



# SERVICE MANUAL

STEREO CASSETTE TAPE DECK

**SANSUI SC-636**



*Sansui*

SANSUI ELECTRIC CO., LTD.

This service manual is designed for service engineers to repair, adjust, maintain and order the replacement parts of the SC-636 correctly. When ordering the parts, use the stock number and parts name specifically referring to the Exploded Views, Parts Location and Parts Lists.

For general usage and maintenance of the unit, please refer to the Operating Instructions attached with the unit.

## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>1. SPECIFICATIONS</b>		<b>2</b>	<b>4-1-5.</b>	Auto Shut-off Circuit Troubles	<b>10</b>
<b>2. BLOCK DIAGRAM AND LEVEL DIAGRAMS</b>		<b>3</b>	<b>4-1-6.</b>	Dolby Circuit Troubles	<b>10</b>
2-1. Block Diagram		<b>3</b>	<b>4-2.</b>	TROUBLESHOOTING ON THE MECHANICAL SECTION	<b>11</b>
2-2. Level Diagrams		<b>4</b>	<b>4-2-1.</b>	PLAY Inoperative	<b>11</b>
<b>3. ADJUSTMENTS</b>		<b>5</b>	<b>4-2-2.</b>	FAST FORWARD Inoperative	<b>12</b>
3-1. Head Adjustment		<b>5</b>	<b>4-2-3.</b>	REWIND Inoperative	<b>12</b>
3-1-1. REC/PB Head Adjustment		<b>5</b>	<b>4-2-4.</b>	PAUSE Inoperative	<b>12</b>
3-1-2. Erase Adjustment		<b>5</b>	<b>4-2-5.</b>	Incorrect Tape Speed	<b>12</b>
3-2. Playback Level Adjustment		<b>5</b>	<b>4-2-6.</b>	Excessive Wow and Flutter	<b>12</b>
3-3. High Frequency Equalization Adjustment		<b>5</b>	<b>4-2-7.</b>	Incorrect Brake	<b>12</b>
3-4. VU Meter Level Adjustment		<b>5</b>	<b>5. PARTS LOCATIONS AND PARTS LISTS</b>	<b>13</b>	
3-5. Recording Bias Adjustment		<b>5</b>	5-1.	GA-1191 REC/PB Amplifier Circuit Board	<b>13, 14</b>
3-5-1. Setting TAPE SELECTOR Switch to NORMAL		<b>5</b>	5-2.	GA-1190 Power Supply and Auto Stop Circuit Board	<b>15</b>
3-5-2. Setting TAPE SELECTOR Switch to CHROMIUM		<b>6</b>	5-3.	G-1167 Dolby Circuit Board	<b>16, 17</b>
3-6. REC/PB Level Adjustment		<b>6</b>	5-4.	G-1160 Switch Circuit Board	<b>17</b>
3-6-1. Setting TAPE SELECTOR Switch to NORMAL		<b>6</b>	5-5.	G-1180 Cds Circuit Board	<b>17</b>
3-6-2. Setting TAPE SELECTOR Switch to CHROMIUM		<b>7</b>	5-6.	G-1185 Fuse Circuit	<b>17</b>
3-7. Dolby Circuit Adjustment		<b>7</b>	5-7.	GA-1189 Level Circuit Board	<b>18</b>
3-8. Bias MPX Filter Adjustment		<b>7</b>	5-8.	Other Parts List	<b>18</b>
3-9. Pinch-roller Pressure Adjustment		<b>7</b>	<b>6. DISASSEMBLY WITH EXPLODED VIEWS AND PARTS LISTS</b>	<b>19</b>	
3-10. Torque Adjustment		<b>7</b>	6-1.	Disassembly of the Cabinet and Electrical Sections	<b>19, 20</b>
<b>4. TROUBLESHOOTING CHART</b>		<b>8</b>	6-2.	Disassembly of the Mechanism (Top View)	<b>21, 22</b>
4-1. TROUBLESHOOTING ON THE ELECTRICAL SECTION		<b>8</b>	6-3.	Disassembly of the Mechanism (Bottom View)	<b>23, 24</b>
4-1-1. Troubleshooting on Power Supply Section		<b>8</b>	<b>7. SCHEMATIC DIAGRAM</b>	<b>25</b>	
4-1-2. Troubleshooting on Recording System		<b>8, 9</b>	<b>8. REPLACEMENT OF MAIN PARTS</b>	<b>26</b>	
4-1-3. Playback System Troubles		<b>9, 10</b>	<b>9. PACKING LIST</b>	<b>26</b>	
4-1-4. Troubles in Both Recording/Playback Mode		<b>10</b>	<b>10. ACCESSORY PARTS LIST</b>	<b>26</b>	

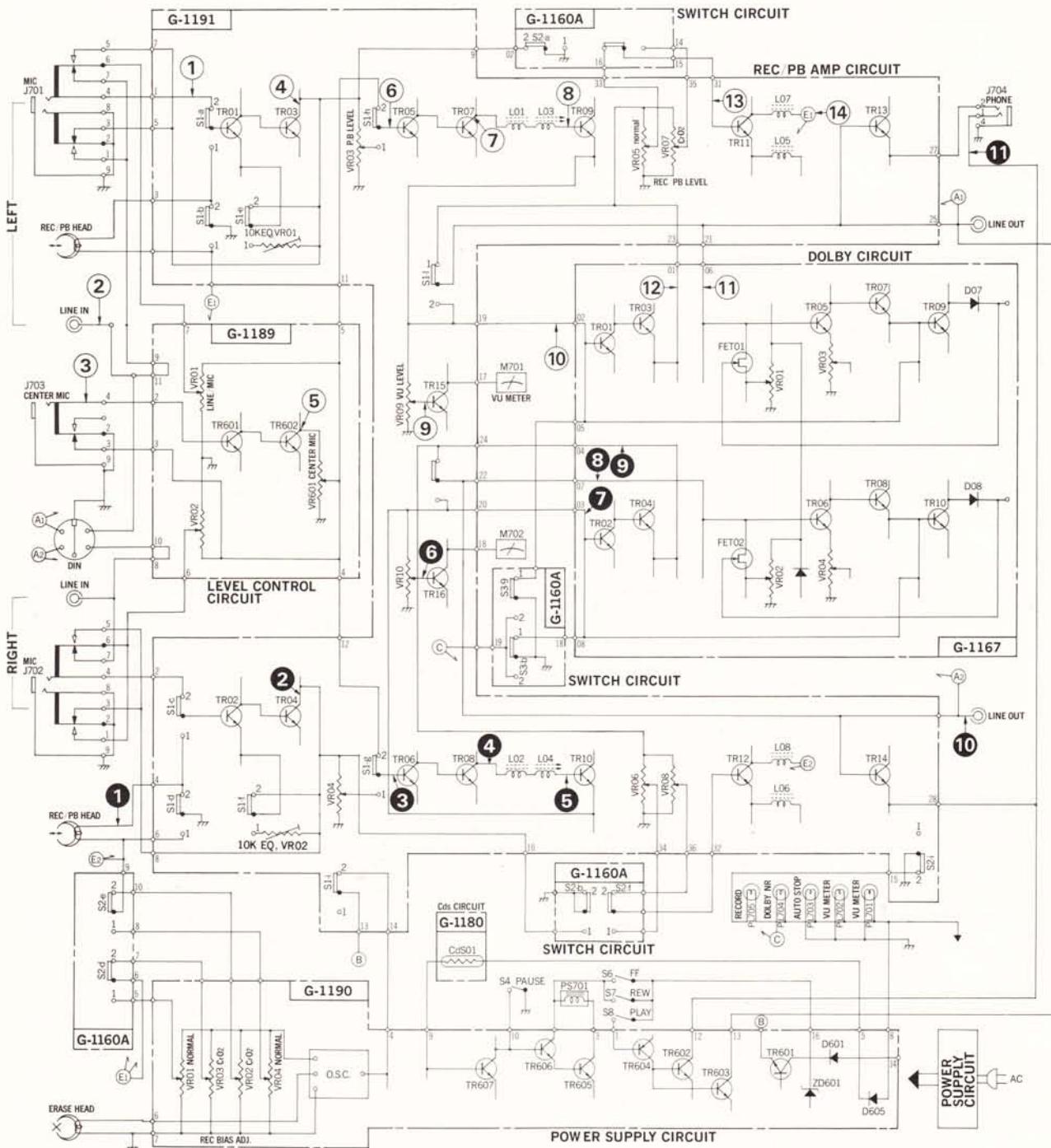
# 1. SPECIFICATIONS

TRACK .....	4-track (2-ch. stereo)
TAPE SPEED.....	4.8cm/sec ( $1\frac{7}{8}$ ips.)
TAPE STANDARD .....	PHILIPS cassette standard
HEADS .....	REC/PB ferrite head
	ERASE ferrite head
MOTOR .....	hysteresis synchronous type
TAPE DRIVING SYSTEM .....	belt driving system
WOW AND FLUTTER ....	within 0.12% (W.R.M.S.)
TAPE SPEED ACCURACY .....	within $\pm 1.5\%$
FAST WIND TIME .....	within 70 seconds (C-60)
FREQUENCY RESPONSE (REC/PB)	
NORMAL (L. H) TAPE....	30 to 13,000Hz (35 to 10,000Hz $\pm 3.0\text{dB}$ )
CHROMIUM TAPE.....	30 to 16,000Hz (35 to 13,000Hz $\pm 3.0\text{dB}$ )
SIGNAL TO NOISE RATIO (REC/PB)	
CHROMIUM TAPE (without dolby noise reduction effect) .....	better than 50dB (weighted)
DOLBY NOISE REDUCTION EFFECT	
	better than 8dB (above 5kHz)
CHANNEL SEPARATION .....	better than 38dB at 1,000Hz
ERASURE FACTOR.....	more than 60dB at 1,000Hz
INPUT SENSITIVITY AND IMPEDANCE (0VU, 1,000Hz)	
MIC (LEFT, RIGHT).....	0.5mV 600~10k $\Omega$
MIC (CENTER) .....	0.5mV 600~10k $\Omega$
LINE .....	70mV 100k $\Omega$
DIN .....	14mV 30k $\Omega$
OUTPUT LEVEL (0VU 1,000Hz)	
LINE .....	0.56V
DIN .....	0.56V
HEADPHONES .....	0.12mW/8 $\Omega$
BIAS FREQUENCY .....	85 kHz
OTHERS	
SEMICONDUCTORS	
TRANSISTORS .....	35
FETs .....	2
ZENER DIODES .....	3
DIODES .....	11
VARISTORS.....	8
CdS .....	1
POWER VOLTAGE .....	100, 117, 220, 240V, 50/60Hz
POWER CONSUMPTION..	22W (rated)
DIMENSIONS .....	408mm ( $16\frac{1}{16}$ ") W 118mm ( $4\frac{1}{16}$ ") H 295mm ( $11\frac{5}{8}$ ") D
WEIGHT .....	6.7kg (14.8 lbs) net. 8.6kg (19.0 lbs) Packed

\* Design and specifications subject to change without notice for improvements.

## 2. BLOCK DIAGRAM AND LEVEL DIAGRAMS

### 2-1. Block Diagram



PLAY REC S1a~L  
1. PLAY  
2. REC

TAPE SELECTOR S2a~f  
1. NORMAL  
2. CHROMIUM

DOLBY N.R. S3a, b  
1. OUT  
2. IN

PAUSE S4  
POWER S5  
1. OFF  
2. ON

F.F SW S6  
REW SW S7  
PLAY SW S8

## 2-2. Level Diagrams

\*Each number (①①, ②②, ③③,...) indicated in Level Diagrams undermentioned corresponds to the number in Block Diagram.

\*Each number ①, ②, ③,... → Recording Level

\*Each number ①, ②, ③,... → Playback Level

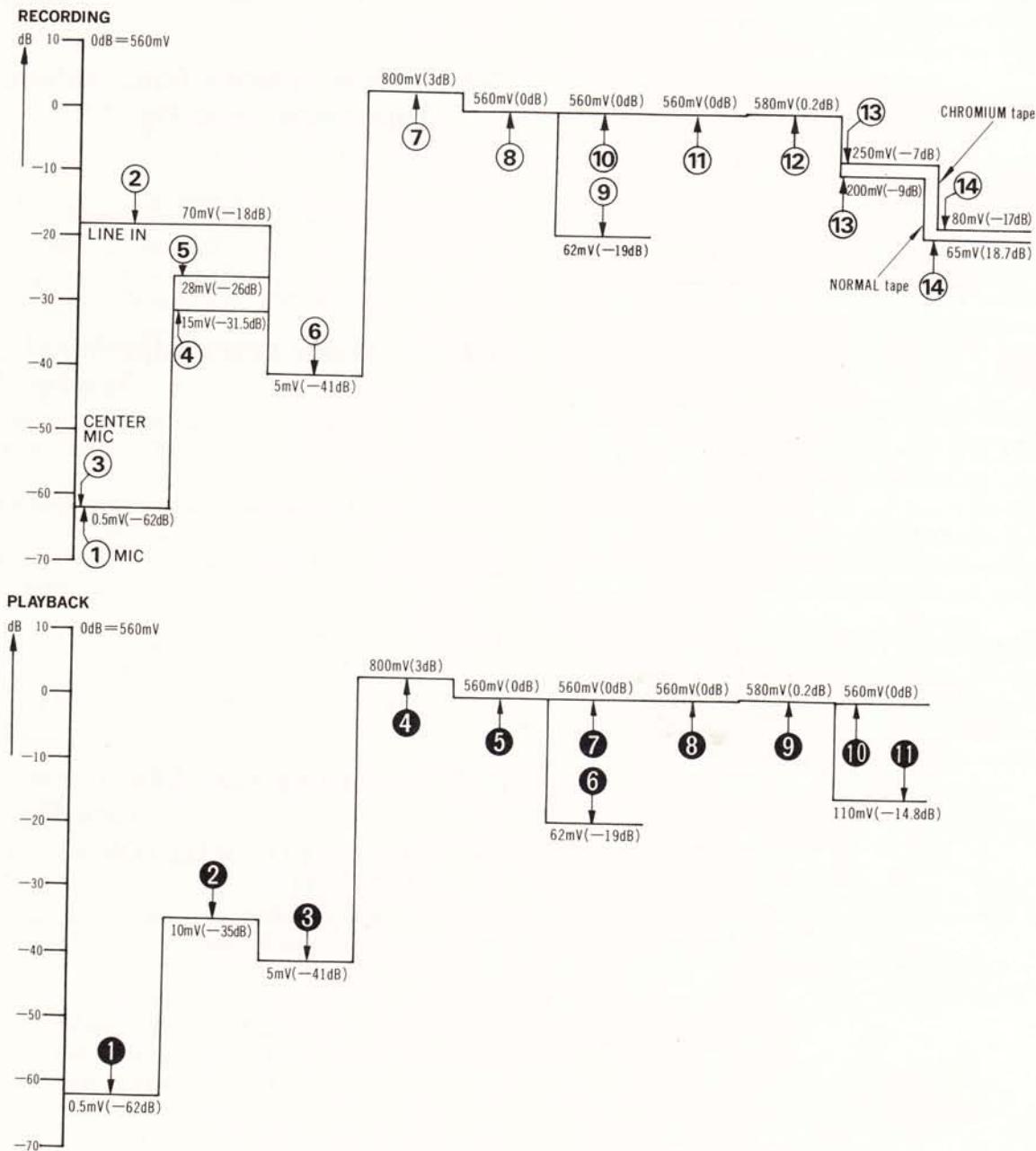
1. MIC/LINE volume control ..... Maximum

2. CENTER MIC volume control ..... Maximum

3. INPUT ..... 1kHz Sine Wave

(output impedance of  $600\Omega$  at an audio oscillator)

**Note:** Each voltage value is for reference and measured by a VTVM. In some recorders, the actual voltage value is in minor difference from the reference value.



