



**GD-5500**  
**SERVICE HANDBOOK**

 **SANSUI ELECTRIC CO., LTD.**

This handbook is designed for service engineers to repair, adjust, maintain and order the replacement parts of the QD-5500 correctly.

When ordering the parts, use the stock number and parts name specifically referring to the Exploded Views and Parts Locations.

For general usage and maintenance of the unit, please refer to the Operating Instructions which is on file at the end of this handbook.



# QD-5500S SERVICE HANDBOOK

 SANSUI ELECTRIC CO., LTD.

This handbook is designed for service engineers to repair, adjust, maintain and order the replacement parts of the QD-5500S correctly.

When ordering the parts, use the stock number and parts name specifically referring to the Exploded Views and Parts Locations.

For general usage and maintenance of the unit, please refer to the Operating Instructions which is on file at the end of this handbook.

# TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>1. SPECIFICATIONS</b>	.....	<b>1-1</b>
<b>2. OPERATION OF RELAYS</b>	.....	<b>2-1</b>
2-1.	Stop Button Operation .....	<b>2-1</b>
2-2.	Forward Operation .....	<b>2-1</b>
2-3.	Reverse Operation .....	<b>2-1</b>
2-4.	Fast Forward Operation .....	<b>2-2</b>
2-5.	Rewind Operation .....	<b>2-2</b>
2-6.	Automatic Reverse Operation .....	<b>2-2</b>
2-7.	Record Button Operation .....	<b>2-2</b>
<b>3. MECHANISM ADJUSTMENTS</b>	.....	<b>3-1</b>
3-1.	Brake Torque Adjustment .....	<b>3-1</b>
3-2.	Reel Motor Torque Adjustment .....	<b>3-2</b>
3-3.	Reel Motor Torque Adjustment in Rewind Mode .....	<b>3-2</b>
3-4.	Pinch Roller Pressure Adjustment .....	<b>3-3</b>
<b>4. ELECTRICAL ADJUSTMENTS</b>	.....	<b>4-1</b>
4-1.	VU Meter Adjustment .....	<b>4-1</b>
4-2.	Playback Frequency Response Adjustment .....	<b>4-1</b>
4-3.	100 kHz Bias Filter Adjustment .....	<b>4-1</b>
4-4.	Bias Current Adjustment .....	<b>4-1</b>
4-5.	Record Input Level Adjustment .....	<b>4-2</b>
4-6.	Recording/Playback Equalizing Adjustment .....	<b>4-2</b>
4-7.	Crosstalk Canceler Adjustment .....	<b>4-3</b>
4-8.	Head Adjustment .....	<b>4-3</b>
<b>5. DISASSEMBLY WITH EXPLODED VIEWS AND PARTS LIST</b>	.....	<b>5-1</b>
5-1.	Removal of Mechanism and Electrical Section .....	<b>5-2</b>
5-2.	Disassembly of Electrical Section .....	<b>5-5</b>
5-3.	Disassembly of Mechanism Section (Front) .....	<b>5-7</b>
5-4.	Disassembly of Head Assembly .....	<b>5-8</b>
5-5.	Disassembly of Capstan Base Assembly .....	<b>5-11</b>
5-6.	Disassembly of Reel Motor Assembly .....	<b>5-12</b>
5-7.	Disassembly of Mechanism Section (Rear) and Control Chassis .....	<b>5-15</b>
<b>6. PARTS LOCATIONS AND PARTS LIST</b>	.....	<b>6-1</b>
6-1.	G-1125D Equalizer Circuit Board .....	<b>6-1</b>
6-2.	G-1124D Line, Headphones, Meter Circuit Board .....	<b>6-3</b>
6-3.	G-1085G Mic, Recording Circuit Board .....	<b>6-5</b>
6-4.	G-1140C Recording, Circuit Board .....	<b>6-7</b>
6-5.	G-1086G Oscillator Circuit Board .....	<b>6-9</b>
6-6.	G-1142B-A Control Circuit Board .....	<b>6-9</b>
6-7.	G-1134B Crosstalk Canceler Circuit Board .....	<b>6-11</b>
6-8.	F-1456 Fuse Circuit Board .....	<b>6-11</b>
6-9.	G-1087C Head Connector Circuit Board .....	<b>6-12</b>
6-10.	Other Parts .....	<b>6-13</b>

<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>7.</b>	<b>BLOCK DIAGRAM</b> .....	<b>7-1</b>
<b>8.</b>	<b>LEVEL DIAGRAMS</b> .....	<b>8-1</b>
8-1.	Recording.....	<b>8-1</b>
8-2.	Playback .....	<b>8-1</b>
<b>9.</b>	<b>TROUBLESHOOTING CHART</b> .....	<b>9-1</b>
9-1.	Troubleshooting on Mechanism Section .....	<b>9-1</b>
9-2.	Troubleshooting on Electrical Section .....	<b>9-4</b>
<b>10.</b>	<b>WIRING DIAGRAMS</b> .....	<b>10-1</b>
10-1.	Tape Transport Section (Front View).....	<b>10-1</b>
10-2.	Head Assembly and Connector .....	<b>10-1</b>
10-3.	Tape Transport Section (Rear View) .....	<b>10-1</b>
10-4.	Control Chassis (Bottom View) .....	<b>10-2</b>
10-5.	Control Circuit Board G-1142B-A .....	<b>10-2</b>
10-6.	Amplifier Chassis .....	<b>10-3, 10-4</b>

# 1. SPECIFICATIONS

**TRACK SYSTEM:** 4-track 2-channel  
 Recording: forward  
 Playback: forward and reverse  
 4-track 4-channel  
 Playback: forward  
 Recording: forward

**REEL SIZE:** 7" maximum

**TAPE SPEED:** 7½ ips (19cm/sec), 3¾ ips (9.5cm/sec)

**TAPE SPEED ACCURACY:**  
 within ±0.5%

**HEADS:** 4-track 4-channel: Erase  
 4-track 4-channel: Record  
 4-track 4-channel: Playback

**MOTORS:** 4-pole/8-pole, two-speed hysteresis synchronous type for capstan drive  
 6-pole induction type for reel drive

**CAPSTAN DRIVE SYSTEM:**  
 Belt drive type

**WOW AND FLUTTER:**  
 Less than 0.07% at 7½ ips (WRMS)  
 Less than 0.12% at 3¾ ips (WRMS)

**FAST WIND TIME:**  
 Approximately 90 seconds for 1,200 ft length tape

**FREQUENCY RESPONSE:**  
 15 to 25,000Hz (20 to 20,000Hz ±3 dB) at 7½ ips  
 15 to 15,000Hz (30 to 12,000Hz ±3 dB) at 3¾ ips

**S/N RATIO:** Better than 60 dB (3% THD level to weighted noise level)

**CROSSTALK:** Better than 60 dB (between adjacent tracks at 1,000 Hz)

**SEPARATION:** Better than 50 dB (between channels at 1,000 Hz)

**HARMONIC DISTORTION:**  
 Playback amplifier:  
 Less than 0.15% at 1,000 Hz 0.47V output  
 Tape distortion (Record/playback total):  
 Less than 1.2% at 1,000 Hz 0 VU (0 VU=0.3V)  
 Less than 3% at 1,000 Hz +6 VU

**ERASURE:** Better than 60 dB

**INPUT SENSITIVITY AND IMPEDANCE:**  
 Microphone: 0.5mV (50 kΩ)  
 Line: 70mV (100 kΩ)  
 DIN: 14mV (100 kΩ)

**OUTPUT LEVEL:** 2-channel output: 0.47V maximum (0 VU=0.3V)  
 DIN (2-channel): 0.47V maximum (0 VU=0.3V)

4-channel output: 0.47V maximum (0 VU=0.3V)  
 Headphones (FRONT, REAR): 8Ω

**BIAS OSCILLATOR FREQUENCY:**  
 100 kHz

**SWITCHES:** Tape Transport: REVERSE, FAST REWIND, STOP, FAST FORWARD, FORWARD  
 Tape Speed: 7½ ips (19cm/sec), 3¾ ips (9.5cm/sec)  
 Pause: OFF, ON

**ELECTRONIC:** Record Selector: 4-CH STANDBY, 4-CH, 2-CH STANDBY, 2-CH, L, R  
 Record: Push to record  
 Tape Monitor: SOURCE, PLAYBACK (FRONT, REAR)  
 Playback Selector: 4-CH, 2-CH  
 REC Bias: STANDARD, HIGH  
 Cue: Push ON  
 Line Mic Selector: FRONT (Left, Right) /LINE, MIC (DIN) REAR (Left, Right) /LINE, MIC

**SEMI-CONDUCTORS:**  
 Transistors: 38  
 Diodes: 19

**POWER REQUIREMENTS:**  
 Power Voltage: 100, 110, 117, 200, 220, 240V AC 50/60Hz  
 Power Consumption: Average 115VA, 110W

**DIMENSIONS:** 422mm (16½") W, 554mm (21¾") H, 268mm (10⅝") D

**WEIGHT:** 24.2kg, 53.4 lbs

**ACCESSORIES:** EMPTY REEL (RSM-7) ..... 1  
 CLEANER (SHC-1) ..... 1  
 OIL (DTE-24) ..... 1  
 SPLICING TAPE ..... 1  
 SENSING FOIL ..... 15  
 PIN PLUG CORDS ..... 3  
 ECHO RECORDING PLUG ..... 1  
 SPARE FUSES ..... 2  
 REEL SPACERS ..... 2  
 SILICON CLOTH ..... 1  
 OPERATING INSTRUCTIONS..... 1  
 INSTRUCTION SHEET ..... 1

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

## 2. OPERATION OF RELAYS

### 2-1. Stop Button Operation

(See Fig. 2-1. Stop Button Operation)

- 1) When the power switch S1 is pushed, the capstan motor MT-701 rotates clockwise by 100V AC. As 80V DC rectified by D801 is supplied to the lifter solenoid PS704 from terminal ① of G-1142B-A to actuate PS704, the lifter goes down. The shut-off switch S2 linked with the right tension arm is then turned on and 80V DC is supplied to pins (terminals) 2 and 5 of J702 through S2 and S3.
- 2) When the stop button "■" S3 is pushed, the relay-drive current is cut off and the unit returns to the starting state as in step 1). When the stop button is pushed in the reverse play mode, the unit starts in the same mode.

### 2-2. Forward Operation

(See Fig. 2-2. Forward Operation)

- The relay RL806 is actuated by pushing the forward button "▶" S4.
- 1) RL806 is self-held, as the relay voltage is applied through terminal ⑦ of G-1142B-A by closing the contact RL806-1.  
The brakes of left and right reel motors are released, and then the pinch roller bears against the capstan by actuating the relays RL804 and RL805, the pinch roller solenoid PS703 and the brake solenoids (PS701 for left and PS702 for right).
  - 2) When RL804 is actuated and the contact RL804-1 is opened, the lifter solenoid PS704 is cut off and the lifter goes up to press the tape to the head.  
When the brake solenoids PS701 and PS702 are actuated, the linked microswitch S13 closes the reel motor grounding circuit and S14 holds PS701 and PS702.
  - 3) Even when the contact RL806-2 is switched, RL803 is not actuated as C805 is not charged.
  - 4) When the contact RL806-4 is switched, the left reel motor MT-702 rotates clockwise in a weak torque by the current supplied through terminals 1 and 3 of the left torque adjusting resistor R702.  
When the contact RL806-3 is switched, the right reel motor rotates counterclockwise by the current supplied through terminals 7 and 8 of the right torque adjusting resistor R703 in slightly greater torque as the resistance is lower than R702.
  - 5) The tape on the left reel is moved to the right reel by capstan driving as the capstan motor MT-701 is rotating clockwise.  
In this case the left motor torque works as a back tension.

### 2-3. Reverse Operation

(See Fig. 2-3. Reverse Operation)

- When the reverse button "◀" S5 is pushed, the relays RL801, RL802, RL803, RL806 and RL808 are actuated.
- 1) When the contacts RL801-1 and RL801-2 are switched, the capstan motor MT-701 rotates counterclockwise.
  - 2) Relay RL806 operates in the same way as in Section 2-2. Forward Operation.
  - 3) When the contact RL801-4 is switched, the delay relay RL803 is actuated by the current supplied from C805.  
The contact RL803-1 opens for about 2 seconds and the pinch roller, lifter and brake solenoids are cut off as the currents are not supplied. The contact RL802-3 makes RL801, RL802 and RL808 self-hold.
  - 4) The direction indicating lamp is switched to the mark "◀", when the contact RL802-4 is switched.  
When the contact RL802-2 is opened, the power to the record relay RL401 of G-1140C is cut off and recording can not be made.
  - 5) When the contact RL802-1, RL806-3 and RL804 are switched, current flows to the left reel motor MT-702 through terminals 1 and 2 of the left torque adjusting resistor R702. MT-702 rotates clockwise in a strong torque. To the right reel motor, current flows through terminals 6 and 8 of the right torque adjusting resistor R703. The right reel motor MT-703 rotates counterclockwise in weaker torque than the left reel motor, as the resistance is higher than R702.
  - 6) The tape on the right reel is wound to the left by the rotation of the capstan, as the capstan motor MT-701 rotates counterclockwise. Here the right reel motor torque works as a back tension.
  - 7) When the relay RL808 is actuated, the contact RL808-1 is closed and the relay RL101 of G-1125D is actuated. The contacts RL101-1 and RL-101-2 are switched and the connection is switched from tracks 1 and 3 to tracks 4 and 2.

### 2-4. Fast Forward Operation

(See Fig. 2-4. Fast Forward Operation)

- The brake solenoids PS701 and PS702 are actuated, when the fast forward button "▶▶" S6 is pushed.
- 1) When the brake solenoids PS701 and PS702 are actuated, the linked microswitches S13 and S14 are turned on. S14 holds PS701 and PS702.
  - 2) When S13 is closed, current flows to the left reel motor MT-702 through terminals 9 and 10 of the torque adjusting resistor R701.  
The left reel motor rotates clockwise in a weak torque.



Tape is wound to the right reel as a full power (110V AC) is supplied to the right reel motor MT-703 and the motor rotates counterclockwise in a strong torque. Here the left reel motor torque works as a weak back tension.

## 2-5. Rewind Operation (See Fig. 2-5. Rewind Operation)

- When the rewind button "◀" S7 is pushed, the relay RL807 is actuated.
- 1) When the contact RL807-2 is closed, the relay RL807 is self-held.
- 2) When the contact RL807-3 is closed, the brake solenoids PS701 and PS702 are actuated and the microswitches S13 and S14 linked with the brake solenoids are turned on. S14 holds the brake solenoids.
- 3) When S13 is closed and the contact RL807-1 is switched, a full power (110V AC) is applied to the left reel motor MT-702 and the motor rotates clockwise in a strong torque.  
To the right reel motor MT-703, current flows through terminals 9 and 10 of the torque adjusting resistor R701. MT-703 rotates counterclockwise in a weak torque, and the tape on the right reel is wound to the left reel.  
Here the right reel motor torque works as a weak back tension.

## 2-6. Automatic Reverse Operation

- This circuit operates with a sensing foil used in the forward play mode.
- 1) When the sensing foil shorts the contacts of the sensing post, the relay RL809 is actuated.
- 2) When the contact RL809-1 is closed, the relays RL801, RL802 and RL808 are actuated.
- 3) When the contact RL801-4 is switched and capacitor C805 is discharged, the delay relay RL803 is actuated and the contact RL803-1 opens. It cuts off RL804 for about 2 seconds.  
The contact RL804-1 is closed and the lifter solenoid PS704 lowers the lifter.  
Even when the contact RL803-1 is open, the brake solenoids PS701 and PS702 and the pinch roller solenoid PS703 are held in the same state as the RL805 is actuated.
- 4) When the delay relay RL803 is cut off, the contact RL803-1 is closed and RL804 is actuated. The contact RL804-1 opens and the lifter goes up, as the lifter solenoid PS704 is cut off.  
As the relays RL801, RL802, RL806 and RL808 are actuated, the unit operates in the reverse mode.
- 5) For the operation of RL801, RL802, RL806 and RL808, see Section 2-3. Reverse Operation.

## 2-7. Record Button Operation

- The relay RL401 and RL402 of G-1140C is actuated when both the record button S8 and the forward button "▶" S4 are pushed simultaneously. See section 2-2. Forward Operation for relay movements in the forward operation.
- 1) The contact RL402-2 makes the relay RL401 and RL402 self-hold.
- 2) The contact RL402-1 is switched. The bias oscillating circuit starts operation and supplies bias current to the record head.
- 3) The record lamps light as the contacts RL401-1, RL401-2 and RL401-3 are switched.
- 4) The standby lamp lights as the contact RL401-4 is switched.





Fig. 2-3. Reverse Operation

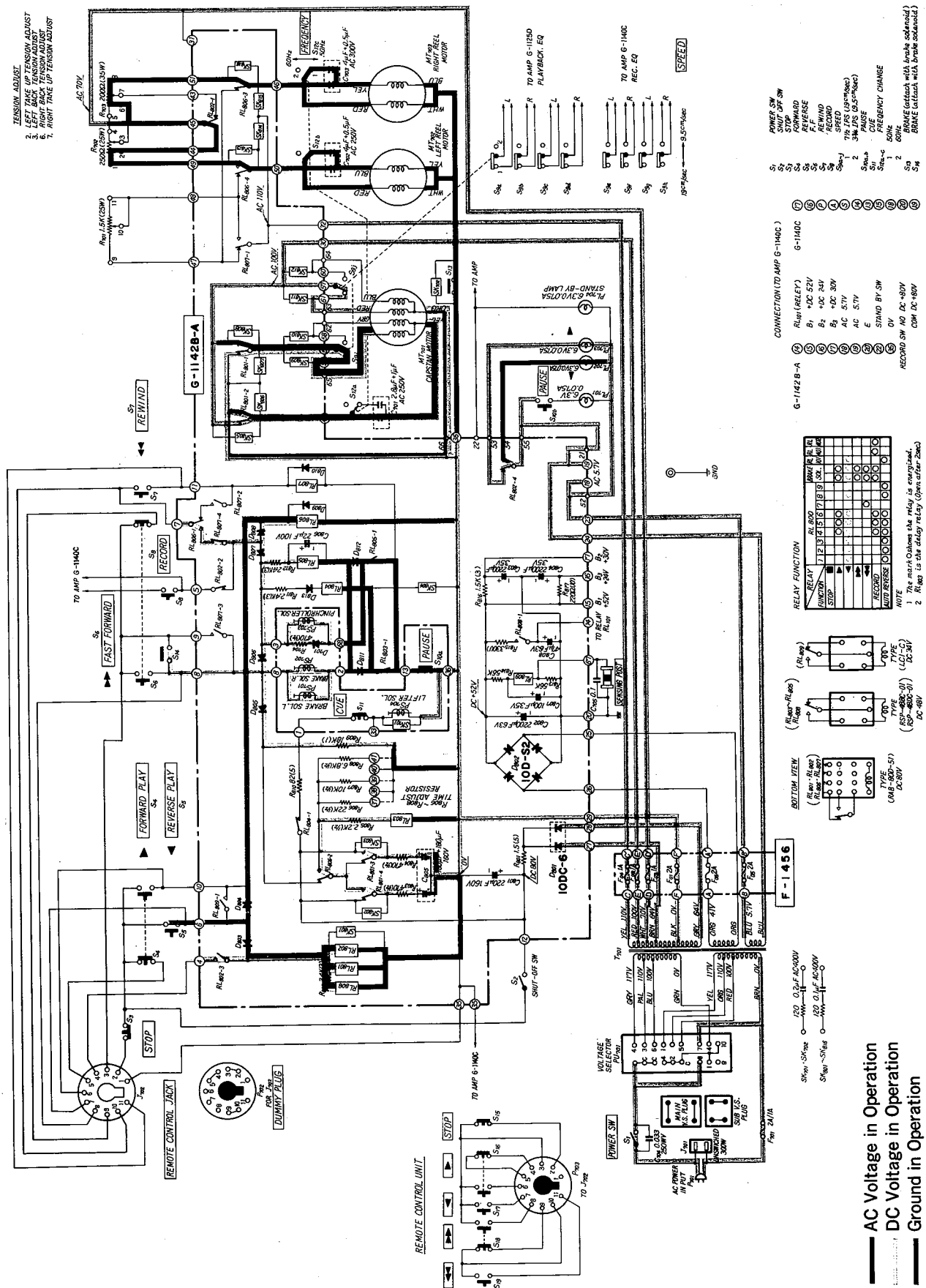


Fig. 2-4. Fast Forward Operation

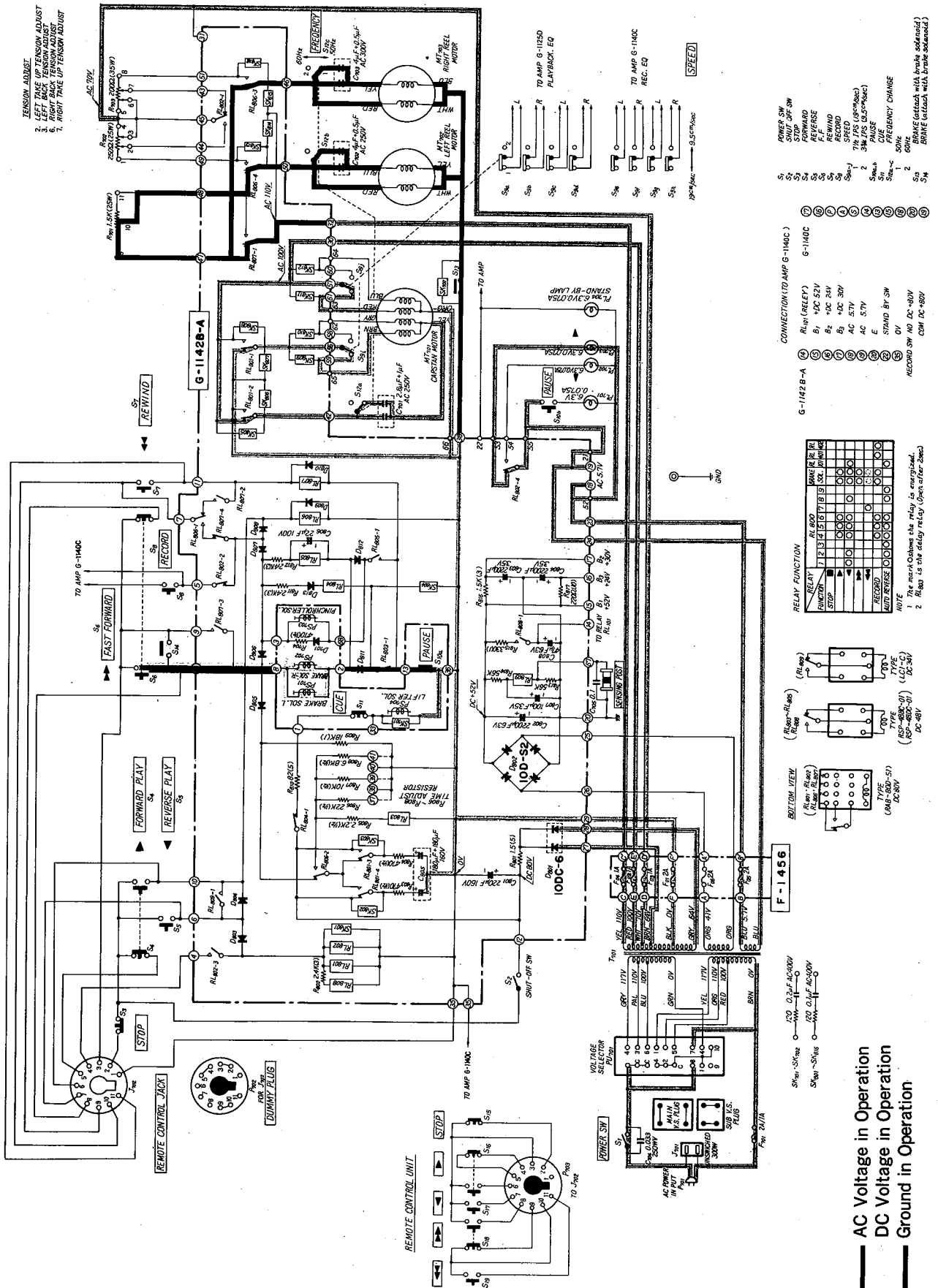
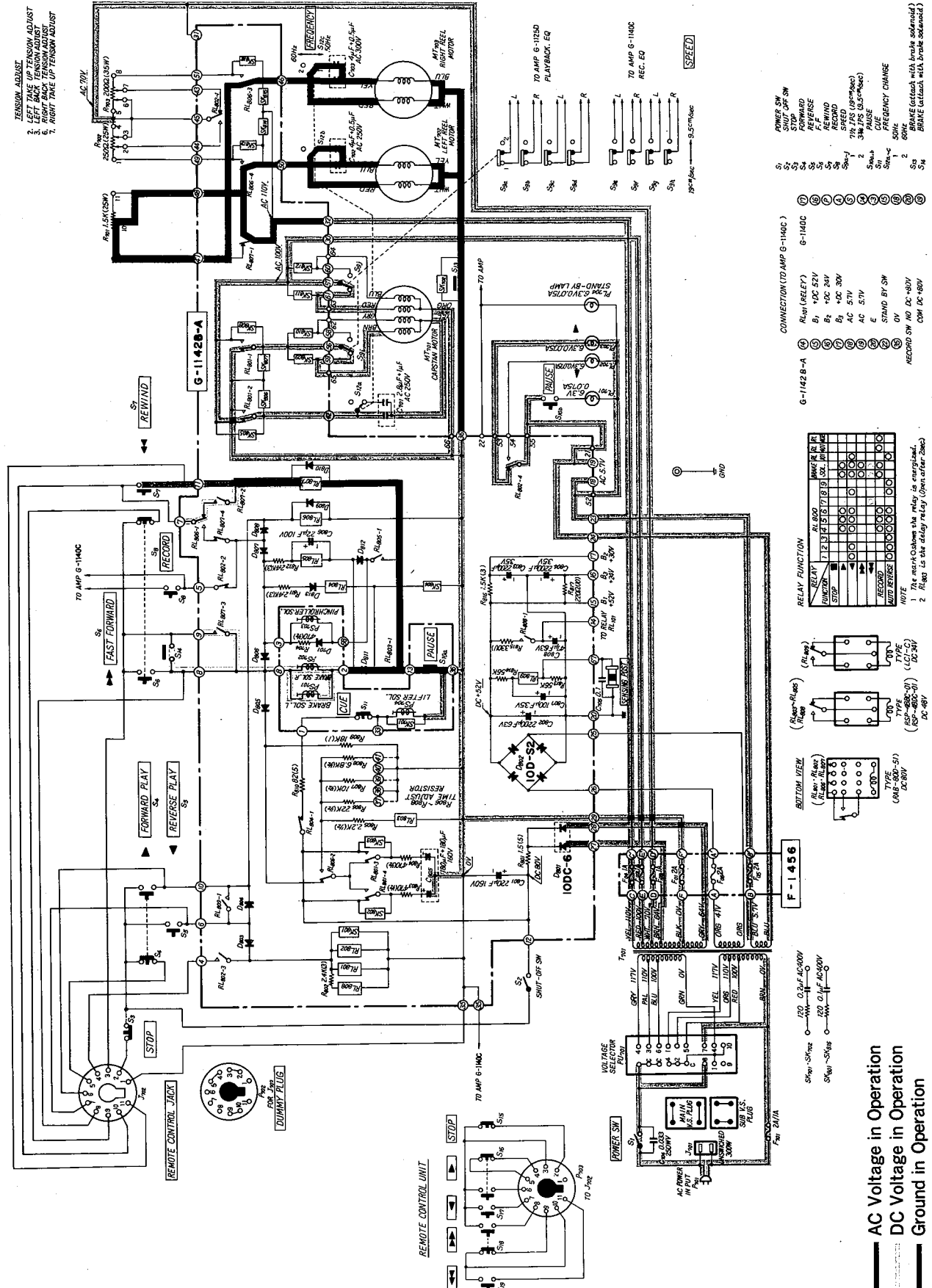


Fig. 2-5. Rewind Operation



### 3. MECHANISM ADJUSTMENTS

#### 3-1. Brake Torque Adjustment (See Fig. 3-1)

- Set the power switch to OFF.
- 1) Place an empty reel (with 10cm hub diameter with about 80 cm length of string to the reel anchor) and a spring scale on the left reel table as shown in Fig. 3-1.
- 2) Wind several turns of string counterclockwise around the hub, pull the spring scale slowly at a constant speed (tape speed) in the direction of the arrow.  
Loosen the adjusting screw and adjust the brake lever (left) for the spring scale reading between 120 g and 150 g.
- 3) For adjustment of right reel brake torque, place the reel and spring scale on the right reel table in the reverse way, repeat all steps as described for the left reel. Adjust the brake lever (right) for proper left brake torque, between 120 g and 150 g.

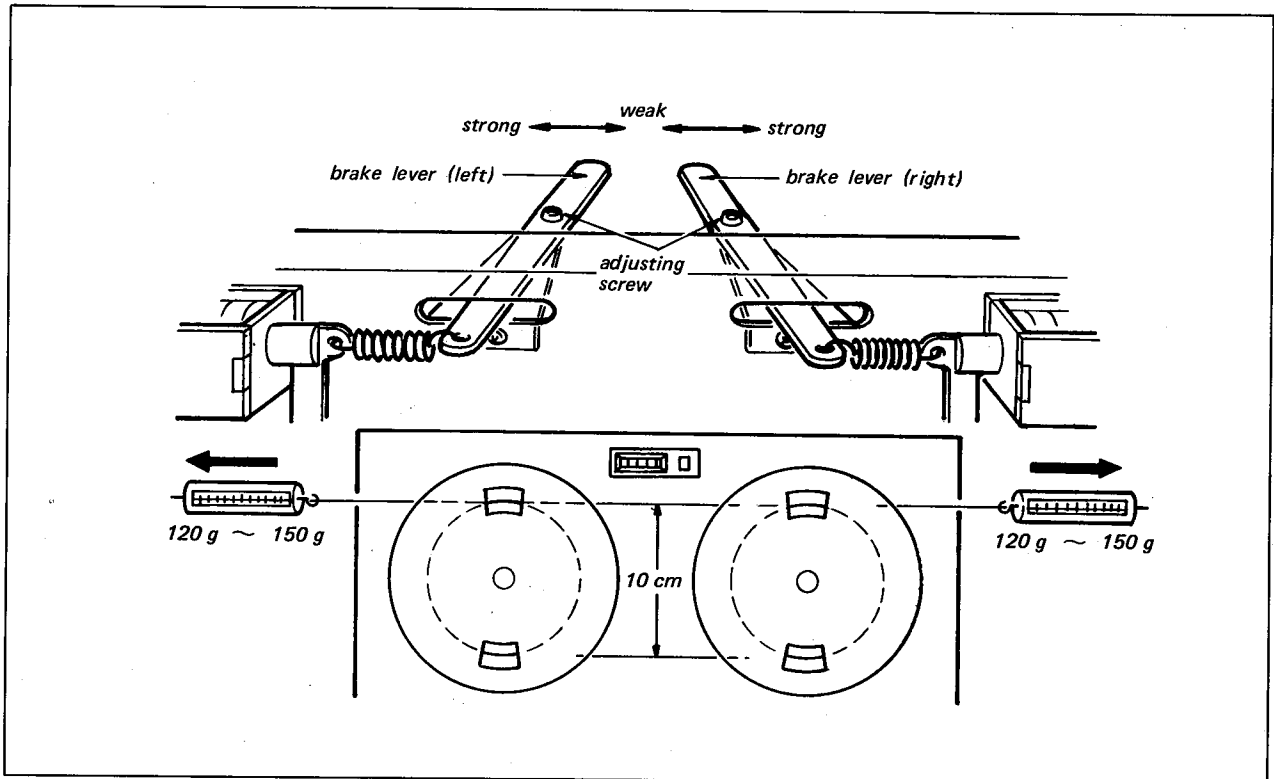


Fig. 3-1. Brake torque adjustment

### 3-2. Reel Motor Torque Adjustment (See Figs. 3-2 and 3-3)

- Tape speed should be 19 cm/sec (7½ ips)
- Turn on the shut-off switch linked with the tension arm.
- Set the reel hub and spring scale as shown in Fig. 3-2.

#### 3-2-1. Back-Tension Torque Adjustment

- ① Left Back-Tension Torque Adjustment
- 1) Place the reel and spring scale on the left reel table.
  - 2) Push the FORWARD button "▶".
  - 3) Pull the spring scale in the direction of A at a constant speed (tape speed).
  - 4) Adjust a slider band 3 of the left torque adjusting resistor R702 (shown in Fig. 3-3) for a reading of 70 g.
- ② Right Back-Tension Torque Adjustment
- 1) Place the reel and spring scale on the right reel table.
  - 2) Push the REVERSE button "◀".
  - 3) Pull the spring scale in the direction of D at a constant speed (tape speed).
  - 4) Adjust a slider band 6 of the right torque adjusting resistor R703 (shown in Fig. 3-3) for a spring scale reading of 70 g.

#### 3-2-2. Take-up Torque Adjustment

- ① Left Take-up Torque Adjustment
- 1) Place the reel and spring scale on the left reel table.

- 2) Push the REVERSE button "◀".
  - 3) The spring scale pulled in the direction of B at a constant speed (tape speed).
  - 4) Adjust a slider band 2 of the left torque adjusting resistor R702 (shown in Fig. 3-3) for a spring scale reading of 90 g.
- ② Right Take-up Torque Adjustment
- 1) Place the reel and spring scale on the right reel table.
  - 2) Push the FORWARD button "▶".
  - 3) The spring scale pulled in the direction of C at a constant speed (tape speed).
  - 4) Adjust a slider band 7 of the right torque adjusting resistor R703 (shown in Fig. 3-3) for a spring scale reading of 70 g.

### 3-3. Reel Motor Torque Adjustment in Rewind Mode (See Figs. 3-2 and 3-3)

- Set the SHUT-OFF switch linked to the right tension arm to ON position.
  - Place the reel and spring scale on the right reel table as shown in Fig. 3-2.
- 1) Push the REWIND button "◀◀", and pull the spring scale at a constant speed (tape speed) in the direction of D.
  - 2) Adjust the slider band 10 of torque adjusting resistor R701 (shown in Fig. 3-3) for a spring scale reading of 20 g.
  - 3) After the adjustments, run the tape several times both in FAST FORWARD and REWIND modes, and check if tape running starts quickly and smoothly.

