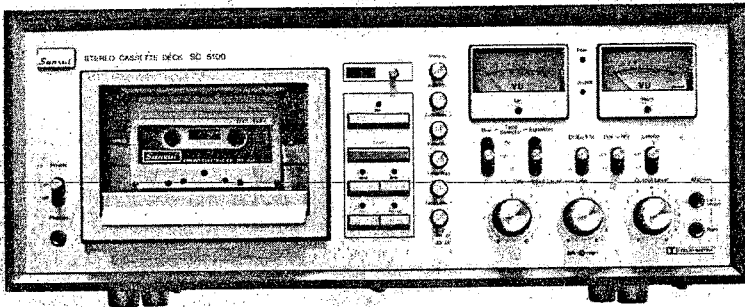


**SC-5100**

# SERVICE MANUAL

## STEREO CASSETTE TAPE DECK

# SANSUI SC-5100



### SPECIFICATIONS

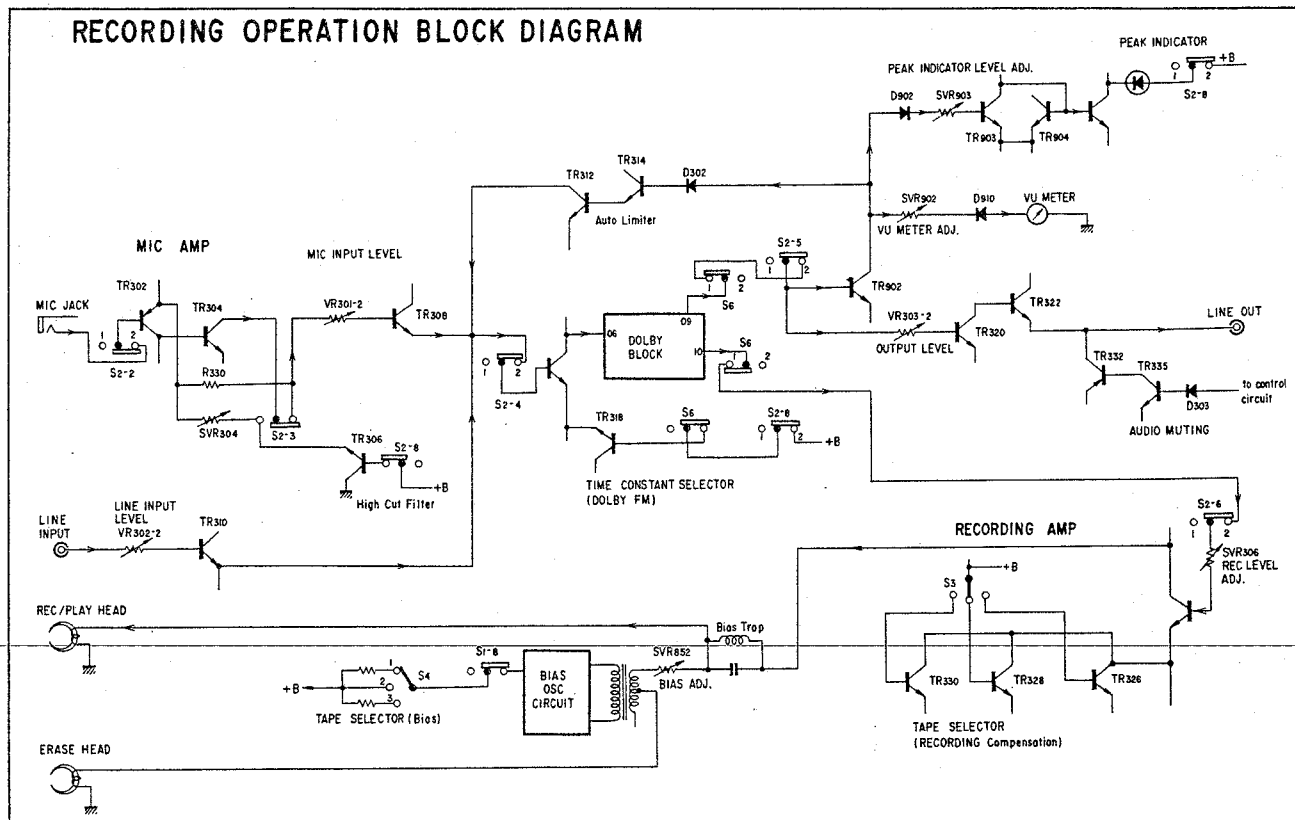
TRACK	4-Track (2-Channel Stereo)	
TAPE SPEED	4.8cm/sec. (1-7/8 ips)	
HEADS	Record/Playback: Ferrite Head	
	Erase: Ferrite Head	
MOTORS	Capstan: FG Servo DC motor	
	Reels: DC Motor	
WOW AND FLUTTER	within 0.05% WRMS	
FAST WIND TIME	approximately 60 sec. (C-60)	
FREQUENCY RESPONSE (Record/Playback)	Normal Tape (LH)	20 to 15,000Hz (30 to 13,000Hz ±3dB)
	Ferrichromium Tape	20 to 17,000Hz (30 to 14,000Hz ±3dB)
	SIGNAL TO NOISE RATIO (Record/Playback)	
Ferrichromium Tape		
without Dolby Noise		
Reduction	better than 57dB (weighted)	
with Dolby Noise Reduction		
	better than 67dB (above 5kHz)	
ERASURE FACTOR	more than 60dB at 1,000Hz	
INPUT SENSITIVITY & IMPEDANCE (0 VU, 1,000Hz)		
MIC	0.2mV 200Ω ~ 10kΩ	
LINE	70mV 100kΩ	
DIN Connector Socket	0.2mV 4.7kΩ	
OUTPUT LEVEL (0 VU, 1,000Hz)		
LINE	400mV	
DIN Connector Socket	400mV	
HEADPHONE IMPEDANCE		
	8Ω	
BIAS FREQUENCY	85kHz	
POWER REQUIREMENTS		
Voltage	100, 120, 220, 240V 50/60Hz	
	120V (Usable 110 ~ 130V)	
	60Hz (For U.S.A. & Canada only)	
Consumption	50W (rated)	
DIMENSIONS	496mm (19-5/8") W, 205mm (8-1/4") H, 325mm (12-7/8") D	
WEIGHT	13.5kg (29.8 lbs.) net	
	16.0kg (35.3 lbs.) packed	

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

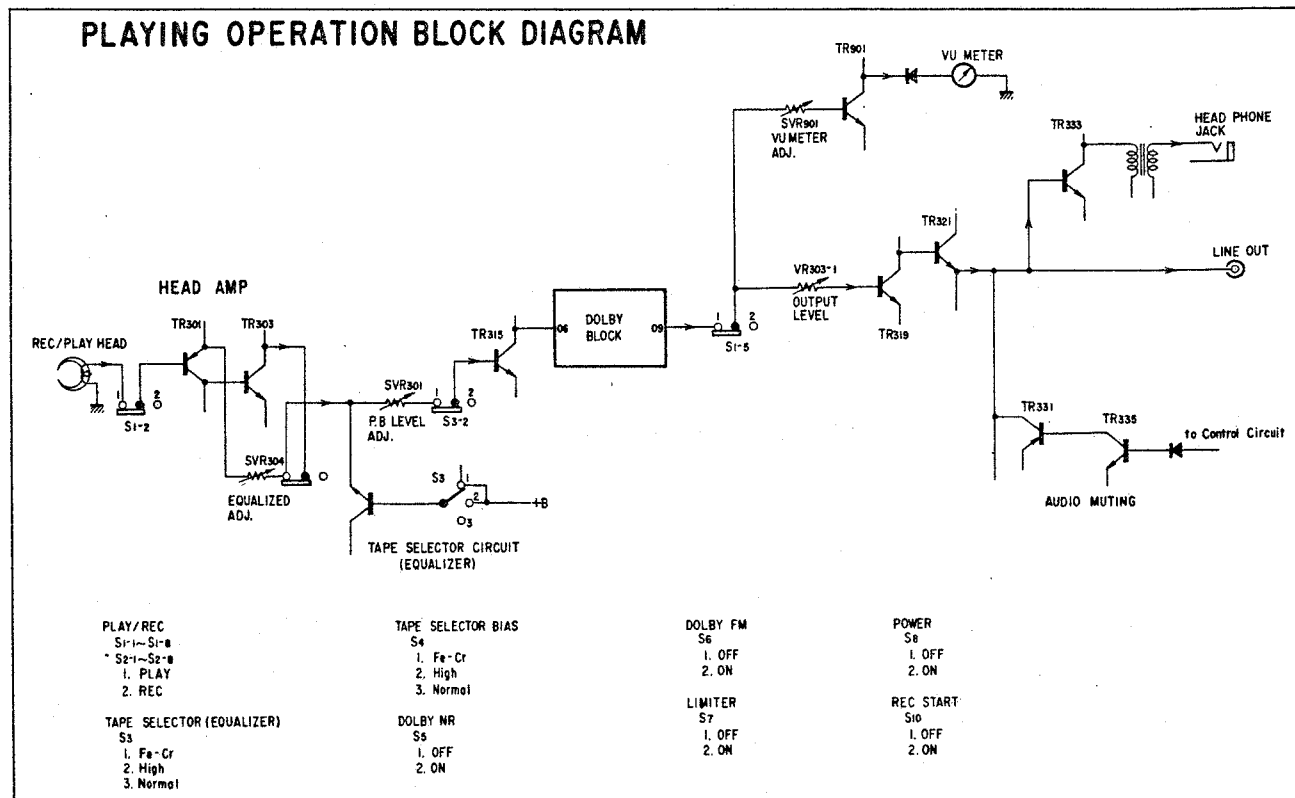
SANSUI ELECTRIC CO., LTD.

# 1. BLOCK DIAGRAM

## ◆Recording Operation Block Diagram



## ◆Playback Operation Block Diagram



## 2. OPERATION OF CONTROL CIRCUIT

In the control circuit of the SC-5100, such kinds of ICs as NAND (INVERTED-OR), inverter, and monostable multivibrator are used.

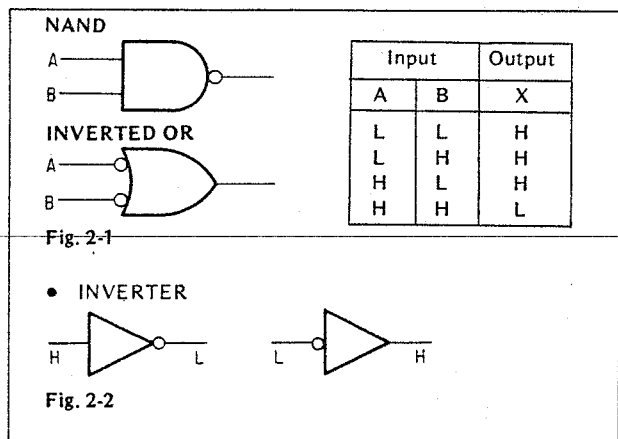
### • NAND, INVERTED OR GATE

The symbol marks of NAND and INVERTED OR are shown in Fig. 2-1, 2-2.

The symbol marks are distinguished between NAND and INVERTED-OR in schematic diagram though the input and output relation is entirely the same as the right table.

NAND mark shows that the active state is obtained when all inputs turn to H. On the other side, the active state of INVERTED-OR mark appears when L is existed at least one input (output is H).

In logical operation, the function of NAND and INVERTED OR is entirely the same and their relations between input and output are listed in the table on right.



### • Monostable multivibrator

The monostable multivibrator is a circuit to output the pulse of a certain set width when the trigger is applied to the input. The input triggers are represented by the symbols and in the circuit diagram, and the pulses generated from Q and  $\bar{Q}$  are represented by the symbols and .

### Note:

The symbol H or L shows that the voltage level is high or low respectively. In the case of SC-5100, H indicates +5V, and L indicates 0V.

## Operation of Control Circuit

The outline of the operation of each function would be understood by referring to the Block Diagram on page 4. The operation of the PLAY function is explained in details below, the operation of other functions (REC, FF and REW) could be understood similarly to this PLAY function referring to the Block Diagram.

### 1) PLAY

At the initial state under being power switch ON, the gates of the IC-601a are all in the H, mean while its output is in the L. Further, the input pin 13 of IC-601a is turned to H by the inverter of IC-602c, and this state is held.

1. When S1 is pushed, pin 3 of the connector B is grounded.
2. The middle gate of IC-601a turns from the H to L.
3. When the input pin 2 of IC-601a turns from H to L, the output turns to the H. Then, the input pin 13 of IC-601a is turned to L by the inverter of IC-601c, and this state is held even after S1 is released.

4. Even if the state before pushing S1 is REW or FF, the outputs of IC-601b and IC-607c are grounded by D601 and D602 through S1, and are turned to the L. Namely, the outputs of IC-601b and IC-607c by which the functions REW and FF are performed respectively, are held at inactive state.
5. When the output of IC-601a turns to the H, the input pin 9 of IC-609b turns to H, its output to L, and the output of IC-603a to H, then the TR604 and TR611 turn ON, which causes the PLAY plunger, L802, to be ON, thus the lamp connected to H3 starts lighting.
6. When the output of IC-609b turns to L, input pin 10 of IC-604b turns to L, consequently its output turns to H, thereby TR608 and TR617 are turned to ON, which causes the HOLD plunger, L803 to be ON, thus the CASSETTE HALF is held tightly.

### 2) REC OPERATION AND PAUSE OPERATION

1. If a cassette whose erroneous erasing prevention tab has already been broken off is inserted into this set, the record protection switch S8 is turned OFF, which makes the output of IC-607d the L. Thereby input pin 1 of IC-608c turns to L. And the other one of IC-608c turns to H at the instant the output of IC-607a is changed to H by pushing the REC button. As a result, one of the gates of IC-608c is L and the other one is H, consequently the output turns to H. Then the output of IC-608d changes to L, thus, the resulted operation is the same as that at pushing the STOP button.
2. By pushing the REC button, the output of IC-607a turns to the H, and the both input of IC-609c turn to H and its output to L, further, TR605 and TR614 turn ON through the inverter, thereby the solenoid, L802, for REC-PLAY changeover is turned ON. Thus, the REC-PLAY mode of the amplifier is changed over. After these function, the recording operation begins to start by pushing the PLAY button.
3. Recording cannot be performed unless the REC button is pushed before pushing the PLAY button. If the REC button is pushed when the PLAY button has already been pushed previously, the PLAY operation itself is cut off by the action of D604. If the REC and PLAY buttons are pushed simultaneously, recording is not performed.
4. When the PAUSE button is pushed at the recording state, the output of IC-607b turns to H, the output of IC-611c turns to L, thereby the PAUSE lamp starts lighting. On the other hand, when the PAUSE button is pushed, the output of IC-601a turns to L, which makes the PLAY solenoid OFF state, thus the PLAY lamp goes OFF. But the HOLD solenoid L803, is kept to be ON because the output of IC-607a remains H.

### 3) AUTO STOP

1. At the usual tape running state, the signal which is the integral of the pulses from the sensor, appears at the base of TR602, therefore TR602 is in ON state.
2. IC-606 (SN74121) is a monostable multivibrator. When TR602 is ON, that is, when the pin 5 of IC-606 is kept at the L, the output of H is delivered from  $\bar{Q}$ . Thereby the output of IC-608a is L, and the output of IC-608b is H.
3. If the run of the tape is stopped in this state, TR602 turns to OFF, and the input of the pin 5 of IC-606 turns to H. At this time, the monostable multivibrator IC-606 (SN74121) generates a pulse (L level) of a fixed width determined by C621 and R639 from  $\bar{Q}$ . Thereby the output of IC-608a turns to H, and the output of IC-608b turns to L, thus the operation is just the same as the STOP button is pushed.

#### 4) MEMORY REWIND

1. In the rewind state, TR603 is ON state. When the MEMORY REWIND switch (S7a) is turned ON and the indication of the counter reaches to "000" (S9 turns ON at this moment), the base of TR602 is electrically grounded through R643, pin 1 on connector A, S9, S7a, and TR603. Thus the tape running is stopped, which results in the same operation as the 5) AUTO STOP (automatic stop) is actuated.