### 3. ADJUSTMENTS

\*The List of Sansui Test Tapes

Name of test tape	Recorded Freq.	Description	
NCT-L400 SCT-L400	400Hz	Playback level adjustment, VU meter level check	
NCT-S3K SCT-S3K	3kHz	Speed, wow & flutter check	
NCT-FCB6 SCT-FCB6		Recording bias adjustment, REC/PB level adjustment, All-over frequency (REC/ PB) check	
(A) NCT-F63 NCT-F1K NCT-F10K	(B) SCT-F63 SCT-F1K SCT-F10K	63Hz 1kHz 10kHz	Playback frequency check Playback frequency check Playback frequency check, REC/PB head adjustment

Note: The above test tapes in each column can be used in common each other, but on F63, F1k and F10k, use either ones in column (A) or column (B) separately due to different recorded levels between NCT- and SCT- tapes.

#### 3-1. Head Adjustment (See Fig. 3-1)

##### 3-1-1. REC/PB Head Adjustment

- 1) Connect a VTVM to the LINE OUTPUT terminals (L, R-ch).
- 2) Play back the 10kHz test tape (SCT-F10K).  
Adjust the azimuth adjusting screw for the maximum reading on the VTVM at both channels.

##### 3-1-2. Erase Head Adjustment

- 1) Any adjustment on the erase head is not necessary.  
\* Confirm only that recorded signals on one channel of tape are completely erased and ones on another channel are not.

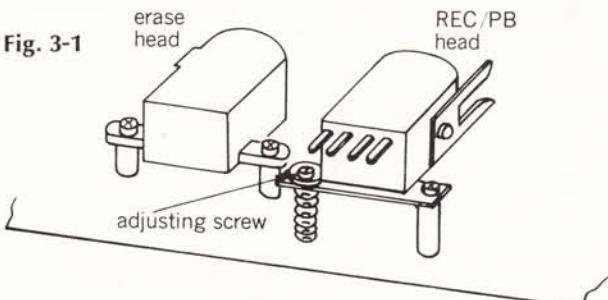


Fig. 3-1

#### 3-2. Playback Level Adjustment

(See Fig. 3-3)

- 1) Connect a VTVM to the LINE OUTPUT terminals (L, R-ch).
- 2) Play back the 400Hz test tape (SCT-L 400).  
Adjust VR03 for L-ch and VR04 for R-ch on G-1191 so that the output level of playback signal on VTVM will indicate 560mV at 400Hz.
- \* Play back the 63Hz, 1kHz and 10kHz test tapes (SCT-F63, SCT-F1K and SCT-F10K) and make sure that the both outputs are within  $0 \pm 3\text{dB}$  against that of 1kHz.

#### 3-3. High Frequency Equalization Adjustment (See Fig. 3-3)

- 1) Connect a VTVM to the LINE OUTPUT terminals (L, R-ch).
- 2) Play back the 1kHz test tape (SCT-F 1K) and 10kHz test tape (SCT-F 10K).  
Make adjustment of VR01 for L-ch and VR02 for R-ch on F-1191 so that the difference of output levels between 1kHz and 10kHz will be  $\pm 0\text{B}$ .

#### 3-4. VU Meter Level Adjustment

(See Fig. 3-3)

- 1) Set the MIC/LINE LEVEL volumes to maximum.
- 2) Connect a VTVM to the LINE OUTPUT terminals (L, R-ch).
- 3) Supply the 1kHz signal from an audio signal generator to the LINE INPUT terminals (L, R-ch).
- 4) Push on the PAUSE button and set the unit in the record mode after setting a Normal test tape (SCT-FCB6).
- 5) Adjust the level volume of the audio signal generator for obtaining 560 mV on the VTVM.
- 6) Adjust VR09 for L-ch and VR10 for R-ch on G-1191 to obtain 0dB on the VU meters.

#### 3-5. Recording Bias Adjustment

(See Fig. 3-2)

##### 3-5-1. Setting TAPE SELECTOR Switch to NORMAL

- 1) Set the MIC/LINE LEVEL volumes to maximum.
- 2) Connect a VTVM to the LINE OUTPUT terminals (L, R-ch).
- 3) Supply the 1kHz signal from an audio signal generator to the LINE INPUT terminals (L, R-ch).
- 4) Push on the PAUSE button and set the unit in the record mode after setting a Normal test tape (SCT-FCB6).
- 5) Adjust the level volume of the audio signal generator for obtaining 560mV on the VTVM.  
\* Make sure that the reading of the VU meter is 0dB.

- 6) Change the 1kHz signal from 560mV to 56mV (-20dB).  
Push off the PAUSE button and record.  
Then, change the signal from 1kHz to 10kHz (56mV) and record.
- 7) Play back the 1kHz and 10kHz signal, then confirm that difference of output levels between 1kHz and 10kHz is  $\pm 0\text{dB}$  (namely, confirm that the output levels of both signals which must be 56mV on VTVM respectively).
- 8) If the level of 10kHz signal is under 56mV, as compared with the level of 1kHz, turn VR01 for L-ch and VR04 for R-ch on G-1190 counterclockwise from conductor side.  
If it is over 56mV, turn them clockwise from conductor side. When adjusting the above, repeat the steps 6), 7) until the difference of both output levels (1kHz and 10kHz) are 0dB (56mV) on VTVM.

### 3-5-2. Setting TAPE SELECTOR switch to CHROMIUM

- 1) Perform step 1) through 3) of 3-5-1.  
2) Push on the PAUSE button and set the unit in the record mode using a Chromium test tape (SCT-FCR).  
3) Perform steps 5), 6) and 7) of 3-5-1.  
4) If the level of 10kHz signal is under 56mV (0dB) on VTVM, turn VR03 for L-ch and VR02 for R-ch on G-1190 counterclockwise from conductor side.  
If it is over 56mV, turn them clockwise from conductor side. When adjusting above, repeat the step 3) until the difference of output levels (1kHz and 10kHz) are 0dB (56mV) on VTVM.

Fig. 3-2

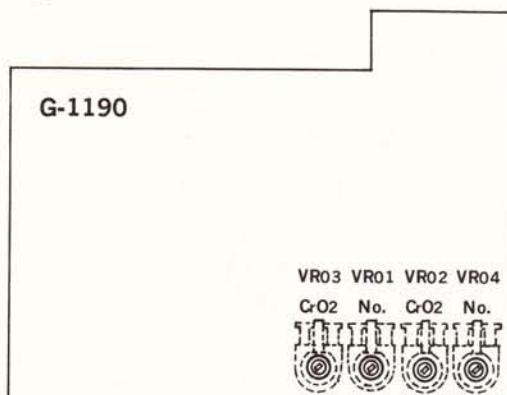
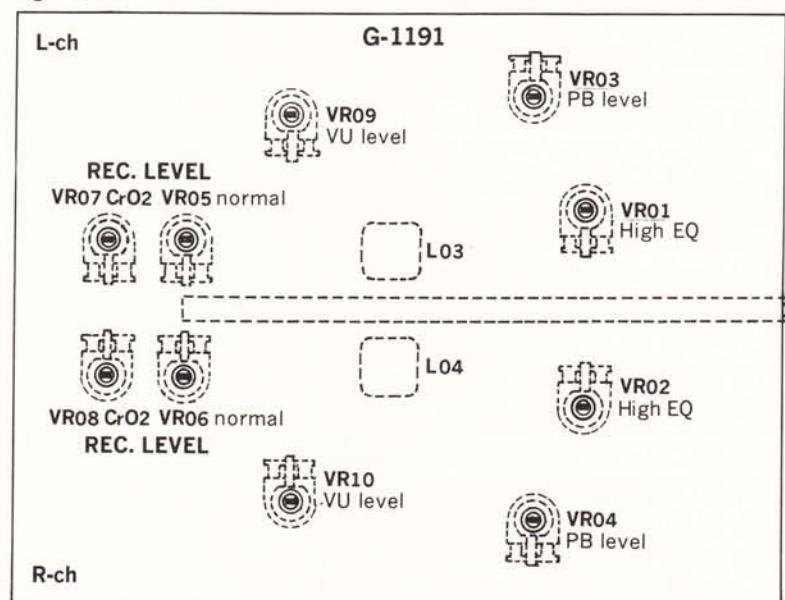


Fig. 3-3



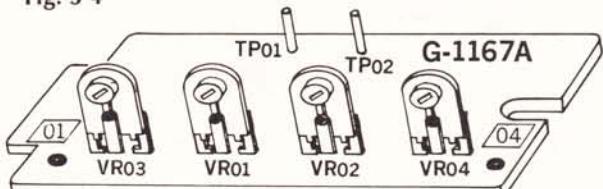
### 3-6-2. Setting TAPE SELECTOR switch to CHROMIUM

- 1) Perform steps 1) through 3) of 3-6-1.
- 2) Push on the PAUSE button and set the unit in the record mode using the Chromium test tape (SCT-FCR).
- 3) Perform steps 5), 6) and 7) of 3-6-1.
- 4) If the indication of output level on each channel is under 56mV, turn VR07 for L-ch and VR08 for R-ch on G-1191 counterclockwise or if it is over 56mV, turn them clockwise from conductor side so that the output level 56mV may be exactly obtained.  
Repeat the above step 3) a few times until the indication on VTVM will be exactly 56mV.

### 3-7. Dolby Circuit Adjustment (See Fig. 3-4)

- 1) Set the MIC/LINE LEVEL volume to maximum and DOLBY switch to OUT.
- 2) Turn VR01 clockwise (viewed from the bottom side) and VR02 counterclockwise (viewed from the bottom side.)
- 3) Connect a VTVM respectively between the terminal 01 and ground for L-ch, and terminal 04 and ground for R-ch on F-1167.
- 4) Supply the 5kHz signal from an audio signal generator to the LINE INPUT terminals (L, R-ch).
- 5) Push on the PAUSE button and set the unit in the record mode after setting a Normal test tape (SCT-FCB6)
- 6) Adjust the output level volume of the audio signal generator for obtaining 17.5mV on the VTVM.
- 7) Ground TP01 and TP02 and set the DOLBY switch to IN.
- 8) Adjust VR03 for L-ch, and VR04 for R-ch on F-1167 until the VTVM reads 55.3mV (+10dB) higher position from 17.5mV.
- 9) Disconnect TP01 and TP02 from ground.
- 10) Adjust VR01 for L-ch, and VR02 for R-ch on F-1167 until the VTVM reads 40.9mV (-2dB) lower position from 55.3mV.
- 11) Ground TP01 and TP02 again.  
Make sure that the VTVM connected between the terminal 01 and ground for L-ch, and the 04 and ground for R-ch reads 55.3mV (+2dB) higher position.

Fig. 3-4



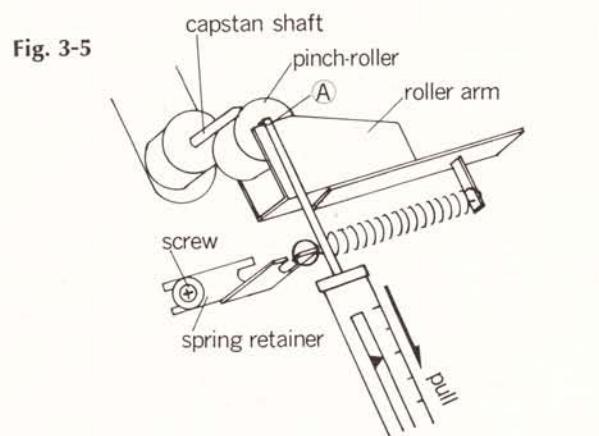
### 3-8. Bias MPX Filter Adjustment (See Fig. 3-3)

- \*When replacing the REC/PB amp circuit board (G-1191), adjust the Bias MPX Filter.
- 1) Set the MIC/LINE LEVEL volumes to maximum.
  - 2) Connect a VTVM to the LINE OUTPUT terminals (L, R-ch).
  - 3) Supply the 19kHz, 10mV signal from an audio signal generator to the LINE INPUT terminals (L, R-ch).
  - 4) Push on the PAUSE button and set the unit in the record mode after setting a Normal test tape (SCT-FCB6).
  - 5) Adjust L03 for L-ch and L04 for R-ch on G-1191 for obtaining the minimum reading on VTVM.

### 3-9. Pinch-roller Pressure Adjustment (See Fig. 3-5)

\*After pushing on the PLAY button with or without cassette tape, perform the following procedures (power switch ON).

- 1) Hook the spring scale at point A of the roller arm as shown in Fig. 3-5.
- 2) Pull the spring scale eventually to the arrow direction until the pinch-roller stops running.
- 3) Slide the spring retainer (Part name, "Hook, pinch-roller spring") by loosening the screw so that the scale indicates  $330 \pm 30$ g.
- 4) Screw it up, then confirm that no considerable variation of the pressure indication on the scale is included in PLAYBACK and STOP process.



### 3-10. Torque Adjustment

\*No any torque adjustments are necessary.

Each torque is fixed as follows:

Take-up torque (PLAYBACK) .....	more than 38g-cm
Take-up torque (FAST FORWARD).....	60~110g-cm
Take-up torque (REWIND) .....	60~110g-cm

## 4. TROUBLESHOOTING CHART

### 4-1. TROUBLESHOOTING ON THE ELECTRICAL SECTION

#### 4-1-1. Troubleshooting on Power Supply Section

Symptom	Check Point	Cause
1-1. Output 19V not supplied to point ⑧ on G-1190	1) VU lamps not lighted 2) VU lamps lighted	1. Defective power cord plug 2. Power cord opens 3. Defective power switch S5 4. Power fuse F01 open 5. Defective voltage selector, PU701 6. Defective power transformer, T701 7. Defective diode, D601~D604 (10D-1) on G-1190 8. Defective transistor, TR601 (2SC1061) on G-1190 9. Defective zener diode, ZD601 (RD-19A) on G-1190 10. Defective C604 (100/ $\mu$ F 25V), C603 (100/ $\mu$ F 25V), C602 (2200/ $\mu$ F 35V) on G-1190 11. Defective transistor, TR601 (2SC1061) on G-1190 12. Due to magnetic flux from power transformer
1-2. Excessive hum		

#### 4-1-2. Troubleshooting on Recording System

2-1. Output 560mV not supplied to LINE OUTPUT	1) Output 5mV absent at terminal 11(12) on G-1191 2) Output 80mV (chromium tape), 65mV (normal tape) absent at terminal 29 (30) on G-1191	13. Imperfect contact of LINE IN Jack 14. Imperfect contact of S1-e (S1-f) on G-1191 15. Defective TR01, TR03 (TR02, TR04) on G-1191 16. Imperfect contact of VR01 (VR02) on G-1189 17. Imperfect contact of MIC Jack 18. Imperfect contact of CENTER MIC Jack 19. Defective TR601 (TR602) on G-1189 20. Imperfect contact of VR601 on G-1189
2-2. Output 110mV at HEADPHONE Jack	1) Output present at LINE OUT	21. Imperfect of S1-a (S1-c) on F-1191 22. Defective TR05, TR07, TR09 (TR06, TR08, TR10) on G-1191 23. L01, L03, (L02, L04) on G-1191 open 24. Imperfect contact of S1-b, S1-d, S1-g, S1-h on G-1191
2-3. VU meter inoperative	1) Output present at LINE OUT	25. Defective TR13 (TR14) on G-1191 26. Imperfect contact of headphone jack, J704
		27. Imperfect contact of VR09 (VR10) on G-1191 28. Defective TR15 (TR16) on G-1191 29. Defective D01, D03 (D02, D04) on G-1191 30. Defective VU meter, M701 (M702)

