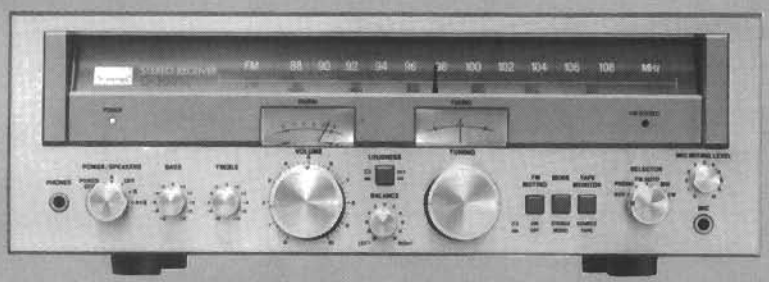
SERVICE MANUAL

STEREO RECEIVER

SANSUI G-2000SS/2000L G-3000L



Sansui

SANSUI ELECTRIC CO., LTD.

SPECIFICATIONS

Audio Section

≪G-2000SS, G-2000L≫

Power output
Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.15% total harmonic distortion
16 watts per channel into 8 ohms
Load impedance . . . . . 8 ohms
Total harmonic distortion
. . . . . less than 0.15% at or below rated min. RMS power output
Intermodulation distortion (70 Hz: 7 kHz = 4:1 SMPTE method) . . . . . less than 0.15%
Frequency response (at 1 watt)
. . . . . 10 to 50,000 Hz +1 dB –2 dB
RIAA curve deviation (PHONO)
. . . . . +0.5 dB –0.5 dB (30 to 15,000 Hz)
Damping factor . . . . . approximately 30 at 8-ohms load
Input sensitivity and impedance (1 kHz, for rated power output)
PHONO . . . . . 2.5 mV/47 kilohms
(Max. input capability; 190 mV at 1 kHz, less than 0.5% total harmonic distortion)
AUX, TAPE . . . . . 150 mV/47 kilohms
MIC . . . . . 8 mV/10 kilohms
Output level (1 kHz)
TAPE REC (pin jack) 150 mV/47 kilohms
(DIN) . . 43 mV
Channel separation (1 kHz, at rated power output)
PHONO . . . . . better than 50 dB
AUX . . . . . better than 50 dB
Hum and noise (short-circuit, A network)
PHONO . . . . . 75 dB
AUX . . . . . 95 dB
Controls
BASS . . . . . ±10 dB (50 Hz)
TREBLE . . . . . ±10 dB (10 kHz)
LOUDNESS (–30 dB)
. . . . . 7 dB at 50 Hz
5 dB at 10 kHz

≪G-3000L≫

Power output
Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.15% total harmonic distortion
26 watts per channel into 8 ohms
26 watts per channel into 4 ohms
Load impedance . . . . . 4 and 8 ohms
Total harmonic distortion
. . . . . less than 0.15% at or below rated min. RMS power output
Intermodulation distortion (70 Hz : 7 kHz = 4:1 SMPTE method) . . . . . less than 0.15%
Frequency response (at 1 watt)
. . . . . 10 to 50,000 Hz +1 dB –2 dB
RIAA curve deviation (PHONO)
. . . . . +0.5 dB –0.5 dB (30 to 15,000 Hz)
Damping factor . . . . . approximately 30 at 8 ohms load
Input sensitivity and impedance (1 kHz, for rated power output)
PHONO . . . . . 2.5 mV/47 kilohms
(Max. input capability; 200 mV at 1 kHz, less than 0.5% total harmonic distortion)
AUX, TAPE . . . . . 150 mV/47 kilohms
MIC . . . . . 8 mV/10 kilohms
Output level (1 kHz)
TAPE REC (pin jack) 150 mV/47 kilohms
(DIN) . . 43 mV
Channel separation (1 kHz, at rated power output)
PHONO . . . . . better than 50 dB
AUX . . . . . better than 50 dB
Hum and noise (short-circuit, A network)
PHONO . . . . . 75 dB
AUX . . . . . 95 dB
Controls
BASS . . . . . ±10 dB (50 Hz)
TREBLE . . . . . ±10 dB (10 kHz)
LOUDNESS (–30 dB)
. . . . . 7 dB at 50 Hz
5 dB at 10 kHz

AM Section
≪G-2000SS≫
(SW1)

Tuning range	2.3 to 6.5 MHz
Usable sensitivity	20 μV
Selectivity (±10 kHz)	45 dB
Signal to noise ratio	46 dB

(SW2)

Tuning range	6.5 to 18 MHz
Usable sensitivity	30 μV
Selectivity (±10 kHz)	45 dB
Signal to noise ratio	46 dB

≪G-2000L, G-3000L≫
(MW)

Tuning range	530 to 1,600 kHz
Usable sensitivity (Bar antenna)	50 dB/m (300 μV/m)
Selectivity (±10 kHz)	45 dB
Signal to noise ratio	46 dB

(LW)

Tuning range	150 to 350 kHz
Usable sensitivity	60 dB/m (1,000 μV/m) (bar antenna) 300 μV (EXT)
Selectivity	45 dB
Signal to noise ratio	46 dB

FM Section
≪G-2000SS, G-2000L, G-3000L≫

Tuning range	88 to 108 MHz
Usable sensitivity	
Mono IHF	11.0 dBf (1.95 μV)
DIN	1.2 μV
Stereo IHF	19.0 dBf
50 dB quieting sensitivity	
Mono	15 dBf
Stereo	39 dBf
Signal to noise ratio (at 65 dBf)	
Mono	71 dB
Stereo	68 dB
Distortion (at 65 dBf)	
Mono	less than 0.18% at 100 Hz less than 0.15% at 1,000 Hz less than 0.25% at 6,000 Hz
Stereo	less than 0.3% at 100 Hz less than 0.25% at 1,000 Hz less than 0.30% at 6,000 Hz
Alternate channel selectivity (at 400 kHz)	50 dB
Capture ratio	1.3 dB
Image response ratio	48 dB (at 98 MHz)
Spurious response ratio	70 dB (at 98 MHz)
Stereo separation	30 dB at 100 Hz 40 dB at 1,000 Hz 28 dB at 10,000 Hz
Frequency response	30 to 15,000 Hz +0.5 dB −1.0 dB
Antenna input impedance	300 ohms balanced 75 ohms unbalanced

Others
≪G-2000SS, G-2000L, G-3000L≫

Power requirements	
Power voltage	100, 120, 220, 240V (50/60 Hz) ≪G-2000SS≫ 220, 240V (50 Hz) ≪G-2000L, G-3000L≫
Power consumption	155 watts ≪G-2000SS, G-2000L≫ 210 watts ≪G-3000L≫
Dimensions	433 mm (17-1/16") W 153 mm (6-1/16") H 352 mm (13-7/8") D
Weight	7.3 kg (16.1 lbs) net G-2000SS, 2000L 8 kg (17.6 lbs) net ≪G-3000L≫ 8.7 kg (19.2 lbs) packed ≪G-2000SS, G-2000L≫ 9.4 kg (20.7 lbs) packed ≪G-3000L≫

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

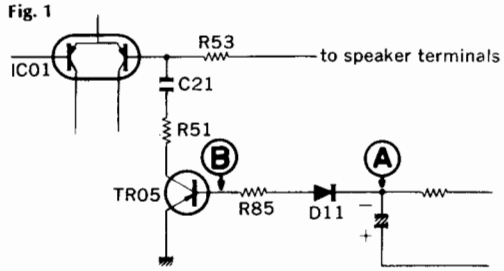
1. OPERATIONS

Pop-noise preventive circuit

In order to prevent the annoying pop-noise to the loudspeakers at turning the power of the amplifier ON, the pop-noise preventive circuit adopted in the G-3000L is the combination of the conventional driver-voltage delay type used in the power supply (rectifier) circuit and the NF delay type pop-noise preventive circuits. The configuration of NF delay type pop-noise preventive circuit is shown in Fig. 1.

In this circuit, the switching (ON-OFF) of the transistor TR05 is made by the time constant of the capacitor C40 and resistor R88. Thereby the NF resistor, R51 is controlled, and the gain of the main amplifier stage is lowered when TR05 is ON, thus the voltage drift (transient voltage) of the main amplifier at turning the power ON does not appear on the speaker terminals for very short period of time. In other words, at the instant that the power is turned ON, the voltage at the point A rises up to +13V, then the voltage decreases by means of the time constant of C40 and R88 as shown in Fig. 2. At this time, the diode D11 is inversely biased, consequently, the potential voltage of the point B is 0V as Fig. 3. Because of this, TR05 turns to the cut-off, thus the NF resistor, R51 acquires such a state as its resistance value becomes equivalently very large, which decreases the gain of the power amplifier. When the charge of the C40 is completed, the voltage of the point B (see Fig. 3) becomes negative, as a result, the diode D11 is biased. Therefore, TR05 is turned ON, and the circuit of this equipment is normally operated approximately 2 seconds after the power is turned ON to prevent the pop-noise which flows to loudspeakers.

Fig. 1



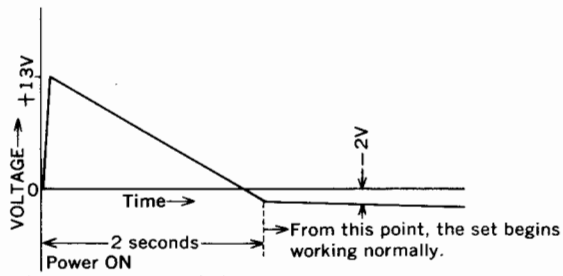


Fig. 2 Voltage variation during a certain period of time at Ⓐ

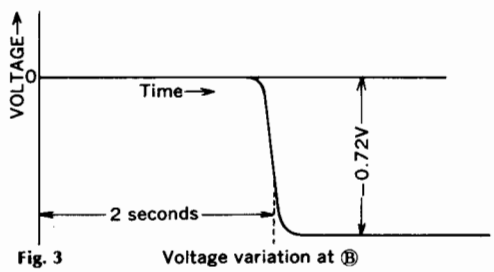
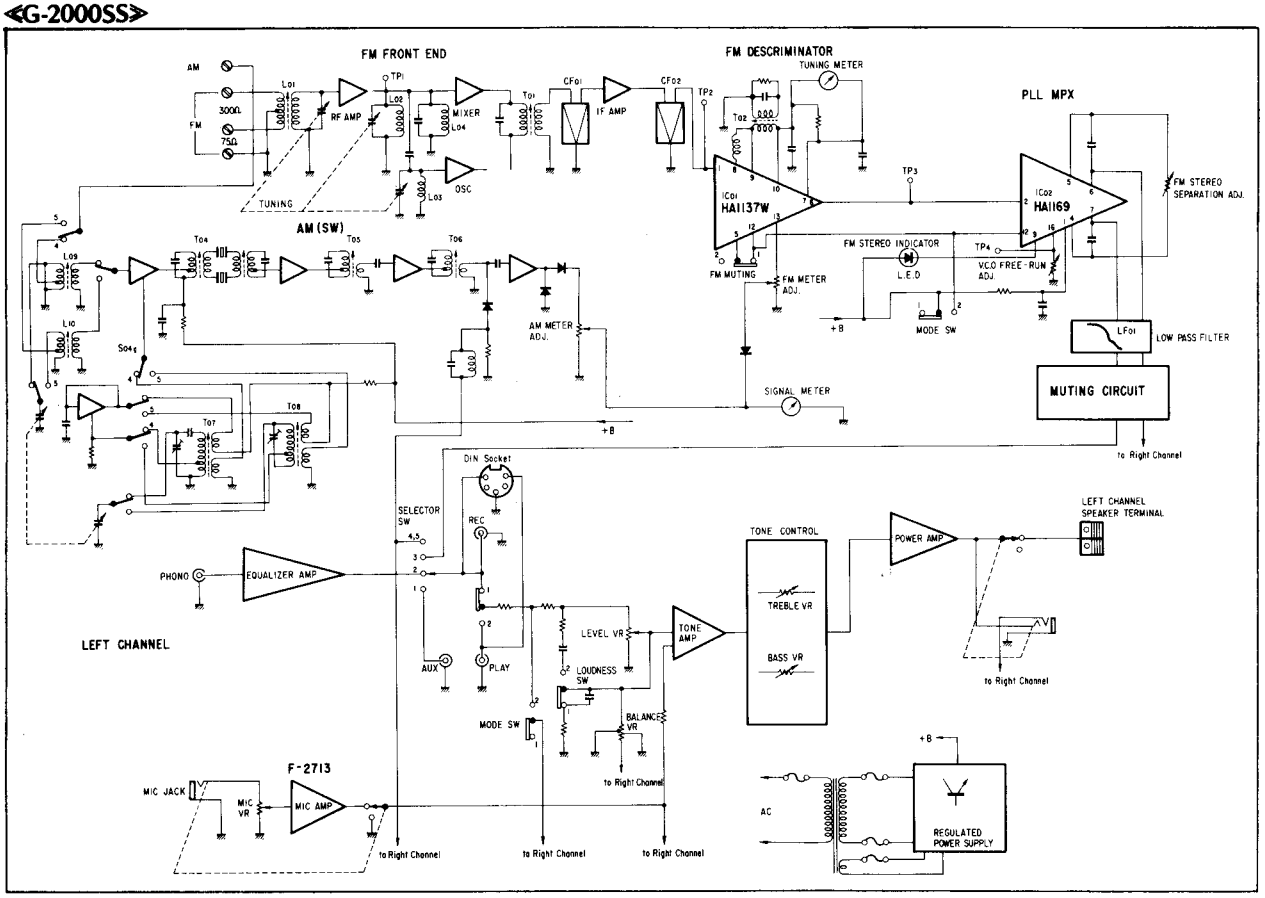


