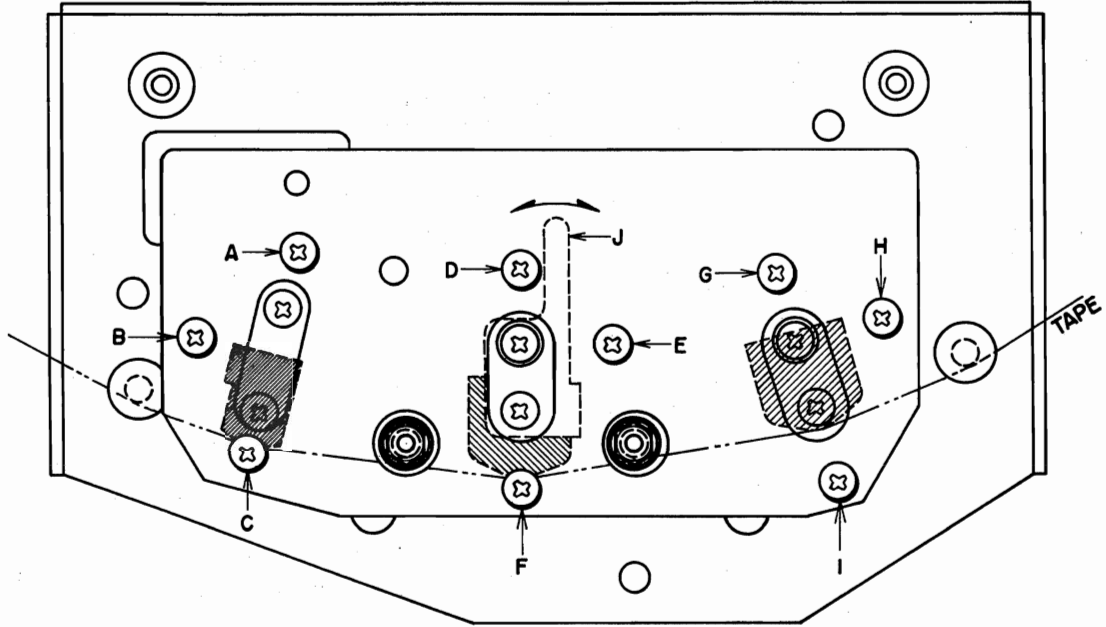


Fig. 18

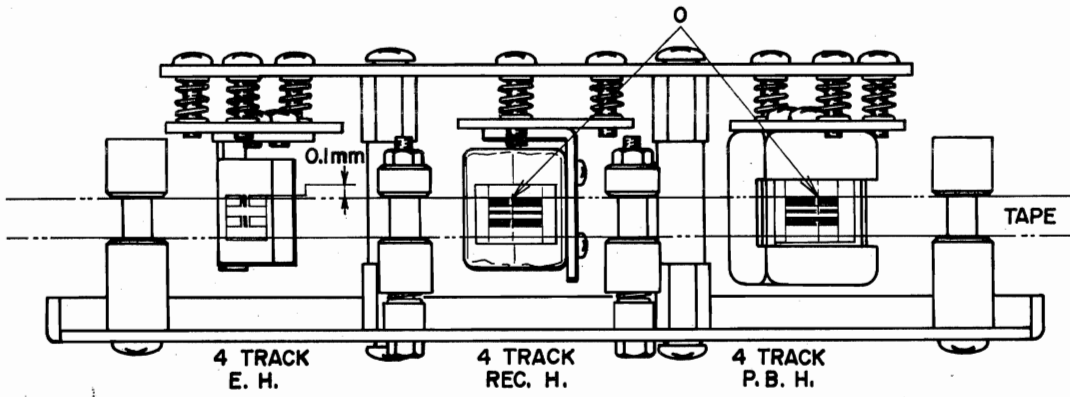


Fig. 19

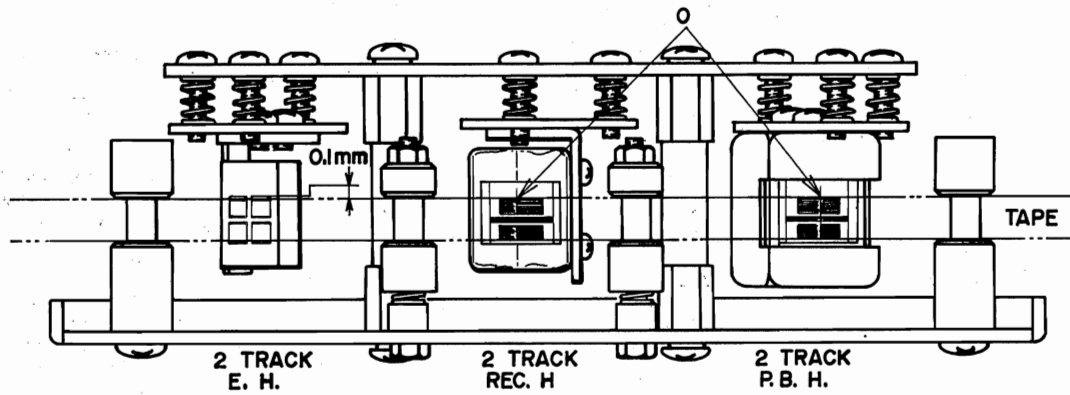


Fig. 20

**1. MODELS: GX-600D, GX-600DB**

(Refer to Figs. 18, 19)

Adjustment Item	Test Tape, Supply Signal	Measuring Instrument and connection point	Mode	Tape Speed	Adjustment Screw	Remarks
ERASE HEAD HEIGHT	Optional		FWD	Optional	(A)(B)(C)	Upper edge of Ch. 1 head core 0.1 mm higher than upper edge of tape.
RECORDING HEAD HEIGHT	Optional		FWD	Optional	(D)(E)(F)	Upper edge of Ch. 1 head core same height as upper edge of tape
PLAYBACK HEAD HEIGHT	Optional		FWD	Optional	(G)(H) (I)	Upper edge of Ch. 1 head core same height as upper edge of tape
PLAYBACK HEAD AZIMUTH ALIGNMENT	8,000 Hz. 3-3/4 ips.	High Sensitivity V.T.V.M. to Line output	FWD	7-1/2 ips. (19 cm/sec)	(H)	Maximum output on both channels
RECORDING HEAD AZIMUTH ALIGNMENT	15,000 Hz. -20 dBm	Audio Frequency Oscillator to Line input, High Sensitivity V.T.V.M. to Line output	REC	7-1/2 ips. (19 cm/sec)	(E)	Maximum output on both channels.
RECORDING HEAD TAPE CONTACT	15,000 Hz. -20 dBm	Audio Frequency Oscillator to Line input, High Sensitivity V.T.V.M. to Line output	REC	7-1/2 ips. (19 cm/sec)	(J)	No change in output when tension is applied to supply reel side

Chart 1

**2. MODEL: GX-600D · PRO**

(Refer to Figs. 18, 20)

Adjustment Item	Test Tape, Supply Signal	Measuring Instrument and connection point	Mode	Tape Speed	Adjustment Screw	Remarks
ERASE HEAD HEIGHT	Optional		FWD	Optional	(A)(B)(C)	Protruding Top & Bottom Edges of Head core Equidistant (Tape runs on exact center of Head core)
RECORDING HEAD HEIGHT	Optional		FWD	Optional	(D)(E)(F)	Upper edge of Ch. 1 head core same height as upper edge of tape
PLAYBACK HEAD HEIGHT	Optional		FWD	Optional	(G)(H)(I)	Upper edge of Ch. 1 head core same height as upper edge of tape
PLAYBACK HEAD AZIMUTH ALIGNMENT	8,000 Hz. 3-3/4 ips.	High Sensitivity V.T.V.M. to Line output	FWD	7-1/2 ips. (19 cm/sec)	(H)	Maximum output on both channels
RECORDING HEAD AZIMUTH ALIGNMENT	15,000 Hz. -20 dBm	Audio Frequency Oscillator to Line input, High Sensitivity V.T.V.M. to Line output	REC	7-1/2 ips. (19 cm/sec)	(E)	Maximum output on both channels
RECORDING HEAD TAPE CONTACT	15,000 Hz. -20 dBm	Audio Frequency Oscillator to Line input, High Sensitivity V.T.V.M. to Line output	REC	7-1/2 ips. (19 cm/sec)	(J)	No change in output when tension is applied to supply reel side.

Chart 2

## VI. AMPLIFIER SYSTEM ADJUSTMENT

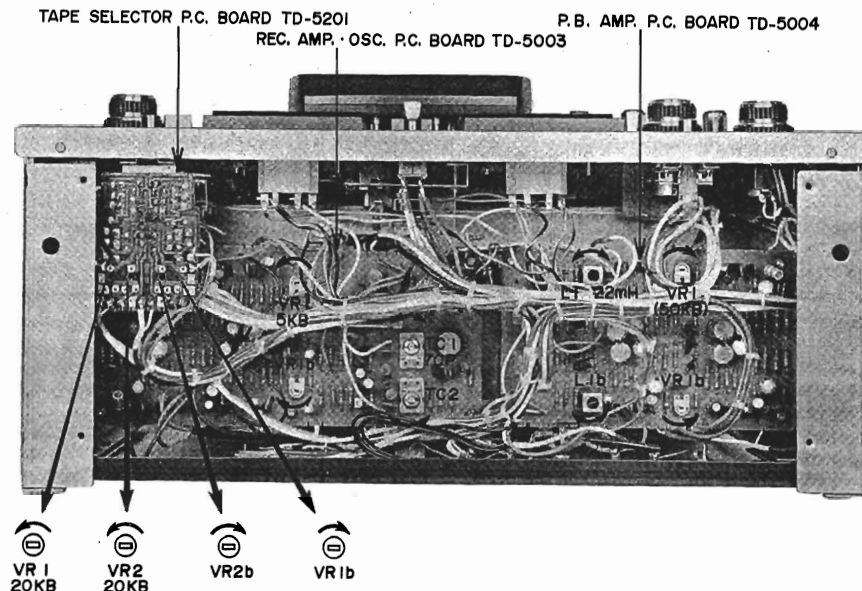


Fig. 21

### 1. PLAYBACK LEVEL ADJUSTMENT

- 1) Set Speed Selector to 7-1/2 ips. (19 cm/sec)
- 2) Set Monitor Switch to TAPE position and output volumes to maximum.
- 3) Playback a 7-1/2 ips. 700 Hz "0" VU recorded test tape.
- 4) Adjust semi-fixed resistors VR1 50 kB (left ch.) and VR1b 50 kB (right ch.) of P.B. Amp. P.C. Board (Fig. 21) to obtain a 0 dBm ("0" VU) line output level on both channels.

### 2. HIGH RANGE DEVIATION CHECK

Check to confirm that the difference in output level between left and right channel is within 3 dB when a 3-3/4 ips. 8,000 Hz ampex alignment test tape is played back at 7-1/2 ips.

If high range deviation exceeds 3 dB make head azimuth alignment adjustments again.

### 3. RECORDING LEVEL ADJUSTMENT (Models GX-600D, GX-600D · PRO only)

- 1) Set Speed Selector to 7-1/2 ips. (19 cm/sec)
- 2) Set Monitor Switch to TAPE position and output volumes to maximum.
- 3) Set Tape Selector to LOW NOISE position and load a Scotch #211 blank tape.
- 4) Set tape deck to recording mode and supply a 1,000 Hz sine wave signal to the line input from an Audio frequency oscillator.
- 5) Adjust line recording level volumes or input attenuator so that the line output level of both channels is 0 dBm ("0" VU).
- 6) Set Monitor Switch to SOURCE position.
- 7) Adjust semi-fixed resistors VR1 5 kB (left ch.) and VR1b 5 kB (right ch.) of Recording Amp. OSC., P.C. Board (Fig. 21) to obtain a 0 dBm ("0" VU) line output level on both channels.

### 4. RECORDING LEVEL ADJUSTMENT (Model GX-600DB only)

- 1) Set Speed Selector to 7-1/2 ips. (19 cm/sec)
- 2) Set Monitor Switch to SOURCE position and set output volumes to maximum.
- 3) Set Tape Selector to LOW NOISE position and load a Scotch #211 blank tape.
- 4) Supply a 1,000 Hz sine wave signal to the line input from an Audio frequency oscillator.
- 5) Adjust line recording level volume or input attenuator to obtain a 0 dBm ("0" VU) line output level on both channels.
- 6) Set Monitor Switch to TAPE position and set tape deck to recording mode.
- 7) Adjust semi-fixed resistors VR1 20 kB (left channel) and VR1b 20 kB (right channel) of tape selector P.C. Board (Fig. 21) to obtain a 0 dBm ("0" VU) line output level on both channels.

- NOTE:
- 1) In the case of wide range tape, set Tape Selector to WIDE RANGE position and use AKAI S.R.T. tape and adjust semi-fixed resistors VR2 20 kB (left ch) and VR2b 20 kB (right ch) of tape selector P.C. Board (Fig. 21) in the same way as outlined in article 4.
  - 2) In the case of Model GX-600D or GX-600D · PRO, the recording level adjustment semi-fixed resistors are on the Recording Amp. P.C. Board, and in the case of GX-600DB, the recording level adjustment semi-fixed resistors are on the tape selector P.C. Board.

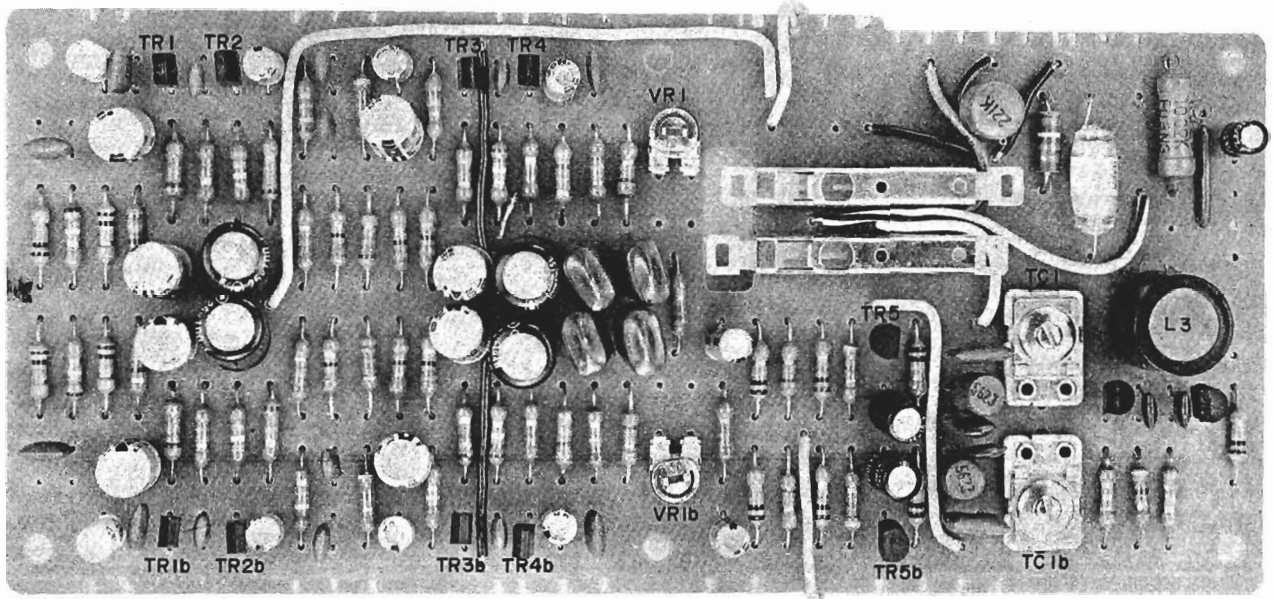


Fig. 22 REC. AMP./OSC. P.C. BOARD TD-5003 (Front Side)

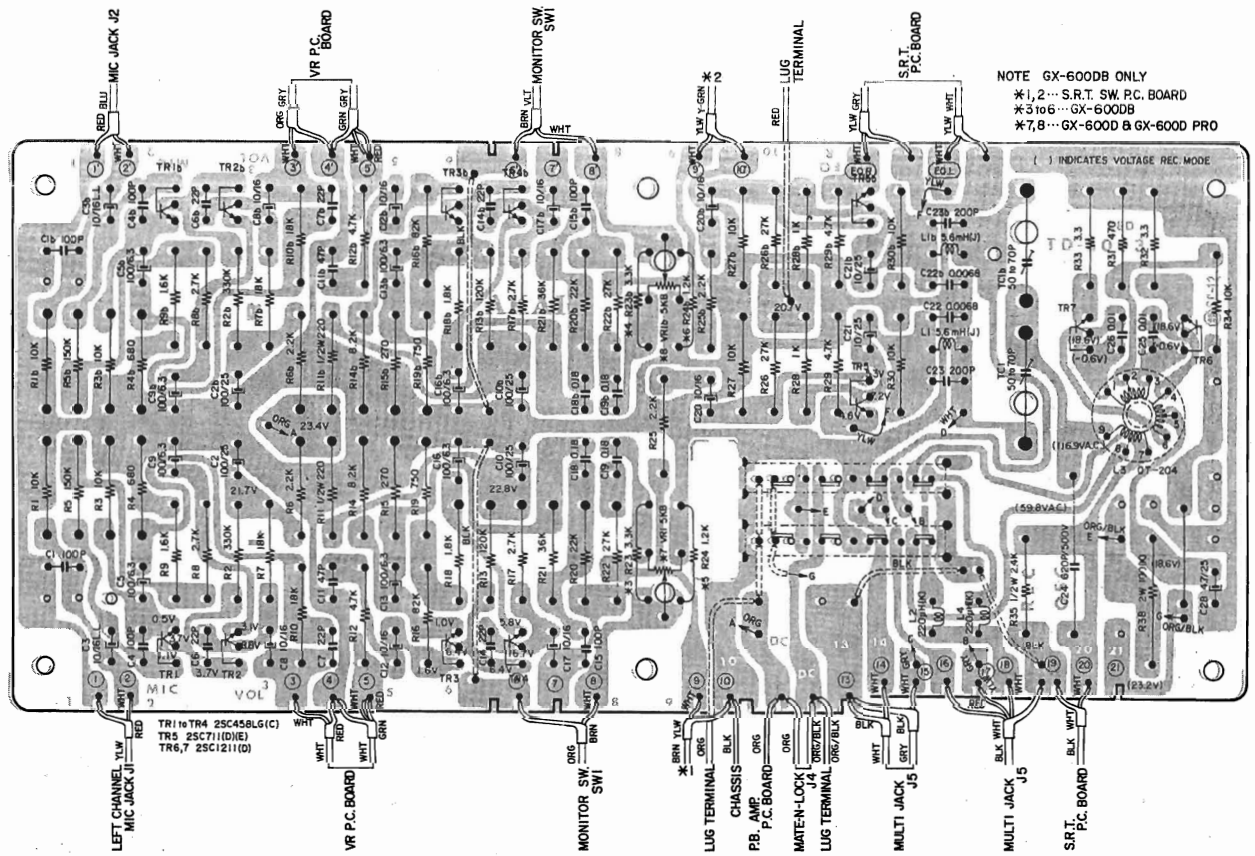


Fig. 23 REC. AMP./OSC. P.C. BOARD TD-5003 (Reverse Side)

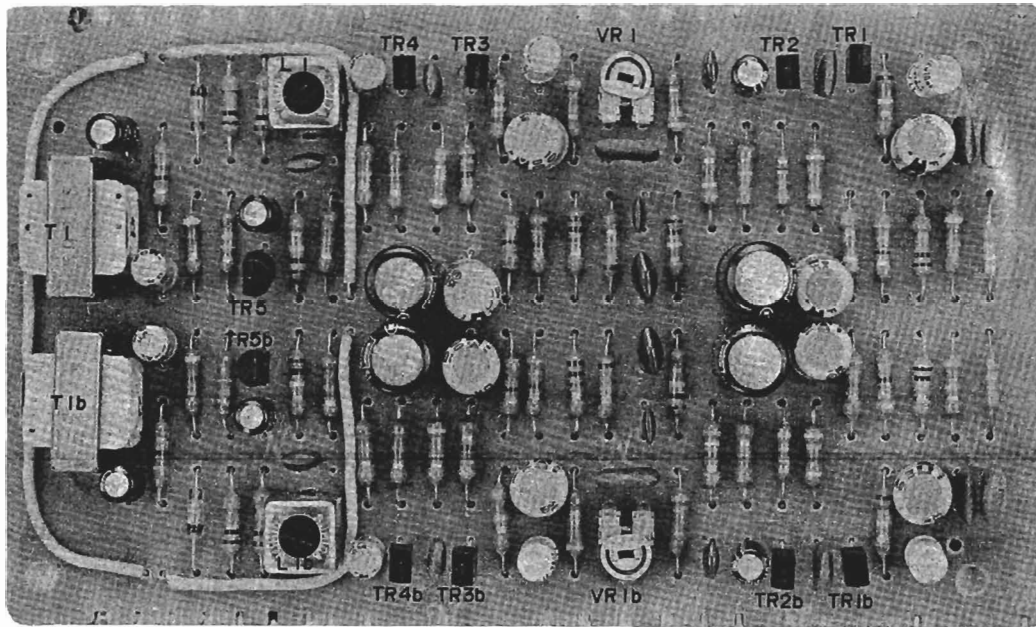


Fig. 24 PB. AMP. P.C. BOARD TD-5004 (Front Side)

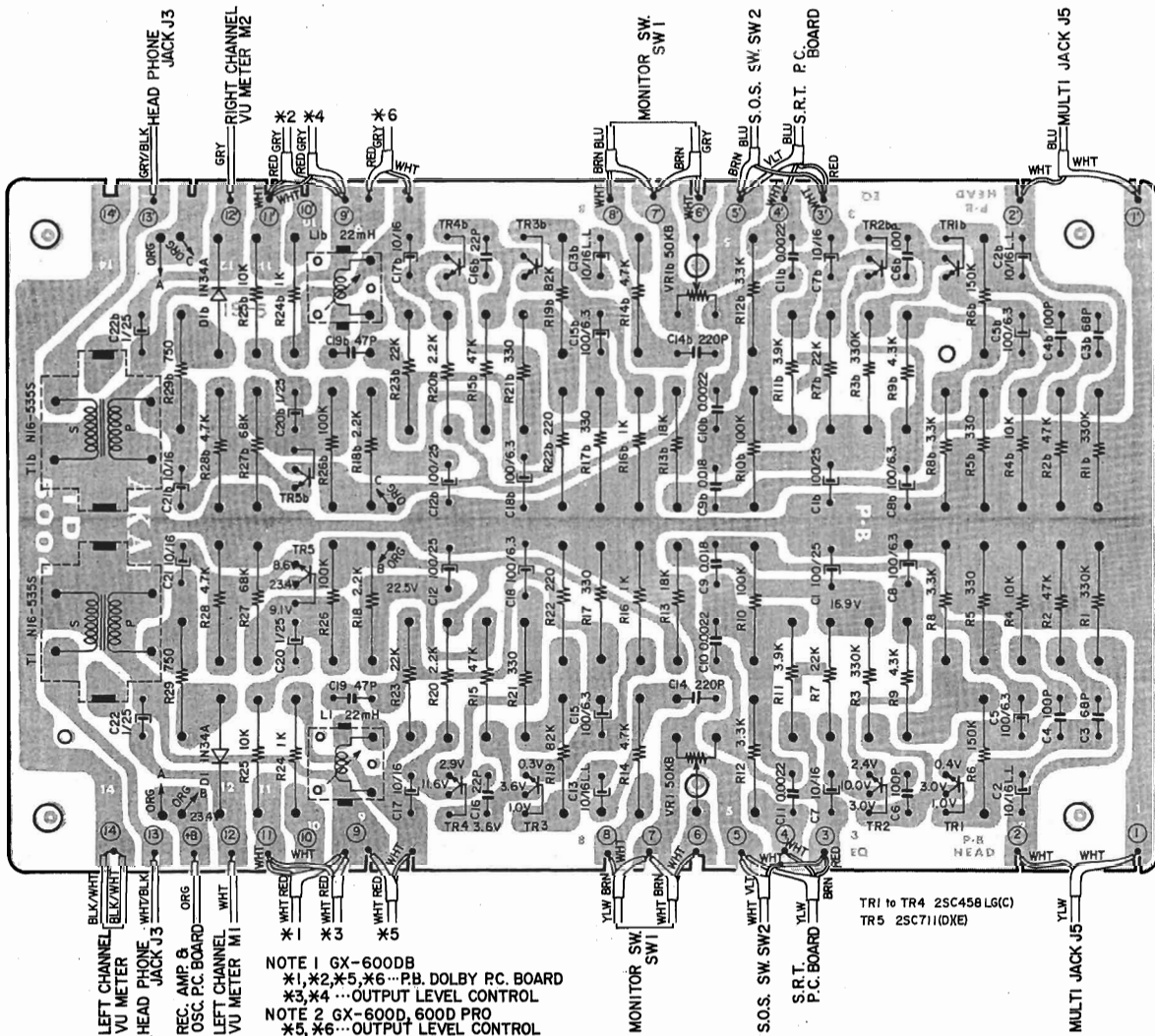


Fig. 25 PB. AMP. P.C. BOARD TD-5004 (Reverse Side)

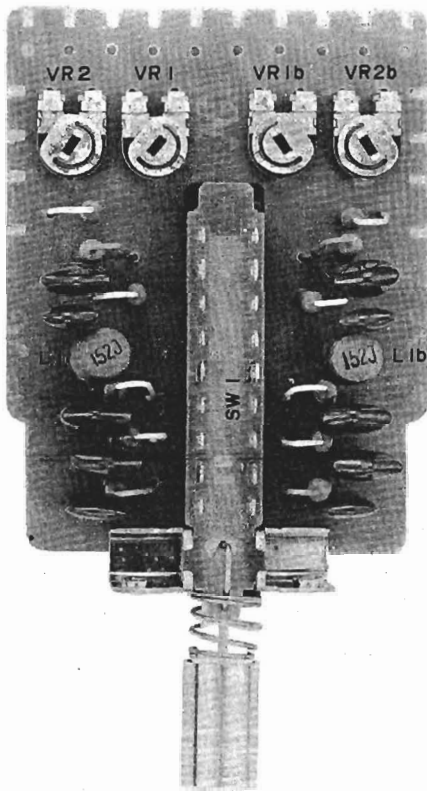


Fig. 26 TAPE SELECTOR P.C. BOARD  
TD-5201 (Front Side)

## 5. FREQUENCY RESPONSE ADJUSTMENT (Recording Bias Voltage Adjustment)

- 1) Set Speed Selector to 3-3/4 ips. (9.5 cm/sec.).
- 2) Set Monitor Switch to TAPE and set output volumes to maximum.
- 3) Set Tape Selector to LOW NOISE position and load a scotch #211 blank tape.
- 4) Set tape deck to recording mode and supply a 1,000 Hz sine wave signal to the line input from an audio frequency oscillator and adjust input attenuator to obtain a -20 dBm (-20 VU) line output level.
- 5) Switch the oscillation frequency of the audio frequency oscillator to 10,000 Hz from the condition outlined in item 5-4)
- 6) Adjust trimmer condensers TC1 70P (left ch) and TC2 70P (right ch) of Recording Amp. OSC., P.C. Board (Fig. 21) to obtain the same level on both channels at both of the two frequencies mentioned in items 5-4) and 5-5).

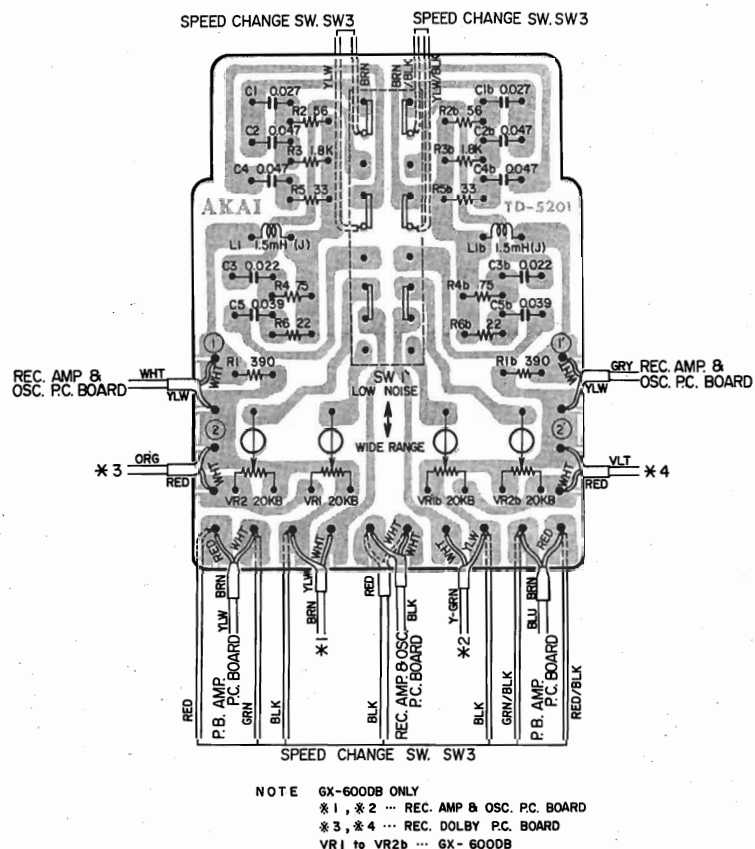


Fig. 27 TAPE SELECTOR P.C. BOARD TD-5201 (Reverse Side)

6. DOLBY N.R. AMP. P.C. BOARD ADJUSTMENT (Model GX-600DB only)

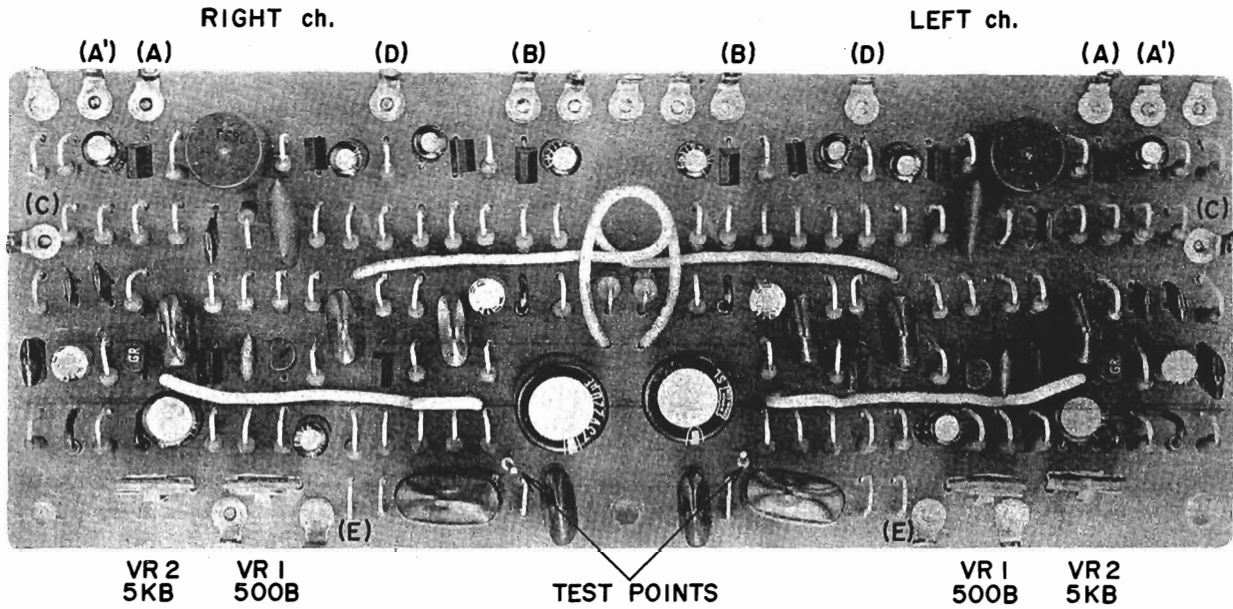


Fig. 28 DOLBY N.R. P.C. BOARD TD-5301 (Front Side)

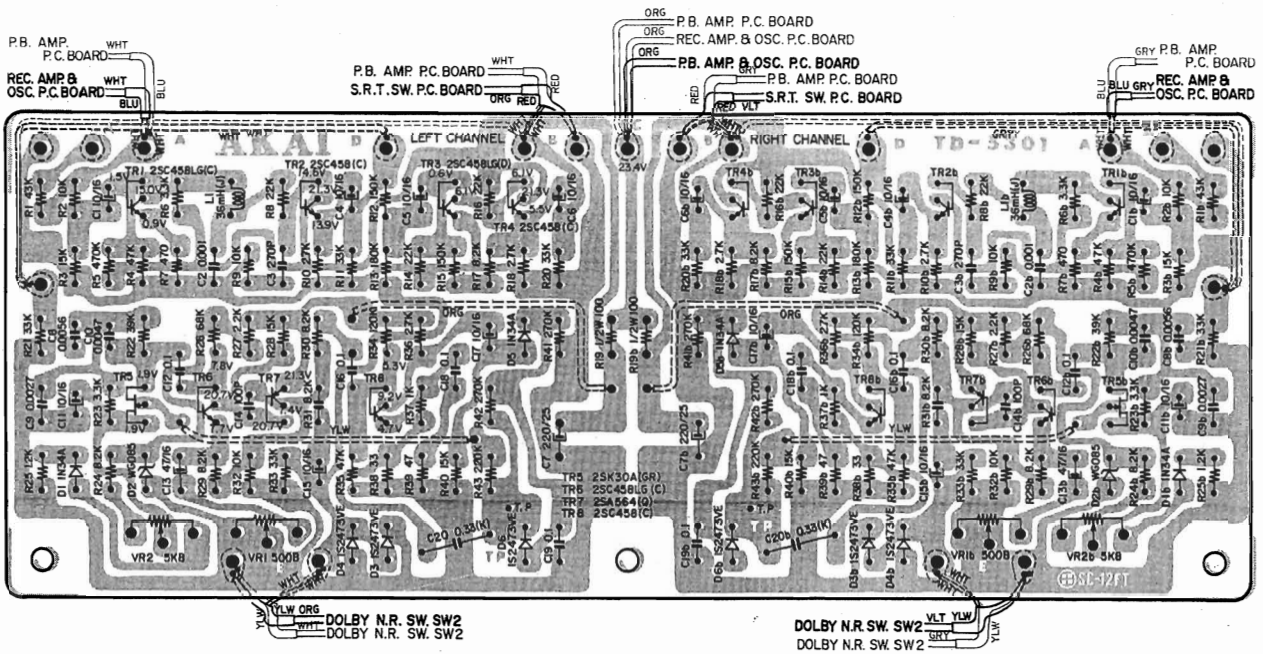


Fig. 29 DOLBY N.R. P.C. BOARD TD-5301 (Reverse Side)

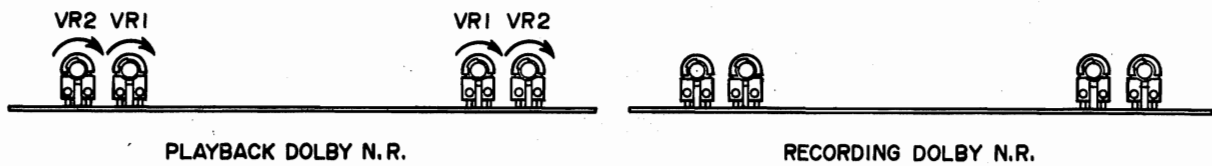


Fig. 30

---

NOTE: The same P.C. Boards are utilized for Recording Dolby NR and Playback Dolby NR. The Recording Dolby NR Amp. P.C. Board is located on the Recording Amp. OSC., P.C. Board, and the Playback Dolby NR Amp. P.C. Board is located on the Playback Amp. P.C. Board. Adjust left and right channels respectively.