Symptom	Check Point	Cause
2-4. Recording system inoperative (Output present at LINE OUT)		31. Defective TR01, TR03 (TR02, TR04) on G-1167
2-5. Defective recording on G-1191		
1) Output 250mV (chromium tape), 200mV (normal tape) absent at terminal [31] (32) on G-1191		32. Defective VR05, VR07 (VR06, VR08) on G-1191 33. Imperfect contact of Tape Selector switch, S2-a~f on G-1160A
2) Output 80mV (chromium tape), 65mV (normal tape) absent at terminal [29] (30) on G-1160A		34. Defective TR11 (TR12) on G-1191 35. Open L05 (L06) on G-1191
3) Output 19.5V absent at terminal 4 on G-1190		36. Defective OSC, Block on G-1190
2-6. Recording system and Oscillator circuit operative		37. Imperfect contact of VR01, VR03 (VR02, VR04) on G-1190 38. Imperfect contact of Tape Selector switch, S2-b, d, e, f on G-1160A 39. Defective REC/PB head, YC-303 (In case of no output at both REC and PLAYBACK)
2-7. Imperfect contact of tape and head		40. No output at REC and PLAYBACK
2-8. Record lamp not lighted		
1) Recording system operative		41. Open REC lamp, PL705 42. Imperfect contact of REC lamp and socket
2-9. Excessive distortion in recording		43. Improper setting of Tape Selector switch 44. Improper bias current 45. Defective recording amp. 46. Dirty head
2-10. No erasing		47. Loose adjustment of erase head 48. Dirty head 49. Defective head 50. Defective oscillator block

#### 4-1-3. Playback System Troubles

3-1. Output 560mV absent at LINE OUT		
1) Output 10mV absent at the collector of TR03 (TR04) on G-1191		51. Defective REC/PB head 52. Imperfect contact of S1-b (S1-d) on G-1191 53. Defective TR01, TR03 (TR02, TR04) on G-1191
2) Output 560mV absent at terminal [19] (20) on G-1191		54. Imperfect contact of VR03 (VR04) on G-1191 55. Imperfect contact of S1-g (S1-h) on G-1191 56. Defective TR05, TR07, TR09 (TR06, TR08, TR10) on G-1191 57. Open L01, L03 (L02, L04) on G-1191

→ \*to page 10

Symptom	Check Point	Cause
*from page 9 3) Output 560mV absent at LINE OUT		58. Imperfect contact of S1-k (S1-l) on G-1191 59. Defective TR01, TR03 (TR02, TR04) on G-1167
3-2. Output 110mV absent at HEADPHONE Jack		60. See 2-2 in Troubleshooting on Recording System
3-3. No indication on VU meter		61. See 2-3 in Troubleshooting on Recording System

#### 4-1-4. Troubles in Both Recording/Playback Mode

4-1. Less high-frequency signals	62. Dirty head 63. Worn-Out head 64. Loose head position 65. Loose adjustment of head 66. Loose adjustment of equalizer amp. 67. Defective pressure pad of cassette tape
4-2. Distorted or weak sound	68. Defective Cassette tape 69. Over input level 70. Dirty head 71. Loose adjustment of Head 72. Improper setting of Tape Selector switch (NORMAL or CHROMIUM) in recording 73. Defective capacitor in amplifier
4-3. Excessive noise	74. Excessive tape hiss 75. Defective transistor on amp. section 76. Defective capacitor (resistor) or imperfect contact of volume control 77. Due to external noise 78. Magnetized head

#### 4-1-5. Auto Shut-off Circuit Troubles

5-1. Auto Shut-off Circuit inoperative	79. Defective CdS lamp MKY-5H on G-1180 80. Defective TR02, TR03, TR04 on G-1190 81. Defective plunger solenoid PS701 82. Defective D606, D607, ZD602 on G-1190
--	--

#### 4-1-6. Dolby Circuit Troubles

As one Dolby circuit is actuated in both Recording and Playback mode by switching, the same type of trouble may occur in both modes. In case Recording and Playback are normal, but Dolby circuit does not function, it means that TR01, TR03 (TR02, TR04), S1-K (S1-l), S3-a (S3-b) are normal.

6-1. Dolby circuit inoperative (S/N ratio not improved)	83. Defective TR05, TR07 (TR06, TR08) on G-1167
6-2. Incorrect frequency response (Excessive or less high-frequency signals)	84. Defective FET01 (FET02) on G-1167 85. Defective or loose adjustment of VR01 (VR02) and VR03 (VR04) on G-1167 86. Defective D01 (D02), D03, D05 (D04, D06), D07 (D08) on G-1167 87. Defective TR09 (TR10) on G-1167

## 4-2. TROUBLESHOOTING ON THE MECHANICAL SECTION

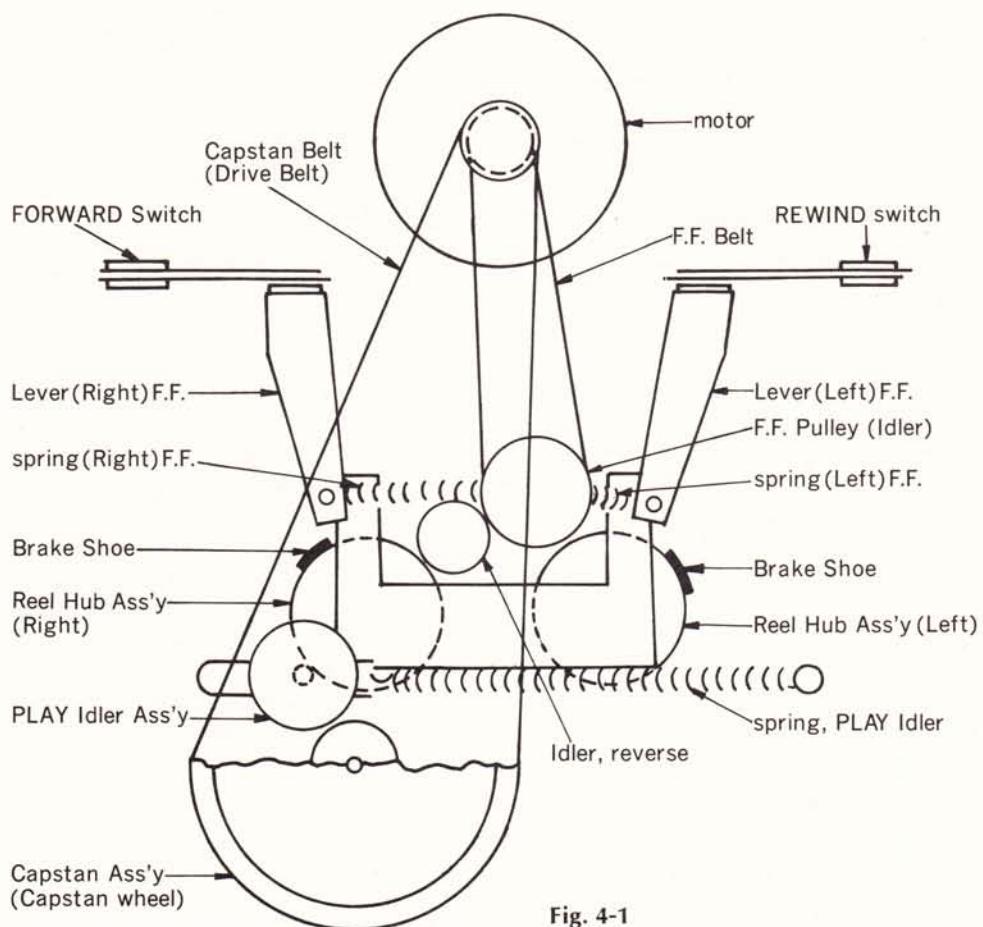
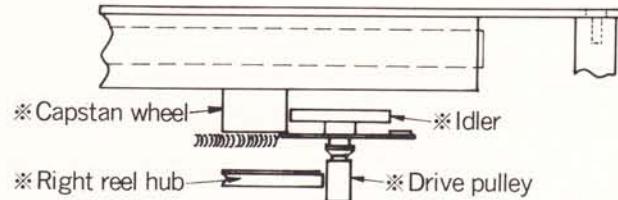
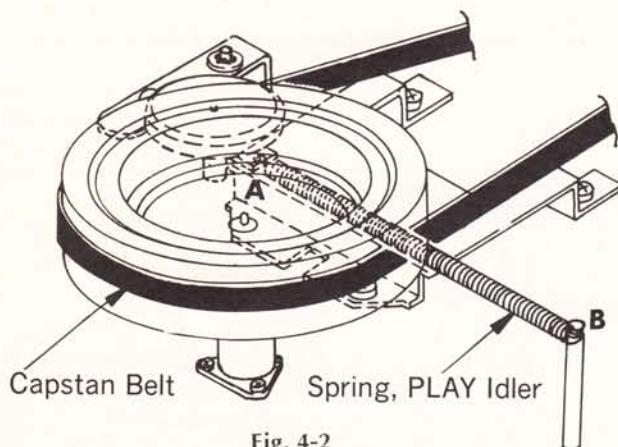


Fig. 4-1

### 4-2-1. PLAY Inoperative

Symptom	Check Point	Cause
1-1. Capstan inoperative		<ul style="list-style-type: none"> <li>1. Motor not rotating</li> <li>2. Broken drive belt</li> <li>3. Slippery drive belt and capstan wheel</li> <li>4. Drive belt slipped off</li> </ul>
1-2. Capstan operative		<ul style="list-style-type: none"> <li>5. Improper pressure of pinch-roller to Capstan (See Fig. 3-5 on page 7)</li> <li>6. Slippery pinch roller</li> <li>7. Weak reel torque</li> <li>8. Slippery capstan wheel and Idler</li> <li>9. Weak motor torque due to drop of Power Line Voltage (AC)</li> <li>10. Slippery idler and right reel hub</li> <li>11. Weak tongue of spring, PLAY idler (see Fig. 4-2 on page 12)</li> </ul>



\*If the rotating parts marked\* in Fig. 4-3 are slippery or oily, clean the parts by Sansui head cleaner (SHC-1) or Carbon tetrachloride.

#### 4-2-2. FAST FORWARD Inoperative

Symptom	Check Point	Cause
2-1. No tape movement in FAST FORWARD		<ul style="list-style-type: none"> <li>12. Imperfect contact between FF idler and idler reverse</li> <li>13. Slippery idler, reverse and right reel hub</li> <li>14. Slippery FF belt</li> <li>15. Brake not released</li> <li>16. Imperfect contact of FAST FORWARD Switch, S6</li> </ul>
		<ul style="list-style-type: none"> <li>17. Imperfect contact between FF idler and left reel hub</li> <li>18. Slippery FF idler and left reel hub</li> <li>19. Brake not released</li> <li>20. Slippery FF belt</li> <li>21. Imperfect contact of REWIND switch, S7</li> </ul>

#### 4-2-3. REWIND Inoperative

3-1. No tape movement in REWIND	<ul style="list-style-type: none"> <li>17. Imperfect contact between FF idler and left reel hub</li> <li>18. Slippery FF idler and left reel hub</li> <li>19. Brake not released</li> <li>20. Slippery FF belt</li> <li>21. Imperfect contact of REWIND switch, S7</li> </ul>
---------------------------------	---

#### 4-2-4. PAUSE Inoperative

(PAUSE does not function mechanically in REWIND mode)

4-1. Returning to STOP mode	22. Imperfect contact of PAUSE switch, S4
-----------------------------	---

#### 4-2-5. Incorrect Tape Speed

- 23. Defective motor, MT701
- 24. Stretched drive belt

#### 4-2-6. Excessive Wow and Flutter

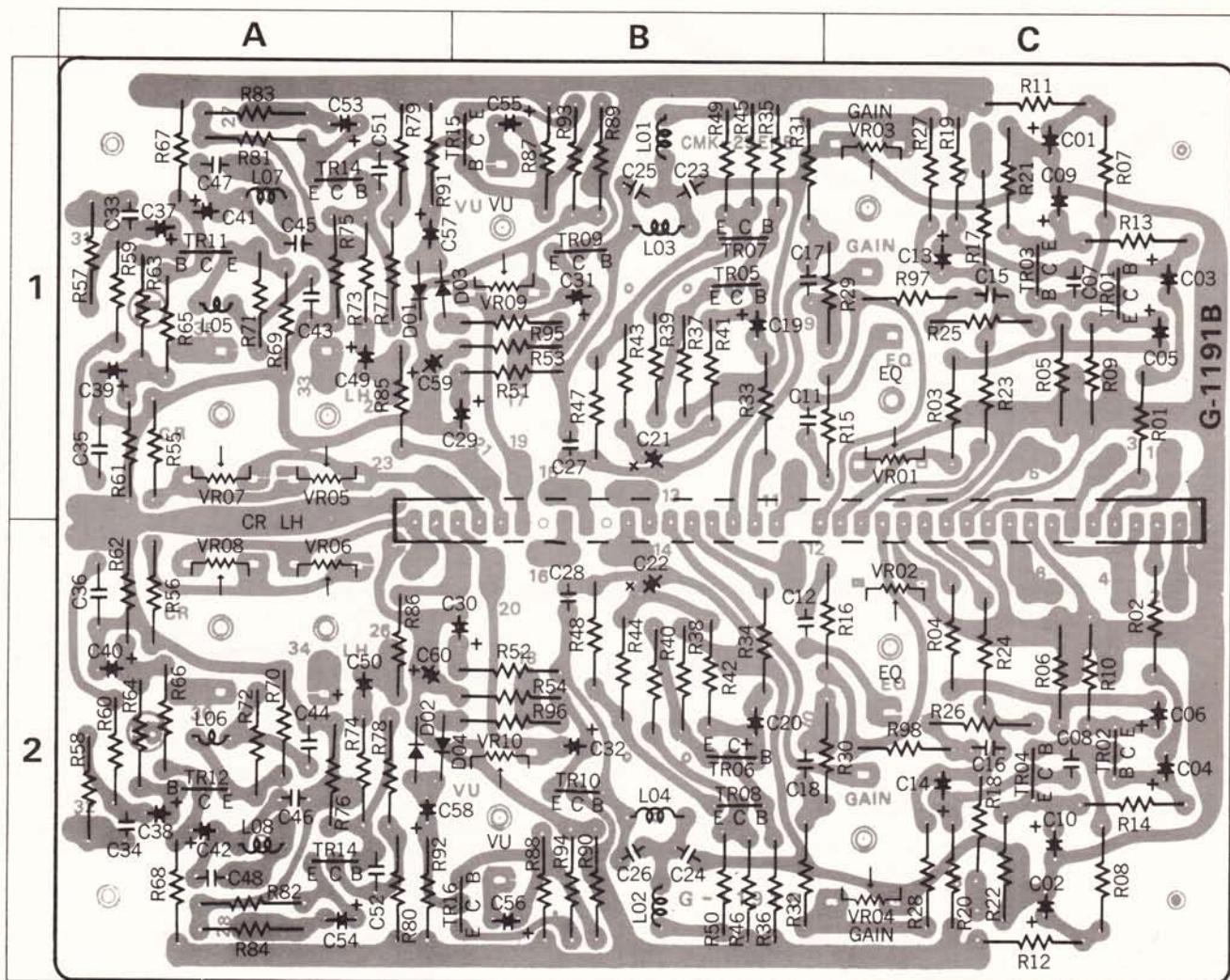
- 25. Defective capstan
- 26. Improper pressure of pinch roller to capstan (See Fig. 3-5 on page 7)
- 27. Change in shape or quality of pinch roller
- 28. Stretched drive belt
- 29. Defective cassette tape