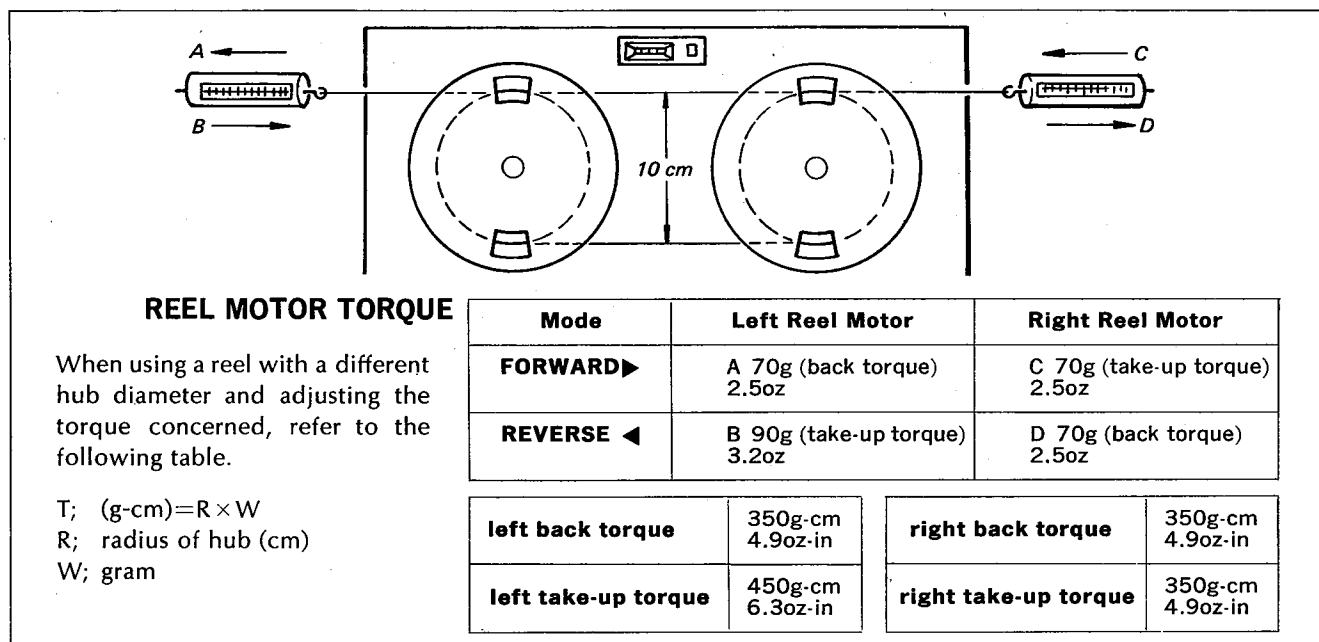


Fig. 3-2 Reel motor torque adjustment



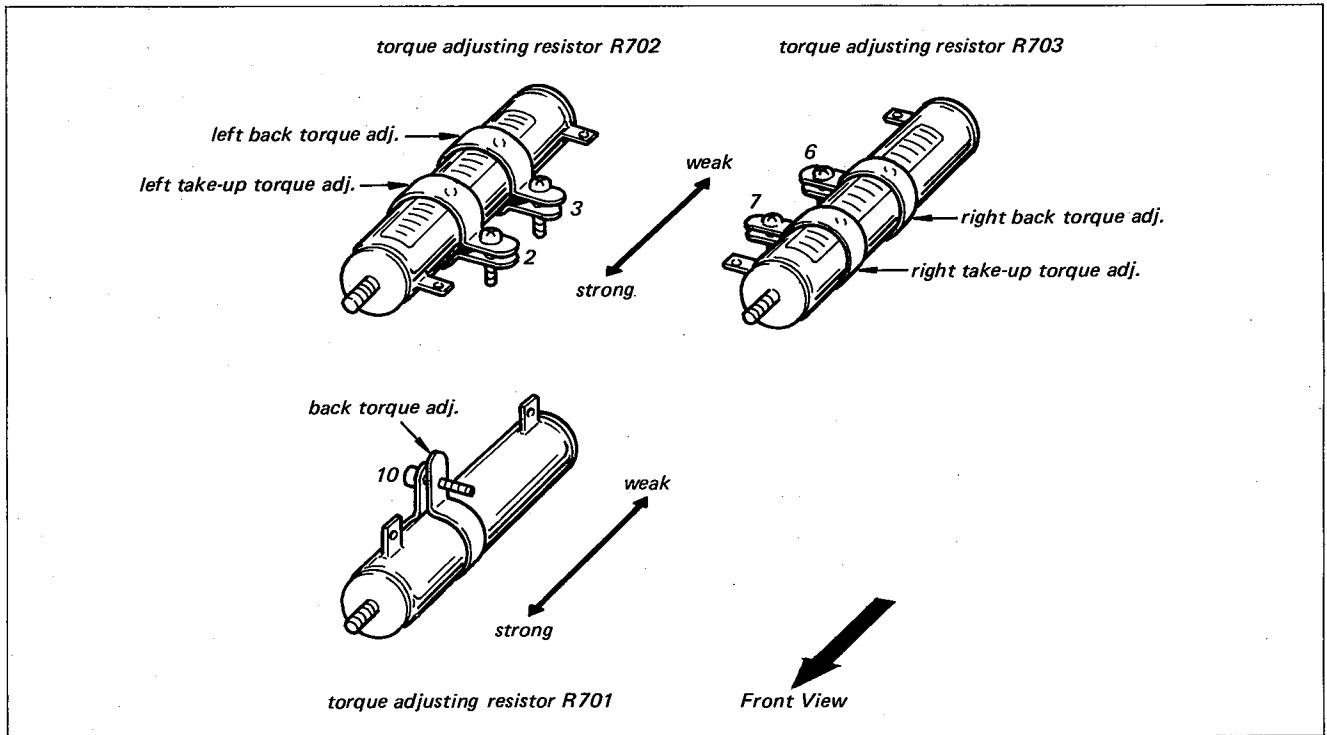


Fig. 3-3 Reel motor torque adjustment

**3-4. Pinch Roller Pressure Adjustment**  
(See Fig. 3-4)

○ Pinch roller pressure adjustment is made with the power switch and shut-off switch (linked with the right tension arm) are ON.

- 1) Loosen the locking nuts A and D, and adjusting nuts B and C.
- 2) Set the spring scale to the pinch roller as shown in Fig. 3-4. Push the FORWARD button "▶".
- 3) With the pinch roller being contact with the capstan, pull the spring scale slowly in the direction of arrow. Check the moment of the pinch roller stops rotating at the instant and adjust the

adjusting nut C (see Fig. 3-4) of the pinch roller solenoid for a spring scale reading between 1.3 and 1.5 kg

- 4) After fixing the adjusting nut C and locking nut D, the adjusting nut B is tightened slowly while keeping pressure constant, and fix the locking nut A completely.
- 5) Thread a tape on the set, and make sure that the pinch roller pressure does not change by repeating FORWARD to STOP process several times.

**Note:** Apply the locking paint to all of the adjusting nuts.

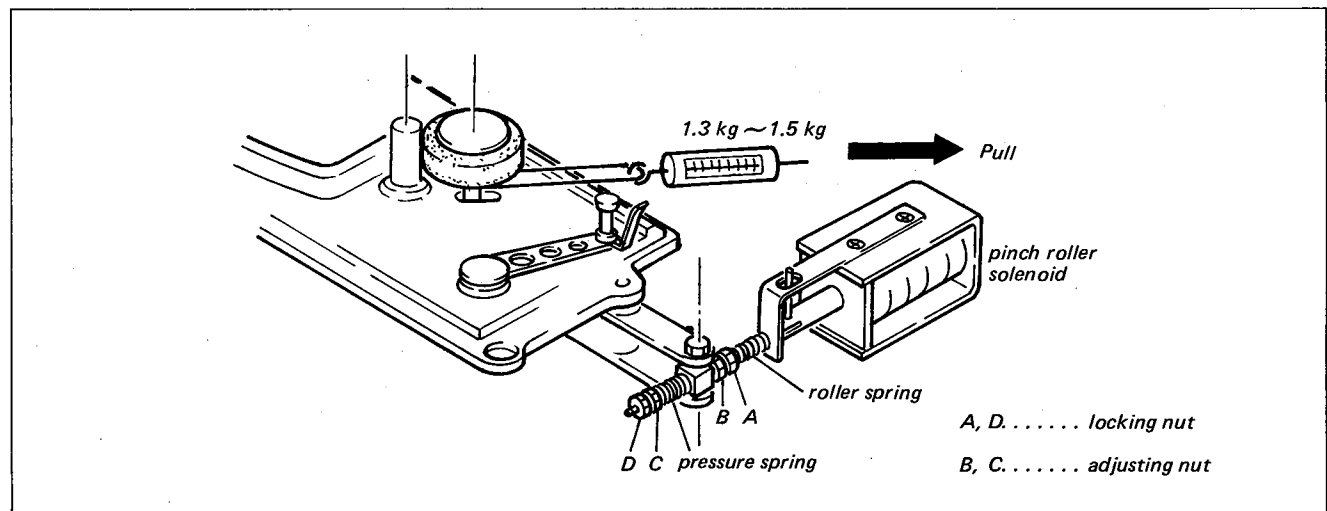


Fig. 3-4 Pinch roller pressure adjustment

## 4. ELECTRICAL ADJUSTMENTS

○ Before any adjustments, perform the preliminary set-up as follows:

1. TAPE SPEED switch .....19cm/sec (7½ ips)
2. RECORD LEVEL volume control.....Maximum
3. PLAYBACK SELECTOR switch .....4-CH
4. TAPE MONITOR switch ....PLAYBACK
5. RECORD SELECTOR switch..4-CH
6. FRONT and REAR PLAYBACK volume control .....Thread the test tape (AMPEX standard tape 01-31321-01) and set the unit to the forward playback mode.  
Adjust the FRONT and REAR PLAYBACK volume control for 0.3V at the LINE OUT (FRONT and REAR) on the playback of 700 Hz. Make sure the VU meter indicates the "0" position.

### 4-1. VU Meter Adjustment (See Fig. 4-1)

- Set the TAPE MONITOR switch to SOURCE (FRONT, REAR).
- 1) Connect a VTVM to the LINE OUT of FRONT (L, R-CH) and REAR (L, R-CH).
  - 2) Supply 1,000 Hz sine wave from an audio signal generator to the LENE-1 (FRONT, REAR) terminals and adjust output level of the audio signal generator so that the VTVM reads 0.3V.
  - 3) Adjust VR301 (100 kΩ-B for front L-CH), VR302 (100 kΩ for front R-CH), VR303 (100 kΩ-B for rear L-CH) and VR304 (100 kΩ-B for rear R-CH) on G-1124D for a reading of 0 VU at the VU meter.

### 4-2. Playback Frequency Response Adjustment (See Fig. 4-3)

○ Connect a VTVM to the LINE OUT of FRONT (L, R-CH) and REAR (L, R-CH).

#### 4-2-1. Set the unit in the 19 cm/sec (7½ ips) forward playback mode.

- 1) Thread the test tape (AMPEX standard tape 01-31321-01) and play back the 50 Hz, 100 Hz, 1,000 Hz, 7.5 kHz and 15 kHz test signals.
- 2) Adjust VR101 (10 kΩ-B for front L-CH), VR102 (10 kΩ-B for front R-CH), VR103 (10 kΩ-B for rear L-CH) and VR104 (10 kΩ-B for rear R-CH) on G-1125D for the output level difference within ±3 dB. In this case, adjust the 15 kHz output level equal to that of the 1,000 Hz.

#### 4-2-2. Set the unit in the 9.5 cm/sec (3¾ ips) forward playback mode.

- 1) Thread the test tape (AMPEX standard tape 01-31331-01) and playback the 50Hz, 100Hz, 1,000Hz, 2.5 kHz and 7.5 kHz test signals.
- 2) Adjust VR105 (20 kΩ-B for front L-CH), VR106 (20 kΩ-B for front R-CH), VR107 (20 kΩ-B for rear L-CH) and VR108 (20 kΩ-B for rear R-CH) on G-1125D for the output level difference within ±3dB. In this case, adjust the 7.5 kHz output level equal to that of the 1,000Hz.

### 4-3. 100 kHz Bias Filter Adjustment (See Fig. 4-1, 4-2 and 4-4)

- 1) Thread a demagnetized LH tape. Set the REC BIAS switch to HIGH and RECORD SELECTOR switch to 4-CH. Set the unit in the record mode without feeding input signal.
- 2) Connect an oscilloscope (or a VTVM) to the test points (TP401, TP402, TP403, TP404) on G-1140C.
- 3) Adjust L401 (front L-CH), L402 (front R-CH), L403 (rear L-CH) and L404 (rear R-CH) on G-1140C for the minimum level on the oscilloscope.
- 4) Set the 2-CH in the record mode (or RECORD SELECTOR switch to 2-CH). Oscilloscope to the TP401 on G-1140C.
- 5) Adjust L501 on G-1086G for the minimum level on the oscilloscope.
- 6) Set the L-CH in the record mode (or RECORD SELECTOR switch to L). Oscilloscope to the TR401 on G-1140C.
- 7) Adjust L502 on G-1086G for the minimum level on the oscilloscope.
- 8) Connect the oscilloscope to the LINE OUT of FRONT (L, R-CH) and REAR (L, R-CH). Set the TAPE MONITOR switch to SOURCE (FRONT, REAR). Set the unit in the record mode and RECORD SELECTOR switch to 4-CH.
- 9) Adjust L301 (front L-CH), L302 (Front R-CH), L303 (rear L-CH) and L304 (rear R-CH) on G-1124D for the minimum level on the oscilloscope.

### 4-4. Bias Current Adjustment (See Fig. 4-4)

○ Connect a VTVM to the LINE OUT of FRONT (L, R-CH) and REAR (L, R-CH).

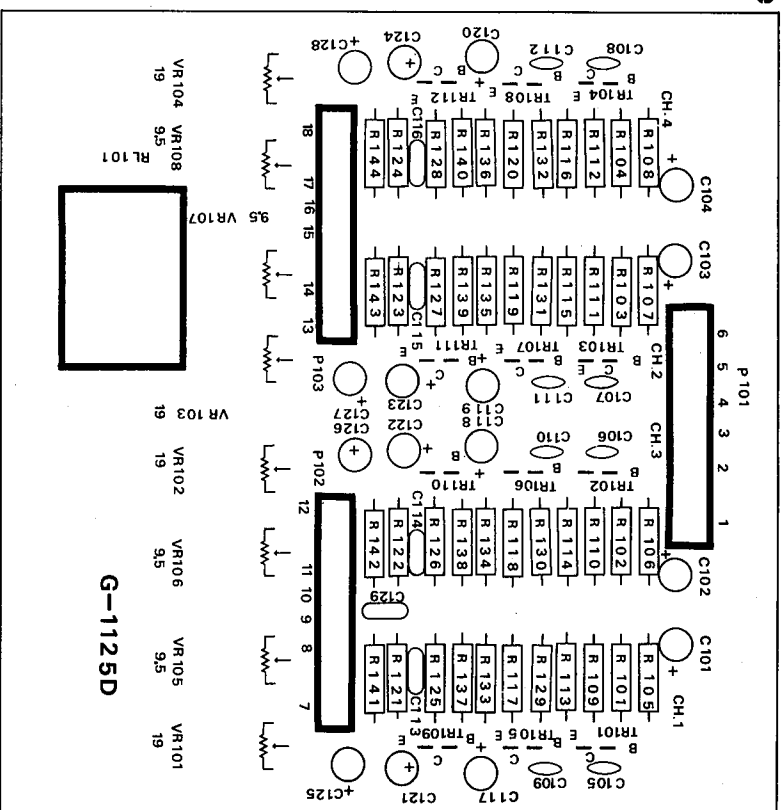
#### 4-4-1. LH Tape

- 1) Thread the LH tape. Set the REC BIAS switch to HIGH and CHANNEL SELECTOR switch to 4-CH.
- 2) Connect 1,000 Hz 70 mV output from an audio signal generator to the LINE-1 (FRONT, REAR) terminals. Set the unit in the record mode.

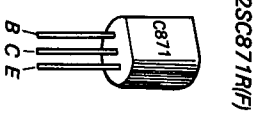
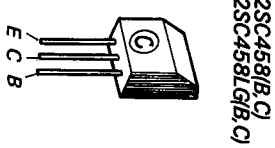
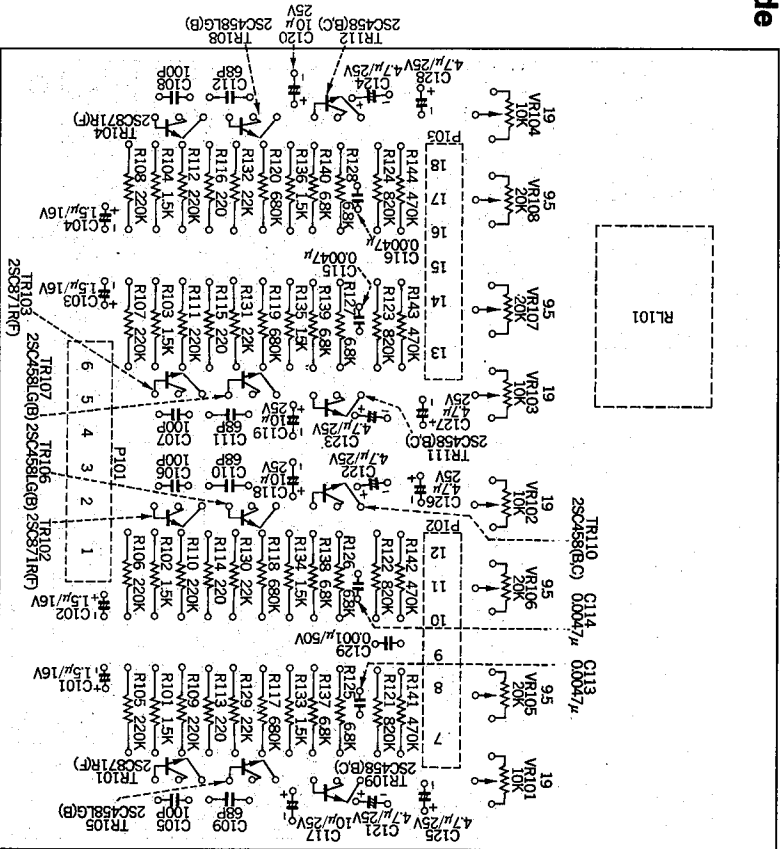
## 6. PARTS LOCATIONS AND PARTS LIST

### 6-1. G-1125D Equalizer Circuit Board (Stock No. 7550440 Complete Circuit Board G-1125D)

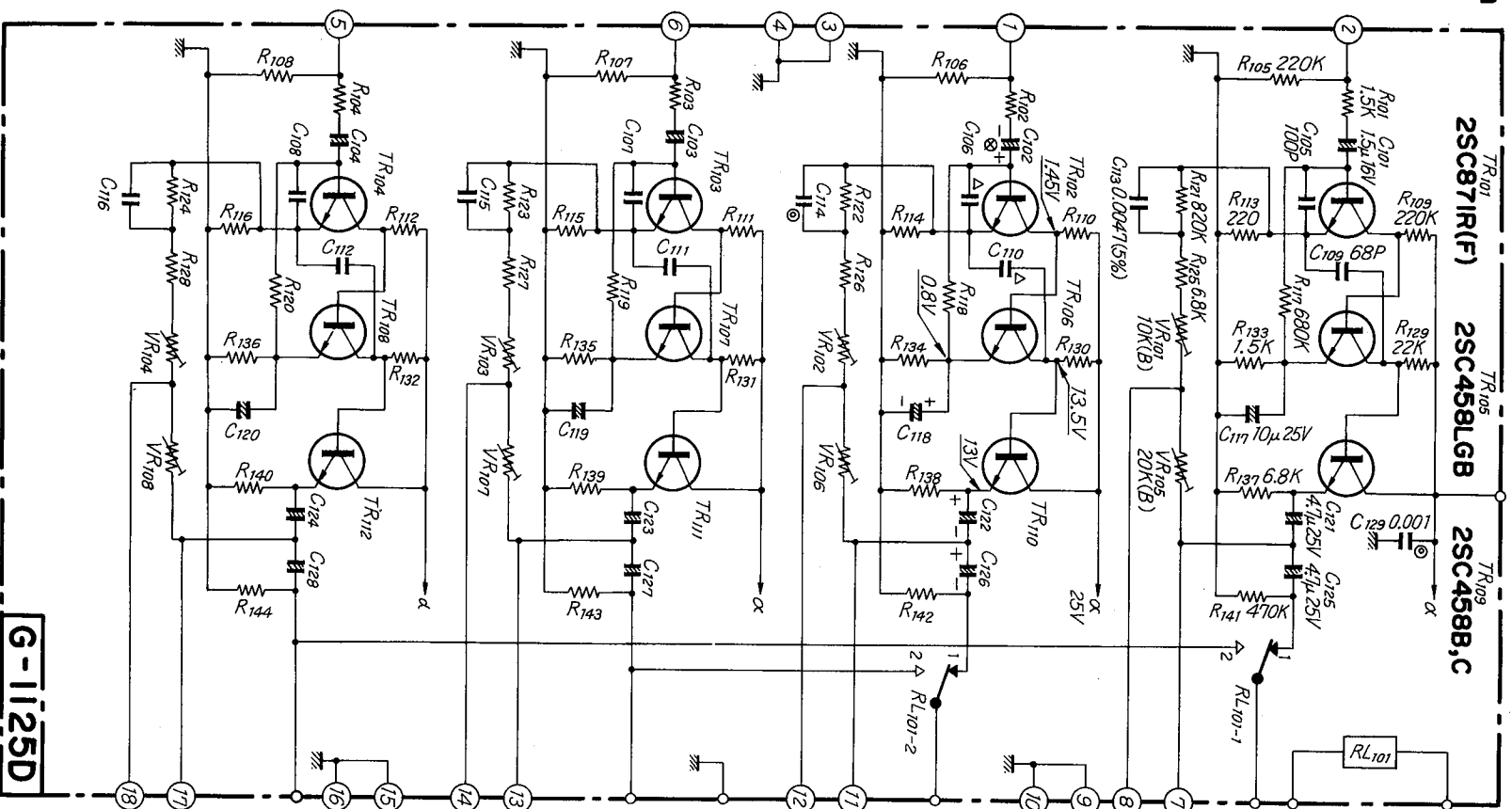
Component Side



Conductor Side



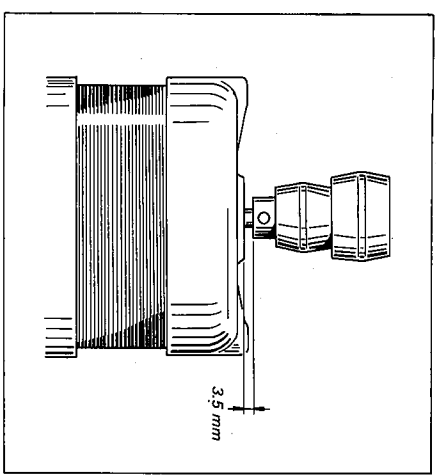
Schematic Diagram



5-7. Disassembly of Mechanism Section (Rear) and Control Chassis

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	5101962	BSB Type Screw, M4×8	61	5121340	S Type Washer, 3φ	123	5121340	S Type Washer, 3φ
2	5101962	BSB Type Screw, M4×8	62	5101048	B Type Screw, M3×15	124	1160060	Micro Switch V-1A10
3	5101962	BSB Type Screw, M4×8	63	5121340	S Type Washer, 3φ	125	5240492	Micro Switch Retainer (B)
4	5101962	BSB Type Screw, M4×8	64	1160050	Micro Switch, V-1A44	126	5320290	Button (B), rewind
5	5230261	Motor Prop	65	5101843	BSA Type Screw, M3×6	127	5230340	Spacer, button (L=3.8mm)
6	5230261	Motor Prop	66	5101943	BSB Type Screw, M3×6	128	5101843	BSA Type Screw, M3×6
7	5230261	Motor Prop	67	5151004	E Type Washer, 3φ	129	5101048	B Type Screw, M3×15
8	5230261	Motor Prop	68	5120341	P Type Washer, 3φ	130	5121340	S Type Washer, 3φ
9	5106062	SF Type Screw, M4×5	69	5120341	P Type Washer, 3φ	131	5101048	B Type Screw, M3×15
10	5106062	SF Type Screw, M4×5	70	6500283	Damper Lever	132	5121340	S Type Washer, 3φ
11	6140044	Motor Pulley	71	5240552	Damper Bracket	133	1160060	Micro Switch V-1A10
12	4320020	Capstion Motor	72	5101843	BSA Type Screw, M3×6	134	5240492	Micro Switch Retainer (B)
13	5160200	BSB Type Screw, M4×25 (Dog Point 5)	73	5101843	BSA Type Screw, M3×6	135	5320300	Button (C), stop
14	5500410	Rubber Bushing	74	5101843	BSA Type Screw, M3×6	136	5230340	Spacer, button (L=3.8mm)
15	5230580	Collar, transformer	75	5101843	BSA Type Screw, M3×6	137	5101843	BSA Type Screw, M3×6
16	5160200	BSB Type Screw, M4×25 (Dog Point 5)	76	5320251	Button (Power)	138	5101048	B Type Screw, M3×15
17	5500410	Rubber Bushing	77	5101843	BSA Type Screw, M3×6	139	5121340	S Type Washer, 3φ
18	5230580	Collar, transformer	78	5101843	BSA Type Screw, M3×6	140	5101048	B Type Screw, M3×15
19	5160200	BSB Type Screw, M4×25 (Dog Point 5)	79	1130320	Power Switch	141	5121340	S Type Washer, 3φ
20	5500410	Rubber Bushing	80	5320251	Button (Speed)	142	1160060	Micro Switch V-1A10
21	5230580	Collar, transformer	81	5320251	Button (Cue)	143	5240492	Micro Switch Retainer (B)
22	5160200	BSB Type Screw, M4×25 (Dog Point 5)	82	5101843	BSA Type Screw, M3×6	144	5320290	Button (B), fast forward
23	5500410	Rubber Bushing	83	5101843	BSA Type Screw, M3×6	145	5230340	Spacer, button (L=3.8mm)
24	5230580	Collar, transformer	84	1130640	Push Switch (2 Unit), speed & cue	146	5101843	BSA Type Screw, M3×6
25	4001230	Power Transformer	85	5040180	Masking A, operating button	147	5101051	B Type Screw, M3×20
26	5110261	Hex. Nut, M4	86	5320251	Button (Pause)	148	5121340	S Type Washer, 3φ
27	5121360	S Type Washer, 4φ	87	5101843	BSA Type Screw, M3×6	149	5101051	B Type Screw, M3×20
28	0125330	Enamelled Wire-Wound Resistor 1.5kΩ 25W	88	5101843	BSA Type Screw, M3×6	150	5121340	S Type Washer, 3φ
29	5101843	BSA Type Screw, M3×6	89	1130500	Pause Switch	151	1160060	Micro Switch V-1A10
30	5101843	BSA Type Screw, M3×6	90	0400280	Pilot Lamp, lead type (6.3V 75mA)	152	5230360	Collar, micro switch (L=6mm)
31	5101143	B Type Screw, M3×6	91	0400280	Pilot Lamp, lead type (6.3V 75mA)	153	5230360	Collar, micro switch (L=6mm)
32	5101143	B Type Screw, M3×6	92	0400280	Pilot Lamp, lead type (6.3V 75mA)	154	5240492	Micro Switch Retainer (B)
33	5056130	Cover, voltage selector	93	0400280	Pilot Lamp, lead type (6.3V 75mA)	155	5320290	Button (B), direction
34	5101843	BSA Type Screw, M3×10	94	5151004	E Type Washer, 3φ	156	5230380	Collar (A), button (L=2.2mm)
35	5110241	Hex. Nut, M3	95	5151004	E Type Washer, 3φ	157	5270040	Back Panel, control chassis
36	5101843	BSA Type Screw, M3×10	96	6200100	Shaft, operating button	158	5101944	BSB Type Screw, M3×8
37	5110241	Hex. Nut, M3	97	5101843	BSA Type Screw, M3×6	159	5101944	BSB Type Screw, M3×8
38	2410190	Sud Plug, voltage selector	98	5101051	S Type Washer, 3φ	160	5101944	BSB Type Screw, M3×8
39	2410510	Main Plug, voltage selector	99	5121340	S Type Washer, 3φ	161	5101944	BSB Type Screw, M3×8
40	2410500	Socket, voltage selector	100	5101051	B Type Screw, M3×20	162	5101944	BSB Type Screw, M3×8
41	5101843	BSA Type Screw, M3×6	101	5121340	S Type Washer, 3φ	163	5101944	BSB Type Screw, M3×8
42	5101843	BSA Type Screw, M3×6	102	1160060	Micro Switch V-1A10	164	5101944	BSB Type Screw, M3×8
43	5101843	BSA Type Screw, M3×6	103	5230360	Collar, micro switch (L=6mm)	165	5101944	BSB Type Screw, M3×8
44	5240780	Fuse P.C Board F-1456	104	5230360	Collar, micro switch (L=6mm)	166	7630080	Control Circuit Board Ass'y G-1142B-A
45		Bracket, voltage selector	105	5240492	Micro Switch Retainer (B)	167	3910070	Line Cord Strain Relief
46		Hex. Nut, M7	106	5320280	Button (A), record	168	3800021	Power Cord
47		P Type Washer, 7φ	107	5230380	Collar (A), button (L=2.2mm)	169	5101143	B Type Screw, M3×8 (BLK)
48	1101500	Rotary Switch, frequency F-1-3-2	108	5101843	BSA Type Screw, M3×6	170	5101143	B Type Screw, M3×8 (BLK)
49	5101843	BSA Type Screw, M3×6	109	5101051	B Type Screw, M3×20	171	2450040	AC Outlet
50	2110120	Terminal Strp 2L1A	110	5121340	S Type Washer, 3φ	172		Hex. Nut, M15
51	5101943	BSB Type Screw, M3×6	111	5101051	B Type Screw, M3×20	173	2300060	Fiber Washer, 15φ
52	5101943	BSB Type Screw, M3×6	112	5121340	S Type Washer, 3φ	174	0431242	Fuse Holder Complete
53	0599004	MP Capacitor (Block type) 2.8+1μF AC 250V	113	1160060	Micro Switch V-1A10	175	0431222	Power Fuse 2A (100V~117V)
54	5101862	BSA Type Screw, M4×8	114	5230360	Collar, micro switch (L=6mm)	176	5110261	Power Fuse 1A (200V~240V)
55	5101962	BSB Type Screw, M4×8	115	5230360	Collar, micro switch (L=6mm)	177	5110261	Hex. Nut, M4
56	5260072	Capstion Holder	116	5240492	Micro Switch Retainer (B)	178	2230050	Ground Terminal
57	5101843	BSA Type Screw, M3×6	117	5320290	Button (B), direction	179		P Type Washer, 4.2×11×1.0
58	5101843	BSA Type Screw, M3×6	118	5230340	Spacer, button (L=3.8mm)	180	5101223	B Type Screw, M2.6×6
59	5101843	BSA Type Screw, M3×6	119	5101843	BSA Type Screw, M3×6	181	5360150	B Type Screw, M2.6×6
60	5101048	B Type Screw, M3×15	120	5101048	B Type Screw, M3×15	182	5360200	Name Plate (QD-5500S)
			121	5121340	S Type Washer, 3φ		2410410	Name Plate (QD-5500S)
			122	5101048	B Type Screw, M3×15			Dummy Plug
						183	5101161	B Type Screw, M4×6 (BLK)
						184	5101161	B Type Screw, M4×6 (BLK)
						185	5101843	BSA Type Screw, M3×6
						186	5101843	BSA Type Screw, M3×6
						187	2040010	11P Socket, remote control
						188	5240620	Bracket, remote control
						189		Control Chassis Ass'y

Fig. 5-7



Proper clearance between the motor pulley and the capstan motor.

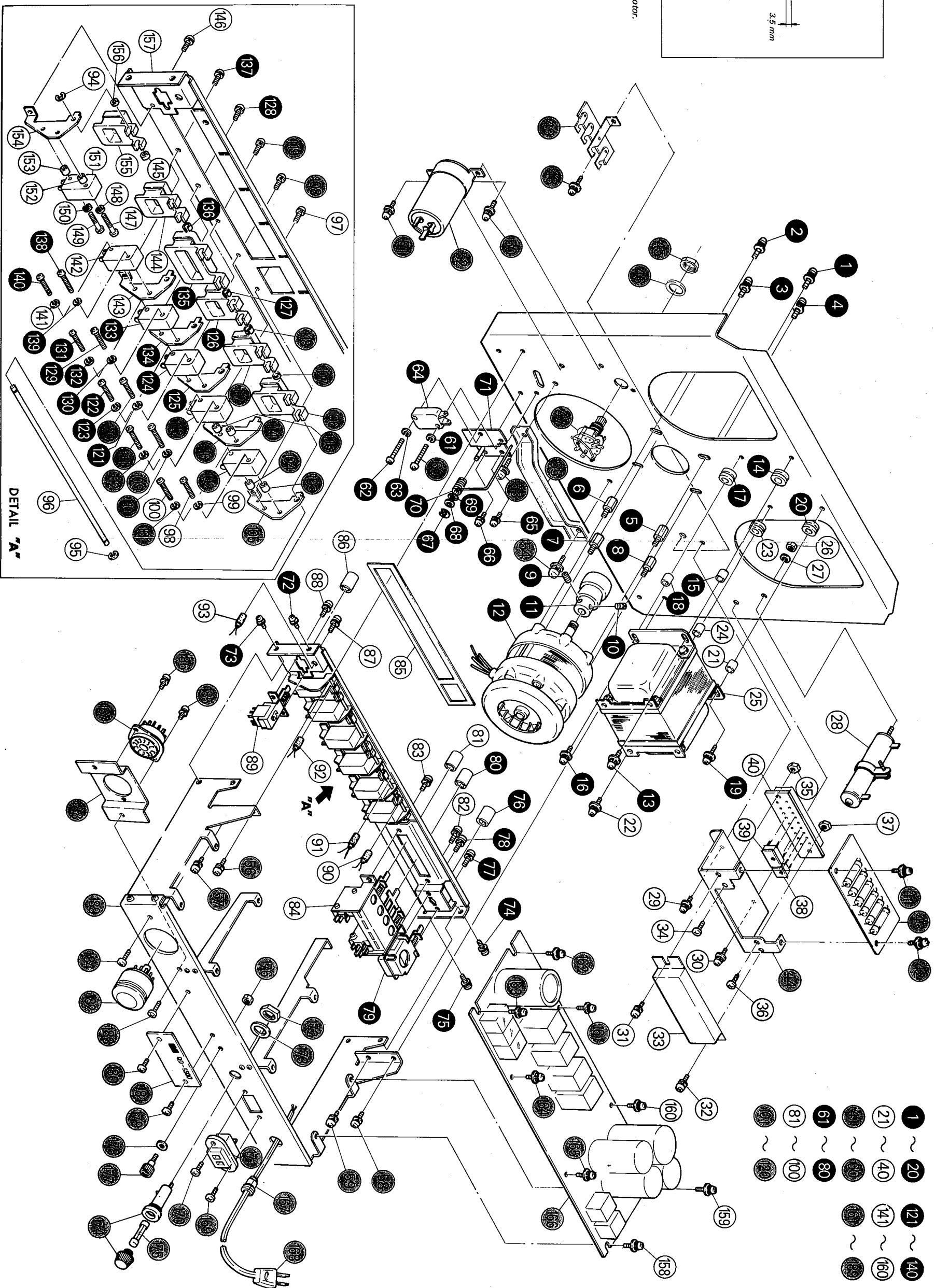
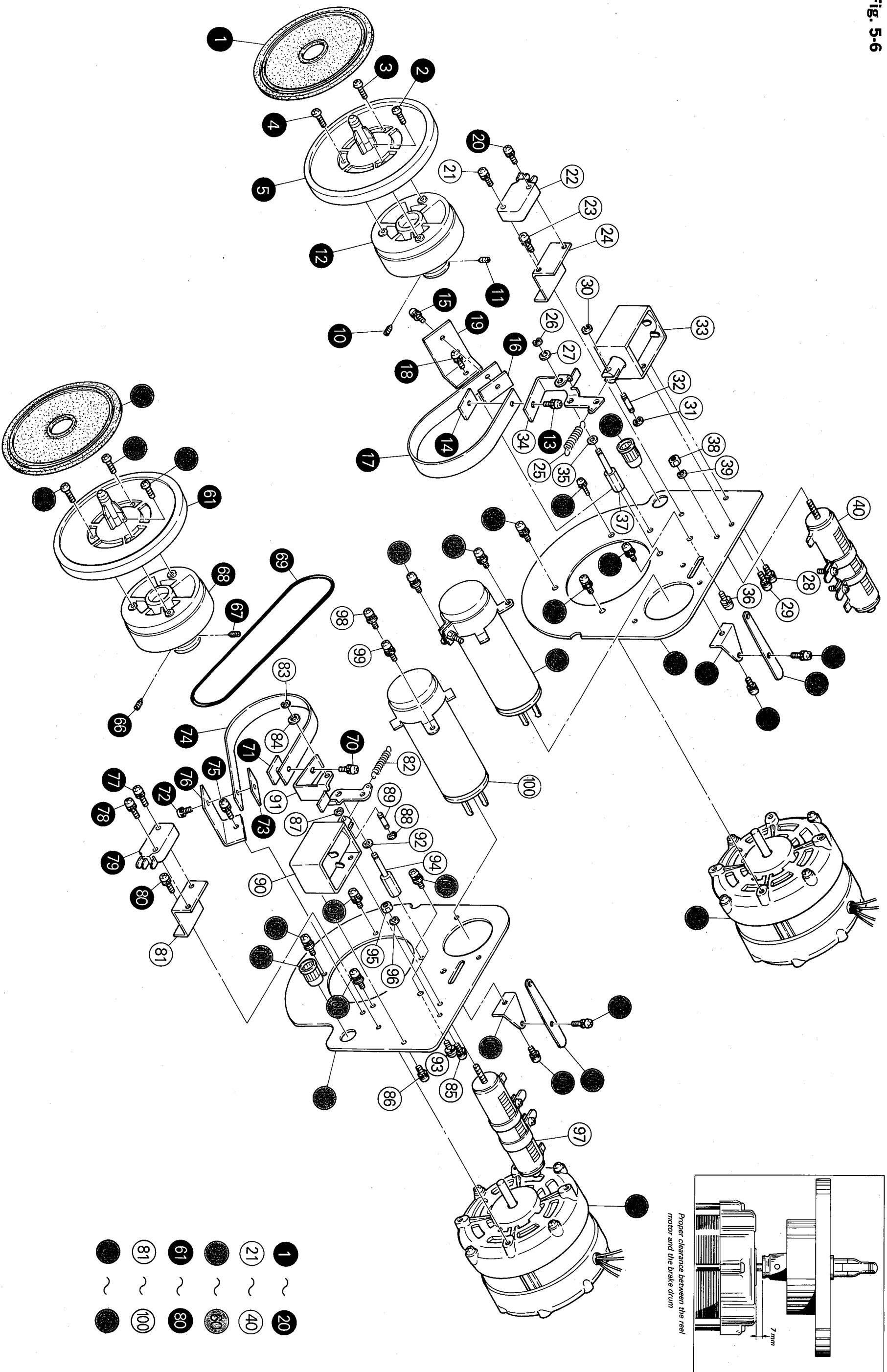