#### 5) AUTO PLAY

1. When the AUTO PLAY button is depressed, the pin 7 on connector A and pin 3 on connector A is connected through diode D707.
2. When the automatic stop operates at the completion of rewind operation, the input 9 of IC-612 turns to L, and the output to H. When the input, pin 2, of IC-605a which is the monostable multivibrator, turns from L to H, the pulse with a fixed width determined by C619 and R637 is generated from pin 13 of the IC-605a.
3. At the instant that the rewind operation is completed, the output of IC-601c turns from L to H, and the output of IC-601b turns from H to L, thus the both inputs of IC-611a are reversed. However, the reversed time of the upper gate (pin 12) of IC-611a is delayed by R617 and C615 than that of the lower gate (pin 13). Due to this delay, there exists a period that both input gates of IC-611a are H, which makes the output turn from H to L, consequently, the output of IC-611b is turned from L to H. One of the inputs of IC-611d is connected to the output of IC-611b, and the other is connected to the monostable multivibrator IC-605a. Therefore, during the time that the pulse is generated by the monostable multivibrator, the output of IC-611d is L, and the output of IC-611b is H, consequently, the output of IC-603e turns to L. That is, when the rewind operation is completed, pin 3 on connector A is grounded to make the PLAY state.

#### 6) AUTOMATIC REPEAT

When the AUTO REPEAT button is depressed, the connections from pin 7 on connector A through diode D707 to pin 3 on connector A and from pin 8 on connector A to pin 4 on connector A are joined. After finishing the play operation, the output of IC-603d is turned to L by this connection from pin 8 on connector A to pin 4 resultly the rewind operation is performed. After finishing rewind operation, the output of IC-603e is turned to L by this connections from pin 7 of connector A through diode D707 to pin 3 on connector A, resultly the automatic play operation is performed.

#### 7) TIMER PLAY

When the TIMER PLAY button is depressed, the pin 7 on connector A and pin 5 on connector A are joined through the diode D706. When the power is turned ON, the output of IC-610c turns to L, which makes IC601a active state, thereby the play operation is performed.

#### 8) TIMER REC

When the TIMER REC button is depressed, the connections from pin 7 of connector A through diode D706 to pin 6 of connector A and from pin 6 of connector B to pin 5 of connector A are sequentially joined. When power is turned ON, the output of IC-610c turns to L, which makes IC-601a for PLAY and IC-607a for REC the active state respectively, thereby the recording operation is performed.

#### 9) TAPE LEAD-IN

By pushing this button, S7f, the same result is caused as a trigger is inputted to the monostable multivibrator IC-613, which makes output Q generate a positive pulse. By this pulse, TR622 turns to ON state, which makes the state that pin No. 7 on connector B is grounded, in other words, the same state as the FF button is pushed.  $\bar{Q}$  operates quite inversely to Q, that is, when the generation of the positive pulse is terminated,  $\bar{Q}$  turns to the H, thus TR621 is ON state during the period that the charging current flows into C632, as the same result as the STOP button is pushed. After all, by pushing this switch, S7f, the FF operation is performed during the generation of the pulse with a fixed width determined by C633, C634, and R659 (i.e. during the leader tape running).

#### 10) DELAY AT OPERATION CHANGEOVER

In this SC-5100, when one of the control button is pushed the operation state is stopped once, then moves to the next operation state indicated by the pushed control button. IC-604a serves for this function.

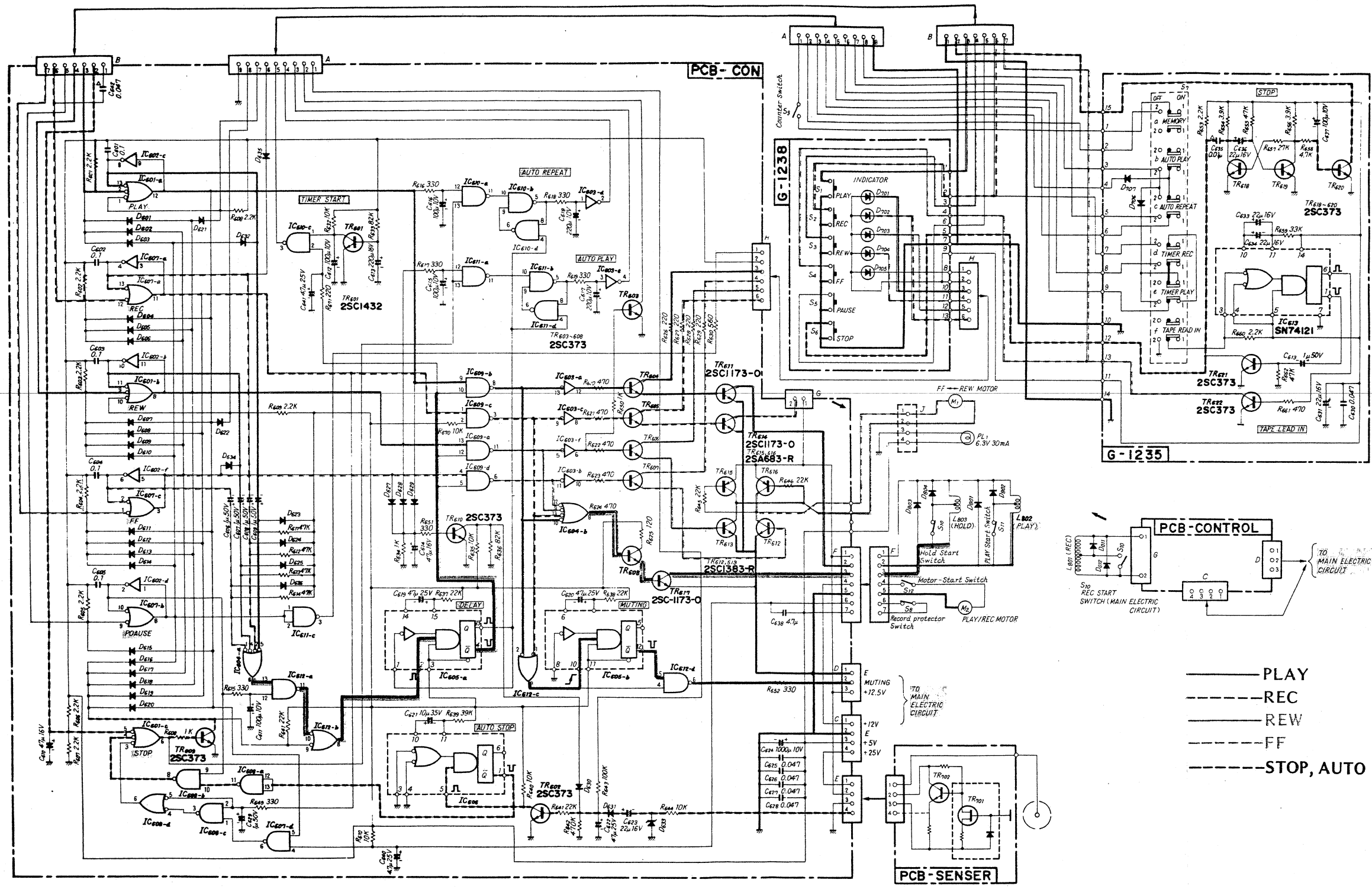
In the usual state, every four inputs of IC-604a is on the H, and C606, C607, C608, and C609 are charged. In this state, if the button for the operation desired to be performed is pushed, a charging current flows into the corresponding capacitor among C606 (FF), C607 (REWIND), C608 (REC), and C609 (PLAY), and the corresponding gate (input of IC-604a) turns from H to L, consequently, the output of IC-604a turns to H. Then, in a sequence, the output of IC-612a turns from H to L, the output of IC-612b from L to H, and  $\bar{Q}$  of the monostable multivibrator IC-605a generates the negative pulse. By this, IC-609a (PLAY), IC-609c (REC), IC-609a (REWIND), and IC-609b (FF) which serve for the respective functions, remain the inactive state, namely, the stop state. The period of this state lasts, however, only the time corresponding to the width of the pulse generated by the monostable multivibrator IC-605a. Therefore, after the time equal to the pulse width passes, the desired operation starts to perform.

#### 11) MUTING

At the time the PLAY and/or REC buttons are pushed, the output of the PLAY & REC circuit is muted. By pushing the buttons, output of IC-612c turns to H. Then in a sequence, the  $\bar{Q}$  output of monostable multivibrator IC-605b generates negative pulse. By this, output of IC-612d turns to H. Thereby, TR335 in the LINE OUTPUT amp circuit is turned ON, and the LINE OUT is grounded. The period of the muting operation is determined by C620 and R638.



12) Block Diagram of Control Circuit



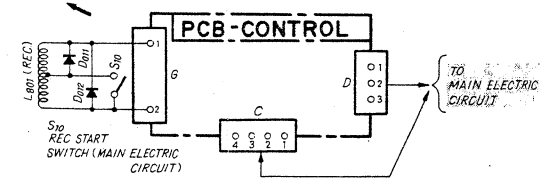
**SYMBOL**  
 ◻ Ceramic  
 ● Mylar  
 ⊗ Selyol  
 □ Mica

**RESISTORS**  
 Are in ohms 1/4 Watts, ±5% Tolerance  
 Unless Otherwise Noted. K:K $\Omega$ , M:M $\Omega$

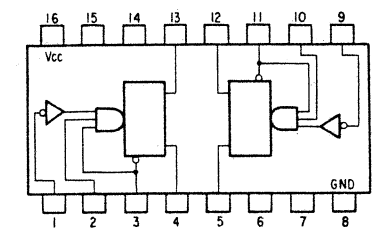
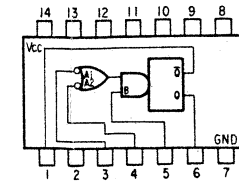
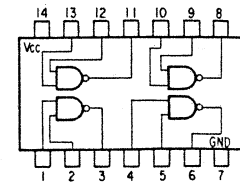
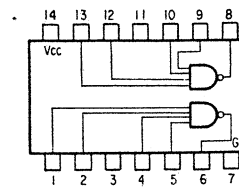
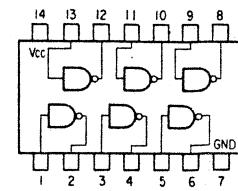
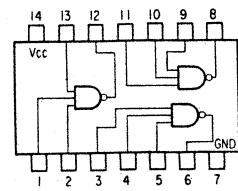
**CAPACITORS**  
 Are in  $\mu$ F, Unless Otherwise Noted  
 P:pF

Each D.C. Voltage shows the nominal value in volts at during recording

**SWITCHING**  
 PLAY S<sub>1</sub>  
 REC S<sub>2</sub>  
 REW S<sub>3</sub>  
 FF S<sub>4</sub>  
 PAUSE S<sub>5</sub>  
 STOP S<sub>6</sub>  
 MEMORY S<sub>7-a</sub>  
 1. OFF  
 2. ON  
 AUTO PLAY S<sub>7-b</sub>  
 1. OFF  
 2. ON  
 AUTO REPEAT S<sub>7-c</sub>  
 1. OFF  
 2. ON  
 TIMER REC. S<sub>7-d</sub>  
 1. OFF  
 2. ON  
 TAPE LEAD-IN S<sub>7-e</sub>  
 1. OFF  
 2. ON  
 Record Protection SW S<sub>8</sub>  
 Counter SW S<sub>9</sub>  
 Hold Start SW S<sub>10</sub>  
 Play Start SW S<sub>11</sub>  
 MOTOR-START SW S<sub>12</sub>



— PLAY  
 - - - REC  
 — REW  
 - - - FF  
 - - - STOP, AUTO



### 3. OPERATION OF MECHANISM ASS'Y

#### 1) Releasing of brake and operation of hold lever

By pushing any one of the control buttons PLAY, REC, FF, and REW, the brake is released, and at the same time the hold lever operates to hold the cassette half. (The claw C moves horizontally.)

Operation sequence (Fig. 3-1)

Brake releasing	①	②	③	④
Hold lever operation	①	④	⑤	⑥

#### 2) PLAY operation

1. When the cassette half is inserted, the claw A of cassette lever is raised upward. Thereby the MOTOR START switch S12 is turned ON and the PLAY motor starts to rotate.
2. Then, the rotation is transmitted in sequence to the capstan belt, capstan flywheel, and play clutch as shown in Fig. 3-2.
3. By pushing the PLAY button, the play solenoid indicated in Fig. 3-1 turns to ON state. Then, the play clutch is pressed to the take-up reel in the order of ⑦ - ⑧ - ⑨ - ⑩ - ⑪ - ⑫, as can be seen in Fig. 3-1. As a result, the take-up reel is rotated, and the rotation is also transmitted to the counter belt.
4. On the other hand, the slide base is raised upward in the course of the operation ⑧, consequently, the section of ⑬ also rises upward, which pushes up the pinch roller. Thereby the pinch roller is pressed to the capstan.

#### 3) REC operation

The basic operation is the same as the PLAY operation, but they are different in the following points.

1. When the REC button is pushed as stated in 1), joint ④ is raised, which lowers the claw B of the protector lever. By this, at the time of inserting a cassette, if its erroneous erasing protection claw has already been broken off, the RECORD PROTECTION switch does not turn ON, thus the control circuit does not operate.
2. By pushing the REC button, the REC solenoid (L801) is operated to switch over the PLAY/REC amplifier to REC.

#### 4) FF and REW operation (Refer to Fig. 3-2)

1. By pushing the FF button or REW button, the FF/REW motor starts to rotate. The rotation of the FF/REW motor is transmitted to the FF/REW arm assembly through the FF/REW belt.
2. On the FF/REW arm assembly, the lower side pulley can move to the left or to the right, the fulcrum A as the center. This is because the direction of the FF/REW belt tension, changes in accordance with the change of rotating direction, forward and reverse, of the FF/REW motor.
3. The FF/REW arm assembly is pressed to the take-up reel in the case of FF, and is pressed to the supply reel in the case of REW, to rotate the respective reels.

Fig. 3-1

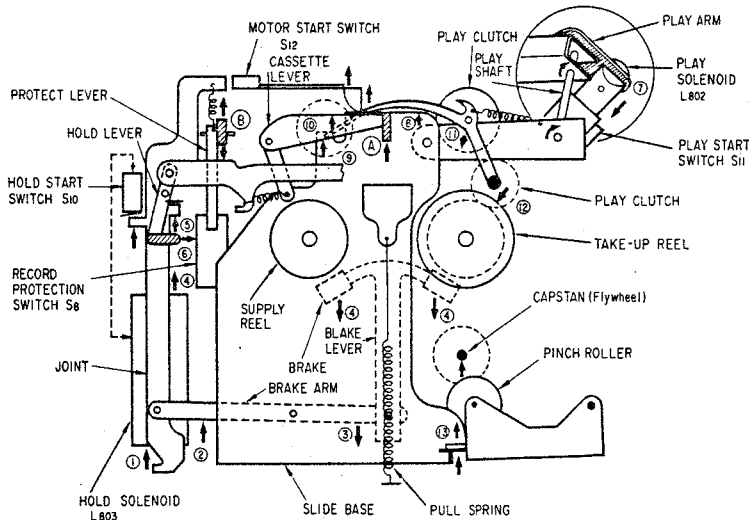
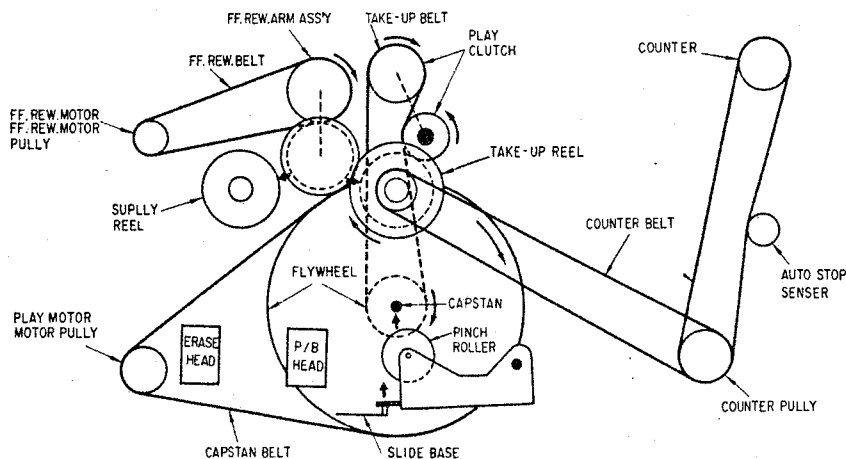


Fig. 3-2



## 4. REPLACEMENT OF MAIN PARTS

\* Excepting Volume Knob, whole parts replacement must be performed after removing cabinet.