2) Set Dolby Switch to ON position and at this time adjust semi-fixed resistor VR1 500B to obtain a -32.5 dB high sensitivity V.T.V.M. indication. Next, disconnect ground wire from test points and adjust semi-fixed resistor VR2 5 kB to obtain a -30.5 dB indication.

### (1) RECORDING DOLBY NR CIRCUIT ADJUSTMENT

Disconnect the wire connected to Dolby circuit input/output terminals (A) and (B). Connect an Audio frequency oscillator to terminal (A) and connect a high sensitivity V.T.V.M. to terminal (B).

- 1) Turn semi-fixed resistors VR1 500B and VR2 5 kB fully clockwise (Fig. 30).
- 2) Ground test points (Fig. 28).
- 3) Set Dolby Switch to OFF position.
- 4) Supply a 5 kHz, -10 dBm signal which has been verified with a frequency counter from the audio frequency oscillator and confirm that at this time the indication of the high sensitivity V.T.V.M. connected to terminal (B) is 0 dBm.
- 5) Next, reduce the output of the audio frequency oscillator by -30.5 dB from the condition outlined in item 1-4) (5 kHz -40.5 dB) and at this time confirm that the indication of the high sensitivity V.T.V.M. connected to terminal (B) is -30.5 dB.
- 6) Set the Dolby Switch to ON position and adjust semi-fixed resistor VR1 500B to obtain a -20.5 dB indication on the high sensitivity V.T.V.M. connected to terminal (B).
- 7) Next, disconnect ground wire from test points (grounded in item 1-2) and at this time adjust semi-fixed resistor VR2 5 kB to obtain a -22.5 dB indication on the high sensitivity V.T.V.M. connected to terminal (B).

### (2) PLAYBACK DOLBY NR CIRCUIT ADJUSTMENT

This adjustment is carried out in essentially the same way as the Recording Dolby Circuit adjustment. Disconnect the wire connected to input/output terminals (A) and (B), connect an audio frequency oscillator to terminal (A), and connect a high sensitivity V.T.V.M. to terminal (B). Turn semi-fixed resistors VR1 500 B and VR2 5 kB fully clockwise, and ground test points.

- 1) Set Dolby Switch to OFF position and supply a 5 kHz, -10 dBm signal which has been verified with a frequency counter from the Audio frequency oscillator. Confirm that the high sensitivity V.T.V.M. indication at this time is 0 dBm. Next, lower the oscillator output by -22.5 dB and confirm that the high sensitivity V.T.V.M. indication is -22.5 dB.



# VII. OPERATING PRINCIPALS OF DOLBY NR CIRCUIT

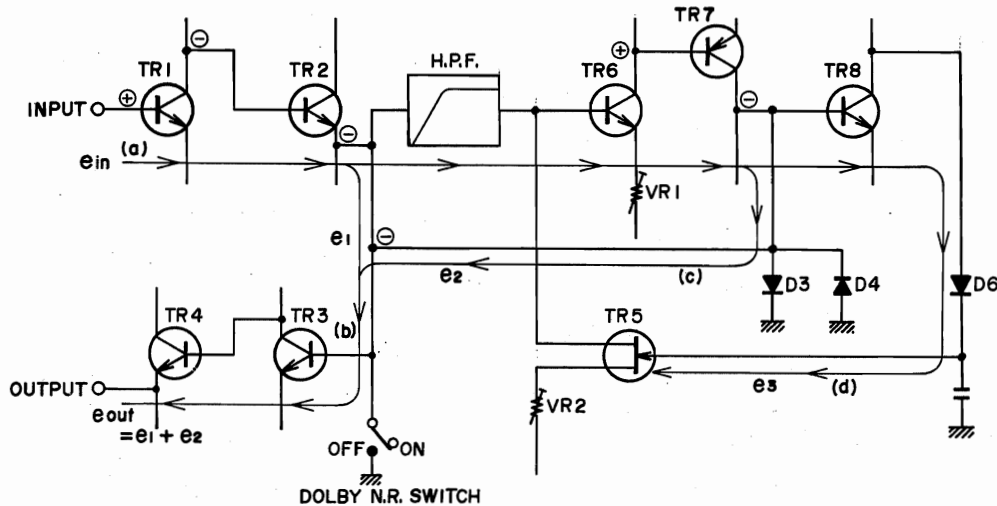


Fig. 31 Recording Dolby NR diagram

Where 1 is the determined attenuated volume by means of Diode D3, D4 characteristics, if

A.K · 1 = m, formula (1) becomes as shown in formula (2) below:

$$e_2 = m_e \dots\dots (2)$$

Because  $e_2$  of formula (2) and TR2 output signal  $e_1$  is composited, this output signal  $e_{out}$  becomes as shown in formula (3) below:

$$e_{out} = e_1 + e_2 = e_1 + m_e \dots\dots (3)$$

In formula (3) above, the relation of  $e_1$  and  $m_e$  with regards to the Dolby NR System, is the relation between  $e_{out}$  and  $e_1$ , i.e., the value of  $e_{out}$  is 10 dB higher than  $e_1$ . For this reason, at a level of -30 dB lower than the Dolby level, the output signal is 10 dB higher than the more than 400 Hz input signal  $e_{in}$ .

Also, if the input signal  $e_{in}$  level is high, it is amplified at TR6, current modified at diode D5, and the D.C. voltage at (d) point is also large in proportion to input.

Accordingly, if  $e_3$  becomes large, FET TR5 impedance is reduced and (c) point signal level  $e_2$  gradually becomes smaller. Thus at a level higher than the Dolby level, formula (4) below is applicable:

$$E_{out} = e_1 + m_e = e \dots\dots (4)$$

$$\therefore e \gg m_e$$

Consequently, the input and output levels display linear characteristics.

NOTE: H.P.F. (high pass filter)

This filter attenuates an under 400 Hz signal at 18 dB octave.

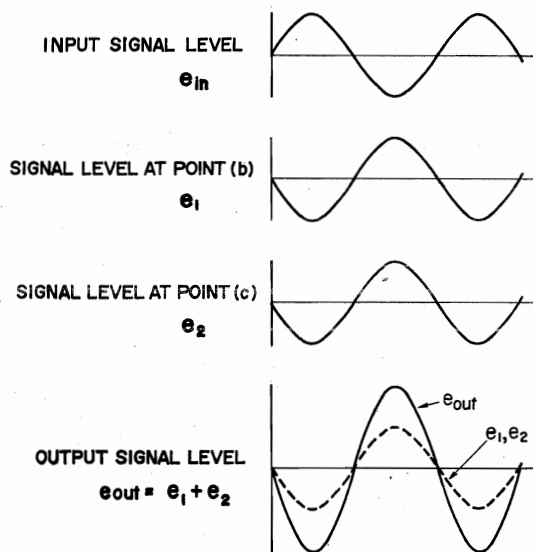


Fig. 32 Level and Phase of each point at individual frequency.

## 1. RECORDING DOLBY NR (Figs. 31, 32)

In figure 31, the Input Signal  $e_{in}$  passes TR1 ~ TR4 and becomes the output signal. The signal from TR2 passes the High Pass Filter (H.P.F.) and is amplified at TR6, TR7. At this time, TR6 signal is controlled by FET (field effect transistor) TR5 gate D.C. bias and the signal from TR7 is varied by means of Diodes D3, D4 characteristics and is emitted as  $e_2$ . This output signal  $e_2$  is inphased with TR2 output signal and TR4 output becomes the dolbyized output signal  $e_{out}$ .

Accordingly if input signal level  $e_{in}$  is small, because FET TR5 becomes an electronic attenuator with a certain impedance value, the output signal  $e_2$  from (C) point is attenuated by H.P.F. and TR5 and becomes  $e/k$ . Then it is amplified at TR6, TR7. With A representing this amplification,  $e_2$  becomes as shown in formula (1) below.

$$e_2 = e/k \cdot A \cdot 1 \dots\dots (1)$$

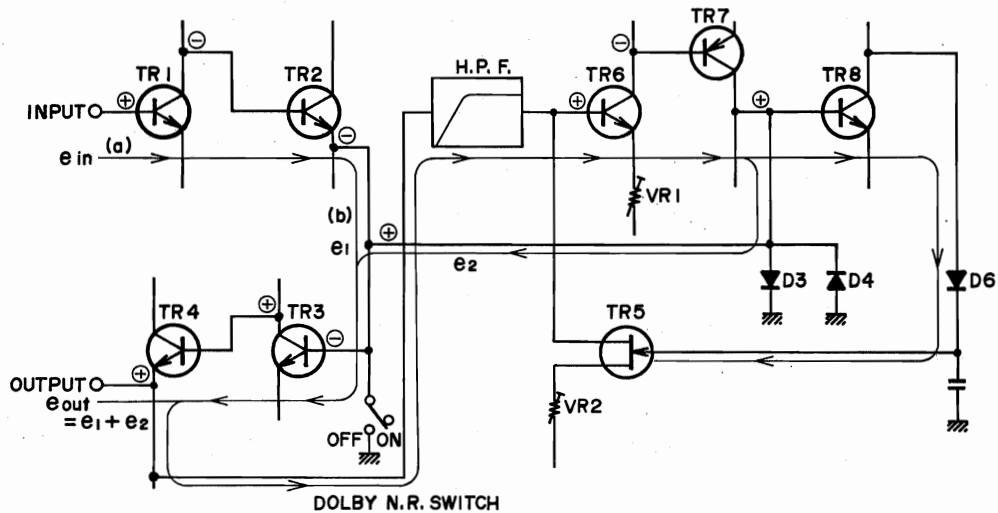


Fig. 33 Playback Dolby NR Diagram

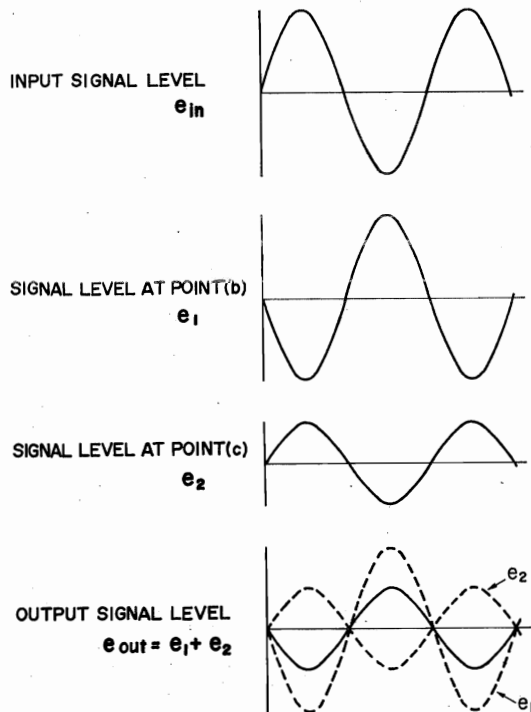


Fig. 34 Level and phase of each point at individual frequency

## 2. PLAYBACK DOLBY NR (Figs. 33, 34)

In Fig. 33, input signal  $e_{in}$  passes TR1 ~ TR4 and becomes the output signal. The signal from TR4 passes H.P.F. and is amplified at TR6, TR7. At this time TR5 signal is controlled by the gate D.C. bias of FET TR5, and TR7 signal is varied by the characteristics of diodes D3, D4 and is emitted as  $e_2$ . This output signal  $e_2$  is added as the reverse phase of TR2 output signal and the Dolbyized output signal  $e_{out}$  is emitted.

Therefore, the procedure is the same as Recording Dolby NR except that the signal is reverse phased (formula (3))

$$e_o = e + (-e_2) = e + (-m_e)$$

and thus, becomes the exact opposite of Recording Dolby NR.

## VIII. DC RESISTANCE OF VARIOUS COILS

The values shown in this chart are average D.C. resistance values.

Designation	Type	D.C. Resistance
CAPSTAN MOTOR	HM2-16MC	Between PNK-RED 130Ω Between PNK-BRN 180Ω Between GRN-GRY 360Ω Between GRN-YLW 370Ω
REEL MOTOR	24XD-TD	Between RED-BLU 72Ω Between YLW-GRN 160Ω
BRAKE SOLENOID	SDC1064 PHT 48V	300Ω
PINCH WHEEL SOLENOID	1660 THT 3	685Ω
QUICK TENSION RELAY	MY-4-0-US-AD4 D.C.24V	650Ω
HEADPHONE OUTPUT TRANSFORMER	N16-535S	Primary 565Ω±15% Secondary 0.95Ω±15%
OSCILLATOR COIL	OT-204	Between 1 ~ 3 0.3Ω Between 4 ~ 6 0.7Ω Between 7 ~ 9 8.2Ω
4 TRACK ERASE HEAD	E4-260	2.0Ω
FULL TRACK ERASE HEAD	E2-100	2.5Ω
4 TRACK RECORDING HEAD	R4-200	8Ω
2 TRACK RECORDING HEAD	R2-100	8Ω
4 TRACK PLAYBACK HEAD	P4-202	268Ω
2 TRACK PLAYBACK HEAD	P2-100	250Ω

Chart 3

# IX. TRANSPORT MECHANISM

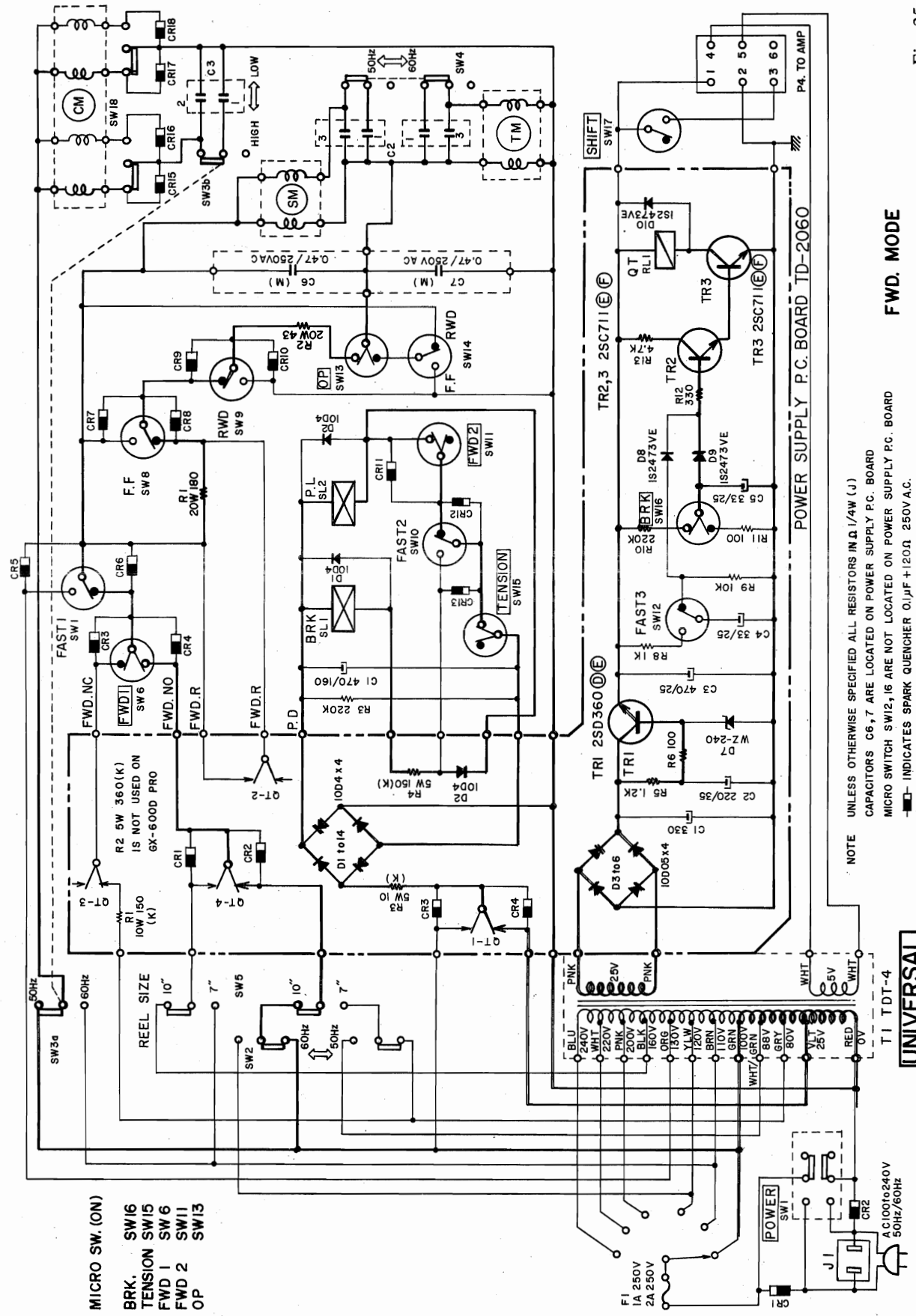


Fig. 35

FWD. MODE

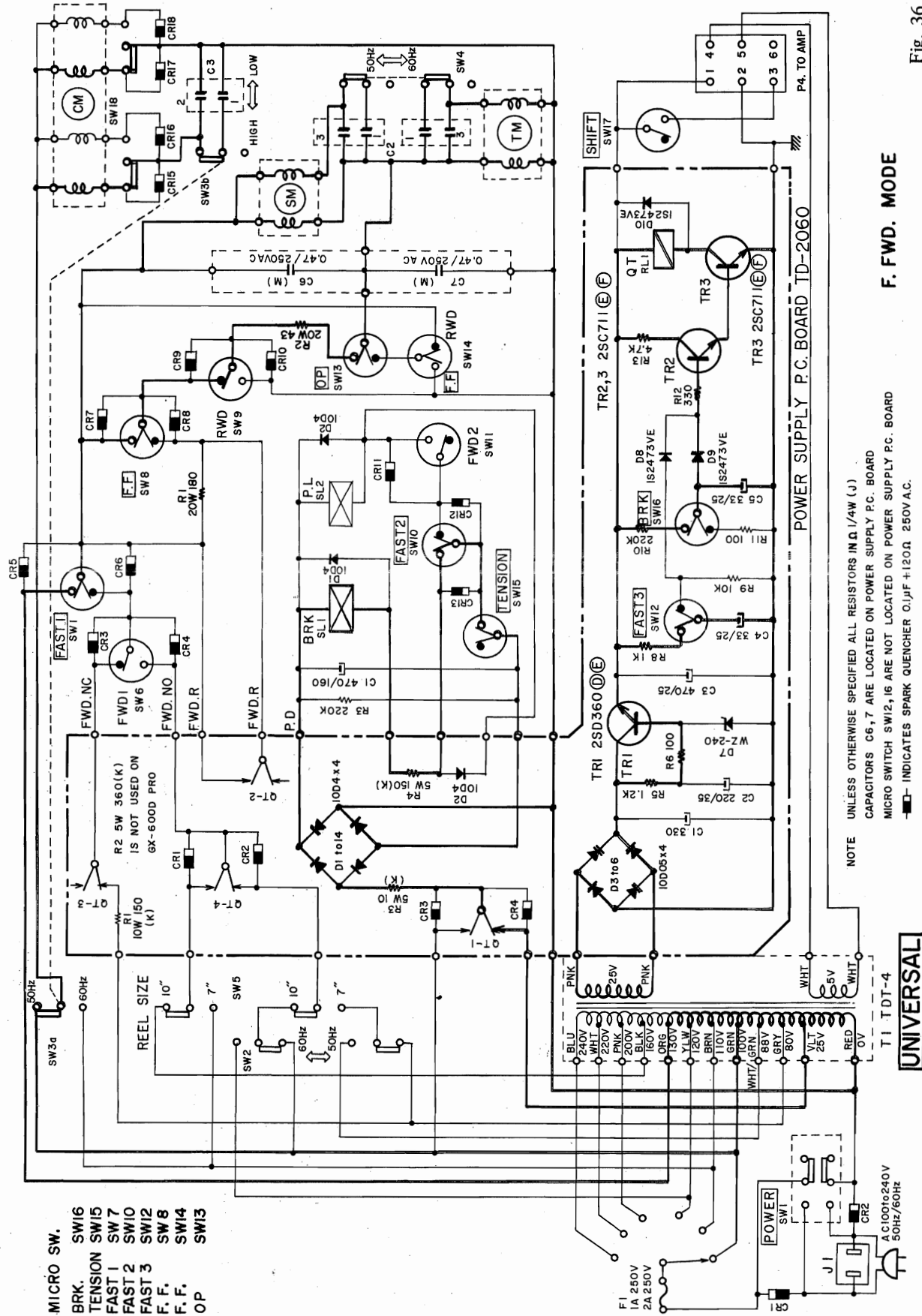
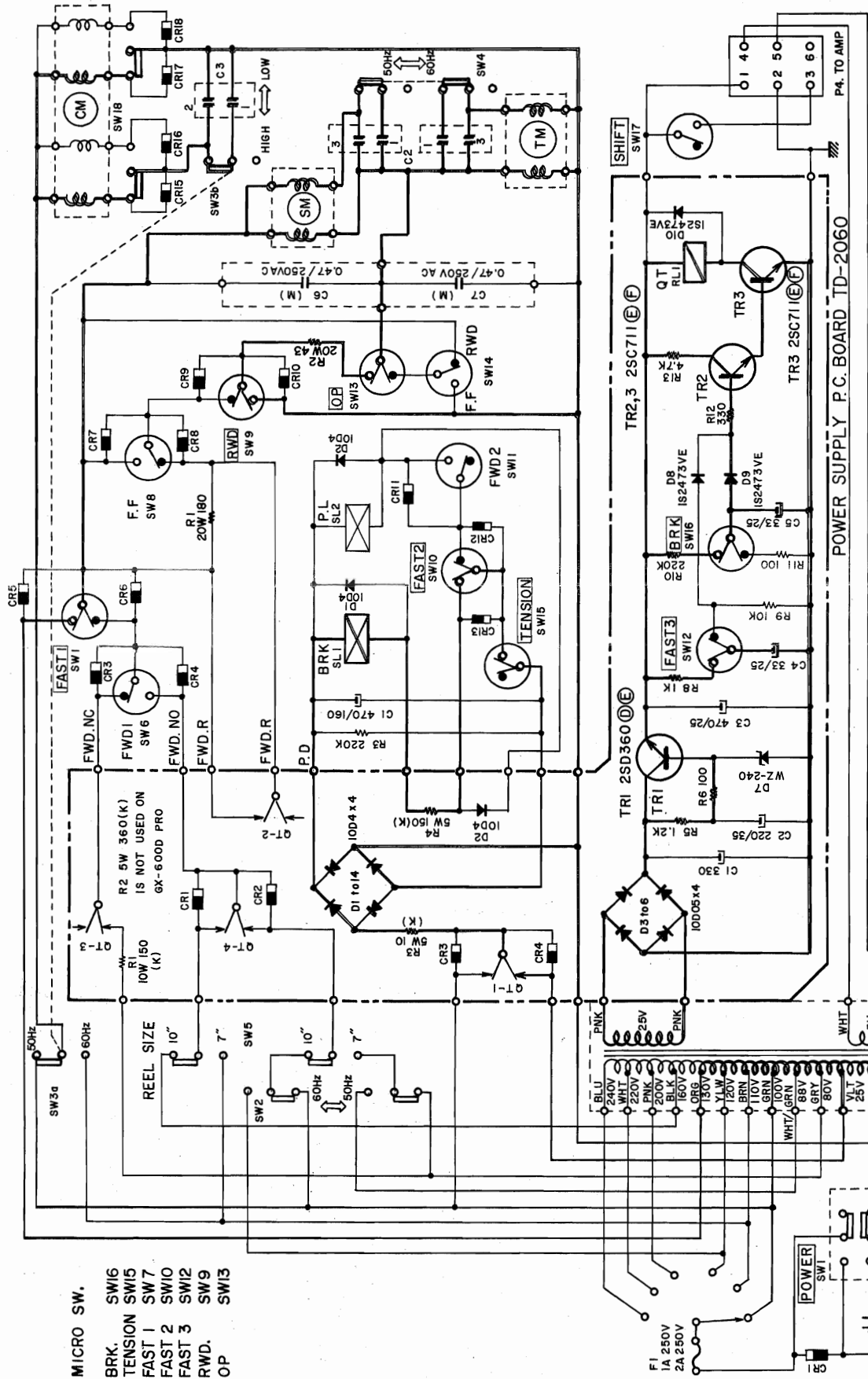


Fig. 36



MICRO SW.  
 BRK. SW16  
 TENSION SW15  
 FAST 1 SW7  
 FAST 2 SW10  
 FAST 3 SW12  
 RWD. SW9  
 OP SW13

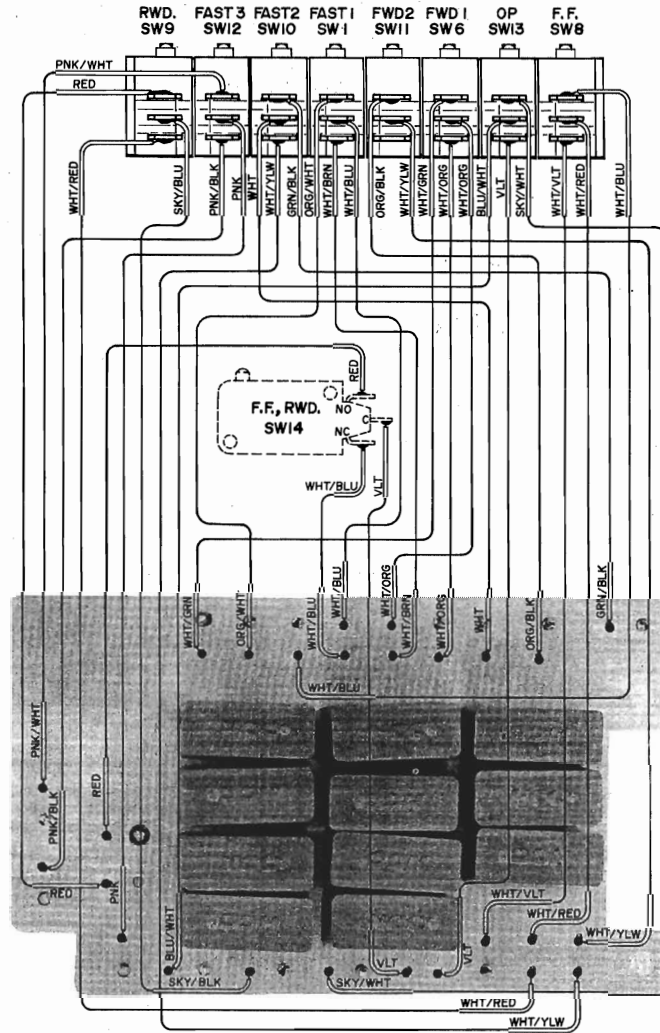
NOTE  
 UNLESS OTHERWISE SPECIFIED ALL RESISTORS IN Ω I/4W (J)  
 CAPACITORS C6,7 ARE LOCATED ON POWER SUPPLY P.C. BOARD  
 MICRO SWITCH SW12, 16 ARE NOT LOCATED ON POWER SUPPLY P.C. BOARD  
 —□— INDICATES SPARK QUENCHER 0J1F +120Ω 250V AC.