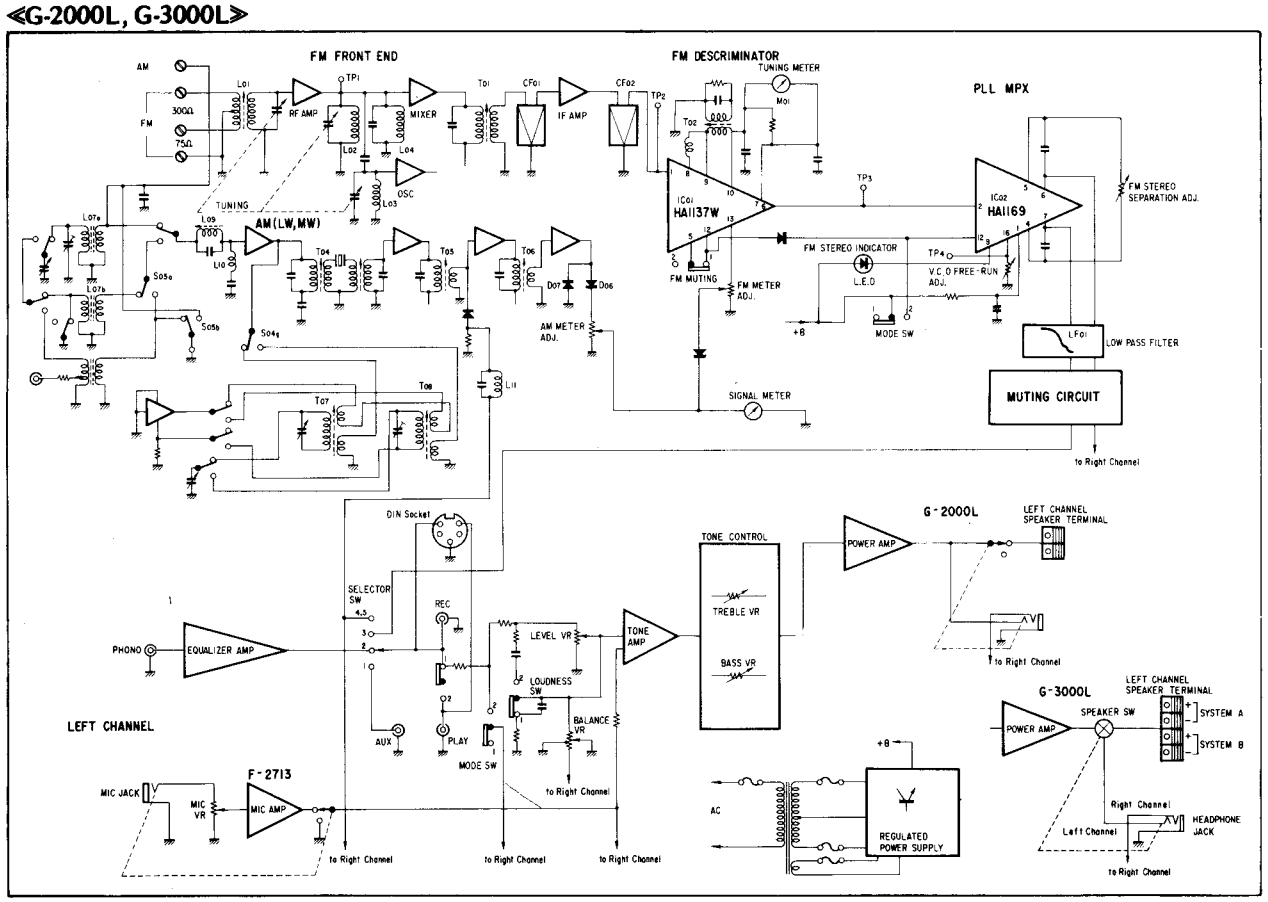
Fig. 3 Voltage variation at Ⓑ

2. BLOCK DIAGRAM

≪G-2000SS≫



≪G-2000L, G-3000L≫

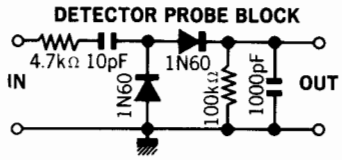


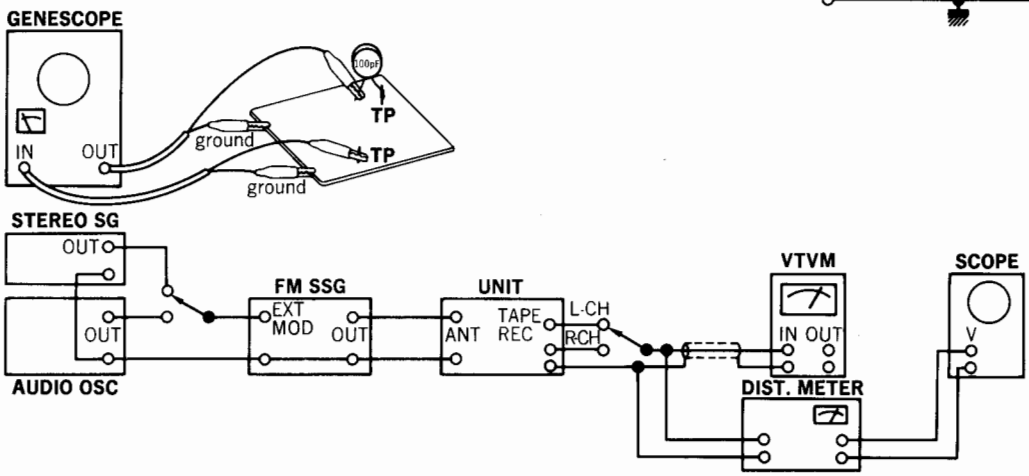
3. ADJUSTMENTS

1. FM Adjustment

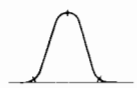
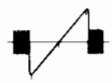
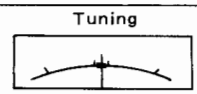
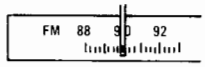
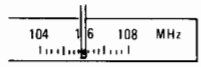
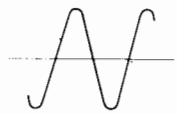
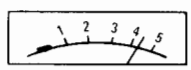
* Refer to the picture of top view and illustrations indicating test points on page 4.

Note: 1. Selector . . . . . FM AUTO
2. FM Muting Switch . . . . . OFF
3. Connection . . Connect the output of genescope to TP through 100pF ceramic capacitor.





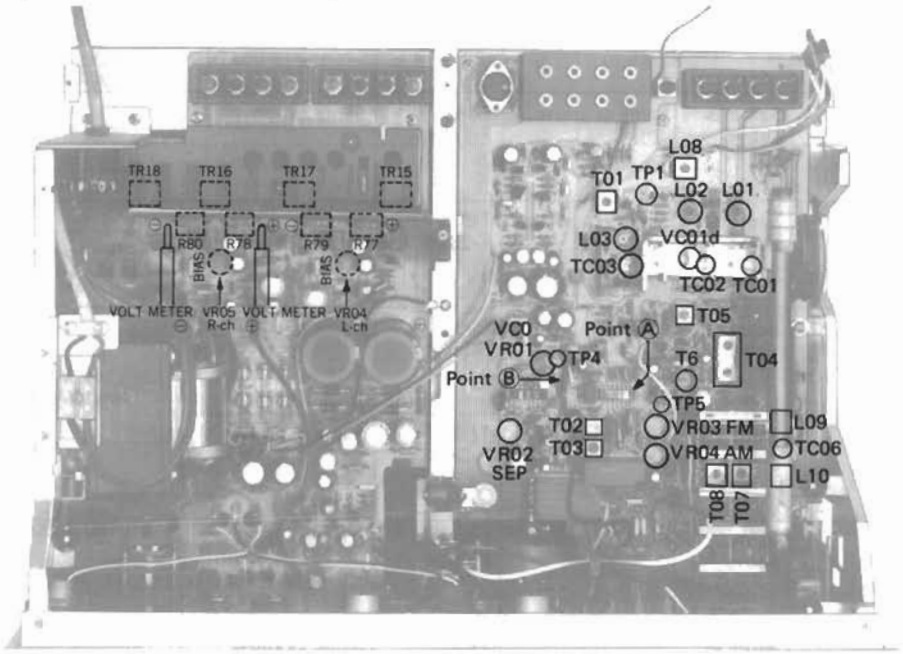
FM IF Adjustment & Dial Calibration ≪G-2000SS/G-2000L/G-3000L≫

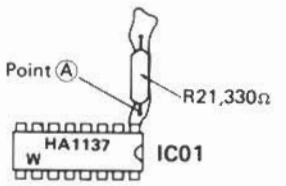
STEP	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
1.	IF Coil	Output 60 dB Genescope	TP1 F-2824	Point Ⓐ F-2824 Use Detector Probe	T01 F-2824	Max. IF waveform	
2.	Discriminator Coil	Same as above	Same as above	Point Ⓑ F-2824	T02, T03 F-2824	Steep linearity of S curve Make symmetrical S curve	
3.	Tuning Meter	98MHz ANT Input 65dBf (59.8dB) 1000Hz (100% MOD) FM SSG	ANT terminal 300Ω	Tuning Meter	T02 F-2824	Center on Meter	
4.	90MHz Dial Calibration	90MHz ANT Input 65dBf (59.8dB) 1000Hz (100% MOD) FM SSG	Same as above	REC terminal L or R-CH VTVM & Scope	L03 F-2824	MAX. output	
	106MHz Dial Calibration	106MHz ANT Input 65dBf (59.8dB) 1000Hz (100% MOD) FM SSG	Same as above	Same as above	TC03 F-2824		
5.	90 MHz RF Adj.	90 MHz ANT Input Minimum value with sine wave 400 Hz (100% MOD) FM SSG	Same as above	Same as above	L01, L02 F-2824	Same as above	
	106MHz RF Adj.	106 MHz ANT Input Minimum value with sine wave 400 Hz (100% MOD) FM SSG	Same as above	Same as above	TC01, TC02 F-2824	Same as above	
6.	Signal Meter Volume	98MHz ANT Input 65dBf (59.8dB) 1000Hz (100% MOD) FM SSG	Same as above	Signal Meter	VR03 F-2824	4.3 on Meter	

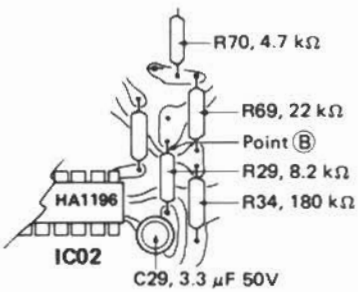
FM STEREO Adjustment

STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
		FROM	TO				
1.	PLL VCO Adj.	98MHz ANT Input 65dBf (59.8dB) FM SSG Pilot 19kHz (9% MOD) SUB 1kHz + Pilot (100% MOD) STEREO SG	ANT terminal 300Ω	Stereo indicator	VR01 F-2824	Light indicator	Adjust the VR01 within center of lighting level.
	PLL VCO Adj. In case of using Freq. counter.	98MHz ANT Input 65dB (59.8dB) FM SSG	Same as above	TP4 F-2824 Use Freq. counter	VR01 F-2824	76kHz ±150Hz	
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	Same as above	REC terminal L-CH VTVM & Scope	VR02 F-2824	Set −34 dB	Confirm separation L-CH → R-CH (−34 dB)

<Top View> ≪G-3000L≫ * Test points of G-2000SS & G-2000L are located the same as G-3000L.







