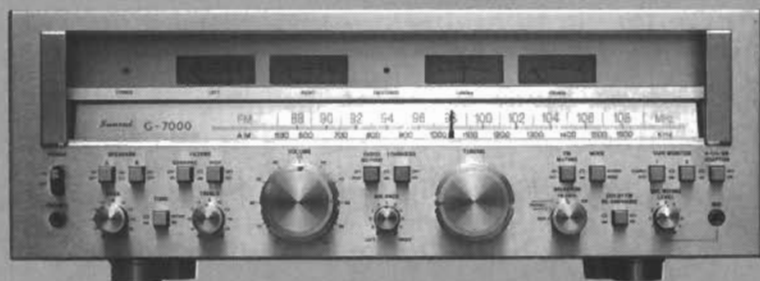


# SERVICE MANUAL

PURE POWER DC STEREO RECEIVER

## SANSUI G-6000 G-7000/701



**Sansui**

SANSUI ELECTRIC CO., LTD.

### SPECIFICATIONS

#### Audio section

##### <<G-6000>>

#### Power output

Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.03 % total harmonic distortion.

65 watts per channel into 8 ohms

Load impedance . . . . . 8 ohms

#### Total harmonic distortion

. . . . . less than 0.03 % at or below rated min. RMS power output

Intermodulation distortion (70 Hz : 7 kHz = 4:1 SMPTE method) . . . . . less than 0.03 % at rated power output

##### <<G-7000/701>>

#### Power output

Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.038 % total harmonic distortion.

85 watts per channel into 8 ohms

85 watts per channel into 4 ohms

Load impedance . . . . . 4 and 8 ohms

#### Total harmonic distortion

. . . . . less than 0.038 % at or below rated min. RMS power output

Intermodulation distortion (7 kHz : 7 kHz = 4:1 SMPTE method) . . . . . less than 0.038 % at rated power output

##### <<G-6000/7000/701>>

#### Frequency response (at 1 watt)

Overall (from AUX) . . . 5 to 50,000 Hz, +0.2 dB, -2.0 dB

#### RIAA curve deviation (PHONO, 20 Hz to 20 kHz)

. . . . . +0.2 dB, -0.2 dB

#### Damping factor (1 kHz, both channels driven)

. . . . . 30 into 8 ohms

#### Input sensitivity and impedance (at 1 kHz)

PHONO-1, 2 . . . . . 2.5 mV/47 kilohms

(Max. input capability: 220 mV at 1 kHz, less than 0.038 % total harmonic distortion.)

MIC . . . . . 6 mV/10 kilohms

TAPE-1, 2 PLAY, AUX

. . . . . 150 mV/47 kilohms

#### Output level (at 1 kHz)

TAPE-1, 2 REC (pin jacks)

. . . . . 150 mV

TAPE-2 REC/PLAY (DIN socket)

. . . . . 43 mV

#### Hum and noise (short-circuit, A-network)

PHONO-1, 2 . . . . . 78 dB

TAPE-1, 2 PLAY, AUX

. . . . . 95 dB

#### Channel separation (at 1 kHz)

PHONO-1, 2 . . . . . 60 dB

TAPE-1, 2 PLAY, AUX

. . . . . 65 dB

#### Controls

BASS . . . . .  $\pm 10$  dB at 50 Hz

TREBLE . . . . .  $\pm 10$  dB at 10 kHz

SUBSONIC FILTER . . . -3 dB at 16 Hz (6 dB/oct)

HIGH FILTER . . . . . -3 dB at 3 kHz (6 dB/oct)

LOUDNESS (VOLUME control: -30 dB position)

. . . . . 8 dB at 50 Hz

. . . . . 6 dB at 10 kHz

AUDIO MUTING . . . -20 dB

**SPECIFICATIONS**

**FM section**

«G-6000/7000/701»

- Tuning range . . . . . 88 to 108 MHz
- Usable sensitivity
- Mono IHF . . . . . 10.3 dBf (1.8 μV)
- DIN . . . . . 1.0 μV
- Stereo IHF . . . . . 17 dBf
- 50 dB quieting sensitivity
- Mono . . . . . 14 dBf
- Stereo . . . . . 36 dBf
- Signal to noise ratio (at 65 dBf)
- Mono . . . . . 72 dB
- Stereo . . . . . 68 dB
- Distortion (at 65 dBf)
- Mono . . . . . less than 0.15 % at 100 Hz
- less than 0.13 % at 1,000 Hz
- less than 0.25 % at 6,000 Hz
- Stereo . . . . . less than 0.25 % at 100 Hz
- less than 0.18 % at 1,000 Hz
- less than 0.25 % at 6,000 Hz
- Alternate channel selectivity (at 400 kHz)
- . . . . . 75 dB
- Capture ratio . . . . . 1.0 dB
- Image response ratio . . . . . 70 dB
- Spurious response ratio . . . . . 90 dB
- IF response ratio . . . . . 95 dB
- Stereo separation . . . . . 35 dB at 100 Hz
- 42 dB at 1,000 Hz
- 30 dB at 10,000 Hz
- 25 dB from 30 to 15,000 Hz
- Frequency response . . . . . 30 to 15,000 Hz
- +0.2 dB, -1.0 dB
- Antenna input impedance
- . . . . . 300 ohms balanced
- . . . . . 75 ohms unbalanced

**AM section**

«G-6000/7000/701»

- Tuning range . . . . . 530 to 1,600 kHz
- Usable sensitivity (bar antenna)
- . . . . . 50 dB/m (300 μV/m)
- Selectivity (±10 kHz) . . . . . 35 dB
- Signal to noise ratio . . . . . 46 dB
- Distortion (at 30 % Modulation, 80 dB/m)
- . . . . . less than 0.5 %

**Other Parts**

«G-6000»

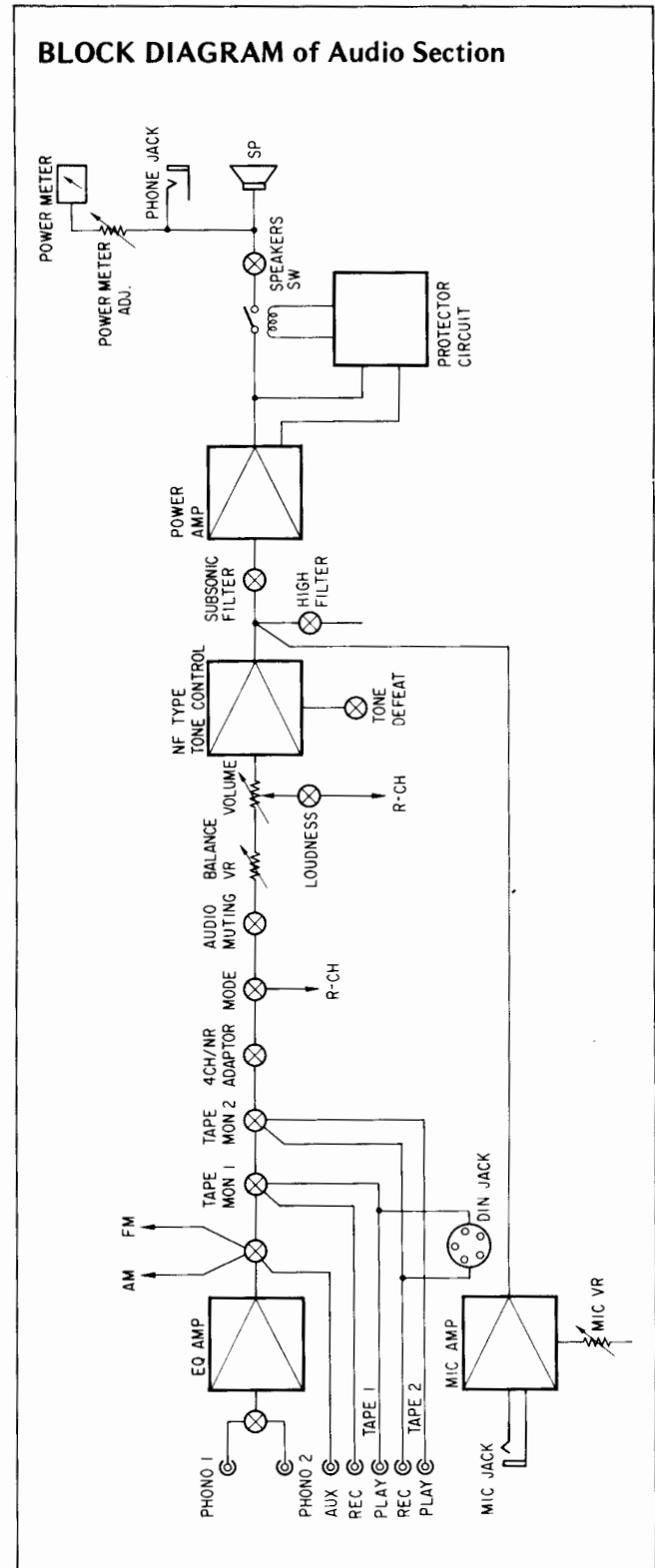
- Power requirements
- Power voltage . . . . . 100, 120, 220, 240 V
- (50/60 Hz)
- For U.S.A. and Canada
- . . . . . 120 V (60 Hz)
- Power consumption
- Rated consumption . . . . . 310 watts 380 VA
- Dimensions . . . . . 505 mm (19-15/16") W
- 187 mm (7-7/16") H
- 409 mm (16-1/8") D
- Weight . . . . . 17.5 kg (38.6 lbs) net
- 19.7 kg (43.4 lbs) packed

«G-7000/701»

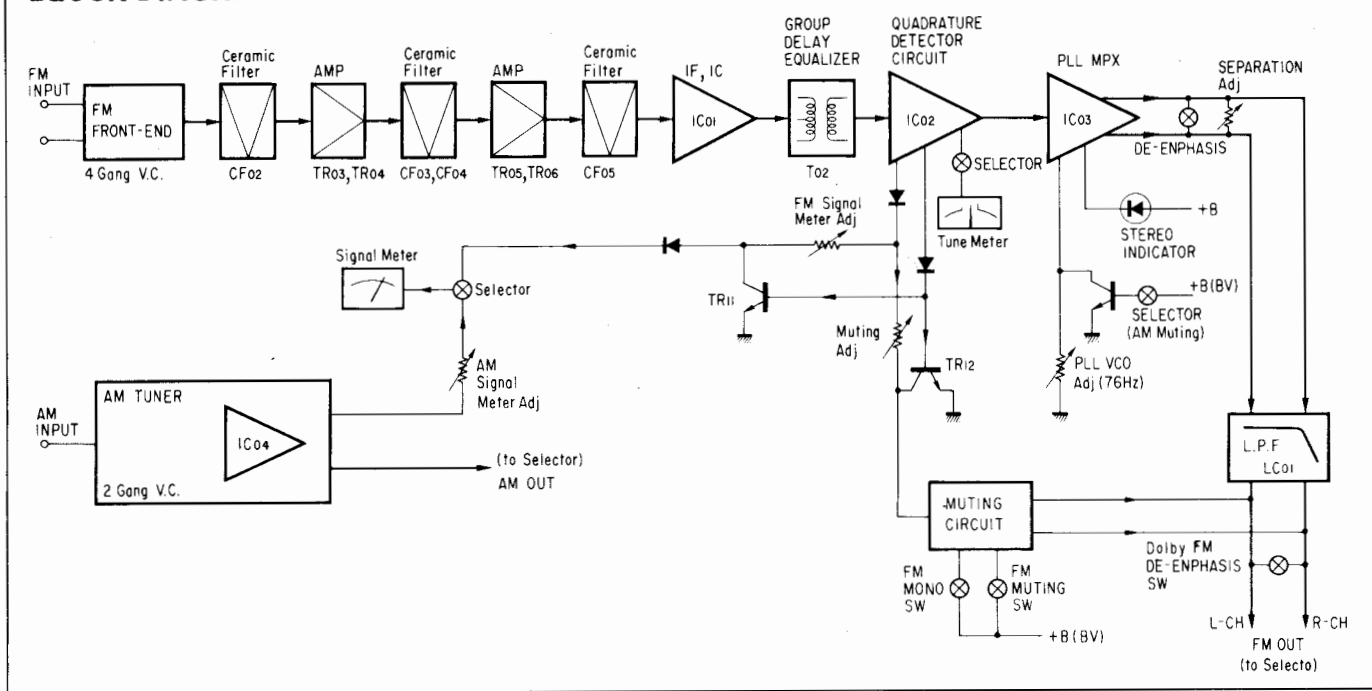
- Power requirements
- Power voltage . . . . . 100, 120, 220, 240 V
- (50/60 Hz)
- For U.S.A. and Canada
- . . . . . 120 V (60 Hz)
- Power consumption
- Rated consumption . . . . . 380 watts 470 VA
- Dimensions . . . . . 505 mm (19-15/16") W
- 187 mm (7-7/16") H
- 422 mm (16-5/8") D
- Weight . . . . . 16.6 kg (36.6 lbs) net
- 18.8 kg (41.4 lbs) packed

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

**1. BLOCK DIAGRAM & OPERATION OF AUDIO SECTION**



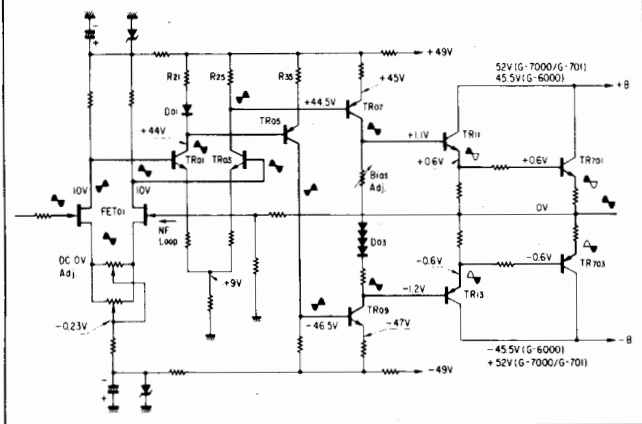
### BLOCK DIAGRAM of Tuner Section



• Dolby is a trademark of Dolby Laboratories, Inc.

### Operation of Audio Section

#### Operation Block Diagram of Power Circuit



### 1. Power Amplifier Characteristics and its Operations (Refer to Operation Block Diagram of Power Circuit)

#### (1) SEPP circuit of D.C. amplifier configuration

Sufficient gain and low distortion factor can be obtained by using a dual FET (FET 01) differential amplifier in the first stage and by applying these two outputs to the next differential amplifier consisting of TR<sub>01</sub> and TR<sub>03</sub>. Two output signals of TR<sub>01</sub> and TR<sub>03</sub> are 180 deg. out-of-phase each other, and the output of TR<sub>03</sub> is applied to TR<sub>07</sub> in phase. On the other hand, the output of TR<sub>01</sub> is applied to TR<sub>09</sub> after the phase is reversed through TR<sub>05</sub>. The outputs of TR<sub>07</sub> and TR<sub>09</sub>, being of the same phase and the same amplitude, make a push-pull drive. In the final current amplifier stage, the output configuration is a dual darlington-type complementary symmetry SEPP circuit.

#### (2) FET characteristics of the first-stage differential amplifier

Two FETs, the characteristics of which are completely the same, are used in the first-stage differential amplifier. FETs have many special characteristics; that is, no gate-current flowing is required and thereby an input capacitor is unnecessary, temperature drift suppression is possible due to no temperature dependence when used under a prescribed drain current conditions because of having a cross temperature point (temperature coefficient), by this a time constant capacitor in a NF loop circuit is unnecessary, and the noise occurrence is also little.

#### (3) Current mirror circuits

The operation from the second differential amplifier circuit of TR<sub>01</sub> and TR<sub>03</sub> to the pre-drive stage of TR<sub>07</sub> and TR<sub>09</sub> is described in detail below.

TR<sub>05</sub> is used in order to connect the 180 deg. out-of-phase output signals of the differential amplifier circuit of TR<sub>01</sub> and TR<sub>03</sub> to the next push-pull amplifier in the same phase. That is, TR<sub>05</sub>, the amplification factor of which is one and only the phase of which is reversed, is inserted in order to connect the 180 deg. out-of-phase outputs from TR<sub>01</sub> and TR<sub>03</sub> to the base inputs of TR<sub>07</sub> and TR<sub>09</sub> in the same phase and the same level. By this, all the currents flowing through TR<sub>01</sub>, TR<sub>03</sub>, and TR<sub>05</sub> become the same, thereby being to be connected to the inputs of TR<sub>07</sub>, and TR<sub>09</sub> in the same level and the same conditions. This circuit is usually called "Current Mirror" because all the currents flowing through TR<sub>01</sub>, TR<sub>03</sub>, and TR<sub>05</sub> are the same, however, there are many kinds of current mirror circuits and the way to use this circuit here is different from AU-607, BA-2000, CA-2000, etc.