### 1) Replacement of Cabinet

1. Remove the screws fixing cabinet.  
(No. ③ x 1, No. ⑬ x 5 in Exploded View on page 19).

### 2) Replacement of Panel Ass'y

1. Extract 3 of volume knob.
2. Remove 6 of screws fixing panel ass'y.  
(No. ⑭ in Exploded View on page 19).

### 3) Replacement of Mecha Cover

(No. ⑧ in Exploded View on page 21).

1. Take the panel ass'y off.  
(See the replacement of panel ass'y).
2. Remove a couple of screws at upper corner of the mecha cover.  
(A & B in Fig. 4-1).

### 4) Replacement of Mechanism Ass'y & Control Section

(Mechanism, Control Circuit Board, G-1235 & G-1238).

- \* At repair, this section is able to be taken out from this Model.
1. Remove the 6 of fixing screws.  
(From A to F in Fig. 4-2).

### 5) Replacement of Capstan Belt & Take-Up Belt

1. Take out mechanism section by Replacement 4).
  2. Loosen flywheel thrust bearing (E in Fig. 4-3).
  3. Remove take-up belt.
  4. Remove capstan belt.
- \* There is a gap appeared between capstan and mecha chassis after loosening flywheel thrust bearing.

### 6) Replacement of FF, REW Belt

1. Loosen pulley ass'y fixing screw. (F in Fig. 4-3).
2. Replace the belt.

### 7) Replacement of Counter Belt

1. Perform this replacement after removing mecha cover & cassette cover.  
(See Replacement 3), 11)).
- \* Precise installation must be made for this replacement, otherwise, it causes deviation of counter indication.

### 8) Replacement of Head

1. Remove the mecha cover.  
(See Replacement 3)).
2. Remove 4 screws.  
(screws, A, B, C, D in Fig. 4-4).

### 9) Replacement of FF, REW, Motor

(No. ⑫ in Exploded View on page 21).

1. Remove motor support from mecha chassis.  
(Remove the screws A & B in Fig. 4-3).
2. Detach Motor from motor support.  
(Remove 3) of screws, S ⑪ in Exploded View on page 21).
3. Remove S ⑩, then, pull out the motor pulley.  
(See Exploded View on page for S ⑩).
4. Take the clasps away and detach the motor.
5. Remove the lead wires of motor.

### 10) Replacement of Play Motor

(No. ⑮ in Exploded View on page 21).

1. Take out mechanism ass'y by the procedure of 4).

2. Remove motor support from mecha chassis.  
(Remove the screws C & D in Fig. 4-3).

3. Detach motor from motor support.

4. Remove S ⑩, then, pull out the motor pulley.  
(See Exploded View on page for S ⑩).

5. Remove the lead wires of motor.

\* Motor & servo circuit board are able to order together or individually.

### 11) Replacement of Pinch Roller Ass'y

1. Remove mecha cover.  
(See Replacement 3).
2. Take the cassette cover off.  
(Remove screws E, F in Fig. 4-4).
3. Detach the pinch roller.  
(Remove E Type washer G in Fig. 4-4).

### 12) Replacement of Take-up Reel

1. Take the cassette cover off.  
(See Replacement 11)).
2. Take out push spring, cassette arm ass'y.  
(No. ⑬, ⑭, ⑮, S ⑱, S ⑲ in Exploded View on page 21).
3. Remove the cap. ⑳.  
(See Exploded View on page 21).
4. Remove Take-up Reel.  
(Remove E Type Washer of S ⑳ in Exploded View on page 21).

### 13) Replacement of Supply Reel

1. Detach pinch roller ass'y.  
(See Replacement 11)).
2. Take slide base off.  
(Detach E Type washer ① and spring ② in Fig. 4-2).
3. Remove the cap.  
(No. ⑲ in Exploded View on page 21).
4. Take out Supply Reel.  
(Remove E Type washer of S ④ in Exploded View on page 21).

### 14) Replacement of Play Arm

(No. ⑳, ⑳ in Exploded View on page 21).

1. Take off E type washer on Play Arm.  
(C in Fig. 4-1).
2. Take off E type washer on plunger solenoid shaft.  
(D in Fig. 4-1).
3. Loosen screw D in Fig. 4-1 and take out Play Arm.

### 15) Replacement of FF, REW Arm Ass'y

1. Remove play arm ass'y  
(See Replacement 14)).
2. Take out FF, REW arm ass'y.  
(Remove E type washer, G in Fig. 4-3).

### 16) Replacement of Flywheel Bearing

1. Remove pinch roller ass'y.  
(See Replacement 11)).
2. Take out Flywheel Bearing.  
(Remove 3) of screws, I in Fig. 4-2).

### 17) Replacement of Mecha Chassis

To remove clutch ass'y and flywheel, mecha chassis must be taken off.

1. Remove play arm ass'y.  
(See Replacement 14)).
2. Remove servo circuit board of play motor.  
(the fixing screws are under this circuit board Fig. 4-3)
3. Remove 7) of screws fixing mecha chassis.  
(H in Fig. 4-3).

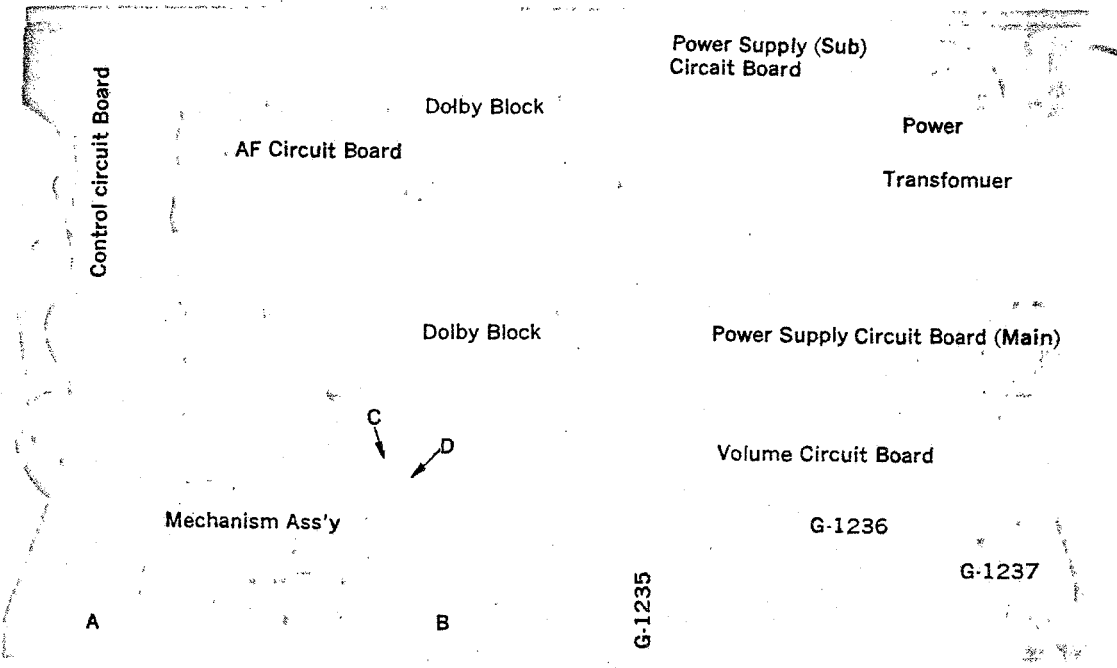


Fig. 4-1

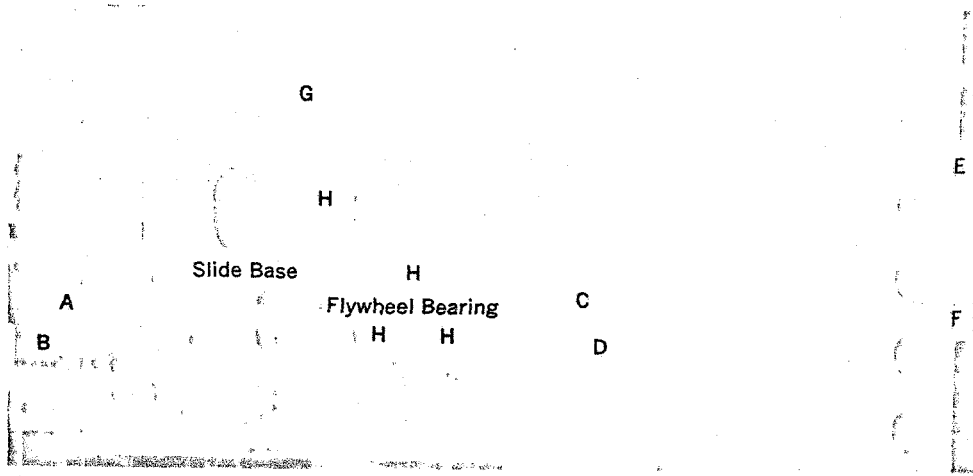


Fig. 4-2

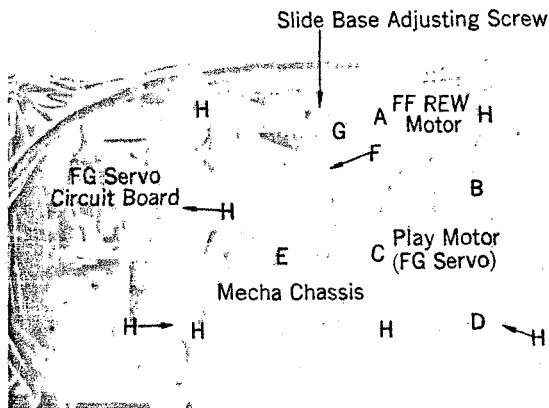


Fig. 4-3

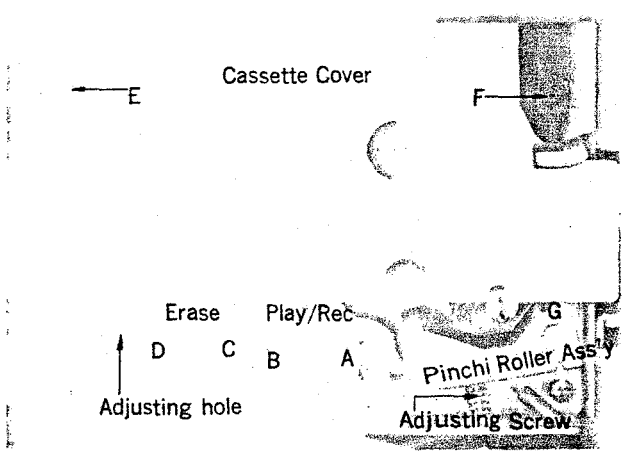


Fig. 4-4

## 5. ADJUSTMENT OF MECHANISM

\* Make sure to apply a screw-locking solution after completion of the mechanism adjustment.

### 1) Position Adjustment of the Solenoids and the Micro-Switches

On Model No. SC-5100, the digital IC and the plunger solenoids control the mechanism. Each plunger solenoid requires a large starting force when starting, and does not require a large holding force after having been started.

If a large current required to start each plunger is constantly flowed, high temperature may be produced in each plunger. Therefore, the minimum necessary current is set to flow after having been started, because of no need of a large current. Hence, the purpose of this adjustment is to turn steadily on the micro switches linked with each plunger solenoid, when the plunger solenoids are pulled.

In case of mismatching of this adjustment, the micro switches cannot turn on in spite of the turning-on of the plunger solenoids, resulting in the produce of high temperature from the plunger solenoids which may sometimes melt away surrounding lead wires or solders.

On the contrary, in case of turning-on of the micro switches continuously, the plunger solenoids cannot make starting even when the operating switch is pushed.

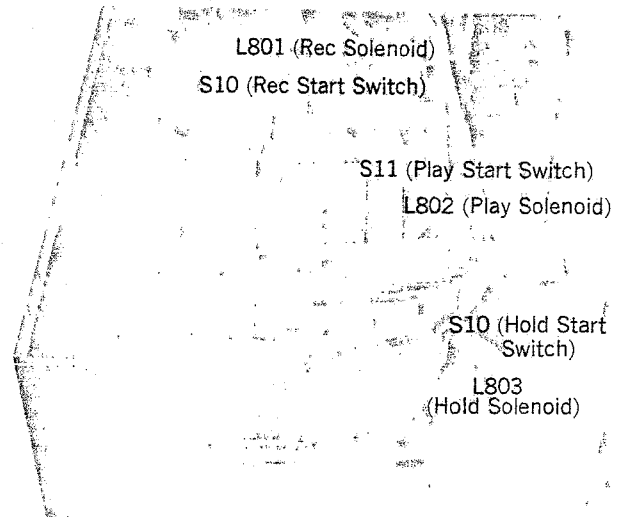


Fig. 5-3

### 1) Position Adjustment of Holding Plunger Solenoid and Micro-Switch S10 (HOLD START S.W.) Fig. 5-3.

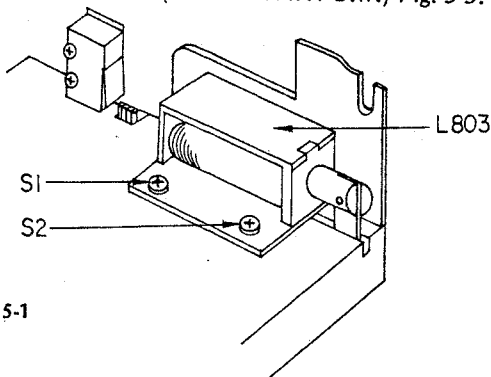


Fig. 5-1

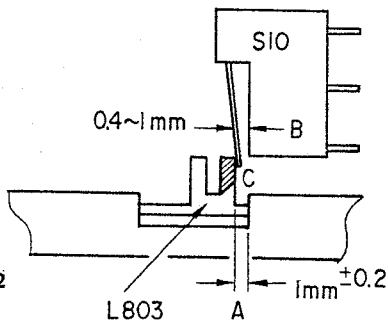


Fig. 5-2

- \* Remove the Cabinet before adjustment.
- (1) The Plunger Solenoid L803 is fixed by using track-shape holes. After turning on the Play-Switch and operating the Plunger solenoid, fix this Plunger Solenoid so that its position has a gap B, as shown in Fig. 5-2. Fasten two screws (S<sub>1</sub> and S<sub>2</sub>) shown in Fig. 5-1, after having removed the play-motor. Also it is possible to adjust by bending the oblique line part.
- (2) Confirm that the Micro-Switch can be changed-over steadily by operating PLAY and STOP action.

### 2) Position Adjustment of PLAY Solenoid L802 and Micro-Switch S11 (PLAY START S.W.)

\* Remove the Cabinet before adjustment.

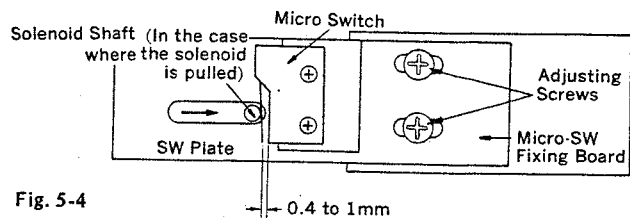


Fig. 5-4

- (1) Push the PLAY button and make the PLAY state.
- (2) Adjust the Micro-S.W. fixing board so that a gap between the shaft and the Micro-S.W. may lie within the range of 0.4 to 1 mm.
- (3) Confirm that the Micro-Switch can be changed-over steadily by operating PLAY and STOP action.

### 3) Position Adjustment of REC Plunger Solenoid L801 and Micro-Switch S10 (REC START S.W.)

\* Remove the cabinet before adjustment.