#### 4-2-7. Incorrect Brake

- 30. Oily or slippery reel hub

## 5. PARTS LOCATIONS AND PARTS LISTS

### 5-1. GA-1191 REC/PB Amplifier Circuit Board (Stock No. 7620080 Complete Circuit Board GA-1191) Conductor Side



## Parts List

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
TR01, 02	0306091, 2	2SC1312(R) (G, H)	1C.2C	R17, 18	0107102	1kΩ	1C.2C
TR03, 04	0306091, 2	2SC1312(R) (G, H)	1C.2C	R19, 20	0107472	4.7kΩ	1C.2C
TR05, 06	0306091, 2	2SC1312(R) (G, H)	1B.2B	R21, 22	0107561	560Ω	1C.2C
TR07, 08	0305951, 2	2SC945 (Q, P)	Transistor 1B.2B	R23, 24	0107123	12kΩ	1C.2C
TR09, 10	0305951, 2	2SC945 (Q, P)	1B.2B	R25, 26	0107224	220kΩ	1C.2C
TR11, 12	0305951, 2	2SC945 (Q, P)	1A.2A	R27, 28	0107103	10kΩ	1C.2C
TR13, 14	0305951, 2	2SC945 (Q, P)	2A	R29, 30	0107474	470kΩ	1C.2B
TR15, 16	0305951, 2	2SC945 (Q, P)	1B.2B	R31, 32	0107103	10kΩ	1B.2B
D01, 02	0310403	IN34A	Diode 1A.2A	R33, 34	0107102	1kΩ	1B.2B
D03, 04	0310403	IN34A	Diode	R35, 36	0107104	100kΩ	1B.2B
S1	1110260	CL1112B	Slide Switch	R37, 38	0107391	390Ω	1B.2B
VR01, 02	1032480	10kΩ(B)	1C.2C	R39, 40	0107823	82kΩ	1B.2B
VR03, 04	1032510	50kΩ(B)	1C.2C	R41, 42	0107104	100kΩ	1B.2B
VR05, 06	1032510	50kΩ(B)	Variable Resistor 1A.2A	R43, 44	0107102	1kΩ	1B.2B
VR07, 08	1032510	50kΩ(B)	1A.2A	R45, 46	0107472	4.7kΩ	1B.2B
VR09, 10	1032510	50kΩ(B)	1B.2B	R47, 48	0107331	330Ω	1B.2B
L01, 02	4290170	36mH	1B.2B	R49, 50	0107222	2.2kΩ	1B.2B
L03, 04	4290240	23mH	Inductor Coil 1B.2B	R51, 52	0107562	5.6kΩ	1B.2B
L05, 06	4900170	4.7mH	1A.2A	R53, 54	0107472	4.7kΩ	1B.2B
L07, 08	4900180	33mH	1A.2A	R55, 56	0107472	4.7kΩ	1A.2A
C01, 02	0512100	10μF	1C.2C	R57, 58	0107393	39kΩ	1/4W C.R. 1A.2A
C03, 04	0512100	10μF	16V E.C.	R59, 60	0107273	27kΩ	1A.2A
C05, 06	0512100	10μF	1C.2C	R61, 62	0107683	68kΩ	1A.2A
C07, 08	0660101	100pF	50V C.C.	R63, 64	0107224	220kΩ	1A.2A
C09, 10	0510101	100μF	6.3V E.C.	R65, 66	0107104	100kΩ	1A.2A
C11, 12	0601227	0.0022μF	50V M.C.	R67, 68	0107822	8.2kΩ	1A.2A
C13, 14	0512100	10μF	16V E.C.	R69, 70	0107821	820Ω	1A.2A
C15, 16	0601157	0.015μF	1C.2C	R71, 72	0107222	22kΩ	1A.2A
C17, 18	0601396	0.0039μF	50V M.C.	R73, 74	0107333	33kΩ	1A.2A
C19, 20	0512100	10μF	1B.2B	R75, 76	0107563	56kΩ	1A.2A
C21, 22	0512330	33μF	16V E.C.	R77, 78	0107153	15kΩ	1A.2A
C23, 24	0600396	0.0039μF	1B.2B	R79, 80	0107100	10Ω	1A.2A
C25, 26	0600306	0.003μF	50V M.C.	R81, 82	0107561	560Ω	1A.2A
C27, 28	0600226	0.0022μF	1B.2B	R83, 84	0107101	100Ω	1A.2A
C29, 30	0512330	33μF	1B.2B	R85, 86	0107102	1kΩ	1A.2A
C31, 32	0512100	10μF	16V E.C.	R87, 88	0107823	82kΩ	1B.2B
C33, 34	0601106	0.001μF	50V M.C.	R89, 90	0107562	5.6kΩ	1B.2B
C35, 36	0601827	0.082μF	1A.2A	R91, 92	0107102	1kΩ	1A.2A
C37, 38	0512100	10μF	1A.2A	R93, 94	0107560	56Ω	1B.2B
C39, 40	0512100	10μF	16V E.C.	R95, 96	0107101	100Ω	1B.2B
C41, 42	0512100	10μF	1A.2A	R97, 98	0107472	4.7kΩ	
C43, 44	0601277	0.027μF	50V M.C.				
C45, 46	0660101	100pF	1A.2A				
C47, 48	0660101	100pF	50V C.C.				
C49, 50	0512100	10μF	1A.2A				
C51, 52	0660221	220pF	50V C.C.				
C53, 54	0512330	33μF	1A.2A				
C55, 56	0512100	10μF	1B.2B				
C57, 58	0515109	1μF	50V E.C.				
C59, 60	0512100	10μF	1A.2A				
R01, 02	0107102	1kΩ	1C.2C				
R03, 04	0107102	1kΩ	1C.2C				
R05, 06	0107471	470Ω	1C.2C				
R07, 08	0107184	180kΩ	1C.2C				
R09, 10	0107103	10kΩ	1/4W C.R. 1C.2C				
R11, 12	0107104	100kΩ	1C.2C				
R13, 14	0107473	47kΩ	1C.2C				
R15, 16	0107471	470Ω	1C.2C				

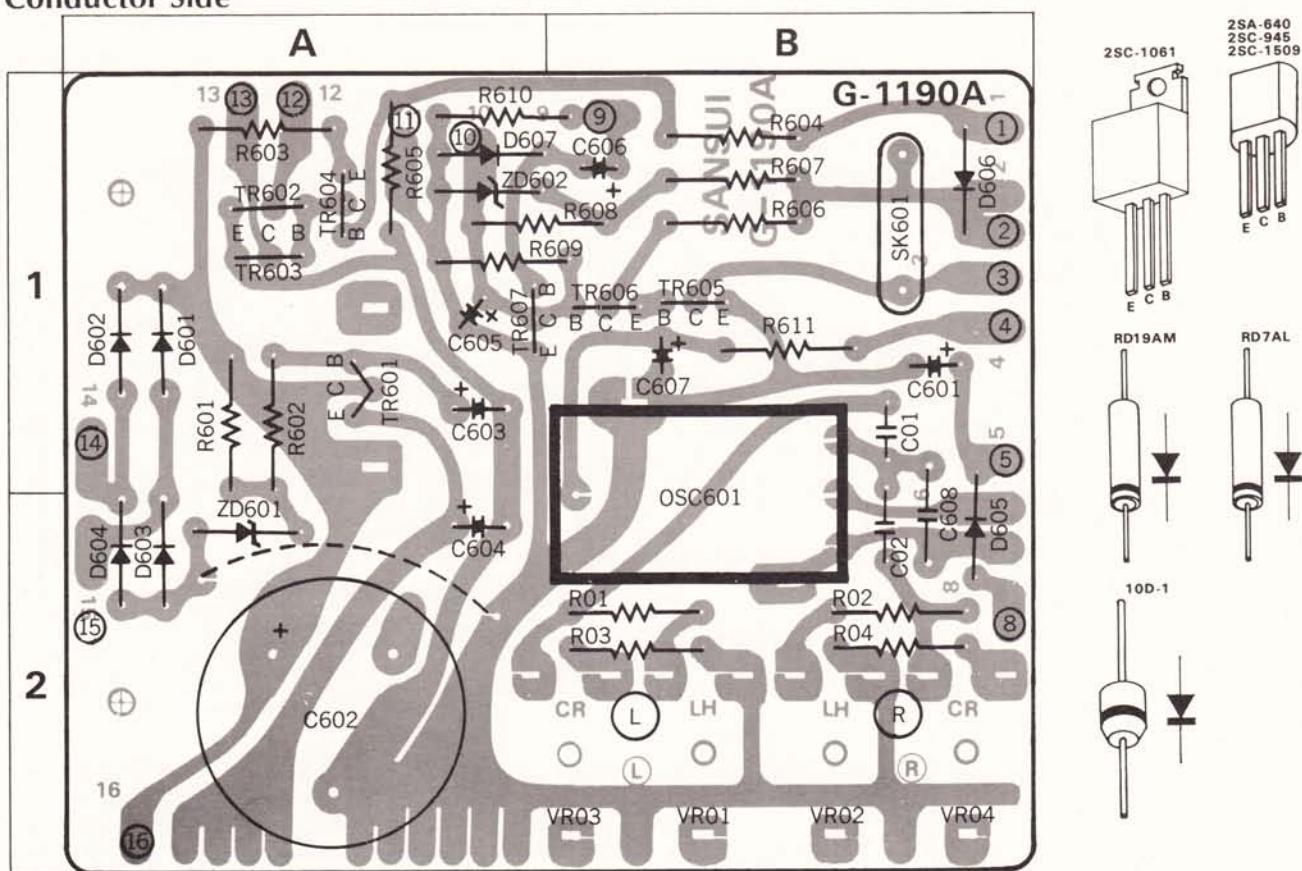
**Abbreviations**

C.R.	: Carbon Resistor	BP.E.C.	: Bi-Polar Electrolytic Capacitor
S.R.	: Solid Resistor	C.C.	: Ceramic Capacitor
Ce.R.	: Cement Resistor	M.R.	: Metallized Film Resistor
M.R.	: Metallized Film Resistor	Mi.C.	: Mica Capacitor
M.C.	: Mylar Capacitor	O.C.	: Oil Capacitor
E.C.	: Electrolytic Capacitor	P.C.	: Polystyrene Capacitor
		T.C.	: Tantalum Capacitor

## 5-2. GA-1190 Power Supply and Auto Stop Circuit Board

Conductor Side

(Stock No. 7690180 Complete Circuit Board G-1190)

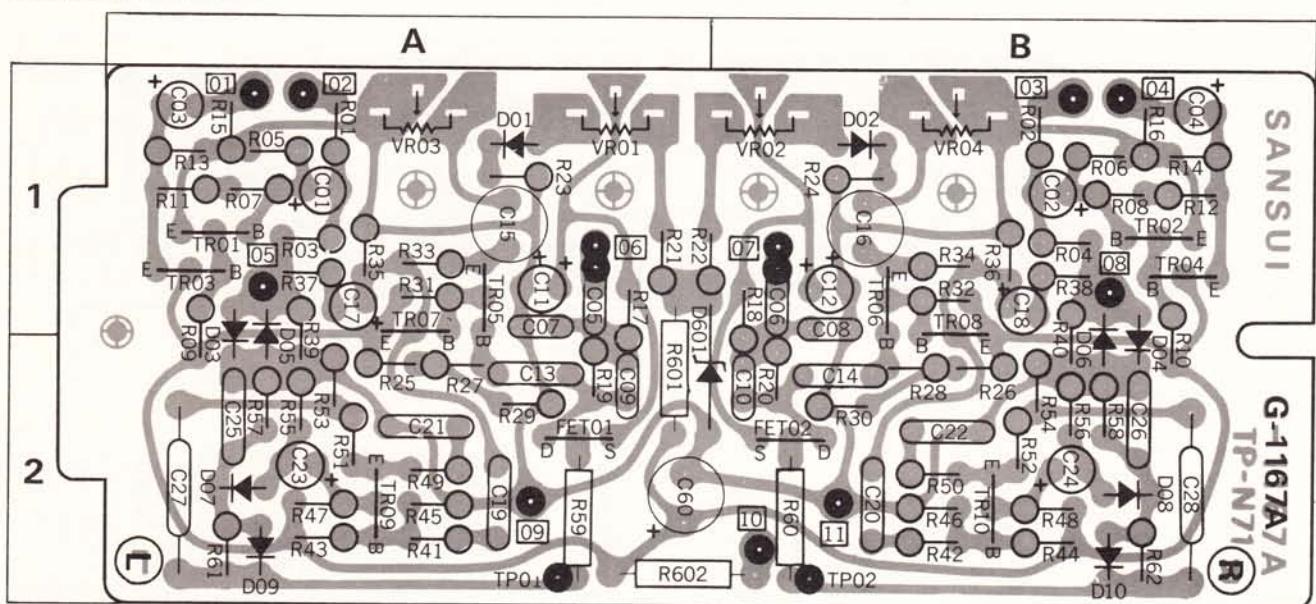


## Parts List

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
TR601	0305771, 2	2SC1061 (B, C)	1 A	C01	0660221	220 pF	1 B
TR602	0305951, 2	2SC945 (Q, P)	1 A	C02	0660221	220 pF	1, 2 B
TR603	0305951, 2	2SC945 (Q, P)	1 A	C601	0512101	100 μF 16V	E.C. 1 B
TR604	0300300, 1	2SA640 (N, M)	Transistor 1 A	C602	0549005	2200 μF 35V	E.C. 2 A
TR605	0306171, 2	2SC1509 (Q, R)	1 B	C603	0513101	100 μF	25V E.C. 1 A
TR606	0305951, 2	2SC945 (Q, P)	1 B	C604	0513101	100 μF	25V E.C. 2 A
TR607	0305951, 2	2SC945 (Q, P)	1 A	C605	0510470	47 μF 6.3V	E.C. 1 A
D601	0310340	10D-1	1 A	C606	0515109	1 μF 50V	E.C. 1 B
D602	0310340	10D-1	1 A	C607	0513100	10 μF 25V	E.C. 1 B
D603	0310340	10D-1	2 A	C608	0649001	2200 μF 300V	Mi.C. 1, 2 B
D604	0310340	10D-1	2 A	R01	0107473	47kΩ	2 B
D605	0310340	10D-1	1, 2 B	R02	0107104	100kΩ	2 B
D606	0310340	10D-1	1 B	R03	0107473	47kΩ	2 B
D607	0310340	10D-1		R04	0107104	100kΩ	2 B
ZD601	0315380	RD19AM	2 A	R601	0107152	1.5kΩ	1 A
ZD602	0315170	RD7AL	1 A	R602	0107121	120Ω	1 A
SK601	0800190	S1201 120Ω +0.1	Spark Killer	R603	0107222	2.2kΩ	1 A
OSC601	0825020	BO-1 OSC Brock	2 B	R604	0107222	2.2kΩ	1 B
VR01	1032520	100kΩ B		R605	0107474	470kΩ	1 A
VR02	1032520	100kΩ B		R606	0107222	2.2kΩ	1 B
VR03	1032520	100kΩ B	Semi Variable Resistor	R607	0107392	3.9kΩ	1 B
VR04	1032520	100kΩ B		R608	0107184	180kΩ	1 A, B
				R609	0107104	100kΩ	1 A, B
				R610	0107102	1kΩ	1 A, B
				R611	0107100	10Ω	1 B