## 2. Differential Amplifier Circuits and Constant Current Circuits

Differential amplifier circuits are used for all the first-stage of equalizer tone-control and power-amplifier circuits in G-6000/G-7000/G-701. Also, in the equalizer and tone-control circuits, differential amplifier circuits are used in the first-stage by combining with constant current circuits.

### (1) Differential amplifier circuit characteristics and its operations

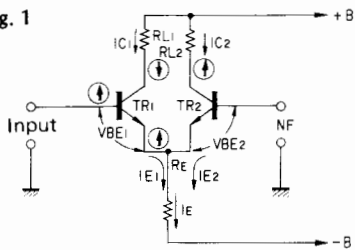
#### (A) Operations

First, when both the inputs of TR<sub>1</sub> and TR<sub>2</sub> are zero in Fig. 1, the state is as follows:

$$IE = IE_1 + IE_2, \quad IE_1 = IE_2$$

Next, when an input signal is applied from only the TR<sub>1</sub> side, the state is changed into that as shown by the movements ⊕ of electric potential. That is, the TR<sub>1</sub> base potential rising ⊕ makes the IE<sub>1</sub> increase, and the TR<sub>1</sub> emitter voltage also increases due to the emitter resistance RE.

Fig. 1



Then the TR<sub>2</sub> emitter voltage also increases since both the emitters of TR<sub>1</sub> and TR<sub>2</sub> are connected directly. This makes the VBE<sub>2</sub> level of TR<sub>2</sub> low, thereby operating in the direction to reduce IC<sub>2</sub> and IE<sub>2</sub>. As a result of this, IE<sub>1</sub> increases and IE<sub>2</sub> decreases at the same proportion, the equation being expressed in the following.

$$IE = IE_1 + IE_2 \dots \dots \text{constant}$$

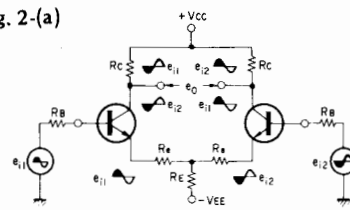
(the same as the case of no-signal)

#### (B) Characteristics

1. When considering SEPP power amplifier as an example and controlling the D.C. potential fluctuation at the median point, if a differential amplifier circuit is used at the first-stage and a D.C. NFB is provided, the controlling efficiency is excellent, being able to make the fluctuation almost zero. This indicates that two operating-point deviations compensate each other in the differential amplifier and the operating point stability is excellent.
2. Cancelling effect for the disturbance applied in the form of the same phase input. (temperature and power supply voltage fluctuations, noise, etc.)
  - (1) It is possible to make the drift null because temperature compensation is easy to perform.
  - (2) The allowable value of common mode voltage (CMV), which is able to apply to the input, is great. (Refer to Fig. 2b)
  - (3) The same phase noise removal is possible because no output appears in the case where the same phase inputs are applied to two inputs. (common mode rejection ratio CMRR is large)
  - (4) Power supply rejection ratio (PSRR) is large.

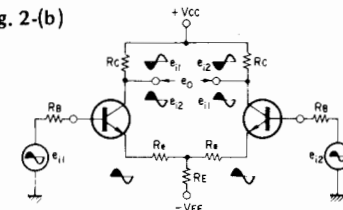
(C) Operation comparison among the reverse phase inputs, the same phase inputs, and the unbalanced inputs in differential amplifier circuit.

Fig. 2-(a)



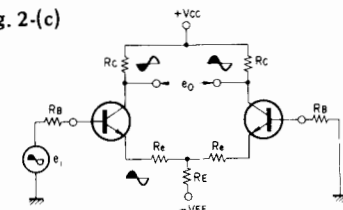
(a) The case where two input signals are in the reverse phase each other.

Fig. 2-(b)



(b) The case where two input signals are in the same phase.

Fig. 2-(c)



(c) The case where only one input signal is applied to a input.

1. The case where two input signals are in the reverse phase each other. (Fig. 2a)

A large gain can be obtained because of no negative feed back action, and a large operating point stability is also obtained because a large RE is possible to use.

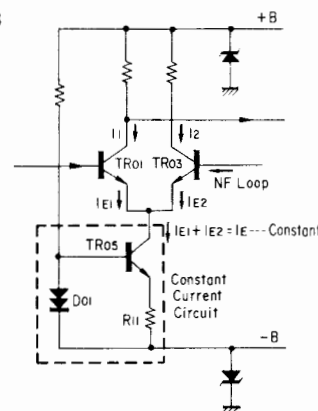
Further, the two transistor emitter currents cancel each other, thereby the current flowing through RE being made into a constant current, and the fluctuations of IE and IC is suppressed.

2. The case where two input signals are in the same phase. (Fig. 2b)

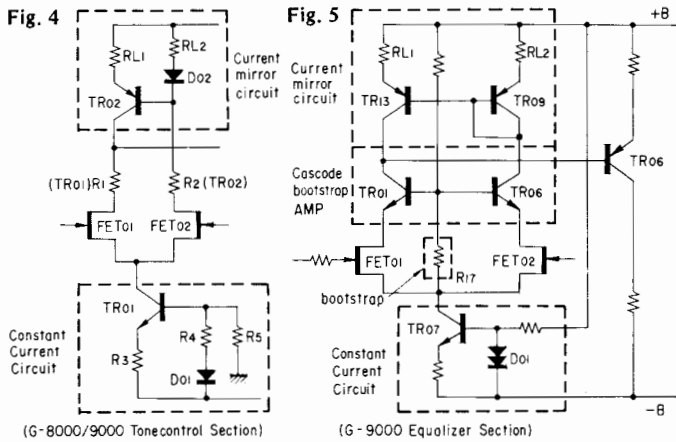
A great negative feedback action is obtained, and ascend with increasing RE. When this circuit is used actually, the input signal e<sub>12</sub> is generally NFB signal.

### (2) Constant current circuit function added to differential amplifier circuits

Fig. 3



(G-6000/7000 Tonecontrol Section)



In order to make large the common mode rejection ratio (CMRR), which is a superior characteristic in a differential amplifier circuit, to use an equal pair of transistors and a large emitter resistance  $R_E$  are required.

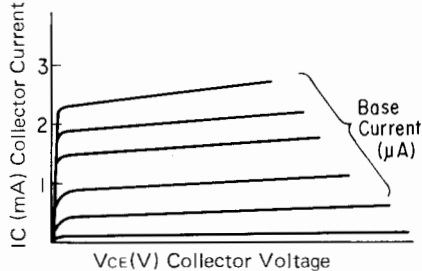
However, when considering the practical use of power supply voltage  $|-V_{EE}|$ ,  $R_E$  having its limit, it is desirable to insert a constant current circuit into the emitter side of the differential amplifier circuit in order to make the CMRR large.

Circuits used for G-6000/7000/8000/9000 are shown in Fig. 3, Fig. 4, and Fig. 5 above.

(A) Constant current circuit operation

When considering Fig. 3 as an example, even if  $TR_{05}$  collector current (emitter current of the differential amplifier circuit) changes, the collector current hardly changes in the  $TR_{05}$  saturated domain. (Fig. 6) By making use of this characteristic, it is possible to flow a constant current through the collector irrespective of the collector voltage fluctuation, and this also means that a considerable high internal resistance is connected equivalently to the emitter of the differential amplifier circuit. Further, a diode  $D_{01}$  serves to make the  $TR_{05}$  bias voltage constant, and at the same time to make the  $TR_{05}$  temperature compensation.

Fig. 6



3. Applied Circuits to G-Series Model No. except G-6000/7000/701

Fig. 4 shows the combined circuit of differential amplifier, current mirror, and constant current used for tone control circuit of G-8000/9000.

The applied circuits used for an equalizer circuit of G-9000, is shown in Fig. 5.

The basic operations of the circuits in Fig. 4 and Fig. 5 are almost the same; that is,  $D_{02}$  is equivalent to  $TR_{09}$  in the current mirror stage, and  $R_1$  and  $R_2$  in Fig. 4 are equivalent to  $TR_{01}$  and  $TR_{06}$  connected in cascode in Fig. 5.

(1) Characteristics

When used for a small signal amplifier circuit, it is possible to improve S/N, low distortion factor, high gain, and D.C. current stability, which are necessary for a small signal amplifier circuit.

In other words, it is possible to improve potential-fluctuation removal-ratio and the common mode rejection-ratio (CMRR), which are the characteristics of the circuit with a constant current circuit, and also possible to obtain a high gain and a high output impedance due to current mirror, in addition to low distortion factor by the push-pull function with current mirror.

By these, it is possible to provide a strong NP in order to improve the distortion factor.

(2) Function of  $TR_{01}$  and  $TR_{06}$  connected in cascode

In Fig. 5, the operation of differential amplifier circuit using FETs with a constant current circuit is the same as in Fig. 3. Further, being bootstrapped by  $R_{17}$ , this circuit of Fig. 5 contains  $TR_{01}$  and  $TR_{06}$  connected in common bases and a current mirror circuit consisting of  $TR_{13}$  and  $TR_{09}$ .

When considering FET characteristics of high input impedance which allows the preceding portion load effect to be negligible, it is possible to make the signal source impedance high and the noise low. Consequently, the power source (+B, and -B) is determined to be high in order to increase the resistance between gate and earth, and the output. However, on account of this high source voltage, when an almost maximum voltage is applied to between drain and source of the FET, a gate leak-current flows, and the differential amplifier circuit becomes unstable, resulting in the fact that the median electric potential is not controlled to null at the output side.

In order to prevent this, it is necessary to make the FET electric potential between drain and gate sufficiently low, thus resistors or  $TR_{13}$  and  $TR_{09}$  being inserted into a portion between the current mirror circuit and the differential amplifier circuit in order to make a voltage drop.

The circuit, when  $TR_{01}$  and  $TR_{06}$  are added in common base as shown in Fig. 5, is called a cascode bootstrap amplifier, and has not only the characteristics to make low the voltage between drain and source of FET but also the following characteristics.

- (A) To prevent the mirror effect and improve the high frequency characteristics.
- (B) To make less the distortion resulting from the voltage dependence of reverse capacitance  $C_{rss}$ .
- (C) To improve the linearity.

(3) Cascode bootstrap amplifier operation

Fig. 7 being the same circuit as Fig. 5, in order to understand a cascode bootstrap amplifier better, only the simplified portion is shown in Fig. 8.

Fig. 7

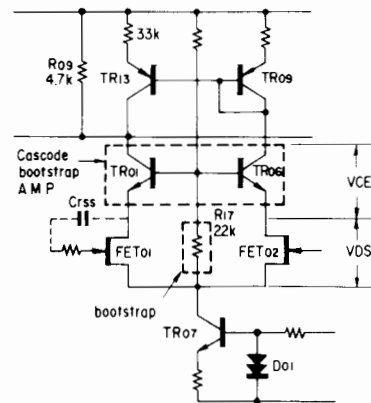
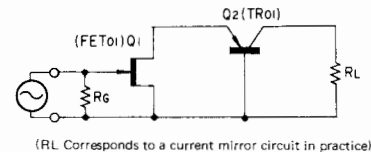


Fig. 8



As shown in Fig. 8, the load of Q<sub>1</sub> is the input impedance of Q<sub>2</sub>, then to determine Q<sub>2</sub> input impedance is required in order to determine Q<sub>1</sub> gain A<sub>1</sub>. As the Q<sub>2</sub> input impedance Z<sub>ib</sub> is given by the following equation, Q<sub>1</sub> gain A<sub>1</sub> is obtained as follows:

$$Z_{ib} = \frac{h_{ie}}{1 + h_{fe}} \quad \text{then, } A_1 = g_m \cdot Z_{ib} = g_m \frac{h_{ie}}{1 + h_{fe}}$$

Also, the gain A<sub>2</sub> of common-base amplifier circuit is given by the equation below.

$$A_2 = \frac{1 + h_{fe}}{h_{ie}} \cdot RL$$

Consequently, the gain A<sub>0</sub> of cascode amplifier is as follows:

$$A_0 = A_1 \cdot A_2 = g_m \frac{h_{ie}}{1 + h_{fe}} \cdot \frac{1 + h_{fe}}{h_{ie}} \cdot RL = g_m \cdot RL$$

where h<sub>ie</sub> is a TR<sub>01</sub> common-emitter input impedance, h<sub>fe</sub> is a TR<sub>01</sub> common-emitter forward current transfer ratio, and g<sub>m</sub> is a TR<sub>01</sub> mutual conductance.

By using the calculating equations in the left, when calculating the actual circuit of Fig. 7, the following values can be obtained.

$$g_m = 12 \text{ (mS)}, RL = 4.7 \text{ k}\Omega (R_{09}),$$

$$\text{and } A_0 = 12 \times 10^{-3} \times 4.7 \times 10^3 = 56.4 \dots 35 \text{ (dB)}$$

This gain is a total gain of FET<sub>01</sub> and TR<sub>01</sub>, however, R<sub>09</sub> connected in parallel with the current mirror circuit is actually a load resistance of TR<sub>01</sub>, and not a load of the current mirror circuit without any gain.

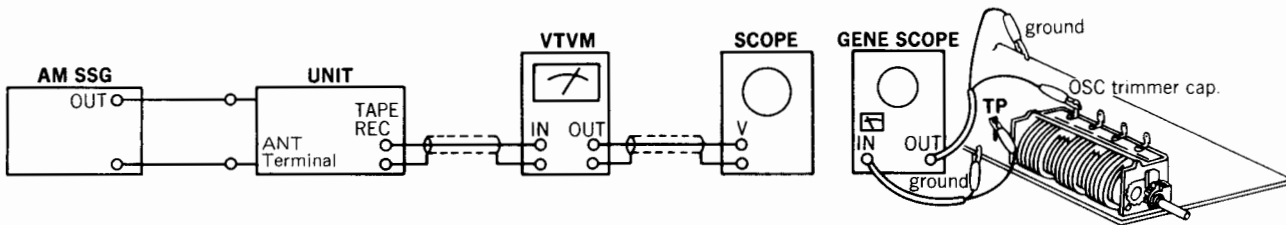
Consequently, the total circuit gain of Fig. 7 is approximately 35 dB.

Then the purpose of the current mirror circuit is to improve power supply utilization coefficient, to make a differential output into a single output, and also to reduce the distortion by letting the circuit make a push-pull operation.

## 2. ADJUSTMENTS

### 1. AM IF, RF Adjustment & Dial Calibration (See Fig. 2-1 on page 7)

- Note: 1. Selector . . . . . AM  
2. Confirm start point of dial pointer before alignment.