- (1) The Micro-S.W. fixing board is fixed by using track-shape holes. In the same way as the adjustment of the plunger solenoid and the micro switch (HOLD-PLAY), when the Plunger Solenoid is turned on (in recording state), adjust the Micro-S.W. fixing board so that a gap between the shaft and the Micro-Switch may lie within the range of 0.4 to 1 mm.

## 2) Brake Adjustment

- \* Before adjustment, remove the Cabinet, Front Panel Assembly, Mecha. Cover, and Cassette Cover.
- 1) At the state of STOP, adjust the Brake by inserting a ⊖ type screw driver into an adjusting hole, as shown in Fig. 5-5.  
In the case of insufficient Brake . . . Turn the ⊖ type screw driver clockwise.  
In the case of excessive Brake . . . . Turn the ⊖ type screw driver counterclockwise.
- 2) The aim of Braking performance
  - (1) In the case of an almost no-brake condition, the tape is loosened when the state is changed from PLAY to STOP. The revolution is too light when turning the reel by the hand, and also it is evident by visual inspection that the reel is kept apart from the brake-shoe.
  - (2) In the case of an excessive brake condition, the wow-flutter becomes worse. The revolution is too heavy when turning the reel by the hand.
  - (3) In the case of a proper brake condition, the tape is moderately stretched and the wow-flutter condition is good.

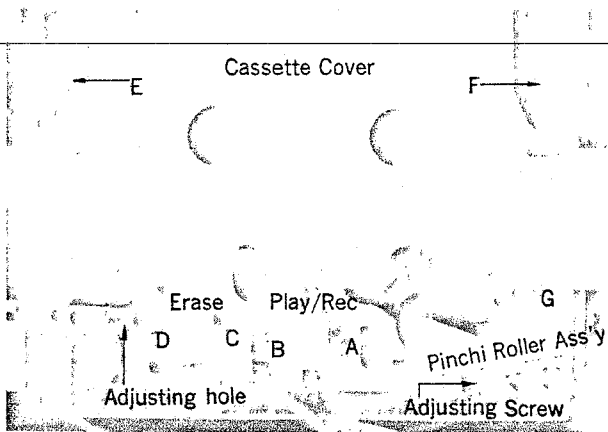


Fig. 5-5

## 3) Slide Base Adjustment

- \* Before adjustment, remove the Cabinet, Front Panel Assembly, and Mecha. Cover.
- 1) Make the PLAY state.
- 2) Loosen sufficiently the Slide Base adjusting screw in Fig. 5-6, up to the point where the pinch rollers begin apart from the capstan.
- 3) Fasten the adjusting screw slowly and stop it at the point where the screw becomes heavy.  
For the aim of this point, refer to the following points:
  - (1) At first, fasten the screw slowly that the pinch rollers contact with the capstan when fastened more, the screw becomes hard to fasten slightly, this is the proper adjusted position.
  - (2) In the case of the PLAY state, the play solenoid is being pulled-in and the Slide Base is being pushed-up. At this state, there is a point where no play is found when the Slide Base is lifted up. This is a proper adjusted position.

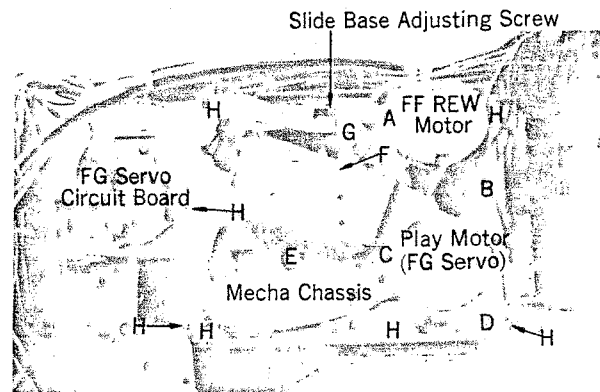


Fig. 5-6

## 4) Pressure Adjustment of Pinch Roller

- \* Before adjustment, remove the Cabinet, Front Panel Assembly and Mecha. Cover.
- 1) Before adjustment, confirm that the slide base position is proper. (See Adjustment 3)).
- 2) Make the PLAY state.
- 3) Put a spring-balance on a measuring position of the Pinch Roller pressure, and adjust it within the range of  $380 \pm 30$  g. (Fig. 5-7) by using the adjusting screw.

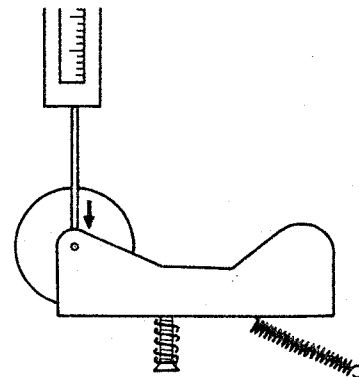


Fig. 5-7

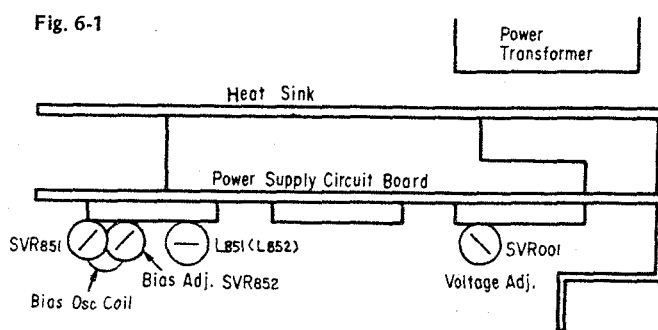
## 5) Flywheel Thrust Bearing Adjustment

- \* Remove the Cabinet before adjustment.  
Make sure to complete this adjustment, when the Capstan Belt, Take-Up Belt and the like are exchanged.
- (1) By using a screw driver, screw-in the Flywheel Thrust Bearing to its end. (fasten slightly) (E in Fig. 5-6).
- (2) Turn back (loosen) by one revolution from its end position where the Bearing is fully fastened.

## 6. ADJUSTMENTS OF ELECTRIC CIRCUIT

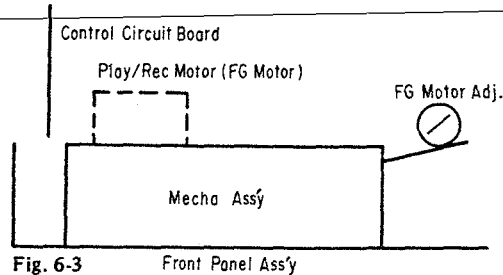
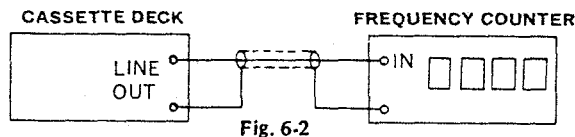
### 1) Power Supply Adjustment for Plunger Solenoid

EQUIPMENT	MEASURE OUTPUT	ADJUST	ADJUST FOR
DC Volt Meter	Pin 3 of connector D on Control Circuit Board	SVR001 Fig. 6-1	12.8V



### 2) Tape Speed Adjustment

Note: (1) Use Sansui Test Tape, SCT-53K (3 kHz signal is recorded on the tape).  
 (2) Connections are shown below.  
 (3) Output Level Volume ... Max.



SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUST FOR	ADJUST
TAPE SPEED ADJ.	Test Tape SCT-53K	LINE OUT Frequency Counter	Push the PLAY button and playback the Test Tape, SCT-53K	3000 Hz	If not, turn semi-variable resistor in Fig. 6-3 until 3000 Hz $\pm$ 2% is obtained.

※TAPE SELECTOR position

TAPE	MODE		REC	PLAY
	TAPE SELECTOR	BIAS, EQUALIZER	BIAS, EQUALIZER	EQUALIZER
AGFA	Hifi-Low-Noise SUPER	normal (LH)	normal (LH)	
BASF	LN			
	LH			
	LH super			
FUJI FILM	FL			
	FX			
	FX Duo			
MAXELL	LN UD-XLI			
SCOTCH	LD			
	LH			
SONY	LOW-NOISE HF			
	D			
TDK	SD			
	ED			

TAPE	MODE		REC	PLAY
	TAPE SELECTOR	BIAS, EQUALIZER	BIAS, EQUALIZER	EQUALIZER
AGFA	STEREOCHROM	high (CrO <sub>2</sub> )	high (CrO <sub>2</sub> )	
BASF	chromdioxid			
MAXELL	UD-XLI			
SONY	CR			
TDK	SA	Fe-Cr	Fe-Cr	
BASF	ferrochrom			
SCOTCH	CLASSIC			
SONY	DUAD	normal (LH)	high (CrO <sub>2</sub> )	
SCOTCH	Master			
TDK	AD	normal (LH)	normal (LH)	high (CrO <sub>2</sub> )
FUJI FILM	FX Jr			
MAXELL	UD			

### 3) Playback Adjustment

- Note: (1) Connections are shown below.  
 (2) Set the Dolby switch to be OFF.  
 (3) Set the Limiter Switch to be OFF.  
 (4) Set the Tape Selector to be NORMAL (LH).  
 (5) Output Level Volume . . . Max.

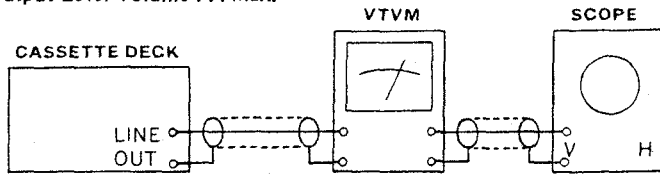


Fig. 6-4

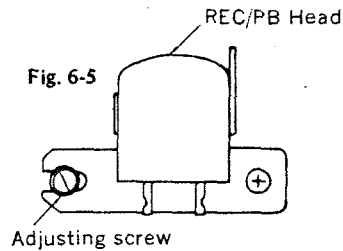


Fig. 6-5

SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUST	ADJUST FOR
REC/PB Head Adj.	SCT-F10KN (Test Tape)	LINE OUT VTVM	Push the PLAY button and playback the Test Tape, SCT-F10KN	The azimuth adjusting screw in Fig. 6-5.	Max. Output
Playback Level Adj.	SCT-L400N (Test Tape)	LINE OUT VTVM	Push the PLAY button and playback the Test Tape, SCT-L400N	SVR301 . . . L-CH SVR302 . . . R-CH Fig. 6-6.	560mV
High Frequency Equalization Check	SCT-F1K and SCT-F10KN (Test Tape)	LINE OUT VTVM	Push the PLAY button and playback the Test Tape, SCT-F1K and SCT-F10KN	SVR303 . . . L-CH SVR304 . . . R-CH Fig. 6-6.	Set same output levels 56mV from SCT-F1K and SCT-F10KN (standardize to 1 kHz)
	SCT-F10KN (Test Tape)		Push the PLAY button and playback the Test Tape, SCT-F10KN		In playback of SCT-F10KN, set the TAPE SELECTOR (Equalizer) to HIGH (CrO <sub>2</sub> ) position, then confirm the indication on VTVM dropping down approximately 4dB.

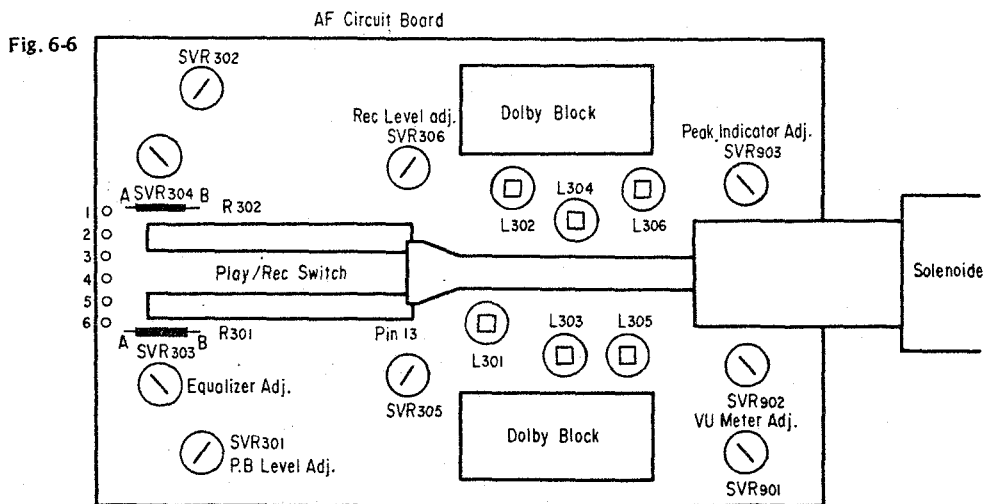


Fig. 6-6

**\* List of Sansui Test Tapes**

Name of test tape	Recorded Frequency	Description
SCT-53K	3 kHz	Speed Check, Wow & Flutter Check
SCT-L400N	400 Hz	Playback level and VU meter level adjustment
SCT-F1K	1 kHz	High frequency equalization check
SCT-F10KN	10 kHz	REC/PB head adjustment
SCT-SA [HIGH (CrO <sub>2</sub> )]		Recording bias adjustment
SCT-LH [NORMAL (LH)]		REC/PB level adjustment
SCT-CS (Fe-Cr)		Frequency response check
SCT-F40	40 Hz	Playback frequency response check



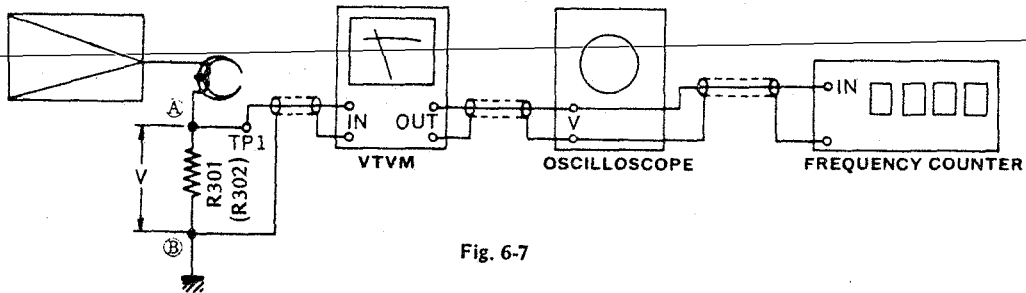
#### 4) Level Meter & Peak Indicator Adjustment

Note: 1) Complete the same adjustments on both channel.  
 2) Dolby FM, Dolby NR switch . . . OFF.

SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUST	ADJUST FOR
Level Meter Adj.	LINE IN 1 kHz 70mV Audio OSC.	LINE OUT VTVM	Push Rec button	Line Input Level Volume (Front Panel)	400mV
	Same as above		Same as above	SVR901...L-CH SVR902...R-CH Fig. 6-6.	0dB . . . VU Meter
Peak Indicator Adj.	LINE IN 1 kHz 70mV Audio OSC. (both channel)	Peak Indicator	Push Rec button	SVR903 Fig. 6-6.	Start Lighting . . . 70mV + 6dB

#### 5) Recording Bias Adjustment

Note: (1) Connections are shown below.  
 (2) Complete the same adjustments on both channel.



SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUST	ADJUST FOR
Recording Bias Adj.	No Input	R301.. L-CH R302.. R-CH VTVM Fig. 6-6, 6-7.	Push REC buttons. Tape Selector Bias High (CrO <sub>2</sub> )	L851 (L-CH) L852 (R-CH) Fig. 6-1.  SVR-851 (L-CH) SVR-852 (R-CH) Fig. 6-1.	Max. Output  1.6 mV
	Same as above	Same as above	Push Rec button. Tape Selector FeCR		Confirm 1.4 mV
	Same as above	Same as above	Push Rec buttons. Tape Selector Normal		Confirm 1.1 mV
Bias Frequency	No Input	R301.. L-CH R302.. R-CH Frequency Counter. Fig. 6-6, 6-7.	Push Rec button. Tape Selector Normal	Bias Osc. Coil Fig. 6-1.	85 kHz . . . Frequency Counter

### 6) Recording Level, Equalizer & Frequency Response Adjustment

- Note:** (1) Connections are shown below.  
 (2) Set the Tape Selector to be High (CrO<sub>2</sub>).  
 (3) Complete the same adjustments on both channel.  
 (4) Set the Dolby switch to be OFF.