Fig. 5-6



### 5-6. Disassembly of Reel Motor Assembly

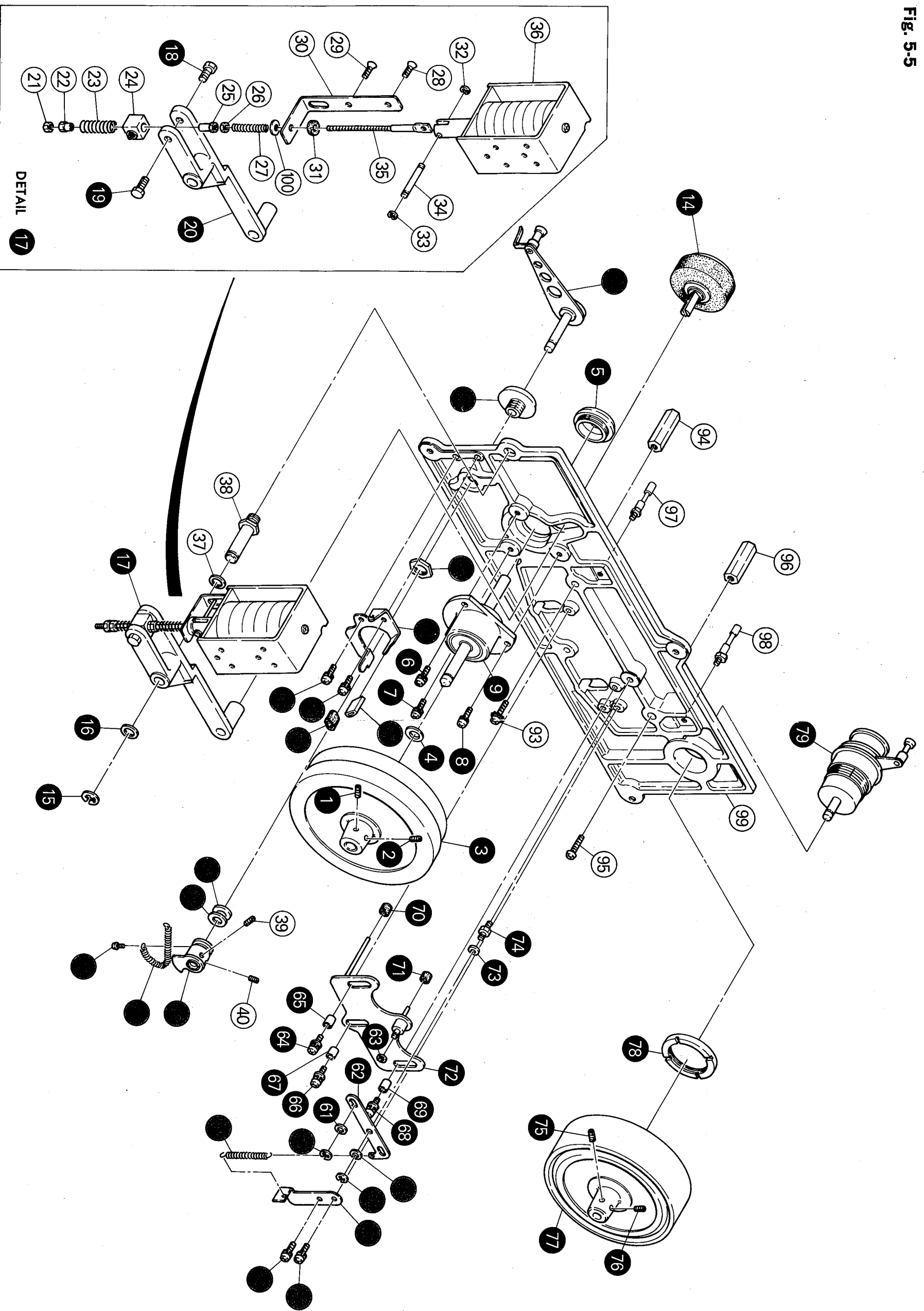
Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	5500321	Table Sheet	72	5101843	BSA Type Screw, M3 × 6
2	5101244	B Type Screw, M3 × 8	73	5240531	Supporter Plate, brake band
3	5101244	B Type Screw, M3 × 8	74	6400070	Brake Band
4	5101244	B Type Screw, M3 × 8	75	5101843	BSA Type Screw, M3 × 6
5	7060050	Reel Table Ass'y	76	5240461	Brake Band Bracket
10	5106062	SF Type Screw, M4 × 5	77	5101845	BSA Type Screw, M3 × 10
11	5106062	SF Type Screw, M4 × 5	78	5101845	BSA Type Screw, M3 × 10
12	7070040	Brake Drum Ass'y	79	1160120	Micro Switch MT-100
13	5101843	BSA Type Screw, M3 × 6	80	5101843	BSA Type Screw, M3 × 6
14	5240531	Supporter Plate, brake band	81	5240472	Micro Switch Retainer (A)
15	5101843	BSA Type Screw, M3 × 6	82	6900462	Brake Spring
16	5240531	Supporter Plate, brake band	83	5151004	E Type Washer, 3φ
17	6400070	Brake Band	84	5180120	Thrust Washer, 4 × 0.25
18	5101843	BSA Type Screw, M3 × 6	85	5101843	BSA Type Screw, M3 × 6
19	5240461	Brake Band Bracket	86	5101843	BSA Type Screw, M3 × 6
20	5101845	BSA Type Screw, M3 × 10	87	5151002	E Type Washer, 2φ
21	5101845	BSA Type Screw, M3 × 10	88	5151002	E Type Washer, 2φ
22	1160120	Micro Switch MT-100	89	6210012	Pin (A), plunger
23	5101843	BSA Type Screw, M3 × 6	90	4340040	Plunger Solenoid, right brake
24	5240472	Micro Switch Retainer (A)	91	6500400	Brake Arm (A), right
25	6900462	Brake Spring	92	5180120	Thrust Washer, 4 × 0.25
26	5151004	E Type Washer, 3φ	93	5101843	BSA Type Screw, M3 × 6
27	5180120	Thrust Washer, 4 × 0.25	94	6210170	Brake Arm Prop
28	5101843	BSA Type Screw, M3 × 6	95	5110261	Hex. Nut, M4
29	5101843	BSA Type Screw, M3 × 6	96	5121360	S Type Washer, 4φ
30	5151002	E Type Washer, 2φ	97	0125340	Enameled Wire-wound Resistor 200Ω 35W
31	5151002	E Type Washer, 2φ	98	5101943	BSB Type Screw, M3 × 6
32	6210012	Pin (A), plunger	99	5101943	BSB Type Screw, M3 × 6
33	4340050	Plunger Solenoid, left brake	100	0599005	MP Capacitor (Block Type) 4 + 0.5μF 300V AC
34	6500410	Brake Arm (B), left	101	5101843	BSA Type Screw, M3 × 6
35	5180120	Thrust Washer, 4 × 0.25	102	5101843	BSA Type Screw, M3 × 6
36	5101843	BSA Type Screw, M3 × 6	103	6500261	Brake Lever
37	6210170	Brake Arm Prop	104	5240481	Brake Lever Bracket
38	5110261	Hex. Nut, M4	105	5616130	Nylon Bushing
39	5121360	S Type Washer, 4φ	106	5101962	BSB Type Screw, M4 × 8
40	0125320	Enameled Wire-wound Resistor 250Ω 25W	107	5101962	BSB Type Screw, M4 × 8
41	5101943	BSB Type Screw, M3 × 6	108	5101962	BSB Type Screw, M4 × 8
42	5101943	BSB Type Screw, M3 × 6	109	5101962	BSB Type Screw, M4 × 8
43	0599003	MP Capacitor (Block Type) 4 + 0.5μF 250V AC	112	4320120	Right Reel Motor (IE-961R)
44	5101843	BSA Type Screw, M3 × 6	113	6630062	Motor Base (A)
45	5101843	BSA Type Screw, M3 × 6			
46	6500261	Brake Lever			
47	5240481	Brake Lever Bracket			
48	5616130	Nylon Bushing			
49	5101962	BSB Type Screw, M4 × 8			
50	5101962	BSB Type Screw, M4 × 8			
51	5101962	BSB Type Screw, M4 × 8			
52	5101962	BSB Type Screw, M4 × 8			
55	4320180	Left Reel Motor (IB-962R2)			
56	6630052	Motor Base (B)			
57	5500321	Table Sheet			
58	5101244	B Type Screw, M3 × 8			
59	5101244	B Type Screw, M3 × 8			
60	5101244	B Type Screw, M3 × 8			
61	7060050	Reel Table Ass'y			
66	5106062	SF Type Screw, M4 × 5			
67	5106062	SF Type Screw, M4 × 5			
68	7070040	Brake Drum Ass'y			
69	6030050	Counter Belt			
70	5101843	BSA Type Screw, M3 × 6			
71	5240531	Supporter Plate, brake band			

## 5-5. Disassembly of Capstan Base Assembly

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	5106062	SF Type Screw, M4 × 5	66	5101945	BSB Type Screw, M3 × 10
2	5106062	SF Type Screw, M4 × 5	67	5230280	Lifter Collar
3	6100031	Capstan Wheel	68	5101945	BSB Type Screw, M3 × 10
4	5180110	Thrust Washer, 8 × 0.8	69	5230280	Lifter Collar
5	5370010	Dust Cap	70	5510061	Rubber Bushing
6	5101863	BSA Type Screw, M4 × 10	71	5510061	Rubber Bushing
7	5101863	BSA Type Screw, M4 × 10	72	6510094	Lifter
8	5101863	BSA Type Screw, M4 × 10	73	5180120	Thrust Washer, 4 × 0.25
9	7040090	Capstan Sub Ass'y	74	6210161	Lifter Spring
14	7060041	Pinch Roller Ass'y	75	5106062	SF Type Screw, M4 × 5
15	5151007	E Type Washer, 6φ	76	5106062	SF Type Screw, M4 × 5
16	5180140	Thrust Washer, 7 × 0.25	77	6100040	Stabilizer Wheel
17		Roller Arm Ass'y	78	5170052	Nut, stabilizer
18	5160120	Adjusting Bolt	79	7040115	Stabilizer Sub Ass'y
19	5160121	Adjusting Bolt	93	5101067	BSC Type Screw, M4 × 18
20	6500252	Roller Arm	94	5230271	Head Base Prop
21	5110261	Hex. Nut, M4	95	5101067	B Type Screw, M4 × 18
22	5170030	Adjusting Nut (L=7.5mm)	96	5230271	Head Base Prop
23	6900442	Pressure Spring	97	5160181	Stud Screw, housing
24	5160150	Attachment Metal	98	5160181	Stud Screw, housing
25	5170040	Adjusting Nut (L=17mm)	99	6630088	Capstan Base
26	5110261	Hex. Nut, M4	100	5120161	P Type Washer, 4φ
27	6900452	Roller Spring			
28	5102843	F Type Screw, M3 × 6			
29	5102843	F Type Screw, M3 × 6			
30	5220292	Stopper Angle, plunger			
31	5500270	Rubber Bushing (A), plunger			
32	5151002	E Type Washer, 2φ			
33	5151002	E Type Washer, 2φ			
34	5160162	Pin B, plunger			
35	5160132	Pressure Adjusting Screw			
36	4340060	Plunger Solenoid, pinch roller			
37	5180140	Thrust Washer, 7 × 0.25			
38	6210151	Roller Arm Spindle			
39	5106062	SF Type Screw, M4 × 5			
40	5106062	SF Type Screw, M4 × 5			
41	5101002	B Type Screw, M2 × 4			
42	6900480	Tension Arm Spring			
43	6010022	Shut Off Drum			
44	5180130	Thrust Washer, 5 × 0.25			
45	5180130	Thrust Washer, 5 × 0.25			
46	7050024	Tension Arm Ass'y			
47	5510054	Shut Off Stopper (Nylon)			
48	5500100	Rubber Bushing (B)			
49	5101843	BSA Type Screw, M3 × 6			
50	5101843	BSA Type Screw, M3 × 6			
51	5240542	Tension Arm Stopper			
52	5170080	Hex. Nut, M10			
53	5260062	Tension Arm Holder			
54	6900423	Lifter Spring			
55	5101843	BSA Type Screw, M3 × 6			
56	5101843	BSA Type Screw, M3 × 6			
57	5220241	Bracket, lifter spring			
58	5151004	E Type Washer, 3φ			
59	5180120	Thrust Washer, 4 × 0.25			
60	5151004	E Type Washer, 3φ			
61	5180120	Thrust Washer, 4 × 0.25			
62	6500241	Lifter Arm			
63	5180120	Thrust Washer, 4 × 0.25			
64	5101945	BSB Type Screw, M3 × 10			
65	5230280	Lifter Collar			

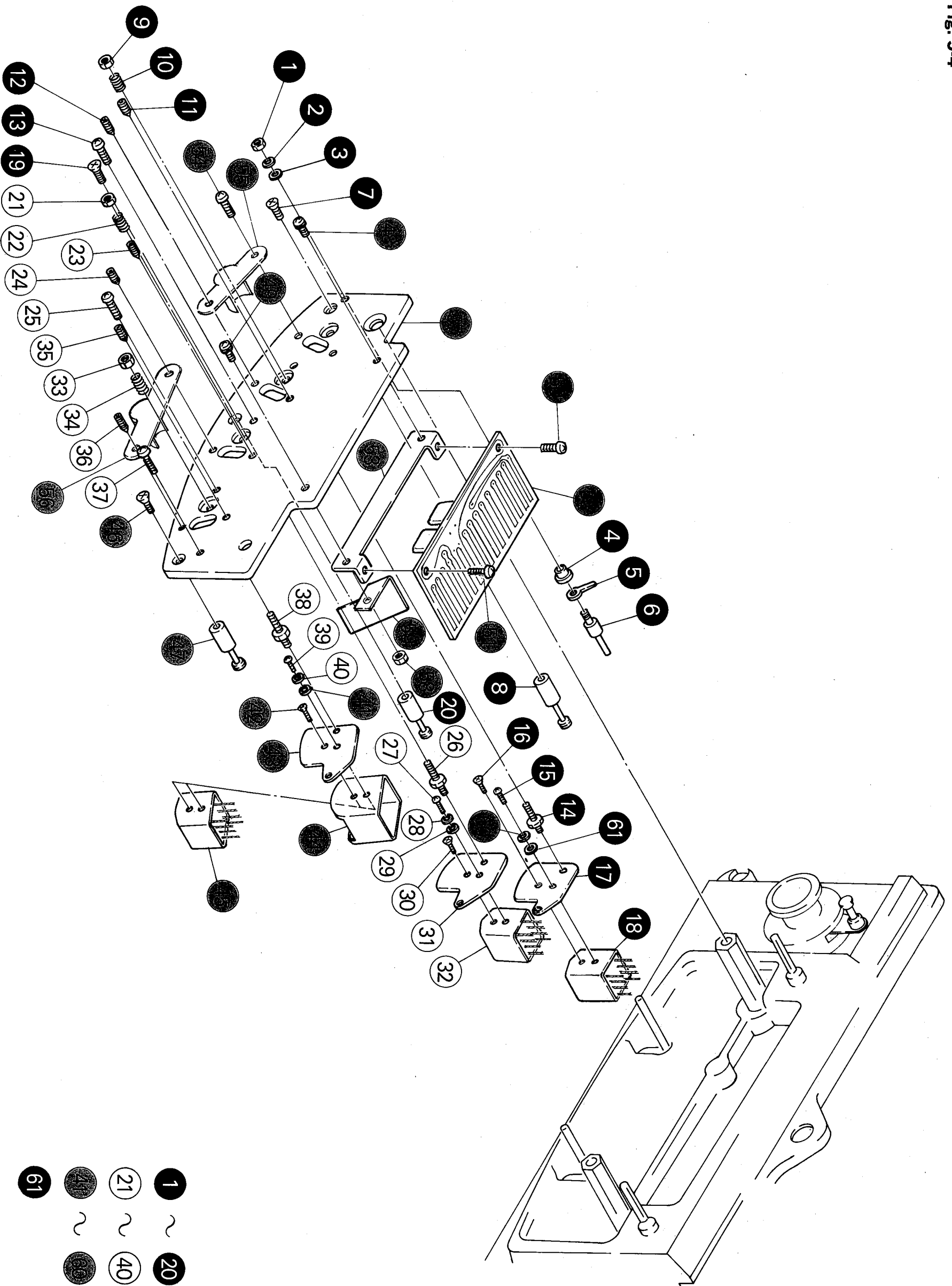


Fig. 5-5



- 1 ~ 20
- 21 ~ 40
- ~ ~ ~
- 61 ~ 80
- 81 ~ 100

Fig. 5-4



### 5-4. Disassembly of Head Assembly

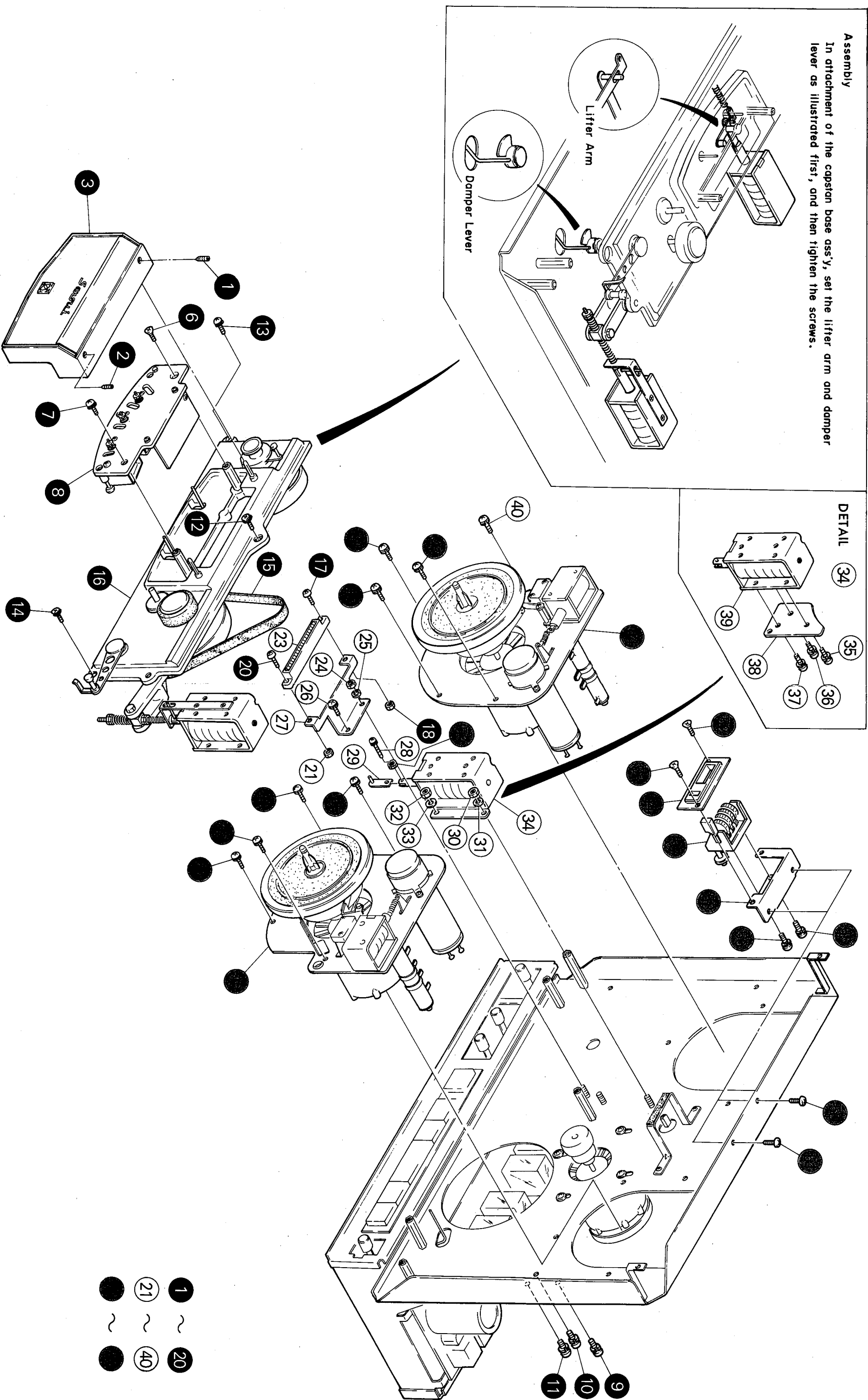
Parts No.	Stock No.	Description
1	5110120	Hex. Nut, M2.6
2	5180200	P Type Washer, 2.6 × 5 × 0.5 (fiber)
3	5180200	P Type Washer, 2.6 × 5 × 0.5 (fiber)
4	5630030	Isolating Bush, sensing pole
5	2120030	Lug Terminal
6	5950141	Sensing Pole
7	5102843	F Type Screw, M3 × 6
8	5230313	Tape Guide
9	5110240	Hex. Nut, M3
10	6900432	Head Spring
11	5106145	SC Type Screw, M3 × 10
12	5106145	SC Type Screw, M3 × 10
13	5101045	B Type Screw, M3 × 10
14	5160171	Head Stud
15	5101203	B Type Screw, M2 × 5
16	5102801	F Type Screw, M2 × 3
17	5240441	Mounting Plate, erase head
18	4524010	Erase Head ES-401
19	5102843	F Type Screw, M3 × 6
20	5230313	Tape Guide
21	5110240	Hex. Nut, M3
22	6900432	Head Spring
23	5106145	SC Type Screw, M3 × 10
24	5106145	SC Type Screw, M3 × 10
25	5101045	B Type Screw, M3 × 10
26	5160171	Head Stud
27	5101203	B Type Screw, M2 × 5
28	5121001	S Type Washer, 2φ
29	5120303	P Type Washer, 2φ
30	5102801	F Type Screw, M2 × 3
31	5240451	Mounting Plate, record head
32	4514010	Record Head RS-401
33	5110240	Hex. Nut, M3
34	6900432	Head Spring
35	5106145	SC Type Screw, M3 × 10
36	5106145	SC Type Screw, M3 × 10
37	5101045	B Type Screw, M3 × 10
38	5160171	Head Stud
39	5101203	B Type Screw, M2 × 5
40	5121001	S Type Washer, 2φ
41	5120302	P Type Washer, 2φ
42	5102802	F Type Screw, M2 × 4
43	5240451	Mounting Plate, playback head
44	5030051	Shield Cover
45	4504010	Playback Head PS-401
46	5102843	F Type Screw, M3 × 6
47	5230313	Tape Guide
48	5101845	BSA Type Screw, M3 × 10
49	5101845	BSA Type Screw, M3 × 10
50	5101044	B Type Screw, M3 × 4
51	5101044	B Type Screw, M3 × 4
52	2690120	Head Connector Circuit Board G-1087C
53	5240430	Holder, P.C Board
54	5101143	B Type Screw, M3 × 6
55	5510080	Lifter Protector
56	5510080	Lifter Protector
57	6630041	Head Base
58	5110241	Hex. Nut, M3
59	5030130	Head Shield Plate
60	5121001	S Type Washer, 2φ
61	5120303	P Type Washer, 2φ

**5-3. Disassembly of Mechanism Section (Front)**

Parts No.	Stock No.	Description
1	5106062	SF Type Screw, M4 × 5
2	5106062	SF Type Screw, M4 × 5
3		Head Housing Ass'y
6	5102862	F Type Screw, M4 × 8
7	5101462	BSC Type Screw, M4 × 8
8		Head Ass'y
9	5101843	BSA Type Screw, M3 × 6
10	5101843	BSA Type Screw, M3 × 6
11	5101843	BSA Type Screw, M3 × 6
12	5102963	FSE Type Screw, M4 × 10
13	5101462	BSC Type Screw, M4 × 8
14	5102963	FSE Type Screw, M4 × 10
15	6030010	Capstan Belt
16		Capstan Base Ass'y
17	5101026	B Type Screw, M2.6 × 12
18	5110120	Hex. Nut, M2.6
20	5101026	B Type Screw, M2.6 × 12
21	5110120	Hex. Nut, M2.6
23	2420110	15P Multiple Connector
24	5110241	Hex. Nut, M3
25	5121340	S Type Washer, 3φ
26	5101843	BSA Type Screw, M3 × 6
27	5240391	Holder, 15P connector
28	5101048	B Type Screw, M3 × 15
29	5240420	Operating Plate, plunger
30	5110241	Hex. Nut, M3
31	5121340	S Type Washer, 3φ
32	5110241	Hex. Nut, M3
33	5121340	S Type Washer, 3φ
34		Plunger Ass'y lifter
35	5101843	BSA Type Screw, M3 × 6
36	5101843	BSA Type Screw, M3 × 6
37	5101843	BSA Type Screw, M3 × 6
38	5240381	Mounting Plate, lifter plunger
39	4340060	Plunger Solenoid, lifter
40	5101862	BSA Type Screw, M4 × 8
41	5101862	BSA Type Screw, M4 × 8
42	5101862	BSA Type Screw, M4 × 8
43	5101862	BSA Type Screw, M4 × 8
44		Left Reel Motor Ass'y
45	5101862	BSA Type Screw, M4 × 8
46	5101862	BSA Type Screw, M4 × 8
47	5101862	BSA Type Screw, M4 × 8
48	5101862	BSA Type Screw, M4 × 8
49		Right Reel Motor Ass'y
50	5101044	B Type Screw, M3 × 4
51	5101044	B Type Screw, M3 × 4
52	5102843	F Type Screw, M3 × 6
53	5102843	F Type Screw, M3 × 6
54	6630033	Counter Base
55	5101843	BSA Type Screw, M3 × 6
56	5101843	BSA Type Screw, M3 × 6
57	5430040	Tape Counter
58	5240523	Counter Retainer
59	5121340	S Type Washer, 3φ

Fig. 5-3

**Assembly**  
 In attachment of the capstan base ass'y, set the lifter arm and damper lever as illustrated first, and then tighten the screws.



- 1 ~ 20
- 21 ~ 40

5-2. Disassembly of Electrical Section

























Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	{ 5310090 5310131	004 Type Knob, playback volume (QD-5500) 004 Type Knob, playback volume (QD-5500S)	42	5101943	BSB Type Screw, M3 × 6	103	5101843	BSA Type Screw, M3 × 6
2	5180211	P Type Washer, playback volume (Nylor)	43	5101943	BSB Type Screw, M3 × 6	104	1170170	Lever Switch, mic/line
3	{ 5310102 5310142	005 Type Knob, playback volume (QD-5500) 005 Type Knob, playback volume (QD-5500S)	44	5040200	Reflector, VU meter	105	5101843	BSA Type Screw, M3 × 6
4	{ 5310090 5310131	004 Type Knob, playback volume (QD-5500) 004 Type Knob, playback volume (QD-5500S)	45	5110241	Hex. Nut, M3	106	5101843	BSA Type Screw, M3 × 6
5	5180211	P Type Washer, playback volume (Nylor)	46	5110241	Hex. Nut, M3	107	1170170	Lever Switch, mic/line
6	{ 5310102 5310142	005 Type Knob, playback volume (QD-5500) 005 Type Knob, playback volume (QD-5500S)	47	4300530	VU Meter Assy	108		Hex. Nut, record selector M7
7	6520012	Lever Switch Knob, playback selector	48	5110241	Hex. Nut, M3	109		P Type Washer, record selector 7φ
8	{ 5310112 5310152	006 Type Knob, rec bias (QD-5500) 006 Type Knob, rec bias (QD-5500S)	49	5110241	Hex. Nut, M3	110	1106080	Rotary Switch, record selector F-6-12-6
9	6520012	Lever Switch Knob, tope monitor	50	4300530	VU Meter Assy	111	5040190	Masking, jack
10	6520012	Lever Switch Knob, tope monitor	51	5110241	Hex. Nut, M3	112	5040190	Masking, jack
11	{ 5310120 5310160	007 Type Knob, rec volume (QD-5500) 007 Type Knob, rec volume (QD-5500S)	52	5110241	Hex. Nut, M3	113		Hex. Nut, microphone jack M12
12	6520012	Lever Switch Knob, mic/line	53	4300530	VU Meter Assy	114		P Type Washer, microphone jack 12φ
13	{ 5310120 5310160	007 Type Knob, rec volume (QD-5500) 007 Type Knob, rec volume (QD-5500S)	54	5110241	Hex. Nut, M3	115	2430170	Hex. Nut, microphone jack M12
14	6520012	Lever Switch Knob, mic/line	55	5110241	Hex. Nut, M3	116		Hex. Nut, microphone jack M12
15	{ 5310120 5310160	007 Type Knob, rec volume (QD-5500) 007 Type Knob, rec volume (QD-5500S)	56	4300530	VU Meter Assy	117	2430170	P Type Washer, microphone jack 12φ
16	6520012	Lever Switch Knob, mic/line	57		Hex. Nut, M3	118		Hex. Nut, microphone jack M12
17	{ 5310120 5310160	007 Type Knob, rec volume (QD-5500) 007 Type Knob, rec volume (QD-5500S)	58	1020190	P Type Washer, playback volume M11	119		Hex. Nut, microphone jack M12
18	6520012	Lever Switch Knob, mic/line	59	5040190	Masking, jack	120		P Type Washer, microphone jack 12φ
19	{ 5310112 5310152	006 Type Knob, master volume (QD-5500) 006 Type Knob, master volume (QD-5500S)	60	5040190	Masking, jack	121		Jack, microphone
20	{ 5310112 5310152	006 Type Knob, record selector (QD-5500) 006 Type Knob, record selector (QD-5500S)	61		Hex. Nut, headphone jack M12	122		Hex. Nut, microphone jack M12
21	5101943	BSB Type Screw, M3 × 6	62		Hex. Nut, headphone jack M12	123		P Type Washer, microphone jack 12φ
22	5101943	BSB Type Screw, M3 × 6	63		Hex. Nut, headphone jack M12	124	2430170	Jack, microphone
23	5101943	BSB Type Screw, M3 × 6	64	2430170	Hex. Nut, headphone jack M12	125	0400270	Pilot Lamp, lead type (6.3V 75mA)
24	5101943	BSB Type Screw, M3 × 6	65		P Type Washer, headphone jack 12φ	126	0400270	Pilot Lamp, lead type (6.3V 75mA)
25	5030101	Shield Plate (D)	66		Jack, headphone (Rear)	127	0400270	Pilot Lamp, lead type (6.3V 75mA)
26	5101945	BSB Type Screw, M3 × 10	67	2430170	Hex. Nut, playback volume 11φ	128	0400270	Pilot Lamp, lead type (6.3V 75mA)
27	3910190	Nylon Clip	68		P Type Washer, playback volume 11φ	129		Back Panel, amplifier
28	5101043	B Type Screw, M3 × 6	69	1020190	100Ω (A) × 2 Playback Volume (Rear)	130	5101943	BSB Type Screw, M3 × 6
29	5101043	B Type Screw, M3 × 6	70	5101843	BSA Type Screw, M3 × 6	131	5101943	BSB Type Screw, M3 × 6
30	5101043	B Type Screw, M3 × 6	71	5101843	BSA Type Screw, M3 × 6	132	5036083	Shield Plate (B)
31	5101043	B Type Screw, M3 × 6	72	1170210	Lever Switch, playback selector	133		Washer Head Tapping Screw, M3 × 8
32	5101043	B Type Screw, M3 × 6	73		Hex. Nut, rec bias selector M7	134	5166460	Washer Head Tapping Screw, M3 × 8
33	5101043	B Type Screw, M3 × 6	74	1102430	P Type Washer, rec bias selector M7	135	5166460	Washer Head Tapping Screw, M3 × 8
34	{ 5300250 5300350	Smoked Plate, amplifier (QD-5500) Smoked Plate, amplifier (QD-5500S)	75		Rotary Switch, rec bias selector F-2-8-2	136	5166460	Washer Head Tapping Screw, M3 × 8
35	6906151	Spring, smoked plate	76	5101843	BSA Type Screw, M3 × 6	137	7620050	Recording Circuit Board Assy G-1140C
36	6906151	Spring, smoked plate	77	5101843	BSA Type Screw, M3 × 6	138	5166460	Washer Head Tapping Screw, M3 × 8
37	{ 5300241 5300340	Front Panel (QD-5500) Front Panel (QD-5500S)	78	1170170	Lever Switch, tope monitor (Front)	139	5166460	Washer Head Tapping Screw, M3 × 8
38	5101862	BSA Type Screw, M4 × 8	79	5101843	BSA Type Screw, M3 × 6	140	5166460	Washer Head Tapping Screw, M3 × 8
39	5101862	BSA Type Screw, M4 × 8	80	5101843	BSA Type Screw, M3 × 6	141	5166460	Washer Head Tapping Screw, M3 × 8
40	5101862	BSA Type Screw, M4 × 8	81	1170210	Lever Switch, tope monitor (Rear)	142	7550440	Equalizer Circuit Board Assy G-1125D
41	5101862	BSA Type Screw, M4 × 8	82	5101843	BSA Type Screw, M3 × 6	143	5620071	Insulating Fiber (B)
			83	5101843	BSA Type Screw, M3 × 6	144	5620071	Insulating Fiber (B)
			84		Hex. Nut, rec volume M8	145	5166460	Washer Head Tapping Screw, M3 × 8
			85		P Type Washer, rec volume 8φ	146	5166460	Washer Head Tapping Screw, M3 × 8
			86		Hex. Nut, rec volume M8	147	5166460	Washer Head Tapping Screw, M3 × 8
			87		P Type Washer, rec volume 8φ	148	5166460	Washer Head Tapping Screw, M3 × 8
			88		Hex. Nut, rec volume M8	149	7690110	Line, Headphones, Meter Circuit Board
			89		P Type Washer, rec volume 8φ	150	5620060	Ass'y G-1124D
			90		Hex. Nut, rec volume M8	151	5620060	Insulating Fiber (B)
			91		P Type Washer, rec volume 8φ	152	5101843	Insulating Fiber (B)
			92		Hex. Nut, Washer, rec volume 8φ	153	5101843	BSA Type Screw, M3 × 6 (BLK)
			93		P Type Washer, rec volume 8φ	154	5101843	BSA Type Screw, M3 × 6 (BLK)
			94	7610040	Mic. Volume, Recording Circuit Board Assy G-1085G	155	5101843	BSA Type Screw, M3 × 6 (BLK)
			95	5240650	Bracket, p.c board	156	5101043	B Type Screw, M3 × 6
			96	5101843	BSA Type Screw, M3 × 6	157	5101043	B Type Screw, M3 × 6
			97	5101843	BSA Type Screw, M3 × 6	158	7600030	Oscillator Circuit Board Assy G-1086G
			98	1170170	Lever Switch, mic/line	159	5230351	Prop. p.c board
			99	5101843	BSA Type Screw, M3 × 6	160		Prop. p.c board
			100	5101843	BSA Type Screw, M3 × 6	161		Side Frame (L)
			101	1170170	Lever Switch, mic/line	162	5101843	BSA Type Screw, M3 × 6
			102	5101843	BSA Type Screw, M3 × 6	163	5101843	BSA Type Screw, M3 × 6
						164	5101043	B Type Screw, M3 × 6
						165	5101043	B Type Screw, M3 × 6
						166	5101843	BSB Type Screw, M3 × 6
						167	5220320	Bracketed, p.c board
						168	5101843	BSB Type Screw, M3 × 6
						169	5220320	Bracketed, p.c board
						170	7690090	Crosstalk Canceler Circuit Board Assy G-1134B
						171		Back Plate, amplifier
						172	5101843	BSA Type Screw, M3 × 3
						173	3910040	Snap Beads Band
						174	3910040	Snap Beads Band
						175	3910040	Snap Beads Band
						176		Front Plate, amplifier
						177	5101143	B Type Screw, M3 × 6
						178	5101143	B Type Screw, M3 × 5
						179	5101143	B Type Screw, M3 × 6
						180	5101143	B Type Screw, M3 × 6
						181	7710040	Terminal Board Assy
						182		Side Frame (R)