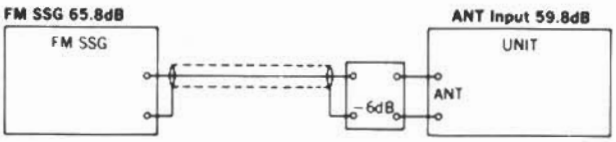
● NEW MEASUREMENT FOR FM.

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 conventional 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	1000Hz		100%
FM STEREO	1000Hz	SUB	Pilot 9% Pilot + SUB 100%

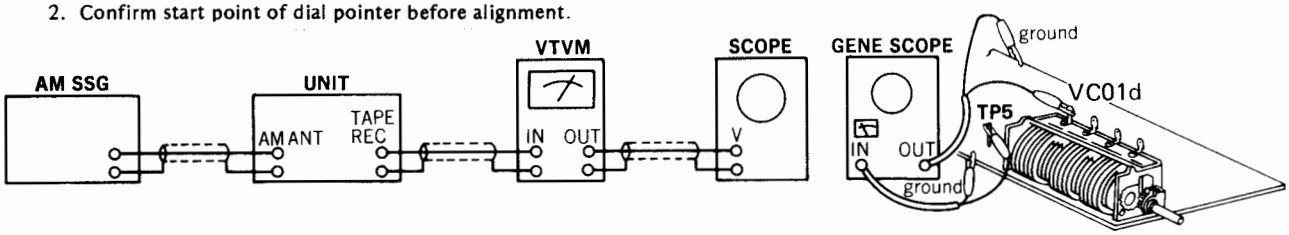
※The relation between the standard input 65dBf of IHFM-T-200 and the former indication "dB" is shown in below.



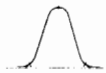
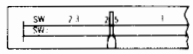
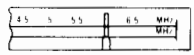
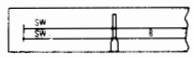
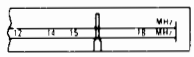
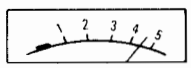
2. AM IF Adjustment & Dial Calibration

Note: 1. Selector . . . . . SW_1 & SW_2 ≪G-2000SS≫
MW & LW ≪G-2000L, G-3000L≫

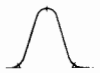
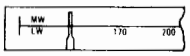
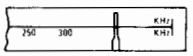
2. Confirm start point of dial pointer before alignment.



≪G-2000SS≫

STEP (Selector)	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
1	IF Coil	Genescope output level 60 dB	VC01d F-2824	TP5 F-2824	T04, T05, T06 F-2824	MAX. IF waveform	
2 (SW_1)	2.5 MHz Dial Calibration	2.5 MHz ANT Input 60 dB 400 Hz (MOD 30%) AM SSG	AM ANT Terminal	REC terminal L or R-CH VTVM & Scope	T07 F-2824	MAX. indication on signal meter & VTVM	
	6 MHz Dial Calibration	6 MHz ANT Input 60 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	TC04 F-2824	Same as above	
3 (SW_2)	7 MHz Dial Calibration	7 MHz ANT Input 60 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	T08 F-2824	Same as above	
	16 MHz Dial Calibration	16 MHz ANT Input 60 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	TC05 F-2824	Same as above	
4 (SW_1)	2.5 MHz RF Adj.	2.5 MHz ANT Input 50 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	L09 F-2824	Same as above	
	16 MHz RF Adj.	16 MHz ANT Input 50 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	TC06 F-2824	Same as above	
5 (SW_2)	7 MHz RF Adj.	7 MHz ANT Input 50 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	L10 F-2824	Same as above	
	16 MHz RF Adj.	16 MHz ANT Input 50 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	TC07 F-2824	Same as above	
6	Signal Meter Volume	1000 kHz ANT Input 80 dB/m 400 Hz (MOD 30%) AM SSG	Same as above	Signal Meter	VR04 F-2824	4.5 on meter	

≪G-2000L/3000L≫

STEP (Selector)	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
1	IF Coil	Genescope output level 60 dB	VC01d F-2824	TP5	T04, T05, T06 F-2824	MAX. IF waveform	
2 (MW)	600 kHz Dial Calibration	600 kHz ANT Input 60 dB 400 Hz (MOD 30%) AM SSG	AM ANT Terminal	REC terminal L or R-CH VTVM & Scope	T07 F-2824	MAX. indication on signal meter	
	1400 kHz Dial Calibration	1400 kHz ANT Input 60 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	TC04 F-2824		
3 (LW)	150 kHz Dial Calibration	150 kHz ANT Input 60 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	T08 F-2824	Same as above	
	350 kHz Dial Calibration	350 kHz ANT Input 60 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	TC05 F-2824		
4 (MW)	600 kHz RF Adj.	600 kHz ANT Input 50 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	L07a Bar Antenna Coil	Same as above	
	1400 kHz RF Adj.	1400 kHz ANT Input 50 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	TC06 F-2824	Same as above	
5 (LW)	150 kHz RF Adj.	150 kHz ANT Input 50 dB 400 Hz (MOD 30%) AM SSG	Same as above	Same as above	L07b Bar Antenna Coil	Same as above	
	350 kHz RF Adj.	No this adjustment is necessary.					
6	Signal Meter Volume	1000 kHz ANT Input 80 dB 400 Hz (MOD 30%) AM SSG	Same as above	Signal Meter	VR04 F-2824	4.5 on meter	

3. Bias Current Adjustment (See the picture of top view on page 4)

≪G-2000S, G-2000L, G-3000L≫

1. Confirm AC power supply voltage, 220 V or 240 V provided.
2. Level Volume . . . . . Minimum
3. Room Temperature . . . . . 18°C ~ 28°C (65°F ~83°F)
4. Before this adjustment, turn bias adjustment volumes of VR04 and VR05 fully counterclockwise, then run this unit for more than three minutes.

Note: For this adjustment, put the lead + (plus) side of volt meter to + (plus) side of R77 (& R78), and the lead – (minus) side of R79 (& R80) on both channels.
L-ch . . . . R77, R79 (Measure output voltage
R-ch . . . . R78, R80 on both channels)

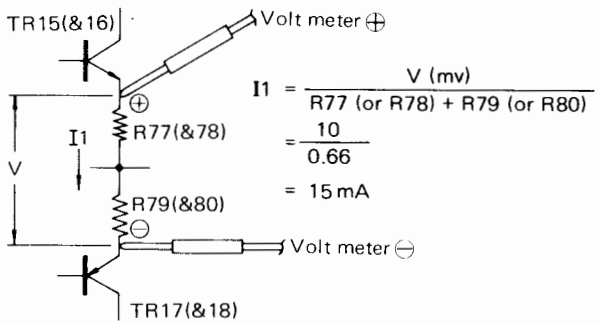


Fig. 1 (Power stage on F-2711)

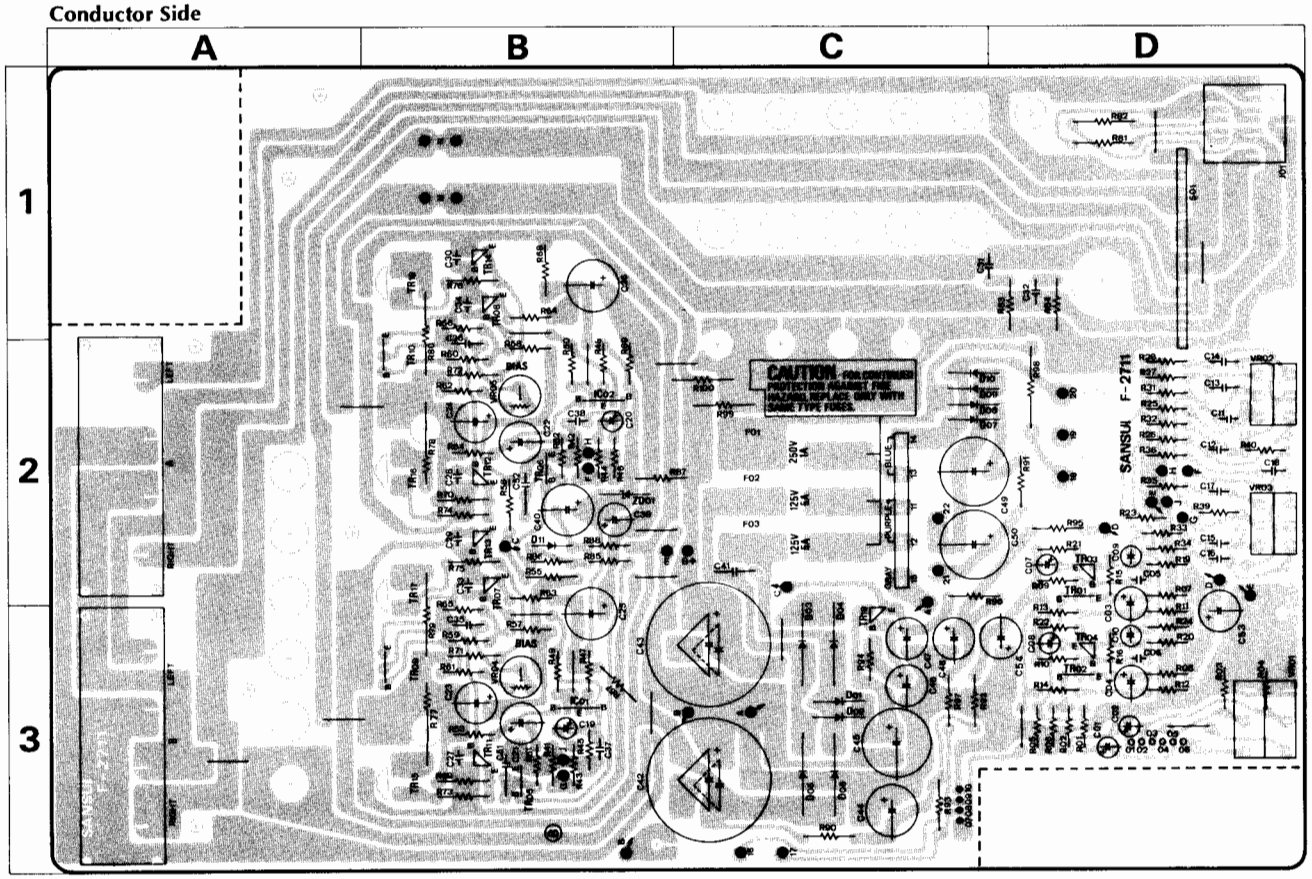
STEP	SUBJECT	EQUIPMENT	MEASURE OUTPUT	ADJUST	ADJUST FOR
1	Bias Current L-CH	DC Volt meter	* See Fig. 1 above	VR04 F-2711	10 mV ±1 mV (15 mA)
2	Bias Current R-CH	DC Volt meter	* See Fig. 1 above	VR05 F-2711	10 mV ±1 mV (15 mA)

4. 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. F-2711 Pre/Main & Power Supply Circuit Board (Stock No. 7571821, G-2000SS) (Stock No. 7571831, G-2000L) (Stock No. 7571811, G-3000L)