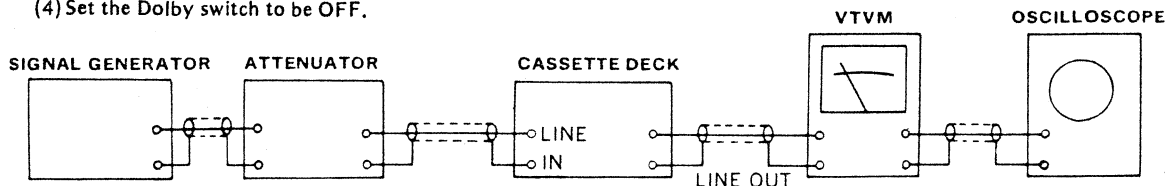


Fig. 6-8

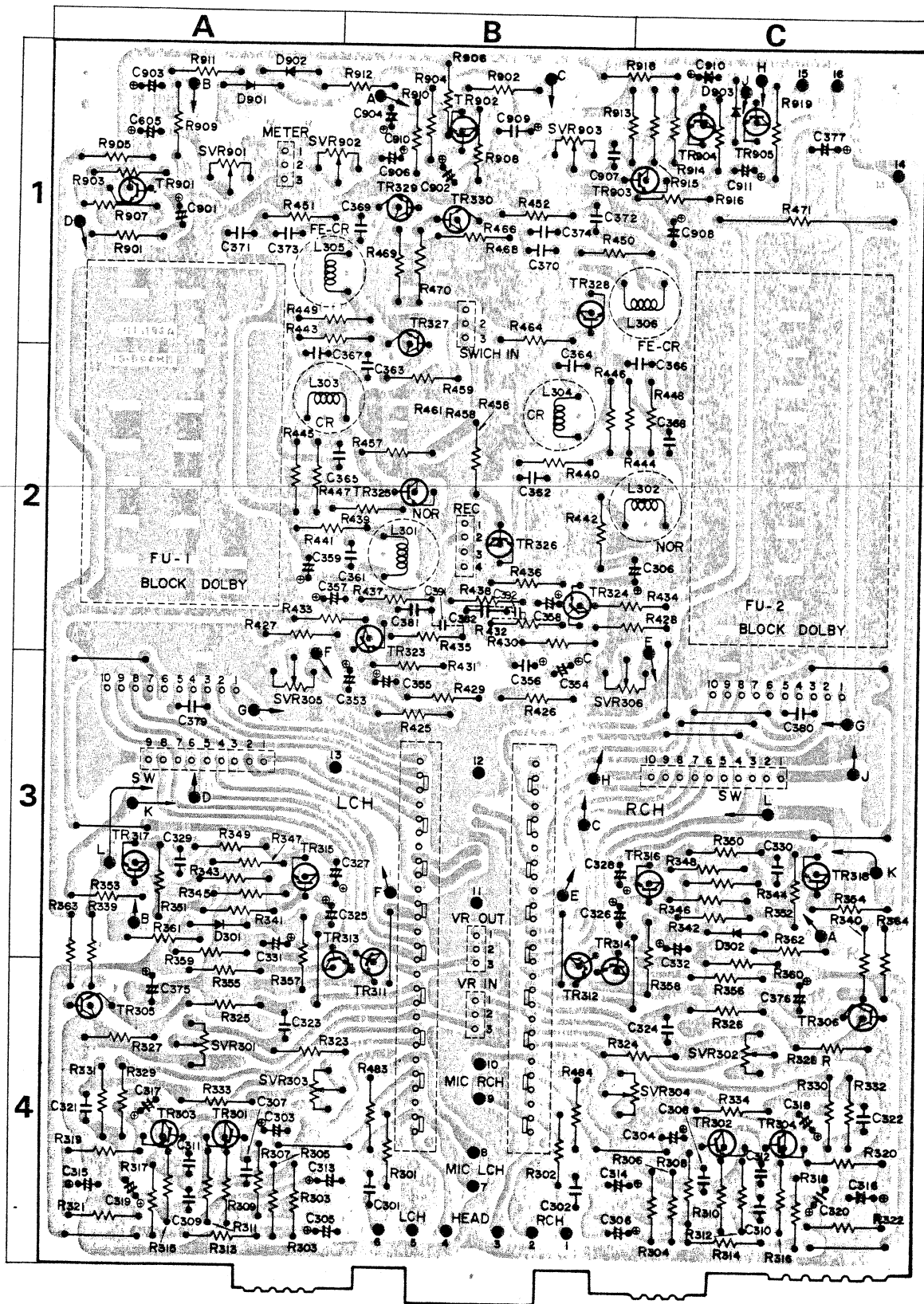
SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUST	ADJUST FOR
Rec Level Adj.	1 kHz 70 mV Audio OSC. LINE IN	R301, R302 VTVM Fig. 6-6, 6-7.	Push Rec button. (Remove B pin on AF Circuit Board)	SVR305 ..... L-CH SVR306 ..... R-CH Fig. 6-6.	Tape Selector CrO <sub>2</sub> ..... 600 μV LH ..... 500 μV FeCr ..... 550 μV
	* A 1 kHz 70 mV Audio OSC. LINE IN	VU Meter VTVM	Push Rec buttons.	MIC/LINE Volume	0 dB ±2 dB ..... VU Meter 400 mV ..... VTVM
	* B SCT-SA (1 kHz Signal)	LINE OUT VTVM VU Meter	Push Rec & Play buttons.	(Record the 1 kHz Signal)	
If not 400 mV (0 dB ±2 dB), adjust SVR305 (L-CH), SVR306 (R-CH) Fig. 6-6 slightly. And repeat this Rec Level Adj. (*A, *B), until the level 400 mV is obtained. * By turning Rec level adjust volume SVR305, SVR306 clockwise, the level is increased.					
Recording Equalizer Adj.	16 Hz 70 mV Audio OSC. LINE IN	R301, R302 Fig. 6-6, 6-7 VTVM	Push Rec (Remove Pin 13 on AF Circuit Board)	Tape Selector CrO <sub>2</sub> ..... L303, 304 FeCr ..... L305, 306 Fig. 6-6.	Max. Voltage
	14 kHz 7 mV Audio OSC. LINE IN	R301, R302 Fig. 6-6, 6-7 VTVM	Push Rec (Remove Pin 13 on AF Circuit Board)	Tape Selector LH ..... L301, 302 Fig. 6-6.	Max. Voltage
Frequency Response Adj.	* A 1 kHz 7 mV 10 kHz 7 mV LINE IN Audio OSC.	LINE OUT VTVM SCT-FCB6 (Test Tape)	Push Rec and Play buttons.	(Record the 1 kHz and 10 kHz Signal)	
	* B SCT-SA (1 kHz and 10 kHz Signal)	LINE OUT VTVM	Push Play button.	If not 0 dB ±2 dB, adjust below adjustment.	Confirm that the difference of output levels between 1 kHz and 10 kHz are within 0 dB ±2 dB against that of 1 kHz.
If not 0 dB ±2 dB, adjust Bias Adjustment Volume SVR851 (L-CH) SVR852 (R-CH) ..... Fig. 6-1 slightly. And repeat this Frequency Response Adj. (*A, *B) until the level 0 dB is obtained.					

# 7. PARTS LOCATION & PARTS LIST

Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors which was appended previously to each Sansui Manual.

## 1) AF Circuit Board (Stock No. 7690420)

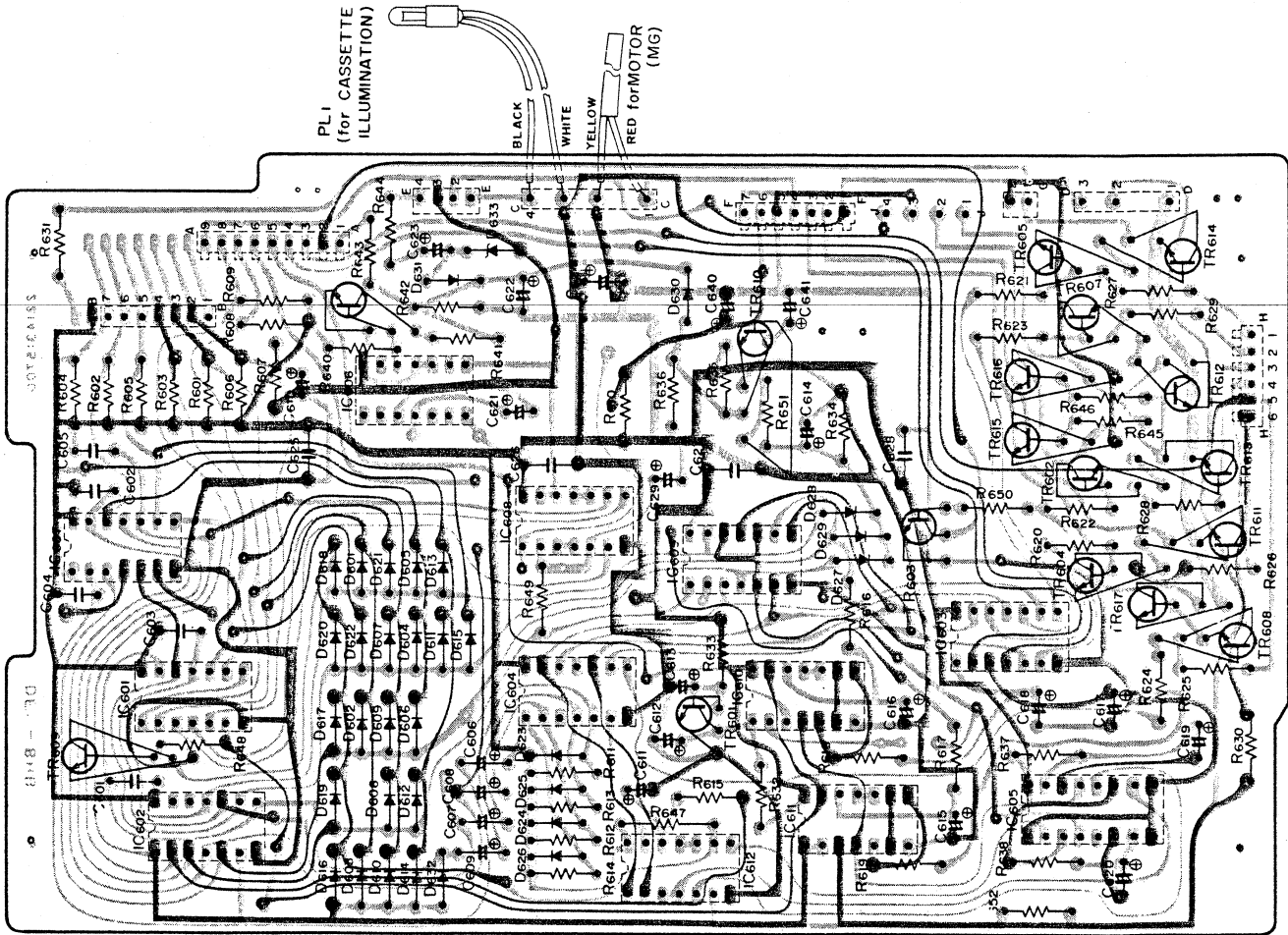
Conductor Side



Parts List (AF Circuit Board)

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
TR301, 302	0300980	2SA721-T	4A, 4C	D 301, 302	0311040	1S1555V	3A, 3B	SVR301, 302	1032130	50kΩ P.B Level Volume	4A, 4C
TR303, 304	0306421	2SC1327-T	4A, 4C	D 901, 902	0311040	1S1555V	1A	SVR303, 304	1032090	5kΩ Equalizer Adjust Volume	4A, 4C
TR305, 306	0306500	2SC828-R	4A, 4C	D 903	0311040	1S1555V	1C	SVR305, 306	1032130	50kΩ Rec Level Volume	3A, 2C
TR311, 312	0306500	2SC828-R	3B	C 301, 302	0620561	560pF 50V P.C.	4B	SVR901, 902	1032090	5kΩ VU Meter Volume	1A
TR313, 314	0306500	2SC828-R	3B	C 307, 308	0620101	100pF 50V P.C.	4A, 4C	SVR903	1032120	20kΩ Peak Indicator Volume 1B	1B
TR315, 316	0306421	2SC1327-T	3A, 3C	C 309, 310	0620101	100pF 50V P.C.	4A, 4C	L 301, 302	4010140	Choke Coil	2B, 2C
TR317, 318	0306500	2SC828-R	3A, 3C	C 311, 312	0640100	10pF 100V Mil. c.	4A, 4C	L 303, 304	4010140	Choke Coil	2A, 2B
TR323, 324	0306500	2SC828-R	2B	C 355, 356	0573338	0.33μF 35V T.C.	3B	L 305, 306	4010140	Choke Coil	1A, 1C
TR325, 326	0306500	2SC828-R	2B	C 379, 380	0620101	100pF 50V P.C.	3A, 3C	S 1, 2	1110360	Slide Switch	
TR327, 328	0306500	2SC828-R	1B	C 391, 392	0620331	330pF 50V P.C.	2B	2411320		3P Pin Ass'y	
TR329, 330	0306500	2SC828-R	1B	R 471	0213221	220Ω 3W Me. R.	1C	2411330		4P Pin Ass'y	
TR901, 902	0306500	2SC828-R	1A, 1B	R 919	0103102	1kΩ ¼W C.R.		2411310		9P Pin Ass'y	
TR903, 904	0306502	2SC828-Q	1C					2411350		10P Pin Ass'y	
TR905	0306502	2SC828-Q	1C								

2) Control Circuit (Stock No. 7690440)

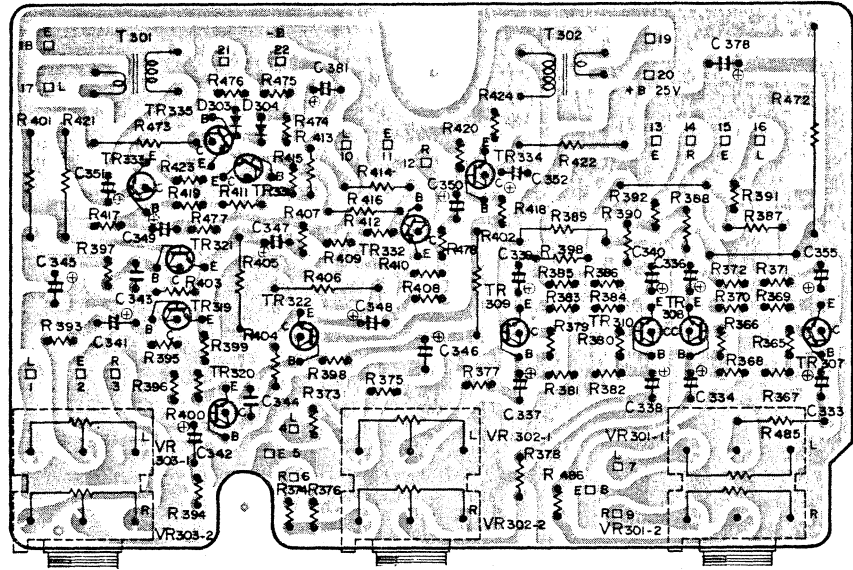


Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
TR 601	0306610	2SC1432	IC 605	0360660	F74123-PCQM	C 614	0502470	47μF 16V E.C.
TR 602	0305040	2SC373	IC 606	0360650	F74121-PCQM	C 615	0501101	100μF 10V E.C.
TR 603	0305040	2SC373	IC 607	0360610	F7400-PCQM	C 616	0501101	100μF 10V E.C.
TR 604	0305040	2SC373	IC 608	0360610	F7400-PCQM	C 617	0501221	220μF 10V E.C.
TR 605	0305040	2SC373	IC 609	0360610	F7400-PCQM	C 618	0501221	220μF 10V E.C.
TR 606	0305040	2SC373	IC 610	0360610	F7400-PCQM	C 624	0501102	1000μF 10V E.C.
TR 607	0305040	2SC373	IC 611	0360610	F7400-PCQM	C 625	0657473	0.047μF
TR 608	0305040	2SC373	IC 612	0360610	F7400-PCQM	C 626	0657473	0.047μF 50V C.C.
TR 609	0305040	2SC373				C 627	0657473	0.047μF 50V C.C.
TR 610	0305040	2SC373				C 628	0657473	0.047μF 50V C.C.
TR 611	0306601	2SC1383-R	D601 ~ 632	0311620	ITT73N			
TR 612	0306601	2SC1383-R		0311040	1S1555V			
TR 613	0306601	2SC1383-R	D 633	0311610	YZ033			
TR 614	0306590	2SC1173-Q						
TR 615	0300971	2SA683-R	C 601	0659020	0.1μF 12V C.C.	2411290		2P Pin Ass'y
TR 616	0300971	2SA683-R	C 602	0659020	0.1μF 12V C.C.	2411260		3P Pin Ass'y
TR 617	0306590	2SC1173-Q	C 603	0659020	0.1μF 12V C.C.	2411270		4P Pin Ass'y
IC 601	0360630	F7410-PCQM	C 604	0659020	0.1μF 12V C.C.	2411330		4P Pin Ass'y
IC 602	0360620	F7404-PCQM	C 605	0659020	0.1μF 12V C.C.	2411300		6P Pin Ass'y
IC 603	0360620	F7404-PCQM	C 610	0502470	47μF 16V E.C.	2411340		7P Pin Ass'y
IC 604	0360640	F7420-PCQM	C 611	0501101	100μF 10V E.C.	2411310		9P Pin Ass'y