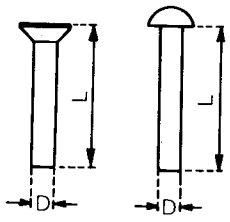
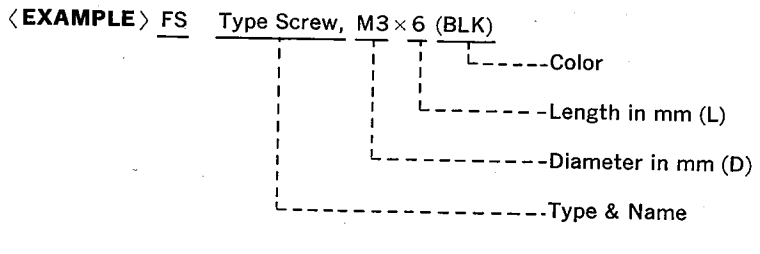
**5-1. Removal of Mechanism and Electrical Section**

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	5104068	O Type Screw, M4 × 20 (BLK)	60	5120241	P Type Washer, 3 × 8 × 0.5 (BLK)
2	5123160	C Type Washer, 4φ (BLK)	61	5140218	RH Type Screw, M2.7 × 13 (BLK)
3	5104068	O Type Screw, M4 × 20 (BLK)	62	5120241	P Type Washer, 3 × 8 × 0.5 (BLK)
4	5123160	C Type Washer, 4φ (BLK)	63	5140218	RH Type Screw, M2.7 × 13 (BLK)
5	5104068	O Type Screw, M4 × 20 (BLK)	64	5120241	P Type Washer, 3 × 8 × 0.5 (BLK)
6	5123160	C Type Washer, 4φ (BLK)	65	5140218	RH Type Screw, M2.7 × 13 (BLK)
7	5104068	O Type Screw, M4 × 20 (BLK)	66	5120241	P Type Washer, 3 × 8 × 0.5 (BLK)
8	5123160	C Type Washer, 4φ (BLK)	67	5140218	RH Type Screw, M2.7 × 13 (BLK)
9		Electrical Section	68	5120241	P Type Washer, 3 × 8 × 0.5 (BLK)
10	5160191	Pin, dust cover	69	5140218	RH Type Screw, M2.7 × 13 (BLK)
11	5180080	P Type Washer, 3φ (Mylar)	70	5120241	P Type Washer, 3 × 8 × 0.5 (BLK)
12	5104044	O Type Screw, M3 × 8 (BLK)	71	5140218	RH Type Screw, M2.7 × 13 (BLK)
13	{5123140	C Type Washer, 3φ (BLK) (QD-5500)	72	5120241	P Type Washer, 3 × 8 × 0.5 (BLK)
	{5123042	C Type Washer, 3φ (QD-5500S)	73	5140218	RH Type Screw, M2.7 × 13 (BLK)
14	5180080	P Type Washer, 3φ (Mylar)	74	5120241	P Type Washer, 3 × 8 × 0.5 (BLK)
15	5104044	O Type Screw, M3 × 8 (BLK)	75	5101144	B Type Screw, M3 × 8 (BLK)
16	{5123140	C Type Washer, 3φ (BLK) (QD-5500)	76	5101144	B Type Screw, M3 × 8 (BLK)
	{5123042	C Type Washer, 3φ (QD-5500S)	77	5101144	B Type Screw, M3 × 8 (BLK)
17	5180080	P Type Washer, 3φ (Mylar)	78	5920020	Pipe Duct (B)
18	5160191	Pin, dust cover	79	5740171	Rear Cover
19	5180080	P Type Washer, 3φ (Mylar)	80	5140049	RH Type Screw, M3.8 × 20
20	5152009	C Type Ring, 14φ	81	5516130	Rubber Foot
21	5390010	Push Button Ring	82	5140049	RH Type Screw, M3.8 × 20
22	5152009	C Type Ring, 14φ	83	5516130	Rubber Foot
23	5390010	Push Button Ring	84	5140049	RH Type Screw, M3.8 × 20
24	5152009	C Type Ring, 14φ	85	5516130	Rubber Foot
25	5390010	Push Button Ring	86	5140049	RH Type Screw, M3.8 × 20
26	5170070	Speed Nut, 3φ	87	5516130	Rubber Foot
27	5426140	Indicator	88	5140203	RH Type Screw, M2.7 × 13
28	5186131	Indicator Ring	89	5140203	RH Type Screw, M2.7 × 13
29	5170070	Speed Nut, 3φ	90	5140203	RH Type Screw, M2.7 × 13
30	5426140	Indicator	91	5140203	RH Type Screw, M2.7 × 13
31	5186131	Indicator Ring	92	5140203	RH Type Screw, M2.7 × 13
32	5152009	C Type Ring, 14φ	93	5140203	RH Type Screw, M2.7 × 13
33	5390010	Push Button Ring	94	5050102	Sash
34	{6600042	Dress Panel (QD-5500)	95	5740191	Cabinet
	{6600050	Dress Panel (QD-5500S)			
35	5104044	O Type Screw, M3 × 8 (BLK)			
36	5123140	C Type Washer, 3φ (BLK)			
37	5180080	P Type Washer, 3φ (Mylar)			
38	5104044	O Type Screw, M3 × 8 (BLK)			
39	5123140	C Type Washer, 3φ (BLK)			
40	5180080	P Type Washer, 3φ (Mylar)			
41	5300290	Sub Panel (QD-5500S)			
42	5160200	BSB Type Screw, M4 × 25 (Dog Point 5)			
43	5160200	BSB Type Screw, M4 × 25 (Dog Point 5)			
44	5160200	BSB Type Screw, M4 × 25 (Dog Point 5)			
45	5160200	BSB Type Screw, M4 × 25 (Dog Point 5)			
46	5160200	BSB Type Screw, M4 × 25 (Dog Point 5)			
47	5160200	BSB Type Screw, M4 × 25 (Dog Point 5)			
48	5160200	BSB Type Screw, M4 × 25 (Dog Point 5)			
49	5160200	BSB Type Screw, M4 × 25 (Dog Point 5)			
50		Mechanism Section			
51	5140049	RH Type Screw, M3.8 × 20			
52	5516130	Rubber Foot			
53	5140049	RH Type Screw, M3.8 × 20			
54	5516130	Rubber Foot			
55	5140049	RH Type Screw, M3.8 × 20			
56	5516130	Rubber Foot			
57	5140049	RH Type Screw, M3.8 × 20			
58	5516130	Rubber Foot			
59	5140218	RH Type Screw, M2.7 × 13 (BLK)			

# 5. DISASSEMBLY WITH EXPLODED VIEWS AND PARTS LIST

## Hardware Nomenclature

	Name	Abbreviation	Type
<b>SCREW</b>	Pan Head Screw .....	<b>P</b>	
	Binding Head Screw .....	<b>B</b>	
	Binding Head Screw (Dog Point).....	<b>BD</b>	
	Round Head Screw .....	<b>R</b>	
	Flat Countersunk Head Screw.....	<b>F</b>	
	Flat Countersunk Head SEMS Screw (E-Type).....	<b>FSE</b>	
	Oval Countersunk Head Screw .....	<b>O</b>	
	Flat Fillister Screw .....	<b>FS</b>	
	Binding Head SEMS Screw (A Type) .....	<b>BSA</b>	
	Binding Head SEMS Screw (B Type) .....	<b>BSB</b>	
	Binding Head SEMS Screw (C Type) .....	<b>BSC</b>	
	Pan Head Tapping Screw .....	<b>PT</b>	
	Oval Countersunk Wood Screw .....	<b>OC</b>	
	Flat Countersunk Wood Screw.....	<b>FC</b>	
	Round Head Wood Screw .....	<b>RH</b>	
<b>SETSCREW</b>	Hex Socket Setscrew (Flat Point) .....	<b>SF</b>	
	Hex Socket Setscrew (Cone Point).....	<b>SC</b>	
	Slot Type Setscrew .....	<b>SS</b>	
<b>WASHER</b>	Retaining Ring (E Washer) .....	<b>E</b>	
	Plane Washer .....	<b>P</b>	
	Spring Washer .....	<b>S</b>	
	Corrugated Washer .....	<b>C</b>	
	Toothed Lock Washer (Internal) .....	<b>TLI</b>	
	Toothed Lock Washer (External).....	<b>TLE</b>	



All screws conform to ISO standards, unless otherwise noted.



#### 4-7. Crosstalk Canceler Adjustment (See Fig. 4-5)

- Always proceed this adjustment after replacement of the playback head.
- Connect a VTVM to the LINE OUT of FRONT (L, R-CH).
- 1) Thread the demagnetized LH tape. Set the REC BIAS switch to HIGH and RECORD SELECTOR switch to 2-CH.
- 2) Set the tape counter to "0000". Supply 1,000 Hz 220 mV sine wave to the LINE-1 (FRONT) terminals and set the unit in the record mode.
- 3) When the tape counter reads "0015", push the STOP button and then set the unit in the reverse play back.
- 4) Adjust the VR701 and VR702 (200 kΩ-B for R-CH) and VR703 (200 kΩ-B for L-CH) on G-1134B for the minimum indication at the VTVM.

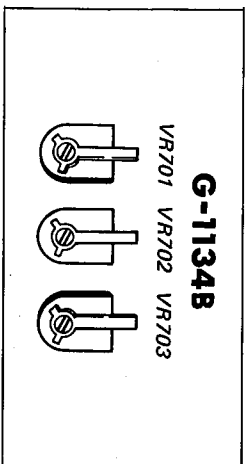


Fig. 4-5

#### 4-8. Head Adjustment

- The quality of the unit depends upon the very critical adjustment of heads.

##### 4-8-1. Preliminary Adjustment (See Fig. 4-6)

- Run a tape in the forward direction at 9.5 cm/sec (3 3/4 ips), adjust the screws as shown in Fig. 4-6 for the followings.
- 1) The surface of tape should contact closely in parallel with that of head.
- 2) After adjustment, make sure that the surfaces of heads are parallel with that of tape guides, viewed from the side.

##### 4-8-2. 4-Channel Playback Head Adjustment (See Fig. 4-6)

- Clean and demagnetize the heads before adjustment.
- Tape Speed ..... 19 cm/sec (7 1/2 ips).
- Connect a VTVM to the LINE OUT of FRONT (L, R-CH).
- Thread the test tape (AMPEX standard tape 01-31321-01) recorded 700 Hz and 15 kHz. Set the unit in the forward play back mode.
- 1) Tracking Adjustment  
In the playback of 700 Hz, adjust J, L, M in Fig. 4-6 for the maximum indication at the VTVM.
- 2) Azimuth Adjustment  
In the playback of 15 kHz, adjust K, N in Fig. 4-6 for the maximum indication at the VTVM.
- \* Within ±1.5 dB of the maximum output difference.
- \* Apply locking paint to the adjusting screws after adjustment.

##### 4-8-3. 4-CH Recording Head Adjustment (See Fig. 4-6)

- Tape Speed ..... 19 cm/sec (7 1/2 ips)
- Connect a VTVM to the LINE OUT of FRONT (L, R-CH) and REAR (L, R-CH).
- Set the RECORD SELECTOR switch to 4-CH.
- Supply 1,000 Hz 7mV output from an audio signal generator to the LINE-1 (FRONT, REAR) terminals. Set the unit in the record mode.
- 1) Tracking Adjustment  
Adjust E, G, H in Fig. 4-6 for the maximum indication at the VTVM.
- 2) Azimuth Adjustment  
Change the output frequency to 15 kHz. Adjust F, I in Fig. 4-6 for the maximum indication at the VTVM.
- \* Within ±1.5 dB of the maximum output difference.
- \* Apply locking paint to the adjusting screws after adjustment.

##### 4-8-4. 4-CH Erase Head Adjustment (See Fig. 4-6)

- Connect a VTVM to the LINE OUT of FRONT (L, R-CH) and REAR (L, R-CH).
- Set the CHANNEL SELECTOR switch to 4-CH.
- 1) Set the tape counter to "0000". Supply 1,000 Hz 7V signal to the LINE-1 (FRONT, REAR) terminals and set the unit in the record mode. When the tape counter reads "0015", push the STOP button and then push the REVERSE button to obtain the tape counter "0000".
- 2) Disconnect the input signal from LINE-1 (FRONT, REAR) terminals and set the unit in the record mode until the tape counter reads "0015", or more.
- 3) Adjust A, B, C, D in Fig. 4-6 for the minimum indication at the VTVM.
- \* Apply locking paint to the adjusting screws after adjustment.

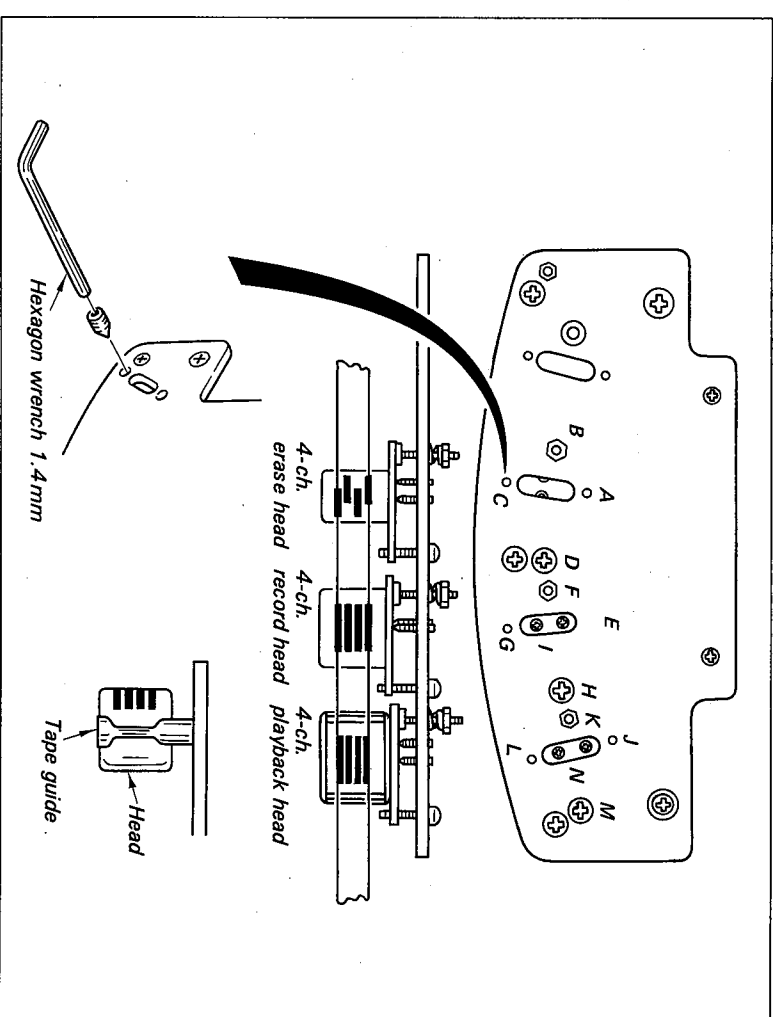
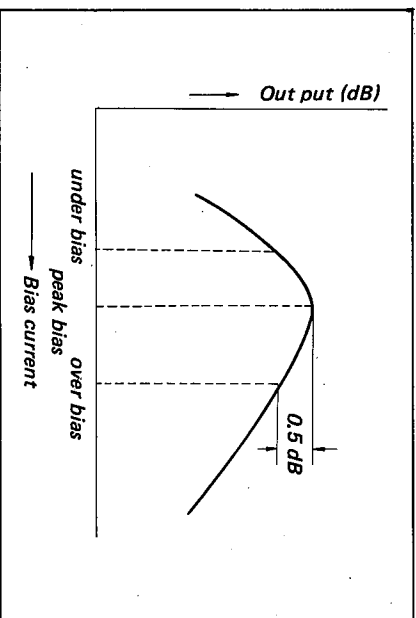


Fig. 4-6

- 3) By gradually turning clockwise, adjust VR417 (50kΩ-B for front L-CH), VR418 (50kΩ-B for front R-CH), VR419 (50kΩ-B for rear L-CH) and VR420 (50kΩ-B for rear R-CH) on G-1140C for a maximum reading of the output level.
- 4) Then, turn the VR417, VR418, VR419 and VR420 clockwise until a decrease of 0.5 dB between the peak bias and over bias is obtained.



#### 4-4-2. Standard Tape

- 1) Thread the standard tape. Set the REC BIAS switch to STANDARD and CHANNEL SELECTOR switch to 4-CH.
- 2) Connect 1,000Hz 70mV output from an audio signal generator to the LINE-1 (FRONT, REAR) terminals. Set the unit in the record mode.
- 3) By gradually turning clockwise, adjust VR413 (50kΩ-B for front L-CH), VR414 (50kΩ-B for front R-CH), VR415 (50kΩ-B for rear L-CH) and VR416 (50kΩ-B for rear R-CH) on G-1140C for a maximum output level.

#### 4-5. Record Input Level Adjustment (See Fig. 4-4)

- o Connect a VTVM to the LINE OUT of FRONT (L, R-CH) and REAR (L, R-CH).

##### 4-5-1. LH Tape

- 1) Thread the LH tape. Set the REC BIAS switch to HIGH, RECORD SELECTOR switch to 4-CH and TAPE MONITOR switch to SOURCE (FRONT, REAR).
- 2) Supply 1,000Hz 70 mV sine wave from an audio signal generator to the LINE-1 (FRONT, REAR) terminals and set the unit in the record mode. Read the output voltage at the VTVM.
- 3) Set the TAPE MONITOR switch to PLAYBACK (FRONT, REAR) and adjust the VR409 (50kΩ-B for front L-CH), VR410 (50kΩ-B for front R-CH), VR411 (50kΩ-B for rear L-CH) and VR412 (50kΩ-B for rear R-CH) on G-1140C until an increase of 2dB is ob-

tained that the previously measured one at the step 2).

##### 4-5-2. Standard Tape

- 1) Thread the standard tape. Set the REC BIAS switch to STANDARD, CHANNEL SELECTOR switch to 4-CH and TAPE MONITOR switch to SOURCE (FRONT, REAR).
- 2) Supply 1,000Hz 70mV sine wave to the LINE-1 (FRONT, REAR) terminals and set the unit in the record mode. Read the output voltage at the VTVM.
- 3) Set the TAPE MONITOR switch to PLAYBACK (FRONT, REAR) and adjust the VR405 (200kΩ-B for front L-CH), VR406 (200kΩ-B for front R-CH), VR407 (200kΩ-B for rear L-CH) and VR408 (200kΩ-B for rear R-CH) on G-1140C until the reading of the VTVM is equal to the previously measured one at the step 2).

#### 4-6. Recording/Playback Equalizing Adjustment (See Fig. 4-4)

- o Connect a VTVM to the LINE OUT of FRONT (L, R-CH) and REAR (L, R-CH).

##### 4-6-1. 19 cm/sec (7½ ips)

- 1) Thread the LH tape. Set the REC BIAS switch to HIGH and RECORD SELECTOR switch to 4-CH.
- 2) Supply 1,000 Hz 7 mV output from an audio signal generator to the LINE-1 (FRONT, REAR) terminals. Set the unit in the record mode and read the output level of 1,000 Hz.
- 3) Change the frequency from 1,000 Hz to the 20kHz and adjust L405 (front L-CH), L406 (front R-CH), L407 (rear L-CH) and L408 (rear R-CH) on G-1140C so that the 20kHz output level equal to that of 1,000 Hz.
- 4) Set the output level from the audio signal generator to 7 mV, select the frequency to 20 Hz, 50 Hz, 100 Hz, 1,000 Hz, 5 kHz, 10 kHz, 15 kHz and 20 kHz. Make sure the VTVM reading at each frequency point is within ±3 dB, as compared with the level at 1,000 Hz.

##### 4-6-2. 9.5 cm/sec (3¾ ips)

- 1) Set the output level from an audio signal generator to 7mV, select the frequency to 30 Hz, 100 Hz, 1,000 Hz, 5 kHz and 10 kHz. Make sure the reading at each frequency point is within ±3 dB, as compared with the level at 1,000 Hz.

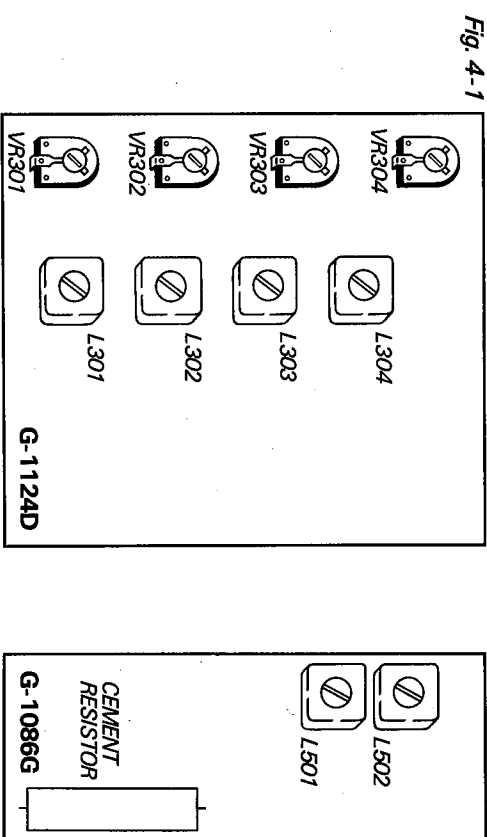


Fig. 4-2

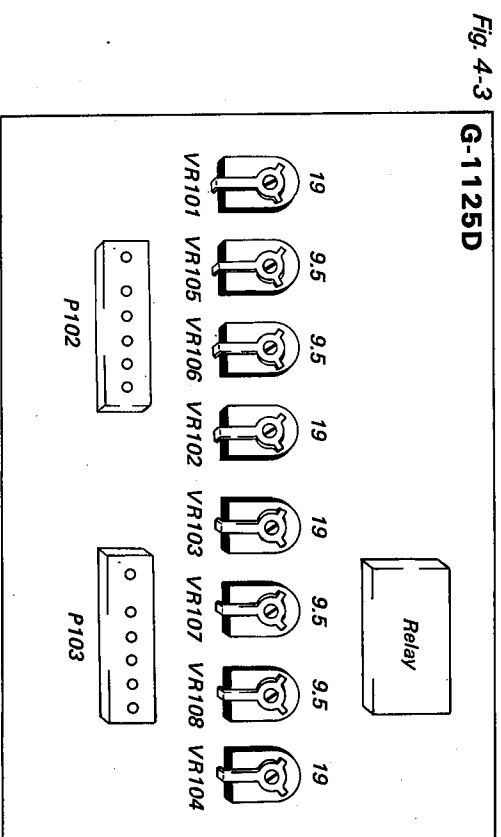


Fig. 4-3

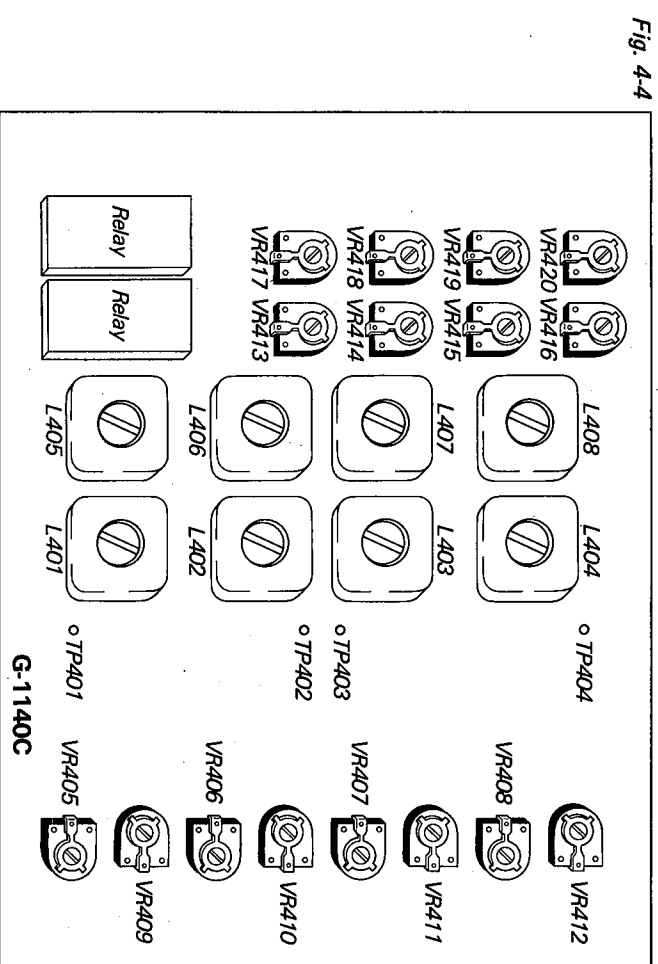


Fig. 4-4

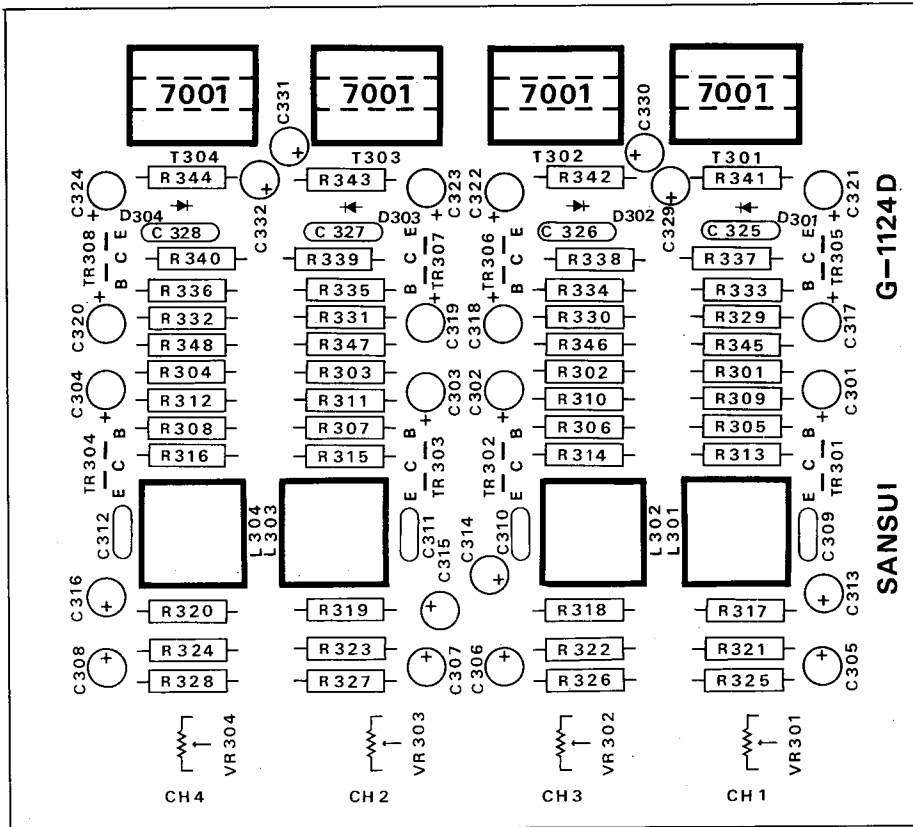
### Parts List

Parts No.	Stock No.	Description
	2550340	Equalizer Circuit Board G-1125D
R101	0107152	1.5kΩ ¼W C. Resistor
R102	0107152	1.5kΩ ¼W C. Resistor
R103	0107152	1.5kΩ ¼W C. Resistor
R104	0107152	1.5kΩ ¼W C. Resistor
R105	0107224	220kΩ ¼W C. Resistor
R106	0107224	220kΩ ¼W C. Resistor
R107	0107224	220kΩ ¼W C. Resistor
R108	0107224	220kΩ ¼W C. Resistor
R109	0107224	220kΩ ¼W C. Resistor
R110	0107224	220kΩ ¼W C. Resistor
R111	0107224	220kΩ ¼W C. Resistor
R112	0107224	220kΩ ¼W C. Resistor
R113	0107221	220Ω ¼W C. Resistor
R114	0107221	220Ω ¼W C. Resistor
R115	0107221	220Ω ¼W C. Resistor
R116	0107221	220Ω ¼W C. Resistor
R117	0107684	680kΩ ¼W C. Resistor
R118	0107684	680kΩ ¼W C. Resistor
R119	0107684	680kΩ ¼W C. Resistor
R120	0107684	680kΩ ¼W C. Resistor
R121	0107824	820kΩ ¼W C. Resistor
R122	0107824	820kΩ ¼W C. Resistor
R123	0107824	820kΩ ¼W C. Resistor
R124	0107824	820kΩ ¼W C. Resistor
R125	0107682	6.8kΩ ¼W C. Resistor
R126	0107682	6.8kΩ ¼W C. Resistor
R127	0107682	6.8kΩ ¼W C. Resistor
R128	0107682	6.8kΩ ¼W C. Resistor
R129	0107223	22kΩ ¼W C. Resistor
R130	0107223	22kΩ ¼W C. Resistor
R131	0107223	22kΩ ¼W C. Resistor
R132	0107223	22kΩ ¼W C. Resistor
R133	0107152	1.5kΩ ¼W C. Resistor
R134	0107152	1.5kΩ ¼W C. Resistor
R135	0107152	1.5kΩ ¼W C. Resistor
R136	0107152	1.5kΩ ¼W C. Resistor
R137	0107682	6.8kΩ ¼W C. Resistor
R138	0107682	6.8kΩ ¼W C. Resistor
R139	0107682	6.8kΩ ¼W C. Resistor
R140	0107682	6.8kΩ ¼W C. Resistor
R141	0107474	470kΩ ¼W C. Resistor
R142	0107474	470kΩ ¼W C. Resistor
R143	0107474	470kΩ ¼W C. Resistor
R144	0107474	470kΩ ¼W C. Resistor
C101	0572159	1.5μF 16V Tantalum Capacitor
C102	0572159	1.5μF 16V Tantalum Capacitor
C103	0572159	1.5μF 16V Tantalum Capacitor
C104	0572159	1.5μF 16V Tantalum Capacitor
C105	0660101	100pF 50V Ceramic Capacitor
C106	0660101	100pF 50V Ceramic Capacitor
C107	0660101	100pF 50V Ceramic Capacitor
C108	0660101	100pF 50V Ceramic Capacitor
C109	0660680	68pF 50V Ceramic Capacitor
C110	0660680	68pF 50V Ceramic Capacitor
C111	0660680	68pF 50V Ceramic Capacitor
C112	0660680	68pF 50V Ceramic Capacitor
C113	0600476	0.0047μF 50V Mylar Capacitor
C114	0600476	0.0047μF 50V Mylar Capacitor
C115	0600476	0.0047μF 50V Mylar Capacitor
C116	0600476	0.0047μF 50V Mylar Capacitor

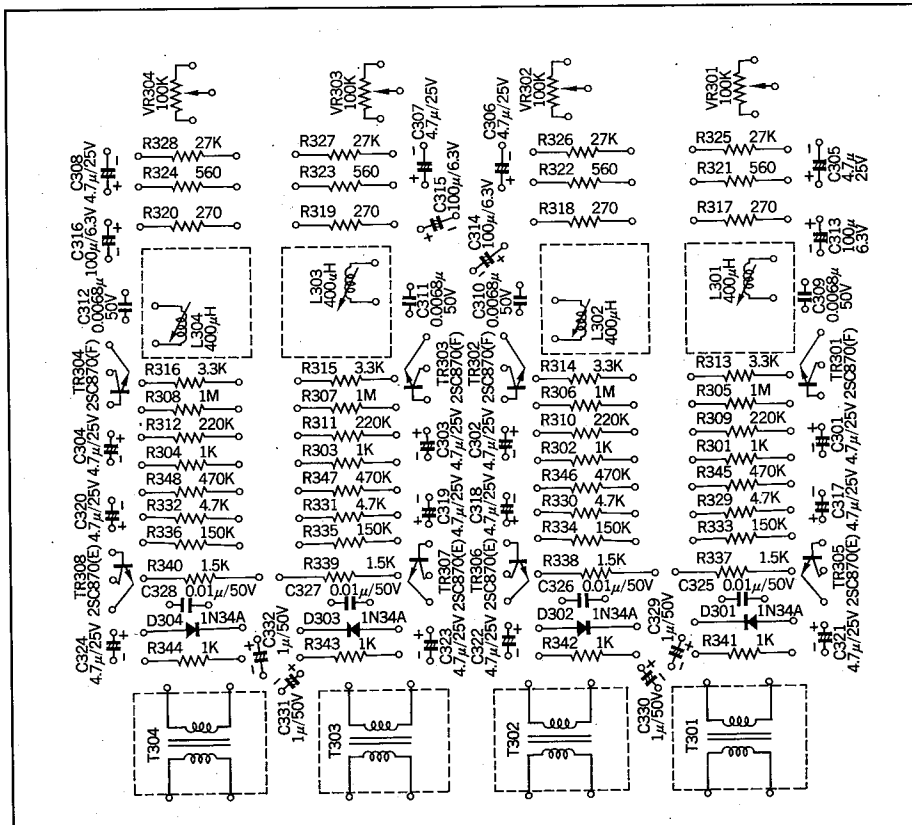
Parts No.	Stock No.	Description
C117	0513100	10μF 25V El. Capacitor
C118	0513100	10μF 25V El. Capacitor
C119	0513100	10μF 25V El. Capacitor
C120	0513100	10μF 25V El. Capacitor
C121	0513479	4.7μF 25V El. Capacitor
C122	0513479	4.7μF 25V El. Capacitor
C123	0513479	4.7μF 25V El. Capacitor
C124	0513479	4.7μF 25V El. Capacitor
C125	0513479	4.7μF 25V El. Capacitor
C126	0513479	4.7μF 25V El. Capacitor
C127	0513479	4.7μF 25V El. Capacitor
C128	0513479	4.7μF 25V El. Capacitor
C129	0601106	0.001μF 50V Mylar Capacitor
TR101	0305475	2SC871R (F) Transistor
TR102	0305475	2SC871R (F) Transistor
TR103	0305475	2SC871R (F) Transistor
TR104	0305475	2SC871R (F) Transistor
TR105	0305310	2SC458LG (B) Transistor
TR106	0305310	2SC458LG (B) Transistor
TR107	0305310	2SC458LG (B) Transistor
TR108	0305310	2SC458LG (B) Transistor
TR109	0305111, 2	2SC458 (B, C) Transistor
TR110	0305111, 2	2SC458 (B, C) Transistor
TR111	0305111, 2	2SC458 (B, C) Transistor
TR112	0305111, 2	2SC458 (B, C) Transistor
VR101	1032102	10kΩ (B) Semi-Variable Resistor (flat type)
VR102	1032102	10kΩ (B) Semi-Variable Resistor (flat type)
VR103	1032102	10kΩ (B) Semi-Variable Resistor (flat type)
VR104	1032102	10kΩ (B) Semi-Variable Resistor (flat type)
VR105	1032122	20kΩ (B) Semi-Variable Resistor (flat type)
VR106	1032122	20kΩ (B) Semi-Variable Resistor (flat type)
VR107	1032122	20kΩ (B) Semi-Variable Resistor (flat type)
VR108	1032122	20kΩ (B) Semi-Variable Resistor (flat type)
RL101	1150240	RMK-116S 42V Relay
P101	2410430	Mini-Connector 6P
P102	2410430	Mini-Connector 6P
P103	2410430	Mini-Connector 6P