Conductor Side



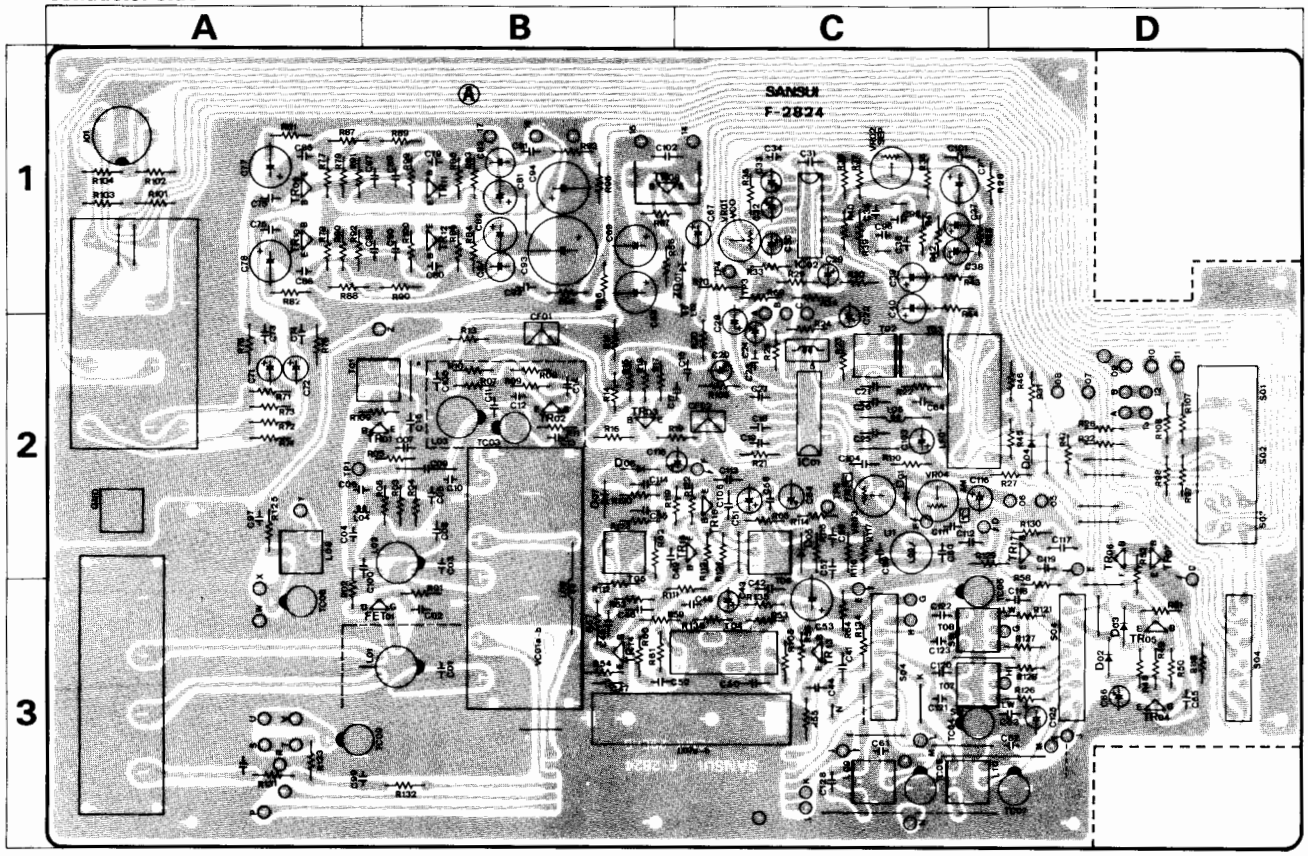
Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0300470, 1	2SA726W (F, G)	2D, 3D
TR03, 04	0306070, 1	2SC1313 (F, G)	2D, 3D
TR05, 06	0300510, 1	2SA733 (P, G) ≪G-3000L only≫	3B
TR07, 08	0306371, 2	2SC1175 (E, F) ≪G-2000SS, G-2000L≫	2B
	0306521, 2	2SC1439 (B, V) ≪G-3000L≫	
TR09, 10	0305951, 2	2SC945 (P, Q)	3B, 2B
TR11, 12	0305930, 1	2SC1211 (C, D) ≪G-2000SS, G-2000L≫	3B, 2B
	0308521, 2	2SD438 (E, F) ≪G-3000L≫	
TR13, 14	0300310, 1	2SA697 (C, D) ≪G-2000SS, G-2000L≫	Transistor 2B
	0303361, 2	2SB560 (E, F) ≪G-3000L≫	
TR15, 16	0308392, 3	2SD313 (E, F) ≪G-2000SS, G-2000L≫	3B, 2B
	0306541, 2	2SC1986 (Q, Y) ≪G-3000L≫	
TR17, 18	0303232, 3	2SB507 (E, F) ≪G-2000SS, G-2000L≫	2B, 1B
	0300911, 2	2SA771 (Q, Y) ≪G-3000L≫	
TR19	0306521, 2	2SD438 (E, F)	3C
IC 01, 02	0360290, 1	2SA798 (E, F)	3B, 2B
D 01, 02	0310340	10D1	3C
D 03 ~ 06	0310340	10D1 ≪G-2000SS, G-2000L≫	3C
	0311530	30D2 ≪G-3000L only≫	Diode
D 07 ~ 10	0310340	10D1	2C
D 11	0311160	1S2473D ≪G-3000L only≫	2B
ZD01	0315970	EQA01-13R Zener Diode	2D
C 41	0655103	10,000 pF 500V C.C.	2C
C 42, 43	0549008	4,700 μF 35V E.C.	3C
	0549009	6,800 μF 35V E.C. ≪G-3000L≫	
R 55, 56	0210182	1.8 kΩ ½W N.I.R.	2B
R 67, 68	0192101	100 Ω ½W F.R.	3B, 1B
R 69 ~ 72	0192221	220 Ω ½W F.R.	3C, 2B
R 73 ~ 76	0192689	6.8 Ω ½W F.R.	2B, 1B
R 77 ~ 80	0212338	0.33 Ω 2W N.I.R.	3B, 2B
R 81, 82	0211221	220 Ω 1W N.I.R.	1D
R 83, 84	0210479	4.7 Ω ½W N.I.R.	1D
R 87	0210272	2.7 kΩ ½W N.I.R. ≪G-2000SS, G-2000L≫	2B
	0210122	1.2 kΩ ½W N.I.R. ≪G-3000L≫	
R 90	0210221	220 Ω ½W N.I.R. ≪G-2000SS, G-2000L≫	3C
	0210271	270 Ω ½W F.R. ≪G-3000L≫	
R 91	0192220	22 Ω ½W F.R.	2D
R 92	0210471	470 Ω ½W N.I.R. ≪G-2000SS, G-2000L≫	3C
	0210681	680 Ω ½W N.I.R. ≪G-3000L≫	
R 93	0210221	220 Ω ½W N.I.R. ≪G-2000SS, G-2000L≫	3C
	0210331	330 Ω ½W N.I.R. ≪G-3000L≫	
R 95	0210471	470 Ω ½W N.I.R. ≪G-2000SS, G-2000L≫	2D
	0210681	680 Ω ½W N.I.R. ≪G-3000L≫	
R 96	0210820	82 Ω ½W N.I.R. ≪G-2000SS, G-2000L≫	2C
	0210151	150 Ω ½W N.I.R. ≪G-3000L≫	
R 97	0210221	220 Ω ½W N.I.R. ≪G-2000SS, G-2000L≫	3C
	0210271	270 Ω ½W N.I.R. ≪G-3000L≫	
R 98	0212829	8.2 Ω 2W N.I.R.	2D
R 99, 100	0211222	2.2 kΩ 1W N.I.R.	2C
L 01, 02	4210290	RF Coil 1.5 μH ≪G-2000L, G-3000L≫	
VR01	1011130, 1	250 kΩ (B) x 2 Level Volume	3D
VR02	1015300, 1	100 kΩ (A) x 2 Bass Volume	2D
VR03	1015300, 1	100 kΩ (A) x 2 Treble Volume	2D
VR04, 05	1035050	470 Ω (B) Bias Adjusting Volume	3B, 2B
S 701	1190530	Power Switch ≪G-2000SS≫	
	1190600	Power Switch ≪G-2000L≫	
	1101880	Rotary Switch, Power/Speaker Selector ≪G-3000L≫	
F 01	0432220	1A 250V AC Fuse ≪G-2000SS≫	2C
	0435090	800 mA 250V AC Fuse ≪G-2000L, G-3000L≫	
F 02, 03	0432280	4A 125V AC Fuse ≪G-2000SS≫	2C
	0435150	3.15A 125V AC Fuse ≪G-2000L≫	
	0435160	4A 250V AC Fuse ≪G-3000L≫	
F 04, 05	0432280	4A 125V AC Fuse ≪G-2000SS≫	
	0435150	3.15A 125V AC Fuse ≪G-2000L≫	
	0435160	4A 250V AC Fuse ≪G-3000L≫	
J 01	2430380	Headphone Jack Socket ≪G-2000SS, G-2000L≫	1D
	2430360	Headphone Jack Socket	
	2210340	4P Speaker Output Terminal	
	2310220	Fuse Holder ≪G-2000SS≫	
	2310230	Fuse Holder ≪G-2000L, G-3000L≫	

2. F-2824 TUNER & PRE-AMP CIRCUIT BOARD

(Stock No. 7521651, G-2000SS) (Stock No. 7521591, G-2000L) (Stock No. 7521621, G-3000L)

Conductor Side



Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0305801, 2	2SC1047 (B, C)	2B
TR03	0306341, 2	2SC1474 (L, K)	2B
TR04	0305951, 2	2SC945 (Q, P)	3D
TR05	0300470	2SA725W (F)	3D
TR06, 07	0306581, 2	2SC1634	2B
TR08	0308450, 1	2SD356 (C, D)	1B
TR09, 10	0300900, 1	2SA906 (G, H)	1A
TR11, 12	0306070, 1	2SC1313 (F, G)	1B
TR13	0306341, 2	2SC1674 (L, K) ≪G-2000SS≫	3C
	0306241, 2	2SC1675 (L, K) ≪G-2000L, G-3000L≫	
TR14	0306241, 2	2SC1675 (L, K)	3B
TR15	0306241, 2	2SC1675 (L, K)	2C
TR16	0306241, 2	2SC1675 (L, K)	2C
TR17	0306341, 2	2SC1675 (L, K) ≪G-2000SS≫	2D
	0306241, 2	2SC1675 (L, K) ≪G-2000L, G-3000L≫	
IC 01	0360350	HA1137W	2C
IC 02	0360320	HA1196	1C
FT01	0370172	2SK49 (H) FET	3B
D 01 ~03	0311160	1S2473D Diode	2C,3D
ZD01	0315970	EQA01-13R Zener Diode	
C 01, 03	0669347	12 pF 50V C.C.	3B,2B
C 04	0669210	10 pF 50V C.C.	2A
C 06	0669505	5 pF 50V C.C. ≪G-2000SS≫	2A
	0669503	3 pF 50V C.C. ≪G-2000L, G-3000L≫	
C 09	0679012	1.5 pF 500V Gimmick Capacitor	2B
C 10	0669372	12 pF 50V C.C. Gimmick Capacitor ≪G-2000SS≫	2B
	0669355	20 pF 50V C.C. ≪G-2000L, G-3000L≫	

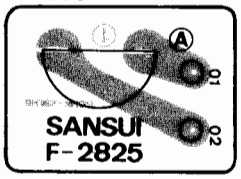
Parts No.	Stock No.	Description	Position
C 11, 12	0669270	10 pF 50V C.C. ≪G-2000SS≫	2B
	0669370	10 pF 50V C.C. ≪G-2000L, G-3000L≫	
C 13	0669356	10 pF 50V C.C. ≪G-2000SS≫	2B
	0669370	10 pF 50V C.C. ≪G-2000L, G-3000L≫	
C 32	0573159	1.5 μF 35WV T.C.	1C
C 33	0573339	3.3 μF 35WV T.C.	1C
C 34	0629005	360 pF 50V P.C.	1C
C 89, 90	0620161	160 pF 50V P.C.	1B
C 95, 96	0620751	750 pF 50V P.C.	1C
C 120	0620152	1500 pF 50V P.C. ≪G-2000SS≫	3C
	0620361	360 pF 50V P.C. ≪G-2000L, G-3000L≫	
C 122	0620332	3300 pF 50V P.C. ≪G-2000SS≫	3C
	0620121	120 pF 50V P.C. ≪G-2000L, G-3000L≫	
C 128	0620562	5600 pF 50V ≪G-2000L, G-3000L≫	3C
L 01	4200720	Antenna Coil (FM)	3D
L 02	4210340	RF Coil	
L 03	4220420	O.S.C. Coil ≪G-2000SS≫	2B
	4220400	O.S.C. Coil ≪G-2000L, G-3000L≫	
L 04	4900140	1 μH	2A
L 05	4290300	18 μH Inductor	2C
L 06	4290011	Peaking Coil 3.5 μH	2C
L 07	4200740	Antenna Coil (AM) ≪G-2000L, G-3000L≫	3C
L 08	4200730	Antenna Coil ≪G-2000L, G-3000L≫	1A
L 09	4200620	Antenna Coil ≪G-2000SS≫	3C
L 10	4200630	Antenna Coil ≪G-2000SS≫	3C
	4230620	IF Coil ≪G-2000L, G-3000L≫	
L 11	4900220	100 mH Inductor	2C
L 12	4900110	100 μH Inductor	1C
L 13	4290011	3.5 x 10^{-6}H Choke Coil ≪G-2000L only≫	