### 3) Volume Circuit Board (Stock No. 7690410)

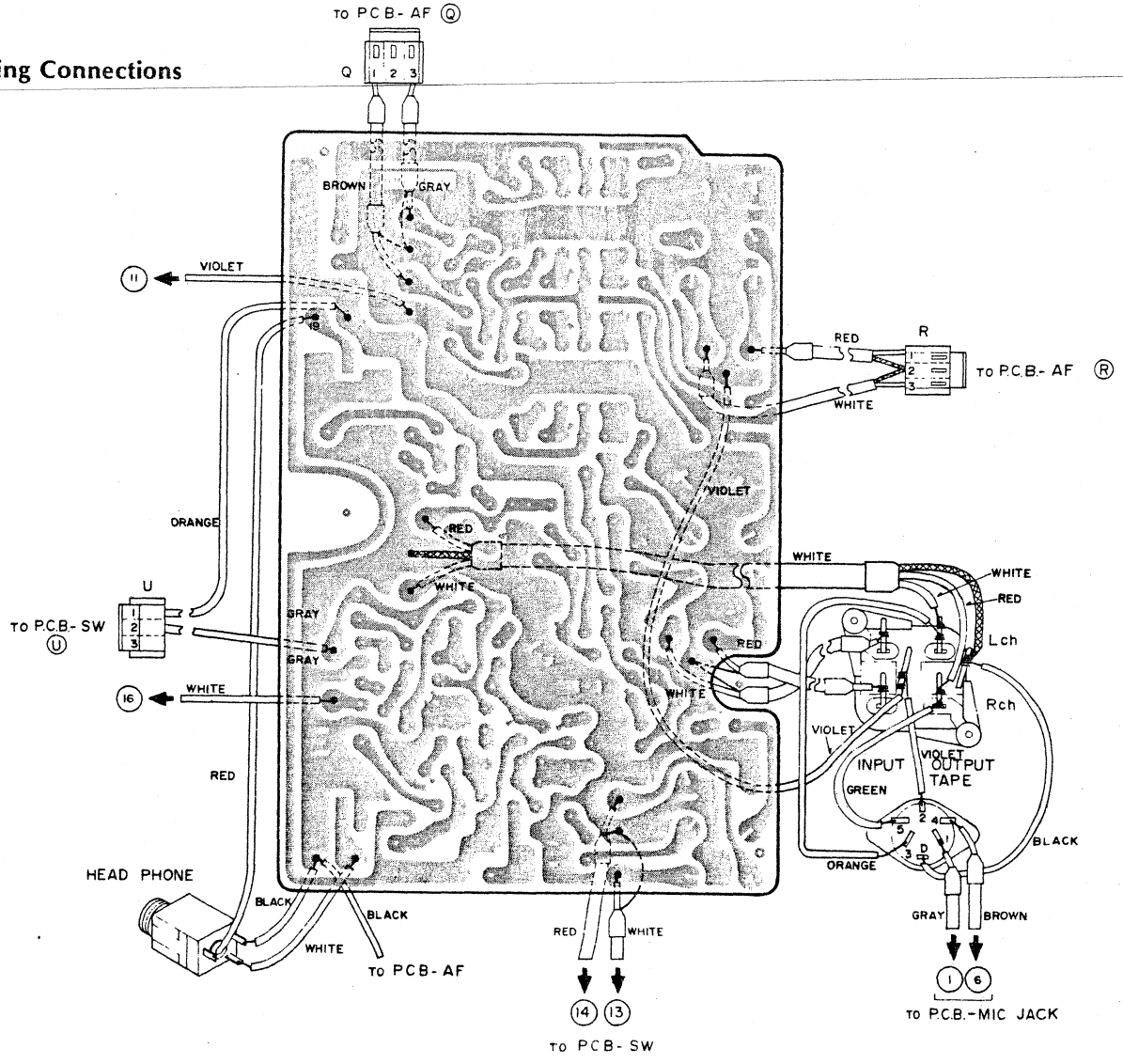
Conductor Side



#### Parts List

Part No.	Stock No.	Description
TR 307, 308	0306421	2SC1327-T
TR 309, 310	0306421	2SC1327-T
TR 319, 320	0306500	2SC828-R
TR 321, 322	0306500	2SC828-R
TR 331, 332	0300093	2SA564-S
TR 333, 334	0306500	2SC828-R
TR 335	0306500	2SC828-R
} Transistor		
D 303, 304	0311040	D-1S1555V Diode
C 343, 344	0640330	33pF 100V Mi. c.
R 405, 406	0103222	2.2kΩ 1/4W C.R.
R 472	0213561	560Ω 3W C.R.
VR 301	1020310	20kΩ x 2, mic input volume
VR 302	1020300	50kΩ x 2, line input volume
VR 303	1020310	20kΩ x 2, output volume
T 301, 302	4100150	Output Transformer

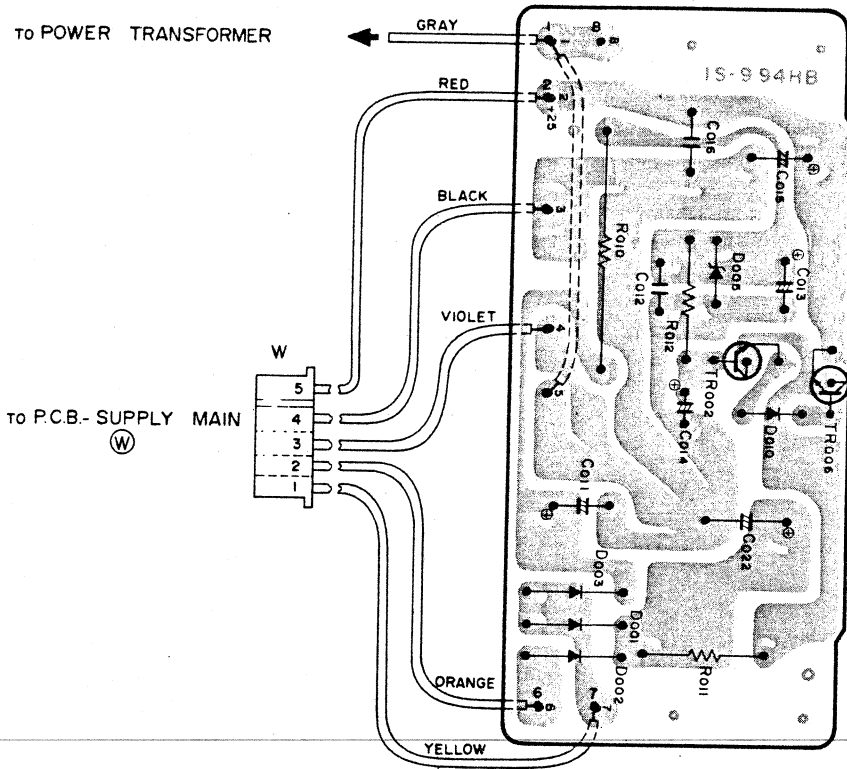
#### Wiring Connections







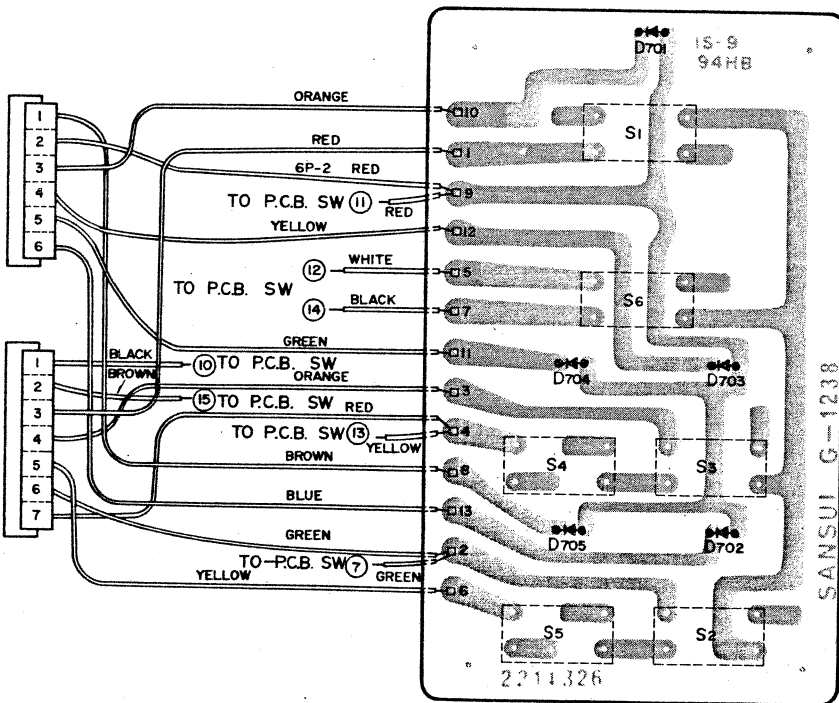
**5) Power Supply Circuit Board (Sub) (Stock No. 7502600)**



**Parts List**

Parts No.	Stock No.	Description
TR002	0306502	2SC828-Q
TR006	0308640	2SD234-O
D 001	0311630	1S1885
D 002	0311630	1S1885
D 003	0311630	1S1885
D 005	0316680	XZ265
D 010	0311040	1S1555V
R 010	0213122	1.2kΩ 3W M.R.
R 011	0211339	3.3Ω 1W M.R.
R 012	0103123	12kΩ 1/8W C.R.
	5106553	Special Screw 3 x 6, for TR006

**6) G-1238 Control Switch Circuit Board (Stock No. 7690480)**



**Parts List**

Parts No.	Stock No.	Description
D701~705	0319160	S8169 Diode
S1~6	1190580	Control Switch
	5260440	Circuit Board Holder

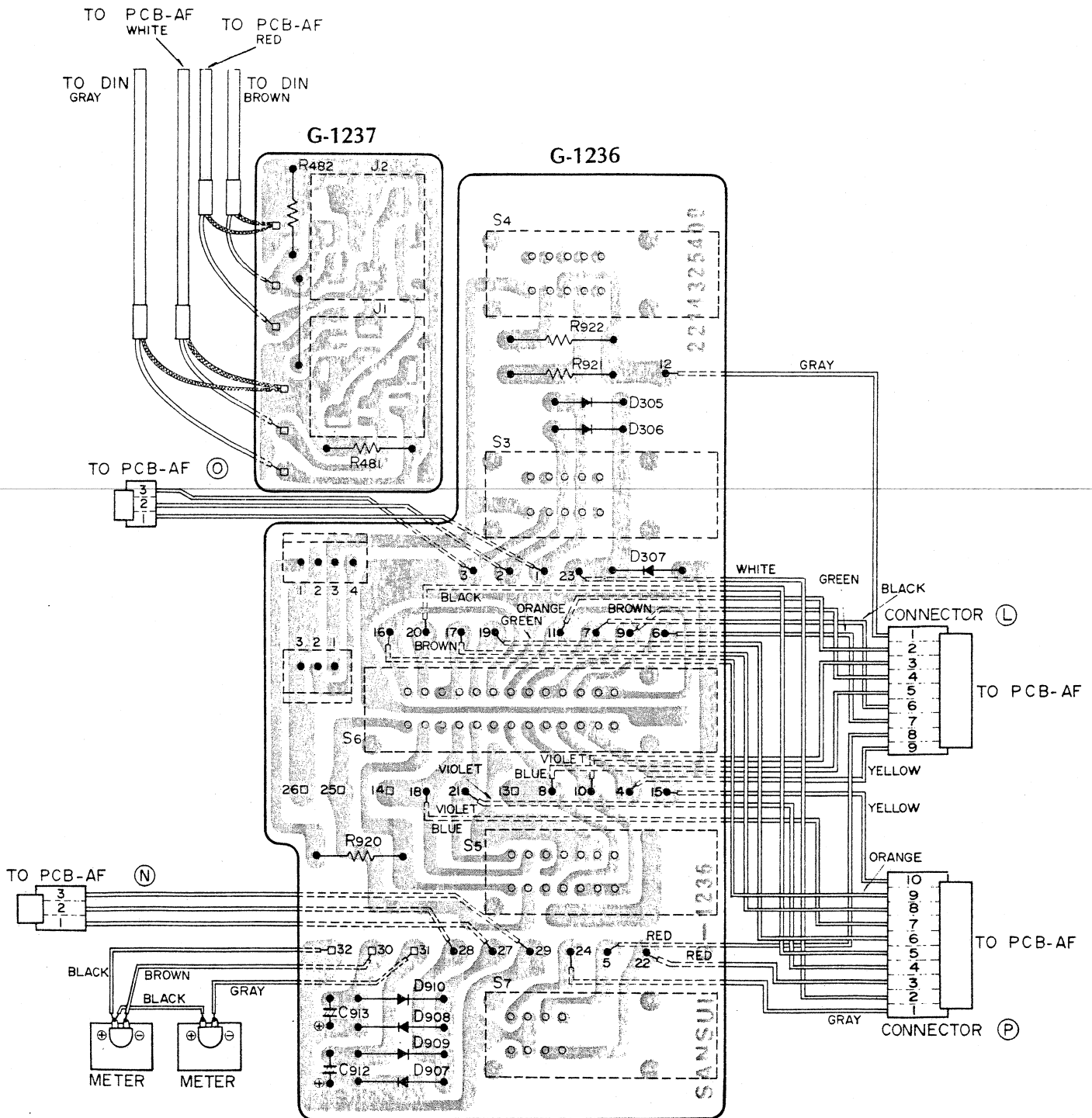
**Abbreviations**

C.R.	: Carbon Resistor	E.C.	: Electrolytic Capacitor
S.R.	: Solid Resistor	BP.E.C.	: Bi-Polar Electrolytic Capacitor
Ce.R.	: Cement Resistor	C.C.	: Ceramic Capacitor
M.R.	: Metal Film Resistor	M.C.	: Mica Capacitor
F.R.	: Fusing Resistor	O.C.	: Oil Capacitor
N.I.R.	: Non-Inflammable Resistor	P.C.	: Polystyrene Capacitor
M.C.	: Mylar Capacitor	T.C.	: Tantalum Capacitor





- 7) G-1237 Mic Jack Circuit Board (Stock No. 7690470)
- 8) G-1236 Switch Circuit Board Ass'y (Stock No. 7690460)



Parts List (G-1237)

Parts No.	Stock No.	Description
J 1	2430430	MIC Jack
J 2	2430430	MIC Jack
	5241310	Jack Bracket