### 6-2. G-1124D Line Headphone, Meter Circuit Board (Stock No. 7690110 Complete Circuit Board G-1124D)

Component Side



Conductor Side



2SC870E



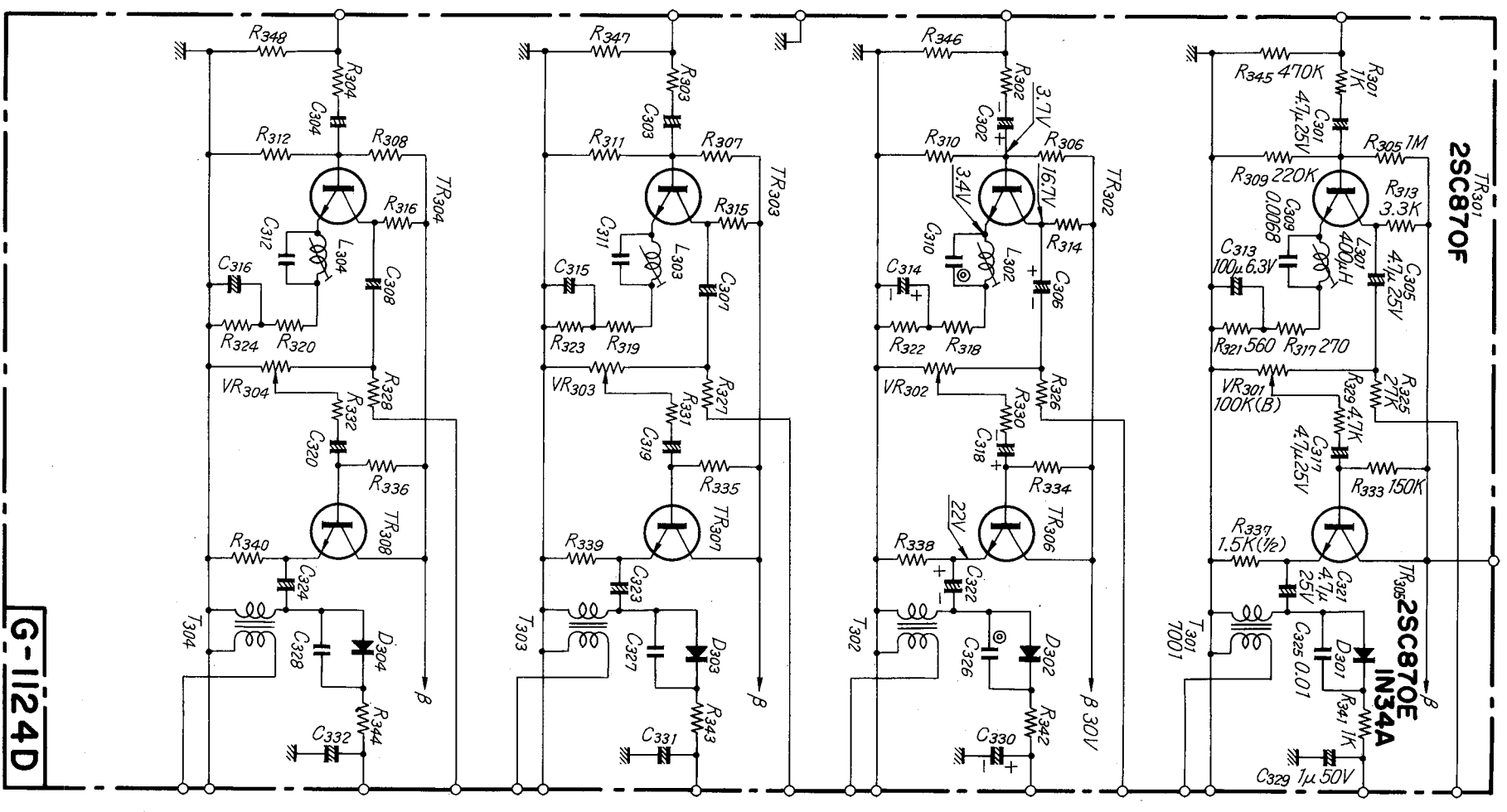
1N34A



Resistor: Carbon Resistor.....C. Resistor  
 Capacitor: Electrolytic Capacitor .....EL. Capacitor

QD-5500 • QD-5500S **Sunstar!**

**Schematic Diagram**



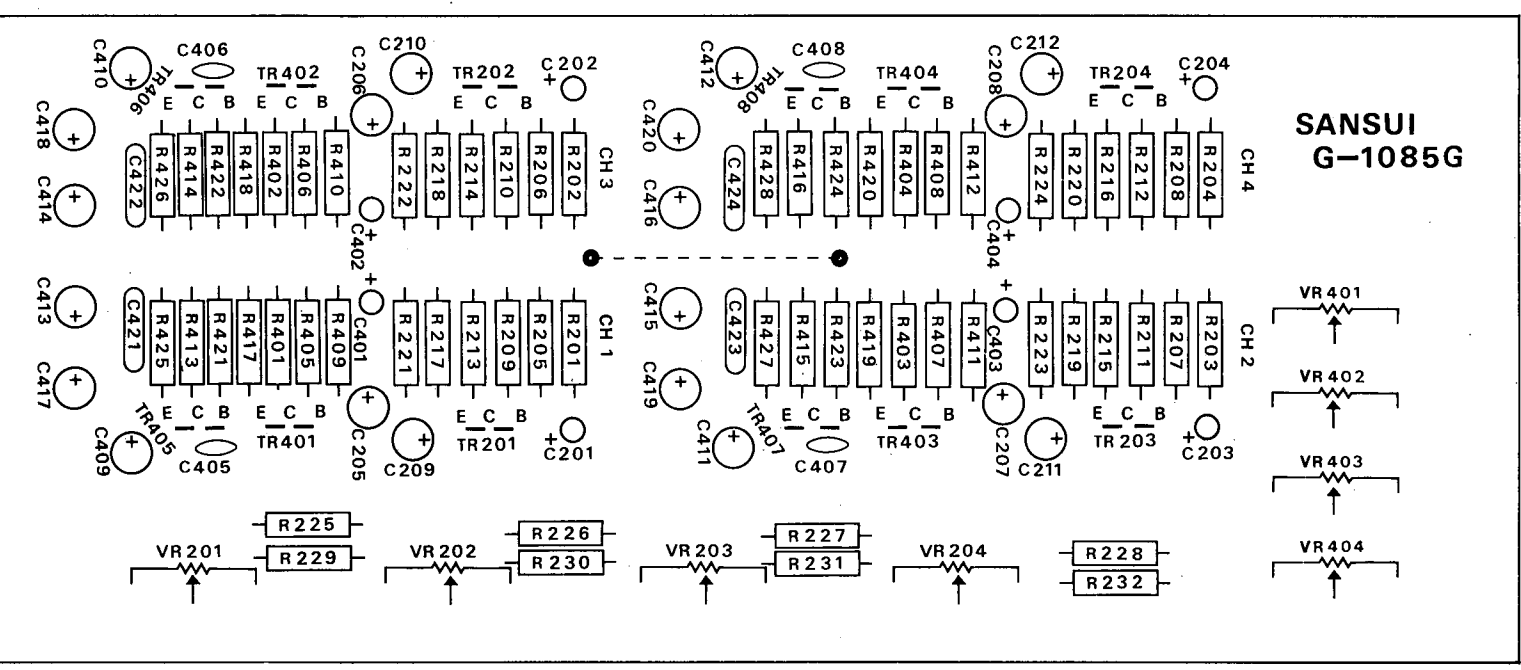
**G-1124D**

**Parts List**

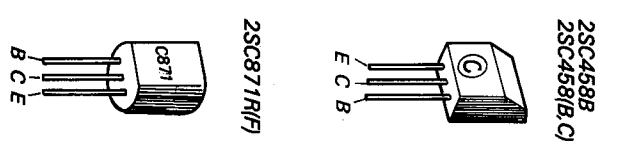
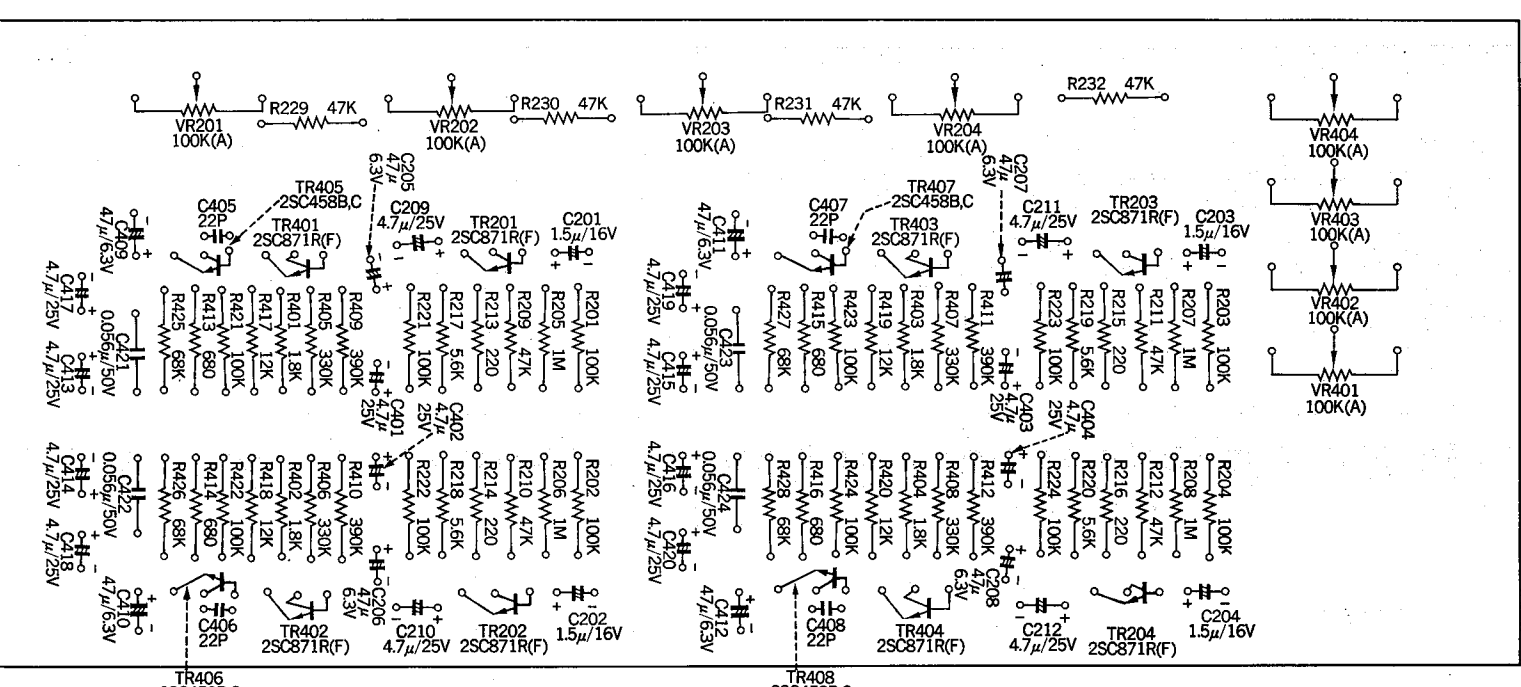
Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
	2690110	Line, Headphones, Meter Circuit Board			
R301	0107102	1K $\Omega$ 1/4W C. Resistor	C312	0601686	0.0068 $\mu$ F 50V Mylar Capacitor
R302	0107102	1K $\Omega$ 1/4W C. Resistor	C313	0510101	100 $\mu$ F 6.3V EL. Capacitor
R303	0107102	1K $\Omega$ 1/4W C. Resistor	C314	0510101	100 $\mu$ F 6.3V EL. Capacitor
R304	0107102	1K $\Omega$ 1/4W C. Resistor	C315	0510101	100 $\mu$ F 6.3V EL. Capacitor
R305	0107105	1M $\Omega$ 1/4W C. Resistor	C316	0510101	100 $\mu$ F 6.3V EL. Capacitor
R306	0107105	1M $\Omega$ 1/4W C. Resistor	C317	0513479	4.7 $\mu$ F 25V EL. Capacitor
R307	0107105	1M $\Omega$ 1/4W C. Resistor	C318	0513479	4.7 $\mu$ F 25V EL. Capacitor
R308	0107105	1M $\Omega$ 1/4W C. Resistor	C319	0513479	4.7 $\mu$ F 25V EL. Capacitor
R309	0107224	220K $\Omega$ 1/4W C. Resistor	C320	0513479	4.7 $\mu$ F 25V EL. Capacitor
R310	0107224	220K $\Omega$ 1/4W C. Resistor	C321	0513479	4.7 $\mu$ F 25V EL. Capacitor
R311	0107224	220K $\Omega$ 1/4W C. Resistor	C322	0513479	4.7 $\mu$ F 25V EL. Capacitor
R312	0107224	220K $\Omega$ 1/4W C. Resistor	C323	0513479	4.7 $\mu$ F 25V EL. Capacitor
R313	0107332	3.3K $\Omega$ 1/4W C. Resistor	C324	0513479	4.7 $\mu$ F 25V EL. Capacitor
R314	0107332	3.3K $\Omega$ 1/4W C. Resistor	C325	0601107	0.01 $\mu$ F 50V Mylar Capacitor
R315	0107332	3.3K $\Omega$ 1/4W C. Resistor	C326	0601107	0.01 $\mu$ F 50V Mylar Capacitor
R316	0107332	3.3K $\Omega$ 1/4W C. Resistor	C327	0601107	0.01 $\mu$ F 50V Mylar Capacitor
R317	0107271	270 $\Omega$ 1/4W C. Resistor	C328	0515109	1 $\mu$ F 50V EL. Capacitor
R318	0107271	270 $\Omega$ 1/4W C. Resistor	C329	0515109	1 $\mu$ F 50V EL. Capacitor
R319	0107271	270 $\Omega$ 1/4W C. Resistor	C330	0515109	1 $\mu$ F 50V EL. Capacitor
R320	0107271	270 $\Omega$ 1/4W C. Resistor	C331	0515109	1 $\mu$ F 50V EL. Capacitor
R321	0107561	560 $\Omega$ 1/4W C. Resistor	C332	0515109	1 $\mu$ F 50V EL. Capacitor
R322	0107561	560 $\Omega$ 1/4W C. Resistor	TR301	0305511	25C870 (F) Transistor
R323	0107561	560 $\Omega$ 1/4W C. Resistor	TR302	0305511	25C870 (F) Transistor
R324	0107561	560 $\Omega$ 1/4W C. Resistor	TR303	0305511	25C870 (F) Transistor
R325	0107273	27K $\Omega$ 1/4W C. Resistor	TR304	0305511	25C870 (F) Transistor
R326	0107273	27K $\Omega$ 1/4W C. Resistor	TR305	0305510	25C870 (E) Transistor
R327	0107273	27K $\Omega$ 1/4W C. Resistor	TR306	0305510	25C870 (E) Transistor
R328	0107273	27K $\Omega$ 1/4W C. Resistor	TR307	0305510	25C870 (E) Transistor
R329	0107472	47K $\Omega$ 1/4W C. Resistor	TR308	0305510	25C870 (E) Transistor
R330	0107472	47K $\Omega$ 1/4W C. Resistor	D301	0310400	1N34A Diode
R331	0107472	47K $\Omega$ 1/4W C. Resistor	D302	0310400	1N34A Diode
R332	0107472	47K $\Omega$ 1/4W C. Resistor	D303	0310400	1N34A Diode
R333	0107154	150K $\Omega$ 1/4W C. Resistor	D304	0310400	1N34A Diode
R334	0107154	150K $\Omega$ 1/4W C. Resistor	VR301	1032142	100K $\Omega$ (B) Semi-Variable Resistor (flat type)
R335	0107154	150K $\Omega$ 1/4W C. Resistor	VR302	1032142	100K $\Omega$ (B) Semi-Variable Resistor (flat type)
R336	0107154	150K $\Omega$ 1/4W C. Resistor	VR303	1032142	100K $\Omega$ (B) Semi-Variable Resistor (flat type)
R337	0103152	1.5K $\Omega$ 1/2W C. Resistor	VR304	1032142	100K $\Omega$ (B) Semi-Variable Resistor (flat type)
R338	0103152	1.5K $\Omega$ 1/2W C. Resistor			
R339	0103152	1.5K $\Omega$ 1/2W C. Resistor			
R340	0103152	1.5K $\Omega$ 1/2W C. Resistor			
R341	0107102	1K $\Omega$ 1/4W C. Resistor			
R342	0107102	1K $\Omega$ 1/4W C. Resistor			
R343	0107102	1K $\Omega$ 1/4W C. Resistor			
R344	0107102	1K $\Omega$ 1/4W C. Resistor	L301	4290190	400 $\mu$ H Coil
R345	0107474	470K $\Omega$ 1/4W C. Resistor	L302	4290190	400 $\mu$ H Coil
R346	0107474	470K $\Omega$ 1/4W C. Resistor	L303	4290190	400 $\mu$ H Coil
R347	0107474	470K $\Omega$ 1/4W C. Resistor	L304	4290190	400 $\mu$ H Coil
R348	0107474	470K $\Omega$ 1/4W C. Resistor	T301	4100120	Headphone Transformer
			T302	4100120	Headphone Transformer
			T303	4100120	Headphone Transformer
			T304	4100120	Headphone Transformer

6-3. G-1085G Mic, Volume, Recording Circuit Board  
(Stock No. 7610040 Complete Circuit Board G-1085G)

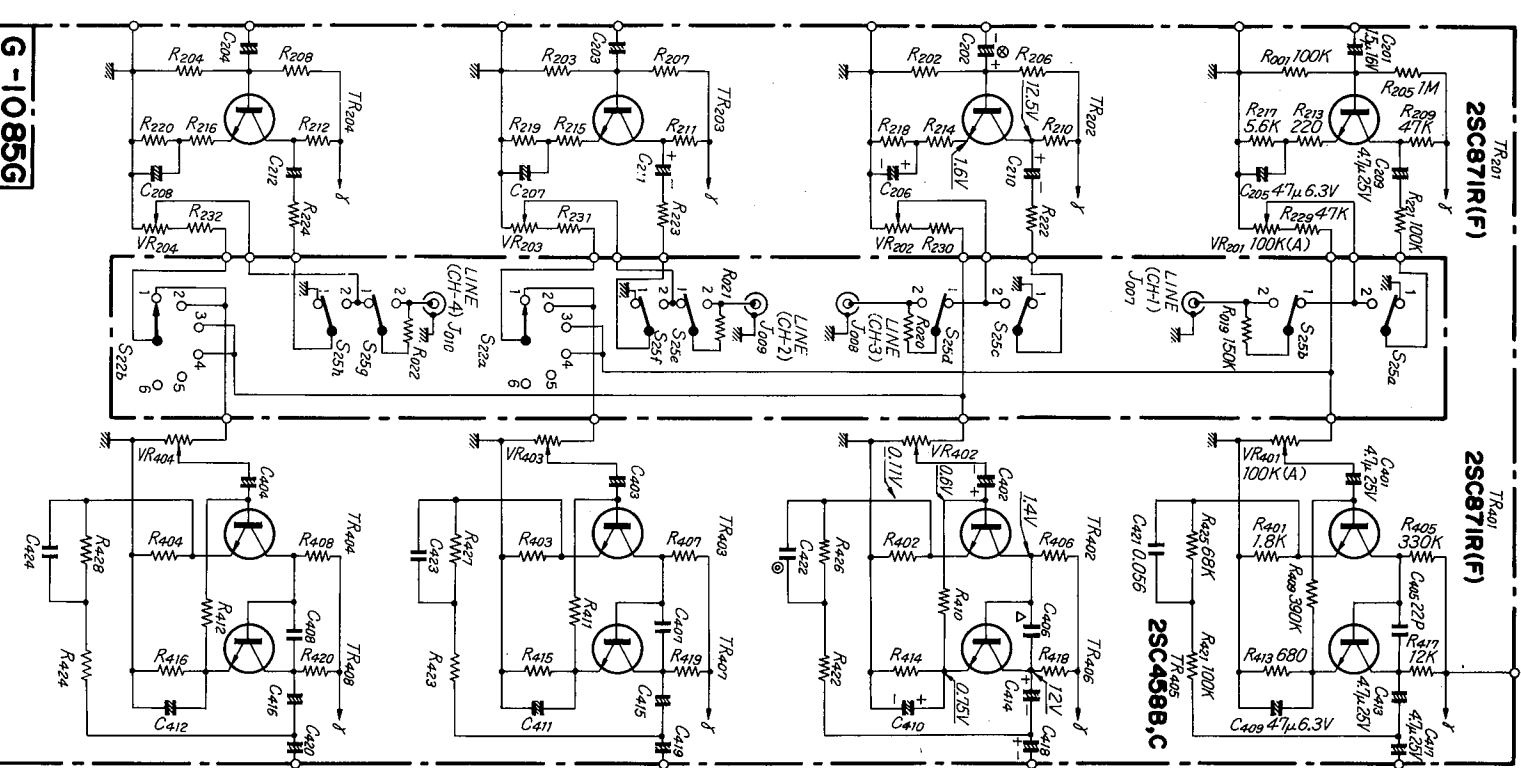
Component Side



Conductor Side



Schematic Diagram

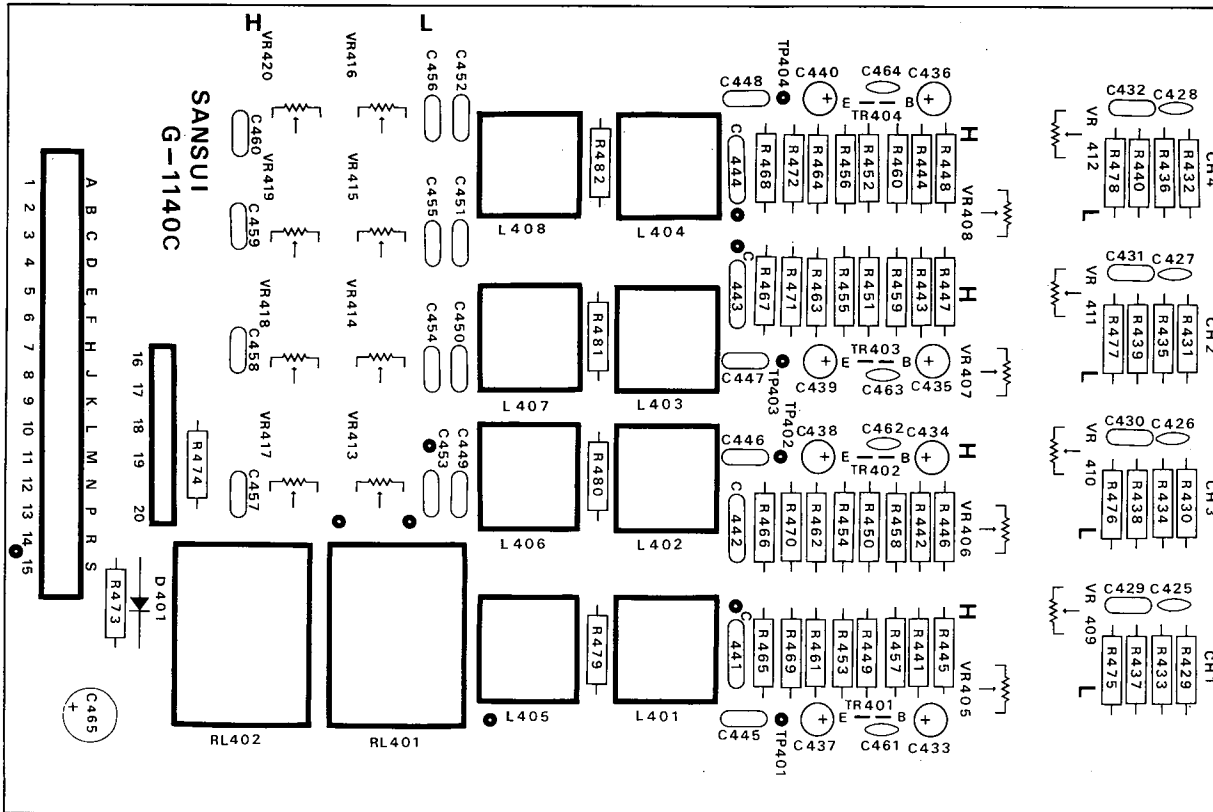


## Parts List

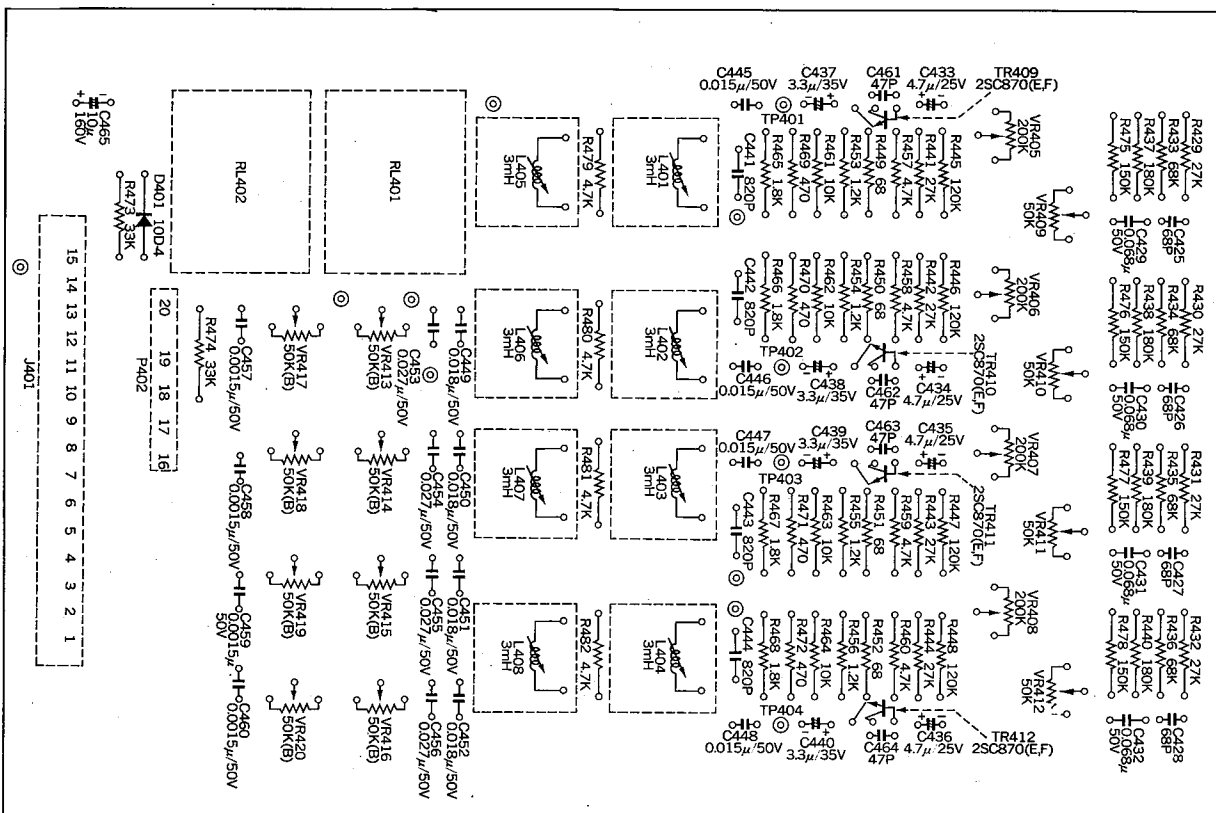
Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
	2610040	Mic, Volume, Recording Circuit Board G-1085G	C204	0572159	1.5 $\mu$ F 16V Tantalum Capacitor
R201	0107104	100k $\Omega$ $\frac{1}{4}$ W C. Resistor	C205	0513470	47 $\mu$ F 6.3V El. Capacitor
R202	0107104	100k $\Omega$ $\frac{1}{4}$ W C. Resistor	C206	0513470	47 $\mu$ F 6.3V El. Capacitor
R203	0107104	100k $\Omega$ $\frac{1}{4}$ W C. Resistor	C207	0513470	47 $\mu$ F 6.3V El. Capacitor
R204	0107104	100k $\Omega$ $\frac{1}{4}$ W C. Resistor	C208	0513470	47 $\mu$ F 6.3V El. Capacitor
R205	0107105	1M $\Omega$ $\frac{1}{4}$ W C. Resistor	C209	0513479	4.7 $\mu$ F 25V El. Capacitor
R206	0107105	1M $\Omega$ $\frac{1}{4}$ W C. Resistor	C210	0513479	4.7 $\mu$ F 25V El. Capacitor
R207	0107105	1M $\Omega$ $\frac{1}{4}$ W C. Resistor	C211	0513479	4.7 $\mu$ F 25V El. Capacitor
R208	0107105	1M $\Omega$ $\frac{1}{4}$ W C. Resistor	C212	0513479	4.7 $\mu$ F 25V El. Capacitor
R209	0107473	47k $\Omega$ $\frac{1}{4}$ W C. Resistor	C401	0513479	4.7 $\mu$ F 25V El. Capacitor
R210	0107473	47k $\Omega$ $\frac{1}{4}$ W C. Resistor	C402	0513479	4.7 $\mu$ F 25V El. Capacitor
R211	0107473	47k $\Omega$ $\frac{1}{4}$ W C. Resistor	C403	0513479	4.7 $\mu$ F 25V El. Capacitor
R212	0107473	47k $\Omega$ $\frac{1}{4}$ W C. Resistor	C404	0513479	4.7 $\mu$ F 25V El. Capacitor
R213	0107221	220 $\Omega$ $\frac{1}{4}$ W C. Resistor	C405	0660220	22pF 50V Ceramic Capacitor
R214	0107221	220 $\Omega$ $\frac{1}{4}$ W C. Resistor	C406	0660220	22pF 50V Ceramic Capacitor
R215	0107221	220 $\Omega$ $\frac{1}{4}$ W C. Resistor	C407	0660220	22pF 50V Ceramic Capacitor
R216	0107221	220 $\Omega$ $\frac{1}{4}$ W C. Resistor	C408	0660220	22pF 50V Ceramic Capacitor
R217	0107562	5.6k $\Omega$ $\frac{1}{4}$ W C. Resistor	C409	0513470	47 $\mu$ F 6.3V El. Capacitor
R218	0107562	5.6k $\Omega$ $\frac{1}{4}$ W C. Resistor	C410	0513470	47 $\mu$ F 6.3V El. Capacitor
R219	0107562	5.6k $\Omega$ $\frac{1}{4}$ W C. Resistor	C411	0513470	47 $\mu$ F 6.3V El. Capacitor
R220	0107562	5.6k $\Omega$ $\frac{1}{4}$ W C. Resistor	C412	0513470	47 $\mu$ F 6.3V El. Capacitor
R221	0107104	100k $\Omega$ $\frac{1}{4}$ W C. Resistor	C413	0513479	4.7 $\mu$ F 25V El. Capacitor
R222	0107104	100k $\Omega$ $\frac{1}{4}$ W C. Resistor	C414	0513479	4.7 $\mu$ F 25V El. Capacitor
R223	0107104	100k $\Omega$ $\frac{1}{4}$ W C. Resistor	C415	0513479	4.7 $\mu$ F 25V El. Capacitor
R224	0107104	100k $\Omega$ $\frac{1}{4}$ W C. Resistor	C416	0513479	4.7 $\mu$ F 25V El. Capacitor
R229	0107473	47k $\Omega$ $\frac{1}{4}$ W C. Resistor	C417	0513479	4.7 $\mu$ F 25V El. Capacitor
R230	0107473	47k $\Omega$ $\frac{1}{4}$ W C. Resistor	C418	0513479	4.7 $\mu$ F 25V El. Capacitor
R231	0107473	47k $\Omega$ $\frac{1}{4}$ W C. Resistor	C419	0513479	4.7 $\mu$ F 25V El. Capacitor
R232	0107473	47k $\Omega$ $\frac{1}{4}$ W C. Resistor	C420	0513479	4.7 $\mu$ F 25V El. Capacitor
R401	0107182	1.8k $\Omega$ $\frac{1}{4}$ W C. Resistor	C421	0601567	0.056 $\mu$ F 50V Mylar Capacitor
R402	0107182	1.8k $\Omega$ $\frac{1}{4}$ W C. Resistor	C422	0601567	0.056 $\mu$ F 50V Mylar Capacitor
R403	0107182	1.8k $\Omega$ $\frac{1}{4}$ W C. Resistor	C423	0601567	0.056 $\mu$ F 50V Mylar Capacitor
R404	0107182	1.8k $\Omega$ $\frac{1}{4}$ W C. Resistor	C424	0601567	0.056 $\mu$ F 50V Mylar Capacitor
R405	0107334	330k $\Omega$ $\frac{1}{4}$ W C. Resistor	TR201	0305475	2SC871R (F) Transistor
R406	0107334	330k $\Omega$ $\frac{1}{4}$ W C. Resistor	TR202	0305475	2SC871R (F) Transistor
R407	0107334	330k $\Omega$ $\frac{1}{4}$ W C. Resistor	TR203	0305475	2SC871R (F) Transistor
R408	0107334	330k $\Omega$ $\frac{1}{4}$ W C. Resistor	TR204	0305475	2SC871R (F) Transistor
R409	0107394	390k $\Omega$ $\frac{1}{4}$ W C. Resistor	TR401	0305475	2SC871R (F) Transistor
R410	0107394	390k $\Omega$ $\frac{1}{4}$ W C. Resistor	TR402	0305475	2SC871R (F) Transistor
R411	0107394	390k $\Omega$ $\frac{1}{4}$ W C. Resistor	TR403	0305475	2SC871R (F) Transistor
R412	0107394	390k $\Omega$ $\frac{1}{4}$ W C. Resistor	TR404	0305475	2SC871R (F) Transistor
R413	0107681	680 $\Omega$ $\frac{1}{4}$ W C. Resistor	TR405	0305111,2	2SC458 (B, C) Transistor
R414	0107681	680 $\Omega$ $\frac{1}{4}$ W C. Resistor	TR406	0305111,2	2SC458 (B, C) Transistor
R415	0107681	680 $\Omega$ $\frac{1}{4}$ W C. Resistor	TR407	0305111,2	2SC458 (B, C) Transistor
R416	0107681	680 $\Omega$ $\frac{1}{4}$ W C. Resistor	TR408	0305111,2	2SC458 (B, C) Transistor
R417	0107123	12k $\Omega$ $\frac{1}{4}$ W C. Resistor	VR201	1000300	100k $\Omega$ (A) RECORD LEVEL, front left
R418	0107123	12k $\Omega$ $\frac{1}{4}$ W C. Resistor	VR202	1000300	100k $\Omega$ (A) RECORD LEVEL, front right
R419	0107123	12k $\Omega$ $\frac{1}{4}$ W C. Resistor	VR203	1000300	100k $\Omega$ (A) RECORD LEVEL, rear left
R420	0107123	12k $\Omega$ $\frac{1}{4}$ W C. Resistor	VR204	1000300	100k $\Omega$ (A) RECORD LEVEL, rear right
R421	0107104	100k $\Omega$ $\frac{1}{4}$ W C. Resistor	VR401	1060110	100k $\Omega$ (A) $\times$ 4 RECORD LEVEL MASTER VOLUME
R422	0107104	100k $\Omega$ $\frac{1}{4}$ W C. Resistor	~404		
R423	0107104	100k $\Omega$ $\frac{1}{4}$ W C. Resistor			
R424	0107104	100k $\Omega$ $\frac{1}{4}$ W C. Resistor			
R425	0107683	68k $\Omega$ $\frac{1}{4}$ W C. Resistor			
R426	0107683	68k $\Omega$ $\frac{1}{4}$ W C. Resistor			
R427	0107683	68k $\Omega$ $\frac{1}{4}$ W C. Resistor			
R428	0107683	68k $\Omega$ $\frac{1}{4}$ W C. Resistor			
C201	0572159	1.5 $\mu$ F 16V Tantalum Capacitor			
C202	0572159	1.5 $\mu$ F 16V Tantalum Capacitor			
C203	0572159	1.5 $\mu$ F 16V Tantalum Capacitor			

### 6-4. G-1140C Recording Circuit Board (Stock No. 7620050 Complete Circuit Board G-1140C)

#### Component Side



#### Conductor Side



2SC870(E,F)  
2SC871R(F)