### 5-3. G-1167 Dolby Circuit Board (Stock No. 7660030 Complete Circuit Board G-1167)

#### Conductor Side

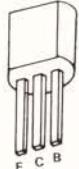


#### Parts List

Parts No.	Stock No.	Description	Position
TR01	0306091, 2	2SC1312 (R) (G, H)	1 A
TR02	0306091, 2	2SC1312 (R) (G, H)	1 B
TR03	0306091, 2	2SC1312 (R) (G, H)	1 A
TR04	0306091, 2	2SC1312 (R) (G, H)	1 B
TR05	0305731, 2	2SC711 (E, F)	1 A
TR06	0305731, 2	2SC711 (E, F)	1 B
TR07	0300300, 1	2SA640 (M, N)	1 A
TR08	0300300, 1	2SA640 (M, N)	1 B
TR09	0305731, 2	2SC711 (E, F)	2 A
TR10	0305731, 2	2SC711 (E, F)	2 B
FET01	0370104	2SK30A (D) } FET	2 A
FET02	0370104	2SK30A (D) }	2 B
D01	0310403	IN34A	1 A
D02	0310403	IN34A	1 B
D03	0340090	DS-430	1, 2 A
D04	0340090	DS-430	
D05	0340090	DS-430	1, 2 A
D06	0340090	DS-430	1, 2 B
D07	0310403	IN34A	2 A
D08	0310403	IN34A	2 B
D09	0340090	DS-430	2 A
D10	0340090	DS-430	2 B
ZD601	0315170	RD-7A Zener Diode	1, 2 A
C01	0512100	10μF	1 A
C02	0512100	10μF	1 B
C03	0512100	10μF	1 A
C04	0512100	10μF	1 B
C05	0600566	0.0056μF	1 A
C06	0600566	0.0056μF	1 B
C07	0600277	0.027μF ± 5 %	50V M.C. 1 A
C08	0600277	0.027μF	2 A
C09	0600476	0.0047μF	2 B
C10	0600476	0.0047μF	

2SC711  
2SC1312

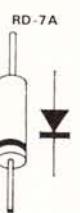
2SA640



2SK30A



○ Drain  
○ Gate  
○ Source



Parts No.	Stock No.	Description	Position
C11	0512100	10μF	1 A
C12	0512100	10μF	1 B
C13	0601108	0.1μF	2 A
C14	0601108	0.1μF	2 B
C15	0510470	47μF	1 A
C16	0510470	47μF	1 B
C17	0512100	10μF	1 A
C18	0512100	10μF	1 B
C19	0601108	0.1μF	2 A
C20	0601108	0.1μF	2 B
C21	0600108	0.1μF	2 A
C22	0600108	0.1μF	2 B
C23	0512100	10μF	1 A
C24	0512100	10μF	1 B
C25	0601108	0.1μF	2 A
C26	0601108	0.1μF	2 B

to be continued

**G-1167 Parts List**

Parts No.	Stock No.	Description	Position
C27	0601108	0.1 $\mu$ F	2 A
C28	0601108	0.1 $\mu$ F	2 B
C601	0512101	100 $\mu$ F	16V E.C. 1, 2 A
R01	0106154	150k $\Omega$	1 A
R02	0106154	150k $\Omega$	1 B
R03	0106184	180k $\Omega$	1 A
R04	0106184	180k $\Omega$	1 B
R05	0106273	27k $\Omega$	1 A
R06	0106273	27k $\Omega$	1 B
R07	0106822	8.2k $\Omega$	1 A
R08	0106822	8.2k $\Omega$	1 B
R09	0106223	22k $\Omega$	1, 2 A
R10	0106223	22k $\Omega$	2 B
R11	0106154	150k $\Omega$	1 A
R12	0106154	150k $\Omega$	1 B
R13	0106272	2.7k $\Omega$	1 A
R14	0106272	2.7k $\Omega$	1 B
R15	0106333	33k $\Omega$	1 A
R16	0106333	33k $\Omega$	1 B
R17	0106332	3.3k $\Omega$	1 A
R18	0106332	3.3k $\Omega$	1 B
R19	0106393	39k $\Omega$	2 A
R20	0106393	39k $\Omega$	2 B
R21	0106562	5.6k $\Omega$	1 A
R22	0106562	5.6k $\Omega$	1 A
R23	0106152	1.5k $\Omega$	1 A
R24	0106152	1.5k $\Omega$	1 B
R25	0106123	12k $\Omega$	2 A
R26	0106123	12k $\Omega$	2 B
R27	0106684	680k $\Omega$	2 A
R28	0106684	680k $\Omega$	2 B
R29	0106682	6.8k $\Omega$	1/4W C.R. 2 A
R30	0106682	6.8k $\Omega$	(E.L.R.) 2 B
R31	0106153	15k $\Omega$	1 A
R32	0106153	15k $\Omega$	1 B
R33	0106822	8.2k $\Omega$	1 A
R34	0106822	8.2k $\Omega$	1 B
R35	0106103	10k $\Omega$	1 A
R36	0106103	10k $\Omega$	1 B
R37	0106822	8.2k $\Omega$	1 A
R38	0106822	8.2k $\Omega$	1 B
R39	0106333	33k $\Omega$	1, 2 A
R40	0106333	33k $\Omega$	1, 2 B
R41	0106822	8.2k $\Omega$	2 A
R42	0106822	8.2k $\Omega$	2 B
R43	0106124	120k $\Omega$	2 A
R44	0106124	120k $\Omega$	2 B
R45	0106473	47k $\Omega$	2 A
R46	0106473	47k $\Omega$	2 B
R47	0106272	2.7k $\Omega$	2 A
R48	0106272	2.7k $\Omega$	2 B
R49	0106470	47 $\Omega$	2 A
R50	0106470	47 $\Omega$	2 B
R51	0106102	1k $\Omega$	2 A
R52	0106102	1k $\Omega$	2 B
R53	0106330	33 $\Omega$	2 A
R54	0106330	33 $\Omega$	2 B
R55	0106153	15k $\Omega$	2 A
R56	0106153	15k $\Omega$	2 B
R57	0106274	270k $\Omega$	2 A
R58	0106274	270k $\Omega$	2 B
R59	0107224	220k $\Omega$	$\pm 5\%$ 1/4W C.R. 2 A

Parts No.	Stock No.	Description	Position
R60	0107224	220k $\Omega$	$\pm 5\%$ 1/4W C.R. 2 B
R61	0106274	270k $\Omega$	$\pm 5\%$ 1/4W C.R. 2 A
R62	0106274	270k $\Omega$	(E.L.R.) 2 A
R601	0107102	1k $\Omega$	$\pm 5\%$ 1/4W C.R. 1, 2 A
R602	0103331	330 $\Omega$	$\pm 10\%$ 1/2W C.R. 2 A, B
VR01	1031090, 2	5k $\Omega$ (B)	1 A
VR02	1031090, 2	5k $\Omega$ (B)	1 B
VR03	1031040	500 $\Omega$ (B)	Semi-Variable Resistor 1 A
VR04	1031040	500 $\Omega$ (B)	1 B
TP01	2260010	A4-01775-1	Test Pin 2 A
TP02	2260010	A4-01775-1	2 B

**Abbreviations**

C.R.	: Carbon Resistor	BP.E.C.	: Bi-Polar Electrolytic Capacitor
S.R.	: Solid Resistor	C.C.	: Ceramic Capacitor
Ce.R.	: Cement Resistor	M.R.	: Metallized Film Resistor
M.R.	: Metallized Film Resistor	Mi.C.	: Mica Capacitor
M.C.	: Mylar Capacitor	O.C.	: Oil Capacitor
E.C.	: Electrolytic Capacitor	P.C.	: Polystyrene Capacitor
		T.C.	: Tantalum Capacitor

**5-4. G-1160 Switch Circuit Board**

(Stock No. 7690140 Complete Circuit Board G-1160)

**Parts List**

Parts No.	Stock No.	Description
S2	1130740	SUB 32059 Push Switch

**5-5. G-1180 CdS Circuit Board**

(Stock No. 7690130 Complete Circuit Board G-1180)

**Parts List**

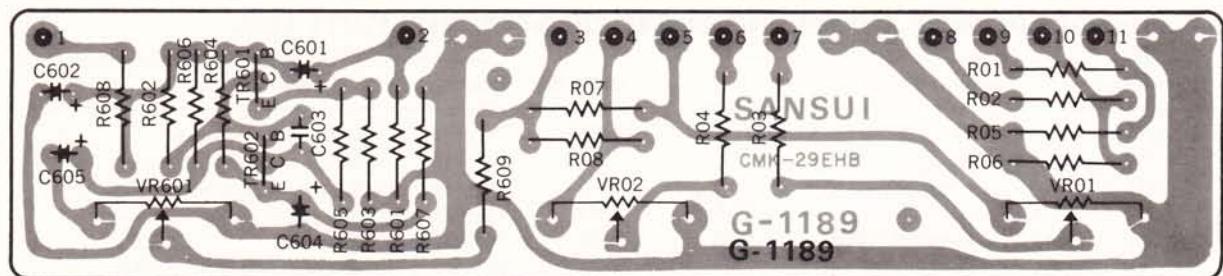
Parts No.	Stock No.	Description
CdS10	0920050	MKY-5C38 CdS

**5-6. G-1185-1 Fuse Circuit Board****Parts List**

Parts No.	Stock No.	Description
F01	{ 0430810 0430830	0.5A Power Fuse (220~140V) 1A Power Fuse (100~117V)
F02	0430830	1A
F03	0430890	4A
F04	0430800	0.3A
		Fuse
	2310150	Fuse Holder

## 5-7. GA-1189 Level Circuit Board (Stock No. 7690170 Complete Circuit Board G-1159)

### Conductor Side



### Parts List

Parts No.	Stock No.	Description
TR601	0306091, 2	2SC1312 (R,G,H) } Transistor
TR602	0305951, 2	2SC945 (Q, P) }
VR01	1000320	50kΩ B }
VR02	1000320	50kΩ B }
VR601	1000310	10kΩ B }
C601	0512100	10/ $\mu$ F } 16V E.C.
C602	0512330	33/ $\mu$ F } 16V E.C.
C603	0660470	47 pF 50V C.C.
C604	0512330	33/ $\mu$ F } 16V E.C.
C605	0512100	10/ $\mu$ F } 16V E.C.
R01	0107102	1kΩ } 1/4 W C.R.
R02	0107102	1kΩ }

Parts No.	Stock No.	Description
R03	0107473	47kΩ }
R04	0107473	47kΩ }
R05	0107393	39kΩ }
R06	0107393	39kΩ }
R07	0107104	100kΩ }
R08	0107104	100kΩ }
R601	0107123	12kΩ }
R602	0107104	100kΩ }
R603	0107182	1.8kΩ }
R604	0107104	100kΩ }
R605	0107104	100kΩ }
R606	0107472	4.7kΩ }
R607	0107561	560Ω }
R608	0107222	2.2kΩ }
R609	0107102	1kΩ }

### 5-8. Other Parts List

Parts No.	Stock No.	Description
CMF701	069001	1/ $\mu$ F 230V M.C.
R701	0107103	10kΩ }
R702	0107103	10kΩ }
R703	0107104	100kΩ }
R704	0107104	100kΩ } 1/4 W C.R.

## 6. DISASSEMBLY WITH EXPLODED VIEWS AND PARTS LISTS

### 6-1. Disassembly of the Cabinet and Electrical Sections, Parts List

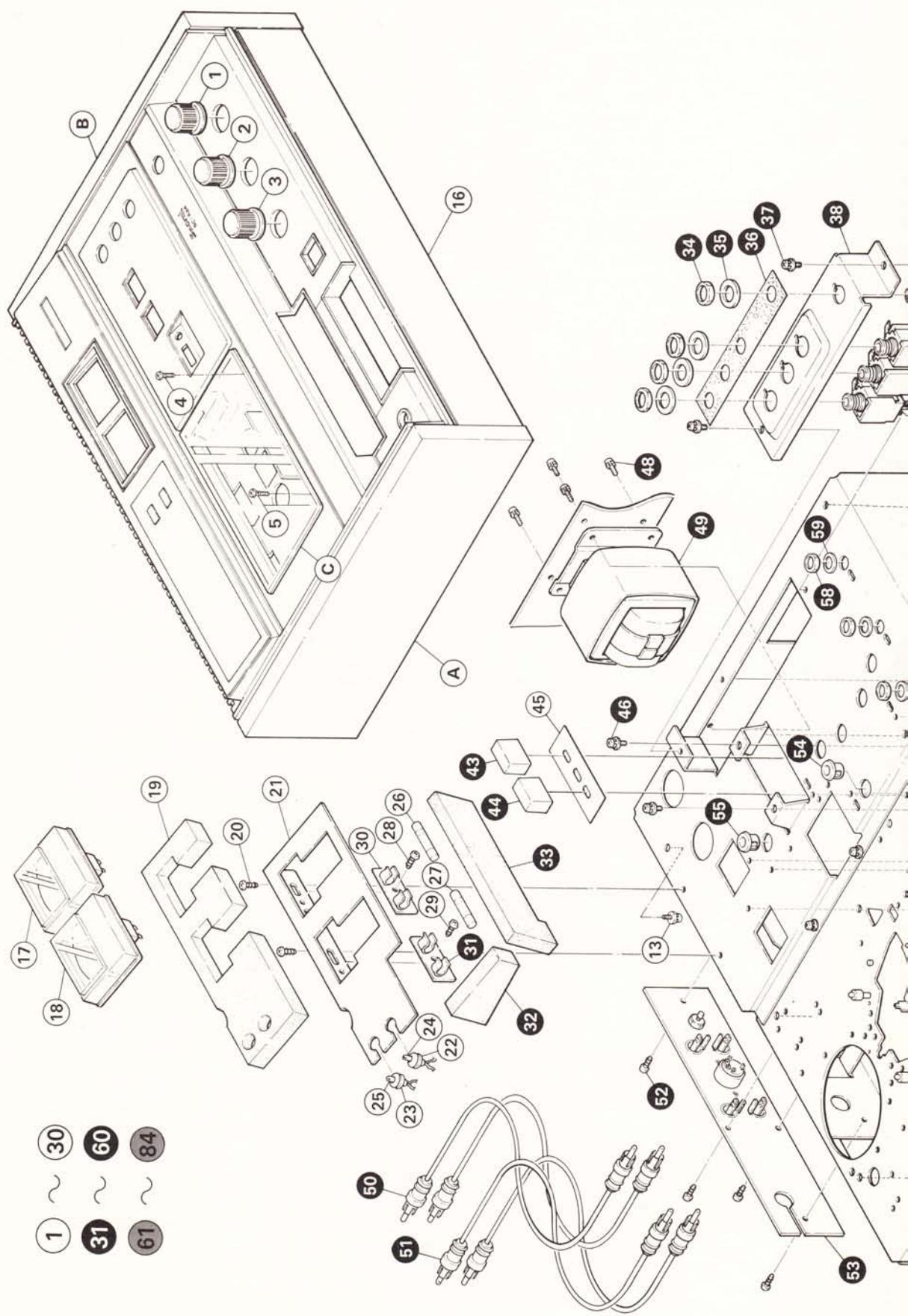
Parts No.	Stock No.	Description
1	5310171	008 Type Knob (Center Mic)
2	5310171	008 Type Knob (Right Mic)
3	5310171	008 Type Knob (Left Mic)
4, 5	5101126	B Type Screw M2.6×12
6	5101943	BSB Type Screw M3×6
7	5101046	B Type Screw M3×12
8	5510090	Foot
9	5050191	Bottom plate
10-15	5101943	BSB Type Screw M3×6
16	7010090	Top Cover Ass'y
A, B	5740210	Side plate
C	5060220	Cassette Lid
17, 18	4300370	VU Meter
19	5510100	Meter Cushion
20	5109122	BT Type Screw M3×8
21	5241070	Holder, VU meter
22, 23	5606050	Grommet
24	0470360	Lamp (7V 100mA) Record indication
25	0470370	Lamp (7V 100mA) Dolby indication
26, 27	0420040	Meter lamp (6.V 300mA)
28, 29	5109122	BT Type Screw M3×8
30, 31	2310031	1P lamp holder
32	5040430	Shield packing E
33	5040420	Shield packing D
34		Hex Nut M12
35	5040440	P Type Washer 12φ
36		Jack mask
37	5101843	BSB Type Screw M3×6
38	5241080	Jack plate
39	2430190	Headphone jack
40	2430170	Mic jack (Center)
41	2430170	Mic jack (Right)
42	2430170	Mic jack (Left)
43	5320410	Knob, dolby N.R.
44	5320410	Knob, tape selector
45		Button mask
46	5101843	BSB Type Screw M3×6
47	7690140	Switch circuit board
48	5101843	BSA Type Screw M3×6
49	4001370	Power transformer
50, 51	3810080, 1	Pinplug cord
52	5109122	BT Type Screw M3×8
53	7710060	Terminal board Ass'y
54, 55	5616110	Snap bushing
56	5101843	BSB Type Screw M3×6
57	7660030	Dolby circuit board G-1127
58	5110780	Hex Nut M8
59	5102083	P Type washer, 8φ
60	7690170	Volume circuit board G-1189
61	5101843	BSB Type Screw M3×6
62	7620080	R/P Circuit board GA-1191
63	5109121	BT Type Screw M3×6
64, 65	5250090	Stand E, P.C.B.
66	5109122	BT Type Screw M3×8
67	5260130	Holder, voltage selector
68	5109122	BT Type Screw M3×8
69	5030140	Shield plate
70	5101844	BSA Type Screw M3×8