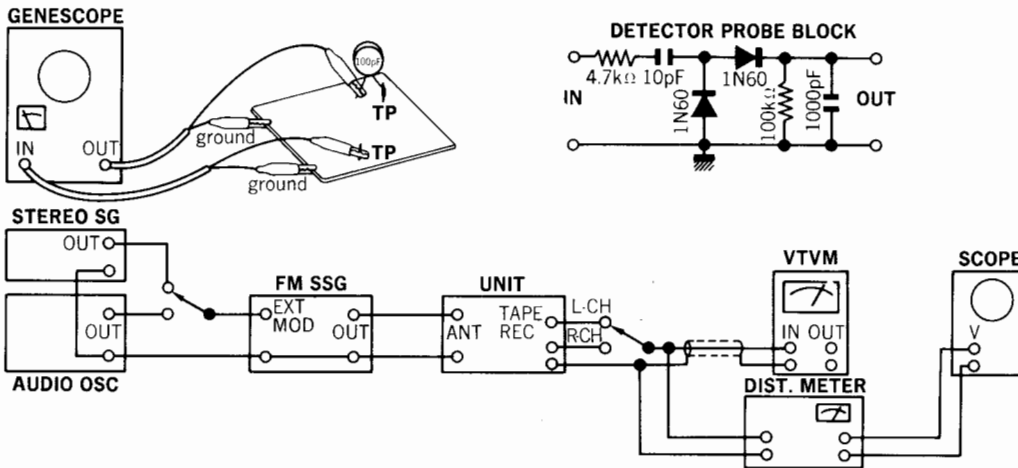


STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
		FROM	TO				
1.	IF Coil	Genescope Output 45 dB	VT01b F-2614	TP6 F-2614	T06, T07 F-2614	Max. IF waveform	
2.	600 kHz Dial Calibration	600 kHz ANT Input 60 dB 400 Hz (MOD 30%) AM SSG	AM ANT terminal	REC OUT L or R-CH VTVM & Scope	L13 F-2614	Max. Output	
	1400 kHz Dial Calibration	1400 kHz ANT Input 60 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	VT01d F-2614	Same as above	
3.	600 kHz RF Adj.	600 kHz ANT Input 60 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	L702 Bar Antenna	Same as above	
	1400 kHz RF Adj.	1400 kHz ANT Input 60 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	VT01b F-2614	Same as above	
4.	Signal Meter volume	1000 kHz ANT Input 76 dB 400 Hz (MOD 30%) AM SSG	Same as above	Signal Meter	VR05 F-2614	4.3 on meter	

## 2. FM Adjustment (See Fig. 2-1 on page 7)

Note: 1. Selector ..... FM AUTO  
2. FM Muting Switch ..... OFF

3. Connect the output of genescope to TP through 100 pF ceramic capacitor.



### (1) FM IF, RF Adjustment & Dial Calibration

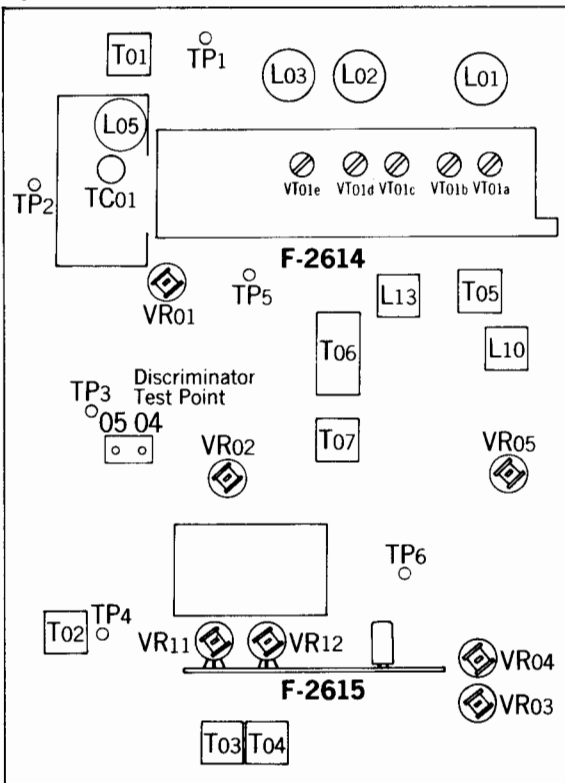
STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
		FROM	TO				
1.	IF Coil	Output 90 dB Genescope	TP1 F-2614	TP3 F-2614 Use Detector Probe	T01 F-2614	Max. IF waveform	
		Output 80 dB Genescope	Same as above	TP4 F-2614 Use Detector Probe	T02 F-2614	Same as above	
2.	Discriminator Coil	Output 50 dB Genescope	Same as above	TM04 (Pin Ass'y) F-2614	T03	Center indication on tune meter	
					T04	Max. linearity of S curve  Steep linearity of S curve  Set output wave to dip point (It's minimum distortion)	
3.	90 MHz Dial Calibration	90 MHz ANT Input 40 dBf (34.8 dB) 1 kHz (100% MOD) FM SSG	ANT terminal 300Ω	REC OUT L or R-CH VTVM & Scope	L05 F-2614	Max. Output	
	106 MHz Dial Calibration	106 MHz ANT Input 40 dBf (34.8 dB) 1 kHz (100% MOD) FM SSG	Same as above	Same as above	TC01 F-2614	Same as above	
4.	90 MHz RF Adj.	90 MHz ANT Input 30 dBf (24.8 dB) 1 kHz (100% MOD) FM SSG	Same as above	Same as above	L01, L02, L03 F-2614	Same as above	
	106 MHz RF Adj.	106 MHz ANT Input 30 dBf (24.8 dB) 1 kHz (100% MOD) FM SSG	Same as above	Same as above	VT01a, VT01c, VT01e F-2614	Same as above	
5.	Signal Meter Volume	98 MHz ANT Input 105 dBf (99.8 dB) 1 kHz (100% MOD) FM SSG	Same as above	Signal Meter	VR11 F-2615	4.7 on Meter	

**(2) FM STEREO Adjustment**

STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
		FROM	TO				
1.	PLL VCO Adj.	98 MHz ANT Input 65 dBf (59.8 dB) FM SSG Pilot 19 kHz (9% MOD) SUB 1 kHz + Pilot (100% MOD) STEREO SG	ANT terminal 300Ω	Stereo indicator	VR01 F-2614	Light indicator	Adjust the VR within center of lighting level.
	PLL VCO Adj. In case of using Freq. counter.	98 MHz ANT Input 65 dBf (59.8 dB) FM SSG (no MOD)	Same as above	TP5 F-2614 Use Freq. counter	VR01 F-2614	76 kHz ±200 Hz	For this adjustment, run the unit more than 30 seconds.
2.	Separation	98 MHz ANT Input 65 dBf (59.8 dB) FM SSG Pilot 19 kHz (9% MOD) R Mode 1 kHz + Pilot (100% MOD) STEREO SG	ANT terminal 300Ω	REC OUT L-CH VTVM & Scope	VR02 F-2614	Min. Output -40 dB	Confirm separation L-CH → R-CH -40 dB
3.	Muting level & indicator level	98 MHz ANT Input 23 dBf (17.8 dB) FM SSG Pilot 19 kHz (9% MOD) SUB 1 kHz + Pilot (100% MOD) STEREO SG	Same as above	Stereo indicator	VR12 F-2615	Muting level 23 dBf (17.8 dB) Indicator lighting level 23 dBf (17.8 dB)	

● **Adjusting or Connecting Points on AM, FM & FM MPX circuit board, F-2614 & F-2615**

Fig. 2-1



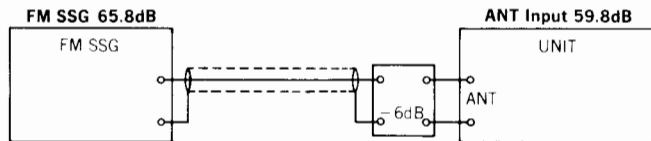
● **NEW MEASUREMENT FOR FM.**

Input signal level under the provision of IHFM-T-200, a new measurement method is indicated by available power ratio "dBf". To obtain approximate available power ratio "dBf", abstract 0.8 from attenuator indication of general FMSG (open load indication type); however, the former measurement, IHFM-T-100 is designated together too.

The way of modulation on IHFM-T-200 is shown below.

	modulation frequency	modulation mode	modulation factor
FM MONO	1000 Hz		100%
FM STEREO	1000 Hz	SUB	Pilot 9% Pilot + SUB 100%

- The relation between the standard input 65 dBf of IHFM-T-200 and the former indication "dB" is shown below.





### 3. Audio Section

#### (1) Driver Circuit Board Adjustments (See Fig. 2-2)

Note: 1. Master Volume . . . . . Minimum

2. For adjustment, run the unit for more than 3 minutes after the power is switched on.

STEP	SUBJECT	EQUIPMENT	MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
1.	DC 0V L-CH	DC Volt Meter	Speaker Terminal	VR01, VR03 F-2856	DC 0V ±5mV	<ul style="list-style-type: none"> <li>Set VR01 and VR03 to center position. (VR03, VR04)</li> <li>Then, for the purpose of proceeding the accurate adjustment, set the voltage to 0 volt by VR01 (VR02) first and VR03 (VR04) next.</li> </ul>
2.	DC 0V R-CH	Same as above	Same as above	VR02, VR04 F-2856	DC 0V ±5mV	
3.	Bias Current L-CH	Same as above	TP Terminal (+) (-) Fig. 2-2	VR05 F-2856	DC 4.5mV ±1mV	<ul style="list-style-type: none"> <li>By turning VR05 (VR06), counterclockwise, the bias current is decreased gradually.</li> </ul>
4.	Bias Current R-CH	Same as above	TP Terminal (+) (-) Fig. 2-2	VR06 F-2856	DC 4.5mV ±1mV	

#### (2) Power Meter Adjustments (See Fig. 2-3)

Note: 1. Master Volume . . . . . Maximum

2. For this adjustment, run the unit for more than 2 minutes after turning on the power switch.

AUDIO OSCILLATOR		OUTPUT TERMINAL	ADJUST	ADJUST FOR
OUTPUT	CONNECTING POINT			
At 1 kHz Sine wave, set the amplifier-output to 20V on both channels by adjusting Audio Osc.-output level	Input terminal of Amplifier	Speaker terminal 8Ω VTVM Scope	VR01 (L-CH) VR02 (R-CH) on F-2860	Set the point of power meter to 50W on both channels

Fig. 2-2

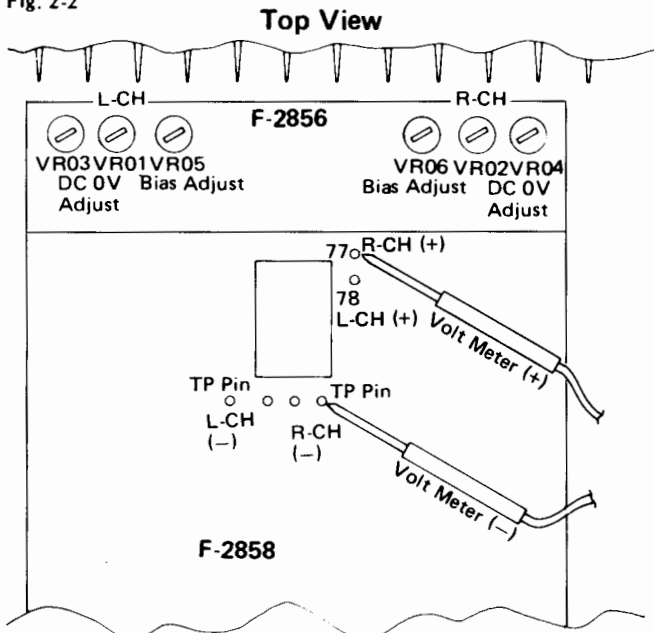
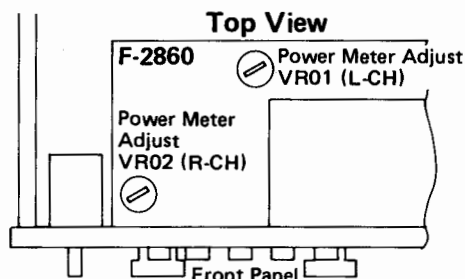


Fig. 2-3



#### ●Abbreviations

Equipment	
AM FM Generator Oscilloscope . . . . .	Genescope
AM Standard Signal Generator . . . . .	AM SSG
FM Standard Signal Generator . . . . .	FM SSG
FM Stereo Generator . . . . .	Stereo SG
Oscilloscope . . . . .	Scope
Audio Oscillator . . . . .	Audio Osc.

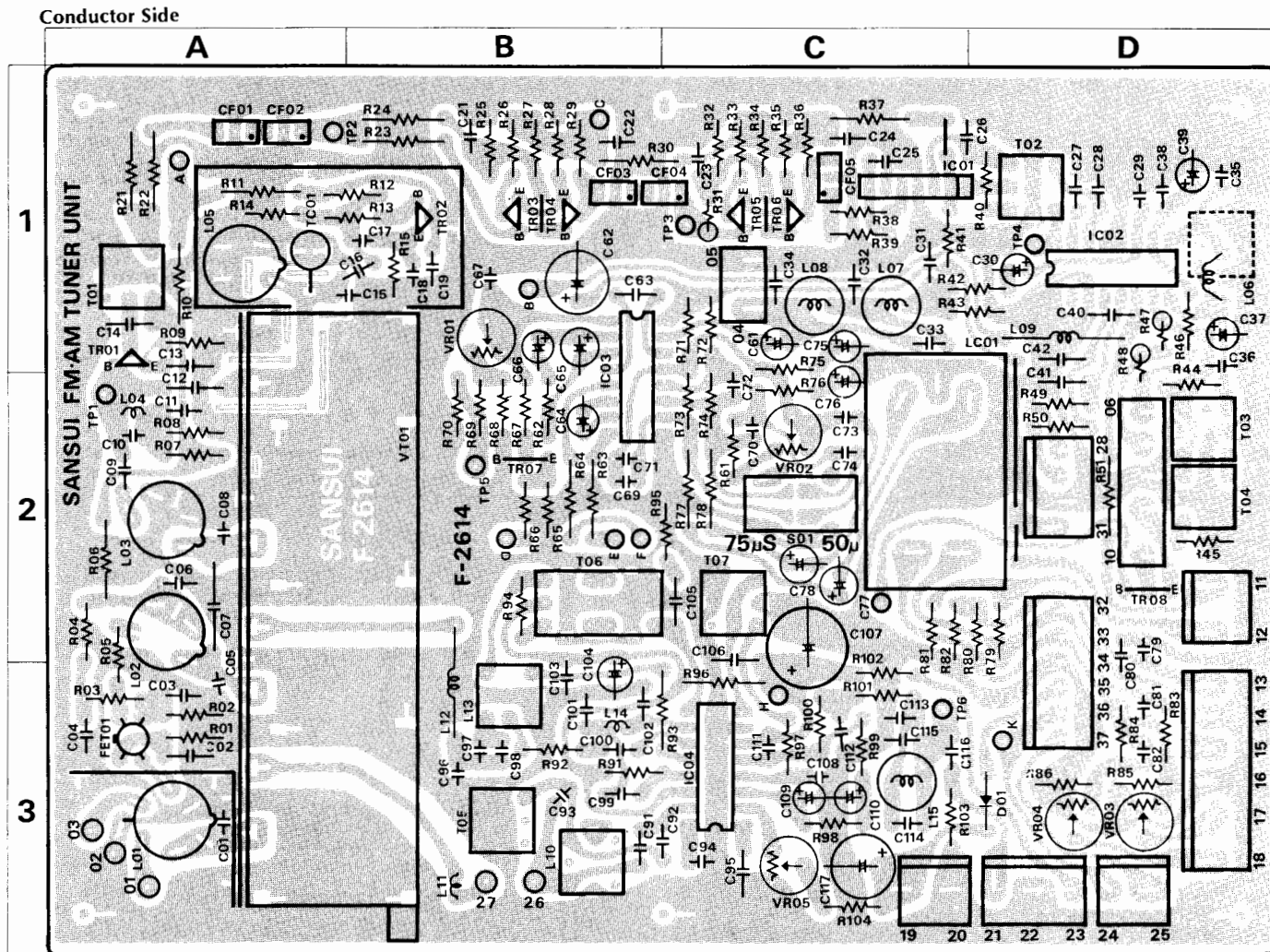
#### Others

Antenna . . . . .	ANT.
Modulation . . . . .	MOD.
Total Harmonic Distortion . . . . .	T.H.D.

### 3. PARTS LOCATION & PARTS LIST

#### 1. F-2614 RF Circuit Board (Stock No. 7521741●G-6000) (Stock No. 7521721●G-7000/G-701)

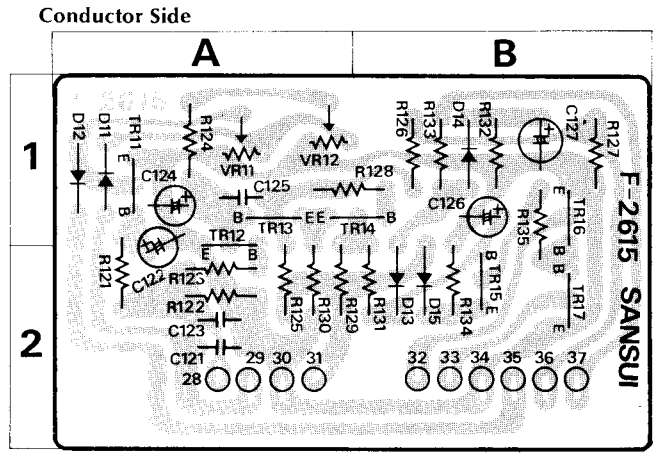
Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors which was appended previously to each Sansui Manual.