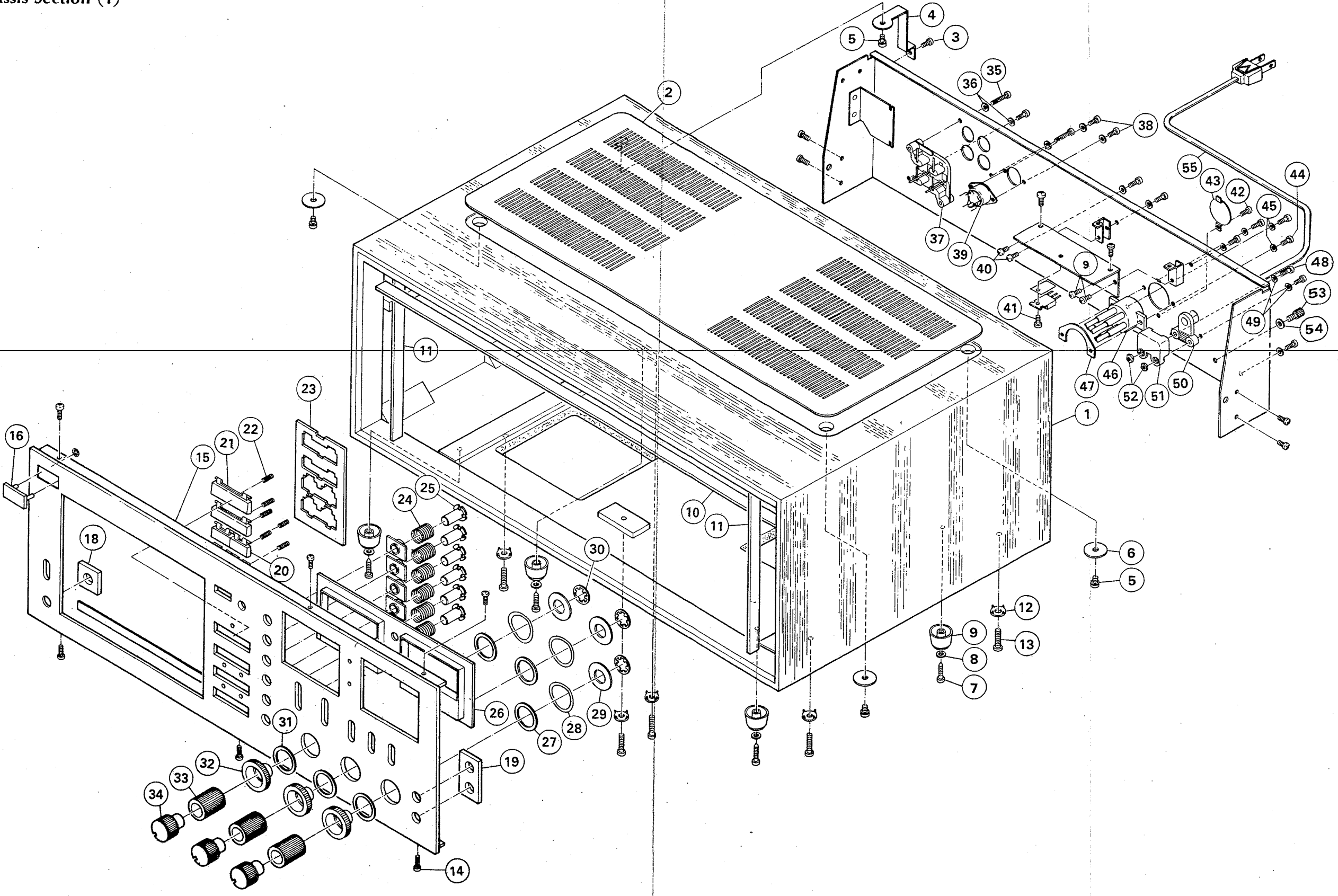
Parts List (G-1236)

Parts No.	Stock No.	Description
D 305	0311040	1S1555V
D 306	0311040	1S1555V
D 307	0311040	1S1555V
D 907	0311480	20A90 Diode
D 908	0311480	20A90
D 909	0311480	20A90
D 910	0311480	20A90
R 921	0211121	120Ω 1W Me. R.
R 922	0211271	270Ω 1W Me. R.

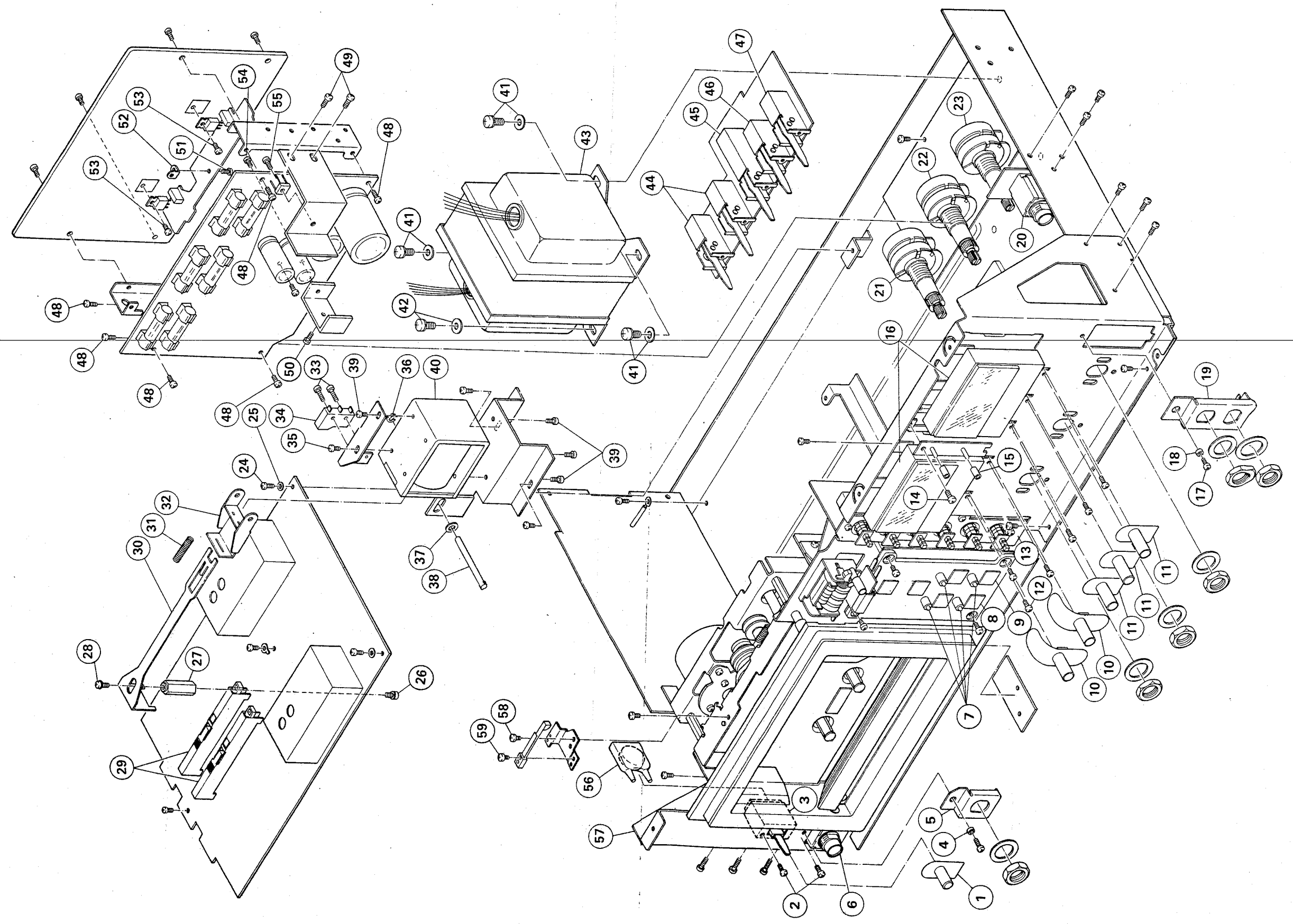
Parts No.	Stock No.	Description
S 3,4	1171940	Equalizer Bias Switch
S 5	1171950	Dolby NR Switch
S 6	1171960	Dolby FM Switch
S 7	1171930	Limiter Switch
	2411320	3 Pin Ass'y
	2411330	4 Pin Ass'y

### 8. EXPLODED VIEW AND PARTS LIST

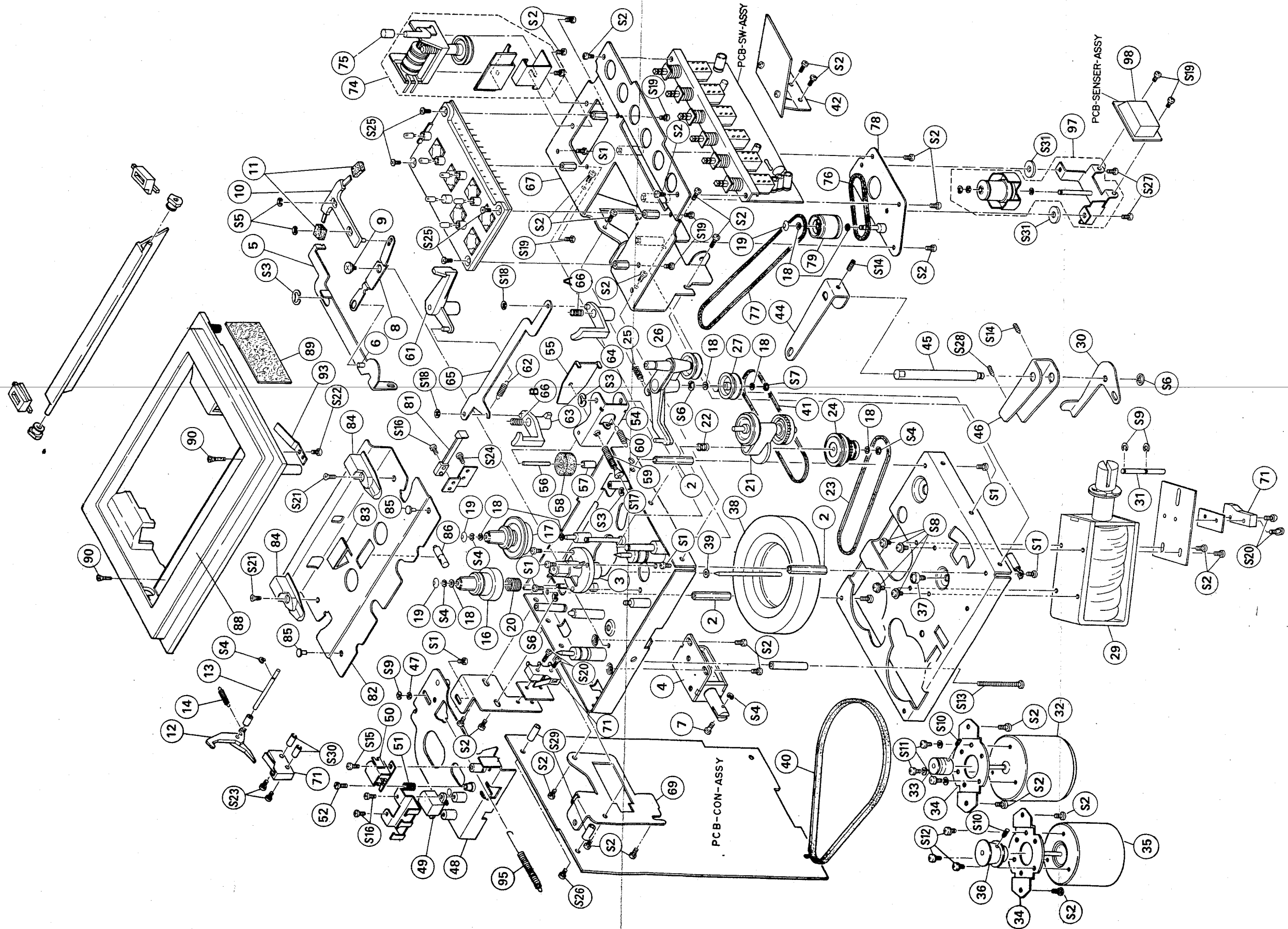
#### 1) Chassis Section (1)



2) Chassis Section (2)



3) Mechanism Ass'y



## 1) Chassis Section (1)

Parts No.	Stock No.	Description
1	7170060	Wood Bonnet Ass'y
2	5000040	Top Plate
3	5101143	P Type Screw, 3 x 6 (black)
4	5030150	Joint, Wood bonnet
5	5101061	P Type Screw, 4 x 6
6	5180530	Washer, 4.2φ
7	5140027	RH Type Screw, 3.1 x 16
8	5120141	Washer, 3φ
9	5510150	Foot
10	5040520	Cushion, wood bonnet
11	5040530	Cushion, wood bonnet
12	5126001	Special Washer, wood bonnet
13	5101068	P Type Screw, 4 x 20
14	5101043	B Type Screw, 3 x 6, front panel
	7000190	Front Panel Ass'y
15	5300870	Front Panel
16	5332080	Sansui Badge
17	5152211	CS Ring 3φ, Sansui badge
18	5500620	Cushion, headphone jack
19	5500630	Cushion, mic jack
20	7100030	Control Button Ass'y, with spring
21	7100020	Control Button Ass'y, with spring
22	6901630	Spring, control button ass'y
23	5260470	Button Guide
24	6901550	Spring, push button
25	5320460	Push Button
26	5060370	Meter Cover
27	5180560	Special Washer, level volume
28	5180570	Wave Washer, level volume
29	5180550	Special Washer, level volume
30	5152212	CS Ring 14φ
31	5180560	Special Washer
32	5310351	Knob Maker
33	5310370	Level Volume Knob, R-CH
34	5310360	Level Volume Knob, L-CH
35	5103743	PT Type Screw, 3 x 10 (black)
36	5180500	P Type Washer, 3φ (black)
37	2200550	Input & Output Terminal
38	5103122	P Type Screw, 2.6 x 5 (black)
39	2430410	DIN Jack
40	5101043	B Type Screw, 3 x 10
41	5106533	Plastic Screw, 3 x 6
42	5109911	Tap Tight Screw, 3 x 6 (black)
43	5038160	Voltage Selector Cover
44	5101144	P Type Screw, 3 x 8 (black)
45	5180550	P Type Washer, 3φ (black)
46	1190590	Voltage Selector
47	5170140	Special Nut, voltage selector
48	5101149	P Type Screw, 3 x 16 (black)
49	5101149	P Type Screw, 3 x 16 (black)
50	5260480	Cord Clump, power cord
51	5260490	Cord Clump, power cord
52	5110241	Nut, 3φ (cord lamp)
53	5160360	Ground Terminal
54	5120061	P Type Washer, 4φ
55	3800010	Power Cord

## 2) Chassis Section (2)

Parts No.	Stock No.	Description
1	5320500	Lever Switch Knob, for 2 contact
2	5101041	B Type Screw, 3 x 4
3	1171630	Power Switch
4	5230800	Spacer, headphone jack
5	5241330	Bracket, headphone jack
6	2430420	Headphone Jack
7	0319160	LED (S8169), control indicator
8	1190580	Key Switch, control circuit
9	5260440	P.C.B. Holder
10	5320470	Lever Switch Knob, for 3 contact
11	5320500	Lever Switch Knob, for 2 contact
12	5101041	B Type Screw, 3 x 4
13	1190530	Push Switch
14	5101023	B Type Screw, 2.6 x 6
15	5260450	LED Holder
16	4301210	VU Meter
17	5109911	Tap Tight Screw, 3 x 6
18	5230800	Spacer, mic jack
19	5241310	Bracket, mic jack
20	2430430	Mic Jack
21	1020310	Mic Level Volume, 20kΩ x 2
22	1020300	Line Level Volume, 50kΩ x 2
23	1020310	Output Level Volume, 20kΩ x 2
26	5101043	B Type Screw, 3 x 6
27	5210050	Stud, rec lever
28	5107853	PSA Type Screw, 3 x 6
29	1110360	REC/PLAY Switch
30	6500970	REC Lever
31	6901640	Spring, rec lever
32	5250150	Spring Bracket
33	5101005	B Type Screw, 2 x 8
34	1160260	Micro Switch, rec/play
35	5107853	PSA Type Screw, 3 x 6
36	5151002	E Ring, 2φ
37	5120141	Washer, 3φ
38	5180580	REC PIN
39	5107853	PSP Type Screw, 3 x 6
40	4340220	Rec/Play Solenoid
41	5107762	PSA Type Screw, 4 x 8
42	5107763	PSA Type Screw, 4 x 10
43	4002730	Power Transformer
44	1171940	Lever Switch, tape selector
45	1171960	Lever Switch, dolby FM
46	1171950	Lever Switch, dolby NR
47	1171930	Lever Switch, limiter
48	5109911	Tap Tight Screw, 3 x 6
49	5103541	PT Type Screw, 3 x 6
50	5106553	Plastic Screw, 3 x 6
51	5101043	B Type Screw, 3 x 6
52	5210060	PCB Stay
53	5106553	Plastic Screw, 3 x 6
54	5101022	P Type Screw, 2.6 x 5
55	5107847	PSA Type Screw, 3 x 14
56	5616220	Condenser Cover
57	0659021	0.0047μF 125V C.C.
58	5101004	B Type Screw, 2 x 6
59	1190570	Micro Switch