UNIVERSAL

Fig. 37

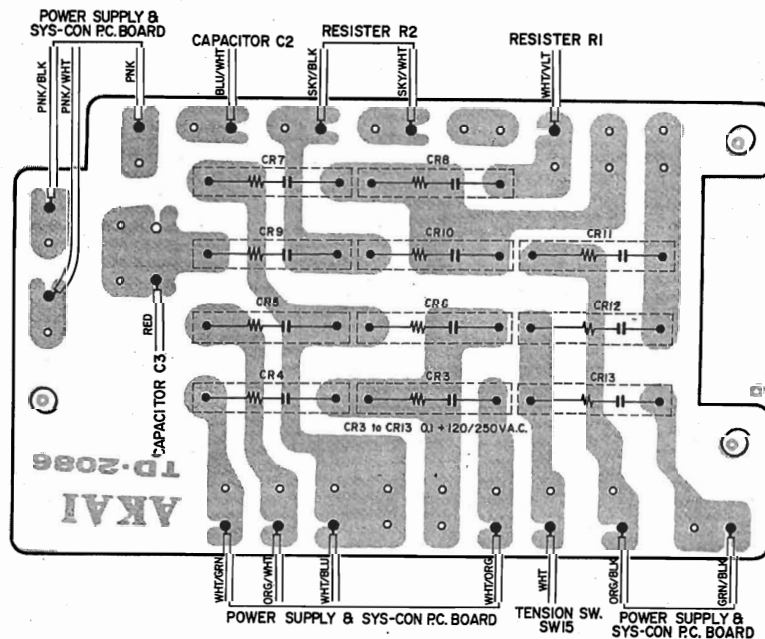
# X. COMPOSITE VIEWS OF COMPONENTS

## 1. SPARK QUENCHER P.C. BOARD (A) TD-2086 (Front Side)

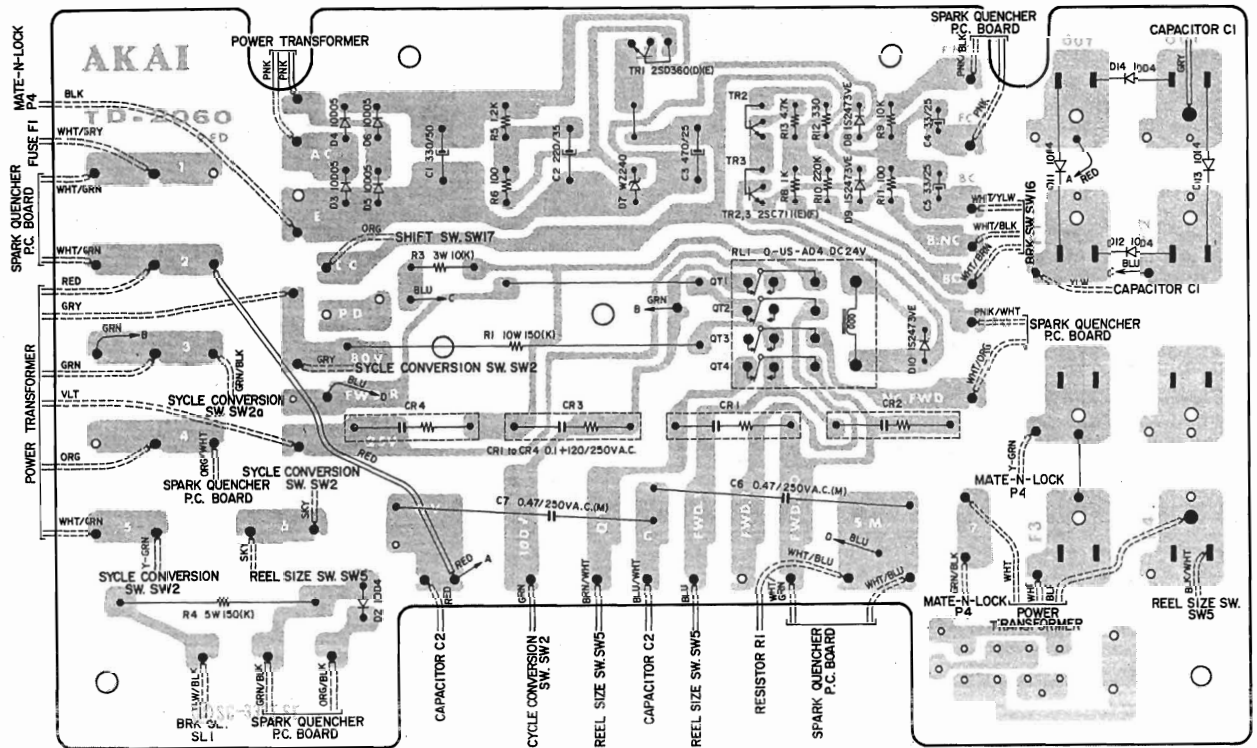


SPARK QUENCHER P.C. BOARD TD-2086 (FACE)

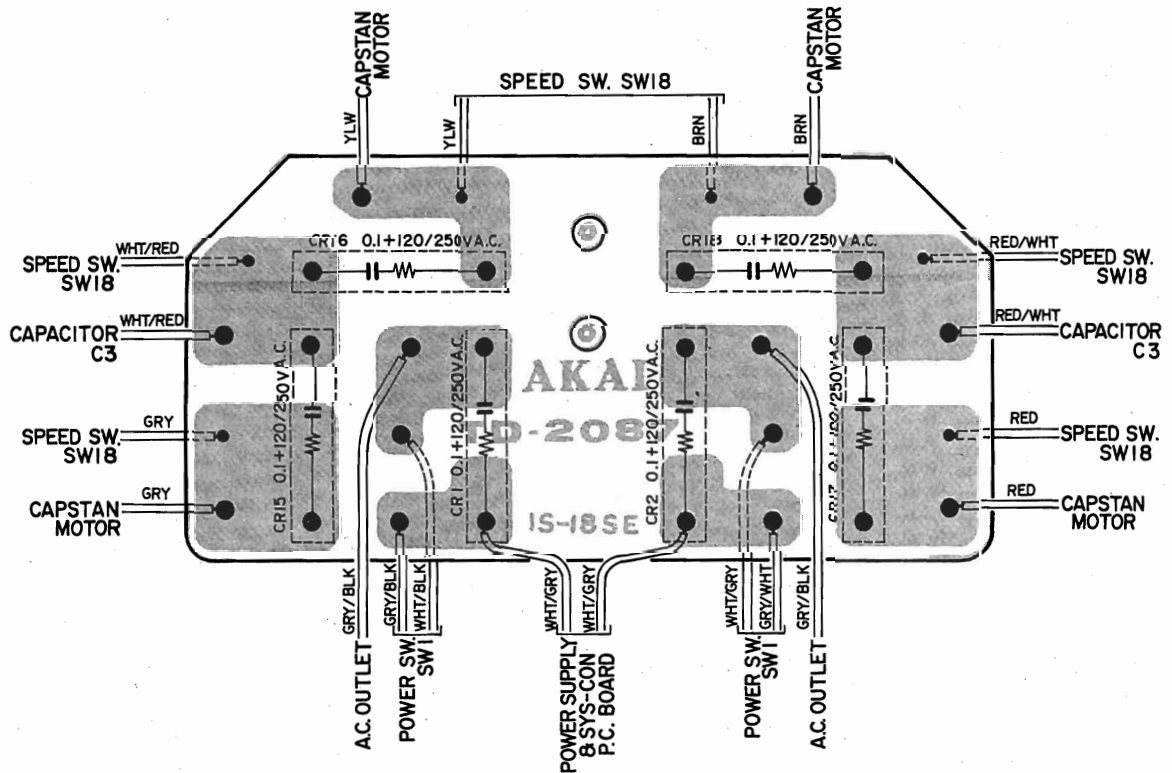
## 2. SPARK QUENCHER P.C. BOARD (A) TD-2086 (Reverse Side)



3. POWER SUPPLY & SYS. CON. P.C. BOARD TD-2060

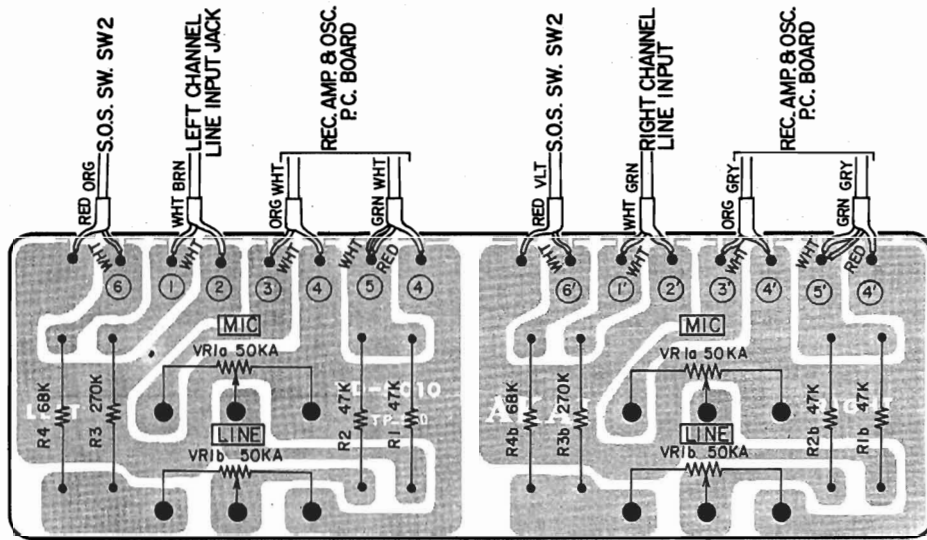


4. SPARK QUENCHER P.C. BOARD (B) TD-2087

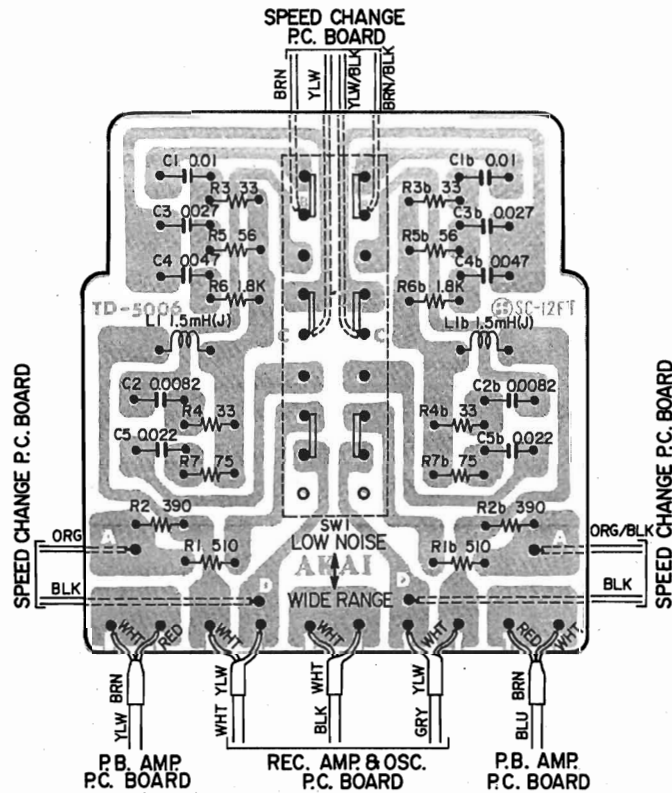




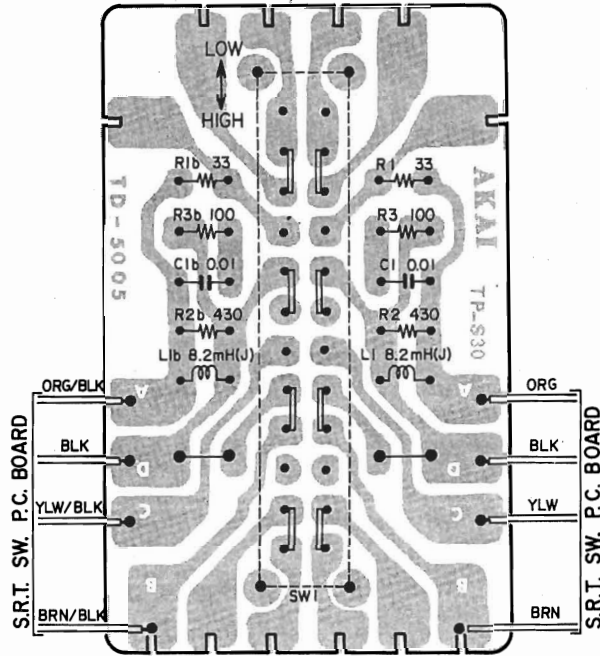
5. VOLUME P.C. BOARD TD-5010



6. SRT SW. P.C. BOARD TD-5006



7. SPEED CHANGE P.C. BOARD TD-5005



---

SECTION 2

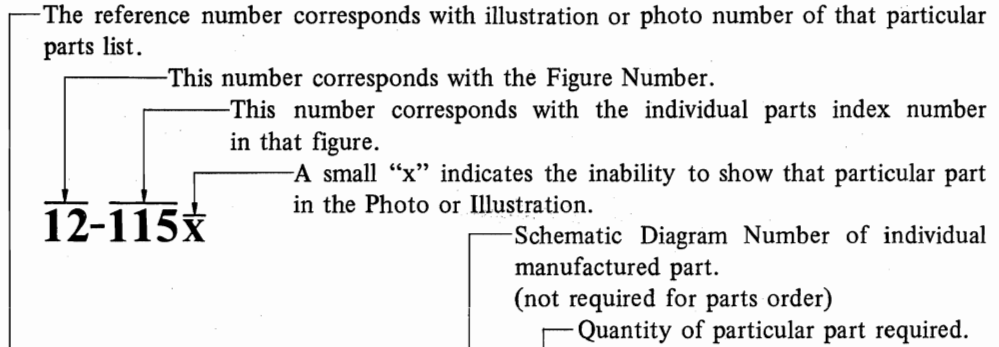
**PARTS LIST**

TABLE OF CONTENTS

FIG. 1	TD HEAD BLOCK .....	38
FIG. 2	MAIN MOTOR BLOCK .....	40
FIG. 3	REEL MOTOR/REEL TABLE BLOCK .....	41
FIG. 4	FLYWHEEL BLOCK .....	43
FIG. 5	IMPEDANCE ROLLER BLOCK .....	44
FIG. 6	TENSION ARM BLOCK .....	46
FIG. 7	LEVER SW. BLOCK .....	47
FIG. 8	OPERATION BLOCK .....	48
FIG. 9	POWER SUPPLY BLOCK .....	50
FIG. 10	MECHANISM ASSEMBLY BLOCK .....	53
FIG. 11	AMPLIFIER ASSEMBLY BLOCK .....	54
FIG. 12	P.B. P.C. BOARD (TD-5004) BLOCK .....	56
FIG. 13	REC. & OSC. P.C. BOARD (TD-5003) BLOCK .....	57
FIG. 14	DOLBY P.C. BOARD (TD-5301) BLOCK .....	58
FIG. 15	POWER SUPPLY P.C. BOARD (TD-2060) BLOCK .....	59
FIG. 16	SPEED CHANGE/SRT P.C. BLOCK .....	60
FIG. 17	SPEED CHANGE/SRT P.C. BLOCK (PRO) .....	61
FIG. 18	SPARK QUENCHER P.C. BOARD (A) (TD-2086) BLOCK .....	62
FIG. 19	FINAL ASSEMBLY BLOCK .....	63
INDEX .....		65

## 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.



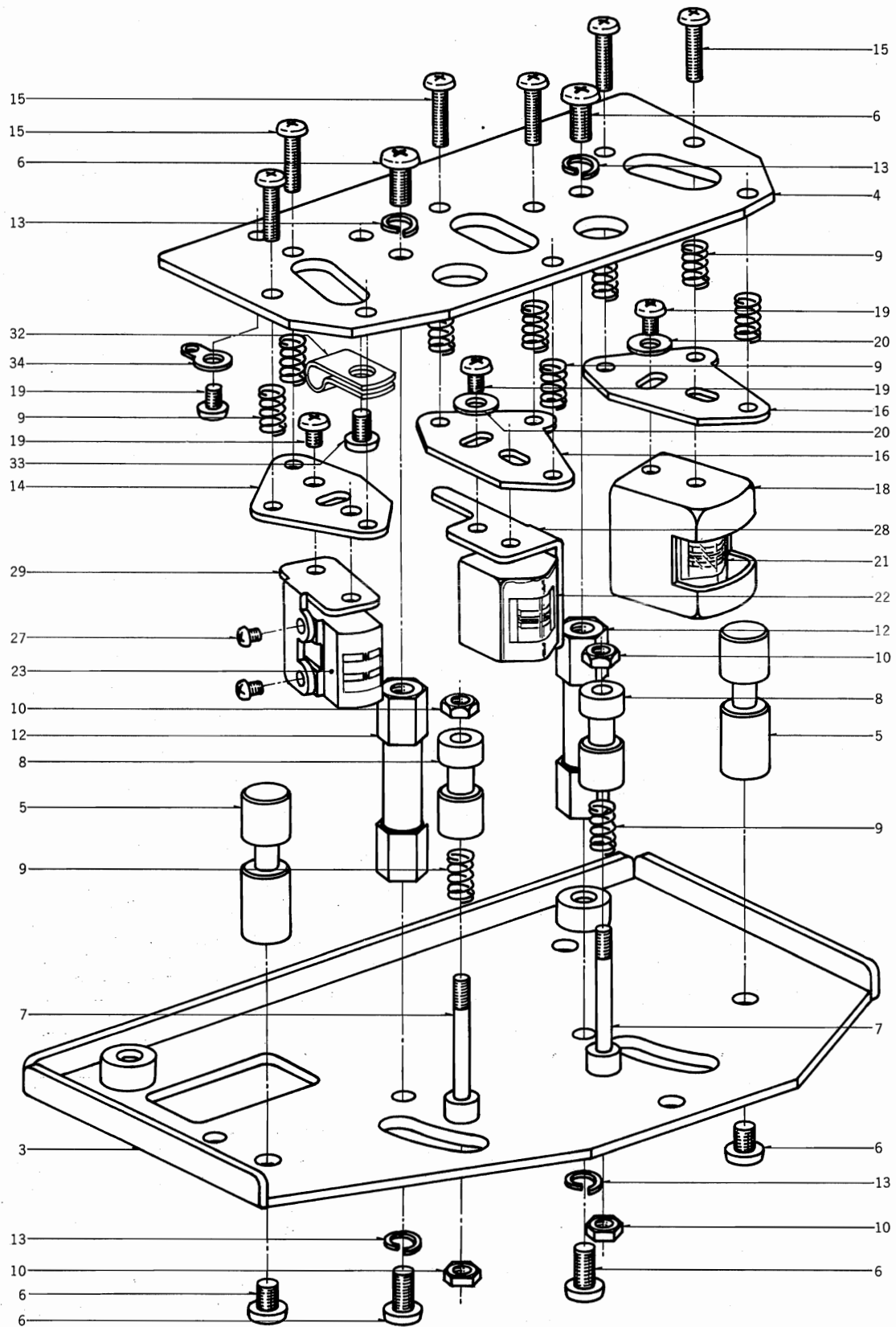
Ref. No.	Parts No.	Description	Schematic No.	Q'ty
<b>FLYWHEEL BLOCK #13</b>				
12-115x	800425	Flywheel Block Assy. Comp.	RDG #13	1
12-116	244506	Flywheel Only	RD-233	1
12-117x	244754	Felt, Flywheel	RD-275	1
12-118	251324	Main Metal Case	RD-236	1
12-119	253080	Main Metal	RD-237	1

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 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 TABLE

<p>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 style="text-align: center;">1</p>  <p style="text-align: center;">Solid Resistor</p>	<p style="text-align: center;">2</p> <p style="text-align: right;">Stopper Type</p>  <p style="text-align: center;">Insulator Type</p> <p style="text-align: center;">Carbon Resistor</p>	<p style="text-align: center;">3</p>  <p style="text-align: center;">Metal Oxide Film Resistor</p>
<p style="text-align: center;">4</p>  <p style="text-align: center;">Cement Resistor</p>	<p style="text-align: center;">5</p>  <p style="text-align: center;">Wire-Wound Resistor</p>	<p style="text-align: center;">6</p>  <p style="text-align: center;">Thermister</p>	<p style="text-align: center;">7</p>  <p style="text-align: center;">Enamel Resistor</p>
<p style="text-align: center;">1</p>  <p style="text-align: center;">MP Capacitor (Tubular Type)</p>	<p style="text-align: center;">2</p>  <p style="text-align: center;">Plastic Capacitor</p>	<p style="text-align: center;">3</p>  <p style="text-align: center;">Mylar Capacitor</p>	<p style="text-align: center;">4</p>  <p style="text-align: center;">VFM (Hi-Q) Capacitor</p>
<p style="text-align: center;">5</p>  <p style="text-align: center;">Mylar Capacitor</p>	<p style="text-align: center;">6</p>  <p style="text-align: center;">Tantalum Capacitor</p>	<p style="text-align: center;">7</p>  <p style="text-align: center;">Oil Capacitor (Tubular Type)</p>	<p style="text-align: center;">8</p> <p style="text-align: right;">Vertical Type</p> <p style="text-align: left;">(Tubular Type)</p>  <p style="text-align: center;">Styrol Capacitor</p>
<p style="text-align: center;">9</p>  <p style="text-align: center;">Electrolytic Capacitor (Tubular Type)</p>	<p style="text-align: center;">10</p> <p style="text-align: right;">Vertical Type</p> <p style="text-align: left;">(Tubular Type)</p>  <p style="text-align: center;">Electrolytic Capacitor</p>	<p style="text-align: center;">11</p>  <p style="text-align: center;">Ceramic Capacitor</p>	<p style="text-align: center;">12</p>  <p style="text-align: center;">Metalized Mylar (Paper) Capacitor</p>
<p style="text-align: center;">13</p>  <p style="text-align: center;">Trimmer Condenser</p>		<p style="text-align: center;">VR</p>  <p style="text-align: center;">Semi-Fixed Volume</p>	
<p style="text-align: center;">L</p>  <p style="text-align: center;">Ferri Inductor</p>	<p style="text-align: center;">TR</p>  <p style="text-align: center;">Transistor</p>		
<p style="text-align: center;">CR</p>  <p style="text-align: center;">Spark Quencher</p>	<p style="text-align: center;">D</p>  <p style="text-align: center;">Diode (Silicon, Zener, Germanium)</p>		

FIG. 1 ILLUSTRATION OF TD HEAD BLOCK



## TD HEAD BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
1-1x	BH587777	TDHead Block Comp.	TD-1,3	1
1-2x	BH587788	TD Head Block Comp. (PRO)	TD-2	1
1-3	HZ581106	Head Base A, w/prop	TD-0001	1
1-4	HZ581117	Head Base B	TD-0004	1
1-5	HZ803597	Tape Guide A	RD-3	1
1-6	ZS537006	Screw, binding head 4x8		6
1-7	MH578957	Tape Guide Prop	TD-0003	2
1-8	HZ532710	Tape Guide B	TW-0006	2
1-9	ZG466312	Angle Adjust Spring E	BS-0018	11
1-10	ZW273835	Nut M3		4
1-11x	ZW273745	Spring Washer M3		2
1-12	MH529233	Head Base Prop B	ND-0017	2
1-13	ZW273914	Spring Washer M4		4
1-14	HZ532732	CH Retaining Base	TW-0008	1
1-15	ZS562432	Screw, binding head 3x13		9
1-16	HZ532765	PH Retaining Base	TW-0010	2
1-17x	ZG540584	Angle Adjust Spring G (PRO)	TW-0025	3
1-18	HZ532776	Shield Case	TW-0011	1
1-19	ZS396000	Screw, binding head 3x4		7
1-20	ZW413256	Washer (SPC) D3.4x7.8x0.5t		2
1-21	HP536501	P.B. HEAD BLOCK P4-202		1
1-22	HR384513	REC HEAD R4-200		1
1-23	HE563220	ERASE HEAD BLOCK		1
		E4-260		1
1-24x	HP552205	P.B. HEAD P2-100 (PRO)		1
1-25x	HR552216	REC. HEAD R2-100 (PRO)		1
1-26x	HE587790	ERASE HEAD E2-100 (PRO)		1
1-27	ZS394525	Screw, binding head 2x3		4
1-28	HA533597	RH Angle	TW-0201	1
1-29	HA533608	EH Angle	TW-0202	1
1-30x	ZS460438	Screw, binding head 2x3		2
1-31x	EA382713	Head Connector P.C. Board	RD-A8	1
1-32	EJ315101	Nylon Clip HP-4N	2-7-38	1
1-33	ZS355511	Screw, binding head 3x6		1
1-34	ZW273881	Earth Lug M4		1

## MAIN MOTOR BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
2-1x	BM587507	Main Motor Block Comp.		
		HM2-16TD	TD	1
2-2	MZ526421	16 Motor Cover, w/metal	TW-7023	1
2-3	MZ448222	24 Motor Cover, w/metal	24X-781	1
2-4	ZS427037	Screw, pan head 4x50,		
		w/washer		4
2-5	MR540876	Motor Pulley Comp.	MC-7201	1
2-6	ZS203016	Screw, oval countersunk head		
		3x15		1
2-7	MZ316293	Motor Mt. Plate, MR	MR-717	1
2-8	MH254182	Motor Prop B	24X-731	1
2-9	MH586563	Motor Prop C, w/bush	TD-7005	2
2-10	ZS424056	Screw, pan head 4x10		4
2-11	ZS272395	Motor Prop Retaining Screw,		
		M-7	24X-732	1
2-12	ZS427026	Screw, countersunk head 4x10		2
2-13	SZ529108	Main Motor Fan	ND-7010	1
2-14	ZW270134	'E' Ring 5M	6-1-9	1
2-15x	ZW330412	Adjust. Washer (U)		
		D4x13x0.13t		1
2-16x	ZW330423	Adjust. Washer (U)		
		D4x13x0.25t		1
2-17	ZW330445	Adjust. Washer (U)		
		D4x13x0.8t		1

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



FIG. 2 ILLUSTRATION OF MAIN MOTOR BLOCK

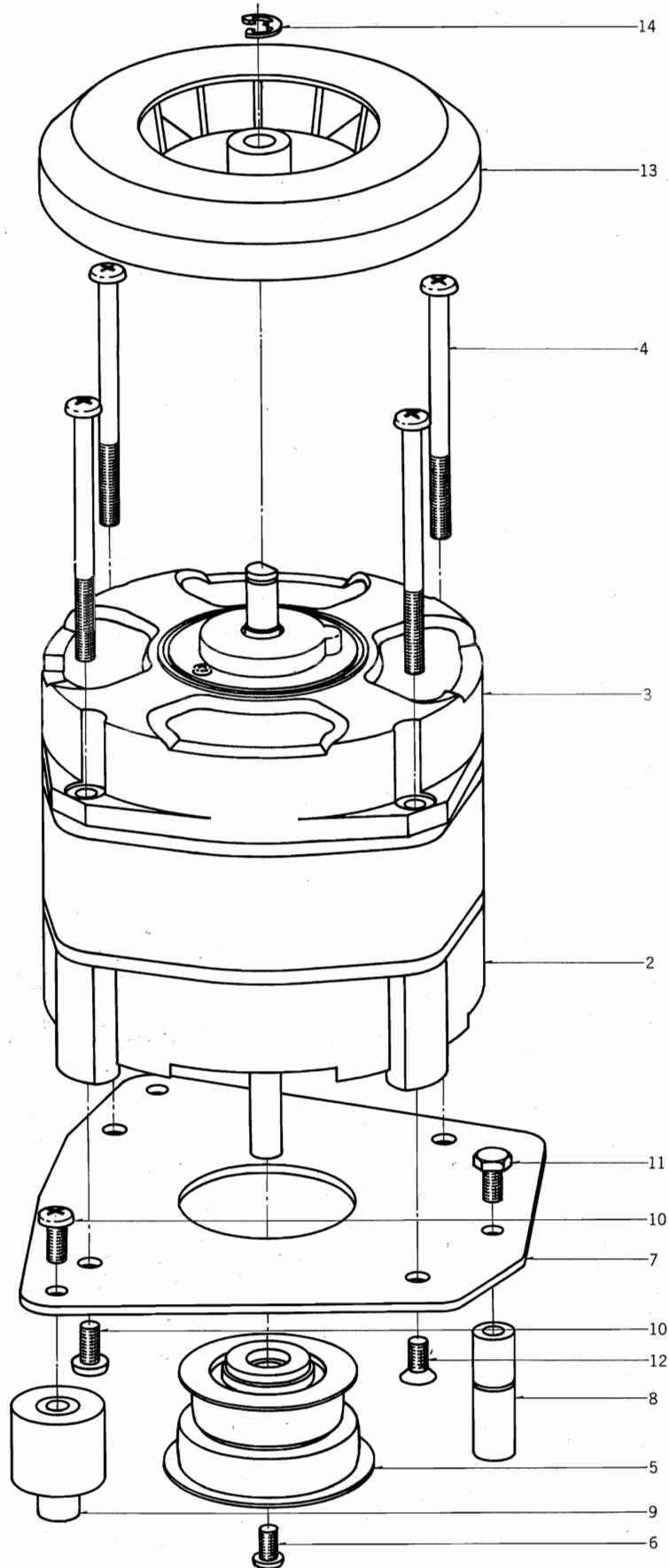
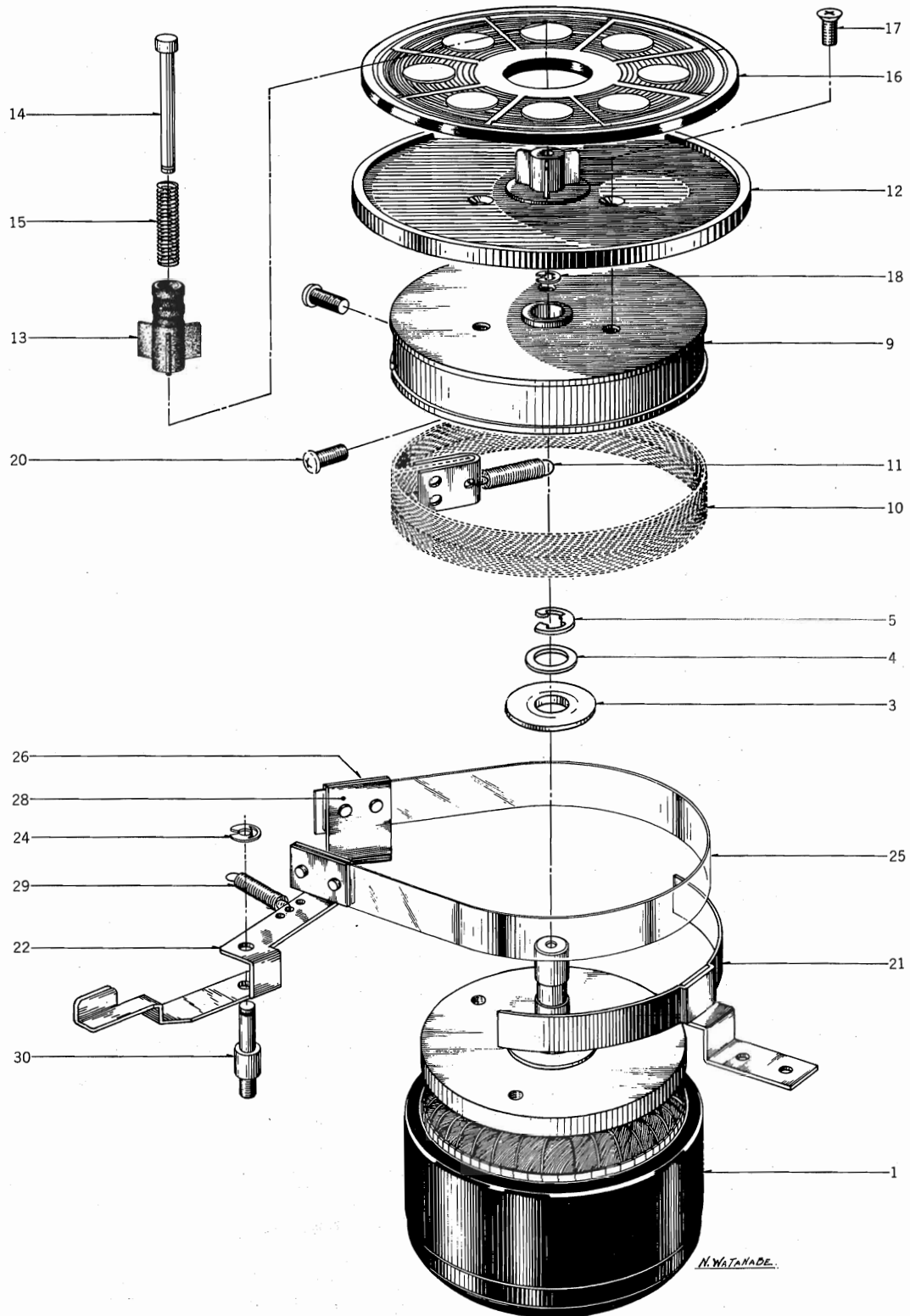


FIG. 3 ILLUSTRATION OF REEL MOTOR/REEL TABLE BLOCK



## REEL MOTOR/REEL TABLE BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
<b>REEL MOTOR BLOCK</b>				
3-1	BM587518	Reel Motor Block Comp.		
		24XO-2	TD	1
3-2x	MV408510	Bearing 608VVMC2ERAV2L		1
3-3	MZ248185	Bearing Retainer	3R-758	1
3-4	ZW260278	Washer (Nylon) D8.1x13x0.5t		1
3-5	ZW270156	'E' Ring 6M	6-1-9	1
<b>REEL TABLE (R, L) BLOCK</b>				
3-6x	BR587542	Reel Table Block Comp.		
		(Supply)	TD	1
3-7x	BR587553	Reel Table Block Comp.		
		(Take-up)	TD	1
3-8x	MT577473	Brake Drum (L) B	MR-216	1
3-9	MT576538	Brake Drum (R) B	MR-216	1
3-10	MT436860	Brake Cloth Comp.	MR-269	1
3-11	ZG317496	Felt Tension Spring	MR-260	1
3-12	MT534666	Reel Table	TW-2031	1
3-13	MT534677	Reel Clamper	TW-2032	1
3-14	MS342000	Reel Shaft	3R-108	1
3-15	ZG540617	Clamper Spring	TW-2096	1
3-16	MT534688	Reel Table Rubber	TW-2033	1
3-17	ZW413785	Screw, binding head 3x12		3
3-18	ZW270088	'E' Ring 1.9M	6-1-9	1
3-19x	ZW562476	Earth Lug M3		1
3-20	ZS435273	Screw, binding head 4x10		2
<b>MECH. ASSEMBLY BLOCK</b>				
3-21	MZ581995	Brake Band Guide	TD-1014	2
3-22	ML582041	Brake Lever A (Take-up)	TD-1019	1
3-23x	ML533643	Brake Lever B (Supply)	TW-1030	1
3-24	ZW290283	'U' Ring 2.85M	6-1-1	2
3-25	MT314987	Brake Band	MR-213	2
3-26	MZ314998	Brake Band Retaining Plate	MR-212	4
3-27x	ZS413155	Screw, binding head 3x6		16
3-28	ML582074	Brake Band Support	TD-1023	2
3-29	ZG540090	Brake Lever Spring	TW-1058	2
3-30	MH581984	Brake Lever Post B	TD-1013	1