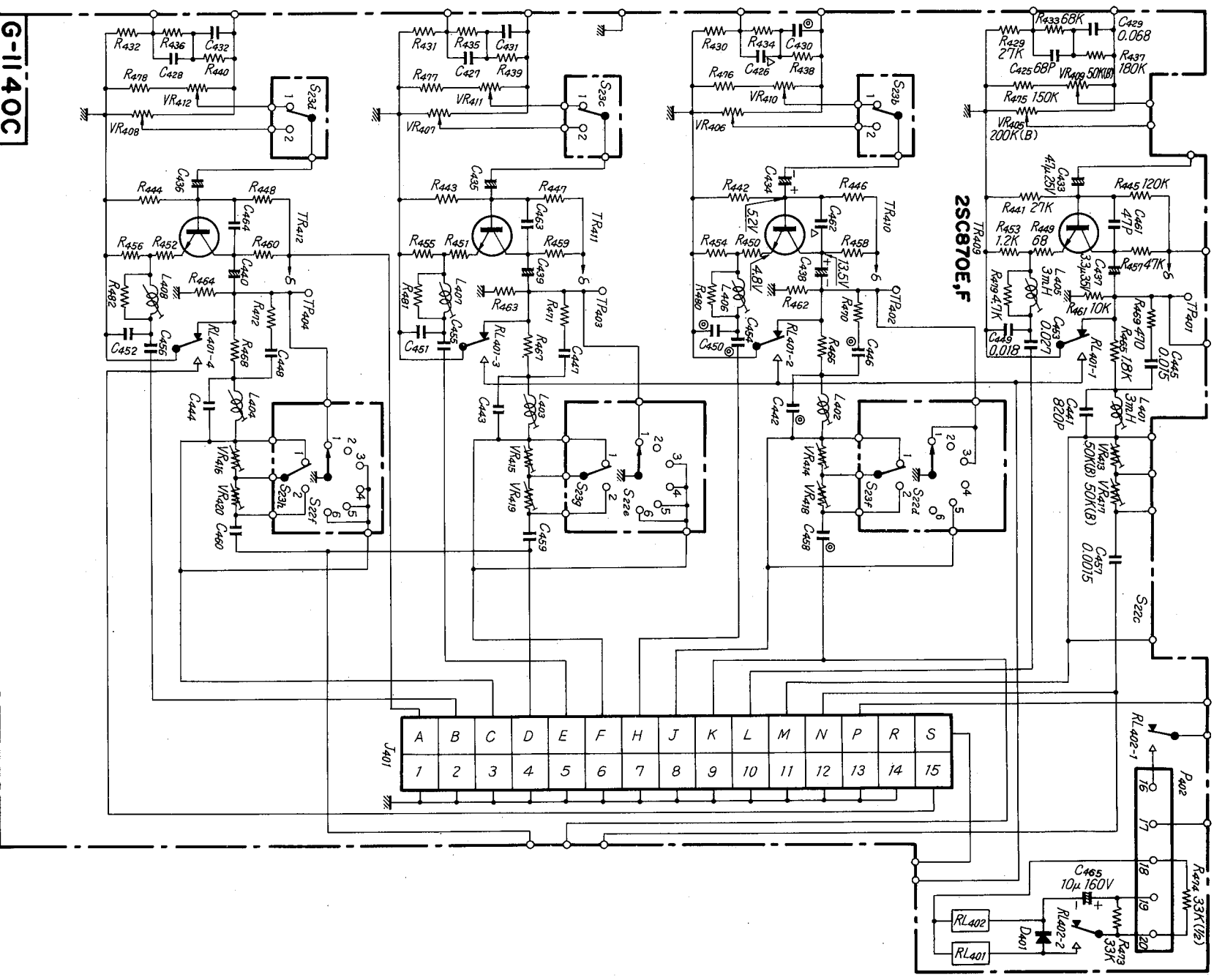




Resistor: Carbon Resistor ..... C. Resistor  
 Capacitor: Electrolytic Capacitor ..... El. Capacitor

QD-5500 · QD-5500S **Samsui**

### Schematic Diagram

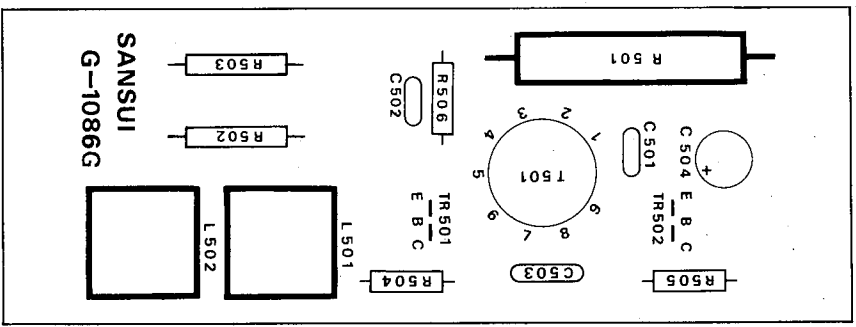


### Parts List

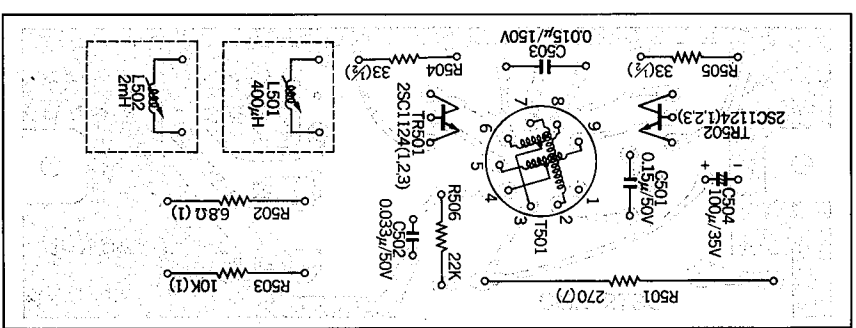
Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
R429	2620050	Recording Circuit Board G-II 40C	C433	0513479	4.7µF 25V El. Capacitor
R430	0107273	27kΩ 1/4W C. Resistor	C434	0513479	4.7µF 25V El. Capacitor
R431	0107273	27kΩ 1/4W C. Resistor	C435	0513479	4.7µF 25V El. Capacitor
R432	0107273	27kΩ 1/4W C. Resistor	C436	0513479	4.7µF 25V El. Capacitor
R433	0107683	68kΩ 1/4W C. Resistor	C437	0514339	3.3µF 35V El. Capacitor
R434	0107683	68kΩ 1/4W C. Resistor	C438	0514339	3.3µF 35V El. Capacitor
R435	0107683	68kΩ 1/4W C. Resistor	C439	0514339	3.3µF 35V El. Capacitor
R436	0107683	68kΩ 1/4W C. Resistor	C440	0514339	3.3µF 35V El. Capacitor
R437	0107184	180kΩ 1/4W C. Resistor	C441	0641821	820pF 50V Mica Capacitor
R438	0107184	180kΩ 1/4W C. Resistor	C442	0641821	820pF 50V Mica Capacitor
R439	0107184	180kΩ 1/4W C. Resistor	C443	0641821	820pF 50V Mica Capacitor
R440	0107184	180kΩ 1/4W C. Resistor	C444	0641821	820pF 50V Mica Capacitor
R441	0107273	27kΩ 1/4W C. Resistor	C445	0601157	0.015µF 50V Mylar Capacitor
R442	0107273	27kΩ 1/4W C. Resistor	C446	0601157	0.015µF 50V Mylar Capacitor
R443	0107273	27kΩ 1/4W C. Resistor	C447	0601157	0.015µF 50V Mylar Capacitor
R444	0107273	27kΩ 1/4W C. Resistor	C448	0601157	0.015µF 50V Mylar Capacitor
R445	0107124	120kΩ 1/4W C. Resistor	C449	0601187	0.018µF 50V Mylar Capacitor
R446	0107124	120kΩ 1/4W C. Resistor	C450	0601187	0.018µF 50V Mylar Capacitor
R447	0107124	120kΩ 1/4W C. Resistor	C451	0601187	0.018µF 50V Mylar Capacitor
R448	0107124	120kΩ 1/4W C. Resistor	C452	0601187	0.018µF 50V Mylar Capacitor
R449	0107680	68Ω 1/4W C. Resistor	C453	0601277	0.027µF 50V Mylar Capacitor
R450	0107680	68Ω 1/4W C. Resistor	C454	0601277	0.027µF 50V Mylar Capacitor
R451	0107680	68Ω 1/4W C. Resistor	C455	0601277	0.027µF 50V Mylar Capacitor
R452	0107680	68Ω 1/4W C. Resistor	C456	0601277	0.027µF 50V Mylar Capacitor
R453	0107122	1.2kΩ 1/4W C. Resistor	C457	0601156	0.0015µF 50V Mylar Capacitor
R454	0107122	1.2kΩ 1/4W C. Resistor	C458	0601156	0.0015µF 50V Mylar Capacitor
R455	0107122	1.2kΩ 1/4W C. Resistor	C459	0601156	0.0015µF 50V Mylar Capacitor
R456	0107472	4.7kΩ 1/4W C. Resistor	C460	0601156	0.0015µF 50V Mylar Capacitor
R457	0107472	4.7kΩ 1/4W C. Resistor	C461	0660470	47pF 50V Ceramic Capacitor
R458	0107472	4.7kΩ 1/4W C. Resistor	C462	0660470	47pF 50V Ceramic Capacitor
R459	0107472	4.7kΩ 1/4W C. Resistor	C463	0660470	47pF 50V Ceramic Capacitor
R460	0107472	4.7kΩ 1/4W C. Resistor	C464	0660470	47pF 50V Ceramic Capacitor
R461	0107103	10kΩ 1/4W C. Resistor	C465	0518100	10µF 160V El. Capacitor
R462	0107103	10kΩ 1/4W C. Resistor	TR409	0305510, 1	2SC870 (E, F) Transistor
R463	0107103	10kΩ 1/4W C. Resistor	TR410	0305510, 1	2SC870 (E, F) Transistor
R464	0107103	10kΩ 1/4W C. Resistor	TR411	0305510, 1	2SC870 (E, F) Transistor
R465	0107182	1.8kΩ 1/4W C. Resistor	TR412	0305510, 1	2SC870 (E, F) Transistor
R466	0107182	1.8kΩ 1/4W C. Resistor	D401	0310360	10D-4 Diode
R467	0107182	1.8kΩ 1/4W C. Resistor	L401	4010050	TL-30 3mH Coil
R468	0107182	1.8kΩ 1/4W C. Resistor	L402	4010050	TL-30 3mH Coil
R469	0107471	470Ω 1/4W C. Resistor	L403	4010050	TL-30 3mH Coil
R470	0107471	470Ω 1/4W C. Resistor	L404	4010050	TL-30 3mH Coil
R471	0107471	470Ω 1/4W C. Resistor	L405	4010050	TL-30 3mH Coil
R472	0107471	470Ω 1/4W C. Resistor	L406	4010050	TL-30 3mH Coil
R473	0107333	33kΩ 1/4W C. Resistor	L407	4010050	TL-30 3mH Coil
R474	0103333	33kΩ 1/2W C. Resistor	L408	4010050	TL-30 3mH Coil
R475	0107154	150kΩ 1/4W C. Resistor	VR405	1032152	200kΩ(B)Semi-Variable Resistor (flat type)
R476	0107154	150kΩ 1/4W C. Resistor	VR406	1032152	200kΩ(B)Semi-Variable Resistor (flat type)
R477	0107154	150kΩ 1/4W C. Resistor	VR407	1032152	200kΩ(B)Semi-Variable Resistor (flat type)
R478	0107472	4.7kΩ 1/4W C. Resistor	VR408	1032152	200kΩ(B)Semi-Variable Resistor (flat type)
R479	0107472	4.7kΩ 1/4W C. Resistor	VR409	1032132	50kΩ(B)Semi-Variable Resistor (flat type)
R480	0107472	4.7kΩ 1/4W C. Resistor	RL401	1150260	RAB-80D-51S 80V Relay
R481	0107472	4.7kΩ 1/4W C. Resistor	RL402	1150260	RAB-80D-51S 80V Relay
R482	0107472	4.7kΩ 1/4W C. Resistor	P402	2410450	Mini-Connector 5P
C425	0660680	68pF 50V Ceramic Capacitor	JA01	2420130	Multi-Port Connector 15P
C426	0660680	68pF 50V Ceramic Capacitor	PA01	2620040	Control terminal 15P
C427	0660680	68pF 50V Ceramic Capacitor	TP401	2260020	A4-01890-1 B type TP pin
C428	0660680	68pF 50V Ceramic Capacitor			
C429	0601687	0.068µF 50V Mylar Capacitor			
C430	0601687	0.068µF 50V Mylar Capacitor			
C431	0601687	0.068µF 50V Mylar Capacitor			
C432	0601687	0.068µF 50V Mylar Capacitor			

G-II 40C

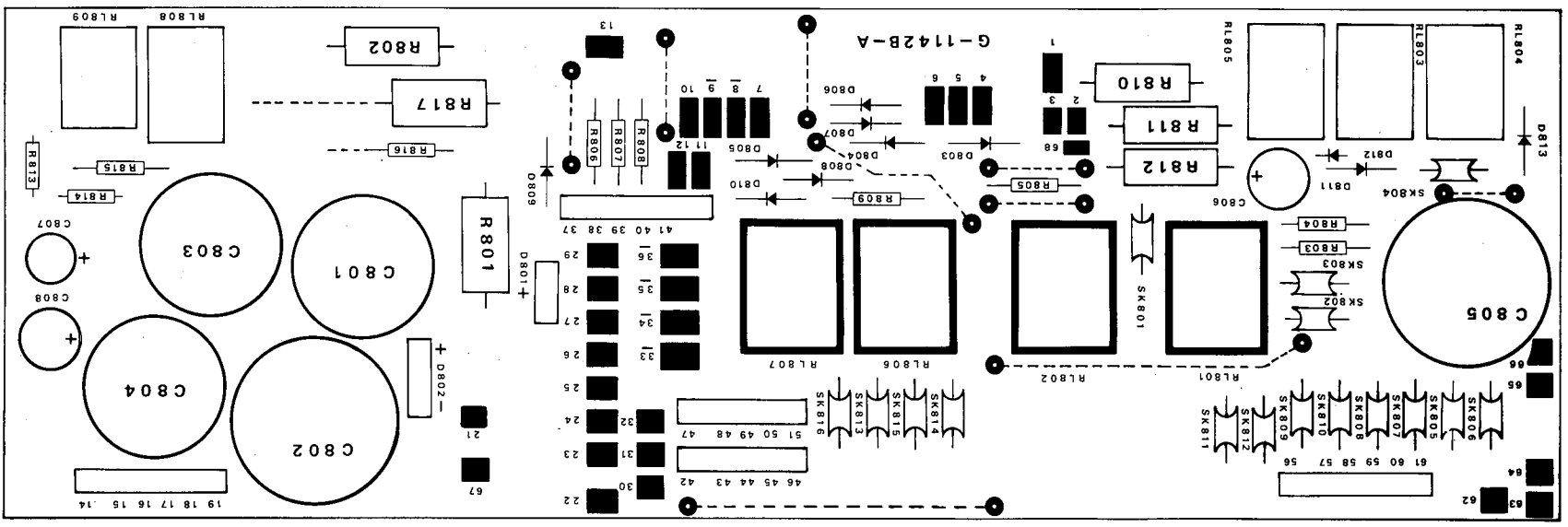
**6-5. G-1086G Oscillator Circuit Board**  
(Stock No. 7600030 Complete Circuit Board G-1086G)



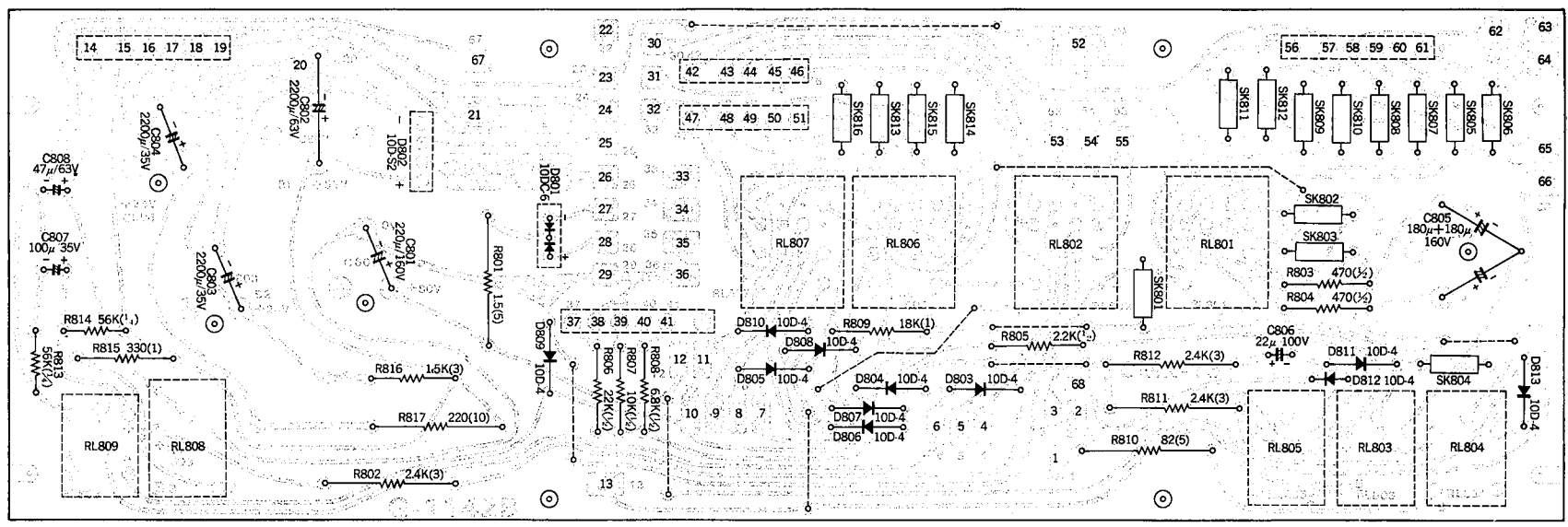
**Component Side**



**6-6. G-1142B-A Control Circuit Board**  
(Stock No. 7630080 Complete Circuit Board G-1142B-A)

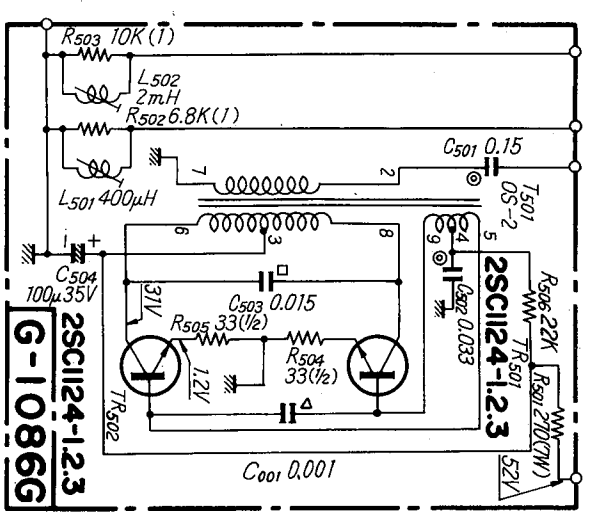


**Component Side**



**Conductor Side**

**Schematic Diagram**

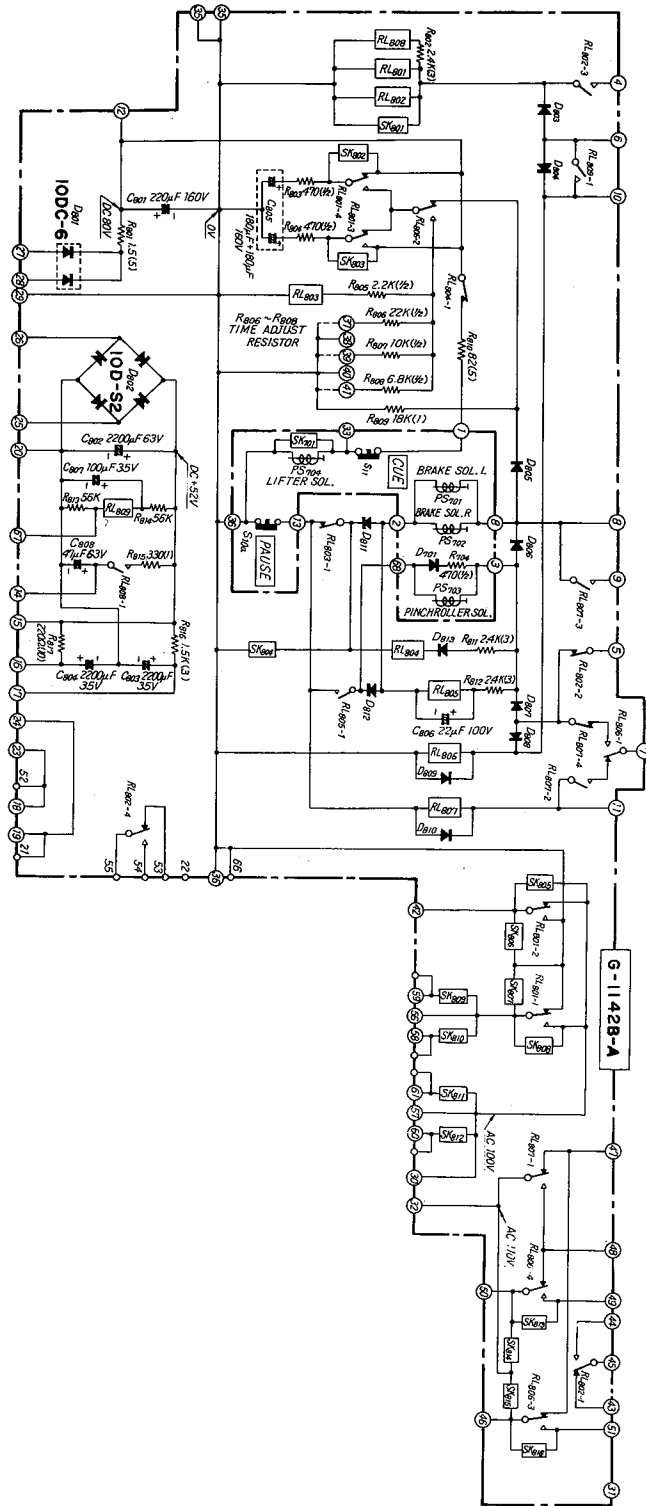


**Parts List**

Parts No.	Stock No.	Description
R501	2630030	Oscillator Circuit Board G-1086G
R501	0137271	270Ω 7 W Cement Resistor
R502	0104682	6.8KΩ 1 W C. Resistor
R503	0104103	10KΩ 1 W C. Resistor
R504	0103330	33Ω 1/2 W C. Resistor
R505	0103330	33Ω 1/2 W C. Resistor
R506	0107223	22KΩ 1/4 W C. Resistor
C001	0657102	0.001 μF 50V Ceramic Capacitor
C501	0601158	0.15 μF 50V Mylar Capacitor
C502	0601337	0.033 μF 50V Mylar Capacitor
C503	0642053	0.015 μF 150V Mica Capacitor
C504	0514101	100 μF 35V El. Capacitor
TR501	0305900. 2	2SC1124 (1, 2, 3) Transistor
TR502	0305900. 2	2SC1124 (1, 2, 3) Transistor
L501	4290190	400 μH Coil
L502	4220360	TL-20 2mH Coil
TS01	4220450	OS-2 Oscillator Transformer

Resistor: Carbon Resistor.....C. Resistor  
 Capacitor: Electrolytic Capacitor .....El. Capacitor

### Schematic Diagram



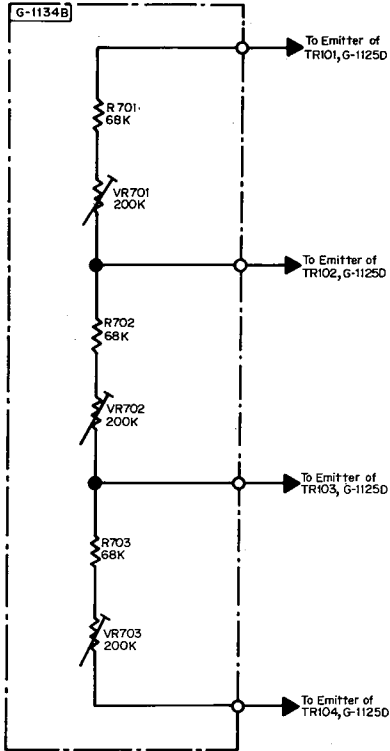
### Parts List

Parts No.	Stock No.	Description
	2630080	Control Circuit Board G-1142B-A
R801	0135159	1.5Ω 5W Cement Resistor
R802	0183242	2.4kΩ 3W Cement Resistor
R803	0103471	470Ω ½W C. Resistor
R804	0103471	470Ω ½W C. Resistor
R805	0103222	2.2kΩ ½W C. Resistor
R806	0103223	22kΩ ½W C. Resistor
R807	0103103	10kΩ ½W C. Resistor
R808	0103682	6.8kΩ ½W C. Resistor
R809	0104183	18kΩ 1W C. Resistor
R810	0135820	82Ω 5W Cement Resistor
R811	0183242	2.4kΩ 3W Cement Resistor
R812	0183242	2.4kΩ 3W Cement Resistor
R813	0107563	56kΩ ¼W C. Resistor
R814	0107563	56kΩ ¼W C. Resistor
R815	0104331	330Ω 1W C. Resistor
R816	0183152	1.5kΩ 3W Cement Resistor
R817	0150221	220Ω 10W Cement Resistor
C801	0549502	220μF 160V El. Capacitor
C802	0549205	2200μF 63V El. Capacitor
C803	0549005	2200μF 35V El. Capacitor
C804	0549005	2200μF 35V El. Capacitor
C805	0549503	180μF + 180μF 160V El. Capacitor
C806	0519401	22μF 100V El. Capacitor
C807	0514101	100μF 35V El. Capacitor
C808	0516470	47μF 63V El. Capacitor
D801	0310990	10DC-6 Diode
D802	0310896	10D-S2 Diode
D803	0310360	10D-4 Diode
D804	0310360	10D-4 Diode
D805	0310360	10D-4 Diode
D806	0310360	10D-4 Diode
D807	0310360	10D-4 Diode
D808	0310360	10D-4 Diode
D809	0310360	10D-4 Diode
D810	0310360	10D-4 Diode
D811	0310360	10D-4 Diode
D812	0310360	10D-4 Diode
D813	0310360	10D-4 Diode
RL801	1150190	RAB-80D-51 DC80V Relay
RL802	1150190	RAB-80D-51 DC80V Relay
RL803	1150230	RSP-48BC-01 DC48V Relay
RL804	1150220	RSP-48DC-01 DC48V Relay
RL805	1150220	RSP-48DC-01 DC48V Relay
RL806	1150190	RAB-80D-51 DC80V Relay
RL807	1150190	RAB-80D-51 DC80V Relay
RL808	1150220	RSP-48DC-01 DC48V Relay
RL809	1150150	LC1-C DC24V Relay
	2410430	Mini-Connector 6P
	2410450	Mini-Connector 5P
	2250010	Fasten Receptacle
	2250020	Fasten Tab A 2701
	2250030	Fasten Tab B 2703
	2250050	Fasten Tab

SK801 0800190 0.1μF + 120Ω AC400V Spark Killer  
 ~816

**6-7. G-1134B Crosstalk Canceler Circuit Board**  
 (Stock No. 7690090 Complete Circuit Board G-1134B)

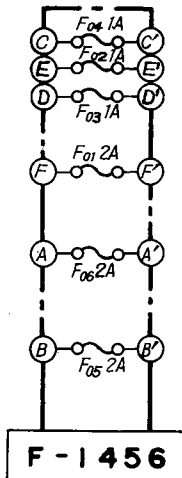
**Schematic Diagram**



**Parts List**

Parts No.	Stock No.	Description
	2690090	Crosstalk Canceler Circuit Board G-1134B
R701	0107683	68kΩ ¼W C. Resistor
R702	0107683	68kΩ ¼W C. Resistor
R703	0107683	68kΩ ¼W C. Resistor
VR701	1032152	200kΩ(B) Semi-Variable Resistor (flat type)
VR702	1032152	200kΩ(B) Semi-Variable Resistor (flat type)
VR703	1032152	200kΩ(B) Semi-Variable Resistor (flat type)

**6-8. 1456 Fuse Circuit Board**

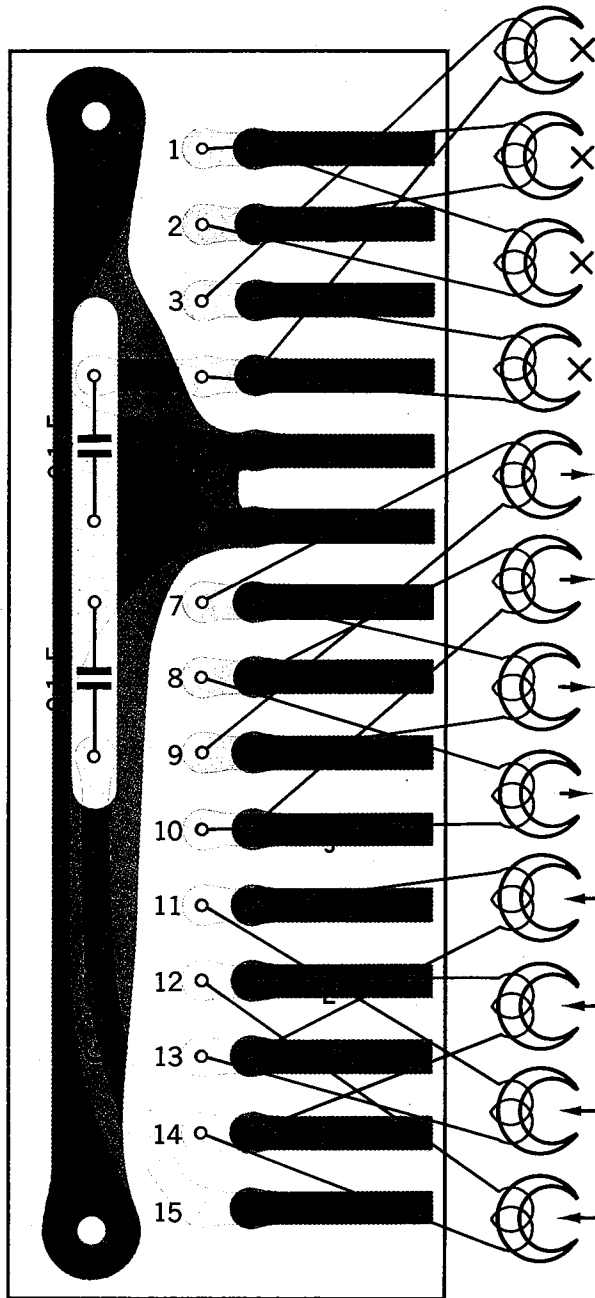


**Parts List**

Parts No.	Stock No.	Description
	2598120	Fuse Circuit Board F-1456
F01	0432850	Wired-in Fuse 2A
F02	0432830	Wired-in Fuse 1A
F03	0432830	Wired-in Fuse 1A
F04	0432830	Wired-in Fuse 1A
F05	0432850	Wired-in Fuse 2A
F06	0432830	Wired-in Fuse 1A

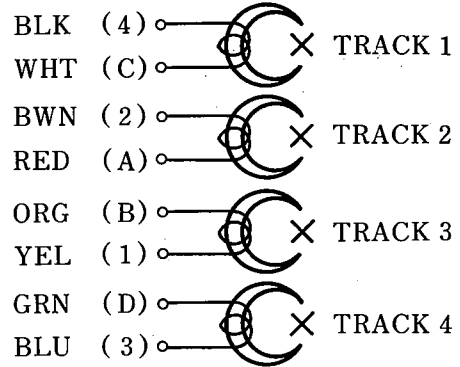
### 6-9. G-1087C Head Connector Circuit Board

#### Conductor Side

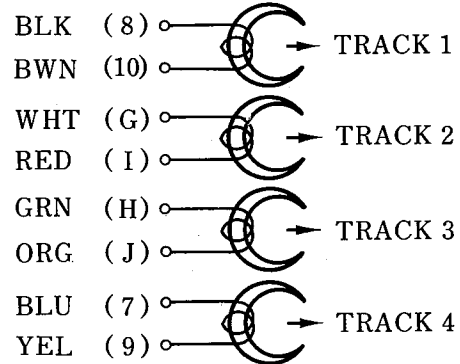


#### Head Block

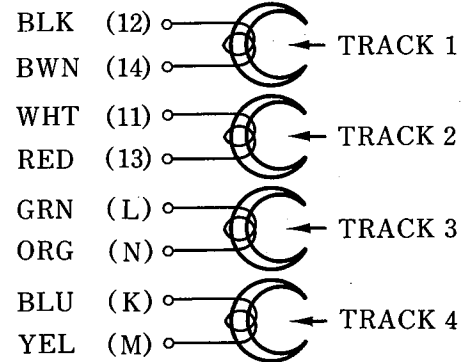
##### ERASE HEAD



##### RECORDING HEAD



##### PLAYBACK HEAD



#### Parts List

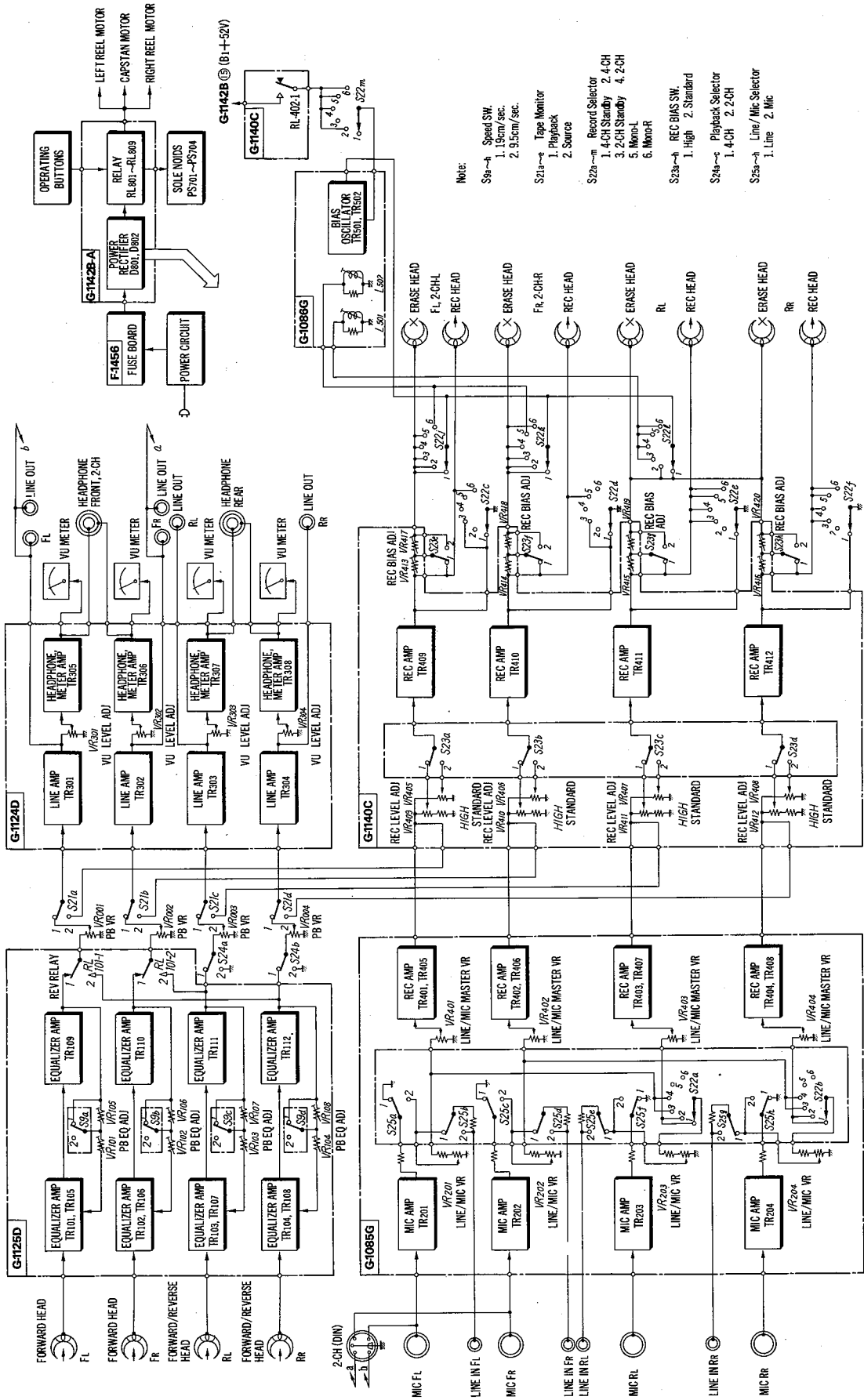
Parts No.	Stock No.	Description
	2690120	Head Connector Circuit Board G-1087C
	4504010	4-CH Playback Head PS-401
	4514010	4-CH Record Head RS-401
	4524010	4-CH Erase Head ES-401
	0601108	0.1 μF 50V Mylar Capacitor
C705	0601108	0.1 μF 50V Mylar Capacitor