3) Mechanism Ass'y

Parts No.	Stock No.	Description
2	5230790	Stud
3	7040210	Flywheel Bearing
4	4340190 4340210	Hold Solenoid
5	6500850	Joint
6	6200320	Joint Shaft
7	5160370	Solenoid Pin
8	6500860	Brake Arm
9	5160390 7070060	Special Screw, 2.6 x 5.8 Brake Lever Ass'y
10	6400160	Brake Lever
11	6400170	Brake Shoe
12	6500870	Protect Lever
13	6200330	Shaft
14	6901510	Pull Spring
16	7150090	Supply Ass'y
17	7150100	Take-up Ass'y
18	5180510	Special Washer
19	5370120	Cap
20	6901520	Push Spring
21	7090020	REW Arm Ass'y
22	6901530	Push Spring
23	6030170	FF, REW, Belt
24	7090090	Pulley Ass'y
25	6901550	Pull Spring, Clutch
26	7060260	Clutch Ass'y
27	6130110	Tension Roller
29	4340230	Solenoid, play
30	6500880	Play Arm
31	5180110	Pin, Solenoid
32	4320560	Motor (FF, Rew. Motor)
33	6140140	Motor Pulley
34	5210030 9916077	Motor Support Play Motor Ass'y, FG motor ass'y
42	7502790	FG Motor Circuit Board Ass'y
35	4320550	Play Motor, FG Motor
36	6140150	Motor Pulley
37	5260420	Flywheel Thrust Bearing
38	6100060	Flywheel
39	5180520	Special Washer
40	6030180	Capstan Belt
41	6030190	Take-up Belt
44	6500890	Play Arm
45	6200340	Play Shaft
46	6500900	Play Arm
47	5180540	Special Washer
48	7020040	Slide Base
49	4526030	Head Erase
50	4536040	Head, rec/play
51	6901580	Push Spring, rec/play head
52	5160380	Special Screw, 2 x 7 (brass)
54	7060270	Pinch Roller Ass'y
	Parts No. 55, 56, 57, 58	
59	6901590	Push Spring
(S17)	5102847	F Type Screw, 3 x 14
60	6901600	Pull Spring, pinch roller ass'y
61	6500910	Cassette Lever
62	6901620	Pull Spring, cassette arm ass'y
	7090010	Cassette Arm Ass'y
(S18)	5152211	CS Ring, 30φ
63	6500920	Cassette Arm
64	6500930	Cassette Arm
65	6500940	Joint
66-A	6901610	Push Spring, cassette arm
66-B	6901650	Push Spring, cassette arm
67	7020030	Bracket Ass'y
69	5241320	Bracket
71	1160260	Micro Switch, rec/play, hold
74	5430120	Counter Ass'y
75	5320490	Counter Knob
76	6030200	Counter Belt

Parts No.	Stock No.	Description
77	6030210	Counter Belt
78	7060280	Plate Ass'y
79	6140160	Counter Pulley
81	1190570	Leaf Switch
82	5300850	Cassette Cover
83	5440080	Lamp Lens
84	5060360	Cassette Guide
85	5500610	Cassette Cushion
86	0400620	Pilot Lamp, 6.3V 30mA
87	5010090	Head Cover Ass'y
88	7010180	Mecha Cover Ass'y
89	5040500	Masking Sheet
90	5500640	Cushion Lever
93	6901560	Plate Spring, mecha cover
(S22)	5101024	B Type Screw, 2.6 x 8
95	6901570	Pull Spring, slide base
97	7060290	Senser-Ass'y
98	7690490	PCB-SENSER Circuit Board Ass'y

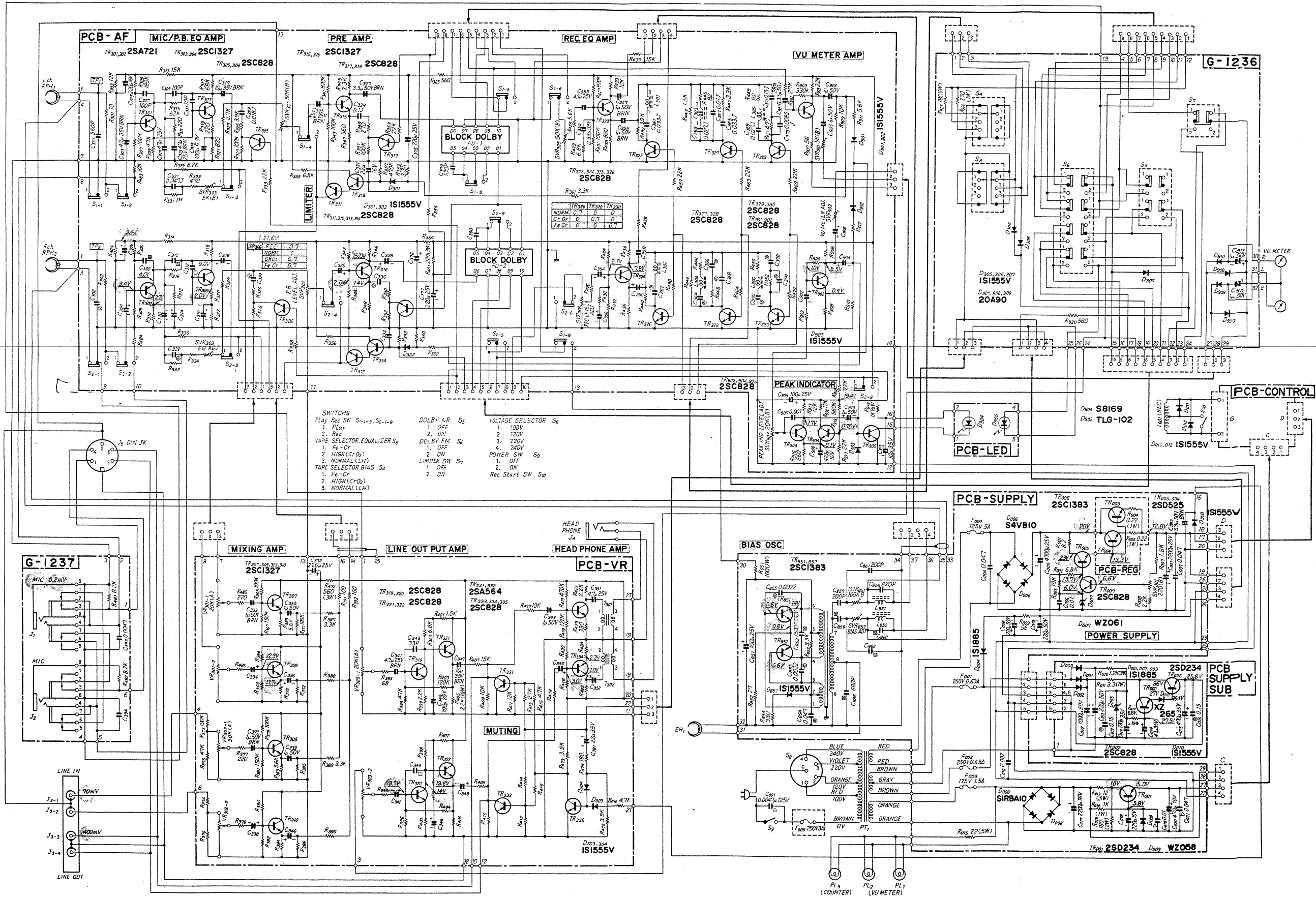
<Screws>

Parts No.	Stock No.	Description
S 1	5101043	B Type, 3 x 6
S 2	5101041	B Type, 3 x 4
S 3	5151005	E Type Washer, 4φ
S 4	5151001	E Type Washer, 1.5φ
S 5	5151002	E Type Washer, 2.0φ
S 6	5151004	E Type Washer, 3.0φ
S 7	5151009	E Type Washer, 12φ
S 8	5101843	BSA Type Screw, 3 x 6
S 9	5151011	E Type Washer 2.5φ
S10	5108961	SC Type Screw, 2.6 x 3
S11	5107813	PSA Type Screw, 2.6 x 5
S12	5107811	BSF Type Screw, 2.6 x 4
S13	5109553	B Type Screw, 3 x 30
S14	5108902	SC Type Screw, 3 x 8
S15	5101002	B Type Screw, 2 x 4
S16	5101004	B Type Screw, 2 x 6
S17	5102847	F Type Screw, 3 x 14
S18	5152211	CS Ring, 30φ
S19	5101022	B Type Screw, 2.6 x 5
S20	5109938	B Type Screw, 2.3 x 10
S21	5104044	F Type Screw, 3 x 8 (black)
S22	5101024	B Type Screw, 2.6 x 8
S23	5109939	B Type Screw, 2.3 x 16
S24	5101021	B Type Screw, 2.6 x 4
S25	5101023	B Type Screw, 2.6 x 6
S26	5101047	B Type Screw, 3 x 14
S27	5109941	Plastic Screw, 3 x 5
S28	5108903	SC Type Screw, 3 x 10



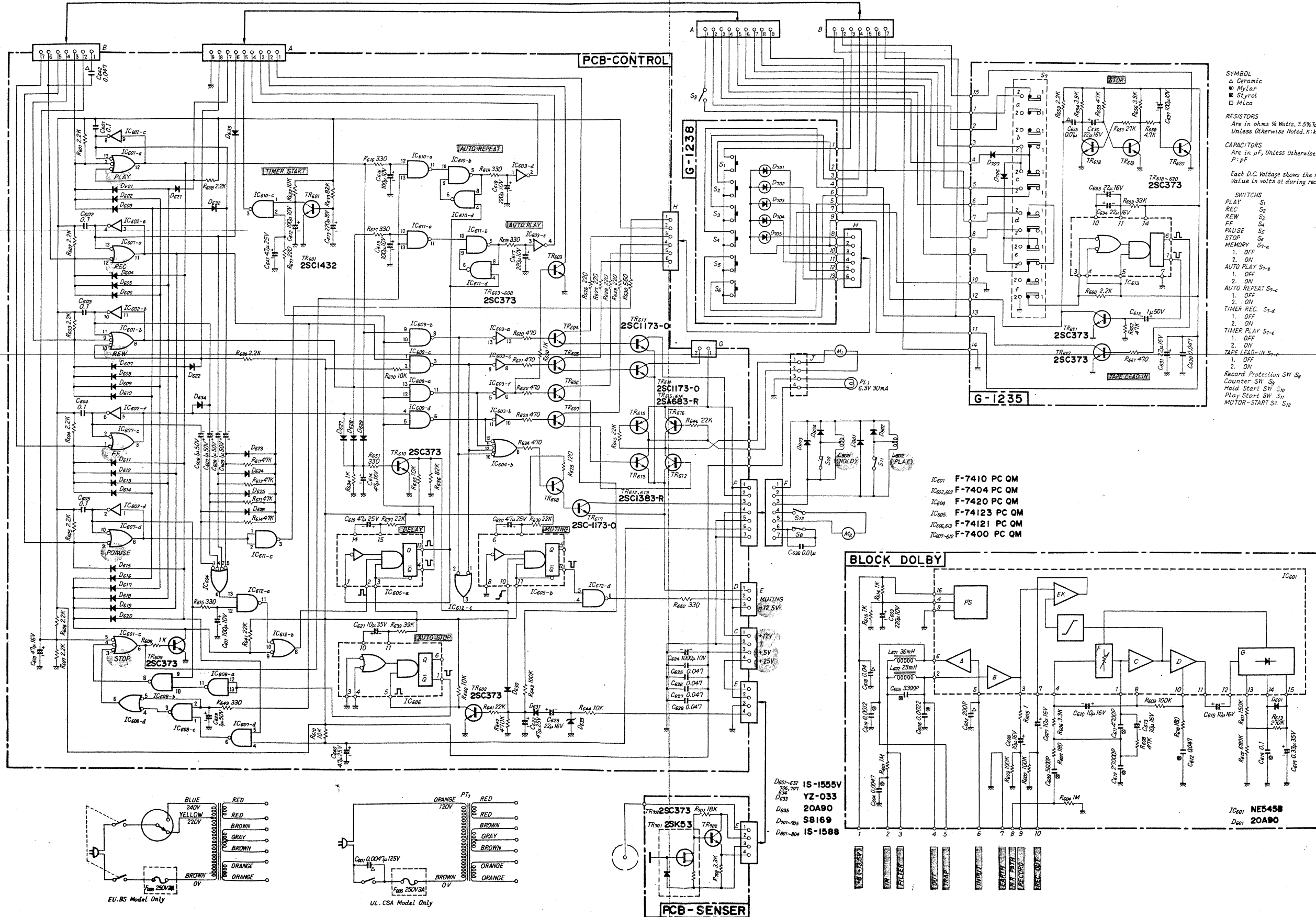
\* La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.  
 \* Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.  
 \* Design and specifications subject to change without notice for improvements.

**9. SCHEMATIC DIAGRAM 1) AF & Power Supply Circuit Section**



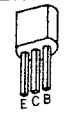
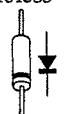
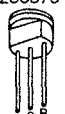






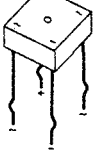


1  
2  
3  
4  
5

2) Control Circuit Section



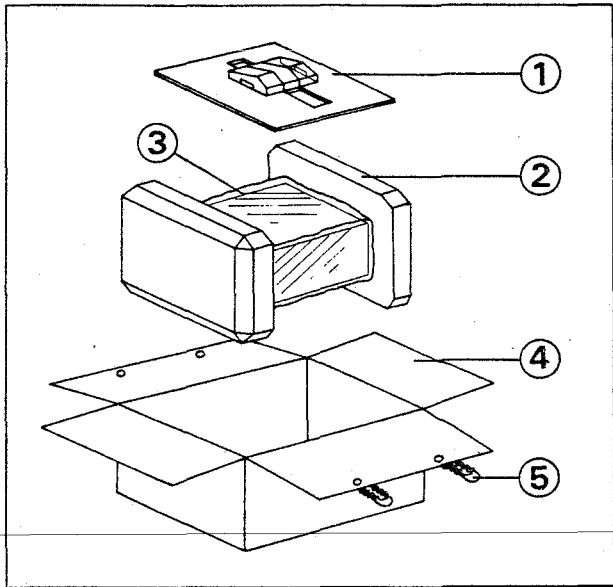


● Semiconductors

<p>2SA721 2SA564 2SA683 2SC828 2SC1327 2SC1383 2SC1432</p> 	<p>1S1555V 20A90 1S1588</p> 
<p>2SC373</p> 	<p>WZ061 XZ265 WZ058 YZ-033</p> 
<p>2SC1173 2SD234 2SD525</p> 	<p>1S1885</p> 
<p>F7410PCQM F7404PCQM F7420PCQM F74121PCQM F7400PCQM</p> 	<p>S8169 (LED) (Red) TLG-102 (LED) (Green)</p> 
<p>NE545B F74123PCQM</p> 	<p>S4VB10</p> 
<p>2SK53</p> 	<p>S1RBA10</p> 

10. PACKING LIST

Parts No.	Stock No.	Description
1	9100020	Dust Cover Case
2	9020030	Stylofoam Packing
3	9110110	Vinyl Cover
4	9000430	Carton Case
5	5996080	Curl Stopper



11. ACCESSORY PARTS LIST

Stock No.	Description
9230250	Schematic Diagram
9202780	Operating Instructions
9430031	Head Cleaning Pen
3810280	Input-Output Cord
5010100	Dust Cover