## FLYWHEEL BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
4-1x	BF587520	Flywheel Block Comp.	TD-1, 3	1
4-2x	BF587531	Flywheel Block Comp. (PRO)	TD-2	1
4-3	MI296245	Flywheel 24	MH-202	1
4-4	MS581310	Capstan Shaft A	TD-2001	1
4-5x	MS581321	Capstan Shaft B (pro)	TD-2002	1
4-6	ZW437804	Flywheel Thrust AD7.9x13x1t	101024	1
4-7	ZS373577	Set Screw, hexagon Socket 5x6 (Flat/p.)		2
4-8	MZ413976	Main Case B 24 Comp.	1630-205	1
4-9x	MZ586798	Main Case Felt	A0415	1
4-10	MZ446635	Thrust Cap, Main Metal B2	LF-2006	1
4-11	MH244710	Flywheel Fixing Pin	900-250	1
4-12	MZ586438	Main Metal Cap Felt	A0414	1
4-13	SK581332	Main Case Cap	TD-2003	1
<b>MECH. ASSEMBLY BLOCK</b>				
4-14	ZS416687	Screw, binding head 4x8		5
4-15	MV537862	Steel Ball D4		1
4-16	MZ453767	Thrust Bracket	BS-1022	1
4-17	ZW462205	Washer (Nylon) D7.9x1t (Without hole)		1
4-18	MH581916	Flywheel Prop	TD-1005	2
4-19	MB437703	Flywheel Belt, MCD113x7x1.6	MC-1015	1
4-20	MZ436847	Belt Guide	LF-1012	1
4-21	ZS322728	Screw, binding head 3x5		2
4-22	ZW330412	Adjust. Washer (U) D4x13x0.13t		1
4-23x	ZW330423	Adjust. Washer (U) D4x13x0.25t		1
4-24x	ZW413190	Adjust. Washer (U) D4x13x0.8t		1

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

FIG. 4 ILLUSTRATION OF FLYWHEEL BLOCK

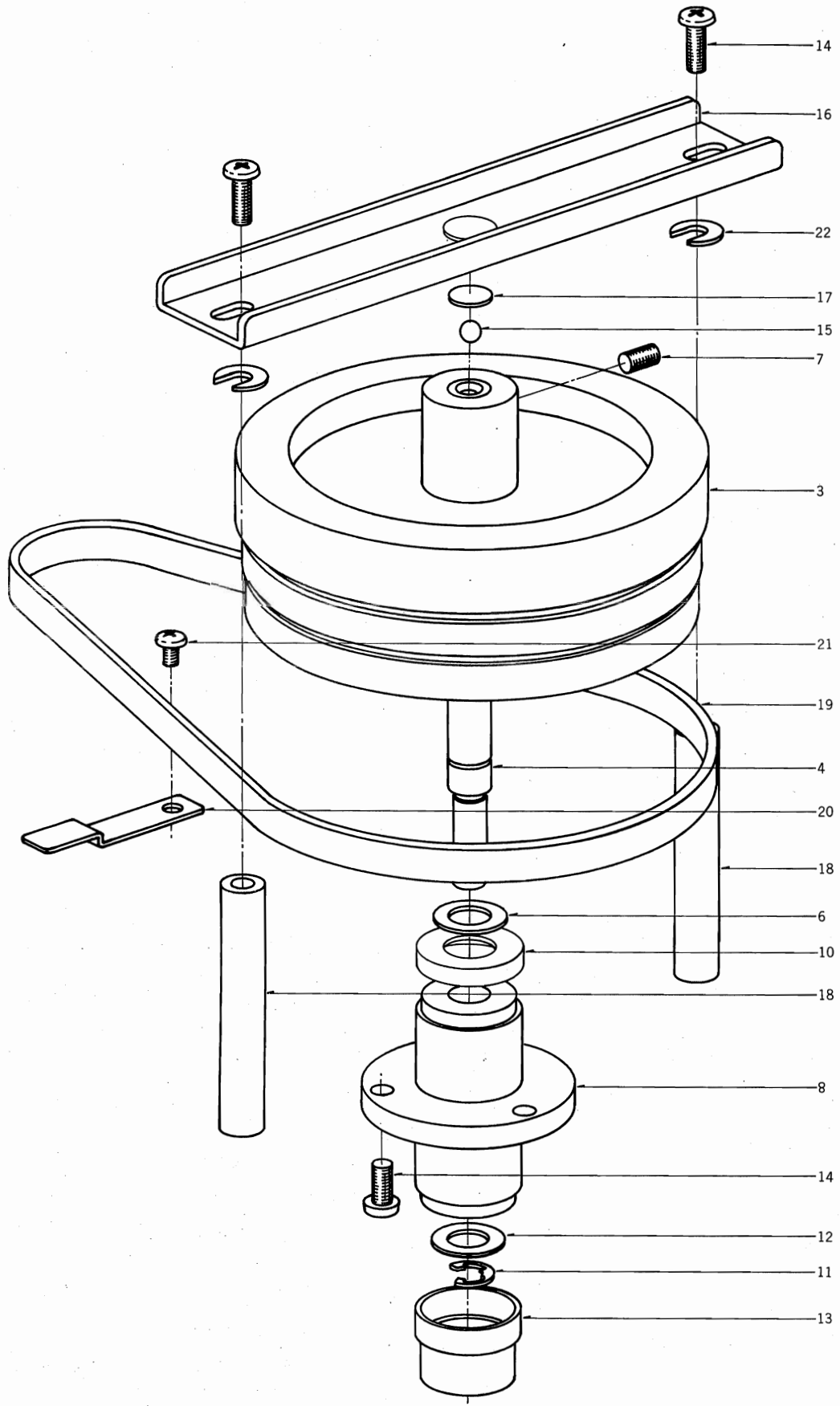
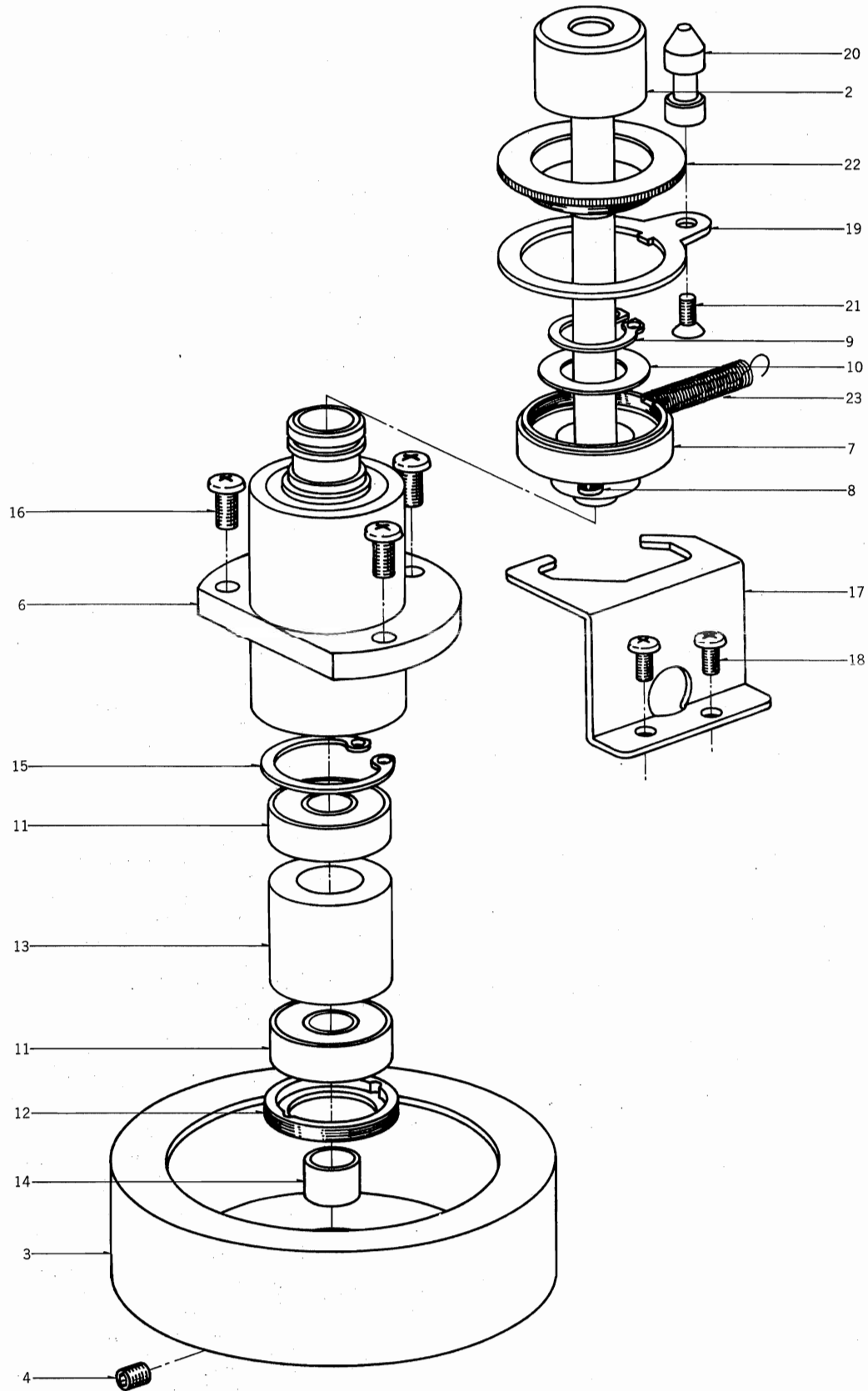


FIG. 5 ILLUSTRATION OF IMPEDANCE ROLLER BLOCK



## IMPEDANCE ROLLER BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
5-1x	BI587755	Impedance Roller Block Comp.	TD	1
5-2	MS580386	Impedance Roller Shaft, w/roller	TD-2030	1
5-3	MI292678	Z Wheel	RD-245	1
5-4	ZS487912	Set Screw, hexagon Socket 5x6 (cup/p.)		2
5-5x	ZW321592	Washer (sus) D8.1x13x0.3t		1
5-6	BC580792	Impedance Case, w/shaft	TD-2080	1
5-7	MZ580634	Arm Holder	TD-2063	1
5-8	MZ596698	Stopper Pin Tube	TD-2100	1
5-9	ZW573546	'C' Ring (Shaft) STW-13		1
5-10	ZW584043	Thrust Washer	TD-2099	1
5-11	MV248141	Bearing 608VVMC2ERB32L		2
5-12	ZS292667	Z Bearing Screw	3A-215	1
5-13	MZ580836	Bearing Collar B	TD-2088	1
5-14	MZ580667	Bearing Collar A	TD-2066	1
5-15	ZW575684	'C' Ring (Hollow) RTW-22		1

### MECH. ASSEMBLY BLOCK

5-16	ZS416687	Screw, binding head 4x8		3
5-17	MZ480015	Tension Arm Bracket	TD-1038	1
5-18	ZS413155	Screw, binding head 3x6		2
5-19	ML580004	Impedance Roller Arm	TD-1037	1
5-20	MS580454	Tension Arm Guide	TD-2038	1
5-21	ZS200305	Screw, countersunk head 3x5		1
5-22	SK580151	Arm Cap	TD-1053	1
5-23	ZG582232	Z Arm Spring	TD-1039	1

## TENSION ARM BLOCK

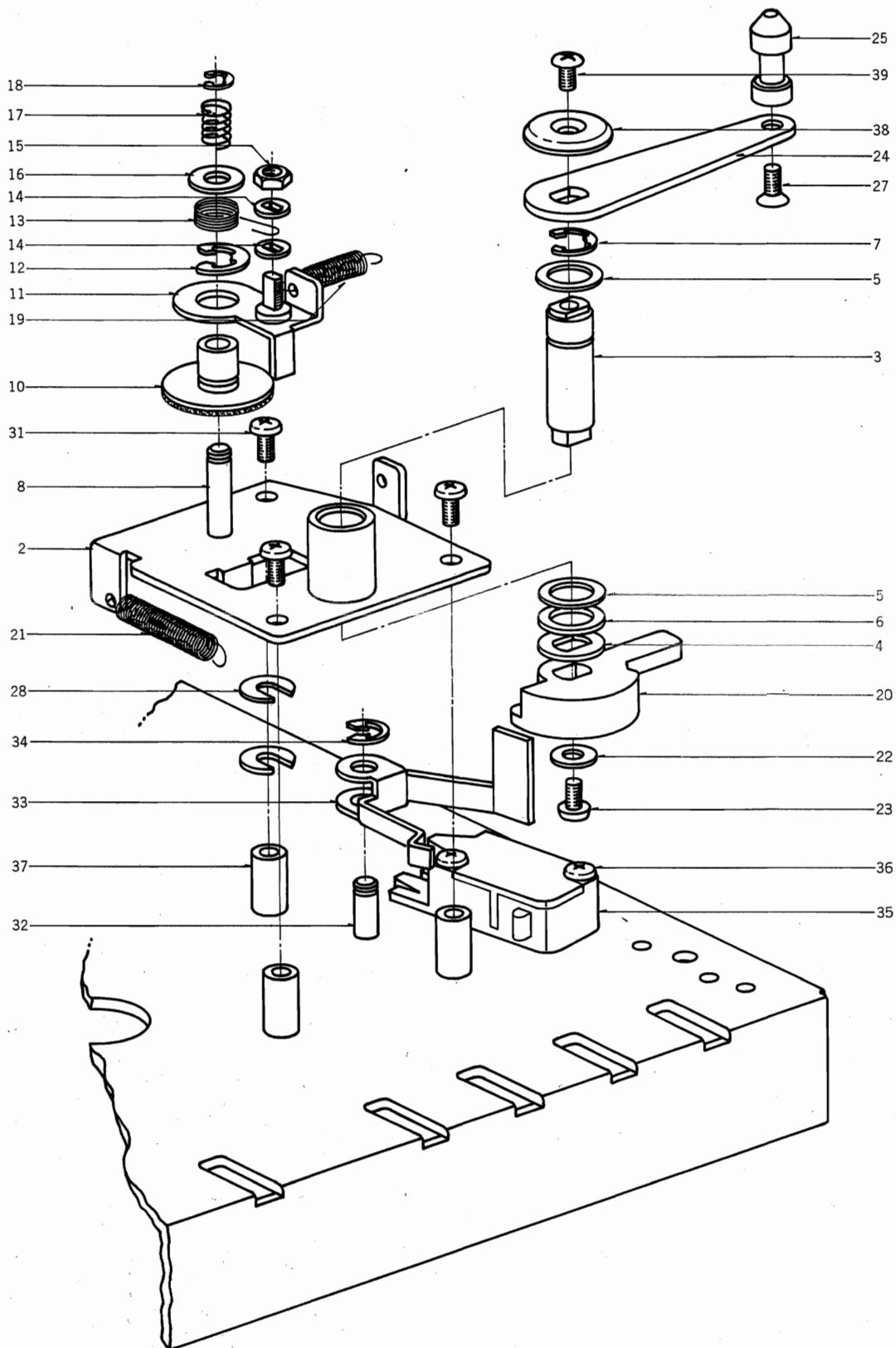
Ref. No.	Parts No.	Description	Schematic No.	Q'ty
6-1x	BL587801	Tension Arm Block Comp.	TD	1
6-2	ML580443	Tension Arm Table, w/metal	TD-2037	1
6-3	MS580487	Tension Shaft	TD-2041	1
6-4	ZW580498	Tension Arm Washer	TD-2042	1
6-5	ZW575763	Washer (SPC) D8.1x13x0.5t		2
6-6	ZW260256	Washer (PPB) D8.1x13x0.1t		2
6-7	MH244710	Flywheel Fixing Pin	900-250	1
6-8	MH580588	Damper Prop.	TD-2052	1
6-9x	UM387617	Clutch Felt	CS-2011	1
6-10	MZ580577	Clutch Plate, w/metal A	TD-2051	1
6-11	ML580555	Clutch Lever, w/support	TD-2048	1
6-12	ZW270156	'E' Ring 6M	6-1-9	1
6-13	ZG580511	Clutch Spring	TD-2044	1
6-14	ZW580678	Spring Retaining Washer	TD-2067	2
6-15	ZW273756	Nut M3		2
6-16	ZW575774	Washer D4.5x9.8x0.7t		1
6-17	ZG580533	Cramp Spring	TD-2046	1
6-18	ZW410051	'E' Ring 2.5	6-1-9	1
6-19	ZG580522	Clutch Lever Spring	TD-2045	1
6-20	MZ580500	Switch Cam	TD-2043	1
6-21	ZG580746	Tension Spring	TD-2074	1
6-22	ZW550642	Washer (SPC) D3.1x7.9x0.5t		1
6-23	ZS323728	Screw, binding head 3x5		1
6-24	ML580465	Tension Arm	TD-2039	1
6-25	MS580454	Tension Arm Guide	TD-2038	1
6-26x	MZ810191	Cushion Rubber, RD	RD-278	1
6-27	ZS424124	Screw, countersunk head 3x5		1

### MECH. ASSEMBLY BLOCK

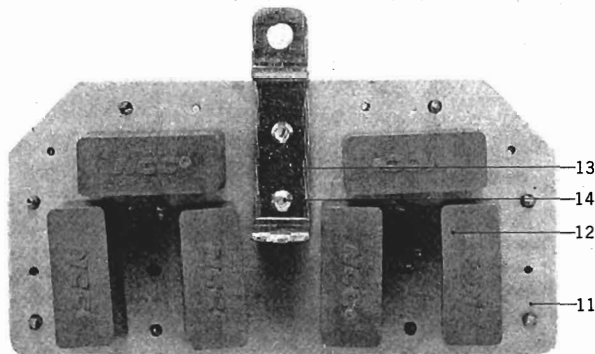
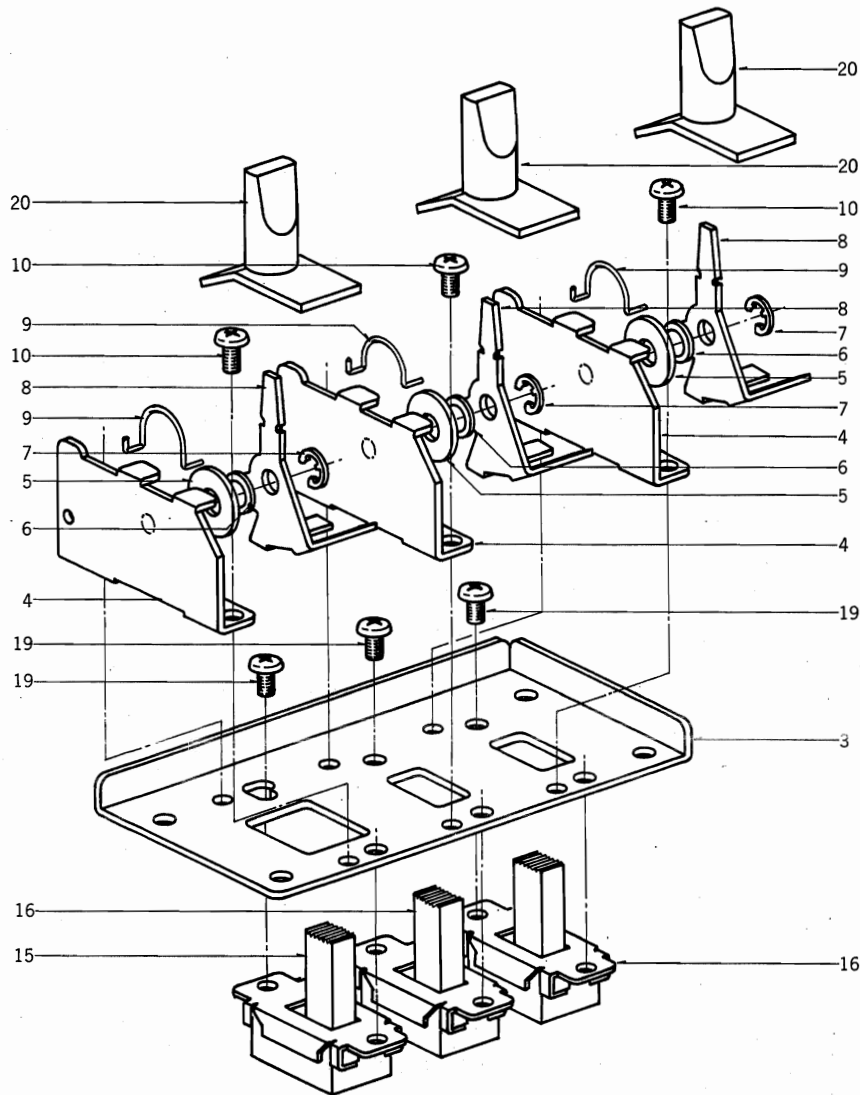
6-28	ZW413190	Adjust. Washer (U) D4x13x0.8t		1
6-29x	ZW330423	Adjust. Washer (U) D4x13x0.25t		1
6-30x	ZW330412	Adjust. Washer (U) D4x13x0.13t		1
6-31	ZS413155	Screw, binding head 3x6		4
6-32	MH580691	Actuator Prop.	TD-2069	1
6-33	MZ580680	Actuator	TD-2068	1
6-34	ZW290283	'U' Ring 2.85M	6-1-1	1
6-35	ES562465	Micro SW. K-1	25-1-26	1
6-36	ZS417148	Screw, binding head 3x15		2
6-37	MH581905	Prop A	TD-1004	3
6-38	SZ535094	Decorative Washer	TW-2077	1
6-39	ZS575796	Screw, oval countersunk head 3x5		1

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

FIG. 6 ILLUSTRATION OF TENSION ARM BLOCK



**FIG. 7 ILLUSTRATION LEVER SW. BLOCK**



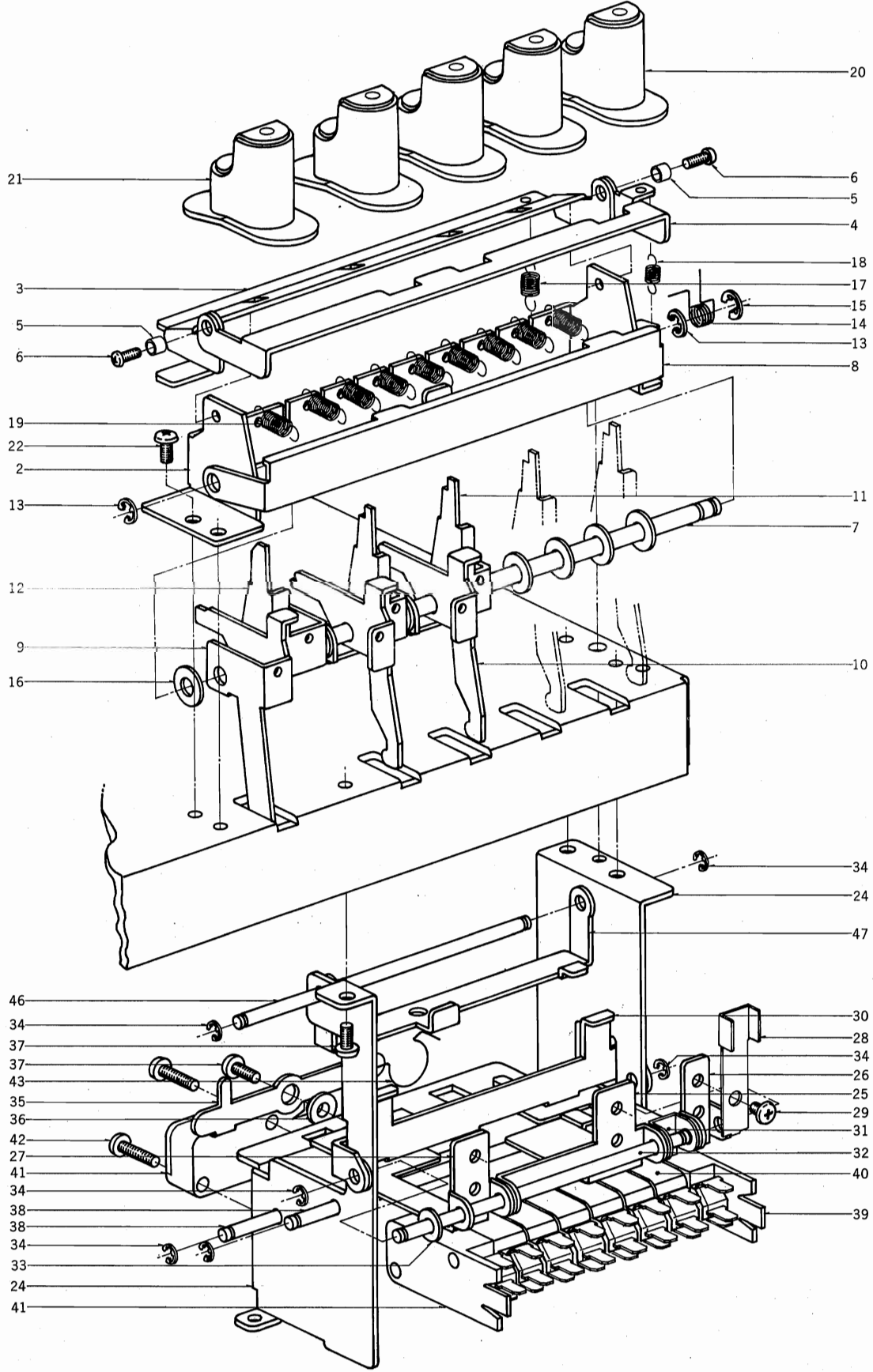
**LEVER SW. BLOCK**

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
7-1x	BS587733	Lever SW. Block Comp.	TD	1
7-2x	BS587744	Lever SW. Block Comp. (EC)	TD	1
7-3	MZ580410	SW. Plate	TD-2033	1
7-4	MZ580397	Lever SW. Bracket	TD-2031	3
7-5	MZ421097	Washer D4.5x13x1t		3
7-6	ZW589893	Washer D4.1x7x0.4t		3
7-7	ZW270101	'E' Ring 3M	6-1-9	3
7-8	ML580408	SW. Lever	TD-2032	3
7-9	ZG580432	Turn Spring	TD-2036	3
7-10	ZS575752	Tapping Screw #2 3x5 (binding)		6
7-11	EA581782	Spark Quencher P.C. Board B	TD-2087	1
7-12	ER376435	Spark Quencher U/L 0.1μ+120Ω 250 WV	41-1-35	6
7-13	ML580847	P.C. Board Mt. Parts	TD-2089	1
7-14	ZS323728	Screw, binding head 3x5		2
7-15	ES479485	Slide SW. S-1	25-3-66	1
7-16	ES479496	Slide SW. S-2	25-3-67	1
7-17x	MZ580724	Power SW. Cover (EC)	TD-2072	1
7-18x	MZ580858	SW. Lever Cover (EC)	TD-2090	2
7-19	ZS371856	ISO Screw, binding head 3x5		4
7-20	SK581837	Amp Knob 1-B	CP-5018	3

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



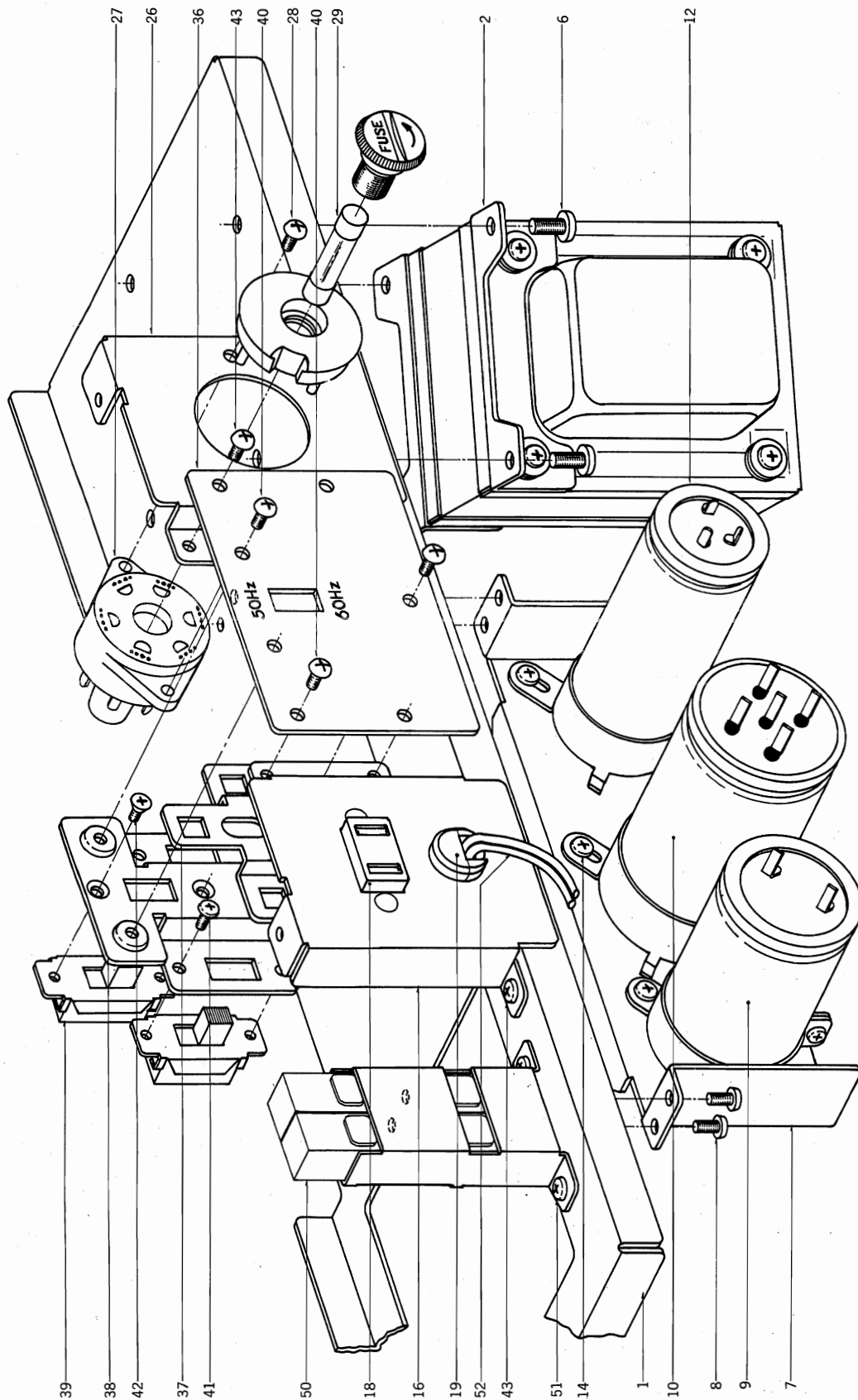
FIG. 8 ILLUSTRATION OF OPERATION BLOCK



## OPERATION BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
<b>OPERATION LEVER BLOCK</b>				
8-1x	BL587564	Operation Lever Block Comp.	TD	1
8-2	ML581152	Operation Table	TD-2004	1
8-3	ML581163	Lock Plate A	TD-2005	1
8-4	ML581174	Lock Plate B	TD-2006	1
8-5	MZ580241	Lock Plate Bush	TD-2014	2
8-6	ZS464692	Screw, binding head 2.3x6		2
8-7	MS581343	Button Lever Shaft	TD-2008	1
8-8	ML581185	Lock Plate C	TD-2007	1
8-9	ML581354	Pause Lever	TD-2009	1
8-10	ML581365	Operation Lever A	TD-2010	4
8-11	ML580217	Button Lever A	TD-2011	4
8-12	ML580228	Button Lever B	TD-2012	1
8-13	ZW270101	'E' Ring 3M	6-1-9	2
8-14	ZG580230	Lock Plate C Spring	TD-2013	1
8-15	ZW290283	'U' Ring 2.85M	6-1-1	1
8-16	ZW562757	Washer D4.3x11x0.8t		11
8-17	ZG580252	Lock Plate A Spring	TD-2015	1
8-18	ZG580263	Lock Plate B Spring	TD-2016	1
8-19	ZG580285	Button Lever Spring	TD-2018	10
8-20	SB583244	Operation Button A	TD-6015	4
8-21	SB581578	Operation Button B (Blue)	TD-6015	1
8-22	ZS413155	Screw, binding head 3x6		4
<b>OPERATION SW. BLOCK</b>				
8-23x	BK587575	Operation SW. Block Comp.	TD	1
8-24	MZ581196	SW. Holder	TD-2019	1
8-25	ML580296	FWD SW. Lever	TD-2020	1
8-26	ML580307	FF SW. Lever	TD-2021	1
8-27	ML580318	RWD SW. Lever	TD-2022	1
8-28	MZ580320	Cushion Plate	TD-2023	3
8-29	ZS481645	Screw, binding head 2.6x3		3
8-30	ML580331	Fast SW. Lever	TD-2024	1
8-31	ML580342	OP SW. Lever	TD-2025	1
8-32	MS580353	Micro SW. Shaft	TD-2026	1
8-33	ZW550642	Washer (SPC) D3.1x7.9x0.5t		7
8-34	ZW270088	'E' Ring 1.9M	6-1-9	8
8-35	ML580364	Seesaw Lever	TD-2027	1
8-36	MZ580375	SW. Bush	TD-2028	1
8-37	ZS413741	Screw, binding head 3x8		4
8-38	MS580353	Micro SW. Shaft	TD-2026	2
8-39	ES562465	Micro SW. K-1	25-1-26	1
8-40	ES573478	Micro SW. K-3	25-1-31	6
8-41	ES573456	Micro SW. K-2	25-1-30	2
8-42	ZS562432	Screw, binding head 3x13		2
8-43	ZG528928	Turn Spring B	ND-2042	1
8-44x	BA587586	Spark Quencher P.C. Board (A) (TD-2086) Comp.	TD	1
8-45x	ZS413155	Screw, binding head 3x6		3
8-46	MS583380	Release Lever Shaft	TD-2094	1
8-47	ML583367	Release Lever B	TD-2092	1