### 6-10. Other Parts

Parts No.	Stock No.	Description
R001	0107392	3.9kΩ ¼W C. Resistor
R002	0107392	3.9kΩ ¼W C. Resistor
R003	0107392	3.9kΩ ¼W C. Resistor
R004	0107392	3.9kΩ ¼W C. Resistor
R005	0107474	470kΩ ¼W C. Resistor
R006	0107474	470kΩ ¼W C. Resistor
R007	0107474	470kΩ ¼W C. Resistor
R008	0107474	470kΩ ¼W C. Resistor
R009	0107104	100kΩ ¼W C. Resistor
R010	0107104	100kΩ ¼W C. Resistor
R011	0107822	8.2kΩ ¼W C. Resistor
R012	0107822	8.2kΩ ¼W C. Resistor
R013	0107822	8.2kΩ ¼W C. Resistor
R014	0107822	8.2kΩ ¼W C. Resistor
R015	0107829	8.2Ω ¼W C. Resistor
R016	0107829	8.2Ω ¼W C. Resistor
R017	0107829	8.2Ω ¼W C. Resistor
R018	0107829	8.2Ω ¼W C. Resistor
R019	0107154	150kΩ ¼W C. Resistor
R020	0107154	150kΩ ¼W C. Resistor
R021	0107154	150kΩ ¼W C. Resistor
R022	0107154	150kΩ ¼W C. Resistor
R701	0125330	1.5kΩ 25W Enameled Wirewound Resistor
R702	0125320	250Ω 25W Enameled Wirewound Resistor
R703	0125340	200Ω 35W Enameled Wirewound Resistor
R704	0103471	470Ω ½W C. Resistor
C701	0599004	2.8μF+1μF 250WV MP Capacitor
C702	0599003	4μF+0.5μF 250WV MP Capacitor
C703	0599005	4μF+0.5μF 300WV MP Capacitor
C704	0605337	0.033μF AC250WV Metalized Polyester Capacitor
C705	0601108	0.1μF 50V Mylar Capacitor
D701	0310360	10D-4 Diode
SK701	0800200	0.2μF+120Ω Spark Killer
SK702	0800200	0.2μF+120Ω Spark Killer
VU001		
~004	4300531	VU Meter Ass'y
VR001		
~002	1020190	100kΩ(A)×2 Playback Volume, (front, 2-ch)
VR003		
~004	1020190	100kΩ(A)×2 Playback Volume, (rear)
S1	1130320	Push Switch, AC switch
S2	1160050	Micro Switch V-1A44, shut-off switch
S3~8	1160060	Micro Switch V-1A10, stop forward reverse fast-forward rewind switch
S9	1130640	Push Switch, tape speed switch
S10	1130500	Push Switch, pause
S11	1130640	Push Switch, cue
S12a~c	1101500	Rotary Switch F-1-3-2, 50Hz-60Hz selector
S13	1160120	Micro Switch, MT-100
S14	1160120	Micro Switch, MT-100
S21a~b	1170170	Lever Switch, tape monitor (front)
S21c~d	1170210	Lever Switch, tape monitor (rear)
S22a~m	1106080	Rotary Switch F-6-12-6, record selector
S23a~h	1102430	Rotary Switch F-2-8-2, rec bias
S24a~c	1170210	Lever Switch, playback selector

Parts No.	Stock No.	Description
S25a~b	1170170	Lever Switch, input selector (front left)
S25c~d	1170170	Lever Switch, input selector (front right)
S25e~f	1170170	Lever Switch, input selector (rear left)
S25g~h	1170170	Lever Switch, input selector (rear right)
J001	2430170	Jack, microphone (front left)
J002	2430170	Jack, microphone (front right)
J003	2430170	Jack, microphone (rear left)
J004	2430170	Jack, microphone (rear right)
J005	2430170	Jack, headphone (front)
J006	2430170	Jack, headphone (rear)
J701	2450040	AC Outlet
J702	2040010	11P Socket, remote control
	2420140	Multiple Connector, head ass'y
P702	2410410	Dummy Plug, remote controller
PU701	2410500	Voltage Selector Socket
	2410510	Voltage Selector Main Plug
	2410190	Voltage Selector Sub Plug
PL001		
~004	0400270	Lamp lead type 6.3V 75mA
PL701		
~704	0400280	Lamp lead type 6.3V 75mA
T701	4001230	Power Transformer
	2300060	Fuse Holder, power fuse
F701	0431242	Power Fuse 2A (100~117V)
	0431222	Power Fuse 1A (200~240V)
	3800021	Power Cord

# 7. BLOCK DIAGRAM



Note:

- S3a → Speed SW.
  - 1. 19cm/sec.
  - 2. 9.5cm/sec.
- S21a → Tape Monitor
  - 1. Playback
  - 2. Source
- S22a → Record Selector
  - 1. 4-CH Standby
  - 2. 4-CH
  - 3. 2-CH Standby
  - 4. 2-CH
  - 5. Mono-L
  - 6. Mono-R
- S23a → REC BIAS SW.
  - 1. High
  - 2. Standard
- S24a → Playback Selector
  - 1. 4-CH
  - 2. 2-CH
- S25a → Line/Mic Selector
  - 1. Line
  - 2. Mic

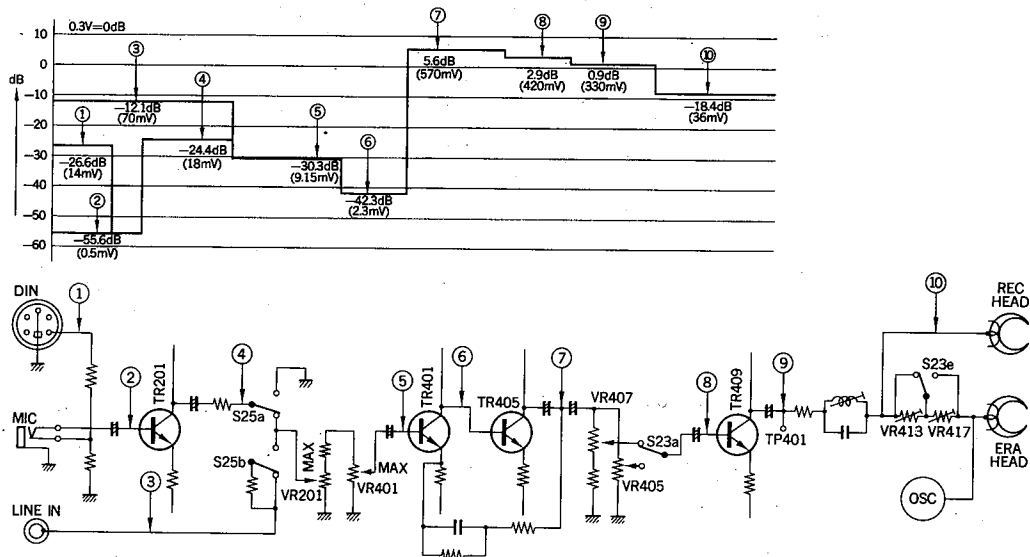
VR401-404 RECORD LEVEL MASTER VOLUME

VR201 PLAYBACK LEVEL, front left.  
 VR202 PLAYBACK LEVEL, front right  
 VR203 RECORD LEVEL, rear left  
 VR204 RECORD LEVEL, rear right

## 8. LEVEL DIAGRAMS

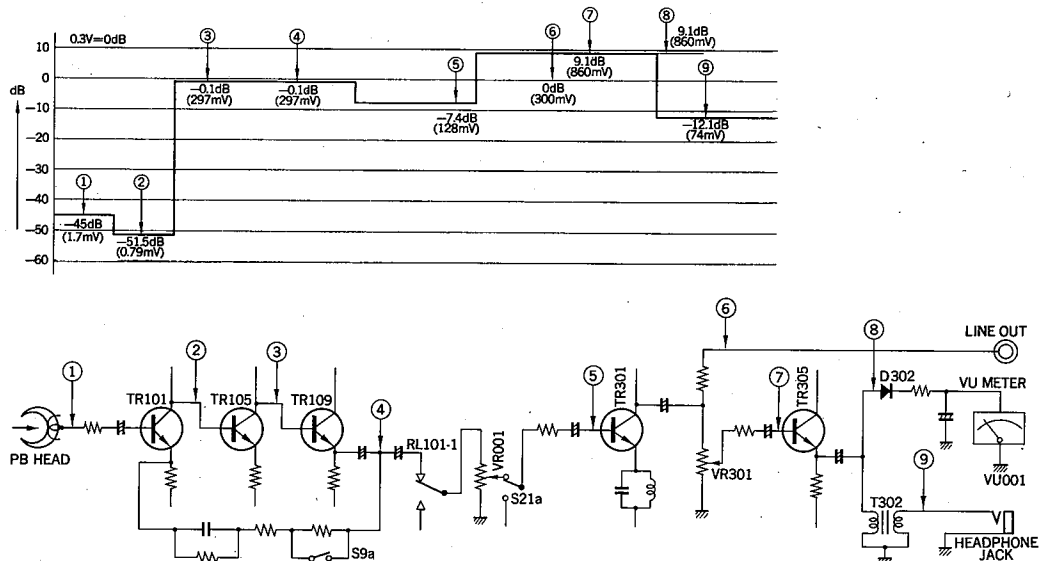
1. LINE-1, MIC/LINE-2 (DIN) volume control .....Maximum
2. PLAYBACK volume control .....Adjust for 0.3V at LINE OUT (2-CH)
3. Input.....MIC 0.5mV 1kHz sine wave  
 DIN 14mV 1kHz sine wave  
 LINE 70mV 1kHz sine wave  
 (output impedance of 600Ω at an audio signal generator)

### 8-1. Recording



- |                                 |                                |                           |
|---------------------------------|--------------------------------|---------------------------|
| VR201: LINE/MIC VOLUME          | VR409: REC LEVEL ADJ (HIGH)    | S23a,c: REC BIAS          |
| VR401: MASTER VOLUME            | VR413: REC BIAS ADJ (STANDARD) | S25a,b: LINE/MIC SELECTOR |
| VR405: REC LEVEL ADJ (STANDARD) | VR417: REC BIAS ADJ (HIGH)     |                           |

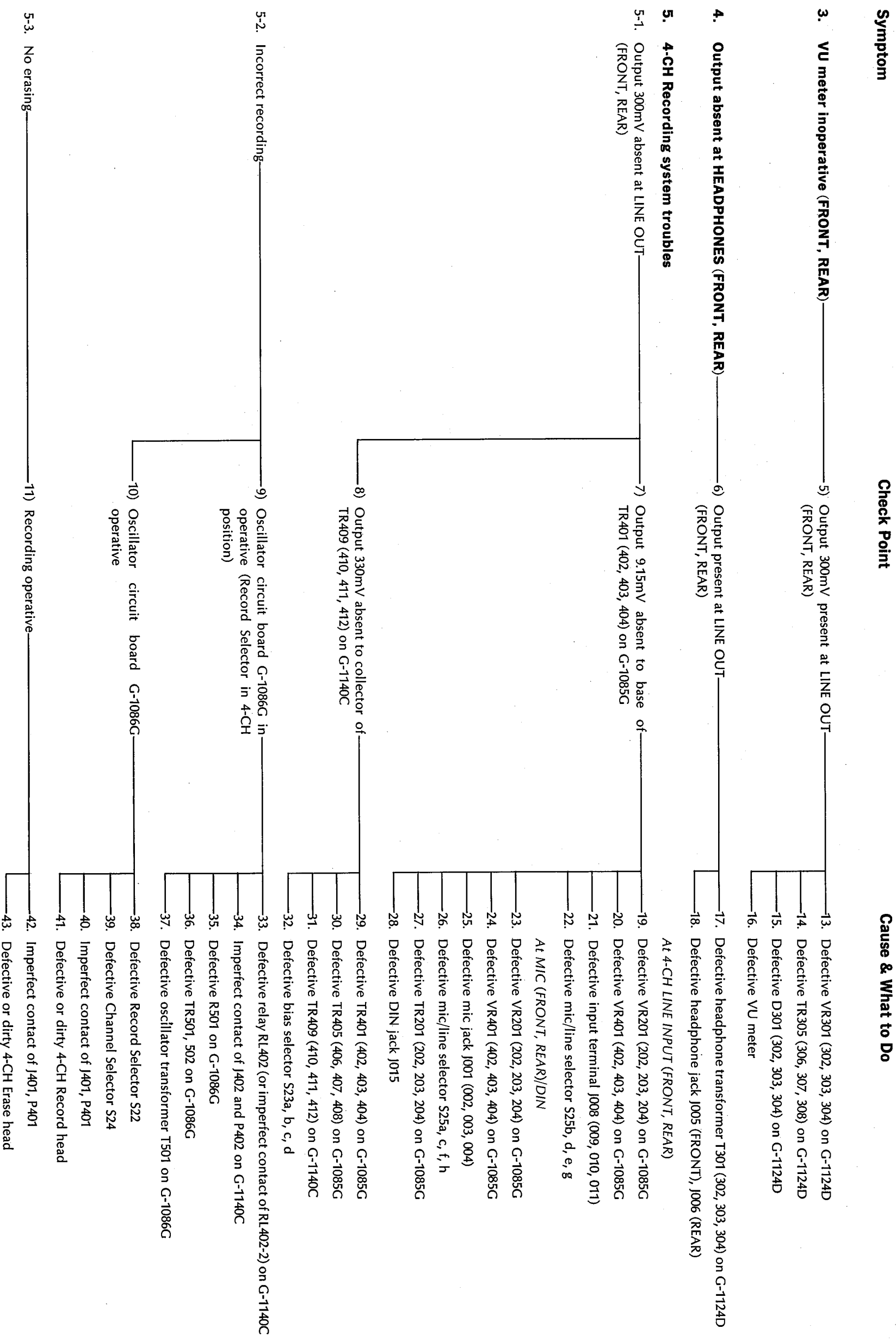
### 8-2. Playback



- |                           |                            |                       |
|---------------------------|----------------------------|-----------------------|
| VR001: PLAYBACK VOLUME    | S9a : SPEED SWITCH         | RL101 : REVERSE RELAY |
| VR301: VU METER LEVEL ADJ | S21a : TAPE MONITOR SWITCH |                       |

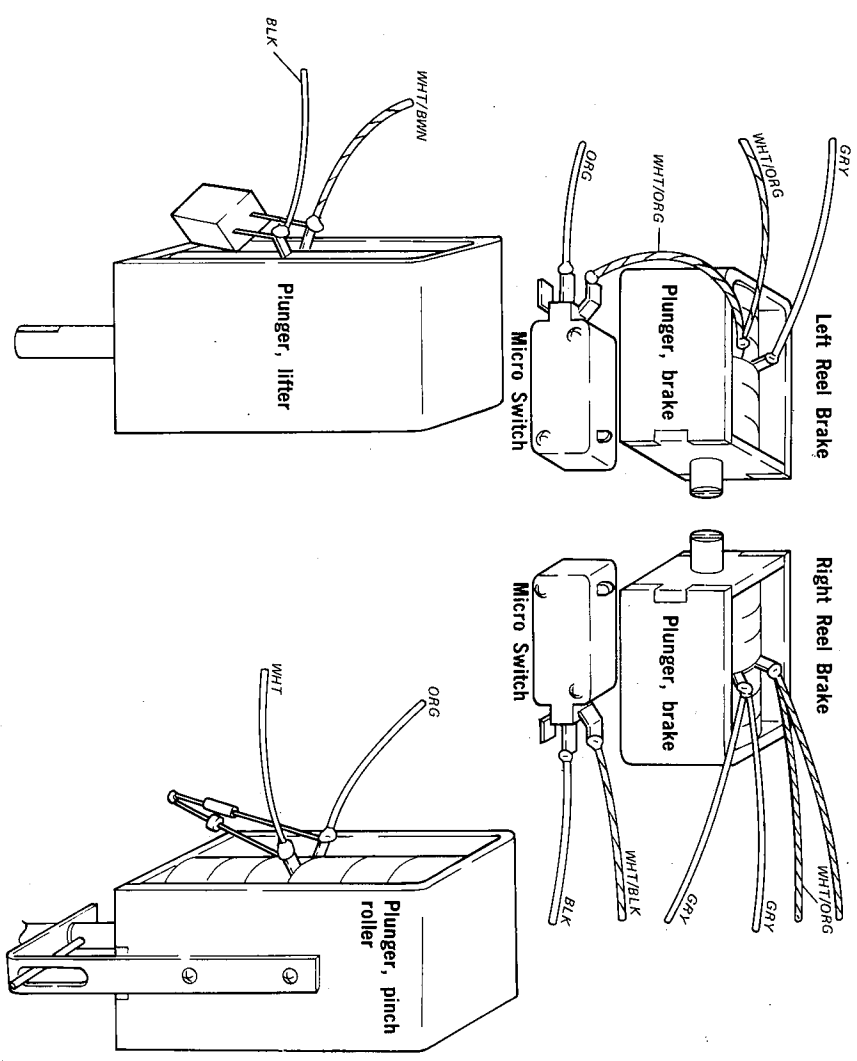
**Note:** Each voltage is measured by a VTVM. Each voltage value is for reference and in some recorders. The actual voltage value is in minor difference from the reference value.



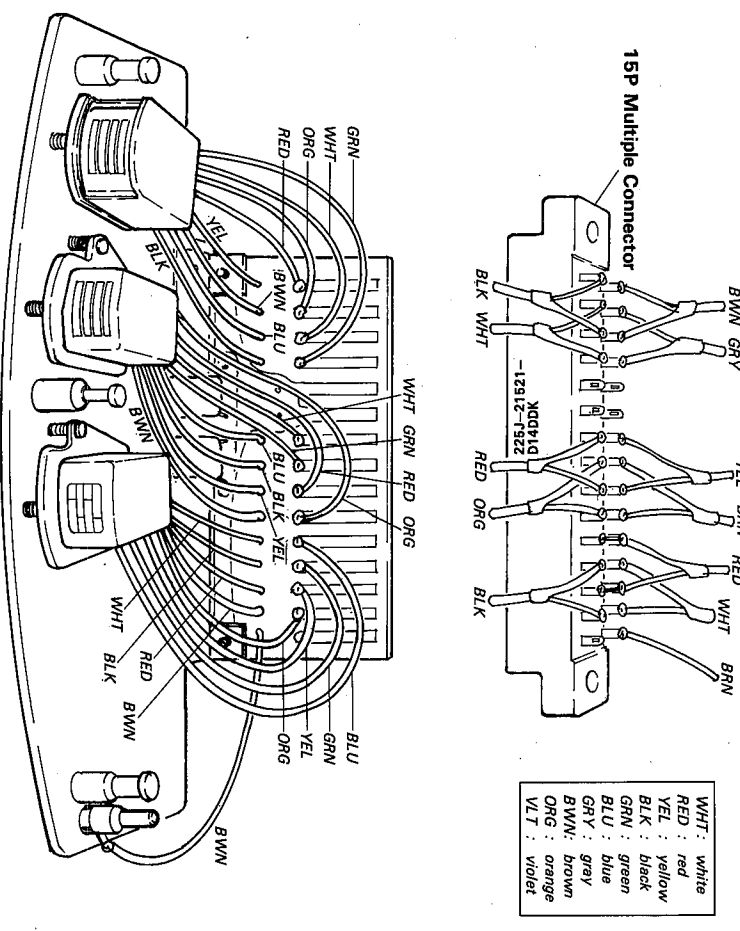


# 10. WIRING DIAGRAMS

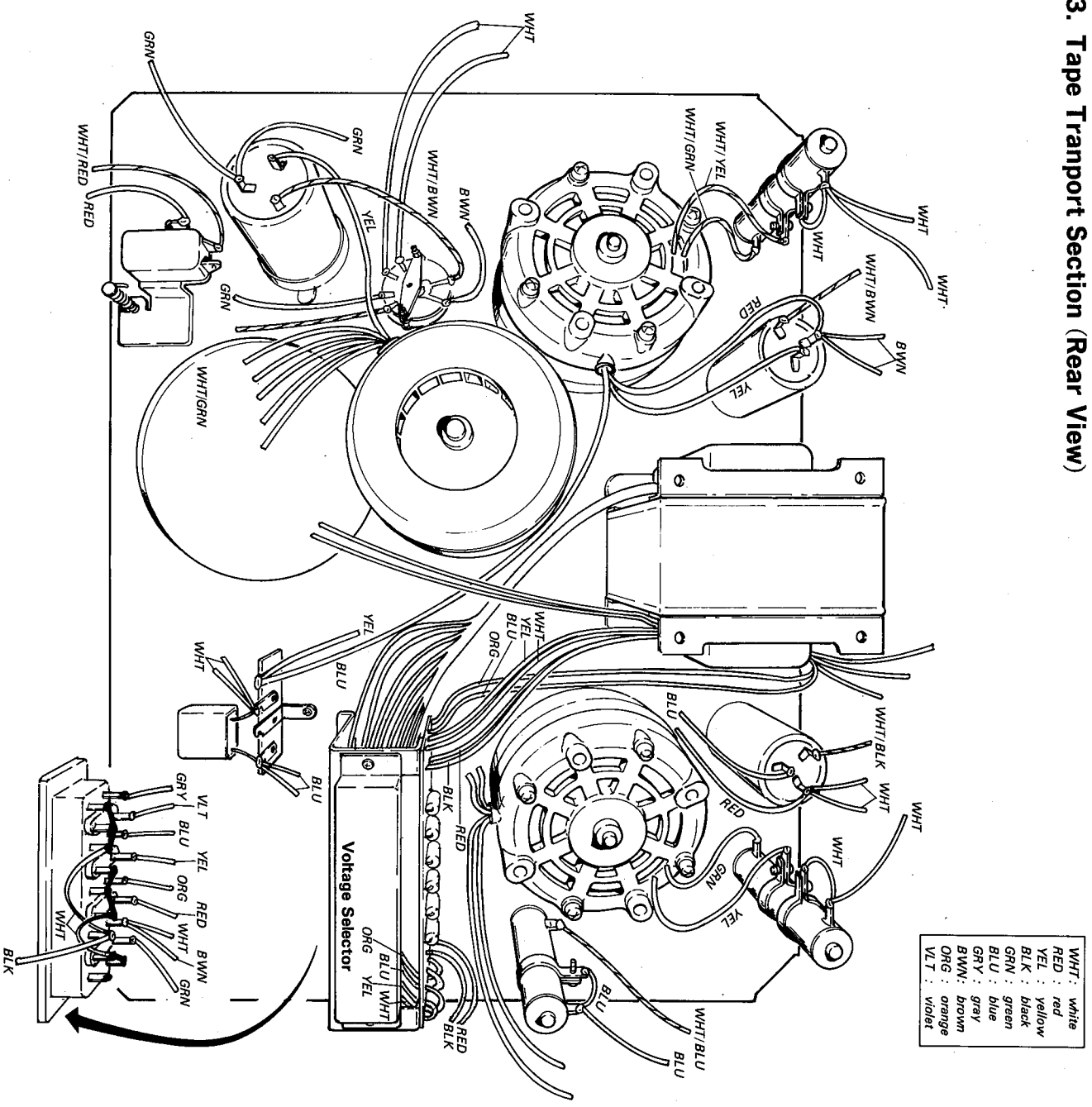
## 10-1. Tape Transport Section (Front View)



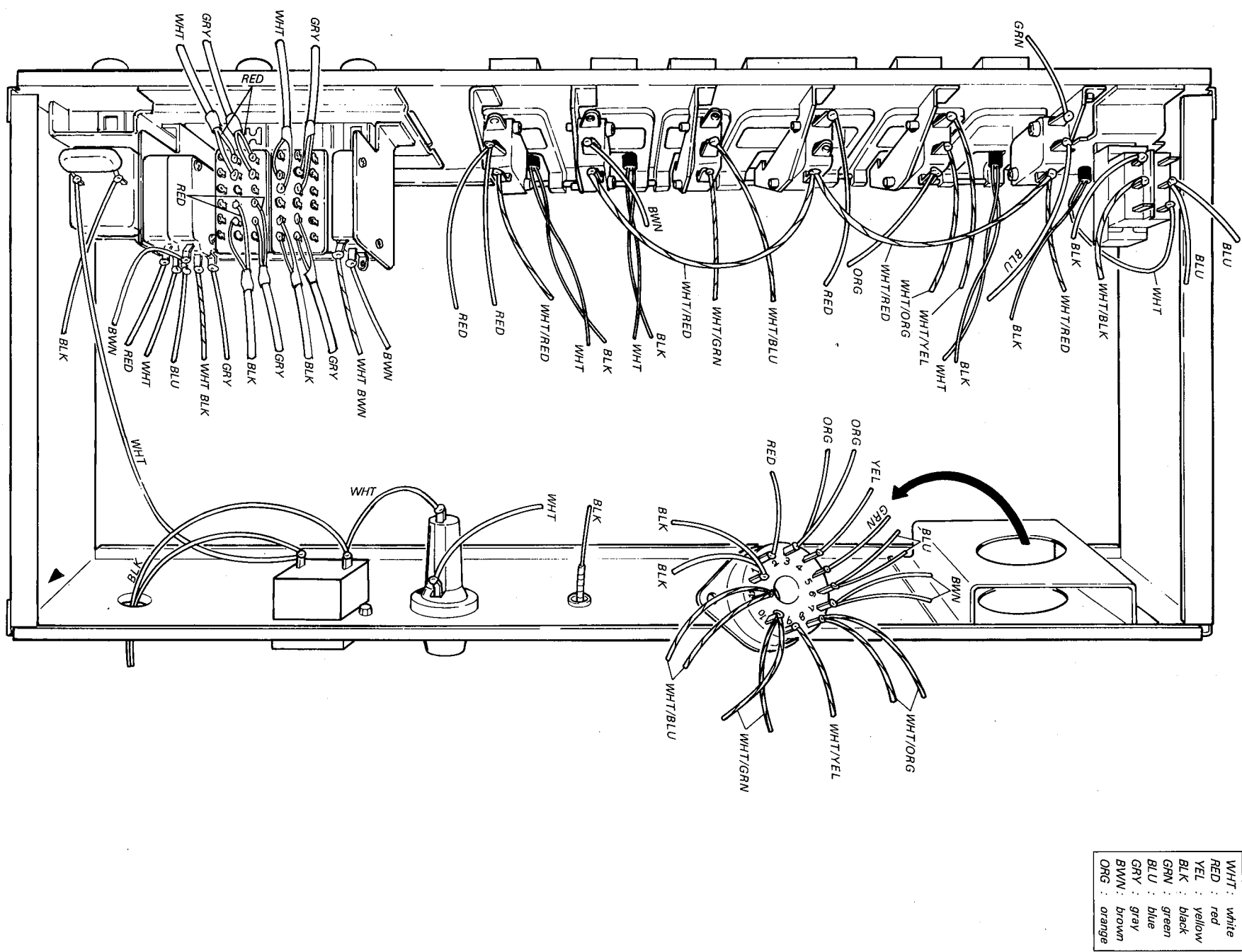
## 10-2. Head Assembly & Head Connector



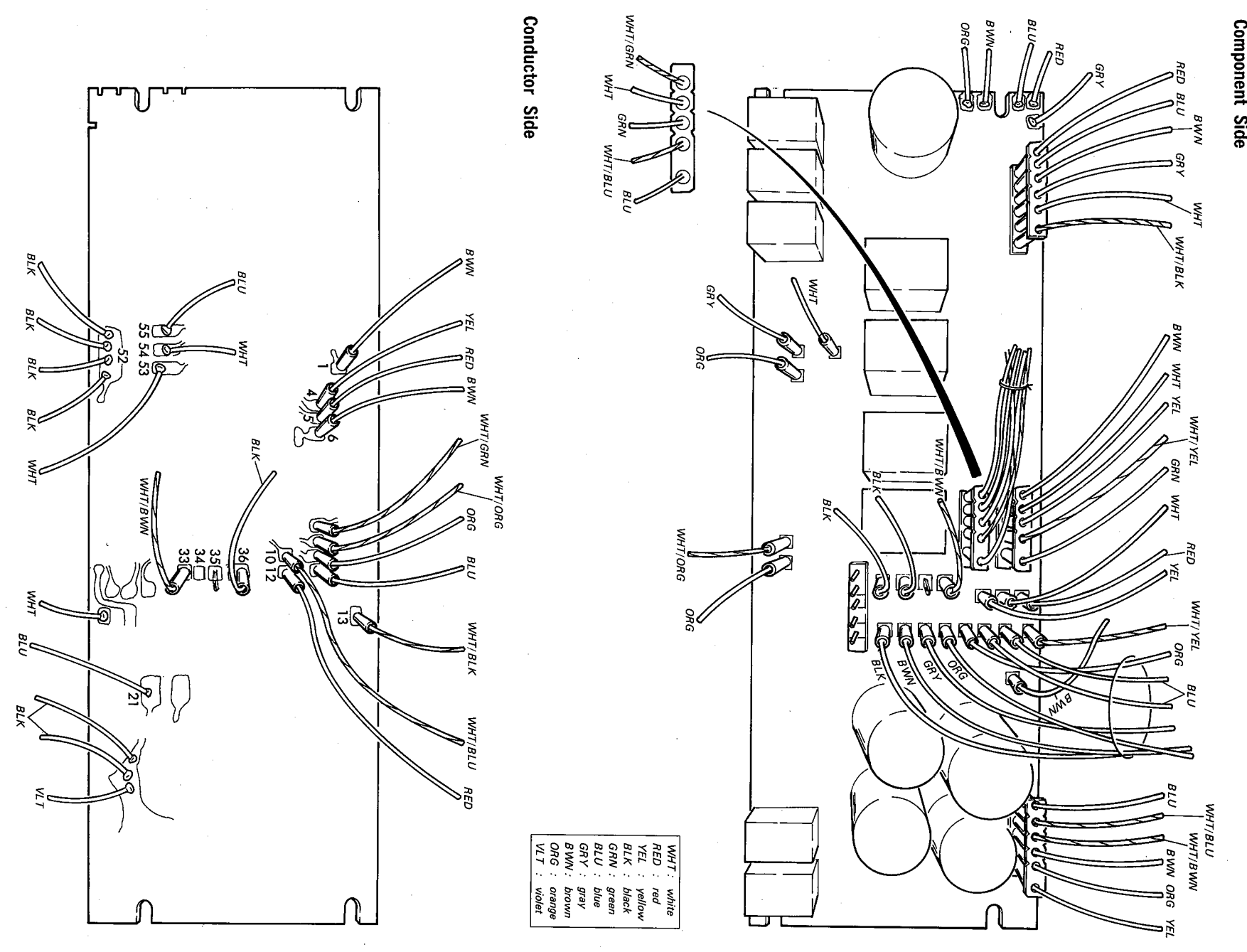
## 10-3. Tape Transport Section (Rear View)



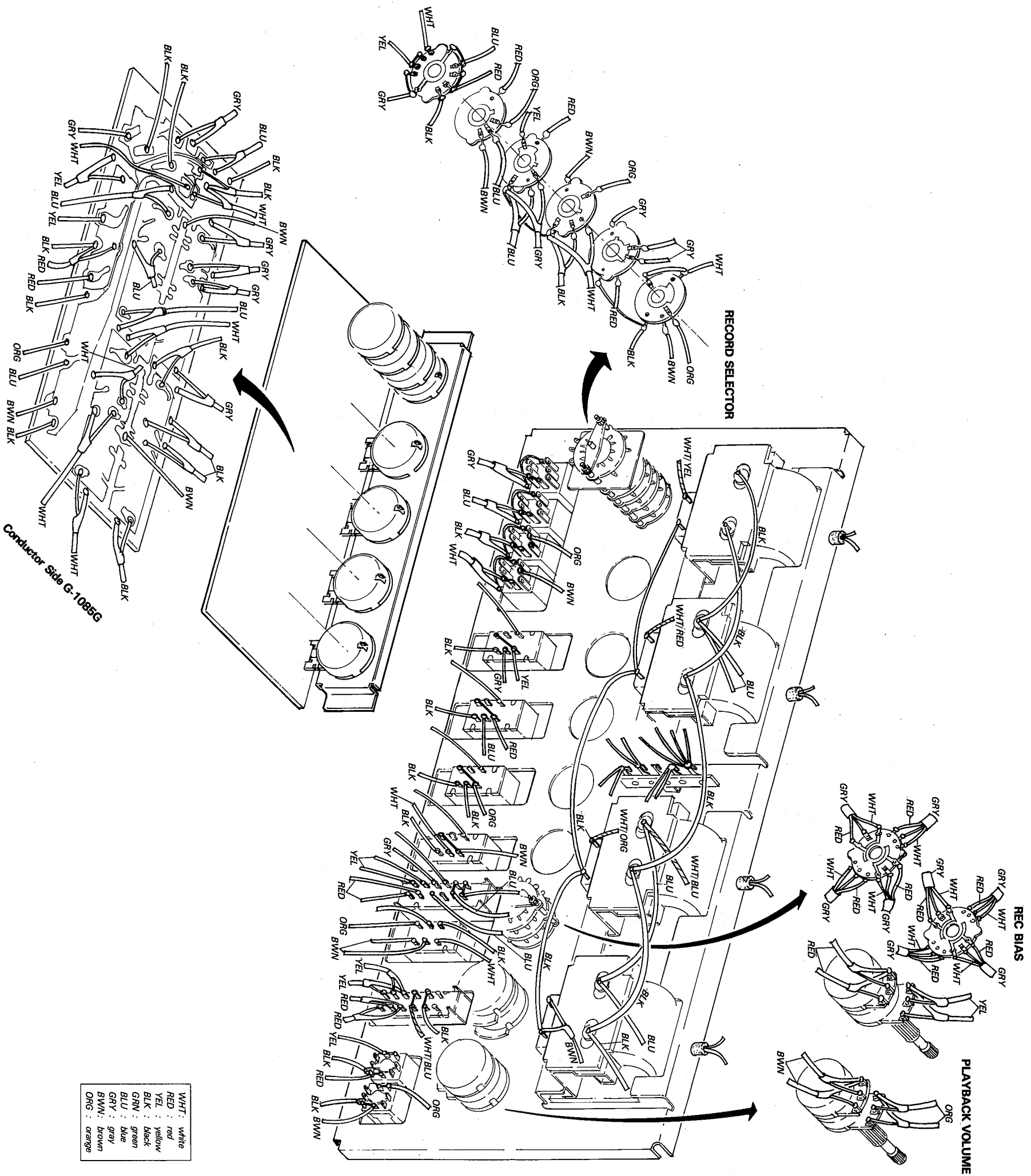
10-4. Control Chassis (Bottom View)



10-5. Control Circuit Board G-1142B-A



10-6. Amplifier Chassis



10-6. Amplifier Chassis

WHT	: white
RED	: red
YEL	: yellow
BLK	: black
GRN	: green
BLU	: blue
GRY	: gray
BWN	: brown
ORG	: orange