Parts No.	Stock No.	Description	Position
T 01	4235930	IF Coil (FM)	2B
T 02	4235990, 1	IF Coil (FM)	2C
T 03	4236000, 1	IF Coil (FM)	2C
T 04	0910370	Ceramic Filter	3C
T 05	4230610	IF Coil (AM)	2B
T 06	4230500	IF Coil (AM)	2C
T 07	4220620	12 μH O.S.C. (AM) ≪G-2000SS≫	3C
	4220630	150 μH O.S.C. ≪G-2000SS≫	
T 08	4220610	O.S.C. Coil ≪G-2000SS≫	3C
	4220600	740 μH O.S.C. Coil (AM) ≪G-2000L, G-3000L≫	
CF01, 02	0910380	Ceramic Filter (FM)	2B,2C
LF01	0910220	Low Pass Filter	2C
VR01	1034250	4.7 kΩ (B) VCO Free-Run Adjusting VR	1C
VR02	1035210	220 kΩ Stereo Separation Adjusting VR	1C
VR03	1035150	22 kΩ (B) FM Signal Meter Adjusting VR	2C
VR04	1035110	4.7 kΩ (B) AM Signal Meter Adjusting VR	2C
S 01	1131060, 1	Push-Switch, FM Muting	2D
S 04	1103580	Rotary Switch, Selector	3C,D
S 05	1110380	Slide Switch, (Bar-Ext) ≪G-2000L, G-3000L≫	
VC01	1220220	AM/FM Variable Capacitor	2,3B
TC03	1230090	Trimmer Capacitor	2B
TC 04 ~06	1230060	Trimmer Capacitor ≪G-2000SS, G-2000L≫	3C
TC07	1230060	Trimmer Capacitor ≪G-2000L≫	3D
TC08	1230060	Trimmer Capacitor ≪G-2000L only≫	3A
J 01	2090030	5P DIN Socket	1A
	2210330	4P Antenna Terminal	
	2230180	Ground Terminal	
	2200410, 1	8P Input Terminal	

3. F-2825 Circuit Board for Signal Meter

(Stock No. 7521661, G-2000SS) (Stock No. 7521601, G-2000L)
(Stock No. 7521631, G-3000L)

Conductor Side



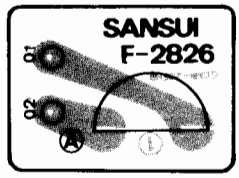
Parts List

Parts No.	Stock No.	Description
M 01	4301110, 1	Signal Meter

4. F-2826 Circuit Board for Tuning Meter

(Stock No. 7521671, G-2000SS) (Stock No. 7521611, G-2000L)
(Stock No. 7521641, G-3000L)

Conductor Side



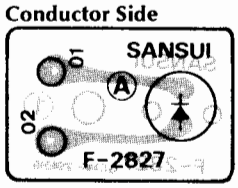
Parts List

Parts No.	Stock No.	Description
M 02	4301120, 1	Tuning Meter

5. F-2827 Circuit Board for Stereo Indicator

(Stock No. 7540831, G-2000SS) (Stock No. 7540821, G-2000L)
(Stock No. 7540841, G-3000L)

Conductor Side



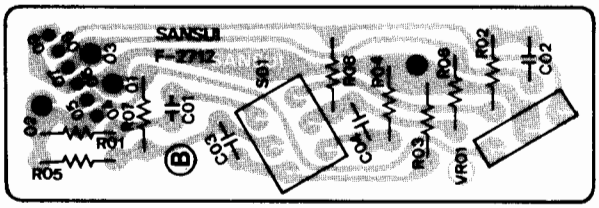
Parts List

Parts No.	Stock No.	Description
LD01	0319060	Light Emitted Diode

6. F-2712 Loudness Circuit Board

(Stock No. 7562051, G-2000SS) (Stock No. 7562041, G-2000L)
(Stock No. 7562061, G-3000L)

Conductor Side



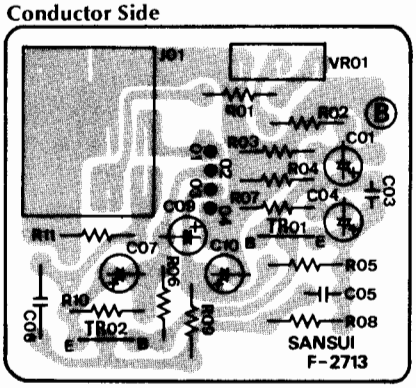
Parts List

Parts No.	Stock No.	Description
VR01	1005350, 1	250 kΩ (B) x 2 Balance Volume
S 01	1131490, 1	Push Switch, loudness

7. F-2713 Microphone Amp Circuit Board

(Stock No. 7610211, G-2000SS) (Stock No. 7610221, G-2000L)
(Stock No. 7610201, G-3000L)

Conductor Side



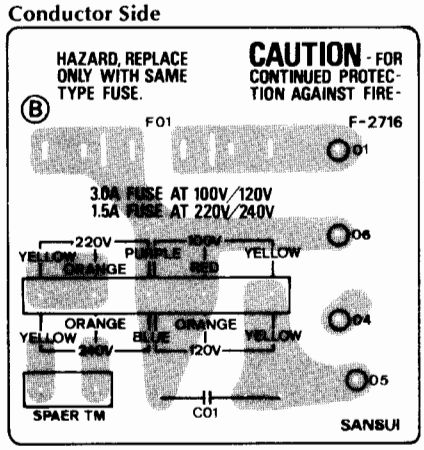
Parts List

Parts No.	Stock No.	Description
TR01	0300470, 1	2SA726W (F, G) Transistor
TR02	0306070, 1	2SC1313 (F, G) Transistor
VR01	1005340, 1	20 kΩ (A) Mixing Volume
J 01	2430370	Mic Jack Socket

8. F-2716 Voltage Selector Circuit Board

(Stock No. 7502691, G-2000SS only)

Conductor Side

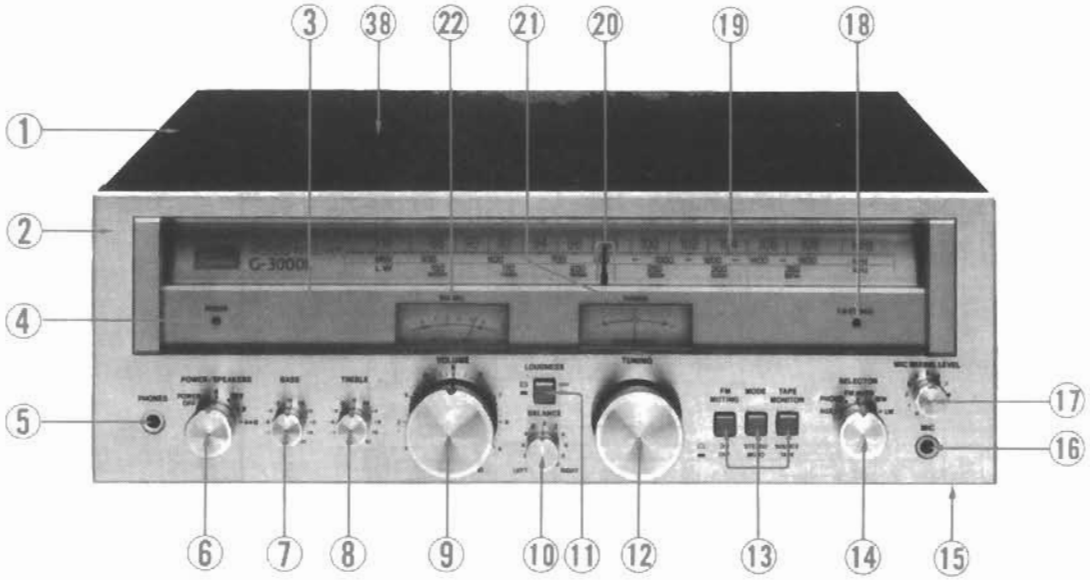


Parts List

Parts No.	Stock No.	Description
C 01	0659802	0.0047 μF 150V C.C.
F 01	0432230	1.5A 250V
	2310220	Fuse Holder

5. OTHER PARTS

<Front View>
≪G-3000L≫



Parts List ≪G-2000SS, G-2000L, G-3000L≫

Parts No.	Stock No.	Description
1	5727061	Wood Bonnet
	5236690	W.B Type Bushing
2	7007800	Front Panel Ass'y ≪G-2000SS≫
	7007790	Front Panel Ass'y ≪G-2000L≫
	7007780	Front Panel Ass'y ≪G-3000L≫
3	5305691	Inside Panel
4	5426410	Power Illuminator Bar
5	2430380	Headphone Jack Socket ≪G-2000SS, G-2000L≫
	2430370	Headphone Jack Socket ≪G-3000L≫
6	5319140	Knob, power (& speaker) switch
	1190530	Power Switch ≪G-2000SS≫
	1190600	Power Switch ≪G-2000L≫
	1101880	Power & Speaker Rotary Switch ≪G-3000L≫
	5236470	M9 x 7, Spacer Nut
7	5319130	BASS Volume Knob
	1015300, 1	100 kΩ x 2 BASS Volume
8	5319130	TREBLE Volume Knob
	1015300, 1	100 kΩ x 2 TREBLE Volume
9	5318980	Level Volume Knob
	1011130, 1	250 kΩ (B) x 2 Level Volume
10	5319130	BALANCE Volume Knob
	1005350, 1	250 kΩ x 2 (B), BALANCE Volume
11	5326690	Loudness Switch Knob
	1131490, 1	Loudness Switch
12	5318970	Tuning Knob
13	1131060, 1	3-gang Push Switch
	5326690	Knob, tape monitor, mode FM muting