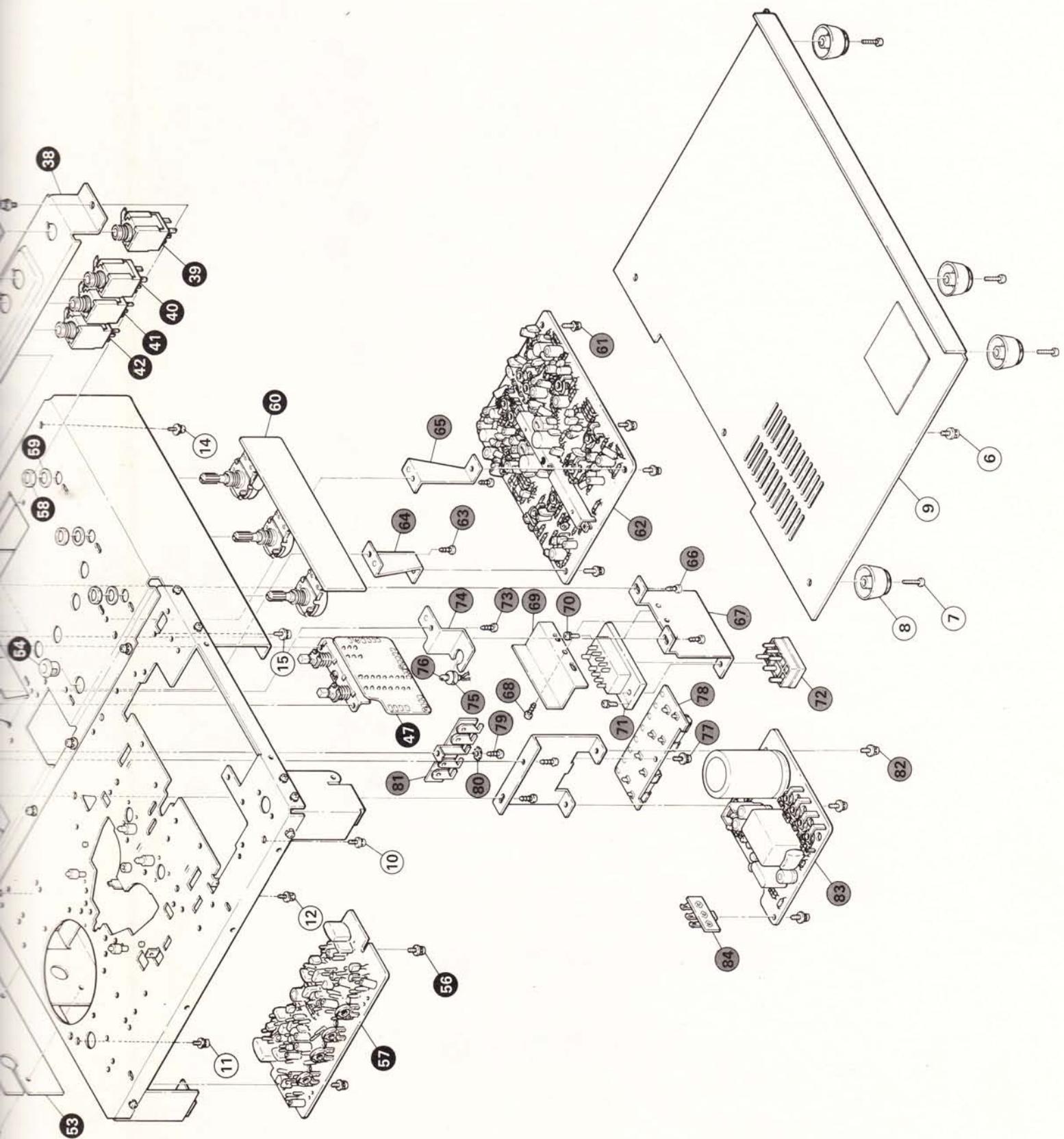
Parts No.	Stock No.	Description
71	2410080	Voltage selector socket
72	2410090	Voltage selector plug
73	5109122	BT Type Screw M3×8
74	5250110	Lamp stand
75	5606050	Grommet
76	0470360	Auto stop lamp (7V, 100mA)
77	5101843	BSB screw M3×6
78	2690150	Fuse circuit board G-1185-1
79	5105122	BT Type Screw M3×8
80	5122540	TLE Type washer, 3φ
81	2110021	Lug terminal 2L2A
82	5101843	BSB Type screw 3×6
83	7690180	Power circuit board G-1196
84	2110141	Lug terminal 1L1

### Hardware Nomenclature

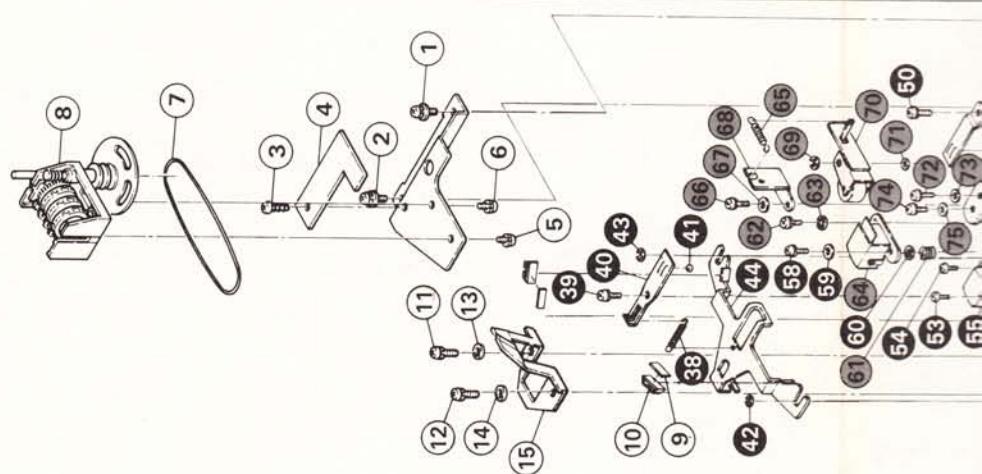
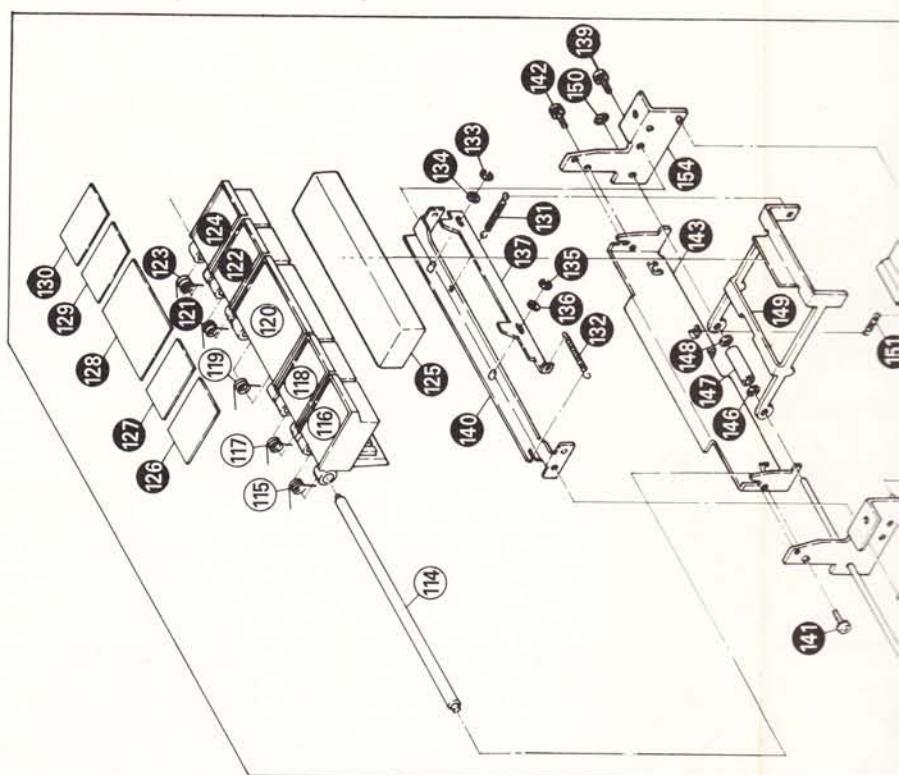
Name	Abbreviation	Type
Binding Head Tapping Screw .....	BT	
Washer Head Tapping Screw .....	WT	
Pan Head Screw .....	P	
Binding Head SEMS A Screw.....	BSA	
Binding Head SEMS B Screw.....	BSB	
Binding Head SEMS F Screw.....	BSF	
Binding Head Screw .....	B	
Flat Countersunk Head Screw.....	F	
Flat Countersunk Wood Screw.....	FC	
Round Head Wood Screw .....	RH	
Hex. Socket Set Screw .....	SC	
Slot Type Set Screw .....	SS	
Spring Washer .....	S	
Plain Washer .....	P	
Retaining Ring (E Washer) .....	E	
Toothed Lock Washer (External) ..	TLE	

## 6-1. Disassembly of the Cabinet and Electrical Sections

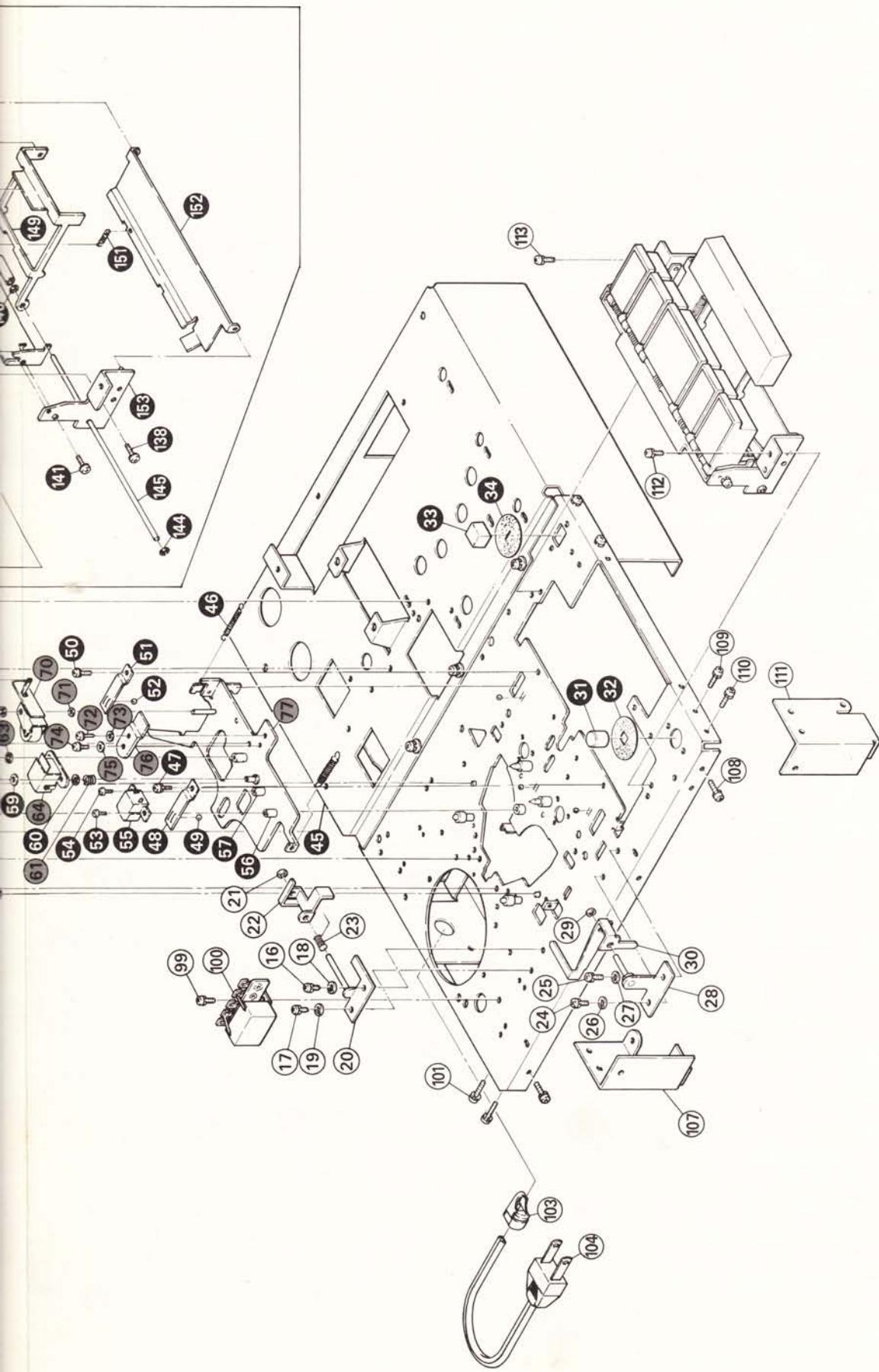




## 6-2. Disassembly of the Mechanism (Top View)



(30) (60) (90) (120) (154)  
~ ~ ~ ~ ~  
(1) (31) (61) (91) (121)