#### Parts List

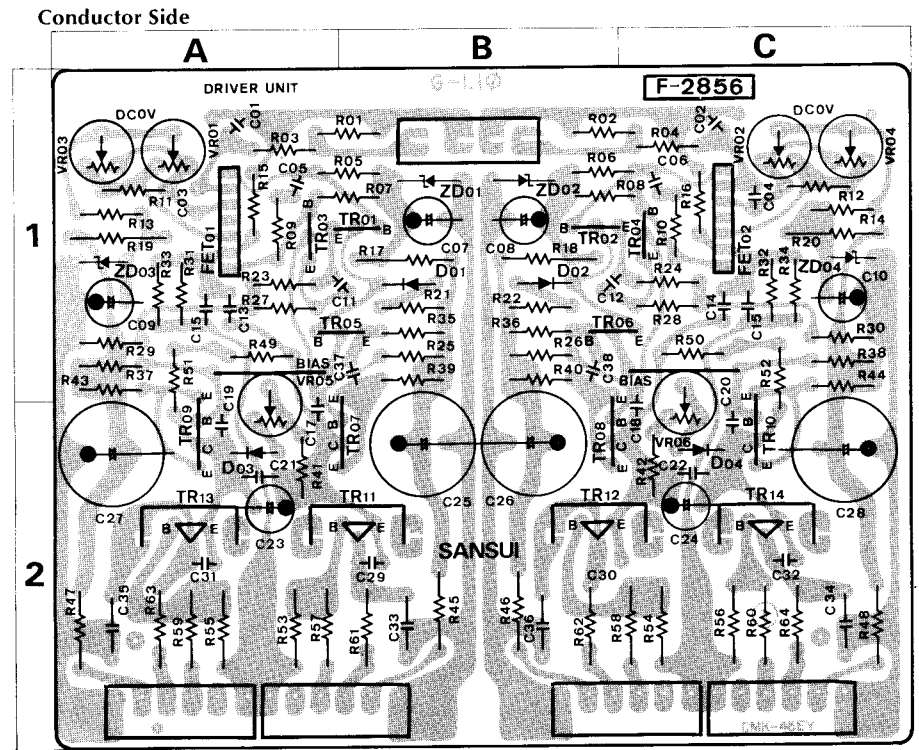
Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
TR01	0305801, 2	2SC1047 B, C	1A	C 65	0573159	1.5 µF 35V T.C.	1B	T 03	4235990, 1	FM IFT 10.7 MHz	
TR02	0305801, 2	2SC1047 B, C	1B	C 67	0629005	360PF 50V	2C	T 04	4236000, 1	IF Coil 10.7 MHz	2D
TR03	0306341, 2	2SC1674 L, K	1B	C 73	0620561	560PF 50V	2C	T 05	4230620	IF Coil 455 kHz	3B
TR04	0306341, 2	2SC1674 L, K	1B	C 74	0620561	560PF 50V	3B	T 06	0910280	Ceramic Filter 455 kHz	2B
TR05	0306341, 2	2SC1674 L, K	1C	C 93	0620562	5600PF 50V	3B	T 07	4230620	IF Coil 455 kHz	2C
TR06	0306341, 2	2SC1674 L, K	1C	C 96	0669400	15PF 50V	3B	CF 02	0910420		1A
TR07	0305731, 2	2SC711 E, F	2B	C 97	0669400	15PF 50V	3B	CF 03	0910420	Ceramic Filter 10.7 MHz	1B
	0305951, 2	2SC945 Q, R		C 98	0620361	360PF 50V P.C.		CF 04	0910420		1B, C
				C 98	0620361	360PF 50V P.C.		CF 05	0910420		1C
IC 01	0360120	µPC555H	1C	R 63	0200471	470Ω 1/8W N.I.R.	2B				
IC 02	0360350	HA1137W	1B				3A	LC 01	0910360	Low Pass Filter	2C
IC 03	0360320	HA1196	1, 2B	L 01	4200720	Antenna Coil	2, 3A				
IC 04	0360390	HA1197	3C	L 02	4210340	RF Coil	2A				
FT 01	0370121, 2	3SK41 L, M FET	3A	L 03	4210340	RF Coil	2A	VR01	1034250	4.7 kΩ B PLL VCO Adjust Volume	1B
D 02	{ 0311160 0311180	{ 1S2473D 1S1588	Diode	L 04	4900140	1 µH Inductor	1A	VR02	1035190	100 kΩ B MPX Separation Volume	2C
C 01	0669325	15PF 50V	3A	L 05	4220400	OSC Coil	1D	VR05	1035110	4.7 kΩ B AM Signal Meter Adjust Volume	3C
C 05	0669325	15PF 50V	2A	L 06	4290300	Inductor	1C	S 01	1110270	DE-Emphasis Switch	
C 08	0669325	15PF 50V	2A	L 07	4900250	8.2 µH Inductor	1C	VT01	1220260	AM-FM Variable Capacitor	2B
C 09	0669210	10PF 50V	2A	L 08	4900240	6.8 µH Inductor	1D				
C 12	0679008	1.0PF 500V	Gimmic Capacitor	L 09	4290011	Choke Coil	3B				
C 15	0669330	20PF 50V	1A, B	L 10	4290250	Choke Coil	2, 3B				
C 16	0669295	10PF 50V	1B	L 11	4900100	3.3 µH Inductor	3B				
C 17	0669295	10PF 50V	1B	L 12	4290011	Choke Coil		TC 01	1230090	Trimmer Capacitor	1A
C 18	0669295	10PF 50V	1D	L 13	4220650	OSC Coil	3B				
C 29	0661330	33PF 50V	1B	L 14	4900110	100 µH Inductor					
				L 16	4900100	3.3 µH Inductor					
				T 01	4235930	10.7 MHz IF Coil	1A				
				T 02	4235930	10.7 MHz IF Coil	1D				
							2D				

2. F-2615 FM Muting Circuit Board (Stock No. 7521751●G-6000)  
(Stock No. 7521731●G-7000/701)



Parts No.	Stock No.	Description	Position
TR 11	0306390, 1	2SC1636-1, 2	1A
TR 12	0305731, 2	2SC711 E, F	1A
	0305951, 2	2SC945 Q, P	
TR 13	0305731, 2	2SC711 E, F	1A
	0305951, 2	2SC945 Q, P	
TR 14	0305731, 2	2SC711 E, F	1B
	0305951, 2	2SC945 Q, P	
TR 15	0300510, 1	2SA733 P, Q	2B
TR 16	0306390	2SC1636-1	1B
TR 17	0306390	2SC1636-1	2B
D 11	0311160	1S2473D	1A
	0311180	1S1588	
D 12	0311160	1S2473D	1A
	0311180	1S1588	
D 13	0311160	1S2473D	2B
	0311180	1S1588	
D 14	0311160	1S2473D	1B
	0311180	1S1588	
D 15	0311160	1S2473D	2B
	0311180	1S1588	
D 16	0311160	1S2473D	
	0311180	1S1588	
D 17	0311160	1S2473D	
	0311180	1S1588	
VR 11	1035410	47 kΩ B, FM Signal	1A
VR 12	1035430	100 kΩ B, FM Muting	1A
	2420510	4P Connector Ass'y Type B	
	2420520	6P Connector Ass'y Type A	

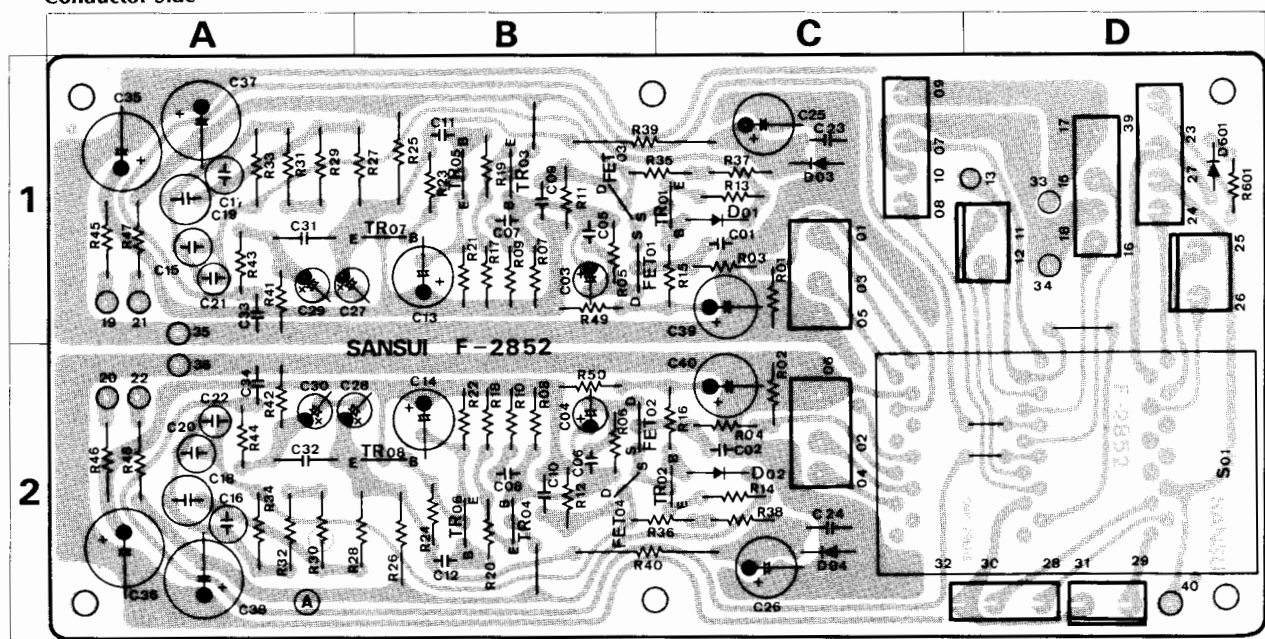
3. F-2856 Driver Circuit Board (Stock No. 7571881●G-6000)  
(Stock No. 7571891●G-7000/G-701)



Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
TR01, 02	0306550	2SC1775 E, F	1B	C 01, 02	0620101	100PF 50V P.C.	1A, 1C	VR05, 06	1033590	220Ω B Bias Current Adjust Volume	2A, 2C
TR03, 04	0306550, 1	2SC1775 E, F	1A, 1C	C 05, 06	0620331	330PF 50V P.C.	1A, 1C		2410590	4P Pin Ass'y Type D	2C
TR05, 06	0301030, 1	2SA939 B, V	1A, B, C	C 33, 34	0655223	22000PF 500V C.C.	2B, 2C		2420520	6P Connector Ass'y Type A	
TR07, 08	0301030, 1	2SA939 B, V	2B	C 35, 36	0655223	22000PF 500V C.C.	2A, 2B	<b>G-6000 Only Parts</b>			
TR09, 10	0306680, 1	2SC-2071 B, V	2A, 2C	R 17, 18	0211332	3.3 kΩ 1W N.I.R.	1B,	R 57, 58	0210229	2.2Ω ¼W N.I.R.	2A, 2C
TR11, 12	0308431, 2	2SD381 M, L	2B	R 19, 20	0211332	3.3 kΩ 1W N.I.R.	1A, 1C	R 59, 60	0210229	2.2Ω ¼W N.I.R.	2A, 2C
TR13, 14	0303261, 2	2SB536 M, L	2A, 2C	R 45, 46	0210560	56Ω ¼W N.I.R.	2B	<b>G-7000/701 Only Parts</b>			
FT01, 02	0370281, 2	2SK109 D, E FET	1A, 1C	R 47, 48	0210560	56Ω ¼W N.I.R.	2A, 2C	R 57, 58	0210229	2.2Ω ¼W N.I.R.	2A, 2C
				R 53, 54	0210221	220Ω ¼W N.I.R.	2A, 2C	R 59, 60	0210229	2.2Ω ¼W N.I.R.	2A, 2C
				R 55, 56	0210221	220Ω ¼W N.I.R.	2A, 2C				
D 01, 02	0311160	1S2473D	1B								
	0311180	1S1588									
D 03, 04	0340140	STV-4H Varistor	2A, 2C	VR01, 02	1033570	100Ω B Center DC 0V Adjust Volume (A)	1A, 1C				
ZD01, 02	0316020	EQA01-18R	1B	VR03, 04	1033850	2.2 kΩ B Center DC 0V Adjust Volume (B)	1A, 1C				
ZD03, 04	0316020	EQA01-18R	1A, 1C								

### 4. F-2852 Equalizer Circuit Board (Stock No. 0000000●G-6000) (Stock No. 0000000●G-7000/701)

Conductor Side

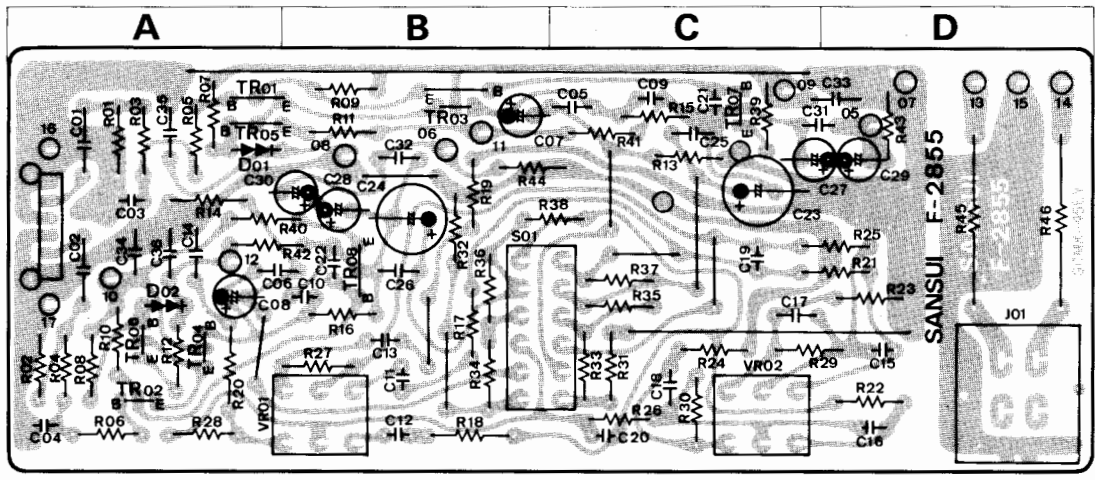


#### Parts List

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
TR01,02	0306550,1	2SC1775 E, F	1C, 2C	D 03,04	{ 0311160 0311180 0311180 0311180	{ 1S2473D 1S1588 1S2473D 1S1588	{ 1C, 2C Diode	R 27, 28	0231561	560Ω 1/4W Me. R	1B, 2B
TR03,04	{ 0300770,1 0300930,1 0300930,1	{ 2SA896-1-1, 2 2SA896-1-1, 2 2SA896-1-1, 2	1B, 2B	D 601	{ 0311160 0311180	{ 1S2473D 1S1588	1D	R 29, 30	0231153	560Ω 1/4W Mr. R.	1A, 2A
TR05,06	{ 0300890,1 0300930,1	{ 2SA750 (3) E, U 2SA872 D, E	1B, 2B	C 01,02	0620101	100PF 50V	1C, 2C	R 31, 32	0231304	300 kΩ 1/4W Me. R.	1A, 2A
TR07,08	{ 0306350,1 0308520 ~	{ 2SC1811-1-1, 2 22SD438 D, E, F	1B, 2B	C 07,08	0620101	100PF 50V	1B, 2B	R 33, 34	0231273	27 kΩ 1/4W Me. R.	1A, 2A
FT01,02	0370302,3	2SK-117 GR, BL	1B, 2B	C 17, 18	0625103	10000PF 50V	P.C.	R 45, 46	0191101	100Ω 1/4W F.R.	1A, 2A
FT03,04	0370302,3	2SK-117 GR, BL	1B, 2B	C 19, 20	0625272	10000PF 50V	1A, 2A	R 47, 48	0191101	100Ω 1/4W F.R.	1A, 2A
D 01,02	0340150	MV-12 Varistor	1C, 2C	C 21,22	0620151	2700PF 50V	1A, 2A	S 601	1103590	Selector Switch	2D
				R 25,26	0201392	3.9Ω 1W N.I.R.			2410590	4P Pin Ass'y Type D	
									2410910	2P Pin Ass'y Type E	
									2410920	3P Pin Ass'y Type E	

### 5. F-2855 Tone Control Circuit Board (Stock No. 7562161●G-6000) (Stock No. 7562181●G-7000/G-701)

Conductor Side

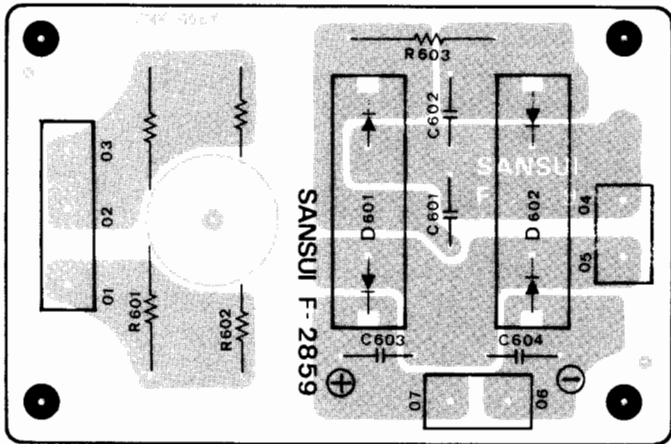


#### Parts List

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
TR01,02	0306010,1	2SC1222 (2) U, E	Transistor	D 01,02	{ 0340120 0340150	{ VD1212 MV-12	Varistor	S 01	1131630,1	Tone Defeat Switch	
TR03,04	0306010,1	2SC1222 (2) U, E		VR01,02	1015360,1	100 kΩ x 2 C, Tone Control Volume		J 01	2430400	Head Phone Jack	
TR05,06	0306010,1	2SC1222 (2) U, E									
TR07,08	0300890,1	2SA750 (3) E, U									

6. F-2859 Power Supply Circuit Board (Stock No. 750282●G-7000/G-701)

Conductor Side

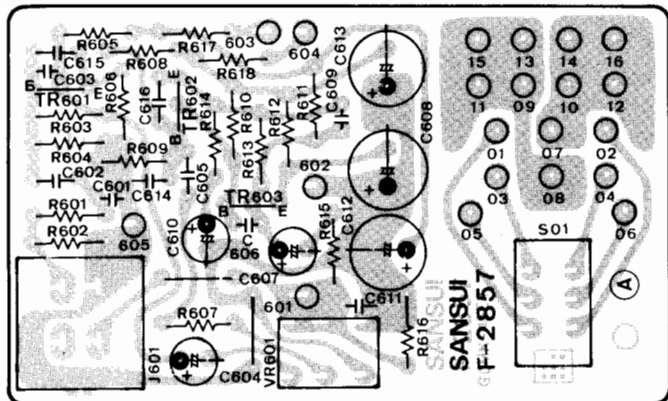


Parts List

Parts No.	Stock No.	Description
D 601	0311290	SS-3 Diode
D 602	0311300	SS-3R Diode
C 601 ~04	0655103	10000PF 500V C.C.
R 601,02	0257829	8.2Ω 7W Ce. R.
R 603	0202822	8.2 kΩ 2W N.I.R.