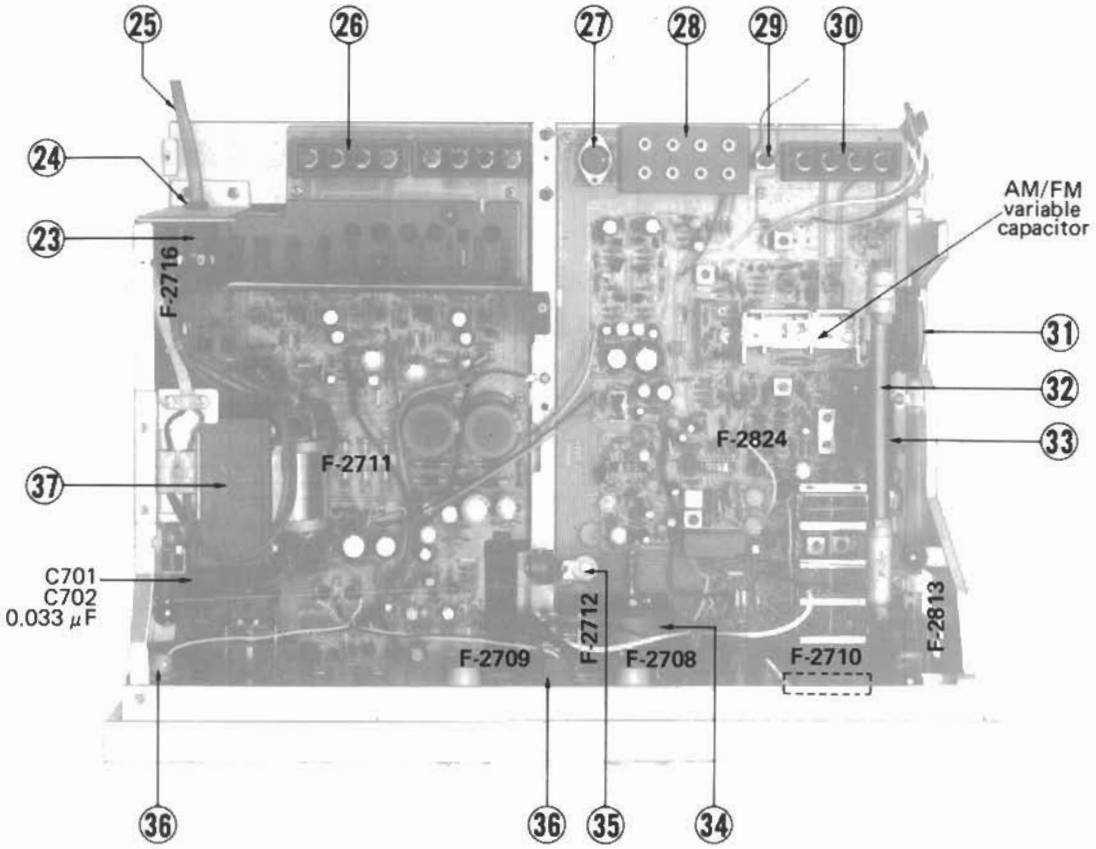
Parts No.	Stock No.	Description
14	5319140	Selector Switch Knob
	1103580	3-stage Rotary Switch
15	5058792	Bottom Plate
	5517250	Leg
16	2430370	Microphone Jack Socket
17	5319130	Microphone Mixing Volume Knob
	1005340, 1	20 kΩ (A), Microphone Mixing Volume
18	0319060	L.E.D, FM Stereo Indicator
	5289180	L.E.D. Holder
	5136030	Plastic Rivet
19	5408260	Dial Scale ≪G-2000SS≫
	5408340	Dial Scale ≪G-2000L≫
	5408250	Dial Scale ≪G-3000L≫
20	7116031	Dial Pointer Ass'y
21	4301120, 1	Tuning Meter
22	4301110, 1	Signal Meter
23	2450060	AC outlet ≪G-2000SS only≫
24	3910600	AC Cord Clip ≪G-2000SS≫
	3910490	AC Cord Clip ≪G-2000L, G-3000L≫
25	3800010, 4	AC Cord ≪G-2000SS≫
	3800120, 1	AC Cord ≪G-2000L, G-3000L≫
26	2210340	4P Speaker Terminal
27	2090030	5P DIN Socket
28	2200410, 1	8P Input Terminal
29	2230180	Ground Terminal
30	2210330	4P Antenna Terminal
31	6146670	D-44 Type Pulley
32	4200750	Bar Antenna ≪G-2000L, G-3000L≫
33	5289170	Bar Antenna Holder ≪G-2000L, G-3000L≫

Parts No.	Stock No.	Description
34	7036540	Tuning Unit
		Washer
		Flywheel
		Tuning Shaft
35	7136100	Tension Unit
36	0400560	Pilot Lamp Ass'y
37	4002660	Power Transformer ≪G-2000SS≫
	4002664	Power Transformer ≪G-2000L≫
	4002654	Power Transformer ≪G-3000L≫
TR15, 16	0308392, 3	2SD313 (E, F) ≪G-2000SS, G-2000L≫
	0306541, 2	2SC1986 (Q, Y) ≪G-3000L≫
TR17, 18	0303232, 3	2SB507 (E, F) ≪G-2000SS, G-2000L≫
	0300911, 2	2SA771 (Q, Y) ≪G-3000L≫
		Transistor
	5288721	Plate for the transistor
C 701	0605337	0.033 μF 250V M.C ≪G-2000SS≫
C 701, 702	0598337	0.033 μF 250V M.P ≪G-2000L, G-3000L≫
C 703	0659802	0.0047 μF 150V C.C. ≪G-2000L, G-3000L≫
	1220220	AM-FM Variable Capacitor

• Abbreviations

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

<Top View>
≪G-3000L≫



6. PARTS REPLACEMENT

1. Square Knobs of Loudness, FM Muting, Mode & Tape Monitor

1. Take off a wood bonnet, front & inside panels.
2. Then, pull out knobs to which are not glued as Fig. 1.

2. Tuning & Signal Meter

1. Complete 1. & 2. above.
2. Take off the meter as Fig. 2, then put it back into same place until snapped.

3. Level Volume

1. Take off the two panels and one nut for level volume.
2. Then, unsolder six points installing the level volume on pattern side of F-2711 printed board.

Fig. 1

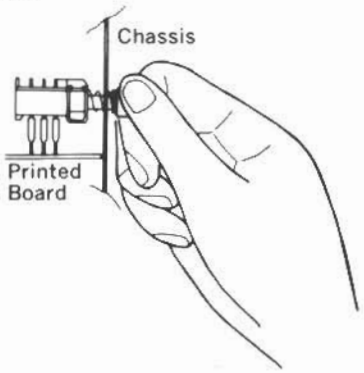


Fig. 2

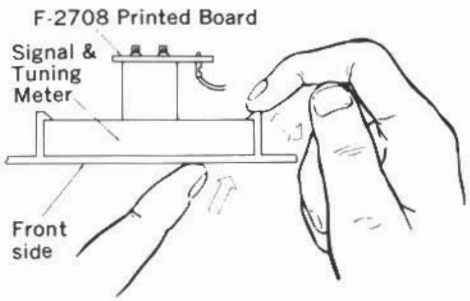
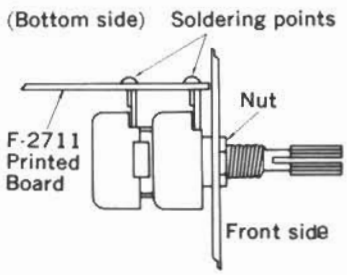
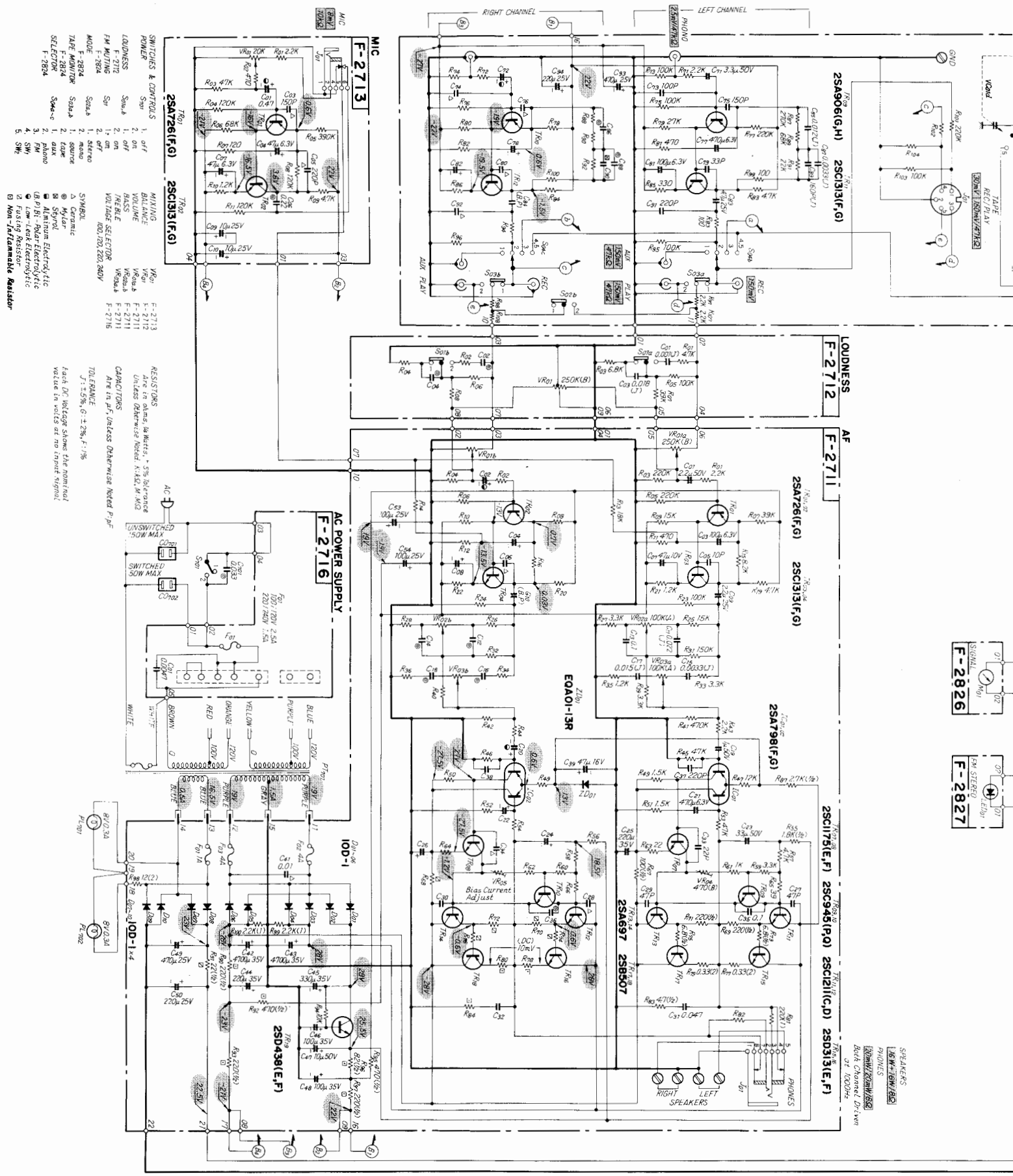