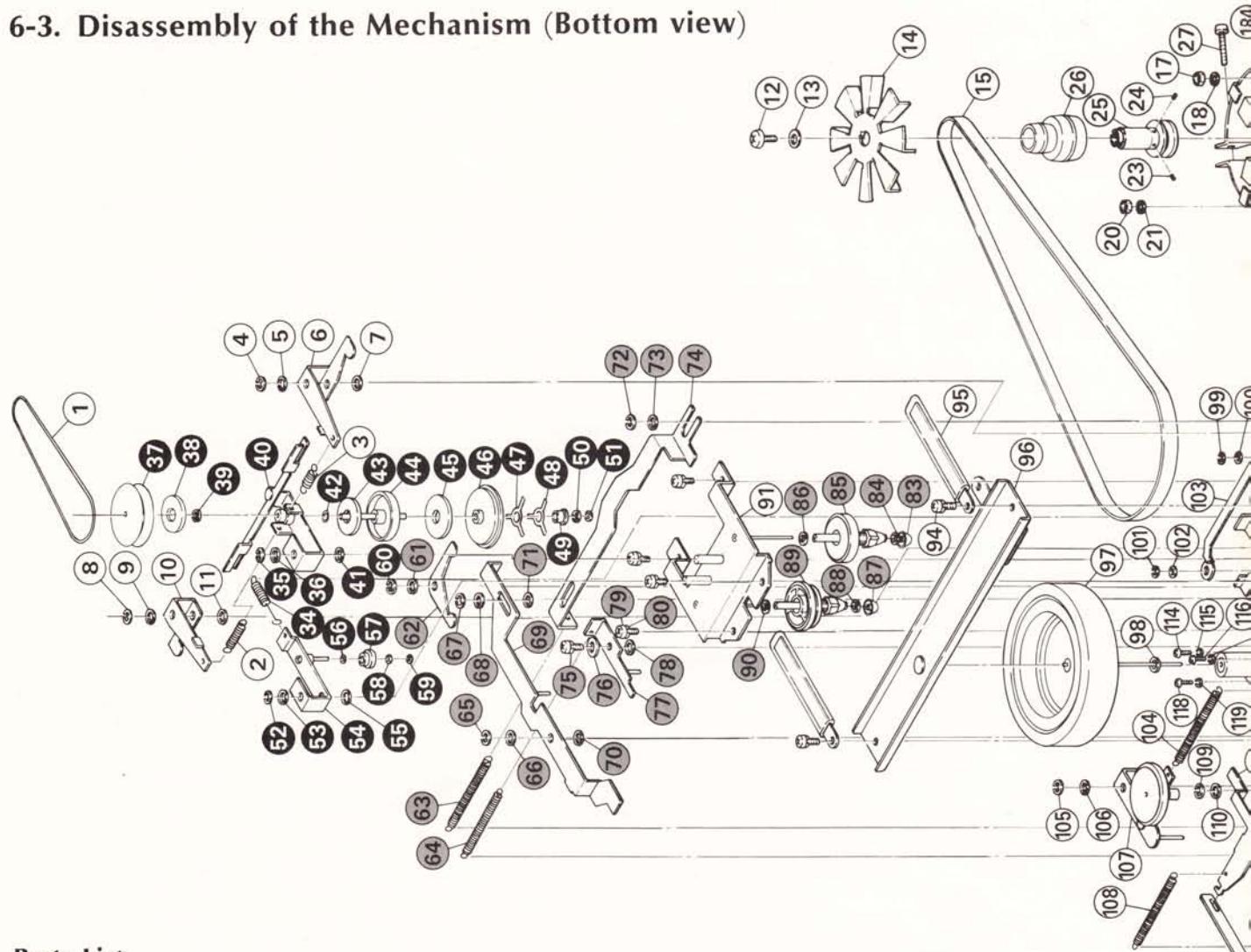
## 6-2. Disassembly of the Mechanism (Top View), Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	5101843	BSB Type Screw, M3×6	67	5120120	P Type Washer, 2.6φ
2	5101843	BSB Type Screw, M3×6	68	5220360	Hook, pinch roller spring
3	5109122	BT Type Screw, M3×8	69	5151002	E Type Washer, 2φ
4	7690130	CdS Circuit board G-1180	70	7060070	Pinch Roller Ass'y
5	5101843	BSA Type Screw M3×6	71	5120141	P Type Washer, 3φ
6	5101843	BSA Type Screw M3×6	72	5101843	BSA Type Screw, M3×6
7	6030110	Counter belt	73	5120141	P Type Washer, 3φ
8	5430060	Counter	74	5101843	BSA Type Screw, M3×6
9	6400130	Brake pad	75	5120141	P Type Washer, 3φ
10	5260330	Brake pad holder	76	5240900	Adjusting Plate, head base
11	5101843	BSA Type Screw, M3×6	77	7050070	Head Base
12	5101843	BSA Type Screw M3×6	99	5101843	BSA Type Screw, M3×6
13	5180340	P Type Washer 3φ	100	2110020	2L2A Lug Terminal
14	5180340	P Type Washer 3φ	101	5101843	BSA Type Screw, M3×6
15	6900960	Cassette Spring	103	3910470	Cord Clip
16	5101843	BSA Type Screw M3×6	104	3800020	Power Cord
17	5101843	BSA Type Screw M3×6	107	5250130	Stud B, mechanism chassis
18	5180340	P Type Washer 3φ	108	5101843	BSA Type Screw, M3×6
19	5180340	P Type Washer 3φ	109	5101843	BSA Type Screw, M3×6
20	6220020	Holder, record censor	110	5101843	BSA Type Screw, M3×6
21	5151002	E Type Washer, 2φ	111	5250120	Stud A, mechanism chassis
22	6500680	Record Censor	112	5101843	BSA Type Screw, M3×6
23	6900980	Spring, record censor	113	5101843	BSA Type Screw, M3×6
24	5101843	BTA Type Screw, M3×6	114	6200190	Shaft, knob
25	5101843	BTA Type Screw, M3×6	115	6900700	Spring, knob
26	5180340	P Type Washer, 2φ	116	5320390	EJECT Knob
27	5180340	P Type Washer, 2φ	117	6900700	Spring, knob
28	6220010	Holder, eject spindle	118	5320390	REWIND Knob
29	5151002	E Type Washer, 2φ	119	6900700	Spring, knob
30	6500700	Eject arm	120	5320380	PLAY Knob
31	5320340	Knob, power switch	121	6900700	Spring, knob
32	5040370	Masking, power switch	122	5320390	F.F. Knob
33	5320360	Knob, pause switch	123	6900700	Spring, knob
34	5040370	Masking, pause switch	124	5320400	REC Knob
38	6900990	Spring, brake	125	5320370	STOP Knob
39	5101843	BSA Type Screw, M3×6	126	5360301	Name Plate, EJECT knob
40	5260240	Retainer (SP-B), steel ball	127	5360301	Name Plate, REWIND knob
41	6540030	Steel Ball, 2φ	128	5360291	Name Plate, PLAY knob
42	5151002	E Type Washer, 2φ	129	5360301	Name Plate, F.F. knob
43	5151002	E Type Washer, 2φ	130	5360312	Name Plate, REC knob
44	6400140	Brake shoe	131	6900710	Spring, stop
45	6900680	Spring, head base	132	6900730	Spring, lock plate
46	6900680	Spring, head base	133	5151002	E Type Washer, 2φ
47	5101843	BSA Type Screw, M3×6	134	5120302	P Type Washer, 2φ
48	5260231	Retainer (SP-A), steel ball	135	5151002	E Type Washer, 2φ
49	6540030	Steel Ball, 2φ	136	5120302	P Type Washer, 2φ
50	5101843	BSA Type Screw, M3×6	137	6510130	Lock Plate, knob
51	5260231	Retainer (SP-A), steel ball	138	5101843	BSA Type Screw, M3×6
52	6540030	Steel Ball, 2φ	139	5101843	BSA Type Screw, M3×6
53	5101206	B Type Screw, M2×10	140	6900730	Spring, lock plate
54	5101206	B Type Screw, M2×10	141	5101843	BSA Type Screw, M3×6
55	4523030	Erase Head	142	5101843	BSA Type Screw, M3×6
56	5230690	Stud, erase head	143	5240910	Frame, knob
57	5230690	Stud, erase head	144	5151002	E Type Washer, 2φ
58	5101203	B Type Screw, M2×5	145	6200200	Shaft, stop
59	5120302	P Type Washer, 2φ	146	5151002	E Type Washer, 2φ
60	5120302	P Type Washer, 2φ	147	5240910	Vinyl Tube
61	6900690	Spring, head	148	5151002	E Type Washer, 2φ
62	5101203	B Type Screw, M2×5	149	6500490	Lever, stop
63	5121020	S Type Washer, 2φ	150	5240910	E Type Washer, 2φ
64	4533430	REC/PB Head	151	6900720	Spring, flap
65	6900670	Spring (Right), pinch roller	152	6500481	Flap, knob
66	5103022	B Type Screw, M2.6×4	153	5240930	Frame (Left), knob
			154	5240920	Frame (Right), knob

### 6-3. Disassembly of the Mechanism (Bottom View), Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	6030100	F.F. Belt	67	5151004	E Type Washer, 3φ
2	6900831	Spring (Right), F.F.	68	5180260	P Type Washer, 4φ
3	6900841	Spring (Left), F.F.	69	6510140	REC Link
4	5151004	E Type Washer, 3φ	70	5180260	P Type Washer, 4φ
5	5180260	P Type Washer, 4φ	71	5180260	P Type Washer, 4φ
6	6500580	Lever (Right), F.F.	72	5151004	E Type Washer, 3φ
7	5180260	P Type Washer, 4φ	73	5180260	P Type Washer, 4φ
8	5151004	E Type Washer, 3φ	74	6510150	REC Pusher
9	5180260	P Type Washer, 4φ	75	5101843	BSA Type Screw, M3×6
10	6500590	Lever (Left), F.F.	76	5180260	P Type Washer, 4φ
11	5180260	P Type Washer, 4φ	77	6500520	Lock Plate, record
12	5160280	B Type Screw, M5×6	78	5180260	P Type Washer, 4φ
13		P Type Washer, 5φ	79	5101041	B Type Screw, M3×4
14	6190020	Motor Fan	80	5121340	S Type Washer 3φ
15	6030090	Capstan Belt	83	5370080	Cap
16	5101043	B Type Screw, M3×6	84	5180280	P Type Washer, 1.6φ
17	5110241	Hex. Nut, M3	85	7060140	Reel Hub Ass'y (Left)
18	5121340	S Type Washer, 3φ	86	5180280	P Type Washer, 1.6φ
20	5110241	Hex. Nut, M3	87	5370080	Cap
21	5121340	S Type Washer, 3φ	88	5180280	P Type Washer, 1.6φ
22	5260250	Motor Stay	89	7060130	Reel Hub Ass'y (Right)
23	5105640	SS Type Screw, M3×3	90	5180280	P Type Washer, 1.6φ
24	5105640	SS Type Screw, M3×3	91	7030040	Spindle Base
25	6140051	Motor Capstan A	94	5101843	BSA Type Screw, M3×6
26	6140061	Motor Capstan B	95	3916021	Holder, lead wire
27	5100249	B Type Screw, M3×16	96	5260320	Holder, capstan
28	5500510	Bushing, motor table	97	7040181	Capstan Ass'y
31	5260260	Motor Table	98	5180330	P Type Washer, 2.5φ
32	5500491	Motor Cushion	99	5151002	E Type Washer, 2φ
33	4320250	Motor	100	5180340	P Type Washer, 3φ
34	6900850	Spring, reverse idler	101	5151002	E Type Washer, 2φ
35	5151004	E Type Washer, 3φ	102	5180340	P Type Washer, 3φ
36	5180260	P Type Washer, 4φ	103	6500550	Brake Lever
37	6140070	F.F. Pulley	104	6900661	Spring, PLAY idler
38	6930050	Oil Retainer	105	5151004	E Type Washer, 3φ
39	5180320	P Type Washer, 2φ	106	5180260	P Type Washer, 4φ
40	6500570	F.F. Idler Arm	107	7060081	PLAY Idler Ass'y
41	5180260	P Type Washer, 4φ	108	6900810	Spring, PAUSE lever
42	5180330	P Type Washer, 2.5φ	109	5151004	E Type Washer, 3φ
43	6930050	Oil Retainer	110	5180260	P Type Washer, 4φ
44	6200240	F.F. Idler Shaft	111	6500540	PAUSE Lever (Right)
45	6420020	Friction Retainer	112	5151004	E Type Washer, 3φ
46	6110060	F.F. Limb	113	6510180	Linkage Plate, PAUSE
47	6900750	Spring, idler	114	5101203	B Type Screw, M2×5
48	6900750	Spring, idler	115	5121301	S Type Washer, 2φ
49	6200250	Bushing, F.F.	116	5101203	B Type Screw, M2×5
50	5180330	P Type Washer, 2.5φ	117	5121301	S Type Washer, 2φ
51	5151002	E Type Washer, 1.5φ	118	5101203	B Type Screw, M2×5
52	5151004	E Type Washer, 3φ	119	5121301	S Type Washer, 2φ
53	5180260	P Type Washer, 4φ	120	7040191	Metal Case Ass'y
54	6500560	Arm, reverse idler	121	5151004	E Type Washer, 3φ
55	5180260	P Type Washer, 4φ	122	5180260	P Type Washer, 4φ
56	5180320	P Type Washer, 2φ	123	6510200	F.F. Push Lever (Right)
57	6120021	Idler, reverse	124	5180260	P Type Washer, 4φ
58	5180320	P Type Washer, 2φ	125	5180260	P Type Washer, 4φ
59	5151002	E Type Washer, 1.5φ	126	5180260	P Type Washer, 4φ
60	5151004	E Type Washer, 3φ	127	5180260	P Type Washer, 4φ
61	5180260	P Type Washer, 4φ	128	5180260	P Type Washer, 4φ
62	6500510	Arm, record locker	129	5180260	P Type Washer, 4φ
63	6900760	Spring, record pusher	130	5151004	E Type Washer, 3φ
64	6900800	Spring, record lock plate	131	5180260	P Type Washer, 4φ
65	5151004	E Type Washer, 3φ	132	6510210	F.F. Push Lever (Left)
66	5180260	P Type Washer, 4φ	133	5180260	P Type Washer, 4φ

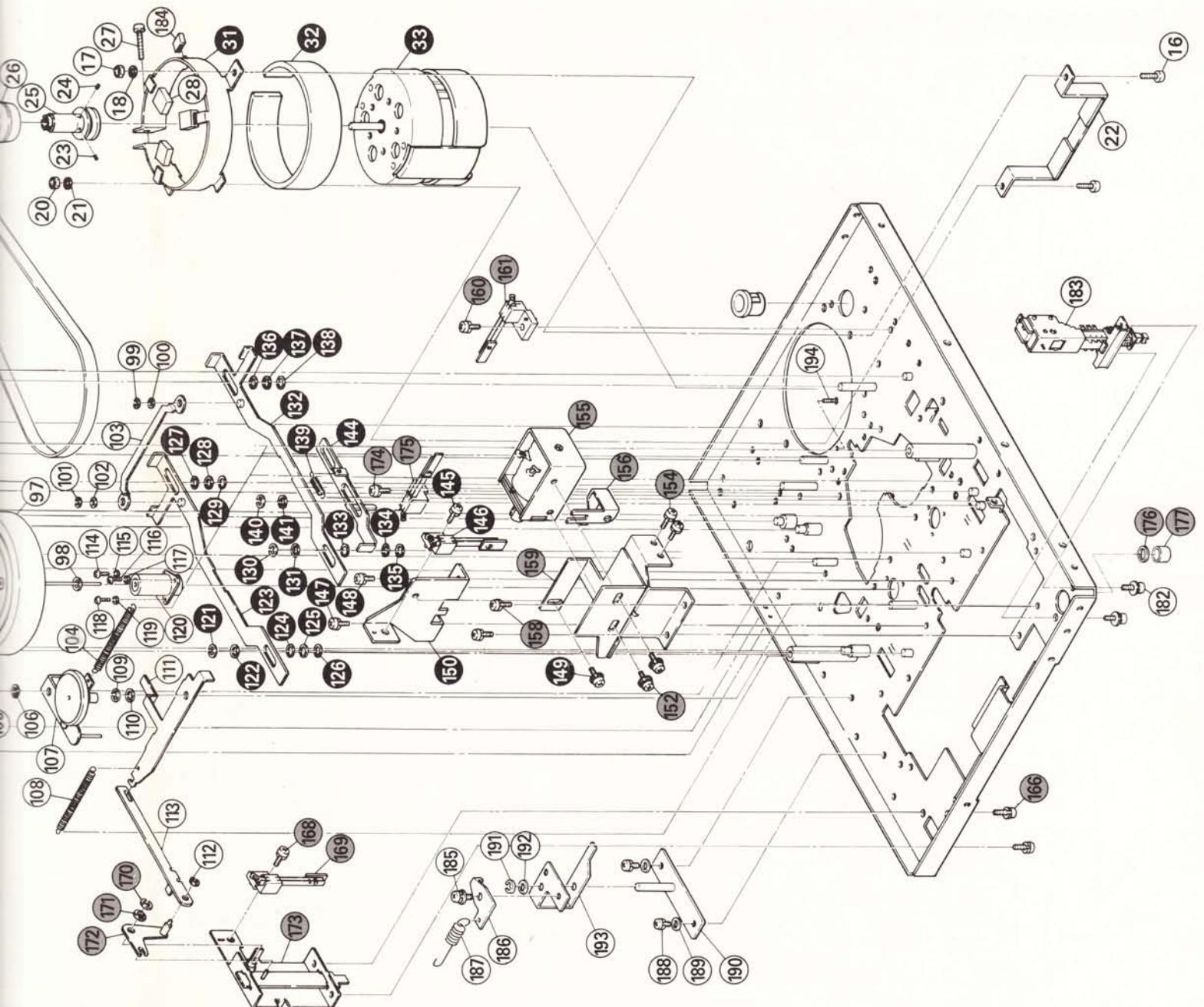
### 6-3. Disassembly of the Mechanism (Bottom view)