7. F-2857 MIC AMP. Circuit Board (Stock No. 7610251●G-6000)  
(Stock No. 7610261●G-7000/G-701)

Conductor Side

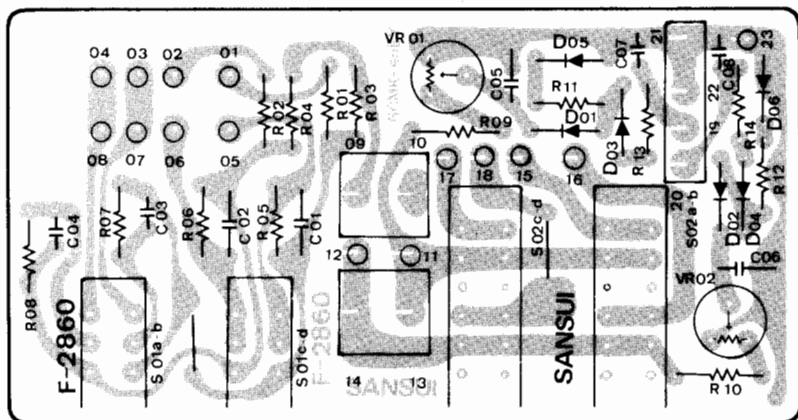


Parts List

Parts No.	Stock No.	Description
TR601	0306070, 1	2SC1313 F, G
TR602	0300470	2SA726 (W) F
TR603	0306011	2SC1222 (2) E
C 609	0620681	680 PF 50V P.C.
R 617	0191470	47Ω ¼W F.R.
R 618	0191470	47Ω ¼W F.R.
VR601	1090270, 1	MIC Volume
S 01	1131620, 1	Dolby FM DE-Emphasis Switch
J 601	2430400	MIC Jack

8. F-2860 Tape Monitor Circuit Board (Stock No. 7596141●G-6000)  
(Stock No. 7596181●G-7000/G-701)

Conductor Side

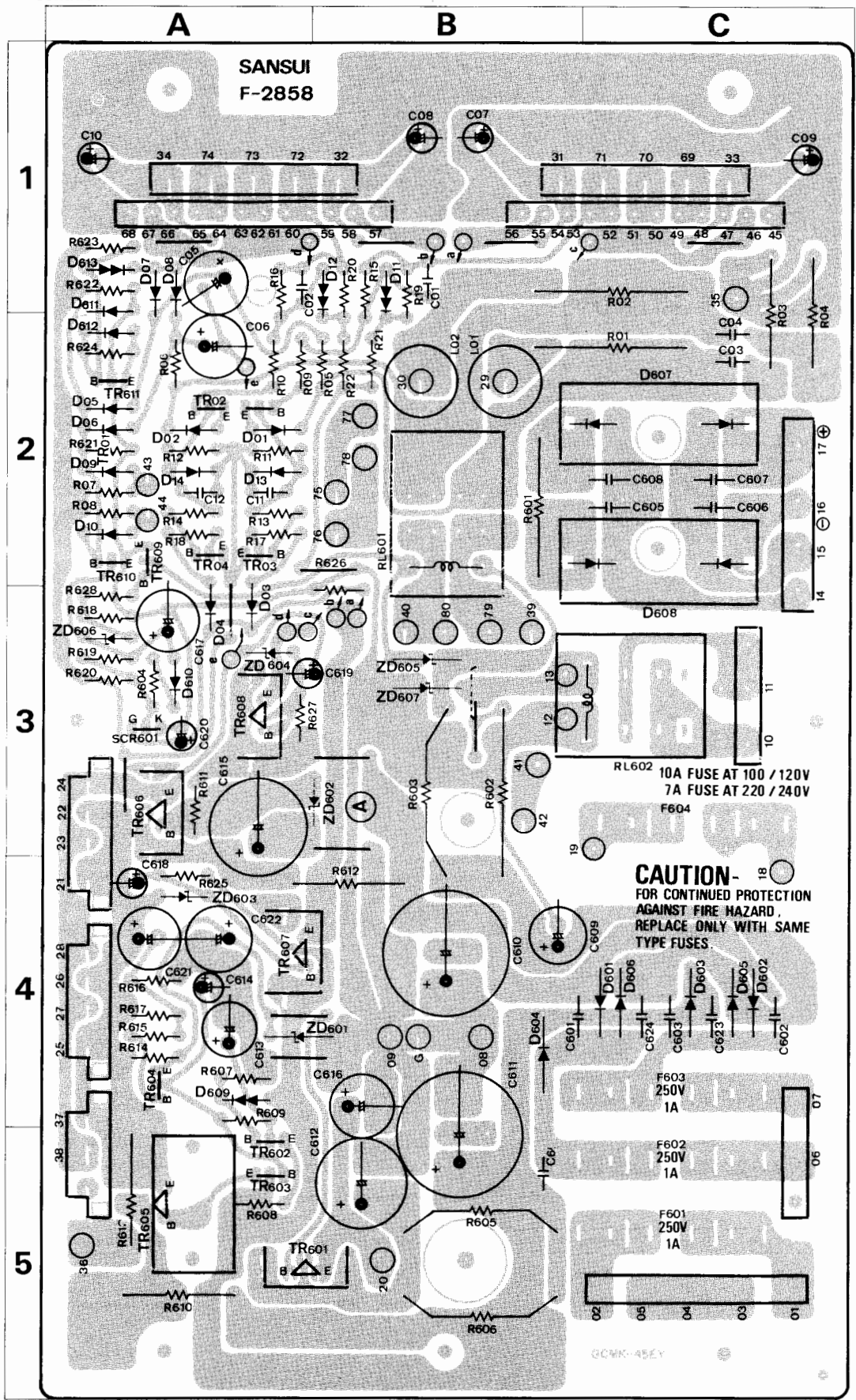


Parts List

Parts No.	Stock No.	Description
D 01,02	{0311160 0311180	{1S2473D 1S1588
D 03,04	0310330	1N60
D 05,06	{0311160 0311180	{1S2473D 1S1588
R 09,10	0200471	470Ω ¼W N.I.R.
VR01,02	1035110	4.7 kΩ B Power Meter Adjust Volume
S 01	1131560, 1	High Filter & Subsonic Filter Switch
S 02	1131580, 1	Speakers Switch
	2410590	4P Pin Ass'y Type D
	2410910	2P Pin Ass'y Type E

9. F-2858 Power Supply Circuit Board (Stock No. 7502801●G-6000)  
(Stock No. 7502811●G-7000/G-701)

Conductor Side

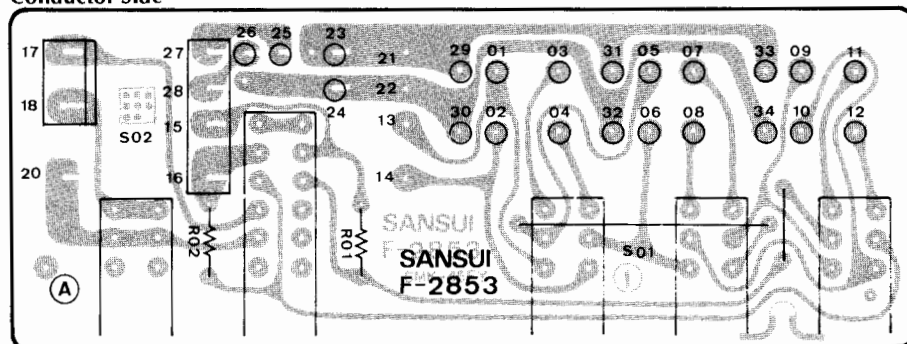


**Parts List**

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	
TR01, 02	0306680, 1	2SC2071B, V	2A	D 612	{ 0311160 0311180	{ 1S2473D 1S1588	Diode	2A	L 01, 02	4210290	1.5 μH RF Coil	2B
TR03, 04	0300890, 1	2SA750 (3) E, U	2A	D 613	0340150	MV-12 Varistor	1A	RL601	1150400	Relay Switch	2B	
TR601	0308392, 3	2SD313AL (E), (F)	5A	D 901	0311160	1S2473D Diode		F 601	0432240	2A 250V	AC Fuse	
TR602	0300721, 2	2SA850 D, E	5A	ZD601	0315970	EQA01-13R	4A	F 602	0432220	1A 250V		
TR603	0306371, 2	2SC1175V10 E, F	5A	ZD602	0316580	RD33E C	3B	F 603	0432220	1A 250V		
TR604	0306290, 1	2SC1400 (I) E, U	4A	ZD603	0316020	EQA01-18R	4A	F 604	{ 0432280 0432600	{ 4A AC (220V) 7A AC (120V)	Power Fuse	
TR605	0308392, 3	2SD313AL (E), (F)	5A	ZD604	0316020	EQA01-18R	3A		2410730	6P Pin Ass'y Type A		
TR606	0303231, 2	2SB507V11-AL D, E	3A	ZD605	0316070	EQA01-24R	3B	2411400	3P Mini Connector			
TR607	0308392, 3	2SD313AL (E), (F)	4A	ZD606	0316390	RD6.2E B	3A	2411410	4P Mini Connector			
TR608	0303231, 2	2SB507V11-AL D, E	3A	SR601	0350020	2SF656 SCR	3A	<b>G-6000 Only Parts</b>				
TR609	0308521, 2	2SD438 E, F	2A	C 601	0655472		4B	D 607	0311320	SS-5R Diode	2C	
TR610	0306290, 1	2SC1400 (I) E, U	2A	C 602	0655472		4C	D 608	0311310	SS-5 Diode	2C	
TR611	0306290, 1	2SC1400 (II) E, U	2A	C 603	0655472		4C	D 609	{ 0340120 0340150	{ VD1212 MV-12	Varistor	
D 01, 02	{ 0311160 0311180	{ 1S2473D 1S1588	2A	C 604	0655472	4700PF 500V E.C.	5B		R 603	0183681		680Ω 3W Ce. R.
D 03, 04	{ 0311160 0311180	{ 1S2473D 1S1588	3A	C 605	0655472		2C	R 605	0185331	330Ω 5W Ce. R.	5B	
D 05, 06	{ 0311160 0311180	{ 1S2473D 1S1588	Diode	C 606	0655472		2C	R 606	0185471	470Ω 5W Ce. R.	5B	
D 07, 08	{ 0311160 0311180	{ 1S2473D 1S1588	1A	C 607	0655472		2C	<b>G-7000/701 Only Parts</b>				
D 09, 10	{ 0311160 0311180	{ 1S2473D 1S1588	2A	C 608	0655472		2C	D 607	0311300	SS-3R Diode	2C	
D 11, 12	0340150	MV-12 Varistor	1B	C 610	0549207	1000 μF 63V E.C.	4B	D 608	0311290	SS-3 Diode	2C	
D 13, 14	0310400	1N34A	2A	C 611	0549207	1000 μF 63V E.C.	4B	D 609	0340150	MV-12 Varistor		
D 601	0310350	10D2	4C	C 623	0655472	4700PF 500V C.C.	4C	R 602	0183821	820Ω 3W Ce. R.	3B	
D 602	0310350	10D2	4C	C 624	0655472	4700PF 500V C.C.	4C	R 603	0183821	820Ω 3W Ce. R.	3B	
D 603	0310350	10D2	4C	R 01, 02	0133109	1.0Ω 3W Ce. R.	1C	R 605	0185561	560Ω 5W Ce. R.	5B	
D 604	0310350	10D2	4B	R 03, 04	0202100	10Ω 2W N.I.R.	1, 2C	R 606	0185471	470Ω 5W Ce. R.	5B	
D 605	0310350	10D2	4C	R 601	0202822	8.2 kΩ 2W N.I.R.	2B	RL602	1150360	Relay Switch	3C	
D 606	0310350	10D2	4C	R 610	0212100	10Ω 2W N.I.R.	5A					
D 610, 11	{ 0311160 0311180	{ 1S2473D 1S1588	3, 1A	R 612	0212100	10Ω 2W N.I.R.	4B					
				R 613	0200152	1.5 kΩ ½W N.I.R.	5A					

**10. F-2853 Tape Monitor Circuit Board** (Stock No. 7596131●G-6000)  
(Stock No. 7596171●G-7000/G-701)

Conductor Side



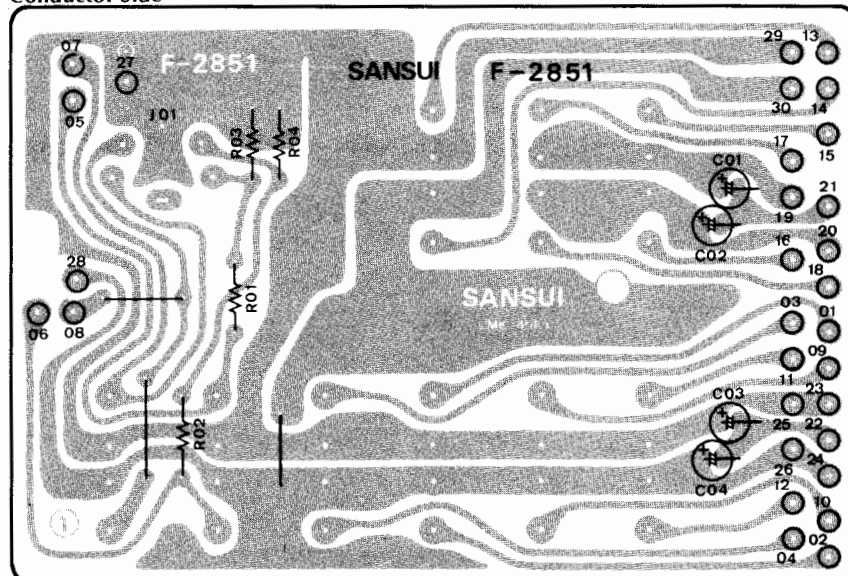
- The circuit boards, F-2851, F-2854, F-2878, F-2862 & F-2879 are not supplied as the assembled, the individual parts on the circuit board, however, are provided for orders.