Fig. 3 Level Volume



A	B	C	D	

7. SCHEMATIC DIAGRAM ≪G-2000SS≫



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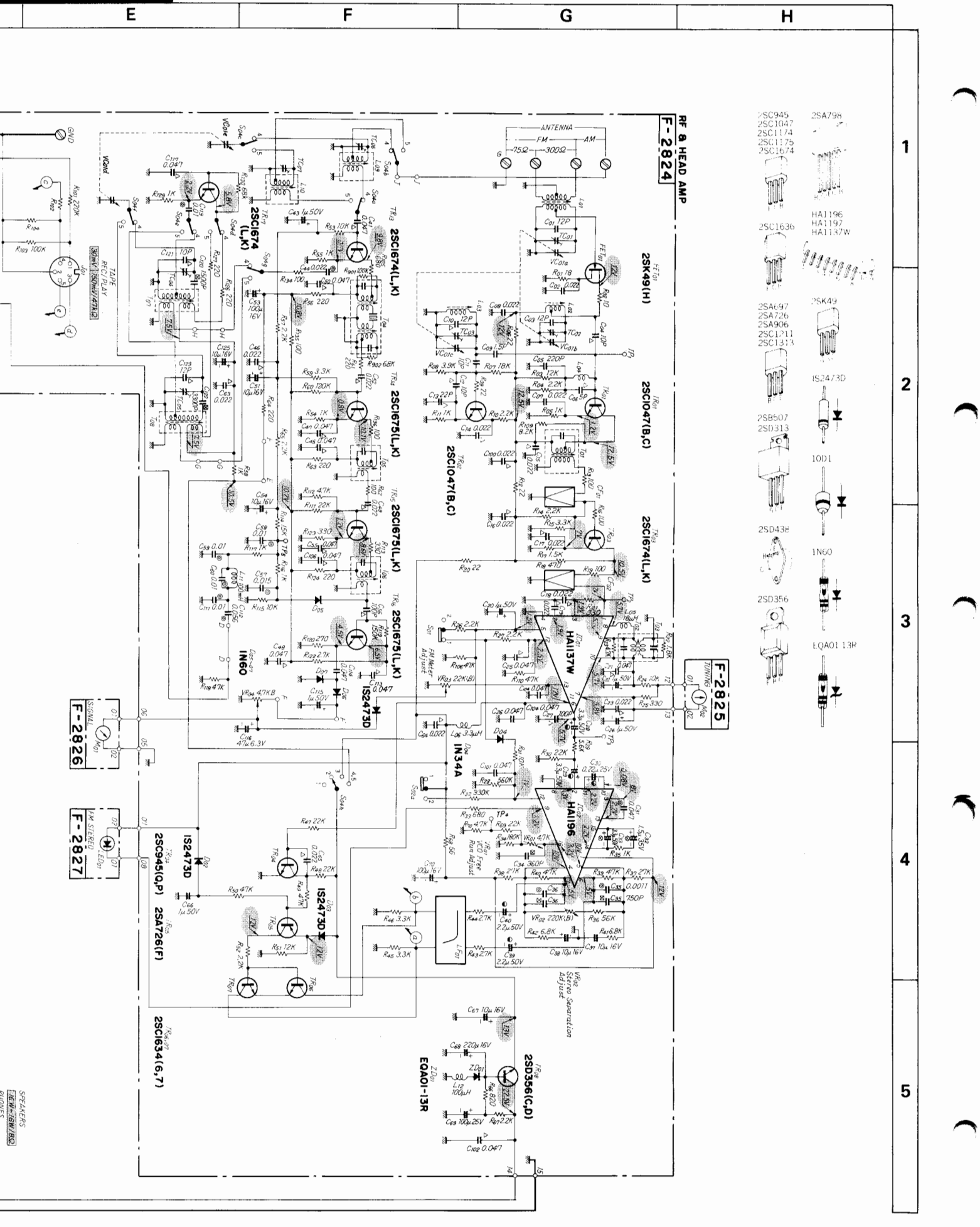
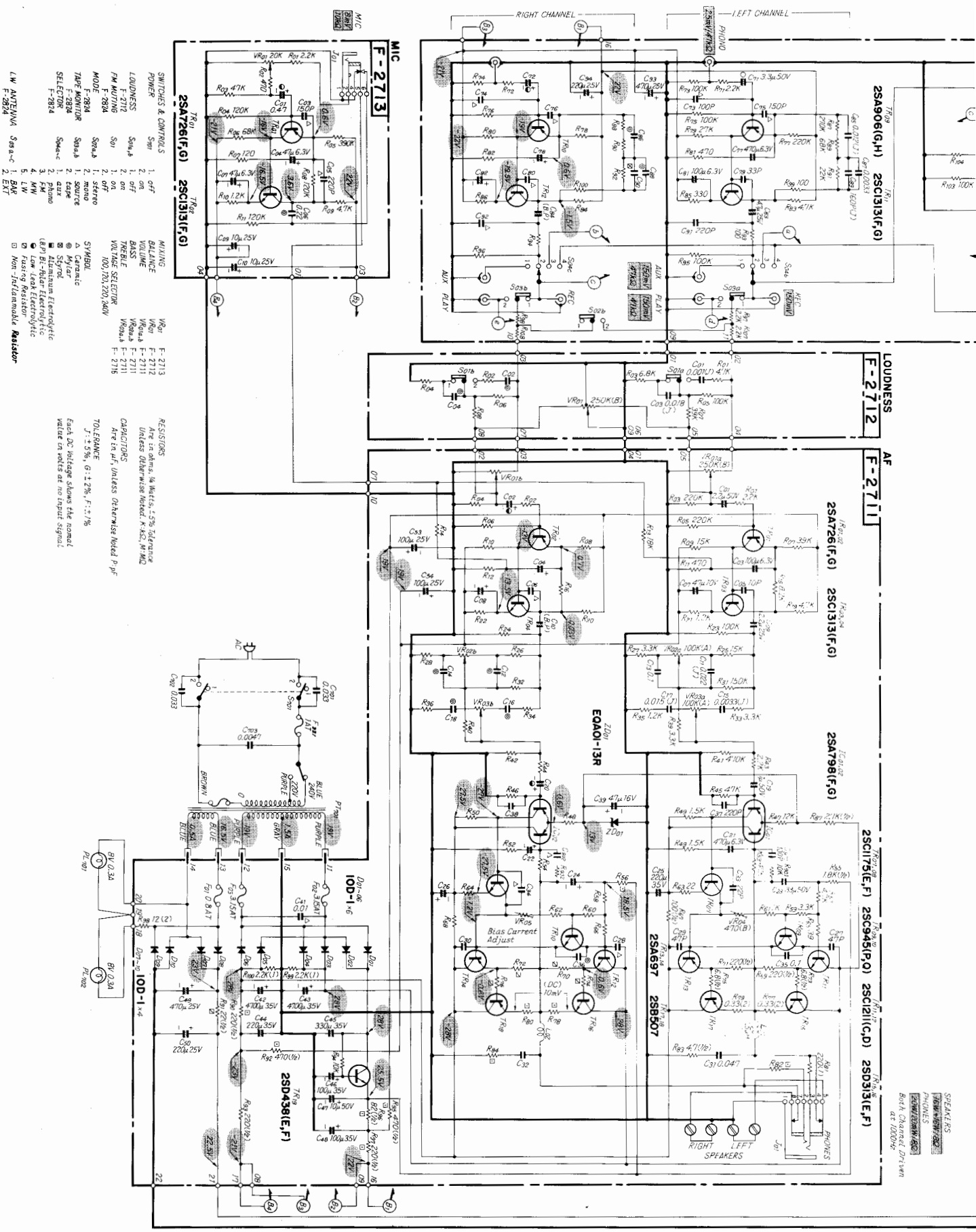
* Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



A	B	C	D

≪G-2000L≫


MIC
F-2713
2SA726(F,G) 2SC1313(F,G)
RIGHT CHANNEL
LEFT CHANNEL
PHONO
2SA906(G,H) 2SC1313(F,G)
LOUDNESS
F-2712
AF
F-2711
2SA726(F,G) 2SC1313(F,G)
2SA798(F,G) 2SC1175(E,F) 2SC945(P,Q) 2SC2121(C,D) 2SD313(E,F)
EQA01-13R
2SA697 2SB507
2SD438(E,F)
IOD-1 v6
IOD-1 v4
Bias Current Adjust
SPEAKERS
PHONES
RIGHT
LEFT
SPEAKERS
SWITCHES & CONTROLS
POWER
LOUDNESS
FM MUTING
MODE
TAPE MONITOR
SELECTOR
MIXING
BALANCE
VOLUME
BASS
TREBLE
VOLTAGE SELECTOR
SYMBOL
RESISTORS
CAPACITORS
TOLERANCE
Each DC Voltage shows the normal value in volts at no input signal

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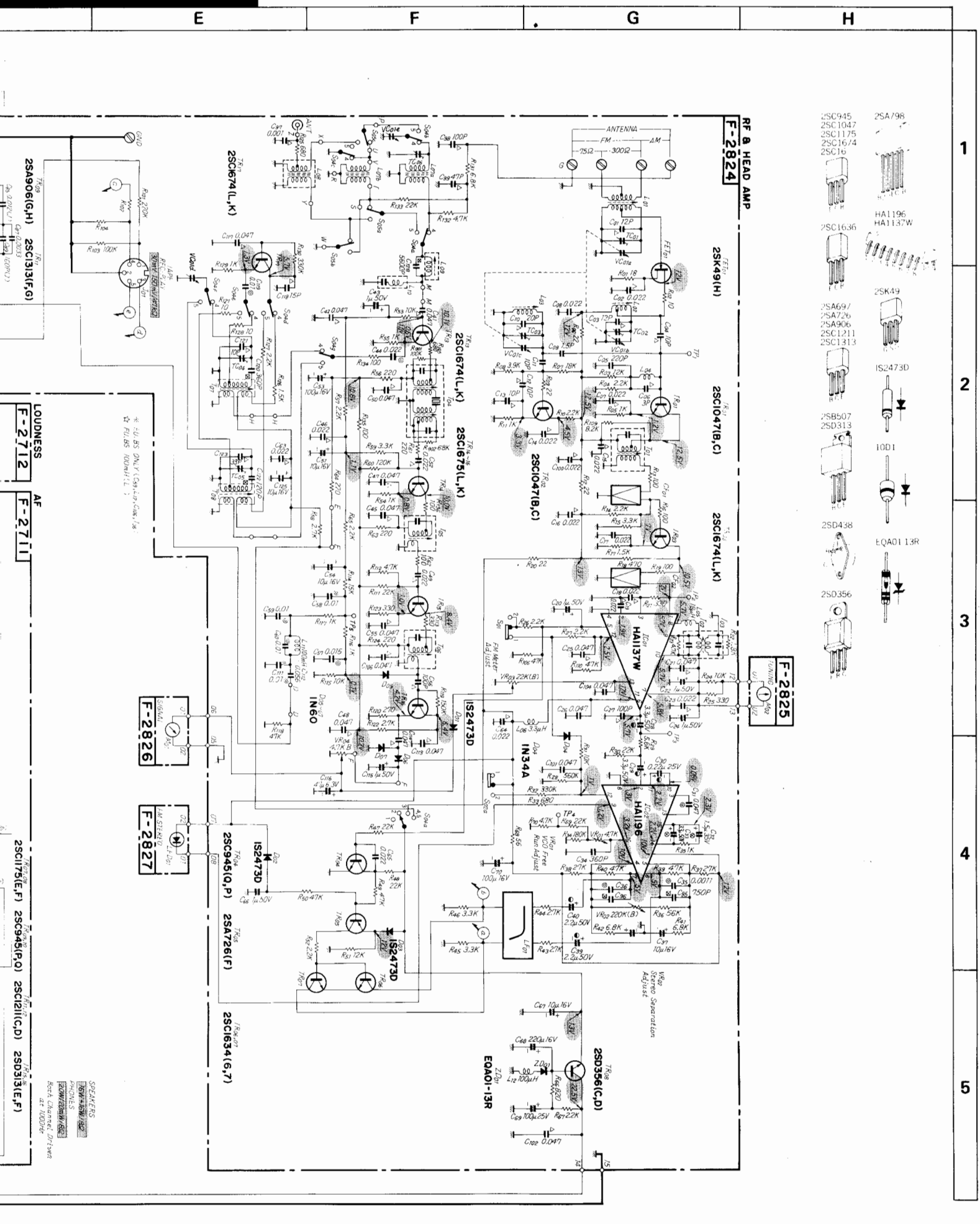
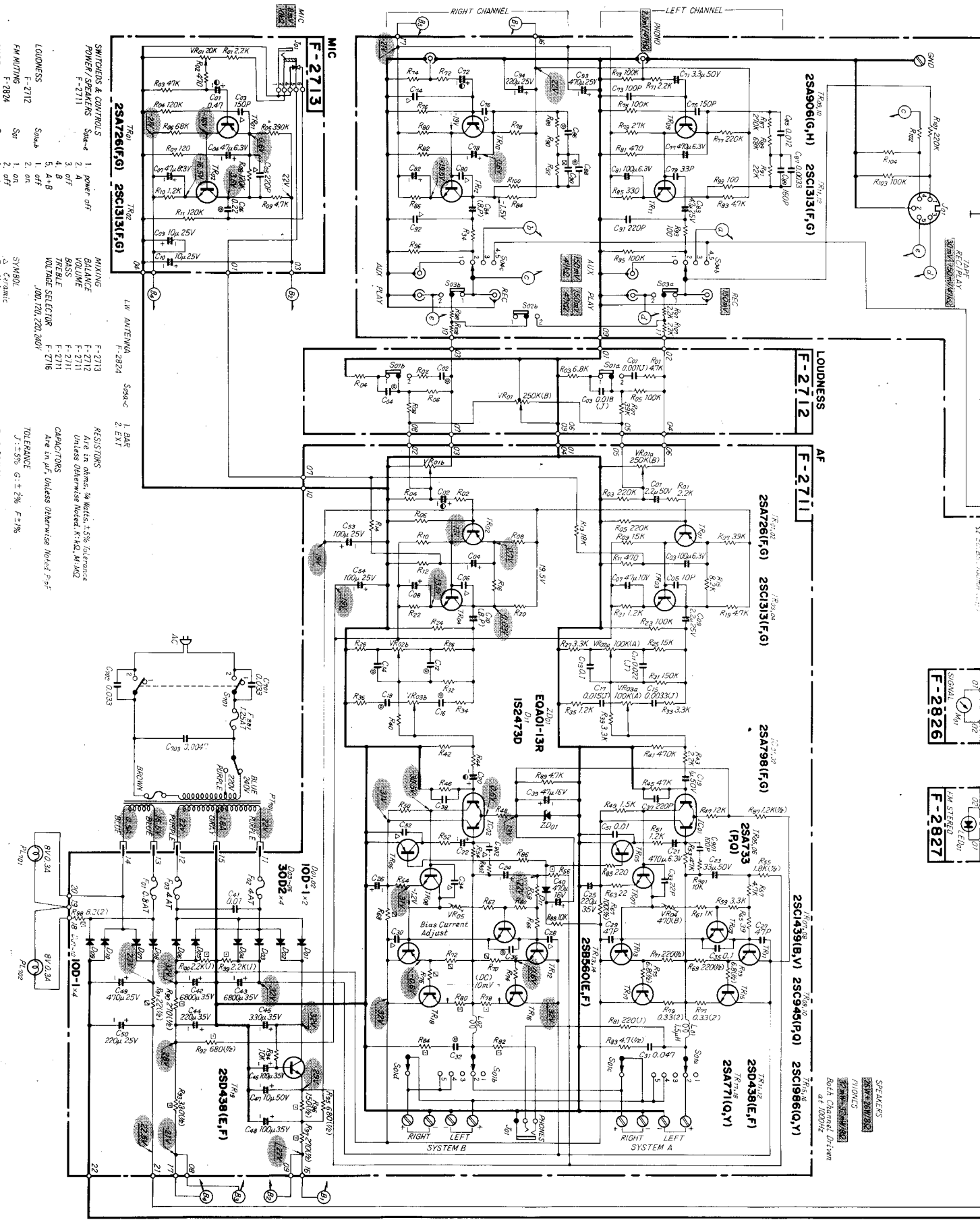