FIG. 9 ILLUSTRATION OF POWER SUPPLY BLOCK



## POWER SUPPLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
9-1	MZ581444	Power Shassis	TD-2053	1
9-2	BT573513	Power Trans. TDT-4	38-4-270	1
9-3x	BT573491	Power Trans. TDT-2 (UL)	38-4-268	1
9-4x	BT573502	Power Trans. TDT-3 (EC)	38-4-269	1
9-5x	BT573480	Power Trans. TDT-1 (JPN)	38-4-267	1
9-6	ZS416687	Screw, binding head 4x8		4
9-7	MZ581242	Capacitor Base	TD-2055	1
9-8	ZS472274	Tapping Screw #2 3x6 (bind)		12
9-9	EC557190	Elect./C. 470μF 160WV (Lug type)	24-10-88	1
9-10	EC520626	MP/C. (3+1)μFx2 250WV AC (Lug type)	24-9-74	1
9-11x	EC536927	MP/C. 3μFx2 250WV AC (Lug type UNI/D.) (UL)	24-9-79	1
9-12	EC442056	MP/C. (2+1)μF 250WV AC (Lug type OP./D.)	24-9-61	1
9-13x	EC536938	MP/C. 2μF 250WV AC (Lug type UNI/D.) (UL)	24-9-78	1
9-14	ZS413155	Screw, binding head 3x6		6
9-15x	ER365016	Carbon/R. RD1/4 220k(J) (Insu. type)	35-9-5	1
9-16	ML581207	AC Table A	TD-2054	1
9-17x	ML581231	AC Table B (EC)	TD-2054	1
9-18	EJ378944	Socket, AC U/L S-1 9122	31-1-47	1
9-19	EZ382263	Strain Relief SR-4K-4	2-7-12	1
9-20x	EZ246936	Strain Relief SR-6W-1 (WG, 3 core)	2-7-8	1
9-21x	ZW273881	Earth Lug M4		1
9-22x	EJ561227	Terminal No. 500/2 (EC)	52-1-18	1
9-23x	MZ546625	Connector Insulator Paper (EC)	ND-1081	1
9-24x	ZS417148	Screw, binding head 3x15		1
9-25x	ZS455207	Tapping Screw #2 3x5 (BR)		1
9-26	ML581613	VS Table	TD-2056	1
9-27	EJ233370	Socket S-18010 (Volt. Selector)	30-2-3	1
9-28	ZS374128	ISO Screw, truss head 3x8		2
9-29	EF563703	Fuse 2A 250V	39-1-50	1
9-30x	EF277413	Fuse ST-2 2A	39-1-26	2
9-31x	EF277424	Fuse ST-4 0.8A	39-1-28	1
9-32x	EF354306	Fuse 1.25AT (T type)		3
9-33x	EF395188	Fuse 630MAT (T type) (CEE)		1
9-34x	EF563703	Fuse 2A 250V	39-1-50	3
9-35x	EF575932	Fuse 0.8A 250V	39-1-50	1
9-36	ML580590	F SW. Base B	TD-2057	1
9-37	MZ580601	F SW. Plate	TD-2058	1
9-38	ML580612	F SW. Base A	TD-2059	1
9-39	ES479485	Slide SW. S-1	25-3-66	3
9-40	ZS355511	Screw, binding head 3x6		3
9-41	ZS379405	ISO Screw, binding head 3x6		4
9-42	ZS440291	ISO Screw, countersunk head 3x6		2
9-43	ZS589511	Tapping Screw #2 3x6 (bind)		4
9-44x	EA581815	Fuse P.C. Board TD (EC, JPN)	TD-1066	1
9-45x	EJ580825	Fuse Holder (EC, JPN)	TD-2083	4
9-46x	EF354306	Fuse 1.25AT (T type)		2
9-47x	EF563703	Fuse 2A 250V	39-1-50	2
9-48x	ZS468358	Screw, truss head 3x5		2
9-49x	HA583198	Fuse Angle TD (EC, JPN)	TD-1067	2
9-50	ER575640	Cement/R. H(20+20)B (43+220+180)K	35-16-54	1
9-51	ZS472274	Tapping Screw #2 3x6 (bind)		2
9-52	EW540112	AC Cord 2.5M (CUL)	26-3-19	1
9-53x	EW559260	Power Cord Type-412 (EC)	26-3-33	1
9-54x	EW524845	AC Cord 2.5M (JPN)	26-3-31	1
9-55x	EW466784	Australia Cord (3 core)	26-3-23	1
9-56x	ES479485	Slide SW. S-1 (Reel Size)	25-3-66	1
9-57x	ES573535	Slide SW. 302BA893-100-1 (Reel Size) (EC)	25-3-99	1
9-58x	ES573456	Micro SW. K-2	25-1-30	1
9-59x	EJ299823	Mate-N-Lock Cap Housing 6P 1-480276-0	52-1-2	1
9-60x	EJ373623	Pin Contact 61116-1	52-1-1	5
9-61x	EJ205975	Cramp Terminal 1-SD	32-1-7	4

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

## MECHANISM ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
<b>PINCH ROLLER PLUNGER BLOCK</b>					10-66	MP582164	Pinch Roller D = 42	TD-1034	1
10-1x	BZ587766	Pinch Roller Plunger Block			10-67x	MP533744	Pinch Roller D = 36 (PRO)	TW-1040	1
		Comp.	TD	1	10-68	ZW430402	Washer (Nylon) 1Roller D6.2x10x0.5t		1
10-2	ML396933	Pinch Roller Arm	KD-1030	1	10-69	ZS533766	Pinch Rbller Screw	TW-1042	1
10-3	MZ580781	Pinch Arm Joint, w/pin	TD-2079	1	10-70	MZ580206	Guide Angle	TD-1058	1
10-4	ZW345442	Washer (Nylon) D4.2x9x1t		1	10-71	ML582085	Shifter Lever A, w/pin	TD-1024	1
10-5	MH533913	Connecting Pin	TW-2010	1	10-72	MZ581128	Shifter Plate	TD-1028	1
10-6x	ZW270088	'E' Ring 1.9M	6-1-9	4	10-73	ML582096	Shifter Lever B	TD-1025	1
10-7	MZ802980	Spring Holder	RD-276	2	10-74	ZW420682	Washer (Nylon) D4.2x9x0.5t		3
10-8	ZG428927	Pinch Roller Compression Spring B	KD-1032	1	10-75	ML582118	Shifter Arm, w/pin	TD-1027	2
10-9	EP573658	Plunger Solenoid 1660THT-3	44-1-66	1	10-76	MS580094	Arm Shaft	TD-1047	1
10-10x	ED224550	Silicon Diode 10D4	45-2-16	1	10-77	ML582175	Spring Lever	TD-1036	1
10-11	MZ581275	PR Plunger Bracket	TD-1061	1	10-78	ML582120	Connecting Bar	TD-1029	1
10-12x	ZS323728	Screw, binding head 3x5		2	10-79	ZG582131	Shifter Spring	TD-1030	1
10-13	MS582153	Pinch Roller Shaft	TD-1033	1	10-80	ZW580173	Guide Washer	TD-1055	3
10-14	ZW416698	Nut M4		1	10-81	ML580026	Shifter Lock Arm A, w/prop	TD-1040	1
<b>MECH. ASSEMBLY BLOCK</b>					10-82	ZG580746	Tension Spring	TD-2074	1
10-15	MZ581466	Mech. Frame	TD-1001	1	10-83	MZ580061	Shifter Lock Collar	TD-1044	1
10-16	ML581883	Shifter Stopper	TD-1002	2	10-84	ZW270088	'E' Ring 1.9M	6-1-9	2
10-17	ZW273756	Nut M3		12	10-85	ML580037	Shifter Lock Arm B, w/pin	TD-1041	1
10-18	MZ810191	Cushion Rubber, RD	RD-278	3	10-86	MZ580162	Pause Spring Hanger	TD-1054	1
10-19	MH581894	Head Base Prop	TD-1003	3	10-87	ZG580285	Button Lever Spring	TD-2018	1
10-20x	ZS416687	Screw, binding head 4x8		5	10-88	MH580083	Slider Base Post	TD-1046	1
10-21	ZS413155	Screw, binding head 3x6		33	10-89	MZ580072	Slider Base	TD-1045	1
10-22	MH581927	Shifter Guide Post	TD-1006	3	10-90	MS580184	Spoke Guide	TD-1056	1
10-23	MH581940	Shifter Lever Post A	TD-1008	1	10-91	ZG583391	Plate Spring	TD-1072	1
10-24	MH581951	Spring Lever Post	TD-1010	1	10-92x	EJ589331	Nylon Clip SN-10A	2-7-43	1
10-25x	ZW416698	Nut M4		4	10-93x	EJ205986	Cramp Terminal 2-SD	32-1-8	10
10-26	MH581962	Shifter Lever Post B	TD-1011	1	10-94	MZ527894	Panel Support	ND-1020	1
10-27	MH581973	Brake Lever Post A	TD-1012	1	10-95	ZS325495	Tapping Screw #2 3x6		2
10-28	MH581984	Brake Lever Post B	TD-1013	1	10-96	ML583356	Release Lever A, w/pin	TD-2091	1
10-29	MH583345	Release Lever Post	TD-1071	1	10-97	MZ583424	SW Bracket	TD-2098	1
10-30	MZ581995	Brake Band Guide, w/base	TD-1014	2	10-98	ZG583413	SW Spring	TD-2097	1
10-31	MC573726	Counter MP490-20, w/base	9-1-33	1	10-99	ZS413785	Screw, binding head 3x12		2
10-32	MZ582028	Head Cover Support	TD-1017	2	10-100x	MZ581286	Insulator Barrier (1)	TD-1063	1
10-33	MZ582030	Spring Hanger	TD-1018	3	10-101	ES573456	Micro SW. K-2	25-1-30	1
10-34	ML533643	Brake Lever B	TW-1030	1	10-102	MH581938	Shifter Arm Shaft	TD-1007	2
10-35	ZW290283	'U' Ring 2.85M	6-1-1	12					
10-36	ML582041	Brake Lever A	TD-1019	1					
10-37	ML582063	Brake Lever C, w/pin	TD-1021	1					
10-38	ZW580173	Guide Washer	TD-1055	1					
10-39x	ZW259896	Washer (Lino tape) D5.1x10.3x0.17t		1					
10-40	MT314987	Brake Band	MR-213	2					
10-41	MZ314998	Brake Band Retaining Plate	MR-212	4					
10-42	ML582074	Brake Band Support	TD-1023	2					
10-43	MZ314605	Spring Rack, MR	MR-104	2					
10-44	ZG540090	Brake Lever Spring	TW-1058	2					
10-45	MZ582142	Plunger Bracket	TD-1032	1					
10-46	EP574885	Plunger Solenoid SDC-1064PHT 48V 300Ω	44-1-69	1					
10-47x	ZS371856	ISO Screw, binding head 3x5		2					
10-48x	ED511907	Silicon Diode 1N4002	45-2-51	1					
10-49	MH257477	Connecting Pin	RD-211	1					
10-50	ML580702	QT SW. Table	TD-2070	1					
10-51	ES403727	Micro SW. V-1A106 U/L	25-1-20	1					
10-52	ZS413785	Screw, binding head 3x12		2					
10-53	ML580127	Middle Pulley Table	TD-1050	1					
10-54	MS580116	Middle Pulley Shaft	TD-1049	1					
10-55	MR580105	Middle Pulley, w/metal	TD-1048	1					
10-56	ZW259738	Washer (Polyslider) D4.1x7x0.25t		1					
10-57	MB527556	Counter Belt D93x1.5	ND-1022	1					
10-58	MB580138	Counter Belt D73x1.5	TD-1051	1					
10-59	ZW259773	Washer (Nylon) D4.1x7x0.5t		1					
10-60	ML581130	Reset Spoke	TD-1035	1					
10-61	MH581253	Pinch Roller Arm Shaft	TD-1059	1					
10-62x	ZW581264	Nut M-5	TD-1060	1					
10-63	ZS243516	Screw, pinch roller	XR-140	1					
10-64	ZG580770	Pinch Roller Spring	TD-2078	1					
10-65	ZG580768	Spoke Spring	TD-2077	1					

FIG. 10 ILLUSTRATION OF MECHANISM ASSEMBLY BLOCK

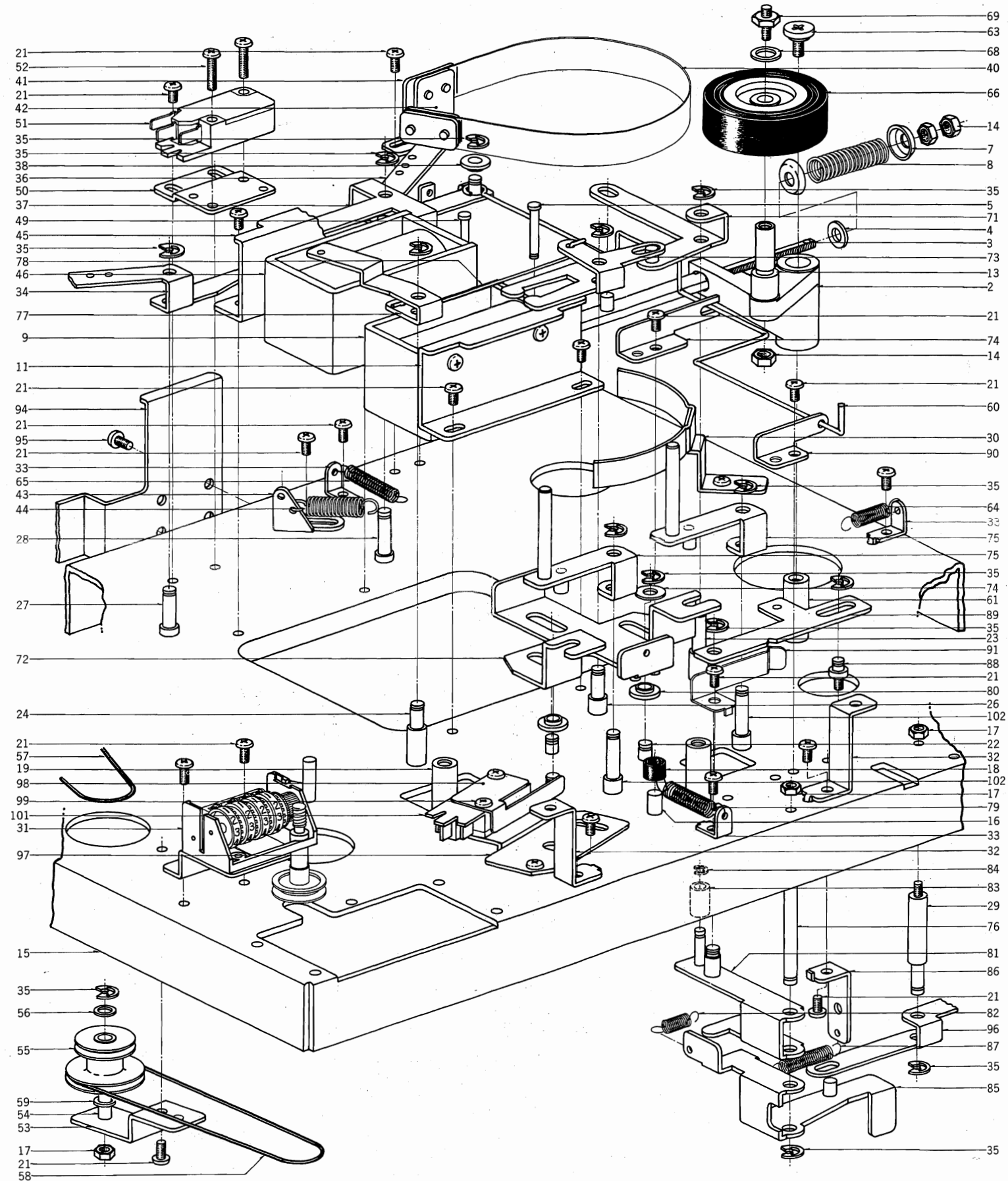
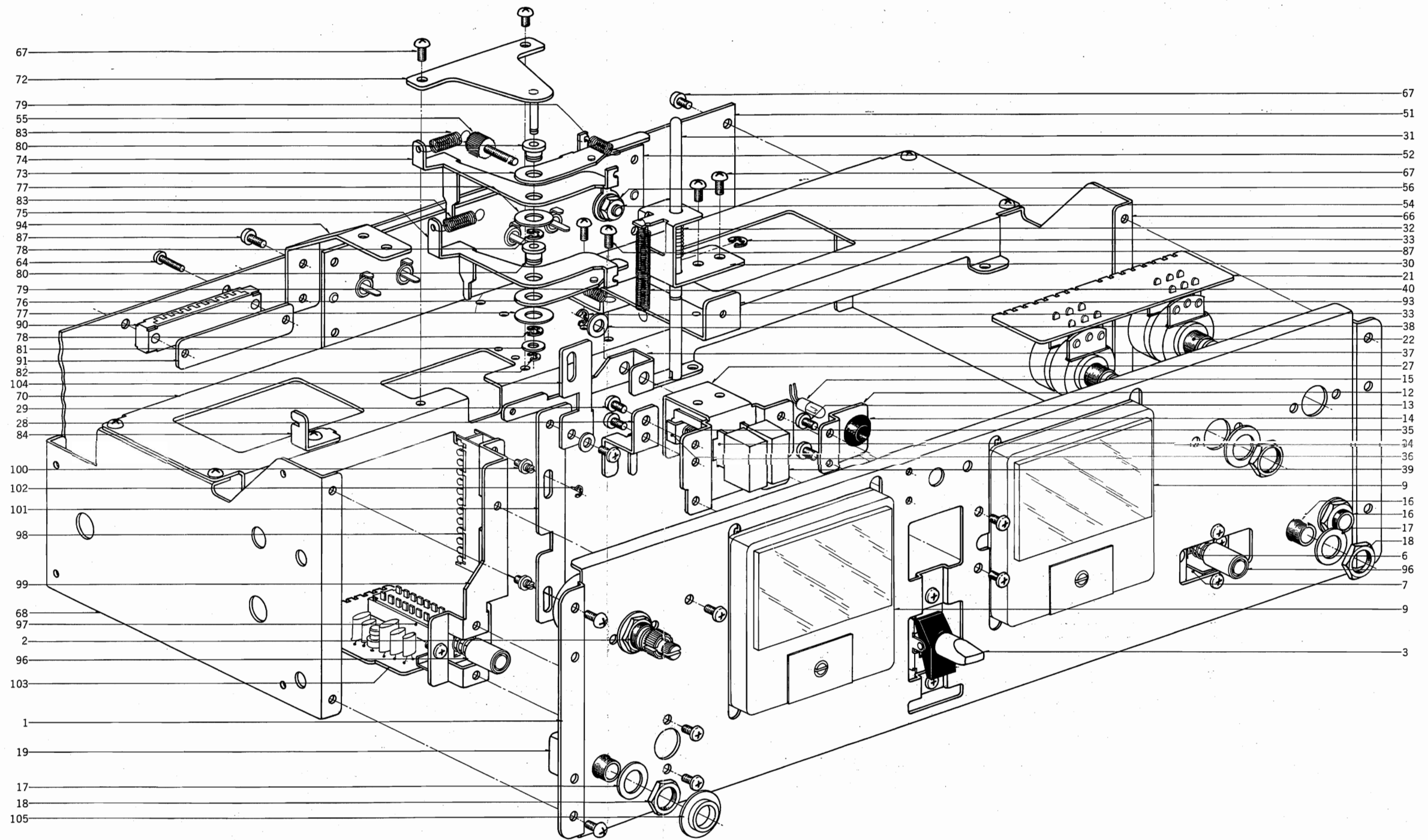


FIG. 11 ILLUSTRATION OF AMPLIFIER ASSEMBLY BLOCK

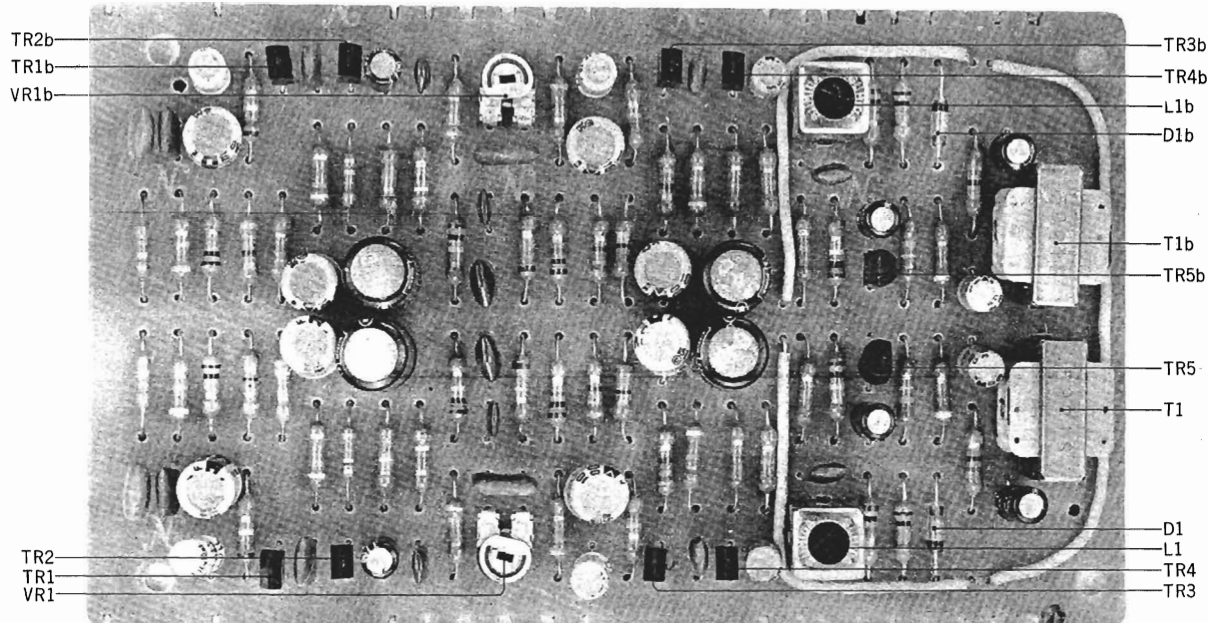


## AMPLIFIER ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
<b>AMP. FRONT CHASSIS BLOCK</b>					<b>REAR SHASSIS BLOCK</b>				
11-1	EZ581387	Amp. Front Chassis	TD-5001	1	11-51	EZ529593	Amp. Rear Chassis	ND-5035	1
11-2	EV573660	Double/Vol. DJ20A B10kx2	36-3-53	1	11-52	EJ581646	Jack Plate (3)	TD-5025	1
11-3	ES565255	Lever SW. 12T-3S040 (Lead type)	25-12-11	1	11-53x	EJ558246	SP Din Jack	31-1-99	1
11-4x	ES565446	Lever SW. S-J6398 (DB)	25-12-12	1	11-54	EJ457661	Terminal A	55-5032	1
11-5x	ZS371856	ISO Screw, binding head 3x5		4	11-55	EJ457637	Terminal B	55-5033	1
11-6	ES571094	Push SW. 1FST-2U-378-3	25-5-116	1	11-56	ZW463410	ISO Nut #3 M5		1
11-7	EZ549764	SW. Base B	TW-5306	1	11-57x	ZW463408	Toothed Lock Washer M5		1
11-8x	ZS323728	Screw, binding head 3x5		2	11-58x	ZW463397	Earth Lug M5		1
11-9	EM561756	VU Meter KL-250B-27 (Black)	46-1-79	2	11-59x	ER345712	Carbon/R. RD1/4 22k(J) (Insu. type)	35-9-5	4
11-10x	EM573748	VU Meter KL-280B-28 (Yellow)	46-1-86	2	11-60x	ER329264	Carbon/R. RD1/4 2.2k(J) (Insu. type)	35-9-5	2
11-11x	SE529457	Meter Mask	ND-5043	2	11-61x	ER213647	Carbon/R. RD1/4 10k(J) (Insu. type)	35-9-5	4
11-12	EZ549797	Lamp Holder	TW-5316	1	11-63x	ZW273756	Nut M3		4
11-13	ZS447772	Tapping Screw #2 3x6(BR)		2	11-64	ZS575910	Screw, binding head 2.3x12		2
11-14	EZ428117	Rubber Bushing	AA-801	1	11-65x	ZW273688	Nut M2.3		2
11-15	EL565468	Pilot Lamp (L/T) 24V 35MA (150M/Mx2)	28-2-24	1	<b>AMP. ASSEMBLY BLOCK</b>				
11-16	EJ374016	Mic. Jack 2PMJ1	31-2-23	2	11-66	EZ528366	Amp. Side Plate (R)	ND-5020	1
11-17	ZW272722	Toothed Lock Washer M9 D9.3x13x0.5t		3	11-67	ZS447772	Tapping Screw #2 3x6 (BR)		18
11-18	ZW554624	E Jack Nut	7-1-56	3	11-68	EZ528377	Amp. Side Plate (L)	ND-5020	1
11-19	EJ372892	Mic. Jack 3PMJ1	31-2-24	1	11-69x	ZS523664	Tapping Screw #2 3x10(BR)		1
<b>VOL. P.C. BOARD BLOCK</b>					11-70	EZ581398	Center Bridge	TD-5002	1
11-20x	BA587946	Vol. P.C. Board Block Comp. (TD-5029)	TD	1	11-71x	EJ328320	Nylon Clip HP-5N	2-7-39	1
11-21	EA581760	Vol. P.C. Board	TD-5010	1	11-72	EZ528276	Lever Retaining Plate, w/shaft	ND-5022	1
11-22	EV573682	Double/Vol. DJ60R A50kx2	36-3-54	2	11-73	ML528851	Sub R Lever A	ND-5025	1
11-23x	ER329308	Carbon/R. RD1/4 47k(J) (Insu. type)	35-9-5	4	11-74	ML528873	Rec. Lever A	ND-5026	1
11-24x	ER565301	Carbon/R. RD1/4 180k(J) (Insu. type)	35-9-5	2	11-75	ML528884	Rec. Lever B	ND-5027	1
11-25x	ER345756	Carbon/R. RD1/4 68k(J) (Insu. type)	35-9-5	2	11-76	ML541484	Sub R Lever C	ND-5053	1
<b>REC. BUTTON BLOCK</b>					11-77	ZW379361	Washer (Nylon) D6.1x13x0.5t		2
11-26x	BZ587935	Rec. Button Block	TD	1	11-78	ZW270123	'E' Ring 4M	6-1-9	2
11-27	EZ528333	Rec. SW. Holder, w/shaft	ND-5002	1	11-79	ZG528423	Rec. Pull Spring A	ND-5028	2
11-28	EZ528208	Safety Guard	ND-5010	1	11-80	ZW544083	Sleeve	ND-5055	2
11-29	ZS447772	Tapping Screw #2 3x6 (BR)		4	11-81	ZW317171	Washer (PBP) D3.1x8x0.1t		3
11-30	EZ528298	Rod Stand	ND-5008	1	11-82	ZW270088	'E' Ring 1.9M	6-1-9	1
11-31	EZ580915	Rec. Con Rod	TD-5015	1	11-83	ZG529683	Rec. Pull Spring B	ND-5029	2
11-32	ZG580882	Record Spring	TD-5009	1	11-84	EZ580893	P.C. Board Holder	TD-5011	4
11-33	ZW270101	'E' Ring 3M	6-1-9	2	11-85x	EZ581635	P.C. Board Angle A (Large)	TD-5013	1
11-34	EZ528322	SW. Slider	ND-5004	2	11-86x	EZ580904	P.C. Board Angle B (Small)	TD-5014	1
11-35	ZG528311	Coil Spring	ND-5005	2	11-87	ZS447772	Tapping Screw #2 3x6 (BR)		17
11-36	EZ528300	Spring Retainer	ND-5006	1	11-88x	EJ299823	Mate-N-Lock Cap Housing 6P 1-480276-0	52-1-2	1
11-37	EZ528467	Stopper	ND-5007	1	11-89x	EJ373623	Pin Contact 61116-1	52-1-1	5
11-38	ZW420682	Washer (Nylon) D4.2x9x0.5t		1	11-90	EJ292961	Multi-Jack 10P 500-010-005	31-4-4	1
11-39	SK528671	Push SW. Knob	ND-5011	2	11-91	EZ530021	Jack Nut Plate	ND-5052	1
11-40	ZG520716	RF Spring	3R-150	1	11-92x	ZS462947	Screw, pan head 2.3x12		2
<b>DOLBY/SOS SW. BLOCK</b>					11-93	EZ528963	Amp. Supporting Plate A	ND-5040	1
11-41x	BS587957	Dolby/Sos. SW. Block Comp. (DB)	TD-3	1	11-94	EZ528952	Amp. Supporting Plate B	ND-5041	1
11-42x	ES573693	Push SW. 2FST-6U-561-3	25-5-120	1	11-95x	ZS413155	Screw, binding head 3x6		2
11-43x	EZ580972	SW. Base	TD-5020	1	11-96	SK531224	Push Button Knob	91-5051	2
11-44x	SE580983	Lamp Mask	TD-5021	1	11-97	ES573671	Push SW. 1FST-6U-122-3	25-5-119	1
11-45x	EZ580994	Lamp Holder	TD-5022	1	11-98	ES574446	Slide SW. SSB08223	25-3-101	1
11-46x	EZ581005	Lamp Holder Support	TD-5023	1	11-99	EZ580871	SW. Mt. Parts	TD-5008	1
11-47x	SB581016	Lamp Button A (Green)	TD-5024	1	11-100	VM422381	Slide Plate Shaft	PX-A206	2
11-48x	SB581027	Lamp Button B (Orange)	TD-5024	1	11-101	EZ580860	Speed SW. Lever	TD-5007	1
11-49x	EL565468	Pilot Lamp (L/T) 24V 35MA (150M/Mx2)	28-2-24	1	11-102	ZW357164	'E' Ring 2.3M	6-1-9	2
11-50x	ZS417137	Screw, binding head 3x4		2	11-103	BA587913	SRT P.C. Board (B) Block	TD-5201	1
					11-104	SZ580735	Speed Change Plate	TD-2073	1
					11-105	EZ436217	Collar For Jack	MC-5006	3