**Parts List**

Parts No.	Stock No.	Description
S 01	1131610, 1	4CH Adaptor Switch
S 02	1131600, 1	MODE & FM Muting Switch
	2410590	4P Pin Ass'y Type D
	2410910	2P Pin Ass'y Type E

**11. F-2851 Input Terminal Circuit Board**

Conductor Side

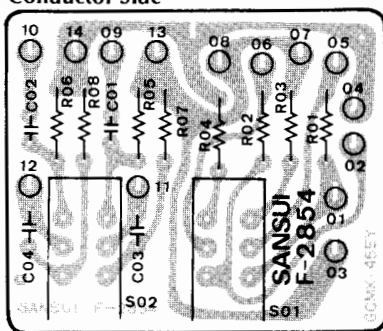


**Parts List**

Parts No.	Stock No.	Description
	2090030	5P Connector Socket
	2200490	12P Input Terminal
	2200530	6P Input Terminal

### 12. F-2854 Audio Muting Circuit Board

Conductor Side

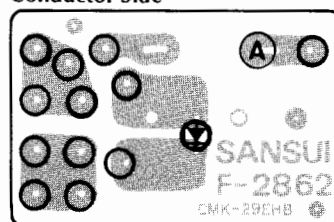


#### Parts List

Parts No.	Stock No.	Description
C 01,02	0620511	510 PF 50V P.C.
S 01	1131560, 1	Audio Muting Switch

### 13. F-2862 Indicator Circuit Board

Conductor Side



#### Parts List (Power Indicator Circuit)

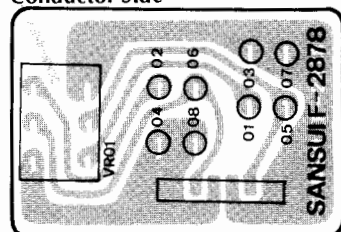
Parts No.	Stock No.	Description
LD601	0319050	SG2-13C (Green) LED

#### Parts List (FM Stereo Indicator Circuit)

Parts No.	Stock No.	Description
LD01	0319060	SG2-12C (Red) LED

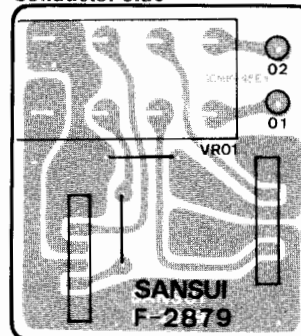
### 14. F-2878 Balance Volume Circuit Board

Conductor Side



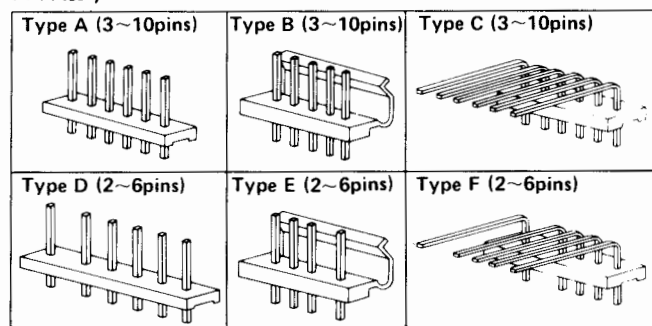
### 15. F-2879 Master Volume Circuit Board

Conductor Side



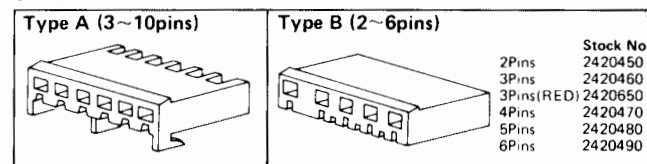
### • Figures

#### Pin Ass'y



NOTE: Since stock number of female connectors (type B) with wires are not shown in each parts list of Complete circuit board, please refer to the above parts list when ordering the connector.

#### Connectors



### • Abbreviations

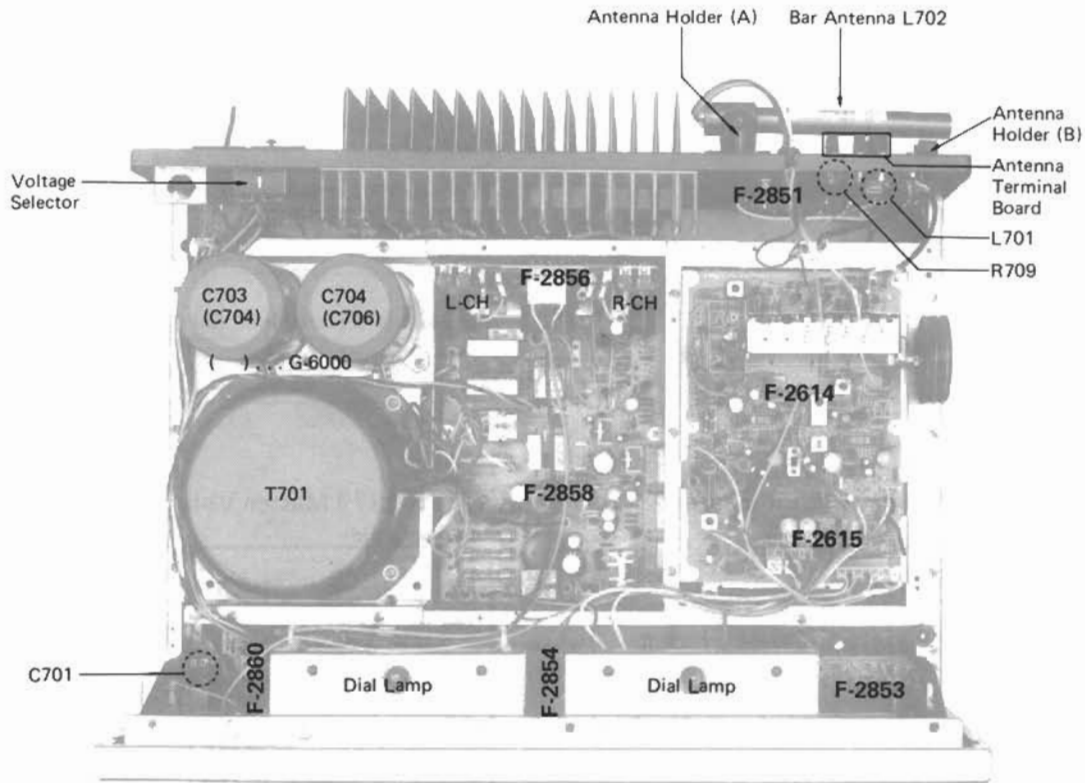
C.R.	: Carbon Resistor	E.C.	: Electrolytic Capacitor
S.R.	: Solid Resistor	BP.E.C.	: Bi-Polar Electrolytic Capacitor
Ce.R.	: Cement Resistor	C.C.	: Ceramic Capacitor
M.R.	: Metal Film Resistor	Mi.C.	: Mica Capacitor
F.R.	: Fusing Resistor	O.C.	: Oil Capacitor
N.I.R.	: Non-Inflammable Resistor	P.C.	: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



# 4. OTHER PARTS

<Front View

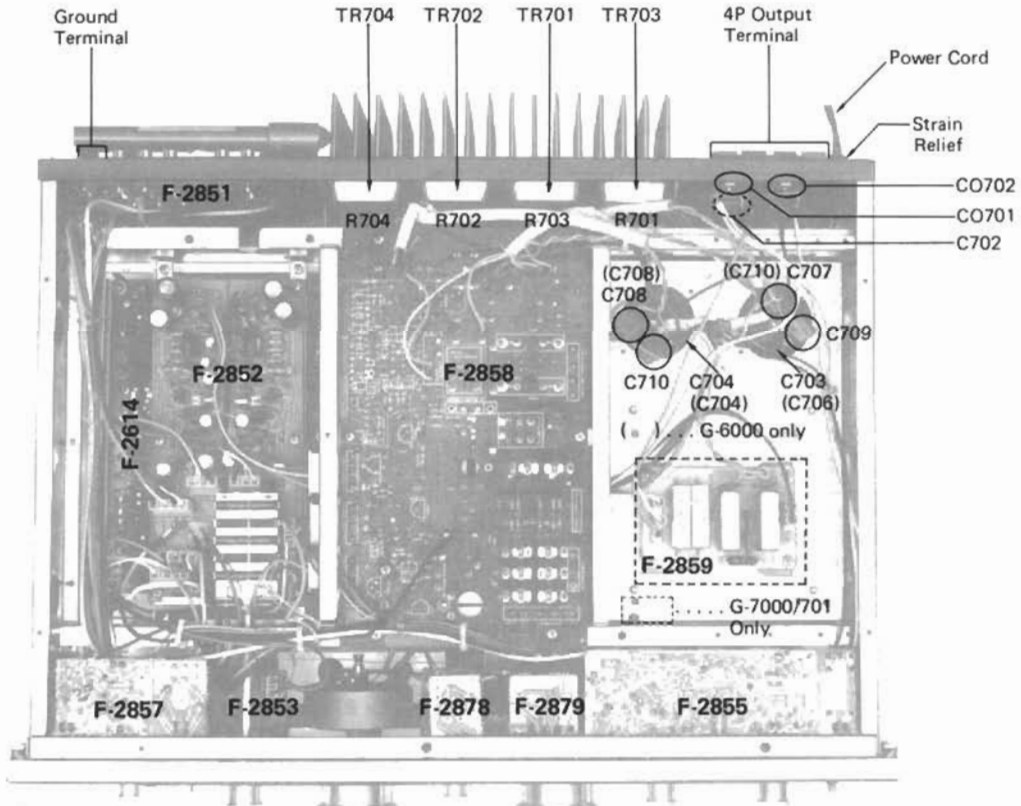
<Top View> <<G-7000>>



Front View  
Parts List

Parts No.	Stock
1	5727
2	0319
3	4301
4	0319
5	4301
6	4301
7	7007
	7007
	540
	504
	539
	528
	551
8	7116
9	5326
10	1171

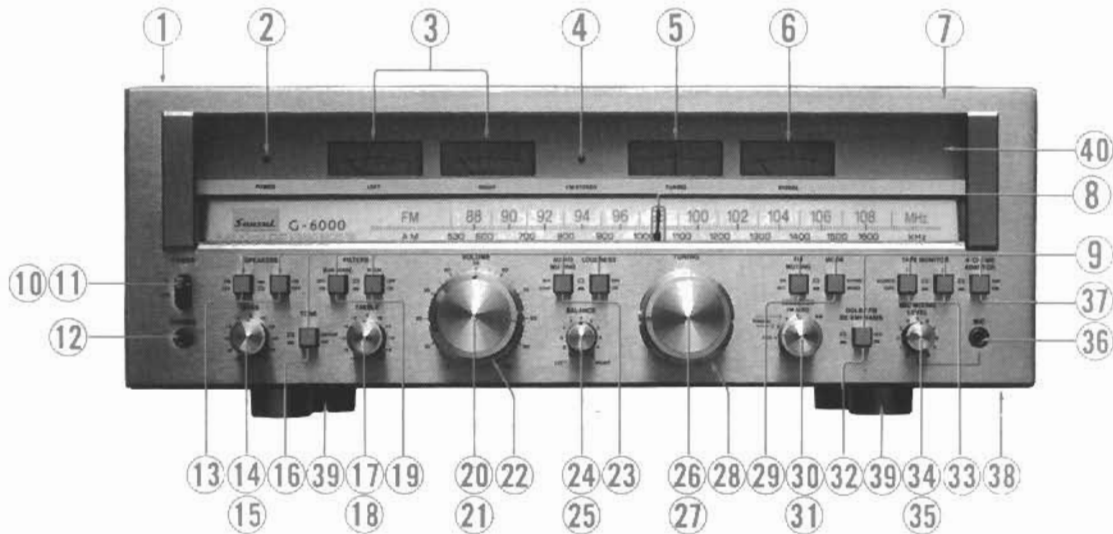
<Bottom View> <<G-7000>>



Top & Bottom  
Parts List

Parts No.	Stock
TR 701	702 0306
	0306
TR 703	704 0304
	0304
C 701	0605
C 702	0658
C 703	704 0558
C 704	706 0558
C 708	710 0602
C 707	708 0602
C 709	710 0602

<Front View>



Front View <<G-6000/7000/701>>  
Parts List

Parts No.	Stock No.	Description
1	5727091	Wood Bonnet
2	0319050	Power Indicator, LED (Green)
3	4301280, 1	Power Meter
4	0319060	FM STEREO Indication, LED (Red)
5	4301240	Tuning Meter
6	4301230	Signal Meter
7	7007830	Front Panel Ass'y <<G-6000/7000>>
	7007910	Front Panel Ass'y <<G-701>>
	5408300	Front Glass
	5048110	Masking Plate
	5393800	Knob Ring
	5280020	Front Panel Retainer
	5517270	Masking Packing
8	7116050	Dial Pointer Ass'y
9	5326690	Push Switch Knob
10	1171600	Power Switch

Parts No.	Stock No.	Description
11	5326700	Knob, power switch
12	2430400	Phones Jack
13	1131580, 1	Speaker Switch (A) (B)
14	1015360, 1	Bass Volume, 100 kΩ x 2 (C)
15	5319100	Knob, bass volume
16	1131630, 1	Tone Switch
17	1015360, 1	Treble Volume, 100 kΩ x 2 (C)
18	5319100	Knob, treble volume
19	1131560, 1	Subsonic & Filter Switch
20	1011160, 1	Volume, 150 kΩ x 2 (B)
21	5319180	Knob, volume
22	5296191	Volume Grille
23	1131560, 1	Audio Muting & Loudness Switch
24	1015320	Balance Volume, 250 kΩ x 2 MN
25	5319090	Knob, balance volume
26	7036570	Tuning Unit Ass'y

Parts No.	Stock No.	Description
27	5319170	Knob, tuning unit ass'y
28	5296191	Grille, tuning unit ass'y
29	1131600, 1	FM Muting & Mode Switch
30	1103590	Selector
31	5319100	Knob, selector
32	1131620, 1	Dolby FM De-emphasis Switch
33	1131610, 1	Tape Monitor Switch (1), (2)
34	1090270, 1	MIC Mixing Volume
35	5319090	Knob, mic mixing volume
36	2430400	Mic Jack
37	1131610, 1	4-CH/NR Adaptor Switch
38	5058850	Bottom Plate
39	5517050	Leg
40	5408320	Dial Glass <<G 7000>>
	5408450	Dial Glass <<G-701>>
	5408330	Dial Glass <<G 6000>>

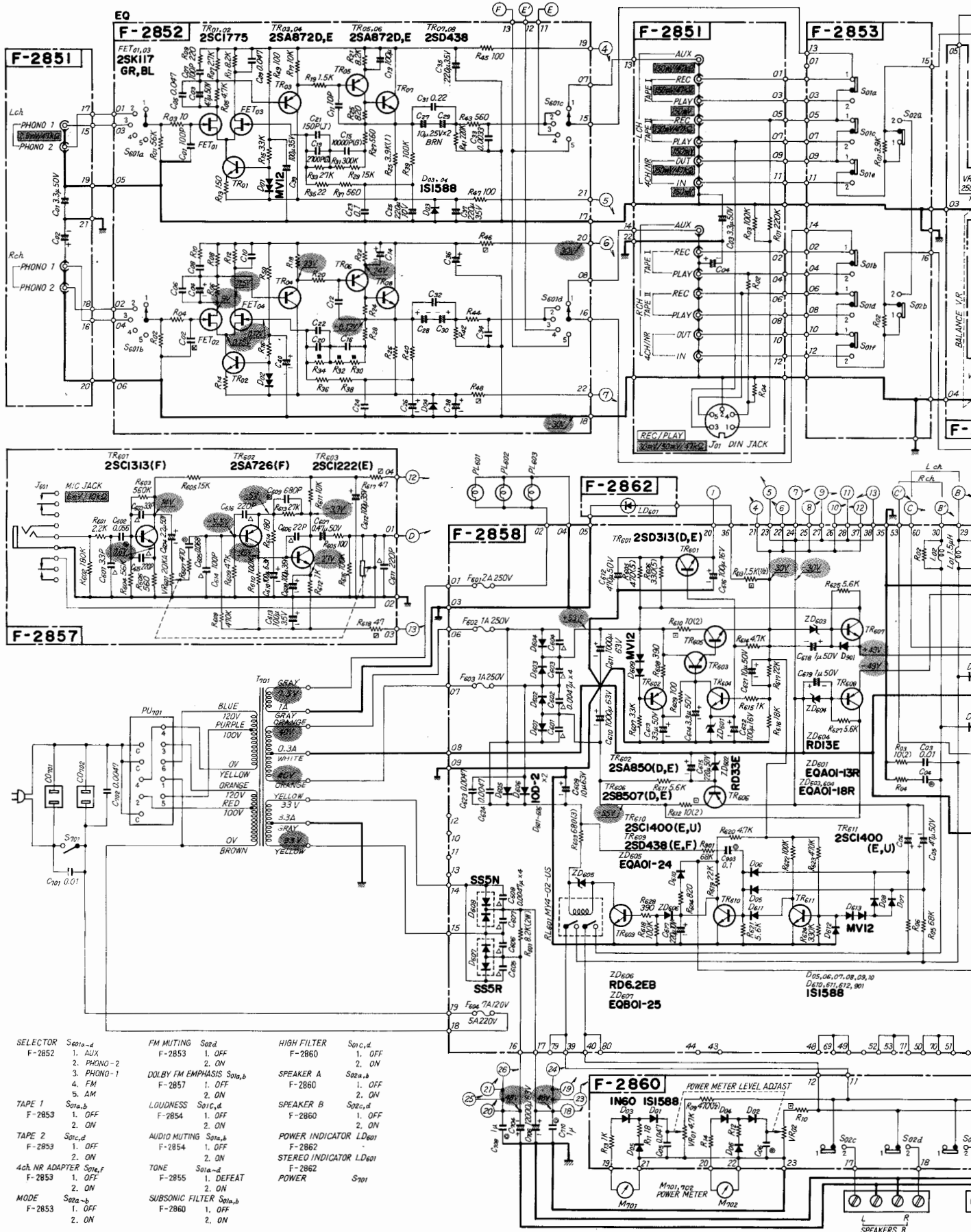
Top & Bottom View <<G-6000/7000/701>>  
Parts List