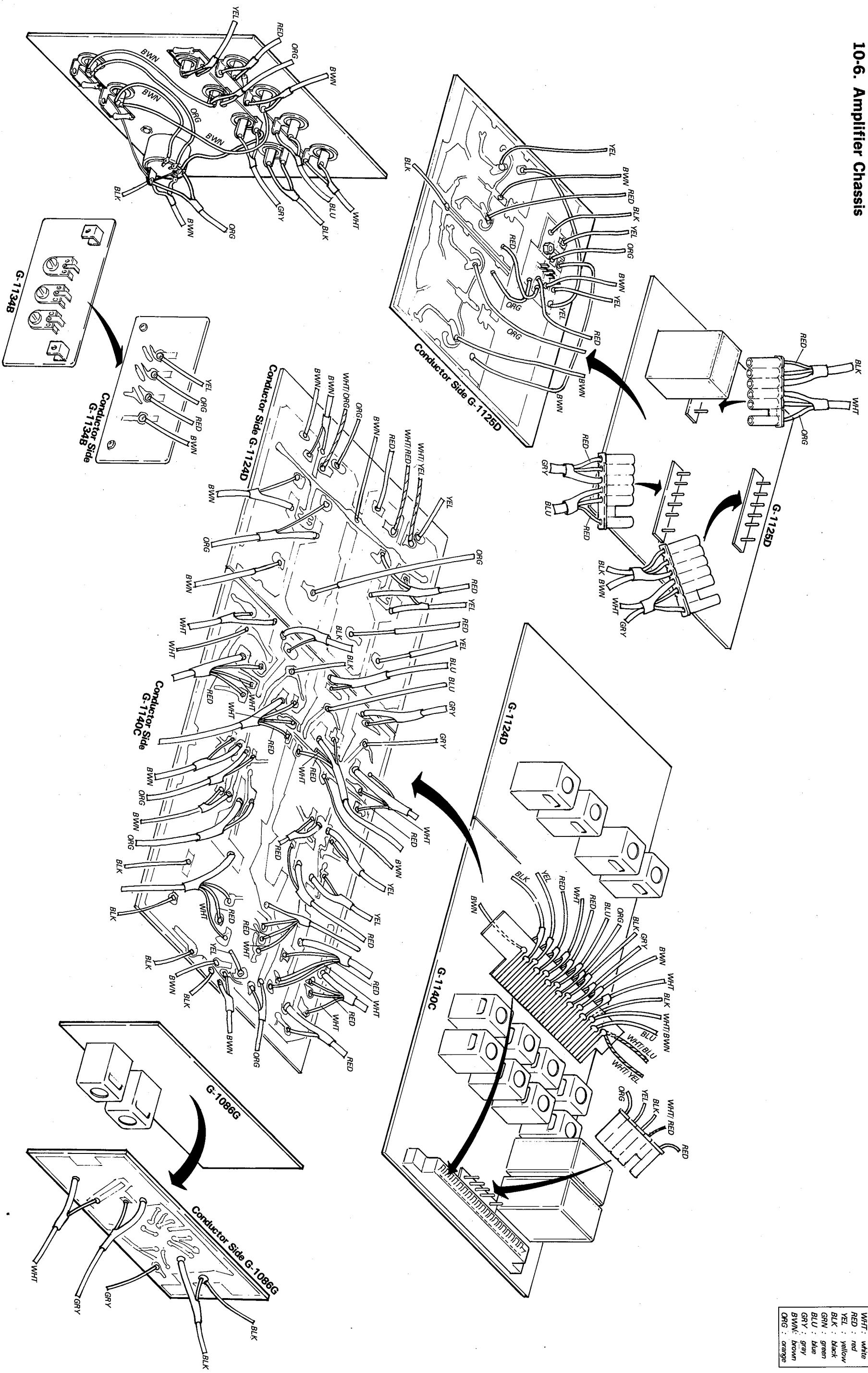




Fig. 5-2

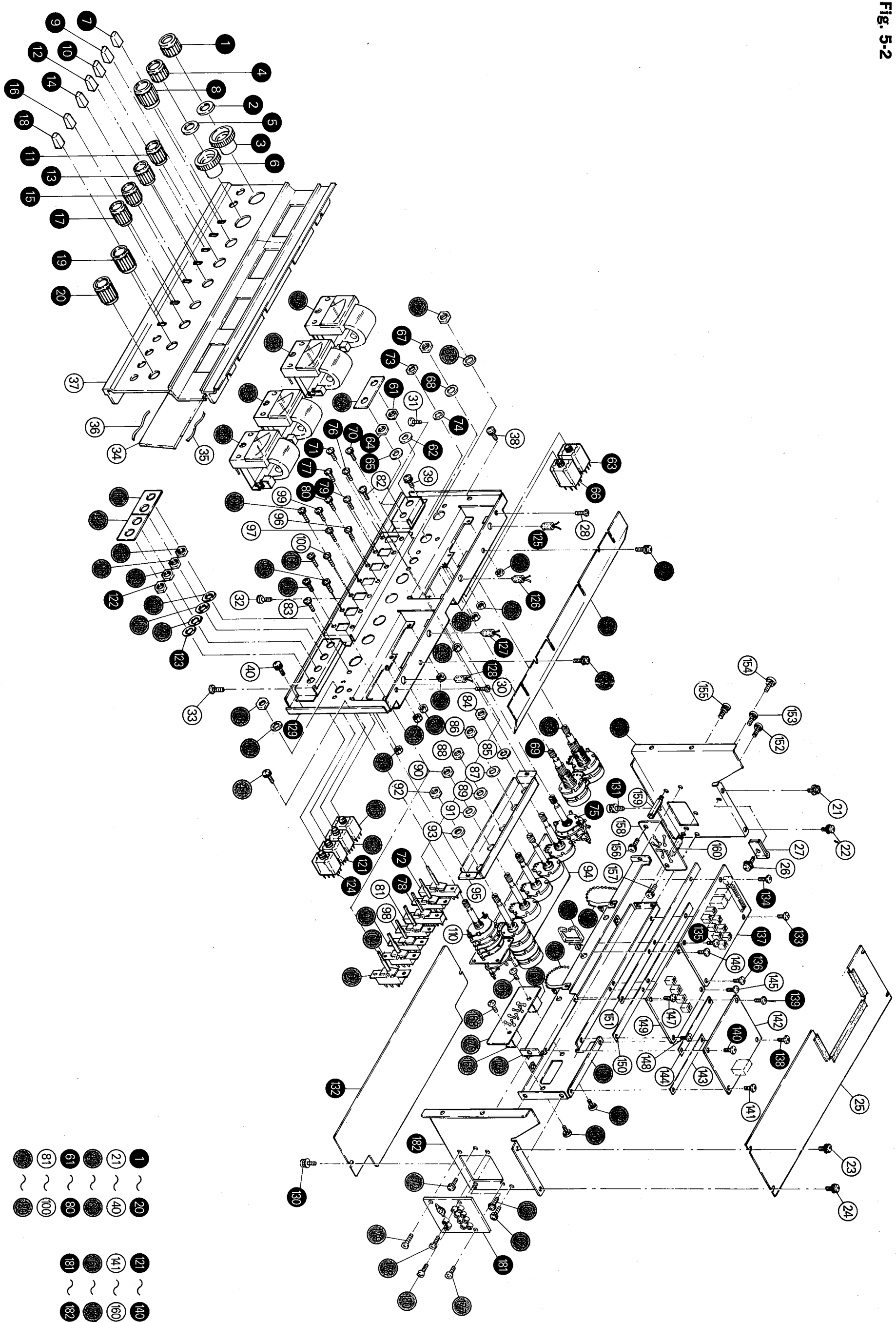
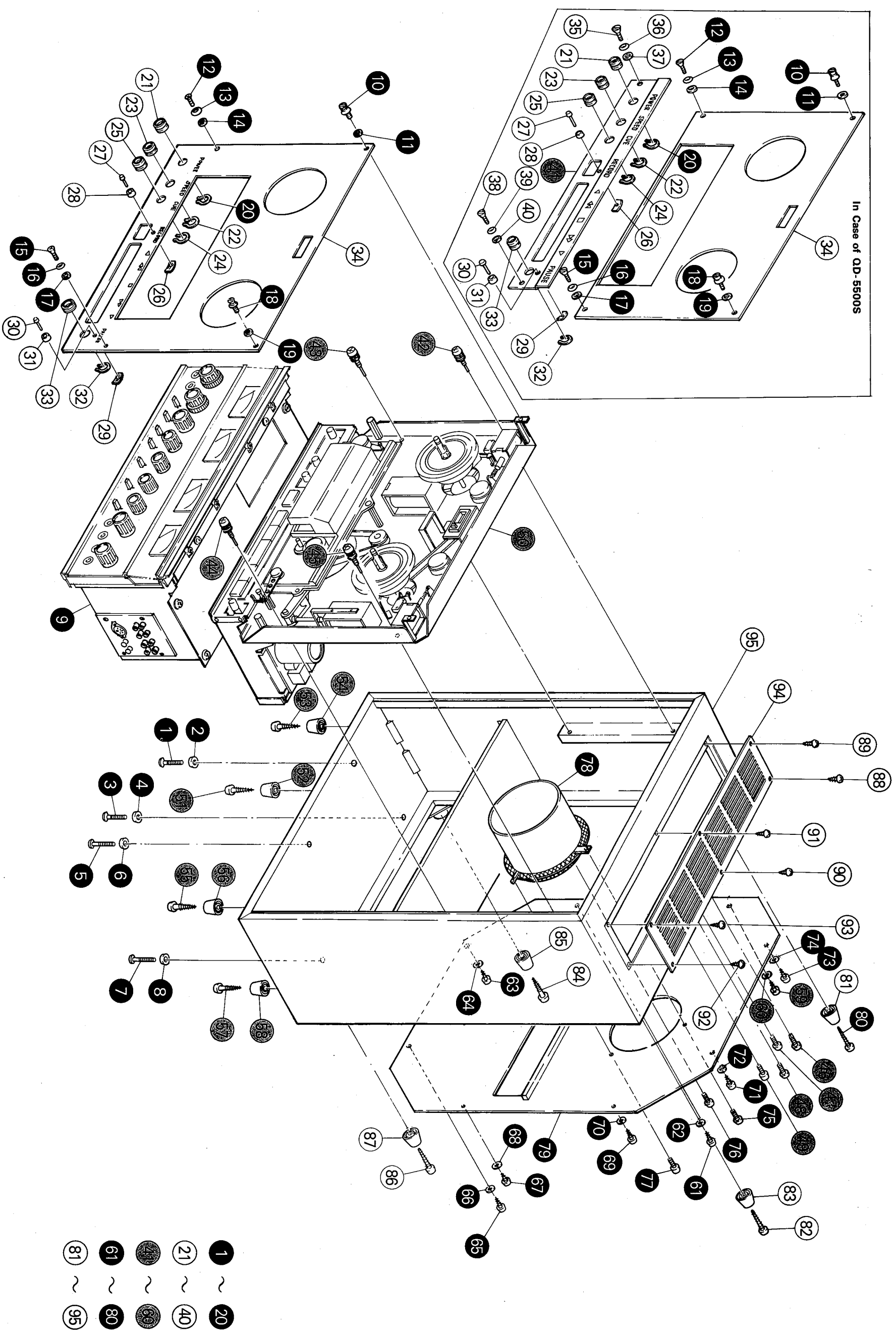


Fig. 5-1





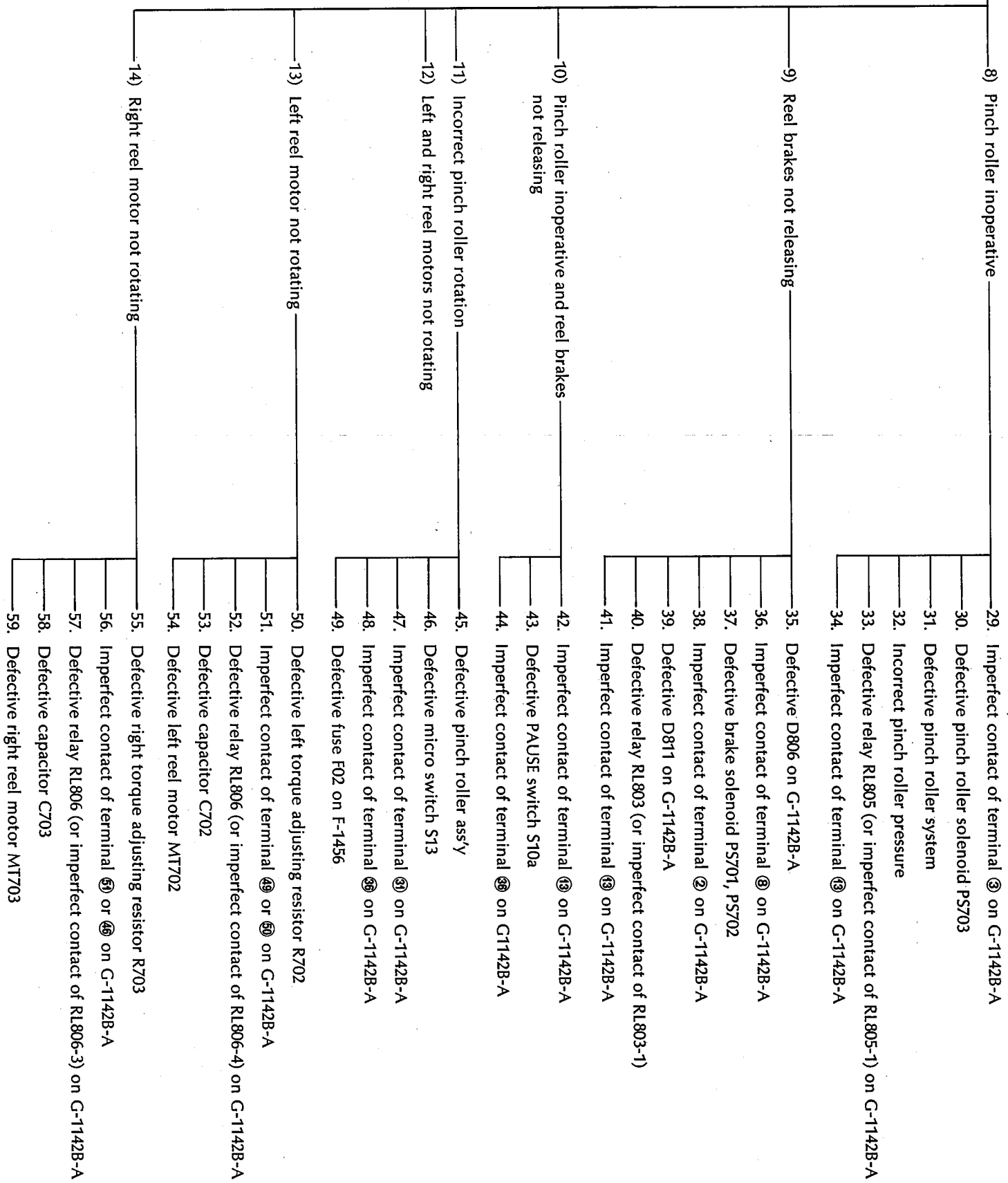
Symptom

4. FORWARD playback inoperative

Check Point

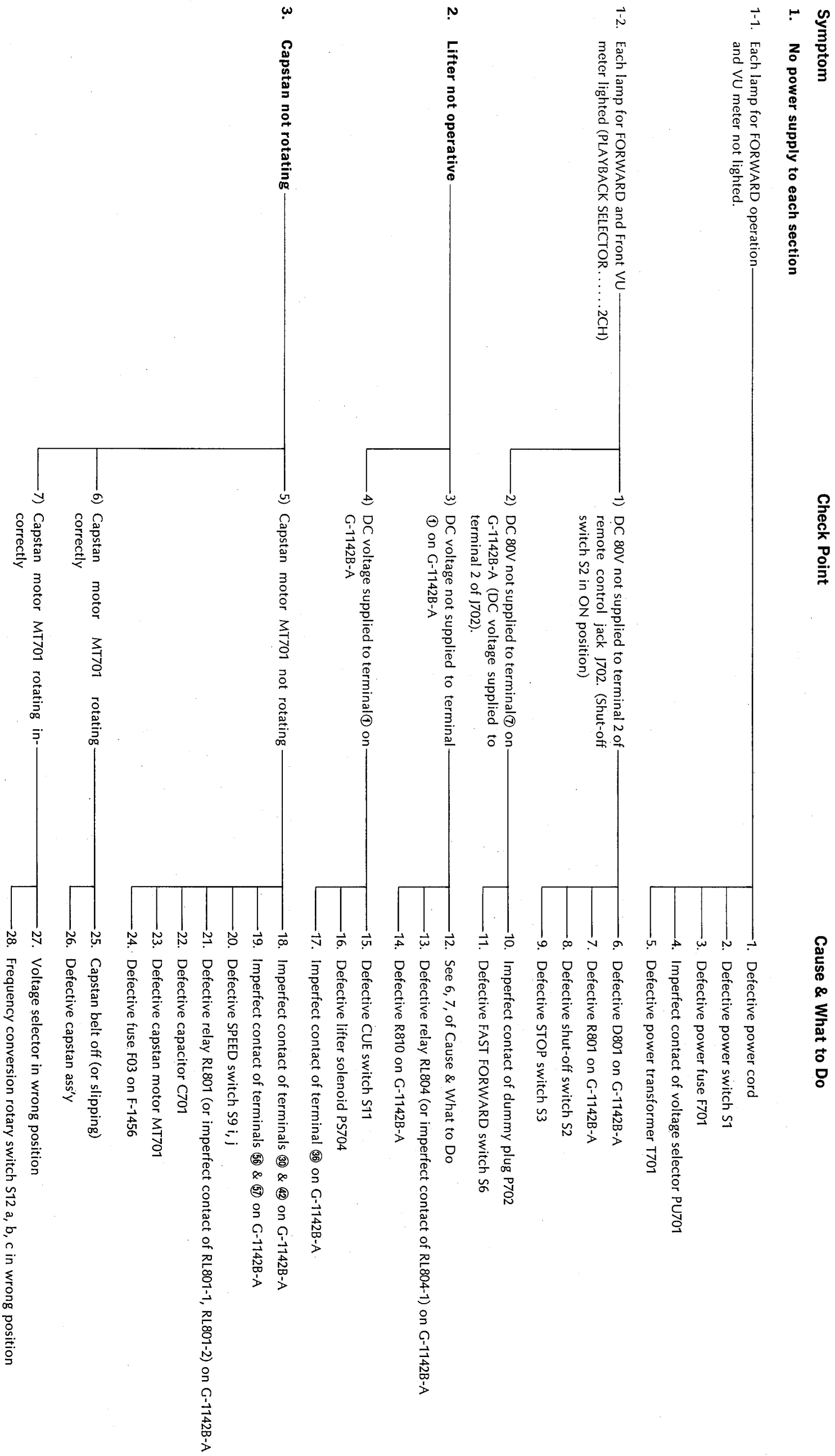
8) Pinch roller inoperative

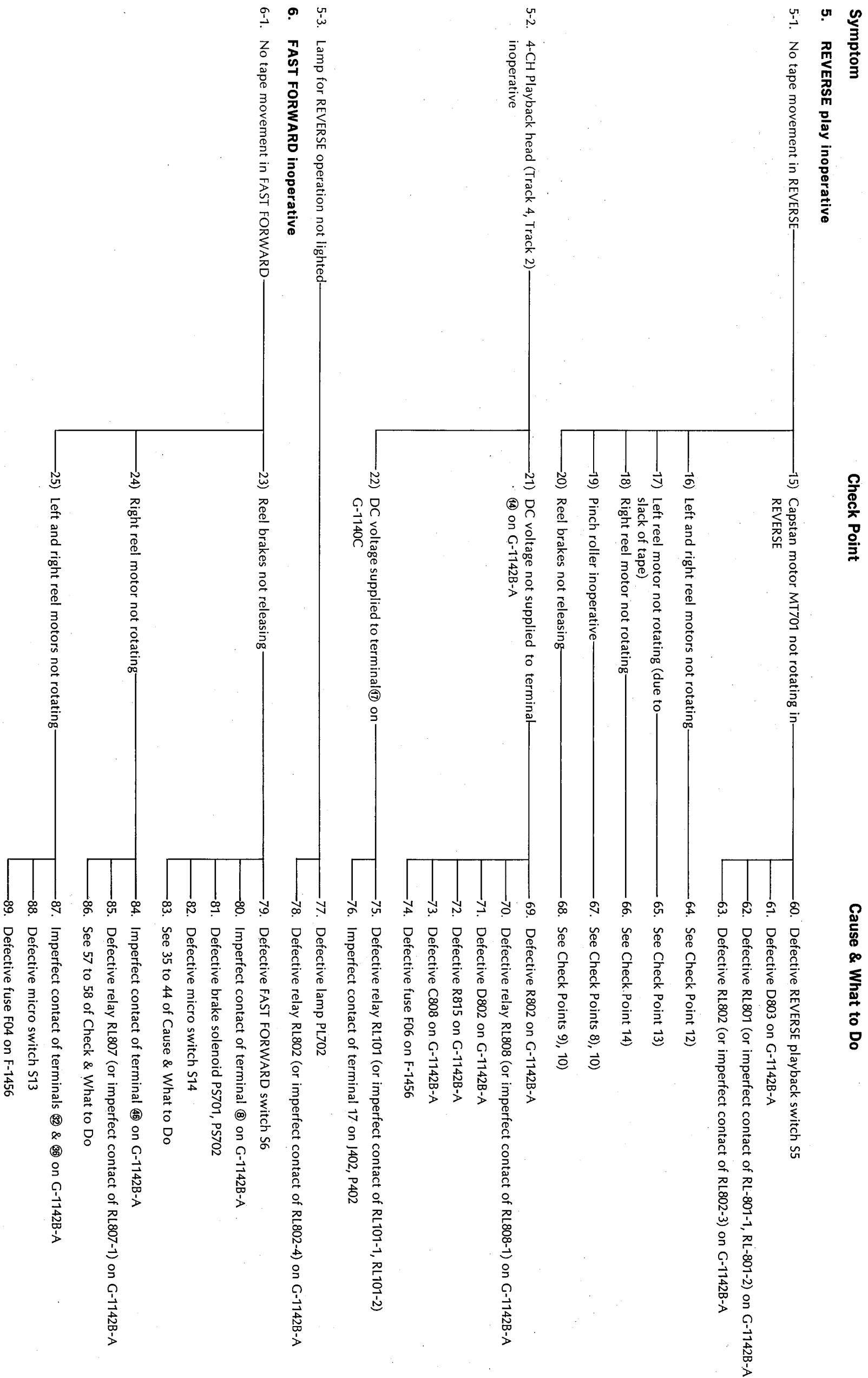
Cause & What to Do



## 9. TROUBLESHOOTING CHART

### 9-1. Troubleshooting on Mechanism Section



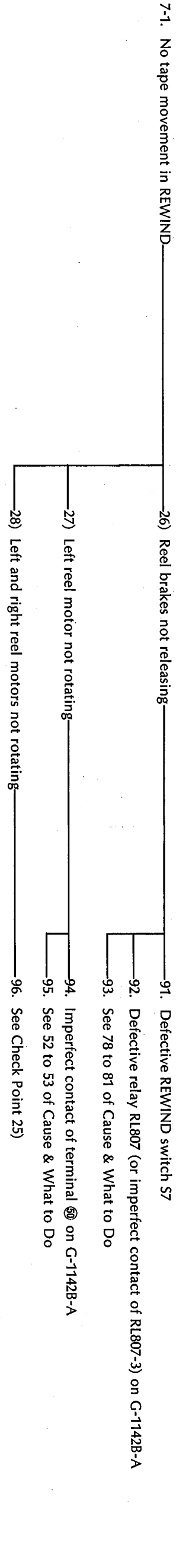


Symptom

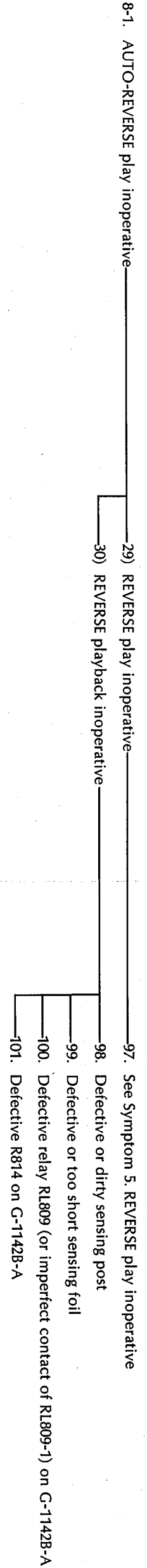
Check Point

Cause & What to Do

7. REWIND inoperative

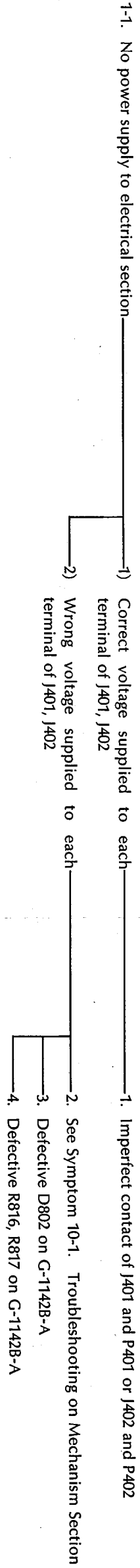


8. AUTO-REVERSE play inoperative

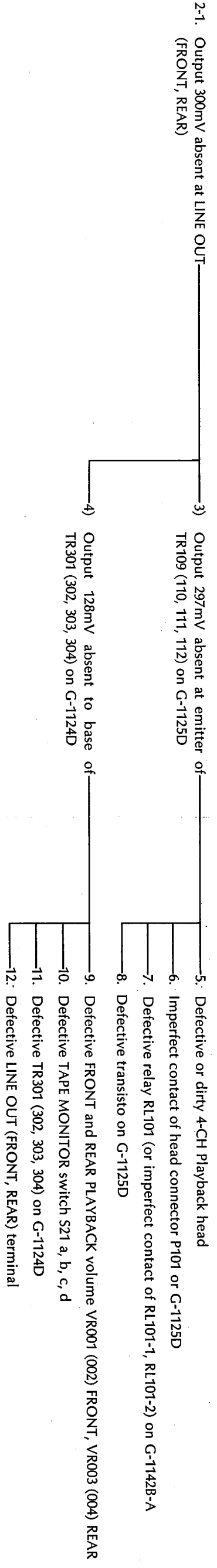


9-2. Troubleshooting on Electrical Section

1. Power supply troubles

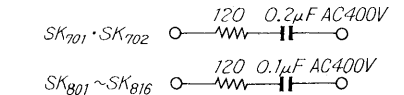
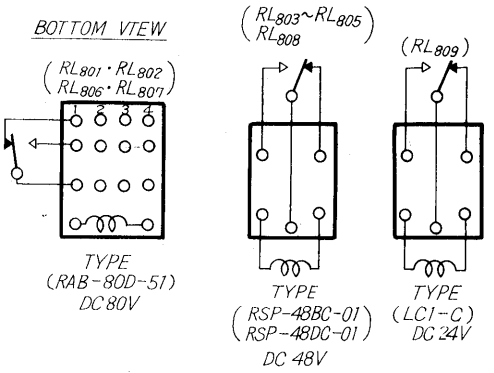


2. 4-CH Playback system troubles



# SANSUI QD-5500 SCHEMATIC DIAGRAM

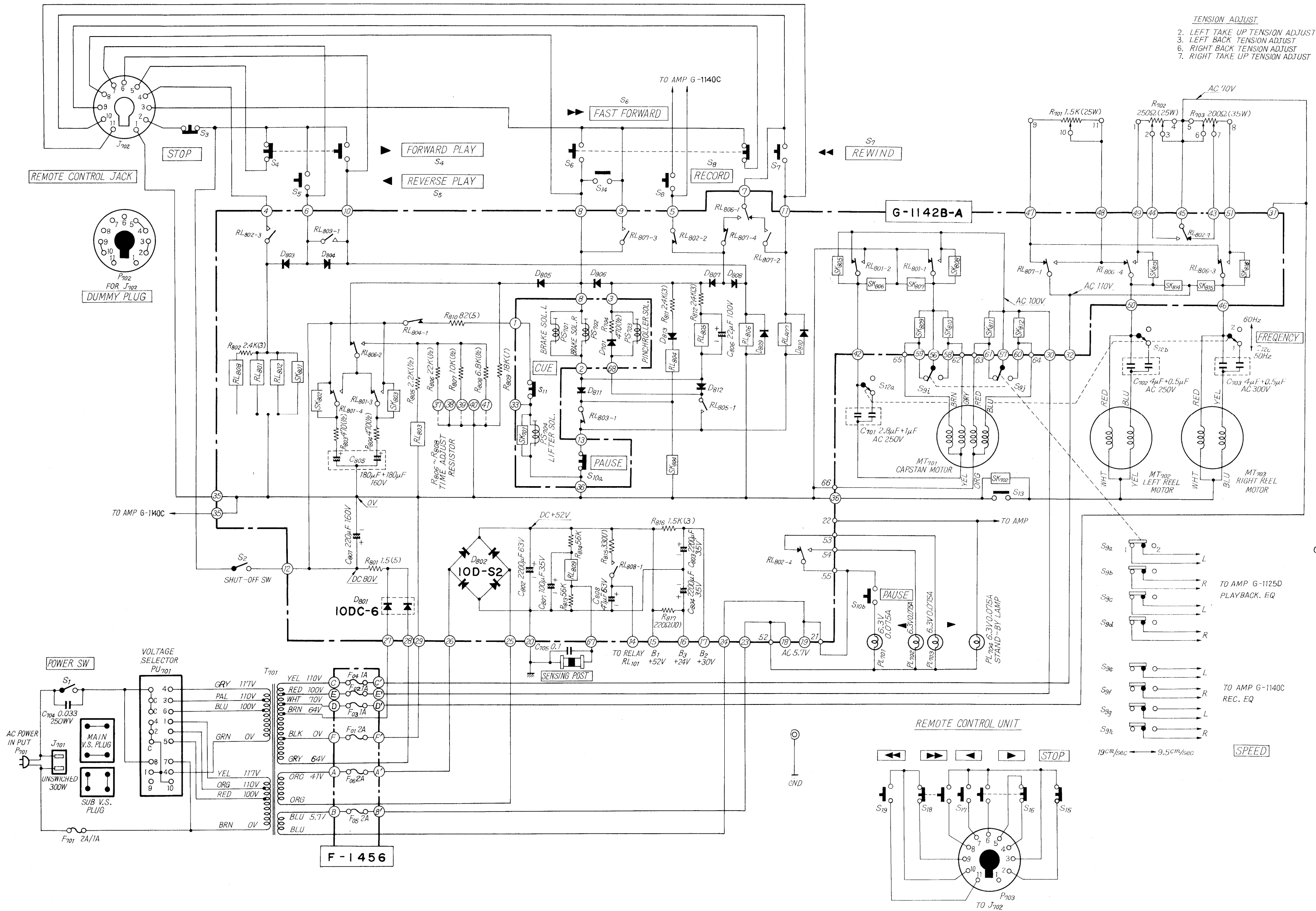
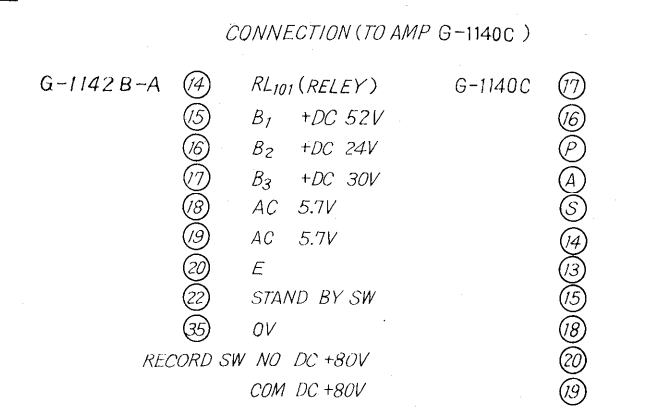
- S<sub>1</sub> POWER SW
- S<sub>2</sub> SHUT OFF SW
- S<sub>3</sub> STOP
- S<sub>4</sub> FORWARD
- S<sub>5</sub> REVERSE
- S<sub>6</sub> F.F
- S<sub>7</sub> REWIND
- S<sub>8</sub> RECORD
- S<sub>9a-j</sub> SPEED
  - 1 1 1/2 IPS (19 cm/sec)
  - 2 3 3/4 IPS (9.5 cm/sec)
- S<sub>10a,b</sub> PAUSE
- S<sub>11</sub> CUE
- S<sub>12a-c</sub> FREQUENCY CHANGE
  - 1 50Hz
  - 2 60Hz
- S<sub>13</sub> BRAKE (attach with brake solenoid)
- S<sub>14</sub> BRAKE (attach with brake solenoid)



**RELAY FUNCTION**

RELAY FUNCTION	RL 800	RL 801	RL 802	RL 803	RL 804	RL 805
STOP	●	○	○	○	○	○
RECORD	○	○	○	○	○	○
AUTO REVERSE	○	○	○	○	○	○

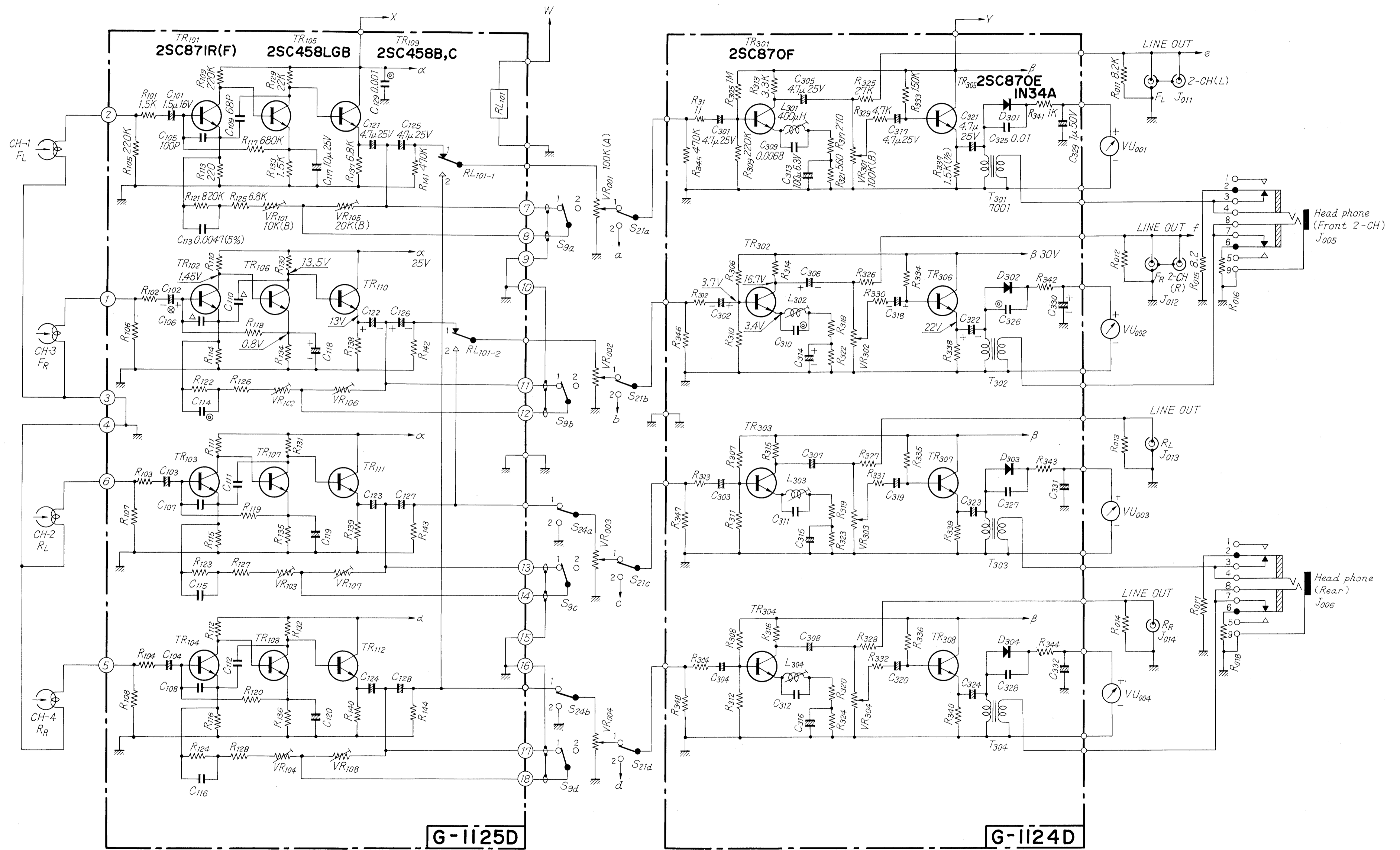
**NOTE**  
 1 The mark ○ shows the relay is energized.  
 2 RL803 is the delay relay (Open after 2sec)



**TENSION ADJUST**  
 2. LEFT TAKE UP TENSION ADJUST  
 3. LEFT BACK TENSION ADJUST  
 6. RIGHT BACK TENSION ADJUST  
 7. RIGHT TAKE UP TENSION ADJUST

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

# SANSUI QD-5500 SCHEMATIC DIAGRAM



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