FIG. 12 PHOTO OF P.B. P.C. BOARD (TD-5004) BLOCK

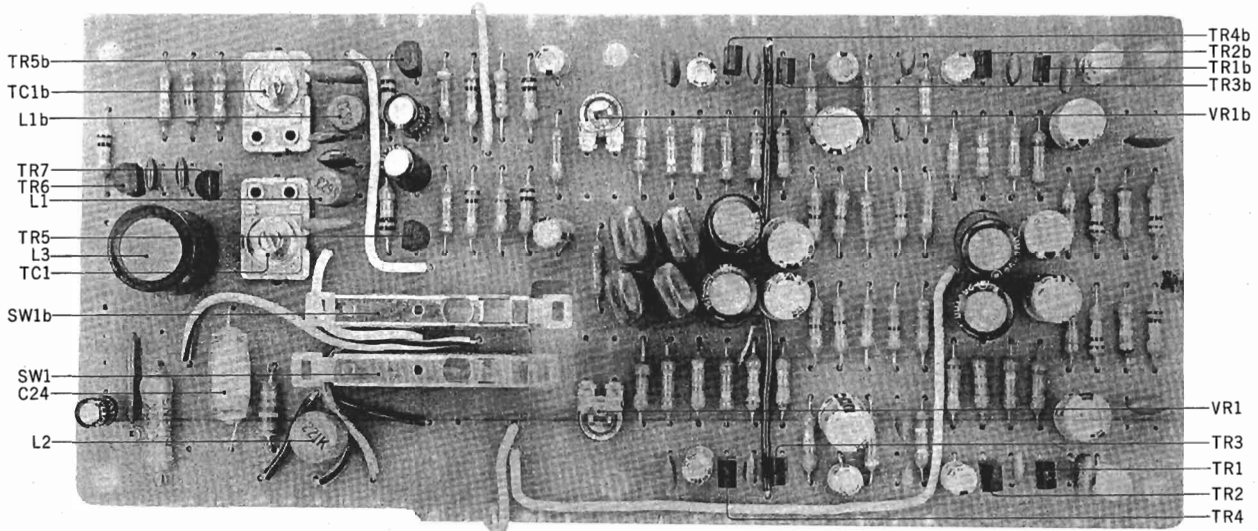


PB. P.C. BOARD (TD-5004) BLOCK

Symbol No.	Parts No.	Description	Q'ty	Symbol No.	Parts No.	Description	Q'ty
12-1x	BA587981	PB. P.C. Board Block Comp. (TD-5004)	1	<b>Resistor, Insulator Type</b>			
12-TR1to4	ET234854	Transistor 2SC458LG(C)	8	12-R1	ER559067	Carbon RD1/4 330k(J)	2
12-TR5	ET453486	Transistor 2SC711(E)(F)	2	12-R2	ER330063	Carbon RD1/4 47k(J)	2
12-D1	ED219464	Germanium Diode 1N34A	2	12-R3	ER559067	Carbon RD1/4 330k(J)	2
12-VR1	EV464220	Semi-fixed/Vol. V8K4-1 50 kB	2	12-R4	ER368111	Carbon RD1/4 10k(J)	2
12-L1	EO346230	Inductor RX 22MH	2	12-R5	ER368076	Carbon RD1/4 330(J)	2
12-T1	BT517274	Headphone Trans. N16-535S	2	12-R6	ER330041	Carbon RD1/4 150k(J)	2
		<b>Capacitor, Vertical Type</b>		12-R7	ER368133	Carbon RD1/4 22k(J)	2
12-C1	EC220151	Elect. 100μF 25WV	2	12-R8	ER364375	Carbon RD1/4 3.3k(J)	2
12-C2	EC432810	Elect. 10μF 16WV	2	12-R9	ER575548	Carbon RD1/4 4.3k(J)	2
12-C3	EC467133	VFM 68PF(J) 50WV	2	12-R10	ER330120	Carbon RD1/4 100k(J)	2
12-C4	EC290520	VFM 100PF(J) 50WV	2	12-R11	ER575537	Carbon RD1/4 3.9k(J)	2
12-C5	EC336104	Elect. 100μF 6.3WV	2	12-R12	ER364375	Carbon RD1/4 3.3k(J)	2
12-C6	EC290520	VFM 100PF(J) 50WV	2	12-R13	ER368122	Carbon RD1/4 18k(J)	2
12-C7	EC320051	Elect. 10μF 16WV	2	12-R14	ER337353	Carbon RD1/4 4.7k(J)	2
12-C8	EC336104	Elect. 100μF 6.3WV	2	12-R15	ER330063	Carbon RD1/4 47k(J)	2
12-C9	EC392038	Mylar 0.018μF(J) 50WV	2	12-R16	ER337342	Carbon RD1/4 1k(J)	2
12-C10, 11	EC335373	Mylar 0.0022μF(J) 50WV	4	12-R17	ER368076	Carbon RD1/4 330(J)	2
12-C12	EC220151	Elect. 100μF 25WV	2	12-R18	ER330052	Carbon RD1/4 2.2k(J)	2
12-C13	EC432810	Elect. 10μF 16WV NL	2	12-R19	ER368177	Carbon RD1/4 82k(J)	2
12-C14	EC329850	VFM 220PF(J) 50WV	2	12-R20	ER330052	Carbon RD1/4 2.2k(J)	2
12-C15	EC336104	Elect. 100μF 6.3WV	2	12-R21	ER368076	Carbon RD1/4 330(J)	2
12-C16	EC399565	VFM 22PF(J) 50WV	2	12-R22	ER575526	Carbon RD1/4 220(J)	2
12-C17	EC320051	Elect. 10μF 16WV	2	12-R23	ER368133	Carbon RD1/4 22k(J)	2
12-C18	EC336104	Elect. 100μF 6.3WV	2	12-R24	ER337342	Carbon RD1/4 1k(J)	2
12-C19	EC377212	VFM 47PF(J) 50WV	2	12-R25	ER368111	Carbon RD1/4 10k(J)	2
12-C20	EC450055	Elect. 1μF 25WV	2	12-R26	ER330120	Carbon RD1/4 100k(J)	2
12-C21	EC320051	Elect. 10μF 16WV	2	12-R27	ER537388	Carbon RD1/4 68k(J)	2
12-C22	EC450055	Elect. 1μF 25WV	2	12-R28	ER337353	Carbon RD1/4 4.7k(J)	2
				12-R29	ER575550	Carbon RD1/4 750(J)	2

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

FIG. 13 PHOTO OF REC. & OSC. P.C. BOARD (TD-5003) BLOCK

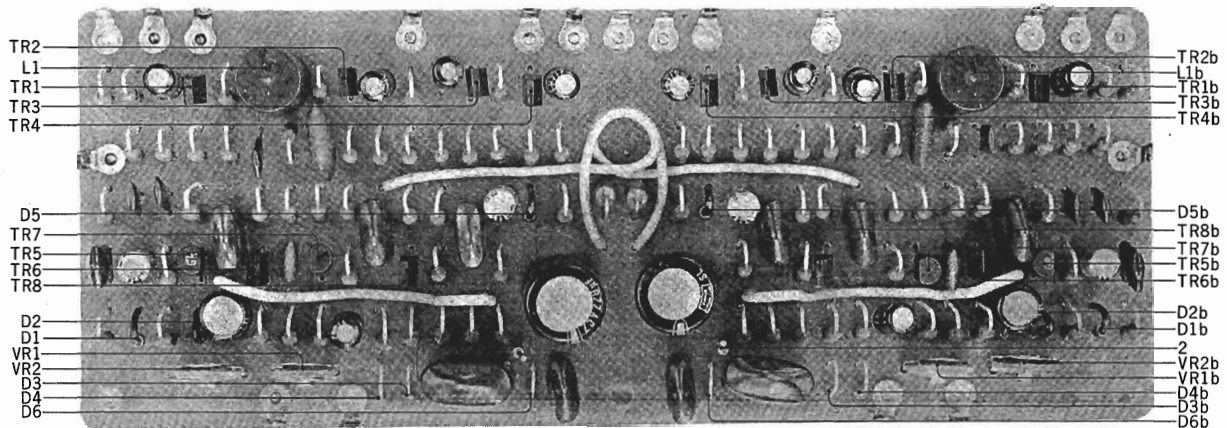


REC. & OSC. P.C. BOARD (TD-5003) BLOCK

Symbol No.	Parts No.	Description	Q'ty	Symbol No.	Parts No.	Description	Q'ty
13-1x	BA587968	Rec. & Osc. P.C. Board Comp. (TD-5003)	1	13-R1	ER368111	Resistor, Insulator Type Carbon RD1/4 10k(J)	2
13-2x	BA587970	Rec. & Osc. P.C. Board Comp. (TD-5003) (DB)	1	13-R2	ER559067	Carbon RD1/4 330k(J)	2
13-TR1 to 4	ET234854	Transistor 2SC458LG(C)	8	13-R3	ER368111	Carbon RD1/4 10k(J)	2
13-TR5	ET453486	Transistor 2SC711(E) (F)	2	13-R4	ER558606	Carbon RD1/4 680(J)	2
13-TR6, 7	ET495415	Transistor 2SC1211(D)	2	13-R5	ER330041	Carbon RD1/4 150k(J)	2
13-VR1	EV464207	Semi-fixed/Vol. V8K4-1 5 kΩ	2	13-R6	ER330052	Carbon RD1/4 2.2k(J)	2
13-TC1	EC398878	Trimmer/C. C-1P-2 70PF	2	13-R7	ER368122	Carbon RD1/4 18k(J)	2
13-L1	EO321254	Ferri Inductor FL7H 5.6MH(J)	2	13-R8	ER337397	Carbon RD1/4 2.7k(J)	2
13-L2	EO390622	Ferri Inductor FL9H 220μF(K)	1	13-R9	ER575616	Carbon RD1/4 1.6k(J)	2
13-L3	EO383365	Osc. Coil OT-204	1	13-R10	ER368122	Carbon RD1/4 18k(J)	2
13-L4	EO390622	Ferri Inductor FL9H 220μF(K)	1	13-R10	ER368133	Carbon RD1/4 22k(J) (DB)	2
13-SW1	ES520784	Slide SW. CL-104BO	2	13-R11	ER476313	Carbon RD1/2 220(J)	2
		<b>Capacitor, Vertical Type</b>		13-R12	ER337353	Carbon RD1/4 4.7k(J)	2
13-C1	EC290520	VFM 100PF(J) 50WV	2	13-R13	ER537366	Carbon RD1/4 120k(J)	2
13-C2	EC220151	Elect. 100μF 25WV	2	13-R14	ER575605	Carbon RD1/4 8.2k(J)	2
13-C3	EC432810	Elect. 10μF 16WV NL	2	13-R15	ER558584	Carbon RD1/4 270(J)	2
13-C4	EC290520	VFM 100PF(J) 50WV	2	13-R16	ER368177	Carbon RD1/4 82k(J)	2
13-C5	EC336104	Elect. 100μF 6.3WV	2	13-R18	ER330164	Carbon RD1/4 1.8k(J)	2
13-C6, 7	EC399565	VFM 22PF(J) 50WV	4	13-R19	ER575550	Carbon RD1/4 750(J)	2
13-C8	EC320051	Elect. 10μF 16WV	2	13-R20	ER368133	Carbon RD1/4 22k(J)	2
13-C9	EC336104	Elect. 100μF 6.3WV	2	13-R21	ER575594	Carbon RD1/4 36k(J)	2
13-C10	EC220151	Elect. 100μF 25WV	2	13-R22	ER558573	Carbon RD1/4 27k(J)	2
13-C11	EC377212	VFM 47PF(J) 50WV	2	13-R23	ER364375	Carbon RD1/4 3.3k(J) (DB)	2
13-C12	EC320051	Elect. 10μF 16WV	2	13-R24	ER368098	Carbon RD1/4 1.2k(J) (DB)	2
13-C13	EC336104	Elect. 100μF 6.3WV	2	13-R25	ER330052	Carbon RD1/4 2.2k(J)	2
13-C14	EC399565	VFM 22PF(J) 50WV	2	13-R26	ER558573	Carbon RD1/4 27k(J)	2
13-C15	EC290520	VFM 100PF(J) 50WV	2	13-R27	ER368111	Carbon RD1/4 10k(J)	2
13-C16	EC336104	Elect. 100μF 6.3WV	2	13-R28	ER337342	Carbon RD1/4 1k(J)	2
13-C17	EC320051	Elect. 10μF 16WV	2	13-R29	ER337353	Carbon RD1/4 4.7k(J)	2
13-C18, 19	EC333562	Mylar 0.18μF(K) 50WV	4	13-R30	ER368111	Carbon RD1/4 10k(J)	2
13-C20	EC320051	Elect. 10μF 16WV	2	13-R31	ER368087	Carbon RD1/4 470(J)	1
13-C21	EC220994	Elect. 10μF 25WV	2	13-R32, 33	ER575583	Carbon RD1/4 3.3(J)	2
13-C22	EC380621	Mylar 0.0068μF(J) 50WV	2	13-R34	ER368111	Carbon RD1/4 10k(J)	1
13-C23	EC389237	VFM 200PF(J) 50WV	2	13-R35	ER426892	Solid RC1/2 2.4k(J)	1
13-C24	EC573636	Plastic Film 620PF(J) 500WV	1	13-R38	BZ483287	Metal Oxide Film 2W 100(K)	1
13-C25, 26	EC250841	Mylar 0.01μF(J) 50WV	2	13-R39	ER552802	Carbon RD1/2 100(J)	1
13-28	EC450527	Elect. 4.7μF 25WV	1				
13-29	EC336115	Elect. 220μF 25WV	1				

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

FIG. 14 PHOTO OF DOLBY P.C. BOARD (TD-5301) BLOCK

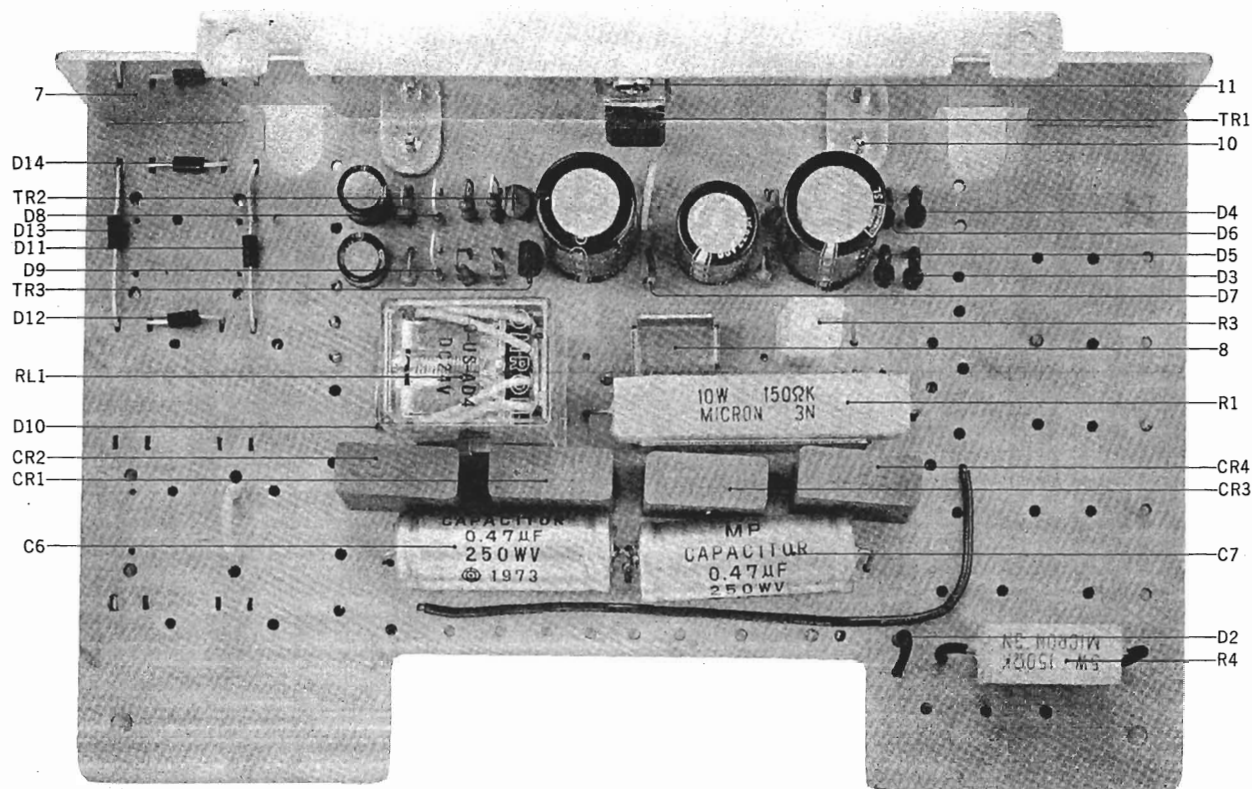


DOLBY P.C. BOARD (TD-5301) BLOCK

Symbol No.	Parts No.	Description	Q'ty	Symbol No.	Parts No.	Description	Q'ty
14-1x	BA588003	Dolby P.C. Board Comp. (TD-5301)	1				
14-TR1	ET234854	Transistor 2SC458LG(C)	2	14-R1	ER419556	Resistor, Stopper Type	2
14-TR2	ET329218	Transistor 2SC458(C)	2	14-R2	ER336442	Carbon RD1/4 10k(J)	2
14-TR3	ET352146	Transistor 2SC458LG(D)	2	14-R3	ER306887	Carbon RD1/4 15k(J)	2
14-TR4	ET329218	Transistor 2SC458(C)	2	14-R4	ER346601	Carbon RD1/4 47k(J)	2
14-TR5	ET391051	FET 2SK30A(GR)	2	14-R5	ER429996	Carbon RD1/4 470k(J)	2
14-TR6	ET234854	Transistor 2SC458LG(C)	2	14-R6	ER212477	Carbon RD1/4 3.3k(J)	2
14-TR7	ET350335	Transistor 2SA564(Q)	2	14-R7	ER304402	Carbon RD1/4 470(J)	2
14-TR8	ET329218	Transistor 2SC458(C)	2	14-R8	ER212264	Carbon RD1/4 22k(J)	2
14-D1	ED219464	Germanium Diode 1N34A	2	14-R9	ER336442	Carbon RD1/4 10k(J)	2
14-D2	ED491130	Zener Diode WZ-085	2	14-R10	ER343078	Carbon RD1/4 2.7k(J)	2
14-D3, 4	ED560913	Silicon Diode 1S2473 VE	4	14-R11	ER349907	Carbon RD1/4 33k(J)	2
14-D5	ED219464	Germanium Diode 1N34A	2	14-R12	ER397570	Carbon RD1/4 150k(J)	2
14-D6	ED560913	Silicon Diode 1S2473 VE	2	14-R13	ER212174	Carbon RD1/4 180k(J)	2
14-VR1	EV523620	Semi-Fixed/Vol. V8K4-1 500 ΩB	2	14-R14	ER212264	Carbon RD1/4 22k(J)	2
14-VR2	EV464207	Semi-Fixed/Vol. V8K4-1 5 kΩ	2	14-R15	ER357570	Carbon RD1/4 150k(J)	2
14-L1	EO496350	Inductor 146LY 36 MH(J)	2	14-R16	ER212264	Carbon RD1/4 22k(J)	2
14-2	EJ363126	P.C.Board Terminal	2	14-R17	ER349942	Carbon RD1/4 8.2k(J)	2
		<b>Capacitor, Vertical Type</b>		14-R18	ER343078	Carbon RD1/4 2.7k(J)	2
14-C1	EC320051	Elect. 10μF 16WV	2	14-R19	ER458728	Carbon RD1/2 100(J)	2
14-C2	EC350875	Mylar 0.001μF(J) 50WV	2	14-R20,21	ER349907	Carbon RD1/4 33k(J)	4
14-C3	EC336194	VFM 270PF(J) 50WV	2	14-R22	ER357535	Carbon RD1/4 39k(J)	2
14-C4, 5,6	EC320051	Elect. 10μF 16WV	6	14-R23	ER212477	Carbon RD1/4 3.3k(J)	2
14-C7	EC313121	Elect. 220μF 25WV	2	14-R24	ER349942	Carbon RD1/4 8.2k(J)	2
14-C8	EC329883	Mylar 0.0056μF(J) 50WV	2	14-R25	ER306843	Carbon RD1/4 1.2k(J)	2
14-C9	EC329861	Mylar 0.027μF(J) 50WV	2	14-R26	ER430097	Carbon RD1/4 680k(J)	2
14-C10	EC337500	Mylar 0.0047μF(J) 50WV	2	14-R27	ER357456	Carbon RD1/4 2.2k(J)	2
14-C11	EC320051	Elect. 10μF 16WV	2	14-R28	ER306887	Carbon RD1/4 15k(J)	2
14-C12	EC379170	Mylar 0.1μF(J) 50WV	2	14-R29to31	ER349942	Carbon RD1/4 8.2k(J)	6
14-C13	EC320040	Elect. 47μF 16WV	2	14-R32	ER336442	Carbon RD1/4 10k(J)	2
14-C14	EC290520	VFM 100PF(J) 50WV	2	14-R33	ER349907	Carbon RD1/4 33k(J)	2
14-C15	EC320051	Elect. 10μF 16WV	2	14-R34	ER450011	Carbon RD1/4 120k(J)	2
14-C16	EC379170	Mylar 0.1μF(J) 50WV	2	14-R35	ER346601	Carbon RD1/4 47k(J)	2
14-C17	EC320051	Elect. 10μF 16WV	2	14-R36	ER343078	Carbon RD1/4 2.7k(J)	2
14-C18,19	EC379170	Mylar 0.1μF(J) 50WV	4	14-R37	ER211465	Carbon RD1/4 1k(J)	2
14-C20	EC395504	Mylar 0.33μF(K) 50WV	2	14-R38	ER380913	Carbon RD1/4 33(J)	2
				14-R39	ER361642	Carbon RD1/4 47(J)	2
				14-R40	ER306887	Carbon RD1/4 15k(J)	2
				14-R41,42	ER426857	Carbon RD1/4 270k(J)	4
				14-R43	ER380711	Carbon RD1/4 220k(J)	2

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

FIG. 15 PHOTO OF POWER SUPPLY P.C. BOARD (TD-2060) BLOCK



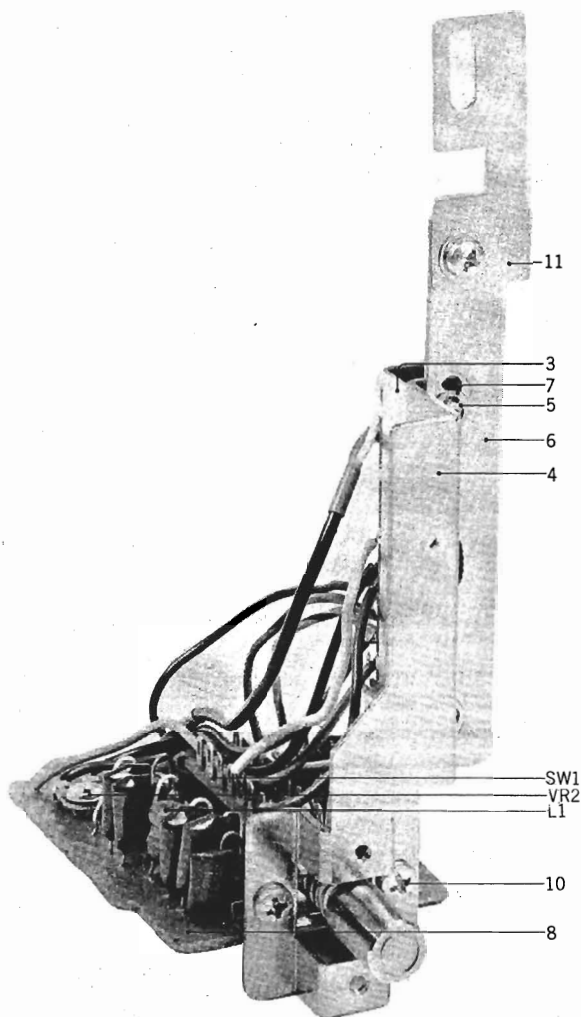
**POWER SUPPLY P.C. BOARD  
(TD-2060) BLOCK**

Symbol No.	Parts No.	Description	Q'ty	Symbol No.	Parts No.	Description	Q'ty
15-1x	BA587698	Power Supply P.C. Board Comp. (TD-2060)	1	<b>Capacitor, Vertical Type</b>			
15-2x	BA589847	Power Supply P.C. Board Comp. (TD-2060)(UL)	1	15-C1	EC403468	Elect. 330μF 50WV	1
15-3x	BA587711	Power Supply P.C. Board Comp. (TD-2060)(EC,JPN)	1	15-C2	EC372148	Elect. 220μF 35WV	1
15-4x	BA587700	Power Supply P.C. Board Comp. (TD-2060) (pro)	1	15-C3	EC331817	Elect. 470μF 25WV	1
15-5x	BA589858	Power Supply P.C. Board Comp. (TD-2060) (pro-UL)	1	15-C4, 5	EC220612	Elect. 33μF 25WV	2
15-6x	BA587722	Power Supply P.C. Board Comp. (TD-2060) (pro-EC, JPN)	1	15-C6, 7	EC350987	MP 0.47μF(M) 250VAC(Tub. type)	2
15-TR1	ET517375	Transistor 2SD360(D)(E)	1	<b>Resistor, Stopper Type</b>			
15-TR2, 3	ET453486	Transistor 2SC711(E)(F)	2	15-R1	ER573524	Cement 10W 150(K) (Wire-wound type)	1
15-D2	ED224550	Silicon Diode 10D4	1	15-R3	ER535948	Cement 5W 10(K)	1
15-D3 to 6	ED494583	Silicon Diode 10D05	4	15-R4	ER573715	Cement 5W 150(K) (Wire-wound type)	1
15-D7	ED511918	Zener Diode WZ-240	1	15-R5	ER306843	Carbon RD1/4 1.2k(J)	1
15-D8 to 10	ED560913	Silicon Diode 1S2473 VE	3	15-R6	ER211667	Carbon RD1/4 100(J)	2
15-D11 to 14	ED224550	Silicon Diode 10D4	4	15-R8	ER211465	Carbon RD1/4 1k(J)	1
15-RL1	EP344136	Relay MY4-0-US-AD4 24V	1	15-R9	ER336442	Carbon RD1/4 10k(J)	1
15-CR1 to 4	ER376435	Spark Quencher U/L 0.1μ+120Ω 250WV	4	15-R10	ER380711	Carbon RD1/4 220k(J)	1
15-7	EZ581624	Heat-sink Plate	1	15-R11	ER211667	Carbon RD1/4 100(J)	1
15-8	EZ580623	Cement/R. Base	1	15-R12	ER362485	Carbon RD1/4 330k(J)	1
15-9x	ZS413155	Screw, binding head 3x6	2	15-R13	ER212883	Carbon RD1/4 4.7k(J)	1
15-10	ZS447840	Tapping Screw #2 3x8(BR)	2				
15-11	ZS413741	Screw, binding head 3x8	1				
15-12x	ZW273756	Nut M3	1				
15-13x	EJ580825	Fuse Hodler	14				
15-14x	EZ581804	Insulator Barrier 2	1				

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

Dolby is a trademark of Dolby Laboratories, Inc. Under License from Dolby Laboratories, Inc.

**FIG. 16 PHOTO OF  
SPEED CHANGE/SRT P.C. BLOCK**

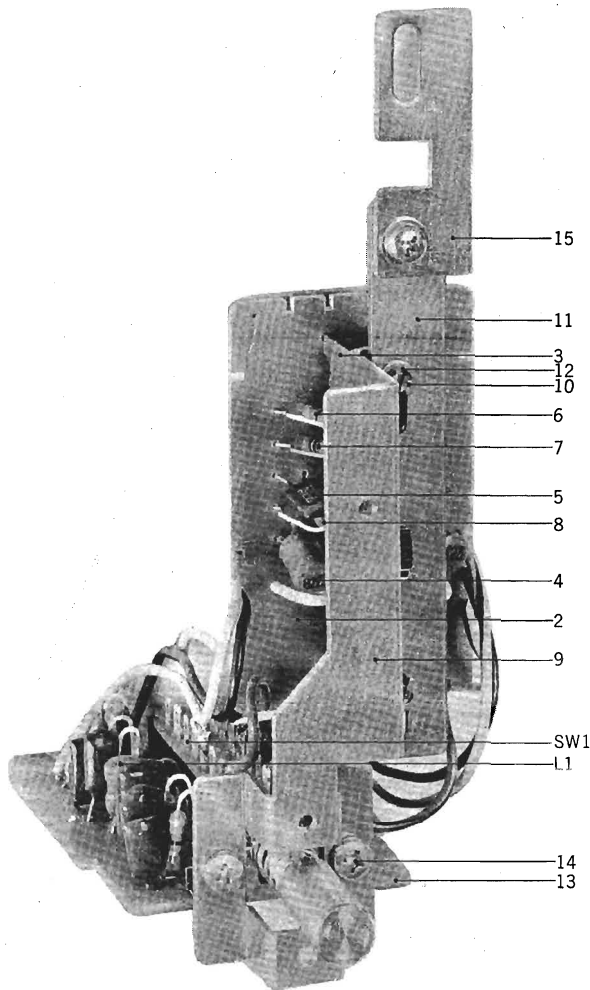


**SPEED CHANGE/SRT P.C. BLOCK**

Symbol No.	Parts No.	Description	Q'ty
<b>SPEED CHANGE SW. P.C. BLOCK</b>			
16-1x	BA587878	Speed Change SW. P.C. Block Comp.	1
16-2x	BA587891	Speed Change SW. P.C. Block Comp. (DB)	1
16-3	ES574446	Slide SW. SSBO8223	1
16-4	EZ580871	SW. Retaining Parts	1
16-5	VM422381	Slide Plate Shaft	2
16-6	EZ580860	Speed SW. Lever	1
16-7	ZW357164	'E' Ring 2.3M	2
16-8	BA587913	SRT P.C. Board B(TD-5201) Comp.	1
16-9x	BA587924	SRT P.C. Board B(TD-5201) Comp. (DB)	1
16-10	ZS371856	ISO Screw, binding head 3x5	2
16-11	SZ580735	Speed Change Plate	1
<b>SRT P.C. BOARD B (TD-5201) BLOCK</b>			
16-8	BA587913	SRT P.C. Board B (TD-5201) Comp.	1
16-9x	BA587924	SRT P.C. Board B (TD-5201) Comp. (DB)	1
16-SW1	ES573671	Push SW. 1FST-6U-122-3	1
16-VR1, 2	EV522797	Semi-Fixed/Vo. V8K4-1 20kB (DB)	1
16-L1	EO369178	Ferri Inductor FL7H 1.5MH(J)	2
<b>Capacitor, Vertical Type</b>			
16-C1	EC329861	Mylar 0.027 $\mu$ F(J) 50WV	2
16-C2	EC379214	Mylar 0.047 $\mu$ F(J) 50WV	2
16-C3	EC368335	Mylar 0.022 $\mu$ F(J) 50WV	2
16-C4	EC379214	Mylar 0.047 $\mu$ F(J) 50WV	2
16-C5	EC379192	Mylar 0.039 $\mu$ F(J) 50WV	2
<b>Resistor, Stopper Type</b>			
16-R1	ER349784	Carbon RD1/4 390(J)	2
16-R2	ER213120	Carbon RD1/4 56(J)	2
16-R3	ER362441	Carbon RD1/4 1.8k(J)	2
16-R4	ER406923	Carbon RD1/4 75(J)	2
16-R5	ER380913	Carbon RD1/4 33(J)	2
16-R6	ER430053	Carbon RD1/4 22(J)	2

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

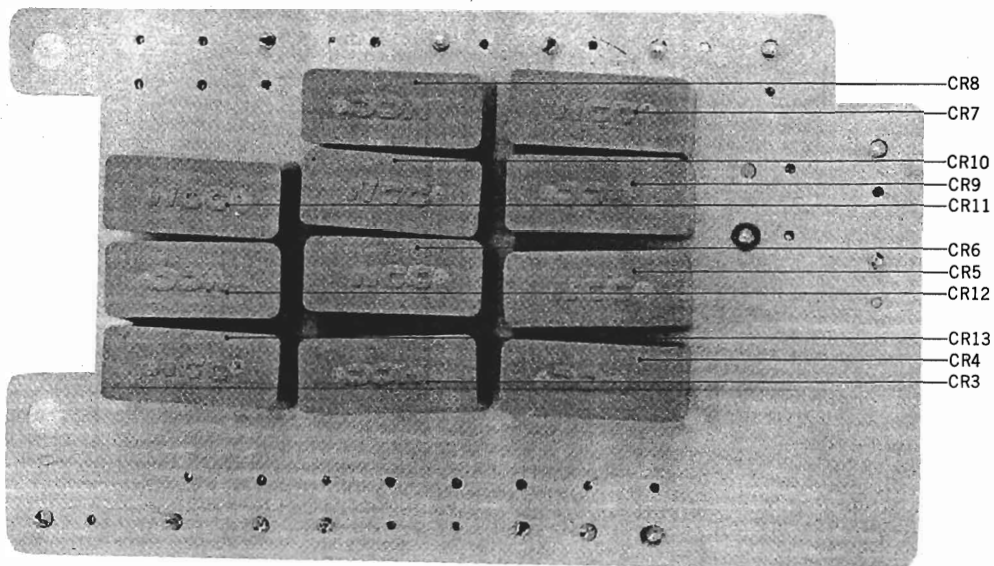
FIG. 17 PHOTO OF SPEED  
CHANGE/SRT P.C. BLOCK (PRO)