A	B	C	D

≪G-3000L≫



SWITCHES & CONTROLS
POWER/SPEAKERS F-2711
1. power off
2. A
3. off
4. B
5. A+B

LOUDNESS F-2712
1. off
2. on

FM MUTING F-2824
1. on
2. off

MODE F-2824
1. stereo
2. mono

TAPE MONITOR F-2824
1. source
2. tape

SELECTOR F-2824
1. aux
2. phono
3. FM
4. MW
5. LW

MIXING
BALANCE
VOLUME
BASS
TREBLE
VOLTAGE SELECTOR
100, 120, 220, 240V

F-2713
F-2712
F-2711
F-2711
F-2711
F-2716

SW1a-e
SW2a,b
SW3
SW4a,b
SW5a-c

1. BAR
2. EXT

RESISTORS
Are in ohms, ¼ Watts, ±5% tolerance
Unless Otherwise Noted. K=kΩ, M=MΩ

CAPACITORS
Are in μF, Unless Otherwise Noted P=pF

TOLERANCE
J=±5% G=±2% F=1%

Each DC voltage shows the nominal value in volts with no input signal.

SYMBOL
Ceramic
Mylar
Styrol
Aluminum Electrolytic
(B.P) Bi-Polar Electrolytic
Low-Leak Electrolytic
Fusing Resistor
Non Inflamable Resistor

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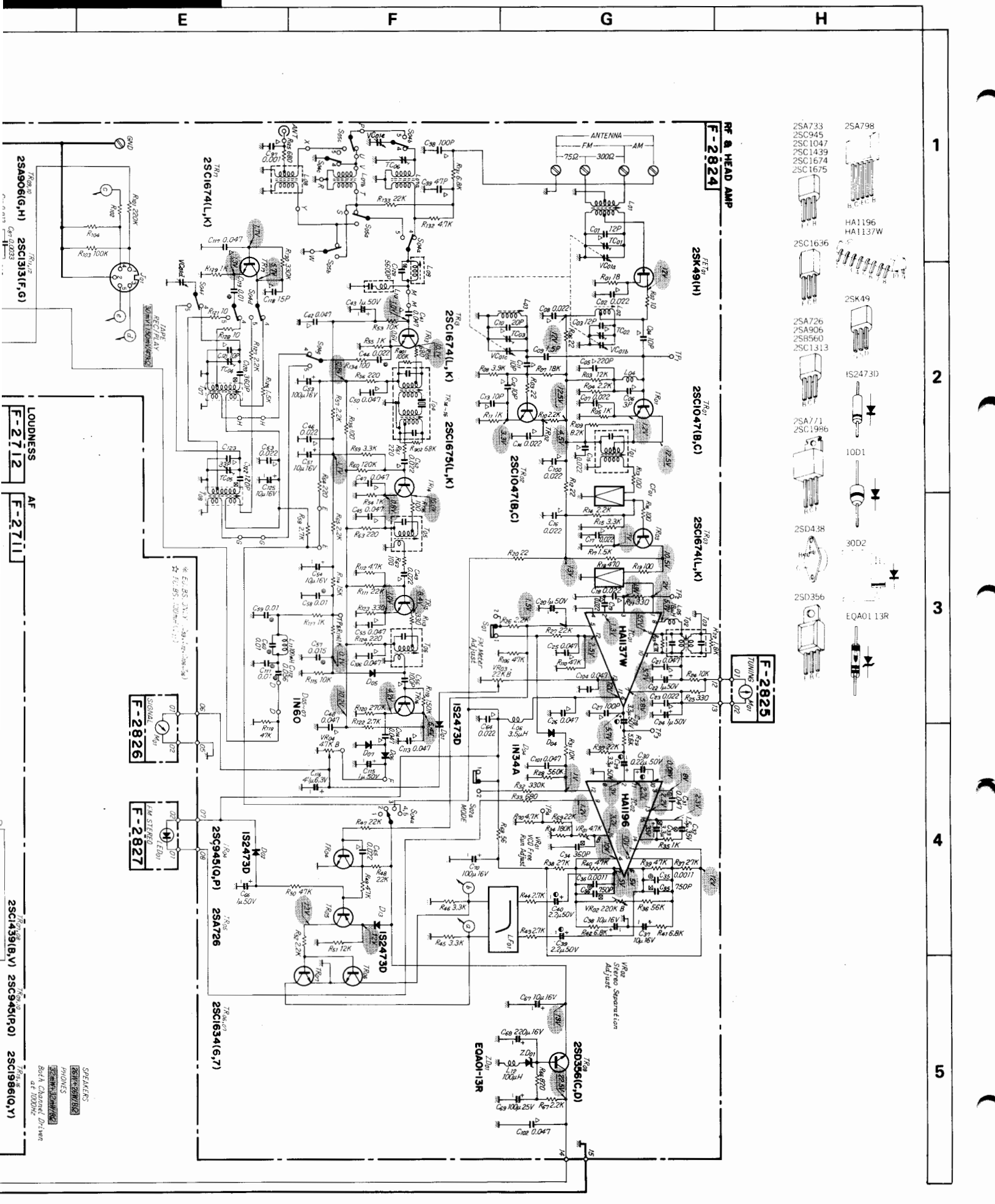


8. THREADING OF DIAL CORD

* If a dial cord is cut off or slips, replace it by following procedures.
  As this unit uses 0.5 mmϕ cord, please replace it with the same type certainly.
* The length of dial cord is approximately 160 cm (65.3 inch).

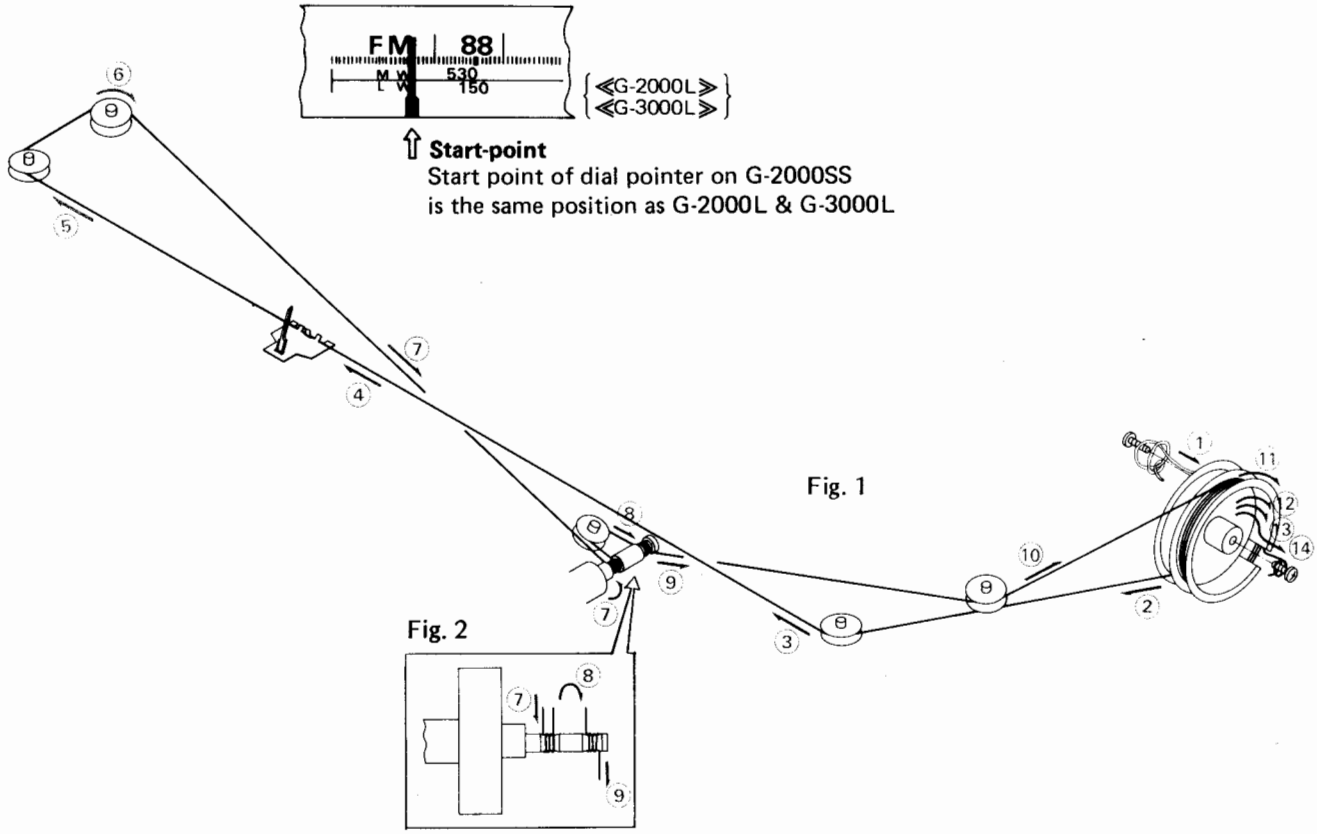


Fig. 1

Fig. 2

Threading of Dial Cord

Thread the dial cord in numerical order from 1 to 14 as Fig. 1.

* Close the variable capacitor completely (Maximum Capacitance).

Stock No.	Description
6036050	Dial Cord (0.5 mmϕ)
6146670	Dial Pulley

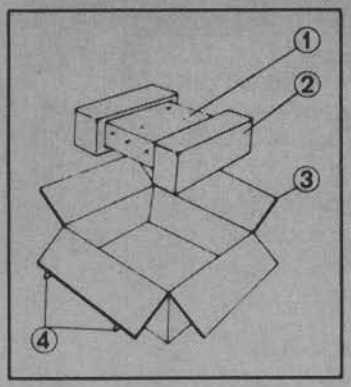
Attachment of Dial Pointer

1) Close the variable capacitor completely.
2) Set the dial pointer to start point on dial scale as Fig. 2.

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

9. PACKING LIST

Parts No.	Stock No.	Description
1	9116143	Vinyl Cover
2	9028090	Stylofoam Packing
3	9009960	Carton Case ≪G-2000SS≫
	9009970	Carton Case ≪G-2000L≫
	9009940	Carton Case ≪G-3000L≫
4	5996080	Curl Stopper



10. ACCESSORY PARTS LIST

Stock No.	Description
9203370	Operating Instructions ≪G-2000SS≫
9203360	Operating Instructions ≪G-2000L≫
9203350	Operating Instructions ≪G-3000L≫
9237690	Schematic Diagram ≪G-2000SS≫
9237680	Schematic Diagram ≪G-2000L≫
9237670	Schematic Diagram ≪G-3000L≫
3820100	FM Antenna

Sansui

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