#### Parts List

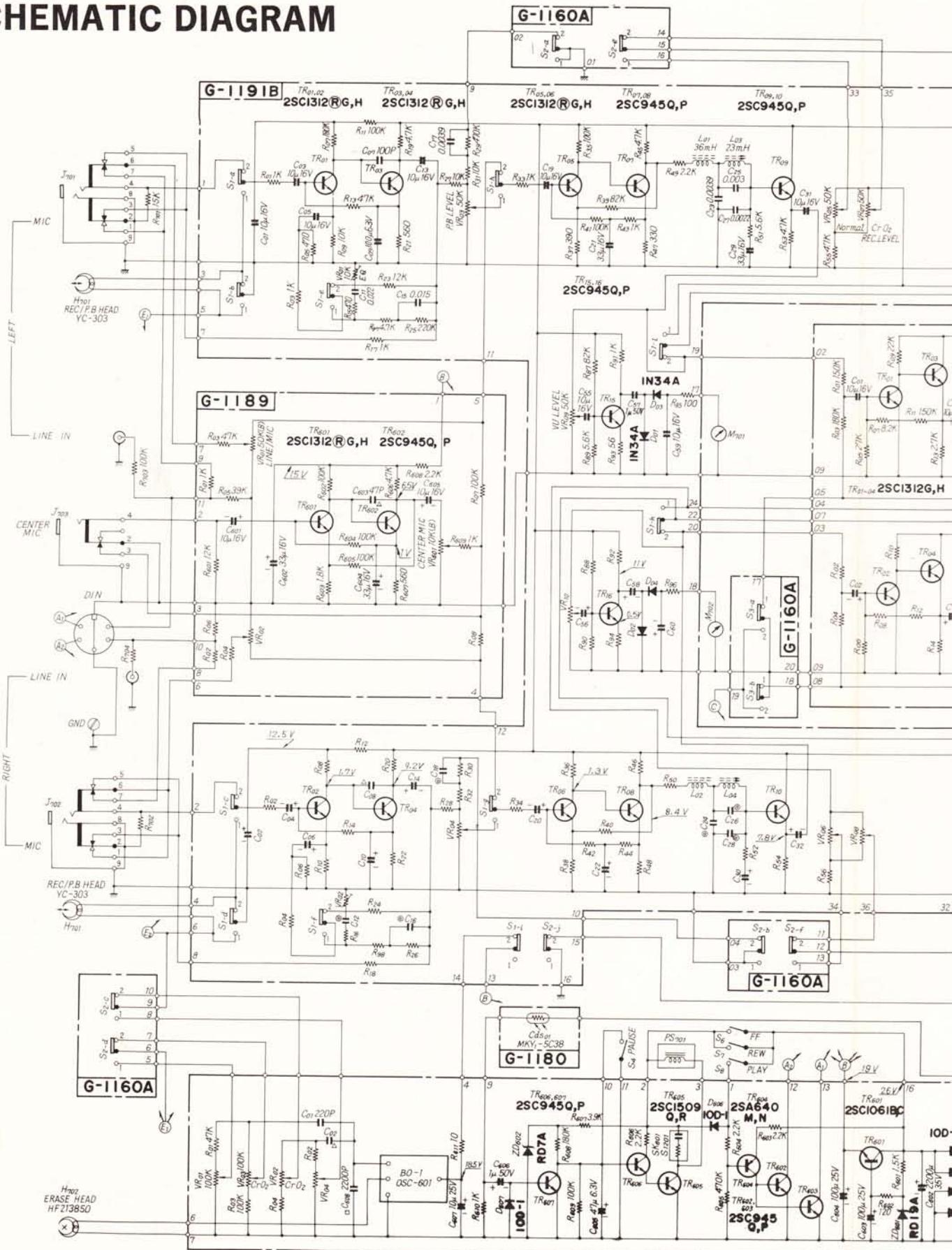
Parts No.	Stock No.	Description
134	5180260	P Type Washer, 4φ
135	5180260	P Type Washer, 4φ
136	5180260	P Type Washer, 4φ
137	5180260	P Type Washer, 4φ
138	5180260	P Type Washer, 4φ
139	6900970	Spring, EJECT lever
140	5151004	E Type Washer, 3φ
141	5180260	P Type Washer, 4φ
144	6510220	EJECT Lever
145	5101843	BSA Type Screw, M3×6
146	1190170	Leaf Switch, PLAY
147	5101843	BSA Type Screw, M3×6
148	5101843	BSA Type Screw, M3×6
149	5101843	BSA Type Screw, M3×6
150	5241020	Holder, Auto Shut-off switch
152	5101943	BSB Type Screw, M3×6
154	5101843	BSA Type Screw, M3×6
155	4340120	Plunger Solenoid
156	6500500	Auto Stop Lever
158	5101843	BSA Type Screw, M3×6
159	5240950	Bracket, plunger solenoid
160	5101843	BSA Type Screw, M3×6
161	1190180	Leaf Switch, REWIND
166	5101843	BSA Type Screw, M3×6

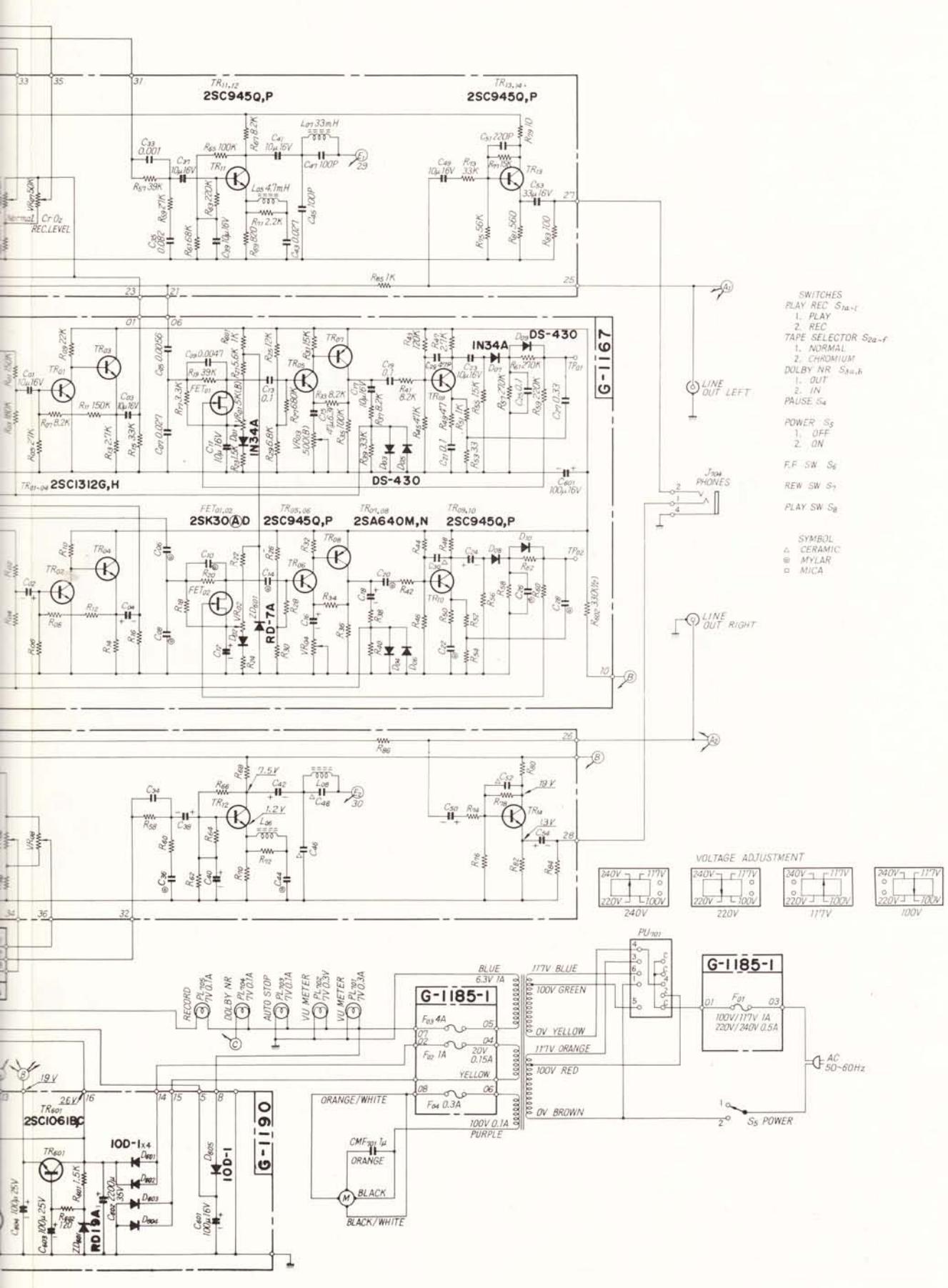
Parts No.	Stock No.	Description
168	5101843	BSA Type Screw, M3×6
169	1190180	Leaf Switch, PAUSE
170	5151004	E Type Washer, 3φ
171	5180260	P Type Washer, 4φ
172	6500530	PAUSE Link A
173	7120012	PAUSE Switch Ass'y
174	5101843	BSA Type Screw, M3×6
175	1190170	Leaf Switch, F.F.
176	6930040	Oil Retainer
177	5260290	Bushing, Capstan
182	5101843	BSA Type Screw, M3×6
183	1130680	Push Switch, POWER
184	5500480	Well Stay Bush
185	5101843	BSB Type M3×6
186	5241110	Fook Plate
187	6900920	Record Spring
188	5101843	BSA Type Screw, M3×6
189	5120141	P Type Washer, 3φ
190	6220030	Rec. Arm Holder
191	5151004	E Type Washer, 3φ
192	5180120	P Type Washer, 4φ
193	6500690	Record Arm
194	5101005	B Type Screw, M2×8



- |      |      |      |       |       |       |       |
|------|------|------|-------|-------|-------|-------|
| (30) | (60) | (90) | (120) | (150) | (180) | (194) |
| ~    | ~    | ~    | ~     | ~     | ~     | ~     |
| (1)  | (31) | (61) | (91)  | (121) | (151) | (181) |

## 7. SCHEMATIC DIAGRAM





## 8. REPLACEMENT OF MAIN PARTS

\*Each number (①, ②,...) corresponds to the number shown in Exploded Views.

### 8-1. Replacement of Top Cover Ass'y (See 6-1 on page 20)

- 1) Remove knobs ①, ②, ③ and screw ④, ⑤.
- 2) Remove screws ⑥, ⑦ and bottom plate ⑨.
- 3) Remove screws ⑩, ⑪, ⑫, ⑬, ⑭, ⑮ and Top cover Ass'y ⑯ will be off.

### 8-2. Replacement of Reel Hub Ass'y (See 6-3 on page 24)

- 1) Remove Top Cover Ass'y ⑯ (Same as steps 1), 2), 3) in Replacement of Top Cover Ass'y).
- 2) Remove Cap ⑧, ⑯ and washers ⑩, ⑪ (See 6-3 on page 24), and Reel Hub Ass'y ⑯, ⑪ will be off.

\*After replacing Reel Hub Ass'y ⑯, ⑪, perform running test (aging test) for 4~5 minutes in the PLAY and REWIND modes installing cassette tape.

### 8-3. Replacement of Motor (See 6-3 on page 24)

- 1) Remove Top Cover Ass'y ⑯ (Same as steps 1), 2), 3) in Replacement of Top Cover Ass'y).
- 2) Remove screw ⑫, washer ⑬, motor fan ⑭, F.F. belt ① and capstan belt ⑮.
- 3) Remove screw ⑯ washers ⑯, ⑯, and motor stay ⑯.
- 4) After loosening screw ⑯, remove motor table ⑯, motor cushion ⑯, and the motor will be off.

\*After replacement, adjust the level of motor by screw ⑯ (See 6-3 on page 24) so that the capstan belt runs horizontally around motor capstan to the axis of it.

### 8-4. Replacement of Cassette Lid

- 1) Remove of Top cover Ass'y ⑯ (Same as step 1), 2), 3) in Replacement of Top cover Ass'y).
- 2) Remove screw ① and lid spindle holder ② (See Fig. 8-1).
- 3) Remove lid springs ③, ④, lid cushion ⑤, and cassette lid ⑥ will be off.

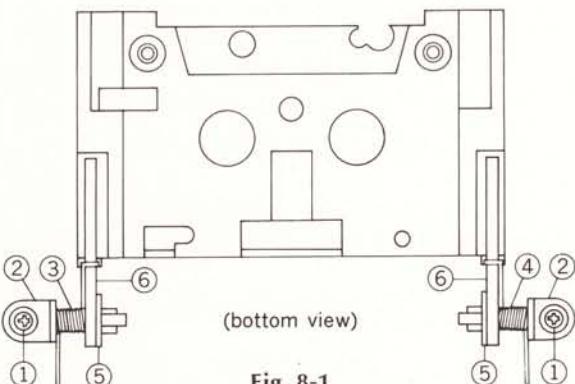
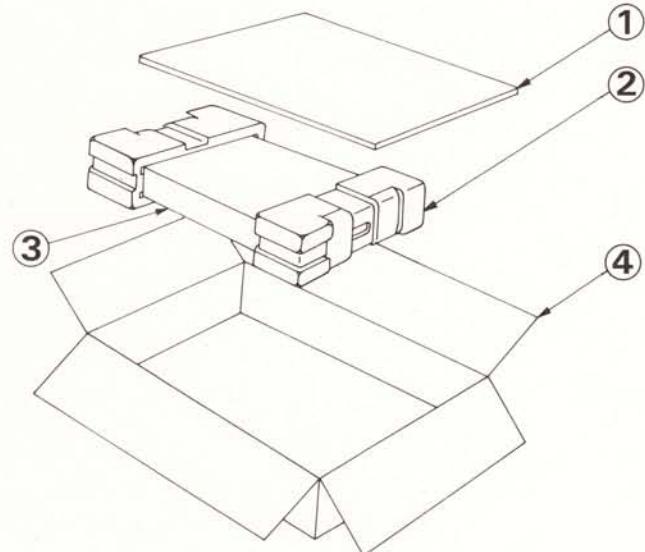


Fig. 8-1

## 9. PACKING LIST

Parts No.	Stock No.	Description
1	9010080	Inner Packing (Upper)
2	9030110	Stylofoam Packing
3	9110071	Vinyl Cover
4	900310	Carton Case



## 10. ACCESSORY PARTS LIST

Parts No.	Stock No.	Description
9430030		Head Cleaning Pen
3810080, 1		Pin Plug Cord
9200290		Operating Instructions

---

*Sansui*

SANSUI ELECTRIC CO., LTD.  
14-1, 2-chome, Izumi, Suginami-ku, Tokyo 168, Japan  
TELEPHONE: (03) 323-1111 / TELEX: 232-2076

SM017

Printed in Japan (64M620)