**SPEED CHANGE/SRT P.C. BLOCK (PRO)**

Symbol No.	Parts No.	Description	Q'ty
<b>SPEED CHANGE SW. P.C. BLOCK</b>			
17-1x	BA587880	Speed Change SW. P.C. Block Comp. (PRO)	1
17-2	EA581758	Speed Change SW. P.C. Board	1
17-3	ES520672	Slide SW. SL-282B4	1
17-4	EO379923	Ferri Inductor FL7H 8.2 mH(J)	2
17-5	EC250841	Mylar/C. 0.01 $\mu$ F(J) 50WV (Vert. type)	2
17-6	ER380913	Carbon/R. RD1/4 33(J) (Stop. type)	2
17-7	ER211667	Carbon/R. RD1/4 100(J) (Stop. type)	2
17-8	ER350065	Carbon/R. RD1/4 430(J) (Stop. type)	2
17-9	EZ580871	SW. Retaining Parts	1
17-10	VM422381	Slide Plate Shaft	2
17-11	EZ580860	Speed SW. Lever	1
17-12	ZW357164	'E' Ring 2.3M	2
17-13	BA587902	SRT P.C. Board A (TD-5006) Comp. (PRO)	1
17-14	ZS371856	ISO Screw, binding head 3x5	2
17-15	SZ580735	Speed Change Plate	1
<b>SRT P.C. BOARD A (TD-5006) BLOCK</b>			
17-13	BA587902	SRT P.C. Board A (TD-5006) Comp. (PRO)	1
17-SW1	ES573671	Push SW. 1FST-6U-122-3	1
17-L1	EO369178	Ferri Inductor FL7H 1.5MH(J)	2
<b>Capacitor, Vertical Type</b>			
17-C1	EC250841	Mylar 0.01 $\mu$ F(J) 50WV	2
17-C2	EC411827	Mylar 0.0082 $\mu$ F(J) 50WV	2
17-C3	EC329861	Mylar 0.027 $\mu$ F(J) 50WV	2
17-C4	EC379214	Mylar 0.047 $\mu$ F(J) 50WV	2
17-C5	EC368335	Mylar 0.022 $\mu$ F(J) 50WV	2
<b>Resistor, Stopper Type</b>			
17-R1	ER213096	Carbon RD1/4 510(J)	2
17-R2	ER349784	Carbon RD1/4 390(J)	2
17-R3, 4	ER380913	Carbon RD1/4 33(J)	4
17-R5	ER213120	Carbon RD1/4 56(J)	2
17-R6	ER362441	Carbon RD1/4 1.8k(J)	2
17-R7	ER406923	Carbon RD1/4 75(J)	2

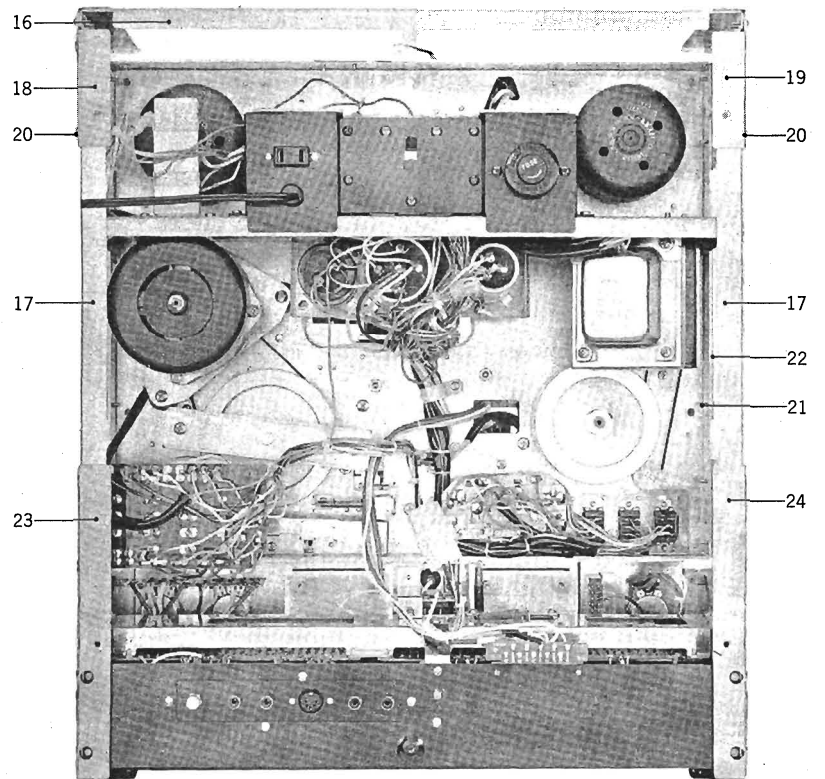
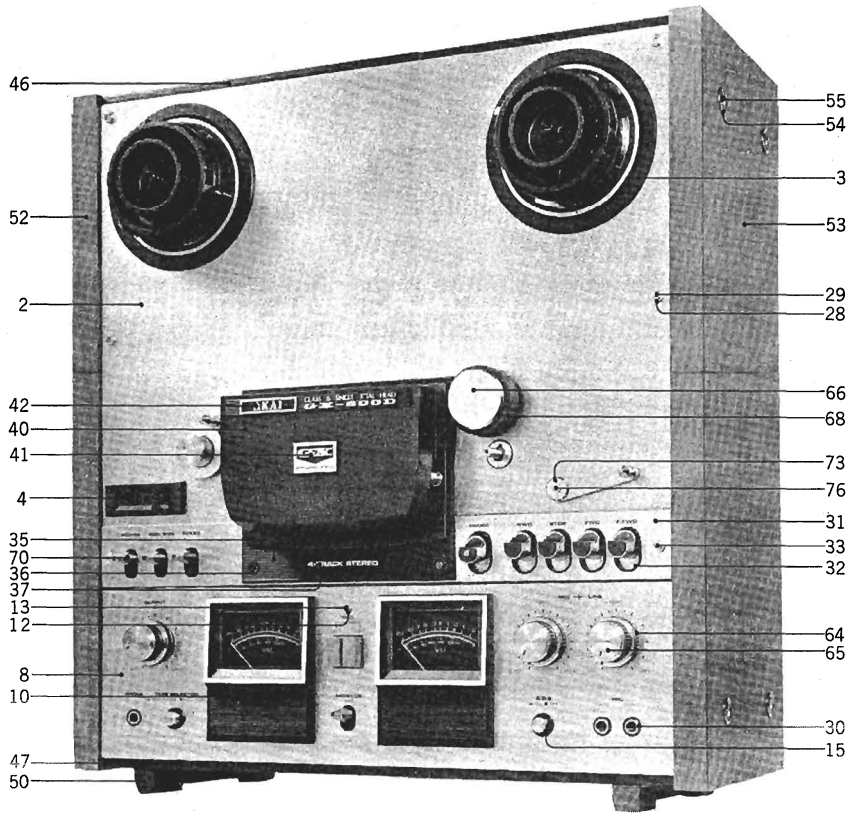
FIG. 18 PHOTO OF SPARK QUENCHER P.C. BOARD (A) (TD-2086) BLOCK



**SPARK QUENCHER P.C. BOARD (A)  
(TD-2086) BLOCK**

Symbol No.	Parts No.	Description	Q'ty
18-1x	BA587586	Spark Quencher P.C. Board (A) Comp. (TD-2086)	1
18-CR3to13	ER376435	Spark Quencher U/L 0.1 $\mu$ +120 $\Omega$ 250WV	11

FIG. 19 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
<b>MECH. PANEL BLOCK</b>					<b>MECH. PANEL BLOCK</b>				
19-1x	BZ587373	Mech. Panel Block Comp.	TD	1	19-67x	SK534374	Pinch Roller Cap (PRO)	TW-6019	1
19-2	SP581455	Mech. Panel	TD-6001	1	19-68	MP582164	Pinch Roller D=42	TD-1034	1
19-3	SE581602	Reel Table Escutcheon 2	TD-6021	2	19-69x	MP533744	Pinch Roller TW D=36 (PRO)	TW-1040	1
19-4	SE528906	Counter Escutcheon	ND-6008	1	19-70	SK581837	Amp. Knob 1-B	CP-5018	3
19-5x	ZW575730	Speed Nut (P Type) 3M	6-3-6	8	19-71x	EF563681	Fuse 1A 250V	39-1-50	1
<b>AMP. PANEL BLOCK</b>					<b>AMP. PANEL BLOCK</b>				
19-6x	BZ587384	Amp. Panel Block Comp.	TD-1, 2	1	19-72x	SZ580735	Speed Change Plate	TD-2073	1
19-7x	BZ587395	Amp. Panel Block Comp. (DB)	TD-3	1	19-73	ZW535094	Decorative Washer	TW-2077	1
19-8	SP581422	Amp. Panel A	TD-6004	1	19-74x	ZW575785	Washer (Nylon) D6.5x10.3x0.5t		1
19-9x	SP581512	Amp. Panel B (DB)	TD-6004	1	19-75x	ZW260010	Washer (PBP) D6.1x10x0.1t		2
19-10	SZ473815	VU Meter Cover	KH-6020	2	19-76	ZS575796	Screw, oval countersunk head 3x5		1
19-11x	ZS355500	Screw, binding head 2.6x5		6	19-77x	SZ581141	Protector Plate (JPN)	TD-1062	1
19-12	SZ457806	Lens Holder	55-5013	1	19-78x	ZS355511	Screw, binding head 3x6		2
19-13	EL569878	Lamp Lense A-2 (Red)	55-5011	1	19-79x	EF563703	Fuse 2A 250V	39-1-50	1
19-14x	ZW405865	Washer (Nylon) D5.2x10.3x0.5t		1					
19-15	SE569744	Knob Escutcheon	TD-6017	2					
<b>FINAL ASSEMBLY BLOCK</b>									
19-16	SZ529920	Reinforcement Angle A	ND-6003	1					
19-17	SZ529086	Reinforcement Angle B	ND-6004	2					
19-18	SZ581534	Mech. Side Plate A (Right)	TD-6006	1					
19-19	SZ581545	Mech. Side Plate B (Left)	TD-6006	1					
19-20	ZS419736	Screw, binding head 4x6		8					
19-21	ZS447840	Tapping Screw #2 3x8 (BR)		12					
19-22	SZ581040	Panel Support	TD-6012	2					
19-23	MZ529931	Mech. Side Plate C (Right)	ND-6002	1					
19-24	MZ529942	Mech. Side Plate D (Left)	ND-6002	1					
19-25x	SZ581218	Amp. Panel Support A (Right)	TD-6018	1					
19-26x	SZ581220	Amp. Panel Support B (Left)	TD-6018	1					
19-27x	ZS447772	Tapping Screw #2 3x6 (BR)		6					
19-28	ZW408418	Panel Washer	KD-6029	6					
19-29	ZS203084	Screw, oval countersunk head 3x8		4					
19-30	EZ436217	Collar For Jack	MC-5006	3					
19-31	SP581433	Control Panel	TD-6005	1					
19-32	SE581038	Operation Button Escutcheon	TD-6007	5					
19-33	ZS408690	Screw, oval countersunk head 3x10		2					
19-34x	ZS200687	Tapping Screw #2 3x6 (Round)		2					
19-35	SC581400	Head Cover Base	TD-6002	1					
19-36	ZW421740	Screw, pan head 3x8 (Black)		2					
19-37	SM581084	Name Plate (4TR)	TD-6024	1					
19-38x	SM581073	Name Plate (2TR)	TD-6023	1					
19-39x	SM495977	Name Plate (DB)	KD-A6207	1					
19-40	SC581411	Head Cover	TD-6003	1					
19-41	SM382285	GX Symbol Plate	RD-A633	1					
19-42	SM581062	Name Plate GX-600D	TD-6022	1					
19-43x	SM583323	Name Plate (DB)	TD-6031	1					
19-44x	ZW527670	Head Cover Retaining Ring	ND-6018	2					
19-45x	SZ529874	Head Cover Prop	ND-6014	2					
19-46	SP528748	Upper Plate	ND-6022	1					
19-47	SP528750	Lower Plate	ND-6022	1					
19-48x	SZ483737	Panel Washer B (Black)	KD-6029	4					
19-49x	ZS482815	Screw, oval countersunk head 3x8 (Black)		4					
19-50	SZ549516	ND Square Foot	ND-6041	2					
19-51x	ZS413245	Screw, pan head 4x15		4					
19-52	SP527692	Side Plate A (Right)	ND-6021	1					
19-53	SP527703	Side Plate B (Left)	ND-6021	1					
19-54	ZW548010	Spot Facing Washer	MU-6028	8					
19-55	ZS561295	Screw, binding head 4x25		8					
19-56x	SP581670	Rear Plate U	ND-6023	1					
19-57x	SP581657	Rear Plate A (UL)	ND-6023	1					
19-58x	SP581668	Rear Plate E (EC)	ND-6023	1					
19-59x	SP581501	Rear Plate J (JPN)	ND-6023	1					
19-60x	SA377190	Rubber Foot, LM	LM-404	4					
19-61x	ZW419646	Washer (SPC) D4.5x9.8x0.5t		4					
19-62x	ZS536444	Screw, binding head 4x18		4					
19-63x	ZS498273	Tapping Screw #2 3x8, w/washer		2					
19-64	SK549843	Double Knob A, w/rubber ring	TW-6304	3					
19-65	SK549876	Double Knob B, w/rubber ring	TW-6307	3					
19-66	SK581051	Pinch Roller Cap	TD-6013	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.
BA587586	8-44x	EC320051	14-C4,5,6	EF563703	9-34x	ER336442	14-R32	ER537366	13-R13
BA587586	18-1x	EC320051	14-C11	EF563703	9-47x	ER336442	15-R9	ER537388	12-R27
BA587698	15-1x	EC320051	14-C15	EF563703	19-79x	ER337342	12-R16	ER552802	13-R39
BA587700	15-4x	EC320051	14-C17	EF575932	9-35x	ER337342	12-R24	ER558573	13-R22
BA587711	15-3x	EC329850	12-C14	EJ205975	9-61x	ER337342	13-R28	ER558573	13-R26
BA587722	15-6x	EC329861	14-C9	EJ205986	10-93x	ER337353	12-R14	ER558584	13-R15
BA587878	16-1x	EC329861	16-C1	EJ233370	9-27	ER337353	12-R28	ER558606	13-R4
BA587880	17-1x	EC329861	17-C3	EJ292961	11-90	ER337353	13-R12	ER559067	12-R1
BA587891	16-2x	EC329883	14-C8	EJ299823	9-59x	ER337353	13-R29	ER559067	12-R3
BA587902	17-13	EC331817	15-C3	EJ299823	11-88x	ER337397	13-R8	ER559067	13-R2
BA587902	17-13	EC333562	13-C18,19	EJ315101	1-32	ER343078	14-R10	ER565301	11-24x
BA587913	11-103	EC335373	12-C10,11	EJ328320	11-71x	ER343078	14-R18	ER573524	15-R1
BA587913	16-8	EC336104	12-C5	EJ363126	4-2	ER343078	14-R36	ER573715	15-R4
BA587913	16-8	EC336104	12-C8	EJ372892	11-19	ER345712	11-59x	ER575526	12-R22
BA587924	16-9x	EC336104	12-C15	EJ373623	9-60x	ER345756	11-25x	ER575537	12-R11
BA587924	16-9x	EC336104	12-C18	EJ373623	11-89x	ER346601	14-R4	ER575548	12-R9
BA587946	11-20x	EC336104	13-C5	EJ374016	11-16	ER346601	14-R35	ER575550	12-R29
BA587968	13-1x	EC336104	13-C9	EJ379844	9-18	ER349784	16-R1	ER575550	13-R19
BA587970	13-2x	EC336104	13-C13	EJ457637	11-55	ER349784	17-R2	ER575583	13-R32,33
BA587981	12-1x	EC336104	13-C16	EJ457661	11-54	ER349907	14-R11	ER575594	13-R21
BA588003	14-1x	EC336115	13-29	EJ558246	11-53x	ER349907	14-R20,21	ER575605	13-R14
BA589847	15-2x	EC336194	14-C3	EJ561227	9-22x	ER349907	14-R33	ER575616	13-R9
BA589858	15-5x	EC337500	14-C10	EJ580825	9-45x	ER349942	14-R17	ER575640	9-50
BC580792	5-6	EC350875	14-C2	EJ580825	15-13x	ER349942	14-R24	ES403727	10-51
BF587520	4-1x	EC350987	15-C6,7	EJ581646	11-52	ER349942	14-R29to31	ES479485	7-15
BF587531	4-2x	EC368335	16-C3	EJ589331	10-92x	ER350065	17-8	ES479485	9-39
BH587777	1-1x	EC368335	17-C5	EL565468	11-15	ER357456	14-R27	ES479485	9-56x
BH587788	1-2x	EC372148	15-C2	EL565468	11-49x	ER357535	14-R22	ES479496	7-16
BI587755	5-1x	EC377212	12-C19	EL569878	19-13	ER357570	14-R15	ES520672	17-3
BK587575	8-23x	EC377212	13-C11	EM561756	11-9	ER361642	14-R39	ES520784	13-SW1
BL587564	8-1x	EC379170	14-C12	EM573748	11-10x	ER362441	16-R3	ES562465	6-35
BL587801	6-1x	EC379170	14-C16	EO321254	13-L1	ER362441	17-R6	ES562465	8-39
BM587507	2-1x	EC379170	14-C18,19	EO346230	12-L1	ER362485	15-R12	ES565255	11-3
BM587518	3-1	EC379192	16-C5	EO369178	16-L1	ER364375	12-R8	ES565446	11-4x
BR587542	3-6x	EC379214	16-C2	EO369178	17-L1	ER364375	12-R12	ES571094	11-6
BR587553	3-7x	EC379214	16-C4	EO379923	17-4	ER364375	13-R23	ES573456	8-41
BS587733	7-1x	EC379214	17-C4	EO383365	13-L3	ER365016	9-15x	ES573456	9-58x
BS587744	7-2x	EC380621	13-C22	EO390622	13-L2	ER368076	12-R5	ES573456	10-101
BS587957	11-41x	EC389237	13-C23	EO390622	13-L4	ER368076	12-R17	ES573478	8-40
BT517274	12-T1	EC392038	12-C9	EO496350	14-L1	ER368076	12-R21	ES573535	9-57x
BT573480	9-5x	EC395504	14-C20	EP344136	15-RL1	ER368087	13-R31	ES573671	11-97
BT573491	9-3x	EC398878	13-TC1	EP573658	10-9	ER368098	13-R24	ES573671	16-SW1
BT573502	9-4x	EC399565	12-C16	EP574885	10-46	ER368111	12-R4	ES573671	17-SW1
BT573513	9-2	EC399565	13-C6,7	ER211465	14-R37	ER368111	12-R25	ES573693	11-42x
BZ483287	13-R38	EC399565	13-C14	ER211465	15-R8	ER368111	13-R1	ES574446	11-98
BZ587373	19-1x	EC403468	15-C1	ER211667	15-R6	ER368111	13-R3	ES574446	16-3
BZ587384	19-6x	EC411827	17-C2	ER211667	15-R11	ER368111	13-R27	ET234854	12-TR1to4
BZ587395	19-7x	EC432810	12-C2	ER211667	17-7	ER368111	13-R30	ET234854	13-TR1to4
BZ587766	10-1x	EC432810	12-C13	ER212174	14-R13	ER368111	13-R34	ET234854	14-TR1
BZ587935	11-26x	EC432810	13-C3	ER212264	14-R8	ER368122	12-R13	ET234854	14-TR6
EA382713	1-31x	EC442056	9-12	ER212264	14-R14	ER368122	13-R7	ET329218	14-TR2
EA581758	17-2	EC450055	12-C20	ER212264	14-R16	ER368122	13-R10	ET329218	14-TR4
EA581760	11-21	EC450055	12-C22	ER212477	14-R6	ER368133	12-R7	ET329218	14-TR8
EA581782	7-11	EC450527	13-28	ER212477	14-R23	ER368133	12-R23	ET350335	14-TR7
EA581815	9-44x	EC467133	12-C3	ER212883	15-R13	ER368133	13-R10	ET352146	14-TR3
EC220151	12-C1	EC520626	9-10	ER213096	17-R1	ER368133	13-R20	ET453486	12-TR5
EC220151	12-C12	EC536927	9-11x	ER213120	16-R2	ER368177	12-R19	ET453486	13-TR5
EC220151	13-C2	EC536938	9-13x	ER213120	17-R5	ER368177	13-R16	ET453486	15-TR2,3
EC220151	13-C10	EC557190	9-9	ER213647	11-61x	ER376435	7-12	ET491051	14-TR5
EC220612	15-C4,5	EC573636	13-C24	ER304402	14-R7	ER376435	15-CR1to4	ET495415	13-TR6,7
EC220994	13-C21	ED219464	12-D1	ER306843	14-R25	ER376435	18-CR3to13	ET517375	15-TR1
EC250841	13-C25,26	ED219464	14-D1	ER306843	15-R5	ER380711	14-R43	EV464207	13-VR1
EC250841	17-C1	ED219464	14-D5	ER306887	14-R3	ER380711	15-R10	EV464207	14-VR2
EC250841	17-5	ED224550	10-10x	ER306887	14-R28	ER380913	14-R38	EV464220	12-VR1
EC290520	12-C4	ED224550	15-D2	ER306887	14-R40	ER380913	16-R5	EV522797	16-VR1,2
EC290520	12-C6	ED224550	15-D11to14	ER329264	11-60x	ER380913	17-6	EV523620	14-VR1
EC290520	13-C1	ED491130	14-D2	ER329308	11-23x	ER380913	17-R3,4	EV573660	11-2
EC290520	13-C4	ED494583	15-D3to6	ER330041	12-R6	ER397570	14-R12	EV573682	11-22
EC290520	13-C15	ED511907	10-48x	ER330041	13-R5	ER406923	16-R4	EW466784	9-55x
EC290520	14-C14	ED511918	15-D7	ER330052	12-R18	ER406923	17-R7	EW524845	9-54x
EC313121	14-C7	ED560913	14-D3,4	ER330052	12-R20	ER419556	14-R1	EW540112	9-52
EC320040	14-C13	ED560913	14-D6	ER330052	13-R6	ER426857	14-R41,42	EW559260	9-53x
EC320051	12-C7	ED560913	15-D8to10	ER330052	13-R25	ER426892	13-R35	RZ246936	9-20x
EC320051	12-C17	EF277413	9-30x	ER330063	12-R2	ER429996	14-R5	EZ382263	9-19
EC320051	12-C21	EF277424	9-31x	ER330063	12-R15	ER430053	16-R6	EZ428117	11-14
EC320051	13-C8	EF354306	9-32x	ER330120	12-R10	ER430097	14-R26	EZ436217	11-105
EC320051	13-C12	EF354306	9-46x	ER330120	12-R26	ER450011	14-R34	EZ436217	19-30
EC320051	13-C17	EF395188	9-33x	ER330164	13-R18	ER458728	14-R19	EZ528208	11-28
EC320051	13-C20	EF563681	19-71x	ER336442	14-R2	ER476313	13-R11	EZ528276	11-72
EC320051	14-C1	EF563703	9-29	ER336442	14-R9	ER535948	15-R3	EZ528298	11-30

# 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.
EZ528300	11-36	ML533643	3-23x	MZ314998	3-26	SM583323	19-43x	ZS355500	19-11x
EZ528322	11-34	ML533643	10-34	MZ314998	10-41	SP527692	19-52	ZS355511	1-33
EZ528333	11-27	ML541484	11-76	MZ316293	2-7	SP527703	19-53	ZS355511	9-40
EZ528366	11-66	ML580004	5-19	MZ413976	4-8	SP528748	19-46	ZS355511	19-78x
EZ528377	11-68	ML580026	10-81	MZ436847	4-20	SP528750	19-47	ZS371856	7-19
EZ528467	11-37	ML580037	10-85	MZ446635	4-10	SP581422	19-8	ZS371856	10-47x
EZ528952	11-94	ML580127	10-53	MZ448222	2-3	SP581433	19-31	ZS371856	11-5x
EZ528963	11-93	ML580217	8-11	MZ453767	4-16	SP581455	19-2	ZS371856	16-10
EZ529593	11-51	ML580228	8-12	MZ526421	2-2	SP581501	19-59x	ZS371856	17-14
EZ530021	11-91	ML580296	8-25	MZ527894	10-94	SP581512	19-9x	ZS373577	4-7
EZ549764	11-7	ML580307	8-26	MZ529931	19-23	SP581657	19-57x	ZS374128	9-28
EZ549797	11-12	ML580318	8-27	MZ529942	19-24	SP581668	19-58x	ZS379405	9-41
EZ580623	15-8	ML580331	8-30	MZ546625	9-23x	SP581670	19-56x	ZS394525	1-27
EZ580860	11-101	ML580342	8-31	MZ580015	5-17	SZ457806	19-12	ZS396000	1-19
EZ580860	16-6	ML580364	8-35	MZ580061	10-83	SZ473815	19-10	ZS408690	19-33
EZ580860	17-11	ML580408	7-8	MZ580072	10-89	SZ483737	19-48x	ZS413155	3-27x
EZ580871	11-99	ML580443	6-2	MZ580162	10-86	SZ529086	19-17	ZS413155	5-18
EZ580871	16-4	ML680465	6-24	MZ580206	10-70	SZ529108	2-13	ZS413155	6-31
EZ580871	17-9	ML580555	6-11	MZ580241	8-5	SZ529874	19-45x	ZS413155	8-22
EZ580893	11-84	ML580590	9-36	MZ580320	8-28	SZ529920	19-16	ZS413155	8-45x
EZ580904	11-86x	ML580612	9-38	MZ580375	8-36	SZ535094	6-38	ZS413155	9-14
EZ580915	11-31	ML580702	10-50	MZ580397	7-4	SZ549516	19-50	ZS413155	10-21
EZ580972	11-43x	ML580847	7-13	MZ580410	7-3	SZ580735	11-104	ZS413155	11-95x
EZ580994	11-45x	ML581130	10-60	MZ580500	6-20	SZ580735	16-11	ZS413155	15-9x
EZ581005	11-46x	ML581152	8-2	MZ580577	6-10	SZ580735	17-15	ZS413245	19-51x
EZ581387	11-1	ML581163	8-3	MZ580601	9-37	SZ570735	19-72x	ZS413741	8-37
EZ581398	11-70	ML581174	8-4	MZ580634	5-7	SZ581040	19-22	ZS413741	15-11
EZ581624	15-7	ML581185	8-8	MZ580667	5-14	SZ581141	19-77x	ZS413785	10-52
EZ581635	11-85x	ML581207	9-16	MZ580680	6-33	SZ581218	19-25x	ZS413785	10-99
EZ581804	15-14x	ML581231	9-17x	MZ580724	7-17x	SZ581220	19-26x	ZS416687	4-14
HA533597	1-28	ML581354	8-9	MZ580781	10-3	ZS581534	19-18	ZS416687	5-16
HA533608	1-29	ML581365	8-10	MZ580836	5-13	SZ581545	19-19	ZS416687	9-6
HA583198	9-49x	ML581613	9-26	MZ580858	7-18x	UM387617	6-9x	ZS416687	10-20x
HE563220	1-23	ML581883	10-16	MZ581128	10-72	VM422381	11-100	ZS417137	11-50x
HE587790	1-26x	ML582041	3-22	MZ581196	8-24	VM422381	16-5	ZS417148	6-36
HP536501	1-21	ML582041	10-36	MZ581242	9-7	VM422381	17-10	ZS417148	9-24x
HP552205	1-24x	ML582063	10-37	MZ581275	10-11	ZG317496	3-11	ZS419736	19-20
HR384513	1-22	ML582074	3-28	MZ581286	10-100x	ZG428927	10-8	ZS421740	19-36
HR552216	1-25x	ML582074	10-42	MZ581444	9-1	ZG466312	1-9	ZS424056	2-10
HZ532710	1-8	ML582085	10-71	MZ581466	10-15	ZG520716	11-40	ZS424124	6-27
HZ532732	1-14	ML582096	10-73	MZ581995	3-21	ZG528311	11-35	ZS427026	2-12
HZ532765	1-16	ML582118	10-75	MZ581995	10-30	ZG528423	11-79	ZS427037	2-4
HZ532776	1-18	ML582120	10-78	MZ582028	10-32	ZG528928	8-43	ZS435273	3-20
HZ581106	1-3	ML582175	10-77	MZ582030	10-33	ZG529683	11-83	ZS440291	9-42
HZ581117	1-4	ML583356	10-96	MZ582142	10-45	ZG540090	3-29	ZS447772	11-13
HZ803597	1-5	ML583367	8-47	MZ583424	10-97	ZG540090	10-44	ZS447772	11-29
MB437703	4-19	MP533744	10-67x	MZ586438	4-12	ZG540584	1-17x	ZS447772	11-67
MB527556	10-57	MP533744	19-69x	MZ586798	4-9x	ZG540617	3-15	ZS447772	11-87
MB580138	10-58	MP582164	10-66	MZ596698	5-8	ZG580230	8-14	ZS447772	19-27x
MC573726	10-31	MP582164	19-68	MZ802980	10-7	ZG580252	8-17	ZS447840	15-10
MH244710	4-11	MR540876	2-5	MZ810191	6-26x	ZG580263	8-18	ZS447840	19-21
MH244710	6-7	MR580105	10-55	MZ810191	10-18	ZG580285	8-19	ZS455207	9-25x
MH254182	2-8	MS342000	3-14	SA377190	19-60x	ZG580285	10-87	ZS460438	1-30x
MH257477	10-49	MS580094	10-76	SB581016	11-47x	ZG580432	7-9	ZS462947	11-92x
MH529233	1-12	MS580116	10-54	SB581027	11-48x	ZG58-511	6-13	ZS464692	8-6
MH533913	10-5	MS580184	10-90	SB581578	8-21	ZG580522	6-19	ZS468358	9-48x
MH578957	1-7	MS580353	8-32	SB583244	8-20	ZG580533	6-17	ZS472274	9-8
MH580083	10-88	MS580353	8-38	SC581400	19-35	ZG580746	6-21	ZS472274	9-51
MH580588	6-8	MS580386	5-2	SC581411	19-40	ZG580746	10-82	ZS481645	8-29
MH580691	6-32	MS580454	5-20	SE528906	19-4	ZG580768	10-65	ZS482815	19-49x
MH581253	10-61	MS580454	6-25	SE529457	11-11x	ZG580770	10-64	ZS487912	5-4
MH581894	10-19	MS580487	6-3	SE569744	19-15	ZG580882	11-32	ZS498273	19-63x
MH581905	6-37	MS581310	4-4	SE580983	11-44x	ZG582131	10-79	ZS523664	11-69x
MH581916	4-18	MS581321	4-5x	SE581038	19-32	ZG582232	5-23	ZS533766	10-69
MH581927	10-22	MS581343	8-7	SE581602	19-3	ZG583391	10-91	ZS536444	19-62x
MH581938	10-102	MS582153	10-13	SK528671	11-39	ZG583413	10-98	ZS537006	1-6
MH581940	10-23	MS583380	8-46	SK531224	11-96	ZS200305	5-21	ZS561295	19-55
MH581951	10-24	MT314987	3-25	SK534374	19-67x	ZS200687	19-34x	ZS562432	1-15
MH581962	10-26	MT314987	10-40	SK549843	19-64	ZS201183	11-62x	ZS562432	8-42
MH581973	10-27	MT436860	3-10	SK549876	19-65	ZS203016	2-6	ZS575752	7-10
MH581984	3-30	MT534666	3-12	SK580151	5-22	ZS203084	19-29	ZS575796	6-39
MH581984	10-28	MT534677	3-13	SK581051	19-66	ZS243516	10-63	ZS575796	19-76
MH583345	10-29	MT534688	3-16	SK581332	4-13	ZS272395	2-11	ZS575910	11-64
MH586563	2-9	MT576538	3-9	SK581837	7-20	ZS292667	5-12	ZS589511	9-43
ML292678	5-3	MT577437	3-8x	SK581837	19-70	ZS322728	4-21	ZW259738	10-56
ML296245	4-3	MV248141	5-11	SM382285	19-41	ZS323728	6-23	ZW259773	10-59
ML396933	10-2	MV408510	3-2x	SM495977	19-39x	ZS323728	7-14	ZW259896	10-39x
ML528851	11-73	MV537862	4-15	SM581062	19-42	ZS323728	10-12x	ZW260010	19-75x
ML528873	11-74	MZ248185	3-3	SM581073	19-38x	ZS323728	11-8x	ZW260256	6-6
ML528884	11-75	MZ314605	10-43	SM581084	19-37	ZS325495	10-95	ZW260278	3-4