Parts No.	Stock No.	Description
TR 701, 702	0306301	2SD551R, D
	0306570	~ 2 2SC2261 R, O, Y
TR 703, 704	0304601	2SB681R, O
	0300950	~ 2 2SA981 R, O, Y
C 701	0605337	0.033 μF 250V M.C.
C 702	0659802	0.0047 μF 150V C.C.
C 703, 704	0559521	12000 μF x 2 63V E.C.
		<<G-7000/701>>
C 704, 706	0559518	12000 μF 63V E.C.
		<<G 6000>>
C 708, 710	0602109	1 μF 100V M.C. <<G-6000>>
C 707, 708	0602109	1 μF 100V M.C. <<G-7000/701>>
C 709, 710	0602109	1 μF 100V M.C. <<G-7000/701>>

Parts No.	Stock No.	Description
R 701, 702	0155338	0.33 Ω 5W Ce R
R 703, 704	0155338	0.33 Ω 5W Ce R
R 709	0103122	1.2 kΩ 1/2W C.R.
L 701	4290021	Antenna Transformer
L 702	4200830, 1	Bar Antenna
T 701	4002770	Power Transformer <<G-6000>>
	4002760	Power Transformer <<G-7000/701>>
PL 701, 702	0400560	Dial Lamp, 8V 0.3A
	2410830	Voltage Selector Socket

Parts No.	Stock No.	Description
	2410091	Voltage Selector Plug
	5286450	Antenna Holder (1) (A)
	5286480	Antenna Holder (2) (B)
	2210310	Antenna Terminal Board
	2230190	Ground Terminal
CO 701	2450060	AC Connect
CO 702	2450060	AC Connect
	2290190	4P Output Terminal
	3800010	Power Cord
	3910490	Strain Relief

# 5. SCHEMATIC DIAGRAM 1. <G-6000> Audio Section



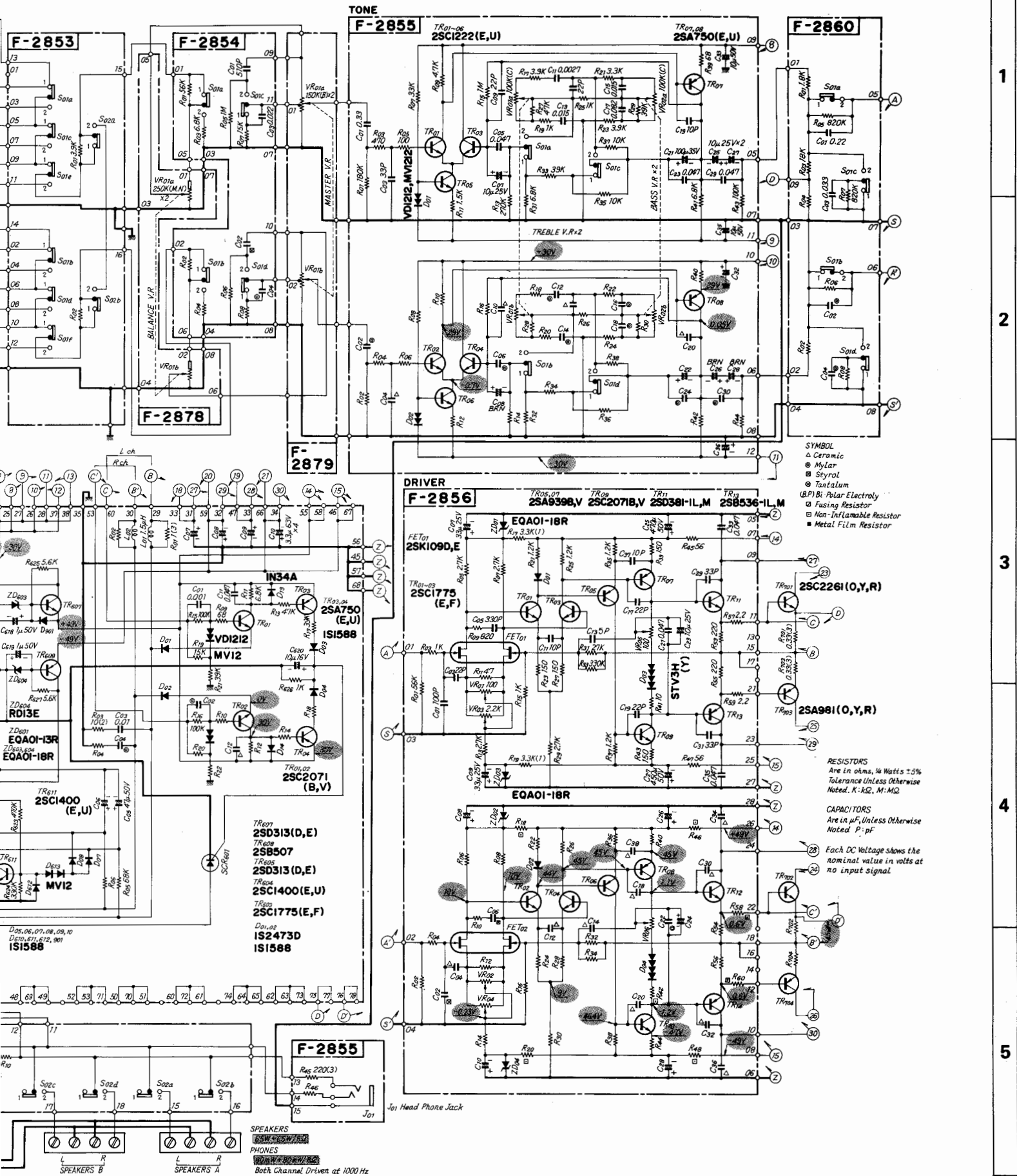
SELECTOR	FM MUTING	HIGH FILTER
F-2852	F-2853	F-2860
1. AUX	1. OFF	1. OFF
2. PHONO-2	2. ON	2. ON
3. PHONO-1		
4. FM	DOLBY FM EMPHASIS	SPEAKER A
5. AM	F-2857	F-2860
	1. OFF	1. OFF
	2. ON	2. ON
TAPE 1	LOUDNESS	SPEAKER B
F-2853	F-2854	F-2860
1. OFF	1. OFF	1. OFF
2. ON	2. ON	2. ON
TAPE 2	AUDIO MUTING	POWER INDICATOR
F-2853	F-2855	F-2862
1. OFF	1. OFF	1. OFF
2. ON	2. ON	2. ON
4ch. NR ADAPTER	TONE	STEREO INDICATOR
F-2853	F-2855	F-2862
1. OFF	1. DEFEAT	POWER
2. ON	2. ON	
MODE	SUBSONIC FILTER	
F-2853	F-2860	
1. OFF	1. OFF	
2. ON	2. ON	

E

F

G

H



1

2

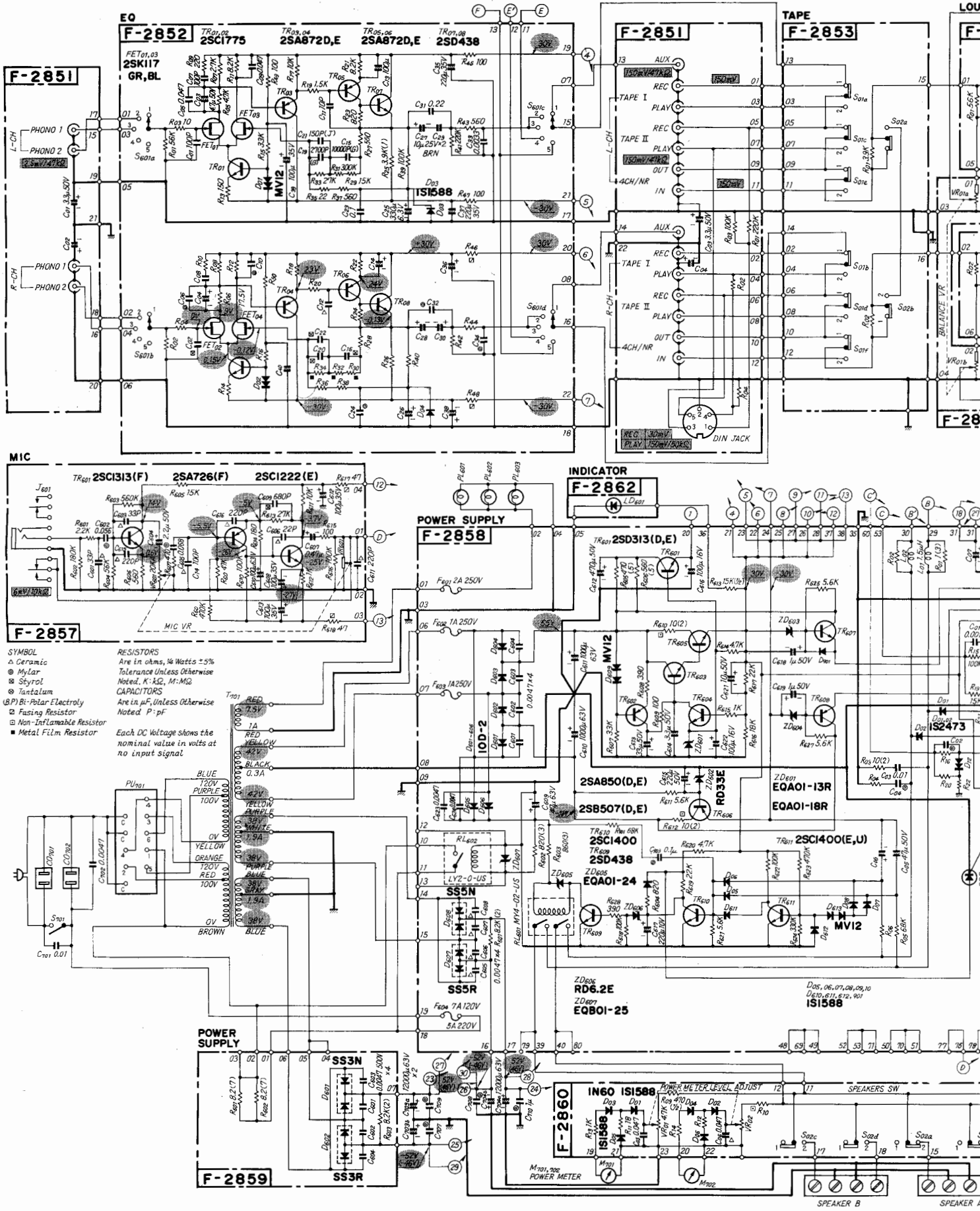
3

4

5

A B C D

2. <G-7000/701> Audio Section



**SYMBOL**  
 ▲ Ceramic  
 ● Mylar  
 ⊗ Styrol  
 ⊙ Tantalum  
 (P) Bi-Polar Electroly  
 □ Fusing Resistor  
 ⊕ Non-Inflamable Resistor  
 ■ Metal Film Resistor

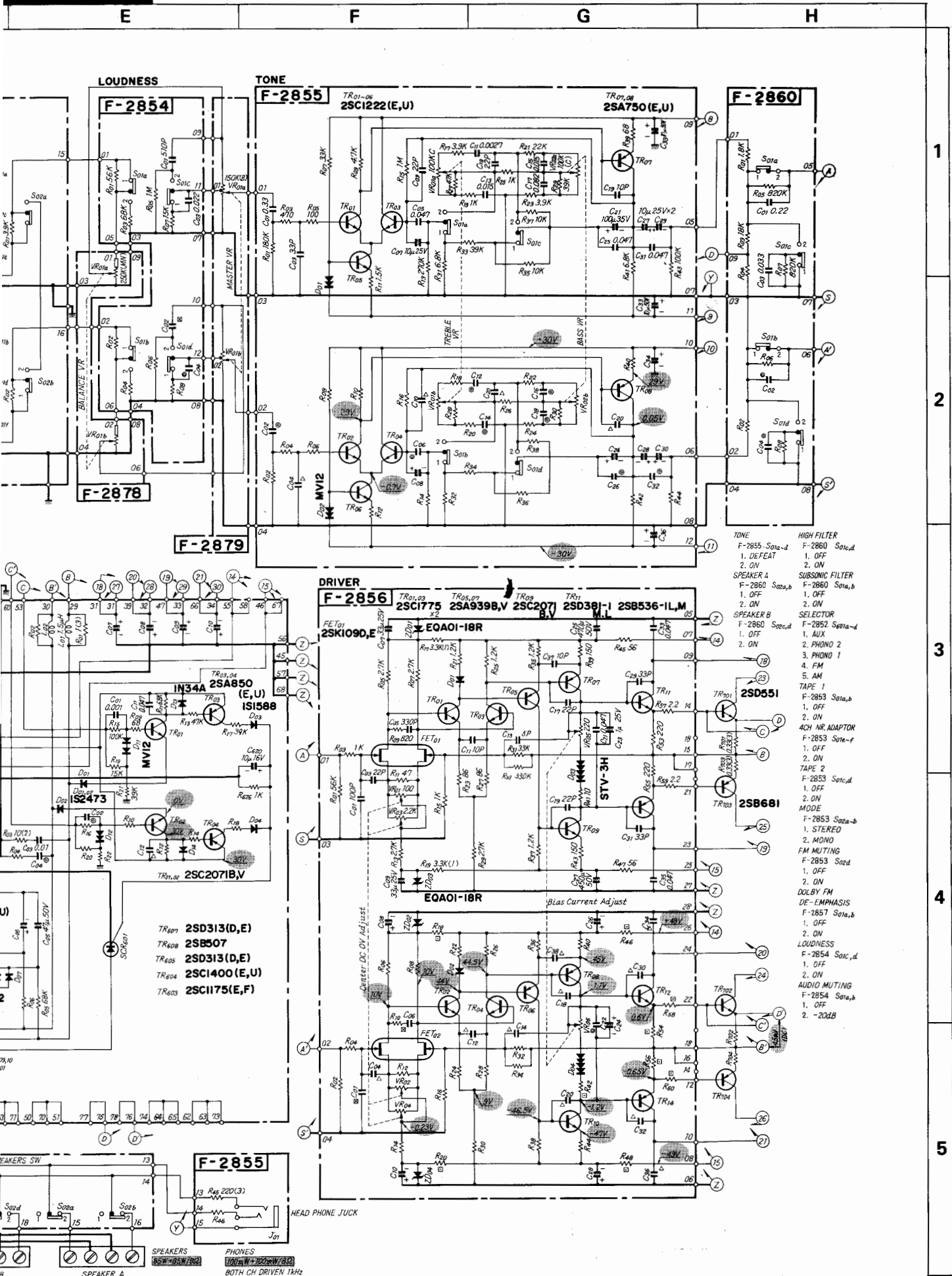
**RESISTORS**  
 Are in ohms, ¼ Watts ±5%  
 Tolerance Unless Otherwise  
 Noted, K-K, M-M, Ω-Ω

**CAPACITORS**  
 Are in μF, Unless Otherwise  
 Noted P-pf

Each DC Voltage shows the  
 nominal value in volts at  
 no input signal

Color-coded resistor chart:

RED	7.5
1A	10
RED	20
RED	30
YELLOW	40
BLACK	0.3A
0.4V	0.4
YELLOW	0.5V
WHITE	0.6V
0.7V	0.7
ORANGE	0.8V
RED	0.9V
0.0V	0.0
YELLOW	1.0V
ORANGE	1.1V
RED	1.2V
0.0V	0.0
WHITE	1.5V
BLUE	1.6V
0.0V	0.0
BROWN	1.8V



- LOUDNESS**
- F-2854**
- TONE**
- F-2855**
- DRIVER**
- F-2856**
- HEAD PHONE JACK**
- F-2855**
- LEGEND:**
- DEFEAT** F-2855 S01a-d
    1. OFF
    2. ON
  - SPEAKER A** F-2855 S02a,b
    1. OFF
    2. ON
  - SPEAKER B** F-2855 S02c,d
    1. OFF
    2. ON
  - SELECTOR** F-2855 S01a,b
    1. AUX
    2. PHONO 2
    3. PHONO 1
    4. FM
    5. AM
  - TAPE 1** F-2855 S01a,b
    1. OFF
    2. ON
  - TAPE 2** F-2855 S01c,d
    1. OFF
    2. ON
  - MODE** F-2855 S02a,b
    1. STEREO
    2. MONO
  - FM MUTING** F-2855 S02d
    1. OFF
    2. ON
  - DOLBY FM** F-2855 S01a,b
    1. OFF
    2. ON
  - DE-EMPHASIS** F-2855 S01a,b
    1. OFF
    2. ON
  - LOUDNESS** F-2854 S01c,d
    1. OFF
    2. ON
  - AUDIO MUTING** F-2854 S01a,b
    1. OFF
    2. -20dB

1

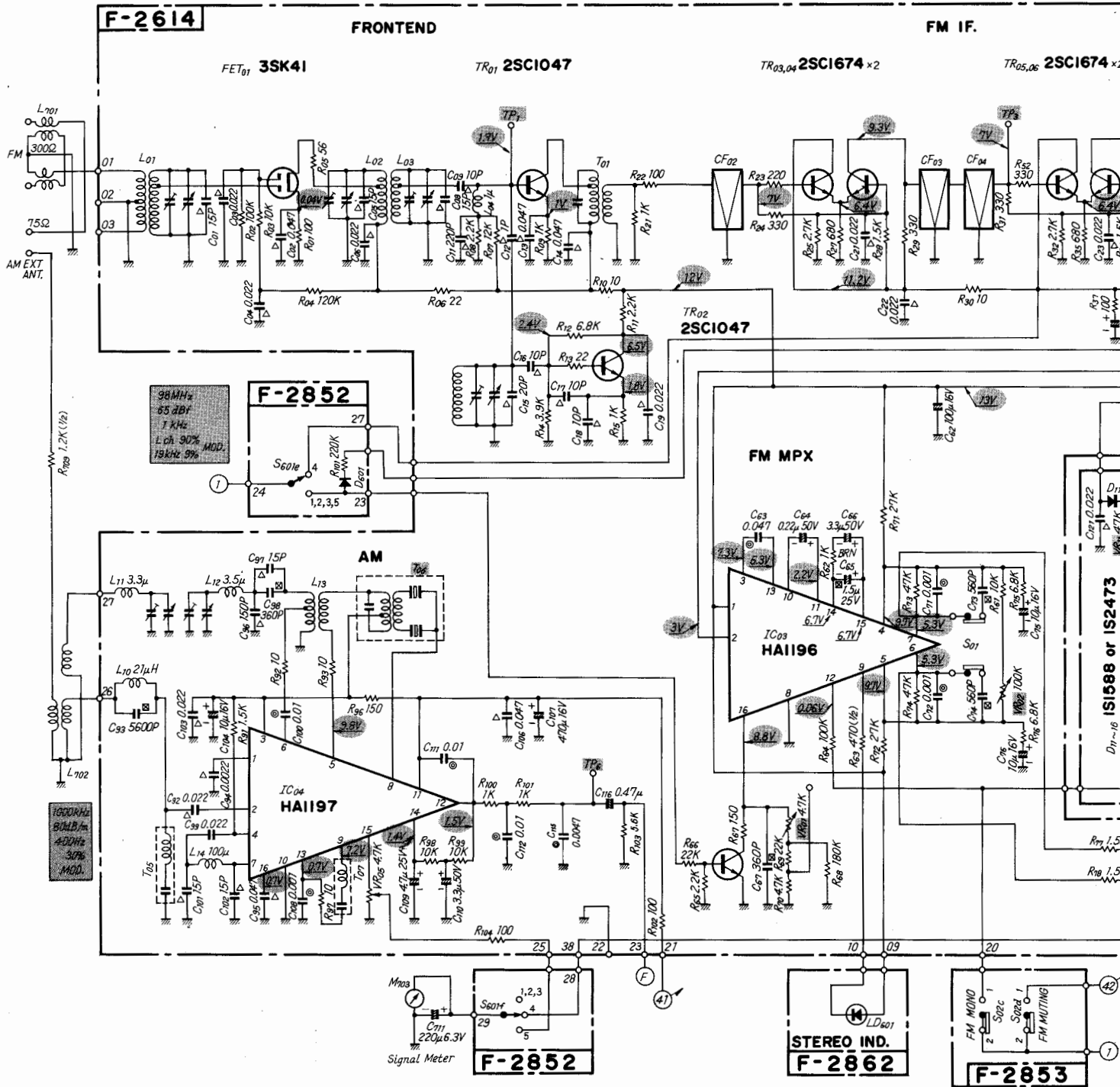
2

3

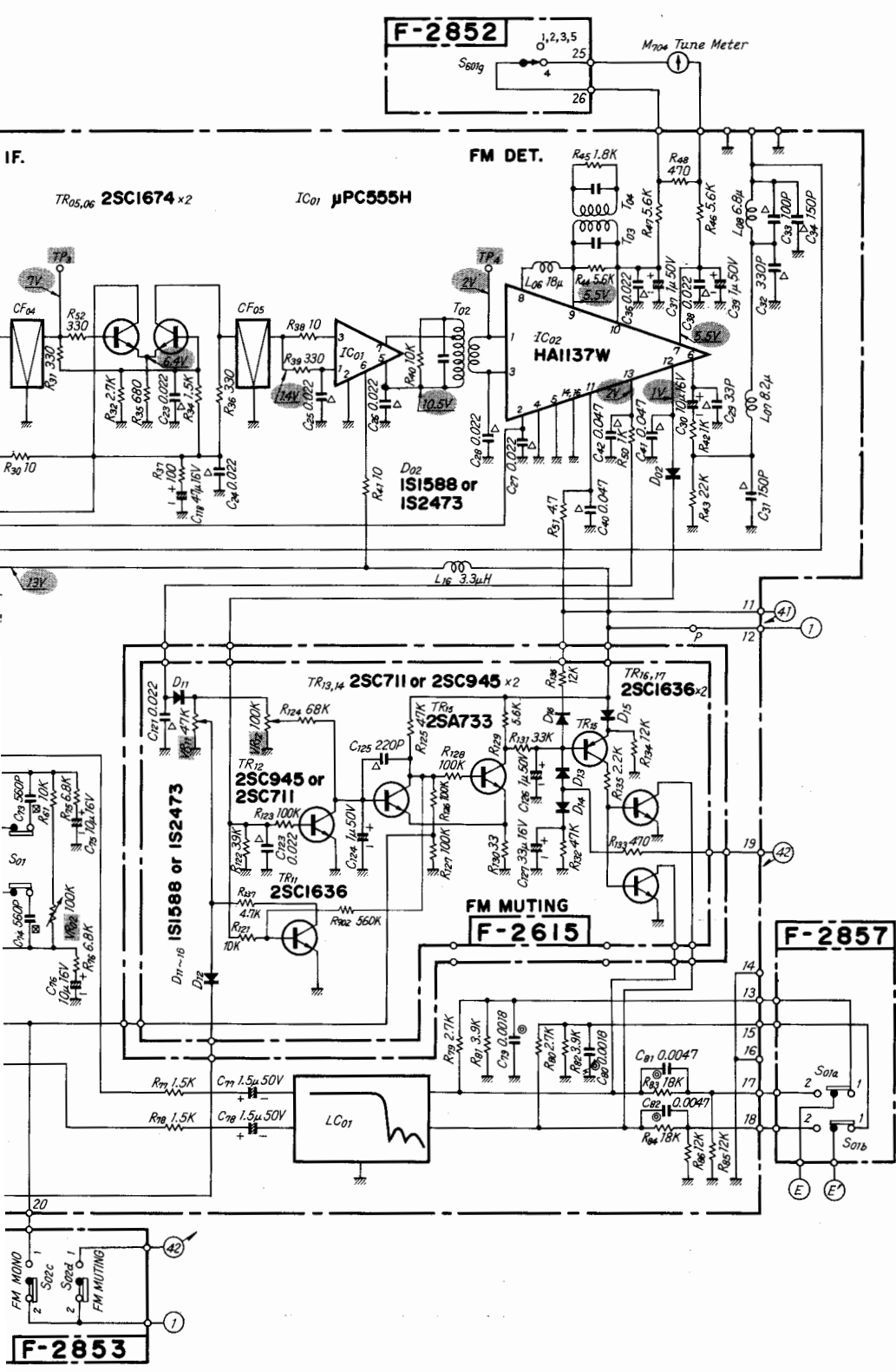
4

5

### 3. <G-6000/7000/701> Tuner Section



D E F G H



- 2SA733
- 2SA750
- 2SA8720
- 2SC945
- 2SC1047
- 2SC1400
- 2SC1222
- 2SC1674
- 2SC1775
- 2SD438
- 2SA939B
- 2SC2071B
- 2SK17
- 2SC1636
- 2SB681
- 2SD551
- 2SA726
- 2SA850
- 2SC711
- 2SC1313
- 2SK109
- 2SB507
- 2SB536
- 2SD313
- 2SD381
- 3SK41
- SS 3N
- SS 5N
- SS 3R
- SS 5R
- EQA01-13R
- EQA01-18R
- EQA01-24R
- RD13E
- RD33E
- 1S1588
- 1S2473
- 1N34A
- 1N60
- VD1212
- MV12
- 10D 2
- HA1137W
- HA1196
- HA1197
- STV4H

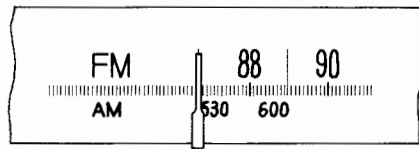
1  
2  
3  
4  
5



## 6. THREADING OF DIAL CORD

- \*If a dial cord is cut off or slips, replace it by following procedures.
- As this unit uses 0.5 mm $\phi$  cord, please replace it with the same type certainly.
- \*The length of dial cord is approximately 170cm (66.9 inch),

Fig. 6-2



(Start Point)

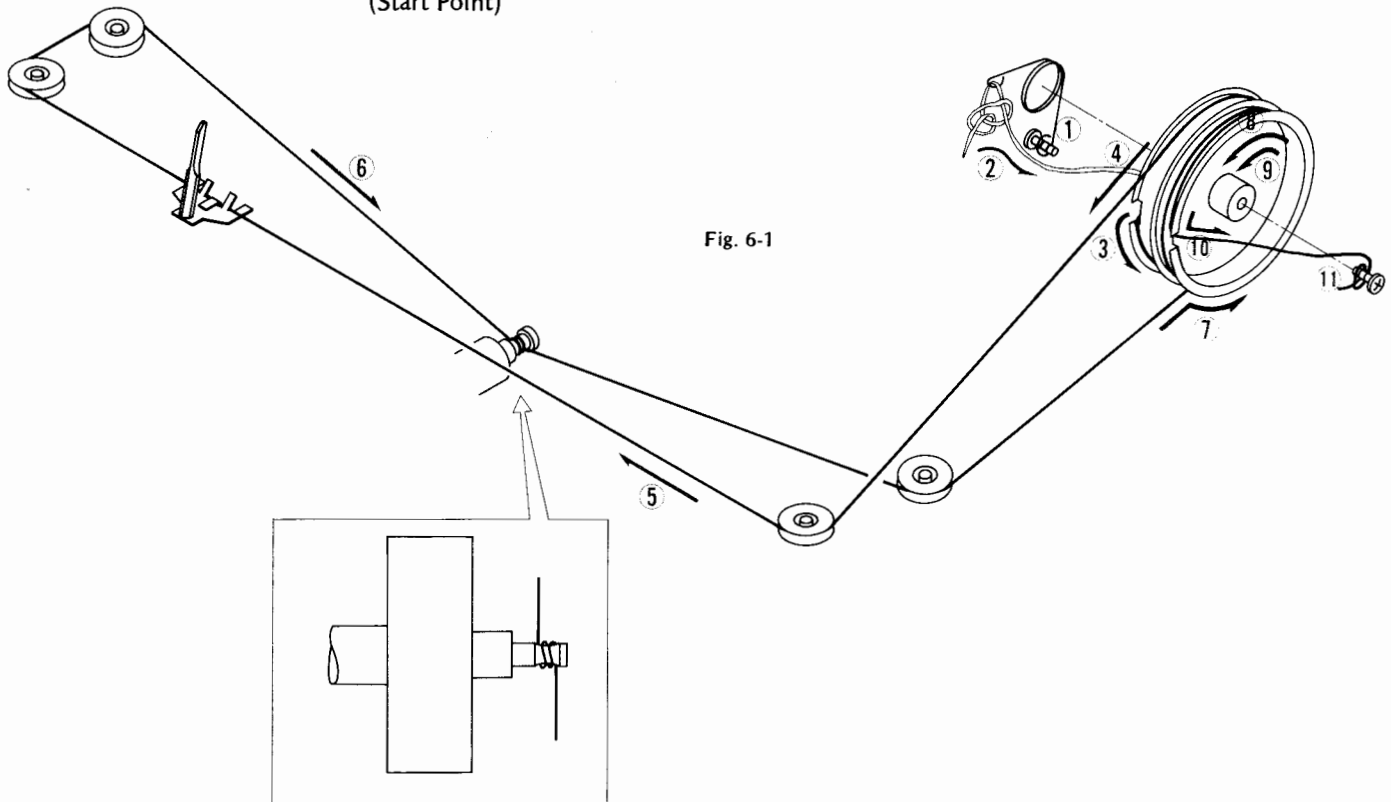


Fig. 6-1

### Threading of Dial Cord

Thread the dial cord in numerical order from 1 to 11 as Fig. 1.  
\*Close the variable capacitor completely.

Stock No.	Description
6036050	Dial Cord (0.5 mm $\phi$ )
6146681	Dial pulley

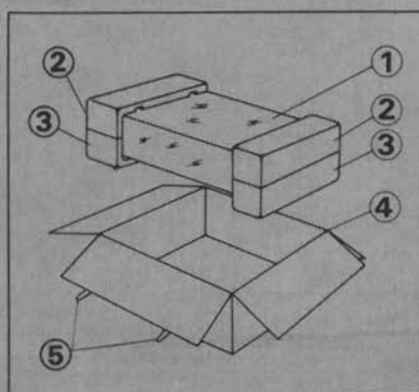
### Attachment of Dial Pointer

- 1) Close the variable capacitor completely.
- 2) Set the dial pointer to the start point, the line at the left edge of the dial scale. (Fig. 6-1).

\*Confirm that the dial pointer runs smoothly on the dial scale by turning the tuning shaft.

## 7. PACKING LIST

Parts No.	Stock No.	Description
1	9116271	Vinyl Cover <<G-6000/7000/701>>
2	9028140	Styrofoam Packing (Upper) <<G-6000/7000/701>>
3	9028150	Styrofoam Packing (Lower) <<G-6000/7000/701>>
4	9009990	Carton Case <<G-6000>>
	9009980	Carton Case <<G-7000>>
	9000560	Carton Case <<G-701>>
5	5996080	Curl Stopper <<G-6000/7000/701>>



## 8. ACCESSORY PARTS LIST

Stock No.	Description
9202920	Operating Instruction <<G-6000>>
9202910	Operating Instruction <<G-7000>>
9203730	Operating Instruction <<G-701>>
9237750	Schematic Diagram <<G-6000>>
9237740	Schematic Diagram <<G-7000>>
9237810	Schematic Diagram <<G-701>>
2410560	Short Pinplug 2 pcs. <<G-6000/7000/701>>
3820100	FM Antenna <<G-6000/7000/701>>

MEMO

**Sansui**

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