# 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.
ZW270088	3-18	ZW584043	5-10						
ZW270088	8-34	ZW589893	7-6						
ZW270088	10-6x								
ZW270088	10-84								
ZW270088	11-82								
ZW270101	7-7								
ZW270101	8-13								
ZW270101	11-33								
ZW270123	11-78								
ZW270134	2-14								
ZW270156	3-5								
ZW270156	6-12								
ZW272722	11-17								
ZW273688	11-65x								
ZW273745	1-11x								
ZW273756	6-15								
ZW273756	10-17								
ZW273756	11-63x								
ZW273756	5-12x								
ZW273835	1-10								
ZW273881	1-34								
ZW273881	9-21x								
ZW273914	1-13								
ZW280283	3-24								
ZW290283	6-34								
ZW290283	8-15								
ZW290283	10-35								
ZW317171	11-81								
ZW321592	5-5x								
ZW330412	2-15x								
ZW330412	4-22								
ZW330412	6-30x								
ZW330423	2-16x								
ZW330423	4-23x								
ZW330423	6-29x								
ZW330445	2-17x								
ZW345442	10-4								
ZW357164	11-102								
ZW357164	16-7								
ZW357164	17-12								
ZW379361	11-77								
ZW405865	19-14x								
ZW408418	19-28								
ZW410051	6-18								
ZW413190	4-24x								
ZW413190	6-28								
ZW413256	1-20								
ZW413785	3-17								
ZW416698	10-14								
ZW416698	10-25x								
ZW419646	19-61x								
ZW420682	10-74								
ZW420682	11-38								
ZW421097	7-5								
ZW430402	10-68								
ZW437804	4-6								
ZW462205	4-17								
ZW463397	11-58x								
ZW463408	11-57x								
ZW463410	11-5C								
ZW527670	19-44x								
ZW535094	19-73								
ZW544083	11-80								
ZW548010	19-54								
ZW550642	6-22								
ZW550642	8-33								
ZW554624	11-18								
ZW562476	3-19x								
ZW562757	8-16								
ZW573546	5-9								
ZW575684	5-15								
ZW575730	19-5x								
ZW575763	6-5								
ZW575774	6-16								
ZW575785	19-74x								
ZW580173	10-38								
ZW580173	10-80								
ZW580498	6-4								
ZW580678	6-14								
ZW581264	10-62x								

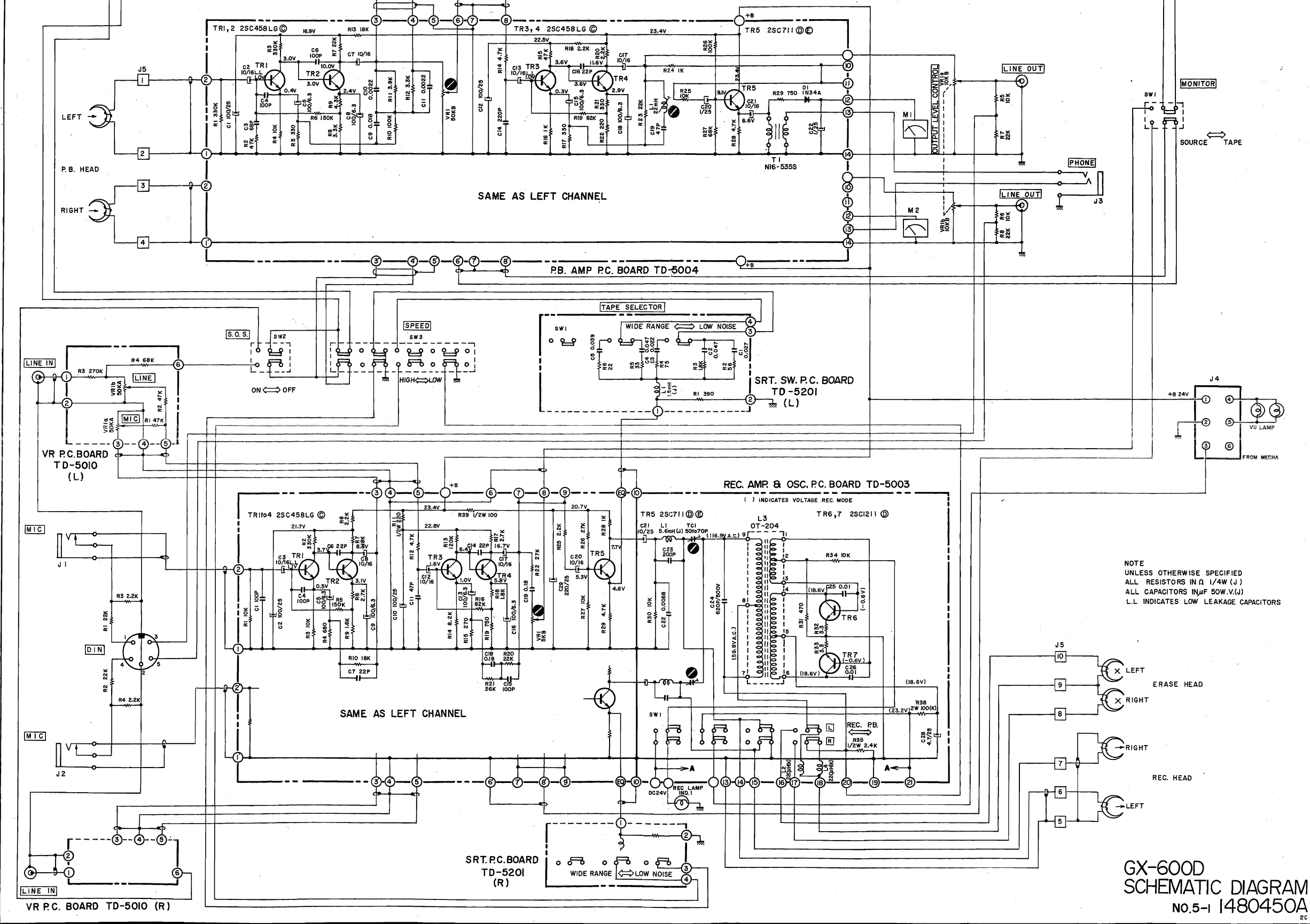
---

SECTION 3

**SCHEMATIC DIAGRAM**

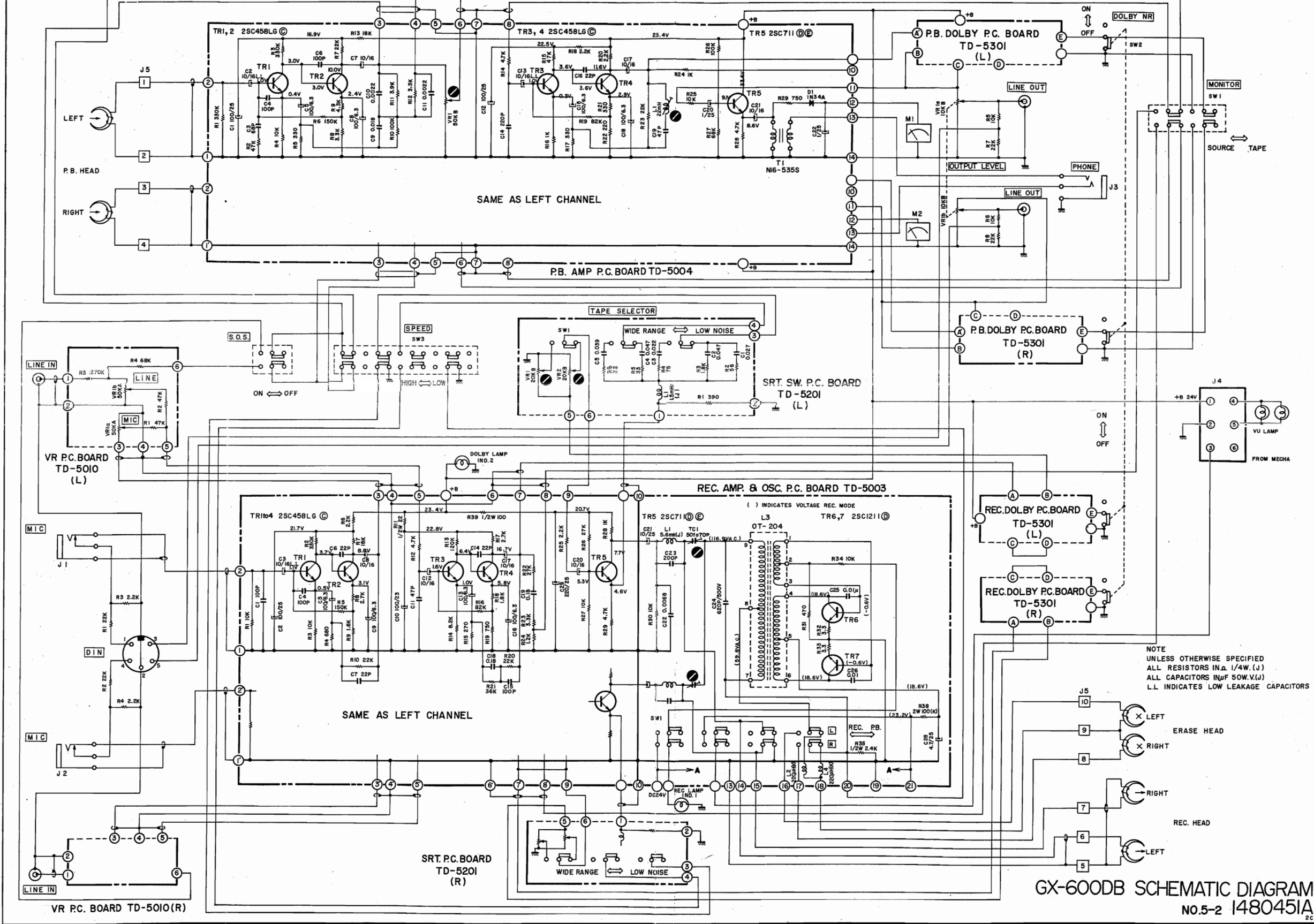
1. GX-600D SCHEMATIC DIAGRAM
2. GX-600DB SCHEMATIC DIAGRAM
3. GX-600D • PRO SCHEMATIC DIAGRAM
4. GX-600D/DB/PRO SCHEMATIC DIAGRAM

GX-600D



GX-600D  
SCHEMATIC DIAGRAM  
NO.5-1 1480450A  
2C

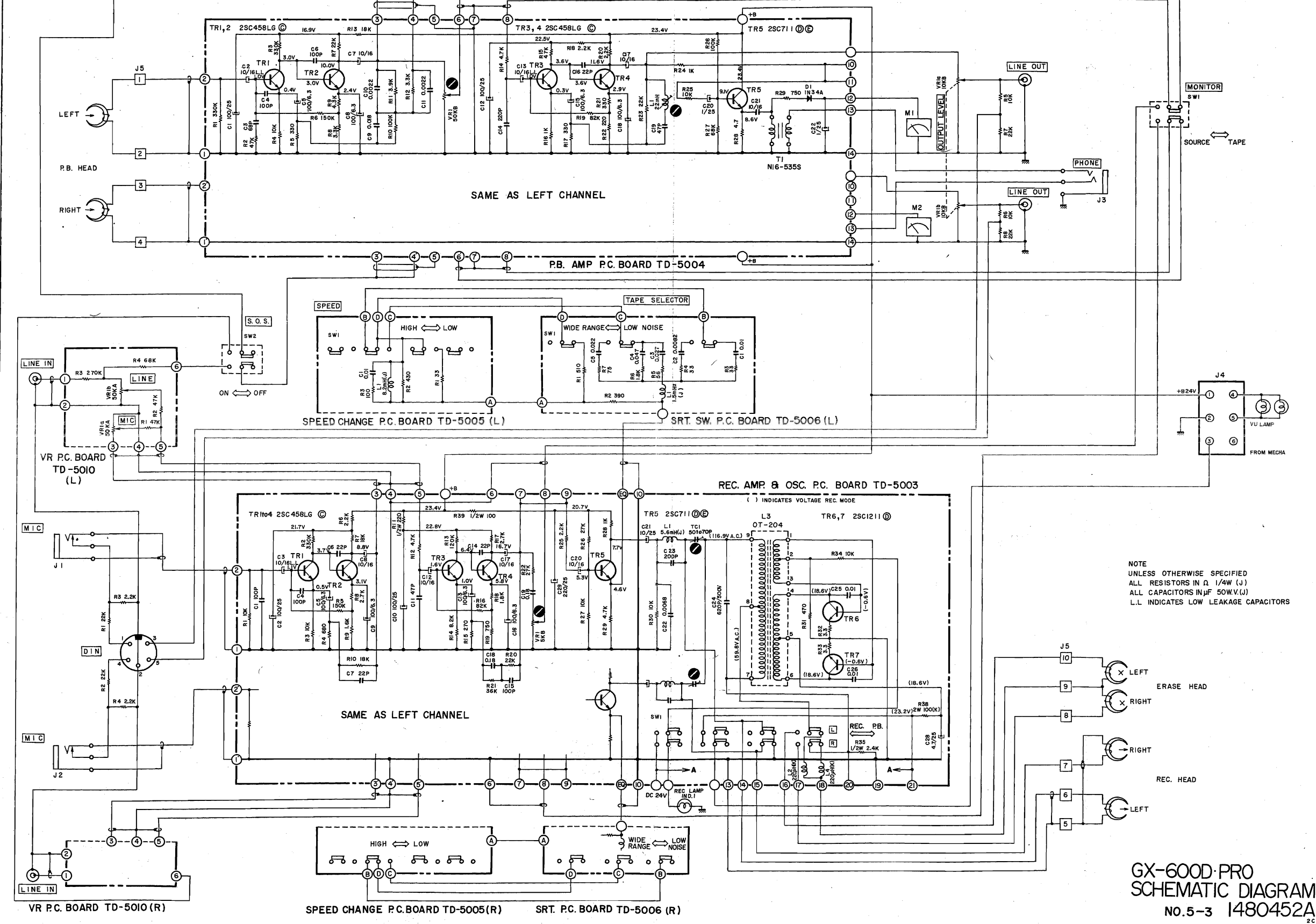
GX-600DB



NOTE  
UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS IN Ω, 1/4W. (J)  
ALL CAPACITORS IN μF 50W.V.(J)  
LL INDICATES LOW LEAKAGE CAPACITORS

GX-600DB SCHEMATIC DIAGRAM  
No.5-2 1480451A

GX-600D-PRO

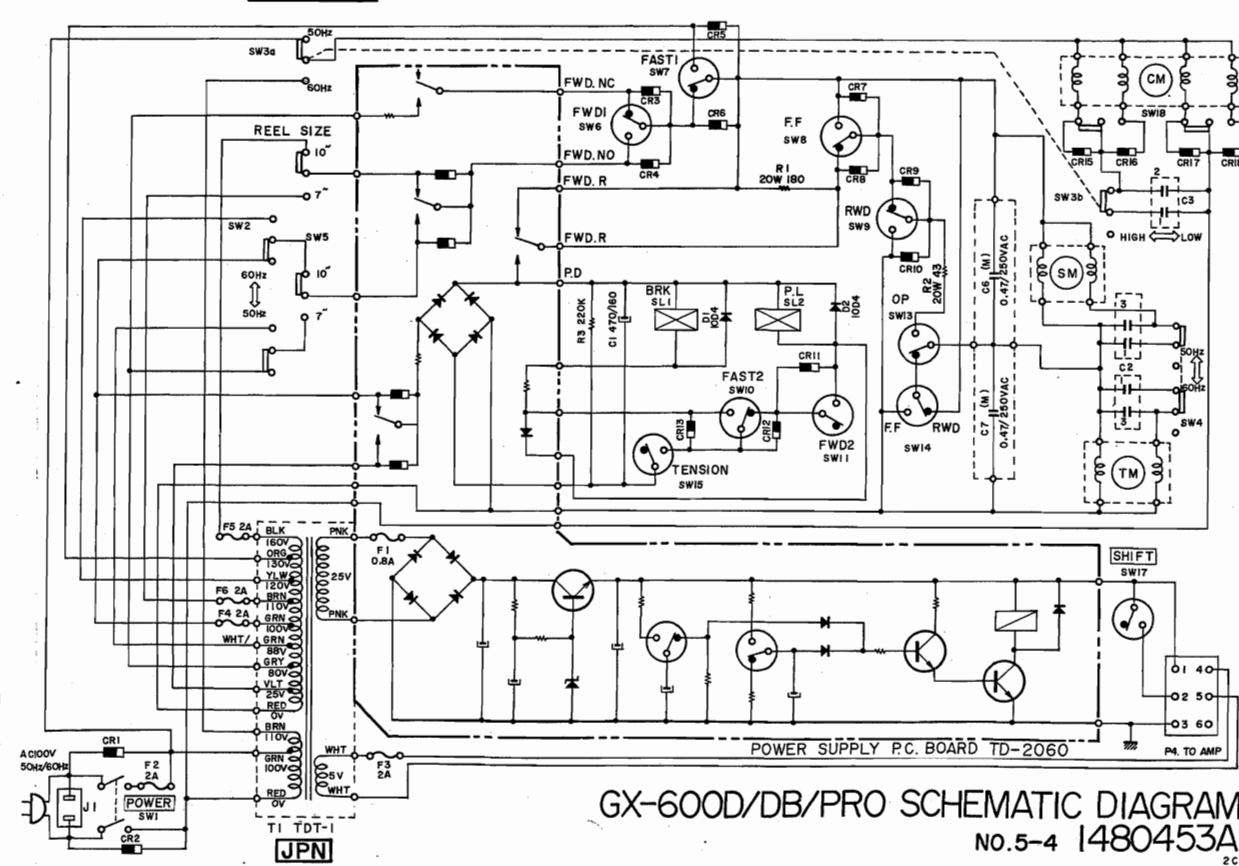
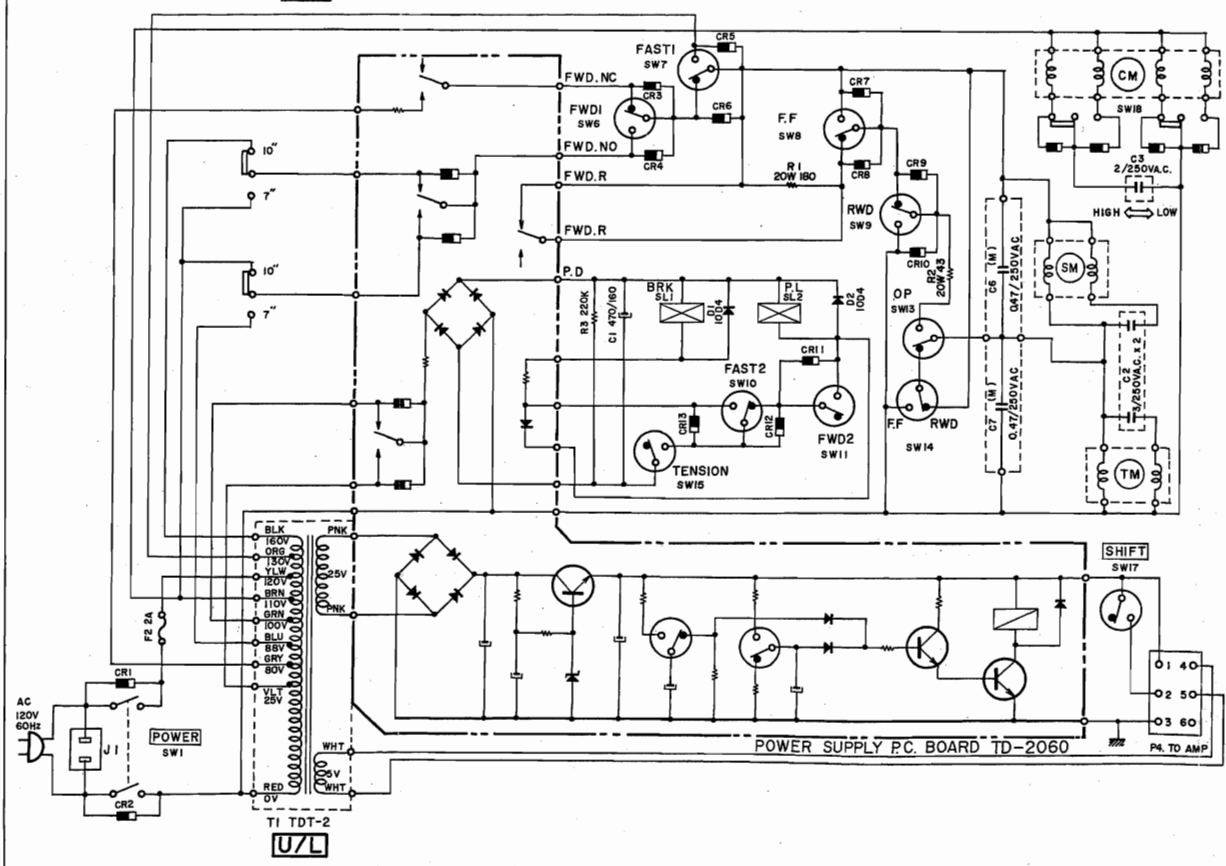
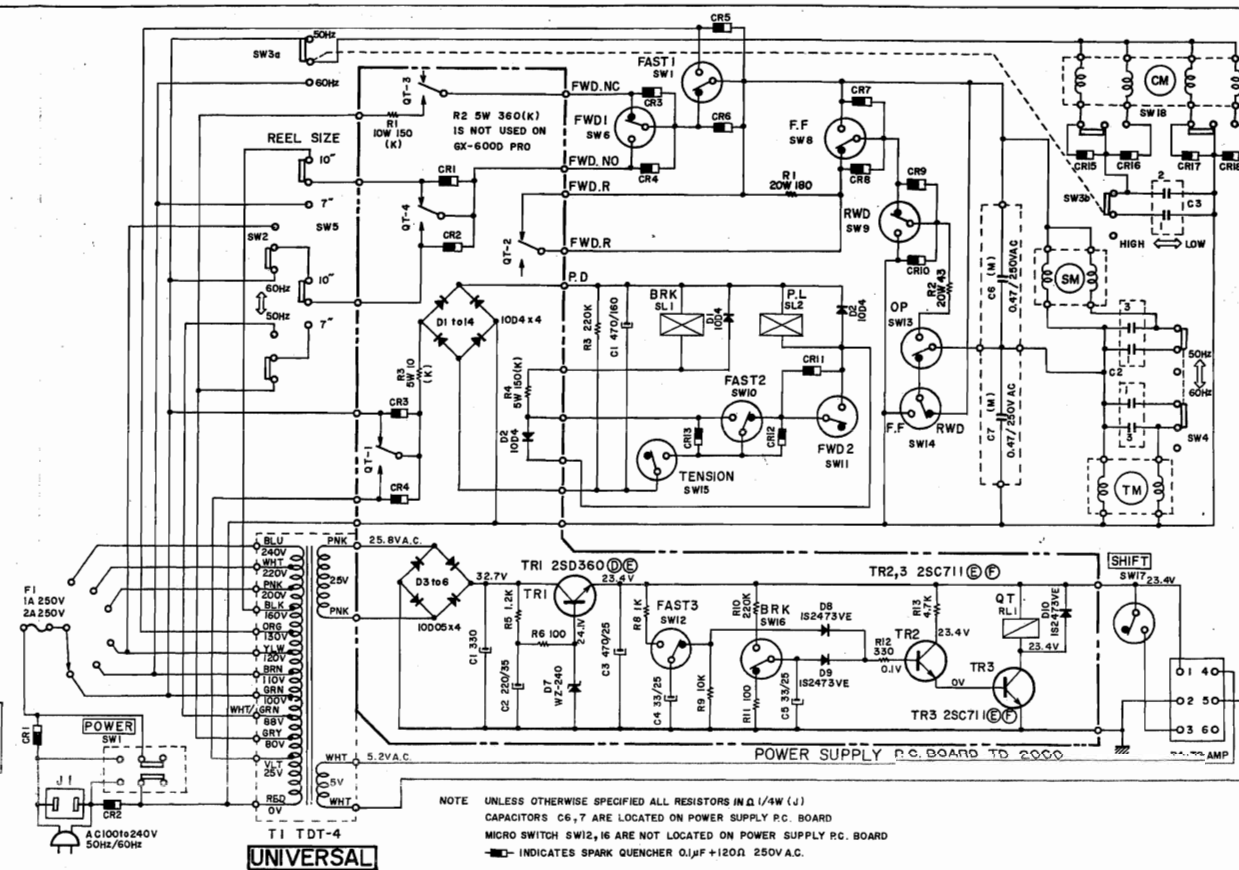
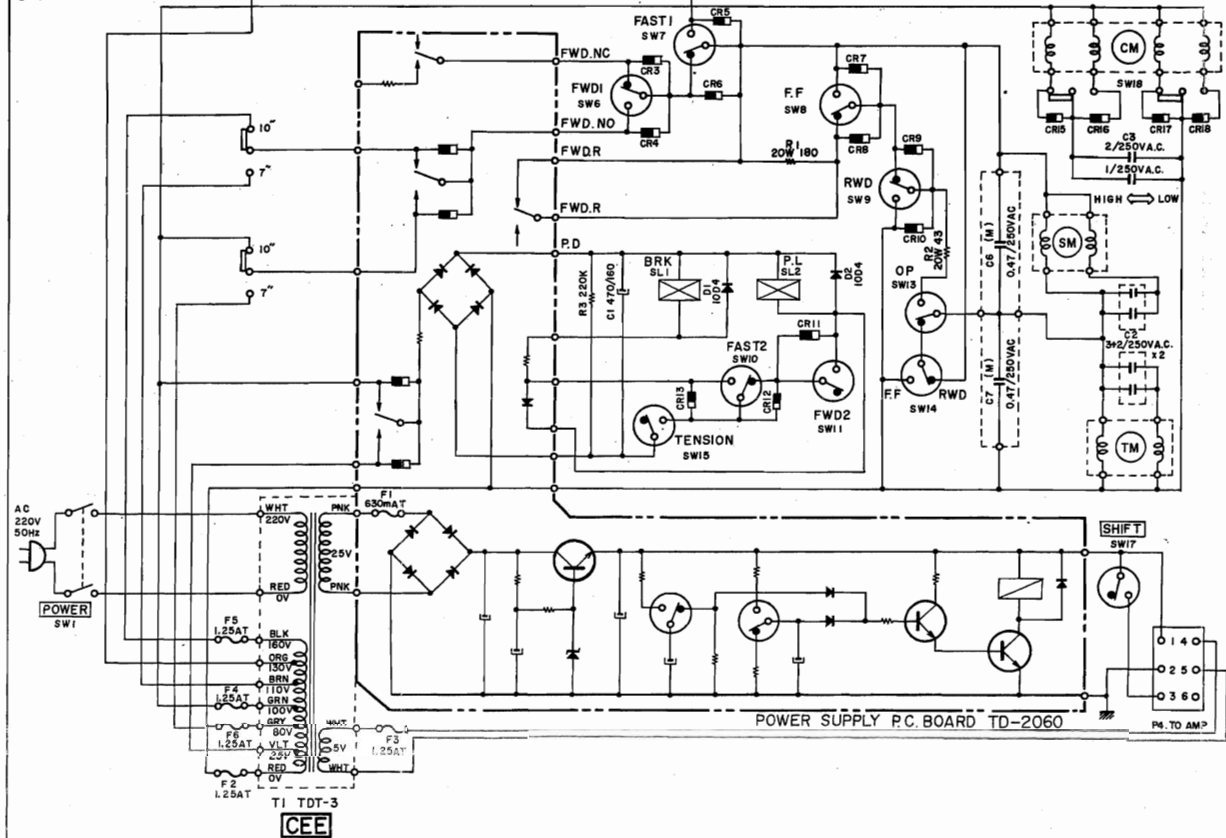


NOTE  
UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS IN  $\Omega$  1/4W (J)  
ALL CAPACITORS IN  $\mu F$  50W.V.(J)  
L.L. INDICATES LOW LEAKAGE CAPACITORS

GX-600D-PRO  
SCHEMATIC DIAGRAM  
No.5-3 1480452A

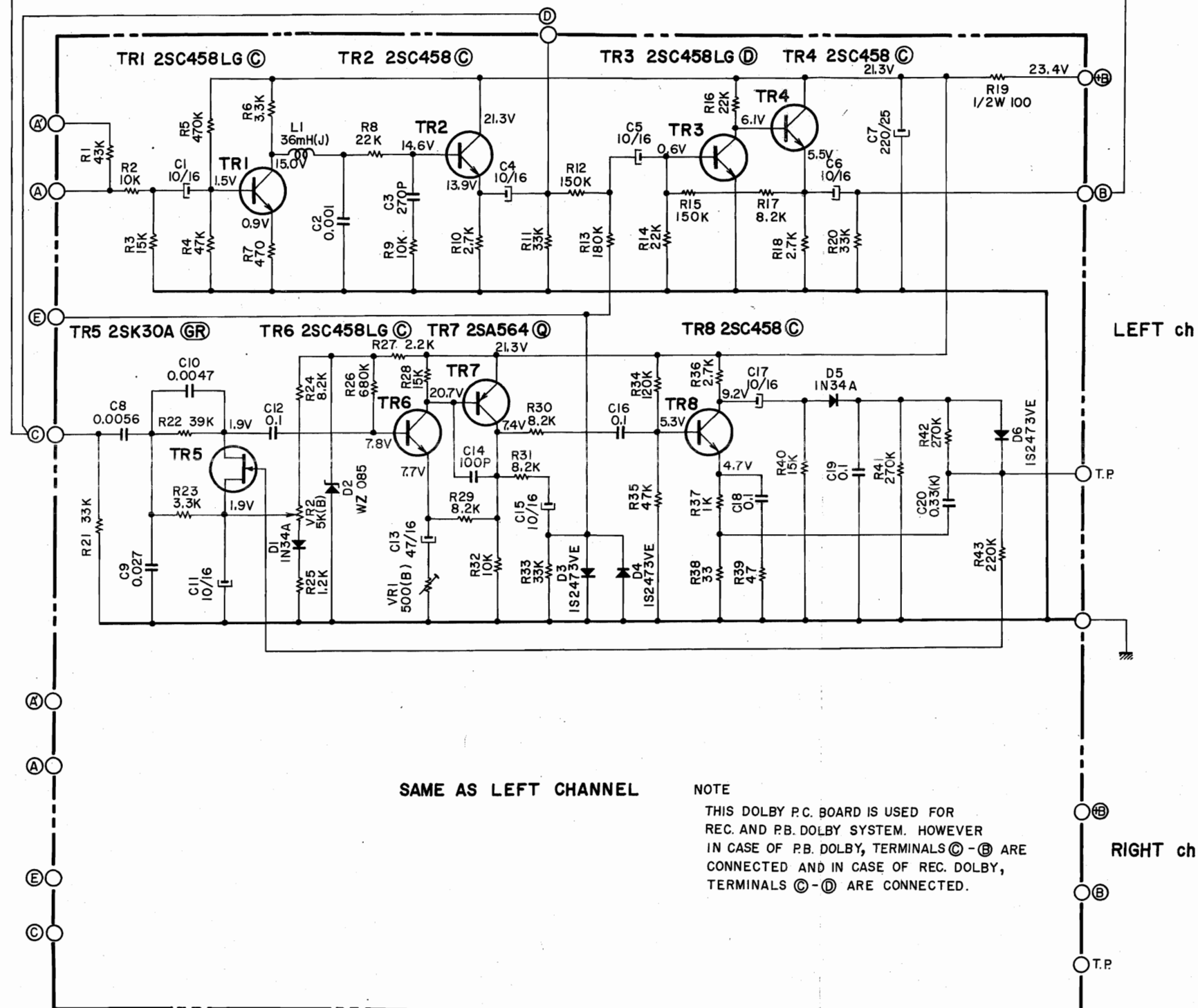


GX-600D/DB/PRO



GX-600D/DB/PRO SCHEMATIC DIAGRAM  
 No.5-4 1480453A

GX-600DB



SAME AS LEFT CHANNEL

NOTE  
 THIS DOLBY P.C. BOARD IS USED FOR  
 REC. AND P.B. DOLBY SYSTEM. HOWEVER  
 IN CASE OF P.B. DOLBY, TERMINALS C-B ARE  
 CONNECTED AND IN CASE OF REC. DOLBY,  
 TERMINALS C-D ARE CONNECTED.

NOTE  
 UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS IN  $\mu$  1/4W(J)  
 ALL CAPACITORS IN  $\mu$ F 50W.V.(J)

DOLBY P.C. BOARD TD-530I

GX-600DB  
 SCHEMATIC DIAGRAM  
 NO.5-5 1480454A